國立中央研究院氣象研究所

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符號凡列

1. 地震之性質

I. 可辨別　II. 稍强　III. 强

d. 局部地震　(震源在一百粁以內)

v. 近地地震　(震源在一千粁以內)

r. 遠地地震　(震源在五千粁以內)

u. 極遠地震　(震源在五千粁之外)

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 變轉波卽縱波(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(以秒爲單位)

A 實際上地面震動之半震幅(以μ千分之一粍,爲單位)

△ 震央距離(以粁爲單位)

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.
PRn	Waves n times reflected at the earth's surface.
S (undae secundae)	Second phase, or second preliminary tremors (transverse).
SRn	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:

$\overline{ScPcS}$	Waves which have penetrated the core, having been tranverse before entering and after leaving the core, and longitudinal within the core.
$\overline{PcPcPcP}$	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.
$W_2.W_3.W_4$...	The maximum waves coming again to the station after circumscribing the earth once, twice, etc.
C (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_o	$\in$	r
Wiechert 17,000 kg.	N	1630	1.44	1.1	0.59
	E	1290	1.46	1.5	0.25
Wiechert 1,300 kg.	Z	164	3.98	3.1	0.79

2. Galvanometric Photographic Registration.

Constants of Galitzin-Wiip.

Component	Galvanometer Free Period T_1	Pendulum Free Period T	Damping Constant u	Transmision Factor k	Synchronous Magnification $\frac{kAT}{4\pi 1}$
N-S	9.93	9.48	+0.40	214	1980
E-W	10.89	9.68	—0.03	131	1252

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$\varnothing = 32°03'11''N$ $\lambda = 118°46'55''E$ h = 60m. Underground: Conglomerate

No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Geriod T_N	T_E	T_Z	△	Remarks
1411	1936 Jul. 1		e_E	8	45	24								e_E may be earlier, Yellow Sea.
			e_E	8	47	10								Zinsen: 123.3°E, 38.0°N. Felt at Dairen (I)
1412	Jul. 1		e_E	16	58	26								
			e(L)	17	03.	5								
1413	Jul. 3	Iu	P_N	3	08	41					(8,	02)	6380	
			S_N	3	16	43								
			L_N	3	27	25								
			F	4	25									
1414	Jul. 3	O	e	21	04	18								Very weak.
			L	21	06	38								Zinsen: 127°39'E, 35°14'N. Korea.
			F	21	35									
1415	Jul. 4	Ir	P	9	03	40					(5,	10)	3400	
			eS	9	08	50								
			F	9	40									
1416	Jul. 5	Or	eP_E	14	39	30?					(5,	02)	3280	Time correction uncertain.
			S	14	44	32								
			M	15	00	42				16	17			
1417	Jul. 5	IIr	iP	19	00	54?					(4,	36)	2800	Up. Felt in SE Mindanao and Palau.
			S_N	19	05	30								Manila: 3°20'N, 126°20'E.
			i_E	19	05	46								Deeper than normal.
			$i_{N,E}$	19	12	16								
			F	21	12									
1418	Jul. 5		eL	22	37	+								Trace.

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No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
1419	1936 Jul. 6	Or	eP	2	00	36					(4,	44)	3010	A.F. of No. 1417.
			eS_E	2	05	20								
			$e(S)_N$	2	05	40								
			F	2	40									
1420	Jul. 6		eP	18	27	59					(5,	23)	3610	Manila: approx. 1°S, 127°E.
			S	18	33	22								
			e	18	35	52								
1421	Jul. 7		eL	8	04	39								Trace.
1422	Jul. 8		e_E	19	57	36								
			eL	20	01.	9								
1423	Jul. 9		e(P)	15	53	57								
			eS	15	54	48								
1424	Jul. 9		e	17	01	57								Yellow Sea. A F. of No. 1411.
			$e(S)_E$	17	03	33								Zinsen: 123.3°E, 38.2°N.
			$e(S)_N$	17	03	41								
			F	17	20									
1425	Jul. 10	Or	P	19	38	20					(4,	40)	2955	
			S	19	43	00								
			F	20	10									
1426	Jul. 12	Ou	eP	2	54	38					(10,	25)	9320	
			S	3	05	03								
			F	3	32									

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1427	1936 Jul. 13	IIu	e_{WIE}	11	32	34							167°	USCGS: 24°S, 72°W
			$P'_{N,E}$	11	32	43								Destructive at Tatal, Chile.
			P'_2	11	33	54								
			PR_1	11	37	30								N-S comp. light faint.
			SKS	11	39	24								
			$PR_{2Z,E}$	11	40	52								
			SKKS	11	44	43								
			$i_{N,E}$	11	45	37								
			$i_{E,Z}$	11	56	21								Conspicuous on Z.
			SR_1	11	58	23								
			SR_2	12	05	32								
			$i(SR_3)$	12	10	32								
			iL	12	29	30					50			
			L_Z	12	31	12						30		
			M	12	35	10	137	232	386	28	28	24		
			F	14	40									
1428	Jul. 15	Or	eP	1	58	16								Japan CMO: 141.3°E, 36.5°N
			e(S)	2	03	11								Kashima Nada.
			eL	2	06	28					(8, 12)			
			M_N	2	08	26				12				
1429	Jul. 15		eP	11	54	57								Records look like No. 1428
			e	11	59	33								
			eL	12	02	00								
1430	Jul. 16		eL_E	7	55.	3								JSA: 46° 0N 118.1°W, Walla Walla.
1431	Jul. 16		P	11	34	50								
			e(S)	11	36	32								

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No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
1432	1936 Jul. 20	IIv	P_E	23	56	18							860	Wie N-comp. dislocated after L.
			P_N	23	56	22								Felt moderately in Sintiku, Formosa.
			e(S)	23	57	50								
			$L_{N,Z}$	23	58	26								Taihoku: 24.4°N, 120 8°E.
			$L_{E,WIE}$	23	58	34								
			F	0	10									
1433	Jul. 23		P	6	15	43					(0,	36)	360	Rather small but definite.
			S	6	16	19								
			F	6	17.	5								
1434	Jul. 23	Or	P_{WIE}	7	09	47								East off Hatizyo island.
			e_N	7	14	17								
			eL	7	17	20								There may be another shock at 7 h 52 m,
			F	8	10									
1435	Jul. 26	Ou	P'_N	7	57	06							(167°)	USCGS: 24°S 72°W.
			P'_2	7	58	10								
			ePR_1	8	01	56								
			SR_1	8	22	52								
			L	8	57	±								
			F	9	45									
1436	Jul. 27		e	20	09	02								No other phases.
1437	Jul. 28	Ir	P	5	26	20					(6,	30)	4735	New Guinea?
			iS	5	32	50								
			L	5	40	00								
			M_N	5	49	21	3			14				
			F	6	50									

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No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Geriod T_N	T_E	T_Z	△	Remarks
	1936													
1438	Jul. 28	Ir	P	8	00	36					(6,	22)	4580	Same epc. as No. 1437.
			S	8	06	58								
			L	8	14.	2								
1439	Jul. 29		e	7	46	38								
1440	Jul. 29		e	8	47	00								
1441	Jul. 29		e	9	35	18								
1442	Jul. 31		M_N	11	32	12				10				
1443	Aug. 1	IIr	P_E	6	26	46							1400	甘肅天水西和災震,以鹽關鎮及羅家
			S_E	6	29	41								堡爲最烈。隴東一帶,均有感覺。
			$L_{E,Z}$	6	30	03			From Wiechert.					Destructive at Tien-sui & Si-ho,
			F	6	50									Kansu. 34.5°N, 106°E by NK,
														Chiu, Mla.
1444	Aug. 3	Ov	iP_{WIE}	10	10	07	—	+	—		(1,	27)	850	24.5°N, 123.5°E.
			eS	10	11	34								
			F	10	30									
1445	Aug. 4	Ir	P_N	14	12	46					(3,	02)	1735	Manila: 19°10'N, 120°30'E.
			eS	14	15	48								
			iL	14	18	18								
			M_{1N}	14	20	17	10			12				
			M_{2N}	14	31	26	18			12				F 15 h 10 m.
1446	Aug. 9	Or	e_N	16	10	54					(2,	47)	1580	Manila: 19°N, 119°10'E.
			S	16	13	41								
			iL	16	16	14								F 17 h 10 m.

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1447	1936 Aug.13	IIr	iP	20	07	57					(4,	19)	2660	Azi. NNW up.
			iS_E	20	12	16								Manila: 8°N, 127°E, Mindanao.
			iS_N	20	12	21								
			L_E	20	15	02								
			L_N	20	15	20								
			M_{1N}	20	17	46						18		
			M_{2N}	20	19	08								
			M_{3N}	20	20	46	27			13				
			F	22	50									
1448	Aug.14		e	12	06	05								Small,
			eS_N?	12	08	02								Near Formosa.
			L	12	08	20								
1449	Aug.14		e	20	10	02								
			e	20	10	54								
1450	Aug.14	Ir	iP	22	40	06					(4,	25)	2735	Felt in Mindanao.
			iS	22	44	30								Azi. NNW up.
			$e(L)_E$	22	46	50								
			M	22	51	14				14	10			
			F	23	50									
1451	Aug.15		e	16	13	13								Trace.
1452	Aug.16		e	8	21	32								
			iL_N	8	23	08								
			M	8	23	52				8	8			
1453	Aug.17	Iu	eP	14	09	03					(7,	21)	5645	From Wiechert.

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No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Geriod T_N	T_E	T_Z	△	Remarks
	1936 (cont'd.)		iS_E	14	16	24								
			S_N	14	16	28								
			eL	14	23	51								
			M_N	14	29	17	9			18				
			M_E	14	32	55		7			20			
			F	14	45									
1454	Aug.17	Or	eP	17	59	54					(4,	25)	2745	
			iS	18	04	19								
			e(M)	18	10	08								Beginning of M.
			F	18	40									
1455	Aug.18	Or	eP_{WIE}	13	18	01					(4,	04)	2480	
			eS	13	22	05								
			L	13	24	18								
			F	21	50									
1456	Aug.22	IIIr	P	6	54	01					(2,	04)	1110	Damage at Kochun, Formosa and
			S	6	56	05								felt as far as Amoy & Hongkong.
			L_Z	6	56	29								After S out of scale.
			M	6	57	30			282			4		Taihoku: 22.2°N, 121.2°E.
			F	10	50									
1457	Aug.22	Ir	P	11	11	50					(2,	20)	1290	A. F. of No. 1456.
			S	11	14	10								
			L	11	14	48								
			M	11	15	07								F 12h 0m.
1458	Aug.23	O	e?	19	51	03								
			eL	19	56	39								e(S) 19h 54m 45s.

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No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Geriod T_N	T_E	T_Z	△	Remarks
1466	1936 Sept. 2		eP	2	46	03								Small.
			eS	2	47	45								
1467	Sept. 2	Or	eP_{WIE}	9	21	33					(4,	40)	2955	
			iS	9	26	13								
			F	9	50									
1468	Sept. 4	IIr	P_E	8	14	07					(4,	06)	2500	
			$i_{E.N}$	8	14	29								
			eS	8	18	13								
			eL	8	21	29								
			M_{1N}	8	23	57	22			14				
			M_{2N}	8	25	15	21			13				
			F	9	50									
1469	Sept. 5		e	21	50	08					(3,	12)	1845	
			e	21	51	19								
			S	21	53	20								
			F	22	25									
1470	Sept. 6		e_N	18	01	15								Trace.
1471	Sept. 7		eP	12	36	51								Small
1472	Sept. 8	Ov	P_E	14	17	41					(1,	37)	950	
			eS	14	19	18								i_N 14h 20m 26s.
			F	14	32									
1473	Sept.12		eL	11	04.	9								
			F	11	20									

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1474	1936 Sept.12	IIv	eP_N	18	00	55					(1,	36)	940	Taihoku: 24.°4N, 120.8°E.
			eS_N	18	02	31								Felt widely in Formosa.
			$i_{N,E}$	18	02	56								
			L	18	03	08								
			M_E	18	04	00		MM. 72						
			M_N	18	04	20	MM. 82							
			F	18	50									
1475	Sept.19	IIIr	iP	1	09	±	Time marks failed.						3680	P-S=5m 27s. Strong Malaya
			iS	1	14.	4								Quake. Batavia: 3.6°N, 97.3°E.
1476	Sept.19	IIr	P	6	37	17					(5,	29)	3700	A. F. of the former, No. 1475.
			iS	6	42	46								
			L_1	6	47	15								
			L_2	6	48	55								
			M_1	6	51	50	31	81		12	51			
			M_2	6	53	25		31			10			
			M_3	6	54	29	31	46		12	14			
			F	8	10									
1477	Sept.24		eP	8	40	21								
			eL	8	47	13								
			F	9	12									
1478	Sept.24		L	14	19	09								
			M	14	21	00				10	12			
1479	Sept.24		L	14	52	09								Similar to No. 1478.
			M	14	54	58				10	12			
			F	15	02									

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1480	1936 Sept.24		M	15	41	20								
1481	Sept.24	Ir	P_E	20	55	10					(2,	41)	1510	四川江安自流井一帶地震.
			eS	20	58	00								Shaking several cities around
			L	20	59	27								Kiang-an and Tse-liu-tsin,
			M_N	21	00	52	8			6				Szechwan.
			M_E	21	01	30		13			6			
			F	21	30									
1482	Sept.25		eP	6	20	17								Very small.
			e_N	6	21	30								
1483	Sept,25	Iu	eP?	13	06	26								Disturbed by micro.
			S	13	16	39								USCGS: 43.5°N, 128 2°W.
			L	13	30	03								H=12: 53: 06
			F	14	45									
1484	Sept.26		e	6	45.	7								Trace.
1485	Sept.27		M	13	16.	1								Small.

