

Relocation of the April 2017 Batangas, Philippines, earthquake sequence, with tectonic implications

Po-Fei Chen, Po-Li Su, Erlinton Antonio Olavere, Renato U. Solidum Jr., and Bor-Shouh Huang

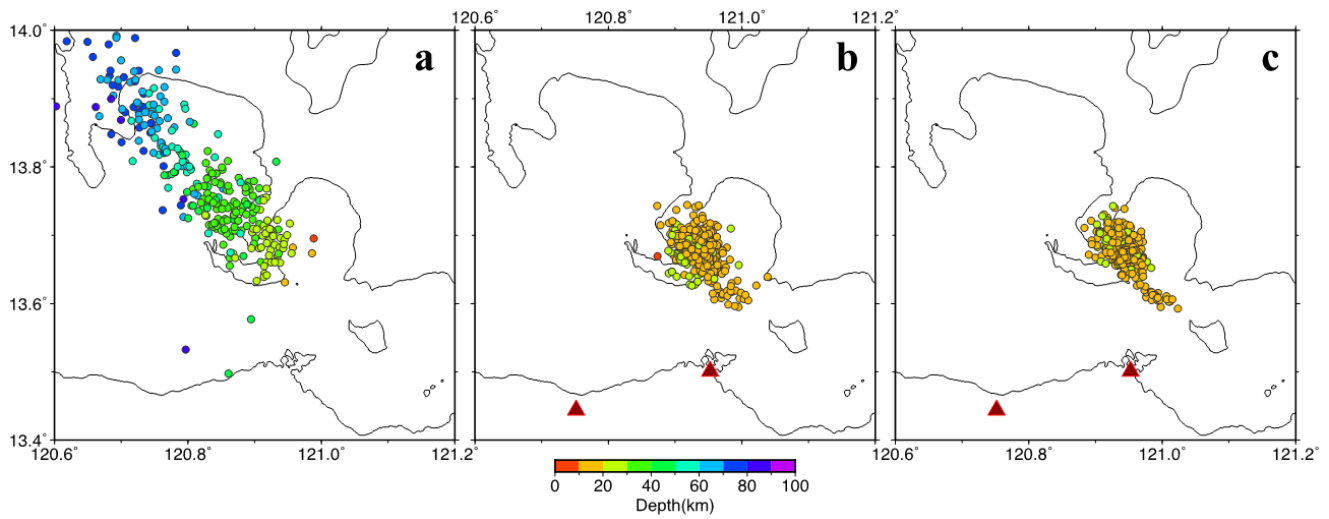


Fig. S1. Distributions of the 2017 Batangas earthquake sequence (circles color-keyed with depth) determined by using (a) exclusively the PHIVOLCS data, (b) and (c) additional data from Mindoro. All of them were determined by using an iterative least-square method (Pavlis et al. 2004), but only (c) was relocated by using HypoDD. Red triangles are locations of broadband stations on Mindoro.

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Table S1. The HypoDD earthquake catalog of 341 events between 2 April 2017 and 22 April 2017. The second column presents the number of events with $M_L \geq 5.0$ or $M_w \geq 5.0$ in a chronological order. Events in the GCMT catalog are shown in the last column with M_w .

