GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT.

SEISMOLOGICAL BULLETIN

January-March, 1947.

CONTENTS.

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SEISMOLOGICAL BULLETIN

January - March 1947

INTRODUCTION.

Till the end of 1937, the seismic data from the observatories of the India Meteorological Department were being published annually as Part D of the Annual Summary of the India Weather Review. Since 1938, the data are being published in the present series of the Quarterly Seismological Bulletin. With the kind co-operation of the Surveyor-General of India, the Director of the Nizamiah Observatory, Hyderabad, and of the Superintendent, Colombo Observatory, it has been possible to incorporate in the bulletin, the data of their respective observatories, viz. Dehra Dun, Hyderabad and Colombo. The instrumental seismological data and the non-instrumental voluntary observations are collected and edited at the Meteorological Office, Poona.

TABLE 1.

List of Seismograph Stations.

Station.	Latitude.	Longitude.	Height above M.S.L.	Lithologic foundation.	Officer-in-charge of Observatory.
New Delhi	28° 35'N.	77° 12' E.	207 meters	Massive Quartzites.	
Bombay	18° 54'N.	72° 49' E.	6 meters	Deccan Trap	
Calcutta	22° 32'N.	88° 20' E	(1)7 meters (2)6 meters 7 meters	Alluvium Beach-Sand resting on gneiss probably decomposed.	
Dehra Dun	30° 19'N.	78° 03' E	682 meters	Gravel	
Hyderabad	17° 26'N.	78° 27' E	528 meters	Granite	
Kodaikanal	10° 14'N.	77° 28' E	2343 meters	Rock.	

(1) Milne-Shaw. (2) Omori-Ewing.

TABLE 2.

The instruments and their constants.

Station.	Component.	Type of instrument.	Mass. Kg.	Period. Sec.	Static magnification.	Damping Ratio.	Remarks.
New Delhi	E	Omori-Ewing	45	32	30	--	
	N	Milne-Shaw	0.47	12	262	20:1	
Bombay	N	Milne-Shaw	0.45	12	250	20:1	
	E	Milne-Shaw	0.45	12	350	40:1	
Calcutta	N	Milne-Shaw	0.45	12	250	20:1	
	E	Omori-Ewing	50	-	30	-	
	N	Omori-Ewing	50	-	32	-	
Colombo	E	Milne-Shaw	0.45	12	250	20:1	
Dehra Dun	N	Omori	50	-	12	-	
Hyderabad	N	Milne-Shaw	0.45	12	250	20:1	
	E	Milne-Shaw	0.45	12	250	20:1	
Kodaikanal	E	Milne-Shaw	0.45	10	250	19:1	

THE OBSERVATORY, NEW DELH

DATE	COMPT.	PHASE.	G. M. T.	PER	AMP.	Δ	REMARKS.
			January 1947				
1947			h. m. s.	sec.	μ	Km.	
Jan. 3	N	i	09 28 24				Slight.Distant Surface waves.
		e	42 30				
		F	10 23 00				
5	N	e	09 22 42				Slight.Distant Surface waves.
		F	48 00				
5	N	i	18 36 54				Slight.Distant Surface waves.
		e	47 53				
		F	19 21 00				
8	N	e	00 13 37				Slight.Distant Surface waves.
		e	24 22				
		e	35 04				
9	N	is	12 33 56		6550 about		Slight.
		iPs	34 08				
		M	48 51				
		F	13 37 00				
16	N	i	11 34 29				Slight.Distant Surface waves.
		i	38 27				
		i	42 34				
		F	55 00				
18	N	i	02 07 31				Slight.
		i	08 11				
		F	19 00				
24	N	eP	16 56 46		5570		Slight.
		ePP	58 38				
		is	17 03 58				
		SeS	06 45				
		SS	07 46				
		M	15 10				
		F	18 17 00				
25	N	e	05 01 52				Slight.Very distant.
		F	06 25 00				
26	N	e	09 28 02		14200		Moderate.
		iPKP	28 41				
		i	29 22				
		i	31 37				
		iPS	40 57				
		PPS	42 09				
		PPPS	42 55				
		SS	47 49				
		SSS	52 42				
		M	11 19 17				
		F	12 39 00				
28	N	i(S)	10 37 33				Slight.Distant M.waves.
		e	46 53				
		F	11 37 00				

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THE OBSERVATORY, NEW DELHI.

DATE	COMPT.	PHASE	G. M. T.	PER.	AMP.	Δ	REMARKS.
			h. m. s.	sec.	μ	Kms.	
January 1947.							
1947							
Jan. 29	N	i	18 17 02				Slight. Distant Surface waves.
		e	25 34				
		F	19 13 00				
30	N	eP	01 07 09			2480	Slight.
		iS	11 06				
		M	15 31				
		F	49 00				
30	N	iP	12 34 53				Slight. Near.
	E	eP	34 54				
	E	e	36 30				
	N	e	36 31				
	N	i	36 36				
	E	i	36 40				
	E	F	54 00				
	N	F	59 00				
February 1947.							
Feb. 4	N	i	23 55 15				Slight. Distant.
		i	55 47				
5		e	00 06 24				
		F	35 00				
7	N	e	09 04 03				Slight. Distant Surface waves.
		e	32 29				
		F	10 28 00				
9	N	ePP	19 01 59			3550	Slight.
		eS	06 04				
		M	15 59				
		F	49 00				
10	N	i	03 55 54				Probably Near.
		F	Lost in the succeeding shock.				
10	N	iP	04 03 58			820	Moderate.
	E	eP	03 58				
	N	P	04 32				
	E	P	04 33				
	N	iS	05 21				
	E	eS	05 22				
	N	S*	05 47				
	E	S*	05 48				
	N	S	06 09				
	E	S	06 13				
	E	Mn	06 24	10	>	1440	
	E	F	05 01 00				
	N	F	06 04 00				
12	N	e	03 51 22				Slight. Near.
		i	52 16				
		F	04 02 00				
12	N	S	20 22 03			2690	Slight.
		PS?	22 35				
		ScS	26 17				
		L	27 05				
		M	31 30				
		F	21 18 00				

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THE OBSERVATORY, NEW DELHI

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ km.	REMARKS.
			February 1947 (contd.)				
Feb.							
15.	N	e	16 18 28				Slight.Near.
		i	19 23				
		i	20 01				
		F	36 00				
16.	N	e	09 47 29				Slight.Surface waves.
		F	10 12 00				
16.	N	i	19 49 04				Slight.Probably near.
		F	59 00				
17.	N	e	04 06 15				Slight.Near.
		i	07 12				
		F	17 00				
18.	N	e	13 38 49				Slight.Distant.
		i	45 26				
		i	47 46				
		i	49 13				
		i	51 48				
		F	14 29 00				
21.	N	iP	20 00 36			5360	Slight.
		PP	11 33				
		iS	16 38				
		PS	16 49				
		ScS	19 23				
		SS	20 03				
		M	27 56				
		F	23 39 00				
24.	N	iP	17 51 18				Slight.
		PP	54 35				
		i	18 04 47				
		SS	13 16				
		SSS	17 20				
		M	46 25				
		F	20 06 00				
26.	N	e(PP)	04 22 57				Slight.Distant.
		i	27 34				
		F	04 58 00				
			March 1947.				
March							
2.	N	iP	19 20 22			7920	Moderate. Direction of first motion south.
		i	21 05				
		iS	30 11				
		PS	30 40				
		i	31 15				
		SS	34 42				
		F	21 45 00				
7.	N	e	17 24 39				Slight.
		F	33 00				
8.	N	e	14 39 28				Slight.Near.
		i	42 01				
		F	59 00				

THE OBSERVATORY, NEW DELHI.

March 1947 (Contd.)

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. Sec.	AMP. μ	△ Km.	REMARKS.
1947 March *							
16.	N	i	09 46 30				Slight.Distant.
		i	49 45				
		i	54 00				
		F	10 27 00				
17.	E	iP	08 24 02			2170	Great.Direction of first motion west.
		PP	24 22				
		iS	27 37				
		SS	27 58				
		F	10 28 00				
25.	N	ePP	20 51 51			13550	Moderate.
	E	eSKS	57 44				
25.	N	iSKS	20 57 45				
		iSKKS	59 20				
	N,E	iPS	21 02 00				
	N	PPS	03 46				
		SS	09 03				
		PKPPKP	09 51				
		SSS	13 23				
		M	34 48				
	E	M	36 23				
		F	22 05 00				
	N	F	23 59 00				
26.	N	e	16 31 21				Slight. Surface waves.
		i	34 26				
		F	49 00				
26.	N	i	20 57 24				Slight.
		i	21 00 40				
		F	26 00				
27.	N	e	17 13 32				Slight.
		e	22 29				
		F	41 00				
*8.	N	e	15 21 35				Slight.Distant.
		e	35 35 34				
		F	50 00				

THE OBSERVATORY,
NEW DELHI.

S. C. ROY
DEPUTY DIRECTOR GENERAL OF OBSERVATORIES
(INSTRUMENTS & SUPPLIES)

COLABA OBSERVATORY, BOMBAY.

January 1947.

DATE	COMPT.	PHASE.	G. M. T.	PER.	AMP. μ	△ Km.	REMARKS.
1947.			h. m. s.	Sec.			
Jan.2	N	e	14 16 13				Very feeble.
	E	e	16 24				
	E	F	40 --				
	N	F	45 --				
3	N,E	e(P)	02 28 01			7810	Moderate.
	N,E	eS	37 14				44°.5 N, 149°.1E
	N,E	L	47 32				H-02h.17m.11s.
	N	M	03 00 12	15	9.0		(J.S.A.)
	E	M	00 50	13	5.0		44°N, 144°E.
	N	F	04 45 --				(U.S.C.G.S.)
	E	F	05 01 --				41°.6N, 148°.0E.
							0-02h.17.1m
							(U.S.S.R.)
3	N,E	e	09 21 35				Feeble.
	N	F	18 --				
	E	F	26 --				
4	N,E	e	17 31 53				Slight.
	E	e	42 21				
	N	e	42 28				
	E	F	19 20 --				
	N	F	22 --				
5	N,E	e	18 38 43				Feeble.
	E	F	19 30 --				
	N	F	35 --				
6	E	e	05 43 00				Very feeble.
	N	e	08				
	N	F	--				
	E	F	06 08 --				
9	N,E	e	12 26 53				Feeble.
	N	F	13 50 --				
	E	F	52 --				
16	N	e	10 39 10				Very feeble.
	E	F	11 03 --				
16	E	i)	11 33 10				Slight.
	N	e)					
	E	F	12 25 --				
	N	F	27 --				
19	N	eP	01 35 26			1665	Slight.
	N	eS	38 11				31°N, 87°E.
	N	L	39 26				Tibet. O=1h.3.8m
	N	F	02 21 --				
	E	Record lost due to congestion of lines.					
20	N	e	01 26 57				Very feeble.
	N	F	58 --				
	E	Phases not identifiable due to defective light.					
21	N,E	e	05 18 08				Very feeble tremor.
	E	F	42 --				
	N	F	45 --				

COLOBA OBSERVATORY, BOMBAY.

January 1947.

DATE Jan.	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
21	N	e	16 50 07				Very feeble.
	N	F	17 01 --				
21	N,E	iP	20 26 25				Feeble.
	E	F	21 51 --				
	N	F	22 04 --				
22	N	eP?	02 16 43			690?	Slight.
	N	iS	17 53				
	N	L	18 06				
	N	F	22 --				
	E	Phases not clear.					
24	N,E	eP	16 57 41			6335	Slight 30°.5N, 135°.5E in the Pacific south of Japan 0-16h.48.0m U.S.S.R.gives 34°N, 137°.5E.
	N	eS	17 05 36				
	E	i	06 01				
	E	L	14 55				
	N	L	15 25				
	N	M	26 44	13	8		
24	E	F	18 29 --				
	N	F	32 --				
25	E	e	04 53 --				Surface waves.
	N	e	05 03 --				
	E	F	06 02 --				
26	N,E	eP'	10 26 03				Moderate 13°N, 86°.5W 0 - 10h.06m.07s. (U.S.C.G.S.) 13°.5N, 86°.7 W, H-10h.06m.46s. h-75 Km(appr (J.S.A.) 12°.6N, 86°.0W 0 -10h. 6.8m h -100 Km. (B.C.I.S.)
	N,E	iPKS	29 24				
	E	L_Q	11 05 -				
	N	L_R	12 -				
	N	F	12 36 -				
	E	F	44 -				
28	N	eP)	10 29 19			4065	Slight. 18°S, 80°E. in the Indian Ocean 0=10h.22.3m.
	E	iP)					
	E	iPP)	30 37				
	N	ePP)	30 37				
	E	S	35 04				
	N,E	L	38 22				
	E	M	44 14	9	1		
	N	M	45 07	9	1.		
	E	F	11 37 --				
	N	F	44 --				
29	E	iP')	08 36 15				Slight, 26°.55S, 63°.7W H - 600 Km. 0 - 08h.17m.52s.. (B.C.I.S.) 27°.0S, 62°.8W h - 600 Km H - 08h.17m.50 s. (J.S.A.)
	N	eP')					
	N,E	e	39 01				

COLABA OBSERVATORY, BOMBAY.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
Jan.			January 1947(Contd.)				
29	N	e	18 08 53				Slight.
	N,E	e	14 37				
	N	F	58 --				
	E	F	19 01 --				
30	N,E	eP	01 07 02			2300	Slight. 9°N,90°.5E. Bay of Bengal. 0=1h.2.3m.
	N,E	eS	10 41				
	E	L	12 27				
	N	L	12 33				
	E	P	49 --				
	N	F	Lost while changing chart.				
30	N	iP)	12 36 37			2090	Slight. 37°.5N,75°E, Felt at Srinagar and Drosh. 0= 12h.32.5m.
	E	eP)					
	N	eS)					
	E	iS)	40 00				
	N,E	L	41 16				
	E	F	13 09 --				
	N	F	14 --				
			February 1947.				
Feb. 7	N	e	08 57 32				Slight. 9°.5S,161°.5E 0=08h.40m.35s. M.S.C.G.S. Feeble.
	N	F	Lost in microseisms.				
	E		Loss of record.				
9	N,E	e	19 08 00				
	N	e	20 26				
	N	F	Mixed up with microseisms.				
	N	F	49 --				
10	N	eP	04 06 01			1820	Great 31°N.85°.3E Tibet 0=04h.02m.14s.
	N	iS	09 00				
	N	L	10 14				
	N	M	12 19	11	209		
	N	F	06 03 --				
	E	Times of phases not indentifiable due to congestion of lines.					
11	N	i	10 20 21				Very feeble.
	N	F	Lost in microseisms.				
12	N,E	eS	03 53 08				Feeble. 30°N,128°E. 0=20h.07.2m. (B.C.I.S.)
	N	F	04 13 --				
	E	F	19 --				
12	N,E	e	20 23 14				Feeble.
	N	F	21 18 -				
	E	F	21 -				
14	N	e	13 54 58				Very feeble.
	N	e	56 32				
	E	F	14 10 --				
	N	F	Mixed up with microseisms.				
15	N,E	e	16 23 23				Feeble.
	N	F	45 --				
	E	F	53 --				

COLABA OBSERVATORY, BOMBAY.

DATE	COMPT.	PHASE	G. M. T.	PER.	AMP.	Δ	REMARKS.
1947			h. m. s.	sec.	μ	Km.	
Jan.			**February** 1947(Contd.)				
17	N,E	e	04 11 08				Very feeble.
	N	F	26 --				
	E	F	27 --				
18	E	iP)					
	N	eP,	13 39 35				Slight.
		pP)	41 07				h - 470 Km(appr.)
		SP)	41 58				from Bombay
	E	iS)	47 06				records.
	N	eS)					33°N,136°E.
		sS	49 47				h = 450 Km.
	E	L	54 28				0 - 13h.30m.27s.
	N	F	14 30 --				(B.C.I.S.)
	E	F	36 --				
Feb.							
21	E	iP)	22 10 35			6335	Slight.
	N	eP					32°N.135°E.
	E	eS	18 24				Pacific
	N	L	27 39				0=22h.01.2m.
	E	L	27 54				36°N.133°E.
	N	F	23 13 --				0-22h.01.2m
	E	F	17 --				(B.C.I.S.)
23	N,E	eP	01 30 00				Feeble.
	N,E	e	33 31				
	E	F	52 --				
	N	F	Lost while changing chart.				
24	N	e	06 40 50				Very feeble.
	N,E	eP	45 00				
	E	e	47 59				
	E	F	07 03 --				
	N	F	04 --				
24	N,E	iP'	17 51 08				Slight.distant
	N,E	iPP	54 23				15°S,68°.2W
	E	M	18 51 10	23	7		(Bolivia)
	N	F	19 51 --				H-17h.31m.36s.
	E	F	55 --				h - 50±Km
26	N,E	eP	04 22 31				(J.S.A.)
	N,E	e(S)	26 38				0°, 85°E.
	E	L	29 20				Indian Ocean
	E	F	05 08 --				0 - 09h.17.3m
	N	F	14 --				
Mar.			March 1947.				
2	N	eP)	19 21 03			8135	Moderate.
	E	iP)					5°S,143°.5E.
	N,E	iS	30 32				0 - 19h.9m.23s.
	N	SS	35 27				(B.C.I.S.)
	E	SS	35 34				5°S,143°E.
	E	L	41 01				(U.S.S.R.)
	N	L	41 35				
	N	F	21 11 --				
	E	F	16 --				

COLABA OBSERVATORY, BOMBAY.

March 1947(Contd.)

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
Mar.							
8	N,E	eP	14 38 01			2200	Feeble.
	N	eS)	41 36				
	E	iS)					
	N	F	15 02 --				
	E	F	06 --				
16	N,E	e	09 41 05				Slight.
	N,E	F	10 39	--			
17	N,E	eP	08 25 26			3120	Great.
	N	iS	30 10				32°N, 101°E,
	E	iS	30 13				China.
	E	L	33 35				0-08h.19m.30s.
	E	M	35 40	11	204		B.C.I.S.
	N	M	37 ?				gives
	E	F	13 00 --	12	>255		30°.5N, 99°E.
	N	F	03 --				0 - 08h.19m.18s.
25/26	N,E	ePP	20 51 39				
	N,E	eSKS	57 43				Moderate.
	N,E	ePS	21 01 49				39°S, 178°.5E
	E	S	Lost in hour break.				(U.S.C.G.S.)
	E	SS	08 24				38°.8S, 178°.5E
	E	L	19 54				0 - 20h.32m.02s.
	N	L	19 57				(Wellington)
	E	M	37 29	20	24		
	N	M	39 41	19	87.		
	E	F	00 12 --				
	N	F	35 --				
26	N,E	e	20 57 29				Feeble.
	E	F	21 00 --				
	N	F	33 --				

COLABA OBSERVATORY,
BOMBAY.

S. K. CHAKRABARTY,
Director.

ALIPORE OBSERVATORY, CALCU

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
			January 1947.				
1947 Jan. 3.	N	eP	02 27 34			5845	Moderate. Time correction -1 min.
		ePPP	30 28				
		iS	35 06				
		iSS	38 41				
		eL	43 46				
		M	48 46				
		Mn	51 46	13	36		
		F	Lost in microseism.				
4	N	i	17 43 36				Slight, distant.
		F	18 53 --				
6	N	i	05 34 51				Slight, near.
		F	52 --				
8	N	e	00 12 10				Slight, distant.
		e	18 10				
		F	Lost in microseism.				
9	N	e	13 31 26				Slight, distant.
		e	36 28				
		F	Lost in microseism.				
16	N	e	11 41 35				Tremor.
		e	45 32				
		F	Lost in microseism.				
18	N	e	03 08 11				Tremor.
		e	09 51				
		F	21 --				
19	N	i	01 36 13				Slight, near.
		i	37 23				
		F	Lost while changing chart.				
21	N	e	05 15 08				Tremor.
		F	32 --				
21	N	i	16 41 12				Slight, near.
		i	42 26				
		F	57 --				
22	N	e	02 12 45				Slight, near.
		i	12 57				
		i	13 37				
		F	22 --				
23	N	e	16 20 24				Tremor.
		F	34 --				
24	N	eP	16 55 35			4910	Slight.
		iS	17 02 15				
		iSS	05 10				
		M	12 35				
		Mn	17 05	13	30		
		F	Lost in microseism.				
25	N	e	04 21 47				Slight, distant.
		Mn	05 24 07				
		F	Lost in microseism.				

ALIPORE OBSERVATORY, CALCUTTA.

DATE	COMPT.	PHASE.	G. M. T.	PER.	AMP.	△	REMARKS.
1947.			h. m. s.	sec.	μ		
Jan.			January 1947(contd)				
26	N	e	04 04 14				Tremor.
		F	20 --				
26	N	iP'1	10 27 20				Moderate.First movement south. Probable time correction -1 min.
		iPKS	30 58				
		i(SKS)	33 25				
		iSKKS	37 40				
		iSS	50 20				
		iSSS	56 05				
		F	12 28 --				
28	N	e(P)	10 30 00				Slight.
		e(S)	36 30				
		i	39 00				
		F	43 --				
29	N	i	08 27 15				Slight.Distant.
		i	41 05				
		F	09 34 --				
29	N	e	18 15 09				Tremor.
		e	15 31				
		F	19 05 --				
30	N	e	01 03 05				Slight.Near.
		i	05 41				
		F	46 --				
30	N	eP	12 36 09			2235	Slight.
		iPP	36 19				
		iS	39 47				
		iSS	40 09				
		F	13 16 --				
Feb.			February 1947.				
1	N	e	08 12 30				Slight near.
		F	28 --				
5	N	e	00 47 45				Slight.Distant.
		i	54 20				
		F	Lost in microseism.				
7	N	e	08 52 42				Slight.Distant.
		e	55 08				
		e	09 02 32				
		Mn	23 32				
		F	Lost in microseism.				
9	N	e	19 04 34				Slight distant.
		e	13 27				
		Mn	18 46				
		F	Lost in microseism.				
10	N	e	03 56 10				Tremor.
		Mn	58 30				
		F	Lost in the following shock.				

ALIPORE OBSERVATORY, CALCUTTA.

DATE	COMPT.	PHASE.	G. M. T.	PER.	AMP.	Δ	REMARKS.
			h. m. s.	sec.	μ	Km.	
Feb.			February 1947(Contd.)				
10	N	iP	04 03 34			950	Great.First movement North.
		iS	05 12				
		iS*	05 45				
		iS	06 10				
		F	Lost while changing.				
11	N	iS?	10 16 48				Slight.Deep focus?
		F	Lost in microseism.				
11	N	e	20 43 49				Tremor.
		F	52 --				
12	N	e	03 53 02				Slight,near.
		i	53 40				
		i	55 10				
		F	04 15 --				
12	N	e	20 20 11				Slight,distant.
		e	22 41				
		Mn	33 42				
		F	21 20 --				
14	N	i	13 47 59				Slight,near.
		i	48 45				
		F	14 00 --				
15	N	e	16 21 00				Tremor.
		i	23 00				
		F	16 40				
16	N	e	09 34 00				
		Mn	47 50				
		F	Lost in microseism.				
16	N	e	19 51 33				Tremor.
		F	58 --				
18	N	eP	13 37 57				Slight.
		iSP?	39 50				
		iS	43 55				
		iSS	46 10				
		F	Lost in microseism.				
21	N	eP	22 10 32			4510	Slight.
		iS	16 50				
		iSSS	20 05				
		M	25 55				
		Mn	31 25 13	24			
		F	Lost in microseism.				
23	N	e	01 22 27				Slight near.
		i	24 22				
		Mn	27 42				
		F	Lost in microseism.				
24	N	eP'2	17 52 07				Slight,distant.
		e	57 57				
		Mn	19 09 57				
		F	59 --				

ALIPORE OBSERVATORY, CALCUTTA.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
Feb.			February 1947(Contd.)				
26	N	e(P)	04 21 51				Slight.
		e(S)	26 01				
		F	05 16 --				
Mar.			March 1947.				
2	N	eP	19 19 42			6755	Moderate.Focal depth about 65 Km.
		iS	27 54				
		iSS	28 33				
		SR_1(Surf)	32 21				
		F	21 11				
17	N	eP	08 23 30			1510	Great.
		iS	26 00				
		L	28 33				
		M	27 45				
25	N	e	20 42 32				Moderate.
		eSKS	53 00				
		PPS	57 00				
		SS	21 01 59				
		M	26 25				
		Mn	38 23	18	57		
		F	Lost in microseism.				
27	N	e	17 13 45				Tremor.
		e	17 07				
		F	Lost in microseism.				

