

THE  
SEISMOLOGICAL BULLETIN  
OF THE  
MIYAZAKI METEOROLOGICAL OBSERVATORY  
MIYAZAKI JAPAN

No. 3.

In the year 1930

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*Published by*

*The Miyazaki Meteorological Observatory*

## Preface

The present publication contains the result of the seismometrical observations made at the Miyazaki Meteorological Observatory in the year 1930.

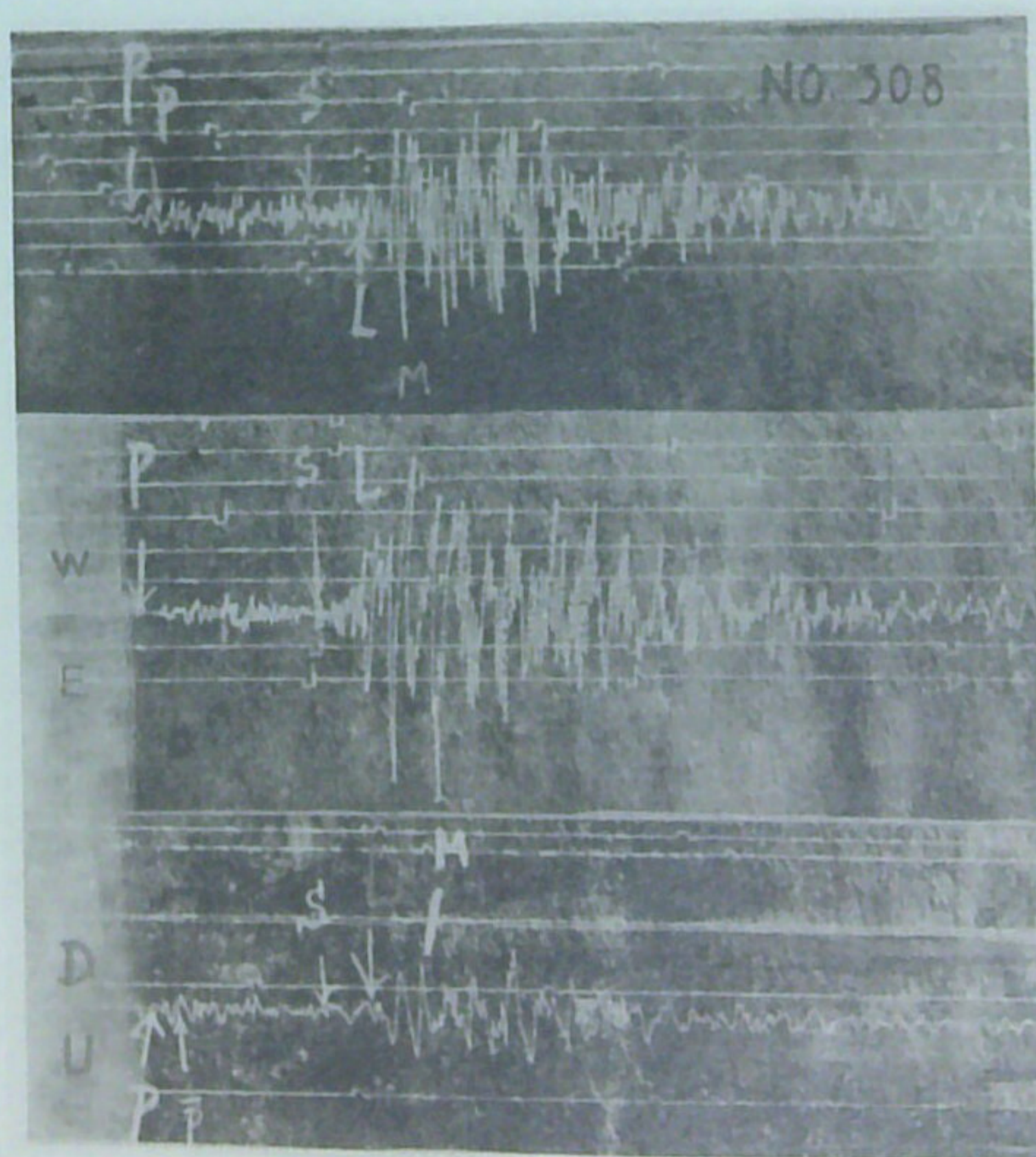
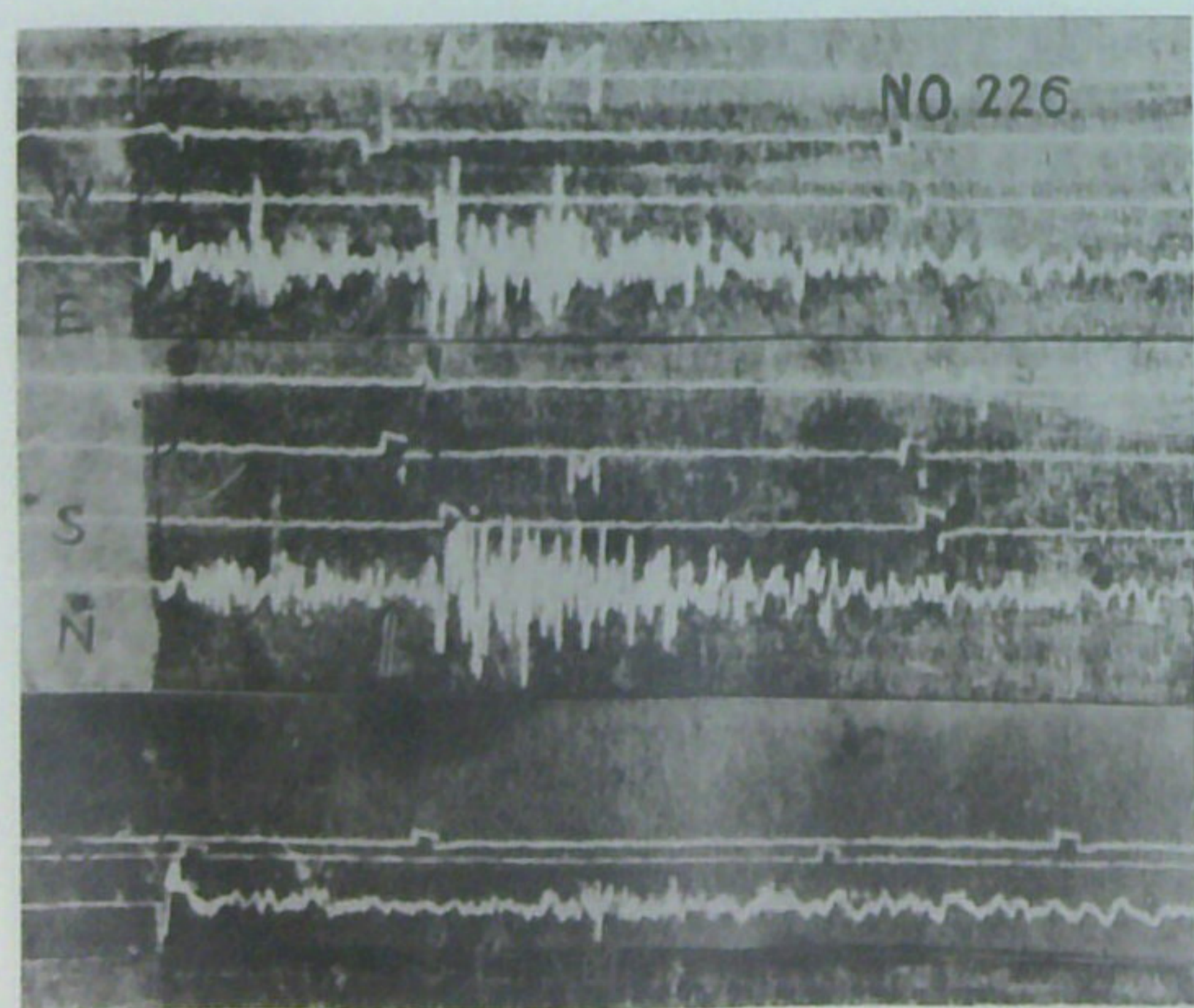
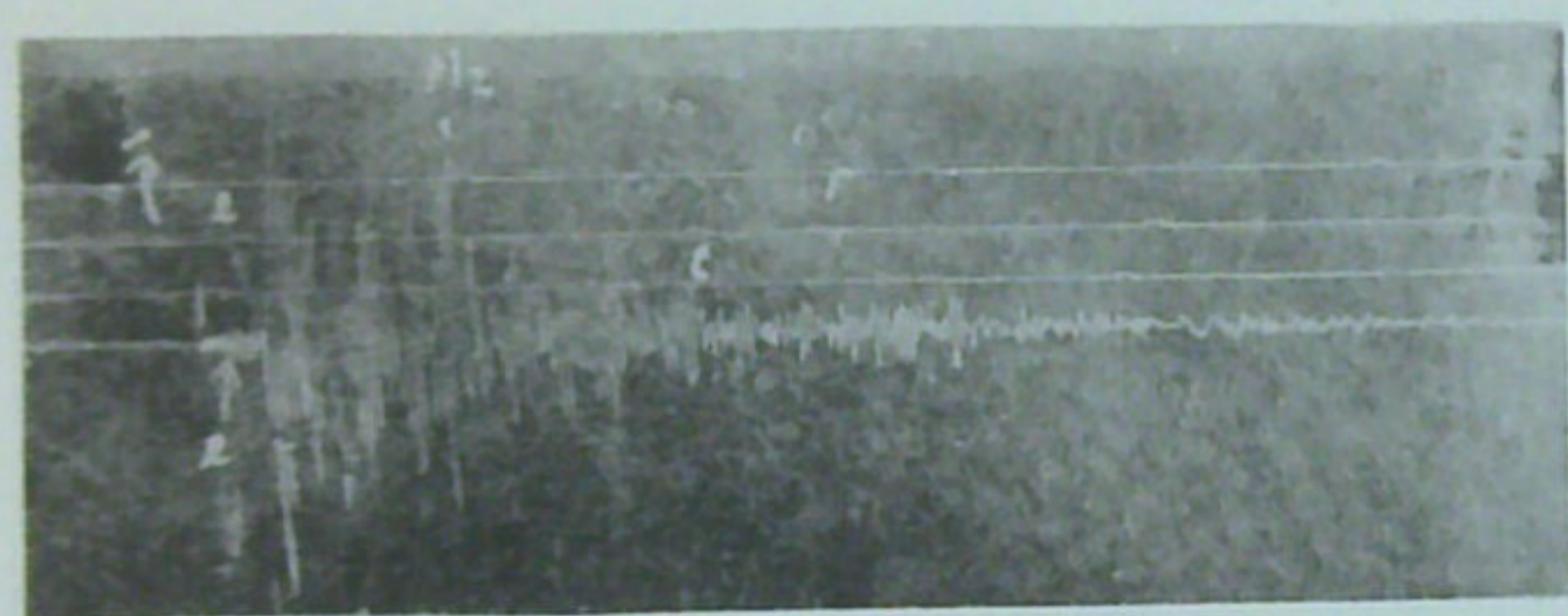
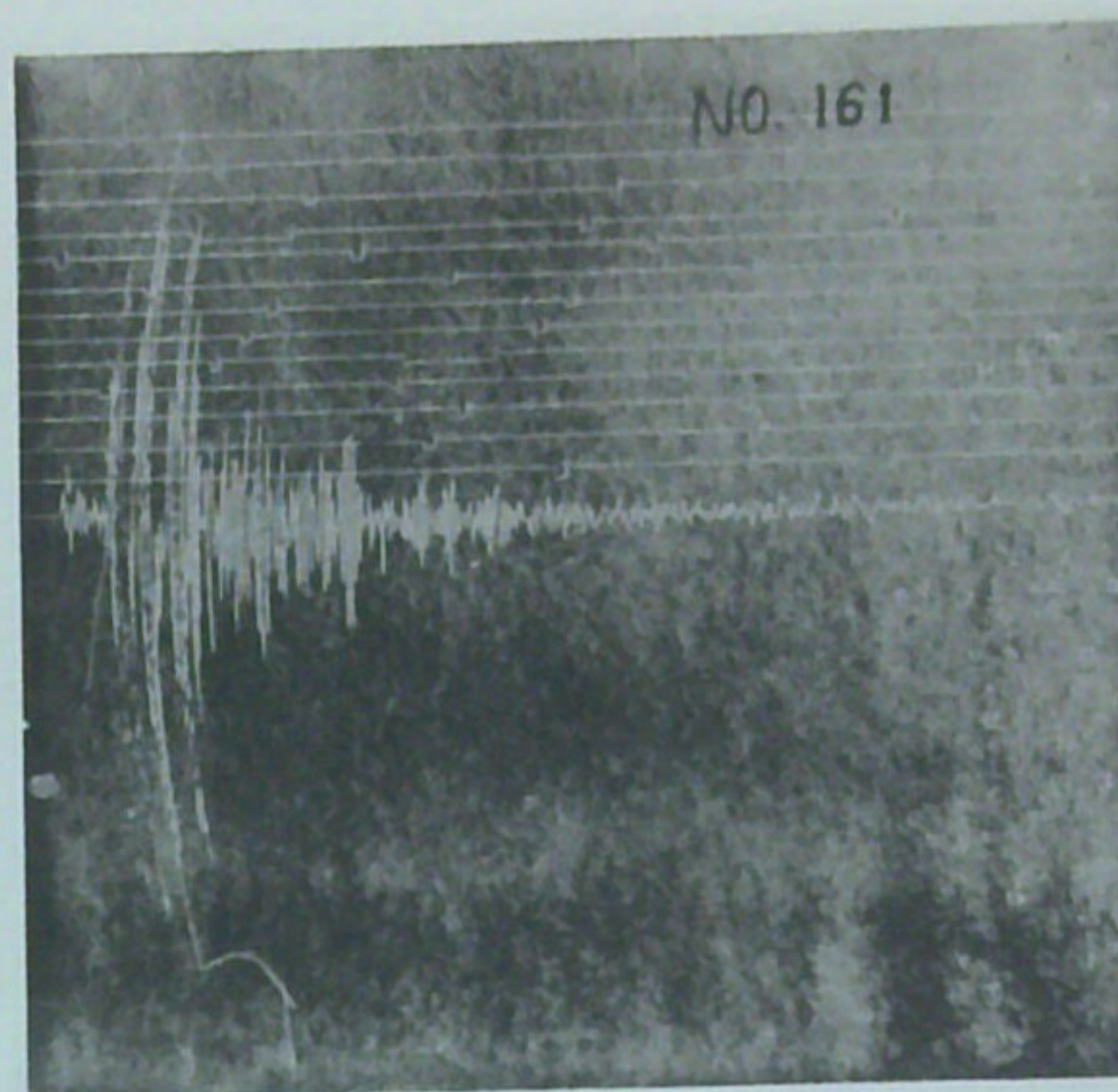
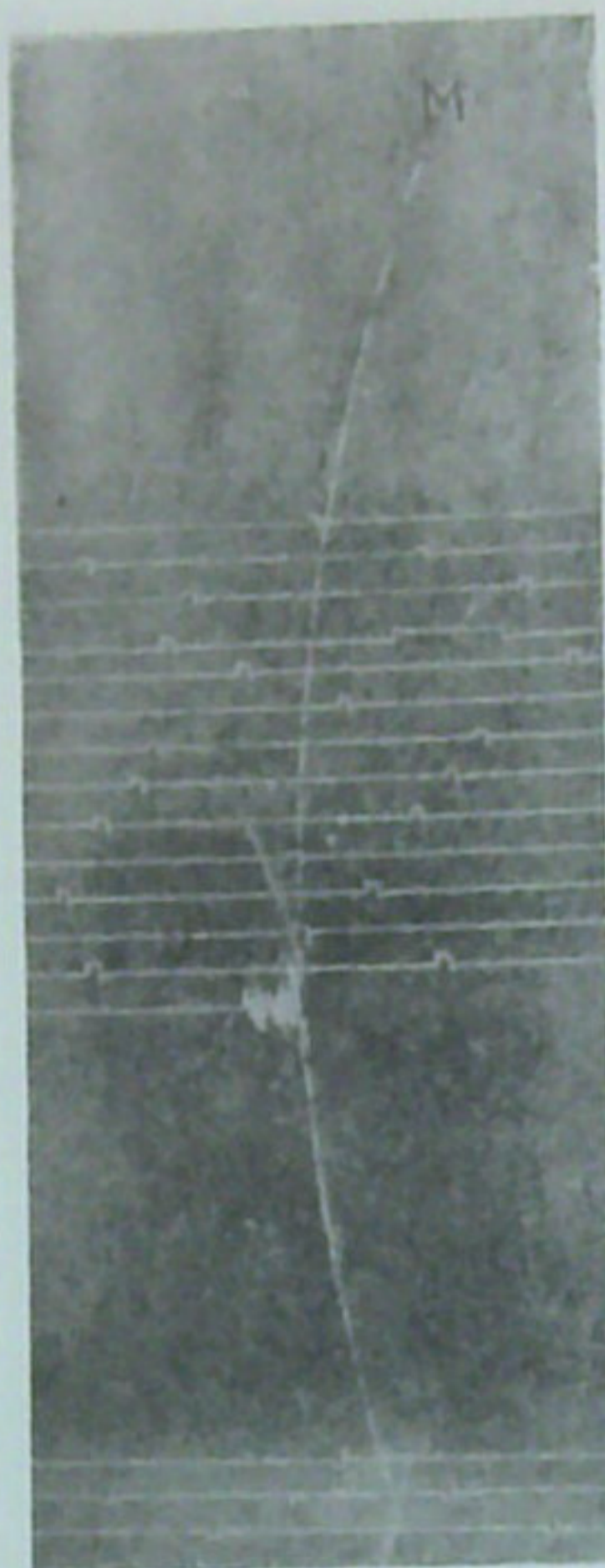
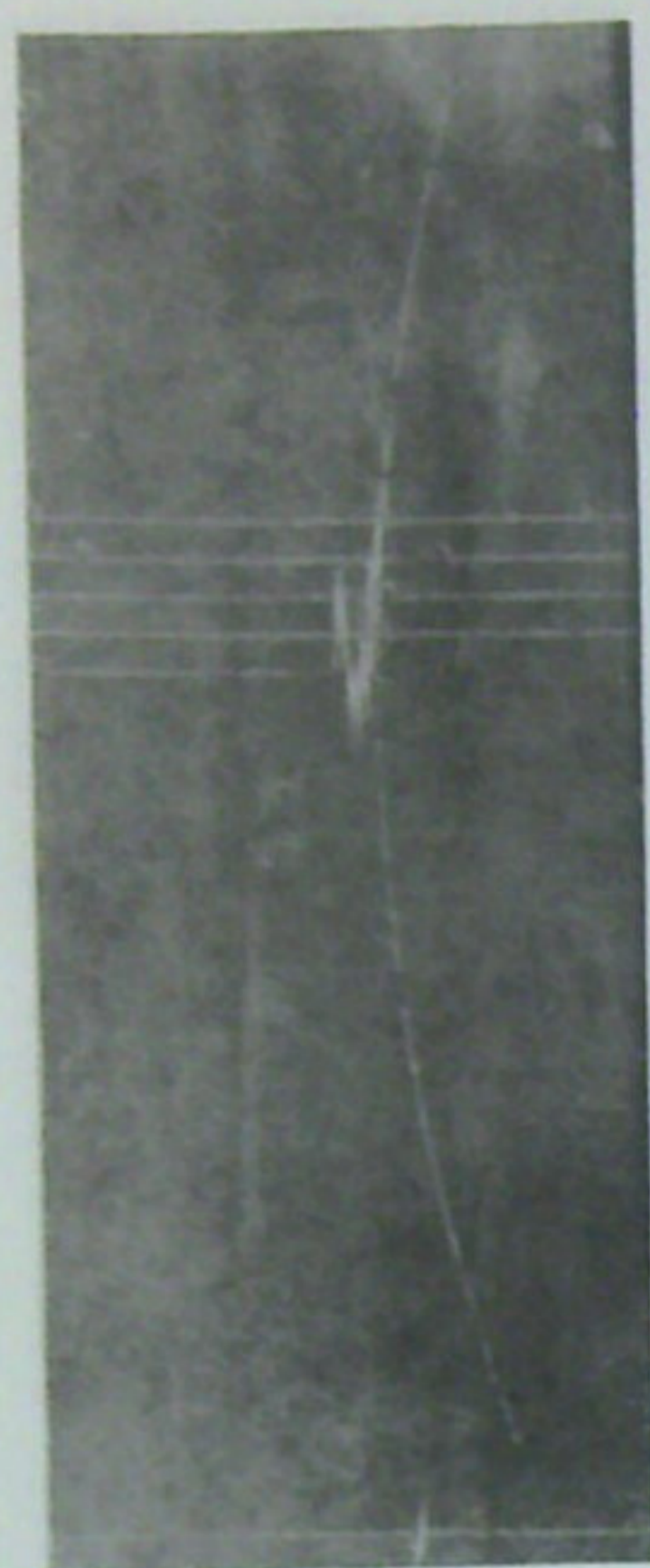
The Miyazaki prefectural district occupies south-east part of Kyusyu Japan. There stands the volcano ranges of Kirisima and Aso in the west part, faces to the Hiuga Nada Earthquake Zone in the east. And Nankiu Horizoutal Fault Line runs through the prefecture.

