



DEC 11 1961

# ANNUAL REPORT

OF THE

METEOROLOGICAL

AND THE

SEISMOLOGICAL OBSERVATIONS

MADE AT THE

INTERNATIONAL LATITUDE OBSERVATORY

OF MIZUSAWA

FOR

THE YEAR 1959.



LATITUDE  $39^{\circ} 08'$  N., LONGITUDE  $141^{\circ} 08'$  E.,  
HEIGHT ABOVE MEAN SEA LEVEL, 62 METRES.



PUBLISHED BY THE INTERNATIONAL LATITUDE OBSERVATORY  
OF MIZUSAWA.

1960

## E R R A T A

Page	Date	Column	Error	Correction
3	23	PRECIPITATION mm (2-6)	1.2	1.3
12	19	STATION PRESSURE (Mean)	4.0	0.4
13	4	PRECIPITATION mm (2-6)	1.0	0.1
15	13	REMARKS P. M.	T, ●	T, ●, □
23	2	PRECIPITATION mm (10-14)	1.19	11.9
25	16	" " (18-22)	1.6	1.7
"	24	REMARKS A. M.	日*奥●凡送図	日*奥●△送図
"	28	" "	日, 日, 図	日, 日, 図
26	June	RELATIVE HUMIDITY % (10)	76	78
27	Jun	MONTHLY MINIMUM (WITH DATE) OF RELATIVE HUMIDITY	3	13
35	No. 75	S (NS)	30 37	20 37
37	No. 211	S (EW)	20 06	20 36
38	No. 226	S (z)	e 51 13	e 51 31
"	No. 272	Epicenter and Remarks	43.1N, 1390E	43.1N, 139.0E
40	No. 37	Maximum Date (Day)	9	8

## Introduction

This annual report contains all the meteorological and seismological data observed at the International Latitude Observatory of Mizusawa during 1959 which may serve to investigate the meteorological and seismological effects on the latitude observations. These observations have been continued since 1902. The majority of the meteorological instruments are situated in the observation field about 10 meters north of the zenith telescope room. In this field there are the motor-driven aspiration psychrometer, maximum and minimum thermometers, thermograph, hygrograph, pluviograph, Hellmann's chionograph, rain gauges, ordinary and large-sized evaporimeters, L-tube earth thermometers, Simon's earth thermometers, snow measuring plates, snow gauge and Robitzsch actinograph. The Fortin's mercurial barometer, three aneroid barographs, Richard's "Baromètre de Gravité" and anemograph are set in the seismograph room, about 100 meters NNE of the zenith telescope room. The Robinson's cup anemometers, wind vane and Jordan's sunshine recorder are fixed on the top of the observing tower above the building of the meteorological section.

The meteorological observations and computations are performed in accordance with the instructions issued by the Central Meteorological Observatory of Japan, Tokyo. Observations have been made six times a day, that, is, at 2<sup>h</sup>, 6<sup>h</sup>, 10<sup>h</sup>, 14<sup>h</sup>, 18<sup>h</sup> and 22<sup>h</sup> of Japanese Standard Time of the meridian 135°E (9<sup>h</sup> east of Greenwich) as a routine work. This distribution of times of observation seems to be convenient to investigate the meteorological effects on the latitude observations. The observing programme of the international latitude observations has been altered since January 6th, 1955 and the three groups were observed during the one night. The central time of each group corresponds to 22<sup>h</sup> for the evening group, 0<sup>h</sup> for the intermediate group and 2<sup>h</sup> for the morning group respectively.

The following points are to be noted as for the meteorological observations:

1. *Air Pressure*.—The barometric readings in the unit of millibar (mb) are reduced to the freezing point of water and standard gravity at 45°N of latitude (980.665 dynes). The observed gravity at Mizusawa is 980.162 dynes according to the measurements of the Geographical Survey Institute. This value referred to the Potzdam Gravity System is reduced to the Meteorological Gravity System by adding (-0.013 dynes) to the former. These corrected values are defined as the station pressure. Moreover, those reduced to the mean sea level (M.S.L. Pressure) are given in the next columns.

The Gothic figures represent the maximum or minimum values in a given month. The maximum and minimum values of air pressure are read from the selfrecording instruments.

2. *Air Temperature*.—The dry-bulb thermometer of the motor-driven aspiration psychrometer is adopted as standard. Air temperature is recorded in degrees Centigrade (°C) and the value below 0°C are prefixed by a minus sign. Maximum and minimum air temperatures are the highest and lowest temperature between 0<sup>h</sup> and 24<sup>h</sup> of the day respectively. Maximum or minimum thermometer is reset usually at 22<sup>h</sup>, and so the selfrecording instrument is applied to observe the occurrence of maximum or minimum air temperature between 22<sup>h</sup> and 2<sup>h</sup>.

The Gothic figures in the "Max., Min. and Range" represent the maximum, minimum and maximum *minus* minimum values in a given month. The variability of the daily mean air temperature is defined as

$$V = \frac{\sum_{i=1}^n |t_i - t_{i-1}|}{n},$$

where | | denotes the absolute values,  $t_i$  the daily mean air temperature of the  $i$ -th day and  $n$  the number of the days in a given month. The "Frequency of variation" indicates the frequencies of the differences between the daily mean air temperature of the day and that of the preceding day in a given day. The case when the difference gives a zero value is denoted by "stationary".

3. *Wind Velocity and Wind Direction.*—The unit of the wind velocity is meters per second. The wind velocity at the time of observation indicates the ten minutes' mean velocity before the time of observation. The values of the wind velocity measured by Robinson's cup anemometer are multiplied by the factor  $C$  determined by the following formula:

$$\log C = 0.3411 - 0.2151 \log (V+10),$$

where  $V$  represents the wind velocity measured by Robinson's cup anemometer. This formula was derived experimentally from the wind tunnel at the Central Meteorological Observatory of Japan and it was adopted regularly since January 1, 1949.

The wind velocity in the column of "Mean for 24 h" are computed from the value of the total air movement in a 24-hour period ( $0^h$ — $0^h$ ). The wind direction is indicated on a 16 point-scale. When the wind velocity is less than 0.4 meters per second, the wind direction is denoted as "—".

4. *Relative Humidity and Vapour Pressure.*—The motor-driven aspiration psychrometer is used and Sprung's psychrometric formula is applied to drive the vapour pressure (in mb) as

$$e = E' - A(t-t') \frac{P}{755},$$

where  $e$  denotes the vapour pressure (in mb),  $E'$  the saturation vapour pressure at  $t'$ ,  $t-t'$  the temperature difference between the dry-bulb and the wet-bulb thermometers and  $P$  the air pressure (in mm Hg). The factor  $A$  is put as 1/2 according to Sprung and 0.44 in the case of the freezing of the wet bulb.

5. *Cloud.*—The cloud forms are observed separately according to the high ( $H$ ), middle ( $M$ ) and low ( $L$ ) clouds. They are denoted according to the International Classification (Ten genera of cloud forms), but they are printed by small letters owing to no blank space. The cloud amount is measured visually by the amount of the sky covered with cloud. The cloud amounts are expressed in tenths of the whole sky covered.

6. *Duration of Sunshine.*—The number of hours with sunshine is the value read from Jordan's sunshine recorder (heliograph). Minutes of time are converted into tenths of one hour. The sunshine in percent of the possible amount for the month is shown.

7. *Total Solar and Sky Radiation on the Horizontal Surface.*—It is measured by Robitzsch actinograph. The instrumental constant  $k$  corresponding to 1 cm of displacement of the pen is 0.550 gr.cal./cm<sup>2</sup>. min..

8. *Amount of Evaporation.*—It is measured by two evaporimeters with 20 cm (ordinary) and 120 cm (large-sized) of diameter respectively. The ordinary evaporimeter is poured into by water up to 20 mm from the bottom at  $10^h$  once a day. The large-sized evaporimeter was used regularly during the unfrozen months, that is, from April to September, since May, 1956. The amount of evaporation is recorded in millimeter (mm). The amount of evaporation in the daily data is the value measured at  $10^h$  once a day and that obtained in 24 hours from  $10^h$  of the preceding to  $10^h$  of the day.

9. *Precipitation.*—It is recorded in millimeter (mm) and observed with the rain gauge with 20 cm of diameter. The Gothic figures represent the maximum amount in four hours in a given month. Precipitation in the daily data is the total obtained in 24 hours, from  $22^h$  of the preceding day to  $22^h$  of the day.

10. *Earth Temperature.*—The earth-surface thermometer, L-tube earth thermometers of 0.05, 0.1, 0.2 and 0.3 meters of depth and Simon's earth thermometers of 0.5, 1.0, 2.0, 3.0, 5.0 and 6.0 meters of depth are employed. The earth temperatures at 0.05, 0.1, 0.2 and 0.3 meters of depth in the daily data are the average values of 6 observations in a given day, and those at 0.5, 1.0, 2.0, 3.0, 5.0 and 6.0 meters of depth are the values observed at  $10^h$  once a day.

11. *Clear and Cloudy Days.*—The cloud amount is less than 2.5 exclusive for the clear days and more than 7.5 inclusive for the cloudy days.

12. *Sunless Days.*—It indicates the days without record on Jordan's sunshine recorder through the whole daytime.

13. *Horizontal Visibility.*—The maximum visible distances are divided into the following ten classes:  $0^k.00-0^k.05$ ,  $0^k.05-0^k.2$ ,  $0^k.2-0^k.5$ ,  $0^k.5-1^k.0$ ,  $1^k-2^k$ ,  $2^k-4^k$ ,  $4^k-10^k$ ,  $10^k-20^k$ ,  $20^k-50^k$  and  $\geq 50^k$ . The frequencies of each class in a given month observed 6 times a day are shown.

14. *Revised Heights of Observation-field and Barometer.*—The heights of the observation-field and the barometer were redetermined by the members of the Geophysical Survey Institute on 1954.

The hitherto adopted values were 61 m and 63.1 m respectively, but they were revised as 62 m and 63.7 m respectively since 1950 when the method of reduction of air pressure to the mean sea level was altered according to the instructions of the Central Meteorological Observatory of Japan. The old values of the observation-field were written erroneously on the covers of the already published reports for the years, 1950, 1953 and 1954. Moreover, the old heights of the barometer was also written erroneously in the Introduction of the report for the year 1950.

Then the correct values of the station pressure and the M.S.L. pressure for the already published, reports of four years, viz., 1950, 1953, 1954 and 1955 are inserted as the “Supplement to Air Pressure” in the end of the “**Meteorological OBSERVATIONS.**”

The heights of the meteorological instruments are as follows:

*Barometer.*—63.7 m above mean sea level.

*Air Temperature Thermometer.*—1.3 m above the ground.

*Anemometer.*—16.5 m above the ground.

*Anemoscope.*—16.6 m above the ground.

*Rain Gauge.*—0.6 m above the ground.

On recording the meteorological phenomena, the following weather symbols are used:

●	Rain	□	Hoar frost	■	Zodiacal light
*	Snow	□	Ice columns	γ	Red sky
,	Drizzle	□	Air hoar	○	Clear
△	Grain of ice	▽	Soft rime	○	Fine (partly cloudy)
△	Granular snow	▽	Hard rime	○	High cloud overcast
↔	Ice needles	∞	Glaze	⊗	Middle cloud overcast
≡	Fog	⊗	Snow coverage	◎	Low cloud overcast
≡	Fog in the neighbourhood	⊗	Thunder and lightning	○	Earthquake
≡	Ice fog	↖	Lightning	w	Undulatus
=	Mist, damp haze	↑	Thunder	ω	Mammatus
∞	Haze	○	Pure air	⊖	Lenticularis
∞	Haze in the neighbourhood	○	Solar corona	Ci	Cirrus
▽	Showers	□	Lunar corona	Cs	Cirro-stratus
✗	Soft hail	±	Iridescence	Ce	Cirro-cumulus
△	Small hail	⊕	Solar halo	Ac	Alto-cumulus
▲	Hail	□	Lunar halo	As	Alto-stratus
§	Dust storm	⌞	Rainbow	Sc	Strato-cumulus
†	Blowing snow	□	Yellow sand	Ns	Nimbo-stratus
†	Drifting snow	□	Freezing	Cu	Cumulus
†	Snow storm	ε	Dust devil	Cb	Cumulo-nimbus
□	Dew	□	Land-spout	St	Stratus
✓	Gale	□	Aurora		

The observations and computations have been worked out by Messrs, late S. Sato, I. Kumagai, G. Obata, K. Suzuki and Mrs. M. Yunome under the superintendence of Dr. C. Sugawa, the chief of the Meteorological Section.

Aug. 1960.

T. Ikeda.

Director of the International Latitude Observatory  
of Mizusawa.



## METEOROLOGICAL OBSERVATIONS

# METEOROLOGICAL OBSERVATIONS

## METEOROLOGICAL OBSERVATIONS AT MIZUSAWA.



JANUARY, 1959.

Day	STATION PRESSURE (1000mb+)						M.S.L. PRESSURE (1000mb+)						AIR TEMPERATURE °C								
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean
1	11.7	12.8	13.9	11.5	10.3	8.9	11.5	19.7	20.8	21.9	19.6	18.3	17.0	19.6	0.9	0.3	0.9	0.6	-0.5	-0.7	0.3
2	6.9	6.2	7.0	8.1	11.1	12.7	8.7	14.9	14.4	15.0	16.0	19.1	20.8	16.7	-1.3	-2.6	0.1	1.7	-1.1	-1.7	-0.8
3	11.8	12.4	12.8	9.4	7.2	3.5	9.5	19.9	20.6	21.0	17.3	15.3	11.5	17.6	-3.3	-2.9	-2.0	-0.3	-0.9	-1.9	-1.9
4	3.2	1.8	0.1	994.9	994.0	994.4	998.1	11.3	9.8	8.0	2.7	1.9	2.2	6.0	-2.7	-2.0	0.1	1.5	1.1	2.9	0.2
5	995.6	997.4	2.8	3.2	5.3	6.5	1.8	3.5	5.5	10.8	11.3	13.4	14.7	9.9	0.1	-1.9	-0.6	-2.2	-4.7	-5.5	-2.5
6	6.6	6.8	7.1	5.1	7.1	6.5	6.5	14.9	15.0	15.2	13.1	15.2	14.6	14.7	-7.3	-6.4	-1.9	1.0	-3.7	-5.7	-4.0
7	5.9	7.0	7.9	6.5	9.7	10.3	7.9	14.1	15.3	16.0	14.6	17.9	18.4	16.1	-7.1	-5.3	-3.3	-2.4	-4.7	-5.3	-4.7
8	10.4	11.4	14.1	13.7	16.0	16.3	13.7	18.6	19.6	22.3	21.8	24.2	24.6	21.9	-5.4	-5.6	-3.7	-3.5	-3.9	-6.3	-4.7
9	16.5	17.0	14.9	9.1	5.5	2.2	10.9	25.1	25.6	23.3	17.2	13.6	10.2	19.2	-15.2	-16.4	-10.7	-6.5	-3.3	-1.4	-8.9
10	1.4	999.4	998.6	994.9	996.4	997.2	998.0	9.6	7.5	6.6	2.9	4.4	5.2	6.0	-4.0	-3.0	-1.3	0.4	-2.2	-3.2	-2.2
11	999.4	2.1	5.7	6.0	7.6	7.3	4.7	7.6	10.3	13.7	14.1	15.8	15.5	12.8	-5.5	-5.3	-2.9	-1.9	-4.7	-4.7	-4.2
12	7.0	8.3	10.6	8.2	8.6	10.3	8.8	15.2	16.6	18.7	16.2	16.7	18.4	17.0	-5.0	-6.9	-2.7	0.1	-0.8	-2.7	-3.0
13	11.9	12.1	11.4	6.4	5.3	2.8	8.3	19.9	20.3	19.6	14.4	13.4	10.9	16.4	-2.2	-3.1	-2.5	-0.1	-2.0	-2.4	-2.0
14	0.7	1.3	2.0	4.6	10.7	12.5	5.3	8.7	9.6	9.9	12.6	18.7	20.6	13.4	-3.1	-7.1	1.1	2.7	-0.3	-1.5	-1.4
15	14.1	14.7	15.5	12.0	11.3	8.3	12.7	22.1	22.9	23.6	20.0	19.4	16.3	20.7	-2.0	-2.0	0.9	2.4	-0.6	-0.9	-0.4
16	2.9	999.1	998.6	994.9	995.7	995.7	997.8	10.9	7.1	6.5	2.7	3.6	3.7	5.8	0.7	-1.9	1.4	3.8	1.0	-1.2	0.6
17	995.3	993.8	993.3	994.1	996.8	998.1	995.2	3.3	1.8	1.2	2.1	5.0	6.2	3.3	-2.1	-2.7	-2.0	-2.5	-4.5	-4.7	-3.1
18	998.2	999.9	1.3	0.4	2.5	3.0	0.9	6.4	8.0	9.3	8.4	10.6	11.1	9.0	-6.2	-5.3	-1.2	-2.5	-3.9	-5.0	-4.0
19	2.7	4.3	6.9	6.6	9.7	11.3	6.9	10.9	12.5	15.0	14.7	17.8	19.4	15.1	-5.1	-5.7	-3.5	-3.1	-3.7	-3.1	-4.0
20	12.4	13.8	15.0	12.4	12.8	11.9	13.1	20.5	21.9	23.1	20.4	20.8	19.9	21.1	-2.7	-3.6	0.2	3.9	1.2	0.1	-0.1
21	9.3	7.8	8.5	8.7	10.4	10.8	9.3	17.3	16.0	16.6	16.7	18.3	18.9	17.3	-0.9	-5.5	-1.2	1.3	0.1	-1.0	-1.2
22	11.1	11.8	14.4	11.0	9.8	8.3	11.1	19.3	19.9	22.4	19.1	17.9	16.7	19.2	-1.9	-0.5	-0.3	1.1	-3.9	-8.3	-2.3
23	4.8	1.6	3.3	5.3	10.3	11.9	6.2	13.1	9.7	11.3	13.4	18.4	20.0	14.3	-8.9	-3.1	0.7	-2.1	-2.7	-1.3	-2.9
24	13.9	15.5	17.1	15.1	15.9	14.0	15.3	21.9	23.7	25.1	23.1	24.0	22.1	23.3	-0.4	-2.0	1.6	2.9	-2.5	-3.1	-0.6
25	10.3	5.3	1.0	1.8	7.0	10.0	5.9	18.4	13.2	8.8	9.6	15.0	18.0	13.8	-2.5	1.9	6.1	5.3	2.2	0.9	2.3
26	9.2	11.4	13.0	11.9	11.8	12.0	11.6	17.2	19.4	21.0	19.9	19.8	20.1	19.6	0.5	-0.3	1.2	2.2	0.7	-1.0	0.6
27	10.8	10.3	11.1	8.7	9.2	7.9	9.7	18.9	18.2	19.1	16.6	17.2	16.0	17.7	-1.3	0.2	2.4	3.8	-0.3	-1.1	0.6
28	8.6	10.9	13.8	12.6	15.0	16.7	12.9	16.7	19.0	21.7	20.6	23.1	24.8	21.0	-2.6	-0.3	0.3	0.9	-0.7	-0.9	-0.5
29	16.4	16.9	16.2	11.3	8.7	2.2	12.0	24.6	25.1	24.4	19.3	16.7	10.2	20.1	-1.9	-5.7	-2.3	1.4	0.0	-0.5	-1.5
30	994.1	989.7	986.8	984.1	987.8	991.0	988.9	2.0	997.6	994.6	991.8	995.6	998.9	996.8	-0.1	0.2	0.9	4.9	2.1	0.3	1.4
31	993.8	997.6	2.0	4.4	10.1	12.3	3.4	1.7	5.6	10.0	12.5	18.1	20.4	11.4	-2.1	-2.8	-0.9	-2.4	-4.0	-3.0	-2.5
Mean	6.4	6.5	7.3	5.7	7.1	7.0	6.7	14.5	14.6	15.3	13.7	15.1	15.1	14.7	-3.2	-3.5	-0.8	0.4	-1.7	-2.4	-1.9

Day	AIR TEMPERATURE °C				DIRECTION AND VELOCITY (m.p.s.) OF THE WIND								Mean			
	Max.	Min.	Mean	Range	2	6	10	14	18	22	6 obs.	24 h.				
1	1.5	-0.9														

## JANUARY, 1959.



Day	VAPOUR PRESSURE (mb)						AMOUNT OF CLOUD (0-10)						FORMS OF CLOUD																					
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L					
1	4.3	4.1	3.9	4.5	5.2	4.7	4.5	4	10	10	10	10	10	9.0	—	—	sc	cs	—	sc	cs	ac	cu	—	as	—	—	as	—	—	sc			
2	3.9	4.4	4.0	4.5	4.1	4.2	4.2	10	4	2	3	3	10	5.3	—	as	—	—	sc	cs	—	sc	—	—	sc,st	—	—	sc	—	—	ns			
3	4.2	4.4	4.9	5.6	5.3	5.0	4.9	4	8	10	10	10	10	8.2	—	—	sc	—	—	sc	—	—	ns	—	as	st	—	—	st	—	—	sc		
4	4.9	5.1	5.9	6.5	6.4	6.1	5.8	9	10	10	10	10	10	9.8	—	—	sc	—	as	sc	—	—	sc	—	—	sc	—	—	ns	—	—	sc		
5	4.0	5.0	4.4	4.1	3.4	3.7	4.1	6	8	5	10	1	10	6.7	—	—	sc,st	—	—	ns	—	—	sc,st	ci	—	st,cu	—	—	st	es	—	—		
6	3.1	3.5	4.0	4.0	4.1	3.7	3.7	0	4	10	8	3	4	4.8	—	—	—	—	ns,sc	—	—	ns	—	ac	st,sc	—	—	sc	—	—	sc			
7	3.4	3.9	4.1	4.3	3.7	3.9	3.9	1	10	10	10	10	10	8.5	—	—	sc	—	—	st,sc	—	—	ns	—	—	sc	—	—	ns	—	—	st		
8	3.8	3.8	4.3	4.5	3.2	3.2	3.8	10	10	10	10	8	3	8.5	—	—	ns	—	—	ns	—	—	ns	—	—	st	—	—	st	—	—	st		
9	1.6	1.5	2.4	3.0	4.1	4.2	2.8	0	3	10	10	10	10	7.2	—	—	—	cs,ci	—	—	st	—	—	st	—	—	st	—	—	st				
10	4.3	4.3	4.3	4.2	4.2	3.8	4.2	10	7	10	4	10	10	8.5	—	—	st	cs	as	st	—	as	—	cc	—	sc	—	as	—	es	—	—		
11	3.3	3.4	3.8	3.9	3.8	3.9	3.7	0	2	10	10	10	10	7.0	—	—	—	—	sc	—	—	ns	—	—	ns	—	—	st	—	—	ns			
12	4.0	3.4	4.1	4.0	5.2	4.9	4.3	10	10	0	10	10	10	8.3	—	—	ns	—	—	ns,sc	—	—	sc	—	—	as	—	—	sc	—	—	ns		
13	4.4	4.0	3.9	4.0	4.5	5.0	4.3	8	8	9	10	10	10	9.2	—	—	sc	—	—	sc	—	—	sc	—	—	ns	—	—	ns	—	—	ns		
14	4.7	3.4	5.5	5.1	4.6	4.4	4.6	10	6	10	2	0	0	4.7	cs	—	—	st,sc	—	—	ns	—	—	st,sc	—	—	—	—	—	—	—	—	—	
15	4.2	4.3	4.5	4.6	4.6	4.4	4.4	5	3	10	10	3	10	6.8	—	—	sc	—	—	sc	—	—	sc	—	—	as	—	cc	—	—	sc	—	—	sc
16	5.3	4.7	5.5	5.8	5.5	5.0	5.3	10	10	10	10	6	5	8.5	—	—	st	—	—	sc	cs	as	—	cs	—	sc	—	—	sc	—	—	sc		
17	4.7	4.8	5.0	4.2	4.0	4.1	4.5	10	10	10	10	10	10	10.0	—	—	sc	—	—	sc	—	—	ns	—	—	ns	—	—	ns	—	—	ns		
18	3.6	3.8	4.0	4.5	4.2	3.7	4.0	0	10	7	10	10	10	7.8	—	—	—	—	ns	—	—	sc	—	—	sc,st	—	—	ns	—	—	sc,ns			
19	3.9	3.7	3.2	4.3	3.6	4.2	3.8	10	10	6	10	10	10	9.3	—	—	ns	—	—	sc	—	—	ns	—	as	—	—	ns	—	—	ns			
20	4.5	4.4	5.2	4.5	5.2	4.6	4.7	10	10	10	6	0	3	6.5	—	—	ns	—	—	ns	—	—	ns	—	—	sc	—	es	—	—	sc			
21	4.3	3.9	5.2	4.8	3.6	4.0	4.3	8	10	10	7	0	10	7.5	cs	—	sc	cs	—	sc	—	—	ns	—	—	sc	—	—	sc	—	—	st		
22	4.3	4.2	5.2	4.6	3.7	3.0	4.2	10	10	10	6	5	0	6.8	—	—	sc	—	—	st	—	—	ns	ci	—	sc	—	—	sc	—	—	cu		
23	2.9	4.7	5.4	4.9	4.3	3.9	4.4	3	10	10	61	10	10	8.8	—	—	sc	—	—	ns	—	—	ns	—	—	ns	—	—	sc	—	—	sc		
24	3.8	3.5	4.4	4.8	4.2	4.3	4.2	10	8	1	0	0	10	4.8	—	—	sc	—	—	sc	—	—	sc	—	—	sc	—	—	sc	—	—	sc		
25	4.6	5.0	6.5	6.2	4.5	3.8	5.1	10	10	6	8	1	0	5.8	—	—	sc	—	as	—	—	sc,ns	—	—	sc,ns	—	cu	—	—	cu	—	—	cu	
26	3.9	4.1	4.0	3.8	4.0	4.6	4.1	4	3	8	10	10	10	7.5	—	—	sc	—	—	sc	cs,ci	—	sc	cs,ci	—	—	as	—	—	as				
27	4.7	4.2	4.7	4.1	4.5	4.8	4.5	10	7	1	5	0	10	5.5	—	as	—	cc	—	sc	—	—	sc	—	—	sc	—	—	ns,sc	—	—	sc		
28	4.8	4.2	4.3	4.5	4.1	3.7	4.3	10	8	4	4	4	4	5.7	—	—	ns	—	—	st,sc	ci,cs,cc	—	sc	—	—	sc,st	—	—	sc	—	—	sc		
29	3.6	3.4	3.9	4.7	6.0	5.6	4.5	5	4	7	10	10	10	7.7	—	—	sc	—	as	sc	—	—	as	—	—	ns	—	—	ns	—	—	ns		
30	6.0	6.0	6.3	7.1	5.7	5.9	6.2	10	10	10	10	10	10	10.0	—	—	ns	—	—	st	—	—	sc	—	—	st	—	—	ns	—	—	ns		
31	5.0</																																	

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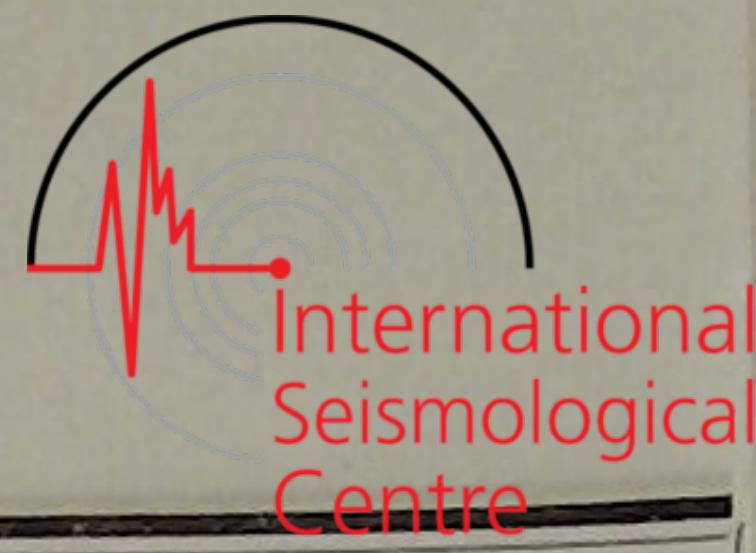
Day	STATION PRESSURE (1000mb+)						M.S.L. PRESSURE (1000mb+)						AIR TEMPERATURE °C								
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean
1	13.4	14.5	17.2	16.3	17.2	16.4	15.8	21.5	22.6	25.2	24.4	25.2	24.7	23.9	-2.8	0.4	0.8	1.6	1.0	-3.5	-0.4
2	15.6	13.1	11.1	5.9	3.3	2.5	8.6	23.9	21.3	19.2	13.8	11.3	10.4	16.7	-6.4	-7.5	-2.4	1.8	0.3	0.0	-2.4
3	1.9	1.6	4.4	4.3	6.1	7.4	4.3	9.9	9.5	12.2	12.2	13.9	15.3	12.2	-0.4	4.5	7.9	5.7	4.1	4.7	4.4
4	9.2	11.5	14.9	14.5	15.9	16.8	13.8	17.1	19.5	22.8	22.3	23.9	24.9	21.8	3.7	3.1	5.1	4.5	2.3	1.2	3.3
5	17.8	19.0	20.4	19.4	20.7	20.7	19.7	25.9	27.1	28.4	27.3	28.8	28.8	27.7	1.2	-0.4	5.7	8.5	2.2	-1.4	2.6
6	19.8	17.7	15.0	9.5	7.7	9.4	13.2	28.0	25.9	23.0	17.2	15.4	17.2	21.1	-2.8	-2.9	1.0	7.5	9.4	4.9	2.9
7	10.0	10.9	14.1	13.3	15.9	19.0	13.9	17.9	18.9	22.0	21.2	24.0	27.2	21.9	1.4	-0.6	0.8	2.7	0.4	-1.9	0.5
8	20.2	21.9	22.4	19.5	18.8	16.9	20.0	28.5	30.2	30.6	27.5	26.9	25.0	28.1	-4.8	-6.1	-1.9	4.6	1.6	1.0	-0.9
9	15.8	13.1	12.2	7.4	4.1	0.0	8.8	23.8	21.1	20.2	15.3	12.0	7.9	16.7	2.1	1.4	2.1	3.1	2.0	2.4	2.2
10	995.4	993.1	996.2	997.7	999.8	0.5	997.1	3.3	0.9	4.0	5.7	7.8	8.6	5.1	2.3	3.1	2.2	1.2	-2.2	-4.1	0.4
11	1.1	3.5	7.9	8.3	10.5	12.8	7.4	9.2	11.7	15.9	16.3	18.7	21.0	15.5	-4.8	-3.9	0.1	0.0	-3.5	-4.1	-2.7
12	15.3	17.7	19.9	19.2	19.2	17.9	18.2	23.5	25.9	28.0	27.3	27.3	26.0	26.3	-3.6	-3.0	1.2	3.3	0.6	0.3	-0.2
13	15.6	12.8	14.0	12.7	15.7	16.2	14.5	23.7	20.7	21.7	20.5	23.7	24.3	22.4	0.2	4.3	7.7	8.1	3.5	1.0	4.1
14	16.0	15.5	16.1	14.2	14.7	14.6	15.2	24.0	23.6	24.2	22.1	22.7	22.7	23.2	2.1	2.1	0.5	1.6	1.8	0.6	1.5
15	14.5	15.9	17.9	17.2	18.4	18.6	17.1	22.6	24.0	26.0	25.2	26.5	26.7	25.2	0.4	0.1	1.3	2.8	2.2	1.8	1.4
16	17.5	16.4	17.2	15.4	15.0	14.9	16.1	25.6	24.5	25.2	23.4	23.0	22.9	24.1	0.4	0.2	1.4	2.2	2.7	2.8	1.6
17	11.8	7.9	5.1	2.5	3.8	4.0	5.9	19.8	15.9	13.0	10.2	11.5	11.9	13.7	2.2	2.3	3.7	7.0	6.3	6.1	4.6
18	4.4	7.6	11.1	11.7	16.0	19.2	11.7	12.3	15.5	19.0	19.6	24.0	27.3	19.6	5.5	3.7	6.5	6.3	3.1	0.4	4.3
19	19.0	19.9	19.3	15.8	14.7	13.4	17.0	27.3	28.2	27.4	23.7	22.6	21.2	25.1	-3.4	-4.0	0.1	5.6	4.4	3.2	1.0
20	8.0	0.8	998.1	1.2	5.8	9.0	3.8	15.9	8.7	6.0	9.0	13.6	16.9	11.7	2.8	3.0	3.6	6.1	5.6	3.7	4.1
21	10.1	10.1	10.9	8.5	9.0	9.7	9.7	18.0	18.0	18.7	16.3	16.9	17.6	17.6	3.1	2.2	4.9	6.8	5.6	2.8	4.2
22	9.7	10.6	12.3	11.8	12.6	13.8	11.8	17.6	18.5	20.2	19.7	20.6	21.8	19.7	2.0	2.4	5.4	3.8	2.2	0.6	2.7
23	12.8	12.2	15.2	14.7	16.8	17.3	14.8	20.8	20.3	23.2	22.7	25.0	25.5	22.9	1.2	0.3	1.7	0.9	-0.8	-0.9	0.4
24	17.2	16.6	16.2	13.6	14.5	14.8	15.5	25.3	24.8	24.3	21.5	22.5	23.0	23.6	-1.3	-1.9	0.2	2.0	-1.0	-1.1	-0.5
25	15.2	16.3	18.2	16.8	19.1	19.6	17.5	23.4	24.4	26.3	24.9	27.3	27.8	25.7	-2.6	-2.0	-0.2	2.9	-1.8	-2.0	-0.9
26	20.2	20.6	21.1	19.1	19.8	20.7	20.3	28.3	28.8	29.2	27.1	27.9	28.9	28.4	-2.7	-2.9	0.0	1.7	-0.6	-2.9	-1.2
27	20.6	21.0	21.7	19.8	20.7	21.5	20.9	28.8	29.2	29.7	27.8	28.8	29.6	29.0	-2.9	-4.6	3.2	4.2	2.0	1.2	0.5
28	20.8	20.8	23.4	22.4	24.0	25.3	22.8	29.0	29.0	31.5	30.5	32.1	33.6	31.0	0.0	0.1	1.4	4.7	0.7	-2.6	0.7
29																					
30																					
31																					
Mean	13.2	13.0	14.1	12.6	13.6	14.0	13.4	21.2	21.0	22.0	20.5	21.6	22.1	21.4	-0.3	-0.2	2.3	4.0	1.9	0.5	1.4

