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符 號 凡 例

1. 地震之性質

- | | | | |
|----|--------|-------------|--------|
| | 1. 可辨別 | 11. 稍強 | 111. 強 |
| d. | 局部地震 | (震源在一百千米以內) | |
| v. | 近地地震 | (震源在一千千米以內) | |
| r. | 遠地地震 | (震源在五千米以內) | |
| u. | 極遠地震 | (震源在五千米之外) | |

2. 震波圖之相位

- | | |
|---------------------------------------|-----------------------------------|
| P | 縱波 (或初期微動之第一前走波) |
| PR ₁ , PP | 縱波對於地球表面經一次反射之波 |
| PR ₂ , PPP | 縱波對於地球表面經二次反射之波 |
| S | 橫波 (或初期微動之第二前走波) |
| SR ₁ , SS | 橫波對於地球表面經一次反射之波 |
| SR ₂ , SSS | 橫波對於地球表面經二次反射之波 |
| PS, SP | 變轉波即縱波(橫波)對於地球表面反射時所變轉之橫波
(縱波) |
| L | 主要動之地面波 |
| M ₁ , M ₂ , ... | 地面波之極大動 |
| C | 終期尾動 |
| F | 能認別之最終動 |

3. 運動之種類等

- | | |
|---|-----------------------------------|
| i | 相位之明顯者 |
| e | 相位之不明顯者 |
| ? | 相位之可疑者 |
| T | 週期(以秒為單位) |
| A | 實際上地面震動之半震幅(以 μ , 千分之一米, 為單位) |
| △ | 震央距離(以千米為單位) |

Symbols and Notations

1. Character of the Earthquake—

I. Perceptible. II. Moderately strong. III. Strong.

- d (terrae motus domesticus) Local shock (origin less than 100 km. distant).
- v (terrae motus vicinus) Near shock (origin from 100 to 1,000 km. distant)
- r (terrae motus remotus) Distant shock (origin from 1,000 to 5,000 km. distant).
- u (terrae motus ultimus) Very distant shock or teleseism (origin more than 5,000 km. distant).

2. Phases of the Seismogram—

- P (undae primae) Normal first phase, or first preliminary tremors (longitudinal).
- P' First preliminary tremors which have penetrated the core of the earth
- PR_n Waves n times reflected at the earth's surface.
- S (undae secundae) Second phase, or second preliminary tremors (transverse).
- SR_n Waves n times reflected at the earth's surface,
- PS, SP Waves changed from longitudinal to transverse oscillation or vice versa through reflection at the earth's surface.
- PPS Waves twice reflected at the earth's surface, having been longitudinal on two branches of the path and transverse on one branch.

In general, a bar over two letters denoting types of waves indicates refraction. The subscript c denotes the boundary at about 2900 km. depth between the metallic core and the middle shell which surrounds it. Thus:

$\overline{\text{ScPcS}}$ Waves which have penetrated the core, having been transverse before entering and after leaving the core, and longitudinal within the core.

$\overline{\text{PcPcPcP}}$ Waves refracted at the core boundary into the core, reflected once at this boundary while within the core and again refracted out of the core, having remained longitudinal on all branches of the path.

- L (undae longae) Long waves of surface phase preceding M.
M (undae maximae) Shorter and more regular waves of large amplitude in the surface phase.
W₂.W₃.W₄... The maximum waves coming again to the station after circumscribing the earth once, twice, etc.
G (coda) Tail or end portion.
F (finis) End of discernible movement.
3. Nature of the motion
i (impetus) Sudden beginning of the motion.
e (emersio) Gradual beginning of the motion.
? Questionable or uncertain.
m Maximum wave in any phase.

4. Time—

All determinations are reduced to Greenwich mean time. The contact clock which gives the time mark is daily corrected by radio with the time signal from Zi-ka-wei Observatory.

Constants of the Seismographs

1. Mechanical Registration.

Apparatus	Component	V	T ₀	ε	r
Wiechert 17,000 kg.	N	1740	1.48	2.0	0.50
	E	1360	1.50	1.2	0.20
Wiechert 1,300 kg.	Z	154	4.02	3.0	0.80

2. Galvanometric Photographic Registration.

Constants of Galitzin-Wilip.

