

SEISMIC BULLETIN

From

NAGASAKI METEOROLOGICAL OBSERVATORY

$\phi = 32^{\circ}44'03''$

$\lambda = 129^{\circ}52'31''$

$h = 130.6\text{m.}$

Lithologic foundation: Volcanic Agglomerate.



INSTRUMENTAL CONSTANTS

JANUARY TO OCTOBER 1935

From to

INSTRUMENT	COMPONENT	MASS	DAMPING	T ₀	r/T ₀ ²	ε	V
Wiechert	E-W	200	Air	4.7	0.012	27	70
	N-S	"	"	4.6	0.039	25	70
Wiechert	U-D	80	"	3.9	0.087	25	67
Ōmori	E-W	16	Magnetic				
Ōmori	N-S	16	"				

No. |

No.	Date	Phase	Time 135° E			Period	Amplitude			Δ	Remarks
			h.	m.	s.		Az	AE	AN		
			h. m. s.			s.	μ	μ	μ	km.	
1	1 Jun	LP LF	4	41	257					~	
2	"	P PP S? F	22	31	556	2.9E 3.4E 3.8J 7.3E, N	+1.6	-1.9 +7.1 +5.7	-4.1 -6.8	7512	
3	3 "	LP S LL LM EM F	10	57	164			-25		3628	
			11	02	418						
			"	07	251						
			"	13	370	10.9			-14		
			"	"	339	11.6		+13			
			"	36	350						
4	5 "	L LL F	0	23	290					~	
			"	27	140						
			"	53	290						
5	9 "	LP LS F	1	49	317					285	
			"	50	13.1						
			"	53	47.1						
6	11 "	LP LF	9	11	543					~	
			"	27	120						
7	17 "	LP LS LF	11	18	488					7178	
			"	27	272						
			"	49	071						
8	19 "	LP LS F	2	16	237					1874	
			"	19	356						
			"	30	325						
9	22 "	P S M F	9	33	270					137	
			"	"	454						
			"	"	581	1.1 E, N 1.2 Z	+20	-41	+42		
			"	41	284						
10	23 "	P S LL F	16	32	369					5182	
			"	33	290						
			"	40	584						
			17	17	310						
11	1 Feb	P LS LF	2	55	314					6334	
			"	03	256						
			"	12	387						
12	2	P LS F	14	14	135						
			"	"	19.7	0.5		+4.1		45	
			"	16	025						
13	5	L LF	2	36	125					~	
			"	45	200						
14	"	LP LF	5	10	550					~	
			"	12	550						
15	6	LP LS LF	4	02	412					288	
			"	03	20.1						
			"	05	44.1						
16	7	P S	21	24	573					16	
			"	"	594						

Continued

SEISMIC BULLETIN

NAGASAKI METEOROLOGICAL OBSERVATORY



No.	Date	Phase	Time 135° E			Period	Amplitude			J km.	Remarks
			h.	m.	s.		Az μ	AE μ	AN μ		
17	7 Feb	P S FH	21	25	240 261 333				16		
18	"	LP S FH	21	25	532 012 051				15		
19	8 "	P S FH	2	33	428 396 162	52		+21	2338		
21	1 "	LP S FH	3	31	268 585 385	132 20E 32N	+117	-80	+57	681	
20	10 "	LP SM LS FH	4	22	172 241 118 463	28E 3424E		+71 -214	-41 -288	2363	
22	14 "	LP FH	2	08	160 257				~		
23	20 "	P S ME M FH	5	12	402 039 424 431 330	40 44		+171	-260	1357	
24	21 "	P S FH	3	21	200 136				~		
25	23 "	LP LS EL NM ₁ EM ₂ EM ₂ NM ₂ C FH	2	13	262 250 337 188 139 594 000 073 073	135N 135E 131E		+20 +19	-12 -7	4207	
26	24 "	LP S FH	5	55	096 039 039				2365		
27	25 "	LP S FH	12	13	496 486 539	37E		-14	8776		
28	26 "	LP S FH	9	24	483 507 321				18		
29	"	P S FH	9	40	272 297 402				19		
30	27 "	P S FH	10	15	337 347 552	27N			3255		
31	2 March	LP FH	15	05	159 469				~		
32	6 "	P S FH	18	47	377 534 022				117		
33	7 "	LP S EL	19	30	676 158 444				1202		
34	"	LP LS	19	41	323 492				125		

Continued
Continued

From

to

International
Seismological
Centre

SEISMIC BULLETIN

NAGASAKI METEOROLOGICAL OBSERVATORY

No. 3

7th - 31st March 1935

No.	Date	Phase	Time 135° E			Period s.	Amplitude			J km.	Remarks
			h.	m.	s.		Az μ	AE μ	AN μ		
35	7 Mar	ep s H	19	42	482				121		
			"	43	645						
			"	51	360						
36	8 "	P s H	1	02	142				90		
			"	"	263						
			"	04	188						
37	" "	P s H	1	28	213				91		
			"	"	336						
			"	31	052						
38	" "	P s H	1	33	640				89		
			"	"	160						
			"	34	350						
39	" "	e s H	2	36	150				~		
			"	41	347						
40	" "	P s H	5	24	337				98		
			"	"	469						
			"	28	026						
41	" "	P s H	9	45	243				121		
			"	"	406						
			"	51	340						
42	" "	P s H	17	46	526				115		
			"	47	081						
			"	49	574						
43	10 "	P s H	6	02	558				98		
			"	03	090						
			"	"	424						
44	11 "	ep s H	20	23	418				663		
			"	25	112						
			"	26	043						
			"	35	492						
45	" "	P s H	23	12	303				10		
			"	"	317						
			"	"	548						
46	14 "	P s H	21	03	077				91		
			"	"	200						
			"	04	200						
47	19 "	ep s H	22	04	394				145		
			"	"	590						
			"	06	449						
48	" "	P s H	22	30	545				172		
			"	31	166						
			"	33	505						
49	20 "	P s H	9	17	039				123		
			"	"	204						
			"	18	265						
50	21 "	ep s H	8	06	003				5235		
			"	12	553						
			"	16	455						
			"	30	431						
51	26 "	ep s H	4	34	099				190		
			"	"	355						
			"	36	015						
52	31 "	P s H	6	21	496	4.9	+24	-16	1633		
			"	24	389						
			"	25	262						
			"	41	599						



