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January to March 1964

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General Aspect of Earthquakes

January to March, 1964

The number of earthquakes occurred during the period from January to March, 1964 was five hundred and eighty-one. Among them, sixty were classified as felt earthquakes and the remains were unfelt ones.

On January 18th, a disastrous earthquake had happened in Tainan district. The epicenter was located at 43km. ENE. of Tainan. One hundred and seven persons died or disappeared; one hundred and ten were seriously injured and three hundred and sixty-five were hurt; According to the statistics 7,814 houses had been ruined during the earthquakes in addition to 10,726 houses partly destroyed.

The felt earthquakes occurred during the period had composed three remarkable one moderate three small felt areas and fifty three local earthquakes. One of the three remarkable earthquakes was disastrous. On February 2nd, another remarkable earthquake had occurred at about 155km. ENE. of Hwalien. Its depth was about 60km. The third remarkable earthquake was occurred on March 12th, at about 16km. NE. of Hsinkong with its depth about 20km. One moderate earthquake had happened on the date of January 28th. The epicenter of This quake was located at about 36km. ENF. of Tainan.

110 distant earthquakes had been traced out from the seismograms of our stations during this period. the detail of these earthquake may be studied from latter part of this bulletin.

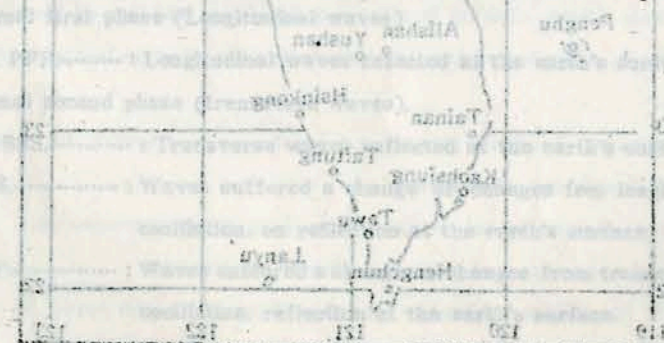


Table I. Geographical coordinates of the Seismological Station, Taiwan China.

λ : Longitude φ : Geographical Latitude
 φ' : Geocentric Latitude
 $a = \cos \varphi' \cos \lambda$ $b = \cos \varphi' \sin \lambda$ $c = \sin \varphi'$

Station	φ_1 (N)	λ_1 (E)	φ'	Altitude	Subsoil	a	b	c	Seismographs
Anpu	25.11	121.31	25.20	836.2	m Andesite	-0.4736	+0.7725	+0.4231	SP (H. V.)LP(H. L.)
Alishan(mt.)	23.31	120.48	23.22	2406.1	stone	-0.4700	+0.7855	+0.3966	W. (H. V.) O. S ₁ .
Hengchun	22.00	120.45	21.52	22.3	Alluvium	-0.4754	+0.7976	+0.3724	W. (H. V.) S ₂ .
Hsinkong	23.06	121.22	22.58	36.5	"	-0.4793	+0.7862	+0.3901	P ₁ S ₂ W.(H. V.) A ₁ .
Hsinchu	24.48	120.58	24.39	32.8	"	-0.4677	+0.7793	+0.4171	P ₁ S ₂ .
Hwalien	23.58	121.37	23.49	17.6	"	-0.4796	+0.7791	+0.4038	W. (H. V.) P ₁ S ₂ A ₂ .
Ilan	24.46	121.45	24.73	7.4	"	-0.4784	+0.7731	+0.4165	W. (H. V.) P ₁ S ₁ .
Kaohsiung	22.37	120.16	22.29	33.1	"	-0.4657	+0.7981	+0.3824	P ₁ S ₁ .
Lanyu	22.02	121.33	21.54	332.2	Basalt	-0.4881	+0.7950	+0.3730	P ₂ .
Penghu	23.32	119.33	23.23	9.4	"	-0.4527	+0.7985	+0.3969	P ₁ .
Taipei	25.02	121.31	24.53	8.0	Alluvium	-0.4742	+0.7733	+0.4208	W. (H. V.) O.S ₁ P ₃ A ₁ .
Tawu	22.21	120.54	22.13	7.6	"	-0.4754	+0.7944	+0.3781	W. (H. V.) S ₁ .
Taitung	22.45	121.09	22.37	8.9	"	-0.4775	+0.7900	+0.3846	W. (H. V.) S ₂ .
Tainan	23.00	120.13	22.52	12.7	"	-0.4637	+0.7962	+0.3886	W. (H. V.) P ₁ S ₁ A ₁ .
Taichung	24.09	120.41	24.00	77.1	"	-0.4662	+0.7856	+0.4067	W. (H. V.) S ₂ P ₁ .
Yushan(Mt. Marrison)	23.29	120.57	23.21	3850.0	"	-0.4722	+0.7873	+0.3964	P ₁ .

- W(H) : Wiechert's horizontal seismograph.
- W(V) : Wiechert's vertical seismograph.
- O : Omori's horizontal seismograph. (V:20)
- P₁ : C.M.O. type horizontal portable seismograph. (V:40)
- P₂ : Three component portable seismograph. (V:20)
- P₃ : Higuti-C.M.O. type short period horizontal seismograph. (V:50)
- S₁ : C.M.O. type three component strong motion seismograph. (V:2)
- S₂ : Higuti-C.M.O. type three component strong motion seismograph. (V:1)
- A₁ : Ishimoto's three component acceleration seismograph.
- A₂ : Higuti's three component strong motion accelerometer.
- S.P. : Benioff short-period seismograph.
- L.P. : Sprengnether long-period seismograph.

Map showing the position of Seismological Station in Taiwan, China.

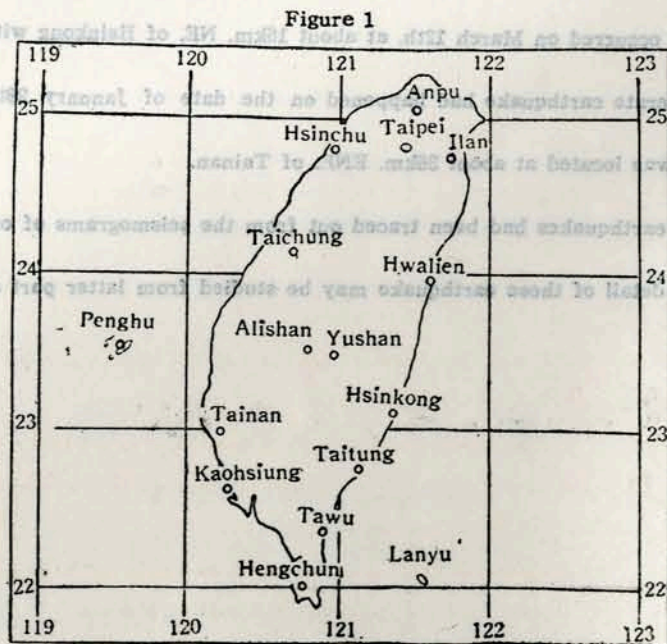


Table II. Specification of instruments:-

Seismograph	Component	M. (kg)	V. (mm. ²)	ν	r	To	Δ Tg
W(H)	E-W	200	77	9	0.10	5.1	
	N-S	200	78	9	0.13	5.1	
	U-D	80	75	8	0.08	5.1	
P ₁	E-W	18	40	8	0.13	5.1	
	N-S	18	40	8	0.13	5.1	
P ₂	E-W	10	20	2	0.24	4.0	
	N-S	10	20	2	0.41	4.0	
	U-D	7.5	20	2	0.29	4.0	
P ₃	E-W	20	49	10	0.08	2.2	
	N-S	20	49	10	0.08	2.3	
O	E-W	15	20	3	0.05	15.7	
	N-S	15	20	3	0.08	15.1	
S ₁	E-W	2	2	4	0.06	3.8	
	N-S	2	2	4	0.06	3.8	
	U-D	1.5	2	8	0.06	3.5	
S ₂	E-W	4	1	8	0.04	6.0	
	N-S	4	1	8	0.04	6.0	
	U-D	2	1	8	0.03	5.0	
A ₁	E-W	15	220	10	0.005	0.10	
	N-S	15	220	10	0.009	0.10	
	U-D	15	170	10	0.006	0.08	
A ₂	E-W	1	16	10	0.01	0.11	
	N-S	1	15	10	0.02	0.10	
	U-D	1	15	10	0.01	0.11	
SP	E-W	107.5	6,250	17	1.0	0.75	
	N-S	107.5	6,250	17	1.0	0.75	
	U-D	107.5	6,250	17	1.0	0.75	
LP	E-W	10.75	750	∞	30.0	100.0	
	N-S	10.75	750	∞	30.0	100.0	
	U-D	11.2	750	∞	30.0	100.0	

The present publication inserts the following explanation of the notations only in the first number hereafter.

1. Phase.
 - P : Normal first phase (Longitudinal waves)
 - pP, PP, PPP,..... : Longitudinal waves reflected at the earth's surface.
 - S : Normal second phase (transverse waves).
 - sS, SS, SSS,..... : Transverse waves reflected at the earth's surface.
 - PS, PPS,..... : Waves suffered a change or changes from longitudinal to transverse oscillation, on reflection at the earth's surface.
 - SP, SPP,..... : Waves suffered a change or changes from transverse to longitudinal oscillation, reflection at the earth's surface.

- L : Long waves at the beginning of of the surface waves.
- Q : Shorter and more regular waves in the surface waves.
- M : Largest motion in the surface waves.
- C : Tail or end potriou.
- F : End of the discernible movement.

- Δ : Epicentral distance.
- ΔH : Focal distance.
- H : Depth of focus.
- μ : Micron.

P-S : Duration of Preliminary tremor.

2. Nature of the motion.
- i : Sudden commencement of a phase.
 - e : Gradual or indistinct commencement of a phase.
 - ? : Questionable or uncertain.

3. Perlod and Initial motion.
- T : Period, duration of one complete oscillation.
 - I : Amplitude of the ture displacement of the ground from the position at rest.
 - I_N : N-S component of I.
 - I_E : E-W component of I.
 - I_Z : Vertical component of I.

Displacement to the north, east and upward are regarded as positive.

4. Scales of seismic intensity.
- The intensity of the shock is estimated according to the scales O-VI, as follows:
- O : No feeling: Shocks too weak cause human feelings, registered only by seismographs.
 - I : Slight; Extremely feeble shocks only felt by persons at rest or by those who are observant to an earthquake.

II : Weak: Shocks felt by most persons, slight shaking of doors and latticed sidding doors.

III : Rather stong: Slight shaking houses and buildings, rattling of doors and latticed slidding doors, swinging of hanging objects like the electric lamps, moviog of liquids in vessels.

IV : Strong: Strong shaking of houses and buildings, overturning of unstable objects spilling of liquids out of vesesls.

V : Very Strong: Cracks in the walls, overturning of gravestones, etc, lanterns etc, damaging of chimneys and mud-and-plaster warehouses ;

VI : Disastrous: Demolition of houses landslips, fissures on the roads, the ground etc.

	No Feeling	Slight	Weak	Rather Strong	Strong	Very Strong	Disastrous
Scale Acceleration (gal)	O <-0.8	I 0.8-2.5	II 2.5-8	III 8-25	IV 25-80	V 80-250	VI 250<

5. The magnitude of an earthquake is classified according to the radius of the felt area assumed, roughly to be a circle as follows:-
- (r) Remarkable earthquake: The radius of the felt area is gaeater than 300 km.
 - (m) Moderate earthquake: The radius is smaller than 300 km. but greater than 200 km.
 - (s) Earthquake of small felt area: The radius is smaller than 200 km. but greater than 100 km.
 - (l) Local earthquake: The radius is smaller than 100 km.
 - (d) Distant earthquake: The epicentral pistance is greater than 300 km. from the coast of Taiwan.

6. The bepth of hypocenter is as a rule expressed in terms of kilometers, if it is not determined so difinitely, the following scale will be adopted.
- | | | | | |
|-------|--------------|-----------|-------------|---------|
| Class | Very shallow | Shallow | Rather deep | Deep |
| Depth | 0~30km. | 30~100km. | 100~200km. | >200km. |

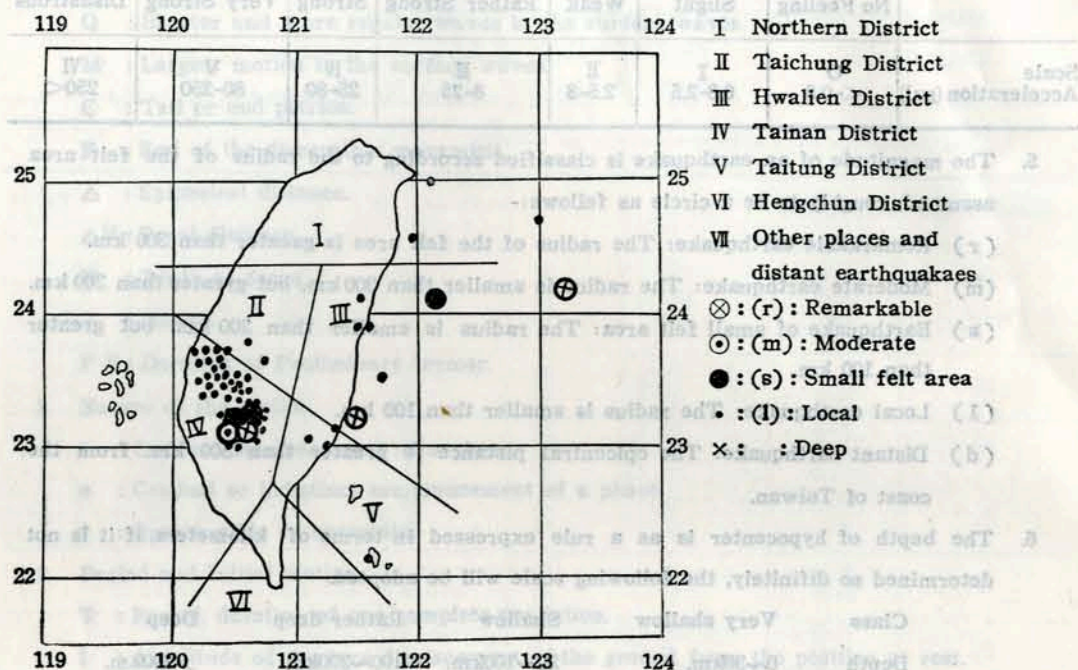
7. Geographical coordinates:
- λ : Longitude (E) φ : Latitude (N)
- The coordinates are been expressed in degrees with one place of decimal

8. Time

Time is referred to Greenwich Mean Time (G.M.T.)

Total	Number of felt earthquakes				Classification
	Total	Local	Moderate	Remarkable	
17	3	3	-	-	Northern District
31	3	3	-	-	Taipei
77	7	4	1	2	Hualien
202	24	20	1	3	Tainan
70	4	4	-	-	Taipei
15	0	-	-	-	Hengshue
181	23	23	1	3	Total
119	0	-	-	-	Other places

Epicenters of Felt Earthquakes from January to March, 1964.



Number of earthquakes classified according to its magnitude and districts January to March, 1964.

Classification	Number of felt earthquakes					Number of unfelt earthquakes	Total
	Magnitudes	Remarkable	Moderate	Small belt area	Local		
Districts							
Northern District		—	—	—	3	3	114
Taichung "		—	—	—	2	2	32
Hwalien "		2	—	1	4	7	70
Tainan "		1	1	2	40	44	218
Taitug "		—	—	—	4	4	72
Hengchun "		—	—	—	—	0	15
Total		3	1	3	53	60	521
Other places "		—	—	—	—	0	119

Felt earthquakes from January to March, 1964.

