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RECORD OF OBSERVATIONS AT
MEANOOK MAGNETIC OBSERVATORY
1964

A. B. Cook and G. A. Brown

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MEANOOK MAGNETIC OBSERVATORY, 1964

Geographic Latitude 54° 37'N

Geographic Longitude 113° 20'W

Officer-in-Charge: Anne B. Cook

Geomagnetic Latitude 61.8°N

Geomagnetic Longitude 301.0°E

Assistant: Glenn A. Brown

Introduction

Meanook Magnetic Observatory was established in July 1916, 85 miles north of the city of Edmonton, Alberta, and 11 miles south of the town of Athabasca, Alberta. The observatory is controlled by the Division of Geomagnetism of the Dominion Observatory, Ottawa, Canada.

Variometers

Three sets of photographic magnetic variometers are operated continuously at Meanook: standard-sensitivity Ruska variometers, and standard-sensitivity and low-sensitivity la Cour variometers. The la Cour instruments have been operating since the Second Polar Year 1932-33. The Ruska variometers were installed in May 1961, in the basement of the old magnetic observatory, and were adopted as the standard recorders of the magnetic observatory on October 1, 1963. Chart speeds are 20 mm per hr for the Ruska and 15 mm per hr for the la Cour. The temperature of the variometer rooms is maintained constant to 1°C by thermostatic control.

The scale values are determined monthly in the case of the Ruska recorders, less frequently for the la Cour, by applying known fields to the variometers by means of Helmholtz coils.

The scale values per millimeter adopted for 1964 are:

	H	D	Z
Ruska	11.60 γ	1.68'	11.86 γ
la Cour standard sensitivity	7.84	1.00	10.83
la Cour low sensitivity	22.56	2.40	29.98

In addition to the photographic variometers, a three-component recording fluxgate magnetometer provided a visible record of H, D, and Z at a chart speed of 20 mm per hr. The scale value is normally 8.3 γ per mm, corresponding to a full-scale range of 1000 γ in each component. By means of limit switches and a relay, the sensitivity of the recorder is cut in half whenever any element exceeds full-scale indication, automatically converting the instrument into a storm recorder.

Earth-current recorders and an all-sky auroral camera were also operated during 1964. This report deals with magnetic observations only.

Absolute Instruments

The absolute instruments used at Meanook during 1964 were Cooke magnetometer No. 15 (with a correction of $-0.3'$) for declination; Quartz Horizontal Magnetometer No. 259 (with a correction of $+0.00013H$) for horizontal intensity; Ruska earth inductor No. 6540 (with a correction of $+0.0'$) for inclination; and a Dominion Observatory proton precession magnetometer (4257.60 cps/oersted) for total intensity. A Dominion Observatory portable fluxgate magnetometer was used as a stand-by instrument for determining declination, inclination and total intensity.

Absolute Observations and Base-line Values

Absolute observations were made twice per week, on the average. Base-line values for the vertical intensity were computed from the readings of the proton precession magnetometer and the earth inductor by the relation $Z = F \sin I$. The r.m.s. differences of the observed minus adopted base-line values were 0.1' in declination, 1 γ in horizontal intensity, and 2 γ in vertical intensity.

Notes on the Tables

Universal Time (U.T.) is used throughout.

Tables 1-36 show the mean values of D, H, and Z for intervals of 60 minutes centered on the half-hour. The tabulated values are obtained by adding to the adopted base-line values ordinates scaled from the magnetograms with the aid of a ruled transparent scale. The tables also show mean values for each day, and mean values for each hour.

Tables 37-45 contain mean values of the magnetic elements for the month, for the year, and for summer, equinox and winter, for all days, for International Quiet Days and for International Disturbed Days.

Table 46 lists three-hour range indices and K-indices for Meanook. Lower limit of K₉ is 1500 γ . Throughout the year, these indices are sent to De Bilt, Netherlands, and Göttingen, Germany, twice per month, for use in preparation of the planetary K-indices published by the International Association of Geomagnetism and Aeronomy.

Maximum hourly ranges in all components were also scaled, but are not published here. Copies of hourly ranges, three-hour indices, and magnetograms were sent, upon request, to scientific institutions and geophysical prospecting agencies operating in Canada.

PUBLICATIONS OF THE DOMINION OBSERVATORY

Monthly Mean Values for 1964

Month	D East		H	Z	X	Y East		I North		F
	°	'				γ	γ	°	'	
1964										
January.....	23	57.6	13086	58715	11958	5314	77	26.1	60156	
February.....		57.1	090	705	963	14		25.8	147	
March.....		56.8	087	705	960	12		26.0	146	
April.....		55.8	094	698	968	11		25.5	141	
May.....		54.3	100	691	976	08		25.1	135	
June.....		53.9	108	690	984	10		24.6	136	
July.....		54.4	114	691	989	14		24.3	138	
August.....		54.2	112	688	987	13		24.4	135	
September.....		54.2	109	688	985	12		24.5	134	
October.....		54.0	106	687	982	10		24.7	133	
November.....		53.5	113	685	989	11		24.3	132	
December.....		53.1	119	683	995	12		23.9	132	
Year.....	23	54.9	13103	58694	11978	5312	77	24.9	60139	

Mean Annual Values

Year	D East		H	Z	X	Y East		I North		F
	°	'				γ	γ	°	'	
1954.....	24	30.3	12874	58819	11714	5340	77	39.2	60211	
1955.....		26.6	887	782	732	32		37.8	178	
1956.....		22.5	894	735	740	21		37.1	134	
1957.....		23.1	921	801	768	35		36.4	204	
1958.....		15.0	943	819	801	16		35.4	226	
1959.....		13.0	960	787	819	16		34.1	198	
1960.....		09.7	985	774	848	16		32.5	192	
1961.....		06.1	13022	748	887	18		30.1	175	
1962.....		02.7	054	723	921	18		28.1	156	
1963.....	23	58.7	076	711	949	14		26.5	150	
1964.....		54.9	103	694	978	12		24.9	139	

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

Table 1 Meanook

H = 12,000 γ +

January 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24		
1	1106	1108	1102	1101	1100	1096	1099	1100	1100	1100	1100	1103	1106	1109	1110	1111	1100	1101	1100	1093	1095	1101	1101	1102	1102	
2 D	1109	1109	1108	1100	1231	1265	1162	1114	905	564	741	550	1009	1042	1099	1122	1080	1037	1062	1066	1082	1079	1089	1065	1033	
3 D	1088	1097	1115	1079	1086	1106	1086	1077	1056	997	976	951	1012	1030	1091	1100	1073	1065	1080	1071	1085	1088	1091	1077	1066	
4	1091	1088	1085	1092	1104	1102	1107	1086	1007	1063	1070	1077	1045	1077	1077	1079	1092	1074	1050	1071	1072	1075	1082	1093	1077	
5	1088	1092	1097	1091	1088	1093	1088	1053	1075	1088	1091	1088	1081	1074	1077	1089	1091	1085	1077	1077	1079	1080	1078	1087	1084	
6	1088	1092	1094	1095	1089	1089	1088	1085	1077	1074	1065	1092	1088	1092	1088	1097	1099	1088	1081	1077	1079	1080	1080	1087	1086	
7	1097	1097	1096	1100	1092	1095	1097	1092	1065	1075	1060	1021	1065	1079	1077	1114	1101	1091	1077	1078	1085	1088	1089	1097	1084	
8	1095	1096	1099	1097	1100	1100	1099	1094	1089	1089	1092	1065	1091	1102	1104	1111	1106	1102	1092	1085	1088	1093	1092	1100	1095	
9	1082	1100	1109	1111	1114	1110	1102	1097	1062	1075	1099	1099	1100	1101	1096	1075	1077	1088	1085	1087	1093	1075	1029	1101	1090	
10 D	1116	1136	1108	1101	1099	1117	1080	1093	1088	1088	1087	1053	1053	1096	1086	1074	1088	1096	1080	1074	1077	1075	1078	1100	1089	
11	1099	1104	1103	1101	1110	1099	1097	1089	1081	1087	1086	1075	1087	1100	1099	1094	1088	1079	1079	1078	1074	1081	1094	1096	1091	
12	1088	1094	1098	1100	1100	1099	1095	1092	1092	1092	1093	1094	1094	1095	1091	1089	1089	1086	1082	1080	1078	1077	1088	1096	1091	
13	1094	1097	1089	1085	1088	1092	1093	1097	1091	1089	1089	1094	1088	1093	1096	1097	1091	1087	1081	1080	1086	1087	1089	1089	1090	
14 Q	1097	1099	1099	1099	1097	1096	1089	1093	1092	1092	1095	1088	1099	1100	1100	1099	1096	1088	1082	1084	1088	1099	1103	1103	1095	
15 Q	1103	1103	1102	1101	1100	1100	1099	1100	1100	1100	1100	1101	1101	1101	1100	1101	1100	1096	1092	1094	1100	1108	1111	1111	1101	
16 D	1116	1122	1117	1120	1118	1113	1149	1155	1056	806	526	794	1099	1109	1068	966	1013	1068	1103	1088	1091	1096	1099	1103	1046	
17	1109	1106	1135	1120	1100	1096	1075	920	935	1063	856	985	1094	1102	1101	1111	1103	1089	1087	1086	1087	1094	1097	1099	1069	
18	1103	1097	1088	1088	1087	1090	1093	1092	1080	1091	1094	1095	1099	1097	1093	1100	1094	1088	1075	1079	1085	1091	1094	1100	1091	
19	1099	1099	1096	1091	1088	1087	1095	1099	1092	1088	1091	1088	1096	1095	1077	1088	1098	1083	1076	1077	1066	1080	1092	1096	1089	
20	1085	1088	1099	1099	1099	1096	1096	1095	1090	1080	1056	1079	1085	1099	1099	1102	1100	1088	1081	1076	1074	1081	1090	1099	1089	
21 Q	1099	1099	1099	1099	1099	1099	1096	1095	1098	1099	1099	1099	1099	1099	1099	1099	1098	1092	1087	1087	1088	1090	1093	1100	1096	
22 Q	1107	1102	1096	1098	1096	1093	1088	1092	1095	1098	1096	1099	1099	1102	1103	1108	1101	1099	1100	1096	1091	1088	1096	1100	1098	
23	1102	1099	1098	1095	1098	1101	1100	1101	1101	1101	1103	1109	1113	1110	1108	1101	1095	1090	1095	1093	1091	1095	1096	1098	1100	
24	1100	1109	1110	1114	1110	1109	1101	1100	1098	1095	1050	1016	1049	1041	1099	1099	1110	1095	1094	1095	1088	1086	1091	1088	1089	
25	1087	1102	1107	1109	1112	1110	1122	1099	1098	1091	1087	1085	1099	1100	1101	1106	1099	1091	1092	1087	1056	1052	1064	1093	1094	
26	1088	1100	1087	1098	1095	1092	1093	1091	1088	1086	1088	1098	1088	1071	1099	1108	1099	1092	1081	1076	1084	1086	1087	1093	1090	
27 Q	1099	1096	1101	1099	1099	1098	1098	1099	1099	1099	1099	1098	1099	1099	1098	1098	1095	1090	1087	1086	1090	1091	1094	1099	1096	
28	1108	1109	1109	1109	1108	1109	1099	1087	1076	1085	1088	1099	1102	1100	1099	1109	1100	1099	1094	1090	1094	1085	1108	1096	1098	
29	1106	1091	1094	1101	1114	1122	1108	1092	1052	1026	1076	1111	855	986	1074	1087	1051	1080	1088	1087	1084	1086	1088	1090	1073	
30	1099	1099	1079	1099	1101	1099	1091	1086	1076	1052	1049	1087	1096	1086	1099	1102	1099	1100	1099	1098	1095	1091	1096	1106	1090	
31 D	1107	1102	1105	1101	1099	1099	1103	1109	1108	979	800	976	1052	1108	1101	1080	1087	1061	1069	1061	1067	1087	1091	1094	1069	
Mean	1099	1101	1101	1100	1104	1106	1100	1089	1072	1052	1036	1047	1076	1087	1094	1094	1091	1086	1084	1082	1084	1086	1088	1095	1086	

DECLINATION
Mean values for periods of sixty minutes; Universal Time

Table 2 Meanook

D = 23° East + ...'

January 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24	
1	56.0	57.0	57.7	58.4	59.0	58.5	59.4	56.0	55.9	56.0	56.9	57.4	57.5	57.3	57.9	58.9	56.0	57.3	57.0	56.0	55.9	54.7	55.5	55.5	57.0
2 D	56.2	57.5	58.2	59.4	65.8	62.4	59.2	30.8	56.5	69.5	81.6	144.4	61.6	63.9	61.7	58.2	54.7	45.9	49.3	52.7	56.5	54.5	57.0	57.7	61.5
3 D	59.5	59.4	75.2	64.3	59.5	61.1	58.4	57.7	59.4	52.7	58.4	55.5	56.0	53.5	57.7	59.4	59.5	59.4	59.2	55.7	56.2	55.2	54.3	56.0	58.5
4	58.8	60.6	66.2	70.9	54.2	63.3	64.3	61.0	54.6	52.7	57.6	57.1	55.9	53.9	55.6	57.1	58.4	59.1	57.8	57.9	55.2	53.7	55.9	55.6	58.2
5	57.6	58.3	58.9	59.3	62.6	61.1	59.8	64.3	57.4	57.3	57.1	57.4	58.4	56.4	55.9	59.3	61.0	60.5	59.3	58.8	55.9	55.1	55.9	57.4	58.5
6	57.6	57.9	61.0	61.3	58.9	59.3	61.0	60.0	59.3	58.1	54.2	56.8	57.1	57.6	58.3	59.3	61.0	60.8	59.4	59.4	57.3	55.9	56.6	55.9	58.5
7	56.1	57.4	57.9	58.8	58.9	59.3	57.6	57.9	55.9	64.8	61.8	60.6	69.4	57.4	56.9	61.0	62.0	60.6	57.9	55.1	54.2	54.4	54.1	54.6	58.5
8	55.3	55.8	57.1	58.1	58.7	58.3	58.7	57.8	57.2	58.0	59.2	54.1	57.5	57.8	59.0	60.9	60.7	59.3	58.5	55.8	52.8	52.5	53.0	52.1	57.0
9	49.1	52.1	56.3	55.8	57.5	58.2	57.8	57.3	53.5	60.5	62.5	58.0	59.0	58.8	62.5	61.2	57.2	56.0	55.0	55.5	55.3	51.5	49.0	52.6	56.4
10 D	52.5	61.2	55.8	58.5	60.4	69.4	64.9	59.2	57.5	57.2	58.3	55.7	54.8	60.7	63.9	62.9	62.2	60.5	59.0	57.2	55.8	55.7	54.5	56.0	58.9
11	54.6	56.2	55.0	59.2	56.8	59.3	59.5	58.0	53.8	58.8	58.5	58.8	54.6	56.3	57.7	58.8	60.4	59.7	58.2	56.3	53.1	52.5	54.0	55.3	56.9
12	55.4	55.6	57.9	58.2	57.9	57.4	57.7	57.1	57.2	57.4	57.6	57.2	57.2	57.4	57.7	58.6	59.8	59.1	57.7	57.2	54.9	54.0	55.6	56.4	57.2
13	57.2	57.4	57.9	58.9	58.9	58.2	58.9	57.4	57.4	57.1	57.4	58.4	56.1	56.6	59.1	61.1	61.6	60.8	59.8	57.4	55.6	55.4	55.7	56.1	57.9
14 Q	56.1	56.9	57.4	57.6	57.4	57.4	57.1	55.9	56.7	57.4	56.9	57.7	57.9	58.9	58.6	57.9	58.9	58.7	58.2	56.2	53.9	53.7	54.5	55.7	57.0
15 Q	56.2	56.4	57.2	57.4	57.4	57.2	56.9	57.1	56.1	55.9	56.7	56.6	57.2	57.1	57.2	58.9	58.9	58.6	57.6	54.9	53.5	52.7	53.2	54.2	56.4
16 D	54.4	54.0	52.9	55.6	56.4	56.1	55.6	55.2	61.9	71.0	68.2	90.8	73.2	58.9	60.8	54.4	44.3	54.9	56.9	55.7	55.4	53.5	54.0	56.4	58.8
17	55.7	56.2	68.3	59.1	56.7	56.1	57.9	50.2	54.0	58.1	66.8	52.4	64.3	64.5	59.6	60.6	60.8	59.2	58.4	55.7	54.0	54.2	55.2	55.4	58.1
18	56.2	57.4	59.2	58.2	60.8	60.4	60.8	57.1	51.0	55.7	57.1	58.6	58.9	57.6	57.6	59.4	59.1	57.6	55.7	55.2	52.4	52.2	54.5	56.1	57.0
19	57.1	57.4	57.7	58.1	57.7	57.6	59.9	60.3	57.2	56.7	56.6	56.7	57.7	58.1	56.4	56.9	60.6	58.7	54.9	55.4	53.4	52.5	54.4	55.0	57.0
20	56.2	56.9	58.4	59.6	60.6	57.9	57.4	57.9	57.4	55.9	49.2	57.4	54.9	56.9	59.1	60.8	63.6	60.9	59.6	57.2	55.6	54.2	55.0	55.9	57.4
21 Q	56.4	57.4	58.2	58.7	58.4	60.8	57.7	57.6	56.1	55.7	56.4	56.9	57.2	57.4	57.6	58.4	60.6	60.8	60.3	58.1	56.6	56.1	56.1	56.1	57.7
22 Q	56.6	57.1	57.4	57.6	58.6	59.1	58.9	60.9	58.9	56.7	55.7	56.6	56.7	56.1	57.4	58.1	58.7	56.2	57.4	57.1	55.7	54.9	55.4	55.9	57.2
23	56.1	56.6	57.1	57.1	56.9	56.9	57.1	56.7	56.1	55.7	55.7	56.7	57.1	57.4	58.1	59.1	60.8	57.1	57.9	57.4	57.1	55.6	55.0	54.5	56.9
24	54.2	54.4	55.6	54.5	55.7	56.4	58.2	59.9	60.1	59.1	55.2	62.6	62.6	54.5	55.7	56.1	60.8	58.1	55.4	55.7	54.0	53.9	54.2	53.7	56.7
25	53.7	54.0	54.2	55.7	56.6	57.4	72.2	59.1	58.1	57.4	57.1	56.1	57.1	58.1	59.1	59.8	60.8	60.3	58.7	57.4	58.7	54.5	47.5	52.4	57.3
26	54.0	55.7	58.9	58.2	58.2	58.2	58.1	57.6	57.9	57.9	57.4	57.4	56.6	55.4	56.4	59.8	61.3	59.4	57.1	57.2	56.2	55.7	55.9	56.4	57.4
27 Q	57.3	58.0	57.3	57.7	58.1	57.8	58.0	58.5	56.8	56.1	57.0	56.8	57.0	57.1	57.3	58.3	59.1	59.0	58.0	56.6	55.6	55.5	55.5	55.3	57.2
28	55.5	55.1	55.6	56.5	58.8	63.9	56.8	60.7	59.7	57.8	55.3	56.5	57.0	57.1	55.8	58.6	58.6	57.6	56.6	56.0	53.9	51.1	51.9	53.4	56.7
29	53.8	53.9	54.9	57.1	57.6	65.2	68.2	58.5	64.5	57.0	63.7	65.7	58.6	60.7	59.8	58.1	53.4	51.9	55.6	54.1	54.6	55.8	55.6	56.1	58.1
30	57.3	57.3	59.0	59.0	59.8	59.1	55.5	54.4	58.1	55.3	52.1	56.9	56.6	54.3	55.3	57.3	58.6	57.3	57.0	56.8	55.6	55.3	55.6	56.0	56.6
31 D	57.0	57.1	57.3	57.3	57.3	57.5	59.3	57.3	57.3	49.9	60.8	80.3	72.6	56.8	59.0	57.8	56.6	57.5	51.3	47.6	51.4	54.1	55.1	55.6	57.7
Mean	55.8	56.7	58.4	58.6	58.5	59.4	59.4	57.1	57.2	57.7	58.7	62.1	59.0	57.6	58.2	58.9	59.0	58.2	57.2	56.1	55.0	54.2	54.5	55.3	57.6

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

Table 3 Meanook

Z = 58,000 γ +

January 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24		
1	728	725	722	723	723	728	728	724	722	718	717	715	717	717	716	716	711	707	705	709	713	715	716	716	716	718
2 D	716	717	717	742	717	681	615	678	790	554	859	835	705	716	715	741	733	716	729	745	755	748	745	747	726	
3 D	752	756	783	749	741	715	710	715	693	646	609	656	678	707	722	739	723	728	729	726	739	729	732	737	717	
4	742	748	763	757	699	719	739	712	666	698	705	715	692	728	715	728	728	720	731	741	736	733	737	741	725	
5	729	730	738	735	739	735	729	642	664	713	722	717	716	711	716	730	724	717	723	729	731	732	729	729	720	
6	728	728	737	741	738	729	722	718	704	693	692	716	716	717	718	724	719	718	720	722	722	724	728	728	722	
7	727	727	725	727	725	724	712	696	653	658	680	616	609	690	695	715	722	719	719	724	722	727	728	727	703	
8	719	721	723	727	725	724	722	719	716	715	703	679	684	716	724	722	717	718	716	717	722	719	717	724	716	
9	729	744	740	750	768	759	748	729	692	684	722	725	722	730	724	692	690	702	715	722	740	740	740	756	728	
10 D	787	797	740	734	746	692	678	718	725	723	725	690	670	715	715	722	715	718	723	727	730	735	732	737	725	
11	734	738	746	751	750	743	735	727	696	703	727	705	721	728	727	727	724	727	729	728	728	725	729	728	728	
12	736	743	743	734	727	723	725	723	724	722	721	718	719	719	719	721	725	721	722	724	723	725	727	724	725	
13	727	728	728	732	729	729	728	725	722	718	715	708	704	708	718	722	721	724	722	721	721	721	719	719	721	
14 Q	719	719	719	719	718	719	719	719	719	719	715	716	717	718	717	721	723	725	717	709	725	718	718	717	719	
15 Q	716	716	716	716	716	716	716	716	716	716	716	716	716	715	714	712	716	714	710	714	716	716	715	715	715	
16 D	716	718	728	725	728	747	761	743	710	661	705	642	666	727	692	638	626	689	737	714	716	725	736	732	708	
17	741	757	779	729	717	717	712	565	601	695	566	597	692	715	737	741	722	721	722	724	719	722	719	724	701	
18	723	724	728	728	735	735	728	712	678	698	721	716	716	721	717	722	716	715	716	728	728	725	722	722	720	
19	722	722	722	719	718	718	716	710	708	706	715	716	716	714	710	715	710	704	704	714	717	721	729	730	716	
20	731	729	728	729	730	727	716	708	703	698	671	703	710	716	715	716	721	716	724	724	725	722	722	719	717	
21 Q	722	719	723	723	723	725	724	718	717	716	716	716	717	717	717	717	718	719	722	716	716	717	717	717	719	
22 Q	717	718	722	722	728	728	729	721	715	716	715	716	716	716	717	717	716	711	715	715	716	716	716	716	718	
23	715	717	718	718	716	715	715	713	713	713	714	714	714	713	708	714	708	703	713	715	715	716	717	716	714	
24	715	716	722	731	739	739	733	726	709	699	658	596	609	631	715	717	728	715	713	715	714	718	721	727	704	
25	730	731	731	726	730	740	737	727	723	713	701	689	704	714	715	717	715	714	715	713	720	767	737	740	723	
26	727	737	737	727	721	720	717	714	709	703	694	707	705	695	714	715	714	716	715	715	727	730	727	727	717	
27 Q	726	727	726	721	721	721	721	721	720	716	715	715	715	715	715	715	715	713	715	716	718	717	716	715	718	
28	714	713	715	716	721	726	715	708	679	678	703	710	714	713	714	717	715	715	715	715	717	714	720	713	712	
29	723	736	753	766	751	747	683	714	668	585	665	607	504	536	655	703	694	708	721	716	719	719	717	716	688	
30	723	721	727	725	727	716	702	693	672	655	652	679	695	702	716	713	714	720	720	719	720	722	721	716	707	
31 D	714	714	714	714	714	713	710	708	709	581	492	477	599	678	689	694	709	702	761	725	719	725	726	727	684	
Mean	727	730	733	731	728	725	718	708	701	688	695	688	690	705	713	716	714	714	721	721	724	725	725	726	715	

RECORD OF OBSERVATIONS AT MEANOOK MAGNETIC OBSERVATORY 1964

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

Table 4 Meanook

H = 12,000 γ +

February 1964

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	1099	1094	1099	1101	1114	1107	1098	1096	1083	1062	1088	1101	1102	1103	1107	1107	1099	1096	1092	1087	1081	1085	1096	1095	1096	
2	1093	1107	1101	1101	1102	1099	1099	1098	1099	1078	1088	1093	1099	1091	1087	1098	1095	1099	1093	1087	1087	1088	1096	1099	1095	
3	Q	1099	1101	1101	1100	1099	1099	1098	1096	1095	1095	1099	1101	1107	1105	1107	1112	1109	1099	1091	1088	1085	1087	1090	1101	1098
4		1107	1107	1105	1099	1110	1112	1115	1099	1037	1044	1122	1106	1101	1047	1067	1110	1101	1093	1087	1090	1091	1087	1091	1099	1093
5		1106	1108	1103	1101	1105	1113	1114	1105	1099	1099	1101	1107	1107	1109	1110	1109	1109	1096	1096	1098	1092	1079	1061	1090	1101
6	D	1110	1103	1095	1098	1092	1103	1020	1065	936	822	945	1004	991	1048	1090	1096	1099	1095	1084	1078	1088	1095	1085	1099	1056
7		1110	1108	1101	1085	1102	1101	1108	1099	1015	859	1001	1087	1088	1098	1108	1105	1076	1049	1095	1087	1086	1087	1086	1105	1077
8	D	1109	1123	1122	1109	1108	1100	1107	1104	1098	1086	1101	1097	1098	1101	1098	1083	1084	1086	1073	1097	1080	1085	1091	1094	1097
9		1098	1109	1113	1123	1120	1087	1085	1077	1025	1031	1041	1061	1080	1075	1082	1095	1098	1098	1083	1084	1089	1087	1095	1098	1085
10		1098	1099	1095	1097	1098	1109	1102	1101	1097	1082	1089	1085	1094	1087	1094	1098	1095	1086	1084	1086	1089	1077	1084	1087	1092
11	Q	1090	1094	1098	1098	1097	1097	1098	1108	1095	1090	1095	1100	1098	1100	1098	1094	1090	1087	1086	1086	1087	1091	1089	1091	1094
12		1098	1102	1099	1098	1099	1106	1116	1115	1114	1077	1025	1102	1113	1094	1073	1087	1085	1078	1082	1085	1087	1094	1097	1100	1093
13	D	1098	1102	1101	1201	1191	1107	785	1043	1085	1073	771	773	1056	1086	1073	1010	1002	1063	1084	1063	1065	1093	1090	1089	1046
14		1095	1102	1098	1091	1085	1098	1098	1099	1098	1091	1068	1049	1075	1104	1095	1094	1100	1093	1093	1092	1087	1092	1085	1075	1090
15		1095	1098	1100	1100	1098	1093	1089	1085	1085	1097	1097	1098	1100	1061	1099	1108	1107	1100	1087	1084	1089	1086	1084	1091	1093
16	Q	1096	1098	1098	1098	1098	1098	1095	1098	1093	1097	1085	1068	1104	1112	1109	1102	1091	1098	1089	1086	1083	1086	1086	1092	1094
17		1098	1101	1101	1098	1100	1101	1100	1100	1084	1085	1082	1108	1109	1104	1101	1112	1108	1094	1080	1070	1073	1083	1085	1092	1095
18	Q	1100	1108	1108	1107	1106	1102	1107	1101	1099	1094	1092	1109	1109	1109	1107	1086	1084	1097	1099	1089	1082	1075	1086	1097	1098
19	Q	1105	1107	1106	1098	1101	1104	1101	1099	1099	1101	1104	1106	1108	1108	1109	1109	1107	1095	1090	1084	1078	1079	1086	1093	1099
20		1102	1109	1109	1108	1107	1109	1111	1111	1111	1113	1115	1118	1133	1133	1130	1107	1092	1106	1091	1097	1097	1098	1065	1101	1107
21		1134	1179	1130	1119	1144	1085	1086	1066	978	1007	1066	1041	978	1078	1101	1104	1093	1086	1091	1089	1079	1080	1084	1086	1083
22		1092	1097	1095	1098	1099	1099	1098	1099	1087	1092	1084	1090	1100	1080	1082	1109	1105	1099	1086	1083	1085	1084	1082	1084	1092
23		1094	1097	1100	1101	1100	1100	1107	1102	1100	1098	1098	1102	1106	1106	1106	1106	1100	1084	1075	1095	1098	1097	1095	1097	1098
24		1100	1107	1106	1107	1100	1098	1108	1107	1094	1109	1109	1106	1086	1112	1114	1121	1114	1107	1102	1098	1100	1102	1092	1102	1104
25	D	1109	1106	1100	1093	1097	1092	1100	1098	1099	1073	947	1094	1111	1113	1116	1115	1098	1036	1055	1079	1102	1085	1080	1090	1087
26	D	1097	1106	1102	1162	1123	1100	1105	1097	1082	1072	866	865	993	1111	1099	1109	1101	1095	1095	1093	1097	1098	1105	1085	1077
27		1093	1098	1101	1108	1101	1097	1098	1095	1094	1098	1095	1075	1072	1085	1091	1100	1092	1068	1046	1069	1075	1087	1094	1097	1089
28		1094	1098	1080	1099	1114	1111	1134	1097	1068	921	978	1065	1063	1049	1079	1100	1083	1090	1087	1084	1086	1089	1097	1098	1078
29		1104	1102	1100	1091	1099	1092	1087	1097	1062	1075	1078	1090	1109	1111	1108	1104	1097	1086	1080	1083	1089	1091	1094	1097	1093
30																										
31																										
Mean		1101	1106	1102	1107	1107	1101	1089	1095	1076	1059	1053	1069	1086	1094	1098	1100	1093	1088	1085	1086	1086	1088	1088	1094	1090

DECLINATION
Mean values for periods of sixty minutes; Universal Time

Table 5 Meanook

D = 23° East + ...'