Day	AIR TEMPERATURE °C				DIRECTION AND VELOCITY (m.p.s.) OF THE WIND										Mean		
	Max.	Min.	Mean	Range	2	6	10	14	18	22	6 obs.	24 h.					
1	2.8	-5.4	-1.3	8.2	N	4.0	NNW	6.9	8.0	NNW	5.9	NNE	0.7	ESE	2.2	4.6	3.6
2	2.2	-8.0	-2.9	10.2	—	0.0	—	0.0	0.0	WNW	0.4	—	0.2	—	0.0	0.1	0.3



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Day	STATION PRESSURE (1000mb+)						M.S.L. PRESSURE (1000mb+)						AIR TEMPERATURE °C								
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean
1	24.0	23.2	20.6	15.2	12.1	8.2	17.2	32.3	31.6	28.7	23.1	20.1	16.2	25.3	-4.2	-6.4	-1.8	4.7	1.6	1.2	-0.8
2	4.7	2.3	3.6	0.7	1.2	1.8	2.4	12.7	10.2	11.4	8.4	9.0	9.8	10.3	1.2	1.0	6.1	9.9	4.9	1.6	4.1
3	1.6	6.5	10.1	11.2	17.3	18.2	10.8	9.6	14.5	18.0	19.1	25.3	26.3	18.8	0.3	0.4	1.8	3.1	0.9	1.1	1.3
4	19.5	21.7	20.7	15.7	15.5	12.5	17.6	27.7	29.8	28.7	23.6	23.5	20.5	25.6	1.0	0.3	4.8	7.3	3.8	2.7	3.3
5	12.7	13.5	14.7	12.4	13.2	12.7	13.2	20.6	21.3	22.4	20.0	21.0	20.7	21.0	4.7	5.5	11.9	13.0	8.1	2.9	7.7
6	11.8	11.5	12.1	9.8	12.1	13.7	11.8	19.8	19.5	20.0	17.6	20.1	21.6	19.8	1.8	2.7	4.5	5.6	4.1	2.9	3.6
7	12.9	14.6	15.6	14.3	15.2	15.7	14.7	20.9	22.6	23.5	22.2	23.2	23.7	22.7	2.7	2.2	4.3	4.7	3.7	2.8	3.4
8	14.1	11.9	8.8	0.0	996.2	995.8	4.5	22.1	19.9	16.8	7.9	3.9	3.5	12.4	2.2	2.0	3.1	4.1	4.9	7.8	4.0
9	999.0	1.7	7.0	8.0	11.4	14.9	7.0	6.9	9.6	14.8	15.8	19.3	22.8	14.9	6.1	4.7	6.6	7.4	4.8	4.1	5.6
10	15.7	16.3	15.1	11.0	10.0	6.6	12.5	23.8	24.4	23.0	18.9	17.9	14.6	20.4	0.9	-0.6	6.9	7.0	4.7	2.8	3.6
11	3.2	1.9	2.5	1.5	2.6	3.4	2.5	11.1	9.8	10.2	9.1	10.4	11.3	10.3	2.7	2.6	10.1	12.2	7.1	4.2	6.5
12	4.1	5.9	7.0	6.6	7.9	7.0	6.4	12.0	13.9	14.9	14.5	15.9	15.1	14.4	2.9	0.6	7.5	6.9	2.4	-0.4	3.3
13	8.0	10.1	9.2	9.5	10.7	11.8	9.9	16.0	18.1	17.1	17.5	18.8	19.9	17.9	-0.5	-1.4	1.8	0.4	-1.3	-2.8	-0.6
14	11.2	11.2	12.0	10.5	11.7	13.5	11.7	19.4	19.3	20.0	18.3	19.7	21.4	19.7	-3.7	-1.4	2.2	3.8	2.4	2.4	1.0
15	14.5	16.3	17.6	16.6	17.6	18.6	16.9	22.5	24.3	25.6	24.4	25.6	26.7	24.9	2.0	1.6	6.5	8.6	3.3	0.6	3.8
16	17.7	18.7	17.5	15.3	15.8	17.3	17.1	25.9	26.8	25.5	23.2	23.9	25.3	25.1	-2.1	-2.2	4.8	8.7	3.2	1.1	2.3
17	16.8	17.0	17.6	14.7	15.1	16.2	16.2	25.0	25.1	25.6	22.5	23.1	24.2	24.3	0.0	-1.2	4.9	8.5	3.0	1.4	2.8
18	15.4	14.7	16.3	12.8	14.3	16.3	15.0	23.5	22.9	24.3	20.7	22.2	24.4	23.0	-0.8	-2.0	3.4	7.5	4.4	-0.3	2.0
19	16.9	18.1	17.0	14.5	13.6	12.7	15.5	25.1	26.3	24.8	22.1	21.4	20.6	23.4	-3.0	-4.2	7.3	10.8	6.7	5.3	3.8
20	11.5	10.9	11.3	10.6	12.3	15.0	11.9	19.4	18.8	19.1	18.4	20.2	23.0	19.8	4.1	2.8	7.9	5.1	4.8	3.2	4.7
21	16.0	18.0	19.4	18.2	18.4	20.7	18.5	24.1	26.2	27.4	26.0	26.4	28.8	26.5	-0.2	-1.4	6.0	10.1	4.1	1.4	3.3
22	18.7	17.6	14.1	9.9	6.4	3.0	11.6	26.7	25.7	21.9	17.7	14.4	11.0	19.6	1.6	1.9	4.1	1.8	1.2	1.1	2.0
23	999.7	999.4	999.9	999.1	5.1	10.2	2.2	7.7	7.3	7.8	6.9	13.0	18.1	10.1	0.8	1.0	5.3	6.5	4.8	3.3	3.6
24	11.0	11.6	12.3	9.8	10.6	9.8	10.9	19.0	19.6	20.2	17.6	18.4	17.6	18.7	2.0	1.8	4.5	6.7	4.2	3.5	3.8
25	9.0	9.4	9.4	8.4	8.8	10.7	9.3	16.9	17.2	17.2	16.2	16.7	18.6	17.1	3.7	3.4	6.9	7.6	6.4	4.3	5.4
26	10.6	11.9	12.3	11.2	13.1	15.3	12.4	18.6	19.9	20.2	19.0	21.0	23.3	20.3	2.4	3.1	7.3	10.2	4.7	3.3	5.2
27	15.1	17.1	18.1	15.8	17.5	19.9	17.3	23.1	25.2	26.0	23.7	25.5	27.9	25.2	2.7	0.6	6.8	9.7	5.2	3.3	4.7
28	19.2	19.3	18.9	16.5	16.1	15.8	17.6	27.3	27.4	26.9	24.3	24.0	23.7	25.6	1.4	1.8	5.9	10.1	8.0	6.8	5.7
29	12.9	11.5	10.1	6.8	6.5	5.8	8.9	20.8	19.4	17.8	14.6	14.3	13.6	16.8	6.9	6.8	7.7	9.7	8.8	8.5	8.1
30	1.5	999.0	996.9	993.4	993.0	999.8	997.3	9.3	6.7	4.4	0.9	0.5	7.6	4.9	7.9	8.9	11.7	13.2	14.3	7.9	10.7
31	3.2	6.1	7.8	7.4	9.4	11.6	7.6	11.0	14.0	15.5	15.0	17.2	19.6	15.4	6.5	4.9	10.7	13.1	6.7	2.4	7.4
Mean	11.4	11.9	12.1	9.9	10.7	11.4	11.2	19.4	19.9	20.0	17.7	18.6	19.4	19.2	1.7	1.3	5.9	7.7	4.7	2.9	4.0

Day	AIR TEMPERATURE °C				DIRECTION AND VELOCITY (m.p.s.) OF THE WIND											
	Max.	Min.	Mean	Range	2	6	10	14	18	22	Mean	6 obs.	24 h.			
1	4.7	-6.4	-0.8													

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Day	VAPOUR PRESSURE (mb)						AMOUNT OF CLOUD (0-10)						FORMS OF CLOUD																			
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	H	M	L	H	M	L	H	M	L	H	M	L						
1	4.0	3.6	4.4	5.5	6.3	6.4	5.0	0	2	10	10	10	10	7.0	—	—	—	ci	—	—	—	as	—	—	ns	—	—	ns				
2	6.4	6.3	6.5	6.4	7.3	6.6	6.6	10	10	10	4	10	10	9.0	—	—	st	—	—	sc	—	—	sc	cs	—	cu	—	—	ns			
3	6.0	4.5	4.7	4.7	4.0	3.8	4.6	10	10	4	4	3	4	5.8	—	—	ns	—	—	ns	—	—	st	—	—	st, cu	—	—	sc			
4	4.3	4.5	4.6	5.1	4.7	5.7	4.8	0	3	7	10	3	6	4.8	—	—	—	sc	ci	—	sc	cs	—	—	sc	—	—	sc				
5	6.7	6.4	7.0	7.9	7.7	6.7	7.1	2	2	1	10	4	0	3.2	—	—	sc	—	—	sc	ci	—	cu	—	—	sc	—	—	—			
6	6.6	6.9	8.2	8.3	7.9	7.0	7.5	10	10	10	10	10	10	10.0	cs	—	—	—	—	—	ns	—	—	ns	—	—	ns	—	—	ns		
7	7.3	6.9	6.8	6.8	7.2	6.5	6.9	10	10	10	10	10	10	10.0	—	—	st	—	—	st	—	—	sc	—	—	st	—	—	st			
8	6.9	6.8	7.3	7.9	8.5	8.7	7.7	10	10	10	10	10	10	10.0	—	—	st	—	—	ns	—	—	ns	—	—	ns	sc	—	—	sc		
9	7.2	6.1	6.9	6.5	6.3	5.4	6.4	10	5	2	7	1	0	4.2	—	—	ns	—	—	sc	—	—	sc	—	—	sc	—	—	sc			
10	5.1	5.4	5.8	6.6	7.8	7.0	6.3	0	10	10	10	10	10	8.3	—	—	cs	—	—	cs	—	—	as	sc	—	ns	—	—	ns			
11	7.3	7.1	9.1	7.2	7.0	6.7	7.4	10	10	8	3	6	2	6.5	—	—	ns	—	—	st	—	—	sc	—	—	sc	—	—	sc			
12	6.7	5.7	6.0	5.7	5.5	5.3	5.8	3	4	8	10	4	10	6.5	—	—	sc	ac	sc	cs	—	—	sc	cs	—	sc	ci	—	sc	—	—	sc
13	5.9	5.0	4.5	5.6	4.9	4.6	5.1	10	4	2	10	6	0	5.3	—	—	ns	—	—	st, cu	—	—	sc	—	—	st, sc	—	—	st			
14	3.7	4.2	5.1	6.6	5.9	5.4	5.2	0	4	10	9	6	0	4.8	—	—	sc	—	—	sc	—	—	ac	sc, st	—	sc	—	—	eu			
15	5.3	5.3	5.9	6.6	4.8	5.0	5.5	4	1	2	8	1	3	3.2	—	—	sc	—	—	cu	—	—	sc	—	—	sc	—	—	sc			
16	4.7	4.9	4.8	5.7	5.2	5.4	5.1	0	10	10	5	2	10	6.2	—	—	cc	—	—	sc	—	—	sc	cc	—	sc	—	—	sc			
17	5.3	5.1	5.1	4.9	5.1	5.4	5.2	5	2	6	3	7	10	5.5	—	—	sc	—	—	sc	—	—	sc	—	—	cu	ci	—	sc	—	—	sc
18	4.7	4.1	3.3	4.1	3.6	3.9	4.0	4	10	10	3	0	0	4.5	cs	—	—	cs	—	—	cs	ci	—	—	—	—	—	—	—	—	—	
19	4.6	4.1	5.2	6.5	6.9	5.9	5.5	0	0	0	10	10	5	4.2	—	—	—	—	—	cu	es	—	sc	es	—	sc	—	—	sc			
20	7.6	7.0	7.8	7.6	5.2	5.6	6.8	10	10	3	10	2	1	6.0	—	—	ns	—	as	sc, st	—	—	sc	—	—	ns	—	—	cu			
21	5.2	5.2	5.2	5.4	6.1	5.7	5.5	0	0	2	4	6	10	3.7	—	—	—	—	—	cu	ci	—	cu	ci	—	—	cs	—	—	—		
22	5.7	5.3	5.9	6.6	6.3	6.6	6.1	10	10	10	10	10	10	10.0	—	as	—	—	as	—	—	as	—	—	ns	—	—	st	—	—	sc	
23	6.4	6.6	7.8	7.2	6.4	6.0	6.7	10	10	10	10	5	10	9.2	—	—	st	—	—	≡	—	—	sc	—	—	ns	—	—	sc			
24	6.1	6.6	7.3	7.6	7.5	7.4	7.1	10	10	10	10	10	10	10.0	—	—	sc	—	—	ns	—	—	st	—	—	ns	—	—	ns			
25	7.6	7.7	7.5	8.3	7.8	6.7	7.6	10	10	10	10	7	10	9.5	—	st	—	—	st, sc	—	—	sc	—	—	sc	—	—	sc				
26	6.7	6.9	6.7	7.6	7.3	6.7	7.0	10	10	9	8	10	10	9.5	—	—	sc	—	as	sc	cs	—	—	sc	—	—	sc	—	—	sc		
27	6.8	6.0	6.7	7.7	7.3	6.7	6.9	10	6	2	8	3	7	6.0	—	—	sc	—	—	sc	—	—	sc	—	—	sc, st	—	—	sc			
28	6.3	6.7	7.7	8.2	8.7	8.4	7.7	7	10	10	10	10	10	9.5	—	—	sc	—	as	—	—	st	—	—	assc, cu	—	as	st	—	st		
29	8.2	8.8	9.0	10.2	10.9	10.7	9.6	10	10	10	10	10	10	10.0	—	—	st	—	as	—	—	ns	—	—	ns	—	—	ns				
30	10.5	11.1	12.7	13.9	13.5	8.6	11.7	10	10	10	10	10	9	9.8	—	—	ns	—	ns	—	—	ns	—	—	ns	—	—	ns				
31	7.3	6.8	6.5	6.8	6.3	5.3	6.5	10	0	1	9	0	0	3.3	—	—	ns	—	eu	—	cc	—	sc	—	—	sc	—	—	sc			
Mean	6.2	6.1	6.5	7.0	6.8	6.3	6.5	6.6	6.9	7.0	8.2	6.3	6.7	7.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

Day	Duration of Sunshine (in hours)	Total Solar and Sky Radiation (Cal/cm²)	Amount of Evaporation mm						



APRIL, 1959.

Day	STATION PRESSURE (1000mb+)						M.S.L. PRESSURE (1000mb+)						AIR TEMPERATURE °C									
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	
1	12.6	14.5	15.4	14.7	16.0	19.0	15.4	20.7	22.6	23.2	22.4	23.9	27.0	23.3	-0.4	-0.6	9.4	11.6	6.2	1.3	4.6	
2	19.8	21.8	22.5	20.4	21.8	23.0	21.6	27.9	30.0	30.4	28.2	29.7	31.1	29.6	-1.4	-1.6	9.2	12.8	8.5	2.9	5.1	
3	23.5	23.9	23.8	19.8	20.3	21.3	22.1	31.8	32.1	31.6	27.4	28.0	29.3	30.0	-0.8	-1.1	12.2	16.5	11.2	7.7	7.6	
4	19.7	18.0	16.6	12.8	10.1	9.3	14.4	27.7	26.0	24.2	20.4	17.7	16.9	22.2	4.9	3.3	15.7	16.3	14.3	14.6	11.5	
5	5.7	3.9	1.7	996.7	991.9	986.8	997.8	13.3	11.5	9.3	4.3	999.5	994.3	5.4	14.2	12.9	12.6	12.9	11.9	14.1	13.1	
6	986.1	991.8	998.2	2.6	9.8	13.4	0.3	993.7	999.4	5.9	10.4	17.6	21.2	8.0	10.7	8.9	7.6	7.1	5.6	5.3	7.5	
7	15.6	17.7	17.2	13.2	12.8	13.5	15.0	23.7	25.9	25.0	20.7	20.5	21.2	22.8	2.2	0.4	12.0	16.4	12.5	8.1	8.6	
8	12.0	9.6	7.3	2.5	999.7	998.1	4.9	19.9	17.4	15.1	10.3	7.4	5.7	12.6	6.2	6.1	7.0	8.9	9.3	9.3	7.8	
9	996.5	997.7	997.6	995.9	992.6	986.3	994.4	4.2	5.4	5.0	3.5	0.2	993.9	2.0	9.3	9.7	14.5	14.5	11.5	9.4	11.5	
10	983.4	983.9	984.3	987.8	988.9	992.0	986.7	991.0	991.5	991.8	995.3	996.6	999.8	994.3	8.9	9.0	14.4	11.9	8.3	6.5	9.8	
11	992.3	994.2	996.9	997.3	0.2	3.5	997.4	0.0	2.0	4.7	5.1	8.0	11.4	5.2	4.8	5.6	5.1	5.6	5.4	5.8	5.4	
12	4.9	5.8	7.3	6.2	5.0	4.2	5.6	12.7	13.6	14.9	13.8	12.7	11.9	13.3	6.6	8.0	12.3	14.1	11.5	9.2	10.3	
13	997.3	991.9	990.8	991.2	994.6	998.8	994.1	4.9	999.6	998.5	998.7	2.3	6.6	1.8	7.8	7.0	10.1	15.2	8.2	5.7	9.0	
14	0.8	5.1	8.7	11.2	13.1	16.2	9.2	8.7	13.0	16.6	19.1	21.0	24.1	17.1	5.5	4.7	6.3	5.6	6.0	5.5	5.6	
15	16.3	16.5	14.2	11.1	10.2	10.7	13.2	24.3	24.4	21.8	18.6	17.7	18.4	20.9	3.0	4.3	12.3	18.5	12.8	8.5	9.9	
16	9.4	8.0	5.1	999.9	998.6	997.1	3.0	17.2	15.9	12.6	7.4	6.2	4.7	10.7	6.9	6.4	15.9	17.3	13.4	11.2	11.9	
17	994.1	995.1	994.6	993.6	992.4	994.9	994.1	1.8	2.7	2.1	1.1	0.0	2.6	1.7	9.5	12.9	14.5	12.7	10.1	7.1	11.1	
18	997.4	999.8	2.8	4.0	7.2	11.4	3.8	5.2	7.6	10.5	11.8	15.0	19.3	11.6	6.2	5.5	8.4	8.1	6.3	5.1	6.6	
19	13.8	17.6	18.8	15.9	18.6	21.0	17.6	21.6	25.6	26.6	23.6	26.4	29.0	25.5	3.5	1.1	10.5	16.4	9.5	5.1	7.7	
20	21.6	22.5	21.5	19.4	19.3	20.1	20.7	29.7	30.6	29.1	27.0	26.9	27.9	28.5	2.0	2.0	15.8	17.8	15.1	11.6	10.7	
21	19.1	19.1	17.1	13.7	11.9	12.3	15.5	27.0	27.0	24.7	21.1	19.6	20.0	23.2	9.6	10.7	17.1	20.6	16.0	14.2	14.7	
22	10.4	9.7	9.1	5.7	5.8	4.7	7.6	18.0	17.3	16.6	13.1	13.4	12.3	15.1	14.2	13.1	19.4	20.7	15.2	13.9	16.1	
23	0.0	994.4	986.6	986.6	995.2	999.8	993.8	7.5	1.9	994.1	994.1	2.8	7.5	1.3	13.9	14.4	14.6	11.7	9.8	8.3	12.1	
24	2.3	5.0	6.0	4.3	4.6	6.6	4.8	10.1	12.8	13.6	11.8	12.3	14.5	12.5	5.8	4.6	12.5	15.3	13.1	9.5	10.1	
25	6.7	7.1	9.5	7.5	9.0	11.9	8.6	14.6	15.0	17.1	15.0	16.6	19.8	16.4	5.4	5.4	13.7	20.4	15.2	9.0	11.5	
26	12.7	13.8	12.8	10.4	10.5	10.5	11.8	20.6	21.6	20.4	17.7	18.0	18.0	19.4	6.2	5.9	17.1	19.9	16.9	14.7	13.5	
27	8.4	7.8	5.7	2.7	998.7	993.2	2.8	15.9	15.4	13.2	10.2	6.3	0.7	10.3	15.5	15.6	18.0	17.5	14.2	13.4	15.7	
28	990.4	993.4	997.5	2.2	5.9	10.2	999.9	997.9	0.9	4.8	9.7	13.0	17.9	7.4	13.5	13.3	20.3	16.5	12.2	9.6	14.2	
29	11.5	13.8	15.8	15.0	15.7	18.4	15.0	19.4	21.5	23.4	22.5	23.4	26.2	22.7	6.9	9.0	15.9	18.0	14.6	7.9	12.1	
30	18.6	19.0	17.6	14.1	13.0	13.3	15.9	26.6	27.0	25.2	21.5	20.6	21.0	23.7	3.6	4.3	15.3	21.6	17.1	11.9	12.3	
31																						
Mean	6.8	7.4	7.4	5.9	6.4	7.4	6.9	14.6	15.2	15.1	13.5	14.1	15.1	14.6	6.8	6.7	13.0	14.7	11.4	8.9	10.3	

Day	AIR TEMPERATURE °C				DIRECTION AND VELOCITY (m.p.s.) OF THE WIND											
	Max.	Min.	Mean	Range	2	6	10	14	18							



APRIL, 1959.

Day	Duration of Sunshine (in hours)	Total Solar and Sky Radiation (Cal/cm <sup>2</sup> )	Amount of Evaporation mm	RELATIVE HUMIDITY %							PRECIPITATION mm							REMARKS				
				Ordi- nary	Large- sized	2	6	10	14	18	22	Mean	22-2	2-6	6-10	10-14	14-18	18-22	Total	A. M.	P. M.	
1	7.5	383	3.4	1.8	89	96	53	47	62	81	71	—	—	—	—	—	—	—	—	H, U, 0	0	
2	10.6	459	3.7	2.5	91	95	55	47	67	84	73	—	—	—	—	—	—	—	—	U, H, S, 0	0	
3	11.1	443	5.4	2.6	96	97	57	47	73	86	76	—	—	—	—	—	—	—	—	U, H, S	S	
4	8.4	377	(7.2)	(4.2)	94	97	51	55	56	67	70	—	—	—	—	—	—	—	—	=, 0, ▾	0, ▾	
5	—	44	(0.0)	(0.0)	66	86	94	95	97	95	89	—	0.5	4.0	4.7	10.0	4.2	23.4	●, ▾	●, ▾, ▵, ▾		
6	2.1	181	(2.0)	(1.2)	73	66	68	68	62	56	66	1.7	0.1	0.4	0.6	—	—	2.8	●, ▾	●, ▾		
7	9.7	434	(4.4)	(1.8)	66	89	57	46	74	91	71	—	—	—	—	—	—	—	—	H, S	S	
8	—	39	(0.9)	(0.4)	92	96	96	94	96	98	95	—	—	3.7	3.4	0.6	2.0	9.7	△, ●	●		
9	5.3	361	(2.4)	(2.2)	96	94	73	84	85	96	88	0.4	—	—	—	—	12.2	12.6	●	●, ▾		
10	1.3	206	(3.2)	(2.2)	97	96	82	67	62	52	76	1.1	—	—	0.1	0.2	—	1.4	●, ▾	●, ▾		
11	4.1	—	(4.6)	(2.2)	58	45	53	72	51	43	54	—	—	0.0	0.0	0.1	—	0.1	* , ▾	* , ▾, S		
12	5.9	384	(2.6)	(1.3)	45	40	41	40	50	74	48	—	—	—	—	—	—	—	—	0, ▾	0, ●	
13	3.6	258	(3.5)	(2.4)	97	97	86	50	75	66	79	6.0	8.5	0.2	—	0.0	0.0	14.7	●	S, ●, ▾		
14	2.0	216	(3.0)	(1.6)	67	74	80	59	57	52	65	—	0.2	0.3	0.2	—	—	0.7	●, 0	▀		
15	10.7	460	4.6	2.1	74	74	51	38	55	80	62	—	—	—	—	—	—	—	—	0	0	
16	4.4	305	3.7	2.6	81	81	58	58	85	92	76	—	—	—	—	—	—	—	—	S	S	
17	3.4	—	(2.8)	(1.7)	96	58	57	53	66	89	70	—	0.1	—	—	0.1	0.7	0.9	△, ●, ▾	●, ▾		
18	4.6	347	3.3	1.9	76	84	73	69	73	68	74	0.8	0.3	0.1	—	—	—	1.2	●	—		
19	11.9	—	6.0	3.6	71	90	53	34	52	77	63	—	—	—	—	—	—	—	—	H, U, 0	0, ▾	
20	11.6	—	4.6	2.5	90	97	62	66	79	92	81	—	—	—	—	—	—	—	—	U, S	S, ▾	
21	7.8	368	6.9	3.9	98	96	70	53	69	83	78	—	—	—	—	—	—	—	—	≡, △, S	S	
22	7.5	436	(3.5)	(1.5)	81	89	63	59	80	92	77	—	—	—	—	—	0.3	0.3	0, ▾	0, ▾, ●		
23	0.7	69	(2.5)	(1.8)	95	92	91	67	59	60	77	0.8	2.4	8.9	14.4	0.1	—	26.6	●, ▾	●, ▾		
24	7.8	—	4.1	2.1	73	85	57	56	62	81	69	—	—	—	—	—	—	—	—	△, S	0	
25	9.4	443	4.7	2.7	91	94	66	48	70	85	76	—	—	—	—	—	—	—	—	D	0	
26	11.0	463	5.2	3.3	93	96	61	64	79	93	81	—	—	—	—	0.0	0.0	0.0	D, S	S, ▾, 9		
27	—	180	(0.0)	(1.1)	89	80	76	79	93	98	86	—	—	—	0.2	3.6	4.9	8.7	●, ▾	●, ▾		
28	6.0	373	5.4	3.6	91	99	63	50	61	67	72	1.6	—	—	—	—	—	1.6	●, 0	0, ▾		
29	12.2	546	5.8	4.4	83	78	50	43	55	78	65	—	—	—	—	—	—	—	—	△, 0	0	
30	8.1	459	5.5	3.0	91	94	43	32	47	63	62	—	—	—	—	—	—	—	—	△, S, 0	0	
31																						
	188.7	8234	114.9	68.2	83	85	65	58	68	78	73	12.4	12.1	17.6	23.6	14.7	24.3	104.7				

MAY, 1959.



