

N.Z. DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH.

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APIA OBSERVATORY,  
APIA, WESTERN SAMOA.

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ANNUAL REPORT  
FOR  
1932.

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*Issued under the authority of the Rt. Hon. G. W. FORBES,  
Minister of Scientific and Industrial Research.*

WELLINGTON.  
G. H. LONEY, GOVERNMENT PRINTER.

—  
1933.



9th January, 1934.

Sir,—

I have the honour to present herewith the Annual  
Report of the Apia Observatory for the year 1932.

E. MARSDEN.

Secretary,  
Department of Scientific and Industrial Research.

The Right Hon. G. W. FORBES,  
Minister of Scientific and Industrial Research.



C O T E N T S

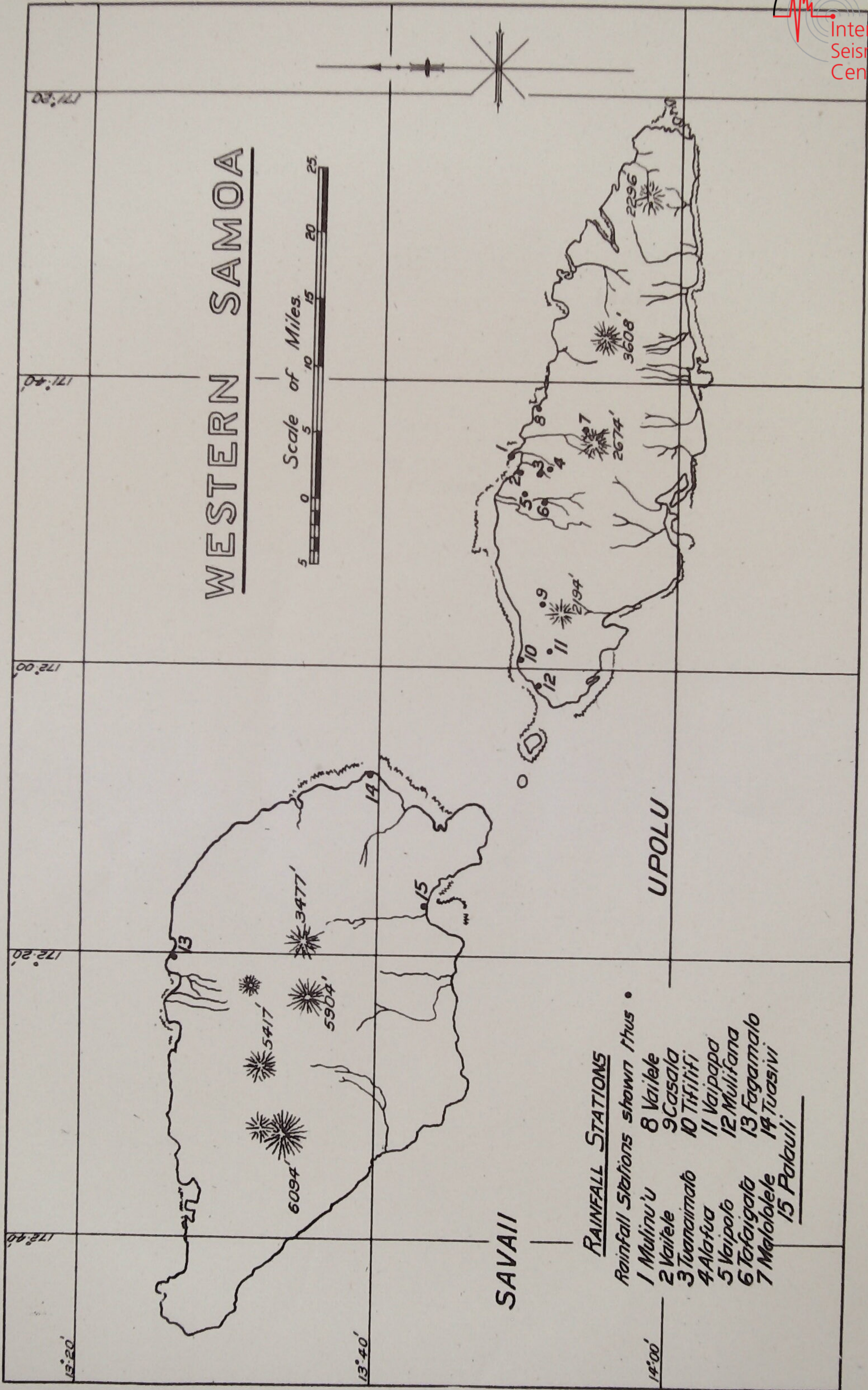
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CO-ORDINATES of TRANSIT PIER

Latitude 13° 48' 26" South  
Longitude 171° 46' 30" or 11h. 27m. 6s.  
West of Greenwich  
Altitude Two metres above mean sea  
level

TIME STANDARDS

Magnetism and Seismology Greenwich Mean Time  
Meteorological Records Standard time of Western  
Samoa. This is 11h. 30m.  
slow on G.M.T. and 2m. 54s.  
slow on true local time.  
Atmospheric Electricity Zone time 11h. slow on G.M.T.





APIA OBSERVATORY, SAMOA

Report of the Director for the year 1932

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Introduction

The present volume contains the results of observations in terrestrial magnetism, seismology, meteorology and atmospheric electricity made at Apia Observatory during the year 1932.

The observations in terrestrial magnetism and seismology were made by Mr P.W. Glover who also prepared the corresponding tables of numerical values. The work in atmospheric electricity which consisted in maintaining and tabulating the records of two Benndorf electrometers registering potential gradient was performed by Mr H.B. Sapsford. Mr Sapsford also prepared some of the meteorological tables.

The tide gauge was kept in operation throughout the year in the hut used for the electrometer at the Lagoon Station and copies of the tabulations of the records were sent month by month to the United States Coast and Geodetic Survey at Washington, D.C., U.S.A.

Some measurements of upper winds were made from time to time by means of pilot balloons using the tail method. The total number of ascents during the year was 78.

Synoptic charts have been prepared regularly every day during 1932 using data collected by Apia Radio Station from various groups of islands in the South Pacific Ocean. The number of stations which send weather reports regularly is about 20; but reports are also occasionally received from ships at sea. Since May 1932 at the request of local trading firms and owners of coastal and inter-island shipping a daily report of weather has been exhibited every week-day at the post office and customs house in Apia. Brief references to the synoptic charts as constructed from the daily reports by wireless telegraphy are made in the section of this report describing the weather of the year.

A spectrohelioscope which the Observatory has received on loan from Mount Wilson Observatory was erected during the year in a hut which has been specially constructed for it in the grounds of the



Observatory. Since their arrival in Samoa nearly four years ago the surfaces of the mirrors have deteriorated to such an extent that no observations have yet been made; but arrangements are in progress for renewing the silvered surfaces of the mirrors.

A certain amount of time has been devoted to the library and a card index has now been completed. Pyrethrum powder has been found to be a fairly effective deterrent for cockroaches and lizards which cause much damage to the books.

The present volume includes a table giving the results of measurements of rainfall in Samoa made by voluntary observers. There are also some climatological summaries of the weather during 1932 in other groups of Pacific islands besides Samoa.

For the sake of conciseness and convenience of preparation for lithographic printing the results of the measurements of upper winds at the Observatory have been expressed in the form of the code used in international wireless reports.

Finally a list of corrigenda has been added referring to the report issued for the previous year.





Introduction

In this report, the twelfth which has been prepared since the Government of New Zealand became responsible for the maintenance of Apia Observatory, the arrangement of the tabular matter remains the same as in former years.

The instruments which have been used for absolute measurements of declination (D), horizontal intensity (H) and the angle of dip (I) are the Tesdorpf magnetometer (No. 2025) and the Schulze earth inductor. The instruments which have been used for autographic records are a set of Eschenhagen variometers recording photographically the changes in declination and horizontal intensity. All of these instruments have been in use for many years. The variometer which should give records of vertical intensity (Z), also an Eschenhagen instrument, did not operate during the year. It was ultimately replaced by a Godhavn balance made by Andersen and Sprenger which arrived in Samoa in December 1932. The driving clocks of the variometers gave a good deal of trouble during the year and were sent away to New Zealand for overhaul.

The measurement of the magnetograms for hourly values was made by a method of direct scaling using specially prepared scales.

Definitions

The diurnal variations on international quiet days have been adjusted for non-cyclic change. The quantity  $N$  is the amount of the correction for non-cyclic change which has been applied to the hourly values at 0h. and 24h.; the upper sign refers to 0h. and the lower to 24h. The method of computing non-cyclic change is the same as the method described in several of the publications of the United States Coast and Geodetic Survey, e.g., Sitka Observatory Magnetic Report for 1919 and 1920. A series of twenty-seven consecutive hourly values is brought into account in which the second and twenty-sixth refer to 0h. and 24h. respectively. The sum of the first three hourly values is subtracted from the sum of the last three and the result divided by six is the value of  $N$ .

When a diurnal variation has two maxima and two minima the first maximum of the day is called  $A$  and the second  $B$ , the first minimum is called  $a$  and the second  $b$ .





The quantity R is the range included between the highest and lowest hourly values when only one maximum and one minimum occur during the day. The quantities entered in the tables of hourly values are the mean values of the element over periods of one hour between exact hours of Greenwich Mean Time, i.e. 0-1, 1-2, ..., and 23-24; and these values are in all cases defined by the hours specifying the commencement of the periods.

The diurnal variations of declination and horizontal intensity have been analysed harmonically using the method of twelve ordinates. References to previous harmonic analyses at Apia may be found in the annual report of Apia Observatory for 1930.

### Description

The mean value of H derived from the "all days" results is 35116 gamma. This is 55 gamma less than the corresponding value for 1931. The mean value of H for the international quiet days is 35126 gamma and is 49 gamma less than the corresponding value for 1931.

The mean value of D derived from the "all days" results is  $10^{\circ} 36.5'$  East; while the value from the international quiet day results is  $10^{\circ} 36.6'$  East. In each case these values represent an increase of 1.3 minutes of arc in easterly declination.

The mean value of I derived from absolute observations is  $-30^{\circ} 13.6'$ . Combining this result with the "all days" mean value 35116 gamma for H we obtain a value for Z equal to -20460 gamma. This value is 26 gamma greater than the corresponding derived mean value of Z for 1931. No further data for vertical force are available for 1932.

The following is a list of the principal disturbances registered during 1932:-

- (1) April 22-30. The disturbance commenced suddenly at 22d 05h 31m with an increase of 10 $\gamma$  in H and the range of the whole disturbance in H was 161 $\gamma$ .
- (2) May 2-6. The disturbance began gradually at 02d 20h 12m. The H trace was off the sheet during the period 03d 01h to 06h.
- (3) May 10-17. A sudden commencement at 10d 00h 05m with an increase in H of 23 $\gamma$ . The range of the whole disturbance in H was 169 $\gamma$ .





- (4) May 21. The commencement occurred at 21d 02h 00m and was gradual. The range of the disturbance in H was 119 $\gamma$ .
- (5) May 23-31. A sudden commencement was recorded at 23d 13h 48m with an increase in H of 11 $\gamma$ . The needle was caught at 29d 20h and the H trace was then lost.
- (6) December 8-9. A sudden commencement at 08d 03h 05m with an increase in H of 11 $\gamma$ . The range of the complete disturbance in H was 85 $\gamma$ .
- (7) December 14-16. This disturbance commenced suddenly at 14d 02h 25m with an increase of 20 $\gamma$  in H. The trace in H was off the sheet during the period 15d 02h to 05h.
- (8) December 25. The commencement occurred at 25d 06h 26m with a sudden increase of 8 $\gamma$  in H. Rapid pulsations followed at 09h 07m having a period of about 1.3 minutes. The maximum amplitude of the pulsations was 1.5 $\gamma$  at 09h 14m.
-



Table 1 - Annual Mean Values of Magnetic Elements

1905 - 1932



Authorities

1905-11 Königliche Gesellschaft zu Göttingen - Annual Reports  
 1912-20 Summary of Magnetic Observations - Wellington, N.Z., 1927  
 1921-25 Department of External Affairs, Wellington, N.Z.  
 1926-30 Department of Scientific and Industrial Research,  
 Wellington, New Zealand - Annual Reports, Apia Observatory

Year	All Days			International Days		
	D	H	Z	D	H	Z
	East	Gamma	Gamma	East	Gamma	Gamma
1905	9° 37.0'	35 675	19 935	-	-	-
1906	38.5	655	977	-	-	-
1907	40.1	637	20 010	-	-	-
1908	41.9	614	036	-	-	-
1909	43.9	587	086	-	-	-
1910	45.6	550	110	-	-	-
1911	48.4	527	191	-	-	-
1912	49.7	493	226	9° 49.7'	35 495	20 225
1913	52.0	457	277	51.9	462	276
1914	53.9	424	312	53.9	428	312
1915	57.0	386	331	57.0	394	332
1916	10 00.0	359	342	10 00.0	365	341
1917	3.2	338	371	3.2	349	371
1918	6.1	315	380	6.2	326	381
1919	8.5	289	392	8.6	299	393
1920	11.2	273	413	11.3	282	413
1921	10.7	257	414	10.7	265	412
1922	13.6	241	421	13.7	249	421
1923	16.3	248	440	16.2	250	441
1924	19.2	249	453	19.2	253	453
1925	22.8	239	453	22.9	246	453
1926	26.1	216	446	26.2	228	449
1927	29.5	223	432	29.5	232	-
1928	32.1	225	-	32.1	235	-
1929	33.5	209	418	33.6	221	417
1930	34.2	195	428	34.3	213	427
1931	35.2	171	434	35.3	175	-
1932	36.5	116	460	36.6	126	-



Table 2 - Monthly Mean Values of Magnetic Elements, 1932

All Days

	D	H	X	Y
	East	gamma	gamma	gamma
January	10 <sup>0</sup> 34.43	35 141.6	34 545	6 448
February	34.42	139.2	543	448
March	34.56	137.7	541	449
April	34.35	092.2	496	439
May	34.25	099.4	504	439
June	34.59	103.3	507	443
July	36.45	119.6	519	465
August	37.84	110.4	508	477
September	38.66	110.5	506	485
October	40.02	106.9	500	498
November	40.08	132.8	526	504
December	38.87	098.4	494	485
YEAR	36.54	116.0	516	465

International Days

	D	H	X	Y
	East	gamma	gamma	gamma
January	10 <sup>0</sup> 34.41	35 151.8	34 555	6 450
February	34.43	146.3	550	448
March	34.46	153.5	556	451
April	34.33	115.8	520	443
May	34.22	113.5	518	441
June	34.53	105.2	509	443
July	36.55	122.5	522	466
August	37.93	117.6	515	479
September	38.93	121.2	516	490
October	40.13	115.9	509	501
November	40.06	140.0	533	505
December	38.81	107.8	503	486
YEAR	36.57	125.9	525	467



Table 3 - Diurnal Variation of D - All Days, 1932

G.M.T.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
0- 1	+0.53	+1.78	+1.54	+0.21	-0.30	-0.59	-0.70	-1.23	-0.88	+0.93	+1.47	+1.53
1- 2	+1.15	+2.05	+1.58	+0.51	+0.17	+0.21	+0.07	-0.46	+0.05	+1.44	+1.74	+1.71
2- 3	+1.43	+1.84	+1.13	+0.83	+0.74	+0.93	+0.85	+0.59	+0.85	+1.42	+1.45	+1.74
3- 4	+1.53	+1.24	+0.60	+0.63	+0.72	+0.82	+0.75	+1.01	+0.74	+0.86	+0.98	+1.48
4- 5	+1.20	+0.69	+0.21	+0.46	+0.36	+0.32	+0.35	+0.73	+0.74	+0.52	+0.71	+1.04
5- 6	+0.96	+0.45	+0.29	+0.04	+0.13	+0.07	+0.05	+0.38	+0.36	+0.56	+0.79	+0.89
6- 7	+0.89	+0.47	+0.31	+0.15	-0.10	-0.09	-0.01	+0.21	+0.30	+0.54	+0.69	+0.77
7- 8	+0.67	+0.45	+0.28	-0.32	-0.22	-0.27	-0.15	+0.09	+0.21	+0.39	+0.45	+0.67
8- 9	+0.43	+0.34	+0.05	-0.37	-0.31	-0.36	-0.21	-0.14	+0.08	+0.17	+0.16	+0.43
9-10	+0.29	+0.19	-0.22	-0.44	-0.35	-0.40	-0.28	-0.24	-0.20	-0.05	-0.03	+0.33
10-11	+0.00	-0.01	-0.24	-0.43	-0.36	-0.37	-0.29	-0.28	-0.26	-0.15	-0.17	+0.10
11-12	-0.11	-0.16	-0.20	-0.37	-0.33	-0.32	-0.25	-0.25	-0.26	-0.20	-0.27	-0.04
12-13	-0.29	-0.22	-0.11	-0.21	-0.21	-0.23	-0.19	-0.22	-0.19	-0.19	-0.29	-0.08
13-14	-0.36	-0.13	-0.18	+0.04	-0.02	+0.01	-0.16	-0.11	-0.09	-0.16	-0.31	-0.18
14-15	-0.34	-0.15	-0.06	+0.29	+0.23	+0.25	+0.02	+0.15	+0.07	-0.07	-0.23	-0.09
15-16	-0.26	-0.13	+0.04	+0.39	+0.48	+0.39	+0.24	+0.40	+0.27	+0.07	-0.14	-0.18
16-17	-0.18	-0.34	-0.18	+0.51	+0.60	+0.56	+0.48	+0.54	+0.48	+0.13	-0.19	-0.25
17-18	-0.58	-0.89	-0.87	+0.61	+0.70	+0.66	+0.54	+0.70	+0.66	-0.05	-0.82	-1.19
18-19	-1.25	-1.99	-1.80	+0.33	+0.90	+0.97	+1.00	+1.18	+0.84	-0.76	-1.64	-2.22
19-20	-1.81	-2.60	-2.14	-0.39	+0.44	+0.77	+1.01	+0.84	+0.27	-1.34	-2.17	-2.67
20-21	-1.89	-2.40	-1.58	-0.89	-0.38	+0.01	+0.15	-0.08	-0.45	-1.69	-2.08	-2.29
21-22	-1.58	-1.36	-0.41	-0.85	-0.96	-0.77	-0.74	-0.81	-0.90	-1.60	-1.39	-1.62
22-23	-0.73	-0.17	+0.74	-0.51	-1.08	-1.33	-1.25	-1.39	-1.29	-0.94	+0.12	-0.52
23-24	+0.21	+1.18	+1.15	-0.17	-0.86	-1.33	-1.37	-1.58	-1.39	+0.12	+1.18	+0.81





Table 4 - Diurnal Variation of H - All Days, 1932

G.M.T.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
0- 1	+21.8	+20.7	+20.4	+17.4	+15.8	+5.2	+12.0	+10.7	+16.8	+21.3	+19.3	+23.0
1- 2	+16.4	+14.9	+12.0	+ 4.5	+ 7.7	+1.2	+ 9.1	+ 5.9	+ 9.8	+15.8	+15.9	+16.6
2- 3	+ 8.4	+ 7.5	+ 0.1	- 5.2	+ 3.2	-2.0	+ 4.4	- 1.1	+2.1	+ 8.6	+ 8.8	+ 5.5
3- 4	- 0.5	- 0.6	- 6.8	-11.3	- 5.2	-3.8	- 0.9	- 3.5	- 3.3	- 0.6	+ 0.1	- 4.7
4- 5	- 4.5	- 5.8	- 9.4	-17.7	-15.4	-7.3	- 4.0	- 5.1	- 7.0	- 5.8	- 7.0	- 9.6
5- 6	- 6.4	- 7.7	-10.6	-10.1	-18.0	-8.0	- 6.3	-7.3	-10.1	- 9.1	- 9.2	-11.3
6- 7	- 7.8	- 7.8	- 8.9	-16.3	-19.9	-10.1	- 8.9	- 9.1	-12.3	-10.6	- 9.0	- 9.7
7- 8	- 8.0	- 8.2	- 8.7	-22.7	-20.9	- 9.8	-10.0	-10.1	-13.7	-10.9	- 9.1	- 9.0
8- 9	- 9.0	- 7.6	- 9.1	-12.9	-19.9	-10.0	-10.7	-10.2	-12.2	-11.1	- 9.6	- 8.4
9-10	- 9.3	- 8.4	- 8.2	-13.0	-19.5	-12.1	- 9.4	-10.2	-11.1	-10.2	- 9.5	- 9.6
10-11	- 7.9	- 8.2	- 7.2	- 9.5	-18.0	-10.5	-10.3	- 8.5	-10.2	-10.3	- 8.6	- 9.1
11-12	- 7.2	- 6.2	- 4.5	-11.0	-12.6	- 9.0	-10.0	- 8.3	-11.0	- 9.0	- 7.0	- 7.7
12-13	- 8.0	- 7.3	- 4.2	- 8.3	-11.4	- 8.8	- 8.8	- 7.5	-10.8	- 8.3	- 6.3	- 5.5
13-14	- 7.1	- 7.0	- 3.2	- 8.3	- 8.4	- 4.8	- 6.6	- 6.6	- 7.5	- 6.5	- 6.0	- 4.8
14-15	- 7.6	- 4.6	- 3.4	- 3.5	- 5.5	- 2.6	- 5.0	- 5.3	- 5.4	- 5.1	- 5.2	- 5.5
15-16	- 6.9	- 4.2	- 3.8	+ 2.2	- 2.0	- 0.8	- 4.2	- 3.5	- 3.5	- 4.4	- 4.6	- 8.1
16-17	- 5.7	- 4.8	- 3.0	+ 3.7	+ 1.7	+ 0.5	- 3.0	- 2.0	- 1.5	- 3.2	- 3.8	-10.0
17-18	- 7.5	- 5.8	- 4.2	+ 4.1	+ 6.1	+ 2.6	+ 0.3	+ 1.2	+ 1.7	- 2.9	- 5.2	- 9.0
18-19	- 7.9	- 7.6	- 3.8	+ 9.9	+16.5	+ 9.6	+ 6.1	+ 7.3	+ 6.7	- 1.5	- 6.1	- 9.0
19-20	- 3.4	- 4.9	- 0.4	+12.3	+23.0	+14.5	+11.9	+12.2	+11.2	+ 1.6	- 2.2	- 4.4
20-21	+ 4.5	+ 4.6	+ 6.6	+18.6	+24.5	+16.8	+13.7	+16.7	+14.7	+ 7.3	+ 6.4	+ 7.2
21-22	+16.1	+14.4	+13.8	+26.7	+29.0	+18.4	+12.7	+16.7	+17.2	+14.0	+14.6	+20.1
22-23	+23.0	+21.2	+21.6	+28.4	+28.4	+16.8	+14.3	+15.1	+19.5	+18.3	+20.7	+29.4
23-24	+25.0	+23.5	+24.5	+22.6	+21.5	+12.9	+13.9	+12.6	+20.2	+22.4	+22.9	+31.6

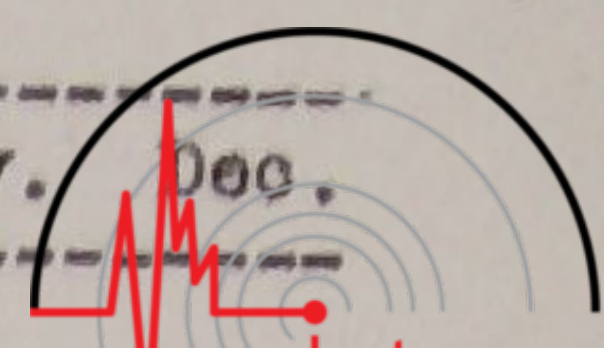
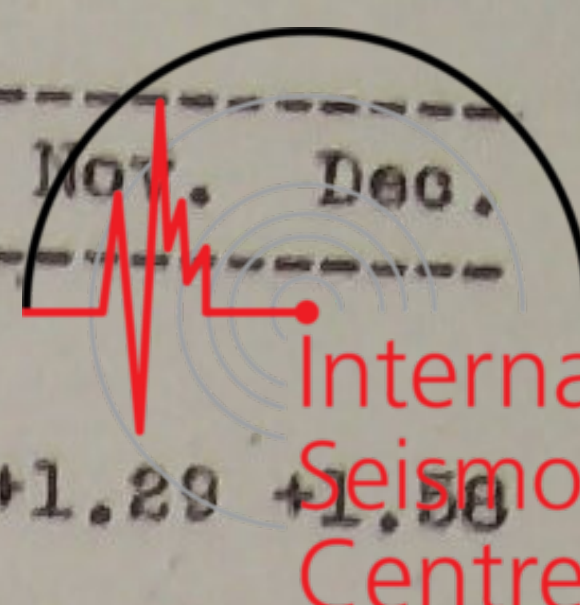




Table 5 - Diurnal Variation of D: International Quiet Days, 1932

G.M.T.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
0- 1	-0.33	+1.54	+1.52	0.00	-0.67	-1.03	-0.65	-1.25	-0.95	+1.04	+1.29	+1.58
1- 2	+0.77	+1.64	+1.47	+0.20	+0.20	+0.07	+0.34	-0.72	-0.04	+1.36	+1.31	+1.89
2- 3	+1.23	+1.46	+0.81	+0.60	+0.69	+1.04	+0.80	+0.47	+0.62	+1.42	+1.06	+1.56
3- 4	+1.54	+1.15	+0.46	+0.42	+0.85	+1.02	+0.92	+0.86	+0.55	+0.95	+0.86	+1.12
4- 5	+1.16	+0.65	+0.21	+0.56	+0.44	+0.42	+0.37	+0.83	+0.30	+0.58	+0.66	+0.58
5- 6	+0.92	+0.51	+0.52	+0.49	+0.18	+0.25	+0.10	+0.52	+0.16	+0.68	+0.79	+0.50
6- 7	+0.80	+0.47	+0.54	+0.48	+0.21	+0.01	-0.16	+0.17	+0.15	+0.66	+0.81	+0.41
7- 8	+0.74	+0.54	+0.48	+0.11	-0.07	-0.17	-0.24	+0.18	+0.24	+0.47	+0.61	+0.52
8- 9	+0.56	+0.46	+0.22	+0.05	-0.10	-0.34	-0.31	+0.09	-0.02	+0.22	+0.26	+0.24
9-10	+0.46	+0.43	+0.03	+0.01	-0.16	-0.21	-0.30	+0.02	-0.05	+0.03	+0.04	+0.20
10-11	+0.27	+0.19	+0.11	-0.12	-0.21	-0.17	-0.30	-0.01	-0.10	-0.09	-0.11	+0.11
11-12	+0.15	+0.06	-0.07	-0.10	-0.25	-0.10	-0.30	-0.04	-0.08	-0.11	-0.19	+0.08
12-13	-0.17	-0.10	+0.04	-0.10	-0.17	-0.08	-0.25	+0.01	-0.07	-0.16	-0.16	+0.04
13-14	-0.17	-0.06	+0.22	+0.10	+0.05	+0.02	-0.22	+0.04	+0.00	-0.18	-0.21	+0.05
14-15	-0.27	-0.09	+0.14	+0.19	+0.14	+0.33	-0.02	+0.19	+0.26	-0.07	-0.14	+0.12
15-16	-0.22	-0.05	+0.08	+0.46	+0.30	+0.38	+0.06	+0.38	+0.49	+0.01	+0.04	+0.18
16-17	-0.16	-0.42	+0.12	+0.46	+0.43	+0.55	+0.23	+0.65	+0.74	-0.04	+0.06	-0.16
17-18	-0.38	-0.78	-0.27	+0.43	+0.43	+0.58	+0.38	+0.64	+0.96	-0.10	-0.41	-0.89
18-19	-0.80	-2.09	-1.62	+0.06	+0.65	+0.81	+0.80	+0.95	+1.21	-1.00	-1.39	-2.03
19-20	-1.50	-2.61	-2.38	-0.82	-0.02	+1.04	+0.88	+0.26	+0.64	-1.47	-2.11	-2.62
20-21	-1.68	-2.23	-2.56	-1.32	-0.42	-0.14	+0.15	-0.41	-0.28	-1.86	-2.19	-2.45
21-22	-1.42	-1.45	-1.42	-0.98	-0.81	-0.76	-0.58	-0.84	-1.15	-1.64	-1.59	-1.49
22-23	-1.09	-0.20	+0.07	-0.59	-0.91	-1.70	-0.88	-1.47	-1.72	-0.78	-0.01	-0.48
23-24	-0.17	+1.36	+1.05	-0.46	-0.77	-1.85	-0.98	-1.50	-1.84	+0.35	+0.79	+0.59
A - a	1.81	1.74	1.59	0.72	1.10	1.38	1.23	0.90	0.72	1.60	1.52	1.85
A - b	3.22	4.25	4.08	1.92	1.66	2.89	1.90	2.36	2.46	3.28	3.50	4.51
B - a	0.11	0.05	0.29	0.58	0.90	1.38	1.19	0.99	1.31	0.19	0.27	0.14
B - b	1.52	2.56	2.78	1.78	1.56	2.89	1.86	2.45	3.05	1.87	2.25	2.80
N	+0.02	+0.29	+0.15	+0.03	+0.05	+0.03	+0.06	+0.12	+0.08	+0.24	+0.00	+0.16



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Table 6 - Diurnal Variation of H - International Quiet Days, 1932

G.M.T.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
0- 1	+29.1	+26.5	+29.1	+18.0	+30.7	+ 5.6	+12.8	+11.9	+18.4	+17.8	+20.4	+30.6
1- 2	+22.0	+16.8	+21.9	+14.4	+27.5	+ 2.5	+ 7.0	+ 6.9	+10.8	+13.8	+16.5	+22.9
2- 3	+10.1	+ 8.8	+ 9.1	+10.4	+21.9	+ 2.5	+ 4.7	+ 0.5	+ 2.9	+ 8.0	+ 9.3	+ 9.6
3- 4	- 1.0	+ 3.1	- 0.8	+ 7.1	+ 9.9	+ 0.9	- 1.5	- 4.8	- 3.3	- 2.0	+ 0.6	- 3.6
4- 5	- 5.9	- 1.3	- 5.6	- 0.1	+ 1.1	- 3.5	- 4.4	- 6.2	- 8.1	- 6.9	- 5.2	-11.4
5- 6	- 7.8	- 3.1	- 5.5	- 6.1	- 6.8	- 6.0	- 5.0	- 7.2	-10.3	- 6.1	- 7.5	-11.6
6- 7	- 8.5	- 4.0	- 6.1	- 3.1	-11.1	- 7.1	- 6.3	- 7.5	- 9.9	- 5.3	- 8.8	-10.9
7- 8	- 8.3	- 5.5	- 6.5	- 7.0	-12.6	- 7.1	- 5.5	- 7.9	-10.3	- 6.6	- 9.4	-10.1
8- 9	- 8.0	- 5.9	-11.4	- 8.3	-15.2	- 7.4	- 5.7	- 8.1	- 9.3	- 6.3	- 9.3	-11.8
9-10	- 9.1	- 8.1	-13.9	-10.2	-15.5	- 7.4	- 6.0	- 8.5	-10.0	- 6.3	- 8.9	-14.1
10-11	- 9.2	- 9.4	-14.1	-10.3	-13.3	- 7.2	- 7.4	- 7.1	-10.8	- 6.2	- 8.2	-14.8
11-12	- 9.1	- 9.4	-14.3	-12.2	-12.6	- 6.9	- 8.7	- 6.6	-10.0	- 6.7	- 7.0	-14.6
12-13	-11.4	-11.3	-15.2	-12.1	-12.5	- 5.9	- 8.3	- 6.0	- 9.8	- 6.6	- 7.7	-14.8
13-14	-11.9	-11.8	-13.7	-12.1	-13.4	- 6.0	- 7.7	- 6.2	- 9.8	- 5.4	- 7.6	-13.5
14-15	-11.6	-11.4	-10.9	-13.7	-13.0	- 5.7	- 7.0	- 5.9	- 8.4	- 4.3	- 7.5	-10.8
15-16	-10.7	-10.5	- 8.1	-15.4	-11.5	- 4.5	- 6.2	- 4.7	- 7.8	- 5.2	- 6.1	- 9.0
16-17	-10.0	-11.1	- 5.2	-14.6	-10.5	- 2.8	- 5.1	- 3.5	- 7.1	- 4.8	- 5.7	- 9.3
17-18	-10.5	-11.7	- 5.8	-14.6	- 8.4	- 0.3	- 1.9	- 0.7	- 3.1	- 4.6	- 7.3	- 8.5
18-19	- 8.5	-10.0	- 7.6	-11.2	- 1.9	+ 7.9	+ 4.5	+ 5.1	+ 3.7	- 5.2	- 7.2	- 3.7
19-20	- 5.8	- 4.3	- 8.2	+ 4.5	+ 2.8	+11.9	+ 9.2	+ 9.6	+10.3	- 1.4	- 1.5	+ 4.5
20-21	+ 6.7	+ 5.7	+ 3.3	+11.9	+ 6.2	+13.9	+11.2	+13.6	+17.3	+ 5.7	+ 8.2	+15.8
21-22	+19.8	+19.3	+19.1	+20.3	+17.7	+15.7	+11.5	+14.4	+20.7	+14.2	+17.0	+26.0
22-23	+25.5	+27.6	+34.6	+32.0	+28.1	+12.8	+13.9	+14.9	+22.9	+13.6	+22.4	+34.3
23-24	+30.2	+30.0	+34.4	+30.0	+30.5	+ 7.8	+13.6	+15.7	+23.8	+20.0	+23.9	+33.0
R	42.1	41.8	49.8	47.4	46.2	23.1	22.6	24.2	34.6	26.9	33.5	49.1
N	+1.1	+7.8	+1.7	+7.5	+18.9	+3.3	+2.9	+2.1	+2.6	+2.7	+3.1	+2.9





Table 7 - Diurnal Variation of X - International Quiet Days, 1932

G.M.T.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
0- 1	+29	+23	+26	+18	+31	+ 7	+14	+14	+20	+15	+18	+27
1- 2	+20	+13	+19	+14	+27	+ 2	+ 6	+ 8	+11	+11	+14	+19
2- 3	+ 8	+ 6	+ 7	+ 9	+20	+ 1	+ 3	0	+ 2	+ 5	+ 7	+ 7
3- 4	- 4	+ 1	- 2	+ 6	+ 8	- 1	- 3	- 6	- 4	- 4	- 1	- 6
4- 5	- 8	- 3	- 6	- 1	0	- 4	- 5	- 8	- 9	- 8	- 6	-12
5- 6	- 9	- 4	- 6	- 7	- 7	- 6	- 5	- 8	-10	- 7	- 9	-12
6- 7	-10	- 5	- 7	- 4	-11	- 7	- 6	- 8	-10	- 6	-10	-11
7- 8	-10	- 6	- 7	- 7	-12	- 7	- 5	- 8	-11	- 7	-10	-11
8- 9	- 9	- 7	-12	- 8	-15	- 7	- 5	- 8	- 9	- 7	-10	-12
9-10	-10	- 9	-14	-10	-15	- 7	- 5	- 8	-10	- 6	- 9	-14
10-11	- 9	-10	-14	-10	-13	- 7	- 7	- 7	-10	- 6	- 8	-15
11-12	- 9	- 9	-14	-12	-12	- 7	- 8	- 6	-10	- 6	- 7	-14
12-13	-11	-11	-15	-12	-12	- 6	- 8	- 6	-10	- 6	- 7	-15
13-14	-11	-11	-14	-12	-13	- 6	- 7	- 6	-10	- 5	- 7	-13
14-15	-11	-11	-11	-14	-13	- 6	- 7	- 6	- 9	- 4	- 7	-11
15-16	-10	-10	- 8	-16	-12	- 5	- 6	- 5	- 9	- 5	- 6	- 9
16-17	- 9	-10	- 5	-15	-11	- 4	- 5	- 5	- 8	- 5	- 6	- 9
17-18	-10	-10	- 5	-15	- 9	- 1	- 3	- 2	- 5	- 4	- 6	- 7
18-19	- 7	- 6	- 5	-11	- 1	+ 6	+ 3	+ 3	+ 1	- 3	- 5	0
19-20	- 1	+ 1	- 4	+ 6	+ 3	+10	+ 7	+ 9	+ 9	+ 1	+ 3	+ 9
20-21	+10	+10	+ 8	+14	+ 7	+14	+11	+14	+17	+ 9	+12	+20
21-22	+22	+22	+21	+22	+19	+16	+12	+16	+22	+17	+20	+28
22-23	+27	+27	+34	+33	+29	+16	+15	+17	+26	+17	+22	+35
23-24	+30	+27	+32	+30	+31	+11	+15	+18	+27	+19	+22	+31
R	41	38	49	49	46	23	23	26	38	27	32	50

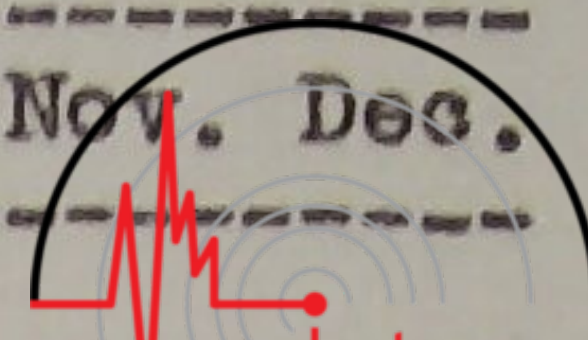




Table 8 - Diurnal Variation of Y - International Quiet Days, 1932

G.M.T.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
0- 1	+ 2	+20	+21	+ 3	- 1	- 9	- 4	-10	- 6	+14	+17	+22
1- 2	+12	+20	+19	+ 5	+ 7	+ 1	+ 5	- 6	+ 2	+16	+16	+23
2- 3	+14	+16	+10	+ 8	+11	+11	+ 9	+ 5	+ 7	+16	+12	+17
3- 4	+15	+12	+ 5	+ 5	+10	+10	+ 9	+ 8	+ 5	+ 9	+ 9	+11
4- 5	+11	+ 6	+ 1	+ 6	+ 5	+ 4	+ 3	+ 7	+ 1	+ 5	+ 6	+ 4
5- 6	+ 8	+ 5	+ 4	+ 4	+ 1	+ 1	0	+ 4	0	+ 6	+ 7	+ 3
6- 7	+ 6	+ 4	+ 4	+ 4	0	- 1	- 3	0	0	+ 6	+ 7	+ 2
7- 8	+ 6	+ 4	+ 4	0	- 3	- 3	- 3	0	+ 1	+ 3	+ 4	+ 3
8- 9	+ 4	+ 3	0	- 1	- 4	- 5	- 4	- 1	- 2	+ 1	+ 1	0
9-10	+ 3	+ 3	- 2	- 2	- 4	- 3	- 4	- 1	- 2	- 1	- 1	- 1
10-11	+ 1	0	- 1	- 3	- 5	- 3	- 4	- 1	- 3	- 2	- 3	- 2
11-12	0	- 1	- 3	- 3	- 5	- 2	- 5	- 2	- 3	- 2	- 3	- 2
12-13	- 4	- 3	- 2	- 3	- 4	- 2	- 4	- 1	- 3	- 3	- 3	- 2
13-14	- 4	- 3	0	- 1	- 2	- 1	- 4	- 1	- 2	- 3	- 3	- 2
14-15	- 5	- 3	- 1	- 1	- 1	+ 2	- 1	+ 1	+ 1	- 1	- 3	- 1
15-16	- 4	- 2	- 1	+ 2	+ 1	+ 3	- 1	+ 3	+ 3	- 1	- 1	0
16-17	- 3	- 6	0	+ 2	+ 2	+ 5	+ 1	+ 6	+ 6	- 1	- 1	- 3
17-18	- 6	-10	- 4	+ 2	+ 3	+ 6	+ 3	+ 6	+ 9	- 2	- 5	-11
18-19	-10	-23	-18	+ 1	+ 6	+ 9	+ 9	+10	+13	-11	-15	-21
19-20	-16	-27	-25	- 7	0	+13	+11	+ 4	+ 8	-15	-21	-25
20-21	-16	-21	-25	-11	- 3	+ 1	+ 4	- 2	0	-18	-21	-22
21-22	-11	-11	-11	- 6	- 5	- 5	- 4	- 6	- 8	-14	-13	-10
22-23	- 6	+ 3	+ 7	0	- 4	-15	- 6	-12	-13	- 5	+ 4	+ 1
23-24	+ 4	+19	+17	+ 1	- 2	-17	- 7	-12	-14	+ 7	+12	+12
A - a	20	23	24	11	16	16	14	10	10	19	20	25
A - b	31	47	46	19	16	28	16	20	21	34	38	48
B - a	2	1	3	5	11	18	16	12	16	2	2	2
B - b	13	25	25	13	11	30	18	22	27	17	20	25





Table 9 - Harmonic Constants International Quiet Days

$$y = R_1 \sin (x + a_1) + R_2 \sin (2x + a_2) + R_3 \sin (3x + a_3)$$

			$R_1$	$R_2$	$R_3$	$a_1$	$a_2$	$a_3$
<u>Horizontal Force</u>			$\gamma$	$\gamma$	$\gamma$	°	°	°
January	..	..	16.7	9.7	4.2	99	119	121
February	..	..	16.5	8.5	3.2	99	123	121
March	..	..	19.0	8.5	7.1	103	115	135
April	..	..	17.5	8.6	4.5	93	137	190
May	..	..	21.3	8.7	1.8	99	96	74
June	..	..	10.2	3.1	1.6	131	180	288
July	..	..	10.9	3.8	0.6	117	154	71
August	..	..	11.1	4.5	0.5	129	155	200
September	..	..	15.6	6.9	1.5	121	148	164
October	..	..	9.9	5.9	2.7	106	111	117
November	..	..	13.6	7.8	2.6	107	114	140
December	..	..	21.3	10.3	4.9	112	129	137
<u>Declination</u>			minutes of arc			°	°	°
			'	'	'			
January	..	..	1.02	0.56	0.25	356	354	32
February	..	..	1.17	0.96	0.55	15	59	101
March	..	..	0.84	0.86	0.73	8	55	109
April	..	..	0.36	0.55	0.24	347	352	71
May	..	..	0.15	0.58	0.28	302	325	354
June	..	..	0.52	0.42	0.44	211	255	203
July	..	..	0.09	0.51	0.43	169	320	337
August	..	..	0.42	0.80	0.45	285	316	339
September	..	..	0.39	0.79	0.51	264	317	357
October	..	..	0.87	0.72	0.45	13	28	79
November	..	..	0.94	0.70	0.58	17	50	108
December	..	..	0.73	1.05	0.59	17	50	97





Table 10 - Hourly Values of H for January 1932

G.M.T. H = 3500γ + scripta

DAY.	Hourly Values																								Range
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	140	130	118	110	111	116	119	117	115	110	112	111	112	113	115	113	113	115	115	118	124	126	140	148	43
2	152	139	130	132	125	120	120	118	119	119	112	112	120	123	130	137	137	131	130	134	137	151	145	143	47
3	145	141	135	126	122	124	125	126	126	125	126	124	126	126	126	126	126	126	126	140	148	156	156	43	
4	150	141	131	128	130	132	134	135	132	131	130	130	130	131	134	134	138	135	138	140	143	158	166	55	
5	165	161	152	143	140	137	139	138	137	135	135	130	130	125	125	126	127	127	130	144	179	174	142	57	
6	170	166	159	150	142	142	142	145	144	144	146	146	146	140	140	141	143	139	135	139	150	164	165	42	
7	172	165	157	147	144	144	142	139	140	139	138	134	136	137	137	135	138	137	141	147	154	164	170	43	
8	169	156	142	133	130	135	130	125	132	136	135	135	142	139	139	138	142	137	124	121	137	155	144	59	
9	153	152	147	132	125	119	126	128	129	136	149	138	138	129	129	130	130	126	125	128	131	144	147	40	
10	142	140	138	135	132	131	130	131	132	144	138	134	134	135	135	136	138	132	128	140	144	161	170	53	
11	168	161	149	139	140	135	124	123	126	129	137	136	134	135	135	134	132	126	118	124	131	148	152	56	
12	147	153	150	145	137	130	128	114	121	124	132	134	134	139	142	140	140	131	129	135	152	160	160	62	
13	155	143	136	134	127	122	118	118	121	123	131	130	131	131	130	128	128	126	125	125	145	150	158	50	
14	153	150	140	119	129	129	130	129	127	126	123	130	130	124	124	129	129	130	129	128	149	158	151	42	
15	154	153	148	144	139	136	135	130	110	115	118	122	122	128	128	130	135	135	130	140	151	161	160	57	
16	159	156	149	139	135	133	132	135	130	130	130	135	137	139	139	141	144	142	146	144	164	170	170	49	
17	164	165	161	151	140	134	134	132	130	132	133	131	131	130	130	128	128	133	135	139	174	185	187	65	
18	185	180	168	155	142	136	136	134	131	132	132	131	131	134	135	135	133	132	133	139	153	157	166	58	
19	170	164	152	144	141	139	139	141	140	139	139	139	138	138	140	143	143	142	142	145	177	190	200	66	
20	196	184	164	152	147	144	142	144	141	141	140	136	136	132	132	134	136	140	144	147	168	170	180	69	
21	180	172	165	149	149	145	145	150	150	149	148	146	146	146	146	145	145	145	150	156	176	181	180	40	
22	179	174	165	158	154	153	152	152	153	153	155	150	150	150	150	150	150	145	145	150	180	184	179	42	
23	174	166	165	164	159	158	157	158	155	156	156	156	158	156	156	152	152	151	151	151	168	186	196	53	
24	192	185	178	164	159	155	154	152	155	154	155	148	148	148	148	144	144	140	144	152	177	191	187	58	
25	153	151	142	135	134	129	125	122	135	129	124	126	126	130	132	134	145	145	150	156	168	179	187	40	
26	157	155	146	136	127	126	120	117	115	113	117	134	134	125	124	125	125	123	120	138	153	169	169	54	
27	155	145	146	141	137	126	120	117	115	113	117	134	137	125	124	124	125	123	120	138	153	169	169	43	
28	164	162	155	145	140	134	132	132	129	128	132	127	132	136	135	135	137	139	139	140	151	160	162	46	
29	166	165	154	137	137	136	133	124	132	140	131	126	137	132	134	134	136	136	140	145	161	170	170	52	
30	163	158	150	141	137	133	134	133	132	132	131	126	132	131	130	130	139	135	133	135	159	166	166	46	
31	163	158	150	141	137	133	134	133	132	132	131	126	132	131	130	130	139	135	133	135	159	166	166	52	
Mean	163	158	150	141	137	133	134	133	132	132	131	126	132	131	130	130	139	135	133	135	159	166	166	142	

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Table 12 - Hourly Values of H for March 1932

G.M.T.