February 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24		
1	55.6	56.5	58.5	64.0	64.7	57.1	57.3	57.1	56.1	53.9	56.0	58.0	57.3	57.5	57.8	59.1	60.0	59.1	56.8	57.3	57.1	57.0	55.8	55.6	57.7	
2	59.0	57.3	57.3	57.8	58.6	57.8	55.6	55.3	57.1	52.3	58.0	61.2	60.0	59.5	54.1	54.3	55.6	57.3	59.0	58.0	56.0	54.4	54.8	55.6	56.9	
3 Q	56.3	56.8	57.3	57.5	57.8	57.3	57.1	57.3	56.3	55.3	57.3	57.1	56.8	56.5	55.6	56.8	59.5	60.7	59.8	59.1	56.3	53.6	52.4	53.9	56.8	
4	54.3	55.1	56.1	58.5	57.1	57.0	55.8	57.5	49.7	69.9	58.5	57.5	57.8	57.1	52.6	62.2	61.2	60.7	59.0	56.8	53.9	53.6	52.9	54.4	57.0	
5	54.9	54.8	56.3	56.1	55.5	57.1	57.5	57.3	56.0	56.3	56.5	57.3	58.0	58.3	58.5	60.7	60.8	59.7	58.0	57.3	54.4	55.1	51.1	53.3	56.7	
6 D	53.3	57.0	66.8	58.7	58.9	92.0	74.5	61.4	67.1	60.9	66.4	60.9	59.9	52.8	58.4	60.2	55.4	60.1	55.0	56.5	55.7	53.8	52.5	54.2	60.5	
7	55.4	55.5	55.0	63.8	59.9	58.9	60.4	60.6	57.7	55.0	61.7	60.6	56.7	57.7	59.4	60.6	57.2	48.3	50.5	51.7	52.5	51.5	52.2	53.7	56.5	
8 D	52.3	65.2	55.5	55.4	56.7	56.9	58.9	57.4	58.0	55.4	58.2	58.7	57.2	56.0	56.9	60.6	62.2	55.5	54.5	50.8	51.8	53.8	48.0	49.0	56.0	
9	50.1	50.8	52.8	57.7	60.6	57.0	57.2	59.0	52.2	58.4	59.6	55.5	58.9	57.0	56.9	58.0	59.0	57.5	55.5	53.8	53.2	52.3	53.3	54.7	55.9	
10	56.9	56.7	57.0	57.0	57.2	60.6	56.0	57.0	56.5	52.7	55.0	55.4	59.2	58.9	58.5	58.7	58.9	58.0	57.9	56.4	54.5	52.7	52.8	52.2	56.5	
11 Q	53.3	55.2	55.9	56.9	57.0	57.2	58.0	58.5	58.7	57.0	56.9	57.0	56.2	57.2	57.9	59.0	59.9	60.2	57.5	55.7	54.7	53.8	54.3	55.4	56.8	
12	55.5	55.7	56.7	57.7	57.7	60.1	61.6	59.0	53.7	58.5	57.4	57.0	57.2	59.0	54.0	56.0	58.0	56.4	57.5	55.2	54.2	54.0	54.2	54.5	56.7	
13 D	55.0	56.4	56.2	79.9	67.3	62.7	64.3	61.7	58.9	57.4	62.6	69.3	67.3	68.6	62.2	57.2	54.0	50.5	52.2	51.0	48.5	55.0	56.0	56.7	59.6	
14	57.7	58.4	58.2	58.7	65.1	57.4	56.9	58.5	63.2	57.7	57.4	59.9	55.4	57.9	58.4	57.2	58.5	59.4	59.2	57.0	56.0	54.7	54.5	53.8	58.0	
15	54.5	54.8	55.7	57.2	57.7	57.9	61.7	55.7	61.2	56.7	58.0	57.0	58.0	54.5	55.9	59.2	60.2	59.4	57.7	55.5	55.9	55.4	55.4	55.5	57.1	
16 Q	55.5	56.0	56.4	56.9	56.5	56.0	56.4	61.6	59.0	56.0	55.2	51.5	57.2	58.2	57.9	57.9	57.2	59.4	57.9	56.0	53.8	52.2	53.3	53.5	56.3	
17	55.4	55.5	56.9	57.2	57.0	56.9	56.9	58.0	57.9	60.9	58.4	58.9	56.9	55.9	56.7	57.7	59.7	58.5	58.9	55.7	55.4	55.5	54.7	55.2	57.1	
18 Q	55.5	55.9	56.2	56.0	56.2	56.4	62.2	57.7	56.0	56.5	56.7	57.9	57.7	57.9	58.5	54.3	53.0	53.3	55.4	57.2	55.2	55.5	54.2	54.0	56.2	
19 Q	55.2	55.5	55.5	55.7	56.2	56.4	57.0	57.2	57.2	56.9	55.5	55.9	56.0	56.7	57.2	58.5	60.4	61.4	61.4	59.0	57.2	55.7	55.4	55.2	57.0	
20	55.4	55.5	55.7	55.9	56.4	56.2	56.0	57.2	57.2	56.0	55.5	56.5	57.5	58.2	58.9	59.7	52.2	59.7	60.9	50.5	55.7	52.7	50.5	43.9	55.6	
21	48.8	51.2	50.6	51.3	55.2	61.1	58.0	61.7	60.4	61.1	62.7	64.3	51.8	53.3	55.2	58.2	60.7	61.2	62.7	59.7	56.9	56.0	55.4	55.2	57.2	
22	55.7	55.5	56.0	56.9	56.7	56.9	57.4	58.9	58.7	58.4	58.0	55.4	57.0	56.4	52.8	55.5	58.7	60.4	59.7	57.2	55.7	54.2	54.3	55.0	56.7	
23	55.5	55.7	56.7	57.0	57.2	57.9	59.7	56.5	56.7	55.2	56.7	56.4	55.7	57.0	58.4	58.9	60.2	59.4	55.0	54.2	53.5	54.0	54.5	55.5	56.6	
24	55.5	56.4	55.7	55.5	55.7	55.5	55.2	56.7	55.7	59.7	57.9	59.2	55.2	54.7	58.9	61.6	60.9	60.2	58.0	55.9	55.5	54.5	54.7	55.2	56.8	
25 D	55.5	56.5	56.9	56.9	57.0	57.5	61.9	62.4	57.9	55.5	47.5	59.0	57.9	56.7	58.9	60.6	60.2	60.6	52.0	51.0	50.8	51.8	55.0	56.7	56.5	
26 D	57.2	56.9	54.3	66.8	63.9	48.6	62.4	56.9	56.9	61.7	66.1	56.0	68.8	60.6	59.4	61.9	62.2	62.1	59.2	57.2	55.7	54.8	53.8	55.5	59.1	
27	56.4	62.1	55.4	57.9	56.6	55.9	55.9	56.1	55.4	56.6	55.6	55.9	54.2	57.1	60.3	58.6	58.9	58.8	55.4	52.2	53.1	54.1	55.3	55.1	56.4	
28	55.4	54.4	56.6	55.3	62.3	77.3	72.9	55.6	56.4	57.1	53.6	59.8	58.6	56.6	57.8	60.1	58.3	58.9	58.4	55.3	54.9	54.7	54.4	54.7	58.3	
29	54.6	55.4	56.4	57.6	57.1	53.7	58.6	53.7	50.4	55.1	56.9	56.1	57.8	58.4	58.8	59.6	60.5	60.6	58.8	56.6	53.1	53.6	54.2	55.1	56.4	
30																										
31																										
Mean	55.0	56.2	56.4	58.4	58.5	59.1	59.4	58.1	57.2	57.4	57.8	58.1	57.9	57.5	57.5	58.7	58.7	58.5	57.4	55.5	54.5	54.1	53.8	54.2	57.1	

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

Table 6 Meanook

Z = 58,000 γ +

February 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24		
1	727	727	726	732	717	714	714	710	690	658	681	710	713	714	714	716	710	707	710	714	722	732	727	725	713	
2	730	726	721	717	715	706	703	695	702	666	662	678	690	678	687	691	704	708	713	715	716	716	715	714	703	
3 Q	714	714	714	714	713	713	713	712	707	702	702	709	706	706	712	717	714	710	713	714	710	713	714	714	711	
4	713	712	713	717	713	712	708	706	587	563	713	709	702	639	626	678	689	701	713	711	711	712	713	715	691	
5	718	719	724	731	751	759	738	721	713	711	712	712	712	713	713	712	712	706	708	706	707	713	746	743	721	
6 D	737	764	771	748	732	678	581	645	556	467	547	669	686	701	677	702	712	711	713	722	733	726	724	722	684	
7	725	722	725	740	750	760	747	734	663	523	609	697	715	711	714	713	699	689	690	700	712	722	724	740	705	
8 D	739	779	735	718	719	725	725	725	722	689	712	708	712	713	713	694	692	682	696	713	721	732	779	784	722	
9	779	756	758	766	748	728	711	718	642	611	642	670	697	702	706	725	724	725	727	725	724	722	724	725	715	
10	724	723	721	724	723	714	715	718	712	686	691	688	699	700	710	711	711	710	712	713	714	715	718	717	711	
11 Q	718	712	712	712	713	717	713	707	700	702	701	711	711	712	712	711	711	711	712	714	717	718	714	712	711	
12	712	712	712	713	715	718	710	724	725	688	629	675	707	692	688	685	698	700	717	715	719	724	721	719	705	
13 D	718	720	747	785	797	749	502	585	694	688	550	502	687	629	674	653	682	713	736	724	721	730	731	725	685	
14	721	724	720	728	746	726	712	711	686	699	688	661	696	708	706	712	712	718	719	715	724	721	718	712	712	
15	721	715	713	718	717	717	714	682	674	693	696	702	705	682	699	711	713	712	712	715	717	715	713	712	707	
16 Q	712	712	711	711	711	711	712	700	693	699	691	657	688	705	704	704	705	708	711	712	713	715	712	717	705	
17	713	713	713	712	711	712	710	687	675	666	667	689	700	696	698	701	704	706	712	718	714	713	712	712	702	
18 Q	717	714	712	710	708	711	713	708	707	698	656	691	704	702	701	698	695	700	695	701	710	711	712	711	704	
19 Q	712	711	712	712	711	712	711	708	700	704	705	708	712	712	712	711	711	711	712	712	712	712	711	710	710	
20	711	711	710	708	710	710	711	711	706	700	704	698	700	700	698	688	675	676	685	700	700	717	736	782	706	
21	769	759	774	769	796	755	732	696	593	593	641	637	647	692	708	714	712	726	744	731	723	720	719	717	711	
22	717	717	715	719	718	715	713	696	677	674	676	693	704	693	694	712	706	708	717	718	714	719	717	714	706	
23	718	718	718	717	717	720	708	695	704	700	696	700	708	707	711	711	711	705	715	712	717	712	713	711	710	
24	712	712	713	717	721	718	720	713	704	712	715	706	688	705	694	708	706	702	706	708	711	713	712	708	709	
25 D	712	713	712	718	724	721	717	702	700	682	540	630	692	704	711	712	701	702	712	746	724	705	700	713	700	
26 D	712	724	739	798	769	706	700	688	676	666	539	487	516	674	688	712	712	701	712	712	712	712	715	718	687	
27	738	736	730	724	717	712	708	705	702	688	692	688	680	685	687	700	704	700	714	726	721	723	717	718	709	
28	712	726	732	736	755	710	712	710	688	581	578	647	669	670	687	710	701	704	710	711	713	712	711	711	696	
29	712	711	713	727	737	670	668	688	653	666	677	688	707	711	712	711	711	712	712	712	713	713	714	714	702	
30																										
31																										
Mean	723	724	725	729	730	718	701	700	681	661	659	673	691	695	698	704	705	705	712	715	716	718	720	722	705	

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

Table 7 Meanook

H = 12,000 γ +

March 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24	
1	1100	1103	1099	1100	1106	1105	1101	1104	1103	1105	1105	1100	1091	1108	1107	1106	1105	1097	1091	1086	1090	1097	1100	1105	1101
2 Q	1108	1108	1107	1105	1105	1104	1104	1103	1103	1103	1103	1106	1108	1110	1110	1105	1100	1091	1083	1079	1084	1093	1097	1106	1101
3	1103	1108	1108	1105	1097	1097	1097	1103	1100	1101	1110	1120	1120	1126	1125	1120	1111	1097	1091	1086	1085	1085	1083	1097	1103
4 D	1112	1117	1165	1230	1304	1209	1166	1163	972	836	767	487	621	919	1115	1101	1048	994	1017	1039	1036	1136	1155	1142	1035
5 D	1188	1213	1149	1103	1091	1094	1053	1054	1024	1067	1062	1050	876	1013	1043	1074	1072	1075	1050	1061	1056	1108	1093	1132	1075
6	1107	1096	1106	1099	1107	1114	1106	1101	1004	934	1039	1089	1043	1039	1062	1071	1097	1085	1096	1094	1085	1090	1097	1094	1077
7	1101	1094	1107	1106	1097	1107	1106	1108	1083	1038	1071	1077	1096	1093	1092	1089	1096	1089	1076	1063	1060	1083	1086	1084	1088
8	1074	1092	1110	1105	1096	1107	1118	1069	985	973	985	934	1061	1082	1077	1103	1108	1097	1092	1091	1097	1093	1093	1097	1072
9	1093	1101	1107	1146	1126	1115	1074	1025	1074	1067	1085	1097	1097	1101	1099	1097	1098	1096	1093	1090	1089	1094	1097	1097	1094
10	1096	1099	1099	1100	1100	1099	1103	1096	1104	1097	1103	1097	1096	1091	1096	1093	1088	1074	1072	1077	1084	1089	1091	1100	1094
11	1107	1101	1106	1098	1107	1108	1146	1083	1001	887	1040	1118	1107	1093	1099	1111	1107	1094	1086	1089	1093	1092	1107	1112	1087
12	1117	1105	1119	1236	1197	1183	1045	1090	1060	1049	1107	1106	1093	1091	1077	1083	1091	1094	1077	1070	1077	1091	1098	1101	1102
13	1105	1099	1098	1089	1096	1098	1097	1094	1082	1072	1067	1025	1107	1118	1111	1105	1096	1084	1079	1074	1075	1086	1093	1106	1090
14	1107	1100	1107	1106	1099	1096	1106	1103	1098	1100	1077	1071	1084	1108	1106	1101	1088	1070	1054	1048	1052	1076	1099	1106	1090
15	1110	1100	1104	1098	1102	1114	1105	1104	1099	1096	1099	1105	1110	1111	1097	1071	1084	1073	1058	1052	1069	1070	1089	1097	1092
16	1097	1093	1100	1109	1104	1104	1106	1105	1106	1099	1095	1107	1109	1119	1110	1116	1102	1087	1083	1077	1083	1084	1096	1105	1100
17	1111	1109	1106	1102	1095	1088	1039	1052	1107	1073	1015	933	1109	1114	1100	1095	1093	1095	1090	1084	1088	1096	1098	1102	1083
18 Q	1106	1106	1106	1105	1106	1104	1102	1105	1097	1099	1096	1096	1107	1109	1106	1104	1096	1084	1083	1084	1090	1099	1105	1106	1100
19 Q	1107	1107	1109	1107	1107	1106	1102	1095	1096	1117	1116	1114	1107	1113	1113	1107	1097	1088	1083	1083	1092	1103	1111	1112	1104
20	1114	1111	1118	1116	1107	1105	1118	1122	1131	1119	1117	1116	1096	1104	1110	1095	1089	1087	1083	1058	1076	1096	1105	1113	1104
21	1106	1100	1097	1119	1118	1107	1099	1095	1093	1092	1099	1093	1106	1107	1109	1106	1099	1096	1088	1070	1069	1082	1085	1096	1097
22 D	1105	1106	1106	1105	1104	1102	1107	1107	1073	965	929	976	1034	1095	1063	1107	1092	1087	1054	1038	1064	1096	1116	1117	1073
23 D	1095	1091	1105	1122	1125	1107	1074	873	897	908	429	835	1093	1044	1099	1107	1084	1085	1078	1077	1085	1105	1112	1103	1031
24	1100	1106	1107	1096	1142	1113	1064	1080	1041	926	1012	1070	977	1025	1081	1040	1018	1052	1104	1097	1103	1106	1105	1107	1070
25	1095	1107	1117	1116	1109	1106	1093	1063	1105	1092	1087	1102	1100	1089	1076	1087	1098	1092	1081	1073	1085	1093	1104	1109	1095
26	1120	1127	1118	1119	1103	1107	1085	1081	1092	1087	1093	1102	1095	1098	1104	1107	1096	1093	1092	1084	1085	1090	1093	1099	1099
27	1105	1107	1106	1105	1104	1104	1098	1104	1106	1107	1107	1107	1109	1109	1105	1097	1091	1082	1073	1074	1080	1084	1090	1097	1098
28 Q	1103	1104	1105	1106	1106	1106	1106	1104	1107	1107	1109	1110	1110	1109	1109	1107	1097	1085	1084	1085	1092	1096	1097	1098	1102
29	1105	1107	1107	1107	1107	1109	1106	1107	1107	1111	1113	1117	1116	1113	1116	1112	1106	1095	1089	1084	1092	1095	1096	1104	1105
30 D	1118	1110	1117	1110	1236	1135	787	937	946	899	967	979	1046	1104	1084	1032	1002	976	1081	1091	1095	1090	1093	1096	1047
31 Q	1098	1103	1096	1098	1102	1097	1105	1104	1099	1096	1099	1092	1102	1097	1095	1093	1083	1081	1080	1084	1085	1082	1091	1095	1094
Mean	1107	1107	1110	1115	1120	1111	1088	1082	1068	1046	1042	1049	1069	1089	1097	1095	1088	1080	1079	1075	1081	1093	1099	1104	1087

DECLINATION
Mean values for periods of sixty minutes; Universal Time

Table 8 Meanook

D = 23° East + ...'

March 1964

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	54.7	55.8	56.6	57.1	57.1	55.6	56.1	55.3	54.7	55.4	55.9	55.9	53.1	55.6	57.8	58.6	59.6	59.3	58.1	55.4	53.1	52.1	52.2	53.2	55.8
2 Q	54.1	55.4	56.4	56.1	56.3	55.9	56.3	56.9	57.1	56.8	56.1	56.3	56.6	57.1	57.6	58.9	59.6	59.1	58.3	55.3	52.4	51.9	52.1	52.4	56.0
3	54.9	54.2	54.4	55.1	56.1	57.4	58.1	57.1	55.4	54.6	52.4	55.3	56.9	57.8	58.8	59.1	59.5	60.0	58.8	56.1	51.9	50.7	48.7	50.0	55.6
4 D	50.5	48.2	51.6	50.2	47.0	40.8	54.9	49.4	50.4	62.6	75.4	105.5	93.4	60.1	57.1	60.6	59.8	55.4	44.8	42.0	49.9	52.1	56.6	50.4	57.0
5 D	51.9	67.0	74.1	52.9	55.6	57.1	57.1	47.2	64.0	68.0	58.8	62.3	67.0	57.3	65.5	58.4	56.9	57.1	57.1	57.6	55.8	56.4	50.4	55.4	58.8
6	54.6	54.2	60.5	60.0	56.6	58.6	55.9	53.7	52.1	51.9	65.0	60.5	61.6	58.8	60.0	62.1	57.3	57.8	61.1	58.9	57.9	56.6	55.3	53.9	57.7
7	54.4	60.5	53.9	54.1	56.8	57.8	58.8	57.6	58.9	54.7	57.6	57.9	56.4	59.5	59.5	58.6	60.0	62.1	60.5	59.6	55.1	54.1	51.9	51.4	57.2
8	52.0	53.3	56.7	55.3	53.6	57.0	61.5	58.3	67.9	62.5	65.7	64.9	72.0	60.4	58.5	56.8	58.5	59.0	60.0	57.0	55.3	53.6	55.0	54.8	58.7
9	53.6	53.6	53.1	62.2	63.7	54.8	55.7	51.6	62.4	60.2	63.2	57.8	57.8	57.8	58.5	59.5	59.4	59.7	58.7	57.0	55.7	54.5	53.8	54.0	57.4
10	54.8	55.2	55.3	55.7	56.0	56.5	56.8	57.0	59.4	59.2	60.0	58.5	58.7	59.2	60.5	60.2	60.0	57.2	52.1	51.6	49.1	49.1	49.6	53.6	56.1
11	53.3	55.3	55.2	55.8	55.3	55.2	71.6	62.5	68.3	73.3	62.4	58.5	59.9	58.5	58.5	61.7	62.0	60.4	56.5	53.6	51.8	52.0	53.5	55.0	58.8
12	55.2	55.5	53.1	54.1	59.9	58.2	53.3	55.2	66.2	60.2	60.2	57.3	55.3	57.2	60.2	58.3	57.3	60.2	57.3	55.3	53.5	53.6	55.0	55.7	57.0
13	56.0	56.7	56.8	60.2	57.3	57.2	56.8	57.3	55.2	54.8	56.0	52.5	55.0	58.5	60.2	60.9	60.7	60.4	55.8	53.6	51.5	50.1	51.8	54.8	56.3
14	55.3	56.3	56.7	55.5	56.2	59.4	56.8	55.2	58.2	56.5	55.7	52.0	57.5	59.4	63.7	62.5	59.9	59.2	54.8	51.8	46.4	45.2	49.3	52.3	55.7
15	54.0	55.7	58.3	58.7	57.2	58.5	53.1	55.2	54.3	53.5	54.5	55.5	58.2	60.4	62.0	59.7	60.9	59.0	58.7	54.1	51.6	50.6	53.6	54.0	56.3
16	54.3	54.6	58.7	60.7	55.3	56.2	53.5	54.5	56.7	52.5	53.6	57.2	60.2	60.4	63.6	65.1	65.1	61.7	58.7	55.3	52.5	52.3	52.8	53.3	57.0
17	53.6	54.3	55.7	56.7	58.5	60.0	55.8	56.2	60.5	60.0	52.5	56.8	57.7	58.7	60.9	60.0	57.7	58.7	57.0	55.3	53.6	53.3	53.0	54.0	56.7
18 Q	55.3	55.7	55.7	56.0	56.2	56.5	56.3	59.5	55.0	56.0	54.0	54.0	57.0	58.7	60.2	61.5	61.4	58.8	55.8	53.5	51.0	51.1	52.0	53.1	56.0
19 Q	54.5	55.8	55.8	56.2	55.5	55.0	54.5	58.2	56.7	56.5	55.3	56.0	55.3	56.8	59.5	61.4	62.0	61.7	59.9	55.3	51.1	49.6	50.1	51.0	56.0
20	52.9	54.0	54.4	55.1	55.4	60.3	56.4	55.9	58.4	57.2	56.9	57.4	56.9	56.7	61.4	63.6	63.1	59.1	61.9	58.1	53.4	53.0	52.0	51.7	56.9
21	51.4	55.6	53.2	50.2	56.7	58.6	60.4	59.8	59.1	55.6	55.7	52.5	55.1	56.9	58.9	61.9	61.9	62.4	61.8	58.2	51.0	49.8	51.9	53.5	56.3
22 D	55.1	55.7	55.7	55.2	54.7	54.7	55.2	56.4	57.7	61.8	60.3	67.1	60.3	62.1	63.3	57.6	55.2	58.9	57.4	54.7	47.5	50.2	48.7	53.7	56.6
23 D	53.3	53.4	54.8	68.2	82.3	59.7	58.5	54.8	57.1	55.0	13.1	60.7	62.0	59.2	59.8	60.2	58.0	56.1	57.8	55.3	52.3	53.1	53.3	54.3	56.3
24	55.3	55.6	56.3	57.1	67.2	63.9	56.8	57.1	64.2	63.9	56.0	58.8	61.8	54.1	58.5	56.6	50.6	50.1	55.0	52.9	53.3	53.4	54.6	54.1	57.0
25	54.6	53.9	58.6	62.0	59.3	55.6	55.5	52.1	57.0	58.1	56.1	55.3	57.1	58.6	58.3	58.0	58.8	60.3	60.7	58.5	57.0	53.6	52.9	52.1	56.8
26	51.7	60.1	55.2	65.1	58.9	55.0	51.7	54.6	57.9	54.0	56.5	58.4	56.2	55.0	58.5	60.7	61.1	59.1	58.4	56.7	55.2	53.6	53.5	53.7	56.7
27	53.8	54.9	55.0	55.2	55.9	55.5	56.4	57.9	58.4	56.7	56.5	56.5	56.7	58.2	59.9	61.6	62.1	60.9	58.4	54.9	52.0	51.7	51.7	52.5	56.4
28 Q	54.2	54.9	55.2	55.4	55.7	55.9	56.5	56.7	56.2	56.2	56.2	56.2	56.7	56.9	59.2	60.9	63.3	63.1	60.9	57.9	54.5	53.2	53.3	54.2	56.8
29	54.9	54.9	54.9	54.9	54.9	54.8	55.1	54.9	55.1	55.3	55.9	55.9	56.3	57.9	59.3	60.0	62.8	62.1	60.8	58.8	54.9	52.1	51.6	51.9	56.2
30 D	52.7	54.6	53.7	54.1	53.6	58.1	49.4	63.3	71.6	74.2	65.0	71.2	66.8	64.5	65.0	66.0	70.7	48.2	46.9	51.9	53.1	53.3	53.6	54.9	59.0
31 Q	56.3	56.4	56.3	55.4	55.9	56.4	56.1	56.3	56.8	56.6	56.9	56.6	56.4	58.1	60.1	62.3	63.0	62.5	60.5	57.8	54.8	53.1	51.9	51.7	57.0
Mean	54.0	55.5	56.2	56.8	57.4	56.6	56.5	56.0	58.8	58.5	56.8	59.4	59.7	58.4	60.2	60.4	60.3	59.0	57.6	55.3	52.8	52.2	52.4	53.2	56.8

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

Table 9 Meanook

Z = 58,000 γ +

March 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24		
1	718	713	712	711	708	705	706	703	707	705	703	699	689	700	709	707	709	712	713	714	716	719	716	713	714	708
2 Q	713	712	711	707	707	707	708	703	690	706	709	708	707	708	712	713	713	705	709	712	713	713	713	714	714	709
3	713	712	712	713	718	731	728	722	701	681	689	703	707	705	703	705	702	701	706	711	714	716	725	724	710	
4 D	719	734	796	808	725	515	682	729	528	561	701	655	734	725	715	721	706	725	771	737	740	791	766	767	710	
5 D	807	817	805	772	734	735	681	632	600	670	676	657	600	655	660	712	714	760	732	748	765	791	748	777	719	
6	737	728	748	726	747	706	713	728	635	582	594	677	665	669	686	701	737	731	734	731	726	724	725	726	703	
7	735	740	741	746	737	728	727	725	706	658	676	678	705	711	719	724	713	712	716	726	720	719	725	726	717	
8	734	735	750	754	744	741	754	699	541	555	581	541	624	680	709	726	725	720	719	715	715	714	719	726	693	
9	724	725	748	805	783	772	706	632	678	660	677	703	711	714	718	714	715	714	716	714	713	714	713	712	716	
10	713	714	714	713	713	716	713	700	699	700	701	697	702	706	713	712	711	706	707	712	718	718	713	709	709	
11	713	711	714	713	712	725	671	627	598	478	606	703	709	701	707	708	707	703	706	705	712	709	712	712	686	
12	715	719	752	697	727	722	694	716	687	597	692	722	712	711	695	713	729	725	725	726	725	727	724	721	711	
13	722	719	721	725	727	727	724	697	660	654	652	639	690	713	715	713	712	712	716	712	718	724	728	733	706	
14	719	720	716	715	715	718	713	711	700	705	695	665	656	693	690	700	701	707	706	725	732	731	724	721	707	
15	725	729	739	737	727	700	678	713	708	700	702	707	711	705	702	701	713	713	714	721	729	726	727	727	715	
16	731	734	737	734	727	724	703	702	707	687	675	699	705	715	714	712	711	706	706	707	711	713	713	713	712	
17	713	714	715	719	724	727	680	571	646	654	593	571	676	709	706	706	707	709	713	713	714	714	714	713	688	
18 Q	713	712	712	711	709	712	715	701	699	694	701	702	712	712	713	714	713	713	714	716	718	714	714	713	710	
19 Q	712	711	712	711	712	713	713	721	694	712	713	712	707	712	712	709	708	707	712	708	712	706	702	705	710	
20	708	706	707	707	712	714	727	750	729	725	714	712	700	701	707	703	701	702	705	706	712	715	716	722	713	
21	727	760	753	796	816	772	753	725	715	709	713	694	708	713	718	712	713	709	701	700	706	712	721	722	728	
22 D	720	714	714	713	713	719	716	713	654	588	567	600	632	668	636	682	690	701	702	719	748	756	775	758	692	
23 D	737	731	735	739	676	696	688	527	503	488	289	598	654	682	712	718	703	713	719	733	728	726	728	724	664	
24	716	720	728	738	733	715	681	642	630	508	594	637	603	654	677	664	657	689	718	711	715	714	714	714	678	
25	712	724	752	735	712	686	646	605	681	689	674	687	699	700	708	702	707	709	713	724	737	735	733	726	704	
26	735	760	725	729	727	748	670	652	695	675	680	697	700	707	711	711	709	708	713	714	713	714	712	713	709	
27	717	714	713	713	711	713	714	686	704	706	710	711	711	711	712	710	706	711	706	707	712	714	717	712	710	
28 Q	712	707	711	711	710	711	711	712	710	708	711	712	712	712	714	712	708	711	710	710	711	711	712	712	711	
29	711	710	711	710	708	711	712	711	710	710	710	708	711	712	711	705	702	706	712	712	711	711	708	706	710	
30 D	711	712	713	732	743	659	538	717	737	828	704	637	644	673	674	648	647	664	688	702	710	717	724	724	694	
31 Q	721	717	712	714	713	712	712	706	712	708	702	706	712	711	708	711	708	711	713	713	712	712	711	707	711	
Mean	723	725	729	731	725	712	699	686	670	658	667	675	687	700	703	706	706	710	714	716	720	723	722	722	705	

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

Table 10 Meanook

H = 12,000 γ +

April 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24		
1 D	1107	1108	1110	1112	1114	1112	1111	1111	1111	1117	1118	1118	1113	1079	1025	1063	988	920	902	1078	1027	1122	1133	1423	1093	
2 D	1107	1101	1115	1092	1107	1072	1110	1010	1041	875	823	932	1025	1067	1086	1086	1060	1056	1056	1064	1094	1108	1100	1108	1054	
3	1134	1146	1110	1157	1122	1154	1165	1114	1068	992	974	1004	968	1035	1077	1097	1085	1078	1101	1096	1091	1097	1120	1112	1087	
4	1126	1108	1128	1106	1123	1113	1100	1059	1020	1061	1090	1083	1084	1099	1101	1081	1076	1079	1085	1086	1099	1097	1097	1110	1092	
5	1105	1094	1104	1106	1110	1106	1105	1108	1091	1074	1026	1067	1085	1089	1086	1097	1096	1084	1083	1084	1090	1114	1125	1107	1093	
6	1083	1097	1100	1103	1097	1100	1099	1099	1105	1100	1096	1107	1099	1096	1085	1093	1090	1075	1079	1084	1088	1094	1103	1117	1095	
7	1097	1107	1098	1098	1097	1117	1104	1033	1086	1111	1099	1091	1103	1091	1100	1097	1076	1069	1057	1055	1065	1098	1111	1110	1090	
8	1097	1107	1107	1108	1108	1111	1118	1108	1075	876	867	955	1074	1121	1122	1108	1106	1097	1077	1096	1096	1099	1114	1113	1078	
9	1103	1110	1092	1111	1123	1110	1119	1108	1106	1056	1049	1097	1108	1107	1097	1096	1085	1081	1061	1086	1097	1110	1106	1111	1097	
10	1107	1108	1108	1107	1110	1108	1106	1107	1113	1107	1004	1074	1122	1119	1114	1113	1111	1108	1079	1090	1094	1100	1107	1119	1101	
11	1108	1115	1120	1111	1114	1113	1114	1108	1101	1038	994	987	982	1107	1118	1111	1092	1079	1072	1084	1100	1097	1108	1110	1087	
12 Q	1111	1110	1111	1108	1108	1115	1110	1111	1108	1114	1113	1112	1121	1119	1120	1111	1098	1091	1077	1090	1092	1096	1098	1096	1106	
13	1108	1110	1108	1107	1108	1111	1112	1113	1115	1118	1119	1118	1118	1119	1114	1100	1092	1084	1083	1085	1096	1098	1098	1107	1107	
14 Q	1108	1111	1114	1113	1112	1110	1110	1112	1118	1113	1096	1097	1100	1098	1118	1120	1110	1096	1092	1096	1097	1094	1097	1100	1106	
15	1105	1113	1112	1113	1112	1114	1115	1118	1119	1120	1097	1098	1108	1121	1113	1108	1084	1068	1076	1086	1096	1099	1107	1097	1104	
16	1121	1123	1143	1128	1141	1154	1140	1086	1118	1121	1119	1111	1093	1084	1120	1125	1107	1085	1084	1085	1090	1093	1106	1108	1112	
17	1120	1129	1123	1180	1302	1171	1130	1094	1123	1071	1067	1072	1110	1108	1077	1075	1096	1098	1086	1074	1082	1086	1097	1105	1112	
18	1110	1115	1108	1108	1108	1113	1115	1118	1120	1123	1115	847	1038	1125	1126	1072	1061	1052	1074	1075	1082	1099	1099	1121	1088	
19 D	1134	1133	1132	1125	1105	1106	1101	1103	1063	840	1050	1075	1034	1063	1088	1085	1086	1096	1094	1096	1094	1094	1088	1118	1083	
20	1112	1118	1111	1115	1119	1120	1120	1028	925	1126	1108	1084	1110	1114	1113	1098	1088	1098	1092	1100	1103	1105	1106	1101	1096	
21	1099	1115	1118	1103	1100	1104	1108	1111	1110	1086	1068	1100	1106	1098	1097	1103	1098	1090	1088	1093	1085	1091	1094	1108	1099	
22 Q	1107	1109	1107	1106	1103	1106	1107	1110	1109	1104	1107	1118	1119	1119	1118	1110	1099	1088	1080	1083	1081	1085	1092	1099	1103	
23 Q	1111	1109	1107	1107	1113	1113	1116	1118	1119	1121	1120	1119	1121	1119	1118	1116	1102	1088	1082	1087	1090	1095	1096	1103	1107	
24 Q	1111	1110	1111	1113	1109	1111	1113	1117	1117	1078	1119	1128	1127	1127	1119	1107	1096	1087	1087	1095	1096	1105	1106	1106	1109	
25	1110	1107	1105	1112	1117	1119	1120	1125	1125	1118	1095	998	1068	1113	1103	1102	1081	1082	1071	1074	1083	1096	1099	1118	1098	
26	1125	1127	1133	1165	1167	1106	1107	1100	1109	1084	1107	1117	1113	1117	1109	1096	1083	1070	1075	1080	1090	1097	1112	1104	1108	
27 D	1119	1110	1107	1109	1107	1114	1129	1111	1119	1096	1089	976	1025	1091	1083	979	955	1015	1059	1099	1129	1148	1140	1142	1085	
28 D	1232	1220	1277	1154	1109	1061	1096	670	806	832	699	777	922	1049	1095	1107	1102	1085	1095	1092	1090	1100	1093	1126	1025	
29	1164	1177	1135	1129	1138	1135	1121	1122	1089	1016	989	1037	1103	1105	1104	1100	1098	1070	1073	1100	1098	1104	1109	1107	1101	
30	1118	1117	1110	1107	1105	1102	1107	1106	1107	1109	1107	1118	1117	1122	1119	1114	1093	1095	1100	1089	1109	1098	1164	1266	1116	
31																										
Mean	1117	1119	1119	1118	1120	1113	1114	1085	1085	1050	1051	1054	1081	1101	1103	1097	1084	1076	1074	1086	1090	1101	1108	1126	1094	

DECLINATION
Mean values for periods of sixty minutes; Universal Time

Table 11 Meanook

D = 23° East + ...'