SEISMIC BULLETIN

NAGASAKI METEOROLOGICAL OBSERVATORY

No. 4

No.	Date	Phase	Time 135° E			Period	Amplitude			J km.	Remarks
			h.	m.	s.		Az μ	AE μ	AN μ		
53	9 April	LP S F	13	34	329 341 480				9		
54	" "	LP LS F	17	20	277 147 355				990		
55	11 "	P F	9	07	070 198				~		
56	" "	LP LS LF F	10	30	031 066 236 253				3318		
57	12 "	LP LS LF	0	28	201 073 493				992		
58	" "	L LF F	8	42	418 300 083				~		
59	14 "	P LS LF	19	49	550 185 638				175		
60	15 "	P LS EM JM LF	20	16	473 086 285 292 100	39	+14	-12	603		
61	19 "	LP S F	17	55	267 300 030				25		
62	20 "	LP LS LF F	0	37	076 565 416 244				8568		
64	" "	L LF	20	11	036 415				~		
65	21 "	LP ₂ LPEN LPZ LPFU PME PMN SZ SFU LSN LSZ SMN SMZ SME LE L _{Hz} M ₁ ZN M ₁ E M ₂ E M ₂ Z M ₂ N M ₃ EN M ₃ Z C	7	04	457 463 541 548 140 148 012 019 096 114 473 476 491 349 368 233 258 250 265 270 394 403 619	36N 37E 38W 23 48 43 57 46 65 59 67 61N 48N 48 45 49 45 64E 82N 76	+2.7 +3.0 -2.9 -6.7 +7.4 +3.0 -2.23 -2.00 -3.2 +1.6	-2.1 +6.4 +2.00 -5.48 -13.0 -4.80 +2.86 +2.86 -2.20 -2.62 -2.23 -2.00 +2.13 -7.5	1293		
Continued											
66	" "	LP LS F	7	29	180 165 440	22EN			-2.8 -8.2	1105	
63	20 "	LP F	16	33	353 10.8				~		



SEISMIC BULLETIN

NAGASAKI METEOROLOGICAL OBSERVATORY

No. 5

No.	Date	Phase	Time 135° E			Period s.	Amplitude			Δ km.	Remarks		
			h.	m.	s.		Az μ	AE μ	AN μ				
67	22 April	P eS F	4	16	135	32			-11	1225			
			"	18	240								
			"	34	347								
68	" "	eL eF	14	07	304								
			"	18	115								
69	24 "	eP eS F	1	52	188					2997			
			"	57	016								
			2	12	044								
70	28 "	eL eF	22	53	022					~			
			"	58	544								
71	5 May	P eS eL C F	8	05	099					1417			
			"	07	386								
			"	08	526								
			"	11	488								
			"	31	158								
72	" "	P S F	23	51	345					78			
			"	54	191								
73	7 "	eP eF	2	43	159					~			
			"	52	320								
74	" "	eP eL F	15	01	430					~			
			"	05	449								
			"	19	422								
75	11 "	eP eL F	15	01	480					~			
			"	05	443								
			"	19	422								
76	14 "	eP eS L M M M M C F	5	02	118					~			
			"	07	062								
			"	08	375								
			"	09	488	140N	+160	-222					
			"	10	028	135 "	+160	-419					
			"	"	163	131 "	-62	-383					
			"	"	278	106 "	+99	-334					
			"	"	403	100 "	-25	-259					
			"	14	150								
			"	35	162								
77	15 "	eP eP L L L L L	8	42	333					~			
			"	"	476								
			"	43	285								
			"	"	349								
			"	53	110								
			"	9	05	205							
			"	49	116								
78	18 "	eP eP eP eP F	13	10	175					~			
			"	"	256								
			"	"	434								
			"	11	571								
79	20 "	P eS eF	14	27	345					4320			
			"	33	398								
			"	44	554								
80	21 "	P P L L F	15	59	262			+2.3	-2.5				
			"	"	266								
			16	05	380								
			"	"	390								
			"	18	542								
81	23 "	eP eP S F	15	10	385		-148	+2.8	-4.3	123			
			"	"	351								
			"	"	551								
			"	19	521								
82	24 "	P P S S L L M F	14	41	183				+20	2340			
			"	"	221			-2.5					
			"	45	103								
			"	"	107								
			"	47	369								
			"	54	336			+9.8	-160				
			16	42	513								
			"	"	"								



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NAGASAKI METEOROLOGICAL OBSERVATORY

No. 6

No.	Date	Phase	Time 135° E			Period s.	Amplitude			J km.	Remarks			
			h.	m.	s.		Az μ	AE μ	AN μ					
83	25 May	P _N	9	12	230					~				
		P _E	"	"	343									
		L	"	16	334									
		P _N	9	21	469									
		L _E	"	25	247									
		H	"	55	506									
84	27 "	P _N	7	07	568					2853				
		S _N	"	12	291									
		S _E	"	"	315									
		L _N	"	14	334									
		L _E	"	"	314									
		H	8	06	488									
85	28 "	P	5	45	145					269				
		S	"	"	507									
		VH	"	49	143									
86	29 "	P	2	05	010					~				
		H	"	11	470									
87	30 "	P _E	4	45	146					2288				
		P _H	"	"	148									
		S _N	"	49	024									
		H	5	03	458									
88	31 "	P _E	4	16	250					362				
		P _N	"	"	253									
		S _F	"	17	138									
		S _N	"	"	166									
		H	"	22	477									
89	"	P _E	6	42	174					5671				
		P _N	"	"	189									
		S _E	"	49	361									
		L _E	"	54	014									
		M _{1N}	7	03	355							218 _N	-185	+1395
		M _{2N}	"	07	180							130E145N	+346	+1567
		M _{3E}	"	08	352							18.1	+253	+1023
		M _{3N}	"	"	387							15.1		-632
		M _{4E}	"	10	340							16.0	-472	-840
		M _{4N}	"	"	348							16.3		-741
		M _{5E}	"	13	260							12.5	+184	-346
		M _{5N}	"	"	264							21.4		+358
		M _{6N}	"	15	213							15.2		+138
		M _{6E}	"	"	229							12.0		-383
		L _N	"	19	351									
		L _E	"	"	391									
H	8	22	445											
90	"	P _E	17	20	189					760				
		P _H	"	"	190									
		S _H	"	21	413									
		S _E	"	"	425									
		?	"	27	383									
		?	"	"	391									
		?	"	23	481									
		H	"	42	486									