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The National Research Institute of Meteorology acknowledges with thanks the receipt of the following seismological publications and bulletins from September 1 to November 30, 1936.

Stations	Bulletins & Publications.
Adelaide	July to Dec., '35; Jan. to Dec. '33.
Apia	July to September, '36.
Batavia	April to June, '36.
Capetown	July and August, '36.
Chinfeng	August to October, '36.
Denver	Feb. 22 - Dec. 19, '35.
Dublin	April to June, '36.
Florissant	April and May, '36.
George Town	Seism. Depatches April thru June, '36.
Graz	Jan. - Mar., '33.
Hamburg	Vom Juin 1 bis Sept. 20, '36.
Hollwam	July, 1936.
Hong Kong	July to September, '36.
Hukuoka	Vol. 3 No. 1, Jan. to June, '36.
J. S. A.	Prel. pp. 111-118, June to Aug., '36.
Karlsruhe	1 Halbjahr, Jan. - Juni, '36.
Kew	June to September, 1936.
Ksara	Juillet et Aout, 1936.
La Plata	Mayo & Junio, 1935
Lemberg	Vom 21 April bis 4 Sept., '35.
Leningrad	Avril au Decembre, 1935.
Little Rock	Oct. - Dec., '35; Jan. - May, '36.
Manila	July to September, 1936.
Melbourne	Apr. - June, July - Sep., 1936.
Ottawa	July to September, '36.
	Bibliography of Seismology, Oct.-Dec., 1936; January to March, 1936.
Pare St. Maur	Aout, Septembre, 1936.
Pasadena	May to August, 1936.
Perth	May 5 to September 18, 1936.
Phulien	Janvier au Mai, 1936
Riverview	July, August, September, 1936.
Saint Louis	Nov. & Dec., '35; Jan.-May, 1936.
San Fernando	Mayo - Agosto, 1936.
Strassbourg	Du Juillet au Septembre, '36.
Taihoku	July to October, 1936.
Uccle	Du 16 Mai au 30 Juni, '36.
Wellington	May to Aug., '36; Jan. - Mar., '35.
	Seismological Reports Jul. - Dec., '34.
	2 reprinted papers by Dr. Hayes.
Wien	Vom 3 April bis 26 Juli, 1935.
Zikawei	Nos 5-11, du 1 Avril au 22 Aout, '36.
Zinsen	April to August, 1936.
Zurich	Vom August bis Oktober, 1936.

國立中央研究院氣象研究所

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ACADEMIA SINICA

PEICHIKO, NANKING, CHINA.

符號凡例

1. 地震之性質

I.	可辨別	II. 稍强	III. 强
d.	局部地震	(震源在一百粁以內)	
v.	近地地震	(震源在一千粁以內)	
r.	遠地地震	(震源在五千粁以內)	
u.	極遠地震	(震源在五千粁之外)	

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	變轉波卽縱波(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(以秒爲單位)
A	實際上地面震動之半震幅(以㎜,千分之一粍,爲單位)
△	震央距離(以粁爲單位)

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.
PRn	Waves n times reflected at the earth's surface.
S (undae secundae)	Second phase, or second preliminary tremors (transverse).
SRn	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;

$\overline{ScPcS}$	Waves which have penetrated the core, having been tranverse before entering and after leaving the core, and longitudinal within the core.
$\overline{PcPcPcP}$	Waves refracted at the core boundary into the core, reflected once at this boundary while within the core and again refracted out 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.
W_2. W_3. W_4....	The maximum waves coming again to the station after circumscribing the earth once, twice, etc.
C (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	$\in$	r
Wiechert 17,000 kg.	N	1630	1.44	1.1	0.59
	E	1290	1.46	1.5	0.25
Wiechert 1,300 kg.	Z	164	3.98	3.1	0.79

2. Galvanometric Photographic Registration.

Constants of Galitzin-Wilip.

Component	Galvanometer Free Period T_1	Pendulum Free Period T	Damping Constant $\frac{2}{\mu\nu}$	Transmision Factor k	Synchronous Magnification $\frac{kAT}{4\pi I}$
N-S	9.93	9.48	+0.40	214	1980
E-W	10.89	9.68	−0.03	131	1252

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ϕ=32°03'11"N λ=118°46'55"E h=60m. Underground: Conglomerate.

No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
	1935													
1486	Oct. 2		e	12	45	37								Trace only.
1487	Oct. 3		e	3	50	48								Trace only.
1488	Oct. 3		eP?	20	06	21					(0,	36)	360	A near shock.
			S	20	06	57								
			F	20	10									
1489	Oct. 3	IIr	iP_N	21	56	27					(5,	05)	3320	Phulien: 2°N, 124°E Celebes Sea.
			ePP_N	21	57	30								
			iS	22	01	32								S group very large.
			SS	22	03	20								
			L?	22	05	42								
			M_E	22	10	12		23			18			
			M_N	22	10	48	34			15				
			F	23	45									
1490	Oct. 4		e	9	59	14								
1491	Oct. 5	Iu	P_E	0	03	19					(10	20)	9200	
			ePP	0	10	05								
			S	0	16	39								
			SS	0	21	55								
			e	0	23	00								
			eL	0	32	3								
			M	0	39	15					21			
				1	30									
1492	Oct. 5	Ir	P	6	13	46					(4,	12)	2580	Manila: 9°20'N, 122°E.
			iS	6	17	58								

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ø=32°03'11"N 入=118°46'55"E h=60.m. Underground: Conglomerate.

No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
	1936 (cont'd.)		i_E	6	18	58								
			eL	6	21	32								Overlapped by next.
1493	Oct. 5	Or	e_E	7	14	44					(4,	26)	2755	
			eS	7	19	10								
			eL	7	22	48								
			F	7	55									
1494	Oct. 5	IIr	iP_N	9	50	40					u	p	3150	USCGS 1°N, 127°E, Celebes.
			iS_N	9	55	34					(4,	54)		JSA 3°N, 123.4°E, h=100km.
			e_N	9	57	31								
			e_E	9	58	30								After S, data from Wiechert.
			eL_Z	10	00	06								
			M	10	02	54				24		22		
			F	12	15									
1495	Oct. 7		$e(P)_E$	3	03	46							(1335)	Small.
			e(S)	3	06	10								
			L	3	06	30								
1496	Oct. 8		e	6	26	02								Trace only.
1497	Oct. 9		e	4	05	04								Very small.
			eL	4	06	14								
1498	Oct. 9		e	6	44	36								Similar to above.
			eL_E	6	45	38								
1499	Oct. 9		eP	17	49	06								
			e	17	52	50								

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No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
1500	1936 Oct. 10	Ir	eP_N	3	13	45					(4,	45)	3020	Felt at Davao, P.I.
			S	3	18	30								L not significant.
			F	4	20									
1501	Oct. 11		eP?	13	39	04					(0,	24)	242	
			iS	13	39	23								
			F	13	40	.5								
1502	Oct. 13	O	P_{WIE}	6	38	50								Other phases disturbed by micros.
1503	Oct. 16	Iu	iP	12	05	22	?				(7,	01)	5290	Solomon Islands.
			iS	12	12	23								
			L	12	17	.4								
			F	13	05									
1504	Oct. 18	Iu	P	16	35	18					(7,	55)	6250	Strong microseisms.
			eS_E	16	43	13								
			SS?	16	44	24								
1505	Oct. 19	IIr	iP	12	11	13					(5,	23)	3690	Down.
			iS	12	16	41								In Maluco.
			L	12	22	20								
			F	13	15									
1506	Oct. 19		iP	19	59	03								Other phases not discernible.
			F	20	04									
1507	Oct. 21	Or	e(P)	5	42	56								
			eL_E	5	48	39								
			L_N	5	49	10								

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φ=32°03'11"N λ=118°16'55"E h=60.n. Underground: Conglomerate.

No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
	1936 (cont'd)		M	5	52	28	6	3		10	11			
			F	6	15									
1508	Oct. 22		e	10	14	10								
			eL	10	24	33								
1509	Oct. 22		eL	22	20	.1								
1510	Oct. 23	IIu	eP	6	34	43					(8, 44)		7120	Felt at Alaska.
			$i_{N.E}$	6	34	54								USCGS. 61.1°N, 149.2°W.
			PR_{1E}	6	37	16								JSA: 60.8°N, 149.4°W.
			PR_2	6	38	52								UGEGI: 61°N, 145°W.
			S	6	43	27								Preceded by e: 43'38"
			SR_{1E}	6	48	16								
			$i_{N.E}$	6	49	04								
			SR_{2E}	6	50	28								
			SR_{3E}	6	52	28								
			L_{1E}	6	56	10								
			iL_2	6	57	13								
			M_{1E}	7	03	32		35			15			
			M_{1N}	7	04	18	22			19				
			M_{2E}	7	06	12		40			16			
			M_{2E}	7	06	25	14			15				
			F	8	50									
1511	Oct. 24	Or	eP_E	16	07	07					(3, 46)		2255?	
			S?	16	10	53								
			M_N	16	18	27				10				
			M_E	16	19	12					11			
			F	17	10									

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No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
	1936													
1512	Oct. 25		eP_E	5	02	55								
			e_E	5	06	30								
			eL_E	5	09	.9								
			F	5	25									
1513	Oct. 25	Or	P_E	15	34	30					(3,	52)	(2335)	Probably deep.
			$e(S)_E$	15	38	22								
			e_N	15	39	04								
			F	15	59									
15 4	Oct. 26		eP_E	9	10	23								
			eL	9	13	.9								
			F	9	25									
1515	Oct. 26	Or	iP_E	9	36	44					(3,	02)	1735	
			S_N	9	39	43								
			L_N	9	41	.0								Overlapped by next.
1516	Oct. 26	Or	P	10	05	07								
			eL	10	08	14								
			M	10	10	16	5			11				
			F	10	25									
1517	Oct. 26	IIr	P	19	40	42					(4,	08)	2520	Phulien: 2°N, 98°E.
			S	19	44	50								
			L_1	19	47	27								
			L_2	19	48	41								
			M_1	19	54	29	22	46		11	13			
			M_{2N}	19	56	18	17			10				
			M_{3N}	19	57	09	23			12				F: 21h 0 m.