Component	Galvanometer Free Period T ₁	Pendulum Free Period T	Damping Constant $\frac{2}{\mu}$	Transmission Factor k	Synchronous Magnification $\frac{kAT}{4\pi I}$
N-S	11.02	10.31	+0.27	182	1690
E-W	10.84	10.39	+0.26	182	1730

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$\phi = 32^{\circ}03'11''N$ $\lambda = 118^{\circ}46'55''E$ $h = 60m$. Underground: Conglomerate.

No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			Δ	Remark	
				h.	m.	s.	A _N	A _E	A _Z	T _N	T _E	T _Z			
1045	1935 Oct. 1		eL	3	39	\pm								Netherland East Indies.	
1046	Oct. 1		e	6	24	43									
1047	Oct. 2	IIr	iP	5	38	17	-4	-7		4	4		2700	Up. Deep focus type.	
			i	5	38	33								Tyosen gives 145.8E, 42.9N.	
			iS _E	5	42	39				(4, 22)				Off the cape of Otiisi, Hokaido.	
			iS _N	5	42	43								JSA: 43.8°N, 146.5°E	
			L _E	5	43	33									
			M _E	5	47	23		20			15				
1048	Oct. 2		P _E	9	30	05								Very Small.	
			e _N	9	33	53									
1049	Oct. 4	Ir	iP _N	5	20	40							(4, 04)	2480	Manila: 6°20'N, 125°E
			i _N	5	22	36									Deep. h=400km.
			iS	5	24	44									H=5h15m30s.
			i _E	5	26	40									
			i _N	5	27	00									
			F	6	14										
1050	Oct. 4		eL	9	53	04									
			M	9	55	48									
1051	Oct. 4		e	15	09	35									
			eL _N	15	16	07									
1052	Oct. 4		e _E	21	00	31									
			e(L) _E	21	02	35									

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Macelwane is now being used.

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No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			Δ	Remark	
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z			
1053	1935 Oct. 5	Iv	P_E	8	48	04						(0, 49)	480	Small near shock,	
			S	8	48	53									
			F	8	51										
1054	Oct. 6		eL	14	57	52								Initials ineident.	
1055	Oct. 8	Ou	P_E	9	26	42									Central Asia, Russian Turkestan.
			e	9	32	40									
			L_E	9	41	02									
			L_N	9	41	34									
			F	10	30										
1056	Oct. 10		e	5	27	01									
			e	5	29	37									
1057	Oct. 10	Or	eP	12	37	27						(3, 33)	2090	Felt at Leyte and Samar, P.I.	
			eS $_E$	12	41	00									
			S $_N$	12	41	26									
			eL	12	44	00									
			M $_E$	12	45	00					10				
			F	13	45										
1058	Oct. 10	Ir	P	20	13	06						(4, 00)	2420	Manila: probably $11.2^{\circ} N$ $126^{\circ}.1E$	
			iS	20	17	06									
			L_E	20	19	48									
			F	21	54										
1059	Oct. 11	Or	P	4	27	35						(5, 46)	3980		
			S	4	33	21									
			F	4	57										

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No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			Δ	Remark		
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z				
1060	1935 Oct. 11	IIr	P	22	23	57						(6, 34)	4800	Manila: about $1^{\circ}N, 145^{\circ}E$.		
			iS	22	30	31										
			i	22	33	33										
			L_N	22	37	15									Bulb burns out at 45min.	
1061	Oct. 12	IIIr	P	16	50	04						(4, 08)	2520	NE off Miyako, Iwate Pre.		
			PP	16	50	42									Tyosen: $143.3E, 40.4N$.	
			S_E	16	54	12									JSA: $43^{\circ}N 144^{\circ}E$	
			i	16	54	45									UGEI: $41.5^{\circ}N, 140^{\circ}E$.	
			L_E	16	56	24										
			L_N	16	57	02										
			M_E	16	57	40							16			Out and faint.
			M_{N1}	17	00	33	39	^{MM} 60.5				15				
M_{N2}	17	02	48	40					13					Continued by next.		
1062	Oct. 12	Ir	P	18	18	52						(4, 44)	3010	Tyosen: $40.1N, 143.0E$, Japan.		
			e S_E	18	23	36										
			L	18	26	44										
			F	20	10											
1063	Oct. 13	Ir	iP	2	02	14						(4, 10)	2545	Japan, 日本		
			S	2	06	24										
			L	2	09	10										
			M	2	10	32										
			F	4	08											
1064	Oct. 14		i	19	53	22								Felt over western Luzon, P.I.		
1065	Oct. 14		e	20	42	06										
			M	20	46	\pm						14				

