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RECORD OF OBSERVATIONS AT  
MEANOOK MAGNETIC OBSERVATORY  
1957 - 1958  
(Revised Edition)

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# MEANOOK MAGNETIC OBSERVATORY

NOTE: This publication is a revised and corrected version of "Record of Observations at Meanook Magnetic Observatory 1957-58", Pub. Dom. Obs. vol. 28, no. 4, 1963. Shortly after the original publication was released, Father P. N. Mayaud of the Institut de Physique du Globe, pointed out to us many inconsistencies in the tables of diurnal inequalities. In checking these values further errors were found in the other tables.

In consideration of the importance of accurate records for the period of the International Geophysical Year, it was decided to replace the original publication entirely by a new one, with as many errors corrected as possible. Users are asked to destroy copies of the earlier publication.

We regret the confusion which the publication of these erroneous values may have caused, and are grateful to Father Mayaud for bringing them to our attention.

Geographic Latitude 54°37'N  
Geographic Longitude 113°20'W

Geomagnetic Latitude 61.8°N  
Geomagnetic Longitude 301.0°E

1957-58  
(Revised Version)

## Introduction

Meanook Magnetic Observatory was established in July 1916 at a distance of 85 miles north of Edmonton and 11 miles south of the town of Athabasca, Alberta.

The observatory is controlled by the Division of Geomagnetism of the Dominion Observatory, Ottawa.

During the International Geophysical Year 1957-1958 an auroral all-sky camera; an auroral intensity recorder; a patrol spectrograph; a vertical incidence ionosphere sounder; a fixed ionosphere backscatter sounder; a riometer and telluric recorder were in operation at the station. This report deals with the standard magnetic observations only.

## The Magnetic Equipment

The photographic recording equipment at Meanook consists of two sets, Standard and Low Sensitivity la Cour variometers installed originally for use in the Polar Year 1932-33. These are currently operating in the new magnetic observatory constructed in 1951.

## Scale Coefficients

Standard	H	7.84γ/mm	Temp. 1γ/degree C.
	D	0.98'/mm	
	Z	10.83γ/mm	
Low	H	22.56γ/mm	
	D	2.40'/mm	
	Z	16.76γ/mm	

## Stand-by Variometers

A three-component electrical Serson Magnetometer was in operation, with a chopper bar type inked output chart of 20mm/hr. The scale value was 8.3 gammas/mm corresponding to a full scale sensitivity of 1000 gammas in all components. The chart records were used in interpolating missing la Cour values. Such interpolated values of the la Cour records have been indicated in the tables

by underlining. By means of limit switches and a relay the sensitivity of the electrical magnetometer is halved whenever any one element goes off scale, thus converting the instrument into a storm recorder.

## Absolute Instruments

The absolute equipment available for the determination of baselines consisted of a Cooke 15 Magnetometer used for determination of declination and horizontal intensity. The corrections to the determination of declination to IMS was -0.3' and horizontal intensity to IMS -0.00106H. A Ruska Type Earth Inductor No. 6540 was used for obtaining inclination and no corrections were applied. A five-component electrical magnetometer of standard saturated core type designed by Serson and Hannaford of the Dominion Observatory was used for determination of declination; inclination; total intensity. The Quartz Horizontal Magnetometer No. 259 became the primary standard for horizontal intensity.

## Absolute Observations of Base-Line Values

Absolute observations were made on the average of once a week. Simultaneous marks were placed on the la Cour records and the base-line values determined by calculation from observed values and the measurement of the record ordinates at these points. The base-line values for D 1957 and Z 1958 were adopted by fitting the best continuous line between discontinuities. The base-line values for H and Z 1957 and D and H for 1958 were the means for the year. During 1957 and 1958 the r.m.s. value of the observed minus adopted values for D, H, and Z are:

$$\begin{aligned}D &\pm 0.8' \\H &\pm 5\gamma \\Z &\pm 13\gamma\end{aligned}$$

A discontinuity occurred in the D baseline on November 26, 1957, and in the Z baseline on July 4, 1958.

## PUBLICATIONS OF THE DOMINION OBSERVATORY

**The Magnetic Reductions**

The time used throughout the IGY is Universal Time (U.T.). The hourly values of D, H, and Z were obtained from the magnetograms by means of a ruled transparent scale. Each value represents the mean reading for 60 minutes, centered on the half hour. The product of the ordinates and the scale value is added to the adopted base-line values and the sum obtained is the appropriate hourly value printed in the text. From the tabulated mean values for each calendar month the mean value for each hour of the day and the mean daily value for each day of the month are derived.

The mean diurnal inequalities of the elements D, H, and Z, not corrected for non-cyclic changes for all days

and International Quiet and Disturbed days are given for the same period in the tables.

**Magnetic Activity and Disturbance Indices**

For the IGY period the magnetograms were read each month for sudden commencements, bays and pulsations and the results forwarded on standard forms in the manner internationally recommended to Committee No. 10 of the International Association of Geomagnetism and Aeronomy. The three-hour range indices for which the internationally accepted K-indices were derived were sent to De Bilt and Gottingen each month. Lower limit of K equals 1,500 gammas.

**Mean Values for Month and Year—Meanook**

Month	D East	H	Z	X	Y East	I North	F
1957	° '	γ	γ	γ	γ	° '	γ
January.....	24 24.8	12903	58798	11749	5333	77 37.4	60197
February.....	25.3	907	803	752	36	37.2	203
March.....	24.2	894	807	742	27	38.0	204
April.....	23.4	902	804	751	28	37.5	203
May.....	23.9	932	795	777	42	35.7	204
June.....	22.8	840	789	786	41	35.2	196
July.....	22.7	940	790	786	41	35.2	197
August.....	22.7	944	788	790	43	35.0	196
September.....	25.4	893	819	739	31	38.2	215
October.....	23.0	934	802	780	40	35.7	208
November.....	22.3	929	797	777	35	35.9	202
December.....	16.8	931	822	787	17	36.1	226
Year.....	24 23.1	12921	58801	11768	5335	77 36.4	60204
1958							
January.....	24 16.9	12936	58827	11792	5320	77 35.8	60233
February.....	15.7	919	847	778	08	37.1	248
March.....	16.2	911	846	770	07	37.5	246
April.....	14.4	946	851	805	15	35.6	258
May.....	13.8	954	848	813	16	35.1	257
June.....	14.3	963	850	820	22	34.7	261
July.....	14.6	942	797	801	14	35.2	205
August.....	14.4	952	782	810	18	34.4	192
September.....	15.3	941	795	799	16	35.2	202
October.....	14.6	941	802	800	14	35.3	209
November.....	14.4	961	786	818	21	34.0	198
December.....	14.9	951	792	808	19	34.6	202
Year.....	24 15.0	12943	58819	11801	5316	77 35.4	60226

HORIZONTAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 1 Meanook

H = 12,000  $\gamma$  +

January 1957

Hour U. T. Day	0 to 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 Mean
1 2 3 4 5 Q	928 931 935 938 941 939 936 931 929 931 928 812 910 939 931 918 903 913 903 904 906 906 909 915 917 918
6 7 8 9 10 D	927 928 923 936 941 946 945 939 940 891 808 863 913 917 934 928 926 918 906 871 844 903 915 922 912
11 12 13 Q 14 Q 15	910 914 914 921 923 918 915 915 913 910 913 913 910 914 914 910 903 908 895 895 888 896 896 899 908
16 17 18 Q 19 20 Q	909 915 915 917 917 921 923 923 918 906 914 923 922 920 921 918 914 910 903 902 903 899 899 906 909
21 B 22 D 23 D 24 25	927 928 923 936 941 946 945 939 940 891 808 863 913 917 934 928 926 918 906 871 844 903 915 922 912
26 27 28 29 30 D	913 916 922 933 948 933 920 907 897 787 872 904 912 908 907 897 877 881 885 882 879 882 889 893 898
31	902 907 917 914 930 930 920 914 914 906 862 718 823 927 928 917 898 893 898 897 894 898 902 902 897
Mean	910 913 921 929 923 936 930 922 918 909 910 904 892 918 926 929 920 909 892 910 894 894 891 910 913

## DECLINATION

Mean values for periods of sixty minutes, Universal Time

Table 2 Meanook

D = 24° E + ...'

January 1957

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1	21.3	22.0	22.9	23.5	23.5	23.0	23.0	22.7	23.0	24.0	25.9	26.9	27.8	25.8	27.7	24.5	18.6	24.0	24.9	24.9	22.5	22.0	22.0	22.0	23.7	
2	20.1	20.1	22.0	23.0	23.5	23.0	23.0	25.9	24.0	23.0	32.8	33.8	29.9	26.9	28.3	27.0	28.4	29.0	24.9	33.3	29.2	24.0	19.6	20.1	25.6	
3	19.1	20.1	23.0	23.9	23.9	24.0	24.5	24.7	24.0	23.6	24.9	24.9	24.0	25.4	25.9	26.4	28.4	27.9	28.9	27.5	23.1	22.0	22.0	23.0	24.4	
4	22.0	22.0	22.0	22.0	24.0	21.0	22.5	25.9	23.4	26.9	24.9	25.4	24.0	25.6	26.8	27.9	30.8	30.8	29.4	27.4	24.5	22.5	20.5	20.7	21.5	
5 Q																										
6	21.9	20.1	21.0	22.0	23.1	24.0	23.0	24.0	23.1	24.0	25.0	24.1	25.5	25.6	26.9	29.9	30.8	32.8	29.9	26.9	23.1	22.0	21.5	21.5	24.7	
7	21.0	21.0	22.0	20.1	20.1	21.1	22.0	24.0	24.5	24.0	24.9	28.9	25.3	25.1	26.9	28.4	30.3	31.3	29.8	27.4	24.9	22.4	22.0	21.1	24.5	
8	20.0	20.1	20.5	20.1	19.6	26.4	22.1	24.0	24.9	28.9	24.0	30.3	43.6	24.9	22.0	27.5	29.9	25.4	21.1	22.1	18.1	17.1	18.1	20.9	23.8	
9	20.0	20.0	21.1	22.5	24.0	24.9	24.5	24.1	23.9	24.1	24.9	26.0	24.0	24.9	12.2	14.2	19.1	27.9	23.0	23.1	19.1	19.1	19.6	18.6	21.9	
10 D	20.1	19.1	24.9	18.1	23.0	24.9	45.5	28.9	28.4	17.6	18.1	33.7	37.2	32.7	18.1	07.3	27.9	26.3	21.1	23.0	25.9	25.8	20.5	16.1	24.3	
11	18.1	19.1	22.0	24.0	24.9	25.0	24.9	26.4	31.8	33.3	35.6	30.8	33.8	34.7	27.3	28.0	29.4	29.9	27.4	25.9	23.1	21.9	20.1	21.0	26.6	
12	22.5	22.0	22.0	19.2	30.8	28.8	24.5	26.9	26.9	26.4	26.0	24.9	25.0	24.9	24.9	26.0	27.9	28.9	27.0	25.9	24.9	23.9	22.0	21.5	25.1	
13 Q	22.5	22.5	23.0	24.0	24.0	24.0	23.9	24.1	26.9	26.4	24.9	24.9	23.1	24.9	26.9	28.5	29.9	31.8	29.4	28.4	25.4	23.9	23.1	23.4	25.4	
14 Q	23.5	23.0	22.5	23.0	23.0	23.0	23.2	24.2	24.5	24.9	25.5	24.0	21.5	21.5	24.0	25.8	28.4	29.9	27.9	25.6	25.0	24.0	23.5	23.0	24.4	
15	23.0	22.1	22.5	22.3	23.0	25.4	25.4	24.0	31.8	26.9	27.4	24.9	18.1	22.1	27.3	27.9	28.9	25.4	23.5	24.7	22.5	22.5	21.5	24.5		
16	22.0	20.9	21.5	23.1	23.5	23.5	26.4	24.5	24.0	25.4	23.0	25.1	21.5	22.9	22.5	25.1	28.8	28.8	28.4	25.9	24.1	22.5	21.5	22.0	24.0	
17	22.0	21.9	22.0	22.1	24.0	24.5	24.0	24.0	26.9	26.9	24.9	25.0	24.0	24.0	21.1	23.1	29.4	29.9	29.4	28.8	24.1	21.0	21.4	22.4	24.4	
18 Q	23.1	23.0	23.0	23.3	23.9	23.0	24.1	24.9	26.9	23.1	22.9	22.0	24.9	24.9	24.0	25.9	29.4	31.8	29.4	26.9	24.5	22.0	21.5	21.9	24.6	
19	22.0	22.4	22.5	23.0	23.0	22.3	24.0	23.5	24.0	23.0	20.5	25.4	24.0	25.4	25.4	23.5	13.2	21.9	19.3	16.1	19.1	18.6	18.0	19.1	21.6	
20 Q	18.7	19.2	22.1	24.0	24.5	24.9	24.9	25.4	25.4	24.6	24.5	24.0	24.5	23.5	24.1	27.9	30.3	26.9	26.0	25.8	23.9	21.5	20.9	21.0	24.1	
21 D	21.0	21.0	21.0	23.0	20.1	22.1	23.0	23.9	27.9	29.9	35.6	32.8	30.8	34.3	37.7	20.9	42.7	42.1	17.0	16.1	79.9	64.1	55.3	24.1	31.9	
22 D	24.0	23.9	46.5	22.5	-2.0	9.8	30.8	23.1	4.5	15.6	28.8	24.0	29.9	29.9	31.7	32.7	34.3	34.7	30.9	28.9	26.0	22.5	21.1	21.1	24.8	
23 D	22.0	22.0	22.1	22.8	23.0	24.0	23.1	23.1	28.4	41.6	46.6	36.2	52.4	35.7	24.0	24.5	24.0	27.9	24.0	30.6	27.8	22.0	20.9	20.9	27.9	
24	21.9	18.1	19.1	22.0	22.0	24.0	25.8	27.9	25.0	24.9	24.9	25.9	24.9	24.8	25.9	29.9	32.7	33.7	33.3	32.4	18.2	17.1	15.1	20.5	24.6	
25	21.0	25.9	23.0	18.1	16.1	21.0	10.7	22.0	24.9	27.4	24.9	25.4	24.1	23.5	24.9	27.9	29.9	28.8	29.3	27.0	24.0	22.5	20.1	19.3	23.4	
26	20.1	21.9	21.0	21.0	19.3	23.0	23.9	27.8	24.9	23.5	23.5	23.1	24.0	23.8	23.0	26.4	24.1	26.1	25.0	24.9	23.1	20.5	20.9	20.1	23.1	
27	21.5	21.1	20.1	24.1	25.0	21.0	23.1	23.6	23.0	22.9	30.6	36.7	42.7	25.9	25.9	30.8	26.0	29.0	27.4	24.0	21.5	21.1	21.0	20.1	25.3	
28	20.5	21.0	21.1	21.5	24.0	22.0	23.5	22.5	22.0	23.9	27.9	27.5	23.0	22.0	26.0	27.9	30.8	30.8	25.4	24.1	19.1	19.1	20.1	18.1	23.5	
29	20.1	21.0	22.5	23.0	22.4	29.9	26.4	20.5	22.9	23.9	24.0	32.8	35.7	32.8	32.3	33.7	15.2	18.1	12.7	7.0	16.2	17.1	15.2	19.2	22.7	
30 D	18.0	23.9	24.1	28.8	19.1	31.8	29.9	17.1	27.9	40.1	36.7	43.6	44.5	45.6	29.4	39.2	34.3	35.2	31.8	24.9	21.1	21.9	20.7	20.1	29.6	
31	20.1	19.1	22.0	23.5	24.1	23.1	24.0	23.0	19.1	26.0	27.9	27.4	24.0	24.9	29.4	25.9	30.8	28.4	24.9	25.4	23.0	18.2	19.1	20.1	23.9	
Mean	21.1	21.3	22.9	22.5	22.0	23.7	24.7	24.2	24.4	26.0	27.1	28.2	29.0	26.9	25.5	26.4	28.0	29.2	26.0	25.0	25.0	22.8	21.7	20.8	24.8	

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 3 Meanook

Z = 58,000 γ +

January 1957

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	797	797	797	797	797	797	797	797	797	792	782	707	706	782	776	779	771	765	781	788	788	795	799	795	782
2	803	803	803	803	803	805	813	825	801	748	747	775	782	766	798	803	799	792	786	781	786	830	830	820	796
3	809	809	809	809	809	809	809	809	799	798	798	797	799	799	802	803	803	803	808	808	801	803	804	804	804
4	805	803	805	810	809	810	824	805	782	792	803	800	803	803	799	799	807	807	809	809	809	809	809	809	809
5 Q																		795	797					803	799
6	794	796	798	803	808	812	803	799	789	789	789	782	761	781	791	797	798	798	798	797	790	787	790	791	793
7	788	790	792	797	811	814	803	810	797	789	774	748	714	776	798	799	795	786	792	798	798	798	798	800	790
8	802	803	813	825	851	847	821	805	799	766	668	614	669	745	784	803	804	790	782	792	803	813	827	827	786
9	821	823	817	827	833	847	852	825	814	801	803	796	764	671	696	701	738	776	787	801	811	825	855	862	798
10 D	852	843	879	890	874	853	755	799	809	735	684	593	695	748	690	658	749	825	818	822	826	851	853	852	790
11	860	825	823	821	821	821	827	818	680	706	749	803	673	690	786	825	825	818	814	814	811	817	816	794	
12	817	810	810	829	841	829	822	829	821	803	797	805	803	803	807	809	809	808	809	809	809	809	808	810	813
13 Q	811	805	803	803	803	809	810	805	797	809	808	804	798	799	809	813	814	810	809	809	810	810	810	807	
14 Q	810	810	810	810	810	809	803	787	782	792	792	782	776	798	808	799	798	798	798	798	801	825	855	862	799
15	801	801	801	805	808	814	809	800	764	727	760	775	775	747	753	788	787	788	795	792	798	798	803	803	787
16	805	803	808	808	811	812	798	790	782	787	776	766	727	712	761	787	797	796	797	799	799	800	801	801	788
17	800	797	798	802	803	803	808	792	771	751	771	776	787	782	776	792	787	789	791	797	792	792	792	789	
18 Q	795	792	792	795	794	792	792	784	761	782	782	777	777	777	776	788	792	792	797	796	796	796	796	788	
19	798	792	792	794	794	794	797	792	783	776	755	766	782	781	787	776	755	756	762	770	782	784	792	801	782
20 Q	808	814	814	809	809	808	807	799	795	792	792	792	792	792	795	797	792	792	792	792	792	792	792	798	
21 D	797	798	803	824	878	898	851	852	722	798	721	771	738	689	710	848	528	615	700	732	756	857	733	842	769
22 D	851	861	692	844	784	765	722	709	724	797	841	836	814	820	829	829	825	825	825	825	818	821	822	823	804
23 D	829	827	830	830	830	835	841	840	776	608	779	939	820	771	717	706	773	792	798	828	830	836	840	851	805
24	851	857	865	873	887	874	857	847	834	830	828	818	803	818	820	818	825	820	821	823	829	824	834	844	838
25	894	868	879	901	915	912	749	803	852	835	835	829	826	826	830	831	836	836	839	830	835	835	842	836	845
26	835	837	847	855	885	855	846	841	809	755	786	811	810	805	803	803	804	805	803	809	814	825	820	821	820
27	822	816	827	842	852	836	823	814	805	795	734	539	593	735	792	791	802	803	808	808	808	809	810	786	
28	809	809	814	822	830	828	823	813	805	803	792	782	753	766	788	798	798	798	801	803	810	808	809	803	
29	809	814	814	813	823	825	814	812	808	803	746	722	735	723	713	732	690	695	756	782	807	812	833	886	782
30 D	906	864	877	870	875	836	814	771	646	695	803	722	587	614	825	826	831	825	801	810	818	823	820	821	795
31	825	830	836	836	846	851	829	798	747	782	803	792	719	768	798	755	788	802	803	807	810	825	830	827	804
Mean	821	817	815	825	831	827	810	806	782	774	776	767	751	761	780	788	783	790	795	801	804	813	812	819	798

**HORIZONTAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 4 Meanook

 $H = 12,000 \gamma +$ 

February 1957

Hour U.T. Day	0 to 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
1	917 927 933 928 929 921 921 922 917 835 891 921 929 928 925 921 917 909 903 898 896 898 905 913 912
2	918 928 928 929 928 929 929 929 910 883 898 907 907 945 931 934 918 895 875 921 913 912 904 914 916
3	922 934 936 930 929 929 930 929 922 921 921 926 931 931 931 930 921 898 907 906 904 900 906 929 922
4 D	928 970 972 937 934 1000 948 943 931 923 910 616 648 742 826 777 797 837 860 852 860 961 1001 1067 885
5 D	969 1093 1250 1218 1156 992 945 800 608 549 468 494 457 480 874 945 911 890 897 899 906 905 917 855
6	918 918 926 943 951 961 961 953 790 812 913 906 914 891 848 874 905 903 892 890 891 899 906 901 903
7 Q	903 910 910 915 915 915 918 921 923 876 930 913 926 918 918 913 903 887 876 887 906 907 912 914 909
8	921 922 930 938 942 936 952 952 944 927 921 912 922 925 918 905 898 898 905 921 928 928 917 924
9	920 922 939 939 973 942 936 929 918 932 934 938 930 927 921 917 908 903 903 910 913 904 915 933 925
10 Q	926 931 950 950 946 936 934 929 927 921 867 918 928 934 934 926 913 906 906 906 910 911 918 923 923
11	930 929 926 926 926 926 915 906 895 910 923 922 922 929 931 926 879 906 899 899 892 899 906 907 914
12	913 918 926 929 939 968 899 801 923 899 906 859 891 922 910 922 923 915 918 906 904 911 922 910
13 D	915 903 907 926 928 926 903 934 939 926 942 906 879 866 910 926 918 891 843 875 934 910 918 913 910
14	903 914 918 922 913 915 914 914 906 921 914 921 918 913 903 906 910 906 906 907 913 913 906 912
15	907 908 915 915 915 914 916 916 837 837 932 903 896 797 907 915 892 900 899 893 905 905 907 915 898
16	915 915 922 915 915 916 915 899 914 924 919 914 915 919 920 907 872 884 892 899 900 907 924 910
17	915 923 924 930 931 931 930 930 931 937 932 931 927 876 901 891 904 900 888 892 905 915 931 913
18	942 961 971 969 977 993 981 939 887 915 938 918 907 863 914 921 926 903 852 836 874 867 899 957 921
19	914 918 921 925 931 942 953 953 930 887 926 937 914 918 913 913 891 844 858 910 922 938 977 938 920
20	898 952 945 953 945 933 953 937 921 913 905 820 818 934 921 905 902 886 886 891 905 902 902 921 910
21 D	920 912 967 1046 991 940 974 924 803 653 732 959 928 787 771 799 889 901 881 881 904 936 921 999 892
22	985 977 953 926 926 918 871 910 910 879 793 785 793 895 910 909 909 887 910 901 895 921 920 919 914 900
23	932 912 957 939 954 933 936 911 832 845 841 873 896 892 911 904 903 895 793 821 975 958 964 998 907
24 D	1217 1386 1408 1021 868 693 684 786 696 137 272 495 849 856 940 903 923 904 896 903 907 907 915 915 853
25	921 898 911 934 917 914 912 912 902 898 922 914 914 913 909 905 902 905 907 912 912 906 909 911
26 Q	906 911 917 919 921 921 922 922 920 920 921 922 922 922 917 917 913 905 898 898 898 905 913 913 914
27 Q	910 934 926 926 938 935 934 930 926 928 922 926 930 930 922 915 903 892 892 891 896 903 910 910 918
28 Q	913 917 921 922 926 929 930 930 923 923 923 930 930 930 923 921 918 906 903 903 903 904 906 910 910 918
29	
30	
31	
Mean	932 948 961 949 942 929 922 913 885 851 865 867 880 881 906 906 903 895 886 892 906 911 918 930 907

**DECLINATION**  
Mean values for periods of sixty minutes, Universal Time

Table 5 Meanook

 $D = 24^\circ E + \dots'$ 

February 1957

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	22.3	23.3	24.3	25.3	26.2	26.2	25.2	24.3	25.2	18.4	24.2	27.1	25.4	26.2	27.2	29.2	29.7	30.7	30.2	28.2	23.3	22.4	22.4	20.5	25.3
2	22.8	23.2	24.4	22.8	22.8	24.3	24.8	25.8	24.3	27.2	31.8	34.6	35.1	28.7	30.2	29.2	34.1	29.8	16.4	18.9	19.9	19.4	20.5	19.9	25.4
3	18.9	18.9	21.4	24.3	23.4	25.9	25.4	25.3	25.8	25.3	27.2	26.3	27.1	27.2	27.2	29.7	32.2	31.6	26.2	25.2	24.3	20.3	18.4	18.4	24.8
4 D	18.4	16.9	22.4	25.8	21.8	21.4	19.5	23.4	24.3	26.2	27.2	19.4	28.2	37.0	35.1	22.4	32.1	17.5	8.6	23.8	22.3	23.7	26.2	25.8	23.7
5 D	21.4	21.4	22.5	16.9	23.3	27.2	20.4	20.4	22.3	36.0	60.6	62.5	65.5	46.3	37.0	35.1	33.6	29.3	27.1	22.3	22.3	21.4	20.4	20.5	30.7
6	22.9	24.8	23.3	22.2	23.3	20.4	23.8	24.3	16.5	31.2	29.2	32.0	29.2	27.7	26.7	34.1	30.7	30.7	29.2	25.4	22.4	22.4	24.3	26.1	26.0
7 Q	24.3	23.8	24.2	24.3	24.2	24.2	23.3	27.1	27.7	22.3	27.7	30.3	27.3	29.1	29.1	28.7	29.3	28.3	22.5	20.3	19.4	20.5	21.4	20.5	25.0
8	19.4	17.4	19.4	17.9	22.4	22.8	24.3	22.4	24.2	27.2	29.2	29.3	29.2	30.2	30.2	30.2	30.2	32.1	24.4	23.3	23.3	23.3	22.3	24.3	25.0
9	21.3	21.4	20.4	19.3	21.8	24.4	24.3	23.8	25.2	25.4	28.7	30.1	29.1	29.3	29.7	32.5	34.1	31.2	25.2	23.8	23.7	23.3	21.8	21.4	25.5
10 Q	22.3	22.4	24.9	24.4	24.4	23.9	23.4	24.3	25.3	26.2	29.1	32.0	29.2	28.7	28.2	27.7	27.1	25.8	24.2	23.4	22.2	22.2	22.4	23.2	25.3
11	23.2	23.4	23.4	22.4	24.2	24.3	22.3	23.8	25.3	26.2	23.6	24.3	24.2	27.2	30.7	29.2	22.3	16.5	21.5	26.2	26.2	26.7	26.2	26.2	24.6
12	25.0	24.4	22.4	24.8	36.1	23.7	17.4	26.3	27.2	27.2	29.2	25.2	26.7	29.7	30.2	29.3	29.3	24.7	24.3	24.8	24.4	24.3	24.3	24.2	26.0
13 D	22.3	22.8	23.3	23.2	19.5	30.2	28.7	27.2	27.2	15.8	3.2	63.5	20.4	39.6	35.1	18.4	25.8	28.7	24.3	18.4	25.8	23.7	26.2	28.2	25.9
14	28.2	26.2	25.4	25.3	24.2	23.8	24.3	24.3	27.2	29.2	27.7	30.3	28.7	25.8	25.2	26.2	25.3	23.4	21.4	23.2	24.3	26.7	27.2	25.9	
15	25.3	24.2	24.3	24.3	24.1	25.3	23.4	25.4	29.2	30.2	26.7	30.2	26.2	22.3	30.3	30.7	21.9	24.8	21.4	20.9	23.2	23.4	24.3	25.3	25.3
16	24.7	24.4	24.3	24.3	22.8	23.8	26.2	20.9	22.3	24.2	25.3	24.8	32.1	28.2	29.3	30.2	26.9	20.4	14.5	17.3	23.4	25.2	24.0	21.4	24.2
17	25.2	22.9	23.3	23.4	23.6	23.8	23.3	23.3	23.4	24.3	24.4	26.2	27.2	24.8	32.2	34.1	34.2	32.0	22.3	20.5	17.4	17.4	19.4	17.9	24.4
18	15.5	19.4	17.5	18.4	18.4	17.0	22.2	12.9	21.4	27.2	25.4	27.2	28.2	32.2	38.0	36.0	34.0	33.8	29.7	21.4	21.4	19.4	16.0	18.4	23.8
19	19.4	22.3	25.4	25.3	25.2	24.4	33.2	29.3	28.6	25.3	25.2	27.3	29.2	29.8	30.2	29.2	30.2	23.2	23.3	26.2	17.3	22.3	22.3	24.8	25.8
20	22.3	17.4	23.3	21.4	22.3	23.3	18.4	24.8	23.3	23.4	27.7	22.3	25.3	28.2	31.2	30.2	33.2	29.2	24.3	23.3	22.4	23.3	20.4	18.4	24.1
21 D	19.4	20.3	16.0	22.2	21.4	23.2	22.8	28.2	22.3	23.4	25.4	25.3	30.2	36.5	29.2	34.1	29.2	26.2	22.3	23.3	23.3	28.2	25.3	22.3	25.0
22	18.4	22.3	23.2	26.2	26.2	36.0	17.4	21.8	28.2	28.1	25.3	30.2	21.8	27.2	34.1	34.0	32.6	27.7	26.2	23.8	24.5	23.3	20.4	20.5	25.8
23	19.4	21.8	22.3	22.8	32.6	25.3	22.8	25.8	24.4	27.3	26.2	29.2	24.8	27.2	30.7	33.2	30.7	30.7	25.8	20.9	32.6	21.4	25.3	26.2	26.2
24 D	35.2	31.9	19.9	-13.4	15.4	14.4	24.4	17.5	6.6	-6.6	47.4	43.9	39.9	35.0	28.2	34.6	34.1	34.1	31.2	26.7	26.2	26.2	24.3	25.1	
25	22.8	23.2	22.3	21.3	23.3	23.8	23.8	24.3	21.4	18.9	27.7	29.2	29.3	28.2	29.2	31.2	30.7	28.2	26.2	23.3	22.3	23.5	25.2	25.3	25.2
26 Q	24.8	22.7	23.3	23.9	23.9	24.3	24.3	23.8	24.4	24.8	26.2	27.2	27.3	27.2	28.7	30.2	29.7	28.7	26.6	23.8	22.3	22.5	21.8	22.3	25.2
27 Q	22.3	19.5	19.9	22.0	22.2	24.3	24.3	24.4	24.4	28.2	28.7	26.9	27.3	27.2	27.7	29.2	31.2	32.5	27.7	24.3	21.4	21.3	22.8	25.0	
28 Q	22.3	22.3	22.7	23.3	23.8	24.0	24.0	23.8	24.3	24.2	26.2	27.1	28.3	27.7	29.7	32.5	31.6	26.7	23.8	22.3	21.4	21.4	22.3	25.2	
29																									
30																									
31																									
Mean	22.5	22.3	22.5	21.6	23.7	24.1	23.5	23.9	24.0	24.5	28.1	30.8	29.4	29.8	30.4	30.3	30.2	28.0	24.1	23.1	23.0	22.8	22.8	22.8	25.3

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 6 Meanook

Z = 58,000  $\gamma$  +

February 1957

Hour U.T. Day \	0 to 1 1	1 to 2 2	2 to 3 3	3 to 4 4	4 to 5 5	5 to 6 6	6 to 7 7	7 to 8 8	8 to 9 9	9 to 10 10	10 to 11 11	11 to 12 12	12 to 13 13	13 to 14 14	14 to 15 15	15 to 16 16	16 to 17 17	17 to 18 18	18 to 19 19	19 to 20 20	20 to 21 21	21 to 22 22	22 to 23 23	23 to 24 24	Mean	
1	833	831	829	821	815	812	810	808	804	689	760	786	808	809	809	809	809	810	810	814	814	813	814	805		
2	812	812	810	815	827	838	818	820	801	712	753	765	756	799	799	802	799	792	782	792	799	805	813	816	797	
3	820	823	825	823	827	820	812	814	810	809	803	803	802	803	808	808	799	794	792	795	814	833	838	812		
4 D	842	885	877	825	829	836	809	841	830	812	798	663	576	570	690	692	706	792	797	825	857	905	864	863	791	
5 D	873	916	868	787	760	663	573	630	824	827	792	706	738	700	706	830	830	829	823	821	825	843	842	831	785	
6	829	834	829	831	852	867	862	853	722	761	810	809	814	792	752	769	776	797	805	805	818	820	822	821	810	
7 Q	814	815	815	816	816	816	813	814	805	783	813	803	814	812	809	808	808	808	803	799	809	813	820	817	810	
8	825	834	842	862	857	839	830	825	841	829	814	803	810	814	810	810	811	811	814	814	814	815	813	823		
9	812	820	835	862	891	859	836	824	823	827	824	821	805	805	805	805	808	802	803	804	810	814	820	822		
10 Q	821	824	821	810	809	809	815	810	805	792	711	764	794	797	797	797	797	797	807	807	808	808	805	803	800	
11	803	808	807	807	814	814	805	792	761	771	788	790	786	791	788	788	798	803	799	804	820	820	814	799		
12	807	807	814	836	850	836	727	690	792	797	790	765	787	803	790	802	814	804	808	810	809	807	809	809	798	
13 D	807	807	808	808	820	809	810	765	760	661	717	620	825	550	634	701	717	786	765	829	829	814	814	813	761	
14	813	809	803	803	801	798	803	803	786	788	787	797	797	788	792	798	798	803	809	810	813	812	813	808	801	
15	801	801	801	802	802	803	807	797	722	706	803	772	760	652	755	771	764	786	801	804	814	820	815	815	782	
16	813	808	808	802	803	803	797	785	797	808	797	769	760	776	782	782	783	788	782	795	809	807	808	823	795	
17	797	804	803	799	797	797	797	797	792	792	792	792	738	744	743	744	755	764	771	778	792	802	808	783		
18	840	843	844	850	875	888	866	816	744	773	815	810	777	719	771	797	820	823	801	810	839	850	868	885	822	
19	835	820	807	801	820	820	803	788	825	771	804	813	792	798	798	803	786	761	798	840	866	862	862	854	814	
20	840	856	862	852	842	818	837	835	810	808	797	745	730	803	803	809	814	810	810	814	820	829	818	831	816	
21 D	829	827	875	863	901	851	847	700	693	950	900	853	825	734	723	722	782	830	820	831	851	864	885	912	828	
22	906	909	905	874	852	765	679	787	826	787	722	709	711	797	808	810	818	830	821	841	873	852	841	857	816	
23	864	855	878	856	867	848	825	782	625	695	722	770	787	787	803	798	798	810	813	825	866	862	853	938	814	
24 D	841	200	695	370	668	723	727	840	907	671	671	987	879	825	857	830	841	842	827	825	824	824	830	831	764	
25	840	830	840	844	831	825	824	824	744	760	830	821	825	825	825	820	814	810	807	814	817	816	820	818		
26 Q	814	814	814	814	814	814	814	814	814	814	810	803	809	809	809	809	809	803	813	814	814	815	812			
27 Q	812	814	828	839	828	814	803	808	803	801	803	804	809	805	805	805	805	800	800	803	803	808	807	809		
28 Q	803	803	803	803	803	803	799	801	786	797	801	799	803	801	803	804	804	803	802	802	802	798	798	801		
29																										
30																										
31																										
Mean	827	808	827	810	824	814	798	795	788	778	787	784	785	768	781	790	795	804	802	811	821	825	826	831	803	

HORIZONTAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 7 Meanook

 $H = 12,000 \gamma +$ 

March 1957

Hour U. T. Day	0 to 1 1 to 2 2 to 3 3 to 4 4 to 5 5 to 6 6 to 7 7 to 8 8 to 9 9 to 10 10 to 11 11 to 12 12 to 13 13 to 14 14 to 15 15 to 16 16 to 17 17 to 18 18 to 19 19 to 20 20 to 21 21 to 22 22 to 23 23 to 24 24 Mean																								
1	921	924	930	937	937	938	939	946	935	924	911	904	853	782	900	929	893	900	915	900	910	919	932	962	915
2 D	1002	1057	1189	1350	1216	744	475	577	621	750	766	677	330	307	431	708	867	856	782	837	954	986	1021	1096	817
3	1033	970	1033	985	978	810	625	861	864	862	862	751	867	813	802	916	875	907	875	875	900	892	896	906	882
4	928	899	934	1015	1071	961	930	871	907	871	797	808	789	790	883	918	903	899	895	892	892	907	900	898	
5	914	939	927	937	953	930	922	919	903	830	841	877	922	852	874	914	881	842	867	892	899	929	882	945	900
6	946	953	915	921	929	930	934	927	937	881	808	852	899	863	813	824	900	922	892	874	881	874	883	894	894
7 Q	906	914	930	929	928	924	922	923	922	890	879	928	921	906	849	877	903	918	899	888	892	903	906	906	907
8	969	921	923	913	921	934	934	824	895	930	923	903	855	840	921	930	913	892	883	874	870	891	913	973	906
9	965	941	951	1015	1022	997	922	962	928	915	897	881	876	874	875	895	899	889	903	879	891	895	895	910	920
10 D	928	949	937	981	1065	1048	973	852	644	866	712	171	-109	283	-109	194	695	793	871	931	1011	1016	1019	984	738
11 Q	946	925	911	917	910	962	920	901	901	895	900	903	903	900	890	884	874	875	876	882	892	888	891	892	902
12 Q	893	907	914	907	907	914	907	809	790	872	891	884	922	921	923	907	900	892	882	885	893	904	908	911	894
13 Q	911	912	921	921	922	922	925	925	927	925	851	859	882	836	894	895	869	875	870	880	897	915	905	908	898
14 Q	908	911	919	919	922	926	926	926	924	935	938	934	934	927	918	910	899	891	892	909	908	922	919	918	
15	920	936	926	925	931	932	935	935	939	943	943	947	940	936	920	910	884	876	873	896	926	950	915	924	
16	948	1042	1024	934	932	933	948	944	924	920	928	932	920	916	916	921	904	877	819	817	897	1013	902	893	925
17	905	918	925	917	921	933	949	933	919	897	919	922	917	813	851	906	848	863	873	872	878	898	907	922	900
18	911	917	930	922	927	933	920	913	936	925	902	655	580	886	944	941	925	893	874	875	898	894	917	922	889
19	913	920	930	929	935	937	936	937	927	811	768	702	735	933	941	941	927	890	883	886	899	902	913	936	893
20	940	925	925	930	956	945	913	834	774	847	914	942	937	934	937	917	898	902	889	890	889	898	927	908	908
21	921	929	942	961	952	935	941	937	933	934	934	941	919	909	878	820	807	839	858	875	953	945	990	916	
22	1027	913	927	937	980	1003	980	933	762	706	820	866	791	768	836	919	889	814	870	907	931	941	958	890	
23	1019	964	949	997	938	927	917	886	918	913	804	706	831	913	941	908	870	875	891	900	898	902	925	919	905
24	958	927	942	933	925	925	925	929	895	883	929	934	933	929	927	921	919	898	882	870	894	918	887	902	916
25	924	928	1040	1238	1216	1020	1020	938	773	536	448	341	526	793	959	944	928	912	903	910	906	908	910	921	872
26	920	920	920	923	920	923	923	928	928	924	898	815	828	824	884	890	892	898	896	904	914	933	980	905	
27 D	1035	937	927	945	943	908	941	804	800	729	784	829	596	856	835	717	913	903	839	845	866	964	1188	1259	890
28 D	1192	1184	1121	956	904	678	604	500	698	447	837	886	937	931	922	887	925	918	907	902	903	904	907	910	873
29 D	911	945	941	929	936	1003	1031	964	957	870	878	888	894	788	580	517	792	713	774	872	903	909	1041	974	874
30	1057	1147	1102	1094	996	914	895	883	861	891	902	908	900	880	877	870	856	865	872	879	898	883	937	937	929
31	936	938	933	934	945	926	910	903	902	920	898	865	876	848	880	880	870	862	886	876	929	1043	1038	1008	919
Mean	955	952	959	969	966	926	901	882	870	853	854	822	804	831	835	857	883	875	873	880	901	922	937	948	894

## DECLINATION

Mean values for periods of sixty minutes, Universal Time

Table 8 Meanook

 $D = 24^\circ E + \dots'$ 

March 1957

Hour U. T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	19.9	19.4	20.3	20.7	20.9	21.8	21.8	21.7	22.8	28.2	32.1	34.5	37.5	32.7	35.5	32.7	37.8	20.9	15.9	17.8	19.4	17.9	17.4	16.9	24.4
2 D	6.6	17.4	7.1	-14.1	-9.0	40.0	-8.0	-34.4	-6.8	18.8	40.5	53.7	75.8	-51.7	60.1	46.4	32.5	35.5	31.6	14.9	29.6	27.6	24.3	27.5	23.7
3	23.8	20.7	30.5	26.8	25.8	22.1	-10.2	28.7	25.7	26.6	24.3	20.8	25.3	17.9	25.7	29.7	35.0	30.6	23.8	18.0	20.8	21.7	23.3	20.8	23.3
4	17.9	19.9	19.9	22.8	18.9	23.9	26.7	20.8	28.7	27.7	27.8	29.2	30.6	21.7	26.7	30.7	32.6	31.5	28.7	24.8	23.9	21.3	19.4	18.9	24.8
5	19.9	20.8	18.9	21.8	23.8	21.8	23.8	23.8	22.8	25.7	30.2	31.7	29.7	27.7	29.7	32.6	31.6	24.8	22.8	22.9	21.3	22.7	16.9	24.8	
6	15.9	22.7	21.8	22.2	21.7	25.2	27.7	19.8	26.7	25.6	21.8	23.8	23.7	25.7	18.9	17.9	32.6	27.7	27.2	26.7	21.0	20.8	22.7	21.8	23.4
7 Q	21.8	20.8	20.3	19.4	19.9	22.0	22.3	22.8	23.7	22.8	25.2	25.6	25.2	25.8	21.8	25.1	34.1	30.1	30.5	29.2	24.3	20.3	18.0	16.9	23.7
8	16.9	21.3	20.9	21.7	21.9	20.9	20.9	8.6	30.6	26.2	23.7	26.7	16.4	15.9	30.5	33.6	35.0	32.6	29.2	25.3	21.8	17.8	15.9	18.4	23.0
9	18.9	17.9	16.4	9.1	19.9	29.7	24.3	25.2	28.4	29.7	28.9	30.8	28.9	30.1	27.2	30.5	32.1	21.6	25.2	22.8	19.8	19.0	17.8	18.0	23.8
10 D	19.9	19.9	19.8	14.9	15.4	23.8	15.4	21.0	26.7	25.6	30.8	53.2	91.7	79.6	55.6	43.7	46.3	28.7	30.8	29.6	33.1	25.6	17.4	20.3	32.9
11 Q	21.3	19.4	19.9	19.9	22.7	22.8	23.3	25.2	23.9	23.7	25.2	24.8	24.8	26.6	28.7	30.5	30.6	29.7	25.2	23.7	21.3	22.3	23.3	22.8	24.2
12 Q	22.3	21.8	22.2	20.8	20.9	22.3	25.6	24.3	38.0	31.6	23.9	24.8	23.7	24.9	28.2	29.7	30.6	30.6	28.2	23.8	22.3	21.8	22.7	22.9	25.3
13 Q	21.8	21.8	21.7	21.7	22.8	24.8	27.7	21.8	22.7	22.9	15.0	16.9	21.8	18.8	25.7	27.7	29.2	22.3	19.9	14.0	16.0	18.8	20.7	22.3	21.6
14 Q	21.8	21.8	21.7	21.5	21.8	21.8	22.7	22.9	24.7	28.8	26.7	24.6	24.7	25.7	27.7	29.6	31.6	28.7	24.7	22.7	21.8	21.8	21.3	22.8	24.3
15	20.8	20.8	20.9	21.7	20.8	20.7	20.9	22.8	24.3	22.8	22.9	22.9	23.3	25.2	29.2	33.1	32.6	29.7	23.3	15.4	14.5	15.9	14.9	17.9	22.4
16	12.0	8.6	15.9	19.4	21.3	21.8	22.8	22.3	24.3	26.2	27.2	26.6	26.2	27.7	30.6	35.0	39.5	33.6	46.3	32.7	9.6	23.3	19.4	17.0	24.6
17	19.4	18.8	16.9	17.9	19.9	21.7	25.7	22.8	23.3	22.3	25.7	24.3	23.9	19.9	22.9	30.7	27.7	24.8	26.4	20.3	18.6	18.9	18.9	16.9	22.0
18	18.8	19.9	17.9	21.3	27.6	22.8	22.8	24.7	25.2	24.7	20.7	16.8	20.3	26.2	30.6	36.0	35.0	31.6	27.2	22.8	20.8	19.0	18.9	16.9	23.7
19	17.8	17.9	19.0	19.9	19.9	20.8	21.8	22.8	33.4	32.1	36.4	40.4	22.8	26.7	32.5	34.5	38.0	33.7	26.8	25.2	19.9	16.8	14.0	13.0	25.2
20	13.0	14.9	16.8	19.4	18.8	15.9	22.8	27.2	17.0	33.5	30.5	26.7	26.7	25.7	28.2	32.6	32.6	30.7	28.2	25.6	19.9	18.4	16.4	14.9	23.2
21	16.4	17.4	17.9	16.9	12.7	21.3	22.8	22.8	22.8	23.8	23.9	23.8	23.8	25.7	30.7	31.1	25.2	22.8	26.7	11.2	14.9	14.9	17.9	15.9	21.0
22	14.0	17.4	17.4	18.4	18.9	20.8	26.7	25.2	25.7	28.6	32.5	29.7	23.9	21.8	36.5	35.5	32.6	28.2	18.9	19.9	19.4	19.3	19.9	18.1	23.7
23	22.8	17.9	19.6	23.7	23.5	20.7	18.6	25.6	25.4	26.6	22.9	23.3	32.6	27.6	30.6	34.7	32.1	29.2	24.3	24.3	21.8	20.7	19.0	18.4	24.4
24	15.9	20.7	18.8	19.9	20.7	20.9	22.8	25.7	29.6	34.6	27.7	25.7	24.5	26.6	29.6	31.5	30.6	29.2	26.0	20.9	18.4	18.2	17.9	24.5	
25	17.4	18.4	13.5	22.3	4.7	5.1	20.3	24.7	33.1	35.0	40.9	69.8	31.6	21.8	30.6	38.5	37.0	32.6	25.7	21.3	19.9	19.4	19.9	20.8	26.0
26	21.7	20.8	20.8	20.8	21.5	21.3	22.7	23.8	23.8	24.7	23.3	24.7	23.8	28.7	30.1	34.1	34.5	28.4	24.3	22.7	21.8	21.8	18.9	16.2	24.0
27 D	17.9	18.6	18.4	18.4	18.9	17.9	18.9	4.7	28.7	29.7	33.6	30.6	51.2	38.5	43.4	37.0	38.5	36.5	34.5	23.3	30.6	26.7	18.9	19.9	27.3
28 D	22.8	28.2	17.4	25.2	9.1	16.4	18.9	27.7	17.4	20.3	29.2	24.3	27.2	26.7	31.6	34.1	36.5	31.6	28.2	25.7	23.8	21.8	21.1	21.5	24.4
29 D	20.8	18.4	19.4	18.9	18.9	11.5	20.8	22.3	23.3	24.7	26.7	30.1	32.1	17.4	16.4	51.2	36.5	40.4	26.7	9.1	22.8	17.9	21.8	25.7	23.9
30	14.0	17.9	16.9	23.8	21.8	21.8	23.3	23.6	22.8	24.7	24.3	24.7	25.7	28.4	32.1	37.5	35.0	31.1	27.7	26.7	22.5	18.8	16.9	16.1	24.1
31	16.4	16.4	19.1	16.2	20.3	24.3	21.3	21.3	25.7	24.7	24.3	20.8	20.8	23.8	27.7	30.6	33.6	32.6	26.2	17.9	21.3	21.8	17.2	15.9	22.5
Mean	18.4	19.3	19.0	19.1	18.9	21.6	20.6	20.7	24.7	26.6	27.4	29.2	30.3	27.8	30.8	33.4	33.9	30.0	27.0	22.1	21.3	20.4	19.3	19.0	24.2

VERTICAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 9 Meanook

 $Z = 58,000 \gamma +$ 

March 1957

Hour U. T. Day	0 to 1 1 to 2 2 to 3 3 to 4 4 to 5 5 to 6 6 to 7 7 to 8 8 to 9 9 to 10 10 to 11 11 to 12 12 to 13 13 to 14 14 to 15 15 to 16 16 to 17 17 to 18 18 to 19 19 to 20 20 to 21 21 to 22 22 to 23 23 to 24 24 Mean																								
1	797	797	801	801	802	803	808	810	803	796	764	755	721	619	707	745	732	729	749	775	786	801	799	837	772
2 D	885	895	663	325	360	225	201	769	1213	1009	1005	1108	1204	1177	948	787	831	818	835	820	825	840	831	814	808
3	874	864	851	855	885	825	776	787	803	811	799	775	804	731	699	797	818	841	828	825	825	823	823	825	814
4	841	836	862	893	947	809	825	776	803	782	752	732	731	776	790	820	821	821	818	820	821	818	834	823	815
5	838	844	830	830	848	823	823	821	764	668	700	731	798	733	783	803	786	782	798	810	824	836	820	850	798
6	861	857	812	810	820	825	838	834	779	784	733	749	782	764	748	749	816	830	820	821	823	820	821	825	805
7 Q	820	821	828	843	841	818	812	814	808	759	765	808	803	797	761	765	794	820	807	808	817	826	826	826	808
8	865	820	816	809	807	814	825	719	797	809	810	794	697	689	787	818	814	810	814	823	836	834	866	804	
9	867	852	857	908	874	831	834	842	814	792	760	753	760	760	764	790	797	814	814	828	831	814	810	814	
10 D	809	821	834	842	775	803	834	852	851	847	899	843	959	979	694	760	738	837	853	847	853	877	879	857	839
11 Q	855	855	851	844	841	849	853	830	825	825	824	822	820	825	825	824	818	820	818	823	828	828	827	825	831
12 Q	818	818	818	828	836	825	814	749	717	755	776	756	797	814	820	820	814	805	812	816	824	817	814	803	
13 Q	814	813	812	812	814	815	814	812	807	803	701	689	717	663	745	765	774	771	801	821	835	852	829	821	788
14 Q	821	814	814	810	811	815	815	808	797	760	797	809	811	814	814	813	815	820	825	825	827	830	827	813	
15	820	821	821	828	825	823	821	821	820	815	813	810	810	810	814	814	817	814	815	815	820	825	827	818	
16	847	964	912	846	836	825	840	840	820	807	808	814	805	808	803	814	813	809	818	888	929	912	853	825	843
17	831	834	841	836	836	826	841	841	821	788	803	811	803	765	787	814	810	830	825	827	826	829	828	830	820
18	824	820	825	829	828	814	803	755	805	799	770	570	570	699	803	820	820	814	817	820	821	830	830	830	788
19	830	828	821	821	821	821	820	820	765	603	624	668	668	776	803	814	803	801	803	810	841	823	825	834	785
20	851	836	829	821	847	802	727	760	798	707	744	798	800	807	813	804	797	803	803	809	810	814	825	825	801
21	820	818	816	826	849	836	816	813	808	803	801	792	792	782	776	744	684	673	727	760	820	862	868	889	799
22	836	820	821	840	852	852	836	830	733	679	709	755	722	635	679	791	792	782	829	837	854	847	857	872	794
23	879	868	870	864	825	825	803	765	809	799	690	639	681	769	815	810	792	797	808	810	814	815	820	820	799
24	853	836	852	830	817	808	803	788	712	724	776	799	805	805	805	804	803	803	809	825	857	810	813	806	
25	825	817	853	803	570	619	782	825	755	695	706	857	933	814	803	830	815	814	820	823	825	825	825	794	
26	820	814	814	814	814	814	814	814	813	811	792	773	668	668	663	727	755	776	792	805	821	841	879	895	792
27 D	899	830	825	836	809	786	755	630	657	681	695	684	546	690	679	682	760	801	809	840	857	879	891	790	763
28 D	673	630	711	852	822	788	874	922	1046	904	782	803	847	855	857	860	866	848	841	844	841	836	836	832	
29 D	834	842	847	836	836	835	797	816	816	803	782	782	771	652	549	370	800	809	836	830	834	863	872	785	
30	863	836	868	818	843	825	825	789	782	809	814	827	830	830	836	841	825	822	825	831	834	844	854	829	
31	850	844	841	854	866	842	814	811	805	812	796	760	771	771	784	804	831	836	839	867	933	933	904	830	
Mean	836	831	826	818	812	794	795	802	811	782	774	776	781	776	772	779	797	805	813	820	831	840	839	837	806

**HORIZONTAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 10 Meanook

H = 12,000  $\gamma$  +

April 1957

Hour U.T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	1074	926	924	923	941	754	836	721	627	815	825	704	767	862	839	792	808	837	831	893	904	911	970	1014	854
2	996	1021	915	912	919	931	950	839	874	780	811	919	916	925	922	903	909	864	853	889	915	925	932	925	906
3	966	927	922	919	934	933	928	915	892	823	756	608	786	884	903	875	847	844	854	910	970	966	986	1092	893
4	1015	979	1075	1030	1061	943	943	946	928	888	828	852	877	932	910	865	875	824	881	872	925	979	996	1024	935
5 D	1051	1061	1071	994	994	944	959	990	958	935	790	281	415	707	863	892	828	908	900	901	906	928	960	1125	890
6	1114	1085	1125	1085	1075	906	700	738	761	532	520	667	911	943	928	895	896	907	875	903	906	900	904	910	883
7 Q	914	929	934	927	932	933	928	931	933	927	932	932	933	934	933	924	926	864	894	890	892	897	906	932	920
8	927	925	928	934	945	949	933	927	829	721	729	744	792	845	898	920	919	917	903	893	894	827	960	944	883
9	925	959	942	951	999	839	793	925	896	815	797	698	611	735	742	729	878	884	865	903	925	945	909	1058	863
10 D	1074	1138	1342	1297	1085	988	992	437	381	498	493	399	352	288	325	493	847	963	976	917	921	932	938	927	792
11	942	907	916	923	919	924	919	923	917	909	779	415	411	698	931	953	931	910	900	900	900	909	913	913	861
12	920	932	927	925	930	944	945	815	931	929	921	927	825	919	915	908	887	880	878	915	920	913	922	919	910
13 Q	929	929	943	938	933	956	878	627	658	918	941	919	873	851	889	912	907	904	894	894	898	904	911	916	888
14 Q	923	930	934	941	937	937	938	938	937	943	941	937	935	926	917	895	890	898	894	907	919	922	926	926	926
15	925	935	945	953	955	960	980	971	956	948	935	839	896	928	884	894	890	874	870	881	871	960	1074	1113	935
16	1193	1095	1126	1079	938	967	990	946	926	926	915	932	921	901	875	845	848	874	899	892	899	923	969	1003	953
17 D	980	966	989	1024	1045	877	879	937	939	934	935	944	935	877	926	961	969	946	935	954	881	1022	993	1071	955
18 D	968	978	951	933	926	956	934	886	935	943	939	946	952	962	957	911	843	858	863	930	1032	1109	1212	1298	968
19 D	1251	1125	1080	1020	1075	1025	365	707	595	612	749	734	503	717	657	628	851	882	859	924	957	954	1023	1048	848
20	961	969	976	947	971	1042	973	818	819	824	808	815	883	905	902	899	859	886	905	896	891	903	922	970	906
21	994	967	986	907	1055	1041	993	903	936	766	766	604	710	542	688	844	884	904	913	916	915	912	912	921	874
22 Q	932	930	930	929	931	933	935	939	942	945	946	944	938	936	930	913	897	871	875	897	903	901	901	913	921
23	942	942	945	946	969	954	957	946	946	938	935	939	928	905	901	938	924	919	915	917	913	898	936	947	933
24	970	976	1022	950	828	931	931	932	892	741	916	944	939	936	918	917	882	913	906	908	904	929	991	950	922
25 Q	979	935	917	918	931	938	936	934	932	929	923	927	896	864	862	840	895	877	876	895	903	933	939	939	913
26	931	947	961	963	981	1006	993	967	979	965	887	597	667	503	558	780	890	855	892	899	957	1014	1038	1070	888
27	1093	1110	969	967	1028	931	967	923	714	816	896	876	883	860	927	906	903	892	907	927	934	931	962	1000	930
28	915	913	923	922	937	946	942	935	939	903	851	910	823	754	648	644	667	812	863	910	947	1040	1069	1079	887
29	981	1011	1027	1040	964	935	923	926	921	912	882	859	710	703	772	813	858	897	895	899	903	907	918	923	899
30	934	933	946	952	934	942	939	936	938	918	937	918	929	930	939	898	892	876	883	899	903	968	1031	1004	932
31																									
Mean	991	979	986	972	969	942	909	876	861	848	843	791	797	823	842	853	878	884	888	904	916	938	967	999	902

DECLINATION  
Mean values for periods of sixty minutes, Universal Time

Table 11 Meanook

D = 24 ° E + ...'