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No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
1518	1936 Oct. 26	O	e_N	23	26	23								May be two quakes mixed up.
			i_N	23	30	32								UGE3I: 72°N, 6°W, Atlantic.
			e_N	23	34	06								Felt at Jan Mayen.
			iL_E	23	41	06								
			F	0	25									
1519	Oct. 28		eP_{WIE}	13	54	09								Small.
			eL	13	56	32								
			F	13	59									
1520	Oct. 29		e	6	16	24								
			eL	6	58	.2								
			M_E	7	09	30					20			
			M_N	7	11	10				20				
			F	7	45									
1521	Oct. 29	IIr	iP_E	18	45	01					(5,	03)	3300	Phullen: Near 12°N, 145°E
			iP_N	18	45	03								Mariana Is.
			PR_1	18	45	58								
			PR_2	18	46	26								
			S	18	50	04								
			SR_{IE}	18	51	18								
			SR_{IN}	18	51	26								
			$L_{N,E}$	18	53	.0								
			M_{IE}	18	56	11		17			11			
			M_{IN}	18	58	18	21			13				
			M_{2N}	18	58	30	22			11				
			M_{2E}	18	58	48		25			14			
			M_{3N}	19	01	36								
			F	21	10									

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No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
1522	1936 Oct. 30	Or	eP_N	11	47	34					(4,01)		2440	Felt at Davao, P. I.
			$S_{E,N}$	11	51	35								
			F	12	08									
1523	Oct. 30	Or	$e(P)_E$	17	20	39					(4,57)		3200	
			S	17	25	36								
			eL	17	28	.4								
			F	17	55									
1524	Oct. 31		e	15	24	00								
			eL	15	44	.0								
1525	Nov. 1		e	17	23	56								
			eL	17	46	±								
			F	18	20									
1526	Nov. 1	Od	P	18	00	34					(1,15)		730	Small near shock.
			S	18	01	49								
			F	18	04									
1527	Nov. 1		e	23	09	35								Trace only.
1528	Nov. 2	IIIr	iP	15	04	07					(5,02)		3280	Near 57°N, 152.5° E, Kurile Is.
			PR_2	15	05	13								by Nk, Chiu, Mla, & Hkg.
			iS	15	09	09					10			UGEGI: 50° N, 156° E.
			i	15	09	51								
			SR_1	15	10	30								
			i	15	11	55								
			L_E	15	12	25					12			
			L_N	15	13	07				16				

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No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
	1936 (cont'd)		M_{1N}	15	16	43	114			16				
			M_{1E}	15	17	33		119			16			
			M_{2N}	15	17	51	100			14				
			M_{2E}	15	19	34		110			14			
			M_{3N}	15	19	58	mm 101			–				
			M_Z	15	17	30			149			15		
			F	21	35									
1529	Nov. 2	IIIr	iP	20	50	26					(3,	54)	2355	Strongly felt at Fukuzima, and damages at Miyako, Japan. Japan CMO. 38.4N, 142.0°E. USCGS: 37.5°N, 142.0°E.
			PP	20	50	45								
			iS	20	54	20								
			i_Z	20	56	05								
			L	20	56	40								
			$M_{Z,E}$	20	58	26		1060	2100		17	18		
			M_N	20	58	52	1149			15				
			F	0	40									
1530	Nov. 3	Ir	eP_N	4	50	23					(5,	29)	3170	
			PP_N	4	51	38								
			$S_{N,E}$	4	55	52								
			L_E	5	01	.4								
			L_N	5	01	.7								
			M_E	5	03	44		8			16			
			M_N	5	05	03	7			16				
			M_{E2}	5	06	54		5			13			
			F	6	54									
1531	Nov. 3		eL	20	23	.0								
1532	Nov. 4		eL	2	17	.4								

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No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
1533	1936 Nov. 4	Or	eP	7	32	00					(6,	08)	4380	
			eS	7	38	08								
			$e(L)_E$	7	43	.1								
			i_E	7	46	54								
			M_N	7	50	27	5			16				
			F	8	30									
1534	Nov. 4		eL	9	31	.1								
1535	Nov. 4	Ir	P_N	13	52	23					(5,	56)		Deep focus.
			$S_{N,E}$	13	58	19								
			F	14	35									
1536	Nov. 5	Or	eP_E	7	42	00					(4,	12)	(2580)	
			$e(S)_N$	7	43	12								
			F	7	35									
1537	Nov. 6		e_E	12	24	26								
			M_E	12	27	02					14			
			M_N	12	27	40				14				
1538	Nov. 7		eP_E	22	26	31								Very small near shock.
			e_E	22	27	31								
			F	22	31									
1539	Nov. 9	Or	eP_E	6	10	50					(2,	43)	(1535)	
			$e(S)_E$	6	13	33								
			eL	6	14	34								
			M_E	6	15	54		12			14			
			F	6	30									

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No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
1540	1936 Nov. 10		eL	13	01	36								
			M_{IN}	13	04	29				24				
			M_2	13	07	08				13	16			
1541	Nov. 11		eL	1	00	57								
			M	1	04	17				14				
1542	Nov. 11		e	15	13	25							320	Weak beginning.
			eS	15	13	57								Very small near shock.
			F	15	16									
1543	Nov. 11		eL	17	33	08								Trace only.
1544	Nov. 12	Ir	$e(P)_E$	2	21	42					(4,	56)	3190	
			S_E	2	26	38								
			eSS	2	28	23								
			e_E	2	28	57								
			eL	2	29	55								
			M_E	2	31	20		13			16			
			M_N	2	31	26	10			15				
1545	Nov. 12	Ir	eP	8	35	28					(4,	16)	2620	Felt in Guam.
			iS	8	39	44								
			sS	8	41	17								
			eL?	8	42	40								
			M_N	8	47	43	6			12				
			F	9	45									
1546	Nov. 12	Ir	eP	20	10	14					(4,	22)		Deep.
			iS	20	14	36								Japan CMO: 45°N, 149°E.

N. B. "New Travel Time Tables, 1933" published by Rev. Fr. J. B. Macelwane is now being used.

Quarterly Seismological Bulletin of the Institue of Meteorology

ϕ=32°03'11"N λ=118°46'55"E h=60m. Underground: Conglomerate.

No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
1547	1936 Nov. 13		M	0	08	00								
1548	Nov. 13	Od	P	11	06	44					(0,	25)	250	
			eS	11	07	09								
			F	11	09									
1549	Nov. 13	IIIr	iP	12	38	53					(5,	47)	4000	USCGS: 57°N, 163°E H=12:31:30
			PP	12	40	34								JSA: 56.7°N, 162.3°E
			S_E	12	44	30								UGEGI: 56°N, 165°E.
			$S_{N,WIE}$	12	44	40								Data from Wiechert.
			iL_1	12	48	18								
			L_2	12	52	00								
			i_Z	12	53	43								Beginning of M.
			M_E	12	58	38		538			13			
			$M_{N,Z}$	12	59	04	471		323	13		13		
			F	16	10									
1550	Nov. 14	Ir	eP_E	1	02	37					(4,	00)	2420	Japan CMO; 38.1°N, 142.5°E
			eS_N	1	06	37								
			eL_N	1	10	03								
			M	1	12	31				12	14			F overlapped by next.
1551	Nov. 14		M	1	31	57								Initials buried in No. 1550
1552	Nov. 14		eL	5	03	.4								
1553	Nov. 14		e(S?)	9	46	23								
			eL	9	50	.0								
1554	Nov. 14		e(P?)	10	44	47								S: 10h 45m 33s.

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Quarterly Seismological Buetin of the Institute of Meteorlogy

ϕ=32°03'11"N λ=118°46'55"E h=60m. Underground: Conglomerate.

No.	Date	Char-acter	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
	1936													
1555	Nov. 14	Ir	e(S?)	14	46	54								
			eL	14	50	46								Similar to No. 1553.
			M_{1N}	14	56	56				14				
			M_{2N}	14	58	34				12				
			F	15	40									
1556	Nov. 14	Ir	e(S?)	19	45	40								Similar to Nos. 1555 & 1553.
			eL	19	49	40								
			M_{1N}	19	55	32				16				
			M_{2N}	19	57	17				13				
			F	20	30									
1557	Nov. 15	Or	P	22	01	40					(9, 22)			Deep focus type.
			S	22	11	02								Continued by next.
1558	Nov. 15	Ir	P	22	28	47					(6, 18)		4510	53°N, 170°E by chiufeng.
			S	22	35	05								
			L_N?	22	40	4								
			M_1	22	48	09					14			
			M_2	22	52	08					14			
			M_N	23	52	39				14				
			F	23	35									
1559	Nov. 16	Ir	P_E	23	35	06					(3, 58)			Deep.
			$S_{N,E}$	23	39	04								27 N, 142 E by Chiufeng.
			i_N	23	42	36								
			F	0	40									
1560	Nov. 19	Iu	eP	21	29	32								USCGS 14°N, 91°W, Gutemala.
			e	21	81	18								JSA: 14.3 N, 90.7W, h=100km.

N. B. "New Travel Time Tables, 1933" published by Rev. Fr. J. B. Macelwane is now being used.

Quarterly Seismological Bulletin of the Institue of Meteorology

φ=32°03'11"N λ=118°43'55"E h=60 m. Underground: Conglomerate.

No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
	1936 (cont'd)		P'_1	21	32	42								
			$e(PR_1)$	21	34	18								
			SPS_N	21	36	32								
			eS?	21	41	25								
			PS_E	21	43	36								
			SR_1	21	53	40								
			e_E	22	05	40								
			eL	22	09	42								
			M_{1E}	22	19	06					30			
			M_{2E}	22	27	14		17			24			
			M_{3E}	22	30	49		11			20			
			M_N	22	34	21	9			20				
			F	23	35									
1561	Nov. 24	Ir	eP_E	11	49	10								G-W suspended from 24 inst. to
			$iP_{N,E}$	11	49	12					(4,	35)	2890	Dec. 2 owing to revarnishing the
			S	11	53	47								recording room.
			F	12	05									45°N, 146°E by Chiufeng.
1562	Nov. 29		e(P)	8	37	24								
			e	8	46	40								
1563	Nov. 29	Ir	eP_N	22	52	33					(2,	23)	1320	Near Formosa.
			eS	22	55	01								
			eL	22	55	37								
			F	23	15									
1564	Nov. 30	IIr	iP	23	52	38					(5,	30)	3720	Up.
			S_E	23	58	08								
			eL?	0	02	.9								

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Quarterly Seismological Bulletin of the Institute of Meteorlogy

ϕ=32°03'11"N 入=118°16'55"E h=60 m. Underground: Conglomerate.

No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
1565	1936 Dec. 1	IIr	iP	6	11	24					(1,	44)	1020	Epc. 28.5°N 128 E, by NK, Chiu,
			iS	6	13	08								Mla, Hkg, & Phulien.
			$i_{N,S}$	6	13	21								Deeper than normal.
			eL_N	6	13	48								
			F	6	50									
1566	Dec. 7	Or	eP_E	21	28	35					(2,	52)	1653?	
			eS?	21	31	27								
			M_N	21	34	39				9				
			F	21	48									
1567	Dec. 8	Ir	eP	10	29	25					(4,	08)	2520	Felt at Leyte, P.I.
			S	10	33	34								Manila: epc. prob in Ormoc Bay.
			L	10	35	44								
			M_E	10	37	35		12			13			
			F	11	40									
1568	Dec. 10		e	5	32	53								Very small.
1569	Dec. 13	Ir	iP	21	37	02					(5,	00)	3245	Felt in Guam with intensity VII.
			PP	21	37	52								
			iS_E	21	42	02								
			e_E	21	44	04								
			L_N	21	44	34								
			L_E	21	45	10								M waves not significant.
			F	23	00									
1570	Dec. 14	Ir	eP	4	07	52					(3,	31)	2065	Felt in southwestern Luzon.
			iS	4	11	23								Manila: 14.3°N. 119.8°E.
			L	4	12	54								

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Quarterly Seismological Bulletin of the Institue of Meteorology

ϕ=32°03'11"N λ=118°16'55"E h=60m. Undergro.nd: Conglomerate.

No.	Date	Char-acter	Phase	G. M. T.			Amplitude			Period			△	Remarks
				h.	m.	s.	A_N	A_E	A_Z	T_N	T_E	T_Z		
	1936													
1571	Dec. 15		e	18	35	59					(0,	32)	320	Small near shock.
			S	18	36	31								
			F	18	40									
1572	Dec. 20	Ou	eP	3	14	24								USCGS: 13.4°N, 88.0°W.
			i	3	21	36								A sharp impulse.
			L_E	3	47	.3					ca. 36			
			F	4	25									
1573	Dec. 20	Ir	eP_N	18	37	09					(6,	10)	4360	
			S_N	18	43	19								
			L?	18	48	00								
			M_E	18	54	49		12			17			
			M_N	18	55	07	6			13				
			F	19	25									
1574	Dec. 21		e	3	47	20								Very small. China Sea.
1575	Dec. 21	Iu	e(P)	19	14	57					(9,	43)	(8360)	USCGS: 53.1°N, 132.2°W.
			iS	19	24	40								Pacific Ocean.
			M_{1E}	19	49	28				13				
			M_{2E}	19	52	14				15				
			F	21	40									
1576	Dec. 22	Ou	e(P)	8	39	31					(6,	41)	(4940)	Small.
			eS_E	8	46	12								
			eL	8	51	40								
1577	Dec. 23		eP	12	18	26								
			eL	12	26	.6								Small.

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Quarterly Seismological Buetin of the Institute of Meteorlogy

ϕ=32°03'11"N 入=118°46'55"E h=60m. Underground: Conglomerate.