No.	Month	P. (G. M. T.)			Mag-nitude	Epicenter	Latitude		Longtiude	Depth
		d.	h.	m.			N.	E.		
1	Jan.	18	12	04	R	43km. ENE. of Tainan.	23.2	120.6	15	
2	"	18	12	14	L	"				
3	"	18	12	26	"	50km. ENE. of Tainan.			20	
4	"	18	12	27	"	"				
5	"	18	12	31	"	36km. WSW. of Alishan.			20	
6	"	18	12	44	"	Near 38km. NNE. of Tainan.			20	
7	"	18	12	59	"	"				
8	"	18	13	06	"	"				
9	"	18	13	38	"	Near 48km. NE. of Tainan.			10	
10	"	18	13	43	S	Near 43km. ENE. of Tainan.	23.2	120.5	0	
11	"	18	13	49	L	"				
12	"	18	13	57	"	Near 60km. ENE. of Tainan.			25	
13	"	18	14	02	"	"				
14	"	18	14	09	"	Near 48km. ENE. of Tainan.			0	
15	"	18	14	48	"	Near 64km. NNE. of Tainan.			40	
16	"	18	14	55	"	59km. NNE. of Tainan.			10	
17	"	18	14	59	"	"				
18	"	18	17	38	"	Near 63km. NNE. of Tainan.			20	
19	"	18	19	58	"	Near 60km. NNE. of Tainan.			20	
20	"	18	20	52	"	Near 41km. WNW. of Alishan.			10	
21	"	18	21	30	"	Near 30km. NNW. of Alishan.			10	
22	"	19	00	41	"	Near 53km. NE. of Tainan.			5	
23	"	19	03	16	"	Near 47km. NNE. of Tainan.			30	
24	"	19	04	41	"	Near 40km. NE. of Tainan.			10	
25	"	19	08	47	"	Near 78km. ENE. of Hengchun			10	
26	"	19	16	12	"	Near 38km. NNE. of Tainan.			10	
27	"	20	05	28	"	Near 50km. NNE. of Tainan.			0	
28	"	20	14	49	"	Near Chiayri				
29	"	20	18	39	"	Near 34km. NNE. of Tainan.			30	
30	"	21	02	10	"	Near 40km. NNE. of Tainan.			20	
31	"	23	03	01	"	Near 56km. SSE. of Hwalien.			20	
32	"	23	10	36	"	Near 25km. SE. of Ilan.			40	
33	"	25	23	28	"	Near 50km. ENE. of Tainan.			10	
34	"	26	10	02	"	Near 36km. NNE. of Tainan.			40	

No.	Month	P. (G. M. T.)			Mag-nitude	Epicenter	Latitude	Longitude	Depth
		d.	h.	m.					
35	Jan.	23	22	04	M	Near 36km. ENE. of Tainan.	N. 23.2	E. 120.5	kms. 20
36	"	29	14	10	L	Near 54km. NNE. of Tainan.			20
37	"	29	15	50	"	Near Hwalien.			
38	"	29	21	44	"	54km. NNE. of Tainan.			25
39	"	30	21	59	"	Near 46km. ENE. of Tainan.			10
40	"	30	22	03	"	Near 45km. ENE. of Tainan.			10
41	"	31	12	30	"	Near 42km. ENE. of Tainan.			0
42	Feb.	1	16	52	"	Near 35km. ENE. of Tainan.			20
43	"	2	08	55	R	Near 155km. ENE. of Hwalien.	24.1	123.1	60
44	"	2	17	28	L	Near Hwalien.			
45	"	6	02	12	"	Near 38km. NE. of Tainan.			15
46	"	7	00	33	"	Near 25km. W. of Alishan.			20
47	"	15	19	12	"	Near 35km. E. of Tainan.			0
48	"	16	23	28	"	Near 57km. NE. of Tainan.			10
49	"	17	05	50	S	Near 50km. NE. of Tainan.	23.2	120.6	10
50	"	22	21	16	L	Near 123km. E. of Ilan.			35
51	"	24	08	45	"	Near 40km. NE. of Tainan.			10
52	"	24	14	50	"	Near 34km. N. of Taitung.			15
53	"	28	11	55	"	Near 10km. N. of Alishan.			5
54	"	29	04	38	"	Near 55km. NE. of Ilan.			20
55	March.	2	14	55	"	Near 55km. NE. of Tainan.			5
56	"	9	07	33	"	Near 15km. SSW. of Hsinkong.			0
57	"	9	13	04	"	Near Hsinkong.			
58	"	12	03	55	M	Near 16km. NE. of Hsinkong.	23.1	121.5	20
59	"	26	14	51	L	Near 20km. NNW. of Hwalien.			35
60	"	27	07	57	S	Near 55km. ENE. of Hwalien.	24.1	122.1	20

The Unfelt Earthquakes From January to March, 1964.

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
1	Dec.	31	17	56	(d)	5	Jan.	1	20	25	Hwalien district.
2	"	31	22	57	Northern district.	6	"	1	23	50	"
3	Jan.	1	05	03	Near 44km. ENE. of Ilan.	7	"	2	01	09	Northern district.
4	"	1	17	32	(d)	8	"	2	19	36	(d)

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
9	Jan.	3	08	00	Near Hsinkong.	44	Jan.	6	10	44	Taichung district.
10	"	3	09	52	Hwalien district.	45	"	6	10	53	Near 108km. ESE. of Hwalien.
11	"	4	01	27	Near Tawu.	46	"	6	10	57	Hwalien district.
12	"	4	03	36	Northern district.	47	"	6	14	03	Taitung district.
13	"	4	03	59	(d)	48	"	6	19	32	Hengchun district.
14	"	4	10	39	Near 108km. ESE. of Hengchun.	49	"	6	23	52	(d)
15	"	4	14	15	Near 90km. E. of Hengchun.	50	"	7	01	45	Near 70km. ENE. of Taipei.
16	"	4	14	17	Northern district.	51	"	7	05	01	(d)
17	"	4	15	10	Taitung district.	52	"	7	05	03	Northern district.
18	"	4	15	18	Near 85km. ENE. of Hengchun.	53	"	7	13	55	(d)
19	"	4	15	32	Taitung district.	54	"	7	14	26	"
20	"	4	15	49	Hengchun district.	55	"	7	17	38	Near Hwalien.
21	"	4	16	44	Near 20km. E. of Lanyu.	56	"	8	00	38	(d)
22	"	4	22	09	Hwalien district.	57	"	8	01	26	"
23	"	4	22	25	Northern district.	58	"	8	02	32	Northern district.
24	"	4	22	36	"	59	"	8	02	58	(d)
25	"	4	23	42	Taitung district.	60	"	8	03	00	Near Ilan
26	"	5	02	51	Hengchun district.	61	"	8	11	30	Northern district.
27	"	5	09	05	(d)	62	"	8	13	07	"
28	"	5	10	55	Northern district.	63	"	8	13	33	(d)
29	"	5	14	46	Taitung district.	64	"	8	16	23	Near 110km. ESE. of Ilan.
30	"	5	15	18	"	65	"	8	22	36	(d)
31	"	5	15	50	"	66	"	9	02	09	Taitung district.
32	"	5	17	08	(d)	67	"	9	03	36	Near 80km. E. of Ilan.
33	"	5	18	51	"	68	"	9	17	22	Near 80km. E. of Ilan.
34	"	5	21	11	Northern district.	69	"	9	18	38	(d)
35	"	5	21	45	"	70	"	10	00	45	Hwalien district.
36	"	6	00	12	(d)	71	"	10	04	56	(d)
37	"	6	01	01	Near 35km. ENE. of Tawu.	72	"	10	05	56	Northern district.
38	"	6	05	56	(d)	73	"	10	11	05	(d)
39	"	6	06	15	Hwalien district.	74	"	10	17	03	"
40	"	6	06	47	Hengchun district.	75	"	11	05	10	Near Hsinkong.
41	"	6	07	15	Taitung district.	76	"	11	05	48	Northern district.
42	"	6	09	41	"	77	"	11	07	44	Near Hsinkong.
43	"	6	09	54	"	78	"	11	14	29	Northern district

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
79	Jan.	12	06	10	(d)	114	Jan.	18	13	19	"
80	"	12	10	01	Northern district.	115	"	18	13	27	Near 48km. NNE. of Tainan.
81	"	12	11	26	(d)	116	"	18	13	39	Near 48km. NE of Tainan.
82	"	12	13	23	"	117	"	18	—	—	Near 43km. ENE. of Tainan.
83	"	12	16	50	Northern district.	118	"	18	13	56	"
84	"	13	04	03	"	119	"	18	14	00	Near 60km. ENE. of Tainan.
85	"	14	06	38	"	120	"	18	14	12	Near 48km. ENE. of Tainan.
86	"	14	15	45	(d)	121	"	18	14	17	"
87	"	15	05	10	Northern district.	122	"	18	14	20	Near 54km. NE. of Tainan.
88	"	15	19	06	"	123	"	18	14	23	"
89	"	15	20	26	Taitung district.	124	"	18	14	25	"
90	"	15	21	40	(d)	125	"	18	14	28	"
91	"	16	02	46	Northern district.	126	"	18	14	32	"
92	"	16	08	22	Taitung district.	127	"	18	14	33	"
93	"	16	11	42	Northern district.	128	"	18	14	40	"
94	"	17	03	04	(d)	129	"	18	14	46	"
95	"	17	08	38	Northern district.	130	"	18	14	49	"
96	"	17	08	42	Hwalien district.	131	"	18	14	58	Near Chiayi.
97	"	18	01	59	Taitung district.	132	"	18	15	00	Near 45km. SSE. of Ilan.
98	"	18	05	59	Northern district.	133	"	18	15	08	Taitung district.
99	"	18	—	—	43km. ENE. of Tainan.	134	"	18	15	24	Near Chiayi.
100	"	18	—	—	"	135	"	18	15	32	"
101	"	18	12	20	"	136	"	18	15	35	Near Chiayi.
102	"	18	—	—	"	137	"	18	15	38	"
103	"	18	—	—	"	138	"	18	15	43	"
104	"	18	12	18	50km. ENE. of Tainan.	139	"	18	15	48	"
105	"	18	12	32	Near Chiayi.	140	"	18	—	—	"
106	"	18	12	35	"	141	"	18	15	51	Hwalien district.
107	"	18	12	39	"	142	"	18	16	03	Taitung district.
108	"	18	12	52	Near 33km. NE. of Tainan.	143	"	18	16	18	"
109	"	18	12	54	"	144	"	18	16	25	50km. NNE. of Tainan.
110	"	18	12	56	"	145	"	18	16	50	"
111	"	18	13	05	Near 33km. NE. of Tainan.	146	"	18	17	03	Taitung district.
112	"	18	13	07	"	147	"	18	17	13	Near Chiayi.
113	"	18	13	17	"	148	"	18	17	49	Near 63km. NNE. of Tainan.

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
149	Jan.	18	18	18	"	184	Jan.	19	07	07	"
150	"	18	18	22	"	185	"	19	09	10	Near 16km. W. of Alishan.
151	"	18	18	31	"	186	"	19	09	12	"
152	"	18	18	57	52km. NNE. of Tainan.	187	"	19	10	45	Near 36km. ENE. of Alishan.
153	"	18	19	29	"	188	"	19	11	04	Near 36km. NNE. of Tainan.
154	"	18	19	49	"	189	"	19	11	54	"
155	"	18	19	57	62km. NNE. of Tainan.	190	"	19	11	58	"
156	"	18	20	22	23.2 N 120.5 E	191	"	19	12	55	"
157	"	18	20	23	"	192	"	19	14	18	Taitung district.
158	"	18	20	38	"	193	"	19	14	57	"
159	"	18	22	05	Near 30km. NNW. of Alishan.	194	"	19	15	11	Near 45km. NNE. of Tainan.
160	"	18	22	08	"	195	"	19	15	13	"
161	"	18	22	12	"	196	"	19	15	44	Northern district.
162	"	18	22	23	Near 18km. WSW. of Alishan.	197	"	19	19	41	Near 38km. NNE. of Tainan.
163	"	18	22	25	"	198	"	19	21	24	Near 54km. NE. of Tainan.
164	"	18	22	34	"	199	"	19	23	13	"
165	"	18	22	55	"	200	"	19	23	18	"
166	"	18	23	05	Near 45km. NE. of Tainan.	201	"	20	01	10	"
167	"	18	23	13	"	202	"	20	01	20	"
168	"	18	23	35	"	203	"	20	02	02	"
169	"	19	00	17	"	204	"	20	02	24	"
170	"	19	00	47	Near 53km. NE. of Tainan.	205	"	20	03	12	"
171	"	19	00	50	"	206	"	20	03	30	Near 36km. NE. of Tainan.
172	"	19	01	05	Near 67km. NNE. of Tainan.	207	"	20	04	15	"
173	"	19	02	06	"	208	"	20	04	22	"
174	"	19	02	17	"	209	"	20	06	55	Near 50km. NNE. of Tainan.
175	"	19	02	19	"	210	"	20	07	47	"
176	"	19	02	44	"	211	"	20	07	51	Near 64km. NNE. of Tainan.
177	"	19	03	24	Near 47km. NNE. of Tainan.	212	"	20	08	08	Taitung district.
178	"	19	03	44	"	213	"	20	08	53	Hengchun district.
179	"	19	03	54	"	214	"	20	09	30	Hwalien district.
180	"	19	03	59	Near 59km. ENE. of Tainan.	215	"	20	09	53	64km. NNE. of Tainan.
181	"	19	04	03	"	216	"	20	10	45	Near 20km. ENE. of Tainan.
182	"	19	05	43	Near 40km. NE. of Tainan.	217	"	20	10	49	"
183	"	19	06	24	Near 63km. NNE. of Tainan.	218	"	20	12	55	Taitung district.

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
219	Jan.	20	15	11	Near Chiayi.	254	Jan.	22	16	04	(d)
220	"	20	15	30	"	255	"	22	21	08	40km. NE. of Tainan.
221	"	20	17	19	(d)	256	"	22	23	23	"
222	"	20	17	21	34km. NNE. of Tainan.	257	"	22	23	25	"
223	"	20	18	26	Near 50km.ENE. of Tainan.	258	"	23	00		"
224	"	20	20	39	"	259	"	23	02	22	40km. NE. of Tainan.
225	"	20	21	04	"	260	"	23	03	27	"
226	"	21	02	05	Near 40km. NNE. of Tainan.	261	"	23	05	47	"
227	"	21	02	23	"	262	"	23	05	38	"
228	"	21	02	33	"	263	"	23	05	48	"
229	"	21	05	12	"	264	"	23	06	14	Near 55km. NE. of Tainan.
230	"	21	11	10	"	265	"	23	08	42	"
231	"	21	15	30	Near 46km. NE. of Tainan.	266	"	23	09	35	"
232	"	21	16	38	"	267	"	23	10	32	"
233	"	21	17	38	"	268	"	23	10	34	"
234	"	21	21	40	"	269	"	23	11	55	Near Chiayi.
235	"	21	21	46	"	270	"	23	12	31	Northern district.
236	"	21	22	21	(d)	271	"	23	16	15	(d)
237	"	22	00	00	46km. NE. of Tainan.	272	"	23	19	00	Hwalien district.
238	"	22	00	45	"	273	"	23	20	30	Near 63km. NNE. of Tainan.
239	"	22	00	57	"	274	"	23	22	23	"
240	"	22	01	34	"	275	"	23	22	33	"
241	"	22	02	23	"	276	"	24	11	07	Northern district.
242	"	22	02	26	Near 40km. NE. of Tainan.	277	"	24	11	19	Near Ilan.
243	"	22	02	45	"	278	"	24	17	24	Near Chiayi.
244	"	22	03	08	"	279	"	24	21	48	(d)
245	"	22	04	46	"	280	"	25	00	02	Near Chiayi.
246	"	22	05	18	"	281	"	25	02	53	"
247	"	22	05	32	"	282	"	25	04	18	"
248	"	22	09	06	Near 40km. NE. of Tainan.	283	"	25	04	37	"
249	"	22	09	17	"	284	"	25	10	53	Near Hwalien.
250	"	22	09	52	"	285	"	25	11	17	Near Chiayi.
251	"	22	09	55	"	286	"	25	14	22	Northern district.
252	"	22	12	47	"	287	"	25	17	49	Near Chiayi.
253	"	22	14	50	Hengchun district.	288	"	25	19	17	"

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
289	Jan.	25	19	36	Near Chiayi.	324	Jan.	29	23	55	"
290	"	26	07	39	Near 50km. ENE. of Tainan.	325	"	30	10	37	Near 35km. NE. of Tainan.
291	"	26	09	03	"	326	"	30	13	07	Near 46km. NNE. of Tainan.
292	"	26	09	29	(d)	327	"	30	14	42	"
293	"	26	10	27	Near 36km. NNE. of Tainan.	328	"	30	17	19	Near 83km. ENE. of Hwalien.
294	"	26	18	37	Taitung district.	329	"	30	18	12	Near 46km. NNE. of Tainan.
295	"	26	22	07	Near chiayi.	330	"	30	18	43	(d)
296	"	26	22	33	Near 22km. N. of Alishan.	331	"	30	22	23	Near 45km. ENE. of Tainan.
297	"	27	02	12	"	332	"	30	23	43	"
298	"	27	02	26	(d)	333	"	31	00	47	"
299	"	27	02	39	Near alishan.	334	"	31	07	58	Near Hwalien.
300	"	27	07	40	Near anpu.	335	"	31	10	17	Northern district.
301	"	27	11	32	"	336	"	31	10	26	Near Alishan.
302	"	27	13	32	Northern district.	337	Feb.	1	01	27	Near 45km. NNE. of Alishan.
303	"	28	05	57	(d)	338	"	1	01	55	Northern district.
304	"	28	06	35	Near 45km. ENE. of Tainan.	339	"	1	02	14	(d)
305	"	28	09	01	Near 145km. ENE. of Hengchun.	340	"	1	03	18	Near Alishan.
306	"	28	14	17	(d)	341	"	1	04	36	"
307	"	28	20	16	Hwalien distrct.	342	"	1	17	31	Near 48km. SE. of Ilan.
308	"	28	22	58	Near 36km. ENE. of Tainan.	343	"	1	17	56	Tainan district.
309	"	28	23	03	"	344	"	2	03	23	Northern district.
310	"	28	23	17	"	345	"	2	05	40	Hwalien district.
311	"	29	00	03	"	346	"	2	06	46	Tainan district.
312	"	29	01	34	Hwalien district.	347	"	2	07	23	Northern distrct.
313	"	29	03	03	36km. ENE. of Tainan.	348	"	2	17	19	Near Hwalien.
314	"	29	04	03	"	349	"	3	03	04	Taitung district.
315	"	29	09	37	"	350	"	3	03	23	Near Hwalien.
316	"	29	12	46	Hengchun district.	351	"	3	21	10	Taichung district.
317	"	29	13	17	Near 60km. ENE. of Tainan.	352	"	4	04	30	Hwaliendistrict.
318	"	29	14	41	Taitung district.	353	"	4	18	19	(d)
319	"	29	14	13	Northern district.	354	"	4	18	49	Near 48km. NNE. of Tainan.
320	"	29	14	18	"	355	"	4	19	32	Tainan district.
321	"	29	22	16	Hwalien district.	356	"	4	20	23	Northern district.
322	"	29	22	22	Near chiayi.	357	"	4	20	24	"
323	"	29	23	37	"	358	"	5	02	42	"

No.	Month	P.			Epicenter	No.	Month	P.			Epicenter
		(G.	M.	T.)				(G.	M.	T.)	
359	Feb.	d.	h.	m.	394	Feb	d.	h.	m.	Near 45km. E. of Tainan.	
360	"	5	04	08	395	"	9	15	35	Near 23km. WSW. of Alishan.	
361	"	5	09	34	396	"	10	00	12	(d)	
362	"	5	11	34	397	"	10	00	27	"	
363	"	5	13	06	398	"	10	09	53	38km. WSW. of Alishan.	
364	"	5	15	24	399	"	10	17	43	(d)	
365	"	5	16	27	400	"	10	19	55	Near 42km. ENE. of Tainan.	
366	"	5	17	05	401	"	11	03	50	Near 45km. SSE. of Ilan.	
367	"	5	17	25	402	"	11	04	54	Near 96km. ESE. of Ilan.	
368	"	6	02	08	403	"	11	14	14	Taitung district.	
369	"	6	03	58	404	"	11	21	03	"	
370	"	6	04	23	405	"	12	08	43	Near 52km. NNE. of Tainan.	
371	"	6	10	13	406	"	12	10	53	"	
372	"	6	10	14	407	"	12	20	39	(d)	
373	"	6	13	18	408	"	12	22	55	"	
374	"	6	14	30	409	"	13	01	42	Taichung district.	
375	"	6	14	46	410	"	13	02	04	Near 128km. ESE. of Taitung.	
376	"	6	17	31	411	"	13	02	08	Taitung district.	
377	"	6	19	09	412	"	13	02	32	Near 80km. E. of Ilan.	
378	"	6	21	39	413	"	13	03	38	(d)	
379	"	6	22	53	414	"	13	04	15	Near 80km. ESE. of Taitung.	
380	"	7	02	35	415	"	13	05	50	"	
381	"	7	03	16	416	"	13	08	28	Taichung district.	
382	"	7	08	35	417	"	13	10	11	(d)	
383	"	7	13	03	418	"	14	15	37	"	
384	"	7	21	39	419	"	15	22	37	Near 125km. ENE. of Taipei.	
385	"	8	05	15	420	"	15	00	28	Hwalien district.	
386	"	8	06	46	421	"	16	02	38	Northern district.	
387	"	8	09	37	422	"	16	03	10	Near alishan.	
388	"	8	09	59	423	"	16	09	00	"	
389	"	8	11	33	424	"	16	12	01	"	
390	"	8	18	39	425	"	16	16	08	Hengchun district.	
391	"	8	21	55	426	"	16	16	52	Near 13km. WSW. of Alishan.	
392	"	9	11	10	427	"	16	19	44	Near Hwalien.	
393	"	9	12	12	428	"	16	21	55	(d)	
	"	9	15	23		"	17	06	10	Near 50km. NE. of Tainan.	

