

DJAKARTA

Correspondence

DEPARTMENT OF AIR COMMUNICATION
METEOROLOGICAL AND GEOPHYSICAL SERVICE
D J A K A R T A

May & June 1963

& July & Aug. 1963

Seismological Bulletin
MAY, JUNE 1963

Geographical position of the stations :

DJAKARTA (D) : Lat. $06^{\circ} 11' S$; Long. $106^{\circ} 50' E$; h = 8 m.
Foundation ; River Quarternary.
Seismograph ; Wiechert Z = 1300 kg.
Wiechert N & E = 1000 kg.

TANGGERANG (T) : Lat. $06^{\circ} 10' S$; Long. $106^{\circ} 38' E$; h = 14 m.
Foundation ; Sand Stone.
Seismograph ; Sprengnether Z (To = Tg = 1,0 sec.)
N (To = Tg = 1,6 sec.)
E (To = Tg = 1,5 sec.)
Peak magnification : 3000.

LEMBANG (L) : Lat. $06^{\circ} 50' S$; Long. $107^{\circ} 37' E$; h = 1295 m.
Foundation ; Quarternary Volcanics.
Seismograph ; Sprengnether Z-Comp. (To = 1,4 sec.)
N-Comp. (To = 3,4 sec.)
E-Comp. (To = 17,7 sec.)

MEDAN (M) : Lat. $03^{\circ} 33' N$; Long. $98^{\circ} 41' E$; h = 32 m.
Foundation ; Marine Sediments.
Seismograph ; Sprengnether Z-Comp. (To = 1,5 sec.)
N-Comp. (To = 1,5 sec.)
E-Comp. (To = 1,5 sec.)

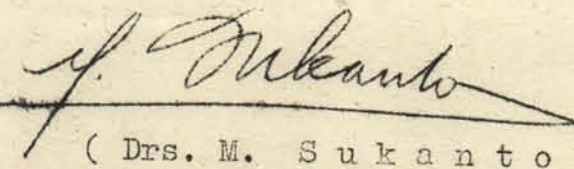
Constants of the Wiechert Seismograph :

	DJAK.	N - S	Comp.																	
	T	r	E	V	e	T	r	E	V	e	T	r	E	V	e					
	Constants										doubtful									
1963	7.3	0.44	7.25	214	1.15	7.3	0.38	4.65	214	1.10	4.0	0.25	4.29	-	1.12					
MAY																				
JUNE																				

Abbreviations used in the bulletin :

To = period of the seismometer.
Tg = period of the galvanometer.
c = a compressive first movement.
d = a dillatational first movement.
D = Djakarta station.
T = Tangerang station.
L = Lembang station.
M = Medan station.

Director Meteorological & Geophysical Service.,


(Drs. M. S u k a n t o).-

ADDRESS :

Meteorological and Geophysical Service.,
Djalan Geredja Inggeris No. 3.,
DJAKARTA IV/11., Indonesia.-

- 2 - May 1963

No.	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	Remarks
MAY 1963								
357	1	L	Z	e	10 23 59			Epic.: 19 S; 169 E. h = 96 km. (USCGS). O=10 ^h 03 ^m 20,2 ^s
			NE	e	30 28			
				F	10 40			
	1	D	EW	eP	10 13 29	W		
			EW	epP	51			
			EN	ePcP	14 20			
			NE	cPP	15 36			
			NE	ePPS	21 45			
			NE	eS	21 55			
			NE	cSS	25 20			
				F	10 41			
	1	M	Z	eP	10 14 30	d		
			Z	epP	15 06			
			NE	eS	23 32			
			NE	essS	24 34			
				F	10 35			
358	1	L	Z	e	10 42 43	d		
				F	10 48			
359	1	L	Z	iPg	17 54 41	c		
				F	17 57			
360	1	L	Z	iPg	18 45 29	d		O=18 ^h 45 ^m 03,7 ^s
			NS	i(Sg)	49			
				F	18 49			
361	2	M	Z	eP	05 12 32,5	d		Rather strong.
				F	05 17			
362	2	M	Z	eP	09 22 52			
				F	09 25			
363	2	T	Z	iP	23 33 54	c		Faint.
				F	23 37			
364	3	L	Z	iPg	15 25 06	c		O=15 ^h 24 ^m 34 ^s
			NE	eSg	36			
				F	15 28			
	3	T	Z	ePg	15 24 53	d		
			Z	e	25 10			
				F	15 29			
	3	D	NE	ePg	15 24 54	N		
				F	15 28			
365	4	T	Z	e	04 23 19			
				F	04 25			
366	4	M	Z	eP	19 18 26	c		Small.
				F	19 22			
367	5	M	Z	eP	01 09 25	c		
				F	01 12			
368	5	L	Z	e	07 51 59	d		Small.
				F	07 56			
	5	T	Z	eP	07 51 41	c		Faint.
			Z	e	53 16			
				F	07 57			
369	5	L	Z	e	15 36 42			
				F	15 40			
370	5	L	Z	e	17 23 40			
				F	17 26			
371	6	L	Z	eP	08 39 49	c		O=08 ^h 38 ^m 29 ^s Epic.: 9.1 S; 112.5 E h = 84 km. (USCGS)
			NE	ePPP	40 03			
			NE	eS	52,8			
			NE	ePcP	46 59			
			NE	eSoS	54 00			
				F	08 57			

371. 6. D. Z;

No.	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Dist.	Remarks
371	6	D	NS	eP	08 40 07	N		
			NE	eS	41 22			
			NE	eSSS	42 10			
			NE	ePcP	47 27,4			
			F		09 00			
	6	T	Z	eP	08 40 07	d		Rather strong.
			Z	e	41 21			
				F	08 50			
	6	M	Z	eP	08 42 49			
			Z	ePP	43 04			
			NS	eS	46 22			
				F	08 56			
372	6	M	Z	eP	13 55 37	c		Rather strong.
			Z	e(S)	58 22			
				F	14 02			
373	6	L	Z	eP	19 40 49			
				F	19 43			
	6	T	Z	eP	19 40 33			
			Z	e	41 00			
				F	19 43			
374	7	L	Z	iP	16 42 54	c		
				F	16 46			
375	8	M	Z	eP	09 49 07	c		Rather strong.
			Z	e	58			
			Z	e	51 25			
				F	09 59			
376	8	L	Z	eP	10 31 24	c		O=10 ^h 22 ^m 08,3 ^s
			NE	eS	38 53			Epic.: 36,6 N; 141,0 E
			NE	eSSS	40 03			h = + 53 km.
				F	10 54			(USCGS).
	8	D	N	eP	10 31 27	N		Rather strong.
			N	eS	38 53			
			N	ePPS	39 23			
			N	e	41 41			
			N	eSSS	44 20			
				F	10 50			
	8	T	Z	eP	10 31 26	c		
			Z	ePP	36			
			Z	ePcP	32 33			
			Z	ePP	33 25			
			Z	eS	38 51,6			
				F	10 45			
377	8	M	Z	eP	14 29 39	c		Rather strong.
				F	14 40			
378	8	L	Z	eP	15 28 49	d		O=15 ^h 23 ^m 54 ^s
			Z	ePT	29 28			Epic.: 5,3 N; 125,7 E
			NE	eS	32 48			h = + 70 km.
			NE	eSS	33 40			(USCGS).
			NE	eSSS	34 05			
				F	15 40			
	8	T	Z	eP	15 28 54	c		
			Z	e	29 11			
			Z	ePT	30			
			Z	ePPF	40			
			Z	eS	33 02			
				F	15 38			
	8	D	NE	eP	15 28 56	E		
			NE	e	30 24			
			NS	eS	33 06			
			NE	eSS	34 00			
			NE	e	35 00			
				F	15 41			
379	8	M	Z					4.-

No.	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	Remarks
379	8	M	Z	c F	18 53 45 18 56			
380	8	T	Z	cP cS cPP F	19 51 13 52 02 34 19 57	d		O=19 ^h 50 ^m 06,6 ^s Epic:3,6 S;103 E h=33 km. (USCGS).
	8	L	Z	cP i F	19 51 30 57 52 20 01			
381	9	L	Z	i F	21 31 59 21 34			Small.
382	10	☒ L	Z	iP F	04 38 47 04 42	d		Small.
	10	☒ T	Z	cP F	04 38 55 04 41	d		Small.
	10	☒ M	Z	c F	04 39 30 04 42			
383	10	L	Z	iP F	07 12 05 07 14	c		Small.
	10	T	Z	cP F	07 12 06 07 14	d		
384	10	☒ L	Z	cPKP1 cPKP2 cPP NS NE F	22 42 51 44 02 47 56 46 31 49 43 23 30	d		O=22 ^h 22 ^m 42,2 ^s Epic:2,2 S;77,6 W h=33 km. (USCGS).
	10	☒ T	Z	c(PKP1) cPKP2 F	22 42 51 44 01 22 58	d		
	10	☒ M	Z	cP F	22 42 54 22 59			Unreadable.
385	11	L	Z	cP F	06 37 10 06 42	d		
	11	D	NE NE	c e F	06 37 16 38 34 06 44			
	11	T	Z	cP c F	06 37 10 38 04 06 42	c		
386	11	L	Z	c F	08 05 28 08 18			Small.
387	11	☒ L	Z	c F	17 56 21 18 01	c		Faint.
	11	☒ T	Z	c F	17 56 30 18 00			Faint.
388	12	☒ L	Z NS	cP cS F	09 53 34 10 02 21 10 04			O=09 ^h 42 ^m 49,7 ^s Epic:57,5 S;159,4 E h=44 km. (USCGS).
	12	☒ T	Z	cP c F	09 53 39 54 17,4 09 58	c		Small.
	12	☒ M	Z	cP F	09 54 52 09 58			
389	12	L	Z	c F	19 29 59 19 34	d		Faint.
390	12	☒ L	Z	i F	20 25 26 20 31	d		Faint.