Day	STATION PRESSURE (1000mb+)						M.S.L. PRESSURE (1000mb+)						AIR TEMPERATURE °C								
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean
1	11.4	10.0	7.9	3.3	1.3	999.4	5.6	19.3	17.7	15.5	10.8	8.8	7.0	13.2	8.1	8.1	15.5	17.5	14.3	12.2	12.6
2	999.0	999.4	998.5	999.0	2.5	6.5	0.8	6.5	6.9	5.9	6.3	10.0	14.3	8.3	14.8	13.6	21.6	20.8	15.9	8.7	15.9
3	8.6	11.8	9.8	7.2	7.2	6.2	8.5	16.4	19.7	17.2	14.7	14.8	13.8	16.1	7.6	7.2	17.3	17.8	14.5	13.0	12.9
4	4.4	4.2	2.3	999.1	997.1	994.5	0.3	12.0	11.9	9.7	6.5	4.5	2.0	7.8	11.5	11.2	18.8	22.9	18.0	16.4	16.5
5	991.4	993.3	995.1	998.3	0.7	3.9	997.1	998.8	0.7	2.5	5.8	8.3	11.6	4.6	16.7	17.2	20.0	14.8	12.3	10.9	15.3
6	4.7	6.0	6.2	5.4	6.7	9.2	6.4	12.5	13.7	13.8	12.9	14.4	16.9	14.0	9.7	10.0	14.7	17.7	13.3	10.8	12.7
7	10.0	11.8	11.4	10.0	10.6	11.9	11.0	17.6	19.5	19.0	17.3	18.1	19.7	18.5	9.3	10.3	16.2	19.2	15.5	11.5	13.7
8	12.0	12.7	10.9	9.7	10.5	12.7	11.4	20.0	20.6	18.4	17.0	18.0	20.5	1.91	3.9	5.2	17.3	20.4	16.5	9.6	12.2
9	13.0	14.5	13.4	11.6	11.9	13.6	13.0	20.9	22.3	21.0	19.1	19.6	21.3	20.7	6.1	6.8	15.3	19.0	13.7	8.5	11.6
10	13.3	14.5	14.9	13.6	15.7	17.9	15.0	21.1	22.3	22.5	21.1	23.4	25.7	22.7	4.8	5.9	17.1	19.4	13.5	8.4	11.5
11	17.9	18.3	17.1	15.4	15.2	15.0	16.5	25.9	26.3	24.7	22.9	22.9	22.7	24.2	4.5	4.9	16.4	17.4	14.1	13.1	11.7
12	12.6	10.7	6.8	1.9	999.2	999.4	5.1	20.3	18.3	14.4	9.4	6.7	7.0	12.7	12.3	12.2	15.9	16.1	14.7	13.5	14.1
13	996.6	995.4	993.6	994.1	995.8	996.7	995.4	4.1	3.0	1.0	1.6	3.5	4.3	2.9	12.2	13.1	13.1	12.3	9.5	11.1	11.9
14	998.6	999.2	1.4	0.6	1.3	3.5	0.8	6.3	6.7	8.8	8.0	8.7	11.3	8.3	12.0	13.1	16.5	19.5	16.5	10.3	14.7
15	4.9	8.0	7.4	6.1	7.0	8.0	6.9	12.7	15.8	14.9	13.4	14.5	15.7	14.5	6.8	10.1	20.6	26.5	19.8	12.5	16.1
16	7.4	6.9	6.5	5.3	3.5	1.9	5.3	15.2	14.6	14.0	12.7	11.1	9.5	12.9	9.5	10.0	17.1	16.3	13.4	13.2	13.3
17	999.9	0.4	0.2	999.4	999.5	0.3	0.0	7.5	8.0	7.7	6.9	7.0	7.9	7.5	13.1	13.1	15.9	17.5	16.1	14.5	15.0
18	998.7	998.4	997.0	994.3	993.5	993.8	996.0	6.3	6.0	4.5	1.7	1.0	1.3	3.5	13.0	14.0	17.2	17.1	14.0	12.7	14.7
19	992.3	992.8	993.2	993.8	995.7	997.7	994.3	999.9	0.4	0.6	1.2	3.3	5.4	1.8	10.3	10.7	14.9	15.4	11.5	11.1	12.3
20	998.6	1.9	3.6	3.2	6.4	8.3	3.7	6.2	9.5	11.1	10.6	13.9	16.0	11.2	10.7	13.1	17.9	20.6	16.0	12.1	15.1
21	8.3	8.6	6.2	2.9	1.5	2.5	5.0	16.1	16.3	13.6	10.1	8.8	10.1	12.5	7.6	10.5	21.1	27.2	22.1	14.2	17.1
22	0.7	999.8	1.3	3.4	4.6	7.2	2.8	8.3	6.0	8.6	10.9	12.2	14.9	10.2	11.7	14.1	21.2	14.5	12.9	11.3	14.3
23	8.6	10.8	11.0	10.0	10.5	11.8	10.5	16.4	18.7	18.6	17.3	17.9	19.5	18.1	8.2	7.7	15.3	20.8	17.8	8.8	13.1
24	11.9	12.6	10.3	8.6	7.7	7.8	9.8	19.8	20.4	17.7	15.9	15.2	15.4	17.4	5.7	7.5	18.6	21.4	19.2	16.1	14.8
25	6.6	6.7	6.7	5.0	5.7	6.1	6.1	14.2	14.4	14.3	12.4	13.1	13.7	13.7	14.5	15.3	17.5	19.7	16.4	14.7	16.4
26	4.4	5.0	3.4	1.6	2.6	4.3	3.6	12.2	12.7	10.8	8.8	10.1	11.9	11.1	10.7	12.0	20.2	22.3	18.0	13.0	16.0
27	4.0	4.0	2.4	999.3	999.0	0.2	1.5	11.7	11.7	9.8	6.6	6.4	7.7	9.0	12.2	12.1	16.5	24.3	19.8	15.4	16.7
28	999.0	999.7	998.9	997.0	998.6	1.4	999.1	6.6	7.2	6.2	4.2	6.0	8.9	6.5	12.0	13.1	23.0	24.9	20.0	15.2	18.0
29	0.4	2.9	2.7	1.1	2.8	6.1	2.7	7.9	10.5	10.3	8.3	10.3	13.7	10.2	13.6	11.3	17.6	24.6	17.0	13.4	16.3
30	5.9	6.9	6.4	4.8	5.1	7.0	6.0	13.6	14.5	14.0	12.3	12.6	14.5	13.6	12.3	13.2	15.1	18.7	17.2	15.8	15.4
31	5.0	6.7	6.2	3.8	4.3	5.7	5.3	12.6	14.4	13.6	11.0	11.7	13.1	12.7	15.0	15.4	21.2	24.0	20.6	18.2	19.1
Mean	4.8	5.6	4.9	3.5	4.0	5.2	4.7	12.5	13.2	12.4	10.9	11.5	12.8	12.2	10.3	11.0	17.6	19.7	15.9	12.6	14.5

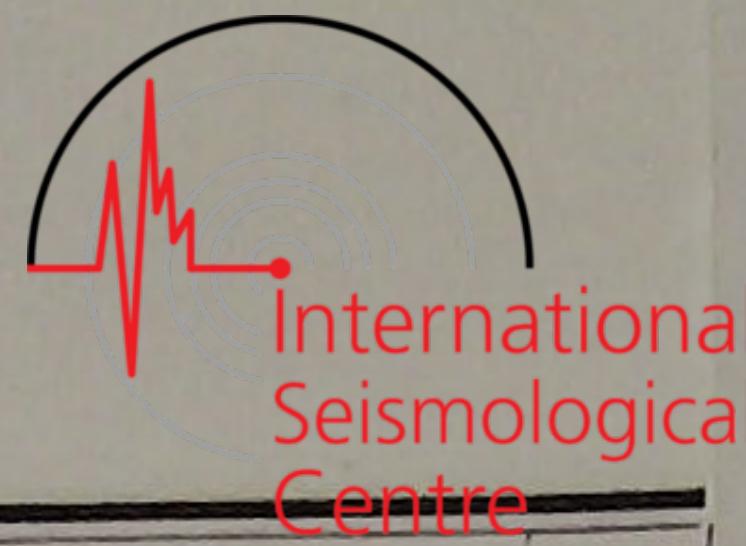
Day	AIR TEMPERATURE °C				DIRECTION AND VELOCITY (m.p.s.) OF THE WIND											
	Max.	Min.	Mean	Range												

MAY, 1959.



Day	VAPOUR PRESSURE (mb)						AMOUNT OF CLOUD (0-10)						FORMS OF CLOUD																			
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	H	M	L	H	M	L	H	M	L	H	M	L						
1	9.3	9.6	11.7	12.3	14.8	13.3	11.8	10	10	10	10	10	10	10.0	cs	—	—	cs	—	—	as	—	—	ns	—	—	sc					
2	10.9	11.6	12.7	11.1	8.4	9.2	10.7	3	0	4	3	3	0	2.2	—	—	sc	—	—	cu	es	—	cu	cc,cs	—	—	—					
3	7.8	8.0	6.8	10.2	9.6	12.9	9.2	0	5	0	6	10	10	5.2	—	—	—	cs,ci	—	—	ci	—	—	es	ac	—	—	st				
4	11.6	12.2	15.6	18.2	18.5	17.9	15.7	10	10	8	10	10	10	9.7	—	—	st	—	as	st	cs	—	—	—	ns	—	—	ns				
5	18.4	18.9	18.9	13.1	10.0	9.0	14.7	10	10	10	10	7	10	9.5	—	—	ns	—	as	sc	—	as	sc	cc,cs	—	—	as					
6	9.3	9.1	10.0	9.6	8.9	9.0	9.3	10	10	10	8	1	3	7.0	—	as	—	ci	—	sc	es	—	sc	ci,cc	—	cu	ci	—	sc			
7	8.2	8.9	9.3	8.3	5.7	6.5	7.8	0	2	2	3	0	0	1.2	—	—	—	cc	—	—	cu	ci	—	cu	—	—	—	—	—			
8	6.6	7.6	8.0	7.9	6.9	8.7	7.6	0	9	10	10	10	10	8.2	—	—	—	cs	—	—	es	—	—	as	—	—	cs	—	—			
9	8.0	7.5	8.4	9.5	9.5	9.6	8.8	5	10	10	10	10	3	8.0	cs	—	—	cs	—	—	es	—	—	as	—	—	sc	—	—			
10	8.5	8.5	11.2	9.5	6.7	8.1	8.8	0	6	8	1	8	10	5.5	—	—	—	ci	—	st	ci	—	eu	—	—	sc	cs	—	sc			
11	7.8	7.9	9.2	8.4	12.8	12.3	9.7	0	0	2	10	10	10	5.3	—	—	—	ci	—	—	es	—	—	cs	—	sc	—	—	st			
12	12.6	12.5	14.7	16.0	15.2	14.6	14.3	10	10	10	10	10	10	10.0	—	—	st	—	ac	st	—	—	ns	—	—	ns	—	—	ns			
13	11.9	10.8	11.4	10.2	8.9	8.4	10.3	10	7	10	10	9	9	9.2	—	—	st	—	—	sc	—	—	sc	—	—	sc	—	—	sc			
14	9.2	9.3	10.9	10.2	11.3	10.9	10.3	10	4	4	7	1	0	4.3	—	as	sc	—	—	sc	—	cu	ci,cc	—	eu	—	—	eu	—	—	—	
15	9.1	11.3	12.3	12.3	13.5	10.9	11.6	0	0	0	0	5	0	0.8	—	—	—	—	—	—	—	—	—	ci	—	—	—	—	—	—		
16	11.3	11.4	13.1	15.1	14.2	14.2	13.2	10	10	10	10	10	10	10.0	—	—	st	—	—	sc	—	—	ns	—	—	ns	—	—	ns			
17	13.9	14.4	16.1	14.7	14.6	13.8	14.6	10	10	10	10	10	10	10.0	—	—	ns	—	—	ns	—	as	sc	ci	—	sc	—	—	sc			
18	12.7	12.9	13.2	13.8	13.2	11.7	12.9	8	10	10	10	10	7	9.2	cs	—	—	cs,cc	—	cs	—	sc	—	as	sc	—	as	st	—	sc		
19	10.9	12.0	11.5	11.5	11.9	11.9	11.6	2	10	10	10	10	10	8.7	—	—	sc	—	—	sc	—	—	sc	—	—	ns	—	—	sc			
20	10.3	10.2	11.4	11.3	10.1	9.3	10.4	5	4	0	2	7	6	4.0	ci	—	—	cs	—	sc	—	cu	cs	—	ci,cs	—	ci,cs	—	—	—		
21	8.6	9.9	10.2	14.1	13.4	13.8	11.7	7	1	7	3	10	10	6.3	ci,cs	—	—	ci	—	—	ci	—	—	ci,cc,ac	—	cs	—	—	—			
22	13.0	14.4	13.3	10.6	10.8	12.8	12.5	10	10	10	10	10	10	10.0	—	as	—	cs	ac	—	cs	—	eu	sc	—	ac	—	—	ns			
23	10.3	9.8	11.2	12.6	10.1	9.4	10.6	5	6	9	7	1	0	4.7	cs,cc	—	sc	cs,ci	—	ci	—	—	ci	—	—	ci	—	—	—			
24	8.5	9.5	12.9	18.4	17.9	17.0	14.0	1	9	10	10	10	10	8.3	ci	—	—	—	sc	—	—	sc	—	cs	sc,st	—	—	sc	—	—	sc	
25	15.8	16.1	16.3	12.9	11.7	11.3	14.0	10	10	10	10	9	10	9.8	—	—	st	—	sc,st	—	sc,ns	—	sc	cs	—	sc	—	—	sc			
26	11.4	11.8	12.6	12.6	15.6	13.2	12.9	0	0	3	7	7	0	2.8	—	—	cu	—	—	cu	—	—	sc,eu	es,ci	—	sc,eu	—	—	—			
27	12.9	12.5	15.4	14.9	16.6	15.1	14.6	10	10	0	5	10	0	5.8	—	—	st	—	—	cu	es	—	sc	cs	—	—	—	—	—	—		
28	13.2	13.5	15.0	14.9	17.6	15.9	15.0	10	4	3	6	10	3	6.0	cs	—	—	st	—	cs	—	—	ci	—	sc	cs	—	—	cs			
29	14.6	12.0	15.3	11.2	15.4	13.4	13.7	10	10	0	1	3	10	5.7	—	—	sc	—	—	st	—	cc	—	cu	ci	—	cu	—	—	st		
30	13.0	13.2	14.2	15.8	15.4	14.8	14.4	10	10	10	1	7	10	8.0	—	—	st	—	—	st	—	—	sc	cs,cc	—	—	st	—	—	st		
31	16.0	16.6	18.1	16.2	18.1	17.8	17.1	10	10	6	10	10	10	9.3	—	—	st	—	—	st	cc	—	—	es	—	se,eu	—	—	st	—	—	st
Mean	11.1	11.4	12.6	12.5	12.5	12.2	12.1	6.3	7.0	6.6	7.1	7.7	6.8	6.9	—	—	—	—	—													

JUNE, 1959.



Day	STATION PRESSURE (1000mb+)						M.S.L. PRESSURE (1000mb+)						AIR TEMPERATURE °C								
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean
1	4.9	6.0	6.4	4.0	5.3	5.6	5.4	12.4	13.5	13.8	11.4	12.7	13.1	12.8	16.9	17.3	21.2	21.1	16.8	15.1	18.1
2	3.9	3.4	3.8	3.6	4.3	5.6	4.1	11.5	10.9	11.3	11.1	11.8	13.1	11.6	14.7	14.3	15.2	17.1	15.3	14.3	15.2
3	5.2	5.4	5.4	4.5	5.2	6.7	5.4	12.8	13.0	12.7	11.9	12.7	14.4	12.9	13.8	13.7	19.4	18.2	16.9	14.5	16.1
4	6.1	6.0	6.9	6.9	7.9	10.0	7.3	13.7	13.6	14.4	14.5	15.5	17.6	14.9	13.7	13.9	17.2	15.3	14.6	11.9	14.4
5	8.9	9.7	9.4	7.9	7.6	8.8	8.7	16.6	17.3	17.0	15.5	15.1	16.5	16.3	11.8	12.6	15.9	17.6	15.7	12.7	14.4
6	7.0	6.4	6.2	4.3	2.6	1.7	4.7	14.7	14.1	13.8	11.8	10.1	9.2	12.3	11.6	13.0	15.8	17.8	17.3	17.2	15.5
7	999.8	999.7	0.0	998.5	998.4	999.1	999.3	7.3	7.2	7.5	5.8	5.7	6.6	6.7	16.1	16.3	18.5	22.7	22.2	18.7	19.1
8	998.8	999.9	998.2	996.3	996.4	996.8	997.7	6.3	7.3	5.5	3.7	3.8	4.3	5.2	17.6	17.8	21.5	22.9	20.3	16.7	19.5
9	995.0	994.5	994.8	994.7	995.7	998.1	995.5	2.5	2.0	2.2	2.1	3.1	5.7	2.9	15.6	16.7	18.0	19.2	16.6	13.5	16.6
10	998.5	999.0	0.6	999.6	1.1	0.8	999.9	6.1	6.6	7.9	7.0	8.6	8.4	7.4	12.1	14.3	19.7	19.0	15.3	12.9	15.6
11	998.2	996.9	994.3	991.1	991.0	988.5	993.3	5.7	4.5	1.8	998.6	998.6	996.0	0.9	12.7	12.1	13.8	13.7	10.7	10.6	12.3
12	987.4	988.0	988.8	989.7	992.3	995.0	990.2	994.9	995.5	996.3	997.1	999.9	2.5	997.7	11.7	11.5	14.1	15.3	12.7	12.5	13.0
13	995.4	997.7	999.8	0.1	1.3	2.6	999.5	2.9	5.1	7.2	7.4	8.7	10.2	6.9	14.6	16.7	20.7	23.1	18.6	15.5	18.2
14	2.1	3.0	0.8	999.1	999.2	1.7	1.0	9.7	10.6	8.1	6.4	6.6	9.1	8.4	13.0	14.1	21.2	23.8	21.6	17.0	18.5
15	1.1	1.4	0.8	998.0	998.6	998.9	999.8	8.6	8.8	8.3	5.3	6.0	6.4	7.2	16.9	16.5	19.5	23.3	20.8	18.3	19.2
16	997.3	998.3	998.5	997.6	998.1	997.7	997.9	6.1	5.7	5.8	4.8	5.4	5.1	5.5	17.0	18.0	23.7	24.2	23.1	17.6	20.6
17	996.4	996.9	997.3	996.3	997.0	999.1	997.2	3.9	4.3	4.6	3.6	4.3	6.6	4.6	15.6	16.5	21.2	23.9	21.5	17.1	19.3
18	997.4	997.8	998.5	997.6	998.4	1.0	998.5	4.8	5.3	5.9	4.9	5.9	8.5	5.9	15.6	15.3	17.1	20.0	17.6	14.7	16.7
19	0.6	0.6	2.2	0.6	999.7	998.9	4.0	8.2	8.2	9.8	8.1	7.2	6.4	8.0	13.7	13.7	16.2	15.5	15.4	15.5	15.0
20	997.8	998.0	997.3	997.1	998.2	0.3	998.1	5.3	5.4	4.7	4.4	5.7	7.8	5.6	15.9	16.7	19.0	20.0	17.3	15.9	17.5
21	1.0	2.1	3.3	2.7	3.3	4.0	2.7	8.5	9.6	10.7	10.1	10.7	11.6	10.2	15.6	16.1	17.8	21.4	18.0	16.7	17.6
22	3.2	3.8	4.9	4.2	5.0	6.7	4.6	10.7	11.3	12.4	11.5	12.4	14.2	12.1	16.7	17.0	19.0	21.1	18.5	17.3	18.3
23	6.5	7.1	6.9	6.5	7.1	7.8	7.0	14.1	14.6	14.4	13.8	14.6	15.3	14.5	16.8	17.3	20.2	19.2	17.5	16.9	18.0
24	6.9	7.6	7.9	7.0	7.8	8.4	7.6	14.5	15.1	15.5	14.6	15.4	16.0	15.2	16.8	16.8	17.8	17.6	17.3	16.2	17.1
25	7.7	8.2	8.7	7.4	8.0	8.8	8.1	15.3	15.8	16.2	14.9	15.6	16.3	15.7	15.5	16.2	18.8	19.8	17.6	16.8	17.5
26	8.1	8.4	8.4	7.3	8.2	10.0	8.4	15.7	15.9	15.9	14.6	15.8	17.5	15.9	16.7	17.4	19.7	21.9	19.0	17.2	18.7
27	9.4	10.6	10.2	8.8	8.4	10.1	9.6	16.9	18.1	17.6	16.2	15.9	17.5	17.0	16.7	16.9	19.6	23.1	20.6	18.0	19.2
28	9.1	9.2	9.6	7.7	7.4	9.4	8.7	16.6	16.7	17.0	15.0	14.7	16.9	16.2	17.4	17.6	20.6	25.9	24.8	18.6	20.8
29	8.2	9.6	7.8	7.3	7.2	8.3	8.1	15.7	17.1	15.3	14.6	14.6	15.8	15.5	18.0	18.5	20.4	22.7	22.4	18.4	20.1
30	7.7	7.6	6.9	4.0	3.0	3.9	5.5	15.2	15.1	14.3	11.3	10.3	11.4	12.9	17.8	18.2	22.2	25.5	23.1	20.2	21.2
31																					
Mean	2.3	2.8	2.8	1.7	2.1	3.1	2.5	9.9	10.3	10.3	9.1	9.6	10.7	10.0	15.3	15.8	18.8	20.4	18.3	16.0	17.4

Day	AIR TEMPERATURE °C				DIRECTION AND VELOCITY (m.p.s.) OF THE WIND											
	Max.	Min.	Mean	Range	2	6	10	14	18	22	Mean	6 obs.				

JUNE, 1959.



Day	VAPOUR PRESSURE (mb)						AMOUNT OF CLOUD (0-10)						FORMS OF CLOUD																					
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L					
1	17.2	18.2	19.7	18.8	17.6	16.5	18.0	10	10	10	10	10	10	10.0	—	—	st	—	—	st	—	—	sc,st	—	—	ns	—	—	st					
2	16.4	16.1	16.7	17.1	15.8	15.3	16.2	10	10	10	10	10	10	10.0	—	—	ns	—	—	ns	—	—	ns,sc	—	as	sc	—	—	st					
3	15.1	15.2	13.4	14.9	14.4	14.3	14.6	10	10	9	9	10	10	9.7	—	—	st	—	—	sc,eu	—	—	sc	cs	—	sc	—	—	sc					
4	14.5	15.0	13.2	15.1	13.2	12.4	13.9	10	10	10	10	9	10	9.8	—	—	st	—	—	sc	—	—	ns,sc	—	ac	sc,st	—	—	sc					
5	12.6	12.7	13.4	14.3	13.8	12.3	13.2	10	10	10	10	3	5	8.0	—	—	sc	—	—	sc	—	—	sc	cc	—	sc	—	—	sc					
6	12.3	13.0	14.6	15.5	16.6	17.2	14.9	10	10	10	10	10	10	10.0	—	—	st	—	—	sc	—	—	sc	—	—	sc	—	—	ns					
7	17.7	18.0	19.3	20.3	20.1	18.6	19.0	10	10	10	10	10	3	8.8	—	—	ns	—	—	sc,st	—	—	sc	—	—	sc	—	—	sc					
8	17.3	15.7	17.1	16.2	16.6	16.1	16.5	10	9	10	10	8	7	9.0	—	—	sc	ci	—	sc	cs	—	sc	cs	—	sc	cc	—	sc	—	—	sc		
9	16.3	16.3	16.9	15.7	13.6	12.7	15.3	10	8	10	9	5	6	8.0	—	—	st	—	—	sc	—	—	ns	cs	—	sc	es	—	sc	—	—	sc		
10	13.3	13.5	12.6	14.9	14.1	13.1	13.6	10	1	10	10	10	10	8.5	cs	—	sc	es	—	cu	ci,cs	—	sc	cs	—	sc	—	—	sc	es	—	sc		
11	13.9	13.3	14.9	14.7	12.1	12.0	13.5	10	10	10	10	10	10	10.0	—	—	ns	—	—	ns	—	—	ns	—	—	ns	—	—	ns	—	—	ns		
12	10.6	10.0	10.8	11.2	12.3	13.1	11.3	10	8	5	10	10	10	8.8	—	—	st	—	ac	sc	cc	—	sc	—	—	sc	—	—	sc	—	—	sc		
13	12.6	12.5	13.3	13.8	13.4	13.0	13.1	10	4	4	10	10	10	8.0	cs	—	sc	cs	—	eu	ci,cs,cl	—	cu	ci,cs	—	cu	cs,ee,ci	—	—	sc				
14	13.2	12.9	13.3	17.2	16.1	17.9	15.1	4	5	3	8	3	9	5.3	—	—	sc	—	ac	sc	cc	—	eu	—	ac	sc	cc	ac	sc	—	—	sc		
15	18.3	17.1	18.5	20.4	20.8	20.0	19.2	10	10	10	10	10	10	10.0	—	—	st	—	—	sc	ci	—	sc	cc	—	—	as	—	—	sc				
16	18.2	19.3	16.9	18.9	18.4	17.5	18.2	10	6	3	9	3	0	5.2	—	—	st	—	—	sc	cc	—	cu	—	—	sc,eu	cc	—	cu	es	—	—	sc	
17	16.8	17.8	17.4	17.5	17.0	16.0	17.1	0	10	9	6	10	10	7.5	—	—	—	—	—	sc,eu	—	—	sc	cs	—	cu	cs	—	sc	—	—	sc		
18	16.0	15.8	16.0	18.1	15.7	14.0	15.9	10	10	10	6	3	10	8.2	—	—	st	—	—	st	—	as	sc	cs	—	sc	cs	—	sc	—	as	—	—	sc
19	13.9	14.8	15.2	16.2	16.8	17.3	15.7	10	10	10	10	10	10	10.0	—	—	st	—	—	st	—	—	st	—	—	ns	—	—	ns	—	—	ns		
20	17.5	18.6	19.2	19.1	19.0	17.3	18.5	10	10	10	10	10	10	10.0	—	—	ns	—	—	st	—	—	st	—	—	ns	—	—	ns	—	—	ns		
21	17.2	17.6	18.3	19.8	17.6	17.0	17.9	10	10	10	8	9	10	9.5	—	—	st	—	—	st	—	—	sc	—	—	sc	—	—	sc	—	—	sc		
22	17.7	18.1	19.0	19.0	17.6	17.5	18.2	10	10	10	9	10	10	9.8	—	—	sc	—	—	st	—	—	st,sc	—	—	st,sc	—	—	st	—	—	st		
23	17.8	18.2	18.6	19.4	18.7	18.3	18.5	10	10	10	10	10	10	10.0	—	—	st	—	—	st	—	—	sc	—	—	st	—	—	ns	—	—	st		
24	18.6	18.4	19.4	18.6	18.0	16.2	18.2	10	10	10	10	10	10	10.0	—	—	ns	—	—	ns	—	—	ns	—	—	ns	—	—	st	—	—	st		
25	16.0	16.6	17.4	19.4	18.6	18.4	17.7	10	10	10	10	10	10	10.0	—	—	sc	—	—	st,sc	—	—	st,sc	—	—	sc,ns	—	—	st	—	—	st		
26	18.3	18.9	19.5	21.3	19.8	17.9	19.3	10	10	10	10	10	10	10.0	—	—	st	—	—	st	—	—	ac,sc,eu	—	—	st	—	—	ns	—	—	sc		
27	17.7	18.1	19.2	20.9	19.3	17.9	18.9	10	10	10	10	10	10	10.0	—	—	st	—	—	st	—	—	sc	cs	—	sc	—	—	sc	—	—	sc		
28	18.9	19.0	19.7	21.8	24.1	20.4	20.7	10	10	10	10	10	2	8.7	—	—	ns	—	—	st	ci	—	—	ci	—	—	st	—	—	st				
29	19.9	20.5	21.4	21.6	22.0	20.2	20.9	10	10	10	10	10	7	9.5	—	—	st	—	—	ns	—	as	st	cs	—	st	—	—	st	—	—	st		
30	19.6	20.1	21.7	22.1	23.0	22.4	21.5	10	10	10	10																							



