Seismological Report for I. G. Y.

STATION: Nagasaki(Japan) Aug. 1957

Longitude : 32°44' N
Latitude : 129°53' E
Elevation : 25 m
Foundation : Volcanic Breccia

Instrument

NO	Name	Component	Vmax	T_1 sec	T_2 sec	h_1	h_2	σ	ρ	Date of Calib.
1	Electromagnetic Seismograph	N S	4,200	1.04	19.8	1.00	1.09	0.45		Aug. 16, 1957
2	" "	E W	4,700	0.98	18.7	1.00	1.04	0.52		"
3	" "	U D	6,000	1.00	9.8	0.87	0.71	0.20		"

T_1 : Period of pendulum

T_2 : Period of galvanometer

h_1 : Damping constant of pendulum

h_2 : Damping constant of galvanometer

ρ : Solid friction

σ : Coupling factor

Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm		Instr.	Remarks
54.	Aug.18.	ePE	$08^h41^m44^s.0$			+0.7		23°	2	
		iPN	44.2	4.0	+5.2				1	
		iPZ	44.4	3.2			+9.5		3	
		ePPN	42 06.9						1	
		eXE	44 28.8						2	
		eSZ	45 47.4						3	
		SN	50.0						1	
		SE	50.2						2	
		ME	46 18.9	14.3		36.3			2	
		MZ	49 02.8	12.2			15.5		3	
		MN	39.0	14.6	28.8				1	
		oXE	09 03 -	9.2		9.5			2	
55.	13.	ePZ	21 48 07.-						3	Disturbed by large microseisms
		eXZ	49 47.-						3	
		eXZ	52 20.-						3	
56.										Disturbed by large microseisms
57.										"
58.										"
59.	22.	ePN	08 01 28.4	2.6	+2.6				1	
		eXN	02 49.0						1	
60.	23.	oPZ	02 08 20.1					42°	3	
		PN	22.7	3.8	+0.9				1	
		iXE	23.3	3.3		+2.0			2	
		MZ	10 40.0	5.2			5.0		3	
		iSN	14 45.6	3.2	-2.1				1	
		iSE	45.6	4.2		-3.3			2	
		eLqE	17 30ca						2	
		ME	18 11.9	12.6		5.0			2	
		eXN	12.9						1	
		MN	19 09.9	14.7	2.7				1	
		eLrN	50ca						1	
61.										No trace
62.	26.	PKPN	11 48 57.-						1	
		iPKPE	57.3	2.9		-0.3			2	
		ePPN	53 25.3	4.0	0.4				1	
		ePPE	27.1	3.6		+1.1			2	
		eXE	54 06.3	3.3		0.6			2	
		eXE	12 03 48.-	7.0		0.6			2	
		eSSN	13 52.3						1	
		eSSE	14 04.3						2	
		eLE	49 50ca						2	
		eLN	50 30ca						1	
		ME	53 39	23		1.3			2	
		MN	13 12 32	20	1.3				1	
63.	26.	ePKPN?	14 13 26.-						1	
		ePKPE?	27.3						2	
		eSSE	39 10.4						2	
		eXN	16.4						1	
		eXN	15 20 52.4						1	
		eXE	54.4						2	

(cont.)

Serial No.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm		Instr.	Remarks
continued.										
63.	Aug. 26.	eXE	15h57m23s.-						2	
		eXN	53.-						1	
		ME	16 03 23.-	19.3		1.9			2	
		MN	12 43.-	17.2	1.3				1	
64	26.	ePN	20 01 42.8					43°	1	
		ePE	42.9						2	
		iSN	03 08.0	3.8	-1.6				1	
		iSE	08.0	3.6		-1.8			2	
		iXE	10 30.0						2	
		eXN	11 30						1	
65.	27.	ePN	21 07 06.0	2.0	(-0.5)?				1	
		ePE	07.2	2.0		(-0.9)?			2	
		iSN	15 51.3	4.4	+0.6				1	
		eSE	51.3						2	
66.	28.	ePN	08 31 23.8	3.7	+0.3				1	
		PE	23.8	3.2		-1.1			2	
		eSN	41 27.8	5.2	+1.5				1	
		eSE	28.2						2	
67.	28.	PE	23 21 29.4	3.0		-1.6			2	
		eSE	24 59.2	8.0		+1.3			2	
68.	23.	PE?	23 26 36.0						2	Disturbed by
		ePN	37.0						1	previous shock
		eXE	28 00.-						2	
		eXN	13.-						1	
		eXN	30 03.-						1	
		eSE?	05.-						2	
		ME	18.-	10.6		6.4			2	
		MN	35 16	10.4	4.3				1	
69.	28.	eXE	23 54 34.-						2	Disturbed by
		eXN	36.2						1	previous shock
		eXE	58 10.-						2	
		eXN	14.-						1	
70.	29.	ePE	01 02 03.9					14°	2	
		ePN	04.1	4.1	+1.5				1	
		eXN	22.7						1	
		iSE	05 30.5	3.6		+1.5			2	
		eXN	45.1						1	
		eXN	07 00.9						1	
		eXE	05.9						2	
71	31.	eXN	12 15 03.8						1	
		eXE	13.2						2	
		eXN	43.2	2.8	-1.8				1	
		eXE	16 14.8	2.8		+1.8			2	
		eXN	18.2	4.0	-1.5				1	

Seismological Report for I. G. Y.

STATION : Nagasaki (Japan) Sep. 1957

Longitude : 129°53' E
Latitude : 32°44' N
Elevation : 25 m
Foundation : Volcanic ash

Instrument

NO	Name	Component	Vmax	T_1 sec	T_2 sec	h_1	h_2	φ	σ	Date of Calib.
1	Electromagnetic Seismograph	N - S	4,200	1.0	20	1.0	1.1		0.5	Aug. 16, 1957
2	" "	E - W	4,700	1.0	19	1.0	1.0		0.5	"
3	" "	U - D	6,000	1.0	10	0.9	0.7		0.2	"