No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
	1936													
1578	Dec. 23	Or	e	14	17	26								Small.
			e(S)	14	22	29								
			eL?	14	28	.3								F: 14h 50m.
1579	Dec. 24		e	10	12	37								
			e	10	18	05								
1580	Dec. 24		e?	13	25	28								Similar to No. 1579
			e	13	31	06								
1581	Dec. 24		eL	19	35	15								
			M	19	38	27				16	15			F: 20h 00m.
1582	Dec. 26	Ov	eP	9	41	26								Data from Wiechert.
			eL?	9	43	52								
			F	9	46									
1583	Dec. 26		eL_E	15	33	.1								Trace only.
			M_E	15	36	35					14			Felt in southeastern Luzon.
1584	Dec. 26	Iu	P	23	05	15					(10,23)		9280	N off New Zealand.
			iPP	23	08	34								
			eS	23	15	38								
			PS	23	16	05								
			SS_N	23	21	25								
			SS_E	23	21	56								
			SR_{2E}	23	25	10								
			SR_{3E}	23	26	26								
			L_E	23	31	48								
			L_N	23	34	26								

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Quarterly Seismological Bulletin of the Institue of Meteorology

ϕ=32°03'11"N λ=118°46'55"E h=60m. Underground: Conglomerate.

No.	Date	Character	Phase	G. M. T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks
	1936 (cont'd)		M_N	23	37	28				22				
			M_E	23	38	58					24			F continued by next.
1585	Dec. 27	IIr	P	0	18	42					(3,	31)	2065	Down. Japan.
			S	0	22	13								
			L_N	0	23	31								
			L_E	0	23	57								
			M_N	0	24	52	60			16				
			M_E	0	25	51		45			16			F: 1 h 40m.
1586	Dec. 27	Ir	P_E	2	16	26					(3,	32)	2080	
			$S_{E,N}$	2	19	58								
			L_N	2	21	31								F: 2 h 55m.
1587	Dec. 27	Ou	e(P)	8	51	51					(7,	00)	(5280)	
			S	8	58	51								
1588	Dec. 27		e	13	48	30								
			eL_N	13	53	.7								
1589	Dec. 27		e	16	13	27								Mln. marks failed at Dec. 28th.
1590	Dec. 29	IIu	iP	14	56	36					(7,	00)		Up. Deep focus.
			iS_E	15	03	36		24			9			
			isS	15	04	20								
			L	15	07	57				15	19			F: 18h 10m.
1591	Dec. 30	Ir	eP	4	11	49					(3,	28)	2035	
			eS	4	15	17								
			M	4	18	03	10	8		13	14			F: 5h 05m.

N. B, "New Travel Time Tables, 1933" published by Rev. Fr. J. B. Macelwane is now being used.

The National Research Institute of Meteorology acknowledges with thanks the receipt of the following seismological bulletins and publications from December 1st '36 to February 28th '37.

Stations	Bulletins and Publications.
Cartuja (Granda)	Octubre - Diciembre, '35
Cheb (egar)	Enero - Mayo, 1935.
Chiufeng	Jan. - Dec. '36.
Copenhagen	Nov. Dec. '36; Jan. '37.
Dublin	Oct.-Dec. '34; Jan.-Mar. '35.
Florissant	July - Dec., '36.
George Town	June, July, Sept.,'36.
Gottingen	Sesimologic Despatches Aug. thru oct.
Graz	Okt-Dez '35 : Jan-Marz, Apr-Jun '36.
Helwan	2 Marz -- 28 Okt., 1936.
Hong Kong	Aug. - Dec., 1936.
J. S. A.	Oct.-Dec., 1936.
Kew	Aug. 23 - Dec. 20 1936.
Kobe	Oct.-Dec., 1936.
Koti	Vol. XI, No.3 July-Sept,1935.
Ksara	July-DEC, '33; Jan.-Dec.,34
	Observations Seismologique, Annee 1934
La Plata	Provisoire Oct,- Dec., 1936.
La Paz	Julio - Octubre, 1936
Lemberg	Nov. 7, '35 to Jan. 25,'36.
	Vom 11 Sept. bis 28 DEz. 1935.
Leningrad	Vom 20 Jan. bis 6 Sept., 1936.
Manila	Janvier au Juin, 1936.
Ottawa	October to December, 1936.
	Bibliography of Seismology Nos 11&10
Oxford	Jotober & November, 1936.
Parc St. Maur	I.S.S. 1931 July, August, September.
Pasadena	Oct., Nov., 1936.
Perth	Sept. & Oct., 1936.
Phulien	19th Sept. to 29th Oct., 1936.
Praha	Juin au Novembre, 1936.
Riverview	Avr.-Juin '36; Juil.-Sept.,36.
Saint Louis	October to December, 1936.
San Fernando	June, July, August, September, 1936.
Scoresby-Sund	Septiembre - Diciember, 1936.
Strassbourg	No 11, Jul-Dec '34; No 12&13, 1935.
Stuttgart	Du Oct. - Dec., 1936.
Tathoku	Berichte Jahrgang 1935; One reprint.
Tananarive	October to December, 1936.
Uccle	Janvier au Avril, 1936.
Wellington	Nos 2&4 Mars-Mai, Juil-Sept 4.,1936.
	Bulletin E 45, 46, 47 Apr.-Dec., '35
	Bulletin E 54, 55, 56 Sep.-Nov., '36
Wien	Bulletins Nos. 106, 112, 113, 114, 116.
Zagreb	1 Jan bis 12 Juli, 1936.
Zurich	Juli - Sept., 1935.
	Bull. No. 78, November, 1936.

國立中央研究院氣象研究所

地震季報

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VOL.4, NO.3. JAN.-MAR., 1936.

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The National Research Institute of Meteorology

ACADEMIA SINICA

PEICHIKO, NANKING, CHINA.

符號凡例

1. 地震之性質

	1. 可辨別	11. 稍强	111. 强
d.	局部地震	(震源在一百粁以內)	
v.	近地地震	(震源在一千粁以內)	
r.	遠地地震	(震源在五千粁以內)	
u.	極遠地震	(震源在五千粁之外)	

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	變轉波卽縱波(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
$M_1.M_2.\cdots$	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(以秒爲單位)
A	實際上地面震動之半震幅(以μ,千分之一粍,爲單位)
△	震央距離(以粁爲單位)

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

PRn Waves n times reflected at the earth's surface.

S (undae secundae) Second phase, or second preliminary tremors (transverse).

SRn 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 tranverse 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.
$W_2 . W_3 . W_4 ...$	The maximum waves coming again to the station after circumscribing the earth once, twice, etc.
C (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	$\in$	r
Wiechert 17,000 kg.	N	1630	1.44	10.3	0.59
	E	1290	1.46	1.4 (leaky)	0.25
Wiechert 1,300 kg.	Z	164	3.98	3.1	0.79

2. Galvanometric Photographic Registration.

Constants of Galitzin-Wilip.

Component	Galvanometer Free Period T_1	Pendulum Free Period T	Damping Constant $\frac{2}{u}$	Transmision Factor k	Synchronous Magnification $\frac{kAT}{4\pi i}$
N-S	9.93	9.01	+0.87	176	1560
E-W	10.89	9.60	+0.53	188	1753

$\varnothing = 32°03'11''N$ $\lambda = 118°46'55''E$ h = 60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remark
1167	1936 Jan. 1	O	eP_N	3	52	39								
			e_N?	3	55	15								
			eL	4	00	58								
1168	Jan. 1	O	e_E	10	49	42								
			eL	10	50	29								
1169	Jan. 2	Ir	iP	17	34	30					(6,	05)	4280	NNE up.
			PP	17	36	23								Manila: In vicinity of 1°S, 134°E.
			S_N	17	40	35								
			i_N	17	44	11								
			M_1	17	54	00								
			M_2	17	55	48				14				
			F	18	30									
1170	Jan. 2	IIr	iP	22	41	36					(5,	08)	3380	Up.
			iPP	22	43	28								Manila: 97°E, 1°S.
			eS_N	22	46	44								UGEGI: 98°E, 1°N
			i	22	47	23								
			L_1	22	51	44								
			L_N	22	51	52								From Wiechert.
			L_2	22	53	22								
			M_1	22	57	20	108			20				Sudden iucreuse of perio l.
			M_2	22	58	42	74	47	85	17	16	17		
			F	00	35									
1171	Jan. 6		P	3	29	22								Rather small.
1172	Jan. 7		e	13	18	35								
			eI.	13	19	39								

N. B. "New Travel Time Tables, 1933" published by Rev. Fr. J. B. Macelwane is now being used.

Quarterly Seismological Bulletin of the Institute of Meteoology

$\varnothing$=32°03'11"N 入=11°46'55"E h=60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remark
1173	1936 Jan. 10		e	5	01	30								Very small.
			i	5	02	00								
1174	Jan. 10		e	9	02	03								,,
			e	9	04	38								
1175	Jan. 11		e	22	24	49								Small.
			eL	22	26	45								
			M	22	27	21				12	11			
			F	22	40									
1176	Jan. 13		e	4	50	31								
1177	Jan. 13		eL	18	39	±								
1178	Jan. 14	Iu	iP	5	56	09								Very distant quake.
			i_E?	5	57	23								
			e(SKKS)	6	05	48								
			iSS	6	18	06								
			I_E	6	35	42								
			M_{N1}	6	44	38								
			M_{E1}	6	49	00					24			
			M_2	6	55	00				20	20			
			F	8	15									
1179	Jan. 14	Ou	e	12	23	37					(9,	24)	7980	
			iS	12	33	01								
			F	13	15									
1180	Jan. 14	Iu	P	14	31	24								Down. Argentina.

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$\varnothing$=32°03'11"N λ=118°46'55"E h=60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remark
	1936 Cont'd.		i_N	14	37	00								USCGS: 28°S, 63°W, Argentina,
			e	14	37	15								JSA: 28·2°S, 62·8°W; depth 590km.
			e_N	14	38	55								
			SKKS	14	42	48								Sharp and conspicuous.
			e_E	14	43	53								
			i_N	14	46	09								
			i_N	14	56	53								
			$i_{E,N}$	14	57	41								Sharp.
			i_E	14	59	35								
			i_E	15	01	23								
			e_N	15	04	43								Surface waves being mixed with the Greek quake.
			F	16	17									
1181	Jan. 14	Iu	P	17	52	15					(9,	07)	7620	Manila: 20°S, 170°E.
			e_E	17	57	00								Wellington: 19°S, 168°E.
			S_N	18	01	22								
			e_E	18	02	15								
			L	18	11	31								
			M_1	18	17	11	10	8		19	20			
			M_2	18	21	23		7			19			
			F	19	40									
1182	Jan. 15	Ov	e	7	07	06					(1,	27)	850	
			eS	7	08	33								
			L	7	10	09								
1183	Jan. 15	Iu	P	14	55	05					(9,	29)	8060	In vicinity of New Caledonia.
			iS_E	15	04	34								Wellington: 21°S, 169°E.
			e	15	26	54								Beginning of a long train of M.
			F	16	05									

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∅=32°03'11"N 八=118°46'55"E h=60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remark
1184	1936 Jan. 15		e	20	35	11								Very small.
			m	20	36	38								
1185	Jan. 18		e	1	52	41								
1186	Jan. 18		e	11	34	32								
1187	Jan. 20	IIr	iP	17	01	54					(4,	39)		Deep focus type. Up.
			pP_N	17	02	24								Manila: in the Philippine Deep.
			S_N	17	06	33								
			S_E	17	06	37								
			i_E	17	06	47								
			L_E	17	09	35								
			L_N	17	09	59								
			M_Z	17	12	17								
			$i_{N.E}$	17	13	17	26	30		9	12			
			F	19	15									
1188	Jan. 22		P	3	04	33								Small.
			m	3	09	16								
1189	Jan. 22	Or	P	9	32	51					(5,	54)	4110	
			eS	9	38	45								
			M_E	9	51	27					16			
			F	10	15									
1190	Jan. 23		e	18	04	47								Very small.
			i	18	07	29								
1191	Jan. 27	Ir	P	19	35	44					(4,	28)	2790	

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remark
	1936 (Cont'd.)		S	19	40	12								
			L	19	43	30								
			M_E	19	45	56		7			10			
			M_N	19	46	24	7			9				
			F	20	40									
1192	Jan. 29		e_E	23	57	35								Small. Felt at Basco, P.I. with intensity IV.
			e	23	58	43								
			eL_E	23	59	47								
1193	Jan. 31		eP	9	03	12								
			eL	9	05	53								
1194	Jan. 31	Or	P	18	55	49					(2,	34)	1440	
			S	18	58	23								
			F	19	10									
1195	Feb. 6		e	4	17	56								
			M_E	4	27	42								
			F	5	10									
1196	Feb. 6		eL	21	05	20								
1197	Feb. 7	iIIr	iP	8	59	40								First main shock causing heavg damages, casualties at Linchao, Hochen, and great panic at Lanchow, Kansu. Rocked by 3 quakes within 9 minutes. Epe: 35.5°N, 103°E by Nk, Chiu, Hkg, Taihoku, Phulien. UGEGI: near 36°N, 102°E.
			$e(S)_N$	9	02	22								
			iS_E	9	02	30					(2,	50)	1610	
			$S_{WIE,E}$	9	02	37					(2,	57)	1680	
			$S_{WIE,NZ}$	9	02	44					(3,	04)	1755	
			I_E	9	03	20								
			iL_{2N}	9	03	23								