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NAGASAKI METEOROLOGICAL OBSERVATORY

$\varphi = 32^{\circ}44'03''$

$\lambda = 129^{\circ}52'31''$

$h = 130.6\text{m.}$

Lithologic foundation: Volcanic Agglomerate.



INSTRUMENTAL CONSTANTS

From to

INSTRUMENT	COMPONENT	MASS	DAMPING	To	r T ₀ ²	ε	V
Wiechert	{ E—W	200	Air	45	0.023	24	79
	{ N—S	,,	,,	45	0.030	23	80
Wiechert	U—D	80	,,	36	0.042	24	87
Ômori	E—W	16	Magnetic				
Ômori	N—S	16	,,				

No. 7

No.	Date	Phase	Time 135° E	Period	Amplitude			Δ	Remarks
					Az	AE	AN		
			h. m. s.	s.	μ	μ	μ	km.	
91	1 Jun	EP S H	23 45 114 " 49 237 " 58 429					2670	
92	2 "	EP H	18 26 446 19 01 421					~	
93	6 "	P H	16 24 343 " " 525					~	
94	7 "	PE S H	7 07 189 " " 201 " " 367					9	
95	" "	EP H	11 58 186 12 07 364					~	
96	8 "	P S H	22 25 063 " " 099 " " 349					27	
97	9 "	EP S H	15 38 495 " 42 397 " 58 340					2322	
98	10 "	EP H	15 55 390 16 05 325					~	
99	11 "	P S S S H	11 16 137 " " 140 " " 166 " " 168 " " 433					22	
100	12 "	EP H	20 38 407 " 39 020					~	
101	15 "	EP T	6 14 069 " 19 280					~	
102	16 "	P S H	19 43 330 " " 362 " " 480					24	
103	19 "	P S H	7 33 441 " 37 186 8 44 234					2128	
104	21 "	EP S H	11 55 236 " " 259 " " 336					17	
105	25 "	P S PS L H	8 33 109 " 41 134 " 42 086 " 43 167 9 15 191	F 33 N 43 47 E	-5.7 -8.9	+3.1 +11.2		6990	
106	" "	P S L H	21 38 236 " 42 097 " 43 369 22 13 188					2271	
107	29 "	EP PE S S S H	4 01 404 " " 410 " 02 564 " 03 007 " 11 180					690	
108	" "	EP H	17 05 180 " 17 180						



SEISMIC BULLETIN

NAGASAKI METEOROLOGICAL OBSERVATORY

No. 8

No.	Date	Phase	Time 135° E			Period	Amplitude			J	Remarks
			h.	m.	s.		Az	AE	AN		
						s.	μ	μ	μ	km.	
109	1 July	P SE SN F	3	22	577					30	
			"	23	017						
			"	"	020						
			"	"	150						
110	" "	P PE SE SN F	4	51	566					35	
			"	"	571						
			"	52	013						
			"	"	014						
			"	"	150						
111	2 "	LP LS F	16	20	205	0.4	+138	+51	+100	29	
			"	"	244						
			"	21	585						
112	3 "	P SN SE F	9	17	016					140	
			"	"	205						
			"	"	227						
			"	19	182						
113	" "	PE PN SE SN F	9	19	326					128	
			"	"	337						
			"	"	498						
			"	"	508						
			"	21	012						
114	5 "	PE PN SN SE F	18	12	481					751	
			"	"	554						
			"	14	101						
			"	"	102						
			"	21	204						
115	6 "	LP F	3	01	595					~	
			"	41	205						
116	7 "	LP F	22	27	210					~	
			"	54	210						
117	11 "	LP S M ₁ M ₂ F	17	26	390					803	
			"	28	063						
			"	"	586	3.8	+276	-645	+1850		
			"	29	119	4.7	-287	-1785	+1424		
			"	04	236						
118	17 "	LP LS M ₁ F	0	01	064	0.5 ^E 0.5 ^N 1.4 ^E 2.5 ^N	+30	-10	-51	200	
			"	"	334		-247	+17	+15		
			"	"	371		+247				
			"	10	290						
119	" "	P SN SE L M ₁ M ₂ F	1	21	463	2.3 ^E 2.7 ^N		-19	-2.5	1304	
			"	24	087				+		
			"	"	091						
			"	25	203						
			"	27	449	3.9 ^N 4.8 ^E	+6.7	-26.0			
			"	"	458						
			"	55	290						
120	" "	LP F	5	06	558					~	
			"	31	293						
121	" "	PN PE F	20	05	582	2.4	+3.6		+2.7	~	
			"	"	584	2.4		-4.0			
			"	20	300						
122	19 "	LP S M ₁ M ₂ C _N F	9	52	117					1554	
			"	54	541						
			"	55	248	51.5 ^E 52.6 ^N		+363	-773		
			"	"	442			+390	-835		
			"	10	023						
			"	26	318						
123	24 "	LP IS F	3	01	595	1.2			+13	582	
			"	03	037	14E 28N		-3.9	+7.6		
			"	12	381						
124	26 "	PN PE S _{4E} SM _{1E} F	17	07	312					1850	
			"	"	321						
			"	10	412						
			"	"	507	38E 58N		+7.8	-12.7		
			"	25	436						
125	" "	PE SE F	19	37	389	21E		+234		2645	
			"	41	554						
			"	"	6						
			"	"	13						

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$\phi = 32^{\circ}44'03''$

$\lambda = 129^{\circ}52'31''$

$h = 130.6\text{m.}$

Lithologic foundation: Volcanic Agglomerate.