H = 35000γ + scripta

DAY.	Hourly Values																								Mean.	Maximum.		Minimum.		Range.					
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		H.	M.	H.	M.						
1	182	175	159	153	153	155	154	150	145	146	145	146	146	147	149	150	150	151	155	162	176	183	196	188	159	23	40	200	08	45	142	58			
2	179	168	163	161	163	164	167	172	171	170	171	170	177	180	177	174	174	163	164	164	164	161	140	132	166	16	10	190	13	30	160	30			
3	128	124	114	113	118	121	127	120	128	116	110	124	116	115	119	121	121	124	125	138	145	150	185	143	125	20	49	155	11	32	100	55			
4	145	134	111	100	105	112	110	117	123	134	138	134	126	124	124	126	126	125	122	128	134	150	143	150	126	23	35	154	03	30	94	60			
5	133	137	132	122	109	108	106	122	114	121	122	124	123	128	132	129	129	122	124	131	139	127	155	144	126	22	52	162	06	38	103	59			
6	126	122	119	122	117	118	116	119	125	119	136	135	126	121	119	121	121	125	119	112	123	139	146	155	125	23	54	165	19	20	109	56			
7	160	155	150	142	154	128	124	118	114	128	122	125	124	128	131	132	132	132	122	125	126	134	136	128	131	00	16	166	08	27	110	56			
8	132	144	122	115	115	102	110	115	120	130	138	132	132	134	130	128	128	130	121	125	125	136	146	155	128	23	48	162	05	25	97	65			
9	150	142	117	115	114	124	119	123	124	130	134	144	146	140	140	136	136	129	133	140	145	125	129	142	132	00	02	160	02	47	110	50			
10	149	140	120	115	102	97	108	115	128	116	125	140	131	130	128	129	129	126	132	123	112	94	110	125	122	00	01	156	20	37	90	66			
11	124	116	112	112	107	97	99	113	107	111	120	124	129	130	128	125	125	129	129	128	130	134	141	150	122	23	23	156	05	10	93	63			
12	165	160	151	139	134	135	140	137	135	134	135	138	142	139	138	140	140	141	140	143	145	160	170	172	145	23	47	175	04	48	133	42			
13	170	162	154	149	140	137	136	138	138	130	132	135	140	141	145	155	155	150	140	140	151	147	163	166	145	23	39	170	09	44	124	46			
14	175	175	163	147	137	130	133	136	132	127	130	132	135	140	141	144	144	143	141	143	154	179	194	199	149	23	34	200	09	57	119	81			
15	196	185	170	162	157	162	158	157	151	148	145	137	138	140	145	149	149	147	141	128	137	152	170	172	153	00	20	199	19	52	120	79			
16	165	152	140	134	137	140	139	136	132	132	131	134	134	136	140	143	143	145	148	144	155	177	198	200	147	23	24	201	10	13	126	75			
17	195	192	165	168	177	168	158	129	134	138	127	121	125	131	124	118	118	123	110	120	126	137	156	160	143	01	08	209	13	14	106	103			
18	147	132	121	110	112	121	123	124	124	123	129	131	127	127	129	138	138	137	141	145	152	168	171	170	134	23	48	173	03	27	104	69			
19	158	145	142	139	142	143	155	135	130	131	129	128	128	126	135	139	139	126	144	148	182	199	209	208	147	22	53	213	13	52	113	100			
20	184	158	131	118	130	120	132	131	104	125	134	124	118	121	122	123	123	128	137	158	160	160	159	155	136	00	02	199	08	10	98	101			
21	166	157	151	127	101	95	118	111	125	119	141	139	161	138	117	115	115	110	124	129	138	154	161	173	135	23	30	177	05	43	82	95			
22	149	123	124	118	118	120	122	120	125	117	123	131	136	138	134	129	129	131	137	147	156	167	176	182	136	23	28	183	04	05	111	72			
23	178	157	143	133	128	123	128	129	126	127	130	140	139	139	138	132	132	129	137	147	156	167	176	182	136	23	28	183	04	05	111	72			
24																																			
25																																			
26																																			
27																																			
28																																			
29																																			
30																																			
31																																			
Mean	158	150	138	131	128	127	129	129	129	130	131	133	133	134	134	134	135	135	134	137	144	151	159	162	138										



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Table 13 - Hourly Values of H for April 1932

G.M.T. Note: Entries in brackets are to be read as 34000γ + (scripta) H = 35000γ + scripta

DAY.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean.	Maximum. H. M. γ	Minimum. H. M. γ	Range.										
1	118	120	104	94	56	45	53	78	70	40	58	57	69	65	72	75	78	80	85	81	96	150	139	135	85	22 27	140 09	26	22 118									
2	144	134	126	109	109	100	98	98	98	98	93	110	95	85	92	95	106	98	103	120	138	147	155	150	113	22 50	161 15	48	22 79									
3	152	126	126	122	114	108	100	84	108	95	80	83	101	99	95	98	100	109	117	124	134	145	147	158	113	23 25	159 07	52	23 67									
4	133	96	72	63	71	75	77	93	71	94	106	99	78	81	89	95	98	85	99	111	110	108	97	92	96	00 00	158 03	44	00 50									
5	98	104	108	119	118	103	116	110	110	110	110	109	105	105	105	106	109	106	127	128	130	137	154	153	116	22 49	156 00	06	22 86									
6	143	136	128	117	109	115	113	108	105	100	102	101	104	104	103	100	102	105	112	120	136	142	150	148	117	23 20	153 09	09	23 91									
7	138	130	124	116	105	98	98	99	100	101	101	99	102	104	102	101	100	102	116	126	132	146	158	157	115	22 46	163 05	41	22 92									
8	146	137	130	123	115	122	129	117	116	125	115	90	106	92	96	114	106	98	108	109	106	112	117	119	115	00 01	154 11	14	00 63									
9	125	123	99	60	58	73	81	86	86	86	72	95	90	68	66	83	83	73	71	73	77	71	91	85	83	11 51	141 10	56	11 45									
10	62	13(980)	998	998	16	23	10	9	39	79	83	52	65	74	77	84	86	98	96	96	135	117	69	62	22 02	139	10 56	-	22 45									
11	63	41	50	52	57	66	45(992)	48	48	30	33	40	52	64	82	85	85	99	88	88	90	82	82	85	63	17 57	107	-	17 56									
12	75	63	50	40	16	52	38	24	64	34	58	48	49	63	80	82	85	90	94	94	97	97	85	85	65	18 01	108 04	38	18 5									
13	80	60	58	64	34	7	38	16	44	33	61	64	67	71	76	85	96	92	85	85	110	105	105	90	67	22 07	114 05	14(998)	22 116									
14	94	81	68	65	65	59	68	80	86	96	94	92	91	95	105	108	99	100	97	97	105	110	108	108	90	15 28	112 06	07	15 60									
15	93	86	82	71	74	85	74	43	45	67	74	79	85	88	91	97	105	109	115	115	109	104	104	90	87	19 54	121 07	07	19 36									
16	110	97	87	81	75	82	76	69	79	79	83	81	84	84	89	94	96	96	102	105	111	119	121	115	92													
17																																						
18																																						
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30																																						
31																																						
Mean																																						

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Table 14 - Hourly Values of H for May 1932

G.M.T. H = 35000γ + scripta

Note: Entries in brackets are to be read as 34000γ + (scripta)

DAY.	H = 35000γ + scripta																								Range											
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23												
1	119	105	89	75	74	78	91	94	92	103	103	100	100	103	113	118	123	128	144	159	166	176	184	171	117	117	22	50	187	03	50	70	117			
2	125	102	85	82	80	87	98	100	101	100	103	99	93	107	115	113	113	122	132	146	128	110	62	20	101	101	19	54	151	04	16	74	77			
3	(982)								49	36	30	37	54	63	65	69	73	78	102	112	113	110	109	107	77	77	20	04	102	09	09	44	58			
4	83	69	80	79	69	68	70	60	62	53	56	68	82	84	84	89	98	95	95	98	93	78	80	56	66	66	20	17	104	07	52	19	85			
5	57	30	57	62	63	65	41	25	39	56	63	72	74	73	93	87	98	81	82	95	100	82	65	68												
6	77	77	63	39(992)				23	55	59	76	62	62	69	75	76	73	77	93	97	96	105	114	104												
7	102	103	96	78	66	58	68	69	73	79	80	82	83	85	87	90	90	93	100	105	105	109	110	107	88	88	22	27	112	05	25	52	60			
8	109	112	113	102	93	84	80	79	79	78	85	88	90	93	95	97	101	108	114	117	116	129	140	142	102	102	23	31	143	06	58	75	68			
9	137	137	129	114	105	102	100	102	97	99	102	103	105	106	110	115	115	114	121	126	131	149	164	172	119	119	23	53	173	08	38	93	80			
10	184	183	174	157	135	128	120	112	107	105	106	109	113	123	114	118	122	124	136	139	157	175	184	155	137	137	22	13	193	10	08	101	82			
11	117	120	119	114	114	124	119	114	109	99	98	90	93	95	94	104	107	104	117	110	114	114	119	116	109	109	00	01	135	11	48	83	52			
12	114	110	106	105	102	83	87	92	97	90	90	86	86	92	97	100	104	107	114	117	121	143	147	144	106	106	23	06	152	06	03	75	77			
13	140	127	95	72	59	78	75	84	93	95	90	92	95	100	110	117	123	124	122	133	138	140	141	138	107	107	22	12	145	05	16	45	100			
14	130	120	94	85	92	94	98	85	77	68	65	89	93	95	96	97	108	114	127	136	143	145	136	123	105	105	21	16	151	08	38	60	91			
15	114	115	102	95	99	107	102	99	115	92	94	95	87	82	77	78	86	89	95	109	118	130	136	138	102	102	23	55	145	14	55	76	69			
16	132	135	137	119	62	44	49	56	44	64	78	74	76	75	76	87	92	98	112	120	121	116	113	104	91	91	02	10	145	06	32	24	121			
17	85	78	90	92	83	90	80	77	70	85	77	79	82	83	86	87	90	100	119	130	137	144	142	132	106	106	21	45	150	08	52	66	84			
18	115	113	112	100	93	96	97	97	98	97	102	100	100	93	85	90	95	97	108	108	127	153	142	132	97	97	21	45	150	08	52	66	84			
19																																				
20	130	122	117	112	108	101	99	98	100	103	104	107	108	106	106	108	112	117	128	139	150	158	166	170	120	120	22	56	175	06	10	96	77			
21	170	167	160	142	131	131	145	146	120	99	64	104	95	94	92	94	94	96	113	114	124	133	140	145	121	121	01	05	171	10	40	47	124			
22	134	113	100	95	88	75	51	31	34	53	59	80	81	78	85	95	96	100	112	120	120	128	138	135	92	92	00	02	145	07	55	23	120			
23	131	128	117	104	102	100	98	98	104	101	106	113	119	118	108	102	102	116	129	135	125	130	129	136	115	115	23	06	140	07	06	92	48			
24	128	117	102	84	66	67	58	63	72	74	79	90	83	85	88	94	99	111	124	139	142	149	156	140	100	100	23	04	161	07	04	50	111			
25	92	60	70	80	44(997 990)			16	40	43	52	57	60	68	82	83	85	85	102	107	102	118	115	100	69	69	21	58	127	06	40(980)	147				
26	76	50	55	67	72	65	59	67	75	66	68	74	75	95	97	97	103	105	115	117	119	130	129	112	87	87	21	48	154	02	01	48	86			
27	100	94	102	95	77	58	51	41	46	47	60	65	70	75	82	88	90	109	129	137	124	109	93	77	84	19	40	140	07	05	40	100				
28	77	74	73	50	33	70	80	75	63	65	71	68	64	70	77	79	88	95	99	89	80	87	77	100	75	75	23	41	108	04	12	12	96			
29	103	104	102	80	56	27	43	50	50	43	51	39	71	61	48	52	63	86	64	20																
30																																				
31																																				
Mean	115	107	103	94	84	81	79	79	79	80	81	87	88	91	94	97	101	105	116	122	124	128	128	121	99	99										





Table 15 - Hourly Values of H for June 1932

G.M.T.

DAY.	H = 35000γ + scripta																								Range			
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		Mean.	Maximum. H. M.	Minimum. H. M.
1	86	85	91	89	80	75	74	74	75	77	80	80	80	81	82	84	86	86	94	96	95	81	84	85	85	21 42	05 32	73
2	101	93	92	97	91	87	87	88	89	89	90	90	90	88	88	90	95	95	108	113	120	120	118	99	97	21 57	06 40	85
3	107	98	86	83	84	86	88	89	86	93	100	102	105	108	110	113	116	123	129	130	130	134	140	138	105	22 19	03 44	81
4	137	153	128	125	117	106	101	95	90	92	88	95	96	99	102	105	110	110	129	120	120	129	130	120	104	21 42	09 10	62
5	115	120	120	118	113	110	107	100	92	76	87	82	88	89	91	97	96	104	113	113	122	130	126	87	00 05	07 07	59	
6	112	95	86	85	78	75	67	63	68	76	74	76	71	101	98	90	95	104	108	108	105	92	90	81	20 23	06 00	55	
7	63	76	65	74	76	59	64	69	73	67	70	65	96	91	90	88	90	96	103	103	102	103	98	81	20 23	06 00	55	
8	88	77	69	68	57	71	60	64	75	58	65	63	67	72	78	84	87	89	89	90	96	98	86	76	20 54	04 15	50	
9	72	73	76	77	70	74	74	76	73	64	60	67	70	71	75	75	76	85	85	97	107	115	118	80	23 09	11 16	68	
10	106	90	81	81	84	85	81	77	76	79	81	77	79	84	86	85	91	100	100	107	107	105	107	89	00 04	08 06	43	
11	112	108	106	97	86	82	83	83	80	75	79	78	74	77	82	85	89	96	96	102	108	121	127	93	23 59	09 14	73	
12	129	121	112	108	103	101	100	98	98	96	94	95	98	100	104	108	111	115	115	117	108	121	127	76	20 54	10 15	51	
13	72	73	76	77	70	74	74	76	73	64	60	67	70	71	75	75	76	85	85	97	107	115	118	80	23 09	11 16	68	
14	106	90	81	81	84	85	81	77	76	79	81	77	79	84	86	85	91	100	100	107	107	105	107	89	00 04	08 06	43	
15	112	108	106	97	86	82	83	83	80	75	79	78	74	77	82	85	89	96	96	102	108	121	127	93	23 59	09 14	60	
16	129	121	112	108	103	101	100	98	98	96	94	95	98	100	104	108	111	115	115	117	108	121	127	76	20 54	10 15	51	
17	72	73	76	77	70	74	74	76	73	64	60	67	70	71	75	75	76	85	85	97	107	115	118	80	23 09	11 16	68	
18	106	90	81	81	84	85	81	77	76	79	81	77	79	84	86	85	91	100	100	107	107	105	107	89	00 04	08 06	43	
19	112	108	106	97	86	82	83	83	80	75	79	78	74	77	82	85	89	96	96	102	108	121	127	93	23 59	09 14	60	
20	115	111	110	107	108	110	109	110	115	114	109	113	110	112	113	112	108	108	111	134	137	138	126	121	20 34	04 02	37	
21	126	123	114	112	111	110	109	110	113	110	109	113	110	112	113	112	108	108	108	111	112	119	117	113	00 00	10 37	50	
22	110	105	110	106	104	105	106	105	106	107	106	107	110	112	111	112	112	118	124	124	124	122	115	111	21 50	04 27	26	
23	109	107	105	101	92	83	77	75	75	78	85	101	100	103	107	111	114	121	120	120	118	117	115	101	18 45	07 40	52	
24	112	108	105	96	96	94	92	90	90	90	91	93	102	104	105	107	108	110	111	111	113	115	115	101	21 50	04 27	26	
25	127	121	118	115	114	113	112	112	112	110	111	113	116	124	127	126	122	127	135	140	140	140	140	122	22 16	10 18	34	
26	124	120	117	115	110	113	101	107	93	103	103	107	113	118	119	119	119	126	130	130	134	133	127	116	08 57	08 57	48	
27	124	120	117	110	108	110	111	112	110	108	107	111	109	111	113	116	119	124	124	128	131	128	120	116	21 10	10 48	27	
28	119	121	120	119	119	115	115	114	114	114	113	112	116	120	123	124	125	133	139	139	142	138	153	123	22 20	11 40	55	
29	129	126	129	124	120	119	120	123	120	115	115	112	113	116	119	122	127	142	142	142	140	137	125	124	20 41	11 51	34	
30	126	122	115	113	115	118	117	117	118	118	116	114	113	113	117	118	123	130	135	135	137	137	151	121	21 20	11 05	30	
31	109	105	101	100	96	95	93	93	93	91	93	94	95	101	103	104	106	106	113	118	122	122	116	121	21 20	11 05	30	
Mean	109	105	101	100	96	95	93	93	93	91	93	94	95	99	101	103	104	106	113	118	122	122	120	105	116	105		

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Table 16 - Hourly Values of H for July 1932

G.M.T.

H = 35000γ + scripta

DAY.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Maximum.		Minimum.		Range.		
																									H.	M.	H.	M.			
1	124	118	117	115	113	113	114	114	114	115	115	112	110	110	111	112	114	116	120	129	137	140	135	133	129	20	20	12	55	35	
2	133	128	125	120	126	125	126	125	112	120	120	120	120	120	117	119	99	120	123	130	135	135	135	132	125	22	39	08	38	27	
3	125	120	118	120	121	121	120	120	120	118	118	118	119	119	120	124	103	124	128	139	145	148	151	149	127	22	54	10	42	36	
4	147	143	136	120	114	117	115	115	119	120	125	130	132	132	136	135	129	132	140	154	159	152	164	170	136	22	51	06	37	62	
5	168	155	141	134	134	133	134	131	129	128	128	126	127	127	130	137	140	139	143	140	137	130	137	130	136	00	31	12	08	47	
6	125	130	128	100	78	100	63	81	81	90	77	78	81	81	84	107	99	99	102	113	122	125	125	114	103	02	16	08	08	81	
7	111	118	112	91	92	93	89	87	87	95	99	101	101	101	102	103	103	106	106	106	122	123	123	118	118	112	136	08	08	55	
8	111	116	116	106	107	106	106	100	100	108	101	101	104	104	107	111	112	106	105	106	121	122	124	124	129	20	53	09	01	90	
9	132	128	126	114	108	109	106	104	104	113	109	104	107	108	105	110	110	107	108	104	120	120	117	130	130	112	20	09	01	90	
10	141	132	116	105	105	107	104	103	103	104	102	100	100	104	107	108	108	107	111	122	128	132	137	136	115	00	39	11	05	98	
11	134	120	120	108	105	108	104	103	103	112	108	104	105	105	103	103	107	110	113	118	120	128	128	124	124	114	23	32	06	24	101
12	121	127	121	105	105	105	107	110	110	110	109	108	107	107	109	110	111	113	117	124	130	125	134	137	136	117	23	59	05	20	104
13	141	139	133	117	112	117	118	117	117	116	115	113	113	113	112	111	111	112	115	119	122	128	125	127	130	120	00	53	15	34	33
14	128	124	123	117	114	115	114	113	113	112	111	110	109	109	112	111	113	114	117	120	132	130	128	128	132	119	19	32	12	34	25
15	139	143	138	125	92	113	94	82	82	87	95	97	89	89	100	88	90	93	97	109	105	104	108	112	110	106	01	20	08	51	79
16	100	98	90	81	94	87	95	97	97	95	95	97	103	103	105	105	105	105	106	115	120	125	126	123	103	22	10	04	25	78	
17	122	123	118	105	102	103	103	101	101	102	105	108	109	109	112	113	115	118	121	124	126	130	124	130	115	23	52	08	06	101	
18	129	125	121	115	106	110	105	105	105	105	107	110	110	110	112	112	113	115	116	121	126	130	126	124	116	23	11	08	25	99	
19	124	124	118	116	118	117	114	113	113	112	111	110	111	111	120	119	119	120	124	128	135	127	126	124	124	121	00	08	08	32	104
20	124	123	116	117	118	117	117	117	119	117	110	111	119	119	119	119	119	120	124	128	135	127	126	124	124	121	00	08	08	32	104
21	124	123	118	117	118	117	118	118	118	117	115	116	119	119	119	119	119	120	124	129	135	128	128	129	122	122	19	42	11	16	113
22	127	126	125	121	114	119	115	117	117	114	114	117	120	120	122	125	126	126	127	130	135	131	131	135	124	19	49	06	36	106	
23	141	142	134	113	110	109	107	109	109	114	117	118	118	118	120	122	122	121	124	140	146	149	155	155	127	23	09	07	53	105	
24	147	138	130	122	115	119	115	115	115	115	115	116	117	117	119	122	123	125	128	130	134	124	127	130	124	19	27	07	44	110	
25	135	132	130	123	118	119	117	116	116	116	116	117	118	118	119	121	123	125	129	136	142	143	144	140	140	127	20	59	10	10	115
26	141	138	125	115	113	113	108	106	106	102	102	104	105	105	110	112	113	116	121	126	130	130	130	130	118	00	46	10	18	100	
27	133	130	125	118	116	119	118	105	105	103	101	103	111	111	113	115	116	118	120	123	131	136	134	132	118	25	15	140	21	106	
28	128	118	114	112	113	113	112	110	110	110	109	108	111	111	113	115	116	118	120	123	127	131	137	137	118	118	25	15	140	21	106
29	134	130	137	124	123	123	122	122	122	123	122	121	121	121	121	122	123	125	129	137	143	142	143	145	141	129	22	29	147	120	
30	138	140	138	124	123	123	123	122	122	121	123	123	122	122	121	120	122	124	128	137	145	146	150	143	134	130	21	18	14	12	119
31	127	122	116	111	97	108	90	81	81	82	78	76	83	91	96	101	105	105	110	119	126	132	132	132	107	24	00	10	48	74	
Mean	132	129	124	116	111	113	111	110	109	110	109	110	111	113	115	115	117	120	126	131	133	132	134	135	120	118	00	46	10	18	100



International  
Seismological  
Centre



Table 17 - Hourly Values of H for August 1932

H = 35000γ + scripta

G.M.T.

DAY.	Hourly Values																								Mean.	Maximum.		Minimum.		Range.				
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		H. M.	γ	H. M.	γ		H. M.	γ		
1	143	135	125	120	116	113	110	107	101	102	106	107	107	107	109	111	110	109	109	111	119	127	120	104	118	114	00	10	148	08	44	97	51	
2	116	112	100	105	100	81	83	90	90	91	100	97	90	90	98	102	102	102	103	103	119	125	108	106	114	102	20	23	130	06	48	77	53	
3	115	116	105	102	101	100	89	79	80	80	103	90	86	90	91	93	94	94	87	89	124	125	100	114	102	20	13	130	08	35	71	59		
4	101	107	102	96	89	90	93	100	87	100	87	97	102	99	99	98	102	102	100	116	120	120	122	126	128	23	35	129	09	32	82	47		
5	128	126	121	114	103	91	86	93	94	94	92	87	93	96	98	101	103	103	104	110	118	120	119	110	104	00	03	130	07	34	83	47		
6	101	105	107	101	103	104	103	100	99	99	101	100	100	100	104	109	109	109	109	109	104	115	115	112	114	105	22	06	116	09	57	98	18	
7	114	112	113	111	109	106	105	104	103	104	105	106	106	107	108	108	107	107	109	116	122	120	115	112	114	105	22	06	116	09	57	98	18	
8	154	128	124	119	109	100	94	71	70	70	86	85	85	89	93	97	100	100	105	108	110	113	113	122	131	102	00	28	135	08	58	64	71	
9	113	111	110	108	109	110	108	107	109	109	110	110	110	109	110	115	117	117	120	128	135	138	140	137	135	117	21	20	140	07	07	105	35	
10	130	121	119	120	121	120	120	117	116	116	116	117	116	116	119	120	123	123	128	136	144	149	155	153	144	127	22	05	158	13	28	115	43	
11	128	120	110	96	94	100	108	114	115	115	116	119	116	115	114	115	116	116	118	126	133	137	136	135	129	118	20	15	140	04	45	92	48	
12	120	113	107	104	110	112	91	100	104	104	106	107	105	107	108	110	111	111	114	124	121	126	129	124	123	112	21	00	129	07	29	81	48	
13	124	119	115	114	112	108	104	111	109	110	116	113	110	110	111	113	114	114	118	124	128	131	131	130	128	117	21	42	134	06	21	99	35	
14	129	125	117	112	109	108	110	112	113	112	111	110	106	105	105	104	106	106	111	119	126	131	139	139	129	116	22	18	141	15	36	104	37	
15	114	106	99	98	99	100	102	104	106	106	107	107	106	107	108	109	109	109	113	128	135	148	155	160	153	111	22	15	134	03	51	97	47	
16	130	128	122	115	114	116	114	110	109	109	113	115	117	118	117	116	118	118	121	122	123	125	128	132	138	120	23	57	141	09	00	107	34	
17	140	135	126	116	112	106	106	106	106	106	107	108	110	110	111	113	114	114	118	124	131	139	141	144	145	120	23	33	147	08	40	104	43	
18	140	133	125	119	116	113	113	113	113	113	114	114	115	113	113	114	114	114	117	126	130	133	130	128	126	120	20	32	134	13	48	110	24	
19	121	120	121	119	115	111	109	108	109	109	109	110	114	115	117	121	125	125	128	138	141	148	155	160	153	125	22	51	162	09	05	107	55	
20	152	143	128	123	113	93	80	97	100	100	100	99	102	104	102	104	104	104	111	124	133	148	154	132	126	114	00	45	159	06	30	76	83	
21	120	118	115	113	111	109	111	109	109	109	108	107	109	106	107	112	113	113	116	124	118	123	134	132	118	113	20	53	125	13	49	100	25	
22	115	114	114	112	109	102	101	102	101	101	106	102	101	101	104	107	104	104	108	117	122	128	125	124	120	110	20	56	128	05	40	98	30	
23	112	106	105	109	111	110	108	106	105	105	104	104	105	106	107	108	110	110	120	125	125	126	127	123	122	112	21	05	129	02	01	103	26	
24	117	112	110	109	105	102	102	100	100	100	105	107	108	106	107	113	118	118	127	138	141	148	150	131	130	114	22	52	132	09	19	98	54	
25	131	128	123	120	115	116	116	113	114	114	115	115	116	113	112	114	116	116	130	145	139	145	148	145	142	123	22	10	150	14	10	110	40	
26	141	137	127	123	120	110	89	80	57	57	67	78	85	91	96	101	104	104	103	107	113	123	135	110	95	105	00	58	142	09	15	53	89	
27	98	75	32	61	80	67	70	72	98	98	70	72	78	81	87	90	90	90	96	104	110	117	123	122	106	85	22	10	127	02	24	35	92	
28	103	102	94	83	80	88	92	86	88	88	87	85	89	100	100	96	91	91	93	103	100	106	106	97	97	94	21	37	111	04	12	71	57	
29	90	81	71	80	90	93	91	103	97	97	92	103	105	102	96	94	91	101	105	103	108	102	110	117	114	98	22	40	120	02	34	67	53	
30	105	100	95	90	89	91	93	95	103	103	97	103	105	102	96	94	101	101	105	105	108	102	110	117	114	98	22	40	120	02	34	67	53	
31	105	100	95	90	89	91	93	95	103	103	97	103	105	102	96	94	101	101	105	105	108	102	110	117	114	98	22	40	120	02	34	67	53	
Mean	121	116	109	107	105	103	101	100	100	100	102	102	103	104	105	107	108	112	118	123	127	127	127	125	123	110	110	123	125	123	110	110	110	59



International  
Seismological  
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Table 18 - Hourly Values of H for September 1932

G.M.T.

DAY.	H = 35000γ + scripta																								Range										
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		Mean.	Maximum. H. M.	Minimum. H. M.	γ						
1	117	116	110	107	102	97	93	94	96	105	104	104	102	107	111	102	103	104	112	115	119	119	121	120	115	107	23	07	122	06	44	91	31		
2	99	97	101	92	94	98	95	92	94	97	100	101	99	100	104	104	104	107	102	119	119	124	123	120	125	104	22	03	130	03	47	88	42		
3	125	124	120	112	106	102	101	101	101	100	102	104	106	106	107	110	110	114	123	132	132	142	143	144	139	115	21	02	145	07	26	98	47		
4	130	119	111	106	103	102	104	104	101	105	104	105	105	107	108	109	109	115	123	122	125	126	134	137	113	23	39	139	08	10	100	39			
5	135	131	125	122	117	115	113	111	109	104	98	97	103	101	109	116	126	126	130	133	136	140	144	145	120	24	00	145	10	39	96	49			
6	144	140	144	140	136	120	104	90	92	96	97	80	66	79	89	89	89	94	100	100	98	99	101	106	103	02	22	147	12	57	60	27			
7	102	93	88	89	90	89	89	88	85	86	95	91	93	92	92	95	99	101	100	119	123	125	125	136	99	23	43	143	09	18	83	60			
8	140	139	113	80	72	75	78	63	76	84	86	90	94	99	105	108	110	117	123	131	120	129	134	134	104	23	09	142	07	20	57	85			
9	120	120	104	89	88	85	84	83	90	91	90	93	94	95	96	99	104	107	114	118	119	124	124	124	102	23	10	126	04	14	81	45			
10	120	115	110	107	105	105	106	106	104	104	103	103	102	104	105	106	106	110	120	127	130	133	135	143	113	23	52	144	11	34	101	43			
11	139	118	105	104	100	102	106	107	109	108	106	108	108	108	109	110	114	119	126	129	132	135	137	138	116	22	18	140	04	40	99	41			
12	135	127	120	116	110	105	105	105	106	107	106	105	106	105	108	109	111	111	121	128	127	127	126	126	115	00	01	136	07	05	104	32			
13	120	113	109	107	106	105	107	111	112	110	109	110	110	114	114	117	121	129	135	141	143	145	147	150	120	23	25	154	06	58	103	51			
14	147	137	130	125	120	114	112	109	107	112	114	115	115	115	115	116	117	119	129	136	138	149	150	149	125	22	46	151	08	18	105	46			
15	141	134	126	121	116	111	109	109	113	115	116	115	111	115	119	122	121	123	127	134	139	142	140	142	123	22	07	145	07	56	106	39			
16	141	140	134	126	123	122	121	120	122	122	121	119	119	118	121	120	120	124	131	139	150	155	160	165	131	23	59	166	07	16	117	49			
17	160	151	141	131	123	116	116	117	119	119	118	120	122	122	124	124	125	129	131	138	147	153	155	152	131	22	32	157	05	46	115	42			
18	149	144	136	132	130	126	118	106	104	106	109	117	115	115	112	115	121	127	131	118	149	158	151	136	126	22	07	163	08	52	101	62			
19	133	116	107	109	109	104	95	82	76	82	95	91	92	98	102	108	114	113	116	114	117	118	120	132	106	23	50	136	08	58	72	64			
20	135	120	91	89	83	81	75	85	86	84	87	92	97	100	101	103	105	110	116	120	125	119	134	130	103	22	28	136	06	42	69	67			
21	119	111	106	98	96	97	90	97	94	94	97	101	104	107	107	109	109	112	116	116	118	124	125	129	107	23	59	135	06	24	88	45			
22	132	133	131	116	97	89	95	100	100	98	81	76	84	91	97	102	100	102	105	108	110	109	109	112	103	01	56	134	11	25	74	60			
23	106	99	95	98	99	92	92	90	89	90	79	80	81	87	95	96	95	100	109	104	94	97	109	101	95	22	23	113	10	10	75	38			
24	101	99	96	101	98	80	84	92	93	101	101	84	80	81	87	96	105	104	109	109	115	121	115	109	97	22	15	124	05	25	68	56			
25	110	90	80	80	79	94	84	75	90	85	97	88	90	117	101	100	102	101	100	108	105	97	99	107	95	15	32	129	07	35	64	65			
26	109	102	95	91	90	90	81	91	88	89	92	96	93	94	95	96	93	100	104	106	109	115	117	115	98	22	20	120	06	24	76	44			
27	105	99	95	96	95	94	94	95	96	93	96	90	99	100	97	96	93	97	102	106	116	120	125	129	98	22	20	120	06	24	76	44			
28	126	107	113	99	106	106	108	108	108	106	105	100	102	104	103																				
29																																			
30																																			
31																																			
Mean	127	120	113	107	103	100	98	97	98	99	100	99	100	103	105	107	109	112	117	122	125	128	130	131	110										



International  
Seismological  
Centre



Table 19 - Hourly Values of H for October 1932

G.M.T.

H = 35000γ + scripta

DAY.	Hourly Values (0-23)																								Mean.	Maximum.		Minimum.		Range.					
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23		H. M.	γ	H. M.	γ						
1	135	125	116	110	106	102	100	102	101	98	101	104	105	100	111	100	110	110	114	120	128	136	146	152	114	23	35	154	09	45	95	59			
2	152	150	136	119	114	109	104	99	97	92	95	90	89	99	99	101	101	106	106	109	114	121	134	142	111	01	00	157	12	08	85	72			
3	159	128	115	105	96	91	86	90	83	89																									
4	147	136	124	114	102	99	96	98	97	96	100	105	104	102	110	114	114	120	126	130	130	130	136	149	115	00	01	153	09	20	94	59			
5	155	127	122	116	115	114	110	108	100	101	97	94	96	99	101	106	110	109	108	111	115	115	116	125	110	00	08	137	11	22	93	44			
6	150	130	125	114	110	109	107	104	104	104	105	106	108	111	110	110	114	114	115	115	118	119	121	134	114	23	54	136	07	50	102	34			
7	129	120	116	112	109	107	107	108	108	106	106	105	106	108	109	112	114	114	119	118	120	124	126	133	114	23	55	137	11	19	104	33			
8	136	131	135	126	119	114	110	109	109	109	109	109	109	108	109	111	111	111	111	112	115	129	139	146	118	23	55	147	08	28	107	40			
9	140	136	130	125	119	111	108	104	102	103	101	101	103	107	112	116	122	120	123	118	118	124	126	129	117	00	05	146	11	05	96	50			
10	127	127	128	106	94	90	92	100	100	99	100	100	101	99	101	104	107	105	103	106	108	116	124	130	107	23	55	134	06	10	88	46			
11	132	130	125	115	110	108	107	104	105	104	106	104	103	103	103	106	109	110	114	119	119	126	129												
12																																			
13	137	134	130	121	115	116	116	116	115	114	116	114	113	114	119	116	114	115	115	119	128	137	140	137	121	22	52	142	13	25	111	31			
14	136	134	126	119	114	113	113	114	114	114	114	114	112	112	112	114	114	116	124	130															
15																																			
16	96	99	86	77	75	54	54	50	80	78	83	90	83	84	84	90	90	90	90	100	109	119	126	130	88	23	50	132	07	22	46	86			
17	126	119	111	104	100	96	93	91	91	98	92	96	96	106	105	96	95	97	99	101	109	119	126	124	104	00	06	131	08	17	83	48			
18	115	111	111	103	98	95	95	94	95	96	96	96	97	98	100	100	101	104	104	109	119	129	135	137	106	23	58	138	07	47	94	44			
19	139	137	129	119	106	99	96	95	92	91	95	95	97	104	101	101	102	100	100	106	106	113	122	129	107	00	17	142	08	52	90	52			
20	138	140	135	126	116	108	106	106	98	95	102	110	110	105	100	97	83	86	86	85	88	75	76	76	102	00	08	142	17	10	77	65			
21	80	57	39	30	41	36	38	35	45	76	71	65	69	73	75	75	79	81	82	85	89	95	100	106	68	23	59	109	03	42	24	85			
22	107	104	99	96	94	93	94	95	95	94	94	96	85	83	86	96	96	96	100	99	100	115	127	131	96	00	08	130	10	10	74	56			
23	124	114	106	97	94	99	100	100	84	83	80	81	85	83	86	96	96	93	93	99	100	105	107	107	96	00	08	130	10	10	74	56			
24	109	110	105	99	92	90	90	94	93	83	81	96	94	99	92	94	95	94	96	102	114	122	121	121	99	21	59	124	10	23	79	45			
25	120	116	110	102	95	90	86	84	80	86	82	81	84	90	91	93	95	94	94	100	106	119	126	150	98	23	55	131	08	46	80	51			
26	129	126	116	105	99	96	97	99	100	100	100	99	98	100	98	99	99	103	106	110															
27																																			
28	126	118	110	101	97	101	105	105	107	109	107	107	107	107	107	108	108	108	107	114	124	140	134	127	112	23	58	143	04	51	85	48			
29	142	139	127	118	114	117	119	121	121	122	122	120	121	122	124	126	126	130	135	144															
30																																			
31	151	140	121	111	106	109	109	113	113	113	110	111	115	113	114	115	116	118	120	125	139	151	156	152	112	23	58	143	04	51	85	48			
Mean	128	123	115	106	101	98	96	96	96	97	97	98	99	100	102	103	104	104	105	108	114	121	125	129	107	123	22	07	161	04	29	106	55		

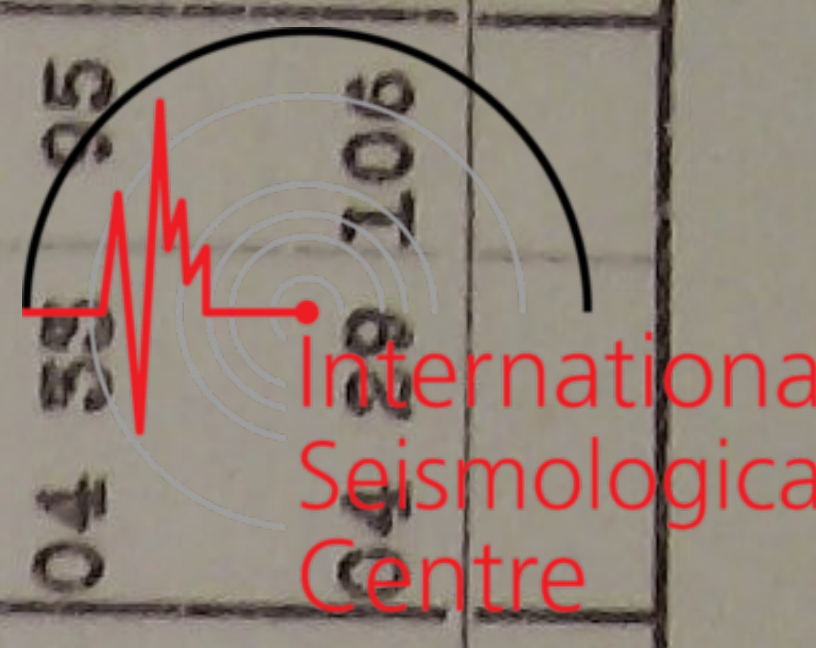




Table 20 - Hourly Values of H for November 1932

G.M.T.