391. 13. L. Z; 5.-

No.	Date	Stat.	Comp.	Phase	Time(GMT)	Dir.	Degr.	R e m a r k s
391	13	L	Z	iP	14 17 46	d		O=14 ^h 07 ^m 40,6 ^s Epic:19,5 S;169,3 E h=163 km. (USCGS).
			Z	ipP	18 24	d		
			Z	ePP	19 59			
			Z	ePPP	21 41			
			NE	eS	25 55			
			NE	eScS	27 25			
				F	14 29			
	13	T	Z	eP	14 17 53	d		
			Z	epP	18 30			
			Z	ePP	20 14			
			Z	e	22 22			
			Z	eS	26 08			
			Z	e(PS)	38			
				F	14 34			
392	13	L	Z	iP	22 55 56	d		Faint.
				F	23 06			
393	14	L	Z	iP	00 30 56	c		Strong unreadable
				F	00 37			
	14	T	Z	iP	00 31 05	d		Rather strong.
			Z	e	26			
				F	00 36			
	14	D	EW	eP	00 31 04	E		
			EW	e	32 07			
				F	00 38			
394	14	L	Z	iP	01 09 16			Faint.
				F	01 14			
395	14	L	Z	iP	01 35 17	c		Local shock.
				F	01 40			
	14	T	Z	eP	01 35 04	d		
			Z	e	27			
				F	01 40			
396	14	L	Z	eP	15 12 51	c		Faint.
			NE	e	17 10			
				F	15 22			
	14	T	Z	eP	15 13 01	d		
			Z	e	25			
				F	15 19			
397	15	L	Z	iP	01 00 05	c		
				F	01 02			
398	15	L	Z	e	11 11 06	d		Faint.
				F	02 13			
399	16	M	Z	eP	01 53 29			
				F	02 03			
400	16	M	Z	iP	06 25 01	d		Small.
				F	06 28			
401	16	T	Z	eP	12 03 24	d		
			Z	e	04 45			
				F	12 06			
402	16	L	Z	e	15 24 43			Small.
				F	15 26			
403	16	L	Z	eP	15 57 10	d		O=15 ^h 52 ^m 18,4 ^s Epic:0,8 S;128,5 E h=50 km. (USCGS).
			NE	ePP	40			
			Z	ePPP	58 34			
			NE	eS	16 01 06			
			NE	eSSS	02 09			
				F	16 04			

No.	Date	Stat.	Comp.	Phase	Time(GMT)	Dir.	Degr.	Remarks
403	16	T	Z	eP	15 57 15	c		
			Z	ePP	46			
			Z	ePPP	58 00			
			Z	eS	16 01 25			
			Z	eSS	02 12			
			Z	eSSS	28			
				F	16 05			
	16	D	EW	eP	15 57 12	W		
			E	ePP	42			
			NE	ePPP	57,5			
			NE	eS	16 01 12			
			NE	eSSS	02 19,8			
			NE	eScS	08 30			
				F	16 12			
404	16	L	Z	eP	16 22 53	d		
			ZN	eS	26 48,8			
			NE	eSSS	27 37			
				F	16 31			
	16	D	EW	eP	16 23 00	W		
			NE	ePP	23 30,8			
			NE	ePcP	26 06			
			NE	eS	27 04			
			NE	e	28 24			
				F	16 35			
	16	T	Z	eP	16 22 59	c		
			Z	ePP	23 30			
			Z	e	24 20			
			Z	e(S)	27 05			
			Z	eSS	45			
			Z	e	28 33			
				F	16 31			
405	16	M	Z	eP	16 58 28	c		
				F	17 10			
406	17	M	Z	e	03 28 10			
				F	03 31			
407	17	L	Z	iP	06 14 43	c		
			Z	ePP	15 33			
			NE	eS	19 07			
				F	06 25			
	17	T	Z	iP	06 14 42	d		
			Z	epP	15 05			
			Z	ePP	24			
			Z	ePPP	41			
			Z	e	17 50			
			Z	eS	18 59			
			Z	eSS	20 06			
			Z	eSSS	24			
				F	06 23			
	17	M	Z	e	06 14 26			No time corection
				F	06 30			
408	17	L	Z	e	12 18 52	d		Faint.
				F	12 21			
409	17	L	Z	e	15 19 07	d		
				F	15 21			
410	17	L	Z	e	15 40 01	d		Faint.
				F	15 43			
411	17	L	Z	eP	17 19 53	c		Faint.
				F	17 22			
412	17	L	Z	iP	22 51 35			
				F	22 54			
413	18	L	NS	e	05 53 13	d		Faint.
				F	05 55			

O=16^h 27^m 59,2^s
Epic:1,0 S;128,8 E
h= ± 40 km.

O=06^h 09^m 13^s
Epic:15,7 N;120,1 E

414. 18. L. 7.

No.	Date	Stat.	Comp.	Phase	Time(GMT)	Dir.	Degr.	Remarks
414	18	L	Z	iP	12 22 28	d		O=12 ^h 31,9 ^s Epic:8,2 S;115,6 E h= 39 km. (USCGS)
			NS	eS	23 58,3	d		
			NE	ePcP	29 03,9			
			NE	eScS	36 06			
				F	12 40			
	18	T	Z	eP	12 22 44	d		
			Z	e(S)	24 25			
			Z	eSS	54			
			Z	eSSS	30 04,5			
				F	12 35			
	18	D	EW	eP	12 22 43			
			NE	eS	24 24,3			
			NE	ePcP	29 04			
			NE	e	32 07			
				F	12 42			
415	18	L	Z	eP	13 05 34	c	8°	O=13 ^h 03 ^m 35,8 ^s Epic:8,2 S;115,7 E h = 68 km (USCGS)
			NS	eS	07 05			
			Z	ePcP	12 04			
			NE	eScS	19 09			
				F	13 22			
	18	T	Z	eP	13 05 49	d		
			Z	ePPP	06 06			
			Z	eS	07 28			
			Z	eSS	50			
			Z	e	09 06			
				F	13 16			
	18	D	EW	eP	13 05 48	E		
			NE	eS	07 31			
			NE	eSSS	08 01			
			NE	e	09 58			
				F	13 19			
416	18	L	Z	e	16 48 45	c		
				F	16 51			
		T	Z	e	16 42 40	d		
				F	16 45			
417	19	L	Z	e	01 22 09			
			NS	e	24 09			
				F	01 32			
	19	D	NS	e(PKP)	01 24 12			O=01 ^h 03 ^m 04 ^s Epic:46,5 S;75,1 W h= 33 km. (USCGS)
			NE	eSKS	30 13,5			
			NE	e	36 02			
				F	01 50			
418	19	L	Z	eP	09 49 44	d		O=09 ^h 48 ^m 23 ^s Epic:4,1 S; 103,1 E
			EW	eS	50 46			
				F	09 55			
	19	T	Z	eP	09 49 27	d		
			Z	eS	50 14			
			Z	eFP	49 28			
				F	09 55			
	19	D	EW	e	09 50 20			Faint.
				F	09 55			
	19	M	Z	iP	09 41 11	c		
			NS	e(S)	44 50	c		
				F	09 50			
419	19	L	Z	eP	19 26 13	d		O=19 ^h 21 ^m 22 ^s Epic:2,3 N;128,6 E h=166 km. (USCGS).
			NE	eS	30 07			
				F	19 33			
	19	T	Z	eP	19 26 19	d		
			Z	e	41			
			Z	e	27 08			
			Z	e	31 14			
				F	19 32			

No.:	Date	Stat.	Comp.	Phase	Time(GMT)	Dir.	Degr.	R e m a r k s
420	19	L	Z NS	ePKP e F	21 55 39 57 35 22 15	d		Rather strong Epic:23,8N; 45,9W h=33 km. (USCGS).
	19	T	Z Z Z Z	ePKP1 e(PKP2) ePKS e F	21 55 33 39 59 08 22 00 53 22 10	d		
	19	D	NS	e F	21 55 41 22 10			
	19	M	Z NS	ePKP e F	21 55 15 58 48 22 08	c d		
421	20	L	Z	e F	11 24 44 11 26			Faint.
422	20	L	Z Z Z Z NE	iP (ipP) iPcP ePP eS F	11 49 30 40 47 52 15 59 26 12 30	d		O=11 ^h 38 ^m 00 ^s Epic:30,7S;178,3W h=34 km. (USCGS)
	20	T	Z Z Z Z Z	iP ePP e eS ePS F	11 49 34 52 20 54 08 59 02 32 12 05	c		
	20	D	EW NE NE NE NE	eP ePcP e eS ePS F	11 49 34 50 54 45 59 00 39 12 35	E		
	20	M	Z Z Z Z NE	iP ePcP epP ePP eS F	11 50 35 43 48 53 56 12 00 57 12 07	c c d c c		
423	20	L	Z NE	iP eS F	21 09 51 14 07 21 17	c		O=21 ^h 05 ^m 11,3 ^s Epic:2,8N; 128,8E h=148 km. (USCGS)
	20	T	Z Z Z Z	eP epP ePP eSS F	21 09 56 10 28 32 14 35 21 17	d		(S wave unreadable)
424	21	L	Z EW	eP e F	09 11 59 13 14 09 17	d		Epic: h=33 km. (USCGS)
	21	T	Z Z	eP e(S) F	09 11 58 12 50 09 17	c		
425	21	L	Z EW	iP e(S) F	12 40 26 58 12 46	d		
	21	T	Z	eP F	12 40 24 12 44	c		Small
426	21	L	Z	eP F	17 39 45 17 46	d		Faint. Epic:
	21	T	Z	e	17 39 39			

No.:	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	R	e	m	a	r	k	s
427	22	L	NS	e F	02 37 35 02 40	c								
428	22	L	Z NS NE NE	eP ePPP eS eSS F	14 07 40 12 03 16 36 17 30 14 22	c	68°	O=13 ^h 56 ^m 42,1 ^s Epic:48,6N; 154,7E h= 22 km. (USCGS).						
	22	T	Z Z Z	eP e e F	14 07 49 08 42 11 02 14 14	c								
	22	D	ZE NS NE NE NE	eP ePcP e ePPP eS F	14 07 50 08 10 10 40 12 01 16 52 14 24		69°							
	22	M	Z	eP F	14 07 28 14 14	c								
429	22	L	Z	i F	14 36 04 14 39			Faint.						
430	22	L	Z Z Z NE NE	iP ePP e(PPP) eS eSS F	15 47 51 48 30 45 51 55 52 40 16 03	c		O=15 ^h 42 ^m 49,2 ^s Epic:4,3N;127,9E h=58 km. (USCGS). Strong.						
	22	T	Z Z Z Z Z Z	eP ePP e ePcP eS e(SSS) F	15 47 55 48 33 48 41 51 35 52 08 53 20 15 59	c		Strong.						
	22	D	NE NE NE	eP eS eSS F	15 47 58 52 10 53 02 16 19	E		Rather strong.						
	22	M	Z Z NE	eP ePP e(S) F	15 48 47 49 20 53 27 16 05	c		Rather strong.						
431	22	M	Z	eP F	18 58 52 19 22	d		Small.						
432	22	L	Z	iP F	19 54 48 20 00	c		Local shock.						
	22	T	Z Z	eP e(S) F	19 54 08 28 19 57	d								
	22	D	E	e F	19 54 08 20 01									
433	22	T	Z Z	e e F	19 58 50 59 10 20 01									
434	22	L	Z NE NE NE	iP eS e(PcP) eSoS F	21 55 02 56 47 22 01 34 09 34 22 20	c		O=21 ^h 53 ^m 03,5 ^s Epic:8,2S;115,7E h= 33 km. (USCGS).						