INSTRUMENTAL CONSTANTS

From to

No. 9

INSTRUMENT	COMPONENT	MASS	DAMPING	T ₀	r/T ₀ ²	ε	V
Wiechert	E—W	200	Air	44	0.022	24	75
	N—S	,,	,,	44	0.038	24	72
Wiechert	U—D	80	,,	40	0.029	29	54
Ōmori	E—W	16	Magnetic				
Ōmori	N—S	16	,,				

No.	Date	Phase	Time 135° E			Period	Amplitude			Δ	Remarks
			h.	m.	s.		Az	AE	AN		
126	27 July	LP _u LP _u PE SE SH	19	17	116	1.1	+4.5			km. E 1914 N 1995	
			"	"	119	2.0					
			"	"	120	2.0		-2.0			
			"	20	273						
			"	42	455						
127	23 "	PS SH	6	20	269				25		
			"	"	302						
			"	"	384						
128	" "	PE PN ?EN SN SH	16	49	332	3.1		-2.2		7476	
			"	"	368	2.0			+4.2		
			"	52	162						
			"	58	270			-5.2	-5.1		
			17	31	491						
129	1 Aug	PS SH	23	11	243	24.0				2341	
			"	15	164	40.0		-6.7	+2.5		
			"	57	568						
130	3 "	PS L M ₁ M _{2E} M _{2N} M _{3N} M _{3E} SH	10	17	568	45.58E		-1.3	-1.5	4334	
			"	24	030	84.72E		-2.7	-1.4		
			"	27	421	155.134E		+6.7	+6.3		
			"	36	421	15.1E		+28.0	-29.2		
			"	38	413	11.9N		-23.4			
			"	40	414	14.5N			+48.6		
			"	40	179	10.3N			133.4		
			"	"	190	12.3E	+18.5				
			"	"	196			-4.40			
			"	11	17	591					
131	" "	PN SE SH	20	50	131				2354		
			"	54	065						
			21	13	596						
132	17 "	PE PN PME PMN SE SH L M ₁ M _{1E} SH	10	55	286				7526		
			"	"	297						
			"	"	412	3.6E		+26.6			
			"	"	414	3.6N				-13.9	
			11	14	250						
			"	"	282						
			"	09	069						
133	18 "	LP SE SN SH	8	25	118				268		
			"	"	479						
			"	"	497						
			"	27	260						
			"	"	190						
134	19 "	LP SH SH	6	21	585	40E 60N		+1.3	+4.2	24	
			"	22	017						
			"	"	211						
135	22 "	LP SH	18	11	180				~		
			"	14	250						
136	23 "	PL L SH	23	06	063				~		
			"	23	005						
			"	43	273						
137	24 "	LP L SH	13	53	560				6		
			"	"	568						
			"	54	036						



SEISMIC BULLETIN

NAGASAKI METEOROLOGICAL OBSERVATORY

No. 10

No.	Date	Phase	Time 135° E			Period	Amplitude			J km.	Remarks
			h.	m.	s.		Az μ	AE μ	AN μ		
138	25 Aug	⊕P ⊕L F	14	32	056				~		
			"	44	291						
			15	03	291						
139	27 "	P S F	1	33	440				1760		
			"	36	450						
			"	48	304						
140	" "	⊕P ⊕S ⊕F	14	23	486				1694		
			"	26	440						
			"	34	310						
141	30 "	P S F	15	22	342				88		
			"	"	46.1						
			"	23	229						
142	31 "	⊕P ⊕S F	17	34	017		+50		16		
			"	"	039		-278	+320			
			"	"	275			+375			
143	1 Sept	P _E P _N S ⊕L _N F	2	44	258	5.3 _E		+1.3	2126		
			"	"	265	4.5 _N		+1.4			
			"	48	002						
			"	50	033						
			3	03	382						
144	3 "	⊕P ⊕L F	19	58	485				~		
			20	01	444						
			"	19	409						
145	4 "	P _E P _N P _M S L M L F	10	40	450				1319		
			"	"	456	17 _N					
			"	41	101	42.5 _E	+4.8	+200	+420		
			"	43	049						
			"	45	232						
			"	48	105	143, 149 _E	-3.4	-400	+666		
			11	29	416						
146	8 "	⊕P ⊕S _N S M F	2	57	246				286		
			"	58	032						
			"	"	292	3.8 _E		-173	+4.4		
			3	00	442						
147	9 "	⊕P S S M F	14	13	314	21, 23 _E	+12.4	-107	+217	70	
			"	"	408						
			"	"	521	53, 57 _E	-475	+1000	-1273		
			"	26	468						
148	" "	⊕P _E ⊕P _N L L M _E F	15	23	133				~		
			"	"	30.1						
			"	27	126						
			"	31	197	73 _N			+20.3		
			"	"	213	75 _E		+160			
			16	01	469						
149	" "	P _N P _E F	18	49	224				~		
			"	"	273						
			"	"	556						
150	10 "	P _N P _E F	10	09	249				~		
			"	"	263						
			"	10	082						
151	11 "	⊕P ⊕P _N S S M F	23	07	557				1310		
			"	08	045	3.5	+11.8	-186	-17.4		
			"	11	107	3.5		-146	-8.7		
			"	12	500	26, 26.9 _E		+620	-66.7		
			6	50	600						
152	12 "	P S F	20	00	302				96		
			"	"	431						
			"	02	520						
153	16 "	P F	16	58	246				~		
			"	59	191						
154	" "	⊕P S F	17	28	542				700		
			"	30	112						
			"	34	542						