April 1957

Hour U.T. Day	0 to 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24	Mean																						
1	18.4	16.5	18.4	19.4	22.4	22.3	20.4	24.9	39.0	32.6	34.6	22.3	23.2	28.5	31.1	35.1	30.2	30.8	21.3	23.0	17.9	15.4	16.5	17.1	24.2
2	14.6	16.4	18.0	19.8	21.4	20.4	22.6	23.0	27.7	28.4	28.1	24.3	25.2	26.5	28.6	34.1	30.6	32.5	28.2	19.4	17.9	15.3	16.1	11.5	23.0
3	11.2	16.6	18.9	22.2	22.2	21.9	25.2	34.1	29.7	24.8	35.1	22.3	26.4	21.1	29.5	31.6	34.6	38.0	32.0	34.6	26.9	19.9	15.2	15.0	25.3
4	17.3	17.9	15.2	16.3	17.6	15.9	25.0	19.7	24.8	30.6	27.9	33.1	27.1	32.1	33.1	33.7	27.2	19.6	27.7	25.2	18.7	14.8	13.4	9.1	22.6
5 D	6.1	12.2	11.7	16.1	21.3	22.4	18.1	20.7	22.5	21.8	24.7	26.2	58.8	41.8	37.7	27.3	29.2	30.7	21.3	18.3	16.4	14.6	14.4	23.5	23.3
6	20.6	16.2	13.6	15.3	15.5	19.9	27.7	15.4	15.3	45.6	37.5	36.9	29.9	30.6	35.0	35.0	33.2	28.7	26.8	24.2	20.8	19.6	19.6	19.8	25.2
7 Q	20.4	19.9	20.4	21.8	21.8	20.8	21.8	21.7	23.2	23.9	25.2	25.5	27.1	29.7	32.6	35.0	36.5	35.5	30.3	25.7	20.7	18.1	17.4	17.1	24.7
8	17.6	19.4	20.3	20.4	21.7	22.3	25.1	27.1	31.3	42.8	41.9	41.9	43.9	41.1	37.0	36.1	31.1	26.2	23.6	22.3	17.6	14.7	14.5	14.7	27.3
9	14.3	17.4	17.4	23.0	24.4	37.9	24.3	18.6	25.2	29.0	28.5	26.2	34.6	42.4	35.5	35.7	25.5	24.5	20.2	14.4	16.9	16.9	13.0	14.8	24.2
10 D	16.9	15.7	-3.0	36.1	44.5	29.4	4.0	17.1	26.7	41.6	33.0	48.9	67.3	23.2	47.9	45.5	31.1	26.7	18.4	17.4	20.3	20.4	20.8	18.8	
11	22.8	23.6	21.5	22.6	22.3	22.1	22.4	25.8	25.1	24.0	26.9	43.9	51.2	39.4	41.8	38.2	33.3	31.3	24.1	23.3	17.4	18.4	18.8	18.8	27.5
12	18.4	18.4	19.8	20.8	21.3	21.3	16.5	8.9	26.5	26.3	26.1	27.2	29.2	30.4	33.6	33.8	32.0	27.2	19.9	16.7	18.6	17.3	18.3	18.4	22.8
13 Q	19.1	20.6	25.7	21.6	21.4	21.4	20.1	28.2	17.4	28.3	26.3	26.1	27.3	30.3	35.0	36.9	35.3	30.2	24.3	22.3	20.4	18.8	18.4	18.4	24.8
14 Q	18.9	19.7	20.3	21.4	22.1	22.3	22.3	22.3	23.1	24.3	25.0	25.2	27.1	28.2	29.7	31.6	33.1	31.6	27.9	21.8	18.7	17.4	15.7	15.7	23.6
15	16.3	17.8	18.6	19.4	20.6	20.4	22.5	22.2	22.3	22.5	23.9	21.3	27.7	33.1	34.1	32.2	32.6	29.2	19.9	17.4	17.5	20.2	15.2	10.6	22.4
16	13.4	9.6	14.5	16.3	22.0	21.3	20.4	22.2	25.2	24.1	23.2	23.6	26.2	28.2	32.1	32.6	30.8	29.8	17.4	16.1	15.0	14.5	15.1	17.3	21.2
17 D	13.0	13.1	17.4	17.5	20.5	16.2	22.3	21.8	21.4	22.2	22.9	22.8	27.9	32.1	35.5	37.8	36.5	33.7	30.7	31.6	17.8	13.5	10.3	0.1	22.4
18 D	8.7	11.5	13.2	17.0	19.5	21.4	22.3	25.9	24.9	24.8	22.6	23.0	24.2	27.3	28.5	33.9	37.2	40.0	34.1	16.4	31.0	29.7	25.2	14.4	24.0
19 D	20.3	12.5	17.1	27.8	3.4	3.8	34.7	26.3	17.9	43.4	38.0	33.6	5.2	40.0	44.0	45.8	43.2	37.5	38.1	32.1	26.8	24.9	23.4	23.0	25.3
20	19.2	14.9	23.3	37.6	22.9	22.8	22.5	18.9	27.3	28.6	20.0	24.5	24.8	31.9	35.7	36.0	31.7	22.6	23.4	23.9	17.3	17.9	15.9	14.9	24.1
21	16.7	13.5	14.4	21.3	13.5	21.3	19.6	19.5	21.5	29.2	25.4	19.2	32.3	31.4	29.5	26.3	26.5	21.5	21.3	20.7	17.9	16.5	16.4	16.7	21.3
22 Q	16.8	17.5	19.3	20.2	20.9	21.3	22.2	22.5	22.8	23.4	23.9	24.8	27.6	30.6	32.9	33.8	33.9	30.6	24.3	17.8	17.4	18.1	17.4	15.9	23.2
23	15.0	15.7	17.9	15.3	27.2	22.9	20.4	21.1	22.2	21.2	23.8	25.3	27.3	29.2	28.0	29.9	31.2	31.1	28.1	24.5	21.5	17.5	16.7	16.0	22.9
24	16.1	16.9	25.2	22.2	21.0	20.5	21.4	21.9	21.5	34.5	28.3	24.9	26.0	29.1	33.8	32.2	27.7	23.5	16.4	19.4	17.4	16.5	16.4	15.4	22.8
25 Q	19.1	19.4	19.4	20.4	21.2	20.4	21.4	20.5	22.3	21.8	22.8	22.3	23.4	23.2	23.3	23.3	30.6	24.8	21.3	15.9	14.5	15.4	15.4	16.4	20.7
26	18.4	19.5	18.4	19.9	17.4	19.3	23.2	21.1	27.2	23.4	23.2	29.7	34.2	36.5	47.8	31.0	25.7	27.3	15.0	19.6	18.1	19.6	14.6	12.5	23.4
27	13.5	15.4	17.4	16.5	22.8	23.8	23.3	18.7	19.5	23.3	24.3	27.7	26.2	29.2	30.1	30.2	27.3	22.4	13.5	16.5	14.6	14.5	15.4	17.2	20.9
28	17.9	18.4	19.4	21.2	21.4	22.3	28.2	27.2	22.8	19.4	20.3	23.8	29.6	28.2	31.1	31.1	23.6	30.2	29.8	24.3	19.6	22.4	22.8	21.4	24.0
29	16.4	16.0	15.4	24.4	22.2	22.3	23.8	22.0	21.1	22.0	28.0	22.2	16.1	35.4	36.3	30.0	28.7	29.6	24.9	21.1	18.0	16.4	16.6	17.5	22.8
30	17.7	19.4	20.3	21.3	34.1	24.2	21.3	20.4	21.7	19.8	24.0	25.2	29.2	33.2	35.9	37.1	31.1	32.6	28.2	23.3	18.5	17.9	18.2	16.9	24.7
31																									
Mean	16.5	16.7	17.6	16.9	18.7	19.6	22.1	22.0	24.0	27.6	27.2	27.5	30.2	31.4	34.2	33.8	31.4	29.3	24.4	21.6	19.1	17.9	16.9	16.0	23.4

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 12 Meanook

z = 58,000 γ +

April 1957

Hour U.T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	885	854	854	851	847	611	809	717	643	755	719	731	711	760	776	765	776	801	838	877	865	842	881	885	794
2	885	877	834	822	824	836	847	786	794	803	711	790	807	823	823	814	823	823	836	848	836	848	857	868	826
3	879	836	818	810	823	829	816	775	773	760	660	679	663	771	795	755	755	787	814	887	905	880	901	903	803
4	868	870	898	926	894	789	847	814	764	738	690	679	722	778	787	782	752	777	820	828	879	889	890	901	816
5 D	921	921	931	903	895	854	847	772	815	825	798	723	613	655	749	807	828	817	820	813	815	827	847	920	822
6	894	889	811	899	887	695	731	797	906	768	706	771	782	810	815	810	810	814	817	824	827	827	831	831	815
7 Q	825	823	825	820	817	814	811	809	799	811	807	813	814	815	816	811	812	812	803	808	811	812	828	822	814
8	825	814	811	811	811	815	799	795	758	757	718	703	670	682	719	772	790	811	825	836	843	859	887	866	791
9	857	869	861	898	879	625	768	804	792	821	836	822	779	684	690	706	755	784	817	826	846	880	893	930	809
10 D	939	888	700	568	679	706	812	792	901	1063	960	841	922	864	885	690	836	873	873	847	844	844	836	824	833
11	848	836	823	820	820	820	818	818	815	801	717	564	727	612	744	800	818	817	825	823	833	833	833	792	
12	825	815	812	814	813	825	814	750	814	813	800	805	814	814	812	807	802	798	798	820	836	851	851	814	
13 Q	839	839	854	825	829	827	757	733	652	782	810	807	769	725	725	776	798	807	810	814	822	822	814	794	
14 Q	810	810	810	810	812	812	812	811	809	807	807	807	814	803	803	801	801	799	792	792	795	799	802	803	805
15	801	802	808	808	817	825	825	817	795	779	717	722	776	764	760	772	779	776	798	813	818	885	901	799	
16	922	899	864	890	863	836	836	834	814	803	795	803	802	801	782	746	747	763	776	781	799	820	852	887	821
17 D	877	861	870	874	873	738	779	808	814	815	809	808	798	765	761	784	807	801	799	801	815	826	875	925	820
18 D	867	842	817	810	801	814	798	755	782	781	781	794	810	815	814	803	758	770	831	890	906	966	955	820	824
19 D	684	658	511	755	787	782	764	908	844	792	777	820	766	723	635	438	695	803	842	859	862	868	876	763	
20	829	854	880	863	879	898	857	711	679	737	777	777	798	817	818	810	811	815	822	816	820	830	851	816	
21	872	874	895	877	904	882	830	803	827	681	633	744	718	719	582	644	735	791	821	834	828	829	829	791	
22 Q	822	814	814	811	808	807	807	805	804	804	804	803	804	803	802	797	790	785	791	798	800	800	807	811	804
23	827	833	839	839	849	830	828	817	808	796	792	802	802	795	781	794	795	790	792	796	797	805	822	842	811
24	868	878	690	814	811	803	797	792	742	658	727	788	797	803	803	773	773	776	776	796	803	822	864	865	801
25 Q	869	824	803	803	808	815	808	798	798	788	778	788	764	735	721	709	760	782	799	804	810	823	836	838	794
26	836	836	836	831	843	841	809	809	784	820	775	657	565	576	624	679	787	805	823	830	873	912	916	909	791
27	896	873	861	840	731	739	820	816	654	722	764	756	777	749	782	807	814	818	817	823	827	821	833	847	799
28	808	799	799	798	798	809	797	783	786	760	732	750	665	566	593	634	631	764	754	876	899	908	863	851	768
29	836	878	921	862	874	840	821	805	795	791	758	746	646	575	594	668	737	805	823	818	814	809	809	809	785
30	815	810	820	829	817	829	822	811	805	784	803	796	787	787	797	794	781	795	814	815	828	855	888	877	815
31																									
Mean	851	843	829	829	830	798	810	795	786	788	767	763	754	747	753	752	778	799	811	826	835	843	856	860	804

HORIZONTAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 13 Meanook

 $H = 12,000 \gamma +$ 

May 1957

Hour U.T. Day	0 to 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 24 Mean
	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 24 Mean
1 D	977 997 1028 1048 968 921 891 808 710 627 773 783 859 897 881 899 922 906 892 903 910 917 921 921 886
2	938 962 953 954 961 939 902 913 905 934 878 797 805 942 961 944 930 907 892 892 899 915 945 957 917
3	968 968 964 979 981 986 965 938 893 726 828 906 930 950 930 913 874 866 860 887 906 946 1053 991 926
4	971 955 945 957 976 998 993 962 914 729 767 856 885 877 868 883 875 853 864 885 922 942 962 989 910
5	1064 1032 972 962 978 979 953 953 947 946 937 946 942 939 931 931 924 915 914 926 924 924 945 992 953
6	1009 994 1013 1026 969 947 983 978 935 641 646 923 916 973 955 966 947 954 947 947 947 951 943 1007 939
7	962 931 935 942 977 1081 979 945 954 937 928 947 954 946 954 945 914 900 955 946 933 933 924 921 947
8	928 936 944 953 954 961 958 921 726 894 750 792 830 904 943 951 960 934 912 914 918 932 966 994 911
9 D	959 1004 1143 1226 1040 1041 781 934 914 879 862 921 892 885 891 905 905 896 910 913 926 934 946 958 944
10	970 943 939 952 960 957 945 942 923 934 950 900 889 908 915 927 930 920 932 944 922 956 984 991 939
11	964 943 947 945 940 946 944 951 953 953 957 957 960 946 950 936 928 938 928 932 929 953 964 1000 949
12 Q	993 929 913 928 930 938 938 946 946 954 957 955 949 944 938 929 920 922 930 939 946 951 946 990 943
13	1015 1020 1020 1020 983 990 969 968 932 904 782 860 892 918 913 910 891 899 892 928 953 962 987 983 942
14	971 950 935 958 955 953 946 945 946 946 933 947 947 946 933 910 898 891 884 906 920 947 962 936
15 Q	967 961 941 938 945 946 946 952 953 954 944 925 951 954 950 950 923 895 888 896 917 944 938 937 939
16 Q	946 947 935 935 945 946 952 953 955 950 952 952 947 951 945 926 899 876 874 883 903 938 954 967 934
17	973 974 973 981 981 981 976 969 963 967 968 962 961 968 959 937 908 901 913 930 945 945 936 953 955
18	976 949 961 962 954 961 957 957 955 953 948 942 942 940 938 924 914 912 912 905 918 939 970 942
19	984 982 961 960 961 954 947 952 950 939 945 946 899 888 913 889 906 903 883 913 938 938 977 977 938
20 D	1015 1001 1055 1109 1118 1084 928 946 892 826 889 881 870 773 735 901 923 906 914 914 914 940 943 1000 936
21	971 935 962 954 993 984 985 929 906 763 610 875 850 936 946 922 921 913 906 920 938 945 960 968 917
22	946 950 953 941 946 945 952 958 961 961 967 969 968 969 943 931 926 923 924 920 916 921 935 934 944
23	961 982 975 961 950 965 946 904 924 939 934 927 932 946 930 907 877 899 906 916 923 906 908 931 922
24 Q	938 944 944 952 947 945 945 960 950 710 834 923 935 922 937 944 943 930 908 909 895 899 910 931 920
25	960 960 992 985 989 969 972 1008 938 828 807 733 914 939 910 932 924 906 881 882 908 944 968 936 925
26 D	1039 1165 1181 1161 1085 993 996 914 812 576 579 515 710 970 979 868 764 883 930 952 962 1047 1030 1002 921
27	992 975 947 916 949 942 880 906 939 918 903 884 900 944 952 939 928 917 906 914 931 935 937 944 928
28	969 945 945 940 940 943 945 953 928 866 871 934 946 935 932 910 914 922 910 918 931 963 1000 1016 937
29 Q	992 974 942 946 955 946 952 943 929 924 946 952 939 915 884 887 909 899 890 884 907 950 984 931
30 D	984 991 965 944 925 940 944 944 953 811 609 683 783 820 937 906 874 848 875 930 978 1095 1094 1110 914
31	1024 1063 1078 1052 990 959 953 939 927 845 926 948 957 961 948 932 915 899 899 917 936 924 943 932 953
Mean	978 976 979 983 972 969 946 942 917 862 858 881 905 905 926 926 921 910 904 905 915 925 943 960 972 932

**DECLINATION**  
Mean values for periods of sixty minutes, Universal Time

Table 14 Meanook

 $D = 24^\circ E + \dots'$ 

May 1957

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1 D	17.3	15.6	25.9	13.5	32.0	27.1	27.2	22.4	28.2	7.1	29.1	25.4	23.3	28.2	34.1	35.1	33.6	33.6	31.7	24.4	21.3	20.4	19.2	18.4	24.8
2	18.3	19.4	22.8	15.0	23.1	36.1	28.7	21.5	26.1	24.2	19.4	21.4	31.4	33.6	35.9	37.8	37.1	31.2	24.3	19.8	17.1	15.5	16.3	24.8	
3	15.1	16.0	18.4	17.1	23.6	22.4	23.2	24.1	22.7	20.5	22.8	23.9	28.5	31.5	32.7	33.6	28.7	30.1	29.2	21.4	17.8	16.5	17.7	16.5	23.1
4	16.1	16.4	16.4	18.4	18.0	22.3	22.3	22.2	20.0	21.8	34.9	32.2	34.2	38.0	40.5	36.4	32.8	28.4	19.9	14.5	10.7	10.4	9.4	10.7	22.8
5	13.5	12.4	18.1	18.3	19.8	17.4	18.0	20.5	21.4	23.9	24.4	25.3	26.1	29.0	30.0	30.0	29.9	25.6	17.3	19.0	17.9	17.0	15.0	21.2	
6	15.3	15.0	14.6	23.2	20.4	20.5	22.4	23.2	23.9	12.5	19.4	27.0	35.8	32.1	30.9	29.6	28.2	26.1	22.8	21.7	22.4	21.4	20.1	19.5	22.8
7	21.4	19.3	19.6	21.1	20.0	30.6	23.4	30.4	25.5	23.9	29.4	27.4	30.3	30.2	34.4	34.6	33.1	30.4	19.2	23.3	22.6	21.4	21.6	21.2	25.6
8	19.4	19.5	20.4	21.4	21.9	23.5	23.0	22.5	23.8	31.3	26.2	31.1	40.4	36.3	37.0	35.6	36.0	31.2	26.4	20.5	16.5	13.8	14.5	18.4	25.4
9 D	18.1	12.1	7.4	19.7	22.1	12.4	24.2	26.2	19.5	18.5	28.2	32.1	33.9	33.8	34.6	31.3	27.4	24.4	24.4	20.9	18.5	18.5	18.6	21.2	22.8
10	18.1	18.5	20.5	21.8	23.1	21.4	21.4	20.0	17.2	20.4	22.0	18.9	20.6	27.2	33.8	35.7	34.1	31.5	24.0	23.5	16.3	18.4	20.4	20.2	22.9
11	19.0	19.2	19.4	20.9	22.2	22.1	22.4	22.8	23.3	23.4	24.8	25.3	26.4	30.0	32.8	32.3	31.5	27.6	21.8	21.4	19.1	18.2	19.0	18.7	23.5
12 Q	17.0	19.4	20.9	21.4	22.3	22.8	23.3	23.3	21.4	26.8	23.3	24.5	27.9	30.3	34.0	34.0	31.0	26.3	21.7	18.9	16.5	16.5	16.4	16.0	23.2
13	19.5	21.4	17.5	13.3	23.4	22.4	17.8	16.1	18.4	21.1	16.6	30.2	30.2	34.6	34.6	36.0	34.7	26.0	24.7	15.6	18.9	17.2	18.1	20.3	22.9
14	21.7	21.8	21.4	21.3	25.1	21.4	19.9	20.1	20.2	21.7	22.8	24.3	30.3	33.2	36.1	36.8	37.1	32.1	23.1	18.4	13.0	10.0	12.2	15.6	23.3
15 Q	18.5	21.4	22.4	21.2	21.5	22.2	22.2	22.5	22.3	21.6	24.0	28.7	33.6	36.5	39.1	36.0	33.6	29.3	21.4	19.1	13.8	12.8	11.1	12.3	23.6
16 Q	16.4	20.9	22.9	22.4	22.3	22.4	22.5	22.3	22.8	23.1	25.2	26.3	30.3	33.6	36.5	38.1	38.1	37.0	28.2	15.8	10.9	11.4	11.7	13.4	23.9
17	16.3	19.3	21.4	21.8	22.2	23.3	21.4	21.4	21.3	22.2	23.8	26.2	32.3	34.2	26.0	35.6	39.7	35.3	20.4	19.1	16.9	15.0	13.5	12.6	23.4
18	14.3	18.4	19.8	19.5	20.3	20.5	20.4	20.9	21.0	22.1	23.0	24.3	26.2	28.5	31.6	34.6	34.8	30.7	24.3	19.4	14.0	11.3	11.6	12.5	21.8
19	15.5	16.9	20.9	23.2	20.4	19.9	20.3	19.6	20.0	24.3	22.8	22.4	20.7	23.3	30.9	36.5	35.6	32.6	26.2	15.6	18.9	18.2	15.6	15.3	22.3
20 D	16.4	14.4	10.7	19.6	16.0	25.0	24.4	23.3	22.0	29.2	30.2	29.3	31.8	38.6	40.2	43.9	41.0	37.2	18.3	19.4	15.5	15.3	16.5	15.8	24.8
21	18.2	19.5	20.6	21.4	21.5	24.9	21.4	19.0	22.5	25.2	41.0	31.4	33.2	37.0	40.0	39.8	38.8	32.1	25.9	21.8	18.2	14.0	14.0	15.5	25.7
22	17.4	17.4	20.0	20.5	20.5	20.4	22.9	23.1	23.0	23.1	23.3	25.1	29.3	31.8	34.6	35.5	34.8	33.0	26.1	22.8	18.6	16.4	17.4	18.0	24.0
23	18.2	19.5	23.0	23.4	23.8	20.5	24.8	29.3	24.0	24.5	24.8	31.2	32.7	36.9	39.8	39.0	34.0	24.4	21.4	19.0	16.7	16.7	15.3	18.3	25.0
24 Q	21.4	22.4	23.1	22.0	21.5	21.1	22.1	21.1	23.0	18.6	34.1	29.2	32.6	36.3	41.0	42.4	37.9	31.2	22.3	18.2	16.5	16.2	16.2	17.9	25.4
25	19.7	22.9	21.1	19.1	24.9	21.4	20.2	18.9	21.1	15.9	28.4	22.5	36.2	42.6	41.0	43.9	38.0	32.2	24.8	21.2	18.3	18.3	15.5	10.6	24.9
26 D	10.7	12.5	19.5	27.2	19.3	19.3	18.9	17.9	17.6	22.0	24.8	17.9	41.4	39.9	40.0	42.9	27.2	24.5	24.5	28.6	23.8	29.7	28.8	23.5	25.1
27	18.9	21.9	21.9	20.1	24.5	27.4	17.3	21.2	21.2	20.0	23.5	27.1	32.1	32.2	34.8	34.1	29.5	26.5	22.8	19.5	18.0	18.3	18.9	20.2	23.8
28	19.5	22.2	22.4	21.5	22.2	21.8	21.4	31.6	22.6	23.8	23.1	29.0	33.5	38.9	38.8	35.4	30.3	26.4	23.1	22.7	21.5	21.5	22.3	25.1	25.9
29 Q	23.1	21.8	21.4	21.7	21.5	20.9	20.6	28.2	19.9	18.6	23.4	25.2	27.7	31.2	32.9	33.0	32.1	24.4	19.2	16.0	16.5	17.2	18.3	23.6	
30 D	19.3	18.5	20.2	20.9	20.9	20.5	21.5	21.2	19.1	33.6	38.7	22.4	31.9	36.1	41.9	50.5	48.8	41.4	14.6	15.9	19.3	20.6	22.1	17.3	26.6
31	18.1	15.0	17.9	21.4	19.0	23.2	20.7	20.3	19.3	14.0	22.8	27.2	28.4	30.3	32.8	34.1	34.6	33.2	25.3	18.9	12.8	11.7	13.6	14.8	22.1
Mean	17.8	18.4	19.8	20.4	21.9	22.5	21.9	22.5	21.8	21.9	25.8	26.2	30.4	33.4	35.5	36.5	34.4	30.6	23.6	20.1	17.5	16.8	16.8	17.1	23.9

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 15 Meanook

Z = 58,000 γ +

May 1957

Hour U.T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1 D	873	879	863	927	790	803	818	801	787	786	679	637	733	765	745	756	786	804	810	803	804	814	815	816	796
2	821	828	829	841	830	782	766	777	788	809	753	699	706	775	809	809	808	800	803	808	810	820	833	839	798
3	847	857	853	768	888	862	841	816	799	727	668	753	776	788	783	771	753	776	808	829	846	863	913	878	811
4	863	851	841	841	855	860	841	810	743	803	676	700	711	710	676	684	722	749	776	798	829	859	867	878	789
5	894	875	842	830	841	834	818	803	796	797	776	776	787	783	786	792	786	775	774	775	785	807	838	807	
6	864	862	872	888	850	821	818	817	786	713	683	726	738	792	795	808	809	809	808	808	802	814	814	859	807
7	852	825	808	799	821	809	818	786	797	764	742	774	794	791	791	792	785	776	791	788	788	789	790	795	795
8	794	788	792	796	799	809	817	782	655	700	721	687	710	736	779	785	782	778	783	788	788	798	836	875	774
9 D	852	841	847	775	842	818	684	777	798	781	711	749	761	775	773	899	809	819	820	825	818	818	820	828	802
10	810	810	811	815	799	776	798	789	765	773	790	748	733	759	781	798	808	804	801	798	799	815	851	865	796
11	839	820	809	811	805	798	792	789	794	794	796	796	792	791	791	791	792	792	786	787	798	815	837	868	803
12 Q	869	830	903	788	788	788	788	786	766	755	787	797	797	797	796	792	785	776	776	781	787	788	787	808	796
13	842	865	876	903	868	853	835	820	798	765	751	745	766	794	803	811	804	804	812	813	829	841	842	841	820
14	820	801	788	800	811	799	797	796	796	796	796	785	787	792	799	797	788	789	787	792	800	803	810	822	798
15 Q	830	829	807	790	788	788	787	787	787	787	778	755	776	781	776	784	787	789	786	792	808	820	828	813	794
16 Q	797	796	787	785	786	786	787	787	777	777	778	779	782	776	776	776	775	775	779	788	796	807	818	827	787
17	829	830	826	828	852	838	831	814	804	798	797	792	795	808	798	787	770	771	774	787	796	800	797	800	804
18	810	804	803	799	789	787	786	782	777	774	755	772	775	775	776	775	771	765	765	772	781	797	814	839	785
19	860	852	836	818	809	799	795	786	785	788	787	787	735	719	755	749	755	764	765	787	830	852	841	792	
20 D	857	869	914	828	890	799	733	795	745	717	712	709	706	604	748	789	787	787	810	803	790	817	774		
21	817	828	807	807	818	825	825	757	744	679	765	765	745	756	788	770	766	775	782	792	809	814	820	820	786
22	798	792	797	794	785	782	782	777	778	782	788	794	794	788	787	783	775	777	781	787	786				
23	799	810	823	813	803	797	763	689	756	774	776	775	775	786	785	760	746	757	776	798	809	810	797	787	783
24 Q	777	777	782	788	790	788	785	787	768	723	693	721	755	755	765	777	782	787	785	785	794	803	805	805	774
25	804	808	817	821	829	839	810	800	776	749	733	786	766	792	755	760	772	777	787	809	827	857	913	798	
26 D	940	957	908	829	896	851	814	773	764	875	864	873	759	830	840	798	711	778	788	828	860	882	875	839	839
27	823	820	799	792	798	775	646	727	782	765	740	725	775	807	817	809	809	799	798	799	803	808	807	807	855
28	811	799	797	790	790	789	787	742	747	711	720	766	779	779	782	785	792	788	799	803	809	822	854	784	
29 Q	841	830	809	797	777	785	782	739	743	749	771	781	788	777	756	765	785	795	786	786	785	782	792	814	784
30 D	829	852	839	815	792	786	785	782	772	593	598	874	775	727	774	782	765	758	764	765	835	940	919	877	791
31	883	909	906	838	776	818	813	798	782	717	756	790	798	798	792	788	777	765	760	766	776	776	776	799	
Mean	837	836	833	816	818	808	791	784	773	758	746	762	763	771	776	784	779	784	787	792	803	816	825	833	795

HORIZONTAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 16 Meanook

H = 12,000  $\gamma$  +

June 1957

Hour U. T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1 Q	943	947	946	945	940	947	947	954	947	963	962	964	947	892	916	940	940	931	924	924	931	927	930	948	940	
2 Q	954	969	961	976	978	955	947	947	953	958	946	965	973	980	982	982	958	935	908	891	901	915	929	952	951	
3	952	971	987	964	1011	1038	966	948	930	939	845	602	922	968	909	844	889	849	820	864	946	972	984	971	921	
4 D	1087	1078	1165	1121	1133	819	962	828	759	743	444	593	704	914	929	863	819	896	944	963	1018	1076	1227	1235	930	
5	1084	1208	1060	1030	1016	993	963	830	659	796	900	955	921	942	940	925	869	842	895	906	838	970	1062	1271	961	
6 D	1149	1194	1202	1180	1247	1018	899	636	765	626	777	820	656	812	870	874	976	955	938	929	981	1015	938	979	934	
7	1065	1055	1072	984	918	914	917	928	936	937	914	914	915	938	938	932	923	918	909	907	927	947	958	967	946	
8	986	1007	1011	987	996	878	942	899	905	936	922	899	898	871	892	896	905	921	934	940	948	925	929	945	932	
9 Q	945	950	954	969	960	955	959	956	952	951	949	951	963	959	954	938	927	909	902	912	935	941	952	966	946	
10 Q	973	967	954	949	945	949	950	952	953	956	955	952	951	951	949	932	928	905	914	914	921	943	975	969	947	
11 Q	985	985	985	982	967	964	967	967	975	967	962	960	975	975	955	934	910	889	884	910	913	931	962	953		
12	970	984	963	959	959	959	960	960	945	960	960	956	945	930	937	902	916	929	933	937	946	933	936	982	949	
13	992	966	960	950	952	960	968	969	960	960	909	830	911	939	949	956	952	927	929	937	938	935	944	1017	945	
14	985	968	960	964	964	964	960	951	945	945	949	935	906	906	963	972	978	968	959	935	930	938	952	960	952	
15	996	1019	985	999	1038	999	961	974	923	905	937	952	978	960	891	834	890	890	934	922	905	903	913	959	944	
16	979	957	946	934	950	956	955	958	955	952	944	953	960	970	961	962	968	960	945	924	922	930	930	945	950	
17	953	968	996	1008	1011	986	975	954	951	952	946	904	844	946	922	922	939	950	935	917	916	943	903	985	947	
18	1024	1079	1206	1134	1055	1016	935	859	717	862	875	841	890	959	958	967	954	939	923	922	930	939	993	1102	961	
19	1161	1166	1184	1062	975	986	976	890	859	624	585	611	499	578	710	883	893	990	914	918	938	977	983	990	885	
20	1009	1048	1037	971	1004	907	978	975	961	950	930	891	953	977	985	976	961	939	934	944	926	928	970	986	964	
21	969	975	1022	985	976	1117	1117	1036	946	707	929	950	939	926	910	903	891	921	929	954	986	962	969	955		
22	995	961	905	922	931	930	937	948	929	913	790	656	530	750	934	953	953	921	903	897	902	808	959	1013	893	
23	979	977	942	931	931	933	939	946	947	947	950	943	940	949	978	969	954	925	906	916	923	941	937	960	934	
24	1032	1086	1119	1153	1183	1131	1133	1015	982	960	937	950	962	957	957	954	938	937	923	930	939	953	948	970	1002	
25 D	1001	1234	1275	1374	1286	1219	1079	1015	985	960	969	873	913	839	976	967	928	905	913	991	1085	1110	1117	1156	1049	
26 D	1296	1352	1568	1509	1196	1085	825	466	522	196	212	235	243	309	539	476	694	811	985	986	1003	1021	1058	1039	818	
27	953	974	949	946	929	927	929	960	953	938	931	942	934	896	896	891	890	882	867	893	903	923	928	921	923	
28	972	932	962	953	951	980	1006	932	692	732	646	840	977	983	983	952	927	912	898	912	920	914	917	926	909	
29	929	936	937	945	944	950	952	952	952	963	960	967	983	989	996	978	963	940	920	910	917	927	960	964	951	
30 D	978	968	1041	1065	1158	853	1240	1157	934	842	752	252	252	605	648	258	392	758	804	1073	1219	1392	1470	1359	906	
31	Mean	1010	1033	1043	1027	1017	978	975	925	893	868	856	835	846	886	905	892	901	909	914	928	949	968	987	1012	940

DECLINATION  
Mean values for periods of sixty minutes, Universal Time

Table 17 Meanook

D = 24° E + ...'

June 1957

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1 Q	13.7	15.7	17.6	18.8	20.1	20.1	20.5	20.7	24.0	24.0	22.7	24.9	26.0	25.5	33.5	36.7	35.2	31.3	24.5	18.6	16.1	16.0	13.3	14.2	22.2	
2 Q	16.0	19.0	22.0	22.9	21.5	21.0	20.1	20.8	22.0	23.0	21.1	25.4	28.5	32.5	34.4	37.7	35.7	31.5	26.4	21.6	18.0	13.9	11.3	12.1	23.3	
3	14.1	15.2	17.2	18.2	18.2	26.9	21.0	14.1	29.0	30.8	17.1	24.5	22.5	36.2	39.2	42.5	36.7	35.8	42.6	2.8	7.3	15.1	17.0	13.7	23.3	
4 D	19.1	24.0	14.0	14.7	16.3	26.0	23.5	20.8	24.1	21.1	35.7	20.1	26.2	26.2	32.3	34.7	31.8	29.6	35.9	29.9	29.0	24.6	26.0	22.5	25.3	
5	12.9	18.0	13.9	13.9	17.0	19.6	18.1	11.6	1.0	16.2	17.8	21.9	23.0	29.1	33.0	37.8	35.8	26.8	20.8	15.0	14.6	16.8	21.5	21.5	20.0	
6 D	12.7	11.4	12.3	-0.4	-9.3	0.1	12.7	24.1	16.2	9.9	29.9	17.7	16.2	23.5	32.8	36.6	38.6	36.6	28.5	21.0	22.0	22.2	14.7	19.6	18.8	
7	22.7	21.8	23.2	17.3	17.7	18.3	19.8	19.6	20.1	19.6	17.6	22.5	25.1	29.6	30.1	30.3	29.4	25.2	19.0	14.7	14.0	13.4	13.5	14.0	20.8	
8	15.2	18.2	18.6	19.1	20.1	12.2	19.1	20.1	17.2	18.9	19.1	21.5	24.9	28.4	30.3	28.9	26.9	24.9	21.1	20.0	17.1	15.1	14.7	15.8	20.3	
9 Q	17.1	17.3	18.9	21.0	26.9	22.0	19.6	18.6	20.7	21.9	23.1	26.8	29.8	31.7	32.8	33.5	30.3	28.6	23.0	15.0	12.0	12.0	13.9	16.6	22.2	
10 Q	19.0	20.1	20.1	20.1	20.9	21.1	21.9	21.9	21.5	21.2	21.9	24.9	28.9	33.0	35.2	35.4	31.5	27.9	24.9	27.9	13.1	12.6	13.1	14.7	22.6	
11 Q	14.1	15.5	18.2	18.4	18.4	18.9	19.9	19.9	19.9	20.1	22.0	27.5	32.1	34.3	34.3	33.3	30.8	28.5	24.0	19.1	15.6	12.5	12.5	13.7	21.8	
12	15.1	18.4	21.8	21.0	20.3	19.8	18.6	18.8	20.0	20.6	21.5	24.0	25.7	32.7	35.2	33.8	27.9	24.9	23.0	18.8	15.1	12.7	11.5	12.7	21.4	
13	15.1	19.0	20.1	20.1	19.9	20.2	19.8	17.6	16.5	15.3	16.8	16.1	26.4	29.9	33.1	34.2	34.6	31.9	24.7	24.0	20.1	15.2	12.4	11.7	21.4	
14	15.7	17.6	18.9	20.1	21.8	25.0	20.1	18.8	19.8	18.6	20.5	23.5	26.4	29.4	32.8	34.4	34.3	31.3	25.9	25.6	19.6	13.2	12.7	10.4	22.3	
15	10.2	12.7	16.2	16.1	23.5	24.5	20.0	15.1	17.1	25.6	23.1	24.9	28.4	33.0	34.8	27.7	36.7	26.7	21.8	25.9	15.1	9.9	10.5	12.0	21.3	
16	15.1	17.6	17.4	17.4	18.0	18.2	20.9	19.9	19.3	19.3	20.8	26.0	32.5	34.7	37.2	33.8	31.7	28.0	26.4	23.1	20.4	17.1	13.2	11.2	22.5	
17	10.4	12.7	11.4	12.4	16.6	22.0	25.7	21.7	21.3	22.6	23.5	25.9	29.9	33.9	34.4	29.9	31.5	32.8	31.0	28.7	20.3	19.6	14.8	9.2	22.6	
18	13.2	8.0	6.1	11.7	18.2	12.5	8.5	23.7	18.1	27.9	20.5	18.1	23.2	32.9	39.0	42.6	41.1	38.8	33.8	26.4	21.5	16.6	13.9	14.4	22.1	
19	19.6	17.1	16.6	6.8	20.7	21.7	16.4	14.5	16.6	17.1	15.5	29.4	44.1	28.5	39.3	31.8	32.3	29.9	17.1	18.1	21.0	22.9	19.8	15.9	22.2	
20	16.7	17.1	20.1	18.8	25.4	23.1	23.5	19.8	19.6	19.8	19.1	24.2	32.8	38.2	39.6	37.8	33.9	31.8	27.4	24.7	17.3	8.2	8.2	10.0	23.2	
21	10.7	13.1	16.0	13.7	17.3	14.8	7.3	7.3	8.2	11.1	24.1	21.7	27.0	31.3	33.8	37.7	33.8	30.5	25.2	20.0	8.8	8.6	8.0	6.4	18.2	
22	9.8	11.1	15.6	16.1	16.6	20.1	19.6	17.6	16.3	25.2	18.3	16.7	27.2	40.3	34.5	33.4	32.8	31.0	20.8	18.1	15.0	12.0	10.2	10.7	20.3	
23	14.1	14.7	16.2	18.0	20.1	20.9	21.0	20.9	20.6	20.1	21.7	22.7	27.8	29.9	34.1	35.6	35.9	33.0	24.9	22.2	14.5	8.4	7.0	8.3	21.4	
24	8.6	10.1	13.8	10.3	14.1	16.4	9.8	7.2	8.3	13.4	14.4	23.2	27.0	32.3	36.7	38.1	35.8	33.3	29.4	24.9	19.1	15.3	14.0	12.7	19.6	
25 D	12.4	5.3	7.9	15.8	14.2	20.1	9.4	12.2	16.2	20.6	21.9	20.0	30.9	25.9	33.0	38.8	38.8	43.6	18.1	24.9	25.1	20.3	13.8	14.7	21.0	
26 D	5.8	-1.2	2.6	2.3	-7.2	9.5	-0.6	10.2	24.5	24.5	26.0	47.9	57.5	40.1	31.9	53.5	56.3	35.2	24.5	24.1	26.8	23.2	26.0	22.9	23.6	
27	18.8	15.6	19.1	21.1	20.5	20.8	21.7	20.5	36.6	19.3	22.0	25.0	32.2	37.7	42.1	44.6	38.8	34.7	30.8	19.1	15.0	11.4	11.7	12.3	24.7	
28	17.6	20.8	25.4	22.0	19.7	17.1	19.8	24.2	20.7	26.8	33.9	34.7	33.0	34.7	41.2	49.0	42.6	41.8	27.1	22.1	14.1	9.3	8.5	10.1	25.6	
29	13.7	16.2	19.0	20.0	20.5	21.1	20.8	20.7	22.7	21.0	22.0	23.8	22.3	27.9	29.9	31.8	33.3	29.9	24.8	18.2	15.6	14.3	13.4	13.7	21.5	
30 D	16.1	17.6	20.1	20.7	26.0	16.1	9.8	12.3	12.7	24.9	17.2	37.3	125.9	78.7	43.6	42.0	51.7	61.7	71.2	94.5	94.7	97.7	115.1	51.5	48.3	
31	Mean	14.5	15.3	16.7	16.3	17.8	19.0	17.6	17.8	19.0	20.6	21.7	24.8	32.1	33.4	35.1	36.6	35.6	32.6	27.3	23.3	19.9	17.7	17.2	15.0	22.8

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 18 Meanook

z = 58,000  $\gamma$  +

June 1957

Hour U. T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1 Q	782	784	784	785	785	786	785	782	764	771	782	786	782	744	738	760	770	766	771	776	782	790	790	792	777	
2 Q	793	803	803	812	826	818	797	785	774	777	761	774	785	787	789	788	776	771	765	766	776	777	777	779	786	
3	783	782	785	777	798	779	771	765	700	695	673	603	659	744	734	693	722	742	763	805	797	788	836	829	751	
4 D	872	889	875	854	857	798	799	721	655	645	680	653	776	749	764	738	725	792	825	866	890	901	904	827	795	
5	847	853	827	852	838	801	799	766	738	689	706	778	776	797	797	795	766	742	787	803	814	841	899	926	802	
6 D	868	886	842	862	734	796	765	729	786	792	684	709	679	701	711	742	783	797	796	809	852	853	818	825	784	
7	870	901	886	841	809	796	788	788	787	787	768	747	756	786	798	797	787	792	797	798	809	818	829	813	806	
8	820	839	836	842	833	704	753	732	722	766	755	744	756	722	738	755	765	779	797	797	798	798	808	813	778	
9 Q	809	801	801	814	818	797	796	789	782	787	787	798	799	796	789	786	775	776	782	777	786	786	782	788	792	
10 Q	792	787	782	785	787	787	787	787	787	787	787	786	781	777	776	778	776	771	772	772	778	791	809	810	785	
11 Q	825	812	805	791	791	791	791	791	800	791	799	802	800	797	791	791	784	773	766	773	784	789	807	792		
12	814	828	817	803	796	796	798	792	737	773	792	792	783	760	771	771	773	782	781	785	794	794	798	825	790	
13	848	828	809	790	787	787	789	789	775	753	727	663	720	760	788	808	809	797	796	795	807	814	849	863	790	
14	857	847	819	815	815	803	794	787	775	771	782	765	733	718	776	790	787	775	766	775	796	807	810	809	790	
15	820	838	830	849	859	850	825	815	782	727	763	797	809	799	745	657	732	758	797	808	792	789	805	855	796	
16	852	821	809	797	808	809	801	792	787	784	775	787	789	795	791	782	774	771	766	765	761	765	774	781	789	
17	782	789	804	821	818	753	787	797	790	787	781	747	668	760	663	771	789	789	785	787	788	823	824	852	781	
18	874	875	895	852	816	818	804	792	810	723	711	722	766	799	797	792	785	779	776	788	801	817	847	912	806	
19	912	905	814	808	830	822	816	778	744	750	602	560	604	617	652	738	777	788	792	821	848	861	867	864	774	
20	874	879	865	821	810	695	809	814	798	787	765	719	765	775	778	776	771	771	781	792	799	808	796	797	794	
21	809	820	842	828	836	829	788	768	779	736	755	792	791	782	765	765	770	771	797	814	863	879	829	798	800	
22	825	820	791	778	777	776	772	769	766	742	792	722	691	585	771	809	809	808	799	798	809	803	810	831	777	
23	841	820	788	782	781	781	776	776	777	777	776	775	766	778	778	779	772	775	789	810	836	820	792	788		
24	820	864	894	933	894	841	824	770	755	786	777	797	810	798	787	798	792	791	787	788	792	794	797	802	812	
25 D	821	909	912	885	820	710	744	787	821	798	808	665	775	755	818	813	788	782	797	847	940	951	922	895	824	
26 D	918	905	852	580	559	776	799	762	861	1023	679	934	1064	971	895	937	738	743	842	847	857	886	886	870	841	
27	822	817	821	825	803	803	809	738	755	768	802	810	787	776	776	785	792	788	795	797	799	802	815	795		
28	840	830	833	816	808	810	817	709	673	701	727	709	777	814	812	796	776	779	777	783	782	787	790	800	781	
29	798	796	794	796	792	791	787	786	788	794	796	799	804	799	797	788	784	784	776	777	787	796	808	809	793	
30 D	812	798	831	885	776	462	744	753	695	634	749	391	667	553	504	708	777	829	1005	965	786	453	315	698		
31																										
Mean	833	838	828	816	802	779	790	776	768	763	750	737	765	763	764	769	772	777	788	803	815	817	811	810	789	

**HORIZONTAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 19 Meanook

H = 12,000  $\gamma$  +

July 1957

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1 D	1502	1432	1159	903	1095	1040	724	577	329	867	960	953	949	945	952	939	929	934	932	952	924	892	899	913	946	
2 D	906	928	918	915	908	913	918	922	888	820	771	348	-124	355	333	687	801	984	964	1025	968	923	902	787		
3 D	919	1072	1237	1056	1015	961	976	937	929	917	918	788	832	921	960	941	950	949	935	961	953	946	987	990	960	
4	934	919	924	928	929	928	930	930	931	932	932	932	945	950	953	946	929	906	899	913	953	1009	1070	1116	947	
5 D	973	951	953	1088	974	767	997	937	782	636	538	393	871	970	997	965	939	901	897	897	954	1041	1122	986	897	
6	1022	1033	1027	968	1001	962	944	931	858	892	840	884	882	922	933	928	936	931	924	906	957	1007	1038	1095	951	
7	936	929	943	997	977	953	935	930	930	934	944	930	932	896	931	937	934	920	903	903	898	910	924	920	931	
8	929	951	989	977	954	959	952	883	939	953	926	932	911	923	937	953	947	922	918	918	944	921	932	983	940	
9	1008	1010	952	1022	952	946	953	953	946	946	943	938	930	920	924	905	899	927	918	923	929	921	953	978	946	
10 Q	986	986	992	957	954	953	945	946	946	946	947	953	953	961	957	954	946	934	924	916	920	934	947	971	951	
11 Q	969	978	968	949	953	952	954	957	957	953	955	955	950	964	961	946	932	921	910	933	955	937	944	975	951	
12	975	1011	1001	1004	939	952	957	954	947	953	943	939	940	960	960	960	935	913	909	907	931	939	953	969	952	
13 Q	973	951	935	942	946	946	950	950	953	955	955	961	959	960	961	948	930	906	908	915	910	921	932	942	942	
14	948	957	953	956	955	953	955	958	969	954	955	962	964	965	965	970	961	953	933	927	944	956	929	989	956	
15 Q	956	987	976	935	940	949	947	952	954	945	951	958	966	970	966	951	944	946	934	939	933	933	949	951		
16	953	960	955	955	963	965	968	982	915	915	817	738	777	893	922	942	855	899	906	945	941	968	990	998	922	
17	945	952	963	955	953	955	948	952	955	961	961	908	860	918	937	932	943	934	929	920	921	920	947	950	938	
18	953	940	948	961	966	992	981	975	936	922	881	900	916	930	943	935	880	875	887	920	923	940	969	1047	938	
19 D	1075	1106	1052	988	957	947	960	1012	953	944	953	953	969	979	915	852	841	863	884	912	1014	1096	1048	1063	972	
20	951	1015	1062	1018	1019	1020	959	938	923	931	928	935	924	920	935	924	920	917	913	926	948	979	1029	956		
21	953	931	942	934	942	945	949	940	945	949	959	950	911	929	938	957	947	926	908	906	905	924	924	917	935	
22	942	962	948	965	994	1053	897	965	993	985	905	632	837	926	938	904	838	872	869	908	1014	977	941	927	920	
23	983	978	934	1058	1024	976	951	940	947	944	945	954	970	973	964	947	935	925	928	917	911	913	925	1004	956	
24	985	964	939	933	943	940	946	947	896	919	936	878	722	960	949	940	884	927	923	914	954	951	970	926		
25	953	993	950	960	964	957	957	943	946	957	961	966	979	987	977	971	973	955	938	928	930	904	913	931	954	
26 Q	935	958	955	953	956	953	953	953	962	962	968	970	984	993	997	987	972	936	922	910	906	910	931	942	958	
27	953	956	957	957	962	957	961	962	964	965	970	979	989	993	997	989	974	958	939	921	935	936	953	968	962	
28	987	971	973	972	971	983	975	973	972	968	971	975	979	981	972	956	938	924	924	932	939	941	935	960		
29	953	985	963	987	982	964	962	969	952	944	888	906	918	917	925	952	953	935	910	895	912	924	900	934	939	
30	955	944	949	962	959	958	959	955	944	954	964	966	965	964	955	939	937	936	921	923	924	925	937	941	947	
31	945	937	948	952	962	958	952	956	962	957	951	927	937	946	964	951	939	924	919	933	945	968	945	953	947	
Mean	979	989	980	971	968	957	946	938	918	931	919	896	902	913	933	925	920	917	918	922	938	948	957	974	940	

## DECLINATION

Mean values for periods of sixty minutes, Universal Time

Table 20 Meanook

 $D = 24^\circ E + \dots'$ 

July 1957

Hour U.T. Day	0 to 1 1	1 to 2 2	2 to 3 3	3 to 4 4	4 to 5 5	5 to 6 6	6 to 7 7	7 to 8 8	8 to 9 9	9 to 10 10	10 to 11 11	11 to 12 12	12 to 13 13	13 to 14 14	14 to 15 15	15 to 16 16	16 to 17 17	17 to 18 18	18 to 19 19	19 to 20 20	20 to 21 21	21 to 22 22	22 to 23 23	23 to 24 24	Mean
1 D	7.8	10.0	-16.7	-33.2	0.5	-17.7	3.4	17.0	-8.6	19.8	18.3	22.3	25.8	29.9	36.1	38.9	41.6	37.8	39.7	28.9	17.3	11.2	10.2	12.8	14.7
2 D	17.1	17.2	19.2	19.2	20.0	20.1	20.1	20.1	20.5	13.2	21.1	20.1	7.3	58.3	72.5	59.3	61.7	36.8	35.6	33.3	26.5	15.2	14.1	14.2	26.7
3 D	14.4	18.8	17.2	14.0	19.6	16.5	18.9	21.2	20.9	19.3	19.0	22.0	36.7	24.7	30.8	36.7	37.7	35.3	34.7	29.9	22.9	18.5	16.3	20.1	23.6
4	16.2	17.0	19.6	20.0	20.1	21.0	21.0	21.0	21.0	21.0	20.2	22.1	24.9	28.4	29.9	30.9	33.2	29.4	34.3	22.1	31.7	28.5	23.0	16.1	23.9
5 D	12.2	2.4	8.2	-8.4	-1.5	-21.0	13.2	3.4	24.5	24.0	38.7	50.1	29.9	32.4	38.9	42.6	40.6	36.5	32.8	28.0	27.2	34.5	31.7	16.0	22.4
6	11.1	12.2	16.2	20.1	15.7	17.0	20.9	20.1	12.7	18.0	15.1	17.6	23.0	30.8	32.9	33.7	36.6	34.6	32.8	35.8	30.8	25.0	19.1	17.7	22.9
7	14.9	16.8	17.6	21.9	25.5	19.2	20.0	19.0	21.8	19.9	20.5	23.1	25.0	30.8	36.5	39.2	38.7	34.4	28.0	25.0	16.9	12.7	13.1	15.3	23.2
8	17.0	17.2	22.0	22.1	19.8	19.0	21.1	16.3	21.1	19.0	20.0	23.1	26.9	35.7	38.7	36.8	35.5	31.6	25.9	24.0	23.0	18.0	16.9	17.2	23.7
9	18.1	22.9	20.5	19.6	20.1	19.0	21.5	22.9	21.9	19.6	20.5	23.3	26.0	29.1	31.7	32.3	32.7	26.0	22.9	19.0	19.1	14.9	14.2	16.1	22.2
10 Q	16.6	18.0	18.0	16.9	16.6	19.0	24.5	21.5	20.0	22.0	23.9	26.4	27.9	30.7	32.9	33.0	32.9	30.7	26.7	22.5	18.6	17.0	17.0	18.0	23.0
11 Q	19.0	19.1	21.1	19.6	18.7	18.8	19.0	19.8	20.7	19.6	22.9	25.0	27.8	34.5	34.0	33.6	28.9	19.8	20.5	24.0	22.1	24.5	26.9	26.4	23.6
12	26.4	22.3	24.8	19.6	20.1	17.2	20.5	19.9	23.1	19.0	19.1	19.6	23.1	29.9	34.8	37.3	37.5	34.8	26.8	16.0	12.0	10.3	12.2	13.3	22.5
13 Q	15.1	19.2	20.9	19.6	19.1	20.1	20.8	20.9	20.5	20.5	19.6	20.9	23.5	28.2	33.0	35.0	34.3	31.9	24.2	16.8	11.9	9.9	10.7	14.2	21.3
14	17.0	19.1	20.1	19.0	19.0	20.1	20.9	21.0	21.1	20.7	23.5	24.9	30.8	32.3	33.6	36.6	40.1	35.5	28.9	22.5	21.3	17.2	13.3	13.3	23.8
15 Q	19.1	22.0	24.1	20.9	19.2	19.2	20.1	20.9	20.4	21.0	23.6	24.5	24.5	26.4	29.9	32.7	34.8	34.7	25.8	19.6	18.4	10.1	10.2	13.7	22.1
16	17.0	20.1	22.0	22.0	21.9	21.0	21.8	27.0	28.9	20.8	21.1	36.0	40.3	21.1	44.0	40.1	34.1	30.9	21.8	9.7	10.2	16.1	20.1	20.9	24.5
17	18.2	18.6	18.0	18.3	19.0	19.7	19.6	20.5	22.9	21.5	18.6	20.8	23.9	28.1	32.7	33.8	28.0	26.9	24.7	21.4	15.7	16.9	16.2	16.9	21.7
18	17.0	18.2	19.2	18.3	17.2	19.5	28.5	25.0	23.0	23.6	23.7	32.3	34.3	32.9	35.4	40.6	36.6	32.3	22.7	15.1	15.0	15.9	12.4	12.1	23.8
19 D	15.8	16.2	17.8	16.2	19.2	17.9	14.7	21.0	19.6	18.4	23.2	26.9	31.3	35.5	44.5	40.5	22.0	29.7	20.5	18.0	22.3	23.8	18.1	17.1	22.9
20	11.2	10.0	14.9	19.0	19.3	17.0	23.5	19.9	18.1	19.1	19.2	21.0	23.0	26.9	31.2	36.9	38.7	35.9	27.9	23.3	17.6	18.2	17.0	19.2	22.0
21	14.7	17.0	18.1	20.1	20.7	21.8	21.0	21.8	21.0	22.7	22.8	24.2	30.7	35.2	38.4	36.5	34.7	29.3	23.8	17.7	13.7	10.2	11.0	22.8	
22	12.1	15.0	18.1	17.6	15.1	18.9	37.2	24.0	19.8	20.2	18.4	48.5	42.4	33.8	34.8	31.7	31.3	28.4	33.5	28.9	24.8	15.9	10.2	12.2	24.7
23	14.7	17.1	16.0	14.7	14.7	21.9	22.3	23.5	22.0	20.2	20.8	23.1	26.0	29.1	30.8	31.8	30.9	30.3	26.9	22.5	17.1	16.2	15.2	16.4	21.8
24	24.2	20.1	21.0	19.1	19.9	19.7	19.4	18.1	15.6	19.2	19.1	19.5	24.9	30.8	32.7	33.1	30.1	27.4	16.2	10.2	15.0	17.0	19.1	18.2	21.2
25	21.5	23.0	21.6	21.1	23.0	26.5	25.9	22.1	20.1	20.9	21.7	23.5	26.4	29.4	33.5	36.9	35.0	32.4	26.8	24.9	20.9	18.0	17.9	17.3	24.6
26 Q	18.2	20.5	20.9	21.9	21.3	21.1	22.0	20.6	20.0	21.0	19.6	20.5	23.2	27.1	29.8	31.1	30.8	29.2	24.5	18.6	13.1	11.0	11.2	15.0	21.3
27	18.0	20.1	21.5	20.1	19.6	19.9	20.1	21.3	21.7	22.5	23.9	25.6	29.0	31.8	33.5	34.1	34.7	32.3	26.7	20.1	17.1	12.0	9.0	12.7	22.8
28	15.6	19.6	19.0	17.1	18.1	20.1	19.5	18.8	18.1	23.0	24.5	26.4	28.7	30.8	34.6	36.9	37.4	31.8	24.5	17.6	13.4	11.2	11.1	12.7	22.1
29	15.3	16.3	17.8	22.2	24.2	17.8	17.6	19.9	22.6	20.5	32.0	36.9	33.5	39.2	44.7	41.8	38.8	33.4	25.9	18.2	17.9	10.3	8.1	9.2	24.3
30	13.2	18.6	19.4	19.6	20.0	21.0	20.1	18.7	18.7	24.1	22.8	24.0	26.9	29.1	31.3	32.8	34.9	32.3	26.1	20.7	18.8	15.8	14.2	13.8	22.4
31	16.1	17.7	18.8	18.6	20.1	20.1	21.5	23.0	21.5	21.0	18.1	24.9	31.2	29.9	32.7	32.6	30.7	24.9	20.0	17.3	13.3	13.0	15.3	21.8	
Mean	16.3	17.5	18.0	16.7	18.2	17.1	20.6	20.3	19.9	20.5	21.9	25.5	27.3	31.3	35.6	36.5	35.5	31.9	27.2	21.9	19.0	16.5	15.2	15.6	22.7

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 21 Meanook

Z = 58, 000 γ +

July 1957

Hour U.T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1 D	461	355	438	763	808	733	778	933	1025	841	822	838	858	850	842	836	824	808	809	809	813	795	783	808	776	
2 D	808	807	804	803	799	798	798	798	756	710	767	494	301	905	636	816	782	870	911	906	824	803	807	771		
3 D	819	896	852	830	853	845	827	834	829	829	843	747	681	749	808	826	825	815	822	845	851	830	836	841	822	
4	810	803	803	801	798	797	796	796	798	793	808	805	804	804	798	794	788	788	788	788	829	875	940	937	815	
5 D	851	810	819	841	648	696	819	814	710	686	959	760	691	776	825	821	813	808	803	809	841	929	933	875	806	
6	851	829	841	845	850	841	830	814	744	753	744	760	767	785	803	805	809	799	808	816	877	911	896	879	819	
7	819	819	819	841	788	812	804	774	778	786	803	803	804	775	788	799	797	788	787	791	799	800	809	810	800	
8	819	822	840	819	819	809	786	695	763	798	782	793	777	799	795	797	803	794	799	805	827	821	825	841	801	
9	852	863	808	797	795	795	797	760	771	787	787	782	782	771	765	765	763	775	786	796	808	809	819	829	794	
10 Q	830	831	843	833	814	787	788	793	793	797	797	798	797	796	789	793	796	787	786	782	786	787	796	797	800	
11 Q	798	803	809	797	787	787	787	787	786	775	786	787	787	786	787	787	782	786	786	786	786	786	795	803	789	
12	803	807	795	796	791	794	798	778	744	789	776	750	751	776	813	812	797	797	777	788	809	811	819	791		
13 Q	821	819	800	789	788	787	787	786	786	786	785	785	782	786	789	789	787	787	777	771	787	786	781	771	788	
14	787	788	787	781	782	784	786	784	777	744	753	783	777	776	765	756	749	756	764	771	782	798	808	830	778	
15 Q	831	841	821	795	784	783	778	781	777	745	753	784	788	786	775	769	774	767	770	770	775	787	798	784		
16	803	804	797	788	788	788	787	777	712	732	734	626	635	652	705	744	695	733	770	785	793	810	831	854	750	
17	853	821	799	796	791	793	791	789	787	787	771	733	712	745	770	782	798	793	782	783	796	803	814	819	788	
18	821	815	803	793	791	810	809	776	755	744	679	720	732	768	776	765	786	797	801	821	857	874	897	790		
19 D	913	863	845	841	830	799	803	735	748	798	799	803	810	804	772	712	674	734	777	821	895	946	886	871	812	
20	851	904	916	882	836	851	809	803	788	778	787	799	798	808	797	799	798	790	803	816	822	839	866	918	827	
21	830	797	797	795	795	788	788	787	786	777	712	732	734	626	635	652	705	744	695	733	770	785	793	810	831	854
22	799	818	796	789	797	787	581	700	786	788	775	762	641	713	753	744	701	731	775	814	917	853	830	803	769	
23	820	850	816	842	762	821	819	790	782	768	786	798	799	798	795	786	785	782	784	786	798	803	798	840	800	
24	858	824	793	782	786	781	783	755	704	725	750	710	803	765	771	778	752	745	773	776	797	819	837	850	780	
25	855	836	793	797	809	807	798	787	786	773	793	797	803	800	794	786	783	787	783	776	777	788	798	795		
26 Q	797	798	787	782	782	782	778	765	741	777	786	788	786	785	784	775	775	775	776	777	787	797	781			
27	795	788	785	792	778	777	776	782	782	777	782	785	788	788	789	785	776	775	774	775	776	784	785	788	782	
28	793	787	782	778	776	783	777	776	783	783	786	788	787	785	785	782	776	768	765	765	768	773	776	777	779	
29	786	798	796	811	824	796	787	756	754	774	678	695	731	734	722	744	763	749	749	764	778	797	787	778	765	
30	786	784	782	787	798	798	794	775	744	742	767	777	784	781	778	775	777	786	782	776	786	788	789	798	781	
31	807	788	782	777	782	777	775	775	776	773	765	727	722	749	770	775	776	767	760	753	765	783	793	810	772	
Mean	810	805	798	805	794	793	788	783	778	772	778	769	756	760	787	778	778	786	793	811	818	822	827	790		

**HORIZONTAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 22 Meanook

 $H = 12,000 \gamma +$ 

August 1957

Hour U. T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	950	935	965	957	970	990	957	973	968	960	962	966	946	967	961	951	939	928	922	923	932	952	953	953	953
2	990	977	1001	987	983	1012	986	973	966	949	953	950	912	934	956	942	957	943	940	932	928	924	951	1015	961
3 D	990	950	935	938	948	953	970	971	962	943	942	953	956	947	957	943	906	858	885	966	975	953	948	1041	949
4	1048	1033	971	961	986	960	969	935	899	924	951	947	939	945	957	953	938	918	910	910	910	903	918	934	947
5	940	944	942	943	946	951	946	950	957	960	958	964	962	957	942	923	902	906	947	968	993	1036	1120	959	
6 D	1171	1110	1142	1084	1026	975	945	734	358	679	660	605	838	873	810	889	886	864	904	921	950	972	1047	1042	895
7	1034	985	955	970	969	969	953	953	857	903	930	899	875	908	935	918	914	904	892	896	903	920	934	932	929
8	939	946	949	955	961	1034	964	934	951	943	939	942	970	961	939	942	913	901	901	911	911	910	914	948	941
9	979	955	1080	971	946	950	956	961	955	950	956	957	965	978	973	969	941	907	906	903	906	934	942	986	955
10	955	998	993	983	948	956	966	957	963	950	903	968	970	970	975	979	967	955	943	943	941	943	956	949	960
11 Q	973	969	959	959	957	958	958	957	958	964	962	965	973	982	979	975	958	942	940	936	935	935	954	954	958
12	956	995	994	1019	1076	1031	1105	956	907	958	961	977	969	960	941	906	901	878	897	906	905	920	930	941	958
13 D	967	982	1107	1104	1104	959	604	533	661	682	656	496	746	958	974	942	933	922	905	907	918	921	934	950	870
14	949	956	956	954	952	947	957	952	950	951	954	947	939	945	934	950	923	903	900	902	900	912	948	976	940
15	1020	1023	980	928	942	946	950	947	954	974	957	957	961	956	964	953	935	912	885	900	917	897	926	961	948
16	982	1001	1020	969	948	946	950	951	953	959	965	964	973	972	964	951	932	906	894	900	904	914	928	950	950
17 Q	954	950	946	950	953	957	958	960	961	961	963	968	968	972	961	945	927	914	905	904	910	922	930	955	946
18	944	949	967	952	966	962	967	969	972	976	968	930	884	953	965	960	953	930	899	918	935	945	946	961	948
19	968	986	1079	997	1007	913	921	928	850	750	837	967	967	969	961	951	923	918	914	921	922	930	939	954	936
20	961	952	941	952	949	947	946	953	957	945	976	961	962	913	916	934	909	921	911	945	950	948	997	942	
21	1019	1080	1148	1137	1100	785	923	937	931	671	721	727	820	876	899	900	929	960	936	929	934	938	941	943	924
22 Q	941	949	954	961	960	954	954	955	943	950	957	954	954	957	957	943	928	914	906	908	917	928	939	939	943
23 Q	947	952	954	957	957	959	961	963	962	965	965	959	961	967	960	952	938	927	921	919	934	953	961	965	952
24 Q	961	959	961	959	960	961	964	964	965	965	965	962	954	966	961	951	926	902	888	894	907	933	935	947	947
25	956	961	960	963	965	970	976	978	990	977	975	971	970	978	978	962	927	910	899	888	905	944	934	931	953
26	946	961	960	961	965	965	962	963	967	967	969	968	967	958	949	931	891	888	897	892	920	905	936	970	944
27	1011	958	959	1001	1116	1072	1029	956	901	907	802	918	974	977	952	929	903	878	878	890	925	929	976	964	950
28	952	959	956	960	976	993	1068	932	938	955	954	954	966	961	955	944	914	895	898	905	919	933	964	968	951
29	966	946	945	950	956	956	956	958	960	960	957	952	956	949	945	932	918	895	906	857	922	941	1053	1014	948
30 D	1227	1086	1508	1250	1386	1135	1014	662	835	775	808	798	935	936	944	928	913	923	925	920	919	920	941	1008	
31 D	950	953	936	949	958	945	933	909	941	945	944	937	897	880	888	919	846	843	804	864	905	963	996	1034	922
Mean	985	999	1003	986	994	968	957	923	912	913	915	915	936	949	947	941	923	908	902	911	923	933	953	972	944

**DECLINATION**  
Mean values for periods of sixty minutes, Universal Time

Table 23 Meanook

		D = 24° E + ...'																				August 1957			
Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	16.1	18.1	17.4	18.6	18.3	16.1	25.4	22.0	21.0	22.0	23.5	22.5	24.9	29.8	31.7	32.9	31.7	27.9	23.7	20.9	14.8	15.1	13.3	14.2	21.7
2	13.8	14.7	17.8	18.1	18.1	18.6	16.4	18.3	21.5	22.7	25.1	26.9	28.6	29.6	32.5	36.7	34.1	34.3	28.6	23.5	16.3	9.3	9.3	11.2	21.9
3 D	17.1	20.0	20.1	19.6	20.1	20.1	19.0	21.5	20.0	19.2	21.0	23.8	25.4	28.0	27.4	30.8	46.9	65.8	20.0	0.9	16.1	12.7	12.0	11.3	22.5
4	14.8	17.1	14.8	12.7	14.2	16.0	15.1	16.1	15.7	20.2	22.0	22.5	24.9	28.5	29.8	30.1	32.1	29.9	25.6	19.4	14.7	13.3	15.2	16.1	20.0
5	17.7	20.4	20.5	20.5	20.6	19.8	22.1	22.4	22.5	22.9	24.0	24.9	26.9	30.8	33.6	33.1	40.1	38.7	26.7	20.1	19.2	17.2	17.0	16.3	24.1
6 D	14.2	14.3	8.3	18.1	24.9	12.2	8.3	15.9	58.9	32.9	32.8	18.4	32.8	38.8	34.7	42.1	37.2	23.9	16.6	19.1	19.7	15.6	17.8	17.1	23.9
7	19.4	18.1	16.1	17.8	24.5	19.7	20.1	19.6	18.6	19.2	19.3	21.0	23.5	28.4	35.0	36.5	36.2	33.0	26.8	23.0	19.3	18.2	16.9	16.6	22.8
8	17.1	18.2	18.9	18.9	18.7	17.6	10.1	22.5	20.5	19.3	21.6	22.7	27.5	30.5	34.9	33.8	32.3	28.6	22.9	18.0	14.7	14.7	14.2	15.6	21.4
9	17.3	17.3	20.1	17.1	14.2	19.1	23.9	30.8	22.0	20.1	21.3	24.8	28.9	33.0	37.7	40.8	40.6	35.3	30.8	21.7	16.6	18.1	16.1	20.1	24.5
10	23.8	21.0	24.4	24.8	21.2	20.7	25.4	22.1	20.2	20.1	19.1	21.1	25.1	29.4	32.8	32.8	29.4	25.4	21.0	15.2	13.7	15.2	16.3	19.6	22.5
11 Q	21.5	20.5	19.2	18.9	18.9	20.1	20.2	21.5	22.0	22.9	23.9	25.9	28.7	31.3	32.8	36.7	36.8	32.3	28.5	24.6	18.8	16.0	16.1	17.0	24.0
12	18.1	20.0	20.1	16.1	22.8	19.0	19.1	14.8	17.9	24.0	25.9	25.8	31.7	34.5	39.6	42.6	41.6	24.8	13.7	11.3	5.0	10.7	14.7	17.6	22.1
13 D	18.6	17.6	17.6	12.7	-12.3	6.1	7.8	20.1	20.1	28.7	20.3	25.8	34.9	41.0	38.9	40.8	35.5	27.9	27.1	20.1	16.1	16.1	17.3	17.6	21.5
14	19.1	20.2	20.5	20.9	20.4	20.1	20.0	22.5	24.5	24.0	23.8	24.3	30.5	37.7	41.6	39.3	33.4	36.5	25.4	24.9	15.6	9.3	10.7	12.2	24.1
15	17.2	15.1	19.1	18.6	19.6	20.0	21.0	21.9	34.7	22.1	19.1	22.0	24.9	28.2	31.3	32.9	32.9	32.3	24.0	21.0	19.1	10.0	9.8	11.4	22.0
16	12.2	15.6	17.6	20.1	18.0	20.1	20.1	20.9	22.5	21.9	21.0	22.0	15.6	29.0	32.8	35.7	32.8	30.9	26.0	16.3	12.3	11.4	14.2	16.4	21.1
17 Q	20.0	21.5	20.5	20.0	20.2	20.2	20.5	21.0	21.2	21.9	22.7	24.0	26.9	30.6	35.7	36.7	33.3	28.1	23.0	16.9	13.1	12.6	12.2	14.0	22.4
18	17.1	18.8	19.3	21.0	19.6	19.1	19.1	20.5	20.6	22.4	22.3	15.6	19.8	32.9	34.0	35.2	33.8	28.9	25.8	18.1	16.7	17.4	18.2	20.7	22.4
19	21.5	22.7	25.0	26.8	31.9	29.0	23.0	33.5	29.5	33.8	21.1	22.0	25.4	31.5	32.0	32.8	29.4	26.7	21.1	17.5	16.1	16.9	17.9	20.1	25.3
20	23.5	24.5	22.5	24.3	21.5	21.4	23.7	24.1	23.0	26.1	20.2	20.5	23.0	25.9	34.5	37.6	30.3	25.4	20.1	15.3	14.8	18.1	18.4	23.2	
21	19.6	19.5	23.3	26.9	0.0	8.3	30.8	28.8	26.7	8.8	28.4	38.6	36.7	38.9	33.5	38.8	35.7	25.2	23.7	20.2	20.2	19.9	19.0	19.0	24.6
22 Q	19.2	19.1	19.3	20.0	19.3	21.2	20.6	20.0	20.7	24.1	24.2	25.8	29.0	29.8	29.9	30.7	30.7	28.4	22.0	18.1	16.2	15.1	16.1	17.1	22.4
23 Q	18.1	19.1	19.0	19.0	19.6	20.0	20.1	21.1	21.8	23.0	24.0	25.4	28.9	31.6	33.0	33.6	31.3	28.0	23.0	19.1	17.3	16.1	17.8	19.4	22.9
24 Q	19.9	19.5	19.2	20.0	20.1	20.5	20.8	21.7	22.0	22.5	23.2	24.0	27.1	30.0	32.8	33.1	32.1	30.1	24.5	19.6	15.8	14.2	14.5	16.2	22.6
25	17.6	19.1	20.1	19.9	20.1	19.3	20.0	19.7	20.5	21.6	23.2	24.7	28.9	33.4	36.4	35.0	39.1	30.6	25.1	19.2	10.5	11.2	11.2	14.9	22.6
26	18.8	20.0	20.1	20.5	20.2	19.3	20.5	21.0	22.1	22.6	23.0	24.7	26.4	27.6	36.4	42.1	43.1	33.8	25.4	15.0	12.5	11.1	12.7	12.5	23.0
27	11.4	18.1	19.3	15.8	15.3	16.7	18.1	19.3	25.9	23.5	20.2	24.9	30.3	33.9	36.2	37.3	36.2	30.5	25.0	11.2	14.3	13.4	14.7	16.1	22.0
28	18.8	20.9	21.5	20.9	18.8	16.6	17.2	15.5	23.0	22.5	22.5	23.1	25.0	30.7	36.1	37.4	35.6	32.5	25.0	19.5	13.3	10.7	10.9	11.7	22.1
29	19.0	19.2	19.1	19.2	20.1	20.6	21.1	21.2	20.9	21.0	21.2	22.5	26.1	29.9	31.7	33.4	30.6	29.0	20.6	30.8	50.9	4.4	4.4	9.7	22.8
30 D	15.1	32.0	29.9	27.6	10.4	19.6	17.8	-3.5	20.1	5.1	21.0	26.6	25.1	30.1	34.3	37.7	38.2	34.9	28.4	19.2	18.1	19.0	18.9	20.1	22.7
31 D	20.9	20.1	20.5	19.8	21.5	26.7	19.1	20.7	23.9	22.0	23.0	24.5	25.0	28.0	36.7	35.9	36.4	36.9	17.0	3.2	10.8	18.8	23.0	24.1	23.3
Mean	18.0	19.4	19.7	19.8	18.1	18.8	19.6	20.6	23.4	22.0	22.7	23.9	27.0	31.4	34.2	36.0	35.1	31.5	23.8	18.2	16.5	14.3	14.9	16.3	22.7

VERTICAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 24 Meanook

Z = 58,000  $\gamma$  +

August 1957

Hour U.T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	803	782	787	787	796	798	720	788	776	768	774	776	757	777	787	797	793	790	787	779	773	771	765	771	779
2	793	796	831	830	835	850	798	811	798	787	796	787	755	755	785	778	781	771	765	765	774	788	799	828	795
3 D	847	803	775	771	776	776	777	793	796	771	756	776	788	787	797	797	786	783	772	786	782	776	776	821	786
4	885	865	809	813	817	811	814	765	727	738	765	776	778	777	785	794	787	787	787	787	787	787	787	794	793
5	793	791	787	787	787	787	786	787	786	782	787	788	793	789	789	780	780	793	793	821	860	871	883	886	804
6 D	895	904	940	916	798	793	819	887	868	657	712	831	763	738	641	718	753	746	773	814	852	868	895	857	810
7	864	830	810	830	810	830	811	788	695	762	762	755	745	776	788	776	774	774	786	793	795	799	806	798	790
8	797	796	798	798	803	825	701	765	786	777	771	764	798	793	778	791	791	790	797	788	798	810	821	788	
9	840	874	826	830	809	803	771	723	749	775	786	794	797	798	789	778	776	776	782	787	787	808	817	864	797
10	847	842	868	857	830	814	814	788	788	764	703	777	796	787	785	785	784	786	788	797	799	798	795	788	799
11 Q	787	786	777	777	777	782	785	785	785	785	787	790	788	788	793	794	790	787	787	796	797	793	797	787	
12	798	819	833	873	881	798	793	783	749	786	778	789	786	777	755	744	749	743	733	749	765	787	796	798	786
13 D	799	809	864	733	829	836	625	821	886	902	839	803	744	793	818	797	787	791	797	810	804	814	822	819	806
14	803	797	797	796	796	796	797	802	798	797	796	788	776	770	755	771	771	776	771	776	786	793	809	821	789
15	868	852	847	793	788	787	787	787	753	769	783	787	793	793	797	798	788	798	788	803	798	807	821	799	
16	841	857	863	808	798	787	787	787	787	787	787	788	798	798	787	788	777	768	775	782	786	786	788	796	
17 Q	793	788	784	782	783	783	785	785	783	785	786	787	788	785	781	773	767	767	774	777	785	788	793	783	
18	788	787	794	787	782	778	777	777	777	774	775	717	683	745	756	763	771	788	787	799	810	819	827	830	778
19	839	843	902	874	828	760	765	767	668	668	678	779	798	797	788	796	786	784	793	798	798	803	803	788	
20	809	799	788	793	793	790	798	797	776	706	790	793	793	745	720	746	746	761	760	777	817	841	852	864	786
21	873	895	882	793	761	690	765	768	757	625	595	634	666	677	690	742	768	776	793	798	798	798	798	798	756
22 Q	794	790	790	794	795	805	799	797	753	760	782	787	787	787	787	786	782	779	776	777	785	788	796	790	786
23 Q	787	785	782	782	782	782	782	782	782	782	782	782	782	782	782	782	778	775	771	774	777	781	783	774	781
24 Q	774	776	777	777	776	776	775	775	775	775	775	775	776	776	776	775	771	765	765	778	775	784	777	775	775
25	775	775	775	776	778	778	779	779	777	777	776	776	782	778	778	776	773	764	763	776	776	789	802	819	779
26	807	788	778	778	782	785	781	776	778	778	781	783	785	776	771	776	771	753	753	761	777	793	789	799	779
27	819	807	793	803	822	787	808	786	722	744	707	700	775	788	782	781	789	787	787	798	821	822	812	784	
28	797	785	787	789	798	814	822	722	747	776	777	797	796	785	784	787	786	788	793	799	809	814	822	790	
29	825	794	787	786	786	786	785	779	779	779	776	767	693	763	802	804	809	807	803	787	787	850	793	784	
30 D	868	798	868	829	744	668	700	695	749	635	693	763	802	804	809	807	803	787	784	791	790	797	801	807	775
31 D	815	815	812	808	802	758	752	774	786	788	800	796	771	743	741	760	757	759	789	785	808	829	864	933	794
Mean	820	814	816	805	798	788	777	781	772	760	763	774	774	776	773	778	778	777	778	785	794	802	810	816	788

## HORIZONTAL INTENSITY

Mean values for periods of sixty minutes, Universal Time

September 1957

Table 25 Meanook

		H = 12,000 $\gamma$ +																							
Hour Day	U.T. to 1	0 to 2	1 to 3	2 to 4	3 to 5	4 to 6	5 to 7	6 to 8	7 to 9	8 to 10	9 to 11	10 to 12	11 to 13	12 to 14	13 to 15	14 to 16	15 to 17	16 to 18	17 to 19	18 to 20	19 to 21	20 to 22	21 to 23	22 to 24	Mean
1	1008	1106	1236	1059	1070	910	772	603	647	796	844	866	885	866	918	941	931	926	930	936	945	961	984	976	921
2	986	968	980	986	962	790	299	545	844	975	922	732	291	326	350	404	805	841	929	939	1020	1302	1379	1537	838
3 D	1385	1216	1287	1143	1029	993	910	969	891	434	631	363	90	90	-420	180	985	874	946	942	948	925	939	913	777
4 D	921	924	920	971	945	963	929	914	913	918	918	924	930	946	716	332	420	277	913	953	859	1019	1337	1220	878
5	930	695	558	596	538	943	969	632	609	950	952	937	914	922	914	910	871	893	861	866	922	986	1015	921	846
6	904	906	953	954	935	886	942	962	973	1008	887	627	543	726	837	837	846	866	884	900	937	937	938	940	881
7	930	939	922	946	1000	946	941	937	932	929	931	942	946	950	941	930	914	899	899	906	924	943	947	938	935
8 Q	934	930	932	932	937	938	943	945	946	945	946	942	945	936	923	920	913	905	899	909	916	936	944	931	931
9	937	955	954	947	970	902	781	949	907	945	898	698	854	921	928	912	895	889	897	903	913	931	951	949	908
10	942	939	949	945	952	952	961	953	786	945	958	952	949	943	933	920	902	882	899	902	827	920	949	953	930
11 Q	952	949	954	952	952	952	958	972	972	949	945	945	960	952	938	907	883	878	870	892	915	941	956	956	937
12	961	949	956	952	956	958	954	956	960	952	907	949	962	960	951	927	907	887	880	886	909	935	967	978	940
13 D	1009	1018	749	762	813	1000	624	498	478	306	662	833	800	623	760	835	849	880	880	904	912	911	1010	930	794
14	929	913	917	912	921	927	937	651	474	251	623	485	531	499	615	930	925	904	925	911	936	942	991	1057	796
15	1004	1011	967	991	904	959	954	950	950	934	916	911	935	937	931	922	891	874	860	876	917	961	978	1001	939
16	1019	992	1013	992	972	967	949	946	939	947	943	947	943	941	929	914	897	888	914	898	909	927	947	930	944
17	933	952	962	949	960	956	954	954	931	931	929	856	857	865	786	891	860	904	914	914	922	941	846	953	918
18	949	968	991	978	1006	968	952	952	953	954	956	959	945	961	960	951	935	909	894	907	929	934	970	936	951
19 Q	944	952	954	952	968	960	963	962	960	964	962	954	938	941	944	937	930	916	907	915	934	944	945	952	946
20 Q	944	942	954	962	962	962	969	967	968	968	962	962	961	956	950	943	929	921	922	922	932	967	952	949	951
21	944	956	966	964	967	961	968	968	934	883	325	159	642	590	666	628	461	431	813	921	904	1031	985	948	792
22	1036	1021	1007	1050	954	1035	702	784	856	801	796	615	742	807	1510	1510	1479	797	968	883	925	1015	1254	1341	962
23 D	1610	1696	1571	1268	493	-375	642	670	542	441	498	500	566	510	567	563	702	834	897	881	964	1039	1035	993	796
24	1040	1086	961	960	1003	678	862	981	866	494	575	502	541	604	905	921	883	867	882	899	909	945	956	960	845
25	952	968	972	992	960	940	881	748	750	905	701	700	800	749	949	937	916	900	898	910	922	941	941	938	886
26	956	944	952	954	954	966	959	945	907	847	898	904	905	921	913	929	929	902	894	900	912	933	952	953	926
27 Q	945	942	943	945	952	952	953	956	960	960	960	961	960	961	945	933	922	914	913	922	922	927	945	945	943
28	947	945	958	963	1015	1039	1009	973	950	953	952	952	945	938	941	921	922	913	920	912	930	952	938	938	951
29 D	976	971	989	991	1054	1022	710	1040	1046	967	862	649	678	627	459	422	436	869	659	815	1040	1035	1141	1070	855
30	929	883	907	907	894	898	899	914	874	384	481	1639	835	963	866	924	897	759	874	893	902	926	952	936	893
31																									
Mean	995	988	978	962	933	898	875	873	857	821	825	812	793	798	818	838	841	847	891	904	925	967	1005	998	894

**DECLINATION**  
Mean values for periods of sixty minutes, Universal Time

Table 26 Meanook

D = 24° E + ...'

September 1957

Hour U. T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1	15.0	14.3	26.8	18.3	27.5	32.8	38.2	1.1	-15.3	18.6	18.1	20.1	22.5	23.9	32.4	32.8	31.3	27.9	23.5	20.1	18.3	18.1	19.6	21.2	21.1	
2	21.8	21.4	25.4	27.0	44.1	50.5	35.8	26.9	19.6	22.7	29.0	32.0	32.0	73.8	87.8	91.5	41.8	34.7	26.9	41.1	45.5	63.2	49.6	28.0	40.5	
3 D	18.6	13.9	18.0	23.1	17.1	18.4	1.9	18.1	16.8	16.2	27.8	31.5	62.5	98.5	60.3	87.9	60.7	46.5	10.9	19.6	20.1	22.5	21.0	23.9	31.5	
4 D	24.3	24.8	22.0	22.5	35.8	23.0	19.5	20.3	21.2	21.8	23.2	24.1	27.3	33.3	33.1	25.8	82.0	157.6	155.2	30.6	17.6	33.8	50.5	33.9	40.1	
5	14.2	-2.5	-70.6	-25.2	-26.5	-13.6	9.8	19.7	-1.3	24.5	25.8	27.9	31.8	34.7	42.4	45.3	44.7	38.8	30.1	23.5	21.7	26.0	28.0	20.5	15.4	
6	19.4	21.2	19.6	41.6	17.6	7.4	15.6	17.8	15.8	28.9	30.8	42.1	31.0	42.9	53.7	55.6	41.6	29.2	12.7	4.9	11.3	15.5	20.1	22.3	25.8	
7	25.0	24.9	21.4	16.7	18.2	21.0	18.9	21.2	22.6	24.0	25.4	25.0	29.4	33.0	34.5	32.5	30.8	26.7	20.8	15.9	14.2	15.1	17.6	21.0	23.2	
8 Q	22.5	21.0	20.4	20.4	20.4	21.0	21.0	22.2	23.0	23.9	25.0	26.4	28.9	32.8	35.1	30.4	28.1	24.9	21.0	17.8	16.9	16.7	17.6	19.1	23.2	
9	19.6	18.6	18.1	19.1	16.1	3.8	8.3	28.4	26.8	29.6	28.4	22.5	29.9	30.6	39.3	36.6	29.9	24.9	18.6	16.0	15.1	16.9	19.0	20.0	22.3	
10	20.7	20.5	20.5	20.2	20.0	22.0	21.0	23.2	16.0	29.6	28.8	28.9	31.3	32.9	33.4	31.9	32.4	22.8	15.1	14.2	13.1	11.2	14.7	17.7	22.6	
11 Q	18.6	18.6	19.2	19.1	19.1	19.9	20.8	35.4	23.5	24.5	26.4	23.0	26.9	30.0	31.8	34.3	36.2	30.9	20.9	11.9	7.2	10.3	14.2	19.0	22.6	
12	20.1	20.9	18.9	19.3	19.7	19.1	20.5	21.5	22.5	24.8	21.8	30.0	32.3	34.3	38.0	40.7	35.7	30.3	24.8	19.1	16.2	14.4	16.1	18.1	24.1	
13 D	18.1	19.0	14.7	21.0	84.7	76.9	57.3	74.4	46.4	25.3	34.9	34.3	42.1	39.7	52.6	47.2	37.7	35.2	26.6	22.9	24.9	25.0	26.4	24.7	38.0	
14	22.9	21.5	20.0	21.2	21.1	20.1	18.1	5.8	16.2	42.2	44.3	16.1	57.0	56.8	42.1	40.5	31.0	26.4	24.3	20.8	20.2	18.9	21.8	23.0	27.4	
15	20.5	24.0	21.7	20.5	8.3	22.3	21.0	19.1	21.0	22.8	24.0	27.4	27.9	30.8	31.4	33.5	31.3	28.2	20.5	16.9	10.4	13.4	15.9	15.1	22.0	
16	17.2	23.9	20.8	22.8	21.6	22.0	20.2	20.0	21.5	23.0	23.5	24.2	25.4	28.4	30.9	33.8	32.5	28.4	24.6	21.9	19.1	20.0	20.7	21.1	23.6	
17	21.1	20.1	20.1	20.9	21.0	19.2	20.1	21.2	22.9	28.9	29.8	34.3	38.5	26.4	31.8	30.3	23.9	20.9	16.6	20.1	17.8	17.2	17.2	17.5	23.2	
18	20.0	20.0	14.6	21.1	14.3	16.9	19.4	21.5	18.6	23.2	24.1	24.8	24.4	30.9	31.6	32.9	33.7	33.8	22.5	16.4	19.4	19.0	16.7	19.5	22.5	
19 Q	19.1	18.7	19.6	19.6	19.4	20.0	19.9	21.9	23.0	22.9	24.4	23.1	24.8	30.1	31.8	33.3	30.7	28.1	21.2	19.4	19.1	19.5	20.3	17.9	22.8	
20 Q	19.1	18.6	18.3	19.0	19.6	20.0	20.1	22.0	24.0	23.2	23.7	25.4	26.9	27.6	28.8	30.0	33.8	24.5	22.1	15.5	18.2	17.2	19.1	19.0	22.3	
21	19.1	18.7	19.1	19.1	18.5	19.2	19.1	21.0	19.1	21.0	40.6	39.6	46.5	53.3	47.5	51.4	56.2	32.9	29.7	31.7	6.7	20.6	21.1	17.0	28.7	
22	27.8	27.8	22.4	14.2	-2.5	-1.5	3.8	13.3	13.3	23.1	38.7	48.5	38.7	39.0	-20.1	-3.4	93.0	38.7	22.5	25.6	29.9	33.9	45.6	43.5	25.7	
23 D	37.2	30.5	48.8	60.4	-65.3	-36.5	0.8	4.0	21.9	23.9	38.7	44.8	40.3	44.0	25.9	47.4	41.6	35.2	24.9	18.8	24.5	28.8	24.9	22.5	19.5	
24	24.0	28.4	28.9	23.9	20.1	19.0	27.9	21.0	21.9	3.4	15.1	0.8	13.7	41.5	35.7	35.9	31.9	22.0	17.0	19.0	18.2	18.0	21.1	22.6	22.1	
25	24.1	29.9	22.0	18.1	32.3	19.0	23.1	6.7	3.3	29.9	25.0	34.7	36.7	39.5	39.6	37.6	32.9	28.3	21.0	16.0	15.1	18.0	20.1	23.0	24.8	
26	23.4	22.5	21.0	20.1	21.9	38.7	20.2	21.3	21.4	19.1	19.3	22.0	25.1	31.7	37.2	36.2	33.7	26.4	20.9	16.0	13.3	14.3	19.0	22.0	23.6	
27 Q	23.0	21.0	20.5	20.9	20.9	20.9	21.0	21.9	21.7	23.0	24.0	24.5	24.9	27.6	30.9	32.7	32.6	26.8	24.1	20.5	17.6	18.1	19.1	21.0	23.3	
28	22.5	19.9	19.1	19.3	13.2	18.1	18.1	20.9	22.4	24.5	24.6	24.6	26.0	27.9	31.3	31.7	30.8	28.8	26.0	20.1	15.1	16.2	18.7	20.1	22.5	
29 D	18.2	16.6	10.9	14.7	17.1	10.2	4.5	15.2	19.0	28.5	29.4	29.8	62.4	58.2	37.2	29.9	45.4	79.9	35.8	29.9	37.7	25.9	30.2	27.9	29.8	
30	25.9	21.0	25.8	26.0	20.9	20.8	20.8	21.1	23.1	4.9	24.1	66.8	41.6	37.8	37.7	39.7	36.1	35.2	24.9	20.9	19.1	20.1	16.2	16.1	26.9	
31																										
Mean	21.4	20.7	18.3	16.8	17.9	19.0	19.6	20.9	19.1	23.4	27.3	29.3	33.6	39.2	36.9	38.9	39.5	35.8	26.9	20.2	18.8	20.9	22.7	21.9	25.4	

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 27 Meanook

	Z = 58,000 $\gamma$ +																				September 1957				
Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	873	896	896	821	819	656	571	593	626	729	680	717	763	764	793	808	802	803	808	809	808	818	809	816	770
2	831	830	817	810	709	463	864	871	906	905	874	795	689	874	782	557	734	706	719	731	788	819	592	604	761
3 D	720	807	753	817	861	845	817	845	921	981	966	1056	970	841	744	755	803	846	821	814	822	840	827	829	846
4 D	821	825	819	842	843	853	830	813	812	816	816	817	823	830	1013	1211	1178	1220	787	882	871	941	971	695	889
5	823	928	902	776	899	928	869	893	795	862	856	857	857	852	840	834	821	815	819	821	841	879	864	831	853
6	830	830	861	851	838	737	826	836	809	784	782	719	825	750	742	706	687	738	795	837	842	834	729	830	792
7	831	831	819	828	847	839	822	817	810	812	813	814	819	819	816	819	821	819	824	824	819	819	814	809	821
8 Q	808	809	809	809	809	809	809	809	809	808	807	805	808	808	808	803	808	798	798	808	819	819	810	804	808
9	798	799	808	819	829	744	734	776	758	776	796	733	743	752	767	787	798	799	798	808	819	819	813	803	786
10	798	799	808	808	804	809	809	808	723	767	797	808	808	803	797	798	797	797	794	797	799	803	807	808	798
11 Q	802	800	800	798	798	803	765	782	787	788	787	789	799	798	797	798	798	798	798	807	814	821	821	813	798
12	811	808	809	799	799	798	799	799	799	786	701	742	782	789	796	808	809	812	810	817	819	821	831	852	800
13 D	875	901	812	635	732	753	839	885	1101	1182	1068	928	1106	1070	808	847	863	878	855	857	842	847	845	839	890
14	831	836	835	841	838	839	830	736	647	634	912	944	690	630	821	825	817	824	847	851	863	874	890	886	814
15	863	871	871	895	764	854	836	842	847	836	809	797	826	830	831	833	827	828	830	841	857	868	868	875	842
16	895	886	890	895	875	854	833	825	814	813	809	809	813	819	821	819	822	824	821	831	829	830	821	837	
17	814	816	821	819	811	809	808	808	771	733	732	638	658	703	660	733	752	771	807	814	816	811	809	808	772
18	808	810	831	853	863	831	817	810	809	808	799	799	793	814	810	810	808	804	817	810	817	830	809	816	
19 Q	799	803	804	803	804	808	809	810	803	799	793	789	782	787	793	798	800	798	805	807	810	810	808	805	801
20 Q	804	800	800	798	798	807	808	803	799	793	787	789	796	793	797	797	797	798	808	810	819	809	808	801	
21	798	809	804	799	799	798	804	798	765	700	543	874	1123	993	777	753	755	723	930	992	938	948	993	994	842
22	913	906	895	819	803	798	712	819	894	862	841	776	752	755	696	430	875	803	891	863	927	934	948	684	816
23 D	928	755	634	597	646	1032	923	840	1043	1024	823	830	1036	472	580	581	771	885	949	928	949	918	918	895	831
24	928	961	895	875	830	592	645	852	820	809	678	755	776	776	799	830	821	810	840	853	863	863	862	857	816
25	857	885	864	874	873	802	727	603	656	764	755	683	668	721	831	821	819	819	829	830	840	829	830	792	
26	830	819	819	819	830	775	787	809	749	679	744	755	755	764	755	765	787	810	819	819	830	830	839	819	792
27 Q	819	810	810	810	810	809	809	803	803	803	809	809	809	810	809	803	803	798	804	804	805	806	806	807	
28	803	798	808	817	874	885	831	840	821	810	808	809	809	810	809	810	810	809	809	799	798	798	798	816	
29 D	809	809	830	852	864	711	710	798	829	887	873	798	706	753	1143	1128	1322	1345	996	1063	966	970	982	852	916
30	852	856	864	852	842	841	841	852	886	873	656	744	808	847	842	830	851	835	819	830	830	851	863	850	834
31																									
Mean	832	836	826	814	817	796	797	806	814	821	797	799	812	794	802	796	832	837	827	839	841	849	840	818	818

**HORIZONTAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 28 Meanook

 $H = 12,000 \gamma +$ 

October 1957

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1 D	937	946	1004	968	959	950	945	942	930	941	941	942	940	898	891	930	929	913	905	891	888	930	922	927	932
2	938	961	999	960	949	945	945	945	937	938	913	945	956	960	953	945	949	936	937	936	942	929	956	972	948
3	945	925	937	945	949	958	956	953	953	945	912	804	784	921	920	847	885	887	929	943	927	956	949	949	920
4	966	967	952	968	980	961	962	953	938	936	936	956	949	933	903	907	906	865	862	894	928	937	960	953	936
5	960	955	951	950	944	955	957	953	944	937	951	952	959	881	943	927	904	890	905	926	932	921	940	951	937
6 Q	944	952	957	959	960	959	967	965	944	937	952	953	959	959	915	944	937	927	916	916	916	930	937	944	944
7 Q	952	958	965	967	971	979	971	966	968	960	958	973	967	963	955	957	951	940	924	928	940	937	941	948	956
8 Q	955	953	959	963	963	963	964	964	976	966	968	967	966	963	963	952	941	934	926	926	932	932	943	943	953
9	955	965	968	970	971	975	983	980	976	973	967	968	972	967	950	941	929	927	928	926	908	929	944	941	955
10	955	967	974	990	988	1006.	881	771	775	705.	861	919.	876.	894	879	884	926	937	906	912	920	975	941	936	907
11 D	951	948	983	967	1020	771.	771	834	772	730.	667.	463	620.	665	850	827	924	929	911	904	932	951	944	936	845
12	938	937	960	951	945	937	945	866	756	572.	749.	804	937	960	960	937	909	872	898	902	909	922	996	1023	899
13 D	1127	1158	1226	1219	1098	1060	1040	960	941	929	922	923	952	929	875	894	912	905	912	904	922	936	962	988	987
14 D	1050	1141	1124	989	1014	451	859	937	931	506	576	936	920	874	804	608	733	898	878	870	847	890	921	1000	865
15	1011	976	952	976	1017	1000	960	941	937	930	922.	847	773.	844	812	912	903	882	873.	902	913	942	927	922	919
16 Q	925	923	940	938	944	945	954	956	956	956	956	953	956	945	931	912	903	905	907	912	917	929	929	935	935
17	952	958	960	960	965	964	963	965	968	968	960	872.	870	969	961	956	936	917	913	920	925	937	945	945	944
18 Q	960	968	960	964	972	968	968	968	969	969	968	961	965	966	961	952	945	929	923	921	922	929	933	935	953
19	945	956	963	968	970	974	1007	1005	984	968	942	930	968	970	961	949	937	926	919	929	931	933	925	925	954
20	936	942	952	934	961	971	967	961	958	952	952	956	953	933	929	945	922	884.	899	905	922	931	949	959	941
21 D	976	945	950	953	952	952	952	967	952	952	952	945	937	929	942	897	902	894	919	926	956	949	976	1000	945
22	1023	1018	979	1018	967	943	955	951	889	803	740	906	936	944	936	911	891	885	908	921	908	936	898	944	925
23	999	974	944	937	933	940	955	940	951	944	916	951	944	944	928	916	905	897	900	904	913	930	919	944	934
24	936	940	952	951	955	955	959	959	955	951	953	944	874	916	947	937	920	897	882	874	911	928	944	944	933
25	951	953	962	962	962	959	959	959	959	952	905	959	963	959	951	936	932	918	915	911	923	936	944	955	945
26	960	971	967	971	975	982	969	959	959	955	947	948	959	951	950	940	928	912	914	908	920	921	928	944	947
27	955	961	963	959	975	975	959	973	968	971	966	912	761	936	974	957	960	940	924	910	921	897	920	947	941
28	958	998	959	969	971	988	959	928	948	936	932	920	951	959	959	951	944	908	899	916	932	921	930	941	945
29	947	979	967	963	971	971	969	960	834	818.	915	953	936.	936	963	951	949	920	940	920	941	963	975	997	943
30	975	964	1011	1045	1032	985.	831.	716	880.	952	942	954	952	931	942	944	942	931	922	915	943	945	942	945	939
31	952	958	961	960	956	960	960	960	961	959	960	937	813	898.	965	960	942	914	899.	905	905	930	938	945	937
Mean	966	972	977	974	974	945	948	937	928	900	907	915	912	926	929	918	920	910	909	912	921	933	941	953	934

DECLINATION  
Mean values for periods of sixty minutes, Universal Time

Table 29 Meanook

D = 24° E + ...'