T_1 : Period of pendulum

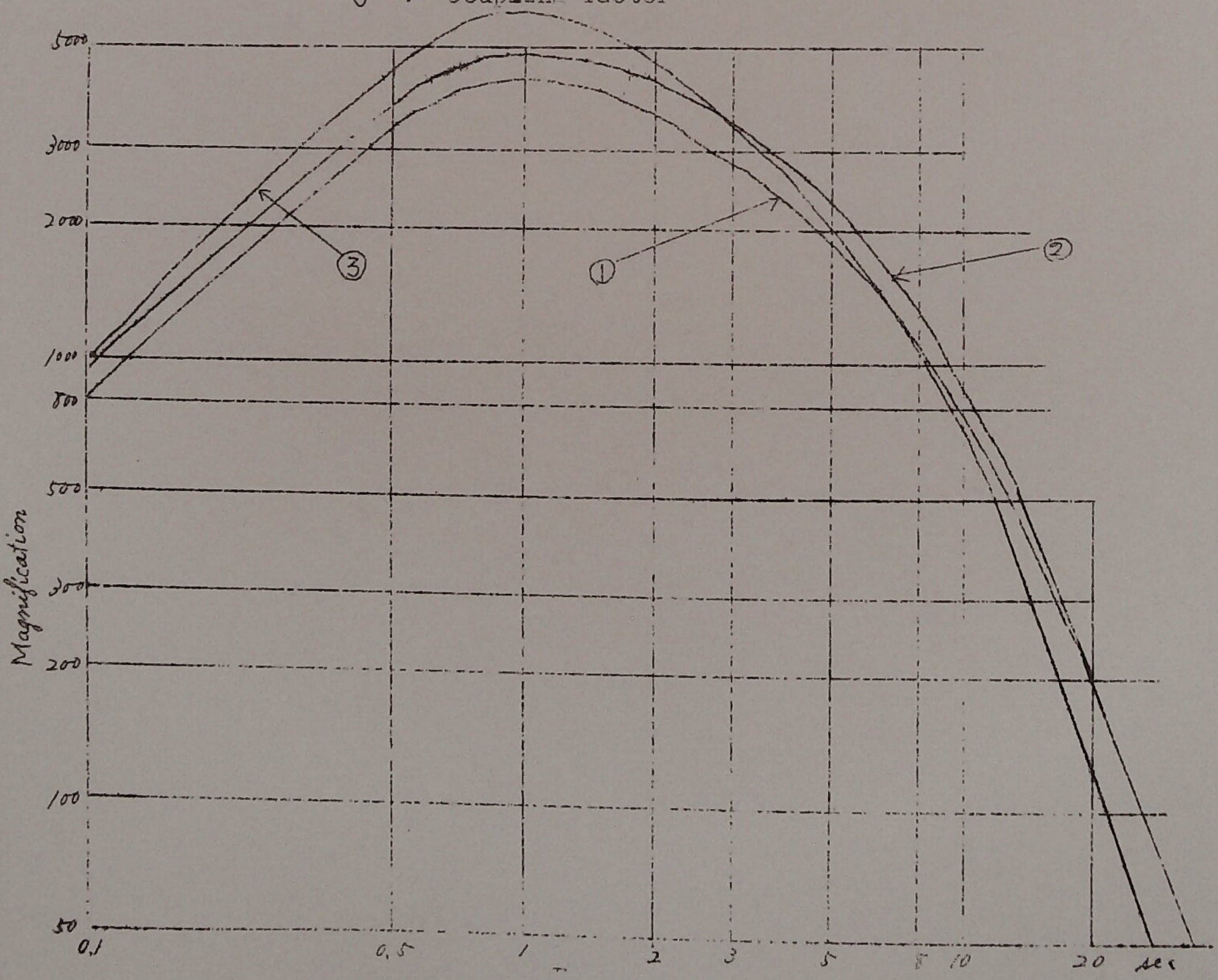
T_2 : Period of galvanometer

h_1 : Damping constant of pendulum

h_2 : Damping constant of galvanometer

φ : Solid friction

σ : Coupling factor



Serial No.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
72.	Sep. 2.	ePE?	$00^h04^m52^s.-$						2	
		ePN?	53.-						1	
		eSN	03 30.-						1	
		eSE	41.-						2	
		MN	12 02.-	17.3	4.0				1	
		ME	15.-	18.2		5.4			2	
73										no trace
74										no trace
75										no trace
76	7.	PE	06 54 12.2	1.3		-3.7		25°	2	
		iPN	12.3	1.5	-4.8				1	
		iPZ	12.3	1.5			+6.7		3	
		eSN	58 30.6						1	
77	7.	iPE	10 14 37.1	1.0		+2.1		42°	2	
		iPZ	37.1	0.9			-1.8		3	
		iPN	37.4	1.3	-2.5				1	
		MZ	39.1	1.8			5.6		3	
		eSZ	20 50.1						3	
		eSE	52.1						2	
		eSN	52.5						1	
		MN	55.1	5.0	5.8				1	
		eXE	26 30.3						2	
		eXN	46.3						1	
		ME	27 18	19		3.4			2	
		eXZ	28 08						3	
78	9.	ePE	00 26 05.3					35°	2	
		ePZ	07.1	1.6			(+0.7)?		3	
		ePN	09.3						1	
		eXZ	26.1	3.2			-1.2		3	
		MZ	33.4	2.8			1.6		3	
		eXZ	27 20.7						3	
		ePPN	29 13						1	
		ePPE	15						2	
		ePPZ	18.7	7.4			(-0.8)?		3	
		eSN	36 32.6	11.4	+0.3				1	
		eSZ	34.0						3	
		iSE	36.0	10.2		-1.4			2	
		ME	43.8	10.4		2.1			2	
		eSSN	41 45.8						1	
		eSSE	50.2						2	
		eXN	43 04.8						1	
		eXE	20.8						2	
MN			01 04 06.0	19	0.9				1	
eXN			09 07.-						1	
eXE			28.-						2	

Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
79.	Sep. 9.	eP_1Z	$09^h11^m47^s.1$				(-)	71°	3	
		iP_2Z	49.1	3.2			+2.6		3	
		ePE	49.6	3.2		-1.3			2	
		MZ	55.3	4.3			1.3		3	
		eXZ	14 10.2						3	
		eXE	14.6						2	
		eSN	21 00.3						1	
		iSE	03.0	3.2		+2.0			2	
		MN	35 20.-	21.4	0.7				1	
		ME	40 26.6	17.1		1.4			2	
80.	11.	eXE	14 47 09.-						2	Very small.
		eXE	50 35.-						2	
		eXZ	45.-						3	
81.										no trace
82.										no trace
83.	15.	iPZ	04 30 15.0	1.3			-2.1	42°	3	
		iXN	15.6	2.6	+1.5				1	
		iXE	15.8	1.6		+1.4			2	
		MN	18.2	2.0	2.3				1	
		ME	18.3	1.3		2.5			2	
		epPE	31 11.2						2	
		pPZ	14.2	4.0			-3.2		3	
		epPN	17.2	2.6	-1.4				1	
		XN	43.8						1	
		XZ	46.2						3	
		MZ	50.2	4.4			3.1		3	
		eXE	53.2						2	
		eXE	32 16.2	3.3		-1.9			2	
		epPPN?	46						1	
		eSE	36 11.6	2.4		+0.9			2	
		eSN	13.-						1	
		esSN	38 06.-						2	
		esSZ	11.-						3	
		eScSE	39 53.-						2	
		eScSN	40 03.-						1	
84.	15.	eXZ	18 50 23.-						3	very small
		eXN	30.-						1	
		eXE	36.-						2	
		eXE	59 50.-						2	
		eXN	19 00 02.-						1	
		eXN	02 12.-						1	
85.	24.	iPZ	08 26 54.1	4.8			+4.3	27°	3	
		iPN	54.7	4.8	+6.2				1	
		PPN?	27 46.9	3.0	+38.5				1	
		PPE	48.1	2.1		-32.2			2	
		ePPZ	43.7						3	
		eSZ	31 23.2						3	
		eSN	24.7	7.8	-36.8				1	
		SE	26.2	7.8		+11.5			2	

(Cont.)

Serial NO. continued	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	△	Instr.	Remarks
		iXN	$03^h32^m22^s.0$	3.9	-34.0				1	
		iXE	22.9	4.8		+33.5			2	
		iXZ	24.0	3.6			+24.4		3	
		ME	33 17.2	17.4		94			2	
		MZ	34 12.7	3.1			86.5		3	
		MN	36 28.0	16.5	73<				1	
86.										no trace
87.	25	ePZ?	16 42 21.1						3	
		ePE?	27.-						2	
		ePN?	44.-						1	
		SE	47 07.2	5.3		+1.9			2	
		eSN	15.0						1	
		eXE	48 39.6						2	
		eXN	53 57.8						1	
		eXZ	54 07.7						3	
		MZ	29.0	18.2			2.9		3	
		MN	50.0	17.6	4.1				1	
		ME	59 08.0	18.9		1.7			2	
88.	25	eXZ	22 22 51.5	5.3			-2.0		3	
		eXN	58.0	4.3	+2.6				1	
		eSZ	27 30.1						3	
		eSE	30.9						2	
		eSN	33.6						1	
		eXZ	30 33.6						3	
		eXN	32 12.3						1	
		MN	33 06.9	18.2	4.2				1	
		eXZ	34 28.3						3	
89.	26	eXN	18 52 51.9						1	disturbed by microseisms
		eXZ	53.3						3	
		eXE	54.6						2	
		eXE	53 05.7						2	
		iXZ	07.2	5.9			-2.0		3	
		iXN	08.5	3.7	-2.5				1	
		eXN	48.1						1	
		eXZ	49.9						3	
		eXE	56 03.8						2	
		XZ	12.2	4.0			-2.6		3	
		eXE	57 32.1						2	
		eSE	59 15.5						2	
		eSN	20.3						1	
		eSZ	34.1						3	
		eXZ	19 02 50.4						3	
90.	27	iPZ	04 15 09.5	2.1			-0.8	32°	3	
		ePE	09.5	1.7		-0.2			2	
		ePN	09.5	3.2	+0.8				1	
		eXN	16 09.0						1	
		eXN	18 09.-						1	
		eSN	20 19.6						1	
		eSZ	21.9						3	