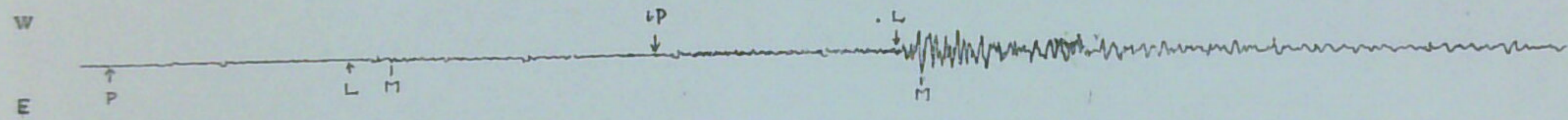
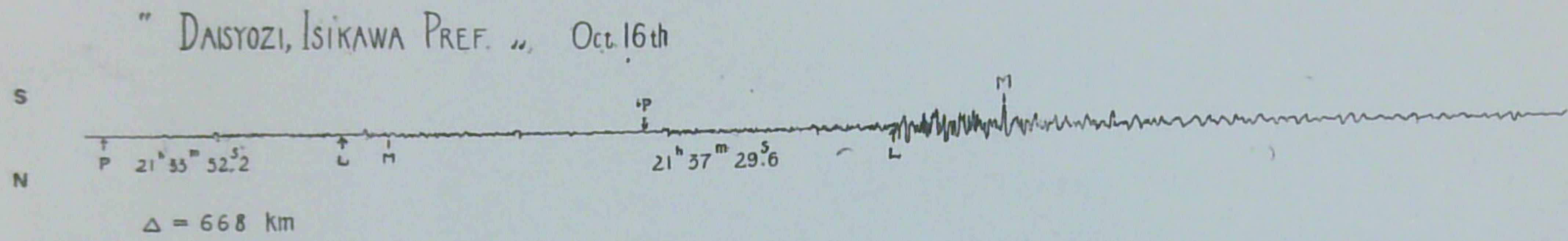
Therefore the earthquakes are caused frequently by their strain or stress in given portions of the earth's crust.

However, earthquakes which take place in Miyazaki prefectural district were more frequently and greatly in historical times. We are investigate the crustal displacement of the prefecture by the seismological observation.

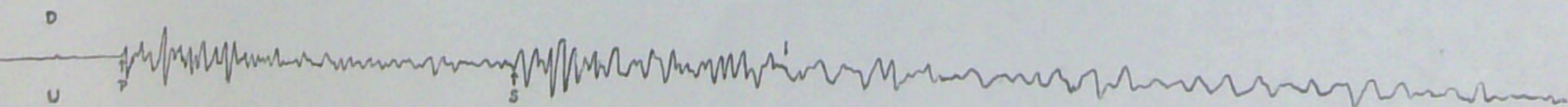
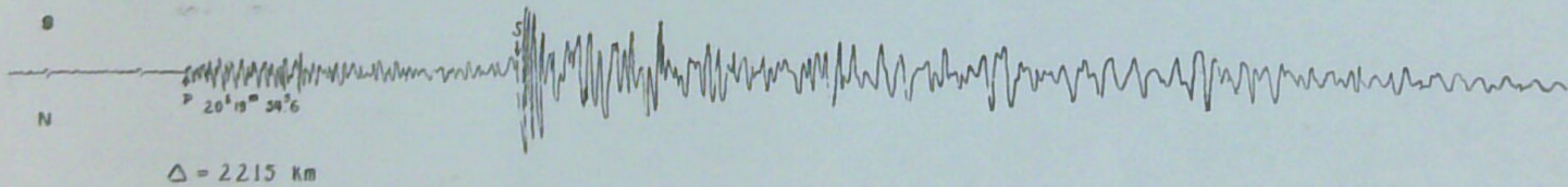
K. Itonaga

*Director*





" MARIANNE DEEP " Oct. 25th



### Position of Observatory

Longitude:.....131° 25' 38'' E  
 Latitude:.....31° 55' 3'' N  
 Height from mean sea level:.....7.7m  
 Lithological foundation: ..... Quaternary period.

### Equipment & Instrumental Constant.

Instrument	Component	Mass	Damping	$T_0$	$\frac{r}{T_0^2}$	$\mathcal{E}$	$\checkmark$
Wiechert	N—S	200 <sup>kg</sup>	Air	5.6	0.024	2.8	80
	E—W			5.0	0.018	3.1	80
Wiechert	U—D	80	Air	6.8	0.016	2.9	80
$\bar{O}$ morì	N—S	15	Magnetic	26.8	0.005	2.4	20
$\bar{O}$ morì	E—W	15	Magnetic	16.0	0.021	3.1	20
$\bar{O}$ morì	N—S	12	—	3.5	0.140	—	50
	E—W	12		2.5	0.080	—	50
C.M.O.	N—S	2.3	Magnetic	3.5	0.080	1.7	2
	E—W	2.3		4.0	0.063	1.7	2
	U—D	2.3		5.0	0.056	2.2	2

### Time Service.

Time of occurrence of an earthquake and other time elements in our seismometrical reports are deduced from seismograms with standard clocks and chronometers which are connected to the time tick system of each seismograph. In the present report, times are all referred to the Greenwich mean time.

## Symbols and Notations.

### Phases of the seismogram.

P = First preliminary tremor.

$\bar{P}$  = Individual, or upper first preliminary tremor.

PR<sub>n</sub> = Longitudinal waves n-times reflected at the earth's surface.

S = Second preliminary tremor.

$\bar{S}$  = Individual, or upper second preliminary tremor.

SR<sub>n</sub> = Transverse waves n-times reflected at the earth's surface.

PS = Waves changed from longitudinal to transverse oscillation, or vice versa, through reflection at the earth's surface.

L = Long waves at the beginning of the surface phase.

M = Maximum Amplitude (showing  $\mu = \frac{1}{1000}$  m.m.)

C = Prominent waves among after tremors.

F = End of discernible movements.

### Nature of the motion.

i = Sudden beginning of the motion.

e = Gradual beginning of the motion.

T = Time of one complete oscillation.

$A_N$  = N-S component of half amplitude of the earth motion.

$A_E$  = E-W component of half amplitude of the earth motion.

$A_Z$  = Vertical component of half amplitude of the earth motion.

### Distance of epicenter.

Epicenter of the earthquake shown with distance  $\Delta$ .

$\Delta = 7.4t$  for the near earthquake.

$\Delta$  from formula by Wiechert, Zoeppritz and Zeissig.

# 昭和五年地震概況

## Seismic Summary in 1930

本年中宮崎測候所デ観測シタ地震ノ總數ハ 328 回デ最モ多イ月ハ12月ノ48回最少ハ8月ノ17回デ概シテ冬ニ多ク夏ニ少イ。表示シテ見ルト

	一月 Jan.	二月 Feb.	三月 Mar.	四月 Apr.	五月 May.	六月 June.	七月 July.	八月 Aug.	九月 Sep.	十月 Oct.	十一月 Nov.	十二月 Dec.	年 Ann.
有感 Felt.	2	1	1	-	-	2	-	-	-	-	-	-	6
無感 Unfelt.	35	37	26	28	20	18	22	17	19	31	21	48	322
合計 Sum.	37	38	27	28	20	20	22	17	19	31	21	48	328

有感地震中最大ナモノハ1月11日ノ午前3時14分頃日向灘南部ニ起ツタ強震デ有感範圍ハ宮崎 熊本縣ノ北部ニ達シタモノデカナリ顯著ナ地震デアル。

地震回数 328 回ハ當地方トシテハ殆ド平年ノ値デ特別ニ多カッタ昭和四年ト比較スルト40回ノ減少デアルガ三年ヨリスルト15回増シテ居ル。

	昭和五年 1930	昭和四年 1929	増 減 Diff.	昭和三年 1928	増 減 Diff.	昭和二年 1927	増 減 Diff.
有感地震 Felt.	6	14	- 8	6	0	10	- 4
無感地震 Unfelt.	322	355	- 33	307	+ 15	332	- 10
合計 Sum.	328	369	- 41	313	+ 15	342	- 14

然シ全國的ニ本年ノ地震活動ヲ見ルト全日本デ観測サレタ地震ノ總數ハ 1,1972 回ニ達シ昭和四年ノ 4646 回ニ比シ約 3 倍デアル。コノ原因ハ主ニ伊豆伊東町附近ノ頻發地震ガ2月-5月ノ間ニ 4000 回ニモ達シ又 11月 26日ノ北伊豆烈震ニ伴ツタ小地震ガ極メテ多數ニ上ツタカラデアル。

本年ハ日本中ノ廣範圍ニ強震動ヲ起シタモノモ多ク破壊的勢力ヲ持ツタ地震モ數箇ヲ算ヘル程デ甚ダ地震活動ノ勢力旺盛デアッタコトガ判ル

本所デ観測シタ顯著地震ハ次表ノ通りデアル。

### 顯著地震ノ表

#### Table of Remarkable Earthquake

發 震 時 Time.	震 央 地 Epicentre.	記 事 Remarks.
1. 06. 03. 53	色丹島南東沖 (147.8E 43.1N)	北海道南東沿岸及青森、岩手縣下ノ各地ニ有感
5. 01. 09. 58	九十九里濱北沿岸 (140.8E 35.7N)	全關東、東北地方ノ大半、中部地方南東部、北陸道一部ニ有感
5. 24. 01. 38	伊豆大島南方沖 (139.6E 34.2N)	全關東、東北中部地方大半ニ有感
6. 01. 02. 58	那珂川下流域 (140.4E 36.4N)	全上(震域ノ長半徑500軒) 震央地域ニテ壁ノ龜裂、墓石倒、煉瓦塀崩壞、屋根瓦崩落等多少ノ被害アリ

發震時 Time.	震央地 Epicentre.	記 Remarks.	事
7. 23. 04. 26	擇捉島南東沖 (149.0E 44.3N)	北海道南東部ヨリ關東地方ノ太平洋岸迄有感(震域長半徑1300軒)何等被害ナシ。誘發地震?	
8. 30. 05. 02	國後水道 (146.7E 44.2N)	北海道南東沿岸ニ所々有感	
9. 29. 13. 53	鹿兒島附近 (130.6E 31.6N)	南九州ニ有感、瀬戸内海ニ異狀震域深サ300軒ノ深發地震	
10. 17. 06. 36	石川縣大聖寺附近 (136.3E 36.3N)	前震(稍顯著地震)後僅4分ニ發現、震央地附近ニ多少被害北陸近畿ノ大部分、中部地方ノ西半、中國四國ノ一部ニ有感	
11. 26. 04. 03	北伊豆烈震 (139.0E 35.1N)	箱根山南麓ヨリ原保ニ亘ル長サ30軒ノ大斷層ニ添ヒ特ニ慘害アリ、山津浪、崖崩レ、陷落、隆起、龜裂等ノ地變枚舉ニ違アラズ、震域長半徑400軒ニ及ブ	
12. 08. 17. 01	曾文溪中流域 (120.5E 23.4N)	臺灣一般ニ有感	
12. 13. 23. 23	北海道新冠川口 (142.4E 42.3N)	北海道南半ヨリ青森縣ニ有感	
12. 20. 23. 02	廣島縣三次附近 (132.9E 34.8N)	中國全般、四國近畿ノ大半、中部北陸地方九州ノ一部ニ有感	
12. 21. 21. 14	全 上	三次附近ニ發セルモノノ中最大、前者ト同様震央地ニテ石垣崩壞等多少ノ被害アリ	
12. 21. 23. 51	曾文溪中流域 (120.5E 32.4N)	臺灣全島、石垣、沖繩ニ有感	
12. 22. 08. 51	全 上	震央地ニ家屋倒壞	
12. 22. 09. 07	全 上	全 上	
12. 22. 13. 19	全 上	傷者アリ	
12. 24. 08. 55	襟裳岬東方 (144.0E 42.0N)	北海道南部沿岸ヨリ青森縣下各地ニ有感	

又本所デ觀測シタ2000軒以上ノ遠距離ニ發現シタ地震ヲ舉ゲルト次ノ様ニナルガ約半數ハ南洋方面ノモノデアル。

### 遠地地震ノ表

Table of Distant Earthquake

發現地 Origine	一月 Jan	二月 Feb	三月 Mar	四月 Apr	五月 May	六月 June	七月 July	八月 Aug	九月 Sep	十月 Oct	十一月 Nov	十二月 Dec	年 Ann
南洋 South Pacific	2	-	4	1	-	3	1	1	2	6	4	1	25
オーツク海 Okhotsk Sea	1	1	1	1	-	-	-	-	-	-	-	-	4
千島南部 North Pacific	1	-	-	3	-	-	1	-	-	-	-	-	5
ビルマ Burma	-	-	-	1	1	-	-	-	-	-	-	-	2
ペルシヤ Persia	-	-	-	-	1	-	-	-	-	-	-	-	1
ヒマラヤ山 Mts Himaraya	-	-	-	-	-	-	-	-	2?	-	-	-	2
不明 Unknown	-	-	-	1	3	1	1	-	1	3	2	4	16
計 Sum	4	1	5	7	5	4	3	1	5	9	6	5	55



次ニ本縣及附近ノ地震帶ノ活動ヲ調べテ見ル。  
縣内デ人体ニ感ジタモノヲスベテ舉ゲルト次表ノ通りニナル。

### No. of Felt Earthquakes in Miyazaki Pref

		一月 Jan	二月 Feb	三月 Mar	四月 Apr	五月 May	六月 June	七月 July	八月 Aug	九月 Sep	十月 Oct	十一月 Nov	十二月 Dec	年 Ann
有感地震	本年 1930	3	5	2	2	-	2	2	-	1	2	-	5	24
	昭和四年 1929	3	4	1	2	10	4	-	-	3	2	2	5	38
	増減 Diff	0	+1	+1	0	-10	-2	+2	-	-2	0	-2	0	-14

以上ノ中十二月中ノ4回ハ阿蘇火山附近ノ地震ヲ縣北デ感ジタモノデアル。總數24回ヲ昨年ノ38回ニ比ベテ14回減少シテ居ルガコレハ主トシテ昨年5月ニ起ツタ日向灘強震ガ10回ノ有感地震ヲ伴ツテ居ルカラデアル。

又下表ニ於テハ本所ニ於テ觀測シタ宮崎ヨリ半徑約100軒以内ニ起ツタ地震ヲ震源地別ニ舉ゲテ見ル。

The classification by position of epicentre of the earthquake which originated in the area within the distance of 100 km. from Miyazaki.