No.	$M_L \geq 5$	Hypocenter parameters							Magnitude	
		Date		Time		Lat (°)	Lon (°)	Depth (km)	M_L	M_w
		D	h	m	s					
1		2	16	34	4.4	13.698	120.934	16.4	3.2	
2	1	4	12	58	44.2	13.678	120.956	22.9	5.4	5.2
3		4	13	11	10.3	13.687	120.942	18.1	4.2	
4		4	13	17	43.4	13.685	120.956	19.1	3.3	
5		4	13	26	21.9	13.686	120.947	18.2	3.3	
6	2	4	14	9	59.6	13.676	120.954	21.2	5.1	5.0
7		4	14	18	52.0	13.682	120.957	18.0	3.1	
8		4	14	26	55.1	13.674	120.953	17.1	3.1	
9		4	14	38	52.9	13.678	120.952	17.2	3.7	
10	3	4	14	44	20.3	13.689	120.967	18.3	5.1	
11	4	4	15	13	46.2	13.663	120.944	21.6	5.2	5.1
12		4	15	34	7.2	13.661	120.954	20.5	4.0	
13		4	15	40	44.2	13.682	120.929	17.6	3.1	
14		4	15	54	41.5	13.681	120.956	18.1	3.9	
15		4	16	11	1.3	13.681	120.960	17.7	3.1	
16		4	16	20	26.0	13.692	120.946	19.9	3.0	
17		4	16	35	52.1	13.680	120.959	17.4	2.9	
18		4	16	40	48.1	13.689	120.949	18.4	3.4	
19	5	4	16	49	0.3	13.699	120.952	21.7	5.3	5.1
20		4	17	33	48.3	13.700	120.932	14.5	3.8	
21		4	17	40	50.6	13.709	120.946	19.3	3.2	
22		4	18	10	38.2	13.705	120.924	14.0	2.6	
23		4	18	26	41.1	13.656	120.956	14.9	3.3	
24		4	18	46	23.7	13.709	120.941	17.9	3.3	
25		4	19	1	16.8	13.689	120.957	20.6	3.6	
26		4	19	15	15.0	13.680	120.955	18.2	3.6	
27		4	19	42	13.8	13.682	120.954	18.8	2.9	
28		4	19	48	1.3	13.656	120.932	18.7	3.1	
29		4	20	6	22.6	13.704	120.940	17.1	3.2	
30		4	20	15	25.3	13.696	120.952	20.9	3.5	
31		4	20	24	42.7	13.673	120.958	16.5	2.9	
32		4	20	58	28.7	13.683	120.941	15.6	2.8	
33		4	21	24	5.0	13.681	120.949	17.1	3.5	
34		4	21	47	30.2	13.669	120.970	20.7	3.1	
35		4	22	14	0.0	13.671	120.951	19.4	3.4	
36		5	0	2	36.8	13.699	120.928	13.8	2.5	
37		5	1	57	8.7	13.668	120.940	16.0	3.3	
38		5	2	9	40.5	13.666	120.947	19.9	3.8	
39		5	2	13	55.7	13.682	120.961	18.3	2.9	

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No.	$M_L \geq 5$	Hypocenter parameters						Magnitude		
		Date		Time		Lat (°)	Lon (°)	Depth (km)	M_L	M_w
		D	h	m	s					
40		5	2	54	35.6	13.675	120.941	16.1	3.5	
41		5	3	20	6.3	13.660	120.959	20.9	3.3	
42		5	3	21	30.3	13.665	120.962	20.7	3.5	
43		5	4	3	36.5	13.668	120.955	17.1	4.4	
44		5	4	34	28.8	13.690	120.954	16.6	3.8	
45		5	6	26	25.8	13.698	120.946	21.1	3.9	
46		5	6	31	47.5	13.709	120.943	19.9	4.0	
47		5	8	7	11.4	13.698	120.937	14.4	3.3	
48		5	8	24	53.8	13.675	120.950	17.8	2.8	
49		5	8	57	13.7	13.691	120.938	13.7	2.6	
50		5	9	42	6.9	13.672	120.946	17.3	2.6	
51		5	9	59	25.2	13.696	120.940	18.9	3.7	
52		5	10	25	13.1	13.685	120.945	17.5	3.0	
53		5	10	36	21.6	13.677	120.952	18.6	4.1	
54		5	11	55	2.1	13.681	120.950	18.2	2.8	
55		5	12	26	18.1	13.687	120.951	18.7	2.9	
56		5	13	6	45.5	13.693	120.930	19.1	2.9	
57		5	13	18	55.8	13.699	120.968	19.7	2.7	
58		5	13	48	51.7	13.688	120.948	19.0	2.9	
59		5	14	32	40.7	13.691	120.971	17.8	4.9	
60		5	15	42	44.7	13.680	120.953	16.6	3.2	
61		5	16	34	5.7	13.663	120.953	20.4	3.3	
62		5	17	11	44.4	13.666	120.950	16.5	3.2	
63		5	18	24	22.1	13.676	120.948	16.0	2.5	
64		5	18	39	13.5	13.696	120.945	18.3	2.2	
65		5	21	29	31.0	13.697	120.944	14.9	2.9	
66		6	2	29	38.7	13.674	120.954	18.6	4.0	
67		6	2	54	15.9	13.690	120.965	17.1	2.9	
68		6	3	56	5.0	13.683	120.940	17.9	2.7	
69		6	5	14	49.4	13.659	120.952	21.1	2.7	
70		6	5	25	42.2	13.670	120.940	16.3	2.5	
71		6	7	24	48.2	13.696	120.930	17.9	3.1	
72		6	7	29	19.0	13.699	120.917	13.7	2.6	
73		6	8	33	3.6	13.611	121.006	14.6	3.4	
74		6	9	49	54.7	13.673	120.962	18.9	2.8	
75		6	10	22	36.1	13.670	120.960	19.2	2.4	
76		6	13	51	57.8	13.670	120.957	17.8	3.3	
77		6	15	25	21.7	13.705	120.950	20.2	3.5	
78		6	15	40	16.6	13.663	120.933	14.5	3.4	
79		6	15	53	9.0	13.709	120.940	18.3	3.2	
80		6	16	1	57.4	13.704	120.922	13.4	2.1	
81		6	17	25	58.4	13.696	120.925	16.7	2.0	