April 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24		
1 D	52.6	53.3	54.3	54.7	54.8	54.8	54.8	55.2	55.3	55.7	56.2	55.8	56.5	58.2	63.6	73.3	70.0	64.2	30.1	48.4	54.8	43.2	37.7	50.6	54.5	
2 D	51.5	50.9	63.5	56.9	63.0	49.7	54.4	55.2	57.2	63.1	65.3	62.3	62.3	65.6	65.5	63.0	62.8	59.4	53.5	50.0	51.0	52.2	51.7	53.2	57.6	
3	52.9	57.7	55.9	65.0	59.4	54.6	51.9	55.2	63.1	52.7	64.5	62.6	56.2	57.7	63.6	64.5	63.1	61.4	59.3	57.1	55.6	55.7	53.0	51.0	58.1	
4	52.9	49.6	60.0	56.8	58.1	56.5	56.3	51.9	63.5	59.5	61.2	61.8	63.4	65.0	62.2	60.7	58.5	55.8	56.3	55.8	55.1	54.5	53.2	51.1	57.5	
5	49.9	51.3	51.9	52.9	63.7	55.5	55.0	53.8	57.8	60.8	58.3	59.5	58.7	59.7	59.8	59.5	58.7	56.3	54.1	51.3	49.6	48.9	46.2	55.5		
6	51.2	51.3	52.8	53.7	57.9	54.0	54.4	55.9	56.7	55.7	54.5	56.2	57.2	57.5	57.0	58.4	58.6	56.9	53.2	52.5	51.5	51.8	50.8	51.2	54.6	
7	54.4	51.2	53.0	52.8	55.2	54.2	54.4	49.8	62.8	57.7	56.0	59.6	61.9	63.4	66.3	62.9	60.7	57.9	56.2	51.7	46.6	49.6	51.2	51.2	55.9	
8	52.7	53.4	53.7	54.3	54.1	54.6	56.4	61.3	55.1	68.4	51.7	85.7	60.1	59.6	62.7	62.1	61.8	59.6	57.4	54.8	52.7	51.7	52.1	52.9	57.9	
9	53.1	53.7	55.4	54.4	61.3	54.4	54.6	61.3	59.1	61.0	62.5	63.0	57.9	62.1	64.5	62.8	61.3	59.5	55.3	53.1	52.7	53.1	54.4	54.6	57.7	
10	55.0	55.2	55.0	54.3	54.7	54.3	55.7	58.0	58.7	58.4	51.1	54.2	59.7	62.0	61.7	61.2	61.0	59.0	56.2	54.3	53.6	52.8	51.5	51.3	56.2	
11	52.5	52.8	53.5	53.3	53.6	54.0	54.3	54.5	57.5	62.6	53.5	65.9	75.3	76.2	64.6	64.2	62.6	60.4	51.0	50.8	52.3	51.5	53.0	53.1	57.6	
12 Q	53.5	54.4	54.2	54.6	54.4	56.2	89.8	55.7	55.6	55.9	56.6	55.2	57.1	58.4	59.9	60.8	61.6	60.8	57.4	53.9	50.9	49.9	50.4	51.0	55.7	
13	52.2	52.0	54.2	54.1	55.2	54.2	54.2	55.1	55.4	55.7	55.7	55.6	56.9	57.7	59.4	60.6	61.8	61.3	58.1	55.7	51.4	50.5	49.0	49.2	55.2	
14 Q	50.8	52.3	52.6	53.4	54.0	53.8	54.1	56.1	55.6	56.3	54.3	57.3	56.8	55.6	60.0	61.2	61.8	60.7	56.6	52.9	51.6	50.6	51.1	51.8	55.1	
15	52.4	52.6	53.1	52.8	53.4	53.3	53.1	54.0	55.5	55.5	58.8	59.3	65.7	66.0	66.6	67.1	61.2	55.5	52.3	51.9	50.8	49.2	47.6	46.7	55.6	
16	46.4	47.6	58.3	51.4	53.3	54.1	57.0	56.0	59.3	56.1	55.6	55.8	57.3	54.6	59.3	63.0	62.5	60.7	56.0	54.0	51.9	50.6	49.2	48.9	55.0	
17	47.6	46.7	49.6	45.9	41.9	43.5	48.9	62.7	55.6	56.0	56.1	54.3	55.6	57.0	57.5	57.8	57.1	59.0	57.1	55.6	52.4	50.4	50.6	52.1	52.9	
18	52.6	53.6	54.1	54.1	54.3	54.1	55.5	54.3	60.8	56.1	55.6	69.6	69.4	62.9	62.2	62.5	59.2	50.9	52.4	50.1	51.1	52.3	51.1	48.9	56.2	
19 D	48.6	52.6	59.0	59.5	59.2	55.0	55.1	55.5	52.8	47.6	57.1	60.2	55.6	56.5	61.0	62.4	57.5	60.5	57.6	56.0	55.5	54.3	51.9	50.6	55.8	
20	51.6	60.3	56.0	54.0	59.2	57.8	56.1	55.6	51.1	57.6	56.3	52.8	56.3	58.8	59.0	59.5	61.0	58.8	55.8	54.1	52.8	52.3	54.3	56.0	56.1	
21	50.8	53.8	59.2	54.1	53.3	54.0	54.6	55.8	55.0	52.9	52.4	56.3	55.5	57.0	58.8	57.8	57.6	57.5	54.8	52.4	50.1	49.1	50.4	50.4	54.3	
22 Q	50.9	52.7	54.4	55.1	54.7	55.4	55.9	57.2	54.2	54.6	56.1	56.9	57.1	57.8	59.3	60.8	62.1	60.3	56.1	53.2	52.4	50.7	50.9	51.2	55.4	
23 Q	52.2	52.9	54.6	54.7	58.1	55.9	54.1	54.2	54.9	54.4	55.2	56.1	57.1	57.8	59.8	60.9	62.1	62.5	60.1	55.9	53.4	51.0	51.4	51.7	55.9	
24 Q	51.4	52.5	52.5	52.5	53.2	52.9	53.4	53.4	54.1	52.5	56.4	57.6	57.7	59.4	62.5	64.5	62.6	61.8	56.1	53.4	51.5	50.7	50.9	50.7	55.2	
25	50.5	50.7	52.5	53.4	52.9	52.4	56.2	54.2	53.4	57.4	56.1	49.2	59.3	62.8	65.3	64.0	61.3	57.9	55.7	50.5	47.0	48.8	46.7	47.5	54.4	
26	48.9	46.3	44.7	46.6	53.8	53.6	56.3	62.5	62.4	56.5	59.4	58.5	59.4	59.2	59.5	60.2	58.2	57.7	52.6	51.1	49.6	48.6	47.8	49.4	54.3	
27 D	51.0	50.8	51.0	49.1	52.1	51.1	63.9	61.0	56.8	57.5	61.0	56.0	63.1	71.0	69.8	69.9	54.3	51.0	47.4	52.6	50.8	49.3	49.8	47.3	55.7	
28 D	43.4	68.4	52.8	47.3	68.1	51.0	54.5	50.6	55.8	78.0	94.0	64.2	74.5	59.4	60.9	62.6	62.7	62.2	59.5	55.8	52.1	50.1	48.4	49.6	59.3	
29	44.1	57.0	52.6	52.6	55.8	54.3	53.8	47.4	50.8	49.3	58.4	58.2	57.7	60.7	60.9	61.0	61.5	61.4	56.0	53.5	49.4	49.3	50.1	51.0	54.5	
30	51.8	52.6	54.3	54.5	54.8	55.7	57.0	56.5	54.3	53.5	53.0	54.0	55.5	58.4	61.2	63.4	64.9	61.9	56.0	54.8	54.3	47.1	40.8	39.4	54.6	
31																										
Mean	51.0	53.0	54.3	53.6	55.9	53.8	55.2	55.7	56.7	56.7	58.1	59.1	59.9	60.6	61.8	62.4	61.0	59.2	54.7	53.3	51.9	50.6	50.0	50.3	55.8	

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

Table 12 Meanook

Z = 58,000 γ +

April 1964

Day	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 D		712	710	712	709	708	708	708	709	708	708	708	703	701	663	602	634	628	617	665	722	738	800	793	652	697
2 D		703	755	761	728	652	628	721	689	655	526	599	600	642	640	666	690	694	726	722	726	747	761	744	741	688
3		754	772	754	728	727	766	763	722	624	581	582	657	658	670	703	725	714	714	721	722	725	725	734	738	707
4		749	747	755	732	715	712	713	666	621	618	670	679	682	690	708	707	703	702	707	713	720	727	736	735	704
5		732	730	730	726	728	714	727	722	707	688	599	637	666	676	677	687	700	709	714	713	714	730	739	732	704
6		716	713	714	720	727	721	720	715	707	691	680	697	703	703	699	696	702	703	704	704	705	710	714	737	708
7		739	731	735	726	728	743	733	602	660	709	693	675	691	673	670	696	707	714	714	714	717	726	727	733	707
8		724	721	715	716	726	727	728	722	606	431	430	526	694	722	718	713	715	715	709	716	717	715	716	716	681
9		715	718	726	734	727	717	715	696	713	626	608	679	704	713	704	713	716	717	702	717	726	718	718	715	706
10		716	715	714	715	715	718	717	690	702	705	611	631	702	703	710	713	715	710	713	711	710	715	705	714	703
11		713	707	708	704	710	708	716	715	692	589	503	512	456	573	663	679	697	704	710	716	731	724	717	716	669
12 Q		708	710	704	710	711	707	701	704	709	704	703	701	702	707	713	708	704	705	703	704	703	702	704	703	705
13		708	714	715	715	714	715	717	702	703	704	705	704	704	705	704	703	702	701	694	691	692	694	702	704	705
14 Q		703	702	703	703	702	703	703	705	703	696	675	666	691	690	692	703	703	703	698	701	704	705	704	705	697
15		705	704	704	704	703	705	705	704	704	702	620	606	626	666	690	692	694	692	697	702	707	714	715	728	691
16		761	760	770	774	794	776	763	678	693	728	729	728	705	698	723	729	716	706	714	711	705	703	705	698	728
17		715	740	765	799	844	786	670	696	718	677	657	655	681	708	683	678	703	705	704	705	711	716	716	709	714
18		709	710	706	705	705	705	706	692	693	704	693	501	507	649	668	668	679	687	699	698	703	715	717	738	682
19 D		752	750	745	717	726	716	711	704	630	431	610	659	650	668	679	680	696	716	716	724	726	749	731	729	692
20		724	733	717	712	706	694	679	592	522	656	681	669	692	694	704	703	705	706	705	705	707	710	717	741	691
21		742	752	722	707	705	705	705	692	690	646	631	675	690	681	684	696	699	703	705	707	706	717	711	705	699
22 Q		704	700	704	702	705	704	705	699	700	683	681	702	705	701	700	700	696	698	694	691	689	686	687	693	697
23 Q		711	720	726	719	718	718	721	718	718	718	718	718	719	719	718	716	704	697	694	699	700	705	701	701	712
24 Q		702	702	701	700	696	702	702	702	701	661	670	694	700	699	698	695	694	695	694	694	698	700	700	704	696
25		705	706	701	699	695	703	718	717	700	695	666	515	577	660	670	695	689	690	695	696	706	718	730	744	687
26		719	715	745	796	777	725	726	648	683	677	695	700	695	706	706	701	706	702	701	701	701	706	708	712	710
27 D		719	715	722	740	715	708	687	677	693	636	663	623	622	648	642	667	642	660	683	722	769	784	747	775	694
28 D		796	789	764	776	613	510	684	425	438	486	495	713	649	702	708	714	718	709	713	706	688	701	708	732	660
29		748	795	755	767	695	690	714	721	677	616	561	629	697	715	718	714	714	708	720	732	722	718	708	708	706
30		708	707	707	706	702	700	700	696	695	697	702	701	699	702	700	696	693	696	696	697	713	716	780	803	709
31																										
Mean		723	728	727	726	716	708	713	684	672	646	641	648	667	685	691	697	699	700	703	708	713	720	721	722	698

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

Table 13 Meanook

H = 12,000 γ +

May 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24	
1 D	1363	1339	1306	1116	1120	1095	1017	1026	1026	1071	923	867	980	1084	1110	1097	1060	1075	1090	1096	1090	1096	1114	1097	1094
2	1096	1107	1112	1107	1104	1107	1074	995	1049	1061	1054	1053	1093	1107	1090	1096	1092	1080	1084	1097	1105	1105	1109	1124	1088
3	1131	1113	1107	1102	1099	1104	1106	1106	1105	1110	1097	1104	1111	1109	1107	1096	1089	1083	1088	1096	1102	1107	1106	1106	1104
4	1109	1107	1110	1105	1107	1106	1119	1106	1104	1110	1109	1111	1110	1109	1107	1104	1095	1088	1090	1091	1105	1107	1119	1116	1106
5	1109	1119	1127	1119	1122	1121	1125	1120	1117	1078	1015	1025	1038	1073	1107	1109	1096	1084	1084	1096	1103	1104	1106	1107	1096
6	1110	1109	1109	1109	1107	1113	1116	1118	1119	1119	1119	1117	1118	1117	1113	1106	1096	1088	1081	1080	1093	1098	1105	1096	1106
7 Q	1103	1111	1113	1110	1107	1116	1109	1107	1096	1106	1107	1114	1118	1119	1110	1096	1084	1073	1073	1080	1093	1107	1110	1109	1103
8 Q	1109	1110	1109	1107	1107	1107	1109	1110	1114	1118	1118	1119	1121	1122	1119	1114	1107	1098	1097	1102	1106	1107	1110	1110	1110
9 Q	1109	1109	1107	1107	1106	1105	1107	1106	1107	1107	1107	1109	1107	1102	1099	1106	1100	1096	1087	1084	1090	1098	1113	1119	1104
10	1131	1124	1132	1113	1119	1125	1129	1132	1129	1122	1129	1138	1119	1024	1071	1059	1049	1052	1038	1055	1084	1116	1248	1365	1117
11	1454	1415	1375	1421	1281	1133	1081	846	994	1075	1112	1107	1111	1109	1096	1093	1083	1084	1081	1082	1087	1093	1102	1110	1143
12 Q	1099	1106	1105	1105	1100	1107	1099	1098	1095	1100	1110	1107	1113	1110	1105	1095	1091	1084	1077	1083	1084	1096	1106	1107	1099
13	1107	1110	1107	1105	1107	1107	1110	1116	1119	1128	1133	1139	1140	1088	1032	1110	1113	1096	1088	1081	1060	1107	1105	1117	1105
14 D	1125	1132	1133	1125	1128	1146	1164	1128	852	1041	1155	1163	1140	1111	964	969	1140	1128	1107	1105	1113	1088	1109	1109	1099
15 D	1121	1135	1153	1268	1158	1045	709	1039	940	999	1114	1129	1129	1124	1108	1104	1117	1115	1115	1114	1103	1111	1121	1211	1095
16	1197	1164	1131	1126	1150	1137	1117	963	816	957	927	1104	1070	1045	1123	1122	1109	1113	1106	1093	1103	1117	1133	1126	1085
17	1109	1116	1107	1114	1115	1114	1115	1106	1035	919	1126	1089	1029	1080	1091	1110	1095	1085	1088	1094	1108	1111	1094	1106	1090
18	1117	1114	1117	1116	1114	1113	1115	1116	1106	1056	1082	1117	1120	1118	1117	1110	1094	1079	1077	1094	1104	1110	1117	1124	1106
19	1130	1131	1123	1117	1108	1111	1110	1106	1087	1094	1122	1129	1126	1129	1126	1110	1100	1082	1077	1091	1097	1099	1100	1101	1109
20 Q	1109	1116	1117	1113	1106	1106	1107	1109	1114	1109	1111	1118	1128	1124	1114	1106	1094	1106	1110	1100	1106	1117	1125	1121	1112
21	1117	1116	1115	1108	1106	1109	1110	1111	1118	1117	1084	1106	1110	1126	1122	1116	1109	1100	1101	1111	1115	1117	1123	1108	1111
22	1110	1107	1106	1103	1104	1106	1110	1107	1117	1106	1106	1106	1104	1100	1104	1107	1106	1096	1093	1094	1104	1109	1124	1117	1106
23	1106	1117	1114	1104	1107	1110	1118	1117	1126	1122	1131	1132	1140	1131	1125	1114	1094	1086	1079	1082	1093	1095	1106	1139	1112
24 D	1147	1132	1124	1290	1294	1251	914	758	795	624	1072	1103	1055	1008	1071	1077	1068	1048	1067	1086	1116	1131	1129	1154	1063
25 D	1123	1097	1106	1101	1110	1116	1118	1096	711	535	966	1058	1104	1096	1065	1071	1071	1052	1079	1063	1106	1110	1117	1113	1049
26	1151	1109	1104	1094	1100	1104	1108	1106	1106	1106	1099	1103	1104	1103	1100	1106	1102	1094	1082	1080	1082	1092	1099	1114	1102
27	1114	1129	1117	1129	1120	1151	1123	972	1048	977	816	1023	1066	1088	1097	1104	1096	1094	1093	1094	1093	1092	1096	1114	1077
28	1117	1114	1122	1116	1106	1108	1109	1107	1106	1079	1055	1087	1089	1118	1097	1082	1099	1091	1078	1075	1093	1093	1106	1107	1098
29	1107	1115	1123	1121	1109	1110	1114	1104	1097	1107	1111	1108	1103	1106	1106	1103	1094	1086	1080	1082	1086	1091	1115	1116	1104
30	1115	1122	1117	1108	1109	1110	1111	1104	1106	1107	1106	1104	1106	1082	1107	1110	1094	1081	1077	1082	1091	1107	1129	1116	1104
31	1117	1123	1117	1113	1111	1111	1113	1117	1117	1118	1110	1116	1123	1122	1117	1109	1099	1091	1089	1092	1096	1106	1115	1120	1111
Mean	1137	1134	1131	1132	1124	1116	1090	1073	1051	1048	1078	1097	1101	1100	1097	1097	1095	1087	1085	1089	1097	1104	1116	1126	1100

DECLINATION
Mean values for periods of sixty minutes; Universal Time

Table 14 Meanook

D = 23° East + ...'

May 1964

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	41.0	44.0	43.3	54.5	64.3	64.0	49.0	54.4	57.9	58.1	57.9	48.7	50.4	62.0	65.5	66.7	66.0	58.1	55.8	52.7	50.7	51.2	50.7	51.4	54.9
2	52.7	53.4	61.6	57.3	55.1	52.6	50.6	46.0	56.8	64.0	58.5	59.5	60.3	62.8	62.8	62.1	60.3	58.5	54.4	51.1	49.0	49.4	49.7	51.1	55.8
3	52.7	51.4	53.2	52.9	52.7	53.1	54.1	54.4	54.1	54.9	53.4	54.6	55.9	57.6	59.5	60.8	59.4	57.7	53.2	49.9	48.4	48.5	49.4	51.4	53.9
4	52.4	53.6	53.7	53.1	53.6	55.4	59.6	54.6	54.1	54.8	55.6	56.4	57.8	60.8	61.0	60.8	59.6	57.8	56.1	52.4	51.1	51.6	51.2	51.2	55.3
5	51.3	51.0	50.0	51.2	52.7	52.7	64.1	56.2	55.2	57.4	61.2	65.4	61.1	61.2	61.1	59.6	57.9	56.2	55.2	54.2	54.4	53.7	53.5	53.3	56.2
6	52.8	52.5	52.8	53.2	53.5	53.7	54.0	56.4	54.7	55.0	56.0	56.4	58.7	58.4	58.7	58.9	57.9	56.4	53.7	49.3	48.8	49.5	49.5	50.5	54.2
7 Q	51.2	51.7	53.2	54.5	59.2	52.3	54.4	54.5	55.5	55.0	54.5	56.4	57.9	59.4	60.1	59.7	59.1	56.9	54.5	52.0	51.2	51.5	52.0	52.8	54.9
8 Q	53.7	54.2	54.5	54.2	54.2	54.4	54.5	54.5	54.5	54.7	54.9	56.0	56.9	57.9	59.4	59.6	59.2	57.9	56.2	52.8	51.2	50.2	50.8	51.2	54.9
9 Q	52.3	52.9	53.1	53.8	53.8	54.5	54.8	56.0	55.8	55.5	55.0	54.8	56.3	58.0	62.9	64.4	61.8	59.8	56.1	50.6	47.6	46.3	47.4	49.6	54.7
10	49.6	51.1	51.9	52.9	51.8	51.3	52.8	52.9	53.8	54.3	55.6	52.4	51.3	57.1	66.4	67.1	66.2	58.5	57.8	46.2	48.4	45.0	44.5	40.3	53.3
11	34.1	37.0	28.9	35.1	36.0	57.6	42.9	51.9	61.3	56.8	56.1	55.5	58.5	61.3	63.0	64.4	63.0	57.6	53.8	51.3	48.5	49.5	51.1	52.6	51.2
12 Q	53.8	54.6	54.8	56.0	57.6	54.5	54.6	54.6	55.0	56.0	55.5	58.0	60.6	62.0	63.0	62.5	61.3	58.1	54.6	52.1	49.9	50.1	51.4	52.9	56.0
13	54.0	54.4	54.6	54.6	54.2	54.0	54.2	54.6	54.6	54.7	55.2	57.4	61.8	64.0	71.5	74.9	65.1	63.6	55.6	52.2	43.0	41.3	45.5	46.3	55.9
14 D	47.8	48.5	50.0	50.4	49.8	50.2	53.9	47.5	67.2	59.6	55.7	54.7	56.7	63.5	69.2	71.9	61.1	60.8	56.9	51.4	48.8	47.5	45.8	47.3	54.8
15 D	49.7	49.5	49.8	53.4	73.7	53.9	17.4	67.2	63.1	63.3	53.0	56.4	61.3	61.9	64.6	64.0	61.9	60.1	58.1	54.9	51.2	48.8	48.0	48.2	55.6
16	52.5	46.5	51.0	59.3	67.8	54.7	52.0	56.9	48.7	52.2	61.4	51.9	56.6	58.2	59.4	63.0	62.8	59.8	56.1	51.4	47.8	46.5	46.3	48.0	54.6
17	49.6	50.5	51.5	53.5	53.6	54.5	60.3	58.0	54.0	61.5	55.2	54.7	54.7	61.4	62.4	59.5	58.2	58.3	54.7	51.1	49.8	49.6	46.4	48.1	54.6
18	48.9	50.1	51.6	52.6	52.3	60.7	58.2	54.0	52.1	48.4	51.1	52.3	56.3	59.9	61.4	59.6	59.5	58.0	54.8	51.1	48.4	47.8	48.3	48.9	53.6
19	49.8	49.8	51.3	54.8	55.3	54.0	53.5	53.1	49.6	49.8	52.1	54.3	56.5	58.2	59.9	59.6	59.9	60.0	51.8	48.4	48.1	48.6	48.6	50.6	53.2
20 Q	51.6	52.5	53.1	53.4	53.6	53.6	53.2	53.6	54.1	51.4	51.9	55.3	56.6	58.3	60.5	62.0	60.0	57.1	54.1	51.6	48.2	46.9	48.5	51.2	53.8
21	52.7	53.2	53.6	53.4	54.1	55.1	54.8	53.2	52.9	51.6	50.9	54.1	57.8	60.6	62.4	61.5	60.0	57.9	52.1	49.5	46.0	44.8	45.5	47.5	53.6
22	49.9	51.6	53.2	52.4	52.6	52.1	51.6	53.2	55.1	54.4	54.6	56.6	59.0	60.6	62.4	63.5	62.3	60.0	55.4	50.6	47.9	46.2	45.2	46.5	54.0
23	48.1	49.6	50.6	51.7	52.3	53.3	55.9	53.3	51.8	52.3	53.7	56.2	58.4	59.7	62.4	63.4	63.3	60.1	55.0	53.0	50.7	48.3	45.3	42.4	53.8
24 D	40.1	38.1	43.3	37.5	39.1	46.6	43.3	58.4	75.2	53.3	62.7	60.9	61.7	58.0	65.8	66.8	62.6	56.2	53.8	52.5	49.5	47.6	48.6	50.0	53.0
25 D	48.8	51.2	51.7	52.0	51.7	51.7	53.2	55.0	46.5	43.6	62.4	61.6	65.6	65.1	67.3	66.8	61.7	58.9	58.9	47.3	45.8	46.6	46.6	47.5	54.5
26	54.1	53.4	53.4	53.3	52.9	55.1	57.1	52.8	51.6	51.8	51.8	52.6	56.6	58.8	62.2	63.5	62.3	59.3	57.1	51.3	46.9	46.6	46.7	48.6	54.2
27	50.4	50.2	50.1	55.5	54.8	57.0	73.1	71.9	62.0	56.0	55.8	54.4	55.6	59.3	61.8	62.9	62.3	60.8	56.8	55.1	50.6	49.7	48.6	48.7	56.8
28	49.7	49.9	51.8	55.1	57.6	53.1	51.8	52.6	52.6	53.4	54.6	55.6	55.3	58.1	61.8	63.5	58.3	57.6	54.8	49.6	46.4	44.9	44.5	46.6	53.3
29	50.4	51.4	51.9	57.7	55.2	53.2	51.9	51.5	49.5	52.7	55.1	56.2	56.4	57.7	60.3	61.9	61.1	59.1	54.2	51.0	48.2	46.8	46.7	46.8	53.6
30	48.5	48.5	50.3	52.0	52.3	52.9	51.0	53.5	52.0	53.2	53.7	56.7	59.4	58.7	60.2	61.6	61.9	60.6	54.9	54.2	46.8	47.3	46.8	48.3	53.6
31	51.9	51.5	51.4	52.9	53.9	51.7	53.5	53.5	51.9	51.9	50.3	54.4	56.6	60.3	61.9	61.3	60.4	57.2	51.0	48.0	45.1	44.8	46.0	47.3	52.9
Mean	49.9	50.3	51.1	52.7	54.2	54.0	53.1	54.8	55.3	54.6	55.3	55.8	57.7	60.0	62.6	63.2	61.2	58.7	55.1	51.3	48.7	48.0	48.0	48.9	54.3

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

Table 15 Meanook

Z = 58,000 γ +

May 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24	
1 D	755	727	723	751	721	663	594	564	575	617	560	525	617	665	697	700	685	697	701	697	702	707	709	710	669
2	709	714	720	714	708	651	523	477	555	582	628	649	695	703	697	698	697	700	702	703	704	708	717	733	670
3	741	727	728	721	703	697	697	696	681	690	685	684	691	697	698	697	697	697	697	702	705	707	708	704	702
4	706	705	708	702	701	699	695	705	685	686	692	698	698	698	698	698	696	697	698	699	698	698	704	708	699
5	704	702	698	692	696	709	709	705	686	609	516	565	631	673	687	704	703	701	696	696	698	698	697	697	678
6	698	698	698	698	697	698	698	697	692	691	691	693	698	698	699	697	698	697	689	690	687	689	695	698	695
7 Q	699	704	705	711	711	702	705	696	670	686	697	703	705	702	699	699	699	700	705	711	711	710	705	699	701
8 Q	699	699	700	699	698	698	699	699	699	699	699	699	699	699	699	696	693	693	694	693	692	698	696	698	697
9 Q	685	678	675	673	671	670	670	668	665	662	664	664	659	652	648	652	654	658	658	664	674	684	690	693	668
10	699	691	699	693	691	694	689	695	688	688	689	689	675	700	665	657	674	640	676	685	723	782	854	814	702
11	752	758	723	627	652	676	580	550	617	650	693	704	705	706	700	699	698	698	698	697	699	700	700	706	683
12 Q	700	700	700	704	703	700	700	653	653	653	688	700	699	697	694	691	691	688	694	698	699	695	695	695	691
13	693	690	690	689	689	690	692	692	690	688	689	692	690	674	581	598	616	656	662	706	707	717	709	708	680
14 D	660	676	688	683	680	699	689	666	596	725	628	675	672	642	651	559	689	660	636	642	632	654	672	695	661
15 D	741	734	743	676	590	578	582	573	577	501	618	696	719	716	711	699	720	708	708	718	719	716	725	770	681
16	753	759	732	738	720	753	746	582	374	514	647	709	694	684	707	700	698	707	730	696	671	661	661	673	680
17	701	708	719	714	719	720	690	673	630	531	658	679	639	673	683	708	711	709	708	707	714	724	724	721	690
18	718	709	711	709	719	705	690	698	692	619	614	675	698	709	706	702	701	702	696	703	707	719	730	734	699
19	744	743	737	731	719	720	718	700	663	658	695	709	708	708	707	706	705	707	699	702	708	711	712	714	709
20 Q	715	715	714	716	712	712	709	702	703	684	683	704	708	707	700	698	708	718	724	722	727	732	737	739	712
21	687	682	680	679	679	678	670	671	670	661	604	600	634	664	682	680	670	682	705	713	709	717	733	727	678
22	735	726	722	720	716	714	711	716	720	710	698	694	707	711	710	715	708	710	729	731	735	735	734	730	718
23	726	729	723	729	716	733	717	729	723	722	727	734	733	729	723	721	708	692	685	684	688	695	697	709	716
24 D	717	740	741	723	580	698	620	616	622	550	594	678	664	640	670	664	676	670	654	685	698	730	734	741	671
25 D	734	711	700	700	704	712	724	700	579	424	589	585	660	680	662	641	676	688	710	711	718	712	714	738	674
26	750	721	713	708	711	712	699	682	700	706	699	701	706	707	699	701	699	693	688	694	700	706	710	714	705
27	724	734	747	771	770	752	645	636	689	618	682	649	664	700	712	712	702	701	701	702	701	701	718	723	702
28	718	712	718	723	725	719	710	694	688	609	603	653	687	706	698	686	688	699	700	700	706	723	730	724	697
29	711	708	711	728	712	718	711	688	666	676	694	694	691	689	689	692	692	689	691	692	698	702	712	724	699
30	726	724	725	725	724	714	702	677	681	691	689	687	688	676	686	693	692	693	695	698	692	701	711	728	701
31	712	713	713	723	720	706	702	692	688	688	681	692	699	700	700	698	698	696	694	693	699	700	699	701	700
Mean	717	714	713	709	699	700	680	667	652	642	658	674	685	690	689	686	692	692	694	698	701	707	714	718	691

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

Table 16 Meanook

H = 12,000 γ +

June 1964

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	1125	1119	1121	1129	1118	1117	1121	1126	1115	1121	1126	1134	1129	1117	1131	1126	1118	1104	1089	1087	1098	1105	1095	1107	1116
2	1117	1117	1118	1118	1116	1117	1118	1119	1124	1125	1126	1127	1126	1129	1122	1115	1107	1100	1107	1109	1117	1117	1119	1121	1118
3	Q	1125	1129	1124	1122	1118	1118	1119	1118	1118	1107	1116	1118	1125	1130	1117	1107	1101	1096	1095	1105	1100	1115	1117	1115
4		1118	1116	1118	1117	1118	1116	1110	1095	1078	1127	1130	1119	1130	1138	1129	1112	1089	1083	1089	1094	1105	1118	1122	1126
5	Q	1127	1123	1109	1111	1115	1117	1118	1117	1118	1118	1122	1126	1124	1127	1121	1108	1107	1097	1097	1105	1109	1116	1125	1124
6	Q	1119	1122	1118	1125	1120	1122	1124	1127	1124	1108	1116	1120	1118	1096	1125	1118	1097	1096	1098	1105	1116	1122	1124	1127
7		1132	1125	1120	1112	1116	1117	1118	1119	1120	1122	1124	1131	1132	1131	1124	1112	1102	1088	1090	1093	1110	1131	1131	1157
8		1145	1116	1119	1109	1108	1118	1124	1059	968	1073	1120	1126	1127	1125	1124	1104	1089	1074	1070	1073	1084	1106	1108	1128
9		1119	1111	1120	1099	1110	1109	1112	1108	1111	1110	1112	1099	1130	1113	1123	1123	1125	1108	1090	1084	1097	1118	1130	1132
10	D	1154	1171	1167	1209	1233	1067	934	575	862	720	681	1083	1132	1073	1122	1117	1108	1091	1084	1087	1116	1127	1116	1188
11	D	1160	1142	1291	1231	1117	1101	1093	1062	1038	935	693	1010	1066	1088	1050	1082	1079	1053	1105	1090	1108	1084	1118	1134
12	D	1152	1134	1144	1142	1130	1133	1081	1048	1086	1104	1099	1064	1038	1093	1133	1113	1091	1053	1073	1072	1087	1108	1106	1122
13		1146	1135	1118	1119	1118	1106	1084	1096	1101	1106	964	1055	1113	1124	1125	1124	1119	1088	1084	1083	1094	1090	1099	1109
14		1128	1119	1119	1122	1128	1109	1108	1083	1062	1096	1123	1115	1113	1123	1125	1127	1113	1096	1095	1106	1110	1117	1125	1137
15		1131	1113	1126	1116	1112	1118	1117	1117	1116	1117	1112	1109	1113	1126	1122	1119	1116	1109	1096	1093	1098	1109	1112	1113
16	Q	1128	1125	1119	1118	1113	1119	1117	1117	1113	1117	1115	1118	1122	1120	1118	1120	1124	1110	1101	1097	1106	1109	1118	1119
17		1122	1122	1128	1119	1119	1115	1119	1113	1108	1118	1118	1120	1125	1127	1127	1118	1103	1089	1099	1101	1102	1098	1096	1103
18		1110	1118	1125	1123	1120	1122	1120	1123	1130	1131	1122	1108	1083	1090	1118	1118	1108	1086	1076	1084	1089	1099	1096	1110
19		1118	1119	1117	1113	1110	1111	1118	1120	1122	1125	1119	1122	1119	1119	1112	1104	1096	1091	1096	1104	1117	1128	1141	1118
20	D	1151	1168	1210	1192	1236	1132	1108	1106	1112	1117	1131	1093	957	963	1094	1103	1077	1086	1069	1062	1074	1099	1113	1140
21	D	1156	1213	1142	1119	1104	1110	1109	1109	1035	1047	1137	1119	1126	1120	1122	1104	1088	1084	1081	1093	1116	1117	1116	1117
22		1118	1116	1112	1117	1118	1119	1119	1122	1123	1127	1128	1131	1135	1133	1113	1086	1094	1080	1084	1087	1090	1108	1109	1113
23		1119	1124	1131	1122	1123	1111	1113	1115	1118	1097	1104	1117	1086	1120	1113	1112	1098	1091	1090	1096	1108	1112	1127	1133
24		1135	1122	1119	1115	1108	1109	1113	1117	1119	1117	1119	1122	1123	1130	1131	1124	1106	1083	1066	1076	1073	1093	1105	1132
25		1144	1134	1131	1154	1123	1135	1037	836	684	1061	1094	1118	1127	1115	1106	1119	1110	1093	1097	1097	1105	1108	1108	1106
26		1117	1119	1118	1119	1124	1119	1120	1108	1043	1090	1084	1094	1119	1127	1112	1111	1105	1087	1076	1076	1091	1102	1106	1104
27		1125	1131	1125	1122	1122	1126	1122	1124	1125	1132	1132	1126	1115	1149	1144	1137	1124	1115	1101	1096	1101	1110	1113	1112
28		1117	1123	1129	1124	1117	1124	1116	1119	1118	1092	1089	1147	1132	1136	1115	1069	1042	1083	1107	1105	1097	1103	1100	1107
29		1121	1123	1119	1118	1116	1115	1117	1117	1096	1013	1063	1125	1119	1115	1109	1116	1121	1107	1095	1097	1104	1103	1114	1118
30	Q	1118	1119	1119	1112	1114	1118	1122	1126	1129	1130	1131	1136	1132	1139	1140	1133	1109	1093	1096	1093	1095	1104	1074	1122
31																									
Mean		1130	1129	1133	1129	1125	1116	1105	1081	1077	1087	1082	1111	1111	1114	1119	1113	1102	1091	1090	1091	1101	1109	1113	1123

DECLINATION
Mean values for periods of sixty minutes; Universal Time

Table 17 Meanook

D = 23° East + ...'