District	一月 Jan	二月 Feb	三月 Mar	四月 Apr	五月 May	六月 June	七月 July	八月 Aug	九月 Sep	十月 Oct	十一月 Nov	十二月 Dec	年 Ann
日向灘 Hiuga Nada	2	14	2	3	2	4	4	-	1	2	4	6	44
宮崎附近 Near Miyazaki	4	3	1	1	-	4	-	-	1	-	-	1	15
大淀川流域 R. Oyodo	6	-	-	-	-	2	-	2	-	9	2	-	21
小丸川流域 R. Omaru	-	1	-	-	-	-	-	-	-	-	-	-	1
五ヶ瀬川流域 R. Gokase	1	-	-	1	-	-	-	-	-	-	-	-	2
緑川流域 R. Midori	-	-	1	1	-	-	-	-	-	-	-	-	2
白川流域 R. Sira	-	-	-	-	1	-	5	-	-	-	-	3	9
有明灣 Ariake Bay	-	-	-	-	-	1	-	1	1	-	-	-	3
計 Sum	13	18	4	6	3	11	9	3	3	11	6	10	97

### 1月11日 日向灘南部ノ強震

宮崎ニ於ケル發震時ハ午前3時14分30.3秒デ方向ハ宮崎ノ南々東方約90軒ノ日向灘南部ニ起ツテ居ル。コノ位置ハ昭和4年5月22日ノ日向洋強震ト同ジク宮崎東方ヲ南北ニ走ル日向灘弱線ニ觸レテ居ル。

有感地域ハ宮崎縣ト熊本縣ノ北端ニ及ビ長半徑ハ200軒ニ達スルモノデアル。縣内ニ於ケル觀測ヲ舉ゲルト

強 震 飢 肥  
弱 震 殆ド縣全体  
微 震 神門 三ヶ所

測候所ニ於ケル觀測デハ最大振幅ハ2274ミクロン(約2.3耗)其ノ週期ハ1秒デ總震動時間ハ10分40秒デアツタ。

## 11月26日 北伊豆烈震

### 震源及發震機巧

伊豆半島北部箱根山南麓カラ丹那浮橋ヲ經テ原保ニ延ブ長サ約30軒ノ大斷層ガ生ジ此ノ線ヲ境トシテ東側地塊ハ北へ西側ハ南へ變位シコレニ伴ツテ大陥没、山崩等ノ激シイ地變ヲ見テ上記ノ地塊運動ガ烈震ノ原因ト考ヘラレル。別ニ此線ニ畧直角ナ小斷層線ガ上大見村附近ニアリ又韭山ヲ通ル北東ニ走ルモノモアル。地震計觀測ヨリ求メタル震源ハ東經139.0度北緯35.1度ノ地點トナルガモトヨリ此ノ様ナ大地震ガ一點ヨリ發シタモノト思ハレズ 上記斷層線ノ様ニ長サヲ持ツモノト思ハレル。

### 有感範圍

本地震ニ於ケル有感範圍ハ北ハ仙台ヨリ西ハ廣島附近ニ及ブモノデ其ノ長半徑ハ400軒 短半徑ハ275軒ニ餘リ 震源地附近デハ關東大震以上ニ振動ヲ感じタト云ハレテ居ル。次ニ震度表ヲ上ゲル。

烈震	(6)	三島
強震	(5)	沼津、横濱、横須賀
強震弱	4)	東京、前橋、熊谷、飯田、甲府、名古屋
弱震	(3)	水戸、布良、長野、高山、松本、福井、濱松
弱震弱	2)	銚子、福島、會津、柿岡、宇都宮、高田、伏木、京都、彦根、敦賀、津
微震		八丈島、大阪、神戸、岡山、金澤、徳島

此ノ地震ニ於テ地震計ヨリ得ク最大動ハ沼津ニ於テ68.5耗横濱ニ於テ50.8 東京ニ於テ42.1 横須賀ニ於テ37.6耗ニ達シテ居ル。

### 前震及余震

此ノ烈震ヲ起シタ伊東ノ近クデハ本年2月ヨリ8月ニ至ル迄ニ4000回以上ニモ達スル小頻發地震ヲ出シテ居ルカラコレモ本地震ト多少ノ關係アルモノト見ラレル

前震ハ極メテ多數デ11月7日ヨリ25ニ至ル19日間ニ有無感地震合セテ2066回ヲ算ヘ特ニ25日ニハ605回ヲ觀測シ有感地震ノミニテ188回ニ及ンデ居ル。然シ主震後ノ餘震ノ數ハ割ニ少ク26日ヨリ28日迄ニ529回ヲ算ヘルニ過ギナイ甚ダ奇異ナ状態デアル。以上ノ地震回數ヲ全部合計スレバ2595回トナリ有感地震ハ11%ノ282回デアル

### 被害表

	人				家			
	死	傷	不明者	計	全壞	半壞	燒	計
靜岡縣	251	343	2	396	1,430	4,625	82	6,137
神奈川縣	5	10	9	24	84	32	-	176
計	256	353	11	420	1,514	4,717	82	6,313

LIST OF EARTHQUAKES

( Jan. )

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			△	Epicenter & Remarks
						E	N	Z	A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
			h	m	s				μ	μ	μ	km.	
1	2 Jan.	P	2	58	03.6				- 4			145	East coast of Simabara peninsula, Nagasaki Pref.
		S	2	58	17.9	0.6	0.5		- 5	- 4			
		L	2	58	23.2		0.8			+14			
		M <sub>E</sub>	2	58	31.6	0.7			-16				
		M <sub>N</sub>	2	58	32.3		0.7			+19			
		M <sub>Z</sub>	2	58	33.5			0.5			± 2		
		C	2	58	56.7								
F	3	00	05.0										
2	4 Jan.	eP	9	16	05.1							120	E off Yaku Isl. Ryukyu.
		L	9	16	21.3								
		M <sub>E</sub>	9	16	46.5	0.8			+ 5				
		M <sub>N</sub>	9	16	45.3		0.8			+ 4			
		F	9	17	50.0								
3	5 Jan.	P	1	24	59.8				+ 1	+ 2		2600	Kamchatka district.
		S	1	29	12.8	5.8	3.7		+11	- 4			
		M <sub>E</sub>	1	29	23.5	5.8			-16				
		M <sub>N</sub>	1	29	30.1		5.8			-46			
		eF	1	47	40.0								
4	5 Jan.	P	18	56	46.8							2009	SE off Syakotan Isl. Kurile. (147.8 E 43.1 N) Felt along Pacific coastal region of Hokkaido and Oou.
		S	19	00	10.7								
		L	19	02	22.8								
		M	19	04	19.7	22.0	18.0	23.5	± 2	± 3	± 3		
		eF	19	14	00.0								
5	6 Jan.	P̄	0	22	53.3				- 1	- 3		33	R. Ōyodo, Miyazaki
		S̄	0	22	57.7								
		M	0	22	59.7	0.7	0.7		+ 4	- 3			
6	6 Jan.	P̄	0	23	01.2							32	Ditto
		S̄	0	23	05.5								
		M	0	23	08.2	0.6	0.8		- 5	- 4			
		F	0	24	00.0								
7	8 Jan.	P	22	16	22.8							260	SE off Yaku Isl. Ryukyu.
		P̄	22	16	27.0	0.7	0.5		- 2		+ 1		
		S	22	16	40.8		0.8			+19	+ 4		

## Seismic table in the year 1930

( Jan. )

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			△	Epicenter & Remarks
						E	N	Z	A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
			h	m	s			s	μ	μ	μ	km.	
		L	22	16	57.8	0.8	1.8		-15	-35			
		M <sub>E</sub>	22	16	59.7	1.0			-63				
		M <sub>N</sub>	22	17	05.8		1.0			+63			
		M <sub>Z</sub>	22	17	06.1			1.5				± 6	
		C	22	17	46.3								
		F	22	34	20.0								
8	10 Jan.	P	18	14	30.3				+49	-11	-100	53	S-ern part of Hiuga Nada. (132 E, 31.1N)
		S	18	14	37.4	0.7	1.0	0.6	-500	+1350	+100		Moderate shock were felt at southern Kyusyu.
		M	18	14	39.3	1.0	1.1		+1250	-1900			(Ill at Miyazaki)
		M <sub>Z</sub>	18	14	43.0			0.7			-250		
		eF	18	25	10.0								
9	10 Jan.	P	18	18	42.4				-26	+ 8		57	Ditto
		S	18	18	50.1	0.7	0.7		+34	+22			Felt in the city
		M <sub>E</sub>	18	19	01.5	0.6			-44				
		M <sub>N</sub>	18	19	04.1			0.6			-58		
		eF	18	20	10.0								
10	10 Jan.	P	18	21	51.3								Local shock at Miyazaki.
		F	18	22	40.0								
11	10 Jan.	P	19	13	02.4								Ditto
		F	19	13	55.0								
12	10 Jan.	P	19	46	51.1							68	R. Ōyodo
		S	19	46	58.0	0.5			- 6				
		L	19	47	00.2	0.5			-12				
		M <sub>E</sub>	19	47	02.1	0.5			-18				
		M <sub>N</sub>	19	47	03.0		0.5				-12		
		F	19	48	15.0								
13	10 Jan.	P	20	01	53.0							81	Ditto
		S	20	02	04.5								
		F	20	03	00.0								
14	11 Jan.	P	21	22	43.6							669	Far NNW off Bonin Isl.
		S	21	24	00.5								
		M <sub>E</sub>	21	24	05.0	3.3			±14				

Jan )

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			△	Epicenter & Remarks
						E	N	Z	A	A <sub>E</sub>	A <sub>Z</sub>		
			h	m	s			s	μ	μ	μ	km.	
		M <sub>N</sub>	21	24	07.2			2.9		+ 9			
		eF	21	27	30.0								
15	13 Jan.	P	12	34	59.8								Probably the trace of distant earthquake.
16	13 Jan.	eP	13	59	52.2							177	Tiziwa bay, Nagasaki Pref.
		S	14	00	09.4	0.8			+ 2	- 1			
		L	14	00	16.0				+ 3	- 4			
		M <sub>E</sub>	14	00	22.3	0.8			- 4				
		M <sub>N</sub>	14	00	29.0			1.0		± 3			
		F	14	01	30.0								
17	14 Jan.	P	23	48	24.8							103	Ditto
		S	23	48	35.2			0.7	- 2	- 4			
		L	23	48	38.7								
		M <sub>E</sub>	23	48	36.7	1.4			+18				
		M <sub>N</sub>	23	48	41.0			1.2		+16			
		F	23	50	30.0								
18	15 Jan.	P	3	35	45.7							151	Ditto
		S	3	36	02.0			0.8	+ 6	+ 2			
		L	3	36	06.0								
		M <sub>E</sub>	3	36	03.0	1.3			+13				
		M <sub>N</sub>	3	36	21.0			1.0		+15			
		C	3	36	40.4								
		F	3	38	00.0								
19	15 Jan.	P	7	16	09.0							243	W off Yaku Isl. Ryukyu.
		L	7	16	41.8								
		M <sub>E</sub>	7	17	04.8	1.1			+28				
		M <sub>N</sub>	7	16	56.4			1.0		-25			
		F	7	19	10.0								
20	15 Jan.	eP	7	31	30.2								Local shock at Miyazaki
		M	7	32	25.8	1.0	1.0		+ 2	- 3			
		eF	7	33	40.0								
21	15 Jan.	P	8	32	31.0							248	Uncertain
		L	8	33	04.4								
		M <sub>E</sub>	8	33	11.5	1.1			+ 9				

( Jan.

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s			s	$\mu$	$\mu$	$\mu$	km.	
		$M_N$	8	33	13.0			0.7		-10			
		M	8	30	26.0	1.0	1.0		+ 9	+ 8			
		F	8	35	30.0								
22	15 Jan.	P	8	55	32.0								Uncertain
		$M_E$	8	56	05.0	0.8			+ 3				
		$M_N$	8	56	10.8		0.8			- 2			
		F	8	57	20.0								
23	15 Jan.	P	9	03	35.0							228	W off Yaku Isl. Ryukyu.
		L	9	04	05.7								
		$M_E$	9	04	18.6	1.8			$\pm$ 4				
		$M_N$	9	04	11.2		0.8			$\pm$ 3			
		eF	9	05	30.0								
24	15 Jan.	P	13	37	12.6							239	Ditto
		L	13	37	44.8								
		M	13	38	10.6	1.0	0.9		+28	+16			
		F	13	41	00.0								
25	15 Jan.	P	14	00	20.0								Local shock
		F	14	01	50.0								
26	15 Jan.	P	16	09	24.5				- 2			247	SE off Yoku Isl. Ryukyu.
		$\bar{P}$	16	09	30.6	0.7	0.7		- 3	+ 2			
		S	16	09	50.0		1.0			+15			
		L	16	09	57.8	2.0	2.0		+15	-25			
		M	16	10	05.5	0.9	1.5		+39	+35			
		C	16	10	54.0								
		eF	16	17	40.0								
27	16 Jan.	P	19	02	53.3							117	Near Miyazaki
		S	19	03	04.7								
		L	19	03	09.0								
		$M_N$	19	03	21.4		1.2			+ 4			
		F	19	04	10.0								
28	17 Jan.	P	7	40	26.0							95	Tiziwa bay, Nagasaki Pref.
		S	7	40	35.2				+ 1	- 1			

Jan.)

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter $\neq$ Remarks	
						E	N	Z	$A_E$	$A_N$	$A_Z$			
			h	m	s			s	$\mu$	$\mu$	$\mu$	km.		
29	18 Jan.	L	7	40	38.8					+ 2			3707	Micronesia Weak tremor
		M	7	40	50.7	0.7				$\pm$ 3				
		F	7	41	50.0									
		P	7	11	53.1									
		S	7	17	33.3									
		L	7	22	37.1									
30	22 Jan.	P	5	45	08.0							51	Course of R. $\bar{O}$ yodo.	
		L	5	45	14.8									
		$M_N$	5	45	23.2	0.8				$\pm$ 3				
		F	5	45	57.0									
31	24 Jan.	P	2	52	43.8							135	Hiuga Nada	
		L	2	53	02.0									
		$M_E$	2	53	14.0	1.0				+ 3				
		$M_N$	2	53	18.6	1.2				+ 3				
		eF	2	53	55.0									
32	25 Jan.	P	1	43	25.1							2766	Distant earthquake Palau	
		S	1	47	50.7									
		L	1	50	22.8									
		eF	2	10	00.0									
33	25 Jan.	P	2	34	31.1				- 1	- 1		92	Hiuga Nada, near the mouth of R. Gokase. Felt slightly at the N-ern half of Miyazaki Pref.	
		$\bar{P}$	2	34	31.7	0.3	0.3		+ 2	+ 3				
		S	2	34	41.0	0.6	0.5		-25	+10				
		L	2	34	43.5	0.4	0.7		- 9	+56				
		$M_E$	2	34	45.0	0.6			-73					
		$M_N$	2	34	45.5	0.6				-81				
		C	2	35	50.5									
		eF	2	38	30.0									
34	25 Jan.	P	14	43	18.7							361	SW off Yaku Isl. Ryukyu.	
		S	14	43	49.1	1.0	1.0		+ 1	+ 1				
		L	14	44	07.3	0.8	1.2		+ 3	- 3				
		$M_E$	14	44	14.0	0.9			+ 8					
		$M_N$	14	44	19.5	0.9				+ 6				
		eF	14	46	10.0									



## Seismic table in the year 1930

(Feb.

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter $\neq$ Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s			s	$\mu$	$\mu$	$\mu$	km.	
35	28 Jan.	$\bar{P}$	9	04	11.8				- 4	- 3		48	R. Ōyodo
		$\bar{S}$	9	04	16.2								
		L	9	04	18.2								
		F	9	05	05.0								
36	31 Jan.	P	13	00	04.5							172	Hiuga Nada
		S	13	00	23.1	0.8	0.8		- 1	+ 1			
		L	13	00	27.7								
		eF	13	01	00.0								
37	31 Jan.	P	17	55	38.5					- 1		194	Ditto
		S	17	55	59.1	0.8	1.1		- 8	+14			
		L	17	56	04.6				+ 1	- 3			
		F	17	57	30.0								
38	31 Jan.	P	17	57	45.4							190	Ditto
		S	17	58	05.3	0.7	0.8		- 6	+10			
		L	17	58	11.0								
		F	17	59	30.0								
39	31 Jan.	P	18	12	14.2							137	Ditto
		S	18	12	27.8	0.8	0.8		- 2	+ 3			
		L	18	12	32.6								
		F	18	13	20.0								
40	2 Feb.	P	15	03	42.8				+ 3	- 1		4273	In the Okhotsk sea
		S	15	09	45.3								
		L	15	13	34.2								
		$M_E$	15	18	19.7	21.6				$\pm$ 5			
		eF	15	35	00.0								
41	3 Feb.	P	4	12	21.8				+ 1			332	Near Naze, Ryukyu.
		$\bar{P}$	4	12	27.5	0.7	0.8		- 1	+ 3			
		S	4	12	48.5	1.0	0.8		- 4	- 2			
		$\bar{S}$	4	12	57.3	1.1			+ 5				

Feb )

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			△	Epicenter & Remarks
						E	N	Z	A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
			h	m	s				μ	μ	μ	km.	
		L	4	13	06.5			1.5		- 4			
		M <sub>E</sub>	4	13	17.0			1.4	+13				
		M <sub>N</sub>	4	13	27.1			1.9		-39			
		eF	4	15	30.0								
42	3 Feb.	eP	4	27	16.7							323	Ditto
		S	4	27	41.6								
		L	4	28	00.2								
		eF	4	29	30.0								
43	3 Feb.	P	5	35	23.4					+ 1		114	Hiuga Nada.
		S	5	35	34.4				- 1	+ 3			
		L	5	35	38.8	1.1	1.0		- 6	- 8			
		M	5	35	39.8	0.8	0.8		- 9	+ 9			
		C	5	36	10.7								
		F	5	37	15.0								
44	3 Feb.	eP	5	38	04.8								Local shock
		eF	5	39	00.0								
45	5 Feb.	P	13	28	59.4							174	Near Raizan, Hukuoka Pref. Felt over N-ern Kyusyu. (V at epicentral vegion) Earth sound like cannon.
		P̄	13	29	04.2	0.8	0.8		+ 9	- 6			
		S	13	29	18.8	0.8	1.0		+14	-13			
		L	13	29	22.9	1.1	1.1		+33	+38			
		M <sub>1</sub>	13	29	32.4	0.9	0.9		+31	-93			Felt in the City.
		M <sub>2</sub>	13	29	42.2	1.0	1.0		+60	-60			
		C	13	30	15.5								
		F	13	32	20.0								
46	5 Feb.	P	17	10	59.0							120	Hiuga Nada.
		S	17	11	11.5	0.8	1.0		+ 4	- 9			
		L	17	11	15.2		0.9		- 3	+ 6			
		M	17	11	17.5	1.0	1.0		+10	-10			
		F	17	12	30.0								
47	6 Feb.	P	1	05	58.4							109	Ditto
		L	1	06	13.1	0.6	0.6		+ 4	+ 5			Next quake occur in the last tremor
		M <sub>E</sub>	1	06	14.1	0.6			-13				
		M <sub>N</sub>	1	06	25.2	1.0				- 9			

## Seismic table in the year 1930

( Feb.