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No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			Δ	Remark	
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z			
1066	1935 Oct. 15	Or	P	10	35	19							(4, 11)	2565	
			eS	10	39	30									
			eL	10	43	10									
			F	11	20										
1067	Oct. 15	Ir	iP	14	38	19							(2, 38)	1480	Tyosen: 135.4, E.37.7N. Deep. NW off Noto, Isikawa.
			S	14	40	57									
			F	15	25										
1068	Oct. 16		e	20	17	20									Formosa.
			e	20	18	04									
			i	20	19	10									
			F	20	40										
1069	Oct. 17	Ir	P _E ?	14	45	14							(2, 38)	1480	
			eS _E	14	47	52									
			eL _{N,E}	14	50	16									
			M _E	14	54	06		6			15				
			F	15	50										
1070	Oct. 18	IIIr	iP	0	16	47							(4, 08)	2520	日本 JSA:43.8N, 147°E Japan.
			i	0	17	10									
			S	0	20	55									
			i	0	22	15									
			L _Z	0	23	23						24			
			M ₁	0	25	11	28	93	33	16	16	17			
			M ₂	0	27	00	36	66		13	15	13			Faint and out.
			M ₃	0	29	54	24	86		12	12	12			
			C	1	33	±									
			F	4	10										

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No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			Δ	Remark
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z		
1071	1935 Oct. 18	Ir	P	5	56	31					(4, 08)	2520		
			S	6	00	39								
			L	6	02	55								
			M	6	04	51								
			F	7	45									
1072	Oct. 18	IIr	iP	11	11	23					(4, 04)	2480	Epc. near Guam.	
			iS?	11	15	27								
			i	11	16	31								
			L	11	18	12								
			M	11	20	20					20	24		
1073	Oct. 18	IIIr	iP	14	58	46					(4, 03)	2465	G-W N-component clock stopped.	
			S	15	02	49							Tyosen: 143.9E, 40.4N	
			L	15	04	40							NE off Miyako.	
			M ₁	15	07	05		30			16	18		
			M ₂	15	11	23		30			11	11		
1074	Oct. 18	Ir	P _E	21	56	18					(4, 06)	2500	''	
			iS _E	22	00	24							Tyosen: 143.5E, 40.0N	
			iI _E	22	03	00							NE off Miyako.	
			M _E	22	04	36		7			16			
			F	23	35									
1075	Oct. 19	Ir	P _E	0	56	30					(4, 08)	2520	''	
			iS _E	1	00	38								
			L _E	1	03	10								
			M _E	1	04	40					15			

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No.	Date	Char-acter	Phase	G.M.T.			Amplitude			Period			Δ	Remark
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z		
1076	1935 Oct. 19	Ir	P	2	43	50				(4, 12)	2580			
			iS	2	48	02								
			M	2	01	11				16				
			F	4	00									
1077	Oct. 19		e	5	27	39							JSA:46.6N,111.8W,	
			eL	5	32	43				16			USCGS:Montana.46.6°N,112° W,	
			M _E	5	40	13								
1078	Oct. 19		e	10	27	39								
			eL	10	31	36								
1079	Oct. 19	Or	eP	20	28	04				(4, 02)	2455			
			eS	20	32	06								
			F	20	46									
1080	Oct. 20		i	5	08	26								
			eL	5	24	8								
1081	Oct. 25		eL	17	52	0							Initials masked by micro.	
1082	Oct. 26		e	21	41	00							No other phases distinguishable	
2083	Oct. 30	Or	P	2	08	54				(4, 24)	2735			
			S	2	13	18								
			L	2	16	08								F. Continued by next
1084	Oct. 30	Ir	P	2	35	58				(4, 08)	2520			
			S	2	40	06								
			L	2	43	38								