June 1964

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	48.6	50.1	50.3	50.3	51.5	53.8	50.6	51.1	51.0	53.5	53.3	56.3	59.0	59.5	61.2	61.0	60.9	58.3	55.0	50.8	49.1	46.9	47.6	48.3	53.2	
2	49.9	51.8	52.3	52.8	52.0	51.8	52.3	53.6	53.5	53.5	53.6	54.0	56.2	59.4	61.5	61.9	60.4	57.5	57.0	51.8	50.6	50.3	50.1	50.3	54.1	
3 Q	50.8	52.1	53.6	55.3	55.3	55.8	53.6	54.0	54.6	54.5	55.2	57.0	59.0	60.5	61.4	62.5	61.0	57.3	54.3	52.0	50.3	48.6	47.8	48.4	54.8	
4	50.4	52.1	52.2	52.2	52.2	51.7	52.7	55.3	56.4	57.1	54.7	54.9	58.6	61.0	62.0	61.5	60.3	56.8	53.7	49.4	48.5	48.5	48.7	49.2	54.2	
5 Q	51.2	52.9	54.1	53.6	52.9	52.9	53.6	53.1	52.9	52.7	53.7	55.4	58.3	60.3	63.3	61.8	57.8	53.6	50.9	49.5	50.2	50.5	50.2	50.0	54.0	
6 Q	50.7	51.2	51.2	51.1	51.2	50.5	50.7	51.9	52.7	51.2	58.8	58.8	60.1	58.4	58.9	60.0	57.6	53.7	50.0	48.9	48.5	48.2	48.4	49.0	53.0	
7	50.1	51.3	52.2	52.3	52.2	52.3	52.8	53.3	53.8	53.8	54.2	55.5	57.2	58.9	60.6	61.7	62.2	58.9	53.3	50.3	47.0	45.3	42.6	41.7	53.1	
8	45.3	50.3	49.1	51.8	51.5	52.2	51.2	51.7	54.7	58.2	54.2	54.2	58.5	60.7	63.8	63.6	60.6	57.2	51.8	48.8	46.6	45.9	47.5	48.3	53.2	
9	50.6	52.2	52.5	53.0	52.7	53.7	51.0	55.9	51.0	53.7	53.8	54.5	58.0	62.7	65.1	65.9	63.9	59.4	54.2	53.3	49.0	45.3	43.6	46.1	54.2	
10 D	47.6	47.9	46.4	32.3	7.6	11.9	62.7	35.1	69.2	67.2	71.4	54.3	60.7	67.9	63.5	65.5	61.7	59.0	57.0	55.1	49.2	49.1	48.7	50.6	51.7	
11 D	50.6	50.7	44.5	61.0	50.4	53.1	59.8	68.4	57.3	66.9	57.6	49.1	55.8	58.5	62.0	62.5	60.2	57.3	57.0	52.8	49.9	46.0	46.0	48.1	55.2	
12 D	50.4	52.9	58.8	59.0	53.9	53.1	55.6	50.9	49.7	47.7	55.5	55.8	51.8	57.0	62.7	62.3	61.8	54.3	51.9	50.7	48.7	47.2	47.7	48.9	53.7	
13	52.0	51.5	52.9	58.4	62.4	55.2	51.5	55.2	53.2	54.7	46.3	50.7	58.7	60.9	61.3	61.4	60.6	59.1	55.7	51.9	49.7	47.3	49.2	49.8	54.6	
14	50.7	51.4	52.4	52.7	62.8	61.8	57.2	51.0	52.2	52.4	52.5	55.4	58.9	60.3	61.6	62.4	62.3	59.6	56.7	53.9	48.7	45.8	44.0	47.0	54.7	
15	50.2	50.8	50.5	57.1	52.2	52.2	52.5	54.0	54.9	52.7	52.9	52.9	53.4	57.6	60.8	63.3	63.1	60.6	56.9	54.0	50.7	48.8	47.3	49.0	54.1	
16 Q	50.3	50.5	54.0	54.0	52.9	52.4	54.2	55.9	52.4	52.0	53.7	54.2	55.0	56.6	60.3	64.6	65.0	62.1	59.1	54.7	50.5	49.0	49.0	50.7	54.7	
17	52.2	53.4	54.0	54.4	53.5	55.7	53.5	52.0	52.7	52.9	53.5	55.4	56.2	59.2	60.3	61.6	60.6	58.2	55.0	52.4	51.0	50.3	49.5	49.7	54.5	
18	50.3	51.0	52.5	52.7	52.7	52.5	52.4	51.5	52.2	52.7	52.4	54.9	58.7	63.3	67.1	66.5	65.3	61.6	58.2	53.2	47.7	43.0	43.6	45.5	54.2	
19	49.0	50.5	52.4	52.4	52.4	52.5	53.2	53.0	52.5	52.4	53.7	55.6	57.4	60.4	62.6	63.3	62.3	59.1	50.8	47.3	42.8	43.3	43.6	43.6	52.8	
20 D	42.5	41.0	45.4	44.6	44.6	50.1	49.6	49.1	49.8	51.6	56.3	54.1	62.4	77.2	65.4	65.1	61.4	60.9	56.3	53.8	46.6	44.9	47.1	47.3	52.8	
21 D	45.7	45.2	51.3	50.6	50.4	52.0	51.1	52.6	47.1	55.3	53.8	55.0	59.7	62.5	62.9	63.5	63.4	59.2	54.1	48.8	44.1	44.9	46.1	48.9	52.8	
22	51.6	53.6	54.1	53.8	53.1	52.5	52.3	51.6	52.5	53.3	53.6	55.7	57.2	57.3	57.3	59.5	59.2	56.5	53.8	49.9	45.7	46.2	47.3	48.6	53.2	
23	49.9	52.0	53.3	53.3	52.8	51.5	52.0	50.8	52.5	48.4	48.3	54.3	53.3	57.8	60.7	62.9	62.4	59.2	54.1	51.6	50.9	50.6	47.4	46.4	53.2	
24	46.0	49.7	51.2	52.1	52.6	52.6	52.2	52.1	52.7	52.6	53.4	55.2	57.6	60.0	62.5	63.8	62.5	59.3	57.6	53.1	47.4	45.7	45.3	47.2	53.5	
25	49.7	53.4	47.5	50.0	55.6	52.6	54.1	61.6	59.3	57.6	49.5	52.4	56.3	61.5	63.3	62.3	62.6	62.3	57.6	52.7	48.7	47.2	47.7	49.0	54.8	
26	50.9	52.6	53.7	53.2	59.6	53.2	52.4	52.9	53.4	55.8	53.6	50.9	56.8	61.1	63.5	65.8	62.5	59.8	55.9	52.9	50.0	47.5	46.7	48.2	54.7	
27	50.8	52.7	53.5	53.7	53.3	52.8	54.8	52.7	52.3	51.5	53.2	54.3	51.7	57.7	61.9	62.7	61.7	58.4	54.8	51.7	50.0	49.3	48.8	49.3	53.9	
28	50.8	51.7	52.7	52.7	56.0	52.8	54.8	53.5	51.0	54.7	56.7	60.7	61.4	62.9	63.2	57.7	57.5	48.8	51.8	51.5	51.0	49.5	49.3	50.6	54.3	
29	52.3	52.8	53.2	54.7	57.5	52.7	52.7	52.7	52.2	45.9	52.8	57.5	59.2	62.4	64.8	62.4	60.2	60.4	55.7	52.5	49.3	49.0	48.5	50.8	54.7	
30 Q	51.3	51.8	52.5	52.7	52.7	52.5	52.5	52.8	52.8	54.0	54.7	55.5	56.0	58.5	60.6	63.6	62.7	61.1	56.2	53.5	51.3	49.6	49.0	48.6	54.4	
31																										
Mean	49.7	51.1	51.8	52.6	52.0	51.7	53.3	53.0	53.4	54.0	54.2	54.8	57.4	60.7	62.2	62.8	61.5	58.3	54.9	51.8	48.8	47.5	47.3	48.3	53.9	

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

Table 18 Meanook

Z = 58,000 γ +

June 1964

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	704	702	700	706	711	711	705	702	668	682	687	695	688	669	676	676	681	681	679	676	679	687	696	700	690
2	701	700	700	702	700	700	692	680	687	698	699	700	693	695	694	694	689	695	693	705	694	694	692	688	695
3 Q	691	694	692	696	699	700	695	693	689	687	673	676	682	687	689	692	695	700	681	677	687	691	691	692	690
4	692	688	691	688	689	695	691	670	611	656	688	687	688	689	688	681	687	688	688	683	679	689	698	699	683
5 Q	692	689	678	689	688	688	688	688	688	688	688	688	688	687	682	681	685	680	681	683	692	693	694	699	687
6 Q	699	699	700	701	704	702	705	702	704	701	705	702	705	702	693	616	651	680	687	691	694	696	698	696	693
7	696	693	694	696	696	699	699	700	696	695	695	698	696	694	693	692	691	689	686	691	693	695	704	706	695
8	708	706	698	693	692	694	693	668	591	638	680	699	705	699	696	692	691	687	680	676	677	682	688	692	684
9	694	695	701	694	694	707	718	706	705	695	685	680	663	669	666	663	668	674	682	688	689	685	689	697	688
10 D	705	718	729	734	723	721	755	809	813	803	753	634	692	692	706	682	694	700	697	706	717	723	740	752	725
11 D	750	743	751	689	734	707	692	561	686	563	530	589	655	663	654	681	667	668	686	692	712	718	724	718	676
12 D	724	725	753	742	742	729	643	577	611	644	646	634	638	653	695	689	686	683	694	699	708	724	730	740	688
13	740	719	717	719	706	694	606	646	657	667	568	611	679	705	704	698	697	695	693	694	706	705	704	707	685
14	717	711	706	711	706	675	683	644	605	614	680	693	694	691	687	697	695	697	694	694	700	702	705	716	688
15	721	730	730	729	706	705	704	699	688	699	694	694	694	700	694	693	687	686	691	687	693	699	704	706	701
16 Q	717	718	712	705	701	705	702	700	697	699	699	700	702	694	685	679	682	681	681	683	693	694	700	695	697
17	702	699	702	702	701	699	693	694	673	682	693	697	694	693	693	694	688	682	680	681	687	695	695	701	692
18	705	704	699	698	698	697	695	694	694	694	691	670	631	597	647	666	668	665	669	672	692	711	730	712	683
19	693	692	693	692	691	692	693	694	693	694	695	697	694	695	693	688	682	682	680	682	685	691	707	725	693
20 D	748	777	818	804	818	753	716	691	686	683	688	638	730	743	635	679	695	706	710	717	726	714	705	710	720
21 D	725	801	745	724	706	704	706	672	631	546	676	694	695	694	695	685	686	689	687	693	693	694	694	694	693
22	694	695	694	695	694	694	694	694	695	695	697	698	695	693	675	646	659	670	676	679	688	705	704	708	689
23	708	707	706	704	706	710	717	697	692	669	663	688	657	683	685	688	687	693	682	683	693	706	723	721	694
24	718	704	695	697	694	693	693	693	691	689	694	697	694	694	687	685	685	683	681	676	681	702	693	704	693
25	713	720	714	747	744	736	691	602	516	624	657	688	710	697	687	692	693	686	682	685	687	686	689	685	685
26	687	691	692	694	680	656	670	657	567	611	615	622	662	675	670	670	672	680	681	679	685	675	687	693	665
27	710	709	705	699	698	699	705	702	704	698	697	696	680	697	697	692	691	689	684	687	684	689	699	698	696
28	698	697	699	698	699	702	699	700	674	614	590	652	668	682	677	651	652	667	678	676	672	685	683	689	675
29	695	699	692	700	696	687	686	685	642	457	540	629	647	652	641	649	665	673	676	686	691	692	696	702	662
30 Q	706	707	706	708	691	696	693	695	694	693	695	697	697	697	695	700	701	701	691	694	696	697	697	697	698
31																									
Mean	708	711	711	709	707	702	694	680	668	663	669	675	684	686	683	680	682	685	685	687	692	697	702	705	690

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

Table 19 Meanook

H = 12,000 γ +

July 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24		
1	1130	1131	1126	1121	1117	1124	1126	1130	1136	1133	1139	1145	1152	1152	1151	1137	1123	1107	1083	1082	1092	1097	1107	1116	1123	
2	1129	1132	1130	1124	1129	1131	1131	1131	1132	1133	1134	1132	1130	1141	1146	1147	1139	1118	1101	1089	1096	1105	1115	1130	1126	
3	D	1143	1145	1130	1127	1143	1170	1138	1024	1126	1098	1155	1140	1119	1069	1122	1136	1118	1098	1090	1083	1111	1143	1145	1160	1122
4		1159	1148	1119	1119	1129	1116	1115	1124	1118	1097	1103	1114	1109	1118	1119	1121	1107	1104	1100	1098	1098	1100	1105	1115	1115
5		1121	1121	1121	1122	1118	1121	1119	1119	1119	1122	1104	1122	1130	1138	1133	1122	1107	1100	1092	1089	1097	1107	1109	1129	1116
6		1138	1141	1130	1112	1121	1118	1118	1118	1117	1115	1116	1118	1119	1123	1118	1107	1092	1093	1095	1097	1110	1116	1123	1116	
7	D	1134	1141	1143	1162	1165	1150	1137	1141	1092	1095	1083	1103	1074	960	1040	1119	1130	1118	1107	1102	1114	1110	1147	1169	1114
8	D	1145	1174	1168	1225	1140	1102	1049	1035	1080	1105	1071	873	1108	1139	1121	1133	1118	1105	1095	1092	1096	1094	1150	1169	1108
9		1150	1153	1134	1123	1117	1130	1112	1122	1107	1081	1105	1125	1126	1126	1118	1097	1090	1072	1088	1095	1097	1115	1147	1188	1117
10		1166	1163	1153	1159	1131	1130	1116	1016	811	887	1029	1065	1071	1028	1121	1139	1118	1105	1095	1102	1095	1103	1112	1129	1085
11		1141	1133	1127	1118	1116	1119	1119	1118	1116	1117	1110	1112	1130	1130	1130	1129	1109	1110	1095	1098	1112	1116	1109	1119	1118
12		1126	1132	1124	1123	1122	1127	1127	1125	1117	1075	1089	1114	1141	1139	1140	1133	1119	1108	1093	1092	1093	1097	1107	1116	1116
13		1136	1123	1126	1118	1127	1126	1117	1115	1104	953	1036	1098	1107	1150	1144	1139	1118	1100	1098	1094	1092	1100	1104	1109	1106
14	Q	1125	1124	1124	1122	1119	1121	1127	1126	1130	1131	1130	1130	1132	1131	1130	1129	1123	1118	1118	1116	1112	1111	1110	1118	1123
15	Q	1118	1127	1125	1118	1118	1118	1119	1118	1118	1119	1127	1132	1132	1133	1126	1116	1102	1105	1107	1109	1117	1126	1130	1120	
16		1137	1131	1130	1130	1132	1130	1124	1130	1130	1126	1130	1130	1130	1137	1141	1140	1132	1104	1087	1100	1102	1117	1141	1121	1126
17	D	1141	1144	1127	1121	1125	1127	1130	1130	1129	1127	1130	1127	1092	1075	1148	1115	1107	1052	1104	1081	1103	1095	1103	1122	1115
18	D	1169	1191	1254	1188	1183	1005	1001	1095	1118	1115	948	712	1015	1138	1083	1109	1116	1095	1088	1075	1085	1095	1121	1138	1089
19		1140	1141	1127	1127	1119	1060	1114	1042	1130	1093	942	1139	1133	1134	1133	1130	1112	1100	1090	1085	1098	1098	1129	1148	1107
20		1198	1236	1155	1110	1106	1111	1123	1116	1077	939	1094	1128	1113	1113	1117	1113	1109	1102	1087	1082	1097	1103	1107	1114	1110
21		1121	1117	1120	1107	1106	1106	1110	1113	1120	1117	1120	1097	1094	1115	1120	1108	1094	1088	1097	1102	1103	1106	1108	1121	1109
22		1129	1125	1124	1121	1132	1121	1120	1045	911	1108	1117	1117	1120	1103	1117	1120	1115	1093	1104	1117	1106	1103	1103	1121	1104
23		1129	1129	1128	1123	1120	1115	1122	1117	1106	1078	1121	1123	1125	1128	1123	1117	1104	1094	1086	1092	1097	1097	1115	1109	1112
24	Q	1123	1121	1123	1117	1110	1116	1117	1118	1120	1114	1117	1094	1106	1116	1118	1117	1104	1097	1094	1095	1094	1106	1115	1129	1112
25		1139	1131	1126	1121	1117	1123	1121	1126	1129	1129	1130	1139	1138	1131	1142	1131	1109	1095	1085	1093	1097	1108	1117	1125	1121
26		1129	1128	1129	1120	1117	1120	1124	1124	1126	1129	1137	1126	1133	1140	1130	1120	1107	1103	1100	1095	1092	1096	1106	1120	1119
27	Q	1129	1131	1131	1128	1128	1121	1125	1125	1125	1129	1121	1130	1137	1133	1137	1137	1107	1092	1082	1084	1091	1107	1117	1129	1119
28	Q	1129	1120	1121	1118	1124	1125	1128	1126	1126	1121	1129	1129	1137	1137	1140	1137	1118	1106	1092	1085	1086	1094	1110	1129	1119
29		1138	1129	1129	1132	1133	1133	1132	1129	1140	1140	1115	1012	1109	1094	1080	1140	1116	1092	1085	1080	1073	1096	1116	1139	1112
30		1139	1126	1142	1147	1145	1173	1092	1117	1125	1124	1140	1123	1036	1070	1023	1137	1120	1099	1093	1094	1093	1094	1115	1140	1113
31		1152	1142	1129	1118	1123	1128	1126	1084	1118	1091	1116	1117	1136	1135	1126	1122	1117	1107	1094	1092	1097	1104	1110	1125	1117
Mean		1139	1140	1135	1130	1127	1120	1115	1106	1102	1095	1101	1095	1114	1115	1121	1126	1114	1099	1094	1093	1098	1105	1117	1131	1114

DECLINATION
Mean values for periods of sixty minutes, Universal Time

Table 20 Meanook

D = 23° East + ...'

July 1964

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	49.4	50.9	52.3	53.4	52.6	52.1	52.3	53.1	52.9	51.9	53.1	55.6	57.5	59.5	60.3	59.6	59.5	58.0	54.8	52.9	50.9	48.1	46.2	46.5	53.5
2	47.7	50.1	51.4	51.9	51.6	51.9	51.9	51.9	52.8	52.1	52.8	53.3	55.6	58.8	60.3	62.7	63.0	62.5	57.5	52.4	49.4	47.6	47.0	46.4	53.4
3 D	47.2	48.2	49.2	50.7	47.6	51.9	51.6	54.3	57.6	55.8	56.0	56.3	59.3	59.1	59.8	62.8	64.5	57.3	52.3	49.4	48.2	50.9	45.7	41.3	53.2
4	44.5	45.8	50.2	52.7	58.2	58.4	52.5	52.4	50.2	51.5	55.4	53.9	54.7	58.4	60.9	61.8	60.3	57.9	54.5	51.0	49.5	48.3	48.2	49.7	53.4
5	50.7	52.5	53.7	55.9	57.4	53.4	52.7	51.9	52.9	52.2	52.7	55.4	59.6	60.1	59.6	59.7	59.7	57.9	53.2	51.3	48.8	47.8	48.3	49.5	54.0
6	51.2	53.5	54.4	52.7	52.5	53.4	51.2	50.8	51.5	50.3	52.0	51.5	57.9	61.1	62.4	63.9	65.1	61.6	54.5	51.3	49.2	47.5	47.3	47.8	53.9
7 D	49.4	50.3	49.4	58.0	54.3	52.5	51.3	51.1	57.7	56.2	58.0	57.8	58.3	63.5	65.5	65.9	64.4	57.8	59.2	62.7	49.6	48.6	47.4	56.2	56.0
8 D	48.8	51.3	48.9	60.9	58.2	56.8	55.5	50.9	52.1	53.3	49.8	51.6	56.3	61.5	65.4	66.4	63.0	58.2	54.6	54.8	47.9	46.2	48.4	46.4	54.5
9	48.9	57.5	54.6	53.5	55.1	61.0	58.2	54.0	53.8	55.0	51.1	54.0	57.0	59.7	62.7	62.5	61.7	54.8	52.6	50.4	52.1	47.9	48.6	53.8	55.0
10	52.9	51.2	56.9	56.3	54.1	59.1	59.6	60.3	63.0	53.1	60.6	58.4	58.1	61.0	60.5	63.5	64.7	61.6	57.3	53.6	50.4	49.5	50.9	52.1	57.0
11	52.2	55.6	56.1	53.1	52.6	52.7	53.7	53.7	54.1	53.2	52.4	50.5	58.4	61.8	63.0	65.3	63.0	60.3	58.1	53.2	50.9	49.4	48.7	49.7	55.1
12	50.7	51.4	53.2	53.6	53.2	52.9	52.4	53.1	52.4	51.0	52.6	55.9	58.4	61.5	61.8	60.3	60.1	59.3	56.4	52.9	51.0	50.0	49.7	51.0	54.4
13	52.2	54.8	57.9	52.5	53.2	53.2	54.5	54.8	58.5	54.7	56.0	56.5	60.9	62.4	63.2	63.1	60.4	58.9	56.5	54.3	49.8	48.6	48.8	49.6	55.6
14 Q	50.1	52.0	53.2	53.2	52.8	57.4	57.9	56.5	56.2	54.2	52.8	55.2	56.7	58.2	59.9	62.4	62.4	59.9	53.8	51.0	48.8	48.6	48.8	49.8	54.7
15 Q	51.0	51.8	54.3	54.5	54.8	53.3	53.5	54.5	52.0	52.7	53.5	54.8	56.9	58.2	59.4	61.6	61.2	59.2	54.3	48.8	45.3	45.1	46.4	48.3	53.6
16	49.8	52.0	52.3	51.5	50.8	51.3	51.8	52.8	53.2	51.8	55.0	55.7	58.0	60.2	60.0	62.1	64.4	59.4	56.2	48.1	46.4	44.9	43.4	46.1	53.2
17 D	48.6	52.5	53.3	52.0	50.3	52.8	54.8	52.2	50.8	53.2	56.5	61.9	55.7	61.6	69.5	68.6	70.5	67.9	49.1	49.1	43.4	44.8	46.1	48.6	54.7
18 D	48.1	54.7	54.3	52.5	56.5	64.9	47.8	53.2	52.0	52.2	52.8	56.0	60.2	59.5	66.9	66.6	64.6	58.2	57.4	51.5	48.1	49.5	50.3	51.8	55.4
19	53.3	54.3	59.9	53.2	51.3	52.5	57.4	44.8	53.2	53.0	51.1	58.7	59.9	63.9	65.9	66.6	67.1	62.9	59.9	54.8	51.1	48.5	46.6	45.8	55.7
20	41.9	46.8	48.8	50.0	51.6	52.8	53.2	51.8	49.8	52.7	54.7	54.8	58.2	61.9	63.2	63.7	63.2	58.7	54.8	50.6	50.1	49.3	49.8	51.1	53.5
21	52.3	53.2	53.2	52.2	52.3	52.8	52.8	53.2	51.8	55.3	54.5	53.3	55.0	60.6	60.4	59.9	58.2	53.2	47.4	44.6	43.6	44.8	46.6	49.1	52.5
22	51.0	52.2	51.5	53.8	52.7	59.2	53.2	51.3	52.0	54.8	54.3	55.2	58.9	61.7	59.4	61.2	62.7	61.6	56.0	53.2	51.0	50.6	51.1	51.8	55.0
23	53.2	53.0	54.8	51.5	51.5	50.8	53.0	53.0	52.0	49.1	53.2	54.8	57.0	58.9	60.6	60.6	60.4	59.4	54.8	52.2	49.5	46.8	46.8	49.0	53.6
24 Q	52.3	53.6	54.1	54.3	53.4	53.8	53.3	53.4	53.3	51.7	56.5	49.7	55.4	59.8	61.7	61.8	61.0	57.8	54.9	51.9	48.6	48.1	48.7	49.9	54.1
25	51.2	51.6	51.9	52.1	51.6	57.6	54.8	54.4	53.6	56.5	53.6	56.6	59.3	62.2	64.5	62.3	61.3	60.8	54.9	49.7	47.0	46.7	46.5	48.6	54.6
26	51.4	53.4	53.3	53.3	53.1	53.1	54.3	56.6	53.6	52.9	52.4	51.4	56.6	61.5	64.5	64.7	62.2	58.6	54.9	51.2	48.7	48.1	48.2	50.1	54.5
27 Q	52.4	53.8	53.3	52.9	53.3	53.3	54.1	53.6	54.9	53.8	54.1	53.6	57.8	58.8	60.3	61.7	61.8	60.1	54.9	50.9	46.7	47.2	48.7	49.9	54.2
28 Q	51.7	53.3	53.9	53.4	53.1	52.4	51.9	52.1	53.1	51.9	53.3	54.8	57.1	58.8	61.8	64.0	64.9	61.8	54.9	51.9	49.6	48.4	48.6	49.4	54.4
29	51.4	52.9	52.9	51.7	51.4	51.4	51.6	49.6	53.9	57.1	55.9	55.3	64.9	69.9	70.6	63.0	62.2	61.8	61.5	56.3	48.2	46.5	46.9	48.4	55.6
30	48.4	51.2	51.6	49.9	50.4	49.6	48.7	59.8	53.3	50.2	53.6	54.9	54.9	61.2	65.2	67.2	63.7	61.7	57.8	55.1	51.6	48.9	48.4	48.1	54.4
31	52.4	53.3	53.6	53.3	56.3	55.3	52.3	46.4	53.3	50.7	50.2	57.8	58.8	60.0	60.8	60.1	60.0	57.0	54.1	50.9	48.7	45.0	46.2	46.7	53.5
Mean	50.2	52.2	53.2	53.2	53.2	54.3	53.3	52.9	53.6	53.0	53.9	55.0	57.8	60.8	62.6	63.1	62.6	59.6	55.3	52.0	48.8	47.8	47.8	49.1	54.4

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

Table 21 Meanook

$Z = 58,000 \gamma +$

July 1964

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	697	698	700	696	691	691	689	695	694	690	695	704	715	711	710	706	703	697	675	665	668	674	683	687	693
2	702	704	707	706	706	708	709	711	713	713	711	711	706	703	708	708	698	681	678	681	681	684	688	690	700
3 D	696	698	698	698	711	757	724	717	668	652	703	701	688	650	659	683	684	684	673	677	695	733	772	768	700
4	757	770	735	726	698	621	617	700	692	659	656	688	692	700	704	716	696	685	687	689	688	692	694	700	694
5	707	707	708	700	696	692	690	694	696	688	657	678	694	700	695	691	688	689	688	682	689	696	698	700	693
6	706	709	723	711	707	713	709	704	703	697	689	676	697	700	700	702	696	690	689	692	697	702	701	703	701
7 D	713	722	729	766	755	751	728	722	555	626	615	659	638	562	600	665	688	697	689	697	713	730	759	765	689
8 D	760	753	743	786	697	677	561	532	606	639	608	484	663	697	695	696	694	683	678	698	701	707	738	729	676
9	723	740	711	715	703	691	647	682	650	602	650	691	692	691	692	688	690	683	689	682	702	713	755	757	693
10	760	758	746	747	751	723	645	607	563	498	587	659	674	614	672	687	695	697	697	691	694	696	702	709	678
11	723	736	729	717	707	702	697	698	701	693	669	652	685	698	696	700	697	698	702	702	704	712	713	706	702
12	718	720	718	712	712	717	717	712	684	611	607	647	706	714	707	704	704	704	706	705	704	709	718	720	699
13	725	730	735	720	720	718	709	694	686	489	591	629	641	707	717	713	706	700	703	704	705	706	705	705	690
14 Q	705	705	706	705	706	706	671	674	680	694	701	706	706	700	700	701	701	703	701	695	694	694	697	701	698
15 Q	704	704	706	701	701	705	706	700	697	698	701	707	707	707	705	700	700	695	697	694	693	698	700	704	701
16	706	705	705	705	706	707	707	706	705	692	693	701	698	697	700	704	701	695	700	700	694	698	713	714	702
17 D	724	742	742	720	717	705	701	714	706	675	678	672	667	614	648	653	665	663	688	694	703	698	694	706	691
18 D	744	783	754	695	720	563	630	663	705	710	642	445	631	703	677	700	700	693	694	700	701	706	709	720	683
19	718	725	718	710	705	635	663	537	655	654	502	677	706	700	697	694	693	694	695	695	697	710	731	736	681
20	775	780	746	728	716	714	714	695	647	495	635	693	705	704	695	694	695	694	690	685	685	685	688	691	694
21	697	701	705	700	698	698	695	694	686	684	693	671	658	677	685	691	680	677	681	682	681	692	697	692	688
22	691	695	701	714	712	703	704	576	476	592	656	673	693	682	694	686	682	675	687	691	694	694	695	703	674
23	707	707	706	697	698	695	668	690	685	627	673	694	697	694	693	693	688	685	688	692	701	699	699	698	691
24 Q	698	696	698	698	698	695	695	695	694	666	664	651	685	685	682	689	691	689	685	689	695	702	696	704	689
25	707	705	705	704	702	691	686	693	686	667	680	683	695	685	693	692	687	687	686	688	687	695	699	696	692
26	696	696	696	696	700	698	699	686	686	683	693	680	691	688	686	685	688	687	693	694	695	698	698	700	692
27 Q	700	699	695	695	695	696	696	696	694	693	693	686	696	695	692	689	693	693	688	686	691	696	696	699	694
28 Q	704	705	705	698	695	694	694	694	694	692	693	696	698	698	695	692	685	688	687	683	687	693	693	693	694
29	696	696	695	693	694	704	706	702	702	704	682	577	612	645	632	660	673	681	692	694	698	702	698	707	681
30	717	729	721	708	731	710	623	599	683	644	693	698	599	617	681	692	693	693	686	694	704	706	708	720	685
31	730	719	718	715	706	692	704	576	640	600	621	649	693	692	683	683	683	682	687	692	694	693	695	706	681
Mean	716	720	716	712	708	696	684	673	669	649	659	662	682	682	687	692	692	689	690	691	695	700	707	711	691

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

Table 22 Meanook

H = 12,000 γ +

August 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24		
1	1129	1128	1128	1118	1118	1117	1120	1120	1122	1120	1117	1116	1120	1126	1129	1126	1108	1092	1084	1087	1089	1102	1110	1128	1115	
2	1130	1128	1125	1120	1118	1117	1118	1120	1120	1121	1123	1122	1122	1120	1120	1111	1094	1085	1080	1085	1095	1121	1131	1130	1115	
3	1115	1123	1133	1120	1117	1128	1128	1123	1124	1126	1116	1118	1137	1128	1129	1117	1099	1094	1100	1113	1125	1128	1145	1121		
4 D	1137	1164	1173	1256	1241	963	781	685	688	972	882	899	1087	1104	1060	1085	1101	1095	1091	1102	1108	1120	1121	1143	1044	
5 D	1131	1129	1123	1137	1129	1123	1124	1099	1094	1059	1091	1120	983	1089	1118	1085	1072	1071	1066	1087	1082	1118	1136	1140	1100	
6	1129	1121	1121	1120	1132	1103	1116	1110	1109	1104	1102	1107	1106	1110	1110	1107	1096	1086	1079	1082	1094	1106	1124	1126	1108	
7	1130	1139	1130	1116	1126	1094	1057	1082	1038	1074	1058	1021	1070	1088	1116	1122	1092	1093	1088	1092	1094	1108	1118	1130	1095	
8	1140	1129	1117	1121	1122	1113	1111	1114	1117	1117	1116	1115	1117	1132	1135	1128	1109	1092	1072	1073	1094	1107	1109	1125	1114	
9	1126	1123	1122	1116	1115	1113	1116	1116	1120	1121	1116	1129	1125	1115	1117	1133	1117	1082	1071	1071	1094	1106	1110	1133	1113	
10 Q	1129	1135	1116	1117	1120	1114	1116	1117	1123	1118	1128	1121	1129	1126	1123	1113	1097	1086	1085	1086	1092	1103	1114	1121	1114	
11 D	1124	1149	1173	1154	1150	1232	1091	1095	1104	1128	1140	1138	1145	1128	1116	1106	1094	1072	1071	1071	1122	1129	1183	1190	1129	
12 D	1140	1122	1121	1117	1120	1125	1129	1126	1080	1121	1125	1129	1130	1123	1125	1115	1103	1089	1078	1059	1078	1089	1120	1118	1112	
13	1111	1124	1118	1116	1120	1128	1116	1110	1097	1117	1125	1122	1123	1128	1130	1116	1100	1089	1087	1093	1094	1103	1116	1113	1112	
14	1123	1128	1120	1116	1117	1120	1117	1117	1118	1116	1115	1116	1128	1122	1121	1116	1102	1086	1088	1084	1087	1095	1107	1125	1112	
15 Q	1117	1129	1120	1118	1120	1118	1118	1118	1118	1120	1123	1123	1120	1117	1114	1113	1106	1094	1088	1084	1091	1095	1106	1117	1112	
16	1118	1106	1123	1126	1126	1125	1129	1126	1129	1126	1129	1130	1130	1131	1126	1114	1106	1094	1082	1081	1088	1106	1108	1120	1116	
17	1133	1129	1121	1116	1109	1117	1117	1118	1121	1120	1128	1128	1128	1125	1117	1102	1086	1068	1088	1096	1097	1107	1118	1131	1113	
18	1129	1120	1122	1120	1120	1120	1124	1136	1129	1120	1118	1129	1117	1121	1129	1115	1093	1074	1074	1092	1097	1115	1117	1129	1115	
19	1128	1126	1118	1120	1107	1121	1123	1117	1118	1124	1084	1092	1122	1133	1129	1126	1107	1087	1091	1094	1096	1116	1126	1108	1113	
20	1130	1116	1117	1118	1121	1122	1121	1121	1121	1120	1123	1124	1129	1129	1124	1117	1106	1094	1091	1093	1100	1104	1117	1121	1116	
21	1126	1122	1125	1123	1126	1125	1123	1128	1129	1133	1129	1118	1116	1129	1128	1118	1103	1094	1100	1106	1114	1114	1125	1135	1120	
22	1126	1128	1116	1117	1120	1131	1129	1137	1137	1100	986	1037	1146	1144	1131	1113	1101	1092	1093	1099	1116	1121	1129	1128	1112	
23	1126	1128	1121	1123	1124	1118	1122	1128	1126	1125	1117	1130	1129	1130	1131	1117	1094	1077	1073	1080	1096	1114	1124	1125	1116	
24 Q	1128	1126	1123	1126	1124	1118	1122	1126	1123	1128	1129	1130	1131	1131	1128	1117	1100	1094	1094	1097	1106	1123	1128	1131	1120	
25	1135	1133	1132	1128	1123	1122	1128	1124	1122	1126	1129	1130	1126	1122	1115	1111	1103	1096	1087	1096	1110	1117	1130	1152	1121	
26	1129	1118	1129	1126	1129	1107	1077	1140	1131	1131	1130	1129	1129	1126	1125	1110	1094	1082	1088	1095	1117	1139	1123	1139	1118	
27	1117	1123	1133	1135	1140	1126	1121	1123	1128	1125	1130	1121	1096	1094	1117	1113	1094	1087	1092	1096	1107	1120	1129	1130	1117	
28 Q	1128	1121	1120	1120	1117	1117	1118	1117	1117	1120	1123	1123	1122	1125	1118	1109	1093	1082	1088	1097	1110	1116	1123	1125	1115	
29	1118	1120	1120	1124	1126	1129	1128	1130	1129	1106	1107	1140	1135	1129	1118	1114	1107	1093	1106	1109	1123	1126	1130	1138	1121	
30 Q	1123	1119	1118	1122	1122	1125	1127	1119	1121	1120	1125	1119	1123	1129	1127	1119	1110	1098	1098	1100	1106	1108	1114	1122	1117	
31 D	1125	1120	1119	1118	1120	1118	1129	1106	1100	1106	1098	1002	973	1105	1121	1125	1116	1099	1101	1107	1110	1101	1141	1121	1103	
Mean	1127	1127	1126	1126	1126	1118	1106	1105	1102	1112	1106	1106	1112	1122	1121	1114	1101	1088	1086	1090	1101	1112	1123	1130	1112	

DECLINATION
Mean values for periods of sixty minutes; Universal Time

Table 23 Meanook

D = 23° East+ ...'