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No.	Date	Char-acter	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remark
	1936		M_E	9	04	13								甘肅省臨洮和政夏河臨夏蘭州等縣連續劇震三次。臨洮城垠房屋牆壁多坍塌；康樂境內且有山崖崩裂及死傷。
			$M_{N,Z}$	9	04	25	1190		655	9		10		
			M_{Z2}	9	04	44			470			8		
1198	Feb. 7	IIIr	eS_{WIE}	9	08	54								Second main shock. Several A.F.
			i_E	9	09	12								甘肅西南各縣第二強震蘭州破舊房屋及城垠多所倒塌，餘震時作云。
			$iL_{N,E}$	9	09	26								
			$M_{E,Z}$	9	10	00		mm 59	78		(2)	3		
			M_N	9	10	10	306			5				
			M_{Z2}	9	10	54			119			3		
			F	11	20									
1199	Feb. 7		e	15	13	20								A.F.
			e	15	13	55								Beginnir g of M?
1200	Feb. 8	Ir	P	12	19	26					(6,	34)		Abnormal.
			$(pP)_Z$	12	19	44								Down.
			iS	12	26	00								
			sS	12	26	36								
			i_N	12	29	32								
			iSS_E	12	30	08								
			i_E	12	31	28								
			i_E	12	32	54								
			F	13	50									
1201	Feb. 9		e(P)	3	09	08								Very small.
			iL_N	3	11	13								
			M	3	12	40				8	8			
			F	3	30									

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	Δ	Remark
1202	1936 Feb. 9	Ov	e(P)	4	37	35								
			eS_N	4	38	53					(1,	18)	760	
			eS_E	4	39	11					(1,	36)	940	
			L_E	4	39	59								
			M_E	4	40	52		9			12			
			I_N	4	39	30								
			M_2	4	42	07	7	5		7	8			
			F	5	15									
1203	Feb. 10	Iu	iP_E	18	16	48					(9,	17)	7840	Chiufeng: in region of 10·5°S, 177°E.
			PP_E	18	19	35								
			iS_E	18	26	05								
			sS_E	18	26	50								
			iSS_E	18	29	33								
			F	19	10									
1204	Feb. 11		P_E?	4	53	28								
			e_N	5	00	24								
			i_N	5	03	26								
1205	Feb. 12	Ir	iP_N	9	41	11					(5,	15)		Down. Deep focus.
			ePR_1	9	42	48								
			PR_2	9	43	49								
			iS	9	46	26								
			iSR_2	9	49	48								
			F	10	20									
1206	Feb. 12	Or	eP	20	25	13					(3,	49)	2290	Small.
			S	20	29	02								
			iSS	20	30	34								

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remark
1207	1936 Feb. 13		e(P)	00	27	33								Very small.
			e	00	29	34								
			i(L)	00	30	40								
1208	Feb. 13		eL	16	05	+								Trace of surface waves.
1209	Feb. 14		eL	7	36	+								
1210	Feb. 15	III	iP	12	54	22	mm. 25.5	mm 11.6	mm. 2.4		6	4	4135	Very sharp beginning. Up.
			PR_1	12	55	53								USCGS: 6°S, 132°E.
			PR_2	12	57	06								UGEGI: 2°s, 132°E, New Guinea.
			iS	13	00	18					(5,	56)		JSA: 4.5°S, 133.0°E.
			i_{WIE}	13	02	06								
			iSR_1	13	02	44								
			SR_2	13	03	21								
			G_Z	13	04	19						18		
			iG_E	13	04	40					24			
			L_Z	13	06	00						25		
			M_1	13	06	46		74			16			
			M_2	13	07	56		75			17			
			M_N	13	08	34	70			16				
			M_3	13	10	30	46	64		14	15			
			M_N	13	12	28	70			16				
			F	16	40									
1211	Feb. 16	I	P	14	28	32					(8,	24)	4135	In Solomon Islands.
			e(PP)	14	31	07								
			S_N	14	36	56								
			iS_E	14	37	45								
			F	15	10									

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remark
1212	1936 Feb. 17		e	23	28	35								Shaken at Hwaning, Tunghai, Hosi, and O-shan, Yunnan Province.
			eL	23	30	00								
			F	23	45									雲南省華寧通海河西峨山發生地震。
1213	Feb. 18	Ir	eP	14	36	00					(4,	34)	2865	
			iS	14	40	34								
			L_N	14	44	46								
			L_E	14	45	00								
			M_N	14	45	42	6			10				
			F	15	30									
1214	Feb. 21	IIr	P	1	11	22					(3,	03)	1745	Damage at Oosaka, Japan.
			S	1	14	25								
			L	1	15	11								
			M_1	1	18	05	15	10		10	11			
			M_2	1	20	21		15			11			
			F	2	35									
1215	Feb. 21	IIr	P_E	6	25	31					(4,	00)	2420	
			iS	6	29	31								
			L_E	6	32	19								
			M_E	6	34	48		21			9			
			F	7	40									
1216	Feb. 21	Or	eP	15	14	18								
			e(S)	15	16	42								
			e	15	17	41								
1217	Feb. 21	Ir	eP	17	05	24					(6,	32)		Deep focus?
			iP	17	05	40					(6,	16)	4465	Up.

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remark
	1936 (Cont'd.)		eS	17	11	56								
			i	17	12	22								
			L	17	15	16								
			F	18	40									
1218	Feb. 22	Iu	eP	15	45	02					(10,	58)	90,8°	New Zealand.
			$e_{N,Z}$	15	48	39								Wellington: 52°S, 160°E.
			S	15	56	00								Heavy microseism.
			F	18	50									
1219	Feb. 22		iS	19	46	30								Initials disturbed by micro. A.F. of No. 1218 according to Wellington.
1220	Feb. 23		e(P)	12	31	55								
			eL	12	34	45								
			F	12	46									
1221	Feb. 24	Or	eP	7	04	46					(4,	04)	(2480)	
			$e(S)_N$	7	08	50								
			iL_N	7	11	54								
			M_N	7	13	40	6			9				
			F	7	25									
1222	Feb. 26		eL	3	00	+								
1223	Feb. 27	IIr	P_N	10	11	23					(6,	05)		Up. Deep.
			pP_N	10	11	37								
			iS	10	17	28								
			isS	10	17	45								
			$i(L)_E$	10	20	41								
			i_E	10	21	35								

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remark
1224	1936 Feb. 27		eL	17	14	±								
			M_{E1}	17	17	58					15			
			M_{E2}	17	20	38					14			
			M_N	17	22	12				12				
			F	17	40									
1225	Feb. 28	Ou	eP_E	3	13	19								
			S_E	3	21	22					(8,	03)	6400	
			S_N	3	21	31					(8,	12)	6555	
			L	3	31	.3								
			M_E	3	43	39					14			
			M_N	3	46	05				14				
			F	4	10									
1226	Feb. 28	Ir	P_N	16	22	43					(5,	51)	4055	
			iS	16	28	34								
			$e(L)_E$	16	33	26								L waves very flat.
			e_E	16	35	45								
			e_E	16	37	29								
			M_1	16	40	51	4	7		12	13			
			M_2	16	41	57		9			12			
			M_3	16	43	12	5	8		12	13			
			F	17	20									
1227	Mar. 1		e	8	58	06								Trace only.
1228	Mar. 1	Ir	P	10	27	01					(3,	57)	2390	South of Sokhalin by Chiufeng.
			ePP	10	28	10								
			S_N	10	30	58								
			L	10	33	10								Continued by next.

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remark
1229	1936 Mar. 1	Iu	P_Z?	10	39	38					(10,	06)	8890	Superposed on the former.
			e_E	10	42	16							(80.0)°	
			$S_{N,Z}$	10	49	44								
			iG_E	11	01	48					28			
			M_1	11	16	18					16			
			M_2	11	18	21				16	16			
			M_3	11	21	38					15			
			M_4	11	23	38				16	16			
			F	20	05									
1230	Mar. 2	IIIr	iP	3	24	01					4,	15)	2610	Up. East off Hokkaido, Japan.
			e_{WIE}	3	28	01								
			S	3	28	16								
			L_1	3	30	39				26				
			iL_2	3	31	09				20	24			
			M_1	3	34	00		155	256		16	16		
			M_2	3	34	54	100	150	238	14	14	14		
			F	6	45									
1231	Mar. 4	Ir	eP	17	06	29					(2,	16)	1245	
			eS	17	08	45								
			eL	17	09	.5								
			F	17	25									
1232	Mar. 5		eL_E	7	16									
1233	Mar. 5	Or	eP_E	23	13	48					(4,	09	2535	Manila: Prob. 8.3°N, 126.9°E.
			$eS_{N,E}$	23	17	57								
			eL_E	23	22	1								
			F	0	20									

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remark
	1936													
1234	Mar. 6		eL	4	26	9								
			M	4	30	06					12			
1235	Mar. 6		eP	14	38	04								
			eS?	14	48	58								
			L	15	06									
			F	15	55									
1236	Mar. 8	Ir	P	0	29	49					(2,	02)	(1100)	East of Formosa.
			eS?	0	31	51								
			L	0	32	14								
			M	0	32	42	6	14		6	7			
			F	0	57									
1237	Mar. 8	Or	eP?	9	40	38					(4,	36)	(2900)	Very weak beginning.
			S	9	45	14								
			L	9	48	5								
			F	10	10									
1238	Mar. 10		e	8	48	20								Trace only.
1239	Mar. 10		S	12	21	56								Small.
			M_E	12	41	36								
1240	Mar. 10	IIr	P	20	40	51					(4,	05)	2490	Down?
			iP	20	40	56								Epc. 40°N, 144°E by Nanking,
			iS_E	20	44	56								Chiufeng and Manila.
			$iL_{N,E}$	20	47	56								
			M_1	20	49	38	14	8		16	16			
			M_2	20	50	54		16		14	15	16		

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	$\triangle$	Remark
	1936		M_3	20	52	14	10	19		13	13	14		
			F	22	15									
1241	Mar. 11	Ir	P	0	48	36					(4,	00)	2420	Similar to No. 1240.
			S	0	52	36								
			L	0	55	20								
			M_{1E}	0	56	38		8			16			
			M_{1N}	0	57	04				15				
			M_{2E}	0	57	58		8			14			
			M_{2N}	0	59	02	7			12		12		
			F	2	10									
1242	Mar. 11		$e(S)_E$	8	53	51								
			eL	8	56	24								
1243	Mar. 11	Or	eP_E	11	03	05					(3,	59)	2410	
			eS	11	07	04								
			L_1	11	09	08								
			iL_2	11	09	30								
			M_E	11	10	20		6			8			
			M_N	11	10	56	10			7				
			F	11	40									
1244	Mar. 12		e	1	54	12								Trace only.
1245	Mar. 12		i(S)	20	17	02								Formosa
			eL	20	18	20								
			F	20	21									
1246	Mar. 13		M_E	1	33									

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remark
1247	1936 Mar. 13		e	4	32	37								
			eL	4	34	37								
1248	Mar. 14		P	8	08	39								
			e(L)	8	11	14								
1249	Mar. 17	Or	eS	20	06	51								
			iL_E	20	11	48								
			M_1	20	13	34				13	14			P not evident.
			M_2	20	15	36				13	13			
			F	20	50									
1250	Mar. 18		e	13	42	14								Heavy micro.
			i(S)	13	55	13								
1251	Mar. 18	O	e?	22	40	53								Uncertain.
			e	22	42	10								
			eL_E	22	42	54								
			M_E	22	44	54		6			13			
			F	23	02									
1252	Mar. 19		e_{WIE}	12	48	28								Trace.
			eL	12	56	48								
1253	Mar. 21	Ou	$\epsilon(P)_E$	0	03	20					(11, 56)		>100°	
			eS_E	0	15	16								Sn oh 15m 20s.
			e	0	19	46								
			eSS	0	20	42								
			L_E	0	31	00					30			
			M_E	0	37	42					20			