ALIPORE OBSERVATORY.
CALCUTTA.

A. K. ROY.
Director.

COLOMBO OBSERVATORY, CEYLON.

DATE 1947	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. mm.	Δ Km.	REMARKS.
			January 1947.				
Jan.							
1-2	E	Record lost					
			from 08 49 --				
			to 00 51 --				
3	E	S	02 38 11				
		L	54 42				
		M	03 04 00		0.2		
		F	30 00				
7-8	E	Record lost					
			from 21 29 --				
			to 00 58 --				
9-10	E	Record lost					
			from 22 15 --				
			to 01 01 --				
13-14	E	Record lost					
			from 19 50 --				
			to 00 47 --				
18	E	Record lost					
			from 08 55 --				
			to 12 35 --				
21		Slight trace recorded					
			from 20 26 30				
			to 20 50 --				
24	E	S	17 05 30				
		M	25 50		0.1		
		F	50 00				
26	E	P1	10 26 29				
		PP	30 32				
		SSS	56 33		0.4		
		F	12 20 00				
28	E	PP	10 28 01				
		SS	33 29				
		M	37 29		0.5		
		F	11 40 00				
28	E	Slight trace recorded.					
			from 17 18 --				
			to 35 --				
29	E	e	18 10 42				
		e	15 06				
		M	17 39		0.2		
		F	45 00				
29	E	Slight trace recorded					
			from 07 40 --				
			to 08 05 --				
30	E	P	01 05 28				
		S	08 01				
		M	11 37		0.4		
		F	40 00				

COLOMBO OBSERVATORY, CEYL

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. mm	Δ Km.	REMARKS.
Jan.			JANUARY 1947(Contd.)				
31	E	P	12 39 49				
		S	44 41				
		L	47 51				
		M	49 04				
		F	13 05 00				
Feb.			February 1947.				
3-4	E	Record lost					
		from	23 02 --				
		to	01 00 --				
7	E	P	08 53 01				
		S	09 08 39				
		M	27 06		0.3		
		F	40 00				
8-9	E	Record lost					
		from	22 01 --				
		to	01 00 --				
10	E	P	04 07 42				
		S	12 06				
		L	15 56				
		M	21 21		12.0		
		F	05 40 00				
20-21	E	Record lost					
		from	23 33 --				
		to	00 53 --				
24	E	P'_2	17 51 22				
		L	18 48 49				
		M	54 34		0.3		
		F	19 25 --				
26	E	PP	04 20 35				
		M	28 00		0.4		
		F	05 10 00				
28 Mar.1	E	Record lost					
		from	19 00 --				
		to	01 03 --				
Mar.			March 1947.				
2	E	P	09 20 11				
		L	19 29 17				
		M	29 26		2.8		
		F	20 30 --				
2	E	Record lost					
		from	09 58 --				
		to	13 07 --				
8	E	P	14 38 03				
		L	42 03				
		M	42 10		0.5		
		F	15 30 --				

COLOMBO OBSERVATORY, CEYLON.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. mm	△ Km.	REMARKS.
Mar.			March 1947 (Contd.)				
11	E	Slight trace from	22 56 --				
		to	23 20				
15	E	Record lost from	08 58 --				
		to	18 08				
17	E	P	08 25 54				
		S?	31 22				
		L	34 30				
*		F	10 -- --				
25	E	PP	20 49 53				
		SKS	56 48				
		L	21 23 44				
		M	31 53		2.3		
		F	22 22 --				
26-27	E	Record lost from	21 57 --				
		to	00 56 --				
27-28	E	Record lost from	22 20 --				
		to	00 42 --				
*17	E	M	38 --		20.0		Trace faint at L.M.

COLOMBO OBSERVATORY,
CEYLON..

D-T-E.Dassanayake,
Superintendent.

HAIG OBSERVATORY, SURVEY OF INDIA,
DEHRA DUN.

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
1947 Jan.			January 1947.				
3	N	e	02 36 00				
		eL	51 48				
		M_1	53 58	14	0.02		
		M_2	57 32	13	0.02		
		F	03 20				
Feb.			February 1947.				
10	N	e	04 04 31				
		i	05 32				
		i	06 18				
		M_1	06 38	15	1.03		
		F	48 --				
Mar.			March 1947.				
17	N	eP	08 24 27			2029	
		iS	27 34				
		iL	30 19				
		M_1	30 44	25	1.50		
		F	09 50				

DEHRA DUN.

B-L-Gulatee,
PRESIDENT
SURVEY RESEARCH INSTITUTE
SURVEY OF INDIA.

NIZAMIAH OBSERVATORY, HYDERABAD, DECCAN.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
			January 1947.				
1947 Jan. 3	N	P	02 27 40			7110	
		PP	29 58				
		S	36 16				
		PS	36 27				
		M	53 34	14	8		
3	N	S	09 29 42				
		PS	30 01				
		M	51 33	11	3		
4	N	M	17 41 38	9	3		
5	N	eP	18 30 38			5640	
		eS	37 54				
		M	51 34	14	3		
9	N	eP	12 26 37			7120	
		S	35 14				
		SS	39 33				
		M	52 32	13	3		
15	N	M	19 54 46	12	1		
16	N	S	11 38 16				
		M	45 56	13	2		
18	N	M	03 15 10	8	2		
19	N	P	01 35 13			2140	
		S	38 42				
		SS	39 01				
		M	40 10	10	5		
19	N	M	04 27 42	15	2		
21	E	M	05 23 35	9	2		
21	N	M	21 39 01	16	3		
22	N	P	02 15 33			80	
		S	15 42				
23	N	SKS?	16 21 54				
		M	50 42	15	3		
24	N	P	16 57 13			5870	
		PP	59 13				
		S	17 04 41				
		ScS	07 00				
		SS	08 25				
		L	13 42				
		M	17 25	16	13		
25	E	M	05 27 50	15	3		
	N	M	28 24	15	3		

NIZAMIAH OBSERVATORY, HYDERABAD, DECCAN.

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
Jan.			January 1947(Contd.)				
26	E,N	P'	10 26 15				16330
	N	PP	29 41				
		SKKS	36 02				
		SKSP	39 49				
	E	SS	48 03				
	N	L	11 15 42				
		M	28 36	17	8		
	E	M	30 43	18	7		
28	N	P	10 29 17				3920
		S	34 51				
		L	38 34				
		M	43 45	10	4		
29	E,N	P'	08 36 22				
	E	i	40 03				
	N	e	08 46 51				
	E	e	51 45				
		e	09 06 45	12	2		
	N	e	06 49	13	2		
29	N	P	18 08 51				4010
		PP	10 13				
		S	14 31				
	E	S	14 34				
	E	SS	16 28				
	N	L	19 34				
	E	M	21 22	11	4		
	N	M	22 23	12	3		
30	E	eP	01 05 44				1710
		eS	01 08 33				
		L	10 00				
	N	M	11 37	18	9		
	E	M	12 17	19	7		
30	N	e	12 37 02				
		i	38 02				
		e	40 34				
	E	e	40 36				
		M	43 07	6	7		
	N	M	44 39	8	6		
30	N	M	15 22 41	18	5		
	E	M	23 02	15	3		
Feb.			February 1947				
2	E	M	05 04 42	15	3		
	N	M	05 50	15	3		
4	E	M	23 56 30	8	3		
6	N	M	15 58 01	20	5		

NIZAMIAH OBSERVATORY, HYDERABAD, DECCAN.

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
Feb.			February 1947(Contd.)				
7	E	i	08 53 13				
	N	eP	54 28			7870	
		S	09 03 44				
		PS	04 14				
		L	17 48				
		M	23 38	22	7		
	E	M	26 01	21	10		
9	N	M	19 23 25	12	3		
	E	M	24 47	12	3		
10	E	P	04 05 38			1660	
	N	P	05 40				
	E	S	08 23				
	N	SS	08 32				
	E	M	10 03	11	143		
	N	M	10 05	11	112		
11	E	S	10 19 26				
	N	M	23 14	8	2		
	E	M	23 24	9	2		
12	N	eP	20 15 45			5490	
		S	22 52				
		L	30 43				
		M	34 56	12	3		
	E	M	35 39	12	4		
15	N	M	02 05 15	15	3		
15	E	eS	16 23 16				
		M	26 24	9	2		
16	N	M	09 49 20	15	2		
	E	M	51 45	15	2		
18	E,N	P	13 39 06				
	E	?	41 12				
	N	S	46 13				
		i	48 11				
	E	SS	50 01				
		M_1	59 55	11	3		
	N	M_2	14 05 33	13	2		
21	E,N	P	22 10 02			5920	
	N	PP	12 02				
	E	S	17 33				
		PS	17 51				
		ScS	19 47				
	N	L	26 52				
		M	29 37	15	5		
	E	M	29 52	12	4		
23	N	M	01 32 49	12	2		
	E	M	33 05	12	2		

NIZAMIAH OBSERVATORY, HYDERABAD, DECCAN.

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
Feb.			February 1947(Contd.)				
24	N	eP	06 41 09			2820	
		S	45 32				
	E	M	49 56	8	2		
	N	M	50 47	8	2		
24	E	P'2	17 51 23				
	N	PP	54 39				
	E	SKKS	18 01 29				
	N	SS	13 42				
		L	38 04				
	E	M	49 03	22	11		
	N	M	49 15	22	7		
26	E,N	P	04 21 26			2120	
	E	eS	24 52				
		L	26 47				
		M	28 40	11	3		
	N	M	29 27	10	2		
Mar.			March 1947.				
2	E	P	19 20 26			7600	Probable time correction + 1 min.
		PcP	20 40				
		PP	22 55				
		S	29 28				
		PS	29 52				
		ScS	30 37				
		SS	33 30				
		L	42 51				
		M	50 43	15	4		
8	N	eP	14 37 19			1450	
		eS	39 44				
		M	42 00	8	3		
10	N	M	02 38 46	15	3		
16	N	SS	09 50 05				
		M	57 37	15	6		
	E	M	57 41	11	3		
17	N	M	07 28 48	18	6		
17	E	P	08 24 56			2790	Probable time correction 1 min.
	N	P	24 58				
		PP	26 33				
		S	29 19				
	E	S	29 21				
	N	M	32 21	14	461		
	E	M	33 51	14	247		
	N	F	12 16 --				
25	E	e	20 46 58				
		PP	51 12				
	N,E	SKS	57 17				
	N	SS	21 04 53				
	E	L	18 35				
	N	M	27 46	18	67		
	E	M	27 49	16	19		

NIZAMIAH OBSERVATORY, HYDERABAD, DECCAN.

DATE	COMPT.	PHASE	G. M. T.	PER.	AMP.	Δ	REMARKS.
			h. m. s.	sec.	μ	Km.	
Mar.			March 1947 (Contd.)				
26	E	S	20 57 56				
	N	M	21 03 12	9		2	
27	N	N	17 25 08	15		3	

NIZAMIAH OBSERVATORY,
HYDERABAD, DECCAN.

AKBAR ALI,
C U R A T O R.

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
1947 Jan.			January 1947.				
3	E	eP	02 27 15			7720	Moderate.
		eS	36 23				Probable time
		SS	40 40				correction
		L	49 42				1 min.
		M	55 15	15	17.3		
		F	05 37 55				
4	E	e	17 31 24				Long distance
		F	18 59 26				feeble shock.
5	E	e	18 34 22				Slight tremor.
		F	19 08 04				
7	e	e	05 39 39				Tremor
		F	06 00 49				
8	E	iP	00 13 14			5345	Slight, distant.
		PP	15 04				
		iS	21 12				
		SS	24 24				
		L	29 01				
		M	33 04	20	8.1		
		F	56 49				
16	E	e	11 33 21				Slight shock
		F	12 16 36				
21	E	e	20 26 00				Distant.
		F	21 41 50				feeble.
24	E	iP	16 57 13			6555	Distant, slight.
		eS	17 05 20				
		L	15 35				
		M	20 17	15	7.7		
		F	light failed.				
25	E	e	05 04 27				Distant.
		F	06 04 25				
26	E	iP'2	10 26 00				Distant, moderate.
		PP	29 20				Probable time
		SKKS	36 45				correction 1 min.
		SSS	55 15				
		F	12 39 00				
28	E	eP	10 27 35			3210	Moderate.
		PP	28 23				
		eS	32 25				
		L	35 58				
		M	38 23	10	11.1		
		F	11 55 59				
28	E	e	17 18 02				Tremor.
		F	40 42				

KODAIKANAL OBSERVATORY,KODAIKANAL.

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
Jan.			January 1947(Contd.)				
29	E	e	08 26 09				Distant,feeble.
		F	09 52 31				
29	E	e	18 07 51				Near, slight.
		F	19 04 51				
30	E	e	01 07 51				
		F	42 51				
Feb.			February 1947.				
10	E	iP	04 07 07		222.2	2665	Great.
		iS	11 19				
		L	13 34				
		M	15 45	9			
		F	05 34 17				
15	E	e	16 28 02				
		F	32 44				
24	E	eP'2	17 51 21				
		F	19 53 51				
26	E	e(P)	04 21 05				
		F	05 10 42				
Mar.			March 1947.				
8	E	e	12 37 40				Tremor.
		F	13 10 20				
8	E	e	13 18 50				Tremor.
		F	14 00 40				
16	E	e	09 47 37				
		F	10 31 50				
17	E	iP	08 26 03				
		e	32 55				
25	E	ePP	20 48 46				
		eSKS	55 16				
		SS	58 01				
		L	-				
		Mn	21 32 46				
		F	01 04 --				

KODAIKANAL OBSERVATORY,
KODAIKANAL.

A. K. DAS.
Director,

The following table contains a list of earthquakes reported by voluntary observers from various stations.

Place at which felt.	Date.	G.M.T. of earthquake		Duration.	Intensity. Rossi-Forel Scale.	Number of shocks.	Remarks.
		Hr.	Mn.	Secs.			
Sambalpur	22-1-1947	01	30	15-20	2	1	
Yatung	26-1-1947	19	50	2	3	1	
Srinagar	30-1-1947	12	37	2 (each)	6	2	
Drosh	30-1-1947	12	37	3	2	2	
Bushire	3-2-1947	00	10	3	5	1	
Drosh	6-2-1947	12	08	1	2	1	
Gauhati	14-2-1947	13	48	8) 5)	5	2	Interval between shocks 5 seconds.
Gauhati	14-2-1947	20	49	6	2	1	
Gauhati	8-3-1947	15	20	3	3	1	
Gauhati	9-3-1947	13	47	3	2	1	
Titilagarh	27-3-1947	01	00	10	2	1	

G.R. Toshniwal,
SEISMOLOGICAL OFFICER,
P O O N A.

GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT.

SEISMOLOGICAL BULLETIN

April-June, 1947.

CONTENTS.

PUBLISHED UNDER THE DIRECTION OF

S. K. BANERJI, O.B.E., M.Sc., D.Sc.,F.N.I.

Director General of Observatories.

April - June 1947.

INTRODUCTION.

Till the end of 1937, the seismic data from the observatories of the India Meteorological Department were being published annually as Part D of the Annual Summary of the India Weather Review. Since 1938, the data are being published in the present series of the Quarterly Seismological Bulletin. With the kind co-operation of the Surveyor-General of India, the Director of the Nizamiah Observatory, Hyderabad, and of the Superintendent, Colombo Observatory, it has been possible to incorporate in the bulletin, the data of their respective observatories, viz. Dehra Dun, Hyderabad and Colombo. The instrumental seismological data and the non-instrumental voluntary observations are collected and edited at the Meteorological Office, Poona.

TABLE 1.

List of Seismograph Stations.

Station.	Latitude.	Longitude.	Height above M.S.L.	Lithologic foundation.	Officer-in-charge of Observatory.
New Delhi	28° 35'N	77° 12' E	207 meters	Massive Quartzites	
Bombay	18° 54'N	72° 49' E	6 meters	Deccan Trap	
Calcutta	22° 32'N	88° 20' E	(1)7 meters (2)6 meters	Alluvium	
Colombo	6° 54'N	79° 52' E	7 meters	Beach-Sand resting on gneiss probably decomposed.	
Dehra Dun	30° 19'N	78° 03' E	682 meters	Gravel	
Hyderabad	17° 26'N	78° 27' E	528 meters	Granite	
Kodaikanal	10° 14'N	77° 28' E	2343 meters	Rock.	

(1) Milne-Shaw. (2) Omori-Ewing.

TABLE 2.

The instruments and their constants.

Station.	Component.	Type of instrument.	Mass.	Period.	Static magnification.	Damping Ratio.	Remarks.
			Kg.	Sec.			
New Delhi	E	Omori-Ewing.	45	32	30	--	
	N	Milne-Shaw	0.47	12	262	20:1	
Bombay	N	Milne-Shaw	0.45	12	250	20:1	
	E	Milne-Shaw	0.45	12	350	40:1	
Calcutta	N	Milne-Shaw	0.45	12	250	20:1	
	E	Omori-Ewing	50	-	30	--	
	N	Omori-Ewing	50	-	32	--	
Colombo	E	Milne-Shaw	0.45	12	250	20:1	
Dehra Dun	N	Omori	50	-	12	--	
Hyderabad	N	Milne-Shaw	0.45	12	250	20:1	
	E	Milne-Shaw	0.45	12	250	20:1	
Kodaikanal	E	Milne-Shaw	0.45	10	250	19:1	

April.

April 1947.

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
2	E	eP	05 49 56			7130	Moderate.
	N	P+	49 57				+Time is correct to
	N,E	iS	58 34				1 second due to
	E	iPS	59 04				the minute mark.
	N	PS	59 07				
		ScS	59 47				
	E	i	06 00 10				
		i	01 45				
		SS	02 46				
		i	04 47				
	N	i	06 29				
	E	F	08 38 00				
	N	F	09 38 00				
2	N	eP	20 53 04			5400	Slight.
		eS	58 54				
		PS	59 08				
		iSS	21 02 09				
		iSES	06 35				
		L	06 33				
		M	10 14				
		F	22 30 00				
4	N	e(PP)	01 16 38			4200	Feeble.
		eS	21 35				
		M	30 15				
		F	02 14 00				
6	N	e	01 10 43				Slight, near.
		i	12 30				
		i	12 35				
		F	26 00				
7	N	i	00 09 21				Slight. Probably near.
		e	11 46				
		i	13 36				
		F	30 00				
8	N	e	10 08 55				Slight. Distant
		e	11 11				Surface waves.
		F	28 00				
9	N	e(P)	00 22 23				Slight. Near.
		e(S)	23 58				
		i	24 03				
		F	31 00				
9	N	e	21 17 20				Slight.
		e	19 33				
		i	21 25				
		i	22 30				
		F	32 00				
10	N	e(P')	16 17 52				Slight. Very distant
		e	17 04 02				surface waves.
		F	29 00				

THE OBSERVATORY, NEW DELHI.

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
April			April 1947(Contd.)				
11	N	e(PP)	14 38 02				Slight.
		iS	43 17				
		SS	46 24				
		L	51 00				
		M	54 47				
		F	16 09 00				
*							
15	N	e	17 20 58				Feeble.Distant
		F	47 00				Surface waves.
19	N	M	17 57 10				Slight.Distant.
		F	18 20 00				
21	N	e	03 32 09			6000	Slight.
		iS	39 32				
		i	40 19				
		M	53 24				
		F	04 30 00				
21	N	i	20 37 23				Slight.Distant.
		e	41 34				
		F	21 13 00				
22	N	e	05 41 36				Slight.Distant.
		e	47 43				
		e	06 09 36				Surface waves.
		F	27 00				
24	N	e	13 05 38				Slight.
		e	07 14				
		i	08 05				
		F	13 23 00				
24	N	iPP	19 54 14				Slight.
		PPP	56 21				
		SKKS	20 01 15				
		S	01 55				
		PS	03 23				
		M	32 48				
		F	22 22 00				
26	N	e(P)	12 53 13			6780	Slight.
		iS	13 00 14				
		M	15 58				
		F	13 50 00				
26	N	iS	17 41 06			6770	Slight.
		M	56 47				
		F	18 29 00				
27	N	e	16 57 18				Slight.
		e	58 56				
		F	17 09 00				
27	N	e	20 51 05				Slight.
		i	52 07				
		i	54 52				
		F	21 16 00				

* Please see page 8 for data of 14th April.

THE OBSERVATORY, NEW DELHI.

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
April.			April 1947(Contd.)				
29	N	e	05 54 34				Slight.Distant.
		e	06 02 51				
		F	30 00				
30	E	iP	19 14 28			60	Felt locally. Direction of first motion east.
		i	14 31				
		iS	14 35				
		i	14 38				
		F	17 00				
May.			May 1947.				
2	N	iSKS	02 41 29			10110	Slight.
		iS	41 54				
		i	43 19				
		M	03 08 55				
		F	41 00				
3	N	e	09 22 20				Slight.Distant.
		i	41 27				
		e	10 04 40				
		F	48 00				
4	N	i	00 58 14				Feeble.
		M	01 04 02				
		F	17 00				
4	N	e	22 42 06				Slight.
		i	42 26				
		e	45 03				
		F	23 02 00				
6	N	eP	20 42 24			8550	Moderate.
	E	e	42 27				
		e	46 17				
	N	i	46 21				
		iS	52 14				
	E	eS	52 14				
	N	iPS	20 52 38				
	E	i	52 57				
	N	SS	56 57				
		i	21 03 59				
		M	12 55				
	E	F	22 01 00				
7	N	F	00 13 00				
8	N	iP	18 48 43			1640	Slight.
	E	iP	48 44				
	N	PP	48 58				
	N	PPP	49 08				
		iS	51 26				
	E	iS	51 28				
	N	SS	51 35				
	E	SS	51 38				
	N	i	51 53				
	E	i	51 56				
	E	F	19 16 00				
	N	F	49 00				

May 1947.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	
May.							
9	N	e	09 42 31				Slight.Distant.
		i	59 20				
		F	10 32 00				
10	N	i	00 36 21				Slight.Distant surface waves.
		F	01 04 00				
11	N	iP	18 48 29			5110	Slight.
		PPP	51 04				
		iS	55 14				
		SS	58 07				
		SSS	59 08				
		L	19 01 37				
		M	06 35				
		F	21 36 00				
17	N	ePP	07 26 30				Moderate.
		i(SKS)	32 19				
		iPS	36 15				
	E	e	36 36				
	N	i	39 08				
		i	47 05				
	E	e	47 05				
		M	08 09 52				
	N	M	10 36				
		Mn_1	12 14	22	96		
	E	Mn	14 21	24	237		
	N	Mn_2	16 10	20	86		
	E	F	09 39 00				
	N	F	11 07 00				
24	N	e	00 16 46				Slight.
		e	17 46				
		e	21 51				
		F	01 03 00				
25	N	e	05 45 20				Feeble.Distant Surface waves.
		e	06 01 56				
		F	15 00				
25	N	e	11 59 34				Feeble.Distant.
		e	12 03 03				
		F	45 00				
25	N	e	23 13 57				Slight.Distant.
		e	22 07				
		M	25 09				
		F	15 00				
26	N	e	11 39 49				Slight.Distant. M Waves.
		F	12 11 00				
26	N	i	20 02 34				Slight.Distant. Probably S.
		F	38 00				
27	N	iP	03 44 39			6300	Slight.
		PcP	45 22				
		iS	52 32				
		ScS	54 17				
		F	04 35 00				

THE OBSERVATORY, NEW DELHI.