August 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24	
1	50.7	51.8	55.4	57.9	53.4	52.2	53.4	53.2	53.0	52.0	52.5	53.4	54.4	58.2	60.1	62.1	61.6	60.4	56.7	52.2	49.7	47.8	48.2	49.5	54.2
2	50.8	51.7	52.0	51.7	55.0	53.2	53.2	53.4	53.2	53.5	54.5	56.4	58.1	59.4	60.4	61.4	59.9	56.4	50.0	46.5	45.0	43.6	44.6	47.1	53.0
3	51.8	51.7	50.5	51.7	53.0	51.7	51.7	52.9	52.4	52.0	53.2	53.4	55.0	60.2	63.1	63.4	60.1	57.2	51.7	48.2	47.3	47.0	48.2	50.7	53.3
4 D	51.7	48.3	44.5	50.0	39.9	44.1	72.7	51.2	33.4	63.1	51.3	70.8	66.3	65.6	67.5	59.6	55.0	54.4	53.2	51.7	49.8	49.7	52.0	53.0	54.1
5 D	52.0	51.7	53.9	60.6	58.4	53.4	54.5	47.8	48.3	48.5	48.3	55.0	55.5	59.7	65.1	65.1	60.8	52.4	49.5	48.0	42.4	47.1	50.5	54.2	53.4
6	53.2	53.4	60.6	64.3	59.6	58.4	56.0	53.2	53.4	52.7	52.0	55.0	56.7	59.9	61.8	63.4	62.1	60.1	55.0	50.8	48.2	48.3	49.5	51.5	55.8
7	53.0	53.5	66.1	63.1	57.2	60.6	57.1	58.6	57.4	58.2	54.5	50.0	55.0	66.8	64.1	65.1	65.1	61.9	58.4	54.0	50.2	49.8	50.5	53.0	57.6
8	53.5	54.5	56.7	54.9	53.5	58.6	55.0	53.0	53.4	53.4	53.4	54.5	55.2	58.4	61.1	61.6	61.3	60.1	57.7	50.3	47.8	47.3	48.3	50.0	54.7
9	53.1	55.0	56.0	59.0	58.5	53.3	51.9	52.1	53.5	52.1	50.4	54.6	59.7	60.5	61.5	64.7	60.2	59.2	54.6	48.1	47.6	45.4	45.9	48.6	54.4
10 Q	51.8	53.0	53.3	55.0	54.3	54.3	55.0	56.3	52.8	51.3	52.5	55.1	58.5	61.0	62.5	63.9	63.7	61.4	55.1	50.6	48.9	48.9	50.3	51.8	55.1
11 D	53.5	49.4	47.9	49.6	45.9	49.9	56.5	65.9	56.1	54.1	53.1	56.7	61.0	64.2	65.4	63.5	59.8	56.8	49.3	46.6	46.9	43.0	45.4	52.3	53.9
12 D	48.1	53.1	60.5	51.6	50.9	53.6	55.8	52.1	56.8	57.3	57.5	56.8	59.2	62.7	63.7	62.2	64.0	61.7	55.8	50.4	48.1	46.9	48.9	50.4	55.3
13	55.1	54.5	53.8	54.5	56.8	66.7	58.7	50.9	50.4	53.5	56.5	55.3	56.7	57.7	58.5	60.0	60.7	60.0	54.3	51.3	48.4	48.1	48.1	50.4	55.0
14	50.6	50.6	50.4	51.8	53.1	53.5	53.5	53.8	53.8	53.1	54.5	51.9	55.5	58.3	60.2	61.2	61.5	60.2	57.0	54.0	50.1	49.9	50.3	50.4	54.1
15 Q	51.6	51.4	51.3	51.6	58.5	53.3	53.0	53.5	54.0	55.0	55.1	56.7	57.2	59.0	60.3	61.9	61.9	59.5	55.3	51.8	48.4	48.4	50.1	51.1	54.6
16	51.6	53.3	53.1	51.8	51.9	52.3	51.8	51.9	53.1	54.0	55.1	56.8	58.2	59.0	60.2	60.2	59.0	56.5	53.6	52.6	50.1	48.8	48.4	48.9	53.8
17	49.1	49.8	48.3	54.6	54.5	52.1	53.0	53.5	53.8	55.1	55.1	56.7	58.0	59.7	61.2	63.5	62.7	55.1	54.5	51.6	50.1	49.8	50.1	49.9	54.2
18	50.9	51.6	51.8	50.1	49.3	50.4	53.6	58.7	53.8	56.3	55.0	56.0	56.7	57.3	60.9	62.5	61.7	58.5	51.4	47.1	46.4	46.9	48.1	49.6	53.5
19	52.1	51.3	51.4	51.3	51.3	51.3	56.3	58.5	56.1	53.3	46.6	47.2	53.5	60.2	64.5	63.7	60.5	59.0	53.8	50.1	48.1	47.7	48.4	50.3	53.6
20	51.8	53.1	53.3	53.8	53.8	53.3	53.6	54.0	54.3	55.1	55.5	56.0	56.8	58.5	60.5	62.0	62.0	59.3	56.0	52.3	51.1	49.3	50.4	51.1	54.9
21	52.3	53.3	53.5	53.5	55.5	54.6	53.5	54.3	54.0	54.6	55.0	57.2	57.5	60.2	59.2	61.9	62.4	58.2	52.6	48.4	47.6	47.4	48.9	49.6	54.4
22	50.8	51.3	53.6	55.3	52.6	50.8	53.5	54.8	54.0	51.8	45.1	51.8	58.5	62.7	63.5	62.9	61.0	57.3	53.8	51.1	49.8	48.4	49.6	52.1	54.0
23	53.8	53.5	52.1	51.8	53.5	53.1	54.3	52.3	52.6	53.5	52.5	55.0	57.7	60.2	63.2	61.9	60.2	56.7	59.7	48.4	48.3	49.4	50.4	52.6	54.4
24 Q	53.5	52.8	52.6	53.1	53.0	52.8	55.0	53.5	53.0	53.3	54.3	55.1	56.5	58.2	59.7	60.3	59.7	57.3	52.8	50.4	47.1	48.1	48.9	50.8	53.8
25	52.8	52.5	51.4	51.3	51.6	52.1	51.9	53.3	53.6	54.1	54.8	56.8	58.5	60.2	63.5	64.0	59.2	48.9	45.1	41.5	43.4	46.1	48.1	46.6	52.6
26	48.3	49.3	49.8	56.3	52.8	46.7	52.5	53.3	54.3	53.1	54.8	56.7	58.5	60.3	61.7	61.7	61.0	58.3	53.5	49.1	47.6	47.4	46.6	46.9	53.4
27	48.4	50.4	50.1	51.3	52.5	54.8	53.1	51.8	56.8	61.4	55.1	56.7	55.6	58.0	63.2	63.2	60.9	55.3	53.3	50.4	48.8	49.6	51.4	53.1	54.4
28 Q	53.8	54.0	53.5	52.3	53.1	53.5	53.1	53.3	52.6	53.6	55.0	56.0	57.8	60.0	60.7	61.5	59.5	56.5	51.6	48.6	48.4	48.4	49.9	51.6	54.1
29	53.5	53.5	53.3	53.3	53.0	53.1	54.0	54.3	54.0	53.5	50.4	57.7	59.2	59.8	60.0	60.0	57.2	53.5	50.3	48.4	48.3	48.8	50.3	51.3	53.7
30 Q	51.6	51.8	51.6	51.9	51.8	53.5	54.1	53.3	54.0	55.6	57.3	55.6	58.2	57.7	58.7	60.0	60.3	60.0	56.3	52.3	49.6	48.8	47.2	47.9	54.1
31 D	49.4	51.3	53.8	54.8	56.8	56.7	58.3	55.1	56.0	54.8	51.9	51.4	42.7	54.5	58.0	61.0	61.5	58.5	52.5	50.1	50.1	48.9	48.4	48.8	53.6
Mean	51.7	52.1	53.1	54.0	53.4	53.5	54.8	54.0	53.1	54.3	53.3	55.4	57.0	59.9	61.7	62.3	60.9	57.8	53.7	49.9	48.2	47.9	48.9	50.5	54.2

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

Table 24 Meanook

Z = 58,000 γ +

August 1964

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	720	725	730	717	704	698	691	668	683	691	692	694	695	694	700	700	695	693	695	695	696	698	695	699	699
2	704	704	702	701	695	694	694	694	694	694	694	694	693	689	689	691	683	682	681	682	682	689	694	699	692
3	695	695	704	705	704	702	699	694	694	691	692	683	680	692	683	682	686	693	687	691	694	695	694	695	693
4 D	699	711	747	777	638	643	682	576	592	624	510	517	631	674	650	700	694	696	705	704	699	707	711	719	667
5 D	711	714	726	701	675	687	697	669	633	581	565	660	574	629	658	649	682	673	677	705	701	715	719	724	672
6	708	711	724	724	718	614	680	695	693	690	692	699	696	696	696	699	699	696	694	694	696	697	707	711	697
7	718	720	740	731	732	652	623	646	617	630	625	567	472	571	625	684	689	699	708	711	712	716	712	711	667
8	708	709	708	706	707	702	701	692	693	694	695	693	692	700	700	696	694	692	694	696	701	705	707	708	700
9	708	713	719	722	719	713	699	695	688	694	669	671	684	665	658	667	673	680	690	696	708	712	708	711	694
10 Q	700	708	706	707	701	700	695	661	674	673	675	693	699	696	695	690	689	689	689	690	695	697	696	696	692
11 D	697	705	744	760	744	718	632	642	649	683	706	708	701	686	676	683	688	690	684	702	733	719	765	748	703
12 D	722	739	718	707	700	713	700	683	485	605	682	699	696	684	684	683	687	690	688	686	697	701	705	713	686
13	714	707	700	697	697	681	661	683	649	668	693	693	694	689	693	686	684	686	683	684	689	694	708	715	690
14	707	702	697	696	695	694	694	694	693	667	663	674	696	696	696	695	695	695	696	696	700	702	697	706	694
15 Q	705	707	701	699	694	694	694	693	693	690	692	692	692	693	693	693	692	692	684	683	692	697	706	707	695
16	708	700	701	694	695	692	694	699	702	694	692	694	694	694	689	684	682	682	683	684	683	687	693	696	692
17	705	706	720	725	699	693	693	693	688	684	694	694	693	693	690	683	689	683	684	681	687	694	696	700	694
18	696	694	695	694	700	696	705	683	683	670	665	684	683	684	693	693	689	688	694	693	695	699	699	695	690
19	694	694	694	694	693	694	692	681	673	687	610	588	645	670	673	683	688	686	684	692	689	693	701	705	679
20	706	700	703	697	695	694	694	694	689	690	693	693	690	687	684	683	682	671	675	682	684	687	689	690	690
21	690	688	690	689	687	687	690	686	688	688	684	667	651	675	683	684	675	675	677	663	681	683	684	687	681
22	694	701	720	716	720	707	699	693	687	667	558	575	683	693	686	684	687	688	684	689	696	695	697	699	684
23	701	700	696	693	689	689	690	690	686	681	643	670	683	684	683	684	684	684	689	688	696	695	694	693	687
24 Q	693	689	686	684	686	687	687	686	682	686	688	688	688	688	687	686	684	679	681	684	689	689	687	684	686
25	686	688	690	694	700	694	695	693	688	687	693	692	687	683	673	660	650	648	645	650	669	676	683	700	680
26	706	708	709	718	711	684	554	660	696	699	695	690	690	683	686	684	684	683	687	686	688	696	707	719	688
27	708	707	708	735	734	709	674	677	683	684	696	695	671	663	677	682	684	682	694	694	694	696	694	696	693
28 Q	695	694	694	693	693	694	694	693	686	689	693	694	693	693	689	684	682	681	684	692	697	700	695	693	691
29	695	694	693	693	692	689	689	689	687	661	644	686	692	689	686	684	686	687	687	688	692	696	693	687	687
30 Q	692	693	693	695	697	691	681	688	684	688	672	685	691	693	691	692	689	691	689	686	684	684	686	689	688
31 D	693	698	700	705	713	710	704	668	654	657	665	628	548	637	674	678	685	681	676	679	685	689	695	704	676
Mean	703	704	708	709	701	691	683	679	672	674	665	670	670	680	682	685	686	685	686	688	694	697	700	703	688

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

Table 25 Meanook

H = 12,000 γ +

September 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24		
1	1121	1129	1133	1147	1141	1154	1082	925	1019	1107	1127	1129	1115	1121	1122	1113	1094	1090	1107	1108	1114	1110	1116	1136	1107	
2	1151	1132	1112	1120	1118	1113	1119	1107	1120	1110	1096	1115	1125	1120	1119	1114	1094	1086	1094	1099	1101	1112	1115	1128	1113	
3	1108	1110	1114	1120	1119	1121	1120	1127	1121	1120	1125	1116	1123	1114	1113	1111	1098	1084	1083	1087	1092	1108	1117	1130	1112	
4	1129	1130	1119	1118	1119	1119	1128	1113	1122	1099	1083	1004	1136	1128	1119	1112	1096	1081	1082	1084	1113	1130	1121	1136	1109	
5	1118	1129	1121	1139	1122	1119	1119	1116	1116	1110	1114	1119	1121	1116	1110	1107	1099	1093	1093	1096	1108	1128	1130	1129	1115	
6	1119	1114	1113	1118	1118	1119	1116	1115	1110	1123	1125	1130	1132	1119	1121	1125	1107	1093	1084	1093	1110	1108	1111	1125	1114	
7 D	1128	1108	1121	1120	1118	1136	1129	1112	1074	1076	970	690	1077	1142	1134	1098	1042	1029	1052	1097	1119	1115	1120	1151	1082	
8 D	1128	1143	1135	1119	1133	1129	1106	749	1085	1119	742	1065	1091	1136	1118	1107	1092	1071	1097	1096	1098	1107	1115	1132	1080	
9	1130	1125	1133	1122	1129	1119	1119	1116	1104	1056	1042	955	1016	1112	1108	1105	1083	1072	1067	1074	1087	1118	1137	1139	1094	
10	1130	1130	1136	1108	1110	1108	1110	1112	1112	1112	1113	1120	1125	1118	1120	1110	1094	1082	1081	1084	1094	1096	1107	1111	1110	
11	1119	1108	1101	1115	1114	1128	1126	1120	1119	1119	1119	1121	1122	1121	1119	1118	1106	1093	1084	1086	1098	1113	1112	1112	1112	
12	1116	1110	1116	1119	1119	1119	1119	1120	1120	1121	1125	1125	1121	1121	1120	1118	1107	1104	1105	1107	1115	1121	1120	1119	1116	
13 Q	1113	1116	1119	1119	1119	1120	1120	1119	1118	1120	1121	1120	1121	1126	1123	1120	1116	1105	1094	1094	1098	1107	1110	1119	1121	1115
14 Q	1119	1119	1118	1118	1119	1119	1120	1120	1120	1121	1121	1120	1121	1120	1119	1113	1099	1096	1100	1107	1110	1116	1111	1111	1114	
15 Q	1118	1120	1120	1121	1118	1118	1121	1126	1128	1129	1132	1129	1134	1131	1128	1119	1104	1092	1095	1104	1110	1119	1128	1132	1120	
16	1133	1131	1129	1127	1129	1124	1128	1125	1117	1112	1138	1138	1120	1105	1104	1129	1105	1083	1069	1073	1086	1118	1124	1129	1115	
17	1117	1129	1126	1118	1118	1118	1124	1124	1127	1119	1126	1128	1119	1129	1120	1118	1100	1086	1092	1095	1100	1110	1126	1122	1116	
18	1117	1114	1118	1114	1114	1115	1117	1112	1117	1106	1131	1127	1129	1127	1120	1110	1098	1086	1092	1095	1105	1114	1121	1125	1113	
19 Q	1118	1117	1120	1115	1115	1118	1118	1117	1114	1118	1120	1121	1126	1124	1120	1118	1100	1092	1095	1105	1117	1127	1131	1129	1117	
20 Q	1120	1118	1120	1120	1120	1120	1120	1120	1120	1124	1127	1126	1128	1128	1124	1117	1107	1100	1097	1104	1109	1110	1110	1115	1117	
21	1119	1119	1120	1121	1120	1124	1126	1126	1128	1136	1135	1139	1143	1142	1135	1129	1118	1109	1106	1109	1119	1125	1127	1136	1126	
22 D	1142	1131	1303	1269	1185	1138	1118	1131	1074	1046	1106	1111	1117	1115	1117	1106	1083	1082	1083	1081	1096	1106	1119	1119	1124	
23	1121	1106	1107	1113	1109	1117	1106	1049	1102	1115	1091	1095	1118	1119	1115	1107	1103	1097	1098	1106	1118	1128	1117	1118	1107	
24	1112	1117	1118	1115	1112	1118	1118	1118	1109	1070	1074	1124	1131	1124	1112	1105	1105	1097	1089	1077	1095	1120	1128	1129	1109	
25	1119	1105	1114	1112	1127	1118	1118	1112	1106	1110	1118	1120	1118	1115	1114	1106	1100	1095	1092	1095	1104	1109	1109	1118	1111	
26	1115	1113	1118	1118	1118	1117	1118	1118	1095	1117	1122	1118	1117	1120	1118	1117	1112	1106	1103	1105	1117	1124	1128	1120	1115	
27	1127	1121	1122	1120	1119	1119	1121	1102	1120	1124	1126	1129	1131	1127	1120	1124	1117	1115	1115	1118	1121	1120	1119	1095	1120	
28 D	1118	1131	1201	1135	1186	1132	1129	1086	882	877	965	1098	1060	983	991	986	1061	1085	1112	1091	1114	1107	1106	1118	1074	
29	1110	1117	1118	1113	1112	1109	1105	1092	1112	1109	1114	1115	1106	1100	1106	1110	1109	1106	1103	1106	1117	1115	1124	1106	1110	
30 D	1113	1115	1120	1115	1114	1104	1048	979	1039	1122	1131	1095	1083	1022	1051	1104	1097	1085	1069	1092	1109	1115	1111	1126	1090	
31																										
Mean	1122	1120	1129	1125	1124	1121	1116	1090	1098	1102	1093	1095	1114	1114	1112	1109	1098	1089	1091	1096	1107	1115	1119	1124	1109	

DECLINATION
Mean values for periods of sixty minutes; Universal Time

Table 26 Meanook

D = 23° East + ...'

September 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24	
1	50.5	51.7	54.4	67.0	53.9	55.2	52.6	65.7	53.7	49.2	52.2	54.7	55.2	57.4	59.6	59.8	57.8	53.6	49.9	50.2	49.9	50.0	50.5	49.2	54.3
2	56.9	54.9	53.7	57.9	53.4	52.6	55.6	50.5	53.7	54.6	52.6	54.1	56.8	56.9	58.4	59.9	60.4	57.8	56.6	53.6	52.0	51.9	51.9	51.7	54.9
3	53.7	55.6	51.7	52.2	54.9	52.2	55.2	50.9	53.6	52.4	53.9	53.7	55.6	56.6	59.3	59.9	59.4	57.9	52.0	50.0	49.9	48.9	50.5	51.9	53.8
4	51.9	51.7	52.2	59.9	54.9	55.1	59.1	54.7	52.0	48.5	53.4	47.2	58.4	61.0	60.6	60.6	58.6	55.6	51.9	49.5	47.7	50.0	50.5	50.2	54.0
5	53.6	55.2	52.4	64.8	53.9	52.2	51.2	51.0	50.2	48.2	49.4	53.6	55.2	57.3	58.4	58.8	57.8	54.6	51.5	50.4	49.9	50.4	51.9	53.6	53.6
6	54.4	54.4	53.9	53.7	53.6	56.8	51.7	52.7	50.7	53.6	54.6	55.2	56.9	56.1	58.4	61.6	60.1	58.1	52.7	49.5	49.9	50.7	44.2	43.6	53.6
7 D	43.3	48.9	49.7	51.9	51.5	50.9	49.9	53.4	57.6	60.8	60.4	62.0	62.5	68.5	66.5	65.7	60.1	50.4	45.3	46.5	50.0	47.5	45.5	53.4	54.3
8 D	51.7	48.9	57.6	53.9	57.4	56.6	57.9	47.3	53.6	55.2	58.1	53.2	61.0	61.6	62.0	62.3	60.4	59.3	54.7	53.7	50.2	48.5	49.5	51.0	55.2
9	53.6	52.9	55.2	71.4	71.5	51.9	51.5	52.6	52.7	45.5	55.4	53.2	60.8	60.3	62.8	64.0	61.6	57.3	53.6	50.2	48.4	50.0	51.7	51.0	55.8
10	55.1	54.9	66.5	51.5	52.2	52.7	53.1	53.6	53.2	53.6	53.2	55.2	56.1	58.6	58.6	61.1	61.3	59.4	54.9	52.7	51.9	50.2	48.9	49.9	54.9
11	51.9	53.4	54.4	50.2	51.9	56.9	54.6	53.2	52.2	52.9	53.6	53.9	55.4	56.9	59.4	60.3	60.3	58.9	56.9	53.7	51.7	50.2	50.5	52.4	54.4
12	53.2	53.9	54.6	52.7	51.9	53.1	53.2	53.6	53.6	54.4	55.1	55.2	55.4	56.8	57.3	58.6	58.3	56.1	53.4	51.7	51.0	51.0	51.7	52.7	54.1
13 Q	53.4	53.1	52.4	52.7	52.7	53.6	53.4	53.6	53.9	53.2	54.4	56.1	56.8	57.3	57.4	58.6	59.1	57.8	53.9	50.9	49.0	49.7	51.0	51.5	53.9
14 Q	53.2	52.6	52.4	52.7	53.1	53.2	53.4	53.4	53.4	53.6	54.1	54.7	55.2	56.8	58.4	60.3	60.3	58.8	54.4	51.2	49.0	50.2	50.7	51.9	54.0
15 Q	52.6	52.7	52.9	52.7	52.0	53.9	51.7	51.9	52.2	53.1	53.6	54.7	55.2	57.1	58.6	59.9	61.1	59.8	54.9	51.5	48.4	48.4	49.9	50.5	53.7
16	51.4	51.4	50.5	50.1	48.6	50.1	50.7	53.6	53.4	53.7	58.8	60.4	61.6	66.7	66.8	70.2	62.3	55.9	49.0	43.3	39.6	41.0	46.5	47.7	53.5
17	51.4	52.2	53.4	55.2	53.4	51.9	53.6	53.9	54.9	55.2	55.2	55.1	54.9	58.9	59.9	61.3	59.8	56.9	53.9	51.0	49.4	50.4	52.4	53.6	54.5
18	54.9	54.9	54.1	53.6	52.4	51.9	52.7	50.2	51.7	48.7	55.1	55.6	57.8	58.9	59.8	60.1	58.9	56.1	53.1	51.0	50.7	51.9	53.2	53.6	54.1
19 Q	53.7	53.6	53.6	53.2	55.2	54.1	51.9	52.0	54.6	55.1	56.8	57.3	58.3	58.3	58.6	59.9	58.6	56.8	53.1	51.5	50.2	51.4	52.2	53.1	54.7
20 Q	53.2	52.2	51.9	52.0	52.0	52.4	53.2	53.2	53.6	53.7	54.4	55.1	55.6	56.9	57.1	57.8	57.8	56.4	54.1	52.2	52.0	53.2	52.0	51.9	53.9
21	51.9	52.0	51.9	51.7	51.9	52.0	52.4	54.4	55.2	54.9	55.2	55.4	56.8	58.3	58.9	58.9	58.4	55.6	53.6	51.9	49.9	48.9	50.0	50.0	53.8
22 D	46.8	46.8	44.8	71.2	47.7	48.5	48.9	52.2	49.4	48.0	56.9	57.3	57.1	58.3	58.4	61.6	61.0	57.3	55.4	53.6	51.2	50.5	51.4	51.7	53.6
23	52.0	53.2	54.7	52.7	53.6	53.4	55.2	46.0	56.6	56.2	61.6	56.9	55.2	58.4	58.6	59.4	59.4	57.9	54.4	51.9	50.2	49.5	51.0	50.5	54.5
24	53.4	53.6	53.2	53.2	56.2	52.2	52.7	53.4	52.0	48.4	58.6	57.8	58.6	58.4	58.3	58.9	58.6	58.4	55.1	51.9	48.0	48.4	50.2	51.4	54.1
25	51.0	53.1	53.4	54.4	55.7	53.4	53.4	53.1	50.7	52.7	54.2	55.2	55.2	56.1	57.3	58.6	58.4	57.1	55.1	52.0	50.2	49.7	49.9	51.7	53.8
26	53.5	54.3	54.3	53.6	53.5	53.5	53.0	53.1	49.9	55.3	57.0	56.0	53.5	56.5	56.7	57.0	57.5	57.2	53.5	51.7	50.2	49.9	50.4	51.8	53.9
27	52.1	53.1	53.5	53.5	53.5	54.6	54.8	51.1	53.5	53.8	54.8	55.0	55.1	56.7	58.5	58.7	58.8	58.2	56.5	53.4	50.9	51.6	45.9	44.9	53.9
28 D	44.9	46.2	59.8	53.3	58.8	53.6	56.8	53.6	53.8	58.2	77.5	60.3	69.1	65.2	64.7	58.5	47.2	53.8	53.5	51.4	50.1	48.4	51.4	53.1	56.0
29	53.5	53.5	53.6	53.6	54.8	64.0	53.4	54.6	54.0	54.0	53.8	55.1	56.3	54.8	55.5	56.8	56.8	55.5	53.5	51.8	50.6	51.6	51.8	53.3	54.4
30 D	53.8	53.5	53.1	51.3	41.7	48.9	55.1	42.9	60.2	59.3	55.8	59.8	57.5	58.5	54.6	56.8	58.0	55.8	48.1	45.1	46.6	48.9	51.6	54.8	53.0
31																									
Mean	52.2	52.6	53.7	55.3	53.6	53.4	53.4	52.5	53.3	53.2	56.0	55.6	57.3	58.	59.3	60.2	58.9	56.8	53.3	50.9	49.6	49.8	50.3	51.3	54.2

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

Table 27 Meanook

Z = 58,000 γ +

September 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24	
1	719	700	725	716	712	679	672	528	558	625	642	650	648	651	649	649	650	651	650	651	660	687	706	710	662
2	726	713	707	697	686	686	672	648	670	672	660	674	676	676	681	682	682	679	685	685	688	695	686	692	684
3	710	711	711	710	724	723	682	664	676	685	687	685	689	685	677	685	686	689	690	697	700	699	699	697	694
4	697	699	699	697	690	693	678	659	648	595	604	536	661	686	682	679	682	686	690	698	703	717	717	711	675
5	704	715	705	711	702	699	696	689	672	673	678	687	691	690	687	687	687	687	691	691	691	698	698	699	693
6	699	698	698	696	693	685	691	698	676	691	687	698	690	676	685	686	686	686	690	692	699	710	717	731	694
7 D	738	738	711	699	691	695	689	661	666	629	671	557	604	694	686	676	663	664	677	721	723	704	735	737	684
8 D	700	714	761	719	709	647	655	460	616	686	615	642	652	699	696	705	699	698	721	711	710	711	710	721	682
9	711	703	714	700	697	719	682	674	644	606	581	584	588	693	697	696	697	699	702	706	711	723	725	712	682
10	736	751	744	711	711	700	699	689	695	692	682	687	691	692	698	699	699	692	691	692	698	699	700	709	703
11	711	717	715	716	709	693	687	693	697	697	696	696	698	699	699	702	703	699	698	698	697	699	699	699	701
12	699	698	699	697	697	698	699	691	690	695	693	693	693	693	693	693	690	687	686	689	693	697	693	693	694
13 Q	692	692	692	692	692	693	693	693	695	689	746	687	693	692	691	693	693	693	693	695	698	698	698	698	695
14 Q	697	697	696	692	691	693	693	693	693	693	693	693	693	693	693	696	696	693	690	691	695	697	698	696	694
15 Q	693	693	693	693	692	695	695	695	695	692	693	693	693	693	693	693	690	689	687	690	695	697	697	691	693
16	687	690	691	696	710	712	717	714	692	666	710	699	678	658	645	632	644	657	676	687	703	715	699	712	687
17	723	737	723	712	717	708	704	705	685	696	687	693	687	687	687	697	699	699	699	702	705	709	709	705	703
18	703	703	702	699	699	699	699	693	692	667	699	698	692	691	693	693	690	693	696	698	699	699	699	697	696
19 Q	696	693	693	693	693	690	690	695	691	692	691	687	689	690	690	691	687	687	690	691	691	693	693	689	691
20 Q	687	687	687	689	689	690	690	691	690	690	690	687	689	689	690	690	690	690	690	593	693	693	690	692	690
21	693	693	693	693	698	699	699	687	663	689	691	691	687	686	687	687	687	685	687	687	687	687	687	687	689
22 D	687	705	687	591	735	711	715	716	597	608	680	693	698	697	699	699	697	697	698	699	699	705	702	698	688
23	698	699	700	699	702	699	651	551	613	672	661	682	689	693	699	699	699	698	697	693	693	697	695	698	682
24	693	693	695	699	702	698	699	697	676	593	587	657	691	691	682	687	689	687	687	692	696	693	696	697	682
25	699	698	700	705	689	693	697	682	674	673	687	691	690	691	691	691	690	690	687	687	687	690	690	696	690
26	695	696	693	693	692	693	693	689	626	651	682	687	686	689	691	697	695	691	687	687	687	687	689	687	686
27	687	687	687	687	687	693	676	660	676	692	692	690	687	687	687	690	687	686	682	682	682	684	691	705	686
28 D	729	759	794	738	699	628	687	667	451	475	593	679	652	658	632	677	721	678	696	699	723	710	709	716	674
29	702	702	702	702	706	705	674	654	697	692	696	698	691	691	695	697	696	696	697	697	693	697	699	700	695
30 D	702	698	699	703	699	685	678	613	549	663	709	680	673	623	642	682	678	704	702	709	706	710	709	721	680
31																									
Mean	704	706	707	698	700	693	688	665	655	661	673	673	678	684	684	688	688	688	690	694	697	700	701	703	688

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

Table 28 Meanook

H = 12,000 γ +

October 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24		
1	1117	1114	1118	1117	1103	1111	1104	1092	1076	1105	1125	1111	1117	1114	1099	1094	1104	1096	1102	1108	1114	1123	1117	1116	1108	
2	1106	1105	1110	1117	1117	1114	1116	1117	1116	1119	1118	1117	1118	1117	1112	1105	1097	1092	1096	1105	1114	1125	1123	1117	1112	
3	1118	1109	1111	1114	1116	1117	1117	1116	1110	1114	1117	1105	1113	1108	1090	1076	1094	1103	1099	1105	1117	1117	1118	1126	1110	
4 D	1113	1120	1133	1154	1105	1163	1141	1128	1106	1024	943	1128	1137	1134	1130	1113	1082	1061	1084	1087	1098	1104	1119	1123	1105	
5 D	1113	1119	1141	1133	1128	1126	1121	1080	1090	1081	1085	1050	1001	1009	1105	1104	1092	1084	1092	1083	1109	1118	1117	1106	1095	
6	1119	1116	1119	1117	1118	1117	1116	1120	1128	1118	1116	1123	1117	1084	1110	1084	1062	1104	1098	1095	1101	1109	1117	1105	1109	
7	1105	1145	1125	1114	1135	1119	1113	1116	1097	1045	1108	1127	1119	1116	1117	1109	1099	1090	1085	1092	1103	1102	1111	1125	1109	
8	1126	1117	1111	1112	1111	1104	1068	992	1048	1111	1102	1069	1098	1099	1116	1104	1094	1065	1059	1073	1092	1116	1118	1127	1092	
9	1105	1114	1121	1119	1134	1116	1113	1059	696	931	958	1063	1075	1102	1106	1104	1097	1092	1089	1099	1106	1106	1116	1114	1073	
10	1118	1121	1118	1117	1117	1117	1117	1116	1117	1115	1115	1120	1117	1111	1117	1106	1092	1085	1084	1094	1108	1112	1116	1117	1111	
11 Q	1116	1120	1118	1117	1117	1117	1117	1118	1118	1121	1124	1127	1128	1127	1119	1105	1101	1085	1082	1088	1095	1103	1108	1105	1112	
12	1125	1117	1116	1116	1114	1118	1116	1092	1082	1090	943	563	878	968	1044	1111	1119	1117	1103	1092	1101	1105	1120	1118	1061	
13	1119	1113	1104	1111	1117	1119	1117	1117	1103	1114	1127	1125	1108	1074	1089	1094	1102	1105	1101	1096	1102	1098	1116	1119	1108	
14	1117	1104	1110	1128	1127	1113	1114	1118	1114	1118	1108	1094	1103	1123	1120	1114	1106	1097	1094	1095	1103	1108	1113	1116	1111	
15	1110	1111	1112	1113	1112	1116	1117	1111	1077	1103	1109	1114	1119	1127	1117	1109	1106	1102	1103	1102	1106	1112	1116	1112	1110	
16	1114	1114	1116	1117	1114	1117	1117	1125	1119	1126	1126	1126	1125	1123	1119	1113	1109	1105	1106	1113	1117	1114	1111	1113	1117	
17	1117	1119	1120	1119	1117	1123	1120	1118	1116	1108	1090	1085	1082	1119	1120	1127	1116	1106	1109	1111	1117	1123	1126	1127	1114	
18	1128	1128	1133	1126	1126	1141	1128	1128	1123	1123	1127	1108	1104	1119	1114	1114	1121	1111	1094	1099	1108	1113	1127	1110	1119	
19 D	1117	1119	1120	1126	1127	1150	1128	1123	1126	1123	1110	1099	1055	988	1091	1023	1062	1059	1091	1094	1113	1104	1108	1121	1099	
20	1138	1127	1120	1117	1119	1128	1114	1110	1094	1081	1079	1104	1116	1096	1121	1111	1109	1105	1098	1105	1104	1112	1116	1119	1110	
21 D	1119	1116	1117	1126	1125	1123	1141	1131	1108	1068	1059	1128	1127	1113	1094	1089	1079	1092	1059	1061	1087	1108	1109	1109	1104	
22 Q	1117	1126	1118	1117	1117	1120	1113	1114	1103	1126	1121	1113	1123	1118	1117	1112	1103	1094	1092	1097	1113	1116	1117	1119	1114	
23 Q	1119	1121	1118	1117	1116	1116	1114	1116	1117	1117	1117	1118	1119	1118	1117	1111	1104	1094	1091	1095	1105	1111	1117	1127	1113	
24	1128	1127	1123	1124	1124	1117	1119	1118	1117	1119	1121	1119	1124	1125	1130	1127	1113	1104	1103	1106	1108	1111	1128	1114	1119	
25	1103	1106	1111	1116	1116	1117	1119	1118	1117	1119	1121	1119	1117	1113	1118	1125	1113	1104	1103	1106	1113	1114	1116	1117	1114	
26 D	1127	1123	1127	1139	1152	1132	1103	1038	386	637	1117	1114	1116	1087	1125	1113	1108	1104	1104	1105	1103	1105	1114	1117	1062	
27	1116	1120	1113	1110	1115	1116	1113	1111	1103	1062	1064	1072	1076	1133	1127	1122	1113	1104	1104	1107	1109	1116	1116	1115	1107	
28	1113	1110	1116	1118	1117	1118	1116	1115	1110	1110	1113	1125	1124	1116	1117	1118	1112	1104	1098	1102	1109	1116	1117	1118	1113	
29	1120	1116	1109	1124	1116	1113	1116	1104	1120	1115	1110	1117	1115	1116	1112	1116	1108	1103	1103	1109	1118	1119	1117	1112	1113	
30 Q	1104	1105	1110	1117	1117	1119	1120	1119	1118	1116	1113	1093	1113	1118	1122	1120	1116	1112	1109	1112	1116	1122	1120	1118	1115	
31 Q	1115	1115	1113	1113	1113	1116	1117	1118	1118	1111	1116	1122	1124	1120	1119	1116	1113	1108	1105	1115	1120	1124	1118	1116	1116	
Mean	1117	1117	1118	1120	1119	1121	1116	1106	1070	1083	1094	1090	1100	1101	1111	1106	1101	1096	1095	1098	1107	1112	1117	1117	1106	

DECLINATION
Mean values for periods of sixty minutes; Universal Time

Table 29 Meanook

D = 23° East + ...'