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No.	$M_L \geq 5$	Hypocenter parameters							Magnitude	
		Date		Time		Lat (°)	Lon (°)	Depth (km)	M_L	M_w
		D	h	m	s					
82		6	18	45	43.3	13.713	120.944	20.0	2.9	
83		6	18	56	11.8	13.677	120.956	17.6	3.0	
84		6	20	25	30.5	13.698	120.922	14.6	2.9	
85		7	3	16	54.2	13.706	120.933	18.5	3.7	
86		7	6	43	4.1	13.680	120.944	13.4	2.6	
87		7	7	23	24.2	13.595	120.998	15.0	3.6	
88		7	8	12	50.9	13.603	121.012	14.8	3.8	
89		7	9	24	33.7	13.603	121.010	13.8	3.0	
90		7	11	44	23.9	13.669	120.971	14.8	2.6	
91		7	11	46	37.1	13.658	120.953	15.0	3.5	
92		7	13	55	43.8	13.683	120.948	20.0	2.4	
93		7	14	13	17.7	13.680	120.969	16.9	2.7	
94		7	15	1	16.8	13.682	120.929	14.9	2.3	
95		7	15	48	12.2	13.665	120.950	21.2	3.3	
96		7	15	51	17.7	13.675	120.944	19.0	2.6	
97		7	17	34	52.0	13.676	120.947	18.8	3.1	
98		7	23	1	9.5	13.682	120.940	14.5	2.2	
99		8	0	29	15.3	13.650	120.959	19.5	4.0	
100		8	1	5	49.3	13.685	120.958	16.7	3.5	
101		8	2	43	12.0	13.677	120.938	15.9	4.0	
102	6	8	7	7	54.0	13.647	120.944	21.4	5.7	5.5
103	7	8	7	9	20.4	13.681	120.920	14.3	5.8	5.9
104		8	7	14	45.0	13.609	120.976	15.3	4.0	
105		8	7	21	41.9	13.648	120.947	18.5	4.0	
106	8	8	7	29	8.7	13.691	120.948	21.2	5.0	5.0
107		8	7	32	50.0	13.673	120.943	16.5	3.8	
108		8	7	37	39.1	13.680	120.915	12.4	3.6	
109		8	7	39	36.8	13.667	120.900	15.6	4.4	
110		8	7	48	48.5	13.706	120.902	20.0	3.5	
111		8	7	53	29.8	13.684	120.917	21.3	4.0	
112		8	8	1	12.5	13.677	120.916	16.3	3.5	
113		8	8	12	47.6	13.699	120.944	16.2	3.3	
114		8	8	18	9.2	13.658	120.933	13.7	3.4	
115		8	8	24	13.3	13.663	120.932	19.0	3.7	
116	9	8	8	36	33.9	13.636	120.964	20.1	5.1	
117		8	8	41	0.5	13.647	120.969	14.2	3.2	
118		8	8	46	11.6	13.698	120.940	19.8	3.5	
119		8	8	51	15.2	13.705	120.906	19.1	3.2	
120		8	8	53	51.5	13.664	120.926	16.8	3.4	
121		8	8	56	8.8	13.648	120.953	16.5	3.6	
122		8	9	9	50.8	13.679	120.918	14.4	2.8	
123		8	9	17	18.3	13.690	120.899	12.0	2.8	