DATE	COMPT.	PHASE.	G. M. T.	PER.	AMP.	△	REMARKS.
			h. m. s.	sec.	μ	Km.	
May			May 1947(Contd.)				
27	E	iP	06 09 25			6920	Moderate.
	N	iP	09 28				
		i	11 17				
		PP	11 46				
		iS	17 55				
	E	iS	17 59				
	N	PS	18 09				
	E	i	18 36				
		ScS	19 01				
	N	ScS	19 02				
	E	SS	21 27				
	N	SS	21 39				
		i	23 37				
		SSS	24 42				
		i	25 32				
	E	i	25 54				
	N	L	28 27				
		M	33 09				
	E	M	34 39				
		F	08 27 00				
	N	F	09 50 00				
28	N	e	18 02 20				Feeble.Near.
		F	10 00				
June			June 1947.				
1	N	e	10 47 24				Slight.Very distant.
		e	50 10				
		i	55 32				
		i	09 16				
		M	11 45 00				
1	N	e	16 07 18				Slight.Near.
		i	07 51				
		F	21 00				
1	N	eP	19 00 00			1390	Slight.
		eS	02 18				
		M	04 39				
		F	22 05				
1	N	e	22 20 20				Feeble.Distant.
		F	37 00				
2	N	eP	06 43 39			1320	Slight.
		iS	45 51				
	E	eS	45 51				
	N	SS	45 58				
		i	47 08				
	E	M	47 46				
	N	M	47 48				
	N	Mn	49 04				
	E	F	07 26 00				
	N	F	30 00				

THE OBSERVATORY, NEW DELHI.

June 1947(Contd.)

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
June.							
7	N	eP	05 10 09			2380	Feeble.
		iS	13 58				
		SS	14 24				
		L	16 01				
		M	17 24				
	E	M	17 56				
	N,E	F	Lost in microseisms.				
7	N	eP	18 56 25			5240	Slight.
		PP	58 20				
		iS	19 03 17				
	E	eS	03 21				
	N	SS	06 15				
		SSS	07 15				
	E	L	12 46				
	N	M	16 35				
	E	M	16 57				
		F	20 18 00				
	N	F	21 07 00				
9	N	e	20 29 42				Slight.Probably near.
		i	30 30				
		F	52 00				
10	N	e	11 26 22				Slight.Distant
		i	32 00				
		M	38 48				
		F	41 00				
12	E	eP	09 11 53			5820	Moderate.
	N,E	iP	11 57				
	N	PP	13 42				
	E	PP	13 48				
	N	PPP	14 43				
	E	iS	19 20				
	N	iS	19 23				
	E	i	20 04				
	N	i	20 05				
	N	iScS	21 35				
	E	SS	22 58				
	N	SS	23 02				
		SSS	24 37				
		L	28 23				
	E	M	29 55				
	N	M	32 00				
	E	F	10 17 00				
	N	F	12 09 00				
14	N	M	00 24 20				Slight.Distant. Beginning of the record lost while changing paper.
		F	02 24 00				
16	N	i	00 23 24				Slight.Distant.
		e	27 54				
		e	30 57				
		F	32 00				

THE OBSERVATORY, NEW DELHI.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
June.			June 1947(Contd.)				
19	N	i	02 33 06				Slight.Distant.
		e	48 25				
		F	03 25 00				
19	N	iS	07 53 14		about	6340	Slight.
		iPS	53 24				
		PPS	53 34				
		i	54 49				
		M	08 07 54				
		F	09 52 00				
23	N	eP	21 35 45			1110	Slight.
		i	36 03				
		iS	37 38				
		S	38 42				
		F	47 00				

THE OBSERVATORY,
NEW DELHI

S. C. ROY
DEPUTY DIRECTOR GENERAL OF OBSERVATORIES
(INSTRUMENTS & SUPPLIES)

*							
April 14	N.	ep	07 25 25			6500	Slight.
		eS	33 29				
		ScS	35 24				
		SS	37 37				
		M	48 15				
		F	10 01 00				

COLABA OBSERVATORY, BOMBAY.

April 1947.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
April.							
2	N,E	eP	05 50 05			7520	Moderate 1°S, 141°E.
	E	i	50 11				0=05h.39.3m
	N,E	iS	59 03				(U.S.C.G.S.)
	E	L	06 11 14				20°S.,137°.5E.,
	N	L	11 38				0=05h. 39.2m.
	E	M	19 19	17	18		(B.C.I.S.)
	N	M	19 52	15	27		1°.8S.,138°.3E.
		F	10 04 --				H=05h. 39m. 16s.
	E	F	11 --				(J.S.A.)
2	N,E	eP?	20 53 37				Slight.
	N	M	21 12 37	19	13		24°.1N.,122°.0E.
	E	M	14 57	15	5		H=20h. 45m. 08s.
	N	F	22 06 --				(B.C.I.S.)
	E	F	11 --				25°N., 123°E.
							(U.S.S.R.)
4	N	e[illegible]	01 16 21				Feeble.
	E	e	18 00				
	N,E	F	02 11 --				
6	N	e(P)	01 12 45			2090	Feeble. Probable epicentre
	N,E	e(S)	16 10				37°N., 76°E. Felt
	E	F	32 --				at Srinagar.
	N	F	Loss of record.				0=01h. 8.5m.
							Probable h =100-125 km.
8	N,E	e	10 10 58				Feeble.
		F	37 --				
9	N	e(P)	00 23 20				Feeble.
		e	24 12				Felt at Drosh.
		e	24 44				Apperently after
	E	e(S)	27 28				shock of one on 6th.
	N,E	F	40 --				
9	N	e	21 19 11				Feeble.
	E	e	23 17				41°.30'N.72°40'E.
		e	26 10				(U.S.S.R.)
	N,E	F	45 --				
10	N	eP'1	16 19 03				Slight.
	E	e	36 48				35°.0N, 116°.6W.
	N,E	F	18 09 --				H=15h.58m.04s.
							(U.S.C.G.S.)
							Felt widely in southern California and damage to buildings (Pasadena)
11	N	e	00 11 33				Feeble. 38°S.,60°.0E
	E	e	19 41				(U.R.S.S.)
		F	01 03 --				32°S.,56°E. Indian
	N	F	07 --				Ocean.
							H=00h.02.0m.(B.C.I.S.)
11	N	eP	14 37 55			5055	Moderate.
		iS	44 37				20°.4N.,121°.7E.
		F	15 45 --				H=14h.29m.31s.
	E		Loss of record.				(B.C.I.S.)

COLABA OBSERVATORY, BOMB.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
April.							
			April 1947(Contd.)				
14	N,E	e	03 26 43				
		F	05 16 --				Feeble.
14	N,E	eP	07 26 25			7855	Moderate.
	N	eS	35 38				45°.0N. 146°.5E
	E	iS	35 40				H=07h. 15.5m.
	N	SS	40 03				(U.S.C.G.S.)
	E	SS	40 06				44°.8N, 148°.5E.,
		L	48 25				H=07h.15m.35s.
	N	L	48 30				(B.C.I.S.)
	E	M	56 14	18	23		
		M	57 35	15	19		
	N	F	10 54 --				
		F	58 --				
14	N	e	15 29 02				
		F	16 10 --				Feeble.
	E	Movements very feeble and mixed up with microseisms.					
21	N,E	e	20 30 08				
	N	F	21 20 --				Feeble.
	E	F	28 --				
24	N,E	ePP	19 54 01				
		ePS	20 03 18				Moderate.
	E	L_R	24 --				8°N., 37°.5W
		M	34 15	24	30		O=19h. 35.1m.
	N	M	43 06	19	5		(U.S.C.G.S.)
		F	23 01 --				7°.5N., 288°.7W.
	E	F	05 --				O=19h.35m.06s.
							(B.C.I.S.)
26	N,E	eP	12 53 26			5635	Slight.
	E	eS	13 00 41				O=12h. 45.5m.
	N	eS	00 44				U.R.S.S. gives
	E	L	08 30				6°N., 125°.6E
		M	18 18	15	3		
	N	F	14 04 --				
	E	F	07 --				
26	E	eP	17 34 16			5635	Slight.
	N,E	eS	41 31				After shock of the
	N	L	53 07				previous one.
	E	L	53 10				O=17h. 25.3m.
		M	59 10	17	2		
	N	F	18 37 --				
	E	F	44 --				
27	N,E	e	16 55 01				
		F	17 12 --				Very feeble.
27	N,E	eP	20 48 09				
	E	M	54 34	14	3		Feeble.
	N	F	21 19 --				
	E	F	25 --				
29	N,E	e	06 00 10				
	E	F	24 --				Feeble tremors.
	N	F	26 --				

COLABA OBSERVATORY, BOMBAY.

May 1947.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
May.							
2	N	e(P)	02 32 10				Feeble.
	E	e(SKS)	42 58				54°N., 164°W
	N,E	F	03 44 --				O=02h.19.0m.
							(U.S.C.G.S.)
3	N,E	e(P)	09 45 49				Feeble.
	E	F	11 00 --				35°.5N., 141°E
	N	F	02 --				H=09h.35m.27s.
							(B.C.I.S. and
							U.R.S.S.)
4	N,E	e	22 38 13				Feeble. Probably
	E	F	23 09 --				after shock of
	N	F	13 --				preceding one.
							(B.C.I.S.)
6-7	E	eP	20 42 38			8745	Moderate.
	N	eP	42 42				7°S., 150°E.
		eS)					H=20h. 30.7m.
	E	iS)	52 37				(U.S.C.G.S.)
		SS	58 00				6°.5S., 148°.5E
	N	SS	58 11				H=20h. 30m.34s.
	E	L	20 09 18				(B.C.I.S.)
	N	L	09 55				
		M	18 38	21	46		
	E	M	22 24	17	9		
		F	00 24 --				
	N	F	35 --				
8	N	eP)	18 49 43			2345	Moderate.
	E	iP)					24°.5N., 95°.5E,
	N,E	iS	53 30				H=18h.45.0m.
	N	L	55 09				(B.C.I.S.)
	E	L	55 13				h=65 Km.
		M	57 21	6	8		(U.R.S.S.)
	N	M	57 33	6	19		
	N,E	F	19 40 --				
10	N	e	00 28 14				Slight.
	E	e	34 02				
	N,E	F	01 17 --				
11	N,E	eP	18 48 06			4935	Moderate.
	N	eS	54 36				5°S., 111°E.
	E	eS	54 41				H=18h.40.1m.
		L	19 01 09				(B.C.I.S.)
		M	05 53	11	3		
	N	M	07 47	13	4		
	E	F	20 56 --				
	N	F	59 --				
17	N,E	eP'	07 24 52			10745	Moderate.
	N,E	ePS	36 18				37°.5S., 180°E.,
	E	eSS	43 07				H=07h.06.6m.
	N	SS	43 20				(U.S.C.G.S.)
		L	54 36				37°S., 177°E.
	E	L	55 18				H=07h.06m.37s.
		M	08 14 25	19	5		(B.C.I.S.)
	N	M	17 50	17	6		39°.4S., 178°.9E
	E	F	10 09 --				H=07h.06m.37s.
	N	F	27 --				(Wellington).

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS
May.							May 1947(Contd.)
24	E	iP)	00 15 46			2790	Slight.
	N	eP)					13°.0N., 48°.9E.
	E	eS?	20 03				H=00h. 10m.30s.
	N	eS	20 07				(B.C.I.S.)
	E	L	22 20				12°.5N., 49°.5E.
		F	00 57 --				(U.R.S.S.)
	N	F	01 06 --				
24	N,E	i	15 17 02				Feeble.
	E	F	42 --				
	N	F	48 --				
25	N,E	e	05 38 15				Very feeble.
	E	i)					
	N	e)	45 18				
	N,E	F	06 17 --				
25	N,E	e	11 52 13				Feeble.
		F	12 41 --				
25	N,E	e	23 08 33				Feeble.
	E	F	52 --				
	N	F	56 --				
26	N,E	e	11 03 23				Feeble.
		F	59 --				
26	N,E	e	20 02 55				Feeble.
		F	28 --				
27	N,E	eP	03 44 37			6145	Slight.
		PP	45 06				8°.5S.,124°.5E,
		SP	45 21				H=03h.34.9m.(B.C.I.S.).
	E	i(S)	52 21				9°S., 123°.5E.
	N	eS	52 32				h=10
		SS	53 17				(U.R.S.S.)
		L	04 00 00				
	E	L	00 40				
	N	F	04 34 --				
	E	F	39 --				
27	E	iP)	06 09 35			7145	Moderate.
	N	eP)					2°S., 141°E.,
	E	iS)	18 13				H=05h.59.2m.
	N	eS)					(U.S.C.G.S.)
	E	SS	23 00				1½°S., 135°.5E
	N	SS	23 07				H=05h.58.9m.
		L	27 45				(B.C.I.S.)
	E	L	27 54				Indian data agree
		M	37 48	23	60		well with B.C.I.S.
	N	M	42 13	23	90		epicentre.
		F	09 49 --				
	E	F	57 --				

DATE	COMPT.	PHASE.	G. M. T.	PER.	AMP.	Δ		
			h. m. s.	sec.	μ.	Km.		
			June 1947.					
June.								
1	N,E	e	11 27 20					Feeble.
	E	F	12 18 --					
	N	F	23 --					
1	N,E	e	19 04 35					Feeble.
		F	29 --					
1	N,E	e	22 24 00					
		F	23 05 --					
2	N,E	eP	06 45 32				2510	Moderate.
		eS	49 31					41°.4N., 72°.4E.,
	E	L	51 12					0=06h.40m.37s.
	N	L	51 20					U.R.S.S.gives
	E	M	52 38	5	10			41°.05'N., 72°20'E
	N	M	52 38	5	9			B.C.I.S. gives
	E	F	08 27 --					0=06h.40m.36s.
	N	F	Mixed up with microseisms.					
2	N	e	13 42 40					Feeble.
	E	e	42 54					
	N	F	14 12 --					
	E	F	27 --					
3	N,E	e	05 13 --					Tremors.
		F	06 12 --					
3	N,E	e	16 00 --					Surface waves.
	E	F	17 01 --					
	N	F	Mixed up with microseisms.					
4	N	e	00 38 15					
	E	e	45 15					
		F	01 44 --					
	N	F	47 --					
5	E	e	00 03 --					Surface waves.
		F	01 15 --					
	N		Microseisms throughout record.					
7	N,E	eP	05 10 59					Slight.
		F	06 09 --					26°.7N., 101°.5E.,
								China(U.R.S.S.)
								0=5h.5m.20s.
7	E	iP)	18 56 51				5610	Moderate.
	N	eP)						11°N.,127°E
	E	iPP	58 51					H=18h47.9m.
	N,E	iS	19 04 05					(U.S.C.G.S.)
	E	iSS	08 07					11°N., 125°E.
	N	L	10 27					H=18h. 47.9m.
	E	L	10 36					(B.C.I.S.)
	N	M	20 48	15	17			
	E	M	24 14	17	19			
		F	22 19 --					
	N	F	Mixed up with microseisms.					
7-8	E	e	23 52 49					Feeble tremors.
		F	00 39 --					
	N		Record full of microseisms.					

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Km.	
June.			June 1947(Contd.)				
9	N,E	e	20 33 03				Feeble.
	N	M	38 44	7	3		
	E	M	38 58	6	2		
		F	21 06 --				
	N	F	Mixed up with microseisms.				
10	N,E	eP	11 21 48				After shock of 7d. 18h, 0=11h. 12.6m. (B.C.I.S.)
		eS	28 55				
	E	M	44 27	21	5		
		F	12 05 --				
	N	F	Mixed up with microseisms.				
12	E	iP)	09 12 02			5965	Moderate. 1°N., 127°E. H=09h. 02.4m. (U.S.C.G.S.) ¼°N., 126½°E., H=09h.02.4m. (B.C.I.S.) 2°.3N.,125°.5E (U.R.S.S.) Bombay 0=09h.02.7m.
	N	eP)					
	E	iPP	14 16				
	N,E	iS	19 36				
	E	iSS	24 10				
	N	SS	24 23				
	E	L	29 55				
	N	L	30 23				
		M	35 21	24	92	--	
	E	M	36 12	25	144	--	
		F	13 08 --				
	N	F	Mixed up with microseisms.				
13	E	iP)	20 36 03			7265	Moderate. 19°N., 146°E H=20h.24.7m. (U.S.C.G.S.) 21¾°N.,146½°E., H=20h.24m.53s. (B.C.I.S.)
	N	eP)					
	E	PP	38 43				
	N,E	iS	44 48				
	E	SS	48 32				
	N	L	59 24				
	E	L	59 38				
	N	M	21 06 31	19	28		
	E	M	10 13	18	24		
	N,E	F	Mixed up with next shock.				
14	N,E	eP	00 01 38			7110	Moderate. After shock of previous one. 0=23h.50m.22s. (B.C.I.S.)
	E	iS)					
	N	eS)	10 14				
	E	L	23 16				
		M	39 15	15	8		
	N,E	F	Mixed up with microseisms.				
14	N,E	e	16 50 04				Feeble.
	E	F	17 54 --				
	N	F	Mixed up with microseisms.				
16	N,E	e	00 21 54				
	E	F	01 11 --				
	N	F	Mixed with microseisms.				
16	N,E	e	21 17 --				Surface waves.
		F	22 35 --				

COLABA OBSERVATORY, BOMBAY.

June 1947(Contd.)

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
June.							
19	E	iP	07 45 37			7365	Moderate.
		iS	54 27				After shock of 13d. 20h.
		L	08 06 12				0=07h.34m.39s.
		M	22 43	16	9		(B.C.I.S.)
		F	11 08 --				
	N		Times of phases not identifiable due to congestion of lines.				
22	E	e	18 29 --				Surface waves.
		F	19 20 --				
	N		Record full of microseisms.				
26-27	N,E	e	23 52 27				Feeble.
	E	F	00 32 --				
	N	F	Mixed up with microseisms.				
28	N,E	e	01 58 --				Feeble.
	E	F	03 07 --				
	N	F	Mixed up with microseisms.				
28	E	e	11 06 43				Very feeble, near.
	N	e	10 15				
	E	F	24 --				
	N	F	Mixed up with microseisms.				
30	E	e	08 04 53				
	E	F	09 07 --				
	N		Pronounced microseisms throughout record.				

COLABA OBSERVATORY,
BOMBAY.

S. K. CHAKRABARTY,
Director.

ALIPORE OBSERVATORY, CALCUTTA

April 1947.

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	
April.							
2	N	eP	05 48 35			5755	Moderate.
		iS	56 05				
2	N	eP	20 51 40			2980	Slight.
		PcP	54 39				
		iS	56 23				
		L	21 00 36				
		M	04 36				
		F	Lost.				
4	N	e(S)	01 19 17			3210	Slight.
		e(ScS)	24 15				
		e	25 40				
		F	Lost in microseisms.				
6	N	e	01 12 54				Slight,near.
		i	16 30				
		F	Lost in microseisms.				
11	N	e(P)	14 35 45				Slight,distant.
		i	38 52				
		i	44 14				
		F	Lost in microseisms.				
12	N	e	23 01 01				Tremor.
		e	03 43				
		F	21 --				
14	N	eP	07 24 28			5610	Moderate.
		iS	31 47				
		PS	32 21				
		iSS	35 15				
		SSS	36 40				
		M	45 30				
		F	Lost in microseisms.				
24	N	e	13 01 24				Slight near.
		i	03 22				
		F	Lost in microseisms.				
24	N	e	19 58 13				Slight,distant.
		Mn	20 48 43				
		F	Lost in microseisms.				
26	N	iS?	12 57 40				Slight,deep focus.
		F	Lost in microseisms.				
27	N	e	17 03 13				Tremor.
		F	Lost				
27	N	e	20 54 55				Tremor.
		e	58 15				
		F	Lost in microseisms.				

ALIPORE OBSERVATORY, CALCUTTA.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
May.			May 1947.				
4	N	e	22 45 15				Tremor.
		e	50 50				
		F	Lost in microseisms.				
6	N	eP	20 41 20			7110	Moderate.
		ePPP	45 02				
		iS	50 03				
		iSS	54 27				
		L	21 02 00				
		M	06 30				
		F	Lost in microseisms.				
8	N	eP	18 46 35			468	Moderate.
		iS	47 25				
11	N	ePP	18 47 10			5890	Slight.
		iS?	52 51				
		iSS	56 31				
		iSSS	58 05				
		L	19 03 22				
		M	07 45				
		F	Lost in microseisms.				
17	N	e(PP)	07 25 28				Moderate.
		eSKS	31 24				
		i	31 46				
		i	37 36				
		i	40 56				
		L	53 36				
		M	08 00 48				
		F	Lost in microseisms.				
25	N	i	23 20 25				Slight. Phases masked in strong microseism.
		i	22 13				
		F	Lost in microseism.				
27	N	eP	06 07 36			5555	Moderate.
		iS	14 52				
		M	27 28				
		F	06 56 --				
June.			June 1947.				
2	E	eP	06 44 06				Slight. Probable times correction + 2 mins.
		iS	48 26				
		F	Lost in the congestion.				
2	E	e	13 41 52				Tremor.
		e	43 25				
		F	Lost in microseism.				
7	E	eP	18 56 02			4000	Moderate.
		iS	19 01 49				
		M	09 52				
		F	20 55 --				
9	E	e	20 31 34				Slight, near.
		F	44 --				

ALIPORE OBSERVATORY, CALCUTTA.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
June.			June 1947(Contd.)				
10	E	i	11 25 09				Slight, distant.
		e	29 17				
		F	12 25 --				
13	E	eP	20 34 31				Moderate.
		i(SS)	44 11				
		i	44 46				
		i	49 01				
		i	52 06				
		M	21 04 31				
		F	Lost in the following shock.				
14	E	iS?	00 10 46				Slight. Possibly an after shock of previous one.
		iSS?	15 42				
		i	18 34				
		F	Lost while changing chart.				
28	E	eP	11 04 28			633	Slight.
		iP	04 55				
		iS	05 36				
		iS*	05 55				
		F	Lost in microseism.				

ALIPORE OBSERVATORY
CALCUTTA.

A. K. ROY
D I R E C T O R.

COLOMBO OBSERVATORY, CEYLON.