Serial No.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude L mm	Amplitude Z mm	Δ	Instr.	Remarks
continued		eSE	$04^h20^m22^s.7$						2	
		eXE	22 03.0						2	
		eXZ	12.7						3	
		ME	23 46.-	19.5		5.2			2	
		MN	29 03.7	17.3	3.9				1	
		MZ	06.3	14.3			2.3		3	
91.	27.	eXE	06 03 40.9						2	very small
		eXZ	42.3						3	
		eXN	43.1						1	
		eXN	12 12.8						1	
		eXN	16 30.3						1	
92.	28.	iPN	00 29 14.4	2.4	-9.3			7°	1	
		iPE	19.4	2.1		+37.1			2	
		iPZ	19.4	*			-(56?)		3	* thin out
		iSN	30 45.0	2.4	+33				1	
		SE	45.0	3.6		+63.2			2	
		SZ	45.3	3.0			+45.8		3	
		ME	46.0	3.6		64			2	
		MZ	52.0	5.4			85		3	
		MN	31 00.7	4.5	65				1	
		ScSE	41.31.6	7.5		+3.2			2	
		ScSN	31.9	6.0	+9.8				1	
		eXN	43 27.7	7.3	-4.0				1	
		eXE	28.9	9.0		-4.7			2	
93.	28.	iPN	14 30 31.5	4.5	-12.7			72°	1	
		iPE	31.5	3.9		-16.0			2	
		iPZ	31.5	3.9			-22.6		3	
		ME	39.1	2.4		24.9			2	
		MN	39.3	2.1	15.8				1	
		MZ	41.2	2.4			43.3		3	
		PcPN?	46.9						1	
		pPE	32 38.2	4.2		-13.5			2	
		ipPZ	14 32 39.7	3.0			-26.1		3	
		pPN	41.8	5.1	+12.0				1	
		PPE	33 23.5	4.2		+7.5			2	
		PPZ	23.8	5.4			-19.8		3	
		XN	37 13.4	10.2	+11.2				1	
		XE	13.9	9.0		+10.5			2	
		SZ	39 10.4	5.4			+3		3	
		iSN	11.3	5.4	-10				1	
		iSE	12.2	4.2		+7.2			2	
		ScSE	45.7	5.0		-14.0			2	
		XE	40 01.5						2	
		XN	42 42.0	9.6	+3.8				1	
		sSE	46.0	9.6		+11.5			2	
		sSZ	51.-						3	
		XE	43 51.7						2	
		XN	54.7						1	
		isSE	47 29.4	15.0		+15			2	
		sSSN	30.0	15.-	-4.8				1	
		ePKPPKPZ	58 00.-						3	
		SKPPKPZ	15 00 33.-						3	

Serisl NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	E mm	Z mm	Δ	Instr.	Remarks
94.	Sep. 29.	eXN	$02^h22^m35^s$						1	very small
		eXE	56						2	
		eXN	42 50						1	
		eXE	43 --						2	
95.	29.	iPZ	03 24 03.0	2.4			-9.3	75°	3	
		iPN	03.2	2.4	-2.2				1	
		iPE	03.2	2.0		-2.3			2	
		epPZ	25 56.-						3	
		epPE	26 00.-						2	
		epPN	01.-						1	
		iSN	32 50.-	5.0	+7.5				1	
		iSE	50.3	5.2		+2.0			2	
		eSZ	52.-						3	
		eScSE	33 17						2	
		eXN	36 18.-						1	
		eXE	22.-						2	

Seismological Report for I. G. Y.

STATION : Nagasaki (Japan) Oct. 1957

Longitude : 129°53' E
Latitude : 32°44' N
Elevation : 25 m
Foundation : Volcanic Breccia

Instrument

NO	Name	Component	Vmax	T_1 sec	T_2 sec	h_1	h_2	ρ	σ	Date of Calib.
1	Electro-magnetic Seismograph	N S	2,700	1.0	20	0.9	1.2		0.1	Oct. 1, 1957
2	" " "	E W	2,400	1.0	21	0.9	1.2		0.1	" "
3	" " "	U D	4,200	1.0	10	0.9	0.7		0.1	" "

