

INDIA  
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# SEISMOLOGICAL BULLETIN

AUG 1964

**GOVERNMENT OF INDIA  
METEOROLOGICAL DEPARTMENT**

PUBLISHED UNDER THE DIRECTION OF  
SHRI P. R. KRISHNA RAO  
DIRECTOR GENERAL OF OBSERVATORIES

List of Seismograph Stations with their Instruments and Constants :



DATE STN PHASE H. M. S. △ KM △ KM

Station	Latitude	Longitude	Height (a.s.l.) (Metres)	Lithographic foundation	Instrument	Component	Period in secs.	Static magnification	Damping ratio	Paper speed mm/min					
Bokaro	23.47	85.53		Rock	Press-Ewing	Z	To:15 Tg:100			15					
					-do-	N-S	To:15 Tg:100			15					
					-do-	E-W	To:15 Tg:94			15					
					Sprengnether	E-W	To:Tg:7.3	5000	Critical	30					
					Wood-Anderson	N-S	0.8 sec	940	Critical	30					
-do-	E-W	0.8 sec	950	-do-	30										
Bombay	18.54	72.49		Deccan Trap	Milne-Shaw	N	12	250	20:1	8					
					-do-	E	12	250	20:1	8					
					Sprengnether	E	7.3	5000	Critical	30					
					Benioff	Z				30 for Galva meter					
Calcutta	22.32	88.20	(1) 7 Omori Ewing (2) 6 Omori Ewing Alluvium		Milne-Shaw	E	12.0	250	20:1	8					
					Omori Ewing	E	19.0	30		25.4					
					-do-	N	16.0	32		25.4					
					Sprengnether	N	To:Tg:7.0	1000	Critical	30					
Chatra	26.50	87.10	161 Sand Stone		Benioff	Z	To:0.72 Tg:0.45			60					
					Wood-Anderson	N	0.8	1000	20:1	30					
					-do-	E	0.8	1000	20:1	30					
					Milne-Shaw	N	12.0	250	20:1	16					
					-do-	E	12.0	250	20:1	16					
Wanner Accelerograph	Z,N,E	To:0.1 sec	50	10:1	600										
De lhi	28.41	77.12	207 Massive Quartzite		Sprengnether	E	To:Tg:7.6	5000	Critical	30					
					Wood-Anderson	E	To:0.8	1000	-do-	30					
					-do-	N	To:0.8	1000	-do-	30					
					Milne-Shaw	N	To:12.0	250	20:1	8					
					Benioff (S.P.)	Z	To:1.0 Tg:0.76	50000 for	Critical	60					
					-do-	N	To:1.0 Tg:0.76	50000 TE:1 sec	-do-	60					
					-do-	E	To:1.0 Tg:0.77	50000	-do-	60					
					Sprengnether (LP)	Z	To:15 Tg:100	1500 for	-do-	15					
					-do-	N	-do-	1500 TE:15	-do-	15					
					-do-	E	-do-	1500 sec	-do-	15					
Dehra Dun	30.19	78.03	682 Gravel		Wilson-Lemison	Z	To:Tg:1.3			60					
					Wood-Anderson	N	To:0.8	970	Critical	30					
					-do-	E	To:0.8	1000	-do-	30					
					Milne-Shaw	N	To:12.0	250	20:1	8					
					Sprengnether	Z	To:15 Tg:100	1500	Critical	30					
for TE:15 sec															
Goa	15.29	73.49	Laterite		Sprengnether	Z	To:Tg:1.5		Critical	30					
					-do-	E	To:Tg:7.4	5000	-do-	30					
					-do-	N	To:Tg:7.5	5000	-do-	30					
Hyderabad	17.26	78.27	536 Granite		Milne-Shaw	E	To:12	243.5	20:1	8					
					-do-	N	To:12	250.2	20:1	8					
					Kodaikanal	10.14	77.28	2345 Rock		Benioff(S.P.)	Z	To:1.0 Tg:0.75	100000 for	Critical	60
										-do-	N	To:1.0 Tg:0.75	100000 TE:1	-do-	60
-do-	E	To:1.0 Tg:0.75	100000 sec	-do-	60										
Sprengnether (LP)	Z	To:15.0 Tg:100	1500 for	Critical	30										
-do-	N	-do-	1500 TE:15	-do-	30										
-do-	E	-do-	1500 sec	-do-	30										
Milne-Shaw	E-W	To:12.0	250	20:1	8										
Madras	13.00	80.11	15		Sprengnether	Z	To:Tg:7.5		Critical	30					
					Poona	18.32	75.51	560 Deccan Trap		Benioff(S.P.)	Z	To:1.0 Tg:0.75	50000 for	Critical	60
-do-	N	-do-	50000 TE:1	-do-						60					
-do-	E	-do-	50000 sec	-do-						60					
Sprengnether(LP)	Z	To:15.0 Tg:100	3000 for	Critical						15					
-do-	N	-do-	1500 TE:15	-do-	15										
-do-	E	-do-	1500 sec	-do-	15										
Port Blair	11.40	92.43			Milne-Shaw	Z	12.0	250	20:1	8					
					Wood-Anderson	N	2.0	890	30:1	30					
					-do-	E	0.8	810	70:1	30					
					Benioff	Z	To:1.0 Tg:1.6			30					
Sehore	23.10	77.05			Wood-Anderson	N	0.8	860	Critical	30					
					-do-	E	0.8	950	-do-	30					
Shillong	25.34	91.53	1600 Quartzite Sand Stone (Shillong Quartzite)		Benioff(S.P.)	Z	To:1.0 Tg:0.75	200000 for	Critical	60					
					-do-	N	-do-	200000 TE:1	-do-	60					
					-do-	E	-do-	200000 sec	-do-	60					
					Press-Ewing(LP)	Z	To:15 Tg:100	3000 for	-do-	30					
					-do-	N	-do-	3000 TE:15	-do-	30					
					-do-	E	-do-	3000 sec	-do-	30					
					Sprengnether	E	Tg:5.7 Tg:6.7	3600	Critical	30					
					Milne-Shaw	N	To:12.0	250	20:1	8					
					Wanner Accelerograph	Z,N,E	To:0.1	Nearly 50	10:1	600					
					Tocklai	26.45	94.46	Alluvium		Wood-Anderson	E-W	0.8	1000	Critical	60
Sprengnether	E	To:Tg:7.0	5000	Critical						30					
Visakhapatnam	17.43	83.18			Wood-Anderson	E	To:2.0	960	-do-	30					
					-do-	N	To:0.8	960	-do-	30					
					Electromagnetic(SP)	Z	To:Tg:1.65	6000	-do-	30					
					-do-				-do-	60					

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01	DDI	e	00 03 43				NDI	PcP	07 54 11	
01	CHA	iP	00 50 57 R				e		58 40	
		i	54 00				i		08 01 38	
							i		03 11	
01	CHA	eP	08 30 14	90			VIS	i	07 52 29	
		iS	30 26				i		58 20	
01	NDI	eP	08 49 16 R	9450			03	NDI	iP	10 26 51 RNW 1000
		eS	59 45					iS	28 34	
01	NDI	iP	10 03 07 W				03	NDI	eP	11 36 50 RNW 860
		i	03 10					iS	38 18	
01	NDI	iPg	16 23 28.5 CSW 47				04	CHA	iPg	04 07 25 C 20
		iSg	23 34					iSg	07 28	
							04	NDI	eP	07 35 55 RNW 1050
								iS	37 42	
01	NDI	iP	20 07 45 W	1070			04	BOK	iP	09 28 34
01	NDI	e	21 49 25 RNW				04	BOK	iP	09 59 11
02	CHA	i	00 24 43				04	Epc:-	46.5°N 151.1°E in Kurile Islands.	
02	BOK	e	07 59 31						h about 101 km.(USCGS).	
									-H=17h 24m 29.2s.	
									Mag: 5.2-5.4(Berk), 5.9(CGS).	
02	CHA	eP	08 48 48							
02	DDI	e	08 59 08				CHA	iP	17 33 45 R	
02	NDI	iP	14 31 58 RNW				BOK	iP	17 34 05 6165	
							iS		41 50	
02	NDI	iP	14 33 18 RSW				DDI	e	17 34 22	
02	NDI	iP	20 07 50 RSE				iS		42 04	
02	NDI	iP	23 46 33 CSE 930				NDI	iP	17 34 22 RNE 6420	
		iS	48 09				i		34 40	
							iS		42 21	
03	NDI	iP	01 11 16 E				PPS		42 50	
							ScS		44 02	
03	MDR	e	07 24 09				e		55 04	
03	Epc:-	22.6°N 121.3°E Near south coast of Taiwan.					SEH	iP	17 34 49	
		h about 33 km.(USQGS).								
		-H= 07h 44m 44.3s.					05	CHA	iP	04 31 45 C
		Mag: 5.4.						NDI	eP	04 32 52 NW
								BOK	iP	08 31 07
							CHA	iP	07 51 05 C	
							BOK	iP	07 51 17 3575	
							iS		56 30	
							05	BOK	iP	09 29 32
							05	NDI	iP	11 14 02 NE 970
							iS		15 42	
							DDI	iP	07 52 14 E 4325	
							eS		58 13	
							NDI	iP	07 52 17 CSW	
							i		52 27	
							05	CHA	e	11 24 02
							BOK	iP	11 24 18	
							i		25 29	