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∅=32°03'11"N 人=118°46'55"E h=60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remark
1254	1936 Mar. 21	Iu	P	2	03	21					(9,	12)	7735	
			S	2	12	33								
			L	2	18	25								
			M	2	32	28		3			15			
			F	1	10									
1255	Mar. 21		e	9	47	38								Small.
			eL	9	50	00								
1256	Mar. 21		e?	23	21	40								Trace only.
			S	23	25	38								Felt at San Remigio, Antique.
			M	23	31	20								
			F	23	40									
1257	Mar. 22		e_N	6	37	01								Very small.
			eL	6	39	.8								
			M_E	6	42	00								
			F	6	52									
1258	Mar. 22	Iu	iP	12	25	33					(7,	44)	6060	Down. Deeper than normal.
			iS_N	12	33	17	10			8				Chiufeng: SW of Solomon Is.
			iS_E	12	33	19					10			
			SR_{1E}	12	35	40								
			SR_{2E}	12	37	09								
			$I_{N,E}$	12	44	53				20	19			
			F	14	22									
1259	Mar. 22	O	P	23	06	01					(7,	12)	5490	
			S	23	13	13								
			F	23	45									

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∅ = 32°03'11"N 入 = 118°46'55"E h = 60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remark
1260	1936 Mar. 24	Or	P	21	59	35					(4,	18)	2645	Felt in NE Mindanao.
			S	22	03	53								
			eL_{1E}	22	07	57								
			L_2	22	09	25								
			F	22	50									
1261	Mar. 27		e	20	14	15								Very small.
			F	20	19									
1262	Mar. 28	Od	P_{WIE}	14	05	19					(0,	03)	30	
			S_{WIE}	14	05	22								
			F	14	05	40								
1263	Mar. 29		eL	6	08	57								
1264	Mar. 29		$e?_{WIE}$	8	20	28								Formosa.
			eL	8	23	12								
1265	Mar. 31	Ir	P	3	38	00					(3,	53)		
			pP_E	3	38	51								Deep focus type.
			$i_{E,N}$	3	39	31								
			S_E	3	41	53								
			isS	3	43	05								
			$SS_{N.E}$	3	43	29								
			eL?	3	45	34								
			F	4	25									

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The National Research Institute of Meteorology acknowledges with thanks the receipt of the following seismological publications and bulletins from March 1 to May 31, 1936.

Stations	Bulletins & Publications.
Batavia	Oct. to Dec. 1935.
Budapest	Jan. to Dec., 1935.
Cape Town	Dec. '35; Jan., Feb., '36.
Cartuja (Granada)	August and September, '35.
Chiufeng	Mar, Apr, May, '36.
De Bilt	For the year 1932.
Eger	January to December, 1935.
Florissant	Aug, Sept, Oct, Nov., 1935.
Graz	January and February, '36.
Helwan	Dec. '35; Jan. Feb. Mar., 1936.
Hpngkong	January to April, 1936.
Hukuoka	July to December, 1935.
Jena	Four reprints.
J. S. A.	Prel. pp. 40-43 dec.14-28, '35. pp.1-2 Jan. 14 to Feb. 15,'3
Karlsruhe	Juli bis Dez., 1935.
Kew	January to March, 1936.
Kobe	Oct.-Dec., 1934.
Ksara	January and February, '36.
La Plata	Nov. & Dec. '35; Jan. '36.
Lemberg	1 Mai bis 4 Sept., 1935.
Manila	January to March, '36.
Melbourne	Oct. Nov. Dec., '35.
Ootomari & Sikka	For the year1935.
Osaka	Nov. &Dec. '35; From July to Sept. '3
Ottawa	Jan. to March, '36.
Parc St. Maur	Feb, Mar, Apr, '36.
Pasadena	Jan. & Feb., 1936.
Perth	Dec. 16-31, '35. Jan. & Feb., '36.
Phulien	September, 1935.
Praha	~~For the year 1935~~.Oct.-dec., '35.
Reykjavik	For the year 1935.
Riverview	January to March, 1936.
Santiago	Boletin 1933 Y 1934.
Strassbourg	January & February, '36.
Taihoku	Jan., Feb., Mar., Apr., '36.
Tananarive	Aout & Sept., '35.
Tokyo (E. R. I.)	Oct.- Dec., 1935.
Toledo	Special Bulletins.
Uccle	abril-junio, julio-sept., 1935.
Wellington & Christchurch	Sept.-Dec.,1935. December,'35. Jan. to March, '34.
Wien	Bulletin Nos. 101, 105, 107, E.40&41.
Zagreb	Juli 27 bis Dec. 31, '35.
Zurich	April to Juni, 1935. Nos. 69, 70, Feb. & Marz, '36.

國立中央研究院氣象研究所

地震季報

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符號凡例

1. 地震之性質

	I. 可辨別	II. 稍强	III. 强
d.	局部地震	(震源在一百粁以內)	
v.	近地地震	(震源在一千粁以內)	
r.	遠地地震	(震源在五千粁以內)	
u.	極遠地震	(震源在五千粁之外)	

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	變轉波卽縱波(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(以秒爲單位)
A	實際上地面震動之半震幅(以μ千分之一粍，爲單位)
△	震央距離(以粁爲單位)

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. Pases 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.
PRn	Waves n times reflected at the earth's surface.
S (undae secundae)	Second phase, or second preliminary tremors (transverse).
SPn	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;

$\overline{ScPcS}$	Waves which have penetrated the core, having been tranverse before entering and after leaving the core, and longitudinal within the core.
$\overline{PcPcPcP}$	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.
W_2. W_3. W_4...	The maximum waves coming again to the station after circumscribing the earth once, twice, etc.
C (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	$\in$	r
Wiechert 17,000 kg.	N	1630	1.44	10.3	0.59
	E	1290	1.46	1.5	0.25
Wiechert 1,300 kg.	Z	164	3,98	3.1	0.79

2. Galvanometric Photographic Registration.

Constants of Galitzin-Wilip.

Component	Galvanometer Free Period T_1	Pendulum Free Period T	Damping Constant u^2	Transmision Factor k	Synchronous Magnification $\frac{kAT}{4\pi 1}$
N-S	9 93	9.48	+0 40	214	1980
E-W	10.89	9.68	−0.03	131	1252

$\varnothing = 32°03'11''N$ $\lambda = 118°46'55''E$ h = 60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	period T_N	T_E	T_Z	△	Remarks.
1266	1936 Apr. 1	IIIr	P	2	15	15					(4,	35)	2890	USCGS:3°N,124°E
			iP	2	15	25	22	7	up$_4$		9	7		TSA:2.5°N,123.5°E H=02,09,16 h=75km.
			iS	2	20	00								Felt at Sangi Islands and at Menado, Celebes.
			$\bar{L}_{N,2}$	2	24	12								
			M_N	2	27	18	35			22				Wie. E dislocated; G-W faint.
			M	2	27	23			67			15		
			F	6	40									
1267	Apr. 1		eP?	2	16	26					(3,	00)		58 deaths, 187 injuries, 5000 houses collapsed at Linshan, Felt over Kwangsi, Kwangtu -ng and Hkg. Originated
			S?	2	19	26								
1268	Apr. 1	0	eP	5	32	04								Simultaneously with No. 1266. 廣東靈山災震,粵桂大部感覺地震.
1269	Apr. 1	Iu	eP	20	04	44					(6,	52)	5130	
			iS	20	11	35								
1270	Apr. 1	IIr	iP_N	20	16	56					(4,	48)	3065	
			S	20	21	44								
			$i_{E,N}$	20	23	28								
			SR_1	20	23	57								
			$\bar{L}_E$	20	25	52								
			M_1	20	27	58	55	77		20	21			
			M_2	20	29	32		66			20			
			F	22	10									
1271	Apr. 2	IIr	iP	6	25	23					(6,	51)		Deeper than normal. New Guinea.
			iS	6	32	14								
			i_E	6	35	42								
			eL	6	38	12								
			M	6	42	十								

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
	1956													
1272	Apr. 2		e	12	13	56								
1273	Apr. 5	0r	e P	14	32	02					(3,	32)	2080	
			eS	14	35	34								
			F	14	50									
1274	Apr. 7	0u	eP_E	1	50	00					(10,	14)	9065	
			eS	2	00	14								
1275	Apr. 7		e	12	16	58								Very small.
			F	13	05									
1276	Apr. 9		eL	7	34	26								
1277	Apr. 9	Iu	P	16	12	28					(8,	26)		Deep focus.
			iS_E	16	20	54								
			i_N	16	22	23								
			F	17	34									
1278	Apr.10	0r	eP	16	59	14					(4,	46)	3035	
			S	17	04	00								
			L_E	17	07	24					24			
			F	17	59									
1279	Apr.10	Ir	P	20	04	21					(3,	52)	2330	
			S	20	08	13								
			L	20	08	49								
			M_N	20	10	00				11				
			M_E	20	10	09					12			
			F	20	45									

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$\varnothing = 32°03'11''N$ $\lambda = 118°46'55''E$ h=60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Ampritude A_N	A_E	A_Z	period T_N	T_E	T_Z	△	Remarks.
1280	1936 Apr. 11	Or	iP_N	23	42	50					(3,	56)	2380	
			S	23	46	46								
			L	23	49	58								
			F	00	40									
1281	Apr. 12		eL	2	48	24								
1282	Apr. 12	IIr	iP	20	57	05					(4,	54)	3150	Down. In region of Palau.
			iPP	20	58	08								
			iS	21	01	59				14	14			
			L_E	21	05	04								
			L_N	21	05	20								
			M_1	21	06	05	70	64		15	16	17		
			M_2	21	07	52		57			15			Continued by next.
1283	Apr. 12	Ir	P	21	24	51					(3,	23)	1965	Data from Wiechert.
			S	21	28	14								
			L_N	21	31	26								
			F	23	30									
1284	Apr. 13		eL	0	41	28								
1285	Apr. 13		eL	7	52	21								
1286	Apr. 15	Or	iP	6	13	46					(6,	20)	4550	Down.
			S	6	20	06								
			e	6	23	20								
1287	Apr. 15	Ir	P	19	01	53					(4,	58)	3210	E. comp. lost
			PP	19	02	49								

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	period T_N	T_E	T_Z	△	Remarks.
	1933		S	19	06	51								
			SS	19	07	21								
			e(L)	19	13	17								Continued by next.
1288	Apr.15		e	20	09	25								
1289	Apr.15		e	20	45	37								
1290	Apr.16	Ir	P	1	04	19					(5,00)		3245	Similar to No. 1287.
			pp	1	05	13								
			S	1	09	19								
			eL	1	15	21								
			F	2	10									
1291	Apr.16	0	e(P)	11	33	39								Formosa.
			e(L)	11	36	29								
			F	11	47									
1292	Apr.16	0	eP	14	06	14								Near Formosa
			eL	14	09	26								F 14 h 45 m.
1293	Apr.16	0	eP	20	15	50								Similar to No. 1292.
			eL	20	18	41								F 21 h 10 m.
1294	Apr.19	IIIu	iP	5	16	27								AZi. NW up.
			iS_N	5	24	02					(7,35)		5900	JSA: 9.0°S, 156°E H=05,07,12
			iS_E	5	24	10					(7,43)		6043	USCGS: 8°S, 156°E,
			PS_N	5	24	32								
			SR_1	5	27	18								
			SR_2	5	30	12								

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
	1936		L_E	5	32	12		120			18			
			L_N	5	32	42				30				
			M_{1N}	5	35	34	122			19				
			M_{1E}	5	36	30		86			19			
			M_{2E}	5	38	02		104			17			
			M_{2N}	5	38	10	90			17				
			F	8	55									
1295	Apr. 19	IIr	P	9	10	23					(5,	10)	3400	
			iPR_2	9	11	41								
			S	9	15	33								
			$i_E(SR_1)$	9	16	01								
			L_N	9	19	23				11				
			L_E	9	20	11					30			
			M	9	21	36				21	22			
			F	10	58									
1296	Apr. 20		P	10	52	45					(2,	10)	1180	
			S	10	54	55								
			F	11	08									
1297	Apr. 20		P	18	16	18	?							Very small.
			L	18	24	30	?							
1298	Apr. 21	0r	e	1	44	28					(3,	48)	2280	
			eS	1	48	16								
			M	1	58	40					14			
			F	2	25									
1299	Apr. 21		eL	2	46	.7								