DAY.	H = 35000γ + scripta																								Range.								
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23									
	Mean.	Maximum.		Minimum.		H. M.		γ		H. M.		γ		H. M.		γ		H. M.		γ		H. M.		γ									
1	150	146	135	119	89	74	79	61	65	76	106	97	100	107	109	108	105	106	117	126	143	153	135	105	00	22	151	08	25	57	94		
2	127	126	119	108	105	101	104	108	113	112	117	115	111	113	117	116	114	120	130	140	145	149	149	132	118	23	33	150	05	15	99	51	
3	149	145	137	128	118	115	115	110	115	115	116	118	119	118	120	120	118	114	111	116	125	131	141	141	122	00	01	150	08	36	105	45	
4	144	144	142	136	122	116	122	124	123	124	124	124	124	127	128	127	127	127	131	137	143	143	143	141	130	23	58	145	05	15	113	32	
5	147	142	130	117	116	116	122	124	121	120	120	118	117	118	120	124	126	126	130	141	153	153	152	152	129	22	50	158	04	56	112	46	
6	146	145	139	130	124	123	120	120	121	124	124	124	125	126	128	129	127	127	133	141	158	158	157	147	131	23	30	155	06	43	118	37	
7	153	153	150	144	139	137	138	137	136	135	130	129	127	130	134	134	130	134	137	141	158	158	157	145	139	00	02	154	13	06	126	28	
8	146	143	136	131	127	131	134	133	133	134	132	130	129	130	131	130	132	132	140	152	168	168	167	138	22	30	170	04	17	126	44		
9	164	156	150	144	138	137	139	139	140	139	139	138	138	138	140	140	139	141	148	160	175	175	179	147	23	05	180	05	12	134	45		
10	173	162	153	146	144	143	143	139	140	139	139	138	138	138	140	140	139	141	148	160	175	175	179	147	23	05	180	05	12	134	45		
11	174	166	156	144	140	143	144	145	149	149	147	147	145	150	148	146	145	139	140	153	162	172	175	151	00	00	176	18	51	134	42		
12	170	170	170	167	156	152	146	141	136	131	130	134	142	133	127	131	128	126	131	141	151	161	164	145	01	21	172	11	12	123	49		
13	164	155	144	135	129	129	131	142	136	131	130	134	142	133	127	131	128	126	131	140	151	161	164	145	01	21	172	11	12	123	49		
14	169	169	160	143	134	129	131	142	136	131	130	134	142	133	127	131	128	126	131	140	151	161	164	145	01	21	172	11	12	123	49		
15	162	156	141	133	122	119	121	119	120	124	125	126	132	131	133	129	131	145	168	138	153	153	157	145	01	21	172	11	12	123	49		
16	149	146	140	116	104	102	86	95	107	125	117	113	113	115	116	111	117	125	131	143	150	139	139	129	22	42	155	07	36	105	50		
17	150	146	137	128	123	120	117	121	123	122	121	126	128	126	125	125	125	122	124	134	143	152	151	151	22	42	155	07	36	105	50		
18	153	146	136	122	117	119	121	121	119	128	126	132	131	132	131	127	127	127	131	134	140	149	153	151	22	42	155	07	36	105	50		
19	153	146	138	133	129	124	122	124	121	120	122	126	124	126	124	123	123	122	127	136	144	150	153	151	22	42	155	07	36	105	50		
20	150	146	137	130	127	127	123	122	123	124	121	129	130	129	132	133	127	128	133	137	140	147	150	153	22	42	155	07	36	105	50		
21	151	148	144	137	133	134	134	135	128	128	128	129	130	131	133	135	135	135	139	146	155	163	163	158	22	42	165	08	32	123	42		
22	162	160	151	141	136	132	132	130	130	131	135	135	135	135	137	136	135	135	140	150	157	162	163	158	22	42	165	08	32	123	42		
23	167	162	155	147	145	145	145	144	144	142	141	144	141	140	143	146	147	147	159	172	157	164	167	142	23	46	168	08	33	127	41		
24	171	166	157	166	157	154	157	155	153	152	150	149	147	147	150	150	150	151	159	172	163	164	167	142	23	46	168	08	33	127	41		
25	174	174	171	164	163	171	176	175	174	171	163	161	159	157	156	169	163	163	171	174	163	165	171	142	23	46	168	08	33	127	41		
26	170	170	170	160	151	150	150	143	145	147	147	148	148	147	148	149	150	150	154	163	155	162	163	158	22	42	165	08	32	123	42		
27	165	165	165	161	145	142	148	151	152	152	152	153	151	149	146	144	142	142	144	156	169	169	167	142	23	46	168	08	33	127	41		
28	165	165	165	161	145	142	148	151	152	152	152	153	151	149	146	144	142	142	144	156	169	169	167	142	23	46	168	08	33	127	41		
29	165	165	165	161	145	142	148	151	152	152	152	153	151	149	146	144	142	142	144	156	169	169	167	142	23	46	168	08	33	127	41		
30	165	165	165	161	145	142	148	151	152	152	152	153	151	149	146	144	142	142	144	156	169	169	167	142	23	46	168	08	33	127	41		
31	165	165	165	161	145	142	148	151	152	152	152	153	151	149	146	144	142	142	144	156	169	169	167	142	23	46	168	08	33	127	41		
Mean	152	149	142	133	126	124	124	123	123	124	126	127	127	128	128	128	127	127	131	139	147	147	156	153	151	151	153	153	153	153	153	153	153



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Table 21 - Hourly Values of H for December 1932

G.M.T.

H = 35000 + scripta

DAY.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean.	Maximum. H. M.	Minimum. H. M.	Range.		
1	152	118	103	157	152	159	157	160	153	152	149	150	150	152	154	155	154	152	150	152	158	166	123	128	109	22 04	148 04	45 45	83 65	
2				107	94	86	85	85	87	86	86	87	90	90	94	94	94	90	90	91	104	117	130	135	109	22 04	148 04	45 45	83 65	
3																														
4	152	118	103	89	87	88	89	88	87	85	88	89	89	89	88	90	95	94	93		118	132	138							
5																														
6	157	132	120	105	96	97	95	90	88	83	80										132	143	145							
7	138	130	112	94	85	87	92	96	97	98	99	100	99	99	101	103	103	102	108	120	133	142	146	139	109	22 04	148 04	45 45	83 65	
8	138	127	126	112	95	70	86	96	101	97	71	78	88	88	94	108	108	107	111	131	135	142	146	139	109	22 04	148 04	45 45	83 65	
9																					88	106	116							
10	117	111	99	90	88	87	87	88	87	88	86	88	87	87	86	80	78	77	69	73	91	113	122	121	92	23 00	123 18	39 59	66 57	
11	118	109	98	86	81	82	85	86	86	86	87	90	94	90	88	88	87	85	84	90	105	118	133	138	96	23 46	140 04	40 40	80 60	
12	152	118	102	90	80																110	119	125							
13	124	119	118	113	103	94	92	95	99	95	93	96	94	94	97	94	88	85	94	105	124	127	127	48	104	22 32	133 16	46 46	82 51	
14	119	104	100	94	94	100	100	103	106	108	104	94	105	105	79	76	58	58	65	41	52	65	58	48	85	00 00	125 19	47 47	25 100	
15	45	19				15	15	28	38	37	39	52	53	57	68	67	65	71	61	44	38	33	26	35						
16	47	37	33	25	23	27	27	36	42	39	43	63	75	76	77	78	77	76	79	80	84	82	99	107	60	23 35	109 04	26 26	20 89	
17	103	91	81	65	56	52	52	51	54	49	48	58	65	70	68	62	72	69	62	56	86	109	121	122	72	23 58	123 10	15 15	44 79	
18	122	115	103	86	74	64	62	61	71	61	63	67	66	75	83	79	80	79	72	72	80	90	102	110	81	00 01	123 10	09 09	55 68	
19	111	111	107	101	98	89	89	87	85	86	88	87	81	88	90	82	85	87	92	98	100	117	125	130	97	23 54	132 12	50 79	53 53	
20	132	128	116	104	94	86	83	85	84	86	88	87	89								114	122	127	131						
21	133	126	118	110	104	102	99	97	93	88	86	86	87	90	94	96	96	99	102	106	118	130	143	148	106	23 50	149 11	46 46	85 64	
22	147	139	128	115	108	107	107	106	102	98	96	100	100	98	98	97	98	102	108	115	127	142	152	152	114	22 39	153 10	30 30	58 58	
23	152	143	126	108	102	104																								
24	128	126	120	118	110	111	113	112	110	110	116	111	109	108	106	105	106	107	112	122	133	126	129	131	119	23 16	162 15	25 25	104 58	
25	157	147	132	118	115	128	128	130	128	127	128	117	112	112	108	108	103	110	103	108	111	122	153	137	121	00 05	160 17	13 13	99 61	
26	124	102	92	93	98	96	100	102	100	100	102	101	98	101	103	99	95	98	101	117	120	135	145	151	107	23 01	152 03	06 06	87 65	
27	144	122	92	87	90	88	88	89	94	90	87	87	102	97	89	90	87	82	85	90	97	110	123	128	97	00 02	147 17	28 28	80 67	
28	126	115	102	89	82	86	86	84	86	92	94	97	102	106	103	99	95	97	95	115	127	135	148	150	105	23 10	153 05	15 15	81 72	
29	138	124	111	95	91	96	92	94	89	92	95	95	94	103	100	92	91	88	86	91	109	132	144	145	104	23 52	147 18	22 22	85 62	
30	144	142	125	107	98	94	94	93	91	91	92	96	103	103	102	97	94	91	92	93	103	120	123	126	105	01 03	147 17	22 22	85 62	
31	127	126	114	101	94	92	92	88	91	91	92	96	103	103	102	97	94	91	91	92	103	118	120	117	105	01 03	147 17	22 22	85 62	
Mean	124	115	104	94	89	87	89	89	90	89	89	91	93	94	93	90	88	89	89	94	106	119	128	130	98					



Table 22 - Hourly Values of D for January 1932

G.M.T.

DAY.	D = E 10° + scripta in tenths of minutes of arc																								Mean.	Maximum. H. M.	Minimum. H. M.	Range.
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
1	344	348	355	359	361	360	359	352	349	343	342	342	340	340	340	342	342	339	332	328	327	329	329	339	345			
2	362	363	368	368	362	358	357	352	350	345	342	342	343	343	342	347	347	347	339	339	332	334	339	339	348			
3	347	347	351	352	359	357	357	352	350	345	346	343	343	343	340	343	343	338	330	328	327	328	338	344				
4	329	328	351	352	350	350	350	350	349	348	347	345	340	340	339	339	316	315	323	316	316	315	328	340				
5	349	347	348	349	350	353	352	352	351	350	349	347	342	340	339	340	342	340	328	333	342	349	359	346				
6	362	368	369	368	360	359	357	358	357	351	348	348	341	341	339	340	339	330	319	311	317	321	339	345				
7	349	349	349	350	353	356	355	352	351	349	348	348	343	340	343	340	340	338	329	321	320	323	344	345				
8	361	359	362	364	363	359	353	342	339	341	341	342	341	341	344	348	340	340	329	321	320	329	344	344				
9	359	362	359	356	352	350	353	351	349	346	341	340	343	343	345	344	320	329	318	320	320	329	339	345				
10	349	359	363	365	358	354	352	352	340	343	344	340	340	340	342	345	344	339	320	320	318	323	338	344				
11	351	353	352	349	349	348	348	348	347	343	340	340	343	340	342	342	342	339	330	327	319	332	339	343				
12	361	365	357	365	357	352	349	348	347	343	340	341	343	340	345	346	342	338	331	330	321	339	342	344				
13	351	356	352	351	345	346	343	346	244	343	343	343	342	342	343	343	340	341	337	327	319	319	337	346				
14	359	369	371	368	359	352	349	349	348	346	345	346	342	339	340	340	340	341	336	330	332	332	339	342				
15	349	351	360	353	348	349	348	339	339	338	339	341	340	340	342	342	342	339	332	329	324	332	339	347				
16	358	362	363	361	359	350	349	349	347	341	340	341	339	339	341	340	342	340	332	329	324	326	336	342				
17	356	342	353	359	353	348	343	341	341	341	340	346	343	340	343	340	340	340	338	329	329	329	329	344				
18	340	358	362	361	352	350	349	342	347	342	343	340	343	340	343	347	347	345	339	350	317	316	329	340				
19	329	341	349	358	352	348	349	347	347	342	347	343	342	342	341	325	325	340	332	329	325	329	339	343				
20	345	358	359	360	359	349	350	349	349	347	349	343	342	340	342	346	342	340	336	328	325	319	316	341				
21	340	338	343	349	353	357	353	353	351	349	345	345	343	343	342	342	342	341	337	330	328	329	339	346				
22	349	363	368	369	362	358	356	349	349	347	346	343	342	342	342	342	342	342	331	330	323	334	345	343				
23	339	340	349	359	364	362	356	353	349	349	346	343	342	343	339	339	339	339	330	330	319	321	333	347				
24	357	369	359	349	353	355	352	352	349	348	347	346	343	343	341	339	339	334	329	319	319	321	333	345				
25	368	378	377	367	358	350	357	352	349	348	347	347	340	339	341	339	339	334	329	331	328	329	347	346				
26	365	377	372	368	359	351	351	349	344	340	339	339	340	340	340	341	341	339	327	332	332	347	350	346				
27	369	370	371	368	360	357	353	347	341	340	337	337	339	340	340	347	347	337	330	321	324	337	341	347				
28	363	360	367	369	363	357	351	349	345	339	337	333	338	340	340	339	339	330	327	331	339	340	349	347				
29	335	338	347	347	353	352	349	349	348	343	339	339	338	338	337	337	337	338	334	329	326	329	339	345				
30	343	355	369	369	362	359	352	348	347	341	339	339	339	340	340	346	342	337	335	331	331	330	330	341				
31	351	356	359	360	356	354	352	349	347	344	343	343	341	340	341	342	342	339	329	313	309	320	339	343				
Mean																									344			



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Table 25 - Hourly Values of D for April 1952

G.M.T.

D = E 10° + scripta in tenths of minutes of arc

DAY.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean.	Maximum. H. M. γ	Minimum. H. M. γ	Range.	
1																													
2																													
3																													
4																													
5																													
6																													
7																													
8																													
9																													
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24																													
25																													
26																													
27																													
28																													
29																													
30																													
31																													
Mean																													



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Table 26 - Hourly Values of D for May 1932

G.M.T.

D =  $\pm 10^\circ$  + scripta in tenths of minutes of arc

DAY.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean.	Maximum. H. M.	Minimum. H. M.	Range
1	339	339	339	340	343	345	343	342	342	340	340	340	341	348	349	350	350	352	353	344	336	331	328	327	342			
2	325	327	339	349	348	340	340	337	338	337	330	335	340	340	344	348	350	351	353	350	343	333	336	340	341			
3	347	346	349	355	351	357	342	343	337	334	339	340	342	342	347	350	350	355	357	352	340	330	335	336	345			
4	340	340	347	350	347	340	340	339	339	339	339	340	342	348	351	360	355	360	360	354	352	343	335	333	346			
5	340	348	350	349	338	336	336	337	336	339	339	339	345	346	349	349	349	349	349	337	329	329	339	340	342			
6	347	350	350	350	343	341	341	341	340	340	340	341	340	342	343	346	348	348	347	343	330	330	329	327	342			
7	329	337	346	349	347	343	343	341	340	341	340	340	342	344	343	346	348	348	347	340	338	335	335	335	341			
8	339	345	344	344	346	345	346	343	343	341	341	340	340	347	347	347	348	349	349	340	337	333	330	336	343			
9	335	340	349	350	345	340	340	339	339	340	340	340	341	340	340	349	349	349	349	340	330	330	335	332	341			
10	339	345	353	350	343	342	342	342	340	339	339	339	339	342	340	342	342	342	347	343	336	328	330	340	341			
11	348	350	349	349	348	345	343	342	340	340	339	340	342	340	346	347	347	348	348	339	330	329	325	336	342			
12	353	353	357	352	350	348	343	340	342	340	340	339	342	341	346	348	349	350	352	350	348	341	340	347	346			
13	350	350	350	350	344	343	343	341	340	340	339	340	344	345	343	346	348	348	348	350	350	330	326	330	342			
14	346	350	351	350	348	346	344	342	340	338	339	339	336	336	340	342	345	345	343	344	344	327	326	336	342			
15	343	348	355	348	344	340	340	341	340	336	339	339	340	339	340	342	345	345	343	349	344	345	344	336	343			
16	341	349	358	355	349	344	340	341	340	339	339	339	340	342	340	344	342	342	345	340	345	334	330	340	341			
17	342	354	362	360	350	347	347	342	341	341	340	340	340	342	345	349	348	348	349	344	339	329	320	330	342			
18	350	339	343	348	342	340	340	339	340	339	339	339	340	340	342	343	343	348	348	350	348	341	335	348	344			
19	338	340	351	350	347	340	340	340	337	337	335	330	334	339	342	345	346	346	346	350	340	333	330	333	340			
20	338	340	342	348	343	343	343	342	342	342	340	340	340	342	344	345	349	348	348	349	339	329	320	330	348			
21	337	340	349	341	339	337	337	337	335	339	339	339	340	341	349	349	349	350	348	348	339	335	328	320	340			
22	328	329	339	340	344	341	340	337	338	338	339	339	340	343	349	349	349	349	349	349	359	350	331	339	340			
23	346	353	359	350	339	337	337	339	339	338	338	339	340	343	347	349	350	351	351	347	333	322	323	319	341			
24	328	340	350	349	339	344	341	340	339	339	339	340	340	342	345	347	349	349	350	359	350	346	335	335	344			
25	339	347	352	353	343	341	340	340	339	338	338	336	330	338	339	349	356	365	359	358	347	340	346	340	345			
26	349	358	360	353	356	357	345	341	338	339	344	348	349	351	354	357	357	357	360	355	350	336	334	320	349			
27	339	344	350	350	346	345	341	340	339	339	344	348	349	343	345	349	349	349	349	349	359	350	336	339	340			
28	328	340	350	349	339	341	340	340	339	338	338	340	340	342	345	347	349	349	350	359	350	346	335	335	344			
29	339	347	352	353	343	341	340	340	339	338	338	336	330	338	339	349	356	365	359	358	347	340	346	340	345			
30	349	358	360	353	356	357	345	341	338	339	344	348	349	351	354	357	357	357	360	355	350	336	334	320	349			
31	339	344	350	350	346	341	341	340	339	339	339	339	340	342	345	347	349	349	349	347	339	336	334	320	341			
Mean	339	344	350	350	346	341	341	340	339	339	339	339	340	342	345	347	349	349	351	347	339	333	332	334	343			



International  
Seismological  
Centre







Table 28 - Hourly Values of D for July 1932

D = E 10° + scripta in tenths of minutes of arc

G.M.T.

DAY.	Hourly Values																								Mean.	Maximum. H. M.	Minimum. H. M.	Range.	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23					
1	360	372	377	369	365	360	359	358	357	355	358	358	358	358	359	363	363	362	368	369	360	349	340	347	360				
2	365	370	376	370	360	359	358	358	355	355	359	357	359	359	360	364	366	368	370	369	362	358	359	351	362				
3	360	370	378	377	369	362	359	358	355	355	358	358	359	359	360	363	365	366	370	367	365	342	338	333	360				
4	345	358	360	364	364	361	358	358	355	355	359	358	359	361	363	371	372	372	370	373	379	367	350	347	362				
5	349	359	360	365	360	359	359	355	355	355	359	358	358	361	360	354	369	373	373	373	370	362	352	344	359				
6	353	365	380	371	370	368	368	366	357	357	351	357	358	359	358	359	361	351	370	370	359	350	346	347	361				
7	347	359	369	369	363	359	359	360	356	356	356	359	359	361	361	362	362	362	370	370	360	353	350	343	359				
8	360	370	371	365	360	359	359	359	357	357	350	356	356	356	358	366	366	362	370	370	360	353	350	343	359				
9	362	366	367	364	360	359	356	356	356	356	355	359	359	359	360	360	360	361	369	370	368	340	343	359					
10	362	366	367	364	360	359	356	356	356	356	355	359	359	359	360	360	360	361	369	370	368	340	343	359					
11	364	369	369	369	365	370	360	359	358	359	359	358	359	360	362	365	364	363	369	370	368	358	352	350	362				
12	359	360	368	365	360	359	359	359	359	359	359	359	360	360	361	362	362	365	370	373	368	360	360	361	362				
13	362	363	361	360	359	359	359	358	358	359	359	359	360	360	361	362	365	363	369	370	370	358	353	353	361				
14	355	361	369	369	360	359	359	359	359	359	359	359	360	360	361	362	365	363	369	370	370	358	353	353	361				
15	355	361	369	369	360	359	359	359	359	359	359	359	360	360	361	362	365	363	369	370	370	358	353	353	361				
16	359	356	369	370	365	363	349	353	353	359	359	359	358	350	359	363	365	368	370	368	358	350	348	350	358				
17	359	362	369	365	358	358	358	357	358	359	359	357	359	359	362	366	366	367	370	374	370	361	353	350	361				
18	360	355	369	369	360	359	359	359	359	359	359	359	359	359	361	363	369	369	373	369	348	348	348	360					
19	361	367	370	369	360	359	360	359	358	359	359	359	360	360	362	369	368	369	373	372	364	356	354	351	363				
20	361	371	379	373	368	368	369	368	369	369	370	369	369	369	370	371	376	376	380	380	370	369	369	361	371				
21	360	370	379	380	380	372	369	369	369	368	368	368	370	370	371	376	378	375	379	377	368	359	358	351	370				
22	359	370	380	380	375	369	368	368	368	368	368	368	368	368	370	375	376	378	380	380	371	362	353	349	370				
23	356	359	379	380	378	370	368	367	369	369	369	369	370	371	372	373	379	379	386	385	374	360	356	348	370				
24	340	350	369	372	375	370	370	370	369	370	370	370	370	369	370	375	378	378	380	382	371	359	356	360	369				
25	368	370	379	379	378	370	370	369	369	369	369	369	370	370	372	376	376	377	380	380	374	364	358	351	371				
26	358	368	368	371	374	370	368	367	366	366	368	368	367	369	369	370	376	376	382	382	370	359	355	353	369				
27	350	367	377	387	380	374	370	369	369	368	368	368	367	365	369	370	376	375	377	385	377	368	368	367	371				
28	367	379	386	387	380	379	370	369	368	369	369	369	370	371	372	373	376	376	380	380	373	368	362	362	373				
29	370	379	386	380	373	372	369	369	369	368	368	369	369	370	371	372	379	379	381	379	354	354	349	371	371				
30	370	379	386	380	373	372	369	369	369	368	368	369	369	370	371	372	379	379	381	379	354	354	349	371	371				
31	356	356	377	379	376	375	370	368	366	366	360	360	364	369	370	370	378	377	380	376	358	349	342	357	367				
Mean	357	365	373	372	368	365	364	363	362	362	362	363	363	365	365	367	369	370	375	375	375	366	357	351	364				



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Table 30 - Hourly Values of D for September 1932

G.M.T.

D = E 10° + scripta in tenths of minutes of arc

DAY	D = E 10° + scripta in tenths of minutes of arc																								Mean	Maximum. H. M.	Minimum. H. M.	Range.
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
1	545	559	590	552	400	391	390	390	384	380	381	380	380	380	382	383	389	390	399	389	377	370	363	360	379			
2	358	362	373	385	380	385	385	385	382	383	380	379	383	383	383	385	389	398	398	389	383	380	370	368	381			
3	373	389	399	395	390	387	388	384	380	384	382	380	389	383	382	389	398	400	400	390	385	370	355	350	383			
4	364	382	395	398	393	391	389	383	383	383	384	384	389	388	385	389	399	399	393	384	375	369	359	385	385			
5	557	579	590	592	584	380	379	374	371	371	370	370	380	380	374	380	382	390	382	374	375	355	355	376	376			
6	560	570	590	599	595	385	380	378	379	372	362	365	370	370	359	379	380	384	380	369	363	359	359	374	374			
7	365	369	380	387	387	379	380	378	377	376	374	374	378	378	377	379	386	388	386	378	373	368	364	367	367			
8	368	378	388	385	380	375	376	371	373	373	374	375	381	386	379	382	390	398	390	387	379	377	376	380	380			
9	379	373	373	372	373	373	372	375	375	374	375	376	382	382	378	379	389	389	379	379	372	369	366	376	376			
10	384	389	396	397	394	391	392	390	389	389	389	390	398	398	393	396	398	400	400	390	388	384	380	392	392			
11	379	380	387	391	390	389	390	390	390	390	390	390	397	397	392	399	397	389	389	389	384	378	379	389	389			
12	384	396	398	399	394	390	392	392	391	391	390	394	398	398	394	398	398	393	387	382	378	374	369	390	390			
13	378	390	399	400	398	394	392	391	389	390	389	390	392	392	390	392	398	400	390	389	387	388	388	391	391			
14	388	397	401	402	400	399	396	391	394	393	394	399	400	400	399	400	403	401	398	390	390	395	398	397	397			
15	399	408	409	409	404	399	396	390	391	392	397	397	398	400	398	400	399	396	388	380	372	363	367	394	394			
16	385	398	400	394	390	390	392	390	392	392	392	390	395	398	394	395	398	400	397	388	374	370	372	391	391			
17	382	392	399	400	400	400	398	394	390	390	393	394	399	400	398	400	408	400	400	378	370	370	370	392	392			
18	379	390	389	384	382	380	380	387	371	369	370	375	378	370	374	378	390	372	374	370	379	378	370	377	377			
19	377	390	399	400	398	391	390	387	380	380	380	382	388	390	384	388	390	390	383	380	370	365	369	384	384			
20	379	393	400	400	396	390	382	382	380	380	388	389	389	389	389	389	390	389	380	373	370	361	363	384	384			
21	383	383	390	388	390	392	388	388	384	375	377	380	385	384	388	385	384	382	378	367	360	363	368	381	381			
22	378	389	397	399	392	398	398	398	391	380	383	389	389	390	392	389	390	397	390	380	383	388	389	390	390			
23	393	401	409	400	408	399	396	395	390	390	394	385	390	400	390	390	390	391	389	380	382	390	392	395	395			
24	399	409	409	410	410	399	399	395	390	390	394	399	409	400	398	399	409	410	402	396	390	383	380	399	399			
25	390	399	409	403	408	402	400	397	395	395	399	398	400	400	400	400	400	400	400	395	394	389	390	399	399			
26	398	399	403	403	407	400	400	398	398	398	394	398	399	399	399	399	400	400	398	392	390	392	390	398	398			
27	400	406	410	404	400	400	399	398	390	390	390	396	398	400	398	399	400	400	399	399	378	379	381	381	381			
28	388	394	400	398	399	400	398	397	393	392	394	396	398	398	398	399	400	402	400	398	378	379	381	381	381			
29	398	399	403	404	400	400	398	397	393	392	394	396	398	398	398	399	400	400	398	392	390	392	390	398	398			
30	400	406	410	404	400	400	399	398	390	390	390	396	398	400	398	399	400	400	399	392	390	392	390	398	398			
31	388	394	400	398	399	400	398	397	393	392	394	396	398	398	398	399	400	402	400	398	378	379	381	381	381			
Mean	378	387	395	394	394	390	389	387	385	384	384	385	389	389	387	389	391	393	395	389	382	378	374	373	387	387		



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Table 31 - Hourly Values of D for October 1932

DAY.	D = E 10° + scripta in tenths of minutes of arc																								Mean.	Maximum. H. M.	Minimum. H. M.	Range.
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23				
1	402	419	420	413	410	410	408	408	403	400	399	393	397	400	400	402	402	403	400	398	393	393	397	400	403			
2	400	418	414	410	406	408	402	400	400	400	400	400	400	400	400	400	403	403	400	390	380	380	387	390	400			
3	406	410	410	404	406	408	409	408	408	402	400	400	400	400	400	400	400	402	400	389	380	380	383	392	400			
4	406	410	409	405	400	408	408	404	404	402	400	400	400	400	400	400	400	400	400	389	380	374	374	360	398			
5	399	408	406	400	404	404	408	401	401	400	400	400	400	400	403	403	406	409	403	398	390	390	385	394	401			
6	407	414	413	408	407	404	404	400	400	400	400	400	400	400	400	402	402	406	390	378	380	380	380	390	400			
7	400	410	413	409	400	400	400	400	400	400	400	400	400	400	400	402	403	403	400	395	390	385	379	388	399			
8	392	410	420	416	409	409	403	403	403	400	400	400	400	400	400	400	403	402	400	392	389	380	380	390	400			
9	408	418	410	408	400	402	400	400	400	400	400	400	400	400	400	400	400	400	390	386	380	375	380	394	398			
10	410	417	410	405	400	400	400	400	400	400	400	400	400	400	400	406	407	400	391	389	384	380	382	395	399			
11	409	420	413	408	400	400	400	400	400	398	398	400	400	400	400	402	403	400	393	389	389	390	390	400	400			
12	400	407	413	408	402	408	408	408	408	404	400	400	400	400	404	405	403	400	396	398	398	398	402	410	404			
13	420	423	420	410	404	410	405	406	406	405	400	400	400	400	403	403	402	403	400	398	398	398	402	410	404			
14	420	420	420	410	408	409	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408			
15	420	420	420	410	408	409	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408			
16	420	420	420	410	408	409	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408			
17	420	420	420	410	408	409	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408	408			
18	406	410	410	400	400	402	403	402	402	403	400	400	400	400	400	400	400	400	399	380	375	384	400	401				
19	413	419	418	419	406	400	400	399	400	400	398	400	400	400	400	400	403	400	399	390	387	388	392	400	400			
20	418	420	422	415	409	408	404	403	403	400	400	397	397	400	400	396	398	390	385	374	380	394	407	400	400			
21	418	420	427	420	412	413	404	400	400	393	397	398	395	397	398	399	400	400	390	379	378	379	384	395	400			
22	402	410	419	410	410	407	404	404	404	403	400	400	400	400	400	402	400	400	395	389	389	389	399	400	400			
23	404	407	408	406	408	410	409	406	406	397	392	390	396	400	399	402	400	400	389	385	380	385	397	407	400			
24	416	420	420	416	413	410	410	404	404	399	398	399	399	400	400	400	402	393	380	379	380	400	407	402	400			
25	410	412	413	410	409	403	402	400	400	399	398	396	396	394	397	400	400	394	387	380	383	389	414	419	400			
26	420	420	418	410	409	403	402	400	400	400	400	400	399	400	400	403	398	385	380	379	378	400	410	419	400			
27	419	420	419	410	409	408	403	400	400	399	393	388	390	400	398	400	398	385	380	378	389	400	410	410	401			
28	410	410	410	410	404	405	406	403	403	400	400	400	400	400	400	400	400	395	384	378	383	400	409	399	401			
29	420	422	420	410	402	407	403	402	402	400	400	400	399	400	400	400	400	397	389	380	382	400	418	401	401			
30	415	410	410	402	399	404	400	402	399	399	398	397	395	393	396	399	400	390	373	365	370	400	418	401	401			
31	409	415	414	409	405	406	404	402	399	399	398	397	395	393	396	399	399	397	390	388	387	390	400	409	399			
Mean	409	415	414	409	405	406	404	402	405	400	399	398	398	399	399	401	401	400	393	387	383	384	391	401	400			



Table 32 - Hourly Values of D for November 1932

G.M.T.

D = E 10° + scripta in tenths of minutes of arc

DAY.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean.	Maximum. H. M.	Minimum. H. M.	Range
1	412	416	418	417	414	410	402	400	400	399	399	396	398	398	400	400	400	397	390	388	384	389	400	412	401			
2	416	415	413	410	410	409	410	409	408	405	402	399	399	399	399	400	402	400	399	394	394	400	420	423	406			
3	420	422	420	410	403	409	408	408	400	399	400	400	399	399	400	400	403	402	397	389	390	390	408	419	404			
4	419	417	419	410	407	406	408	408	407	403	402	400	400	400	400	402	400	399	399	389	383	393	406	408	403			
5	410	413	414	410	410	409	409	408	407	405	402	400	400	400	400	402	403	398	387	380	380	387	393	400	401			
6	405	409	409	408	407	407	408	404	404	402	400	400	400	400	402	403	403	399	387	380	370	379	390	400	399			
7	418	427	425	413	410	410	410	408	406	402	400	400	400	400	402	402	402	397	385	380	385	390	400	409	403			
8	410	409	405	402	400	405	407	404	405	400	400	400	402	402	402	402	400	400	393	380	375	390	403	418	400			
9	419	420	420	413	410	410	408	407	403	402	400	400	400	400	402	402	402	398	382	373	379	385	403	417	402			
10	420	419	416	409	408	407	407	408	407	402	400	400	400	400	400	402	403	398	382	373	370	399	410	417	402			
11	420	414	410	400	400	407	409	407	403	402	400	399	399	399	400	400	400	390	387	384	384	387	410	420	401			
12	423	420	420	420	417	413	409	403	400	400	399	398	399	399	400	400	403	396	384	378	378	384	400	419	402			
13	426	427	428	327	419	413	410	410	409	400	400	394	393	393	389	397	398	386	379	369	369	379	400	420	401			
14	430	430	422	410	402	408	410	409	400	400	400	394	393	393	389	397	398	394	384	372	372	380	409	418	401			
15	424	426	420	415	410	410	409	405	403	400	398	398	398	398	400	400	399	397	382	369	370	389	402	413	401			
16	422	429	434	430	418	418	410	404	403	399	390	393	390	390	390	393	386	380	372	372	376	388	408	419	401			
17	420	416	413	410	410	409	409	404	399	399	394	392	392	392	396	396	396	390	382	384	389	388	402	413	400			
18	419	419	413	409	408	410	408	406	400	400	400	400	399	399	397	394	394	389	384	383	384	390	408	427	402			
19	419	419	410	408	408	407	407	403	402	400	398	399	398	398	394	396	396	389	380	378	379	390	400	413	399			
20	419	419	413	409	410	409	404	400	400	399	399	398	398	398	399	399	397	390	389	389	398	395	408	410	402			
21	408	407	400	400	404	406	405	406	400	399	399	399	398	398	399	398	398	398	392	382	382	390	402	410	399			
22	410	410	406	406	404	409	409	408	403	400	399	397	398	398	398	399	400	394	389	377	378	383	395	408	399			
23	409	410	409	409	408	408	407	407	402	400	399	397	397	397	397	398	398	392	380	373	375	380	410	420	399			
24	420	416	410	410	408	408	410	408	403	400	399	398	398	398	397	400	400	395	389	388	388	392	414	408	402			
25	409	413	416	412	410	410	410	408	406	402	400	396	396	396	400	400	400	392	379	372	370	380	388	400	399			
26	408	410	410	407	406	410	408	403	400	399	399	398	396	396	398	399	399	392	389	380	380	389	408	420	400			
27	379	427	418	409	403	407	404	403	400	400	399	400	399	399	399	396	396	389	392	374	378	388	398	413	598			
28	420																											
29	427	429	426	418	406	408	408	400	400	398	398	398	398	398	403	399	397	379	368	360	364	569	410	426	397			
30	423	429	426	418	409	403	403	402	402	399	400	399	399	399	399	400	399	397	382	373	370	373	380	398	399			
31	415	418	415	411	408	409	408	405	402	401	399	398	398	398	399	399	399	393	384	379	380	387	402	413	401			
Mean																										401		



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Table 33 - Hourly Values of D for December 1932

G.M.T.

DAY.	D = E 10° + scripta in tenths of minutes of arc																								Mean.	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	Minimum.	Range
	H.	M.	H.	M.																																															
1	409	418	418	417	417	409	404	400	400	408	400	403	398	397	399	389	376	372	378	378	380	365	379	398	409	400																									
2	414	418	417	417	417	409	404	400	400	408	400	403	398	399	398	389	376	372	380	380	392	365	379	398	409	400																									
3	408	418	417	417	417	409	404	400	400	408	400	403	398	399	398	389	376	372	380	380	392	365	379	398	409	400																									
4	410	415	417	417	417	409	404	400	400	408	400	403	398	399	398	389	376	372	380	380	392	365	379	398	409	400																									
5																																																			
6	409	409	405	405	405	404	399	399	394	389	389	389	387	387	389	376	372	380	380	392	365	379	398	409	400																										
7	405	407	400	400	400	398	392	395	395	395	392	393	390	389	389	362	369	382	382	392	368	382	399	410	398																										
8	420	419	412	408	399	392	392	392	392	395	392	390	390	390	389	364	369	382	382	392	368	382	399	410	398																										
9																																																			
10	428	428	423	418	400	395	392	395	392	392	390	389	388	389	357	340	352	378	378	399	399	414	393	389																											
11	407	405	400	399	392	392	392	392	389	388	389	388	389	388	360	353	377	393	393	393	377	377	407	397																											
12	410	405	399	398	390	397	399	399	399	397	394	390	388	388	360	353	377	393	393	398	398	409	409	397																											
13	417	419	424	420	409	399	399	399	399	397	394	390	388	388	369	379	389	389	389	390	389	390	398	409																											
14	399	399	398	398	398	398	398	398	398	398	397	393	388	388	369	379	389	389	389	390	389	390	398	409																											
15	409	407	407	407	406	406	406	400	400	400	409	409	400	399	360	372	380	390	390	390	380	390	392	386																											
16	390	390	390	392	395	398	398	395	389	389	389	388	389	388	362	356	370	380	380	388	370	372	395	396																											
17	396	395	399	399	393	395	397	397	397	394	390	392	389	388	365	370	380	382	382	382	380	382	390	386																											
18	390	402	405	405	400	399	398	398	398	392	389	388	389	387	364	362	362	362	373	373	362	362	389	385																											
19	400	409	417	413	402	400	397	397	398	392	389	388	385	385	368	369	373	383	383	383	373	373	399	387																											
20	410	409	403	400	398	395	392	392	390	392	392	389	388	388	376	372	379	389	389	382	379	389	400	390																											
21	408	410	410	403	398	393	393	393	389	399	390	388	389	388	362	356	372	372	380	380	372	372	395	395																											
22	378	400	409	410	400	397	390	390	389	390	389	388	389	388	370	360	362	362	365	360	356	362	375	387																											
23	417	410	408	405	400	399	390	389	388	388	388	387	387	379	365	372	380	397	397	397	380	397	409	389																											
24	398	400	398	390	393	399	397	397	389	389	389	387	387	368	355	366	360	377	377	377	360	372	395	385																											
25	400	399	399	396	395	392	395	395	380	384	384	387	387	370	360	366	372	370	370	360	366	372	405	385																											
26	403	403	400	402	400	398	398	398	390	394	392	390	388	388	354	365	378	380	380	378	378	378	405	385																											
27	405	409	410	408	400	397	397	397	389	390	390	389	388	388	362	365	378	380	380	378	378	378	405	385																											
28	385	390	395	399	395	392	392	392	390	389	389	388	388	388	365	370	373	378	378	378	373	373	385	389																											
29	400	399	399	393	394	398	396	398	390	393	389	389	388	388	360	365	368	380	380	380	368	380	395	385																											
30	403	415	410	400	390	393	390	390	389	389	390	389	388	388	345	340	350	372	372	372	350	372	398	384																											
31	408	404	400	400	399	399	395	399	390	389	389	388	387	385	358	369	378	390	390	389	369	378	408	388																											
Mean	402	406	406	403	399	396	395	393	392	390	388	387	386	377	362	366	373	383	383	373	366	373	397	389																											



Seismological Summary, 1932

This summary deals with the more important earthquakes registered during the year and it is supplementary to the quarterly seismological bulletins which were issued during the year. The data necessary to supplement the instrumental records at Apia have been extracted from the seismological publications of other observatories.