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			△	Epicenter & Remarks
						E	N	Z	A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
			h	m	s			s	μ	μ	μ	km.	
48	6 Feb.	P	1	06	44.8				- 4	- 1		122	Hiuga Nada
		L	1	07	01.2	1.0	1.2		- 4	+ 8			
		M <sub>E</sub>	1	07	07.4	0.9			+28				
		M <sub>N</sub>	1	07	05.8		1.3			+19			
		F	1	09	10.0								
49	7 Feb.	P	3	35	15.3					- 1		206	After shock of No. 45. Smaller felt area than the first. Next quake appear in the last tremor.
		S	3	35	37.1	0.7	0.7		+ 9	- 5			
		L	3	35	43.1		0.7			- 9			
		M <sub>E</sub>	3	35	44.3	0.7			+21				
		M <sub>N</sub>	3	35	46.7		0.3			-26			
		C	3	36	25.0								
50	7 Feb.	P	3	37	41.0							192	Ditto
		S	3	38	01.5								
		L	3	38	06.9								
		F	3	39	10.0								
51	7 Feb.	P	15	26	18.3							105	Hiuga Nada
		S	15	26	29.3								
		L	15	26	32.4	0.7			+18				
		M <sub>E</sub>	15	26	33.6	0.7			-25				
		M <sub>N</sub>	15	26	35.3		1.0			+36			
		M	15	26	42.5	0.7	0.8		+25	-36			
F	15	28	50.0										
52	7 Feb.	P	18	54	46.8							120	Ditto
		S	18	54	59.4	0.5	0.5		+ 2	- 2			
		L	18	55	03.0		0.7		+ 2	+12			
		M <sub>E</sub>	18	55	07.3	0.7			± 5				
		F	18	56	10.0								
53	8 Feb.	P	3	29	39.7							23	Ditto Mouth of R. Omaru, Mi yazaki Pref. Slightly felt at Uwae and Kizyo.
		S	3	29	42.8				-50	+ 2			
		M	3	29	43.5	0.4	0.3		+18	-19			
		F	3	31	10.0								
54	10Feb.	P	0	05	11.3					- 1		241	Mear Naze, Ryukyu. EW component being in a pause.
		S	0	05	33.4		0.6			- 4			

Feb.)

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s			s	$\mu$	$\mu$	$\mu$	km.	
55	10Feb.	L	0	05	43.8			1.2		- 4		183	After shock of No. 45
		$M_N$	0	05	47.6			1.0		+ 6			
		F	0	07	10.0								
		P	16	29	59.9								
		S	16	30	17.5								
		$M_E$	16	30	39.4	1.1			$\pm 3$				
		$M_N$	16	30	30.2		1.3			$\pm 4$			
56	11Feb.	P	0	13	17.5						416	Off the mouth of R. Kii, Wakayama. Felt over Kinki district.	
		$\bar{P}$	0	13	27.7	0.8	0.8		+ 1	+ 1			
		S	0	13	59.9	0.7	0.4		- 3	- 2			
		L	0	14	13.6								
		M	0	14	29.3	0.7	0.7		$\pm 7$	$\pm 9$			
		F	0	16	30.0								
57	11Feb.	P	9	55	19.2						97	Tiziwa bay?	
		L	9	55	32.2								
		F	9	56	20.0								
58	12Feb.	P	8	07	00.1						197	Near Yaku Isl. Ryukyu.	
		S	8	07	19.7		0.7			+ 5			
		L	8	07	26.7	0.7	0.7		-10	+ 3			
		M	8	07	27.4	0.9	1.1		+21	-10			
		F	8	10	20.0								
59	14Feb.	P	18	28	49.5						131	Middle valley of R. Ueno, Ōita Pref.	
		S	18	29	01.8								
		L	18	29	07.2		0.8			-10			
		$M_E$	18	29	12.9	0.7			- 8				
		$M_N$	18	29	10.6		0.8			+12			
		F	18	30	30.0								
60	14Feb.	P	22	54	54.4						123	N-ern part of Bungo channel.	
		S	22	55	04.8								
		L	22	55	11.0								
		M	22	55	24.4	0.8	0.8		$\pm 4$	$\pm 4$			



Feb. )

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s			s	$\mu$	$\mu$	$\mu$	km.	
70	22Feb.	M	6	17	39.5	0.8	0.8		$\pm 1$	$\pm 1$		48	Hiuga Nada
		F	6	18	20.0								
		P	8	24	09.5								
71	24Feb.	S	8	24	16.0	0.8	0.8		-13	+14		95	Ditto Felt in the city and Hukusima.
		F	8	26	00.0								
		P	2	54	29.6				+1	+4			
72	24Feb.	L	2	54	42.4	0.8	0.8		+19	+48		Ditto	
		M	2	54	42.9	0.8	0.8		+71	+63			
		$M_E$	2	54	48.1	0.8			+75				
		$M_N$	2	54	52.7		0.8			+61			
		C	2	55	36.9								
		F	2	57	30.0								
		eP	12	00	49.0								
73	27Feb.	$M_E$	12	01	14.3	0.7			$\pm 3$			76	Naze, Ryukyu Isl.
		$M_N$	12	01	24.2		1.0			+3			
		F	12	02	10.0								
		eP	2	50	38.3								
74	27Feb.	L	2	50	48.6							54	Hiuga Nada. Felt nearly all over the Prefecture (I at Miyazaki)
		$M_E$	2	50	53.2	1.0			-3				
		F	2	51	30.0								
		P	12	11	23.2				+1	+3			
74	27Feb.	L	12	11	30.5	1.1			-69	-23		54	Hiuga Nada. Felt nearly all over the Prefecture (I at Miyazaki)
		$M_E$	12	11	37.5	0.8			$\pm 68$				
		$M_N$	12	11	31.4		0.7			+73			
		C	12	12	40.7								
		F	12	15	00.0								

## Seismic table in the year 1930

( March

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s			s	$\mu$	$\mu$	$\mu$	km.	
75	2 Mar.	P	15	29	07.4							826	SW off Isigaki Isl. Ryukyu.
		L	15	31	02.7								
		eF	15	38	00.0								
76	2 Mar.	P	21	29	56.8								Near Naze, Ryukyu.
		$M_E$	21	31	06.0	0.9			$\pm 3$				
		$M_N$	21	30	45.0		0.9			+ 5			
		F	21	32	20.0								
77	3 Mar.	P	0	03	45.1							435	Ditto
		e	0	03	54.5	0.9			- 1				
		$\bar{P}$	0	04	05.9	0.7	0.6		- 1	+ 3			
		S	0	04	19.8	0.9	0.8		- 4	+ 3			
		$\bar{S}$	0	04	32.0	1.1	1.1		+ 1	+ 6			
		L	0	04	43.8	1.1	1.1		- 6	+ 9			
		$M_E$	0	04	55.1	0.7			+19				
		$M_N$	0	04	52.6		0.9			-20			
		C	0	05	43.1								
		F	0	07	00.0								
78	3 Mar.	eP	0	15	10.6							425	Ditto
		S	0	15	34.8								
		L	0	16	07.9								
		eF	0	17	30.0								
79	3 Mar.	eP	3	35	47.5							246	Ditto
		e	3	35	59.0					- 1			
		L	3	36	20.6	0.6	0.6		- 1	- 1			
		M	3	36	43.0	1.0	0.9		- 2	- 2			
		F	3	37	30.0								
80	5 Mar.	P	20	35	09.2							168	Hiuga Nada.
		S	20	35	20.1	0.7	0.6		+ 1	- 1			
		L	20	35	31.8	0.7	0.7		+ 3	+ 1			
		$M_E$	20	35	46.1	0.7			+ 4				
		$M_N$	20	35	39.7		0.7			+ 4			
		C	20	36	09.2								
		F	20	36	50.0								

March

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter $\neq$ Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s			s	$\mu$	$\mu$	$\mu$	km.	
81	6 Mar.	eP	3	33	33.9							744	About 300 km NNW from Bonin Isl. (141.4E 29.6N)
		L	3	35	14.3		2.5			+ 8			
		M <sub>E</sub>	3	35	19.3	3.0				- 26			
		M <sub>N</sub>	3	35	16.2		2.8				- 30		
		eF	3	44	00.0								
82	7 Mar.	P	10	53	03.0				+ 1	+ 1		571	S off Yaku Isl. Ryukyu. Felt in the City.
		E	10	53	09.7		0.4		+ 1	- 2			
		$\bar{P}$	10	53	17.5	0.7	0.8		+ 2	+ 6			
		S	10	53	41.5	1.0	1.0		+ 11	+ 14			
		$\bar{S}$	10	54	02.1	1.0	0.8		+ 38	+ 33			
		L	10	54	13.7	1.8	0.9		- 31	+ 35			
		M <sub>E</sub>	10	54	21.8	2.0			- 48				
		M <sub>N</sub>	10	54	31.2		4.0			+ 115			
		F	11	02	00.0								
83	9 Mar.	P	8	27	14.5						373	Hiuga Nada?	
		eL	8	28	04.7								
84	10 Mar.	P	16	31	47.0						1931	E off Karahuto	
		S	16	35	04.1								
		L	16	37	02.4								
		F	16	48	00.0								
85	13 Mar.	P	8	27	10.9						113	Hiuga Nada. Earth pulsation is preval- ing	
		S	8	27	23.0	0.8			+ 2				
		L	8	27	26.1		0.7			+ 4			
		M	8	27	43.7	0.7	0.7		+ 6	+ 6			
		F	8	29	00.0								
86	17 Mar.	P	13	23	27.8							Local shock	
		F	13	24	50.0								
87	18 Mar.	P	2	56	04.5						178	Hiuga Nada.	
		S	2	56	23.0								
		L	2	56	38.5								
		M	2	56	26.3	1.1	1.1		$\pm 3$	$\pm 3$			
		F	2	57	50.0								



## Seismic table in the year 1930

( March

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s			s	$\mu$	$\mu$	$\mu$	km.	
88	19Mar.	$\bar{P}$	15	29	52.6	0.5	0.4		+18	+4		71	S-ern part of Hiuga Nada. Felt slightly at Miyazaki, Hukusima, Takaoka and Hososima.
		$\bar{S}$	15	29	59.2	0.8	1.0		-180	+90			
		L	15	30	02.2	0.7	0.7		+136	-96			
		$M_1$	15	30	07.4	0.7	0.8		+190	+194			
		$M_2$	15	30	17.2	0.7	0.8		+90	+160			
		C	15	31	12.7								
		F	15	33	30.0								
89	20Mar.	P	19	00	10.8					-1		52	Ariake Sea?
		L	19	00	17.8	0.5	0.5		+3	+3			
		$M_E$	19	00	21.4	0.9			+5				
		$M_N$	19	00	30.8		0.8			-1			
		F	19	01	40.0								
90	21Mar.	P	21	54	45.9		0.4			-1		62	Lower course of R. Midori, Kumamoto Pref.
		S	21	54	52.5	0.4	0.4		-4	-2			
		L	21	54	54.3								
		$M_E$	21	54	56.4	0.8			+5				
		$M_N$	21	55	01.3		0.6			-5			
		F	21	56	00.0								
91	22Mar.	P	8	52	22.5							883	Near Ito, Idu peninsula. (139.1E, 35N) Felt over central Japan, very strongly at near epicentral region.
		S	8	53	49.7					-3			
		L	8	54	21.5				+3	-1			
		M	8	55	32.2	4.2			+15				
		eF	9	18	00.0								
92	22Mar.	P	22	10	49.5							158	Tiziwa bay, Nagasaki Pref.
		S	22	11	08.7	0.7	1.0		-2	-4			
		L	22	11	10.8	0.7	0.7		+4	-5			
		$M_E$	22	11	14.0	0.7			+5				
		$M_N$	22	11	22.6		0.8			-8			
		F	22	12	50.0								
93	25Mar.	eP	11	29	35.0							910	NNW far off Bonin Isl.
		eS	11	31	14.0								
94	26Mar.	P	7	19	40.8							4129	Micronesia, near New Guinea.
		S	7	25	35.4				-9	-5			



## Seismic table in the year 1930

( April

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter $\neq$ Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s			s	$\mu$	$\mu$	$\mu$	km.	
102	1 Apr.	P	11	39	58.8							748	Uncertain.
		S	11	41	20.6								
		L	11	41	57.0								
103	3 Apr.	eP	14	40	30.1							147	Hiuga Nada.
		S	14	40	45.5	0.8	0.5		- 2	- 1			
		L	14	40	49.9		0.8			+ 3			
		$M_E$	14	41	05.6	0.8			$\pm$ 3				
		$M_N$	14	40	51.4		0.8			$\pm$ 3			
		F	14	41	55.0								
104	3 Apr.	P	18	30	41.2				- 1			195	Iyo Nada, west part of Inland Sea.
		$\bar{P}$	18	30	45.2	0.7			+ 1				
		S	18	30	59.9	0.7			+ 1				
		$\bar{S}$	18	31	04.0		1.0		+ 3	+ 3			
		L	18	31	07.5	0.8	0.9		+ 4	+ 3			
		$M_E$	18	31	26.5	0.8			$\pm$ 6				
		$M_N$	18	31	25.2		0.7			- 9			
		C	18	31	51.0								
		F	18	33	00.0								
105	3 Apr.	$\bar{P}$	22	34	35.2	0.3	0.3		+ 1	+ 3		47	Hososina, N 60km off Miyazaki. Felt in the City.
		S	22	34	41.6	0.5	0.5		-44	-28			
		$M_E$	22	34	42.0	0.5			+46				
		$M_N$	22	34	46.5		0.6			+31			
		C	22	35	32.4								
		F	22	37	00.0								
106	4 Apr.	eP	7	01	28.5							91	Hiuga Nada.
		L	7	01	40.8								
		M	7	01	44.2	0.8	0.8		$\pm$ 1	$\pm$ 2			
		F	7	02	40.0								
107	4 Apr.	P	9	33	54.0							5165	Micronesia.
		S	9	40	45.0								
108	4 Apr.	P	11	18	01.1								Phase is uncertain.
109	4 Apr.	P	12	05	51.4								P wave of distant quake? Ditto

April )

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			△	Epicenter & Remarks
						E	N	Z	A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
			h	m	s			s	μ	μ	μ	km.	
110	10Apr.	P̄	15	49	57.6							20	Local shock at Miyazaki
		S̄	15	50	00.3								
		M <sub>E</sub>	15	50	08.4	0.6			± 1				
		M <sub>N</sub>	15	50	11.2		0.8			- 2			
		F	15	51	00.0								
111	17Apr.	P	11	02	27.4							67	Hiuga Nada.
		L	11	02	36.4								
		F	11	03	10.0								
112	19Apr.	P	4	31	38.6							138	Unzen Dake, Nagasaki Pref.
		L	4	31	57.2								
		M <sub>E</sub>	4	32	02.3	0.9			± 9				
		M <sub>N</sub>	4	32	03.2		0.9			± 6			
		eF	4	33	50.0								
113	19Apr.	P	5	10	14.2							107	Tidiwa Bay. Ditto
		S	5	10	25.0	0.7	0.7		- 1	+ 1			
		L	5	10	28.6	0.8	0.8		+ 4	+ 4			
		M <sub>E</sub>	5	10	30.5	0.9			+ 5				
		M <sub>N</sub>	5	10	31.0		0.8			+ 4			
		F	5	11	50.0								
114	19Apr.	P	5	40	10.2							120	Ditto
		S	5	40	21.5	1.0			- 1				
		L	5	40	26.4		0.9			- 1			
		F	5	41	30.0								
115	19Apr.	P	20	52	17.8							434	NE off Naha, Ryukyu.
		S	20	53	08.4					- 1			
		L	20	53	16.3								
		M <sub>E</sub>	20	53	28.2	1.9			± 8				
		M <sub>N</sub>	20	53	26.0		1.9			- 9			
eF	20	56	00.0										
116	21Apr.	P	10	23	59.4							2425	SE far off Ottisi cape, eastern end of Hokkaido.
		S	10	27	58.4	4.0				- 1			
		eL	10	29	31.3					- 3			
		M	10	33	20.0	20.5			± 3				

## Seismic table in the year 1930

( April

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s	s			$\mu$	$\mu$	$\mu$	km.	
117	23Apr.	eF	10	45	00.0							2399	SE far off Kunasiri Isl. Hokkaido.
		P	21	53	29.5								
		S	21	57	26.4								
		L	21	59	01.7								
		$M_E$	22	03	09.4	16.2			$\pm 25$				
		eF	22	40	00.0								
118	24Apr.	eP	0	28	06.8							2410	Ditto
		S	0	32	04.8								
		eL	0	34	15.0								
		M	0	38	00.2	15.3			$\pm 3$				
		eF	0	54	00.0								
119	24Apr.	eP	13	33	44.0							160	Aki Nada, middle of Inland Sea.
		M	13	34	03.5	0.7	0.8		$\pm 2$	$\pm 2$			
		F	13	35	10.0								
120	25Apr.	P	9	16	27.0	1.0	1.7		+ 1	+ 6		160	Off the mouth of R. Yorumo, Ōita Pref.
		$\bar{P}$	9	16	32.2	0.9	0.7		+ 6	- 5			
		e	9	16	36.9	1.0	1.0		- 5	+ 5			
		S	9	16	44.6	1.1	0.9		- 8	+ 4			
		L	9	16	48.5	1.1	1.0		+13	-38			
		$M_E$	9	16	51.4	1.1			+31				
		C	9	17	41.5								
		F	9	19	30.0								
121	25Apr.	eP	9	48	50.5							166	Suho Nada, west end of Inland Sea,
		$\bar{P}$	9	48	55.3		0.8			+ 1			
		S	9	49	07.0	0.8	0.9		- 1	- 2			
		L	9	49	12.9		0.8			- 8			
		$M_E$	9	49	21.0	0.8	0.8		+11	+ 5			
		F	9	50	40.0								
122	25Apr.	P	12	05	59.6							Near Ōita.	
		$M_E$	12	06	16.6	0.8			$\pm 1$				
		$M_N$	12	06	18.7		0.8			$\pm 2$			
		F	12	07	10.0								

April )

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	A	A <sub>E</sub>	A <sub>Z</sub>		
			h	m	s				$\mu$	$\mu$	$\mu$	km.	
123	25Apr.	P	12	32	02.4				+ 3	+ 9		136	Upper vasin of R.Yakata, Oita Pref.
		$\bar{P}$	12	32	06.1	0.5	0.7		- 3	+ 4			
		e	12	32	09.7		0.8			- 7			
		S	12	32	17.9		0.7			- 6			
		L	12	32	20.7	0.6	0.7		+15	-18			
		M <sub>E</sub>	12	32	32.3	0.8			-32				
		M <sub>N</sub>	12	32	22.3		1.0			+23			
F	12	34	50.0										
124	26Apr.	eP	12	58	17.1							155	Ditto
		$\bar{P}$	12	58	20.9	0.8	0.8		+ 2	+ 1			
		S	12	58	33.0	0.8	0.8		- 4	- 5			
		L	12	58	38.0		1.0			-10			
		M	12	58	47.3	0.6	0.6		+13	+ 6			
		M	12	58	49.3	0.7	0.8		- 6	- 9			
F	13	00	20.0										
125	25Apr.	eP	14	17	36.0							154	Same as No. 122
		S	14	17	52.8	1.0	0.8		- 5	+ 3			
		L	14	17	56.8	0.8	0.7		- 8				
		M	14	18	01.2	1.1	1.3		+ 9	- 8			
		F	14	19	20.0								
126	25Apr.	P	16	25	49.6							3974	Okhotsk sea.
		eS	16	31	35.2								
		L	16	34	5.75								
		M <sub>E</sub>	16	40	09.3	23.6			$\pm$ 8				
		M <sub>N</sub>	16	40	34.9		19.5			$\pm$ 4			
eF	17	08	00.0										
127	28Apr.	P	11	08	39.0	0.3			- 1			85	R.Midori Kumamoto Pref.
		L	11	08	50.4	1.0	0.8		+ 3	+ 1			
		F	11	09	40.0								
128	28Apr.	eP	18	42	28.3							2270	Micronesia M phase from Omori's
		S	18	46	14.3								
		L	18	48	55.5								
		M <sub>E</sub>	18	52	42.3	11.8			-60				
		M <sub>N</sub>	18	51	31.3		17.6			+125			