No.	Month	P.			Epicenter	No.	Month	P.			Epicenter
		(G.	M.	T.)				(G.	M.	T.)	
429	Feb.	d.	h.	m.	464	Feb.	d.	h.	m.	Near 50km. NE. of Tainan.	
430	"	17	06	33	465	"	26	21	55	Northern district.	
431	"	17	06	36	466	"	27	01	22	Near Alishan.	
432	"	17	13	19	467	"	27	15	15	(d)	
433	"	17	13	32	468	"	27	17	20	Taitung district.	
434	"	17	14	05	469	"	28	01	16	Northern district.	
435	"	17	14	23	470	"	28	01	31	"	
436	"	18	04	53	471	"	28	17	12	Hwalien district.	
437	"	18	04	56	472	"	28	17	58	(d)	
438	"	18	19	56	473	"	28	19	11	Northern district.	
439	"	18	23	01	474	"	28	22	56	"	
440	"	19	00	21	475	"	29	05	31	Near 55km. NE. of Ilan.	
441	"	19	02	42	476	"	29	07	14	(d)	
442	"	19	09	40	477	"	29	08	47	Northern district.	
443	"	19	15	15	478	"	29	11	55	Taitung district.	
444	"	19	17	46	479	"	29	15	24	(d)	
445	"	20	10	05	480	"	30	21	14	Hwalien district.	
446	"	21	08	21	481	"	30	21	21	"	
447	"	21	08	21	482	"	30	21	21	"	
448	"	21	09	38	483	"	30	23	57	Northern district.	
449	"	21	17	26	484	"	30	23	57	"	
450	"	21	17	26	485	Mar.	1	07	35	"	
451	"	21	20	39	486	"	1	09	58	Taitung district.	
452	"	21	20	39	487	"	1	09	58	Taitung district.	
453	"	21	22	31	488	"	2	02	11	Northern district.	
454	"	22	02	31	489	"	2	02	11	Northern district.	
455	"	22	02	31	490	"	2	09	38	"	
456	"	22	06	52	491	"	2	09	38	"	
457	"	22	06	52	492	"	2	18	52	"	
458	"	22	07	13	493	"	2	18	52	"	
459	"	22	07	13	494	"	2	19	53	"	
460	"	22	09	24	495	"	2	19	53	"	
461	"	24	01	30	496	"	2	20	04	(d)	
462	"	24	01	30	497	"	2	20	04	(d)	
463	"	24	07	32	498	"	3	02	55	Northern district.	
	"	24	07	32		"	3	02	55	Northern district.	
	"	24	14	26		"	3	06	13	"	
	"	24	14	26		"	3	06	13	"	
	"	24	19	15		"	3	06	15	"	
	"	24	19	15		"	3	06	15	"	
	"	24	22	31		"	3	08	54	"	
	"	24	22	31		"	3	08	54	"	
	"	25	00	34		"	3	10	17	"	
	"	25	00	34		"	3	10	17	"	
	"	25	02	25		"	3	11	00	"	
	"	25	02	25		"	3	11	00	"	
	"	25	13	05		"	3	21	44	(d)	
	"	25	13	05		"	3	21	44	(d)	
	"	26	14	27		"	3	23	58	Northern district.	
	"	26	14	27		"	3	23	58	Northern district.	
	"	26	21	23		"	4	20	39	Near Hsinkong.	
	"	26	21	23		"	4	20	39	Near Hsinkong.	
	"	26	21	23		"	4	21	15	(d)	
	"	26	21	23		"	4	21	15	(d)	

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
499	Mar.	5	00	04	(d)	534	Mar.	13	22	35	(d)
500	"	5	10	30	"	535	"	14	07	35	Hwalien district.
501	"	5	16	24	Northern district.	536	"	14	22	28	Near Hwalien.
502	"	5	18	39	"	537	"	15	09	44	Near Alishan.
503	"	6	02	39	Near 26km. WSW. of Alishan.	538	"	15	19	04	Taitung district.
504	"	6	02	48	(d)	539	"	15	22	48	(d)
505	"	6	10	29	Northern district.	540	"	16	01	10	"
506	"	6	19	05	(d)	541	"	16	03	35	Northern district.
507	"	6	23	21	Hwalien district.	542	"	16	08	24	Taitung district.
508	"	7	08	17	Near Hsinkong.	543	"	16	16	52	Northern district.
509	"	7	13	10	Hwalien district.	544	"	17	08	00	Near Hsinkong.
510	"	7	14	37	Near Alishan.	545	"	17	12	29	Taitung district.
511	"	8	00	42	Northern district.	546	"	17	19	38	Near 25km. E. of Tainan.
512	"	8	01	56	Near Alishan.	547	"	18	04	43	Northern district.
513	"	8	02	13	(d)	548	"	18	10	29	"
514	"	8	21	27	Near Hsinkong.	549	"	19	10	54	(d)
515	"	9	00	40	Northern district.	550	"	19	21	55	"
516	"	9	02	54	Taichung district.	551	"	20	09	56	Taitung district.
517	"	9	10	50	Near Ilan.	552	"	20	14	20	Near 45km. N. of Hwalien.
518	"	9	14	49	Near Hwalien.	553	"	20	17	11	(d)
519	"	9	21	50	Northern district.	554	"	20	17	22	Northern district.
520	"	10	01	41	(d)	555	"	20	23	41	Near Hwalien.
521	"	10	14	04	"	556	"	21	03	47	(d)
522	"	10	14	08	Taichung district.	557	"	21	03	52	Taitung district.
523	"	10	14	13	Hengchun district.	558	"	21	07	35	Near Hwalien.
524	"	11	01	10	(d)	559	"	21	16	18	(d)
525	"	11	01	14	Hengchun district.	560	"	22	08	28	Northern district.
526	"	11	18	29	(d)	561	"	22	10	14	(d)
527	"	12	07	44	Near 30km. SSE. of Ilan.	562	"	22	10	49	Near Hsinkong.
528	"	12	10	57	Near 34km. WNW. of Taitung.	563	"	22	15	00	Near 100km. ENE. of Taitung.
529	"	12	22	34	(d)	564	"	23	10	35	Near Hwalien.
530	"	13	04	24	Near 100km. ENE. of Hwalin.	565	"	23	12	42	"
531	"	13	05	25	(d)	566	"	23	21	00	(d)
532	"	13	08	52	Near Hsinkong.	567	"	23	22	32	Northern district.
533	"	13	10	19	(d)	568	"	24	03	26	Hwalien district.

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
569	Mar.	24	22	08	Taitung district.	604	Mar.	28	11	34	(d)
570	"	24	22	12	Hngchun district.	605	"	28	12	31	Hwalien district.
571	"	25	02	22	(d)	606	"	28	12	40	(d)
572	"	25	05	01	"	607	"	28	14	58	"
573	"	25	19	37	Near Ilan.	608	"	28	20	13	Near 80km. E. of Tawu.
574	"	25	02	09	(d)	609	"	28	20	38	Northern district.
575	"	26	03	43	Near Hwalien.	610	"	28	20	40	(d)
576	"	26	05	30	(d)	611	"	29	01	33	Hwalien district.
577	"	26	06	33	"	612	"	29	01	45	(d)
578	"	26	08	08	Northern district.	613	"	29	04	40	Hengchun district.
579	"	26	09	25	"	614	"	29	05	11	(d)
580	"	26	12	13	Near 60km. E. of Ilan.	615	"	29	10	41	"
581	"	26	13	05	Northern district.	616	"	29	12	15	"
582	"	26	13	13	"	617	"	29	16	51	Taitung district.
583	"	26	14	29	(d)	618	"	29	16	52	(d)
584	"	26	15	15	Near 73km. ENE. of Ilan.	619	"	29	21	48	"
585	"	26	19	48	Northern district.	620	"	29	23	21	Near 50km. NE. of Tainan.
586	"	26	20	56	Near Hsinkong.	621	"	29	23	58	"
587	"	27	04	36	(d)	622	"	30	01	54	Near Anpu.
588	"	27	11	09	Near 58km. NNE. of Hsinkong.	623	"	30	02	28	(d)
589	"	27	11	52	Near 48km. N. of Tainan.	624	"	30	07	20	"
590	"	27	13	16	Hwalien district.	625	"	30	12	22	"
591	"	27	20	13	Taitung district.	626	"	30	12	42	Taitung district.
592	"	27	20	41	(d)	627	"	30	15	04	Near Hsinkong.
593	"	27	23	22	Northern district.	628	"	30	16	20	(d)
594	"	28	01	39	Hengchun district.	629	"	30	18	15	Northern district.
595	"	28	03	47	(d)	630	"	30	19	20	(d)
596	"	28	05	05	Hwalien district	631	"	30	21	13	"
597	"	28	06	55	"	632	"	31	00	20	"
598	"	28	07	21	"	633	"	31	09	13	"
599	"	28	07	41	"	634	"	31	12	13	"
600	"	28	09	11	"	635	"	31	12	55	Northern district.
601	"	28	09	34	"	636	"	31	12	56	"
602	"	28	10	04	"	637	"	31	13	12	"
603	"	28	10	46	"	638	"	31	13	15	"

1 ep. for TAP
May 1964

2 ep. June

地震季報

第十一卷 第二號

中華民國五十三年四、五、六月

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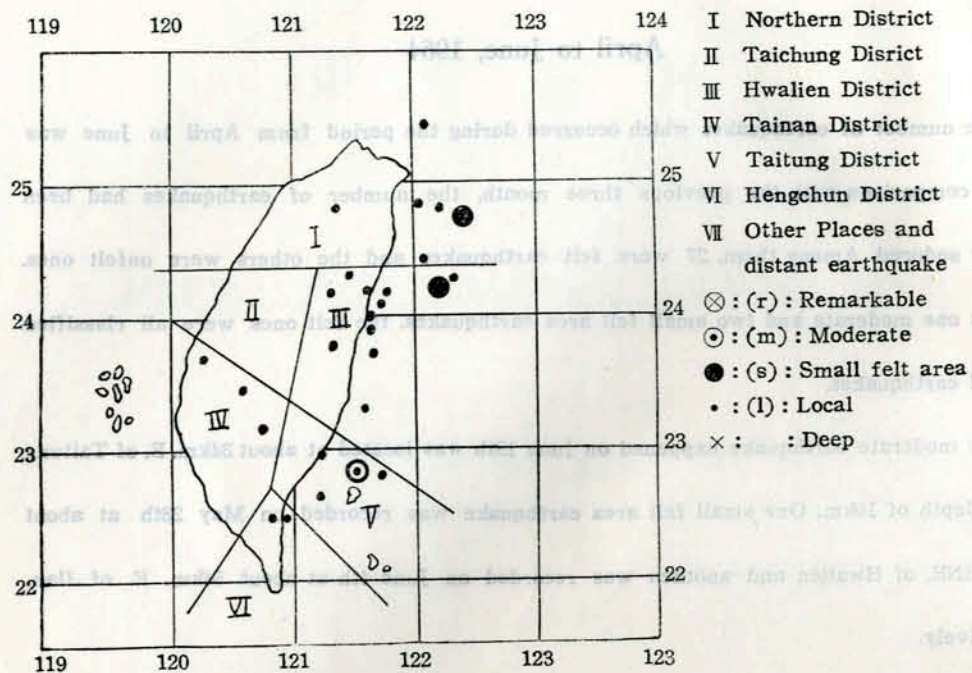
臺灣省氣象所

PUBLISHED QUARTERLY BY

TAIWAN WEATHER BUREAU

64 KUNG YUAN ROAD, TAIPEI, TAIWAN, CHINA

Epicenters of Felt Earthquakes in April to June, 1964.



Number of earthquakes classified according to its magnitude and districts April to June 1964

Classification	Number of felt earthquakes					Number of unfelt earthquakes	Total
	Magnitudes	Remarkable	Moderate	Small felt area	Local		
Districts							
Northern District		—	—	1	5	6	126
Taichung "		—	—	—	—	0	27
Hwalien "		—	—	1	11	12	70
Tainan "		—	—	—	3	3	5
Taitung "		—	1	—	3	4	58
Hengchun "		—	—	—	2	2	18
Total		0	1	2	24	27	304
Other places		—	—	—	—	0	167

The felt earthquakes from April to June, 1964.

No.	Month	P. (G. M. T.)			Mag-nitude	Epicenter	Latitude		Depth
		d.	h.	m.			N.	E.	
61	Apr.	2	14	54	(1)	Near 26km. SSW. of Taipei.			5
62	"	6	07	10	"	Near 65km. ENE. of Tainan.			40
63	"	7	00	08	"	Near Tawu.			
64	"	7	00	13	"	"			
65	"	14	09	03	"	Near 30km. NNE. of Hsinkong.			15
66	"	15	00	15	"	Near 35km. SSE. of Hwalien.			50
67	"	22	01	40	"	Near 20km. WSW. of Alishan.			0-5
68	"	24	09	50	"	Near 42km. WNW. of Alishan.			35
69	"	28	09	57	"	Near 35km. SW. of Hwalien.			50
70	"	30	09	25	"	Near 30km. N. of Hwalien.			10
71	May.	10	07	22	"	Near 22km. NE. of Hwalien.			10
72	"	10	10	51	"	Near 20km. NE. of Hwalien.			20
73	"	20	14	27	"	Near 35km. NW. of Hwalien.			0
74	"	24	16	13	"	Near 40km. SE. of Ilan.			5
75	"	28	01	56	(s)	Near 70km. ENE. of Hwalien.	24.3	122.1	0
76	"	31	01	59	(1)	Near 72km. NE. of Hwalien.			40
77	June.	2	02	06	"	Near 42km. SSW. of Ilan.			25
78	"	2	05	51	"	Near 60km. ENE. of Taipei.			45
79	"	4	01	42	(s)	Near 54km. E. of Ilan.	24.7	122.2	20
80	"	9	18	55	(1)	Near 20km. N. of Taitung.			
81	"	11	08	38	"	Near 30km. E. of Ilan.			40
82	"	11	10	00	"	Near 40km. E. of Ilan.			20
83	"	16	13	06	"	Near Hwalien.			
84	"	19	10	34	(m)	Near 34km. E. of Taitung.	22.8	121.5	10
85	"	20	05	07	(1)	"			
86	"	21	07	12	"	Near 20km. SSE. of Taitung.			10
87	"	30	01	30	"	Near Hwalien.			

The Unfelt Earthquakes From April to June, 1964

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
639	Mar.	31	19	19	Northern district.	642	Apr.	1	05	42	"
640	Apr.	1	03	51	(d)	643	"	1	05	59	Near 135km. ESE. of Hengchun.
641	"	1	04	27	Hengchun District.	644	"	1	15	37	Northern district.

