CRPL-F75

IONOSPHERIC DATA

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U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
WASHINGTON, D. C.

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CONTENTS

SYMBOLS, TERMINOLOGY, CONVENTIONS

Beginning with data reported for January 1949, the symbols, terminology, and conventions for the determination of median values used in this report (CRPL-F series) conform as far as practicable to those adopted at the Fifth Meeting of the International Radio Consultative Committee (C.C.I.R.) in Stockholm, 1948, and given in detail on pages 2 to 10 of the report CRPL-F53, "Ionospheric Data," issued January 1949.

For symbols and terminology used with data prior to January 1949, see report IRPL-C61, "Report of International Radio Propagation Conference, Washington, 17 April to 5 May, 1944," previous issues of the F series, in particular, IRPL-F5, CRPL-F24, F33, F50, and report CRPL-7-1, "Preliminary Instructions for Obtaining and Reducing Manual Ionospheric Records."

Following the recommendations of the Washington (1944) and Stockholm (1948) conferences, beginning with data for January 1945, median values are published wherever possible. Where averages are reported, they are, at any hour, the average for all the days during the month for which numerical data exist.

In addition to the conventions for the determination of medians given in Appendix 5 of Document No. 293 E of the Stockholm conference, which are listed on pages 9 and 10 of CRPL-F53, the following conventions are used in determining the medians for hours when no measured values are given because of equipment limitations and ionospheric irregularities. Symbols used are those given on pages 2-9 of CRPL-F53 (Appendixes 1-4 of Document No. 293 E referred to above).

a. For all ionospheric characteristics:

Values missing because of A, B, C, F, L, M, N, Q, R, S, or T (see terminology referred to above) are omitted from the median count.

b. For critical frequencies and virtual heights:

Values of foF2 (and foE near sunrise and sunset) missing because of E are counted as equal to or less than the lower limit of the recorder. Values of h'F2 (and h'E near sunrise and sunset) missing for this reason are counted as equal to or greater than the median. Other characteristics missing because of E are omitted from the median count. See CRPL-F38, page 9.

Values missing because of D are counted as equal to or greater than the upper limit of the recorder.

Values missing because of G are counted:
1. For foF2, as equal to or less than foF1.
2. For h'F2, as equal to or greater than the median.

Values missing because of W are counted:
1. For foF2, as equal to or less than the median when it is apparent that h'F2 is unusually high; otherwise, values missing because of W are omitted from the median count.
2. For h'F2, as equal to or greater than the median.

Values missing for any other reason are omitted from the median count.

c. For MUF factor (M-factors):

Values missing because of G or W are counted as equal to or less than the median.

Values missing for any other reason are omitted from the median count.

d. For sporadic E (Es):

Values of fEs missing because of G (no Es reflections observed, the equipment functioning normally otherwise) are counted as equal to or less than the median foE, or equal to or less than the lower frequency count of the recorder.

Values of fEs missing for any other reason, and values of h'Es missing for any reason at all are omitted from the median count.

Beginning with data for November 1945, doubtful monthly median values for ionospheric observations at Washington, D. C., are indicated by parentheses, in accordance with the practice already in use for doubtful hourly values. The following are the conventions used to determine whether or not a median value is doubtful:

1. If only four values or less are available, the data are considered insufficient and no median value is computed.

2. For the F2 layer, if only five to nine values are available, the median is considered doubtful. The E and F1 layers are so regular in their characteristics that, as long as there are at least five values, the median is not considered doubtful.

3. For all layers, if more than half of the values used to compute the median are doubtful (either doubtful or interpolated), the median is considered doubtful.

The same conventions are used by the CRPL in computing the medians from tabulations of daily and hourly data for stations other than Washington, beginning with the tables in IRPL-F18.

The tables and graphs of ionospheric data are correct for the values reported to the CRPL, but, because of variations in practice in the interpretation of records and scaling and manner of reporting of values, may at times give an erroneous conception of typical ionospheric characteristics at the station. Some of the errors are due to:

a. Differences in scaling records when spread echoes are present.

b. Omission of values when foF2 is less than or equal to foF1, leading to erroneously high values of monthly averages or median values.

c. Omission of values when critical frequencies are less than the lower frequency limit of the recorder, also leading to erroneously high values of monthly average or median values.

These effects were discussed on pages 6 and 7 of the previous F-series report IRPL-F5.

Ordinarily, a blank space in the fEs column of a table is the result of the fact that a majority of the readings for the month are below the lower limit of the recorder or less than the corresponding values of foE. Blank spaces at the beginning and end of columns of h'F1, foF1, h'E, and foE are usually the result of diurnal variation in these characteristics. Complete absence of medians of h'F1 and foF1 is usually the result of seasonal effects.

The dashed-line prediction curves of the graphs of ionospheric data are obtained from the predicted zero-muf contour charts of the CRPL-D series publications. The following points are worthy of note:

a. Predictions for individual stations used to construct the charts may be more accurate than the values read from the charts since some smoothing of the contours is necessary to allow for the longitude effect within a zone. Thus, inasmuch as the predicted contours are for the center of each zone, part of the discrepancy between the predicted and observed values as given in the F series may be caused by the fact that the station is not centrally located within the zone.

b. The final presentation of the predictions is dependent upon the latest available ionospheric and radio propagation data, as well as upon predicted sunspot number.

c. There is no indication on the graphs of the relative reliability of the data; it is necessary to consult the tables for such information.

The following predicted smoothed 12-month running-average Zürich sunspot numbers were used in constructing the contour charts:

Month	Predicted Sunspot Number					
	1950	1949	1948	1947	1946	1945
December		108	114	126	85	38
November		112	115	124	83	36
October	90	114	116	119	81	23
September	91	115	117	121	79	22
August	96	111	123	122	77	20
July	101	108	125	116	73	
June	103	108	129	112	67	
May	102	108	130	109	67	
April	101	109	133	107	62	
March	103	111	133	105	51	
February	103	113	133	90	46	
January	105	112	130	88	42	

WORLD-WIDE SOURCES OF IONOSPHERIC DATA

The ionospheric data given here in tables 1 to 51 and figures 1 to 100 were assembled by the Central Radio Propagation Laboratory for analysis and correlation, incidental to CRPL prediction of radio propagation conditions. The data are median values unless otherwise indicated. The following are the sources of the data in this issue:

Commonwealth of Australia, Ionospheric Prediction Service of the Commonwealth Observatory:
- Brisbane, Australia
- Canberra, Australia
- Hobart, Tasmania

Australian Department of Supply and Shipping, Bureau of Mineral Resources, Geology and Geophysics:
- Watheroo, West Australia

French Ministry of Naval Armaments (Section for Scientific Research):
- Dakar, French West Africa
- Fribourg, Germany

National Laboratory of Radio-Electricity (French Ionospheric Bureau):
Domont, France
Poitiers, France

Institute for Ionospheric Research, Lindau Uber Northeim, Hannover, Germany:
Lindau/Harz, Germany

The Royal Netherlands Meteorological Institute:
De Bilt, Holland

All India Radio (Government of India), New Delhi, India:
Bombay, India
Delhi, India
Madras, India
Tiruchy (Tiruchirapalli), India

Radio Regulatory Commission, Tokyo, Japan:
Akita, Japan
Tokyo (Kokubunji), Japan
Wakkanai, Japan
Yamagawa, Japan

Christchurch Geophysical Observatory, New Zealand Department of Scientific and Industrial Research:
Campbell I.
Christchurch, New Zealand
Rarotonga I.

Norwegian Defense Research Establishment, Kjeller per Lillestrom, Norway:
Oslo, Norway

South African Council for Scientific and Industrial Research:
Capetown, Union of South Africa
Johannesburg, Union of South Africa

United States Army Signal Corps:
Okinawa I.

National Bureau of Standards (Central Radio Propagation Laboratory):
Baton Rouge, Louisiana (Louisiana State University)
Boston, Massachusetts (Harvard University)
Guam I.
Huancayo, Peru (Institute Geofisico de Huancayo)
Maui, Hawaii
San Francisco, California (Stanford University)
San Juan, Puerto Rico (University of Puerto Rico)
Trinidad, British West Indies
Washington, D. C.
White Sands, New Mexico

HOURLY IONOSPHERIC DATA AT WASHINGTON, D. C.

The data given in tables 52 to 63 follow the scaling practices given in the report IRPL-C61, "Report of International Radio Propagation Conference," pages 36 to 39, and the median values are determined by the conventions given above under "Symbols, Terminology, Conventions." Beginning with September 1949, the data are taken at a new location, Ft. Belvoir, Virginia.

IONOSPHERIC STORMINESS AT WASHINGTON, D. C.

Table 64 presents ionosphere character figures for Washington, D. C., during October 1950, as determined by the criteria given in the report IRPL-R5, "Criteria for Ionospheric Storminess," together with Cheltenham, Maryland, geomagnetic K-figures, which are usually covariant with them.

RADIO PROPAGATION QUALITY FIGURES

Table 65 gives provisional radio propagation quality figures for the North Atlantic and North Pacific areas, for 01 to 12 and 13 to 24 GCT, September 1950, compared with the CRPL daily radio disturbance warnings, which are primarily for the North Atlantic paths, the CRPL weekly radio propagation forecasts of probable disturbed periods, and the half-day Cheltenham, Maryland, geomagnetic K-figures.

The radio propagation quality figures are prepared from radio traffic and ionospheric data reported to the CRPL, in a manner basically the same as that described in IRPL-R31, "North Atlantic Radio Propagation Disturbances, October 1943 through October 1945," issued February 1, 1946. The scale conversions for each report are revised for use with the data beginning January 1948, and statistical weighting replaces what was, in effect, subjective weighting. Separate master distribution curves of the type described in IRPL-R31 were derived for the part of 1946 covered by each report; data received only since 1946 are compared with the master curve for the period of the available data. A report whose distribution is the same as the master is thereby converted linearly to the Q-figure scale. Each report is given a statistical weight which is the reciprocal

of the departure from linearity. The half-daily radio propagation quality figure, beginning January 1948, is the weighted mean of the reports received for that period.

These radio propagation quality figures give a consensus of opinion of actual radio propagation conditions as reported by the half day over the two general areas. It should be borne in mind, however, that though the quality may be disturbed according to the CRPL scale, the cause of the disturbance is not necessarily known. There are many variables that must be considered. In addition to ionospheric storminess itself as the cause, conditions may be reported as disturbed because of seasonal characteristics such as are particularly evident in the pronounced day and night contrast over North Pacific paths during the winter months, or because of improper frequency usage for the path and time of day in question. Insofar as possible, frequency usage is included in rating the reports. Where the actual frequency is not shown in the report to the CRPL, it has been assumed that the report is made on the use of optimum working frequencies for the path and time of day in question. Since there is a possibility that all disturbance shown by the quality figures is not due to ionospheric storminess alone, care should be taken in using the quality figures in research correlations with solar, auroral, geomagnetic, or other data. Nevertheless, these quality figures do reflect a consensus of opinion of actual radio propagation conditions as found on any one half day in either of the two general areas.

RELATIVE SUNSPOT NUMBERS

Table 66 presents the daily American relative sunspot number, R_A, computed from observations communicated to CRPL by observers in America and abroad. Beginning with the observations for January 1948, a new method of reduction of observations is employed such that each observer is assigned a scale-determining "observatory coefficient," ultimately referred to Zürich observations in a standard period, December 1944 to September 1945, and a statistical weight, the reciprocal of the variance of the observatory coefficient. The daily numbers listed in the table are the weighted means of all observations received for each day. Details of the procedure are given in the Publication of the Astronomical Society of the Pacific, issued February 1949, in an article entitled "Reduction of Sunspot-Number Observations." The American relative sunspot number computed in this way is designated R_A. It is noted that a number of observatories abroad, including the Zürich observatory, are included in R_A. The scale of R_A was referred specifically to that of the Zürich relative sunspot numbers in the standard comparison period; since that time, R_A is influenced by the Zürich observations only in that Zürich proves to be a consistent observer and receives a high statistical weight. In addition this table lists the daily provisional Zürich sunspot numbers, R_Z.

OBSERVATIONS OF THE SOLAR CORONA

Tables 67 through 69 give the observations of the solar corona during October 1950 obtained at Climax, Colorado, by the High Altitude Observatory of Harvard University and the University of Colorado. Tables 70 through 72 list the coronal observations obtained at Sacramento Peak, New Mexico, during October 1950, derived by the High Altitude Observatory from spectrograms taken by Harvard University as a part of its performance of an Air Materiel Command research and development contract administered by the Air Force Cambridge Research Laboratories. The data are listed separately for east and west limbs at 5-degree intervals of position angle north and south of the Solar Equator at the limb. The time of observation is given to the nearest tenth of a day, GCT.

Table 67 gives the intensities of the green (5303A) line of the emission spectrum of the solar corona; table 68 gives similarly the intensities of the first red (6374A) coronal line; and table 69, the intensities of the second red (6702A) coronal line; all observed at Climax in October 1950.

Table 70 gives the intensities of the green (5303A) coronal line; table 71, the intensities of the first red (6374A) coronal line; and table 72, the intensities of the second red (6702A) coronal line; all observed at Sacramento Peak in October 1950.

The following symbols are used in tables 67 through 72: a, observation of low weight; -, corona not visible; and X, position angle not included in plate estimates.

OBSERVATIONS OF SOLAR FLARES

Table 73 gives the preliminary record of solar flares reported to the CRPL. These reports are communicated on a rapid schedule at the sacrifice of detailed accuracy. Definitive and complete records are published later in the Quarterly Bulletin of Solar Activity, I.A.U., in various observatory publications, and elsewhere. The present listing serves to identify and roughly describe the phenomena observed. Details should be sought from the reporting observatory.

Reporting directly to the CRPL are the following observatories: Mt. Wilson, McMath-Hulbert, U.S. Naval, Wendelstein, Kanzel, and High Altitude at Boulder, Colorado. The remainder report to Meudon (Paris), and the data are taken from the Paris URSIgram broadcast, monitored fairly regularly by the CRPL. The data on solar flares reported from Boulder, Colorado are provided by Harvard University as the result of work undertaken on an Air Materiel Command Research and Development Contract administered by the Air Force Cambridge Research Laboratories.

The table lists for each flare the reporting observatory, date, times of beginning and ending of observation, duration (when known), total area (corrected for foreshortening), and heliographic coordinates. For the maximum phase of the flare is given the time, intensity, area relative to the total area, and the importance. The column "SID observed" is to indicate when a sudden ionosphere disturbance, noted elsewhere in these reports, occurred at the time of a flare. Times are in Universal Time (GCT).

INDICES OF GEOMAGNETIC ACTIVITY

Table 74 lists various indices of geomagnetic activity based on data from magnetic observatories widely distributed throughout the world. The indices are: (1) preliminary mean 3-hourly K-indices, Kw; (2) preliminary international character-figures, C; (3) geomagnetic planetary three-hour-range indices, Kp; (4) magnetically selected quiet and disturbed days.

Kw is the arithmetic mean of the K-indices from all reporting observatories for each three hours of the Greenwich day, on a scale 0 (very quiet) to 9 (extremely disturbed). The C-figure is the arithmetic mean of the subjective classification by all observatories of

each day's magnetic activity on a scale of 0 (quiet) to 2 (storm). The magnetically quiet and disturbed days are selected by the international scheme outlined on pages 219-227 in the December 1943 issue of Terrestrial Magnetism and Atmospheric Electricity.

Kp is the mean standardized K-index from 11 observatories between geomagnetic latitudes 47 and 63 degrees. The scale is 0 to 9, expressed in thirds of a unit, e.g., 5- is 4 2/3, 5o is 5 0/3, and 5 + is 5 1/3. This planetary index is designed to measure solar particle-radiation by its magnetic effects, specifically to meet the needs of research workers in the ionospheric field. A complete description of Kp has appeared in Bulletin 12b, "Geomagnetic Indices C and K, 1948," published in Washington, D. C., 1949, by the Association of Terrestrial Magnetism and Electricity, International Union of Geodesy and Geophysics. Tables of Kp for 1945-48 are in Bulletin 12b; for 1940-44 and 1949, in these CRPL-F reports, F65-67; for 1950, monthly in F68 and following issues. Current tables are also published quarterly in the Journal of Geophysical Research along with data on sudden commencements (sc) and solar flare effects (sfe).

The Committee on Characterization of Magnetic Disturbance, ATME, IUGG, has kindly supplied this table. The Meteorological Office, De Bilt, Holland, collects the data and compiles Kw, C and selected days. The Chairman of the Committee computes the planetary index.

SUDDEN IONOSPHERE DISTURBANCES

Table 75 lists the sudden ionosphere disturbances observed at Fort Belvoir, Virginia, October 1950.

TABLES OF IONOSPHERIC DATA

Table 1

Washington, D. C. (38.7°N, 77.1°W) October 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	(3.7)						2.8
01	290	(3.6)						(2.9)
02	280	3.4						2.9
03	280	3.2						3.0
04	280	2.7						3.0
05	280	2.4						2.9
06	280	3.0			---	---		3.0
07	240	5.6			(120)	2.0		3.3
08	240	7.0	230	---	110	2.5		3.3
09	260	7.7	220	4.1	110	2.8		3.2
10	260	7.8	210	4.3	100	3.0		3.2
11	270	8.2	200	4.4	100	3.0		3.1
12	270	9.2	210	4.6	100	3.1		3.1
13	270	9.2	210	4.4	(100)	3.1		3.0
14	270	9.1	220	4.4	100	3.0		3.0
15	260	9.2	230	4.1	110	2.7		3.1
16	240	8.8	240	---	110	2.4		3.2
17	230	(8.1)	---	---	(120)	1.8		(3.2)
18	220	(7.1)			---	---		(3.2)
19	230	5.7						3.1
20	250	4.8						3.0
21	280	4.2						2.9
22	300	(3.9)						(2.8)
23	300	(3.8)						(2.8)

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 15 seconds.

Table 2

Oslo, Norway (60.0°N, 11.0°E) September 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	320	2.8						2.8
01	310	(2.6)					2.0	(2.7)
02	320	2.4					2.0	2.8
03	310	2.4					1.7	2.8
04	300	2.3					2.0	2.8
05	290	2.5			---	---		3.0
08	250	3.4	---	---	130	1.8	1.7	3.2
07	260	4.0	230	3.2	115	2.1	2.1	3.2
08	300	4.4	220	3.7	115	2.4	2.5	3.2
09	335	4.9	215	4.0	110	2.6	2.8	3.1
10	330	5.2	210	4.1	105	2.8	3.0	3.1
11	310	5.8	205	4.2	105	2.9	3.0	3.2
12	300	6.1	205	4.2	105	3.0	3.1	3.2
13	300	5.9	205	4.2	105	2.9	2.9	3.2
14	295	6.0	210	4.1	105	2.9	3.0	3.2
15	280	5.9	215	4.0	110	2.7	2.9	3.2
16	265	5.8	225	3.8	110	2.5	2.6	3.2
17	260	5.8	235	3.3	115	2.2	2.5	3.1
18	255	6.0	240	2.8	140	2.0	2.4	3.2
19	250	(5.8)			---	---	2.4	3.0
20	250	(5.4)						3.1
21	255	(4.3)						3.1
22	270	3.2					2.1	3.0
23	295	(2.8)						2.8

Time: 15.0°E.
Sweep: 1.3 Mc to 14.0 Mc in 8 minutes, automatic operation.

Table 3

Boston, Massachusetts (42.4°N, 71.2°W) September 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	3.3						2.9
01	280	3.2						2.9
02	290	2.8						2.9
03	280	(2.7)						(2.9)
04	280	(2.4)						(2.9)
05	300	2.3						3.0
06	240	4.2	---	---	125	1.9		3.2
07	240	5.1	230	3.4	120	2.4		3.3
08	270	5.6	220	3.8	120	2.7		3.3
09	280	6.1	210	4.0	120	2.9		3.3
10	300	6.5	200	4.3	120	3.1		3.2
11	300	6.4	200	4.4	120	3.2		3.2
12	300	6.6	200	4.5	120	3.1		3.1
13	300	6.6	220	4.4	120	3.1		3.1
14	300	6.8	220	4.3	120	3.0		3.2
15	280	6.8	220	4.0	120	2.8		3.1
16	270	6.7	230	3.8	120	2.7		3.1
17	240	6.7	240	3.3	130	2.3		3.2
18	230	8.8			---	---		3.1
19	230	6.5						3.1
20	240	5.5						3.0
21	260	4.7						3.0
22	280	3.8						2.9
23	290	3.8						2.9

Time: 75.0°W.
Sweep: 0.5 Mc to 18.0 Mc in 1 minute.

Table 4

San Francisco, California (37.4°N, 122.2°W) September 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	3.6						2.7
01	320	3.6						2.7
02	320	3.5						2.8
03	300	3.6						2.8
04	300	3.6						2.8
05	290	3.5					2.2	2.9
06	270	4.1	---	---	---	---	2.6	3.0
07	270	5.6	240	3.6	120	2.4	2.2	3.2
08	290	6.4	220	4.1	120	2.8		3.1
09	280	6.6	210	4.4	110	3.1	3.7	3.2
10	300	6.6	200	4.6	110	3.4		3.0
11	330	7.4	200	4.7	110	3.6		2.9
12	310	7.5	200	4.8	120	3.6		2.9
13	310	7.6	220	4.8	110	3.7		3.0
14	300	7.8	220	4.7	110	---		3.0
15	280	7.7	230	4.5	120	---		3.1
16	270	7.4	240	4.2	120	2.8		3.2
17	250	7.3	240	3.3	120	2.4		3.2
18	240	6.2						3.3
19	240	5.8					2.2	3.2
20	240	4.9						3.1
21	260	4.2						2.9
22	280	3.8						2.8
23	300	3.8						2.8

Time: 120.0°W.
Sweep: 1.3 Mc to 18.0 Mc in 4 minutes.

Table 5

White Sands, New Mexico (32.3°N, 106.5°W) September 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	3.9					2.0	2.7
01	300	3.9						2.7
02	280	3.9						2.7
03	270	3.9					2.2	2.8
04	280	3.9					2.3	2.8
05	270	3.8					2.5	2.8
08	260	4.8			120	---	3.4	3.1
07	250	8.4	230	---	110	(2.4)	4.6	3.2
08	260	6.8	220	4.3	110	(2.8)	4.7	3.2
09	290	8.9	220	(4.6)	110	(3.2)	4.8	3.1
10	320	7.1	210	(4.8)	110	(3.4)	4.9	2.9
11	320	7.4	210	(4.9)	110	(3.6)	5.0	2.8
12	320	8.1	210	5.0	110	3.6		2.8
13	320	8.7	220	4.9	110	3.8	4.5	2.8
14	300	8.9	220	4.8	110	3.4		3.0
15	290	9.0	230	4.6	110	3.2	3.8	3.0
18	280	8.8	230	---	110	2.8	3.5	3.1
17	250	8.7	240	---	110	2.4	3.3	3.2
18	230	7.4	---	---	---	---	2.6	3.2
19	220	6.1					2.2	3.1
20	230	5.3					2.2	3.0
21	260	4.3						2.8
22	280	4.0						2.8
23	280	3.9					2.3	2.7

Time: 105.0°W.
Sweep: 0.8 Mc to 14.0 Mc in 2 minutes.

Table 6

Baton Rouge, Louisiana (30.5°N, 91.2°W) September 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	330	4.0						2.8
01	330	4.0						2.8
02	330	4.0						2.9
03	320	4.0						2.9
04	320	3.8						2.9
05	300	3.8						2.9
06	290	4.9						3.2
07	270	6.8	250	---	120	2.6		3.2
08	280	7.2	230	---	120	2.9		3.2
09	290	7.0	230	4.1	120	(3.2)		3.0
10	320	7.3	230	4.6	120	(3.5)		3.0
11	330	8.0	230	4.9	---	(3.5)		2.9
12	340	8.4	240	4.8	---	---		2.9
13	330	8.7	250	4.9	---	(3.5)		2.8
14	330	9.2	260	4.8	---	(3.5)		2.9
15	320	9.4	250	---	120	(3.3)		2.9
16	300	9.0	250	---	120	(3.0)		3.0
17	270	9.0	270	---	130	(2.5)		3.1
18	250	8.4						3.1
19	250	7.0						3.1
20	270	5.5						3.0
21	300	4.6						2.9
22	310	4.1						2.9
23	320	4.0						2.8

Time: 90.0°W.
Sweep: 2.12 Mc to 14.1 Mc in 5 minutes, automatic operation.

Table 7

Okinawa I. (26.3°N, 127.7°E) September 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	5.9					2.2	2.8
01	290	5.6					2.0	2.9
02	260	6.4						2.9
03	250	4.8						3.0
04	220	4.2						3.3
05	230	3.2						3.1
06	260	3.7					2.1	3.0
07	240	6.8			120	2.2	2.9	3.5
08	240	7.5	230	---	110	2.5	4.0	3.4
09	260	7.8	220	---	110	3.0	4.1	3.4
10	270	7.9	210	5.0	110	3.4	4.2	3.2
11	310	9.0	200	---	110	3.5	4.3	2.9
12	310	10.5	210	5.1	110	3.7	4.9	2.9
13	310	11.4	220	5.0	120	3.6	4.2	3.0
14	300	12.2	220	4.9	120	3.5	4.2	3.0
15	300	11.8	230	4.8	110	3.4	2.6	3.1
16	280	11.8	230	---	110	3.0	3.9	3.1
17	270	11.6	230	---	110	2.6	3.8	3.2
18	240	10.9			120	---	3.7	3.3
19	230	10.3					4.0	3.3
20	220	8.4					3.3	3.1
21	240	7.0					2.8	2.9
22	280	6.2						2.8
23	300	6.2					2.1	2.8

Time: 135.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 15 seconds, automatic operation.

Table 8

Maui, Hawaii (20.8°N, 156.5°W) September 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	5.0						2.8
01	260	5.2						3.0
02	230	4.8						3.2
03	230	4.0						3.2
04	250	3.0						3.0
05	270	2.8						3.0
06	270	3.4			---	---	1.6	3.1
07	230	6.4	---	---	110	2.3	4.0	3.4
08	250	7.4	220	---	110	2.8	6.6	3.3
09	290	8.0	210	4.8	110	3.2	6.4	2.9
10	320	9.2	210	5.0	110	3.4	4.8	2.8
11	340	10.1	200	5.0	110	3.5	4.5	2.8
12	340	11.0	200	5.0	110	3.6	4.8	2.8
13	330	12.0	210	6.0	110	3.6	4.6	2.9
14	310	12.6	210	5.0	100	3.5	4.6	3.0
15	290	13.1	220	4.8	110	3.3	4.4	3.1
16	270	13.2	220	4.5	100	3.0	4.4	3.2
17	240	12.4	230	---	110	2.4	4.0	3.3
18	220	11.2			---	---	3.9	3.4
19	220	8.4					3.9	3.2
20	230	7.2					3.8	3.0
21	250	(6.3)					2.4	(2.7)
22	290	5.2					2.3	2.7
23	280	5.2					1.8	2.8

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 15 seconds.

Table 9

San Juan, Puerto Rico (18.4°N, 66.0°W) September 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	4.9						2.7
01	250	5.2						2.7
02	240	5.2						2.8
03	230	4.9						2.8
04	(240)	4.2						2.9
05	---	4.0						2.8
06	(240)	4.1						2.7
07	230	6.6						3.0
08	250	7.0		---		3.2		3.0
09	260	7.6		4.9		---		2.9
10	290	8.3		4.9		3.6		2.8
11	290	9.3		5.0		(3.7)	3.8	2.8
12	290	10.0		5.0		---		2.8
13	290	10.7		4.9		(3.7)		2.8
14	280	10.8		4.9		(3.6)	3.7	2.8
15	280	10.8		4.8		3.5	4.4	2.9
16	270	10.7		4.7		(3.3)	4.5	2.9
17	240	10.1		---		---	3.9	2.9
18	230	(9.2)						(2.9)
19	230	(8.2)						(2.8)
20	240	(7.1)						(2.8)
21	240	(5.8)						(2.8)
22	260	(5.0)						(2.7)
23	260	(4.8)						(2.7)

Time: 60.0°W.
Sweep: 2.8 Mc to 13.0 Mc in 9 minutes, automatic operation; supplemented by manual operation.

Table 10

Guam I. (13.6°N, 144.9°E) September 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	9.0					1.7	3.0
01	250	(9.5)						(3.2)
02	230	(7.6)						(3.3)
03	220	(5.4)						(3.2)
04	240	4.3					1.4	3.2
06	250	3.4					1.7	3.3
06	260	3.5			---	---	2.0	3.0
07	240	7.1	---	---	120	2.3	3.9	3.2
08	280	8.6	220	---	110	(2.8)	4.2	3.0
09	300	9.8	210	---	110	(3.2)	4.7	2.8
10	320	10.0	200	---	110	(3.4)	4.4	2.6
11	340	10.2	210	4.9	110	3.5	4.6	2.4
12	340	10.4	200	(4.9)	110	(3.6)	4.0	2.4
13	340	11.1	210	(4.9)	110	(3.6)	4.4	2.5
14	340	11.8	220	(4.8)	120	(3.6)	3.9	2.6
15	320	12.2	230	---	120	(3.3)	4.2	2.8
18	300	13.0	230	---	120	(3.1)	4.3	2.9
17	280	12.7	230	---	120	---	4.3	2.9
18	260	12.4					4.1	2.8
19	290	11.8					3.6	2.7
20	280	11.5					2.9	2.8
21	260	(11.0)					3.5	(2.9)
22	250	(10.2)					3.1	(2.8)
23	260	(10.1)					2.2	(2.9)

Time: 150.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 16 seconds.

Table 11

Trinidad, Brit. West Indies (10.6°N, 61.2°W) September 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	6.6						3.2
01	240	6.0						3.2
02	230	5.5						3.3
03	240	4.6						3.2
04	240	4.6						3.3
05	250	4.0						3.2
06	240	4.6			---	---		3.4
07	220	6.8			100	2.5	3.0	3.6
08	230	7.3	200	4.6	100	3.0	3.6	3.5
09	270	8.2	200	4.9	100	3.4	4.3	3.3
10	280	9.4	200	5.0	100	3.6	4.6	3.1
11	300	10.2	200	5.1	100	3.7	4.8	3.1
12	280	11.4	200	5.0	100	3.8	4.8	3.2
13	280	11.8	200	6.0	100	3.7	4.9	3.1
14	280	12.2	200	5.0	100	3.6	4.8	3.2
15	260	12.1	210	4.8	100	3.4	5.0	3.3
16	260	12.0	220	4.5	100	3.0	5.0	3.3
17	240	11.2	220	---	100	2.5	4.4	3.4
18	220	10.1			---	---	3.6	3.3
19	220	9.0					3.0	3.2
20	230	8.6						3.2
21	240	7.7						3.1
22	260	7.2						3.0
23	260	6.8						3.0

Time: 60.0°W.
Sweep: 1.2 Mc to 19.5 Mc, manual operation.

Table 12

Huancayo, Peru (12.0°S, 75.3°W) September 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	220	8.3					3.1	3.1
01	230	7.2					2.9	3.2
02	240	5.8					3.1	3.2
03	240	6.2					3.1	3.2
04	260	4.6					3.1	3.2
05	280	3.8					3.3	3.1
06	270	5.6			110	1.7	4.3	3.0
07	240	8.0	230	---	100	2.6	7.9	3.1
08	300	9.3	220	4.8	110	(3.0)	12.0	2.8
09	310	9.7	210	4.8	110	---	12.0	2.6
10	320	9.0	210	4.8	110	---	12.0	2.6
11	340	8.5	210	4.9	110	---	12.2	2.6
12	350	8.6	210	5.0	110	---	12.0	2.6
13	330	8.9	200	4.8	110	---	12.1	2.6
14	320	9.0	200	4.7	110	---	12.0	2.6
15	310	9.0	210	4.6	110	---	12.0	2.4
16	300	9.2	220	---	110	2.7	11.9	2.6
17	260	9.3			110	2.2	8.4	2.5
18	290	9.0			110	---	3.0	2.6
19	330	8.5					2.6	2.5
20	300	8.7					2.8	2.6
21	240	8.9					3.1	2.8
22	230	8.9					3.2	3.0
23	220	8.8					3.1	3.2

Time: 75.0°W.
Sweep: 16.0 Mc to 0.6 Mc in 15 minutes, automatic operation.

Table 13

DeBilt, Holland (52.1°N, 5.2°E) August 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	4.4					2.6	2.9
01	270	4.0					2.7	2.9
02	270	3.9					2.9	3.0
03	260	3.5					2.9	2.9
04	260	3.2					3.0	3.0
05	220	4.3	---	---	100	1.7	3.4	3.2
06	280	5.3	300	3.6	100	2.3	4.3	3.2
07	290	5.9	300	3.9	100	2.6	4.1	3.2
08	280	6.2	300	4.3	100	3.0	4.4	3.2
09	290	6.3	300	4.5	100	3.2	4.8	3.2
10	300	8.1	300	4.6	100	3.3	4.5	3.2
11	300	6.2	300	4.7	95	3.3	4.6	3.2
12	300	6.2	300	4.7	100	3.4	4.6	3.2
13	300	6.3	300	4.7	100	3.4	3.6	3.2
14	300	6.3	300	4.6	100	3.2	3.8	3.2
15	290	8.4	300	4.5	100	3.1	3.4	3.2
16	280	6.4	300	4.1	100	2.8	3.5	3.2
17	260	6.9	310	3.8	100	2.4	3.6	3.2
18	240	6.8	320	2.9	105	2.0	3.4	3.2
19	220	7.5			---	---	3.2	3.2
20	210	7.3					2.8	3.2
21	210	8.6					2.7	3.2
22	230	5.9					2.9	3.0
23	230	4.8					2.8	3.0

Time: 0.0°.
Sweep: 1.4 Mc to 16.0 Mc in 7 minutes, automatic operation.

Table 14

Lindau/Harz, Germany (51.6°N, 10.1°E) August 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	5.0					2.5	2.7
01	290	4.6					2.6	2.7
02	280	4.5					2.8	2.7
03	280	3.9					2.7	2.8
04	280	3.8			---	E	2.8	2.8
05	270	3.8	---	---	---	E	3.0	3.0
06	260	4.8	240	---	100	2.0	3.4	3.0
07	300	5.6	230	3.9	100	2.4	4.3	3.1
08	310	6.1	220	4.3	100	2.8	5.0	3.0
09	300	8.2	210	4.4	100	3.1	5.3	3.1
10	320	6.3	200	4.6	100	3.2	5.3	3.0
11	310	6.0	210	4.7	100	3.4	5.4	2.9
12	310	6.1	200	4.7	100	3.4	5.5	3.0
13	320	6.0	200	4.8	100	3.3	5.3	3.0
14	310	6.1	200	4.7	100	3.3	4.7	3.0
15	300	6.3	210	4.6	100	3.2	4.4	3.0
16	310	6.2	210	4.4	100	3.0	3.8	3.0
17	290	6.2	220	4.2	100	2.8	4.1	3.0
18	280	6.6	230	---	100	2.4	3.8	3.0
19	260	6.8	---	---	100	1.7	3.9	3.0
20	250	7.0					4.6	3.0
21	250	6.8					3.4	3.0
22	250	6.1					3.2	2.9
23	260	5.5					2.8	2.8

Time: 15.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 8 minutes.

Table 15

Wakkanai, Japan (45.4°N, 141.7°E) August 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	5.6					3.6	2.8
01	300	5.4					3.4	2.8
02	290	5.1					3.2	2.8
03	290	5.1					3.0	2.9
04	280	4.8					2.9	3.0
05	280	5.1	---	---	100	1.7	3.0	3.0
08	290	8.0	230	3.8	100	2.2	4.4	3.0
07	290	8.6	260	4.3	100	2.7	5.2	3.1
08	300	6.7	250	4.4	100	3.0	6.6	3.2
09	300	6.5	240	4.8	100	3.2	5.6	3.1
10	310	6.7	220	4.8	100	3.4	5.0	3.0
11	380	6.4	220	4.9	100	3.3	5.0	2.8
12	330	6.6	230	5.0	100	3.4	5.1	2.9
13	340	6.6	220	4.8	100	3.6	4.7	2.9
14	310	6.8	230	4.8	100	3.4	5.4	3.1
15	320	6.7	250	4.6	100	3.2	5.2	3.0
16	300	6.6	240	4.5	100	3.0	4.9	3.0
17	300	7.0	240	4.1	100	2.6	4.7	3.1
18	290	6.8	260	---	100	2.0	4.4	3.0
19	280	6.9					4.4	3.0
20	270	7.0					4.5	3.0
21	280	6.7					4.3	2.9
22	270	6.2					3.2	2.9
23	280	5.7					3.4	2.9

Time: 135.0°E.
Sweep: 1.0 Mc to 14.0 Mc in 15 minutes, manual operation.

Table 16

Akita, Japan (39.7°N, 140.1°E) August 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	5.8					3.8	2.8
01	300	5.5					3.4	2.7
02	300	5.6					3.6	2.7
03	280	5.2					3.0	2.8
04	280	5.2					3.0	2.9
05	270	5.2	---	---	120	1.7	2.8	2.9
06	260	6.0	240	---	110	2.3	3.6	3.1
07	270	7.5	230	4.0	110	2.8	4.1	3.2
08	280	7.9	220	4.2	110	3.1	4.4	3.2
09	280	7.0	210	4.5	110	3.2	5.0	3.1
10	310	7.2	230	5.0	110	3.2	5.4	3.0
11	330	7.2	220	5.0	110	3.5	5.4	3.0
12	340	7.8	220	5.1	110	3.6	5.9	3.0
13	340	7.6	220	5.0	110	3.6	6.2	2.9
14	320	7.9	240	5.0	110	3.5	5.2	2.9
15	300	7.6	240	4.7	110	3.4	4.2	3.1
16	300	7.2	250	4.5	110	3.2	4.7	3.0
17	290	7.6	240	4.2	110	2.7	4.7	3.0
18	270	7.7	250	---	120	2.1	4.2	3.0
19	260	8.0					4.2	3.0
20	250	7.7					3.8	2.9
21	270	6.7					3.6	2.9
22	280	6.2					4.3	2.9
23	300	5.8					4.0	2.8

Time: 135.0°E.
Sweep: 1.0 Mc to 17.0 Mc in 15 minutes, manual operation.

Table 17

Tokyo, Japan (35.7°N, 139.5°E) August 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	5.9					3.5	2.7
01	300	5.6					3.4	2.8
02	300	5.6					3.6	2.9
03	280	5.5					3.1	2.9
04	280	4.8					3.0	3.0
05	270	4.4	---	---	---	---	2.9	3.0
06	240	6.0	260	---	100	2.2	3.6	3.1
07	260	7.2	230	---	100	2.8	4.2	3.2
08	270	7.6	220	4.4	100	3.0	5.0	3.2
09	300	8.9	220	4.6	100	3.2	5.4	3.2
10	320	6.9	200	4.8	100	3.4	5.3	3.0
11	330	7.0	220	4.9	100	3.6	5.0	3.0
12	340	7.6	230	5.0	100	3.7	5.5	2.9
13	320	7.4	220	5.0	100	3.6	5.0	3.0
14	320	7.7	220	5.0	100	3.6	5.0	3.0
15	300	7.7	230	4.7	100	3.4	4.6	3.0
16	300	8.0	230	4.5	100	3.1	5.1	3.1
17	290	7.9	240	---	100	2.6	5.6	3.1
18	270	8.2	270	---	110	2.0	4.4	3.0
19	250	7.8					4.3	3.1
20	250	7.0					3.8	3.0
21	270	6.6					3.6	2.9
22	280	6.0					3.6	2.9
23	300	5.8					3.5	2.8

Time: 135.0°E.
Sweep: 1.0 Mc to 17.0 Mc in 15 minutes, manual operation.

Table 18

Yamagawa, Japan (31.2°N, 130.6°E) August 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	6.2					3.8	2.7
01	300	6.3					3.6	2.7
02	300	6.0					3.6	2.7
03	280	5.7					3.3	2.9
04	280	5.3					3.2	2.9
05	280	4.9					3.3	3.0
06	270	5.5	---	---	110	2.0	3.2	3.0
07	250	7.1	230	---	110	2.4	3.8	3.2
08	260	7.0	220	4.2	110	3.0	4.2	3.2
09	290	7.4	220	4.6	110	3.2	5.7	3.3
10	310	7.2	220	4.8	110	3.5	6.4	2.9
11	330	7.7	220	5.0	110	3.6	5.8	2.9
12	330	8.3	220	5.0	110	3.6	6.5	2.8
13	340	9.0	220	5.0	110	3.8	6.1	2.8
14	340	9.1	230	5.0	110	3.7	5.4	2.9
15	330	9.2	240	5.0	110	3.5	5.5	2.8
16	310	9.5	250	4.6	110	3.4	5.6	2.9
17	300	9.4	240	4.3	100	3.0	5.0	3.0
18	280	9.0	250	---	110	2.4	4.6	3.1
19	260	8.9	---	---	---	1.6	4.6	3.1
20	250	8.1					4.4	3.1
21	270	7.0					4.1	2.8
22	290	6.5					3.7	2.8
23	300	6.4					3.8	2.7

Time: 135.0°E.
Sweep: 1.2 Mc to 18.5 Mc in 15 minutes, manual operation.

Table 19

Huancayo, Peru (12.0°S, 75.3°W) August 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	230	7.4					3.2	3.1
01	230	7.0					3.1	3.2
02	240	6.2					2.8	3.1
03	240	6.3					2.7	3.2
04	260	4.4					2.7	3.0
06	270	3.7					2.8	3.1
06	290	4.2			100	1.4	3.7	2.9
07	250	6.8			100	2.4	6.8	3.1
08	300	8.5	220	4.6	100	3.0	10.4	2.8
09	320	8.9	220	4.8	100	3.1	11.6	2.5
10	340	8.6	210	4.9	100	---	11.9	2.5
11	360	8.2	210	4.9	100	---	12.0	2.4
12	380	8.2	200	4.9	100	---	12.0	2.4
13	380	8.5	200	4.9	100	---	11.9	2.4
14	360	8.4	210	4.8	100	---	12.0	2.4
15	340	8.6	210	4.8	100	3.1	12.0	2.4
16	240	8.6	230	4.6	100	2.7	11.0	2.4
17	260	8.8			100	2.3	8.4	2.6
18	290	8.8			100	1.4	3.6	2.5
19	320	8.1					2.8	2.4
20	300	7.8					2.8	2.6
21	270	8.2					2.8	2.8
22	230	8.0					3.0	3.0
23	230	7.5					2.8	3.1

Time: 75.0°W.
Sweep: 16.0 Mc to 0.5 Mc in 15 minutes, automatic operation.

Table 20

Johannesburg, Union of S.Africa (26.2°S, 28.0°E) August 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(260)	2.9						3.0
01	260	2.9						2.8
02	270	3.0						3.0
03	260	2.8						3.0
04	(250)	2.7						2.9
06	250	2.4						2.9
06	(250)	2.7						3.0
07	230	5.6			---	2.1		3.4
08	240	6.8	220	---	120	2.6		3.4
09	260	7.5	220	---	110	3.0		3.3
10	270	8.4	220	4.7	110	3.4		3.3
11	270	8.7	210	4.8	110	3.6		3.2
12	270	8.7	200	4.8	110	3.6		3.2
13	280	8.8	200	4.8	110	(3.5)	3.7	3.1
14	270	8.4	200	4.6	110	3.4	3.6	3.1
15	260	8.5	210	4.3	110	(3.2)	3.0	3.1
16	250	8.2	230	---	110	2.8		3.2
17	230	7.8	---	---	120	2.4		3.2
18	220	7.1			---	---		3.3
19	220	5.2						3.3
20	230	3.7						3.3
21	240	3.1						3.2
22	250	3.1						3.1
23	250	2.9						3.0

Time: 30.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 21

Capetown, Union of S.Africa (34.2°S, 18.3°E) August 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(280)	2.7						2.9
01	(280)	(2.8)						(2.8)
02	(280)	2.9						2.9
03	(270)	(2.9)						(2.9)
04	(260)	2.9						3.0
05	(260)	2.6						2.9
06	(260)	2.6						3.0
07	(250)	3.0						3.0
08	220	5.6			(120)	2.1		3.4
09	240	6.6	220	---	110	(2.6)		3.4
10	250	7.2	220	(3.7)	110	3.0		3.2
11	270	8.0	220	4.6	110	(3.2)		3.2
12	280	8.3	220	4.7	110	(3.4)		3.1
13	270	8.6	220	4.7	110	(3.5)		3.1
14	270	8.9	220	4.6	110	(3.4)		3.1
15	260	9.0	220	4.2	110	(3.3)	3.2	3.1
16	250	8.6	220	---	110	3.1		3.2
17	240	8.0	240	---	120	2.6		3.2
18	220	7.4			---	2.1		3.3
19	210	5.5						3.3
20	(220)	3.8						3.3
21	(230)	2.9						3.2
22	(240)	2.8						3.1
23	(250)	2.6						3.0

Time: 30.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 22

Johannesburg, Union of S. Africa (26.2°S, 28.1°E) July 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(250)	2.8					1.5	3.0
01	(260)	2.6						2.8
02	(280)	2.8					2.3	2.9
03	(260)	2.9					2.0	3.0
04	(250)	2.7					1.7	3.0
05	(250)	2.6					2.4	3.0
06	(240)	2.6					3.2	3.0
07	230	5.0			---	1.8		3.3
08	230	6.7	220	---	120	2.5		3.4
09	240	7.8	220	3.6	110	(2.9)		3.3
10	260	8.4	220	4.4	110	(3.2)		3.2
11	260	8.5	210	4.7	110	3.4		3.2
12	260	8.0	200	4.7	110	(3.5)		3.2
13	280	8.4	200	4.6	110	3.4	4.0	3.1
14	260	8.2	210	4.6	110	(3.3)	3.8	3.1
15	260	8.5	220	4.4	110	3.1	3.7	3.1
16	250	8.4	230	---	110	2.7	3.1	3.2
17	230	7.9			110	(2.1)	2.6	3.3
18	210	5.9					2.5	3.3
19	(220)	3.6					2.3	3.2
20	(240)	3.0					2.0	3.2
21	240	3.0					1.9	3.1
22	250	3.1					1.7	3.2
23	(250)	3.0						3.0

Time: 30.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 23

Watheroo, W. Australia (30.3°S, 115.9°E) July 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	3.3					2.8	2.9
01	250	3.5					3.0	2.9
02	250	3.5					3.0	2.9
03	250	3.7					3.0	3.0
04	240	3.7					3.1	3.0
05	230	3.3					2.8	3.0
06	230	3.0					2.6	3.1
07	220	4.3				1.8	2.4	3.6
08	230	6.3	220	3.0		2.3	3.2	3.6
09	240	7.3	220	4.2		2.8	3.2	3.5
10	250	8.0	220	4.4		3.1	3.2	3.4
11	250	8.2	220	4.4		3.3		3.4
12	250	7.8	220	4.5		3.3	3.5	3.4
13	260	8.2	210	4.5		3.3	3.5	3.3
14	250	8.2	200	4.3		3.2	3.5	3.3
15	250	8.0	220	4.2		3.0	3.4	3.3
16	230	8.0	220	3.4		2.7	3.2	3.4
17	220	7.1				2.0	2.8	3.4
18	210	5.6				---	3.1	3.3
19	220	4.0					2.8	3.3
20	220	3.7					3.0	3.2
21	230	3.3					2.5	3.0
22	240	3.4					2.9	3.0
23	250	3.5					2.8	2.9

Time: 120.0°E.
Sweep: 16.0 Mc to 0.5 Mc in 15 minutes, automatic operation.