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No.	$M_L \geq 5$	Hypocenter parameters							Magnitude	
		Date		Time		Lat (°)	Lon (°)	Depth (km)	M_L	M_w
		D	h	m	s					
124		8	9	30	28.5	13.664	120.929	18.4	3.5	
125		8	9	41	13.6	13.663	120.938	16.7	3.2	
126		8	9	44	29.5	13.645	120.952	16.5	3.1	
127		8	9	57	45.8	13.671	120.919	13.7	2.7	
128		8	9	59	31.2	13.684	120.946	18.1	3.9	
129		8	10	2	41.4	13.666	120.936	17.3	2.6	
130		8	10	55	33.2	13.682	120.926	16.0	3.0	
131		8	11	7	17.1	13.660	120.942	15.1	3.6	
132		8	11	15	30.5	13.669	120.940	18.7	3.6	
133		8	11	23	25.2	13.699	120.961	15.3	3.0	
134		8	11	36	57.7	13.697	120.917	17.1	2.9	
135		8	11	40	6.2	13.683	120.921	19.2	2.6	
136		8	11	40	59.2	13.664	120.957	16.5	3.1	
137		8	11	49	46.4	13.669	120.944	14.9	3.1	
138		8	11	53	15.0	13.669	120.938	14.6	2.7	
139		8	12	8	38.9	13.697	120.926	14.3	3.2	
140		8	12	24	12.7	13.718	120.928	13.6	3.2	
141		8	12	29	26.0	13.670	120.909	15.4	3.2	
142		8	12	49	30.5	13.647	120.946	15.7	2.8	
143		8	13	23	49.0	13.659	120.945	14.9	3.7	
144		8	13	36	50.6	13.650	120.953	20.6	3.2	
145		8	13	39	39.4	13.721	120.893	16.1	4.1	
146		8	13	46	23.9	13.717	120.917	19.8	4.1	
147		8	13	50	36.9	13.726	120.918	21.1	3.2	
148		8	13	53	44.9	13.616	120.976	16.2	3.1	
149		8	14	12	54.4	13.687	120.938	16.5	3.1	
150		8	15	22	53.2	13.656	120.930	13.8	4.8	
151		8	15	44	35.2	13.689	120.951	18.9	3.4	
152		8	15	54	31.6	13.731	120.913	19.2	2.7	
153		8	15	57	20.3	13.707	120.916	20.8	4.2	
154		8	16	0	54.2	13.706	120.924	21.1	2.6	
155		8	16	3	11.1	13.699	120.945	19.6	2.7	
156		8	16	8	47.9	13.660	120.948	18.0	2.6	
157		8	16	9	45.8	13.662	120.908	20.5	3.8	
158		8	16	16	49.5	13.714	120.929	19.0	2.6	
159		8	16	24	15.6	13.722	120.918	20.2	2.9	
160		8	16	26	4.7	13.719	120.930	18.7	3.5	
161		8	16	36	36.4	13.719	120.941	19.5	3.3	
162		8	16	47	14.6	13.658	120.934	21.6	2.9	
163		8	16	50	37.4	13.672	120.890	15.0	3.3	
164		8	17	11	41.4	13.706	120.968	14.3	3.3	
165		8	17	14	58.4	13.715	120.932	16.9	3.1	