October 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24	
1	55.0	56.7	53.0	52.1	64.7	57.3	54.3	52.8	48.6	57.0	55.1	56.5	54.8	56.5	54.5	51.4	53.6	54.0	51.3	50.1	50.6	51.8	52.1	53.6	54.1
2	55.6	56.3	54.8	53.6	53.3	53.1	53.3	53.6	56.0	56.3	55.1	55.0	55.0	55.8	56.8	58.2	56.7	54.0	49.6	47.6	48.4	49.6	51.9	53.6	53.8
3	54.5	55.1	55.0	53.5	53.5	53.6	53.3	53.5	55.0	54.8	54.6	53.4	52.1	53.8	49.6	49.8	53.5	53.8	52.3	50.1	49.1	48.6	49.8	45.6	52.5
4 D	50.4	49.1	48.4	49.8	52.1	49.1	53.5	54.6	54.1	55.0	53.0	63.4	60.2	59.0	59.8	60.2	62.0	55.3	53.8	53.3	51.8	48.8	46.6	53.5	54.0
5 D	53.3	46.7	60.2	56.3	51.4	56.8	55.1	47.1	55.6	51.6	51.8	53.4	51.3	49.9	55.3	59.5	62.2	58.8	55.0	52.6	51.8	48.9	48.3	52.5	53.6
6	51.8	51.7	53.5	54.2	53.2	52.9	55.5	52.0	55.4	51.7	52.4	54.9	55.0	53.8	56.6	58.1	53.2	53.9	51.5	49.5	49.8	51.0	50.0	48.2	52.9
7	51.7	57.1	63.1	57.6	61.1	53.0	57.1	51.4	51.7	61.8	52.4	58.2	56.6	57.4	58.4	59.7	58.7	56.4	51.0	50.0	48.7	48.3	51.0	51.8	55.2
8	53.5	55.0	55.0	55.9	53.9	56.0	55.0	56.6	48.8	60.2	52.2	55.2	61.8	58.2	57.6	58.2	58.1	54.9	53.0	48.3	45.6	46.8	48.7	48.3	54.0
9	51.5	51.7	52.0	53.4	56.6	53.4	53.9	54.2	56.4	45.8	66.3	53.2	54.5	55.5	58.4	60.1	59.1	56.7	52.0	49.5	48.3	48.2	50.3	51.8	53.9
10	54.5	54.4	53.0	53.4	53.4	53.0	53.2	53.4	53.4	53.4	53.5	56.2	54.5	54.9	58.4	59.9	59.7	55.9	51.5	48.8	49.0	50.8	52.9	53.4	53.9
11 Q	53.2	52.9	53.0	53.2	53.4	53.4	53.8	52.0	51.7	52.0	53.4	53.7	54.5	55.4	57.9	58.6	58.1	55.0	52.9	51.5	49.3	49.2	49.8	51.5	53.3
12	53.2	53.4	53.4	53.4	53.4	53.4	57.2	56.6	55.4	55.7	63.8	64.4	75.7	77.4	65.5	55.7	53.4	52.9	52.7	51.2	50.7	50.5	51.2	51.7	56.7
13	51.8	53.7	54.7	52.9	54.5	54.4	50.5	55.5	53.4	55.4	55.2	55.2	56.6	52.5	52.4	51.8	53.5	55.7	53.5	52.0	50.5	49.7	51.0	52.3	53.4
14	51.8	51.7	51.2	54.9	61.6	53.4	53.9	61.4	54.0	54.2	54.7	54.5	54.9	57.6	58.4	58.2	58.1	56.9	54.2	52.2	51.2	51.0	50.7	51.5	54.7
15	53.0	53.4	52.4	53.2	53.5	52.5	53.0	51.8	46.8	55.4	54.5	54.5	58.7	56.7	55.9	55.0	54.5	52.9	51.8	50.0	48.7	49.8	51.2	51.8	53.1
16	52.0	51.4	52.5	52.4	63.1	56.7	55.4	54.5	53.7	53.9	54.7	55.0	55.2	56.2	56.7	55.9	56.6	54.0	50.7	50.3	51.3	52.0	53.2	51.8	54.2
17	52.4	53.7	51.3	52.2	51.5	65.3	56.6	55.0	55.4	57.2	60.2	65.3	65.1	65.0	60.2	56.2	53.7	53.2	53.1	49.5	50.0	50.5	52.0	52.9	55.7
18	52.9	52.2	51.0	51.2	52.4	49.0	50.8	52.9	53.2	54.9	54.9	56.7	54.0	57.6	63.1	59.6	54.9	52.9	53.1	49.2	47.8	49.8	48.8	50.0	53.0
19 D	55.0	51.2	51.8	53.9	53.5	63.1	67.2	55.0	53.0	50.3	55.2	57.7	58.1	61.4	55.4	49.5	52.2	46.6	48.7	49.0	49.8	51.2	51.5	53.0	53.9
20	48.7	59.1	53.2	53.4	58.2	57.2	51.5	52.5	50.0	49.5	50.7	57.6	58.6	55.4	55.2	58.4	58.1	56.4	53.0	52.0	51.2	51.3	52.5	53.4	54.0
21 D	53.0	54.5	54.7	65.1	55.0	53.9	59.7	54.5	52.6	50.3	48.5	53.4	55.2	57.1	56.6	56.2	55.9	55.4	51.7	49.5	46.3	47.3	48.3	49.0	53.5
22 Q	53.4	54.0	54.0	53.5	54.0	53.5	53.0	51.3	49.5	53.2	53.4	53.7	53.9	54.9	56.6	58.4	57.2	55.0	51.7	51.3	51.2	51.8	52.4	52.9	53.5
23 Q	53.4	53.4	53.7	54.2	54.0	53.9	53.7	53.2	53.2	53.4	53.7	53.7	54.5	55.2	56.7	58.2	58.4	57.1	53.4	51.2	49.7	50.3	51.8	52.2	53.8
24	52.4	52.5	53.0	53.5	52.6	53.4	53.4	53.2	53.4	53.2	53.7	53.7	55.0	55.7	56.6	58.4	58.7	57.7	55.7	54.0	50.7	50.8	50.3	51.3	53.9
25	50.4	53.3	54.4	54.8	54.3	53.8	53.1	52.9	53.1	53.4	53.8	54.4	54.3	54.8	54.8	57.0	58.3	56.8	53.6	51.4	51.2	51.7	52.1	51.4	53.8
26 D	52.1	51.7	52.4	54.8	60.0	56.8	56.6	56.3	83.5	87.5	58.5	62.0	54.3	54.8	58.6	57.8	56.5	54.9	53.3	51.1	51.4	52.6	53.3	53.9	57.7
27	54.6	53.9	53.4	55.1	58.0	52.9	51.9	52.1	51.6	51.6	60.3	63.3	60.3	60.2	56.5	57.8	56.6	54.9	51.7	50.2	50.6	51.6	52.3	52.3	54.8
28	53.1	54.8	53.4	53.3	53.1	52.9	53.3	53.4	53.1	52.9	52.1	54.4	55.1	55.6	54.9	55.9	56.5	53.4	50.2	48.6	48.4	49.9	51.1	51.9	52.9
29	53.1	52.8	53.8	63.5	52.9	52.4	52.6	57.5	57.3	54.8	56.4	56.6	55.1	53.3	56.6	57.5	53.8	49.6	46.2	46.2	48.7	50.2	51.7	53.3	53.6
30 Q	53.3	53.1	53.4	54.6	53.4	53.9	52.4	52.6	53.4	53.1	54.4	52.4	55.8	57.0	57.0	56.6	54.8	53.2	51.9	50.6	51.6	53.3	52.9	51.7	53.6
31 Q	53.1	52.9	53.1	53.3	53.8	53.6	53.3	52.9	53.4	53.2	53.3	55.4	54.9	54.8	55.3	56.3	56.5	54.9	52.9	51.6	51.4	51.9	52.8	51.6	53.6
Mean	52.9	53.4	54.5	54.4	54.5	54.7	54.5	53.7	54.0	54.9	54.9	56.4	56.7	56.9	56.9	56.9	56.6	54.7	52.0	50.3	49.8	50.3	51.0	51.7	54.0

RECORD OF OBSERVATIONS AT MEANOOK MAGNETIC OBSERVATORY 1964

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

Table 30 Meanook

Z = 58,000 γ +

October 1964

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	722	723	709	709	711	699	699	615	591	647	695	687	693	685	676	664	676	687	692	693	696	698	698	699	686
2	702	708	703	699	699	698	696	695	690	693	693	691	692	691	689	687	687	686	686	687	689	692	697	699	693
3	700	693	702	699	699	698	698	696	693	696	692	677	670	638	604	606	628	670	687	696	697	698	693	702	680
4 D	699	723	747	737	568	691	714	715	696	581	576	655	676	687	692	683	679	676	706	709	734	717	725	755	689
5 D	729	733	738	747	733	710	674	652	670	676	666	642	627	629	692	676	686	693	692	693	704	699	703	709	691
6	709	705	702	696	697	698	699	654	679	690	686	690	687	674	697	677	676	685	686	693	699	700	709	721	692
7	743	770	755	737	714	663	705	710	685	610	655	691	691	696	698	692	693	693	687	692	703	710	712	703	700
8	708	702	703	702	699	686	617	513	544	638	686	648	652	665	687	690	693	699	717	718	715	723	723	733	678
9	723	711	709	717	724	712	703	657	553	512	601	649	664	696	699	699	704	704	699	700	703	710	714	710	683
10	711	709	699	696	691	692	695	698	697	690	677	689	693	689	693	698	697	695	696	696	699	699	700	700	696
11 Q	699	698	696	695	693	696	698	698	696	698	698	697	696	692	695	693	691	690	692	697	703	705	708	704	697
12	699	698	696	693	692	693	687	597	593	628	530	489	511	456	565	686	699	690	700	699	709	710	709	699	647
13	702	704	712	728	723	696	698	678	625	664	692	695	682	664	664	666	668	685	685	690	697	697	698	699	687
14	705	710	717	738	705	704	690	677	670	685	682	665	667	689	691	690	687	689	697	698	697	696	695	693	693
15	699	699	699	697	696	695	698	664	594	617	658	654	672	687	685	686	689	687	690	696	698	697	697	698	682
16	702	700	699	699	699	690	691	693	692	691	689	687	687	687	687	690	687	687	685	687	691	693	697	697	692
17	695	697	699	702	705	682	652	686	682	657	645	629	604	640	645	646	664	674	677	686	691	691	691	689	672
18	689	687	693	698	711	738	722	702	696	687	693	676	641	664	677	679	687	686	682	687	693	697	710	738	693
19 D	734	710	704	691	690	708	680	696	708	721	685	664	646	545	639	607	679	676	673	702	706	730	722	718	685
20	759	729	709	704	699	693	699	698	665	641	642	648	676	684	696	690	697	692	697	698	699	700	699	697	692
21 D	703	702	702	699	697	705	660	644	663	651	631	684	693	684	678	682	686	700	699	721	714	710	710	709	689
22 Q	700	704	698	698	699	700	696	677	641	686	698	689	698	696	696	697	698	699	699	699	700	699	699	698	695
23 Q	696	695	693	692	691	693	691	692	691	693	693	693	692	691	691	695	696	692	693	698	696	697	692	695	693
24	693	693	692	692	692	691	692	689	689	691	689	689	691	690	691	691	689	687	692	698	696	698	699	700	692
25	708	711	711	708	702	699	696	693	692	689	685	687	687	686	691	696	696	692	693	698	699	696	692	691	695
26 D	695	700	699	706	685	672	677	608	597	467	596	677	691	673	699	699	700	703	703	705	703	705	705	703	673
27	704	699	702	699	699	699	695	687	665	631	606	619	616	670	699	697	697	693	697	699	700	702	699	698	683
28	699	700	699	697	695	692	692	693	693	684	676	687	690	687	687	690	687	686	685	687	692	693	697	698	691
29	698	699	702	699	697	697	699	673	674	676	660	676	679	692	687	685	676	673	678	680	687	697	699	698	687
30 Q	703	711	715	711	709	702	699	696	697	692	677	649	664	677	680	679	680	682	685	689	692	695	696	696	691
31 Q	692	695	698	698	697	697	696	696	693	685	686	692	690	690	692	697	697	695	691	696	699	699	698	697	695
Mean	706	708	706	706	697	697	691	672	661	657	663	666	668	667	679	682	686	687	692	697	700	702	703	705	687

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

Table 31 Meanook

H = 12,000 γ +

November 1964

Hour U. T.	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		Mean
	Day	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24	to 25	to 26	to 27	to 28	to 29	to 30	to 31	to 32	to 33	to 34	to 35	to 36	to 37	to 38	to 39	to 40	to 41	to 42	to 43	to 44	to 45					
1 D	1117	1120	1120	1122	1115	1122	1125	1118	1112	1113	1122	1123	1107	1130	1129	1125	1093	1058	1083	1104	1117	1124	1116	1146	1115																										
2 D	1119	1137	1130	1136	1160	1148	1134	1126	1102	1116	1118	1109	1118	1113	1108	1109	1105	1095	1097	1101	1110	1116	1107	1116	1118																										
3	1116	1120	1118	1116	1118	1116	1116	1125	1115	1113	1115	1116	1115	1115	1112	1111	1105	1101	1104	1109	1116	1122	1124	1126	1115																										
4	1127	1129	1122	1105	1107	1115	1116	1117	1118	1120	1125	1122	1093	1075	1115	1124	1118	1105	1098	1104	1112	1115	1119	1111	1113																										
5	1112	1115	1122	1124	1125	1116	1117	1116	1116	1117	1119	1117	1097	1091	1126	1118	1096	1103	1090	1073	1087	1113	1124	1123	1111																										
6	1121	1124	1124	1124	1123	1117	1124	1124	1117	1114	1108	1115	1116	1111	1121	1118	1112	1102	1092	1099	1103	1113	1117	1122	1115																										
7 Q	1123	1124	1123	1123	1122	1116	1117	1117	1117	1117	1117	1119	1117	1116	1118	1115	1111	1106	1104	1111	1116	1122	1126	1123	1117																										
8	1136	1135	1129	1126	1122	1111	1114	1103	1114	1115	1121	1116	1114	1106	1126	1123	1117	1112	1103	1096	1092	1104	1114	1121	1116																										
9 D	1126	1118	1124	1137	1172	1132	1117	1092	1042	1046	1060	1043	1101	1125	1128	1116	1115	1096	1099	1083	1083	1102	1114	1107	1103																										
10	1117	1128	1117	1126	1125	1123	1115	1114	1095	1115	1114	1115	1114	1111	1122	1121	1123	1115	1111	1104	1103	1109	1112	1119	1116																										
11	1122	1122	1121	1122	1124	1119	1118	1115	1092	1111	1122	1123	1123	1118	1116	1116	1112	1109	1107	1112	1115	1118	1121	1117	1116																										
12	1116	1108	1116	1112	1114	1123	1121	1116	1116	1115	1115	1118	1123	1122	1117	1104	1099	1102	1097	1095	1094	1096	1107	1118	1111																										
13	1115	1116	1116	1117	1115	1115	1106	1103	1093	1092	1079	1097	1096	1109	1118	1106	1107	1102	1100	1102	1108	1115	1115	1115	1107																										
14 Q	1121	1123	1121	1119	1117	1117	1115	1114	1115	1117	1116	1118	1123	1124	1123	1119	1112	1107	1108	1109	1115	1118	1118	1119	1117																										
15 D	1124	1124	1122	1121	1117	1115	1118	1119	1122	1124	1126	1119	1092	1057	1096	1136	1124	1115	1112	1112	1123	1121	1112	1106	1115																										
16	1121	1124	1126	1128	1129	1125	1126	1085	1046	1074	1110	1112	1129	1119	1108	1100	1115	1119	1115	1114	1108	1104	1111	1111	1111																										
17	1121	1125	1128	1128	1125	1121	1116	1118	1121	1123	1117	1117	1115	1112	1103	1117	1119	1115	1108	1106	1114	1114	1115	1121	1117																										
18	1119	1121	1128	1125	1126	1125	1119	1115	1116	1121	1118	1123	1125	1124	1124	1119	1116	1112	1110	1107	1114	1111	1115	1112	1118																										
19 Q	1115	1124	1123	1121	1122	1121	1116	1116	1116	1116	1117	1119	1121	1124	1123	1123	1117	1114	1111	1108	1110	1115	1121	1124	1118																										
20	1126	1126	1124	1115	1116	1119	1121	1117	1116	1110	1124	1129	1126	1125	1124	1121	1115	1112	1109	1114	1115	1117	1119	1124	1119																										
21	1131	1130	1129	1125	1123	1122	1122	1119	1117	1119	1121	1123	1125	1126	1125	1122	1116	1112	1111	1112	1116	1123	1126	1123	1122																										
22	1126	1135	1125	1128	1126	1126	1124	1119	1112	1126	1102	1114	1126	1135	1135	1132	1121	1122	1118	1115	1119	1117	1108	1114	1122																										
23 D	1114	1116	1114	1110	1115	1094	1085	1103	1048	820	985	959	973	1032	973	1021	1068	1100	1106	1102	1101	1109	1115	1117	1061																										
24 Q	1118	1115	1115	1112	1114	1115	1114	1114	1103	1101	1115	1119	1121	1122	1121	1118	1114	1111	1109	1109	1114	1115	1121	1118	1115																										
25 Q	1123	1125	1125	1125	1124	1123	1121	1121	1121	1122	1124	1124	1125	1125	1126	1126	1123	1118	1118	1119	1116	1121	1125	1126	1123																										
26	1130	1129	1124	1112	1114	1109	1111	1106	1097	955	999	1068	1095	1100	1116	1121	1124	1115	1092	1097	1103	1106	1109	1115	1097																										
27	1122	1122	1121	1116	1111	1115	1115	1117	1122	1124	1126	1128	1130	1132	1132	1128	1122	1115	1109	1104	1103	1112	1124	1129	1119																										
28	1128	1130	1121	1124	1126	1128	1126	1135	1126	1104	1107	1118	1123	1118	1126	1121	1106	1082	1090	1109	1112	1114	1117	1124	1117																										
29	1125	1124	1123	1123	1122	1121	1121	1116	1117	1117	1121	1126	1126	1124	1118	1115	1112	1109	1109	1116	1117	1121	1125	1122	1119																										
30	1103	1128	1131	1125	1112	1092	1114	1116	1112	1114	1110	1121	1123	1125	1121	1115	1115	1118	1117	1116	1115	1110	1112	1119	1116																										
31																																																			
Mean	1121	1124	1123	1122	1123	1119	1117	1115	1106	1096	1106	1109	1111	1112	1115	1115	1112	1107	1105	1105	1109	1114	1117	1120	1113																										

DECLINATION
Mean values for periods of sixty minutes; Universal Time

Table 32 Meanook

D = 23° East + ...'

November 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24	
1 D	52.8	53.5	53.3	53.0	55.2	54.3	53.7	53.0	52.8	52.5	54.3	57.0	53.3	56.5	59.7	58.2	59.7	50.3	38.0	42.1	48.5	49.0	46.1	44.4	52.1
2 D	54.3	49.5	53.7	53.2	64.2	53.5	53.0	53.3	51.3	52.2	56.4	56.5	56.7	56.9	58.2	58.5	57.4	54.0	52.0	51.3	50.8	50.3	51.3	52.5	54.2
3	52.8	55.2	56.0	53.2	53.5	53.2	53.7	51.5	51.8	53.0	54.3	55.3	55.7	56.4	57.5	58.7	57.7	55.7	53.0	51.5	51.6	52.3	53.0	53.2	54.2
4	53.2	53.2	53.5	56.9	56.4	54.0	53.3	53.8	53.2	53.3	54.3	55.0	53.8	51.8	53.2	56.0	57.5	54.7	52.7	51.3	50.1	50.5	51.6	51.6	53.5
5	52.8	53.2	53.8	54.0	54.3	53.0	53.3	53.2	53.7	53.2	53.3	54.8	56.5	54.0	57.7	57.4	56.4	56.2	51.8	50.0	45.4	48.0	50.5	51.3	53.2
6	52.7	54.0	54.7	53.7	53.3	53.7	56.7	51.1	53.0	54.3	54.2	56.9	56.2	53.7	56.2	57.4	58.2	57.0	54.3	53.3	52.3	52.0	52.3	52.8	54.3
7 Q	53.2	53.2	54.0	53.8	53.5	53.2	53.2	53.0	52.8	53.0	52.8	53.3	53.8	54.3	54.8	56.5	56.9	55.0	53.0	51.5	50.8	51.3	51.5	52.2	53.4
8	52.3	53.0	53.2	53.5	54.2	55.7	55.8	54.0	52.8	53.2	53.5	54.8	54.3	51.0	56.2	57.9	58.4	57.0	53.7	53.3	49.6	50.8	51.0	51.5	53.8
9 D	53.2	51.0	59.9	53.7	83.6	59.8	55.4	52.4	55.1	58.1	61.0	49.7	57.1	58.0	56.3	56.8	53.7	53.6	51.2	48.9	46.3	48.4	49.9	53.7	55.3
10	54.2	52.7	64.8	54.4	53.1	53.2	53.1	53.9	48.0	51.5	53.4	54.7	54.7	53.2	54.1	55.4	55.7	54.6	53.1	51.5	51.0	51.2	52.6	52.4	53.6
11	52.9	53.4	53.2	53.7	55.1	52.9	52.4	53.1	46.5	49.0	54.4	54.6	54.7	54.9	54.6	56.4	57.1	56.4	53.9	52.1	51.2	50.5	51.4	53.1	53.2
12	53.4	56.1	58.3	55.6	57.3	49.5	51.9	53.6	53.1	53.2	53.4	53.1	53.7	53.9	54.2	54.9	52.9	52.7	51.0	49.2	49.5	48.4	49.2	51.7	52.9
13	53.1	54.6	56.6	56.9	55.6	55.6	50.4	53.4	51.0	51.4	49.7	54.7	52.1	53.4	56.3	55.9	57.4	55.9	52.6	51.4	50.2	50.0	51.2	52.2	53.4
14 Q	52.9	53.2	53.2	53.1	53.2	53.4	51.5	51.9	52.1	53.2	53.6	54.6	55.1	55.4	56.3	55.7	53.1	51.9	51.5	51.7	52.2	52.6	52.9	53.2	53.2
15 D	53.1	53.1	53.6	53.2	53.1	53.1	53.2	52.7	53.1	53.2	53.7	54.9	60.1	58.1	55.6	62.8	57.4	56.3	43.8	46.3	49.8	49.4	49.7	49.4	53.3
16	51.4	51.2	53.4	53.7	53.2	53.6	53.7	54.2	63.1	62.1	58.1	52.7	56.4	58.6	58.1	53.2	52.7	51.0	49.5	49.2	49.9	50.0	50.9	51.5	53.7
17	52.6	53.1	53.2	52.9	52.6	52.4	53.1	53.6	53.7	54.1	53.9	54.6	55.4	54.9	56.6	57.3	56.4	54.7	53.1	52.7	52.1	51.5	51.7	52.2	53.7
18	52.7	53.1	52.9	53.1	53.2	53.4	53.6	56.6	52.7	53.1	54.2	53.7	54.2	54.6	54.6	55.6	55.2	53.1	51.2	49.4	48.9	50.7	51.4	51.4	53.1
19 Q	52.6	53.6	54.0	54.6	56.3	52.1	52.0	52.8	52.6	53.0	53.1	53.5	53.3	53.8	54.3	54.6	55.0	54.5	52.0	51.4	51.3	51.1	51.6	51.8	53.1
20	52.5	52.8	52.8	53.1	53.6	52.8	53.0	52.8	52.8	54.3	51.3	53.1	54.0	54.3	54.1	54.8	55.0	54.1	52.1	51.3	50.4	51.1	51.3	52.0	53.0
21	52.8	53.0	53.1	53.5	53.8	53.5	53.0	52.6	52.0	52.3	53.8	53.5	53.3	53.8	54.3	54.3	54.6	54.0	52.6	51.3	50.6	50.1	50.6	51.6	52.9
22	53.0	53.8	54.5	53.8	53.0	52.8	52.8	53.0	51.3	53.5	52.1	59.3	54.1	55.8	56.0	54.6	53.1	49.9	47.9	47.8	49.1	50.3	49.6	50.9	52.6
23 D	53.2	54.9	56.2	56.6	59.6	56.9	73.9	58.2	57.4	47.8	65.3	71.8	55.4	67.8	45.6	51.0	47.8	46.6	48.2	49.7	49.5	49.5	50.5	50.8	55.2
24 Q	52.4	54.4	54.5	55.5	54.5	54.2	52.9	54.5	51.9	50.8	52.9	53.2	54.4	53.9	54.4	54.7	54.9	54.5	53.5	52.7	51.9	52.0	52.4	52.9	53.5
25 Q	53.2	53.7	54.2	54.4	54.2	53.7	53.7	53.5	52.9	52.9	52.9	53.0	53.4	53.7	54.2	54.7	55.0	54.5	52.9	51.9	51.2	51.2	51.7	52.4	53.2
26	52.9	53.7	53.9	55.4	54.5	53.1	55.3	55.5	55.1	51.5	58.2	64.6	70.8	64.3	59.6	56.1	52.4	49.5	50.3	50.0	50.2	50.8	51.2	51.5	55.0
27	52.8	52.8	53.6	54.3	55.8	54.4	54.4	53.6	53.9	52.9	52.8	53.3	53.4	53.1	53.9	54.4	56.0	55.6	54.9	53.1	50.6	50.9	51.2	51.8	53.4
28	51.6	50.6	56.3	52.8	52.8	53.2	51.9	52.6	52.8	54.4	52.3	56.3	56.0	54.9	54.3	55.4	54.9	52.3	47.9	49.9	49.2	51.2	52.1	53.3	52.9
29	53.9	53.8	53.6	53.4	53.6	53.2	52.9	53.3	53.8	54.1	56.0	55.6	54.4	54.1	54.1	54.6	54.9	54.4	50.1	50.4	49.6	50.2	50.7	50.6	53.1
30	49.4	52.4	53.0	53.4	53.1	66.0	54.8	52.8	54.1	54.1	52.3	56.0	56.0	54.3	54.4	54.4	54.1	53.6	51.4	50.7	51.2	51.0	52.9	50.9	53.6
31																									
Mean	52.8	53.2	54.7	54.1	55.6	54.1	54.1	53.4	53.3	53.2	54.4	55.5	55.4	55.4	55.3	56.0	55.5	53.8	51.1	50.6	50.2	50.5	51.1	51.7	53.5

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

Table 33 Meanook

Z = 58,000 γ +

November 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24	
1 D	696	694	697	694	701	719	722	708	674	652	666	678	677	677	674	681	678	677	669	678	688	699	718	770	691
2 D	724	725	734	718	716	712	730	688	677	688	694	688	691	693	694	690	690	688	696	700	700	703	704	706	702
3	706	715	716	712	703	700	700	697	698	700	699	700	694	692	697	697	699	700	700	703	704	703	700	700	701
4	699	698	700	706	716	706	704	700	700	699	693	665	633	664	686	694	692	698	700	700	700	699	700	699	694
5	706	711	712	709	703	700	698	699	697	692	693	690	672	664	687	680	687	694	696	700	700	692	699	701	695
6	701	699	699	696	696	699	700	698	694	690	688	686	691	687	690	694	694	694	692	696	699	700	699	697	695
7 Q	696	697	693	694	694	691	691	691	691	691	690	688	690	691	693	697	697	698	698	697	697	698	694	691	694
8	697	694	690	688	692	700	694	649	667	681	697	687	677	679	687	693	688	688	690	691	700	698	699	696	688
9 D	700	703	730	752	723	735	711	674	558	547	564	632	652	675	677	677	683	687	694	697	699	705	711	712	679
10	706	712	734	711	698	693	692	643	677	694	691	686	687	692	698	696	692	691	692	697	700	700	700	701	695
11	699	698	696	693	694	691	692	688	639	653	686	693	690	688	691	696	696	692	690	691	691	693	696	693	689
12	699	700	703	709	710	643	677	690	688	688	689	688	688	688	686	684	687	685	688	690	692	697	697	700	690
13	700	699	700	698	699	700	632	646	640	648	649	662	673	669	681	686	691	696	697	697	699	700	700	699	682
14 Q	697	694	692	690	690	691	688	685	687	690	688	688	688	688	688	690	691	691	691	693	694	694	693	692	691
15 D	694	688	690	691	692	692	692	678	688	688	685	677	640	572	564	618	652	665	672	677	686	688	691	715	671
16	716	706	704	699	710	718	691	596	581	623	667	679	698	686	680	677	667	675	675	679	685	692	697	693	679
17	696	694	692	694	693	692	700	700	693	690	687	684	677	675	665	677	680	683	686	688	692	693	696	697	689
18	694	692	694	690	691	692	692	690	688	690	688	688	690	688	690	690	688	688	697	694	696	696	696	698	692
19 Q	696	693	694	694	690	688	688	688	688	688	688	688	688	688	688	691	690	687	687	691	692	693	691	688	690
20	688	688	690	694	699	694	694	692	693	669	667	697	692	690	691	690	690	688	690	691	692	691	688	688	689
21	688	688	688	687	687	687	688	685	678	685	687	688	687	687	688	688	690	690	690	692	691	690	687	687	688
22	688	688	688	688	687	688	688	686	673	662	649	632	677	684	683	678	675	672	677	680	686	691	692	698	680
23 D	712	712	709	712	717	688	665	665	617	393	422	422	467	522	585	558	611	639	659	672	674	681	686	692	620
24 Q	693	693	692	697	699	697	687	674	674	670	687	687	685	687	687	687	687	687	689	691	692	692	691	687	688
25 Q	687	687	686	686	686	686	686	686	686	686	687	687	686	686	686	686	686	686	685	686	687	687	687	687	686
26	685	686	686	689	699	696	695	680	651	561	577	549	590	549	581	619	628	648	654	664	673	679	684	687	646
27	687	687	687	686	685	693	691	685	680	674	679	687	680	678	676	676	683	687	686	682	680	686	687	687	683
28	687	693	721	718	712	723	708	699	698	674	682	682	687	692	697	687	676	682	685	684	682	684	687	689	693
29	687	687	686	686	685	686	687	687	687	685	686	687	682	680	682	684	684	684	683	685	686	686	684	687	685
30	698	689	686	684	692	711	704	693	687	682	658	668	679	683	682	682	683	685	682	680	682	685	687	690	686
31																									
Mean	697	697	700	699	699	697	693	681	672	661	666	669	671	669	674	678	681	684	686	689	691	693	695	698	685

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

Table 34 Meanook

H = 12,000 γ +

December 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24	
1	1126	1118	1117	1123	1122	1116	1124	1116	1094	1107	1127	1125	1122	1101	1095	1092	1112	1115	1115	1116	1110	1110	1114	1118	1114
2	1126	1126	1124	1123	1122	1118	1116	1120	1110	1113	1119	1122	1122	1122	1118	1120	1117	1115	1115	1115	1113	1111	1114	1115	1118
3	1126	1131	1129	1127	1127	1130	1125	1123	1122	1115	1116	1110	1116	1126	1125	1119	1117	1113	1104	1102	1113	1109	1112	1117	1119
4	1122	1129	1125	1122	1122	1120	1117	1116	1116	1117	1115	1113	1110	1115	1124	1120	1115	1110	1116	1112	1113	1115	1115	1120	1117
5 Q	1127	1125	1127	1126	1122	1118	1119	1116	1116	1117	1122	1126	1124	1122	1122	1119	1117	1118	1117	1116	1116	1118	1124	1126	1120
6	1127	1129	1126	1127	1126	1124	1125	1124	1122	1122	1119	1122	1117	1124	1127	1125	1120	1117	1116	1116	1112	1115	1122	1131	1123
7 D	1130	1132	1130	1127	1126	1124	1120	1125	1126	1124	1115	1105	1093	1139	1131	1111	1093	1105	1118	1113	1116	1111	1095	1110	1118
8	1119	1118	1119	1115	1117	1125	1122	1115	1116	1115	1116	1118	1116	1116	1115	1116	1118	1116	1110	1103	1103	1105	1116	1122	1116
9	1126	1127	1125	1124	1120	1122	1131	1115	1107	1108	1115	1118	1127	1126	1130	1125	1123	1116	1116	1117	1120	1118	1116	1120	1120
10	1127	1124	1122	1117	1115	1109	1113	1116	1117	1120	1115	1120	1120	1122	1119	1122	1116	1113	1111	1110	1112	1115	1117	1119	1117
11	1127	1126	1125	1123	1119	1120	1118	1117	1116	1117	1117	1120	1126	1127	1124	1126	1125	1122	1116	1116	1116	1118	1123	1127	1122
12 Q	1129	1127	1127	1127	1126	1125	1122	1125	1123	1122	1126	1125	1126	1127	1129	1127	1125	1118	1116	1117	1118	1118	1122	1126	1124
13 D	1133	1136	1134	1131	1131	1131	1127	1124	1119	1122	1120	1127	1133	1138	1133	1134	1112	1101	1112	1123	1118	1118	1119	1124	1125
14	1125	1124	1123	1124	1116	1109	1107	1107	1105	1086	1081	1109	1119	1120	1127	1125	1127	1116	1116	1123	1104	1104	1115	1119	1113
15	1125	1117	1120	1125	1113	1103	1110	1116	1118	1116	1112	1095	1104	1124	1122	1118	1117	1115	1113	1110	1115	1116	1117	1122	1115
16 D	1127	1130	1127	1123	1113	1115	1116	1113	1116	1095	1028	1102	1080	886	1031	1153	1139	1119	1118	1117	1116	1116	1124	1120	1101
17 D	1127	1125	1129	1149	1136	1116	1115	1104	1068	1052	1122	1120	1125	1122	1118	1115	1119	1112	1108	1105	1109	1105	1103	1104	1112
18	1115	1117	1119	1119	1110	1105	1103	1107	1109	1110	1113	1116	1110	1117	1120	1122	1123	1115	1104	1098	1102	1105	1110	1120	1112
19 D	1127	1126	1125	1120	1122	1124	1120	1117	1113	1118	1113	1116	1116	1103	1119	1124	1127	1123	1110	1093	1101	1104	1116	1122	1117
20	1127	1126	1126	1123	1120	1118	1117	1118	1116	1109	1093	1113	1127	1127	1127	1126	1124	1115	1104	1110	1116	1115	1117	1118	1118
21	1127	1130	1126	1122	1116	1112	1113	1115	1115	1112	1115	1125	1117	1124	1131	1133	1117	1116	1124	1112	1109	1113	1118	1120	1119
22	1118	1124	1123	1120	1122	1119	1122	1120	1119	1120	1117	1120	1118	1125	1124	1127	1126	1118	1116	1113	1115	1118	1125	1122	1120
23	1127	1130	1129	1126	1118	1113	1129	1124	1119	1120	1116	1117	1117	1115	1129	1133	1127	1120	1115	1111	1109	1112	1116	1124	1120
24	1127	1127	1126	1124	1116	1117	1118	1120	1122	1122	1123	1126	1119	1125	1129	1126	1127	1116	1113	1109	1107	1112	1117	1125	1120
25	1127	1127	1127	1126	1124	1118	1116	1116	1117	1116	1125	1129	1130	1126	1127	1139	1136	1127	1113	1110	1104	1108	1110	1116	1122
26	1116	1126	1125	1126	1127	1125	1122	1120	1122	1118	1116	1116	1116	1122	1117	1119	1124	1117	1113	1115	1115	1116	1124	1127	1120
27 Q	1131	1130	1127	1126	1124	1120	1117	1117	1117	1119	1123	1125	1125	1128	1128	1128	1124	1117	1114	1112	1112	1114	1118	1124	1121
28	1128	1127	1125	1128	1127	1126	1124	1124	1124	1124	1126	1127	1128	1128	1128	1128	1127	1126	1117	1113	1110	1117	1123	1128	1124
29	1128	1128	1134	1131	1128	1128	1126	1128	1127	1126	1127	1121	1123	1128	1127	1128	1126	1116	1119	1121	1118	1118	1120	1123	1125
30 Q	1126	1121	1127	1126	1127	1127	1126	1121	1119	1120	1123	1126	1126	1125	1126	1125	1120	1118	1117	1119	1119	1120	1123	1126	1123
31 Q	1131	1128	1126	1128	1126	1123	1121	1118	1117	1118	1120	1121	1117	1118	1124	1126	1120	1117	1117	1119	1121	1123	1126	1127	1123
Mean	1126	1126	1126	1125	1122	1119	1119	1118	1115	1114	1114	1119	1118	1115	1121	1124	1121	1116	1114	1112	1112	1113	1117	1121	1119

DECLINATION
Mean values for periods of sixty minutes; Universal Time

Table 35 Meanook

D = 23° East + ...'