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05 NDI iP 11 25 18 CNW 8510
07 NDI eP 08 14 18 RN
07 NDI eP 19 39 14
07 NDI iP 22 26 23 SW
08 NDI iP 04 24 32 E
08 NDI iP 07 29 42 NE 750
08 BOK iP 09 29 47
08 CHA i 10 35 27
08 NDI iP 14 53 53 N
08 CHA iP 14 54 15 C
08 CHA iP 15 07 56 C
08 NDI iP 15 08 53 RSE
NDI eP 15 10 19 SW
08 NDI i 21 20 06
09 CHA iPg 03 55 55 150
09 NDI iP 05 04 02 E
09 NDI iP 17 40 37.5 RNE 33
09 NDI eP 20 15 54 SE
10 CHA iPg 06 05 36 R 30
10 NDI eP 07 54 28 C
10 NDI iPg 12 11 21 RSE 39
CHA iP 18 01 17 C
NDI iP 18 01 57 CSW
10 NDI iP 18 22 33 CSE
10 CHA eP 18 24 12
10 CHA iP 20 26 05 R
NDI iP 20 26 46 CSW
10 CHA iP 21 51 33 R

10 NDI eP 21 52 20 CSW
NDI iP 22 57 07 120
iSg 57 21
11 CHA iPg 04 29 14 80
iSg 29 23
11 NDI iPn 10 14 57 CSE 130
iSn 15 14
11 CHA e 13 40 35
11 CHA iP 18 57 05 C 750
58 24
12 CHA iP 00 23 44 C 30
iSg 23 48
12 BOM iP 00 43 01 8555
iS 52 49
12 NDI iPg 04 07 40.8 CSE 30
iSg 07 44.8
12 CHA iP 07 01 11 C
NDI iP 07 01 46 CSW
12 NDI iP 18 19 09 CSE 970
eS 20 48
12 CHA iP 18 20 47 R
12 CAL i 18 41 08
12 NDI eP 19 31 40 CSE 2680
eS 35 56
DDI eP 19 31 43
e 36 47
12 CHA iP 19 33 00 R
12 SHL iP 19 33 37
12 BOK e 19 46 48
i 47 59
13 Epc:- 5.4°S 154.3°E in Solomon Islands. h about 383 km. -H= 00h 31m 14.1s (USCGS). Mag: 6.0.
PBA iP 00 41 08 CE 6390
PP 43 17
PPP 44 19
iS 49 05
SS 52 43
SSS 54 41
PBA LR 00 56 20
M 59 49
SHL iP 00 41 36 6920
iS 50 02
BOK iP 00 41 57
i 43 20
i 49 43
CHA iP 00 42 02 SE 7410
iS 50 53
PS 51 14
PPS 51 25
BOK iP 00 42 05 S 7470
iS 50 59
ScS 52 45
SS 55 31
VIS iP 00 42 11 RSE 7580
iPP 44 44
iPPP 46 23
iS 51 11
iPs 51 42
iPPs 51 53
eSS 55 36
eSSS 58 36
13 TOC eP 00 42 23
MDR iP 00 42 23 W 7780
PcP 42 45
e 43 45
PP 45 03
PPP 46 55
iS 51 33
PS 51 57
PPS 52 12
SKS/ScS 52 22
e 53 15
e 53 38
e 54 36
SS 56 00
SSS 59 17
LQ 01 00 53
LR 04 03
M 09 55
HYD iP 00 42 34 E 7950
PcP 42 52
PP 45 22
PPP 46 59
iS 51 53
SS 56 32
Lq 01 00 57
LR 03 58
M 09 22



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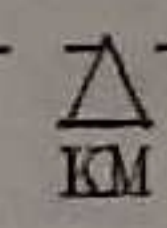
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13	KOD	iP	00 42 36	E	7860	DDI	iSn	11 23 46	
		iS	51 51				M	23 48	
		i	53 33				SS	23 57	
		i	54 24				SSS	24 09	
	DDI	iP	00 42 49	SE	8280	NDI	iPn	11 23 33	CSW 260
		PcP	43 00				iSn	24 03	
		PP	45 42						
		PPP	47 35						
		iS	52 24						
		ScS	52 50						
		PPS	53 16						
		SS	57 17						
		SSS	01 00 34						
		PKKP2	01 33						
		LQ	02 54						
		PKKS1	03 08						
		LR	04 34						
		M	11 04						
	NDI	iP	00 42 50	RSE	8870				
		PP	43 12						
		SP	43 50						
		iS	52 24						
		ScS	52 44						
		PPS	53 24						
		i	54 14						
		SS	54 50						
		i	55 42						
		SS	58 02						
		SSS	01 00 10						
		LQ	03 30						
		i	04 18						
		LR	06 36						
		i	12 20						
13	CHA	eP	04 12 20		40				
		eS	12 26						
13	CHA	iP	04 37 30						
13	NDI	iP	04 38 28		NW				
13	NDI	eP	04 46 35		SW				
15	CHA	iPg	08 02 54		R	180			
		iSg	03 15						
15	NDI	iPg	09 07 39		RNE	30			
		iSg	07 07.6						
15	Epc:- 29.5°N 80.0°E in Almora.								
	-H= 11h 22m 52s(New Delhi).								
	DDI	iPn	11 23 23		SW	189			
		PP	23 31						
		LQ	23 35						
		PPP	23 37						
		LR	23 39						
	SN 11 23 46								

17	NDI	i	05 07 04						
17	SHL	eP	12 00 27						
	CHA	iP	12 00 47		R				
17	NDI	iP	12 01 24		CSW	11			
17	NDI	eP	12 08 57		RW				
17	NDI	iP	12 14 17		C	910			
		iS	15 51						
17	SHL	eP	13 56 14						
17	TOC	eP	14 44 19						
	CHA	iP	14 44 23		C				
17	NDI	iP	14 46 27		RSE				
17	SHL	eP	15 02 14						
	CHA	iP	15 02 38		R				
17	NDI	iP	15 03 23		CSW				
17	CHA	e	15 25 50						
17	SHL	iP	16 49 41		R				
	CHA	i	16 50 08						
17	SHL	iP	17 16 05		C				
17	SHL	iPg	18 07 45			50			
		iSg	07 51						
17	SHL	eP	18 14 04						
17	SHL	eP	22 42 43						
		i	42 52						
18	CHA	e	00 32 35						
18	CHA	iP	00 33 18		R				
18	NDI	iP	00 46 14		R				
		i	46 16						
18	NDI	i	04 45 20						
18	Epc:- 26.4°S 71.5°W Off coast of Northern Chile.								
	h about 8 km.								
	-H= 04h 44m 58s.								
	Mag: 6(Berk), 6.4(CGS).								
	BOM	ePKP	05 04 40						
		iPKP	04 49						
	NDI	iPKP	05 04 49		C				
		PP	08 46						
	VIS	ePKP	05 04 53		R				
		e	08 05						
	BOK	iPKP	05 04 58						
18	PBA	iPKP	05 05 00		C				
		e	06 06						
	DDI	ePKP	05 05 01						
	MDR	ePKP	05 05 01			16550			
		PKP2	05 11						
		PP/PKS	08 36						
		SKKS	15 19						
		SKKKS	16 09						
		PPS	21 30						
		SS	27 49						
		M	06 05 59						
	CHA	iPKP	05 05 02		C				
		i	05 45						
	SHL	iP	05 05 05		C				
		i	09 54						
		i	14 56						
18	BOM	i	05 21 47						
18	Epc:- 0.5°N 67.2°E in Carlsberge Ridge. h about 33 km.								
	-H= 11h 09m 43.4s								
	Mag: 5.1 (CGS).								
	MDR	iP	11 13 52		E				
		PP	14 07						
		<del>e</del>	<del>17 28</del>						
		SS	17 38						
		SSS	17 52						
		<del>i</del>	<del>18 26</del>						
	VIS	iP	11 14 51		RNW				
		i	19 14						
	NDI	iP	11 15 48		CNW				
	CHA	iP	11 16 16		C				
	SHL	iP	11 16 32		C				
18	SHL	iP	11 49 05		R				
18	CHA	iPg	13 15 07			130			
		iSg	15 24						
18	SHL	eP	13 16 00						



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18 Epc:- 5.7°N 58.0°E in Carlsberg Ridge. h about 33 km(USCGS). -H= 15h 26m 11.4s. Mag: 5.4 (CGS).

Table with columns: Station, Phase, H, M, S, Location. Includes entries for MDR, NDI, CHA, SHL.

18 NDI i 20 34 03
19 NDI i 02 10 44
19 SHL iP 02 59 44 R

19 Epc:- 28.2°N 52.6°E Southern Iran. h about 50 km (USCGS). -H= 09h 33m 10.0s. Mag: 5.6.

Table with columns: Station, Phase, H, M, S, Location. Includes entries for BOM, NDI, DDI, CHA, SHL.

19 CHA eP 09 39 26
19 SHL iP 09 40 03 R
19 BOK iP 09 44 18
19 MDR e 09 46 13
VIS eP 09 46 36

19 SHL eP 14 36 44
iSg 37 11

19 Epc:- 28.2°N 52.7°E in Southern Iran. h about 52 km. -H= 15 h 20m 13.9s(USCGS).

Table with columns: Station, Phase, H, M, S, Location. Includes entries for BOM, NDI, DDI.