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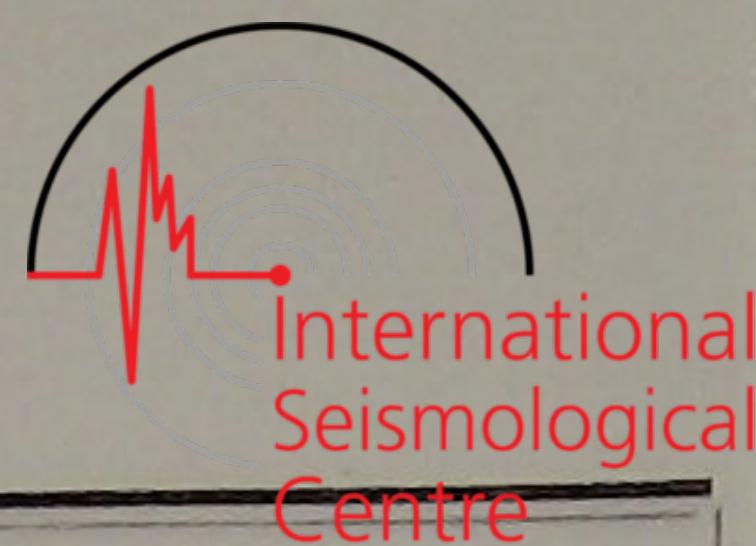
Day	STATION PRESSURE (1000mb+)						M.S.L. PRESSURE (1000mb+)						AIR TEMPERATURE °C									
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	
1	2.5	2.1	2.0	999.5	0.3	1.1	1.3	9.9	9.5	9.2	6.7	7.5	8.4	8.5	19.4	20.0	24.9	28.1	24.4	21.2	23.0	
2	999.4	998.9	998.1	997.3	996.1	996.2	997.7	6.8	6.3	5.4	4.7	3.5	3.6	5.1	19.8	19.2	20.3	19.4	18.9	19.0	19.4	
3	995.1	996.8	998.2	998.5	0.6	3.3	998.8	2.6	4.2	5.6	5.8	8.0	10.8	6.2	18.6	18.1	20.5	21.6	18.6	17.6	19.2	
4	3.4	5.4	6.6	6.1	6.2	7.2	5.8	10.9	12.9	14.1	13.5	13.7	14.7	13.3	17.3	17.0	21.0	22.1	18.5	17.2	18.9	
5	6.6	6.6	7.1	6.0	5.4	5.5	6.2	14.2	14.2	14.6	13.4	12.8	12.9	13.7	16.5	16.5	18.8	20.1	18.6	17.5	18.0	
6	8.3	2.2	2.1	0.7	0.4	1.8	1.8	10.8	9.7	9.5	8.0	7.8	9.1	9.2	17.5	17.5	19.8	24.0	24.3	22.2	20.9	
7	0.8	999.6	0.0	998.5	999.5	999.4	999.6	8.2	7.0	7.4	5.7	6.8	6.7	7.0	20.2	19.6	22.0	28.8	25.0	22.4	23.0	
8	998.7	999.0	997.6	994.8	993.1	991.9	995.9	6.1	6.3	4.6	1.9	0.3	999.1	3.1	21.8	22.1	28.0	29.1	26.1	23.1	25.0	
9	991.6	993.6	996.0	997.3	998.8	0.2	996.3	998.9	0.8	3.2	4.4	6.1	7.6	3.5	21.8	22.3	26.5	26.9	24.0	20.8	23.7	
10	999.2	997.7	995.9	992.0	989.1	986.8	993.5	6.6	5.1	3.2	999.4	996.3	994.1	0.8	19.4	19.4	19.8	20.6	21.7	22.0	20.5	
11	988.2	989.7	989.8	989.0	989.5	991.1	989.6	995.5	996.8	996.9	996.2	996.7	998.5	996.8	21.7	21.8	23.7	23.9	22.9	19.6	22.3	
12	990.4	991.0	990.6	989.2	990.5	991.9	990.6	997.8	998.4	997.8	996.3	997.7	999.2	997.9	17.1	17.7	25.2	27.3	22.8	20.4	21.8	
13	992.3	993.8	995.0	994.6	996.4	997.8	995.0	999.7	1.2	2.4	1.8	3.8	5.1	2.3	18.8	18.6	21.7	25.8	21.8	20.8	21.3	
14	998.4	999.5	0.5	999.9	1.4	3.4	0.5	5.8	6.9	7.9	7.3	8.8	10.8	7.9	20.2	20.3	21.6	22.7	20.5	18.7	20.7	
15	2.6	2.1	2.1	1.9	2.5	3.8	2.5	10.1	9.5	9.4	9.1	9.7	11.1	9.8	18.8	19.0	21.7	25.5	24.5	23.1	22.1	
16	3.8	5.2	6.2	5.5	6.2	7.5	5.7	11.1	12.6	13.6	12.7	13.6	15.0	13.1	22.3	20.8	24.7	26.0	23.1	19.5	22.7	
17	6.8	7.5	5.9	4.3	4.6	6.1	5.9	14.4	15.0	13.1	11.5	11.9	13.6	13.3	16.1	18.2	25.3	26.9	23.7	19.4	21.6	
18	5.1	5.2	5.2	3.4	3.7	4.8	4.6	12.6	12.7	12.6	10.7	11.0	12.3	12.0	17.3	18.1	22.0	23.7	22.0	19.4	20.4	
19	4.0	3.7	4.2	3.5	3.6	4.8	4.0	11.5	11.1	11.5	10.9	11.0	12.2	11.4	19.4	19.4	22.3	21.6	22.9	20.2	21.0	
20	4.3	5.4	5.1	3.8	3.8	5.3	4.6	11.7	12.8	12.4	11.1	11.1	12.7	12.0	19.6	20.0	22.7	24.8	23.9	19.9	21.8	
21	5.0	5.5	5.4	3.6	3.8	4.3	4.6	12.5	13.0	12.7	10.8	11.1	11.7	12.0	16.3	16.3	24.3	28.3	26.4	21.1	22.1	
22	3.8	3.9	5.1	2.5	3.5	4.0	3.8	11.3	11.4	12.3	9.7	10.9	11.4	11.2	18.6	19.2	22.9	28.6	24.1	22.4	22.6	
23	3.0	3.6	1.7	0.6	0.7	0.4	1.7	10.5	11.0	9.0	7.8	7.9	7.8	9.0	21.7	21.5	25.5	27.4	23.4	23.0	23.8	
24	999.3	998.6	998.5	996.7	996.9	997.9	998.0	6.6	5.9	5.7	3.9	4.2	5.1	5.2	22.2	22.7	23.5	24.8	24.5	23.3	23.5	
25	998.0	999.2	0.1	999.4	2.3	4.4	0.6	5.3	6.5	7.3	6.5	9.6	11.9	7.9	22.9	22.1	28.4	30.4	24.1	17.6	24.3	
26	5.8	7.0	6.3	4.3	4.3	5.4	5.5	13.4	14.5	13.6	11.5	11.6	12.8	12.9	15.5	15.6	24.3	28.6	24.5	18.7	21.2	
27	4.6	5.0	3.2	1.0	1.4	2.6	3.0	12.2	12.5	10.5	8.2	8.6	10.1	10.4	15.7	16.5	25.2	29.0	25.3	19.2	21.8	
28	2.1	2.8	2.7	2.6	3.8	4.9	3.2	9.7	10.3	10.0	9.8	11.0	12.3	10.5	16.5	17.5	26.3	26.9	23.5	18.3	21.5	
29	4.8	5.8	5.1	3.1	3.0	4.0	4.3	12.3	13.3	12.4	10.4	10.4	11.5	11.7	15.9	16.6	24.5	27.9	23.9	19.4	21.4	
30	3.1	2.9	2.0	999.0	999.6	0.3	1.2	10.6	10.4	9.2	6.2	6.9	7.7	8.5	17.4	18.0	25.5	30.8	25.5	20.0	22.9	
31	999.1	999.4	999.3	998.2	997.9	999.9	999.0	6.6	6.9	6.5	5.3	5.0	7.2	6.3	18.0	18.8	28.6	30.2	26.5	24.7	24.5	
Mean	0.8	1.2	1.2	999.9	0.3	1.2	0.8	8.3	8.7	8.5	7.1	7.6	8.6	8.1	18.8	19.0	23.6	25.9	23.2	20.4	21.8	
Day	AIR TEMPERATURE °C				DIRECTION AND VELOCITY (m.p.s.) OF THE WIND																	
	Max.	Min.	Mean	Range	2	6	10	14	18	22	6 obs.	24 h.	Mean	2	6	10	14	18	22	6 obs.	24 h.	
1	29.5	19.4	24.5	10.1	SSW	1.7	S	0.9	W	1.3	W	2.6	SSE	5.5	SSW	2.8	2.5	2.2	2.2	2.2	2.2	
2	20.8	18.9	19.9	1.9	—	0.0	NNE	0.9	WSW	2.0	S	4.6	WSW	3.4	—	0.0	1.8	1.7	1.7	1.7	1.7	
3	22.4	17																				



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Day	VAPOUR PRESSURE (mb)						AMOUNT OF CLOUD (0-10)						FORMS OF CLOUD																				
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	H	M	L	H	M	L	H	M	L	H	M	L							
1	21.7	22.1	22.9	27.6	21.7	20.7	22.8	10	10	2	10	10	10	8.7	—	—	sc	—	—	st	ci	—	cu	ci	—	sc,cu	—	as	cu	—	as	—	
2	21.0	21.4	22.3	21.7	21.4	21.6	21.6	10	10	10	10	10	10	10.0	—	—	st	—	—	ns	—	—	ns	—	—	ns	—	—	ns	—	—	ns	
3	21.0	20.2	22.2	21.1	20.2	19.0	20.6	10	10	10	10	10	10	10.0	—	—	ns	—	—	st	—	—	ns	—	—	sc	—	—	ns	—	—	ns	
4	18.6	18.6	20.0	20.9	19.3	17.7	19.2	10	10	10	10	10	10	10.0	—	—	sc	—	—	ns	—	ac	sc,st	—	—	sc,st	—	—	st	—	—	st	
5	17.5	17.7	18.5	20.0	19.5	19.4	18.8	10	10	10	10	10	10	10.0	—	—	st	—	—	ns	—	as	st	—	—	st	—	—	st	—	—	ns	
6	19.8	20.0	21.0	24.9	25.8	25.0	22.8	10	10	10	10	10	10	10.0	—	—	ns	—	—	ns	—	—	sc	—	—	sc	—	—	sc	—	—	sc	
7	23.5	22.4	24.6	26.7	24.7	24.8	24.5	10	10	10	10	10	10	10.0	—	—	ns	—	—	ns	—	—	ns,sc	ci	—	sc	ci	ac	sc	—	—	st	
8	24.7	25.5	28.2	28.5	26.1	26.2	26.5	10	10	7	9	10	10	9.3	—	—	ns	—	as	sc	cc	—	sc	cu	cs	—	sc, cu	—	as	sc	—	—	st
9	25.7	25.3	20.4	21.9	20.3	22.8	22.7	10	10	8	10	10	10	9.7	—	—	ns	—	—	sc	—	—	sc	cs	—	cu	cs	ac	sc	—	—	sc	
10	21.1	20.9	22.7	23.6	25.5	25.8	23.3	10	10	10	10	10	10	10.0	—	—	sc	—	—	sc	—	—	ns	—	—	ns	—	—	ns	—	—	ns	
11	25.3	21.8	22.7	23.0	21.7	20.8	22.6	3	8	10	10	9	4	7.3	—	—	sc	cc,ci	—	cu	cs	—	sc	cs	—	sc	—	ac	sc	—	—	sc	
12	18.6	18.7	21.2	21.2	23.9	22.7	21.1	2	1	0	4	7	3	2.8	—	—	sc	—	—	st	—	—	cu	—	—	sc	cs	—	sc	—	—	sc	
13	20.9	21.2	23.1	23.9	25.2	24.1	23.1	3	10	10	10	10	10	8.8	cs	—	—	—	—	≡	cc	—	st,sc	—	ac	sc,cb	—	—	ns,sc	—	—	ns	
14	23.0	22.8	24.0	23.1	21.6	20.2	22.5	10	10	10	10	10	10	10.0	—	—	sc	—	as	st	—	—	ns	—	—	st	—	—	sc	—	—	sc	
15	20.7	21.2	24.2	27.9	28.0	27.1	24.9	10	10	10	9	10	10	9.8	—	—	st	—	—	st	—	—	sc	—	—	sc	—	—	sc	—	—	st	
16	26.2	22.8	22.8	22.2	21.9	19.4	22.6	10	10	10	2	7	0	6.5	—	—	ns	—	—	sc	ci	cc	—	sc	cc,ci	—	cu	ci	ac	sc	—	—	—
17	17.6	18.6	20.5	24.1	22.6	20.1	20.6	0	0	2	8	3	10	3.8	—	—	—	ci	—	—	cc	—	sc	cs	—	sc, cu	—	—	sc	—	as	sc	
18	18.4	19.6	22.0	22.0	22.3	20.9	20.9	2	9	10	10	10	10	8.5	—	—	sc	cs	—	st	cs	ac	—	cs	—	cu	—	as	sc	cs	ac	—	
19	21.7	22.1	23.6	24.7	24.5	22.4	23.2	10	10	10	10	9	0	8.2	—	as	—	—	ns	—	—	st	—	—	ns	ci	—	sc,st	—	—	—		
20	22.4	22.7	21.4	22.3	22.1	20.2	21.9	10	10	10	8	1	0	6.5	—	—	st	—	—	sc,st	—	—	sc	—	—	sc, cu	—	—	sc, cu	—	—	—	
21	18.0	18.3	22.0	22.5	24.0	22.4	21.2	1	10	9	8	10	10	8.0	ci	—	—	—	—	≡	cs	—	—	cs	—	—	cs	—	—	cs,cc	—	—	—
22	20.2	21.4	21.9	28.0	26.9	26.2	24.1	0	10	10	7	10	10	7.8	—	—	cu	—	—	sc	ci	—	st, sc	ci	—	cu	ci	—	ns,sc	ci,cs	—	—	
23	25.1	25.6	27.9	30.1	27.8	27.2	27.3	10	10	10	10	10	10	10.0	—	ac	—	—	—	as	sc	st	—	as	sc	—	—	sc, st	—	—	st		
24	26.3	26.9	28.0	28.6	27.8	26.5	27.4	10	10	10	10	10	10	10.0	—	—	st	—	—	st	—	—	ns	—	—	sc	—	—	sc	—	—	sc	
25	26.8	26.1	25.5	27.6	19.8	18.2	24.0	10	10	7	3	0	0	5.0	—	as	—	—	≡	—	—	cu	—	—	cu	—	—	cu	—	—	—		
26	16.3	17.0	22.9	21.1	22.3	19.2	19.8	0	10	0	0	0	0	1.7	—	—	—	—	≡	—	—	cu	—	—	cu	—	—	—	—	—	—	—	
27	16.8	17.7	23.6	25.5	22.0	18.1	20.6	0	4	8	10	10	7	6.5	cc	—	—	—	st	cs	—	—	cs	—	cu	cs	—	sc	cs	—	—	—	
28	17.7	17.2	19.4	20.3	17.2	18.7	18.4	6	9	10	10	10	0	7.5	cs	—	cu	cs	—	sc	cs, ci	—	cu	ci, cs	—	cu	ci, cs	—	cu	ci, cs	—	—	—
29	17.3	17.6	20.4	18.6	23.2	20.7	19.6	10	5	3	7	10	0	5.8	ci	—	—	ci	—	—	cc	—	cu	ci	—	cu	cs	—	—	—	—	—	—
30	19.3	19.5	18.9	20.2	20.2	21.3	19.9	2	10	4	2	4	0	3.7	cc	—	—	—	st	ci	—	—	ci	—	—	ci	—	—	sc	—	—	—	
31	19.5	20.3	23.7	27.7	26.5	24.6	23.7																										

AUGUST, 1959.



Day	STATION PRESSURE (1000mb+)						M.S.L. PRESSURE (1000mb+)						AIR TEMPERATURE °C								
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean
1	0.1	0.5	0.2	0.3	0.4	1.4	0.5	7.5	7.8	7.4	7.5	7.7	8.7	7.8	22.1	22.8	28.4	24.8	24.2	23.5	24.3
2	1.2	2.1	3.0	2.1	2.4	3.8	2.4	8.5	9.5	10.4	9.3	9.6	11.1	9.7	21.7	21.5	25.1	28.3	27.1	22.6	24.4
3	4.3	5.6	5.9	5.9	7.1	8.8	6.3	11.8	12.9	13.2	13.1	14.5	16.3	13.6	21.4	21.6	25.1	23.7	19.9	18.9	21.8
4	7.9	8.0	7.1	3.9	3.8	5.3	6.0	15.4	15.5	14.5	11.2	11.1	12.7	13.4	18.6	18.9	21.6	26.4	22.8	19.3	21.3
5	4.0	3.9	2.6	0.0	0.1	0.8	1.9	11.5	11.3	9.9	7.3	7.4	8.2	9.3	19.1	19.6	24.6	28.4	23.5	20.1	22.6
6	999.2	999.4	998.6	996.4	996.0	997.3	997.8	6.6	6.9	5.9	3.6	3.4	4.6	5.2	19.2	18.0	25.4	27.4	22.4	19.5	22.0
7	995.8	996.2	995.0	992.5	992.4	993.6	994.3	3.1	3.6	2.2	999.6	999.7	0.8	1.5	19.4	19.7	25.7	28.0	23.7	22.2	23.1
8	992.8	992.9	993.0	992.5	993.0	993.2	992.9	0.2	0.3	0.2	999.8	0.3	0.5	0.2	19.6	20.8	24.1	23.1	21.8	21.0	21.7
9	991.8	991.3	991.1	988.7	988.9	987.8	989.9	999.1	998.6	998.5	996.0	996.3	995.3	997.3	20.4	20.4	20.2	20.4	18.1	16.9	19.4
10	986.5	988.7	990.3	991.8	994.2	998.0	991.6	993.8	996.2	997.7	999.3	1.7	5.4	999.0	17.3	16.5	17.5	17.9	16.4	15.8	16.9
11	998.9	1.6	2.9	2.8	4.6	7.2	3.0	6.4	9.1	10.2	10.1	12.0	14.7	10.4	15.8	16.0	22.2	23.1	19.8	18.6	19.3
12	7.8	8.9	9.6	9.7	10.1	9.9	9.3	15.3	16.4	16.9	17.1	17.5	17.3	16.8	17.3	17.9	21.6	21.2	20.0	19.0	19.5
13	8.7	8.0	6.9	5.7	5.8	5.8	6.8	16.2	15.6	14.2	12.9	13.0	13.1	14.2	18.0	18.3	25.2	26.9	24.7	23.5	22.8
14	3.8	2.3	999.2	994.9	995.8	998.5	999.1	11.1	9.6	6.5	2.2	3.0	5.8	6.4	23.9	23.3	25.3	24.7	24.3	22.7	24.0
15	998.6	0.4	2.1	0.8	0.7	1.7	0.7	5.9	7.8	9.3	8.0	7.9	9.0	8.0	22.1	22.2	26.3	27.7	26.0	22.9	24.5
16	0.9	2.1	1.7	0.1	0.7	2.1	1.3	8.3	9.4	8.8	7.3	7.9	9.4	8.5	22.0	22.2	27.0	30.9	27.7	24.5	25.7
17	2.3	3.1	3.0	1.5	1.7	3.5	2.5	9.6	10.5	10.3	8.6	8.8	10.8	9.8	23.1	22.9	28.4	30.4	27.5	24.1	26.1
18	2.9	3.1	2.9	1.3	2.1	2.0	2.4	10.2	10.5	10.1	8.6	9.4	9.4	9.7	22.2	21.7	26.6	25.2	23.5	21.2	23.4
19	1.7	2.8	1.4	0.0	999.8	0.7	1.1	9.1	10.2	8.6	7.1	7.0	8.0	8.3	21.2	21.0	26.9	30.7	25.7	23.0	24.8
20	999.8	1.3	0.8	999.1	999.0	0.5	0.1	7.1	8.6	8.0	6.2	6.1	7.8	7.3	21.8	21.4	26.7	30.4	27.1	22.7	25.0
21	0.0	0.3	999.8	998.5	998.0	998.1	999.1	7.4	7.7	7.0	5.6	5.1	5.3	6.4	20.8	20.9	27.6	28.7	25.9	23.3	24.5
22	997.1	997.0	995.5	995.3	995.8	997.7	996.4	4.4	4.4	3.4	2.6	3.1	5.1	3.8	21.8	20.2	19.4	20.2	19.6	18.6	20.0
23	998.9	0.6	1.8	3.8	3.2	4.8	2.2	6.4	8.0	9.1	11.0	10.6	12.2	9.6	17.7	16.9	22.7	25.9	21.2	18.8	20.5
24	4.8	5.7	5.4	4.5	5.2	6.0	5.3	12.3	13.0	12.7	11.9	12.6	13.4	12.7	18.8	18.8	22.0	20.6	19.5	18.7	19.7
25	4.9	5.7	4.8	3.9	5.1	5.7	5.0	12.3	13.1	12.1	11.1	12.4	13.1	12.4	18.6	18.8	23.6	25.6	20.7	20.1	21.2
26	4.6	4.0	3.9	2.5	2.0	2.1	3.2	12.0	11.5	11.4	9.8	9.3	9.5	10.6	19.7	19.7	20.2	22.0	22.0	21.4	20.8
27	0.3	999.9	999.4	997.0	998.6	998.6	999.0	7.7	7.2	6.7	4.3	5.8	5.8	6.3	22.1	22.6	22.8	24.1	24.4	23.9	23.3
28	0.1	1.6	1.0	1.5	2.7	4.3	1.9	7.4	8.8	8.2	8.6	10.0	11.6	9.1	23.0	23.3	27.5	28.4	26.2	23.7	25.4
29	4.2	5.4	5.2	4.9	6.3	7.3	5.6	11.6	12.8	12.3	12.1	13.7	14.7	12.9	21.4	20.8	28.8	28.5	23.2	20.2	23.8
30	7.4	8.2	8.8	7.8	7.7	9.4	8.2	14.9	15.8	16.0	15.0	15.0	16.8	15.6	17.8	18.5	26.7	28.0	23.1	19.3	22.2
31	8.5	8.9	7.4	4.6	3.5	3.5	6.1	16.0	16.4	14.8	11.8	10.8	10.9	13.5	19.0	18.3	24.1	27.4	23.5	21.8	22.4
Mean	1.3	1.9	1.6	0.5	0.9	1.9	1.3	8.7	9.3	8.9	7.7	8.2	9.3	8.7	20.2	20.2	24.5	25.8	23.1	21.0	22.5

Day	AIR TEMPERATURE °C				DIRECTION AND VELOCITY (m.p.s.) OF THE WIND											
	Max.	Min.	Mean	Range	2	6										

AUGUST, 1959.



Day	VAPOUR PRESSURE (mb)								AMOUNT OF CLOUD (0-10)								FORMS OF CLOUD																		
	2 6 10				14 18 22				Mean				2 6 10			14 18 22			Mean			H M L			H M L			H M L			H M L				
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L			
1	24.6	25.2	24.8	25.5	24.5	25.9	25.1	9	9	10	10	10	10	9.7	—	—	st	—	ac	—	—	—	sc	—	—	ac sc st	—	as, ac sc	—	—	st				
2	22.9	22.6	24.8	28.0	28.8	24.7	25.3	10	10	10	9	4	10	8.8	—	—	st	—	—	sc	—	—	sc	—	—	sc	cc	—	sc	—	—	sc			
3	23.7	23.6	25.5	24.4	21.6	21.2	23.3	10	10	10	10	10	10	10.0	—	—	st	—	—	sc	—	—	st	—	—	st	—	—	st	—	—	st			
4	20.6	20.6	21.7	22.6	22.4	19.0	21.2	10	10	10	8	10	10	9.7	—	—	st	—	—	sc	—	—	sc	—	—	sc	—	ac sc	es	—	sc				
5	20.3	21.2	21.9	20.8	21.9	20.8	21.2	10	10	9	6	8	10	8.8	—	—	st	—	—	sc	ci	—	cu	—	—	sc	—	—	sc	—	—	sc			
6	20.6	19.5	21.5	21.1	21.8	20.8	20.9	10	8	8	9	10	0	7.5	—	—	sc	—	—	sc	ci	—	cu	ci, cc	—	sc	ee, ci	—	cu	—	—	—			
7	22.1	21.3	24.2	25.3	23.7	23.0	23.3	10	10	9	10	9	10	9.7	—	—	st	—	—	sc	ci	—	sc	ci	—	sc	—	—	sc	—	—	sc			
8	22.0	23.3	23.7	22.6	22.2	22.3	22.7	10	10	10	10	10	10	10.0	—	—	st	—	—	sc	—	—	sc	—	as	sc	—	—	sc	—	—	sc			
9	22.9	23.1	23.0	20.9	19.6	18.3	21.3	10	10	10	10	10	10	10.0	—	—	st	—	—	ns	—	—	sc	—	—	ns	—	—	ns	—	—	ns			
10	17.2	16.9	18.1	17.3	16.5	16.5	17.1	10	10	10	10	10	10	10.0	—	—	ns	—	—	ns	—	—	as	sc	—	as	st	—	—	st	—	—	st		
11	17.2	17.4	18.2	18.8	20.4	19.1	18.5	10	10	4	10	10	10	9.0	—	—	st	—	ac	sc	—	—	sc	—	—	st	—	—	sc	—	—	sc			
12	18.6	18.8	20.6	19.9	18.5	20.0	19.4	10	10	10	10	10	10	10.0	—	—	sc	—	—	sc	—	—	sc	st	—	as	sc	—	—	ns	—	—	ns		
13	20.2	20.6	26.9	27.7	27.4	26.1	24.8	10	10	10	10	10	10	10.0	—	—	ns	—	—	st	cs	—	sc	ci	—	sc	—	—	st	—	—	st			
14	26.1	26.0	27.5	28.9	25.8	25.5	26.6	10	10	10	10	10	10	10.0	—	—	st	—	—	sc	—	—	ns	—	—	sc	—	—	sc	—	—	sc			
15	25.9	26.3	27.1	28.4	27.8	26.5	27.0	10	10	10	10	8	10	9.7	—	—	st	—	—	st	—	—	st	sc	—	ci, cc	—	ci, cc	—	—	—				
16	26.0	26.3	29.8	29.8	32.5	28.5	28.8	10	10	10	10	10	9	9.8	—	—	≡	—	—	≡	cc	—	st	eu	cc	—	eu	—	ac	st	cc	—	—		
17	26.6	27.2	28.9	28.1	30.0	27.4	28.0	10	10	5	4	9	8	7.7	—	—	st	—	—	st	cc	—	—	cc	—	sc, eu	cc	—	sc	cs	—	—			
18	26.5	25.5	26.9	28.6	26.8	25.2	26.6	10	10	10	10	10	10	10.0	—	—	≡	—	—	≡	—	—	sc	—	—	ns, cb	ci	—	eu	—	—	≡			
19	24.9	24.9	26.5	24.4	25.4	26.2	25.4	10	10	1	6	9	10	7.7	—	—	≡	—	—	≡	—	—	sc	cc	—	eu	cc	—	sc	es	—	eu			
20	24.8	24.8	26.1	27.3	28.8	25.3	26.2	10	10	8	7	10	2	7.8	—	—	st	—	as	st	cc	—	eu	cc	—	eu	es	—	sc	—	—	eu			
21	23.9	24.5	27.9	30.5	27.6	26.0	26.7	4	10	10	10	10	10	9.0	cc	—	—	—	—	≡	cc	ci	—	cu	ci	ac	cu	cc, ci	—	cu	—	—	sc		
22	25.0	22.0	21.5	23.0	22.4	21.0	22.5	10	10	10	10	10	1	8.5	—	—	ns	—	—	ns	—	—	ns	—	—	sc	st	—	—	sc	—	—	sc		
23	20.2	19.1	22.4	23.4	20.9	20.1	21.0	10	10	2	3	6	10	6.8	—	—	≡	—	—	≡	—	—	sc	—	—	sc, cu	—	ac	sc	cs	—	sc	—	—	sc
24	20.5	20.3	20.4	20.8	20.0	20.6	20.4	10	10	10	10	10	10	10.0	cs	—	—	sc	—	—	sc	—	—	sc	st	—	—	ns	—	—	sc	—	—	st	
25	21.0	21.1	22.3	24.0	21.5	21.4	21.9	10	10	10	9	10	10	9.8	—	—	st	ci	ac	st	—	—	sc	ci	—	sc	—	as	sc	—	st	—	—	st	
26	21.1	21.5	23.0	24.9	25.5	25.0	23.5	10	10	10	10	10	10	10.0	—	—	st	—	—	st	—	—	ns	—	—	ns	—	—	ns	—	—	ns			
27	25.9	26.7	27.1	27.6	27.4																														

SEPTEMBER, 1959.



Day	STATION PRESSURE (1000mb+)						M.S.L. PRESSURE (1000mb+)						AIR TEMPERATURE °C								
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean
1	1.6	999.9	998.6	995.9	994.9	994.5	997.6	8.9	7.2	5.9	3.1	2.1	1.7	4.8	22.3	22.6	25.4	26.5	25.3	23.5	24.3
2	994.3	995.4	995.8	995.0	996.3	998.7	995.9	1.6	2.7	3.1	2.3	3.7	6.2	3.3	21.9	20.3	22.1	22.9	20.4	17.2	20.8
3	999.3	1.4	2.6	1.8	3.4	6.2	2.5	6.7	8.8	9.9	9.0	10.7	13.7	9.8	15.5	17.8	23.4	25.7	21.8	18.4	20.4
4	6.6	7.4	8.3	6.8	6.5	8.4	7.3	14.1	14.9	15.8	14.2	14.1	15.9	14.8	17.0	17.0	20.3	22.2	17.9	17.4	18.6
5	7.8	8.6	8.9	7.4	8.7	9.8	8.5	15.4	16.1	16.3	14.7	16.1	17.2	16.0	16.9	17.1	22.6	24.9	20.0	18.4	20.0
6	9.3	9.7	9.5	8.4	8.8	9.3	9.2	16.8	17.1	16.8	15.8	16.2	16.7	16.6	18.4	18.7	21.8	22.4	20.4	18.0	20.0
7	8.0	8.3	7.5	5.4	6.1	6.2	6.9	15.5	15.8	14.8	12.6	13.4	13.7	14.3	17.2	17.6	24.9	26.6	20.5	19.1	21.0
8	4.9	4.7	5.0	2.9	3.8	4.2	4.3	12.3	12.1	12.3	10.3	11.2	11.7	11.7	19.1	18.8	20.4	21.9	18.5	18.2	19.5
9	3.7	3.7	4.8	4.3	5.3	7.4	4.9	11.1	11.1	12.2	11.8	12.7	15.0	12.3	18.1	17.8	18.8	20.0	18.4	17.6	18.5
10	6.5	6.9	7.4	6.7	6.6	6.9	6.8	14.1	14.4	14.9	14.2	14.1	14.4	14.4	17.8	17.8	20.7	20.6	18.4	18.3	18.9
11	5.6	5.9	6.5	4.8	5.3	5.3	5.6	13.0	13.3	13.9	12.0	12.6	12.7	12.9	18.4	18.7	22.3	25.7	22.9	20.6	21.4
12	4.7	4.2	2.9	1.4	1.8	2.6	2.9	12.2	11.6	10.2	8.6	9.0	10.1	10.3	20.2	19.9	20.9	23.3	21.1	18.9	20.7
13	2.1	2.1	2.9	1.1	2.1	3.1	2.2	9.6	9.6	10.2	8.3	9.6	10.6	9.7	17.6	17.3	22.0	26.5	20.4	17.3	20.2
14	3.0	3.4	3.4	2.9	3.1	5.3	3.5	10.5	10.7	10.7	10.2	10.5	12.7	10.9	15.7	14.1	22.2	22.9	20.0	18.2	18.9
15	7.0	8.4	9.8	7.9	9.6	12.2	9.2	14.6	16.0	17.1	15.2	17.0	19.7	16.6	17.2	17.5	22.1	26.3	19.5	18.3	20.2
16	12.1	12.4	12.1	10.4	10.4	10.5	11.3	19.7	20.0	19.5	17.6	17.7	17.8	18.7	17.8	17.8	22.7	24.5	19.8	18.8	20.2
17	9.4	8.7	8.0	5.0	2.6	0.9	5.8	16.8	16.1	15.4	12.3	9.9	8.3	13.1	19.3	20.0	23.1	23.7	22.4	22.4	21.8
18	996.8	994.0	992.0	992.0	994.5	996.5	994.3	4.1	1.3	999.2	999.2	1.7	3.8	1.6	21.8	22.7	25.4	28.4	23.8	22.8	24.2
19	995.9	995.8	998.2	996.8	998.9	1.0	997.8	3.4	3.2	5.6	4.0	6.2	8.3	5.1	18.8	18.2	21.5	27.7	22.4	20.6	21.5
20	2.0	4.0	5.6	5.0	6.4	7.4	5.1	9.5	11.5	12.8	12.3	13.8	15.1	12.5	17.6	17.6	23.1	25.9	18.0	13.5	19.3
21	8.2	10.2	10.7	9.4	10.4	10.8	10.0	15.9	17.8	18.1	16.8	17.9	18.4	17.5	12.1	12.9	19.4	21.0	16.3	14.8	16.1
22	10.1	11.1	11.5	9.5	11.0	11.7	10.8	17.7	18.7	19.0	16.9	18.6	19.4	18.4	12.6	15.1	19.1	21.4	16.1	13.3	16.3
23	11.4	12.6	12.3	10.4	10.9	11.0	11.4	19.2	20.3	19.8	17.7	18.4	18.6	19.0	10.5	10.9	19.0	21.0	17.6	15.9	15.8
24	9.4	8.8	7.9	4.9	5.5	5.3	7.0	17.0	16.4	15.4	12.4	13.0	12.8	14.5	15.5	15.4	15.8	16.5	17.3	17.2	16.3
25	3.6	3.0	3.0	2.1	4.8	6.9	3.9	11.1	10.6	10.5	9.5	12.3	14.5	11.4	17.2	16.3	19.2	21.2	16.8	16.0	17.8
26	7.4	9.3	10.3	8.2	6.1	999.8	6.9	14.9	16.8	17.8	15.8	13.7	7.4	14.4	15.5	15.5	16.1	16.3	15.8	15.2	15.7
27	986.1	977.2	983.3	991.7	997.8	1.2	989.6	993.4	984.3	990.5	999.0	5.2	8.7	996.9	18.1	23.6	25.8	19.9	17.5	16.1	20.2
28	3.8	8.0	9.8	8.9	11.1	12.7	9.1	11.4	15.6	17.2	16.4	18.7	20.3	16.6	14.7	13.9	17.8	20.2	15.4	15.1	16.2
29	11.5	11.8	12.6	10.0	9.4	9.6	10.8	19.1	19.4	20.1	17.4	16.9	17.1	18.3	14.7	14.4	17.3	17.5	15.5	15.9	15.9
30	8.1	9.9	11.0	11.0	13.5	15.9	11.6	15.7	17.5	18.4	18.4	21.0	23.7	19.1	14.9	14.0	21.0	21.0	16.9	14.7	17.1
31																					
Mean	4.7	4.9	5.4	4.3	5.2	6.0	5.1	12.2	12.4	12.8	11.6	12.6	13.5	12.5	17.1	17.4	21.2	22.8	19.2	17.7	19.3

Day	AIR TEMPERATURE °C				DIRECTION AND VELOCITY (m.p.s.) OF THE WIND											
	Max.	Min.	Mean	Range	2	6	10	14	18	22	Mean	6 obs.	24 h.			

