

**GEOLOGICAL SURVEY OF INDIA
BROAD BAND SEISMIC OBSERVATORY
NAGPUR**

PRELIMINARY SEISMOLOGICAL BULLETIN FOR SEISMIC EVENTS RECORDED AND REGISTERED AT BROAD BAND SEISMIC OBSERVATORY, NAGPUR, MAHARASHTRA, INDIA, FOR SUMATRA EARTHQUAKE OF 26TH DECEMBER 2004 AND THE AFTERSHOCKS

Sr No	Date	Origin Time(UTC) H.M.S.	P Arrival time (UTC) H.M.S.	S Arrival time (UTC) H.M.S.	P Onset Phase	Lat(°)	Long(°)	Distance to Epi center (Km)	Mag.	Region
1	26.12.04	00:58:58.1	01:04:14.9	01:08:34.53	D	1.169N	93.319E	2701	8.8Ms	Main Shock, West coast of Sumatra
2	26.12.04	04:21:29.7	04:25:56.98	04:29:38.37	D	5.456 N	91.168E	2176	7.1Ms	Indian Ocean (East of Nikobar Islands, India) region
3	26.12.04	09:19:48.6	09:24:12.18	09:27:48.82	D	6.279 N	91.690E	2138	6.5Ms	Indian Ocean (West of Nikobar Islands, India) region
4	26.12.04	10:19:20.6	10:23:3.84	10:26:0.85	D	13.307N	93.559E	1770	6.4Mb	Andaman Islands, India, region
5	26.12.04	11:05:16.1	11:08:35.25	11:11:12.52	C	10.078N	88.185E	1569	6.2Mb	Indian Ocean (West of Andaman Islands, India) region
6	27.12.04	00:32:23.5	00:37:05.94	00:40:60.00	C	5.019N	92.898E	2331	5.9Mb	Off West coast of Sumatra region
7	27.12.04	00:49:36.9	00:52:58.05	00:55:36.92	C	11.545N	90.063E	1586	6.9Mb	West of Andaman Islands, India, region
8	27.12.04	06:59:16.2	07:04:30.41	07:08:48.00	C	6.585N	98.789E	2669	5.2Mb	Andaman Sea Region
9	27.12.04	07:47:34.6	07:52:47.27	07:57:3.66	C	1.575N	93.095E	2650	6.1Mb	Off West coast of

										Sumatra region
10	27.12.04	08:37:42.1	08:42:11.63	08:45:54.87	C	4.475N	90.075E	2198	5.6Mb	Indian Ocean, (West of Sumatra) region
11	27.12.04	12:14:18.5	12:17:36.39	12:20:12.65	C	14.493N	92.008E	1559	5.8Mb	West of Andaman Islands, India, region
12	27.12.04	14:46:44.4	14:50:23.81	14:53:17.52	C	10.520N	90.989E	1737	6.2Mb	West of Andaman Islands, India, region
13	27.12.04	17:39:49.4	17:44:43.71	17:48:47.62	D	2.958N	91.967E	2453	5.5Mb	Indian Ocean, (West of Sumatra) region
14	27.12.04	18:09:18.4	18:14:45.82	18:19:13.41	D	1.065 S	91.919E	2831	4.9Mb	Indian Ocean, (West of Sumatra) region
15	27.12.04	19:13:30.9	19:17:01.57	19:19:47.85	C	11.045N	90.556E	1663	5.9Mb	West of Andaman Islands, India, region
16	27.12.04	20:10:52.3	20:16:09.59	20:20:29.56	D	1.198N	93.448E	2707	5.5Mb	Indian Ocean, (West of Sumatra) region
17	27.12.04	22:03:5.8	22:07:31.76	22:11:11.15	C	5.188N	90.561E	2162	5.0Mb	Indian Ocean (West of Nikobar Islands, India) region
18	27.12.04	23:58:15.5	24:02:12.64	24:05:22.26	C	6.825N	88.608E	1892	5.6Mb	Indian Ocean (West of Nikobar Islands, India) region
19	28.12.04	03:20:4.6	03:24:49.20	03:28:45.03	D	3.762N	91.530E	2352	5.0Mb	Indian Ocean, (West of Sumatra) region
20	28.12.04	05:36:26.6	05:40:26.31	05:43:38.33	C	8.867N	91.600E	1915	5.5Mb	Indian Ocean (West of Nikobar Islands, India) region
21	28.12.04	11:17:47.7	11:22:43.65	11:26:48.88	C	3.675N	93.225E	2470	5.2Mb	Indian Ocean, (West of Sumatra) region
22	28.12.04	14:48:10.7	14:53:30.47	14:57:52.37	C	0.144N	92.327E	2738	5.1Mb	Indian Ocean, (West of Sumatra) region
23	28.12.04	17:11:19.8	17:15:23.38	17:18:38.99	C	7.871N	90.935E	1949	5.4Mb	West of Nikobar Islands, India, region
24	28.12.04	19:55:19.9	19:59:26.13	20:02:44.27	C	6.971N	90.129E	1973	5.3Mb	West of Nikobar