SEISMIC BULLETIN

NAGASAKI METEOROLOGICAL OBSERVATORY

No.	Date	Phase	Time 135° E			Period	Amplitude			J km.	Remarks
			h.	m.	s.		Az	AE	AN		
			μ	μ	μ		μ	μ	μ		
155	14 Sept	EP F	23	24	162 30 544						
156	15 "	EP EL F	20	23	219 28 550 51 550						
157	17 "	EP F	5	56	389 60 000						
158	18 "	LP S L ME M ₂ F	17	27	155 31 038 33 519 239 305 45 000	28E 32N 43E 39N	-3.5	-3.6	2235		
159	19 "	EP PL M F	11	41	059 46 000 48 214 53 000	212E 239N	+4.0	-4.3			
160	20 "	D S F	3	28	053 111 532				430		
161	" "	D S F	2	04	504 540 261				27		
162	" "	P S F	2	05	511 534 050				17		
163	" "	D S	2	34	423 455				24		
164	" "	D S	2	35	232 252				45		
165	" "	D S	2	56	268 351				47		
166	" "	D S F	2	37	067 112 39 532				33		
167	" "	P S F	2	58	288 321 447				27		
168	" "	D S F	3	23	689 125 303				27		
169	" "	EP EP EP PME PMN PP P P PPE PPE S S SME SMN L M M M M M M M	10	53	536 014 189 208 287 250 55 045 153 302 316 510 533 59 356 350 11 00 053 081 01 139 03 033 07 546 560 10 123 132 13 534 33 255 13 050	10E 37.39E 34E 35N 44.41E 43N 39N 43N 28.37E 25N 117N 19.4E 17.5N 252N 309E 212E236N 207N 172E190N 170N 134E132N 213N	+1.7 -1.7 -1.7	-5.3 -3.1 +28.0 +4.0 -1.3 +53.3 -10.8 +33.3 +5.46 -29.3	+5.5 +10.6 +4.06 -1.16 -9.7 +7.2 -10.1 -36.2 -26.1 -7.10 -5.55 +6.52	43965 13823	

From

to



SEISMIC BULLETIN

NAGASAKI METEOROLOGICAL OBSERVATORY

No. 12

No.	Date	Phase	Time 135° E			Period	Amplitude			J	Remarks
							Az	AE	AN		
170	20 Sept	LP _{DE} LP _N PP _N PP _E S _N S _E SM _N SM _E L _N L _E F _N F _E	h.	m.	s.	S.	μ	μ	μ	km. 3836	
			14	30	258	23.34E	-2.0	+53			
			"	"	271	36N			-8.7		
			"	31	543	53N			+2.7		
			"	"	558	51E		+4.4			
			"	36	635			+4.0			
			"	"	639	101N		-1.7	+21.7		
			"	"	333	136E		+12.0			
"	38	660					-13.0				
"	41	577									
"	"	583									
"	15	52	000								
171	21 "	DF	5	13	276	21E27N	+13	+22	~		
"	"	"	"	22	000				~		
172	" "	DP FH	6	12	000				~		
"	"	"	"	20	000				~		
173	" "	DP LP _N S _N S _E SM F	21	01	497	19.25E	-53	-8.7		N323 E436	
			"	02	641						
			"	"	476						
			"	"	485						
			"	10	000						
174	23 "	DP F	8	59	300				22		
			"	"	323						
			"	"	579						
175	" "	DP F	18	25	276				~		
			19	04	000						
176	24 "	LP LS F	7	25	467		+5.4	-10.0	-10.1	1.4	
			"	"	486		+23.7	+38.6	-7.3		
"	"	"	"	26	115						
177	25 "	DP F	1	38	333					~	
			2	10	000						
178	" "	DP LP _N F	19	26	413					~	
			"	"	567						
			"	50	000						
179	26 "	DP F	2	10	000					~	
			"	17	000						
180	29 "	LP SE F	15	31	407	13.21E	+2.1	+2.6		631	
			"	32	498						
			"	37	000						
181	30 "	DP LP LS F	9	11	277	2.7.37E	+1.7	+1.5		# 1299 i 1058	
			"	"	518						
			"	13	456						
			"	20	000						

SEISMIC BULLETIN

NAGASAKI METEOROLOGICAL OBSERVATORY

$\phi = 32^{\circ}44'03''$

$\lambda = 129^{\circ}52'31''$

$h = 130.6\text{m.}$

Lithologic foundation: Volcanic Agglomerate.



INSTRUMENTAL CONSTANTS

From to

No. 13

INSTRUMENT	COMPONENT	MASS	DAMPING	T ₀	r/T ₀ ²	ε	V
Wiechert	E—W	200	Air	46	0.036	3.1	63
	N—S	"	"	44	0.026	2.7	69
Wiechert	U—D	80	"	35	0.075	2.6	82
Omori	E—W	16	Magnetic				
Omori	N—S	16	"				

No.	Date	Phase	Time 135° E		Period	Amplitude			Δ	Remarks
			h.	m. s.		Az	AE	AN		
						μ	μ	μ	km.	
182	2 Oct	±D	14	36	515				1773 1689	
		±P	"	"	589	1.9 _N	+13	+29		
		±M	"	37	220	0E 36 _N	-11.4	-58		
		±S	"	39	538					
		±L	"	42	000					
		F	15	08	000					
183	" "	±D _N	18	28	148			+3.6	N 138 E 140	
		±P _F	"	"	149	0.8 _F	-4.6			
		±P _U	"	"	150	0.4 _U	+7.2			
		S _N	"	"	333	0.8 _N		+4.6		
		S _E	"	"	337	1.4 _E	-17.4			
		S _U	"	"	338	0.8 _U	+7.3			
		iS	"	"	385	3F 23, 18 _N	+163	+74.6		+27.5
		±M _N	"	"	393	2.3	-29.1	-174.5		-75.3
		F	"	394	1E 16 _U					
		H	"	39	000					
184	3 "	P	13	31	152				N 145 E 150	
		S _N	"	"	347					
		S _E	"	"	354					
		F	"	32	250					
185	4 "	±D	11	06	260				115	
		±S	"	"	415					
		F	"	08	017					
186	" "	P _N	14	20	436				1052	
		P _E	"	"	451					
		S _N	"	22	368					
		S _E	"	24	520					
		?E	"	30	485					
		F	"	36	000					
187	" "	P _N	15	08	243				N 50 E 47	
		P _E	"	"	247					
		S	"	"	310					
		F	"	09	113					
188	8 "	±P	18	41	000				~	
		±L	"	45	000					
		M _E	"	47	475	172 _E	-3.2			
		M _N	"	"	486	172 _N		-2.9		
		F	19	06	000					
189	12 "	±D	7	23	110				4338	
		S	"	29	174	45 _N 88 _E	+1.6	+4.3		
		±L	"	31	000					
		M ₁	"	36	174	117 _N		-8.7		
		F	8	01	000	175 _N 135 _E	+7.9	+5.8		
190	13 "	±P	1	48	300				1470	
		S	"	51	040					
		T	"	52	086	63 _N 76 _E	-25.4	+23.2		
		S ₁	"	52	414	67 _N 42 _E	-47.2	+23.2		
		M ₁	"	53	258	171 _N 154 _E	+47.6	-85.5		
		M ₂	"	54	113	33 _N 114 _E	+87.4	-39.1		
Continued										
191	" "	±P	2	03	400	3.8 _N		+4.3	1640?	
		S ₁	"	06	300	5.7 _{NE}	+12.7	-5.8		
		M ₁	"	07	560	133 _E 171 _N	+11.1	-18.8		
		M ₂	"	12	000	118 _E 120 _N	+19.1	-8.7		
		F	3	00	000					