Table 24

Capetown, Union of S. Africa (34.2°S, 18.3°E) July 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(280)	(2.8)						(2.8)
01	(270)	(2.7)						(2.9)
02	(280)	2.8						3.0
03	(270)	(2.8)						(2.9)
04	(260)	2.9						3.0
05	(250)	2.8						3.1
06	(250)	2.6					2.0	3.0
07	(250)	2.6						3.1
08	220	(5.2)			---	(2.0)		(3.3)
09	230	8.6	---	---	110	2.6		3.4
10	240	(7.3)	230	---	110	(3.0)		(3.3)
11	250	(7.6)	230	---	110	(3.3)		(3.2)
12	260	(7.9)	220	---	110	(3.5)		(3.2)
13	270	8.2	220	4.6	110	(3.4)		3.1
14	260	8.4	220	4.6	110	(3.4)		3.1
15	260	8.6	240	---	110	(3.1)	3.6	3.1
16	250	8.5	240	---	110	(2.9)	3.0	3.2
17	230	8.0	---	---	110	(2.4)	2.6	3.3
18	220	6.4			---	(1.7)	2.1	3.4
19	220	4.0						3.3
20	(240)	3.0					2.1	3.2
21	240	2.8						3.2
22	(240)	2.5						3.2
23	(260)	(2.4)						(3.0)

Time: 30.0°E.
Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 25

Christchurch New Zealand (43.5°S, 172.7°E) July 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	3.1					3.0	2.9
01	290	2.8					3.4	2.9
02	290	2.6					3.3	2.9
03	280	2.6					3.2	2.9
04	250	2.6					3.3	3.1
05	250	2.5					4.0	3.2
06	250	2.2					3.9	3.0
07	270	2.8				---	3.0	3.1
08	240	5.2	---	---		1.6	3.1	3.4
09	240	6.7	240	3.3		2.4	3.2	3.5
10	250	7.1	240	3.9		2.7	3.8	3.4
11	250	7.4	240	4.0		2.9	4.4	3.3
12	250	7.7	230	4.1		3.0	4.4	3.3
13	260	7.8	240	4.2		2.9	4.9	3.3
14	250	7.7	240	4.0		2.7	4.9	3.4
15	240	7.3	240	3.5		2.4	3.7	3.4
16	240	7.0	---	---		1.8	3.5	3.4
17	230	6.9				1.3	3.5	3.2
18	240	5.2					3.7	3.0
19	240	4.7					2.8	3.1
20	250	4.0					3.0	3.1
21	250	3.5					2.7	2.9
22	280	3.2					3.1	2.9
23	290	3.2					2.6	2.8

Time: 172.5°E.
Sweep: 1.0 Mc to 13.0 Mc.

Table 26

Rarotonga I. (21.3°S, 159.8°W) June 195

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	5.8						2.7
01	300	5.5						2.8
02	290	5.2						2.9
03	280	5.2						2.9
04	270	4.5						2.9
05	300	4.3						2.8
06	300	4.3	---	---	---	---		2.8
07	250	7.1	---	---	---	---		3.0
08	250	9.6	250	4.2	110	3.2	3.6	3.1
09	250	11.4	240	4.9	110	3.1	4.0	3.1
10	250	11.5	230	4.8	110	3.3	4.3	3.1
11	250	10.8	230	4.9	110	3.4	4.3	3.1
12	260	9.8	220	5.0	110	3.5	4.5	3.0
13	290	11.1	220	5.6	110	3.5	4.6	2.9
14	280	9.8	210	5.6	110	3.3	4.4	2.9
15	260	10.0	250	5.6	110	3.2	4.6	2.9
16	250	10.8	250	5.3	110	2.9	4.5	2.9
17	250	10.2	---	---	110	3.1	4.0	2.9
18	240	10.1	---	---			4.3	3.0
19	230	9.8	---	---			4.0	3.0
20	240	9.3	---	---			3.6	2.9
21	250	8.9	---	---			3.4	3.0
22	260	8.4					2.8	2.8
23	250	7.1						2.9

Time: 157.5°W.
Sweep: 2.0 Mc to 16.0 Mc, manual operation.

Table 27

Brisbane, Australia (27.6°S, 153.0°E) June 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	4.2						2.9
01	260	4.4						2.9
02	260	4.4					2.2	2.9
03	250	4.6					3.0	2.9
04	240	4.4					3.0	3.0
05	240	4.1					3.0	3.0
06	240	4.2					2.6	3.1
07	220	6.6			170	2.2		3.4
08	220	8.4	---	---	110	2.7	2.4	3.4
09	240	9.0	220	4.4	100	3.0	3.7	3.3
10	240	9.4	210	4.6	100	3.2	3.6	3.4
11	240	8.6	200	4.6	100	3.4	3.8	3.2
12	240	8.7	200	4.7	100	3.4	3.9	3.2
13	240	8.4	200	4.5	106	3.3	4.2	3.2
14	240	9.1	200	4.5	105	3.2	4.1	3.1
15	240	8.8	200	4.0	105	3.0	4.1	3.2
16	220	8.4			110	2.4	4.2	3.3
17	210	7.7					4.2	3.3
18	200	6.1					3.8	3.2
19	230	4.8					3.5	3.0
20	240	4.4					2.9	3.0
21	250	4.5					3.2	2.9
22	250	4.3						2.9
23	240	4.2						2.8

Time: 150.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 28

Canberra, Australia (35.3°S, 149.0°E) June 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	4.0					2.7	2.9
01	260	4.0					2.8	2.9
02	250	(4.0)					2.8	2.8
03	260	4.0					2.6	2.9
04	250	4.2					2.6	3.0
05	230	3.9					2.7	3.1
06	230	3.5					2.5	3.1
07	230	4.6			---	(1.5)	2.9	3.2
08	210	7.1			100	2.3	2.7	3.6
09	220	8.4	220	---	100	2.8	2.7	3.5
10	220	8.5	210	---	100	3.0	2.7	3.5
11	230	8.6	200	(4.4)	100	3.1	2.6	3.5
12	240	8.5	200	4.3	100	3.2	2.8	3.3
13	240	9.2	200	4.3	100	3.1	2.9	3.3
14	240	9.3	210	(4.2)	100	3.1	3.0	3.3
15	230	9.2	220	3.3	100	2.8	3.0	3.3
16	220	8.4	---	---	100	2.3	2.9	3.3
17	210	7.6			---	1.6	2.7	3.4
18	210	6.2					2.7	3.2
19	220	(5.5)					2.6	3.2
20	220	4.6					2.5	3.2
21	(240)	(4.0)					2.6	3.0
22	240	4.0					2.5	3.0
23	250	4.0					2.5	3.0

Time: 150.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 29

Hobart, Tasmania (42.8°S, 147.4°E) June 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	(2.3)					3.1	(2.9)
01	260	(2.5)					2.1	(2.9)
02	(270)	(2.6)					2.0	(2.8)
03	290	2.4					2.0	2.9
04	270	(2.5)					2.2	(2.9)
05	260	2.4					2.0	(3.0)
06	250	2.4					1.8	3.0
07	250	2.9					2.0	3.0
08	230	6.8			---	1.8	(2.2)	3.3
09	230	7.0			110	2.1	(2.1)	3.4
10	230	(8.5)	---	---	110	2.7		(3.2)
11	240	(8.5)	220	4.2	110	2.9	(1.9)	(3.2)
12	250	(9.3)	220	4.4	110	3.0		(3.1)
13	(250)	(10.5)	220	4.2	110	3.1		(3.1)
14	240	(9.5)	---	4.0	---	---	3.0	(3.2)
15	230	(10.3)	230	---	---	---	(2.1)	(3.2)
16	(230)	(9.2)			---	2.0	(2.2)	(3.3)
17	220	7.8			---	E	2.1	(3.1)
18	220	6.6					2.0	3.0
19	220	5.8					2.1	3.2
20	230	4.4					2.0	3.2
21	240	(3.3)						(3.1)
22	240	(2.8)					3.0	(2.9)
23	260	(2.7)						(2.9)

Time: 150.0°E.
Sweep: 1.0 Mc to 13.0 Mc in 1 minute 65 seconds.

Table 30

Hobart, Tasmania (42.8°S, 147.4°E) May 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	3.7					2.0	2.9
01	280	3.6					2.0	2.8
02	280	3.3					1.9	2.7
03	280	3.2					1.9	2.8
04	270	3.0					2.0	2.8
05	250	2.8					1.8	3.0
06	260	2.6					1.8	3.0
07	250	4.2			---	---	1.9	3.1
08	240	6.4	---	---	110	1.9	1.9	3.3
09	230	(7.5)	240	3.8	100	2.7		(3.3)
10	240	(8.0)	230	4.4	100	2.9		(3.2)
11	250	(7.8)	220	4.4	100	3.2		(3.0)
12	250	(9.8)	220	4.4	100	3.3	2.4	(3.1)
13	250	(9.9)	220	4.4	100	3.2	2.2	(3.1)
14	240	(10.8)	230	4.2	95	3.1	2.0	(3.0)
15	240	(10.6)	220	3.3	95	(2.8)	2.1	(3.2)
16	230	(10.0)			100	2.1	2.0	(3.2)
17	220	(8.7)			---	---	2.0	(3.1)
18	220	7.3					2.0	3.0
19	220	6.9					1.9	3.0
20	240	5.0						3.0
21	250	4.4						2.9
22	250	4.3						2.9
23	260	3.7					2.0	2.8

Time: 150.0°E.
Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 31

Delhi, India (28.6°N, 77.1°E) April 1950

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	360	7.2						3.0
01	360	7.0						
02	---	---						
03	---	---						
04	---	---						3.3
05	320	6.8						
06	300	7.7						
07	280	9.4						
08	300	10.6						3.1
09	320	11.5						
10	340	12.3						
11	350	13.1						
12	360	13.8						2.8
13	(360)	14.0						
14	(340)	(14.2)						
15	(340)	(14.2)						
16	(330)	(14.2)						2.7
17	340	13.9						
18	320	13.2						
19	320	12.0						
20	330	10.1						2.9
21	340	9.0						
22	360	8.4						
23	360	8.0						

Time: Local.
Sweep: 1.8 Mc to 16.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.
**Average values; other columns, median values.

Table 32

Bombay, Indie (19.0°N, 73.0°E) April 1950

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05								
06								
07	330	8.6						
08	420	11.0						2.6
09	480	11.9						
10	480	13.2						
11	570	14.2						
12	(540)	(14.7)						2.3
13	(540)	(15.0)						
14	---	(15.0)						
15	---	(15.2)						
16	---	(15.3)						
17	(460)	(15.1)						
18	510	(15.0)						
19	520	14.5						
20	510	14.1						2.5
21	480	13.8						
22	450	13.0						2.6
23	450	12.7						

Time: Local.
Sweep: 1.8 Mc to 16.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.
**Average values; other columns, median values.

Table 33

Madras, India (13.0°N, 80.2°E) April 1950

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05								
06								
07	360	9.7						
08	420	11.2						2.6
09	450	11.8						
10	480	12.0						
11	540	11.6						
12	510	11.4						2.4
13	540	12.2						
14	540	12.7						
15	540	13.2						
16	540	13.4						2.4
17	540	13.5						
18	540	13.4						
19	540	13.0						
20	---	(12.5)						2.3
21	---	(12.0)						
22	---	(12.0)						
23								

Time: Local.
Sweep: 1.8 Mc to 16.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.
**Average values; other columns, median values.

Table 34

Tiruchy, India (10.8°N, 78.8°E) April 1950

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05								
06	---	---						
07	360	9.4						
08	420	10.8						
09	480	11.3						
10	540	11.5						
11	540	11.5						
12	600	11.0						
13	600	11.2						
14	600	11.5						
15	(800)	12.2						
16	570	12.5						
17	570	12.5						
18	600	12.2						
19	600	11.8						
20	600	11.6						
21	600	11.0						
22	---	---						
23								

Time: Local.
Sweep: 1.8 Mc to 16.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.

Table 35

Domont, France (49.0°N, 2.3°E) March 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	5.0						2.7
01	290	5.0						2.6
02	300	5.0						2.6
03	300	5.0						2.7
04	290	4.4						2.6
05	280	(3.7)	---	---	---	E		(2.8)
06	250	(5.2)	---	1.9	---	E		3.2
07	(220)	(7.0)	220	---	100	2.1		(3.2)
08	(220)	(7.6)	210	---	100	2.7		(3.2)
09	(240)	(9.6)	200	---	100	3.0		(3.2)
10	(290)	8.7	200	---	100	3.2		3.2
11	260	9.9	200	---	100	3.1		3.1
12	270	10.1	200	---	100	3.3		3.2
13	280	10.6	200	---	100	3.3		3.1
14	270	10.0	200	---	100	3.2		3.1
15	(280)	10.2	220	---	100	3.1		3.2
16	(260)	10.2	220	---	100	2.8	3.1	3.2
17	(230)	9.6	230	---	100	2.3	3.0	3.1
18	220	9.7	220	---	110	1.9	2.4	3.2
19	(230)	(8.4)	210	---	---	E		(3.0)
20	220	(6.8)						3.1
21	240	6.2						2.9
22	270	(5.5)						2.8
23	280	5.6						2.7

Time: 0.0°.
Sweep: 1.5 Mc to 15.2 Mc in 1 minute 30 seconds.

Table 36

Fribourg, Germany (48.1°N, 7.8°E) March 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	5.5						2.7
01	285	5.4						2.7
02	285	5.2						2.7
03	290	5.2						2.7
04	280	5.0						2.8
05	255	4.7						2.9
06	250	5.0			---	E		3.0
07	230	6.8	---	---	119	1.9		3.3
08	225	8.4	230	---	109	2.6	2.3	3.2
09	220	9.4	220	4.5	107	3.0		3.2
10	255	10.2	210	4.6	107	3.2	3.9	3.1
11	250	10.6	210	4.8	107	3.3	3.7	3.1
12	260	11.0	210	4.8	107	3.4		3.1
13	255	10.8	215	4.9	108	3.3		3.1
14	240	10.5	220	---	109	3.3		3.1
15	230	10.4	220	---	106	3.1		3.1
16	235	9.9	230	---	109	2.8		3.1
17	235	9.8	---	---	113	2.3	2.1	(3.2)
18	230	9.3	---	---	---	---	2.4	(3.2)
19	225	8.2					2.2	3.1
20	230	7.3						3.0
21	235	6.5						2.9
22	250	6.0						2.8
23	270	5.6						2.8

Time: Local.
Sweep: 1.4 Mc to 20.0 Mc in 10 minutes, automatic operation.

Table 37

Poitiers, France (46.6°N, 0.3°E) March 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(320)	5.8						2.6
01	(320)	5.6						(2.7)
02	320	5.4						(2.6)
03	(310)	5.4						2.6
04	---	5.0						2.8
05	---	4.4			---	E		(2.8)
06	270	5.1			---	E		2.8
07	340	6.8	---	---	---	---		3.1
08	240	7.9	230	---	---	2.7		3.2
09	250	8.8	225	4.3	---	2.7		3.2
10	250	9.5	225	4.4	---	3.2		(3.2)
11	255	9.9	215	4.4	120	3.3		3.0
12	260	10.2	220	---	110	3.3		3.0
13	260	10.1	225	---	110	3.3		3.0
14	260	9.9	230	---	120	3.3		3.0
15	255	9.8	230	---	---	3.2		3.0
16	250	9.9	230	---	---	2.7		(3.1)
17	250	9.7	240	---	---	2.7		3.1
18	240	9.5			---	E		3.0
19	240	8.4			---	E		3.0
20	250	7.6						2.9
21	270	6.7						2.8
22	280	6.2						2.8
23	(300)	6.0						2.6

Time: 0.0°.
Sweep: 3.1 Mc to 11.8 Mc in 1 minute 15 seconds.

Table 38

Dakar, French West Africa (14.6°N, 17.4°W) March 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	---						
01	235	---						
02	220	---						
03	220	(7.2)						
04	240	6.4						
05	250	5.8						
06	250	6.2					3.6	
07	240	9.6	---	---	130	2.5	3.8	
08	250	11.6	230	---	115	3.1	4.0	
09	255	13.0	225	---	110	3.5	4.2	
10	(280)	13.8	---	---	110	---	6.4	
11	(305)	14.7	---	---	110	---		
12	---	15.2	---	---	105	---		
13	---	15.2	---	---	110	---		
14	---	15.7	(210)	---	110	4.0		
15	(335)	15.2	225	---	110	---	3.9	
16	(275)	15.3	235	---	115	3.2	3.7	
17	310	14.7	240	---	125	2.7	3.8	
18	255	(>14.7)	---	---			3.8	
19	340	(15.0)					3.2	
20	340	(15.2)						
21	340	(16.2)						
22	305	(>13.6)						
23	285	---						

Time: Local.
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes, automatic operation.

Table 39 (see also table 23, p.15, CRPL-F71)

Watheroo, W. Australia (30.3°S, 115.9°E) March 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05								
06								
07			---					
08			230					
09			220					
10			220					
11			220					
12			220					
13			230					
14			230					
15			230					
16			240					
17			240					
18								
19								
20								
21								
22								
23								

Time: 120.0°E.
Sweep: 16.0 Mc to 0.5 Mc in 15 minutes, automatic operation.

Table 40

Fribourg, Germany (48.1°N, 7.8°E) February 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	285	4.4						2.7
01	285	4.3						2.8
02	290	4.3						2.7
03	280	4.2						2.7
04	280	4.2						2.8
05	260	3.7						3.0
06	250	3.4						2.9
07	240	5.0			---	E		3.1
08	225	7.6	---	---	119	2.0		3.4
09	225	8.7	---	---	111	2.6		3.3
10	225	10.3	220	---	111	3.0		3.3
11	220	10.4	210	---	111	3.2		3.3
12	230	10.7	220	4.4	110	3.3		3.2
13	225	10.4	225	---	111	3.2		3.2
14	225	9.8	225	---	113	3.1		3.2
15	230	9.8	---	---	113	2.8		3.2
16	230	9.7			117	2.2		3.2
17	220	8.5			129	1.8	2.6	3.3
18	220	7.1					1.9	3.1
19	230	6.8						3.1
20	235	5.6						3.1
21	240	4.8						2.9
22	250	4.6						2.8
23	270	4.6						2.8

Time: Local.
Sweep: 1.4 Mc to 20.0 Mc in 10 minutes, automatic operation.

Table 41

Dakar, French West Africa (14.6°N, 17.4°W) February 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	225	(>14.9)						
01	230	(14.4)						
02	215	---						
03	210	(7.9)						
04	220	5.9						
05	240	4.5						
06	250	5.4						
07	240	9.6			125	2.5	3.8	
08	240	11.8	230	---	115	2.8	4.1	
09	255	13.2	220	---	110	3.4	4.0	
10	275	14.4	215	---	105	3.6	4.5	
11	305	15.1	215	5.4	105	3.9		
12	340	15.0	210	---	110	4.0		
13	(375)	15.1	200	---	105	4.0		
14	(365)	14.7	210	---	110	3.7		
15	(330)	14.7	220	---	110	3.5	4.0	
16	(310)	15.0	225	---	115	3.0	4.0	
17	240	14.7	250	---	120	2.5	3.5	
18	260	14.6					3.9	
19	305	14.7					3.6	
20	285	---					3.4	
21	250	---					3.5	
22	240	---						
23	230	---						

Time: Local
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes, automatic operation.

Table 42

Fribourg, Germany (48.1°N, 7.8°E) January 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	3.8						2.8
01	290	3.9						2.7
02	295	3.8						2.7
03	290	3.8						2.8
04	280	3.5						2.8
05	270	3.2						2.8
06	260	3.0						2.9
07	250	3.6						2.9
08	220	6.8			---	1.6	1.9	3.3
09	215	8.6			113	2.4	2.2	3.4
10	220	(10.0)	---	---	110	2.7		(3.3)
11	225	10.4	230	---	110	2.9		3.3
12	220	10.5	---	---	109	2.9		3.3
13	220	10.2	---	---	111	2.8	3.2	3.2
14	230	10.4	---	---	114	2.6	1.9	3.2
15	230	10.2	---	---	119	2.2	1.9	3.3
16	220	8.7			127	1.8	2.0	3.3
17	215	7.5			---	---	2.2	3.2
18	220	(6.4)						3.2
19	225	5.2					2.1	(3.2)
20	230	4.3						3.1
21	275	3.9						2.8
22	290	3.9						2.8
23	295	3.9						2.7

Time: Local.
Sweep: 1.4 Mc to 20.0 Mc in 10 minutes, automatic operation.

Table 43

Dakar, French West Africa (14.6°N, 17.4°W) January 1950

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	230	---						
01	225	---						
02	225	(8.5)						
03	220	6.8						
04	250	5.1						
05	260	4.7						
06	260	4.3						
07	250	8.9			150	---	2.8	
08	260	12.2	240	---	115	2.8	3.1	
09	265	14.0	225	---	110	3.3	3.4	
10	275	(>14.0)	225	---	110	3.7		
11	295	(>14.0)	210	---	110	3.8		
12	330	(>14.3)	200	5.4	110	3.8		
13	355	(>14.2)	220	(6.0)	115	3.8		
14	320	(>14.2)	230	---	115	3.6		
15	(310)	14.1	225	---	115	3.5		
16	305	(>13.8)	235	---	115	3.0	3.4	
17	250	(>13.8)	250	---	125	2.4	3.5	
18	275	(>14.0)	---	---			3.4	
19	325	(>14.6)					2.9	
20	270	---						
21	250	---						
22	250	---						
23	245	---						

Time: Local.
Sweep: 1.25 Mc to 20.0 Mc in 10 minutes, automatic operation.

Table 44*

Campbell I. (52.5°S, 169.2°E) April 1949

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05	260	4.8						(2.8)
06								
07	250	7.1			140	2.0	1.7	3.1
08	240	8.7	---	---	120	2.4		3.1
09	230	10.5			110	2.8		3.1
10	230	10.9	---	---	110	3.0	2.0	3.0
11	230	12.0	---	---	110	3.1		3.0
12	230	11.7	---	---	110	3.2	1.8	3.0
13	240	11.9	---	---	110	3.1		2.9
14	240	11.7			110	3.0		2.9
15	240	12.6			110	2.6	1.9	2.9
16	240	11.7			130	2.2	2.0	2.9
17	230	11.3			---	E		3.0
18	230	10.2			---	---	2.0	2.9
19	230	8.7						2.9
20								
21	250	7.3						2.8
22								
23	260	(6.6)					2.7	---

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

Table 45*

Campbell I. (52.5°S, 169.2°E) March 1949

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05	280	(5.3)			---	---	1.9	(2.7)
06								
07	250	6.7	---	---	120	2.5		3.0
08	240	7.1	250	4.3	110	2.8		2.9
09	250	7.6	240	4.8	110	3.1	1.9	2.9
10	300	7.8	230	5.2	110	3.3		2.8
11	300	8.0	240	5.1	100	3.4		2.7
12	340	8.2	240	5.1	100	3.5		2.7
13	300	8.3	240	5.2	100	3.5		2.7
14	300	8.5	230	5.0	100	3.4		2.7
15	240	8.8	240	5.0	110	3.2		2.7
16	250	8.7	250	---	120	2.9		2.7
17	250	9.0	---	---	120	2.2	1.7	2.7
18	250	8.9			150	1.8	2.3	2.7
19	250	9.2			---	---	1.7	2.7
20								
21	270	7.4					2.6	(2.6)
22								
23	290	(6.7)					4.1	(2.5)

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

Table 46*

Campbell I. (52.5°S, 169.2°E) April 1948

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05	260	4.9						---
06								
07	250	7.0			(150)	2.0	2.2	3.0
08	240	8.9			110	2.5	2.4	3.1
09	230	10.4			110	2.9	2.6	3.0
10	230	10.8	---	---	110	3.1		3.0
11	240	11.5	---	---	110	3.2		2.9
12	230	11.9			110	3.2		2.9
13	240	11.7			110	3.2		2.9
14	230	11.7			110	3.1		2.9
15	240	11.7			110	2.8		2.9
16	250	11.5			120	2.3		2.9
17	240	11.0			---	1.8	1.8	2.9
18	240	10.2						2.8
19	240	8.0						2.8
20								
21	250	7.6						(2.7)
22								
23	(270)	6.6						---

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

Table 47*

Campbell I. (52.5°S, 169.2°E) March 1948

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05	260	(4.2)			---	---	2.2	---
06								
07	240	6.4			120	2.4	2.8	3.1
08	240	7.4	---	---	110	2.8	3.2	3.1
09	240	8.0	220	4.5	110	3.1	3.5	3.0
10	240	8.1	220	4.7	110	3.2	3.5	3.0
11	250	8.6	220	4.7	110	3.3		2.9
12	240	8.8	210	4.9	110	3.3	3.6	2.9
13	230	8.8	210	5.0	110	3.3	2.8	2.9
14	240	9.0	220	4.6	110	3.2		2.9
15	240	9.2	230	4.3	110	3.1		2.9
16	250	9.1	---	---	110	2.8		2.9
17	250	9.3			120	2.2		2.8
18	250	9.3			---	1.7	2.2	2.9
19	250	8.8			---	---	1.9	2.8
20								
21	250	6.8					2.1	(2.7)
22								
23	(290)	(6.1)					2.3	---

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

Table 48*

Campbell I. (52.5°S, 169.2°E) April 1947

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05	250	(5.0)					2.6	(2.7)
06								
07	250	7.1	---	---	---	2.2	2.5	3.0
08	250	8.3	---	---	120	2.5		3.0
09	250	9.4	---	---	120	2.9		3.0
10	250	10.4	240	5.4	120	3.0		3.0
11	250	11.4	---	---	110	3.1		2.9
12	240	12.0	---	---	110	3.1		2.9
13	250	12.0	---	---	120	3.1		2.9
14	250	12.2	---	---	120	3.0		2.9
15	250	12.0	---	---	120	2.8		2.9
16	240	11.9			120	2.4		2.9
17	240	11.2			---	1.8		2.9
18	250	10.0			---	---	2.1	2.8
19	250	9.0					2.4	2.8
20								
21	260	7.7					2.3	2.8
22								
23	300	(6.8)					2.5	(2.6)

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

Table 42* (supersedes table 36, CRPL-F34)

Campbell I. (62.5°S, 169.2°E) March 1947

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05	300	---					3.2	---
06								
07	250	6.6			120	2.5	2.9	2.9
08	300	7.3	250	4.8	110	2.9	2.7	2.9
09	300	7.8	250	5.3	110	3.0		2.9
10	300	8.2	240	5.1	110	3.1		2.8
11	310	8.6	250	5.4	110	3.2		2.7
12	330	8.8	250	5.6	110	3.3		2.7
13	300	8.9	240	5.6	110	3.4		2.6
14	330	9.2	240	6.0	110	3.0		2.6
15	340	9.2	250	5.4	110	3.0		2.7
16	300	8.6	250	5.0	110	2.9		2.7
17	300	8.8	260	5.0	120	2.6		2.7
18	270	9.3	---	---	120	2.2	3.1	2.7
19	260	9.3					3.1	2.8
20								
21	310	7.8					3.2	---
22								
23	350	---					5.4	---

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

Table 50*

Campbell I. (52.5°S, 169.2°E) April 1946

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05	300	(4.4)			---	---		---
06								
07	250	5.7	---	---	---	---	2.6	2.9
08	245	6.8	---	---	120	2.4	2.7	3.0
09	250	7.7	230	3.8	120	2.6	2.9	3.0
10	270	8.5	240	4.3	120	2.9	2.8	3.0
11	265	8.7	250	4.2	120	3.0		3.0
12	270	9.2	245	4.4	120	3.0		3.0
13	260	9.2	240	4.3	120	2.9		3.0
14	250	9.4	245	4.0	125	2.9		3.0
15	250	9.4	---	---	125	2.6	2.7	3.0
16	250	9.0	---	---	125	2.3	2.2	2.9
17	250	8.8	---	---	140	2.0	2.2	2.9
18	245	7.9	---	---	---	---	2.4	2.9
19	250	7.5			---	---	2.7	2.7
20								
21	280	6.4					2.7	2.5
22								
23	300	(5.5)					3.0	2.4

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

Table 51* (supersedes table 25, CRPL-F22)

Campbell I. (52.5°S, 169.2°E) March 1946

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05	290	4.0			---	---		(2.5)
06								
07	250	6.2	250	4.0	130	2.5		2.9
08	290	7.1	250	4.5	125	2.9		2.9
09	300	7.7	240	4.4	125	3.1		2.9
10	290	8.4	240	4.6	125	3.2		2.9
11	300	8.6	245	4.7	125	3.3		2.9
12	290	8.8	240	4.7	130	3.3		2.9
13	300	9.0	240	4.6	125	3.3		2.9
14	300	8.4	250	4.6	130	3.3		2.9
15	286	8.6	250	4.5	130	3.1		2.9
16	276	8.8	250	4.4	130	2.9		2.9
17	250	8.8	250	4.5	130	2.4		2.9
18	250	8.6	---	---	150	2.2		2.9
19	250	8.5	---	---				2.8
20								
21	285	7.1						2.5
22								
23	310	(6.0)					3.6	(2.5)

Time: 165.0°E.
Sweep: 1.0 Mc to 15.0 Mc, manual operation.
*Observations taken on a 16-hour working schedule.

TABLE 52

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

h'F2 (Characteristic), Km (Unit), October (Month), 1950

National Bureau of Standards (Institution)

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Meon Time

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(330)S K	310 K	280 K	300 K	300 K	230 K	300 K	260 K	240 K	590 K	680 K	610 K	600 K	G K	600 K	500 H	390 K	310 K	270 K	(270)S K	290 K	(310)S K	(340)S K	(400)S K
2	(400)S K	(350)S K	300 K	280 K	310 K	[300]S K	300 K	250 K	G K	400 H K	400 K	340 K	(370)H K	350 K	370 K	280 K	280 K	260 K	250 K	(250)S K	280 K	290 K	(300)S K	[360]S K
3	(410)S K	[380]S K	(340)S K	320 K	(310)B K	[290]B K	270	250	270	260	260 H	280	290	290	290	290	270	250	220	230	230	270	310	(350)S
4	400	330	(390) B	340	(330)S	(300)S	300	250	270	270	320	310	300	300	300	280	270	250	230	240	(290)A	(270)S	300	S
5	B	B	B	B	B	(330)S	280	240	280	290	280	290 H	280	280	280	280	260 H	240	220	220	(230)S	300	290	[300]A
6	300	300	350	330	300	(310)S	300	250	270	300	310	310	300	310	290	280	260	240	220	220	[260]C	300	(320)S	(310)S
7	[300]C	290	(320)S	300	300	(310)S	300	250	250	300 H	290	280	320	300	290	280	270	240	230	250	(270)S	280	270	280
8	280	300	260	270	280	290	260	230	260	270 H	290	[280]C	280	300	270 H	230	230	230	220	230	220	(260)S	(290)S	300
9	300	(290)S	270	240	230	290	290	240	250	260	260	260 H	260	260	300	270	250	230	220	230	250	270	300 F	290
10	280	290	270	270	280	280	250	230	240	250	240	270	280	270	270	270	260	230	210	210	240	270	290	280
11	280	290	280	260	260	270	260	230	260	260	270	270	270	280	260	260	240	230	210	220	230	(270)S	300	300
12	300	300	290	230	220	(300)S	300	250	230	230	250	270	270	270	270	270	260	230	220	230	230	(260)B	270	300
13	300	290	270	260	270	(260)S	250	230	250	260	260	280	270	270	270	260	240	230	210	230	250	(290)S	300	300
14	300	(260)S	240	230	230	[270]S	(310)S	250	270	270	290	270	300	290	290	280	280	270	240	240	300	(300)S	300	280
15	280	250	230	300	300	320	280	250	230	240	250	280	290	280	270	270	240	230	230	220	(270)S	290	300	(300)A
16	(310)A	290	290	280	290	300	290	240 K	330 K	360 K	410 K	400 K	320 K	340 K	340 K	310 K	290 K	250 K	250 K	280	260	290	310	310
17	300	280	250	260	(280)S	[280]S	280	230	230	210	210 H	290	270	280	280	260	240	230	220	(260)B	(270)B	290	280	300
18	290	290	270	270	250	(300)S	(260)S	260	230	260	270	270	270	280	280	260	250	230	220	260	(280)A	290	300	300
19	(290)S	290	290	280	270	270	(290)S	240	240	260	250	270	270	270	270	260	230	220	(230)A	(240)A	270	280	280	230
20	290	280	290	280	260	240	270	230	230	230	230	270	270	240	230 H	220	220	210	220	230	270	(280)S	290	290
21	(280)S	290	290	[280]B	(280)B	280	250	240	240	280	250	260	270	260	250	250	230	220	200	230	230	270	250	270
22	270	(300)B	B	B	B	(270)S	250	220	260	230	230	270	280	270	250	230	220	220	220	230	250	230	250	240
23	230	240	230	230	230	(240)S	270	270	260	220	220	240	250	240	250	230	210	210	200	210	240	250	250	250
24	210	270	240	M	M	M	(280)S	220 H	230	M	M	250	250	260	260	240	230	210	200	220	230	280	280	270
25	(260)S	260	240	230	220	210	(270)S	220	220	230	240	250	270	250	250	240	230	220	200	220	230	280	270	260
26	260	260	[270]A	280	[280]A	280	240	230	220	250	220	250	270	250	260	240	230	210	210	210	(230)S	(270)S	(270)S	(260)S
27	270	270	280	280	250	230	240	230	230	220	260	260	260	270	230	240	220	200	(220)S	230	(220)S	(260)S	(300)S	(300)S
28	(300)S K	280 K	290 K	240 K	250 K	330 K	310 K	290 K	500 K	550 K	730 K	610 K	460 K	G K	540 K	420 K	340 K	240 K	240 K	280 K	(450)B K	(380)S K	(330)S K	300 K
29	(270)S K	290 K	(300)B K	240 K	260 K	300 K	280 K	230 K	230 H K	230 K	230 K	250 K	270 K	250 K	250 K	230 K	220 K	M K	M K	280 K	340 K	(330)S K	(370)S K	(330)S K
30	(330)S K	(260)S K	330 K	(310)B K	270 K	(270)S K	(300)S K	230 K	240 K	230 K	230 K	240 K	270 K	270 K	270 K	250 K	220 K	210 K	200 K	250 K	230 K	(320)S K	S K	S K
31	S K	S K	S K	(260)S K	300 K	S K	S K	260 K	280 K	290 K	270 K	280 K	260 K	260 K	230 K	200 H K	230 K	200 K	200 K	210 K	(230)S K	(340)S K	(310)S K	S K
Medion	290	290	280	280	280	280	280	240	240	260	260	270	270	270	270	260	240	230	220	230	260	280	300	300
Count	29	29	28	28	28	29	30	31	31	30	30	31	31	31	31	31	31	30	30	31	31	31	30	28

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

TABLE 53

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

foF2 (Characteristic), Mc (Unit), October (Month), 1950

National Bureau of Standards (Institution)

Observed at Washington, D.C.

Scaled by: B.E.B., R.F.B., McC.

Lat 38.7°N, Long 77.1°W — 75°W Mean Time

Calculated by: B.E.B., R.F.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(4.0)$^{S}_{K}$	(3.4)$^{F}_{K}$	2.5^{F}	2.5$^{F}_{K}$	K(2.0)$^{S}_{F}$	(2.4)$^{F}_{K}$	2.8$^{F}_{K}$	4.4$^{F}_{K}$	4.7$^{F}_{K}$	4.6$^{F}_{K}$	4.3^{K}	4.3$^{F}_{K}$	4.3^{K}	<4.1$^{G}_{K}$	4.3^{K}	4.4$^{H}_{K}$	4.6^{K}	4.6^{K}	4.7^{K}	4.1^{K}	(3.2)$^{V}_{K}$	2.7^{K}	K(2.3)$^{S}_{F}$	(2.0)$^{S}_{K}$
2	(1.9)$^{S}_{K}$	2.1$^{F}_{K}$	2.1$^{F}_{K}$	2.0$^{F}_{K}$	F^{K}	5$^{F}_{K}$	2.6$^{F}_{K}$	3.5$^{F}_{K}$	<(3.8)$^{G}_{K}$	4.5$^{H}_{K}$	5.4$^{F}_{K}$	6.3^{K}	K6.4$^{F}_{H}$	7.4$^{F}_{K}$	K(7.7)$^{S}_{F}$	(9.3)$^{S}_{K}$	8.6^{K}	(8.2)$^{S}_{K}$	K(8.0)$^{S}_{F}$	5.3$^{F}_{K}$	K(4.8)$^{S}_{F}$	K(3.8)$^{S}_{F}$	K(2.7)$^{S}_{F}$	(2.1)$^{F}_{K}$
3	K(2.5)$^{S}_{F}$	K(1.9)$^{S}_{F}$	(2.4)$^{F}_{K}$	(1.9)$^{S}_{F}$	B$^{F}_{K}$	B^{K}	3.2^{F}	(5.3)^{S}	7.0	8.0	7.9^{H}	7.8	8.5	8.7^{F}	(8.5)^{S}	9.0	(8.8)$^{S}_{F}$	(8.8)$^{S}_{F}$	(8.0)$^{S}_{F}$	(7.0)^{S}	(5.0)$^{S}_{F}$	(3.7)$^{S}_{F}$	3.0^{F}	(3.0)$^{Z}_{F}$
4	[3.0]^{F}	(2.9)$^{S}_{F}$	(2.4)$^{F}_{B}$	[2.3]^{F}	(2.2)^{B}	2.3^{F}	2.9	5.1^{F}	5.8^{F}	6.3^{F}	6.6	7.8	7.9	8.2	8.4	8.8	(7.7)^{S}	6.8	(7.1)^{S}	5.7	(4.8)$^{S}_{F}$	3.7^{F}	3.0	(2.5)$^{J}_{B}$
5	(2.3)^{J}	B	B	B	B	1.9^{F}	3.0^{F}	4.7^{F}	6.2^{F}	7.2^{Z}	7.0	(7.4)^{H}	8.0	8.6	8.4	8.5	(8.8)$^{S}_{H}$	(8.2)^{S}	(7.8)^{S}	5.8	4.1	3.1^{F}	(3.0)^{S}	(2.8)^{A}
6	2.8^{F}	2.5^{F}	(2.1)$^{S}_{F}$	(2.0)$^{S}_{F}$	(1.7)^{F}	1.7^{F}	2.7^{F}	4.4^{F}	5.5^{F}	5.9^{F}	(6.0)$^{S}_{F}$	7.0	7.8	8.0	8.5	(8.8)^{S}	8.6^{F}	(7.4)^{S}	(6.2)^{S}	4.6^{F}	4.4^{F}	3.4^{F}	3.3^{F}	3.2^{F}
7	[2.9]^{C}	(2.4)$^{S}_{F}$	(2.4)$^{S}_{F}$	2.3^{F}	(2.0)$^{S}_{F}$	(2.0)$^{S}_{F}$	(3.2)^{P}	5.0^{F}	6.0^{F}	6.4^{H}	7.4	7.9^{V}	8.2	8.7	8.8	8.3	7.2	7.6	6.3	5.7^{F}	5.1	4.5	4.1	(3.9)$^{J}_{S}$
8	3.5	3.2	3.2^{F}	(2.9)^{F}	2.3^{F}	2.1^{F}	3.4^{F}	(5.8)$^{S}_{F}$	7.4	(7.2)^{H}	8.0	[8.1]^{C}	8.3	9.0	8.4^{H}	8.5	8.7	8.4	7.5	(6.4)^{S}	5.2	4.2	(3.9)$^{J}_{S}$	(3.8)$^{J}_{S}$
9	(3.9)$^{J}_{F}$	(3.9)$^{J}_{S}$	(3.8)$^{J}_{S}$	3.5	2.7	1.7^{F}	3.0^{F}	(5.6)^{F}	7.8	(7.6)$^{J}_{Z}$	8.0	8.0^{H}	8.2	8.2	8.6	9.0	(9.0)^{S}	8.6^{F}	(7.6)^{S}	6.0^{F}	4.8^{F}	4.4^{F}	(3.8)$^{S}_{F}$	(4.0)$^{S}_{F}$
10	(3.8)$^{S}_{F}$	3.6^{F}	3.5^{F}	3.1^{F}	3.1^{F}	3.0^{F}	3.7^{F}	6.3	7.0	8.5	8.1	8.3	9.3	9.0	(9.1)^{S}	9.4	9.8	8.8	(8.0)$^{J}_{S}$	5.9^{F}	5.0^{F}	4.5^{F}	4.3^{F}	(4.0)$^{S}_{F}$
11	4.0^{F}	(4.0)$^{S}_{F}$	(4.0)$^{S}_{F}$	3.8^{F}	3.6^{F}	3.3^{F}	3.8	(6.0)$^{S}_{F}$	7.7	7.8	8.4	8.8	9.2	9.7	9.4	10.0	(9.8)^{S}	9.2	(8.0)^{S}	6.0^{F}	5.8	5.3^{F}	(4.7)$^{J}_{F}$	4.9
12	4.7	4.6	4.6	4.6	3.4	(2.4)$^{J}_{S}$	3.4	6.9	8.2^{Z}	8.8	10.0	9.8	9.8	9.8	9.7	9.4	9.7	(9.6)^{S}	8.3	6.5	5.4	(4.8)$^{J}_{S}$	4.3	(3.9)$^{J}_{S}$
13	4.0	4.0	3.9	3.6	3.3	3.2^{F}	4.1	6.5	7.4	(8.6)^{S}	8.0	9.4	10.8	10.9	11.3	(10.8)^{S}	(10.2)^{S}	(9.5)$^{S}_{P}$	(7.3)^{S}	6.6	(5.7)$^{J}_{S}$	5.2	(5.3)^{S}	5.0
14	5.0	(5.2)^{S}	4.8	3.6	2.8	2.3	(2.9)$^{J}_{S}$	5.6	7.8	8.8^{V}	9.7	10.0	10.3	11.0	10.1	8.2	7.8	(7.5)^{S}	6.8	5.5	4.7	4.7	4.5	4.7
15	4.8^{F}	4.6^{F}	2.6^{F}	2.3^{F}	2.2^{F}	(2.4)^{S}	3.3	6.7	8.1^{V}	8.3	8.7	9.0	9.4	9.7	9.6	9.2	(8.8)^{S}	8.0	(7.5)^{S}	5.8^{F}	4.8	4.5	4.2^{F}	4.2^{F}
16	4.1^{F}	4.0^{F}	3.2^{F}	3.1^{F}	2.6^{F}	1.8^{F}	(2.6)$^{S}_{F}$	4.4$^{F}_{K}$	5.4^{K}	5.2$^{F}_{K}$	K(5.9)$^{S}_{F}$	6.1$^{F}_{K}$	7.0$^{F}_{K}$	6.4$^{F}_{K}$	K(6.6)$^{S}_{F}$	6.6$^{F}_{K}$	6.6^{K}	(6.3)$^{S}_{K}$	K(5.9)$^{S}_{F}$	5.0	4.5	4.1	(3.9)^{S}	(3.9)^{S}
17	(3.8)^{S}	(3.6)$^{S}_{F}$	3.5^{F}	2.5^{F}	(1.9)$^{S}_{F}$	1.8^{F}	2.9^{F}	5.6^{F}	7.0^{F}	7.4	7.4$^{F}_{H}$	10.0	10.0	10.6	(10.4)^{S}	10.7	(10.0)^{S}	(9.3)^{S}	(7.9)^{S}	6.3^{F}	5.0	(4.8)^{S}	4.7	4.5^{F}
18	4.3^{F}	4.2^{F}	(4.0)$^{S}_{F}$	3.7^{F}	(2.7)$^{J}_{F}$	2.1^{F}	2.5^{F}	5.2^{F}	7.7^{F}	7.9$^{F}_{Z}$	7.8^{F}	9.2^{F}	9.6	9.3^{F}	10.2^{Z}	9.4^{Z}	(9.4)^{S}	8.1^{F}	(6.9)$^{S}_{F}$	5.5^{F}	4.7^{F}	4.4	4.3^{F}	4.1^{F}
19	4.0^{F}	(3.8)$^{S}_{F}$	3.4^{F}	(3.3)$^{J}_{F}$	(2.9)$^{J}_{F}$	2.4^{F}	2.8^{F}	5.6^{F}	6.8$^{F}_{Z}$	7.8	7.8	8.7^{F}	9.2^{F}	9.2	9.6	(9.5)^{S}	(9.3)^{S}	(8.7)^{S}	(6.2)^{S}	(5.4)^{F}	(4.8)$^{S}_{F}$	(4.4)$^{S}_{F}$	(4.0)$^{S}_{F}$	(3.5)^{F}
20	3.6^{F}	(3.4)$^{S}_{F}$	3.6^{F}	(3.5)$^{S}_{F}$	(3.5)$^{S}_{F}$	(2.6)$^{S}_{F}$	3.1^{F}	6.2^{F}	6.6^{F}	7.5	7.3^{Z}	(8.2)$^{S}_{F}$	(9.1)^{S}	9.4	(9.0)$^{S}_{H}$	(9.6)^{S}	(9.6)^{S}	(8.3)^{S}	(6.8)^{F}	(5.4)^{S}	(5.0)$^{S}_{F}$	(4.2)$^{J}_{S}$	(3.9)$^{J}_{F}$	(3.8)$^{S}_{F}$
21	(3.8)$^{S}_{F}$	(3.9)$^{J}_{F}$	(3.7)^{B}	[3.5]^{B}	(3.3)$^{J}_{B}$	(3.2)$^{S}_{F}$	(3.2)$^{S}_{F}$	(5.6)^{F}	(6.5)^{S}	(7.5)^{S}	(8.2)^{S}	(8.3)^{S}	(9.2)^{S}	(9.1)^{S}	(9.0)^{S}	(9.0)^{S}	(8.5)^{S}	(8.0)^{S}	(6.1)^{F}	(6.0)^{F}	(4.8)^{S}	(4.3)^{J}	(4.0)^{S}	(4.0)^{S}
22	(3.5)^{P}	(3.2)^{J}	B	B	B	(3.0)$^{S}_{F}$	(3.7)$^{S}_{F}$	(6.0)^{S}	(7.2)^{S}	(8.0)^{S}	(7.8)^{S}	(8.2)^{S}	(9.4)^{S}	(9.0)^{S}	(10.1)^{S}	(10.0)^{S}	(8.5)^{S}	(8.0)^{S}	(7.5)$^{Z}_{S}$	(7.2)$^{S}_{P}$	(6.5)^{S}	(6.2)$^{S}_{P}$	(5.4)^{S}	(5.7)^{S}
23	(5.2)^{S}	(5.1)^{S}	4.8^{F}	4.1^{F}	3.7^{F}	3.2^{F}	3.5^{F}	(5.7)^{S}	7.5	8.4	(9.3)^{S}	9.0	9.0	(9.7)^{S}	(9.1)^{S}	(9.6)^{S}	8.6	(8.1)^{S}	7.1	5.2	(4.8)^{S}	(4.3)^{S}	(4.2)$^{J}_{A}$	(4.1)^{P}
24	3.7	(3.7)^{P}	(3.8)^{P}	M	M	M	2.6	(5.6)^{H}	(7.1)^{R}	M	M	9.0	9.2	9.3	(9.5)^{S}	(9.5)^{S}	9.0	(7.6)^{S}	5.8^{F}	4.6	(3.5)$^{S}_{E}$	3.3	3.5	3.4
25	(3.5)^{S}	3.5	3.4	3.5	3.3	2.8^{F}	2.6	(5.2)^{S}	7.3	7.2	7.8	8.3	8.9	9.6	9.0	8.5	8.3	8.0	6.0	4.4	(3.8)^{J}	3.4	(3.7)^{J}	3.7
26	3.7	3.6	3.6	3.4	3.2	3.1	(3.3)^{S}	5.7	6.6	8.2	(7.8)^{R}	7.8	(9.6)^{S}	9.2	9.3	(9.1)^{S}	8.8	(7.5)^{S}	6.0	4.7	3.8	3.6	3.6	3.4
27	3.2	3.3	3.3	3.4	3.4	3.3	3.4$^{V}_{F}$	(6.8)$^{J}_{S}$	7.4	7.9^{V}	9.1^{F}	7.9	9.0	9.5	9.0	9.2	8.8	(7.4)^{S}	(6.2)^{S}	(6.0)^{S}	5.2	4.5	4.5	4.2
28	4.2^{K}	4.7^{K}	4.1^{K}	3.8^{K}	2.3$^{F}_{K}$	(2.5)$^{F}_{K}$	3.1$^{F}_{K}$	K(3.9)$^{S}_{F}$	K(3.9)$^{S}_{F}$	(4.2)$^{B}_{K}$	3.9^{K}	(4.2)$^{F}_{K}$	4.7$^{F}_{K}$	<4.0$^{G}_{K}$	5.1^{K}	5.6^{K}	7.0$^{F}_{K}$	K(7.8)$^{S}_{F}$	K(8.2)$^{S}_{F}$	F^{K}	F^{K}	2.0$^{F}_{K}$	(2.4)$^{F}_{K}$	(2.5)$^{F}_{K}$
29	(2.7)$^{K}_{F}$	(2.5)$^{F}_{K}$	K[2.2]$^{F}_{B}$	(1.6)$^{F}_{K}$	K(1.7)$^{F}_{B}$	(1.7)$^{F}_{K}$	2.2$^{F}_{K}$	5.1$^{F}_{K}$	7.7$^{H}_{K}$	8.9$^{F}_{K}$	9.2$^{F}_{K}$	9.2$^{F}_{K}$	10.8^{K}	(11.9)$^{S}_{K}$	11.5^{K}	(10.1)$^{S}_{K}$	8.7^{K}	M^{K}	M^{K}	K(3.8)$^{S}_{F}$	K(3.1)$^{S}_{F}$	(3.0)$^{F}_{K}$	(2.4)$^{F}_{K}$	[2.4]$^{F}_{K}$
30	(2.5)$^{F}_{K}$	(2.6)$^{F}_{K}$	(2.4)$^{F}_{K}$	K[2.4]$^{F}_{B}$	(2.0)$^{F}_{K}$	K(1.8)$^{S}_{F}$	(2.1)$^{F}_{K}$	(5.3)$^{F}_{K}$	(7.1)$^{F}_{K}$	8.7^{K}	9.2^{K}	9.8^{K}	11.1^{K}	11.3^{K}	10.6^{K}	11.6^{K}	K(11.5)$^{S}_{P}$	K(9.5)$^{S}_{P}$	7.0$^{F}_{K}$	K(4.3)$^{V}_{F}$	K(3.7)$^{S}_{F}$	2.8$^{F}_{K}$	K(2.0)$^{S}_{F}$	K(1.8)$^{J}_{F}$
31	K(1.7)$^{J}_{S}$	S$^{F}_{K}$	S$^{F}_{K}$	K(1.5)$^{S}_{F}$	1.7$^{F}_{K}$	K(1.5)$^{S}_{F}$	K(1.8)$^{S}_{F}$	4.1^{K}	K(5.2)$^{S}_{F}$	K5.5$^{V}_{F}$	6.7$^{F}_{K}$	8.0$^{F}_{K}$	9.6$^{F}_{K}$	9.9^{K}	9.7^{K}	8.8$^{H}_{K}$	K(10.6)$^{J}_{S}$	(9.1)$^{S}_{K}$	(7.8)$^{S}_{K}$	(6.0)$^{S}_{K}$	(4.0)$^{S}_{K}$	3.0^{K}	(2.2)$^{F}_{K}$	K(1.9)$^{S}_{F}$
Median	(3.7)	(3.6)	3.4	3.2	2.7	2.4	3.0	5.6	7.0	7.7	7.8	8.2	9.2	9.2	9.1	9.2	8.8	(8.1)	(7.1)	5.7	4.8	4.2	(3.9)	(3.8)
Count	31	29	28	28	26	28	31	31	31	30	30	31	31	31	31	31	31	30	30	30	30	31	31	31

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

TABLE 54

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

foF2 (Characteristic), Mc (Unit), October (Month), 1950

IONOSPHERIC DATA

National Bureau of Standards (Institution)

Observed at Washington, D. C.