No.:	Date	Stat.	Comp.	Phase	Time(GMT)	Dir.	Degr.	Remarks
434	22	T	Z	iP	21 55 16	d		
			Z	e(S)	57 00			
			Z	eSS	16			
			Z	ePcP	22 01 38			
			Z	ePcS	05 17			
			Z	eScS	08 40			
			F		22 13			
	22	D	NE	eP	21 55 18	W		
			NE	eS	56 58			
			NE	ePcP	22 01 30			
			NE	ePcS	04 31			
			NE	eScS	08 22			
			F		22 28			
	22	M	Z	eP	21 57 43	d		
			Z	ePP	58 07			
			NS	eS	22 01 29			
			F		22 16			
435	23	L	Z	eP	00 56 22			Faint.
			F		01 00			
	23	T	Z	eP	00 56 28			
			F		01 03			
	23	M	Z	eP	00 57 30	c		Small.
			F		01 00			
436	23	L	Z	e	01 18 57			Faint.
			F		01 21			
437	23	L	Z	eP	03 44 37	c		O=03 ^h 33 ^m 31 ^s
			Z	epP	45 40			Epic.:15,0 S;176,7 W.
			NS	e(S)	53 44			h = 279 km.
			F		04 00			(USCGS).
	23	T	Z	eP	03 44 41	c		
			F		03 50			
	23	M	Z	Faint traces between 03h 45m and 03h 50m				
438	23	L	Z	e	05 32 32			Epic.:7,9 S;115,3 E.
			F		05 38			h=33 km. (USCGS).
	23	T	Z	eP	05 32 37	d		
			Z	e(S)	34 23			
			Z	e	42			
			F		05 38			
439	23	L	Z	cP	15 16 59	c		O=15 ^h 12 ^m 05,7 ^s
			Z	epP	17 20			Epic.:6,0 N;126,1 E.
			Z	ePP	31			h=88 km. (USCGS).
			NS	eS	20 58			
			NE	eSS	21 50			
			F		15 25			
	23	T	Z	eP	15 17 05	d		
			Z	cPP	33			
			Z	e	18 23			
			Z	e(S)	21 04			
			F		15 26			
	23	M	Z	eP	15 17 47	c		Faint.
			F		15 23			
440	23	L	Z	e	18 16 29	c		
			F		18 19			
441	26	L	Z	iP	11 07 39	d		Local shock.
			F		11 12			
	26	T	Z	eP	11 07 44	d		Local shock.
			Z	e(S)	59			
			F		11 11			

No record from; 11.-

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No.:	Date	Stat.	Comp.	Phase	Time(GMT)	Dir.	Degr.	Remarks
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No record from Medan station between May 24th up to May 31th 1963.

442	26	T	Z	eP F	23 18 32 23 22		c	
443	27	L	Z EW	iP e F	06 01 53 02 07 06 06		d	
	27	T	Z Z	e e F	06 02 21 35,5 06 07		d	
444	27	L	Z	e F	16 24 58 16 29		c	Faint.
	27	T	Z	eP F	16 25 25 16 30		c	
445	27	L	Z	i F	21 04 05 21 08		c	Faint.
	27	T	Z Z	e e(S) F	21 04 41 05 25 21 07			
446	27	L	Z	e F	21 47 21 21 52			
	27	T	Z	e F	21 48 05 21 50			
447	28	T	Z	Faint traces between 16h 28m and 16h 31m				
448	30	T	Z	eP F	07 05 52 07 10			
449	30	T	Z	eP F	08 25 55 08 30		c	

JUNE 1963

450	1	M	Z NS	eP e(S) F	12 51 06 34 12 56		c	In minute break.
451	1	M	Z E	iP i F	19 06 11 27 19 11		d c	
452	1	T	Z Z	eP e F	20 13 55 14 09 20 16		d d	
453	1	T	Z Z	e e F	21 18 42 59 21 21		c c	
454	1	T	Z Z Z	eP e e F	21 25 54 26 03 51 21 30		c d	
455	2	M	Z E	eP e F	00 05 57,5 06 54 00 15		c	Faint.
456	3	T	Z Z Z	eP (epP) eS F	07 44 46 51 52 12 07 54	50°0	d	O=07 ^h 35 ^m 54,35 ^s Epic.: 34,2 N; 138,7 E h= 43 km. (USCGS).
	3	M	Z N	eP e F	07 44 34 46 20 07 51		c	

457. 3. T. Z; 12.-

466. 5. T. Z : 13.-

- 13 -

No.	Date	Stat.	Comp.	Phase	Time(GMT)	Dir.	Degr.	Remarks
466	5	T	Z	eP	22 44 13,3	c		
			Z	iPP	48	c		
			Z	ePPP	58			
			Z	iPcP	47 56	c		
			Z	eS	48 25			
			Z	eL	49			
				F	23 03			
	5	D	Z	cP	22 44 11			
			E	e	15			
				F in coda of No. 18				
467	5	L	ZNE	eP	22 57 26	d/N/E		0=22 ^h 54 ^m 23 ^s
			Z	iPP	38	d		Celebes
			Z	iPPP	58 06			(USCGS).
			NE	iS	23 00 08	S/W		h=75 km.
			E	ePcP	03 34			Epic.: 0,3 S; 119,5 E
				F	23 20			
	5	T	Z	cP	22 57 35	d		
			Z	iPP	44	c		
			Z	i	59 29	c		
			Z	iS	55	c		
			Z	iPcP	23 02 28	d		
				F	23 22			
	5	M	Z	eP	22 59 21	c		
			Z	ipP	43	c		
			NE	c(S)	23 03 10			
				F	23 15			
	5	D	Z	eP	22 57 31,5	c		
			Z	(iPPP)	52	d		
			E	eS	59 54			
			Z	e	56			
				F	23 20			
468	6	L	ZN	cP	05 24 58	d/N	29,5°	0=05 ^h 18 ^m 52 ^s
			N	iPP	25 25	S		off North Coast of
			N	ePPP	58	S		Luzon, Philippines
			N	iPcP	27 58	N		Island (USCGS)
			N	eS	29 52			h= ± 32 km.
			N	eScS	35 30			
				F	05 44			
	6	T	Z	eP	05 25 01	d	29,3°	
			Z	iPP	27	c		
			Z	iPPP	26 12	c		
			Z	ePcP	28 04			
			Z	eS	29 52			
				F	05 34			
	6	D	Z	eP	05 24 27,7	d		
			Z	ePP	25 07			
			Z	ePPP	26			
			NE	eS	29 01			
			E	eSSS	30 34	E		
				F	05 40			
	6	M	Z	eP	05 24 34	d		
				F	05 30			
469	6	M	Z	eP	08 22 28	c		Faint.
				F	08 29			
470	6	L	Z	iP	12 11 59	d	37,6°	0=12 ^h 04 ^m 46,5 ^s
			Z	iPP	13 31	d		1500 km. NE of
			Z	iPPP	14 01	d		Kerquelen Island
			Z	iPcP	22			h= 33 km.
			NE	eS	17 42			Mag.: 5,3 (CGS).
			E	i	28 20	E		
			E	eSS	20 04			
			E	iSS	21 56	E		
				F	12 40			

471. 7. T. Z; 14.--

No.:	Date	Stat.	Comp.	Phase	Time(GMT)	Dir.	Degr.	Remarks
471	7	T	Z	iP	15 55 56	d	39,0°	0=15 ^h 49 ^m 57,4 ^s Epic.: 19,0 N; 121,8 E h= ± 33 km. (CGS). Mag.: 4,7
			Z	i	56 24	c		
			Z	i	30	c		
			Z	iPP	50	c		
			Z	eS	16 00 46			
			Z	e(PcS)	02 43	c		
				F	16 06			
	7	L	No electric current between 14 ^h 00 ^m and 17 ^h 30 ^m					
	7	M	Z	eP	15 55 42	d	28.0°	
			Z	ePP	56 27			
			Z	ePPP	39			
		NS	eS	16 00 20				
		NS	eSS	01 22				
		NS	eSSS	51				
			F	16 03				
472	7	L	Z	eP	19 03 47			
				F	19 05			
473	7	L	Z	eP	19 50 38			No time correction.
				F	19 53			
474	7	L	Z	eP	22 49 44			No time correction.
				F	22 53			
475	8	M	Z	eP	01 22 15	d		
				F	01 27			
476	9	L	Z	eP	01 24 46		20,8°	0= 01 ^h 20 ^m 05 ^s h = 33 km.
			Z	ePP	25 08			
			Z	ePPP	21			
		N	eS	28 31	N			
		N	e	43				
		N	i	29 06	N			
			F	01 36				
477	9	M	Faint traces between 09 ^h 46 ^m and 09 ^h 52 ^m					
478	9	M	Z	eP	10 27 36	c		Rather strong. Local shock.
		EW	e	56				
			F	10 35				
479	9	L	Z	ePg	12 13 25		1,6°	0=12 ^h 12 ^m 51 ^s
		N	eSg	47				
			F	12 15				
480	9	L	ZE	e	13 29 53			
			F	13 34				
481	9	L	Z	ePg	15 34 15		1,7°	0= 15 ^h 33 ^m 39 ^s
		NE	eSg	38				
			F	15 36				
	9	T	Z	e	15 34 14,6			
			F	15 38				
482	9	L	Z	iP	20 57 41	c		
			Z	i	57	c		
		ZN	i(S)	58 09	c/N			
			F	20 30				
483	10	L	Z	iP	04 26 23	d	58,2°	0=04 ^h 16 ^m 37,7 ^s Epic.: 55,4 S; 146,7 E (USCGS). h= 33 km. Mag.: 6 ¹ / ₄ (Pas) 4 ¹ / ₄ - 6 (Pal) 6,1 (CGS).
			Z	ePcP	27 10			
			Z	iPP	28 37	c		
			Z	ePPP	29 49			
		N	eS	34 28	S			
		N	iScS	50	N			
		N	iSS	38 30	N			
			F	04 46				
	10	D	ZN	eP	04 26 30,2	c		
			ZN	ePcF	27 14			
		Z	e	47				
		N	eS	34 27	S			
		NE	eSS	38 19				
			F	04 50				
								483. 10. T. Z; 15.-