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
645	Apr.	1	17	12	(d)	680	Apr.	8	16	39	Taitung district.
646	"	1	20	48	Near Hwalien.	681	"	8	20	11	(d)
647	"	1	22	51	(d)	682	"	8	21	43	Taichung district.
648	"	2	01	17	(d)	683	"	9	04	14	Near Tawu.
949	"	2	13	15	Northern district.	684	"	9	07	23	Hwalien district.
650	"	2	16	00	(d)	685	"	9	13	34	(d)
651	"	2	23	03	(d)	686	"	9	16	40	Near Hsinkong.
652	"	3	04	19	(d)	687	"	10	14	12	Northern district.
653	"	3	09	19	(d)	988	"	10	14	40	Near Alishan.
654	"	3	17	00	Near 30km. S. of Hwalien.	689	"	10	14	41	Near 28km. ESE. of Hengchun.
655	"	3	22	53	(d)	690	"	10	19	22	Near Anpu.
656	"	4	05	05	(d)	691	"	10	19	45	Northern district.
657	"	4	07	06	Hwalien district.	692	"	10	21	11	(d)
658	"	4	08	51	(d)	693	"	10	23	38	Near Hsinkong.
659	"	4	17	55	(d)	694	"	10	01	25	"
660	"	4	21	56	(d)	695	"	11	05	42	Near Alishan.
661	"	5	01	33	(d)	696	"	11	06	04	"
662	"	5	02	49	Taitung district.	697	"	11	06	11	Northern district.
663	"	5	03	29	"	698	"	11	10	23	Near 200km. ENE. of Hwalien.
664	"	5	20	05	(d)	699	"	11	12	51	(d)
665	"	6	02	53	Taitung district.	700	"	11	16	44	(d)
666	"	6	03	50	Northern district.	701	"	11	17	27	Northern district.
667	"	6	16	28	Northern district.	702	"	11	20	08	Near 22km. WNW. of Alishan.
668	"	6	16	52	Hwalien district.	703	"	12	01	35	(d)
669	"	7	02	47	"	704	"	12	10	08	(d)
670	"	7	03	52	Near Hwalien.	705	"	12	11	33	(d)
671	"	7	13	18	Near Hsinkong.	706	"	12	12	19	(d)
672	"	7	13	22	(d)	707	"	12	12	59	(d)
673	"	7	22	43	Northern district.	708	"	12	17	57	(d)
674	"	7	22	58	Near Tawu.	709	"	12	23	56	Taichung district.
675	"	8	00	23	60km. NNE. of Tainan.	710	"	13	09	02	(d)
676	"	8	08	33	(d)	711	"	13	12	57	(d)
677	"	8	11	04	(d)	712	"	13	16	14	Hwalien district.
678	"	8	11	10	(d)	713	"	13	16	42	(d)
679	"	8	11	20	Near Alishan.	714	"	13	17	16	Hwalien district.

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
715	Apr.	13	21	58	(d)	750	Apr.	13	14	08	"
716	"	14	01	22	(d)	751	"	18	20	34	(d)
717	"	14	04	29	"	752	"	19	06	24	(d)
718	"	14	08	47	Taitung district.	753	"	19	12	53	Near 35km. NNE. of Hwalien.
719	"	14	08	59	Near Anpu.	754	"	19	14	32	(d)
720	"	14	09	28	(d)	755	"	20	03	11	Northern district.
721	"	14	10	29	Northern district.	756	"	20	05	55	(d)
722	"	14	16	29	(d)	757	"	20	05	57	Northern district.
723	"	14	23	15	(d)	758	"	20	16	58	(d)
724	"	15	03	43	Northern district.	759	"	20	23	06	Near 84km. E. of Taitung.
725	"	15	05	06	"	760	"	21	05	21	(d)
726	"	15	05	28	"	761	"	22	01	59	Near 20km. NNE. of Yushan.
727	"	15	05	34	"	762	"	22	12	06	Near Alishan.
728	"	15	06	46	"	763	"	22	18	05	Near Alishan.
729	"	15	08	47	Taitung district.	764	"	22	20	18	(d)
730	"	15	15	21	Near 135km. ENE. of Ilan.	765	"	23	01	54	(d)
731	"	15	15	41	(d)	766	"	23	03	38	(d)
732	"	15	23	16	Near Tawu.	767	"	23	05	16	(d)
733	"	16	01	09	(d)	768	"	23	21	27	(d)
734	"	16	07	43	Taitung district.	769	"	23	23	—	Tainan district.
735	"	16	08	26	Near Tawu.	770	"	24	01	07	(d)
736	"	16	14	01	(d)	771	"	24	04	22	(d)
737	"	16	18	29	Northern district.	772	"	24	06	02	(d)
738	"	16	19	06	Hwalien district.	773	"	24	10	10	Near 42km. WNW. of Alishan.
739	"	16	19	37	(d)	774	"	24	10	23	"
740	"	17	04	13	Northern district.	775	"	24	11	34	"
741	"	17	05	00	(d)	776	"	24	12	00	Near 25km. NE. of Taipei.
742	"	17	09	29	(d)	777	"	24	14	32	(d)
743	"	17	11	55	Northern district.	778	"	24	18	39	(d)
744	"	17	18	29	Near Anpu.	779	"	24	20	27	Near Hsinkong.
745	"	18	05	39	(d)	780	"	25	03	35	Taitung district.
746	"	18	08	00	(d)	781	"	25	04	49	Northern district.
747	"	18	09	52	Near Hwalien.	782	"	25	03	11	Near Alishan.
748	"	18	12	36	Hwalien district.	783	"	25	10	21	(d)
749	"	18	12	39	Northern district.	784	"	25	13	38	Near 450km. ENE. of Hengchun. (d)

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
785	Apr.	25	21	11	Taichung district.	820	May	4	03	51	Northern district.
786	"	26	13	27	Near Hsinkong.	821	"	4	12	11	Taitung district.
787	"	26	15	25	Taichung district.	822	"	4	17	08	Near Alishan.
788	"	25	15	30	"	823	"	5	04	15	Near 114km. E. of Ilan.
789	"	26	21	46	Near Anpu.	824	"	5	06	35	Near 40km. ENE. of Hwalien.
790	"	27	01	49	(d)	825	"	5	08	08	(d)
791	"	27	03	36	Taitung district.	826	"	5	09	04	"
792	"	27	07	07	(d)	827	"	5	22	48	"
793	"	27	21	45	Near Hwalien.	828	"	6	08	20	"
794	"	28	17	38	Taichung district.	829	"	6	15	46	"
795	"	28	19	47	Near Ilan.	830	"	6	17	15	"
796	"	29	02	14	Northern district.	831	"	6	17	17	Hwalien district.
797	"	29	02	16	(d)	832	"	6	17	33	Near Tawu.
798	"	29	04	58	Hwalien district.	833	"	6	18	21	Near Hsinkong.
799	"	29	05	05	(d)	834	"	6	20	16	Near 135km. NE. of Hwalien.
800	"	29	16	58	Northern district.	835	"	6	21	02	(d)
801	"	30	01	36	Hengchun district.	836	"	7	04	28	"
802	"	30	03	43	Hwalien district.	837	"	7	05	58	"
803	"	30	09	40	Northern district.	838	"	7	08	00	"
804	"	30	14	54	Hengchun district.	839	"	7	10	32	Near 43km. ESE. of Hwalien.
805	"	30	16	11	(d)	840	"	7	11	14	(d)
806	"	30	18	07	(d)	841	"	7	11	17	Taichung district.
807	May	1	02	27	Northern district.	842	"	7	12	29	Near 20km. NNW. of Tawu.
808	"	1	05	11	Hwalien district.	843	"	7	12	32	Northern district.
809	"	1	05	28	Near 98km. ENE. of Ilan.	844	"	7	20	17	(d)
810	"	1	06	33	(d)	845	"	8	00	00	"
811	"	2	10	16	Taitung district.	846	"	8	10	32	"
812	"	2	16	16	(d)	847	"	8	16	41	"
813	"	2	23	14	Northern district.	848	"	8	21	54	"
814	"	3	06	56	Near Hwalien.	849	"	8	23	35	Taitung district.
815	"	4	00	21	Near Anpu.	850	"	9	00	16	(d)
816	"	4	01	22	Near Hwalien.	851	"	9	02	12	"
817	"	4	01	34	(d)	852	"	9	05	24	Northern district.
818	"	4	01	43	Hwalien district.	853	"	9	05	31	"
819	"	4	02	26	Near Hsinkong.	854	"	9	13	52	(d)

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
855	May	9	15	19	"	890	May	19	22	18	Hwalien district.
856	"	9	18	10	Near Hwalien.	891	"	19	22	27	"
857	"	9	18	41	(d)	892	"	20	00	58	"
858	"	9	21	23	"	893	"	20	06	07	Near Anpu.
859	"	10	05	43	"	894	"	20	12	30	Near 45km. WSW. of Hwalien.
860	"	10	08	27	"	895	"	20	13	21	Near Anpu.
861	"	10	10	55	"	896	"	20	18	45	Northern district.
862	"	11	00	44	Taitung district.	897	"	20	16	45	Near Ilan.
863	"	11	10	00	Hengchun district.	898	"	20	22	59	Hwalien district.
864	"	12	18	27	(d)	899	"	20	23	23	(d)
865	"	13	05	37	"	900	"	21	00	01	Taitung district.
866	"	14	02	50	"	901	"	21	01	56	Northern district.
867	"	15	02	42	Near Ilan.	902	"	21	09	01	Taitung district.
868	"	15	11	03	(d)	903	"	21	13	25	Northern district.
869	"	15	15	04	Hwalien district.	904	"	21	14	15	Near Anpu.
870	"	15	18	47	Northern district.	905	"	21	16	02	(d)
871	"	16	16	49	(d)	906	"	21	23	22	"
872	"	16	18	31	Taitung district.	907	"	22	09	10	Northern district.
873	"	16	19	03	Hwalien district.	908	"	22	01	05	(d)
874	"	17	00	55	(d)	909	"	22	13	06	"
875	"	17	02	11	Northern district.	910	"	22	23	44	Northern district.
876	"	17	07	28	"	911	"	23	06	50	Hengchun district.
877	"	17	05	12	Taitung district.	912	"	23	07	14	Near Hwalien.
878	"	17	20	14	(d)	913	"	23	07	25	Near 53km. ENE. of Hwalien.
879	"	18	06	50	Northern district.	914	"	23	11	26	"
880	"	18	14	33	(d)	915	"	23	11	29	Taichung district.
881	"	18	17	13	"	916	"	23	15	09	(d)
882	"	19	06	46	"	917	"	23	15	26	Near 40km. NNW. of Hwalien.
883	"	19	10	50	"	918	"	23	15	36	Hwalien district.
884	"	19	18	01	Hwalien district.	919	"	23	17	37	"
885	"	19	18	23	Near 50km. NE. of Hwalien.	920	"	23	20	01	Near 40km. NNE. of Hwalien.
886	"	19	18	34	Near 37km. NNW. of Hwalien.	921	"	23	20	05	Near Hwalien.
887	"	19	20	41	Northern district.	922	"	24	04	25	(d)
888	"	19	20	48	Near 37km. WSW. of Hwalien.	923	"	24	10	35	"
889	"	19	21	46	Northern district.	924	"	24	13	54	Near Alishan.

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
925	May	24	14	41	(d)	930	May	30	14	35	Northern district.
926	"	24	22	17	Hengchun district.	931	"	31	00	46	(d)
927	"	25	19	52	(d)	932	"	31	06	44	Taitung district.
928	"	26	03	22	Northern district.	933	"	31	12	14	"
929	"	26	04	35	Taitung district.	934	"	31	17	45	(d)
930	"	26	11	15	(d)	935	June	1	05	55	Taitung district.
931	"	26	11	21	Taichung district.	936	"	1	13	07	Northern district.
932	"	26	18	24	Hwalien district.	937	"	1	13	54	(d)
933	"	27	00	59	(d)	938	"	1	15	32	Near Anpu.
934	"	27	05	40	Near 35km. ESE. of Taichung.	939	"	1	17	39	Northern district.
935	"	27	10	27	Hwalien district.	970	"	1	23	58	Near 22km. N. of Hwalien.
936	"	27	22	22	Near Hwalien.	971	"	2	17	20	(d)
937	"	27	22	51	"	972	"	2	23	42	Hwalien district.
938	"	28	02	32	Near Ilan.	973	"	3	02	58	(d)
939	"	28	02	53	Northern district.	974	"	3	13	35	Taitung district.
940	"	28	03	12	"	975	"	3	16	51	"
941	"	28	03	48	Near 33km. SSE. of Ilan.	976	"	4	10	47	(d)
942	"	28	12	34	Near 40km. SSE. of Ilan.	977	"	4	11	24	"
943	"	28	15	54	Near 26km. S. of Ilan.	978	"	5	09	45	"
944	"	28	16	35	Northern district.	979	"	5	10	26	"
945	"	28	17	27	Near 45km. SSE. of Ilan.	980	"	5	22	43	"
946	"	28	23	38	(d)	981	"	5	22	43	"
947	"	29	01	45	Northern district.	982	"	6	03	10	Northern district.
948	"	29	05	20	(d)	983	"	6	09	10	Northern district.
949	"	29	08	42	Near Hwalien.	984	"	6	13	13	Taitung district.
950	"	29	10	56	(d)	985	"	6	16	50	Near 45km. N. of Hwalien.
951	"	29	12	14	Near 35km. SSE. of Ilan.	986	"	6	19	47	(d)
952	"	29	12	17	Northern district.	987	"	6	21	21	"
953	"	29	15	15	"	988	"	7	01	03	Northern district.
954	"	29	18	11	Hwalien district.	989	"	7	02	12	"
955	"	29	18	37	"	990	"	7	05	21	"
956	"	29	23	01	Northern district.	991	"	7	06	17	Northern district.
957	"	30	07	14	"	992	"	7	08	39	"
958	"	30	07	32	"	993	"	7	14	58	(d)
959	"	30	14	35	(d)	994	"	7	20	06	Taitung district.

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
995	June	7	20	43	(d)	1030	June	16	06	57	"
996	"	8	05	22	Northern district.	1031	"	16	08	28	Northern district.
997	"	8	05	25	"	1032	"	16	11	28	(d)
998	"	8	05	55	Near 84km. ESE. of Ilan.	1033	"	16	23	56	Taichung district.
999	"	8	11	42	Near 108km. ENE. of Ilan.	1034	"	17	00	30	Near Hsinkong.
1000	"	8	14	07	Northern district.	1035	"	17	00	35	Near Alishan.
1001	"	8	18	18	"	1036	"	17	01	50	Northern district.
1002	"	8	20	13	Near Anpu.	1037	"	17	12	31	"
1003	"	8	22	58	(d)	1038	"	17	15	23	(d)
1004	"	9	17	09	Near Anpu.	1039	"	18	07	44	(d)
1005	"	10	16	39	Near Yushan.	1040	"	18	10	45	Near Hwalien.
1006	"	10	17	18	Near 45km. WSW. of Hwalien.	1041	"	18	18	14	(d)
1007	"	10	19	02	Near Anpu.	1042	"	19	09	34	Taitung district.
1008	"	10	22	19	(d)	1043	"	19	10	20	(d)
1009	"	10	23	07	Near Anpu.	1044	"	20	11	46	Northern district.
1010	"	11	10	08	Near 35km. SE. of Ilan.	1045	"	20	15	14	Taitung district.
1011	"	11	10	38	(d)	1046	"	20	17	12	Northern district.
1012	"	11	10	58	Taitung district.	1047	"	20	20	49	Near Taitung.
1013	"	11	17	13	(d)	1048	"	20	21	46	Taitung district.
1014	"	12	11	02	"	1049	"	20	23	19	Northern district.
1015	"	12	20	44	Near Alishan.	1050	"	20	23	27	Taitung district.
1016	"	12	20	50	"	1051	"	20	23	37	"
1017	"	13	05	20	Northern district.	1052	"	20	23	47	Near 26km. SSE. of Hsinkong.
1018	"	13	08	38	"	1053	"	21	00	27	Taitung district.
1019	"	13	17	51	"	1054	"	21	00	50	Near 66km. ESE. of Ilan.
1020	"	13	23	09	"	1055	"	21	03	45	Near 83km. ESE. of Ilan.
1021	"	14	12	45	(d)	1056	"	21	06	45	Near Taitung.
1022	"	14	17	10	Northern district.	1057	"	21	06	53	Hwalien district.
1023	"	14	23	40	Near 53km. E. of Taipei.	1058	"	21	19	31	Northern district.
1024	"	15	00	11	(d)	1059	"	21	19	56	Taitung district.
1025	"	15	09	51	Taitung district.	1060	"	21	20	00	Near 30km. S. of Ilan.
1026	"	15	20	32	Near Ilan.	1061	"	22	00	26	(d)
1027	"	15	00	50	Northern district.	1062	"	22	03	20	"
1028	"	15	01	07	Near 25km. SSE. of Ilan.	1063	"	22	05	45	Near Hsinkong.
1029	"	15	03	05	(d)	1064	"	22	15	09	Near 50km. E. of Hwalien.