Lat. 38.7°N, Long. 77.1°W

75°W Mean Time

Scaled by: B.E.B., R.F.B, McC.

Calculated by: B.E.B., R.F.B

Day	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
1	(3.8)$^{S}_{K}$	[3.2]$^{F}_{K}$	2.6$^{F}_{K}$	2.3$^{F}_{K}$	(2.0)$^{S}_{F}$	2.3$^{F}_{K}$	3.9$^{F}_{K}$	4.7$^{F}_{K}$	4.6$^{F}_{K}$	4.3^{K}	[4.3]$^{F}_{K}$	4.4$^{F}_{K}$	(4.4)$^{B}_{K}$	(4.0$^{G}_{K}$	4.5^{K}	4.5^{K}	4.7^{K}	4.6^{K}	(4.3)$^{S}_{K}$	3.7^{K}	(2.8)$^{S}_{K}$	2.5^{K}	(2.0)$^{S}_{K}$	(1.9)$^{S}_{K}$
2	(2.0)$^{S}_{K}$	2.0$^{F}_{K}$	^{K}(2.2)$^{S}_{F}$	S^{F}	S$^{F}_{K}$	^{K}(1.8)$^{S}_{F}$	3.4$^{F}_{K}$	(4.1)$^{S}_{K}$	4.7^{K}	5.0^{K}	5.6$^{F}_{K}$	6.4$^{F}_{K}$	6.4$^{F}_{K}$	8.0$^{F}_{K}$	8.8^{K}	(8.6)$^{S}_{K}$	8.2$^{F}_{K}$	^{K}(7.7)$^{J}_{S}$	^{K}(6.2)$^{F}_{K}$	4.9$^{F}_{K}$	$^{J}_{K}$(3.9)$^{S}_{F}$	(3.3)$^{F}_{K}$	(2.5)$^{F}_{K}$	(2.1)$^{F}_{K}$
3	^{K}[2.2]$^{S}_{F}$	[2.2]$^{F}_{K}$	2.4$^{F}_{K}$	(1.7)$^{F}_{K}$	[1.7]$^{F}_{K}$	(1.7)$^{F}_{K}$	(4.3)^{Z}	(5.9)^{S}	7.4	8.0	8.0	8.2	8.7	8.8^{F}	8.8	(9.3)^{S}	8.8^{F}	8.6^{F}	(7.5)^{S}	6.5	(3.8)$^{S}_{F}$	3.0^{F}	2.9^{F}	(2.9)$^{Z}_{T}$
4	S^{F}	S^{F}	2.4^{F}	F^{B}	F	(1.8)$^{F}_{S}$	4.1	(5.7)$^{S}_{F}$	6.6^{F}	[6.4]^{C}	(7.0)^{S}	8.2	7.7	8.4	9.0	8.0	7.3	7.1	6.5	(5.0)^{S}	4.2^{F}	3.5	(2.8)$^{J}_{B}$	(2.5)$^{J}_{B}$
5	(2.1)^{F}	B	B	B	B	(2.0)$^{S}_{F}$	4.0^{F}	5.3	6.6^{F}	7.1	7.7	7.5	8.0	8.5	8.1	8.9	8.2	8.4	(7.1)^{S}	5.2	(3.4)^{S}	3.1	2.9	(2.8)^{A}
6	2.6^{F}	(2.4)$^{J}_{F}$	[2.0]^{T}	(1.8)$^{S}_{F}$	1.7^{F}	(1.7)^{F}	3.4^{F}	(5.4)$^{S}_{F}$	(5.3)$^{S}_{F}$	6.1^{F}	6.5^{F}	7.6^{F}	8.2	8.3	(8.9)^{S}	8.7	(7.7)^{S}	(6.9)^{S}	(5.4)$^{S}_{F}$	(4.6)$^{J}_{F}$	3.7^{F}	(3.3)$^{S}_{F}$	[3.3]^{C}	C
7	C	2.4^{F}	2.2^{F}	(2.2)^{F}	(2.0)$^{S}_{F}$	(3.1)$^{S}_{F}$	(4.5)^{S}	5.8	(6.6)^{S}	(6.9)^{S}	8.0	7.8	8.4	9.0	8.5	7.7	7.5	6.8	(6.0)^{S}	(5.6)^{S}	4.6	4.4	4.0	(3.8)$^{J}_{S}$
8	3.4	3.3^{F}	3.0^{F}	2.7^{F}	2.1^{F}	2.3^{F}	5.0	(6.6)^{H}	7.0	(8.8)^{H}	8.1	8.2	8.4	9.2	8.5	8.4	8.6	8.2	(6.8)^{S}	(6.0)^{S}	4.3	4.1	(4.0)$^{J}_{S}$	(3.9)$^{J}_{S}$
9	(3.9)$^{J}_{S}$	(3.9)$^{J}_{S}$	3.6	(3.2)^{J}	2.1^{F}	1.8	4.4^{F}	(4.5)^{S}	7.6^{F}	(7.5)^{R}	7.5	7.9	8.2	8.4	(9.0)^{S}	(9.0)^{S}	9.0	8.4	(6.5)^{S}	5.2^{F}	4.5^{F}	4.0^{F}	(4.2)$^{S}_{F}$	(4.0)$^{S}_{F}$
10	3.1^{F}	3.4^{F}	3.4^{F}	3.2^{F}	3.0^{F}	(3.1)$^{S}_{F}$	4.9^{F}	6.6	7.4	(8.3)^{P}	8.3	8.6	9.1	8.4^{N}	9.3	(9.6)$^{J}_{S}$	(9.2)^{S}	(8.4)^{S}	(6.6)$^{S}_{F}$	5.5^{F}	(4.6)$^{S}_{F}$	4.4^{F}	4.1^{F}	(4.2)$^{S}_{F}$
11	(3.9)$^{S}_{F}$	4.1^{F}	(3.8)$^{S}_{F}$	3.7^{F}	3.4^{F}	3.2^{F}	5.0^{F}	7.0	7.8	8.0	8.7	9.0	9.2	9.4	(9.8)^{S}	(10.0)^{S}	(9.5)^{S}	8.9	6.8^{F}	6.2^{F}	5.2	5.0	(4.9)^{J}	(4.8)^{J}
12	4.5	4.7	4.6	4.0	2.8	2.3	5.1	7.2	8.9	9.7	9.6	10.0	9.7	9.7	(9.5)^{S}	(9.5)^{S}	(9.5)^{S}	(9.0)^{S}	7.1	6.2	4.9	(4.4)^{J}	4.1	(3.9)$^{J}_{S}$
13	4.0	(3.9)^{S}	3.7	3.4	3.2^{F}	3.1^{F}	5.2	7.2	8.3	8.2	8.7	10.3	10.8	11.1	11.0	[10.6]^{C}	10.0	(8.8)^{S}	(6.8)$^{J}_{S}$	(6.0)^{S}	5.5	5.2	5.2	5.0
14	5.1	5.0	4.2	3.2	(2.5)^{S}	2.2	(4.6)^{S}	(6.1)^{S}	8.0^{Z}	9.3	9.7	(10.4)^{S}	10.8	11.0	9.5	7.7	(7.5)^{S}	(7.0)^{S}	(6.1)^{S}	4.7	4.8	4.7	4.4^{F}	4.7
15	4.6	(4.1)^{F}	2.4^{F}	2.0^{F}	(2.2)$^{S}_{F}$	2.5	4.8	7.6	8.6	9.0	9.0	9.3	9.8	9.6	9.5	9.1	8.2	7.9	6.5^{F}	(5.0)^{S}	4.4	4.2^{F}	4.1^{F}	4.1^{F}
16	4.0^{F}	3.4^{F}	3.2^{F}	3.0^{F}	(2.0)^{F}	1.8^{F}	4.0^{F}	4.7$^{F}_{K}$	(5.2)$^{S}_{K}$	5.2$^{F}_{K}$	^{K}(5.8)$^{S}_{F}$	6.6$^{F}_{K}$	6.6$^{F}_{K}$	6.6^{K}	7.0$^{F}_{K}$	6.4^{K}	(6.6)$^{S}_{K}$	(6.0)$^{S}_{K}$	(5.0)$^{S}_{K}$	4.8^{F}	4.5	(4.0)^{S}	(3.9)^{S}	3.9
17	(3.8)^{S}	(3.5)$^{F}_{P}$	3.1^{F}	2.2^{F}	1.8^{F}	2.0^{F}	4.3^{F}	6.6^{F}	7.0^{F}	7.6^{F}	8.6^{F}	10.1	10.2	10.7	10.8	(10.7)^{S}	(9.9)^{S}	(8.9)^{S}	6.5^{F}	(5.3)^{S}	4.8	(4.7)^{S}	4.3	4.4
18	(4.2)^{S}	4.1^{F}	3.8^{F}	3.2^{F}	2.1^{F}	(1.9)$^{S}_{F}$	(3.9)$^{S}_{F}$	7.0^{F}	7.2^{F}	7.6^{F}	9.0^{F}	9.2	9.2	10.0	9.8	(9.4)^{S}	(9.0)^{S}	7.6	(6.3)$^{S}_{F}$	5.2^{F}	4.5	4.4	4.1^{F}	4.1^{F}
19	(3.8)$^{S}_{F}$	3.6^{F}	3.3^{F}	(3.1)$^{J}_{F}$	2.7^{F}	(2.2)$^{J}_{F}$	4.2^{F}	6.6^{F}	7.4	8.2	8.2	9.0	9.1^{F}	9.6	(9.3)^{S}	(9.6)^{S}	(9.1)^{S}	(8.0)^{S}	(5.4)$^{S}_{F}$	5.2^{F}	(4.7)$^{S}_{F}$	(4.4)$^{S}_{F}$	(4.0)$^{S}_{F}$	(3.8)$^{S}_{F}$
20	(3.5)$^{S}_{F}$	(3.5)$^{S}_{F}$	(3.7)$^{S}_{F}$	3.5^{F}	3.0^{F}	2.5^{F}	4.4^{F}	6.3^{F}	6.7^{F}	7.3	7.6	8.4	(9.4)^{S}	(9.2)^{S}	(9.2)^{S}	(9.9)^{S}	(8.7)^{S}	(7.5)^{S}	(5.8)^{F}	(5.2)^{S}	(4.1)$^{S}_{F}$	(3.9)$^{S}_{F}$	(3.9)$^{S}_{F}$	(3.9)$^{S}_{F}$
21	(3.8)$^{S}_{F}$	(3.7)$^{J}_{S}$	B	B	[3.2]^{B}	(3.2)$^{S}_{F}$	(5.0)^{S}	(6.1)^{S}	(6.8)^{S}	(8.0)^{S}	(8.6)^{S}	(8.9)^{S}	(9.0)^{S}	(9.2)^{S}	(9.0)^{S}	(8.6)^{S}	(8.4)^{S}	(7.2)^{S}	(6.0)^{F}	(5.5)^{S}	(4.7)^{S}	(4.2)^{J}	(4.0)^{S}	(3.9)$^{J}_{B}$
22	(3.2)$^{J}_{B}$	B	B	B	B	(2.9)$^{S}_{F}$	(4.2)^{F}	(6.8)^{S}	(7.9)^{S}	(8.0)^{S}	(8.0)^{S}	(8.5)^{S}	(9.6)^{S}	(9.8)^{S}	(10.2)^{S}	(9.0)^{S}	(7.7)^{S}	(8.3)^{S}	(7.0)$^{S}_{F}$	(6.9)^{S}	(6.6)^{S}	(5.7)^{S}	(5.6)^{S}	(5.5)^{S}
23	(5.1)^{S}	(4.9)^{S}	(4.3)^{F}	(3.9)$^{S}_{F}$	(3.5)^{F}	(3.0)^{F}	(4.3)$^{S}_{F}$	(6.8)^{S}	(7.2)^{S}	(8.6)^{S}	(8.7)^{S}	8.7	9.3	(9.2)^{S}	(.3)$^{S}_{Z}$	(9.3)^{S}	8.1	(7.3)^{J}	(5.8)$^{J}_{S}$	5.1	4.6	4.2	(4.2)^{T}	3.7
24	(3.7)^{P}	(3.7)^{P}	M	M	M	[2.0]^{S}	4.1^{H}	6.6	M	M	8.2	(8.8)^{R}	9.2	9.2	(9.7)^{S}	(9.4)^{S}	8.4	(6.8)^{S}	(5.6)^{S}	4.2	3.4	3.5	(3.5)^{S}	3.5
25	3.5	3.5	3.4	3.3	3.0^{F}	2.2	4.2^{V}	6.3^{Z}	6.9	7.8	8.1	8.4	9.5	9.1	8.4	8.6	8.2	7.0	4.8	4.4	3.6	3.7	(3.4)^{J}	3.6
26	3.6	3.6	3.4	3.3	3.1	3.1	(4.5)^{J}	(6.6)^{V}	6.8	8.6	7.8	8.4	8.6	9.4	9.5	8.8	8.2	6.6	(5.7)^{S}	4.3	3.6	3.6	3.5	3.4
27	3.3	3.4	3.4	3.4	3.3	3.3^{F}	4.7^{F}	7.0^{F}	7.9^{V}	8.1^{V}	8.3	8.7^{V}	9.1	9.2	9.0	9.3	(8.1)^{S}	(6.6)^{S}	(5.9)^{S}	(5.8)^{S}	(4.9)^{S}	4.5	4.3	(4.2)^{S}
28	4.3^{K}	4.3^{K}	4.0^{K}	3.2^{K}	2.0$^{F}_{K}$	3.0$^{F}_{K}$	3.4$^{F}_{K}$	4.1$^{F}_{K}$	4.1^{K}	L3.6$^{G}_{K}$	4.0$^{F}_{K}$	4.6$^{F}_{K}$	4.6^{K}	L4.0$^{G}_{K}$	5.3^{K}	6.0$^{F}_{K}$	^{K}(9.3)$^{S}_{F}$	8.4$^{F}_{K}$	^{K}(6.9)$^{S}_{F}$	[4.4]$^{F}_{K}$	2.0$^{F}_{K}$	(2.1)$^{F}_{K}$	(2.5)$^{F}_{K}$	(2.6)$^{F}_{K}$
29	^{K}(2.5)$^{S}_{F}$	^{K}(2.7)$^{F}_{B}$	^{K}[1.9]$^{F}_{B}$	^{K}(1.5)$^{F}_{B}$	(1.7)$^{F}_{K}$	(1.5)$^{F}_{K}$	3.7$^{F}_{K}$	6.6^{K}	(8.1)$^{F}_{K}$	8.9$^{F}_{K}$	9.6^{K}	10.3^{K}	11.7^{K}	11.4^{K}	^{K}(10.4)$^{J}_{S}$	(9.1)$^{S}_{K}$	M^{K}	M^{K}	M^{K}	2.9$^{F}_{K}$	3.0$^{F}_{K}$	(2.5)$^{F}_{K}$	^{K}[2.6]$^{S}_{F}$	^{K}(2.6)$^{S}_{F}$
30	3.0$^{F}_{K}$	(2.5)$^{F}_{K}$	[2.4]$^{F}_{K}$	^{K}(2.1)$^{J}_{F}$	1.9$^{F}_{K}$	[2.0]$^{B}_{K}$	3.6$^{F}_{K}$	(6.8)$^{S}_{K}$	8.6$^{F}_{K}$	9.1^{K}	9.6^{K}	9.9^{K}	11.9^{K}	10.8^{K}	11.4^{K}	11.8^{K}	^{K}(10.3)$^{S}_{P}$	8.6$^{F}_{K}$	^{K}(5.4)$^{S}_{F}$	^{K}(4.8)$^{V}_{F}$	^{K}(3.1)$^{S}_{F}$	^{K}(2.3)$^{S}_{F}$	^{K}(1.8)$^{J}_{S}$	1.8^{K}
31	S^{K}	S$^{F}_{K}$	S$^{F}_{K}$	(1.8)$^{S}_{K}$	1.6$^{F}_{K}$	E^{K}	3.0$^{F}_{K}$	4.5$^{F}_{K}$	5.2$^{F}_{K}$	6.0$^{F}_{K}$	^{K}6.9$^{Z}_{F}$	9.1$^{F}_{K}$	10.0^{K}	(9.8)$^{S}_{K}$	8.9^{K}	(10.1)$^{S}_{K}$	(10.1)$^{S}_{K}$	(8.9)$^{S}_{K}$	(6.7)$^{S}_{K}$	4.6^{K}	3.5^{K}	2.6$^{F}_{A}$	^{K}(1.9)$^{S}_{F}$	^{K}(1.7)$^{J}_{F}$
Median	(3.8)	3.5	3.4	3.2	2.2	2.2	4.3	6.6	7.1	8.0	8.1	8.6	9.1	9.2	9.2	(9.1)	(8.4)	(7.8)	(6.2)	5.2	4.4	4.0	(4.0)	(3.8)
Count	28	27	26	25	26	31	31	31	30	30	31	31	31	31	31	31	30	30	30	31	31	31	31	30

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

TABLE 55

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D. C.

Form adopted June 1946

IONOSPHERIC DATA

h'F1 (Characteristic), Km (Unit), October (Month), 1950

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1									Q^{K}	240^{K}	230$^{H}_{K}$	210$^{H}_{K}$	200$^{H}_{K}$	220$^{H}_{K}$	240^{K}	240^{K}	260^{K}	270^{K}						
2									230^{K}	220^{K}	210^{K}	190^{K}	210^{K}	240^{K}	260^{K}	230^{K}	220^{K}	250^{K}						
3									230	210	200	200^{H}	200	200	210^{H}	230	230							
4									230	220	220	210	210	210	220	230	230							
5									230	210	[200]^{A}	200	220	200	[220]^{A}	230	Q							
6									230	210	210	200	210	210^{H}	220	220	240							
7									230	210	210	200	230	220	210^{H}	230	250							
8									230	210	220	[220]^{C}	220	220^{H}	Q	Q	Q							
9									240	210	200	190^{H}	230	230	210	230	230							
10									220	210	200	210	190^{H}	220	210	230	Q							
11									230	220	190	200	200	210	220	240	Q							
12									Q	210	200^{H}	200	210	200^{H}	220	220	240							
13									Q	220	210	200^{H}	180^{H}	240	230	220	230							
14									260	(220)^{A}	(220)^{A}	(220)^{A}	(230)^{A}	240	230	[240]^{A}	(240)^{A}							
15									Q	220	210	200	200	(210)^{A}	220	220	Q							
16									250^{K}	230^{K}	200$^{H}_{K}$	250^{K}	240^{K}	[230]$^{A}_{K}$	230^{K}	250^{K}	270^{K}							
17									Q	Q	Q	220	240	210	240	220	Q							
18									Q	210	210	210^{H}	200	240	A	A	Q							
19									230	230	210	210	190	(240)^{A}	230	(240)^{A}	Q							
20									220	210	210	190^{H}	200	200^{H}	Q	Q	Q							
21									Q	(240)^{B}	230	220	[220]^{B}	220	(230)^{B}	230	Q							
22									B	B	(210)^{B}	(210)^{B}	[220]^{B}	(230)^{B}	B	Q	Q							
23									Q	200	180	180^{H}	190	190^{H}	200	210	Q							
24									210	M	M	190^{H}	200	200^{H}	210	220^{H}	Q							
25									Q	200^{H}	190^{H}	200^{H}	190	200^{H}	230	230	Q							
26									Q	220	200	200	190^{H}	200^{H}	220	230	Q							
27									Q	200	200	200^{H}	200^{H}	210	210	220	Q							
28									280^{K}	230^{K}	230^{K}	260^{K}	250$^{H}_{K}$	230^{K}	230^{K}	230^{K}	230^{K}							
29									Q^{K}	220^{K}	210^{K}	[210]$^{B}_{K}$	210^{K}	210^{K}	200^{K}	210^{K}	Q^{K}							
30									220^{K}	220^{K}	200$^{H}_{K}$	200^{K}	220^{K}	200^{K}	220^{K}	240^{K}	Q^{K}							
31									230^{K}	220^{K}	200^{K}	200$^{H}_{K}$	220$^{H}_{K}$	220^{K}	220^{K}	Q^{K}	Q^{K}							
Median									230	220	210	200	210	210	220	230	240	—						
Count									18	28	29	31	31	31	27	26	12	2						

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

TABLE 56

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

foF1 (Characteristic), Mc (Unit), October (Month), 1950

IONOSPHERIC DATA

National Bureau of Standards (Institution)

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B, R.F.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1									Q^{K}	4.1^{K}	(3.8)$^{S}_{K}$	(4.0)$^{S}_{K}$	4.1$^{K}_{H}$	4.1$^{K}_{H}$	4.0^{K}	4.0^{K}	3.9^{K}	L^{K}						
2									(3.8)$^{S}_{K}$	4.1^{K}	4.2^{K}	4.6^{K}	4.7^{K}	4.5^{K}	4.6^{K}	(4.3)$^{P}_{K}$	L^{K}	L^{K}						
3									L	(4.1)^{P}	4.0	[4.4]^{L}	(4.7)^{P}	4.4	4.0^{H}	4.1	L							
4									L	L	4.5	4.4	4.5	4.5	4.4	L	L							
5									L	4.3	L	L	(4.6)^{P}	4.3	L	L	Q							
6									L	L	4.8	4.6	4.7	4.7^{H}	L	L	L							
7									L	L	4.5	4.6	5.0	4.6	4.5^{H}	L	L							
8									L	L	L	C	L	L	Q	Q	Q							
9									L	(4.3)^{P}	4.5	4.4^{H}	L	L	L	L	L							
10									L	L	L	3.8	3.6	L	L	L	Q							
11									L	L	L	L	L	L	L	L	Q							
12									Q	L	(4.1)^{H}	L	L	L	L	L	L							
13									Q	L	L	5.0	L	L	L	L	L							
14									L	L	L	L	(4.7)^{P}	(4.7)^{P}	(4.3)^{P}	(4.1)^{P}	L							
15									Q	L	(4.4)^{P}	L	L	L	L	L	Q							
16									L^{K}	L^{K}	4.6^{K}	4.4^{K}	4.4^{K}	4.4^{K}	4.5^{K}	4.1^{K}	L^{K}							
17									Q	Q	Q	4.8	(4.8)^{P}	L	L	L	Q							
18									Q	L	L	L	4.3	L	L	L	Q							
19									L	L	L	4.5	(4.6)^{P}	L	L	L	Q							
20									L	L	L	L	L	L	Q	Q	Q							
21									Q	L	L	L	L	L	L	L	Q							
22									L	B	L	L	L	L	L	Q	Q							
23									Q	L	(4.0)^{P}	4.5	L	L	L	L	Q							
24									L	M	M	L	L	L	L	L	Q							
25									Q	L	L	L	L	L	L	L	Q							
26									Q	L	L	L	L	L	L	L	Q							
27									Q	L	L	L	L	(4.5)^{P}	L	L	Q							
28									(3.6)$^{T}_{K}$	3.7^{K}	3.6^{K}	3.7^{K}	(4.0)$^{S}_{K}$	4.0^{K}	4.0^{K}	4.0^{K}	3.6^{K}							
29									Q^{K}	L^{K}	L^{K}	B^{K}	L^{K}	4.4^{K}	L^{K}	L^{K}	Q^{K}							
30									L^{K}	L^{K}	L^{K}	L^{K}	L^{K}	3.9^{K}	L^{K}	L^{K}	Q^{K}							
31									L^{K}	L^{K}	L^{K}	4.4^{K}	L^{K}	L^{K}	L^{K}	Q^{K}	Q^{K}							
Median									—	4.1	4.3	4.4	4.6	4.4	4.4	4.1	—	—						
Count									2	6	12	15	14	13	8	6	2							

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

TABLE 57

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

h'E (Characteristic), Km (Unit), October (Month), 1950

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

(Institution) National Bureau of Standards

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							110 K	120 K	(110) A K	110 K	110 K	100 K	(100) A K	100 K	100 K	100 K	110 K	(130) S K						
2								120 K	110 K	110 K	110 K	110 K	110 K	100 K	100 K	(110) B K	(110) B K	(120) S K	(130) S K					
3								120	110	110	110	110	(120) A	100	110	110	(110) B	(120) A						
4								120	110	110	(110) B	[110] C	110	100	[100] D	(110) B	110	120						
5								(120) B	110	110	(110) A	(110) A	100	100	100	110	110	S						
6								120	110	110	100	100	100	(100) A	(100) A	110	110	(120) S						
7								120	110	100	(110) B	[110] B	[110] B	(110) B	(110) B	110	B							
8								(120) B	110	(110) B	110	[100] C	100	100	100	110	110	(120) B						
9								110	(100) A	(100) A	100	100	110	110	110	110	110	110						
10								130	110	100	110	110	110	110	110	120	110	(110) A						
11								(110) A	110	110 H	100 H	110	110	(110) A	110	110	110	(120) S						
12								110	110	110	110	100	100	(110) A	110	110	110	120						
13								(120) S	100	(100) A	100	110	110	100	100	110	110	(130) S						
14								110	110	100	100	(100) A	(100) A	(100) A	(100) A	(100) A	110	(110) A						
15								(110) A	(100) A	(100) A	(100) A	(100) A	(100) A	(100) A	(100) A	(100) A	110	(100) A						
16								(110) A K	(100) A K	100 K	110 K	110 K	110 K	110 K	110 K	110 K	110 K	S K						
17								120	(110) A	110	110	110	100	(110) B	(110) B	(110) B	[100] B	(100) A						
18								(130) S	110	110	(110) A	(100) A	100	(110) B	(110) B	(110) B	120	(120) A						
19								B	100	100	(100) A	(110) A	(100) A	(100) A	(100) B	(100) A	110	(100) A						
20								(110) A	120	(110) A	(100) A	(100) A	100	(100) A	100	110	(100) A	S						
21								M	M	M	M	M	M	M	M	(100) B	(100) A	B						
22								M	M	M	M	M	M	M	M	M	(100) B	(100) A						
23								(130) S	100	(100) A	(100) A	100	100	(100) A	100	100	100	120						
24								B	100	M	M	100	100	110	110	110	120							
25								110	(110) A	(100) A	(100) A	100	(100) A	(100) A	110	110	110							
26								(110) A	110	(110) A	(110) A	(100) A	(100) A	(100) A	(100) A	(100) A	(100) A	(110) A						
27								(110) A	(110) A	(100) A	(100) A	(100) A	110	100	(100) A	(100) A	(100) A	S						
28								(120) S K	110 K	100 K	100 K	100 K	(110) B K	110 K	(100) A K	110 K	120 K	(130) S K						
29								(120) B K	110 K	(120) B K	100 K	[100] B K	(110) B K	[110] B K	(110) B K	110 K	120 K	M K						
30								S K	(120) B K	110 K	(100) B K	(110) B K	B K	B K	B K	(120) B K	B K							
31								S K	(120) S K	[120] B K	(110) B K	110 K	(110) B K	(110) S K	(110) S K	100 K	(110) B K							
Median							–	(120)	110	110	100	100	100	(100)	100	110	110	(120)	–						
Count							1	25	29	28	28	29	28	28	28	30	29	20	1					

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

TABLE 58

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

foE (Characteristic), Mc (Unit), October (Month), 1950

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							1.5 K	2.2 K	2.6 K	2.8 K	3.0 K	3.0 K	(3.0) A K	3.1 K	3.0 K	2.7 K	2.3 K	1.9 K						
2								2.1 K	2.5 K	2.7 K	2.7 K	3.0 K	3.1 K	3.0 K	3.0 K	(2.7) B K	2.4 K	(2.0) F K	(1.3) S K					
3								2.0	2.6	2.9	3.0	3.0	[3.0] A	3.0	3.1	2.9	B	A						
4								2.1	2.5	2.7	2.8	C	F	(3.0) F	3.0	2.8	2.5	2.0						
5								B	2.5	3.0	(3.0) A	[3.0] A	(3.1) B	3.1	3.0	2.9	2.5	1.9						
6								2.1	2.5	2.9 F	3.0	(3.1) F	3.2	[3.1] A	(3.0) A	(2.7) S	2.5	2.0						
7								2.1	2.4	2.7	(2.8) B	[3.0] B	[3.1] B	(3.1) B	(3.0) B	2.9 F	B							
8								B	2.5	(2.9) B	(3.0) F	[3.0] C	3.1	3.2	3.2	2.9	2.5	1.8						
9								2.1	(2.5) A	(2.9) A	2.9	(3.0) B	(3.2) B	3.3	3.1	3.0	2.4	1.8						
10								2.0	2.5	2.9	(3.0) P	[3.1] B	3.2	3.2	3.2	3.0	2.6	A						
11								2.2	2.6	3.0 H	2.2 H	3.3	3.3	3.3	3.1	3.0	2.5	(1.7) B						
12								1.8	2.5	2.9 F	(3.0) B	(3.1) B	B	A	3.1	2.9	2.5	1.8						
13								1.9	(2.5) B	2.9	3.0	3.1	3.3	3.2	3.1	2.9	2.5	1.7						
14								2.0	2.5 F	2.8	A	A	A	(3.1) A	(3.0) A	2.9	2.4	A						
15								1.9	A	A	(3.0) A	3.1	3.2	3.1	3.0	2.8	(2.4) F	A						
16								2.0 K	2.5 K	2.8 K	3.0 K	3.0 K	3.0 K	3.0 K	3.0 K	2.7 K	2.3 K	1.7 K						
17								1.7	2.4	2.8	3.0	3.1	(3.2) B	(3.1) B	3.1	2.8	(2.3) B	B						
18								1.8	(2.4) B	(2.6) B	[2.8] A	3.1	3.3	3.2	3.1	2.9	2.5	A						
19								B	2.4	2.5	A	A	A	A	(2.8) B	[2.6] A	2.4	A						
20								A	2.5 H	A	A	(3.1) A	3.1	3.1	3.0	2.7	[2.2] A	1.8						
21								M	M	M	M	M	M	M	M	(2.7) B	A	B						
22								M	M	M	M	M	M	M	M	M	(2.4) B	A						
23								1.8	[2.2] B	2.7	2.9	3.0	3.1	3.0	2.9	2.6	2.3	(1.5) S						
24								B	(2.2) B	M	M	3.0	3.0	3.0	2.9	2.6	2.2							
25								1.8	A	A	A	3.0 F	3.0	3.0	2.8 F	2.6	2.2							
26								A	(2.0) A	A	A	3.0	3.1	(3.0) A	3.0	(2.7) A	(2.2) A	A						
27								A	A	A	(3.0) A	[3.1] A	3.2	3.1	3.0	2.7	2.3	S						
28								1.7 K	2.2 K	2.5 K	2.7 K	(3.0) B K	3.0 K	2.9 K	2.8 K	2.5 K	2.1 K	(1.5) S K						
29								(1.7) B K	2.3 K	(2.5) B K	2.8 K	[3.0] B K	(3.1) B K	(3.0) B K	(2.8) B K	2.6 K	2.2 K	M K						
30								(1.7) S K	(2.3) B K	(2.5) B K	(2.8) B K	(3.0) B K	[3.0] B K	3.0 K	2.9 K	2.6 K	(2.1) B K							
31								(1.7) S K	2.2 K	[2.5] B K	(2.7) B K	3.0 K	3.1 K	3.0 K	2.9 K	(2.7) S K	(2.2) B K							
Median							—	2.0	2.5	2.8	3.0	3.0	3.1	3.1	3.0	2.7	2.4	1.8	—					
Count							1	22	26	23	23	26	25	27	29	30	28	14	1					

Sweep: 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

TABLE 59

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

Es (Characteristic), Mc,Km (Unit), October (Month), 1950

National Bureau of Standards (Institution)

Observed at Washington, D.C.

Scaled by: B.E.B., R.F.B., McC.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

Calculated by: B.E.B., R.F.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	G	G	2.0/130	1.6 F/130	G	3.2/110	G	G	5.9/110	G	G	G	6.2 Y/100	G	6.3/120	G	G	G	G	G	G	G	G	G
2	G	G	G	G	G	G	G	G	G	G	G	9.8 Y/120	7.2/100	G	G	G	G	G	G	G	G	4.7 F/180	3.0 F/160	2.7 F/170
3	3.3/170	G	G	4.0/120	4.2/110	B	1.8 F/120	G	7.8/120	G	G	G	7.0 Y/120	G	6.8 Y/100	G	G	2.3/120	G	G	G	G	G	G
4	G	G	G	G	6.9/170	G	G	G	1.1.0/100	G	G	C	G	5.6 Y/110	G	G	G	3.0/130	3.0/110	G	5.3 Y/100	G	G	G
5	G	B	B	6.0/120	B	G	G	G	G	G	6.6 Y/110	3.0/110	7.2 Y/100	G	3.7/120	G	3.9/130	4.2/120	2.5 Y/120	G	G	G	G	4.9/120
6	6.0/120	G	2.5/130	1.3/120	1.1.4/110	2.3/110	3.1 Y/110	G	G	G	G	G	G	3.7/100	2.5/100	G	G	G	G	G	G	3.4/110	G	3.2/110
7	C	G	G	2.4/110	2.8 Y/110	5.0/110	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
8	G	G	G	2.5 Y/110	3.0 Y/100	G	G	G	G	G	G	C	G	G	G	G	G	G	G	1.8/110	G	G	G	G
9	G	G	2.5 Y/100	3.5/100	1.4/100	(1.5) S/110	G	G	2.7/100	5.4 Y/100	G	G	G	G	G	G	G	G	6.6 Y/110	G	G	G	G	G
10	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	2.0/110	G	G	G	G	G	G
11	G	G	G	1.4/110	G	G	G	2.1/100	G	G	G	G	G	3.1/110	9.0/130	G	G	G	G	G	G	G	G	G
12	G	G	G	G	G	G	G	G	G	G	G	G	G	5.7 Y/110	G	G	G	G	G	G	G	G	G	G
13	G	G	G	G	G	G	G	G	G	(5.7) S/100	G	G	G	G	G	G	3.8/130	G	1.9/110	G	G	G	G	G
14	G	G	G	G	G	G	5.1/170	3.5 Y/110	G	4.0/110	4.0/100	5.6/100	4.3/100	5.9 Y/100	6.0 Y/100	4.3/120	5.8/130	5.0/110	G	G	8.3/110	G	G	G
15	5.0/110	G	G	1.3/110	1.3/100	G	G	2.0/110	3.2/100	8.0/100	3.6/100	2.7/100	5.6 Y/100	2.5/100	2.3/100	1.8/100	3.5 F/120	1.9/100	3.0 Y/100	G	3.3 Y/110	3.0 Y/110	3.1 Y/100	(3.8) S/110
16	7.2/110	3.5/110	G	G	G	3.8/110	G	1.8/110	1.7/100	6.0/130	G	G	G	3.8/110	3.3/120	G	3.4 Y/120	4.7/110	G	G	G	G	G	G
17	G	G	G	G	G	G	G	G	2.2/110	G	G	G	G	G	G	G	G	1.7/100	1.7/100	G	G	G	G	G
18	G	G	G	G	G	G	G	G	G	G	3.0/110	2.6/100	G	G	4.6/120	4.8/120	4.2/120	3.7/120	3.0/120	3.2/120	4.3/110	G	2.7/110	G
19	G	G	1.6/100	2.5/100	3.4/100	G	G	G	G	G	3.1/100	3.3/110	3.0/100	9.8 Y/100	G	3.9 Y/100	G	2.0/100	4.6/110	3.8/110	3.7 Y/110	3.3/110	(4.0) S/100	5.4/100
20	G	2.5/100	3.7 Y/100	2.9 Y/100	3.0/100	6.2 Y/160	G	2.1/110	G	3.1/110	3.3/100	3.1/100	G	2.8/100	2.1/100	G	2.7/100	G	G	G	G	3.2 Y/100	G	G
21	G	G	G	B	G	G	G	G	G	G	G	G	G	G	G	G	2.4/100	G	G	G	G	G	G	G
22	G	G	B	B	B	G	G	G	G	G	G	G	G	G	G	G	G	3.4 Y/100	G	G	G	G	G	G
23	G	G	G	G	G	G	G	G	G	2.1/100	2.8/100	G	G	3.0/100	G	G	G	G	G	G	G	G	4.7/100	G
24	G	G	G	M	M	M	G	G	G	M	M	G	G	G	G	G	G	G	G	G	G	G	G	G
25	G	G	G	G	G	G	G	5.8 Y/180	5.4 Y/110	3.5 Y/100	7.2 Y/100	G	2.8/100	5.7 Y/100	1.8/100	3.7/110	G	G	G	G	G	G	G	G
26	G	G	5.9 Y/100	5.6 Y/110	3.4/110	(5.5) S/110	G	3.1 Y/110	7.2 Y/110	3.4 Y/110	2.9/110	6.0 Y/100	7.0 Y/100	4.1/100	3.5 Y/100	3.3 Y/100	3.7/100	4.0/100	G	G	G	2.5 Y/100	G	G
27	G	2.6/100	1.8/100	G	8.8 Y/110	3.3/110	4.4 F/110	3.1 Y/110	3.6 Y/110	6.8 Y/110	6.3 F/100	6.0/100	2.3/100	7.2/110	2.4/100	4.0 Y/100	4.0/100	G	G	G	G	G	G	G
28	G	G	G	G	G	G	G	G	G	G	G	8.0 Y/110	5.6 Y/120	G	1.8/100	8.7 Y/110	G	G	G	G	G	G	G	G
29	G	G	G	G	G	G	G	G	G	G	G	G	1.0.2 Y/100	G	G	G	G	M	M	G	G	G	G	G
30	G	G	2.8/100	2.2/100	G	G	G	G	G	G	G	G	1.0.2 Y/100	G	G	1.9/100	G	G	1.3 Y/130	2.4/150	(6.3) S/110	G	(2.4) S/180	G
31	G	G	G	G	1.3/100	1.0.7 Y/130	G	G	G	6.7 Y/120	G	6.5/120	G	6.0/120	G	G	G	G	G	G	G	G	G	G
Median	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**	**
Count	30	30	29	29	28	29	31	31	31	30	30	29	31	31	31	31	31	30	30	31	31	31	31	31