April 1947.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. mm.	△ Km.	REMARKS.
April.							
2	E	P	05 49 09				
		S	57 11				
		L	06 04 07				
		M	04 34		4.4		
		F	08 -- --				
2	E	P	08 06 32				
		?	22 54				
		M	25 59		0.2		
		F	50 00				
2	E	P	20 53 19				
		ScS	21 03 17				
		L	09 54				
		M	11 04		0.3		
		F	45 --				
10	E	e	17 11 --				
		F	30 --				
11	E	P	14 37 27				
		S	43 54				
		L	53 --				
		M	57 20		0.5		
		F	15 30 00				
14	E	e	04 10 --				
		F	20 --				
14	E	P	07 26 52				
		S	35 55				
		L	50 20				
		M	08 02 30		0.7		
		F	09 -- --				
21	E	e	03 40 --				
		F	04 10 --				
24	E	PP	19 54 53				
		SKKS(?)	20 31 23				
		M	41 21		0.4		
		F	21 40 --				
26	E	P	12 52 23				
		M	13 13 --		0.1		
		F	25 --				
26	E	P	17 33 21				
		S	39 49				
		M	58 30		0.2		
		F	18 15 --				
27	E	e	20 50 --				
		F	21 15 --				

COLOMBO OBSERVATORY, CEYLON.

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER sec.	AMP. mm.	△ Km.	REMARKS.
May.			May 1947.				
3	E	e	09 40 --				
		F	10 05 --				
6	E	P	20 41 53				
		S	51 37				
		M	21 12 33		2.0		
		F	23 40 --				
8	E	P	18 49 56				
		M	54 34		2.4		
		F	19 30 --				
17	E	PP	07 24 54				
		SKS	31 01				
		L	58 17				
		M	08 02 04		6.5		
		F	09 18 --				
27	E	P P	06 08 33				
		PP	11 49				
		S_2	16 06				
		L	25 34				
		M	30 05		4.5		
		F	07 40 --				
June.			June 1947.				
2	E	SS	06 54 00				
		M	59 48		1.0		'P' emerges from overlapping trace.
2	E	e	13 41 00				
		F	59 00				
7	E	P	18 56 02				
		S	19 02 28				
		SS	06 05				
		L	14 42				
		M	17 05		1.9		
		F	20 30 --				
10	E	e	11 21 07				
		e	27 35				
		M	39 53		0.4		
		F	12 10 --				
12	E	P	09 10 54				
		S	17 34				
		L	29 22				
		M	31 52		11.1		
		F	10 15 --				
13	E	P	20 35 36				
		S	44 14				
		L	58 30				
		M	21 02 10		1.1		
		F	22 05 --				

COLOMBO OBSERVATORY, CEYLON.

June 1947(Contd.)

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. mm.	Δ Km.	REMARKS.
June.							
13	E	e	22 50 00				
		F	23 10 00				
14	E	P	00 03 05				
		S	09 38				
		L	24 40		0.5		
		M	28 02				
		F	50 --				
14	E	e	01 07 --				
		F	20 --				
19	E	P	07 45 --				
		S	53 52				
		L	08 09 07		1.5		P not clear due to overlapping.
		M	12 23				
		F	09 20 --				
21	E	P	22 16 30		0.3		Time marks indistinct.
		M	23 00				
		F	35 --				
23	E	e	03 05 --				
		F	35 --				
23	E	e	06 20 --				
		F	35 --				
26	E	e	18 35 --				
		F	55 --				

COLOMBO OBSERVATORY,
CEYLON.

D. T. E. DASSANAYAKE
Superintendent.

HAIG OBSERVATORY, SURVEY OF INDIA, DE[illegible]

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. On trace in inch.	REMARKS.
April.			April 1947.			
2	N	eP?	05 49 40			6605
		iS?	58 22	24	0.15	
		iL	06 05 04	24	0.11	
		F	55 --			
14	N	e(S)	07 33 29			5411
		e	41 05			
		eL	47 41			
		M_1	50 35	18	0.08	
		F	08 59 --			
May.			May 1947			
6	N	e	20 44 10			All times are doubtful as minute marks failed.
		e	54 58			
		e	21 12 52			
		M_1	19 52	22	0.02	
		M_2	28 22	24	0.02	
		F	22 17 --			
8	N	e	18 48 38			
		i	51 22			
		F	19 10 --			
17	N	e	07 32 53			Indentification and times of phases doubtful due to overlapping of lines.
		e	46 28			
		e	08 01 12			
		eL	11 10			
		M_1	14 57	24	0.06	
		M_2	20 02	21	0.05	
		F	54 --			
27	N	e	06 10 56			-do-
		e	19 08			
		eL	26 34			
		M_1	33 47	18	0.02	
		F	07 11 --			
June.			June 1947.			
12	N	e	09 08 40			
		e	16 37			
		e	29 49			
		M_1	34 00	17	0.02	
		M_2	37 09	25	0.01	
		F	10 06 --			
13	N	e	20 29 25			
		e	37 04			
		e	46 37			
		M_1	52 22	18	0.02	
		M_2	58 42	14	0.02	
		F	21 52 --			
14	N	e	00 01 36			
		M_1	25 45	20	0.01	
		F	46 --			

DEHRA DUN

B. L. GULATEE - PRESIDENT
SURVEY RESEARCH INSTITUTE
SURVEY OF INDIA.

NIZAMIAH OBSERVATORY, HYDERABAD, DECCAN.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
April.			April 1947.				
2	E,N	P	05 49 35			6750	
	E	PcP	50 20				
	E,N	S	57 53				
	E	PS	58 30				
	N	ScS	59 24				
	E	SS	06 02 14				
	N	M	14 57	18	34		
	E	M	15 10	20	37		
2	E,N	P	20 52 59			4600	
	N	S	59 14				
		SS	21 02 29				
	E	L	06 03				
	N	M	09 11	12	12		
	E	M	10 19	14	5		
4	N	ePcP	01 17 18			4420	
		S	21 55				
		SS	25 05				
		L	28 27				
		M	32 04	14	4		
6	N	P	01 13 01			2450	
		S	16 56				
		M	21 06	8	2		
8	N	S	00 15 58				
	E	M	20 41	9	3		
	N	M	21 16	12	6		
8	N	M	10 13 34	15	5		
9	N	eP	21 19 20			2900	
		S	23 49				
	E	M	28 17	11	3		
	N	M	29 11	11	3		
10	N	e	16 15 25				
	E	M	17 08 16	18	4		
	N	M	09 24	20	10		
11	N	eP	00 11 38				
		M	31 37	12	3		
	E	M	32 00	11	3		
11	E	P	14 37 18			4480	
	N	P	37 25				
	E	PP	38 34				
		PcP	39 21				
	N	S	43 24				
	E	S	43 25				
	N	SS	46 29				
		L	49 15				
		M	52 04	20	32		
	E	M	53 37	15	9		
12	N	M	14 35 11	15	2		

NIZAMIAH OBSERVATORY, HYDERABAD, DECCAN.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
April.			April 1947(Contd.)				
14	N	eP	03 19 23			8910	
		eS	29 30				
		L	45 24				
		M	51 48	15	3		
14	N	eP	07 26 08			7310	
	E	P	26 13				
	N	iP	26 15				
		PP	28 38				
		S	35 02				
	E	ScS	36 13				
	N	SS	38 49				
	E	SS	39 06				
	E	L	47 42				
	N	M	51 38	21	54		
	E	M	53 06	18	22		
19	N	M	18 03 16	12	3		
21	N	L	03 47 47				
		M	54 23	15	3		
21	N	eP	20 29 00			5680	
		S	36 18				
		SS	40 05				
		L	45 45				
		M	50 52	15	3		
22	N	eP	05 40 21			4780	
		eS	46 46				
		M	57 52	11	2		
24	N	eP	13 02 27			2100	
		S	05 51				
		M	08 44	9	2		
24	E	e	19 54 18				
		PP	54 38				
		PS	20 04 19				
	N	SS(?)	09 52				
		L	21 10				
		M	28 43	18	11		
	E	M	33 49	16	5		
25	N	M	07 44 46	15	2		
26-28			Time marks absent in the records.				
29	N	M	06 08 04	13	2		
	E	M	08 17	12	2		
May.			May 1947.				
2	E,N	P	02 32 03				
		SKS	42 50				
	N	L	03 01 50				
		M	09 45	17	8		
	E	M	09 48	17	4		

NIZAMIAH OBSERVATORY, HYDERABAD, DECCAN.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
May.				May 1947(Contd.)			
3	E,N	P	09 45 27				
	E	e(S)	53 25				
	N	e	54 01				
		L	10 05 42				
		M	10 40	21	6		
	E	M	11 07	20	4		
4	E,N	S	22 43 26				
	E	M	50 58	9	2		
	N	M	52 29	9	2		
6	N	P	20 42 09			8000	
		S	51 32				
		L	21 05 44				
		M	11 37	20	33		
8	N	P	18 48 48			1910	
		i	51 27				
		S	51 55				
		SS	52 22				
		M	54 34	7	12		
9	N	M	10 13 00	14	2		
10	N	M	00 40 43	15	3		
11	N	P	18 47 20			4290	
		PP	49 01				
		S	53 19				
		M	19 02 25	14	12		
17	N	e	07 21 17				
		P'	25 00				
		PP	25 59				
		SKS	31 31				
		PS	35 13				
		SS	41 45				
		M	08 00 24	20	126		
21	E	M	22 23 09	9	2		
24	E	eP	00 16 27			3280	
	E	eS	21 21				
	N	SS	22 36				
		L	25 27				
	N	M	27 31	12	3		
	E	M	29 16	11	2		
24	N	M	15 26 19	12	3		
25	N	M	23 25 22	16	5		
	E	M	25 55	11	2		
26	N	M	11 36 13	15	2		
27	E	P P	03 43 56			5550	
		S	51 07				
27	E,N	P	06 08 56			6520	
	E	PP	11 31				
	E,N	S	17 01				
	N	PS	17 18				
		SS	20 58				
		L	27 45				
		M	31 46	22	113		
	E	M	31 52	21	57		

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	
May.			May 1947(Contd.)			
27	E,N	P	06 08 56			6520
	E	PP	11 31			
	E,N	S	17 01			
	N	PS	17 18			
		SS	20 58			
		L	27 45			
		M	31 46	22	113	
	E	M	31 52	21	57	
29	N	M	03 57 25	15	2	
30	N	M	14 24 32	14	2	
June.			June 1947.			
1	N	eP	11 27 31			6520
		eS	35 36			
		M	52 32	15	2	
1	N	eP	19 02 10			2740
		S	06 27			
	E	M	10 49	9	3	
	N	M	11 26	10	4	
2	N	eP	06 45 48			2740
		iP	45 52			
	E	S	50 03			
	N	S	50 05			
	E	M	54 34	9	27	
	N	M	55 11	10	36	
2	N	M	13 50 36	15	2	
4	E	M	01 00 21	18	3	
7	N	P	05 10 17			2690
	E	P	10 18			
		S	14 31			
	N	SS	15 14			
		M	19 47	11	4	
	E	M	19 54	11	3	
7	N	P	18 56 11			4930
		S	19 02 46			
		ScS	06 02			
		M	13 53	16	30	
10	E	eP	11 20 55			5170
		S	27 43			
		SS	31 21			
		M	39 47	15	4	
12	N	eP	09 11 17			5480
		iP	11 21			
		PcP	12 47			
		PP	13 18			
		S	18 23			
		i	23 26			
		M	30 32	21	82	

June 1947(Contd.)

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Km.
June.						
13	N	P	20 35 23			6860
		PP	37 28			
		S	43 47			
		ScS	45 08			
		M	21 00 17	20	32	
14	N	M	00 28 40	16	7	
14	E	eP	16 40 43			6810
	E,N	S	49 04			
	N	M	17 08 59	15	2	
16	N	M	00 28 23	17	6	
16	N	M	21 58 46	14	3	
19	E	S	02 33 19			
		M	58 00	12	2	
19	E	P	07 44 59			6960
		PP	47 25			
	N	S	53 26			
	E	S	53 28			
		ScS	54 42			
		SS	57 59			
		L	08 04 50			
		M	11 05	17	6	
	N	M	12 13	17	4	
21	E	M	22 23 18	12	2	
30	N	e	08 07 31			
		e	14 07			
		M	24 55	18	5	

NIZAMIAH OBSERVATORY,
HYDERABAD, DECCAN.

AKBAR ALI,
C U R A T O R.

DATE	COMPT.	PHASE.	G. M. T.	PER.	AMP.	
			h. m. s.	sec.	μ	Km.
April.			April 1947.			
2	E	iP	05 49 28			6645 Moderate.
		(PcP)	50 08			
		PP	51 30			
		iS	57 40			
		PS	57 50			
		ScS(ScS)	59 00			
		SS	06 01 28			
		L	08 51			
		M	13 51	16	20	
		F	11 02 30			
2	E	eP	21 53 28			4855 Slight.
		eS	59 58			
		L	22 06 38			
		M	10 23	16	9	
		F	Light failed.			
7	E	e	22 18 34			Feeble. Very distant.
		F	33 49			
10	E	e	16 34 25)			
		F	18 30 45)			
			)Same seismogram.			
11	E	e	00 18 13)			Feeble.
		F	01 02 10)			
11	E	P?	14 37 23	(Judged from positions of other phases.)		
		PP	39 07			
		eS	44 01			4990 Moderate.
		SS	47 00			
		L	50 54			
		M	54 42	15	11	
		F	15 41 42			
14	E	eP	07 26 44			Moderate, distant.
		PP	29 14			
		eS	35 54			
		SS	40 19			
		L	49 41			
		M	55 29			
		F	11 43 29			
21	E	e	03 31 25			Tremor.
		F	04 27 28			
21	E	e	20 29 27			Tremor.
		F	21 21 29			
24	E	ePP	19 54 48			Moderate.
		iPS	20 04 23			
		?	19 42			
		M	25 45	22	20.6	
		F	22 25 30			
26	E	eP	12 52 49			5080 Slight.
		eS	59 32			
		SS	13 02 37			
		L	08 38			
		M	12 33			

KODAIKANAL OBSERVATORY, KODAI

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
April.			April 1947(Contd.)				
26	E	eP	17 33 39			5080	Slight.
		eS	40 22				
		SS	43 27				
		L	49 28				
		M	53 23				
		F	18 32 31				
27	E	eP	20 50 20			2200	Feeble.
		eS	53 55				
		L	55 37				
		M	57 22				
		F	21 18 10				
May.			May 1947				
3	E	e	09 53 33				Tremor.
		F	10 30 38				
4	E	e	22 43 56				Tremor.
		F	23 17 57				
6	E	iP	20 42 07			8055	Moderate.
		iS	51 33				
		PS	51 58				
		SS	56 06				
		A	21 05 57				
		M	11 52	19	23		
		F	24 37 22				
8	E	iP	18 49 54			2390	Slight.
		iS	53 44				
		L	55 49				
		M	57 29	6	5		
		F	19 30 09				
11	E	eP	18 47 59			3945	Moderate.
		PP	49 14				Probable time
		eS	53 34				correction -1 min.
		L	18 58 41				
		M	19 02 40	12	24		
		F	21 11 05				
17	E	e	07 24 27				Moderate.
		e	34 17				
		L	50 02				
		M	56 15	21	212		
		F	10 24 11				
21	E	e	22 27 36				Tremor.
		F	35 34				
25	E	e	05 42 59				Tremor.
		F	06 05 00				
25	E	e	13 59 00				Tremor.
		F	14 38 40				
26	E	e	11 10 18				Tremor.
		F	49 17				

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Km.	
May.				May 1947(Contd.)			
27	E	iP	06 08 52			6435	Moderate.
		PP	10 56				
		S	16 52				
		SS	20 24				
		L	26 22				
		M	30 30	22	196		
		F	09 52 52				
28	E	e	16 43 10				Tremor.
		F	17 07 08				
29	E	e	02 47 27				Tremor.
		F	03 10 57				
June.				June 1947.			
1	E	e	09 52 40				Tremor.
		F	10 30 10				
1	E	e	19 03 30				
		F	21 00				
2	E	ePcP	06 49 40				
		eSS	53 40				
		e	55 40				
		M	57 20	12	55		
		F	07 48 00				
2	E	e	13 44 20				Tremor.
		F	14 01 --				
7	E	e(S)	05 15 40				
		F	46 00				
7	E	iP	18 56 20			5010	
		eS	19 03 00				
		L	10 20				
		Mn	14 10	30	200		
		F	20 37 --				
10	E	e	11 22 --				
		F	12 25 --				
12	E	iP	09 12 20				Probable time correction -1 min.
		PP	14 20				
		eS	19 19				
		SS	22 10				
		L	26 10				
		M	30 00	22	460		
		Mn	34 20				
		F	12 04 --				
13	E	iP	20 38 00			7165	Probable time correction -2 minutes.
		iS	46 40				
		L	59 00				
		Mn	21 06 38	22	180		
13-14	E	e	23 59 20				Phases not clear.
		e	00 09 00				
		Mn	00 30 00				
		F	02 00 --				

KODAIKANAL OBSERVATORY, KODAIK

June 1947(Contd.)

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. mm	Δ Km.	REMARKS.
June.							
14	E	e	16 49 30				Feeble, very distant.
		F	17 28 --				
15	E	e	14 14 50				
		F	15 15 00				
16	E	e	00 22 30				Feeble.
		F	01 10 --				
16	E	e	21 46 40				
		F	22 15 --				
17	E	e	01 47 50				Tremor.
		F	02 15 --				
19	E	e	02 37 --				Time not reliable. Part of the record lost during change of paper.
		F	03 10 --				
19	E	i	07 45 30				Time not reliable. Part lost while changing the sheet. Clock stopped later.
		i	54 10				

KODAIKANAL OBSERVATORY,
KODAIKANAL.

A. K. DAS
D I R E C T O R.

The following table contains a list of ear voluntary observers from various stations.

Place at which felt.	Date.	G.M.T. of earthquake.		Duration.	Intensity Rossi-Forel Scale.	Number of shocks.	Remar
		Hr.	Mn.	Sec.			
Srinagar	6-4-1947	01	19	5	4	2	
Drosh	9-4-1947	00	45	10	3	2	
Yatung	9-4-1947	02	18	2	2	2	
New Delhi	30-4-1947	19	15	20	4	1	
Delhi City	30-4-1947	19	15	22)	4	2	
Krishnagar	15-5-1947	04	30	17) 3	2	1	
Simla	23-5-1947	15	13	2	3	1	
Rangpur	27-5-1947	19	20	3	4	2	
Bogra	27-5-1947	19	24	1	4	1	
Bandar Abbas	19-6-1947	11	12	4	2	1	
Darjeeling	28-6-1947	11	00	3	2	7	
Gauhati	30-6-1947	03	33	2	2	1	
Gauhati	30-6-1947	14	45	5	2	2	

G. R. TOSHNIWAL,

SEISMOLOGICAL OFFICER,
POONA.

GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT.

SEISMOLOGICAL BULLETIN

July - September 1947.

C O N T E N T S.

PUBLISHED UNDER THE DIRECTION OF

V. V. SOHONI, B.A. (Hons.), M.Sc., F.N.I.,

Director General of Observatories.

INTRODUCTION.

Till the end of 1937, the seismic data from the observatories of the India Meteorological Department were being published annually as Part D of the Annual Summary of the India Weather Review. Since 1938, the data are being published in the present series of the Quarterly Seismological Bulletin. With the kind co-operation of the Surveyor-General of India, the Director of the Nizamiah Observatory, Hyderabad, and of the Superintendent, Colombo Observatory, it has been possible to incorporate in the bulletin, the data of their respective observatories, viz. Dehra Dun, Hyderabad and Colombo. The instrumental seismological data and the non-instrumental voluntary observations are collected and edited at the Meteorological Office, Poona.

TABLE - 1.
List of Seismograph Stations.

Station.	Latitude.	Longitude.	Height above M.S.L.	Lithologic foundation.	Officer-in-charge of Observatory.
New Delhi	28° 35' N.	77° 12' E.	207 meters	Massive Quartzites	Deputy Director General of Observatories, (I. & S.)
Bombay	18° 54' N.	72° 49' E.	6 meters	Deccan Trap	Director.
Calcutta	22° 32' N.	88° 20' E.	(1) 7 meters (2) 6 meters	Alluvium	Director.
Colombo	6° 54' N.	79° 52' E.	7 meters	Beach-Sand resting on gneiss probably decomposed.	Superintendent.
Dehra Dun	30° 19' N.	78° 03' E.	682 meters	Gravel	President, Survey Research Institute, Survey of India.
Hyderabad	17° 26' N.	78° 27' E.	528 meters	Granite	Curator, Nizamiah Observatory.
Kodaikanal	10° 14' N.	77° 28' E.	2343 meters	Rock	Director.

(1) Milne-Shaw. (2) Omori-Ewing.

TABLE - 2.
Instruments and their constants.