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No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			Δ	Remark	
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z			
1085	1935 Oct. 31		eP	12	01	01								Very Small.	
			e	12	01	49									Formosa.
			L	12	02	00									
			F	12	15										
1086	Oct. 31		iP _N	19	01	36								JSA:46.6N,111.8W.	
			L _E	19	27	02								USCGS:Montana,46.6°N,112.0°W	
			M _E	19	30	03					18				
			F	20	00										
1087	Oct. 31		e	23	03	00					(5, 35)	3800	Small.		
			S	23	08	35									
1088	Nov. 1		e?	6	28	56								Felt in E. Canada & NE USA.	
			e	6	30	14								USCGS: 46.4N, 79.4W.	
			eL _E	6	54	20								JSA: 46.6N, 79.3W.	
			M _E	7	02	42					18			H=06h03m 35s.	
			M _N	7	06	06					17				
1089	Nov. 1	IIIr	iP _E	16	26	09						(3, 28)	2035	Manila:21°N, 103°E	
			iS	16	29	37								Felt in Phulien.	
			L _{1N}	16	30	57									
			L _{2N,E}	16	31	11									
			i _{E,Z}	16	31	29									Out and faint on G-W.
			M _{1Z}	16	32	15				73		5			
			M _{2Z}	16	33	03				312		8			
			M _{3Z}	16	33	25				136		6			
F	19	00													
1090	Nov. 1	Or	P _E	20	58	27							Very weak beginning.		

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No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			Δ	Remark	
				h.	m.	s.	A _N	A _E	A _Z	T _N	T _E	T _Z			
1935 Cont'd.			L	21	03	39									
			M	21	04	08	17				9				Probably A.F. of No. 1089.
			e _E	21	01	54		7			8				
			F	21	40										
1091	Nov. 3		i _E	16	46	26									
			L _N	16	50	24									
			M	16	51	42				9	8				
			F	17	15										
1092	Nov. 5		e _E	9	39	15									
			eS _{N,E}	9	45	21									
			L	9	51	0									
			F	10	20										
1093	Nov. 5	Ir	iP _N	21	03	05									
			iS _N	21	07	50									
			i _E	21	14	00									
			L _N	21	11	18									
			M _N	21	14	55									
			F	22	10										
1094	Nov. 6	Or	P _E	13	18	02									
			S _E	13	22	40									
			F	13	45										
1095	Nov. 6		eP	21	51	25									
			eS	21	55	57									
			F	22	40										

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No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			Δ	Remark
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z		
1096	1935 Nov. 7		e	10	30	53								Very Small.
1097	Nov. 10		e	19	30									USCGS: 16.7°N, 62.2°W. JSA: 18.0°N, 62.8°W.
			eL	19	39									
			M	19	46									
1098	Nov. 11	Ir	eP	13	20	00						(6, 40)	4910	
			S	13	26	40								
			I.	13	32	52								
			M	13	36	20				14	13			
			F	13	53									
1099	Nov. 12	Ir	P	21	35	00						(5, 33)	3765	Manila: In region of 4°N, 95°E.
			S	21	40	33								
			eSS _E	21	43	18								
			L ₁	21	45	36								
			L ₂	21	47	12								
			M	21	49	24	12			12	14			
			F	22	26									
1100	Nov. 14	Iu	iP	20	05	29						(6, 58)	5235	Up. Manila: 4.5°S, 137°E.
			iS	20	12	27								
			SS	20	16	10								
			L	20	18	50								
			M	20	21	50	24	5		25	24			
			F	21	00									
1101	Nov. 15	Ov	P	6	46	52						(1, 23)	808	Small.
			S?	6	48	15								
			F	6	55									