SEISMIC BULLETIN

NAGASAKI METEOROLOGICAL OBSERVATORY

No. 14

No.	Date	Phase	Time 135° E			Period	Amplitude			J	Remarks	
			h.	m.	s.		Az	AE	AN			
192	13 Oct	P S T F	3	17	200	18 _u	-0.6			1301		
			"	"	19	381	46 _u	+3.7				
			"	"	21	057						
			"	"	23	486	105 _N 120 _E	±15.0	+7.9		-2.9	
193	" "	P S L M L M E F	11	00	338					1807		
			"	"	03	455						
			"	"	05	523	157 _N 11 _E		+11.1		-10.1	
			"	"	07	040	36 _N 118 _E		-11.1		+5.8	
194	15 "	P P S S F	23	36	476	18 _N 23 _E		-1.3	-1.2	NE 728 W 702		
			"	"	"	482	06 _u	-1.2				
			"	"	38	056	26 _u	-6.1				
			"	"	47	000	35 _N 38 _E		+2.2		-5.8	
195	16 "	P P M S F	3	23	172	60 _N 04 ₀₅	+1.5	-0.8	+1.7	117		
			"	"	"	187	64 _N 05 _N	+4.9	+2.7		-2.5	
			"	"	"	192	64 _N 05 _E	+10.5	-4.5		-4.5	
			"	"	"	321	66 _N 03 _N	+6.1	+7.6		-10.3	
196	17 "	L F	23	56	000				~			
			24	07	000							
197	18 "	P S M S M L M M M F	9	14	535	23 _N 4 _E		+1.6	+1.2	1050		
			"	"	16	475	29 _N 33 _E		-1.1		+4.3	
			"	"	17	256	33 _N				-14.5	
			"	"	"	260	39 _E		-1.1			
			"	"	18	127	39 _N 0 _E		-1.1		+5.8	
			"	"	"	374	91 _E		+3.8			
			"	"	"	575	91 _N				-8.26	
			"	"	20	545	122 _E		+3.20			
			"	"	"	547	129 _N				-30.4	
			"	"	10	16	000					
198	" "	L L L P P P L L L M M M F	20	10	280	41 _N			+5.8	~		
			"	"	201	39 _E			-6.4			
			"	"	284	27 _u	+1.2					
			"	"	461	58 _u	+6.1					
			"	"	472	53 _E		+15.9				
			"	"	473	55 _N			-23.2			
			"	"	14	344	53 _N				+7.3	
			"	"	"	350	39 _E		-3.2			
			"	"	"	427	38 _u					
			"	"	"	555	49 _N 58 _N		-3.0		+79.7	
			"	"	"	513	90 _u	-3.7				
			"	"	17	398	130 _N 43 _E		+15.9		-23.2	
			"	"	"	447	147 _u	-6.1				
199	" "	P P L L M M M F	23	56	335					NE 720 W 725		
			"	"	57	449						
			"	"	"	230	13 _N				+1.2	
			"	"	59	355	37 _N 41 _E		+4.8		+2.9	
			"	"	24	01	113					
			"	"	"	02	078	123 _u	-4.0			
			"	"	"	03	081	112 _N 111 _u			+20.6	-27.5
			"	"	"	03	368	121 _u	-3.7			
200	19 "	P S L M M F	6	54	115					2089		
			"	"	57	430	25 _E 27 _u		-1.6		-1.5	
			"	"	58	147	39 _E 15 _u		-5.6		+6.5	
			"	"	7	00	128 _E		+6.3			
			"	"	"	305	128 _u				-3.6	
201	" "	P S S L M F	11	41	393					W 1463 E 1683		
			"	"	44	132						
			"	"	"	336						
			"	"	46	008						
			"	"	48	536	103 _E 141 _u		-3.7		-3.7	

SEISMIC BULLETIN

NAGASAKI METEOROLOGICAL OBSERVATORY

$\phi = 32^{\circ}44'03''$

$\lambda = 129^{\circ}52'31''$

$h = 130.6m.$

Lithologic foundation: Volcanic Agglomerate.