Station.	Component.	Type of Instrument.	Mass Kg.	Period sec.	Static magnification.	Damping Ratio.	Remarks.
New Delhi	N	Milne-Shaw	0.47	12	250	20 : 1	1 Jul-23 Aug.
	N	Milne-Shaw	0.47	12	254	15 : 1	24 Aug-16 Sep.
	N	Milne-Shaw	0.47	12	250	20 : 1	16 Sep-30 Sep.
	E	Omori-Ewing	45	30	30		July-Sept.
Bombay	N	Milne-Shaw		12	250	20 : 1	July.
	N	Milne-Shaw		12	250	9 : 1	Aug. & Sept.
	E	Milne-Shaw		12	250	31 : 1	July.
	E	Milne-Shaw		12	350	30 : 1	August.
	E	Milne-Shaw		12	350	14 : 1	September.
Calcutta	N	Omori-Ewing	50	15	32		July-Sept.
	E	Milne-Shaw	0.45	12	250	20 : 1	July-Sept.
	E	Omori-Ewing	50	16	30		July-Sept.
Colombo	E	Milne-Shaw	0.45	12	250	22 : 1	July.
	E	Milne-Shaw	0.45	12	250	20 : 1	Aug. & Sept.
Dehra Dun	N	Omori-	50	-	32		July-Sept.
Hyderabad	N	Milne-Shaw		12	250	20 : 1	July-Sept.
	E	Milne-Shaw		12	250	20 : 1	
Kodaikanal	E	Milne-Shaw	0.45	10	250	20 : 1	

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS
Jul.			July 1947.				
4	N	e	01 51 33				Slight,near
		e	52 13				Presumably of same
		i	52 49				origin as 10d 10h 20m.
		i	53 03				
		F	02 07 00				
7	N	e	17 42 35				Feeble,Near,
		e	43 20				Presumably of same
		F	47 00				origin as 10d 10h 20m.
7	N	e	19 04 37				Slight,Near.
		e	05 13				Presumably of same
		i	05 39				origin as 10d 10 h 20m.
		F	Lost in the succeeding shock.				
7	N	i	19 07 00				Slight.Near.
		F	16 00				Presumably same
							origin as 10d 10h 20m
7	N	e	20 14 48				Slight,near.
		e	15 45				Felt at Srinagar.
		i	16 25				Presumably foreshock
		F	21 00				of 10d 10h 20m.
7	N	iP	22 18 09			510	Slight.
		iS	19 03				Presumably foreshock
		F	27 00				of 10d 10h 20m.
9	N	e	18 14 34				Slight,distant.
		M	23 09				
		F	Lost in microseisms.				
10	N	P ↑	05 01 15			580	Slight. Time may be
	N	iP*	01 25				less by one or two
	E	eP*	01 27				seconds.
	E	iS	02 14				Felt at Srinagar and
	N	S ↑	02 15				Dalhousi.
	N	iS*	02 30				
	E	i	02 37				
	E	F	11 00				
	N	F	14 00				
10	N	e	05 33 45				Felt at Srinagar.
		e	34 38				
10	N	eP	09 06 45			590	Slight. Felt at
	N	P*	06 56				Dalhousi and Srinagar.
	N,E	eS	07 46				
	E	F	13 00				
	N	F	21 00				
10	N	iP	10 20 29			580	Great.Felt locally.
	E	P*	20 38				Direction of first
	N	P*	20 39				motion South. Secondary
	E	iS	21 25				waves dim in M.S.
	E	S*	21 38				seismogram.
	E	S	10 21 48				Felt over large areas
	E	F	11 12 00				of Kashmir,North and
	N	F	11 42 00				East. Punjab,Simla
							Kumaon Hills and West
							U.P.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS
			July 1947(Contd.)				
Jul.							
10	N	e	10 38 30				Felt at Dalhousi, Srinagar, Sialkot, Jhelum and Gulmarg.
		e	39 25				
10	N	e	11 23 56				Felt at Jhelum, Aftershock of 10d 10h 20m.
		e	24 40				
10	N	e	11 42 --				Aftershock of 10d 10h 20m.
10	N	e	12 03 40				Aftershock of 10d 10h 20m.
		e	04 46				
10	N	iP	12 25 57			420	Slight.Direction of first motion South.
	N	P*	26 06				Felt at Simla, Dehra Dun,Srinagar, Dalhousi & Mussori.
	E	P*	26 07				
	N,E	iS	26 41				
	E	i	26 59				
	N	F	42 00				
	E	F	45 00				
10	N	eP	13 30 01			580	Slight Aftershock of 10d 10h 20m.
	E	eS	31 00				
	N	eS	31 01				
	N	F	39 00				
	E	F	45 00				
10	N	iP	16 46 41			580	Slight.Aftershock of 10d 10h 20m.
		iP*	46 51				
	N	i	46 56				Felt at Srinagar, Simla,Ambala,Murree, Gulmarg and Dalhousi.
	E	e	46 57				
	E	e	47 30				
	N	e	47 38				
	E	e	47 49				
	N	e	47 56				
	E	F	17 08 00				
	N	F	34 00				
10	N	e	17 55 36				Felt at Srinagar. Aftershock of 10d 10h 20m.
		e	56 30				
10	N	e	18 22 36				Slight,near. Felt at Dalhousi.
	N	i	23 28				
	E	e	23 34				
	N	i	24 06				
	E	e	24 07				
	N	i	24 18				
	E	e	24 26				
	N	i	24 30				
	E	F	18 34 00				
	N	F	45 00				
10	N	e	20 51 07				Felt at Dalhousi Aftershock of 10d 10h 20m.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
Jul.			July 1947(Contd.)				
12	N	iP	02 08 48			6370	Slight.
		iS	16 45				
		M	30 36				
		F	03 11 00				
12	N	e	08 29 45				Felt at Dalhousie.
		e	30 30				Aftershock of 10d 10h 20m.
12	N	e	08 51 52				Presumably aftershock
		e	52 32				of 10d 10h. 20m.
12	N	e	13 36 22				Slight.Very distant.
		F	15 09 00				Surface waves.
13	N	e	15 03 19				Slight.Distant.
		F	28 00				Surface waves.
16	N	e	19 40 23				Slight,Distant.
		e	49 06				
		F	20 15 00				
23	N	e	17 34 00				Slight.Distant.
		i	39 12				
		i	40 46				
		i	41 54				
		i	43 47				
		M	18 13 17				
		F	19 53 00				
24	N	e	12 34 59				Slight.Very distant.
		i	41 25				
		i	42 22				
		M	13 14 14				
		F	14 56 00				
26	N	e	14 45 58				Slight.Distant.
		i	15 01 07				
		F	27 00				
26	N	e	23 54 01				Slight.Distant.
27		F	00 32 00				
29	E	i	13 46 43			1410	Great.
	N,E	iP	46 51				
	N	PP	46 56				
	N,E	PPP	47 03				
	N,E	iS	49 12				
	E	SSS	49 34				
	N	SSS	49 36				
	E	i	49 44				
	E	L	49 50				
	N	L	49 52				
	N	M	50 54				
	E	M	51 04				
	N	Mn	51 27				Maximum motion
		to	14 03 00				restricted due to side stops for about 11 minutes.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMA
			July 1947(Contd.)				
Jul.							
29	E	Mn	13 52 30	3	>1643		Motion of the recording pen restricted due to side stops for about 16 minutes. Slight,Near.
Contd.	E	F	17 42 00				
	N	F	18 10 00				
30	N	i	18 57 09				
	N	i	57 15				
	E	e	57 49				
	N	e	57 50				
	E	i	58 07				
	N	i	58 09				
	N	i	58 19				
	E	F	19 07 00				
	N	F	28 00				
31	N	eP	10 04 33			1160	Slight.
		eS	06 30				
		M	08 07				
		F	30 00				
			August 1947.				
Aug.							
1	N	e	16 48 41				Slight.Surface waves.
		F	17 15 00				
2	N	e	03 49 02				Slight.Surface waves.
		F	04 06 00				
4	N	e	18 07 17				Slight.Surface waves.
		F	30 00				
5	E	eP	14 27 14			1390	Moderate.
		iS	29 33				
		M	31 06				
		Mn	33 18	16	>1450		
		to	34 34				
		F	16 31 00				
11	N	e	14 44 44				Slight.Probably near.
		F	53 00				
13	N	e	19 07 23				Feeble.Near.
		e	08 34				
		i	08 58				
		F	14 00				
19	N	iP	20 08 09			570	Moderate.Direction of first motion North.
	E	iP	08 10				Direction of first motion East.
	N,E	P*	08 18				
	N	P	08 29				
	E	P	08 30				
	N	iS	09 08				
	E	iS	09 09				
	N	S*	09 19				
	E	S*	09 20				
	N	S	09 39				
	E	F	28 00				
	N	F	46 00				

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
Aug.							
			August 1947(Contd.)				
20	N	i	18 42 23				
		i	42 32				Slight.Near.
		i	43 14				
		F	54 00				
23	N	iP	04 38 15			1780	Slight.
		eS	41 10				
		i	41 25				
		L	42 27				
		M	43 41				
		F	Lost due to disturbances in the room.				
24	N	iP	11 40 13				
		iS	42 44			1520	Moderate.Direction of first motion South.
		M	46 24				
		Mn	50 28	9	98		
		F	13 02 00				
27	N	e	13 57 34				
		i	04 33				Slight.
		i	07 13				
		i	07 59				
		M	14 35 27				
		F	16 29 00				
27	N	e	21 33 46				
		e	35 31				Slight.
		i	36 21				
		F	53 00				
28	N	iP	07 00 36				
	N	i	00 59			6720	Slight.
	N	PcP	01 15				
	N	eS	08 58				
	N	PS	09 19				
	N	i	10 22				
	N	ScS	10 44				
	N	SS	13 16				
	N	i	07 14 23				
	N	i	16 24				
	N	M	24 55				
	E	M	25 08				
	N	F	08 26 00				
28	N	iP	14 39 56				
		i	40 08			7020	Slight.
		PcP	40 34				
		i	43 56				
		eS	48 28				
		PS	48 48				
		M	15 04 23				
		F	16 00 00				
29	N	eP	19 22 16				
		eS	24 06			1090	Weak
		F	21 45 00				

THE OBSERVATORY, NEW DELHI.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
Aug.			August 1947(Contd.)				
30	N	iP	22 30 00			4990	Slight.
		i	31 58				
		iS	36 38				
		PS	36 47				
		SS	39 41				
		ScS	40 13				
		F	23 49 00				
Sep.			September 1947.				
2	N	e	14 51 55				Slight.Distant.
		i	58 22				
		F	59 00				
3	N	i	19 20 24				Slight.Distant.
		e	33 31				
		e	48 11				Surface waves.
		F	20 36 00				
5	N	e	17 51 48				Slight.Near.
		i	52 35				
		F	58 00				
9	N	i	23 58 01				Slight.Distant. Beginning of the record lost while changing paper.
		i	58 19				
		i	59 22				
10		F	01 04 00				
11	N	eP	07 27 11			1750	Slight.
		eS	30 03				
		M	32 14				
		F	08 01 00				
11	N	eS	10 38 07				Feeble.From the origin of the preceeding shock.
		i	38 26				
11	N	M	10 40 26				
		F	11 10 00				
12	N	e	20 57 07				Slight.Near.
		F	21 10 00				
15	N	e	18 05 11				Slight.Near.
		i	06 55				
		F	16 00				
20	N	eP	18 59 05			1080	Slight.
	NNE	iS	19 00 54				
	E	iS	00 57				
	N	F	19 00				
23	N	iP	12 32 05				Great.Direction of first motion North.
	E	eP	32 12				
	N	PP	32 19				
	NNE	iS	35 20				
	E	iS	35 25				
	N	i	37 19				
	E	M	37 32				
	N	M	37 52				

THE OBSERVATORY, NEW DELHI.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
			September 1947(Contd.)				
Sep. 23 Contd.	N	Mn_1	12 38 20	20	>939		
	E	Mn_1	39 00	19	1167		
	N	Mn_2	44 13	15	> 586		
	E	Mn_2	12 45 21	10	1440		
	E	F	13 50 00				
	N	F	16 12 00				
26	N	iP	03 08 33			1930	Slight.
	N	iS	11 42				
	E	e	11 48				
	N	SS	12 04				
	N	L	13 15				
	E	i	13 52				
	N	M	14 10				
	E	F	43 00				
	N	F	49 00				
26	E	eP	16 09 37			4280	Moderate.
	N	eP	09 41				
	N	iS	15 37				
	E	iS	15 38				
	N	i	16 17				
	E	i	16 19				
	N	i	16 38				
	N	SSS	18 42				
	E	SSS	18 43				
	N	i	19 21				
	N	ScS	19 54				
	N	M	23 57				
	E	F	16 52 00				
	N	F	18 16 00				
27	N	e	08 25 11				Slight.
		i	25 41				
		e	27 11				
		F	36 00				Surface waves.
29	N	e	19 44 20				Slight.Surface waves.
		F	20 44 00				
30	N	e	00 41 30				Slight.Surface waves.
		F	01 16 00				

THE OBSERVATORY,)
NEW DELHI.)

S. G. ROY,
Deputy Director General of Observatories
(Instruments & Supplies).

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
			July 1947.				
Jul. 9	N,E	e	18 05 53				
	E	M	29 54	14	2		
	E	F	59 -				
	N	F	Mixed up with microseisms.				
10	N,E	e(P)	05 06 00				Slight. Presumably foreshock of one at 10h 19m.
	N,E	i	07 23				
	N	M	09 34	5	3		
	E	F	50 -				
	N	F	54 -				
10	N,E	e	09 05 00				Fore shock of one at 10h 19m
	N	M	15 03	7	3		
	N,E	F	52 -				
10	N,E	eP	10 22 41			1570	Moderate. 33°.2N, 75°.3E about 15 miles West of Bhadarwah in Jammu Province. According to press report almost all houses cracked and a few collapsed at Bhadarwah. Felt over Kashmir, part of N.W.F. Province, Punjab, U.P. Simla, Kumaon hills and felt mildly upto Delhi.
	N,E	iS	25 17				
	N,E	L	26 08				
	E	M	28 15	9	40		
	N	M	28 23	8	90		
	N,E	F	12 16 -				

Some 9 fore shocks and 13 after shocks were recorded by seismographs at Delhi.

As many as 73 aftershocks were reported felt, at Bhadarwah during the following 3 days and some 6 foreshocks from 4th of July.

0 = 10h 19m 23s. U.S.S.R. gives 34°.0N, 76°.5E
B.C.I.S. gives 0 = 10h 19.4m

10	N,E	e	12 30 38				Slight. Aftershock of one at 10h 19m
	N,E	e	31 45				
	E	M	33 32	7	4		
	N	M	33 57	8	8		
	E	F	13 11 -				
	N	F	14 -				
10	N,E	eP	16 50 29				Moderate Aftershock of 10h 19m.
	N,E	eS	52 53				
	E	M	54 22	8	6		
	N	M	54 42	8	13		
	N	F	17 37 -				
	E	F	47 -				
10	N,E	e	18 28 05				Slight. Aftershock of 10h 19m.
	N,E	e	29 10				
	N	M	31 45	6	6		
	E	F	19 01 -				
	N	F	05 -				

COLABA OBSERVATORY, BOMBAY.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMAKRS.
Jul.			July 1947(Contd.)				
12	E	e	02 18 -				Surface Waves.
	E	F	03 17 -				
	N	Microseisms throughout the record.					
12	E	e	12 55 18				
	E	F	15 05 -				
	N	Microseisms throughout the record.					
16	E	e	19 34 -				
	E	F	Mixed up with microseisms.				
	N	Pronounced Microseisms throughout the record.					
17	E	e	04 53 -				
	E	F	06 01 -				
	N	Pronounced microseisms throughout the record.					
20	N,E	e	10 26 46				
	E	F	12 18 -				
	N	F	Mixed up with microseisms.				
21	E	e	10 13 45				Feeble.
	E	F	11 00 -				
	N	Microseisms throughout the record.					
23	N,E	e	17 32 45				
	E	M	18 13 54	19	5		
	N,E	F	Loss of record.				
24	E	e	09 59 11				
	E	F	11 45 -				
	N	Microseisms throughout the record.					
24	E	eP	12 30 58			9555	Moderate. P movements
	E	ePP	34 00				in N compt.not identi-
	N,E	iS	41 35				fiable due to micro-
	E	L	13 02 11				seisms.
	N	L	02 21				18°.5S, 170°E Novelles
	E	M	20 19	21	9		Hebrides.
	E	F	15 40 -				H=12h 16.9m(U.S.C.G.S.)
	N	F	Mixed up with microseisms.				19°.5S, 170°.3E,
26	E	e	12 26 -				H=12h 16m 49s (B.C.I.S.)
	E	F	13 00				Surface Waves.
26-27	E	e	23 22 13				Feeble.
	E	F	00 50 -				
	N	Record full of microseisms.					
29	N,E	e	06 33 21				Slight.
	E	F	07 41 -				
	N	F	Mixed up with microseisms.				

COLABA OBSERVATORY,BOMBAY.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
Jul.			July 1947(Contd.)				
29	N	iP	13 48 10				Very great.
	E	iP	48 12				28°.5N, 94°.0E in
	E	iS	52 01				Tibet,about 100 miles
	N	S	(Not identifiable due to congestion of lines.)				North-West of Dibrugarh.
			This is based on Indian and Russian data and those from College,Alaska,Brisbane,Riverview,Wellington and Tonnana narivo. 0 = 13h 43m 24s. Water overflowed river banks at Jorhat near Dibrugarh. Cracks in walls at Dibrugarh,Jorhat Tezpur and failure of electric supply at Gauhati. Felt all over Assam, Bengal upto Calcutta and in Bihar upto Purnea. B.C.I.S.gives - 28°.8N. 93°.5E. H= 13h 43m 20s. U.S.C.G.S. gives - 29°.5N, 97°E H = 13h 43.5m U.S.S.R. gives - 30°N, 95°E				
	N,E	L	Not identifiable				
	N	M		11	93.0 m.m.	>475	
	E	M	14 05 29	11	103.0 m.m.	>375	
	E	M	06 44	12			
	E	F	19 54 -				
	N	F	Mixed up with microseisms.				
30	N,E	eP?	18 59 11			2100?	Slight.
	N,E	eS	19 02 35				
	N	M	05 24	7	8		
	E	F	19 59 -				
	N	F	Mixed up with microseisms.				
31	N,E	eP	10 03 36				Slight.
	N,E	eS	07 06				
	E	M	09 18	15	8		
	E	F	55 -				
	N	F	Mixed up with microseisms.				

COLABA OBSERVATORY, BOM

DATE	COMPT.	PHASE.	G. M. T.	PER.	AMP.	△	REMARKS.
			h. m. s.	sec.	μ	Km.	
Aug.			August 1947.				
1	E	e	05 14 -				Feeble. Surface Waves.
	E	F	50 -				
1	N,E	e	16 38 00				Feeble
	N	F	17 18 -				
	E	F	25 -				
4	N,E	e	17 54 19				Feeble.
	E	F	18 31 -				
	N	F	45 -				
5	N,E	iP	14 26 42			1165	Great, S not identifiable.
	E	iP*	27 09				25°.3N, 63°.0E.
		P	27 30				Mekran coast about 25 miles West-North-West of Pasni.
	E	iS*	28 24				O=14h 24m 14s.
	E	iS	29 57				Felt at Pasni. Water gushed out of cracks at several places, old buildings damaged and land slips from surrounding hills.
	E	L_Q	30 42				
	E	L_R	31 12				
			B.C.I.S. gives - 27°N, 65°E., O = 14h 24m 14s.				
			U.S.C.G.S. gives - 25°N., 62°E., O=14h 24m .2				
			J.S.A. gives - 24°.2N, 61°.2E, O=14h 24m 14s.				
5	N	M	14 35.28				
	E	M	36 23	12	302		
	E	F	19 00 -				
	N	F	Mixed up with Microseism.				
6	N,E	iP	06 05 30				Feeble.
	E	F	07 12 -				
	N	F	Mixed up with Microseism.				
7	N,E	e	01 01 14				
	N,E	F	03 24 -				
7	N,E	iP	03 09 18			2310	Slight.
	N,E	eS	13 02				Felt at Port Blair.
	N,E	F	07 11 -				
15	E	e	04 18 44				Feeble.
	E	F	05 25 -				
	N	Record full of Microseisms.					
15	E	e	09 21 00				Feeble.
	E	F	10 21 -				
	N	Record full of Microseisms.					
16	N,E	e	06 01 54				Slight. Phases indefinite due microseisms
	N,E	e	03 59				Gulf of Aden(?)
	E	L	04 59				(B.C.I.S.)
	N	L	05 05				
	E	M	07 23	8			
	N	M	07 39	8			
	E	F	07 45 -				
	N	F	Loss of Record.				

COLOBA OBSERVATORY, BOMBAY.

DATE	COMPT.	PHASES.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
			August 1947(Contd.)				
Aug.							
17	E	eP	09 18 00				Feeble.
17	E	F	10 09 -				
	N	Loss of Record.					
19	E	eP	20 10 23			1580	Moderate.
	N	iP	10 27				31°.6N.,80°.2E.
	N,E	eS	12 59				near Kailas in the
	N,E	L	14 45				Himalayas.
	N	M	15 55				0=20h 07m 10s.
	E	M	17 02	7	22		
	E	F	21 57 -				
	N	F	Mixed up with Microseisms.				
22	E	e	02 43 48				
	E	F	04 31 -				
	N	Record lost due to congestion of lines.					
23	N	eP	04 39 02			2390	24°.0N.,94°.7E
	N	eS	42 52				near the border of
	N	eS	42 52				Manipur and Burma.
	N	M	48 32				0=04h 34m 22s.
	N	F	05 34 -				
	E	Loss of Record.					
23	N,E	e	14 06 52				Presumably after-
	N,E	F	45 -				shock of 04h 39m.
24	N,E	iP	11 42 20			2645	Moderate.
	N,E	eS	11 46 30				42°.5N.,81°.7E North
	E	L	49 06				Sinkiang Province in
	N	L	49 25				China.
	E	M	53 36	8	11		0=11h 37m 10s.
	N	M	54 37				B.C.I.S.gives-
	E	F	13 25 -				43°N, 82°E
	N	F	34 -				0=11h 37m
26	E	e	04 52 -				Surface Waves.
	E	F	05 42 -				
	N	Microseisms throughout the Record.					
27	N,E	eP'	13 56 15			13045	Moderate.
	N,E	PS	14 07 15				42°S,179°E
	E	L?	25 22				H=13h 37.6m(U.S.C.G.S)
	N	L	26 29				39°.7S, 179°.8E
	E	M	42 52	20	26		0=13h 37.8m
	N	M	43 41				(Wellington)
	E	F	17 59 -				37°.8S.,179°.1E
	N	F	Mixed up with Microseisms.				H=13h 37m 48s.
							(J.S.A.)
							Felt over most of the North Island, New Zealand.
27	E	e	21 31 51				Feeble.
	N	e	38 15				
	E	F	22 02 -				
	N	F	Mixed up with Microseisms.				

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
Aug.			**August 1947(Contd.)**				
28	N,E	iP	07 01 39			7910	Moderate.
	N,E	eS	10 57				48°N, 157°E(C.M.O.)
	E	SS	16 01				49°N, 155°E
	N	SS	16 05				0=06h 50.3m(U.S.C.G.S)
	N	L	21 20				51°.3N,156°.6E
	E	L	21 50				H=06h 50m 36s (J.S.A.)
	N	M	30 55				49°.6N,154°.9E
	E	M	35 57	17	22		0=06h 50m 18s(B.C.I.S.)
	E	F	09 43 -				
	N	F	48 -				
28	E	eP	14 40 58			7965	Moderate.
	N	eP	41 00				52°N,159°E.
	E	eS	50 19				0=14h 29.4m(C.M.O.)
	E	L	15 02 20				52°N,159°E
	N	M	16 02				0=14h 29.4m(U.S.C.G.S)
	E	M	16 04	19	24		54°.0N,160°.1E,
	E	F	17 19 -				H=14h 29m 43s(J.S.A.)
	N	F	Lo st in Microseisms.				52°.8N,159°.5E,
							0=14h 29m 27s
							(B.C.I.S.)
28	E	e	20 07 03				Feeble,Distant.
	E	F	21 57 -				
	N		Microseisms throughout the Record.				
29	N,E	e	21 23 05				
	E	F	59 -				
	N	F	Lost in Microseisms.				
30/31	N,E	iP	22 30 07			5245	Slight.
	N,E	iS	36 59				36°.0N,23°.6E.,
	E	F	00 18 -				H=22h 21m 43s.
	N	F	Mixed up with Microseisms.				h=50 ± Km(J.S.A.)
Sep.			**September 1947.**				
2	N,E	e	02 52 00				Slight.Distant.
	E	i	57 24				
	N,E	F	Mixed up with Microseisms.				
3	E	e	19 19 04				Slight.Distant.
	E	F	Lost in Microseisms.				
	N	F	Loss of Record.				
4	E	e	01 23 -				Surface Waves.
	N	e	55 -				
	E	F	03 08 -				
	N	F	Lost in Microseisms.				
9-10	N,E	eP	23 53 06			2635	Moderate.
	N,E	iS	57 15				Probable epicentral
	N	L	59 29				region 31°N,96°E
	E	L	59 37				in Tibet.
	E	M	00 02 24	10	12		0=23h 47.9m
	N	M	02 49				
	N,E	F	01 34 -				

COLABA OBSERVATORY, BOMBAY.

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
			September 1947(Contd.)				
Sep.							
11	N,E	eP	07 28 08			2655	Slight. Probable epicentral region 31°N, 96°E Tibet. O=07h 23.0m
	N,E	eS	32 19				
	N	M	36 00				
	E	M	37 36		3		
	E	F	08 25 -				
	N	F	30 -				
11	N,E	eP	10 36 35				Feeble. Presumably aftershock of preceding one.
	N,E	e	40 18				
	N	F	11 25 -				
	E	F	35 -				
11	E	e	20 05 -				Surface Waves.
	E	F	21 01 -				
	N	Microseisms throughout Record.					
15	N,E	e	19 25 -				Surface Waves.
	N,E	F	20 07 -				
17	N,E	e	18 11 -				Surface Waves.
	E	F	19 22 -				
	N	F	29 -				
20	N,E	e	18 56 -				Feeble tremors.
	N,E	F	19 35 -				
23	N,E	iP	12 32 42			2150	Moderate. 34°.0N, 58°.6E Iran. O=12h 28m 15s B.C.I.S. gives - 33°.5N, 59°.0E H=12h 28m 08s. J.S.A. gives - 34°.1N, 57°.6E, H=12h 28m 22s. Destructive in Iran. (B.C.I.S.)
		iPP	33 05				
		iS	36 17				
		L_Q	36 23				
		SS	36 51				
		SSS	37 07				
		L_R	37 59				
	E	M	39 10	12		227	
	N	M	39 33				
25/26	N	eP)	23 40 54			6190	Slight. Epc. 3°N, 127°.5E Pacific O=23h 31.3m.
	E	iP)					
	N	eS)	48 41				
	E	iS)					
	E	iSS	52 39				
	N.	L	56 56				
	E	L	57 03				
	E	M	00 03 17	24		18	
	N,E	F	Mixed up with next shock.				
26	N	e	01 10 40				Slight.
	E	i	10 56				
		M	16 31	16		5	
		F	02 51 -				
	N	F	Mixed up with Microseisms.				