** MEDIAN fEs LESS THAN MEDIAN foE, OR LESS THAN LOWER FREQUENCY LIMIT OF RECORDER

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

TABLE 60

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

(MI500)F2 (Characteristic), _____ (Unit), October (Month), 1950

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(1.7)$^{S}_{K}$	(1.7)$^{F}_{K}$	2.1$^{F}_{K}$	1.9$^{F}_{K}$	(1.8)$^{S}_{K}$	(1.8)$^{F}_{K}$	1.9$^{F}_{K}$	2.2$^{F}_{K}$	2.0$^{F}_{K}$	1.5$^{F}_{K}$	1.4^{K}	1.6$^{F}_{K}$	1.5^{K}	G^{K}	1.5^{K}	1.5$^{H}_{K}$	1.8^{K}	1.9^{K}	2.1^{K}	1.9^{K}	(2.0)$^{V}_{K}$	1.8^{K}	^{S}(1.7)$^{F}_{K}$	(1.7)$^{S}_{K}$
2	(1.7)$^{S}_{K}$	1.8$^{F}_{K}$	1.9$^{F}_{K}$	2.0$^{F}_{K}$	F^{K}	SF^{K}	1.9$^{F}_{K}$	2.1$^{F}_{K}$	G^{K}	1.9$^{H}_{K}$	1.9$^{F}_{K}$	1.9^{K}	^{F}1.8$^{H}_{K}$	1.9$^{F}_{K}$	^{S}(1.7)$^{F}_{K}$	(2.1)$^{S}_{K}$	2.1^{K}	(2.0)$^{S}_{K}$	^{S}(2.1)$^{F}_{K}$	1.9$^{F}_{K}$	^{S}(1.9)$^{F}_{K}$	^{S}(1.8)$^{F}_{K}$	^{S}(1.8)$^{F}_{K}$	(1.8)$^{F}_{K}$
3	^{S}(1.8)$^{F}_{K}$	^{S}(1.7)$^{F}_{K}$	(1.8)$^{F}_{K}$	^{S}(1.9)$^{F}_{K}$	BF^{K}	B^{K}	2.1^{F}	(2.3)^{S}	2.2	2.2	2.1^{H}	2.0	2.1	2.0^{F}	(2.0)^{S}	2.0	(2.0)$^{S}_{F}$	(2.2)$^{S}_{F}$	(2.1)$^{S}_{F}$	(2.3)^{S}	(2.2)$^{S}_{F}$	(2.1)$^{S}_{F}$	1.8^{F}	(1.8)$^{Z}_{F}$
4	F	(1.7)$^{S}_{F}$	(1.8)$^{F}_{B}$	F	(1.7)^{B}	1.7^{F}	2.0	2.1^{F}	2.0^{F}	2.3^{F}	2.0	2.1	2.0	2.0	1.9	2.1	(2.1)^{S}	2.1	(2.1)^{S}	2.1	(2.0)$^{S}_{F}$	2.0^{F}	1.8	(1.8)$^{J}_{D}$
5	(1.7)^{J}	B	B	B	B	1.8^{F}	2.1^{F}	2.3^{F}	2.2^{F}	2.1^{Z}	2.2	(2.1)^{H}	2.1	2.1	2.1	2.0	(2.1)$^{S}_{H}$	(2.1)^{S}	(2.2)^{S}	2.2	2.0	1.8^{F}	(1.9)^{S}	(1.9)^{A}
6	1.8^{F}	1.9^{F}	(2.0)$^{J}_{E}$	(1.9)$^{S}_{E}$	(1.9)^{F}	1.9^{F}	2.1^{F}	2.2^{F}	2.3^{F}	2.2^{F}	(2.1)$^{S}_{E}$	2.1	2.0	2.0	2.0	(2.0)^{S}	2.2^{F}	(2.3)^{S}	(2.2)^{S}	1.9^{F}	2.1^{F}	1.9^{F}	C	C
7	C	(2.0)$^{S}_{F}$	(1.6)$^{S}_{F}$	1.8^{F}	(2.0)$^{S}_{F}$	(2.0)$^{S}_{F}$	(1.9)^{D}	2.2^{F}	2.3^{F}	2.2^{H}	2.1	2.0^{V}	2.0	2.0	2.1	2.2	2.1	2.2	2.1	2.0^{F}	1.9	1.8	1.9	C
8	C	C	C	C	C	C	C	C	C	(2.1)^{H}	2.2	C	2.0	2.0	2.0^{H}	2.1	2.1	2.2	2.2	(2.1)^{S}	2.2	1.9	(1.8)$^{S}_{J}$	(1.8)$^{J}_{S}$
9	(1.9)$^{J}_{F}$	(1.9)$^{J}_{S}$	(1.9)$^{J}_{S}$	2.0	2.1	2.0^{F}	2.0^{F}	(2.3)^{F}	2.3	(2.4)$^{J}_{Z}$	2.3	2.2^{H}	2.1	2.0	2.0	2.1	(2.1)^{S}	2.1^{F}	(2.3)^{S}	2.1^{F}	1.9^{F}	1.9^{F}	(1.9)$^{F}_{S}$	(1.9)$^{F}_{S}$
10	(1.8)$^{S}_{F}$	1.8^{F}	1.8^{F}	1.9^{F}	1.9^{F}	2.0^{F}	2.0^{F}	2.2	2.3	2.4	2.3	2.1	2.1	2.0	(2.0)^{S}	2.1	2.2	2.2	(2.1)$^{J}_{S}$	2.2^{F}	2.0^{F}	1.9^{F}	1.9^{F}	(1.8)$^{S}_{F}$
11	1.9^{F}	(1.9)$^{S}_{F}$	(1.9)$^{S}_{F}$	1.9^{F}	1.9^{F}	1.9^{F}	2.0	(2.3)$^{S}_{F}$	2.3	2.3	2.3	2.1	2.1	2.1	2.0	2.1	(2.1)^{S}	2.1	(2.2)^{S}	2.0^{F}	2.0	1.9^{F}	(1.8)$^{J}_{F}$	1.7
12	1.8	1.7	1.8	2.1	2.2	(1.9)$^{J}_{S}$	2.0	2.3	2.2^{Z}	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.1	(2.2)^{S}	2.1	2.0	2.0	(2.0)$^{J}_{S}$	1.9	(1.8)$^{J}_{S}$
13	1.8	1.8	1.9	2.1	2.0	2.0^{F}	2.0	2.3	2.2	(2.3)^{S}	2.1	2.0	2.0	2.0	2.0	(2.1)^{S}	(2.1)^{S}	(2.2)$^{S}_{F}$	(2.1)^{S}	2.1	(2.0)$^{J}_{S}$	1.8	(1.8)^{S}	1.8
14	1.8	(2.0)^{S}	2.0	2.0	2.1	1.7	(1.8)$^{J}_{S}$	2.2	2.2	2.0^{V}	2.0	2.0	1.9	1.9	2.0	2.0	2.0	(2.0)^{S}	2.0	2.0	1.7	1.7	1.7	1.8
15	1.9^{F}	2.2^{F}	2.4^{F}	2.0^{F}	1.9^{F}	(1.8)^{S}	1.8	2.3	2.1^{V}	2.1	2.2	2.1	2.0	2.1	2.1	2.1	(2.2)^{S}	2.2	(2.1)^{S}	2.2^{F}	1.9	1.8	1.9^{F}	1.8^{F}
16	1.8^{F}	1.9^{F}	1.9^{F}	2.0^{F}	1.8^{F}	1.9^{F}	(2.1)$^{S}_{F}$	2.2$^{F}_{A}$	2.0^{K}	2.0$^{F}_{K}$	^{S}(1.8)$^{F}_{K}$	1.8$^{F}_{K}$	1.9$^{F}_{K}$	1.9$^{F}_{K}$	^{K}(1.9)$^{S}_{E}$	1.9$^{F}_{K}$	2.0^{K}	(2.0)$^{S}_{K}$	^{S}(2.0)$^{D}_{K}$	1.9	1.8	1.8	(1.7)^{S}	(1.7)^{S}
17	(1.9)^{S}	(2.0)$^{S}_{F}$	2.0^{F}	2.1^{F}	(1.8)$^{J}_{F}$	1.8^{F}	1.8^{F}	2.3^{F}	2.1^{F}	2.3	2.1$^{F}_{H}$	2.0	2.0	2.0	(2.0)^{S}	2.0	(2.1)^{S}	(2.0)^{S}	(2.2)^{S}	2.0^{F}	1.8	(1.8)^{S}	1.9	1.9^{F}
18	1.9^{F}	1.9^{F}	(2.1)$^{S}_{F}$	2.0^{F}	(2.2)$^{J}_{F}$	1.9^{F}	2.0^{F}	2.1^{F}	2.3^{F}	2.1$^{F}_{Z}$	2.1^{F}	2.2^{F}	2.1	2.0^{F}	2.1^{Z}	2.2^{Z}	(2.2)^{S}	2.2^{F}	(2.2)$^{S}_{F}$	2.0^{F}	2.0^{F}	1.9	1.9^{F}	1.9^{F}
19	1.9^{F}	(2.0)$^{S}_{F}$	2.0^{F}	(2.0)$^{J}_{F}$	(2.1)$^{J}_{F}$	2.0^{F}	2.1^{F}	2.4^{F}	2.4$^{F}_{Z}$	2.3	2.3	2.1^{F}	2.2^{F}	2.1	2.1	(2.1)^{S}	(2.2)^{S}	(2.2)^{S}	(2.1)^{S}	(2.0)^{F}	(2.2)$^{S}_{F}$	(2.0)$^{S}_{F}$	(2.1)$^{S}_{F}$	(2.1)^{F}
20	2.0^{F}	(2.0)$^{S}_{E}$	1.9^{F}	(1.9)$^{S}_{F}$	(2.2)$^{S}_{F}$	(2.1)$^{S}_{F}$	2.2^{F}	2.5^{F}	2.4^{F}	2.5	2.3^{Z}	(2.1)$^{S}_{F}$	(2.2)^{S}	2.2	(2.2)$^{S}_{H}$	(2.2)^{S}	(2.3)^{S}	(2.3)^{S}	(2.2)^{F}	(2.1)^{S}	(2.1)$^{S}_{E}$	(1.9)$^{J}_{S}$	(1.9)$^{J}_{F}$	(2.0)$^{S}_{F}$
21	(1.8)$^{S}_{F}$	(2.0)$^{J}_{F}$	(2.0)^{B}	B	(1.9)$^{J}_{B}$	(2.0)$^{S}_{F}$	(2.1)$^{S}_{F}$	(2.3)^{F}	(2.2)^{S}	(2.1)^{S}	(2.2)^{S}	(2.2)^{S}	(2.2)^{S}	(2.1)^{S}	(2.2)^{S}	(2.2)^{S}	(2.3)^{S}	(2.3)^{S}	(2.2)^{F}	(2.2)^{F}	(2.1)^{S}	(2.1)^{J}	(2.0)^{S}	(2.0)^{S}
22	(2.1)^{D}	(2.0)^{J}	B	B	B	(2.1)$^{S}_{F}$	(2.1)$^{S}_{E}$	(2.5)^{S}	(2.4)^{S}	(2.4)^{S}	(2.2)^{S}	(2.2)^{S}	(2.1)^{S}	(2.0)^{S}	(2.1)^{S}	(2.2)^{S}	(2.2)^{S}	(2.2)^{S}	(2.1)$^{S}_{Z}$	(2.1)$^{S}_{F}$	(2.0)^{S}	(2.0)$^{S}_{F}$	(1.9)^{S}	(2.0)^{S}
23	(2.0)^{S}	(2.1)^{S}	2.2^{F}	2.1^{F}	2.1	2.0^{F}	2.0^{F}	(2.3)^{S}	2.4	2.3	(2.4)^{S}	2.3	2.1	(2.3)^{S}	(2.2)^{S}	(2.2)^{S}	2.3	(2.3)^{S}	2.3	2.1	(2.0)^{S}	(2.0)^{S}	(2.0)$^{J}_{A}$	(2.0)^{F}
24	2.0	(2.0)^{D}	(2.1)^{D}	M	M	M	2.0	(2.5)^{F}	(2.5)^{R}	M	M	2.3	2.3	2.2	(2.2)^{S}	(2.2)^{S}	2.3	(2.4)^{S}	2.3^{F}	2.3	(2.2)$^{S}_{F}$	2.0	2.0	2.0
25	(2.1)^{S}	2.1	2.1	2.2	2.3	2.3^{F}	2.1	(2.4)^{S}	2.6	2.4	2.4	2.3	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.1	(2.1)^{J}	2.0	(2.0)^{J}	2.0
26	2.0	2.0	2.0	2.0	2.1	1.9	(2.0)^{S}	2.4	2.3	2.4	(2.1)^{R}	2.2	(2.2)^{S}	2.2	2.2	(2.3)^{S}	2.3	(2.3)^{S}	2.2	2.3	2.1	2.0	2.1	2.0
27	2.0	2.1	2.0	2.0	2.0	2.1	2.0^{V}	(2.4)$^{J}_{S}$	2.4	2.2^{V}	2.2^{F}	2.2	2.2	2.3	2.1	2.3	2.2	(2.2)^{S}	(2.1)^{S}	(2.2)^{S}	2.1	2.0	1.9	1.8
28	1.9^{K}	2.0^{K}	1.8^{K}	2.0^{K}	1.9$^{F}_{K}$	(1.7)$^{F}_{K}$	1.8$^{F}_{K}$	^{S}(2.0)$^{F}_{K}$	^{S}(1.6)$^{F}_{K}$	(1.5)$^{F}_{K}$	1.4^{K}	(1.5)$^{F}_{K}$	1.7$^{F}_{K}$	G^{K}	1.5^{K}	1.6^{K}	1.8$^{F}_{K}$	^{S}(2.0)$^{F}_{K}$	^{S}(2.0)$^{F}_{K}$	F^{K}	F^{K}	1.8^{K}	^{F}(1.8)^{K}	(1.9)$^{F}_{K}$
29	(2.0)$^{F}_{K}$	(2.2)$^{F}_{K}$	B$^{F}_{K}$	(2.3)$^{F}_{K}$	^{K}(2.2)$^{F}_{B}$	(1.9)$^{F}_{K}$	1.9$^{F}_{K}$	2.4$^{F}_{K}$	2.3$^{H}_{K}$	2.3$^{F}_{K}$	2.3$^{F}_{K}$	2.1$^{F}_{K}$	2.1^{K}	(2.2)$^{S}_{K}$	2.3^{K}	(2.3)$^{S}_{K}$	2.2^{K}	M^{K}	M^{K}	^{S}(2.1)$^{F}_{K}$	^{S}(1.7)$^{F}_{K}$	(1.8)$^{F}_{K}$	(2.0)$^{F}_{K}$	F^{K}
30	(2.0)$^{F}_{K}$	(2.2)$^{F}_{K}$	(1.8)$^{F}_{K}$	FB^{K}	(2.2)$^{F}_{K}$	^{S}(2.1)$^{F}_{K}$	(2.0)$^{F}_{K}$	(2.4)$^{F}_{K}$	(2.4)$^{H}_{K}$	2.4^{K}	2.2^{K}	2.2^{K}	2.1^{K}	2.2^{K}	2.0^{K}	2.1^{K}	^{S}(2.2)$^{F}_{S}$	^{S}(2.2)$^{D}_{K}$	2.2$^{F}_{K}$	(1.8)$^{V}_{K}$	^{S}(2.0)$^{F}_{K}$	1.8$^{F}_{K}$	^{S}(1.7)$^{F}_{K}$	^{J}(1.6)$^{F}_{K}$
31	^{J}(1.8)$^{S}_{K}$	S$^{F}_{K}$	S$^{F}_{K}$	^{S}(2.3)$^{F}_{K}$	2.1$^{F}_{K}$	^{S}(1.9)$^{F}_{K}$	^{S}(1.8)$^{F}_{K}$	2.2^{K}	^{S}(2.2)$^{F}_{K}$	^{V}1.8$^{F}_{K}$	2.3^{K}	2.2$^{F}_{K}$	2.1$^{F}_{K}$	2.2^{K}	2.3^{K}	2.1$^{H}_{K}$	^{S}(2.3)$^{S}_{K}$	(2.2)$^{S}_{K}$	(2.3)$^{S}_{K}$	(2.3)$^{S}_{K}$	(2.1)$^{S}_{K}$	2.0^{K}	(1.9)$^{F}_{K}$	(1.9)$^{F}_{K}$
Median	1.9	(2.0)	2.0	2.0	2.0	1.9	2.0	2.3	2.3	2.2	2.2	2.1	2.1	2.0	2.1	2.1	2.2	(2.2)	(2.2)	2.1	2.0	1.9	(1.9)	(1.8)
Count	28	28	26	24	25	27	30	30	30	30	30	30	31	31	31	31	31	30	30	30	30	31	30	28

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

TABLE 61

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C

Form adopted June 1946

IONOSPHERIC DATA

(M3000)F2 (Characteristic) , ____ (Unit) October (Month) , 1950

National Bureau of Standards (Institution)

Observed at Washington, D.C.

Lat 38.7°N , Long 77.1°W

75°W Mean Time

Scaled by B.E.B., R.F.B., McC.

Calculated by: B.E.B , R.F.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(25)$^{S}_{K}$	(26)^{K}	31$^{F}_{K}$	29$^{F}_{K}$	^{K}(27)$^{S}_{F}$	(27)$^{F}_{K}$	29$^{F}_{K}$	33$^{F}_{K}$	30$^{F}_{K}$	23$^{F}_{K}$	21^{K}	24$^{F}_{K}$	23^{K}	G^{K}	23^{K}	23$^{H}_{K}$	28^{K}	28^{K}	30^{K}	28^{K}	(30)$^{K}_{K}$	27^{K}	^{K}(26)$^{S}_{F}$	(25)$^{S}_{K}$
2	(26)$^{S}_{K}$	27$^{F}_{K}$	28$^{F}_{K}$	30$^{F}_{K}$	F^{K}	S$^{F}_{K}$	29$^{F}_{K}$	31$^{F}_{K}$	G^{K}	29$^{H}_{K}$	29$^{F}_{K}$	29^{K}	^{K}28$^{F}_{H}$	29$^{F}_{K}$	^{K}(26)$^{S}_{F}$	(30)$^{S}_{K}$	30^{K}	(30)$^{S}_{K}$	^{K}(32)$^{S}_{F}$	29$^{F}_{K}$	^{K}(29)$^{S}_{F}$	^{K}(28)$^{S}_{F}$	^{K}(30)$^{S}_{F}$	(28)$^{F}_{K}$
3	^{K}(27)$^{S}_{F}$	^{K}(26)$^{S}_{F}$	(28)$^{F}_{K}$	^{K}(28)$^{S}_{F}$	B$^{F}_{K}$	B^{K}	31^{F}	(33)^{S}	32	33	31^{H}	30	31	30^{F}	(30)^{S}	30	(30)$^{S}_{F}$	(32)$^{S}_{F}$	(31)$^{S}_{F}$	(33)^{S}	(32)$^{S}_{F}$	(30)$^{S}_{F}$	27^{F}	(27)$^{F}_{F}$
4	F	(26)$^{S}_{F}$	(27)$^{F}_{B}$	F	(27)^{B}	26^{F}	30	31^{F}	31^{F}	33^{F}	31	30	30	29	29	31	(31)^{S}	30	(31)^{S}	31	(30)$^{S}_{F}$	30^{F}	28	(27)$^{J}_{B}$
5	(26)^{J}	B	B	B	B	27^{F}	32^{F}	33^{F}	33^{F}	31^{Z}	32	(31)^{H}	31	31	31	30	(32)$^{S}_{H}$	(31)^{S}	(32)^{S}	32	30	28^{F}	(28)^{S}	(29)^{A}
6	28^{F}	29^{F}	(29)$^{J}_{F}$	(28)$^{J}_{F}$	(28)^{F}	29^{F}	31^{F}	33^{F}	34^{F}	32^{F}	(31)$^{S}_{F}$	31	30	30	30	(30)^{S}	32^{F}	(33)^{S}	(33)^{S}	29^{F}	31^{F}	27^{F}	C	C
7	C	(29)$^{S}_{F}$	(25)$^{S}_{F}$	27^{F}	(30)$^{S}_{F}$	(30)$^{S}_{F}$	(28)^{P}	32^{F}	33^{F}	32^{H}	31	29^{V}	30	30	31	32	30	32	31	30^{F}	29	27	28	C
8	C	C	C	C	C	C	C	C	C	(31)^{H}	32	C	30	30	30^{H}	31	31	33	32	(32)^{S}	32	29	(27)$^{J}_{S}$	(27)$^{J}_{S}$
9	(28)$^{J}_{F}$	(29)$^{J}_{S}$	(28)$^{J}_{S}$	30	31	30^{F}	30^{F}	(34)^{F}	34	(35)$^{J}_{Z}$	34	32^{H}	30	30	30	31	(32)^{S}	31^{F}	(33)^{S}	31^{F}	29^{F}	28^{F}	(29)$^{F}_{S}$	(29)$^{F}_{S}$
10	(28)$^{S}_{F}$	27^{F}	28^{F}	28^{F}	29^{F}	30^{F}	29^{F}	33	33	35	33	31	31	30	(30)^{S}	31	32	32	(32)$^{J}_{S}$	32^{F}	30^{F}	28^{F}	28^{F}	(28)$^{S}_{F}$
11	29^{F}	(29)$^{S}_{F}$	(29)$^{F}_{S}$	28^{F}	29^{F}	29^{F}	30	(34)$^{S}_{F}$	34	33	33	31	32	30	30	31	(30)^{S}	31	(32)^{S}	30^{F}	30	29^{F}	(28)$^{J}_{F}$	27
12	27	26	28	31	32	(28)$^{J}_{S}$	29	34	32^{Z}	30	31	31	31	30	31	30	31	(31)^{S}	31	30	30	(30)$^{J}_{S}$	28	(27)$^{J}_{S}$
13	27	28	29	30	30	30^{F}	30	33	33	(33)^{S}	31	30	30	30	30	(31)^{S}	(31)^{S}	(32)$^{S}_{F}$	(31)^{S}	31	(30)$^{J}_{S}$	27	(27)^{S}	27
14	28	(29)^{S}	30	30	31	25	(27)$^{J}_{S}$	33	32	29^{V}	30	30	28	28	29	29	29	(29)^{S}	30	29	26	25	26	27
15	28^{F}	32^{F}	35^{F}	30^{F}	29^{F}	(27)^{S}	27	33	31^{V}	31	32	31	30	31	30	31	(32)^{S}	32	(32)^{S}	32^{F}	29	27	28^{F}	27^{F}
16	28^{F}	29^{F}	29^{F}	29^{F}	27^{F}	29^{F}	(31)$^{S}_{F}$	33$^{F}_{K}$	30^{K}	29$^{F}_{K}$	^{K}(27)$^{S}_{F}$	27$^{F}_{K}$	29$^{F}_{K}$	28$^{F}_{K}$	^{K}(28)$^{S}_{F}$	29$^{F}_{K}$	29^{K}	(29)$^{S}_{K}$	^{K}(30)$^{S}_{F}$	28	27	27	(26)^{S}	(27)^{S}
17	(28)^{S}	(30)$^{S}_{F}$	30^{F}	31^{F}	(28)$^{J}_{F}$	27^{F}	28^{F}	34^{F}	30^{F}	33	31$^{F}_{H}$	30	29	30	(30)^{S}	30	(31)^{S}	(30)^{S}	(32)^{S}	29^{F}	27	(27)^{S}	28	29^{F}
18	28^{F}	29^{F}	(31)$^{S}_{F}$	30^{F}	(33)$^{J}_{F}$	28^{F}	30^{F}	31^{F}	34^{F}	31$^{F}_{Z}$	31^{F}	32^{F}	31	30^{F}	31^{Z}	32^{Z}	(32)^{S}	33^{F}	(33)$^{S}_{F}$	30^{F}	29^{F}	28	28^{F}	28^{F}
19	29^{F}	(30)$^{S}_{F}$	29^{F}	(30)$^{J}_{F}$	(31)$^{J}_{F}$	30^{F}	31^{F}	34^{F}	34$^{F}_{Z}$	33	33	31^{F}	32^{F}	31	31	(31)^{S}	(32)^{S}	(33)^{S}	(31)^{S}	(30)^{F}	(32)$^{S}_{F}$	(30)$^{S}_{F}$	(31)$^{S}_{F}$	(31)^{F}
20	30^{F}	(30)$^{S}_{F}$	29^{F}	(29)$^{S}_{F}$	(33)$^{S}_{F}$	(31)$^{S}_{F}$	32^{F}	36^{F}	35^{F}	35	33^{Z}	(32)$^{S}_{H}$	(32)^{S}	32	(32)$^{S}_{H}$	(32)^{S}	(33)^{S}	(33)^{S}	(32)^{F}	(31)^{S}	(30)$^{S}_{F}$	(29)$^{J}_{S}$	(29)$^{F}_{F}$	(30)$^{S}_{F}$
21	(28)$^{S}_{F}$	(30)$^{J}_{F}$	(29)^{B}	B	(29)$^{J}_{B}$	(29)$^{S}_{F}$	(30)$^{S}_{F}$	(34)^{F}	(32)^{S}	(32)^{S}	(32)^{S}	(33)^{S}	(32)^{S}	(31)^{S}	(32)^{S}	(32)^{S}	(33)^{S}	(34)^{V}	(32)^{F}	(32)^{F}	(31)^{S}	(31)^{J}	(30)^{S}	(29)^{S}
22	(31)^{P}	(30)^{J}	B	B	B	(31)$^{S}_{F}$	(31)$^{S}_{F}$	(35)^{S}	(35)^{S}	(34)^{S}	(32)^{S}	(32)^{S}	(30)^{S}	(30)^{S}	(31)^{S}	(32)^{S}	(32)^{S}	(32)^{S}	(31)$^{S}_{Z}$	(31)$^{S}_{P}$	(30)^{S}	(30)$^{S}_{P}$	(29)^{S}	(30)^{S}
23	(30)^{S}	(31)^{S}	32^{F}	31^{F}	31^{F}	30^{F}	30^{F}	(33)^{S}	35	33	(35)^{S}	34	31	(33)^{S}	(32)^{S}	(32)^{S}	34	(33)^{S}	33	31	(30)^{S}	(30)^{S}	(30)$^{J}_{A}$	(30)^{F}
24	29	(30)^{P}	(31)^{P}	M	M	M	29	(35)^{H}	(35)^{R}	M	M	33	33	32	(32)^{S}	(33)^{S}	33	(35)^{S}	33^{F}	33	(32)$^{S}_{F}$	30	30	30
25	(30)^{S}	31	31	32	33	33^{F}	30	(35)^{S}	36	35	34	33	33	33	33	33	33	34	34	31	(31)^{J}	30	(29)^{J}	30
26	30	30	30	30	31	29	(30)^{S}	34	33	34	(31)^{R}	32	(32)^{S}	32	32	(33)^{S}	34	(34)^{S}	32	33	31	30	31	30
27	30	31	30	30	30	31	30$^{V}_{F}$	(35)$^{J}_{S}$	34	32^{V}	32^{F}	32	32	33	31	33	33	(33)^{S}	(31)^{S}	(32)^{S}	32	30	28	27
28	28^{K}	29^{K}	28^{K}	29^{K}	29$^{F}_{K}$	(26)$^{F}_{K}$	27$^{F}_{K}$	^{K}(29)$^{S}_{F}$	^{K}(25)$^{S}_{F}$	(23)$^{B}_{K}$	21^{K}	(23)$^{F}_{K}$	26$^{F}_{K}$	G^{K}	23^{K}	25^{K}	27$^{F}_{K}$	^{K}(30)$^{S}_{F}$	^{K}(30)$^{S}_{F}$	F^{K}	F^{K}	27$^{F}_{K}$	(27)$^{F}_{K}$	(28)$^{F}_{K}$
29	(29)$^{F}_{K}$	(31)$^{F}_{K}$	B$^{F}_{K}$	(33)$^{F}_{K}$	^{K}(31)$^{F}_{B}$	(28)$^{F}_{K}$	29$^{F}_{K}$	34$^{F}_{K}$	34$^{H}_{K}$	34$^{F}_{K}$	33$^{F}_{K}$	31$^{F}_{K}$	31^{K}	(32)$^{S}_{K}$	34^{K}	(34)$^{S}_{K}$	32^{K}	M^{K}	M^{K}	^{K}(31)$^{S}_{F}$	^{K}(27)$^{S}_{F}$	(28)$^{F}_{K}$	(30)$^{F}_{K}$	F^{K}
30	(30)$^{F}_{K}$	(32)$^{F}_{K}$	(28)$^{F}_{K}$	F$^{B}_{K}$	(31)$^{F}_{K}$	^{K}(30)$^{S}_{F}$	(30)$^{F}_{K}$	(33)$^{F}_{K}$	(34)$^{F}_{K}$	34^{K}	32^{K}	32^{K}	31^{K}	32^{K}	30^{K}	31^{K}	^{K}(32)$^{S}_{P}$	^{K}(32)$^{S}_{P}$	33$^{F}_{K}$	^{K}(27)$^{F}_{V}$	^{K}(29)$^{S}_{F}$	27$^{F}_{K}$	^{K}(26)$^{S}_{F}$	^{K}(24)$^{J}_{F}$
31	^{K}(27)$^{J}_{S}$	S$^{F}_{K}$	S$^{F}_{K}$	^{K}(33)$^{S}_{F}$	31$^{F}_{K}$	^{K}(28)$^{S}_{F}$	^{K}(28)$^{S}_{F}$	32^{K}	^{K}(33)$^{S}_{F}$	^{K}27$^{V}_{F}$	33$^{F}_{K}$	32$^{F}_{K}$	31$^{F}_{K}$	32^{K}	34^{K}	31$^{H}_{K}$	^{K}(33)$^{J}_{S}$	(32)$^{S}_{K}$	(33)$^{S}_{K}$	(34)$^{S}_{K}$	(31)$^{S}_{K}$	29^{K}	(29)$^{F}_{K}$	^{K}(28)$^{S}_{F}$
Median	28	(29)	29	30	30	29	30	33	33	32	32	31	31	30	30	31	32	(32)	(32)	31	30	29	(28)	(28)
Count	28	28	26	24	25	27	30	30	30	30	30	30	31	31	31	31	31	30	30	30	30	31	30	28

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

TABLE 62

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

(M3000)F1 (Characteristic), ____ (Unit), October (Month), 1950

National Bureau of Standards (Institution)

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

Scaled by: B.E.B., R.F.B., McC.

Calculated by: B.E.B., R.F.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1									Q K	3.1 K	(3.6) S K	(3.8) S K	3.5 K	3.6 K	3.5 K	3.3 K	3.2 K	L K						
2									(3.4) S K	3.6 K	3.7 K	3.5 K	3.3 K	3.4 K	3.2 K	(3.3) P K	L K	L K						
3									L	(3.7) P	4.0	L	(3.5) P	3.7	3.9 H	3.4	L							
4									L	L	3.5	3.6	3.5	3.6	3.3	L	L							
5									L	3.6	L	L	(3.5) P	3.8	L	L	Q							
6									L	L	3.4	3.5	3.5	3.3 H	L	L	L							
7									L	L	3.4	3.5	3.4	3.5	3.5 H	L	L							
8									L	L	L	C	L	L	Q	Q	Q							
9									L	(3.7) P	3.9	3.8 H	L	L	L	L	L							
10									L	L	L	3.8	3.6	L	L	L	Q							
11									L	L	L	L	L	L	L	L	Q							
12									Q	L	(3.9) H	L	L	L	L	L	L							
13									Q	L	L	3.5	L	L	L	L	L							
14									L	L	L	L	(3.4) P	(3.3) P	(3.4) P	(3.5) P	L							
15									Q	L	(3.8) P	L	L	L	L	L	Q							
16									L K	L K	3.1 K	3.3 K	3.3 K	3.3 K	3.3 K	3.4 K	L K							
17									Q	Q	Q	3.4	(3.5) P	L	L	L	Q							
18									Q	L	L	L	3.7	L	L	L	Q							
19									L	L	L	3.7	(3.7) P	L	L	L	Q							
20									L	L	L	L	L	L	Q	Q	Q							
21									Q	L	L	L	L	L	L	L	Q							
22									L	B	L	L	L	L	L	Q	Q							
23									Q	L	(3.9) P	3.8	L	L	L	L	Q							
24									L	M	M	L	L	L	L	L	Q							
25									Q	L	L	L	L	L	L	L	Q							
26									Q	L	L	L	L	L	L	L	Q							
27									Q	L	L	L	L	(3.7) P	L	L	Q							
28									(3.2) J K	3.5 K	3.7 K	3.5 K	(3.4) S K	3.5 K	3.4 K	3.2 K	3.1 K							
29									Q K	L K	L K	B K	L K	3.7 K	L K	L K	Q K							
30									L K	L K	L K	L K	L K	4.0 K	L K	L K	Q K							
31									L K	L K	L K	3.6 K	L K	L K	L K	Q K	Q K							
Median									—	3.6	3.7	3.6	3.5	3.6	3.4	3.4	—	—						
Count									2	6	12	14	14	13	8	6	2							

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

TABLE 63

Central Radio Propagation Laboratory, National Bureau of Standards, Washington 25, D.C.

Form adopted June 1946

IONOSPHERIC DATA

(M1500)E , ____ October , 1950
(Characteristic) (Unit) (Month)

Observed at Washington, D.C.
Lat 38.7°N , Lang 77.1°W

National Bureau of Standards
(Institution)

Scaled by: B.E.B., R.F.B., McC.

75°W Mean Time

Calculated by: B.E.B. , R.F.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							4.2^{K}	42^{K}	41^{K}	41^{K}	43^{K}	43^{K}	(42)$^{A}_{K}$	44^{K}	41^{K}	42^{K}	42^{K}	40^{K}						
2								43^{K}	41^{K}	41^{K}	43^{K}	42^{K}	43^{K}	42^{K}	44^{K}	(42)$^{E}_{K}$	41^{K}	(39)$^{F}_{K}$	(41)$^{S}_{K}$					
3								41	42	44	44	45	A	45	41	40	B	A						
4								43	40	43	44	C	F	(43)^{F}	42	42	41	41						
5								B	42	45	(43)^{A}	A	(44)^{B}	43	43	41	40	41						
6								41	40	40^{F}	45	(44)^{F}	41	A	(41)^{A}	(42)^{S}	40	36						
7								41	43	43	(44)^{B}	B	B	(42)^{B}	(41)^{B}	40^{F}	B							
8								B	C	(41)^{B}	(42)^{F}	C	44	41	42	42	41	42						
9								39	(41)^{A}	(43)^{A}	43	(43)^{B}	(42)^{B}	42	42	43	45	44						
10								40	40	41	(42)^{F}	B	41	41	40	40	42	A						
11								40	43	43^{H}	42^{H}	42	42	42	41	42	41	(42)^{B}						
12								43	42	43^{F}	(43)^{B}	(43)^{B}	B	A	41	41	42	41						
13								38	(40)^{B}	40	41	41	40	41	41	41	41	42						
14								40	42^{F}	42	A	A	A	(42)^{A}	(42)^{A}	41	42	A						
15								40	A	A	(42)^{A}	43	42	42	40	41	(40)^{F}	A						
16								40^{K}	40^{K}	41^{K}	41^{K}	42^{K}	43^{K}	43^{K}	41^{K}	41^{K}	41^{K}	39^{K}						
17								44	42	42	45	43	(41)^{B}	(40)^{B}	40	41	(41)^{B}	B						
18								39	(43)^{B}	(44)^{B}	A	43	41	40	41	40	41	A						
19								B	40	43	A	A	A	A	(42)^{B}	A	42	A						
20								A	41^{H}	A	A	(43)^{A}	44	42	43	43	A	38						
21								M	M	M	M	M	M	M	M	(44)^{B}	A	B						
22								M	M	M	M	M	M	M	M	M	(43)^{B}	A						
23								41	B	43	44	44	42	44	43	42	44	(42)^{S}						
24								B	(45)^{B}	M	M	44	44	42	43	43	45							
25								44	A	A	A	44^{F}	43	43	44^{F}	43	42							
26								A	(44)^{A}	A	A	41	41	(43)^{A}	42	(42)^{A}	(42)^{A}	A						
27								A	A	A	(44)^{A}	A	41	42	41	42	43	5						
28								42^{K}	40^{K}	41^{K}	42^{K}	(40)$^{B}_{K}$	40^{K}	41^{K}	40^{K}	40^{K}	41^{K}	(35)$^{S}_{K}$						
29								B^{K}	43^{K}	(44)$^{B}_{K}$	43^{K}	B^{K}	(41)$^{B}_{K}$	(44)$^{B}_{K}$	(42)$^{B}_{K}$	43^{K}	42^{K}	M^{K}						
30								5^{K}	(40)$^{B}_{K}$	(43)$^{B}_{K}$	(43)$^{B}_{K}$	(42)$^{B}_{K}$	B^{K}	43^{K}	42^{K}	44^{K}	(43)$^{B}_{K}$							
31								(40)$^{S}_{K}$	42^{K}	B^{K}	(45)$^{B}_{K}$	41^{K}	40^{K}	42^{K}	43^{K}	(44)$^{S}_{K}$	(45)$^{B}_{K}$							
Median							—	41	42	43	43	43	42	42	42	42	42	41	—					
Count							1	20	24	22	22	20	22	26	29	29	27	14	1					

Sweep 1.0 Mc to 25.0 Mc in 0.25 min

Manual ☐ Automatic ☒

Table 64

Ionospheric Storminess at Washington, D. C.

October 1950

Day	Ionospheric character* 00-12 GCT	12-24 GCT	Principal storms Beginning GCT	End GCT	Geomagnetic character** 00-12 GCT	12-24 GCT
1	4	7	###	----	5	4
2	5	4	----	----	5	5
3	5	3	----	1100	5	4
4	3	2			5	4
5	***	2			5	4
6	3	3			4	3
7	3	2			4	3
8	1	2			3	2
9	1	2			3	2
10	1	1			2	1
11	1	0			1	2
12	2	1			3	2
13	1	3			3	2
14	1	2			4	4
15	1	0			4	2
16	2	5	1200	2400	4	4
17	1	2			3	3
18	1	0			4	2
19	2	1			2	1
20	1	2			2	2
21	2	1			1	2
22	2	1			1	2
23	3	1			3	3
24	0	1			3	2
25	1	2			1	1
26	1	2			2	1
27	1	2			1	1
28	4	7	0500	----	5	6
29	4	4	----	----	6	5
30	4	4	----	----	5	4
31	6	4	----	----	5	4

*Ionosphere character figure (I-figure) for ionospheric storminess at Washington, D. C., during 12-hour period, on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

**Average for 12 hours of Cheltenham, Maryland, geomagnetic K-figures on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

***No readable record. Refer to table 53 for detailed explanation.

----Dashes indicate continuing storm.

###Storm began at 2000 GCT on September 30, 1950.

Table 65

Provisional Radio Propagation Quality Figures
(Including Comparisons with CRPL Warnings and Forecasts)
September 1950

Day	North Atlantic quality figure	CRPL* Warning	CRPL Forecasts (J-reports)	North Pacific quality figure	Geomagnetic K_{Ch}
	Half day GCT (1) (2)	Half day GCT (1) (2)		Half day GCT (1) (2)	Half day GCT (1) (2)
1	5 7			7 7	2 1
2	6 6			5 6	1 1
3	(4) (4)	U		5 (4)	3 (5)
4	(2) (2)	W W	X	(4) (3)	(5) (4)
5	(2) (3)	W W	X	(3) (3)	(5) (4)
6	(2) (3)	W W	X	(3) (2)	(5) (4)
7	(2) (4)	W	X	(3) (4)	(4) 3
8	(2) (4)			(4) (3)	(5) (4)
9	(3) (4)	W U		(3) (4)	(4) 2
10	(3) (4)	W		5 5	3 3
11	(2) (4)	W (U)		(3) 5	(5) 2
12	(4) 5			5 6	3 2
13	6 5			6 5	2 2
14	5 6	U		6 5	1 1
15	6 6		X	6 5	1 1
16	6 6		X	6 (4)	2 (4)
17	5 5			7 (4)	3 (4)
18	(3) (4)	W U		(4) (4)	(5) 3
19	(4) (4)	W		(4) (4)	3 3
20	(3) 5	U U		(3) (4)	(5) 3
21	(3) 6			6 5	3 1
22	5 6			6 6	1 1
23	5 5			6 (4)	3 (4)
24	5 5	W U		6 (4)	3 (4)
25	(3) (4)	U U		5 (4)	(4) (4)
26	(4) 5	U (U)		6 5	3 3
27	(4) 5			5 (4)	3 2
28	5 5			5 6	2 2
29	5 6			5 6	1 1
30	7 5		X	5 6	2 2

Score:	Warning N.A.	Warning N.P.	Forecast N.A.	Forecast N.P.
H	22	20	8	9
(M)	2	1	0	0
M	9	8	21	17
G	26	27	25	29
O	1	4	6	5

Scales:
Quality Figures
(1)- Useless
(2)- Very poor
(3)- Poor
(4)- Poor to fair
5 - Fair
6 - Fair to good
7 - Good
8 - Very good
9 - Excellent

Geomagnetic K_{Ch} - 0 to 9, 9 representing the greatest disturbance; $K_{Ch} \geq 4$ indicates significant disturbance, enclosed in ( ) for emphasis.

Symbols:
W Disturbed conditions expected

U Unstable conditions expected

N No disturbance expected

X Probable disturbed date

Scoring:
H Storm ($Q < 4$) hit

(M) Storm severer than predicted

M Storm missed

G Good day forecast

O Overwarning

Scoring by half day according to following table:

	Quality Figure ≤3	4	5	≥6
W	H	H	O	O
U	(M)	H	H	O
N	M	M	G	G
X	H	H	O	O

*Broadcast on WWV, Washington, D. C. Times of warnings recorded to nearest half day as broadcast. ( ) broadcast for one-quarter day. Blanks signify N.

**In addition to dates marked X, the following was designated as a probable disturbed day on forecasts more than eight days in advance of said date: September 3.

Table 66

American and Zürich Provisional Relative Sunspot Numbers

October 1950

Date	R_A*	R_Z**	Date	R_A*	R_Z**
1	54	41	17	115	99
2	56	41	18	93	74
3	64	41	19	56	50
4	73	50	20	42	48
5	73	50	21	27	27
6	56	45	22	21	20
7	76	54	23	34	22
8	109	78	24	43	32
9	122	84	25	40	30
10	99	79	26	61	37
11	108	68	27	55	51
12	94	88	28	77	55
13	94	75	29	132	95
14	81	72	30	124	107
15	104	106	31	93	74
16	115	103	Mean:	77.1	61.2

*Combination of reports from 50 observers; see page 8.

**Dependent on observations at Zürich Observatory and its stations at Locarno and Arosa.

Table 67a

Coronal observations at Climax, Colorado (5303A), east limb

Date GCT	Degrees north of the solar equator																		0°	Degrees south of the solar equator																	
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1950																																					
Oct. 2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	3	8	10	12	10	10	10	12	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.7	-	-	-	-	-	-	-	-	-	-	-	-	3	8	8	10	12	15	12	13	10	8	5	5	3	-	-	-	-	-	-	-	-	-	-	-	-
4.7	-	-	-	-	-	-	-	-	-	-	-	-	3	8	12	13	18	22	25	15	12	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	5	8	8	8	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8.7	-	-	-	-	-	-	-	-	-	-	-	1	1	3	5	8	8	15	12	10	12	13	13	10	5	3	-	-	-	-	-	-	-	-	-	-	-
9.6a	-	-	-	-	-	-	-	-	-	-	-	-	3	5	8	10	11	11	12	8	10	12	15	10	5	3	-	-	-	-	-	-	-	-	-	-	-
10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	5	5	5	5	5	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-
11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.3	-	-	-	-	-	-	-	-	-	-	-	-	3	5	5	10	5	5	8	10	12	3	1	3	3	3	-	-	-	-	-	-	-	-	-	-	-
13.7	-	-	-	-	-	-	-	-	-	-	-	-	-	3	5	8	3	3	3	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.6	-	-	-	-	-	-	-	-	-	-	-	5	8	12	15	20	5	3	3	4	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.7	-	-	-	-	-	-	-	-	-	-	-	3	5	8	12	14	8	3	1	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.6	-	-	-	-	-	-	-	-	-	-	3	3	3	8	9	10	5	3	3	3	5	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.7	-	-	-	2	3	3	5	3	3	2	2	5	8	10	10	14	12	5	3	5	5	8	5	3	3	3	-	-	-	-	-	-	-	-	-	-	-
18.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	5	3	3	3	5	3	3	2	2	-	-	-	-	-	-	-	-	-	-	-	-
19.7	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	3	-	3	5	5	8	5	3	3	1	-	-	-	-	-	-	-	-	-	-	-
20.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.7	-	-	-	-	-	-	-	-	-	-	3	5	5	5	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23.7	X	X	X	X	X	X	X	X	X	X	X	X	X	3	3	3	3	1	3	3	3	-	-	-	-	-	-	-	-	-	-	X	X	X	X	X	X
24.6	-	-	-	-	-	-	-	-	-	3	3	5	3	3	5	8	6	5	8	13	13	5	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-
26.8	X	X	X	-	-	-	-	-	-	-	-	-	-	3	10	10	8	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X
27.7	-	-	-	-	-	-	-	-	-	3	3	5	5	8	10	12	10	12	10	5	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29.8	-	-	-	-	-	-	-	-	3	3	-	-	3	3	8	10	12	17	14	12	10	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	3	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X
31.6	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	5	3	5	5	5	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Observation low weight: Oct. 16.6 at N45 - N90 and S10 - S45.

Table 68a

Coronal observations at Climax, Colorado (6374A), east limb

Date GCT	Degrees north of the solar equator																		0°	Degrees south of the solar equator																	
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1950																																					
Oct. 2.6	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	-	-	-	-	-	-
3.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	3	3	-	-	-	-	-	3	3	3	5	3	-	-	-	-	-	-
4.7	-	-	-	-	-	-	-	-	2	2	2	2	-	-	-	-	5	3	18	8	3	3	5	1	1	1	1	3	3	3	2	2	2	2	2	2	2
5.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	10	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8.7	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	10	10	8	10	8	12	12	10	3	-	-	-	-	-	-	-	-	-	-	-	-	-
9.6a	-	-	-	-	-	-	-	-	2	2	2	2	2	2	-	-	-	3	5	5	-	12	10	8	-	-	-	-	-	-	-	-	-	-	-	-	-
10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-
11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	3	8	13	3	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1
13.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	3	-	8	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	12	3	3	12	15	8	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	-
15.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	12	2	2	2	3	1	1	-	2	2	2	1	1	1	-	-	-	-	-	-	-
16.6	-	-	-	-	-	-	-	1	1	1	-	-	-	2	2	3	3	2	2	2	2	-	-	-	-	-	2	2	2	2	2	-	-	-	-	-	-
17.7	1	1	3	3	-	-	-	1	1	1	-	-	2	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.9	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	3	3	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19.7	-	-	-	2	2	2	2	2	2	-	2	-	3	2	3	3	5	3	3	3	3	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-
20.6	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	3	2	3	4	3	-	3	1	3	1	-	-	-	-	-	2	2	2	2	2
21.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	3	3	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
23.7	X	X	X	X	X	X	X	X	X	X	X	X	X	2	2	2	2	2	2	2	2	3	2	1	1	1	-	-	-	-	-	X	X	X	X	X	X
24.6	2	2	2	2	2	2	2	2	2	2	-	-	1	3	-	1	10	5	10	9	10	8	3	5	2	3	5	3	3	3	3	5	5	3	3	3	3
26.8*	X	X	X	-	-	-	-	-	-	-	-	-	-	2	2	3	3	5	3	5	5	2	2	-	-	-	-	-	-	-	-	-	-	X	X	X	X
27.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	12	12	8	5	8	3	3	3	3	3	3	3	3	-	-	-	-	X	X	X	X
29.8	-	-	-	-	2	3	3	2	2	3	2	2	-	-	2	10	5	2	3	2	2	2	3	2	2	-	-	-	-	-	-	-	-	3	3	3	3
30.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X
31.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-

*On 26 October a slight suggestion of Doppler shift in the 6374A line at N05.
Note: Observation low weight: Oct. 16.6 at N45 - N90 and S10 - S45; Oct. 24.6 at N10 - S10.

Table 67b

Coronal observations at Climax, Colorado (5303A), west limb

Date GCT	Degrees south of the solar equator																				0°	Degrees north of the solar equator																
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5				5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1950																																							
Oct. 2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	5	5	8	8		8	10	12	13	13	15	8	3	-	-	-	-	-	-	-	-	-	-
3.7	-	-	-	-	-	-	-	-	-	-	3	3	3	5	8	12	10	8	8			8	12	14	20	15	13	12	8	5	5	5	-	-	-	-	-	-	-
4.7	-	-	-	-	-	-	-	-	-	-	-	-	3	3	5	8	15	10	8			5	8	14	20	10	12	10	5	5	5	3	-	-	-	-	-	-	-
5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	5	5	5	5			3	3	8	8	8	3	3	-	-	-	-	-	-	-	-	-	-	-
7.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8.7	-	-	-	-	3	3	3	3	3	3	3	3	3	3	3	5	3	3	3			3	3	3	8	5	-	-	3	-	-	-	-	-	-	-	-	-	-
9.6a	-	-	-	-	-	-	3	3	3	3	3	3	5	5	5	5	5	5	5			5	8	10	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-
10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	5	3			3	3	5	5	3	-	-	3	3	-	-	-	-	-	-	-	-	-
11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	8	10	5			3	3	3	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-
12.8	-	-	-	-	-	-	-	-	-	-	-	-	3	3	5	8	8	8	5			3	5	10	13	8	5	3	3	5	5	3	-	-	-	-	-	-	-
13.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	5	8	5			3	3	3	3	3	3	3	3	3	3	3	3	-	-	-	-	-	-	-
14.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	10	12	8			6	8	12	10	8	6	5	3	3	3	3	5	3	-	-	-	-	-	-
15.7a	-	-	-	-	-	-	-	-	-	3	3	3	3	3	3	3	5	8	10		12	10	10	10	8	5	5	3	X	X	X	X	X	-	-	-	-	-	-	-
16.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	5	8		12	12	13	10	6	5	4	2	1	1	-	-	-	-	-	-	-	-	-	-
17.7	-	-	-	-	-	-	-	-	1	1	3	3	3	5	5	5	8	12	15		17	15	14	12	12	10	3	1	-	-	-	-	-	-	-	-	-	-	-	-
18.9	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	5	5	5	8		8	8	8	5	5	5	5	3	-	-	-	-	-	-	-	-	-	-	-
19.7	-	-	-	-	-	-	-	-	3	3	5	10	12	13	15	13	12	10	12		12	15	12	12	10	10	8	3	-	-	-	-	-	-	-	-	-	-	-	-
20.6	-	-	-	-	-	-	-	-	-	3	5	8	10	12	15	15	20	13	12		10	12	14	12	10	8	10	6	3	3	-	-	-	-	-	-	-	-	-	-
21.7	-	-	-	-	-	-	-	-	-	-	-	-	3	8	10	12	12	10	10		12	10	10	8	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.7	-	-	-	-	-	-	-	-	-	-	-	3	5	8	12	12	12	12	10		10	12	12	10	8	5	3	3	-	-	-	-	-	-	-	-	-	-	-	-
23.7	X	X	X	X	-	-	-	-	-	-	-	3	3	5	8	10	12	12	10		5	3	3	-	-	-	-	-	-	-	-	-	X	X	X	X	X	X	X
24.6	-	-	-	-	-	-	-	-	-	3	3	3	5	8	10	10	8	8	5		8	5	8	10	10	8	5	5	3	3	3	-	-	-	-	-	-	-	-	-
26.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
27.7	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	5	8	8	12		10	8	5	3	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29.8	-	-	-	-	-	-	-	-	3	3	3	3	3	3	5	8	8	10	8		8	10	10	12	12	8	5	5	3	3	3	3	3	3	-	-	-	-	-	-
30.9	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	8	8	8	8		8	8	8	5	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
31.6	-	-	-	-	-	-	-	-	-	-	-	3	3	3	5	5	5	8	8		8	10	10	8	5	5	3	3	3	-	-	-	-	-	-	-	-	-	-	-

Table 68b

Coronal observations at Climax, Colorado (6374A), west limb

Date GCT	Degrees south of the solar equator																				0°	Degrees north of the solar equator																
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5				5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1950																																							
Oct. 2.6	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	-			-	-	3	10	3	3	-	-	-	-	-	-	-	-	-	-	-	-
3.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	3	-			-	-	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.7	2	2	2	2	2	2	2	2	3	3	-	-	-	-	-	-	-	3	3			-	1	-	12	15	-	3	-	-	-	-	-	-	-	-	-	-	-
5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			3	3	3	3	5	-	-	-	-	-	-	-	-	-	-	-	-	-
7.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8.7	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2			2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	5	3			3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	10	3	5			1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	8	3	5			3	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.8	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	8	5			3	5	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
13.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1			1	3	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.6	-	-	-	-	-	-	1	1	1	1	1	-	-	-	-	-	-	-	-			3	5	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.7a	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	2			3	11	8	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-
16.6	-	-	-	-	-	-	-	-	1	1	3	1	1	-	-	-	-	8	10			8	12	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.7	-	-	-	-	-	-	-	3	3	3	-	-	-	-	3	3	-	3	10			3	3	3	-	-	1	1	1	1	1	1	1	-	-	-	-	-	1
18.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19.7	-	-	-	-	-	-	2	3	-	-	-	-	-	2	8	10	14	10				3	3	-	-	-	-	-	1	1	1	1	-	-	-	-	-	-	-
20.6	2	3	2	2	2	2	2	3	5	5	3	-	-	3	10	3	8	10	5			3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.7	-		-	-	-	-	-	-	-	-	-	-	-	2	3	3	3	-	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.7	2	2	2	-	-	1	1	1	-	-	-	2	5	3	3	5	3	2	2			2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23.7	X	X	X	X	-	-	-	-	-	-	-	-	2	2	3	5	5	3	2			-	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X	X
24.6	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	2	5	3	2			2	-	2	3	-	-	-	2	2	2	-	-	-	-	2	2	2	2
26.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
27.7	X	X	X	X	X	X	X	-	-	-	-	-	3	3	5	-	8	10	8			5	-	-	-	X	X	X	X	X	X	X	X	X	X	X	-	-	-
29.8	3	2	2	2	2	2	2	3	2	2	3	2	2	2	2	2	3	2	2			2	-	2	4	3	2	2	2	-	-	-	-	-	-	-	-	-	-
30.9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
31.6	-	-	-	-	-	3	3	3	3	3	2	2	2	2	2	2	3	3	3			2	8	14	8	3	2	-	-	-	-	-	-	-	-	-	-	-	-

Table 69a

Coronal observations at Climax, Colorado (6702A), east limb

Date GCT	Degrees north of the solar equator																		0°	Degrees south of the solar equator																
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1950																																					
Oct. 2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.7	-	-	-	-	-	-	-	-	-	-	-	1	1	1	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23.7	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X	X	X
24.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.8	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X
27.7	-	-	-	-	-	-	-	-	-	-	-	2	2	-	3	3	3	3	3	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X
29.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X
31.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Observation low weight: Oct. 16.6 at N45 - N90 and S10 - S45.