## Seismic table in the year 1930

( May

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter $\phi$ Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s				$\mu$	$\mu$	$\mu$	km.	
129	29Apr.	F	19	17	00.0							93	Local shock.
		P	3	50	43.1								
		S	3	50	52.8	0.5			- 1	+ 1			
		L	3	50	55.6	0.8	0.6		- 5	- 2			
		$M_E$	3	51	06.7	0.7			+ 4				
		$M_N$	3	51	13.0	0.9				+ 4			
		F	3	52	00.0								
130	30Apr.	P	16	17	19.4	1.7				- 1		7820 ?	Distant earthquake.
		S?	16	26	30.4								
131	1 May.	P	1	00	02.5	0.8	0.8		- 1	- 1		1077	Near Tyosi, Tiba Pref. (140.8E 35.7N) Perceptible radius of 300km from the epicentre. where destructive shock were felt.
		S	1	01	58.2	1.7	3.2		+ 3	- 11			
		L	1	02	47.9	3.2	2.2		+ 26	+ 3			
		$M_E$	1	03	19.7	4.2			+ 50				
		$M_N$	1	03	17.5	4.2				- 40			
		F	1	35	00.0								
132	1 May.	P	4	22	32.5							1071	After shock of the former. A little smaller one (200km radius.)
		S	4	24	27.6	2.6				- 2			
		L	4	25	11.8	3.4	4.7		- 2	- 2			
		M	4	25	36.8	2.4	2.4		- 4	+ 5			
		F	4	35	00.0								
133	4 May.	P	18	48	34.8	1.0	1.0		- 1	+ 1		244	Hiuga Nada.
		e	18	48	48.3	0.6			+ 1				
		L	18	49	07.7	0.6	0.6		- 2	- 4			
		$M_E$	18	49	16.2	1.0			+ 5				
		$M_N$	18	49	17.7	0.7				+ 5			
		F	18	51	00.0								
134	4 May.	P	19	35	33.8	0.3	0.3		+ 2	+ 1		135	Ditto
		$\bar{P}$	19	35	38.8	0.5	0.5			+ 3			

May )

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s			s	$\mu$	$\mu$	$\mu$	km.	
135	5 May.	L	19	35	52.0	1.1	0.7		- 6	+ 4		3638	Near Rangoon, Burma. Destructive quake.
		$M_E$	19	35	52.5	1.1			+14				
		$M_N$	19	35	57.4		0.9			+ 8			
		F	19	37	20.0								
		P	13	52	56.3				- 1	- 1			
		$PR_1$	13	54	00.2	3.6			- 5				
		$PR_2$	13	54	20.7		3.1			- 2			
		e	13	54	47.5	2.7	1.8		- 4	+ 2			
		S	13	58	22.2		7.2			+ 4			
		$SR_1$	14	00	49.9	7.8	7.3		+ 4	- 3			
		L	14	02	39.9		17.1			-20			
		$M_{N1}$	14	06	17.2		13.7			-290			
		$M_{N2}$	14	07	07.2		13.0			+275			
$M_E$	14	08	05.9	13.6			+184						
$M_{N3}$	14	08	45.6		14.1			-313					
F	15	59	00.0										
136	6 May.	P	22	45	32.5			2.7		- 3		7621	Distant earthquake. Near the lake Urmia, Persia. Disastrous at the epicentral region
		$PR_1$	22	48	25.7	3.5	5.5		- 5	+ 1			
		$PR_2$	22	50	42.7	4.1	3.1		- 3	+ 3			
		S	22	54	33.6	2.1			- 3				
		$SR_1$	22	59	54.8								
		L	23	02	27.1		12.6			- 4			
		$M_E$	23	18	26.3	17.6			$\pm 28$				
		$M_N$	23	15	12.0		17.7			-38			
eF	0	11	00.0										
137	8 May.	eL	16	13	12.4							Perhaps the trace of distant earthquake.	
		eF	16	40	00.0								
138	12 May.	$\bar{P}$	20	12	12.9	0.8			+ 4	+ 1		38	Hiuga Nada
		$\bar{S}$	20	12	18.0	0.8	0.6		+ 3	+ 1			
		$M_E$	20	12	28.1	0.8			$\pm 3$				
		$M_N$	20	12	32.8		0.7			+ 3			
		F	20	13	20.0								
139	14 May.	P	14	23	57.0		0.3			+ 1	82	Ditto	
		S	14	24	02.8	0.6	0.3		- 3	+ 1			



## Seismic table in the year 1930

( May

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks	
						E	N	Z	$A_E$	$A_N$	$A_Z$			
			h	m	s				$\mu$	$\mu$	$\mu$	km.		
140	16May.	L	14	24	08.1	0.6	0.6		- 4	- 3		1273	Near Ito, Izu province (139.2E, 34.9N) Felt area of radius 200km in the pacific coast	
		M	14	24	13.7	0.7	0.7		+ 5	+ 5				
		F	14	25	00.0									
		P	20	15	55.2		0.5				+ 1			
		S	20	18	10.5	2.2	1.6		- 2	+ 3				
		L	20	19	19.7	4.5	2.9		+ 5	- 5				
141	18May.	$M_N$	20	19	51.6		5.6			+ 9		4305	Distant earthquake.	
		F	20	35	00.0									
		eP	0	09	50.5									
		e	0	11	53.6									
		S	0	15	55.0									
142	19May.	L	0	19	56.0							356	N off Naze. Ryukyu.	
		$M_N$	0	23	56.7	25.5			$\pm 1$					
		P	3	56	59.0		0.4			+ 1				
		L	3	57	47.0		1.1			+ 9				
		$M_E$	3	57	52.1	0.8			-40					
143	19May.	$M_N$	3	58	03.2		3.3			+48		262	Ditto	
		F	3	07	00.0									
		P	4	37	01.7				+ 1	+ 1				
		S	4	37	29.2				- 1	+ 1				
		L	4	37	37.0	0.7	0.7		- 1	+ 1				
144	19May.	F	4	39	00.0	0.7	0.7					1377	Upper valley of R, Finan (tai) kei, SE part of Formosa	
		P	15	07	07.0		1.3			- 3				
		S	15	09	32.1	5.2	5.7		+ 5	+11				
		M	15	09	52.2	5.4	5.2		-23	-20				
		M	15	09	54.8	4.8	4.8		+15	+26				
		$M_N$	15	10	51.4		7.1			-24				
145	20May.	eF	15	45	00.0							4069	Distant earthquake.	
		eP	11	22	38.3									
		S	11	28	29.5									
		eL	11	31	35.0									
		M	11	36	27.8	22.0			$\pm 4$					
eF	11	56	00.0											

May )

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			△	Epicenter & Remarks
						E	N	Z	A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
			h	m	s	s			μ	μ	μ	km.	
146	21May.	eP	19	34	22.6							344	N off Naze.
		S	19	34	58.7		0.9			+ 1			
		L	19	35	09.0	0.8	0.9			- 2	+ 4		
		M <sub>E</sub>	19	35	29.4	1.1				- 5			
		M <sub>N</sub>	19	35	34.2		1.1				+ 3		
		eF	19	37	00.0								
147	23May.	iP	16	39	56.2	1.8	1.8			+11	+ 4	742	S off Ōsima.(139.6E,34.2N) Felt area extend over Kwanto and south Ōu.Pphase is very distinct.
		S	16	41	17.3	2.2	2.0			+ 6	- 6		
		M	16	41	26.2	5.5	3.6			+19	-71		
		F	17	02	00.0								
148	31May.	P	5	39	17.2							100	Mouth of Sirakawa, Kumamoto Pref.
		L	5	39	30.7	0.7	0.7			- 1	+ 1		
		M <sub>E</sub>	5	39	34.8	0.8				+ 4			
		M <sub>N</sub>	5	39	41.2		0.8				- 3		
		F	5	40	50.0								
149	31May.	eP	7	27	35.3							203	Near Yakū Isl. Ryukyu.
		S	7	27	52.7	0.7	0.7			- 3	- 3		
		L	7	28	02.7	0.7				- 3			
		M <sub>E</sub>	7	28	22.7	0.9				- 5			
		M <sub>N</sub>	7	28	25.1		0.9				- 5		
		F	7	30	00.0								
150	31May.	P	18	00	32.7	1.9	1.7			- 5	- 6	957	Lower course of R. Naka, Ibaraki Pref. (140.4E, 36.4N.) Perceptible range extends about 1000km length. Strongly quaked at Kwanto, little damages were done at the epicentral region.
		e	18	00	38.1	2.4	1.9			- 7	- 8		
		e	18	00	45.5	1.2	1.0			- 6	- 1		
		e	18	01	25.6	1.2	0.9			- 2	+ 4		
		S	18	02	16.4	4.2	4.9			+11	- 9		
		L	18	02	59.9	1.0	2.2			- 6	+ 9		
		M <sub>E</sub>	18	03	38.5	2.9				-31			
		M <sub>N</sub>	18	03	41.8		3.7				+35		
F	18	20	00.0										

## Seismic table in the year 1930

( June

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			△	Epicenter & Remarks		
						E	N	Z	A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>				
			h	m	s	s			μ	μ	μ	km.			
151	3 June.	P	18	24	52.2	0.3				- 1		82	Ariake bay, S of Miyazaki Pref.		
		S	18	25	01.7	1.5	1.5		- 5	+11					
		L	18	25	03.3	1.3	1.3		-10	-20					
		M <sub>E</sub>	18	25	04.4	0.8			+16						
		F	18	27	10.0										
152	4 June.	P	9	57	21.6	0.6				- 1		3614	Micronesia. Perhaps Kei Isl. Molucca.		
		S	10	02	46.2	3.3	3.3		- 2	- 3					
		eL	10	06	33.0										
		F	10	25	00.0										
153	5 June.	eP	11	53	20.4							6268	In the South Pacific.		
		eS	12	01	11.3										
		eL	12	08	30.2										
		M <sub>E</sub>	12	14	06.4	30.0			± 1						
		M <sub>N</sub>	12	15	29.4	26.6				± 1					
		F	12	30	00.0										
154	5 June.	P	17	02	14.9				+ 1	- 1		147	E off Naze, Rkukyu.		
		S	17	02	34.8	0.7	0.7		- 2	- 3					
		M	17	02	41.5	1.0	0.7		- 6	- 4					
		M	17	02	44.5	0.6				- 5					
		F	17	04	10.0										
155	6 June.	eP	11	14	43.0							133	Hiuga Nada.		
		S	11	14	55.0					- 1					
		L	11	15	01.0	0.8			+ 3	- 1					
		M	11	15	06.2	0.8	0.9		- 3	+ 3					
		F	11	16	30.0										
156	11 June.	P	0	57	23.9	1.0	1.0		-0.5	+0.5		4571	Micronesia.		
		PR <sub>1</sub>	0	59	23.1	1.1	1.1		+ 3	- 3					
		PR <sub>2</sub>	1	00	17.3	3.1	4.0		- 5	- 4					
		S	1	03	42.6	2.7	2.4		+ 3	- 4					
		L	1	07	17.1	7.8	7.8		+ 3	+13					
		M <sub>E</sub>	1	13	20.8	17.8			-19						
		M <sub>N</sub>	1	12	32.1	20.0				+10					
		eF	2	10	00.0										

June )

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks	
						E	N	Z	$A_E$	$A_N$	$A_Z$			
			h	m	s			s	$\mu$	$\mu$	$\mu$	km.		
157	14 June.	eP	9	08	53.2			0.9			-1.5		63	Hiuga Nada.
		iP	9	08	53.8	0.6	0.5		-1	+2				
		S	9	09	01.7	0.5	0.5		-1	-1				
		$M_E$	9	09	03.5	0.7			+2					
		$M_N$	9	09	04.0		0.7			-2				
		F	9	09	40.0									
158	14 June.	P	9	25	08.1			0.4			-1.5		138	Tiziwa Bay, Nagasaki Pref.
		$\bar{P}$	9	25	14.7	0.4			+1					
		S	9	25	26.8	0.8	0.9		-4	+3				
		M	9	25	43.2	0.9	0.9		-5	+3				
		F	9	27	00.0									
159	14 June.	P	20	28	28.6			0.6			-1.5		92	Hiuga Nada.
		S	20	28	41.0	0.7	1.0		+1	-2				
		M	20	28	44.7	0.7	0.7		+4	+3				
		F	20	29	40.0									
160	18 June.	$\bar{P}$	20	45	59.3	0.4	0.2		+1.0	+6.3			60	Ditto. Felt rather strongly all over the Pref. (II at Miyazaki)
		e	20	46	03.0	0.9	0.4		-13	-11				
		e	20	46	06.9	0.7	0.3		+56	+29				
		S	20	46	07.4	0.8	1.1		-53	-163				
		$M_{E1}$	20	46	15.2	0.8			+138					
		$M_{N1}$	20	46	08.2		1.1			+181				
		$M_{E2}$	20	46	38.5	0.9			+125					
		$M_{N2}$	20	46	32.0		0.9			-142				
		C	20	46	59.3									
		F	20	51	00.0									
161	21 June.	$\bar{P}$	9	47	41.3	0.8	0.4		-19.6	-11.3			70	Ditto. Felt region same as the former (II at Miyazaki)
		$\bar{S}$	9	47	50.7	1.0	1.2		-169	+550				
		$M_E$	9	47	57.5	0.8			+525					
		$M_N$	9	47	51.5		1.2			+863				
		C	9	48	38.9									
		F	9	55	00.0									
162	22 June.	P	19	51	21.9	1.0	0.6		-1	+3				Only P wave observed 1' 10"
163	23 June.	eP	19	42	08.3				+0.6	-0.8			4313	Distant earthquake.
		eS	19	48	13.2									

## Seismic table in the year 1930

( June

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s				$\mu$	$\mu$	$\mu$	km.	
164	23 June.	P	20	28	01.2				+0.4	+ 3		121	Hiuga Nada.
		S	20	38	11.4	0.8	0.8		- 4	- 1			
		L	20	38	17.6	0.8	0.8		- 4	+ 3			
		F	20	39	50.0								
165	24 June.	P	19	10	08.8		0.4		-0.2	-0.8			Only P wave 1 minute.
166	26 June.	$\bar{P}$	2	24	19.4				+0.3	-0.2		80	R. $\bar{O}$ yodo. Miyazaki.
		$\bar{S}$	2	24	30.2	1.0	0.5		- 4	- 3			
		F	2	25	50.0								
167	29 June.	P	19	34	48.2	0.5	0.2		-2.3	-0.8			Reeated to No. 166
168	29 June.	P	19	37	33.0		0.6		-1.2	-1.6			Ditto
169	30 June.	$\bar{P}$	5	04	03.4				-0.2	+0.3		54	R. $\bar{O}$ yodo.
		$\bar{S}$	5	04	10.7	0.7	0.7		- 3	+ 5			
		F	5	05	10.0								
170	1 July.	$\bar{P}$	21	24	49.5	0.5	0.2		+1.8	+1.1		41	Hiuga Nada Felt in the city.
		$\bar{S}$	21	24	55.1	0.6	0.5		- 6	-13			
		$M_E$	21	25	01.1	0.6			$\pm 15$				
		$M_{N1}$	21	24	59.7		0.7			+23			
		$M_{N2}$	21	25	06.4		0.7			+20			
		F	21	26	50.0								
171	2 July.	eP	21	09	56.0	5.0	2.4		+0.3	+0.4		5291	In the South Pacific.
		iP	21	10	10.0	2.4	2.4		+ 4	+ 4			
		eS	21	16	53.8	2.8	3.0		- 2	+ 4			
		eL	21	20	08.8								
		$M_E$	21	27	20.7	13.0			-16				
		$M_N$	21	24	56.0		15.2			$\pm 13$			
		eF	22	23	00.0								
172	4 July.	eP	1	04	48.3	0.4	0.4		-1.0	+1.0		204	NE off Naze, Ryukyu.
		L	1	05	15.9	0.6	0.8		+ 2	- 5			
		$M_E$	1	05	23.2	1.0			- 6				
		$M_N$	1	05	35.2		1.0			+ 9			
		F	1	07	20.0								

July. )

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks	
						E	N	Z	$A_E$	$A_N$	$A_Z$			
			h	m	s			s	$\mu$	$\mu$	$\mu$	km.		
173	7 July.	P	19	56	01.2				-1.8			1514		
		eL	19	58	02.6									
		eF	20	06	00.0									
174	8 July.	eP	13	36	00.3			0.7		-0.6		155	Ariake sea, Kyusyu.	
		$\bar{P}$	13	36	06.2	0.6	0.6		+0.4	-0.3				
		L	13	36	21.3	0.6	0.7		+ 1	+ 2				
		$M_E$	13	36	24.7	0.9			+ 3					
		$M_N$	13	36	31.8		0.8			+ 5				
		F	13	38	00.0									
175	10 July.	P	3	38	36.4	0.9	0.9		-0.6	-1.0		104	Hiuga Nada	
		S	3	38	50.4	0.7	0.8		- 1	+ 3				
		M	3	38	53.0	0.9	0.9		+ 3	+ 4				
		F	3	40	10.0									
176	13 July.	P	19	33	10.5				-1.5	-1.0		3045	Distant earthquake.	
		$PR_1$	19	34	02.8	1.2	1.2		+ 2	- 1				
		S	19	37	56.8	7.8			+ 1					
		$SR_1$	19	39	26.2	3.4	6.0		- 3	- 1				
		L	19	41	22.2									
		$M_E$	19	44	55.3	11.0			$\pm 20$					
		$M_N$	19	44	04.5		12.2			+19				
eF	20	15	00.0											
177	14 July.	eL	23	37	57.7								Distant earthquake. P phase is uncertain.	
		$M_E$	23	56	15.6	20.0			$\pm 3$					
		$M_N$	23	59	16.1		20.0			$\pm 2$				
		eF	0	22	00.0									
178	18 July.	P	9	43	05.8			0.5		+0.5		129	Upper valley of R. Sira (the foot of the volcano Aso) Kumamoto Pref.	
		$\bar{P}$	9	43	12.1	0.8	0.8		+ 2	- 4				
		L	9	43	23.2	1.0	1.0		+ 9	+ 6				
		$M_E$	9	43	27.3	0.8			+20					
		$M_N$	9	43	34.4		0.9			+24				
		F	9	45	40.0									
179	18 July.	P	9	53	47.3	0.6	0.6		-1.0	-0.7		101	Ditto	
		S	9	54	00.9	1.0	0.6		- 1	+ 1				