Major Earthquakes Occurred in June, 1964

No.	Station	Date	Phase	P. (G.M.T.)	Initial Moton			Maximun Amplitude			Period			P~S	Intensity	Epicenter & Remarks	
					N	E	Z	N	E	Z	N	E	Z				
					h. m. s.	μ	μ	μ	μ	μ	μ	s	s				s
1	Anpu	4	ip	01 42 39.5											I		
	Ilan		ip	42 32.2	+ 11	- 14	- 39	301	270	161	2.0	2.0	2.2	6.4	I		
	Hwalien		ip	42 33.1	- 8.2	- 2.5	- 2.6	330	330	155	1.4	1.2	1.5	12.1	I	Near 54km.	
	Taipei		p	42 38.6										10.1	I	E. of Ilan	
	Alishan		ep	42 44.8										28.5	I	122.2 E	
	Hsinkong		ep	42 45.2										13.4	O	24.7 N	
	Taichung		p	42 45.9										20.4	O	(H≐20)	
	Tainan		ep	42 47.5											O		
	Taitung		ep	42 53.1										35.1	O		
	Hengchun		ep	43 00.6											O		
	Tawu		p	43 02.2										28.8	O		
	Hsinchu		ep	43 40.7										16.7	O		
	Yushan		ep	46 45.8										20.6	O		
	Kaohsiung		ep												O		
	2	Tawu	10	ep	22 19 20.9											O	
Hsinkong			ep	20 45.2											O	U. S. C. G. S.	
Hengchun			ep	20 51.8											O	5.0 N 127.4 E	
Kaohsiung			ep	20 55.5											O	Taloud	
Taitung			ep	20 56.9										6	1.8	O	Islands
Yushan			ep	21 05.8											O	region	
Alishan			p	21 06.0											O		
Hwalien			ep	21 08.9										4	2.4	O	
Taichung			ep	21 12.2											O		
Ilan			ep	21 12.6										3	32.1	O	
Anpu			ip	21 15.0										3	5.2	O	
Taipei			ep	21 22.0										4	43.0	O	
3	Tawu	15	ep	00 11 35.0											O	U. S. C. G. S.	
	Anpu		ep	12 12.0											O	5.4 N 97.0 E	
	Taipei		ep	17 00.0											O	Northern	
	Tainan		ep	17 13.0											O	Sumatra	

No.	Station	Date	Phase	P. (G.M.T.)	Initial Motion			Maximun Amplitude			Period			P~S	Intensity	Epicenter & Remarks			
					N	E	Z	N	E	Z	N	E	Z						
					h. m. s.	μ	μ	μ	μ	μ	μ	s	s				s	m	s
4	Kaohsiung	16	ep	03 05 43.6												O	U. S. C. G. S.		
	Hengchun		ep	05 49.0												4	15.6	O	38.3N 139.1E
	Anpu		ip	06 17.0												3	49.5	O	Near west
	Hsinchu		ep	06 22.1												4	33.4	O	Coast of
	Taipei		ip	06 21.5	+	+	-	4046	3000	323	16.0	16.0	10.6	3	50.5	O	Honshu		
	Ilan		p	06 29.1				905	1172	1722	11.6	11.0		2	40.8	O	Japap		
	Hwalien		ep	06 35.6				4250	4000		37.0	35.0		3	58.0	O			
	Yushan		p	06 39.0										5	45.0	O			
	Alishan		ep	06 41.0										6	00.0	O			
	Taitung		ep	06 43.0					193			10.7		4	9.1	O			
	Taichung		ep	06 44.3											O				
	Tawu		ip	06 45.0	+	9+	9-	13	416	1162	1100	12.1	16.4	18.4	4	10.4	O		
	Tainan		ip	06 45.0											4	12.0	O		
	Hsinkong		ep	06 49.2											O				
	Penghu		p	06 54.3											4	06.0	O		
!	Taichung	16	ep	06 57 51.7												O	(d)		
	Taitung		ep	58 22.6											3	55.9	O		
6	Taitung	19	p	10 34 25.0												7.0	IV		
	Tawu		ip	34 36.6	+ 60	+ 17	- 59		515	696	1.8	4.0				9.1	II		
	Hengchun		ip	34 43.0	+ 42.1	+ 31.6	- 18.7	431	380	306						26.3	II	Near 34km.	
	Alishan		ip	34 43.1	+ 69	- 19	+ 44									13.2	II	E. of	
	Hsinkong		p	34 44.2	+ 98.9	+ 64.4	- 15.8									4.8	II	Taitung	
	Tainan		ip	34 48.1	- 13	+ 11	+ 45		506	567		1.3	1.0			16.0	II	22.8 N	
	Yushan		ip	34 53.4												18.0	O	121.5 E	
	Hwalien		ip	34 55.3	+ 5.5	- 2.5	+ 2.0	620	590	360	2.5	2.5	2.0			27.9	O	(H≐10)	
	Penghu		p	34 58.6				238	225		3.1	2.6				21.1	O		
	Taichung		p	34 01.9	+ 43	+	+ 78	566	386	503	2.0	2.0	1.9			20.5	I		
	Hsinchu		ep	35 11.4												28.9	O		
	Ilan		ip	35 13.2	- 13	- 13	- 16	565	558	297	2.4	2.0	2.4			30.8	II		
	Taipei		ip	35 14.4				490	440	400	1.6		2.2			32.6	O		
	Kaohsiung		p	35 47.0												12.0	I		

地震季報

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臺灣省氣象所

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TAIWAN WEATHER BUREAU

64 KUNG YUAN ROAD, TAIPEI, TAIWAN, CHINA

General Aspect of Earthquakes

July to September, 1964

The number of earthquakes which occurred during the period from July to September, 1964 is 380. Among them, only 47 quakes were classified in the category of felt earthquakes. The degree of these earthquakes include one moderate, five small area and forty-one local ones.

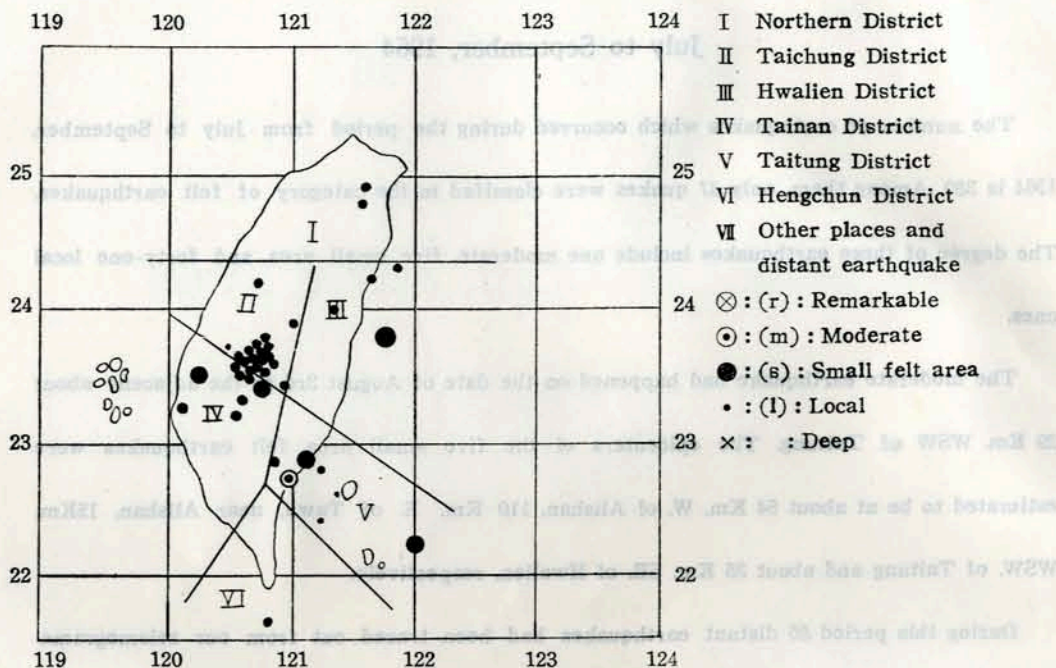
The moderate earthquake had happened on the date of August 3rd at the adjacent about 29 Km. WSW of Taitung. The epicenters of the five small area felt earthquakes were estimated to be at about 54 Km. W. of Alishan, 110 Km. E. of Tawu, near Alishan, 15Km. WSW. of Taitung and about 35 Km. SE. of Hwalien, respectively.

During this period 86 distant earthquakes had been traced out from our seismograms. The detail of these main earthquakes can be found from the latter part of this bulletin.

Number of earthquakes classified according to their magnitude and districts July to September, 1964

District	Number of felt earthquakes			Total
	Moderate	Small Area	Local	
Northern District	—	—	2	2
Taipei	—	—	30	30
Hwalien	—	—	4	4
Tainan	—	—	5	5
Taiwan	1	—	3	4
Hepohm	—	—	1	1
Total	1	5	41	47
Other places	—	—	0	0

Epicenters of Felt Earthquakes in July to September, 1964



Number of earthquakes classified according to its magnitude and districts July to September, 1964

Districts	Classification Magnitudes	Number of felt earthquakes				Total	Number of unfelt earthquakes	Total
		Remarkable	Moderate	Small felt area	Local			
Northern District		—	—	—	2	2	93	95
Taichung "		—	—	1	28	29	100	129
Hwalien "		—	—	1	3	4	67	71
Tainan "		—	—	1	4	5	5	10
Taitung "		—	1	2	3	6	49	55
Hengchun "		—	—	—	1	1	19	20
Total		—	1	5	41	47	333	380
Other places		—	—	—	—	0	86	86

The Felt Earthquakes From July to September, 1964

No.	Month	P. (G. M. T.)			Mag-nitude	Epicenter	Latitude	Longitude	Depth
		d.	h.	m.					
88	July	3	22	12	2.0 (s)	Near 54km. W. of Alishan.	23.5	120.2	20
89	"	4	01	07	(1)	Near 30km. WNW. of Alishan.			10
90	"	6	10	12	"	Near 28km. SSE. of Taipei.			20
91	"	11	08	29	1.3 (s)	Near 110km. E. of Tawu.	22.2	121.9	40
92	"	12	01	35	(1)	Near 27km. SSE. of Taitung.			15
93	"	13	18	15	"	Near 35km. NNE. of Hwalien.			10
94	"	16	14	20	"	Near Alishan.			
95	"	20	22	25	"	Near 36km. NE. of Tainan.			20
96	"	21	12	05	"	Near 30km. NNW. of Tainan.			45
97	"	30	07	26	"	Near 30km. NNE. of Taichung.			10
98	Aug.	1	22	35	"	Near Alishan.			
99	"	3	07	44	4.5 (m)	Near 29km. WSW. of Taitung.	22.5	120.9	0-5
100	"	16	10	49	(1)	Near 20km. ENE. of Hwalien.			30
101	"	17	10	42	"	Near 15km. NNE. of Ilan.			5
102	"	18	15	38	"	Near 45km. WSW. of Ilan.			20
103	"	24	15	20	"	Near Alishan.			
104	"	25	11	20	"	"			
105	"	28	18	17	0.5 (s)	"	23.5	120.8	0
106	"	28	18	46	(1)	"			
107	"	28	19	05	4.0 (s)	Near 15km. WSW. of Taitung.	22.6	121.0	0
108	"	28	19	44	(1)	Near 15km. NNW. of Alishan.			0-5
109	"	28	21	32	"	Near 13km. N. of Alishan.			0-5
110	"	28	21	34	"	Near 13km. WNW. of Alishan.			0-5
111	"	29	18	16	"	"			
112	"	30	04	04	"	"			
113	"	30	10	26	"	"			
114	"	30	20	49	"	Near Yushan.			
115	"	30	21	27	"	Near Alishan.			
116	"	31	09	26	"	"			
117	Sep.	1	15	57	"	"			
118	"	1	19	10	"	"			
119	"	2	20	28	"	Near 20km. S. of Alishan.			55
120	"	3	07	51	"	Near Alishan.			
121	"	3	10	55	"	"			

No.	Month	P. (G. M. T.)			Mag-nitude	Epicenter	Latitude		Longitude	Depth Kms.
		d.	h.	m.			N.	E.		
122	Sep.	6	01	55	(1)	Near 15km. NE. of Alishan.				
128	"	6	17	47	"	Near Alishan.				
124	"	8	00	43	"	Near 5km. ENE. of Alishan.				
125	"	8	23	14	"	Near Alishan.				
126	"	9	00	23	"	"				
127	"	10	11	30	"	"				
128	"	10	20	53	"	Near 33km. ESE. of Tawu.				
129	"	11	04	31	"	Near 26km. WNW. of Taitung.				
130	"	13	05	59	"	Near 10km. ENE. of Alishan.				
131	"	13	09	44	"	Near Alishan.				
132	"	16	10	57	"	Near 40km. SSE. of Ilan.				
133	"	19	19	41	"	Near 65km. SE. of Hengchun.				
134	"	20	20	43	(s)	Near 35km. SE. of Hwalien.	23.8	121.9		45

The Unfelt Earthquakes Occurred in July, 1964

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
1110	June	30	16	10	Northern district.	1128	July	4	03	47	Northern district.
1111	"	30	19	05	"	1129	"	4	10	55	(d)
1112	"	30	19	57	"	1130	"	4	13	54	Taitung district.
1113	"	30	23	24	(d)	1131	"	4	14	56	"
1114	July	1	06	58	(d)	1132	"	5	05	12	Near 17km. ENE. of Hwalien.
1115	"	1	09	58	(d)	1133	"	5	12	34	Near Anpu.
1116	"	2	02	24	Taitung district.	1134	"	5	05	44	Taitung district.
1117	"	2	06	42	Near Alishan.	1135	"	5	12	34	Hwalien district.
1118	"	2	10	09	Near 115km. ESE. of Ilan.	1136	"	5	18	28	Near Hsinkong.
1119	"	2	23	43	(d)	1137	"	5	19	40	(d)
1120	"	2	21	37	Hengchun. district.	1138	"	5	23	28	Near Hwalien.
1121	"	2	22	24	Taitung district.	1139	"	5	23	42	(d)
1122	"	3	23	07	Near 35km. WSW. of Hsinkong.	1140	"	6	02	34	(d)
1123	"	3	23	37	Northern district.	1141	"	6	04	25	Taitung district.
1124	"	3	24	22	"	1142	"	6	07	40	(d)
1125	"	3	25	33	"	1143	"	6	12	34	Northern district.
1126	"	3	25	37	"	1144	"	6	20	22	Taitung district.
1127	"	3	22	03	38km. WNW. of Hwalien.	1145	"	7	07	22	"

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
1146	July	7	16	54	Northern district.	1181	July	15	07	50	"
1147	"	8	07	08	Hengchun district.	1182	"	15	07	56	Northern district.
1148	"	8	07	09	Northern district.	1183	"	15	20	43	Hwalien district.
1149	"	8	07	50	Hengchun district.	1184	"	16	03	29	Near 15km. ESE. of Hsinkong.
1150	"	8	07	21	Taitung district.	1185	"	16	13	58	Hwalien district.
1151	"	8	07	50	(d)	1186	"	16	16	36	Northern district.
1152	"	8	07	52	Hwalien district.	1187	"	17	02	46	(d)
1153	"	8	07	54	Hengchun district.	1188	"	17	13	29	Hwalien district.
1154	"	8	12	01	(d)	1189	"	17	05	00	(d)
1155	"	9	05	48	Taitung district.	1190	"	17	09	54	Hwalien district.
1156	"	9	10	42	"	1191	"	17	13	39	Northern district.
1157	"	9	11	33	(d)	1192	"	17	20	29	Hengchun district.
1158	"	9	16	48	(d)	1193	"	17	23	06	(d)
1159	"	9	20	27	Northern district.	1194	"	18	02	44	Hwalien district.
1160	"	9	21	51	(d)	1195	"	18	12	50	Hengchun district.
1161	"	10	04	58	Northern district.	1196	"	18	17	27	Northern district.
1162	"	10	05	06	Near Alishan.	1197	"	18	18	07	Hwalien district.
1163	"	10	05	07	Near 35km. WNW. of Alishan.	1198	"	18	21	30	"
1164	"	11	09	37	Hengchun district.	1199	"	19	00	25	Near 58km. ENE. of Hengchun.
1165	"	11	18	58	(d)	1200	"	19	18	14	(d)
1166	"	11	20	36	(d)	1201	"	20	03	43	Northern district.
1167	"	12	01	50	(d)	1202	"	20	07	30	(d)
1168	"	12	02	03	Hwalien district.	1203	"	20	10	55	Near Alishan.
1169	"	12	07	00	Taitung district.	1204	"	20	13	56	Near 35km. SSW. of Hwalien.
1170	"	12	07	40	"	1205	"	20	19	42	(d)
1171	"	12	20	23	Hwalien district.	1206	"	20	22	54	Near Alishan.
1172	"	13	11	04	(d)	1207	"	21	02	01	(d)
1173	"	13	13	23	Hengchun district.	1208	"	21	04	00	Hwalien district.
1174	"	13	22	15	(d)	1209	"	21	05	03	Near 59km. E. of Tainan.
1175	"	14	04	05	Northern district.	1210	"	21	07	45	Northern district.
1176	"	14	05	16	"	1211	"	21	10	20	(d)
1177	"	14	11	08	Near Alishan.	1212	"	21	13	15	(d)
1178	"	14	17	35	Northern district.	1213	"	21	14	08	Taichung district.
1179	"	14	17	56	"	1214	"	21	21	09	(d)
1180	"	15	00	35	Taitung district.	1215	"	22	02	46	Northern district.

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
1216	July	22	04	58	"	1251	July	28	05	18	Taitung district.
1217	"	22	06	07	(d)	1252	"	28	05	20	"
1218	"	22	14	46	Near 66km. ESE. of Taipei.	1253	"	28	06	37	Northern district.
1219	"	22	15	28	Northern district.	1254	"	28	18	55	(d)
1220	"	22	16	55	Near Alishan.	1255	"	29	06	09	Near Hwalien.
1221	"	22	16	57	Hwalien district.	1256	"	29	08	02	Near 17km. N. of Anpu.
1222	"	22	21	49	Northern district.	1257	"	29	13	55	Northern district.
1223	"	23	00	37	Near 90km. ESE. of Ilan.	1258	"	30	06	14	(d)
1224	"	23	00	53	Near 120km. ENE of Hwalien.	1259	"	30	06	54	Near Ilan.
1225	"	23	02	45	Hengbhun district.	1260	"	30	23	05	(d)
1226	"	23	03	45	Northern district.	1261	"	31	02	49	Hwalien district.
1227	"	23	04	49	"	1262	"	31	04	17	(d)
1228	"	24	06	57	(d)	1263	"	31	04	23	Hwalien district.
1229	"	24	08	19	(d)	1264	"	31	04	35	Near Anpn.
1230	"	24	10	33	Taitung district.	1265	"	31	05	59	(d)
1231	"	24	12	14	"	1266	"	31	07	45	Near 30km. ESE. of Hsinkong.
1232	"	24	13	31	(d)	1267	"	31	11	02	Hwalien district.
1233	"	24	16	46	(d)	1268	"	31	22	43	Near 50km. SE. of Ilan.
1234	"	24	17	09	(d)	1269	"	31	23	10	Near 68km. SE. of Hwalien.
1235	"	25	02	36	(d)	1270	Aug.	1	02	20	Near Hwalien.
1236	"	25	08	09	Taitung district.	1271	"	1	03	28	Hwalien district.
1237	"	25	06	18	Near 45km. SE. of Taitung.	1272	"	1	05	30	Taitung district.
1238	"	26	07	17	Taitung district.	1273	"	1	06	08	Near Ilan.
1239	"	25	19	51	(d)	1274	"	1	07	25	Near Hwalien.
1240	"	25	21	34	(d)	1275	"	2	08	47	Northern district.
1241	"	26	06	02	Near 85km. ESE of Hwalien.	1276	"	2	17	15	Hwalien district.
1242	"	26	07	01	Near 83km. E. of Hsinkong.	1277	"	3	02	22	Northern district.
1243	"	26	09	44	Northern district.	1278	"	3	03	00	(d)
1244	"	26	09	50	Near Alishan.	1279	"	3	16	38	Near Tawu.
1245	"	26	16	07	Hwalien district.	1280	"	4	01	54	Near 40km. ENE. of Ilan.
1246	"	26	18	47	(d)	1281	"	4	04	20	Northern district.
1247	"	26	30	35	Northern district.	1282	"	4	17	30	(d)
1248	"	27	00	47	"	1283	"	4	19	24	Near 55km. ENE. of Tawu.
1249	"	27	01	23	"	1284	"	5	04	26	Northern district.
1250	"	27	23	18	(d)	1285	"	5	05	08	Hengchun district.