SHL iP 15 27 02 C
BOK i 15 32 01
i 39 28
i 41 25

MDR e 15 32 51
e 37 48

19 SHL eP 21 00 51
e 01 26

19 NDI iP 22 45 04
i 48 06

20 CHA iPg 03 37 11

20 SHL eP 04 22 39

20 CHA eP 04 23 09

20 NDI iP 05 13 38
i 13 41
eS 17 34

20 BOK e 05 20 37
i 28 07

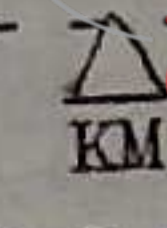
20 BOM e 05 44 32
e 37
e 48 24
e 49 11

NDI iP 05 44 34
i 44 37
iS 48 32

20 BOK e 05 51 33
i 57 31

20 SHL eP 11 27 20
e 27 58

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20 SHL iP 12 59 19 C

20 SHL iP 17 38 15 C
NDI iP 17 39 51 RSE

20 NDI i 19 34 06
20 CHA iP 20 58 32
iS 58 46

20 NDI iPg 21 08 46 RS
iSg 08 50.7

21 VIS iP 00 06 37 CW 390
eP 06 43
ePg 06 50
iS 07 19
eS 07 27

21 NDI iP 01 21 30 CS 610
iS 22 45

21 CHA i 01 25 44

21 CHA iP 06 05 19 250
iSg 05 51

21 NDI iP 08 04 07 RW 2410
eS 08 03

21 DDI e 08 08 21

21 BOK eP 08 10 21
i 18 37

21 NDI iP 11 13 48 RNW 980
iS 15 29

21 CHA eP 15 31 56 120
iSg 32 08

SHL iP 16 30 22 R
21 NDI eP 16 55 33 R

21 CHA iP 16 56 48 R

21 NDI eP 17 09 37 C

21 CHA eP 17 35 19

21 NDI i 17 46 07

21 CHA e 19 17 21
SHL iP 19 17 37 C
MDR eP 19 17 40
e 19 41

21 SHL iP 20 14 59 C

21 CHA ePg 21 49 29 30
iSg 49 33

22 MDR eP 00 06 12
SHL iP 00 06 45 C

CHA eP 00 07 13

22 NDI iP 00 08 04 CSE

22 CAL e 01 12 53

22 SHL iP 01 15 31 R

22 CHA e 02 29 47
MDR e 02 30 54

HYD M 02 31 44

22 CAL e 02 38 26

BOK i 02 39 29

22 CHA eP 10 12 34

22 NDI P 18 36 48 830
iS 38 15

23 CHA eP 05 54 56 150
eS 55 15

23 NDI iPg 08 56 28.4 CS 40
iSg 56 33.4

23 SHL iP 09 44 34 R

23 SHL iP 12 42 56 R

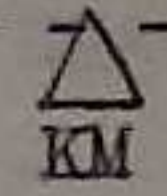
23 NDI iP 14 29 37 R

23 SHL iP 15 34 35 R 7060
iS 43 08
SS 47 24
LQ 51 00

23 BOK iP 15 35 03 C
i 45 12

CHA iP 15 35 07 C
23 NDI eP 15 35 36
23 NDI eP 15 45 37 RSE
23 SHL eP 17 27 20
e 27 59

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23 CHA iPg 18 56 56 80  
iSg 57 05

23 SHL ePn 23 35 26 180  
iSg 35 49

24 SHL iP 14 42 21 R

24 SHL iP 17 33 39 R

NDI iP 17 35 17 RSW

24 SHL iP 20 00 04 R

24 SHL iP 22 09 12 C

NDI iP 22 09 26

25 SHL iP 03 04 49 R

25 CHA iP 03 05 23

25 CHA iP 07 17 11 R

25 SHL eP 08 03 24

25 CHA eP 08 13 56

25 NDI eP 11 19 33

25 CHA iP 11 20 43 C

25 CHA iP 11 51 54 C

25 Epc:- 78.2°N 126.6°E in East of Severuaya Zembya. h about 50 km (USCGS). -H = 13h 47m 20.6 s. Mag: 6 1/4 to 6 1/2 (CGS).

NDI iP 13 56 41 RE 5950  
i 56 43  
PcP 58 04  
PP 58 51  
PPP 59 58  
i 14 00 36  
PcS/ScP 01 48  
iS 04 14  
i 04 18  
i 04 38  
ScS 06 20  
SS 07 48  
i 08 47  
LR 14 06

DDI iP 13 56 32 N 5740  
eP 56 32  
PcP 57 36  
PP 58 19

DDI PPP 13 59 26  
PcS 14 01 31  
iS 03 53  
PS 04 01  
PPS 04 10  
ScS 06 16  
SS 07 13  
i 08 09  
SSS/LQ 09 15  
LR 11 49  
M 16 12

CHA iP 13 56 44 RN 6040  
iS 14 04 22

SHL iP 13 56 47 R 6180  
iS 14 04 32

BOK iP 13 57 07

CAL iP 13 57 27 6410  
iS 14 05 25

VIS iP 13 57 51 RSE 7090  
eS 14 06 26

BOM iP 13 57 56 7370  
PcP 58 12  
PP 14 00 26  
iS 06 45  
PS 07 00  
PPS 07 11  
ScS 07 38  
SS 11 00

SEH iP 13 58 05

PBA iP 13 58 22 CW 7580  
PPP 14 02 29  
iS 07 23  
PS 07 51  
SS 11 55  
LR 20 05  
M 24 45

MDR eP 13 58 26 7630  
PP 14 00 50  
PPP 02 30  
iS 07 29  
e 08 41  
SS 11 50  
LQ 15 39  
LR 18 55  
M 25 03

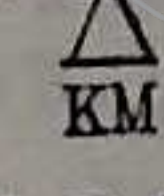
25 TOC eP 14 00 46  
i 01 34

25 TOC eP 15 27 36  
e 27 51

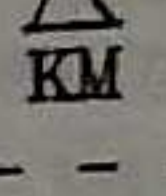


International Seismological Centre

DATE STN PHASE H. M. S.



DATE STN PHASE H. M. S.



August, 1964.

25 KOD i 14 08 06

25 NDI iP 14 45 19 E  
eP

CHA eP 14 46 28

25 SHL eP 15 27 24

CHA eP 15 28 09  
i 28 36  
i 30 11

26 NDI iP 03 30 39 RS

26 NDI eP 05 04 01 C

26 SHL eP 05 48 35

CHA iP 05 49 07 R  
i 49 32

NDI iP 05 49 45 RNE

26 NDI iP 07 45 47 C

26 DDI e 19 40 07

26 SHL eP 22 13 15

26 NDI eP 23 57 37 C

27 CHA iP 01 43 28 R

NDI iP 01 44 25 CW

27 SHL eP 04 54 07

NDI eP 04 54 40

27 NDI eP 04 55 38 R

27 NDI iP 08 36 33 R

27 NDI iP 10 19 39 R 110  
iSg 19 51

27 NDI iP 12 02 54 RNW

27 CHA e 12 04 26

27 NDI iP 13 01 07 RNW 2150  
eS 04 40

DDI eP 13 01 14  
i 04 54

CHA iP 13 02 38 R

27 SHL iP 15 43 25

NDI iP 15 43 47 R

27 NDI iP 15 44 45 CNW

27 SHL iP 16 31 27

27 NDI eP 19 39 42 R

CHA eP 19 40 53

SHL iP 19 41 23

27 NDI eP 23 51 20 C

28 CHA i 01 29 08

28 SHL iP 04 48 06 C

28 SHL iP 04 57 48 C

28 CHA iP 08 00 17 150  
iSg 00 37

28 SHL eP 08 00 38  
e 01 15

28 NDI iPg 09 19 29.4 CSE 40  
iSg 19 34.4

28 BOM eP 12 26 34 2630  
PPP 27 21  
eS 47  
SSS 31 59

28 BOM eP 12 39 50 1080  
eS 41 40  
SS 56  
LR 42 03

28 CHA iP 12 42 21 R 130

28 PBA iP 13 40 38 C  
i 22 52

28 Epc:- 7.1°N 95.1°E in Nicobar Islands region. h about 33km. -H= 13h 21m 13.5s (USCGS). Mag: 5.1

Epc:- 7.6°N 95.6°E in Nicobar Islands region. h about 33km. -H= 13h 22m 05s (USCGS). Mag: 5.2

MDR iP 13 25 07 E  
i 25 14  
i 25 23  
e 25 39  
e 25 57  
e 26 23  
i 27 53  
i 27 56

DATE STN PHASE H. M. S.

△  
KM

DATE STN PHASE H. M. S.

△  
KM

August, 1964.