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				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z		
1102	1935 Nov. 16	Or	P	5	55	00					(4, 01)	2440	Disturbed by strong micro on G-W Felt in Samar & Leyte, P.I.	
			S?	5	59	01								
			L	5	01	35								
			F	6	40									
1103	Nov. 20		e	16	11	55						A slight tremor.		
1104	Nov. 21		i_N	8	49	51								
			i_N	8	51	28								
1105	Nov. 25		P_E	3	58	21					(2, 32)	1420		
			S_N	4	00	53								
			F	4	15									
1106	Nov. 25	IIr	P	10	08	56					(5, 34)	3790	Up. Manila: about $7^{\circ}N, 94^{\circ}E$. UGEGI: $10^{\circ}N, 92^{\circ}E$	
			PP	10	10	29								
			S_E	10	14	30								
			i	10	15	37								
			SR_2	10	17	14								
			L_E	10	19	0								
			L_N	10	19	8								
			M	10	25	11	880	170	110	14	12	12		
			F	11	50									
1107	Nov. 25	Or	eP_E	22	15	04					(4, 25)	2745		
			S_N	22	19	29								
			L_N	22	23	09								
			M	22	25	45								
1108	Nov. 26		eL	0	48	37						Very small.		

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No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			Δ	Remark
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z		
1109	1935 Nov. 26	Ir	P_N	18	40	12				(5, 40)	3880	Manila: $7^{\circ}N, 94^{\circ}E$.		
			S_N	18	45	52								
			eL_N	18	51	10								
			iL_N	18	51	54								
			M_N	18	54	00								
			F	20	00									
1110	Nov. 27	Or	e	9	16	21				(3, 52)	2330	Felt in southern part of Leyte and Samar.		
			S_E	9	20	13								
			M_E	9	23	.8								
			F	10	20			12						
1111	Nov. 27		eL	12	40	ca.								
1112	Nov. 29		iP	19	36	52						Other phases disturbed by micro.		
1113	Nov. 30	Or	$eP?$	3	34	27				(2, 45)	1555	F. continued by next.		
			S		37	12								
			L	3	37	46								
			M	3	38	29		6	8					
1114	Nov. 30		eL_E	4	54	.2					20	Initials disturbed in the coda.		
			M_E	5	00	00						USCGS: $10^{\circ}N, 80^{\circ}W$.		
			M_N	5	05	00			20			Felt in Panama.		
			F	6	00									
1115	Dec. 1	IIIr	P_E	23	47	10				(2, 13)	1210	About $27.5^{\circ}N, 130^{\circ}E$ Ryukyu Is.		
			i_E	23	48	00								
			i_N	23	48	22								
			eS	23	49	23								

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No.	Date	Char-acter	Phase	G.M.T.			Amplitude			Period			Δ	Remark
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z		
	1935 (Cont'd.)		iL	23	49	44								Faint and out on G-W.
			M _Z	23	50	26			21.2			4		Continued by next.
1116	Dec. 2	Or	P _E	0	07	47								A.F. of No. 1115.
			L _E	0	09	54								
1117	Dec. 2	Or	P?	0	27	00								A.F. of No. 1115.
			L _N	0	30	30								
1118	Dec. 2		L _N	0	45	45								P. inevident A.F.
1119	Dec. 2		iL _N	4	37	14								P. inevident A.F.
1120	Dec. 2	O	P?	5	13	03								
			L _N	5	15	09								
1121	Dec. 2	IIIr	P _E	16	44	47					(2, 01)	1100		Same epc. as No. 1115.
			i _E	16	45	50								2nd main shock.
			S _N	16	46	48								About 27.5°N, 130°E, Ryukyu Is.
			L	16	47	20								
			i	16	47	43								
			M _Z	16	48	00						6		
			M _{N,E}	16	48	24	37		6	7				Out on G-W N-comp.
			F	17	45									
1122	Dec. 2		L _N	18	02	05								A.F. of 1121.
1123	Dec. 3		eL	0	44	±								Ditto ?
1124	Dec. 3	Or	P _E	17	49	24					(4, 23)	2720		S 17h 53m 47s. Small.

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No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			Δ	Remark
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z		
1125	1935 Dec. 5	Iu	eP	18	02	46						(9, 28)	8045	
			eS	18	12	14								
			iSS _N	18	17	26								
			M	18	34	30				20	18			
			F	19	30									
1126	Dec. 7		e?	11	15	10								
1127	Dec. 8		e	5	20	16							Felt in southern Luzon.	
			eL	5	27	06								
1128	Dec. 11	Or	e	8	44	9						(2, 9)	1655	Small.
			S	8	47	8								
			M	8	50		8	37		11	12			
			F	9	35									
1129	Dec. 14	Iu	eP' _{Z,N}	1	49	59								Up. USCGS: 6°S, 74°W. West Brazil. JSA: 5.5°S, 73.3°W.
			i _{N,Z}	1	50	33								
			i _{N,Z}	1	54	09								
			e _N	1	58	09								
			e _N	2	12	05								
			i _E	2	13	02								
			F	3	15									
1130	Dec. 14	Ir	P	12	52	30						(3, 48)	2280	Marianas Islands?
			i	12	53	21								
			ipP	12	54	00								
			iS	12	56	18								
			sS	12	58	00								
			F	13	50									