Fourteen earthquakes are considered here, three originating in the Solomon Islands, three in Central America, one in Tonga, one in Samoa, one in Fiji, one between Samoa and Fiji, one near the Banks Group, one in New Zealand, one near Auckland Island and one in Celebes.

The total number of earthquakes recorded was 159. They were distributed as follows:-

113 originated within nine degrees of Apia, sixteen between nine degrees and 45 degrees and four from distances greater than 45 degrees. The origins of the remaining 26 were indeterminate. Nineteen shocks were felt by local residents.

The new "Tables of the Times of Transmission of the P and S Waves of Earthquakes" by Harold Jeffreys have been used for the determination of epicentral distances; but in near earthquakes where only the L-P intervals were known the table of L-P due to V. Conrad has been employed.

The same instruments have been in use as in previous years, namely a Wiechert 1000 kg. horizontal seismograph for the East-West and North-South components and a Wiechert 180 kg. seismograph for the vertical component. The driving clock of the horizontal seismograph broke down in June, but the interruption was very brief as repairs were made locally. In November a new time marking unit was installed on the horizontal seismograph. The driving gear of the vertical seismograph worked very badly during most of the year.



Table 34 - Epicentres of Principal Earthquakes in 1932

Date 1932	E p i c e n t r e		Deduced Distance from Apia	degrees	Observed G.M.T. of P	Deduced G.M.T. at Origin
	Locality	Latitude Longitude				
January 9	Near Banks Islands	S 12° E 171°	16.9		10h 28m 01s	10h 24m 09s
" 17	Solomon Islands	S 10 E 160	27.8			
" 29	Solomon Islands	S 6 E 155	33.6		13 47 50	10 41 07
" 30	Solomon Islands	S 6 E 157	31.7		03 13 11	03 06 45
February 16	Between Samoa and Fiji	S 14 W 178	6.0		13 50 44	13 49 19
March 8	Fiji	S 17.5 E 177	11.4		(18 05 04)+	17 58 50
May 14	Celebes	N 2 E 125	64.6		13 21 29	13 10 44
" 21	Central America	N 13 W 88	87.2		10 22 46	10 10 01
" 22	Tonga Islands	S 18 W 172	4.2		11 30 58	11 29 58
June 3	Central America	N 14 W 105	71.7		10 48 54	10 37 34
" 16	Samoa Islands	S 12 W 171	2.0		22 43 37	22 43 08
" 18	Central America	N 11 W 98	77.3		10 24 14	10 12 21
August 13	Near Auckland Island	S 50 E 166	40.5		21 10 06	21 02 25
September 15	New Zealand	S 39 E 175	25.4		14 00 40	13 54 50





METEOROLOGICAL REPORT, 1932

Notes on Instruments

The time used in meteorological records during the year 1932 is the standard time of Western Samoa. This is  $11\frac{1}{2}$  hours slow compared with Greenwich Mean Time and 2m 54s slow compared with the local time of the meridian of the Observatory.

PRESSURE

The barometer which is used as a standard is a Kew pattern instrument (No. M.O.2233) made by Messrs S. and A. Calderara and supplied in 1927 by the Meteorological Office, London. The corrections for temperature, index error and gravity as well as the reduction to mean sea level are made by means of the Gold Slide and the readings are obtained directly in millibars.

A new barometer arrived in November from London. It is a Fortin pattern instrument (No.3300) made by Messrs C.F. Casella and like the Kew instrument just mentioned it is fitted with a Gold Slide on which the total correction for temperature, gravity, index error and height above sea level can be read off. The Fortin barometer arrived in excellent condition. During its passage from London it was fixed in its packing case in an inverted position on the wall of the cabin of the ship in which it was carried. The correction for index error of the Fortin barometer is zero.

The barograph supplied by Messrs Jules Richard of Paris (Grand Model No.105444) was used in 1932 as in former years. It is an aneroid barometer having a three fold magnification, i.e. a change of ordinate of three millimetres on the chart is equivalent to a change of one millimetre in the reading of the mercurial barometer. The control readings of the mercury barometer were made at 9 a.m. and 3.30 p.m. and the barograms were scaled at the exact hours of civil time. The readings of the barograms are thus instantaneous values at these hours. Since the beginning of the year 1932 the charts used on the barograph have been graduated in millibars. The indications of the barograph are now directly comparable with those of the mercurial barometer and the compilation of hourly values of pressure is much simplified.

A non-cyclic correction was applied to the hourly differences from the mean. This correction was



obtained in the following way. The pressure at midnight at the beginning of the month was subtracted from the pressure at midnight at the end of the month and the difference was divided by the number of days in the month. The number so obtained was then divided up proportionately throughout the twenty-four hours with the proviso that the correction to be applied to the reading at 12 noon should be zero. Morning and afternoon corrections are thus equal in magnitude but opposite in sign†

#### TEMPERATURE

The thermograph was housed during 1932 in a double louvered Stevenson screen  $6\frac{1}{2}$  feet above the ground in an open grass plot by the beach. The Stevenson screen itself has a wooden roof, but 14 inches above it there is a second roof of thatch composed of dried fronds of coconut trees. The screen is further protected from direct radiation by two upright louvered walls set at a distance of one foot on the east and west sides. This arrangement has been in use for many years. The thermograph was made by Messrs Short and Mason for the range of temperature experienced in Samoa i.e.  $10^{\circ}$  to  $38^{\circ}$  Centigrade. The scale is such that one degree Centigrade is represented by four millimetres. The charts are changed once a week.

The following set of thermometers was in use during the year:-

Maximum	Casella No.4876	Dry bulb	Negretti
			No. M.O.30290
Minimum	Casella No.4877	Wet bulb	Calderara
			No. M.O.31106
Grass Minimum	Casella No.9311 (NPL 25)		
	Black bulb in vacuo		No.81848

Two new Stevenson screens were erected in August 1932. Unlike the old screen just described the new screens are of standard pattern and devoid of any auxiliary protection.‡ A set of meteorological thermometers (by Negretti) reading in degrees Centigrade were placed in one of these screens and the new hygrograph

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+ C. Chree, *Terrestrial Magnetism*, Vol XXV, No.1 p.8 (March 1920).

‡ J.H. Field - *On Exposures of Thermometers in India*-  
Mem. Ind. Meteor. Dept. Vol XXIV Part III



to be described in a later paragraph was placed in the other. The numbers of the new thermometers are:-

Maximum	W24747	Dry bulb	W31863
Minimum	W20818	Wet bulb	W31864

The thermograph was controlled during 1932 by readings at 9 a.m. and 3.30 p.m. of the standard thermometer No.652 (Fuess, Berlin) and also by the readings of the minimum thermometer. The maximum and minimum thermometers as well as the black bulb in vacuo were read and set each day at 9 a.m.. The entries in the tables in this report are made in such a way that the readings of the maximum and black bulb thermometers at 9 a.m. are credited to the preceding day.

#### RAINFALL

Two rain-gauges, one of which is autographic, were used during 1932 as in previous years. These gauges were of the type Hellman-Fuess having a diameter of 15.95 centimetres (=200 square centimetres cross section). The rim of the recording gauge is 130 centimetres (= 4.27 feet) above the ground and the rim of the other gauge is at a height of 65 centimetres (= 2.13 feet). The gauges are situated at a distance of  $4\frac{1}{2}$  metres (= 14.8 feet) from each other in an open grass plot shielded by coconut trees. The trees are ten metres high (= 33 feet) and thirteen metres (= 42 feet) distant on the west and south.

The daily values of rainfall are taken from the non-recording gauge which is read every day at 9 a.m.. Rainfall measured at 9 a.m. for the past 24 hours is credited to the preceding day. The readings are made in millimetres.

A new rain-gauge was set up in July 1932 as a check on the older gauges which have now been in use for many years. The new gauge is a Snowdon pattern instrument as used by the Meteorological Office, London. Its diameter is five inches and the measuring glass is graduated in inches. Like the older German gauge its capacity is hardly adequate for the torrential downpours which occur from time to time in Samoa and it is hoped to equip the Observatory at some future time with an instrument having a total capacity of about 18 inches of rain.

#### HUMIDITY

The humidity of the air was deduced from the



readings of wet and dry bulb thermometers at 9 a.m. and 3.30 p.m. every day. The level of the water supplied to the wet bulb was so arranged that the water fell from the muslin in drops at intervals. The muslin remained clean for some time with this method but it was subject to interference by lizards.

A new hygrograph (Casella No.1141, M.O. 195/32) arrived in the course of the year and was set up in a new Stevenson screen during August.

#### SUNSHINE

The Observatory possesses a Campbell-Stokes sunshine recorder having a glass ball of slightly greenish tint. The diameter of the ball is five inches. The recorder is mounted on a platform on the extreme northern edge of the peninsula and the exposure is not entirely satisfactory because the instrument is shielded by coconut trees on the western side. The height of the trees is about thirteen metres (= 40 feet approximately) and the loss in the record due to this cause varies from about three quarters of an hour to one hour during the period extending from the end of October to the middle of February. A slight loss amounting to about 20 minutes also occurs at sunrise at the December solstice owing to the presence of trees on the eastern side of the sunshine recorder.

#### EVAPORATION

The Piché evaporimeter used to measure evaporation consists of a graduated tube held mouth downward. A small disc of absorbent paper is clamped over the open end and retains the water in the tube. The disc of paper extends as an annulus one centimetre wide outside the edge of the glass wall of the evaporimeter. The evaporation from the exposed paper ring is measured by the fall in level of the water in the tube. The tube is graduated in cubic centimetres and the area effective for evaporation is approximately 20 square centimetres.

The evaporimeter is mounted on a post of the porch on the north side of the main office. The winds blow freely over it with little obstruction and the paper is shielded from direct sunlight.

The numbers entered in the tables are the differences in cubic centimetres between the readings at 9 a.m. on successive days. They refer to an area of



20 square centimetres. The entries in the table are so arranged that evaporation occurring in 24 hours up to 9 a.m. is credited to the preceding day.

### VISIBILITY

The visibility has been observed according to the following scheme of objects:-

1. Very good - Exceptionally clear conditions. Light and dark areas sharply outlined on the island of Savai'i. The peak of Savai'i is forty miles distant.
2. Good - Outline of Savai'i seen clearly with light and dark areas just distinguishable on the island.
3. Fair - Outline of mountain peaks of Savai'i visible and defined against the sky.
4. Indifferent - Savai'i much obscured by haze or only portions of it seen.
5. Poor - Savai'i not visible; red roofed house on Faleula Point visible at distance of four miles.
6. Bad - Red roofed house not visible at Faleula, four miles distant.

All the objects are to the west of the Observatory and for the greater part of the distance the seeing is over water.

In January 1932 an experimental series of observations of visibility was commenced using the method recommended by Tor Bergeron in his "Wetteranalyse".†

Difficulties were encountered which consisted chiefly in fulfilling the conditions required in respect of illumination and the colour of the background. The vegetation on the hills in Samoa seems to be hardly dark enough and the frequent presence of a cloud cap over the islands causes uneven illumination. The results obtained in this first experiment were therefore of little value.

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†Tor Bergeron - Über die dreidimensional verknüpfende Wetteranalyse - Geofysiske Publikasjoner, Vol.5 No.6 - Oslo 1928



### CLOUD

The amount of cloud in the sky at 9 a.m. and 3.30 p.m. has been estimated in tenths. During spells of fine weather it frequently happens that the only clouds visible are a ring of cumulus extending a few degrees above the horizon. Dark glasses are used in observing clouds to protect the observer's eyes from the bright glare of the sky.

### RADIATION

Measurements of the total radiation received by the ground are made by means of the radio integrator designed by W.E. Wilson. The instrument is read every day at 9 a.m.. In the standard type of this instrument, one cubic centimetre of alcohol passes over for 179 gram calories received by the upper bulb.+ In the tables the volume in cubic centimetres distilled over in 24 hours up to 9 a.m. is credited to the preceding day. The diameter of the exposed bulb is roughly  $2\frac{1}{2}$  inches.

The indications of the Wilson heat integrator are much influenced by the cooling action of the wind.

#### ADDENDUM: Exposure of Sunshine Recorder

The approximate loss of bright sunshine during 1932 caused by the presence of trees is estimated at the following amounts:-

January 10%; February 6%; October 2%,  
November 9%; December 10%.

During the remaining months (March - September) the sun sets behind distant hills and the screening effect is estimated to be less than one per cent.

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+ Dictionary of Applied Physics, - Vol.III - Macmillan, London 1923.



Notes on the Weather of 1932  
at Apia Observatory  
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January

After a few days with bright intervals and thunder showers the weather became cloudy and dull with much rain as well as thunder and some squally winds. It improved towards the end of the third week and then remained generally fine till the end of the month. There were 19 days on which rain was observed and the total fall for the month was 21.34 inches. The mean temperature was 80°F.

Four barometric depressions appeared in the neighbourhood of the Fiji Islands during January and moved away south-east. They were of slight intensity, except the second which intensified in situ between Fiji and Samoa on the 18th and then went away towards south-east to the accompaniment of strong winds and gales in Tonga. The fourth depression was reported as a cyclone but it quickly died out.

February

The weather was cloudy during the first week with rain at times and some bright intervals. It then became dull with rain in squalls; but afterwards became fine again and remained so till the end of the month with the exception of local thunderstorms occurring mostly in the afternoons. The thunderstorm on the afternoon of the 20th was very violent.

A large cyclonic depression covering a wide area was centred to the south-west of Tonga on the 7th and 8th. During this storm the wind reached gale force from north-west at Niue Island.

The rainfall at the Observatory amounted to 13.70 inches during the month and fell on 19 days. The mean temperature was 80°F.

March

During March there were periods of bright weather interrupted by thunderstorms; but there was also a spell of dull rainy weather in the second week accompanied by a gale from north-west. Rain was observed on 21 days and the total amount for the month was 14.20 inches. The mean temperature was 80°F. and the prevailing winds easterly.



A shallow depression occurred near the Fiji Islands on the 3rd. Another depression developed between the Tokelau Islands and Samoa on the 8th and moved westwards at first towards Fiji increasing in intensity the while. It afterwards moved south-east over Tonga as a fully developed tropical cyclone.

#### April

The weather of April was generally cloudy or overcast with rain or drizzle at times and squally thunder showers; but there were also some bright intervals. The number of days with rain was 23 and the amount recorded during the month was 12.81 inches. The mean temperature was 79°F. The prevailing winds were easterly, but occasionally became north-westerly in squalls.

A shallow depression was centred near the Ellice Islands on the 14th which moved slowly eastwards over Samoa and Tonga and reached a position southward of the Society Islands on the 21st. A tropical cyclone was reported in the New Hebrides on the 25th. It moved southwards to Norfolk Island and eventually reached New Zealand on the 27th. There was also a shallow depression near Tonga on the 28th.

#### May

The weather of May was mainly fine or fair with moderate easterly winds; but there were some thunder showers and heavy rain at times during the month and generally unsettled conditions at the end. Lightning was seen at night. The mean temperature was 81°F. Rainfall amounted to 3.80 inches falling on 16 days and was below normal. The synoptic charts showed an easterly gradient generally over the Pacific islands and a succession of depressions and anticyclones over New Zealand. There was a shallow depression near Tonga on the 31st.

#### June

The weather of June was fine or fair with the exception of some occasional heavy showers of rain in the first two weeks and some thunder. The prevailing winds were easterly and the mean temperature was 78°F. The rainfall was 1.31 inches falling on seven days and was below normal. The synoptic charts showed that there were shallow depressions over the Tongan Islands



about the 3rd and 14th: otherwise the barometric gradient over the Pacific islands was easterly.

### July

The weather of July was mainly fine with some showers at times. The prevailing winds were easterly. Thunder occurred in the early part of the month and also during the last week. On the 18th there was a shallow depression moving south-east between Fiji and Tonga and the weather in Samoa became temporarily unsettled with cloud and rain. The mean temperature of the month was 79°F. Rainfall amounted to 2.42 inches and was less than normal.

### August

The weather was generally fine with thunder rain at times and the prevailing winds were easterly. There was a violent thunderstorm at Apia on the 25th before dawn and heavy rain at intervals throughout the rest of the day. The total rainfall for the month exceeded the normal and amounted to 5.99 inches falling on 13 days. The mean temperature during the month was 79°F.

There was a shallow barometric depression to the south-west of Tonga on the 3rd and another one over Tonga itself on the 11th which had a line of discontinuity of winds and temperatures associated with it moving northwards. An anticyclone was indicated to the south of Tonga on the 14th and 15th. When the thunderstorm occurred on the 25th the barometer was high in New Zealand and low to the north of Samoa and the gradient over the intervening area was south-easterly.

### September

The first ten days or so were cloudy or dull with cloud of medium height (alto-stratus or alto-cumulus) and occasional heavy rain. Thereafter the weather became mainly fine with clear sky or high cloud (cirrus) and some low cloud (cumulus). There was a heavy gust of wind and an exceptional fall of rain before dawn on the 15th when 2.56 inches of rain were recorded within the space of one hour and there was steady rain again on the 18th. The prevailing winds were easterly. The total amount of rainfall for the month was 6.27 inches and the number of rain days was nine. The mean temperature was 79°F.



The synoptic charts showed a gradient of pressure favourable for easterly winds during the greater part of the month, but a shallow barometric depression appeared near Fiji and Tonga on the 28th having a well marked line of discontinuity. The depression moved eastwards and the line of discontinuity moved north-east accompanied by thunderstorms in the Tongan group of islands.

#### October

The weather was cloudy with occasional rain during the first few days of the month but had improved to fine by the end of the first week. During this period strong easterly winds were prevalent in Samoa and Tonga and the neighbouring seas. They were due to the presence of an intense anticyclone which moved slowly eastwards from New Zealand on a track lying southward of Tonga. The barometer rose to 30.56 inches in the Chatham Islands during the passage of this anticyclone and remained at about 29.85 inches in Apia. The resulting steep gradient of pressure was favourable for strong easterly winds in the intervening regions.

During the remainder of the month the weather varied from fine in the third week to showery with bright intervals at other times and the winds were mainly easterly, light in force. There was much rain with thunder and lightning on the 29th. Rain was observed on 14 days at the Observatory, the total for the month being 6.77 inches.

#### November

The weather of November varied between bright sunny intervals and showers of rain which were heavy at times and also occasionally associated with thunder. The outstanding feature of the month was the torrential downpour of rain which occurred on the 21st when a total fall of ten inches was recorded during a space of 24 hours in the neighbourhood of Apia. The temperature varied during the month from a maximum 83.7°F on the 12th to a minimum of 72.5°F on the 25th. The total rainfall of the month amounted to 20.09 inches and was about double the normal amount. The visibility was exceptionally good at times.

The synoptic charts of weather in the South Pacific Ocean showed that in general there was high barometric pressure to the southward of the Tonga islands so that the winds were mainly easterly in



Tonga and Samoa. There was a shallow depression near Tonga on the 1st and an elongated area of low pressure to the west of Samoa on the 28th and following days when strong winds were experienced at Rotuma, an island north of Fiji.

### December

Like the previous month December witnessed somewhat variable weather. Considerable bright sunny periods occurred during the first three weeks although at the same time there were frequent showers of rain and some occasional thunder. During the last ten days or so the weather was cloudy with occasional heavy thunder showers and the visibility was exceptionally good at times. Easterly winds prevailed for the first three weeks and then changed to north-west. The shade temperature varied from a maximum of 88.5°F on the 6th to a minimum of 72.3°F on the 24th, these readings being almost identical with those obtained in November. The rainfall at the Observatory amounted to 15.24 inches and was recorded on 24 days.

Synoptic charts showed that the barometer was low in the area lying to the west of Samoa and north of the Fiji Islands; but it was relatively high at first near the Cook Islands, so that the winds in Samoa were easterly. Later on a shallow depression developed over the Fiji, Samoa and Tonga Islands and the readings of the barometer were persistently low at Apia, falling to the level of 29.53 inches on the 30th. Finally a tropical cyclone occurred on the 31st near Rotuma which was associated with northerly gales in Samoa at New Year.



Table 35 - Meteorological Elements: Extreme Values, Normals and Variations, 1932

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year
<hr/>													
Pressure													
Normal (mb.)	1007.6	1008.3	1009.1	1009.8	1010.9	1011.4	1011.7	1012.0	1012.0	1011.1	1009.3	1008.1	1010.1
Variation, 1932	-0.4	+0.2	-0.5	-1.7	+0.1	0.0	-1.3	-0.1	-0.7	0.0	-0.2	-0.4	-0.4
Absolute maximum	1011.6	1012.6	1013.4	1012.0	1013.9	1016.4	1014.0	1015.3	1014.9	1014.9	1013.7	1011.6	1016.4
Absolute minimum	1001.8	1003.9	1001.7	1003.0	1007.7	1007.7	1006.0	1008.1	1007.7	1006.2	1005.0	999.7	1016.4
999.7													
<hr/>													
Temperature													
Normal (°C)	26.15	26.14	26.22	26.08	25.82	25.47	25.14	25.48	25.70	25.94	25.96	26.26	25.86
Variation, 1932	+0.40	+0.40	+0.28	+0.16	+1.19	+0.23	+1.10	+0.50	+0.18	+0.54	+0.50	+0.53	+0.50
Absolute maximum	31.4	31.0	31.3	32.1	31.1	31.6	30.9	30.7	31.0	31.0	31.5	31.4	32.1
Absolute minimum	22.7	22.5	22.7	21.0	21.2	18.8	20.3	20.0	20.9	20.9	22.4	22.4	18.8
Greatest daily range	8.1	8.1	8.0	8.5	9.5	11.0	9.2	9.3	9.5	8.6	8.5	8.3	11.0
Mean maximum	29.3	29.7	30.0	29.5	30.2	29.5	29.4	29.4	29.3	29.8	29.9	29.9	29.7
Mean minimum	23.9	23.9	23.6	23.7	24.0	22.4	23.5	23.0	22.8	23.6	23.6	24.3	23.5
<hr/>													
Rainfall													
Normal (mm.)	442	385	357	251	162	131	80	90	126	170	256	566	2816
Variation	+100	-37	+4	+74	-65	-98	-19	+62	+33	+2	+254	+21	+331
<hr/>													
Sunshine													
Normal (hours)	145	151	177	188	203	190	207	227	221	214	171	164	2258
Variation	+12	+42	+34	-29	+48	+49	+41	+27	+10	+54	+21	+52	+341

Note: The normals refer to 40 years (1890-1929)





Table 36 - Pressure: Monthly, Seasonal and Annual Means of Hourly Values, 1932

From readings in millibars at exact hours civil time. 1000 mb. + tabular values

The seasonal means are derived from the following grouping of months: Wet - November 1931 to February 1932 inclusive. Dry - May to August inclusive.

Hour	1	2	3	4	5	6	7	8	9	10	11	noon	13	14	15	16	17	18	19	20	21	22	23	24	Means
Month																									
January	7.55	7.09	6.88	6.87	7.03	7.40	7.78	8.06	8.11	8.07	7.77	7.37	6.87	6.47	6.05	5.88	6.03	6.35	6.83	7.25	7.65	7.96	8.04	7.94	7.22
February	8.81	8.48	8.22	8.19	8.28	8.59	9.09	9.41	9.63	9.53	9.12	8.64	8.13	7.69	7.30	7.04	7.14	7.43	7.95	8.48	8.83	9.27	9.27	9.19	8.49
March	9.07	8.78	8.52	8.42	8.50	8.74	9.15	9.56	9.75	9.63	9.25	8.62	8.05	7.58	7.19	7.05	7.06	7.41	7.97	8.56	9.02	9.40	9.49	9.38	8.59
April	8.47	8.23	7.99	7.93	8.01	8.28	8.71	9.11	9.35	9.39	8.85	8.06	7.47	6.87	6.58	6.49	6.73	7.09	7.67	8.21	8.61	8.78	8.82	8.77	8.10
May	11.35	11.15	10.95	10.89	10.98	11.25	11.74	12.22	12.36	12.31	11.79	11.15	10.38	9.74	9.40	9.36	9.56	10.01	10.70	11.21	11.54	11.67	11.65	11.60	11.04
June	11.76	11.70	11.48	11.43	11.47	11.68	12.08	12.50	12.80	12.76	12.32	11.66	10.92	10.32	9.89	9.70	9.87	10.27	10.79	11.27	11.67	11.82	11.80	11.79	11.41
July	10.72	10.57	10.38	10.34	10.39	10.61	11.01	11.51	11.83	11.74	11.33	10.66	10.03	9.31	8.82	8.74	8.93	9.37	9.87	10.50	10.59	10.72	10.74	10.79	10.59
August	12.17	12.01	11.83	11.78	11.83	12.09	12.57	13.04	13.34	13.30	12.75	12.10	11.45	10.76	10.29	10.16	10.36	10.73	11.36	11.86	12.23	12.40	12.44	12.40	11.89
September	11.75	11.50	11.28	11.23	11.31	11.57	12.10	12.50	12.75	12.66	12.13	11.45	10.74	10.21	9.82	9.63	9.81	10.20	10.82	11.34	11.72	11.92	11.97	11.93	11.55
October	11.39	11.05	10.84	10.87	11.03	11.32	11.84	12.15	12.31	12.14	11.72	11.05	10.38	9.91	9.55	9.41	9.62	10.14	10.75	11.19	11.60	11.79	11.78	11.69	11.06
November	9.34	9.04	8.79	8.79	8.95	9.39	9.88	10.09	10.07	9.92	9.48	9.02	8.48	8.11	7.81	7.63	7.90	8.32	8.98	9.36	9.72	9.93	9.95	9.74	9.11
December	7.97	7.69	7.50	7.52	7.68	8.08	8.45	8.64	8.73	8.51	8.08	7.61	7.16	6.84	6.29	6.16	6.32	6.71	7.31	7.71	8.12	8.55	8.38	8.20	7.67
Year	10.03	9.77	9.56	9.52	9.62	9.92	10.37	10.73	10.92	10.83	10.38	9.78	9.17	8.65	8.25	8.10	8.28	8.67	9.25	9.73	10.11	10.33	10.36	10.29	9.69
Wet Season	8.73	8.39	8.20	8.19	8.35	8.76	9.20	9.44	9.50	9.32	8.90	8.42	7.91	7.48	7.07	6.91	7.06	7.41	7.94	8.40	8.78	9.10	9.17	9.08	8.40
Dry Season	11.50	11.36	11.16	11.11	11.17	11.41	11.85	12.32	12.58	12.53	12.05	11.39	10.70	10.03	9.60	9.49	9.68	10.10	10.68	11.16	11.51	11.65	11.66	11.55	11.18





Table 37 - Pressure: Monthly and Seasonal Means and Diurnal Inequalities, 1932

The departures in millibars from the mean of the day are adjusted for non-cyclic change. The seasonal means are derived from the following grouping of months: Wet - November 1931 to February 1932 inclusive. Dry - May to August inclusive.

Hour	Mean	1	2	3	4	5	6	7	8	9	10	11	noon	13	14	15	16	17	18	19	20	21	22	23	24
-----																									
M o n t h 1000 mb. +																									
January	7.22	+0.54	-0.12	-0.53	-0.54	-0.18	+0.18	+0.56	+0.84	+0.89	+0.85	+0.55	+0.15	-0.35	-0.75	-1.17	-1.34	-1.19	-0.87	-0.40	+0.02	+0.42	+0.73	+0.81	+0.71
February	8.49	+0.55	+0.02	-0.25	-0.28	-0.19	+0.11	+0.61	+0.93	+1.15	+1.05	+0.63	+0.15	-0.36	-0.81	-1.20	-1.46	-1.36	-1.07	-0.56	-0.03	+0.32	+0.75	+0.75	+0.67
March	8.59	+0.50	+0.20	-0.06	-0.16	-0.08	+0.16	+0.57	+0.98	+1.16	+1.04	+0.66	+0.03	-0.54	-1.01	-1.40	-1.55	-1.54	-1.19	-0.63	-0.04	+0.42	+0.80	+0.88	+0.77
April	8.10	+0.36	+0.13	-0.11	-0.17	-0.09	+0.18	+0.61	+1.01	+1.25	+1.29	+0.75	-0.04	-0.63	-1.23	-1.52	-1.61	-1.37	-1.01	-0.43	+0.11	+0.51	+0.68	+0.73	+0.68
May	11.04	+0.33	+0.12	-0.08	-0.14	-0.05	+0.22	+0.71	+1.19	+1.33	+1.27	+0.75	+0.11	-0.66	-1.30	-1.65	-1.69	-1.49	-1.04	-0.35	+0.16	+0.49	+0.62	+0.59	+0.54
June	11.41	+0.34	+0.28	+0.06	+0.01	+0.05	+0.26	+0.66	+1.09	+1.39	+1.35	+0.91	+0.25	-0.49	-1.09	-1.52	-1.71	-1.53	-1.13	-0.61	-0.13	+0.25	+0.40	+0.58	+0.57
July	10.39	+0.34	+0.19	0.00	-0.04	+0.01	+0.23	+0.63	+1.12	+1.44	+1.35	+0.94	+0.27	-0.36	-1.08	-1.57	-1.65	-1.47	-1.03	-0.53	-0.10	+0.19	+0.52	+0.54	+0.39
August	11.89	+0.30	+0.14	-0.04	-0.09	-0.05	+0.21	+0.69	+1.16	+1.46	+1.41	+0.86	+0.21	-0.44	-1.13	-1.61	-1.74	-1.54	-1.17	-0.54	-0.05	+0.32	+0.49	+0.53	+0.48
September	11.35	+0.37	+0.12	-0.10	-0.14	-0.06	+0.20	+0.74	+1.14	+1.39	+1.30	+0.78	+0.08	-0.61	-1.13	-1.52	-1.71	-1.53	-1.13	-0.51	+0.01	+0.40	+0.60	+0.65	+0.61
October	11.06	+0.30	-0.04	-0.24	-0.21	-0.05	+0.25	+0.77	+1.08	+1.24	+1.07	+0.65	-0.01	-0.68	-1.14	-1.50	-1.64	-1.43	-0.91	-0.29	+0.15	+0.56	+0.76	+0.75	+0.66
November	9.11	+0.22	-0.08	-0.33	-0.33	-0.17	+0.27	+0.77	+0.98	+0.96	+0.81	+0.37	-0.09	-0.63	-1.00	-1.30	-1.48	-1.21	-0.78	-0.12	+0.26	+0.62	+0.83	+0.83	+0.64
December	7.67	+0.21	-0.06	-0.24	-0.21	-0.04	+0.36	+0.74	+0.94	+1.04	+0.82	+0.40	-0.06	-0.50	-0.81	-1.36	-1.48	-1.51	-0.91	-0.51	+0.10	+0.52	+0.76	+0.80	+0.62
Year	6.69	+0.34	+0.08	-0.13	-0.17	-0.07	+0.23	+0.68	+1.04	+1.23	+1.14	+0.69	+0.09	-0.52	-1.04	-1.44	-1.59	-1.41	-1.02	-0.44	+0.04	+0.42	+0.64	+0.67	+0.60
Wet Season	8.40	+0.32	-0.02	-0.21	-0.21	-0.06	+0.35	+0.79	+1.03	+1.10	+0.91	+0.49	+0.02	-0.50	-0.92	-1.33	-1.49	-1.34	-0.99	-0.46	0.00	+0.39	+0.50	+0.76	+0.67
Dry Season	11.18	+0.33	+0.18	-0.01	-0.07	-0.01	+0.23	+0.67	+1.14	+1.41	+1.35	+0.87	+0.21	-0.49	-1.15	-1.59	-1.70	-1.51	-1.09	-0.51	-0.03	+0.31	+0.43	+0.46	+0.45

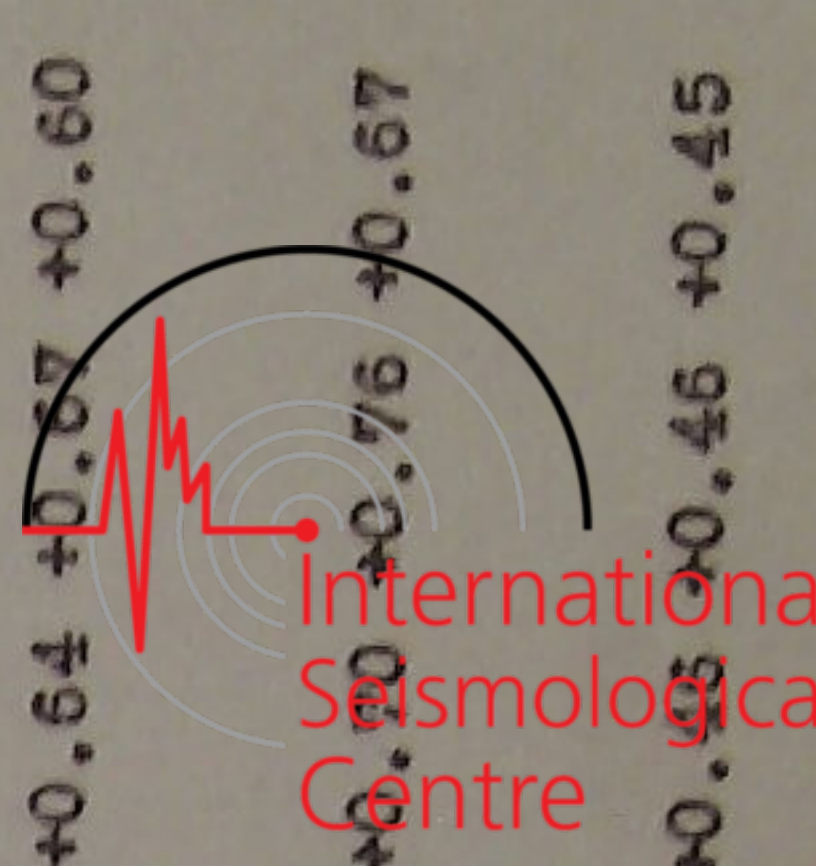




Table 38 - Temperature: Monthly, Seasonal and Annual Means of Hourly Values, 1932

From readings in degrees centigrade at exact hours civil time. The seasonal means are derived from the following grouping of months: Wet - November 1931 to February 1932 inclusive. Dry - May to August inclusive.

Hour	1	2	3	4	5	6	7	8	9	10	11	noon	13	14	15	16	17	18	19	20	21	22	23	24	Mean
-----																									
Month																									
January	25.01	24.97	24.73	24.60	24.59	24.87	25.83	26.92	27.64	27.93	28.08	28.33	28.11	28.25	28.12	27.90	27.72	27.47	27.00	26.48	26.22	25.87	25.50	25.18	26.55
February	25.00	24.91	24.68	24.60	24.40	24.41	25.29	26.60	27.81	28.19	28.63	28.67	28.37	28.31	28.38	28.19	27.78	27.54	26.97	26.40	25.94	25.59	25.27	25.03	26.54
March	24.60	24.33	24.27	24.29	24.31	24.41	25.04	26.78	28.14	28.64	28.89	28.83	28.60	28.75	28.69	28.34	27.81	27.46	26.73	26.19	25.79	25.39	24.99	24.82	26.50
April	24.63	24.43	24.25	24.19	24.04	24.08	24.57	25.84	27.33	28.02	28.53	28.68	28.44	28.43	28.27	28.07	27.56	27.05	26.50	25.96	25.63	25.31	25.10	24.78	26.24
May	25.20	25.15	25.07	25.02	24.90	25.00	25.35	27.12	28.57	29.11	29.38	29.49	29.38	29.28	29.04	28.72	28.16	27.63	26.90	26.54	26.20	25.97	25.66	25.41	27.01
June	23.68	23.34	23.14	23.04	23.03	22.98	23.44	25.17	27.28	27.99	28.43	28.68	28.73	28.54	28.38	28.08	27.52	26.75	25.89	25.32	24.82	24.53	24.10	23.98	25.70
July	24.52	24.30	24.14	24.19	24.21	24.40	24.70	25.97	27.45	28.07	28.47	28.63	28.64	28.67	28.37	28.14	27.56	27.02	26.36	25.91	25.52	25.14	24.76	24.57	26.24
August	24.35	23.96	23.75	23.68	23.46	23.51	24.12	25.67	27.31	27.84	28.17	28.39	28.37	28.38	28.20	27.95	27.38	26.86	26.21	25.78	25.45	25.11	24.81	24.70	25.98
September	23.92	23.65	23.49	23.59	23.24	23.23	24.48	26.49	27.92	28.34	28.43	28.48	28.29	28.17	27.85	27.59	27.18	26.76	26.10	25.56	25.10	24.79	24.43	24.19	25.88
October	24.72	24.60	24.43	24.23	24.13	24.36	25.71	27.07	28.50	28.64	28.58	28.88	28.80	28.66	28.29	27.86	27.25	26.70	26.33	26.10	25.85	25.61	25.36	25.07	26.48
November	24.60	24.45	24.42	24.33	24.38	24.86	25.89	27.29	28.24	28.50	28.66	28.64	28.55	28.37	28.14	27.92	27.44	27.00	26.50	26.03	25.56	25.26	25.07	24.90	26.46
December	25.03	24.92	24.81	24.66	24.56	24.95	26.22	27.49	28.25	28.77	28.84	28.80	28.86	28.90	28.56	28.30	27.89	27.50	26.67	26.29	25.99	25.76	25.55	25.34	26.79
Year	24.61	24.42	24.27	24.19	24.10	24.15	25.05	26.53	27.85	28.34	28.59	28.71	28.59	28.56	28.09	27.60	27.15	26.51	26.05	25.67	25.36	25.05	24.83	24.63	26.36
Wet 1931-32	24.42	24.26	24.07	23.98	23.87	24.13	25.29	26.66	27.69	28.13	28.36	28.49	28.37	28.42	28.31	28.03	27.59	27.17	26.60	26.05	25.62	25.28	24.93	24.65	26.27
Dry 1932	24.44	24.19	24.03	23.98	23.90	23.97	24.40	25.98	27.65	28.25	28.61	28.80	28.78	28.72	28.50	28.22	27.65	27.07	26.34	25.89	25.50	25.19	24.83	24.57	26.23





Table 39 - Temperature: Monthly and Seasonal Means and Diurnal Inequalities, 1932.

The departures in degrees centigrade from the mean of the day are adjusted for non-cyclic change. The seasonal means are derived from the following grouping of months; Wet:- November 1931 - February 1932 inclusive. Dry:- May to August inclusive.

