



**GOVERNMENT OF INDIA
GEOLOGICAL SURVEY OF INDIA**

**A note on earthquake of magnitude 4.7 M_L of 20th November, 2017 in India
(Manipur) Myanmar border region**

A moderate earthquake of magnitude 4.7 M_L occurred at a depth of 12.8 km in India (Manipur) Myanmar Border Region, on 20th November, 2017 at 08hrs: 47min: 59.8sec.(UTC) and at 14hrs: 17min: 59.8sec. of 20th November, 2017 (IST). The epicentre of the earthquake has been located at Latitude 23.79⁰N and Longitude 94.67⁰E (Fig. 1) using data recorded at four Seismo-geodetic observatories of GSI located at Agartala, Itanagar, Mangan and Nagpur. The waveform of the event with location parameters are presented in Fig. 2 (a & b) respectively.



Fig. 1. The star shows the location of the epicentre of the earthquake .

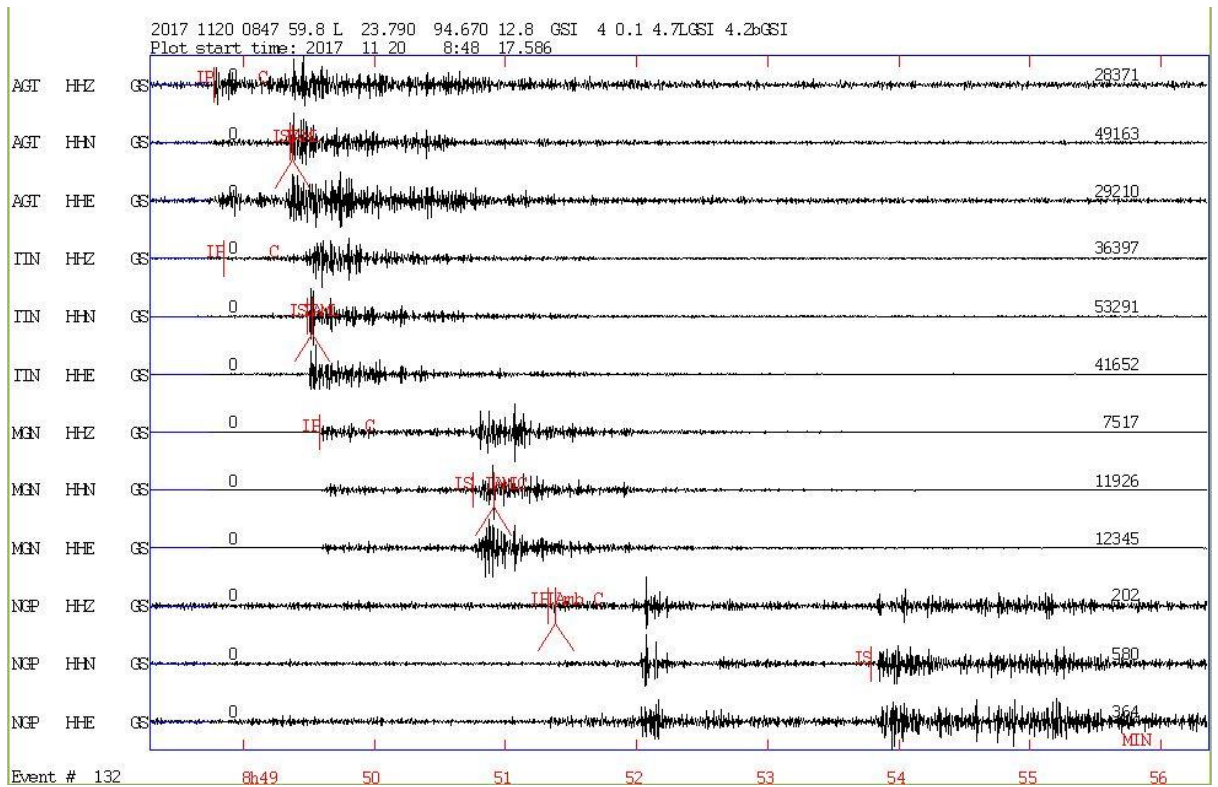


Fig. 2(a) Waveform of the earthquake.

date	hrmn	sec	lat	long	depth	no	m	rms	damp	erln	erlt	erdp	
171120	847	59.78	2347.41N	94 40.2E	12.8	8	3	0.09	0.000	9.9	6.5	13.4	
stn	dist	azm	ain	w	phas	calcphs	hrmn	tsec	t-obs	t-cal	res	wt	di
AGT	344	272.0	55.1	0	P	C PN4	848	46.5	46.72	46.83	-0.11	1.00	9
AGT	344	272.0	55.1	0	S	SN4	849	21.4	81.59	81.49	0.10	1.00	13
AGT	344	272.0	55.1	0	IAML		849	22.6	82.9				
ITN	381	343.7	55.1	0	P	C PN4	848	51.2	51.42	51.44	-0.02	1.00	11
ITN	381	343.7	55.1	0	S	SN4	849	29.3	89.55	89.51	0.04	1.00	19
ITN	381	343.7	55.1	0	IAML		849	31.4	91.7				
MGN	740	304.9	50.9	0	P	C PN6	849	34.9	95.14	95.02	0.12	1.00	5
MGN	740	304.9	50.9	0	S	C SN6	850	45.0	165.22	165.34	-0.12	1.00	13
MGN	740	304.9	50.9	0	IAML		850	54.6	174.8				
NGP	1632	262.8	50.9	0	P	C PN6	851	19.7	199.90	199.90	0.00	0.52*	8
NGP	1632	262.8	50.9	0	IAMB		851	23.0	203.2				
NGP	1632	262.8	50.9	0	S	SN6	853	47.6	347.79	347.82	-0.03	0.52*22	
AGT	HN	hdist:	344.2	amp:	4978.4	T:	0.4	ml =	4.6				
ITN	HN	hdist:	381.2	amp:	4760.1	T:	0.3	ml =	4.7				
MGN	HN	hdist:	740.1	amp:	1202.8	T:	0.5	ml =	4.7				
NGP	HZ	dist:	1632.0	amp:	5.2	T:	0.6	mb =	4.2				
2017	1120	0847	59.8 L	23.790	94.670	12.8	GSI	4	0.1	4.7	LGSI	4.2bGSI	

Fig. 2(b) Location parameters of the earthquake.