28 KOD iP 13 25 32  
iS 28 50

SHL iP 13 25 35

CHA iP 13 26 01 R

HYD iP 13 26 35 1200  
e 29 12  
32 32

NDI iPn 13 27 00 CNE 350  
eSn 27 38  
i 27 46

CAL i 13 28 27

28 Epc:- 12.0°N 83.4°E  
- H= 13h 36m 50s  
(CSO Shillong).

KOD iP 13 39 05

PBA eP 13 39 06  
i 40 33

SEH iP 13 39 59 1480  
PP 40 10  
LQ 42 23  
iS 42 29  
SS 42 45  
SSS 42 58

HYD iS 13 40 12

CHA eP 13 40 33

SHL iP 13 40 37 1750  
iS 43 33

NDI iP 13 41 03 RS 2000  
PP 41 16  
iS 44 22

28 SHL iP 15 06 15 C

28 CHA e 15 07 14

28 SHL iP 18 22 41 C

28 CHA e 18 23 28

28 MDR P 19 07 43 370  
iS 08 23  
Sg/M 08 37

28 SHL iP 19 11 23

28 SHL eP 21 22 13

29 NDI iP 00 50 24 C 990  
iS 52 06

29 SHL eP 03 27 45

29 SHL eP 04 15 39

29 NDI iP 06 24 39 C

29 SHL eP 21 18 29  
e 19 02

29 CHA e 21 26 19

30 Epc:- 27.6°N 88.3°E in Sikkim.  
h about 21 km(USCGS).  
-H=02h 35m 08s  
Mag: 5.2 (CGS).

Epc:- 27.0°N 88.0°E  
-H=02h 35m 05s (CSO Shillong)

CHA iPg 02 35 31 SW 150  
iSg 35 47

TOC eP 02 36 27

CAL iP 02 36 36 630  
iS 37 42

DDI eP 02 37 20 1055  
PPP 37 35

LQ 39 01

iS 39 09

SS 39 20

LR 39 28

SSS 39 33

M 40 17

NDI iP 02 37 27 RE 1050  
i 38 07

Pg 38 19

iS 39 14

SEH iP 02 37 41 1350  
eS 39 58

e 41 04

HYD iP 02 38 44  
41 05

M 42 35

MDR eP 02 38 55 1790  
PP 39 09

PPP 39 17

LQ 41 50

iS 41 54

SS 42 15

SSS 42 23

LR 42 35

M 44 00



DATE STN PHASE H. M. S.

△  
KM

DATE STN PHASE H. M. S.

△  
KM

August, 1964.

30 BOM eP 02 39 00 1840  
e 21  
e 41  
eS 42 07  
e 10  
e 15  
LR 20

30 PBA iP 02 39 01 C

30 CHA eP 02 42 03 110  
iS 42 18

30 KOD e 02 45 31

CHA eP 02 45 33 150  
iS 45 52

30 SHL eP 03 45 20

30 CAL eP 04 14 17 570  
iS 15 17

30 CHA iP 05 12 59 150  
iSg 13 19

30 SHL iP 05 13 30

30 NDI iP 05 14 54 RSW 1060

30 VIS eP 05 17 07 R

30 MDR e 05 19 34

30 NDI eP 07 54 16

30 SHL iP 08 57 29

30 NDI iP 08 58 53 CNW

30 NDI eP 11 51 52

30 NDI iP 13 33 38 CSE

30 NDI iP 13 35 16 NE  
30 NDI eP 14 34 58 W  
iP 34 59

30 SHL eP 19 56 50

30 CHA eP 21 54 35 140  
iS 54 53

30 SHL eP 21 55 00

31 NDI iP 00 36 19 CW

31 VIS eP 04 27 32 R

31 MDR eP 04 31 01

31 CHA iP 05 37 38 R

31 CHA iP 17 31 08 C 340  
iS 31 46

NDI iPn 17 31 38 RNE 580  
iSn 32 39

31 SHL iP 17 32 03

31 SHL iP 21 12 41

31 CHA e 21 15 09

31 NDI iPg 23 22 6.5 S 40  
iSg 22 11.5

31 SHL iP 23 31 56

31 CHA iP 23 32 06 R

NDI iP 23 32 26 CSW

A list of felt earthquake reports for the month of August, 1964.  
( Non-Instrumental ).

S.No.	Station	Date (GMT)	Time (GMT)	No of shocks	Duration (Secs.)	Intensity (R.F.Scale)	RKS.
1.	Mukteswar	13.8.64	11 25	One	1	V	
2.	Gangtok	30.8.64	02 42	Two of 10 mt. interval.	1 sec. each.	IV	

MICROSEISMIC - 14 - TABULATION



Date	Hour	K	Mean amplitude in m.m.	Mean period in sec.	Date	Hour	K	Mean amplitude in m.m.	Mean period in sec.
Station: Shillong					August, 1964.				
01	00	...	-	-	13	00	3	0.3	4.2
	06	...	-	-		06	...	-	-
	12	...	-	-		12	3	0.2	4.0
	18	0,0	-	-		18	3	0.3	4.1
02	00	0,0	-	-	14	00	...	-	-
	06	...	-	-		06	...	-	-
	12	...	-	-		12	3	0.3	4.3
	18	...	-	-		18	3	0.3	4.4
03	00	...	-	-	15	00	3	0.2	4.0
	06	...	-	-		06	3	0.3	4.2
	12	...	-	-		12	3	0.3	4.2
	18	...	-	-		18	3	0.3	4.4
04	00	...	-	-	16	00	3	0.3	4.2
	06	...	-	-		06	3	0.3	4.2
	12	...	-	-		12	3	0.3	4.3
	18	...	-	-		18	1	0.4	4.4
05	00	...	-	-	17	00	3	0.3	4.3
	06	...	-	-		06	3	0.3	4.2
	12	...	-	-		12	3	0.3	4.3
	18	...	-	-		18	3	0.2	4.0
06	00	...	-	-	18	00	0,0	0.2	4.0
	06	...	-	-		06	...	-	-
	12	...	-	-		12	3	0.2	4.0
	18	...	-	-		18	3	0.2	4.2
07	00	...	-	-	19	00	3	0.2	4.4
	06	...	-	-		06	0,0	-	-
	12	3	0.6	4.5		12	...	-	-
	18	3	0.4	4.0		18	...	-	-
08	00	1	0.4	3.5	20	00	...	-	-
	06	...	-	-		06	...	-	-
	12	3	0.6	5.3		12	...	-	-
	18	1	0.8	5.4		18	...	-	-
09	00	1	0.7	5.4	21	00	...	-	-
	06	..	-	-		06	3	0.3	4.2
	12	...	-	-		12	1	0.4	4.4
	18	...	-	-		18	1	0.3	4.5
10	00	...	-	-	22	00	3	0.3	4.5
	06	...	-	-		06	3	0.3	4.2
	12	...	-	-		12	3	0.2	4.0
	18	...	-	-		18	3	0.2	4.0
11	00	...	-	-	23	00	3	0.3	4.2
	06	...	-	-		06	0,0	-	-
	12	...	-	-		12	0,0	-	-
	18	...	-	-		18	3	0.1	4.0
12	00	...	-	-	24	00	3	0.2	4.0
	06	...	-	-		06	3	0.2	4.0
	12	3	0.4	4.3		12	3	0.1	3.8
	18	3	0.4	4.5		18	3	0.2	4.0

DATE	Hour	K	Mean amplitude in m. m.	Mean period in sec.	DATE	Hour	K	Mean amplitude in m.m.	Mean period in sec.
Station: Shillong(Contd.)					August, 1964.				
25	00	3	0.1	3.8	02	18	1	1.3	4.6
	06	0,0	-	-			2	0.9	3.4
	12	0,0	-	-					
	18	0,0	-	-	03	00	1	1.3	4.7
26	00	0,0	-	-			1	0.9	3.5
	06	0,0	-	-			1	1.4	4.7
	12	0,0	-	-			2	0.7	2.9
	18	0,0	-	-		06	1	1.6	4.8
27	00	0,0	-	-			2	0.8	2.9
	06	3	0.1	3.7		12	1	1.7	5.0
	12	3	0.2	4.0			2	0.7	2.9
	18	3	0.2	4.0		18	1	1.6	4.9
28	00	3	0.1	3.8			2	0.7	2.8
	06	0,0	-	-	04	00	1	1.7	4.9
	12	3	0.1	3.8			2	0.6	2.9
	18	...	-	-		03	1	2.0	4.9
29	00	...	-	-			2	0.5	2.8
	06	3	0.1	3.8		06	1	1.8	4.9
	12	0,0	-	-		12	1	2.1	5.0
	18	3	0.1	3.6		18	1	2.2	5.0
30	00	3	0.2	4.1	05	00	1	2.4	5.3
	06	...	-	-			1	1.6	4.5
	12	...	-	-		03	1	2.5	5.3
	18	...	-	-			1	1.6	4.5
31	00	...	-	-		06	1	2.8	5.2
	06	0,0	-	-			1	1.9	4.5
	12	0,0	-	-		12	1	2.7	5.3
	18	0,0	-	-			1	1.9	4.5
						18	1	2.7	5.1
							1	1.8	4.5
					06	00	1	2.6	5.4
							1	1.7	4.5
						03	1	2.4	5.4
							1	1.9	4.5
						06	1	2.6	5.5
							1	1.9	4.6
						12	1	2.4	5.6
							1	1.9	4.6
						18	1	2.7	5.7
							1	2.0	4.5
					07	00	1	2.5	5.7
							1	2.0	4.6
						03	1	2.5	5.5
							1	1.7	4.6
						06	1	2.4	5.5
							1	1.7	4.5
						12	1	2.6	5.5
							1	1.6	4.6
						18	1	2.5	5.5
							1	1.7	4.7
					08	00	1	2.5	5.7
							1	1.5	4.6
						03	1	2.5	5.7

Station : Madras.





Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.	Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.
Station: Madras(Contd.)					August, 1964.				
08	03	1	1.3	4.3	13	06	1	1.9	5.9
	06	1	2.5	5.7		12	1	2.0	5.8
	12	1	2.3	5.6		18	1	2.0	5.9
		1	1.5	4.6					
	18	1	2.2	5.6	14	00	1	1.9	5.9
		1	1.5	4.7		03	1	1.9	5.9
		3	0.7	3.2		06	1	1.8	5.8
						12	1	1.7	5.8
09	00	1	2.3	5.7		18	1	1.6	5.6
		3	0.7	3.3					
	03	1	2.1	5.6	15	00	1	1.5	5.5
		3	0.7	3.0		03	1	1.4	5.5
	06	1	2.0	5.5			3	0.1	2.5
		1	1.4	4.5		06	1	1.4	5.6
		3	0.8	3.2			3	0.2	2.4
	12	1	1.9	5.5		12	1	1.2	5.5
		1	1.5	4.7			3	0.2	2.5
		3	0.7	2.9		18	1	1.0	5.3
	18	1	2.0	5.6			3	0.2	2.5
		1	1.5	4.7					
		3	0.8	3.4	16	00	1	1.0	5.0
10	00	1	2.1	5.6			3	0.2	2.5
		1	1.5	4.7		03	1	1.1	5.4
		3	0.5	2.9			3	0.2	2.6
	03	1	1.9	5.4		06	2	1.0	5.1
		1	1.5	4.5			3	0.2	2.7
		3	0.7	2.8		12	2	0.8	4.9
	06	1	2.1	5.5			3	0.2	2.7
		1	1.7	4.7		18	2	0.8	5.0
		3	0.8	2.9			3	0.1	2.6
	12	1	2.2	5.5	17	00	2	0.7	4.8
		1	1.7	4.5			3	0.1	2.4
		3	0.7	2.9		03	2	0.6	4.6
	18	1	2.1	5.2			3	0.2	2.6
		3	0.6	2.8		06	2	0.7	4.5
							3	0.2	2.7
11	00	1	2.0	5.4		12	2	0.7	4.5
		3	0.7	3.0			3	0.2	2.6
	03	1	1.9	5.3		18	2	0.7	4.7
		3	0.6	2.8			3	0.1	2.3
	06	1	1.9	5.3					
		3	0.6	2.8	18	00	2	0.7	4.5
	12	1	2.1	5.8			3	0.1	1.9
		3	0.5	2.6		03	2	0.8	4.6
	18	1	2.0	5.6			3	0.2	2.3
		3	0.4	2.7		06	2	0.2	2.3
12	00	1	1.8	5.8		12	2	0.7	4.6
		3	0.4	2.7			2	0.4	2.7
	03	1	1.8	5.6		18	2	0.9	4.6
		1	2.1	5.8			3	0.4	2.6
	06	1	1.9	5.9					
		1	1.9	5.8	19	00	2	0.9	4.5
	18	1	1.9	5.8			2	0.5	2.3
						03	2	1.0	4.5
13	00	1	1.9	5.9			2	0.5	2.9
	03	1	1.9	5.7		06	2	1.0	4.5
							2	1.0	4.5
							2	0.6	3.0

Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.	Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.
Station: Madras(Contd.)					August, 1964.				
19	12	2	1.0	4.5	25	00	3	0.7	4.1
		2	0.5	2.9		03	3	0.7	4.0
	18	2	0.8	4.5		06	3	0.7	4.2
		2	0.5	2.8		12	3	0.7	4.2
						18	3	0.6	4.1
20	00	2	0.8	4.5			3	0.1	1.8
		2	0.4	2.8					
	03	2	0.8	4.5	26	00	3	0.7	4.5
		3	0.4	2.8			3	0.3	2.7
	06	2	0.9	4.6		03	3	0.7	4.5
		3	0.4	2.9			3	0.3	2.7
	12	2	0.8	4.5		06	2	0.8	4.4
		3	0.3	2.8			2	0.3	2.8
	18	2	0.9	4.6		12	2	0.8	4.6
		3	0.3	2.7		18	2	0.9	4.6
21	00	2	0.7	4.5	27	00	2	0.9	4.5
		3	0.3	2.5		03	2	0.8	4.7
	03	2	0.7	4.4		06	2	0.9	4.5
		3	0.3	2.6			3	0.2	2.3
	06	3	0.7	4.3		12	2	0.8	4.7
		3	0.3	2.9			3	0.3	2.9
	12	3	0.7	4.2		18	2	0.8	4.7
		3	0.3	2.7			3	0.1	2.7
	18	3	0.6	4.2					
		3	0.1	1.8	28	00	2	0.7	4.7
							3	0.1	2.5
22	00	3	0.6	4.3		03	2	0.7	4.5
		3	0.3	2.7			3	0.1	2.5
	03	3	0.5	4.0		06	2	0.7	4.7
		3	0.4	2.8		12	2	0.7	4.6
	06	3	0.5	3.9		18	2	0.7	4.6
		3	0.4	2.9					
	12	3	0.5	4.1	29	00	2	0.7	4.6
		3	0.4	2.8			3	0.2	2.3
	18	3	0.5	4.0		03	2	0.7	4.7
		3	0.4	2.8			3	0.2	2.4
23	00	3	0.5	4.3		06	2	0.8	4.7
		3	0.4	2.8			3	0.3	2.7
	03	3	0.5	4.0		12	2	0.8	4.5
		3	0.4	2.8			3	0.3	2.6
	06	3	0.6	4.0		18	2	0.7	4.4
		3	0.4	2.7			3	0.3	2.8
	12	3	0.5	4.0	30	00	2	0.7	4.5
		3	0.3	2.7			3	0.2	2.4
	18	3	0.5	4.0		03	2	0.8	4.7
		3	0.3	2.7			3	0.1	2.3
24	00	3	0.5	4.0		06	2	0.9	4.6
		3	0.3	2.7			3	0.2	2.4
	03	3	0.5	4.1		12	2	0.8	4.7
		3	0.3	2.6			3	0.2	2.4
	06	3	0.5	3.9		18	2	0.8	4.7
		3	0.2	2.5			3	0.1	2.5
	12	3	0.6	3.9	31	00	2	0.9	4.9
		3	0.1	2.1			3	0.1	2.5
	18	3	0.7	4.1		03	2	0.9	4.9
							3	0.2	2.5

... Earthquake.



Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.	Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.
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Station: Madras(Contd.)

August, 1964.

31	06	2	0.9	4.8	09	00	3	0.5	3.0
		2	0.2	2.3		06	3	0.8	3.0
	12	2	0.9	4.8		12	1	1.2	3.0
		3	0.2	2.3		18	1	1.8	3.0
	18	2	0.8	4.8	10	00	1	2.0	3.0
		3	0.1	2.3		06	3	1.0	2.8
						12	3	0.6	2.8
						18	3	0.6	2.8

Station: Calcutta.

01	00	...	-	-	11	00	3	0.6	2.8
	06	...	-	-		06	3	0.6	2.8
	12	3	0.4	3.8		12	3	0.6	2.8
	18	3	0.4	3.8		18	3	0.6	2.8
02	00	3	0.5	4.0	12	00	3	0.6	2.8
	06	3	0.5	4.0		06	...	-	-
	12	3	0.5	4.0		12	3	0.4	2.8
	18	3	0.5	4.0		18	3	0.4	2.8
03	00	2	0.6	4.0	13	00	...	-	-
	06	1	0.6	4.0		06	3	0.5	2.8
	12	1	0.6	4.0		12	3	0.5	2.8
	18	1	1.0	5.0		18	...	-	-
04	00	1	1.0	5.0	14	00	...	-	-
	06	1	1.0	5.0		06	3	0.4	3.0
	12	1	1.0	5.0		12	3	0.4	3.0
	18	2	1.2	4.4		18	3	0.4	3.0
05	00	2	1.1	4.4	15	00	1	0.6	2.8
	06	2	1.8	3.2		06	...	-	-
	09	2	1.8	3.2		12	1	1.0	2.8
	12	2	1.8	3.2		18	1	1.0	2.8
	15	2	2.0	3.2	16	00	1	0.8	2.4
	18	2	2.2	3.4		06	1	0.8	2.4
	21	2	2.4	3.4		12	1	0.8	2.4
06	00	2	2.6	3.6		18	1	0.8	2.4
	03	2	2.2	3.8	17	00	1	0.8	2.4
	06	2	2.2	3.8		06	1	0.8	2.4
	09	2	2.2	3.8		12	1	0.8	2.4
	12	2	2.2	3.8		18	1	0.8	2.4
	15	2	2.2	3.8	18	00	1	0.6	2.4
	18	2	2.2	3.8		06	3	0.6	2.4
	21	2	2.2	3.8		12	3	0.4	2.4
07	00	2	2.2	3.8		18	3	0.4	2.4
	03	2	2.2	3.8	19	00	3	0.2	2.4
	06	2	1.4	3.2		06	3	0.4	3.4
	12	3	1.4	3.2		12	3	0.4	3.8
	18	3	1.2	3.2		18	3	0.4	3.8
08	00	3	0.7	3.0	20	00	3	0.4	3.8
	06	3	0.6	3.0		06	3	0.4	3.8
	12	3	0.6	3.0		12	3	0.4	3.8
	18	3	0.6	3.0		18	3	0.4	3.8

Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.	Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.
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Station: Calcutta(Contd.)

August, 1964.