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
1300	1936 Aug.23	Iu	iP	23	22	20	?				(6,	58)	5235	Time correction uncertain.
			iS	23	29	18								USCGS: 48°N, 178°W.
			SR_1	23	32	23								JSA: 50.5°N, 178°E
			SR_2	23	33	30								H=23h 14m34sh=100km.
			L	23	37	38								
			F	0	50									
														Trace.
1301	Apr. 26		eP	7	21	55								
			eL	7	32	.5								
1302	Apr. 26	Ou	eP	8	52	17					(6.	52)	5130	
			eS	8	59	09								
			eSR_1	9	02	59								
			eL_N?	9	07	.6								
1303	Apr. 26		P	11	16	33								Very small.
			L	11	18	.0								
1304	Apr. 27	IIIr	iP_E	0	02	20					(?.	33)	1435	Azi. W Epc. same as Nos.1139
			S_{NG}	0	04	53								1144; about 28.3°N, 103.8°E by
			$i(S)_{N,E}$	0	05	06								Nk, Chiu, Taihoku.
			$i(SR_1)$	0	05	23								Heavy damages at Suikiang
			L_N	0	06	18								Yunnan.
			$M_{N,Z}$	0	06	41	283 mm		100	3		3		雲南綏江城内外房舍牆垣倒塌頗
			$M_{E,Z}$	0	06	50		71	90		—	3		多。重慶均感覺强震。
			$M_{n,E,Z}$	0	08	22	204	220	420	6.5	6	6		
			iz	0	08	52								Hereafter amp. greatly reduced
1305	Apr. 27	Ir	eP_E	0	18	10								A.F. 1 Buried in No,1304.
			L_E,	0	22	09								

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Ø = 32°03'11"N 入 = 118°46'55"E h = 60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
	1936						mm	mm						
			$M_{N,E}$	0	23	19	8.1	11		2.5	1.5			
			M_Z	0	25	16			7		5	5		Continued by next
1306	Apr. 27		eL	0	55	24								A.F.2. P buried in No. 1304.
1307	Apr. 27	0	e(S)	1	30	31								A.F.3. e 1h27m 43 ($P_?$)
			L	1	31	46								
			M	1	33	12								
1308	Apr. 27	Ir	P	1	36	40					(2,	39)	1490	A.F.4.
			S	1	39	19								
			L	1	40	04								
			M	1	42	.5								Light faint.
			F	2	25									
1309	Apr. 27	Ir	P_E	3	40	10								A.F. 5.
			L	3	44	03								
			M_N	3	44	51	20			8				
			M_{EN}	3	45	37	14	19		7	8			
			F	4	10									
1310	Apr, 27		M	4	29	10								A.F. 6.
1311	Apr, 27		eL	4	56	.2								A.F.7.
1312	Apr. 27	0	e(P	5	46	01								A.F.8. May be earlier
			L	5	49	.7								
			M	5	51	20				7	10			
1313	Apr. 27		eP	11	30	14								M11h33m30s A.F.9.

N. B "New Travel Time Tables, 1933" published by Rev. Fr. J. B Macelwane is now being used.

$\varnothing = 32°03'11''N$ $\lambda = 118°46'55''E$ h = 60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
1314	1936 Apr.27		eP_E	12	55	34								
			eL?	13	01	.6								
			M_E	13	04	04					15			
1315	Apr.28	0	eP_E	1	12	13								A.F. of No. 1304
			L	1	16	09								Sharp beginning of M.
			i	1	17	40				8	8			
			M_1	1	17	51								
			M_2	1	18	19								
1316	Apr.28		e_E	1	55	33								Small.
			e_N	1	55	49								
			eL	1	57	11								
1317	Apr.28	Iu	P	5	48	50					(7,	50)	6165	
			S	5	56	40								
			eL_E	6	06	.4								
			M_N	6	09	29								
			F	7	25									
1318	Apr.28	0r	P_N	13	43	06					(5,	46)	3980	
			S^E	13	48	52								
			i	13	43	50								
			L?	13	53	.8								F continued by next.
1319	Apr.28		$e(P)_E$	13	57	25					(2,	55)	(1600)	A.F. of No.1304. Szechwan.
			S	14	00	20								
			i^E	14	02	54								Sharp beginning of M
			F	14	25									

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$\varnothing = 32°03'11''N$ $\lambda = 118°46'55''E$ h = 60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
1320	1936 Apr. 28	0	e_N	16	27	13								
			eS_N	16	31	39								
			eS_E	16	31	45								
			e(L)	16	34	21								
			F	17	17									
1321	Apr. 28	IIr	iP_E	18	30	38					(2,	32)	1420	Stronger A F. of No 1304.
			S_N	18	33	10								
			S_E	18	33	32								
			$L_{E,N}$	18	34	46	mm	mm						
			$M_{N,E}$	18	36	56	53	55						Trace amplitude.
			F	19	10									
1322	Apr. 29		e	10	54	34								Trace.
1323	Apr. 29	Ir	eP_E	16	51	20					(4,	00)	2420	
			S_N?	16	55	20								
			eL	16	57	56								
			M_1	17	00	25								
			M_2	17	04	58				11	10			
			F	17	25									
1324	May 1	Ir	P_N	12	11	42	?				(5,	24)	3630	Time uncertain.
			$S_{N,E}$	12	17	06								
			F	12	30									
1325	May 2		e(P)	20	56	48								Very small.
			S_N	20	57	24								
			iS_E	20	57	31								
			F	21	02									

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$\varnothing = 32°03'11''N$ $\lambda = 118°46'55''E$ h = 60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
	1936													
1326	May 4	0	S?	4	11	16								P inevident.
			L_{1N}	4	12	06								
			L_{2EN}	4	12	20								
			i	4	12	51								Sharp beginning of M.
			F	4	35									
1327	May 4	0r	eP_E	8	16	02					(4,	35)	2890	Japan CMO: 144.4°E, 42.2°N
			S_E?	8	20	37								日本釧路南方海底
			L	8	23	36								
			M	8	25	36		9		15	16			
			F	8	45									
1328	May 4		P_E	12	00	21								From Wiechert.
1329	May 4		e_E	14	40	38								
			$e(L)_E$	14	43	24								
1330	May 4		e_E	20	33	59								
			M	20	35	56								
1331	May 5		e	4	43	42								Very small.
			eL	4	45	26								
1332	May 5	0u	P	19	51	35					(6,	48)	5055	
			S	19	58	23								
			SR_1	20	01	41								
			L	20	06	39								
			F	20	55									
1333	May 6		$e_{N,E}$	6	08	49								

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$\varnothing = 32°03'11''N$ 八$= 118°46'55''E$ h$= 60$m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
1334	1936 May 8	0r	e_E	1	06	21					(5,	09)	3390	Small.
			S_N	1	11	30								
			L_N	1	16	19								
			$M_{N,E}$	1	18	55								
1335	May 8	Ir	iP_N	9	18	12					(5,	08)		Deep focus.
			i	9	19	56								Manila: in region of 5°N,130°E
			iS	9	23	20								
			F	10	10									
1336	May 8	IIr	P_E	15	27	34					(2,	56)	1665	Normal and Shallow.
			e_N	15	30	22								Shaken Cheugtu(V),Szechwan.
			S_E	15	30	30								成都地震
			L	15	31	42								
			$M_{1N,Z}$	15	32	40	31 mm	mm	6	8		6		
			M_2	15	33	36	51	70	15	—	—	5		Max. trace amplitude.
			F	16	20									
1337	May10	I	P	6	00	56								
			L	6	07	26								
			M	6	08	48								
1338	May10		$e(P)_E$	15	09	30								
			$e_E(M?)$	15	12	34								
1339	May11	0u	P	17	36	13					(7,	18)	5600	Down.
			S	17	43	31								Manila: Region of 4°S,154°E
			e_E	17	47	.3								
			M_{EN}	17	52	50				22	20			
			F	18	20									

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∅=32°03'11"N 入=118°46'55"E h=60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
1340	1936 May 13	Or	P_E	11	12	09					(3,	06)	1780	
			S	11	15	15								
			L	11	16	58								
			M	11	19	02				10				
			F	11	38									
1341	May 14		M	12	11	38								
1342	May 15	Or	P_{WIE}	1	33	42					(3,	02)	1735	
			S	1	36	44								
			L	1	37	52								
			M_E	1	39	42								
			M_N	1	39	55								
			F	1	55									
1343	May 16	Ir	P_E	6	48	26					(3,	06)	1780	Fore shock of next,No. 1344
			S	6	51	32								
			L	6	52	29								
			M_{1N}	6	53	16				8				
			M_E	6	54	07					8			
			M_{2N}	6	54	41				5				Continued by next.
1344	May 16	IIIr	iP_E	7	08	51					(2,	24)	1335	Down.Felt at Chungking(VI)
			S_N	7	11	15								U GEGI: 28°N,102°E
			S_N wie	7	11	21								重慶强烈地震
			S_E	7	11	38								
			$L_N$wie	7	12	03								
			L_N	7	12	12	mm	mm						L_E 7h12m28S. Faint and out.
			M_1	7	13	25	72	43	33		2	3		
			M_2	7	14	42	20	13	36	7	7	6		F 9h22m.

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$\varnothing = 32°03'11"N$ $\lambda = 118°46'55"E$ h = 60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
1345	1936 May 16		e(P)	9	53	38								A.F. small.
			iL	9	56	21								Readings also at 13.4h,16.8h, 22.6h, 22.9h.
1346	May 17		e	10	41	16								
			S	10	45	39								
1347	May 17		e	22	30	36								Small.
1348	May 18		e	10	45	15								,,
			L	10	47	40								
1349	May 18	0r	P	20	25	38	?				(5,	24)	3630	Failure of minute marks.
			S	20	31	02								Time uncertain.
			L	20	34	32								
1350	May 19	I	e_E	0	12	40								
			L_N	0	13	38								
			M	0	15	53				5	6			
1351	May 19	Ir	P_N	7	29	02					(5,	10)		Deeper than normal.
			i_N	7	30	40								Manila: 5°N, 130°E.
			e_N	7	33	02								
			$iS_{N,E}$	7	34	12								
			L?	7	37	46								
			F	8	20									
1352	May 19	0	$e(P)_E$	10	24	24								e_E 10h27m 29s.
			L	10	28	48								
			M_E	10	30	25					6			
			M_N	10	30	40				6				

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$\varnothing = 32°03'11"N$ $\lambda = 118°46'55"E$ $h = 60m$. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
	1936													
1353	May 19		e	16	34	33								
			e(S)	16	38	09								
			eL	16	40	33								
1354	May 19	Ir	iP_N	20	57	49					(6,	07)	4310	Manila : 1°N, 141°E.
			iS	20	03	56								
			i	20	07	29								Continued by next.
1355	May 19	I	L_E	21	39	41								Initials masked by No. 1354.
			M_E	21	42	14		28			19			Continued by next.
1356	May 19	I	L_E	21	52	24								Similar to No. 1355.
			M_E	21	55	17		28			16			
			F	23	00									
1357	May 20		iP_N	0	20	14					(3,	20)		Deeper than normal
			$iS_{N,E}$	0	23	34								Felt at Manila & Ambulong(II).
1358	May 20	IIu	$iP_{N,E}$	3	15	02					(7,	52)	6200	Azi. SE down.
			PP_N	3	17	17								USCGS: 8°S,160°E.
			$iS_{N,Z}$	3	22	54								JSA: 7,7°S,159,6°E H=03,05,21.
			iS_E	3	23	00								normal.
			PS_N	3	23	33								
			SR_1	3	26	25								
			SR_{2N}	3	28	27								
			iL	3	32	59								
			M	3	37	52	41	35		20	20	19		
			F	6	40									
1359	May 21	Ir	$P_{N,E}$	2	58	50					(7	32)	5845	

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
	1936		$e(S)_N$	3	05	50								
			$S_{E.N}$	3	06	22								
			SR_1	3	09	54					18			
			L_N	3	14	46				23				
			M_1	3	18	15	5			18	18			
			M_2	3	19	36	4	4		18	17			
			F	4	20									
1360	May 22	0r	eP_E	0	37	47					(3,	54)	2355	
			eS_E	0	41	41								
			e_E	0	48	21								Beginning of M?
1361	May 22		eL	1	41	—								Surface wave of a teleseism
			F	2	40									
1362	May 22	Ir	eP_E	6	48	54					(3,	06)	1780	Quite small.
			e_N	6	51	22								
			eS?	6	52	00								
			L_N	6	52	49								
			M	6	55	02	3	6		6	6	5		
1363	May 22	Iu	P	23	32	31					(9,	24)	7965	Manila: 20°S, 170°E.
			iS	23	41	55								
			L_N	23	53	03								
			M_N	23	59	37				21				
			F	0	55									
1364	May 23	0r	e_N	15	51	25					(3,	32)	2080	
			S	15	54	57								
			F	16	10									