										Islands, India, region
25	28.12.04	21:47:34.0	21:51:48.80	21:55:14.88	C	6.583N	90.761E	2049	5.4Mb	West of Nikobar Islands, India, region
26	28.12.04	23:08:1.8	23:12:23.23	23:15:57.30	D	5.537N	90.349E	2116	4.7Mb	West of Nikobar Islands, India, region
27	29.12.04	01:39:54.3	01:43:58.01	01:47:13.82	D	7.648N	90.687E	1951	5.6Mb	West of Nikobar Islands, India, region
28	29.12.04	01:50:49.6	01:55:13.92	01:58:51.40	C	6.144N	91.622E	2145	6.0Mb	West of Nikobar Islands, India, region
29	29.12.04	02:13:47.9	02:16:59.61	02:19:28.77	D	14.063N	91.115E	1502	5.7Mb	West of Andaman Islands, India, region
30	29.12.04	05:56:49.9	06:01:01.28	06:04:24.45	C	7.909N	91.963E	2020	5.9Mb	West of Nikobar Islands, India, region
31	29.12.04	10:09:35.7	10:13:51.7	10:17:19.21	C	8.475N	93.093E	2061	4.8Mb	West of Nikobar Islands, India, region
32	29.12.04	10:52:51.6	10:58:10.05	11:02:30.95	D	2.734N	95.676E	2722	5.3Mb	Indian Ocean, (West of Sumatra) region
33	29.12.04	11:58:47.2	12:02:16.78	12:05:02.26	C	13.033N	92.108E	1655	5.4Mb	West of Andaman Islands, India, region
34	29.12.04	15:36:56.3	15:40:16.21	15:42:54.05	C	13.056N	91.224E	1575	5.1Mb	West of Andaman Islands, India, region
35	29.12.04	17:12:49.8	17:16:42.74	17:19:48.45	C	10.433N	92.364E	1854	4.8Mb	West of Andaman Islands, India, region
36	29.12.04	18:50:32.1	18:55:07.20	18:58:55.17	C	5.248N	92.097E	2256	5.3Mb	West of Nikobar Islands, India, region
37	29.12.04	21:13:1.2	21:17:53.48	21:21:55.68		3.139N	91.889E	2432	5.7Mb	Indian Ocean, (West of Sumatra) region
38	29.12.04	23:14:1.2	23:18:18.43	23:21:47.50	C	6.996N	91.655E	2074	5.7Mb	West of Nikobar Islands, India, region
39	30.12.04	01:04:56.2	01:09:51.34	01:13:55.97	C	3.322N	92.635E	2462	5.3Mb	Indian Ocean, (West of Sumatra) region
40	30.12.04	04:27:44.8	04:32:24.88	04:36:16.93	C	4.518N	91.875E	2306	5.2Mb	Indian Ocean, (West