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
1286	Aug.	5	05	10	Hwalien district.	1321	Aug.	16	06	33	Taitung district.
1287	"	5	10	27	Northern district.	1322	"	16	18	10	Near 100km. NNE. of Taipei.
1288	"	5	11	17	(d)	1323	"	17	01	19	Northern district.
1289	"	5	13	58	Near Hwalien.	1324	"	17	01	36	Near Alishan.
1290	"	5	22	43	(d)	1325	"	17	10	09	Near Ilan.
1291	"	6	02	35	Northern district.	1326	"	17	10	44	Northern district.
1292	"	6	10	27	"	1327	"	17	13	01	Near Alishan.
1293	"	6	23	04	Taichung district.	1328	"	17	21	12	Hwalien district.
1294	"	7	14	48	Northern district.	1329	"	18	06	03	(d)
1295	"	8	05	51	"	1330	"	18	11	25	Tainan district.
1296	"	8	12	07	"	1331	"	20	05	45	Near Anpu.
1297	"	9	20	19	"	1332	"	20	18	19	Northern district.
1298	"	10	08	02	Hwalien district.	1333	"	22	23	58	Near Anpu.
1299	"	10	18	12	"	1334	"	23	02	12	Near Tawu.
1300	"	10	19	32	Near 100km. ESE. of Hwalien.	1335	"	23	07	29	Northern district.
1301	"	10	21	58	Northern district.	1336	"	23	09	00	"
1302	"	11	01	33	Hwalien district.	1337	"	23	15	31	(d)
1303	"	11	05	07	"	1338	"	24	04	19	Near Hwalien.
1304	"	11	06	28	Near Hwalien.	1339	"	24	04	22	Hengchun district.
1305	"	11	06	59	"	1340	"	24	15	25	Near Ilan.
1306	"	12	20	00	Northern district.	1341	"	25	11	06	Near Alishan.
1307	"	13	00	35	(d)	1342	"	25	11	37	"
1308	"	13	00	44	Taichung district.	1343	"	25	12	05	"
1309	"	13	05	00	Near 10km. NE. of Ilan.	1344	"	25	13	56	(d)
1310	"	13	13	11	Taitung district.	1345	"	25	14	15	(d)
1311	"	13	13	14	Near 110km. ENE. of Tawu.	1346	"	26	02	38	Near Tawu.
1312	"	14	03	23	Near Alishan.	1347	"	26	06	21	Hwalien district.
1313	"	14	21	03	Hengchun district.	1348	"	26	22	22	Near 67km. E. of Taipei.
1314	"	14	22	34	(d)	1349	"	27	00	54	(d)
1315	"	15	00	52	Northern district.	1350	"	28	08	27	(d)
1316	"	15	01	57	Near Hsinkong.	1351	"	27	12	14	Hwalien district.
1317	"	15	03	54	(d)	1352	"	28	13	28	(d)
1318	"	15	04	26	(d)	1353	"	28	16	05	(d)
1319	"	15	04	37	Northern district.	1354	"	28	18	10	Near Yushan.
1320	"	15	07	55	"	1355	"	28	18	54	Near Alishan.

No.	Month	P.			Epicenter	No.	Month	P.			Epicenter
		(G. M. T.)						(G. M. T.)			
1356	Aug.	d.	h.	m.	Near Alishan.	1391	"	d.	h.	m.	Near Alishan.
1357	"	29	07	59		31	"	31	19	02	
1358	"	29	09	04	"	1392	"	31	19	09	"
1359	"	29	09	51	"	1393	Sep.	1	05	22	"
1360	"	29	10	14	"	1394	"	1	05	42	"
1361	"	29	10	50	"	1395	"	1	09	22	Hwalien district.
1362	"	29	11	21	"	1396	"	1	13	28	(d)
1363	"	29	11	47	"	1397	"	1	16	12	Hwalien district.
1364	"	29	12	19	"	1398	"	1	22	17	Near Alishan.
1365	"	29	13	08	"	1399	"	1	22	27	(d)
1366	"	29	13	39	"	1400	"	1	22	36	Near Alishan.
1367	"	29	16	13	"	1401	"	1	22	57	"
1368	"	29	16	37	"	1402	"	1	23	33	"
1369	"	30	01	46	Hwalien district.	1403	"	2	02	35	"
1370	"	30	02	46	(d)	1404	"	2	02	49	"
1371	"	30	03	02	Near Alishan.	1405	"	2	05	35	"
1372	"	30	03	21	"	1406	"	2	07	28	45km. NW. of Taitung.
1373	"	30	09	14	"	1407	"	2	09	58	Near Alishan.
1374	"	30	09	14	"	1408	"	2	10	06	"
1375	"	30	10	06	"	1409	"	2	16	22	Taitung district.
1376	"	30	12	11	Northern district.	1410	"	2	16	52	Near Alishan.
1377	"	30	12	56	Near Alishan.	1411	"		04	07	Near 18km. S. of Tawu.
1378	"	30	14	38	"	1412	"	3	08	45	Near Alishan.
1379	"	30	14	47	"	1413	"	3	09	24	"
1380	"	30	18	13	"	1414	"	3	09	50	"
1381	"	30	20	56	(d)	1415	"	3	21	01	"
1382	"	30	21	19	Near Alishan.	1416	"	3	21	31	Hengchun district.
1383	"	30	21	30	Near Alishan.	1417	"	4	08	08	Near Alishan.
1384	"	30	22	31	"	1418	"	4	08	20	Near Alishan.
1385	"	31	00	00	"	1419	"	4	10	34	Near 50km. SE. of Ilan.
1386	"	31	05	32	(d)	1420	"	4	10	40	(d)
1387	"	31	08	06	Near Alishan.	1421	"	4	11	34	Northern district.
1388	"	31	11	51	"	1422	"	4	13	01	Taitung district.
1389	"	31	16	24	Near Hwalien.	1423	"	4	13	04	Near 40km. SE. of Ilan.
1390	"	31	16	34	Near Alishan.	1424	"	4	15	11	Near 90km. ESE. of Hwalien.
	"	31	17	37	"	1425	"	5	03	01	(d)

No.	Month	P.			Epicenter	No.	Month	P.			Epicenter
		(G. M. T.)						(G. M. T.)			
1426	Sep.	d.	h.	m.	Near Alishan.	1461	Sep.	d.	h.	m.	Near Ilan.
1427	"	5	04	08		11	"	11	20	27	
1428	"	5	05	02	Near 42km. SW. of Hwalien.	1462	"	11	03	01	Near Alishan.
1429	"	5	07	56	Hwalien district.	1463	"	11	03	25	"
1430	"	5	09	21	Near Alishan.	1464	"	12	12	49	(d)
1431	"	5	11	55	"	1465	"	12	22	19	(d)
1432	"	5	13	42	Near Tawu.	1466	"	13	01	40	Near Alishan.
1433	"	5	14	37	Northern district.	1467	"	13	07	15	"
1434	"	5	15	08	Near Alishan.	1468	"	13	07	28	"
1435	"	5	21	17	Near 47km. ESE. of Hwalien.	1469	"	13	14	40	Taitung district.
1436	"	5	21	19	Near 14km. N. of Hsinkong.	1470	"	13	16	34	(d)
1437	"	5	23	56	Near 33km. ENE. of Taipei.	1471	"	14	11	08	Near Alishan.
1438	"	6	14	23	Near 15km. NE. of Alishan.	1472	"	15	13	37	"
1439	"	6	16	24	Near 28km. NE. of Tawu.	1473	"	15	15	35	(d)
1440	"	6	16	44	Near Alishan.	1474	"	16	07	57	Near Alishan.
1441	"	6	17	45	(d)	1475	"	16	01	07	Near 73km. ENE. of Hsinkong.
1442	"	7	03	38	Near 295km. SE of Hengchun.	1476	"	16	11	34	Taitung district.
1443	"	8	00	48	Near Alishan.	1477	"	16	21	09	Near 70km. SE. of Ilan.
1444	"	8	01	02	"	1478	"	16	23	55	Near 20km. E. of Ilan.
1445	"	8	13	44	(d)	1479	"	17	02	27	Taitung district.
1446	"	8	18	36	Near Alishan.	1480	"	17	08	19	Near 30km. ESE. of Ilan.
1447	"	8	21	15	Northern district.	1481	"	17	17	27	Near 80km. NE. of Taipei.
1448	"	8	23	35	Near Alishan.	1482	"	18	05	03	Taichung district.
1449	"	8	23	45	Hwalien district.	1483	"	18	19	42	(d)
1450	"	9	01	02	Near Alishan.	1484	"	18	22	23	Tainan district.
1451	"	9	06	11	Northern district.	1485	"	19	06	16	(d)
1452	"	9	18	56	Near Alishan.	1486	"	19	02	15	Northern district.
1453	"	10	00	40	"	1487	"	19	07	00	Near Hwalien.
1454	"	10	10	05	"	1488	"	19	08	13	Northern district.
1455	"	10	-	-	"	1489	"	19	19	16	(d)
1456	"	10	10	27	"	1490	"	19	19	25	Near 96km. ESE. of Ilan.
1457	"	10	11	30	"	1491	"	19	23	18	Hwalien district.
1458	"	10	22	09	"	1492	"	20	03	20	"
1459	"	11	01	32	Near 27km. N. of Hwalien.	1493	"	20	05	29	(d)
1460	"	11	09	30	Northern district.	1494	"	20	14	39	(d)
	"	11	12	40	Near Alishan.	1495	"	20	16	01	Hengchun district.

No.	Station	Date	Phase	P. (G.M.T.)	Initial Motion			Maximum Amplitude			Period			P~S Intensity	Epicenter & Remarks	
					N	E	Z	N	E	Z	N	E	Z			
	Taichung		ep	h. m. s. 49 52.2	μ	μ	μ	μ	μ	μ	s	s	s	m	s	O
	Tainan		ep	49 52.9												O
	Tawu	11	p	08 29 30.0												12.4 O Near 110km.
	Hengchun		ep	29 31.2												14.2 O E. of Tawu
	Taitung		ep	29 31.2												10.8 O 22.2N 121.9E
	Hsinkong		ep	29 33.4				275	237	157	1.0	1.4	1.2			12.4 II (H=40)
	Yushan		p	29 36.5												16.5 O
	Alishan		ep	29 36.8												19.7 I
	Tainan		p	29 39.1				76	80	92	0.8	0.8	0.8			17.9 I
	Hwalien		p	29 42.3				92	68	32	1.5	1.5	1.8			20.7 O
	Taipei		ep	29 45.8												29.7 O
	Anpu		ip	29 56.0												O
	Hsinchu		ep	29 56.0												30.0 O
	Kaohsiung		p	30												O
7	Taitung	11	ep	18 58 07.8												O (d)
	Anpu		ep	58 16.0												O
8	Anpu	12	ip	01 50 03.0												-3 49.0 O U. S. C. G. S.
	Taipei		ep	50 17.0												-3 54.0 O Near W.
	Ilan		ep	50 25.0												O Coast of
	Tawu		ep	50 40.3												O Honshu
	Taitung		ep	51 27.8												O Japan
9	Tawu	21	ep	13 15 35.0												O U. S. C. G. S.
	Taitung		ep	15 49.9												-3 52.1 O 11.5N. 121.9E
	Hwalien		ep	16 03.6												O Panay
	Anpu		ip	16 13.0												-3 47.0 O Philippine
	Ilan		ep	16 18.9												O Islands
	Taipei		ep	16 21.1												O
10	Anpu	24	ip	06 57 34.0												-5 38.0 O U. S. C. G. S.
	Taitung		ep	57 54.0												-5 50.5 O Kurile Is
	Tawu		ep	57 55.1												O
	Tainan		ep	58 07.5												O

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No.	Station	Date	Phase	P. (G.M.T.)	Initial Motion			Maximum Amplitude			Period			P~S Intensity	Epicenter & Remarks	
					N	E	Z	N	E	Z	N	E	Z			
	Taipei		e	h. m. s. 07 03 03.1	μ	μ	μ	μ	μ	μ	s	s	s	m	s	O
	Hengchun		e	23 47.3												O
11	Anpu	24	ip	08 19 20.0												O U. S. C. G. S.
	Taipei		ep	19 26.6												-6 43.0 O Kurile
	Hwalien		ep	19 30.3				100	150		25.0	25.0				O Islands
	Hsinkong		ep	19 37.9												O
	Taitung		ep	19 41.5												-5 43.5 O
	Tainan		ep	19 42.5												O
	Tawu		ep	19 43.3												O
	Ilan		ep	20 44.7												O
	Kaohsiung		ep	20												O
	Taichung		ep	25 00.0												O
12	Anpu	24	ep	17 09 29												O U. S. C. G. S.
	Taipei		ep	09 37.6												-6 36.0 O Kurile Is.
	Taitung		ep	09 47.2												-5 37.0 O
	Tawu		ep	09 50.0												O
	Hengchun		ep	09 52.8												O
13	Taitung	25	ep	21 34 04.6												-4 35.0 O U. S. C. G. S.
	Anpu		ep	34 41.5												O North of
	Taipei		ep	34 56.0												O Halmah
	Ilan		ep	34 57.0												-3 42.2 O 2.9N 128.2E
14	Tawu	28	ep	21 44 06.2												O U. S. C. G. S.
	Taitung		ep	44 07.0												-4 44.0 O Andaman
	Taichung		ep	44 09.0												O Islands
	Anpu		ip	44 13.0												-5 10.0 O Region
	Hsinkong		ep	44 16.0												O
	Hwalien		ep	44 20.8												O
	Ilan		ep	44 27.5												O
	Hengchun		ep	44 09.0												O
	Tainan		ep	45 31.2												O
	Taipei		ep	49 54.1												O

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No.	Station	Date	Phase	P. (G.M.T.)	Initial Motion			Maximum Amplitude			Period			P~S	Intensity	Epicenter & Remarks
					N	E	Z	N	E	Z	N	E	Z			
15	Hwalien	31	ep	h. m. s. 05 59 59.0	"	"	"	"	"	"	s	s	s	m	s	O U. S. C. G. S.
	Hsinkong		ep	59 59.9	-	-	-	-	-	-	-	-	-	-	-	O New Britain
	Anpu		ip	06 00 00.0	-	-	-	-	-	-	-	-	-	6	8.0	O
	Tawu		ep	00 00.0	-	-	-	-	-	-	-	-	-	-	-	O
	Taipei		ep	00 07.2	-	-	-	-	-	-	-	-	-	-	-	O

Major Earthquakes Occurred in August, 1964.