T_1 : Period of pendulum

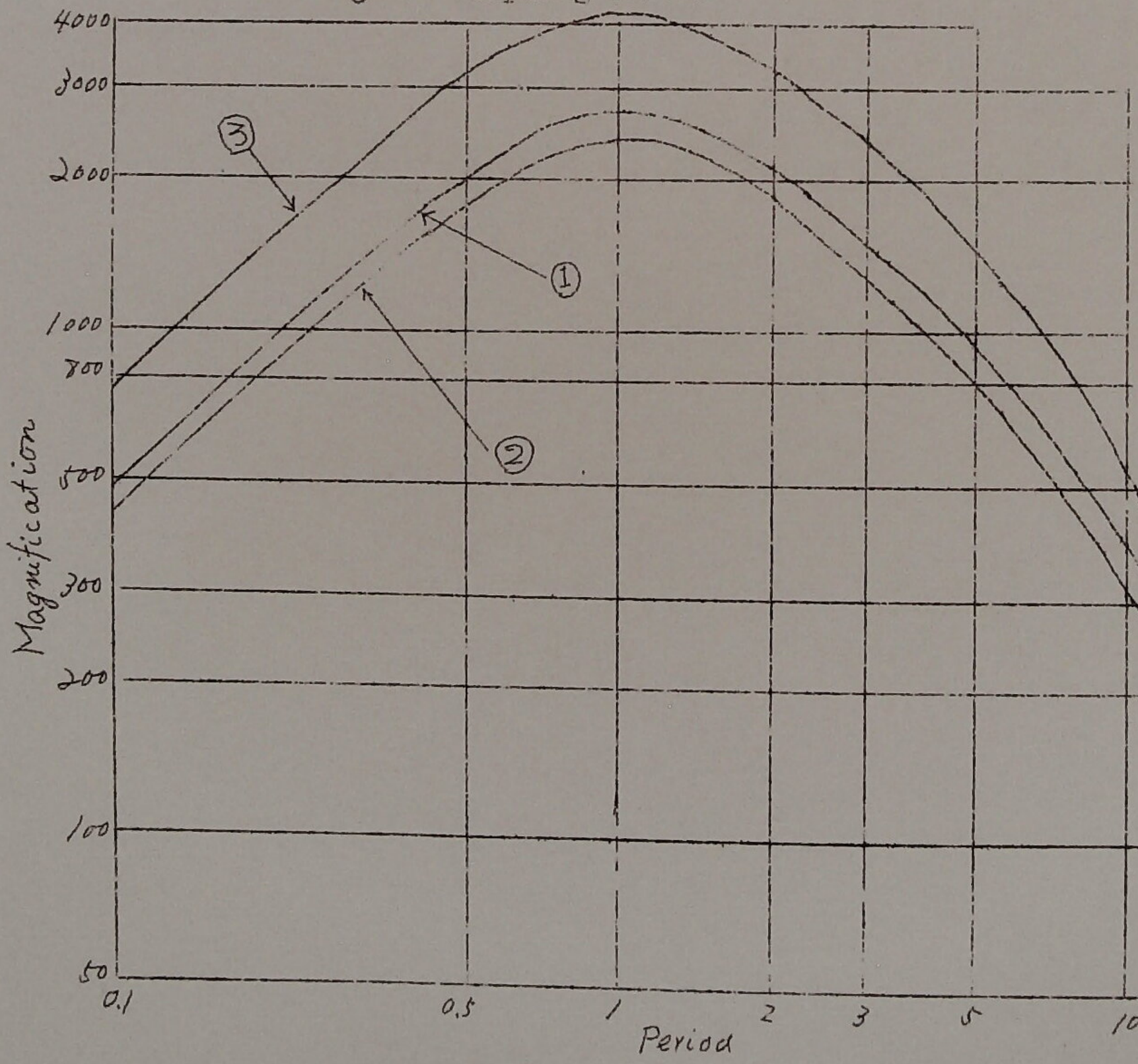
T_2 : Preiod of galvanometer

h_1 : Damping constant of pendulum

h_2 : Damping constant of galvanometer

ρ : Solid friction

σ : Coupling factor



Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
96.	Oct. 2.	ePPZ	12h49m57s.-						3	
		eLN	13 30 -						1	
		eLE	30 -						2	
97.	2.	eXN	21 18 51.-						1	Very small
		eXE	53.-						2	
		eXZ	19 16.-						3	
		eXN	23 16.-						1	
		eXN	26 43.-						1	
		eXE	27 00.-						2	
		eLN	29 30.-	40					1	
		eXN	36 14.-	20					1	
		eXE	15.-	20					2	
		MN	39 52	15	0.5				1	
		ME	40 00	13		0.5			2	
93.	3.	ePZ	06 05 22.0						3	
		ePN	26.0						1	
		eXN	30.0						1	
		eXZ	31.6	1.2			-0.9		3	
		eXE	34.6						2	
		PPN	06 49.0	4.4	-0.7				1	
		PPZ	51.4	3.6			-0.6		3	
		eSN	11 06.-						1	
		eSE	07.-						2	
		eSZ	07.-						3	
		eXZ	13 54.-						3	
		eXN	54.-						1	
		eXE	56.-						2	
99.	4.	ePKPZ	05 45 13.-						3	N-S Comp.
		ePKPE	19.-						2	in ajustment
		iPKP$_2$Z	30.4	2.6			-0.8		3	
		iPKP$_2$E	31.6	2.4					2	
		ePPE	47 58.-						2	
		iPPZ	58.6	7.6			-1.5		3	
		eXZ	48 17.0	7.0			-0.8		3	
		eXZ	50 16.-						3	
		eXZ	51 01.-	9.2			+2.0		3	
		eXE	59 53.-						2	
		eXE	06 11 05.-						2	
		eXE	28 54.-	28					2	
		ME	47 03.-	13		1.0			2	
100.	7.	ePZ	13 25 46.-						3	
		ePE	46.-						2	
		ePN	47.-						1	
		eXE	30 49.-						2	
		eXN	31 53.-						1	
		eXE	36 01.-						2	
		eXN	11.-						1	
		MN	39 34.-	15	1.4				1	
		ME	40 36.-	16		2.0			2	

Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
101.	Oct. 12.	iPZ	$19^h05^m21^s.0$	1.6			+2.5	45°	3	
		PE	21.2	1.6		(+)			2	
		iPN	21.3	2.4	+0.3				1	
		MZ	22.0	3.6			2.2		3	
		ipPN	34.2	1.0	+0.2				1	
		pPZ	35.0	2.6			+1.3		3	
		epPE	37.0						2	
		iPP or PcPZ	06 54.6	2.6					3	
		iPP or PcPN	55.0						1	
		ePP or PcPE	55.6						2	
		iXZ	07 02.0	1.6			-2.0		3	
		eSN	11 53.0	5.3	+0.6				1	
		eSE	53.6	6.0		-0.8			2	
		eSZ	54.-						3	
		isSZ	12 20.0	4.6			-1.1		3	
		isSN	21.0	4.4	+1.3				1	
		isSE	21.0	4.8		-1.2			2	
		MN	22.4	4.8	1.8				1	
		eScSE	15 12.0	4.0		-0.8			2	
		eScSN	12.4	3.8	+0.6				1	
		eScSZ	12.8	3.6			+0.3		3	
		eSSE	33.-	4.4		+0.2			2	
		eSSN	38.-						1	
		eSSZ	40.-						3	
		ME	44.0	4.4		1.1			2	
102.	13.	iPN	04 25 23.3	4.0	-0.4			29°	1	
		ePE	23.3	4.0		-0.2			2	
		iPZ	23.3	4.0			+0.9		3	
		iXZ	55.9	2.8			+1.5		3	
		eXN	26 47.3						1	
		iXZ	47.5	3.2			+1.3		3	
		eSN	30 16.3	4.2					1	
		eSZ	17.3	4.0					3	
		iSE	18.5	5.2		-0.7			2	
		eXE	35 23.-						2	
		eXN	29.-						1	
		eXZ	36 23.-						3	
		MN	47.-	19.2	2.7				1	
		ME	40 27.-	16		2.5			2	
		MZ	29.-	15			2.4		3	
103.	13.	ePZ	20 46 24.-	4.8				94°	3	
		ePN	26.-						1	
		ePE	26.-						2	
		ePPN	50 03.-						1	
		ePPE	07.-						2	
		eXZ	18.-						3	
		eSKSZ	57 00.-						3	
		eSKSE	01.3						2	
		eSKSN	02.5	6.8	+0.4				1	
		eXE	39.-						2	
		eXZ	40.-						3	
		eXN	41.-						1	

(Cont.)

Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
	(Cont.)		h m s							
		ePSE	58 52.-						2	
		ePSN	54.-						1	
		iXE	21 03 58.7	12.0		-0.5			2	
		eXN	04 01.-						1	
		eXZ	06.-						3	
		eXE	07 13.-						2	
		eXN	41.-						1	
		eLE	11 07.-						2	
		eLE	25 13						2	
		eLZ	15						3	
		eIN	17						1	
104.	19.	iPN	18 31 43.0	7.8	-5.5			12°	1	
		iPE	43.0	6.2		-3.1			2	
		iPZ	43.0	5.6			-6.0		3	
		SE	34 00.4	10.4		+12.7			2	
		iSZ	03.2	8.4			+11.3		3	
		iXN	21.2	12.8	+7.8				1	
		ME	18 36 06.8	13.4		40.7			2	
		MN	43.8	12.8	55.5				1	
		MZ	37 59.0	12.4			59.0		3	
105.	19.	iPN	21 45 50.4	2.2	+7.9			17½°	1	
		iPZ	50.4	2.2			-12.3		3	
		iPE	50.5	2.0		+2.7			2	
		MN	53.9	2.0	5.9				1	
		MZ	53.9	1.6			10.6		3	
		ME	54.1	2.1		4.4			2	
		XN	46 10.1	1.3	+2.7				1	
		XE	15.3	1.4		+4.2			2	
		XZ	15.7	1.6			+2.3		3	
		XE	47 23.7						2	
		XZ	29.7						3	
		XN	30.5						1	
		eXN	54.-						1	
		iXZ	56.1	2.3			+3.2		3	
		iXN	48 50.1	4.6	-1.7				1	
		iXZ	52.3	4.2			+2.1		3	
		iSN	49 00.7	4.0	+2.1				1	
		iSE	02.7	3.6		-4.8			2	
		SZ	02.9	5.2			-4.5		3	
		eXN	50 05.7	4.0	+2.2				1	
		iXZ	08.3	4.0			-2.4		3	
		XZ	52 16.-						3	
		eXE	57 23.-						2	
		eXN	24.-						1	
106.	20.	eXN	12 40 35						1	Very small
		eXE	13 06 59						2	
		eXE	15 10						2	
		eXN	20						1	
107.	21.	SE	00 34 49						2	
		SN	52						1	

Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
108.	Oct. 23.	iPZ	$06^h05^m27^s.4$	1.4			+2.1	47°	3	
		iPN	27.8	1.2	-0.5				1	
		iPE	27.8	1.2		-0.6			2	
		MN	30.8	3.2	1.3				1	
		MZ	30.8	4.2			4.1		3	
		eXE	44.4						2	
		eXN	44.6						1	
		XZ	06 16.3	2.8			+1.4		3	
		eXN	07 06.6						1	
		eXE	07.2						2	
		eXZ	07.4						3	
		eSE	12 18.0						2	
		eSN	18.4						1	
		eSZ	19.0						3	
		eXZ	43.8						3	
		ME	44.2	9.4		1.1			2	
		eXN	47.2						1	
109.										changing record.
110.	24.	ePN	09 13 06.5	2.6	-0.6			73°	1	
		iPZ	07.1	3.0			-3.4		3	
		iPE	07.5	2.6		+0.8			2	
		MZ	07.9	3.0			3.5		3	
		ME	08.7	2.6		1.2			2	
		esPZ	20 57						3	
		iSN	26 51.3	3.2	+1.3				1	
		iSE	51.9	4.4		+0.8			2	
		MN	52.7	3.2	1.5				1	
		eScSE	27 27.3						2	
111.										no trace
112.										no trace
113.	25.	eP_1N	10 09 11.8	1.4	-0.9			26°	1	
		eP_1E	11.8			(-)?			2	
		iPZ	11.3	1.4			+2.8		3	
		iP_2E	13.3	1.2		+0.9			2	
		iP_2N	13.3	1.3	-1.9				1	
		MZ	17.6	3.3			4.7		3	
		eXZ	33.6						3	
		iXE	39.0	4.6		-2.5			2	
		eXN	40.0						1	
		eXN	52.2	3.8	+3.2				1	
		eSE	13 43.-						2	
		iSN	43.3	12.0	-2.9				1	
		MN	14 13.6	12.6	3.5				1	
		ME	18 41.0	23.0		3.6			2	
114.	26	?Z	08 36 41.-				(-)?		3	

Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
115.	Oct. 26.	eP_1Z	$14^h24^m08^s.4$					37°	3	
		eP_1N	09.4						1	
		eP_1E	10.4						2	
		iP_2Z	11.4	2.2			+3.5		3	
		iP_2N	11.4	2.1	(+)				1	
		iP_2E	11.5	1.8		(+)			2	
		MZ	11.6	2.0			5.2		3	
		ME	13.2	1.8		1.4			2	
		MN	18.6	2.4	4.3				1	
		XN	53.8	3.0	+0.7				1	
		XZ	54.8	4.4			-3.0		3	
		ePPZ	25 36.-						3	
		ePPN	36.-						1	
		eSN	29 53.-						1	
		eSE	54.4	5.8		+0.5			2	
		eXN	34 23.-						1	
116.	27.	iPZ	22 38 51.3	5.4			+1.2	31°	3	
		ePN	52.4	4.8	-0.5				1	
		ePE	53.2						2	
		XZ	39 43.2	4.0			+2.8		3	
		XN	45.6	3.0	+1.3				1	
		XE	51.8						2	
		eXE	40 33.8						2	
		eXN	34.2						1	
		eZZ	36.6						3	
		MZ	55.4	6.0			2.4		3	
		XZ	42 05.2	5.2			-2.4		3	
		XN	06.0	5.9	+0.8				1	
		eSE	43 50.-						2	
		SJ	52.8	8.6	-2.0				1	
		eSZ	53.8	7.4					3	
		eXN	44 51.-						1	
		eXE	51.-						2	
		MN	47 06.0	12.4	2.1				1	
		ME	49 17.8	13.8		1.5			2	
117.										no trace
118.										no trace
119.	31.	PN	02 39 25.2	2.0	-0.6			10°	1	
		PE	25.2	2.2		-1.2			2	
		PZ	25.2	1.8			+1.6		3	
		XZ	39.9	1.4			+2.6		3	
		XE	40.2	1.4		+1.2			2	
		XN	40.5	1.4	+0.9				1	
		iXZ	51.0	2.0			-1.1		3	
		eSZ	41 34.0	2.6			+1.7		3	
		eSN	36.6						1	
		eSE	37.0						2	
		eXN	42 07.6						1	
		MZ	30.0	4.6			3.8		3	
		XE	40.-						2	
		MN	57.4	2.6	1.7				1	
		ME	43 45.6	6.2		1.6			2	
		XZ	47.2	4.6			2.1		3	

Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
120.	Oct. 31.	eXZ	$10^h 29^m 27^s.-$						3	
		eXN	39.-						1	
		eXE	41.-						2	
		eXN	46 47.-						1	
		eXE	51.-						2	
		eXN	51 45.-						1	
121.										no trace

Seismological Report for I. G. Y.

Station : Nagasaki(Japan) November, 1957

Longitude : 129°53' E
Latitude : 32°44' N
Elevation : 25 m
Foundation : Volcanic Breccia

Instrument

NO	Name	Component	Vmax.	T_1 sec	T_2 sec	h_1	h_2	ρ mm	σ	Date of Calib.
1	Electromagnetic Seismograph	N S	2,700	1.0	20	0.9	1.2		0.1	Nov. 1, 1957
2	" "	E W	2,400	1.0	21	0.9	1.2		0.1	" "
3	" "	U D	2,400	1.0	20	0.9	1.2		0.1	" "

T_1 : Period of pendulum

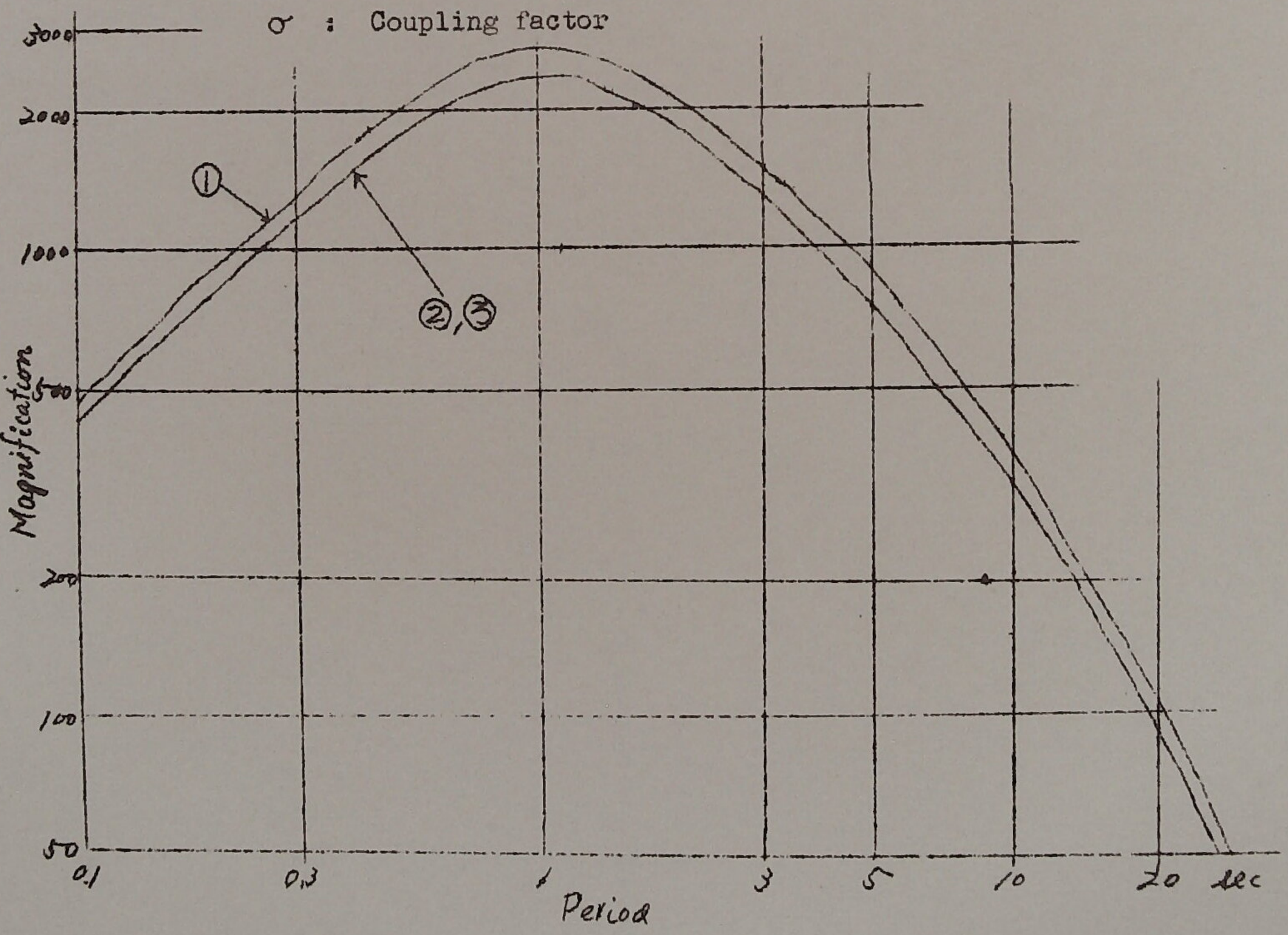
T_2 : Period of galvanometer

h_1 : Damping constant of pendulum

h_2 : Damping constant of galvanometer

ρ : Solid friction

σ : Coupling factor



Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
122.	Nov. 2.	iPE	$18^h 40^m 21^s.7$	2.8		-1.8		58°	2	
		iPZ	21.7	2.6			+6.3		3	
		iPN	21.9	2.8	+2.0				1	
		MZ	23.-	2.4			5.0		3	
		ME	23.7	2.4		2.4			2	
		MN	26.5	1.3	2.6				1	
		XN	32.3						1	
		XE	32.9						2	
		XZ	33.3						3	
		PcPE	59.1	2.2		+1.5			2	
		PcPN	59.5	1.6	-1.6				1	
		iXZ	43 05.3	5.6			-1.0		3	
		eXZ	53.5						3	
		XE	53.7						2	
		XN	54.3						1	
		SN	43 13.7	10	+0.8				1	
		iSE	13.9	3		-0.8			2	
		SZ	19.5	3			+0.7		3	
		eScSE	49 51.-						2	
		eScSN	55.-						1	
		eScSZ	59.-						3	
		XN	55 03.-						1	
		XE	09.-						2	
		XZ	09.-						3	
		eXN	57 33.-						1	
		eXE	52.-						2	
		eXZ	58 03.-						3	
		eXZ	19 03 38						3	
		ePKPPKPZ	10 08						3	
123.	5.	ePN	10 03 33.3					59°	1	
		iPZ	33.3	1.0			-1.2		3	
		ePE	34.3						2	
		eSN	10 53.-						1	
		eSE	54.-						2	
		eXN	13 58.-						1	
		eXE	14 13.-						2	
		eXZ	40.-						3	
124.										no trace
125.	10.	ePN	02 44 43.-					47°	1	
		ePE	51.-						2	
		ePZ	52.-						3	
		eSN	51 38.-						1	
		eSE	42.-						2	
		eXE	56 37.-						2	
		eXN	57.-						1	
		ME	58 21.-	15.2		1.3			2	
		eXN	03 03 10.-						1	
		MN	04 08.5	16.4	1.9				1	
		MZ	09 07.-	17.0			2.6		3	

Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
126.	Nov. 10.	ePN	$05^h56^m54^s$ca					42°	1	
		ePE	54ca						2	
		ePZ	57ca						3	
		eSN	06 03 12.-						1	
		eSE	16.-						2	
		eSZ	16.-						3	
		eXE	06 25.-						2	
		eXN	32.-						1	
		ME	35.0	16.6		1.0			2	
		eXZ	36.-						3	
		eXZ	09 41.-						3	
		eXN	46.-						1	
		eXE	56.-						2	
		eXN	11 16.-						1	
		eXE	36.-						2	
		MZ	13 22.2	16.2			2.1		3	
		MN	34.4	22.0	1.3				1	
127.	10.	ePZ	19 22 06.3						3	
		PE	06.9	1.0		+0.6?			2	
		ePN	07.3						1	
		eXE	32.7						2	
		XN	33.3	2.4	+2.3				1	
		eXZ	33.7						3	
		eXN	23 34.-						1	
		eXE	24 35.-	10.4		+10.4			2	
		MN	25 10.3	13.8	65				1	
		ME	34.0	12.4		46			2	
		MZ	26 11.3	12.0			28		3	
128.	13.	iPZ	17 34 57.7	3.0			+1.7	82°	3	
		iPN	57.9	2.6	+0.5				1	
		eP_1E	57.9			(-)			2	
		iP_2E	59.1	3.0		+0.8			2	
		XE	35 20.7	3.6		+0.8			2	
		iXZ	21.3	4.0			-3.7		3	
		XN	49.3	3.0	-0.7				1	
		XZ	37 57.1	4.2			+1.0		3	
		ePPE	38 22.3						2	
		XZ	41 06.-						3	
		XE	44 52.-						2	
		XN	57.-						1	
		eSN	45 18.1	4.2	+1.6				1	
		eSE	21.7						2	
		eSZ	24.1	4.4			+1.3		3	
		XE	44.7						2	
		XN	45.9	1.6	-0.7				1	
		XZ	46.9						3	
		ScSN	46 16.5	5.2	+0.9				1	
		eXZ	48 45.-						3	
		eXE	49 24.-						2	
		eXN	50 31.-						1	
		eXZ	33.-						3	
		eXN	55 32.-						1	
		eXZ	56 33.-						3	
		eXE	36.-						2	

(cont.)

Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	▲	Instr.	Remarks
continued										
128.	13.	eXZ	$18^h02^m04^s.-$	27			-1.6		3	
		eXN	06.-	26	-0.8				1	
		eXE	07.-	25		+0.6			2	
		MN	03 28.1	26.0	1.8				1	
		ME	29.-	24.-		1.1			2	
		MZ	06 55.-	21.-			1.9		3	
		eXE	07 43.-	23		+0.7			2	
129.	15.	P_1N	07 57 49.9	2.4	+0.8			25°	1	
		P_1Z	50.0	1.2			+0.5		3	
		iP_2Z	52.4	2.2			+1.0		3	
		iP_2N	53.3	2.2	+2.9				1	
		XE	53.3	1.8		+0.3			2	
		MN	59.9	4.4	2.9				1	
		MZ	58 00.1	3.4			3.1		3	
		eXZ	40.9	2.6			+3.0		3	
		XN	59 50.9						1	
		XN	08 00 22						1	
		XZ	26						3	
		XE	40						2	
		eSN	02 12.9	3.6	-0.5				1	
		eSE	15.5	4.0		-0.6			2	
		eXZ	30.-						3	
		eXN	03 34.5	7.6	+2.4				1	
		eXE	41.3	14.4		+2.3			2	
		eXZ	42.9	12.0			+2.0		3	
		ME	52.9	19.0		1.6			2	
		XN	04 53.-	8.2	+1.6				1	
		eXN	06 50.-						1	
		eXZ	09 21.-						3	
		eXN	22.-						1	
		eXN	17 09.-						1	
		eXZ	20 16.-						3	
		eXE	32.-						2	
		eXZ	21 42.-						3	
		XE	27 20.-						2	
130.	15.	iPN	16 36 13.1	1.6	-1.6			28°	1	
		iPE	13.1	3.0		-0.8			2	
		iPZ	18.1	2.4			+3.0		3	
		MZ	20.3	2.3			2.8		3	
		XN	35.1	2.0	+1.6				1	
		XZ	35.1	3.6			-1.6		3	
		ME	50.3	3.0		1.0			2	
		iXZ	55.5	1.8			-2.9		3	
		XN	37 51.3	2.4	+2.0				1	
		eSE	40 57.-						2	
		eSZ	57.-						3	
		iSN	57.9	4.0	-1.0				1	
		MN	41 22.7	10.4	2.3				1	
		XE	53.-						2	
		XZ	56.-						3	
		XN	43 56.-	4.6	+2.4				1	

(cont.)

Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
continued										
130.	15.	eXZ	16h44m25s.-						3	
		eXN	35.-						1	
		eXN	50 02.-						1	
		eXE	46.-						2	
		eXE	56 41.-						2	
		eXN	45.-						1	
		eXZ	47.-						3	
131.	17.	iPN	06 02 07.1	2.0	+2.7			21°	1	
		iPE	07.1	1.3		+1.8			2	
		iPZ	07.1	2.2			-4.7		3	
		ME	08.3	2.2		1.5			2	
		MZ	08.3	1.8			5.3		3	
		MN	10.9	1.4	3.8				1	
		XN	21.1	1.0	+1.7				1	
		XZ	24.7	1.6			-1.8		3	
		eXN	03 03.5						1	
		ePZ	44.9	6.0			+2.4		3	
		eSE	05 34.1	4.0		-0.6			2	
		SN	35.1	4.6	-0.6				1	
		SZ	35.3	4.4			+0.9		3	
		XZ	07 23.1	3.6			+1.0		3	
		eXE	42.-						2	
		eXN	47.-						1	
132.	20.	PZ	12 49 23.5	2.0			(+)	49°	3	
		PN	23.9						1	
		PE	24.5						2	
		MZ	23.9	1.3			4.7		3	
		MN	29.9	1.4	2.7				1	
		XZ	50 01.1	2.0			-3.2		3	
		XN	01.3	2.0	+1.7				1	
		eSE	56 25.-						2	
		eSN	26.-						1	
		eSZ	34.-						3	
		eXN	59 16.-						1	
		eXZ	13 01 36.-						3	
		eXE	39.-						2	
		eXN	56.-						1	
		eXZ	05 12.-	25.-			+2.0		3	
		ME	08 18.0	21.4		1.9			2	
		eXN	12 14.-						1	
133.	23.	iPZ	01 07 22.3	1.8			+2.3		3	
		iPN	22.4	1.7	-0.8				1	
		iPE	22.4	2.0		-0.9			2	
		MZ	23.3	1.8			5.3		3	
		MN	24.1	1.4	2.2				1	
		eXN	11 18.-						1	
		eXE	12 02.-						2	
		eSE?	13 59.-						2	
		eSN?	14 04.-						1	
		eXN	17 45.-						1	

(cont.)

Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
continued										
133.	23.	eXN	01h20m56s.-						1	
		eXE	57.-						1	
		eXZ	21 05.-						3	
		eXN	22 45.-						1	
		eXZ	46.-						3	
		eXE	23 06.-						2	
134.	25.	iPN	22 42 14.2	2.8	+2.0			36°	1	
		iPZ	14.2	2.6			+2.9		3	
		XE	14.8	1.8		-0.4			2	
		MZ	15.6	1.2			2.8		3	
		MN	18.8	2.0	2.1				1	
		ME	20.2	2.0		1.6			2	
		eXE	42.8	1.6		+0.9			2	
		PPZ	43 44.4	7.8			-2.2		3	
		PPN	44.6	6.0	-2.5				1	
		eXN	47 20.6						1	
		eSZ	59.2	7.0			+2.1		3	
		eSN	43 01.0	12.0	-2.6				1	
		eXE	07.6						2	
		eXN	50 40.-						1	
		eXE	41.-						2	
		iSeSE	52 28.0	4.4		-1.5			2	
		eXN	55 03.-						1	
		eXZ	10.-						3	
135.	26.	iPZ	05 17 15.0	3.2			+2.5	37°	3	
		ePN	15.1	2.3	+1.6				1	
		eXE	17.4						2	
		PN	20.8	2.4	2.8				1	
		MZ	22.6	2.0			5.0		3	
		ME	22.0	1.8		1.9			2	
		eSE	22 54.0						2	
		eSN	57.2						1	
		eXN	25 29.-						1	
		eXE	31.-						2	
		eXE	27 25.-						2	
		eXN	31 33.-						1	
		eXN	36 05.-						1	
136.	26.	iPE	11 43 43.2	3.2		+1.5		43°	2	
		iPZ	43.2	2.6			-3.3		3	
		PN	43.5	2.6	+0.7				1	
		eXE	47 43.-						2	
		eXN	48 26.-						1	
		SN	50 12.4	4.0	+1.2				1	
		SE	14.4						2	
		eXE	56 36.-						2	
		eXN	44.-						1	
		eXN	12 02 06.-						1	
		eXE	23.-						2	

Serial NO.	Date	Phase	Time G.C.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
			^{h} ^{m} ^{s}							
137.	23.	ePN?	21 03 14.-						1	
		eXN	02 05.-						1	
		eSN	08 31.-						1	
138.	29.	XZ?	22 39 17.-					160°a	3	
		iPKP$_1$Z	22.7	5.0			-7.7		3	
		iPKP$_1$E	22.3	4.0		+0.9			2	
		iXE	24.7	2.4		-1.9			2	
		eXN	25.3	1.2	-0.5				1	
		MZ	29.9	4.3			33.2		3	
		PKP$_2$Z	40 06.3						3	
		PPE	43 49.9	2.4		+4.6			2	
		PPZ	50.3	2.6			-11.6		3	
		PPN	5?.8	2.4	+2.3				1	
		XZ	44 49.?						3	
		MN	46 13.9	20.4	6.7				1	
		SKSE	35.-	11.0		+3.0			2	
		eXZ	43 16.-						3	
		eYZ	50 23.-						3	
		eXZ	57 05.-						1	
		eXN	23 03 13.-						2	
		eXE	33.-						3	
		eXZ	35.-						1	
		eXN	05 20.-						3	
		eXZ	22.-						2	
		eXE	37.-						2	
		ME	11 45.9	22.8		9.3				
139.	30.	PN	21 59 23.3	4.0	-1.9				1	
		iPE	23.3	3.4		-1.0			2	
		iPZ	23.3	1.0			+2.5		3	
		PZ	25.1	2.2			7.3		3	
		PN	32.3	1.6	3.1				1	
		eXN	22 00 24.-						1	
		SE	03 42.7	10.4		+1.5			2	
		SZ	43.7	11.0			+1.8		3	
		eSN	44.1	4.0	-1.8				1	
		ME	47.7	10.6		1.3			2	
		eXZ	06 34.-						3	
		eXN	42.-						1	
		eXE	44.-						2	
		eXZ	09 57.-						3	
		eXE	58.-						2	

Seismological Report for I. G. Y.

Station : Nagasaki(Japan) December, 1957

Longitude : 129°53' E
Latitude : 32°44' N
Elevation : 25 m
Foundation : Volcanic Breccia

Instrument

NO	Name	Component	Vmax.	T_1 sec	T_2 sec	h_1	h_2	ρ mm	σ	Date of Calib.
1	Electro-Magnetic Seismograph	N S	2,700	1.0	20	0.9	1.1		0.1	Dec. 1, 1957
2	" "	E W	2,100	1.0	21	0.9	1.1		0.1	" "
3	" "	U D	2,100	1.0	21	0.9	1.0		0.1	" "
3a	" "	U D	4,200	1.0	10	0.9	0.7		0.1	Dec. 13, 1957