No.:	Date	Stat.	Comp.	Phase	Time(GMT)	Dir.	Degr.	Remarks
483	10	T	Z	eP	04 26 30,5	d		
			Z	i	44	d		
			Z	iPcP	27 15	d		
			Z	ePP	28 43	c		
			Z	eS	34 44,5			
484	10	L	Z	eP	06 48 51		58,2°	0=06 ^h 39 ^m 04 ^s
			N	ePcP	49 38	S		Epic.: 55.3 S; 14,6 E
			N	iPP	51 07	S		(USCGS)
			N	iPPP	52 17	N		h = 18 km.
			N	iS	56 56	S		Mag.: 6 $\frac{1}{4}$ - 6 $\frac{1}{2}$ (Pas).
			N	ePS	57 18			6 $\frac{1}{4}$ - 6 $\frac{1}{2}$ (Pal).
				F	07 25			6.0 (CGS).
	10	D	Z	eP	06 48 59	c	58,6°	
			Z	ePcP	49 44	c		
			E	iPP	51 06			
			E	ePS	57 12	W		
			NE	eS	02			
			E	eSS	07 00 49			
				F	07 26			
	10	T	Z	eP	06 48 58	d		
			Z	e(PcF)	49 43			
			Z	eS	56 53			
				F	06 59			
485	10	L	ZNE	ePg	16 51 25		3,7°	
			NE	eSg	52 14			
				F	16 56			
486	11	L	Z	iP	00 06 53	d		
				F	00 11			
487	11	T	Z	e	16 51 38,5			
				F	16 56			
488	12	L	Z	ePg	17 52 16		1,2°	
			NE	eSg	32			
				F	17 57			
	12	T	Z	eP	17 52 25,5			
				F	17 56			
489	13	L	Z	iPg	08 39 40	c	4,1°	0=08 ^h 38 ^m 15 ^s
			NS	eSg	40 34			
				F	08 46			
490	13	M	Z	eP	10 41 14	d		
				F	10 46			
	13	T	Z	eP	10 39 49	c		0=10 ^h 34 ^m 52.4 ^s
			Z	epP	40 23	c		Epic.: 6,1 S; 130,1 E.
			Z	(ePP)	36			h = ± 150 km.
				F	10 45			Mag.: 4,9 (CGS).
491	13	M	Z	eP	14 52 47	c		Faint.
				F	14 59			
492	15	M	EW	eP	12 06 50	d		Faint.
				F	12 12			
493	15	L	Z	ePg	08 12 55		3,8°	0=08 ^h 11 ^m 36 ^s
			NS	iSg	13 45	S		
				F	08 17			
	15	T	Z	eP	08 13 15,5			
				F	08 18			
494	15	L	Z	eP	11 57 59		28.0°	
			Z	i	58 19	d		
			Z	iPP	43	d		
			Z	i	59 00	c		
			Z	iPcP	12 01 04	d		
			NE	eS	02 39	S/E		
			NE	e	04 01	N/E		
				F	12 08			

- 16 -

No.:	Date	Stat.	Comp.	Phase	Time(GMT)	Dir.	Degr.	Remarks
494	15	T	Z	e F	11 58 18 12 01			
495	15	T	Z	e F	12 02 16 12 06			
496	17	L	Z	iF	18 42 47	d	76.0°	0=18 ^h 31 ^m 01 ^s
			Z	iPcP	53	d		Epic.: 65,8 S; 179,5 W.
			Z	iFP	45 37			h= 33 km. (USCGS).
			NE	iS	52 41	S/E		Mag.: 5,6 (CGS).
			NE	i(SS)	53 10			
				F	19 07			
	17	T	Z	eF	18 42 52	c		
				F	18 47			
	17	M	Z	iF	18 32 47	c		
			N	e	59			
				F	18 35			
	17	D	Z	e	18 42 58			
			NE	e	53 46			
				F	18 58			
497	17	L	ZN	iF	20 20 27	c/N		
				F	20 22			
	17	T	Z	e	20 20 33.5			
				F	20 23			
498	17	L	ZNE	iF	23 03 35	d/S/W		Epic.: 4,1 S; 102,2 E.
			ZE	ePcP	10 52			h= 33 km.
			NE	i	14 00	N		Mag.: 6 (USCGS).
			NE	i	18 38			Strong S-wave.
				F	23 24			unreadable.
	17	T	Z	eF	23 03 19,7	d		
			Z	i	08 53,5			
			Z	e	17 41,5			
			Z	e	18 13			
				F	23 20			
	17	D	ZNE	eF	23 03 19			
			NE	iS	05 14	N		
			Z	ePcP	11 29			
			N	eScS	18 21			
				F	23 26			
	17	M	Z	eF	23 04 06	d		
			NS	eS	05 23			
			Z	ePcP	10 35			
			EW	e	15 16			
			NS	e	17 15			
				F	23 22 00			
499	18	M	Z	eF	00 55 44	d		
			NS	e	56 21			
			Z	e	58 50			
				F	01 00			
500	18	M	Z	eF	03 09 57			
			Z	e	10 27			
				F	03 12			
501	18	L	ZN	eF	04 10 17		42.0°	Epic.: 29,0 N; 129,9 E.
			E	iS	16 35	W		h= ± 33 km.
				F	04 20			Mag.: 5,5 (CGS).
	18	T	Z	eF	04 10 16	c		
			Z	i	26	c.		
			Z	iFP	11 51	c		
				F	04 13			

502. 19. L. ZNE; 17.-

- 17 -

No.:	Date	Stat.	Comp.	Phase	Time(GMT)	Dir.	Degr.	R e m a r k s
502	19	L	ZNE	iP	09 13 52	d/N/E	22.0°	O=09 ^h 09 ^m 04 ^s
			NE	(ipP)	14 02	N		Epic.: 4,7 N; 126,5 E.
			NE	ePP	22			h=83 km. (USCGS).
			NE	ePPP	38			Mag.: 5 $\frac{1}{2}$ -5 $\frac{1}{2}$ (Pal).
			E	iS	17 36	W		6,2 (CGS)
			E	eSS	18 24	E		
			E	i	19 28	E		
				F	09 44			
19	T	Z		eP	09 13 58,8	c		
		Z		epP	14 15,6	d		
		Z		eS	17 59			
		Z		eSS	18 50			
		Z		eSSS	19 04,8			
				F	09 28			
19	D	Z		eP	09 13 55,7	c		
		Z		ipP	14 16,4	d		
		Z		ePP	32,9	c		
		E		eS	17 10	E		
		E		eSS	18 48	W		
				F	09 37			
19	M	Z		eP	09 14 49	c		
		Z		ePP	15 34			
		Z		ePPP	46			
		NS		eS	19 40			
		EW		eSS	21 10			
		EW		eScS	25 30			
				F	09 33			
503	19	T	Z	eP	10 54 06,5	d		Epic.: 25,0 N; 92,1 E.
		Z		(iPP)	55 20,9	c		h= 51 km.
		Z		(ePPP)	39			Mag.: 5.7 (CGS)
				F	10 58			
19	M	Z		eP	10 52 20	d		O=10 ^h 47 ^m 17.2 ^s
		Z		ePP	50			Epic.: 25 N; 92,1 E.
		Z		(ePPP)	53 02			h= 51 km. (USCGS)
		NS		eS	56 27			
		EW		eSS	57 16			
				F	11 03			
504	19	L	Z	iP	12 29 30	d		
		N		i(S)	30 17			
				F	12 32			
505	19	L	Z	iPg	15 01 18	c		O=15 ^h 00 ^m 29 ^s
		N		iSg	49			
				F	15 06			
506	19	L	ZN	iP	18 30 05	d/N	46.0°	O=18 ^h 22 ^m 09.6 ^s
		Z		ipP	31 05	d		Epic.: 3,5S; 153,4E
		Z		iPcP	37	c		h = 279 km.
		Z		iPP	53	d		Mag.: 5,1 (CGS).
		Z		ePPP	32 55	c		
		E		eS	36 28	E		
				F	18 42			
507	19	L	Z	eP	23 10 37		49,5°	O=23 ^h 01 ^m 56 ^s
		Z		i	51			Epic.: 31,5N; 140,3E.
		Z		e(sP)	11 09			Mag.: 5 $\frac{1}{2}$ (BKS)
		Z		iPcP	12 06			5 $\frac{1}{2}$ (Pal)
		Z		ePP	41			5.0 (S.D)
		E		e	13 05	W		(USCGS).
		N		iS	17 43	S		
				F	23.34			
508	20	L	Z	iP	22 57 53	d		
				F	23 02			
20	T	Z		eP	22 57 59,4	d		
				F	23 00			

508. 20. M. Z; 18.-

No.	Date	Stat.	Comp.	Phase	Time(GMT)	Dir.	Degr.	R e m a r k s
508	20	M	Z	e F	22 59 00 23 03			
509	21	M	Z NS	eP e F	00 15 48 16 12 00 22	d		
510	22	L	ZNE NE	iP eS F	16 13 50 15 21 16 20	d/N/E		O=16 ^h 12 ^m 15 ^s Epic.:6.0S;113.1E Mag.:5,1 (CGS)(USCGS)
	22	T	Z Z	eP eS F	16 13 56,8 15 19.6 16 19	d d		O=16 ^h 12 ^m 15 ^s Epic.:6.0S;113.1E h=+ 595 km. Mag.5.1 (CGS).
511	22	M	Z Z	eP e F	23 58 47 00 00 38 00 05	d		
512	23	L	Z NE	iP S F	07 49 30 50 05 07 52	d S/W		
	23	T	Z	e F	07 49 31,6 07 52			
513	23	L	Z N	iP iS F	10 53 04 54 02 11 00	d S		O= 10 ^h 51 ^m 50 ^s Epic.:9.0S;113.1E h=157 km.(USCGS).
	23	T	Z Z Z Z Z	eP epP eS ecS eSS F	10 53 28 23 54 46,5 54 54.5 59 10 59	d c c		
514	23	L	Z ZN	iP e F	16 31 57 33 28 16 38	d		
	23	T	Z	eP F	16 31 00 16 37			
515	24	T	Z	e F	04 44 35,5 04 47			
516	24	T	Z Z	eP e F	13 29 35,4 30 28 13 32	c		Epic.:25,5S;175.6W h=238 km. Mag.:4,6 (CGS)
	24	L	ZN	iP F	13 29 28 13 36	d		
517	24	L	Z NE N E	iP eS i i F	18 58 15 59 23 41 45 19 05	S W	6.0°	O=18 ^h 56 ^m 46 ^s Epic.:4.6S;101.8E. h=33 km. (USCGS).
	24	T	Z Z Z	eP eS e F	18 58 00 59 59 32,2 19 04	d d		
518	25	L	ZNE ZNE ZNE E Z	iP (iFcP) (iFcP) i iScS F	14 32 46 41 05 44 25 45 35 47 57 15 05	c/N/E c/N/W c		O=14 ^h 32 ^m 14.3 ^s Epic.:8,4S; 126,3E Mag.:5,4 (CGS) (USCGS). Strong S-wave unreadable.
	25	T	Z Z Z Z	eP e eFcP e F	14 32 49,6 38 34 40 34 45 03 14 50	c c c		S-wave unreadable..