Hour	Mean	1	2	3	4	5	6	7	8	9	10	11	noon	13	14	15	16	17	18	19	20	21	22	23	24
-----																									
Month																									
January	26.55	-1.54	-1.58	-1.82	-1.95	-1.96	-1.68	-0.72	+0.37	+1.09	+1.38	+1.53	+1.78	+1.56	+1.70	+1.57	+1.35	+1.17	+0.92	+0.45	-0.07	-0.33	-0.68	-1.05	-1.37
February	26.54	-1.55	-1.64	-1.87	-1.95	-2.15	-2.14	-1.26	+0.06	+1.27	+1.65	+2.09	+2.13	+1.83	+1.77	+1.84	+1.65	+1.25	+1.01	+0.44	-0.13	-0.59	-0.94	-1.26	-1.50
March	26.50	-1.89	-2.16	-2.22	-2.20	-2.18	-2.08	-1.45	+0.28	+1.64	+2.14	+2.39	+2.33	+2.10	+2.25	+2.19	+1.84	+1.30	+0.95	+0.22	-0.32	-0.72	-1.12	-1.52	-1.69
April	26.24	-1.61	-1.81	-1.99	-2.04	-2.20	-2.16	-1.67	-0.40	+1.09	+1.78	+2.29	+2.44	+2.20	+2.19	+2.03	+1.83	+1.32	+0.81	+0.26	-0.28	-0.61	-0.93	-1.14	-1.46
May	27.01	-1.82	-1.87	-1.95	-2.00	-2.12	-2.01	-1.66	+0.11	+1.56	+2.10	+2.37	+2.48	+2.37	+2.27	+2.03	+1.71	+1.15	+0.62	-0.10	-0.46	-0.80	-1.03	-1.34	-1.59
June	25.70	-2.01	-2.35	-2.55	-2.65	-2.66	-2.71	-2.26	-0.53	+1.58	+2.29	+2.73	+2.98	+3.03	+2.84	+2.68	+2.38	+1.82	+1.04	+0.18	-0.39	-0.89	-1.18	-1.61	-1.73
July	26.24	-1.74	-1.95	-2.11	-2.06	-2.04	-1.85	-1.55	-0.28	+1.21	+1.83	+2.23	+2.39	+2.40	+2.43	+2.13	+1.91	+1.33	+0.79	+0.13	-0.32	-0.71	-1.09	-1.47	-1.65
August	25.98	-1.61	-2.00	-2.21	-2.28	-2.51	-2.46	-1.85	-0.30	+1.34	+1.86	+2.19	+2.41	+2.39	+2.40	+2.21	+1.96	+1.39	+0.87	+0.22	-0.22	-0.55	-0.89	-1.19	-1.51
September	25.88	-1.97	-2.23	-2.39	-2.49	-2.64	-2.65	-1.40	+0.61	+2.04	+2.46	+2.55	+2.60	+2.41	+2.29	+1.97	+1.71	+1.30	+0.88	+0.22	-0.32	-0.78	-1.09	-1.44	-1.68
October	26.48	-1.75	-1.87	-2.04	-2.24	-2.34	-2.11	-0.77	+0.59	+1.82	+2.16	+2.10	+2.40	+2.33	+2.18	+1.81	+1.38	+0.77	+0.21	-0.16	-0.39	-0.64	-0.88	-1.13	-1.42
November	26.46	-1.87	-2.02	-2.05	-2.14	-2.09	-1.61	-0.57	+0.83	+1.78	+2.04	+2.20	+2.18	+2.09	+1.91	+1.68	+1.46	+0.98	+0.55	+0.05	-0.42	-0.89	-1.19	-1.58	-1.55
December	26.79	-1.73	-1.84	-1.95	-2.11	-2.21	-1.82	-0.56	+0.71	+1.47	+1.99	+2.05	+2.01	+2.07	+2.10	+1.76	+1.50	+1.09	+0.69	-0.14	-0.52	-0.83	-1.06	-1.27	-1.48
Year	26.36	-1.75	-1.94	-2.09	-2.17	-2.26	-2.21	-1.31	+0.17	+1.49	+1.98	+2.23	+2.35	+2.23	+2.20	+2.00	+1.73	+1.24	+0.79	+0.15	-0.31	-0.69	-1.00	-1.31	-1.53
Wet Season	26.27	-1.85	-2.01	-2.20	-2.29	-2.41	-2.14	-0.97	+0.39	+1.43	+1.87	+2.10	+2.23	+2.11	+2.16	+2.04	+1.77	+1.33	+0.91	+0.34	-0.21	-0.64	-0.98	-1.32	-1.61
Dry Season	26.23	-1.79	-2.04	-2.21	-2.25	-2.33	-2.26	-1.83	-0.25	+1.42	+2.02	+2.38	+2.57	+2.55	+2.49	+2.26	+1.99	+1.42	+0.83	+0.11	-0.35	-0.74	-1.05	-1.40	-1.57





Table 40  
Fourier Coefficients: Diurnal Variation of Barometric Pressure and Temperature, 1932

Values of  $P_1 \sin(15t^\circ + A_1) + P_2 \sin(30t^\circ + A_2) + P_3 \sin(45t^\circ + A_3) + \dots$ , being civil time (11h 30m slow on Greenwich), reckoning in hours from midnight. The seasonal means are derived from the following grouping of months:— Wet — November 1931 to February 1932 inclusive; Dry — May to August inclusive.

-----  
 Period            P<sub>1</sub>    A<sub>1</sub>    P<sub>2</sub>    A<sub>2</sub>    P<sub>3</sub>    A<sub>3</sub>    P<sub>4</sub>    A<sub>4</sub>  
 -----

Barometric Pressure

	mb	°	mb	°	mb	°	mb	°
Wet season 1931 - 32	0.69	20	0.83	156	0.08	120	0.03	18
Dry season 1932 .. ..	0.82	10	0.90	155	0.15	346	0.05	285
Y e a r 1932 .. ..	0.72	17	0.89	155	0.06	14	0.03	298

Temperature

	°C	°	°C	°	°C	°	°C	°
Wet season 1931 - 32	2.33	241	0.47	116	0.32	25	0.16	268
Dry season 1932 .. ..	2.48	240	0.60	93	0.27	7	0.17	224
Y e a r 1932 .. ..	2.31	242	0.55	106	0.32	15	0.17	249



Table 41 - RAINFALL, 1932

Month	Number of Days on which stated Amounts of Precipitation were recorded						Total Rain Days	Total Rain-fall	Total Greatest Amount in 24 hours	Total Greatest Amount in One hour
	Amount of Rain (in millimetres)									
	0.2 - 0.9	1.0 - 9.9	10.0 - 24.9	25.0 - 99.9	100 & over					
January	1	7	3	8	0	19	542.0	95.4	28.5	
February	3	7	5	4	0	19	348.0	68.7	25.4	
March	3	11	1	6	0	21	360.6	85.2	32.8	
April	3	10	4	6	0	23	325.3	42.1	8.6	
May	5	8	2	1	0	16	96.5	26.8	10.2	
June	3	3	1	0	0	7	33.2	19.7	Gauge failed	
July	4	9	0	1	0	14	61.5	37.5	Gauge failed	
August	3	6	2	2	0	13	152.3	63.1	16.0	
September	2	2	4	1	0	9	159.4	84.2	65.0	
October	2	7	3	2	0	14	171.9	63.4	27.9	
November	4	8	7	2	1	22	510.4	252.7	77.7	
December	3	12	3	6	0	24	387.1	74.1	37.3	
Year	41	90	35	39	1	201	3148.2	252.7	77.7	



Table 42  
DURATION OF BRIGHT SUNSHINE, 1932: HOURLY, MONTHLY AND ANNUAL TOTALS

Aggregate duration of bright sunshine in hours occurring between the exact hours of solar time and the percentage of the possible duration of sunshine for the month

Hour of day	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	Totals	%
Month															
January	0.6	10.9	13.6	15.2	15.8	17.5	17.0	14.7	13.6	14.1	12.0	9.7	2.8	157.5	40
February	0.3	11.2	16.6	20.4	22.0	21.6	19.7	14.8	14.1	15.1	13.9	14.4	9.0	193.1	53
March		11.2	20.0	22.2	23.8	23.0	22.5	17.8	17.8	17.7	15.7	11.9	7.0	210.6	56
April		5.5	14.0	16.9	19.3	19.4	20.2	17.3	13.3	10.9	11.0	9.0	2.0	158.8	45
May		2.9	18.9	24.0	25.2	27.4	26.9	27.6	24.9	25.9	22.9	18.6	5.9	251.1	70
June		5.5	22.0	25.2	26.9	25.6	24.0	24.1	21.3	21.6	20.2	17.9	4.8	239.1	71
July		4.1	20.1	24.2	25.4	26.0	26.1	25.2	24.1	25.0	21.6	19.8	6.1	247.7	70
August		6.8	23.8	24.2	26.9	25.0	24.0	22.5	24.4	23.6	24.3	20.2	8.7	254.4	70
September		8.1	23.5	25.5	25.1	23.1	21.4	19.9	21.1	19.4	19.5	18.9	5.6	231.1	64
October	0.2	10.9	20.6	23.5	23.9	24.0	23.1	23.7	22.2	22.9	22.6	19.0	11.5	248.1	65
November	0.5	12.3	17.2	19.7	19.3	20.2	20.6	18.0	15.6	15.1	14.8	15.0	3.3	191.6	50
December	0.3	10.4	17.8	19.0	21.0	24.0	21.0	21.1	22.8	18.6	18.4	17.3	4.1	215.8	54
Totals	1.9	99.8	228.1	260.0	274.6	276.8	266.5	246.7	235.2	229.9	216.9	191.7	70.8	2598.9	59



Table 43 - Analysis of Sunshine Measurements

Clear days - more than 7 hours bright sunshine  
 Cloudy days - less than 3 hours bright sunshine

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year
Clear	11	17	19	10	24	24	22	24	19	19	15	17	221
Partly cloudy	8	7	4	9	5	3	7	4	8	8	6	9	78
Cloudy	12	5	8	11	2	3	2	3	3	4	9	5	67



Table 44 - WIND, 1932

Monthly, Seasonal and Annual Means of Hourly Values of Wind Speed in Miles per Hour

Hour	0-1	1-2	2-3	3-4	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	19-20	20-21	21-22	22-23	23-24	Mean
January	2.3	2.4	2.6	2.9	2.4	2.1	2.6	2.9	3.2	3.3	4.4	5.0	5.3	5.2	5.7	5.6	4.0	3.2	2.5	3.3	3.5	3.0	2.9	2.4	3.4
February	3.0	3.4	3.7	3.6	3.5	3.2	2.9	2.9	2.7	3.1	3.6	4.5	5.4	5.2	4.5	4.0	3.7	3.9	3.9	4.4	3.6	3.2	3.5	3.2	3.7
March	2.9	2.9	2.8	2.6	3.1	2.9	2.7	2.3	2.5	3.2	3.9	4.9	5.4	4.9	4.5	4.7	4.3	2.9	2.5	2.7	2.9	3.7	3.2	3.5	3.4
April	1.7	1.9	2.0	1.9	1.8	1.7	1.8	1.9	2.3	3.2	4.0	4.6	4.9	4.3	3.8	3.5	3.0	2.5	1.9	1.9	2.8	2.5	2.5	2.1	2.7
May	2.9	2.7	2.6	2.6	2.4	2.7	2.6	2.8	3.7	5.4	6.5	7.0	6.9	7.2	6.4	5.8	5.2	4.8	4.0	3.4	3.6	3.2	3.0	3.2	4.2
June	1.4	1.6	1.5	1.6	1.5	1.5	1.4	1.5	1.6	2.0	3.4	4.4	4.5	4.5	4.5	4.0	3.3	2.7	1.7	1.6	1.7	1.6	1.4	1.6	2.3
July	2.1	2.1	2.1	2.0	2.0	2.2	2.8	2.8	3.1	4.1	5.4	6.1	6.1	5.5	5.8	5.3	4.9	3.9	2.8	2.4	2.5	2.1	2.3	2.1	3.4
August	2.2	2.0	2.2	2.3	2.0	2.3	1.9	2.2	3.3	4.1	5.2	5.3	5.8	5.5	5.6	5.3	4.8	3.9	3.3	2.7	2.4	2.3	2.2	2.3	3.4
September	1.9	2.1	1.8	1.6	1.6	1.6	1.6	2.1	3.0	4.5	6.4	7.0	6.9	6.9	6.8	5.9	5.0	4.3	3.2	2.6	2.0	2.0	2.2	1.8	3.5
October	3.3	3.0	2.9	2.8	2.7	2.6	2.8	3.9	4.9	5.6	7.3	7.6	7.8	7.8	7.3	6.9	6.0	5.2	4.0	3.9	3.6	3.1	3.3	3.4	4.6
November	1.9	1.9	1.3	1.6	1.5	1.6	2.3	2.9	3.9	5.0	4.6	4.6	4.9	4.9	4.0	3.6	3.4	3.1	3.6	3.3	2.5	1.9	1.6	1.7	3.0
December	1.4	1.4	2.1	1.9	1.8	2.0	2.1	2.6	2.6	3.3	3.7	4.6	4.6	4.2	4.0	3.8	3.8	3.5	3.5	2.8	2.4	2.2	2.5	2.3	2.8
Wet Season 1931-32	2.5	2.5	2.6	2.7	2.6	2.5	2.6	2.5	2.7	3.6	4.5	5.2	5.5	5.2	5.0	4.5	3.9	3.6	3.0	3.1	2.8	2.5	2.7	2.5	3.4
Dry Season 1932	2.1	2.1	2.1	2.1	2.0	2.2	2.2	2.3	2.9	3.9	5.1	5.7	5.8	5.7	5.6	5.1	4.6	3.8	2.9	2.5	2.5	2.3	2.2	2.3	2.5
Year 1932	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.6	3.1	3.9	4.9	5.3	5.7	5.5	5.2	4.9	4.3	3.7	3.1	2.9	2.8	2.6	2.5	2.5	3.4



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Table 45  
PERCENTAGE FREQUENCIES OF WINDS FROM DIFFERENT DIRECTIONS, APIA OBSERVATORY, 1932

(This table is based on observations every four hours commencing at midnight)

Month	N	NE	E	SE	S	SW	W	NW	Variable	Calm	Number of observations
January	10	10	11	10	20	17	2	8	2	10	185
February	12	8	10	5	27	19	1	5	4	8	169
March	6	6	13	16	26	19	1	7	3	4	182
April	3	3	11	19	28	19	2	7	3	6	180
May	-	1	21	57	15	4	-	-	1	1	184
June	1	2	13	20	30	19	-	-	3	11	180
July	2	3	21	39	20	7	-	1	1	5	183
August	-	1	23	47	18	7	-	-	-	4	185
September	-	-	22	41	22	10	-	-	1	4	180
October	-	-	25	54	13	4	-	-	-	4	183
November	6	3	16	28	23	10	-	1	2	10	175
December	6	4	19	24	21	14	3	5	1	4	186
Year	4	3	17	30	22	12	1	3	2	6	2172



Table 46 - Monthly Wind Speed and Direction, 1932

Speed in miles per hour

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year
Mean speed for month	3.4	3.7	3.4	2.7	4.2	2.3	3.4	3.4	3.5	4.6	3.0	2.8	3.4
Greatest speed in gust	43 NNW	45 NNW	48 NNW	32 NNW	39 E	27 NE	32 ENE	36 ENE	32 ENE	30 ENE	37 NNE	30 ENE	48 NNW
Greatest speed for one hourly period	20	24	30	18	12	10	14	12	22	15	17	18	30
Prevailing direction of wind	SE	S	ESE	ESE	SE	SSW	SE	ESE	ESE	ESE	ESE	ESE	ESE
9 a.m.	SSW	SSW	SSW	SSW	SE	SSW	SSE	SE	SSW	SE	SSW	SSW	SSW
9 p.m.	SSW	SSW	SSW	SSW	SE	SSW	SSW	SE	SSW	SE	SSW	SSW	SSW
Most frequent direction of wind (Eight points only)	S	S	S	S	SE	S	SE	SE	SE	SE	SE	SE	SE



Table 47 - THUNDER AND LIGHTNING, 1932

M o n t h	Number of Days with			Total
	Lightning only	Lightning and Thunder		
January .. ..	2	6	8	
February .. ..	2	7	9	
March .. .. .	4	13	17	
April .. .. .	5	5	10	
May .. .. .	5	3	8	
June .. .. .	1	1	2	
July .. .. .	2	4	6	
August .. .. .	2	3	5	
September .. ..	2	-	2	
October .. ..	1	2	3	
November .. ..	3	9	12	
December .. ..	1	6	7	
Y e a r .. ..	30	59	89	



APIA OBSERVATORY METEOROLOGICAL OBSERVATIONS.

9 a.m. January 1932

Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars).	TEMPERATURE AND HUMIDITY.			UPPER CLOUD.			
	Low.	Form.		Since previous Observation.	At Time.		Direction.	Force (Beaufort Scale).		Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
		High.	Medium.													
1	Cu				b	3	NE	1	1007.3	83.0	77.0	76	29.0			
2	St-Cu				bc	4	CALM	0	1007.5	82.9	76.5	74	28.3			
3	Cu				b	5	E	1	1007.0	84.0	78.0	76	30.1			
4	Cu	A-Cu			bc	3	SE	1	1007.8	83.0	77.7	78	30.2			
5	St-Cu	A-Cu			c	4	VAR.	1	1006.5	84.7	78.8	76	31.2			
6	St-Cu				cjr	5	N	5	1007.4	81.9	78.0	84	31.0			
7	Nb				orr	6	SW	1	1010.0	76.0	75.4	97	30.8			
8	St-Cu	A-St			c	1	WNW	1	1009.5	81.8	77.0	80	29.8			
9	St-Cu	A-St			og	4	CALM	0	1008.7	79.0	77.0	91	30.8			
10	St-Cu				c	5	NW	1	1005.1	83.0	78.0	79	30.5			
11	St-Cu				c	4	CALM	0	1003.4	81.0	77.0	83	29.9			
12	St-Cu	A-St			c	5	ESE	2	1004.5	82.4	76.9	77	29.2			
13	Nb				or	6	SSE	1	1005.4	78.5	76.0	89	29.5			
14	Nb				or	6	SE	2	1005.4	79.0	76.5	89	30.1			
15	St-Cu				cjr	6	E	4	1007.8	78.5	77.5	95	31.2			
16	Cu-Nb	A-St			or	6	SW	1	1009.4	75.8	75.0	96	29.5			
17	Cu	A-Cu			c	4	CALM	0	1008.4	80.0	75.0	79	27.4			
18	Cu				c	5	NNE	2	1006.5	82.0	77.0	79	29.5			
19	Nb				op	5	NNW	3	1008.0	79.0	76.7	89	30.4			
20	St-Cu				cp	5	SSW	1	1009.6	78.0	76.5	94	30.5			
21	St-Cu	A-Cu			c	4	NNE	4	1010.0	81.6	78.0	85	31.7			
22	St-Cu				c	5	ESE	1	1011.3	83.0	78.8	83	31.8			
23	Cu				bc	4	CALM	0	1011.0	82.0	76.7	77	29.1			
24	Cu-Nb				bc	4	NE	3	1010.3	80.9	77.8	87	31.4			
25	Cu				bc	4	ESE	1	1009.1	82.8	76.7	75	29.0			
26	St-Cu	A-St			c	4	ESE	1	1009.3	81.2	77.3	84	29.9			
27	Cu				bc	4	SE	1	1010.3	84.7	79.4	79	32.4			
28	Cu				bc	3	ESE	1	1010.0	83.1	78.1	79	30.5			
29	Cu				bc	3	ESE	1	1008.4	84.8	78.3	74	30.4			
30	Cu				bc	4	CALM	0	1008.6	84.0	77.0	72	28.6			
31	Cu				c	4	CALM	0	1008.6	85.5	78.0	77	30.3			
Mean					-	4.3	-	1.3	1008.1	81.5	77.2	82.4	30.1			



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APIA OBSERVATORY METEOROLOGICAL OBSERVATIONS. 3.30 p.m. January 1932

Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars).	TEMPERATURE AND HUMIDITY.				UPPER CLOUD.		
	Low.	Medium.	High.	Since previous Observation.	At Time.		Direction.	Force (Beaufort Scale).		Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction.	Chance coming.
1	Cu-Nb	A-Cu	Cl		bc	5	NE	1	1004.8	85.0	77.8	72	29.2			
2	Cu	A-Cu	Ci-Cu		bc	3	E	1	1004.7	85.1	78.5	74	30.4			
3	Cu	-	Ci-St		bc	5	NNE	1	1005.0	85.0	77.6	70	28.9			
4	Cu	-	-		bc	4	NE	1	1005.5	84.2	77.0	71	28.2			
5	St-Cu	A-Cu	-		cd	4	ESE	1	1003.9	84.3	78.0	75	29.7			
6	Nb	-	-		org	5	N	4	1005.1	80.8	79.3	93	33.7			
7	St-Cu	A-St	-		od	5	NW	2	1008.7	80.7	76.9	83	30.2			
8	St-Cu	A-St	-		od	5	WNW	2	1007.0	82.0	78.3	84	31.3			
9	Nb	-	-		c	9	N	5	1007.0	79.0	77.0	91	30.8			
10	Nb	-	-		or	5	WNW	1	1002.9	79.2	77.0	90	30.5			
11	Nb	-	-		or	10	ESE	1	1001.9	81.0	78.4	89	31.9			
12	Cu	-	Ci-St		c	8	ESE	3	1002.0	85.0	77.0	69	28.1			
13	Nb	-	-		or	10	NNE	1	1004.2	79.0	76.9	91	30.7			
14	St-Cu	-	Cl		op	9	NNE	3	1003.8	82.0	78.5	86	31.7			
15	Nb	-	-		or	10	ENE	3	1007.0	78.0	76.0	91	29.8			
16	St-Cu	A-St	-		c	9	CALM	0	1007.5	78.8	76.3	89	30.1			
17	Cu-Nb	-	-		o	10	NNW	3	1006.0	80.0	76.8	86	30.0			
18	Nb	-	-		or	10	NW	1	1005.0	78.0	76.8	94	30.9			
19	St-Cu	-	-		or	10	N	2	1006.3	80.0	77.5	89	31.1			
20	Nb	A-St	-		or	7	NE	3	1008.1	81.0	78.9	91	32.8			
21	St-Cu	A-St	-		c	10	NNE	4	1008.5	79.2	76.0	86	28.9			
22	Cu	-	Ci-Cu		bc	5	ENE	2	1009.5	84.0	77.7	75	29.7			
23	Cu	-	-		bc	4	N	1	1008.7	83.2	77.5	77	29.4			
24	St-Cu	A-Cu	-		c	8	NE	1	1007.8	85.0	76.0	71	27.5			
25	Cu	-	Cl		bc	2	ESE	1	1006.3	85.8	70.0	77	32.7			
26	Cu	-	Ci-St		c	9	E	3	1007.0	84.3	78.0	75	29.7			
27	Cu	-	Cl		bc	3	E	1	1007.9	86.7	79.2	71	31.1			
28	Cu	-	Cl		bc	4	E	3	1006.0	85.4	78.8	73	30.4			
29	Cu	-	-		bc	3	E	2	1005.1	86.0	77.8	69	28.8			
30	Cu	-	Cl		bc	4	ENE	1	1006.0	85.3	78.2	72	29.5			
31	Cu	-	Ci-St		c	5	ENE	1	1006.0	84.0	76.9	72	28.5			
Means	-	-	-		-	4.7	-	1.8	1006.0	82.4	77.6	80.5	30.2			



## METEOROLOGICAL OBSERVATIONS.

January 1932

Day of Month.	Thermometers.				Rainfall (mm.)	Sunshine (hrs.)	Heat Integrator.	Evaporimeter.
	Maximum (°C)	Minimum (°C)	Gross Minimum (°C)	Black Bulb in vacuo (°F)				
1	30.0	23.8	-	148	-	8.8	1.00	2.6
2	30.2	23.2	-	131	-	7.1	.75	3.6
3	29.9	24.5	23.1	141	-	9.5	.75	3.9
4	30.5	24.1	22.5	134	2.7	10.7	1.25	3.6
5	30.3	24.7	23.7	152	9.3	4.4	.50	3.1
6	28.8	24.6	23.5	144	61.6	3.6	.25	1.7
7	27.3	23.2	22.6	127	12.8	-	.00	1.4
8	29.0	24.0	24.1	133	46.3	1.1	.00	3.2
9	28.5	24.2	23.9	133	7.5	-	.25	2.8
10	28.6	25.0	23.9	145	28.7	2.8	.00	2.6
11	28.3	24.0	23.2	125	8.8	0.8	.25	1.6
12	30.0	23.9	22.9	125	0.3	6.3	.25	5.6
13	27.6	24.0	22.5	119	61.8	0.4	.25	1.0
14	28.5	23.8	25.3	126	95.4	0.6	.00	2.0
15	27.1	23.5	23.1	122	63.0	-	.00	1.1
16	27.6	23.8	23.4	134	25.0	1.1	1.50	1.2
17	28.6	23.0	22.3	143	6.6	5.5	1.50	3.5
18	28.4	24.3	23.5	134	67.4	0.4	.25	2.2
19	27.1	23.4	22.9	116	24.8	0.3	.25	1.2
20	28.7	23.8	23.3	139	3.8	4.5	1.25	3.7
21	28.8	25.4	24.3	117	14.2	0.3	.25	3.5
22	29.2	24.0	23.5	131	-	5.7	1.00	4.2
23	29.7	24.0	23.3	125	-	10.5	3.00	2.8
24	29.9	24.4	23.3	127	-	5.5	1.50	3.0
25	30.6	22.7	20.7	140	-	11.4	2.00	4.3
26	31.4	23.3	22.3	135	-	8.0	.75	4.3
27	30.3	24.3	-	142	-	10.7	1.50	3.9
28	30.3	23.7	22.2	142	-	11.3	1.25	4.2
29	30.3	23.6	22.2	137	-	11.4	2.75	-
30	30.2	24.2	23.1	142	-	9.7	1.25	-
31	30.9	24.0	22.3	134	2.0	6.1	1.25	3.7
Means	29.3	23.9	23.1	134	542.0	5.1	0.86	2.9

Total





# METEOROLOGICAL OBSERVATIONS.

APIA OBSERVATORY

9 a.m.

February 1932

Day of Month.	CLOUD.			WEATHER.		WIND.		TEMPERATURE AND HUMIDITY.				UPPER CLOUD.							
	Low.	Medium.	High.	Total Amount.	Height of Base.	How Height was obtained.	Since previous Observation.	At Time.	Visibility.	Direction.	Force (Beaufort Scale).	Barometer reduced to M.S.L. (Millibars).	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed : Height Ratio.
1	Cu	-	Ci	3				bc	4	CALM	0	1007.3	82.9	77.0	76	29.1			
2	Cu	-	Ci	7				bc	4	ESE	1	1007.5	84.4	78.7	77	30.5			
3	Nb	A-St	-	10				orr	3	SSE	1	1009.4	85.5	79.8	77	31.7			
4	Cu	-	Ci-St	9				c	4	ESE	1	1009.1	82.8	78.5	82	31.8			
5	Cu	-	Ci-Cu	9				c	4	VAR.	1	1009.9	83.0	77.8	79	30.2			
6	St-Cu	A-Cu	Ci-Cu	9				c	5	NNE	3	1006.9	83.7	78.5	79	31.5			
7	Nb	-	-	10				orr	6	NNW	4	1007.2	77.2	76.0	94	29.9			
8	Nb	-	-	10				orr	6	NNW	4	1005.6	80.0	78.0	91	31.9			
9	St-Cu	A-St	-	10				cg	5	NW	4	1008.6	83.5	77.8	77	29.6			
10	Cu	A-Cu	-	9				c	5	NW	1	1011.7	82.2	78.0	82	30.7			
11	St-Cu	A-Cu	-	6				bc	5	ESE	1	1010.8	83.2	78.1	79	30.4			
12	St-Cu	-	-	1				b	4	ESE	1	1010.4	83.3	76.8	74	28.5			
13	Fr-Cu	-	Ci	2				b	3	CALM	0	1010.2	83.0	75.4	69	26.6			
14	Cu	-	Ci	3				bc	3	NE	1	1008.8	82.0	76.0	75	28.0			
15	Cu	-	Ci-St	7				bc	4	CALM	0	1007.9	82.6	78.1	81	31.5			
16	St-Cu	-	Ci-St	8				bc	4	N	1	1007.9	82.9	77.0	76	29.2			
17	Cu	A-Cu	-	9				c	3	NW	1	1010.1	82.0	76.1	75	28.1			
18	Cu	A-Cu	-	7				bc	4	S	1	1011.2	82.7	76.5	75	28.6			
19	St-Cu	A-Cu	-	8				c	3	CALM	0	1010.6	84.5	78.0	74	30.4			
20	Cu	A-Cu	Ci	7				bc	4	CALM	0	1009.7	83.6	77.3	75	29.7			
21	St-Cu	A-Cu	-	9				c	2	NNE	1	1009.3	80.5	76.0	81	29.2			
22	Nb	-	-	10				or	6	VAR.	1	1010.9	77.0	75.8	94	29.9			
23	Cu	-	Ci-St	2				b	5	ESE	1	1012.1	84.4	78.0	74	29.4			
24	Cu	-	-	1				b	5	ESE	1	1012.5	84.5	78.3	76	30.1			
25	Cu	-	-	3				bc	3	CALM	0	1011.2	81.2	76.5	80	28.8			
26	Cu	-	-	3				bc	5	SE	1	1010.4	85.0	79.0	76	31.2			
27	Cu	-	-	3				bc	5	NE	1	1010.1	81.5	77.0	82	29.5			
28	Cu	-	Ci	3				bc	4	CALM	0	1010.2	82.0	75.5	73	27.5			
29	Cu	-	-	1				b	4	CALM	0	1009.5	82.3	75.5	72	26.9			
30																			
31																			
Means				6.2				-	4.2	-	1.1	1009.5	82.5	77.3	78.4	29.6			



# METEOROLOGICAL OBSERVATIONS.

APIA OBSERVATORY

3.30 p.m. February 1932



Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		TEMPERATURE AND HUMIDITY.				UPPER CLOUD.						
	Low.	Medium.	High.	Total Amount.	Height of Base.		How Height was obtained.	Since previous Observation.	At Time.	Force (Beaufort Scale).	Direction.	Barometer reduced to M.S.L. (Millibars).	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
1	St-Cu	A-St	-	9				c	1	NW	1005.0	82.7	77.6	79	30.4				
2	Cu	-	Ci	4				bc	2	N	1005.2	84.5	77.6	73	29.7				
3	St-Cu	A-St	-	10				c	0	CALM	1006.7	79.4	74.8	80	27.1				
4	St-Cu	A-St	-	10				c	1	E	1006.4	84.7	79.0	77	31.5				
5	Cu	-	Ci-Cu	6				bc	1	NNE	1007.5	85.2	77.1	67	28.0				
6	Nb	A-St	-	10				or	3	N	1005.1	80.7	77.1	85	30.6				
7	Nb	-	-	10				or	5	NW	1004.5	79.0	76.0	87	29.3				
8	Cu-Nb	-	-	10				odgq	6	NNW	1004.2	80.3	77.6	89	30.8				
9	St-Cu	-	Ci-St	10				or	1	NW	1007.1	81.6	77.8	84	31.3				
10	St-Cu	A-St	-	10				cp	1	ESE	1010.2	82.0	77.0	79	29.5				
11	Cu	-	Ci-St	4				bc	2	ENE	1008.3	84.5	77.8	73	29.0				
12	Cu	-	Ci	4				bc	2	E	1007.3	85.7	78.0	70	29.7				
13	Cu-Nb	-	Ci-Cu	8				c	0	CALM	1007.8	81.1	77.0	82	29.8				
14	Cu-Nb	-	Ci-Cu	7				bc	1	N	1005.7	84.4	77.0	70	27.9				
15	St-Cu	-	-	8				cjr	3	E	1005.0	83.6	79.4	83	32.9				
16	St-Cu	A-St	-	9				c	1	SE	1006.3	84.5	78.0	74	29.9				
17	St-Cu	A-St	-	10				cd	1	SSW	1008.5	80.2	75.4	79	27.9				
18	Cu	-	Ci-St	3				bc	0	CALM	1008.2	84.8	77.5	71	29.3				
19	St-Cu	-	Ci-Cu	9				c	2	NNW	1008.8	84.7	76.0	66	27.1				
20	Nb	A-St	-	9				crtl	1	S	1007.2	77.2	75.0	90	28.5				
21	Cu	-	Ci-St	4				bc	1	ENE	1006.8	84.0	77.5	73	29.5				
22	Cu	-	Ci	9				c	2	ESE	1008.7	86.6	79.7	73	32.1				
23	Cu	-	Ci	3				bc	1	ESE	1009.9	86.6	78.7	70	30.4				
24	Cu	-	Ci	9				c	0	CALM	1010.5	83.9	77.2	73	29.0				
25	St-Cu	A-St	-	8				cp	0	CALM	1008.2	78.8	76.1	88	29.7				
26	Cu	-	-	2				b	2	ESE	1007.8	86.6	78.6	69	30.5				
27	Cu-Nb	-	-	8				c	2	ESE	1008.0	84.2	77.0	71	28.2				
28	Cu	A-Cu	Ci-St	7				bc	0	CALM	1007.2	83.1	77.0	75	28.9				
29	Cu-Nb	A-Cu	Ci-St	7				bc	2	E	1007.7	84.8	75.7	65	26.6				
30																			
31																			
Means				5.3	7.5			-	1.5	-	1007.2	83.1	77.2	76.4	29.5				



## METEOROLOGICAL OBSERVATIONS.

February 1932

Day of Month.	Thermometers.				Rainfall (mm.)	Sunshine (hrs.)	Heat Integrator.	Evaporimeter.
	Maximum (°C)	Minimum (°C)	Gross Minimum (°C)	Black Bulb in vacuo (°F)				
1	29.3	23.6	20.5	130	-	7.1	1.00	3.6
2	31.0	23.6	22.5	138	68.7	11.1	1.50	2.8
3	28.6	23.3	22.9	130	5.4	0.6	.25	2.0
4	30.0	23.8	23.1	131	22.0	3.4	.75	2.5
5	30.2	23.0	21.8	141	0.4	7.7	1.50	7.3
6	28.8	27.9	25.1	98	62.7	1.3	.00	1.3
7	28.3	24.6	23.3	84	50.0	0.0	.00	2.0
8	30.3	25.2	23.5	99	14.1	0.0	.25	3.7
9	28.8	25.3	23.2	121	0.9	0.3	.25	2.7
10	29.4	24.3	22.8	130	8.1	3.2	.25	2.5
11	29.4	23.9	22.3	140	-	9.2	1.25	3.7
12	30.6	22.5	21.1	141	-	11.6	1.25	5.2
13	29.7	22.8	21.2	134	0.8	8.7	.75	2.8
14	29.5	23.2	21.8	139	-	11.6	1.50	3.8
15	29.7	24.3	22.5	139	21.2	6.8	.75	3.0
16	29.8	23.4	22.1	152	5.7	8.1	1.00	3.6
17	29.4	24.2	22.9	140	-	3.4	.50	-
18	29.7	23.8	22.5	139	-	9.2	1.50	3.9
19	29.9	24.6	23.5	139	-	8.5	.75	4.0
20	29.5	23.8	23.5	104	5.4	5.2	2.00	2.1
21	29.5	23.7	22.4	139	34.8	7.5	2.25	3.3
22	30.6	24.0	22.5	121	23.3	5.2	.75	2.3
23	31.0	23.7	23.1	138	-	11.1	1.75	5.0
24	29.8	23.9	22.5	123	1.8	7.8	1.25	2.6
25	30.1	23.9	22.6	125	0.1	8.0	1.50	2.8
26	30.5	23.4	22.1	149	7.7	10.3	1.00	4.9
27	29.2	23.3	22.1	145	4.6	6.0	1.50	2.9
28	28.9	22.5	-	139	10.3	10.6	2.25	3.0
29	30.4	23.1	21.8	133	-	9.3	1.50	4.2
30								
31								
					Total			
Means	29.7	25.9	22.5	130	348.0	6.7	1.06	3.3



APIA OBSERVATORY METEOROLOGICAL OBSERVATIONS. 9 a.m. March 1932



Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars)	TEMPERATURE AND HUMIDITY.			UPPER CLOUD.					
	Low.	Medium.	High.	Amount of Low.	Total Amount.		Height of Base.	How Height was obtained.		Since previous Observation.	At Time.	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
1	Cu	-	Ci	1	5			bc	5	1009.8	83.2	75.3	68	26.2				
2	Cu	-	Ci	1	1			b	5	1008.5	83.0	76.2	72	27.9				
3	Cu	-	Ci	1	1			b	3	1009.1	84.1	75.6	67	26.4				
4	Cu	-	-	5	5			bc	4	1007.5	84.8	78.2	73	30.2				
5	St-Cu	-	Ci-St	7	8			c	4	1008.7	80.0	76.9	87	30.1				
6	Nb	A-Cu	Ci	2	7			bc	4	1008.5	83.9	77.0	73	28.8				
7	Cu	-	Ci	3	4			bc	4	1006.9	84.1	78.8	79	31.2				
8	Cu	-	Ci	2	5			bc	5	1006.1	85.0	79.0	76	31.2				
9	St-Cu	A-St	-	5	10			c	4	1005.4	82.0	77.5	81	30.2				
10	Cu	A-Cu	Ci-Cu	4	9			c	4	1004.4	84.0	78.0	76	30.1				
11	Nb	-	-	10	10			or	6	1004.4	75.0	74.8	99	29.4				
12	Cu-Nb	A-Cu	-	3	10			or	5	1006.3	82.6	77.0	77	29.6				
13	Nb	-	-	10	10			or	6	1011.8	79.2	76.0	86	29.0				
14	Cu	-	Ci	2	5			bc	4	1012.6	83.6	77.7	76	30.3				
15	Cu	A-Cu	-	1	2			b	4	1011.9	84.0	76.5	70	27.8				
16	Cu	-	Ci	1	2			b	4	1012.2	82.0	74.0	67	25.1				
17	Cu	-	Ci-St	2	9			c	4	1013.3	82.3	76.7	77	28.5				
18	Cu	-	Ci	1	4			bc	4	1011.7	82.1	76.8	77	29.0				
19	Cu	A-Cu	Ci	1	1			b	4	1010.1	83.2	77.1	75	28.8				
20	Cu	-	-	3	3			bc	3	1010.2	82.5	77.5	79	30.0				
21	Cu	A-St	-	2	3			bc	2	1011.2	83.4	77.4	75	29.0				
22	Cu	-	-	2	2			b	3	1010.8	82.8	76.4	74	28.4				
23	St-Cu	A-Cu	-	7	9			c	4	1012.1	81.6	76.2	77	28.9				
24	Cu-Nb	A-St	-	5	6			bc	4	1012.4	80.0	76.9	87	30.1				
25	Cu	A-St	Ci-St	1	9			cp	4	1010.9	77.8	76.0	92	30.1				
26	Cu	-	Ci-Cu	3	5			bc	4	1009.6	82.6	77.0	77	29.7				
27	Cu	-	-	2	2			b	4	1009.6	84.5	79.0	78	31.4				
28	Cu	-	-	2	2			b	4	1010.6	85.0	79.0	76	31.2				
29	Cu	-	Ci-St	1	5			bc	3	1010.4	83.9	76.9	72	28.6				
30	Cu-Nb	-	Ci-Cu	4	5			bc	5	1010.6	81.2	77.8	86	30.9				
31	Cu	-	Ci-St	3	8			c	4	1011.8	85.0	79.6	78	32.2				
Means	-	-	-	3.1	5.2			-	4.1	1009.7	82.5	77.1	77.6	29.4				



APIA OBSERVATORY

METEOROLOGICAL OBSERVATIONS.

3.30 p.m.

March 1932

Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars).	TEMPERATURE AND HUMIDITY.				UPPER CLOUD.						
	Low.	Medium.	High.	Amount of Low.	Total Amount.		Height of Base.	How Height was obtained.		Since previous Observation.	At Time.	Direction.	Force (Beaufort Scale).	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
1	St-Cu	A-Cu	-	6	7			bcjr	5	ENE	1	84.0	77.0	72	28.6					
2	St-Cu	A-Cu	-	6	7			bc	5	E	1	84.9	76.2	66	27.1					
3	St-Cu	-	Cl	5	5			bc	5	E	1	86.0	78.0	69	29.2					
4	Cu-Nb	-	-	10	10			orr	5	S	2	79.7	77.0	89	30.7					
5	Cu-Nb	A-St	-	7	9			oujrlt	5	N	2	82.8	78.3	81	31.3					
6	St-Cu	-	Ci-Cu	7	8			c	4	SW	1	81.5	77.1	81	29.3					
7	St-Cu	-	Ci-Cu	8	9			cjr	5	ESE	2	84.7	79.0	77	31.7					
8	Cu	-	Ci-St	2	3			bc	5	ESE	3	87.0	79.9	72	31.7					
9	Nb	-	-	10	10			orr	6	VAR.	3	77.7	75.8	91	30.0					
10	Cu-Nb	-	-	10	10			od	5	WSW	1	80.2	77.7	89	31.1					
11	St-Cu	A-St	-	5	10			c	5	N	3	80.0	77.2	88	30.6					
12	Nb	-	-	10	10			or	6	NNW	5	79.4	76.3	86	29.1					
13	Nb	A-St	-	9	10			og	5	NNW	3	81.9	77.3	81	30.0					
14	Cu	-	Cl	8	9			c	5	ENE	1	84.8	77.6	71	29.3					
15	Cu	-	Ci-St	2	3			bc	4	ESE	2	86.2	78.8	71	30.1					
16	Cu	A-St	-	7	8			c	4	ESE	3	86.0	77.0	65	27.7					
17	St-Cu	-	Ci-St	3	5			bc	4	N	2	84.0	78.7	79	31.2					
18	Cu	A-Cu	Ci-St	2	5			bc	5	NNE	1	84.2	76.2	68	27.1					
19	Cu-Nb	A-Cu	-	2	6			bcjp	5	NNE	1	84.0	77.1	72	28.8					
20	Cu	A-St	Ci-Cu	2	5			bc	3	NW	1	83.0	76.6	74	28.5					
21	St-Cu	A-Cu	-	2	8			c	3	NNW	2	82.0	77.5	81	30.2					
22	Cu	-	Ci-Cu	1	3			bc	3	NE	1	83.0	76.0	71	27.5					
23	Cu	A-Cu	Ci-Cu	2	7			bc	4	ESE	3	85.0	78.0	72	29.6					
24	Nb	-	-	10	10			or	5	S	1	75.0	74.0	95	28.2					
25	St-Cu	-	-	9	9			c	3	CALM	0	80.0	76.0	85	28.9					
26	Cu	-	Ci-Cu	1	6			bc	3	SE	1	86.2	78.5	70	29.7					
27	Cu	-	-	2	2			b	4	ESE	1	87.8	80.9	74	33.7					
28	Cu	-	Ci-St	3	4			bc	4	CALM	0	84.0	79.0	79	31.6					
29	Cu	-	-	2	2			b	3	E	1	84.5	77.5	73	28.9					
30	St-Cu	A-St	Ci-St	3	9			c	4	ESE	1	83.8	78.7	79	31.5					
31	St-Cu	A-St	Ci-St	5	9			c	5	ESE	2	85.2	79.2	76	31.2					
Means	-	-	-	5.2	7.0			-	4.4	-	1.6	83.2	77.6	77.3	29.8					



International Seismological Centre



## METEOROLOGICAL OBSERVATIONS.

March 1932

Day of Month.	Thermometers.				Rainfall (mm.)	Sunshine (hrs.)	Heat Integrator.	Evaporimeter.
	Maximum (°C)	Minimum (°C)	Gross Minimum (°C)	Black Bulb in vacuo (°F)				
1	29.8	23.0	21.5	142	3.0	9.3	1.25	-
2	30.1	23.4	21.9	143	-	9.4	1.25	4.8
3	30.8	23.6	22.0	127	2.1	10.7	1.75	5.0
4	29.9	24.3	22.7	123	1.1	8.2	1.00	3.6
5	30.0	24.0	22.4	145	-	2.0	.25	3.2
6	30.7	23.8	21.9	135	1.0	6.8	1.00	3.9
7	31.0	24.5	22.4	140	57.5	6.1	.50	-
8	30.9	23.5	22.5	138	2.4	10.7	.50	6.0
9	28.9	24.1	22.9	138	45.7	0.0	.25	3.6
10	28.9	24.5	23.5	133	39.5	2.3	.25	3.2
11	28.7	22.8	-	121	85.2	0.0	.75	3.0
12	29.2	23.9	22.3	131	4.2	2.0	.25	4.8
13	28.9	24.3	-	127	3.1	0.0	.25	-
14	29.7	23.3	21.9	144	-	10.9	.75	4.3
15	31.1	23.1	21.3	139	-	10.6	1.00	6.4
16	30.7	22.7	21.4	142	-	11.3	1.00	6.5
17	29.3	22.8	21.2	132	-	8.6	?	3.8
18	30.9	23.7	21.9	148	-	8.5	.75	-
19	30.0	24.0	21.9	145	44.0	9.0	1.25	3.2
20	28.9	23.1	22.5	140	0.6	9.2	.50	4.6
21	29.5	24.0	22.4	139	3.3	8.6	.75	3.2
22	31.0	23.2	21.8	136	13.3	8.4	.75	4.6
23	30.7	23.2	22.6	149	7.1	5.2	.25	-
24	29.1	23.3	21.9	139	39.2	2.0	.00	1.9
25	28.4	23.0	-	129	2.0	0.0	.25	1.8
26	30.3	23.0	21.7	128	-	10.2	1.00	4.5
27	31.2	23.8	22.6	139	-	10.8	1.00	5.1
28	30.5	24.3	-	142	-	7.8	.75	4.0
29	30.1	24.2	22.6	140	0.8	9.2	.75	2.0
30	29.6	23.9	22.7	147	0.4	4.4	.50	3.8
31	31.3	23.5	22.1	120	5.1	8.4	.50	3.7
Means	30.0	23.6	22.2	137	360.6	6.8	0.70	4.0
Total								



APIA OBSERVATORY

METEOROLOGICAL OBSERVATIONS.