SEPTEMBER, 1959.



Day	VAPOUR PRESSURE (mb)						AMOUNT OF CLOUD (0-10)						FORMS OF CLOUD						H M L			H M L			H M L			H M L					
	2 6 10			14 18 22			Mean			2 6 10			14 18 22			Mean	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L		
	2	6	10	14	18	22				2	6	10	14	18	22	Mean	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L		
1	25.6	26.5	28.7	29.7	29.5	24.3	27.4	10	10	10	10	9	10	9.8	—	—	st	—	—	st	—	—	sc	cs	ac	—	—	—	sc				
2	22.5	22.5	23.7	23.8	20.2	18.5	21.9	10	10	10	10	3	0	7.2	—	—	sc	—	—	ns	—	—	ns	ci	—	ns	cc	—	eu	—	—	—	
3	16.9	18.3	18.6	19.2	17.9	18.6	18.3	0	0	3	4	10	10	4.5	—	—	—	cu	—	—	sc	—	—	sc	—	—	sc	—	—	sc	—	—	sc
4	17.3	17.9	17.5	18.2	16.9	17.6	17.6	10	10	10	10	6	10	9.3	—	—	st	—	—	sc	—	—	sc	cs	cc	—	sc	cc	—	sc	—	—	sc
5	17.6	18.2	19.8	20.3	20.5	19.4	19.3	10	10	6	3	10	10	8.2	—	—	sc	—	—	cu	—	—	eu	ci	—	sc	—	—	sc	—	—	sc	
6	19.4	20.2	21.7	21.1	21.4	19.5	20.6	7	10	10	10	10	7	9.0	—	—	sc	—	as	st	—	—	st	—	—	sc	—	—	sc	—	—	sc	
7	18.7	19.3	22.3	21.1	21.8	21.1	20.7	9	9	7	10	10	10	9.2	—	—	sc	—	—	sc	st	—	—	sc	cs	—	eu	cb	—	—	sc		
8	21.5	20.9	22.3	23.2	20.7	20.3	21.5	10	10	10	10	10	10	10.0	—	—	sc	—	—	st	—	—	ns	—	—	ns	—	—	ns	—	—	ns	
9	20.0	20.0	21.3	21.7	20.4	19.2	20.4	10	10	10	10	10	10	10.0	—	—	ns	—	—	ns	—	—	ns	—	—	st	—	—	sc				
10	19.6	20.0	20.4	20.5	20.4	20.2	20.2	10	10	10	10	10	10	10.0	—	—	st	—	—	sc	—	—	sc	—	—	st	—	—	sc				
11	20.6	21.2	22.7	24.9	24.9	23.2	22.9	10	10	10	8	10	10	9.7	—	—	st	—	—	ns	—	—	st	cc	ci	—	cu	cs	—	sc	—	—	st
12	23.2	23.0	23.6	22.0	23.5	21.2	22.8	10	10	10	10	10	10	10.0	—	—	ns	—	—	ns	—	—	st	—	as	sc	—	as	st, sc	—	—	sc	
13	19.7	19.5	22.5	21.7	19.4	18.4	20.2	10	10	9	7	10	10	9.3	—	—	st	—	—	≡	cs	—	sc	cs	—	eu	sc	cc	ac	—	—	ac	
14	17.8	15.6	19.8	20.4	19.7	19.7	18.8	3	10	10	10	10	7	8.3	cs	—	sc	cc	—	—	cc	cs	eu	—	as	sc	cc	ac	—	—	cc	ac	—
15	19.0	19.8	20.5	19.2	19.2	19.3	19.5	10	10	9	2	4	10	7.5	—	—	st	—	—	sc	st	—	ci	—	cu	—	—	sc	—	—	sc		
16	19.6	19.6	20.7	20.8	20.0	20.1	20.1	10	10	9	4	2	10	7.5	—	—	sc	—	—	sc	—	—	sc	cs	—	sc	—	—	sc	—	—	sc	
17	21.2	22.5	23.7	24.4	24.4	23.1	23.2	10	10	10	10	10	10	10.0	—	—	sc	—	—	sc	—	—	st	—	—	st	—	—	ns	—	—	ns	
18	19.7	21.6	25.6	22.0	20.2	18.7	21.3	10	10	10	10	9	8	9.5	ci	—	sc	st	—	—	sc	st	—	cs	—	sc	—	—	sc	—	—	sc	
19	19.1	19.7	23.2	19.1	14.5	16.4	18.7	0	5	10	3	5	4	4.5	—	—	sc	cc	—	sc	—	—	sc	cc	ci	—	cu	cc	—	sc	—	—	sc
20	16.4	16.0	15.7	14.6	15.8	14.3	15.5	8	10	9	2	0	0	4.8	cc	—	sc	—	as	sc	cc	—	cu	—	—	cu	—	—	cu	—	—	cu	
21	13.2	12.6	12.9	10.5	12.1	13.4	12.5	0	10	9	10	9	10	8.0	—	—	cu	ci	cs	—	cu	cs	cc	—	eu	cc	es	sc	—	sc	—	sc	
22	13.6	12.9	11.9	13.5	13.2	13.6	13.1	6	9	6	10	7	7	7.5	—	—	sc	es	—	sc	cs	—	eu	cs	as	sc	es	ac	—	sc			
23	12.2	12.6	14.2	15.6	17.1	16.8	14.8	8	10	10	10	10	10	9.7	cs	cc	—	—	as	ac	—	es	cc	ci	—	as	sc	—	ns	—	—	ns	
24	17.3	17.1	17.2	17.8	19.0	18.9	17.9	10	10	10	10	10	10	10.0	—	—	ns	—	—	ns	—	—	st	—	—	ns	—	—	ns				
25	19.2	18.2	19.1	19.7	18.2	17.6	18.7	10	10	10	10	10	10	10.0	—	—	st	—	—	ns	—	—	sc	—	—	ns	—	—	ns				
26	17.1	17.1	17.7	18.0	16.5	16.7	17.2	10	10	10	10	10	10	10.0	—	—	ns	—	—	ns	—	—	ns	—	—	ns	—	—	ns				
27	19.2	27.0	17.5	15.6	15.7	13.6	18.1	10	10	10	10	9	9	9.8	—	—	ns	cc	—	sc	cs	—	sc	—	—	sc	—	—	sc				
28	13.8	14.2	14.1	15.4	15.2	15.6	14.7																										

OCTOBER, 1959.



Day	STATION PRESSURE (1000mb+)						M.S.L. PRESSURE (1000mb+)						AIR TEMPERATURE °C												
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean				
1	16.0	17.7	17.4	16.2	14.9	15.1	16.2	23.9	25.5	25.1	23.8	22.4	22.7	23.9	11.1	10.4	15.2	18.0	16.3	16.6	14.6				
2	18.1	12.1	12.3	9.6	9.1	9.4	10.9	20.7	19.7	19.9	17.1	16.7	16.9	18.5	15.8	15.5	16.9	19.1	17.4	15.2	16.7				
3	10.0	10.8	11.0	8.7	9.0	8.9	9.7	17.5	18.4	18.5	16.0	16.5	16.4	17.2	15.2	14.2	16.5	23.2	17.7	17.3	17.4				
4	6.7	5.0	3.0	0.6	0.4	0.1	2.6	14.3	12.5	10.5	8.0	7.9	7.5	10.1	17.5	17.6	18.0	19.2	18.6	18.5	18.2				
5	0.1	0.3	2.8	2.0	4.7	5.8	2.6	7.7	7.8	10.3	9.4	12.2	13.4	10.1	16.5	16.3	19.6	20.7	16.3	15.6	17.5				
6	7.3	9.3	10.2	8.5	9.9	9.9	9.2	14.9	17.1	17.6	15.9	17.4	17.5	16.7	11.9	8.9	17.5	19.9	16.1	13.1	14.6				
7	10.1	10.0	9.7	7.5	5.9	3.9	7.9	17.7	17.6	17.3	15.1	13.5	11.5	15.5	11.6	11.2	13.3	14.2	14.6	13.4	13.1				
8	2.8	4.4	4.2	4.3	7.9	9.8	5.6	10.5	12.0	11.7	11.8	15.5	17.5	13.2	12.6	15.6	20.7	20.8	14.9	11.9	16.1				
9	11.0	11.5	10.8	7.4	7.7	7.7	9.4	18.8	19.4	18.4	14.9	15.4	15.4	17.1	8.4	7.3	16.2	19.6	14.2	10.7	12.7				
10	6.2	6.3	6.1	3.0	3.5	3.1	4.7	13.9	14.1	13.6	10.5	11.1	10.7	12.3	10.8	9.1	16.7	21.2	16.5	14.3	14.8				
11	1.5	1.7	1.5	0.3	3.2	4.8	2.2	9.0	9.3	8.8	7.7	10.7	12.4	9.7	13.5	12.9	19.0	21.7	16.2	14.9	16.4				
12	3.7	4.8	4.4	3.8	6.0	7.2	5.0	11.3	12.5	11.8	11.3	13.6	14.8	12.6	14.0	14.0	19.8	21.2	15.1	13.5	16.3				
13	6.7	6.2	6.4	2.6	3.5	3.0	4.7	14.4	13.9	14.0	10.1	11.1	10.6	12.4	12.7	10.9	14.3	18.0	14.8	11.2	13.7				
14	0.9	1.4	0.7	0.2	2.8	4.7	1.8	8.6	9.0	8.3	7.8	10.5	12.6	9.5	10.8	11.2	13.3	12.5	9.5	6.5	10.6				
15	7.5	11.4	13.7	13.7	16.4	18.5	13.5	15.4	19.3	21.3	21.1	24.1	26.4	21.3	6.1	4.3	15.3	18.7	12.3	7.7	10.7				
16	19.3	20.2	18.7	14.8	14.1	12.7	16.6	27.2	28.2	26.4	22.3	21.7	20.4	24.4	5.5	5.1	12.3	18.0	14.3	13.1	11.4				
17	10.9	10.6	11.8	10.4	12.2	13.9	11.6	18.7	18.3	19.3	17.8	19.9	21.6	19.3	10.3	9.3	18.3	18.6	13.1	10.6	13.4				
18	14.3	15.9	14.7	12.5	12.0	10.6	13.3	22.1	23.8	22.4	20.2	19.8	18.4	21.1	6.8	5.5	10.1	11.5	10.9	10.5	9.2				
19	7.8	4.8	5.7	6.2	10.5	14.4	8.2	15.6	12.6	13.3	13.9	18.1	22.1	15.9	9.5	9.1	10.9	11.6	10.7	8.7	10.1				
20	16.2	18.6	20.6	19.0	20.2	21.3	19.3	24.2	26.7	28.4	26.7	28.0	29.3	27.2	4.0	2.2	10.9	16.7	11.1	6.0	8.5				
21	19.9	19.0	19.2	14.1	13.1	10.7	16.0	27.9	26.9	27.0	21.6	20.8	18.4	23.8	6.1	6.7	11.3	15.3	12.0	10.7	10.4				
22	6.9	5.9	5.7	4.0	6.3	10.9	6.6	14.6	13.7	13.2	11.5	14.0	18.5	14.3	10.3	7.6	15.7	16.7	12.7	11.9	12.5				
23	15.4	18.8	21.1	17.1	16.9	14.7	17.3	23.3	26.8	28.8	24.7	24.7	22.6	25.2	9.5	5.2	14.1	17.0	11.8	8.6	11.0				
24	11.7	10.1	8.9	10.2	12.9	14.4	11.4	19.5	17.8	16.5	17.7	20.6	22.1	19.0	7.2	11.3	15.2	14.9	12.5	9.9	11.8				
25	14.1	15.1	15.9	13.7	15.6	16.4	15.1	21.8	23.0	23.8	21.2	23.4	24.3	22.9	9.6	7.2	9.9	16.7	11.3	5.2	10.0				
26	16.9	17.9	18.6	17.1	19.3	21.1	18.5	24.9	25.8	26.3	24.7	27.1	29.1	26.3	3.6	4.4	12.9	16.5	9.6	5.8	8.8				
27	20.8	21.2	21.8	18.6	17.5	17.0	19.5	28.8	29.2	29.7	26.3	25.2	24.7	27.3	6.2	6.2	8.7	14.9	13.8	12.8	10.4				
28	14.1	13.4	11.8	9.1	10.7	9.0	11.4	21.8	21.0	19.4	16.7	18.3	16.6	19.0	11.6	13.3	14.5	15.9	15.2	14.4	14.2				
29	6.9	5.5	5.0	2.4	2.5	3.0	4.2	14.5	13.1	12.5	9.8	10.0	10.6	11.8	14.2	14.2	17.5	19.3	16.2	14.2	15.9				

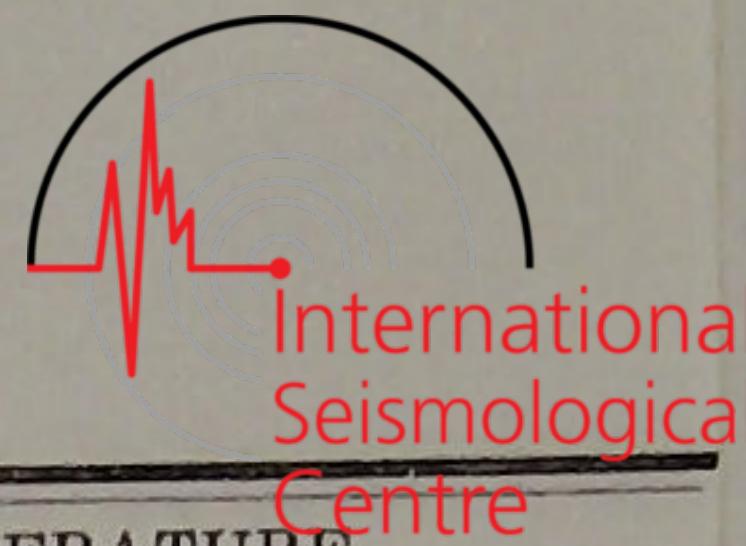


# OCTOBER, 1959.

Day	VAPOUR PRESSURE (mb)						AMOUNT OF CLOUD (0-10)						FORMS OF CLOUD																					
	2 6 10			14 18 22			2 6 10			14 18 22			Mean			H M L			H M L			H M L			H M L									
	2	6	10	14	18	22	2	6	10	14	18	22	Mean	H	M	L	H	M	L	H	M	L	H	M	L	H	M	L						
1	12.4	12.2	13.8	16.1	16.5	16.7	14.6	3	10	10	10	10	10	8.8	—	—	sc	cs	—	st	—	ac	—	—	as	—	—	as	—	—	sc			
2	17.2	16.9	18.1	19.7	18.7	16.7	17.9	10	10	10	10	10	10	10.0	—	—	sc	—	—	ns	—	—	ns	—	as	st	—	as	st	—	—	≡		
3	17.1	15.9	18.0	18.3	17.8	18.4	17.6	10	10	10	8	10	10	9.7	—	—	≡	—	—	≡	—	—	st	ci	—	cu	—	as	—	—	st			
4	18.5	19.0	20.2	21.4	21.0	20.9	20.2	10	10	10	10	10	10	10.0	—	—	st	—	—	ns	—	—	ns	—	—	ns	—	—	ns	—	—	st		
5	17.8	17.3	17.1	14.0	12.0	12.6	15.1	10	10	10	3	9	10	8.7	—	—	st	—	—	sc	ci	—	sc	cc	—	cu	ci	—	cu	es	—	—		
6	12.1	10.8	12.6	13.8	14.9	14.3	13.1	0	5	10	10	10	10	7.5	—	—	—	ci	—	sc	cs	—	—	cs	—	—	ac	—	—	sc	—	—	sc	
7	13.2	12.8	14.1	15.5	16.1	14.9	14.4	10	10	10	10	10	10	10.0	—	—	sc	cs	—	—	as	—	—	ns	—	—	ns	—	—	ns	—	—	ns	
8	13.9	14.4	14.3	16.3	11.8	11.5	13.7	0	0	1	8	0	0	1.5	—	—	—	—	—	cu	—	—	cu	—	—	sc	—	—	—	—	—	—		
9	10.7	10.0	10.6	13.3	12.9	12.1	11.6	0	2	2	7	3	6	3.3	—	as	—	—	sc	—	—	sc	—	—	sc	—	—	—	—	—	—	—		
10	12.2	10.8	13.2	15.8	16.0	14.8	13.8	10	10	10	7	7	10	9.0	—	as	—	cs	—	—	sc	—	—	sc	—	—	sc	cs	—	sc	—	sc		
11	14.3	14.2	16.6	18.6	17.1	16.6	16.2	10	10	2	10	4	9	7.5	—	—	sc	—	—	sc	ci	—	cu	—	—	ns, cu	—	—	sc	—	—	sc		
12	15.6	15.6	17.5	12.6	14.4	14.0	15.0	10	10	3	7	1	10	6.8	—	—	≡	—	—	ns	—	—	sc	—	—	sc	—	—	sc	—	—	sc		
13	13.9	12.3	13.8	13.5	14.6	12.4	13.4	10	10	10	10	9	4	8.8	—	—	sc	cs	—	sc	—	as	sc	ci	—	sc, cu	—	—	sc	—	—	sc, cu		
14	12.3	10.6	9.5	9.6	8.8	8.8	9.9	10	8	8	8	3	4	6.8	—	—	ns, sc	—	—	sc, cu	—	—	sc	—	—	sc	—	—	sc	—	—	sc		
15	9.0	7.9	10.5	10.3	10.9	9.5	9.7	4	0	2	2	0	0	1.3	cs	—	sc	—	—	cu	—	—	cu	—	—	cu	—	—	cu	—	—	—		
16	8.8	8.7	11.3	12.9	14.1	13.9	11.6	0	10	6	7	10	10	7.2	—	—	—	—	—	≡	cs	—	—	cs	—	cu	cs	—	sc	cs	—	sc		
17	12.1	11.3	12.8	10.7	10.2	9.5	11.1	3	8	8	8	10	9	7.7	ci	—	sc	ci	—	sc	ci	—	cu	ci	—	cu	ci, cs	—	cu	ci, cs	—	—		
18	9.1	8.4	9.5	9.5	11.1	11.5	9.9	10	10	10	10	10	10	10.0	cl, cc, cs	—	—	ci, ee, es	—	—	cs	ac	—	cs	ac	—	—	as	—	—	ns			
19	11.3	11.1	12.6	12.4	11.5	10.0	11.5	10	10	10	10	10	0	8.3	—	—	ns	—	—	ns	—	—	ns	—	—	ns	—	—	ns	cs	—	—		
20	7.6	7.2	10.2	10.5	10.6	8.6	9.1	0	0	0	1	0	0	0.2	—	—	—	—	—	—	—	cu	—	—	cu	—	—	—	—	—	—	—		
21	9.0	9.3	11.3	12.0	11.8	12.1	10.9	9	10	10	10	10	10	9.8	—	—	sc	—	—	sc	—	as	sc	—	as	sc	—	as	sc	—	as	sc	—	as
22	11.6	10.0	11.7	10.6	11.1	9.8	10.8	10	1	4	9	8	1	5.5	—	as	ac	—	cc	—	cu	—	—	sc	—	—	sc	—	—	sc	—	—	cu	
23	9.4	8.0	8.3	9.4	10.0	9.8	9.2	0	0	7	3	0	2	2.0	—	—	—	—	—	ci	—	cu	ci	—	—	ci	—	—	cs	—	—	—		
24	9.3	10.7	15.5	11.8	10.0	9.6	11.2	6	9	10	10	10	5	8.3	—	—	sc	ci	—	sc	—	—	ns	—	—	sc	—	—	sc	cs	—	—		
25	8.5	9.2	9.7	9.6	8.4	8.1	8.9	6	9	9	2	0	0	4.3	cs	—	—	cc	ac	—	cc	as	—	—	cu	—	—	—	cs	—	—	—		
26	7.4	8.1	9.9	9.1	9.8	8.2	8.8	3	5	9	2	0	2	3.5	cc	—	sc	cs	—	sc	cs	—	cu	cs	—	cu	cs	—	—	cs	—	—	—	
27	9.0	8.8	10.1	12.4	12.0	12.8	10.9	6	10	10	10	10	10	9.3	—	—	sc	—	—	sc	—	—	ns	—	—	sc	—	—	sc	—	—	sc		
28	13.2	14.8	16.0	17.2	16.7	16.2	15.7	10	10	10	10	10	10	10.0	—	—	ns	—	—	ns	—	—	ns	—	—	ns	—	—	ns	—	—	ns		
29	15.9	15.9	18.1	18.6	17.1	15.9	16.9	10																										

Day	Duration of Sunshine (in hours)	Total Solar and Sky Radiation (Cal/cm <sup>2</sup> )	Amount of Evaporation mm	RELATIVE HUMIDITY %							PRECIPITATION mm							REMARKS			
				Ordinary	Large-sized	2	6	10	14	18	22	Mean	22-2	2-6	6-10	10-14	14-18	18-22	Total	A. M.	P. M.
1	0.2	134	(0.8)			94	96	80	78	89	88	88	—	—	—	—	—	—	—	△, 0	0
2	—	105	(0.3)			96	96	94	89	94	97	94	—	0.1	1.3	0.8	—	—	2.2	9, ●	●, △
3	5.0	278	(2.9)			99	98	96	65	88	93	90	—	—	—	—	—	—	—	△, =	—
4	—	43	(0.2)			92	94	98	96	98	98	96	—	0.9	11.1	3.2	1.6	0.3	17.1	●	●
5	4.0	244	3.4			95	93	75	57	65	71	76	0.6	—	—	—	—	—	0.6	0	0
6	7.0	312	2.5			87	95	63	59	82	95	80	—	—	—	—	—	—	—	△, 0	0, γ
7	—	55	(1.1)			97	97	92	96	97	97	96	—	—	—	2.1	2.8	5.2	10.1	=, □	●
8	7.5	285	3.8			95	81	59	66	69	82	75	0.3	—	—	—	—	—	0.3	0	0
9	9.3	357	3.5			97	97	57	58	79	94	80	—	—	—	—	—	—	—	△	—
10	7.3	315	2.9			94	94	69	63	86	91	83	—	—	—	—	—	—	—	S	—
11	6.3	296	(4.2)			93	96	75	72	93	97	88	—	0.3	—	—	9.5	—	9.8	●, 0	T, ●, □, ✓
12	4.4	306	(2.7)			98	98	76	50	84	90	83	—	—	4.6	—	—	0.1	4.7	●	●
13	2.4	232	(2.3)			94	95	85	65	87	93	87	—	—	0.0	0.0	—	—	0.0	●, □	●
14	4.0	237	(2.0)			95	80	62	66	74	90	78	0.5	0.2	0.2	0.9	0.1	—	1.9	●, ~, 0	●, □
15	9.9	342	3.0			96	96	61	48	76	91	78	—	—	—	—	—	—	—	△, 0	△, 0
16	6.0	290	(2.9)			97	99	79	63	87	92	86	—	—	—	—	—	0.1	0.1	●, □, 0	●, γ, 0
17	7.5	322	3.4			96	96	61	50	68	75	74	—	—	—	—	—	—	—	●, =, △, 0	0, □, □
18	—	122	(0.2)			92	93	77	70	85	91	85	—	—	—	—	—	0.0	0.0	●	●
19	—	61	(0.9)			95	96	96	91	90	89	93	1.4	5.0	7.5	2.3	1.7	—	17.9	●	●
20	7.5	317	2.5			94	100	78	55	81	92	83	—	—	—	—	—	—	—	≡, □, □, 0	0, □
21	1.7	172	1.8			96	95	84	69	84	94	87	—	—	—	—	—	—	—	△, S	S
22	5.4	234	(3.4)			93	96	66	56	75	71	76	—	—	—	—	3.1	—	3.1	0	0, ●
23	9.6	334	(3.3)			80	90	52	48	73	87	72	—	—	—	—	—	—	—	0	△, 0
24	—	108	(1.0)			92	80	89	69	69	79	80	—	—	0.6	1.5	—	—	2.1	●	●
25	3.3	165	2.0			71	91	80	51	62	91	74	—	—	—	—	—	—	—	0, S	0, □
26	8.8	301	(2.3)			94	97	66	49	82	89	80	—	—	—	—	—	—	—	△, S	0, □
27	—	70	(0.0)			94	93	90	73	76	87	86	—	—	0.1	0.0	—	—	0.1	S, ●	S, ●
28	—	37	(0.0)			97	97	97	95	97	99	97	2.3	5.2	4.0	4.6	0.1	15.8	32.0	—	●, □
29	0.4	139	1.1			98	98	90	83	93	98	93	2.4	0.9	0.0	—	—	—	3.3	●	●, □
30	5.6	205	2.6			98	84	63	54	69	71	73	—	—	—	—	—	—	—	—	—
31	9.8	299	2.1			88	96	62	43	81	90	77	—	—	—	—	—	—	—	□, H, 0	0, □

NOVEMBER, 1959.

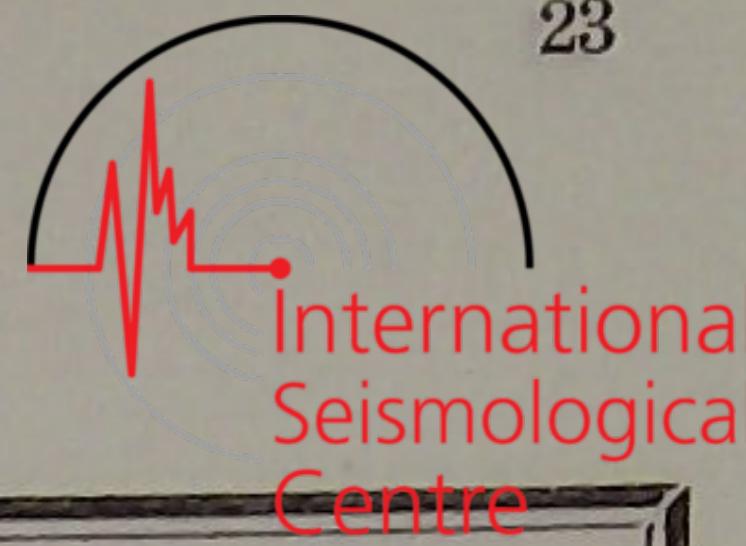


Day	STATION PRESSURE (1000mb+)						M.S.L. PRESSURE (1000mb+)						AIR TEMPERATURE °C								
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean
1	23.7	24.3	23.6	21.2	21.2	20.0	22.3	31.8	32.3	31.4	28.9	29.0	27.8	30.2	3.9	4.2	10.3	14.7	12.7	11.9	9.6
2	17.1	13.9	11.9	7.9	7.3	6.9	10.8	24.9	21.5	19.5	15.4	14.8	14.5	18.4	11.9	13.3	15.8	16.9	17.5	17.1	15.4
3	7.2	8.8	10.0	8.4	9.8	9.4	8.9	14.8	16.5	17.5	15.9	17.3	17.1	16.5	14.9	14.7	17.5	17.3	13.1	12.0	14.9
4	7.6	7.8	9.0	8.1	11.0	13.6	9.5	15.3	15.5	16.6	15.7	18.7	21.3	17.2	11.4	10.8	14.5	16.8	11.9	8.2	12.3
5	14.6	15.8	16.6	14.9	15.9	16.5	15.7	22.5	23.8	24.4	22.5	23.8	24.4	23.6	3.9	2.9	10.3	16.3	10.3	6.1	8.3
6	16.0	15.9	16.7	13.4	13.9	12.6	14.8	23.9	23.9	24.4	21.0	21.6	20.4	22.5	8.3	4.9	13.3	15.9	11.0	9.9	10.6
7	10.5	7.8	5.7	3.0	2.6	3.5	5.5	18.0	15.4	13.2	10.6	10.2	11.1	13.1	10.8	11.7	12.9	13.9	14.1	14.7	13.0
8	4.1	6.2	7.9	5.1	5.1	5.7	5.7	11.7	14.0	15.5	12.5	12.7	13.3	13.3	14.5	9.5	15.1	19.2	16.2	12.1	14.4
9	7.1	9.5	9.9	8.8	10.1	10.2	9.3	14.9	17.3	17.7	16.7	17.9	18.0	17.1	7.3	5.5	5.7	7.5	5.8	3.8	5.9
10	10.4	10.9	12.2	11.7	14.0	15.5	12.5	18.2	18.9	20.0	19.4	21.9	23.5	20.3	4.1	3.7	8.5	10.5	5.5	2.9	5.9
11	16.1	16.6	17.7	15.2	16.1	16.2	16.3	24.2	24.7	25.6	23.0	24.0	24.2	24.3	0.9	-0.7	8.1	11.1	5.1	1.1	4.3
12	14.3	12.7	9.9	5.5	5.6	6.4	9.1	22.3	20.7	17.6	13.0	13.2	14.2	16.8	-0.5	-0.2	8.9	15.2	12.7	9.6	7.6
13	6.9	7.8	7.9	6.0	7.3	9.0	7.5	14.7	15.6	18.3	13.8	15.1	17.0	15.8	6.9	6.5	7.7	8.3	5.7	2.9	6.3
14	8.5	9.6	11.6	10.1	11.8	11.8	10.6	16.5	17.6	19.5	17.8	19.7	19.8	18.5	1.5	-1.5	6.8	10.8	4.7	2.0	4.1
15	10.9	10.5	10.5	7.4	6.5	6.1	8.7	19.0	18.4	18.2	15.1	14.3	13.9	16.5	0.4	2.7	7.3	9.1	6.9	6.9	5.6
16	6.4	8.2	8.3	4.1	8.1	9.8	7.5	14.3	16.1	16.0	11.8	15.9	17.6	15.3	4.9	4.1	10.7	10.5	6.8	5.7	7.1
17	10.3	12.7	12.8	11.4	14.7	15.4	12.9	18.1	20.7	20.7	19.3	22.6	23.3	20.8	5.0	4.5	8.4	8.9	5.9	5.7	6.4
18	15.5	15.6	15.4	11.7	11.2	7.9	12.9	23.5	23.6	23.3	19.4	19.0	15.7	20.8	3.7	3.3	8.7	11.6	7.8	7.9	7.2
19	6.9	7.8	8.4	7.3	8.7	9.0	8.0	14.6	15.5	16.2	15.0	16.6	17.0	15.8	7.7	8.8	9.5	10.3	4.9	1.8	7.2
20	9.1	11.0	11.4	11.7	13.8	15.3	12.1	17.1	19.1	19.2	19.5	21.7	23.4	20.0	-0.2	0.5	6.3	8.0	4.8	1.7	3.5
21	15.5	13.3	10.5	6.4	7.7	8.4	10.3	23.6	21.3	18.2	14.1	15.5	16.3	18.2	-2.2	-1.5	8.9	8.8	8.1	6.9	4.8
22	8.7	10.6	13.5	14.6	16.3	17.3	13.5	16.6	18.6	21.2	22.5	24.3	25.3	21.4	4.8	2.9	7.1	5.8	3.5	3.1	4.5
23	18.0	20.2	22.0	21.3	23.1	22.6	21.2	26.0	28.3	29.9	29.3	31.2	30.7	29.2	2.8	3.1	5.5	5.5	2.8	0.8	3.4
24	21.1	18.8	15.4	8.8	7.7	10.5	13.7	29.2	26.9	23.4	16.5	15.4	18.1	21.6	-1.6	-0.3	3.5	10.3	10.1	8.6	5.1
25	11.5	11.7	12.4	10.6	12.2	13.7	12.0	19.4	19.6	20.3	18.5	20.1	21.5	19.9	6.6	4.9	5.5	5.4	4.1	3.8	5.1
26	14.2	15.1	17.3	16.7	18.4	19.0	16.8	22.2	23.1	25.3	24.8	26.4	27.0	24.8	2.3	2.2	4.7	3.1	2.0	1.2	2.6
27	17.9	17.6	17.1	14.5	17.3	18.1	17.1	26.0	25.7	25.1	22.3	25.4	26.2	25.1	0.4	-0.7	4.2	4.3	3.2	-1.1	1.7
28	18.2	19.9	21.2	19.5	20.4	20.7	20.0	26.4	28.2	29.3	27.5	28.5	28.8	28.1	-2.3	-4.8	1.3	4.6	2.1	1.2	0.4
29	21.2	21.4	22.2	19.7	21.5	22.1	21.4	29.3	29.6	30.2	27.5	29.5	30.3	29.4	1.3	0.6	5.5	10.5	3.7	-0.8	3.5
30	22.6	22.3	23.1	20.0	20.4	20.3	21.5	31.0	30.6	31.2	27.8	28.5	28.4	29.6	-4.5	-3.0	3.5	11.8	2.9	-1.4	1.6
31																					
Mean	13.1	13.5	13.7	11.5	12.7	13.1	12.9	21.0	21.4	21.6	19.2	20.5	21.0	20.8	4.3	3.8	8.5	10.8	7.5	5.5	6.7

Day	AIR TEMPERATURE °C				DIRECTION AND VELOCITY (m.p.s.) OF THE WIND											
	Max.	Min.	Mean	Range	2	6	10	14	18	22	Mean	6 obs.	24 h.			
1	15.2	3.0	9.1	12.2	SSW	1.5	—	0.0	0.2</td							

## METEOROLOGICAL OBSERVATIONS AT MIZUSAWA.

NOVEMBER, 1959.