T_1 : Period of pendulum

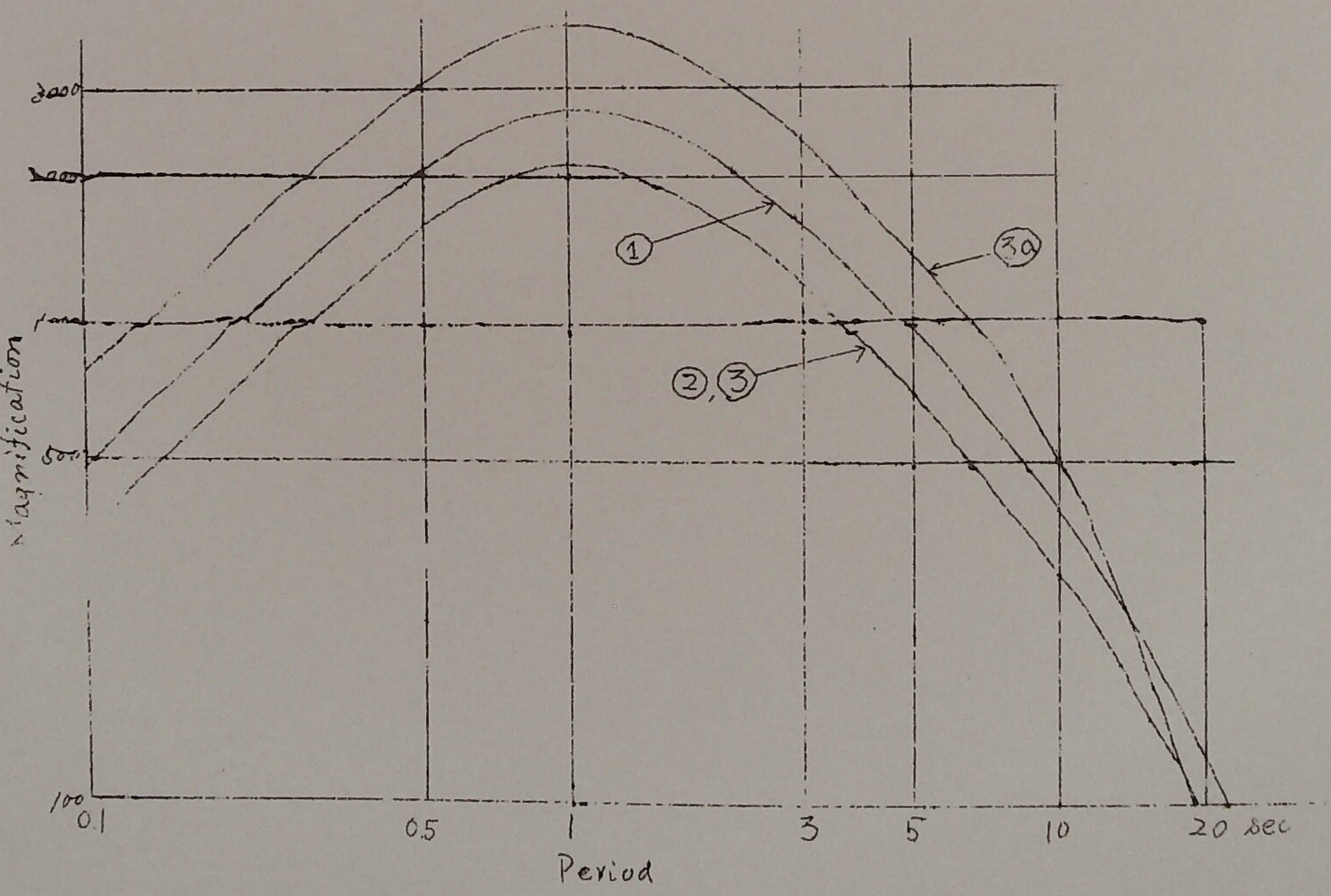
T_2 : Period of galvanometer

h_1 : Damping constant of pendulum

h_2 : Damping constant of galvanometer

ρ : Solid friction

σ : Coupling factor



Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
140.	Dec. 1.	P_1N	$01^h05^m37^s.2$	3.0	-0.8			24°	1	
		eP_1E	37.6	2.0		-0.3			2	
		iP_1Z	37.6	2.8			+1.5		3	
		iP_2E	38.4	2.8		+1.5			2	
		iP_2N	38.6	2.0	+1.4				1	
		iP_2Z	38.6	2.0			-2.3		3	
		MZ	44.2	2.8			2.3		3	
		ME	46.2	3.6		1.1			2	
		MN	46.4	3.2	1.6				1	
		ePPN	06 35.6	3.0	-1.1				1	
		ePPE	36.0	2.0		-0.6			2	
		ePPZ	38.-						3	
		eXZ	07 39.-						3	
		eSE	09 53.-						2	
		eSN	55.-						1	
		eSZ	56.-						3	
141.	1.	iP_1Z	01 14 12.8	2.4			+1.6	24°	3	
		iP_2N	13.4	2.4	+2.8				1	
		iP_2E	13.4	4.0		+2.1			2	
		iP_2Z	13.4	2.4			-5.6		3	
		MZ	20.6	4.4			3.3		3	
		ME	21.3	3.4		1.8			2	
		MN	23.2	3.6	2.6				1	
		eXZ	16 09.-						3	
		eSE	18 17.2						2	
		eSN	19.8						1	
		eSZ	23.-						3	
		eXZ	20 09.-						3	
		eXE	23.-						2	
		eXN	27.-						1	
		eXZ	25 21.-						3	
		eXN	25.-						1	
142.	4.	ePE?	03 43 22.-	10.-		(-)			2	
		ePZ?	22.-	10.-			(-)		3	
		iPZ	26.2	2.0			+1.4		3	
		iXZ	26.8	2.0			-4.8		3	
		iXN	26.8	2.0	+1.2				1	
		iXE	26.8	1.8		-1.2			2	
		XE	31.2	1.6		-12.1			2	
		XN	31.4	1.6	+7.8				1	
		XZ	31.6	1.8			-29.2		3	
		XZ	42.0	2.0			-47		3	
		XN	42.2	3.0	+24				1	
		XE	42.8	2.0		-19			2	
143.	7.	PZ	03 23 35.-				(-)		3	
		ePN	35.-		(-)				1	
		ePE	37.-						2	
		eSN	28 53.-						1	
		iSE	53.3	8.0		-0.8			2	
		eScSN	32 22.-						1	
		eScSE	26.-						2	

Serial NO.	Date	Phase	Time G.M.T.	Period sec.	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
144.	10.	ePE	14h44m18s.3					45°	2	
		ePN	18.5						1	
		eXE	45 16.1	3.0		-1.1			2	
		ePPE	46 03.-						2	
		eXN	48 34.-						1	
		eXN	49 51.-						1	
		eSE?	51 07.-						2	
		eSS or ScSE	54 13.-						2	
		eSS or ScSN	14.-						1	
		ME	58 27.9	22.0		4.0			2	
		eXE	15 00 52.5	15.0		-1.7			2	
		eXN	02 42.-						1	
		eXE	03 04.-						2	
		MN	06 53.-	16.4	6.2				1	
		MZ	08 06.5	16.0			9.6		3	
145.										No trace
146.	13.	eXN	01 55 11.-						1	Two earthquakes
147.		eXE	17.6						2	overlapped.
		eXE	58.-						2	
		eXN	56 04.8	4.0	-3.0				1	
		eXE	58 00.-						2	
		eXN	02 01 12.-						1	
		SN? (NO. 147)	04 49.6	10.6	-8.7				1	
		SE? (NO. 147)	49.8	10.4			-10.7		2	
		eXN	05 49.2	6.4	-10.0				1	
		eXE	07 27.-						2	
		eXN	08 20.4	3.8	-2.1				1	
148.	13.	ePZ	20 34 57.-						3	Large
		ePE	58.-						2	microseisms
		ePN	35 01.-						1	
		eSZ	42 03.-						3a	
		eSN	05.-						1	
		eSE	07.-						2	
		eXE	50 51.-						2	
		eXZ	51 59.-						3a	
		eXE	52 09.-						2	
		eXN	52 35.-						1	
149.	16.	iPZ	17 39 30.6	2.4		-1.2		72°	3a	
		eXZ	44 28.-						3a	
		eXZ	46 46.-						3a	
		eSN	48 38.-						1	
		eXN	55 44.-						1	
		eXN	18 06 24.-						1	
		eXN	08 22.-						1	

Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	Amplitude Z mm	Δ	Instr.	Remarks
150.	17.	ePN	$05^h16^m31^s.5$	4.0	-0.7			30°	1	
		iPZ	31.7	3.6			+2.5		3a	
		PE	31.9	3.0		-0.7			2	
		XN	17 01.5	2.4	+2.6				1	
		eSN	21 32.-	12.0	-1.2				1	
		eSE	33.-						2	
		eXN	24 26.-						1	
		eXE	44.-						2	
		eXN	26 34.-						1	
		eXE	40.-						2	
		eXZ	27 54.-						3a	
		ME	29 31.7	15.4		17.5			2	
		MZ	31 21.1	15.6			11.1		3a	
		MN	26.1	14.8	11.8				1	
		eXE	34 09.-						2	
		XZ	35 33.1	14.2			+5.8		3a	
151.	17.	iP_1E	13 59 54.8	1.2		-1.9		57°	2	
		P_1Z	54.3	1.6			+3.3		3a	
		iP_2N	56.0	4.6	+10.8				1	
		iP_2Z	56.2	3.2			+5.9		3a	
		iP_2E	56.4	3.6		-12.3			2	
		MZ	14 00 04.8	2.6			23.9		3a	
		XN	21.6	6.0	-10.5				1	
		XE	25.8	2.8		-9.0			2	
		XE	01 14.2	3.0		+6.9			2	
		XN	27.8	4.0	-9.2				1	
		XE	02 17.2	3.2		-6.5			2	
		XN	19.8	4.4	+5.5				1	
		XE	03 15.6	4.8		+8.0			2	
		XN	29.7	4.0	-5.0				1	
		XZ	04 01.2	8.4			+20.0		3a	
		XE	03.4	6.0		-15.6			2	
		XN	03.6	6.6	+10.2				1	
		XE	05 37.4	7.8		+7.2			2	
		iSN	07 40.2	10.4	+23.9				1	
		iSE	40.6	5.8		-23.0			2	
		eSZ	42.2						3a	
		MN	46.2	11.0	28.3				1	
		isSN	08 28.6	9.8	+28.3				1	
		XE	31.4	8.8		-14.5			2	
		XZ	43.-						3a	
		ME	59.2	17.6		22.6			2	
		XE	14 17.4	13.4		+7.4			2	
		XN	17.8	19.6	+23.0				1	
		XZ	31.-						3a	
		XN	18 14.0	25.0	+20.2				1	
		XZ	22 11.4	16.6			-11.0		3a	
		XE	24 00.6	16.0		+9.4			2	
152.	23.	eXN	13 28 33.-						1	Very small
		eXZ	32 41.-						3a	
		eXN	36 37.-						1	

Serial NO.	Date	Phase	Time G.M.T.	Period sec	Amplitude N mm	Amplitude E mm	∠	Inst.	Notes
153.									No trace
154.	25.	eXN	$17^h11^m30^s$ca					1	Very small
		eXN	47 30 ca					1	
155.	28.	eXN	16 08 40 ca					1	Very small
		eXN	14 40 ca					1	
		eXN	19 30 ca					1	
		MN	32 45.-	18.-	0.3			1	
156.	31.	iPN	14 40 49.9	3.2	+1.4		85°	1	
		ePE	50.0	3.2		(-)		2	
		XN	41 09.8	1.4	+0.8			1	
		ePPN	44 10.-					1	
		SN	51 13.2	5.8	+1.0			1	
		eXN	53 03.-					1	
		eXN	56 45.-					1	
		eXN	15 08 13.-					1	
		eXN	12 43.-					1	