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
Sep.			September 1947(Contd.)				
26	N,E	iP	03 09 03			2310	Moderate. Aftershock of 12h 28m of 23rd.
		iS	12 47				
	E	L	14 27				
	N	L?	16 03				
		M	18 39				
	E	M	19 06	11	17		
	N	F	04 15 -				
	E	F	43 -				
26	N	eP)	16 10 18			5090	Moderate.Epc.24°.5N, 122°.3E, h=100 km, H=16h 01m 55s. (P.C.I.S.) 26°N,126°E, h=200 km. H=16h 02.3m(U.S.C.G.S.) 21°.7N,122°.4E h=150 km H=16h 01m 52s. (J.S.A.)
	E	iP)					
	E	iPP	12 11				
	N,E	iS	17 02				
	N	L	20 02				
	E	L	24 27				
	N	M	29 43				
	E	M	32 46	14	24		
	N,E	F	Mixed up with Microseisms.				
27	N,E	e	08 22 -				Feeble tremors. Times approximate,as time marks are absent
		F	38 -				
28	N,E	e	03 53 -				Feeble tremors.
	E	F	04 59				
	N	F	Not identifiable due to congestion of lines.				
29	N	e	19 28 41				Feeble.
	E	e	28 56				
		F	20 51 -				
	N	F	53 -				
30	N,E	e	00 21 26				Feeble.
	E	F	01 37				
	N	F	Lost while changing chart.				

COLABA OBSERVATORY,)
BOMBAY.)

S. K. CHAKRABARTY,
Director.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	
Jul.			July 1947				
10	E	e	10 23 51				Slight,near.
		e	25 51				
		F	Lost in microseism.				
10	E	e	12 31 31				Slight,near.
		e	32 51				
		F	Lost in microseism.				
10	E	e	16 51 45				Slight,near.
		e	53 45				
		F	Lost in microseism.				
10	E	e	18 28 43				Slight,near.
		e	30 43				
		F	Lost in microseism.				
24	E	eP	12 30 05			7790	Slight.Deep focus.
		iS?	40 20				
		F	15 13				
29	E	iP	13 44 58			989	Great.First movement East.
		i(S)	46 39				
		F	14 53				
30	E	e	19 03 34				Slight,near.
		i	04 24				
		F	Lost in microseism				
Aug.			August 1947.				
5	E	eP	14 29 21			2600	Moderate.
		iS	33 35				
		iSS	34 31				
		L	35 47				
		M	37 56				
		F	15 11				
17	E	e	09 18 23				Slight,near.
		e	20 48				
		Mn	26 36				
		F	Lost in microseism.				
19	E	e(S)	20 12 00				Slight.
		i	13 31				
		i	14 02				
		F	20 29				
23	E	eP	04 35 33				Moderate.
		i(S)	37 13				
		F	Lost in congestion.				
23	E	eP	14 04 56			978	Slight,possibly an after shock of previous earthquake.
		i(S)	06 36				
		F	Lost in microseism.				

ALIPORE OBSERVATORY, CALCUTTA.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
Aug.			August 1947(Contd.)				
27	E	e	13 59 03				Moderate.
		eSKS	14 01 16				
		i	05 41				
		iSS	10 19				
		L	26 48				
		M	35 53				
		F	Lost in microseism				
27	E	e	21 30 01				Slight, near.
		i	30 59				
		i	32 53				
		F	Lost in microseism.				
28	E	eP	07 00 27			6680	Slight.
		i(S)	08 47				
		M	23 32				
		Mn	26 57				
		F	Lost in microseism.				
28	E	e	14 55 16				Slight, distant.
		e	15 04 06				
		Mn	09 06				
		F	Lost in microseism.				
29	E	e	21 29 31				Tremor.
		e	31 43				
		F	Lost in microseism.				
30	E	eP?	22 31 20				Slight, distant.
		iS?	38 20				
		F	Lost in microseism.				
Sept.			September 1947.				
3	E	e	19 14 36				Slight, distant.
		e	18 24				
		F	Lost in microseism.				
9	E	eP	23 50 06			1090	Moderate.
		iP*	50 40				
		iP	51 04				
		iS	51 59				
		iS*	52 31				
		iS	53 08				
10		F	00 51 --				
11	E	eP	07 25 12			1520	Slight.
		iS	27 54				
		iSS	28 18				
		F	Lost in congestion.				
11	E	eP	10 33 30			1900	Slight.
		iS	36 47				
		iSS	37 19				
		F	Lost in microseism.				

ALIPORE OBSERVATORY, CALCUTTA.

DATE	COMPT.	PHASE.	G. M. T.	PER.	AMP.	Δ	REMARKS.
			h. m. s.	sec.	μ	Km.	
Sept.			September 1947(Contd.)				
12	E	e	21 02 23				Tremor.
		F	21 15				
13	E	e	23 58 40				Tremor.
14		F	00 14				
15	E	e	19 36 36				
		F	Lost in microseism.				
20	E	e	19 05 25				Slight, near.
		i	08 07				
		F	Lost in microseism.				
23	E	eP	12 34 00				Great. Epc. in Iran.
		iS(?)	39 28				
		iSS	41 13				
		F	Lost in microseism.				
25	E	eP	23 39 23			3990	Moderate. Time correction -1 Min.?
		eS	45 10				
		iSS	47 16				
		L	49 57				
		F	Lost in microseism.				
26	E	eP	03 11 48			2690	Moderate.
		iS	16 09				
		iSS	17 09				
		L	18 15				
		M	20 36				
		F	Lost while changing chart.				
26	E	iP	16 08 18			3355	Great, First movement West.
		iS	13 25				
		iSS	14 56				
		F	Lost in microseism.				

METEOROLOGICAL OFFICE,
ALIPORE, CALCUTTA.

A. K. ROY,
Director.

COLOMBO OBSERVATORY,C[illegible]

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. m.m.	Km.	
Jul.				July 1947.			
10	E	P	10 25 20				
		S	10 29 08				
		M	10 33 35		4.0		
10	E	P	16 56 22				
		M	17 01 02		0.5		
24	E	P	12 28 59				
		S	12 40 37				
		M	13 11 19		0.3		
29	E	P	13 48 48				
		M	14 05 --		>40.8		Time of M very approximate. Amplitude big and trace faint.
Aug.				August 1947.			
5	E	P	14 29 25				
		SS(?)	14 34 -				
		M	14 39 -		70.0		
19	E	P	20 16 51				
		M	20 24 12		0.7		
24	E	S	11 49 06				
		L	11 56 10				
		M	11 57 02		0.5		
27	E	e	13 53 48				
		S	14 02 20				
		L	14 28 56				
		M	14 32 21		0.5		
30	E	P	22 31 35				
		S	22 39 35				
		M	23 01 --		0.1		
Sep.				September 1947.			
9/10	E	P	23 53 21				
		S	23 57 47				
		L	00 02 01				
		M	00 04 33		0.1		
23	E	P	12 34 52				
		S	12 40 07				
		L	12 48 15				
		M	12 54 40		29.0		
25/26	E	P	23 39 46				
		S	23 46 40				
		M	00 03 48		0.6		

COLOMBO OBSERVATORY,CEYLON.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. m.m.	Δ Km.	REMARKS.
Sep.			September 1947(Contd.)				
26	E	P	01 11 58				
		M	01 20 00		0.2		
26	E	S	03 16 36				
		S?	03 20 45				
		L	03 24 36				
		M	03 26 05		1.4		
26	E	P	16 10 06				
		L	16 16 39				
		M	16 17 01		7.0		

COLOMBO OBSERVATORY,)
CEYLON.)

D. T. E. DASSANAYAKE,
Superintendent.

HAIG OBSERVATORY, SURVEY OF INDIA, DEHRA DUN.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. mms.	Δ Km.	REMARKS.
Jul.			July 1947.				
10	N	iP	10 21 37			263	Direction of 1st motion North. Felt in Jammu. Also felt locally.
		iS	22 07				
		M_1	22 32	2	C.25		
		F	41 --				
10	N	iP	12 26 27			263	Direction of 1st motion North. Felt in Jammu. Also felt locally.
		iS	27 02				
		M_1	27 32	2	0.02		
		F	12 36				
10	N	iP	16 46 58			263	Direction of 1st motion. North Felt in Jammu.
		iS	47 28				
		M_1	48 48	2	0.01		
		F	16 59				
10	N	eP	18 24 25			263	
		eS	25 02				
		M_1	25 20	2	0.01		
		F	18 28				
29	N	eP	13 46 22			1500	Felt in Kashmir.
		iS	47 15				
		iS	48 30				
		eL	50 28				
		M_1	52 40	10	2.20+		+ Hitting stops.
		M_2	55 10	14	2.26+		
		F	16 32				
Aug.			August 1947.				
5	N	eP	14 25 10?				Absolute time indefinite.
		e	27 40				
		M_1	32 40	22	1.90		
		F	16 28				
19	N	eP	20 10 43				
		i	11 17				
		M_1	11 57	10	0.11		
		F	20 41				
24	N	e	11 40 16				
		e	44 12				
		e	45 48				
		M_1	48 00	8	0.12		
		F	12 14				
27	N	e	14 37 00?				
		e	42 36				
		M_1	49 50	20	0.01		
		F	15 11				
28	N	e	07 16 00				
		M_1	26 00				
		F	07 51				

HAIG OBSERVATORY, SURVEY OF INDIA, DEHRA DUN.

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ. ins.	Δ Km.	REMARKS.
Sep.							
			September 1947.				
9,10	N	e	23 54 13				
		e	56 25				
		F	00 17				
23	N	eP(?)	12 30 38				
		e	34 18				
		e	36 10				
		M_1	39 00	18	1.10		
		M_2	44 55	21	1.10		
		F	13 51				
26	N	e	03 10 08				
		eL	14 06				
		M_1	15 38	12	0.09		
		F	03 37				
26	N	e	16 08 50				
		e	11 52				
		e	16 23	16	0.09		
		eL	22 06	18	0.05		
		M_1	26 06	18	0.06		
		F	17 21				

DEHRA DUN.

B. L. GULATEE,
President,
Survey Research Institute,
Survey of India.

NIZAMIAH OBSERVATORY, BEGUMPET
HYDERABAD, DECCAN.

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
1947							
July			July 1947.				
10	E	S	10 25 40				
	E	M	27 43	7	73		
10	E	S	12 30 52				
	E	M	32 55	6	12		
10	E	S	16 51 39				
	E	M	53 40	12	15		
10	E	M	18 30 16	6	5		
16	N	M	19 50 50	13	4		
20	N	M	10 42 27	15	5		
21	N	S	10 12 03				
	N	M	30 27	15	4		
23	N	ePP	17 32 58				
	N	SKS	38 50				
	N	PS	42 39				
	N	M	18 13 13	17	6		
24	N	M	09 44 34	15	3		
24	N	PP	12 34 33				
	E,N	SKS	41 05				
	N	M	13 10 05	20	11		
29	E,N	P	13 47 38			1850	
	N	S	50 40				
	E	S	50 45				
	N	M	52 35	8	272		
30	E	S	19 03 32				
	N	M	05 32	10	6		
	E	M	06 15	9	5		
31	N	eS	10 09 42				
	N	M	12 48	12	5		
	E	M	13 17	8	3		
Aug.			August 1947.				
1	N	eP	16 38 12			2060	
	N	eS	41 33				
	N	L	42 47				
	N	M	45 06	13	2		
	E	M	45 13	9	2		
4	N	M	18 10 51	16	4		
	E	M	10 52	15	2		
5	E,N	P	14 28 12			1850	
	N	S	31 14				
	E	S	31 21				
	N	L	32 23				
	E	M	33 24	21	734		
	N	M	33 42	22	890		

NIZAMIAH OBSERVATORY, BEGUMPET, HYDE

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
			August 1947(Contd.)				
Aug.							
7	N	P	01 02 35				
	N	M	55 16	20	11		
7	N	eP	06 07 59			1880	
	N	eS	11 03				
	N	M	14 09	8	3		
15	N	eP	04 18 28			4320	
	N	eS	24 26				
	N	M	37 34	12	3		
15	N	M	09 49 14	18	5		
16	N	e	06 02 12				
	E	e	02 19				
	E	e	05 03				
	N	i	05 29				
	N	M	06 55	8	6		
	E	M	07 18	8	5		
19	N	i	20 10 23				Times uncertain.
	E	P	12 50			1090	Hour breaks absent.
	E	S	14 40				
	E	M	17 02	9	14		
23	E,N	S	04 41 16				
	N	M	45 34	13	24		
	E	M	45 47	11	11		
23	N	M	14 14 17	9	3		
24	E	P	11 42 35			2820	Times approximate.
	E	PP	43 41				Time marks absent.
	E	S	46 58				
	E	L	50 05				
	E	M	51 53	8	16		
27	E,N	PP(?)	13 56 54				
	N	e	00 25				
	N	e	07 30				
	E	SS	12 49				
	N	L	24 07				
	E	M	31 18	20	8		
	N	M	31 33	20	38		
28	N	P	07 01 22			7500	
	N	S	10 19				
	N	ScS	11 40				
	N	M	27 05	18	15		
28	N	P	14 40 45			7760	
	N	S	49 55				
	N	SS	55 10				
	N	M	15 07 39	14	12		

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Km.
Aug.			August 1947(Contd.)			
30	N	P	22 30 38			5840
	N	PP	32 49			
	N	S	38 05			
	N	PS	38 35			
	N	SS	42 41			
	N	M	53 53	16	6	
Sept.			September 1947.			
2	N	e	14 50 41			
	N	e	57 00			
	N	M	15 08 37	9	2	
3	N	M	19 54 34	12	3	
9	N	P	23 52 13			2120
	N	S	55 39			
	N	L	57 43			
	N	M	59 07	10	13	
11	N	eP	07 27 15			2090
	N	S	30 38			
	N	M	33 37	10	4	
11	N	eP	10 38 46			
	N	M	45 31	9	4	
17	N	M	18 38 43	15	3	
23,25	No record light having failed.					
26	N	P	16 09 42			4560
	N	PP	16 11 38			
	N	S	16 15 54			
	N	SS	16 19 25			
	N	L	16 22 06			
	N	M	16 27 05	14	34	

NIZAMIAH OBSERVATORY,
HYDERABAD, DECCAN.

AKBAR ALI,
C U R A T O R.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	P.E. sec.	AMP. μ	Km.	
July.			July 1947.				
9	E	e	18 19 17				
		f	40 22				
10	E	e	05 08 54				Feeble.
		f	21 19				
10	E	e	09 14 19				Feeble
		f	23 16				
10	E	eP	10 23 37				Moderate.
		eS	27 24				
		L	29 24				
		M	31 11	10	14		
		F	11 50 54				
10	E	e	12 32 39				Slight.
		f	50 28				
10	E	e	16 52 20				Slight.
		e	54 48				
		L	55 50				Earth-quake of
		M	56 45	10	11		moderate
		F	17 23 18				intensity.
10	E	e	18 31 54				Feeble.
		f	39 09				
29	E	iP	13 48 32				Very great
		M	--		28		
		Other succeeding phases not indentifiable.					
		F	lost as clock stopped.				
Aug.			August 1947.				
8	E	e	06 08 10				Tremor.
		f	39 00				
19	E	iP	20 17 02			1500	Moderate.
		iS	19 31				
		L	20 34				
		M	21 45	6	22		
		f	37 30				
23	E	iP	04 37 53			2535	Moderate.
		iS	41 54				
		L	44 11		-		
		M	46 10	7	6		
		f	05 13 00				
24	E	eP	11 44 37		5		Moderate.
		eS	49 58				Time correction
		SS	51 55				-1 min.?
		L	54 35				
		M	57 36	7	22		
		f	12 37 06				
27	E	ePP	13 56 21				Distant.
		f	17 13 41				

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Km.	
			August 1947 (Contd.)				
Aug. 28	E	e	07 01 55				Tremor.
		f	08 04 53				
28	E	e	14 51 01				Tremor.
		f	15 42 53				
28	E	e	20 58 13				Tremor.
		f	21 20 06				
30	E	iP	22 31 20			6100	Slight.
		PP	33 26				
		iPS	39 01				
		SS	42 55				
		L	48 38				
		M	52 58	12	7		
		f	23 27 57				
			September 1947.				
Sept. 9	E	iP	23 52 45				
		iS	57 05				
		L	59 45				
10	E	M	00 01 30			2780	M not clear.
		f	01 53 --				
11	E	e	07 32 15				Probably short distance shock.
		f	08 03				Phases not clear.
15	E	e	19 29 30				Tremor.
		f	55 --				
15	E	e	10 10 30				Tremor.
		f	27 --				
20	E	e	12 19 20				Tremor.
		f	28 --				
20	E	e	19 09 40				Tremor.
		f	20 --				
23	E	iP	12 34 17			3010	Record faint.
		eS	38 54				
		L	-				
		M	-				
		f	15 55 --				
23	E	e	20 44 --				Tremor.
		f	54 --				
25	E	iP	23 40 00			5890	
		iS	47 30				
		L	56 00				
26	E	M	00 00 30	30			Lost in the later earthquake.

KODAIKANAL OBSERVATORY.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
Sept.			September 1947(Contd.)				
26	E	e	01 10 30				
		i	14 30				Phase not clear.
		L	-				Phase not clear.
		Mn	-				
		f	01 56				
26	E	iP	16 10 14			4945	
		iS	16 50				
		L	23 30				
		Mn	33 30	17	53		
		f	18 17				
29	E	e	19 26 15				Tremor.
		f	20 21				
30		e	00 28 10				

KODAIKANAL OBSERVATORY,)
KODAIKANAL.)

A. K. DAS,
Director.

The following table contains a list of earthquakes reported by voluntary observers from various stations:

Place at which felt.	Date.	G.M.T.of earthquake h. m.	Duration Sec.	Intensity R. F. scale.	No.of shocks.	Remarks.
Srinagar	Jul.7	20 20	3	5	3	
Dalhousie	8	17 45	6	4	1	
Dalhousie	8	19 15	2	3	1	
Dalhousie	8	19 20	2	3	1	
Dalhousie	10	04 45	3	-	-	
Srinagar	10	05 00	3	6	2	
Srinagar	10	09 05	2	5	1	
Dalhousie	10	09 20	2	-	-	
Gurdaspur	10	10 15	10	2	3	
Dalhousie	10	10 15	10	6	1	
Simla	10	10 16	15	4	4	
Skardu	10	10 17	90	4	3	
Ambala	10	10 17	20	4	1	
Mussoorie	10	10 20	20	3	1	
Gulmarg	10	10 20	12	6	6	
Murree	10	10 21	3	3	1	
Dehra Dun	10	10 21	10	2	1	
Lahore	10	10 23	15 & 13	2	2	
Muzaffarabad	10	10 23	5	4	2	
Srinagar	10	10 25	7	6	4	
Gulmarg	10	10 30	12	6	6	
Delhi	10	10 33	-	2	1	
Dalhousie	10	10 35	2	-	-	
Srinagar	10	10 40	1	4	1	
Sialkot	10	10 40	3	5	6	
Jhelum	10	10 45	30	4	3	
Jhelum	10	11 20	15	3	1	
Ambala	10	12 22	15	4	1	
Simla	10	12 27	2	2	1	Two or three shocks reported.Felt in the night of 10/11-7-47.
Dehra Dun	10	12 28	3	2	1	
Srinagar	10	12 30	2	6	2	
Dalhousie	10	12 30	2	-	1	
Mussoorie	10	12 30	10	3	1	
Murree	10	12 50	2	3	1	
Jhelum	10	16 15	20	3	3	
Srinagar	10	16 42	5	6	3	
Simla	10	16 45	2	2	1	
Ambala	10	16 45	15	4	1	
Murree	10	16 50	2	3	1	
Gulmarg	10	17 00	12	6	6	
Dalhousie	10	17 00	10	-	-	
Srinagar	10	17 48	1	6	1	
Dalhousie	10	18 22	2	-	-	
Srinagar	10	18 56	1	5	1	
Dalhousie	10	20 00	2	3	1	
Dalhousie	12	04 00	1	2	1	
Dalhousie	12	08 20	2	2	2	
Shadipur(Port Blair)	22	14 40	2 and 1		2	Interval between shocks 3 secs.
Silchar	29	01 35	each 4 3 or 4 secs.			Several.
British Legation Nepal.	29	13 50	3	2	1	

Place at which felt.	Date	G.M.T.of earthquake h. m.	Duration Sec.	Intensity R. F. scale.	shocks.	Remarks.
Rajashahi	July 29	13 52	25	4	2	
Jorhat	29	- -	-	8-9		Water in the river overflowed the banks. Cracks of many places in the ground and water coming out of the cracks.
Dibrugarh	29	13 45	60	8	3	
Krishnagar	29	13 44	about 50	3 -	4	More than 4 shocks at the intervals of one sec.
Cooch Bihar State	29	13 47	" 60	3	1	
Lhasa	29	13 48	30	3	1	
Mymensingh	29	13 44	12	4	2	
Dhubri	29	13 45	10	5	1	
Rangpur	29	13 50	10	3	3	
Tezpur	29	13 46	80	7	4	Cracks in the buildings.
Srimangal	29	13 38	50	2	2	
Bogra	29	14 04	3 or 4	2	2	
Kalimpong	29	13 45	½	2	1	
Comilla	29	13 50	50	4	2	
Darjeeling	29	13 43	½	2	3	
Gauhati	29	13 47	60	6-7	3	Electric Supply failed for some time.
Tezpur	29	14 53	10	4	3	
Purnea	29	13 45	1	2	2	
Srinagar	30	18 55	5	5	3	
Dalhousie	30	19 00	12	3	1	
Pasni	Aug. 5	14 25	10	8	4	4 shocks at intervals of 1½ sec.
Port Blair	7	06 01	3	3	1	
Peshawar	23	04 20	2-3	3	2	
Yatung	26	18 12	2	3	2	Interval between shocks 2 sec.
Gauhati	Sept. 3	20 15	About 5	4	1	
Kabul	20	17 58	1-2	4	1	
Kabul	21	15 23	2	4	1	
Yatung	23	19 18	About 3	4	2	Followed by tremors.

A. N. TANDON,
Seismological Officer, Poona.

GOVERNMENT OF INDIA

METEOROLOGICAL DEPARTMENT.

SEISMOLOGICAL BULLETIN

October - December 1947.

CONTENTS.

PUBLISHED UNDER THE DIRECTION OF

V. V. SOHONI, B.A.(Hons.), M.Sc.,

Director General of Observatories.

INTRODUCTION.