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No.	$M_L \geq 5$	Hypocenter parameters							Magnitude	
		Date		Time		Lat (°)	Lon (°)	Depth (km)	M_L	M_w
		D	h	m	s					
166		8	17	26	33.8	13.643	120.949	18.1	4.3	
167		8	17	28	53.5	13.644	120.948	16.2	3.5	
168		8	17	40	31.4	13.620	120.973	16.0	2.2	
169		8	17	44	28.1	13.718	120.923	19.1	2.6	
170		8	17	53	50.6	13.703	120.909	16.6	2.6	
171		8	18	16	35.7	13.700	120.918	16.2	3.5	
172		8	18	31	48.8	13.663	120.949	15.0	3.3	
173		8	18	48	49.5	13.616	120.994	14.1	3.2	
174		8	19	3	24.9	13.685	120.913	20.9	3.0	
175		8	19	9	8.4	13.625	120.975	16.4	2.8	
176		8	19	41	10.3	13.697	120.964	19.5	2.9	
177		8	19	49	7.2	13.663	120.960	17.6	3.4	
178		8	20	13	57.1	13.593	121.023	14.1	2.8	
179		8	20	16	32.6	13.709	120.918	16.1	2.6	
180		8	20	29	43.2	13.638	120.960	16.0	2.5	
181		8	20	38	43.1	13.740	120.929	19.2	2.8	
182		8	20	45	14.4	13.652	120.984	23.4	2.9	
183		8	20	48	4.2	13.728	120.910	20.8	2.7	
184		8	21	6	45.0	13.606	121.007	12.0	2.5	
185		8	22	8	44.0	13.704	120.930	17.3	3.2	
186		8	22	32	41.4	13.671	120.941	15.5	2.6	
187		8	22	39	31.4	13.656	120.963	17.7	3.2	
188		8	22	41	5.9	13.661	120.977	22.5	4.1	
189		8	22	53	21.8	13.667	120.971	19.4	3.0	
190		8	23	3	42.2	13.669	120.932	17.2	2.7	
191		8	23	16	54.4	13.702	120.909	19.1	2.4	
192		9	0	30	19.3	13.666	120.970	18.3	3.5	
193		9	1	35	55.9	13.673	120.949	12.7	2.2	
194		9	1	59	20.8	13.673	120.924	14.7	2.2	
195		9	2	25	29.8	13.697	120.931	15.8	3.5	
196		9	2	32	56.1	13.666	120.956	17.2	3.7	
197		9	2	41	51.9	13.708	120.943	19.3	3.0	
198		9	2	53	35.7	13.675	120.965	15.5	2.7	
199		9	3	14	9.7	13.614	120.989	15.6	4.7	
200		9	3	18	4.7	13.609	120.988	14.5	3.9	
201		9	4	13	35.2	13.705	120.909	20.3	2.7	
202		9	4	31	52.4	13.605	120.984	14.8	2.7	
203		9	5	22	10.1	13.694	120.942	20.7	2.9	
204		9	5	28	0.6	13.693	120.927	14.1	3.2	
205		9	5	33	19.9	13.690	120.921	20.6	3.3	
206		9	5	34	11.6	13.617	120.983	14.5	3.2	
207		9	5	56	19.1	13.667	120.930	14.2	2.3	

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		Date		Time		Lat (°)	Lon (°)	Depth (km)	M_L	M_w
		D	h	m	s					
208		9	7	50	19.6	13.637	120.945	14.4	2.7	
209		9	8	45	40.8	13.659	120.941	18.4	2.3	
210		9	9	32	25.6	13.702	120.911	16.0	2.2	
211		9	9	41	34.7	13.743	120.926	20.4	2.9	
212		9	10	45	9.9	13.696	120.947	15.0	2.6	
213		9	12	28	2.9	13.673	120.942	18.5	2.7	
214		9	13	40	23.3	13.683	120.939	16.2	3.4	
215		9	13	47	12.6	13.682	120.937	15.8	2.5	
216		9	13	56	21.0	13.739	120.943	19.0	2.4	
217		9	14	7	42.3	13.680	120.932	14.7	2.2	
218		9	14	12	22.0	13.671	120.960	19.6	2.3	
219		9	14	46	41.1	13.626	120.962	17.3	2.2	
220		9	14	48	33.4	13.700	120.927	16.2	2.5	
221		9	14	52	8.4	13.710	120.939	15.4	2.4	
222		9	15	1	7.3	13.644	120.955	15.7	3.8	
223		9	15	14	31.9	13.707	120.942	17.8	2.8	
224		9	15	21	18.7	13.708	120.939	16.4	2.2	
225		9	16	34	50.0	13.667	120.939	17.9	2.3	
226		9	17	59	24.8	13.675	120.935	16.1	2.1	
227		9	19	39	37.6	13.706	120.945	14.1	1.9	
228		9	20	15	31.9	13.678	120.946	16.7	2.7	
229		9	22	47	56.9	13.674	120.953	18.1	2.8	
230		9	23	49	14.8	13.679	120.925	18.1	2.3	
231		10	3	9	13.7	13.711	120.953	18.5	2.9	
232		10	4	33	21.5	13.683	120.903	22.0	2.3	
233		10	5	1	23.5	13.683	120.956	18.3	2.7	
234		10	5	6	58.8	13.719	120.919	14.9	2.6	
235		10	7	3	46.7	13.700	120.957	15.6	2.9	
236		10	9	19	31.4	13.671	120.964	15.7	2.7	
237		10	10	17	12.8	13.684	120.929	18.7	2.6	
238		10	11	48	43.5	13.665	120.954	17.4	2.0	
239		10	12	32	2.6	13.669	120.938	17.1	3.4	
240		10	13	32	43.7	13.674	120.942	16.4	2.2	
241		10	14	22	34.6	13.653	120.973	15.6	2.6	
242		10	15	41	7.5	13.682	120.930	16.9	3.6	
243		10	16	3	28.2	13.681	120.929	15.8	2.5	
244		10	16	28	51.8	13.680	120.934	16.8	3.1	
245		10	17	45	57.0	13.616	120.984	15.1	2.7	
246		10	18	8	38.2	13.671	120.962	21.5	1.6	
247		10	18	27	7.5	13.659	120.915	20.6	2.3	
248		10	18	45	44.4	13.711	120.883	11.4	2.2	
249		10	18	53	30.7	13.650	120.943	14.9	2.0	