## Seismic table in the year 1930

( July. )

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$ km.	Epicenter $\neq$ Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s	s			$\mu$	$\mu$	$\mu$		
180	18 July.	M	9	54	05.7	1.0	0.5		- 3	+ 1		105	Ditto Felt in the city.
		F	9	55	30.0								
		P	10	22	22.5	1.0	0.3		+1.1	-1.0	-0.3		
		iP	10	22	23.3	0.6	0.4	0.7	+ 3	- 5	+ 8		
		S	10	22	36.5	1.1	1.3	0.5	-16	-20	- 5		
		M <sub>E</sub>	10	22	43.0	0.8			+55				
		M <sub>NZ</sub>	10	22	39.3		1.0	0.8		+56	-14		
		M <sub>Z</sub>	10	22	45.4			0.6			+15		
		C	10	23	22.0								
		F	10	26	00.0								
181	18 July.	eP	10	24	29.9	0.7	0.7		- 1	+ 2		112	Ditto
		S	10	24	45.0	0.9	0.9		+ 4	+ 3			
		M <sub>E</sub>	10	24	50.6	0.9			+ 6				
		M <sub>NZ</sub>	10	24	49.4		0.8	0.8		+ 6	- 1		
		F	10	26	00.0								
182	18 July.	P	10	26	05.5		0.6		-1.0	+1.2			Ditto
		M <sub>E</sub>	10	26	21.5	0.8			- 2				
		M <sub>N</sub>	10	26	22.8		0.8			+ 2			
		F	10	27	50.0								
183	18 July.	eP	10	41	50.5					+0.3		138	Ditto
		S	10	42	10.2	0.4	0.5		- 1	+ 1			
		M <sub>E</sub>	10	42	13.8	0.9			+ 4				
		M <sub>N</sub>	10	42	16.6		0.9			+ 3			
		F	10	43	30.0								
184	19 July.	P	7	32	35.0	0.4			+1.1	+0.2		60	Ditto.
		S	7	32	43.1	0.5	0.6		- 1	- 2			
		M <sub>E</sub>	7	32	47.2	0.6	0.6		- 4	+ 3			
		M <sub>N</sub>	7	32	50.2								
		F	7	34	00.0								
185	20 July.	eP	9	15	11.8		0.3			+0.3	+0.2	56	Hiuga Nada.
		iP	9	15	12.2	0.8	0.4		+1.4	-4.0	-7.5		
		S	9	15	19.4	0.8	0.8	0.5	- 8	- 7	- 3		
		M <sub>E</sub>	9	15	25.8	6.7			+25				





## Seismic table in the year 1930

( July. )

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter $\neq$ Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s	s			$\mu$	$\mu$	$\mu$	km.	
190	23 July.	P	10	06	43.1	0.4	0.4	0.3	+1.0	+1.3	+2.3	143	W off Yaku Isl. Ryukyu.
		$\bar{P}$	10	06	49.3	0.8	0.8		- 2	- 5			
		e	10	06	55.8	1.0	1.0	0.6	- 3	- 3	+ 1		
		S	10	07	02.4	0.8	0.8		- 6	- 5	+ 1		
		$M_E$	10	07	15.8	0.7			+12				
		$M_N$	10	07	04.3		0.5			-10			
		$M_Z$	10	07	09.5			0.7			+ 3		
		F	10	09	00.0								
191	29 July.	$\bar{P}$	20	01	31.5	0.6	0.3	0.2	+5.5	+5.0	+0.6	43	Hiuga Nada.
		$\bar{S}$	20	01	37.3	0.6	0.6	0.4	- 5	+ 1	- 1		
		$M_E$	20	01	41.0	0.5			+ 7				
		$M_N$	20	01	43.5		0.7			+ 4			
		$M_Z$	20	01	49.7			0.5			+ 2		
			20	03	00.0								
		F											
192	1 Aug.	P	0	10	44.0	0.7	0.6	0.8	-0.5	-1.0	-0.5	632	NW off Naze, Ryukyu.
		S	0	11	47.3	0.8	1.0	2.7	- 3	- 4	- 2		
		L	0	12	09.4	0.7	2.3	2.5	- 3	- 5	- 3		
		$M_E$	0	12	26.4	1.0			- 5				
		$M_N$	0	12	37.0		2.3			- 9			
		eF	0	18	00.0								
193	2 Aug.	e $\bar{P}$	3	08	55.3	0.4			+0.4			131	Hiuga Nada.
		$\bar{S}$	3	09	07.2	0.9	0.7		+ 1	+ 1			
		L	3	09	13.0	0.9	1.2		+ 1	+ 1			
		F	3	10	30.0								
194	2 Aug.	$\bar{P}$	3	20	51.1	0.7	0.9		+1.4	-1.2		150	Ditto.
		$\bar{S}$	3	20	59.9	0.6	0.4		+ 1	- 1			
		L	3	21	11.3		0.9			+ 1			
		F	3	22	00.0								

Aug.)

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s				$\mu$	$\mu$	$\mu$	km.	
195	4 Aug.	eP	5	22	53.9							197	
		S	5	23	10.1	0.4			+ 1				
		L	5	23	20.5	0.8	0.8		+ 2	- 2			
		M	5	23	28.6	1.1	0.9		- 3	- 4			
		eF	5	26	00.0								
196	5 Aug.	P	3	18	53.7	0.8	0.6	0.6	-0.9	-3.2	-5.0	80	Ariake bay, S of Miyazaki.
		$\bar{S}$	3	19	04.5	1.0	1.1	1.3	-29	-42	+ 6		
		$M_E$	3	19	14.4	0.9			+35				
		$M_Z$	3	19	10.8			1.1			+11		
		C	3	19	45.4		1.1			+11			
		F	3	21	30.0								
197	7 Aug.	eP	23	51	00.3	1.0			-1.0			2718	E off Taito(SE-ern part ofFormosa.)
		L	23	57	05.8								
		$M_E$	0	00	14.0	11.0			$\pm 2$				
		$M_Z$	23	58	12.8		11.0			$\pm 2$			
		eF	0	12	00.0								
198	8 Aug.	P	9	59	51.7		0.4	0.3	-0.8	-1.0	+1.0	115	Bungo channel.
		S	9	59	57.3	0.4	0.4	0.7	- 1	+ 2	- 2		
		M	10	00	03.9	0.7	0.6		- 4	- 4	- 2		
		F	10	01	40.0								
199	14Aug.	$\bar{P}$	20	31	46.2	0.5	0.2	0.2	-0.8	-0.6	+4.1	56	R. $\bar{O}$ yodo. Miyazaki
		$\bar{S}$	20	31	53.7	0.5	0.8	0.3	- 6	-19	- 3		
		M	20	32	00.6	0.6	0.7	0.4	$\pm 10$	$\pm 9$	- 4		
		F	20	33	30.0								
200	17Aug.	iP	9	30	32.0	0.6	1.1	0.8	+1.3	-3.8	+1.1	900	N-ern part of Uraga strait, entrance of the Tokyo bay.(139.8E,35.3N). Felt over Kwanto district, very strongly at the epi- central region.
		S	9	32	10.0	0.9	1.7	1.3	+ 3	+ 4	- 1		
		L	9	32	54.9	0.9	4.3	2.6	- 3	+ 3	+ 1		
		$M_E$	9	33	28.5	5.4			- 5				
		$M_N$	9	33	58.2		2.8			+ 9			
		$M_Z$	9	33	47.3			3.7			+ 3		
eF	9	40	00.0										
201	18Aug.	eP	10	13	27.9	0.6			+1.0			209	
		S	10	13	47.3	1.0			+ 2				

## Seismic table in the year 1930

( Aug.

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter $\neq$ Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s			s	$\mu$	$\mu$	$\mu$	km.	
202	18Aug.	L	10	13	56.2	0.7	0.9		- 1	+ 2		261	Hiuga Nada.
		$M_E$	10	14	14.1	1.1			- 3				
		eF	10	15	30.0								
		eP	16	46	52.8	0.3			-0.5				
		S	16	47	15.6	0.9	0.6		- 3	+ 1			
		L	16	47	28.0	0.9	0.8	0.8	+ 3	+ 2	- 1		
		$M_E$	16	47	53.7	1.0			+ 4				
203	20Aug.	$M_N$	16	47	52.6		1.1			+ 5		361	W off Naze, Ryukyu.
		$M_Z$	16	47	47.8			0.8			$\pm 1$		
		F	16	49	30.0								
		P	12	04	54.2		0.7	0.4	+0.2	-0.6	-0.5		
		$\bar{P}$	12	05	04.0	0.5	0.8	0.7	-0.4	-1.3	-0.6		
		L	12	05	43.0	0.8	0.8	0.9	+ 2	+ 2	+ 1		
		$M_E$	12	05	51.8	1.0			+ 5				
204	20Aug.	$M_N$	12	06	07.4		1.4			- 8		1377	About 70km W off Yonakuni Isl. South end of Ryukyu. (122.2E,24.5N). Remarkable tremor was recorded in wide range.
		$M_Z$	12	06	01.8			1.3			- 3		
		F	12	08	00.0								
		P	20	56	45.7	1.8			-2.0				
		S	20	59	10.8	7.5	7.5	7.8	+14	-31	- 6		
		L	21	01	31.0		16.5	15.5		-26	+19		
		M	21	03	20.2	10.0	11.5		+50	-144			
205	23Aug.	$M_Z$	21	03	48.8			11.0			$\pm 72$	61	R. Oyodo, Miyazaki
		M	21	04	31.5	9.3	11.5	8.7	+19	-119	+63		
		eF	22	13	00.0								
206	23Aug.	$\bar{P}$	9	36	01.7				+0.4			257	Off Yaku Isl. Ryukyu.
		$\bar{S}$	9	36	10.0	0.5			- 1				
		$M_E$	9	36	10.5	0.7			+ 3				
		F	9	37	20.0								
207	27Aug.	P	11	03	55.5			2.0			$\div 0.6$	257	Probably the trace of the distant earthquake.
		$M_E$	11	36	23.6	11.0				$\pm 3$			
		eF	11	46	00.0								
207	27Aug.	P	13	06	09.2	0.5			-0.4			257	Off Yaku Isl. Ryukyu.
		$\bar{P}$	13	06	17.3	0.5	0.9	0.7	+1.0	-0.8	-0.4		

Aug.)

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter $\varphi$ Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s				$\mu$	$\mu$	$\mu$	km.	
		S	13	06	28.0	1.1	0.7		- 2	+ 1			
		$\bar{S}$	13	06	36.5	0.8	0.9		+ 1	- 3			
		L	13	06	43.9	1.1	0.9	0.9	- 3	- 2	- 1		
		$M_E$	13	06	58.5	1.2			+ 6				
		$M_N$	13	06	49.6		1.1			+ 4			
		$M_Z$	13	07	07.2			1.5			$\pm 2$		
		F	13	08	40.0								
208	29 Aug.	P	20	06	26.6	0.9		2.2	- 1.0		+ 2.0	1854	Kunasiri channel, Tisima.
		S	20	09	37.0	3.8		4.5	+ 1		- 1		(146.7E, 44.2N). Strongly felt at northern Hokkaido.
209	2 Sept.	$\bar{P}$	16	56	25.0			0.5			+ 0.6	57	Hiuga Nada.
		$\bar{S}$	16	56	32.7	0.6	0.7		+ 5	+ 4			
		$M_E$	16	56	34.2	0.9	0.8		+ 6	- 4			
		$M_Z$	16	56	40.6			0.6			+ 3		
		F	16	58	10.0								
210	5 Sept.	$\bar{P}$	9	43	30.8	0.7	0.7		- 4.0	- 1.3		64	Ariake bay, S of Miyazaki.
		$\bar{S}$	9	43	39.5	0.6	0.7		+ 1	- 4			
		$M_{EN}$	9	43	46.1	0.7	0.7		- 5	- 5			
		$M_Z$	9	43	41.6			0.3			+ 2		
		C	9	43	57.3								
		F	9	45	00.0								
211	12 Sept.	eP	14	39	19.4							261	Hiuga Nada
		L	14	39	54.6	0.7	0.8		+ 1	+ 1			
		$M_E$	14	40	14.2	0.7			- 3				
		$M_N$	14	40	10.2		0.8			+ 3			
		F	14	41	20.0								
212	12 Sept.	P	14	48	00.8		0.8			+ 0.5		281	Ditto.
		L	14	48	38.8	0.8			- 1				
		$M_E$	14	48	53.3	0.8			- 2				
		$M_N$	14	49	02.1		0.9			$\pm 1$			

## Seismic table in the year 1930

( Sept.

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s	s			$\mu$	$\mu$	$\mu$	km.	
213	12Sept.	F	14	50	10.0								323 S off Tanegasima, Ryukyu.
		P	14	52	15.5	0.8	0.6		-1.1	+0.3			
		P	14	52	26.1	0.7	0.9	0.6	-0.9	-1.3	-0.3		
		S	14	52	44.1	0.9	0.9	1.1	-3	+3	-2		
		L	14	52	59.2	0.9	1.3		+5	-4	+1		
		M	14	53	05.7	1.7	1.1		+9	+4			
		$M_E$	14	53	10.5		1.3			+16			
		$M_Z$	14	53	08.0			2.8			$\pm 3$		
		eF	14	57	00.0								
214	12Sept.	P	14	59	59.8	0.7			-0.5			235 Hiuga Nada.	
		L	15	00	31.6	0.9	0.8		-1	-2			
		$M_E$	15	00	38.1	0.9			$\pm 2$				
		$M_N$	15	00	43.9		1.1			+3			
215	12Sept.	P	15	02	04.1	0.6			+0.7			252 Ditto.	
		$\bar{P}$	15	02	14.1	0.7	0.7		-1.3	-1.0			
		L	15	02	38.2	0.8	0.9		+2	-4			
		M	15	02	45.1	0.7	0.8		$\pm 2$	$\pm 2$			
		F	15	04	20.0								
216	12Sept.	eP	15	58	48.8							227 Ditto.	
		L	15	59	20.4	0.9	0.9		-1	-1			
		F	16	00	20.0								
217	15Sept.	eP	1	10	28.1	0.5			+0.5			99 Tiziwa bay.	
		S	1	10	41.5	0.7	0.6		-1	+2			
		$M_E$	1	10	45.9	0.9			-2				
		$M_N$	1	11	08.5		1.0			$\pm 2$			
		F	1	12	00.0								
218	18Sept.	eP	0	41	17.5							168 Kumamoto.	
		S	0	41	40.3	1.0	0.8		+1	-1			
		$M_E$	0	41	46.0	0.9			+3				
		$M_N$	0	41	59.7		0.8			+2			
		F	0	43	00.0								

Sept. )

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	A	A <sub>E</sub>	A <sub>Z</sub>		
			h	m	s				$\mu$	$\mu$	$\mu$	km.	
219	21Sept.	eP	23	10	01.3							3481	Distant earthquake (in Himalaya Mts. ?). Main tremor is very clear in spite of dull commence- ment.
		L	23	17	03.5								
		M <sub>N</sub>	23	20	46.7		17.0			-43			
		M <sub>E</sub>	23	23	55.5	11.5			+50				
		M <sub>Z</sub>	23	25	01.4		11.0				$\pm 38$		
		M <sub>N</sub>	23	26	00.5		10.8			-48			
		M <sub>N</sub>	23	29	40.5		10.4			-31			
		F	0	00	00.0								
220	22Sept.	eL	14	33	23.4								Ditto.
		M <sub>E</sub>	14	41	35.0	8.8			-5				
		M <sub>N</sub>	14	39	51.4		9.5			-8			
		eF	14	53	00.0								
221	24Sept.	P	12	12	00.1	3.6	3.2		-1.0		-1.0	2386	Distant earthquake.
		S	12	15	55.8	3.7	3.7		-2	-2			
		L	12	17	26.8	10.7	6.4		-1	-4			
		M <sub>E</sub>	12	21	31.5	8.8			$\pm 4$				
		M <sub>N</sub>	12	19	12.2		9.4			-3			
		M <sub>Z</sub>	12	21	32.8		8.6				+1		
		eF	12	57	00.0								
222	25Sept.	P	12	19	26.2	0.7	0.7		-0.4	-1.0			Near Miyazaki
		M	12	19	48.3	1.0	1.0		+2	-2			
		F	12	20	50.0								
223	25Sept.	P	16	48	18.4	1.1	2.2	1.3	-0.3	-1.6	-1.0	705	NW off Naha, Ryukyu.
		S	16	49	29.2	1.1	1.6	2.1	+3	+2	-1		
		L	16	49	53.7	1.3	1.8	1.6	+1	+5	-1		
		M <sub>E</sub>	16	50	17.2	4.5			-8				
		M <sub>N</sub>	16	50	01.3		5.2			$\pm 7$			
		M <sub>Z</sub>	16	50	05.5		5.6				-4		
		F	16	59	00.0								
224	25Sept.	eP	18	39	28.0	0.9	0.9		+1.0	+1.0		3737	Distant earthquake in Micronesia.
		S	18	44	59.8	4.0			-1				
		L	18	47	36.4		12.0			+1			
		M <sub>E</sub>	18	52	59.1	7.7			$\pm 2$				
		M <sub>N</sub>	18	55	19.4		10.9				$\pm 3$		