Till the end of 1937, the seismic data from the observatories of the India Meteorological Department were being published annually as Part D of the Annual Summary of the India Weather Review. Since 1938, the data are being published in the present series of the Quarterly Seismological Bulletin. With the kind co-operation of the Surveyor-General of India, the Director of the Nizamiah Observatory, Hyderabad, and of the Superintendent, Colombo Observatory, it has been possible to incorporate in the Bulletin, the data of their respective observatories, viz. Dehra Dun, Hyderabad and Colombo. The instrumental seismological data and the non-instrumental voluntary observations are collected and edited at the Meteorological Office, Poona.

TABLE - 1.

List of Seismograph Stations.

Station.	Latitude.	Longitude.	Height above M.S.L.	Lithologic foundation.	Officer-in-charge of Observatory.
New Delhi	28° 35' N.	77° 12' E.	207 meters	Massive Quartzites	Deputy Director General of Observatories (I.&S.)
Bombay	18° 54' N.	72° 48' E.	6 meters	Deccan Trap	Director.
Calcutta	22° 32' N.	88° 20' E.	(1) 7 meters (2) 6 meters	Alluvium	Director.
Colombo	6° 54' N.	79° 52' E	7 meters	Beach sand resting on gneiss probably decomposed.	Superintendent.
Dehra Dun	30° 19' N.	78° 03' E	682 meters	Gravel	President, Survey Research Institute, Survey of India.
Hyderabad	17° 26' N.	78° 27' E.	528 meters	Granite	Curator, Nizamiah Observatory.
Kodaikanal	10° 14' N.	77° 28' E.	2343 meters	Rock	Director.

(1) Milne-Shaw (2) Omori-Ewing.

TABLE - 2.

The instruments and their constants.

Station.	Component.	Type of instrument.	Mass.	Period.	Static magnification.	Damping Ratio.	Remarks.
			Kg.	Sec.			
New Delhi	N	Milne-Shaw	0.47	12	261	20 : 1	For October only.
	E	Omori-Ewing	45	30	30	1	
Bombay	N	Milne-Shaw		12	250	12 : 1	1-10 Oct.
				12	250	21 : 1	11-31 Oct.
				12	250	12 : 1	1-21 Nov.
				12	250	25 : 1	22-30 Nov.
				12	250	25 : 1	1-4 Dec.
				12	250	11 : 1	5-31 Dec.
	E	Milne-Shaw		12	350	14 : 1	Oct.
				12	350	15 : 1	Nov-Dec.
Calcutta	E	Milne-Shaw	0.45	12	250	20 : 1	
	E	Omori-Ewing	50	16	30		
	N	Omori-Ewing	50	15	32		
Colombo	E	Milne-Shaw		12	250	20 : 1	October.
		Milne-Shaw		12	250	21 : 1	November.
		Milne-Shaw		12	250	25 : 1	December.
Dehra Dun	N	Omori	50	-	12	-	
Hyderabad	E	Milne-Shaw		12	250	20: 1	
		Shaw	0.45	10	250	20 : 1	

Oct. October 1947.

2	N	e	13	29	23			Slight.
		i		29	35			
		F		32	00			
3	N	eP	06	18	08		2010	Slight.
		PP		18	23			
		iS		21	24			
		i		21	34			
		SS		21	55			
		L		23	16			
		M		24	46			
		F	07	45	00			
3	N	e	23	53	43			Slight.Very distant.
		i		54	48			
		i		58	30			
4		i	00	00	40			
		i		13	28			
	N	e		18	10			
		e		40	17			
		F	01	10	00			
5	N	eP	18	51	24		7220	Slight.
		iS	19	00	07			
		F	21	58	00			
6	N	e(S)	15	25	31		2400	Slight.
		L		27	21			
		M		29	07			
		F	16	13	00			
6	N	iP	20	04	04		5220	Moderate.Direction
	E	eP		04	06			of first motion
	N	i		04	41			North.
	E	iS		10	51			
	N	iS		10	55			
		i		11	15			
		ScS		13	58			
		SS		14	18			
		i		14	43			
		L		18	06			
		M		21	46			
	E	M		22	05			
	N	Mn		26	26	19	156	
	E	F		56	00			
	N	F	23	30	00			
8	N	e	03	28	39			Slight.
		i		29	00			
		M		32	32			
		F	03	50	00			

N.B.-The seismographs were dismantled from the 9th October due to rise in the level of subsoil water which flooded the seismograph room.

THE OBSERVATORY,)
NEW DELHI.)

S. C. ROY,
Deputy Director General of Observatories
(Instruments & Supplies.)

DATE	COMPT.	PHASE.	G. M. T..	PER.	AMP.	Δ	R	
			h. m. s.	sec.	μ	Km.		
Oct.			October 1947.					
3	N,E	iP	06 17 26			1166		Δ(P-O) from Trieste, Stuttgart, Ksara and Indian data give agreement at 25°.8N, 57°.4E in the Mekran coast about 40 miles West of Jask O=06h 13m 48s.
	N	iS	20 30					
	E	iS	20 37					
	N	SS	20 48					
	N	SSS	21 11					
	N	L_R	21 33					
	E	L_R	22 01					
	N	M	22 37					
	E	M	23 03					
4	N,E	e	15 56 06					Feeble. South Pacefic (B.C.I.S.)
	E	F	17 08 -					
	N	F	16 -					
5	N,E	e	07 00 -					Surface Waves.
	N	F	15 -					
	E	F	20 -					
5	N,E	eP	18 51 30			7210		Moderate. 4°S, 133°.7E H=18h 40m 42s (J.S.A.) 3°S, 140°E H=18h 41.0m (U.S.C.G.S.) 3°S, 140°E H=18h 41.0m (B.C.I.S.) Indian data agree best with J.S.A. epicentre.
		eS	19 00 12					
	N	SS	04 46					
	E	SS	04 50					
	N	L	10 42					
	E	L	10 57					
	N	M	18 09	18	10			
	E	M	18 17	23	15			
	E	F	22 31 -					
	N	F	35 -					
6	N,E	eP	15 22 46			2455		Slight. Probably after shock of 6h 14m of 3rd. (B.C.I.S.) O=15h 17m 55s (Bombay)
	E	eS	26 41					
	N	eS	26 43					
	E	L	28 11					
	N	L	28 30					
	E	M	31 46	14	5			
	N	M	32 23	13	6			
	N	F	16 36 -					
	E	F	37 -					
6/7	N,E	iP	20 04 14			5218		Moderate. Epc. 36°.9N, 22°E (B.C.I.S.) 36°.9N, 21°.7E H=19h 55m 40s. (J.S.A.) 37°N, 21°E H=19h 55.6m. (U.S.C.G.S.) Felt at Peloponese (Greece) VIII-IX at Coroni, VII at Methoni and at Calamata. From Indian Stations: O=19h 55m 42s.
	E	iPP	07 10					
	N	PP	07 15					
	E	iS	11 08					
	N	iS	11 12					
	E	iSS	15 41					
	E	L	18 41					
	N	L	19 37					
	E	M	28 40	23				
	N	M	32 07	19	63			
	E	F	00 31 -					
	N	F	41 -					
7	E	e	02 38 -					Surface Waves.
		F	03 07 -					
	N	Loss of Record due to congestion of lines.						

DATE	COMPT.	PHASE.	G. M. T.	PER.	AMP.	Δ		
			h. m. s.	sec.	μ	Km.		
Oct.			October 1947(Contd.)					
7	E	e	03 21 30					Feeble.
		F	04 10 -					
	N	Loss of record due to congestion of lines.						
8	E	e	03 26 56					Slight.
	N,E	e	13 29					
	N	M	36 47	10	5			
	E	M	37 03	7	3			
	N,E	L	04 06 -					
9	E	e	05 15 -					Feeble tremors.
	N	e	17 -					
	N	F	36 -					
	E	F	38 -					
10	N,E	eP	07 42 59				7190	Moderate.
	E	ipP	44 10					40°N, 144°E
	N,E	eS	51 40					H=07h 32.3m.h=300 Km.
	E	L	08 02 22					(U.S.C.G.S.)
	N	L	02 30					
		M	11 11	16	5			
	E	M	12 25	13	9			
	N	F	10 04 -					
	E	F	11 -					
10	E	e	14 01 13					Moderate.Epc.30°S,
	N	e	05 00					180°E. H=13h 42.6m.
	E	M	15 06 45	15	7			(U.S.C.G.S.)
	N	F	16 58 -					31 S, 177°W
	E	F	17 01 -					H=13h 42.7m Kermadec
								Islands.(B.C.I.S.)
13	N,E	e	07 55 56					Slight.
	E	M	08 29 21	15	3			
		F	10 14 -					
	N	F	16 -					
14	N	eP'	01 59 54					Slight.
	E	P'	(Not clear due to artificial)					
			(deflection at the time.					)
	N,E	eSKS	02 06 52					
	E	L	14 17					Epc: 32°S., 180°
	N	L	14 29					Kermadec Islands
	E	M	15 47	11	7			H = 01h. 41.1m.(U.S.C.G.S.)
	N	M	17 31	7	4			
	N	F	04 26 -					
	E	F	38 -					
14	N,E	eP	22 33 52				2290	Slight. 39°.5N,75°E,
		eS	37 34					0=22h 29m 18s. in
	E	M	40 29	11	5			Sinkiang Province,
	N	M	41 37	7	3			China.
	E	F	23 34 -					
	N	F	36 -					
15	N,E	e	20 00 -					Feeble.
		F	21 10 -					

COLABA OBSERVATORY, BOMBAY.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
			October 1947. (Contd.)				
Oct.							
16	N,E	eP	02 22 52			10110	Epc.64°.5N,148°.8W
	E	PP	26 41				0=02h 09m 45s
	N,E	iS	33 53				(U.S.C.G.S.)
	E	iSS	39 53				0=02h 09m 50s
		L	51 21				Damage at Fairbanks,
	N	L	51 58				Alaska.
	E	M	03 05 25				0 - 02h. 09m. 50s. Poona.
	N	M	05 40	23	234		Great.
		F	06 30 --				
	E	F	54 --				
17	N	e	09 12 26				Slight.
	E	e	12 32 32				
	N	F	10 22 --				
	E	F	29 --				
17	E	e	15 00 --				Feeble, Surface Waves.
	E	F	38 --				
	N	Movemnets very feeble.					
17/18	E	e	23 07 40				Very feeble.
		F	00 03 --				
	N	Movements not identifiable due to microseisms.					
20	N	eP	01 56 24			10090	Moderate Aftershock
	E	P	Record disturbed at the time of shock.				of October 16th 2h. 0=01h 43m 16s. (U.S.C.G.S.)
	N	PP	02 00 07				
	E	PP	Record disturbed at the time.				
	N,E	eS	02 07 24				
	E	eSS	13 17				
		L	24 54				
	N	L	24 57				
		M	36 50	17	15		
	E	M	41 09	14	17		
		F	05 50 --				
	N	F	Mixed up with microseisms.				
20	E	e	12 35 --				Feeble tremors.
		F	13 40 --				
	N	Record full of microseisms.					
21	N,E	eP	09 56 21				
	E	M	10 23 17	15	3		
		F	11 18 --				
	N	F	Mixed up with microseisms.				
22	E	e	17 40 49				Slight.
	N,E	eS	45 34				
	E	F	19 12 --				
	N	F	Mixed up with Microseisms.				
24	E	e	17 24 22				Feeble.
		F	18 33 --				
	N	Pronounced microseisms throughout record.					

COLABA OBSERVATORY, BOMBAY.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
Oct.			October 1947(Contd.)				
27	N	e	11 43 --				Feeble, Distant.
	E	e	56 --				
	N	F	13 20 --				
	E	F	42 --				
31	N	eP?	16 36 15			1145?	Feeble.
		eS	38 10				
	E	Loss of Record at times of P & S					
	N,E	F	17 00 --				
Nov.			November 1947.				
1	N,E	eP	06 06 52			4000	Moderate. Times approximate as time marks are absent. Epc. 4°S, 102.°5E 0=05h 59.5m (B.C.I.S.)
	E	PP	08 08 09				
	E	iS)	12 31				
	N	eS)					
	N,E	L	17 55				
	N	M	22 00	16	14		
	E	M	24 23	16	11		
	E	F	09 60 --				
	N	F	10 13 --				
1	N,E	eP'2	15 18 38			16335	Great. Epc. 11°S, 75°W 0=14h 58.9m (U.S.C.G.S.) 11°S, 74°.5W 0=14h 58m 50s. (B.C.I.S.) Destructive in Peru.
		ISKKS	29 04				
		iSS	41 12				
	E	iSSS	48 04				
		L	16 02 22				
	N	L	02 31				
		M	27 00	19	203		
	E	M	28 20	27	225		
	N	F	21 38 --				
	E	F	22 09 --				
4	N,E	eP	00 19 25			6980	Moderate. Strong at Sapporo, Japan Epc. 43°N, 140°E 0=00h 09.1m (U.S.C.G.S.) 43°.1N, 141°E (C.M.O.) 44°.7N, 140°.7E 0=00h 09m 10s (B.C.I.S.)
	E	e	23 16				
	N	eS	27 42				
	E	iS	27 55				
		iSS	32 08				
	N	e	00 34 56				
	E	L	37 --				
	N	L	38 09				
		M	46 35	13	88		
	E	M	47 38	15	58		
	E	F	04 30 --				
	N	F	Mixed up with microseisms.				
4	E	e	23 42 --				Feeble tremors.
	N	e	44 --				
	N,E	F	Mixed up with next shock.				
4/5	N,E	eP?	23 55 46				Feeble.
		e	59 19				
		F	00 25 --				
5	E	e	02 31 30				Feeble.
	N,E	i	40 16				
	E	F	03 42 --				
	N	F	58 --				

COLABA OBSERVATORY, BOMBAY.

DATE		COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
Nov.				November 1947(Contd.)				
7		N	e	12 13 --				Surface Waves.
		E	e	17 --				
		N	F	48 --				
		E	F	55 --				
7/8		N,E	e	23 20 15				Feeble, Distant.
		N	F	01 03 --				
		E	F	16 --				
8		N,E	e	04 12 42				Feeble.
		E	F	05 22 --				
		N	F	24 --				
8		N,E	i	06 48 12				Feeble.
		N	e	56 07				
		E	e	56 19				
		N,E	F	07 54 --				
8		N,	e(P)	16 29 53				Feeble. Epc.36°.8N, 69°E in Hindukush. O=16h 25m 50s.
		E	e(S)	33 00				
		N,E	e	35 40				
		N	F	58 --				
		E	F	17 03 --				
8/9		E	e	22 59 --				Feeble.
		N	e	23 06 --				
			F	00 16 --				
		E	F	25 --				
9		N,E	eP	05 11 53			11610	Moderate.
		E	iPP)	16 07				
		N	ePP)					
		E	iPS	25 23				
		N	e	26 16				
		E	SS	31 02				
			SSS	35 23				
			L	41 00				
		N	L?	43 29				
	*	E	M	57 22	17	12		
			F	09 23 --				
		E	F	56 --				
9		N,E	eP?	15 09 08				Slight.
		N	e	15 51				
		N,E	e	19 00				
		N	F	59 --				
		E	F	17 23				
10		N,E	i(P)	06 36 26				Feeble.
			e(S)	44 34				
		N	F	07 32 --				
		E	F	46 --				
10/11		E	e	23 58 49				Feeble.
		N	e	58 52				
		E	F	00 37 --				
		N	F	40 --				
*		N	M	06 07 01	17	6		

DATE	COMP.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	
Nov.							

November 1947(Contd.)

12	E	e	10 47 25				Slight,Distant.
	N	e	57 29				
	E	F	12 53 --				
	N	F	57 --				
12	N	e(P')	16 36 31				Slight,Epc,23°S,171°E,
	E	e	37 31				0=16h 18.9m,(U.S.C.G.S.)
	N,E	e(SKS)	43 42				
	N	e(SS)	52 02				
	E	L	17 02 24				
	N	L	04 19				
	E	M	18 18 16	15	5		
	N	M	25 57	18	11		
	N,E	F	19 30 --				
13	E	e)	03 30 57				Slight.Epc.42½°E,140°N.
	N	i)					0=03h 26°.2m(B.C.I.S.)
	E	e	34 40				
	N	eS	34 47				
	E	L	37 09				
		M	39 47				
	N	M	03 42 31	9	4		
		F	04 59 --				
	E	F	05 05 --				
14	N,E	e	05 16 09				Feeble.
		e	22 54				
		F	06 26 --				
14	N,E	eP	11 00 29			6590	Slight. 42°N, 142°E,
	E	eS	08 38				0=10h 50.2m(B.C.I.S)
	N	eS	08 44				h=200 Km.
		F	12 26 --				42°.5N, 145°E,(C.M.O.)
	E	F	12 43 --				46°N,143°E, h=200 Km,
15	E	e	21 06 --				0=10h 50.6m(U.S.C.G.S.)
		F	39 --				Feeble,Surface Waves
15/16	N,E	e	23 12 51				Slight. Epc.region
	E	e	20 01				Borneo,Philippines
	N	e	20 06				(B.C.I.S.)
	E	F	00 34 --				
	N	F	39 --				
16	N,E	e	01 51 35				Feeble,
		F	02 56				
16	E	e	05 22 00				Feeble.
	N	e	22 24				
		F	53 --				
	E	F	06 02 --				
17	E	e	08 53 --				Feeble,Surface Waves.
	N	e	55 --				
	N,E	F	09 18 --				

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ	R Km.	
Nov.			November 1947(Contd.)					
17	E	e	10 22 00					Feeble.
	F	F	Mixed up with the next shock.					
17	N,E	e	10 35 35					Slight.
	N	e	38 45					
		F	12 30 --					
	E	F	47 --					
18	N,E	eP?	14 10 33				2010?	Slight.
		iS	13 49					
	E	L	15 33					
	N	L	15 45					
	E	M	17 26	10	5			
	N	M	18 22	8	7			
	E	F	55 --					
	N	F	57 --					
18	N,E	e	17 43 40					Feeble.
	N	F	19 27 --					
	E	F	33 --					
19	N,E	e	13 39 --					Feeble, Surface Waves.
		F	59 --					
	N	F	14 03 --					
20	E	eP	08 30 56				7800	Epc. 49½°N, 156°E,
		eS	40 08					H=08h 19.5m. (B.C.I.S.)
		L	51 12					
		M	09 04 56	18	5			
		F	10 19 --					
	N	Loss of records.						
21	N,E	e	04 13 47					Slight, Epc. 19°N, 107°W,
	N	e	24 41					H=03h 54m 15s.
		F	22 15 --					(U.S.C.G.S.)
	E	F	20 --					
*								
22	N,E	e	09 52 10					Very feeble.
	E	F	11 05 --					
	N	F	06 --					
22	E	e	20 03 --					Very feeble.
		F	21 23 --					
	N	Movements very feeble.						
23	N	e	10 05 57					Feeble.
	E	e	14 56					
		F	12 22 --					
	N	F	24 --					
25	N	e	12 37 29					Feeble.
	E	e	39 00					
	N	e	42 10					
		F	13 12 --					
	E	F	27 --					
25	N	e	18 34 53					Very feeble.
	E	e	45 --					
	N	F	19 05 --					
	E	F	30 --					

* Please see page 10 for data of 21st November.

26/27	N,E	e	22	52	--		very feeble tremors.
	N	F	23	40	--		
	E	F	00	01	--		
27	N,E	E	04	41	22		Very feeble.
		e		43	15		
		F	05	05	--		
29	N,E	eP	18	00	39	2235	Slight.Northern Borde
	E	iS)		04	17		Danage District,Assa
	N	eS)					Epc.27°N, 92°.5E,
	N	F		35	--		0=17h 56.9m felt at
	E	F		57	--		Gauhati and Tezpur.

*

Nov.

21	N,E	eP	19	14	24		Slight. Distant.
	N	e		24	41		
		F		22	15		
	E	F		20	--		

DATE	COMPT.	PHASE.	h. m. s.	sec.	μ	Km.	
			December 1947.				
Dec.							
1	N,E	e	04 39 14				Feeble.
	N	F	05 16 --				
	E	F	19 --				
2	N,E	e	06 00 58				Very feeble.
	N	e	06 58				
		F	38 --				
	E	F	07 05 --				
2/3	N,E	e	22 45 --				Very feeble tremors.
	N	F	23 36 --				
	E	F	00 01 --				
3	N,E	e	12 58 --				Very feeble tremors.
		F	13 11 --				
4	N,E	e	14 24 56				Feeble.
	E	e	26 40				
	N	e	31 32				
	E	F	15 14 --				
	N	F	17 --				
5	N	e	13 37 --				Very feeble tremors.
	E	e	39 --				
	N,E	F	14 02 --				
7	E	eP	01 48 13				Feeble.
	N	P	Lost while changing chart.				
	N,E	F	Mixed up with the next shock.				
7	E	eP?	01 52 37				Feeble.
	N	P	Lost while changing chart.				
	E	i	53 32				
	N	F	04 08 --				
	E	F	14 --				
8	N,E	e	16 15 28				Very feeble.
		e	55 28				
		e	17 14 --				
		e	39 --				
	E	e	19 03 --				
	N	F	11 --				
9	N	e	16 35 00				Slight.
	E	e	35 52				
		M	41 23	17	6		
	N	M	42 11	15	8		
	E	F	17 23 --				
	N	F	33 --				
9	N	e	23 47 16				Slight.
	E	e	47 27				
	N	F	01 00 --				
	E	F	04 --				
10	N,E	eP	12 41 30			635	Feeble.
		eS	42 35				
	N	F	13 20 --				
	E	F	23 --				

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ		
Dec.			December 1947(Contd.)				
15/16	N	e	19 40 37				Slight,Distant.
	E	e	40 57				
		e	58 04				
	N	L	20 10 06				
	E	L	10 57				
		M	25 10	20	5		
	N	M	29 08	18	7		
	E	F	00 24 --				
	N	F	26 --				
16	N	e	21 13 57				Surface waves.
	E	e	14 04				
		F	22 00 --				
	N	F	05 --				
17	N,E	e	22 12 11				Very feeble.
	E	F	27 --				
	N	F	30 --				
19	N	eP	02 52 48			1455	Feeble.
	E	eP	52 56				
		eS	57 13				
	N	eS	57 17				
	N,E	F	03 24 --				
19	E	eP	04 43 03	30		3035	Feeble.
	N	eP	43 11				
	N,E	iS	47 41				
	E	L	49 28				
	N	L	49 38				
	E	M	53 41	11	3		
	N	M	54 12	11	7		
	N	F	05 39 --				
	E	F	43 --				
19	N,E	eP	16 44 57			4845	Slight.
		eS	51 26				
	E	L	55 26				
		M	17 08 56	12	2		
		F	18 28 --				
	N	F	35 --				
24	N,E	eP	05 34 06			8800	Moderate.
		eS	44 08				
	E	L	55 27				
	N	L	05 56 29				
		M	06 08 33	16	12		
	E	M	11 15	15	5		
	N,E	F	07 52 --				
26	N,E	e	10 33 09				Feeble.
		F	11 05 --				
26	N	e	18 02 48				Feeble.
		F	19 48 --				
	E	Record lost due to faintness of trace.					
26	N	e	20 51 --				Surface waves.
		F	21 47 --				
	E	Record lost due to faintness of trace.					

COLABA OBSERVATORY, BOMBAY.

DATE	COMPT.	PHASE.	G. M. T.	PER.	AMP.	Δ
			h. m. s.	sec.	μ	Km.
Dec.			December 1947(Contd.)			
26/27	N	e	23 41 00			Feeble.
		F	00 31 --			
	E	Record lost due to faintness of trace.				
30	N	e	02 18 04			Very feeble.
	E	e	18 50			
	N	F	04 26 --			
	E	F	33 --			
31	N,E	e	07 37 59			Very feeble.
		F	56 --			
31	N	e	15 28 00			Feeble.
	E	e	28 40			
	N	F	17 32 --			
	E	F	37 --			

COLABA OBSERVATORY,
BOMBAY.