Table 70a

Coronal observations at Sacramento Peak, New Mexico (5303A), east limb

Date GCT	Degrees north of the solar equator																		0°	Degrees south of the solar equator																
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1950																																					
Oct. 2.7	-	-	-	-	-	-	-	-	3	5	5	5	8	10	14	12	22	17	20	22	28	14	8	5	-	-	-	-	-	-	-	-	-	-	-	-	-
5.8	-	-	-	-	-	-	-	-	-	-	-	3	5	8	8	10	12	22	14	14	12	12	10	8	5	5	3	-	-	-	-	-	-	-	-	-	-
6.9	-	-	-	-	-	-	-	-	-	-	3	5	8	12	14	14	15	28	22	25	25	28	20	20	15	8	8	3	-	-	-	-	-	-	-	-	-	-
7.7	-	-	-	-	-	-	-	-	-	3	3	5	8	10	12	15	28	28	18	20	33	31	33	31	15	5	5	3	3	3	-	-	-	-	-	-	-
8.7	-	-	-	-	-	-	-	-	-	3	5	5	8	8	12	14	12	28	12	13	15	25	31	18	15	8	5	5	4	-	-	-	-	-	-	-	-	-
9.7	-	-	-	3	3	3	3	3	3	3	3	4	6	8	10	14	15	18	15	15	15	17	22	17	13	8	5	3	3	3	1	-	-	-	-	-	-
10.7	-	-	-	-	3	3	3	3	3	3	5	5	8	8	10	10	12	10	10	10	12	13	14	12	10	8	3	-	-	-	-	-	-	-	-	-	-
11.7	-	-	-	-	3	3	3	3	3	3	3	3	5	5	8	12	14	10	10	10	10	10	11	9	8	5	5	3	3	-	-	-	-	-	-	-	-
12.7	-	-	-	-	3	5	8	5	3	5	8	8	10	10	10	15	17	8	13	17	22	10	8	10	10	5	3	-	-	-	-	-	-	-	-	-	-
13.7	-	-	-	3	3	3	5	5	5	8	5	8	8	12	15	22	14	10	10	17	20	10	5	5	3	3	3	-	-	-	-	-	-	-	-	-	-
14.8	-	-	-	-	3	8	8	10	8	8	10	10	10	15	31	35	18	10	8	8	8	8	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.7	-	-	-	-	-	3	5	5	5	-	-	5	8	10	15	22	25	10	8	8	10	8	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
16.8	-	-	-	-	-	3	5	8	8	5	-	3	10	12	15	18	15	12	5	12	10	10	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-
18.7	-	-	-	-	-	3	3	3	3	3	3	3	5	5	8	8	10	8	5	8	8	8	10	5	5	5	5	5	3	5	-	-	-	-	-	-	-
19.7	-	-	-	-	3	3	3	5	5	3	3	3	3	5	8	8	5	8	8	10	10	10	10	5	5	5	5	5	5	3	3	3	3	3	3	3	3
21.7	-	-	-	-	-	-	-	3	3	3	5	3	3	8	8	10	10	10	3	3	3	3	3	3	3	5	5	5	5	8	5	3	2	2	-	-	-
22.7	-	-	-	-	-	-	3	3	5	5	3	5	5	8	8	8	8	8	5	5	5	5	3	3	3	3	2	5	3	3	-	-	-	-	-	-	-
23.7	-	-	-	-	3	3	3	3	3	5	5	5	8	8	10	8	8	5	5	5	5	3	2	2	3	5	5	5	3	-	-	-	-	-	-	-	-
24.6	-	-	-	-	-	-	3	5	5	8	10	7	3	8	8	10	10	10	13	12	13	10	5	5	3	3	3	3	-	-	-	-	-	-	-	-	-
25.7	-	-	-	-	-	-	3	3	5	5	8	10	3	5	10	12	12	10	5	12	15	12	5	3	3	5	3	3	3	3	3	3	3	-	-	-	-
26.7	-	-	-	-	-	-	-	3	3	5	8	10	8	5	10	12	13	10	8	8	10	10	9	5	5	5	3	3	3	3	3	-	-	-	-	-	-
27.9	-	-	-	-	-	-	-	-	3	8	8	10	8	8	10	15	12	15	18	8	8	5	8	5	5	3	3	3	-	-	-	-	-	-	-	-	-
28.7	-	-	-	-	-	-	-	-	3	5	5	8	8	12	10	13	15	20	18	10	12	8	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-
29.7	-	-	-	-	-	-	-	3	5	8	8	5	8	10	12	15	20	25	15	15	12	8	8	3	-	-	-	-	-	-	-	-	-	-	-	-	-
30.7	-	-	-	-	-	-	-	-	3	3	3	5	8	10	13	13	25	15	17	13	10	5	5	5	3	3	3	-	-	-	-	-	-	-	-	-	-
31.6	-	-	-	-	-	-	-	-	-	3	3	8	8	10	12	18	17	20	17	12	12	10	8	8	5	3	5	-	-	-	-	-	-	-	-	-	-

Table 69b

Coronal observations at Climax, Colorado (6702A), west limb

Date GCT	Degrees south of the solar equator																		0°	Degrees north of the solar equator																	
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1950																																					
Oct. 2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	3	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-
18.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19.7	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	-	-	-	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-
20.6	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	3	3	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.7	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-
23.7	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X	X
24.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.8	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
27.7	X	X	X	X	X	X	X	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
29.8	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	-	-	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30.9	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
31.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: On October 17 Climax began taking coronal plates with a new slit.

Table 70b

Coronal observations at Sacramento Peak, New Mexico (5303A), west limb

Date GCT	Degrees south of the solar equator																		0°	Degrees north of the solar equator																	
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1950																																					
Oct. 2.7	-	-	-	-	-	-	-	-	-	3	3	3	3	5	8	10	10	12	10	13	20	33	28	28	25	13	10	8	8	8	5	5	3	3	-	-	-
5.8	-	-	-	-	-	-	-	3	5	-	-	-	-	1	5	3	3	5	X	X	X	X	X	X	10	8	5	8	8	5	5	3	3	2	-	-	-
6.9	-	-	-	3	3	5	3	3	5	5	5	8	10	8	10	10	13	8	5	5	5	8	15	13	5	3	5	8	10	10	5	4	3	3	-	-	-
7.7	-	-	-	3	3	3	3	5	5	5	5	5	8	8	10	13	10	5	5	5	8	12	13	15	5	5	5	5	5	5	3	3	3	-	-	-	-
8.7	-	-	-	3	3	5	5	5	5	5	5	5	8	8	8	10	8	8	8	8	8	10	10	12	8	6	5	3	3	3	3	-	-	-	-	-	-
9.7	-	-	-	-	-	3	5	5	5	5	5	8	8	5	5	8	10	8	5	8	10	12	13	15	8	8	8	5	3	-	-	-	-	-	-	-	-
10.7	-	-	-	-	-	3	3	3	5	5	5	8	8	8	5	8	8	14	10	8	8	11	13	8	3	8	8	5	5	5	3	-	-	-	-	-	-
11.7	-	-	-	-	-	-	-	3	3	3	3	3	5	5	8	10	12	17	14	8	5	8	10	13	8	8	10	10	5	5	5	3	-	-	-	-	-
12.7	-	-	-	-	-	-	-	3	3	3	3	3	3	5	8	10	15	17	10	8	8	12	22	18	14	12	10	8	10	8	3	-	-	-	-	-	-
13.7	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	8	18	12	5	5	8	15	18	15	13	12	10	8	8	8	5	-	-	-	-	-	-
14.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	15	15	12	12	17	20	12	10	10	8	5	5	5	8	3	-	-	-	-	-
15.7	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	3	8	13	15	20	17	20	17	14	12	10	8	5	-	-	-	-	-	-	-	-	-
16.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	8	8	14	10	5	-	-	-	-	-	-	-	-	-	-	-	-	-
18.7	-	-	-	-	-	-	-	-	-	3	5	8	8	10	12	10	10	12	15	20	15	17	14	12	12	10	3	3	-	-	-	-	-	-	-	-	-
19.7	3	3	2	-	-	-	3	3	3	5	8	8	10	12	15	15	15	12	12	15	12	15	12	15	12	12	10	2	2	2	-	-	-	-	-	-	-
21.7	-	-	-	-	-	-	5	5	5	5	5	8	8	10	15	18	25	15	13	13	15	15	14	10	12	8	5	-	-	-	-	-	-	-	-	-	-
22.7	-	-	-	-	-	-	-	2	3	3	5	5	5	8	12	15	18	13	12	13	12	15	12	12	10	8	5	3	-	-	-	-	-	-	-	-	-
23.7	-	-	-	-	-	-	-	-	3	3	3	3	5	8	12	15	14	14	8	10	10	12	15	10	12	8	8	5	3	3	3	3	3	-	-	-	-
24.6	-	-	-	-	-	-	-	3	3	3	5	5	5	8	8	12	13	8	8	8	10	10	14	12	12	10	5	3	3	3	3	3	2	-	-	-	-
25.7	-	-	-	-	-	-	-	-	3	3	3	3	5	5	8	10	8	10	13	8	10	10	12	8	10	8	8	3	-	-	-	-	-	-	-	-	-
26.7	-	-	-	-	-	-	-	-	-	3	3	5	5	5	5	8	15	17	22	15	12	10	12	12	8	8	5	5	3	3	3	3	3	3	-	-	-
27.9	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	3	12	20	17	14	8	8	10	12	8	5	5	5	5	5	5	5	3	-	-	-	-
28.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	5	12	18	11	8	8	15	15	10	8	8	3	3	3	3	3	3	3	3	-	-
29.7	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	8	5	12	10	12	13	12	12	15	20	10	10	8	5	5	5	5	5	8	5	3	-	-
30.7	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	3	5	10	8	8	10	10	12	18	15	12	10	5	5	5	3	5	3	5	3	3	-	-
31.6	-	-	-	-	-	-	-	-	-	-	3	3	5	5	5	5	8	8	5	8	10	10	17	17	12	5	3	3	3	3	5	5	5	5	3	-	-

Table 71a

Coronal observations at Sacramento Peak, New Mexico (6374A), east limb

Date GCT	Degrees north of the solar equator																		0°	Degrees south of the solar equator																
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1950																																					
Oct. 2.7	-	-	-	-	-	-	-	-	-	-	-	-	3	2	2	2	4	3	3	3	4	4	4	3	3	3	3	3	3	3	2	2	2	-	-	-
5.8	2	2	2	2	2	2	2	2	2	2	2	2	2	2	-	-	2	8	12	5	3	2	2	3	2	2	2	2	3	2	2	3	2	-	-	-	-
6.9	2	2	2	2	3	2	2	2	2	2	3	2	2	2	-	-	-	3	-	17	10	8	10	5	2	2	3	3	2	3	2	2	2	2	2	-	-
7.7	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-	3	3	10	8	14	10	12	15	5	2	1	3	1	1	1	1	-	-	-	-	-	-
8.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	8	5	3	10	10	14	14	8	-	-	3	1	1	3	3	1	1	-	-	-	-
9.7	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	5	6	2	4	1	9	5	7	-	-	-	2	2	2	3	2	2	-	-	-	-
10.7	-	-	-	-	-	-	1	1	1	-	-	-	-	-	1	5	3	3	3	4	3	3	3	2	1	1	2	2	2	2	2	2	2	2	2	-	-
11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	8	5	3	10	10	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.7	1	1	1	1	1	1	1	1	1	-	-	-	-	-	1	1	5	9	3	10	15	3	2	2	-	-	-	3	3	3	3	3	3	2	2	2	2
13.7	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	8	8	5	5	17	12	3	3	2	2	2	2	2	3	3	3	2	2	2	2	2	2
14.8	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	8	10	3	5	12	15	-	3	-	-	3	-	-	-	-	-	-	-	-	-	-	-
15.7	-	-	-	-	-	-	2	2	2	2	2	2	-	-	-	3	10	3	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	X
16.8	-	-	-	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.7	-	-	-	-	-	-	-	-	-	-	2	2	5	2	3	2	3	2	-	-	-	-	-	-	-	2	2	3	3	3	2	-	-	-	-	-	-
19.7	2	2	1	1	2	2	1	1	-	-	-	-	-	-	3	3	3	3	3	2	3	2	2	2	-	3	3	3	3	2	2	2	-	-	-	2	2
21.7	-	-	-	2	2	2	-	-	-	2	2	2	2	-	-	-	3	5	3	3	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2
22.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	3	3	3	-	-	-	-	3	-	-	-	-	2	2	2	2	-	-	-	-
23.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	-	-	-	-	2	2	2	2	3	3	-
24.6	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	2	8	5	8	8	5	3	2	2	2	2	2	2	2	2	2	2	2	3	2	-
25.7	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	3	5	8	10	15	8	10	-	-	2	2	2	2	2	2	2	2	2	2	2	2	-
26.7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	8	5	8	8	12	10	3	3	3	2	2	3	2	3	-	2	2	2	-	-	-	-
27.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	12	8	5	3	3	3	2	2	2	3	2	2	-	-	-	-	-	-	-	-	-
28.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	12	5	3	2	2	-	-	-	3	3	3	3	-	-	-	-	-	-	2	2
29.7	-	2	2	2	2	2	2	2	2	2	2	2	2	3	2	3	8	3	2	2	3	-	-	2	2	3	3	2	2	2	2	2	2	2	2	-
30.7	2	3	3	2	1	1	1	1	1	1	2	2	2	2	2	3	3	5	2	5	3	2	3	2	3	3	3	2	3	3	3	2	2	-	-	2	2
31.6	3	3	4	2	3	3	3	3	3	2	3	3	3	-	-	-	-	2	8	3	2	3	3	3	2	2	2	2	2	3	2	-	-	-	-	-	-

Table 72a

Coronal observations at Sacramento Peak, New Mexico (6702A), east limb

Date GCT	Degrees north of the solar equator																		0°	Degrees south of the solar equator																
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1950																																					
Oct. 2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-
7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	3	3	3	3	2	2	2	-	-	-	-	-	-	-	-	-	-	-
8.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	3	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-
9.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	3	2	2	-	-	-	-	-	-	-	-	-	-	-	-
10.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.7	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
16.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-
22.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	-	-	-	-	-	-
25.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29.7	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
31.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 71b

Coronal observations at Sacramento Peak, New Mexico (6374A), west limb

Date GCT	Degrees south of the solar equator																			0°	Degrees north of the solar equator																
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5			5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1950																																					
Oct. 2.7	-	-	-	-	-	2	2	2	2	5	3	2	2	3	2	5	3	-	-	3	5	12	12	3	2	-	-	3	-	-	-	-	3	2	-	-	-
5.8	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	X	X	X	X	X	X	X	X	X	X	X	3	2	-	-	-	2	2	2	2	2	2
6.9	-	1	-	-	-	-	1	1	-	-	-	-	-	1	1	3	3	5	3	3	3	3	3	5	3	3	3	2	2	2	2	2	2	2	2	2	2	2
7.7	-	-	-	-	-	-	3	3	-	-	-	-	-	-	-	-	1	3	-	2	2	3	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	3	1	1	1	3	3	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-
9.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	8	8	5	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	13	8	10	5	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	10	10	5	3	3	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.7	2	2	-	-	-	-	1	1	1	1	1	1	1	1	3	3	3	13	10	12	5	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13.7	2	2	-	-	-	-	2	2	2	2	2	2	2	2	2	2	2	5	3	3	8	13	6	-	2	-	-	2	2	2	2	2	2	2	2	2	2	2
14.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	8	8	15	5	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2
15.7	X	X	X	X	X	X	2	3	2	2	2	2	2	2	2	2	2	3	3	8	10	13	8	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-
16.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.7	-	-	2	2	3	2	2	2	3	3	2	2	3	3	2	2	2	-	-	10	-	2	-	-	3	3	3	3	3	2	2	2	2	2	2	-	-
19.7	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	-	2	8	11	5	2	3	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2
21.7	2	2	2	2	2	2	2	-	2	2	-	2	-	-	-	8	10	3	2	2	-	-	-	-	2	2	2	3	3	2	3	-	-	-	-	-	-	-
22.7	-	-	-	-	-	-	2	2	2	-	-	-	-	-	2	5	3	2	-	-	-	-	-	-	-	-	-	3	2	2	2	2	2	2	2	2	-
23.7	-	-	-	-	-	-	3	3	3	-	-	-	-	-	-	3	5	5	2	-	-	-	-	-	-	2	2	2	2	2	2	-	-	-	-	-	-	-
24.6	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	3	5	3	3	3	5	3	-	-	-	-	3	3	3	3	3	2	-	-	-	-	2
25.7	-	-	-	-	2	2	2	2	2	2	2	2	2	2	3	3	3	8	8	5	-	2	3	3	-	-	-	2	3	3	5	2	2	2	2	2	2
26.7	-	-	-	-	-	-	-	-	-	2	2	3	-	3	3	6	10	10	8	10	-	-	2	5	2	2	-	-	2	2	2	2	2	2	2	2	2	2
27.9	-	-	-	-	-	-	-	3	2	3	3	2	3	3	4	3	2	15	8	10	2	2	3	5	12	-	-	-	-	-	-	-	-	-	-	-	-	-
28.7	2	2	-	-	-	-	3	5	3	3	3	2	2	2	2	2	2	12	2	2	3	-	5	8	2	-	-	-	-	-	-	-	-	-	-	-	-	-
29.7	-	-	-	-	-	-	-	3	3	3	3	3	3	3	3	3	8	5	3	3	5	3	10	1	3	-	-	-	3	3	3	3	2	2	2	-	-	-
30.7	2	3	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	2	2	2	3	4	3	2	3	1	1	1	1	1	1	1	1	2	2	2	2
31.6	-	-	-	-	-	-	-	2	2	2	3	-	-	3	2	3	5	3	2	-	3	15	12	3	2	3	2	2	2	2	2	2	3	3	3	3	3	3

Table 72b

Coronal observations at Sacramento Peak, New Mexico (6702A), west limb

Date GCT	Degrees south of the solar equator																			0°	Degrees north of the solar equator																
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5			5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1950																																					
Oct. 2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-
6.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	3	3	1	-	-	-	-	-	-	-	-	2	2	
13.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.7	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.7	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	3	2	3	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24.6	-	-	2	2	2	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	3	3	3	-	-	-	-	-	-	-	-	-	-	-
30.7	-	-	2	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	-	-	-	-	-	-	-
31.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 73

Outstanding Solar Flares, July, August and September 1950

Observatory	Date 1950	Time Observed Beginning (GCT)	Time Observed Ending (GCT)	Duration (Min)	Area (Mill) (of) (Visible) (Hemisph)	Position Longitude Diff (Deg)	Position Latitude (Deg)	Time of Maximum (GCT)	Int. of Maximum	Relative Area of Maximum (Tenths)	Importance	SID Observed
Boulder	July 1	1615	1626	11	--	W53	S05	1616	10	5		
"	" 6	1850	2055	125	575*	W12	N16	1935	15	3	2	
"	" 6	2305	2400	--	1008*	W20	N16	2318	35	6	2	
McMath	" 8	1850				W40	N14				1	
"	" 12	1539				W55**	N08**				2-	
"	" 12	1620				E50	N22				1+	Yes
"	" 15	1822				E15	N20				2	Yes
Boulder	" 17	2131	2215	--	77	E32	N12	2136	15	7		
"	" 17	2215	2230	--	110	E32	N12	2226	10	6		
Meudon	" 18	1320				W35	N25				1	Yes
McMath	" 18	1320				W33	N20				2-	Yes
"	" 18	1400				E17**	N12**				1	
"	" 19	1500				W45	N20				1	
Boulder	" 20	1939	1955	--	177	E13	N08	1942	12	5		
Wendelstein	" 21	0508	0536	--	291	E09	N08				1	
McMath	" 21	1315				E10	N12				2+	Yes
Wendelstein	" 21	1329	1348	--	291	E05	N08	1329			1	
McMath	" 21	1345				W59	N23				2	
"	" 21	2114				E50	N10				1+	
Boulder	" 22	1525	1630	65	199	W11	N06	1554	25	5	2	Yes
McMath	" 22	1550				W07	N06				1+	Yes
McMath	" 25	1924				E15	S12				1	
Wendelstein	" 26	0626	0645	--	291	E47	S11	0626			1	
McMath	" 26	1250				W16	S16				1	
Boulder	" 26	1825	1840	15	177	E41	S07	1832	6	2		
McMath	" 26	1910				E46**	S12**				1-	
"	" 27	2040				W30	S12				1-	
"	" 27	2050				E35	S12				1	
Boulder	" 28	1415	1530	75	364	E24	S12	1430	10	2		
McMath	" 28	1442				E27	S12				1	
Boulder	" 28	1800	1820	20	99	W18	N07	1810	8	5		
McMath	" 29	1230				E85	S08				1	
Boulder	" 29	1440	1510	30	55	E81	S07	1448	8	3		
McMath	" 29	1448				E85	S08				1	
Boulder	" 29	1710	1820	70	77	E81	S07	1720	12	3		Yes
"	" 31	2400	2422	22	157	E49	S07	2418	12	5		
Boulder	Aug 1	1635	1710	35	121	E34	S08	1645	10	4		
"	" 1	1725	1900	95	121	E44	S06	1817	6	3		
"	" 1	1935	2015	40	431	E32	S08	1948	10	3		
"	" 1	2030	2145	75	276	W33	S12	2047	12	3		
"	" 1	2054	2115	21	155	E35	S09	2100	12	5		
McMath	" 2	1520				E24	S10				1	
Boulder	" 2	1545	1615	30	298	E21	S08	1555	15	4	1	Yes
Meudon	" 2	1548				E25	S05				2	Yes
Boulder	" 2	1645	1735	50	232	E24	S06	1705	6	1		
"	" 2	1910	2020	--	199	E30	S09	2005	6			
"	" 2	2100	2110	10	55	E31	S06	2105	6	1		
"	" 2	2205	2215	10	365	E18	S06	2206	20	3		Yes
"	" 2	2240	2340	--	88	E20	S05	--	4 ?			
Meudon	" 3	1410				E15	S05				1	
Boulder	" 3	1530	1555	25	111	E12	S07	1538	14	5		
"	" 3	1625	1630	--	221	E12	S07	1630	20	3		Yes
Meudon	" 4	0915				E05	S05				1	
Boulder	" 4	1515	1535	20	136	E31	S16	1522	4	4		
"	" 4	2250	2419	--	742	W06	S08	2338	32	6		Yes

Table 73 (Continued)

Observatory	Date 1950	Time Observed Beginning (GCT)	Time Observed Ending (GCT)	Duration (Min)	Area (Mill) (of) (Visible) (Hemisph)	Position Longitude Diff (Deg)	Position Latitude (Deg)	Time of Maximum (GCT)	Int. of Maximum	Relative Area of Maximum (Tenths)	Importance	SID Observed
McMath	Aug 7	1305				W35	S08				1+	
Boulder	" 7	1650	1713	23	113	W45	S07	1709	6	1		
"	" 10	1758	1815	--	183	E17	N15	1806	10	4		
"	" 10	2230	2249	--	80	E13	N15	2235	10	7		
"	" 10	2249	2256	7	34	W53	S10	2252	10	8		
"	" 14	1555	1618	23	422	E22	N11	1562	15	4		
"	" 14	1620	1715	55	137	E25	N10	1639	10	6		
"	" 14	1800	1810	10	34	E06	S05	1807	8	4		
"	" 14	2045	2100	15	137	E18	N16	2052	10	2		
Meudon	" 15	0746				E15	N15				1	
Boulder	" 15	1745	1835	50	263	E04	N15	1762	18	3	2	Yes
"	" 15	1925	1940	15	34	E05	N16	1933	6	8		
Wendelstein	" 16	0634	0657	--	291	E01	N17				1	
Boulder	" 17	1415	1441	--	388	W08	N13	1437	15	7		
McMath	" 17	1441				W09	N12				1	
Boulder	" 18	1515	1538	--	--	W30	N17	--	--	--		
Wendelstein	" 19	1000	1018	--	485	E31	N14	1001			1-2	
Boulder	" 19	1554	1613	--	--	W41	N14	--	--	--		
McMath	" 19	1715				E17	S10				1	
Boulder	" 22	1725	1915	110	575	W14	N13	1744	17	6		
"	" 22	2035	2120	45	100	W17	N13	2044	12	4		
"	" 22	2240	2250	10	66	W17	N13	2245	6	8		
Wendelstein	" 23	1334	1349	15	291	W29	S12	1336			1	
McMath	" 23	1345				W27	S12				1+	
Boulder	" 23	1700	1711	11	66	W26	S13	1704	15	7		
"	" 24	1453	1455	2	22	W38	S14	1453	6	1		
Meudon	" 25	1027				W55	S15				1	
Boulder	" 27	1645	1725	40	100	W34	S20	1654	8	8		
McMath	" 29	1515				E64**	N13**				1 ?	
Boulder	" 29	1815	1845	30	199	E69	N14	1826	10	3	2	Yes
"	" 29	2105	2115	10	55	W36	S00	2110	8	6		
"	" 30	1455	1510	15	188	E57	N16	1459	8	2		
"	" 30	1735	1749	14	33	E56	N16	1738	10	7		
"	" 30	1817	1843	26	55	E53	N15	1832	12	3		Yes
Wendelstein	" 31	0838	0842	--	242	E45	N16	0842			2	
Boulder	" 31	1423	1429	--	22	E40	N13	1423	12	7		
"	" 31	1610	1612	2	22	E40	N13	1611	4	5		
"	" 31	1735	1744	9	44	W27	N12	1940	6	4		
Boulder	Sept 1	1633	1638	5	18	E30	S24	1634	6	9		
"	" 1	1704	1708	4	12	W47	N13	1705	12	9		
"	" 1	1750	1755	5	24	W47	N14	1750	8	9		
"	" 1	1904	1906	--	8	W42	N13	1906	12	9		
"	" 1	1926	1935	--	100	E27	N15	1935	12	6		
"	" 3	1635	1706	31	77	W72	N22	1652	10	9		
"	" 3	1855	1910	15	60	W72	N24	1855	6	5		
"	" 4	1500	1525	--	35	W83	N12	1516	6	9		
"	" 7	1849	1856	--	25	E70	S04	1850	12	8		
"	" 7	2115	2136	21	43	E70	S04	2130	12	7		
"	" 18	1920	1922	2	20	W20	S12	1920	10	9		
"	" 19	1709	1724	15	400	W30	S11	1711	25	4	2	Yes
McMath	" 19	1710		--		W22**	S13**				3	Yes
"	" 20	1838		---		W90	N03				1	
Boulder	" 20	2135	2240	65	30	W39	S06	2203	12	5		
"	" 22	1908	1915	7	150	W17	N16	1910	12	5		
McMath	" 26	1840		--		E12	N15				1	

*Area not corrected for foreshortening; after this date all areas given in millionths of sun's visible hemisphere
**Longitude and latitude of calcium area in which solar flare was observed.

Table 74

Indices of Geomagnetic Activity for September 1950

Preliminary values of mean K-indices, Kw, from 36 observatories;
Preliminary values of international character-figures, C;
Geomagnetic planetary three-hour-range indices, Kp;
Magnetically selected quiet and disturbed days

Gr. Day 1950	Values Kw	Sum	C	Values Kp	Sum	Final Sel. Days
1	1.0 1.2 1.4 1.4 1.6 1.4 0.9 1.8	10.7	0.0	1o1+1+1+ 2-1+1-2o	11-	Five
2	1.4 1.7 0.9 0.8 0.8 1.2 2.6 1.7	11.1	0.4	2-2o1o0+ 1o1-2+2-	11-	Quiet
3	1.9 3.2 3.8 3.9 4.4 4.9 4.8 5.8	32.7	1.6	2o4o5-5- 5+6-6o7o	39+	
4	5.0 3.5 4.4 3.9 3.6 3.4 3.8 4.6	32.2	1.5	6o4o5+5- 4-4o5-5o	37+	1
5	4.9 4.2 4.7 5.1 4.0 4.0 4.3 4.7	35.9	1.6	6o5+6o6+ 5-5o5+5+	44o	14
						15
6	4.4 4.6 4.2 4.4 4.1 3.4 3.4 3.6	32.1	1.3	5+6-5+6- 5o4o4-4o	39-	22
7	2.9 2.6 3.2 3.8 3.5 2.6 2.7 2.9	24.2	0.9	3+3o4o4o 4o3o3o3o	27+	29
8	2.1 3.9 4.2 4.2 3.4 4.2 4.5 4.6	31.1	1.5	2+4+5+5+ 4-5-6-5o	36+	
9	4.3 3.2 2.6 2.3 2.0 1.8 3.1 2.5	21.8	0.8	5o3+3+3- 1+2-3o3-	23o	
10	4.4 2.3 1.3 1.7 3.1 3.7 4.0 3.0	23.5	1.0	5o3o1o2- 3+4+4+3+	26o	
11	3.7 4.4 3.0 2.7 1.2 1.4 2.6 2.8	21.8	0.8	4+5+4-3o 1o1+3o4-	25+	Five
12	2.8 1.4 2.6 3.1 2.9 1.0 0.7 1.5	16.0	0.4	3+1+3+3+ 3+1o1-1+	18-	Dist
13	1.7 1.6 1.4 1.8 1.6 3.0 4.2 3.3	18.6	0.7	2o2+2-2- 1+3o5-3+	20o	
14	1.2 1.1 0.9 1.1 0.7 0.9 0.7 1.1	7.7	0.0	1+1+1o1o 1-1o1-1+	8+	3
15	0.5 0.5 1.2 1.2 1.1 1.4 0.4 0.7	7.0	0.0	0+0o1-1o 1o1+0+1-	5+	4
						5
16	1.9 1.2 1.4 3.4 3.7 4.6 3.6 2.8	22.6	1.0	2+1+2-4- 4-5+4-3o	25-	6
17	1.8 2.5 2.7 2.6 2.6 4.1 3.7 3.9	23.9	1.0	2o3+4-3o 3o4+4o4+	28-	24
18	3.8 3.3 3.6 3.3 3.6 2.7 2.3 3.4	26.0	1.0	5-4o5-4o 4o3o3-4o	31o	
19	3.9 2.1 2.8 4.2 3.6 1.8 2.8 4.7	25.9	1.2	4+3-3+5o 5-2o3o5+	30+	
20	5.1 4.3 3.4 4.0 3.6 4.0 4.0 2.9	31.3	1.3	6-5o4o5- 4o5-5-3+	36o	Ten
						Quiet
21	3.0 2.9 1.3 1.7 0.7 1.1 2.2 0.9	13.8	0.4	4-4-2o2- 1-1-2+1-	15+	
22	0.5 1.1 0.5 0.8 1.3 1.9 1.8 1.0	8.9	0.0	0+1+0+1- 1o2-2-1-	8-	1
23	0.9 1.0 2.4 3.9 3.3 3.9 4.4 4.6	24.4	1.2	1o1+3-5- 4o4+5o5o	28o	2
24	4.5 2.4 1.8 2.8 3.6 4.6 4.8 5.3	29.8	1.4	5+3o2-3o 4+5o5+6+	34o	12
25	4.0 3.3 3.8 2.7 3.3 4.9 3.7 4.5	30.2	1.3	4+4o5-4- 4-6-4o5+	35+	14
						15
26	2.7 2.0 1.8 1.9 1.9 2.5 4.5 3.2	20.5	0.8	3+2+2+2o 2o3o5o4-	24-	21
27	2.6 2.2 2.5 2.6 1.6 1.7 2.2 1.7	17.1	0.4	3o3-3o3+ 2-2-2+2-	19+	22
28	0.9 1.2 2.0 2.3 2.0 1.7 1.7 1.9	13.7	0.3	1-1+2+3- 2o1+2-2o	14o	27
29	0.7 0.7 1.0 0.6 0.7 1.0 1.2 1.3	7.2	0.0	1-0+1o0+ 0+1-1o1o	5+	28
30	1.1 1.1 1.1 1.7 1.0 2.8 4.2 3.4	16.4	0.8	1o1+1+2o 1-3o4+4-	17+	29
Mean	2.65 2.40 2.48 2.99 2.36 2.66 2.72 3.00	2.66	0.82			

Table 75

Sudden Ionosphere Disturbances Observed at Washington, D. C.

October 1950

1950 Day	GCT Beginning	GCT End	Location of transmitters	Relative intensity at minimum*	Other phenomena
October					
11	1933	2010	Ohio, D. C., Colombia	0.02	Solar flare** 1920
29	1742	1830	Ohio, D.C.	0.2	

*Ratio of received field intensity during SID to average field intensity before and after, for station KQ2XAU (formerly W8XAL), 6080 kilocycles, 600 kilometers distant.