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No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			Δ	Remark		
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z				
1131	1935 Dec. 14	Ilu	e	22	24	26								14°N, 94°W by USCGS. UGEGL: 20.5 N, 95°W. Gulf of Mexico.		
			iP'	22	26	04										
			i	22	27	37										
			PR ₂	22	31	40										
			iSKS	22	36	08										
			iPS _E	22	43	06										
			SR ₁	22	48	20										
			eSR ₂	22	52	36										
			SR ₃	22	56	28										
			iG	23	04	40										
			i _E	23	08	00						32				Beginning of M.
			M _E	23	10	00			22			32				
			M _N	23	18	06	13			26						
			M _{N,E}	23	26	40	11	15		24	18	18				
M _Z	23	32	30							18						
	Dec. 15		F	1	00											
1132	Dec. 15	Or	e	1	49	54								Felt in northern Luzon. Both are sharp phases on Wie.		
			e	1	50	28										
			eL _N	1	52	36										
			F	2	15											
1133	Dec. 15	IIIu	iP	7	17	44								Down. USCGS: 12°S, 162°E. Manila: 10°S, 162°30'E.		
			i _Z	7	18	53										
			iS	7	25	56										
			iPS _Z	7	26	25										
			iSR ₁	7	30	11										
			iSR ₂	7	32	30										
			L	7	35	30					17					
M _E	7	37	20			80				21						

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No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			Δ	Remark
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z		
	1935 (Cont'd.)		M_N	7	42	12	73			16				
			M_E	7	40	57		169			20			
			F	11	15									
1134	Dec. 15		e	19	23	19								Very small.
1135	Dec. 17		i	13	34									
1136	Dec. 17	IIIr	iP_N	19	20	13				(2, 13)	1210			Up. Chiufeng $23^{\circ}N, 127^{\circ}E$. $22^{\circ}N, 124^{\circ}E$ by Nanking, Taihoku, Manila. East off Taito and felt in northern Luzon. UGEGL: $22^{\circ}N, 126.5^{\circ}E$.
			S	19	22	26								
			L_N	19	23	06								
			L_E	19	23	09								
			i_Z	19	24	24					12			
			M_Z	19	26	57		388			11			
			F	21	55									
1137	Dec. 17	Or	eP	22	36	36				(2, 39)	1490			
			eS	22	39	15								
			I_E	22	39	43								
			F	23	15									
1138	Dec. 18		e	3	17									Trace.
1139	Dec. 18	IIr	P_E	7	13	50				(2, 31)	1410			Chiufeng: $27.5^{\circ}N, 102.5^{\circ}E$. Damage at Ma-pien, Lei-po and some landslides at Hwei-li, Szec- hwan. Felt area over a radius of 400km. About $28.3^{\circ}N, 103.8^{\circ}E$ by Nk, Chiu, Hk. M phases faint on G-W 馬邊，雷波災情慘重；會理山崩截流 ○川西川南均感震動○
			S	7	16	21								
			SR_I	7	16	50								
			L_N	7	17	13								
			i	7	17	55								
			$M_{E,Z}$	7	18	10								
			M_N	7	18	25								