9 a.m.

APR 11

Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars).	TEMPERATURE AND HUMIDITY.			UPPER CLOUD.					
	Low.	Medium.	High.	Amount of Low.	Total Amount.		Height of Base.	How Height was obtained.		Since previous Observation.	At Time.	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
1	Cu	-	Ci-Cu	2	6		epqtb	bc	4	1011.0	84.0	79.0	79	31.6				
2	Fr-Cu	-	Ci	5	5		bc cop	bc	5	1009.0	85.6	80.7	81	34.1				
3	Cu	-	Ci	1	3		corl	bc	1	1009.9	83.9	78.5	78	30.9				
4	St-Cu	A-St	-	4	10		coltop	o	1	1011.5	77.9	75.9	91	29.8				
5	St-Cu	A-Cu	Ci	2	10		-	o	4	1010.7	79.1	76.8	89	30.1				
6	St-Cu	-	Ci-Cu	7	9		-	cd	4	1009.2	79.0	77.7	94	31.6				
7	St-Cu	A-Cu	-	4	8		cpr	c	4	1009.6	80.0	76.5	85	29.6				
8	St-Cu	A-Cu	Ci-St	2	9		orrop	c	4	1010.0	80.2	76.3	83	28.9				
9	Cu-Nb	A-St	Ci-St	5	10		corror	opjr	6	1010.2	76.9	74.7	90	28.8				
10	St-Cu	-	Ci-St	4	9		-	cjr	5	1009.1	80.9	77.4	85	30.7				
11	Cu-Nb	-	Ci-St	3	10		orr	od	4	1008.7	77.8	76.9	95	31.2				
12	St-Cu	A-St	-	4	10		oprpp	o	3	1005.9	78.2	76.3	99	29.8				
13	Cu-Nb	A-Cu	Ci-St	5	9		orpc	cjr	5	1005.5	79.6	77.1	89	31.1				
14	St-Cu	-	-	10	10		eprrcp	opr	5	1009.6	77.3	75.0	89	28.0				
15	Cu	-	Ci-Cu	2	4		bcob	bc	4	1010.9	82.7	77.5	78	30.2				
16	St	A-St	-	5	10		bcjr	org	5	1009.7	80.0	77.0	87	30.3				
17	St-Cu	A-St	-	3	10		por	od	4	1008.2	79.0	77.0	91	30.8				
18	Cu-Nb	-	-	10	10		copru	org	6	1007.1	81.6	78.5	87	32.5				
19	Cu	A-Cu	Ci-Cu	3	8		rrprc	c	4	1008.3	85.3	75.7	69	26.8				
20	Cu	-	Ci	1	6		cobc	bc	4	1009.4	82.5	74.0	66	25.4				
21	Cu	-	Ci-Cu	1	3		ocpre	bc	4	1009.4	82.9	75.2	69	26.8				
22	Cu	-	Ci-St	3	6		cjrbc	bc	4	1009.3	82.5	75.5	71	27.5				
23	Cu	-	-	1	1		bc b	b	1	1008.3	82.7	74.2	66	25.4				
24	St-Cu	A-St	-	5	10		co	ogd	5	1007.5	79.5	77.0	89	31.1				
25	Fr-Cu	-	Ci-St	2	5		-	bc	4	1008.8	84.3	78.9	78	30.9				
26	Cu	A-Cu	Ci-Cu	2	8		org	c	4	1009.4	80.0	77.6	89	31.1				
27	Cu	-	Ci	2	4		orcbc	bc	2	1011.2	83.7	78.6	79	31.6				
28	Cu	-	-	1	1		ebcb	b	2	1011.5	82.7	77.6	79	30.5				
29	Cu	-	-	1	1		corbc	b	4	1011.6	83.0	78.0	79	30.5				
30	Cu	-	-	1	1		c cp	b	4	1010.4	82.9	76.1	73	27.5				
31																		
Means				3.4	6.9				4.0	1009.4	81.1	76.9	82.6	29.8				



International Seismological Centre



APIA OBSERVATORY METEOROLOGICAL OBSERVATIONS. 3.30 p.m. April 1932

Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars).	TEMPERATURE AND HUMIDITY.				UPPER CLOUD.				
	Low.	Form.		Since previous Observation.	At Time.		Direction.	Force (Beaufort Scale).		Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.		
		High.	Medium.														Amount of Low.	Total Amount.
1	Cu	-	Ci-Cu	2	6			bc	4	SSW	1	1007.8	85.9	79.9	76	32.3		
2	Cu	-	Ci-St	2	4			bc	5	ESE	2	1006.7	86.5	80.0	75	32.7		
3	Cu	A-St	-	2	4			bc	4	ESE	1	1007.4	89.0	81.7	72	33.4		
4	Cu	A-St	Ci-St	1	9	odp	c	c	3	ESE	1	1008.0	84.4	76.4	68	28.1		
5	Cu-Nb	A-St	-	5	10	or	od	od	4	E	1	1008.0	82.9	77.4	77	29.8		
6	St-Cu	-	Ci-St	8	10	-	cjp	cjp	5	E	2	1007.3	84.1	79.0	79	31.6		
7	St-Cu	A-Cu	Ci-Cu	2	9	cp	c	c	4	VAR.	1	1006.9	83.9	77.1	73	28.6		
8	St-Cu	A-St	-	6	9	c	cjp	cjp	5	E	2	1007.5	82.1	77.7	82	30.2		
9	Nb	-	-	10	10	-	ogr	ogr	6	ESE	3	1007.7	77.0	75.8	94	29.9		
10	Cu-Nb	-	-	10	10	-	o	o	4	CALM	0	1006.6	79.2	77.0	90	30.7		
11	St-Cu	A-Cu	Ci-St	7	9	-	c	c	4	NW	1	1005.0	82.0	77.3	81	30.2		
12	Cu	A-Cu	-	5	10	or	ojr	ojr	5	NW	2	1003.1	80.9	76.6	82	29.2		
13	St-Cu	A-Cu	-	9	10	or	c	c	5	N	1	1003.4	81.0	76.6	81	29.2		
14	Cu	A-Cu	Ci-Cu	2	5	pc	bc	bc	4	NE	1	1007.1	84.2	77.9	75	29.3		
15	Cu-Nb	A-Cu	Ci	5	7	bepd	bcjr	bcjr	4	NE	1	1008.0	83.1	78.6	81	31.3		
16	Cu	A-Cu	Ci	3	6	orbc	bc	bc	4	E	1	1005.8	83.7	78.8	79	31.6		
17	St-Cu	A-St	-	6	10	o	o	o	4	CALM	0	1005.3	82.3	77.4	79	29.5		
18	Nb	A-St	-	5	10	or c	opjr	opjr	5	NW	5	1003.5	81.7	78.0	85	31.7		
19	St-Cu	-	Ci-St	1	8	c o	c	c	5	SSW	2	1005.8	84.6	74.9	62	25.9		
20	St-Cu	A-St	-	9	10	-	og	og	4	SSE	1	1007.6	81.8	74.0	68	25.1		
21	Cu	-	Ci	6	7	bc	bc	bc	4	ESE	2	1006.7	83.0	75.5	70	26.8		
22	Cu	-	Ci	1	5	bc	bc	bc	4	ESE	3	1006.1	83.5	75.0	66	25.4		
23	Cu-Nb	-	-	10	10	-	ogd	ogd	5	SSE	1	1005.4	81.0	75.3	76	27.5		
24	Cu-Nb	-	-	10	10	og	og	og	4	ESE	1	1005.2	81.2	77.2	83	29.9		
25	Cu-Nb	-	-	8	8	bco tr	cd	cd	5	SSE	1	1006.9	84.0	77.4	73	29.3		
26	Cu	A-Cu	Ci-Cu	4	8	c bc	c	c	4	NNW	2	1007.6	83.0	78.0	79	30.5		
27	Cu	-	-	5	5	c	bc	bc	3	NNW	2	1009.3	84.0	78.1	76	50.1		
28	Cu-Nb	-	-	9	9	bcjr	cjr	cjr	4	NNE	1	1008.4	83.7	77.2	74	29.3		
29	Nb	-	-	8	8	b bc	cjr	cjr	5	SW	1	1007.4	82.0	78.5	85	31.7		
30	Cu-Nb	-	-	2	2	bc	b	b	3	ESE	2	1008.1	86.0	78.0	69	29.2		
31	-	-	-	5.4	7.9	-	-	-	4.3	-	1.5	1006.7	83.1	77.4	77.0	29.7		
Means	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



International Seismological Centre



## METEOROLOGICAL OBSERVATIONS.

April 1932

Day of Month.	Thermometers.				Rainfall (mm.)	Sunshine (hrs.)	Heat Integrator.	Evaporimeter.
	Maximum (°C)	Minimum (°C)	Gross Minimum (°C)	Black Bulb in vacuo (°F)				
1	31.3	23.9	22.5	132	0.4	6.4	.50	5.4
2	32.1	24.2	22.8	138	9.7	9.2	.25	5.2
3	31.9	24.1	22.7	138	15.7	9.8	.50	-
4	29.4	23.7	22.6	138	37.3	1.8	.25	3.4
5	29.3	23.8	-	136	9.7	2.5	.50	3.1
6	29.5	24.3	23.5	133	4.0	4.4	.50	3.5
7	29.5	23.6	22.8	127	16.6	4.0	2.00	-
8	29.9	23.5	22.6	141	31.1	2.8	.75	-
9	26.5	24.2	-	144	42.1	0.0	.00	1.8
10	28.6	24.1	-	141	31.8	1.1	.00	-
11	28.3	23.7	22.9	142	4.4	2.3	1.00	-
12	27.5	23.5	22.9	139	2.6	0.5	.25	2.9
13	27.7	23.7	22.6	135	17.1	0.8	.50	1.7
14	28.8	23.7	22.7	138	-	6.8	1.75	4.1
15	30.3	23.7	22.9	140	-	7.9	1.50	3.6
16	29.7	24.0	-	140	11.8	1.5	.75	3.0
17	29.8	24.8	24.1	139	6.2	3.4	.25	-
18	29.0	25.5	22.4	134	29.2	1.4	.00	-
19	30.4	23.7	21.8	139	-	9.6	--	5.6
20	29.7	23.0	19.7	138	1.0	6.4	2.25	7.6
21	30.5	22.5	20.4	138	-	8.2	.75	7.2
22	29.5	22.2	20.1	139	-	10.2	.75	-
23	29.5	21.0	17.8	140	-	6.2	.75	7.4
24	29.7	23.6	-	130	0.6	0.0	.25	3.3
25	30.4	24.1	21.9	139	42.0	9.0	1.75	4.2
26	28.7	22.8	23.3	131	8.5	6.9	.25	5.1
27	29.5	24.2	23.3	141	-	9.9	1.50	-
28	29.3	24.0	-	138	1.2	8.7	1.25	4.0
29	29.5	23.6	22.4	130	0.4	6.2	1.00	4.2
30	30.4	22.7	21.3	134	1.9	10.9	1.00	7.0
31					Total			
Means	29.5	23.7	22.2	137	325.3	5.3	0.78	4.4





Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars).	TEMPERATURE AND HUMIDITY.			UPPER CLOUD.						
	Low.	Medium.	High.	Total Amount.	Height of Base.		How Height was obtained.	Since previous Observation.		At Time.	Direction.	Force (Beaufort Scale).	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
1	Cu	-	-	3		opdbc	opdbc	bc	ESE	2	84.5	79.5	79	31.6					
2	Cu	-	-	4		bc p	bc p	bc	ESE	3	84.9	78.0	72	29.6					
3	Cu	A-Cu	-	4		bccb	bccb	bc	ESE	2	83.2	74.6	69	26.8					
4	Cu	-	Ci-Cu	2		bc b	bc b	b	CALM	0	82.0	74.0	67	25.1					
5	Cu	A-Cu	-	8		cogrlp	cogrlp	c	ESE	2	83.0	76.5	73	28.3					
6	Cu	-	Ci	5		c bc	c bc	bc	ESE	1	84.9	78.8	75	31.2					
7	Cu	-	Ci	6		c bc	c bc	bc	ESE	1	83.0	75.1	67	26.1					
8	Cu	-	Ci	2		c bc	c bc	b	SE	1	84.0	77.8	75	30.1					
9	Cu	-	Ci	7		cp bc	cp bc	c	ESE	2	84.0	79.0	75	31.6					
10	Cu	-	-	1		clrbc	clrbc	b	ESE	3	83.1	77.2	76	29.0					
11	St-Cu	-	-	6		cp rl	cp rl	bc	ESE	3	84.8	78.9	76	31.2					
12	St-Cu	-	Ci-St	9		pco	pco	c	SE'E	1	83.5	75.8	69	26.8					
13	St-Cu	-	-	7		cr r	cr r	bc jr	ESE	2	82.9	78.5	82	31.3					
14	Cu	-	Ci	7		cr rbc	cr rbc	bc	ESE	1	83.0	78.7	83	30.2					
15	Cu	-	Ci-Cu	2		bc rep	bc rep	b	ESE	2	83.8	77.7	75	30.1					
16	Cu	-	-	2		bc rbc	bc rbc	b	ESE	2	83.5	77.5	76	29.0					
17	St-Cu	-	Ci-St	5		bc b	bc b	bc	ESE	2	82.7	77.7	79	30.5					
18	Cu	-	-	1		b bc	b bc	b	SE'E	1	84.0	78.3	77	30.9					
19	Cu	-	Ci-St	7		cd	cd	c	ESE	3	81.0	76.5	81	29.2					
20	Cu	-	Ci	3		bc b	bc b	bc	SE	1	84.4	78.7	77	30.9					
21	St-Cu	-	Ci-Cu	8		bc pre	bc pre	c	ESE	3	80.9	77.7	86	31.4					
22	Cu	-	-	1		c bc	c bc	b	ESE	1	82.7	78.3	82	31.3					
23	Cu	-	-	1		bc	bc	b	ESE	1	83.5	77.2	74	28.3					
24	Cu	-	-	1		bc	bc	b	SE'E	2	83.3	77.0	74	28.3					
25	Cu	-	-	1		b bc	b bc	b	ESE	2	84.7	77.7	72	29.6					
26	Cu	-	Ci	1		pr bc	pr bc	b	SE'E	2	84.3	75.5	65	25.7					
27	Cu	-	Ci	1		b bc	b bc	bc	ESE	2	84.0	77.5	74	29.3					
28	St-Cu	A-Cu	Ci	6		c bcq	c bcq	c jp	ESE	2	83.8	76.4	70	27.8					
29	St-Cu	A-St	Ci-St	2		ogrep	ogrep	cg	ESE	3	81.0	77.5	85	30.7					
30	St-Cu	-	Ci	2		crq	crq	bc	ESE	3	83.8	79.0	80	31.6					
31	St-Cu	A-Cu	Ci-Cu	4		cr	cr	c	NE'E	2	82.9	78.0	79	30.5					
Means	-	-	-	3.0	4.8	-	-	-	-	2.0	83.4	77.4	75.7	29.5					





APIA OBSERVATORY METEOROLOGICAL OBSERVATIONS. 3.30 p.m. May 1932

Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars).	TEMPERATURE AND HUMIDITY.				UPPER CLOUD.						
	Low.	Medium.	High.	Amount of Low.	Total Amount.		Height of Base.	How Height was obtained.		Since previous Observation.	At Time.	Direction.	Force (Beaufort Scale).	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed : Height Ratio.
1	Cu	-	-	5	5			bc	bc	bc	E	2	1009.8	85.5	79.6	76	31.2			
2	Cu	-	-	2	2			bc	bc	bc	ESE	3	1010.5	85.0	77.7	71	28.9			
3	Cu	-	-	5	5			bc	bc	bc	ESE	2	1009.6	85.7	76.7	65	27.7			
4	St-Cu	A-St	-	1	10			c	bc	bc	ESE	3	1008.6	85.0	78.0	72	29.6			
5	Cu	-	-	2	9			c	bc	bc	ESE	2	1009.1	85.5	78.0	71	28.9			
6	Cu	-	Ci-St	2	9			c	bc	bc	ESE	3	1009.4	84.0	77.8	75	30.1			
7	Cu-Nb	-	Ci-Cu	4	9			c	bc	bc	ESE	1	1009.9	86.0	78.9	72	30.6			
8	Cu	-	Ci-Cu	2	3			b	bc	bc	ESE	3	1008.8	85.8	79.9	76	32.5			
9	St-Cu	-	Ci-St	4	8			coreg	bc	bc	SSE	1	1011.5	80.2	78.0	90	31.9			
10	Cu	-	Ci	1	2			c	bc	bc	ESE	3	1010.9	85.5	78.0	70	28.9			
11	St-Cu	-	Ci-St	8	9			cp	org	bc	SSE	2	1009.0	80.6	78.2	89	32.2			
12	St-Cu	-	Ci	8	9			c	bc	bc	SE'S	2	1008.9	84.7	77.3	71	28.9			
13	Cu	-	-	6	6			bc	bc	bc	E	2	1007.7	84.5	78.3	75	31.2			
14	Cu	-	-	2	2			b	bc	bc	ESE	2	1009.3	85.2	79.1	75	31.2			
15	Cu	-	-	1	1			b	bc	bc	ESE	2	1009.7	84.5	77.7	73	29.5			
16	Cu	A-St	-	2	5			bc	bc	bc	ESE	3	1008.9	84.2	77.3	73	28.7			
17	Cu	-	-	5	5			bc	bc	bc	ESE	2	1009.7	85.0	79.0	76	31.2			
18	St-Cu	-	-	3	3			bc	bc	bc	ESE	2	1009.0	86.2	79.3	73	30.7			
19	Cu	-	-	5	5			bc	bc	bc	ESE	2	1009.1	84.8	79.0	77	31.2			
20	Cu	-	-	3	3			bc	bc	bc	ESE	2	1009.2	86.1	80.7	78	33.1			
21	Cu	A-Cu	-	5	10			c	o	bc	CALM	0	1009.6	82.5	77.8	81	30.2			
22	Cu	-	Ci-Cu	3	6			bc	bc	bc	ESE	3	1009.3	84.9	79.0	76	31.2			
23	Cu	-	-	2	2			bc	bc	bc	ESE	2	1009.5	85.0	78.5	74	30.4			
24	Cu	-	-	1	1			bc	bc	bc	ESE	3	1010.0	85.3	78.7	73	30.4			
25	Cu	A-Cu	-	4	7			b	bc	bc	ESE	2	1009.6	85.7	78.8	73	30.7			
26	Cu	-	-	1	1			b	bc	bc	ESE	2	1010.3	84.9	76.8	67	28.1			
27	Nb	A-Cu	-	8	9			cd	cpq	bc	ESE	3	1009.0	83.0	77.4	77	29.8			
28	St-Cu	A-St	-	8	10			ogd	cod	bc	ESE	3	1009.6	82.6	77.5	79	30.5			
29	Cu-Nb	A-St	Ci-Cu	4	8			c	orre	bc	SE	2	1009.1	82.6	78.8	84	32.1			
30	Cu-Nb	-	Ci-Cu	3	8			c	bc	bc	SE'E	2	1009.1	83.7	79.7	83	33.2			
31	Cu	A-Cu	Ci-Cu	3	9			c	bc	bc	CALM	0	1010.0	84.0	78.7	79	30.9			
MEANS	-	-	-	3.5	5.5			-	-	-	-	2.1	1009.5	84.5	75.9	75.6	30.5			



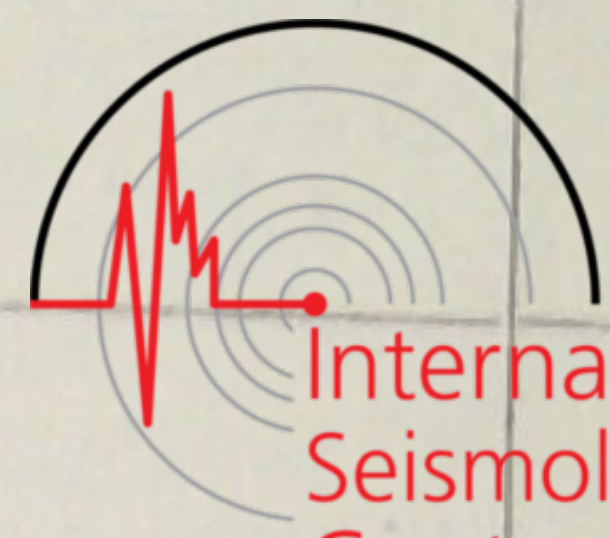
## METEOROLOGICAL OBSERVATIONS.

May 1932

Day of Month.	Thermometers.				Rainfall (mm.)	Sunshine (hrs.)	Heat Integrator.	Evaporimeter.
	Maximum (°C)	Minimum (°C)	Gross Minimum (°C)	Black Bulb in vacuo (°F)				
1	?	24.0	22.8	134	0.5	10.2	1.00	-
2	30.5	?	23.4	133	-	10.7	.50	8.4
3	31.1	22.9	20.7	135	-	10.3	.50	8.8
4	30.1	22.0	20.0	138	0.8	8.0	.50	-
5	30.4	24.6	22.4	134	-	7.8	.50	6.6
6	30.1	23.9	21.8	127	-	9.2	.50	8.2
7	30.7	21.2	19.0	130	-	8.9	.50	7.2
8	30.5	24.0	22.4	130	0.2	10.2	.50	9.3
9	30.0	26.2	24.4	131	5.2	4.6	.25	4.9
10	30.3	24.5	23.0	134	1.7	9.4	.50	-
11	30.4	26.2	24.3	132	1.4	7.7	.25	5.8
12	30.7	23.2	21.4	132	18.7	7.4	.50	7.4
13	29.7	23.7	22.7	129	8.0	8.2	.25	5.5
14	30.3	23.9	22.5	130	5.3	9.0	.50	5.4
15	29.9	23.7	22.9	133	3.6	10.3	.25	7.3
16	29.8	24.5	-	136	-	9.3	.50	7.7
17	29.8	23.2	-	131	-	6.4	.25	-
18	30.4	25.5	23.5	125	0.2	9.6	.50	5.8
19	30.7	24.2	23.2	130	-	8.9	.25	6.5
20	30.5	23.5	22.3	129	2.1	8.0	.50	5.9
21	28.9	24.9	23.5	115	0.1	6.6	.25	3.9
22	30.0	24.2	22.6	130	-	8.9	.25	6.5
23	30.1	22.2	20.4	133	-	10.1	.25	-
24	30.3	22.0	20.3	133	-	10.7	.50	-
25	30.3	22.9	-	133	-	9.6	.50	8.6
26	30.0	24.6	-	134	-	8.7	.50	8.2
27	30.1	25.6	22.4	109	0.3	4.2	.25	7.4
28	30.3	26.3	25.1	130	26.8	2.4	.00	3.6
29	29.1	22.0	21.5	131	19.8	1.4	.25	1.8
30	30.5	23.9	23.1	125	1.8	7.6	.25	6.8
31	29.8	26.2	24.1	137	-	6.8	1.00	3.7
Means	30.2	24.0	22.4	130	96.5	8.1	0.42	6.4

Total





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APIA OBSERVATORY METEOROLOGICAL OBSERVATIONS. 9 a.m. June 1932

Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars).	TEMPERATURE AND HUMIDITY.				UPPER CLOUD.		
	Low.	Form.		Since previous Observation.	At Time.		Direction.	Force (Beaufort Scale).		Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
		Medium.	High.													
1	Cu	A-St	-	-	c bc	b	4	CALM	1011.4	84.2	78.7	77	30.9			
2	Cu	-	-	b bc	b <sup>q</sup>	3	3	CALM	1011.6	82.0	76.5	77	28.7			
3	Cu	-	-	b bc	b	2	2	CALM	1012.7	82.0	77.0	79	29.5			
4	Cu	-	-	ebcrrbc	b bc	4	4	CALM	1013.9	80.0	75.3	79	28.2			
5	Cu	-	-	b bc	b bc	3	3	CALM	1013.5	80.5	75.0	77	27.7			
6	Cu	-	-	b bc	b bc	2	2	CALM	1012.2	79.8	72.2	68	23.9			
7	Cu	-	-	b bc	b bc	1	1	CALM	1012.1	79.5	70.5	63	21.1			
8	Cu	A-St	-	c bc	cg	4	4	S	1011.5	78.5	74.7	83	27.9			
9	St-Cu	A-St	-	cbtpr	c	4	4	SE	1011.4	79.0	76.0	87	29.3			
10	Cu	-	-	crep	bc	4	4	ESE	1010.7	80.0	75.3	80	28.2			
11	Nb	A-St	-	bcpce	or	4	4	SE	1012.8	77.0	74.5	89	28.0			
12	Cu	-	-	cr	bc	4	4	SSW	1012.6	79.0	75.3	84	28.6			
13	Cu	-	-	bc ed	c	5	5	E	1011.2	83.5	77.5	76	29.0			
14	Cu	-	-	crbc	bc	2	2	W	1011.6	82.0	77.0	79	29.5			
15	Cu	-	-	c	bc	3	3	CALM	1012.2	81.8	76.3	77	28.7			
16	Cu	-	-	bc c	b bc	4	4	ESE	1013.2	82.3	75.9	74	27.3			
17	Cu	A-St	-	b	bc	4	4	CALM	1013.3	82.0	75.2	72	26.5			
18	Cu	-	-	c bc	b	4	4	ESE	1012.8	81.5	76.1	77	27.7			
19	Cu	-	-	b bc	b	3	3	ESE	1014.3	82.0	75.5	73	27.3			
20	Cu	-	-	c bc	b	4	4	SSW	1016.0	77.7	71.6	74	24.1			
21	St-Cu	-	-	b bc	b	4	4	ESE	1014.3	82.3	75.2	71	26.5			
22	St-Cu	-	-	b bc	bc	4	4	ESE	1013.5	83.5	76.5	72	27.5			
23	Cu	-	-	bc b	b	4	4	SE	1013.2	80.2	72.7	69	23.9			
24	St-Cu	-	-	bc bc	bc	4	4	CALM	1013.9	78.5	75.0	85	28.6			
25	Cu	-	-	bc	b	4	4	SSW	1014.1	81.0	73.2	67	24.2			
26	Cu	-	-	b bc	b	4	4	ESE	1012.7	83.0	77.0	76	29.0			
27	St-Cu	-	-	b bc	b	5	5	ESE	1011.7	82.7	76.7	75	29.0			
28	Cu	-	-	b bc	b	4	4	SE	1012.8	80.7	73.0	68	24.9			
29	St-Cu	A-Cu	-	c bc	bc	4	4	E'N	1012.0	83.6	76.2	70	27.8			
30	Cu	-	-	b bc	c	5	5	ESE	1012.0	82.0	77.5	81	30.2			
31																
Means						3.7	0.9		1012.7	81.1	75.3	76.0	27.5			



APIA OBSERVATORY METEOROLOGICAL OBSERVATIONS. 3.30 p.m. June 1932

Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars)	TEMPERATURE AND HUMIDITY.				UPPER CLOUD.						
	Low.	Medium.	High.	Amount of Low.	Total Amount.		Height of Base.	How Height was obtained.		Since previous Observation.	At Time.	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.		
																			Form.	Force (Beaufort Scale).
1	St-Cu	A-Cu	-	5	6			bc b	bc	4	NE	1	1008.9	83.2	77.5	76	29.8			
2	Cu	-	-	2	2			b bc	b	4	NE	1	1009.4	83.5	77.8	77	29.8			
3	St-Cu	-	-	3	3			bc	bc	5	CALM	0	1010.6	83.0	77.2	75	29.0			
4	Cu	-	-	3	3			b bc	bc	3	NE	1	1011.1	83.6	76.8	73	28.6			
5	Cu-Nb	-	-	3	3			bc	bc	4	ESE	1	1010.3	82.9	76.8	75	29.0			
6	Cu	A-Cu	-	1	1			bc	b	4	CALM	0	1010.1	83.5	-	-	-			
7	St-Cu	A-St	-	3	9			bc c	c	4	ESE	1	1009.2	82.0	74.5	69	25.8			
8	St-Cu	A-Cu	-	7	9			c	cg	4	W	1	1008.8	80.7	75.0	76	27.7			
9	Cu	-	-	8	8			cpr	cp	5	ESE	1	1008.2	80.0	76.5	85	29.6			
10	Cu	-	Cl	8	8			bc	c	5	SE	2	1008.3	82.0	75.3	73	27.3			
11	St-Cu	A-St	-	5	9			dc	c	4	ESE	2	1010.1	80.0	75.6	81	28.2			
12	Cu	-	-	3	3			b bc	bc	4	ESE	2	1009.2	83.9	78.0	76	30.1			
13	Cu	-	-	3	3			c bc	bc	5	E	1	1008.0	84.5	78.7	76	30.1			
14	St-Cu	-	Cl-St	8	10			c	cd	4	NNW	1	1009.1	83.0	77.6	77	29.8			
15	Cu	-	Cl	1	3			bc	bc	4	ESE	1	1008.7	83.0	76.0	71	27.5			
16	Cu	-	Cl	1	3			bc	bc	5	ESE	2	1009.9	84.2	77.0	71	28.6			
17	St	-	-	9	9			cr	cp	5	SW'S	1	1011.1	78.0	76.0	91	29.8			
18	Cu	-	-	1	1			b	b	4	SE	2	1010.8	83.9	77.3	73	29.3			
19	Cu	-	Cl	2	3			b bc	bc	3	ESE	3	1011.9	84.0	76.2	68	27.4			
20	Cu	-	Cl	-	1			b	b	4	ESE	2	1013.5	84.0	75.0	64	25.7			
21	Cu	-	-	2	2			b bc bc	b	4	ESE	3	1011.1	83.3	76.9	74	28.3			
22	Cu	-	-	3	3			bc b	b	4	ESE	3	1010.5	84.0	76.6	70	27.8			
23	Cu	-	Cl	2	2			b bc b	b	4	ESE	1	1011.3	84.5	74.0	59	24.5			
24	St-Cu	-	Cl	4	5			b bc b	bc	4	ESE	2	1011.3	85.5	76.0	65	25.9			
25	Cu	-	Cl-Cu	1	2			b	b	4	ESE	3	1010.9	84.5	76.1	67	27.4			
26	Cu	-	Cl-Cu	1	2			b	b	4	ESE	2	1009.5	85.0	76.9	68	28.1			
27	Cu	-	-	1	1			b	b	5	ESE	3	1009.1	84.0	75.5	67	26.4			
28	Cu	-	Cl-St	1	1			b	b	4	ESE	1	1009.1	83.0	75.5	69	26.8			
29	St-Cu	A-Cu	Cl-St	3	7			bc	c	4	ESE	3	1009.3	85.2	74.1	57	23.8			
30	Cu	-	-	1	1			c bc b	b	5	S	3	1008.6	84.1	76.7	70	27.8			
31	-	-	-	3.5	4.7			-	-	4.2	-	1.7	1009.9	83.2	76.3	72.1	27.9			
Means	-	-	-	-	-			-	-	-	-	-	-	-	-	-	-	-	-	-



International Seismological Centre



## METEOROLOGICAL OBSERVATIONS.

June 1932

Day of Month.	Thermometers.				Rainfall (mm.)	Sunshine (hrs.)	Heat Integrator.	Evaporimeter.
	Maximum (°C)	Minimum (°C)	Gross Minimum (°C)	Black Bulb in vacuo (°F)				
1	29.9	23.5	22.1	137	-	10.0	.75	5.4
2	29.2	23.5	21.9	138	-	9.1	1.00	5.0
3	28.7	23.5	-	134	19.7	7.9	.75	4.7
4	29.5	22.7	22.1	122	-	9.3	1.00	-
5	29.0	22.6	21.3	148	-	7.1	.75	6.6
6	29.1	22.5	-	153	-	9.8	.75	6.5
7	28.9	20.8	18.9	130	-	4.6	.25	4.6
8	28.6	23.6	21.9	132	-	1.2	.50	3.6
9	28.0	23.0	21.5	142	7.2	1.5	.25	7.8
10	29.2	22.3	21.1	142	0.4	7.0	.25	2.9
11	27.3	23.5	22.7	122	0.5	0.4	.25	-
12	29.2	22.5	21.0	118	0.8	9.1	.25	14.0
13	29.3	25.8	24.5	131	3.4	8.6	.25	3.6
14	28.7	24.5	23.1	133	-	5.9	.50	4.8
15	29.1	23.0	21.5	127	-	10.2	1.00	5.4
16	29.8	23.2	21.7	136	-	10.6	.50	7.6
17	29.9	23.1	22.0	133	1.2	4.2	.50	4.1
18	29.4	22.7	21.7	128	-	10.4	.25	-
19	29.3	21.7	19.9	130	-	10.5	.50	10.1
20	29.5	19.9	17.2	132	-	10.9	.25	9.7
21	29.2	21.6	19.7	128	-	7.0	.25	6.7
22	29.9	22.0	20.1	138	-	10.2	.50	8.5
23	29.8	18.8	16.5	132	-	10.4	.50	-
24	31.3	20.5	18.5	137	-	8.5	.50	9.4
25	29.7	20.2	18.0	131	-	10.1	.25	9.9
26	30.5	21.9	20.0	132	-	10.5	.50	-
27	29.8	24.9	23.7	130	-	9.8	.25	9.9
28	29.7	21.2	19.1	133	-	7.7	.25	7.7
29	31.4	22.5	20.1	131	-	7.6	.25	4.2
30	31.6	21.2	19.1	129	-	9.0	.25	9.1
31								
					Total			
Means	29.5	22.4	20.7	133	33.2	8.0	.47	6.9



APIA OBSERVATORY METEOROLOGICAL OBSERVATIONS. 9 a.m. July 1932



Day of Month.	CLOUD.			WEATHER.			Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars).	TEMPERATURE AND HUMIDITY.			UPPER CLOUD.		
	Low.	Medium.	High.	Since previous Observation.	At Time.	Direction.		Force (Beaufort Scale).	Dry Bulb (°F).		Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
1	Cu	-	Ci	b bc	b	SE	3	83.0	76.8	74	29.0					
2	St-Cu	-	-	bbcp	cp	SE'S	3	80.0	76.5	85	29.6					
3	Cu	-	-	blorbc	b	ESE	3	83.0	76.5	74	28.3					
4	St-Cu	-	-	c bc	bc	ESE	2	83.8	77.5	74	29.3					
5	Cu	-	Ci-Cu	orltcbe	b	ESE	2	82.0	77.5	81	30.2					
6	Cu	-	-	cprbc	b	ESE	1	83.5	78.0	77	29.8					
7	Cu	-	-	cbeb	b	ESE	1	82.9	71.8	57	21.9					
8	St-Cu	A-St	-	cp	c	SE'E	2	80.6	74.9	76	27.7					
9	Cu	-	Ci-St	bc	bc	ESE	2	81.9	75.9	75	28.0					
10	St-Cu	-	-	bbcp	bop	SE'E	1	80.0	76.5	85	29.6					
11	Cu-Nb	-	-	b bc	bc	ESE	2	82.2	76.7	77	28.7					
12	Fr-Cu	-	-	bcpbc	b	ESE	2	81.2	74.9	74	26.3					
13	Fr-Cu	-	-	b	bc	SE	1	82.2	75.2	71	26.5					
14	Fr-Cu	-	-	bcp	b	ESE	2	80.7	74.2	73	26.3					
15	Cu	-	-	b	b	CALM	0	84.8	73.1	55	23.1					
16	Cu	-	Ci-St	b	bc	CALM	0	83.8	72.1	55	22.2					
17	Cu	-	-	b	b	ESE	1	80.0	73.0	70	24.6					
18	Fr-Cu	-	-	bc b	b	ENE	3	81.8	74.8	71	26.5					
19	Nb	-	-	bcp	or	WSW	1	78.5	77.0	94	31.6					
20	St-Cu	A-Cu	-	pr c	c	N	2	80.2	77.2	87	30.3					
21	Cu	-	Ci	c b	b	N	1	81.9	76.8	79	29.5					
22	St-Cu	A-Cu	Ci	bc c	bc	CALM	0	79.4	74.2	78	26.5					
23	St-Cu	-	-	bcp	cd	ESE	2	81.9	77.6	82	30.2					
24	St-Cu	-	-	c pr	bc	ESE	1	82.0	78.5	85	31.7					
25	Cu	-	-	bc b	b	ESE	1	83.0	75.9	71	27.5					
26	Cu	A-Cu	Ci-Cu	c	c	ESE	2	83.4	78.3	79	30.5					
27	St-Cu	-	Ci-St	b bc	bc	ESE	2	84.0	77.4	73	29.5					
28	St-Cu	A-St	-	b bc	c	ESE	2	80.0	75.2	79	27.4					
29	St-Cu	A-Cu	Ci-Cu	b bc	c	E	1	80.3	77.4	87	30.5					
30	St-Cu	A-St	-	cp	od	WSW	1	77.9	75.0	87	28.3					
31	St-Cu	-	-	cbcd	bc	SE'E	2	82.0	76.5	77	28.7					
Means	-	-	-	-	-	-	1.6	81.7	75.9	76.2	28.1					





Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars).	TEMPERATURE AND HUMIDITY.			UPPER CLOUD.					
	Low.	Medium.	High.	Amount of Low.	Total Amount.		Height of Base.	How Height was obtained.		Direction.	Force (Beaufort Scale).	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
1	Cu		Ci	1	1		b	ESE	3	1010.1	84.3	77.0	69	27.8				
2	St-Cu			9	9		cpr	ESE	3	1009.8	83.2	76.0	70	27.2				
3	Cu		Ci	2	3		b bc	SE	2	1008.8	84.6	76.9	70	28.6				
4	Nb			10	10		bcpr	ENE	3	1008.6	74.6	74.0	97	28.9				
5	St-Cu			2	2		b	ESE	2	1008.1	84.0	78.4	77	30.9				
6	St-Cu	A-St	Ci-St	3	8		b	ESE	3	1008.0	83.6	78.6	79	31.6				
7	St-Cu			7	7		bc	ESE	2	1006.9	82.2	79.0	69	30.3				
8	Cu	A-Cu		2	4		bc	ESE	3	1007.6	82.6	76.8	76	29.0				
9	Cu			2	2		b	ESE	3	1007.8	83.4	77.6	76	29.0				
10	Cu-Nb			2	2		b bc b	ESE	4	1008.8	82.0	76.0	75	28.0				
11	Fr-Cu			2	2		b	ESE	3	1008.0	83.8	77.8	76	30.1				
12	Fr-Cu			1	1		b	ESE	2	1008.2	83.4	75.2	67	26.1				
13	Cu			3	3		b bc	ESE	2	1008.2	83.9	76.2	70	27.8				
14	Cu			1	1		b	ESE	2	1010.0	83.3	75.0	67	25.4				
15	Cu			5	5		b	E	3	1010.0	83.0	73.2	61	23.3				
16	Cu		Ci-St	1	2		b bc	ESE	4	1010.1	82.2	73.9	67	24.8				
17	Cu			4	4		b bc	ESE	2	1008.6	83.5	75.5	68	27.1				
18	Cu			3	5		b bc	ESE	3	1005.9	82.7	75.8	72	27.5				
19	St-Cu	A-St		8	9		orr	CALM	0	1007.2	80.0	76.8	86	30.3				
20	Cu	A-Cu	Ci-Cu	3	8		c	NNE	1	1007.4	82.0	78.0	83	31.0				
21	Cu			5	5		b bc	N	2	1009.8	82.2	77.7	82	30.2				
22	Cu			1	1		bc	ESE	2	1010.4	84.4	77.7	73	29.3				
23	Cu		Ci	4	4		bc	ESE	3	1010.2	84.8	77.6	71	29.6				
24	Cu		Ci-Cu	2	3		bc	ESE	1	1010.8	84.1	76.8	70	27.8				
25	St-Cu		Ci	7	8		bc bc	ESE	2	1010.1	84.8	77.1	70	28.9				
26	St-Cu	A-Cu	Ci-St	2	8		c	ESE	2	1009.0	84.5	78.2	75	30.4				
27	Cu		Ci-St	1	6		c	ESE	2	1008.9	85.3	77.9	71	28.9				
28	St-Cu	A-St		7	9		c	SE	1	1007.8	82.7	77.5	79	30.5				
29	Cu	A-Cu		2	3		c	ESE	2	1009.4	82.6	77.0	77	29.8				
30	Cu-Nb			10	10		-	ESE	2	1008.8	81.8	75.8	75	28.0				
31	Cu		Ci	2	3		bc	ESE	3	1009.2	83.8	76.4	70	27.8				
Means	-	-	-	3.7	4.7	4.6	-	-	2.3	1008.8	83.3	76.7	73.8	28.6				



## METEOROLOGICAL OBSERVATIONS.

July 1932

Day of Month.	Thermometers.				Rainfall (mm.)	Sunshine (hrs.)	Heat Integrator.	Evaporimeter.
	Maximum (°C)	Minimum (°C)	Gross Minimum (°C)	Black Bulb in vacuo (°F)				
1	29.9	25.3	20.0	131	1.6	10.2	.25	-
2	29.5	25.0	23.1	127	0.5	5.5	.25	-
3	30.1	26.0	24.1	132	-	9.6	.25	9.2
4	30.7	25.4	-	129	37.5	6.4	.00	4.6
5	29.4	22.9	21.9	126	1.7	10.3	.50	5.4
6	29.7	23.6	22.2	130	-	8.2	1.50	6.6
7	30.7	23.0	21.1	124	2.3	9.4	.75	6.8
8	30.0	23.9	22.7	122	-	3.4	.50	4.9
9	29.3	22.2	20.1	132	1.2	9.5	.75	-
10	29.2	23.4	21.9	133	-	10.4	.50	7.6
11	29.3	22.8	20.9	132	0.6	10.0	.75	7.0
12	29.1	24.0	21.9	118	-	10.7	.75	-
13	30.0	24.2	21.4	129	0.1	9.8	.50	8.4
14	29.1	23.8	20.5	131	-	10.1	.50	8.2
15	29.3	21.2	19.0	132	-	10.3	1.00	-
16	28.7	20.9	17.4	129	-	10.7	.50	8.7
17	29.5	20.3	18.1	129	-	9.7	.75	9.4
18	29.1	23.2	20.7	132	2.3	9.9	.50	-
19	27.3	24.4	23.2	124	0.5	0.2	.25	2.4
20	28.2	24.2	22.6	132	0.3	5.1	.75	4.7
21	28.4	24.5	22.9	133	-	9.1	1.00	5.0
22	29.4	22.2	20.5	131	-	9.0	.50	8.4
23	29.9	22.8	21.1	130	3.6	8.1	.50	-
24	29.3	24.2	21.9	137	-	10.5	.75	7.0
25	29.7	22.0	20.1	130	-	8.8	.50	10.5
26	30.0	25.7	23.6	134	-	6.2	.50	-
27	30.9	26.0	-	135	3.4	8.1	.50	9.4
28	28.3	24.4	23.5	129	1.3	0.8	.25	4.1
29	28.3	23.7	22.3	124	-	4.2	.25	4.4
30	29.8	23.2	21.2	139	-	3.7	.50	-
31	29.7	23.2	22.5	134	4.6	9.8	.50	7.2
Means	29.4	23.5	21.5	130	61.5	8.0	0.56	6.8

Total



APIA OBSERVATORY

METEOROLOGICAL OBSERVATIONS.