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	period T_N	T_E	T_Z	△	Remarks.
1365	1936 May23	0r	e_N	19	18	29					(6,	26)	4660	
			S	19	24	55								
			L	19	31	55								
			F	20	10									
1366	May24		e	12	19	46					(0,	26)	260	A small shock.
			eS	12	20	12								
			F	12	21									
1367	May24		S?	12	45	26								P not evident.
			eL	12	53	36								
			F	13	20									
1368	May25	Iu	P	3	10	46					(6,	40)	4920	
			iS	3	17	26								
			e_E	3	18	53								
			SR_1	3	20	50								
			SR_{2E}	3	21	26								
			eL	3	24	.1								
			M_N	3	26	40	18			20				
1369	May25		e	7	11	47								Trace.
1370	May25		e	11	02	27								"
1371	May25	Ir	eP	13	37	04					(6,	35)	4830	
			S	13	43	39								
			SR_{1N}	13	46	11								
			SR_2	13	47	07								
			L_N	13	50	39								

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No.	Date	Character	Phase	G.M.S. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
1372	1936 May 25	Or	eP	19	43	29					(2,	58)	1690	
			eS?	19	46	27								
			L	19	47	33								
			M_1	19	49	07	3	3		8	8			
			M_E	19	49	39		2			6			
			F	20	05									
1373	May 27	IIIr	iP_E	6	25	28					(5,	02)	3280	Up. Azi. almost east.
			iS_N	6	30	30								JSA: 24.2°N, 85.3°E normal.
			iSS_E	6	31	46								H=06h19m27s.
			iSS_N	6	31	57								USCGS: 29°N, 84°E.
			$i(SR_2)_E$	6	32	00								
			$(L?)_N$	6	34	12								
			i_N	6	35	40								
			$i_{E,Z}$	6	36	06								
			M_N	6	37	04				12				Out of limit.
			M_2	6	38	44			16	14	13	11		Large and faint.
			M_3	6	40	56	68	69		11	10			
			F	10	00									
1374	May 28	Ir	iP_N	12	30	42					(2,	24)	1335	
			eS	12	33	06								
			$i_{N,E}$	12	33	32								
			L	12	33	49								
			M	12	35.	1								
			F	13	20									
1375	May 28	Iu	P'	19	09	00					(8,	04)		USCGS: 10°N, 104°W.
			S_E?	19	17	04								JSA:9°s,103.5°W,H=18h49mlls
			PS_E	19	18	56								Depth about 270km.

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
	1936		PPS	19	20	16								
			SR_1	19	24	46								
			SR_2	19	30	12								
			i_N	19	31	39								
			e(L)	19	46.	4								Long period.
			M_1	19	51	02	18	16		22	22			
			M_2	19	54	08		19		20	20			
			M_E	20	09	36		9			17			
			F	21	35									
1376	Jun. 1	Iu	P	11	33	33					(9,	13)	7750	
			PR_1	11	36	44								
			S_E	11	42	46								
			S_N	11	42	49								
			SR_1	11	48	13								
			F	12	05									
1377	Jun. 2		e_E	13	29	36								
			L_E	13	32	53								
			M	13	34	02					12			
1378	Jun. 3	Ir	P	3	00	28								
			L?	3	06	—								Changing papers.
			M	3	07	35	19	14		17	17			
			F	4	00									
1379	Jun. 3		iS	9	38	45								JSA: 40.7°N, 125,5°W
			eL	9	55.	5								California.
1380	Jun. 3	Or	P	10	29	00					(4,	31)	2830	

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No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
	1936		S	10	33	31								
			e(L)	10	37	47								
			M	10	39	56				18				
			F	10	55									
1381	Jun. 4	Ir	P_E	13	12	50					(4,	37)	2910	Weak beginning.
			S	13	17	27								
			iSS_N	13	18	49				24				Confined on Ncomp.
			eL_E	13	20	33								
			M_1	13	21	50				16	14			
			M_N	13	22	39				14				
			F	13	50									
1382	Jun. 4		e	18	33	50								
1383	Jun. 5	O	iP_N	14	43	41								Probably deep.
			i_N	14	44	41								Manila: about 7°N, 135°E.
			i	14	48	45								
			(S)	14	50	49								
			F	15	30									
1384	Jun. 6		e_E	7	08	38								Very slight. From Wie
			e_E	7	11	42								
			e(L)	7	12	30								
			M	7	13	43								
			F	7	25									
1385	Jun. 6		eL	19	01	49								
1386	Jun. 9		e	2	23	10								e 2h 24m 47s.

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$\varnothing = 32°03'11''N$ $\lambda = 118°46'55''E$ h = 60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.S. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
1387	1936 Jun. 9	Ir	P_N	16	44	06					(5,	46)	3980	Manila: abont 3°S,95°E.
			PR_1	16	45	10								E comp. clock stopped.
			PR_2	16	45	33								
			S	16	49	52								
			L	16	53	45								
			M_1	16	57	±								
			M_2	17	02	00	14			13		15		
			F	17	40									
1388	Jun. 10	0	e	3	48	27								
			L	3	55	47								M not conspicuous.
1389	Jun. 10	IIr	iP	8	31	34					(6,	34)		Deep focus. Up.
			pP	8	32	14								USCGS: 15°S, 145°E.
			iS	8	38	08								Manila: 6°S, 144°E.
			sS	8	38	44								
			i	8	39	12								
			iSS	8	42	40								
			L	8	44	18				20				
			F	10	15									
1390	Jun. 10		M	17	40	07				15				
1391	Jun. 11		eL	10	ll.	5								
			M	10	15	28								
1392	Jun. 11		e_E	13	07	37								N comp. disturbed by jerks.
			M_E	13	17	13					20			
1393	Jun. 14	0r	eP	2	36	45					(5,	04)	3310	

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$\varnothing = 32°03'11''N$ $\lambda = 118°46'55''E$ h = 60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
	1936		eS	2	41	49								
			$e(L)_E$	2	46	27								
			M_E	2	52	51					16			
			F	3	30									
1394	Jun.14	0u	eP_E	17	12	25					(8,	50)	7245	Very weak.
			S	17	21	15								UGEGI:37°N, 35.5°E
			M	17	42	11								Felt at Alexanderette,
			F	18	20									Turkey, Asia Minor.
1395	Jun.16	Iu	eP	0	45	40					(10,	02)	8790	
			eS	0	55	42								
			eL	1	11	00								
			F	2	30									
1396	Jun.18	0r	eP_E	15	01	48					(4,	41)	2965	
			eS_E	15	06	29								
			e	15	10	14								
			F	15	30									
1397	Jun.19	IIr	P_E	16	39	21					(3,	48)	2280	
			S	16	43	09								
			L_{IN}	16	45	45								
			iL_2	16	45	57				12	12			Ln much larger than Mn
			M_N	16	46	55	9			7				
			M_E	16	47	09		8			8			F 17 h 40 m.
1398	Jun.20		i	4	57	52								A sharp impulse.
1399	Jun 20		e	10	04	22								

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$\varnothing = 32°03'11"N$ $\lambda = 118°46'55"E$ h = 60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
	1936													
1400	Jun. 21		$e(P)_E$	13	26	04								
			e	13	28	46								
			e(L)	13	29	58								F 13h 50m.
1401	Jun. 22		M	10	37	25								
1402	Jun. 23		e(S)	15	08	37								
1403	Jun. 25	0r	iP_E	16	55	17					(2,	46)	1565	Manila: 32°N, 145°E.
			S	16	58	03								F 16h 25m.
1404	Jun. 27	Ir	iP	21	18	50					(4,	30)	2810	
			S	21	23	20								
			L_1	21	25	56								
			L_2	21	27	18								
			M	21	29	41				16	17			
			F	21	25									
1405	Jun. 28	Ir	P	8	14	51					(4,	24)	2735	
			i_E	8	15	09								
			PR_{1N}	8	15	59								
			PR_{2N}	8	16	21								
			PR_{3N}	8	16	58								
			S	8	19	15								
			SR_1	8	20	14								
			SR_2	8	20	58								
			L	8	22	47								
			M_1	8	24	29	10			13	12			
			M_N	8	26	19	9			12				
			M_E	8	27	16					11			F 10h 55m.

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$\varnothing = 32°03'11''N$ $\lambda = 118°46'55''E$ h = 60m. Underground: Conglomerate.

No.	Date	Character	Phase	G.M.T. h.	m.	s.	Amplitude A_N	A_E	A_Z	Period T_N	T_E	T_Z	△	Remarks.
1406	1936 Jun.28		e	11	58	43								
			eL	12	06	27								
1407	Jun.28	0	eP_E	17	27	02								
			i_E	17	27	23								
			L_N	17	35	19								
1408	Jun.29	Ir	eP_E	14	37	22					(5,	44)	3945	UGEGI:Turkestan near
			PP	14	38	40								39°N, 65.5°E.
			$iS_{N,E}$	14	43	06								
			SS_N	14	44	36								
			SS_E	14	44	50								F 15h 50 m.
1409	Jun.30	IIIr	iP	15	13	45				4	4	4	3850	up.
			iS	15	19	23					(5,	38)		UGEGI:52.5°N,157°E Kamchatka.
			i_Z	15	13	58								sn.
			L_E	15	22	30								
			L_Z	15	23	00								
			M_Z	15	27	55						19		
			$M_{N.E}$	15	29	07				16	14			Data from Wiechert.
			M_{2E}	15	30	37					14			
			M_{2N}	15	30	52				15				
			F	19	20									
1410	Jun.30	0u	e_E	19	34	54					(6,	55)	5190	UGEGI:Turkestan near
			S_N	19	41	49								37.5°N,60.5°E.
			$e(L)_N$	19	49	53								
			L_{2N}	19	53	00								
			M_N	19	57	20	15			14				
			F	20	55									

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The National Research Institute of Meteorology acknowledges with thanks the receipt of the following seismological bulletins & publications from June 1 to August 31, 1936.

Stations	Bulletins and Publications.
Apia	April to June, '36.
Batavia	January to March, '36.
Bombay, etc.	Annual Summary of Seismic Records 1934.
California: Berkeley, etc.	Earthquakes and Registrations in North California from Oct. 1, '33 to March '34
Cape Town	April to June, '36.
Chiufeng	June, July, August, '36.
Copenhagen, Scoresby-Sund	Dec. '33 to June, '34.
Dublin	January to March, '36.
Firenze	Microsismi & Sismographie, 1934.
	Seis. Bull. & Teleg. Seism. Gennaio, Feb, Mar. '35
Florissant	Dec. '35, Jan.-Mar., '36.
Georgetown	Seism. Despatches from July '35 to April '36.
Gottingen	April - Juni, Juli - Sep., '35.
Hamburg	January to March, '36.
Helwan	April to June, '36.
Hong Kong	May and June, '36.
J. S. A.	Supp. Bul. Aug. 25, '35.
	Prel. Bul. April 1 to June 3, '36.
Kew	April, May, '36.
Kobe	Bul. Vol. XI, No. 1, 2 Jan. 1 to Jun. '36
Ksara	Annales Seismologiques Annee 1933 Bul. Mens.
	Bul. Mar.- June, '36.
La Paz	Juin '35 to Nov. '35.
La Plata	Feb. - Apr., '36.
Lund	January to June, '35.
Maniala	Semi-annually, Jan.
	Bul. April to June, '36.
Melbourne	January to March, '36.
Ottawa	April to June, '36.
	Reprint No. 28 by Dr. Hodgson.
Oxford	I. S. S. Jan.-Mar., Apr.-June, 1931.
Pare St. Maur	Mai, Juin, Bouillet, '36.
Pasadena	March, April, '36.
Perth	Feb. 29 - Apr. 29, '36.
Phulien	Oct. - Dec., '35.
Praha	Janvier to Mars, '36.
Riverview	April to June, '36.
Saint Louis	August to October, '35.
San Fernando	Marzo & Abril, '36.
Strassbourg	Mars - Juin, '36.
Taihoku	April to June, '36.
Tananarive	Oct. - Dec., '35.
Tokyo (E. R. I.)	Seismic Report 1935 part 3 July-Sep. '35
	Research Bulletins.
Uccle	Janvier 1 au Mars 18, '36.
Venezia	Bolletino Mensile, Luglio-Settembre Oct-Dec, '32
Wellington, Christchurch	Prel. April 1936.
Zikawei	No. 1-4 Jan.-Mars 21, '36
	No. 20-23 Nov. 25 - Dec. 30, '35.
Zinsen	Prel. Oct. - Dec., '35; Jan.- Mar. '36.
Zurich	No. 72, 73 & 74, Mai-Juli, 1936.