Day	VAPOUR PRESSURE (mb)						AMOUNT OF CLOUD (0-10)						FORMS OF CLOUD																		
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	H	M	L	H	M	L	H	M	L	H	M	L					
1	7.7	7.8	10.2	11.6	11.2	11.6	10.0	7	10	10	10	10	10	9.5	—	—	sc	—	—	sc	—	—	sc	—	—	sc	—	—	ns		
2	13.3	14.8	16.0	18.1	19.4	18.9	16.8	10	10	10	10	10	0	8.3	—	—	ns	—	—	ns	—	—	ns	—	—	ns	—	—	st		
3	16.4	14.5	13.3	13.1	13.1	12.8	13.9	6	8	10	10	10	10	9.0	—	—	sc	cs	—	sc	cc	—	—	cs	—	—	as	—	—	as	
4	12.9	12.5	9.7	9.9	9.3	8.4	10.5	10	10	9	5	0	0	5.7	—	—	ns	—	as	—	cc	ac	sc	es	cc	—	sc	—	—	—	
5	7.5	7.2	8.8	8.2	10.0	8.5	8.4	0	0	0	0	0	10	1.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	sc	
6	10.2	8.2	11.0	12.4	12.1	11.8	11.0	10	4	8	10	1	10	7.2	—	—	sc	ci	—	—	sc	cs	ci	—	sc	ci	—	sc	—	—	ns
7	12.6	13.6	14.6	15.0	13.3	12.9	13.7	10	10	10	10	10	2	8.7	—	—	ns	—	—	ns	—	—	ns	—	—	sc	—	—	sc		
8	12.0	10.6	12.0	9.5	10.3	12.4	11.1	1	2	6	10	10	10	6.5	—	—	sc	—	—	sc	ci	—	sc	cs	—	sc	cs	—	—	sc ns	
9	8.2	7.0	6.5	6.3	6.3	6.6	6.8	3	9	10	10	5	10	7.8	—	—	sc	—	ac	st	—	—	sc	—	—	sc	—	—	sc		
10	6.8	7.1	6.5	6.2	6.9	6.4	6.7	10	8	7	3	3	2	5.5	—	—	sc	—	—	sc	cc	—	sc, cu	—	—	sc	ci	—	—		
11	6.2	5.4	6.6	6.2	7.4	6.3	6.4	0	0	0	0	0	1	0.2	—	—	—	—	cu	—	—	cu	—	—	cu	—	—	sc			
12	5.5	5.9	9.0	11.1	10.5	9.4	8.6	7	10	1	2	10	10	6.7	—	—	sc	—	—	sc	—	—	cu	cs	—	sc	—	—	as		
13	6.8	5.9	6.4	7.0	6.8	6.5	6.6	10	10	10	9	6	1	7.7	—	as	sc	cs	as	sc	—	ac	sc	—	—	sc	—	—	sc		
14	6.1	5.1	6.3	6.1	6.8	6.5	6.2	0	0	0	1	7	1	1.5	—	—	—	cu	—	—	sc	—	—	cu	—	—	sc				
15	5.8	6.8	8.0	10.1	9.5	9.4	8.3	1	10	10	10	2	4	6.2	—	—	cu	cs	ac	sc	—	—	sc	—	—	sc					
16	8.4	7.8	8.4	8.5	7.8	6.3	7.9	4	6	5	10	10	7	7.0	es	—	sc	—	—	sc	ci	—	sc	—	—	ns	—	—	sc, cu		
17	6.1	4.6	6.2	6.9	6.2	6.0	6.0	3	4	3	7	8	6	5.2	—	—	sc	—	—	sc	—	—	cu	—	—	sc	—	—	sc		
18	6.2	6.7	8.1	8.2	8.8	8.9	7.8	8	10	10	8	7	6	8.2	—	—	sc	—	—	sc	ci, cc	ac	sc	—	—	sc	ci	—	sc		
19	9.7	8.7	7.3	6.5	6.3	6.5	7.5	10	10	4	4	3	10	6.8	—	—	ns	—	—	sc	—	—	cs	—	—	ci	—	—	cs		
20	5.6	5.8	6.1	6.3	5.4	5.0	5.7	4	6	6	5	2	0	3.8	cc	—	—	sc	—	—	sc	—	—	sc, cu	—	—	sc	—	—	—	
21	4.8	5.3	7.4	8.7	9.1	7.7	7.2	10	10	8	10	10	8	9.3	cs	—	—	as	—	—	cs	—	sc	—	—	sc, ns	—	—	ns		
22	7.0	7.3	6.8	6.4	5.8	5.6	6.5	7	10	7	10	0	3	6.2	—	—	sc	—	—	sc	—	—	sc	—	—	cu	—	—	sc		
23	5.6	5.6	6.0	6.4	5.6	6.0	5.9	4	10	5	5	4	10	6.3	—	—	eu	—	st, sc	—	—	sc	—	—	sc	cs	—	sc			
24	4.9	5.9	5.9	9.6	11.0	8.7	7.7	0	10	10	10	10	5	7.5	—	—	as	—	—	as	ns	—	ns, sc	—	—	ns	—	—	sc		
25	7.4	7.3	7.6	7.0	6.8	5.5	6.9	10	10	10	10	10	10	10.0	—	—	sc	—	—	ns	—	—	sc	—	—	sc	—	—	sc		
26	4.5	4.3	4.8	4.7	5.0	4.4	4.6	10	9	9	10	10	10	9.7	cs	—	sc	—	—	sc	—	—	sc, cu	—	—	ns, sc	—	—	st		
27	5.2	4.8	4.3	5.3	5.1	4.9	4.9	10	3	7	7	10	3	6.7	—	—	st	—	—	sc	—	—	sc	—	—	sc	—	—	sc		
28	4.7	4.1	4.7	4.8	5.8	6.0	5.0	0	10	1	10	10	10	6.8	—	—	ci	ac	—	ci	—	sc	—	—	sc	—	—	st			
29	5.9	5.9	6.1	5.8	6.3	5.4	5.9	10	10	1	0	0	0	3.5	—	—	st	—	—	sc	—	—	sc	—	—	—	—	—	—		
30	4.1	4.8	5.9	6.2	6.2	5.1	5.4	0	0	0	0	0	0	0.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mean	7.6	7.4	8.0	8.4	8.5	8.0	8.0	5.8	7.3	6.2	6.9	5.9	5.6	6.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	

Day	Duration of Sunshine (in hours)	Total Solar and Sky Radiation (Cal/cm<sup>2</sup>)	Amount of Evaporation mm</

DECEMBER, 1959.



Day	STATION PRESSURE (1000mb+)						M.S.L. PRESSURE (1000mb+)						AIR TEMPERATURE °C								
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean
1	19.2	18.2	18.1	16.5	18.0	18.6	18.1	27.4	26.5	26.1	24.4	26.0	26.5	26.2	-2.4	-3.4	3.9	8.1	7.2	6.3	3.3
2	18.5	19.0	18.9	15.0	14.6	12.5	16.4	26.5	27.0	26.7	22.6	22.4	20.3	24.3	4.8	3.8	8.6	14.9	8.9	8.7	8.3
3	9.9	5.4	0.8	992.2	992.1	993.9	999.1	17.6	13.1	8.6	999.9	999.7	1.5	6.7	9.1	8.1	9.1	10.1	12.9	11.1	10.1
4	997.2	0.0	0.7	999.8	999.5	0.0	999.5	4.8	7.8	8.4	7.4	7.3	7.8	7.3	8.7	6.9	11.8	12.1	7.9	7.2	9.1
5	2.6	5.3	7.1	5.2	6.5	7.2	5.7	10.5	13.2	15.0	13.1	14.5	15.1	13.6	3.9	2.1	3.9	3.9	2.6	2.4	3.1
6	6.5	6.5	7.0	5.0	7.4	7.6	6.7	14.5	14.5	15.0	12.9	15.4	15.7	14.7	1.2	0.8	1.8	2.8	0.1	-0.7	1.0
7	7.3	7.1	8.7	7.9	10.8	12.1	9.0	15.4	15.2	16.8	16.0	18.9	20.2	17.1	-2.4	-0.6	0.4	0.1	-0.8	-1.4	-0.8
8	13.6	15.0	15.9	14.0	14.3	14.5	14.6	21.6	23.1	24.0	21.9	22.3	22.5	22.6	-0.8	-1.0	2.0	1.4	-0.1	-0.4	0.2
9	12.2	10.9	11.3	8.3	8.7	8.0	9.9	20.2	18.9	19.1	16.0	16.5	15.8	17.8	0.4	1.3	5.0	7.6	7.1	9.2	5.1
10	10.1	10.2	13.1	14.1	17.4	19.6	14.1	17.8	18.0	21.0	21.9	25.5	27.8	22.0	7.3	5.7	6.9	6.0	2.2	-0.5	4.6
11	20.8	22.0	22.8	21.1	21.5	21.4	21.6	29.1	30.3	31.0	29.1	29.6	29.6	29.8	-2.2	-4.1	1.0	5.8	1.6	-1.0	0.2
12	20.5	18.5	17.6	12.9	14.9	14.4	16.5	28.7	26.7	25.7	20.7	22.9	22.3	24.5	-0.8	-2.7	0.6	9.6	4.6	2.2	2.3
13	13.9	13.4	14.1	11.8	12.6	13.4	13.2	21.9	21.3	22.0	19.6	20.4	21.3	21.1	0.8	0.8	3.5	9.8	6.5	3.9	4.2
14	13.9	12.5	12.2	10.6	12.7	14.1	12.7	21.8	20.5	20.2	18.6	20.7	22.0	20.6	3.6	3.4	3.5	3.1	2.1	2.4	3.0
15	15.1	15.2	16.7	12.4	13.1	13.6	14.4	23.2	23.3	24.2	20.4	21.1	21.6	22.3	1.1	1.2	1.7	2.2	1.2	-0.2	1.2
16	11.5	11.0	10.3	7.9	8.5	8.7	9.7	19.7	19.1	18.3	16.0	16.6	16.8	17.8	-0.4	-1.6	-1.3	-1.2	-2.0	-1.8	-1.4
17	9.6	11.7	12.4	10.9	14.0	16.2	12.5	17.6	19.8	20.5	18.9	22.1	24.5	20.6	-3.0	-2.8	-1.6	0.1	-5.3	-8.2	-3.5
18	16.7	17.6	19.3	17.7	18.8	18.4	18.1	25.1	26.0	27.7	25.9	27.0	26.7	26.4	-10.3	-11.0	-5.2	-1.6	-1.7	-4.5	-5.7
19	17.1	14.7	10.0	8.0	9.6	8.2	11.3	25.2	23.0	17.9	16.0	17.5	16.3	19.3	-3.2	-6.0	0.7	1.4	0.6	-0.2	-1.1
20	7.5	5.3	4.6	0.7	999.8	999.9	3.0	15.7	13.3	12.6	8.6	7.7	7.9	11.0	-2.4	-1.2	0.2	0.8	-0.3	-1.8	-0.8
21	0.7	2.4	4.3	4.2	6.9	8.2	4.5	8.8	10.5	12.3	12.2	15.0	16.3	12.5	-3.7	-6.2	-2.5	-0.8	-3.3	-2.4	-3.1
22	9.0	10.3	11.6	10.7	12.7	13.0	11.2	17.2	18.4	19.8	18.7	20.8	21.1	19.3	-6.0	-4.7	-1.3	0.0	-0.8	-0.5	-2.2
23	13.7	15.2	15.9	13.1	12.3	8.0	13.0	21.7	23.3	23.9	21.1	20.3	16.2	21.1	-2.2	-1.2	1.6	3.1	-0.5	-2.6	-0.3
24	2.1	2.1	4.4	5.4	9.7	11.6	5.9	10.1	10.0	12.4	13.5	17.7	19.8	13.9	0.4	0.9	1.4	-1.4	-2.6	-3.6	-0.8
25	10.4	11.1	12.7	10.1	9.9	10.8	10.8	18.4	19.2	20.7	18.1	17.9	18.9	18.9	-2.2	-0.9	0.6	1.6	0.5	-0.1	-0.1
26	10.5	10.1	10.7	8.3	8.3	8.3	9.4	18.4	18.1	18.7	16.3	16.3	16.3	17.4	1.2	0.7	3.7	3.7	1.6	0.8	2.0
27	7.8	8.5	9.7	7.4	9.0	9.3	8.6	15.8	16.5	17.5	15.3	17.0	17.3	16.6	0.8	0.4	2.3	3.0	2.2	-0.4	1.4
28	8.7	9.3	10.2	8.7	10.5	11.7	9.9	16.7	17.3	18.1	16.6	18.5	19.8	17.8	0.3	-2.6	2.0	3.5	1.2	-0.2	0.7
29	13.2	14.0	15.2	13.8	16.7	18.2	15.2	21.2	22.0	23.3	21.8	24.8	26.5	23.3	-0.4	-0.9	0.6	1.9	-1.6	-2.8	-0.5
30	20.1	22.0	24.6	24.2	24.8	24.5	23.4	28.3	30.1	32.7	32.3	33.1	32.7	31.5	-1.6	-0.9	0.6	1.8	-1.5	-2.9	-0.7
31	23.3	21.2	18.1	12.9	9.1	3.4	14.7	31.6	29.5	26.2	21.0	17.1	11.4	22.8	-3.5	-4.1	-1.2	1.2	0.5	0.5	-1.1
Mean	1.17	11.8	12.2	10.0	11.1	11.3	11.4	19.8	19.9	20.2	18.0	19.1	19.3	19.4	-0.1	-0.6	2.1	3.7	1.6	0.6	1.2

Day	AIR TEMPERATURE °C				DIRECTION AND VELOCITY (m.p.s.) OF THE WIND											
	Max.	Min.	Mean	Range	2	6	10	14	18	22	Mean	6 obs.	24 h.			

DECEMBER, 1959.



Day	VAPOUR PRESSURE (mb)						AMOUNT OF CLOUD (0-10)						FORMS OF CLOUD														
	2	6	10	14	18	22	Mean	2	6	10	14	18	22	Mean	H	M	L	H	M	L	H	M	L	H	M	L	
1	4.8	4.4	6.7	7.4	8.8	8.6	6.8	0	0	9	10	10	10	6.5	cs	—	—	cs	—	—	sc	—	—	sc	—	—	sc
2	8.1	7.8	8.9	8.7	9.4	10.3	8.9	10	10	10	6	3	3	7.0	cs	—	sc	—	—	sc	—	—	cu	ci	—	—	sc
3	10.4	9.8	11.4	12.1	11.9	9.4	10.8	10	10	10	10	10	10	10.0	—	—	sc	—	—	ns	—	—	ns	—	—	ns, st	
4	6.5	7.5	7.2	7.6	8.2	8.8	7.6	10	6	3	6	10	10	7.5	cs	—	sc, ns	—	—	sc	—	—	sc, st	—	—	st	
5	6.7	5.9	6.9	6.5	6.1	5.6	6.3	5	10	10	7	4	10	7.7	—	—	sc	—	—	ns, sc	—	—	sc	—	—	ns	
6	6.1	5.3	5.2	5.6	5.7	5.4	5.6	10	9	10	10	10	10	9.8	—	—	ns	—	—	sc	—	—	ns, sc	—	—	ns	
7	4.8	5.2	5.6	6.0	5.5	5.4	5.4	1	10	8	9	10	10	8.0	—	—	sc	—	—	ns	—	—	ns	—	—	ns	
8	5.6	5.1	5.0	6.1	5.7	5.9	5.6	8	10	9	10	3	10	8.3	—	—	ns	ci	—	sc	—	—	sc	—	—	≡, st	
9	6.2	6.6	8.1	9.8	8.6	8.4	8.0	10	10	10	10	10	10	10.0	—	—	st	—	—	ns	—	—	st	—	—	ns	
10	6.7	6.8	5.7	5.6	4.9	4.1	5.6	7	9	7	3	10	1	6.2	—	—	sc, st	—	—	sc, cu	ci	—	cu	—	—	sc	
11	4.1	4.1	4.2	5.0	5.6	5.4	4.7	0	10	5	1	10	4	5.0	—	—	ci	—	—	sc	—	—	sc	—	—	sc	
12	5.3	4.8	5.3	7.2	7.1	6.6	6.1	8	4	10	6	6	8	7.0	—	—	sc	—	ac	sc	c, cs	—	sc	—	—	ci	
13	6.5	6.0	6.5	8.5	8.1	7.2	7.1	8	1	10	8	10	4	6.8	cc	as	—	cc	—	sc	—	—	sc	—	—	sc	
14	7.2	7.0	6.8	6.6	6.6	5.9	6.7	9	10	10	10	10	10	9.8	—	—	sc	—	—	ns	—	—	ns	—	—	st	
15	5.8	5.4	5.4	5.3	5.5	5.7	5.5	10	10	10	10	10	10	10.0	—	—	st	—	—	as	—	—	as	—	—	ns	
16	5.8	5.2	5.4	5.3	5.0	4.6	5.2	10	10	10	10	10	10	10.0	—	—	ns	—	—	ns	—	—	ns	—	—	ns	
17	3.7	3.4	3.3	3.5	3.7	3.0	3.4	10	9	0	2	4	4	4.8	—	—	sc	—	—	sc	cs	—	cu	cs	—	—	cs
18	2.5	2.4	3.2	4.4	4.5	3.5	3.4	0	0	1	10	10	5	4.3	—	—	—	—	—	st	—	—	ns	—	—	sc	
19	4.4	3.7	4.7	6.1	6.2	5.8	5.2	9	10	10	10	10	10	9.8	—	—	sc	cs	—	st	—	—	ns	—	—	st	
20	4.9	5.0	5.4	5.5	4.8	3.7	4.9	10	10	10	8	10	10	9.7	—	—	sc, st	—	—	ns	cc	—	sc	ci	—	—	ns
21	3.3	3.2	3.1	3.7	4.0	3.8	3.5	6	1	9	2	10	3	5.2	—	—	sc	—	—	sc	—	—	cu	—	—	st	
22	3.7	4.1	5.0	5.9	5.5	5.5	5.0	10	10	10	10	10	10	10.0	—	—	ns	—	—	ns	—	—	ns	—	—	ns	
23	5.1	5.1	5.0	5.2	5.5	4.9	5.1	10	10	8	9	10	6	8.8	—	—	ns	—	—	sc	—	—	sc, cu	—	—	sc	
24	5.5	6.2	5.3	5.4	3.5	3.5	4.9	8	10	10	10	10	6	9.0	—	—	sc	—	st	sc	—	—	ns	—	—	st	
25	3.9	4.3	4.6	4.4	5.3	4.3	4.5	10	10	8	10	10	0	8.0	—	—	st	—	—	sc, st	—	—	sc, cu	—	—	ns	
26	4.9	4.4	4.5	5.5	5.9	6.3	5.3	10	8	4	8	10	10	8.3	—	—	ns	—	—	sc	—	—	sc	—	—	ns	
27	6.3	6.1	6.5	6.9	5.1	5.1	6.0	10	10	10	10	0	3	7.2	—	—	ns	—	—	sc	—	—	sc	—	—	sc	
28	5.6	4.7	5.7	5.2	4.2	4.7	5.0	10	0	6	4	3	5	4.7	—	—	st	cc	—	sc	—	—	sc	—	—	sc	
29	4.6	3.9	4.1	4.0	4.3	4.3	4.2	10	3	7	6	7	10	7.2	—	—	st	—	—	sc	—	—	sc	—	—	ns	
30	3.7	4.0	4.4	4.6	4.6	4.5	4.3	10	10	7	3	0	8	6.3	—	—	st	—	—	sc	—	—	sc	—	—	sc	
31	4.3	4.2	5.0	4.9	5.6	5.7	5.0	0	7	10	10	10	10	7.8	—	—	ci, cs, cc	—	—	as	—	—	as	—	—	ns	
Mean	5.4	5.2	5.6	6.1	6.0	5.7	5.7	7.7	7.6	8.1	7.7	8.1	7.4	7.8													

Day	Duration of Sunshine (in hours)	Total Solar and Sky Radiation (Cal/cm²)	Amount of Evaporation mm	RELATIVE HUMIDITY %						PRECIPITATION mm						REMARKS			

## METEOROLOGICAL OBSERVATIONS AT MIZUSAWA.



1959.

Month	AIR PRESSURE (STATION) 1000 mb+										AIR PRESSURE (Mean Sea Level) 1000 mb+											
	2 6 10			14 18 22			Mean	Max.	Date	Min.	Date	2 6 10			14 18 22			Mean	Max.	Date	Min.	Date
	January	6.4	6.5	7.3	5.7	7.1	7.0	6.7	17.2	29	984.0	30	14.5	14.6	15.3	13.7	15.1	15.1	14.7	25.6	9	991.7
February	13.2	13.0	14.1	12.6	13.6	14.0	13.4	25.3	28	992.5	10	21.2	21.0	22.0	20.5	21.6	22.1	21.4	33.6	28	0.4	10
March	11.4	11.9	12.1	9.9	10.7	11.4	11.2	24.7	1	992.3	30	19.4	19.9	20.0	17.7	18.6	19.4	19.2	32.7	1	999.9	30
April	6.8	7.4	7.4	5.9	6.4	7.4	6.9	24.6	3	981.4	23	14.6	15.2	15.1	13.5	14.1	15.1	14.6	32.6	3	988.7	23
May	4.8	5.6	4.9	3.5	4.0	5.2	4.7	18.3	11	991.0	5	12.5	13.2	12.4	10.9	11.5	12.8	12.2	26.3	11	998.5	5
June	2.3	2.8	2.8	1.7	2.1	3.1	2.5	11.0	27	987.1	12	9.9	10.3	10.3	9.1	9.6	10.7	10.0	18.6	27	994.7	12
July	0.8	1.2	1.2	999.9	0.3	1.2	0.8	7.6	16	986.6	10	8.3	8.7	8.5	7.1	7.6	8.6	8.1	15.1	5, 16	993.8	10
August	1.3	1.9	1.6	0.5	0.9	1.9	1.3	10.3	12	986.5	10	8.7	9.3	8.9	7.7	8.2	9.3	8.7	17.7	12	994.0	10
September	4.7	4.9	5.4	4.3	5.2	6.0	5.1	15.9	30	975.2	27	12.2	12.4	12.8	11.6	12.6	13.5	12.5	23.7	30	982.3	27
October	10.3	10.9	11.2	9.4	10.5	11.0	10.5	23.3	31	999.7	5	18.1	18.7	18.8	16.9	18.2	18.7	18.2	31.3	31	7.3	5
November	13.1	13.5	13.7	11.5	12.7	13.1	12.9	24.4	1	2.2	7	21.0	21.4	21.6	19.2	20.5	21.0	20.8	32.6	1	9.8	7
December	11.7	11.8	12.2	10.0	11.1	11.3	11.4	25.5	30	991.0	3	19.8	19.9	20.2	18.0	19.1	19.3	19.4	33.7	30	998.6	3
Annual	7.2	7.6	7.8	6.2	7.0	7.7	7.3	25.5	XII, 30	975.2	IX, 27	15.0	15.4	15.5	13.8	14.7	15.5	15.0	33.7	XII, 30	982.3	IX, 27
Month	AIR TEMPERATURE °C										VAPOUR PRESSURE mb											
	2 6 10			14 18 22			Mean	Mean			Absolute			2 6 10			14 18 22			Mean		
	January	-3.2	-3.5	-0.8	0.4	-1.7	-2.4	-1.9	1.9	-5.4	7.3	9.2	25	-17.0	9	4.1	4.1	4.6	4.6	4.4	4.3	4.4
February	-0.3	-0.2	2.3	4.0	1.9	0.5	1.4	5.2	-2.2	7.3	10.8	6	-8.0	2	5.2	5.0	5.3	5.5	5.4	5.3	5.3	
March	1.7	1.3	5.9	7.7	4.7	2.9	4.0	8.8	0.2	8.7	14.4	30	-6.4	1	6.2	6.1	6.5	7.0	6.8	6.3	6.5	
April	6.8	6.7	13.0	14.7	11.4	8.9	10.3	16.6	4.5	12.1	22.4	22, 30	-2.5	2	8.6	8.7	9.9	9.8	9.5	9.3	9.3	
May	10.3	11.0	17.6	19.7	15.9	12.6	14.5	21.2	8.3	12.9	27.2	15, 21	1.9	8	11.1	11.4	12.6	12.5	12.5	12.2	12.1	
June	15.3	15.8	18.8	20.4	18.3	16.0	17.4	21.5	14.3	7.2	27.7	28	10.1	10	16.2	16.4	16.9	17.8	17.2	16.4	16.8	
July	18.8	19.0	23.6	25.9	23.2	20.4	21.8	26.9	17.7	9.2	32.4	30	14.4	26, 27	21.1	21.1	22.7	23.9	23.1	22.1	22.3	
August	20.2	20.2	24.5	25.8	23.1	21.0	22.5	27.2	19.2	8.0	32.2	20	15.3	11	22.7	22.7	24.4	24.6	24.4	23.1	23.6	
September	17.1	17.4	21.2	22.8	19.2	17.7	19.3	23.9	16.0	7.9	30.3	18	9.9	23	18.4	18.8	19.6	19.6	18.9	18.3	19.0	
October	10.3	9.7	14.8	17.4	13.7	11.5	12.9	18.2	8.3	9.9	23.6	3, 11	1.3	31	12.1	11.7	13.0	13.3	13.1	12.5	12.6	
November	4.3	3.8	8.5	10.8	7.5	5.5	6.7	11.6	2.0	9.7	19.8	8	-4.8	28	7.6	7.4	8.0	8.4	8.5	8.0	8.0	
December	-0.1	-0.6	2.1	3.7	1.6	0.6	1.2	4.8	-2.4	7.2	15.0	2	-12.4	18	5.4	5.2	5.6	6.1	6.0	5.7	5.7	
Annual	8.4	8.4	12.6	14.4	11.6	9.6	10.8	15.7	6.7	9.0	32.4	VII, 30	-17.0	I, 9	11.6	11.5	12.4	12.7	12.5	11.9	12.1	
Month	PRECIPITATION mm										RELATIVE HUMIDITY %											
	2 6 10			14 18 22			Sum			Maximum			2 6 10			14 18 22			Mean			
	January	9.9	14.7	10.4	6.8	4.0	11.0	56.8	11.9	31	9.0	31	85	86	79	74	81	84	81			
February	16.9	21.5	14.6	4.9	4.4	12.4	74.7	18.2	20	10.2	20	85	82	74	68	76	82	78				
March	19.5	19.3	12.2	24.2	28.2	18.6	122.0	18.6	22	8.5	22	88	89	70	67	78	84	79				
April	12.4	12.1	17.6	23.6	14.7	24.3	104.7	26.6	23	14.4	23	83	85	65	58	68	78	73				
May	10.1	2.0	0.7	6.3	9.5</td																	

## METEOROLOGICAL OBSERVATIONS AT MIZUSAWA.

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1959.



Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual								
MONTHLY MAXIMUM DAILY RANGE (WITH DATE) OF AIR TEMPERATURE (°C)																					
Max. Date	16.0 9	14.0 6	16.5 19	20.2 30	21.3 15,21	13.2 14	15.7 30	12.3 29	13.5 20	15.2 15	16.6 12	12.9 12	21.3 V, 15, 21								
VARIABILITY OF DAILY MEAN AIR TEMPERATURE (°C)																					
Mean	1.8	1.8	1.9	2.5	1.7	1.4	1.2	1.4	1.5	2.0	2.0	2.0	1.8								
FREQUENCY OF VARIATION																					
Rise	< -2° 2° - 4° 4° - 6° 6° - 8° 8° ≤	6 5 — 1 —	5 5 — 1 —	10 5 2 — —	9 6 2 — —	14 2 1 — —	13 3 — — —	13 4 — — —	12 1 1 — —	11 5 — — —	6 5 1 — —	8 2 3 — —	116 50 11 2 —								
Sum		12	12	17	17	16	17	16	17	16	12	13	179								
Fall	< -2° 2° - 4° 4° - 6° 6° - 8° 8° ≤	14 4 1 — —	11 5 — 1 —	8 5 3 — —	6 6 — — —	9 4 — — —	12 3 — — —	9 4 1 — —	10 6 — — —	7 5 3 — —	11 5 2 — 1	11 5 2 — —	117 56 11 — 1								
Sum		19	16	14	13	15	13	15	14	16	15	17	185								
Stationary		—	—	—	—	—	—	—	—	—	—	1	—								
MONTHLY MAXIMUM (WITH DATE) MINIMUM (WITH DATE) AND RANGE OF VAPOUR PRESSURE (mb)																					
Max. Date	7.1 30	9.2 17	13.9 30	15.8 27	18.9 5	24.1 28	30.1 23	32.5 16	29.7 1	21.4 4	19.4 2	12.1 3	32.5 VIII, 16								
Min. Date	1.5 9	3.2 11	3.3 18	4.0 11	5.7 7	10.0 12	16.3 26	16.5 10	10.5 21	6.5 31	4.1 28,30	2.4 18	1.5 I, 9								
Range	5.6	6.0	10.6	11.7	13.2	14.1	13.8	16.0	19.2	14.9	15.3	9.7	31.0								
MONTHLY MINIMUM (WITH DATE) OF RELATIVE HUMIDITY (%)																					
Min. Date	50 27	41 5, 8	32 18	30 19	25 3	45 3	45 30	52 5	40 21	42 31	40 30	46 11	25 V, 3								
VELOCITY (m.p.s.) OF WIND																					
Hour Month	2	6	10	14	18	22	Maximum Vel.	Mean for 24 h	No. of Days with Gale m.p.s. 10—15 15—29 ≥29	2	6	10	14	18	22	Mean					
January	2.8	2.7	3.1	3.7	2.9	2.5	17.6	w	31 10 2	2.9	10	2	—	12	7.0	7.8	7.9	8.2	6.5	7.9	7.5
February	2.2	2.5	2.1	3.6	2.9	1.9	15.8	w	11 3 1	2.5	3	1	—	4	7.1	7.7	8.0	7.7	6.2	6.6	7.2
March	1.7	1.5	2.8	5.3	3.5	2.3	19.6	WNW	3 8 1	2.8	8	1	—	9	6.6	6.9	7.0	8.2	6.3	6.7	7.0
April	2.6	2.4	4.5	7.2	5.3	3.8	20.4	w	11 10 7	4.4	10	7	—	17	5.4	7.2	7.3	7.7	6.7	5.2	6.6
May	1.4	1.2	2.9	5.0	4.6	2.2	18.7	w	2 11 1	2.9	11	1	—	12	6.3	7.0	6.6	7.1	7.7	6.8	6.9
June	1.8	1.8	2.9	4.2	4.2	2.6	12.4	n	11 3 —	2.9	3	—	—	3	9.5	9.0	9.1	9.4	8.8	8.6	9.1
July	1.1	1.1	2.4	3.5	3.3	2.1	9.1	w	9 — —	2.2	—	—	—	—	6.7	8.8	7.9	8.3	8.3	6.6	7.8
August	1.8	1.5	2.5	3.9	3.4	2.4	13.2	SE	14 14 1	2.6	1	—	—	1	9.4	9.8	8.7	8.8	9.0	8.5	9.0
September	1.6	2.1	2.6	3.8	3.3	2.6	27.4	SSE	27 27 2	2.7	2	1	—	3	8.1	9.2	9.0	8.3	8.3	8.6	8.6
October	1.0	1.2	1.8	2.9	2.3	1.6	10.0	w	11 11 1	1.9	1	—	—	1	6.5	7.1	7.5	7.3	6.1	6.2	6.7
November	2.6	1.9	2.6	3.9	2.8	1.8	15.0	WNW	17 17 5	2.8	5	1	—	6	5.8	7.3	6.2	6.9	5.9	5.6	6.3
December	2.7	2.9	2.9	3.1	2.5	2.9	13.2	n	17 17 7	2.8	7	—	—	7	7.7	7.6	8.1	7.7	8.1	7.4	7.8
Annual	1.9	1.9	2.8	4.2	3.4	2.4	27.4	SSE	IX,27 IX,27 28	2.8	61	14	—	75	7.2	8.0	7.8	8.0	7.3	7.1	7.6

## METEOROLOGICAL OBSERVATIONS AT MIZUSAWA.

1959.



## NUMBER OF OBSERVATIONS OF THE WIND FROM

Dir. Month	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	Calm
January	21	2	6	1	2	3	6	10	10	1	2	3	10	14	18	31	46
February	15	3	7	5	5	3	3	10	4	3	3	5	1	15	14	35	37
March	15	3	3	4	2	2	2	16	17	5	3	5	11	22	13	17	46
April	9	2	5	—	1	1	11	26	19	1	4	11	23	10	10	9	38
May	14	4	4	4	2	1	4	25	22	9	1	4	11	12	10	18	41
June	14	7	1	5	1	2	18	50	25	8	1	4	6	2	2	15	19
July	12	9	5	3	1	2	10	32	29	9	1	7	8	8	9	13	28
August	8	1	2	1	5	2	23	37	28	5	5	2	7	5	11	18	26
September	11	4	1	2	4	4	11	32	22	16	6	5	7	5	13	17	20
October	16	4	3	5	—	3	3	16	14	5	3	—	9	11	14	20	60
November	26	4	2	4	4	8	10	10	2	1	5	8	15	20	21	36	
December	29	8	7	6	2	4	2	9	6	4	—	2	10	12	21	33	31
Annual	190	51	46	40	29	31	101	273	206	68	30	53	111	131	155	. 247	428

## MONTHLY MEAN VELOCITY (m.p.s.) OF THE WIND FROM

Dir. Month	N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
January	3.1	3.2	1.9	1.7	1.6	1.7	0.9	4.4	4.0	2.6	1.0	4.9	8.2	5.1	3.9	3.9
February	3.3	1.9	1.8	2.7	1.4	2.5	2.0	3.5	4.2	0.7	1.5	3.6	2.2	3.5	3.0	4.2
March	3.9	1.7	1.1	1.2	0.6	0.8	1.2	3.6	4.3	1.6	3.7	2.2	4.3	5.6	4.0	4.1
April	2.6	1.2	2.6	—	0.7	1.3	6.7	7.8	5.4	1.1	7.5	4.5	7.7	3.5	3.3	3.2
May	3.5	2.4	2.8	1.6	1.3	2.2	1.2	4.8	8.5	2.7	1.7	3.7	3.4	3.9	4.3	3.4
June	3.0	1.8	0.7	2.4	0.7	3.3	3.2	3.6	3.5	2.4	1.1	0.6	4.3	0.6	2.0	4.9
July	2.9	1.6	1.8	1.6	0.7	1.3	1.6	4.0	3.0	2.8	0.7	3.8	1.3	1.5	2.0	2.1
August	1.7	0.4	2.7	0.7	1.1	2.2	4.2	3.7	3.2	2.3	0.9	0.6	2.1	2.1	1.9	3.3
September	2.7	0.8	3.4	2.8	1.1	1.6	2.4	4.5	3.0	2.1	2.9	5.2	3.1	3.7	2.2	2.5
October	2.7	3.0	1.2	1.4	—	1.7	1.0	3.4	3.1	2.3	1.4	—	1.6	3.2	2.5	3.1
November	2.4	1.7	1.2	0.9	1.9	1.3	3.0	4.3	3.4	3.4	4.2	1.9	1.7	4.4	3.6	5.2
December	3.5	3.9	2.0	2.3	2.1	1.2	1.9	4.5	1.6	1.8	—	2.8	5.1	5.5	2.9	3.4
Annual	3.0	2.1	2.0	1.8	1.3	1.7	3.2	4.3	3.6	2.2	2.7	3.4	4.5	4.1	3.1	3.7

## DIRECTION AND INTENSITY (m.p.s.) OF THE RESULTANT WIND COMPUTED WITH THE VELOCITY

Dir. Month	2	6	10	14	18	22	General	
January	N 58° W	1.5	N 41° W	1.0	N 74° W	1.3	N 45° W	2.8
February	N 34° W	0.9	N 15° W	1.9	N 37° W	1.6	N 39° W	1.8
March	N 33° W	1.0	N 27° W	0.9	S 78° W	0.9	S 88° W	3.1
April	S 18° W	0.8	S 43° W	0.7	S 13° W	1.4	S 35° W	3.8
May	N 68° W	0.7	N 23° W	0.7	S 77° W	1.1	S 36° W	1.5
June	S 34° E	0.5	S 52° E	0.4	S 15° E	0.6	S 22° E	1.6
July	S 17° E	0.3	S 4° E	0.3	S 33° W	0.3	S 5° W	1.5
August	S 11° E	0.9	S 22° W	0.3	S 22° E	1.1	S 23° E	1.3
September	S 48° E	0.4	S 6° E	0.5	S 28° W	0.9	S 27° W	1.7
October	N 13° W	0.3	N 16° W	0.5	N 31° W	1.1	S 50° W	0.5
November	N 42° W	1.1	N 38° W	1.6	N 27° W	1.1	N 50° W	1.3
December	N 9° W	1.1	N 33° W	2.1	N 36° W	1.6	N 47° W	1.9
Annual	N 57° W	0.3	N 38° W	0.6	N 87° W	0.5	S 67° W	1.1

1959.



## NUMBER OF DAYS WITH PRECIPITATION (Separated by Amount)

Month Amount \ Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
<0.1 mm	3	3	1	1	1	3	—	4	7	2	3	3	31
0.1—1	9	7	7	4	6	7	3	4	5	4	6	9	71
1—3	6	4	3	4	3	6	5	2	4	3	1	8	49
3—5	3	1	3	—	1	1	2	1	—	3	3	2	20
5—10	3	4	2	2	4	1	2	3	1	1	—	1	24
10—15	1	1	3	2	—	—	1	—	1	1	—	—	10
15—20	—	1	3	—	—	2	—	—	2	2	—	—	3
20—25	—	—	—	1	—	—	—	1	1	—	1	—	5
25—30	—	—	—	1	—	—	—	2	1	—	1	—	5
30—35	—	—	—	—	—	—	3	—	—	1	1	—	2
35—40	—	—	—	—	—	1	—	—	—	—	—	1	1
40—45	—	—	—	—	—	—	1	—	—	—	—	—	2
45—50	—	—	—	—	—	1	—	1	—	—	—	—	1
50—60	—	—	—	—	—	—	1	—	—	—	—	—	—
60—70	—	—	—	—	—	—	—	—	—	—	—	—	—
70—80	—	—	—	—	—	—	—	—	—	—	—	—	—
80—90	—	—	—	—	—	—	—	—	—	—	—	—	—
90—100	—	—	—	—	—	—	—	—	—	—	—	—	—
100—≤	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	25	21	22	15	15	22	18	18	22	17	15	24	234

## EARTH TEMPERATURE °C

Month	Surface						Mean	Depth (m)									
	2	6	10	14	18	22		0.05	0.1	0.2	0.3	0.5	1.0	2.0	3.0	5.0	6.0
January	-0.2	-0.3	0.4	1.5	0.1	0.0	0.3	0.5	0.6	1.4	2.3	3.8	6.3	11.2	12.8	13.3	13.1
February	1.1	0.8	3.6	6.2	2.5	1.3	2.6	2.5	2.3	2.5	2.9	3.5	5.0	9.7	11.8	12.8	12.9
March	2.9	2.4	10.2	11.5	5.9	3.9	6.1	5.8	5.6	5.3	5.4	5.2	5.9	8.9	10.9	12.3	12.7
April	7.8	7.5	16.8	17.1	12.0	9.5	11.8	11.6	11.4	10.8	10.4	9.3	8.6	9.0	10.4	11.8	12.3
May	12.7	12.7	22.5	22.0	16.8	14.1	16.8	16.5	16.4	15.7	15.1	13.5	12.0	10.1	10.5	11.5	12.0
June	16.9	17.1	22.0	23.1	19.7	17.6	19.4	19.5	19.3	18.5	18.0	16.7	15.0	11.6	11.1	11.5	11.9
July	21.4	21.5	26.8	28.9	25.1	22.6	24.4	24.2	23.7	22.8	22.0	20.5	18.2	13.2	12.0	12.0	11.9
August	22.9	22.8	27.0	28.6	25.3	23.6	25.0	24.9	24.7	23.9	23.3	22.3	20.3	14.9	13.3	12.1	12.0
September	19.8	19.7	23.6	25.2	21.6	20.3	21.7	21.7	21.8	21.5	21.5	21.3	20.4	16.2	14.3	12.6	12.3
October	13.0	12.3	17.9	19.6	15.3	13.6	15.3	15.3	15.3	15.8	16.3	17.1	17.8	16.5	15.1	13.1	12.7
November	6.5	5.9	10.4	12.4	8.6	7.2	8.5	8.6	8.8	9.8	10.5	11.9	13.8	15.4	15.1	13.4	13.1
December	2.1	1.9	3.6	5.8	3.2	2.5	3.2	3.2	3.5	4.5	5.3	6.9	9.6	13.7	14.4	13.5	13.3
Annual	10.6	10.4	15.4	16.8	13.0	11.3	12.9	12.9	12.8	12.7	12.7	12.7	12.7	12.5	12.6	12.5	12.5

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
—	—	—	—	—	—	—	—	—	—	—	—	—

## MONTHLY TOTAL DURATION OF SUNSHINE (in hours)

108.6	91.6	146.6	188.7	208.1	95.6	142.1	103.1	84.5	132.9	113.8	88.8	1504.4
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## RATE OF SUNSHINE (%)

36	30	40	49	47	22	31	24	23	39	38	30	34
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## DAILY MEAN AMOUNT OF EVAPORATION (mm)

ORDINARY EVAPORIMETER												
1.5	1.4	1.9	3.8	4.4	3.3	3.8	3.6	2.8	2.1	1.6	1.1	2.6
—	—	—	2.1	3.2	2.2	2.5	2.2	1.8	—	—	—	2.3

## LARGE-SIZED EVAPORIMETER

—	—	—	2.1	3.2	2.2	2.5	2.2	1.8	—	—	—	2.3
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## METEOROLOGICAL OBSERVATIONS AT MIZUSAWA.

1959.



## NUMBER OF OBSERVATIONS OF THE HORIZONTAL VISIBILITY FROM

Class	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Sum
km km													
0.00—0.05	—	—	—	—	—	—	—	—	—	—	—	—	—
0.05—0.2	—	—	—	—	—	—	—	1	—	—	—	—	1
0.2—0.5	3	—	2	1	—	—	2	7	1	6	—	—	22
0.5—1.0	4	4	—	1	—	—	4	3	3	2	1	5	27
1—2	8	7	4	1	—	2	6	3	1	1	1	2	36
2—4	8	13	17	9	6	14	17	10	24	9	4	11	142
4—10	23	19	23	15	25	40	32	49	26	16	11	35	314
10—20	74	42	46	52	49	55	46	49	44	57	65	88	667
20—50	54	59	64	59	60	48	48	48	50	53	52	28	623
≥ 50	12	24	30	42	46	21	31	16	31	42	46	17	358

TOTAL SOLAR AND SKY RADIATION ON THE HORIZONTAL SURFACE (gr. cal. cm<sup>2</sup>. hour)

	4~5	5~6	6~7	7~8	8~9	9~10	10~11	11~12	12~13	13~14	14~15	15~16	16~17	17~18	18~19	18~20	Sum
January	—	—	0.0	2.0	10.1	18.9	24.0	27.9	27.6	22.5	15.1	7.1	1.5	0.0	—	—	156.7
February	—	—	0.1	3.3	11.2	20.4	26.3	27.0	26.8	23.0	19.0	12.5	4.4	0.5	—	—	174.5
March	—	0.0	1.7	9.4	21.1	31.8	34.1	35.4	31.5	30.9	24.5	16.2	7.7	1.9	0.0	—	246.2
April	—	0.5	6.8	18.8	28.9	39.3	43.7	42.9	41.9	36.2	30.6	22.1	12.9	4.4	0.5	0.0	329.5
May	0.0	2.9	13.0	25.5	35.3	43.5	45.8	46.7	45.6	38.2	30.9	23.3	15.0	7.5	1.5	0.0	374.7
June	0.0	1.8	8.3	18.0	22.9	28.1	34.8	37.5	36.2	34.3	25.9	19.1	14.3	7.8	2.2	0.0	291.2
July	—	1.3	6.9	14.4	23.7	32.1	37.2	41.7	39.9	36.3	28.6	21.6	18.4	4.2	2.7	0.0	309.0
August	—	0.4	3.8	11.5	21.1	32.7	40.1	41.8	37.7	34.3	26.8	18.8	11.6	6.1	1.3	0.1	288.1
September	—	0.0	3.4	11.3	20.1	28.8	33.7	34.7	34.8	32.2	23.3	14.7	8.2	2.6	0.2	—	248.0
October	—	0.0	1.5	10.3	20.4	26.4	31.4	34.5	32.9	27.6	18.2	10.0	3.2	0.3	—	—	216.7
November	—	—	0.1	5.3	15.2	23.9	27.6	27.4	26.2	18.8	12.4	5.2	1.4	0.0	—	—	163.5
December	—	—	0.1	1.4	8.3	16.6	20.7	22.6	21.5	16.3	9.3	4.0	0.7	0.1	—	—	121.6
Annual	0.0	6.9	45.7	131.2	238.3	342.5	399.4	420.1	402.6	350.6	264.6	174.6	99.3	35.4	8.4	0.1	2919.7

## NUMBER OF DAYS WITH

Month	● * △▲ 0.1≤	* 0.1≤	△ ×	▲ -	☒ -	≡ 0—2	Clear	Cloudy	Sunless	✓	□	Min. Temp. <0°	Mean Temp. <0°	Max. Temp. <0°	Min. Temp. ≥25°	Mean Temp. ≥25°	Max. Temp. ≥25°	Max. Temp. ≥30°
January	22	21	—	—	—	—	—	18	3	12	9	31	24	7	—	—	—	—
February	18	12	1	—	—	—	1	15	5	4	6	20	8	—	—	—	—	—
March	21	4	1	—	—	2	—	13	7	9	6	13	2	—	—	—	—	—
April	14	1	—	—	—	1	3	14	3	17	5	5	—	—	—	—	—	—
May	14	—	—	—	2	—	3	16	1	12	—	—	—	—	—	5	—	—
June	19	—	—	—	2	—	—	28	6	3	—	—	—	—	—	3	—	—
July	18	—	—	—	—	5	1	20	6	—	—	—	—	—	1	22	4	—
August	14	—	—	—	1	7	—	28	8	1	—	—	—	—	4	23	7	—
September	15	—	—	—	1	2	—	25	8	3	—	—	—	—	—	12	1	—
October	15	—	—	—	2	8	5	18	8	1	2	—	—	—	—	—	—	—
November	12	1	—	—	—	1	4	11	4	6	14	11	—	—	—	—	—	—
December	21	13	3	—	—	1	—	18	6	7	10	24	14	1	—	—	—	—
Annual	203	52	5	—	8	27	17	224	65	75	52	104	48	8	—	5	65	12

1959.



## GENERAL REMARKS

		First Day (last year) 1958	Last Day (this year) 1959	First Day (this year) 1959
Min. Air Temp. below	0°:	Nov. 8	Apr. 19	Nov. 11
Mean Air Temp. below	0°:	Jan. 2 (1959)	Mar. 13	Dec. 7
Max. Air Temp. below	0°:	Jan. 7 (1959)	Jan. 31	Dec. 18
Max. Air Temp. above	25°:		Sept. 27	May 15
Mean Air Temp. above	25°:		Aug. 28	Jul. 8
Max. Air Temp. above	30°:		Sept. 18	Jul. 8
Hoar Frost:		Oct. 24	Apr. 20	Oct. 20
Snow:		Nov. 19	Apr. 11	Nov. 26
Snow on Ground:		Nov. 20	Mar. 23	Dec. 6

Max. Continuance of Days with Min. Temp. below 0° is 34 Days:

from Jan. 1 to Feb. 3

Max. Continuance of Days with Mean Temp. below 0° is 11 Days:

from Jan. 5 to Jan. 15

Max. Continuance of Days with Max. Temp. above 30° is 3 Days:

from Aug. 19 to Aug. 21

Max. Continuance of Days with Precipitation is 9 Days:

from Jul. 2 to Jul. 10

Max. Continuance of Days without Precipitation is 7 Days:

from Jul. 25 to Jul. 31

Continuance of more than 5 Days with Precipitation are:

6 Days: from Jan. 3 to Jan. 8

6 Days: from May 30 to Jun. 4

7 " from Jan. 17 to Jan. 23

9 " from Jul. 2 to Jul. 10

6 " from Jan. 28 to Feb. 2

5 " from Jul. 12 to Jul. 16

6 " from Mar. 6 to Mar. 11

5 " from Dec. 3 to Dec. 7

6 " from Mar. 22 to Mar. 27

6 " from Dec. 14 to Dec. 19

1959.



## FIVE-DAY MEANS

Month	Five-day Period	Air Pressure 1000 mb+	Air Temperature °C	Vapour Pressure mb	Relative Humidity %	Amount of Clouds (0-10)	Velocity of Wind m.p.s.	Precipitation (Total) mm
January	1—5	13.9	-0.9	4.7	82	7.8	2.6	1.8
	6—10	15.6	-4.9	3.7	85	7.5	2.0	4.3
	11—15	16.1	-2.2	4.3	82	7.2	2.2	3.9
	16—20	10.8	-2.1	4.5	85	8.4	2.9	15.6
	21—25	17.6	-0.9	4.4	77	6.7	3.6	7.5
	26—30	15.0	0.1	4.7	76	7.3	3.1	11.8
February	31—4	17.2	0.5	4.8	76	7.7	3.7	14.8
	5—9	23.1	1.4	5.1	75	5.0	2.2	11.9
	10—14	18.5	0.6	5.1	79	7.8	2.9	20.4
	15—19	21.5	2.6	6.4	86	8.6	2.0	19.3
	20—24	19.1	2.2	5.6	77	8.8	2.5	18.6
	25—1	27.9	-0.3	4.5	75	5.9	2.4	4.5
March	2—6	19.1	4.0	6.1	76	6.6	3.5	26.8
	7—11	16.1	4.6	6.9	82	7.8	3.1	39.7
	12—16	20.4	1.9	5.3	77	5.2	3.4	4.5
	17—21	23.4	3.3	5.4	72	4.8	2.4	10.0
	22—26	17.2	4.0	6.9	85	9.6	2.1	25.7
	27—31	17.6	7.3	8.5	82	7.7	2.9	12.4
April	1—5	22.1	8.4	8.5	76	4.5	5.0	23.4
	6—10	8.0	9.0	9.3	79	8.3	3.8	26.5
	11—15	11.6	8.0	6.6	61	7.2	5.5	15.5
	16—20	15.6	9.6	8.7	73	6.6	3.5	2.1
	21—25	13.7	12.9	11.3	76	6.0	4.7	26.9
	26—30	16.7	13.5	11.3	73	6.9	3.9	10.3
May	1—5	10.0	14.6	12.4	74	7.3	2.7	23.3
	6—10	19.0	12.3	8.5	62	6.0	2.9	—
	11—15	12.5	13.7	11.2	73	5.9	3.6	8.4
	16—20	7.4	14.1	12.6	79	8.4	3.5	9.3
	21—25	14.4	15.1	12.6	74	7.8	2.1	2.2
	26—30	10.1	16.5	14.1	77	5.7	2.7	0.3
June	31—4	13.0	16.6	16.0	85	9.8	1.9	74.1
	5—9	8.7	17.0	15.8	81	8.8	2.6	15.2
	10—14	4.3	15.5	13.3	77	8.1	4.0	37.4
	15—19	6.2	18.2	17.2	83	8.2	3.2	3.5
	20—24	11.5	17.7	18.2	90	9.9	2.9	7.4
	25—29	16.1	19.2	19.5	88	9.6	3.0	7.5
July	30—4	9.2	20.3	21.1	89	9.8	2.6	41.8
	5—9	7.3	22.1	23.0	87	9.8	2.5	67.3
	10—14	1.1	21.3	22.5	89	7.8	2.4	77.1
	15—19	11.9	21.6	22.4	87	7.4	2.4	6.0
	20—24	9.9	22.8	24.4	88	8.5	1.7	45.0
	25—29	10.7	22.0	20.5	78	5.3	1.9	—
August	30—3	9.2	23.6	23.5	82	7.4	2.2	1.1
	4—8	5.9	22.1	21.8	83	9.1	2.3	0.0
	9—13	7.5	19.6	20.2	88	9.8	3.7	42.9
	14—18	8.5	24.8	27.4	88	9.4	2.7	12.7
	19—23	7.1	23.0	24.4	88	8.0	1.5	29.9
	24—28	10.2	22.1	24.2	91	9.9	2.9	70.5
September	29—2	10.0	22.7	23.7	86	7.3	2.0	6.8
	3—7	14.3	20.0	19.3	83	8.0	2.8	1.9
	8—12	12.3	19.8	21.6	93	9.9	1.8	31.6
	13—17	13.8	20.2	20.4	86	8.5	2.0	0.0
	18—22	11.0	19.5	16.2	72	6.9	3.6	0.5
	23—27	11.2	17.2	17.3	89	9.9	3.3	68.2
October	28—2	19.3	16.1	15.7	86	8.6	1.8	4.0
	3—7	13.9	16.1	16.1	88	9.2	1.6	27.8
	8—12	12.9	15.2	14.1	82	5.6	2.0	14.8
	13—17	17.3	12.0	11.2	81	6.4	2.0	2.0
	18—22	20.5	10.1	10.4	85	6.8	2.0	21.0
	23—27	24.1	10.4	9.8	78	5.5	2.2	2.2
November	28—1	21.7	11.8	12.1	85	6.6	1.9	35.3
	2—6	19.7	12.3	12.1	83	6.4	2.8	38.4
	7—11	17.6	8.7	8.9	78	5.7	3.0	26.8
	12—16	16.6	6.1	7.5	79	5.8	2.8	7.4
	17—21	19.1	5.8	6.8	74	6.7	3.4	1.4
	22—26	23.4	4.1	6.3	76	7.9	3.7	1.7
December	27—1	27.7	2.1	5.6	80	4.7	0.8	—
	2—6	13.3	6.3	7.8	81	8.4	3.0	42.0
	7—11	21.8	1.9	5.9	83	7.5	2.8	5.0
	12—16	21.3	2.0	6.1	87	8.7	2.3	10.6
	17—21	18.0	-2.8	4.1	81	6.8	2.9	1.7
	22—26	18.1	-0.3	4.9	83	8.8	2.6	8.8
	27—31	22.4	-0.1	4.9	80	6.7	3.2	2.3
Mean		14.9	10.9	12.2	81	7.5	2.8	17.9

# SEISMOLOGICAL OBSERVATIONS

## Remarks :—

1. The seismic intensity is divided into the following eight classes according to the scale of the Central Meteorological Observatory of Japan (1949).

Unfelt . . . . .	0
	1. . . . . Slight
	2. . . . . Weak
	3. . . . . Rather strong
Felt . . . . .	4. . . . . Strong
	5. . . . . Very strong
	6. . . . . Disastrous
	7. . . . . Very disastrous

2. The time adopted in the seismological observations is Japanese Central Standard Time 9<sup>h</sup> east from Greenwich.