9 a.m.

August 1932

Day of Month.	CLOUD.			WEATHER.			Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars)	TEMPERATURE AND HUMIDITY.			UPPER CLOUD.						
	Low.	Medium.	High.	Amount of Low.	Total Amount.	Height of Base.		How Height was obtained.	Since previous Observation.		At Time.	Direction.	Force (Beaufort Scale).	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
1	St-Cu	A-St	-	4	8			bc cr c	c	ESE	3	79.5	75.6	83	27.9					
2	St-Cu	-	-	8	8			opr c	c	SE	2	79.8	73.9	75	26.0					
3	Fr-Cu	A-Cu	-	2	5			bc pr c	bc	ESE	3	82.4	76.2	74	28.0					
4	-	A-Cu	-	-	1			b cp b	b	ESE	1	82.0	76.0	75	28.0					
5	Cu	-	Ci	1	1			b	b	ESE	1	82.2	75.5	73	27.3					
6	Cu	-	Ci-St	-	-			b	b	CAIM	0	81.0	73.5	69	24.9					
7	Cu	A-Cu	-	1	2			bc c b	b	E	1	81.0	75.0	75	27.0					
8	St-Cu	A-Cu	-	5	6			b cr	bc	ESE	1	81.0	75.0	75	27.0					
9	Cu	-	Ci	2	4			bc cpr	bc	ESE	2	82.7	76.0	73	28.3					
10	St-Cu	A-St	-	6	10			o or	opg	ESE	1	78.2	75.7	89	29.0					
11	St-Cu	A-Cu	-	8	8			c or	c	SSE	1	76.9	75.2	92	29.5					
12	Cu	-	Ci	1	1			c bc bw	b	CAIM	0	81.2	75.6	77	27.7					
13	St-Cu	A-Cu	-	1	3			bc bw	bc	ESE	1	83.0	76.8	75	29.0					
14	Nb	-	Ci	5	5			b bc	bcjr	E	3	79.0	75.5	85	28.6					
15	Cu	-	-	1	1			bc b	b	ESE	2	80.0	76.0	83	28.9					
16	Cu	-	-	2	2			c o bc	b	ESE	2	80.0	72.5	69	23.9					
17	St-Cu	A-Cu	Ci-St	2	8			b bc	c	ESE	2	79.8	72.0	67	23.3					
18	St-Cu	-	Ci-St	1	9			c bc	c	CAIM	0	78.0	69.3	63	20.8					
19	Cu	-	Ci	1	1			c bc b	b	SW*W	1	78.9	71.1	67	22.4					
20	Cu	-	Ci	1	1			b	b	ESE	2	83.0	77.2	76	29.0					
21	Cu	-	Ci	1	2			bcrlbc	b	ESE	1	83.0	78.0	79	30.5					
22	Cu	-	Ci	1	3			bc p	bc	ESE	2	83.0	77.7	78	29.8					
23	Cu	-	Ci	2	2			b	b	ESE	2	82.6	77.0	77	29.8					
24	Cu	-	Ci	1	1			bc cp b	b	ESE	2	83.0	76.5	73	28.5					
25	Nb	-	-	10	10			ogrrlt	orr	ESE	3	75.6	75.0	97	29.9					
26	St-Cu	-	-	7	7			orrltc	bc	ESE	2	82.0	78.2	84	31.0					
27	Fr-Cu	-	Ci	2	2			c bc b	b	ESE	1	83.0	78.0	79	30.5					
28	Cu	-	-	2	2			b bc	b	ESE	2	83.5	77.5	75	29.0					
29	Cu	-	Ci	2	3			b bc	bc	ESE	3	83.5	77.3	75	29.0					
30	Cu	-	-	2	2			bcprbc	b	ESE	3	82.5	76.0	73	28.3					
31	Cu	-	-	1	1			b	b	ESE	2	83.2	75.7	70	26.8					
Means	-	-	-	2.7	3.8			-	-	-	1.7	81.1	75.5	76.6	27.7					





# METEOROLOGICAL OBSERVATIONS.

APIA OBSERVATORY

3.30 p.m. August 1932



Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		TEMPERATURE AND HUMIDITY.				UPPER CLOUD.							
	Low.	Medium.	High.	Amount of Low.	Total Amount.		Height of Base.	How Height was obtained.	Since previous Observation.	At Time.	Direction.	Force (Beaufort Scale).	Barometer reduced to M.S.L. (Millibars).	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
1	Nb	A-St	-	8	10			or	op	CALM	0	1010.5	77.4	75.1	90	28.0				
2	Cu	-	-	5	5			or bc	bc	ESE	2	1009.3	83.0	76.5	73	28.3				
3	Cu	-	-	1	2			bc pr	b	ESE	2	1010.4	85.0	77.0	67	28.1				
4	Cu	-	-	2	2			b	b	E'S	1	1010.8	85.0	77.2	69	28.1				
5	Cu	-	-	1	1			b	b	ESE	2	1009.8	84.0	77.0	72	28.6				
6	Cu-Nb	-	-	2	5			b bc b	bc	ESE	2	1010.1	84.0	77.0	72	28.6				
7	Cu-Nb	-	-	2	2			bc b	b	ESE	4	1010.2	83.9	75.8	67	27.1				
8	Cu	-	-	2	3			bc	bc	ESE	3	1010.5	83.0	76.8	77	28.7				
9	Fr-Cu	-	-	3	7			bc	bc	ESE	3	1011.1	83.0	76.8	75	29.0				
10	St-Cu	A-St	-	4	10			op	opg	ESE	1	1010.2	80.5	77.2	86	30.7				
11	St-Cu	A-Cu	Ci-St	2	8			ept	c	CALM	0	1008.5	80.6	75.8	79	28.4				
12	Cu	-	-	1	1			b	b	NE	1	1008.3	82.2	75.5	73	27.3				
13	Cu	-	-	2	2			b	b	ESE	3	1010.8	85.0	77.0	69	28.1				
14	Nb	A-Cu	Ci-Cu	3	8			bc cir	cjr	SE	3	1012.4	80.0	74.7	77	26.7				
15	St-Cu	-	-	9	9			bc c	c	ESE	2	1011.3	81.8	73.8	67	25.1				
16	Cu	-	-	2	2			b	b	ESE	2	1010.7	82.4	74.3	67	25.1				
17	St-Cu	-	-	2	9			c	c	ESE	2	1010.9	82.0	73.0	64	23.7				
18	St-Cu	-	-	8	8			bc	c	ESE	2	1011.9	80.0	70.5	60	21.3				
19	Cu	-	-	1	3			b	bc	SE'E	2	1009.3	85.0	75.3	62	25.9				
20	Cu-Nb	-	-	2	4			b bc	bc	ESE	2	1009.6	84.2	78.7	77	30.9				
21	Cu-Nb	-	-	4	4			bc c bc	bc	ESE	2	1010.1	82.0	78.0	79	30.5				
22	Cu	-	-	1	1			b	b	ESE	2	1011.2	85.0	78.0	72	29.5				
23	Cu	-	-	2	2			b cprb	b	ESE	3	1010.6	84.5	78.5	76	31.2				
24	Cu	-	-	1	1			b	b	ESE	3	1009.9	84.0	76.6	70	27.8				
25	St-Cu	A-St	-	6	10			or	og	ESE	1	1009.7	79.0	75.4	84	28.6				
26	Cu-Nb	-	-	7	7			bc	bcjfr	ENE	3	1008.4	82.0	77.0	79	29.5				
27	Cu	-	-	2	3			bc	bc	ESE	2	1010.2	85.3	78.9	75	30.6				
28	Cu	-	-	3	3			b bc	bc	ESE	3	1010.9	84.4	77.6	75	29.4				
29	Cu	-	-	2	5			bc pbc	bc	ESE	3	1011.6	83.4	77.3	75	29.0				
30	Fr-Cu	-	-	1	1			b	b	ESE	3	1010.9	84.1	76.2	69	27.1				
31	Cu	-	-	1	1			b	b	ESE	3	1010.1	82.3	75.9	74	27.5				
Means	-	-	-	2.9	4.4			-	-	-	2.2	1010.3	82.9	76.3	73.2	28.0				



## METEOROLOGICAL OBSERVATIONS.

August 1932

Day of Month.	Thermometers.				Rainfall (mm.)	Sunshine (hrs.)	Heat Integrator.	Evaporimeter.
	Maximum (°C)	Minimum (°C)	Gross Minimum (°C)	Black Bulb in vacuo (°F)				
1	27.7	23.4	21.2	132	5.1	0.6	.25	2.3
2	29.0	21.5	19.3	135	0.5	8.1	.25	0.5
3	29.5	24.3	22.1	135	0.1	9.6	.50	12.0
4	30.0	23.4	21.1	132	-	11.0	.75	?
5	29.2	21.5	19.8	133	-	10.9	.75	7.7
6	29.7	21.3	18.7	132	-	9.8	.75	6.9
7	29.0	23.8	21.9	117	12.8	9.3	.50	5.9
8	29.4	23.2	21.9	124	0.6	7.5	.75	6.3
9	29.6	25.0	23.1	131	11.9	9.8	.25	6.6
10	27.6	24.2	22.6	122	5.0	0.1	.00	2.2
11	28.5	22.7	21.3	133	-	4.6	.75	2.3
12	28.5	22.8	20.9	135	-	11.1	1.50	4.3
13	29.8	23.6	-	136	-	9.7	.75	6.4
14	29.8	22.6	20.4	131	8.4	3.9	.25	6.9
15	29.5	24.1	22.1	-	-	7.8	-	-
16	28.7	21.1	19.2	130	-	10.4	2.25	-
17	29.3	20.0	17.7	138	-	6.9	.75	6.0
18	28.7	20.8	18.1	139	-	3.0	.75	8.2
19	29.7	21.7	16.9	129	-	10.0	1.00	-
20	30.2	23.5	22.1	132	1.2	9.5	1.00	6.1
21	30.2	22.6	21.1	130	1.0	8.9	1.00	8.6
22	30.0	25.2	23.1	133	-	9.3	.50	8.3
23	29.8	21.5	19.8	136	0.3	10.4	.50	8.2
24	29.8	24.0	21.7	133	63.1	10.1	.50	7.8
25	27.8	23.1	22.4	133	40.6	0.0	.25	1.9
26	29.3	23.0	21.7	135	-	9.9	.50	-
27	30.7	23.7	22.2	135	-	10.5	1.25	7.1
28	30.3	23.6	-	133	-	10.9	.75	9.2
29	30.0	23.3	22.1	133	1.7	10.0	.25	6.1
30	29.9	24.4	22.9	130	-	9.6	.50	10.8
31	29.5	24.3	22.5	134	-	11.2	.50	-
Means	29.4	23.0	21.0	132	152.3	8.2	0.67	6.3

Total





Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		TEMPERATURE AND HUMIDITY.				UZZEE CLOUD.			
	Form.			Since previous Observation.	At Time.		Direction.	Force (Beaufort Scale).	Parameter reduced to M.S.L. (Millibars).	Dry Bulb (F).	Wet Bulb (F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
	Low.	Medium.	High.													
1	Fr-Cu	-	-	1	b bc	b	ESE	5	1013.8	83.4	76.1	71	26.8			
2	Cu	-	-	1	b	b	ESE	2	1013.6	84.0	76.5	70	27.8			
3	Cu	-	-	2	b	b	ESE	2	1012.4	83.5	77.7	76	29.0			
4	St-Cu	A-Cu	-	2	bc c	c	CALM	0	1013.3	80.0	74.5	76	26.7			
5	Cu	A-Cu	Ci-Cu	2	b bc c	c	CALM	0	1013.1	81.3	75.0	74	26.3			
6	Cu	-	-	2	bc b	b	CALM	0	1012.2	81.0	75.0	75	27.0			
7	St-Cu	-	-	9	c bc c	c	SE	1	1011.4	80.5	74.7	75	27.0			
8	St-Cu	-	-	8	b bc	c	ESE	1	1011.1	82.5	76.0	73	28.3			
9	St-Cu	-	-	10	eg jr	c	ESE	2	1011.3	81.2	74.8	73	26.3			
10	St-Cu	-	Ci-St	10	o	c	ESE	2	1010.3	78.0	74.9	86	28.3			
11	St-Cu	-	-	9	c or c	c	SE	1	1011.8	80.5	75.0	76	27.7			
12	Fr-Cu	-	Ci-Cu	5	c bc	bc	ESE	2	1013.1	80.8	72.2	65	23.5			
13	Cu	-	Ci	2	bc ebc	b	ESE	2	1013.7	82.6	75.1	69	26.8			
14	Cu	-	-	3	cp bc	bc	ESE	5	1013.7	81.1	76.2	79	28.4			
15	St-Cu	-	-	8	orr	c	ESE	2	1012.0	83.0	77.5	77	29.8			
16	Cu	-	Ci-Cu	1	eprbc	b	ESE	2	1011.8	82.2	76.7	77	28.7			
17	Fr-Cu	-	Ci	1	boprbc	b	ESE	2	1012.0	83.7	78.0	77	30.9			
18	Cu	-	-	3	bc p	bc	ESE	3	1012.6	83.2	77.8	77	29.8			
19	Cu	-	-	1	orcbe	b	ESE	2	1012.7	83.3	77.0	75	28.3			
20	Cu	-	-	1	b	b	ESE	2	1012.4	83.0	75.8	71	27.5			
21	Cu	-	Ci	4	bc b	bc	E	2	1012.5	83.0	76.0	71	27.5			
22	Cu	-	Ci-St	9	bc	c	ESE	2	1012.9	82.6	74.5	67	26.1			
23	Cu	-	-	1	b	b	ESE	2	1013.9	82.5	74.6	68	26.1			
24	Cu	-	Ci-St	2	b bc	c	ESE	2	1014.5	82.0	75.1	71	26.5			
25	Cu	-	Ci-St	1	bc l b	bc	ESE	2	1012.2	84.6	76.3	67	27.4			
26	Cu	-	-	3	bccprbc	bc	ESE	2	1012.2	85.5	77.6	75	29.0			
27	Cu	-	-	2	bc b	b	ESE	1	1013.1	84.0	77.9	75	30.1			
28	St-Cu	-	Ci	9	cl opr	eg	ESE	1	1015.1	80.2	78.5	93	32.6			
29	Cu	-	Ci	1	c bc	b	ESE	1	1013.2	84.0	78.5	77	30.9			
30	Cu	-	Ci	1	bc b	bc	E	1	1011.7	83.0	77.5	77	29.8			
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Means	-	-	-	3.3	4.7	4.3	-	1.7	1012.7	82.3	76.1	74.4	28.0			



APIA OBSERVATORY

METEOROLOGICAL OBSERVATIONS.

3.30 p.m. September 1932

Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars).	TEMPERATURE AND HUMIDITY.				UPPER CLOUD.				
	Low.	Medium.	High.	Amount of Low.	Total Amount.		Height of Base.	How Height was obtained.		Since previous Observation.	At Time.	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed : Height Ratio.
1	Cu	-	-	2	2		b	b	5	1010.7	76.0	68	27.1					
2	Cu	-	-	3	3		bc	bc	4	1010.3	77.0	71	28.6					
3	Cu-Nb	-	-	4	4		bc	bc	4	1009.6	78.9	74	30.4					
4	Cu-Nb	A-St	-	10	10		c	c	4	1010.3	75.9	87	30.1					
5	Cu	A-Cu	Ci-Cu	2	6		bc	bc	4	1009.7	76.3	73	28.3					
6	St-Cu	-	-	10	10		c	c	4	1009.4	74.3	89	28.0					
7	St-Cu	-	-	7	7		bc	bc	5	1007.5	74.6	70	25.8					
8	St-Cu	-	-	9	9		bc c	cgjr	5	1008.1	73.9	78	26.5					
9	St-Cu	A-Cu	Ci	4	8		o	c	4	1007.4	76.0	75	28.0					
10	St-Cu	-	Ci-St	7	9		ocbc	c	4	1007.4	75.0	79	27.4					
11	Cu-Nb	A-Cu	-	7	10		o	c	4	1009.9	74.0	74	26.0					
12	Cu	-	Ci-Cu	3	5		bc	bc	4	1010.0	74.4	69	25.8					
13	St-Cu	A-St	-	7	8		bc cr	cjr	5	1011.4	75.3	87	28.3					
14	St-Cu	A-St	-	6	10		c opq	opg	5	1010.8	74.5	85	27.6					
15	Cu	A-Cu	-	7	8		cp bc	c	5	1009.5	76.9	79	29.5					
16	Cu	-	-	3	3		b bc b	bc	5	1008.9	77.3	77	29.8					
17	Cu	-	-	3	3		b bc b	b	4	1009.7	79.0	72	30.7					
18	Nb	-	-	10	10		c or	orr	6	1010.7	75.0	95	28.2					
19	Cu	-	-	2	2		b	b	5	1009.4	76.7	73	28.3					
20	Cu	-	-	1	1		b	b	5	1009.1	76.8	75	29.0					
21	Cu	-	Ci	1	3		b bc	bc	4	1009.7	75.5	67	26.1					
22	Cu	-	Ci-St	1	3		b	bc	5	1009.4	76.0	74	27.3					
23	Cu	-	-	1	1		b	bc	4	1011.1	75.1	68	26.9					
24	Cu	-	Ci	2	10		c	c	4	1010.7	75.7	74	27.3					
25	Cu	-	Ci	2	3		bc	bc	5	1009.0	77.0	75	28.3					
26	Cu	-	Ci	2	3		bc	bc	4	1009.6	78.0	75	30.1					
27	Cu	-	Ci	2	3		b bc	bc	4	1010.9	78.7	72	30.7					
28	St-Cu	-	Ci	9	10		pr og	ogjr	4	1012.6	77.0	87	30.5					
29	Cu	-	Ci	2	5		b	bc	4	1010.9	78.5	76	30.1					
30	Cu	-	Ci	2	5		bc	bc	4	1009.2	77.0	72	28.6					
Means	-	-	-	4.1	5.7		-	-	4.4	1009.8	76.2	76.5	28.3					



International Seismological Centre



## METEOROLOGICAL OBSERVATIONS.

September 1932

Day of Month.	Thermometers.				Rainfall (mm.)	Sunshine (hrs.)	Heat Integrator.	Evaporimeter.
	Maximum (°C)	Minimum (°C)	Gross Minimum (°C)	Black Bulb in vacuo (°F)				
1	29.4	22.9	20.9	132	-	10.7	.50	11.9
2	29.5	22.2	20.7	134	-	10.6	.50	-
3	30.1	23.0	21.9	133	-	9.8	.50	8.1
4	28.3	22.7	-	137	-	1.0	.50	5.4
5	29.4	22.8	21.7	147	-	6.7	1.00	7.7
6	28.6	22.6	21.4	135	21.0	4.4	.50	1.4
7	28.8	22.4	21.4	137	-	9.5	.50	-
8	29.2	22.8	21.4	145	0.2	5.4	.50	7.9
9	28.8	22.6	21.3	129	-	1.3	.50	9.9
10	28.7	23.4	21.9	135	1.1	3.3	.25	-
11	27.9	23.6	-	129	-	7.7	.00	-
12	29.2	23.0	21.2	138	-	9.8	.50	-
13	29.6	22.4	21.1	131	0.8	6.9	.25	7.0
14	28.6	24.4	22.9	139	84.2	3.9	.25	5.5
15	29.0	22.4	21.9	129	2.2	3.2	.50	7.2
16	29.0	23.1	21.9	133	-	10.2	.25	-
17	30.6	24.2	23.0	138	-	10.5	.75	9.3
18	29.3	25.4	23.3	133	18.8	4.1	.25	15.7
19	29.5	23.5	23.5	133	-	10.1	.25	-
20	29.0	21.9	19.7	134	-	9.6	.50	11.2
21	29.1	21.4	19.7	136	-	10.4	.50	11.6
22	29.1	21.3	-	140	-	9.8	.75	-
23	28.9	21.2	-	134	-	10.7	.50	13.4
24	28.9	20.9	19.5	134	-	10.6	.50	-
25	30.7	21.2	19.7	139	15.5	8.5	.50	-
26	30.2	23.7	20.2	135	-	10.3	.50	6.8
27	31.0	23.2	21.2	138	15.6	11.0	.75	5.2
28	29.0	24.0	22.4	133	-	1.1	.25	3.2
29	29.2	23.3	21.9	134	-	9.2	1.00	5.3
30	29.6	23.2	21.9	141	-	10.8	1.00	-
31								
					Total			
Means	29.3	22.8	21.5	135	159.4	7.7	0.50	8.1



APIA OBSERVATORY METEOROLOGICAL OBSERVATIONS. 9 a.m. October 1932



Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		TEMPERATURE AND HUMIDITY.				UPPER CLOUD.						
	Low.	Medium.	High.	Amount of Low.	Total Amount.		Height of Base.	How Height was obtained.	Since previous Observation.	At Time.	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.		
																		Form.	Force (Beaufort Scale).
1	St-Cu	-	Ci	9	10			bccopr	c	4	CAIM	0	1012.5	80.0	75.6	81	28.2		
2	St-Cu	A-Cu	Ci-St	5	8			c bc	c	4	SE	2	1013.9	81.0	73.0	67	24.2		
3	St-Cu	-	-	8	8			b bc	c	5	ESE	3	1014.9	80.5	73.5	70	25.6		
4	St-Cu	-	-	9	9			b bc	c	4	ESE	2	1014.8	81.0	74.0	71	25.6		
5	Cu	A-Cu	Ci	4	4			bc b	bc	5	SE	2	1012.5	83.0	74.0	64	24.7		
6	St-Cu	-	-	7	8			bc	c	4	ESE	2	1013.9	84.0	76.7	71	27.8		
7	St-Cu	-	-	7	7			cpr	bc	5	SE	2	1013.3	83.0	76.8	75	29.0		
8	St-Cu	-	-	8	8			c	c	5	ESE	2	1013.1	82.0	73.0	64	23.7		
9	Cu	-	-	-	1			b bc	b	4	ESE	2	1013.2	82.5	72.0	59	22.6		
10	St-Cu	-	Ci-Cu	6	6			bc b	bc	4	ESE	2	1014.2	80.4	74.9	77	26.7		
11	Cu	-	Ci-Cu	1	1			bccbc	b	5	ESE	3	1013.4	83.1	77.0	74	27.0		
12	St-Cu	-	Ci	3	3			bc	bc	5	ESE	3	1012.1	83.5	78.5	79	30.5		
13	Cu	-	-	2	2			cprbc	b	4	ESE	2	1012.2	82.7	77.0	77	29.8		
14	Cu	-	-	5	5			orp	bc	5	ESE	2	1012.2	83.5	79.0	81	31.3		
15	St-Cu	-	-	10	10			opr	c	5	ESE	2	1012.2	81.9	75.2	73	27.3		
16	Cu	-	Ci-St	1	3			opr	bc	5	ESE	2	1012.7	83.0	75.0	67	26.1		
17	Cu	-	Ci	2	3			bc b	bc	5	ESE	2	1011.4	85.0	76.0	65	26.7		
18	Cu	-	-	2	2			b bc	b	4	ESE	1	1010.4	85.7	78.0	70	30.0		
19	Cu	-	Ci	2	2			b	b	4	ESE	3	1012.1	84.0	76.5	70	27.8		
20	Cu	-	-	1	1			b	b	5	ESE	3	1012.1	83.7	76.0	69	27.8		
21	Cu	-	-	2	2			b bc	b	4	ESE	3	1011.8	84.0	77.0	72	28.6		
22	Cu	-	-	1	1			bccprb	b	5	ESE	2	1010.7	84.1	77.1	72	28.6		
23	Cu	-	-	1	1			bc b	b	5	ESE	3	1010.1	83.8	77.8	76	30.1		
24	Cu	-	-	1	1			bccpr	b	5	ESE	3	1011.4	84.0	78.7	79	30.9		
25	St-Cu	-	-	8	8			bccprc	cpr	5	ESE	3	1012.6	82.0	79.0	87	31.4		
26	Cu	-	Ci	1	5			cprbc	bc	5	ESE	2	1013.1	84.0	77.7	75	29.3		
27	Cu	-	Ci	3	3			bopbc	bc	5	ESE	3	1011.3	84.8	78.6	75	31.2		
28	St-Cu	A-St	-	7	9			bc b	c	5	ESE	1	1009.9	84.0	77.3	73	29.3		
29	St-Cu	A-St	Ci-St	4	10			oprlt	c	5	ESE	2	1010.2	81.0	78.3	89	32.2		
30	Cu	A-Cu	Ci	1	5			orrltc	bc	5	CAIM	0	1010.9	82.0	77.0	79	29.5		
31	St-Cu	-	-	9	9			or c	c	3	ESE	1	1009.8	83.5	78.5	79	30.5		
Means	-	-	-	4.2	5.0			-	-	4.6	-	2.1	1012.2	82.9	76.4	73.5	28.2		



APIA OBSERVATORY METEOROLOGICAL OBSERVATIONS. 3.30 p.m. October 1932



Day of Month.	CLOUD.			WEATHER.			Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars).	TEMPERATURE AND HUMIDITY.			UPPER CLOUD.		
	FORM.			Since previous Observation.	At Time.	Direction.		Force (Beaufort Scale).	Dry Bulb (°F).		Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
	Low.	Medium.	High.													
1	St-Cu	A-St	-	cd	c	5	ESE	3	1010.5	82.2	75.8	74	27.3			
2	St-Cu	A-St	-	c	o jr	5	SE	3	1011.7	80.0	74.0	74	26.0			
3	St-Cu	-	-	c	bc	5	SE	3	1012.2	79.7	73.3	73	25.3			
4	St-Cu	A-Cu	Ci-St	c bc	bc	5	ESE	3	1011.1	81.2	72.1	63	22.8			
5	St-Cu	-	Ci-Cu	bc c	c	5	SE'E	2	1010.6	82.0	74.7	70	25.8			
6	St-Cu	-	Ci-Cu	bc c	c	5	ESE	3	1011.3	81.0	76.1	79	28.4			
7	Cu	-	Ci-Cu	bc c	c	5	ESE	1	1010.5	81.6	75.5	75	28.0			
8	Cu-Nb	-	Ci-Cu	bc bc	bc	5	ESE	3	1010.7	82.8	74.2	65	25.4			
9	Cu	-	Ci-St	b bc	bc	4	SE	1	1010.5	84.0	75.4	66	26.4			
10	St-Cu	A-Cu	-	b bc	bc	5	ESE	3	1010.4	83.7	77.7	76	30.1			
11	Cu	-	Ci	bc b	bc	5	ESE	3	1009.3	83.6	78.0	79	31.6			
12	Cu	-	Ci	bc b	b	5	ESE	2	1009.1	84.0	78.2	73	28.6			
13	Cu	-	-	cr	c jr	5	SE'E	2	1010.1	82.3	78.6	85	31.7			
14	St-Cu	A-St	-	bc cp	c	5	ESE	3	1009.7	81.9	77.6	82	30.2			
15	Nb	-	-	or	cr	3	SSE	2	1011.1	78.5	74.8	83	28.6			
16	Cu	-	Ci	e bc	bc	5	ESE	3	1009.1	84.2	76.8	70	27.8			
17	Cu	-	-	bc	bc	5	ESE	2	1008.3	84.5	78.5	76	31.2			
18	Cu	-	Ci	b	b	5	ESE	3	1008.0	83.5	77.5	75	29.0			
19	Cu	-	Ci	b	b	5	ESE	3	1009.6	83.8	77.3	73	29.3			
20	Cu	-	-	b	b	4	ESE	3	1009.2	84.0	77.0	72	28.6			
21	Cu	-	-	b	b	5	ESE	3	1007.8	83.8	78.0	76	30.1			
22	Cu	-	Ci	b	b	5	ESE	3	1008.2	84.0	76.9	71	28.6			
23	Cu	-	-	b bc c	c	4	ESE	2	1007.9	85.0	79.0	78	31.2			
24	Cu	-	-	b	bc	5	ESE	2	1009.2	86.0	79.2	73	30.7			
25	Cu	-	-	opr	bc	5	ESE	2	1009.8	84.4	79.2	79	31.6			
26	Cu	-	Ci	bc	b	5	ESE	3	1009.3	84.0	78.0	76	30.9			
27	Cu	-	Ci-Cu	bccbc	b	5	ESE	3	1008.6	83.9	77.5	74	29.3			
28	St-Cu	A-St	-	c	ltepr	5	SE	1	1007.1	79.0	76.9	91	30.8			
29	Nb	-	-	orrtl	orrtl	6	SSW	2	1010.1	72.5	72.3	99	27.7			
30	Cu-Nb	A-St	-	bc or	or	5	W	2	1008.6	82.0	77.0	79	29.5			
31	St-Cu	A-Cu	-	c	cp	4	N	2	1006.5	82.7	76.7	75	29.0			
Means	-	-	-	-	-	4.8	-	2.5	1009.5	82.5	76.4	75.9	28.4			



## METEOROLOGICAL OBSERVATIONS.

October 1932

Day of Month.	Thermometers.				Rainfall (mm.)	Sunshine (hrs.)	Heat Integrator.	Evaporimeter.
	Maximum (°C)	Minimum (°C)	Gross Minimum (°C)	Black Bulb in vacuo (°F)				
1	29.2	24.0	22.5	152	-	2.0	.25	9.4
2	28.7	25.0	22.5	133	-	2.0	.25	10.4
3	28.1	24.5	23.3	119	-	3.9	.25	-
4	29.2	24.5	23.1	134	-	7.3	.50	11.3
5	29.9	24.5	23.3	132	-	6.1	.50	9.2
6	30.2	25.3	24.5	124	3.7	1.3	.25	-
7	29.2	24.1	23.3	134	-	8.2	.50	8.5
8	29.5	22.3	20.5	145	-	7.4	.50	10.5
9	29.5	20.9	-	134	0.4	10.2	.50	-
10	29.3	22.2	20.9	130	-	5.7	.50	7.4
11	29.6	23.4	21.7	137	-	11.3	.25	8.9
12	29.8	23.5	21.8	129	15.2	9.7	.25	5.7
13	29.7	24.1	23.5	112	3.1	4.6	.50	-
14	30.1	24.6	23.4	125	11.4	6.6	.25	4.8
15	29.5	23.3	22.4	133	1.7	7.6	.25	3.2
16	31.0	22.7	20.9	138	-	11.2	.25	9.0
17	30.4	23.5	21.5	135	-	11.8	.50	-
18	30.8	23.6	21.7	136	-	11.6	.50	12.1
19	29.9	24.0	22.3	135	-	11.3	.25	-
20	29.8	23.8	21.7	136	-	11.6	.50	-
21	29.4	22.6	21.1	136	-	11.2	.50	10.9
22	30.0	22.6	20.9	135	-	11.4	.25	10.2
23	30.7	22.2	19.5	134	3.2	11.1	.25	-
24	30.8	24.8	23.5	141	2.5	10.1	.75	6.6
25	30.5	25.8	23.9	139	5.7	10.3	.25	6.7
26	29.8	25.2	23.5	137	0.3	10.9	.25	9.8
27	30.5	23.3	21.2	143	-	10.4	.50	-
28	30.1	22.2	20.0	139	18.4	5.9	.25	4.2
29	30.5	24.3	23.2	141	63.4	2.8	.25	2.0
30	28.9	22.6	21.7	150	7.5	6.8	.75	3.4
31	29.6	22.9	21.3	139	35.4	5.8	.25	4.0
Means	29.8	23.6	22.1	135	171.9	8.0	.38	7.7

Total





APIA OBSERVATORY METEOROLOGICAL OBSERVATIONS. 9 a.m. November 1932

Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars).	TEMPERATURE AND HUMIDITY.			UPPER CLOUD.					
	Low.	Medium.	High.	Amount of Low.	Total Amount.		Height of Base.	How Height was obtained.		Since previous Observation.	At Time.	Dry Bulb (F).	Wet Bulb (F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
1	Cu		Ci-St	1	9			c	3	1010.0	83.0	77.5	77	29.8				
2	Cu		Ci	2	3			bc	3	1012.1	82.2	77.5	81	30.2				
3	Cu		Ci	1	1			b	4	1010.2	81.9	76.5	77	28.7				
4	St-Cu			10	10			cp	5	1010.1	79.2	77.2	91	30.8				
5	St-Cu			3	3			bc	5	1011.7	84.2	77.6	73	29.3				
6	St-Cu	A-St		10	10			opjr	5	1013.3	80.0	76.8	86	30.3				
7	Cu		Ci	3	5			bc	5	1012.3	83.9	77.9	69	27.1				
8	Cu			3	3			bc	5	1011.0	84.5	78.0	74	30.4				
9	Cu			2	2			b	5	1009.9	84.1	76.7	70	27.8				
10	Cu	A-Cu	Ci-St	3	8			c	5	1010.0	84.2	78.8	78	30.9				
11	St-Cu	A-St		3	9			c	4	1010.0	81.9	77.7	82	31.0				
12	Cu		Ci	1	7			bc	5	1010.6	85.1	79.0	75	31.2				
13	Cu		Ci	2	6			bc	5	1010.1	85.3	79.5	77	31.2				
14	Cu		Ci-Cu	2	9			bc	4	1009.6	84.0	77.7	75	29.3				
15	Cu		Ci	4	7			ltebc	4	1011.3	86.3	77.3	65	27.7				
16	Fr-Cu			5	6			bc	4	1011.2	85.0	79.0	76	31.2				
17	St-Cu	A-St		9	10			bc	5	1012.5	80.2	76.7	85	29.6				
18	Cu		Ci-St	3	6			o	4	1010.4	83.1	77.9	79	30.5				
19	St			9	9			bc	4	1009.9	78.9	76.0	87	29.3				
20	Cu		Ci	1	1			c	4	1008.5	84.5	78.1	75	30.4				
21	Cu			3	3			bc	4	1008.7	84.8	79.0	76	31.2				
22	Nb	A-St		4	10			bc or	6	1006.8	76.0	74.0	91	27.8				
23	Nb	A-St		5	9			orrlt	5	1008.0	82.2	77.0	78	29.5				
24	St-Cu			9	9			bclopr	5	1008.1	76.4	74.3	91	27.8				
25	Cu		Ci-Cu	1	7			opr	3	1007.9	83.5	76.9	73	28.5				
26	Cu			2	2			cpr	4	1007.9	84.0	77.2	73	28.5				
27	Nb			10	10			bc p	6	1010.0	78.0	76.0	91	29.8				
28	St-Cu	A-St		8	9			bccgor	5	1009.3	81.1	77.5	85	30.7				
29	Cu		Ci	3	3			opr c	4	1010.3	82.5	76.0	73	28.3				
30	Cu		Ci-St	3	9			cpr	3	1010.5	83.0	76.9	75	29.0				
31								bc rc	3									
Means				4.1	6.5				4.4	1010.1	82.4	77.3	78.6	29.6				





# METEOROLOGICAL OBSERVATIONS.

APIA OBSERVATORY

3.30 p.m. November 1932

Day of Month.	CLOUD.			WEATHER.			Visibility.	WIND.		Barometer reduced to M.S.L. (Millibars).	TEMPERATURE AND HUMIDITY.				UPPER CLOUD.					
	Low.	Medium.	High.	Amount of Low.	Total Amount.	Height of Base.		How Height was obtained.	Since previous Observation.		At Time.	Direction.	Force (Beaufort Scale).	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
1	St-Cu	A-St	-	2	10			opr c	c	CALM	0	82.5	76.5	75	29.0					
2	St-Cu	-	Cl	4	5			ct	bc	NNW	2	83.0	76.9	75	29.0					
3	Cu-Nb	-	-	7	7			c	crt	W	1	84.0	77.2	73	28.6					
4	St-Cu	-	-	8	8			c or	cp	SE'E	2	78.0	77.0	95	31.2					
5	Cu-Nb	-	-	8	8			c	cd	ESE	2	80.0	77.6	89	31.1					
6	Nb	-	-	10	10			c or	or	CALM	0	76.0	74.0	91	27.8					
7	Cu	-	Cl-Cu	1	2			bc b	b	ESE	1	84.9	79.0	77	31.2					
8	Cu	-	-	2	2			bc	b	ESE	2	85.5	78.7	73	29.6					
9	Cu	-	-	2	2			b bc	b	ESE	2	84.2	77.7	73	29.3					
10	St-Cu	-	Cl-St	6	10			c	e	ESE	2	85.5	79.0	74	30.4					
11	St-Cu	A-Cu	Cl-Cu	4	6			c	bc	ESE	3	83.3	79.5	84	32.1					
12	Cu	-	Cl	2	5			b bc	bc	ESE	2	86.0	79.7	75	31.5					
13	Cu	-	Cl	2	6			bc	bc	ESE	1	84.9	77.9	72	29.6					
14	Cu	-	Cl-St	5	9			ct	cjr	NE	1	84.0	77.3	73	29.3					
15	Cu	-	Cl-St	4	7			bc	bc	ESE	1	85.3	79.2	75	31.2					
16	Cu	-	Cl	6	8			bc pt	c	SSW	1	81.2	77.6	85	30.7					
17	Cu	-	Cl-St	1	9			or c	c	FSE	1	82.0	77.0	79	29.5					
18	Cu-Nb	-	Cl	8	8			bc t c	cjr	E	1	83.3	76.7	73	28.3					
19	Cu-Nb	-	-	9	9			opr c	c	SSE	1	81.2	77.3	83	29.9					
20	Cu	-	-	5	5			b bc	bc	ESE	3	85.0	79.2	77	31.2					
21	Nb	-	-	10	10			ori	or	SSE	2	79.0	77.5	93	31.6					
22	Nb	A-St	-	5	10			opi	o	CALM	0	76.0	73.5	89	27.1					
23	St-Cu	-	Cl-Cu	5	9			ori	c	ESE	3	80.5	76.2	82	29.2					
24	St-Cu	-	-	9	9			cp	c	CALM	0	81.8	76.2	77	28.7					
25	Cu	-	-	4	4			b bc	bc	ESE	3	83.5	78.0	77	29.8					
26	Cu	-	-	4	4			bc	bc	ESE	2	84.8	79.0	77	31.2					
27	Nb	-	-	10	10			ord	od	N	2	79.0	74.8	82	27.9					
28	Nb	-	-	10	10			or	odjr	SW	1	77.2	76.5	97	30.9					
29	Cu	-	Cl	2	3			bc	bc	NNW	2	83.5	75.2	67	25.4					
30	Cu	-	Cl	1	8			bc	c	CALM	0	84.0	76.0	68	27.1					
31																				
Means				5.2	7.0						1.5	82.3	77.3	79.3	29.3					



## METEOROLOGICAL OBSERVATIONS.

November 1932

Day of Month.	Thermometers.				Rainfall (mm.)	Sunshine (hrs.)	Heat Integrator.	Evaporimeter.
	Maximum (°C)	Minimum (°C)	Gross Minimum (°C)	Black Bulb in vacuo (°F)				
1	30.5	23.2	22.9	146	-	6.7	.75	5.4
2	28.9	24.0	22.4	141	-	7.4	.50	-
3	30.1	23.5	21.3	143	11.1	10.3	.75	-
4	29.5	23.5	21.9	144	7.4	2.3	.25	4.3
5	30.5	24.2	22.9	138	8.8	9.1	.25	6.1
6	28.9	24.0	23.6	132	58.5	0.7	.25	4.6
7	30.8	23.3	-	144	0.4	8.8	.50	3.9
8	30.8	23.3	-	138	0.1	11.5	.25	-
9	30.3	23.0	20.6	136	4.3	11.2	.50	7.6
10	31.4	22.9	22.1	141	19.2	8.5	.25	6.5
11	30.3	22.6	22.2	142	0.2	6.6	.50	7.3
12	31.5	26.0	24.1	140	-	9.8	.25	6.0
13	30.8	24.2	22.4	142	-	10.7	.75	7.7
14	30.1	22.7	21.0	149	-	7.8	.75	5.2
15	31.0	24.3	22.9	155	2.0	6.2	.50	-
16	31.3	25.4	23.9	138	41.3	6.0	.00	3.7
17	28.8	23.3	22.5	138	-	2.7	.50	4.6
18	29.8	23.4	21.9	141	0.5	6.8	.50	4.6
19	29.2	22.8	21.2	133	1.2	0.3	.25	3.0
20	30.3	23.3	-	139	17.4	11.1	.25	-
21	30.2	24.6	23.5	139	252.7	4.1	.00	1.2
22	28.1	23.0	21.9	134	2.5	0.0	.50	2.4
23	28.1	23.0	21.3	132	19.4	2.2	.00	3.7
24	28.7	22.7	21.5	131	9.7	1.1	.50	3.2
25	30.6	22.4	21.1	139	0.4	10.2	.50	7.0
26	29.6	22.8	21.5	136	12.8	11.0	.00	6.0
27	28.3	24.0	22.5	128	16.0	0.0	.25	5.3
28	28.3	25.0	23.7	130	23.2	1.7	.25	2.4
29	29.0	23.9	22.1	137	1.3	9.7	.25	5.0
30	29.8	23.7	22.1	148	-	7.1	.75	5.2
31					Total			
Means	29.9	23.6	22.3	139	510.4	6.4	0.38	4.9



METEOROLOGICAL OBSERVATIONS.