December 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24		
1	54.8	57.4	54.3	53.2	52.8	53.2	54.2	56.5	54.7	53.0	52.7	54.7	56.9	53.2	50.6	46.4	52.8	51.8	50.3	50.1	51.3	51.5	51.5	51.7	52.8	
2	51.8	52.2	52.8	54.0	53.8	53.7	53.2	52.0	53.6	53.6	53.5	54.5	54.3	54.3	54.3	54.5	54.3	53.5	51.1	50.1	49.8	49.3	51.1	53.0	52.8	
3	52.5	52.7	52.8	53.0	54.0	53.3	52.3	53.2	50.8	51.7	56.0	55.0	54.2	56.0	56.2	55.9	55.7	53.2	51.0	48.5	48.6	49.8	51.8	52.3	53.0	
4	52.7	52.5	52.2	52.5	53.0	52.7	53.2	52.8	52.8	53.8	53.2	52.7	54.0	52.7	54.3	56.2	56.7	55.2	50.3	49.3	51.0	52.0	51.1	51.1	52.8	
5 Q	52.2	53.2	53.1	52.7	53.4	53.1	52.7	53.7	53.7	53.2	53.4	54.1	52.9	53.4	53.9	54.2	54.2	54.2	53.4	52.2	51.0	51.4	51.7	52.4	53.1	
6	52.6	53.2	53.4	53.7	53.2	52.9	53.7	52.9	52.4	52.2	51.9	53.6	53.9	54.6	54.2	53.9	54.2	52.7	52.2	51.4	50.5	50.4	49.9	50.9	52.7	
7 D	52.4	52.9	53.9	53.9	54.1	53.9	53.1	52.6	52.2	52.7	51.7	54.5	48.9	53.4	54.6	52.4	45.0	45.8	48.9	47.9	48.9	48.4	47.4	49.9	51.2	
8	50.7	52.7	53.9	55.1	56.6	62.0	51.7	52.7	51.9	52.4	52.6	52.7	52.9	53.9	52.9	53.9	54.2	54.1	52.6	52.6	52.2	51.6	51.7	52.2	53.2	
9	52.8	53.1	53.3	53.8	53.8	54.5	55.5	50.9	53.3	54.1	54.5	55.5	55.3	53.1	54.1	54.3	54.6	53.3	50.8	49.1	48.3	48.8	51.6	51.5	53.0	
10	52.6	53.8	53.8	54.1	55.3	52.8	56.8	53.5	52.8	51.8	50.8	52.5	53.1	53.3	52.6	54.0	55.7	55.0	54.1	53.0	52.0	50.8	51.1	51.6	53.1	
11	52.5	52.6	52.8	53.6	53.5	53.0	52.5	52.5	52.5	51.6	52.3	52.5	54.1	53.4	53.6	53.3	54.3	55.8	54.6	52.8	51.5	51.5	50.8	52.1	52.5	53.0
12 Q	52.5	53.1	53.5	53.6	54.0	54.1	52.9	53.4	52.7	52.1	52.3	52.3	52.0	52.8	53.8	54.6	55.5	54.3	53.6	53.0	51.8	51.3	50.8	50.4	53.0	
13 D	50.7	51.2	52.2	52.9	54.0	54.0	53.2	53.4	53.2	53.2	52.5	55.4	52.4	53.7	55.4	55.2	56.7	51.0	49.0	48.8	49.3	50.5	51.0	52.4	52.5	
14	52.2	53.9	54.0	54.4	54.7	54.9	57.9	56.1	54.4	47.2	47.3	55.2	56.1	55.2	55.7	55.6	54.0	52.4	51.5	50.5	50.8	50.7	51.5	52.2	53.2	
15	52.4	54.4	55.6	54.0	54.9	67.5	54.0	52.2	52.5	51.9	51.0	50.7	51.0	52.5	54.0	55.2	55.4	55.7	54.0	54.0	53.4	52.5	52.2	52.4	53.9	
16 D	52.9	53.5	53.7	54.5	58.1	58.2	55.6	54.7	55.0	52.7	48.5	53.2	59.6	49.3	56.6	58.9	57.6	55.9	54.9	54.2	53.9	52.2	51.2	50.8	54.4	
17 D	50.7	55.4	54.0	58.6	62.6	55.0	55.6	57.1	55.7	57.2	54.9	56.1	55.2	54.4	54.9	54.0	52.4	52.4	52.4	53.9	52.9	52.0	52.7	51.4	54.7	
18	54.0	54.7	57.9	55.4	55.9	57.2	57.6	55.6	52.7	52.4	52.9	52.4	50.5	52.4	54.0	55.7	56.2	56.2	54.5	52.4	50.7	50.2	51.2	51.9	53.9	
19 D	52.0	52.4	52.7	53.7	53.5	54.0	53.9	53.7	55.0	55.4	55.6	55.9	54.4	52.5	52.4	50.7	53.0	50.2	50.5	50.2	47.2	47.7	49.5	51.4	52.4	
20	52.4	53.7	53.7	54.0	54.4	54.4	53.9	54.0	54.5	53.9	53.9	57.1	54.4	53.9	54.0	55.4	55.2	54.2	52.4	51.0	50.5	51.4	52.0	52.4	53.5	
21	52.4	53.7	54.0	54.2	54.4	54.5	56.9	53.5	53.2	52.0	52.4	54.5	52.2	50.8	53.2	55.4	54.5	53.2	52.4	52.0	51.0	50.8	51.2	51.5	53.0	
22	52.6	53.1	54.1	54.4	54.9	55.5	52.9	52.3	52.1	52.1	50.9	51.3	52.9	53.1	53.1	54.9	57.0	55.6	53.9	51.8	50.2	50.4	50.6	51.8	52.9	
23	52.3	52.9	53.8	54.3	54.9	63.7	60.3	51.9	51.8	52.8	51.9	53.1	52.3	50.2	52.7	55.7	55.5	54.9	53.9	51.9	50.6	51.1	50.4	50.9	53.4	
24	51.8	52.6	53.8	54.3	53.9	55.8	54.8	52.3	52.4	52.4	53.1	52.6	52.1	52.8	54.1	55.1	56.0	55.5	55.6	53.6	51.9	51.1	50.6	51.4	53.3	
25	52.3	53.3	53.8	53.9	53.9	53.8	53.8	52.6	52.1	52.4	52.1	52.1	52.3	53.3	52.3	55.5	57.8	58.0	56.5	52.6	50.9	50.6	48.9	47.6	52.9	
26	48.4	51.6	53.3	53.9	54.4	53.9	53.8	53.1	52.9	52.9	52.6	53.8	52.9	53.6	53.1	54.1	56.6	57.1	54.6	53.1	51.9	51.6	51.4	50.4	53.1	
27 Q	52.0	52.5	53.7	54.2	53.8	53.8	53.7	53.3	52.7	53.0	52.8	52.2	52.2	53.2	53.6	54.1	55.2	56.5	55.4	53.7	51.3	51.3	50.5	51.3	53.2	
28	51.7	52.2	53.8	52.8	53.0	53.0	52.7	52.3	52.2	52.2	52.2	52.2	52.3	52.5	53.0	53.8	55.5	55.7	55.0	53.8	51.2	50.1	52.2	51.8	52.8	
29	51.8	52.7	53.3	53.8	53.8	53.0	54.7	56.5	52.7	53.7	53.8	55.5	53.0	54.5	56.2	55.9	56.9	55.4	54.2	53.5	51.8	51.5	51.3	51.0	53.8	
30 Q	51.7	52.3	52.3	53.0	53.5	53.7	53.0	52.7	52.5	53.2	53.7	53.3	53.5	53.5	53.7	54.0	54.8	55.2	53.8	53.3	51.8	51.0	51.8	52.0	53.0	
31 Q	51.8	52.3	53.3	53.7	54.3	53.8	53.0	51.8	53.0	53.0	52.5	53.0	52.7	53.5	54.7	55.5	55.9	54.7	52.7	52.2	52.3	52.3	52.7	52.5	53.2	
Mean	52.1	53.2	53.6	54.0	54.5	55.1	54.3	53.4	53.0	52.8	52.6	53.7	53.3	53.2	53.9	54.5	55.0	54.1	52.8	51.8	51.0	50.8	51.1	51.5	53.1	

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

Table 36 Meanook

Z = 58,000 γ +

December 1964

Hour U. T. Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Mean	
	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24		
1	696	699	690	686	687	689	670	636	634	609	676	687	686	661	655	641	661	674	682	683	682	685	687	687	673	
2	687	687	686	683	684	684	685	672	673	683	686	684	684	680	682	680	680	682	682	680	683	685	687	687	683	
3	688	691	691	690	691	694	690	690	690	685	678	682	675	669	684	668	672	684	687	682	688	695	691	690	691	685
4	691	693	695	694	694	692	690	690	688	685	682	680	675	679	684	688	685	685	688	684	685	690	690	688	688	
5 Q	691	693	693	692	693	692	690	690	691	685	682	688	687	685	686	686	686	685	684	686	685	685	685	685	687	
6	686	687	685	685	685	686	687	685	684	684	681	679	678	674	678	680	681	682	684	684	686	688	686	690	684	
7 D	690	687	684	684	684	684	684	684	684	681	665	641	622	662	659	657	659	660	672	679	685	688	695	695	674	
8	701	701	705	711	719	693	684	687	688	685	686	685	684	678	676	675	681	685	686	690	691	690	690	690	690	
9	688	687	687	686	686	685	673	674	659	652	644	674	679	684	684	684	685	680	682	684	687	688	690	679		
10	693	691	691	690	691	684	674	682	684	682	684	685	685	684	682	685	686	684	686	686	687	686	686	687	686	
11	686	685	685	685	685	685	685	684	672	669	678	682	682	682	684	685	685	684	684	684	685	686	686	687	684	
12 Q	688	687	686	685	684	684	684	684	682	682	681	681	684	684	684	684	684	682	682	684	684	684	684	684	684	
13 D	684	684	684	684	684	686	684	682	680	680	673	672	684	682	681	681	679	674	678	684	691	687	686	687	682	
14	687	688	691	686	690	698	698	695	674	623	608	649	667	666	672	680	681	684	684	688	691	694	694	694	679	
15	695	701	698	693	695	694	697	688	684	686	679	667	662	674	687	693	690	688	688	687	691	694	694	694	688	
16 D	692	690	686	695	697	695	700	688	678	655	591	636	610	509	522	668	672	679	684	685	686	688	688	686	662	
17 D	695	743	739	722	713	676	687	666	577	556	660	675	684	687	681	680	672	680	684	694	694	695	694	694	681	
18	694	694	700	693	692	692	682	685	673	680	684	684	678	684	688	688	686	684	684	685	690	692	694	694	687	
19 D	693	694	698	700	701	697	691	685	682	678	684	686	682	676	681	676	672	680	681	691	704	697	695	694	688	
20	695	694	693	694	693	693	692	690	687	684	660	669	682	685	693	690	688	685	687	690	695	693	693	692	688	
21	690	690	690	690	690	693	687	688	684	674	664	684	678	682	690	686	684	684	684	682	687	690	690	691	686	
22	690	690	690	688	686	680	682	684	684	684	681	680	675	679	684	687	684	680	682	684	684	685	686	687	684	
23	688	689	688	687	686	687	673	675	683	683	680	674	677	670	679	681	680	679	684	685	685	686	687	685	682	
24	686	687	688	687	688	688	691	686	688	686	685	685	681	679	679	686	686	684	684	683	686	689	687	691	686	
25	689	687	686	684	685	685	686	682	683	683	686	685	685	681	683	685	685	685	685	686	687	686	688	696	686	
26	700	696	694	688	686	685	682	682	684	683	673	667	673	674	683	691	693	687	688	689	685	686	687	687	685	
27 Q	687	688	686	683	682	683	691	679	677	679	674	673	675	677	685	685	685	685	685	685	686	686	686	686	682	
28	685	686	687	687	685	683	685	685	685	685	685	685	685	683	685	685	685	686	685	687	685	687	691	687	686	
29	685	685	687	687	686	687	682	625	681	691	686	677	690	682	685	685	685	685	685	683	681	683	682	685	681	
30 Q	685	685	685	686	686	687	686	682	683	685	685	683	683	682	683	683	685	685	685	682	681	685	681	683	685	
31 Q	683	685	685	685	683	689	687	686	689	685	682	679	673	673	676	679	677	685	679	683	682	685	685	683	682	
Mean	690	692	691	690	690	688	686	680	677	672	673	676	675	673	675	681	681	682	684	685	687	688	688	689	683	

MEAN VALUES OF MAGNETIC ELEMENTS

HORIZONTAL INTENSITY (All Days)

Table 37 Meanook

12,000 γ +

1964

G.M.T.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Summer	Equinox	Winter
0-1	1099	1101	1107	1117	1137	1130	1139	1127	1122	1117	1121	1126	1120	1133	1116	1112
1-2	1101	1106	1107	1119	1134	1129	1140	1127	1120	1117	1124	1126	1121	1133	1116	1114
2-3	1101	1102	1110	1119	1131	1133	1135	1126	1129	1118	1123	1126	1121	1131	1119	1113
3-4	1100	1107	1115	1118	1132	1129	1130	1126	1125	1120	1122	1125	1121	1129	1120	1114
4-5	1104	1107	1120	1120	1124	1125	1127	1126	1124	1119	1123	1122	1120	1126	1121	1114
5-6	1106	1101	1111	1113	1116	1116	1120	1118	1121	1121	1119	1119	1115	1118	1116	1111
6-7	1100	1089	1088	1114	1090	1105	1115	1106	1116	1116	1117	1119	1106	1104	1108	1106
7-8	1089	1095	1082	1085	1073	1081	1106	1105	1090	1106	1115	1118	1095	1091	1091	1104
8-9	1072	1076	1068	1085	1051	1077	1102	1102	1098	1070	1106	1115	1085	1083	1080	1092
9-10	1052	1059	1046	1050	1048	1087	1095	1112	1102	1083	1096	1114	1079	1086	1070	1080
10-11	1036	1053	1042	1051	1078	1082	1101	1106	1093	1094	1106	1114	1080	1092	1070	1077
11-12	1047	1069	1049	1054	1097	1111	1095	1106	1095	1090	1109	1119	1087	1102	1072	1086
12-13	1076	1086	1069	1081	1101	1111	1114	1112	1114	1100	1111	1118	1099	1109	1091	1098
13-14	1087	1094	1089	1101	1100	1114	1115	1122	1114	1101	1112	1115	1105	1113	1101	1102
14-15	1094	1098	1097	1103	1097	1119	1121	1121	1112	1111	1115	1121	1109	1114	1106	1107
15-16	1094	1100	1095	1097	1097	1113	1126	1114	1109	1106	1115	1124	1108	1112	1102	1108
16-17	1091	1093	1088	1084	1095	1102	1114	1101	1098	1101	1112	1121	1100	1103	1093	1104
17-18	1086	1088	1080	1076	1087	1091	1099	1088	1089	1096	1107	1116	1092	1091	1085	1099
18-19	1084	1085	1079	1074	1085	1090	1094	1086	1091	1095	1105	1114	1090	1089	1085	1097
19-20	1082	1086	1075	1086	1089	1091	1093	1090	1096	1098	1105	1112	1092	1091	1089	1096
20-21	1084	1086	1081	1090	1097	1101	1098	1101	1107	1107	1109	1112	1098	1099	1096	1098
21-22	1086	1089	1093	1101	1104	1109	1105	1112	1115	1112	1114	1113	1104	1108	1105	1100
22-23	1088	1088	1099	1108	1116	1113	1117	1123	1119	1117	1117	1117	1110	1118	1111	1102
23-24	1095	1094	1104	1126	1126	1123	1131	1130	1124	1117	1120	1121	1118	1128	1118	1108
Mean	1086	1090	1087	1094	1100	1108	1114	1112	1109	1106	1113	1119	1103	1108	1099	1102

RECORD OF OBSERVATIONS AT MEANOOK MAGNETIC OBSERVATORY 1964

MEAN VALUES OF MAGNETIC ELEMENTS

DECLINATION (All Days)

Table 38 Meanook

23° East + ...'

1964

G.M.T.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Summer	Equinox	Winter
0-1	55.8	55.0	54.0	51.0	49.9	49.7	50.2	51.7	52.2	52.9	52.8	52.1	52.3	50.4	52.5	53.9
1-2	56.7	56.2	55.5	53.0	50.3	51.1	52.2	52.1	52.6	53.4	53.2	53.2	53.3	51.4	53.6	54.8
2-3	58.4	56.4	56.2	54.3	51.1	51.8	53.2	53.1	53.7	54.5	54.7	53.6	54.3	52.3	54.7	55.8
3-4	58.6	58.4	56.8	53.6	52.7	52.6	53.2	54.0	55.3	54.4	54.1	54.0	54.8	53.1	55.0	56.3
4-5	58.5	58.5	57.4	55.9	54.2	52.0	53.2	53.4	53.6	54.5	55.6	54.5	55.1	53.2	55.4	56.8
5-6	59.4	59.1	56.6	53.8	54.0	51.7	54.3	53.5	53.4	54.7	54.1	55.1	55.0	53.4	54.6	56.9
6-7	59.4	59.4	56.5	55.2	53.1	53.3	53.3	54.8	53.4	54.5	54.1	54.3	55.1	53.6	54.9	56.8
7-8	57.1	58.1	56.0	55.7	54.8	53.0	52.9	54.0	52.5	53.7	53.4	53.4	54.6	53.7	54.5	55.5
8-9	57.2	57.2	58.8	56.7	55.3	53.4	53.6	53.1	53.3	54.0	53.3	53.0	54.9	53.8	55.7	55.2
9-10	57.7	57.4	58.5	56.7	54.6	54.0	53.0	54.3	53.2	54.9	53.2	52.8	55.0	54.0	55.8	55.3
10-11	58.7	57.8	56.8	58.1	55.3	54.2	53.9	53.3	56.0	54.9	54.4	52.6	55.5	54.2	56.4	55.9
11-12	62.1	58.1	59.4	59.1	55.8	54.8	55.0	55.4	55.6	56.4	55.5	53.7	56.7	55.2	57.6	57.4
12-13	59.0	57.9	59.7	59.9	57.7	57.4	57.8	57.0	57.3	56.7	55.4	53.3	57.4	57.5	58.4	56.4
13-14	57.6	57.5	58.4	60.6	60.0	60.7	60.8	59.9	58.7	56.9	55.4	53.2	58.3	60.4	58.7	55.9
14-15	58.2	57.5	60.2	61.8	62.6	62.2	62.6	61.7	59.3	56.9	55.3	63.9	59.4	62.3	59.6	56.2
15-16	58.9	58.7	60.4	62.4	63.2	62.8	63.1	62.3	60.2	56.9	56.0	54.5	60.0	62.8	60.0	57.0
16-17	59.0	58.7	60.3	61.0	61.2	61.5	62.6	60.9	58.9	56.6	55.5	55.0	59.3	61.6	59.2	57.0
17-18	58.2	58.5	59.0	59.2	58.7	58.3	59.6	57.8	56.8	54.7	55.3	54.1	57.5	58.6	57.4	56.5
18-19	57.2	57.4	57.6	54.7	55.1	54.9	55.3	53.7	53.3	52.0	51.1	52.8	54.6	54.8	54.4	54.6
19-20	56.1	55.5	55.3	53.3	51.3	51.8	52.0	49.9	50.9	50.3	50.6	51.8	52.4	51.2	52.5	53.5
20-21	55.0	54.5	52.8	51.9	48.7	48.8	48.8	48.2	49.6	49.8	50.2	51.0	50.8	48.6	51.0	52.7
21-22	54.2	54.1	52.2	50.6	48.0	47.5	47.8	47.9	49.8	50.3	50.5	50.8	50.3	47.8	50.7	52.4
22-23	54.5	53.8	52.4	50.0	48.0	47.3	47.8	48.9	50.3	51.0	51.1	51.1	50.5	48.0	50.9	52.6
23-24	55.3	54.2	53.2	50.3	48.9	48.3	49.1	50.5	51.3	51.7	51.7	51.5	51.3	49.2	51.6	53.2
Mean	57.6	57.1	56.8	55.8	54.3	53.9	54.4	54.2	54.2	54.0	53.5	53.1	54.9	54.2	55.2	55.3

MEAN VALUES OF MAGNETIC ELEMENTS

VERTICAL INTENSITY (All Days)

Table 39 Meanook

58,000 γ +

1964

G.M.T.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Summer	Equinox	Winter
0-1	727	723	723	723	717	708	716	703	704	706	697	690	711	711	714	708
1-2	730	724	725	728	714	711	720	704	706	708	697	692	713	712	717	711
2-3	733	725	729	727	713	711	716	708	707	706	700	691	714	712	717	712
3-4	731	729	731	726	709	709	712	709	698	706	699	690	712	710	715	712
4-5	728	730	725	716	699	707	708	701	700	697	699	690	708	704	709	712
5-6	725	718	712	708	700	702	696	691	693	697	697	688	702	697	702	707
6-7	718	701	699	713	680	694	684	683	688	691	693	686	694	685	698	700
7-8	708	700	686	684	667	680	673	679	665	672	681	680	681	675	677	692
8-9	701	681	670	672	652	668	669	672	655	661	672	677	671	665	665	683
9-10	688	661	658	646	642	663	649	674	661	657	661	672	661	657	656	670
10-11	695	659	661	641	658	669	659	665	673	663	666	673	665	663	660	673
11-12	688	673	675	648	674	675	662	670	673	666	669	676	671	670	666	678
12-13	690	691	687	667	685	684	682	670	678	668	671	675	679	680	675	682
13-14	705	695	700	685	690	686	682	680	684	667	669	673	685	684	684	686
14-15	713	698	703	691	689	683	687	682	684	679	674	675	688	685	689	690
15-16	716	704	706	697	686	680	692	685	688	682	678	681	691	686	693	695
16-17	714	705	706	699	692	682	692	686	688	686	681	681	693	688	695	695
17-18	714	705	710	700	692	685	689	685	688	687	684	682	693	688	696	696
18-19	721	712	714	703	694	685	690	686	690	692	686	684	697	689	700	701
19-20	721	715	716	708	698	687	691	688	694	697	689	685	699	691	704	702
20-21	724	716	720	713	701	692	695	694	697	700	691	687	702	695	708	704
21-22	725	718	723	720	707	697	700	697	700	702	693	688	706	700	711	706
22-23	725	720	722	721	714	702	707	700	701	703	695	688	708	706	712	707
23-24	726	722	722	722	718	705	711	703	703	705	698	689	710	709	713	709
Mean	715	705	705	698	691	690	691	688	688	687	685	683	694	690	695	697

MEAN VALUES OF MAGNETIC ELEMENTS

HORIZONTAL INTENSITY (Quiet Days)

Table 40 Meanook

12,000 γ +

1964

G.M.T.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Summer	Equinox	Winter
0-1	1101	1098	1104	1110	1106	1123	1125	1125	1118	1114	1120	1129	1114	1120	1111	1112
1-2	1100	1102	1104	1110	1110	1124	1125	1126	1118	1117	1122	1126	1115	1121	1112	1112
2-3	1099	1102	1105	1110	1110	1118	1125	1119	1119	1115	1121	1127	1114	1118	1112	1112
3-4	1099	1100	1104	1109	1108	1118	1121	1121	1119	1116	1120	1127	1114	1117	1112	1112
4-5	1098	1100	1105	1109	1105	1116	1110	1121	1118	1116	1120	1125	1112	1113	1112	1111
5-6	1097	1100	1103	1111	1108	1119	1102	1118	1119	1118	1118	1123	1111	1112	1113	1109
6-7	1094	1100	1104	1111	1106	1120	1122	1120	1120	1116	1117	1121	1113	1117	1113	1108
7-8	1096	1100	1102	1114	1106	1121	1123	1119	1121	1117	1116	1119	1113	1117	1114	1108
8-9	1097	1096	1100	1114	1105	1120	1124	1120	1120	1115	1114	1118	1112	1117	1112	1106
9-10	1098	1095	1104	1106	1108	1118	1122	1121	1122	1118	1115	1119	1112	1117	1112	1107
10-11	1098	1095	1105	1111	1111	1118	1125	1126	1124	1118	1118	1113	1114	1120	1114	1106
11-12	1097	1097	1104	1115	1113	1123	1120	1123	1123	1115	1120	1125	1115	1120	1114	1110
12-13	1099	1105	1096	1118	1117	1123	1127	1125	1127	1121	1121	1124	1117	1123	1116	1112
13-14	1100	1107	1108	1116	1115	1121	1131	1126	1125	1120	1122	1124	1118	1123	1117	1113
14-15	1100	1106	1107	1119	1109	1127	1131	1112	1122	1119	1122	1126	1117	1120	1117	1114
15-16	1101	1101	1103	1113	1103	1119	1129	1114	1117	1113	1120	1125	1113	1116	1111	1112
16-17	1098	1096	1095	1101	1095	1109	1114	1101	1103	1107	1115	1121	1105	1105	1102	1108
17-18	1093	1095	1086	1090	1091	1099	1103	1091	1095	1099	1111	1119	1098	1096	1093	1105
18-19	1090	1091	1083	1084	1089	1098	1098	1091	1096	1096	1110	1116	1095	1094	1090	1102
19-20	1090	1087	1083	1090	1090	1099	1097	1093	1104	1101	1111	1117	1097	1095	1094	1101
20-21	1091	1083	1089	1091	1096	1106	1098	1101	1111	1110	1114	1117	1100	1100	1100	1101
21-22	1095	1084	1095	1095	1105	1110	1107	1109	1116	1115	1118	1119	1106	1108	1105	1104
22-23	1099	1087	1100	1098	1113	1111	1116	1117	1120	1116	1122	1123	1110	1114	1108	1108
23-24	1103	1095	1103	1101	1113	1122	1127	1123	1122	1117	1122	1126	1115	1121	1111	1112
Mean	1097	1097	1100	1106	1106	1108	1118	1115	1117	1114	1118	1122	1110	1112	1109	1109

MEAN VALUES OF MAGNETIC ELEMENTS

DECLINATION (Quiet Days)

Table 41 Meanook

23° East + ...'