INSTRUMENTAL CONSTANTS

From 2nd to 15 NOV 1935

INSTRUMENT	COMPONENT	MASS	DAMPING	To	$\frac{r}{T_0^2}$	ϵ	V
Wiechert	E-W	200	Air	4.6	0.036	3.4	6.8
	N-S	"	"	4.4	0.026	2.7	6.9
Wiechert	U-D	80	"	3.5	0.075	2.6	7.7
Omori	E-W	16	Magnetic				
Omori	N-S	16	"				

No. 15

No.	Date	Phase	Time 135° E	Period	Amplitude			Δ	Remarks
					Az	AE	AN		
			h. m. s.	s.	μ	μ	μ	km.	
202	2 NOV	P	1 28 223					2319	
		SE	" 32 122						
		L	" 35 315						
		M _{1N}	" 36 538	8.5N 11.2u	-336		-913		
		M _{1E}	" 37 019	7.9E		+544			
		M _{2N}	" 37 299	10.4N			+118.8		
		M _{2E}	" " 312	7.9E		+544			
F	2 15 000								
203	" "	P?	6 06 317					-	
		F	" 17 000						
204	9 "	P	13 00 379					182	
		IS	" 01 024	1.4u 1.5N 2.3E	+39	+16.2	+8.7		
		SM _N	" " 028	2.1N			-333		
		SM _u	" " 035	2.0u	-3.1				
		SM _E	" " 036	2.3E		-45.6			
		F	" 09						
205	12 "	iP _u	3 59 411		-13			E 3. N 3.4	
		iP _E	" " 413	0.8E		-7.3			
		iP _N	" " 415				-11.6		
		SE	" 59 453	0.7u					
		S _u	" " 460						
		F	4 01 000						
206	13 "	L	6 50 000					-	
		M _E	" 54 283	13.9E		+4.4			
		M _N	" " 289	13.9u			-4.5		
		F	7 10 000						
207	15 "	P _N	5 04 376					4787	
		PM _N	" 06 417	3.9u			-4.4		
		PM _L	" " 416	3.9E		+4.4			
		S _N	" 11 082						
		L	" 16 000						
		M _E	" 19 114	20.7E		+4.4			
		M _N	" " 133	21.6u			-5.1		
F	" 30 000								

SEISMIC BULLETIN

NAGASAKI METEOROLOGICAL OBSERVATORY

19th to 27th NOV 1935

No. 16

International
Seismological
Centre

No.	Date	Phase	Time 135° E			Period	Amplitude			D	Remarks
			h.	m.	s.		Az	AE	AN		
208	19 NOV	LP	8	40	53.2					km. 299	
		S	"	41	33.5						
		F	"	45	00.0						
209	23 "	LP	9	14	45.2					8.4	
		iS	"	"	56.5	0.6 _u 1.3 _E 1.7 _N	+1.0	-2.9	+3.6		
		F	"	16	00.0						
210	25 "	LP	11	30	36.6					32.6	
		iSE	"	31	20.5						
		iSN	"	"	24.3						
		iSE	"	"	34.0	2.7 _E		+1.4			
		iSN	"	"	36.6	2.3 _N			+2.6		
		F	"	34	00.0						
211	" "	LP	12	57	22.7					37.6	
		S	"	58	13.4						
		F	13	03	00.0						
212	" "	LL	19	24	12.2					~	
		M _{1E}	"	27	49.4	15.1 _E		+8.8			
		M _{1N}	"	"	50.5	14.8 _N			-11.6		
		M _{2u}	"	31	31.6	13.0 _u	+5.2				
		iM _{2N}	"	"	33.4						
		M _{2E}	"	"	33.7	12.3 _E		-13.2			
		M ₃	"	33	00.1	12.3 _E 13.3 _N		-13.2	+7.2		
		F	"	51	00.0						
213	27 "	LP	3	31	00.0					~	
		LL	"	46	00.0						
		LF	4	03	00.0						

SEISMIC BULLETIN

NAGASAKI METEOROLOGICAL OBSERVATORY

$\phi = 32^{\circ}44'03''$

$\lambda = 129^{\circ}52'31''$

$h = 130.6m.$

Lithologic foundation: Volcanic Agglomerate.



INSTRUMENTAL CONSTANTS

From 2nd to Dec 1935

No. 17

INSTRUMENT	COMPONENT	MASS	DAMPING	To	$\frac{r}{10^2}$	ϵ	V
Wiechert	E-W	200	Air	4.1	0.018	4.8	63
	N-S	"	"	4.4	0.015	4.1	72
Wiechert	U-D	80	"	4.1	0.017	4.0	49
Omori	E-W	16	Magnetic				
Omori	N-S	16	"				

No.	Date	Phase	Time 135° E	Period	Amplitude			Δ	Remarks
					Az	AE	AN		
			h. m. s.	s.	μ	μ	μ	km.	
214	2 Dec	ΔP_N	8 46 20.9					372N 358E	
		ΔP_E	" " 21.9						
		S _E	" " 47 10.1						
		S _N	" " 11.0	1.9N			+13.9		
		\bar{S}_N	" " 15.8	5.2N				-33.3	
		\bar{S}_E	" " 17.7	3.3E			-36.5		
		M _{1E}	" " 57.3	5.4E			-193.6		
		M _{1N}	" " 59.8	4.7N				+80.6	
		M _{2E}	" " 48 42.6	7.8E 8.3N			-173.0	-111.0	
M _{2N}	" " 43.2								
			Continued						
215	" "	P _N	9 06 14.6					339N 306E	
		P _E	" " 19.0						
		ΔS	" " 07 00.3						
		F	9 15 00.0						
216	" "	ΔP_N	9 26 46.5					472N 446E	
		ΔP_E	" " 46.8						
		S _E	" " 27 46.9						
		S _N	" " 50.0						
		F	" " 35 00.0						
217	" "	ΔP_N	13 33 49.5					425N 418E	
		ΔP_E	" " 50.4						
		S	" " 34 46.7						
		F	" " 41 00.0						
218	" "	ΔP	14 11 53.4					367E 369N	
		S _E	" " 12 42.8						
		S _N	" " 43.1						
		F	" " 20 00.0						