9 a.m.

December 1932

Day of Month.	CLOUD.			Amount of Low.	Total Amount.	Height of Base.	How Height was obtained.	WEATHER.		Visibility.	WIND.		TEMPERATURE AND HUMIDITY.				UPPER CLOUD.			
	Low.	Medium.	High.					Since previous Observation.	At Time.		Direction.	Force (Beaufort Scale).	Barometer reduced to M.S.L. (Millibars).	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.
1	Cu	-	-	4	4		b bc	bc	5	ESE	1	1009.4	84.5	77.5	72	29.6				
2	Cu	-	Ci	1	1		bc b	b	4	ESE	2	1010.0	85.5	79.0	74	30.4				
3	Cu	-	Ci	4	4		c p	bc	4	ESE	2	1010.8	84.4	76.6	76	30.1				
4	Cu	-	Ci	1	6		bc cpr	bc	5	ESE	1	1010.2	86.7	79.0	74	32.7				
5	Cu	-	-	8	8		cp bc	c	5	ESE	3	1008.9	84.8	78.7	75	31.2				
6	Cu	A-St	-	2	9		bc c	c	5	ESE	1	1009.5	84.0	78.5	77	30.9				
7	St-Cu	A-St	-	6	10		cpr	c	5	NNE	3	1010.3	80.0	75.9	83	28.9				
8	St-Cu	-	Ci-St	7	9		c or c	c	5	S	1	1010.2	79.0	76.6	89	30.1				
9	Cu	A-Cu	-	2	9		c jp	c	5	ESE	1	1011.1	85.0	78.8	75	31.2				
10	Cu	-	-	5	5		c or c	bc	5	ESE	2	1011.0	85.1	79.2	76	31.2				
11	Cu	-	-	6	6		b or cp	c	5	ESE	2	1011.3	84.0	78.7	79	30.9				
12	Cu	-	Ci-St	3	9		bc cpr	c	4	ESE	2	1011.8	85.0	79.0	76	31.2				
13	Cu	-	Ci	1	4		cpr	bc	4	ESE	2	1010.2	83.9	78.1	76	30.1				
14	Cu	-	Ci	5	5		bcoprbc	bc	4	ENE	2	1009.3	83.0	77.3	76	29.8				
15	St-Cu	-	-	6	6		bc or d	bc	4	E	1	1010.0	82.3	77.6	81	30.2				
16	Cu	-	-	8	8		or pr c	cjr	4	SE	2	1009.9	82.0	77.3	81	30.2				
17	Cu	-	Ci	3	4		bc	bc	4	ESE	2	1010.1	85.9	79.1	73	30.7				
18	Cu	-	-	2	2		bc	b	4	E	1	1008.4	84.5	78.3	75	31.2				
19	Cu	-	-	2	2		b	b	4	NE	1	1007.4	83.0	77.0	75	29.0				
20	Cu	-	-	2	2		bc	b	3	N	1	1007.3	82.6	77.0	77	29.8				
21	Cu	-	Ci-St	1	7		bcjrtp	bc	4	ENE	1	1007.1	83.6	76.6	72	28.6				
22	Cu	-	Ci	2	6		bc opr	bc	4	NNE	2	1009.1	83.0	77.9	79	30.5				
23	Nb	-	-	9	9		orr/opr	op	4	N	2	1010.2	80.0	77.3	89	31.1				
24	Cu	A-St	-	1	10		crrtc	c	4	CALM	0	1009.0	79.2	75.0	81	27.9				
25	St-Cu	A-St	-	5	8		rrtlc	c	5	CALM	0	1009.0	78.4	76.0	89	29.0				
26	Cu	A-St	False Ci	1	9		rbc c	c	4	CALM	0	1006.5	80.3	78.1	91	31.9				
27	Cu	A-St	-	1	9		bc c	c	3	CALM	0	1006.2	82.1	76.5	77	27.7				
28	Nb	-	-	10	10		c jr	or	6	N	1	1005.5	81.0	76.6	81	29.2				
29	Cu	A-Cu	-	5	7		bcorrbc	bc	4	SE	1	1003.7	83.2	78.5	81	31.3				
30	Cu	A-Cu	Ci-St	3	9		bc or c	c	4	NNW	2	1002.9	82.5	77.5	79	30.5				
31	St-Cu	A-St	-	4	9		cjrktop	c	4	S	1	1003.2	81.0	77.7	85	30.7				
Means	-	-	-	3.9	6.6		-	-	4.3	-	1.4	1008.7	82.9	77.7	78.8	30.3				





METEOROLOGICAL OBSERVATIONS.

APIA OBSERVATORY

3.30 p.m. December 1932

Day of Month.	CLOUD.			WEATHER.		Visibility.	WIND.	TEMPERATURE AND HUMIDITY.				UPPER CLOUD.				
	FORM.			Since previous Observation.	At Time.			Barometer reduced to M.S.L. (Millibars).	Dry Bulb (°F).	Wet Bulb (°F).	Relative Humidity (%).	Vapour Pressure (Millibars).	Type observed.	Direction whence coming.	Speed: Height Ratio.	
	Low.	Medium.	High.													Amount of Low.
1	Cu-Nb	-	-	6	6	bc	bc	bc	1008.0	85.0	77.2	69	28.1			
2	Cu	-	-	4	4	bc	bc	bc	1007.9	85.0	79.0	76	31.2			
3	Cu	-	Ci-St	4	7	cp	bc	bc	1008.1	83.7	79.2	82	30.2			
4	Cu	-	Ci-Cu	4	7	bc	bc	bc	1007.5	83.2	78.2	79	30.5			
5	Cu	-	Ci	7	7	bc	bc	bc	1006.8	84.3	79.0	79	30.9			
6	St-Cu	A-St	-	5	10	c	c	c	1007.0	85.0	79.5	78	32.0			
7	St-Cu	A-St	-	1	10	c	c	c	1007.4	82.0	78.0	83	31.0			
8	St	A-St	-	3	10	or c	c	c	1008.3	80.0	76.0	83	28.9			
9	St-Cu	-	Ci-Cu	7	8	c jr pr	c	c	1008.1	82.2	78.5	85	31.7			
10	Cu-Nb	-	-	2	2	bc b	b	b	1008.6	85.5	79.0	74	30.4			
11	Cu	-	-	3	3	bccpbc	bc	bc	1009.8	86.0	78.8	72	30.7			
12	St-Cu	-	-	9	9	bc	cr	cr	1008.9	86.2	80.0	75	32.3			
13	Cu	-	-	4	4	bc	bc	bc	1007.2	86.0	79.6	75	31.5			
14	Cu	-	Ci	4	5	bc p	bc	bc	1007.1	84.1	77.8	75	29.5			
15	Cu	-	-	6	6	bc	bc	bcpr	1007.9	83.2	77.7	77	29.8			
16	Cu	-	Ci	2	5	cjr bep	bc	bc	1008.6	86.3	78.3	69	29.2			
17	Cu	-	Ci-St	5	7	bc	bc	bc	1006.8	85.1	78.9	75	31.2			
18	Cu	-	Ci	7	8	bc c	c	c	1006.0	85.0	78.2	73	29.6			
19	Cu	-	Ci	4	5	b	bc	bc	1004.7	84.2	77.2	72	28.6			
20	Cu-Nb	-	Ci	6	6	b bc	bcjrt	bcjrt	1004.7	84.2	77.6	73	29.3			
21	Cu	-	Ci-St	2	7	bc pr	bc	bc	1006.1	84.7	77.6	71	29.6			
22	Nb	A-St	-	8	9	bc cjr	cjr	cjr	1006.6	82.0	77.4	81	50.2			
23	St-Cu	A-St	-	9	10	c op	c	c	1008.2	82.0	77.7	82	30.2			
24	Cu	A-St	-	4	9	c	c	c	1006.7	83.9	77.7	75	30.1			
25	Cu-Nb	-	-	9	9	c	cjr	cjr	1005.5	81.5	77.3	85	29.9			
26	Cu	A-Cu	Ci	2	7	c bc	bc	bc	1004.3	85.4	75.7	69	26.8			
27	St-Cu	-	Ci-Cu	5	8	c	c	c	1004.1	83.7	77.9	76	50.1			
28	Cu	-	-	6	6	pr bc	bc	bc	1002.1	83.2	78.2	79	50.5			
29	Cu-Nb	-	Ci	4	5	or bc	bc	bc	1002.2	82.2	77.7	81	50.2			
30	Nb	-	Ci	7	9	c cr c	cjr	cjr	999.9	82.1	79.0	87	52.5			
31	St-Cu	A-St	-	7	10	c jr o	or	or	1002.3	80.5	77.9	88	52.2			
Means	-	-	-	5.0	7.0	-	-	-	1006.4	83.7	78.1	77.3	50.3			
				4.4												





## METEOROLOGICAL OBSERVATIONS.

December 1932

Day of Month.	Thermometers.				Rainfall (mm.)	Sunshine (hrs.)	Heat Integrator.	Evaporimeter.
	Maximum (°C)	Minimum (°C)	Gross Minimum (°C)	Black Bulb in vacuo (°F)				
1	30.3	23.5	21.5	145	-	9.7	0.75	6.8
2	31.1	22.8	21.1	137	1.7	10.5	.50	9.6
3	31.0	26.2	23.6	143	9.0	9.5	.25	5.3
4	30.7	22.9	21.4	140	0.7	10.1	.25	10.0
5	30.4	26.0	24.3	140	-	10.2	.25	-
6	31.4	25.5	22.6	150	31.2	3.1	.25	-
7	28.2	23.6	23.2	134	4.0	0.1	.25	4.2
8	29.9	24.3	23.0	140	0.9	2.5	.50	5.5
9	30.6	23.6	22.1	149	7.9	5.0	.25	6.9
10	30.9	24.5	23.1	139	11.2	10.4	.25	-
11	30.8	23.7	22.6	143	0.5	10.8	.50	7.7
12	31.0	25.4	23.0	139	1.9	10.3	.25	5.6
13	30.5	25.0	-	143	9.1	10.1	.50	7.6
14	29.5	25.0	23.4	141	10.7	10.4	.25	-
15	30.4	24.1	22.7	141	6.3	10.1	.50	6.8
16	30.5	25.1	22.9	140	-	9.9	.50	6.9
17	30.3	24.1	22.3	141	-	9.5	.50	7.9
18	29.8	23.9	-	140	-	7.5	.50	-
19	29.6	23.8	-	142	4.7	9.6	.75	4.6
20	29.5	23.9	22.2	139	1.0	9.7	1.75	5.0
21	29.8	23.9	21.9	146	16.8	8.5	1.50	4.8
22	29.4	24.4	23.1	152	65.0	5.4	.75	3.1
23	28.0	24.0	22.9	146	74.1	1.0	.50	2.9
24	29.1	22.4	21.7	147	41.8	2.2	.75	-
25	28.8	23.6	22.8	146	4.7	4.4	1.25	2.3
26	29.0	24.0	22.8	140	-	6.5	.75	5.3
27	29.3	24.7	-	140	-	3.9	.25	7.1
28	29.9	25.2	23.6	138	43.1	4.6	.25	3.5
29	29.0	24.3	22.7	140	30.3	4.7	.75	2.8
30	29.2	24.5	22.9	142	9.5	4.8	.25	-
31	29.0	24.5	23.5	134	1.0	0.8	1.00	6.7
Means	29.9	24.3	22.7	141.3	387.1	7.0	.57	5.8

Total



Rainfall in Samoa, 1932

Station	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year	Authority
(Inches)														
<b>Upolu:-</b>														
Alafua	New 25.07	18.18	st a t i o n 23.37	8.45	3.23	2.91	3.81	7.09	5.52	8.12	20.21	17.68	--	Mr M. R. Meham
Casala	40.67	23.77	24.61	missing	2.60	4.60	missing	3.24	2.83	7.02	17.53	12.90	--	Mr P. L. M. Morgan
Malololelei	17.36	15.76	8.61	8.02	3.25	2.99	8.48	4.74	5.18	Station closed			--	Captain F.K. Allen
Mulifanua	21.34	13.70	14.20	12.81	3.87	1.58	3.39	3.65	6.27	4.80	15.75	5.34	93.31	N.Z. Reparation Estates
Mulinu'u	New 21.34	13.70	st a t i o n 14.20	12.81	3.80	1.31	2.42	5.99	3.52	6.77	20.09	15.24	123.94	The Observatory
Tafa'igata	New 17.32	21.12	st a t i o n 17.11	14.98	3.97	1.97	2.39	2.90	4.25	4.23	18.84	11.42	--	N.Z. Reparation Estates
Tifitifi	21.39	23.38	13.79	14.56	4.13	3.87	3.53	5.90	4.77	5.86	18.54	16.89	--	Mr M. E. Graf
Tuanafimato	29.44	24.31	21.74	9.93	2.60	1.24	3.74	6.01	4.96	8.12	22.21	11.70	133.86	N.Z. Reparation Estates
Vailele	27.41	21.60	22.03	17.60	2.72	2.10	3.21	3.11	5.71	8.75	22.67	10.64	135.13	"
Vaipapa	22.96	12.07	13.69	12.10	4.30	0.86	3.09	5.47	5.92	6.67	23.67	18.24	144.21	"
Vaipoto								5.74	5.31	8.00	20.28	17.75	157.89	The Hon. A.R. Cobcroft
Vaitele													126.15	N.Z. Reparation Estates
<b>Savai'i:-</b>														
Fagamalo	29.89	18.99	14.15	13.46	1.70	n	4.50	6.72	9.38	6.52	19.74	18.62	--	The District Officer
Palauli	24.02	13.07	14.15	13.46	1.70	4.13	5.99	6.12	5.28	7.94	12.05	8.49	114.40	Mr A.R. Schmidt
Tuasivi	New 29.89	18.99	st a t i o n 14.15	13.46	1.70	3.01	4.09	missing	5.57	4.67	15.00	5.31	--	The Resident Commissioner
Tutuila (American Samoa):-														
Paopago	34.6	11.3	18.4	27.6	9.3	10.8	12.0	6.1	11.4	11.3	27.4	13.8	194.0	United States Naval Station

Notes:-

- (1) The readings of the rain-gauge at the stations given in this table are made in the morning and entered to the same day; but the readings at 9 a.m. at Mulinu'u (Apia Observatory) are "thrown back" to the previous day.
- (2) The rim of the gauge is generally at a height of one or two feet above the ground; but at some stations e.g. Vaipapa and Mulifanua it is breast-high (about 4 feet).
- (3) The type of gauge in use is, except at Vailele, the Snowdon pattern with a deep funnel five inches in diameter and a tapered glass measure reading in inches.
- (4) The sites are not strictly "conventional" owing to the profuse growth of vegetation.





UPPER AIR CURRENTS

Results of Pilot Balloon Ascents  
at Apia Observatory, 1932

The measurements of upper winds are expressed in international code<sup>+</sup> as follows:-

YYGG h<sub>1</sub>ddvv h<sub>1</sub>ddv - - -

where YY = day of month; GG = hour of Greenwich time  
 h<sub>1</sub> = height expressed by a code figure  
 (see below)  
 dd = direction of wind using 36 points (i.e.  
 360° is expressed as 36; 270° as 27;  
 50° as 05; 00 = calm)  
 vv = speed of wind in miles per hour

Code for h<sub>1</sub>

0 = surface	1 = 1000 feet	6 = 10000 feet
	2 = 2000 "	7 = 13000 "
	3 = 3000 "	8 = 16000 "
	4 = 5000 "	9 = 20000 "
	5 = 7000 "	

(+ Copenhagen 1929)

January

N o n e

February

2423 00907 10709 20505 33602  
 2521 00000 10905 21104 31409 41519 51413 61313  
 2621 01003 10813 20811 30809 40712 50410 60509 72705  
           8----- 92713  
 2722 00504 10509 20911 30809 40503 51802 62309

March

0321 00000 11102 22902 3----- 41807 52015  
 0821 01104 11012 21120 31117 41222 51411  
 0920 00000 11716 21223 31124 41019 51021 61120  
           (9000 feet)  
 1521 01104 10911 21012 30913 40709 51012



## March (contd.)

1621	00901	11204	22405	31509	41113	51013	60711	70805
		80903						
2122	03401	13308	23110	32914	42813	52716		
3021	01801	11104	23607	30110	40109	50212	60311	70508
		(12000 feet)						

## April

1319	02001	13604						
1407	02002	10506						
1421	02002	10905	20903	31205	41107	51105	61106	71106
2022	01106	10917	21112	31408	41609			
2122	01104	11009	22005	31903	43002	53111		
2220	01103	11115	21218	31119	41213	52515	62830	
2321	01304	11315	21219	31117	40408	50611	63314	
2622	03104	13112	23013	33117	43213			
2720	01801	12705	23109	33115	43016	53107		
2822	00803	10705	21905	32009	42507	52706	62502	70803
2922	00904	10809	21005	31706	41705	51504	61305	
3021	01103	11017	21017	30913	41014	50823	60825	70915
		81007	90909					

## May

0323	01106	11115	21215	31315	41017	50915	60808	70907
0621	01106	10924	21120	31117	41013	50908	60920	70509
		80507						
0722	01106	11017	21021	30818	40412	50621	60820	71017
1021	01110	11035	21121	31225	40930	50822		
1120	01105	11021						
2521	01104	11115	21217	31119	40917	50916	61017	70718

## June

0120	00000	11003	20705	30607	40503	52603	62814	72713
		83015	92919					
0421	00000	12904	21703	31505	41603	53101	63105	72713
		82603						
0722	00000	10707	21011	31015	40516	53513	60215	73505
		83315						
0820	01301	10305	20609	31113	40615			
0907	02302	12104	21006	31006	40611	50609	63007	72513
1023	01105	11316	21517	31420	41214	50609	63608	70107
		80317	93510					
1623	00903	10907	21107	31203	40105	50309	62409	72709
1723	01103	10913	20904	33102	40503			
2220	01301	11211	21011	31009	41506			
2307	02001	10803	23603	33305	41303	51205	61110	70914
2822	01104	11117	20917	30722	40825	51221	60920	
2921	01103	11109	21111	30909	41007	51605	61609	71119



## July

0222 01107 11036 21045 31032  
 0423 01105 11023 21023 30918 40722  
 0601 01106 10925 21025 30922 40721 50719 60523  
 0620 01102 11116 21123 30917 40817 50610 60309 73516  
           83013  
 1320 01602 11013 20918 30821 40923 51011 63607 71210  
           83603 91505  
 1407 01802 11115 20918 30917 40918 50817 61403  
 2122 03605 13107 22907 32707 42907 53107 63113 72403  
 2720 01106 10923 20921

## August

0320 01107 11021 20925  
 0522 01110 10919 21015 31013 40811 50715 61211 70904  
           82507 93419  
 0622 01105 10911 21111 31112 40705 50406 60115 73105  
           82907 93117  
 0921 01108 11125 21127 31133 41017 51015 60925 70915  
           (12000 feet)  
 1720 01301 11215 21318 31317 41311  
 3122 01110 11121 21219 31318 41013 50713 60716 71214  
           81813 92414

## September

0107 01303 10915  
 0222 01108 11031 21029 31021 41025  
 0622 00906 10814 20804 3--01  
 1420 01108 11129 21033 31030  
 2022 01110 10919 21111 31316 41117 51427 61613 7--03  
           81016 91611  
 2120 00903 11109 21209 31115 41110 51507 61514 71520  
           81413 91307

## October

0521 01310 11015 21228 31133 40927  
 1307 01304 11015  
 1721 01010 11123 21120  
 1922 01109 11023 21119 31121 40915 50814  
 2620 01110 11115 21121 31017  
 2707 01305 11015 21515 31415 41516

## November

0307 02302 12708 22707 32608 42507  
 0322 03602 13505 21103 3---- 4---- 51603 62309



## November (contd.)

0819 01110 11121 21123 31031 41033 50930  
 1620 01110 10919 20921 31023  
 2320 01302 10810 21108 31208 41905 52408 62907 72813  
           82309  
 2521 01112 10913 21112 31213 41411 51411 62805  
 3022 00000 12904 23308 33511 43511 50113 60120 73419

## December

0807 01802 10912 20813 30617 40715 50813 61017 70821  
 1420 00706 10609  
 1507 01602 -1005 at 500 feet

Note. The tail method has been employed generally during the year 1932; but frequently owing to unsuitable elevation of the balloon in light winds and bad visibility of the tail the computation has been performed assuming a constant rate of ascent.



Mean Values and Frequencies of Meteorological Elements

Station - Niue Island Lat. 19°2'S., Long. 169°51'W. Elevation - 65 feet above M.S.L. (barometer cistern) Hour of observation 3.30 p.m. (= 3h C.M.T.)

Month	Barometer (millibars)	Temperature (°F)			Rainfall (inches)	Wind - Number of observations of :-								Cloud - Number of observations of :-			Number of daily reports available				
		Dry Bulb	Wet Bulb	Dew Point		Force of wind	Force of wind	Force of wind	N	NE	E	SE	S	SW	W	NW		SKY clear	Partly clouded	Overcast	
January	1007.2	83.8	78.7	77	11.32	-	4	18	-	2½	1½	6	2½	1½	1½	2½	4	1	6	15	22
February	1008.9	83.4	78.3	76	16.89	-	5	15	1	6½	1	4½	5	½	-	-	2½	2	6	13	21
March	1009.9	82.1	77.1	75	15.18	-	5	16	-	-	2½	4½	9½	1½	-	1½	1½	1	6	14	21
April	1009.3	81.0	75.9	74	4.14	-	4	15	1	-	1	6	11½	½	-	-	-	3	6	11	20
May	1013.7	81.6	75.7	73	1.41	-	5	14	1	½	2½	11	5	-	-	-	-	6	7	7	20
June	1012.8	77.5	72.8	70	5.22	-	1	16	1	2	1	2	7½	1½	1	2	-	3	5	12	18
July	1011.4	78.0	73.3	71	4.56	-	8	9	2	3	½	5½	3½	1	-	1½	2	2	14	13	19
August	1013.7	77.8	73.0	71	4.47	-	10	10	2	2	1	3½	12½	½	-	-	½	-	6	16	22
September	1013.4	79.1	73.1	70	1.44	-	5	16	-	-	1½	5½	12½	½	-	1	-	6	6	9	21
October	1014.7	80.8	73.9	71	3.12	-	11	11	-	-	-	14	8	-	-	-	-	4	8	10	22
November	1011.0	80.1	75.1	73	6.53	-	6	12	3	-	1½	7½	7	½	½	1	-	3	2	16	21
December	1008.2	86.3	80.0	77	4.54	-	1	15	2	2½	1½	5½	1	1	-	4	½	3	6	10	19 (wind 18)

Year 78.82

Source of Data:

Niue Island Administration (Observer - Mr J.P. McMahon Box) - wireless reports issued daily and received at Apia Radio Station.

Readings of pressure are obtained from a Kew pattern marine mercurial barometer (Calderara No. 3215), corrected for temperature, gravity and index error and reduced to mean sea level. Readings of temperature are obtained from mercurial thermometers.

The values for rainfall are extracted from manuscript reports.

Note: The frequencies of wind have been condensed to eight principal points by crediting one half of the frequencies of intermediate points to each of the neighbouring principal points; e.g., a frequency of 5 observations of wind from NNE is expressed as N 2½ and NE 2½.







Climatological Summary, 1932

Mean Values and Frequencies of Meteorological Elements

Station - Norfolk Island		Lat. 29°00'E., Long. 167°55'E.		Altitude 300 feet (approximately)		Hour of observation 3 a.m. local time (Time standard - 11h 12m 1.s. in advance of Greenwich)																		
Month	Barometer (millibars)	Temperature (°F)			Wind - Number of observations of :-												Cloud - Number of observations of :-			Number of daily reports available				
		Dry Bulb	Wet Bulb	Dew Point	Force of wind	Direction	Force of wind	Direction	Force of wind	Direction	Force of wind	Direction	Force of wind	Direction	Force of wind	Direction	Force of wind	Direction	Force of wind		Direction	Sky clear	Clouded	Overcast
January	1013.8	70.9	67.3	65	0.49	10	19	2	14	7	14	2	1	1	1	1	1	1	1	1	7	16	8	31
February	1012.3	71.0	67.6	65	2.84	16	10	3	1	8	1	1	1	1	1	1	1	1	1	1	7	9	13	29
March	1017.6	70.3	66.8	64	0.75	14	15	2	2	6	2	2	2	2	2	2	2	2	2	2	6	16	9	31
April	1016.6	69.6	66.1	64	4.58	13	14	1	6	2	10	6	4	1	4	2	3	2	2	2	8	13	9	30
May	1017.4	63.3	60.0	57	6.53	16	11	3	3	10	7	3	1	1	1	1	1	1	1	1	6	6	19	31
June	1014.6	62.0	59.2	57	5.12	17	10	2	3	5	6	3	2	1	2	6	6	6	6	6	3	14	13	30
July	1015.3	59.6	56.9	55	5.49	20	11	-	3	6	5	3	2	2	3	3	5	5	5	9	16	6	31	
August	1020.9	59.5	56.5	53	5.77	11	18	2	5	6	4	5	3	1	2	2	4	4	4	13	7	11	31	
September	1017.0	62.5	60.7	60	6.71	14	14	2	1	3	4	1	4	10	2	4	4	4	4	11	11	16	30	
October	1017.1	64.6	62.5	62	7.05	13	17	1	2	7	2	2	4	8	1	3	2	2	2	8	8	15	31	
November	1020.1	66.3	62.7	60	1.22	13	17	-	6	4	1	6	4	6	-	1	1	1	1	8	12	10	30	
December	1014.1	69.5	65.9	63	1.74	8	21	2	9	1	3	9	7	4	2	3	3	3	3	12	10	9	31	
												Year 48.29												

Source of data

Written reports supplied by the Pacific Cable Board. The mercurial barometer in use was supplied by J. Hicks, London (No. M.O.1253) and its readings are corrected for altitude and temperature. Temperatures are read from mercury thermometers.



Climatological Summary, 1932

Mean Values and Frequencies of Meteorological Elements

Station - Nukualofa

Lat. 21° 8'S., Long. 175° 12'W.

Hour of observation - 9 a.m. local time  
(Time standard - 12h 20m 1.e. in advance of Greenwich)

Month	Barometer (millibars)	Temperature (°F)			Rainfall (inches)	Wind - Number of observations of :-								Cloud - Number of observations of :-			Number of daily reports available				
		Dry Bulb	Wet Bulb	Dew Point		Force or Force	N	NE	E	SE	S	SW	W	NW	Variable	Sky clear		Partly cloudy	Overcast		
January	1007.9	79.8	75.7	74	10.02	5	25	1	4	1½	6	8½	4	2½	1½	2	-	3	7	21	31
February	1009.6	81.6	76.5	75	6.26	2	25	2	4	-	9½	10	½	-	½	2½	-	-	16	13	29
March	1011.8	79.1	73.9	72	6.04	-	22	-	2½	1½	11½	13½	2	-	-	-	-	-	17	14	31
April	1013.1	78.0	71.9	69	2.11	-	23	-	½	1½	12½	14	1½	-	-	-	-	1	14	15	30
May	1015.4	77.9	74.7	74	2.75	-	21	2	½	9	13	4	2½	-	-	-	-	1	10	20	31
June	1015.0	74.7	69.3	66	6.63	-	27	-	2	2	4	6	4½	5½	3½	2½	-	5	14	11	30
July	1014.2	73.5	69.2	66	6.15	-	23	1	2½	2½	8	9	3½	1	3	½	-	-	14	17	31
August	1017.2	71.7	66.8	64	7.15	-	14	1	1	1	10½	9	8½	-	-	-	-	6	8	17	31
September	1016.4	73.9	69.4	67	3.89	-	24	-	1½	2½	13½	8½	2½	-	-	1½	-	1	15	14	30
October	1017.5	76.4	70.7	67	0.41	-	15	-	1	6	14½	7½	1	-	-	-	-	3	15	7	50 (Cloud 25)
November	1014.0	77.4	72.1	68	5.67	-	13	-	½	4	8	12	3½	-	-	1	-	4	10	14	50 (Cloud 26)
December	1009.2	80.2	75.8	74	15.06	-	25	3	3	1½	7½	3	5½	1½	3	-	-	-	10	18	26
											Total			72.14							

Source of Data

Monthly meteorological record supplied by the Telegraph and Telephone Department, Nukualofa, Tonga. Readings of pressure are obtained from a Kew pattern mercury barometer (Hicks, London) and temperature and humidity are measured by means of dry and wet bulb thermometers. The readings of the barometer are corrected for index error, temperature, gravity and elevation above mean sea level.



International  
Seismological  
Centre



Climatological Summary, 1932

Mean Values and Frequencies of Meteorological Elements

Station - Rarotonga Lat. 21°11'S., Long. 159°46'W. Altitude 18 feet above M.S.L. (barometer cistern)  
 (Time Standard + 10h 38m 1.9.slow on Greenwich) Hour of Observation 4.30 P.M.

Month	Barometer (millibars)	Temperature (°F)			Wind - Number of observations of :-				Cloud - Number of observations of :-			Number of daily reports available							
		Dry Bulb	Wet Bulb	Dew Point	Force or more	Horses	Force or more	Horses	Force or more	Horses	Force or more		Horses						
January	1005.3	83.7	78.6	77	-	3	23	3	5	1 1/2	-	2 1/2	7 1/2	9	3	6	20	29	
February	1006.3	83.9	78.6	76	-	1	24	4	2 1/2	4 1/2	1	2	7	1	3 1/2	1	9	18	29 (Cloud 28)
March	1008.0	79.8	75.9	74	-	7	21	3	1 1/2	2 1/2	11	4	5	2	1 1/2	2	11	18	31
April	1007.5	77.7	74.4	73	-	6	20	3	-	1 1/2	10	2 1/2	10 1/2	1 1/2	1 1/2	1	6	22	29
May	1013.3	76.5	72.3	71	-	2	20	9	-	1 1/2	13 1/2	5 1/2	2 1/2	-	-	3	16	9	31 (Cloud 28)
June	1011.1	73.4	69.6	67	-	4	19	6	1	2 1/2	1	3 1/2	6 1/2	2	2	5	13	10	29 (Cloud 28)
July	1010.8	73.8	70.2	69	-	10	4	6	1	8	5	3 1/2	1 1/2	2 1/2	2 1/2	1	17	12	30
August	1012.9	73.3	68.8	66	-	9	20	1	1 1/2	4 1/2	7	7	3	-	1	1	19	11	31
September	1012.1	73.4	69.5	67	-	11	17	2	-	3	9 1/2	6 1/2	1	5	2	-	15	15	30
October	1013.7	75.2	72.5	71	-	4	23	4	-	1 1/2	18	4	3 1/2	-	-	4	16	11	31
November	1010.2	78.8	75.1	74	-	9	21	-	2	3	12 1/2	3 1/2	5	-	4	2	11	17	30
December	1007.1	83.4	78.7	75	-	1	27	3	2 1/2	7	15	-	-	-	3	11	17	17	31

Source of data

The Radio Station, Rarotonga (Cook Islands Administration). The readings of pressure given above have been derived from a Fortin mercurial barometer (Casella No.2247) and they have been corrected for temperature, gravity and altitude, but not for index error which is not known. Dry and wet bulb readings are from mercury thermometers.





### Atmospheric Electricity - 1932

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The programme of work in atmospheric electricity during 1932 was carried out as in former years under the direction of the Department of Research in Terrestrial Magnetism, Washington, D.C., U.S.A.

The observations consisted of continuous records of the gradient of potential in the atmosphere at two stations. The Land Station is situated in the grounds of the Observatory and the Lagoon Station is a small hut erected over the shallow waters of the lagoon inside the coral reef at a distance of about half a kilometre from the shore.

The instruments employed are Benndorf electrometers fitted with ionium collectors. The values of the potential gradient in volts per metre have been based on reduction factors of 1.00 and 0.63 for the Land and Lagoon stations respectively and these factors have been checked from time to time by absolute determinations using a raft and the small platform which was constructed in December, 1931 in the lagoon about half way between the two stations.

The following classification of days has been adopted:-

- (a) Days during which no negative potential gradient occurs are days of character 0
- (b) Days during which negative potential gradient is recorded for one or more short periods amounting to less than 3 hours in the aggregate are days of character 1
- (c) Days during which negative potential gradient is recorded for more than three hours are of character 2
- (d) If for any reason the record fails during a continuous period of more than three hours the day is not classified.



Monthly Values, Atmospheric Electric Potential  
Land Station 1932

Month	Electric Character of Day			Number of Days not classified	Mean Potential Gradient for Days of Character 0	Number of hours of negative potential recorded
	0	1	2			
January	3	16	7	5	104.2	52.5
February	4	10	7	8	93.3	54.7
March	5	11	8	7	110.3	58.5
April	3	8	6	13	120.9	42.6
May	12	13	1	5	117.4	22.3
June	20	2	0	8	134.9	5.9
July	16	10	0	5	119.7	6.3
August	11	11	1	8	122.5	14.5
September	15	8	0	7	115.4	12.7
October	11	4	2	14	115.8	20.0
November	8	10	6	6	105.3 <sup>†</sup>	39.5
December	4	15	5	7	118.8	53.2
Year	112	118	43	93	114.9	392.7

<sup>†</sup> Based on 7 days of character 0



Monthly, Seasonal and Annual Means of Potential Gradient 1932

For days without negative electricity at the Apia Land Station

Tabular values are the average values expressed in volts per metre, using reduction factor 1.00 for successive periods of one hour, civil reckoning, 165th meridian, mean time west (27m 06s fast on local mean time). The seasonal means are derived from the following grouping of months: Wet - November 1931 to February 1932 inclusive. Dry - May to August inclusive.

Month	No. of Days	0-1	1-2	2-3	3-4	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	19-20	20-21	21-22	22-23	23-24	Mean
January	5	85	69	79	78	85	76	92	168	200	163	105	93	93	91	85	85	82	92	100	131	153	107	95	93	104.2
February	4	79	84	69	69	65	63	60	117	153	109	106	103	96	86	83	83	84	85	84	103	118	109	119	109	93.3
March	5	77	76	79	77	79	87	119	168	206	149	125	115	98	106	97	88	102	96	107	168	152	107	88	80	110.3
April	3	91	89	94	82	96	110	231	291	210	119	112	110	94	85	77	73	89	108	160	162	145	103	94	78	120.9
May	12	95	95	104	104	103	98	118	187	229	140	121	111	105	101	95	106	105	107	113	126	129	121	107	97	117.4
June	20	97	92	95	94	91	98	124	222	280	242	162	129	115	105	99	92	93	102	160	207	170	144	115	109	134.9
July	15	92	92	87	88	93	92	109	174	251	190	141	126	113	107	100	95	95	100	111	139	137	122	111	100	119.7
August	11	101	96	92	86	87	91	108	171	238	169	147	125	117	113	106	101	99	96	109	168	159	137	120	104	122.5
September	15	74	78	81	83	85	91	119	222	221	154	125	116	102	97	93	95	91	89	113	148	176	128	102	87	115.4
October	11	87	91	93	106	124	121	186	204	158	140	133	121	111	101	98	95	91	99	103	108	115	108	97	93	115.8
November	7	86	83	78	78	85	98	166	195	161	138	112	98	91	87	81	86	88	86	100	131	131	95	90	88	105.5
December	4	121	113	103	103	91	109	194	209	162	157	114	98	91	86	95	93	93	106	121	147	141	109	102	100	118.8
Year	110	90.4	88.2	87.7	87.3	90.3	94.5	135.5	194.0	205.7	155.8	125.3	112.1	102.2	97.1	92.2	91.6	92.5	97.2	115.1	144.8	143.7	115.7	105.3	94.8	114.9
Wet Season	23	93.0	92.0	86.0	79.7	78.0	83.3	119.7	188.7	176.7	131.7	104.7	98.0	94.0	86.5	86.7	87.5	85.7	90.0	100.7	131.0	135.7	111.7	105.7	121.5	106.9
Dry Season	58	96.3	93.7	94.5	93.0	93.5	94.7	114.7	188.5	249.5	185.3	142.7	122.7	112.5	106.5	100.7	99.7	98.0	101.3	123.3	160.0	148.7	131.0	125.5	102.5	123.6





CORRIGENDA

Annual Report of Apia Observatory for 1931

Page 44, Table 35

Rainfall variations should read as follows:-

January	+1	May	+193	September	+13
February	+121	June	+137	October	+42
March	- 96	July	+ 20	November	-108
April	+154	August	- 39	December	-136
Year +302					

Sunshine variations for February, September and October should read -17, -2 and +16 respectively.

Page 50, Table 41 - Rainfall

The column "Total Rainfall" is in error. The figures should agree with those given in the Meteorological Observations (pages 58 to 91) and hence should read:-

January	443mm.	May	355	September	139
February	506	June	268	October	212
March	261	July	100	November	148
April	405	August	51	December	230
Year 3118					

Page 64 - Meteorological Observations - March

The figure given at the bottom of the rainfall column should be the total rainfall for March and should read 260.6 mm.

Important Notice

The corrections given on this page refer to the preceding year 1931 and not to the present volume.