October 1957

Hour U.T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1 D	15.2	15.1	22.5	23.1	25.9	22.1	21.0	21.1	23.9	26.9	24.1	24.1	24.1	27.7	25.9	32.2	32.3	29.9	36.5	30.3	15.2	14.3	15.1	17.9	23.6
2	18.1	15.1	14.3	19.6	18.1	20.1	22.0	24.1	25.8	25.4	19.2	22.1	23.0	23.9	27.9	28.6	25.8	24.9	22.0	21.1	19.1	18.8	16.6	17.0	21.4
3	15.1	18.1	19.8	20.4	21.0	20.1	20.8	22.0	23.9	24.0	23.1	24.8	24.9	33.8	36.5	20.1	23.8	22.5	19.0	22.0	18.1	18.6	18.1	14.3	21.9
4	11.2	12.2	20.9	18.6	23.0	18.1	21.0	22.0	24.1	25.9	24.9	25.9	24.9	27.4	29.9	29.9	28.9	25.8	17.1	13.2	18.1	16.6	16.2	16.2	21.3
5	18.1	15.1	17.1	18.0	23.0	23.0	20.1	20.7	16.1	23.9	28.4	26.8	26.4	27.4	29.9	32.3	31.8	27.4	22.5	24.9	19.3	18.1	16.2	16.1	22.6
6 Q	16.9	17.1	18.2	19.1	19.6	19.2	21.0	21.0	23.5	25.0	24.1	24.5	24.1	24.0	24.9	27.9	29.8	29.4	27.9	24.5	21.1	20.1	19.1	18.1	22.5
7 Q	18.1	18.1	19.1	19.6	19.2	20.0	19.2	21.5	23.0	23.0	27.4	26.4	25.0	26.4	28.9	30.2	30.8	29.9	26.8	22.5	20.1	19.1	18.1	17.1	22.9
8 Q	16.9	18.8	19.2	20.1	20.5	21.0	21.0	22.0	23.0	24.0	24.5	24.9	25.8	26.8	28.9	30.7	30.7	30.8	26.9	23.5	22.0	21.7	20.0	18.1	23.4
9	17.1	17.0	17.1	17.6	17.1	19.1	18.6	21.7	23.0	25.3	25.4	24.9	24.9	26.9	23.0	21.9	21.9	21.4	20.1	15.6	15.6	18.1	18.1	19.1	20.4
10	19.0	20.0	20.0	23.8	18.1	19.0	19.1	25.9	22.0	27.9	34.7	26.7	22.0	18.1	17.1	19.2	22.0	31.8	31.7	24.4	21.1	19.2	16.1	17.0	22.3
11 D	17.1	18.1	23.0	19.1	18.0	3.9	33.7	26.9	24.9	39.8	40.4	48.5	28.0	28.9	21.1	22.1	25.9	24.0	20.9	14.9	16.1	18.1	20.8	21.1	24.0
12	22.0	21.9	22.9	23.0	22.0	24.0	24.1	27.9	37.7	39.7	42.7	27.9	25.4	28.8	29.9	31.7	31.3	24.9	20.5	22.0	21.1	19.9	17.1	14.3	25.9
13 D	13.2	14.2	19.0	16.0	16.1	21.1	24.9	23.5	23.0	22.5	23.9	21.9	23.0	23.0	24.9	26.9	29.9	29.8	28.0	23.1	24.0	21.9	17.1	16.1	22.0
14 D	16.1	18.1	15.1	20.9	14.3	20.1	11.7	20.8	26.4	30.5	44.1	29.4	27.4	19.6	33.9	22.0	22.8	28.0	29.9	22.0	13.7	13.7	14.8	19.1	22.2
15	16.6	14.2	22.0	23.1	22.9	23.5	24.5	23.0	24.0	24.0	26.8	26.7	24.0	25.0	34.7	34.6	34.5	31.9	24.0	22.6	18.1	17.8	18.1	19.0	24.0
16 Q	19.6	20.9	22.0	22.0	21.7	21.9	22.0	21.9	22.0	23.0	23.0	23.9	24.9	25.8	30.8	33.7	35.7	30.8	27.4	22.5	20.1	19.6	20.5	20.0	24.0
17	18.1	18.0	19.1	19.6	20.1	20.9	21.0	22.5	22.0	23.5	24.9	24.9	23.0	25.9	30.8	31.8	33.8	30.3	27.9	22.9	21.1	19.1	17.6	18.6	23.2
18 Q	17.6	17.1	20.0	20.9	19.1	20.8	21.2	22.2	22.9	21.9	22.9	23.9	24.0	24.9	27.9	31.7	31.7	31.0	28.9	23.9	20.1	20.9	21.0	20.9	23.2
19	20.0	19.8	20.1	20.1	20.1	20.9	16.2	28.9	22.0	24.0	24.9	24.9	26.4	26.4	28.9	32.3	28.8	30.3	23.5	23.0	20.9	18.1	20.0	20.9	23.4
20	19.1	19.0	17.2	18.1	18.1	19.2	21.2	21.1	24.0	25.9	28.9	28.8	27.9	23.0	24.0	32.3	34.3	33.7	18.0	15.1	16.1	19.0	17.9	16.9	22.4
21 D	10.9	20.1	22.5	20.6	20.1	21.0	22.5	23.1	25.7	25.5	25.4	26.5	24.9	28.7	32.8	39.6	32.3	26.4	22.0	23.1	25.9	24.5	18.1	11.3	23.9
22	20.0	22.5	22.0	23.0	21.9	19.6	21.0	20.1	24.1	27.4	29.8	27.9	27.0	27.0	29.9	32.8	36.7	30.8	21.5	20.1	20.1	19.5	21.0	19.0	24.4
23	16.1	18.5	21.0	21.1	21.3	22.9	26.3	22.0	24.9	24.1	26.9	26.0	26.9	26.9	28.8	30.9	30.8	26.9	22.1	20.9	20.9	14.2	19.1	16.1	23.2
24	20.5	21.0	20.1	21.1	20.9	21.1	21.9	21.3	21.9	24.0	24.0	25.9	22.9	24.0	30.8	34.7	32.8	29.9	26.9	17.8	18.1	17.1	17.1	19.1	23.1
25	19.1	19.1	20.1	21.0	21.0	21.7	21.0	21.9	21.9	22.5	20.7	21.0	24.9	26.9	29.9	31.3	32.7	31.7	24.9	23.0	21.0	19.6	19.0	16.5	23.0
26	16.1	12.2	18.1	21.2	21.9	21.1	21.9	23.0	23.9	24.9	24.1	20.1	23.1	26.8	29.9	32.9	32.8	28.0	24.8	19.6	19.0	19.1	18.1	19.1	22.6
27	18.2	18.5	20.1	20.2	20.1	18.1	19.1	22.0	22.5	21.1	24.0	25.4	22.0	29.9	34.7	37.8	32.3	30.8	29.8	24.0	20.1	18.1	15.1	17.1	23.4
28	18.1	12.5	18.1	20.1	21.0	21.0	24.4	24.9	27.5	25.9	24.0	25.4	23.9	23.9	27.4	30.9	31.8	37.7	18.2	20.1	17.3	20.1	19.2	20.1	23.1
29	19.1	12.2	20.1	19.1	22.0	22.0	23.1	22.1	20.1	20.9	25.4	28.0	26.8	23.9	28.8	34.6	36.8	33.9	25.3	24.2	18.2	15.7	13.4	12.1	22.8
30	15.7	16.4	12.9	19.4	16.9	12.4	19.1	33.5	31.3	24.2	21.7	21.7	23.0	24.2	26.5	31.1	32.8	30.1	28.9	24.0	22.0	19.0	19.6	21.0	22.8
31	21.0	20.1	20.1	20.1	21.0	20.4	21.0	22.0	23.5	22.5	24.0	27.9	18.1	27.4	32.3	33.8	34.2	33.7	27.9	24.9	20.9	17.2	18.6	19.7	23.8
Mean	17.4	17.5	19.5	20.3	20.2	20.0	21.5	23.1	24.0	25.5	26.7	26.1	24.6	25.9	28.8	30.4	30.7	29.3	24.9	21.8	19.5	18.6	18.0	17.7	23.0

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 80 Meanook

z = 58,000 γ +

October 1957

Hour U.T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1 D	851	851	886	863	810	810	821	822	798	797	809	801	810	803	803	788	809	810	819	819	841	840	819	819	821	
2	819	829	857	840	819	819	819	810	776	775	755	776	798	809	810	819	819	809	819	819	819	821	821	841	821	
3	841	821	819	819	819	819	819	821	809	797	768	668	668	735	773	691	720	776	798	830	814	836	830	831	788	
4	847	852	840	841	851	825	840	830	803	776	776	798	805	809	804	809	803	797	803	825	836	821	825	830	819	819
5	852	830	819	819	819	809	814	814	787	787	797	798	803	803	809	803	798	798	808	816	814	807	819	819	810	
6 Q	809	805	803	803	803	803	819	819	819	809	797	782	798	799	803	809	809	807	798	797	798	798	798	798	803	
7 Q	798	798	798	798	798	808	810	803	803	788	760	787	798	798	798	798	798	798	788	788	788	788	797	798	795	
8 Q	803	803	803	803	803	803	803	803	803	803	803	798	798	798	798	799	798	788	776	778	786	787	790	798	797	
9	798	798	798	803	816	825	836	830	825	809	798	798	793	797	787	786	787	793	797	803	798	819	830	831	806	
10	841	852	840	840	852	841	841	810	862	701	732	787	775	755	734	767	787	819	819	830	863	890	852	833	813	
11 D	841	841	862	830	842	700	777	776	755	701	679	722	647	634	711	733	767	803	819	829	840	847	851	841	777	
12	830	819	830	830	808	809	819	787	808	776	711	722	744	787	819	803	798	799	809	816	839	851	883	864	807	
13 D	863	873	841	836	873	733	787	819	803	786	776	864	798	797	777	798	808	809	803	809	830	863	873	883	821	
14 D	874	841	874	851	765	603	830	819	852	934	890	819	791	799	771	657	760	819	834	851	841	851	852	862	818	
15	852	895	873	864	873	841	842	829	810	798	777	765	717	717	755	787	787	803	819	830	819	819	825	812		
16 Q	819	809	809	809	803	803	809	809	808	808	804	803	809	803	809	809	809	803	798	798	798	810	809	809	807	
17	804	799	803	799	798	801	803	803	798	798	786	722	744	776	787	789	787	793	798	797	798	798	796	791		
18 Q	797	798	797	797	798	798	798	798	798	798	797	797	796	797	798	798	798	797	793	797	798	798	797	798	797	
19	797	797	797	797	798	799	830	821	830	803	765	744	786	790	791	793	793	793	799	799	798	798	809	798	797	
20	798	798	810	814	812	798	809	808	798	787	765	775	776	755	764	776	774	774	776	777	788	796	814	830	790	
21 D	853	840	819	808	807	809	809	801	791	797	797	787	777	771	786	776	767	765	786	797	809	847	901	874	807	
22	873	863	851	819	807	808	831	787	786	738	673	760	801	818	809	803	799	807	798	803	807	831	830	842	806	
23	877	862	819	809	808	808	797	787	776	798	765	797	797	797	803	803	803	797	803	819	819	925	819	809	812	
24	799	801	808	809	809	809	798	797	798	775	782	787	732	760	793	798	798	803	809	819	819	819	819	809	798	
25	808	809	819	809	808	808	803	803	787	776	711	775	797	797	803	803	803	798	808	810	809	810	809	810	799	
26	808	821	829	819	822	841	819	808	798	786	775	776	776	777	788	803	803	798	798	808	809	809	808	804		
27	803	798	797	797	798	808	797	803	798	798	787	755	641	711	776	776	798	797	803	803	810	809	798	798	786	
28	803	840	840	819	819	829	808	755	775	788	776	755	787	803	809	803	807	798	803	798	809	898	808	803	801	
29	804	814	830	814	819	809	803	798	652	679	753	787	765	767	787	798	798	788	779	779	788	805	838	889	789	
30	805	815	842	855	853	713	730	620	721	788	779	756	779	771	805	809	809	810	819	830	836	829	819	809	792	
31	808	807	803	803	801	798	800	788	787	788	777	764	679	690	776	798	798	798	803	808	809	809	803	798	787	
Mean	825	825	826	820	816	796	810	799	794	785	772	775	767	775	788	787	793	798	802	809	814	823	824	824	802	

HORIZONTAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 31 Meanook

 $H = 12,000 \gamma +$ 

November 1957

Hour U. T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1	949	956	960	967	960	976	968	963	956	931	944	958	968	960	950	929	922	911	905	916	922	934	934	949	945	
2	952	959	960	963	965	964	966	968	967	958	958	958	967	963	956	950	931	916	911	923	927	925	925	927	948	
3	959	963	949	956	953	953	962	917	782	756	740	792	576	770	909	955	922	887	903	920	923	931	941	942	886	
4 Q	949	951	954	955	958	960	959	959	958	960	960	960	959	954	947	935	927	912	920	923	925	930	933	946		
5 Q	943	952	961	967	968	966	964	964	964	964	963	963	960	955	949	934	925	920	927	937	952	955	955	953		
6	958	961	962	963	967	966	970	969	974	967	966	969	972	972	972	956	950	937	930	906	911	954	1032	1045	964	
7	1082	1088	1088	926	911	895	862	903	864	805	857	914	856	807	795	866	919	907	891	905	913	912	916	927	909	
8	933	937	941	941	940	934	933	916	815	502	662	770	717	875	898	919	952	938	927	927	945	939	1016	884		
9 D	973	977	976	1026	948	965	856	745	817	898	905	898	655	574	728	937	959	918	898	902	920	930	959	971	889	
10	1014	962	951	951	979	930	953	821	723	806	642	838	919	938	912	910	877	908	895.	910	914	934	944	928	898	
11	941	948	982	979	1010	995	951	889	777	663	814	908	902	869	916	918	928	913	902	899	887	926	988	957	911	
12	992	985	954	944	948	955	963	951	904	741	822	812	733	733	847	911	901	926	916	907	911	932	937	930	898	
13	929	949	952	951	946	949	952	946	938	920	937	858	825	923	942	954	943	914	907	909	920	938	949	957	930	
14	964	966	968	980	990	989	993	962	870	833	919	967	949	956	945	923	902	892	904	911	923	938	934	927	938	
15	942	980	1023	1038	1000	971	942	698	882	856	870	938	955	949	952	950	943	920	923	927	933	931	945	956	934	
16	960	967	959	967	967	964	963	949	934	953	949	925	923	927	934	952	943	923	912	917	927	923	945	952	943	
17 Q	956	958	960	962	966	967	966	964	961	959	960	960	958	949	945	952	945	935	927	927	927	923	942	949	951	
18	933	955	996	1018	1006	1006	967	952	870	580	388	447	537	549	817	962	936	912	927	938	936	941	942	849		
19	942	956	957	964	976	985	988	983	977	959	942	945	949	934	949	947	941	934	931	931	934	926	936	941	951	
20	955	963	963	966	967	960	958	962	959	947	920	920	878	943	961	953	941	938	927	937	928	931	938	949	944	
21 Q	962	958	956	955	966	952	949	941	955	966	964	964	960	960	958	950	941	931	931	939	938	939	945	952		
22 Q	954	960	964	966	971	970	974	966	938	967	964	963	964	966	960	943	931	926	932	929	933	934	941	952	954	
23	964	964	966	972	967	963	966	969	956	955	962	960	976	980	975	969	958	933	930	933	949	952	963	974	961	
24	976	983	981	985	1013	1000	978	974	963	966	972	969	979	974	967	967	963	949	923	927	928	943	950	960	966	
25 D	973	989	999	990	991	988	1041	896	803	831	823	873	949	967	963	939	933	905	908	856	949	930	949	972	934	
26 D	1001	1007	1058	1009	1078	1103	1011	990	684	858	821	850	851	942	909	962	981	546	533	900	990	1011	964	1005	919	
27 D	1035	1086	1086	1184	1184	1036	626	691	695	729	608	584	964	952	917	907	905	909	907	884	908	920	934	972	901	
28 D	979	980	1031	1031	953	958	950	811	936	905	919	984	737	699	754	865	880	908	909	925	919	927	912	934	909	
29	960	978	976	978	969	981	952	935	945	902	913	934	933	872	920	905	902	942	957	943	934	931	939	942	939	
30	954	970	972	972	975	978	971	968	967	959	953	966	959	964	966	963	958	941	933	934	937	942	951	959		
31	Mean	966	974	980	981	980	973	948	917	892	876	874	890	878	892	909	933	934	911	904	917	927	935	945	955	929

DECLINATION  
Mean values for periods of sixty minutes, Universal Time

Table 32 Meanook

D = 24° E + ...'

November 1957

Hour U.T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1	20.1	20.1	19.6	19.1	24.9	18.1	19.1	22.4	22.0	24.9	23.9	23.0	24.9	26.4	27.9	29.9	32.7	27.9	24.1	21.3	18.6	19.4	19.6	18.2	22.8	
2	19.6	18.2	19.1	19.6	20.0	19.6	21.2	22.0	20.5	24.0	24.5	23.0	24.9	25.9	27.9	29.9	31.3	29.4	25.0	20.9	19.1	17.6	17.4	17.1	22.4	
3	16.3	16.1	19.1	21.1	21.0	21.1	25.9	17.1	25.8	32.8	45.6	43.3	32.8	39.2	34.7	34.7	33.7	25.6	13.2	17.9	19.8	21.0	21.0	21.5	25.8	
4 Q	21.0	20.1	20.0	21.0	20.9	21.5	21.5	21.3	22.7	22.7	23.0	23.9	24.1	24.8	26.8	29.9	30.9	29.9	23.3	21.1	20.3	20.0	20.7	20.1	23.0	
5 Q	20.2	20.5	20.1	20.1	20.7	21.3	21.6	22.0	22.7	23.5	23.0	23.7	24.9	25.9	27.8	29.9	31.3	29.9	27.9	24.2	21.0	19.5	18.7	19.1	23.3	
6	19.1	20.1	20.5	21.0	21.0	21.5	21.5	21.5	22.5	24.3	24.9	25.0	25.8	26.9	29.9	30.7	28.4	35.7	24.9	21.2	18.6	23.7	15.6	23.6		
7	18.6	18.1	22.9	28.0	26.9	22.7	22.0	24.9	26.7	25.4	24.0	23.2	23.1	26.9	19.0	23.7	26.9	25.4	19.0	19.1	20.1	21.8	22.0	22.0	23.0	
8	21.9	22.1	22.4	23.0	21.3	27.6	24.5	23.3	29.4	16.1	25.6	35.7	37.2	24.5	31.8	32.7	30.3	29.0	19.8	17.3	19.6	21.0	13.1	24.7		
9 D	17.6	14.8	17.1	16.4	16.6	20.7	13.2	6.2	19.6	24.0	23.9	25.8	36.7	28.9	27.9	26.4	26.9	28.6	23.5	19.2	13.5	16.1	17.1	19.6	20.8	
10	17.6	21.2	22.0	23.0	24.5	21.0	19.2	19.4	29.9	28.9	30.3	31.0	33.8	34.0	28.8	25.0	25.0	21.9	24.0	17.1	18.6	18.1	18.0	17.1	23.7	
11	18.4	21.9	20.1	22.9	25.6	23.0	21.7	18.1	21.5	18.1	33.9	29.9	30.8	28.0	28.1	30.8	30.3	25.4	25.0	20.0	14.7	15.8	18.6	20.1	23.4	
12	16.1	21.5	21.7	24.0	24.5	26.8	28.4	23.0	22.9	19.6	30.3	32.8	37.2	19.1	25.4	27.0	26.4	22.0	21.0	19.3	21.0	18.1	19.0	18.1	23.6	
13	18.6	21.0	22.3	22.7	22.6	23.0	25.8	26.9	24.9	24.2	23.2	23.7	22.0	24.0	29.2	32.6	27.4	21.9	13.2	16.8	19.1	19.1	18.7	20.0	22.6	
14	20.1	17.6	20.8	20.0	19.1	22.5	20.5	22.5	21.3	24.7	25.6	24.7	28.8	25.4	25.2	30.3	26.9	24.9	19.1	21.1	21.0	19.2	19.8	16.1	22.4	
15	15.1	16.1	20.1	26.1	23.0	24.0	20.1	18.1	22.9	24.7	25.8	25.9	27.0	26.2	27.4	30.8	29.9	30.3	22.9	21.1	21.8	21.6	19.1	18.0	23.2	
16	18.6	18.9	20.0	21.0	22.3	22.0	23.3	19.1	20.2	22.8	24.9	26.4	25.9	24.9	28.9	30.0	30.9	29.4	24.0	22.5	21.3	20.1	20.1	18.9	23.2	
17 Q	18.6	20.1	19.2	19.1	21.0	19.8	21.3	22.0	22.5	22.5	23.0	23.3	24.0	24.9	28.9	31.1	28.4	25.9	23.4	22.5	21.2	19.6	18.1	22.6		
18	18.1	17.4	20.1	18.0	21.2	21.0	28.4	27.1	28.4	27.9	28.9	47.5	66.1	66.1	40.6	35.2	30.8	27.4	22.0	18.4	19.1	19.8	19.6	20.5	28.7	
19	21.0	19.6	20.4	22.0	19.0	18.1	19.8	22.2	26.8	23.0	26.4	26.4	26.9	24.9	27.0	29.2	28.6	26.2	24.9	23.9	22.5	21.5	20.2	21.5	23.4	
20	20.9	20.9	21.1	21.0	21.0	20.9	21.0	21.1	21.7	23.1	23.0	26.1	27.8	29.8	32.8	30.8	25.8	23.3	19.7	20.1	20.7	19.1	20.1	21.0	23.0	
21 Q	21.9	21.5	21.5	21.5	21.5	22.0	21.2	22.1	20.7	21.5	22.5	23.6	24.5	24.5	24.9	27.9	27.9	26.0	22.1	21.0	20.0	20.3	18.8	18.2	22.4	
22 Q	19.6	20.9	20.9	21.5	21.4	21.2	21.3	20.1	22.0	22.0	23.0	24.5	24.5	24.9	25.9	28.8	25.4	24.9	22.0	21.0	21.2	20.5	20.1	19.6	22.4	
23	20.2	21.0	21.7	22.0	22.1	22.0	22.0	22.9	24.0	26.9	26.9	26.0	26.9	26.0	25.9	28.8	31.5	32.8	24.9	22.1	19.1	18.0	17.0	16.1	23.6	
24	18.9	16.6	19.3	19.6	15.6	20.0	21.5	22.5	22.5	24.5	24.9	26.4	27.4	26.9	28.8	28.8	29.9	29.0	25.0	22.0	19.3	18.1	15.2	16.9	22.5	
25 D	17.1	17.8	14.4	19.4	20.8	20.1	20.2	36.2	20.5	23.1	23.2	22.3	23.5	23.9	26.1	31.5	31.5	29.9	23.5	7.2	14.7	17.1	18.1	15.0	21.5	
26 D	14.8	15.1	15.6	18.0	22.5	18.1	25.9	24.9	21.0	33.3	31.5	34.3	26.4	33.1	42.6	31.0	37.7	9.8	8.0	7.5	21.3	18.2	18.2	10.4	22.5	
27 D	12.4	7.4	14.8	-27.5	11.3	7.6	7.6	11.4	9.9	15.4	9.5	42.3	21.4	19.2	25.0	29.5	20.2	15.3	21.0	14.8	10.2	14.3	11.4	11.4	14.0	
28 D	8.3	9.4	10.4	9.5	16.2	17.0	20.7	7.5	11.9	26.9	24.2	26.1	37.8	18.3	24.2	27.0	19.0	23.3	21.2	15.3	11.5	13.8	14.3	11.1	17.7	
29	13.3	11.4	11.4	14.6	15.5	16.3	17.5	17.8	18.7	24.7	23.2	29.5	22.7	18.2	21.2	21.7	23.1	20.5	17.2	13.4	13.4	12.3	13.2	12.9	17.7	
30	12.9	12.4	13.4	13.4	15.1	14.6	13.6	15.3	17.1	17.3	18.8	18.0	17.4	18.1	18.2	18.4	20.2	19.0	18.2	16.4	15.3	15.1	14.2	12.6	16.0	
31																										
Mean	17.9	18.0	19.1	18.7	20.6	20.5	21.0	20.7	22.1	23.7	25.3	27.9	28.5	26.9	27.7	29.0	28.5	25.5	22.0	19.1	18.6	18.5	18.5	17.3	22.3	

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 33 Meanook

	z = 58,000 γ +																				November 1957					
Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1	798	798	798	810	819	830	819	799	797	765	756	786	799	798	789	797	798	798	799	800	802	802	801	799	798	
2	799	803	803	806	808	812	787	793	798	793	788	784	796	797	796	800	800	800	802	803	805	805	808	809	800	
3	824	838	819	798	797	799	787	679	603	635	580	679	669	673	722	789	787	782	796	801	801	803	799	799	752	
4 Q	799	799	798	798	799	798	798	797	797	796	796	791	793	797	798	798	797	796	796	798	808	808	798	796	798	
5 Q	793	795	798	799	799	798	798	798	797	796	793	793	795	797	798	797	796	798	803	803	801	798	793	797		
6	797	795	793	793	793	793	793	793	793	787	789	788	788	787	793	793	796	796	797	800	819	864	854	841	801	
7	787	624	795	814	782	775	782	779	775	805	801	793	765	753	744	756	805	809	810	814	819	819	814	814	785	
8	810	810	809	808	808	799	771	743	712	760	721	663	744	744	742	755	799	801	809	817	824	829	836	883	783	
9 D	851	866	862	834	803	839	776	760	727	797	819	799	706	603	576	769	825	811	821	868	857	864	852	851	797	
10	882	841	821	822	768	755	803	753	646	721	743	731	769	791	793	809	801	811	812	823	828	831	840	840	793	
11	855	845	853	857	862	862	830	700	614	578	627	734	743	749	774	774	788	799	803	814	819	830	842	836	783	
12	868	874	841	825	827	825	830	821	798	667	744	669	630	623	637	738	786	809	788	805	809	816	819	819	778	
13	829	819	814	814	809	807	803	776	762	758	768	753	722	777	782	787	785	784	777	779	801	805	803	803	788	
14	803	817	841	823	830	846	829	803	765	723	745	774	769	779	782	776	771	775	777	799	809	810	808	807	794	
15	809	819	852	890	855	825	787	668	765	755	760	779	788	798	803	798	803	798	808	809	808	810	805	800		
16	810	810	816	810	808	809	799	783	776	787	788	775	767	776	771	809	805	803	800	809	809	803	805	803	797	
17 Q	803	801	799	807	800	800	810	798	793	793	793	790	787	784	786	793	789	795	798	796	797	796	798	797		
18	810	825	831	830	845	833	744	743	750	794	701	695	733	679	744	673	776	793	795	798	803	803	807	803	775	
19	803	810	810	810	814	838	849	839	808	817	798	798	803	793	809	803	799	798	805	805	805	801	805	803	809	
20	805	805	808	814	808	807	803	803	801	786	744	747	673	744	765	773	782	786	793	797	800	803	803	799	785	
21 Q	809	807	803	803	803	801	779	776	764	794	798	796	790	790	795	795	795	798	798	799	803	798	797	797	795	
22 Q	799	798	798	798	799	801	802	801	803	797	795	790	787	787	788	787	786	782	776	785	791	793	793	793	793	
23	790	790	789	791	793	793	794	797	777	775	787	796	784	782	786	790	788	787	782	786	793	788	789	793	788	
24	793	793	798	803	832	834	805	799	782	776	782	779	779	782	781	782	776	771	782	784	787	788	787	787	790	
25 D	797	799	819	848	816	819	798	634	635	822	852	799	817	814	811	782	790	798	808	796	823	819	836	836	799	
26 D	852	863	904	847	832	879	851	771	695	744	771	842	797	789	727	787	744	700	803	809	875	870	875	883	813	
27 D	912	955	803	722	765	800	799	830	863	909	803	826	830	841	841	836	830	814	825	836	850	848	876	883	837	
28 D	874	874	904	877	847	857	817	630	841	836	808	755	805	713	771	793	817	827	847	843	860	852	852	821		
29	863	861	863	851	855	865	839	836	832	762	765	777	807	782	819	798	782	819	826	833	833	838	839	824		
30	842	854	852	852	849	845	836	847	845	839	833	829	830	830	832	836	836	836	836	836	832	832	832	838		
31																										
Mean	822	820	823	819	814	818	804	772	764	772	768	772	767	768	770	785	794	795	801	808	815	818	819	820	797	

**HORIZONTAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 34 Meanook

 $H = 12,000 \gamma +$ 

December 1957

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1 D	960	958	1036	1152	1099	1045	997	907	826	771	835	862	868	848	887	941	949	949	945	938	931	942	905	945	937
2	972	960	952	963	967	961	912	894	960	952	834	749	866	835	831	913	945	954	945	935	926	942	937	938	918
3	945	949	952	952	952	953	938	920	952	929	796	922	933	914	938	956	956	940	933	921	925	938	942	945	933
4	942	967	967	967	952	944	941	940	964	949	690	933	945	949	972	971	961	949	938	933	940	945	938	945	948
5	963	989	945	968	983	974	933	871	729	709	968	960	772	799	880	870	941	902	921	925	934	948	952	987	909
6 D	984	965	952	977	1030	1022	969	898	804	854	804	592	883	922	905	789	871	934	929	920	917	929	941	952	906
7	972	960	960	954	949	949	934	922	658	726	796	634	499	749	956	963	955	945	928	905	921	936	938	933	877
8	941	952	958	960	976	967	959	956	919	854	909	902	929	952	960	960	960	952	945	945	942	945	945	944	934
9	953	956	956	967	960	945	965	941	885	827	929	780	854	898	920	922	930	944	937	937	930	915	934	945	922
10	952	953	963	976	964	961	953	941	883	844	818	753	709	749	735	678	883	913	930	922	929	950	960	984	888
11 D	984	987	1000	1078	1074	1188	1148	1015	976	976	968	925	952	936	898	928	941	926	898	883	941	941	906	969	998
12 D	992	981	983	1000	999	1015	1007	956	885	549	779	811	890	952	929	942	906	960	898	894	905	929	952	956	920
13	983	973	972	988	1003	984	960	952	928	679	600	921	937	984	914	844	874	945	929	924	929	933	937	945	918
14	944	955	956	954	965	976	972	967	960	953	952	956	956	952	953	953	952	938	929	921	921	925	938	949	
15	960	963	962	968	978	976	968	945	898	772	898	933	902	922	823	858	960	945	945	927	933	936	937	945	927
16	956	952	969	976	968	974	968	960	952	938	922	917	937	961	960	960	960	944	899	929	938	933	931	945	948
17	968	976	984	1015	1007	992	980	991	992	960	953	952	953	953	953	960	960	942	917	930	933	937	937	945	962
18	968	968	979	968	974	967	960	956	945	935	905	860	912	956	952	960	961	952	942	930	927	930	937	952	946
19	949	960	969	984	976	963	976	960	952	917	917	862	819	938	952	960	952	963	937	870	891	952	929	937	937
20	940	999	1012	976	1000	1062	1028	991	974	945	937	930	936	952	953	945	945	921	921	920	922	945	952	941	960
21	952	975	976	984	999	1038	1147	1006	944	884	942	935	939	948	948	935	920	917	921	924	924	916	928	944	956
22 Q	949	959	969	967	959	959	955	951	951	951	951	951	951	951	951	951	943	932	921	924	928	932	943	947	
23 Q	951	955	959	967	966	960	960	959	951	959	959	959	952	951	951	944	944	947	940	942	931	936	934	952	951
24	959	966	966	966	966	967	967	966	966	960	959	944	960	967	967	966	961	951	940	929	929	935	948	956	
25	959	959	966	975	966	973	1007	988	960	971	960	955	952	951	960	952	944	908	904	903	881	951	950		
26	968	958	959	990	1018	1046	1053	1008	975	772	796	949	944	857	889	912	935	929	918	932	924	924	932	944	939
27 Q	944	951	958	959	959	959	959	959	952	955	952	952	952	943	932	956	953	941	928	913	929	936	936	945	
28 Q	951	956	965	967	967	973	966	966	958	958	958	958	958	958	958	959	955	944	937	928	929	932	944	951	954
29 Q	959	959	959	961	960	960	969	968	966	965	965	959	959	963	964	960	948	940	937	941	932	937	945	956	
30	960	975	971	974	975	983	1030	1030	1045	779	699	540	618	861	974	975	973	955	936	936	934	936	939	948	914
31 D	948	948	995	1151	987	965	799	822	686	355	537	367	524	461	367	563	752	748	882	920	975	1038	1010	980	782
Mean	959	964	970	987	984	987	977	952	916	856	874	859	876	901	907	915	936	935	927	922	928	937	937	949	931

**DECLINATION**  
Mean values for periods of sixty minutes, Universal Time

Table 35 Meanook

D = 24° E + ...'

December 1957

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1 D	12.4	10.5	9.3	10.2	15.4	15.0	12.9	8.9	19.2	21.3	30.7	25.6	26.9	18.7	17.5	18.7	18.3	17.1	19.3	17.4	14.4	13.8	14.3	13.3	16.7
2	12.4	9.9	14.3	14.3	15.8	19.3	17.8	17.4	19.2	19.2	22.3	36.0	23.2	23.2	9.4	9.9	10.5	14.2	16.3	17.2	13.4	13.3	14.2	12.9	16.5
3	13.4	14.3	14.3	15.3	16.2	16.3	23.2	23.4	17.3	18.2	16.3	18.2	23.2	18.3	15.3	15.4	20.7	16.3	18.2	16.6	13.3	11.4	11.5	12.4	16.6
4	14.3	17.1	18.2	15.8	15.8	15.7	21.2	13.4	17.2	17.3	15.3	22.5	17.3	17.3	17.3	18.2	20.2	18.3	19.1	16.4	14.3	14.2	11.4	12.4	16.7
5	13.4	12.5	16.3	22.2	19.2	17.9	14.3	24.2	12.3	11.4	16.4	20.1	14.4	8.3	12.9	12.4	17.4	18.7	9.9	16.4	11.4	9.4	8.4	9.9	14.6
6 D	9.4	10.9	16.2	17.3	20.7	25.6	18.2	14.3	23.2	25.6	24.0	27.0	34.9	36.0	21.2	4.0	12.4	20.7	16.4	16.5	13.5	11.4	10.9	12.9	18.5
7	12.5	15.3	18.2	17.3	17.3	16.2	15.3	17.2	16.4	18.7	28.0	23.2	37.6	30.6	24.1	25.1	24.0	20.0	16.8	8.4	9.4	11.6	13.4	12.4	18.7
8	14.3	14.3	15.3	16.4	18.2	22.2	15.4	17.2	17.2	10.3	13.4	17.2	17.3	15.2	18.8	20.2	20.7	21.3	20.3	15.5	14.4	14.2	13.8	14.3	16.6
9	11.4	14.3	15.8	15.8	15.3	13.2	18.2	20.7	20.1	17.3	17.3	23.1	12.4	14.4	6.6	9.9	13.3	20.2	15.2	15.3	15.3	12.9	13.3	12.5	15.2
10	13.4	14.3	12.4	15.3	15.3	16.1	15.3	21.1	30.0	18.2	27.1	35.9	40.8	23.6	16.3	3.6	3.6	10.4	15.3	17.4	14.3	13.3	13.4	9.4	17.3
11 D	9.2	10.4	13.8	22.2	19.2	11.5	13.4	22.2	26.1	17.3	16.3	21.2	18.2	21.2	25.9	16.4	22.1	26.0	23.6	14.3	11.9	18.7	9.3	11.3	17.6
12 D	17.3	12.4	11.3	12.5	15.3	25.2	27.1	18.7	16.4	-7.4	25.0	19.2	21.2	21.3	22.2	23.1	24.3	22.2	21.2	13.4	14.2	12.4	11.7	12.4	17.2
13	12.3	11.4	14.3	16.2	18.2	18.3	17.8	17.4	14.3	23.6	20.2	28.0	25.6	15.2	22.1	15.5	15.4	19.1	18.3	19.2	15.2	14.8	14.2	13.4	17.5
14	15.2	13.8	11.5	15.2	17.3	15.3	15.8	19.0	17.2	16.3	17.9	17.4	17.5	18.2	18.2	20.1	22.1	22.7	20.7	19.2	16.3	13.4	10.4	11.4	16.8
15	11.4	12.3	14.2	15.3	13.4	15.2	19.2	18.2	17.4	13.3	17.3	28.0	27.0	15.8	17.2	-4.8	16.4	22.3	20.0	16.3	15.2	13.4	13.4	15.9	
16	11.4	12.5	13.8	13.3	13.4	14.3	14.2	15.8	15.3	18.2	19.6	21.3	16.3	18.2	19.1	19.1	20.0	21.1	19.1	12.6	14.2	14.4	15.2	16.5	16.2
17	13.3	12.3	8.6	9.3	14.4	15.3	8.4	22.1	20.1	20.2	16.8	16.3	16.4	16.4	17.2	17.2	20.1	25.0	17.3	15.8	15.8	15.3	16.2	15.4	16.0
18	15.3	12.9	11.4	15.2	13.8	14.2	14.3	16.3	15.3	15.3	20.2	17.4	15.3	15.2	20.1	20.2	22.2	24.1	22.2	20.3	18.2	15.8	13.4	12.9	16.7
19	12.3	12.4	14.4	15.2	12.3	13.4	16.3	18.2	22.3	17.2	19.7	25.0	19.1	17.4	21.3	20.3	18.3	20.3	27.2	17.8	4.0	6.5	12.3	12.4	16.5
20	12.3	13.4	10.4	14.3	10.4	12.4	16.8	19.2	16.4	16.3	17.4	19.2	17.2	17.3	17.3	19.3	19.3	22.1	18.2	15.8	15.3	11.4	11.3	12.4	15.6
21	12.5	12.4	13.4	12.4	5.5	13.4	4.5	9.3	16.8	20.2	19.2	18.2	18.2	16.8	18.2	21.3	22.7	18.2	16.3	15.3	15.4	12.9	11.9	10.4	14.8
22 Q	10.9	10.4	11.4	11.7	15.3	16.4	16.2	16.3	16.3	16.3	16.3	16.3	17.3	17.3	18.2	19.2	21.1	21.2	18.7	16.3	16.1	15.3	13.8	13.4	15.9
23 Q	13.4	14.3	13.4	11.4	14.4	15.8	16.3	15.3	13.4	17.2	17.2	16.4	19.1	18.7	19.1	20.2	21.7	21.7	18.2	15.8	14.8	13.8	13.4	13.4	16.2
24	13.3	13.8	15.2	15.3	15.3	15.1	15.4	15.2	14.3	15.8	16.3	17.1	18.4	18.2	18.2	20.1	21.5	22.2	21.2	18.2	12.4	13.4	12.9	13.3	16.3
25	13.3	13.4	14.3	12.3	15.3	14.2	11.4	21.2	19.1	17.3	17.2	19.2	18.2	17.3	16.4	20.2	23.2	23.1	8.4	7.4	12.9	8.4	8.4	15.6	
26	12.4	13.4	13.4	10.3	16.3	12.2	15.2	16.8	18.2	22.7	23.2	24.0	22.3	25.6	13.4	12.9	24.2	23.2	19.2	18.2	15.9	14.3	14.3	13.3	17.3
27 Q	13.4	12.5	12.4	15.4	15.2	15.3	16.8	16.3	16.2	16.3	16.3	16.4	16.8	16.4	13.4	18.7	23.2	23.2	22.7	19.7	13.8	12.9	11.4	12.5	16.1
28 Q	12.3	12.4	14.3	15.2	15.3	13.3	15.2	16.4	16.4	16.2	16.3	16.4	16.3	16.3	17.3	18.2	22.6	23.2	22.2	20.3	18.2	13.4	12.4	12.3	16.4
29 Q	13.3	13.4	14.3	14.7	15.3	15.2	15.3	15.3	15.2	15.3	16.1	16.2	15.2	15.8	16.4	18.2	22.2	22.6	21.2	19.2	17.4	14.2	12.9	12.4	16.1
30	13.3	12.4	9.7	15.2	15.4	16.3	10.4	9.3	16.4	28.0	41.9	59.9	37.8	16.3	16.4	19.5	19.2	19.8	18.3	18.2	16.8	15.2	15.3	14.3	19.8
31 D	14.3	10.9	13.4	13.4	13.4	13.3	7.0	13.4	12.9	84.4	31.5	45.2	25.6	31.0	33.0	10.4	17.8	14.8	21.7	27.1	28.3	25.1	17.3	11.4	22.4
Mean	12.9	12.8	13.5	14.7	15.3	15.9	15.4	17.1	17.7	19.3	20.4	23.5	21.5	19.1	18.1	16.2	19.4	20.5	19.3	16.7	14.5	13.7	12.8	12.5	16.8

VERTICAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 36 Meanook

Z = 58,000 γ +

December 1957

Hour U. T. Day	0 to 1 1	1 to 2 2	2 to 3 3	3 to 4 4	4 to 5 5	5 to 6 6	6 to 7 7	7 to 8 8	8 to 9 9	9 to 10 10	10 to 11 11	11 to 12 12	12 to 13 13	13 to 14 14	14 to 15 15	15 to 16 16	16 to 17 17	17 to 18 18	18 to 19 19	19 to 20 20	20 to 21 21	21 to 22 22	22 to 23 23	23 to 24 24	Mean
1 D	829	833	857	892	845	868	834	793	762	748	756	744	737	738	734	764	794	810	829	830	831	841	842	841	806
2	852	852	851	852	851	801	765	786	819	831	765	592	651	638	710	723	765	798	819	819	821	836	836	830	786
3	831	831	840	841	841	829	755	786	819	807	745	777	775	777	809	809	829	828	825	830	836	843	845	851	815
4	851	851	850	841	831	829	810	775	837	819	744	778	808	799	819	824	830	830	825	824	830	839	839	845	822
5	852	885	861	841	851	863	830	711	690	592	808	830	744	658	710	775	814	819	851	874	896	874	864	885	807
6 D	885	885	863	863	819	840	853	829	723	722	776	659	722	744	788	732	768	817	841	839	851	852	859	859	808
7	879	870	857	842	841	847	830	814	658	664	722	776	787	653	787	814	830	829	829	830	842	842	851	805	
8	863	853	848	852	864	851	840	840	809	744	786	787	787	810	829	830	831	824	819	830	830	835	836	836	826
9	852	852	852	851	840	836	841	798	764	744	797	744	722	700	706	765	810	836	830	830	840	842	859	851	807
10	851	841	862	864	835	829	830	808	786	733	723	690	723	715	700	710	722	797	831	842	857	873	859	875	798
11 D	863	885	895	845	809	776	765	658	711	840	852	829	851	819	798	830	830	810	809	830	840	867	863	891	824
12 D	863	863	883	901	896	840	857	831	841	830	695	722	797	840	851	841	821	874	840	847	847	847	852	861	839
13	863	852	852	873	874	874	852	830	809	668	644	776	794	847	782	767	783	799	813	819	821	830	830	830	812
14	830	830	845	841	842	842	842	841	830	830	828	829	829	829	829	829	829	829	830	830	830	841	833	833	
15	836	839	839	841	851	862	841	823	787	711	756	765	767	787	652	679	777	803	809	809	825	829	829	830	798
16	841	842	842	840	841	851	841	841	830	809	806	765	767	809	819	819	819	825	830	834	836	836	841	825	
17	851	830	857	917	906	896	841	840	885	852	841	830	825	821	825	830	821	819	830	829	830	841	857	846	
18	852	841	852	863	852	842	841	841	825	808	782	695	753	808	808	819	831	830	831	836	831	830	830	822	
19	831	831	841	852	852	852	862	843	831	797	793	775	764	776	787	819	810	819	809	809	810	825	834	841	819
20	857	868	864	852	864	862	874	852	830	851	836	819	821	829	831	840	842	830	829	830	842	841	852	844	
21	841	841	863	873	874	873	868	809	852	852	831	830	809	829	831	830	822	819	829	830	830	840	852	840	
22 Q	851	852	863	853	851	840	837	829	830	830	830	829	829	829	830	830	830	830	831	833	833	833	836		
23 Q	830	830	830	830	831	830	831	833	830	831	830	830	821	822	822	829	830	831	830	829	820	820	820	830	828
24	830	829	829	829	827	828	829	829	820	819	819	787	798	819	819	819	821	821	819	819	829	830	831	822	
25	830	830	830	840	840	839	831	744	810	840	830	819	814	808	819	819	819	819	819	831	830	852	823		
26	852	834	834	864	895	928	928	874	840	840	732	777	809	723	755	782	812	809	810	836	829	830	841	828	
27 Q	830	830	840	841	841	831	830	830	830	830	821	829	810	809	830	830	825	819	821	819	826	840	830	828	
28 Q	830	830	830	831	840	836	841	834	830	830	830	829	825	828	830	836	830	819	822	821	819	829	829	830	
29 Q	825	825	825	830	830	829	829	829	825	823	821	814	809	810	821	830	829	819	821	825	828	826	836	840	825
30	841	841	859	841	840	847	864	825	790	809	744	690	819	670	787	840	831	830	830	830	830	831	831	815	
31 D	831	841	868	874	885	840	744	863	1058	933	1042	966	890	933	701	864	901	862	857	895	894	850	841	809	877
Mean	846	846	851	854	850	846	833	814	812	795	793	780	790	783	787	804	817	823	826	831	835	838	840	844	822

## DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS

Departure from mean of the day not adjusted for non-cyclic change

Table 37 Meanook

HORIZONTAL INTENSITY (gammas) (All Days)

1957

## DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS

Departure from mean of the day not adjusted for non-cyclic change

Table 38 Meanook

DECLINATION (minutes) (All Days)

1957

## DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS

Departure from mean of the day not adjusted for non-cyclic change

Table 39 Meanoook

VERTICAL INTENSITY (gammas) (All Days)

1957

DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS  
Departure from mean of the day not adjusted for non-cyclic change

Table 40 Meanook

HORIZONTAL INTENSITY (gammas) (Quiet Days)

1957

G.M.T.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Summer	Equinox	Winter
0-1	- 4	- 5	+ 9	+22	+34	+13	+14	+ 6	+ 2	- 1	+ 2	0	+ 8	+17	+ 8	- 2
1-2	+ 1	+ 4	+10	+17	+18	+16	+22	+ 7	- 1	+ 3	+ 5	+ 5	+ 9	+16	+ 7	+ 4
2-3	+ 2	+ 8	+15	+18	+ 2	+13	+16	+ 6	+ 6	+ 8	+ 8	+11	+ 9	+ 9	+12	+ 7
3-4	+ 4	+10	+15	+17	+ 6	+17	- 2	+ 8	+ 7	+10	+10	+14	+10	+ 7	+12	+10
4-5	+ 7	+13	+14	+19	+11	+11	0	+ 8	+13	+14	+15	+11	+11	+ 8	+15	+12
5-6	+ 6	+11	+26	+26	+11	+ 7	+ 1	+ 9	+11	+15	+12	+12	+12	+ 7	+20	+10
6-7	+ 3	+11	+16	+ 9	+13	+ 7	0	+10	+15	+17	+12	+11	+10	+ 8	+14	+ 9
7-8	+ 3	+10	- 7	-40	+17	+ 8	+ 2	+11	+18	+16	+ 8	+ 9	+ 5	+10	- 3	+ 8
8-9	+ 3	+ 7	-11	-33	+13	+ 9	+ 5	+ 9	+19	+14	+10	+ 5	+ 4	+ 9	- 3	+ 6
9-10	+ 4	- 3	- 3	+18	-35	+12	+ 3	+12	+16	+ 9	+12	+ 7	+ 4	- 2	+10	+ 5
10-11	+ 5	- 4	-13	+22	- 7	+ 7	+ 6	+13	+13	+12	+11	+ 6	+ 6	+ 5	+ 8	+ 4
11-12	+ 4	+ 5	- 1	+19	+ 8	+11	+10	+12	+11	+14	+11	+ 4	+ 9	+10	+11	+ 6
12-13	+ 4	+11	+ 9	+ 3	+11	+14	+13	+13	+11	+14	+10	+ 4	+10	+13	+ 9	+ 7
13-14	+ 6	+10	- 4	- 9	+ 4	+ 4	+20	+20	+ 8	+13	+ 8	+ 3	+ 7	+12	+ 2	+ 7
14-15	+12	+ 6	- 7	- 4	- 3	+ 8	+19	+14	- 2	0	+ 5	+ 1	+ 4	+10	- 3	+ 6
15-16	+12	+12	- 7	-11	- 6	+ 2	+ 8	+ 4	-14	- 1	0	+ 4	- 1	+ 2	- 8	+ 4
16-17	+10	- 6	-13	- 5	-15	-10	- 5	-14	-26	-11	- 9	0	- 9	-11	-14	- 1
17-18	+ 6	-17	-12	-31	-29	-29	-21	-29	-35	-22	-19	- 8	-21	-27	-25	-10
18-19	- 6	-21	-18	-28	-35	-40	-30	-37	-39	-29	-26	-17	-27	-36	-28	-18
19-20	-15	-18	-18	-19	-30	-42	-28	-37	-30	-29	-26	-22	-26	-34	-24	-20
20-21	-20	-14	- 7	-16	-24	-28	-24	-29	-18	-24	-21	-23	-21	-26	-16	-20
21-22	-20	-10	0	- 5	- 6	-20	-23	-15	+ 1	-19	-20	-19	-13	-16	- 6	-17
22-23	-16	- 5	+ 3	+ 2	+ 7	- 4	-12	- 5	+ 7	-13	-10	-14	- 5	- 4	0	-11
23-24	- 7	- 2	+ 3	+11	+28	+12	+ 6	+ 3	+ 5	- 8	- 4	- 5	+ 4	+12	+ 3	- 4
Mean																

DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS  
Departure from mean of the day not adjusted for non-cyclic change

Table 41 Meanook

DECLINATION (minutes) (Quiet Days)

1957

G.M.T.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Summer	Equinox	Winter
0-1	-2.7	-1.9	-2.0	- 4.5	- 4.7	- 6.4	- 4.7	- 3.1	-2.4	-5.4	-2.5	-3.5	-3.6	- 4.7	-3.6	-2.6
1-2	-2.7	-3.0	-2.7	- 4.0	- 2.8	- 4.9	- 2.5	- 2.9	-3.3	-4.8	-2.1	-3.5	-3.3	- 3.3	-3.7	-2.8
2-3	-2.0	-2.1	-2.7	- 2.4	- 1.8	- 3.1	- 1.3	- 3.4	-3.2	-3.5	-2.4	-3.0	-2.6	- 2.4	-3.0	-2.4
3-4	-2.0	-1.6	-3.2	- 2.3	- 2.2	- 2.2	- 2.5	- 3.3	-3.0	-2.9	-2.1	-2.5	-2.5	- 2.6	-2.8	-2.0
4-5	-0.8	-1.4	-2.2	- 1.9	- 2.1	- 0.9	- 3.3	- 3.2	-3.0	-3.2	-1.6	-1.0	-2.1	- 2.4	-2.6	-1.2
5-6	-0.9	-1.0	-1.1	- 2.2	- 2.1	- 1.8	- 2.6	- 2.5	-2.5	-2.6	-1.6	-0.9	-1.8	- 2.2	-2.1	-1.1
6-7	-0.6	-1.3	+0.5	- 1.8	- 1.8	- 2.0	- 1.0	- 2.4	-2.3	-2.3	-1.4	-0.2	-1.4	- 1.8	-1.5	-0.9
7-8	0.0	-0.5	-0.4	- 0.4	- 0.5	- 2.0	- 1.5	- 1.8	+1.8	-1.5	-1.2	-0.2	-0.7	- 1.4	-0.1	-0.5
8-9	+1.3	-0.1	+2.8	- 1.6	- 2.1	- 0.8	- 1.9	- 1.3	+0.2	-0.3	-0.7	-0.6	-0.4	- 1.5	+0.3	0.0
9-10	+0.1	0.0	+2.1	+ 0.9	- 2.2	- 0.4	- 1.4	+ 0.1	+0.7	+0.2	-0.3	+0.1	0.0	- 1.0	+1.0	0.0
10-11	-0.2	+2.4	-0.6	+ 1.2	+ 2.1	- 0.3	- 0.3	+ 0.7	+1.9	+1.2	+0.1	+0.3	+0.7	+ 0.6	+0.9	+0.7
11-12	-0.9	+3.6	-0.5	+ 1.4	+ 2.8	+ 3.5	+ 1.2	+ 2.2	+1.6	+1.5	+1.0	+0.2	+1.5	+ 2.4	+1.0	+1.0
12-13	-1.1	+2.7	+0.2	+ 3.1	+ 6.5	+ 6.6	+ 3.1	+ 5.3	+3.6	+1.6	+1.5	+0.8	+2.8	+ 5.4	+2.1	+1.0
13-14	-0.9	+2.8	+0.5	+ 5.0	+ 9.6	+ 9.0	+ 7.1	+ 7.8	+6.8	+2.4	+2.1	+0.8	+4.4	+ 8.4	+3.7	+1.2
14-15	+0.1	+3.5	+2.6	+ 7.3	+12.8	+11.6	+ 9.7	+ 9.6	+8.8	+5.1	+3.3	+0.7	+6.3	+10.9	+6.0	+1.9
15-16	+2.4	+4.0	+4.7	+ 8.7	+12.7	+12.9	+10.8	+10.9	+9.3	+7.6	+6.3	+2.8	+7.8	+11.8	+7.6	+3.9
16-17	+5.1	+4.8	+7.4	+10.5	+10.8	+10.3	+10.1	+10.0	+9.4	+8.5	+6.6	+6.0	+8.3	+10.3	+9.0	+5.6
17-18	+5.5	+4.2	+4.5	+ 7.1	+ 7.2	+ 7.1	+ 7.0	+ 7.3	+4.2	+7.2	+5.1	+6.2	+6.1	+ 7.2	+5.8	+5.2
18-19	+3.6	+0.4	+1.9	+ 2.2	- 0.3	+ 2.1	+ 2.1	+ 1.3	-1.0	+4.4	+1.5	+4.5	+1.9	+ 1.3	+1.9	+2.5
19-20	+2.0	-2.0	-1.1	- 2.7	- 5.7	- 4.0	- 2.0	- 3.2	-5.8	+0.2	-0.6	+2.1	-1.9	- 3.7	-2.4	+0.4
20-21	0.0	-3.6	-2.7	- 5.1	- 9.2	- 7.5	- 6.4	- 6.6	-7.0	-2.5	-1.7	-0.1	-4.4	(- 7.4)	-4.3	-1.4
21-22	-1.8	-3.5	-2.8	- 5.8	- 9.3	- 9.0	- 7.8	- 8.1	-6.5	-2.9	-2.4	-2.2	-5.2	- 8.6	-4.5	-2.5
22-23	-2.4	-3.5	-2.6	- 6.5	- 9.4	- 9.6	- 7.1	- 7.5	-4.8	-3.5	-3.2	-3.4	-5.3	- 8.4	-4.4	-3.1
23-24	-2.3	-2.9	-2.3	- 6.7	- 8.4	- 8.2	- 4.8	- 6.1	-3.7	-4.4	-3.7	-3.3	-4.7	- 6.9	-4.3	-3.0
Mean																

DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS  
Departure from mean of the day not adjusted for non-cyclic change

132

Table 42 Meanook

VERTICAL INTENSITY (gammas) (Quiet Days)

1957

## DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS

Departure from mean of the day not adjusted for non-cyclic change

Table 43 Meanook

HORIZONTAL INTENSITY (gammas) (Disturbed Days)

1957

## DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS

Departure from mean of the day not adjusted for non-cyclic change

134

Table 44 Meanook

DECLINATION (minutes) (Disturbed Days)

1957

## DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS

Departure from mean of the day not adjusted for non-cyclic change

Table 45 Meanook

**VERTICAL INTENSITY (gammas) (Disturbed Days)**

1957

HORIZONTAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 1 Meanook

Hour U.T. Day	Z = 12,000 γ +																						January 1958			
	0 to 1 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1	1046	1053	1171	1234	1061	834	936	1006	941	740	708	959	941	920	857	865	951	913	802	813	902	904	897	973	934	
2	991	960	979	1035	963	963	925	882	826	693	748	673	673	850	921	955	959	936	929	928	919	912	906	921	894	
3 Q	928	929	936	944	940	940	942	936	943	944	928	937	936	942	951	951	951	944	944	932	927	928	932	938		
4 Q	932	936	940	942	944	952	944	944	948	949	955	955	955	959	966	955	943	929	928	928	928	933	950	944		
5 Q	944	935	951	955	959	967	971	967	963	959	960	959	952	959	971	968	951	933	926	926	928	936	944	952		
6	944	944	944	951	949	951	944	936	944	955	951	943	943	959	975	976	975	960	936	932	927	936	941	937	948	
7 Q	935	943	950	958	956	962	966	958	950	958	950	950	950	923	947	974	966	950	939	933	928	939	943	943	949	
8 Q	943	947	950	950	955	958	951	955	838	841	930	939	939	932	926	966	962	954	943	939	931	931	943	947	936	
9	950	954	958	960	959	959	967	958	950	935	872	860	920	850	845	936	958	943	943	931	926	930	932	962	932	
10	976	1007	972	974	961	971	970	981	953	949	947	939	942	910	949	961	942	927	919	921	919	933	946	948	951	
11	948	957	961	967	969	973	965	957	957	949	880	949	973	957	958	953	934	917	910	899	918	942	942	942	945	
12	942	958	957	961	993	1034	999	962	949	950	949	934	938	958	947	949	930	910	918	926	927	934	934	942	950	
13	963	964	976	972	972	993	972	971	968	956	941	941	941	940	956	952	940	917	929	929	898	908	922	923	948	
14	941	948	948	956	952	956	957	956	840	839	948	948	948	941	944	925	894	921	930	925	930	886	917	932	928	
15	933	945	953	935	967	1006	1027	1033	1007	972	947	944	908	744	854	901	931	924	910	908	904	928	924	928	936	
16	940	947	948	956	955	975	995	991	976	948	831	947	955	963	963	959	947	933	908	898	897	928	939	947	944	
17 D	944	944	951	967	991	979	971	967	939	829	740	881	885	947	869	885	933	924	917	924	933	915	951	1023	925	
18 D	1019	1033	1048	1077	1089	1136	1104	932	673	669	536	607	505	587	720	821	877	908	925	908	908	917	925	924	869	
19	924	943	954	951	947	946	955	955	950	932	915	883	809	864	869	907	894	892	935	931	918	918	927	927	919	
20	927	943	954	946	946	950	962	978	911	947	907	778	939	954	933	928	946	922	914	927	939	930	931	941	931	
21 D	1164	1244	1206	1052	1126	1224	1068	1068	963	801	805	931	935	939	946	946	921	909	899	913	906	896	924	935	989	
22	941	946	959	950	954	970	884	806	970	962	952	884	790	720	892	974	946	931	923	919	915	922	931	933	916	
23 D	946	939	972	981	994	995	997	974	969	954	925	922	711	848	923	907	872	901	876	860	903	943	939	937	924	
24	945	938	945	953	953	953	961	963	947	945	938	828	670	930	942	938	926	929	921	915	918	922	934	938	923	
25	945	946	945	957	957	953	953	953	927	755	969	954	957	812	794	867	847	883	937	926	915	919	926	938	914	
26	942	945	957	1020	1110	1149	945	1024	992	901	929	948	938	934	935	906	891	891	910	922	923	918	921	934	954	
27	930	930	957	957	957	962	957	953	945	943	953	949	945	945	943	938	930	914	922	918	920	931	918	928	939	
28	938	946																	1130	918	926	930	938	949		
29	953	949	952	994	1072	1076	1032	1000	883	855	953	953	945	945	945	933	930	931	921	912	930	945	949	952		
30	949	949	953	959	981	969	977	968	967	961	951	913	945	969	967	959	961	953	938	923	914	922	930	934	951	
31	942	937	945	945	945	941	945	942	942	923	912	937	942	961	961	961	953	953	949	944	922	930	945	946	943	
Mean	958	964	973	979	983	989	971	962	930	897	894	905	891	901	918	934	933	927	920	917	918	924	931	939	936	

DECLINATION  
Mean values for periods of sixty minutes, Universal Time

Table 2 Meanook

	D = 24° E + ...'																				January 1958				
Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1 D	11.4	10.4	15.7	2.6	0.6	3.6	11.4	15.2	12.6	31.0	35.4	23.2	20.2	18.3	15.8	19.4	25.0	22.8	16.4	16.4	17.3	13.8	10.9	12.3	15.9
2	13.4	9.4	9.4	15.3	15.8	17.8	17.8	20.2	18.3	28.0	33.0	31.0	17.2	22.1	19.2	22.2	23.0	21.8	21.2	19.2	16.6	16.3	16.2	14.8	18.8
3 Q	13.4	14.3	14.8	14.8	15.3	15.3	16.3	16.3	15.3	15.8	17.2	15.2	14.1	14.8	14.4	18.2	20.7	21.2	21.2	19.2	16.8	16.3	17.3	16.3	16.4
4 Q	16.2	15.3	15.3	15.3	15.2	14.8	15.3	16.6	16.8	16.8	16.3	15.2	15.3	16.2	18.7	21.3	23.6	21.2	20.2	18.2	16.2	15.3	13.4	16.8	
5 Q	13.4	14.4	13.4	14.8	15.3	15.2	14.3	14.3	15.6	16.3	16.4	16.3	16.3	16.3	15.3	18.2	21.1	24.1	22.4	20.2	17.2	15.8	16.1	14.4	16.5
6	14.8	14.8	15.2	14.3	14.3	15.3	15.2	20.7	20.1	16.4	17.3	16.2	11.4	17.6	19.1	19.2	22.3	22.2	21.2	19.2	15.8	14.4	14.3	13.4	16.9
7 Q	14.2	14.2	14.3	15.3	15.3	15.4	14.8	15.2	17.2	18.2	20.2	19.1	18.2	16.2	14.3	22.3	24.1	21.2	19.3	17.8	14.4	14.3	14.3	16.8	
8 Q	13.3	14.2	14.8	16.9	17.3	17.3	16.9	15.8	17.3	17.4	20.2	17.4	16.4	12.9	16.3	20.2	21.7	21.3	19.2	17.4	15.3	14.2	13.3	13.3	16.7
9	12.9	13.4	14.4	13.8	15.2	16.8	16.3	16.3	18.2	17.2	14.3	16.2	29.0	24.0	15.2	27.1	29.9	26.0	21.3	17.4	12.4	10.4	10.4	5.5	17.2
10	7.4	4.6	12.3	16.3	17.8	18.2	18.2	15.8	16.3	17.3	17.3	16.4	18.2	22.3	18.2	23.2	25.0	23.1	18.2	13.4	10.3	10.9	11.4	11.5	16.0
11	13.8	11.4	12.5	14.3	16.4	15.8	15.3	15.3	16.3	18.2	18.2	15.8	15.8	18.2	17.8	21.2	24.1	21.2	19.7	13.8	4.0	8.9	12.4	10.4	15.4
12	12.4	8.4	10.4	14.2	14.3	8.4	12.4	15.3	18.8	18.2	18.2	19.1	19.2	23.2	20.2	24.2	24.0	20.2	17.3	15.3	13.4	13.4	11.4	9.4	15.9
13	8.4	6.5	10.4	13.4	14.3	16.4	16.4	16.4	14.3	15.2	17.2	17.3	14.3	15.8	20.1	23.2	27.0	25.2	20.7	20.2	16.4	10.9	12.4	12.4	16.0
14	12.4	13.3	14.3	15.8	16.3	15.8	16.7	16.8	9.3	32.9	25.6	18.7	17.6	15.2	19.2	22.1	24.2	22.3	22.2	20.1	17.8	14.2	8.0	9.9	17.5
15	12.4	12.9	14.3	15.3	14.8	15.3	21.7	19.1	12.4	15.8	17.3	18.2	22.2	18.2	24.1	18.2	27.1	24.1	25.6	21.2	13.8	8.9	11.4	11.3	17.3
16	11.4	13.4	14.3	15.8	16.0	14.3	9.9	17.3	16.3	18.2	19.7	17.3	19.7	19.1	17.4	28.2	31.4	28.9	30.1	20.7	8.4	7.5	7.5	10.4	17.2
17 D	10.4	12.4	13.8	11.4	13.3	17.3	15.3	15.4	15.8	15.8	20.2	27.1	20.2	13.8	22.3	23.7	19.2	17.3	15.0	10.2	7.4	10.4	15.9		
18 D	10.4	2.6	4.5	4.5	8.4	12.3	16.2	20.8	39.5	35.4	24.6	40.2	47.5	51.0	36.6	39.0	36.6	24.4	19.2	21.2	12.5	10.4	12.4	13.8	22.7
19	13.4	13.4	13.9	15.2	15.8	13.8	17.3	21.2	16.4	17.2	19.8	19.2	19.2	15.3	12.4	23.2	22.7	15.3	17.3	17.8	17.3	15.2	15.2	13.4	16.7
20	14.2	13.8	14.2	16.2	16.2	15.8	14.3	17.3	18.7	21.2	22.2	28.1	24.1	19.3	26.1	21.1	22.7	25.1	17.8	13.8	13.4	12.4	8.4	11.7	17.8
21 D	3.6	5.5	9.4	20.2	3.6	12.4	16.4	10.4	19.1	20.2	23.1	18.2	16.8	18.3	20.1	22.8	25.6	29.5	21.2	17.3	14.4	12.4	12.4	12.4	16.0
22	10.9	13.8	15.3	15.3	17.3	15.3	14.3	17.3	15.8	14.2	14.8	19.2	15.3	14.3	19.7	31.0	29.0	25.2	23.2	18.3	15.3	12.4	12.4	13.4	17.2
23 D	11.4	12.5	11.4	11.4	13.8	16.4	14.3	21.2	15.3	18.2	18.2	19.2	22.3	11.9	25.0	19.2	17.3	17.4	20.2	5.4	7.5	9.4	13.4	15.2	15.3
24	14.2	15.4	16.3	16.3	15.8	19.2	15.8	14.3	14.3	16.2	16.3	24.0	34.4	23.2	27.1	25.1	22.7	23.2	21.3	18.2	15.8	15.2	13.3	13.8	18.8
25	11.9	12.5	16.8	16.2	14.3	15.2	19.2	18.2	15.6	17.4	18.2	19.2	18.2	23.1	20.2	31.9	8.0	2.6	15.8	18.8	16.3	14.3	13.4	15.9	
26	13.8	15.3	13.4	13.3	15.3	4.5	25.1	14.3	17.4	14.2	17.2	18.2	17.3	18.2	20.1	22.7	20.7	14.3	16.8	14.0	13.6	12.4	12.9	11.9	15.7
27	13.8	12.4	13.2	14.8	15.3	14.8	15.8	16.3	15.3	13.4	17.3	17.4	17.0	17.8	20.0	24.1	24.1	22.7	22.2	21.2	15.9	12.4	11.4	12.4	16.7
28	13.4	14.3																		20.2	19.2	16.8	14.3	13.4	13.4
29	12.6	13.4	13.4	25.1	20.2	20.1	21.7	16.9	14.3	14.3	19.2	18.2	17.3	19.1	19.3	18.2	17.4	15.3	19.2	19.2	17.3	14.3	13.4	13.4	17.2
30	12.9	13.4	14.3	16.3	17.8	14.8	14.3	16.4	16.8	16.3	17.3	14.3	18.7	17.8	17.3	14.3	19.7	20.7	19.2	16.8	13.4	11.5	12.4	13.4	15.8
31	14.0	14.4	14.8	15.3	14.4	16.6	16.3	16.3	17.4	18.2	25.1	14.3	12.3	16.8	18.2	20.2	23.2	18.2	19.2	20.2	15.3	13.4	13.3	12.5	16.7
Mean	12.3	12.1	13.4	14.7	14.5	14.8	16.2	16.7	16.9	18.5	19.9	19.7	19.5	19.0	19.5	22.4	23.5	21.6	20.3	17.7	14.4	12.7	12.5	12.5	16.9

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 3 Meanook

Z = 58,000 γ +

January 1958

Hour U. T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1 D	841	825	776	700	765	721	830	797	841	874	830	852	857	842	819	814	852	830	821	841	863	867	864	885	825
2	852	863	922	901	874	840	831	841	863	809	776	821	787	755	787	830	833	841	847	845	845	845	845	838	
3 Q	841	841	852	852	852	851	851	841	834	819	819	810	808	809	819	819	825	829	830	840	840	840	840	840	833
4 Q	841	841	841	841	841	841	834	830	819	810	819	829	829	831	831	836	835	830	830	830	830	831	832	832	
5 Q	838	837	842	843	852	843	842	831	831	831	831	824	826	820	820	830	829	830	830	831	831	831	831	833	
6	831	831	831	832	836	831	826	815	816	826	820	798	766	777	810	810	820	822	820	820	820	830	820	818	
7 Q	831	830	831	831	831	831	831	820	820	816	788	777	799	788	787	820	820	820	820	820	830	830	830	818	
8 Q	830	830	831	831	831	837	837	832	784	745	783	799	788	794	766	820	820	820	820	820	820	820	822	813	
9	822	832	843	843	843	843	832	812	811	878	724	735	746	697	713	767	789	810	821	823	821	832	804		
10	859	892	876	843	843	859	854	831	832	831	819	805	800	778	793	831	832	832	832	832	832	833	833	833	
11	831	832	838	842	832	833	833	832	827	821	766	793	821	821	824	828	825	825	821	819	823	832	832	824	
12	832	853	854	854	868	854	832	842	831	832	823	811	800	832	843	835	812	816	821	821	832	831	826	833	
13	844	844	865	845	850	876	856	856	850	833	817	812	822	822	833	833	824	836	828	854	888	871	844	843	
14	844	843	833	833	833	832	833	833	682	730	800	822	822	822	817	779	790	822	828	833	844	866	843	817	
15	834	836	844	844	855	877	876	866	817	844	844	822	791	649	746	806	833	833	839	843	843	854	844	839	828
16	844	844	844	844	844	845	866	893	845	833	779	768	812	839	833	828	828	828	833	843	833	834	845	844	835
17 D	845	834	840	857	868	868	861	854	802	807	683	736	748	823	760	791	823	813	834	834	845	872	909	909	826
18 D	868	878	932	926	921	953	921	759	650	823	906	683	748	814	818	781	769	728	780	808	834	845	845	845	826
19	845	846	847	856	851	851	867	835	844	841	814	760	748	781	786	802	786	781	823	843	845	851	844	840	824
20	840	840	846	845	843	845	845	834	780	840	825	753	791	834	813	818	823	808	823	814	829	834	845	867	826
21 D	965	956	888	630	802	824	824	781	835	792	802	835	846	857	864	857	846	841	834	834	836	835	841	835	836
22	846	846	846	856	857	867	792	803	852	847	846	798	722	554	737	868	846	835	835	841	841	846	846	820	
23 D	846	846	867	879	890	921	890	814	856	826	812	803	702	781	703	804	770	802	819	830	852	856	850	846	828
24	856	852	846	846	836	846	836	835	835	835	815	689	639	782	830	830	835	826	830	836	840	845	841	835	821
25	839	836	858	861	858	859	836	825	820	663	829	825	820	726	652	696	701	750	827	835	839	853	847	842	804
26	836	836	852	874	858	863	701	686	853	836	847	853	847	836	836	827	808	816	825	835	847	857	859	869	832
27	857	836	858	857	858	860	848	846	825	803	840	836	836	835	836	836	835	836	842	842	842	842	842	841	
28	836	836																	835	835	835	836	836	836	
29	837	837	849	902	940	923	881	852	837	847	837	837	826	836	837	815	816	837	844	848	852	858	847	842	847
30	837	837	837	844	832	832	848	848	847	833	816	783	783	821	832	821	821	826	836	838	842	847	837	837	831
31	838	840	837	837	842	848	847	837	826	782	718	789	794	826	836	836	830	828	826	826	832	837	840	832	824
Mean	846	846	851	842	850	852	842	827	819	815	812	795	790	794	799	815	815	816	827	832	837	840	844	843	827

HORIZONTAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 4 Meanook

	$H = 12,000 \gamma +$																				February 1958					
Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1	931	953	953	953	958	951	949	945	926	938	945	934	890	937	942	962	965	964	952	944	942	935	923	932	943	
2	947	946	952	952	946	949	942	944	942	915	868	931	948	933	934	953	956	949	943	945	942	938	938	938	940	
3 Q	942	942	951	950	940	945	945	949	949	946	953	957	931	938	962	960	954	945	942	942	947	951	946	946	948	
4	938	945	953	957	958	959	960	960	962	962	945	914	949	973	957	919	942	943	922	872	899	930	946	946	942	
5	969	996	1023	1067	1025	1008	1039	969	824	926	868	834	504	875	953	906	906	922	938	937	893	934	915	961	925	
6 D	981	999	986	971	1109	1051	1028	1007	807	961	865	589	789	782	749	742	874	929	945	945	945	952	957	954	913	
7	945	969	1016	973	993	996	946	1001	954	898	945	789	836	937	907	890	840	910	925	937	945	962	953	965	935	
8	971	960	984	1032	991	1039	1023	986	938	859	893	893	899	902	887	890	906	914	936	921	902	891	960	942	938	
9	949	978	963	1020	989	962	953	949	949	942	939	896	902	921	910	898	824	847	891	941	969	953	929	942	935	
10	978	961	981	968	986	985	954	954	946	937	921	920	891	828	829	844	828	835	860	880	973	1015	957	954	924	
11 D	1032	843	881	1042	1083	1098	402	-195	648	549	542	329	696	355	626	738	898	904	832	804	887	918	926	871	738	
12 D	958	938	969	973	926	990	774	715	855	735	547	836	875	926	910	895	882	761	753	977	929	930	915	926	871	
13	957	939	945	938	934	938	938	875	769	897	868	710	850	912	851	812	876	898	898	918	927	929	902	892		
14	949	942	983	1040	1032	977	1000	976	860	871	863	796	816	855	938	918	905	927	927	930	920	912	922	927	924	
15 Q	936	937	942	942	945	947	948	951	947	942	869	905	930	944	952	944	930	928	925	925	933	941	938	937	936	
16	937	946	953	955	955	956	960	972	958	958	944	893	901	858	892	930	953	953	941	942	949	941	952	944	939	
17 D	966	961	969	1010	1113	1136	1066	1030	964	901	854	854	686	596	894	958	919	923	897	944	952	917	972	956	933	
18 D	978	998	1003	1000	998	863	892	934	976	915	749	844	781	880	905	902	851	879	859	921	959	962	998	978	918	
19	993	968	969	962	968	993	915	989	945	937	866	821	718	832	943	934	920	920	875	895	920	949	957	973	924	
20	957	960	981	978	1025	997	982	978	953	906	797	934	879	792	781	953	938	898	817	792	840	925	932	950	914	
21	953	712	827	827	919	1076	973	795	832	919	937	851	932	997	749	930	930	873	817	860	884	959	996	909	890	
22	954	933	967	997	1033	1025	978	1002	912	845	768	664	987	811	910	919	932	919	916	903	906	938	954	943	921	
23	966	1012	1111	1064	1010	995	805	672	712	630	731	715	927	958	955	952	911	923	906	927	946	962	950	944	904	
24 Q	943	947	955	954	962	963	954	954	947	932	868	833	860	932	961	954	946	931	923	924	923	924	931	932	931	
25 Q	942	944	949	951	957	960	954	968	938	945	954	962	960	959	959	954	943	931	923	920	918	925	934	938	945	
26 Q	942	945	949	946	949	949	961	965	962	957	958	954	963	969	965	962	953	942	934	930	931	926	931	943	949	
27	935	946	954	954	954	959	954	954	954	952	954	961	965	960	960	960	945	938	918	913	915	923	931	931	945	
28	935	945	954	954	958	961	958	974	927	860	922	736	881	938	932	921	930	938	924	916	923	931	943	943	925	
29																										
30																										
31																										
Mean	957	945	965	976	987	986	934	898	906	886	863	836	857	873	899	912	910	912	902	914	925	938	944	940	918	

## DECLINATION

Mean values for periods of sixty minutes, Universal Time

Table 5 Meanook

D = 24° E + ...'

February 1958

Hour U. T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	13.4	14.3	14.8	15.2	15.3	14.3	15.2	16.3	24.0	22.3	19.2	18.2	12.4	14.8	13.4	19.7	16.3	14.3	15.3	15.3	14.8	13.3	12.9	13.4	15.8
2	12.8	11.3	13.6	15.2	15.3	16.6	15.8	14.8	16.3	18.2	33.4	18.2	18.2	14.3	13.4	17.2	17.9	16.2	13.4	16.8	16.2	16.3	16.3	15.3	16.4
3 Q	14.3	13.4	14.3	14.3	15.2	16.1	14.8	16.3	18.2	17.3	18.2	16.3	13.8	12.4	18.7	18.7	18.2	19.3	16.8	15.4	14.7	14.3	14.8	13.8	15.8
4	13.8	13.4	13.8	14.3	14.8	14.4	14.3	15.2	15.3	15.3	17.8	18.2	23.2	20.2	20.1	16.3	13.4	18.2	22.7	16.3	1.1	6.5	10.9	12.9	15.1
5	10.4	4.6	5.4	10.4	12.5	8.0	11.3	13.8	10.3	19.1	28.0	22.2	26.0	25.1	29.0	30.5	11.3	11.5	11.5	15.8	17.8	6.3	6.5	11.4	14.9
6 D	9.5	7.0	12.2	11.7	9.3	14.3	10.5	14.8	-5.3	16.8	24.1	25.6	24.8	33.0	30.5	10.9	12.3	14.4	14.8	14.3	12.9	13.4	10.3	15.1	14.9
7	13.3	11.4	12.4	11.4	10.3	12.9	12.3	12.5	11.4	6.6	20.1	29.5	20.3	22.3	24.1	22.3	20.7	18.2	15.2	17.3	18.2	12.5	14.2	10.5	15.8
8	10.2	16.4	15.8	13.4	23.9	16.4	16.2	19.1	22.2	29.1	25.1	27.0	26.2	34.4	30.5	29.0	26.1	20.7	18.3	16.2	16.3	6.5	8.4	11.3	19.9
9	11.4	17.4	14.9	17.4	13.8	16.4	14.4	14.4	15.9	17.8	19.6	18.7	19.6	22.7	24.6	22.2	4.5	-0.4	10.3	17.8	10.4	4.5	8.3	8.0	14.4
10	9.7	16.2	15.8	10.5	9.4	13.3	13.3	14.4	15.8	18.2	18.1	20.2	22.2	16.3	28.0	11.4	16.8	19.1	15.8	22.7	13.8	16.3	16.4	7.6	15.9
11 D	11.4	48.0	45.6	49.5	-26.4	-19.7	-15.2	18.7	-14.1	-15.2	2.7	-24.0	-73.7	56.7	65.1	39.0	38.4	32.5	25.6	16.3	18.2	19.7	20.7	17.2	14.0
12 D	14.3	14.2	17.8	16.3	19.3	12.9	11.9	12.7	19.1	18.2	5.0	19.7	22.5	19.2	19.1	16.8	25.6	25.0	37.6	16.8	13.8	15.3	14.2	16.2	17.6
13	16.1	16.4	16.3	16.3	15.9	15.3	16.4	14.8	12.4	2.5	12.4	20.1	19.3	22.2	28.4	26.7	17.4	15.2	20.1	18.7	15.2	11.2	9.7	9.9	16.2
14	9.2	9.6	11.8	15.8	9.9	7.8	14.1	15.8	4.5	20.7	21.7	23.2	26.1	26.2	29.5	27.6	19.0	12.9	16.4	17.3	18.2	17.1	16.3	14.3	16.9
15 Q	13.4	13.4	13.4	13.4	13.4	14.3	14.3	14.2	15.1	16.1	14.8	14.3	18.2	18.2	19.7	18.3	20.7	18.7	16.3	14.4	15.2	13.4	13.3	14.3	15.4
16	13.8	13.4	12.9	13.1	14.4	13.2	16.8	12.4	15.2	15.8	16.6	14.7	16.9	17.8	20.7	19.2	23.1	15.3	11.9	13.5	14.0	14.9	15.2	15.2	15.5
17 D	12.4	11.7	10.1	7.6	3.0	11.3	12.4	12.3	16.2	20.3	28.0	30.0	32.9	47.6	35.4	21.2	29.1	14.3	4.7	13.3	13.2	11.1	10.4	13.9	17.6
18 D	14.8	20.0	11.9	12.2	15.4	2.6	9.4	17.2	17.2	8.9	16.8	30.5	34.9	19.3	20.2	19.7	15.8	11.7	12.4	11.9	9.7	11.5	12.3	13.5	15.4
19	15.2	14.8	11.4	13.4	13.4	10.7	7.5	19.7	8.7	18.2	18.3	28.9	20.3	14.6	22.1	26.6	20.7	18.7	15.8	7.4	9.8	11.3	9.7	9.3	15.3
20	11.4	11.3	12.5	11.9	12.9	13.2	13.4	16.3	10.4	12.4	8.9	20.3	22.2	15.3	23.6	31.9	29.5	22.3	13.6	2.7	7.2	0.9	3.4	4.5	13.8
21	7.2	6.7	3.4	17.8	-0.5	4.5	9.1	12.0	2.9	10.1	14.1	18.4	13.0	34.5	25.9	28.4	23.7	21.1	4.5	2.4	4.5	7.7	3.4	8.2	11.8
22	4.3	0.9	10.3	11.5	10.7	14.4	10.9	0.0	10.9	15.3	26.9	12.0	12.0	17.8	14.4	26.2	16.6	19.2	23.2	15.1	10.5	10.5	10.9	8.5	13.0
23	8.9	12.3	8.2	16.3	18.3	16.3	6.5	8.5	12.4	8.0	21.2	4.4	18.2	22.8	21.2	22.1	22.6	19.7	14.8	12.4	13.3	13.8	12.9	12.4	14.5
24 Q	12.3	12.5	12.4	18.2	17.8	14.3	14.2	16.8	13.3	19.7	22.2	25.6	22.5	17.6	20.7	22.3	22.1	22.7	20.7	18.3	16.4	14.6	12.9	12.9	17.6
25 Q	12.4	12.3	12.2	12.9	12.3	15.3	30.5	14.4	13.8	19.2	20.7	19.5	21.2	19.3	18.7	18.2	19.5	19.7	20.1	17.4	13.6	12.8	13.4	13.6	16.8
26 Q	13.2	11.8	12.5	13.4	13.4	15.8	17.8	17.2	15.4	16.3	16.2	17.8	17.6	18.2	18.7	20.2	21.7	20.3	18.2	16.4	15.2	13.3	13.4	12.5	16.1
27	14.1	12.9	12.8	12.9	13.4	13.4	13.4	15.8	16.4	18.2	19.6	17.2	16.2	14.3	18.2	22.7	24.1	19.0	22.7	13.8	11.3	12.0	12.3	12.5	15.8
28	14.1	13.4	13.4	12.4	12.3	13.3	13.5	16.4	15.3	14.3	22.1	20.2	22.2	24.5	26.6	19.7	15.2	15.3	14.4	15.9	15.2	13.3	12.4	11.4	16.1
29																									
30																									
31																									
Mean	12.0	13.6	13.6	15.0	11.7	11.8	12.7	14.5	12.5	15.0	19.0	18.9	17.5	22.9	24.3	22.3	20.1	17.7	16.7	14.7	13.2	11.9	12.0	12.1	15.7

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 6 Meanook

	z = 58,000 γ +																				February 1958					
Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1	837	837	832	829	837	837	837	829	783	794	806	794	704	784	795	806	807	823	833	836	842	839	841	837	817	
2	844	845	843	837	838	851	839	833	811	784	811	633	790	790	795	811	827	831	833	833	834	835	835	817		
3 Q	833	833	833	833	833	833	833	822	818	811	812	820	790	767	805	817	822	827	833	833	833	833	833	834	823	
4	834	833	835	833	829	827	827	829	827	820	798	719	761	805	805	790	783	805	811	805	837	860	861	838	815	
5	849	876	891	909	891	872	885	882	783	805	801	829	735	757	806	779	785	796	811	827	860	902	882	872	837	
6 D	873	882	872	851	866	894	899	877	774	839	806	819	796	752	795	752	773	828	851	852	850	852	866	888	838	
7	872	872	915	915	903	872	807	888	760	776	845	788	795	861	838	818	802	856	839	856	888	888	862	866	849	
8	871	883	888	894	916	937	894	839	828	828	823	819	797	784	797	784	819	845	839	837	845	850	873	866	848	
9	871	883	962	931	899	897	861	859	860	854	843	778	807	818	807	794	744	753	808	861	903	877	877	851		
10	905	895	900	963	893	889	863	861	855	846	820	808	797	762	743	731	759	846	896	900	950	922	904	917	859	
11 D	1021	1335	-185	169	214	265	983	940	1562	1541	1517	1661	1395	1290	1033	846	911	939	904	895	889	885	900	900	950	
12 D	927	915	927	922	897	905	824	731	781	770	874	846	818	867	867	873	863	873	922	947	889	883	878	881	870	
13	886	878	869	863	862	863	867	861	799	721	759	797	721	792	827	792	813	820	862	874	895	895	887	883	837	
14	901	906	896	901	863	884	897	832	679	793	798	840	787	776	814	814	822	879	863	875	875	868	868	846		
15 Q	863	858	861	863	864	864	864	862	858	853	798	809	832	848	858	852	854	858	853	853	852	856	852	852	852	
16	852	852	852	852	852	863	858	858	862	851	841	804	782	733	755	771	798	819	825	834	846	842	847	845	829	
17 D	841	847	847	879	782	754	896	868	793	820	797	820	755	619	767	852	840	839	840	852	867	863	858	858	823	
18 D	886	890	895	900	898	799	783	833	875	837	649	779	777	826	821	815	805	815	837	888	891	897	914	907	842	
19	912	875	885	875	874	842	745	875	831	854	770	767	761	789	859	843	837	847	852	848	857	865	875	886	843	
20	880	889	880	897	924	902	886	954	823	824	750	810	788	746	724	831	842	835	838	838	897	978	966	954	861	
21	914	901	919	1011	1017	869	905	761	707	793	882	874	748	733	874	903	903	845	845	941	912	995	989	890	880	
22	909	1017	1011	936	972	903	912	912	876	1195	719	776	806	792	850	825	852	876	860	865	863	870	881	895	891	
23	907	931	1022	995	925	849	769	789	822	692	756	736	822	853	860	864	843	849	849	860	875	876	860	860	853	
24 Q	854	855	864	881	865	854	854	838	800	795	747	724	795	834	849	849	849	844	849	849	846	844	843	835		
25 Q	843	842	842	843	846	860	865	860	816	789	799	839	846	843	842	839	843	841	842	843	843	843	843	840		
26 Q	844	843	843	843	844	843	843	855	850	839	833	833	837	843	844	845	845	845	854	850	854	847	847	845		
27	844	844	843	843	843	843	843	843	839	823	826	831	833	833	839	841	843	833	843	854	856	857	850	841		
28	844	844	844	855	850	845	845	850	833	763	806	695	649	779	778	812	813	833	850	850	854	855	852	819		
29																										
30																										
31																										
Mean	876	891	846	862	853	840	857	851	839	847	824	823	804	810	823	820	825	840	847	859	868	874	873	869	847	

HORIZONTAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 7 Meanook

 $H = 12,000 \gamma +$ 

March 1958

Hour U. T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1 Q	950	939	943	954	954	954	955	955	954	958	953	947	939	943	954	952	935	911	899	903	906	916	928	939	939
2 Q	939	939	947	952	958	955	954	946	955	939	916	930	962	966	958	954	937	921	908	908	916	927	936	939	940
3	939	949	946	954	952	952	954	947	932	831	715	740	852	971	969	962	938	906	884	848	884	985	953	984	914
4	1002	1008	1197	1080	1139	1110	1062	963	907	798	772	740	696	743	860	946	921	858	884	889	914	947	968	963	932
5 D	947	955	985	1010	1016	1032	994	739	789	728	728	781	922	946	946	932	938	900	931	935	938	954	962	954	915
6	970	1034	1167	1135	1064	914	753	859	932	955	890	488	672	812	868	876	900	915	911	927	961	954	954	954	911
7	931	932	986	1041	942	1010	1001	797	664	817	958	918	754	830	900	950	911	916	907	903	906	900	935	939	906
8	961	986	1056	1034	1032	1032	856	927	645	770	782	805	932	919	931	958	938	923	908	907	908	908	935	944	917
9	979	994	974	969	1008	939	845	963	900	731	707	598	916	958	896	883	924	922	915	913	921	927	928	935	902
10	963	946	958	974	1005	966	970	958	946	892	733	672	872	845	907	922	921	880	845	911	927	911	919	955	908
11	962	962	946	947	956	953	947	946	946	947	945	911	752	758	894	865	793	830	845	874	961	946	961	1076	913
12 D	1082	1135	1070	1072	939	947	756	406	711	874	613	625	590	758	735	861	902	836	848	914	927	962	958	958	853
13 D	974	974	1068	1181	1068	798	876	370	300	471	532	464	447	387	456	519	720	789	880	935	944	936	943	932	748
14	939	938	929	936	935	940	939	939	935	906	914	872	946	937	919	911	923	922	916	924	928	923	932	927	
15	939	946	959	966	1013	1079	997	947	681	758	798	649	680	578	794	856	798	883	906	914	906	930	943	954	870
16 Q	970	994	1063	1095	1010	986	970	962	946	955	946	946	943	946	943	943	931	915	922	930	931	946	927	937	961
17	938	947	939	943	952	978	954	935	782	558	900	794	790	652	778	888	907	888	872	899	954	929	932	938	877
18	954	963	971	994	971	1049	1052	720	939	868	845	911	805	727	833	820	833	856	852	864	974	970	923	932	901
19 D	968	971	1021	1146	1064	1052	908	979	966	939	892	605	464	582	558	727	700	891	923	955	932	950	1024	1095	888
20 D	1064	994	1060	1056	978	968	1008	963	668	741	680	897	932	908	809	906	899	919	906	892	953	947	977	917	
21	1000	1036	989	1040	931	960	980	915	777	824	740	962	957	957	844	808	832	851	883	887	906	936	1007	1021	918
22	1189	1235	1172	1177	1024	934	914	918	910	915	926	929	930	887	874	926	931	918	907	894	898	945	990	1047	975
23	993	982	975	1013	985	993	993	891	911	883	794	834	875	818	821	899	898	896	906	961	981	953	969	922	
24	970	924	947	1015	1059	1008	1029	989	856	720	696	714	900	958	903	857	834	900	896	907	935	1005	997	1008	918
25	1046	1103	1068	990	961	982	969	719	837	874	845	719	739	720	689	890	739	950	971	944	943	935	928	946	896
26	982	1010	974	974	978	986	982	986	931	834	988	409	772	908	813	743	790	913	907	903	915	938	943	982	898
27	1041	997	974	954	963	955	958	970	899	743	817	943	962	943	958	950	919	927	899	909	916	950	952	955	936
28 Q	939	978	979	979	966	958	954	958	908	911	950	960	970	961	958	955	915	899	900	927	924	935	939	911	943
29 Q	997	1005	962	955	976	969	939	960	958	938	950	962	963	963	962	961	924	924	927	927	932	939	939	927	952
30	939	963	961	963	963	970	966	962	629	774	966	814	723	558	535	783	798	880	900	915	902	958	1015	962	867
31	994	961	974	1001	990	1134	1033	1029	1002	975	978	955	932	943	939	895	903	906	907	921	932	839	976	999	963
Mean	983	990	1005	1016	992	982	951	888	843	834	834	791	823	832	846	881	875	895	899	909	925	940	953	967	911

## DECLINATION

Mean values for periods of sixty minutes, Universal Time

Table 8 Meanook

 $D = 24^\circ E + \dots'$ 

March 1958

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1 Q	9.9	12.5	13.6	14.2	14.1	14.7	14.7	15.3	16.3	16.3	16.4	17.3	18.2	20.2	25.0	25.2	24.1	24.6	18.2	15.8	13.8	12.3	12.3	11.8	16.5
2 Q	12.5	13.4	14.2	13.8	14.0	13.6	25.6	5.8	17.6	19.1	18.7	21.7	20.2	19.3	20.7	21.3	22.2	20.5	16.4	14.2	14.2	15.2	14.8	14.4	16.8
3	13.6	13.2	13.2	12.9	13.5	11.5	15.7	14.8	18.2	20.1	22.1	17.3	29.9	22.1	22.7	26.4	26.0	30.1	19.1	19.2	13.4	13.4	10.7	9.7	17.9
4	5.5	2.1	9.4	10.9	9.9	11.4	7.4	20.2	16.3	15.3	14.3	28.2	17.8	9.4	24.6	27.9	25.9	15.8	8.0	8.4	11.3	13.8	11.4	8.1	13.9
5 D	6.6	8.4	9.9	11.9	15.4	16.8	0.6	-13.1	8.0	27.0	25.0	28.5	26.1	25.6	24.2	28.5	24.0	20.2	13.6	15.9	13.8	12.3	11.7	11.4	15.5
6	12.4	11.5	25.2	8.6	17.6	20.1	11.6	15.3	16.2	16.3	18.8	14.3	15.2	16.8	24.0	22.1	20.3	18.2	16.3	13.4	14.2	16.8	13.5	10.9	16.2
7	12.4	14.4	10.7	15.3	5.0	19.7	16.2	2.5	3.1	14.8	18.2	21.3	17.8	11.4	23.2	30.9	30.0	20.1	15.2	17.6	14.2	8.4	9.6	13.7	15.2
8	10.4	8.9	14.8	16.5	13.3	15.8	13.4	17.3	14.4	13.3	17.2	12.9	21.7	19.7	24.2	28.6	27.2	24.0	22.2	18.7	14.3	12.7	11.6	17.2	
9	8.2	8.0	10.5	13.3	15.3	6.0	19.3	22.2	18.8	12.5	26.1	20.7	17.8	20.8	26.1	18.2	22.3	19.1	18.7	19.7	16.8	16.3	14.4	13.4	16.9
10	10.4	10.6	10.9	8.5	11.3	12.5	13.8	14.4	14.3	24.0	37.7	34.0	28.0	19.7	17.4	22.2	27.1	23.2	7.3	7.2	10.5	8.9	7.4	6.0	16.1
11	9.2	11.3	13.0	13.4	14.3	14.4	14.8	15.3	16.2	16.2	17.3	14.3	15.2	25.0	27.6	22.2	12.5	8.6	12.3	12.4	13.9	10.7	6.5	14.6	
12 D	6.0	15.3	1.1	3.5	2.5	-10.7	-8.1	-16.0	13.3	14.3	31.1	21.7	45.7	32.1	16.2	22.1	23.1	15.3	9.9	13.4	11.4	13.5	12.4	11.4	12.5
13 D	14.2	15.8	8.4	7.4	9.9	11.9	12.5	-0.3	53.4	30.0	64.1	44.9	19.5	19.5	26.8	23.2	45.0	36.6	19.7	8.0	10.4	12.4	13.4	14.8	21.7
14	14.8	12.9	13.2	15.3	15.3	14.6	15.2	15.8	16.2	16.8	15.3	16.3	20.7	22.7	30.5	20.7	11.5	19.3	17.2	15.8	14.3	12.9	12.5	11.4	16.3
15	10.9	10.3	9.3	9.3	10.7	11.3	14.2	12.7	23.3	23.2	17.8	20.7	24.0	27.4	26.6	33.4	19.7	25.1	6.4	14.2	14.3	13.4	12.4	13.4	16.8
16 Q	11.4	11.4	10.5	8.5	8.5	11.9	11.9	11.4	15.4	16.3	14.4	15.8	17.2	19.1	22.7	25.2	28.0	27.6	18.7	11.4	12.5	13.4	9.9	9.4	15.1
17	10.4	11.9	11.9	13.3	13.4	12.9	29.0	9.9	2.6	38.9	18.2	29.5	19.2	29.0	30.5	30.0	22.7	23.2	15.2	13.3	11.4	12.5	13.4	14.8	18.2
18	15.3	12.5	10.9	9.4	10.5	6.6	2.6	16.3	18.3	18.3	21.1	21.7	23.2	18.2	18.7	32.9	10.4	18.2	21.2	17.8	11.9	7.0	4.5	9.4	14.9
19 D	6.0	7.5	6.0	11.4	9.4	4.6	9.9	13.4	14.8	14.8	16.8	12.9	17.3	25.6	39.8	12.8	6.0	14.3	12.9	12.9	20.3	13.4	9.9	14.6	13.6
20 D	5.6	2.1	12.3	11.8	11.7	15.3	17.3	11.5	2.6	12.4	13.4	16.4	21.2	25.1	22.7	26.2	30.5	28.0	21.2	17.4	16.3	16.3	6.5	2.5	15.3
21	5.5	6.4	10.3	14.4	7.6	12.3	13.5	10.3	8.0	9.4	18.2	21.2	20.2	19.3	25.6	24.0	19.1	24.0	14.3	9.9	8.0	7.5	4.5	4.4	13.2
22	8.0	17.2	21.7	17.3	11.4	14.3	15.3	15.3	14.4	15.8	15.3	15.3	16.8	16.8	19.7	22.7	27.6	25.9	24.0	17.3	10.4	14.2	13.8	11.4	16.8
23	7.6	8.0	6.5	9.4	10.9	11.5	8.4	8.4	9.9	14.3	13.4	14.3	16.4	12.4	15.3	27.0	26.6	20.2	14.8	17.3	15.3	12.9	9.4	8.0	13.3
24	22.7	22.2	23.2	22.2	18.7	16.3	11.9	17.8	21.7	21.7	24.1	27.6	28.5	21.2	21.2	17.8	28.0	31.0	18.2	17.3	17.3	18.3	14.2	10.4	20.6
25	9.9	15.3	6.5	10.4	13.8	15.3	15.8	2.6	15.8	17.3	19.1	21.2	17.3	7.6	20.1	36.0	25.1	13.8	19.7	16.3	11.3	8.4	8.4	10.4	14.9
26	12.3	13.3	14.3	10.4	10.4	11.3	10.4	8.5	11.4	14.3	17.2	24.6	25.0	29.5	34.0	27.2	19.7	17.4	26.1	20.3	10.9	12.4	11.3	7.5	16.6
27	10.9	13.4	11.5	13.8	12.3	12.7	12.4	15.3	13.4	15.3	21.2	19.2	19.3	19.7	24.1	27.1	29.0	26.1	27.2	22.3	12.9	12.9	9.3	11.2	17.2
28 Q	10.4	10.4	11.4	17.3	12.9	12.4	13.4	13.4	22.2	27.1	21.1	18.2	17.3	18.2	20.7	21.3	24.6	17.2	16.8	13.4	13.8	13.4	12.9	8.9	16.2
29 Q	10.4	12.6	11.5	12.5	11.9	12.9	8.9	15.3	14.8	15.2	15.3	16.3	16.8	18.3	21.1	23.1	24.1	22.1	19.7	19.1	14.3	12.9	10.4	9.4	15.4
30	9.4	10.5	10.9	12.4	12.4	12.9	13.4	13.4	48.6	41.7	20.2	24.1	18.2	33.4	50.2	28.8	34.0	13.6	10.4	14.4	8.4	7.5	12.5	11.4	19.7
31	11.4	14.7	11.9	4.2	8.4	7.5	13.4	9.4	13.4	18.4	14.3	24.0	23.2	23.2	24.1	30.0	29.0	19.2	13.3	10.9	7.5	7.5	7.0	15.6	
Mean	10.5	11.5	11.9	12.0	11.8	12.1	12.7	10.8	16.5	19.0	20.7	21.3	21.1	20.6	24.6	25.4	24.4	21.9	16.7	15.2	13.2	12.5	10.9	10.3	16.2