**Time of observation at the High Altitude Observatory, Boulder, Colorado.

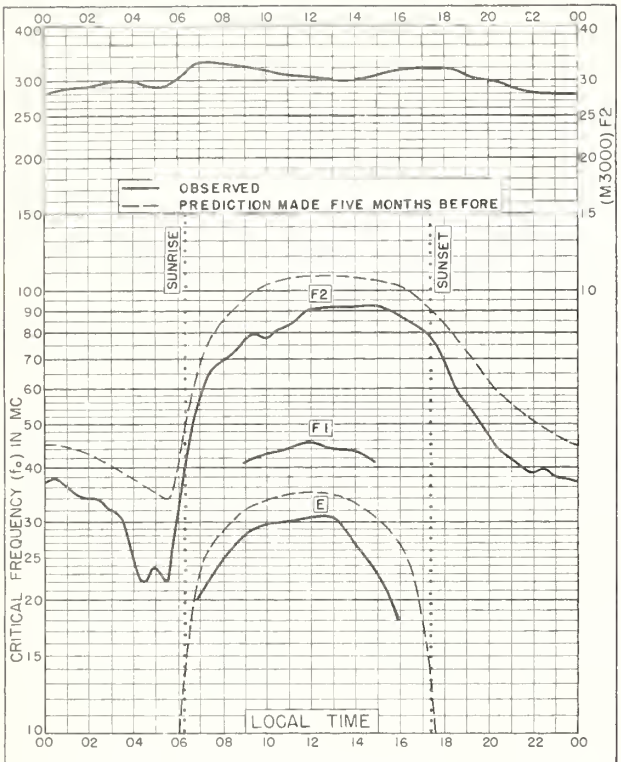


Fig. 1. WASHINGTON, D. C.
38.7°N, 77.1°W OCTOBER 1950

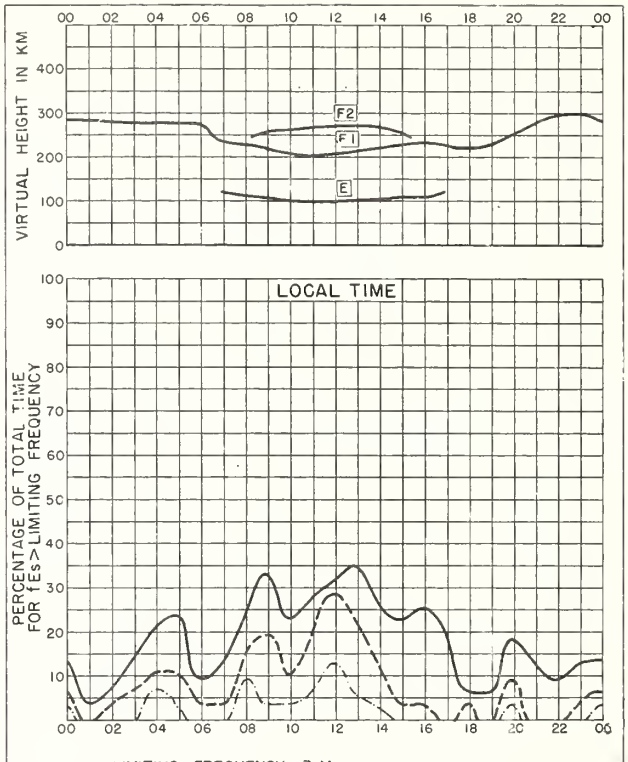


Fig. 2. WASHINGTON, D. C. OCTOBER 1950

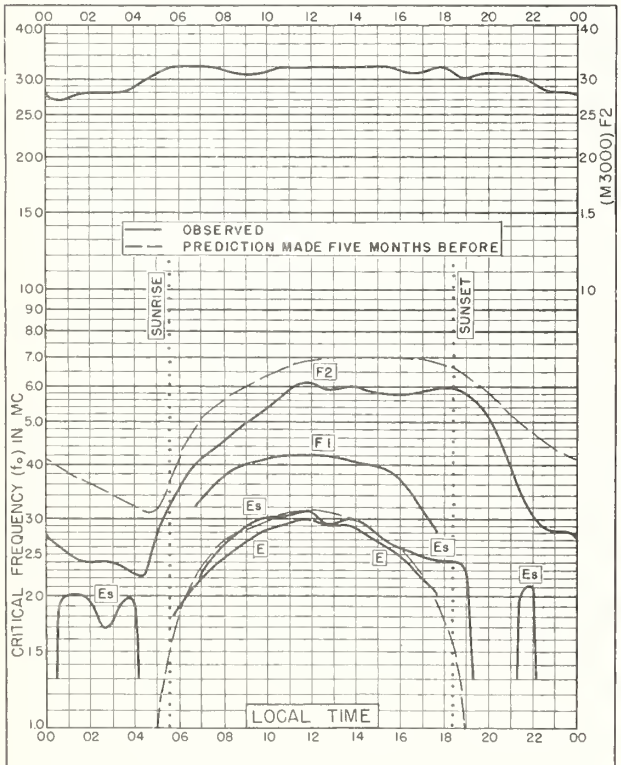


Fig. 3. OSLO, NORWAY
60.0°N, 11.0°E SEPTEMBER 1950

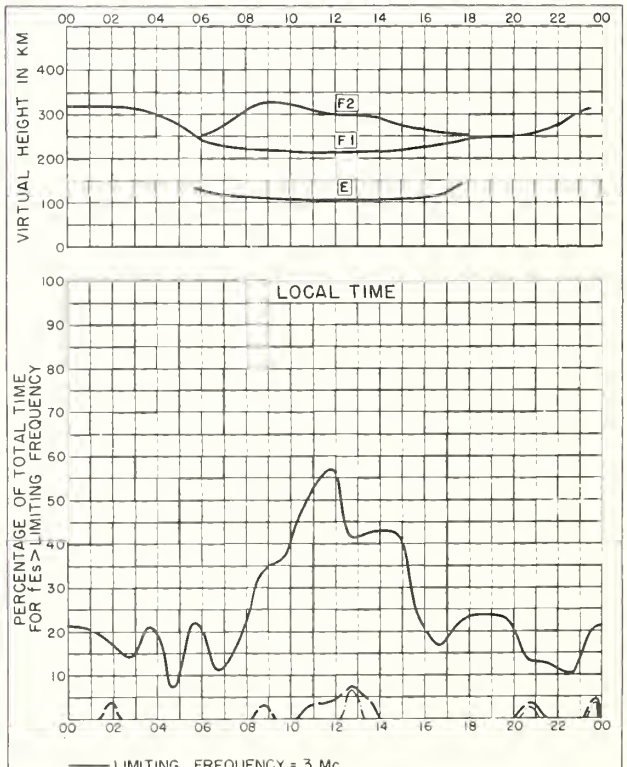


Fig. 4. OSLO, NORWAY SEPTEMBER 1950

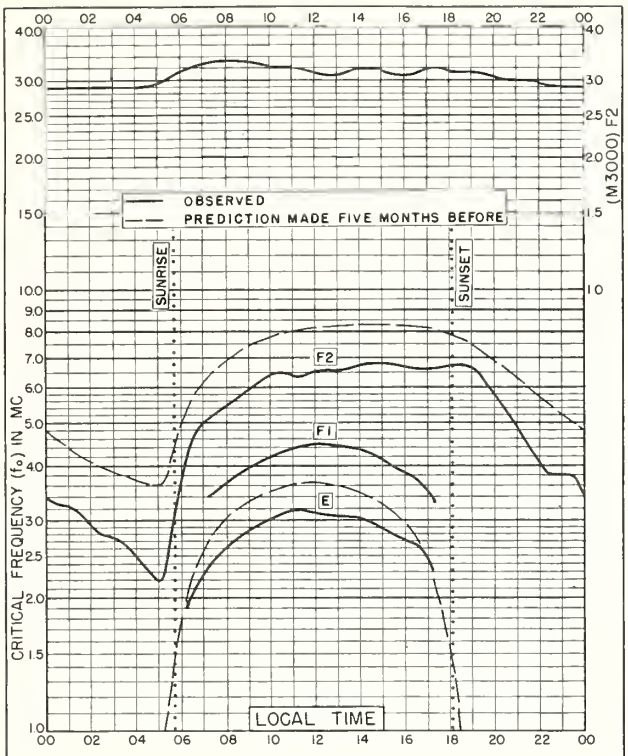


Fig. 5. BOSTON, MASSACHUSETTS
42.4°N, 71.2°W SEPTEMBER 1950

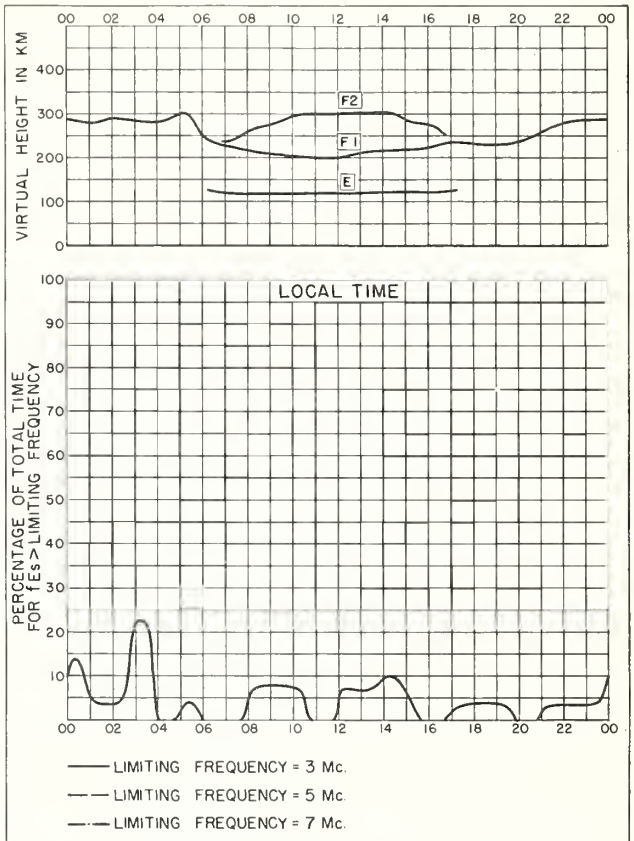


Fig. 6. BOSTON, MASSACHUSETTS SEPTEMBER 1950

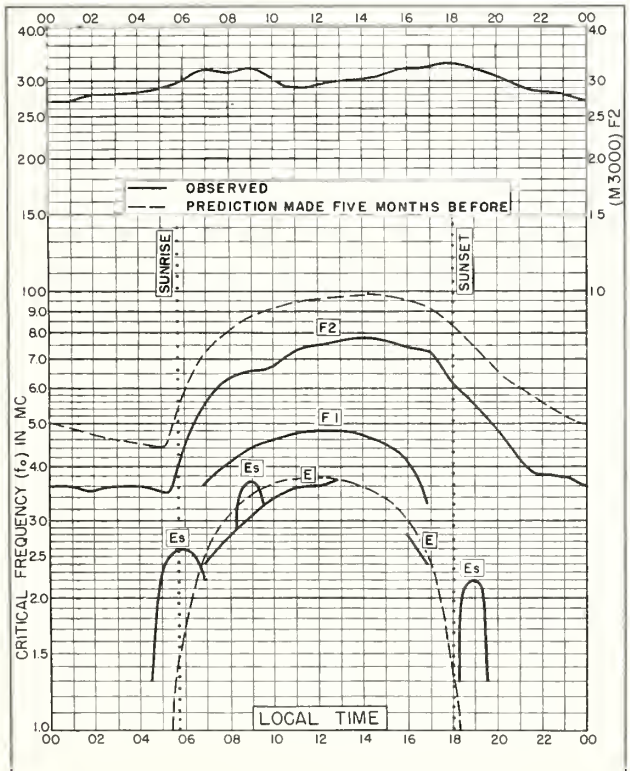


Fig. 7. SAN FRANCISCO, CALIFORNIA
37.4°N, 122.2°W SEPTEMBER 1950

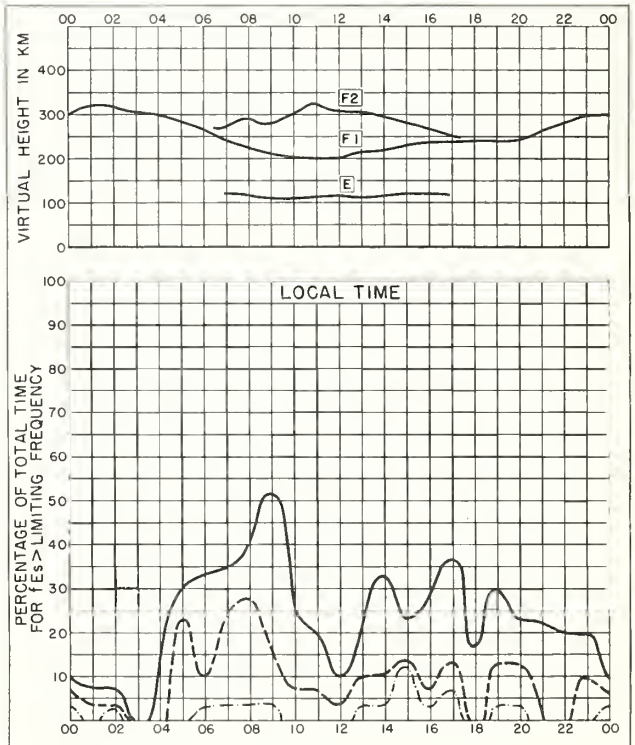


Fig. 8. SAN FRANCISCO, CALIFORNIA SEPTEMBER 1950

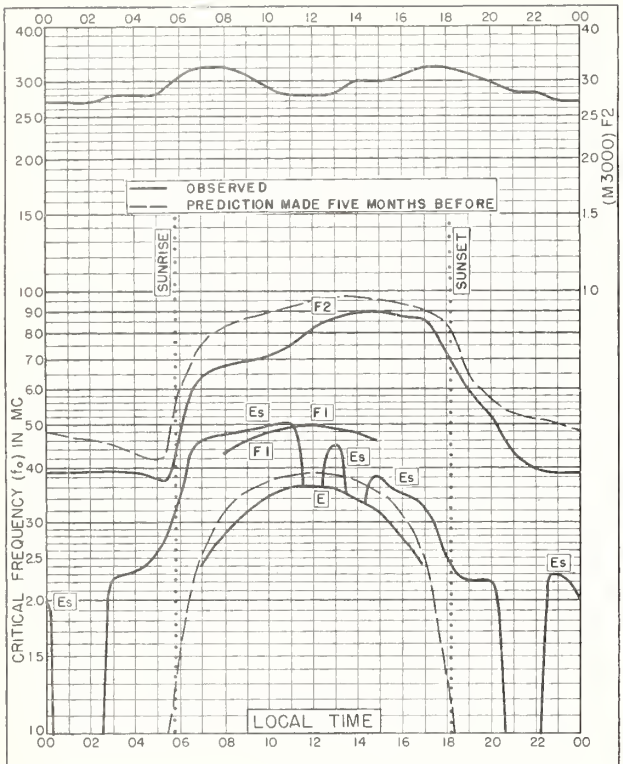


Fig. 9. WHITE SANDS, NEW MEXICO
32.3°N, 106.5°W SEPTEMBER 1950

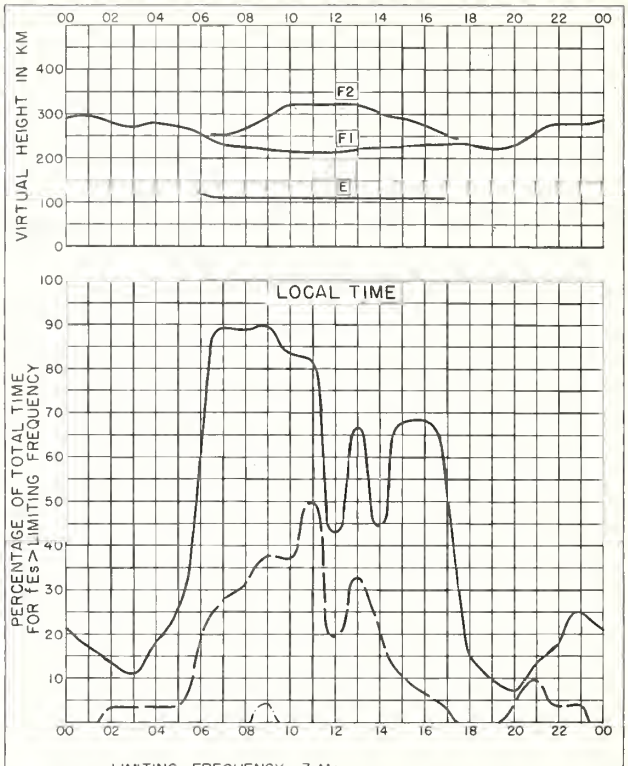


Fig. 10. WHITE SANDS, NEW MEXICO SEPTEMBER 1950

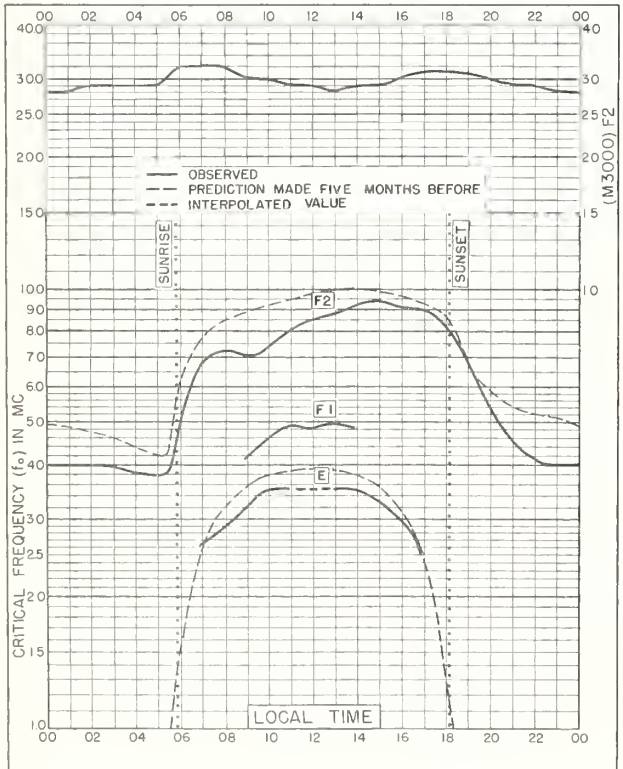


Fig. 11. BATON ROUGE, LOUISIANA
30.5°N, 91.2°W SEPTEMBER 1950

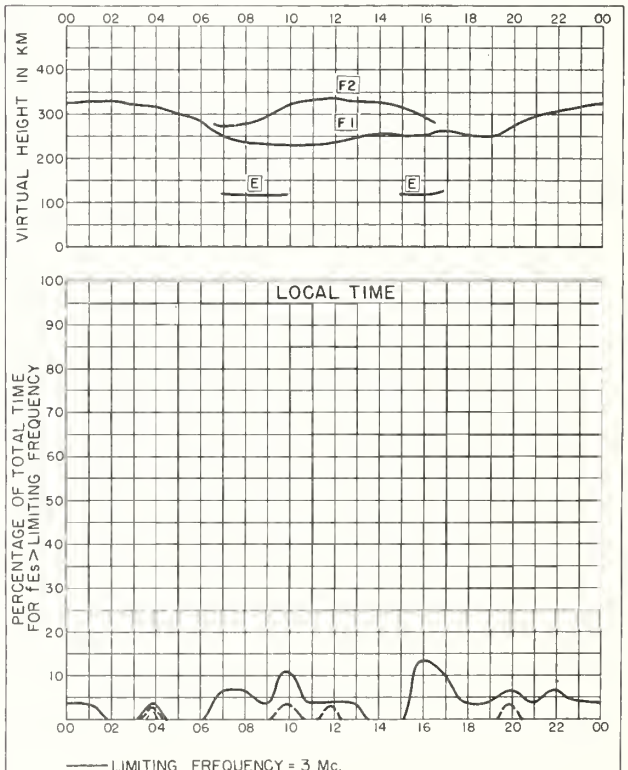


Fig. 12. BATON ROUGE, LOUISIANA SEPTEMBER 1950

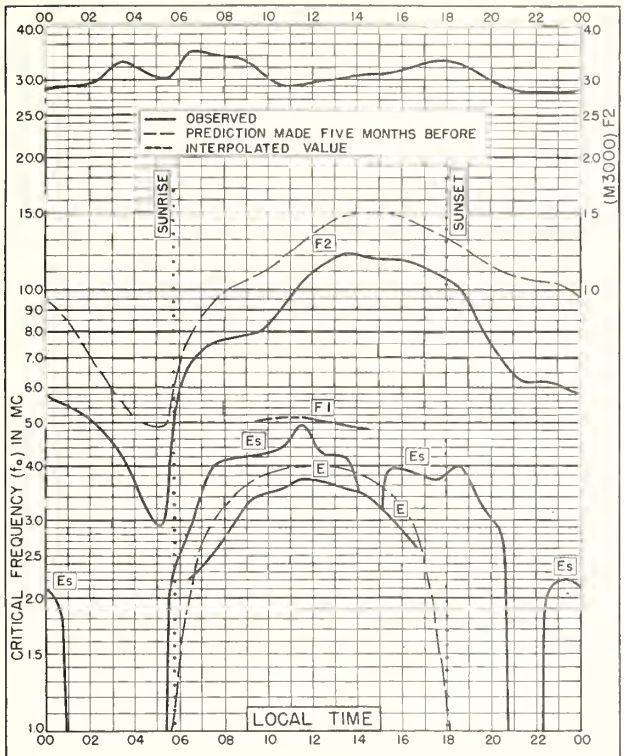


Fig. 13. OKINAWA I.
26.3°N, 127.7°E SEPTEMBER 1950

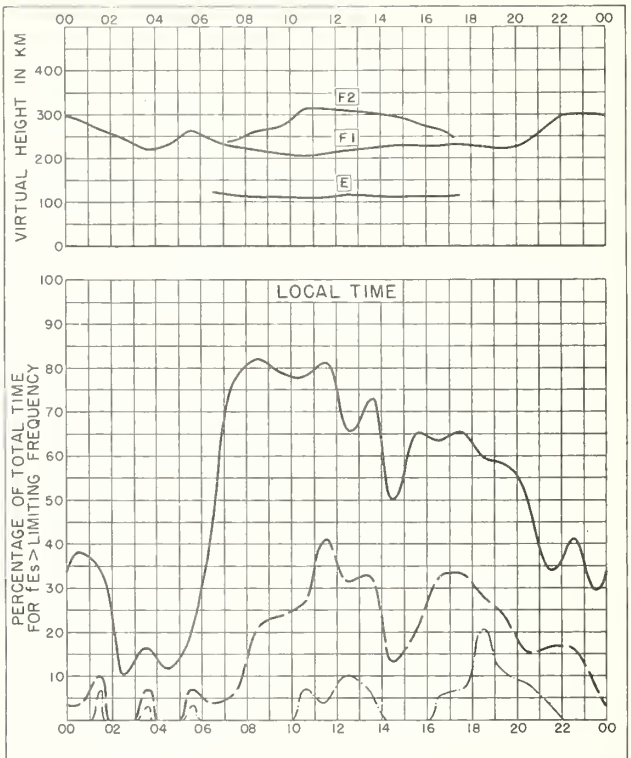


Fig. 14. OKINAWA I. SEPTEMBER 1950

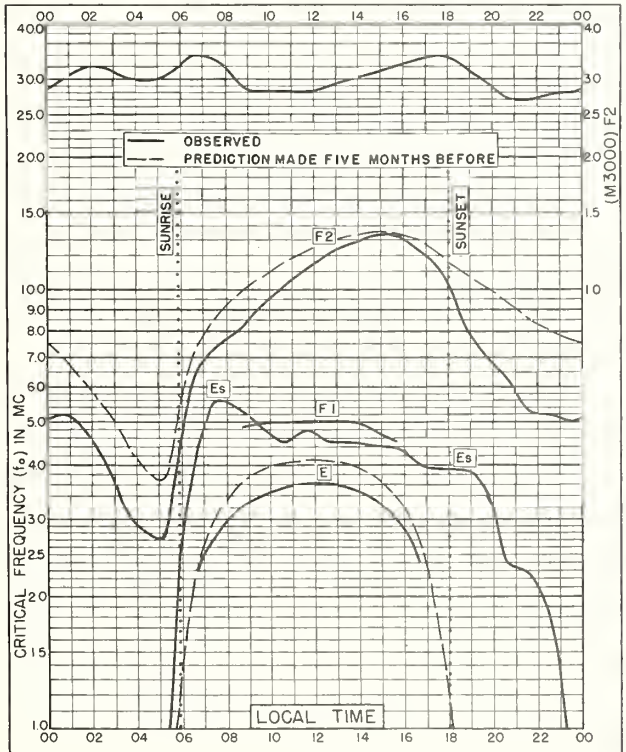


Fig. 15. MAUI, HAWAII
20.8°N, 156.5°W SEPTEMBER 1950

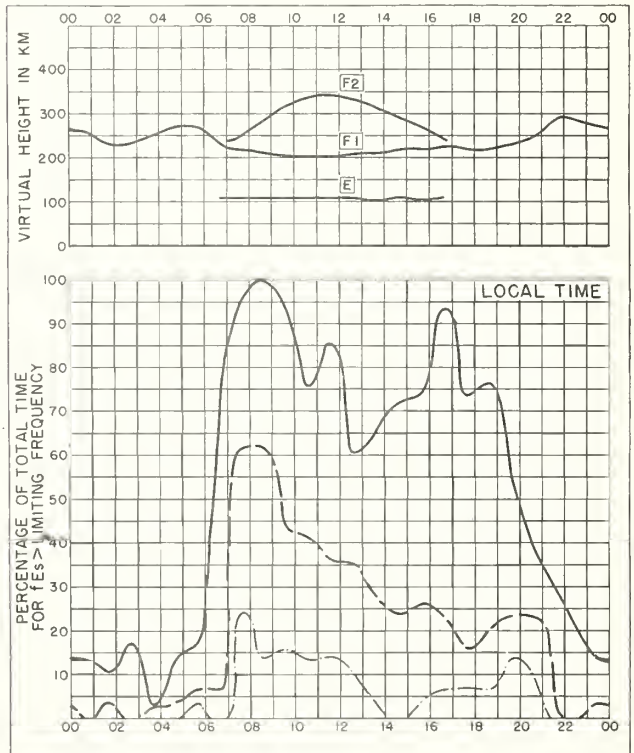


Fig. 16. MAUI, HAWAII SEPTEMBER 1950

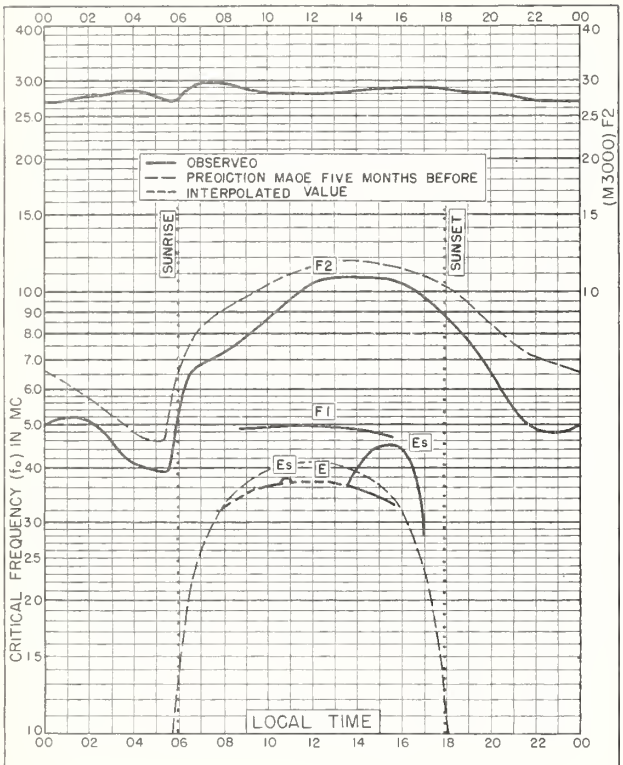


Fig. 17. SAN JUAN, PUERTO RICO
18.4°N, 66.1°W SEPTEMBER 1950

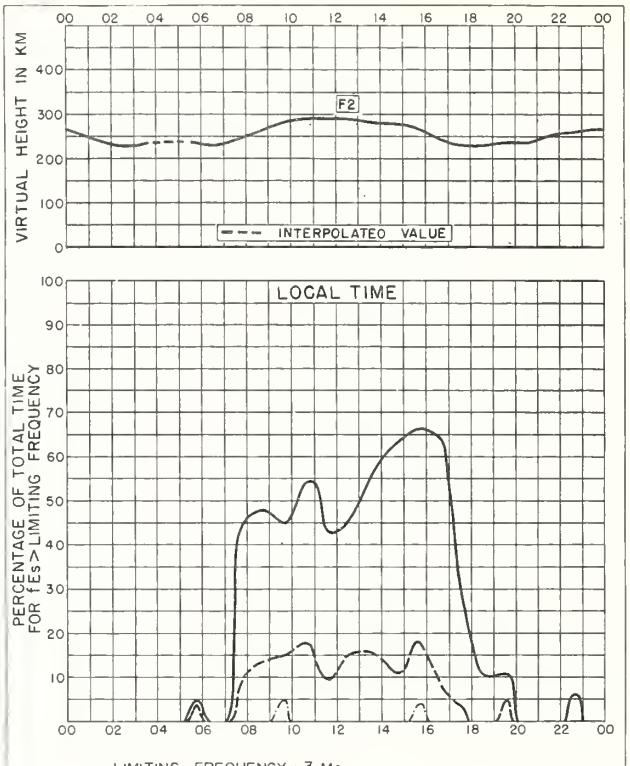


Fig. 18. SAN JUAN, PUERTO RICO SEPTEMBER 1950

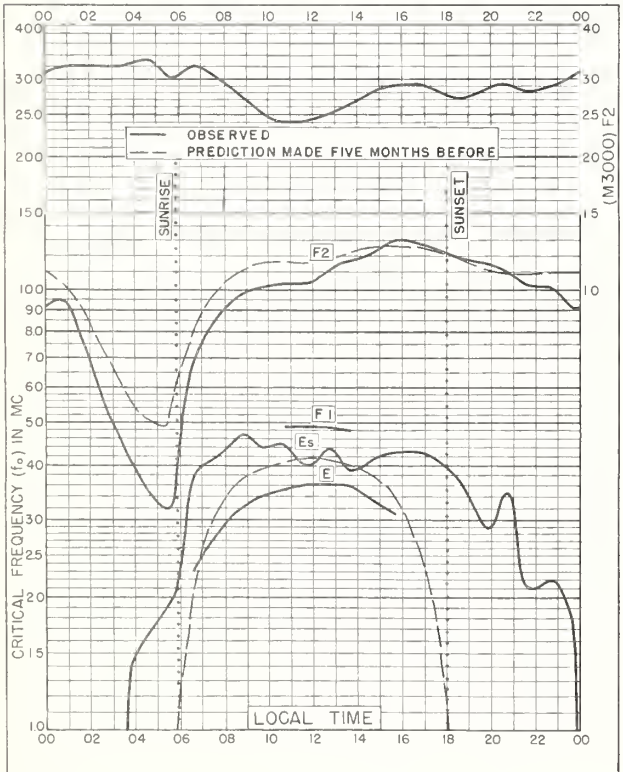


Fig. 19. GUAM I.
13.6°N, 144.9°E SEPTEMBER 1950

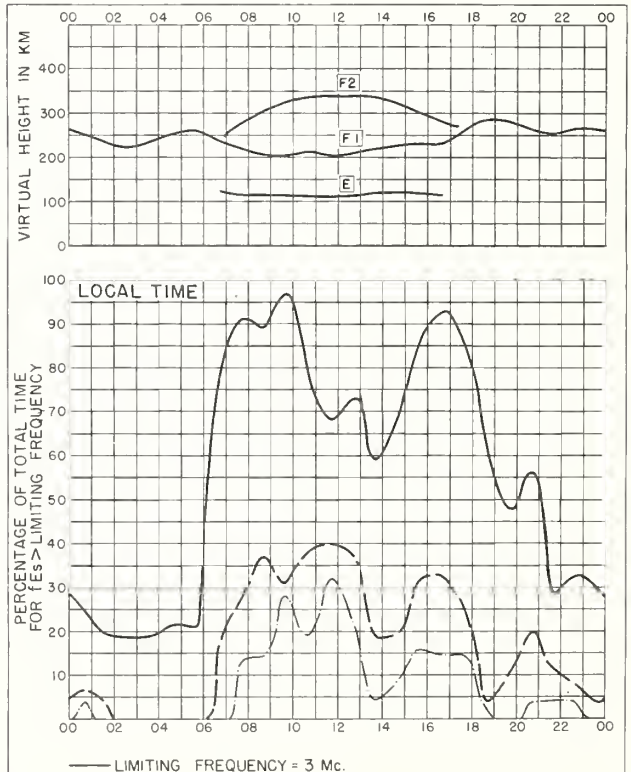


Fig. 20. GUAM I. SEPTEMBER 1950

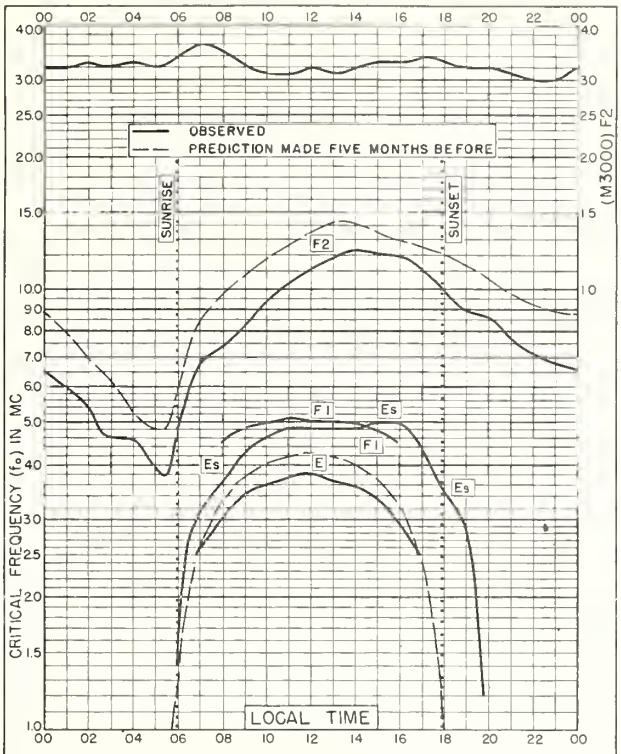


Fig. 21. TRINIDAD, BRIT. WEST INDIES
10.6°N, 61.2°W SEPTEMBER 1950

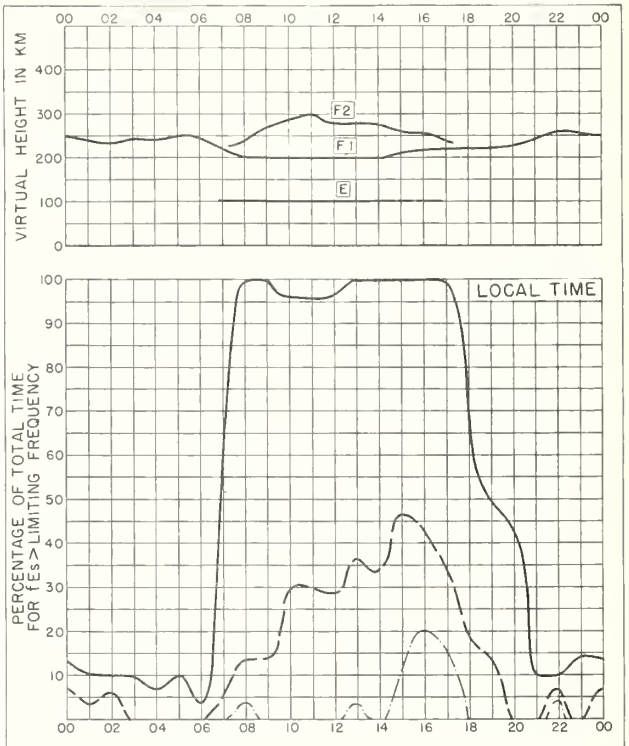


Fig. 22. TRINIDAD, BRIT. WEST INDIES SEPTEMBER 1950

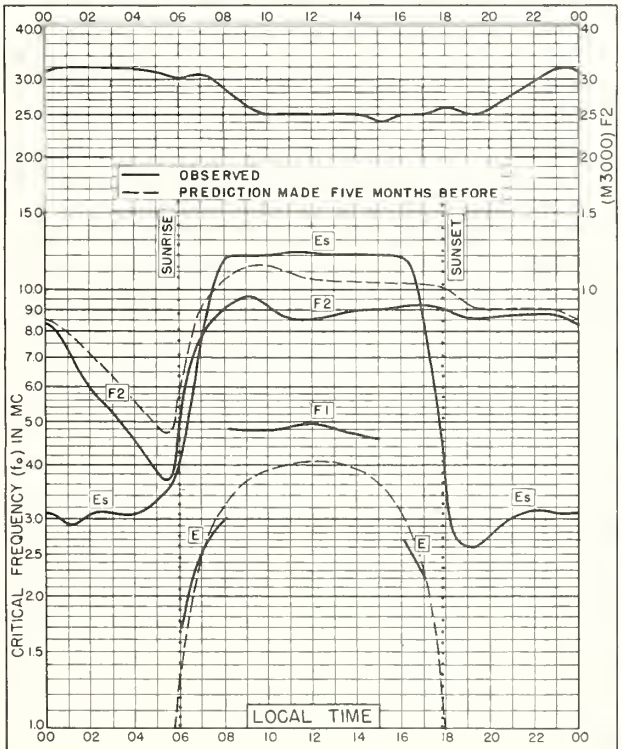


Fig. 23. HUANCAYO, PERU
12.0°S, 75.3°W SEPTEMBER 1950

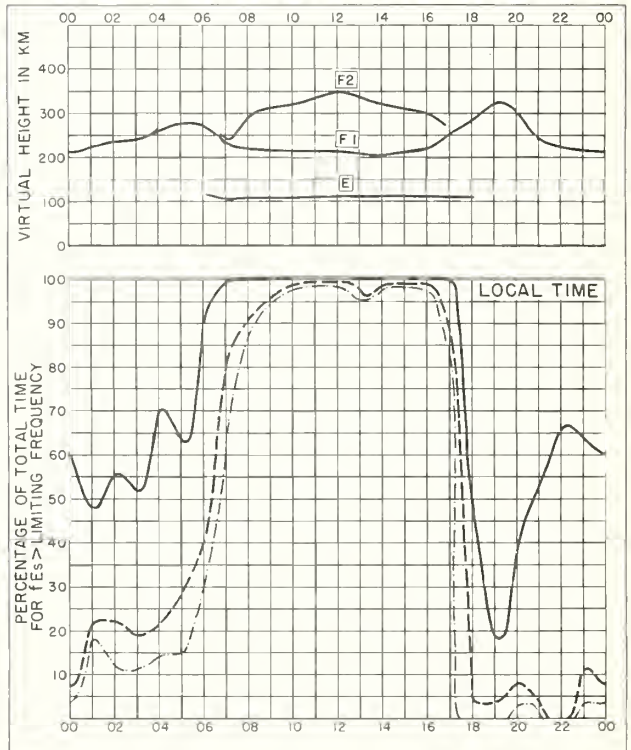


Fig. 24. HUANCAYO, PERU SEPTEMBER 1950

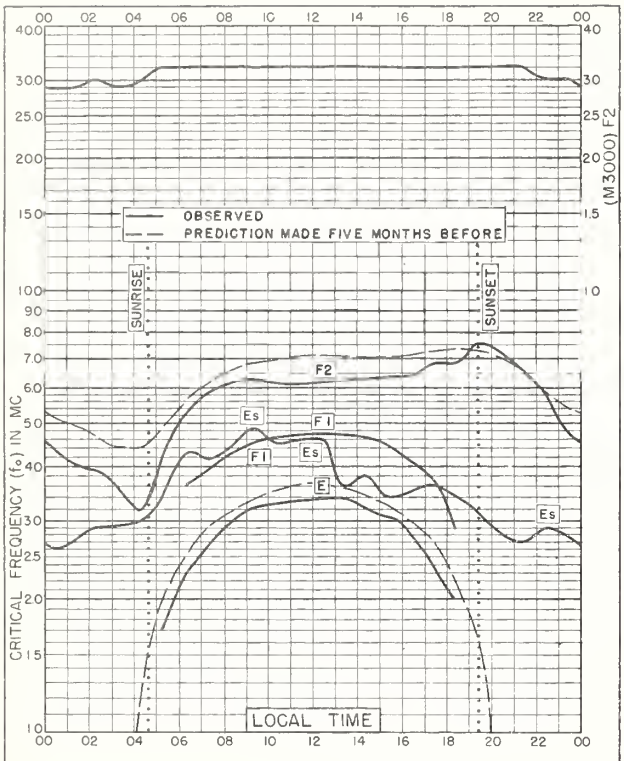