21	00	3	0.4	3.8	01	06	3	1.4	4.1
	06	3	0.4	4.0				1.1	3.0
	12	3	0.4	4.0				0.3	2.0
	18	3	0.4	4.0		12	3	1.4	4.0
22	00	No record.						1.0	3.0
	06	No record.				18	3	0.3	0.8
	12	No record.						1.5	4.0
	18	No record.						0.9	3.0
		No record.						0.5	2.0
23	00	No record.			02	00	3	1.5	4.0
	06	3	0.8	4.0				1.0	3.0
	12	3	0.8	4.0				0.4	2.0
	18	3	0.8	4.0		03	3	1.9	4.0
24	00	3	0.8	4.0				1.1	3.0
	06	3	1.0	4.2				0.3	1.6
	12	3	1.0	4.2		12	3	2.4	4.0
	18	3	1.0	4.2				1.7	3.0
25	00	3	1.0	4.2		18	3	0.5	2.0
	06	No record.						2.3	4.0
	12	No record.						1.7	3.0
	18	No record.			03	00	3	2.5	4.0
26	00	No record.						1.9	3.0
	06	3	0.6	4.0				0.5	2.0
	12	...	-	-		06	3	2.5	4.0
	18	...	-	-				1.9	3.0
27	00	...	-	-				0.4	2.0
	12	3	0.4	4.0		12	3	2.5	4.0
	18	3	0.4	4.0				1.7	3.0
28	00	No record.				18	3	2.5	4.0
	06	No record.			04	00	3	2.5	4.0
	12	No record.						1.5	3.0
	18	No record.						0.5	2.0
29	00	0..	-	-				0.3	1.7
	06	0..	-	-		03	3	2.6	4.0
	12	0..	-	-				1.5	3.0
	18	0..	-	-				0.5	2.0
30	00	...	-	-		12	3	2.5	4.0
	06	...	-	-				1.5	3.0
	12	...	-	-		18	3	2.5	4.0
	18	...	-	-				2.0	3.0
31	00	...	-	-				0.3	2.0
	06	0..	-	-	05	00	3	2.5	4.0
	12	0..	-	-				1.9	3.0
	18	0..	-	-				0.5	2.0

Station: Bombay(Colaba).

01	00	3	0.9	3.0	12	3	2.5	4.0
			0.4	2.0			2.1	3.0
							0.5	2.0
							0.2	1.5



Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.	Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.
Station: Bombay(Colaba) (Contd.).					August, 1964.				
05	12	3	3.3 2.3 0.5 0.3	4.2 3.0 2.0 1.6	10	06	3	2.8 2.3 1.5 3.0 2.2 1.5	4.0 3.1 2.3 4.0 3.0 2.0
06	00	3	3.0 2.0 0.4	4.0 3.0 2.0		12	3	2.9 2.5 1.0	4.0 3.0 2.0
	06	-	-	-		18	3	2.2 2.8 1.0	3.0 4.0 2.2
	12	3	3.3 2.3 2.6 0.5	5.0 3.0 4.0 2.0	11	00	3	2.2 2.8 1.0	3.0 4.0 2.2
	18	3	2.1 3.0 0.5	3.0 4.0 2.0		06	3	2.9 1.8 3.4 2.3	4.0 3.0 4.0 3.0
07	00	3	3.0 2.1 1.0 0.3	4.0 3.0 2.4 1.6		12	3	3.1 2.1 1.5	4.0 3.0 2.5
	06	3	5.1 3.5 2.5 0.5	5.0 4.0 3.0 2.0	12	00	3	2.1 1.5 2.7 1.8	3.0 2.5 3.1 4.0
	12	-	-	-		06	3	2.8 1.0	3.0 2.0
	18	-	-	-		18	-	-	-
08	00	-	-	-		12	3	3.1 2.8 1.0	4.0 3.0 2.0
	06	3	3.5 2.5 1.0	4.0 3.0 2.0	13	00	3	2.9 2.5 1.9	4.0 3.0 2.5
	12	3	3.1 2.1 1.0	4.0 3.0 2.0		06	-	-	-
	18	3	2.1 2.9 0.6 0.7	3.0 4.0 1.6 2.0		12	-	-	-
	18	-	-	-		18	-	-	-
09	00	3	2.7 2.0 0.5	4.0 3.0 2.0	14	00	-	-	-
	06	3	2.9 2.3 0.3	4.0 3.0 1.4		06	3	2.5 1.5 0.7	4.0 3.0 2.0
	12	3	2.1 2.5 0.7 0.3	3.0 4.0 2.0 1.6		12	3	1.6 1.0 2.0 1.4 0.6	3.0 2.0 4.0 2.7 2.0
	18	3	2.3 2.7 1.3 0.3	3.0 4.0 2.0 1.8	15	00	3	1.6 1.1 1.6 0.9	3.0 2.4 3.0 2.0
10	00	3	2.0 2.5 0.4 0.7	3.0 4.0 1.8 2.0		06	3	2.2 2.0 1.0	5.0 4.0 3.0
						12	3	1.9 1.0	3.0 2.2
						18	3	1.7 1.0	3.0 2.3

Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.	Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.
Station: Bombay(Colaba)(Contd.)					August, 1964.				
16	00	3	1.8 1.1	3.1 2.1	22	00	-	-	-
	06	3	2.0 0.9	3.1 2.0		06	3	2.0 1.1	3.0 2.4
	12	3	1.1 1.9	2.0 3.0		12	3	1.8 1.1	3.0 2.1
	18	3	1.4 1.9	2.3 3.0		18	3	2.0 1.5	3.0 2.5
17	00	3	1.6 1.0	2.8 2.0	23	00	3	1.9 1.5	3.0 3.0
	06	3	1.8 1.0	2.9 2.0		06	-	-	-
	12	3	1.9 1.3	2.8 2.0		12	-	-	-
	18	3	1.8 1.0	2.7 2.0		18	-	-	-
18	00	3	1.8 1.0 2.0	3.0 2.1 4.0	24	00	-	-	-
	06	3	1.8 1.5 0.8	4.0 2.5 2.0		06	-	-	-
	12	3	1.9 1.5 0.6	2.8 2.5 2.0		12	-	-	-
	18	3	1.9 1.6 0.5	3.0 2.5 2.0	25	00	-	-	-
19	00	3	2.0 1.5 1.1	3.0 2.5 2.5		06	-	-	-
	06	3	1.1 0.5 1.1	2.0 2.1 4.0		12	-	-	-
	12	3	1.5 1.6 1.1	2.1 3.0 2.1		18	3	1.5 0.5	4.0 2.0
	18	3	1.6 1.1	3.0 2.1	26	00	-	-	-
20	00	3	1.1 1.5 1.4	2.2 3.0 3.0		06	3	1.5 0.5	4.0 1.8
	06	3	1.4 1.0 1.5	3.0 2.2 2.3		12	-	-	-
	12	3	1.5 0.6 1.4	2.3 1.8 2.5		18	3	1.5 0.5	4.0 2.0
	18	3	1.4 0.9	2.5 2.0	27	00	3	1.4 0.5	4.0 2.0
21	00	3	1.7 1.0 0.6	3.0 2.5 2.0		06	3	1.1 0.5	4.0 2.0
	06	3	1.2 0.6	2.4 2.0		12	3	1.1 0.4	4.0 2.0
	12	3	1.6 0.8	2.6 2.0		18	3	1.0 0.6	4.0 2.0
	18	3	1.4 0.8	2.5 2.0	28	00	3	1.1 0.6	4.0 2.5
22	00	3	1.7 1.0 0.6	3.0 2.5 2.0		06	3	1.3 0.5	4.0 2.0
	06	3	1.2 0.6	2.4 2.0		12	3	0.6 1.2	2.5 4.0
	12	3	1.6 0.8	2.6 2.0		18	-	-	-
	18	3	1.4 0.8	2.5 2.0	29	00	-	-	-
23	00	3	1.7 1.0 0.6	3.0 2.5 2.0		06	3	1.0 0.6	4.0 2.0
	06	3	1.2 0.6	2.4 2.0		12	3	0.9 0.5	4.0 2.0
	12	3	1.6 0.8	2.6 2.0		18	3	0.9 0.4	4.0 2.0
	18	3	1.4 0.8	2.5 2.0	30	00	3	0.8 0.3	4.0 2.0



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 Date Hour K Mean Mean Date Hour K Mean Mean  
 GMT amplitude period GMT amplitude period  
 in m.m. in sec. in m.m. in sec.  
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Station: Bombay(Colaba)(Contd.)

August, 1964.

30	06	3	1.0	4.5	09	00	1	1.5	5.0
			0.3	2.5		06	1	1.4	5.1
	12	3	1.1	4.5		12	1	1.3	5.3
			0.3	2.2		18	1	1.5	5.1
	18	3	1.1	4.8					
			0.3	2.0	10	00	1	1.4	5.1
						06	1	1.7	3.8
31	00	3	1.0	4.6		12	1	2.1	4.0
			0.3	2.0		18	1	2.1	3.9
	06	2	0.9	4.8					
	12	3	1.0	5.0	11	00	1	2.0	4.2
			0.2	1.8		06	1	1.7	4.9
	18	3	1.0	4.9		12	1	1.6	5.1
			0.3	1.8		18	1	1.7	4.7

Station: Visakhapatnam.