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No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			Δ	Remark	
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z			
1140	1935 Dec. 18		eL	8	03	1								A.F. of No. 1139	
1141	Dec. 18	Ir	eP	8	07	53					(2, 44)	1545		„	
			eS	8	10	37									
			i	8	11	48									Beginning of M.
1142	Dec. 18	Or	eP _E	8	47	07								A.F. of No. 1139.	
			e	8	49	56									
			eL	8	51	05									
1143	Dec. 18		P	13	18	05					(3, 02)	1735		„	
			S	13	21	07									
			m	13	22	18									
1144	Dec. 18	Iir	iP	17	02	45					(2, 30)	1400		2nd main shock of No. 1139.	
			S _N	17	05	15								About 28.3°N, 103.8°E by Nk,	
			L	17	05	52								Chiu, Hk. Damage at Mapien,	
			i	17	06	40								Lei-po and some landslides at	
			M _{E,Z}	17	07	00		mm 72	408				3		Huei-li, Szechwan. Stronger
			M _N	17	06	13		mm 88							than No. 1139.
			M _{Z,2}	17	08	50			672				5		川西川南各縣，均感憾動。馬邊災震
F	18	00													
1145	Dec. 18		eP	21	11	09					(2, 57)	1680			
			eS?	21	14	06								May be earlier.	
			i	21	15	01								Beginning of M?	
			F	21	40										
1146	Dec. 19	Ov	P	8	39	29					(1, 16)	740		A small local shock.	
			iS	8	40	45									

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No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			Δ	Remark
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z		
1147	Dec. 19	Ir	P	9	46	15						(2, 55)	1660	A.F. of No. 1144.
			S	9	49	10								
			iL	9	50	11								
			i _E	9	51	41								
			M _{E,N}	9	52	15								
			F	10	15									
1148	Dec. 19	Ir	eP	13	29	55						(2, 55)	1660	A. F. of No. 1144.
			$\epsilon(S)$	13	32	50								
			eL	13	33	50								
			i	13	34	44								
			M	13	36	05								
			F	14	00									
1149	Dec. 19	O	e	23	42.5									
			M	23	44	30						12		
1150	Dec. 20	Ir	eP _E	0	02	55						(2, 47)	1580	No. 1149 & 1150 are similar. Chiufeng: 23°N. 127°E. A.F. of No. 1136.
			eS	0	05	42								
			M	0	07	50	8	10		12	12			
			F	0	40									
1151	Dec. 20		eP _E	5	50	57						(3, 55)	2365	Small.
			$\epsilon(S)_N$	5	54	52								
			M _E	5	59	57								
1152	Dec. 20	Ilu	iP	18	46	47						(7, 59)	6330	Up. Deep focus? Manila: I n region of 9°S, 159°E.
			iS	18	54	46								
			i _N	19	06	13								
			L	19	08	27								

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No.	Date	Char-acter	Phase	G.M.T.			Amplitude			Period			Δ	Remark
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z		
	1935 (Cont'd.)		M_N	19	12	26					20			
			M_E	19	14	27								
			F	20	40									
1153	Dec. 22	Ir	P	12	29	18					(4, 17)	2635	Str. ng micro.	
			iS	12	33	35								Felt in NE Mindanao & S Leyte.
1154	Dec. 23	Ir	eP	14	47	54 ?					(4, 56)	3190		Time correctin uncertain.
			S_N	14	52	50								
			eE	14	55	44								
			I_E	14	57	04								
			M	18	00	54					18	18		
			F	15	35									
1155	Dec. 23	Or	P	18	34	06 ?					(3, 01)	1720		"
			$\epsilon(S)$	18	37	07								
			$\epsilon(L)$	18	38	17								
			M	18	39	54				8	8			
			F	18	45									
1156	Dec. 24	Ou	eP	12	44	10								Very distant quake.
			$i_{N,S}$	12	44	46								
			eL _E	13	35	46						30		
			F	14	50									
1157	Dec. 28	IIIr	P	2	42	46					(6, 12)	4400		Southwest off Sumatra.
			iPP	2	44	26				20	18	18		G-W electric power broken.
			e _N	2	48	24								Batavia: 0,3°S, 97,9E,
			iS _E	2	48	58		1520			29			USCGS: 3°S, 97°E
			iS _{Z,N}	2	49	02	2590		2080	30		36		UGEGI: 0,5°S. 98,5°E