No.	Station	Date	Phase	P. (G.M.T.)	Initial Motion			Maximum Amplitude			Period			P~S	Intensity	Epicenter & Remarks		
					N	E	Z	N	E	Z	N	E	Z					
1	Alishan	3	ip	h. m. s. 07 44 49.2	44	-	13	+	31	"	"	"	s	s	s	m	s	12.2 II Near 29km.
	Tawu		ip	44 51.5	203	-	248	+	73	1125	2075	1363	-	-	-	-	-	4.6 III WSW. of
	Taitung		ip	44 53.3	247	-	559	+	169	-	-	-	-	-	-	-	-	VI Taitung
	Hsinkong		ep	44 58.0	8.8	-	8.9	+	22.8	769	722	747	1.0	2.4	1.8	-	-	2.6 II 120.9E
	Hengchun		ip	45 00.0	98	-	84	+	87	500	520	547	-	-	-	-	-	6.1 III 22.5N
	Kaohsiung		p	45 03.2	-	-	-	-	-	-	-	-	-	-	-	-	-	8.8 II (H=0~5)
	Tainan		ip	45 06.0	69	+	73	-	243	2700	2800	784	1.0	1.0	1.6	-	-	16.0 II
	Hwalien		p	45 10.6	-	-	-	-	-	568	525	320	2.8	3.0	2.0	-	-	21.9 I
	Taichung		ip	45 15.7	-	-	-	-	-	-	-	-	-	-	-	-	-	21.1 I
	Penghu		p	45 16.8	-	-	-	-	-	333	365	-	2.7	3.7	-	-	-	21.7 O
	Hsinchu		p	45 23.0	-	-	-	-	-	-	-	-	-	-	-	-	-	30.0 O
2	Ilan		p	45 25.3	-	-	-	-	-	249	260	248	2.4	2.4	1.0	-	-	28.4 I
	Taipei		p	45 26.4	-	-	-	-	-	-	-	-	-	-	-	-	-	33.6 O
	Anpu		ip	45 28.0	13.3	+	13.1	+	12.6	-	-	-	-	-	-	-	-	34.0 I
	Yushan		ip	46 02.4	3.3	-	10	-	-	1010	1110	-	2.2	2.2	-	-	-	11.1 II
	Taipei	13	ep	00 35 50.9	-	-	-	-	-	-	-	-	-	-	-	-	-	O U. S. C. G. S.
Hengchun		ep	38 37.3	-	-	-	-	-	-	-	-	-	-	-	-	-	O Solomon	
Hsinkong		ep	38 39.8	-	-	-	-	-	-	-	-	-	-	-	-	-	O Islands	
Tawu		ep	38 40.3	-	-	-	-	-	-	-	-	-	-	-	-	-	O	
Taitung		ep	38 42.8	-	-	-	-	-	-	-	-	-	-	-	5	58.0	O	
Hwalien		ep	38 43.8	-	-	-	-	-	-	-	-	-	-	-	6	2.4	O	
Alishan		p	38 44.7	-	-	-	-	-	-	-	-	-	-	-	-	-	O	
Ilan		p	38 46.8	-	-	-	-	-	-	-	-	-	-	-	5	32.7	O	
Anpu		ip	38 50.0	-	-	-	-	-	-	-	-	-	-	-	-	-	O	

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No.	Station	Date	Phase	P. (G.M.T.)	Initial Motion			Maximum Amplitude			Period			P~S	Intensity	Epicenter & Remarks		
					N	E	Z	N	E	Z	N	E	Z					
3	Taipei	25	ep	h. m. s. 13 56 38.0	"	"	"	"	"	"	"	"	s	s	s	m	s	7 15.8 O (d)
	Anpu		p	56 38.0	-	-	-	-	-	-	-	-	-	-	-	-	-	O
	Hwalien		ep	56 41.0	-	-	-	-	-	58	69	-	15	15	-	-	-	O
	Ilan		p	56 45.5	-	-	-	-	-	-	-	-	-	-	-	-	-	O
	Taichung		ep	56 49.8	-	-	-	-	-	-	-	-	-	-	-	-	-	O
	Alishan		p	56 49.8	-	-	-	-	-	-	-	-	-	-	-	-	-	O
	Tawu		p	56 53.4	-	-	-	-	-	-	-	-	-	-	-	-	-	O
	Taitung		ep	56 57.0	-	-	-	-	-	-	-	-	-	-	-	7	54.1	O
	Hengchun		ep	57 02.2	-	-	-	-	-	-	-	-	-	-	-	-	-	O
	Kaohsiung		ep	57 08.5	-	-	-	-	-	-	-	-	-	-	-	-	-	O
4	Tainan	25	ep	14 15 02.1	-	-	-	-	-	-	-	-	-	-	-	-	-	O (d)
	Kaohsiung		ep	15 45.0	-	-	-	-	-	-	-	-	-	-	-	-	-	O
	Hengchun		ep	16 19.9	-	-	-	-	-	-	-	-	-	-	-	-	-	O
Alishan		p	21 51.8	-	-	-	-	-	-	-	-	-	-	-	-	-	O	
5	Yushan	28	ip	18 16 59.5	95	-	105	-	-	1840	1490	-	1.5	1.5	-	-	-	00.6 III Near
	Taichung		p	17 15.2	-	-	-	-	-	-	-	-	-	-	-	-	-	15.0 I Alishan
	Tainan		ip	17 19.0	13	-	24	+	41	315	373	278	1.4	1.4	1.6	-	-	11.1 I 23.5N
	Taitung		ep	17 20.0	-	-	-	-	-	345	438	260	1.3	1.3	2.4	-	-	12.9 II 120.8E
	Hwalien		p	17 21.7	1.0	+	2.5	+	1.3	305	330	130	3.7	3.1	2.8	-	-	12.4 O (H=0)
	Hsinkong		ip	17 21.8	3.8	-	0.6	+	6.1	173	210	200	2.0	1.9	2.2	-	-	11.9 I
	Tawu		ip	17 25.8	15	+	7	-	-	109	96	-	4.5	4.5	-	-	-	19.8 O
	Kaohsiung		p	17 26.0	-	-	-	-	-	-	-	-	-	-	-	-	-	11.5 O
	Hsinchu		ep	17 27.8	-	-	-	-	-	-	-	-	-	-	-	-	-	21.2 O
	Ilan		p	17 31.3	-	-	-	-	-	258	220	186	2.8	2.5	-	-	-	21.2 I
	Penghu		p	17 32.8	-	-	-	-	-	269	400	-	2.4	2.9	-	-	-	15.6 O
Hengchun		p	17 38.0	77.7	+	22.1	+	75.0	354	218	133	-	-	-	-	-	28.0 I	
Anpu		ep	17 34.5	-	-	-	-	-	-	-	-	-	-	-	-	-	02.5 O	
Taipei		p	17 35.2	-	-	-	-	-	216	188	-	1.9	1.9	-	-	-	23.8 O	
Alishan		ip	17 36.4	170	+	112	-	-	-	-	-	-	-	-	-	-	01.0 IV	
6	Alishan	28	ip	19 05 22.2	12	-	6	-	-	-	-	-	-	-	-	-	-	13.0 II Near 15km.
	Hsinkong		ip	05 42.0	23.1	+	20.0	-	70.6	313	391	141	2.0	2.4	3.2	-	-	8.4 II WSW. of
	Taitung		id	05 43.9	-	-	-	-	-	-	-	-	-	-	-	-	-	IV Taitung

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No.	Station	Date	Phase	P. (G.M.T.)	Initial Motion			Maximum Amplitude			Period			P~S Intensity	Epicenter & Remarks	
					N	E	Z	N	E	Z	N	E	Z			
8	Anpu	20	p	h. m. s. 14 39 26.0	μ	μ	μ	μ	μ	μ	s	s	s	m s	O (d)	
	Taitung		ep	39 32.8											O	
9	Hsinkong	20	ep	20 43 30.4	10 +	0.5					1.2	1.9	1.6	10.2	I Near 35km.	
	Alishan		ep	43 30.9										12.3	O SE. of	
	Hsinchu		ep	43 31.0										17.5	O Hwalien	
	Yushan		p	43 31.4				169	209		1.5	1.5		11.4	O 121.9E	
	Ilan		p	43 33.0										11.5	I 23.8 N	
	Taichung		p	43 33.2										13.8	O (H=45)	
	Anpu		ip	43 36.0											O	
	Taipei		p	43 36.4										13.5	I	
	Taitung		ep	43 37.6											O	
	Tawu		ep	43 46.6											23.2	O
10	Tainan		ep	43 48.4											29.5	O
	Hengchun		ep	43 52.0											O	
	Kaohsiung		ep	44 09.7											O	
	Hwalien		ip	44 22.7	2.8	- 8.8		360	365		1.7	1.6		6.5	II	
10	Anpu	26	ep	12 31 33.0											O (d)	
	Hwalien		ep	31 38.0											O	
	Ilan		ep	31 42.5											O	
	Taipei		ep	31 47.0											O	
	Taitung		ep	31 52.8									3	5.0	O	
	Hsinkong		ep	31 53.8											O	
	Taichung		ep	31 57.6											O	
	Tawu		ep	32 01.3											O	
	Hengchun		ep	32 15.2											O	

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地 震 季 報

第十一卷 第四號

中華民國五十三年十、十一、十二月

SEISMOLOGICAL BULLETIN

October to December, 1964

VOL. 11 No. 4

臺 灣 省 氣 象 所

PUBLISHED QUARTERLY BY

TAIWAN WEATHER BUREAU

64 KUNG YUAN ROAD, TAIPEI, TAIWAN, CHINA

General Aspect of Earthquakes

October to December, 1964

The number of earthquakes which occurred during the period from October to December 1964 is 342. Except 31 felt earthquakes including 1 remarkable, 2 moderate, 4 small felt area and 24 local ones, they were all unfelt ones.

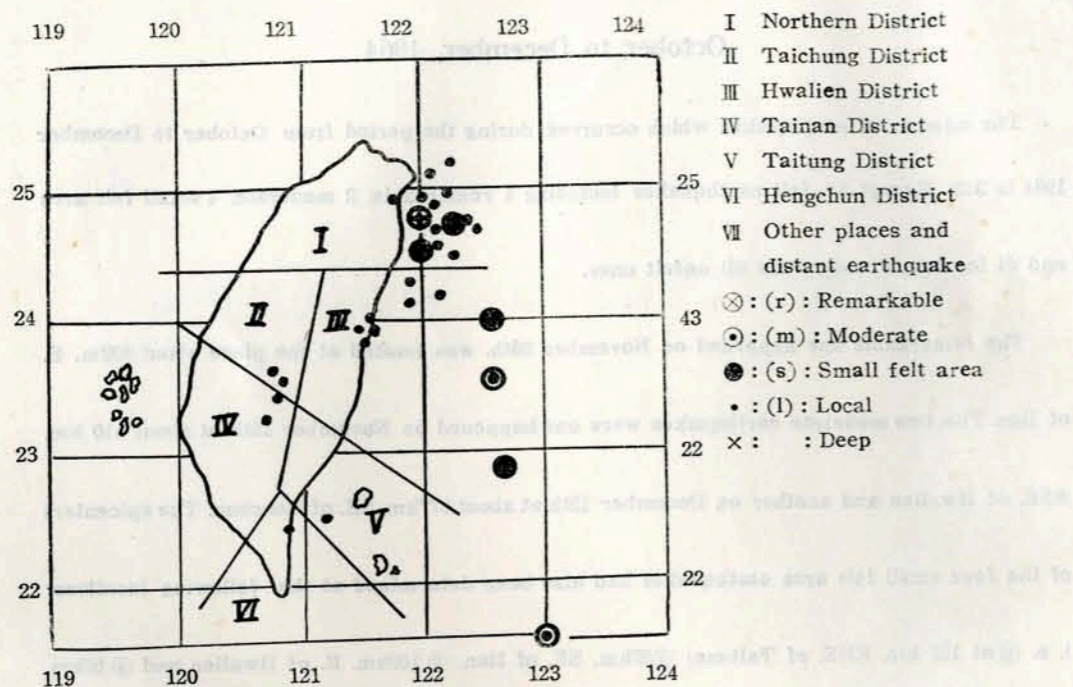
The remarkable one happened on November 26th, was located at the place about 30km. E. of Ilan. The two moderate earthquakes were one happened on November 15th at about 110 km. ESE. of Hwalien and another on December 13th at about 277km. SE. of Henchun. The epicenters of the four small felt area earthquakes had also been determined at the following locations:

- i. e. ① at 152 km. ENE. of Taitung; ② 37km. SE. of Ilan, ③ 103km. E. of Hwalien and ④ 50km. E. of Ilan respectively.

During this period 78 distant earthquakes had been found out from our seismograms. The detail of these main earthquakes can be found separately from this bulletin in according to its time series.

District	Number of earthquakes	Number of felt earthquakes	Number of unfelt earthquakes
Formosa Island	1	1	0
Taipei	1	1	0
Hualien	10	10	0
Tainan	1	1	0
Taitung	1	1	0
Henchun	1	1	0
Total	15	15	0
Other places	1	1	0

Epicenters of Felt Earthquakes in October to December, 1964



Number of earthquakes classified according to it's magnitude and districts October to December, 1964

Classification	Number of felt earthquakes					Number of unfelt earthquakes	Total
	Magnitudes	Remarkable	Moderate	Small felt area	Local		
Districts							
Northern Distrit		1	—	2	11	14	156
Taichung "		—	—	—	2	2	32
Hwalien "		—	1	2	7	10	64
Tainan "		—	—	—	2	2	8
Taitung "		—	1	—	1	2	37
Hengchun "		—	—	—	1	1	14
Total		1	2	4	24	31	311
Other places		—	—	—	—	—	78

Felt Earthquakes Occurred From October to December.

No.	Month	P. (G. M. T.)			Mag-nitude	Epicenter	Latitude	Longiude	Depth
		d.	b.	m.					
135	Oct.	3	07	10	(l)	Near Hwalien.	N.	E.	kms.
136	"	5	10	20	(s)	About 152 km. ENE. of Taitung.	22.9	122.6	60
137	"	6	17	05	(l)	Near Alishan.			
138	"	9	07	34	"	About 34km. ENE. of Hwalien.			60
139	"	10	13	54	"	Near Alishan.			
140	"	21	12	53	"	About 40km. ESE. of Ilan.			20
141	"	24	08	46	(s)	About 37hm. SE. of Ilan.			20
142	"	29	06	33	(l)	Near Hwalien.			
143	Nov.	2	08	32	"	Near 42km. ESE. of Ilan.			20
144	"	14	10	26	"	Near 16km. ENE. of Tawu.			
145	"	15	15	23	(m)	Near 110km. ESE. of Hwalien.	23.5	122.6	60
146	"	18	02	18	(l)	Near Tawu.			
147	"	20	15	32	"	Near Hwalien.			
148	"	21	13	27	(s)	Near 103km. E. of Hwalien.	24.0	122.6	30
149	"	22	05	40	(l)	Near 50km. SSE. of Ilan.			
150	"	26	10	21	(r)	Near 30 km. E. of Ilan.	24.8	122.1	20
151	"	26	10	30	(l)	"			
152	"	26	10	37	"	"			
153	"	26	12	10	"	Near 54km. E. of Ilan.			20
154	"	26	12	49	"	Near 67km. ESE. of Hwalien.			
155	"	26	13	13	"	Near. 50km. ENE. of Ilan.			
156	"	26	14	19	"	Near 65km. E. of Taipei.			
157	"	26	19	25	"	Near 55km. E. of Taipei.			
158	Dec.	2	22	04	"	Near Hwalien.			
159	"	5	05	54	"	Near 23km. SSE. of Alishan.			0
160	"	5	03	42	"	Near 65km. E. of Ilan.			30
161	"	5	09	29	"	Near 8km. SSW. of Yushan.			0
162	"	13	13	16	(m)	Near 227km. SE. of Hengchun.	20.4	122.9	20
163	"	16	19	28	(s)	Near 50km. E. of Ilan.	24.7	122.2	20
164	"	17	19	50	(l)	Near 15km. WN. of Ilan.			10
165	"	25	10	25	"	Near 32km. ESE. of Ilan.			20

Unfelt Earthquakes Occurred From October to December.

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
1512	Sep.	30	21	28	Near Hwalien.	1546	Oct.	13	14	04	Near Hwalien.
1513	Oct.	1	14	50	Near Hsinkong.	1547	"	14	03	09	(d)
1514	"	2	01	01	Northern district.	1548	"	14	09	22	Taitung district.
1515	"	2	13	09	(d)	1549	"	15	01	40	Near Alishan.
1516	"	3	02	31	Near 53km. E. of Tawu.	1550	"	15	04	42	Near 45km. ESE. of Hengchun.
1517	"	3	19	57	Taitung district.	1551	"	15	12	42	Near 8km. S. of Taitung.
1518	"	4	02	22	Near Alishan.	1552	"	15	12	50	Taitung district.
1519	"	4	22	01	"	1553	"	15	20	33	(d)
1520	"	5	04	54	Hwalien district.	1554	"	16	07	05	"
1521	"	6	06	12	(d)	1555	"	16	08	24	"
1522	"	6	06	45	Near Alishan.	1556	"	16	09	24	"
1523	"	6	06	48	"	1557	"	16	17	04	Northern district.
1524	"	6	10	57	"	1558	"	16	17	31	"
1525	"	6	13	09	(d)	1559	"	17	01	52	(d)
1526	"	6	14	24	"	1560	"	17	03	22	"
1527	"	7	01	07	Near Alishan.	1561	"	17	17	43	Taitung district
1528	"	7	02	28	"	1562	"	17	23	42	"
1529	"	7	03	09	"	1563	"	18	12	36	(d)
1530	"	7	03	16	"	1564	"	19	04	09	Northern district.
1531	"	7	14	38	Taitung district.	1565	"	19	04	20	"
1532	"	7	17	43	Near 36km. NE. of Hsinkong	1566	"	19	14	55	Near Hsinkong.
1533	"	7	22	54	Hwalien district.	1567	"	20	18	00	Near Anpu.
1534	"	9	05	34	Northern district.	1568	"	21	01	44	Hwalien district.
1535	"	9	06	51	"	1569	"	21	13	12	Near Hsinkong.
1536	"	9	15	34	"	1570	"	21	23	07	(d)
1537	"	9	18	38	Near 35km. SSE. of Ilan.	1571	"	22	04	40	Taitung district.
1538	"	10	05	22	Near 35km. SE. of Taichung.	1572	"	22	07	53	Near 165km. E. of Tawu.
1539	"	11	21	20	(d)	1573	"	22	10	05	Northern district.
1540	"	12	01	05	Northern district.	1574	"	23	00	24	Near Alishan.
1541	"	12	02	15	Near 35km. SSW. of Ilan.	1575	"	23	01	20	Northern district.
1542	"	12	13	33	Near Hwalien.	1576	"	23	01	35	"
1543	"	12	15	47	(d)	1577	"	23	02	18	(d)
1544	"	12	22	57	Northern district.	1578	"	22	03	00	(d)
1545	"	13	10	52	(d)	1579	"	23	03	31	Taitung district.