01	00	3	0.6	3.8	12	00	1	1.4	4.6
	06	3	0.7	4.0		06	1	1.2	5.2
	12	3	0.7	4.2		12	1	1.3	5.2
	18	3	0.7	4.6		18	1	1.2	5.2
02	00	3	0.9	4.6	13	00	1	1.1	5.2
	06	3	0.7	4.2		06	3	0.9	5.0
	12	3	0.9	4.4		12	3	1.1	5.4
	18	3	0.7	4.4		18	3	1.0	5.7
03	00	3	0.7	3.9	14	00	3	1.0	5.6
	06	3	1.2	4.4		06	3	1.1	5.5
	12	3	1.1	4.7		12	3	0.8	5.7
	18	3	1.2	5.1		18	2	0.8	5.4
04	00	3	1.4	4.9	15	00	2	0.6	5.2
	06	1	1.5	5.2		06	2	0.6	4.5
	12	1	1.8	5.6		12	2	0.6	3.6
	18	1	1.8	5.7		18	2	0.6	4.3
05	00	1	1.7	5.5	16	00	2	0.6	4.5
	06	1	1.8	5.5		06	2	0.7	3.2
	12	1	2.0	5.0		12	2	0.6	3.3
	18	1	2.2	5.0		18	2	0.6	3.8
06	00	1	1.9	3.4	17	00	2	0.6	3.9
	06	1	2.1	4.8		06	2	0.4	4.1
	12	1	2.0	4.9		12	2	0.4	3.4
	18	1	2.1	5.0		18	2	0.5	3.4
07	00	1	1.9	5.3	18	00	2	0.4	3.6
	06	1	1.9	5.1		06	2	0.7	3.0
	12	1	1.6	5.2		12	2	0.7	3.2
	18	1	1.8	5.5		18	2	0.6	3.1
08	00	1	1.5	5.4	19	00	2	0.7	3.4
	06	1	1.7	5.2		06	2	0.6	3.1
	12	1	1.7	5.4		12	2	0.7	3.1
	18	1	1.6	5.5		18	2	0.6	3.2
					20	00	2	0.7	3.6
						06	2	0.6	3.9
						12	2	0.6	3.9
						18	2	0.6	4.2

..... Earthquake in progr

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 Date Hour K Mean Mean Date Hour K Mean Mean  
 GMT amplitude period GMT amplitude period  
 in m.m. in sec. in m.m. in sec.  
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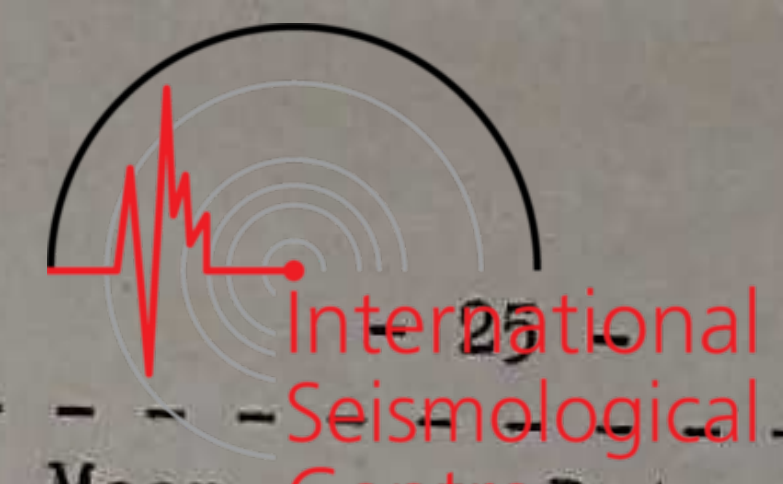
Station: Visakhapatnam.(Contd.)

August, 1964.

21	00	2	0.4	3.5	01	12	3	0.2	1.3
	06	2	0.5	3.5		18	3	0.2	1.2
	12	2	0.6	3.8					
	18	2	0.5	3.5	02	00	3	0.2	1.2
22	00	2	0.4	3.3		06	1	0.3	1.5
	06	2	0.7	3.3		12	1	0.3	1.3
	12	2	0.6	3.5		18	3	0.2	1.3
	18	2	0.5	3.8	03	00		Light failure.	
23	00	2	0.6	3.6		06	1	0.3	1.4
	06	2	0.8	3.6		12	3	0.3	1.6
	12	2	0.8	3.7		18	3	0.3	1.4
	18	2	0.8	3.7	04	00	3	0.4	1.5
24	00	2	0.6	3.8		06	2	0.4	1.5
	06	2	0.7	3.4		12	1	0.5	1.6
	12	2	0.7	3.9		18	2	0.4	1.6
	18	2	0.8	3.7	05	00	3	0.4	1.5
25	00	2	0.6	3.8		06		Light failure.	
	06	2	0.8	3.3		12	2	0.5	1.5
	12	2	0.8	3.7		18	2	0.4	1.5
	18	2	0.7	3.9	06	00	3	0.4	1.5
26	00	2	0.4	3.2		06	3	0.3	1.4
	06	2	0.6	3.8		12		No record.	
	12	2	0.6	4.6		18		No record.	
	18	2	0.6	3.8	07			No record.	
27	00	2	0.6	4.7	08	00		No record.	
	06	2	0.5	3.2		06	3	0.3	1.0
	12	2	0.5	3.7		12		No record.	
	18	2	0.5	3.8		18		No record.	
28	00	2	0.5	3.6	09	00	0,0	-	-
	06	2	0.6	4.0		06	0,0	-	-
	12	2	0.5	4.1		12	0,0	-	-
	18	2	0.4	4.0		18	0,0	-	-
29	00	2	0.4	4.2	10	00		No record.	
	06	2	0.6	4.6		06	0,0	-	-
	12	2	0.7	4.5		12	3	0.3	1.3
	18	2	0.6	4.3		18	0,0	No record.	-
30	00	2	0.5	4.1	11	00	3	0.3	1.4
	06	2	0.5	4.7		06	3	0.3	1.3
	12	2	0.7	4.8		12	3	0.3	1.2
	18	2	0.5	4.6		18	3	0.3	1.4
31	00	2	0.5	4.4	12	00	3	0.3	1.3
	06	2	0.5	4.6		06	3	0.3	1.4
	12	2	0.5	4.5		12		Light failure.	
	18	2	0.6	4.9		18	1	0.3	1.3

Station: Goa. Comp.:Vertical.

01	00	3	0.2	1.1
	06	3	0.1	1.3



Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.	Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.
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Station: Goa (Contd.)					Comp.: Vertical.					August, 1964.				
14	00	3	0.2	1.1	29	00	0,0	-	-					
	06	3	0.2	1.3		06	0,0	-	-					
	12	3	0.1	1.3		12	0,0	-	-					
	18	3	0.1	1.3		18	0,0	-	-					
15	00	3	0.1	1.0	30	00	0,0	-	-					
	06	0,0	-	-		06	0,0	-	-					
	12	0,0	-	-		12	0,0	-	-					
	18	0,0	-	-		18	0,0	-	-					
16	00	0,0	-	-	31	00	0,0	-	-					
	06	0,0	-	-		06 to								
	12	0,0	-	-		12	No record.							
	18	0,0	-	-		18	0,0	-	-					
17	00	3	0.1	1.2										
	06	0,0	-	-										
	12	0,0	-	-										
	18	Light failure.												
18	00	Light failure.			01	00	3	1.2	4.0					
	06	3	0.1	1.2		06	3	1.3	3.8					
	12	0,0	-	-		12	3	1.7	3.9					
	18	3	0.1	1.1		18	3	1.5	3.9					
19	00	3	0.1	1.1	02	00	3	2.1	4.5					
	06	3	0.1	1.1		06 to								
	12	3	0.1	1.1		18	No record.							
	18	0,0	-	-										
20	00	3	0.1	0.9	03 to									
	06	0,0	-	-	13	No record.								
	12	0,0	-	-										
	18	3	0.1	1.0	14	00	No record.							
21	00	0,0	-	-		06	3	1.9	3.9					
	06 to	No record.				12	3	1.8	4.1					
	18					18	3	1.6	4.0					
22 to		No record.			15	00	3	1.5	4.1					
24						06	3	1.1	2.8					
						12	3	1.0	2.7					
25	00	No record.				18	3	1.0	2.9					
	06	0,0	-	-	16	00	3	1.1	2.6					
	12	0,0	-	-		06	3	1.0	2.8					
	18	0,0	-	-		12	3	1.0	2.7					
26	00	0,0	-	-		18	3	0.9	2.6					
	06 to				17	00	3	1.0	2.5					
	18	No record.				06	3	1.3	2.5					
27	00 to					12	3	1.1	2.6					
	12	No record.				18	Light failure.							
	18	0,0	-	-	18	00	Light failure.							
28	00	0,0	-	-		06	3	1.0	2.7					
	06	0,0	-	-		12	3	1.1	2.7					
	12	0,0	-	-		18	3	1.4	2.8					
	18	0,0	-	-	19	00	3	1.0	2.6					
						06	3	1.3	3.1					
						12	3	1.3	2.9					
						18	3	1.1	2.6					

Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.	Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.
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Station: Goa (Contd.)					Comp.: E-W.					August, 1964.				
20	00	3	1.0	2.6										
	06	0,0	-	-										
	12	0,0	-	-										
	18	3	1.3	3.0										
21	00	3	1.1	2.9										
	06	Light failure.												
	12	3	0.5	1.8										
	18	3	0.6	1.8										
22	00 to													
	12	No record.												
	18	3	0.4	1.5										
23	00	3	0.2	1.3										
	06	0,0	-	-										
	12	0,0	-	-										
	18	0,0	-	-										
24	00	3	0.4	1.5										
	06	0,0	-	-										
	12	0,0	-	-										
	18	0,0	-	-										
25	00	0,0	-	-										
	06	0,0	-	-										
	12	0,0	-	-										
	18	0,0	-	-										
26	00	0,0	-	-										
	06	3	0.3	1.4										
	12	1	0.5	1.5										
	18	3	0.4	1.5										
27	00	3	0.3	1.5										
	06	3	0.3	1.5										
	12	3	0.3	1.5										
	18	3	0.3	1.5										
28	00	0,0	-	-										
	06	3	0.3	1.5										
	12	3	0.3	1.3										
	18	0,0	-	-										
29	00	0,0	-	-										
	06	3	0.2	1.3										
	12	3	0.3	1.4										
	18	3	0.1	1.3										
30	00	3	0.1	1.0										
	06	3	0.1	1.0										
	12	0,0	-	-										
	18	3	0.1	1.0										
31	00	0,0	-	-										
	06	3	0.1	1.0										
	12	3	0.1	1.0										
	18	3	0.1	0.8										

Station: Goa. Comp.: N-S.				
01	00	1	1.3	3.5
	06	3	1.3	3.9
	12	3	1.7	4.0
	18	3	1.8	4.1
02	00	3	2.1	4.2
	06 to			
	18	No record.		
03 to				
13		No record.		
14	00	No record.		
	06	3	1.7	4.1
	12	3	1.7	4.3
	18	3	1.9	4.8
15	00	3	1.8	4.7
	06	3	1.6	4.5
	12	3	1.5	4.4
	18	3	1.3	3.8
16	00	3	1.5	4.2
	06	3	1.4	4.2
	12	3	1.1	3.6
	18	3	1.0	3.2
17	00	3	1.2	4.3
	06	3	1.4	4.2
	12	3	1.3	3.6
	18	Light failure.		
18	00	Light failure.		
	06	3	1.0	2.6
	12	3	0.9	1.9
	18	3	0.9	1.9
19	00	3	0.9	2.0
	06	3	0.3	1.0
	12	3	0.3	1.0
	18	3	0.2	1.0
20	00	3	0.2	1.0
	06	3	0.3	1.1
	12	3	0.3	1.0
	18	3	0.2	1.0
21	00	3	0.2	1.0
	06	Light failure.		
	12	3	0.3	1.0
	18	3	0.3	1.0
22	00 to			
	12	No record.		
	18	3	0.3	1.0



Date Hour K Mean amplitude in m.m. Mean period in sec. Date Hour GMT K Mean amplitude in micron. Mean period in sec.

Station: Goa(Contd.) Comp.: N-S. August, 1964.

Date	Hour GMT	K	Mean amplitude in m.m.	Mean period in sec.	Date	Hour GMT	K	Mean amplitude in micron.	Mean period in sec.
23	00	3	0.3	1.0	02	00	3	0.4	3
	06	3	0.2	1.0		06	3	0.8	7
	12	3	0.2	1.0		12	3	0.8	3
	18	3	0.3	1.0		18	3	0.8	3
24	00	3	0.3	1.0	03	00	3	1.2	3
	06	2	0.3	1.0		06	3	0.8	3
	12	2	0.2	1.2		12	3	0.8	3
	18	3	0.3	1.2		18	3	1.2	3
25	00	2	0.3	1.1	04	00	3	1.6	3
	06	3	0.3	1.3		06	3	2.4	3
	12	3	0.4	1.3		12	3	3.6	3
	18	2	0.4	1.4		18	3	4.4	3
26	00	3	0.4	1.4	05	00	3	4.4	3
	06	0,0	-	-		06	...	-	-
	12	0,0	-	-		12	...	-	-
	18	0,0	-	-		18	...	-	-
27	00	0,0	-	-	06	00	...	-	-
	06	0,0	-	-		06	...	-	-
	12	0,0	-	-		12	3	5.2	3
	18	0,0	-	-		18	3	4.4	3
28	00	0,0	-	-	07	00	3	4.8	3
	06	3	0.1	0.6		06	3	4.0	6
	12	0,0	-	-		12	3	2.8	3
	18	0,0	-	-		18	3	2.4	6
29	00	0,0	-	-				2.4	3
	06	0,0	-	-				2.4	3
	12	0,0	-	-				2.4	3
	18	0,0	-	-	08	00	3	0.8	3
30	00	0,0	-	-		06	3	2.0	3
	06	0,0	-	-		12	3	0.8	3
	12	0,0	-	-		18	3	2.0	3
	18	0,0	-	-				2.0	3
31	00	0,0	-	-				0.8	3
	06	0,0	-	-				1.6	3
	12	0,0	-	-	09	00	3	2.0	3
	18	0,0	-	-		06	3	0.8	3

Date Hour GMT K Mean amplitude in micron. Mean period in sec.

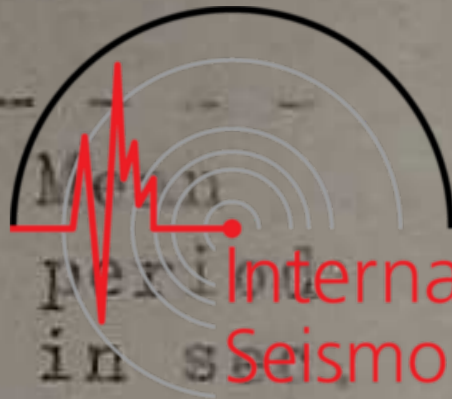
Station: Port Blair.

01	00	3	0.4	3	10	00	3	0.4	3
			0.8	7		06	3	2.0	3
	06	3	0.4	3		12	3	0.8	3
			0.8	7		18	3	2.4	3
	12	3	0.4	3				0.8	3
			0.8	7				2.4	3
	18	...	-	-				2.4	3

Date Hour GMT K Mean amplitude in micron. Mean period in sec. Date Hour GMT K Mean amplitude in micron. Mean period in sec.

Station: Port Blair(Contd.) August, 1964.

11	00	3	0.8	3	18	18	3	0.8	3
			2.4	5				0.8	7
	06	3	0.8	3	19	00	3	0.8	3
			2.0	5				0.8	7
	12	3	1.6	3		06	3	1.2	3
			2.0	5		12	3	0.8	3
	18	3	0.8	3		18	3	0.8	3
			2.0	5	20	00	3	0.8	3
12	00	3	0.8	3		06	3	0.8	3
			1.6	5		12	3	0.8	3
	06	3	0.8	3		18	3	0.8	3
			1.6	5	21	00	3	0.8	3
	12	3	0.8	3		06	3	0.8	3
			1.6	5		12	3	0.8	3
	18	3	0.4	3		18	3	0.8	3
			1.2	7	22	00	3	0.8	3
13	00	3	0.4	3		06	3	1.2	3
			1.2	7		12	3	1.2	3
	06	3	0.4	3		18	3	1.2	3
			2.0	7	23	00	3	1.2	3
	12	3	0.4	3		06	3	1.2	3
			2.0	7		12	3	1.2	3
	18	3	0.4	3		18	3	1.2	3
			2.0	8	24	00	3	1.2	3
14	00	3	0.2	3		06	3	0.8	3
			2.0	8		12	3	0.8	3
	06	3	0.2	3		18	3	0.8	3
			1.2	7	25	00	3	0.8	3
	12	3	0.2	3		06	3	0.8	3
			1.2	7		12	3	0.8	3
	18	3	0.2	3		18	3	0.8	3
			1.2	7	26	00	3	0.8	3
15	00	3	0.2	3		06	3	0.8	3
			0.8	7		12	3	0.8	3
	06	3	0.2	3		18	3	0.8	3
			0.8	7	27	00	...	-	-
	12	3	0.4	3		06	3	0.4	3
			0.8	7				1.2	7
	18	3	0.4	3		12	3	0.4	3
			0.8	7		18	3	0.8	7
			0.8	7				0.8	7
			0.8	7				0.4	3
16	00	3	0.4	3	17	00	3	0.4	3
			0.8	7		06	3	0.8	3
	06	3	0.4	3		12	3	0.8	3
			0.4	3		18	3	0.4	3
	12	3	0.4	3	18	00	3	0.4	3
	18	3	0.4	3		06	3	0.4	3
			0.4	3		12	3	0.4	3



International  
Seismological  
Centre

Date	Hour GMT	K	Mean amplitude in micron	Mean period in sec.	Date	Hour GMT	K	Mean amplitude in micron	Mean period in sec.
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Station: Port Blair (Contd.)

August, 1964.

28	00	3	0.2	3	30	00	3	0.2	3	
			0.4	7					1.2	7
	06	3	0.2	3		06	3	0.2	3	
			0.8	7				0.8	7	
	12	3	0.4	3		12	3	0.2	3	
18			1.2	7	18			0.8	7	
			0.4	3				0.2	3	
			1.2	7				0.8	7	
29	00	...	-	-	31	00	3	0.4	3	
	06	3	0.2	3				0.4	7	
			2.0	7		06	3	0.4	3	
	12	3	0.2	3		12	3	0.4	3	
			2.0	7				0.2	7	
18			0.4	3	18			0.4	3	
			2.0	7				0.4	7	

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