Fig. 25. De BILT, HOLLAND
52.1°N, 5.2°E AUGUST 1950

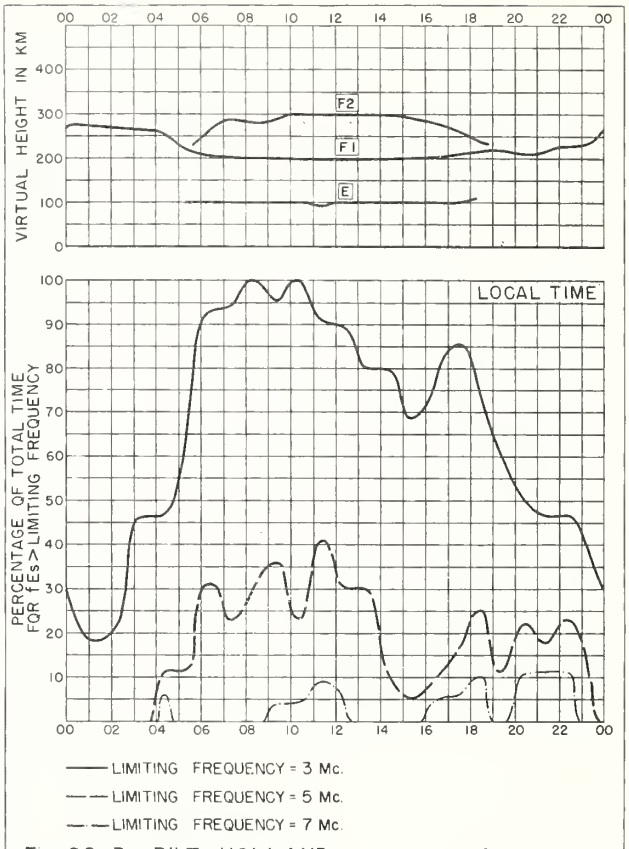


Fig. 26. De BILT, HOLLAND AUGUST 1950

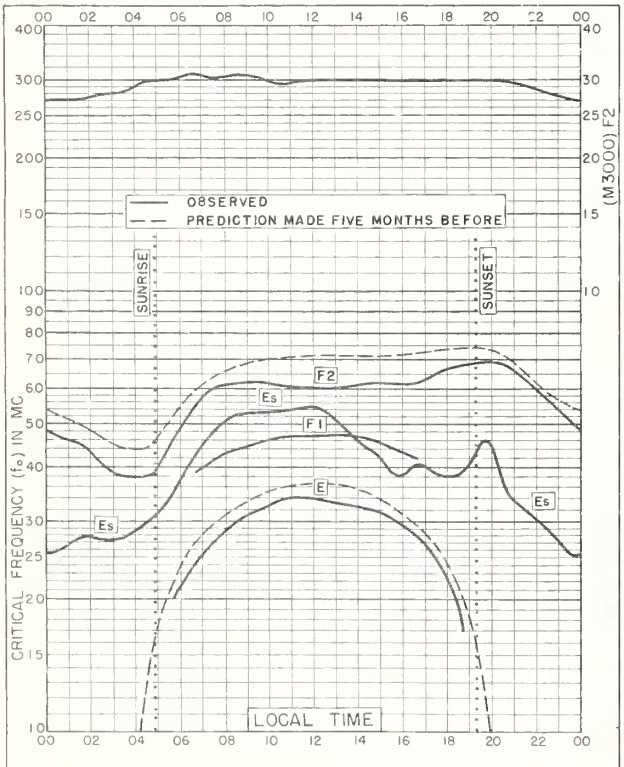


Fig. 27. LINDAU/HARZ, GERMANY
51.6°N, 10.1°E AUGUST 1950

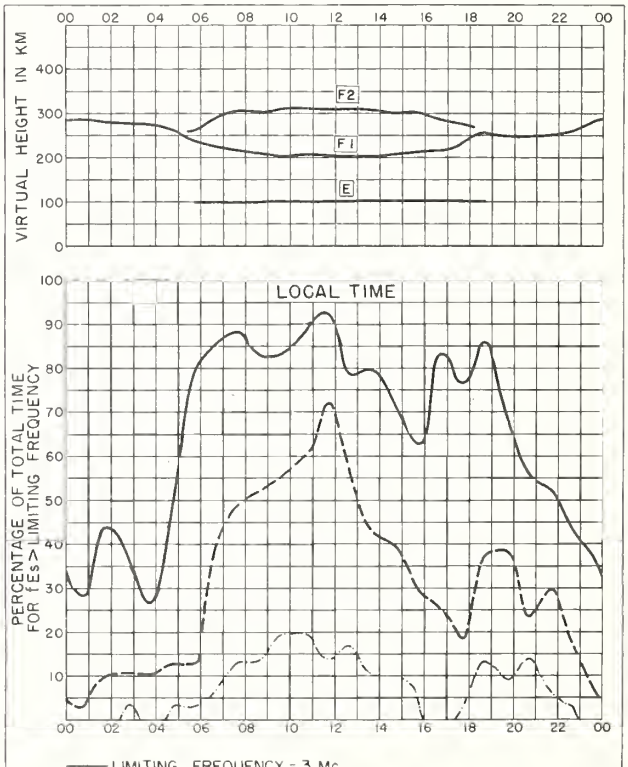


Fig. 28. LINDAU/HARZ, GERMANY AUGUST 1950

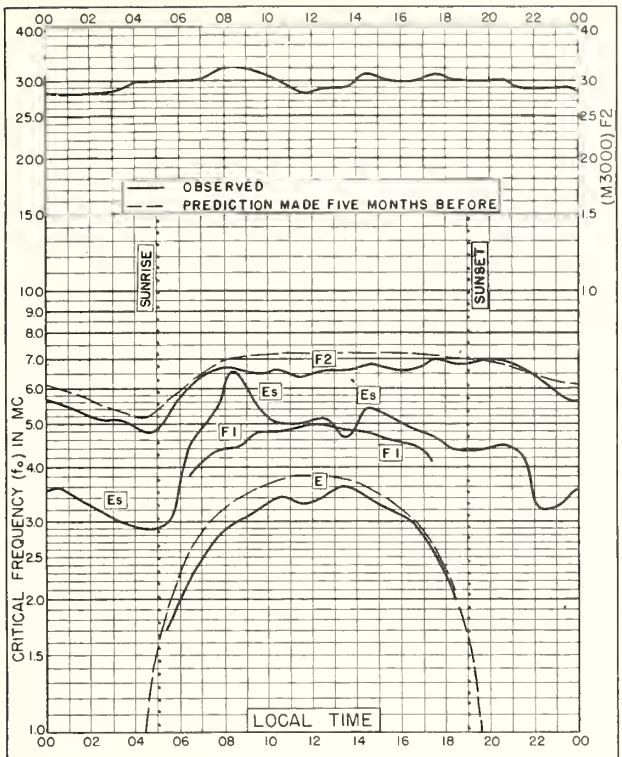


Fig. 29. WAKKANAI, JAPAN
45.4°N, 141.7°E AUGUST 1950

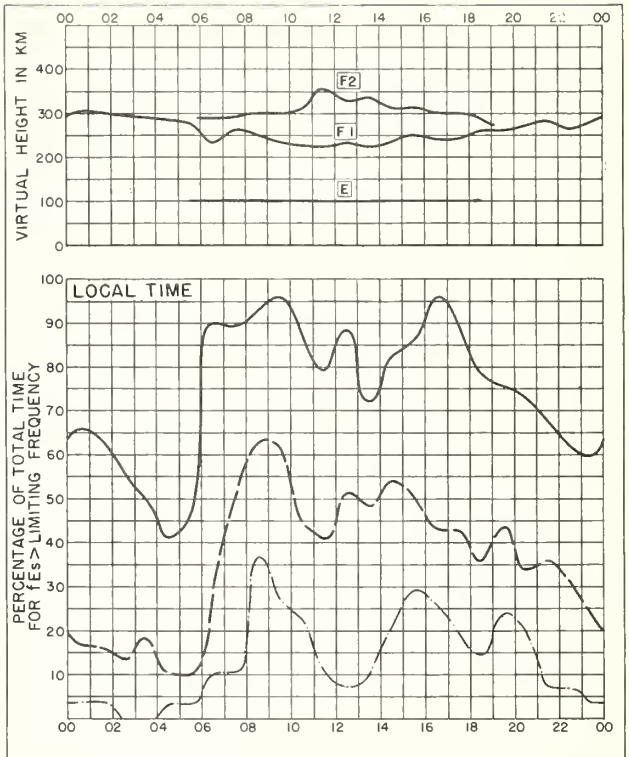


Fig. 30. WAKKANAI, JAPAN AUGUST 1950

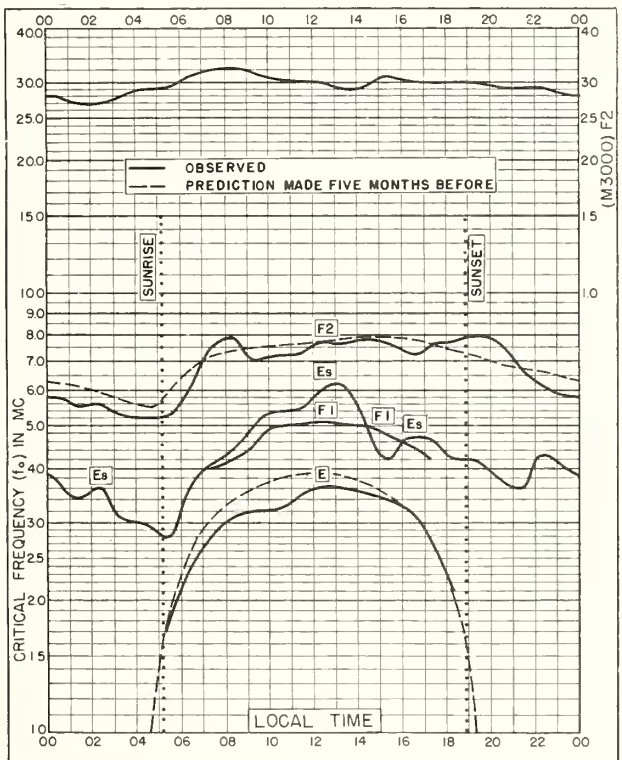


Fig. 31. AKITA, JAPAN
39.7°N, 140.1°E AUGUST 1950

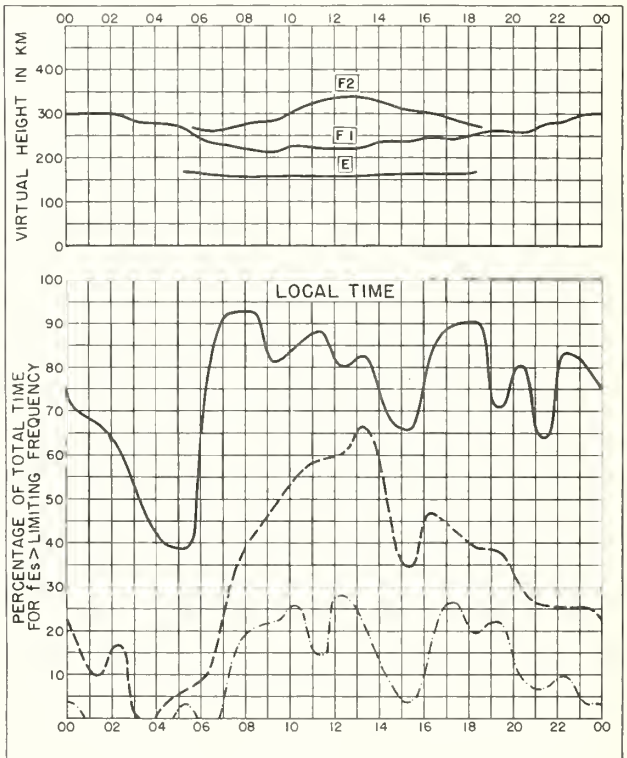


Fig. 32. AKITA, JAPAN AUGUST 1950

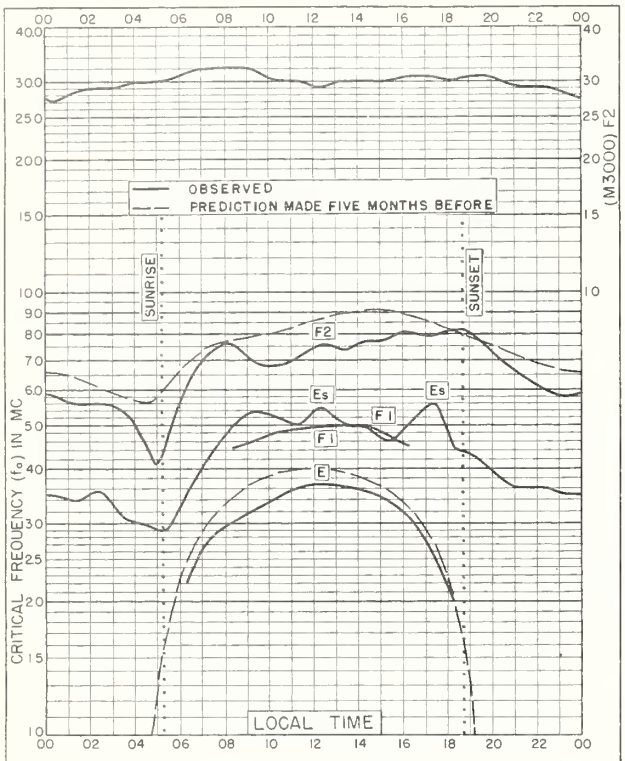


Fig. 33. TOKYO, JAPAN
35.7°N, 139.5°E AUGUST 1950

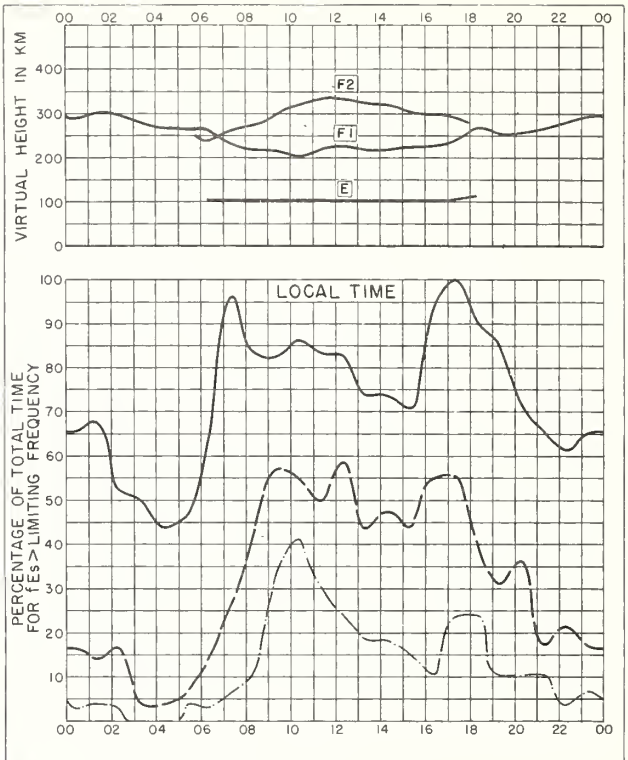


Fig. 34. TOKYO, JAPAN AUGUST 1950

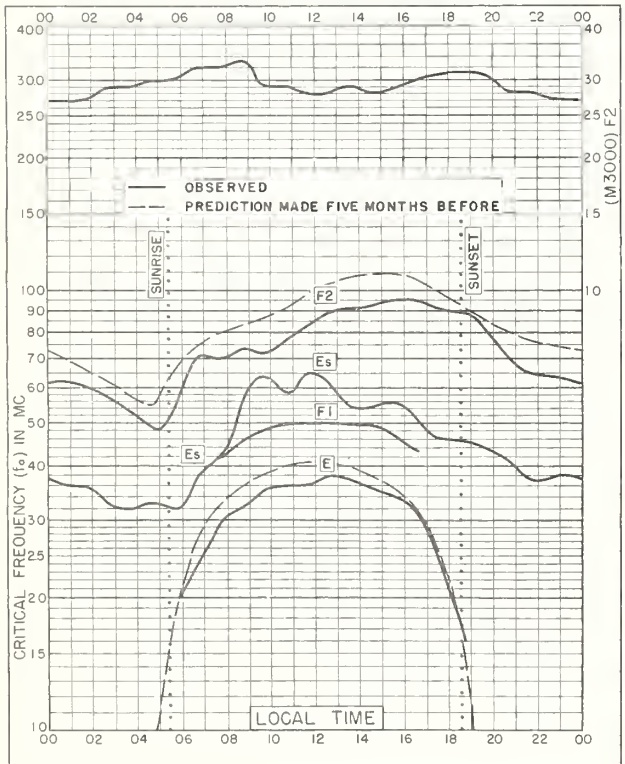


Fig. 35. YAMAGAWA, JAPAN
31.2°N, 130.6°E AUGUST 1950

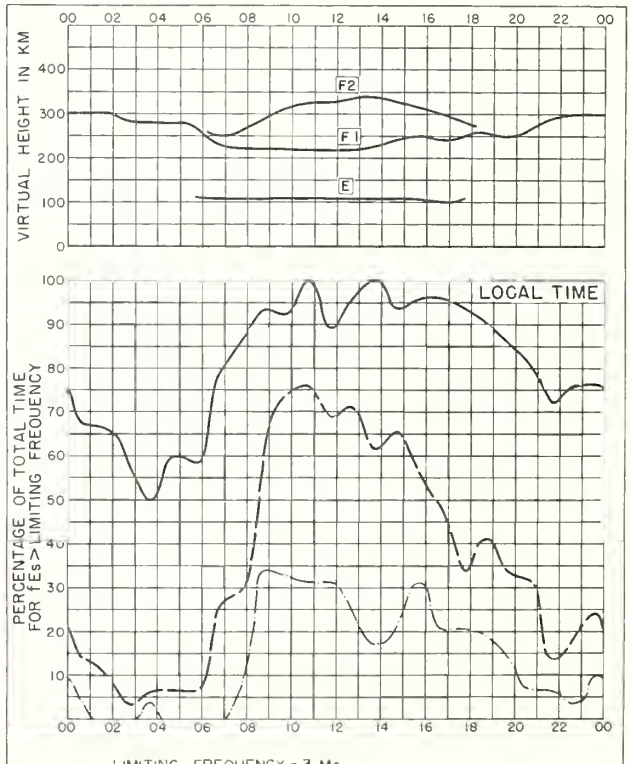


Fig. 36. YAMAGAWA, JAPAN AUGUST 1950

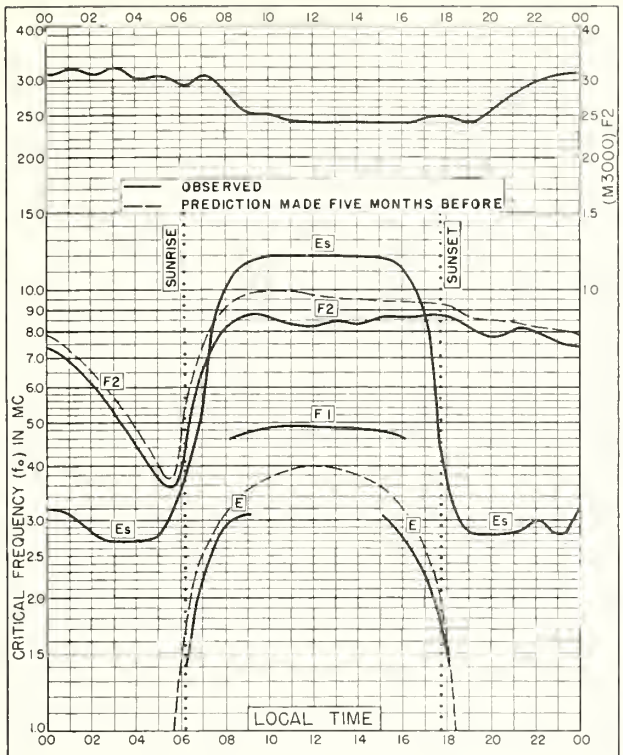


Fig. 37. HUANCAYO, PERU
12.0°S, 75.3°W AUGUST 1950

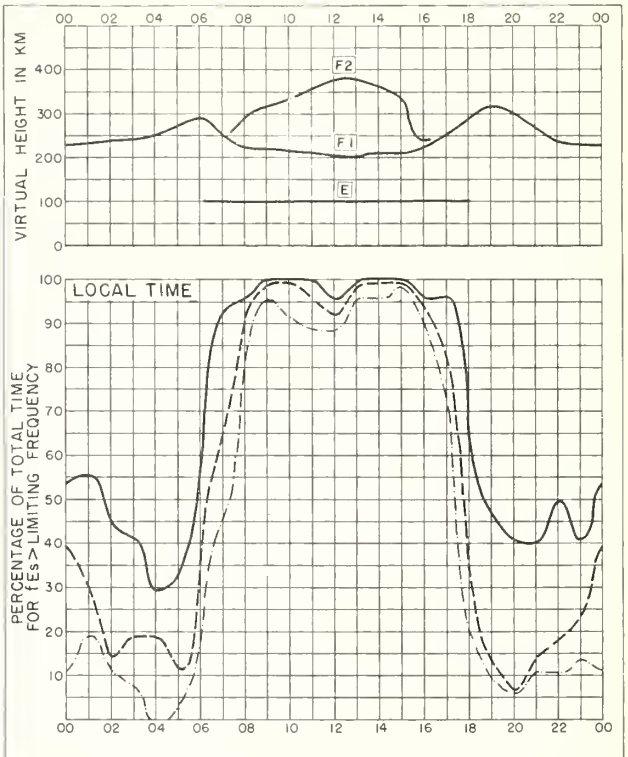


Fig. 38. HUANCAYO, PERU AUGUST 1950

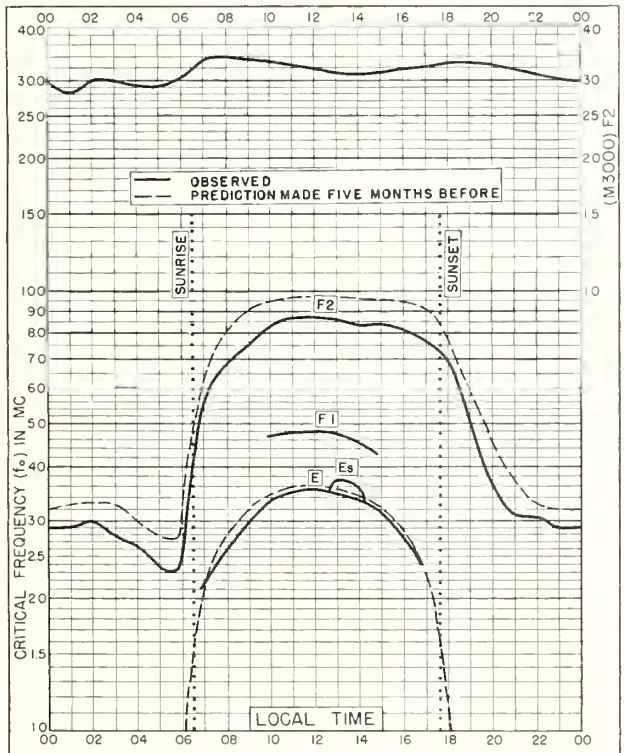


Fig. 39. JOHANNESBURG, U. OF S. AFRICA
26.2°S, 28.1°E AUGUST 1950

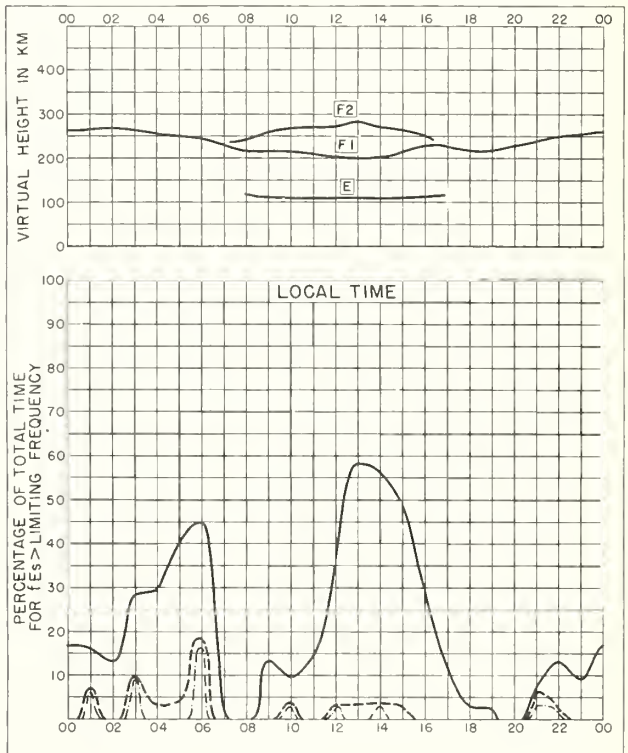


Fig. 40. JOHANNESBURG, U. OF S. AFRICA AUGUST 1950

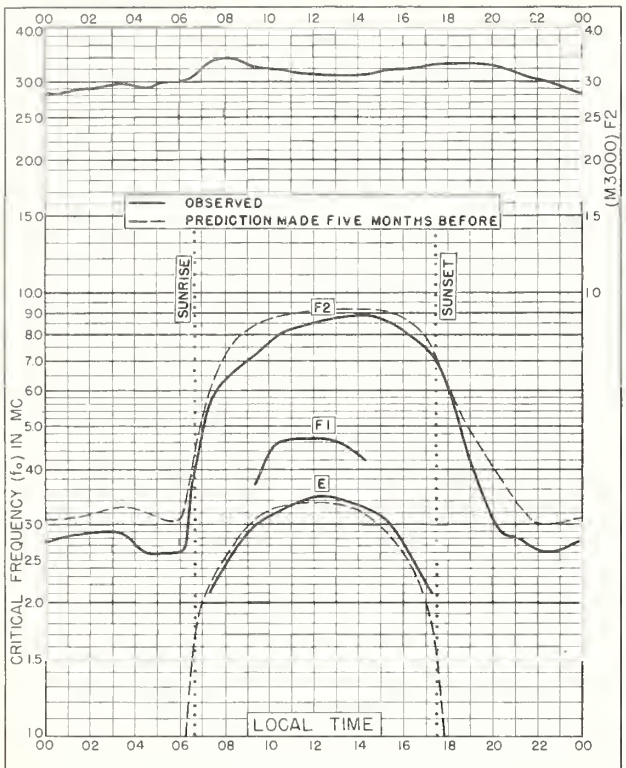


Fig. 41. CAPETOWN, U. OF S. AFRICA
34.2°S, 18.3°E AUGUST 1950

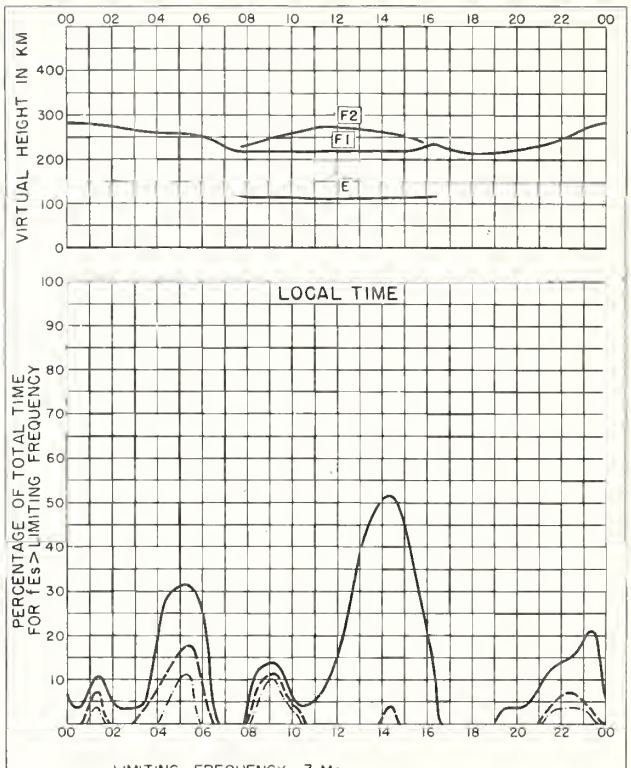


Fig. 42. CAPETOWN, U. OF S. AFRICA AUGUST 1950

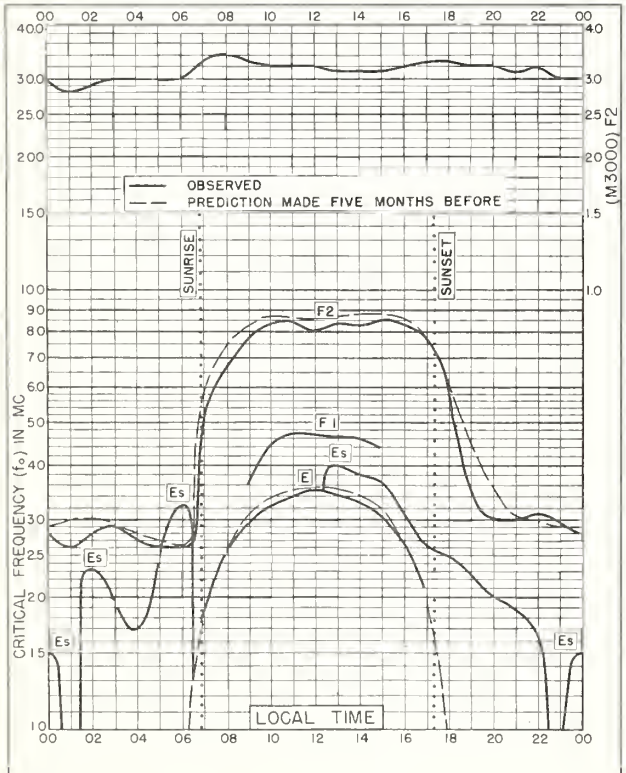


Fig. 43. JOHANNESBURG, U. OF S. AFRICA
26.2°S, 28.1°E JULY 1950

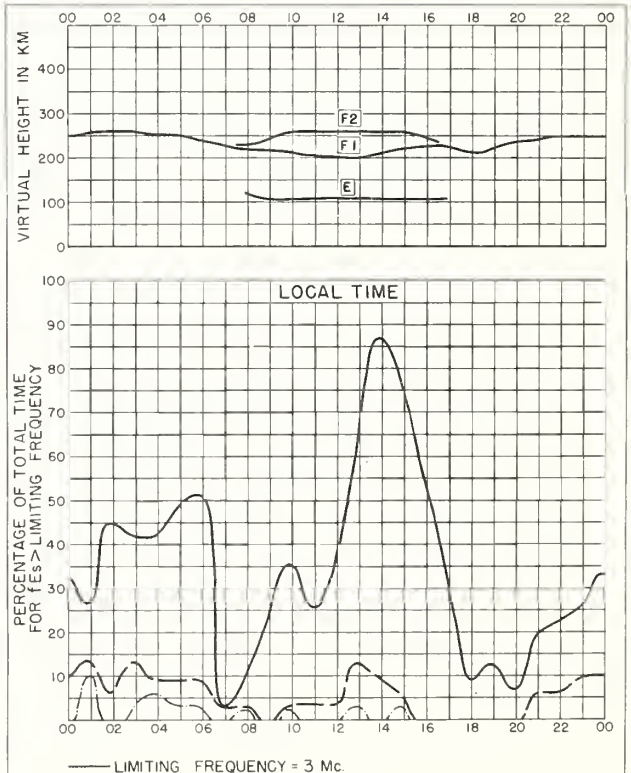


Fig. 44. JOHANNESBURG, U. OF S. AFRICA JULY 1950

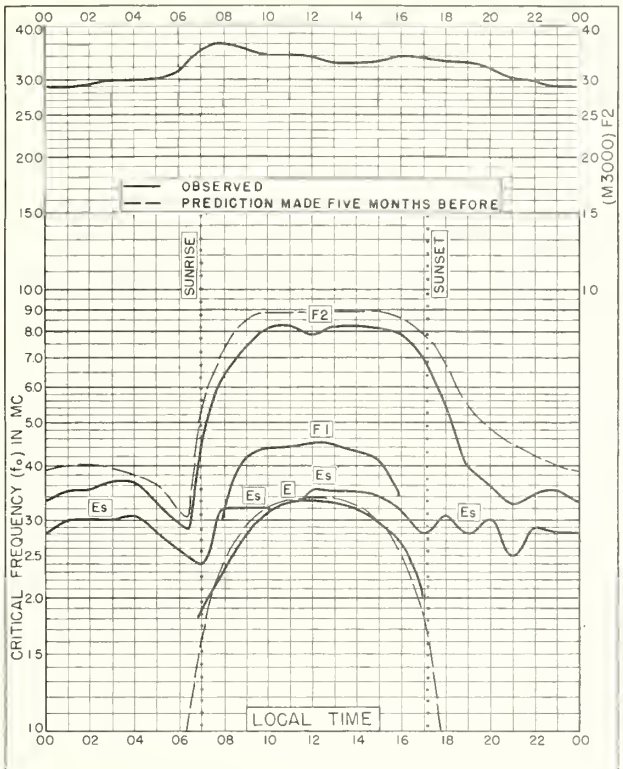


Fig. 45. WATHEROO, W. AUSTRALIA
30.3°S, 115.9°E JULY 1950

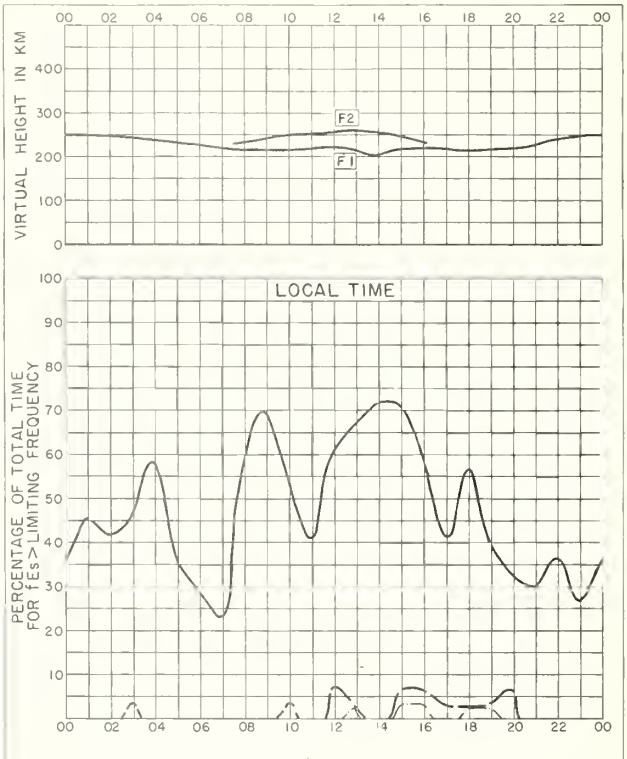


Fig. 46. WATHEROO, W. AUSTRALIA JULY 1950

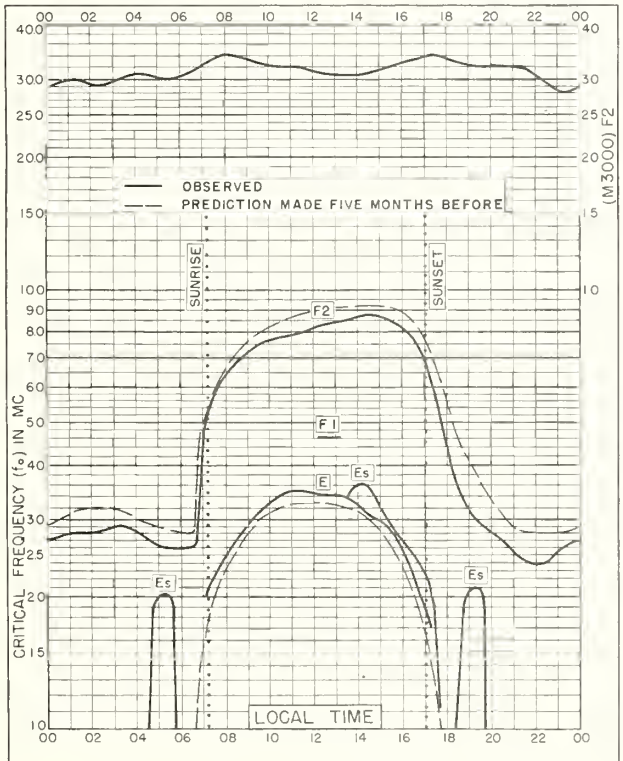


Fig. 47. CAPETOWN, U. OF S. AFRICA
34.2°S, 18.3°E JULY 1950

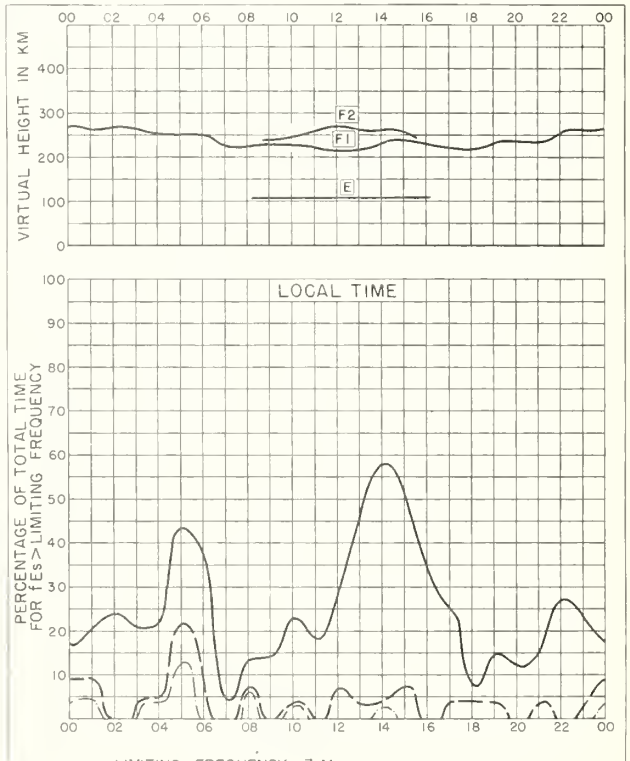
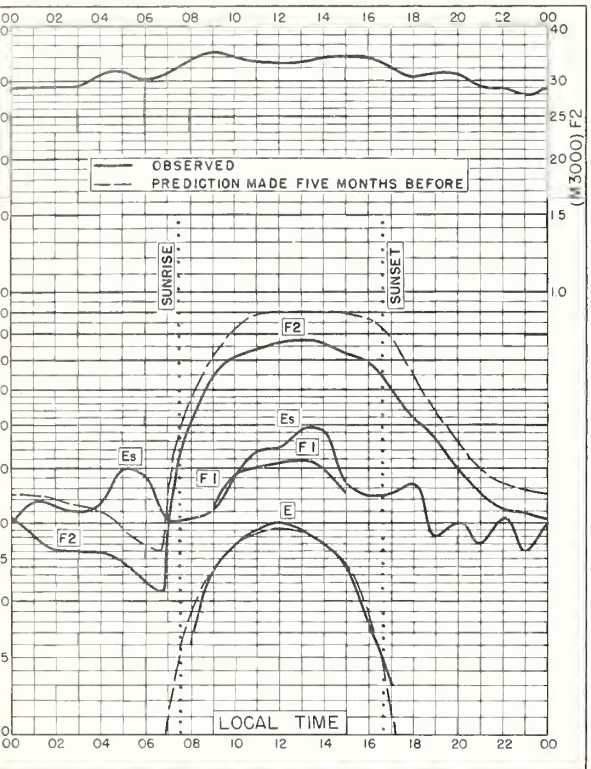


Fig. 48. CAPETOWN, U. OF S. AFRICA JULY 1950



ig. 49. CHRISTCHURCH, N. Z.
43.5°S, 172.7°E JULY 1950

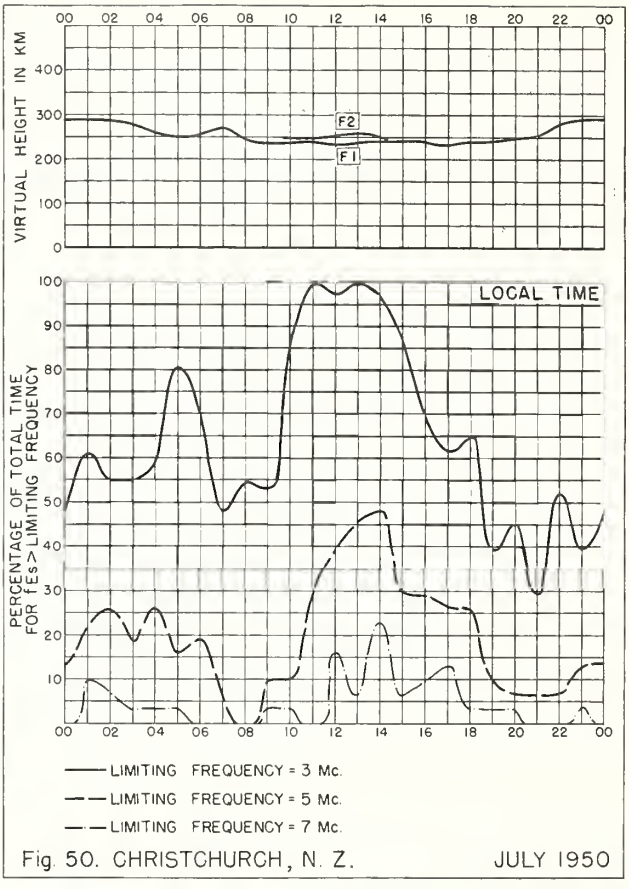
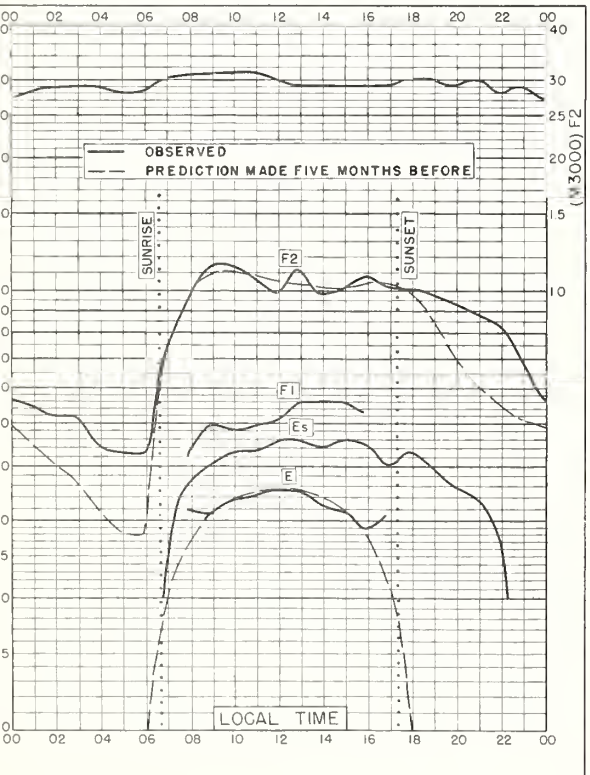