1964

G.M.T.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Summer	Equinox	Winter
0-1	56.5	55.2	54.9	51.8	52.5	50.9	51.5	52.5	53.2	53.3	52.9	52.0	53.1	51.8	53.3	54.2
1-2	57.2	55.9	55.6	53.0	53.2	51.7	52.9	52.6	52.8	53.3	53.6	52.7	53.7	52.6	53.7	54.8
2-3	57.5	56.3	55.9	53.7	53.5	52.1	53.8	52.5	52.6	53.4	54.0	53.2	54.0	53.0	53.9	55.2
3-4	57.8	56.6	55.8	54.1	54.4	53.3	53.7	52.8	52.7	53.8	54.3	53.4	54.4	53.6	54.1	55.5
4-5	58.0	56.7	55.9	54.9	55.7	53.0	53.5	54.1	53.0	53.7	54.5	53.8	54.7	54.1	54.4	55.7
5-6	58.5	56.7	55.9	54.8	53.9	52.8	54.0	53.5	53.4	53.7	53.3	53.7	54.5	53.5	54.4	55.5
6-7	57.7	58.1	55.8	55.5	54.3	52.9	54.1	54.0	52.7	53.2	52.7	53.1	54.5	53.8	54.3	55.4
7-8	58.0	58.5	57.5	55.3	54.6	53.5	54.0	54.0	52.8	52.4	53.1	53.0	54.7	54.0	54.5	55.6
8-9	56.9	57.4	56.5	54.9	55.0	53.1	53.9	53.3	53.5	52.2	52.5	52.9	54.3	53.8	54.3	54.9
9-10	56.4	56.3	56.5	54.7	54.5	52.9	52.9	53.8	55.7	53.0	52.6	52.9	54.4	53.5	55.0	54.6
10-11	56.5	56.3	55.7	55.7	54.4	55.2	54.0	54.8	54.7	53.6	53.1	52.9	54.7	54.6	54.9	54.7
11-12	56.9	55.9	55.8	56.6	58.1	56.2	53.6	55.7	55.4	53.8	53.5	53.0	55.4	55.9	55.4	54.8
12-13	57.2	56.8	56.4	57.2	57.7	57.7	56.8	57.6	56.2	54.7	54.0	52.7	56.2	57.4	56.1	55.2
13-14	57.3	57.3	57.5	57.8	59.1	58.9	58.8	59.2	57.3	55.5	54.2	52.3	57.1	59.0	57.0	55.3
14-15	57.6	57.4	59.4	60.3	61.2	60.9	60.6	60.4	58.0	56.7	54.6	53.9	58.4	60.8	58.6	55.9
15-16	58.3	57.3	61.0	61.6	61.6	62.5	62.3	61.5	59.3	57.6	55.4	54.5	59.4	62.0	59.9	56.4
16-17	59.2	58.0	61.9	62.0	60.3	60.8	62.5	61.0	59.4	57.0	55.5	55.1	59.4	61.2	60.1	57.0
17-18	58.7	59.0	61.0	61.2	58.0	57.6	59.8	58.9	57.9	55.0	54.3	55.0	58.1	58.6	58.8	56.8
18-19	58.3	58.4	59.1	57.3	55.1	54.1	54.6	54.2	54.1	52.6	52.7	53.8	55.4	54.5	55.8	55.8
19-20	56.6	57.4	56.0	53.9	51.8	51.7	51.5	50.7	51.5	51.2	51.8	53.9	53.2	51.4	53.2	54.9
20-21	55.1	55.4	53.8	52.0	49.6	50.2	47.8	48.5	49.7	50.6	51.4	51.6	51.3	49.0	51.5	53.4
21-22	54.6	54.2	51.8	50.6	49.0	49.2	47.5	48.5	50.6	51.3	51.6	51.5	50.9	48.6	51.1	53.0
22-23	54.9	53.9	51.9	50.9	50.0	48.9	48.2	49.3	51.2	51.9	52.0	51.5	51.2	49.1	51.5	53.1
23-24	55.2	54.4	52.5	51.3	51.3	49.3	49.5	50.6	51.8	52.0	52.4	51.7	51.8	50.2	51.9	53.4
Mean	57.1	56.6	56.4	55.5	54.9	54.2	54.2	54.3	54.1	53.6	53.3	53.1	54.8	54.4	54.9	55.0

MEAN VALUES OF MAGNETIC ELEMENTS

VERTICAL INTENSITY (Quiet Days)

Table 42 Meanook

58,000 γ +

1964

G.M.T.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Summer	Equinox	Winter
0-1	720	715	754	706	700	701	702	697	693	698	694	687	706	700	713	704
1-2	720	713	712	707	699	701	702	698	692	701	693	688	702	700	703	704
2-3	721	712	712	708	699	698	702	696	692	700	691	687	702	699	703	703
3-4	720	712	711	707	701	700	699	696	692	699	692	686	701	699	702	703
4-5	721	711	710	706	699	697	699	694	691	698	692	686	700	697	701	702
5-6	722	713	710	707	696	698	699	693	692	698	691	687	701	697	702	703
6-7	722	712	712	706	697	697	692	690	692	696	688	688	699	694	702	702
7-8	719	707	709	706	684	696	692	684	693	692	685	684	696	689	700	699
8-9	717	701	701	706	678	694	692	684	693	684	685	684	693	687	696	697
9-10	717	701	706	692	675	694	689	685	691	691	685	683	692	686	695	696
10-11	715	691	707	689	686	692	690	684	703	690	688	681	693	688	697	694
11-12	716	695	708	696	694	693	689	690	690	684	688	681	694	692	695	695
12-13	716	704	710	703	694	695	698	693	691	688	687	680	697	694	698	697
13-14	716	707	711	703	691	693	697	693	691	689	688	680	697	694	698	698
14-15	716	708	712	704	688	689	695	691	691	691	688	683	696	691	699	699
15-16	717	708	712	704	687	674	694	689	693	692	690	683	695	686	700	700
16-17	717	707	710	700	689	683	694	687	691	692	690	683	695	688	698	699
17-18	716	708	709	700	692	688	694	686	690	692	690	682	696	690	698	699
18-19	717	709	712	697	695	684	692	685	690	692	690	683	696	689	698	700
19-20	714	711	712	698	697	686	689	687	692	696	692	684	697	690	700	700
20-21	718	712	713	699	702	692	692	691	694	698	692	684	699	694	701	702
21-22	719	714	711	700	703	694	697	693	696	699	693	685	700	697	701	703
22-23	716	713	710	699	705	696	696	694	695	699	691	684	700	698	701	701
23-24	716	713	710	701	703	696	700	694	693	698	689	684	700	698	700	700
Mean	718	708	710	702	694	693	695	691	693	694	690	684	698	693	700	700

MEAN VALUES OF MAGNETIC ELEMENTS

HORIZONTAL INTENSITY (Disturbed Days)

Table 43 Meanook

12,000 γ +

1964

G.M.T.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Summer	Equinox	Winter
0-1	1107	1105	1124	1140	1176	1155	1146	1131	1126	1118	1120	1129	1131	1152	1127	1115
1-2	1113	1108	1127	1134	1167	1166	1159	1137	1126	1119	1123	1130	1134	1157	1126	1118
2-3	1111	1104	1128	1148	1164	1191	1164	1142	1176	1128	1122	1129	1142	1165	1145	1116
3-4	1100	1133	1134	1118	1180	1179	1165	1156	1152	1136	1125	1130	1141	1170	1130	1122
4-5	1127	1122	1172	1108	1162	1164	1151	1152	1147	1127	1136	1126	1141	1157	1139	1128
5-6	1140	1100	1129	1093	1131	1109	1111	1112	1128	1139	1122	1122	1121	1116	1127	1121
6-7	1116	1023	1037	1109	984	1065	1091	1051	1106	1127	1116	1120	1078	1048	1093	1094
7-8	1110	1081	1027	1001	1009	980	1085	1022	1011	1100	1112	1117	1055	1024	1035	1105
8-9	1043	1060	982	1028	865	1027	1109	1013	1031	963	1085	1108	1026	1004	1001	1074
9-10	887	1025	935	892	854	985	1108	1077	1048	987	1044	1102	995	1006	966	1014
10-11	803	926	831	956	1046	948	1077	1067	983	1063	1082	1100	990	1034	958	978
11-12	865	967	865	976	1064	1074	991	1058	1012	1104	1071	1114	1013	1047	989	1004
12-13	1045	1050	934	1024	1082	1064	1082	1064	1086	1087	1078	1109	1059	1073	1033	1070
13-14	1077	1092	1035	1070	1085	1067	1076	1110	1080	1066	1091	1078	1077	1084	1063	1084
14-15	1089	1095	1081	1075	1064	1104	1103	1108	1082	1109	1087	1106	1092	1095	1087	1094
15-16	1068	1083	1084	1064	1064	1104	1122	1103	1080	1088	1101	1127	1091	1098	1079	1095
16-17	1068	1077	1060	1038	1091	1089	1118	1097	1075	1085	1101	1118	1085	1099	1064	1091
17-18	1065	1075	1043	1034	1084	1073	1094	1085	1070	1080	1093	1112	1076	1084	1057	1086
18-19	1079	1078	1056	1041	1092	1082	1097	1081	1083	1086	1099	1113	1082	1088	1066	1092
19-20	1072	1082	1061	1086	1093	1081	1087	1085	1091	1086	1100	1110	1086	1086	1081	1091
20-21	1080	1086	1067	1087	1106	1100	1102	1100	1107	1102	1107	1112	1096	1102	1091	1096
21-22	1085	1091	1107	1114	1107	1107	1107	1111	1110	1108	1114	1111	1106	1108	1110	1100
22-23	1090	1090	1114	1111	1118	1114	1133	1140	1114	1113	1113	1111	1113	1126	1113	1101
23-24	1088	1091	1118	1183	1137	1140	1152	1142	1129	1115	1118	1116	1127	1143	1136	1103
Mean	1060	1073	1052	1068	1080	1090	1110	1098	1090	1093	1102	1115	1086	1094	1076	1087

MEAN VALUES OF MAGNETIC ELEMENTS

DECLINATION (Disturbed Days)

Table 44 Meanook

23° East + ...'

1964

G.M.T.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Summer	Equinox	Winter
0-1	55.9	54.7	52.7	49.4	45.5	47.4	48.4	50.9	48.1	52.8	53.3	51.8	50.9	48.0	50.8	53.9
1-2	57.8	58.4	55.8	55.2	46.3	47.5	51.4	50.8	48.9	50.6	52.4	51.1	52.2	49.0	52.6	54.9
2-3	59.9	57.9	58.0	56.1	47.6	49.3	51.0	52.1	53.0	53.5	55.3	53.3	53.9	50.0	55.2	56.6
3-4	59.0	63.5	56.1	53.5	49.6	49.5	54.8	53.3	56.3	56.0	53.9	54.7	55.0	51.8	55.5	57.8
4-5	59.9	60.6	58.6	59.4	55.7	41.4	53.4	50.4	51.4	54.4	63.1	56.5	55.4	50.2	55.9	60.0
5-6	61.3	63.5	54.1	52.3	53.3	44.0	55.8	51.3	51.7	55.9	55.5	55.0	54.5	51.1	53.5	58.8
6-7	59.5	64.4	55.0	56.5	43.4	55.8	52.2	59.6	53.7	58.4	57.8	54.3	55.9	52.8	55.9	59.0
7-8	52.0	60.0	54.2	55.5	56.5	51.2	52.3	54.4	49.9	53.5	53.9	54.3	54.0	53.6	53.3	55.0
8-9	58.5	59.8	60.2	55.6	61.4	54.6	54.0	50.1	54.9	59.8	53.9	54.2	56.4	55.0	57.6	56.6
9-10	60.1	58.2	64.3	60.4	55.6	57.7	54.1	55.6	56.3	58.9	52.8	54.2	57.4	55.8	60.0	56.3
10-11	65.5	60.2	54.5	66.7	58.3	58.9	54.6	52.4	61.7	53.4	58.1	52.6	58.1	56.0	59.1	59.1
11-12	85.3	60.8	73.4	59.7	56.5	53.7	56.7	58.1	58.5	58.0	58.0	55.0	61.1	56.2	62.4	64.8
12-13	63.6	62.2	69.9	62.4	59.1	58.1	58.0	56.9	61.4	55.8	56.5	54.1	59.8	58.0	62.4	59.1
13-14	58.8	58.9	60.6	62.1	62.1	64.6	61.0	61.3	62.4	56.4	59.5	52.7	60.0	62.2	60.4	57.5
14-15	60.6	59.2	62.1	64.2	66.5	63.3	65.4	63.9	61.2	57.1	55.1	54.8	61.1	64.8	61.2	57.4
15-16	58.5	60.1	60.6	66.2	67.2	63.8	66.1	62.5	61.0	56.6	57.5	54.2	61.2	64.9	61.1	57.6
16-17	55.5	58.8	60.1	61.5	62.7	61.7	65.4	60.2	57.4	57.8	55.2	52.9	59.1	62.5	59.2	55.6
17-18	55.6	57.8	55.1	59.5	58.8	58.1	59.9	56.8	55.3	54.2	52.2	50.9	56.2	58.4	56.0	54.1
18-19	55.1	54.6	52.8	49.6	56.7	55.3	54.5	52.1	51.2	52.5	46.6	51.1	52.7	54.7	51.5	51.9
19-20	53.8	53.3	52.3	52.6	51.8	52.2	53.5	49.4	50.1	51.1	47.7	51.1	51.6	51.7	51.5	51.5
20-21	55.1	52.5	51.7	52.8	49.2	47.7	47.4	47.5	49.6	50.2	49.0	50.4	50.2	48.0	51.1	51.7
21-22	54.6	53.8	53.0	49.8	48.3	46.4	48.0	47.1	48.8	49.8	49.3	50.2	49.9	47.4	50.4	52.0
22-23	55.0	53.1	52.5	47.9	47.9	47.1	47.6	49.0	49.9	49.6	49.5	50.4	50.0	47.9	50.0	52.0
23-24	56.3	54.4	53.7	50.3	48.9	48.8	48.9	51.7	52.8	52.4	50.2	51.2	51.6	49.6	52.3	53.0
Mean	59.0	58.4	57.6	56.6	54.5	53.3	54.8	54.0	54.4	54.5	54.0	53.0	55.3	54.1	55.8	56.1

MEAN VALUES OF MAGNETIC ELEMENTS

VERTICAL INTENSITY (Disturbed Days)

Table 45 Meanook

58,000 γ +

1964

G.M.T.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Summer	Equinox	Winter
0-1	737	724	739	736	721	730	727	704	711	712	705	691	720	720	724	714
1-2	740	740	742	744	718	753	740	713	723	714	704	700	728	731	731	721
2-3	736	741	753	741	719	759	733	727	730	718	712	698	731	735	736	721
3-4	733	753	753	734	707	739	733	730	690	716	713	697	725	727	723	724
4-5	729	748	718	683	655	745	720	694	707	675	710	696	707	704	696	721
5-6	710	716	665	654	670	723	691	694	673	697	709	688	691	694	672	706
6-7	695	645	661	702	642	702	669	683	685	681	704	689	680	674	682	683
7-8	712	669	664	641	644	662	670	648	623	663	683	681	663	656	648	686
8-9	715	670	604	625	590	685	648	603	576	667	643	660	641	632	618	672
9-10	633	638	627	557	563	648	660	630	612	619	594	650	619	625	604	629
10-11	678	578	587	615	598	659	649	626	654	631	606	655	628	633	622	629
11-12	660	599	629	640	632	638	592	642	650	664	619	662	636	626	646	637
12-13	664	659	653	653	666	682	657	630	656	667	625	656	656	659	657	651
13-14	709	684	681	664	669	689	645	662	674	644	628	643	666	666	666	666
14-15	707	693	679	659	678	677	656	668	671	680	639	645	671	670	672	671
15-16	707	695	696	677	653	683	679	679	688	669	645	672	679	674	683	680
16-17	701	700	692	676	689	686	686	687	692	686	663	671	686	687	686	684
17-18	711	702	713	686	685	689	684	686	688	690	671	675	690	686	694	690
18-19	736	714	726	700	682	695	684	686	699	695	678	680	698	687	705	702
19-20	737	727	728	720	691	701	693	695	708	706	685	687	707	695	716	709
20-21	732	722	738	734	694	711	703	703	712	712	689	692	712	703	724	709
21-22	732	721	756	759	704	705	713	710	708	712	695	691	717	708	734	710
22-23	734	730	748	744	711	719	734	719	713	713	702	692	722	721	730	715
23-24	736	732	750	726	731	723	738	722	719	719	719	691	725	728	728	720
Mean	712	696	698	686	671	700	688	681	682	685	673	678	688	685	688	690

Table 46

THREE-HOUR RANGE INDICES, MEANOOK, 1964

January					February				
	D	H	Z	K	D	H	Z	K	
1	0010 1111	1011 1111	0011 1110	1011 1111	1211 0111	2223 1112	1223 0111	2223 1112	
2	0567 4322	0687 6433	0558 5321	0688 6433	1122 2110	2122 2110	1222 2200	2222 2210	
3	3333 3222	5334 4333	5334 4222	5334 4333	0011 0110	0011 1111	0011 1100	0011 1111	
4	3422 2211	2342 3332	2432 2222	3442 3332	1033 2110	1154 4211	0155 4200	1155 4211	
5	0230 1111	1131 2111	1141 1110	1241 2111	1100 1221	1111 1223	1220 0113	1221 1223	
6	2112 0110	2112 1101	1122 0000	2122 1111	3564 4211	3466 5322	3556 4321	3566 5322	
7	0012 3110	0133 3211	0033 4110	0133 4211	1333 1301	2255 2312	1245 1212	2355 2312	
8	0002 1110	1002 2112	0002 3111	1002 3112	3012 1223	2112 1335	3113 1224	3113 1335	
9	2223 2232	2233 1234	2243 2232	2243 2234	2432 2112	3344 3221	2344 3210	3444 3222	
10	3441 2111	3633 3312	3553 3211	3653 3312	0212 1110	1212 2112	1112 1101	1212 2112	
11	1221 1111	1222 3112	1132 2001	1232 3112	1011 0010	1121 1101	1111 1000	1121 1111	
12	1000 0110	2100 1111	1100 0100	2100 1111	0133 2210	1125 3312	0134 2211	1135 3312	
13	1100 2110	1110 1111	0101 1000	1110 2111	1454 2320	2577 4431	3566 4421	3577 4431	
14	0000 0010	0001 0110	0001 0010	0001 0110	0221 1210	1223 2212	2133 1111	2233 2212	
15	0000 0010	0000 0110	0000 0000	0000 0110	0021 2110	1121 3211	1032 2111	1132 3211	
16	1036 4321	2257 5533	1236 4432	2257 5533	0022 1110	0022 1111	0023 2000	0023 2111	
17	4354 2111	2265 2212	3155 3211	4365 3212	0022 1120	1022 1211	0022 1110	1022 1221	
18	1131 1111	2121 1111	1132 1110	2132 1111	0022 0110	1022 1211	1023 1110	1023 1211	
19	0020 0211	0011 2212	0010 1111	0021 2212	0000 0110	0000 0111	0010 0000	0010 0111	
20	0103 1110	1113 2211	0113 2100	1113 2211	0000 1333	0001 1323	0011 1223	0011 1333	
21	0100 0010	0100 0000	0000 0000	0100 0010	2222 2120	5444 4121	4443 1220	5444 4121	
22	0110 0100	1100 0111	0111 0100	1111 0111	0021 1221	1022 2222	0032 2111	1032 2222	
23	0000 0100	1000 1101	0000 1100	1000 1101	1121 1110	2121 0221	1121 0010	2121 1221	
24	0113 3110	1113 4211	1124 4210	1124 4211	0011 2110	0122 2212	0022 2001	0122 2212	
25	0131 1012	2131 1133	1122 1013	2132 1133	0123 1232	2115 1343	1125 1142	2125 1343	
26	2001 0100	2101 2111	2112 2010	2112 2111	1434 3211	2536 5212	2534 5101	2536 5212	
27	0010 0010	1000 0101	1000 0000	1010 0111	2202 2121	2212 2332	2213 2121	2213 2332	
28	0321 1122	1132 1123	0133 1011	1333 1123	2442 2220	3346 3322	2335 3211	3446 3322	
29	1444 4210	2445 5321	3445 5311	3445 5321	0332 0120	1342 1221	1433 1010	1443 1221	
30	0122 1110	2123 2222	1133 2110	2133 2222					
31	0025 4211	1016 5422	0015 5332	1016 5432					
March					April				
	D	H	Z	K	D	H	Z	K	
1	2011 1010	2100 2110	1011 2000	2111 2110	0000 2354	1001 4556	0000 4345	1001 4556	
2	0010 0010	0010 0101	0020 0000	0020 0111	3534 2221	5555 3333	4544 3332	5555 3333	
3	0011 1121	1122 1212	0222 0001	1222 1222	3533 2122	4544 4222	4545 3111	4545 4222	
4	2456 6333	4566 7544	3667 6333	4667 7544	3433 1101	3343 2212	2443 2211	3443 2212	
5	4243 3222	5554 6333	5344 4333	5554 6333	0322 0112	2234 2223	1324 1202	2334 2223	
6	3333 2210	2245 3321	2345 3311	3345 3321	0111 0111	2101 1112	1111 1112	2111 1112	
7	2112 2121	2133 2222	1223 2211	2233 2222	1232 2220	2242 2322	2242 2111	2242 2322	
8	1243 3221	2254 4322	2264 4212	2264 4322	1035 3110	1136 4222	1155 3111	1156 4222	
9	1332 0000	2443 1110	3343 1000	3443 1110	1322 2111	2223 1211	1333 1100	2333 2211	
10	0021 0111	0021 1111	0021 1011	0021 1111	0022 1100	1025 1102	0134 2000	1135 2102	
11	0043 1020	1155 2211	1155 2110	1155 2221	0024 3211	1125 5322	0025 5221	1125 5322	
12	1443 2210	3544 2212	3544 2211	3544 2212	0220 1210	1110 0112	0120 1001	1220 1212	
13	0122 2011	2124 2212	0033 2011	2134 2212	1100 1121	1110 0222	1020 0001	1120 1222	
14	0222 2132	1223 3232	0012 3121	1223 3232	1012 2010	2012 2211	1012 2010	2012 2211	
15	2222 1121	2222 2322	2332 1211	2332 2322	0012 1201	1012 2221	0003 3012	1013 3222	
16	2212 1221	2212 1212	1122 1101	2222 1222	3331 2100	3231 3212	3341 2110	3341 3212	
17	0233 1110	1155 2111	0155 3100	1255 3111	3342 1221	2543 3221	3543 2211	3543 3221	
18	0021 1110	0121 1211	0021 0000	0121 1211	0033 3332	0026 4323	0035 5322	0036 5333	
19	0021 1120	1120 1111	0021 1001	1121 1121	3334 2212	3347 4223	3246 3212	3347 4223	
20	0220 2121	1121 2122	0121 1111	1221 2122	3232 1222	2153 2222	2263 1112	3263 2222	
21	2321 1031	2321 0122	2332 1011	2332 1132	3102 1110	3113 2122	3123 1011	3123 2122	
22	0023 2332	0035 5433	1144 4333	1145 5433	1021 0110	1011 0211	0022 0011	1022 0211	
23	1445 2231	2357 4332	1467 3222	2467 4332	0100 0020	1010 0211	1000 0100	1110 0221	
24	0333 3221	2545 4432	1445 4321	2545 4432	0002 1110	1113 1211	0013 0001	1113 1211	
25	2331 1221	3242 3323	2442 2222	3442 3323	1023 2221	2114 4222	1025 4112	2125 4222	
26	3432 1120	2232 3121	3442 2000	3442 3121	2332 0111	2443 1222	3442 1011	3443 1222	
27	0020 0110	1020 1111	1030 0100	1030 1111	0132 3432	2234 3443	2243 3443	2244 3443	
28	0000 0110	0000 0200	0000 0000	0000 0210	4565 4222	4676 5224	4666 4222	4676 5224	
29	0000 0121	0000 1112	0000 0000	0000 1122	4323 2120	3544 2232	4434 3111	4544 3232	
30	0554 2420	2666 4431	1665 3321	2666 4431	0010 2223	1101 1335	1010 1124	1111 2335	
31	0010 1010	1011 1102	0011 0000	1011 1102					

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May					June											
	D	H	Z	K	D	H	Z	K								
1	4334	3221	6455	4323	5445	3211	6455	4323	0111	1120	1221	2222	1131	2111	1231	2222
2	2342	1121	2353	3222	1443	2101	2443	3222	0010	1110	1110	1111	1020	1110	1120	1111
3	1111	1110	2212	1111	2222	0001	2222	1111	0101	1110	1111	1111	0101	1110	1111	1111
4	0121	1010	1121	1111	0022	0001	1122	1111	0011	1110	2131	1221	1032	0111	2132	1221
5	0133	1200	2224	4210	1234	3110	2234	4210	0001	1210	1000	0111	0000	0010	1001	1211
6	0011	0110	1011	1222	0011	0000	1011	1222	0013	1200	1112	2111	0014	2000	1114	2211
7	0211	0110	1221	1210	0222	0000	1222	1210	0000	1121	1010	1223	0000	1111	1010	1223
8	0000	0010	0000	0200	0000	0001	0000	0211	2132	2220	3354	1222	1144	1000	3354	2222
9	0000	1120	1100	1111	1000	1120	1100	1121	1122	2221	2111	2221	1211	2211	2222	2221
10	1011	3333	3221	4335	2010	4334	3221	4335	2575	4222	3687	5323	2566	3222	3687	5323
11	4551	1211	5673	2112	4563	1111	5673	2212	4545	2222	5646	4333	4455	3222	5656	4333
12	0211	0111	1122	1111	0133	1000	1233	1111	2222	3221	3243	4323	3253	4121	3253	4323
13	0001	3332	0011	4333	0000	4332	0011	4333	2333	1121	3245	2222	2244	2111	3345	2222
14	1154	4332	2275	6633	1255	4523	2275	6633	0321	1122	2233	2212	1333	1012	2333	2222
15	1563	2223	3675	3335	2575	2214	3675	3335	1210	2111	2211	1212	1220	1101	2221	2212
16	3343	2231	4364	4233	4365	2121	4365	4233	1110	1121	1111	1211	1000	1111	1111	1221
17	0223	2121	1256	4222	1155	3111	1256	4222	0111	1110	1121	1211	0122	1110	1122	1211
18	0322	2120	2223	2221	1223	1111	2333	2221	0001	2221	1102	3222	0001	3022	1102	3222
19	0111	1110	2122	1111	1133	1010	2133	1111	0001	1220	1111	2113	1001	1101	1111	2223
20	0001	1211	1101	1211	1112	1111	1112	1211	2211	4231	3415	5322	3313	4101	3415	5322
21	0111	1221	1102	2112	1013	2101	1113	2212	2133	0220	3155	1210	3045	0000	3155	1220
22	0011	1120	1111	1112	1111	1112	1111	1122	1001	1221	0101	2222	0000	2021	1101	2222
23	1121	1212	2211	1223	1221	1212	2221	1223	1122	2111	1213	3212	1122	2112	1223	3212
24	2455	3331	3566	4333	2566	3211	3566	4333	2001	1121	2110	1223	1001	1112	2111	1223
25	0056	2231	3278	3332	2176	3223	3278	3333	2242	2120	2374	2211	1364	2211	2374	2221
26	1120	2220	3111	2211	3121	1111	3121	2221	0322	2220	1242	2221	1242	2111	1342	2221
27	1444	2110	2456	3212	2345	3101	2456	3212	0021	3220	1111	3212	0011	2211	1121	3222
28	1212	2221	3223	3211	1123	2111	3223	3221	0222	2321	2224	3331	1134	2220	2234	3331
29	1322	1120	2212	1111	1222	0000	2322	1121	0213	2120	2234	2211	1245	1211	2245	2221
30	1122	1111	2111	2203	0120	2001	2122	2213	0000	1110	1210	1202	0210	0200	1210	1212
31	0101	1220	2111	1200	0111	0000	2111	1220								
July					August											
	D	H	Z	K	D	H	Z	K								
1	0101	1010	1111	1211	1011	0111	1111	1211	2200	1010	1100	1112	1120	0000	2220	1112
2	1000	1120	1101	1212	0000	1101	1101	1212	0100	1111	1000	0122	0100	0001	1100	1122
33	1241	0322	3363	3323	1353	2123	3363	3323	0000	2111	1001	1212	0001	1011	1001	1212
4	2342	2121	3342	2212	3443	1111	3443	2222	3465	2211	4676	4323	4675	4212	4676	4323
5	1212	1110	1102	1222	0102	1011	1212	1222	1322	3322	2334	5232	2334	4221	2334	5332
6	1111	1110	2112	2201	1112	1100	2112	2211	2321	1111	2431	0112	2420	0000	2431	1112
7	0332	2233	2333	4234	0353	4223	2353	4234	3333	4110	2434	5212	2434	5100	3434	5212
8	2533	1222	3655	3223	2655	4222	3655	4223	0210	1021	2110	1222	0120	0011	2220	1222
9	3322	2222	3233	1334	2333	1122	3333	2334	1202	1131	1112	2322	1213	2111	1213	2332
10	3443	2120	3466	4212	3355	3100	3466	4222	0121	1120	2121	1111	1132	0000	2132	1121
11	1001	1120	2001	2211	1002	1000	2002	2221	2342	2323	4553	3344	3443	3234	4553	3344
12	1002	0120	1113	1212	0033	1000	1133	1222	3133	2222	2243	2223	3154	2112	3254	2223
13	2022	2120	2125	3210	0025	3100	2125	3220	1331	1111	2331	1212	2332	1101	2332	1212
14	1321	0110	0110	0001	0121	0000	1321	0111	0001	1110	1001	0112	0002	0000	1002	1112
15	1011	0020	1001	0200	0001	0000	1011	0220	0200	0011	1000	0111	0000	0000	1200	0111
16	1001	0220	2100	0212	0001	0000	2101	0222	0000	0110	1200	1212	0000	0001	1200	1212
17	1112	3331	2101	3433	1103	3211	2113	3433	1200	1200	2100	0212	2200	0000	2200	1212
18	4434	3332	6657	5323	4656	4101	6657	5333	0020	2111	1121	1221	0021	0000	1121	1221
19	3444	2321	2546	1223	1555	0001	3556	2323	0022	2111	0012	1112	0023	2000	0023	2112
20	3123	1210	4135	1111	3135	1000	4135	1211	0000	1120	2000	0111	0000	0011	2000	0121
21	0001	1211	1011	1212	0001	2100	1011	2212	0111	1220	1112	2211	0012	2100	1112	2221
22	0331	1120	2253	2222	1254	1001	2354	2222	1223	1211	2125	2221	2224	2100	2225	2221
23	0012	0020	1023	0211	0023	0010	1023	0221	0011	1211	1112	1321	1012	1000	1112	1321
24	0002	2120	1102	0101	0002	0000	1102	2121	0020	1111	1100	1211	0010	0111	1120	1211
25	0201	1120	2101	1202	0112	1000	2212	1222	1101	2211	1111	1223	0110	1222	1111	2223
26	1011	1220	1102	1101	0011	0000	1112	1221	1341	1221	3451	1223	1451	1001	3451	1223
27	0000	0011	0000	0211	0000	0000	0000	0211	1233	2211	2223	3222	1323	3100	2333	3222
28	0000	1110	1000	0102	0000	0000	1000	1112	0000	0111	1010	0121	0000	0010	1010	0121
29	0022	2232	1115	3323	0015	3211	1125	3333	0002	0111	1003	0122	0003	0011	1003	0122
30	2231	2212	2563	4213	1353	4012	2563	4213	0111	0020	2111	1211	1121	0100	2121	1221
31	1232	0111	2133	1112	1243	1001	2243	1112	1123	3221	2133	5223	1232	4102	2233	5223

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September					October											
	D	H	Z	K	D	H	Z	K								
1	3452	1212	3462	2212	2452	1113	3462	2213	2322	1100	2232	2211	2243	2200	2343	2211
2	3221	0110	3122	1221	2132	1100	3232	1221	1010	0111	1000	1111	1000	0000	1010	1111
3	2220	1111	2111	1212	0230	0010	2231	1212	0011	3222	1012	3323	0002	3312	1012	3323
4	0333	2110	2124	2232	0134	3011	2334	3232	2413	2323	3645	2333	3645	2333	3645	2333
5	1311	1101	2211	1110	1221	0000	2321	1110	4232	2222	3243	4332	4343	3111	4343	4332
6	0221	1112	1011	2223	0120	1012	1221	2223	1031	2212	1121	3322	1031	2213	1131	3323
7	2044	3332	2157	4443	2045	4233	2157	4443	3433	1111	4334	1212	4434	1111	4434	1212
8	3353	1222	3375	3323	3464	3111	3475	3323	1233	2221	2253	3322	1353	3122	2353	3322
9	3423	2221	2325	4222	2334	4112	3425	4222	1353	2111	2265	3221	2255	3011	2365	3221
10	4100	1110	2100	0212	3111	0001	4111	1212	1001	1211	1001	2211	1002	1100	1002	2211
11	0210	1010	2110	0110	0210	0000	2210	1110	0010	1111	0000	1211	0000	0110	0010	1211
12	1000	0000	0000	0000	0000	0000	1000	0000	0035	4310	1137	6222	1045	5211	1147	6322
13	0001	0010	0001	0110	0000	0000	0001	0110	0220	2110	1122	2112	1233	2111	1233	2112
14	0000	0010	0000	0100	0000	0000	0000	0110	1421	1100	1222	2111	1322	2000	1422	2111
15	0000	0121	0000	0111	0000	0000	0000	0121	0122	1011	0132	1111	0033	2110	0133	2111
16	0112	2332	0123	3233	0133	2222	0133	3333	0310	0100	0210	0011	0110	0000	0310	0111
17	1110	2111	1112	1211	2121	1000	2122	2211	0422	2100	0222	3111	0332	3210	0432	3211
18	0012	0110	0012	0110	0012	0000	0012	0110	0211	2223	1222	2222	0222	2123	1222	2223
19	0100	0100	0000	1110	0000	0000	0100	1110	2442	3332	2333	5432	2333	5422	2443	5432
20	0000	0100	0000	0000	0000	0000	0000	0100	4222	1111	3224	3212	3233	2111	4234	3212
21	0120	0110	0110	0112	0130	0000	0130	0112	3322	1221	1234	2332	1233	2222	3334	2332
22	5533	1210	6644	2222	6754	1010	6754	2222	0021	1100	2121	0110	1132	0000	2132	1110
23	1143	2010	2153	1122	0053	1000	2153	2122	0000	0110	0000	1111	0000	0100	0000	1111
24	0233	1121	1124	2122	0134	1011	1234	2122	0010	0211	0100	0112	0000	0001	0100	0212
25	1211	0011	2122	0112	0222	0000	2222	0112	1100	0010	1101	1101	1111	1100	1111	1111
26	1021	1010	1022	1111	0032	1000	1032	1111	0265	2110	2287	3221	1356	3110	2387	3221
27	0120	1111	0120	1113	0030	0002	0130	1113	1213	2110	1122	3211	1123	4101	1223	4211
28	3454	3411	4565	4433	4565	3422	4565	4433	1001	0111	1001	2111	0002	1011	1002	2111
29	0321	0010	1121	2012	0131	1001	1331	2012	2321	1211	2221	1111	1232	1110	2332	1211
30	0442	2212	2564	4222	1454	3212	2564	4222	0101	0000	1002	1111	1113	2010	1113	2111
31									0001	0100	0001	0111	0001	0100	0001	0111
November					December											
	D	H	Z	K	D	H	Z	K								
1	0222	2322	1122	2323	0232	2213	1232	2323	1122	2200	1132	2211	0133	2211	1133	2211
2	2421	1211	3332	1112	3332	1101	3432	1212	0011	0001	0011	0000	0011	0000	0011	0001
3	2011	0110	2120	0110	2110	0000	2121	0110	0012	1111	0001	1121	0011	1110	0012	1121
4	0200	2211	1102	3212	0101	3101	1202	3212	0101	1100	1101	1111	0001	1010	1101	1111
5	1000	1121	2101	3222	1101	2111	2101	3222	0001	0000	0000	0001	0001	0000	0001	0001
6	0021	1110	1111	2211	1011	1101	1121	2211	0010	0010	0010	1011	0000	0000	0010	1011
7	0000	0010	1000	0100	0000	0000	1000	0110	0002	2200	0102	3212	0003	3121	0103	3212
8	0121	2121	2221	2222	1231	1111	2231	2222	0122	1111	1210	1011	0310	1000	1410	1011
9	3433	2222	2444	3322	3444	2112	3444	3322	1410	0011	0122	1001	0022	0100	0122	1011
10	3211	1011	2131	1112	2233	1101	3233	1112	0120	0000	1121	0100	0120	0000	1121	0100
11	0132	0010	1132	1111	0133	0010	1133	1111	0010	0100	0010	0001	0021	0000	0021	0101
12	1310	1111	1321	1111	1421	1101	1421	1111	0100	0100	0000	1100	0000	0000	0100	1100
13	1232	1110	0133	2110	1132	2100	1233	2110	0001	1321	0011	0322	0002	0120	0012	1322
14	0000	0100	1011	0000	0010	0000	1011	0100	1123	1110	1123	1111	0124	1101	1124	1111
15	0121	2321	0011	4322	0021	4312	0121	4322	1301	1000	1212	2110	1112	2000	1312	2110
16	1032	1100	2143	2212	2143	1111	2143	2212	0212	4211	1114	6212	0124	5100	1224	6212
17	0010	1100	1111	1211	0011	1110	1111	1211	2322	1111	3234	1111	3444	1111	3444	1111
18	0020	0111	1010	0111	0010	0000	1020	0111	1110	1010	1111	0101	1111	1000	1111	1111
19	0100	0000	0000	0110	0000	0000	0100	0110	0101	1111	1111	2221	0011	2221	1111	2221
20	0002	0000	1002	0100	0002	0000	1002	0100	0002	1110	1002	1110	0002	1010	1002	1110
21	0010	0101	0110	1111	0010	0001	0110	1111	0021	1100	0111	1100	0012	1000	0122	1100
22	1113	0101	1123	1211	0023	1111	1123	1211	0100	0110	0101	1100	0100	0100	0101	1110
23	1245	4210	1456	5421	2436	5321	1456	5421	0331	1010	0221	2101	0121	1100	0331	2111
24	1121	0000	0122	0110	0122	0000	1122	0110	0110	1010	0110	1111	0010	0000	0110	1111
25	0000	0100	0000	0111	0000	0000	0000	0111	0010	1111	0001	1111	0010	1101	0011	1111
26	0124	3200	1125	2211	0134	3211	1135	3211	2001	0110	1001	1100	1001	1000	2001	1110
27	0000	0011	0110	0112	0110	0111	0110	0112	0000	0010	1000	0101	0010	0000	1010	0111
28	2232	1110	2132	1221	2232	2121	2232	2221	0000	0011	1000	0011	0000	0000	1000	0011
29	0001	0100	0001	0012	0000	0000	0001	0112	0020	1010	1030	1100	0031	0000	1031	1110
30	1321	1001	3201	1001	1213	0000	3323	1001	0000	0010	0000	0100	0000	0000	0000	0110
31									0010	0100	1010	1100	0010	1000	1010	1100