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 9 Meanook

Z = 58,000 γ +

March 1958

Hour U. T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1 Q	861	861	850	843	840	840	844	844	844	843	839	833	812	802	824	833	833	841	844	848	854	855	862	869	842
2 Q	861	844	843	837	839	855	854	811	838	817	786	775	833	843	843	843	843	843	844	844	844	850	850	854	837
3	844	843	838	837	839	844	843	835	800	694	704	705	785	843	843	840	824	823	839	835	865	909	887	909	826
4	899	888	868	933	909	791	792	818	824	807	736	855	867	727	748	792	797	824	845	851	867	878	877	868	836
5 D	889	888	900	911	927	921	872	731	829	975	802	814	852	878	868	855	851	844	856	857	880	888	900	901	870
6	888	927	927	909	948	818	641	726	836	867	825	747	695	760	802	840	866	857	855	879	900	911	890	889	842
7	878	872	889	911	803	912	889	804	785	781	845	825	765	760	792	835	835	856	863	878	880	880	878	845	
8	899	938	895	868	933	806	802	852	597	771	743	726	819	841	863	869	858	858	856	859	863	877	883	879	840
9	899	938	902	879	891	830	814	867	841	776	684	802	835	846	819	814	830	841	858	863	873	873	863	863	846
10	868	878	879	889	901	873	878	868	841	769	706	673	769	776	814	814	825	825	841	857	873	863	858	873	834
11	900	892	859	848	857	847	847	847	847	836	814	692	707	772	803	750	762	816	848	890	892	913	935	834	
12 D	944	781	632	619	555	758	755	766	869	917	831	781	766	712	815	869	859	858	881	900	911	900	894	813	
13 D	902	896	945	912	859	750	803	696	1064	864	879	966	810	788	944	772	782	869	891	869	869	874	864		
14	890	880	879	868	869	869	869	858	858	847	830	820	774	826	826	847	820	820	831	836	840	847	851	853	846
15	849	852	858	865	880	847	858	827	664	708	751	762	751	740	804	773	762	832	848	857	870	880	882	884	817
16 Q	893	919	946	919.	924	903	892	870	854	865	865	859	859	860	870	865	859	848	847	854	871	871	882	877	
17	886	886	869	859	854	880	848	848	848	675	805	816	805	767	718	763	837	844	854	903	903	875	865	865	836
18	864	875	881	903	892	903	794	741	849	865	912	837	827	783	771	783	804	817	847	871	946	924	882	865	852
19 D	892	909	926	855	947	920	714	838	872	866	838	774	763	622	600	699	736	784	840	855	894	931	946	957	832
20 D	909	928	925	914	925	915	894	852	790	809	742	753	801	806	752	817	828	849	859	859	872	936	931	914	858
21	914	925	925	925	817	882	904	806	654	743	720	829	848	838	795	794	795	828	849	870	870	872	924	935	844
22	968	849	860	893	913	907	871	870	860	850	850	848	850	844	838	861	871	872	871	900	866	882	904	930	876
23	914	905	915	909	927	937	932	895	830	823	827	785	785	764	732	795	830	839	849	872	905	915	905	899	862
24	899	931	931	903	899	888	914	839	753	720	791	823	807	845	829	807	814	986	883	882	916	948	942	947	871
25	947	948	969	943	906	921	905	906	894	851	807	764	715	666	591	802	770	830	849	851	850	856	867	844	
26	883	915	915	884	882	894	872	867	807	764	747	753	737	775	758	699	710	769	829	850	862	894	905	905	828
27	948	894	883	872	872	871	850	807	839	813	845	861	856	865	861	851	840	845	841	856	872	895	883	862	
28 Q	862	861	895	906	873	862	840	850	792	748	803	830	846	851	851	850	846	840	842	846	846	857	878	862	847
29 Q	906	916	885	885	885	829	814	840	842	818	819	831	840	846	840	840	840	851	846	846	840	851	857	846	851
30	846	851	846	851	850	850	852	840	678	742	829	781	689	716	678	689	786	840	862	874	895	906	938	885	816
31	894	884	884	916	895	900	895	906	884	868	878	846	849	873	868	850	850	857	852	862	878	874	885	911	877
Mean	893	889	885	880	875	865	846	835	806	817	801	800	802	793	792	818	818	838	851	862	875	885	889	890	846

HORIZONTAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 10 Meanook

 $H = 12,000 \gamma +$ 

April 1958

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	1033	1007	1057	1035	1065	1040	958	914	930	917	917	916	932	915	881	872	908	927	903	921	970	966	985	994	958
2 D	1013	955	970	994	1131	997	986	688	892	676	680	852	931	977	967	939	950	931	915	916	938	939	950	911	921
3	1025	1004	1033	1039	1087	1080	938	979	939	916	927	856	899	939	950	938	938	923	911	923	950	964	978	954	962
4 D	949	970	985	958	978	1005	970	955	840	777	836	903	848	715	750	819	848	823	805	899	911	969	1135	1158	909
5	1111	1131	1231	1236	1095	1052	711	754	872	758	590	573								937	947	954	1005	1008	
6	1055	1118	1009	971	995	1058	1035	975	951	947	745	944	965	964	933	853	845	869	869	904	908	920	986	1130	956
7	1042	971	994	1079	1020	1041	1007	1021	883	876	721	870	915	885	901	916	911	919	933	948	915	923	964	975	943
8	923	954	1010	986	957	947	950	955	947	926	944	947	946	947	932	912	897	908	916	921	944	980	979	963	945
9	971	955	1000	1002	1015	991	963	963	959	955	955	963	956	948	944	940	920	900	900	921	939	962	935	914	953
10 Q	924	919	932	940	948	955	959	963	970	971	970	969	964	964	959	951	940	928	933	924	932	944	939	936	947
11 Q	967	962	971	971	977	971	975	975	980	967	971	967	965	966	959	957	955	947	944	936	940	947	933	963	961
12 Q	959	963	963	967	965	971	978	979	980	979	982	983	980	987	987	970	955	955	962	971	962	972	957	954	970
13 Q	955	962	967	964	967	972	978	977	975	979	980	983	980	973	968	962	951	948	940	944	948	954	964	970	965
14	971	961	964	964	979	987	987	973	984	978	871	915	956	940	909	947	943	943	915	893	937	948	955	1042	953
15	1105	1027	1069	1198	955	979	964	650	697	829	956	928	814	885	928	936	932	920	908	914	920	979	991	1058	939
16 D	1128	1061	1108	1038	1013	1073	937	689	963	818	627	485	475	787	883	966	939	884	922	940	1000	998	991	1140	911
17 D	1210	1351	1393	1323	1166	1057	963	790	756	815	830	719	810	796	865	627	853	862	891	1008	993	1029	1154	1154	976
18 D	1099	1099.	1327	1329	1038	974	801	749	693	690	557	456	534	647	875	896	921.	903	942	967	1004	1008	1039	1093.	902
19	1005	1053	969	974	993	969	915	937	923	540	763	890	920	911	880	867	881	928	922	939	983	998	1030	1050.	927
20	961	953	973	988	991	1009	795	810	929	962	970	962	900	849	875	920	910	891	911	938	961	1024	951	959	933
21	970	1019	993	993	991.	997	1018	956	922	896	947	947.	955	960	947.	976	891.	914	911	923	941	979	1087.	1048	966
22 Q	944	940	945	962	980	980	969	962	929	779	856	940	975	975.	964	959	936	923	918	926	940	942	944	958	939
23	966	967	959	959	959	963	969	970	969	971.	975	951	906.	911	923	905	870	886	902	909	925	955	986	1027	945
24	1038	1017	1041	1173	1162	1120	1017	859	919	908	893	863	862	893.	915	917.	881	893	917	927	930	948	944	963.	958
25	982	998	1051	1100	1065	1010	984	976	955	922	869	931	948	963	974	971	955	940	940	936	935	933	936	943.	967
26	955	960	963	967	969	969	974	975	976	973	971	972	975.	979	978	956	925	947	929.	971	947	947	939	953	961
27	951	947	855	963	964	967	972	990	972	979	977	971	956	959.	954	937	923	922	926	930	991	1020	995	963	
28	1025	1025	1100	1181	1079	1113	1069	1006	834	767	835	855	741	717	802	804	853	912	880	923	967	1008	1102	1134	947
29	1102	1085	1240	1213	1094	802	715	887	861	826	864	606.	497	806	914	937	840	849	919.	947	980	1006	1060	998	918
30	980	1078.	1096	1006	1022	928	777	904	767	853	859	865	779	826.	923	903	849.	851.	914	916	927	1031	1163	1096	930
31																									
Mean	1007	1010	1036	1044	1018	997	949	911	907	876	871	876	872	896	919	913	908	909	914	932	947	971	1000	1015	946

## DECLINATION

Mean values for periods of sixty minutes, Universal Time

Table 11 Meanook

D = 24° E + ...'

April 1958

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1	6.5	7.5	8.4	4.5	7.5	5.5	10.4	11.5	17.3	15.8	15.3	14.4	15.4	19.7	19.2	15.3	16.2	13.4	16.3	13.4	9.4	3.3	3.6	3.6	11.4	
2 D	2.6	2.6	4.5	6.5	2.7	6.5	-3.3	10.4	13.4	5.5	43.6	31.1	24.6	22.4	22.0	28.9	25.0	21.3	17.8	11.9	10.4	9.4	8.0	7.5	14.0	
3	4.5	7.5	10.9	7.5	7.5	14.3	9.3	16.3	15.2	17.3	17.4	14.2	15.8	19.3	21.2	22.3	20.2	18.2	17.3	16.4	14.2	9.4	12.4	10.4	14.1	
4 D	10.5	12.5	17.3	13.4	11.2	12.3	12.3	10.9	15.2	13.3	21.2	20.5	26.1	25.2	26.0	23.2	30.0	31.0	32.0	17.2	7.0	0.6	3.6	7.4	9.4	16.6
5	6.4	10.3	13.4	-7.3	7.6	12.4	7.6	7.0	19.2	24.1	2.6	-10.1								15.3	13.8	11.4	9.4	8.4		
6	5.0	9.4	6.5	10.4	10.4	9.5	10.4	9.4	8.4	11.9	27.0	17.3	21.1	25.0	31.0	33.8	23.2	18.2	17.8	11.4	10.4	7.9	7.5	10.4	14.7	
7	4.5	8.4	7.5	8.0	1.6	9.4	18.2	11.3	11.5	18.2	23.2	17.4	20.3	21.3	27.2	27.0	25.6	25.0	21.2	17.7	11.2	9.4	10.3	10.6	15.2	
8	11.9	10.2	9.4	11.4	12.3	13.3	13.8	13.8	14.3	20.3	19.2	17.4	20.3	23.1	26.1	28.5	26.0	21.2	17.3	18.2	12.4	9.4	7.5	5.5	16.0	
9	5.5	8.4	3.6	9.4	9.4	10.4	12.9	13.8	15.2	16.3	18.2	18.2	19.2	21.2	24.0	25.1	25.1	23.2	16.0	11.4	6.2	4.5	2.1	0.6	13.3	
10 Q	3.6	9.4	12.4	13.4	13.4	13.4	13.4	14.6	15.3	17.8	16.2	16.3	18.2	21.2	23.7	25.1	23.6	22.1	16.3	12.9	10.4	8.4	6.6	7.5	14.8	
11 Q	8.4	9.5	11.4	10.6	11.4	10.4	11.4	13.4	13.9	16.4	17.3	17.3	18.2	21.1	23.3	24.2	23.6	20.7	18.2	16.3	13.0	8.9	10.3	10.4	15.0	
12 Q	11.4	11.4	12.4	12.4	12.4	12.3	12.3	13.2	15.2	16.3	16.8	17.3	18.3	21.2	24.6	25.6	24.2	21.3	17.2	14.3	9.3	10.3	9.9	11.9	15.5	
13 Q	12.0	11.5	12.4	11.3	10.9	12.3	13.4	15.3	19.2	17.8	16.4	16.4	18.6	20.2	22.2	23.0	23.2	21.2	16.3	13.4	8.4	9.2	8.4	9.4	15.1	
14	10.9	11.4	11.4	11.5	11.4	13.4	17.3	13.3	14.3	15.3	27.1	36.5	24.2	24.6	30.0	31.0	23.2	19.1	24.1	22.7	7.5	4.5	1.6	-2.8	16.8	
15	1.1	7.5	1.6	-5.3	9.4	13.4	7.4	7.4	11.9	20.2	17.4	16.3	26.1	28.0	27.6	20.7	20.8	15.3	10.3	6.0	4.5	2.6	1.6	12.0		
16 D	6.5	6.5	3.6	5.5	10.4	1.7	18.2	6.0	12.4	20.2	13.4	52.6	37.8	36.8	24.7	28.6	26.1	20.3	10.0	9.7	9.4	5.6	3.6	4.5	15.6	
17 D	5.5	15.3	13.4	3.0	7.5	-0.3	5.0	16.1	27.7	18.2	20.2	13.4	18.2	24.1	26.2	29.5	7.2	12.3	12.2	8.3	6.0	6.1	6.1	6.4	12.8	
18 D	4.3	6.2	6.4	2.1	5.0	8.7	11.2	11.5	7.2	11.0	8.2	25.4	12.0	16.8	17.6	17.6	15.0	13.4	17.3	18.0	13.4	12.3	7.4	11.7	11.7	
19	6.0	9.2	11.9	7.8	12.2	12.2	12.4	10.3	12.4	-15.6	2.6	20.2	21.1	22.2	27.1	25.0	23.6	22.5	17.5	19.7	16.1	9.9	5.5	8.3	13.3	
20	8.0	7.5	9.9	19.9	23.6	10.4	-0.9	-5.1	14.2	14.1	14.4	14.1	11.7	17.8	21.9	25.7	24.0	23.4	18.8	19.6	17.1	17.1	17.2	16.8	15.0	
21	17.7	17.6	17.7	19.2	19.2	18.2	20.9	19.5	19.5	19.8	18.8	21.2	22.4	23.1	24.4	25.0	24.1	23.8	14.4	6.5	3.8	5.2	5.0	5.0	17.2	
22 Q	8.1	10.4	10.6	11.9	16.0	20.1	15.0	13.3	13.8	8.9	20.4	19.2	19.5	22.3	24.8	24.6	23.2	19.2	13.8	6.8	5.5	4.0	4.5	6.5	14.3	
23	8.7	9.9	11.3	12.5	12.5	13.3	13.3	13.9	14.4	15.2	15.3	12.4	21.3	27.7	30.1	27.0	25.0	22.2	6.0	5.7	2.9	2.1	4.1	4.6	13.8	
24	6.4	7.0	2.7	2.1	12.2	5.5	3.6	13.7	22.1	17.1	15.8	17.2	17.3	23.6	24.1	23.0	20.2	10.4	9.3	6.0	1.7	2.5	-0.5	0.6	11.0	
25	1.6	3.6	5.5	9.0	9.9	13.3	14.3	13.4	14.8	17.2	16.8	18.7	21.3	25.0	24.1	25.2	25.1	21.2	16.3	12.4	8.4	7.5	7.5	7.5	13.8	
26	7.5	9.3	10.4	11.5	12.3	12.5	13.4	14.4	14.4	15.2	14.4	16.3	18.6	23.2	24.1	25.4	25.2	20.2	14.3	12.4	4.6	6.0	5.6	8.4	14.2	
27	9.3	12.4	13.3	12.4	12.5	12.4	19.2	15.2	16.2	17.2	16.4	16.5	17.3	19.1	24.1	29.1	29.0	29.5	20.7	17.8	4.2	5.5	4.5	2.9	15.7	
28	0.0	4.7	6.0	10.1	12.2	13.2	9.3	6.0	4.5	15.1	18.2	19.7	24.8	43.4	37.8	36.4	24.2	21.2	14.5	6.0	7.2	10.9	11.2	13.4	15.4	
29	6.3	8.4	-0.9	9.4	6.0	-11.2	-0.2	13.1	17.8	22.7	23.6	39.8	44.4	25.6	21.3	21.5	24.1	17.8	8.5	8.7	12.3	10.1	7.3	6.5	14.8	
30	2.6	0.5	17.8	12.3	10.9	10.4	7.8	13.8	4.0	12.4	15.6	18.0	17.8	24.3	27.8	31.5	28.7	19.9	15.8	13.3	6.0	13.2	13.2	7.5	14.4	
31																										
Mean	6.8	8.8	9.3	9.4	10.9	10.2	11.0	12.4	14.3	15.1	18.3	20.8	20.2	23.7	25.0	26.3	23.3	20.5	15.7	12.7	8.6	7.6	6.9	7.3	14.3	

VERTICAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 12 Meanook

 $Z = 58,000 \gamma +$ 

April 1958

Hour U. T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1	928	907	934	934	934	884	825	820	831	841	820	820	825	819	820	798	841	863	874	897	961	934	916	928	873	
2 D	908	896	885	907	908	901	875	691	858	939	787	777	798	862	863	852	874	875	864	862	874	889	907	908	865	
3	928	901	939	940	955	855	787	852	851	820	825	798	809	853	873	873	863	873	874	874	890	908	918	896	873	
4 D	884	896	896	896	885	869	896	820	841	789	733	778	775	787	760	722	768	808	831	885	889	916	949	950	843	
5	950	940	836	897	928	841	701	663	739	766	786	853									907	929	929	928	928	
6	951	950	929	914	929	909	887	870	767	820	777	821	854	864	853	823	799	810	832	843	865	875	897	951	866	
7	900	903	919	918	820	887	853	831	832	864	767	820	831	829	829	832	827	851	880	901	887	887	903	913	862	
8	886	875	908	897	875	864	853	853	821	842	842	853	854	843	833	833	832	833	842	842	864	908	913	896	862	
9	886	887	906	927	897	897	864	863	859	853	842	840	842	842	837	832	832	837	842	848	863	880	887	879	864	
10 Q	864	853	842	842	842	842	842	844	842	833	842	842	842	844	844	852	853	853	863	875	875	863	850			
11 Q	854	854	865	865	854	846	843	843	843	833	833	843	843	843	843	854	854	845	843	843	843	836	843	843	846	
12 Q	843	843	843	843	843	843	843	843	845	888	822	833	843	843	845	843	843	843	838	833	854	855	860	854	844	
13 Q	843	841	843	843	840	845	843	843	843	849	838	833	833	833	833	838	843	843	843	838	843	843	853	854	842	
14	854	845	838	843	853	876	855	847	843	821	704	714	800	791	747	789	795	811	827	834	865	887	887	907	826	
15	936	909	941	789	864	866	810	573	638	751	823	833	752	768	811	827	843	854	876	887	909	903	919	831		
16 D	920	920	942	942	919	932	834	682	846	801	704	664	617	833	855	855	861	839	855	888	930	910	919	964	851	
17 D	942	920	930	877	705	742	877	877	660	780	834	833	822	769	785	746	818	835	964	1029	999	948	1038	984	863	
18 D	978	1020	954	646	575	775	692	835	751	889	697	889	930	629	745	799	910	925	904	926	950	953	952	911	843	
19	887	919	893	889	870	858	734	834	826	682	683	785	834	832	828	797	807	840	858	887	937	943	934	930	845	
20	887	877	893	889	870	877	783	766	818	847	855	842	799	785	789	821	838	850	856	886	910	952	976	856	855	
21	854	848	863	895	890	863	878	797	657	647	773	768	817	833	824	791	791	791	845	851	859	883	944	918	828	
22 Q	875	854	853	855	869	873	851	845	827	756	721	810	851	860	855	853	851	851	855	856	857	862	856	851	844	
23	851	851	849	845	845	845	845	845	846	847	847	825	770	782	791	791	791	787	797	819	845	877	927	948	836	
24	931	909	932	990	878	845	831	758	784	823	819	779	737	775	796	808	819	828	845	855	864	883	889	890	844	
25	883	888	922	952	948	899	877	871	845	813	770	789	813	829	835	845	845	836	836	835	838	840	845	854		
26	845	845	840	840	840	840	843	843	843	843	845	845	840	836	835	829	823	829	845	862	878	890	856	845		
27	848	848	848	848	846	846	853	809	811	831	846	846	836	830	826	815	824	832	837	865	919	926	901	847		
28	922	939	969	876	928	904	884	865	760	774	846	846	771	722	727	765	821	872	898	915	939	924	960	953	866	
29	976	949	962	945	820	863	858	891	842	800	765	668	803	825	839	843	826	841	862	858	897	930	942	904	863	
30	895	938	904	882	920	800	706	800	804	763	806	804	774	782	817	824	830	846	879	897	901	923	952	917	848	
31																										
Mean	895	893	898	880	862	860	835	818	809	812	796	807	811	813	819	819	832	841	856	870	886	897	912	903	851	

HORIZONTAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 13 Meanook

H = 12,000  $\gamma$  +

May 1958

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1	1065	1069	1035	1021	1021	969	951	937	817	840	864	904	931	947	919	925	885	908	914	959	954	988	1045	1028	954	
2	972	1008	1022	1044	1027	917	921	843	808	890	950	958	958	954	945	926	911	897	898	913	958	968	968	968	943	
3	954	968	954	961	958	957	958	960	962	968	958	946	971	981	974	961	942	921	915	921	943	919	951	975	953	
4	996	951	955	985	992	998	981	867	857	942	948	946	953	973	975	963	961	951	935	937	951	965	967	1005	956	
5	970	992	1012	998	955	962	969	951	969	972	973	974	969	959	954	921	911	905	906	925	977	1056	1034	966		
6	1022	1021	1034	987	987	1006	984	969	959	951	959	953	951	954	941	937	920	908	912	920	940	956	971	969	963	
7 Q	965	955	961	975	973	980	978	977	975	980	983	993	983	981	973	969	950	929	925	927	942	961	966	956	965	
8	965	978	984	977	983	980	977	978	944	940	988	985	987	992	967	958	953	947	940	937	957	996	982	941	968	
9	967	958	962	967	975	987	992	1016	974	965	975	984	986	985	984	981	961	939	925	937	952	964	966	983	970	
10	1017	1002	945	967	975	975	933	846	924	854	661	776	827	970	983	927	951	922	924	925	969	961	1037.	962	926	
11	964	964	963	963	963	969	978	937	755	614	783	920	970	987	973	965	966	932	936	940	947	955	953	963	928	
12	963	964	962	963	970	972	979	987	956	967	973	963	873	937	971	967	940.	912	908.	939	944	972	1053	1119	965	
13 D	1108	931	925	947	967	1001	1010	979	940	914	740	673	669	701	870	822	885	868.	884	891	956	979	1140	1143	914	
14 D	1457	1362	889	853	1093	1049	799	661	846	837	676	834	935	690	732	853	868	919	921	939	1006	1018	963	1069	928	
15	1206	1103	1116	1034	1022	701	908	893	955	955	964	929	854	744	815	907	943	912	951	988	970	988	1011.	1038	954	
16	1105	1112	1048	1050	974	963	963	949	879	885	941	960	964	922	874	847	840	908	931.	940	960	934	956	976	953	
17	956	973	1023	1026	988	971	976	976	954	899	926	929	915	792	785	862	896	887	886	909	917.	979	1003	1108	939	
18	1061	1171	1121	1073	1003	963	987	886	839	839	822	704	928	967	965	939	931	912	913	924	928	944	968	989	1022	957
19	980	959	970	983	994	962	1011	889	818	909	953	951	962	955	979	973.	955	933	917	924	936	964	936	967	949	
20 Q	1011	1003	984	969	960	960	964	968	964	956	952	968	965	969	964	949	934	930	911.	921	949	960	986	1021	963	
21	1032	1036	1018	1024	999	964	956	960	974	977.	973	973.	984	989	980	964	957	948	938	937	937	949	957.	966	975	
22 Q	974	985	988	980	976	973	976	976	979	980	980	980	980	980	980	968	963	949	953	945	943	949	957	976	996	971
23 Q	1009	991	986	988	984	978.	978	978	982	984	978	978	978	975	986	966	944	930	929.	942	952	959	953	968	971	
24 Q	977	980	981	979	976	984	983	984	989	988	987	982	980	996	1001	989	968	952	954	958.	954	958	966	972	977	
25	983	988	978	979	984	984	988	984	987	988	996	999	1007	1013	1006	989	973.	933	916.	936	945	1003	1032	1043	985	
26 D	1012	963	1003	980	1078	1026	1034	996	963	788	772	645	478	647	458	767	843	968	1012	1009	996	1006	1003	1028	895	
27	1032	1015	988	957	965	1003	957	956	968.	956	934	623	737	963	959	958	921	903	900	894	973	1010	1039	1199	950	
28	1195	1097	1117	1082	1015	948	901.	858	902	894	913	937	870	894	922	898	913	920	908	930	974	962	980	1007.	960	
29 D	1144	1285	1127	1159	1016	1064	996	941	738	556	720	623	451	498	723	932	932.	965	926	968	968	979	976	988	903	
30	992	988	1043	996	1065	1028	1012	1021	933	880	945	937	921	887	874	906	946	953	957	968	971	980	1031	1062	971	
31 D	1026	1040	1054	1125	1005	1011	1050	1004	962	930	833	749	764	813	969	980	973	821	709	690	1051	1297	1440	1484	991	
Mean	1035	1026	1005	1000	995	974	969	940	918	902	900	900	895	904	915	932	929	922	918	928	958	982	1008	1031	984	

**DECLINATION**  
Mean values for periods of sixty minutes, Universal Time

Table 14 Meanook

May 1958

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	4.7	6.0	4.2	11.2	12.1	15.8	11.9	10.4	6.0	12.1	13.2	15.6	21.7	25.2	27.0	26.0	21.0	17.0	17.5	15.3	10.1	9.5	10.9	9.9	14.4
2	7.6	7.2	8.9	7.6	7.5	10.3	18.0	9.6	2.7	10.1	10.7	15.0	18.7	20.0	21.3	22.0	19.3	12.9	9.5	5.5	4.7	2.5	4.5	6.0	10.9
3	9.3	9.0	10.9	14.9	19.9	12.9	12.4	12.4	12.4	12.0	10.9	16.3	22.5	25.1	25.6	25.0	24.9	23.2	14.1	10.4	9.2	3.3	3.6	3.7	14.3
4	7.2	8.4	10.5	11.1	10.7	10.9	11.7	4.0	22.2	18.7	16.4	17.8	20.8	23.6	25.3	26.7	26.1	23.8	18.0	13.2	10.9	9.0	5.0	6.5	14.9
5	8.1	6.5	8.0	13.2	16.0	15.1	15.3	20.0	19.7	16.3	16.2	16.9	20.0	22.9	26.9	27.6	30.3	29.0	17.5	7.8	3.5	7.3	7.3	6.0	15.7
6	7.3	6.5	8.6	12.0	10.2	9.5	10.1	9.3	12.7	11.9	13.1	14.4	17.9	21.7	23.4	22.3	23.8	18.7	10.9	6.0	3.6	1.1	2.7	4.0	11.8
7 Q	5.5	8.6	9.9	10.4	11.2	10.9	10.9	11.5	10.9	13.8	15.1	18.2	21.0	20.9	23.6	21.0	16.6	11.6	7.8	6.0	2.9	4.0	7.4	12.6	
8	7.3	8.0	9.8	11.6	11.9	10.3	12.4	13.3	17.8	18.9	18.2	18.0	23.2	24.9	28.0	26.1	25.6	18.7	12.9	9.3	7.4	8.0	7.3	6.5	14.8
9	7.2	8.5	9.5	9.7	10.1	11.5	12.5	14.1	15.8	16.0	15.9	15.8	19.0	24.0	24.2	23.8	21.1	18.5	14.3	6.5	2.7	2.6	3.6	7.5	13.2
10	11.4	11.9	14.7	13.8	15.2	21.2	16.3	20.3	23.0	10.3	11.9	29.9	32.5	23.2	25.4	30.0	26.1	25.6	19.4	10.9	5.5	4.5	7.5	9.4	17.5
11	10.4	12.4	12.5	13.3	13.3	14.2	14.3	25.1	19.2	25.1	20.1	16.3	19.0	24.0	26.0	28.0	25.1	22.2	14.3	8.4	1.8	2.6	3.6	6.8	15.8
12	9.4	10.9	12.3	12.3	12.3	11.0	11.5	14.2	16.2	18.2	18.2	17.4	14.3	23.1	27.6	27.1	25.6	18.2	11.4	15.2	4.6	1.6	5.5	9.4	14.4
13 D	7.5	8.0	7.5	9.2	10.3	11.8	17.3	17.2	14.3	16.3	11.3	24.1	29.0	30.1	31.9	32.1	19.3	9.5	10.4	-1.4	-5.8	-2.3	4.4	2.1	13.1
14 D	8.3	-4.4	5.5	9.5	7.5	8.0	-16.9	-1.2	12.4	8.0	-3.3	9.4	18.3	28.0	27.6	25.7	24.1	19.1	14.4	12.9	8.4	5.5	6.3	4.5	9.9
15	5.5	7.0	12.3	15.3	1.1	8.4	1.5	8.5	11.3	7.5	10.3	11.3	16.3	19.2	25.1	32.0	28.8	28.0	26.2	15.2	9.0	9.3	13.3	13.8	14.0
16	9.9	9.3	9.6	16.2	11.4	11.3	11.9	10.4	7.0	4.5	6.7	10.9	15.3	18.7	23.5	23.1	19.2	17.3	9.4	4.5	4.6	1.6	4.4	8.4	11.2
17	11.4	13.4	18.2	19.0	18.7	14.2	13.4	14.3	10.9	3.9	9.4	11.3	16.3	21.3	17.3	19.2	22.2	17.2	13.4	3.5	-0.4	0.5	-0.5	2.6	12.1
18	5.5	9.4	6.5	12.7	5.5	8.9	10.4	6.6	-1.8	5.5	18.2	13.3	16.3	21.1	25.6	27.6	30.0	23.6	13.3	5.0	4.6	4.5	8.0	8.9	12.2
19	10.4	12.0	13.3	13.3	25.1	18.3	17.8	12.3	13.3	9.3	10.9	14.6	19.2	23.2	28.0	32.5	31.4	26.5	19.2	11.4	7.0	4.5	4.5	6.0	16.0
20 Q	9.3	11.3	12.5	14.2	14.2	12.4	12.4	12.4	10.9	13.4	14.2	16.2	20.2	24.5	27.5	28.0	26.2	21.7	12.4	5.0	2.6	2.7	2.6	2.1	13.7
21	1.6	1.7	5.5	8.4	11.3	10.3	10.9	10.3	12.4	11.3	13.4	15.6	19.8	23.6	23.6	25.0	22.2	18.2	10.5	6.8	2.1	3.3	3.7	6.0	11.6
22 Q	8.4	10.5	11.4	13.2	13.3	12.4	12.4	12.4	13.3	13.3	15.2	16.4	20.1	26.1	29.0	29.0	29.5	24.6	16.8	13.4	8.9	6.0	5.4	4.5	15.2
23 Q	6.6	6.9	8.1	8.3	10.1	7.8	8.2	8.4	8.4	8.3	8.7	9.7	11.1	13.8	15.3	15.5	15.2	12.3	16.3	15.2	8.7	5.6	4.0	4.5	9.9
24 Q	7.0	9.3	11.0	11.9	11.5	12.3	11.5	11.8	11.9	10.4	10.8	11.9	17.1	24.6	29.9	29.3	27.7	22.1	14.4	9.3	5.1	3.6	3.7	5.6	13.4
25	7.8	9.8	11.8	11.9	11.4	11.9	11.4	12.3	12.3	13.0	16.3	21.3	25.6	29.0	31.9	30.9	31.0	21.2	11.4	5.0	3.6	-0.9	0.0	14.6	
26 D	4.5	2.1	2.6	7.5	8.4	8.4	8.4	8.0	8.0	25.0	9.3	17.3	27.6	24.3	31.6	35.3	25.6	12.2	15.3	9.9	6.4	10.5	7.3	7.1	13.4
27	10.2	9.3	9.5	8.3	10.5	11.9	10.9	8.4	9.2	10.4	5.8	14.6	27.6	27.6	28.0	23.2	29.4	21.0	17.6	4.0	3.6	4.0	11.2	8.0	13.5
28	9.9	3.9	3.6	7.5	15.2	4.5	5.5	12.9	12.9	7.5	7.0	10.5	14.4	22.3	30.3	30.4	24.2	21.1	16.5	10.7	8.0	5.3	7.0	7.2	12.5
29 D	5.4	20.7	5.4	12.0	6.0	5.0	-9.1	-2.1	3.7	-2.8	14.8	21.7	34.8	49.6	46.2	39.3	31.5	27.6	20.4	2.3	7.0	12.2	12.0	14.4	15.7
30	14.6	11.9	10.9	10.9	11.1	13.2	10.1	11.5	11.0	18.9	19.3	21.4	26.1	28.0	25.8	27.6	29.3	25.2	20.1	15.2	11.4	10.6	9.5	9.9	16.8
31 D	8.1	5.8	9.2	5.4	15.2	10.6	3.6	6.8	7.4	11.9	9.5	14.3	22.2	27.0	31.2	27.8	28.7	41.5	45.6	20.2	25.6	30.9	11.9	11.9	18.0
Mean	8.0	8.4	9.5	11.5	11.9	11.5	10.0	11.1	11.9	12.2	12.4	15.9	20.8	24.4	27.1	27.2	25.3	21.4	16.3	9.4	6.2	5.7	5.9	6.8	13.8

VERTICAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 15 Meanook

z = 58,000  $\gamma$  +

May 1958

Hour U. T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
Hour U. T. Day	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
1	930	929	945	936	899	885	869	844	745	685	764	791	826	857	855	857	858	865	882	907	905	899	930	894	865
2	878	903	916	951	894	833	821	830	772	796	829	853	861	865	864	862	851	846	853	868	901	891	885	874	862
3	855	862	857	858	855	845	844	844	849	847	839	807	829	847	845	849	847	847	853	853	864	862	873	881	850
4	908	807	857	864	883	893	873	858	806	804	816	807	828	850	856	854	854	854	850	842	847	865	896	932	857
5	907	902	924	934	875	854	853	810	837	847	847	851	851	842	840	831	827	826	836	840	871	940	923	863	
6	930	952	949	902	879	874	865	859	836	830	830	837	843	846	841	840	838	838	837	839	844	854	865	864	862
7 Q	860	860	859	854	850	848	848	848	845	846	843	839	838	837	838	837	836	836	840	841	843	863	871	871	848
8	848	839	841	843	848	854	849	839	789	767	836	845	848	843	820	816	826	827	824	830	843	862	886	891	838
9	865	843	840	837	846	858	854	860	843	840	846	843	841	843	837	834	833	838	840	854	859	870	886	848	
10	903	904	890	870	866	869	806	784	805	837	778	719	719	827	848	816	826	838	838	854	881	859	903	903	839
11	871	851	844	844	843	844	840	804	709	807	829	839	859	860	849	849	851	849	849	860	863	860	855	849	841
12	839	833	833	839	839	847	849	833	779	786	806	817	773	816	818	817	823	817	816	839	860	897	909	948	835
13 D	936	882	858	847	849	878	860	880	720	730	783	764	618	774	805	729	785	817	844	855	867	904	1001	933	830
14 D	903	859	915	775	909	860	849	806	816	870	782	774	849	757	804	828	840	871	870	892	915	904	884	924	852
15	916	904	903	904	849	818	827	828	827	840	860	849	817	739	773	837	855	871	898	926	871	871	892	913	858
16	906	916	905	893	872	872	877	852	749	699	775	834	850	834	802	780	802	834	834	840	845	844	857	861	839
17	865	872	899	898	845	861	861	850	834	813	830	829	819	753	699	711	778	807	845	868	876	883	883	921	838
18	899	937	925	914	841	850	871	807	753	763	807	796	841	841	838	833	850	872	856	856	866	882	893	894	854
19	870	850	856	872	893	852	829	818	796	802	824	841	856	850	855	862	860	852	856	860	867	871	861	861	851
20 Q	883	878	871	861	850	840	834	834	819	813	796	829	832	839	839	840	829	828	824	829	840	845	852	861	840
21	873	895	910	906	884	862	836	829	829	835	841	842	846	846	845	842	841	835	835	835	846	846	846	852	
22 Q	845	851	848	848	842	840	841	840	840	841	841	842	833	822	819	820	818	819	819	825	839	846	857	868	838
23 Q	888	898	907	877	841	814	812	811	804	820	820	820	820	835	841	841	841	833	827	838	836	844	844	840	
24 Q	840	835	835	835	835	835	838	838	838	833	830	811	804	825	833	833	833	830	830	830	835	844	844	832	
25	841	835	833	833	833	833	833	833	833	833	835	839	840	834	826	825	819	822	822	822	835	851	954	838	
26 D	972	973	896	897	906	869	863	843	843	804	756	693	783	808	771	674	736	788	804	823	843	884	915	912	836
27	906	906	899	867	868	885	863	856	803	809	830	804	723	823	842	848	836	847	850	844	883	901	972	955	859
28	907	869	916	910	862	785	767	780	764	786	802	832	809	800	819	815	819	834	836	841	864	884	868	869	835
29 D	918	874	910	847	889	869	788	797	1064	1145	1029	1069	863	648	713	820	800	852	837	847	874	895	882	886	880
30	876	868	890	908	895	912	885	860	819	755	817	840	833	816	797	823	834	850	852	849	872	880	929	938	858
31 D	923	938	935	852	901	906	873	861	852	800	805	814	765	731	809	858	858	836	874	918	1002	859	873	680	855
Mean	889	881	886	873	866	856	844	833	813	816	823	825	817	817	821	822	830	838	843	852	864	870	887	886	848

**HORIZONTAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 16 Meanook

 $H = 12,000 \gamma +$ 

June 1958

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1 D	1290	1303	850	1050	918	931	918	992	615	902	962	979	971	954	929	946	913	854	847	898	1014	1028	1043	1090	967	
2	971	1058	1064	1012	1031	1126	770	432	953	947	889	746	629	591	567	748	794	889	920	944	947	956	953	957	871	
3 Q	958	959	956	960	956	960	971	973	984	988	983	947	935	973	998	992	944	955	952	969	963	956	959	967	965	
4 Q	971	977	971	995	983	976	983	982	995	989	987	987	987	992	987	982	956	960	937	937	944	954	960	964	973	
5	973	969	973	972	983	986	983	975	973	976	984	994	1012	998	984	940	973	971	956	951	960	971	991	976		
6	993	992	981	983	987	988	991	978	959	976	996	1012	1009	1004	996	986	973	938	937	948	965	1051	1180	1227	1002	
7 D	1599	1502	1600	899	909	894	763	728	493	666	643	737	863	843	910	972	908	925	929	935	1004	1003	983	990	946	
8	1003	981	967	968	961	966	974	980	979	976	976	957	968	977	987	992	985	964	933	930	921	957	1024	1074	975	
9	1246	1062	1014	996	993	1032	770	793	905	852	807	806	691	646	903	916	952	948	950	969	975	1048	1184	1468	955	
10	1506	1347	1341	1297	1011	1011	897	681	693	673	846	811	900	873	889	924	959	922	909	930	995	1057	1182	1109	990	
11	1072	1094	1133	1110	983	959	936	945	992	866	878	825	947	952	961	935	910	923	924	912	967	974	953	935	962	
12	956	963	982	1001	1034	986	1014	948	869	853	886	948	897	937	979	951	942	922	944	939	940	971	1021	1016	954	
13	1028	986	982	985	1003	976	975	984	955	944	956	977	980	983	986	971	956	924	923	933	944	973	959	983	969	
14	1007	992	975	959	967	975	984	983	980	976	977	958	971	978	977	967	955	935	928	948	946	952	1065	1158	980	
15	1045	992	985	1046	1090	1148	1112	863	931	560	810	968	1005	992	958	956	926	904	941	941	960	960	960	966	959	
16	1010	1014	976	976	972	984	871	864	943	843	721	875	889	807	926	956	956	932	932	951	941	952	957	983	926	
17 Q	988	984	984	994	996	986	974	963	970	970	970	952	970	988	982	976	957	938	925	934	945	938	962	985	968	
18 Q	993	984	984	981	980	981	981	979	978	978	978	987	999	996	984	968	963	948	929	937	952	952	954	987	973	
19	993	988	989	993	1003	989	984	987	974	962	976	968	980	996	996	996	957	934	940	956	949	971	968	962	976	
20 Q	971	1035	987	984	979	980	981	981	981	988	990	994	991	988	981	980	970	971	957	956	961	993	1007	965	982	
21 D	1007	1076	1174	1286	1278	1194	1104	1058	952	899	767	588	666	917	808	836	915	952	1070	992	996	1217	1188	1223	1007	
22	1243	1094	1232	1082	1074	1066	800	734	784	870	800	696	886	916	908	934	937	949	953	964	980	1066	1109	1078	965	
23	1139	1090	1084	1036	984	877	938	917	917	941	964	957	916	929	941	941	941	918	934	948	973	968	985	963	967	
24	1003	999	1023	1046	1046	995	988	662	925	926	885	854	792	807	769	886	951	965	954	960	957	988	1043	981	934	
25	986	1012	1043	1067	1028	973	964	960	894	783	886	973	980	980	941	933	921	917	937	941	961	965	1005	996	960	
26	1003	1009	1011	986	987	1036	996	968	968	959	962	963	963	957	948	976	965	937	954	945	942	960	984	971	973	
27	996	968	965	970	981	996	980	960	920	960	956	965	958	964	980	976	978	972	963	968	968	984	988	996	971	
28 D	956	957	1011	1090	1027	1023	1020	1009	1018	932	752	394	992	948	948	948	956	933	1011	1206	1589	1685	1457	1053		
29 D	1391	1459	1567	1278	1120	624	618	784	784	647	582	247	247	59	269	342	908	674	871	952	1019	1003	1003	996	810	
30	1004	992	989	1003	956	948	949	956	973	972	968	984	996	996	995	980	984	973	976	965	966	949	978			
31																										
Mean	1073	1061	1060	1034	1007	986	940	901	909	892	891	884	899	900	913	929	942	929	939	949	972	1010	1002	1046	963	

## DECLINATION

Mean values for periods of sixty minutes, Universal Time

Table 17 Meanook

 $D = 24^\circ E + \dots'$ 

June 1958

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1 D	22.3	13.1	12.1	3.4	9.4	-5.1	15.2	9.4	9.4	12.3	12.2	12.3	19.6	26.7	29.7	29.9	33.0	27.2	14.9	14.1	13.1	9.9	11.8	12.9	14.4
2	5.4	3.7	-1.3	-0.4	5.6	5.5	-3.2	-6.3	5.8	8.6	10.7	10.4	37.4	40.7	46.0	35.0	26.2	22.9	10.3	10.3	6.5	8.0	9.4	10.8	12.8
3 Q	12.9	13.8	13.9	12.4	13.9	12.8	13.8	14.4	15.8	15.2	13.4	10.4	11.7	26.6	28.0	26.0	26.0	16.3	15.6	10.3	8.1	6.6	8.0	10.3	14.8
4 Q	11.5	12.7	13.0	13.8	14.3	14.0	13.8	17.4	12.8	11.5	11.0	16.4	16.4	25.6	27.0	28.0	25.6	23.1	18.7	15.2	9.3	6.5	4.6	5.4	15.3
5	6.6	8.5	10.4	11.5	13.4	14.4	13.4	10.5	14.3	9.7	11.5	11.9	13.9	16.2	17.4	17.5	18.2	13.8	13.4	9.4	5.4	2.8	4.7	11.8	
6	8.0	11.1	12.4	13.2	12.4	16.5	14.3	12.3	14.2	15.7	18.2	16.4	19.6	24.0	28.0	29.9	28.4	27.0	17.8	12.8	15.2	14.7	15.3	18.1	17.3
7 D	7.6	-6.7	-7.3	-25.4	1.1	-11.2	-4.2	-2.3	6.0	16.4	11.4	24.6	20.1	34.3	36.8	34.8	34.8	25.4	16.4	17.3	16.6	14.3	13.8	14.8	12.1
8	14.2	13.6	12.5	12.6	12.9	13.8	18.7	16.4	11.7	10.9	9.8	10.0	16.6	25.1	29.0	29.9	27.9	21.3	23.2	11.6	0.7	4.2	6.5	9.6	15.1
9	9.3	4.6	4.5	7.0	8.1	8.9	12.9	8.4	8.9	4.9	14.2	23.8	23.1	27.1	24.4	25.8	25.6	20.2	18.2	11.4	14.9	11.1	15.8	8.2	14.2
10	8.9	9.5	16.3	0.6	-8.3	3.6	5.4	-14.1	5.5	4.5	15.3	21.3	25.6	25.2	30.4	24.0	22.1	25.9	18.6	10.9	13.4	14.3	13.9	9.6	12.6
11	3.1	6.4	4.6	9.9	4.5	10.2	6.5	7.0	11.5	11.4	9.9	10.9	22.1	26.1	28.0	30.5	30.5	17.3	15.3	11.4	11.5	8.4	8.0	4.4	12.9
12	6.5	8.8	11.5	13.0	12.9	12.4	11.4	14.6	13.4	10.4	18.8	20.3	22.7	26.6	28.2	28.9	20.2	17.1	16.2	9.5	4.6	4.6	10.2	7.5	14.6
13	6.6	9.4	10.1	9.4	17.9	-5.2	12.9	12.5	12.5	14.2	15.2	16.8	21.0	23.2	25.6	27.0	28.5	29.4	14.1	13.8	8.4	9.4	4.5	4.6	14.2
14	7.6	9.8	11.5	12.7	10.3	8.6	7.5	10.2	10.3	11.3	12.3	13.4	20.7	22.6	22.2	25.0	24.0	18.3	20.3	18.2	0.7	-1.6	2.7	5.4	12.7
15	10.4	4.8	6.0	4.9	2.8	7.3	-5.2	-14.9	7.8	3.6	6.5	19.3	21.7	23.7	23.7	24.0	25.6	21.2	11.5	10.9	8.8	5.6	5.6	8.3	10.2
16	9.4	13.4	12.7	11.9	11.1	9.5	9.9	14.4	14.2	17.6	17.2	22.3	26.6	18.7	22.2	25.8	27.6	25.9	15.4	7.1	4.5	3.6	6.5	9.4	14.9
17 Q	10.8	13.2	13.8	12.5	15.9	11.1	12.3	12.4	12.3	10.5	10.5	10.4	19.0	24.1	25.6	25.7	25.5	23.1	17.2	13.4	10.3	4.5	2.1	3.6	14.2
18 Q	6.5	8.4	10.4	11.3	12.3	12.3	12.3	12.4	13.4	18.7	19.2	17.2	21.5	25.0	25.6	26.2	25.6	25.0	22.8	15.0	7.5	3.6	2.5	2.6	14.9
19	3.6	6.5	9.4	9.6	11.4	9.3	9.9	10.3	10.4	13.0	15.2	17.3	12.9	25.1	28.0	31.1	35.4	25.1	18.4	19.1	10.3	5.5	3.1	3.6	14.3
20 Q	4.4	3.6	8.6	8.0	8.4	9.6	11.3	13.3	13.3	13.8	14.8	15.3	18.4	22.2	24.0	24.4	23.2	19.2	13.8	9.5	6.5	2.8	2.6	3.6	12.3
21 D	2.1	0.0	1.1	1.5	2.1	4.2	6.5	2.1	-2.4	-0.4	-5.4	20.2	36.8	35.4	42.8	29.9	36.0	43.7	23.0	22.7	4.0	23.6	1.1	6.3	14.4
22	13.3	3.7	11.1	9.3	-14.6	3.3	7.0	11.3	13.6	13.6	12.9	7.3	21.2	24.6	23.6	28.9	30.5	25.8	20.7	21.3	12.9	10.7	10.9	11.9	14.0
23	7.9	11.3	12.8	9.1	17.0	4.2	15.7	13.8	13.4	8.7	12.9	15.3	21.7	24.8	28.5	28.2	26.7	26.5	15.8	8.7	8.3	6.9	12.1	9.4	14.9
24	8.0	9.7	8.7	9.3	9.5	5.5	8.4	3.7	13.2	13.6	15.9	16.8	17.4	32.0	20.9	23.6	26.6	27.6	26.4	23.2	15.8	10.8	11.9	10.5	15.4
25	8.4	8.5	8.7	15.3	10.2	11.9	11.3	10.9	12.9	12.4	20.2	19.7	20.5	24.4	24.4	24.1	25.4	22.9	19.6	11.5	13.8	4.7	6.3	7.0	14.8
26	7.0	9.9	8.8	11.2	9.3	12.6	8.2	10.4	12.3	11.8	14.3	16.8	22.7	24.6	27.2	29.6	29.1	29.1	19.2	17.7	11.3	8.9	8.9	8.0	15.4
27	7.0	9.7	9.1	11.1	13.4	11.5	13.8	14.3	13.3	13.7	15.8	19.7	24.6	27.4	27.7	28.5	24.3	22.7	18.7	16.6	13.8	9.7	6.0	3.6	15.7
28 D	3.1	7.8	6.3	9.7	10.9	12.3	10.5	8.2	15.6	11.9	18.5	34.4	24.7	28.0	28.2	30.2	31.0	34.2	43.7	47.9	62.4	73.2	39.3	41.2	26.4
29 D	10.9	-30.9	-28.1	-36.4	-39.7	4.0	-5.9	1.1	10.2	27.0	-1.1	-0.9	-1.3	-1.4	-0.9	39.3	36.8	43.2	27.0	19.7	14.8	13.4	14.8	14.8	5.4
30	16.4	18.7	18.3	16.8	18.3	13.8	13.4	12.9	10.7	9.6	10.9	13.8	19.1	19.7	25.6	27.0	26.2	26.0	18.7	12.7	11.9	10.3	10.3	9.4	16.3
31																									
Mean	8.7	7.2	7.2	7.0	7.6	8.1	9.3	8.2	11.2	11.9	12.7	16.1	20.6	24.9	26.6	28.0	27.6	24.9	18.8	15.2	11.6	10.5	9.4	9.3	14.3

VERTICAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 18 Meanook

	$Z = 58,000 \gamma +$																				June 1958				
Hour U.T. Day	0 to 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 24 Mean																								
	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 24 Mean																								
	0 to 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 24 Mean																								
1 D	681	798	832	861	871	891	776	830	1006	865	853	886	891	883	870	870	863	853	868	887	928	951	1080	1049	881
2	864	917	930	925	927	843	842	756	874	864	849	729	775	631	591	675	713	831	853	876	884	883	879	874	824
3 Q	871	871	868	863	860	859	861	853	853	848	842	819	804	832	859	865	850	843	832	843	844	843	848	856	849
4 Q	863	870	869	870	875	870	870	820	843	853	855	863	859	853	844	846	842	843	837	837	832	844	848	853	852
5	853	848	844	844	847	853	853	848	794	813	848	869	884	857	813	828	830	842	841	845	853	843	850	844	
6	844	845	845	845	847	857	851	817	805	806	822	854	859	856	847	838	843	833	832	844	861	1004	973	852	
7 D	979	838	615	604	730	795	811	843	995	1094	844	898	854	866	864	898	858	865	861	868	897	899	891	886	856
8	878	876	864	861	860	860	832	840	845	845	849	833	849	849	849	854	856	849	849	851	840	857	886	925	857
9	973	921	909	909	899	871	664	676	828	800	854	875	898	799	807	832	854	857	852	873	898	946	1018	955	865
10	791	813	728	725	800	898	887	953	939	747	758	780	834	822	822	867	866	866	877	888	921	951	974	919	851
11	921	952	954	877	826	889	889	855	855	824	811	747	822	845	866	857	846	830	846	855	878	900	904	883	864
12	867	876	876	893	893	849	887	839	773	770	785	822	812	823	855	855	857	872	883	877	893	904	885	854	
13	909	894	878	877	852	840	867	878	872	845	841	856	863	860	860	856	856	852	858	850	861	862	860	873	863
14	878	873	874	863	856	853	860	865	856	856	856	845	847	852	856	856	851	845	845	835	847	856	896	985	863
15	939	878	876	905	912	813	738	878	913	911	903	940	866	850	835	841	845	833	840	840	840	849	856	862	865
16	883	900	878	868	861	864	736	733	832	795	814	761	761	737	795	848	852	852	859	859	859	852	857	869	830
17 Q	879	880	877	874	885	873	868	857	850	848	847	826	838	855	855	848	846	846	839	842	841	859	846	851	855
18 Q	852	852	848	847	847	842	841	841	845	841	843	846	837	826	820	817	821	827	834	848	863	878	868	843	
19	837	842	853	853	858	858	852	848	836	810	821	822	832	840	842	843	838	836	815	815	833	840	847	837	
20 Q	847	867	879	856	840	837	837	837	837	842	843	846	848	848	848	838	820	825	830	829	836	853	852	843	
21 D	864	881	944	944	788	794	849	827	849	842	888	804	858	858	731	743	788	858	945	933	940	981	967	955	868
22	848	880	848	803	827	874	815	869	815	837	837	784	832	827	842	860	858	853	858	878	891	896	924	896	852
23	913	912	922	858	821	821	858	783	782	821	869	868	842	815	838	836	837	836	843	848	848	848	865	858	835
24	874	891	893	908	811	816	859	741	879	841	827	795	708	637	708	795	833	848	849	859	877	907	946	923	834
25	881	881	903	925	906	892	865	854	757	609	695	822	849	759	838	828	826	827	843	859	881	867	880	891	839
26	897	897	897	880	869	897	865	865	856	849	850	854	854	849	838	838	838	827	826	826	836	843	856	865	857
27	880	878	861	854	854	855	859	815	751	800	796	814	825	828	830	830	829	822	821	833	851	876	908	837	
28 D	895	863	876	919	853	887	885	831	846	834	815	791	843	848	833	826	827	830	843	875	1033	853	632	250	824
29 D	015	054	-43	314	514	588	618	1015	1033	1105	1078	1052	1228	1192	1512	1408	1093	886	860	877	888	907	919	929	835
30	920	920	924	909	908	877	866	866	866	855	864	876	877	876	865	855	836	824	836	845	854	877	882	873	
31																									
Mean	847	849	837	844	843	847	832	838	858	842	840	838	851	837	850	855	847	843	848	855	870	877	890	876	851

HORIZONTAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 19 Meanook

H = 12,000 γ +

July 1958

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	995	1218	1094	1054	988	984	823	968	890	870	823	830	807	937	940	929	972	966	964	948	945	929	941	964	949
2 Q	960	972	980	981	981	972	971	966	957	949	956	963	966	976	964	976	988	987	968	964	930	956	972	1011	969
3	992	972	973	988	976	980	976	927	858	1003	981	968	940	935	980	980	895	890	925	941	918	941	934	960	951
4	981	981	984	1006	979	996	979	948	744	680	625	850	970	933	902	934	917	839	903	941	941	987	1035	1032	920
5	984	973	979	963	974	974	978	957	949	984	966	962	924	847	902	996	996	987	976	968	972	1011	1012	1003	968
6 Q	1007	1018	1019	1003	976	966	960	968	968	968	976	984	984	981	952	960	976	966	957	948	948	956	965	971	974
7	984	999	987	.987	988	986	981	992	971	937	777	890	984	992	992	968	981	958	937	929	941	992	964	949	961
8 D	976	1043	1092	1054	1019	996	964	936	603	549	434	209	82	378	-224	-106	-59	581	527	649	908	1245	1362	1340	690
9 D	1268	1326	1340	1326	1272	1123	978	929	821	364	298	416	297	52	175	570	841	917	974	973	976	968	1074	1130	850
10	1151	1159	1100	1084	1082	996	992	934	835	830	877	908	850	879	948	956	952	952	941	949	945	979	1082	1109	978
11	1122	1067	1071	980	949	935	950	946	949	867	800	899	872	848	872	906	922	914	910	922	918	958	993	969	939
12	1016	972	969	990	1029	955	957	958	812	655	870	839	926	949	975	988	976	922	942	928	955	971	977	969	938
13	981	1010	1031	1009	980	989	957	976	964	932	818	827	883	890	929	941	957	971	972	952	929	941	973	971	949
14	966	996	996	1097	1028	981	981	968	745	840	902	887	815	925	902	929	921	964	945	941	934	956	974	975	940
15 Q	973	984	987	992	990	987	970	963	937	933	930	941	933	898	933	957	956	959	960	948	957	981	992	996	961
16 Q	1011	999	976	984	984	976	972	958	948	941	940	894	913	940	941	934	926	913	917	918	925	941	976	989	951
17	1090	1102	997	963	1036	911	844	926	957	964	949	957	965	966	975	963	949	942	927	918	930	942	972	997	964
18 D	1033	1096	1132	1036	1014	983	998	636	887	954	954	834	837	947	958	967	943	958	923	915	918	997	1099	1096	963
19	989	984	976	983	990	976	958	872	817	940	970	966	966	974	950	974	973	959	946	940	904	1002	1143	1084	968
20	1064	1082	1201	1025	967	935	962	910	816	896	857	692	689	856	953	925	934	954	958	942	966	970	947	966	936
21 D	989	1010	1006	976	1068	983	973	956	802	897	935	971	962	936	928	936	920	893	843	953	1007	957	991	971	953
22	958	1005	1019	997	983	982	974	970	975	864	943	888	816	970	958	962	967	958	951	959	950	959	955	959	955
23 Q	953	957	959	957	964	958	965	965	965	965	957	934	942	980	966	951	941	926	927	934	949	958	961	954	
24	1002	1019	1008	997	973	968	973	933	980	965	973	977	942	982	980	980	957	902	906	931	933	953	1020	959	967
25	985	993	958	972	966	974	997	880	824	624	612	655	757	785	898	903	886	879	942	969	1011	1025	1071	961	897
26	1050	1051	1083	1026	962	956	952	933	905	894	918	863	948	975	956	941	929	922	932	939	950	975	980	992	960
27 D	992	996	1031	1027	988	1090	1078	541	772	807	941	879	607	576	814	894	908	908	948	953	999	1088	1178	1137	923
28	1144	1129	1080	979	996	1039	988	965	959	968	968	972	980	982	983	971	963	950	941	941	954	956	948	965	988
29	960	971	965	971	961	960	964	972	972	979	979	981	988	987	981	976	960	948	941	937	940	954	945	973	965
30	972	973	979	972	973	984	992	381	984	984	980	973	962	988	992	987	925	933	945	945	963	938	948	987	969
31	997	975	964	969	971	988	969	919	947	910	824	903	966	985	1004	997	918	872	1000	994	950	957	973	985	956
Mean	1018	1033	1031	1011	1000	983	967	924	888	868	863	862	854	878	884	908	910	923	928	935	947	978	1008	1011	942

DECLINATION  
Mean values for periods of sixty minutes, Universal Time

Table 20 Meanook

D = 24° E + ...'