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No.	$M_L \geq 5$	Hypocenter parameters							Magnitude	
		Date		Time		Lat (°)	Lon (°)	Depth (km)	M_L	M_w
		D	h	m	s					
250		10	19	1	22.4	13.688	120.932	18.2	2.5	
251		10	19	12	43.2	13.612	120.989	14.7	2.3	
252		10	19	28	50.0	13.704	120.929	20.5	2.7	
253		10	19	54	44.6	13.682	120.922	19.4	2.3	
254		10	20	26	25.5	13.716	120.902	20.7	2.6	
255		10	21	14	34.6	13.628	120.967	14.6	2.8	
256		10	22	17	30.2	13.668	120.943	17.2	3.5	
257		10	23	5	2.5	13.666	120.937	17.5	2.6	
258		10	23	25	1.8	13.672	120.945	15.6	3.2	
259		10	23	29	47.5	13.670	120.945	16.3	3.1	
260		11	2	14	45.9	13.662	120.960	16.7	3.5	
261		11	2	44	17.6	13.675	120.946	16.0	2.5	
262		11	3	31	30.0	13.665	120.941	15.1	2.7	
263		11	4	31	31.2	13.672	120.933	14.9	2.6	
264		11	4	48	15.1	13.673	120.944	18.7	2.8	
265		11	4	50	20.3	13.706	120.946	15.6	2.7	
266		11	5	25	6.8	13.610	120.993	14.5	3.1	
267		11	6	2	46.4	13.704	120.933	14.1	3.2	
268		11	12	17	54.5	13.698	120.942	20.1	2.7	
269		11	12	42	36.8	13.699	120.929	17.0	2.0	
270		11	15	12	60.0	13.719	120.935	18.8	3.2	
271		11	15	30	37.9	13.690	120.916	17.6	2.2	
272		11	17	10	34.0	13.664	120.944	17.6	1.9	
273		11	17	23	31.2	13.716	120.947	18.4	1.9	
274		11	17	36	52.9	13.666	120.952	20.2	3.3	
275		11	18	21	44.8	13.612	120.986	13.2	2.6	
276		11	20	6	29.5	13.661	120.933	15.3	2.3	
277		11	20	29	16.5	13.604	120.994	16.6	2.7	
278		11	20	36	56.1	13.642	120.938	17.8	3.2	
279		12	0	50	34.1	13.675	120.922	14.6	2.7	
280		12	8	59	19.7	13.696	120.903	14.4	2.6	
281		12	9	8	53.7	13.684	120.935	15.1	2.7	
282		12	9	29	54.2	13.675	120.950	13.8	2.3	
283		12	9	42	45.0	13.680	120.926	19.0	3.7	
284		12	11	33	47.0	13.693	120.894	12.8	2.0	
285		12	13	40	46.4	13.689	120.938	14.3	2.6	
286		12	16	17	42.0	13.691	120.939	20.9	2.6	
287		12	16	55	47.7	13.685	120.902	13.7	2.1	
288		12	19	27	52.2	13.678	120.960	17.2	3.3	
289		13	0	24	41.0	13.661	120.935	18.9	2.9	
290		13	0	44	38.7	13.682	120.916	19.6	2.6	
291		13	2	58	58.8	13.675	120.939	19.6	2.5	