## Seismic table in the year 1930

( Sept,

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s				$\mu$	$\mu$	$\mu$	km.	
225	28Sept.	eF	19	10	00.0								
		P	5	59	43.2	1.1	1.1		+1.0	+1.0	-0.3	1952	N W off Naha, Ryukyu
		eS	6	03	02.0	2.4	2.4		+ 2	+ 2			S phase is uncertain.
226	29Sept.	P	4	53	08.1	1.5	0.4	0.5	+11.0	+1.0	+27.3	233	Near Kagosima. (130.6E, 31.6N) Its origine about 300 km deep.
		P	4	53	12.2	0.5	0.4	0.4	-15.0	+5.6	+5.0		Abnormal felt area in southern Kyusyu.
		S	4	53	34.7	1.0	0.8		- 5	- 8	- 2		(I at Fukushima and Mitai)
		L	4	53	39.6	0.4	1.8	0.5	- 8	+34	- 4		Felt in the City.
		M	4	53	43.4	0.8	0.5		-58	-38			
		M	4	53	50.1		0.8	0.5		+50	+21		
		M	4	53	55.0	0.8	0.8	0.4	-53	-38	-15		Each phase is clearly observed
		C	4	54	15.6								
227	30Sept.	eP	11	41	00.2							278	Tanegasima, Ryukyu.
		$S_Z$	11	41	26.4			0.6			- 1		
		L	11	41	37.7	1.1	1.0		- 3	+ 5			
		$M_N$	11	41	42.9		1.1			+13			
		$M_{EZ}$	11	41	50.6	1.6		1.6	- 9		- 3		
		$M_{NZ}$	11	41	56.4		1.6	1.3		$\pm 8$	- 3		
		F	11	45	00.0								
228	30Sept.	P	21	27	36.7	0.5	0.7		+1.0	+0.5		4492	Micronesia.
		S	21	33	51.3	4.6	5.8	3.8	- 3	- 3	+ 1		
		L	21	36	23.1	8.1	8.8	9.6	+ 3	- 4	- 4		
		$M_E$	21	40	57.4	13.5			-11				
		$M_N$	21	38	27.0		13.0			-16			
		$M_Z$	21	42	58.4			14.7			- 6		
		F	22	35	00.0								
229	2 Oct.	P	0	45	21.2	0.7	0.7		-1.4	-0.6		3867	Distant earthquake.
		S	0	51	00.8	2.0	6.0	5.7	+ 2	+ 4	- 3		
		L	0	53	42.3	7.4	9.0	11.0	- 2	- 3	- 2		
		$M_E$	0	56	26.2	14.0			$\pm 3$				
		$M_N$	0	56	54.3		13.5			$\pm 3$			





## Seismic table in the year 1930

( Oct. )

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s	s			$\mu$	$\mu$	$\mu$	km.	
235	15 Oct.	$\bar{P}$	8	14	14.2	0.4	0.4		-1.0	+1.3		32	R. Ōyodo.
		$\bar{S}$	8	14	18.5	0.4			-1	-1			
		$M_E$	8	14	22.8	0.4			+1				
		$M_N$	8	14	25.1		0.4			-1			
		F	8	15	10.0								
236	15 Oct.	P	9	14	19.0	0.7			-1.0			1003	SSE off Naha Isl. Ryukyu.
		S	9	16	07.3	0.6	2.2	4.2	-1	-2	-1		
		L	9	17	08.4	2.8	4.4		-2	-1			
		$M_E$	9	17	39.5	8.5			$\pm 3$				
		$M_N$	9	18	41.5		7.7			$\pm 2$			
		eF	9	28	00.0								
237	16 Oct.	P	21	33	52.2		1.4	1.5		-0.6	-0.6	707	Near the city Daisyozi, Isikawa Pref. (136.3E, 36. 3N) The shock was widely felt along the coastal region of Japanese sea. V at the near epicentre.
		L	21	35	27.8	1.2			-2				
		$M_E$	21	35	44.1	1.8			+6				
		$M_N$	21	35	46.6		1.0			+6			
		$M_Z$	21	35	47.8			2.8			-3		
238	16 Oct.	iP	21	37	29.6	1.6	1.6	1.3	+2.5	+4.8	-4.5	720	Ditto. More widely felt than the former in 300km radius. Destructive at the epicen- tral region.
		L	21	39	06.9	1.0	1.0	1.5	+10	-6	-5		
		$M_E$	21	39	16.1	3.7			+55				
		$M_N$	21	39	52.8		3.7			-51			
		$M_Z$	21	39	28.6			3.1			-23		
		F	21	58	00.0								
239	16 Oct.	$\bar{P}$	23	49	00.3	0.4	0.3		-0.6	+1.2		56	R. Ōyodo, Miyazaki.
		$\bar{S}$	23	49	07.8	0.6	0.3		-1	+1			
		$M_E$	23	49	09.8	0.8			+1				
		$M_N$	23	49	15.9		0.7			-2			
		F	23	49	45.0								
240	17 Oct.	$\bar{P}$	8	23	21.0	0.4			+0.5	-0.3		55	Ditto.
		$\bar{S}$	8	23	28.4	0.7	0.5		+1	+1			
		M	8	23	32.4	1.0	0.6		+1	-1			
		F	8	24	40.0								
241	17 Oct.	P	9	07	16.0	2.0	2.1		+0.8	+1.0			Distant earthquake.
		S?	9	21	57.3	5.2			+1				

Oct. )

## Seismic table in the yerr 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			△	Epicenter & Remarks
						E	N	Z	A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
			h	m	s				μ	μ	μ	km.	
242	17 Oct.	P̄	9	38	18.3	0.9			-1.0			47	R. Ōyodo.
		S̄	9	38	24.6	1.1	0.7		- 2	+ 1			
		F	9	39	20.0								
243	17 Oct.	P̄	13	16	14.1	0.5	0.4		-1.0	-0.4		51	Ditto.
		S̄	13	16	21.0	0.6			- 1				
		M <sub>E</sub>	13	16	22.0	0.8			+ 2				
		M <sub>N</sub>	13	16	24.9		0.7			+ 1			
		F	13	17	10.0								
244	21 Oct.	iP	5	25	54.1	0.6	0.5	0.6	-1.3	+2.5	+9.0	192	N off Misaki Pen. middle part of the Inland sea. The shock was felt in the near region. III at Mitai. (North of Miyazaki)
		S	5	26	15.5	0.7	0.5	0.4	-10	- 5	- 4		
		L	5	26	20.0	0.9	0.6	0.3	+13	+11	+ 4		
		M <sub>E</sub>	5	26	38.4	0.8			-40				
		M <sub>N</sub>	5	26	39.4		0.8			+38			
		M <sub>Z</sub>	5	26	30.5			0.4			-14		
		F	5	29	30.0								
245	22 Oct.	P	1	16	06.5	0.4			-0.6			2807	Distant earthquake Micronesia ?
		S	1	19	35.3								
246	22 Oct.	eP	18	15	25.9	2.0			+0.5			6448	Distant earthquake.
		eS	18	23	26.3		7.0			+ 1			
		eL	18	27	59.1								
		M <sub>N</sub>	18	31	45.0		17.0			± 1			
247	24 Oct.	P	10	15	15.2		0.5			-0.6		80	R. Ōyodo, Miyazaki.
		S	10	15	26.0	0.6	0.6		+ 1	+ 3			
		M <sub>E</sub>	10	15	35.7	0.7			+ 3				
		M <sub>N</sub>	10	15	29.4		1.2			- 3			
		F	10	16	20.0								
248	24 Oct.	P	11	05	31.0	0.7	0.7		+1.0	+1.2		84	Ditto.
		S	11	05	42.3	0.7	0.6		- 2	- 2			
		M	11	05	47.7	0.6	0.7		+ 3	+ 2			
		F	11	06	50.0								
249	24 Oct.	P	11	16	59.0	0.5	0.6		+1.0	+1.1		90	Ditto.



Oct.)

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			△	Epicenter & Remarks
						E	N	Z	A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
			h	m	s				μ	μ	μ	km.	
255	28 Oct.	P	21	14	48.0			0.8			-3.0	2190	Marianne Deep.
		eS	21	18	16.1	1.6	1.3	2.6	- 1	+ 1	- 1		
		iS	21	18	27.3	4.5	2.1	2.6	+17	+10	+ 5		
		SM <sub>E</sub>	21	18	37.2	3.6			+26				
		SM <sub>N</sub>	21	18	44.5		3.9			-20			
		SM <sub>Z</sub>	21	18	41.3			3.1			- 3		
		L	21	20	09.5	4.4	6.2	21.8	+ 9	- 5	- 4		
		M <sub>E</sub>	21	29	11.5	14.5			- 8				
		M <sub>N</sub>	21	23	41.4		12.5			±11			
		M <sub>Z</sub>	21	24	40.6			15.0			-10		
F	22	20	00.0										
256	28 Oct.	eP	22	02	03.4	0.9	1.0		-0.5	+0.5		2007	Ditto.
		S	22	05	27.1	2.0			+ 1				
		SM <sub>E</sub>	22	05	41.1	3.2			+ 3				
		SM <sub>N</sub>	22	05	39.7		3.7			+ 2			
257	29 Oct.	P	12	34	08.0	1.2	1.2		+1.0	-1.0		2210	Ditto.
		S	12	37	49.0	2.4	2.4		+ 1	- 1			
		L	12	40	21.0	14.5	14.0						
258	31 Oct.	eS	10	40	28.9								Perhaps the trace of the distant earthquake. First motion is uncertain.
		L	10	47	26.7	26.0			+ 2				
		M	10	56	02.4	19.8	17.7	17.3	± 2	± 4	± 2		
		eF	11	10	00.0								
259	3 Nov.	P	18	44	13.2			3.0	-1.0		-1.0	3857	Palau Isl.
		S	18	49	52.3	4.0	5.0		- 3	- 2			
		L	18	54	41.1	23.0							
260	4 Nov.	P	4	17	15.3						-0.3	139	Hiuga Nada.
		S	4	17	28.0	0.6	0.6		+ 1	- 3			
		L	4	17	34.1	0.6	0.8		+ 1	+ 2			
		M <sub>E</sub>	4	17	37.1	1.0			- 4				

## Seismic table in the year 1930

( Nov. )

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s	s			$\mu$	$\mu$	$\mu$	km.	
261	4 Nov.	$M_N$	4	17	48.6	0.8				- 4		2190	Distant earthquake.
		F	4	18	40.0								
		eP	15	49	52.9								
		L	15	53	37.6								
		$M_E$	15	57	58.9	10.4			$\pm 3$				
		$M_N$	15	57	36.1	10.4			$\pm 3$				
		$M_Z$	15	57	33.9			10.5		$\pm 2$			
		eF	16	15	00.0								
262	8 Nov.	eP	3	27	39.2	1.6				-1.0		5562	Micronesia.
		S	3	34	52.3	2.1	2.1		+ 2	- 2			
		L	3	37	19.6	5.8	5.8		+ 1	- 4			
263	8 Nov.	$\bar{P}$	23	59	16.2	0.5			-0.8			51	Near the volcano Aso.
		$\bar{S}$	23	59	20.6	0.7	0.5		- 1	- 1			
		L	23	59	23.1	1.3	1.1		+ 3	- 3			
		M	23	59	31.1	1.1	1.0	0.9	$\pm 3$	$\pm 3$	$\pm 1$		
		F	0	01	30.0								
264	9 Nov.	P	16	12	46.1	0.8	0.6		+1.3	-1.3		60	R. $\bar{O}$ yodo, Miyazaki.
		S	16	12	54.2	0.6				- 1			
		$M_N$	16	12	55.2	0.6				- 2			
		F	16	14	00.0								
265	9 Nov.	P	19	15	25.0	3.3 4.3				-2.5	+ 1	3008	Micronesia.
		S	19	20	08.5	6.3	5.3	7.5	+ 2	- 2	- 3		
		L	19	22	08.3	20.5	9.0	21.2	+ 6	+ 8	- 4		
		$M_E$	19	29	56.6	11.0			+15				
		$M_N$	19	29	31.2	14.2				+21			
		$M_Z$	19	29	18.8			20.2			+10		
		eF	20	30	00.0								
266	10 Nov.	$\bar{P}$	6	55	45.2	0.5	0.6		-2.5	-2.1		48	Hiuga Nada.
		$\bar{S}$	6	55	51.7	0.4	0.4		- 1	- 1			
		$M_E$	6	55	54.9	0.7			+ 3				
		$M_N$	6	56	03.2	1.0				- 2			
		F	6	56	40.0								

Nov.)

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter $\neq$ Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s	s			$\mu$	$\mu$	$\mu$	km.	
267	10Nov.	P	13	50	34.9	1.0	1.3		+1.0	-1.2		4056	Micronesia.
		S	13	56	25.3	4.7	4.7	5.2	- 3	- 3	- 2		
		L	13	59	13.5	17.7	14.9	14.6	+ 2	- 2	- 1		
		$M_E$	14	04	02.0	18.8			-10				
		$M_N$	14	04	48.1		15.1			- 8			
		$M_z$	14	04	17.6			18.3			- 8		
		F	14	40	00.0								
268	10Nov.	P	19	34	34.7	0.4	0.4	0.2	+1.0	-1.3	-2.5	73	Hiuga Nada.
		S	19	34	44.5	0.6	0.4		- 4	- 4	+ 3		
		$M_E$	19	34	45.7	0.8			+ 7				
		$M_N$	19	34	45.0		0.8			+ 9			
		$M_z$	19	34	54.7						+ 4		
		C	19	35	29.8								
		F	19	36	20.0								
269	11Nov.	iP	8	32	25.0	2.5	2.5	2.5	-13.8	-7.5	-16.3	843	N W off Yonakuni Isl. N E direction of Formosa.
		PM	8	32	40.6	3.1	3.1	3.8	+19	+25	+25		
		L	8	34	18.9	3.5	3.5	4.5	- 4	+ 4	- 4		
		$M_E$	8	34	46.2	4.8			+23				
		$M_N$	8	35	11.9		6.3			-19			
		$M_z$	8	34	50.3			4.5			-11		
		eF	8	50	00.0								
270	12Nov.	P	16	36	43.8	0.8	0.7		-1.1	-1.3		318	Hiuga Nada.
		Sz	16	37	15.7			0.6			- 4		
		L	16	37	26.8	0.5	1.0	1.4	+ 1	- 4	- 3		
		M	16	37	33.0	1.0	1.0		-15	+13			
		$M_z$	16	37	39.7			0.6			- 4		
		F	16	39	10.0								
271	15Nov.	P	14	57	34.1				+0.9		-4.0	70	R. Oyodo.
		$\bar{P}$	14	57	34.9		0.3		-1.3	+2.0	-1.0		
		S	14	57	40.1	1.0	1.2		-11	+ 6	- 1		
		L	14	57	43.5	0.8	0.8	0.3	- 6	- 4	+ 3		
		$M_{EZ}$	14	57	52.1	0.8		0.6	-13		+ 4		
		$M_N$	14	57	45.3		0.8			- 8			
		F	14	59	40.0								

## Seismic table in the year 1930

( Nov. )

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			△	Epicenter & Remarks
						E	N	Z	A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
			h	m	s	s			μ	μ	μ	km.	
272	17Nov.	P	12	11	10.8	0.8	3.2			+1.3	-2.3	4500	Distant earthquake.
		S	12	17	25.8	2.6	3.8	3.1	- 1	+ 3	- 2		
		eL	12	22	23.6	25.0	25.0	38.0					
		M <sub>E</sub>	12	24	30.8	21.0			± 2				
		M <sub>N</sub>	12	25	31.4	22.2				± 2			
		Mz	12	24	37.5			23.0			± 2		
		eF	12	40	00.0								
273	17Nov.	P	15	16	37.2	0.8				+1.0		339	Upper course of R. Gono, Hirosima. Pref.
		L	15	17	23.0	1.0	1.4			- 3	- 1		
		M <sub>E</sub>	15	17	34.1	0.8			- 8				
		M <sub>N</sub>	15	17	52.9	1.0				- 6			
		Mz	15	17	47.9			1.0			- 3		
		F	15	19	40.0								
274	23Nov.	P	20	00	26.7					+0.4	+0.8	120	Volcano Unzen, Nagasaki Pref.
		L	20	00	42.9	0.4	1.0		+ 1	+ 2			
		M <sub>E</sub>	20	00	46.6	0.6			- 6				
		M <sub>N</sub>	20	00	44.2	1.0	0.8			- 7	- 3		
		F	20	02	00.0								
275	25Nov.	P	19	04	33.8			1.0	+4.0	+4.0	-5.0	788	North Idu province. (139 E, 35.1N). The greatest among the frequent earthquakes since February this year, and the most energetic one in the recent years since that Great Kwanto Earthquake at Sep 1st 1923 in Japan. A great fault line of 30km length run from N to S. Disastrous at Idu. Felt area covers 86,000(km) in middle Japan.
		S	19	05	57.4	2.2	2.7			- 8	+ 6		
		L	19	06	20.3	2.9	3.7	7.4	+56	-34	+63		
		M <sub>E</sub>	19	07	42.8	4.0			+320				
		M <sub>N</sub>	19	07	07.9	3.5				+300			
		Mz	19	07	40.7			7.8			+531		
		M <sub>E</sub>	19	08	28.9	4.2			+286				
		M <sub>N</sub>	19	08	33.1	3.5				+250			
		Mz	19	08	49.9			8.4			+563		
		F	20	35	00.0								
276	27Nov.	P	21	54	38.6	0.5	0.4	0.5	+2.5	-1.3	+6.3	112	Iwakawa, Kagosima Pref.
		P̄	21	54	46.9	0.9	0.3	0.8	- 2	- 2	+ 1		
		S	21	54	53.7	0.7	0.5	0.3	- 6	+ 8	- 1		
		M <sub>E</sub>	21	54	56.2	1.0			+20				
		M <sub>N</sub>	21	54	54.6	0.7	0.9		+18	-34			
		Mz	21	55	01.1			0.5			- 6		
		C	21	55	32.2								

Nov.)

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s				$\mu$	$\mu$	$\mu$	km.	
277	28 Nov.	F	21	57	00.0								
		P	5	44	00.6	0.3	0.3	0.4	+1.3	-0.4	+3.1	157	Hiuga Nada.
		L	5	44	21.8	0.7	1.2		-3	+5	+1		
		$M_{EN}$	5	44	24.0	0.9	1.0		+10	+13			
		$M_Z$	5	44	29.6						+5		
		F	5	46	15.0								
278	28 Nov.	P	19	09	05.6				+0.2	+0.6		80	Ditto.
		S	19	09	16.4	0.8	0.6		+1	+2			
		M	19	09	18.4	1.0	0.8		+4	+4			
		F	19	10	40.0								
279	29 Nov.	P	4	05	50.3				+1.0	-0.4	-2.5	49	Ditto.
		S	4	05	56.9	0.4	0.3		-2	+3	-1		
		M	4	05	57.8	0.6	0.6		-3	+4			
		F	4	07	00.0								
280	2 Dec.	P	7	07	32.4	2.2	1.1	2.1	-2.0	-1.3	+1.3	3494	Distant earthquake.
		S	7	12	49.0	2.8			-3				
		L	7	15	32.4	3.3	7.4		-1	-3			
		$M_E$	7	21	17.9	10.7			$\pm 13$				
		$M_N$	7	20	44.1	10.2				-16			
		$M_Z$	7	22	09.1		11.0				-11		
		F	7	42	00.0								
281	3 Dec.	eP	16	51	18.5	1.2	2.0		-1.3	-0.5		2061	Ditto.
		L	16	54	43.5				+1	-1			
		$M_N$	16	56	09.5		13.8			$\pm 4$			
		eF	17	10	00.0								
282	3 Dec.	P	18	58	32.9	3.3	2.6	2.1	-2.0	+1.3	-0.9	3757	Ditto.
		S	19	04	06.0	6.4	8.5	7.9	+8	-6	-4		Each phase is clearly
		L	19	08	09.2	8.8	7.0	10.3	-38	+23	-9		recorded.