July 1958

Hour U.T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1	11.3	9.9	17.8	15.6	17.1	14.3	19.7	17.7	13.4	15.6	9.4	14.2	22.3	26.3	32.5	29.9	21.7	21.7	23.2	17.8	11.3	7.0	5.8	7.8	16.8	
2 Q	10.6	12.9	14.9	17.8	15.6	14.0	17.4	18.0	15.8	14.8	13.4	15.8	18.7	22.1	25.0	27.6	23.2	21.6	20.8	15.6	13.4	9.9	6.0	6.5	16.3	
3	9.7	10.8	9.0	11.4	13.2	14.6	12.0	4.5	5.5	14.6	10.9	9.0	14.3	21.7	29.2	27.3	24.8	15.6	5.8	6.4	7.7	4.4	3.6	5.5	12.1	
4	8.0	8.4	13.3	16.5	16.8	14.4	13.8	14.8	11.7	17.2	6.0	20.1	19.1	25.2	30.6	27.9	31.9	20.2	18.3	16.4	17.2	11.9	14.7	13.4	16.0	
5	11.9	13.3	18.0	15.3	14.0	15.4	15.9	15.3	18.0	14.0	8.2	11.7	13.2	17.8	20.7	24.1	22.2	21.3	15.8	12.9	13.4	16.9	13.4	9.9	15.5	
6 Q	9.9	12.8	13.8	15.3	12.7	11.5	10.9	13.4	11.9	12.3	12.3	14.3	16.5	18.3	20.1	23.2	27.4	23.2	18.7	14.2	12.4	7.6	6.5	8.0	14.5	
7	9.1	11.4	13.8	14.2	16.4	14.2	8.0	7.5	8.0	6.4	6.4	25.0	25.6	28.5	29.0	28.9	22.5	22.5	24.2	8.2	5.0	9.2	7.0	3.7	14.8	
8 D	4.5	3.6	9.2	8.0	8.0	8.9	1.7	-8.6	-46.8	-24.4	-17.1	-50.5	30.9	65.0	33.0	-7.0	-9.6	-41.0			19.8		77.9	32.3		
9 D	17.3	4.4	19.3	21.3	-39.7	-20.0	-18.5	-7.7	-9.2	29.2	23.4	9.0	57.3	22.5	32.1	39.3	30.9	23.5	5.5	3.1	4.8	6.6	14.8	10.9	11.7	
10	7.5	10.5	2.1	4.0	8.9	12.3	8.4	11.5	4.7	4.8	6.5	10.4	13.4	22.5	21.2	23.6	24.2	21.1	24.1	17.2	10.3	12.5	15.3	16.8	13.1	
11	12.0	7.4	11.9	9.8	12.3	10.5	9.0	8.9	12.5	7.2	7.4	11.2	16.4	26.0	23.2	23.3	23.1	21.7	16.8	17.8	14.8	6.0	5.0	1.8	13.2	
12	-1.8	5.5	5.0	5.8	16.1	8.4	8.0	9.6	8.9	7.0	12.5	16.2	25.0	21.3	26.1	27.8	23.6	21.5	6.5	8.9	11.3	9.2	9.7	13.3	12.7	
13	14.3	14.3	20.3	24.6	12.9	16.8	23.1	14.6	12.9	18.0	13.6	8.9	21.7	32.8	38.1	33.3	29.6	23.5	15.2	12.9	8.2	10.3	10.4	7.4	18.2	
14	8.6	8.0	8.7	13.5	16.4	13.3	13.3	11.3	11.4	13.6	17.6	14.2	24.2	27.1	30.5	30.6	24.6	16.8	18.2	14.4	9.9	9.2	8.9	10.9	15.6	
15 Q	11.1	11.5	12.7	15.3	15.8	16.3	14.3	13.3	15.6	14.2	11.4	14.7	19.4	22.6	19.5	23.7	23.2	20.1	17.3	10.9	7.5	7.5	9.0	8.9	14.8	
16 Q	11.4	12.7	13.4	12.4	16.8	11.5	9.5	10.4	12.4	9.9	12.5	10.9	17.3	22.3	28.7	27.4	23.2	15.8	11.9	8.9	4.4	4.7	6.0	8.9	13.5	
17	13.8	13.3	12.5	11.3	13.7	26.0	12.9	11.8	12.5	12.9	12.4	13.4	16.9	17.6	21.2	23.6	23.6	23.2	17.8	12.4	7.5	7.0	5.5	6.0	14.5	
18 D	7.6	6.6	2.7	10.4	6.6	5.6	3.7	26.2	17.3	13.4	10.4	16.2	17.2	30.4	29.5	28.3	37.8	22.3	20.7	8.4	6.0	8.0	11.5	15.3	15.1	
19	7.0	7.5	10.2	10.9	16.2	7.6	10.9	17.3	5.0	14.6	16.2	18.1	20.8	27.6	28.3	31.1	31.5	26.6	23.1	23.1	21.1	18.2	17.8	12.8	17.6	
20	3.3	6.5	9.4	9.4	11.5	18.3	14.8	11.3	10.3	11.5	6.6	-3.8	-4.3	15.2	26.1	25.6	27.4	22.1	18.3	15.4	15.4	12.9	8.0	10.4	12.6	
21 D	12.3	9.3	9.9	10.3	13.2	19.3	11.9	6.5	0.7	6.0	12.4	18.2	22.2	20.9	22.0	23.1	30.4	30.0	53.0	5.2	3.1	7.2	4.7	9.5	15.0	
22	10.9	16.7	15.3	14.0	19.1	12.3	10.9	12.3	11.2	5.6	20.2	12.4	14.8	22.2	23.1	23.9	24.2	21.9	21.1	17.8	10.0	7.8	8.4	8.9	15.2	
23 Q	9.5	10.4	10.4	11.4	11.3	11.4	12.3	13.3	12.3	13.3	15.2	14.6	16.4	20.1	23.6	26.4	28.1	25.1	21.1	12.3	7.8	5.0	4.4	5.5	14.2	
24	6.0	8.0	8.3	11.4	10.9	10.9	10.3	10.5	11.2	9.7	12.9	16.7	14.3	26.6	31.9	30.0	29.8	30.5	6.2	9.5	2.6	1.7	3.6	7.5	13.4	
25	6.0	7.5	10.4	10.3	10.7	12.4	8.4	14.5	17.2	9.4	6.0	8.4	21.4	22.3	23.6	26.2	25.0	18.2	21.2	14.2	12.9	10.9	14.6	17.6	14.6	
26	15.3	7.6	9.3	10.5	10.9	13.3	10.3	12.4	12.9	7.5	10.1	9.7	17.8	23.0	28.0	26.1	23.0	19.1	13.4	8.9	4.4	7.0	7.5	6.6	13.1	
27 D	8.9	11.5	14.6	11.7	14.4	8.9	0.6	1.5	7.8	16.8	19.1	18.2	33.1	34.4	31.3	31.0	28.1	29.0	9.9	4.9	2.5	7.8	7.5	15.4		
28	3.1	7.6	5.0	10.9	7.5	11.2	7.4	10.4	11.9	13.8	14.8	17.1	20.2	23.1	25.1	27.6	29.0	25.5	18.5	11.3	5.8	0.7	0.1	2.6	12.9	
29	6.5	9.5	12.4	13.8	10.9	13.4	13.8	14.1	13.3	13.3	15.3	18.2	21.2	25.0	27.6	30.1	29.0	25.0	22.3	9.4	9.2	6.6	7.8	8.8	15.7	
30	8.5	11.9	15.4	16.8	12.4	11.9	16.7	17.7	13.1	9.5	10.5	12.5	18.2	25.1	25.6	30.0	33.9	20.2	16.3	8.4	9.8	5.0	5.6	8.7	15.2	
31	12.9	15.8	18.2	16.4	13.4	13.4	19.2	17.3	12.4	9.3	6.4	10.3	17.8	25.4	29.0	29.1	31.5	16.3	10.9	13.3	7.6	9.5	9.5	10.7	15.6	
Mean	9.4	10.2	11.9	13.3	11.6	12.1	11.0	12.0	10.0	12.2	11.9	13.6	19.2	23.8	26.8	27.7	27.0	22.1	18.5	12.2	9.8	8.1	8.4	9.1	14.6	

VERTICAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 21 Meanook

Z = 58,000  $\gamma$  +

July 1958

Hour U.T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
Hour U.T.	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1	896	970	946	922	880	824	806	942	805	812	868	855	856	831	811	812	828	825	844	849	857	850	856	866	859	
2 Q	866	866	870	870	870	866	860	835	817	816	834	839	839	838	828	835	833	839	844	850	866	882	904	926	854	
3	924	893	871	875	881	872	870	782	794	838	850	838	773	773	806	823	785	764	759	769	781	792	784	787	820	
4	792	781	785	802	803	803	792	753	562	662	738	695	770	743	737	743	761	738	761	803	836	873	892	889	771	
5	846	815	817	803	793	793	787	749	726	749	761	770	759	705	716	792	793	781	781	778	781	814	847	863	784	
6 Q	835	835	832	834	808	787	770	780	780	750	770	787	787	787	765	749	759	770	781	771	771	780	781	785		
7	793	803	803	799	803	792	791	787	762	715	565	662	749	759	770	771	770	759	770	770	792	813	825	766		
8 D	805	843	889	856	835	820	759	689	565	743	813	717	917	988	1147	696	1343	1371	938	1107	1083	510	300	707	852	
9 D	686	816	754	583	715	706	700	823	933	815	975	1166	1003	1019	911	705	759	830	847	830	825	825	889	911	834	
10	841	841	825	880	879	830	835	812	754	758	780	781	749	759	814	815	813	811	819	819	835	877	888	818		
11	889	889	857	843	827	815	803	782	787	727	693	748	732	732	738	770	803	804	808	819	834	846	851	830	801	
12	835	847	835	823	834	803	792	803	618	715	709	662	695	733	780	803	792	791	787	781	814	825	819	817	780	
13	814	827	862	815	808	804	752	797	791	727	597	678	727	694	732	745	780	801	791	792	792	793	802	804	772	
14	819	825	823	895	858	845	825	802	559	613	705	727	695	700	685	742	769	781	787	792	808	825	835	835	773	
15 Q	836	837	837	845	841	815	808	791	749	749	748	749	748	713	716	749	765	781	797	797	797	814	819	835	789	
16 Q	846	835	825	823	825	813	792	781	781	765	769	722	738	752	759	759	770	781	792	803	803	814	825	851	793	
17	896	880	824	818	824	729	749	770	760	783	890	793	793	794	793	798	792	792	782	782	792	803	804	826	803	
18 D	857	878	901	880	868	815	760	448	707	771	778	749	614	757	760	771	766	771	771	771	793	824	869	900	782	
19	804	819	809	815	826	809	778	593	679	760	794	788	793	792	782	793	793	782	782	793	815	880	924	889	796	
20	847	858	863	760	803	664	750	749	749	760	781	674	663	673	749	771	793	793	788	782	793	809	809	826	771	
21 D	826	826	831	824	857	804	782	771	679	723	750	803	793	760	750	751	771	759	793	859	816	793	826	852	792	
22	826	847	824	815	793	804	798	882	760	641	696	685	663	760	766	782	782	793	793	804	793	788	782	782	777	
23 Q	777	781	782	782	778	782	782	782	781	775	771	744	759	771	781	782	782	781	781	792	792	804	804	780		
24	814	815	831	826	793	782	788	783	777	782	792	771	774	772	771	755	771	744	770	772	785	820	798	787		
25	782	788	788	782	783	792	782	785	620	836	598	636	696	706	740	772	772	773	836	878	848	836	880	901	775	
26	869	868	869	815	835	815	793	728	686	672	733	800	793	803	793	782	781	771	788	798	804	826	826	815	794	
27 D	815	826	846	847	844	858	772	896	878	901	848	859	852	701	652	717	760	783	804	804	847	933	932	925	829	
28	918	890	880	842	836	837	809	794	793	794	804	804	805	804	805	804	788	792	788	782	782	782	784	812		
29	793	793	782	782	782	788	788	782	783	788	793	793	795	793	792	792	788	788	781	782	794	804	815	790		
30	804	793	793	803	788	783	772	762	777	777	782	792	782	762	769	777	760	751	771	782	815	826	842	787		
31	826	822	816	803	793	793	782	701	717	728	696	718	766	781	788	804	782	760	803	793	777	803	826	837	780	
Mean	832	839	835	821	821	801	788	772	740	756	765	769	770	772	781	773	800	803	797	809	815	811	820	839	797	

HORIZONTAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 22 Meanook

 $H = 12,000 \gamma +$ 

August 1958

Hour U. T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
Hour U. T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1	996	972	968	949	963	965	972	973	981	972	929	733	807	973	973	979	979	957	925	901	919	936	936	975	943	
2	964	974	984	984	972	979	970	972	967	965	972	925	862	843	948	980	968	933	964	933	941	960	996	954		
3	1030	1043	1048	1011	1016	937	949	974	839	968	956	877	948	941	910	956	956	956	945	948	949	952	971	965	960	
4 Q	976	984	990	980	974	980	974	970	972	971	980	972	948	968	987	973	956	952	941	941	941	956	960	967		
5 Q	976	980	987	987	980	981	981	980	971	956	937	894	949	983	968	976	984	981	960	953	958	956	971	975	968	
6 Q	985	995	972	972	981	988	979	979	979	972	968	973	984	988	984	972	949	933	921	934	945	956	964	978	969	
7	980	987	993	987	974	984	992	996	909	791	874	863	800	981	1011	1011	1011	977	945	955	932	945	956	963	977	949
8 Q	981	988	981	971	974	975	976	980	980	980	980	992	987	964	956	968	948	945	944	935	940	952	979	969		
9	996	996	965	1003	994	973	972	972	980	980	979	978	981	988	989	965	948	948	948	940	946	929	916	957	968	
10	984	973	980	982	988	998	1028	1078	1007	994	984	957	996	996	976	960	937	966	933	926	933	952	992	976	979	
11	968	1012	996	984	987	1031	1010	862	980	784	591	934	966	981	981	988	952	940	929	949	963	971	972	964	946	
12	965	956	964	964	973	999	996	981	984	960	965	941	925	971	981	972	948	924	918	945	965	972	976	981	964	
13	1015	988	960	984	1003	996	814	1007	972	973	863	909	963	975	979	964	951	947	934	933	934	948	964	963	956	
14	979	981	987	970	964	964	965	968	967	968	968	966	971	964	956	948	921	886	898	917	949	974	1003	1053	962	
15	1007	971	954	998	1046	968	972	972	965	974	970	976	976	972	968	971	949	929	926	924	932	952	963	993	968	
16	1016	1032	980	976	960	958	966	967	968	974	981	982	980	964	974	953	924	906	890	895	924	935	956	966	959	
17 D	967	973	967	976	974	974	1005	1029	1017	920	794	990	994	975	974	919	914	749	954	989	1146	1131	1052	1147	980	
18 D	1149	1014	949	946	1032	1035	953	934	927	855	895	942	949	949	957	941	917	909	903	903	917	927	957	951		
19	956	976	956	948	949	948	941	948	956	929	885	937	933	934	960	960	944	918	908	913	925	934	956	960	941	
20 Q	971	968	970	965	968	971	968	963	970	968	964	965	964	953	960	956	941	925	929	932	933	941	948	941	956	
21	945	957	971	964	972	968	973	973	973	973	979	960	941	956	979	964	941	941	936	938	938	941	973	985	960	
22 D	992	992	1104	1206	1458	1297	1019	1029	971	949	924	916	923	990	977	917	918	929	918	926	940	949	954	959	1007	
23	956	957	960	962	1024	1036	1053	981	973	963	963	966	963	971	971	962	937	926	913	924	932	941	996	995	968	
24 D	965	1046	1417	1263	1133	1043	1035	862	670	639	603	411	194	479	909	996	1004	964	957	956	965	976	1011	972	895	
25	992	957	1020	1015	1010	999	785	807	941	901	815	934	956	912	984	980	952	928	918	924	939	948	964	963	939	
26	973	981	970	950	986	988	888	764	809	559	433	399	493	800	934	930	923	905	925	928	937	948	957	1008	850	
27 D	976	1082	1211	951	1074	1098	886	559	791	769	746	725	887	800	614	809	847	831	902	949	969	992	1015	985	894	
28	950	956	960	964	966	956	948	894	858	863	839	948	933	846	777	869	879	807	835	858	921	992	960	992	907	
29	952	949	960	957	963	967	971	957	946	894	792	898	925	913	948	948	925	905	901	913	933	941	979	995	935	
30	999	957	972	981	980	971	976	937	918	972	965	965	965	925	956	940	917	901	880	899	910	948	980	965	949	
31	974	960	972	976	976	969	965	945	934	966	965	938	933	947	932	901	913	905	908	921	938	954	967	947		
Mean	985	986	1002	991	1007	997	964	943	938	912	885	896	904	929	948	954	940	920	923	928	945	957	970	982	959	

## DECLINATION

Mean values for periods of sixty minutes, Universal Time

Table 23 Meanook

D = 24° E + ...'

August 1958

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	11.4	13.3	13.8	11.7	12.7	11.9	12.3	12.3	12.7	10.9	5.6	15.2	22.1	25.4	32.0	37.2	34.8	16.3	24.6	20.2	8.0	7.6	6.5	9.4	16.2
2	12.9	15.4	15.4	16.0	16.4	14.2	15.2	16.2	15.2	16.1	14.2	10.3	16.8	22.8	30.0	34.4	33.0	25.1	19.2	14.8	4.9	5.8	7.0	7.6	16.6
3	10.3	12.7	24.3	15.8	24.2	24.7	24.2	19.1	10.4	13.4	12.9	12.4	19.8	23.2	25.5	28.0	26.6	26.5	18.2	13.7	10.4	7.6	7.5	9.5	17.5
4 Q	12.5	13.5	14.2	16.7	14.9	14.2	13.3	15.3	15.3	12.1	12.4	12.4	16.3	16.3	21.0	24.2	25.2	21.1	17.8	14.5	10.4	7.9	7.4	9.4	14.9
5 Q	11.4	13.2	14.4	14.3	15.2	14.2	14.3	14.2	13.5	13.2	8.1	13.6	19.1	25.1	22.7	26.1	25.1	20.7	15.5	9.9	7.1	6.5	7.4	8.4	14.7
6 Q	10.5	12.6	12.5	11.5	11.4	11.4	11.5	11.3	11.5	12.4	14.3	17.2	20.9	23.7	25.8	26.6	26.0	23.1	14.3	8.4	3.7	2.0	3.7	6.5	13.9
7	9.7	11.3	10.9	11.3	10.9	10.0	10.4	9.3	9.3	21.7	14.8	15.8	24.3	28.1	30.0	32.5	33.0	30.5	20.0	18.2	5.0	1.1	2.7	5.5	15.7
8 Q	8.0	9.8	10.9	12.3	10.4	11.5	12.3	11.5	12.9	12.8	14.3	15.2	18.2	19.2	21.2	24.0	27.0	23.2	15.3	7.5	3.3	1.1	2.5	6.5	13.0
9	9.4	11.0	12.3	9.9	10.7	10.9	11.4	11.4	12.4	12.4	12.5	15.2	19.2	25.1	28.4	32.0	27.6	22.3	20.1	14.0	10.9	7.6	4.2	6.5	14.9
10	8.4	10.9	9.7	9.5	9.4	8.5	7.0	8.4	13.4	11.9	12.9	17.4	23.2	21.2	24.1	26.2	24.9	11.4	6.8	10.4	8.4	0.1	3.1	6.5	12.3
11	8.4	10.4	12.4	21.0	15.2	10.4	11.4	1.1	25.0	22.1	14.8	16.3	15.8	21.1	24.6	22.6	21.8	18.2	13.3	11.9	8.4	8.2	9.2	10.9	14.7
12	12.9	13.3	13.3	12.0	12.0	25.2	11.9	13.7	12.4	13.0	15.4	14.8	14.6	20.1	22.2	21.3	21.1	18.3	14.0	8.5	7.6	4.5	5.5	6.5	13.9
13	6.4	7.0	7.5	7.0	5.6	3.7	3.6	17.4	12.9	12.4	10.3	14.6	24.1	25.1	26.7	25.8	23.4	20.9	18.2	11.9	7.6	7.4	8.4	10.4	13.3
14	9.5	9.4	10.4	12.5	10.4	11.4	12.3	13.3	13.2	13.8	14.9	17.2	20.2	24.0	25.9	26.2	25.1	20.5	5.0	-3.3	-1.2	1.1	4.7	4.6	12.5
15	9.9	10.4	10.9	9.7	18.5	12.4	11.4	10.3	10.4	11.8	14.4	15.2	20.1	25.6	32.1	33.0	30.0	24.6	15.2	9.1	1.7	1.3	4.8	6.5	14.6
16	6.5	7.4	9.7	11.4	11.3	11.3	11.9	12.4	14.4	14.3	14.3	13.8	17.3	21.2	24.1	25.1	27.0	13.8	16.4	9.4	3.1	2.6	4.5	8.9	13.0
17 D	11.4	11.4	11.4	11.4	11.5	11.9	5.0	6.4	7.4	7.0	19.2	18.7	18.0	24.4	28.1	34.2	19.1	0.6	10.4	37.0	30.3	14.8	17.2	14.1	15.9
18 D	5.0	4.9	6.0	4.5	8.0	6.0	9.9	9.3	9.5	10.4	12.4	15.2	19.7	23.2	26.1	28.5	28.1	24.1	20.2	14.4	8.9	4.7	2.6	6.0	12.8
19	9.9	9.9	11.4	13.3	10.3	18.2	15.8	12.4	13.3	8.6	8.4	11.9	17.8	22.2	27.0	27.1	27.9	25.2	21.7	13.8	10.1	5.7	4.4	5.4	14.6
20 Q	7.0	9.6	10.4	10.3	16.3	16.8	13.4	13.9	18.7	14.9	15.2	17.7	20.1	22.2	28.0	18.1	17.1	14.0	14.8	9.6	6.0	4.0	4.7	7.0	13.7
21	8.9	10.5	10.3	11.4	11.5	11.3	11.5	12.7	13.8	13.8	14.3	13.4	17.8	21.3	27.4	27.1	26.0	21.2	15.2	12.5	7.8	6.4	6.2	6.4	14.1
22 D	6.8	7.3	17.2	22.2	2.6	-25.8	-23.8	-0.3	7.0	12.9	14.8	16.7	23.6	22.2	24.2	32.5	24.1	20.4	6.2	8.4	4.7	6.5	8.4	10.4	10.4
23	12.7	12.7	12.3	11.3	7.6	7.4	14.6	12.9	14.2	14.2	15.2	16.8	19.7	11.9	23.3	23.1	21.3	18.2	11.9	12.0	2.5	5.0	7.0	8.9	13.2
24 D	9.3	5.5	20.7	6.4	-50.3	0.3	11.9	3.7	8.9	29.9	20.8	14.3	14.2	40.9	27.4	24.0	25.0	28.9	15.9	9.0	10.4	9.0	11.9	9.9	12.8
25	12.3	17.2	18.2	20.2	16.1	14.2	12.9	16.4	15.4	12.8	9.7	12.1	16.1	27.2	30.1	28.3	25.2	19.0	11.4	8.4	6.0	8.3	11.4	15.8	16.0
26	18.2	18.2	15.6	12.3	13.3	6.0	8.4	15.4	18.1	20.2	18.4	42.5	23.2	25.6	30.9	35.1	30.2	21.3	12.2	10.4	8.2	9.5	9.9	10.7	18.1
27 D	12.9	12.6	15.4	15.2	3.3	-15.6	-19.5	-0.4	2.6	4.0	4.0	9.4	22.3	39.7	43.8	42.4	31.8	16.3	17.3	9.6	13.3	9.8	13.0	15.2	13.3
28	16.9	17.6	16.2	16.4	15.8	17.2	13.2	7.8	10.3	11.9	13.3	16.8	19.2	22.1	24.0	19.5	22.2	15.4	10.4	9.9	2.0	6.0	7.9	11.2	14.3
29	14.4	15.2	16.0	15.8	12.5	12.3	15.0	14.8	13.8	17.3	4.0	15.0	20.7	22.2	25.6	25.2	22.3	19.7	11.4	10.0	10.3	8.4	11.9	14.3	15.3
30	15.4	14.3	12.5	11.9	10.4	11.4	13.4	11.9	14.3	20.3	14.9	16.1	18.2	21.2	27.2	25.6	26.4	21.2	16.2	12.5	9.8	9.7	9.7	12.1	15.7
31	13.2	15.3	16.2	18.7	11.4	13.8	13.3	13.2	10.9	18.1	14.7	13.8	16.3	24.0	26.1	29.0	21.2	18.7	15.3	10.7	8.4	8.8	9.9	11.5	15.5
Mean	10.7	11.7	13.3	13.0	10.0	10.0	11.2	12.7	14.2	13.1	15.7	19.3	23.8	26.9	27.9	25.8	20.0	15.0	11.8	7.7	6.1	7.3	9.1	14.4	

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 24 Meanook

z = 58,000 γ +

August 1958

Hour U.T. Day	0 to 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 24 Mean
	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 24
1	843 827 810 799 794 789 782 783 776 772 752 713 642 761 789 805 805 805 794 784 795 805 810 821 786
2	816 816 805 805 805 783 789 780 718 750 783 761 664 751 718 761 756 719 761 782 793 804 809 816 773
3	836 860 870 827 827 691 740 783 622 730 745 669 718 729 718 767 789 793 798 803 803 810 810 771
4 Q	805 804 805 816 805 804 794 781 782 781 789 792 781 750 751 772 787 784 794 781 789 795 799 799 789
5 Q	795 794 796 794 794 794 772 761 772 738 718 697 729 772 751 741 751 772 783 783 794 806 816 771
6 Q	827 816 794 784 784 784 783 783 783 783 789 789 784 778 772 772 772 773 773 773 771 772 783 784
7	794 794 805 799 793 783 783 778 685 642 664 691 643 750 794 794 782 772 772 789 772 778 772 804 760
8 Q	795 794 789 783 783 792 778 778 778 783 782 783 782 752 730 761 772 778 783 783 789 795 810 780
9	827 827 816 832 834 794 783 783 780 780 780 783 783 789 794 778 767 767 761 772 783 782 793 790
10	794 783 783 777 783 782 805 816 805 773 756 741 772 780 767 761 751 767 772 783 794 794 823 827 783
11	805 815 827 827 805 827 827 675 664 588 599 727 729 761 772 789 794 794 799 805 794 795 805 805 768
12	805 804 799 795 794 783 794 794 794 761 767 758 741 772 783 783 783 783 772 772 778 794 783 789 783
13	805 805 789 794 810 702 724 794 789 780 734 718 784 791 783 772 761 767 771 771 772 783 783 783 773
14	794 793 794 783 772 772 772 772 771 772 772 771 778 772 773 763 767 761 772 772 794 814 848 902 786
15	870 816 789 799 827 772 783 780 773 778 780 783 789 783 772 773 773 772 772 773 772 772 772 772 793 786
16	816 848 848 827 784 771 772 761 750 761 772 773 783 772 772 772 773 761 761 772 773 783 783 783 782
17 D	784 774 774 774 773 773 773 800 752 752 686 790 807 784 784 764 795 795 914 914 935 914 865 892 807
18 D	860 659 828 817 828 751 784 795 784 753 779 796 796 805 806 806 794 790 792 795 794 795 796 800
19	806 810 806 795 794 764 735 751 773 752 798 752 762 774 784 785 790 795 790 795 795 795 806 806 784
20 Q	795 795 794 790 785 783 779 762 742 772 779 784 790 784 785 784 779 770 762 770 781 785 784 780
21	783 783 784 784 783 784 774 773 773 773 764 752 735 730 761 772 772 764 762 762 768 774 795 760 769
22 D	805 811 865 913 735 686 595 730 773 764 773 742 719 795 795 784 779 780 794 806 811 806 806 805 778
23	795 790 790 790 813 837 811 800 795 784 779 783 784 790 790 779 784 784 790 794 800 822 828 796
24 D	816 838 805 465 616 762 784 704 741 708 871 595 773 795 817 828 828 800 800 817 828 817 826 805 768
25	818 817 850 784 816 806 687 698 741 703 676 742 774 730 773 784 796 795 796 805 817 818 817 816 777
26	817 817 819 807 810 815 706 425 537 576 264 434 492 677 792 804 792 768 818 828 833 828 828 828 713
27 D	822 871 924 860 828 741 849 898 757 806 844 892 859 849 826 779 773 774 838 854 891 870 860 838 838
28	818 817 806 811 800 806 795 730 698 698 718 795 795 757 757 752 783 768 826 838 861 860 838 837 790
29	806 806 816 806 806 800 795 773 757 719 703 719 752 762 784 796 799 797 806 816 828 818 828 828 788
30	837 817 816 807 817 806 785 709 687 762 795 795 800 784 779 783 788 790 790 795 805 826 833 817 793
31	806 805 807 806 805 805 772 790 851 729 762 795 774 752 753 762 762 773 800 805 805 806 807 805 789
Mean	813 813 813 795 794 779 771 759 749 744 740 745 752 770 776 777 780 778 791 796 802 805 808 812 782

HORIZONTAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 25 Meanook

 $H = 12,000 \gamma +$ 

September 1958

Hour U. T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	971	970	964	964	964	969	971	969	967	960	971	963	955	927	947	951	932	912	900	917	925	935	947	955	950
2	960	964	964	971	971	972	972	977	972	964	948	952	948	971	972	963	945	926	910	909	916	926	951	992	955
3 D	979	971	959	963	971	975	977	956	340	621	774	885	477.	356	877	908	923	893	877	971	1107	1237	1401	891	
4 D	1224	1081	1146	1073	1038	979	959	971	986	972	964	963	971	963	916	246	618	740	613	673	929	932	999	1259	926
5 D	1209	1127	1034	814	815	912	893	814	724	830	744	693	774	689	759	846	901	904	877	861	906	898	916	904	868
6	914	917	921	926	933	933	926	924	924	926	917	917	933	934	929	918	905	894	905	915	929	929	930	945	923
7	937	941	945	949	948	963	968	957	929	828	878	933	941	954	902	783	800	835	880	912	965	1004	1012	1010	924
8	973	1050	1097	972	954	946	957	957	956	960	960	949	948	940	925	916	936	934	933	926	929	957	1034	945	961
9	1011	1050	972	965	980	964	968	963	964	952	930	940	968	895	800	894	915	914	894	923	952	945	1058	1050	953
10	987	978	960	956	956	957	968	965	963	948	917	926	902	832	908	932	908	913	923	939	941	968	972	978	942
11	956	988	968	965	970	965	976	995	972	957	941	971.	956	962	941	924	902	898	894	929	929	945	956	976	952
12	964	968	976	979	971	971	972	972	972	968	968	965	965	949	934	902	886	902	917	936	949	960	956	953	
13 Q	962	963	971	972	973	972	972	975	973	972	977	975	973	968	960	947.	925	908	908	920	939	937	955	962	957
14 Q	964	964	964	967	971	979	978	979	929	979	978	963	963	972	956	931	901	907	923	931	955	975	954	959	
15	967	959	969	972	979	980	980	979	979	980	980	979	972	972	962	940	915	917	925	935	964	986	1002	965	
16 D	985	985	995	998	1187	1151	1093	1042	1004	916	963	994	983	956	878	964.	900	868	867	953	971	1149	1124	1055	999
17	1002	967	934	945	958	976	961	955	938	932	951	953	940	910	944	948	940	922	915	922	928	944	951	949	945
18 Q	951	954	955	956	961	961	964	963	965	965	965	963	962	955	938	915	902	899	910	939	938	955	953	948	
19	953	959	961	965	967	969	969	970	972	971	978	971	947	959	959	944	929	920	919	927	940	942	949	957	954
20	963	978	975	975	975	977	975	977	977	977	977	973	971	965	955	939	929	930	947	943	962	959	955	964	
21 Q	961	967	967	969	970	972	975	977	977	977	975	973	971	961	948	936	928	931	929	947	965	973	975	963	
22 Q	955	959	969	975	975	976	979	980	980	980	980	982	979	971	963	947.	929.	922	928.	944	958.	963	964	964	
23	966	972	977	975	986	986	983	983	973	978	987	983	981	975	956.	938	928	923	929.	940.	954	962	963	965	
24	967	971	975	980	980	985	983	983	967.	955	940	947	963	970	964	945	934	929.	930.	936	941	947.	967	971	960
25 D	981	979	995	1064	1080	1310	1078	664	722	827	422	324	473	422	418	649	879	881	919	947.	955.	1069.	1191	1196	852
26	1053	1034	1095	1034	915	799	885	798	798	822	606	689	664	759	797	893	961	937	948	969	980	970	975	966	889
27	955	956	954	958	959	960	956	948	940	893	882	806	885	940	939	908	922	925	904	906.	955	969	964	973	932
28	983	988	967	969	969	944	959	953	910	910	805	925	944	953	948	957.	956	948	924.	929.	940	940.	947.	941	
29	952	957	959	961	962	958	959	962	959	959	937	944	965	969	973	965	948	931	919	925.	937.	947.	957.	955.	952
30	954	957	957	961	965	969	968	967	958	958	877	974	701	820	931	950	898	881	891	914	938	967	907	946	925
31																									
Mean	968	982	982	970	973	978	971	950	942	918	898	910	913	898	893	898	910	905	900	914	941	966	988	1000	941

## DECLINATION

Mean values for periods of sixty minutes, Universal Time

Table 26 Meanook

D = 24° E + ...'

September 1958

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1	12.9	13.5	13.4	12.8	12.7	13.0	13.6	12.5	15.6	17.4	15.3	14.8	17.6	20.2	25.0	27.1	27.1	21.1	15.2	10.3	8.3	7.0	9.4	12.3	15.3	
2	14.3	14.3	14.2	14.2	13.4	12.5	12.0	12.5	13.3	11.4	11.4	15.8	19.2	25.4	24.0	25.0	23.9	21.3	16.4	12.3	6.8	4.4	5.9	8.1	14.7	
3 D	11.4	11.5	11.5	11.4	13.0	13.2	20.2	14.3	12.4	52.6	37.0	30.5	24.6	40.3	69.7	44.1	44.6	33.9	15.7	12.3	12.3	25.4	26.8	16.6	25.2	
4 D	10.9	10.4	10.6	10.2	5.0	7.5	11.9	11.7	13.9	14.3	16.4	16.3	19.3	16.4	23.2	-6.5	57.6	85.0	72.2	78.8	75.4	67.2	32.5	7.5	27.8	
5 D	10.3	19.7	24.4	21.4	4.9	18.2	12.9	13.5	13.3	21.8	13.5	4.6	9.9	9.9	15.3	17.4	21.3	19.3	20.7	6.4	6.4	8.6	9.3	9.9	12.1	
6	12.0	11.9	13.2	13.3	13.5	13.2	13.2	12.3	14.2	13.3	13.2	16.3	18.2	23.2	25.6	24.6	23.6	19.7	11.5	8.0	6.3	7.5	9.5	9.5	14.4	
7	11.1	11.4	12.3	11.9	10.7	27.3	21.7	16.8	14.1	14.8	17.8	20.7	24.1	26.2	22.7	13.4	10.0	11.4	11.4	7.5	13.6	15.3	10.7	4.7	15.1	
8	4.2	5.3	9.9	13.0	9.5	11.7	11.8	13.2	13.8	16.8	15.8	15.8	19.1	21.3	22.3	23.5	19.3	18.1	12.9	10.6	9.0	9.4	10.9	11.7	13.7	
9	4.5	6.8	9.3	10.4	11.9	12.9	13.8	10.4	11.4	15.4	19.7	16.9	19.3	20.2	23.1	17.7	20.5	17.8	10.9	6.0	11.7	7.1	8.4	13.8	13.3	
10	10.4	14.2	15.2	11.6	12.3	12.3	12.9	13.8	12.4	12.4	11.2	15.8	15.8	16.4	23.4	24.0	25.7	17.4	10.5	9.9	8.9	10.3	10.3	11.8	14.1	
11	11.3	10.4	13.3	12.3	9.4	10.3	11.3	14.2	11.7	14.2	15.6	18.4	21.7	24.6	27.8	26.6	25.0	17.9	12.6	10.2	7.6	7.7	10.3	9.9	14.8	
12	11.8	10.9	11.3	9.9	10.5	10.9	11.7	11.9	14.1	15.3	15.3	17.2	18.7	22.1	25.2	25.2	23.6	19.4	10.9	6.6	6.5	8.3	9.7	12.4	14.1	
13 Q	12.7	11.7	11.5	11.6	11.6	11.7	11.5	12.1	13.4	14.4	15.8	17.3	18.7	21.1	23.6	23.6	21.7	17.3	9.9	7.0	8.0	6.4	8.5	11.5	13.8	
14 Q	12.3	11.3	10.9	10.9	11.4	11.9	12.4	13.5	14.6	14.7	15.8	17.3	19.2	23.1	27.2	27.4	24.2	22.1	12.4	10.9	6.3	8.3	8.8	11.5	14.9	
15	10.7	11.3	10.7	11.3	10.9	11.7	12.3	13.2	13.6	14.8	15.8	17.2	19.7	23.1	26.2	26.6	26.2	23.4	13.2	8.0	6.5	6.5	5.4	4.8	14.3	
16 D	5.6	6.2	4.2	4.6	24.1	3.1	6.7	12.7	13.2	14.6	25.0	22.2	26.0	27.4	30.5	30.5	30.0	32.0	-10.9	-2.1	2.8	8.4	6.8	8.0	13.8	
17	9.9	9.7	12.1	12.1	12.6	14.4	12.6	12.7	11.9	17.4	13.6	13.6	12.9	13.1	21.7	20.9	23.3	22.5	17.8	17.1	14.6	12.9	13.2	12.7	14.8	
18 Q	12.9	12.5	12.1	12.1	12.6	12.7	13.1	13.5	14.6	16.0	15.1	15.3	15.9	19.5	22.7	23.2	24.1	19.4	18.0	12.8	8.0	6.0	7.5	9.6	14.6	
19	11.1	11.1	11.7	12.6	12.6	12.7	12.8	14.1	14.6	14.9	17.4	17.5	14.7	18.4	20.4	21.7	21.0	17.6	13.8	12.8	9.3	9.1	10.1	9.3	14.2	
20	9.7	9.7	10.5	10.7	11.0	10.9	12.1	12.7	13.2	14.6	15.1	15.9	17.6	19.7	20.9	21.9	21.2	18.0	14.3	10.7	9.7	7.2	8.3	10.0	13.6	
21 Q	10.1	10.1	10.7	11.9	12.4	12.4	12.3	12.8	14.4	14.8	16.3	16.8	18.2	19.5	20.2	22.3	20.7	18.0	14.0	8.7	5.2	7.0	8.9	9.5	13.6	
22 Q	11.1	10.6	11.2	11.9	11.7	11.7	12.1	12.9	13.3	14.1	15.0	16.1	16.8	19.5	22.9	24.7	23.4	20.9	16.5	10.3	8.0	8.0	9.6	10.5	14.3	
23	10.2	9.7	10.1	10.7	9.7	7.7	10.9	11.9	14.1	17.8	19.9	19.4	20.4	21.9	23.8	25.9	23.4	17.3	11.1	8.7	7.7	7.8	8.3	9.9	14.1	
24	10.5	10.2	9.6	10.1	9.9	9.2	9.6	10.4	13.3	15.4	18.1	15.6	20.3	23.0	24.0	22.4	20.0	16.8	12.4	8.6	8.3	8.3	7.4	7.5	13.4	
25 D	8.6	4.6	7.2	8.0	22.7	-13.6	-3.0	6.5	9.9	36.0	71.2	28.6	26.8	19.9	28.1	24.4	19.2	15.4	15.6	8.2	12.2	26.4	14.3	16.0		
26	4.5	8.9	14.6	13.8	8.2	7.2	11.2	18.0	24.3	20.0	19.7	23.1	16.5	22.9	20.3	19.6	17.2	12.7	11.6	9.6	11.9	13.7	14.4	15.8	15.4	
27	17.3	16.5	14.6	13.4	13.6	12.2	14.2	16.0	15.0	15.8	18.9	14.0	16.0	22.8	25.6	22.4	20.5	18.0	14.8	9.1	6.5	8.7	10.8	13.2	15.4	
28	13.4	18.5	12.1	11.3	20.1	19.7	18.0	15.1	20.5	20.7	21.8	17.2	16.8	21.8	25.6	28.3	25.5	25.4	21.1	17.1	15.2	13.8	13.8	14.4	18.6	
29	14.8	13.4	12.5	12.3	11.4	17.4	16.4	13.4	12.9	14.2	11.4	13.4	15.5	18.5	23.2	26.6	26.6	24.6	19.5	13.8	10.7	10.2	11.9	13.2	15.7	
30	14.0	12.7	12.7	12.9	12.2	11.9	15.0	10.9	14.5	14.3	9.1	24.8	31.0	33.8	31.5	27.1	19.7	17.8	12.7	-2.8	1.9	7.8	7.2	7.6	15.0	
31	Mean	10.8	11.3	11.9	10.4	12.2	11.6	12.2	12.7	13.9	16.6	17.4	19.0	19.1	22.1	25.6	23.5	24.5	22.2	15.3	11.8	10.7	11.4	11.4	10.7	15.3

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 27 Meanook

z = 58,000  $\gamma$  +

September 1958

Hour U.T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	796	796	791	791	789	791	795	784	785	769	785	773	774	753	740	758	763	774	785	796	801	807	812	807	784	
2	801	806	801	796	796	795	786	785	763	741	710	736	742	774	791	795	795	796	796	796	797	797	807	783		
3 D	811	818	807	796	796	796	786	774	747	544	893	915	883	903	612	667	730	742	774	785	820	861	677	720	777	
4 D	796	731	741	753	818	829	807	817	819	807	796	784	801	817	839	1014	1501	1209	1143	1122	893	658	486	430	850	
5 D	684	514	525	623	730	785	839	839	775	741	839	742	754	774	699	742	812	838	845	850	861	838	855	839	764	
6	829	829	829	829	819	829	829	807	807	796	785	774	806	818	818	817	818	818	823	829	839	834	829	827	818	
7	818	818	818	813	814	785	784	774	753	709	687	736	786	812	796	709	682	742	774	808	853	893	895	893	790	
8	873	877	861	850	818	812	807	807	797	796	795	796	801	796	785	784	774	774	786	796	801	823	851	839	812	
9	850	872	850	818	797	796	763	796	806	796	784	763	797	763	699	754	797	807	818	823	846	834	887	857	807	
10	836	845	833	812	812	801	793	782	779	780	760	774	758	733	766	793	808	812	818	812	808	814	819	829	799	
11	809	822	822	812	801	799	791	797	801	791	780	793	791	793	791	788	788	791	795	806	813	812	811	808	800	
12	807	801	796	801	796	796	795	791	791	796	796	795	791	786	791	791	796	795	796	807	807	811	808	797	797	
13 Q	787	787	787	787	787	787	787	787	787	787	787	787	787	788	791	791	787	785	786	797	807	807	807	796	791	
14 Q	791	785	785	785	785	785	785	785	789	793	791	785	786	785	784	785	786	785	796	796	796	796	785	788		
15	784	785	787	786	786	785	791	791	789	788	788	785	786	786	786	785	774	773	775	785	785	791	785			
16 D	807	798	812	810	830	809	819	802	797	754	759	792	786	783	700	764	764	781	785	818	840	889	878	862	802	
17	870	854	818	802	813	819	802	796	770	764	778	796	789	776	808	821	820	819	808	808	808	811	809	807	807	
18 Q	802	797	796	795	796	796	792	794	796	792	792	794	796	796	794	792	792	792	792	802	810	797	799	797	796	
19	786	787	786	786	786	786	787	787	788	779	775	776	764	775	786	786	786	786	787	792	796	789	789	785		
20	786	786	786	789	789	789	787	786	792	792	789	789	786	786	786	786	786	786	785	788	790	796	786	788		
21 Q	781	786	786	786	786	786	786	786	785	787	787	785	786	786	785	785	785	781	785	785	786	786	788	785		
22 Q	783	786	786	784	784	784	785	785	785	785	785	785	783	786	786	787	783	783	781	790	792	792	788	785	786	
23	785	787	789	797	799	819	819	819	797	790	790	794	786	785	785	786	786	786	783	786	787	792	797	802	794	
24	806	797	788	789	789	790	794	790	764	732	716	731	748	761	760	759	764	770	776	783	792	795	797	813	775	
25 D	813	806	839	867	761	714	637	786	884	1116	954	876	840	840	852	832	823	851	893	881	864	892	861	857		
26	894	922	856	807	754	711	802	818	787	752	775	734	774	754	716	724	797	804	811	824	837	833	835	798		
27	824	819	808	807	808	811	782	786	792	746	721	719	732	749	764	770	786	798	808	819	830	839	832	835	791	
28	840	838	813	830	830	722	785	800	746	743	678	707	775	785	792	804	812	809	807	810	810	808	808	790		
29	802	802	801	799	797	797	783	798	797	787	766	743	785	792	802	802	802	802	799	802	802	807	808	806	795	
30	797	797	797	797	797	797	788	792	781	778	667	653	603	579	708	754	746	752	798	735	824	830	830	819	759	
31																										
Mean	808	802	796	797	795	790	790	795	788	778	777	774	787	780	770	785	809	804	809	814	817	813	805	801	795	

HORIZONTAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 28 Meanook

 $H = 12,000 \gamma +$ 

October 1958

Hour U. T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	949	951	958	969	975	996	845	955	992	975	966	967	959	963	963	950	936	928	925	930	927	922	977	1014	954
2	1048	1023	1057	1047	1072	1043	972	962	1002	969	970	967	963	963	948	945	939	925	912	911	920	940	954	959	975
3	956	964	978	987	1046	1034	980	1003	970	980	979	928	852	830	932	931	907	877	889	923	929	931	931	944	945
4 Q	948	956	958	963	965	969	975	975	977	967	968	971	969	964	953	960	944	937	928	929	933	947	955	979	958
5	970	958	958	962	969	972	985	979	972	971	970	967	970	964	959	955	944	925	923	935	940	977	956	953	960
6	946	955	964	971	988	985	985	976	976	974	976	977	969	922	971	971	954	939	935	943	952	939	938	954	961
7	958	985	971	971	994	1026	971	999	974	923	894	911	950	974	970	955	911	923	937	939	950	972	972	969	958
8	974	1021	1048	1075	1021	986	984	933	923	974	966	966	958	966	962	969	958	946	939	931	932	936	947	946	969
9 Q	954	963	969	966	971	971	973	970	971	961	936	964	976	968	969	968	961	955	943	943	939	947	954	960	960
10 Q	962	964	972	976	977	977	975	977	978	978	978	977	975	969	967	963	958	948	939	935	930	939	944	958	963
11 Q	958	961	969	970	976	972	974	974	974	978	972	982	982	979	974	966	950	936	923	930	939	962	963	958	963
12 Q	963	970	972	973	972	977	977	979	978	981	985	985	986	982	978	969	947	931	916	922	943	952	965	970	966
13	970	970	972	974	972	986	971	972	961	900	931	978	969	965	985	980	961	946	932	930	947	954	958	971	961
14	974	978	977	976	972	981	980	997	982	985	985	985	986	977	974	958	946	925	929	942	965	955	961	970	970
15	979	968	981	983	993	987	983	982	972	976	983	975	979	979	970	962	955	950	939	935	939	954	964	964	969
16	970	977	979	979	1026	946	889	986	986	979	991	982	978	970	970	962	950	932	911	910	920	939	960	968	961
17	972	970	971	978	993	979	987	985	986	981	981	977	985	985	980	970	954	931	914	927	932	952	952	952	966
18	963	974	970	970	979	982	985	981	978	983	979	979	982	977	969	961	954	936	921	922	932	943	951	954	964
19	961	970	972	972	978	981	980	982	985	985	977	950	935	974	982	966	930	930	919	931	935	943	957	954	960
20	962	970	974	967	970	968	974	978	980	980	982	979	977	974	962	954	946	939	934	943	961	950	958	965	965
21	962	969	985	973	978	978	978	976	972	968	952	938	962	976	973	970	954	936	911	911	922	937	947	957	958
22 D	961	963	970	986	1008	994	731	812	821	700	776	875	731	889	954	918	867	877	848	938	1005	994	1044	1049	905
23 D	1056	985	961	1050	1024	924	907	794	505	409	504	441	625	598	618	766	879	883	921	968	1041	1032	1040	814	
24 D	1025	1041	1073	1084	1024	977	726	338	372	348	202	373	148	108	654	560	841	918	963	939	961	1010	1032	1070	741
25	963	923	922	922	939	943	946	952	943	939	936	934	932	924	908	906	899	900	911	919	925	930	928		
26	936	939	939	954	952	950	954	822	693	884	968	955	923	953	947	914	892	898	903	898	896	954	954	935	917
27 D	949	947	954	962	962	970	954	954	884	927	949	936	932	946	954	963	908	879	828	837	993	1065	985	950	941
28 D	935	930	931	942	947	970	957	946	789	750	630	660	703	931	954	887	867	868	881	919	931	955	994	997	886
29	985	966	952	972	970	988	969	946	935	790	868	930	958	954	936	884	888	930	935	931	936	938	988	1009	940
30	1020	969	957	962	963	983	966	921	943	944	903	847	838	899	897	924	915	899	921	946	962	968	910	946	933
31	964	962	961	962	971	973	966	966	946	950	975	982	978	976	970	955	947	939	939	939	939	954	962	959	
Mean	971	969	973	981	985	979	948	934	914	904	903	911	904	917	940	928	925	923	917	925	940	958	963	970	941

## DECLINATION

Mean values for periods of sixty minutes, Universal Time

Table 29 Meanook

D = 24° E. + ...'