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No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			Δ	Remark
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z		
	1935 (Cont'd.)		$iS_{N,Z}$	2	51	47								
			$L_{1N,E}$	2	52	53								
			$L_{2N,Z}$	2	54	14				32	39			
			M_{1Z}	2	56	29			2620		28			
			e_N	2	57	47	1853			20				
			M_E	2	58	17		1720			17			
			M_2	3	00	18	1810	1540	1470	20	17	15		
			C_Z	3	34	44								Average period 12 sec.
			F	6	10									
1158	Dec. 29	Ir	iP_E	3	35	45					(3, 36)	2135		Probably Burma.
			eS	3	39	21								
			L	3	41	41								
			M	3	42	56				6	7			F.continued by next
1159	Dec. 29		eL	4	01	29								
			M_E	4	04	41					14			
			M_N	4	05	51					13			
			F	4	35									
1160	Dec. 29	IIr	iP_N	23	44	27						(5, 40)	3890	Down. Deep focus type.
			S	23	50	07								Epc. western New Guinea.
			e_E	23	50	58								
1161	Dec. 30		$e(S)_N$	4	28	10								
			$i_{N,E}$	4	31	26								
			L_E	4	32	38								
			M	4	36	24					12			
1162	Dec. 31	Ir	P?	1	38	30						(4, 14)	2600	
			S_N	1	42	44								
			eL	1	51	00								
			L_{2E}	1	53	56						16		
			M_N	1	56	16	5			16				
			M_E	1	57	02		6			15			

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The National Research Institute of Meteorology acknowledges with thanks the receipt of the following seismological publications and bulletins from December 1st '35 to February 28th 1936.

Stations	Bulletins & Publications.
Adelaide	January to June, 1932
Batavia	July to September, 1935.
Berkeley, etc.	April to September, 1933.
Cane Town	September to November, 1935.
Cartuja (Granada)	Abril to Julio, 1935.
Chiufeng	Ngv. Dec. '35; Jan. Feb. 1936.
Copenhagen	Nos. 29, 30 Jan.-June, '34
Dublin	September to December, '35.
Firenze	Telegrammi Sismologici Luglio-Dicembre, '34. Bollettino " " Luglio-Dicembre, '34.
Geogre Town	May, 1935.
Graz	30 Juin bis 31 Dez. '35.
Hamburg	9 Okt. bis 31 Dez. '35.
Harvard	Bul. No. 3 July to Dec '34; No. 4 Jan. to Jun. 1935. Two reprints.
Helwan	June to November, '35.
Hong Kong	Prel. Nov. Dec. Jan. '36.
Ivicut	Bulletin Oct. Nov. Dec., '35.
U. S. A.	For the year 1932.
Kew	Prel. pp. 33-39, Oct. 18-Dec. 14 '35.
Königsberg	Oct. Nov. Dec., '35.
Korea	Bul. Nr. 23 Jahr. '32; Nr. 24 Jan. bis Apr. '35.
La Plata	Provisional Oct. Nov. Dec., '35.
Leipzig	Setiembre, Octubre, 1935.
Manila	Jan. 1 to April 20, 1935.
Melbourne	Oct. Nov. Dec., 1935.
Nagasaki	July to September, '35.
Ootari	January to October, '35.
Ottawa	For the year 1934.
Pare Saint Maur	Sept. Oct. Nov. Dec., '35.
Pasadena	Bibliography Vol. 12 Nos 6 & 7, Apr.-Sept. '35.
Perth	Oct. Nov. Dec. '35 Jan. '36.
Phu Lien	Oct. Nov. Dec., '35.
Prague	July 16 to Dec. 16, '35.
Riverview	Mai, Juin Juillet Aout, '35.
San Fernando	Avril - Juin, Juillet - Septembre, '35.
Strasbourg	November, December, '35.
Tahiti	September and October, '35.
Tansenriva	Sept. Oct. Nov. Dec. '35.
Tiflis	Aug. Nov. Dec. '35.
Tokyo, T.R.I.	Mai, Juin, Juillet, '35.
Toledo	Bulletin for the year 1928.
Uccle	Report 1935 part 2 Apr. to June.
Washington	1er Trimester de 1935.
" & Christchurch	1 Juin - 23 Sept. '35.
Wien	Prel. Oct. Nov. '35.
Zikawei	Prel. Oct. Nov. '35.
Zinzen	Apr. bis Juli, Dez. '35.
Zurich	18 Juin au 14 Nov. '35.
	July to 18 Oct. '35.
	Erdbebenbulletin Nos. 65-67, Okt-Dez. '35.