S. K. CHAKRABARTY,
Director.

DATE	COMPT.	PHASE.	G. M. T.	PER.	AMP.	Δ	REMARKS.
			h. m. s.	sec.	μ	Km.	
Oct.			October 1947.				
1	E	e	12 44 06				Slight, distant.
		iS?	54 14				
		F	Lost in microseism.				
3	E	eP	06 19 38		3555		Slight.
		ePPP	20 52				
		iS(?)	24 57				
		iSS	26 44				
		L	28 44				
		M	31 44				
		F	Lost in the congestion of lines.				
3,4	E	e	23 55 19				Slight, distant.
		Mn	00 55 07				
		F	Lost while chaning chart.				
5	E	e	18 50 01		6820		Moderate.
		iS	57 29				
		iSS	19 01 49				
		iSSS	03 49				
		L	09 19				
		M	14 39				
		F	Lost in microseism.				
6	E	e(S)	15 29 46				Slight.
		i	34 51				
		iS	36 19				
		F	Lost in microseism.				
6	E	eP	20 05 29		6645		Moderate.
		iPP	07 47				
		iS	13 47				
		iSSS	19 47				
		L	24 15				
		M	28 27				
		Mn	33 57	22	219		
		F	Lost in microseism.				
8	E	e	03 24 38				Slight.
		i	26 15				
		i	26 48				
		i	27 12				
		F	Lost in microseism.				
10	E	e	07 41 26				Slight, distant.
		eS?	49 04				
		eSSS?	54 44				
		M	08 02 49				
		F	Lost in microseism.				
10	E	e	14 06 56				Slight, distant.
		e	16 20				
		Mn	15 04 30				
		F	Lost in microseism.				

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	R	
Oct.			October 1947(Contd.)					
13	E	e	07 52 06					Slight,distant.
		e	08 02 46					
		Mn	34 46					
		F	Lost in microseism.					
14	E	e	02 06 02					
		iS?	11 54					Slight,Phases obscured by a long distant tremor.
		F	Lost in microseism.					
14		e	22 34 03					Slight,near.
		iS?	37 51					
		iSS?	38 36					
		Mn	42 53					
		F	Lost in mocroseism					
16	E	eP	02 22 14			9220		Great,(Phases-doubtful)
		iS	32 35					
		iSS	38 11					
		iSSS	41 31					
		Mn	56 19	20	873			
		F	Lost in congestion.					
16	E	e	23 13 02					Tremor.
		F	23 43					
20	E	e	02 20 32					Moderate,distant.
		Mn	29 32	20	201			Beginning lost while changing chart.
		F	03 38					
21	E	e	10 02 36					Slight,distant.
		Mn	17 38					
		F	Lost in microseism.					
31	E	eP	16 31 39			499		Slight.
		iS	32 33					
		iS*	32 47					
		iS	32 58					
		F	16 56					
Nov.			November 1947.					
1	E	eP	06 05 47			3090		Slight.
		iPPP	06 43					
		iS	10 37					
		iSS	12 07					
		F	Lost in congestion of lines.					
1	E	eP'_1	15 18 44			17890		Great,Epc.Peru (Lima)
		eP'_2	19 23					
		iPP	23 04					
		iPPP	26 44					
		iSKS	29 47					
		iPPS	37 02					
		iSS	43 22					
		L	16 15 24					
		M	27 34					
		Mn	37 24	17	218			
		F	Lost in microseism.					

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	
Nov.			November 1947(Contd.)				
4	E	P	00 17 53			5445	Moderate.First movement West.
		iS	24 57				
		iSS	28 13				
		M	35 58				
		Mn	39 13	12	186		
		F	Lost while changing chart.				
4/5	E	e	23 35 17				Tremor.
		F	23 51				
		e	23 55 14				Tremor.
		F	00 20				
8	E	e(P)	16 30 42				Slight,near.
		e(S)	34 42				
		i	37 42				
		F	17 01				
9	E	e	05 11 43				Moderate.
		i	22 14				
		iPPS	24 31				
		M	48 21				
		F	Lost in congestion.				
9	E	e	15 18 31				Slight,distant.
		Mn	33 27				
		F	16 00 --				
12	E	e	10 52 51				Slight,distant.
		e	11 03 21				
		F	12 07				
12	E	ePcP	16 32 05				Slight.Possibly an after shock of previous moderate shock.
		e(SKS)	42 35				
		e	44 55				
		eSS	50 35				
		eSSS	54 25				
		L	17 07 45				
		M	15 45				
		F	18 55 --				
14	E	e(P)	10 58 58				Slight,distant.
		i	11 03 21				
		F	11 57 --				
15	E	e	23 14 46				Slight.
		e	19 13				
		L	21 38				
		M	24 09				
		F	Lost in microseism.				
16	E	e	01 56 10				Slight,near.
		e	02 00 18				
		Mn	04 42				
		F	02 31				
16	E	eP	10 16 12			1100	Slight.
		eS	18 03				
		F	Lost in congestion.				

ALIPORE OBSERVATORY, CALCUTTA

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	△ Km.	REMARKS.
Nov.			November 1947(Contd.)				
17	E	i	10 35 59				Slight.
		Mn	38 02				
		F	Lost in microseism.				
17	E	e	11 54 26				Slight,distant.
		Mn	56 06				
		F	Lost in microseism.				
18	E	eP	14 10 28			470	Slight.
		iP	10 46				
		iS	11 17				
		iS*	11 28				
		iS	11 40				
		PcP	17 53				
		F	Lost in microseism.				
21	E	e	19 13 02				Slight,distant.
		e	23 02				
		e	27 02				
		Mn	40 12				
		F	20 36				
23	E	e	10 47 44				Slight,distant.
		F	11 36				
25	E	e	02 57 59				Slight,near.
			58 40				
		F	Lost in microseism.				
25	E	e	13 39 14				Slight,distant.
		F	14 14				
26	E	e	22 53 06				Slight,distant.
		F	23 36				
29	E	eP	17 57 32			566	Slight.
		iS	58 32				
		F	18 03				
Dec.			December 1947.				
4	E	e	14 23 18				Slight,distant, Deep focus.
		iS?	28 28				
		e	31 54				
		F	Lost in microseism.				
7	E	e	01 45 34				Slight,distant.
		e	48 02				
		F	Lost while changing chart.				
9	E	e	16 41 40				Slight,near.
		e	47 50				
		F	Lost in microseism.				
	E	e	23 48 52				Slight,distant.
		e	55 47				
		F	Lost in microseism.				

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
Dec.			December 1947(Contd.)				
14	E	eP	04 28 37		530		Slight.
		iS	29 34				
		F	04 48				
15	E	eP'?	19 40 43		14800		Slight.
		ePP	43 05				
		ePPP	46 03				
		eSKS	47 33				
		eSKKS	49 51				
		eSSS	20 23 03				
		L	23 03				
		M	33 23				
		Mn	39 58				
		F	21 58				
19	E	e	02 55 46				Tremor.
		F	03 12				
	E	ePP	16 42 52		4320		Slight.
		ePPP	43 33				
		eS	47 33				
		eSSS	50 53				
		M	55 25				
		F	Lost in microseism.				
21	E	e	09 05 43				Slight,near.
		i	06 58				
		F	Lost in mircroseism.				
25	E	eP?	05 34 02				Slight,distant.
		eS?	44 01				
		F	Lost in congestion.				
26	E	e	10 34 58				Slight,near.
		i	36 43				
		i	37 01				
		F	Lost in microseism.				
	E	e	16 55 48				Slight,distant.
		e	17 03 58				
		e	08 23				
		F	Lost in microseism.				
	E	e	20 17 33				Slight,distant.
		F	Lost in microseism.				
29	E	eP	14 10 39		366		Slight.
		eP	10 52				
		iS	11 19				
		F	14 25				

METEOROLOGICAL OFFICE,
ALIPORE, CALCUTTA.

A. K. ROY,
Director.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. m.m.	Δ Km.	REMARKS.
Oct.			October 1947.				
1	E	P	12 53 09				
		S	12 55 05				
		M	13 01 02		0.3		
3	E	P	06 19 49				
		L	06 33 49				
		M	06 37 34		0.5		
3/4	E	P	23 52 19				
		L	00 48 19				
		M	01 08 04		0.1		
5	E	P	18 50 26				
		S	18 58 09(?)				
		L	19 01 04				
		M	19 18 01		0.3		
6	E	eP	15 29 20				
		L	15 36 50				
		M	15 40 40		0.2		
6	E	P	20 05 49				
		S	20 14 02				
		L	20 26 51				
		M	20 34 05		4.5		
10	E	S	07 52 21				
		L	08 16 51				
		M	08 25 21		0.2		
10	E	P(?)	14 07 39				
		L	14 40 05				
		M	14 46 01		0.5		
16	E	P(?)	02 25 00				
		L	03 00 23				
		M	03 13 24		9.0		
20	E	P	02 06 51				
		L	02 30 -				
		M	02 46 06		1.0		
Nov.			November 1947.				
1	E	P	06 05 06				
		S	06 09 30				
		L	06 12 08				
		M	06 14 18		1.5		
1	E	P'_2	15 18 54				
		PKKS(?)	15 33 13				
		L	16 18 23				
		M	16 29 49		17.7		
4	E	L	00 51 05				
		M	00 53 03		2.0		P and S lost while changing chart.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. m.m.	Δ Km.	F	
Nov.			November 1947(Contd.)					
8	E	P	06 46 27					
		L	07 07 20					
		M	07 09 05		0.1			
8	E	e(S)	16 37 05					
		L	16 42 32					
		M	16 45 00		0.2			
9	E	P	05 11 04					
		S	05 23 24					
		L	05 48 03					
		M	05 55 38		0.6			
9	E	P	15 07 33					
		S	15 12 56					
		M	15 19 -		0.1			
10	E	P(?)	06 35 10					
		S(?)	06 42 20					Amptitude very small.
12	E	P?	10 52 14					
		S?	11 03 02					
		M	11 33 -		0.1			
12	E	P?	10 32 18					
		S	16 41 19					
		M	17 09 42		0.4			
13	E	P?	03 40 24					
		M	03 49 10		0.3			
14	E	P	11 00 51					
		L	11 10 19					
		M	11 10 41		0.4			
Dec.			December 1947.					
9	E	P	16 37 33					
		S	16 42 07					
		L	16 44 36					
		M	16 47 21		0.1			
9,10	E	P	23 49 07					
		L	00 06 21					
		M	00 11 21		0.2			
15	E	P	19 45 26					
		L	20 12 -					
		M	20 16 -		0.1			
19	E	P	16 44 20					
		S	16 50 37					
		L	16 51 20					
		M	17 01 37		0.1			
24	E	P	05 32 50					
		S	05 41 35					
		L	05 50 --					
		M	05 57 --		0.2			
26	E	P	17 07 40					
		L	17 13 30					
		M	17 15 05		0.1			

COLOMBO OBSERVATORY,)
CEYLON.)

D.T.E. DASSANAYAKE,
Superintendent.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.
			November 1947(Contd.)			
			October 1947.			
Oct.						
3	N	e	06 19 40?			
		eL	26 35			
		M_1	28 45	15	0.09	
		F	07 08			
6	N	e	15 26 55?			
		e	29 30			
		M_1	31 00	12	0.02	
		F	15 45			
6	N	e	20 06 06?			
		e	12 55			
		e	19 30			
		e	24 46			
		M_1	29 36	25	0.05	
		F	21 21			
16	N	e	02 22 56			
		e	32 44			
		e	41 48			
		eL	51 56			
		M_1	59 35	24	0.26	
		F	03 50			
Nov.			**November 1947.**			
1	N	e	06 11 30			
		e	16 35			
		eL	26 00			
		M_1	30 00	19	0.04	
		F	07 00			
1	N	e	15 20 01			
		e	16 19 45			
		M_1	35 45	22	0.13	
		M_2	38 10	36	0.14	
		F	17 41			
4	N	eP	00 18 51?			
		i	26 08			
		e	35 34			
		M_1	38 40	16	0.12	
		M_2	42 35	17	0.09	
		F	01 30			
8	N	e	16 32 05?			
		e	33 19			
		e	34 32			
		M_1	35 09			
		F	16 41			
9	N	e	05 24 50?			
		F	07 08			
13	N	e	03 33 48			
		e	35 42			
		M_1	37 40	14	0.04	
		F	03 57			

No earthquake shocks recorded after 13-11-47 to 31-12-47 although the seismograph working all right.

Survey Research Institute,
Survey of India, Dehra Dun.

B. L. GULATEE,
President.

			h. m. s.	sec.	μ	Km.
Oct.			October 1947.			
1	N	SKS	12 55 00			
	N	M	13 20 17	14	3	
3	N	P	06 18 37			2540
	N	PP	19 19			
	N	S	22 39			
	N	SS	23 01			
	N	M	27 26	19	33	
3,4	N	e	23 51 41			
	N	iP	51 57			8470
	N	S	00 01 42			
	N	PS	02 14			
	N	SS	06 56			
	N	L	17 04			
	N	M	26 54	15	4	
5	N	eP	18 50 47			6500
	N	PP	52 55			
	N	S	58 51			
	N	PS	58 57			
	N	SS	19 03 13			
	N	L	10 13			
	N	M	14 51	19	14	
6	N	eP	15 23 30			2820
	N	S	27 53			
	N	M	33 03	11	6	
6	N	P	20 04 50			5870
	N	PP	07 04			
	N	S	12 18			
	N	ScS	14 29			
	N	SS	16 21			
	N	L	21 31			
	N	M	26 26	24	84	
	N	F	22 38 --			
10	N	P	07 42 37			6890
	N	S	51 02			
	N	M	08 06 17	16	13	
10	N	M	14 42 41	16	8	
13	N	L	08 13 38			
	N	M	21 20	18	7	
14	N	M	02 46 26	16	6	
14	N	P	22 34 10			2560
	N	S	38 13			
14	N	L	22 40 38			
	N	M	42 18	10	7	
16	N	P	02 22 44			10130
	N	PP	26 23			
	N	S	33 46			
	N	PS	34 58			
	N	SS	39 41			
	N	L	54 39			
	N	M	03 00 08	24	185	
	N	F	05 44 --			

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Km.	REMARKS.
Oct.			October 1947(Contd.)				
17	N	eS	09 18 06				
	N	M	32 34	11	3		
20	N	eP	01 56 20			9800	
	N	PP	59 56				
	N	SKS	02 06 49				
	N	S	07 08				
	N	SS	13 15				
	N	M	33 40	20	36		
21	N	eS	10 04 14				
	N	M	20 57	14	3		
22	N	M	18 11 28	16	4		
27	N	M	12 38 26	15	3		
Nov.			November 1947.				
1	N	M	06 17 03	18	30		P & S lost, light having failed.
1	N	P'_2	15 17 09				Probable time correction +2 min.
	N	SS	40 27				
	N	M	16 09 11	21	127		
4	N	P	0 0 19 03			6440	
	N	S	27 04				
	N	ScS	28 47				
	N	SS	31 08				
	N	L	37 16				
	N	M	40 31	14	39		
7	N	M	12 23 47	15	3		
11	N	M	00 18 03	15	3		
12	N	ePP	16 36 31				
	N	SKS	43 15				
	N	SS	50 56				
	N	M	17 14 06	15	4		
13	N	M	03 42 31	11	7		P & S lost while changing paper
14	N	eS	0 5 21 44				
	N	SS	25 00				
	N	L	28 59				
	N	M	33 34	15	4		
14	N	P	11 00 09			6410	
	N	PP	02 21				
	N	S	08 08				
	N	M	23 18	12	3		

			h. m. s.	sec.	μ	Km.	
Nov.			**November 1947(Contd.)**				
15	N	e	23 12 32				
		e	18 56				
		SS	22 21				
		M	30 44	16	6		
17	N	M	10 39 08	11	5		
17	N	M	11 59 02	14	3		
18	N	eP	14 10 34			1530	
		L	14 37				
		M	15 46	9	6		
20	N	eP	08 30 39			7530	
	N	S	39 38				
	N	ScS	40 32				
	N	L	52 19				
	N	M	57 36	15	3		
21	N	P'	04 13 48			16110	Δ Approximate.
		PP	17 04				
		SS	36 14				
		M	05 15 30	16	7		
21	N	M	19 45 03	21	6		
23	N	P	10 06 02				
	N	M	57 05	15	4		
25	N	S	12 40 53				
	N	M	51 54	12	2		
27	N	eP	04 38 24			2400	
		S	42 15				
		L	44 44				
		M	46 19	8	2		
29	N	P	17 59 58			1780	
		S	18 02 53				
		L	04 34				
		M	05 40	5	3		
Dec.			**December 1947.**				
2	N	S	06 05 43				
	N	M	06 25 37	12	2		
4	N	eP	14 23 45			4890	
		S	14 30 17				
		M	14 41 33	14	3		
7	N	P	01 48 40			2260	Times approximate.
	N	S	01 52 21				Time marks absent.
	N	M	01 54 46	6	4		
9	N	eP	16 35 54			1780	Time approximate.
	N	S	16 38 49				Clock correction
	N	M	16 41 56	20	8		uncertain.
9	N	P	23 47 29			4780	Times approximate.
	N	PP	23 49 17				Clock correction uncertain.

DATE	COMPT.	PHASE	G. M. T. h. m. s.	PER. sec.	AMP. μ	Km.
Dec.			December 1947(Contd.)			
9	N	S	23 53 54			
	N	M	00 08 36	13	4	
10	N	e	12 43 15			
	N	S	44 15			
	N	M	45 29	7	4	
15	N	SKS	19 46 09			
	N	M	20 18 28	18	5	
19	N	eP	02 52 45			2800
	N	S	02 57 07			
	N	M	03 03 21	15	2	
19	N	P	04 43 04			2900
		i	43 10			
		S	47 33			
		L	50 05			
		M	52 08	12	7	
19	N	P	16 44 16			4220
	N	S	16 50 08			
	N	M	17 04 10	12	2	
24	N	P	05 33 38			8560
	N	PP	05 36 34			
	N	S	05 43 28			
	N	SS	05 48 27			
	N	L	05 59 12			
	N	M	06 05 22	16	4	
26	N	e	10 34 58			
	N	M	10 36 26	8	3	
26	N	SKS	17 09 01			
	N	M	17 39 06	16	3	
26	N	M	21 01 34	18	4	
30	N	M	03 31 42	15	3	
31	N	e	15 30 13			
	N	M	16 17 24	16	3	

NIZAMIAH OBSERVATORY,
HYDERABAD, DECCAN.

AKBAR ALI,
C U R A T O R.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	
Oct.				October 1947.			
1	E	e	12 54 58				Feeble.
		f	13 48 58				
3	E	iP	06 19 14			2845	Moderate.
		iS	06 23 39				
		L	26 24				
		M	28 34	16	27		
		f	07 51 29				
5	E	iP	18 50 48			6455	Moderate.
		PP	52 52				
		iS	58 50				
		SS	19 02 34				
		L	09 13				
		M	14 03	18	11		
		f	22 26 58				
6	E	e	15 24 58				
		f	16 12 58				
6	E	iP	20 05 21			6190	Moderate.
		PcP	06 19				
		PP	07 21				
		iS	13 08				
		ScS	15 04				
		SS	16 54				
		L	22 54				
		M	27 26	16	28		
		f	Lost-clock stopped.				
8	E	e	03 26 27				
		f	57 28				Tremor.
10	E	eP	07 43 14			7555	Slight.
		eS	52 14				
		L	08 05 21				
		M	11 01	15	9		
		f	09 22 56				
10	E	e	14 01 48				Phases not clear.
		f	16 31 26	18	18		
13	E	e	07 55 23				Slight.
		f	09 14 30				
14	E	eP'(?)	01 58 25			11890	Moderate.
		SKS	02 09 10				
		eS	10 35				
		PS	12 00				
		SS	17 30				
		L	34 20				
		M	42 18	20	10.		
		f	03 54 55				

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Km.	
Oct.			October 1947 (Contd.)				
16	E	eP	02 23 24			10620	Great.
		eS	34 45				
		SS	40 52				
		L	55 32				
		M	Lost while removing chart.	20	121.0		
		f	05 52 20	(Next day's chart)			
17	E	e	09 11 30				
		f	10 12 43				
22	E	e	19 44 27				
		f	20 38 28				Feeble.
Nov.			November 1947.				
1	E	iP	06 06 05			4100	Moderate
		PP	06 50				
		iS	10 50				
		SS	12 05				
		L	14 06				
		M	16 35	17	65		
		f	08 12 40				
1	E		15 29 30	Later phases not clear.			Moderate, Distant. Phases lost in congestion of lines.
4	E	iP	00 19 40			7555	Moderate
		PP	21 58				
		iS	28 40				
		SS	32 55				
		L	41 24				
		M	46 51	15	40		
4,5	E	e	23 54 25				
		f	00 12 00				
8	E	e	16 34 08				
		f	52 58				
9	E	iP	05 11 28			10935	Slight.
		PP	15 26				
		SKS	21 59				
		SKKS	22 58				
		PS	24 08				
		L	44 53				
		M	52 33	17	30		
		f	07 46 30				
9	E	e	15 08 05				
		f	48 02				

KODAIKANAL OBSERVATORY.

DATE	COMPT.	PHASE.	G. M. T. h. m. s.	PER. sec.	AMP. μ	Δ Km.	REMARKS.
Nov.			November 1947 (Contd)				
12	E	eP	16 32 15			9665	Slight, distant.
		PP	35 47				
		eSKS	42 57				
		e	48 22				
		L	17 01 09				
		M	08 03	24	21		
		f	18 26 52				
15,16	E	e	23 13 15				
		f	00 02 37				Tremor.
21	E	e	00 35 31				
		f	06 10 40				Tremor.
27	E	e	04 42 30				
		f	04 56 40				Tremor.
Dec.			December 1947.				
15	E	eP	19 40 18	16	7		Long distance earthquake of slight intensity.
		f	22 46 18				Phases not clear.
24	E	eP	05 34 38	15	4		-do-
		f	07 03 58				
31	E	e	16 32 06	20	8		Feeble shock.
			17 36 59				Phases not clear.

KODAIKANAL OBSERVATORY,
KODAIKANAL.

A. K. DAS,
Director.

The following table contains a list of earthquakes reported by voluntary observers from various stations.

Place at which felt.	Date.	G.M.T. of earthquake. Hr.	Min.	Secs.	Duration.	Intensity Rossi-Forel scale.	Number of shocks.	Remarks.
Gauhati	12-10-47	07	05	About 4		2	1	
Srinagar	16-10-47	15	22		1½	5	2	Interval between shocks 1½ sec.
Srinagar	16-10-47	15	38		1	4	1	
Darjeeling	3-11-47	21	37		1½	5	2	
Dibrugarh	25-11-47	03	09		1	2	2	Interval between shocks one sec.
Tezpur	26-11-47	20	27		30	4	1	
Dibrugarh	29-11-47	05	00		1	4	3	Interval between shocks 1 sec.
Tezpur	29-11-47	17	50		3	4	2	Interval between shocks two secs.
Gauhati	29-11-47	17	55		15	3	2	Interval between shocks 5 secs.
Tezpur	30-11-47	17	58		80	5	3	Interval between shocks about 25 secs.
Srinagar	20-12-47	21	08		1½	4	2	Interval between shocks 1 sec.

A. N. Tandon.

Seismological Officer,

Poona.