No.:	Date	Stat.	Comp.	Phase	Time(GMT)	Dir.	Degr.	Remarks
518	25	✓ D	N E E	eP iS e F	14 32 50 33 17 42 50 15 05	N W E		
519	26	T	Z	e F	04 06 34 04 08			
520	26	M	Z	e F	08 55 24 08 58	d		
521	26	✓ L	Z Z ZNE N N	iP iFP iPTT iS i(SS) F	09 46 25 52 47 02 50 23 45 09 56	d c c/S/E N N		O=09 ^h 41 ^m 30 ^s Epic.: 4,6N; 126,3E. Mag.: 4,9 (CGS) h= 33 km. (USCGS).
	26	✓ T	Z Z Z	eP iTP i(PFP) F	09 46 30 58,8 47 10 10 02	d c d		
	26	✓ D	Z N NE	D e eS F	09 46 26 52 50 22 10 03	d S		
	26	✓ M	Z	eP F	09 47 19 09 52	d		
522	27	L	Z E	iP eS F	11 47 50 48 44 11 53	d		
	27	T	Z	eP F	11 48 12 11 55			
	27	D	Z	e F	11 48 15 12 03			
523	27	✓ M	Z Z Z Z Z	eP ePP ePTT eS eSSS F	15 35 40 49 56 37 50 38 18 15 45	d		O=15 ^h 32 ^m 48,4 ^s Epic.: 14,4N; 93,7E. h= 33 km. (USCGS).
524	28	✓ L	ZN N N ZN Z N N	iP i i i(PcF) eFP eS eSS F	02 37 04 27 47 38 48 53 43 37 47 59 02 49	d/N S S S/N		O=02 ^h 28 ^m 51,6 ^s Epic.: 27,5S; 66,1E. h= 33 km. Mag.: 6.0 (CGS) (USCGS).
	28	✓ T	Z	iP F	02 38 01 02 40	c		
	28	✓ M	Z	eP F	02 37 03 02 40	c		Faint.
525	28	✓ L	ZNE Z Z N ZNE Z E	eP iPT i iS iPcP iPcS iScS F	13 50 57 51 08 47 52 318 56 39 14 00 05 03 37 14 12	17,7° d N c/N/W		O=13 ^h 47 ^m 56 ^s Epic.: 1,3N; 97,4E. h= ± 30 km. Mag.: 5.0 (CGS). (USCGS).
	28	✓ D	Z E	e e F	13 51 14 55 03 14 08			

- 20 -

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No.:	Date	Stat.	Comp.	Phase	Time(GMT)	Dir.	Degr.	R e m a r k s		

525	28	✓ T	Z	eP	13 50 34					
			Z	eS	52 41					
			Z	e	55 06,1	c				
			Z	e(PcP)	56 23	c				
			F	14 02						
	28	✓ M	Z	eP	13 48 31	c			S-wave unreadable	
			Z	e	56 31					
			EW	e	59 30					
			F	14 12						
526	28	M	Z	e	14 45 46	d				
				F	14 50					
527	28	M		Faint traces between 15h 23m and 15h 28m						
528	28	✓ L	ZN	iP	22 06 29	c/S	67,4°	O=21 ^h 55 ^m 35 ^s Epic.:46,5N;153,2E. h= ± 33 km. Mag.:6.1 (SD) (USCGS).		
			ZN	ipP	38					
			Z	ePcP	57					
			Z	iPP	08 58	c				
			Z	iPPP	10 39	c				
			N	iS	15 21	N				
			N	iScS	16 19	S				
			NE	eSS	19 45					
				F in coda of no. 81						
	28	✓ T	Z	eP	22 06 29,5	c				
			Z	e	36	d				
			Z	ePcP	07 23	d				
			Z	(cPP)	08 56	c				
				F in coda of no. 81						
	28	✓ D	Z	eP	22 06 30	d				
			Z	e(PcP)	56					
			N	iS	15 14	S				
			NE	(eScS)	16 11	S				
			E	eSS	19 38					
			F	22 45						
	28	✓ M	Z	eP	22 06 08	d				
			Z	ePcP	43					
			Z	ePP	08 27					
			Z	ePPP	09 59					
			N	eS	14 28					
			N	eScS	18 27					
			F	22 26						
529	28	L	ZNE	iP	22 35 40	d/N/E		O=22 ^h 24 ^m 46 ^s		
			Z	ipP	49	d				
			Z	iPcP	36 10	d				
			N	e(PPP)	38 01					
			ZE	iS	44 20	N				
			N	i(SS)	48 29	N				
			F	23 00						
	28	T	Z	e	22 35 06					
			F	23 38						
530	28	✓ L	ZN	eP	23 07 55					
				F	23 16					
531	28	✓ M	Z	eP	23 18 36	c				
			NS	e	55					
			F	23 20						
532	29	✓ L	Z	iP	12 51 16	c				
			N	e(S)	24	N				
			F	12 56						
	29	✓ M	Z	e	12 51 58					
			Z	e	52 12					
			F	12 55						

532. 29. T. Z; 21.-

No.:	Date	Stat.	Comp.	Phase	Time(GMT)	Dir.	Degr.	Remarks
532	29	T	Z	eP F	12 51 22 12 54		c	
533	30	L	ZN N N N N	iP eS e iPcP iScS F	06 47 15 49 03 50 50 53 38 07 00 40 07 03	N N S		0=06 ^h 45 ^m 27 ^s Epic.: 2,5S; 102,4E. h= + 160 km. Mag.: 5,5 (CGS) (USCGS).
	30	T	Z Z Z	iP eS i F	06 47 00 48 00 04 06 58	d		
	30	D	Z E Z	iP iS (epP) F	06 47 00 48 09 47 05 07 04	d W		
	30	M	Z EW NE NE	iP eS (ePcP) eScS F	06 47 22 48 46 53 48 07 00 29 07 00	d		
534	30	L	ZNE	eP F	12 43 04 12 46	c		
535	30	L	Z	iP F	15 45 11 15 48	c		
	30	T	Z	iP F	15 45 04 15 49	d		

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Id/Geof.-
St 49/65/DMG/Rs.

DJAKARTA etc

July - Aug. 1963

DEPARTMENT OF AIR COMMUNICATION
METEOROLOGICAL AND GEOPHYSICAL SERVICE
D J A K A R T A

Seismological Bulletin
JULY, AUGUST 1963

Geographical position of the stations:

- DJAKARTA (D) : Lat. $06^{\circ}11'$ S ; Long. $106^{\circ}50'$ E; h = 8 m.
Foundation ; River Quarternary.
Seismograph ; Wiechert Z = 1300 kg.
Wiechert N & E = 1000 kg.
- TANGGERANG (T) : Lat. $06^{\circ}10'$ S ; Long. $106^{\circ}38'$ E; h = 14 m.
Foundation ; Sand Stone.
Seismograph ; Sprengnether Z (To = Tg = 1,0 sec.)
N (To = Tg = 1,6 sec.)
E (To = Tg = 1,5 sec.)
Peak magnification : 3000.
- LEMBANG (L) : Lat. $06^{\circ}50'$ S ; Long. $107^{\circ}37'$ E; h = 1295 m.
Foundation ; Quarternary Volcanics.
Seismograph ; Sprengnether Z-comp. (To = 1,4 sec.)
N-comp. (To = 3,4 sec.)
E-comp. (To = 17,7 sec.)
- MEDAN (M) : Lat. $03^{\circ}33'$ N ; Long. $98^{\circ}41'$ E; h = 32 m.
Foundation ; Marine Sediments.
Seismograph ; Sprengnether Z-comp. (To = 1,5 sec.)
N-comp. (To = 1,5 sec.)
E-comp. (To = 1,5 sec.)

Constants of the Wiechert Seismograph :

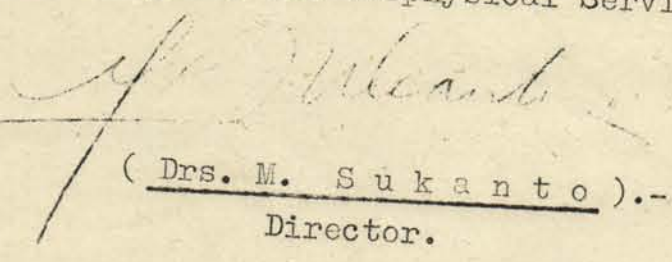
DJAK. 1963 JULY AUG.	NS - Comp.					EW - Comp.					V - Comp.				
	T	r	E	V	e	T	r	E	V	e	T	r	E	V	e
JULY	7.2	0.49	-	220	1.07	6.8	0.61	-	234	1.02	4.0	0.28	-	-	1.15
AUG.	7.2	0.49	-	220	1.07	6.8	0.61	-	234	1.02	4.0	0.28	-	-	1.15

Abbreviations used in the bulletin :

- D = Djakarta Station
L = Lembang Station
T = Tangerang Station
M = Medan Station

- c = a compressive first movement
d = a dilatational first movement

Meteorological and Geophysical Service.,


(Drs. M. S u k a n t o).-
Director.

ADDRESS:

Meteorological and
Geophysical Service.,
Djalan Geredja Inggeris 3.,
DJAKARTA IV/11., Indonesia.-

Pd/Geof.-

Stc27465/DMG/Rs.

No.	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	R e m a r k s
Y u l y 1963								
439	1	T	Z	iP	20 20 30	d	3.0°	O = 20 ^h 19 ^m 40,6 ^s
			Z	eS	21 02.1			Epic. = 4,7°S ; 103,7°E
			Z	i	22 56			h = 91 km. (USCGS).
				F	20 26			
		D	ZNE	eP	20 20 32	d/N/W	3.5°	
			N	eS	21 09			
				F	20 27			
		L	ZNE	iP	20 20 43	d/NW/	4.2°	
			N	eS	21 27.5			
				F	20 27			
		M	Z	eP	20 22 19	d		
			Z	e	23 04			
			E	(eS)	23 58			
			E	e	24 36			
			N	e	26 02			
				F	20 29			
440	2	M	Z	i	05 59 12	e		
441		M	Z	iP	06 31 58	d		O = 06 ^h 31 ^m 19 ^s
			N	eS	32 26			
			Z	e	34 53			
				F	06 35			
442		L	ZNE	iP	09 47 05	d/S/E		O = 09 ^h 36 ^m 35.8 ^s
			E	e	50 42			Epic. = 7,8°S ; 109,0°E
				F	09 58			h = 117 km. Mag.: 5,1 (CGS)
		T	Z	eP	09 47 20	d	3.5°	(USCGS)
			Z	eS	48 09			
				F	09 53			
		D	Z	eP	09 47 21			
			NE	iS	59	N/E		
			ZN	e	51 49			
			NE	e	52 21			
				F	09 58			
443	3	T	Z	eP	12 47 48		4.0°	O = 12 ^h 46 ^m 47 ^s
			Z	eS	48 35			
				F	12 50			
444	4	D	N	eP	11 09 33	S	74.0°	O = 10 ^h 58 ^m 13,2 ^s
			N	pP	10 12			Epic. = 26,3°S ; 177,7°W
			E	PP	12 22			Mag. : 6 $\frac{3}{4}$ (Pos)
			E	PPP	14 35			6 $\frac{3}{4}$ - 7 (Berk)
			NS	eS	18 47			h = 150 km (USCGS)
			NS	eSS	24 26			
				F	11 32			