										of Sumatra) region
41	30.12.04	17:34:53.4	17:39:13.90	17:42:46.80		5.486N	90.113E	2107	5.5Mb	West of Nikobar Islands, India, region
42	30.12.04	17:58:23.0	18:01:47.65	18:04:29.25	C	11.094N	89.981E	1614	5.9Mb	West of Andaman Islands, India, region
43	30.12.04	21:36:14.6	21:40:56.32	21:44:49.82	D	5.000N	92.775E	2324	5.1Mb	Indian Ocean, (West of Sumatra) region
44	31.12.04	02:24:0.5	02:28:25.05	02:32:02.75	C	5.508N	90.796E	2147	5.9Mb	Indian Ocean, (West of Sumatra) region
45	31.12.04	03:08:7.0	03:13:01.61	03:17:05.79	D	4.436N	93.986E	2457	4.7Mb	Indian Ocean, (West of Sumatra) region
46	31.12.04	05:54:12.5	05:57:39.79	06:00:23.47	D	10.650N	89.802E	1636	5.6Mb	West of Andaman Islands, India, region
47	31.12.04	07:57:2.6	08:00:51.01	08:03:52.64	D	15.650N	95.236E	1815	4.5Mb	Bay of Bengal (North of Andaman Islands, India) region
48	31.12.04	12:04:58.1	12:09:32.18	12:13:19.28	C	4.695N	91.177E	2245	5.7Mb	Indian Ocean, (West of Sumatra) region
49	31.12.04	13:41:49.1	13:47:00.68	13:51:16.27	C	2.572N	94.275E	2638	5.4Mb	Indian Ocean, (West of Sumatra) region
50	31.12.04	14:38:48.1	14:43:38.98	14:47:40.08	C	4.396N	93.386E	2418	5.4Mb	Indian Ocean, (West of Sumatra) region
51	31.12.04	14:54:27.9	14:59:30.06	15:03:40.11	C	3.328N	93.748E	2536	5.1Mb	Indian Ocean, (West of Sumatra) region
52	31.12.04	17:48:6.8	17:53:03.78	17:57:09.86	C	2.601N	91.877E	2481	5.5Mb	Indian Ocean, (West of Sumatra) region
53	31.12.04	22:09:37.1	22:13:42.07	22:16:59.06	C	9.838 N	93.140E	1962	5.4Mb	West of Nikobar Islands, India, region
54	01.01.05	01:55:29.1	02:00:45.31	02:05:4.47	C	2.195N	94.617E	2694	5.5Mb	Indian Ocean, (West of Sumatra) region
55	01.01.05	04:03:10.0	04:07:59.75	04:11:59.91	C	5.201N	94.177E	2406	5.6Mb	Indian Ocean, (West of Sumatra) region
56	01.01.05	06:25:45.7	06:30:24.87	06:34:16.23	D	4.195 N	91.281E	2297	6.4Mb	Indian Ocean, (West

										of Sumatra) region
57	01.01.05	14:29:06.2	14:33:32.06	14:36:46.14	C	7.392N	92.910E	2133	5.3Mb	West of Nikobar Islands, India, region
58	01.01.05	17:28:38.8	17:32:26.87	17:35:28.20		8.895N	90.231E	1812	5.4Mb	West of Nikobar Islands, India, region
59	01.01.05	19:08:8.9	19:12:40.58	19:16:25.61	C	5.885N	92.381E	2220	5.8Mb	West of Nikobar Islands, India, region
60	01.01.05	22:23:14.4	22:27:39.53	22:31:18.04	C	5.712N	91.184E	2154	5.1Mb	West of Nikobar Islands, India, region
61	01.01.05	22:29:12.7	22:32:42.08	22:35:27.34	D	9.526N	88.705E	1652	6.1Mb	West of Nikobar Islands, India, region
62	02:01:05	08:27:39.7	08:32:58.01	08:37:18.77	C	1.105N	93.512E	2719	5.7Mb	Indian Ocean, (West of Sumatra) region
63	02:01:05	15:35:55.8	15:40:26.07	15:44:9.90	C	4.773N	90.655E	2206	6.1Mb	Indian Ocean, (West of Sumatra) region
64	03:01:05	09:13:17.5	09:17:25.53	09:20:45.45		7.687N	91.288E	1989	5.1Mb	West of Nikobar Islands, India, region
65	03:01:05	17:45:11.3	17:50:26.93	17:54:45.67		1.869N	94.087E	2687	4.9Mb	Indian Ocean, (West of Sumatra) region