Dec. )

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			△	Epicenter & Remarks.
						E	N	Z	A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
			h	m	s	s			μ	μ	μ	km.	
289	8 Dec.	eP	6	23	19.5	4.1			-1.5			1413	In the middle course of Sobunkei (near Dainan), Formosa. (120.5E, 23.4N) Perceptible all over Formosa.
		S	6	25	47.8	10.3	4.2	10.3	+ 2	+ 1	+ 2		
		L	6	27	25.7	8.5	3.6	5.3	- 2	- 3	+ 2		
		M	6	30	37.3	12.3	12.3	12.2	± 7	± 8	± 4		
		F	6	50	00.0								
290	8 Dec.	P	8	04	13.8	3.6	2.6	3.3	-2.5	-2.0	-3.0	1412	Ditto (Greater than the former) Considerable damages we- re done.
		S	8	06	42.0	5.0	4.8	4.4	+ 3	- 3	- 2		
		L	8	08	30.1	5.6	4.6		- 6	- 6			
		M <sub>E</sub>	8	11	41.8	11.4			+21				
		M <sub>N</sub>	8	11	47.2	10.5				-24			
		M <sub>Z</sub>	8	11	51.3			11.6			-14		
		F	8	40	00.0								
291	11Dec.	P	1	22	57.8	2.0	2.6		-1.0	-1.0		799	Off Naze Small amplitude and finis is uncertain.
		L	1	24	45.7	5.6	3.8		- 1	+ 2			
292	11Dec.	P <sub>Z</sub>	17	11	59.8						-1.0	427	Hiuti Nada
		L	17	12	57.5	0.6	1.4		- 1	- 2			
		M <sub>E</sub>	17	13	01.0	0.6			- 8				
		M <sub>N</sub>	17	13	03.5	1.0				+ 8			
		M <sub>Z</sub>	17	13	04.4			0.6			- 3		
		F	17	15	00.0								
293	11Dec.	P	17	34	20.0	0.6				-0.8		402	Uncertain
		L	17	35	14.3	1.2				- 1			
		M <sub>E</sub>	17	35	18.2	0.7			+ 2				
		M <sub>N</sub>	17	35	20.4	1.0				- 2			
		M <sub>Z</sub>	17	35	23.0			0.6			- 2		
		F	17	36	40.0								
294	12Dec.	P	1	42	49.8				-0.6	-0.5		74	Hiuga Nada.
		S	1	42	59.8	0.4	0.4		+ 3	+ 4			
		M <sub>E</sub>	1	43	05.9	0.6			+ 4				
		M <sub>N</sub>	1	43	14.7	0.6				- 3			
		M <sub>Z</sub>	1	43	07.3						- 2		
		F	1	44	10.0								

## Seismic table in the year 1930

( Dec. )

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			△	Epicenter & Remarks
						E	N	Z	A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
			h	m	s				μ	μ	μ	km.	
295	12Dec.	P	13	54	45.6		1.1	1.0	+0.3	-1.5	+2.4	113	Middle of the course of Sirakawa, Kumamoto Pref. Felt at the NE part of our Pref.
		$\bar{P}$	13	54	49.4	1.0	0.7	0.5	-3.8	+4.0	-1.4		
		S	13	55	00.9	0.8	0.8	0.6	-8	+3	+1		
		M <sub>E</sub>	13	55	03.5	1.2			+15				
		M <sub>N</sub>	13	55	06.8		1.0			-13			
		M <sub>N</sub>	13	55	15.5		0.7			-11			
		M	13	55	08.5			0.8			-4		
F	13	57	00.0										
296	12Dec.	P	16	02	18.8	0.6	0.8	0.7	+1.3	-3.8	+2.5	109	Ditto. Slightly felt in the city, moderately at the northern half of our Pref.
		$\bar{P}$	16	02	22.7	0.8	0.7	0.5	-5.0	+5.0	-2.5		
		S	16	02	33.5	1.2	0.6	0.6	-26	-6	+4		
		M <sub>E</sub>	16	02	36.6	1.3			+54				
		M <sub>N</sub>	16	02	39.5		1.0	0.7			-16		
		M <sub>Z</sub>	16	02	41.2			0.9		-48	+13		
		F	16	05	00.0								
297	12Dec.	P	19	43	18.7		1.2	1.6	+0.8	-3.8	+4.0	108	Ditto. Rather strong shock were conceived at the northern half. Felt in the city.
		$\bar{P}$	19	43	23.0	1.0	0.7	0.4	-6.3	+5.0	-2.5		
		S	19	43	33.3	1.2	0.4	0.5	-20	-4	+3		
		M <sub>E</sub>	19	43	36.8	1.3			+45				
		M <sub>N</sub>	19	43	39.8		0.9			-38			
		M <sub>Z</sub>	19	43	39.3			0.5			-15		
		F	19	45	40.0								
298	13Dec.	eP	6	21	24.2							145	Ditto. Felt rather strong at Hososima only.
		L	6	21	43.8	1.9			+3				
		M <sub>E</sub>	6	21	47.0	2.1			-4				
		M <sub>N</sub>	6	21	49.9		1.9			-4			
		F	6	23	20.0								
299	13Dec.	P	14	25	55.2	1.0	1.0	1.7	-2.0	+2.5	-1.4	1889	Mouth of R. Niikkapu, Hokkaido. (142.4E, 42.3N). Felt over northern Japan in 1200km length.
		L	14	28	54.0		3.6	4.2	-1	+4	+1		
		M <sub>E</sub>	14	31	14.0	6.3			+6				
		M <sub>N</sub>	14	31	40.8		7.4			-6			
		M <sub>Z</sub>	14	31	07.0			5.2			± 2		
		F	14	42	00.0								

Dec.)

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s			s	$\mu$	$\mu$	$\mu$	km.	
300	13Dec.	eP	16	50	03.6				-1.3	-1.1		1942	Distant earthquake.
		L	16	53	10.6			14.0					
		$M_E$	16	56	08.6	13.0			$\pm 3$				
		$M_N$	16	56	03.6			15.0		$\pm 3$			
		F	17	07	00.0								
301	14Dec.	P	9	29	38.1	1.0	1.0	0.8	-1.4	+1.3	+2.5	276	Hiuga Nada.
		$\bar{P}$	9	29	44.0	0.7	0.4	0.7	+2.5	+1.2	+1.2		
		L	9	30	15.4	0.7	0.6	0.3	+5	+6	-3		
		$M_E$	9	30	25.9	0.7			-23				
		$M_N$	9	30	40.0			1.0		+20			
		$M_Z$	9	30	26.5			0.5			+9		
		F	9	38	00.0								
302	14Dec.	P	13	45	51.4			0.2		+0.6	-0.5	66	Hiuga Nada.
		$\bar{P}$	13	45	54.6	0.2	0.3		-1.0	-2.5	-1.0		
		S	13	46	00.3	0.6	0.8		+1	-2	+1		
		F	13	46	55.0								
303	14Dec.	P	20	27	02.0				-0.8				Local shock. P wave continued 1.7 minute.
		$M_E$	20	27	28.1	0.6			+2				
		$M_N$	20	27	26.7			0.8		+3			
304	15Dec.	eP	16	02	36.5	1.6	1.2		-1.3	+1.1		1421	Related to No. 289
		S	16	05	15.6	7.4	6.9	10.2	+2	-3	-2		
		L	16	07	31.5	15.4	15.4			+2			
		$M_E$	16	09	59.2	12.8			-3				
		$M_N$	16	11	27.2			12.7		+3			
		$M_Z$	16	09	50.5			16.8			-3		
		F	16	25	00.0								
305	17Dec.	P	21	11	27.0							49	Hiuga Nada.
		S	21	11	33.6								
		$M_E$	21	11	47.5	1.0			-4				
		F	21	13	30.0								
306	18Dec.	P	4	06	12.0							71	Ditto.
		S	4	06	21.7								
		F	4	08	20.0								

## Seismic table in the year 1930

( Dec. )

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks
						E	N	Z	$A_E$	$A_N$	$A_Z$		
			h	m	s	s			$\mu$	$\mu$	$\mu$	km.	
307	18Dec.	P	10	41	52.8	0.6	0.7	1.0	+1.3	-1.5	-2.1	193	Near Amakusa Isl. Kumamoto pref.
		$\bar{P}$	10	41	57.0	1.0	0.8	1.0	-2.5	+3.0	+2.6		
		S	10	42	10.0	1.0	0.7	1.3	+ 5	+ 3	- 3		
		$\bar{S}$	10	42	16.8	0.8	1.2	2.1	- 6	+14	+ 4		
		L	10	42	18.9	0.9	1.8	3.0	+ 6	+10	+ 3		
		$M_E$	10	42	43.8	1.3			+24				
		$M_N$	10	42	26.2		1.4			-19			
		$M_Z$	10	42	25.6			2.4			+ 9		
		eF	10	50	00.0								
308	20Dec.	P	14	03	21.0		1.8	2.3	+0.5	+3.5	-5.0	325	Near Miyosi, north Hiro- sima Pref. (132.9E, 34.8N). Very strongly quivered at the near epicentral region. Perceptible wide of 250km radius.
		$\bar{P}$	14	03	26.0		1.2	0.8		+17.5	-7.5		
		S	14	03	55.4	0.8	1.0	1.3	+19	+ 9	+ 8		
		L	14	04	04.9	2.0	0.6	2.0	+106	-13	+13		
		$M_E$	14	04	09.5	3.0			+198				
		$M_N$	14	04	12.5		2.4			+149			
		$M_Z$	14	04	14.0			3.8			-56		
			14	22	00.0								
309	20Dec.	P	14	44	02.3		1.0	1.0		-1.4	+0.9	325	Ditto Nearly the same energy as the former.
		$\bar{P}$	14	44	09.1	1.0	0.6		-0.9	+1.0			
		S	14	44	35.6		0.6			- 1			
		L	14	44	46.2	2.2	1.0	2.1	- 3	- 2	- 1		
		$M_E$	14	44	59.5	1.2			- 6				
		$M_N$	14	44	54.5		1.2			- 6			
		$M_Z$	14	44	55.9			1.0			- 2		
			14	46	40.0								
310	20Dec.	eP	23	27	35.3							308	Related to the former
		$P^*$	23	27	49.0								
		S	23	28	03.9	0.9	0.9		- 1	+ 2			
		L	23	28	16.9	2.3	3.0		- 3	+ 2			
		$M_E$	23	28	25.8	1.1			+14				
		$M_N$	23	28	30.9		1.1			-35			
		$M_Z$	23	28	25.6			1.0			$\pm 7$		
			23	39	00.0								
311	21Dec.	P	12	15	21.9		2.6	2.8		+5.0	-6.0	305	Ditto. Felt zone of 300km length.
		L	12	16	03.1	3.7	1.3	1.4	-30	-10	-10		

Dec. )

## Seismic table in the year 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			△	Epicenter & Remarks
						E	N	Z	A <sub>E</sub>	A <sub>N</sub>	A <sub>Z</sub>		
			h	m	s				μ	μ	μ	km.	
312	21Dec.	M <sub>E</sub>	12	16	24.9	2.9			+138			320	Ditto. Felt zone of 250km length.
		M <sub>N</sub>	12	16	15.5		1.8			-168			
		M <sub>Z</sub>	12	16	29.0			1.5			+70		
		eF	12	33	00.0								
		eP	12	18	55.1								
		L	12	19	38.4	1.0	1.0		-14	+10			
313	21Dec.	M	12	19	41.9	1.0	1.0		+25	-25		1494	Related to No.289 Felt all over Formosa.
		M <sub>Z</sub>	12	19	45.7			0.9			-4		
		eF	12	22	00.0								
		P	14	54	42.5	2.9			-5.0				
		S	14	57	18.9	2.5	2.9		+7	+5			
		L	14	58	10.3	2.7	4.9		+19	-13			
314	21Dec.	M <sub>E</sub>	14	59	07.1	4.3			+20			305	Related to No. 308 Moderately quiverd.
		M <sub>N</sub>	14	58	34.1		5.1			+25			
		eF	15	37	00.0								
		eP	16	31	29.1	0.6			-1.3				
		P̄	16	31	35.6	0.4			+0.9				
		S	16	31	56.2	0.9	1.0		-1	-2			
315	21Dec.	L	16	32	10.3	1.0	1.1		+4	+2		1411	Related to No. 289 Felt all over Formosa.
		M <sub>E</sub>	16	32	17.8	1.0			+5				
		M <sub>N</sub>	16	32	15.0		1.1			-4			
		F	16	34	00.0								
		P	23	55	02.0	0.9	3.0	2.7	-0.8	-2.5	-2.0		
		S	23	57	30.1	1.8	3.0	2.1	-2	-4	-1		
316	22Dec.	L	23	59	01.7		5.6			-3		1626	Ditto. Felt all over Formosa.
		M <sub>E</sub>	0	02	23.8	12.1			-9				
		M <sub>N</sub>	0	03	51.4		11.2			+7			
		M <sub>Z</sub>	0	02	13.5			12.1			-4		
		P	0	11	24.0	3.0	1.7	2.1	+2.5	+1.3	+2.0		
		S	0	14	12.6	5.9	6.0	9.5	-7	+7	+3		
		L	0	15	39.2		13.6	18.0			-3		
		M <sub>E</sub>	0	18	53.1	12.1			-8				
		M <sub>N</sub>	0	18	26.7		17.3				-13		
		M <sub>Z</sub>	0	18	57.3			12.7			-6		

## Seismic table in the year 1930

( Dec. )

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter & Remarks	
						E	N	Z	$A_E$	$A_N$	$A_Z$			
			h	m	s	s			$\mu$	$\mu$	$\mu$	km.		
317	22Dec.	eF	0	40	00.0									
		P	3	24	54.3	0.7					-1.3			Related to No. 308 Phase is uncertain in prevailing pulsation.
		M	3	25	19.9	0.8	1.0		+ 5	- 7				
eF	3	26	25.0											
318	22Dec.	P	4	23	00.0	2.0	2.0	1.6	-3.0	-3.0	-2.8	1470	Related to No. 289 Felt all over Formosa.	
		S	4	25	34.0	8.0	10.0	9.5	+ 2	- 5	- 3			
		L	4	27	23.4	9.5	10.0	11.0	+ 4	- 5	- 5			
		$M_E$	4	30	31.4	11.0			- 8					
		$M_N$	4	31	46.2		10.0			+ 8				
		$M_Z$	4	30	10.5			11.7			- 6			
319	23Dec.	eP	2	10	46.4							126	Hiuga Nada ? Small amplitude, and phase is uncertain.	
		S	2	11	03.5	0.6	0.9		- 1	+ 3				
		$M_E$	2	11	11.1	0.7			- 4					
		$M_N$	2	11	16.3		1.0			- 4				
		F	2	12	20.0									
320	23Dec.	eP	4	08	13.1								Ditto.	
		$M_E$	4	08	26.8	0.8			- 1					
		$M_N$	4	08	43.0		0.7			+ 1				
		F	4	09	30.0									
321	23Dec.	eP	10	48	03.0	0.6	0.6		-0.7	+0.8		146	Ditto.	
		S	10	48	22.7	0.6	0.8		- 1	- 2				
		$M_E$	10	48	39.3	1.0			- 3					
		$M_N$	10	48	37.4		0.8			+ 3				
		F	10	49	40.0									
322	23Dec.	P	21	42	24.4	1.1	1.0	1.7	-0.5	-0.7	-1.4	2938	Micronesia.	
		S	21	47	02.9	2.4	1.8	3.2	+ 1	+ 2	+ 1			
		L	21	50	12.0		6.8			+ 3				
		$M_E$	21	54	20.8	17.2			- 3					
		$M_N$	21	56	31.3		10.0			- 3				
		$M_Z$	21	53	09.1			19.0				$\pm 1$		
		eF	22	15	00.0									

Dec. )

## Seismic table in the yerr 1930

No.	Date	Phase	Greenwich Mean Time			Period			Amplitude			$\Delta$	Epicenter $\neq$ Remarks	
						E	N	Z	$A_E$	$A_N$	$A_Z$			
			h	m	s				$\mu$	$\mu$	$\mu$	km.		
323	23Dec.	P	23	58	28.6	1.3	1.6			-1.1	+0.5	1557	E 60km off Erimo cape, southern corner of Hokkaido. (144E, 42N). Felt along Pacific coast in 600 km length.	
		S	0	01	11.3	2.9				- 2				
		M	0	01	29.1	3.8	5.2				- 5			- 3
		F	0	10	00.0									
324	25Dec.	P	3	32	34.2	1.0	1.0		+0.6	-0.7		94	Naze, Ryukyu. P phase about 1 minute.	
		M	3	33	11.8	1.4	0.8		+ 3	+ 2				
		F	3	34	15.0									
325	27Dec.	$P_Z$	18	39	51.4		0.6				+0.4	94	Hiuga Nada.	
		S	18	40	04.1	1.0	1.1		- 2	- 3				
		$M_E$	18	40	08.1	0.8			- 4					
		$M_Z$	18	40	12.9		0.5				+ 1			
		F	18	41	20.0									
326	29Dec.	P	5	30	52.9		0.3			-0.8		234	Off Hiuga Nada.	
		S	5	31	15.2		1.1			- 4				
		L	5	31	24.5	0.8	0.6		+ 2	- 1				
		F	5	33	40.0									
327	31Dec.	P	9	37	20.3					+0.3		320	Naze, Ryukyu.	
		S	9	37	48.8	0.6	0.4		- 1	- 1				
		L	9	38	03.6	2.3	1.0		- 3	- 8				
		$M_E$	9	38	19.6	0.7								
		$M_N$	9	38	20.5		0.8		+ 9	+ 9				
		F	9	42	00.0									