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
1580	Oct.	23	21	17	(d)	1615	Nov.	5	05	33	Northern district.
1581	"	24	07	26	Hwalien district.	1616	"	5	07	11	(d)
1582	"	25	03	55	Taitung district.	1617	"	5	14	31	Near 16km. NNE. of Hsinkong.
1583	"	25	16	18	Near Ilan.	1618	"	5	15	25	Near 21km. NNW. of Taitung.
1584	"	26	07	45	Near 97km. ENE. of Hwalien.	1619	"	6	03	03	Hengchun district
1585	"	26	07	47	Hwalien district.	1620	"	6	10	05	(d)
1586	"	26	12	47	Northern district.	1621	"	6	14	03	Hengchun district.
1587	"	26	14	32	(d)	1622	"	6	16	03	Hwalien district.
1588	"	26	16	18	Northern district.	1623	"	7	04	15	Near 20km. SSW. of Ilan.
1589	"	26	19	53	"	1624	"	7	18	40	(d)
1590	"	26	20	07	Near 127km. ENE. of Hwalien.	1625	"	9	03	07	(d)
1591	"	27	02	41	Hengchun district.	1626	"	9	06	45	Northern district.
1592	"	27	21	30	Hwalien district.	1627	"	9	18	44	(d)
1593	"	29	02	-	Tainan district.	1628	"	9	20	15	Hengchun district
1594	"	30	00	37	Near Tawu.	1629	"	10	02	35	Taitung district.
1595	"	30	10	26	Near Ilan.	1630	"	10	03	17	Near Hwalien.
1596	"	30	12	59	"	1631	"	10	06	43	Tainan district.
1597	Nov.	31	15	43	Near 70km. ENE. of Hwalien.	1632	"	11	05	20	(d)
1598	"	31	19	01	(d)	1633	"	11	08	43	(d)
1599	"	1	12	30	(d)	1634	"	11	11	30	Hwalien district.
1600	"	1	12	34	Hengchun district.	1635	"	11	13	43	(d)
1601	"	1	22	39	Near 16km. SE. of Yushan.	1636	"	11	17	42	Northern district.
1602	"	2	02	51	Taichung district.	1637	"	11	18	43	Hwalien district.
1603	"	2	09	45	Near 42km. ESE. of Ilan.	1638	"	11	19	28	(d)
1604	"	2	09	50	Near 30km. SSE. Of Ilan.	1639	"	12	05	59	(d)
1605	"	2	23	05	Near Alishan.	1640	"	12	06	21	(d)
1606	"	2	23	34	Hengchun district.	1641	"	12	08	15	(d)
1607	"	3	19	34	Near Tawu.	1642	"	12	12	05	Taitung district.
1608	"	4	12	46	Near Hsinkong.	1643	"	12	17	00	Hwalien district
1609	"	4	15	33	(d)	1644	"	12	21	44	Near 55km. ENE. of Hwalien.
1610	"	4	21	06	(d)	1645	"	13	12	13	Northern district.
1611	"	5	03	32	Near 82km. E. of Ilan.	1646	"	13	23	14	"
1612	"	5	00	47	Northern district.	1647	"	14	00	09	Near 38km. SW. of Ilan.
1613	"	5	01	01	Near Hwalien.	1648	"	14	03	59	(d)
1614	"	5	02	01	Near Ilan.	1649	"	11	13	28	(d)

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
1650	Nov.	d.	h.	m.	(d)	1685	Nov.	24	01	53	(d)
1651	"	12	05	21	(d)	1686	"	24	02	33	Northern district.
1652	"	12	08	15	(d)	1687	"	24	12	43	(d)
1653	"	12	12	05	Taitung district.	1688	"	25	09	31	(d)
1654	"	12	17	00	Hwalien district.	1689	"	25	11	26	Taichung district.
1655	"	12	21	44	Near 55km. ENE. of Hwalien.	1690	"	25	22	11	Near 95km. ENE. of Hwalien.
1656	"	13	12	13	Northern district.	1691	"	25	04	20	Near 82km. ESE. of Ilan.
1657	"	13	23	14	"	1692	"	26	06	31	(d)
1658	"	14	00	09	Near 38km. SW. of Ilan.	1693	"	26	06	21	Taitung district.
1659	"	14	03	59	(d)	1694	"	26	10	28	Near 30km. E. of Ilan.
1660	"	14	17	58	Near Ilan	1695	"	26	10	36	"
1661	"	15	16	58	Near Yushan.	1696	"	26	10	40	"
1662	"	16	00	34	Near 40km. SSE. of Ilan.	1697	"	26	10	41	"
1663	"	16	12	57	Near Ilan.	1698	"	26	10	48	Near 186km. ENE. of Taipei.
1664	"	16	22	45	(d)	1699	"	26	10	49	Hwalien district.
1665	"	17	01	19	Near Alishan.	1700	"	25	10	52	Near 50km. E. of Taipei.
1666	"	17	08	23	(d)	1701	"	26	10	54	Northern district.
1667	"	17	14	56	(d)	1702	"	26	10	58	"
1668	"	17	19	05	(d)	1703	"	26	10	58	Northern district.
1669	"	18	03	32	Hwalien district.	1704	"	26	11	06	"
1670	"	18	14	41	(d)	1705	"	26	11	11	"
1671	"	18	15	50	Hwalien district.	1706	"	26	11	12	"
1672	"	18	22	42	(d)	1707	"	26	11	20	Near Ilan.
1673	"	19	01	09	Taitung district.	1708	"	26	11	24	"
1674	"	19	12	58	Hwalien district.	1709	"	26	11	27	Near 40km. S. of Taipei.
1675	"	19	13	15	"	1710	"	26	11	35	Near Ilan.
1676	"	19	16	02	(d)	1711	"	26	11	39	"
1677	"	19	23	42	(d)	1712	"	26	11	42	"
1678	"	20	05	42	(d)	1713	"	26	11	46	"
1679	"	20	23	40	(d)	1714	"	26	11	49	Near 32km. SE. of Ilan.
1680	"	21	02	21	(d)	1715	"	26	11	52	Northern district.
1681	"	21	04	13	(d)	1716	"	26	11	58	"
1682	"	21	15	09	(d)	1717	"	26	12	00	"
1683	"	22	06	06	(d)	1718	"	26	12	14	Near 54km. E. of Ilan.
1684	"	22	06	39	Hwalien district.	1719	"	26	12	19	"

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
1720	Nov.	d.	h.	m.	"	1755	Nov.	26	22	51	"
1721	"	26	12	34	"	1756	"	27	01	55	"
1722	"	26	12	38	"	1757	"	27	02	03	"
1723	"	26	12	48	"	1758	"	27	02	38	Near Ilan.
1724	"	26	12	53	Near 60km. E.S.E. of Ilan.	1759	"	27	03	42	Near Tawu.
1725	"	26	12	58	Near 40km. WSW. of Ilan.	1760	"	27	05	20	Northern district.
1726	"	26	13	03	Near Ilan.	1761	"	27	07	18	"
1727	"	26	13	08	Northern district.	1762	"	27	08	57	"
1728	"	26	13	09	Near 40km. SE. of Ilan.	1763	"	27	09	27	Near 20km. N. of Ilan.
1729	"	26	13	11	Northern district.	1764	"	27	10	03	Northern district.
1730	"	26	13	29	"	1765	"	27	10	32	Near 35km. NE. of Ilan.
1731	"	26	13	38	"	1766	"	27	10	35	"
1732	"	26	13	56	Near Ilan.	1767	"	27	12	08	"
1733	"	26	13	58	Near 40km. E. of Taipei.	1768	"	27	13	33	"
1734	"	26	14	00	Northern district.	1769	"	27	13	52	(d)
1735	"	26	14	16	"	1770	"	27	17	30	Near 32km. ENE. of Ilan.
1736	"	26	14	24	Near 65km. E. of Taipei.	1771	"	27	18	35	Near Alishan.
1737	"	26	14	34	Near 30km. E. of Ilan.	1772	"	27	23	09	Northern district.
1738	"	26	14	39	Northern district.	1773	"	28	02	15	Near 30km. NNE. of Ilan.
1739	"	26	15	03	"	1774	"	28	06	21	Hwalien district.
1740	"	26	15	06	"	1775	"	28	06	32	Northern district.
1741	"	26	15	09	"	1776	"	29	06	47	"
1742	"	26	15	28	Near Ilan.	1777	"	29	11	37	"
1743	"	26	15	38	"	1778	"	29	20	50	Near Alishan.
1744	"	26	16	01	"	1779	"	29	21	04	Northern district.
1745	"	26	16	14	"	1780	"	29	21	17	Near Ilan.
1746	"	26	16	16	"	1781	"	30	08	35	Northern district.
1747	"	26	16	48	Near 32km. E. of Ilan.	1782	"	30	12	34	(d)
1748	"	26	19	16	Near Ilan.	1783	"	30	14	44	Hwalien district.
1749	"	26	19	32	Near 55km. E. of Taipei.	1784	Dec.	1	01	36	Hwalien district.
1750	"	26	20	16	"	1785	"	1	02	02	Northern district.
1751	"	26	20	23	"	1786	"	1	05	25	Henchun district.
1752	"	26	21	01	"	1787	"	1	10	20	Taichung district.
1753	"	26	21	17	Northern district.	1788	"	1	10	23	Near 45km. ENE. of Alishan.
1754	"	26	22	26	"	1789	"	1	18	33	Taichung district.

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
1790	Dec.	2	01	20	Hengchun district.	1825	Dec.	11	02	12	Tainan district.
1791	"	2	02	12	Tainan district.	1826	"	11	02	14	"
1792	"	2	02	14	"	1827	"	11	22	36	Taitung district.
1793	"	2	05	22	Taitung district.	1828	"	11	23	00	"
1794	"	3	04	09	(d)	1829	"	12	07	34	(d)
1795	"	3	11	30	Northern district.	1830	"	13	10	32	Taichung district.
1796	"	4	08	28	Near 42km. NNW. of Hwalien.	1831	"	13	13	16	(d)
1797	"	4	13	37	Near Ilan.	1832	"	13	14	22	Taitung district.
1798	"	4	14	08	Northern district.	1833	"	13	15	32	Taichung district.
1799	"	4	15	56	(d)	1834	"	13	16	37	Taitung district.
1800	"	4	18	31	Near 20km. NNE. of Keelung.	1835	"	13	16	41	Near Hwalien.
1801	"	5	05	59	Near 23km. SE. of Yushan.	1836	"	13	16	46	Taitung district.
1802	"	5	06	55	Near Alishan.	1837	"	13	22	56	Taichung district.
1803	"	5	09	48	Near Yushan.	1838	"	14	02	59	Northern district.
1804	"	5	22	33	Hengchun district.	1839	"	14	12	39	Taitung district.
1805	"	6	00	07	Near Anpu.	1840	"	15	08	22	Hwalien district.
1806	"	6	04	38	(d)	1841	"	15	08	53	"
1807	"	6	21	06	Taitung district.	1842	"	15	17	40	"
1808	"	7	03	47	Northern district.	1843	"	15	18	55	"
1809	"	7	03	06	(d)	1844	"	16	00	50	Taitung district.
1810	"	8	07	20	Near Hwalien.	1845	"	16	04	00	Northern district.
1811	"	8	17	20	Taitung district.	1846	"	16	08	36	Near Alishan.
1812	"	9	17	53	(d)	1847	"	16	18	54	Taichung district.
1813	"	8	23	58	Near 54km. ESE. of Hwalien.	1848	"	16	18	27	Hengchun district.
1814	"	9	05	31	Near Hsinkong.	1849	"	17	06	04	Hwalien district.
1815	"	9	06	29	Near Anpu.	1850	"	17	05	31	(d)
1816	"	9	13	54	(d)	1851	"	17	09	40	Near Alishan.
1817	"	9	20	11	Near Hsinkong.	1852	"	17	10	25	Taichung district.
1818	"	10	02	38	Near Taipei.	1853	"	17	14	17	Hwalien district.
1819	"	10	05	42	Hwalien district.	1854	"	17	15	21	"
1820	"	10	08	53	Northern district.	1855	"	17	18	59	Near Taipei.
1821	"	10	15	15	(d)	1856	"	18	00	12	(d)
1822	"	10	15	41	Near Hwalien.	1857	"	18	14	27	Near Taipei.
1823	"	10	22	52	Northern district.	1858	"	18	22	25	Near 20km. SSE. of Ilan.
1824	"	11	01	09	Taitung district.	1859	"	20	13	40	(d)

No.	Month	P. (G. M. T.)			Epicenter	No.	Month	P. (G. M. T.)			Epicenter
		d.	h.	m.				d.	h.	m.	
1860	Dec.	20	16	26	Northern district.	1895	Dec.	26	00	33	Near 40km. E. of Heinkong
1861	"	20	17	41	"	1896	"	26	14	37	(d)
1862	"	21	02	18	(d)	1897	"	27	17	45	(d)
1863	"	21	02	29	Northern district.	1898	"	27	22	57	Taichung district.
1864	"	21	07	19	"	1899	"	28	02	08	Taitung district.
1865	"	21	08	48	"	1900	"	28	11	03	Near Hwalien
1866	"	21	23	37	"	1901	"	28	16	26	Northern district.
1867	"	22	04	46	"	1902	"	28	16	52	Near Tainan.
1868	"	22	16	49	Northern district.	1903	"	28	17	00	"
1869	"	22	18	23	"	1904	"	29	05	32	Hwalien district.
1870	"	22	18	35	"	1905	"	30	11	39	Near 70km. ENE. of Ilan.
1871	"	22	19	16	Hwalien district.	1906	"	30	15	31	(d)
1872	"	22	19	20	Northern district.	1907	"	30	15	31	Northern district.
1873	"	22	19	23	"	1908	"	30	15	33	Hwalien district.
1874	"	22	19	33	"	1909	"	30	16	31	Northern district.
1875	"	22	19	37	"	1910	"	30	21	13	Near Taitung.
1876	"	22	20	01	Hwalien district.	1911	"	31	00	20	Near Hwalien.
1877	"	22	20	10	Northern district.						
1878	"	22	20	19	Hwalien district.						
1879	"	22	22	15	"						
1880	"	22	23	33	"						
1881	"	22	23	54	Northern district.						
1882	"	23	02	35	(d)						
1883	"	23	02	52	Near 64km. N. of Taipei.						
1884	"	23	03	28	Hwalien district.						
1885	"	23	04	00	"						
1886	"	23	07	02	Near Alishan.						
1887	"	23	16	04	Hwalien district.						
1888	"	23	19	50	(d)						
1889	"	23	20	08	Taitung district.						
1890	"	24	18	53	(d)						
1891	"	24	20	02	"						
1892	"	25	10	35	Near 30km. S. of Ilan.						
1893	"	25	13	58	Near Hwalien.						
1894	"	25	17	05	(d)						

Major Earthquakes Occurred in October, 1964.

No	Station	Date	Phase	P. (G.M.T.)	Initial Motion			Maximum Amplitude			Period			P~S Intensity	Epicenter & Remarks
					N	E	Z	N	E	Z	N	E	Z		
					μ	μ	μ	μ	μ	μ	s	s	s		
1	Alishan	2	p	13 09 2.0										0	U.S.C.G.S.
	Taipei		ep	09 52.0										0	Solomon
	Anpu		ip	09 54.0										0	Islands
	Hwalien		ep	09 54.7										0	
	Ilan		ep	09 58.5										0	
2	Tawu	5	ip	10 19 52.3				136			1.0			2.2	O Alout
	Taitung		ip	20 02.5	15.4	16.1		2742	1869		0.9	0.9		6.2	I 152km. ENE.
	Hsinkong		ep	20 05.8										17.0	O of Taitung
	Yushan		p	20 09.6										18.0	O 122.6E 22.9N
	Alishan		ep	20 14.5										18.0	O (H=60)
	Hengchun		ep	20 21.3										21.9	O
	Hwalion		ep	20 24.9										15.9	O
	Anpu		ep	20 32.0										6.0	O
	Ilan		ep	20 47.4										30.2	O
	Taipei		ep	20 51.3										26.0	O
	Kaohsiung		ep	21 13.8										11.2	O
3	Hsinkong	6	p	06 12 45.2										45.8	O U.S.C.G.S.
	Alishan		ep	12 49.8										55.0	O Philippine
	Taitung		ep	12 50.6										2	8.0 O Islands
	Tawu		ep	12 50.8										0	
	Hengchun		ep	13 02.3										0	
	Anpu		ep	13 13.8										0	
	Tainan		p	13 25.0										0	
	Hwalion		ep	13 43.1										0	
Taipei		ep	14 00.0										0		
4	Anpu	6	ep	14 24 39.0										0	(d)
	Taitung		ep	43 11.1										8	24.5 O
5	Hengchun	11	ep	21 20 01.0										0	U.S.C.G.S.
	Tawu		ep	20 05.9										0	Northern
	Taitung		ep	20 15.2										4	19.0 O Celebes
	Yushan		p	20 18.2										0	

No.	Station	Date	Phase	P. (G.M.T.)	Initial Motion			Maximum Amplitude			Period			P~S Intensity	Epicenter & Remarks
					N	E	Z	N	E	Z	N	E	Z		
					μ	μ	μ	μ	μ	μ	s	s	s		
	Alishan		p	20 18.0										0	
	Ilan		ep	20 25.2										0	
	Hwalien		ep	20 26.4										0	
	Anpu		ip	20 35.0										6	43.0 O
6	Anpu	15	ep	20 33 04.0										0	U.S.C.G.S.
	Tawu		p	33 30.3										0	NW.of Kurile
	Taipei		ep	33 37.0										5	43.0 O Islands
7	Ilan	16	ep	07 05 23.3										0	U.S.C.G.S.
	Anpu		ip	05 44.0										6	4.0 O Kurile
	Hwalien		p	06 03.2										0	Islands
	Taitung		ep	06 04.9										5	2.9 O
	Tainan		ep	06 00.6										7	28.5 O
	Taipei		ep	06 15.0										5	15.0 O
	Tawu		ep	06 34.6										0	
	Hsinkong		p	06 35.3										0	
	Hengchun		ep	06 38.9										0	
	Taichung													0	
8	Hengchun	16	ep	08 24 10.9										0	U.S.C.G.S.
	Taitung		ep	24 43.1										5	10.8 O Kurile
	Ilan		ep	24 50.9										0	Islands
	Tainan		ep	24 55.6										7	32.5 O
	Taipei		ep	25 00.0										5	30.0 O
	Tawu		ep	25 14.5										0	
	Taichung		ep	30										0	
Alishan		p	38 23.0										0		
9	Taitung	16	ep	09 24 39.0										5	1.3 O U.S.C.G.S.
	Taipei		ep	25 00.0										5	10.0 O Kurile
	Tawu		ep	25 11.0										0	Islands
	Ilan		ep	26 34.5										0	
	Taichung		ep	30										0	