3. Symbols and Notations.

- i* : Sudden beginning of motion.
- e* : Gradual beginning of motion.
- ? : Doubtful phase.
- + : Out of order of the instrument.
- ⊕ : Out of the range of the instrument.
- [ ] : Depth of focus in the unit of km.
- [S] : Shallow-focused earthquakes.
- A.S. : After-shock



## EARTHQUAKES, 1959.

No.	Date 1959	P			S			Maximum Amplitude			P ~ S	P ~ F	Intensity	Epicenter and Remarks									
		E	W	N S	Z	E	W	N S	Z	E	W	N S	Z										
1	Jan.	19	m	s		m	s	28	36	28	35	28	37	μ	μ	μ	s	m	s	0			
2		23	30	47		—	—	30	46	31	16	e 31	19	? 31	17	4	—	4	29	2	12	0	
3		6	23	35	e 23	35	23	33	e 23	59	e 23	59	23	59	6	8	4	24	2	20	0		
4		4	—	—		—	—	22	33	—	—	—	—	5	—	—	—	—	—	0			
5		? 19	42	39		—	—	e 43	24	43	24	e 43	25	5	5	4	45?	3	19	0	29.7N, 141.0E[400]		
6		7	17	31	57	—	—	—	i 32	07	32	07	32	07	25	23	4	11	1	26	0		
7		3	—	—		—	—	e 06	51	e 06	58	—	—	2	—	—	—	—	—	0			
8		4	—	—		—	—	—	37	22	—	—	—	—	2	—	—	—	—	0			
9		16	—	—		—	—	e 38	49	—	—	—	—	1	—	—	—	—	—	0			
10		17	37	49	37	49	37	47	i 38	08	38	07	38	08	68	98	80	19	5	17	0		
11		12	22	05	03	—	—	—	e 05	25	05	24	—	—	3	—	—	21	1	31	0		
12		12	—	—		—	—	? 17	05	—	—	—	—	—	—	—	—	—	—	0			
13		12	23	18	03	18	03	18	03	19	06	19	05	19	06	82	90	98	63	7	06	0	
14		13	1	41	25	—	—	e 41	51	e 41	47	—	—	4	—	—	26	2	01	0			
15		13	2	12	35	e 21	33	—	—	13	05	13	05	e 13	06	14	13	12	30	4	22	0	
16		13	4	—	—	—	—	e 36	58	—	—	—	—	4	—	—	—	—	—	0			
17		13	23	—	—	—	—	35	25	35	25	35	26	8	5	6	—	—	—	0			
18		14	e 22	08	12	—	—	? 08	14	09	05	09	05	? 09	08	8	8	6	53	2	37	0	
19		20	? 17	21	18	—	—	—	21	48	e 21	49	—	—	5	8	—	90	3	34	0		
20		22	0	—	—	—	—	—	43	39	43	39	e 43	39	15	23	10	—	—	—	0		
21		22	i 14	11	03	i 11	02	i 11	01	—	—	—	—	e 11	27	—	—	26	138	57	III	37.6N, 142.4E[30]	
22		22	16	34	41	34	38	e 34	36	35	28	? 35	28	e 35	29	51	30	20	47	14	53	0	
23		22	i 18	47	10	i 47	11	i 47	11	47	34	47	39	e 47	42	298	290	114	24	15	00	0	
24		22	21	42	08	42	08	42	06	42	34	42	36	42	33	26	25	16	27	5	46	0	
25		23	1	57	01	57	02	e 56	59	57	26	57	24	e 57	24	28	47	24	25	5	32	0	
26		23	14	—	—	—	—	e 35	20	e 35	21	—	—	6	5	—	—	—	—	0			
27		23	e 16	00	28	00	28	e 00	29	00	49	00	50	e 00	50	110	105	54	22	—	—	0	
28		23	e 16	06	14	—	—	06	42	e 06	43	? 06	38	13	13	—	28	3	26	0			
29		23	e 17	46	13	e 46	16	e 46	11	e 46	44	e 46	43	? 46	41	9	10	6	31	2	49	0	
30		24	i 14	09	09	i 09	09	09	08	i 09	29	i 09	29	09	27	—	875	400	21	30	28	II	37.4N, 141.2E[80]
31		25	7	02	48	02	47	02	46	03	09	03	07	e 03	08	15	10	12	21	3	48	0	
32		25	14	—	—	—	—	e 06	08	? 06	06	—	—	17	18	—	—	—	—	—	0		
33		25	14	—	—	—	—	28	12	e 28	11	e 28	11	9	5	6	—	—	—	—	0		
34		27	5	—	—	—	—	06	56	e 06	55	? 06	57	6	—	6	—	—	—	—	0		
35		27	8	—	—	—	—	e 24	17	e 24	17	e 24	17	5	5	4	—	—	—	—	0		
36		27	e 21	37	59	e 37	57	37	59	e 38	33	e 38	31	38	33	25	30	14	34	5	46	0	
37		28	10	21	49	21	49	21	49	22	28	e 22	27	22	30	110	115	56	39	7	13	0	
38		28	e 17	54	17	e 54	23	e 54	20	e 55	03	e 54	58	e 54	57	8	15	4	46	3	53	0	
39		28	23	—	—	—	—	04	20	04	19	04	19	15	8	8	—	—	—	—	0		
40		29	e 13	47	24	—	—	—	47	43	47	42	—	—	6	5	—	19	2	00	0		
41		29	23	—	—	—	—	07	03	07	02	? 07	00	20	10	8	—	—	—	—	0		
42		30	e 22	41	51	41	51	41	52	42	34	42	30	e 42	35	10	13	10	40	3	23	0	
43		31	5	40	19	40	19	e 40	17	e 41	25	e 41	24	? 41	20	194	250	50	66	21	19	0	
44		31	7	18	09	18	08	18	07	e 19	13	19	19	? 19	23	115	275	56	71	25	17	0	
45	Feb.	1	8	—	—	—	—	e 01	42	e 01	42	—	—	3	—	—	—	—	—	—	0		
46		3	e 17	14	58	e 15	01</td																



## EARTHQUAKES, 1959.

No.	Date 1959	P				S				Maximum Amplitude				P ~ S	P ~ F	Intensity	Epicenter and Remarks						
		E	W	N	S	Z	E	W	N	S	Z	E	W	N	S	Z							
56	Feb. 21	e 14	13	m 59	s	m —	s	m 14	30	m 14	29	? 14	28	μ 3	μ 5	μ 4	s 31	m 1	49	0	36.1N, 140.0E[40]		
57		e 5	12	00		e 12	02	e 12	01	12	35	12	34	e 12	37	14	10	8	35	3	43	0	42.0N, 143.1E[60]
58		12	36	45		? 36	43	36	46	e 37	35	e 37	34	e 37	34	11	13	6	51	5	54	0	42.8N, 140.1E[10]
59		e 11	06	59		07	03	07	03	? 07	32	? 07	31	? 07	37	4	5	4	29	3	43	0	
60		e 20	12	49		—	—	? 12	52	13	59	14	00	e 13	57	7	8	6	69	4	00	0	43.0N, 141.5E[60]
61	Mar. 2	20	21	41		e 21	40	21	37	23	37	23	36	23	36	80	48	32	116	8	35	0	28.5N, 139.0E[550]
62		18	50	22		50	20	50	21	50	44	50	45	e 50	44	10	10	10	22	2	56	0	
63		1	15	58		e 16	00	15	55	16	28	16	29	e 16	29	16	18	14	30	5	18	0	
64		6	00	30		00	26	00	19	? 02	14	—	—	—	—	4	—	—	104	8	10	0	27.5N, 128.5E[S]
65		1	56	51		56	54	e 56	44	62	51	62	53	—	—	12	143	—	359	58	48	0	0.5S, 134.5E[100]
66	Apr. 2	6	—	—		44	21	44	21	—	—	44	34	44	32	—	10	—	14	1	24	0	40.1N, 141.9E[40]
67		8	01	39		01	39	01	39	02	13	02	12	e 02	10	50	53	28	34	5	51	0	37.6N, 138.7E[200]
68		? 14	06	20		—	—	—	—	07	34	07	33	07	34	7	5	4	74	3	55	0	44N, 149E[80]
69		5	23	11	23	? 11	25	e 11	24	12	32	12	32	12	33	35	28	22	69	6	55	0	43.7N, 147.3E[80]
70		e 22	09	16		e 09	17	e 09	17	09	45	09	44	? 09	45	12	23	14	29	3	05	0	
71	Apr. 10	3	45	04		45	06	45	02	i 45	27	i 45	28	45	28	150	263	126	24	6	59	0	41.1N, 142.3E[40]
72		11	52	38		52	38	e 52	35	53	10	53	12	53	12	20	38	14	32	4	55	0	
73		19	24	18		? 24	24	24	20	? 25	27	? 25	28	? 25	26	3	5	—	69	3	15	0	37.7N, 134.7E
74		11	—	—		59	31	59	35	—	—	—	—	—	—	—	—	05	22	0		[400~450]	
75		7	19	55		19	56	19	54	20	36	30	37	e 20	33	8	13	4	42	3	53	0	35.5N, 140.2E[80]
76	Apr. 16	e 17	06	22		06	21	06	22	06	46	06	45	06	49	8	5	10	24	4	32	0	
77		16	46	19		—	—	—	—	46	45	46	44	e 46	45	4	3	—	27	2	12	0	
78		17	29	03		29	04	29	03	e 31	58	e 31	56	—	—	5	48	—	172	26	59	0	27.5N, 129.5E[60]
79		16	27	29		27	27	27	27	27	57	27	57	27	55	125	98	60	30	8	20	1	36.7N, 141.1E[80]
80		? 23	16	28		—	—	? 16	32	? 17	33	? 17	27	? 17	30	13	25	4	65	9	16	0	34.9N, 141.9E[60]
81	Apr. 20	4	11	18		—	—	—	—	11	27	11	27	11	26	5	—	2	10	0	57	0	
82		12	22	09		22	08	—	—	22	35	22	38	—	—	30	25	10	30	5	09	0	36.6N, 141.2E[80]
83		13	01	50		? 01	52	e 01	50	02	23	e 02	26	02	24	20	25	14	33	5	24	0	
84		0	45	12		45	11	45	09	e 45	42	e 45	45	e 45	37	81	105	46	29	17	58	0	37.2N, 143.5E[S]
85		13	—	—		—	—	—	—	39	48	e 39	49	e 39	46	5	5	—	—	—	—	0	
86	Apr. 25	? 2	20	33		e 20	36	? 20	25	e 22	15	e 22	18	? 22	12	22	45	12	102	13	22	0	34.1N, 142.0E[S]
87		e 15	43	08		? 43	09	43	01	43	49	e 43	47	e 43	42	5	10	4	40	2	19	0	36.2N, 140.0E[50]
88		4	—	—		e 11	13	11	11	—	—	12	26	12	26	—	13	18	75	3	03	0	45.0N, 137.5E[300]
89		e 22	23	10		—	—	23	41	23	42	e 23	44	9	18	8	31	2	01	0		41.8N, 142.4E[60]	
90		4	27	07		27	07	27	06	—	—	—	—	4	5	6	—	3	25	0			
91	Apr. 3	e 12	44	28		—	—	—	—	e 44	56	44	57	—	—	2	—	28	2	15	0		
92		5	—	—		—	—	—	—	04	11	e 04	11	e 04	11	5	4	2	—	—	—	0	
93		e 23	08	05		—	—	e 08	07	08	28	e 08	28	e 08	26	11	8	8	23	2	00	0	
94		21	27	36		27	38	e 27	38	28	02	e 28	03	28	02	10	8	6	26	2	04	0	

## EARTHQUAKES, 1959.



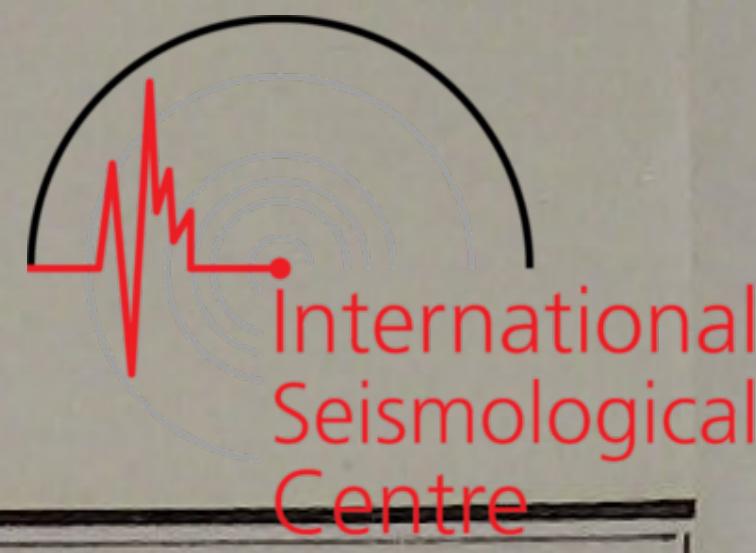
No.	Date 1959	P						S						Maximum Amplitude				P ~ S	P ~ F	Intensity	Epicenter and Remarks			
		E	W	N	S	Z		E	W	N	S	Z	E	W	N	S	Z							
111	May	5	e 15	h 06	m 20	s —	m —	s —	m —	s —	m 06	s 49	e 06	m 47	e 06	s 43	μ	μ	μ	s 29	m 1	41	0	53N, 159E
112		6	? 4	09	14	s —	? 09	—	—	—	? 12	38	—	—	—	—	5	35	—	204	16	22	0	
113		6	11	—	—	—	—	—	—	—	58	43	58	42	58	43	13	8	12	—	—	—	0	37.5N, 141.9E[40]
114		6	22	20	59	e 21	00	e 20	56	21	16	e 21	20	? 21	11	13	13	10	17	2	57	0	38.6N, 143.4E[30]	
115		7	3	53	46	53	46	53	46	54	06	54	08	e 54	07	85	88	58	21	5	49	0		
116	7	11	—	—	—	—	24	03	—	—	24	13	e 24	14	—	—	6	12	1	12	0	39.7N, 142.1E[50]		
117	8	7	21	33	21	33	i 21	31	21	44	21	44	21	46	35	25	16	14	2	21	0	53.5N, 160.5E[60]		
118	8	20	39	21	39	20	39	18	e 42	53	e 42	53	? 42	48	9	8	—	213	7	26	0	45.3N, 150.5E[60]		
119	9	e 0	31	53	31	53	? 31	51	32	54	32	53	? 32	53	6	8	4	60	4	42	0	40.8N, 142.5E[20]		
120	9	17	24	02	—	—	23	58	24	23	24	24	24	23	17	8	16	21	2	50	0			
121	9	17	—	—	—	—	—	—	31	13	—	—	—	—	3	—	—	—	—	—	—	0		
122	9	19	27	48	e 27	50	27	46	28	12	28	12	28	11	24	23	20	24	3	40	0			
123	10	? 8	59	07	? 59	18	? 59	11	e 60	33	60	38	e 60	32	15	15	10	80	10	27	0	44.3N, 149.8E[80]		
124	10	18	—	—	—	—	—	—	48	29	48	29	e 48	29	3	—	—	—	—	—	—	0		
125	10	19	—	—	—	—	—	—	53	03	53	04	e 53	05	5	5	6	—	—	—	—	0		
126	11	4	29	54	29	55	e 29	54	30	10	30	10	e 30	12	25	40	26	17	4	01	0			
127	11	e 7	16	07	—	—	—	—	16	34	16	36	e 16	35	6	—	10	28	3	03	0			
128	12	14	02	56	e 02	55	? 02	57	07	08	e 07	09	—	—	11	85	—	252	55	41	0	54.5N, 168E		
129	13	7	34	32	34	32	i 34	31	34	46	34	46	e 34	45	123	125	64	15	8	24	0	38.8N, 142.6E[40]		
130	15	e 1	17	06	e 17	06	17	02	17	20	17	22	17	22	13	13	8	20	1	51	0			
131	16	15	24	41	? 24	41	24	39	25	20	e 25	22	25	20	10	5	6	39	5	15	0			
132	20	e 20	28	21	—	—	28	20	29	43	29	44	29	43	16	25	10	82	4	58	0	32.6N, 136.9E[450]		
133	21	4	37	09	e 37	11	e 37	08	38	32	38	35	e 38	34	21	18	16	83	6	11	0	44.3N, 149.6E[70]		
134	21	e 20	54	41	—	—	—	—	e 55	19	—	—	—	—	3	—	—	38	2	21	0			
135	22	e 22	59	51	—	—	e 59	50	60	21	60	22	e 60	22	10	5	6	30	2	12	0			
136	25	19	50	13	—	—	—	—	50	37	—	—	—	—	55	—	—	24	4	34	0	40.8N, 143.2E[10]		
137	25	19	59	49	—	—	—	—	60	16	—	—	—	—	56	—	—	27	5	17	0	40.7N, 143.3E[20]		
138	26	? 2	37	28	—	—	—	—	37	53	—	—	—	—	9	—	—	25	1	55	0			
139	26	13	16	51	? 16	50	16	48	e 19	56	? 19	52	—	—	10	20	8	185	6	54	0	27N, 127.5E[100]		
140	26	15	24	12	24	12	24	10	24	29	24	30	e 24	30	32	25	28	17	2	53	0			
141	27	e 2	25	44	—	—	—	—	26	19	26	19	26	18	5	—	4	36	2	09	0	42.9N, 142.6E[100]		
142	27	13	53	37	—	—	—	—	54	20	e 54	28	—	—	3	—	—	43	3	55	0			
143	29	19	53	40	53	38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0			
144	2	11	43	19	—	—	43	12	? 48	00	—	—	—	—	—	—	—	281	7	07	0	21N, 121E		
145	2	e 14	02	48	e 02	49	e 02	43	—	—	? 07	27	—	—	—	78	—	278	21	03	0	21N, 121E		
146	3	20	43	52	43	56	e 43	54	—	—	—	—	—	—	—	—	—	—	—	—	—	0		
147	14	9	31	42	31	42	31	42	? 38	02	? 38	03	—	—	15	28	—	381	81	19	0	20.5S, 68W		
148	15	i 1	16	27	16	25	16	26	16	46	16	49	16	48	63	88	40	19	8	06	0	37.3N, 141.7E[40]		
149	16	? 14	57	10	—	—	—	—	57	24	57	25	57	24	5	—	4	14	1	38	0			
150	16	23	—	—	—	—	—	—	11	50	11	46	? 11	51	3	—	4	—	—	—	—	0		
151	19	0	36	07	36	10	36	09	39	53	e 39	52												

## EARTHQUAKES, 1959.



No.	Date 1959	P						S						Maximum Amplitude				P ~ S	P ~ F	Intensity	Epicenter and Remarks	
		E	W	N	S	Z		E	W	N	S	Z	E	W	N	S	Z					
166	Jul.	6	? 18	h 42	m 34	s	? 42	39	e 42	32	? 44	54	? 44	53	—	—	μ	—	141	12 13	0	26.5S, 61.5W
167		7	e 16	27	09	—	—	—	—	e 28	02	28	04	28	08	10	5	8	55	3 57	0	43.8N, 148E[60]
168		7	23	41	28	—	41	28	—	41	52	41	52	41	53	56	93	46	24	6 51	0	39.7N, 143.7E[30~40]
169		8	13	02	20	—	—	—	—	03	18	03	20	03	21	15	8	10	58	4 30	0	43.5N, 147.8E[60]
170		8	17	25	00	—	—	e 24	58	25	18	e 25	19	e 25	20	12	5	10	18	2 49	0	
171	10	? 1	25	00	—	—	24	59	25	34	25	37	25	34	6	10	4	35	5 12	0		
172	10	e 17	56	19	—	—	—	—	56	46	e 56	47	? 56	44	4	3	4	27	2 24	0		
173	12	3	24	58	e 24	57	24	58	26	19	26	17	26	19	15	18	12	81	7 48	0	44N, 149E[60]	
174	13	21	35	40	e 35	40	e 35	38	e 41	03	e 41	04	—	—	—	—	38	323	22 53	0	52N, 172.5E	
175	15	17	21	03	21	02	21	00	21	19	21	20	e 21	20	31	38	26	16	4 03	0	37.9N, 141.9E[40]	
176	16	? 22	35	20	—	—	—	—	e 35	36	? 35	43	e 35	34	3	—	—	16	1 40	0		
177	18	? 0	40	51	—	—	—	—	41	09	e 41	07	e 41	07	4	—	4	18	1 42	0		
178	19	5	00	54	00	52	00	52	05	39	05	31	e 05	40	63	148	—	285	34 35	0	15.5N, 120.5E	
179	20	0	25	28	25	31	25	25	e 29	04	e 29	02	? 29	03	—	—	—	211	15 40	0		
180	20	11	49	35	49	34	49	34	56	20	56	20	56	22	32	15	—	405	14 56	0	6S, 110E	
181	21	6	11	32	—	—	e 11	30	11	46	11	46	e 11	45	7	5	4	15	1 51	0		
182	21	23	36	44	—	—	36	45	36	57	—	e 36	59	10	—	—	14	1 23	0			
183	22	e 0	44	43	—	—	—	—	45	08	e 45	08	e 45	07	1	—	—	25	2 34	0		
184	23	4	27	39	27	39	27	36	30	13	30	16	30	16	32	73	20	154	—	0	53N, 153E	
185	23	? 4	35	18	? 35	28	? 35	28	37	23	? 37	23	? 37	20	6	15	—	115	9 30	0		
186	23	8	10	48	10	44	—	—	? 17	58	? 17	48	—	—	—	18	—	424	36 28	0	5S, 152.5E	
187	23	22	46	00	i 46	01	i 46	00	46	18	i 46	17	e 46	16	133	178	50	16	5 43	0	38.5N, 140.4E[120]	
188	24	e 11	46	39	—	—	e 46	38	47	14	47	16	e 47	17	14	8	12	36	4 44	0	43.3N, 147.2E[100~120]	
189	26	i 6	21	14	i 21	13	i 21	13	i 21	35	i 21	34	i 21	34	99	135	66	21	7 28	0	36.8N, 140.5E[80]	
190	27	6	20	45	—	—	—	—	20	58	20	57	20	58	8	5	4	13	1 35	0		
191	30	0	28	00	—	—	—	—	28	25	28	25	e 28	25	4	3	4	25	2 09	0		
192	31	? 2	02	51	—	—	—	—	03	17	e 03	15	e 03	19	6	5	6	17	3 29	0		
193	Aug.	3	? 22	11	07	? 11	05	? 11	06	? 11	40	? 11	41	? 11	40	2	3	—	33	4 25	0	
194		6	15	—	—	—	—	—	37	00	—	—	—	—	5	—	—	—	—	—	0	
195		7	12	—	—	—	—	—	35	45	—	—	—	—	10	—	—	—	—	—	0	
196	7	13	—	—	—	—	e 40	23	40	30	40	27	e 40	27	57	35	4	04	1 14	0		
197	8	9	52	31	52	30	52	29	56	30	e 56	28	56	28	5	—	—	239	15 58	0		
198	8	10	—	—	—	—	—	—	46	03	46	02	e 46	03	23	8	2	—	—	—	0	
199	8	11	—	—	—	—	—	—	15	06	15	05	e 15	06	5	—	—	—	—	—	0	
200	9	e 12	11	46	—	—	e 11	48	12	10	12	12	e 12	10	8	8	4	24	2 12	0		
201	12	0	—	—	—	—	—	—	27	46	—	—	27	46	20	—	10	—	—	—	0	
202	13	e 2	35	36	—	—	35	36	35	55	35	55	e 35	58	12	13	12	19	3 01	0		
203	13	7	—	—	—	—	—	—	22	00	22	00	22	00	10	5	—	—	—	—	0	
204	13	? 12	16	11	e 16	15	16	15	16	25	16	26	? 16	25	8	10	6	11	2 39	0	37.2N, 141.7E[50]	
205	15	18	02	21	02	21	02	20	06	40	06	35	e 06	37	81	2293	—	254	49 22	0	22N, 120E[S]	
206	15	21	—	—	—	—	22	14	e 22	32	e 22	30	? 22	35	3	—	2	18	2 30	0		
207	16	10	26	29	? 26	33	—	—	? 31	17	? 31	13	—	—	—	—	—	284	18 57	0		
208	17																					

## EARTHQUAKES, 1959.



No.	Date 1959	P				S				Maximum Amplitude				P ~ S	P ~ F	Intensity	Epicenter and Remarks								
		E	W	N	S	Z	E	W	N	S	Z	E	W	N	S	Z									
221	Aug. 25	h 6	m 40	s 21	—	—	m 40	s 17	—	—	—	e 47	s 37	m 47	s 43	—	10	μ	138	—	442	95	44	0	10.5S, 161E
222	27	? 13	53	56	—	—	—	—	54	11	54	10	e 54	10	—	—	6	8	6	14	2	14	0	0	
223	28	e 11	24	41	—	—	—	—	? 25	25	? 25	27	? 25	29	—	—	5	8	4	44	2	50	0	0	
224	28	? 11	30	51	—	—	—	—	? 31	27	? 31	30	—	—	—	—	3	—	—	36	2	14	0	0	
225	28	e 14	51	16	51	17	e 51	10	51	40	e 51	45	? 51	43	—	—	10	13	8	23	3	43	0	0	
226	Sept. 30	e 0	51	04	—	—	—	—	51	33	? 51	26	e 51	13	—	—	4	—	2	29	2	39	0	0	
227	30	2	08	56	08	56	? 08	57	? 13	46	? 13	34	—	—	70	198	—	—	290	59	14	0	52N, 106.5E		
228	30	e 10	32	39	—	—	e 32	40	33	03	33	02	e 33	02	—	—	5	5	4	24	4	08	0	0	
229	2	17	—	—	—	—	—	—	11	53	? 11	58	e 11	51	—	—	4	5	4	—	—	—	0	0	
230	3	? 15	36	06	? 36	05	—	—	? 42	57	? 42	59	—	—	—	—	4	25	—	411	19	00	0	0	
231	5	15	15	23	? 15	23	e 15	22	21	28	21	28	—	—	11	13	—	—	364	16	56	0	1N, 129E		
232	6	e 15	40	41	—	—	—	—	e 41	03	—	—	—	—	3	—	—	—	22	1	50	0	0		
233	6	e 16	05	11	? 05	10	—	—	05	43	05	42	—	—	11	13	8	—	32	4	05	0	42N, 142.5E[40]		
234	8	19	04	15	04	15	04	12	04	44	04	44	04	44	91	90	54	—	29	6	31	0	36.4N, 140.7E[50]		
235	9	4	20	35	20	34	20	32	21	12	21	14	e 21	13	107	130	44	—	37	8	28	0	42.3N, 143.1E[60]		
236	11	0	46	58	47	00	47	00	47	44	e 47	41	—	—	9	5	8	—	46	3	39	0	0		
237	11	e 10	29	56	—	—	—	—	30	35	30	35	—	—	5	5	—	—	39	3	10	0	0		
238	12	? 11	01	58	e 01	56	e 01	53	? 08	12	e 08	14	—	—	—	—	—	—	378	46	17	0	3S, 146.5E		
239	14	? 7	48	19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11	36	0	0	0		
240	14	23	21	45	21	46	e 21	44	e 31	12	? 31	11	—	—	28	495	—	—	567	84	29	0	28.5S, 177W		
241	15	1	51	49	e 51	48	51	47	52	24	52	23	52	26	19	15	10	—	36	4	15	0	42.1N, 142.6E[50]		
242	15	2	—	—	—	—	—	—	26	49	26	51	e 26	49	16	5	10	—	—	—	—	0	0		
243	15	e 12	45	23	? 45	24	—	—	? 45	48	? 45	50	? 45	48	2	3	4	—	26	3	05	0	0		
244	15	15	11	46	e 11	46	11	44	? 21	48	21	44	—	—	—	—	60	—	598	87	05	0	28.5S, 177W		
245	15	20	15	59	16	00	15	59	24	28	24	30	—	—	—	—	—	—	509	13	59	0	21.5S, 179.5W		
246	16	e 0	09	57	e 09	55	e 09	59	10	58	10	59	e 11	01	33	38	22	—	60	4	24	0	43.1N, 146.8E[60]		
247	17	e 14	08	00	—	—	08	00	08	12	08	11	e 08	12	12	8	12	—	12	1	54	0	0		
248	19	i 13	11	26	i 11	26	? 11	26	11	38	11	39	11	39	174	163	60	—	12	7	14	II	38.5N, 142.2E[60]		
249	21	9	—	—	—	—	—	—	? 36	29	—	—	—	—	3	—	—	—	—	—	—	0	0		
250	22	? 3	34	56	—	—	—	—	35	12	e 35	10	? 35	11	3	3	4	—	16	1	17	0	0		
251	24	22	—	—	—	—	—	—	47	03	—	—	—	—	3	—	—	—	—	—	—	0	0		
252	25	11	42	08	42	09	42	06	46	25	46	20	—	—	30	133	—	—	257	31	39	0	22N, 122E		
253	26	4	—	—	—	—	—	—	22	14	22	11	e 22	13	5	8	—	—	—	—	—	0	0		
254	27	? 9	22	43	—	—	? 22	40	? 22	57	? 22	59	? 22	56	11	8	4	—	14	1	30	0	0		
255	30	1	—	—	—	—	—	—	—	—	—	—	—	—	—	15	—	—	—	—	—	—	0		
256	Oct. 4	? 5	04	25	04	20	04	17	05	19	05	17	05	18	20	13	16	—	57	4	28	0	43.2N, 146.3E[40]		
257	7	? 2	28	45	—	—	? 28	48	29	14	29	14	? 29	13	10	—	6	—	29	3	12	0	42.1N, 142.3E[80]		
258	8	? 6	00	54	? 00	58	? 00	49	—	—	—	—	—	—	—	—	—	—	—	—	—	0	0		
259	11	1	—	—	—	—	—	—	24	19	24	20	e 24	20	6	3	6	—	—	—	—	0	0		
260	11	18	34	39	34	38	34	35	35	04	35	07	e 35	03											

## EARTHQUAKES, 1959.



No.	Date 1959	P						S						Maximum Amplitude						P ~ S	P ~ F	Intensity	Epicenter and Remarks			
		E	W	N	S	Z		E	W	N	S	Z		E	W	N	S	Z								
276	Oct. 27	i 15	m 55	s 11				m 55	s 10	e 55	m 10	56	50	56	53	56	51	453	μ	725	300	99	m 61	s 13	0	45.5N, 151.8E[100]
277	27	22	23	08				e 23	09	23	09	23	30	23	35	e 23	26	11	13	10	22	2	43	0		
278	28	7	17	30				17	30	17	28	17	58	18	02	e 17	56	71	53	24	28	5	32	0	37.5N, 143.3E[20]	
279	28	7	39	42				? 39	40	39	40	40	16	e 40	18	40	14	9	13	6	34	1	58	0		
280	29	? 19	38	55				—	—	—	—	39	37	39	34	39	35	13	13	8	42	4	43	0	46N, 151E[60]	
281	Nov. 29	23	32	28				32	29	32	29	34	04	34	03	? 34	15	72	70	34	96	7	33	0	43N, 131E[550]	
282	30	e 4	50	59				50	58	e 50	58	e 51	50	51	48	—	—	18	23	—	49	4	14	0	36.0N, 140.4E[40]	
283	2	e 17	48	04				48	02	—	—	51	12	51	12	—	—	22	15	—	190	9	12	0	22.5N, 144.5E	
284	3	17	28	46				28	45	28	44	29	02	29	02	29	02	20	38	18	16	2	23	0	40.2N, 140.4E[0~10]	
285	6	0	02	40				02	40	02	37	e 05	03	05	03	? 05	05	5	—	—	143	5	58	0		
286	7	12	01	25				e 01	25	01	23	01	49	e 01	53	01	50	35	28	20	24	3	28	0		
287	8	i 22	56	17				56	14	56	14	57	30	57	23	e 57	27	—	528	124	70	39	32	0	43.8N, 140.6E[0~10]	
288	9	e 8	54	26				—	—	e 54	25	54	51	54	49	e 54	48	5	5	4	25	3	38	0		
289	15	2	—	—				—	—	? 32	15	—	—	—	—	—	—	2	—	2	—	—	—	0		
290	16	? 2	21	57				? 21	43	e 21	32	? 31	54	? 31	49	? 32	00	21	93	—	617	75	14	0	37.5N, 20.5E	
291	17	23	—	—				—	—	? 55	57	55	58	—	—	4	5	—	—	—	—	—	—	0		
292	19	20	16	56				16	54	16	55	23	20	23	24	e 23	22	46	25	—	385	23	56	0	5.5S, 146.0E	
293	20	0	—	—				—	—	07	38	07	38	e 07	39	11	5	4	—	—	—	—	—	0		
294	24	? 5	57	04				? 57	01	57	01	57	17	57	16	57	18	54	28	20	17	4	08	0	38.7N, 140.6E[140]	
295	26	13	—	—				—	—	13	45	13	46	? 13	46	5	8	2	—	—	—	—	—	0		
296	Dec. 26	16	—	—				—	—	? 16	10	? 16	12	16	09	5	10	4	—	—	—	—	—	0		
297	28	e 2	14	59				e 14	56	—	—	15	17	15	16	—	—	9	8	—	18	2	17	0	36.8N, 141.2E[40]	
298	30	0	30	20				30	20	e 30	19	30	42	30	41	e 30	37	9	5	2	22	2	03	0	37.3N, 141.9E[60]	
299	2	18	42	08				42	09	42	07	48	32	e 48	30	? 48	25	7	—	—	384	36	14	0	1S, 123E	
300	7	e 14	18	26				18	31	—	—	? 18	57	—	—	—	—	5	5	—	26	2	19	0		
301	8	12	00	36				00	35	00	35	00	56	e 00	55	01	00	136	183	80	20	7	15	I	37.3N, 141.7E[40]	
302	8	? 17	49	04				—	—	? 49	02	49	22	? 49	21	? 49	20	5	5	4	18	2	05	0		
303	12	13	—	—				—	—	e 49	05	e 49	04	49	04	5	5	2	—	—	—	—	—	0		
304	13	? 12	21	49				? 21	48	e 21	48	? 22	08	22	08	22	07	26	28	12	19	4	42	0	42.0N, 142.1E[40]	
305	14	22	—	—				—	—	35	37	35	34	—	—	6	—	—	—	—	—	—	—	0		
306	15	3	05	29				05	27	05	28	i 05	59	10	57	e 10	57	—	—	—	330	11	22	0	5N, 12.6E	
307	17	i 14	05	17				—	—	05	16	i 05	35	—	—	e 05	39	129	—	94	19	6	46	0	40.0N, 142.4E[30]	
308	18	16	—	—				—	—	03	50	e 03	47	—	—	9	8	—	—	—	—	—	—	0		
309	19	1	32	05				? 32	00	32	02	—	—	—	—	—	—	—	—	—	23	20	0	53N, 168.5E		
310	22	? 14	23	04				e 22	58	22	58	? 23	24	23	21	? 23	26	8	—	4	24	2	41	0	41.2N, 140.8E[S]	
311	23	2	20	50				20	49	i 20	49	21	07	21	13	e 21	07	220	463	132	18	11	52	I	37.7N, 142.0E[40]	
312	26	? 5	41	27				—	—	? 41	29	41	43	41	41	e 41	44	10	5	—	16	1	38	0	41.0N, 142.1E[60]	
313	26	? 8	30	03				—	—	30	16	30	19	e 30	1											



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