October 1958

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	10.0	10.9	10.9	10.6	10.6	10.4	8.0	24.3	14.1	15.5	15.5	16.0	17.5	20.1	24.2	27.7	30.1	25.4	19.1	16.0	9.4	7.0	6.0	6.2	15.2
2	0.8	0.9	8.0	9.1	4.7	13.3	0.5	21.2	14.1	15.2	14.4	14.3	15.8	17.8	21.3	23.4	22.3	20.1	16.5	9.9	7.6	7.1	7.6	7.5	12.2
3	8.9	8.0	7.6	7.6	-1.0	10.2	2.1	13.3	20.7	17.2	15.3	20.3	21.2	16.2	20.2	21.3	20.3	11.1	1.1	0.5	4.1	8.4	10.0	11.9	11.5
4 Q	12.4	12.4	11.4	11.6	12.3	11.8	11.6	17.0	15.0	14.3	16.0	16.4	16.9	18.7	18.7	18.9	19.3	18.2	15.2	11.3	9.6	9.9	11.3	11.4	14.2
5	10.4	6.0	9.4	9.9	10.3	11.4	11.6	12.5	13.8	14.2	15.8	17.2	17.4	19.1	24.0	25.4	23.2	27.2	11.7	11.3	9.1	5.4	9.5	8.7	13.9
6	10.4	11.3	11.6	11.6	11.3	13.4	10.4	12.4	13.8	16.2	17.2	17.3	17.2	14.6	18.5	21.1	22.2	20.2	13.5	12.1	10.5	5.2	10.9	10.6	13.9
7	9.2	6.5	8.9	9.9	7.6	9.4	16.7	16.8	16.4	17.3	17.2	14.3	15.8	16.8	18.2	21.7	17.6	8.9	12.9	8.5	10.9	9.9	8.0	7.2	12.8
8	8.4	1.5	-2.8	4.5	7.0	9.9	15.2	15.2	12.9	15.8	16.3	15.3	15.3	15.3	17.2	18.7	21.3	22.2	20.5	18.2	14.4	11.9	9.3	9.4	13.0
9 Q	9.4	9.0	8.9	12.5	11.3	11.3	12.4	13.4	14.6	15.9	17.2	19.1	16.3	16.4	18.2	20.1	22.3	22.2	20.3	17.6	14.2	12.8	10.3	10.6	14.8
10 Q	9.4	10.4	10.4	10.4	10.7	11.6	12.3	13.4	13.9	14.5	14.8	15.5	16.0	17.1	19.8	23.7	25.0	23.7	16.3	16.0	12.9	10.9	10.9	9.4	14.5
11 Q	8.9	10.3	11.1	11.7	11.7	13.0	13.3	13.5	13.4	16.3	15.2	15.4	15.8	16.3	18.8	22.3	22.7	21.6	18.2	12.5	7.7	7.0	7.3	9.9	13.9
12 Q	10.7	10.9	12.1	12.4	12.4	12.7	13.1	13.6	13.6	14.4	14.9	15.3	15.8	16.8	19.1	22.7	24.2	24.2	20.2	16.3	10.4	8.7	9.0	10.3	14.7
13	11.1	11.2	11.9	11.5	11.3	15.3	13.3	15.4	17.4	25.8	28.1	21.3	20.8	18.3	22.8	24.6	25.0	23.2	13.9	12.4	10.1	9.4	11.0	10.4	16.5
14	10.8	9.8	11.4	11.4	10.8	11.8	12.0	13.2	14.0	14.8	15.8	16.1	16.3	18.0	22.3	25.1	25.5	23.2	18.2	13.4	8.2	7.5	10.5	10.4	14.6
15	7.6	10.4	11.2	10.6	9.1	13.5	12.3	13.3	15.6	16.9	17.8	14.8	14.8	17.9	21.3	25.0	22.0	18.1	16.2	10.4	7.4	8.0	9.5	11.4	14.0
16	11.3	10.3	9.4	10.9	5.0	4.5	-0.3	16.8	15.9	15.4	15.8	15.2	16.2	18.2	20.2	23.6	24.6	23.2	18.2	15.2	9.7	8.2	8.0	9.9	13.6
17	10.3	10.3	10.2	9.0	9.3	11.7	9.9	18.2	13.6	12.9	14.6	15.8	16.2	18.1	19.2	22.7	24.0	27.3	18.0	11.5	9.0	8.5	8.4	10.1	14.1
18	9.9	7.6	9.9	11.7	11.8	11.7	12.5	13.9	20.1	19.2	16.8	14.3	14.9	16.4	20.2	24.1	23.3	20.2	18.7	14.9	11.3	9.4	10.1	10.3	14.7
19	10.0	10.4	10.9	11.9	13.4	12.2	12.4	12.6	13.2	14.3	14.3	14.2	10.3	15.6	21.7	25.6	24.2	11.4	6.8	7.2	10.3	9.6	8.9	8.0	12.9
20	7.7	9.4	10.4	12.9	12.3	12.9	13.5	14.2	14.2	13.8	14.7	15.4	15.9	17.3	19.9	24.0	26.2	23.2	18.3	15.3	12.1	9.4	10.7	11.5	14.8
21	10.1	10.8	9.3	12.9	11.9	11.9	13.1	13.4	13.5	15.3	16.2	13.1	16.3	17.4	18.0	21.1	22.1	23.8	17.3	15.9	12.3	9.9	10.2	9.4	14.4
22 D	10.3	10.9	11.5	9.9	10.0	9.8	12.8	13.8	16.8	33.9	38.3	24.0	19.5	19.2	22.3	25.2	21.7	6.3	-0.9	9.9	12.4	11.5	14.8	15.4	15.8
23 D	7.0	10.8	13.7	11.9	10.9	7.4	14.8	2.4	29.9	49.1	36.9	37.4	20.6	18.0	12.7	7.0	13.3	13.2	4.5	8.0	8.0	15.3	14.4	15.2	15.9
24 D	7.8	6.0	8.4	3.7	13.4	15.4	4.4	26.1	21.5	35.9	33.9	41.4	17.0	17.3	35.8	37.7	17.2	22.7	6.6	23.6	19.3	17.6	17.8	13.4	19.3
25	9.4	12.1	13.7	15.6	15.5	17.3	20.7	12.9	12.3	14.8	15.2	16.2	16.8	17.4	21.0	25.1	26.2	25.2	19.7	16.2	14.4	13.4	13.4	13.4	16.6
26	13.3	12.9	13.0	13.4	13.3	11.6	16.3	13.9	25.2	22.1	19.1	17.3	11.5	16.9	22.1	22.1	18.6	18.6	13.4	15.0	17.2	13.4	10.3	11.3	15.9
27 D	11.8	12.2	13.3	14.0	17.4	16.5	13.4	14.8	10.3	14.3	18.4	17.1	14.4	15.8	18.7	21.7	15.0	23.5	35.9	17.8	9.3	10.4	8.6	12.9	15.7
28 D	11.4	12.3	13.8	13.4	13.3	12.2	11.9	12.4	5.5	17.3	46.3	46.6	37.8	26.1	20.7	19.7	5.5	16.8	11.3	-2.3	4.6	8.9	9.5	8.0	16.0
29	4.3	7.5	12.5	16.9	13.8	13.4	12.8	12.4	15.8	13.8	16.2	17.3	17.3	17.9	18.1	17.5	17.8	17.6	17.8	15.9	12.4	12.4	8.0	9.4	14.1
30	8.9	10.1	12.3	11.7	12.5	15.8	23.6	12.0	13.3	15.4	16.5	12.7	14.2	20.0	17.9	17.9	18.7	8.7	-0.7	6.4	11.6	12.9	6.5	9.9	12.9
31	11.3	13.4	13.3	13.1	12.1	26.7	15.3	15.6	18.2	14.7	18.8	20.7	20.7	20.7	21.0	24.1	20.2	20.7	17.2	15.1	12.7	13.3	12.7	12.0	16.8
Mean	9.5	9.6	10.6	11.2	10.8	12.6	12.0	14.6	15.6	18.3	19.5	18.9	17.2	17.8	20.5	22.6	21.3	19.7	14.7	12.6	10.7	10.1	10.1	10.5	14.6

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 30 Meanook

Z = 58,000 γ +

October 1958

Hour U. T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	807	797	797	804	819	824	775	807	813	808	797	794	800	802	802	800	797	786	797	797	797	798	824	872	805
2	916	894	861	867	862	835	753	737	783	785	797	798	797	802	798	802	807	808	807	807	808	819	819	815	
3	807	813	819	830	873	809	755	840	781	796	797	764	743	737	753	764	764	781	818	835	819	809	807	804	797
4 Q	819	808	807	797	797	797	802	797	797	796	786	792	792	789	786	797	797	797	802	808	808	799	797	813	799
5	828	830	807	786	796	797	808	807	797	792	786	785	792	787	787	796	796	794	797	797	798	808	807	802	799
6	796	794	793	796	813	808	807	797	797	786	785	785	778	743	764	787	797	797	786	792	802	809	802	797	792
7	792	802	797	802	824	835	672	775	802	735	737	700	743	774	792	792	776	776	792	796	807	819	835	850	784
8	830	850	894	894	841	808	830	808	710	798	800	792	787	792	796	797	797	796	794	794	797	804	797	808	
9 Q	797	798	801	807	798	798	797	797	764	732	764	785	786	787	797	794	786	785	785	787	786	787	788	788	
10 Q	786	785	796	797	797	794	792	792	792	792	792	786	786	787	796	787	786	786	776	776	782	786	793	789	
11 Q	797	793	791	793	793	793	787	787	776	776	765	771	777	783	787	788	788	787	798	799	798	803	798	788	
12 Q	793	789	786	787	787	786	786	787	787	776	787	787	786	791	793	797	797	793	793	793	793	793	793	789	
13	787	787	786	788	793	754	765	797	765	690	711	765	756	743	765	776	782	782	786	793	788	793	793	797	773
14	789	788	786	787	793	788	791	788	786	782	777	776	782	777	777	788	787	787	785	781	786	787	787	785	
15	791	795	793	798	820	819	798	789	786	776	776	765	776	786	787	786	777	777	782	786	793	787	787	787	
16	787	787	798	799	863	733	765	809	808	787	787	787	787	787	788	787	787	782	782	782	782	782	791	791	789
17	793	793	793	798	829	820	821	787	798	788	788	787	787	787	788	787	788	788	788	787	789	798	798	798	795
18	799	798	798	799	793	797	799	797	765	764	777	787	787	786	787	787	787	787	787	791	793	791	790	789	
19	787	787	787	787	797	788	787	786	786	784	765	723	690	744	764	776	787	787	782	777	787	787	793	793	776
20	799	799	799	793	787	787	787	786	787	787	787	787	787	787	787	787	787	787	787	786	786	791	787	789	
21	788	787	797	814	808	793	787	787	876	775	759	706	721	756	776	787	788	787	787	786	787	797	797	797	781
22 D	796	788	788	788	832	789	756	832	906	874	735	787	745	704	776	776	777	837	821	848	876	875	858	863	809
23 D	884	864	844	821	809	788	810	810	929	787	929	951	744	854	772	777	756	821	853	884	888	886	842	832	839
24 D	863	863	794	853	842	832	843	672	1049	1210	1097	1270	972	1043	956	1043	854	907	886	837	907	906	857	907	928
25	882	844	836	832	830	832	814	823	832	811	820	820	815	821	822	832	826	821	817	811	821	820	817	814	826
26	814	814	814	810	809	810	812	771	566	739	775	796	788	799	804	801	774	783	804	825	838	856	841	827	795
27 D	834	832	838	827	817	834	816	809	894	757	794	774	784	795	797	806	791	792	872	901	933	874	849	828	
28 D	835	828	823	824	839	824	837	798	787	785	811	789	789	791	796	765	754	783	837	815	863	921	884	817	
29	874	868	857	868	837	863	837	806	758	783	800	789	811	813	816	756	763	806	785	806	818	822	789	811	814
30	864	851	819	830	826	821	766	756	756	778	777	734	739	746	751	778	787	799	800	810	821	822	809	820	794
31	815	800	800	804	809	787	766	768	750	765	788	893	799	789	800	786	804	804	810	806	804	799	796		
Mean	818	814	810	812	818	805	791	790	798	795	791	797	784	790	791	797	789	797	803	807	812	814	812	815	802

HORIZONTAL INTENSITY  
Mean values for periods of sixty minutes, Universal Time

Table 31 Meanook

H = 12,000  $\gamma$  +

November 1958

Hour U.T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	970	970	974	971	971	978	973	971	970	971	978	978	979	986	971	963	945	941	947	960	955	954	962	967	
2 D	966	974	974	978	978	982	982	982	977	978	977	941	962	946	901	856	817	908	922	945	941	963	961	950	
3 D	977	968	976	1009	1082	1021	1001	968	962	955	924	961	945	930	939	936	913	927	935	941	943	954	955	956	962
4	954	954	974	979	990	985	971	971	966	966	956	970	954	962	972	969	954	947	941	947	949	946	950	952	962
5 Q	957	966	970	969	970	971	971	972	974	973	973	972	968	974	970	963	954	946	942	954	949	960	958	964	964
6 Q	976	979	981	985	987	987	987	990	987	985	985	987	990	983	976	967	958	946	942	946	946	947	950	958	972
7	970	978	978	982	989	985	984	979	978	973	950	961	954	979	977	978	970	955	946	942	947	947	950	958	967
8 Q	963	969	969	970	971	974	974	974	974	958	974	979	982	979	977	962	950	946	943	944	951	958	963	963	965
9	970	970	969	970	971	975	980	977	978	977	978	978	986	985	982	979	973	962	950	955	964	971	974	974	973
10 D	982	985	983	983	980	973	982	977	937	660	551	958	994	978	977	970	954	924	939	947	950	952	966	982	937
11 D	970	1046	1229	1059	1033	1028	974	774	884	946	958	946	936	966	966	962	950	943	939	942	955	962	955	961	970
12	966	970	978	982	983	976	974	974	972	974	965	939	954	955	955	958	950	943	935	950	943	946	979	962	
13	970	985	1001	1000	992	1001	1008	992	974	973	972	973	973	971	970	960	945	938	938	945	949	953	958	970	
14	969	966	965	977	978	974	978	978	979	978	978	978	974	974	965	955	946	939	943	947	956	955	968	967	
15	971	979	978	979	979	971	997	974	908	977	985	975	974	977	985	978	966	958	954	952	954	962	969	976	970
16	981	981	992	992	985	1008	1028	981	923	946	976	978	912	922	974	973	973	954	945	942	945	953	961	978	967
17	963	964	968	968	970	1004	978	905	874	948	968	960	944	953	980	970	962	945	944	941	944	945	952	957	954
18	968	972	976	977	976	976	976	968	948	976	969	971	952	969	991	984	971	977	945	937	937	959	944	958	966
19	962	968	970	970	976	968	962	976	969	949	965	978	976	969	961	975	977	969	953	945	945	946	951	954	964
20	961	961	966	971	980	981	984	978	977	978	977	938	938	977	979	981	981	975	962	960	957	957	961	968	
21	969	969	973	977	978	977	976	977	978	973	970	953	957	976	977	978	977	970	959	953	957	960	962	967	969
22 Q	978	981	978	985	970	981	981	979	977	977	977	965	978	981	977	971	962	951	945	945	953	960	962	974	970
23	981	984	985	985	985	978	978	977	953	985	969	949	915	954	978	981	969	961	961	963	963	963	960	963	968
24	968	970	973	973	971	969	962	938	898	837	773	918	898	867	976	977	969	960	949	951	946	953	965	967	939
25	977	984	985	989	986	989	985	984	984	982	983	983	977	971	969	945	917	931	883	903	938	942	953	1011	965
26	999	980	960	974	967	974	968	961	957	952	952	942	941	933	956	953	953	930	953	958	952	953	952	952	957
27	961	969	969	970	965	967	976	972	949	931	854	951	973	963	929	934	955	949	944	938	942	954	959	977	952
28 D	982	994	1002	1009	991	982	986	1001	932	703	759	821	836	903	969	982	978	968	958	954	955	957	954	954	939
29	961	962	961	969	978	997	982	939	730	899	944	936	857	935	958	968	971	967	950	946	947	955	958	966	943
30 Q	966	968	969	971	978	978	976	974	974	973	973	973	970	972	974	969	963	955	946	944	950	955	955	963	966
31																									
Mean	970	976	984	982	984	984	981	965	948	942	937	958	951	960	970	965	957	947	943	944	950	954	957	966	961

**DECLINATION**  
Mean values for periods of sixty minutes, Universal Time

Table 32 Meanook

 $D = 24^\circ E + \dots'$ 

November 1958

Hour U. T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean	
1	11.5	11.9	11.9	11.9	12.8	12.5	11.9	12.2	12.5	13.3	14.0	15.4	16.4	17.0	20.1	23.6	23.2	21.0	15.8	9.9	10.7	11.3	12.4	11.0	14.3	
2 D	10.9	11.5	11.7	12.3	13.3	12.9	12.9	13.4	14.3	15.3	16.5	17.4	18.3	24.4	27.3	18.7	35.4	17.6	1.8	13.7	10.7	10.6	9.2	9.8	15.0	
3 D	6.5	9.9	11.7	5.8	9.3	13.7	17.6	14.3	13.4	12.9	14.8	16.2	16.3	13.5	19.4	25.0	20.2	14.6	14.7	12.6	13.4	11.2	9.9	9.9	13.6	
4	9.9	12.3	8.7	13.4	13.4	9.3	12.8	13.6	14.2	15.2	15.1	15.6	20.7	15.2	17.8	20.4	21.5	18.5	14.3	13.2	13.1	13.4	13.4	12.2	14.5	
5 Q	12.5	11.5	12.3	12.6	13.3	13.3	12.9	12.9	13.4	14.2	14.6	14.8	15.4	15.8	17.9	20.6	20.9	20.2	18.5	15.7	13.4	12.3	12.8	12.4	14.8	
6 Q	12.7	12.1	11.6	12.4	12.2	12.3	12.6	12.7	13.6	14.0	14.7	14.8	16.5	16.9	17.8	20.8	21.4	19.8	15.6	13.6	11.7	11.7	12.2	11.4	14.4	
7	10.4	10.4	10.9	11.9	11.3	11.4	13.3	13.1	12.9	14.2	18.7	17.3	23.7	13.3	20.2	22.0	22.7	20.2	15.5	13.7	13.2	11.9	10.5	10.1	14.7	
8 Q	12.0	12.9	12.8	12.4	13.7	13.3	12.3	13.3	14.9	14.4	17.3	14.2	17.2	18.2	19.7	21.0	21.1	19.3	15.3	13.8	13.1	12.9	12.4	12.0	15.0	
9	10.9	11.4	11.3	11.0	11.1	18.2	10.3	12.3	12.4	12.5	13.4	14.4	15.9	16.4	17.6	19.1	19.8	19.2	15.3	14.3	12.9	11.9	11.7	11.3	13.9	
10 D	11.3	11.4	12.2	12.5	12.2	12.1	12.5	13.4	16.4	9.4	61.4	25.1	18.0	19.2	21.3	21.3	22.3	15.0	3.9	3.6	9.7	8.2	10.7	8.4	15.5	
11 D	10.6	9.9	6.0	14.3	13.4	15.2	12.9	14.2	15.0	17.0	15.3	16.8	17.8	18.1	19.8	21.2	22.2	19.2	13.9	12.7	11.9	12.9	13.5	13.4	14.9	
12	12.5	12.9	12.5	13.2	12.9	12.0	12.7	13.4	13.8	15.2	16.7	14.8	19.7	20.8	19.1	18.7	22.4	23.0	15.4	12.5	9.5	6.0	8.7	9.0	14.5	
13	9.0	11.9	8.2	12.8	12.2	10.5	14.2	15.3	16.8	13.0	14.2	15.2	15.3	16.2	17.7	19.7	19.3	17.1	14.9	13.4	12.9	12.4	12.3	12.1	14.0	
14	10.9	10.9	12.7	13.3	13.2	12.8	12.9	12.9	12.9	13.8	13.9	14.6	15.3	15.8	17.1	19.3	20.2	19.1	16.7	14.4	12.2	10.4	9.3	12.3	14.0	
15	9.2	9.6	11.3	12.5	11.9	13.4	14.3	8.4	12.3	17.4	15.2	15.4	15.3	19.1	18.7	20.3	21.1	18.5	16.2	13.6	11.9	10.3	10.5	10.4	14.0	
16	8.4	11.0	10.5	10.9	11.9	11.3	12.7	14.3	10.0	12.3	14.9	18.2	16.0	13.6	12.6	20.7	22.1	18.0	15.2	13.2	12.2	12.4	12.3	12.0	13.6	
17	11.9	12.3	12.4	13.4	14.5	14.5	17.3	7.5	14.7	18.3	17.3	15.4	13.3	18.4	18.3	21.5	22.1	18.5	19.2	16.3	14.3	13.8	12.7	11.5	15.4	
18	11.4	12.1	11.9	12.3	12.5	13.3	13.4	17.4	22.1	16.4	19.2	20.2	16.8	21.2	21.2	20.2	15.8	16.4	14.6	13.4	12.0	11.0	9.9	10.4	15.2	
19	10.9	11.4	12.0	12.4	12.4	12.5	12.9	15.8	15.8	12.5	17.3	15.8	15.3	13.4	11.3	11.4	18.2	17.2	14.4	13.4	12.4	12.0	12.4	13.6		
20	12.3	12.3	12.0	12.4	12.9	12.5	12.9	12.5	13.4	14.0	13.4	9.9	14.4	15.2	15.3	16.4	14.6	15.3	13.4	13.3	13.0	13.1	12.9	12.3	13.3	
21	11.8	11.3	12.4	12.3	12.5	12.9	12.8	15.3	14.2	14.4	14.6	11.4	16.4	19.2	18.1	17.7	18.0	13.4	12.7	12.8	12.2	11.9	10.9	11.3	13.8	
22 Q	10.7	10.1	11.3	11.2	11.9	12.7	12.8	12.8	13.9	15.6	15.6	13.4	15.8	16.0	17.1	19.5	19.1	17.5	15.3	13.6	12.0	11.3	10.4	9.9	13.7	
23	9.9	9.9	10.4	11.5	13.2	13.3	13.5	16.3	11.5	18.2	17.9	20.1	17.8	20.3	19.2	18.2	17.0	10.7	12.8	13.3	13.1	13.8	13.8	12.7	14.5	
24	12.5	12.7	12.7	12.7	12.7	12.5	12.9	19.5	24.4	30.5	14.6	18.3	15.0	20.3	17.6	14.4	18.6	17.0	13.9	12.1	11.4	10.5	10.4	10.4	15.3	
25	11.9	11.9	12.7	12.9	12.9	12.1	12.6	13.0	13.0	13.7	14.6	14.4	14.8	16.7	14.4	14.4	6.5	13.8	6.8	6.5	7.5	8.1	8.9	8.9	11.8	
26	14.8	14.3	13.7	15.3	15.3	16.3	11.8	12.9	12.8	12.3	15.6	17.9	15.8	15.8	20.3	20.5	14.8	12.5	12.9	11.7	12.7	12.4	11.9	10.8	14.4	
27	10.9	11.9	13.0	11.9	12.9	16.0	14.7	15.3	24.6	23.3	13.6	15.6	14.5	14.6	13.6	10.5	16.0	13.8	15.8	13.7	12.3	9.9	10.1	10.5	14.1	
28 D	10.1	12.0	14.0	14.6	16.0	13.8	15.7	27.8	16.5	14.2	15.6	28.3	23.1	21.5	16.4	16.4	16.3	14.6	11.5	11.2	12.7	12.0	11.8	10.9	15.7	
29	11.1	12.0	13.1	11.8	13.4	16.6	14.7	14.9	24.8	24.4	23.3	16.4	13.1	14.7	13.4	10.8	15.6	13.6	12.9	11.8	11.4	11.9	13.0	11.9	14.6	
30 Q	12.7	12.9	13.1	13.6	13.6	14.8	14.2	13.4	13.2	14.6	14.7	15.0	15.2	15.3	15.6	17.6	18.2	16.8	15.0	14.6	13.4	12.8	11.9	11.1	14.3	
31	Mean	11.1	11.6	11.7	12.4	12.8	13.3	13.4	14.1	15.1	15.6	17.3	16.4	16.6	17.2	17.9	18.7	19.6	17.0	13.8	12.7	12.1	11.5	11.4	11.1	14.4

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 33 Meanook

Z = 58,000  $\gamma$  +

November 1958

Hour U. T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1	800	800	800	801	800	799	800	800	799	796	795	790	790	799	800	795	789	790	790	782	796	795	796	796	796
2 D	797	797	795	796	797	796	795	792	795	788	778	778	767	715	681	649	703	734	757	788	811	810	811	803	772
3 D	812	816	811	827	778	788	767	801	802	769	790	789	777	778	765	773	788	795	800	800	801	804	792		
4	811	810	822	838	827	833	805	801	800	779	795	773	795	801	805	805	800	801	800	810	807	805	801	805	
5 Q	801	801	800	800	800	801	800	800	800	799	799	795	788	795	800	800	800	783	786	792	789	786	783	796	
6 Q	783	779	779	779	776	783	779	776	779	776	771	774	774	776	783	786	779	774	789	779	788	788	788	792	780
7	801	800	800	800	800	801	800	799	800	800	767	762	740	756	746	752	770	778	789	800	801	801	801	800	786
8 Q	799	799	799	799	799	799	805	790	778	757	756	769	784	788	789	789	789	785	789	795	800	800	800	796	790
9	795	795	797	801	811	822	813	801	790	789	789	789	788	788	789	791	790	791	789	790	790	788	784	784	794
10 D	784	783	786	786	786	801	811	789	735	648	438	758	797	790	790	788	778	767	771	769	788	789	795	805	764
11 D	805	855	866	887	829	701	723	769	758	789	785	779	769	788	799	800	800	800	801	801	804	805	800	800	796
12	800	800	800	800	800	800	800	800	800	789	778	740	757	760	778	799	800	795	795	810	801	801	812	792	
13	816	833	864	831	825	833	849	822	790	779	790	790	793	790	800	800	800	795	795	795	795	795	795	807	
14	795	795	795	795	795	789	789	789	789	789	789	789	789	790	792	792	789	795	797	797	800	799	795	793	
15	801	802	802	801	802	812	823	812	725	780	801	802	780	759	780	790	790	790	791	798	798	796	791	790	
16	796	793	791	797	801	812	817	801	737	759	779	778	736	714	736	758	779	787	790	791	791	790	790	790	780
17	796	794	801	801	811	812	812	770	660	768	790	790	774	779	793	791	797	800	801	801	805	801	801	801	790
18	802	800	800	800	801	801	796	765	684	714	722	759	748	735	759	773	780	779	796	801	812	834	811	801	778
19	790	798	801	801	800	779	763	785	779	747	747	780	779	768	752	768	779	790	796	800	801	802	800	784	
20	796	796	800	801	800	798	794	796	791	790	780	752	753	770	770	779	780	780	790	796	796	791	791	787	
21	796	796	796	791	790	790	791	790	785	779	770	741	724	736	740	758	768	770	788	796	796	791	791	778	
22 Q	792	796	794	797	790	791	790	789	779	779	780	767	768	779	779	789	789	789	796	796	796	790	790	787	
23	790	790	790	790	790	790	800	801	733	753	768	741	725	725	758	780	780	779	782	789	789	791	791	790	786
24	789	789	789	789	789	790	785	758	714	660	601	682	638	661	768	779	790	791	801	802	808	805	802	800	758
25	798	796	796	794	794	793	790	790	790	789	786	780	772	757	752	753	747	772	802	829	836	830	838	876	794
26	825	806	810	823	812	812	802	801	796	782	776	770	772	754	771	768	770	771	798	801	801	802	801	793	
27	801	802	811	818	823	829	820	801	763	747	671	768	779	768	737	758	770	786	793	802	802	811	828	787	
28 D	838	846	848	855	836	814	768	709	758	702	618	676	655	704	779	779	789	783	796	801	801	802	803	773	
29	800	802	813	819	825	830	819	780	606	705	768	758	692	709	736	758	770	785	791	798	800	797	797	796	773
30 Q	790	790	791	791	791	792	787	791	790	790	790	788	789	791	790	790	790	789	789	791	791	790	790	790	
31																									
Mean	800	802	805	807	803	800	796	789	764	765	751	768	760	760	771	777	781	784	791	796	800	800	799	800	786

**HORIZONTAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 34 Meanook

 $H = 12,000 \gamma +$ 

December 1958

Hour U. T. Day	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1 Q	971	974	976	977	972	982	979	979	978	979	982	983	978	977	976	970	955	955	947	954	951	963	968	960	970
2	974	979	983	986	994	994	993	994	987	979	864	655	719	621	743	860	957	932	943	955	943	970	982	1012	917
3	1002	998	986	986	978	979	974	970	970	970	976	970	971	977	976	970	966	955	955	950	953	954	958	971	
4 D	970	990	984	995	990	993	990	966	905	693	570	558	449	456	511	504	523	519	693	892	1015	977	997	1018	799
5 D	1079	1059	1212	1259	1155	1046	1064	1012	971	957	949	934	934	927	934	934	926	912	912	914	918	918	918	931	991
6	947	947	958	958	955	1054	950	949	950	928	646	851	903	805	864	935	961	955	939	939	943	946	943	939	924
7 Q	953	957	970	977	976	965	954	960	954	954	957	957	953	946	973	965	958	957	946	945	945	945	949	960	957
8	960	968	972	980	980	980	977	975	972	972	944	945	979	960	945	941	967	976	961	952	929	951	968	944	962
9	988	988	1005	991	990	977	983	1015	991	969	966	969	969	961	976	969	961	952	948	944	947	948	948	953	971
10 Q	964	967	968	977	988	988	983	972	980	977	972	968	967	960	964	961	960	952	952	949	948	948	952	956	966
11	967	977	982	978	975	977	981	977	989	971	978	978	975	975	977	973	966	957	953	953	954	953	954	965	970
12 Q	977	985	970	974	978	980	978	977	976	973	970	973	975	970	970	967	960	954	945	945	953	957	953	969	968
13 D	992	1000	1008	993	1016	1032	997	976	988	983	976	974	922	506	474	619	753	757	803	779	853	937	955	952	885
14	970	977	977	977	970	952	944	929	952	952	953	954	937	843	865	865	920	929	865	890	928	937	983	934	
15	952	956	961	961	961	960	960	960	961	964	967	962	961	952	953	952	944	944	944	948	953	959	976	957	
16	989	985	1004	985	993	1003	985	976	973	945	921	891	868	965	985	970	960	954	962	957	957	961	965	975	964
17 D	979	978	985	979	977	971	963	963	931	879	932	962	970	986	982	990	979	901	858	955	953	961	939	1008	958
18 D	1386	1171	1167	1041	888	914	944	916	918	931	939	946	947	946	946	939	935	931	922	915	916	924	927	954	973
19	945	985	1091	1119	1016	1008	969	922	836	603	867	855	859	863	910	945	961	960	945	953	938	949	953	965	934
20	965	953	965	977	976	968	957	954	899	893	918	851	938	934	968	957	938	930	942	934	926	936	945	957	941
21	969	969	969	976	974	974	978	932	908	939	900	906	911	950	970	977	969	955	943	934	939	954	954	962	950
22	972	973	979	975	972	966	956	971	959	933	971	975	971	971	959	967	974	959	955	925	935	949	963	971	963
23	977	971	974	978	978	979	976	977	947	884	932	914	918	866	913	985	978	932	890	938	943	958	955	978	948
24	984	989	981	981	977	977	965	961	937	960	969	970	934	935	970	978	970	957	954	952	953	954	953	957	963
25 Q	974	976	978	978	979	977	974	974	974	947	966	966	982	982	977	985	971	955	954	958	963	969	986	972	
26	994	991	994	1001	994	992	986	984	979	970	978	969	984	954	985	974	939	947	954	952	946	947	951	968	
27	994	989	982	982	986	1018	966	960	948	888	831	711	853	932	970	971	962	948	947	943	946	955	958	969	942
28	962	976	994	979	985	980	976	977	969	961	955	961	974	978	946	924	958	961	932	935	932	943	970	974	963
29	990	985	986	979	982	977	971	977	977	971	976	971	974	962	961	974	970	955	932	916	908	946	928	947	963
30	974	985	985	990	984	977	979	919	921	943	978	969	906	969	985	990	978	961	939	938	946	961	962	962	
31	971	973	981	982	985	982	979	978	989	985	989	989	975	989	989	989	978	959	950	943	950	961	970	977	976
Mean	990	986	998	996	984	985	975	966	954	931	925	918	921	905	918	932	939	928	927	933	940	950	955	967	951

DECLINATION  
Mean values for periods of sixty minutes, Universal Time

Table 35 Meanook

D = 24° E + ...'

December 1958

Hour U.T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1 Q	11.4	12.4	12.4	12.9	13.3	13.0	12.8	12.8	12.7	12.4	12.9	13.8	13.4	14.9	15.8	17.2	18.3	16.9	14.9	11.9	10.9	10.9	11.7	11.7	13.4
2	11.4	11.7	11.4	11.1	10.9	11.7	12.3	12.4	15.6	26.1	50.5	57.4	42.6	45.2	39.3	35.4	20.8	12.9	10.5	13.4	11.2	8.4	8.4	8.4	21.0
3	10.5	11.4	10.7	12.3	13.6	13.9	14.8	14.8	14.7	14.9	14.8	16.0	15.6	15.6	18.1	20.6	18.7	19.3	17.8	16.8	19.5	13.8	12.9	15.3	15.3
4 D	11.8	11.4	11.8	11.9	13.3	11.5	12.7	14.0	17.8	30.7	26.5	37.2	33.8	27.3	15.6	33.9	30.7	30.7	34.2	23.6	26.7	23.1	16.9	15.4	21.8
5 D	13.3	20.5	11.9	10.6	12.7	18.5	18.0	15.6	17.0	19.5	21.9	20.7	19.2	17.8	17.4	18.7	20.1	17.8	18.5	17.3	15.3	13.8	12.9	11.8	16.7
6	11.8	11.1	13.6	13.5	12.9	12.9	13.4	13.6	14.6	16.1	4.0	21.5	25.0	21.5	18.2	22.1	12.2	14.2	13.3	12.5	13.2	10.3	11.4	11.2	14.3
7 Q	13.4	13.8	14.6	15.4	13.8	13.2	13.3	14.0	13.4	13.3	14.3	14.6	13.4	13.4	14.9	17.8	18.2	18.2	15.3	15.2	14.2	13.4	12.9	12.3	14.4
8	12.4	12.4	12.3	12.4	14.3	13.6	13.4	13.8	13.8	15.4	15.4	24.0	20.1	18.2	15.6	19.2	19.1	16.3	13.6	14.0	12.4	4.8	5.7	11.3	14.3
9	10.9	9.3	13.4	11.7	13.3	14.1	12.9	25.0	19.5	15.6	17.6	20.3	20.1	17.0	17.3	18.7	19.1	17.4	17.6	16.8	14.4	12.9	12.5	11.5	15.8
10 Q	11.5	11.9	11.9	12.4	10.7	12.3	13.3	13.4	14.4	15.4	15.4	15.4	15.4	15.4	15.4	16.3	17.3	17.2	15.9	15.3	14.8	13.8	13.2	11.9	14.2
11	12.2	12.4	12.3	12.7	11.9	11.5	12.2	13.3	13.5	14.2	15.8	16.1	16.2	17.2	15.2	16.8	16.4	13.9	13.3	12.4	12.4	11.8	9.9	11.1	13.5
12 Q	11.4	10.3	10.9	12.5	12.9	12.9	12.8	12.7	12.9	13.8	13.2	14.2	15.2	15.4	15.8	17.0	16.6	17.5	16.4	14.4	12.3	11.4	10.2	8.0	13.4
13 D	10.3	6.6	10.4	10.5	13.8	10.5	12.3	11.9	12.5	15.2	14.3	18.2	24.6	32.0	56.6	33.0	33.9	11.0	14.6	-4.4	0.1	8.9	3.8	6.0	15.3
14	10.1	12.9	16.6	15.8	15.2	15.2	14.3	14.3	15.2	14.4	15.6	16.4	15.8	15.8	9.4	9.5	5.5	9.9	14.4	8.6	11.1	9.0	7.3	9.5	12.6
15	11.5	13.3	13.8	14.4	14.5	14.2	13.8	13.4	13.4	12.9	14.2	14.4	14.6	16.9	18.1	20.2	20.2	21.1	18.2	15.8	14.0	13.1	11.5	11.9	15.0
16	11.1	10.3	9.2	13.9	17.4	11.3	14.1	12.9	13.4	12.9	14.3	27.5	33.2	18.8	19.7	19.5	18.2	20.1	19.7	15.2	14.3	12.2	11.5	12.3	16.0
17 D	13.3	13.4	14.3	14.8	14.8	14.3	13.4	13.1	14.9	13.6	16.3	18.3	18.2	16.4	17.8	18.9	23.1	19.7	13.4	-1.3	9.3	10.4	12.8	12.4	14.4
18 D	11.7	19.2	14.8	22.7	10.5	25.6	21.1	14.3	13.8	15.8	14.2	14.4	14.2	13.4	14.8	16.3	18.7	18.7	17.2	16.1	11.1	8.9	10.7	12.4	15.0
19	10.3	14.0	7.5	8.2	24.6	21.1	26.0	14.2	14.4	-5.8	19.3	22.1	10.4	13.8	10.3	16.9	16.4	15.2	15.8	18.8	15.8	14.3	12.9	11.5	14.5
20	10.0	12.9	22.5	24.2	18.3	18.3	11.1	14.6	16.8	10.7	16.9	10.4	17.6	17.8	18.8	16.3	15.2	14.8	15.8	17.3	15.8	13.3	13.6	13.6	15.7
21	12.3	12.1	11.9	12.7	11.7	13.4	15.8	12.5	10.6	13.2	14.8	12.5	10.1	10.9	14.2	16.6	13.9	13.4	12.9	12.7	11.8	10.3	11.5	11.5	12.6
22	12.9	13.8	12.3	13.3	13.8	13.8	18.2	14.4	10.8	8.4	12.7	15.2	14.3	15.3	12.3	13.8	18.2	19.0	18.3	14.8	8.9	10.6	9.5	10.7	13.6
23	12.9	12.9	13.3	14.2	13.8	13.7	13.4	12.8	15.7	19.1	24.1	25.0	15.6	18.2	13.4	22.7	20.3	13.6	5.0	3.7	8.7	9.6	8.9	11.9	14.3
24	12.9	14.5	14.2	13.6	15.6	12.7	11.9	12.1	6.2	11.5	12.4	14.2	13.0	12.2	12.3	17.8	19.5	16.8	16.2	15.0	13.6	12.1	11.9	11.5	13.4
25 Q	12.5	12.9	13.3	13.8	14.2	13.8	12.9	12.9	12.5	12.7	7.8	13.3	14.5	15.6	17.1	15.8	18.7	18.7	15.6	12.9	11.1	9.7	9.7	10.3	13.5
26	10.3	10.5	11.4	10.0	12.9	12.4	12.9	14.0	13.5	10.9	14.8	19.3	18.2	26.2	23.4	22.1	23.6	15.6	8.0	11.9	9.9	10.0	7.3	7.8	14.0
27	7.9	9.8	12.3	12.9	13.8	11.9	13.6	18.7	11.8	12.4	18.7	18.5	17.2	12.4	18.2	18.5	18.1	18.6	16.6	14.8	11.9	11.3	11.4	9.9	14.2
28	8.9	10.0	9.4	13.4	14.3	14.2	13.6	15.6	14.7	13.4	14.2	14.7	13.8	14.6	14.8	13.3	18.4	20.1	17.3	13.8	11.8	7.8	7.8	7.3	13.2
29	6.6	11.5	13.5	14.8	14.7	14.0	15.4	13.8	10.3	12.5	13.8	15.2	14.8	15.9	12.7	18.2	20.7	21.7	18.5	16.0	9.4	6.2	7.0	7.8	13.5
30	8.4	11.5	13.6	14.8	15.3	15.7	18.5	6.6	13.8	17.0	17.0	16.8	16.4	15.3	18.0	21.1	20.8	21.5	16.7	19.5	21.6	19.7	19.6	20.7	16.7
31	21.3	21.6	13.8	16.4	16.4	15.2	17.2	10.8	14.3	11.3	13.0	13.4	15.4	14.4	14.0	17.4	20.7	21.3	18.9	16.3	13.1	11.0	10.4	10.8	15.4
Mean	11.2	12.6	12.8	13.6	14.2	14.2	14.6	13.8	13.7	13.8	15.7	18.8	18.6	17.8	18.0	19.4	19.6	17.8	16.1	13.5	12.9	11.8	10.9	11.2	14.9

**VERTICAL INTENSITY**  
Mean values for periods of sixty minutes, Universal Time

Table 36 Meanook

Z = 58,000  $\gamma$  +

December 1958

Hour U.T. Day \	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20	20 to 21	21 to 22	22 to 23	23 to 24	Mean
1 Q	790	790	790	790	790	790	789	790	790	786	784	784	780	785	786	788	790	792	794	797	794	790	788	785	789
2	786	786	788	790	794	799	797	795	793	786	673	604	665	667	630	683	727	742	771	790	792	814	809	800	753
3	803	799	803	802	799	798	797	792	794	791	792	791	790	790	791	797	797	792	792	792	792	792	792	792	795
4 D	790	789	789	790	789	790	789	780	801	857	792	710	793	793	793	877	970	943	962	879	851	799	799	766	820
5 D	703	711	758	738	758	732	740	791	824	835	844	825	818	818	816	818	817	812	807	807	812	812	814	792	792
6	813	812	813	813	812	807	807	807	802	795	716	742	726	722	715	745	769	769	790	791	802	813	812	809	783
7 Q	807	813	824	823	815	813	807	807	802	802	802	801	791	802	806	803	801	805	805	804	803	807	806	806	806
8	807	802	803	806	802	802	802	803	802	769	739	791	786	775	775	771	790	803	813	812	820	835	825	797	797
9	845	833	827	824	813	813	823	749	803	824	814	792	795	801	813	812	803	802	803	803	803	803	803	803	808
10 Q	803	803	803	803	803	803	804	804	803	802	802	803	801	803	802	803	803	811	809	803	802	802	802	802	803
11	802	801	801	803	807	803	802	802	791	780	807	807	802	792	797	798	798	792	797	797	797	797	802	802	799
12 Q	802	802	802	803	802	802	802	801	798	791	779	780	781	791	794	797	800	802	810	802	799	801	803	812	798
13 D	844	837	885	910	844	856	829	812	807	812	791	780	748	647	490	532	688	694	792	803	824	847	835	835	781
14	835	824	835	833	829	824	811	792	795	802	820	807	812	791	705	715	726	764	801	797	815	820	826	829	800
15	813	804	804	804	803	803	804	803	804	813	813	803	802	798	792	792	802	813	814	813	810	808	805	807	805
16	803	794	793	819	836	826	814	802	813	787	746	737	685	773	802	802	803	803	808	803	800	798	800	798	794
17 D	793	793	792	793	792	792	792	793	737	650	727	776	770	781	793	792	782	760	840	830	782	803	803	832	783
18 D	804	867	792	815	759	776	781	770	772	780	791	798	803	798	803	803	803	803	803	799	803	798	823	798	798
19	825	852	899	922	836	834	819	803	754	619	727	700	727	775	781	769	808	803	808	808	808	814	814	813	797
20	818	814	834	829	815	814	803	782	787	727	750	726	760	743	780	802	798	790	804	813	813	814	814	814	794
21	814	804	805	814	816	816	808	760	690	737	738	737	738	761	762	780	781	772	782	792	803	808	803	802	780
22	813	824	814	803	802	802	802	782	761	727	770	782	791	781	776	776	781	796	789	798	803	803	803	803	790
23	803	802	798	793	802	798	793	793	781	708	750	817	705	684	673	761	787	770	765	789	793	804	804	813	774
24	814	818	813	814	814	802	791	793	750	770	792	791	761	750	782	803	792	796	798	798	802	798	798	793	793
25 Q	798	793	793	793	793	792	791	788	787	743	761	761	782	782	792	798	791	787	791	791	792	791	791	786	786
26	791	787	792	800	798	798	792	792	784	776	775	769	657	715	781	781	770	778	781	791	798	803	808	808	780
27	824	813	807	813	826	826	808	776	769	717	661	608	726	780	792	804	789	792	802	804	803	803	804	781	781
28	803	803	813	814	803	804	803	770	764	770	776	770	781	782	766	749	781	803	801	808	814	804	814	815	792
29	843	836	814	803	793	803	798	792	791	792	792	791	778	775	787	782	791	798	804	802	803	803	825	800	800
30	821	825	815	814	803	798	776	673	728	761	802	791	726	749	793	792	792	793	792	802	804	803	785	785	785
31	803	804	808	803	800	802	803	772	791	796	798	792	784	786	792	798	793	793	801	795	800	798	793	791	796
Mean	807	808	810	812	805	804	799	786	783	774	772	765	767	766	763	778	791	791	804	803	805	806	807	792	792

Table 37. Meanook

DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS  
 Departure from mean of the day not adjusted for non-cyclic change  
 HORIZONTAL INTENSITY (gammas) (All Days)

## DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS

Departure from mean of the day not adjusted for non-cyclic change

1958

Table 38. Meanook

Table 39 Meanook

VERTICAL INTENSITY (gammas) (All Days)

1958

## DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS

Departure from mean of the day not adjusted for non-cyclic change

Table 40 Meanook

HORIZONTAL INTENSITY (gammas) (Quiet Days)

1958

## DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS

Departure from mean of the day not adjusted for non-cyclic change

176

Table 41 Meanoock

DECLINATION (minutes) (Quiet Days)

1958

## DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS

Departure from mean of the day not adjusted for non-cyclic change

Table 42 Meanook

VERTICAL INTENSITY (gammas) (Quiet Days)

1958

Table 43 Meanook

HORIZONTAL INTENSITY (gammas) (Disturbed Days)

1958

## DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS

Departure from mean of the day not adjusted for non-cyclic change

Table 44 Meanook

DECLINATION (minutes) (Disturbed Days)

1958

## DIURNAL INEQUALITIES OF MAGNETIC ELEMENTS

Departure from mean of the day not adjusted for non-cyclic change

180

Table 45 Meanook

VERTICAL INTENSITY (gammas) (Disturbed Days)

1958