No. :	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Dogr.	Remarks
444	4	L	ZNE	iP	11 09 28	d/SE	73.0°	
			N	pP	10 05			
			ZNE	cS	18 40			
			F		11 55			
		T	Z	iP	11 09 34	d		
			Z	pP	10 13			
			Z	iS	18 50			
			Z	o	19 19			
			F		11 23			
		M	Z	iP	11 10 32	d		
			Z	o	10 59			
			NE	iS	20 46			No electric current after S waves
445		M	Z	i	21 50 23	d		
			Z	o	38			
			Z	o	54			
			F		21 52			
		T	Z	i	21 49 07	c		
			F		21 51			
		L	Z	i	21 49 01	c		
			Z	o	31			
			Z	o	50 02			
			F		21 51			
446	7	T	Z	oP	03 08 02			
			Z	o	09			
			F		03 10			
		L	Z	oP	03 07 52			
			N	o	08 07			
			F		03 14			
447		T	Z	oP	05 52 29	d		O = 05 ^h 51 ^m 46 ^s
			cS		53 00			
			F		05 55			
		L	Z	oP	05 52 43			
			N	cS	53 25			
			F		05 55			
448		L	Z	iP	10 56 45	d		O = 10 ^h 52 ^m 01,4 ^s
			Z	o	58 23			Epic : 6,2 N ; 124,5 E
			N	cS	59 08			Mog : 4,6 (CGS) (USCGS)
			F		11 03			
		T			No electric current between 09 ^h 20 ^m 00 ^s and 16 ^h 30 ^m 00 ^s			
449		T	Z	oP	17 06 41	c		O = 17 ^h 04 ^m 41 ^s
			Z	o	07 33			

No.	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Dogr.	Remarks
449	7	T	Z	oP	17 06 41	o		O = 17 ^h 04 ^m 41 ^s
			Z	o	07 33			
			Z	oS	08 14			
				F	17 11			
450	9	L	Z	o	03 17 39			
				F	03 21			
		T			Very faint between 03 ^h 17 ^m 00 ^s and 03 ^h 22 ^m 00 ^s			
451		L	Z	oP	06 20 18		15.0°	O = 06 ^h 16 ^m 53 ^s
			Z	pP	40			Epic. = 0,8 N ; 121,5 E
			N	oS	22 58			Mag : 4,9 (CGS)
				F	06 27			h = 142 km (USCGS)
		T	Z	oP	06 20 32	d	16.0°	
			Z	pP	51			
			Z	o	21 29			
				F	06 22			
452	10	T	Z	oP	05 33 47	d	47.0°	O = 05 ^h 22 ^m 51 ^s
				F	05 36			Epic. = 46,3 N ; 152,9 E
		L	Z	oP	05 33 47			Mag : 5,6 (CGS)
			N	PP	36 16			h about 33 km (USCGS)
				F	05 41			
453		T	Z	oP	10 09 17	o		
				F	10 15			
		L	Z	oP	10 09 18	o		
			N	o	11 20			
				F	10 12			
454		T	Z	iP	20 00 20	o	45.5°	O = 19 ^h 52 ^m 19,4 ^s
			Z	pP	56			Epic. = 19,2 N ; 145,2 E
				F	20 23			Mag : 5,6 (CGS)
		L	Z	iP	20 00 22	d		h about 171 km
			Z	PP	59			
				F	20 03			
455	11	M	Z	o	14 19 05	d		
			Z	o	20 02			
				F	14 21			
456		M	Z	oP	19 40 05	d	3.0°	O = 19 ^h 39 ^m 19 ^s
			N	oS	41			
				F	19 46			
457	12	D	Z	iP	05 38 32	d	1.5°	O = 15 ^h 38 ^m 11,2 ^s
			NE	iS	52	SE		Epic. = 6,1 S ; 106,2 E
				F	05 45			Mag : 5,4 (CGS)
								h about 133 km (USCGS)

No.	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	Remarks
457	12	T	Z	iP	05 38 30	d		
			Z					Seismograph blocked after P wave
			F		05 49			
458	13	T	Z	oP	14 13 12		34.5°	O = 14 ^h 06 ^m 23,7 ^s
			Z	o	51			Epic. = 24,3 N ; 122,3 E
			Z	oPP	14 31			Mag : 4,9 (CGS)
			F		14 15			h about 33 km (USCGS)
		L	Z	iP	14 13 06.7	d	34.5°	
			Z	o	31			
			Z	o	45			
			N	o	14 58			
			N	oS	18 35			
			F		14 19			
459	14	T	Z	o	02 26 38			
			Z	o	27 29			
			Z	o	28 04			
			F		02 29			
460		L	Z	i	13 33 43	o		
			Z	i	34 56			
			NE	i	35 17			
			F		13 39			
461		T	Z	oP	17 17 25	A o	68.0°	O = 17 ^h 06 ^m 38,6 ^s
			F		17 20			Epic. = 29,4 S ; 174,9 E
		L						Mag : 6.h = 189 km (USCGS)
								Power failure between 16 ^h 00 ^m and 22 ^h 00 ^m
462	16	L	Z	oPg	00 07 06		1,9°	
			NE	oSg	29			
			F		00 09			
463		M	Z	iP	05 08 26	d		
			N	o	47			
			F	F	05 10			
464		L	Z	oP	05 51 21			O = 05 ^h 50 ^m 35,7 ^s
			N	oS	58			
			F		05 53			
465		L	Z	oP	07 03 34	d		
			N	oS	04 16			
			F		07 06			
466		L	Z	i	12 39 11			
			Z	o	25			
			Z	o	31			
			N	o	42 22			

- 5 -

No. : Date Stat. Comp. Phase Time (GMT) Dir. Degr. R o n e r k s

466 16 M No electric current between
11^h 49^m 00^s and 17^h 31^m 00^s

467 M Z oP 18 19 42 6.3° O = 18^h 18^m 30,6^s
ZNE oPP 20 03 S/W
NE o 27
NE oS 55
E oSS 22 36
F 18 24

L No electric current after
16^h 22^m 00^s

468 M ZNE oP 20 24 15 d/S/W
N o 47
NE oS 54
F 20 25

L No electric current after
16^h 22^m 00^s - 24^h 00^m 00^s

469 17 M NE o 05 35 36 N/W
NE o 54
ZNE o 36 13
F 05 37

T No electric current between
00^h 03^m 00^s and 08^h 30^m 00^s

470 T Z o 11 35 33
F 11 36

471 T Z i 15 24 49 o
Z o 25 05
F 15 26

472 T Z o 16 37 38 d
F 16 39

473 T Z o 16 55 37
F 16 56

474 18 L Z o 05 12 27
F 05 20

475 20 D Z oP 06 46 22 60.8° O = 06^h 36^m 10,8^s
Z PoP 47 06 Epic. = 57,6° S; 148,5° E
Z o 30 Mag : 6 (Pal)
Z PP 48 37 5,6 (CGS)
NE oS 54 38 h about 33 km (USCGS)
E P+S 55 12
E o 56 05
H o 58 48

No. :	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Depth	Remarks
475	20	L	Z	oP	06 46 18			
			Z	PcP	47 05			
			N	oS	54 36			
				F	07 04			
		T			No electric current before 10 ^h 00 ^m 00 ^s			
		M			Clock indisorder			
476	21	T	Z	o	05 11 14			
				F	05 13			
477		L	Z	oP	14 50 00	22.0°	O = 14 ^h 45 ^m 07,1 ^s	
			N	pP	50 10		Epic. = 9,7°N ; 122,3°E	
			N	oS	54 10		h = 54 km (USCGS)	
				F	14 59			
		T			No electric current between 09 ^h 45 ^m and 23 ^h 03 ^m			
		M	Z	oP	14 50 20	d		
			N	oS	54 30			
				F	14 59			
478	22	T	Z	iP	00 37 15	d	42.0°	O = 00 ^h 29 ^m 14,9 ^s
			Z	PP	39 05			Epic. : 6,1°S ; 148,9°E
				F	00 41			h about 59 km
		L			During change of records			
		M	Z	oP	00 38 14	c	51.0°	Mog : 5,1 (CGS) (USCGS)
			Z	pP	27			
			Z	PP	40 23			
			Z	PPP	41 20			
				F	00 44			
479		M	Z	oP	08 07 24			
				F	08 12			
480	24	T	Z	iP	11 39 00	c	34.0°	O = 11 ^h 32 ^m 17,7 ^s
				F	11 42			Epic. : 24,6°N ; 122,0°E
		D			Very faint between 11 ^h 39 ^m 00 ^s and 11 ^h 40 ^m 00 ^s			
								h about 33 km (USCGS)
		M			Clock indisorder			
		L			The instrument was not inoperation			
481	26	T	Z	oP	14 55 06			
			Z	o	57			
				F	14 59			
		D			No minute breck			
		L			No electric current between 15 ^h 05 ^m and 15 ^h 50 ^m 00 ^s			

No. : Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	Remarks
482	27	M	Z	iP	05 05 38	c	
			No	iS	06 02		
			F	05 07			
		T					No electric current between 00 ^h 45 ^m 00 ^s and 10 ^h 57 ^m 00 ^s
483	28	D	Z	oP	07 57 10	7.0°	O = 07 ^h 55 ^m 21,9 ^s
		N	oS	58 22			Epic. : 11,3° S ; 112,1° E
		N	SS	40			
		F		08 18			
		T					No electric current between 04 ^h 29 ^m 00 ^s and 08 ^h 30 ^m 00 ^s
		L	Z	iP	07 56 50	d 6.0°	
		N	iS	57 59			
		N	SS	58 15			
		N	SSS	26			
		N	o	59 00			
		F		08 20			
		M	Z	oP	07 59 53	d 20.0°	
		Z	PP	08 00 17			
		Z	PPP	26			
		E	oS	03 40			
		E	SS	04 06			
		ZE	LG	04 17			
		F		08 08			
484	29	D	E	iP	05 31 42	1.3°	O = 05 ^h 31 ^m 26,1
		E	iS	54			Epic. : 6,7° S ; 107,1° E
		E	o	32 29			Mag : 4,6 (CGS)
		F		05 38			h about 85 km (USCGS)
		L	Z	iP	05 31 45		
							S wave unreadable, seismogram blocked after P wave
		F		05 39			
		T					No electric current between 02 ^h 30 ^m 00 ^s and 05 ^h 31 ^m 00 ^s
		M					No electric current between 05 ^h 00 ^m 00 ^s and 09 ^h 00 ^m 00 ^s
485		D	E	oS	16 51 00	3.5°	O = 16 ^h 48 ^m 42,6 ^s
		E	o	48			Epic. : 5,7° S ; 110,2° E
		E	o	17 00 30			h about 530 km (USCGS)
		F		17 01			
		L	Z	iP	16 49 50	c 2.7°	
		N	iS	50 50			
		N	i	51 05			
		N	o				

No. : Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	Remarks
485	29	L	Z	o	16 55 59		
			Z	o.	56 23		
			F	17 00			
		T	Z	iP	16 50 00	c	3.0°
			Z	oS	51 04		
			Z	o	56 02		
			Z	c	56 42		
			F	16 59			
		M					Record was unavailable
486		T	Z	oP	20 25 45.5 d	75.0°	O = 20 ^h 14 ^m 07,3 ^s
			Z	oPP	28 33.3		Epic. : 30,2°S ; 177,3°W
			Z	oPPP	30 27.3		h about 39 km
			F	20 33			Mag : 6 $\frac{1}{2}$ - 6 $\frac{3}{4}$ (BKS)
		L	Z	oP	20 25 34.3 d	74.0°	5,7
			Z	PP	28 28		(CGS) (USCGS)
			N	S	35 05		
			N	SS	40 02		
			F	20 42			
		M					Record was unavailable
487		T	Z	oP	20 28 19,3		O = 20 ^h 16 ^m 36,9 ^s
			Z	o	30 43		Epic.: 29,7°S ; 177,0°W
			Z	PP	31 13.9		h about 33 km
			Z	PPP	32 55		Mag : 5,5 (CGS) (USCGS)
			F	20 34			
		L	Z	P	20 28 04		
			Z	PP	31 03		
			Z	PPP	32 48		
			N	S	37 45		
			F	20 42			
488		L	Z	oP	23 45 05.4 d	23,7°	O = 23 ^h 40 ^m 03,4 ^s
			ZN	PP	56.4		Epic. : 5,4°S ; 131,6°E
			Z	PPP	46 45		Mag : 4,8 (CGS) (USCGS)
			N	oS	49 21.2		h about 33 km
			F	23 40			
489	30	T					No electric current between 02 ^h 30 ^m 00 ^s and 05 ^h 30 ^m 00 ^s
490		T	Z	oP	05 57 32	c	75.0°
			Z	oPP	06 00 29		O = 05 ^h 45 ^m 53,3 ^s
			F	06 01			Epic. : 29,6°S ; 177,3°W
							h about 33 km
		L					Mag : 5,3 (CGS) (USCGS)
		M	Z	oP	05 58 32		
			F	06 01			

=====									
No. :	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	R e m a r k s	

491	31	T	Z	o	10 10 15				
			Z	o	21				
				F	10 11				
492		D			Z comp no minute break				
		E	oP		14 46 10		9.8°	O = 14 ^h 43 ^m 40,3 ^s	
		E	o		47 00			Epic. : 8,2° S ; 116,4° E	
			F		15 00			h about 33 km (USCGS)	
		M	Z	oP	14 48 23		20.5°		
			Z	PP	48 45				
			N	oS	51 59				
				Lq	14 52				
				F	15 04				

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No.	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Dogr.	Remarks
1	1950	10	10	10	10	10	10	10

AUGUST 1963

493	1	D	Z	iP	10 11 12			
			NE	iS	36			
				F	10 15			
		T	Z	iP	10 11 13			
			Z	i	29			
			Z	iS	39			
			Z	o	13 44			
				F	10 15			
		L	ZN	iP	10 11 06	o		
				S	unreadable			
				F	10 17			
494	2	T	Z	iP	01 54 45	d		
				F	01 56			
		L	Z	iP	01 54 49			
				F	01 57			
495		T	Z	iP	04 05 52.5	d		
				F	04 10			
496		M	Z	oP	05 38 17			
				oS	37			
				F	05 42			
497		L	Z	oP	10 28 57.3	d	46.8°	0 = 10 ^h 20 ^m 39,7 ^s
				F	10 32			Epic. : 26,8° N ; 141,3° E
		T			No electric current between 08 ^h 07 ^m - 11 ^h 30 ^m			Mag : 4,3 (CGS) (USCGS) h about 109 km
498		T	Z	oP	19 31 12		22.3°	0 = 19 ^h 26 ^m 26,0 ^s
			Z	oP	33			Epic. : 6,0° N ; 125,1° E
				F	19 33			Mag : 5,0 (CGS)
		M			Clock indisorder			h about 118 km
		D			Very faint			
499	3	L	Z	i	03 56 13			
				F	04 01			
500		L	Z	iP	10 41 06	d		
			Z	o	47 45			
			Z	o	49 51			
			Z	o	54 42			
			E	o	58 12			
			E	o	11 00 30			
				F	12 11			
		T	Z	o	10 41 03	d		

- 11 -

No.	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	Remarks
500	3	D	E	o	10 41 02			
			E	o	44 30			
			N	o	51 17			
			F		12 15			
501		L	Z	oP	20 37 31	d	73.5°	O = 20 ^h 26 ^m 04 ^s
			Z	oPP	40 21			Epic. : 30.7° S ; 178.3° W
			F		20 42			
		T	Z	oP	20 37 38	d	74.4	h about 37 km (USCGS)
				F	20 40			
502	4	L	Z	iP	07 10 27	c	7.5°	O = 07 ^h 08 ^m 47.1 ^s
			N	oS	11 54			Epic. : 9.4° S ; 114.2° E
			N	SS	12 06			Mag : 5.5 (CGS)
			F		07 20			h about 117 km
		T	Z	iP	07 10 43	c	8.5°	
			Z	oS	12 21			
			Z	SS	41			
			F		07 18			
		D	Z	oP	07 10 41		8.3°	
			Z	o	12 00			
			E	oS	18			
			E	SS	38			
			E	o	13 00			
			E	o	42			
			F		07 25			
		M						No electric current
503		L	Z	o	18 29 21			
				F	18 34			
504	5	L	ZNE	i	00 04 47	d/s/w		
			Z	o	53			
			F		00 08			
505		L	Z	oP	15 49 41		68.2°	O = 15 ^h 39 ^m 07 ^s
				F	15 53			Epic. : 60.7° S ; 154.3° E
								Mag : 5.2 (CGS)
506	6	T	Z	oP	00 05 30	c		h about 33 km (USCGS)
			Z	o	55 43			
			N	S	56 31			
			F		00 59			
		L	Z	oP	00 55 42			
			Z	o	56 15			
			N	S	45			
			F		01 00			
507		L	Z	iP	09 41 03	c		

No. :	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Dogr.	R	o	m	a	r	k	s
507	6	T	Z	iP	09 41 05									
			Z	iS	23									
				F	09 42									
508	7	L	Z	oP	20 24 01									
			N	oS	24									
				F	20 27									
509	9	T	Z	iP	01 22 37	d								
				F	01 23									
		L			No electric current between 00 ^h 33 ^m 00 ^s and 08 ^h 33 ^m 00 ^s									
510		L	Z	oP	14 48 29	d	75.0°	O = 14 ^h 36 ^m 45.9 ^s						
			Z	PP	51 12			Epic. : 15,3° S ; 175,7° W						
				F	14 52			Mag : . . .						
		T	Z	oP	14 48 33		76,5°	5,5 (USCGS)						
				F	14 49			h about 33 km						
511		T	Z	oP	18 53 35	o								
				F	18 54									
		L	Z	oP	18 53 54	c								
				F	18 54									
512	10	T	Z	oP	08 08 35	d	3,9°	O = 08 ^h 07 ^m 56 ^s						
			Z	oS	09 04									
				F	08 13									
		D	Z	oP	08 08 38	d	2.6°							
			N	oS	09 08									
				F	08 15									
		L	Z	oP	08 08 54	d	2.5°							
			N	oS	09 39									
				F	08 15									
513	11	D	Z	oP	21 15 07		2.0°	O = 21 ^h 14 ^m 34 ^s						
			E	oS	32			Epic. : 7,7° S ; 108,8° E						
			Z	o	21 16 40			h about 109 km						
				F	21 20			Coast of Java						
		T			No electric current between 18 ^h 00 ^m 00 ^s and 22 ^h 00 ^m 00 ^s									
		L	Z	oP	21 15 00	d	1.5°							
			Z	oS	21									
				F	21 19									
514	13	L	Z	oP	22 04 28	c	76.5°	O = 21 ^h 52 ^m 37.4 ^s						
				F	22 06			Epic. : 19,3° S ; 173,7° W						
		T			Very faint				Mag : 5,1					

- 13 -

No.	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	Remarks
515	14	L	Z	o	03 40 40		44.0°	O = 03 ^h 32 ^m 33,5 ^s
				F	03 44			Epic. : 4,9° S ; 152,3° E
		T			Very faint			Mag : 5,0 (CGS)
								h about 62 km (USCGS)
516		L	Z	oP	18 49 36 d		27,5°	O = 18 ^h 43 ^m 55,5 ^s
			Z	P	50 12			Epic. : 3,4° S ; 135,4° E
			Z	PPP	50 44			Mag : 6,4 (CGS)
				F	18 53			
		T	Z	oP	18 49 56.5 d		28.9°	h about 33 km (USCGS)
517		M	Z	o	19 51 08			
			Z	o	52 38			
			Z	o	53 25			
				F	19 54			
518		M	Z	oP	20 55 21			
			E	oS	56 11			
				F	20 58			
519	15	L	N	oP	06 20 58	N	54.5°	O = 06 ^h 11 ^m 34,6 ^s
			N	PoP	22 10			Epic. : 37,9° N ; 141,6° E
			N	PP	23 06			h about 59 km (USCGS)
			N	PPP	24 19			Japan
			N	oS	28 36			
			N	PPS	56			
			N	ScS	30 49			
				F	06 35			
		D	Z	oP	06 20 58		54.5°	
			Z	PoP	22 09			
			Z	PP	23 04			
			Z	PPP	24 18			
			E	oS	28 30	W		
			N	PS	48			
			N	PPS	54			
			E	SS	32 12			
				Lq	34 00			
				F	06 40			
		T	Z	oP	06 20 57	c	54.3°	
			Z	PP	23 03			
			Z	PPP	24 15			
			Z	oS	28 28			
			Z	PS	46			
			Z	PPS	57			
				F	06 31			
		M	Z	oP	06 20 29	c	52.0°	
			Z	PoP	22 22 02			
			Z	PP	39			
				PPS				

No. :	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	Remarks
519	15	M	E	PS	06 28 19			
			E	SS	31 54			
				Lq	32 00			
				F	06 34			
520		L	Z	c	08 05 37			
				F	08 08			
521		D	Z	iPKP ₁	17 44 06	160.3°	0 = 17 ^h 25 ^m 05,9 ^s	
			Z	iPKP ₂	50		Epic. : 13,8° S ; 69,3° W	
			Z	pPKP ₁	45 10		Mag : 7 $\frac{3}{4}$ (PAS)	
			ZN	c	17 47 36		8 (BKS)	
			ZE	PP	48 47		h about 543 km	
			ZNE	cSKS	50 24			
			ZE	c	45			
			NE	c	54 40			
			NE	SS	18 08 30			
				F	18 30			
		T	Z	cPKP ₁	17 44 07			
			Z	PKP ₂	55			
			Z	pPKP ₁	45 13			
			Z	PP	48 48			
			Z	SKS	50 27			
			Z	c	48			
			Z	SS	08 08 32			
				F	08 09			
		L	Z	cPKP ₁	17 44 04	d		
			Z	c	20			
			Z	PKP ₂	40			
			Z	pPKP ₁	46 09,6			
			Z	pPKP ₂	48.3			
			Z	PP	48 28			
			N	cSKS	50 24			
			NE	SS	18 07 50			
			NE	SSP	08 51			
				F	18 15			
		M	Z	iPKP	17 44 09			in minute break
				Seismograph blocked after PKP				
			NE	SKS	17 50 22			
			E	PPS	18 02 38			
				F	18 20			
522	16	T	Z	cP	23 27 47	d	44.6°	0 = 23 ^h 19 ^m 31,1 ^s
			Z	c	28 26			Epic. : 48,9° S ; 122,8° E
				F	23 30			h about 33 km (USCGS)
		L	Z	c	23 27 43	c	43.7	
				F	23 31			