From

to

International
Seismological
Centre

SEISMIC BULLETIN

NAGASAKI METEOROLOGICAL OBSERVATORY

15th to 17 Dec 1935

No. 19

No.	Date	Phase	Time 135° E			Period	Amplitude			J	Remarks
			h.	m.	s.		Az	AE	AN		
227	15 Dec	p _u	16	16	55.5					km. 5642E 5663N	
		p _{NE}	"	"	55.8						
		i _{NE}	"	17	00.8	3.1 _E 3.3 _N		+15	+17		
		i _u	"	"	01.1						
		p _u	"	"	17.2	3.5 _u	+22.4				
		p _{NE}	"	"	17.3	3.8 _{NE}		-20.6	+18.1		
		J _E	"	24	12.6	4.2 _E 4.4 _N		+3.2	-2.8		
		S _N	"	"	14.0						
		s _u	"	"	53.2	6.0 _u	+8.2				
		s _E	"	"	55.7	6.0 _E		+23.8			
		s _N	"	"	57.4	5.6 _N			-22.2		
		L _N	"	27	37.3						
		L _E	"	"	37.7						
		M _{1N}	"	32	46.2	18.9 _N 21.3 _u	-4.1		+30.5		
		M _{1E}	"	"	48.1	18.9 _E		-34.9			
		M _{2u}	"	35	17.5	21.7 _u	+32.6				
		M _{2E}	"	"	20.7	19.1 _E		+41.3			
		M _{2N}	"	"	22.7	20.6 _N			-50.0		
		M _{3E}	"	37	37.8	18.3 _E		-36.5			
		M _{3N}	"	"	38.3	19.4 _N					
		M _{3u}	"	"	42.1	19.4 _u	+32.6				
		M _{4N}	"	39	43.0	15.8 _N			+40.3		
M _{4E}	"	"	45.0	15.6 _E		-42.8					
M _{4u}	"	"	48.6	16.2 _u	+26.5						
M _{5E}	"	40	44.6	18.6 _E		+25.4					
M _{5N}	"	"	46.6	17.3 _N			-55.5				
M _{5u}	"	"	50.4	16.4 _u	-34.7						
H	"	18	07	~							
228	17 "	P _u	2	15	59.9	shock	+16			2.7 _E 2.9 _N	
		P _E	"	16	01.0	1.6 _E		-0.8			
		P _N	"	"	02.5						
		S _E	"	"	04.6						
		S _u	"	"	05.4	shock	+4.3				
		S _N	"	"	06.4						
		H	"	17							

SEISMIC BULLETIN

International
Seismological
Centre

NAGASAKI METEOROLOGICAL OBSERVATORY

18th to 19th Dec 1935

No. 20

No.	Date	Phase	Time 135° E			Period	Amplitude			J	Remarks		
			h.	m.	s.		Az μ	AE μ	AN μ				
229 1/4	18 DEC	1P _u	4	20	069	2.2 _u	-2.0			1170 ^E 1174 ^N			
		1P _E	"	"	071	2.5 _E		+1.6					
		1P _N	"	"	073	2.9 _N			+5.6				
		S _E	"	22	121								
		S _N	"	"	127								
		S _u	"	"	147								
		L _u	"	"	331								
		L _E	"	"	355								
		L _N	"	"	368								
		M _{1E}	"	23	483	16.7 _u 19.3 _E	-20.4	-128.5					
		M _{1N}	"	"	488	17.7 _N			+54.2				
		M _{2N}	"	26	240	10.3 _u 10.8 _N	+85.7		-40.3				
		M _{2E}	"	"	246	11.2 _E		-112.5					
		M _{2N}	"	29	275	9.5 _N			+80.6				
		M _{3E}	"	"	277	9.2 _E		-63.5					
		F	5	17	—								
		230	" "	P _E	16	15	373						2618 ^E 2602 ^N
P _{1u}	"			"	378								
S _N	"			19	510								
S _E	"			"	518								
L	"			22	246								
M _{1u}	"			23	311	11.4 _u	+8.1						
M _{1N}	"			"	331	8.5 _N			-22.2				
M _{1E}	"			"	343	13.5 _E		+7.9					
M _{2E}	"			25	382	10.7 _E		+27.0					
M _{2N}	"			"	407	9.3 _N			-9.7				
F	"			50	—								
231	19 "			P _u	2	04	338					2324	
				P _N	"	"	323						
		P _E	"	"	345								
		L _S	"	08	242								
		M _{1u}	"	14	264	9.5 _u	+16.3						
		M _{1NE}	"	"	281	10.1 _E 11.6 _N		-19.1	+7.0				
		F	"	38	—								
232	" "	L _P	22	31	473								
		T ₁	"	52	—								

SEISMIC BULLETIN

NAGASAKI METEOROLOGICAL OBSERVATORY

No. 21

20th to 30th Dec 1935International
Seismological
Centre

No.	Date	Phase	Time 135° E			Period	Amplitude			J	Remarks
							Az	AE	AN		
			h.	m.	s.	s.	μ	μ	μ	km.	
233	20 Dec	L?E	9	01	454					~	
		L?N	"	"	570					.	
		F	"	17	~						
234	21 "	P _u	3	46	029	1.5 _u	+2.0			5656	
		P _n	"	"	031				+1.1		
		iP _E	"	"	046	1.9 _E		+2.4			
		S	"	53	207						
		F	4	24	~						
235	" "	iP	9	17	290					80 p 31 i	
		iP _E	"	"	355						
		iP _N	"	"	375						
		S _E	"	"	397	1.0 _E		-1.6			
		S _N	"	"	413	1.4 _N			-2.2		
		S _u	"	"	439	1.0 _u	+2.0				
		F	"	19	~						
236	23 "	P	23	48	360					~	
		F	"	57	~						
237	25 "	iP	22	21	327	1.0 _{NE}		+1.6	-1.1	72	
		S	"	"	424						
		F	"	23	~						
238	27 "	P	21	23	528					~	
		F	"	24	338						
239	28 "	iP	11	43	350					4837	
		iP _{NE}	"	"	380	2.0 _{NE}		+4.5	+4.9		
		iP _u	"	"	385	1.3 _u	+8.8				
		iS	"	50	116						
		S _{ME}	"	"	442	3.0 _{6E}		+5.6			
		S _{M_N}	"	"	483	2.4 _{9N}			+4.1		
		L?	"	54	503						
		M _E	12	00	586	2.1 _{9E}		-14.4			
		M _N	"	01	038	2.3 _{4N}			-9.6		
		M _u	"	"	068	2.3 _{9u}	-13.6				
		F	13	33	~						
240	29 "	P	21	49	165					22	
		S	"	"	194						
		F	"	"	520						
241	30 "	P _N	8	44	211					4025	
		P _E	"	"	238						
		S?	"	50	096						
		F	9	15	~						