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No.	$M_L \geq 5$	Hypocenter parameters							Magnitude	
		Date		Time		Lat (°)	Lon (°)	Depth (km)	M_L	M_w
		D	h	m	s					
292		13	5	47	10.9	13.687	120.917	18.7	3.0	
293		13	10	46	21.2	13.705	120.948	20.1	2.2	
294		13	10	49	31.3	13.711	120.938	18.0	2.7	
295		13	12	4	59.0	13.692	120.915	21.0	3.0	
296		13	18	31	24.0	13.698	120.941	18.4	2.7	
297		13	23	34	38.1	13.670	120.926	15.4	2.6	
298		14	4	28	23.7	13.701	120.941	19.3	3.0	
299		14	7	18	25.9	13.677	120.939	19.2	1.8	
300		14	7	23	11.7	13.681	120.921	20.3	2.4	
301		14	9	2	35.8	13.660	120.967	14.4	2.2	
302		14	11	18	44.2	13.695	120.917	21.6	2.5	
303		14	16	47	21.6	13.643	120.940	16.4	2.6	
304		14	17	9	41.3	13.704	120.939	18.1	3.3	
305		14	17	35	23.0	13.641	120.940	12.9	2.6	
306		14	20	25	37.3	13.605	120.996	14.6	2.5	
307		14	21	26	36.4	13.675	120.942	15.8	2.1	
308		15	2	0	26.5	13.693	120.935	14.3	2.5	
309		15	4	57	8.0	13.607	120.992	14.9	3.3	
310		15	10	25	9.7	13.657	120.941	14.0	2.0	
311		15	10	58	49.2	13.678	120.958	16.8	2.8	
312		15	15	55	56.8	13.666	120.937	15.3	2.3	
313		15	17	12	49.0	13.664	120.948	16.8	2.9	
314		15	19	34	17.0	13.689	120.933	14.7	2.1	
315		16	8	8	46.4	13.690	120.926	16.9	2.3	
316		16	10	25	9.3	13.673	120.945	16.8	3.2	
317		16	10	38	24.6	13.657	120.970	14.9	2.2	
318		16	13	51	48.0	13.672	120.946	15.8	2.4	
319		16	15	42	23.9	13.646	120.970	14.9	2.7	
320		16	18	50	23.6	13.707	120.906	20.9	3.2	
321		16	19	40	7.4	13.714	120.951	16.9	2.7	
322		17	1	55	52.8	13.665	120.942	16.9	2.9	
323		17	2	52	34.6	13.677	120.956	17.5	2.9	
324		17	5	53	49.1	13.675	120.916	17.5	2.7	
325		17	18	37	31.0	13.705	120.906	17.9	2.5	
326		17	21	40	12.5	13.672	120.943	18.3	3.6	
327		18	2	18	57.1	13.668	120.947	17.9	2.2	
328		18	19	24	38.6	13.703	120.935	14.6	2.9	
329		19	1	45	25.4	13.687	120.894	11.8	2.5	
330		19	22	5	59.4	13.664	120.958	19.6	3.2	
331		19	22	10	2.0	13.693	120.950	18.0	2.4	
332		19	22	47	26.4	13.668	120.943	17.0	2.8	
333		20	12	20	18.2	13.676	120.941	16.3	2.2	

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		Hypocenter parameters						Magnitude		
No.	$M_L \geq 5$	Date		Time		Lat (°)	Lon (°)	Depth (km)	M_L	M_w
		D	h	m	s					
334		21	10	31	28.6	13.675	120.923	14.3	2.3	
335		21	13	42	13.0	13.703	120.907	20.8	3.0	
336		21	14	27	7.1	13.640	120.971	18.5	2.7	
337		21	15	34	13.8	13.703	120.924	14.3	1.9	
338		21	17	15	49.5	13.710	120.935	18.6	2.2	
339		21	21	4	45.6	13.663	120.937	16.2	2.6	
340		22	5	14	3.3	13.606	121.015	13.8	2.9	
341		22	11	26	18.8	13.608	120.993	15.0	2.6	