- 15 -

No.	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	Remarks
523	17	T	Z	iP	11 20 43	c	43.8°	O = 11 ^h 12 ^m 41,2 ^s
			Z	PP	22 29			Epic. : 30,6°N ; 130,9°E
			Z	PcP	36			Mag : 5,6
			Z	PPP	23 09			
			Z	oS	27 10			h about 33km (USCGS)
			Z	o	41			
			F		11 29			
		D						Z component overlapped between 08 ^h 00 ^m 00 ^s and 18 ^h 00 ^m 00 ^s
			EN	iP	11 20 42	S/W	43,6°	
			E	PP	22 28			
			N	PcP	23 35			
			NE	PPP	27 08			
			NE	S	28 09	N/W		
			E	o	30 00			
			NE	SS	06			
			NE	SoS	43			
			Lq		11 30			
			Lr		11 32			
			F		12 00			
		L	ZNE	iP	11 20 44	c/SW		
			Z	PP	22 30			
			Z	PcP	38			
			ZNE	S	27 12			in minute break
			NE	SS	30 08			
			Lq		11 30			
			Lr		11 32			
			F		11 59			
		M	Z	iP	11 20 23	c		
			Z	PP	22 05			
			Z	PPP	34			
			NE	S	26 32			
			Lq		11 30			
			F		11 34			
524		M	ZNE	o	13 21 41			
			F		13 22			
525		M	Z	oP	20 33 04	c	3.2°	O = 20 ^h 32 ^m 17 ^s
			ZNE	o	20			
			ZNE	o	37			
			NE	oS	42			
			NE	o	55			
			F		20 35			
526		M	Z	oP	22 58 58		4.0°	O = 22 ^h 48 ^m 57 ^s
			oB		52 15			

No.	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	Remarks
527	18	L	Z	cP	04 35 48		2.5°	
			Z	cS	36 18			
				F	04 40			
528		T	Z	cP	18 38 28	c		
				F	18 40			
		L	Z	iP	18 38 25	c		
				i	39 25			
				F	18 42			
529		T	Z	cP	18 55 54			
				F	18 56			
		L	Z	cP	18 53 51			
				F	18 57			
530		L	Z	c	20 08 48			
				F	20 09			
531		L	Z	c	20 38 49	d		
			Z	c	41 57	d		
				F	20 45			
532		T	Z	c	21 08 30			
				F	22 00			
533	19	M	NE	cP	14 48 55			NE component blocked
534		T	Z	c	21 21 12			after P waves
		3	E	c	56			
				F	21 24			
		L			No electric current between 16 ^h 33 ^m 00 ^s and 24 ^h 00 ^m 00 ^s			
535	20	T	Z	cIP	06 54 23	c	3.5°	O = 06 ^h 53 ^m 28 ^s
			Z	c	39			Epic. : 6,9°S ; 103,0°E
			Z	cS	55 00	in minute break h about 61 km (USGS)		
				L	16 55 00			
				F	07 03			
		D	Z	cP	06 54 28	c	3.8°	
			N	cS	55 12			
				L	55			
				F	07 12			
		L	Z	iP	06 54 48			
			N	iS	55 36			
				L	55			
				F	07 08			
536		M			Z. component was not in operation			
			NE	iP	07 18 15	N/W		
			E	cS	19 11			

- 17 -

No.	Date	Stat.	comp.	Phase	Time (GMT)	Dir.	Dogr.	Remarks
537	20	L	Z	iP	08 55 39			
			N	iS	56 27			
			F		08 58			
		T						No electric current between 08 ^h 18 ^m 00 ^s and 11 ^h 42 ^m 00 ^s
538	21	D	Z	iP	10 17 32	2.1°		O = 10 ^h 17 ^m 01 ^s
			NE	iS	18 08			Epic. : 8,3°S ; 108,8°E
			F		10 24			h about 225 km
		T	Z	iP	10 17 35	2.3°		
			Z	iS	18 11			
			F		10 22			
		L						No electric current between 08 ^h 32 ^m 00 ^s and 13 ^h 32 ^m 00 ^s
539	22	L	ZNE	oP	20 01 18	49.5°		O = 19 ^h 52 ^m 25 ^s
			Z	PcP	02 45		c	Epic. : 9,4°S ; 158,0°E
			Z	PP	03 19		d	Mog : 6 ³ / ₄ - 7 (PAS)
			Z	PPP	04 12			6 - 6 ¹ / ₄ (BerK)
			NE	S	08 34		S/E	6,1
			NE	ScS	11 15			
			NE	SS	12 15			h about 32 km (USCGS)
			NE	Lq	14			
			NE	Lr	16			
			F		20 19			
		D	Z	oP	20 01 22	50.4°		
			Z	PcP	02 48			
			Z	PP	03 23			
			NE	S	08 36			
			NE	ScS	11 18		E	
			NE	SS	12 18		S	
			NE	Lq	15			
			NE	Lr	17			
			F		20 24			
		T	Z	oP	20 08 25			
			Z	PcP	02 50			
			Z	PP	03 25			
			F		20 06			
		M	Z	oP	20 02 34			
			Z	PcP	03 23			
			Z	PP	04 53			
			Z	PPP	06 18			
			NE	S	11 42			
			E	ScS	12 25			
			F		20 16			
		M	Z	P	22 50 34			

No. :	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	Remarks
541	23	M	Z	iPg	23 08 16	d		
			N	iSg	37	N		
			F		23 10			
542	25	D			Z component overlapped			
			ZNE	iP	12 28 50	S/E	74.1°	O = 12 ^h 18 ^m 12,5 ^s
			NE	PcP	29 02			Epic. : 17,5°S ; 178,8°W
			N	pP	29 25			Mag : 6½ (PAS)
			E	PP	31 49			6 - 6½ (BERK)
			EE	o	33 20			6,1 (CGS)
			E	PPP	42	W		h about 565 km
			NE	S	37 38			
			N	PS	38 23			
			NE	o	57			
			NE	o	41 08			
			F		13 00			
		M			ZN component was not available			
		E	oP		12 29 47			
					Seismograph blocked after arrival of P waves			
543	26	T	Z	oP	01 29 10			
			Z	oS	36			
			Z	o	30 09			
			F		01 32			
		D			Very faint between 01 ^h 29 ^m and 01 ^h 32 ^m			
		L	Z	oP	01 29 19			
			N	oS	50			
			N	o	30 16			
			F		01 32			
544		L	NE	oP	05 43 15	N/W		O = 05 ^h 42 ^m 40,3 ^s
					Seismograph blocked after arrival of P			
			F		05 55			Epic. : 6,8°S ; 105,6°E
								Mag : 5,1 (CGS)
								h about 33 km (USCGS)
		D	NE	oP	05 43 02			
					Seismograph blocked after arrival of P			
			F		05 57			
		T			Seismograph was not in operation between 06 ^h 00 ^m and 11 ^h 00 ^m			
545		D	No	iP	09 50 24			
			NE	iS	44			
			F		09 54			
		L			No electric current between 06 ^h 01 ^m 00 ^s and 08 ^h 42 ^m 00 ^s			

No.	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Dogr.	Remarks
546	26	L	Z	iP	11 50 36	d	2.5°	After shock no 544
			N	iS	51 05			
				F	11 54			
		T	Z	iP	11 50 24	d		
					Seismograph blocked after arrival of P			
				F	11 53			
547		L	Z	oP	23 36 58		19.8°	O = 23 ^h 32 ^m 38.3 ^s
			Z	pp	37 25			Epic. : 7,7° S ; 127,3° E
			ZN	oS	40 30	d/N		Mag : 4,4 (CGS)
			N	SSS	41 37			h about 151 km (USCGS)
				F	23 42			
		T			Very faint			
		D			Very faint			
548	28	M	Z	iP	00 20 36			
			E	S	21 00			
				F	00 22			
		T, L and D		during change of records				
549		L	Z	o	13 13 38			
				F	13 17			
550	29	T	Z	iP	09 03 15	c	54.4°	O = 08 ^h 53 ^m 48.4 ^s
			Z	PP	05 36	c		Epic. : 39,6° N ; 74,2° E
			Z	PPP	06 35			Mag : 5,5
				F	09 08			(USCGS)
		D			No minute break between 08 ^h 00 ^m and 12 ^h 00 ^m			
		M	Z	iP	09 01 29	d	41,5°	
			Z	PP	03 12			
			Z	L	26			
			N	S	07 47			
				LC	11 00			
				F	09 15			
		L			No electric current between 04 ^h 00 ^m 00 ^s and 13 ^h 28 ^m 00 ^s			
551		L	Z	iPg	13 35 56	c		
			NE	iSg	36 13	NW		
				F	13 38			
		T	Z	iPg	13 36 16	c		
			Z	iSg	36			
				F	13 37			
552		L	ZN	iP	15 50 35	d/N		O = 15 ^h 44 ^m 44 ^s
			Z	iPP	56 26	c		
			Z	iPPP	47	d		

20 -

No. :	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	R o m e r k s
552	29	L	Z	ePcP	15 53 57			
			E	eS	55 17	E		
			N	eSS	56 43			
			N	eSSS	57 17			
			E	eScS	16 01 29			
			F		16 20			
		T	Z	iP	15 50 34	d		
			Z	ePP	51 25	c		
			Z	ePPP	46			
			Z	ePcP	53 56			
			Z	eS	55 16			
			Z	eSS	56 42			
			Z	eSSS	57 16			
			Z	eScS	16 01 28			
			F		16 07			
		D	Z		Z component was not in operation			
			NE	eP	15 50 34			
			E	ePP	51 25			
			N	ePPP	46			
			N	ePcP	53 56			
			N	eS	55 16			
			N	eS	56 42			
			N	eSSS	57 16			
			N	eScS	16 01 28			
			F		16 20			
		M			No time marks between 09 ^h 08 ^m and 24 ^h 00 ^m			
553		L	Z	e	21 09 27			
			F		21 13			
554	30	T	Z	iP	00 17 30	d	3.3°	0 = 00 ^h 16 ^m 36,3 ^s
					Seismograph blocked			Epic. : 8,7° S ; 108,6° E
					after arrival of P			Mag : 5,1 (CGS)
			F		00 25			h about 33 km (USCGS)
		D	Z	iP	00 17 26	c	2.8°	
			N	iS	18 01			
			F		00 30			
		L	Z	iP	00 17 21.5	d		
					Seismograph blocked			
					after arrival of P			
			F		00 26			
		M			during change of records			
555	31	T	Z	iP	05 25 26	d		
			E	iS	53			

=====									
No. :	Date	Stat.	Comp.	Phase	Time (GMT)	Dir.	Degr.	R e m a r k s	

555	31	L	Z	iPg	05 25 19.5				
			NE	iSg	37.5				
			F	05 29					
556		L	Z	iPg	10 59 50				in minute break
			N	iSg	11 00 08				
			F	11 03					

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Stc27/65/DMG/Rs.