Fig. 50. CHRISTCHURCH, N. Z. JULY 1950



ig. 51. RAROTONGA I.
21.3°S, 159.8°W JUNE 1950

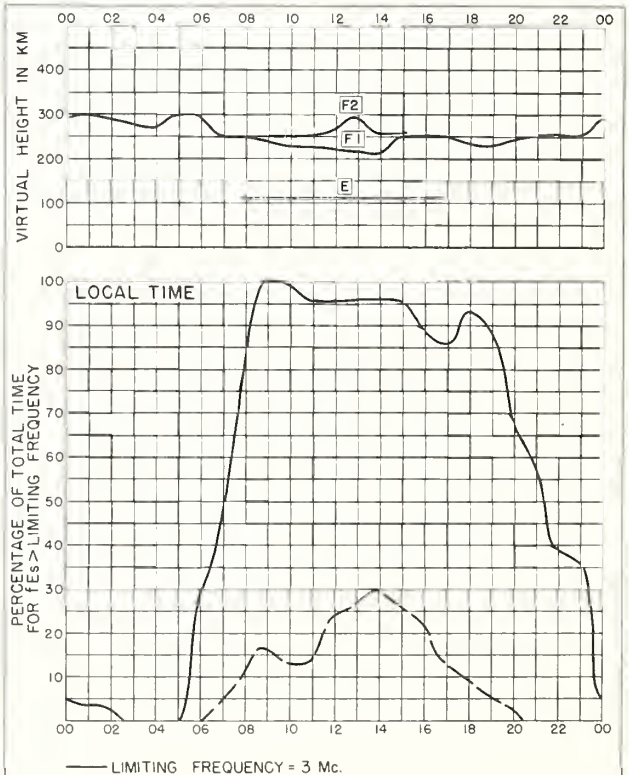


Fig. 52. RAROTONGA I. JUNE 1950

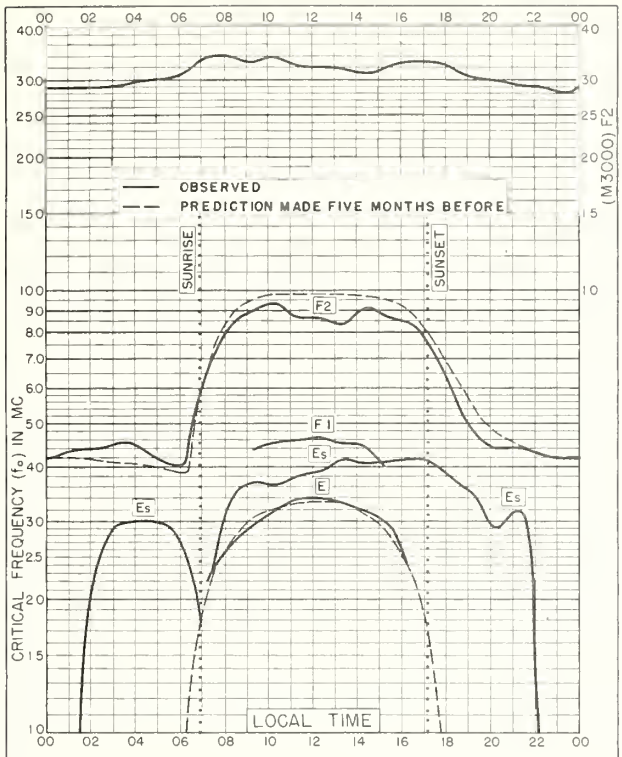


Fig. 53. BRISBANE, AUSTRALIA
27.5°S, 153.0°E JUNE 1950

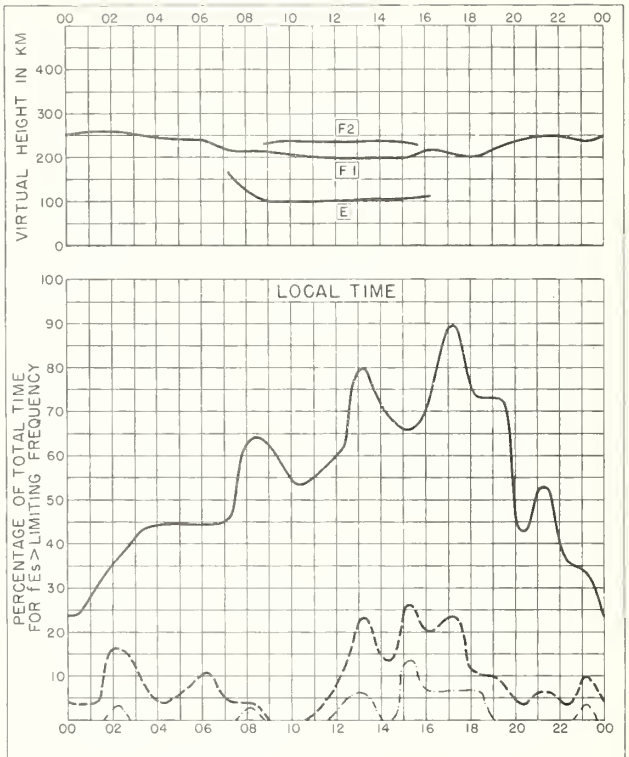


Fig. 54. BRISBANE, AUSTRALIA JUNE 1950

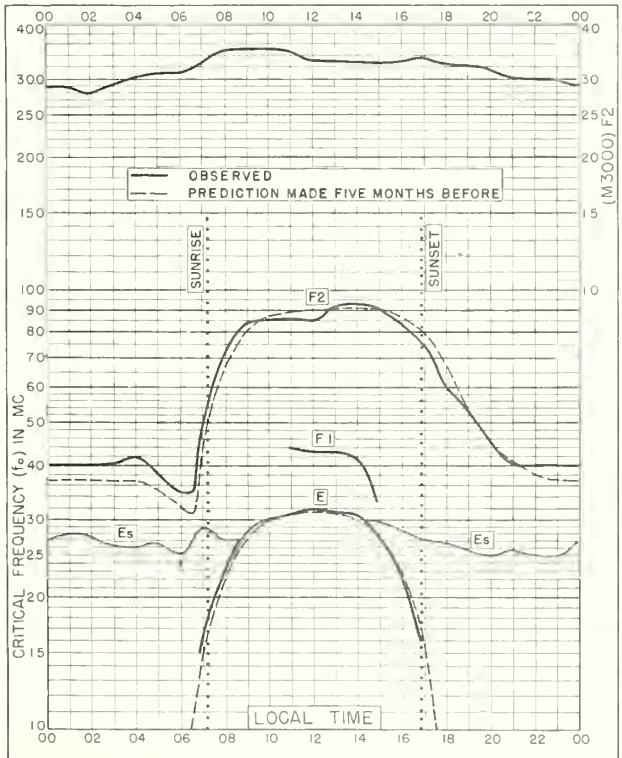


Fig. 55. CANBERRA, AUSTRALIA
35.3°S, 149.0°E JUNE 1950

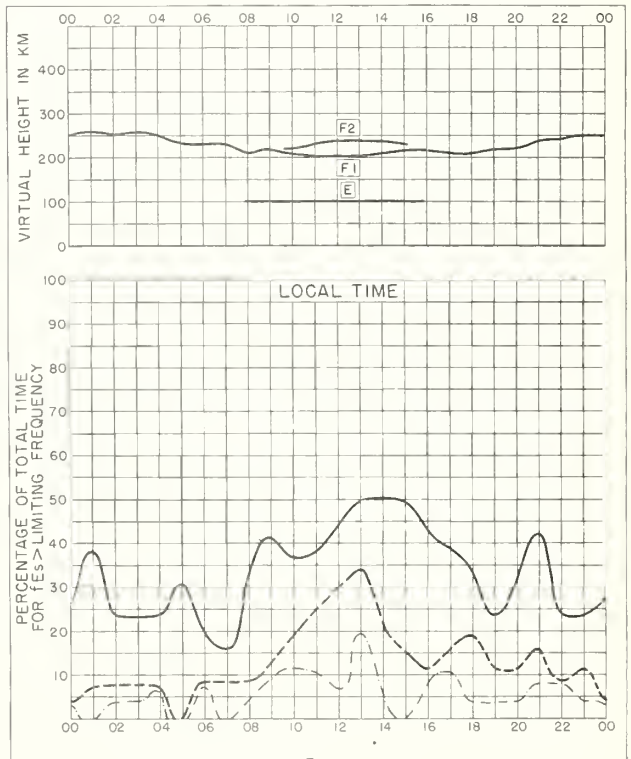


Fig. 56. CANBERRA, AUSTRALIA JUNE 1950

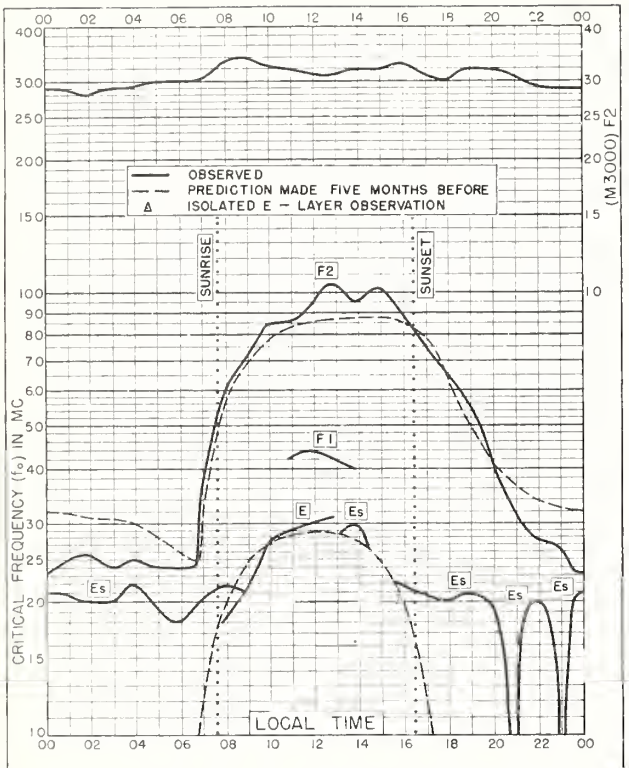


Fig. 57. HOBART, TASMANIA
42.8°S, 147.4°E JUNE 1950

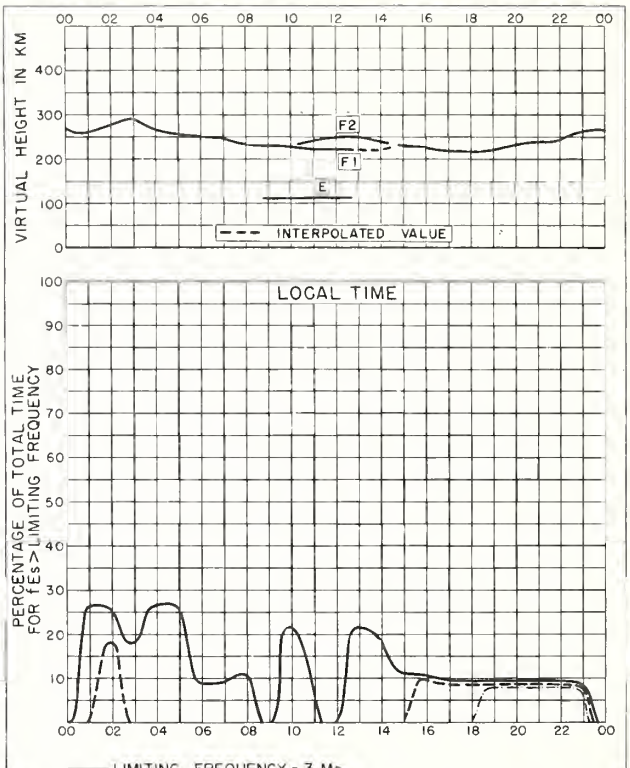


Fig. 58. HOBART, TASMANIA JUNE 1950

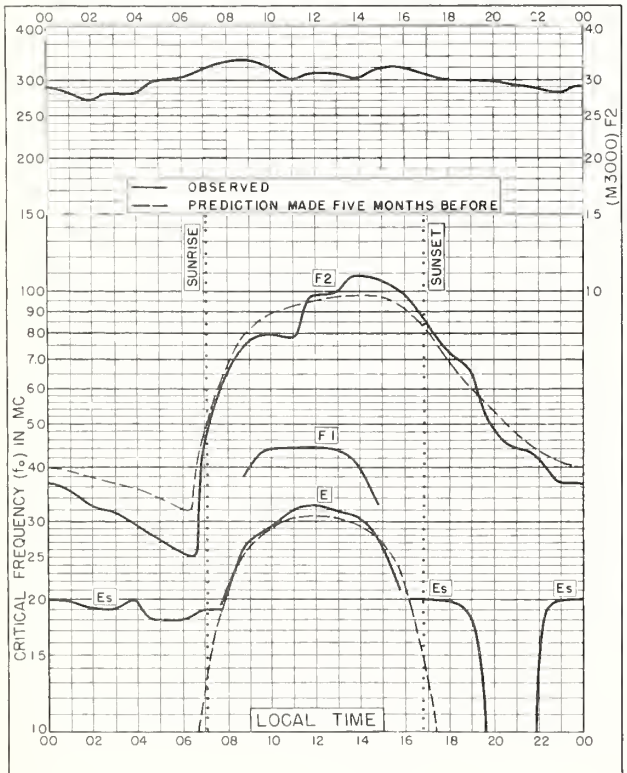


Fig. 59. HOBART, TASMANIA
42.8°S, 147.4°E MAY 1950

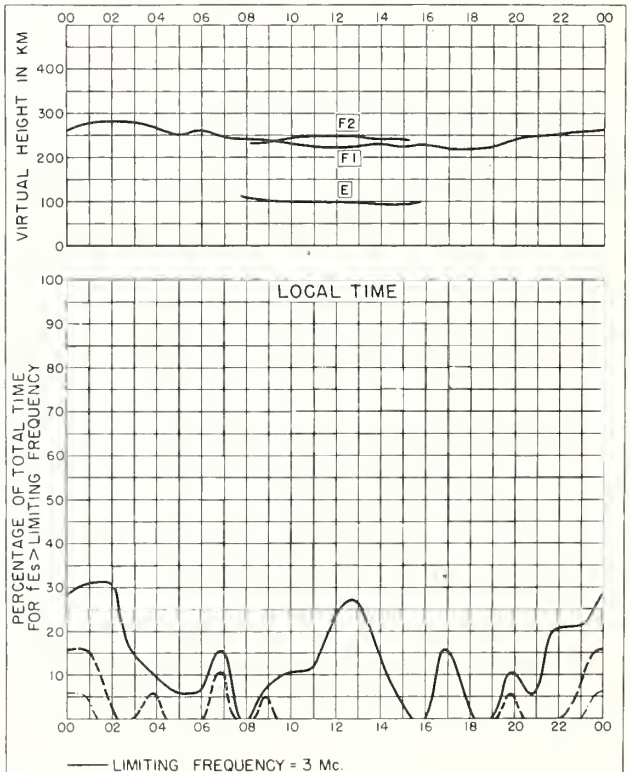


Fig. 60. HOBART, TASMANIA MAY 1950

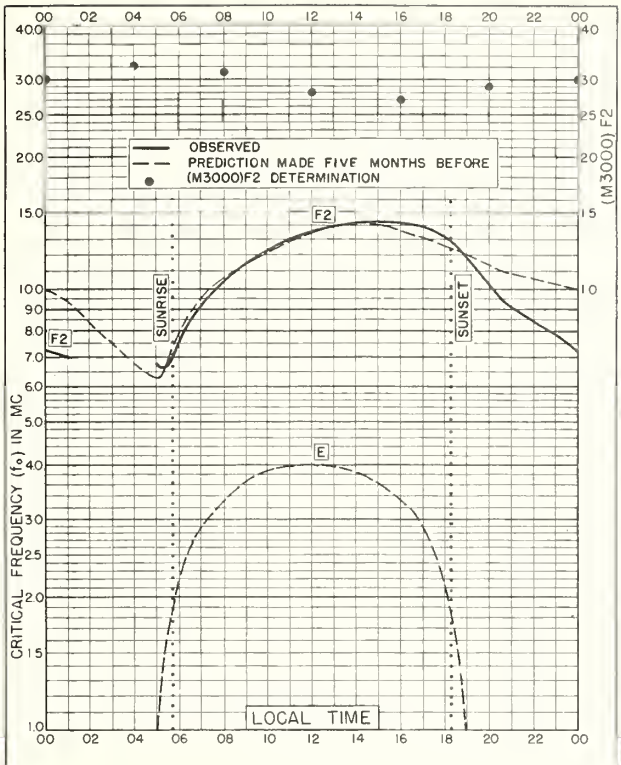


Fig. 61. DELHI, INDIA
28.6°N, 77.1°E APRIL 1950

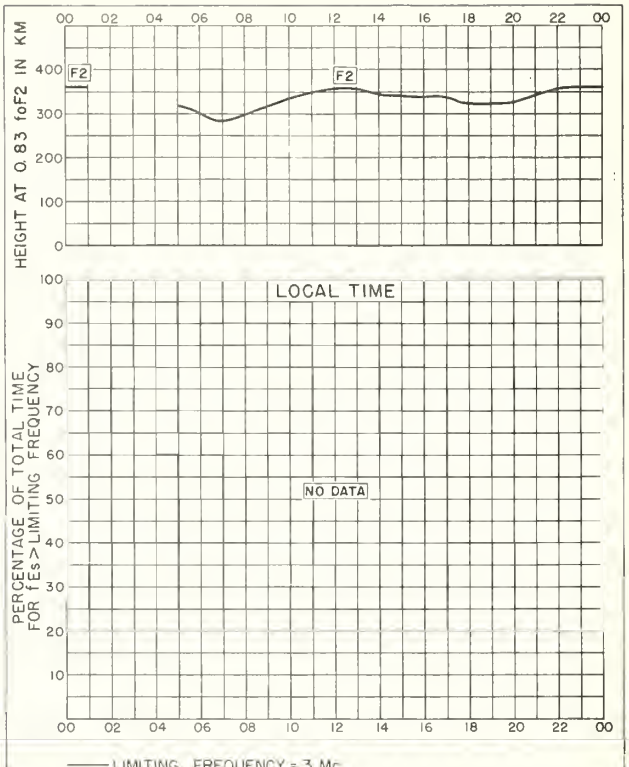


Fig. 62. DELHI, INDIA APRIL 1950

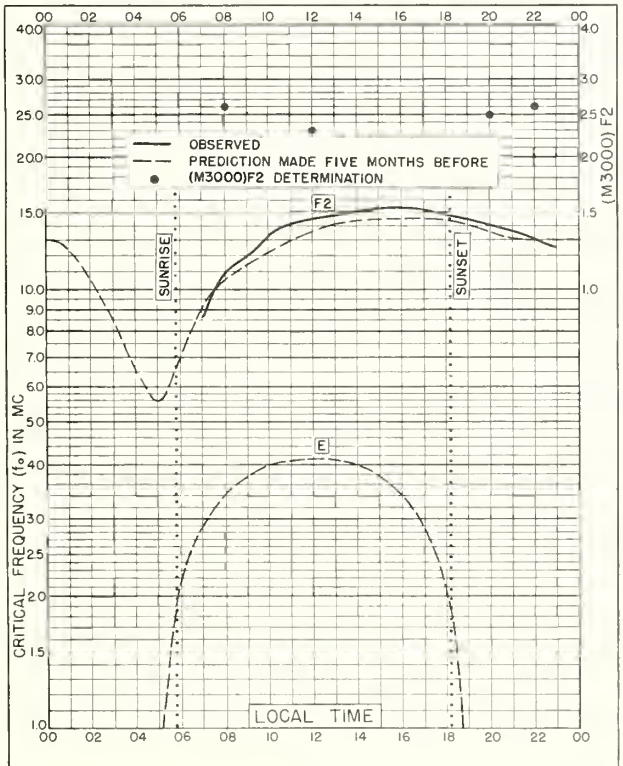


Fig. 63. BOMBAY, INDIA
19.0°N, 73.0°E APRIL 1950

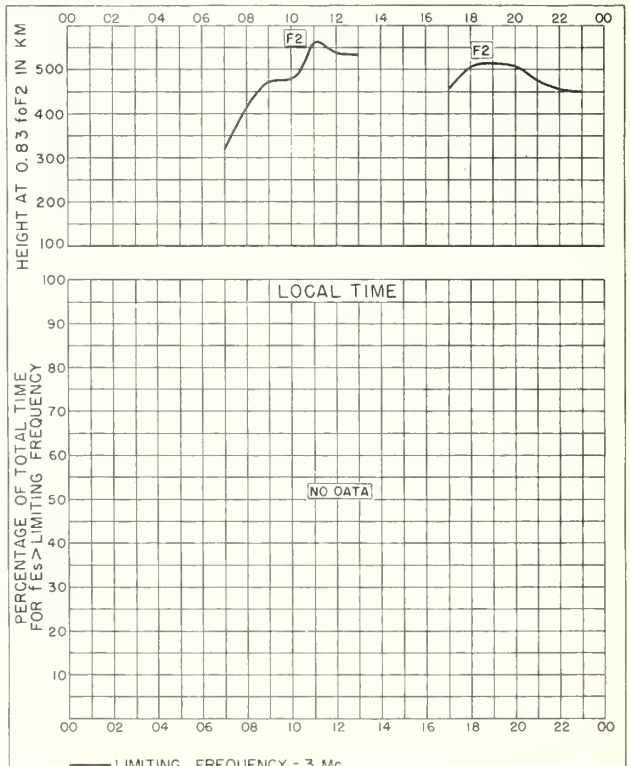


Fig. 64. BOMBAY, INDIA APRIL 1950

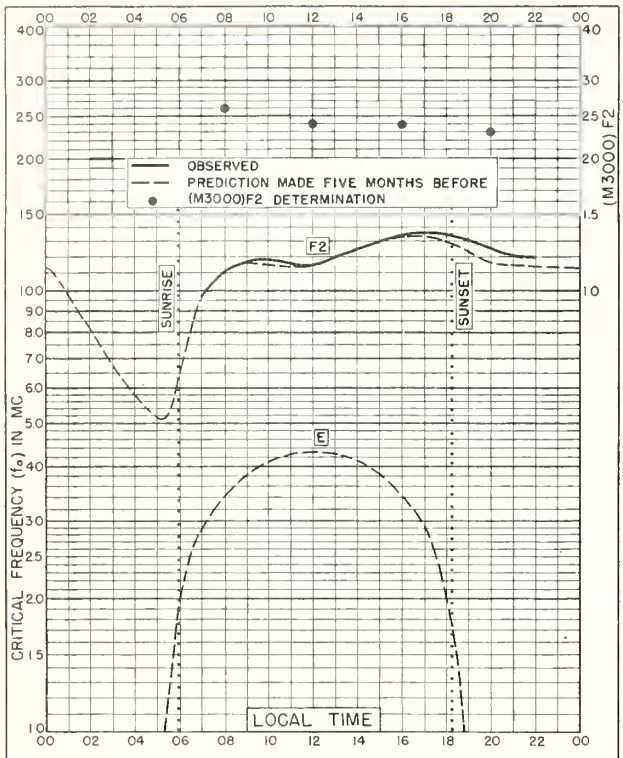


Fig. 65. MADRAS, INDIA
13.0°N, 80.2°E APRIL 1950

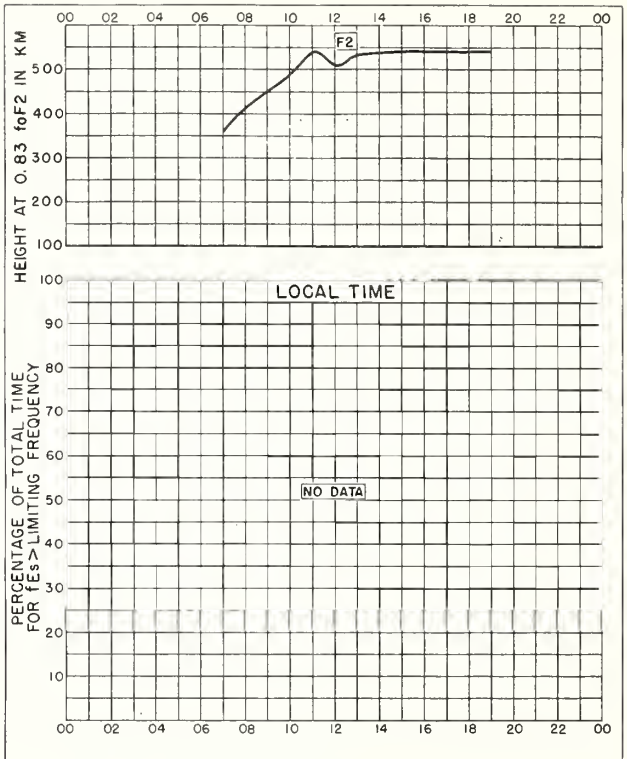


Fig. 66. MADRAS, INDIA APRIL 1950

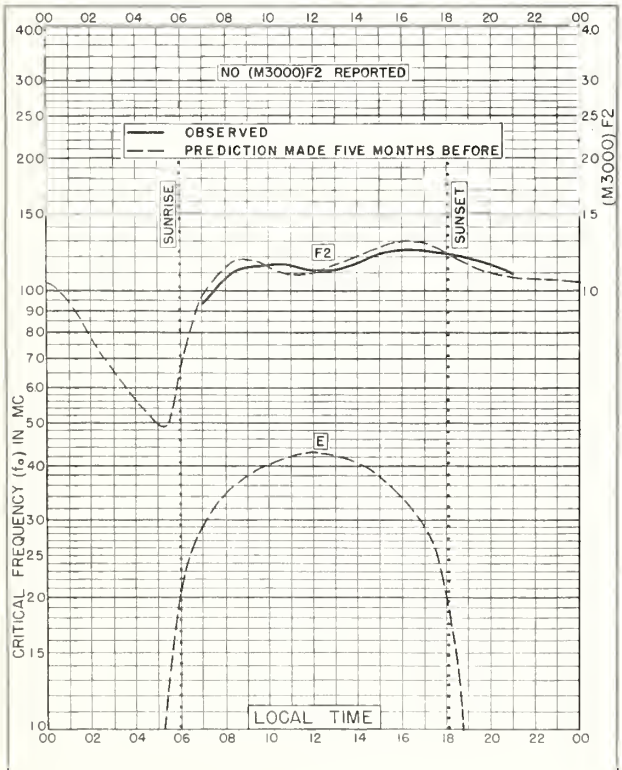


Fig. 67. TIRUCHY, INDIA
10.8°N, 78.8°E APRIL 1950

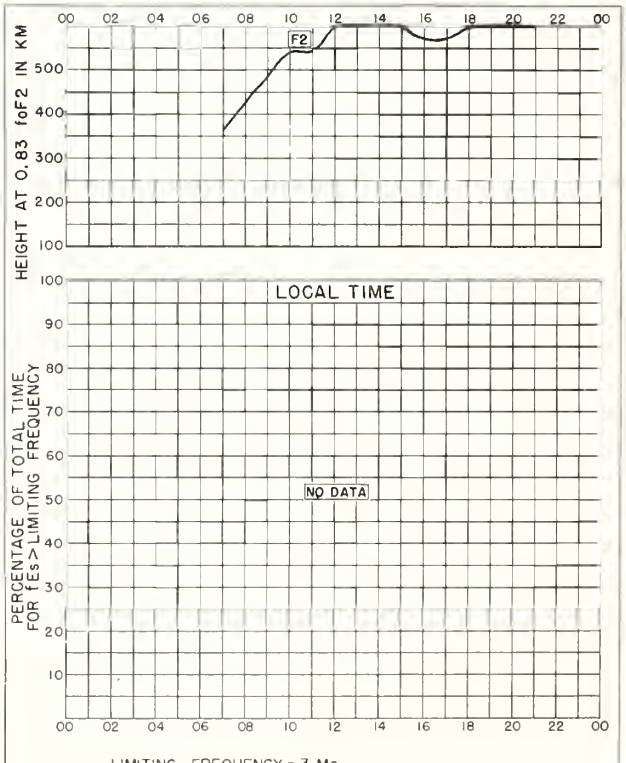


Fig. 68. TIRUCHY, INDIA APRIL 1950

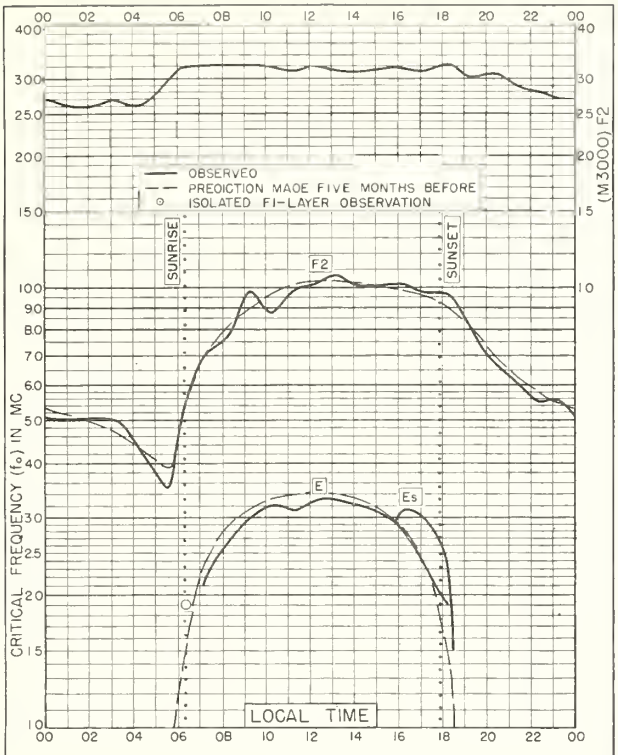


Fig. 69. DOMONT, FRANCE
49.0°N, 2.3°E MARCH 1950

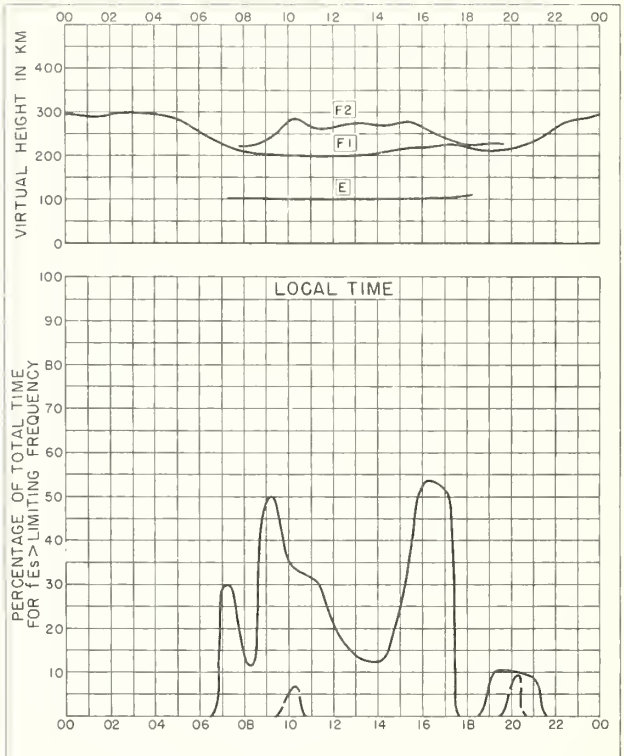


Fig. 70. DOMONT, FRANCE MARCH 1950

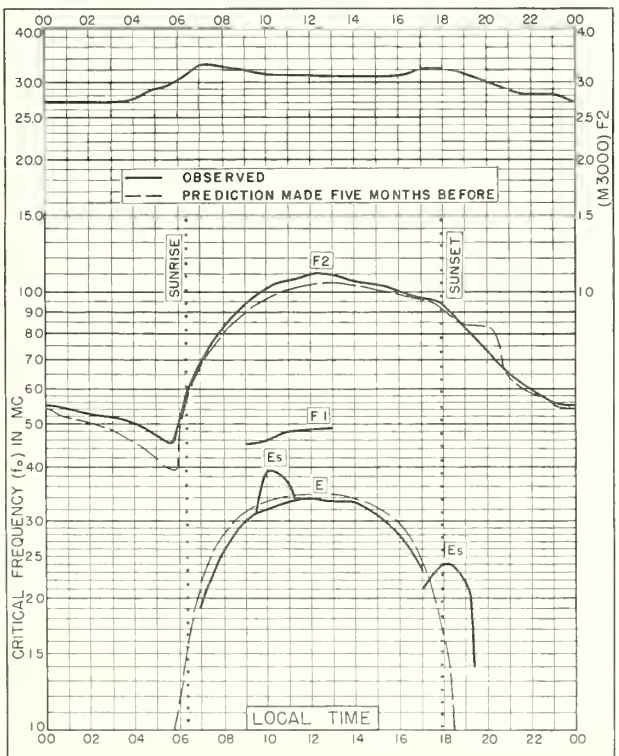


Fig. 71. FRIBOURG, GERMANY
48.1°N, 7.8°E MARCH 1950

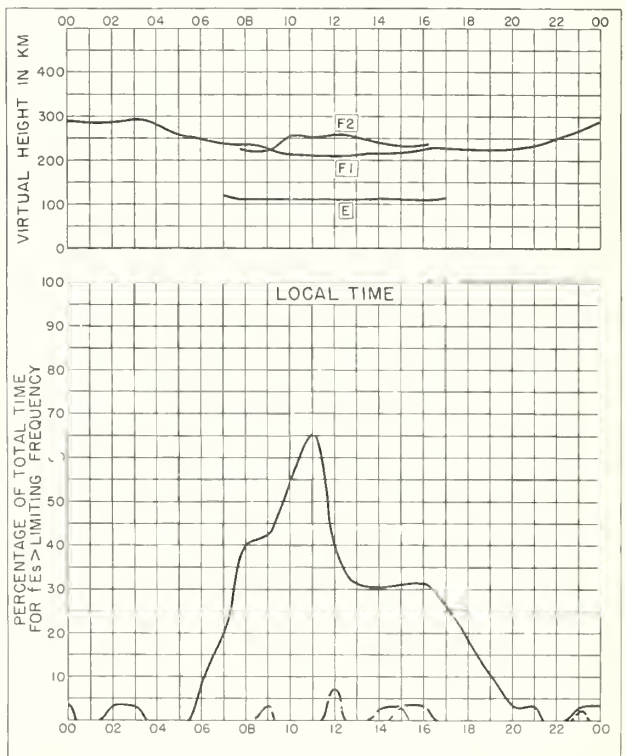


Fig. 72. FRIBOURG, GERMANY MARCH 1950

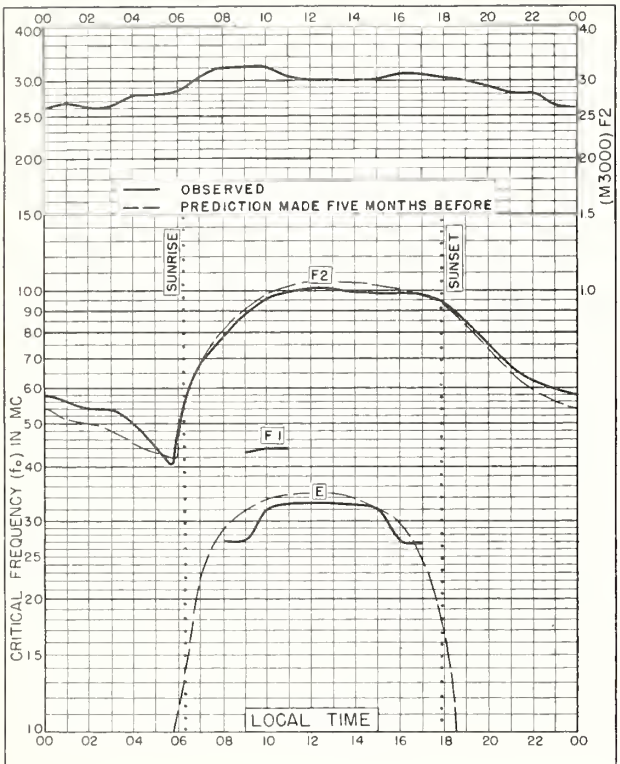


Fig. 73. POITIERS, FRANCE
46. 6°N, 0. 3°E MARCH 1950

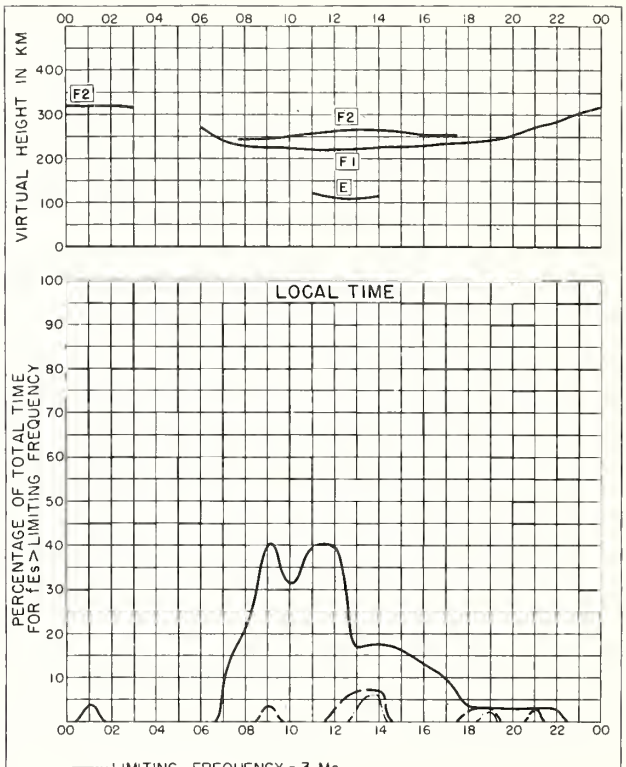


Fig. 74. POITIERS, FRANCE MARCH 1950

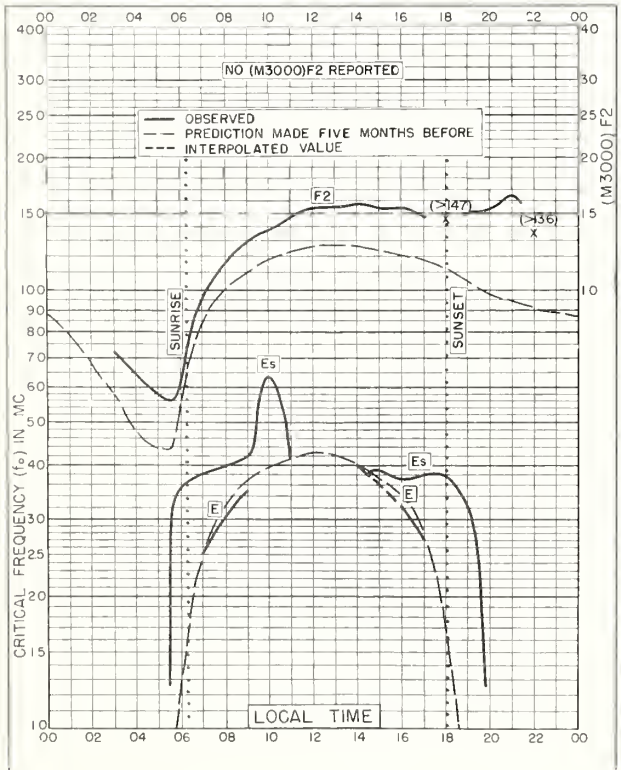


Fig. 75. DAKAR, FRENCH W. AFRICA
14. 6°N, 17. 4°W MARCH 1950

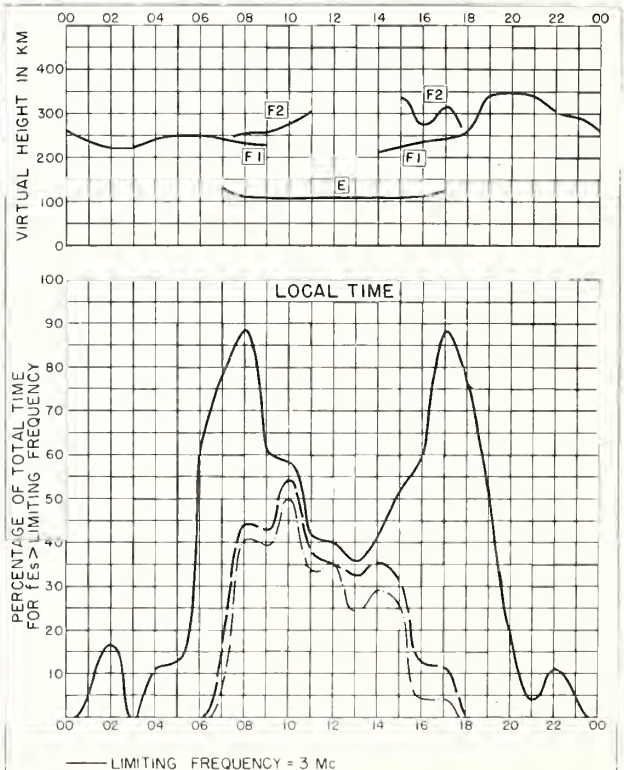


Fig. 76. DAKAR, FRENCH W. AFRICA MARCH 1950

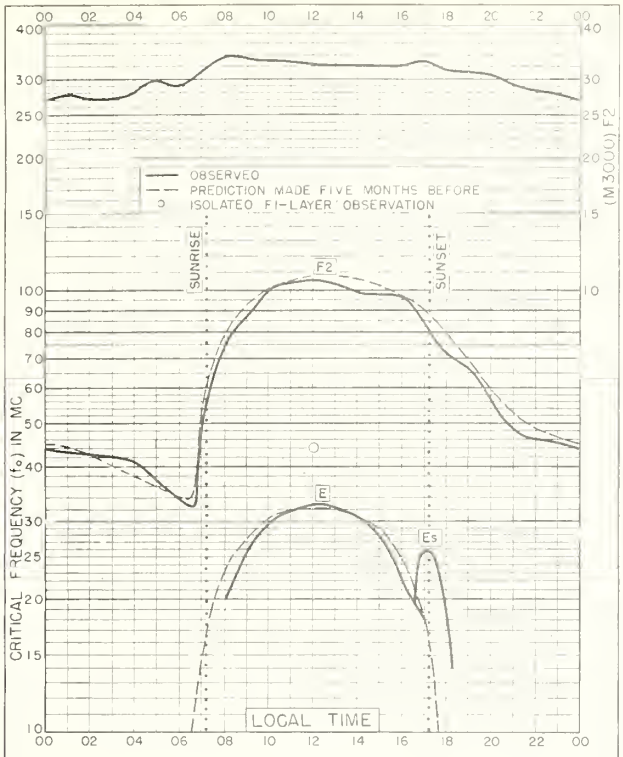


Fig. 77. FRIBOURG, GERMANY
48.1°N, 7.8°E FEBRUARY 1950

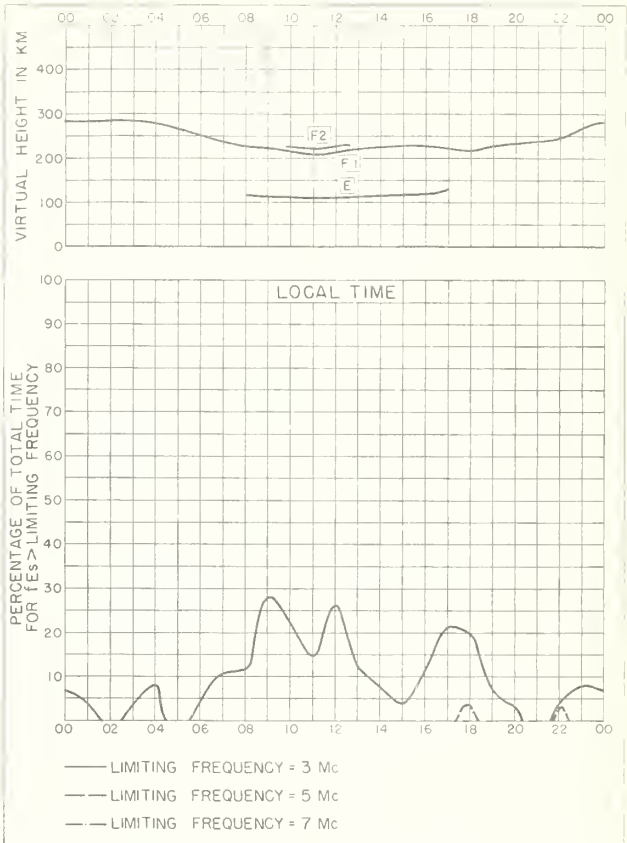


Fig. 78. FRIBOURG, GERMANY FEBRUARY 1950

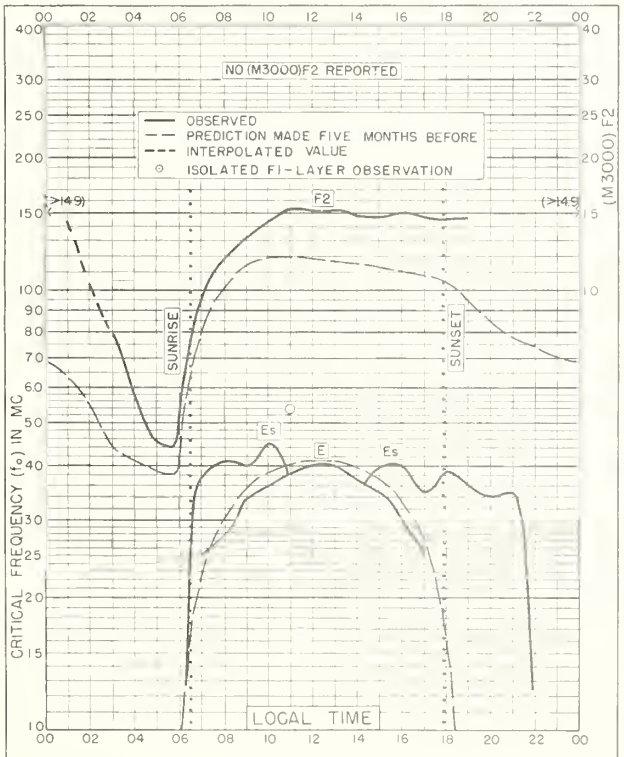


Fig. 79. DAKAR, FRENCH W. AFRICA
14.6°N, 17.4°W FEBRUARY 1950

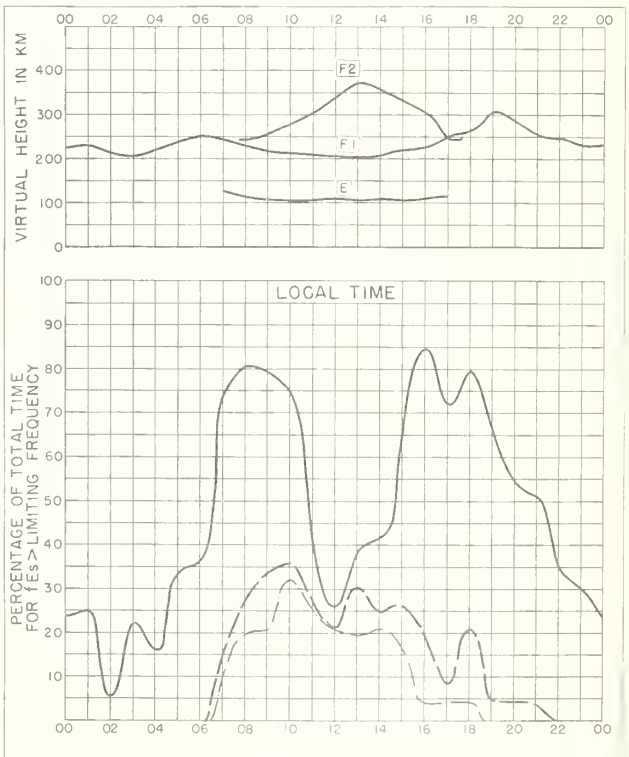


Fig. 80. DAKAR, FRENCH W. AFRICA FEBRUARY 1950

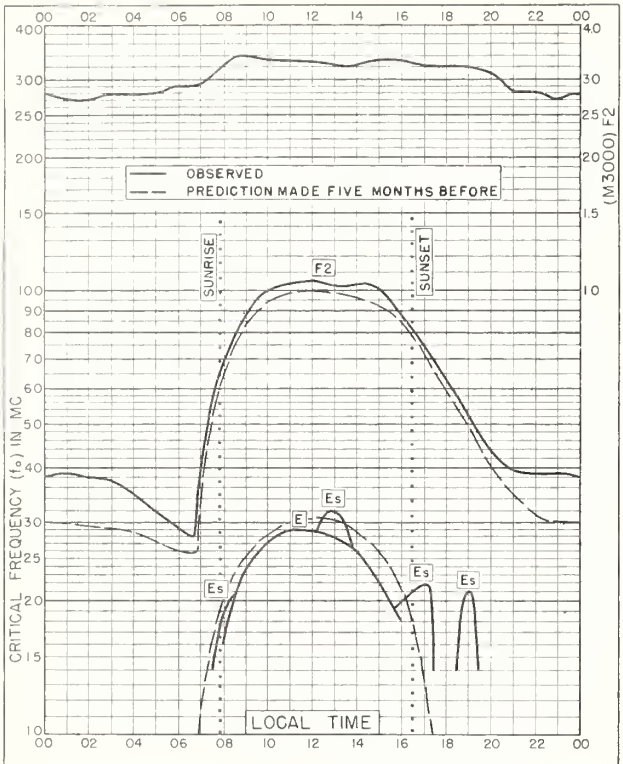


Fig 81. FRIBOURG, GERMANY
48.1°N, 7.8°E JANUARY 1950

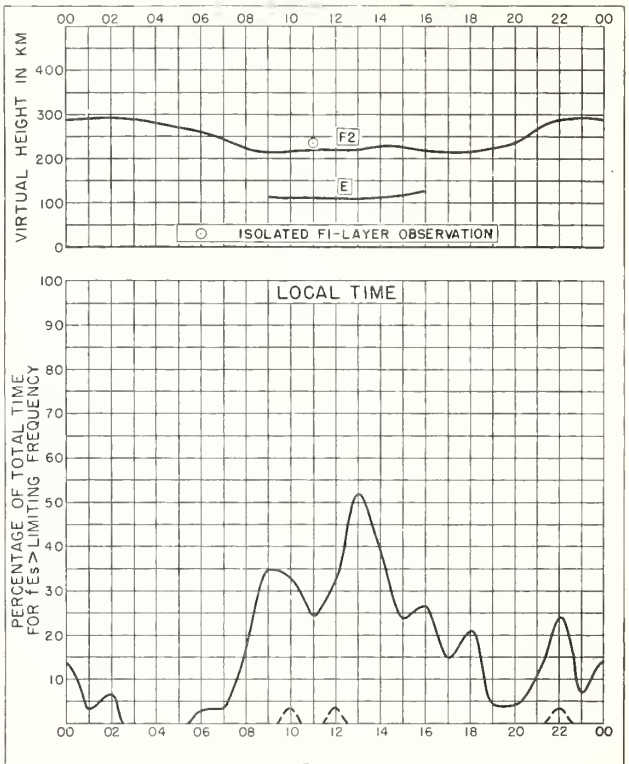


Fig. 82. FRIBOURG, GERMANY JANUARY 1950

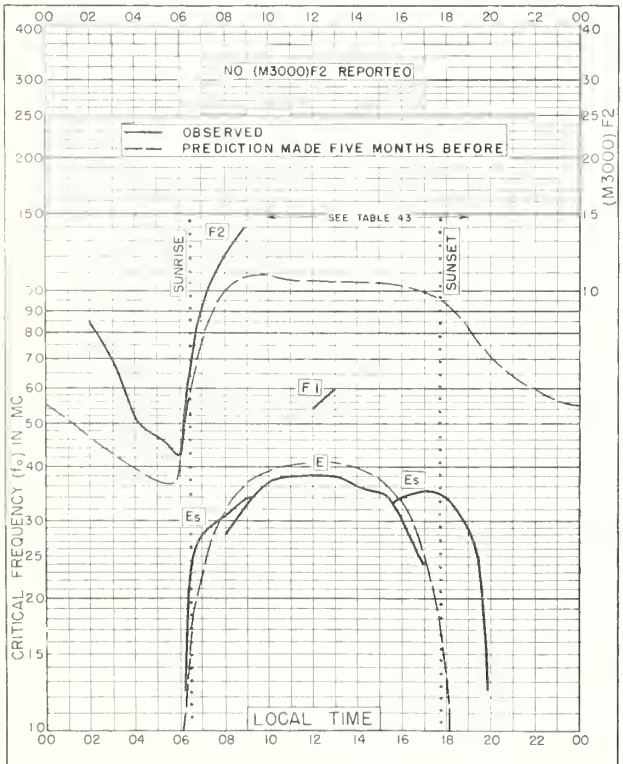


Fig. 83. DAKAR, FRENCH W. AFRICA
14.6°N, 17.4°W JANUARY 1950

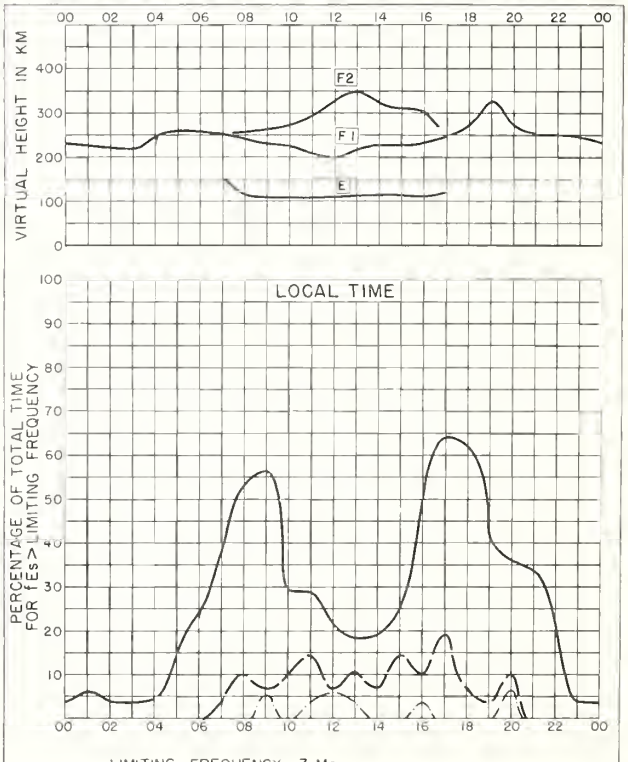


Fig. 84. DAKAR, FRENCH W. AFRICA JANUARY 1950

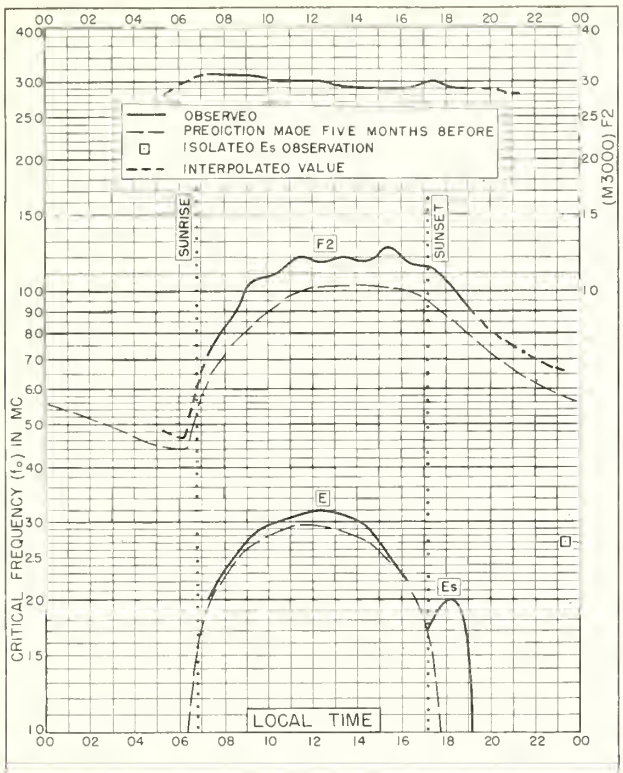


Fig. 85. CAMPBELL I.
52.5°S, 169.2°E APRIL 1949

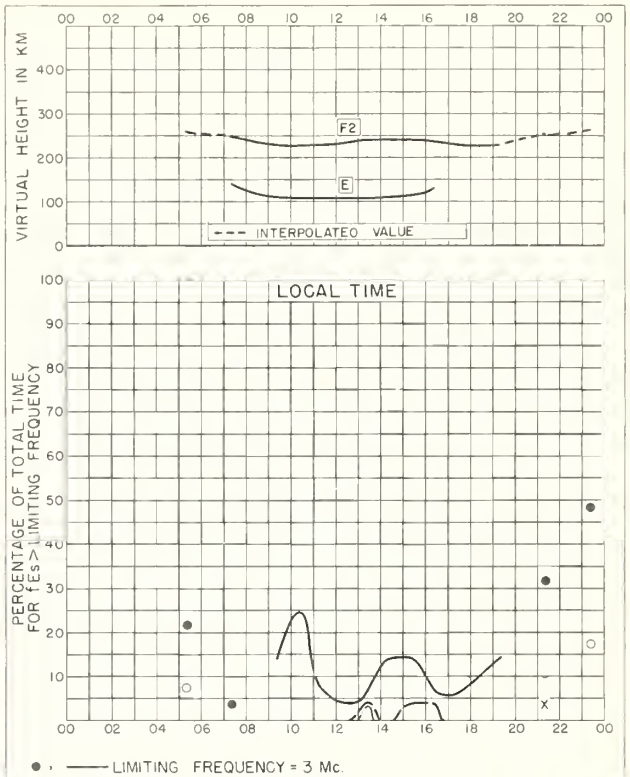


Fig. 86. CAMPBELL I. APRIL 1949

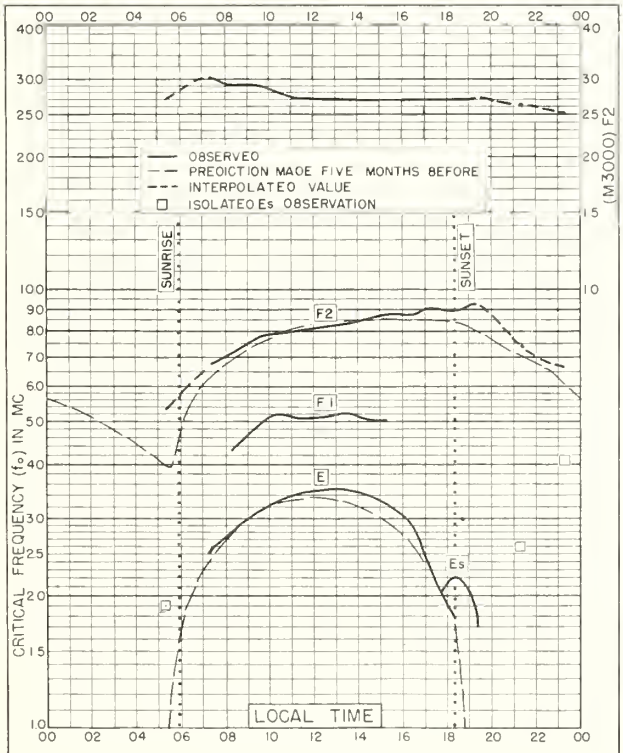


Fig. 87. CAMPBELL I.
52.5°S, 169.2°E MARCH 1949

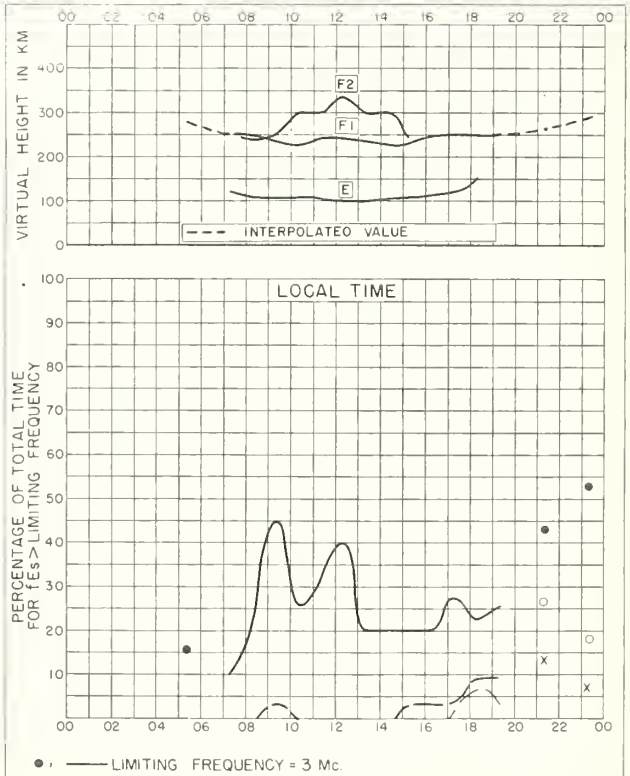


Fig. 88. CAMPBELL I. MARCH 1949

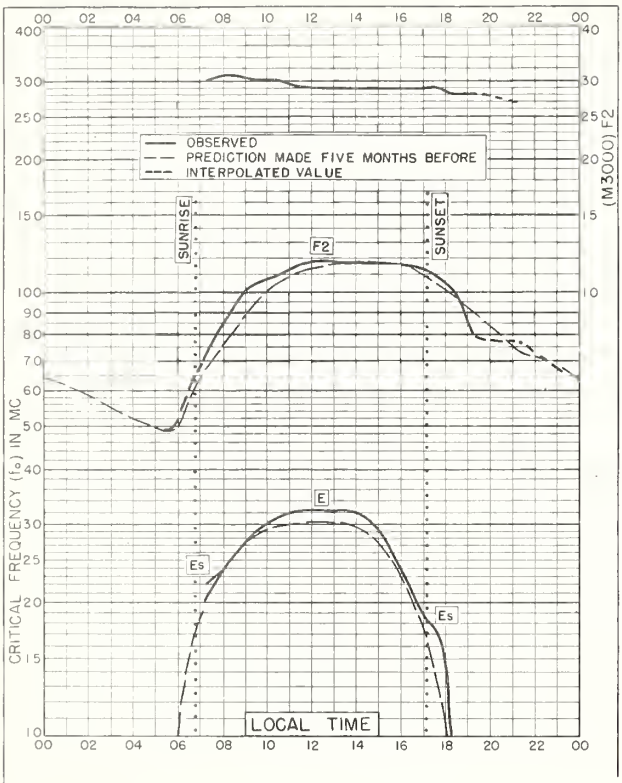


Fig. 89. CAMPBELL I.
52.5°S, 169.2°E APRIL 1948

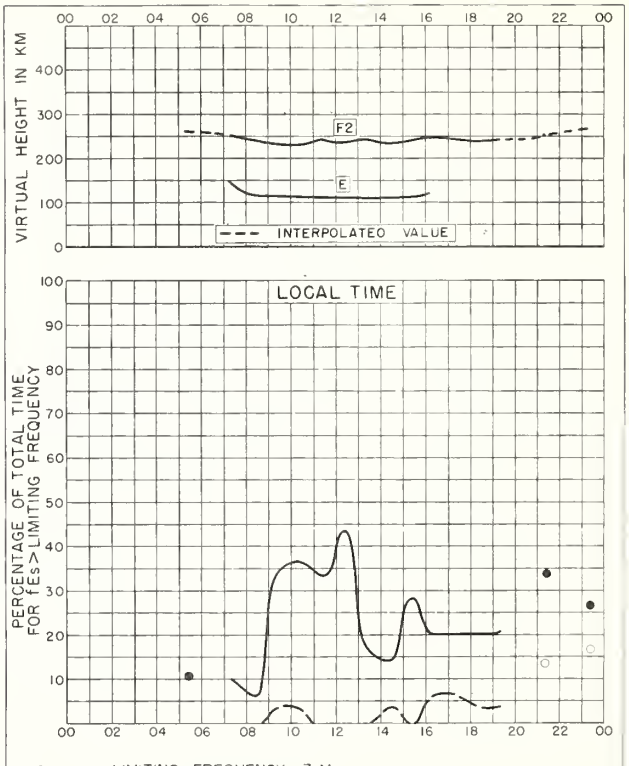


Fig. 90. CAMPBELL I. APRIL 1948

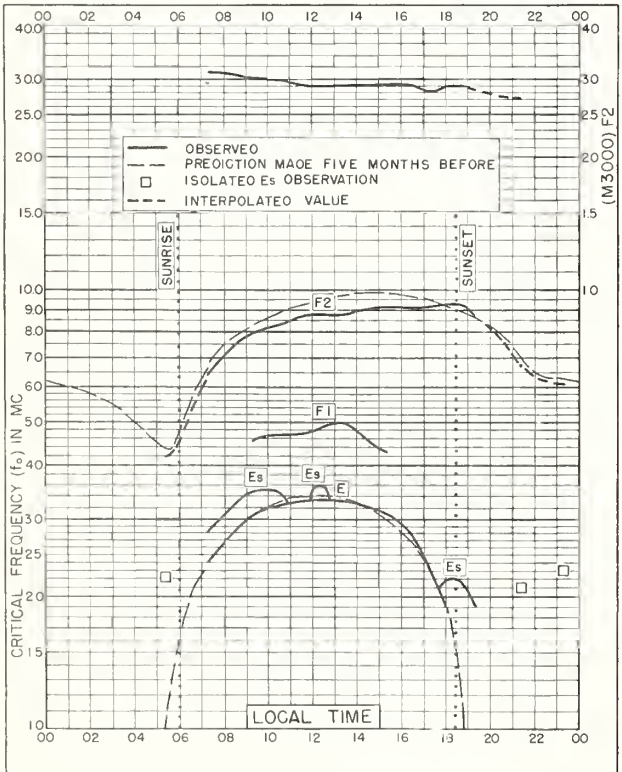


Fig. 91. CAMPBELL I.
52.5°S, 169.2°E MARCH 1948

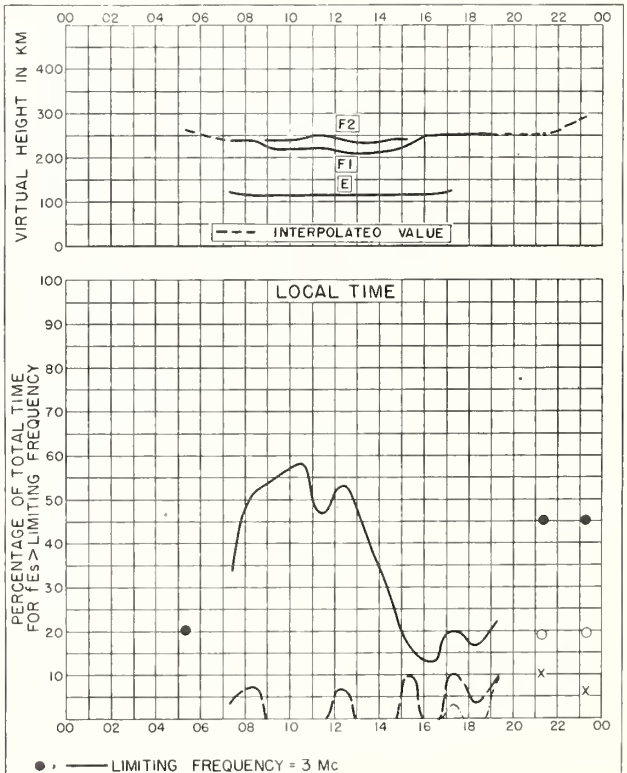


Fig. 92. CAMPBELL I. MARCH 1948

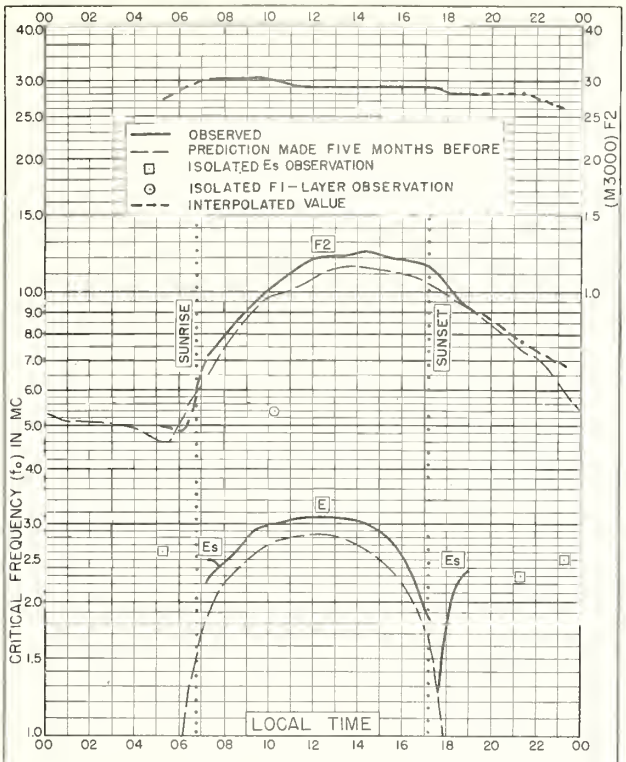


Fig. 93. CAMPBELL I.
52.5°S, 169.2°E APRIL 1947

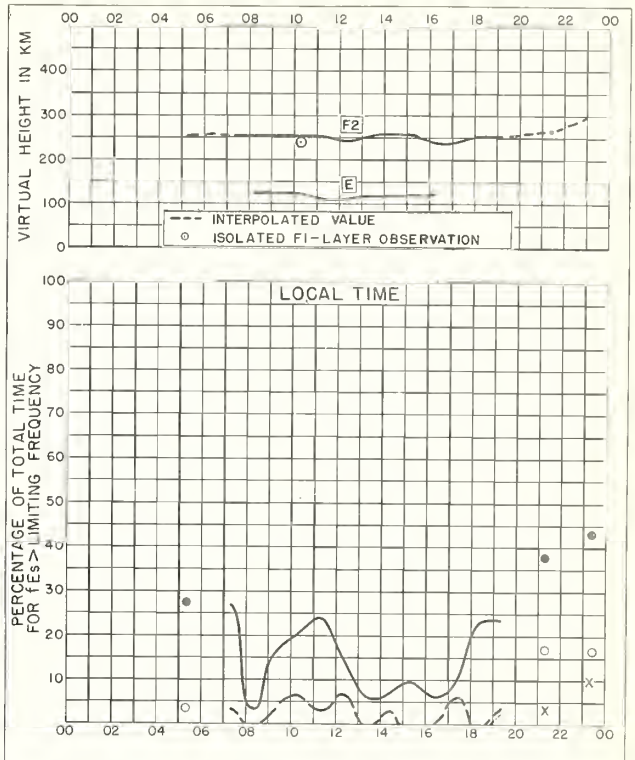


Fig. 94. CAMPBELL I. APRIL 1947

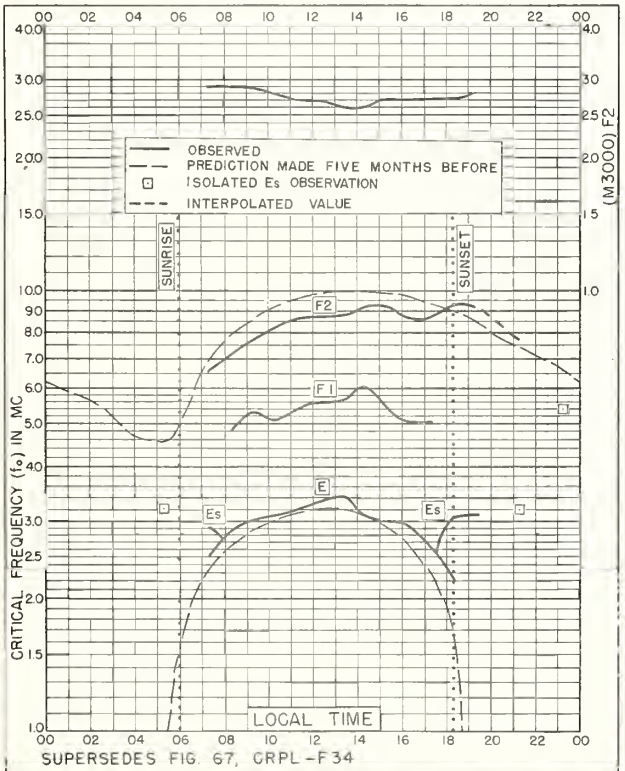


Fig. 95. CAMPBELL I.
52.5°S, 169.2°E MARCH 1947

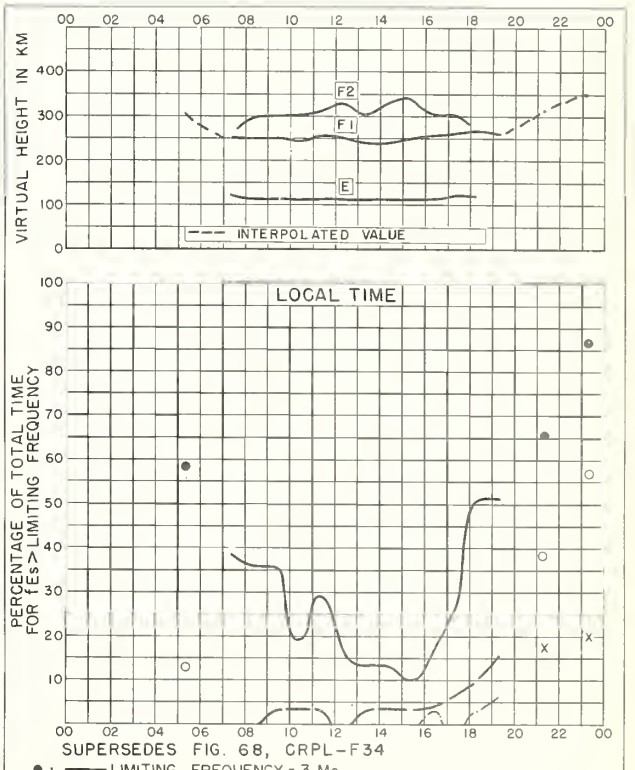


Fig. 96. CAMPBELL I. MARCH 1947

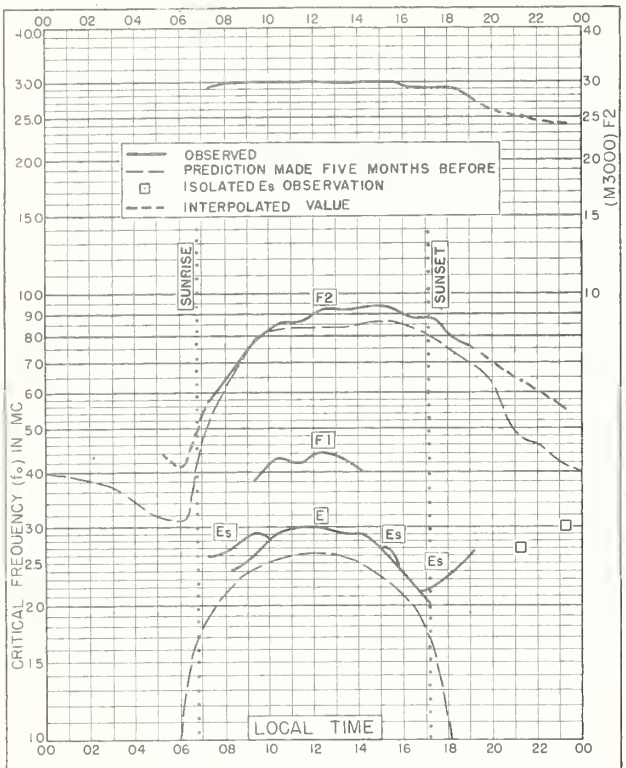


Fig. 97. CAMPBELL I.
52.5°S, 169.2°E APRIL 1946

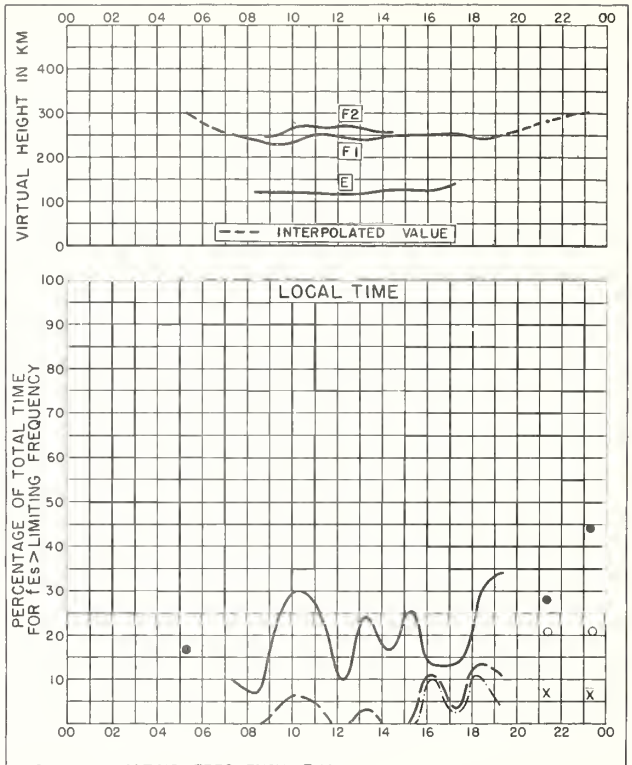


Fig. 98. CAMPBELL I. APRIL 1946

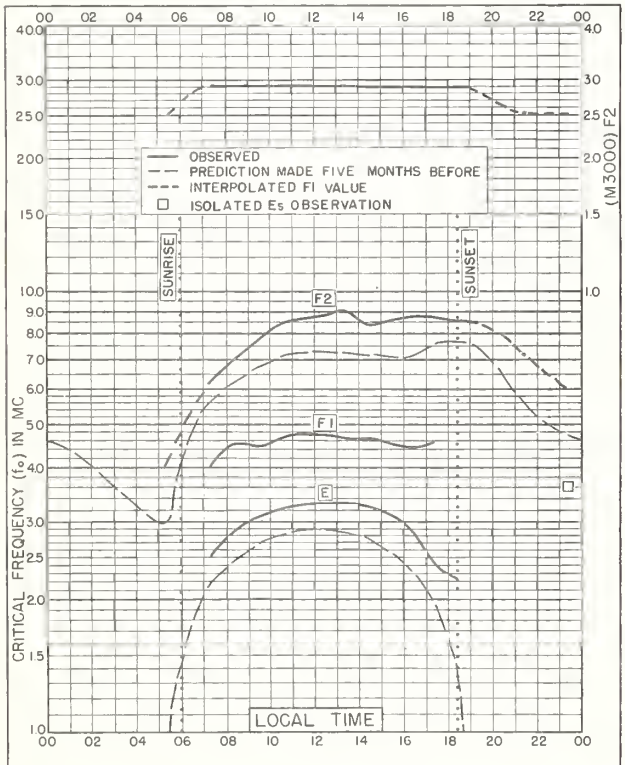


Fig. 99. CAMPBELL I.
52.5°S, 169.2°E MARCH 1946

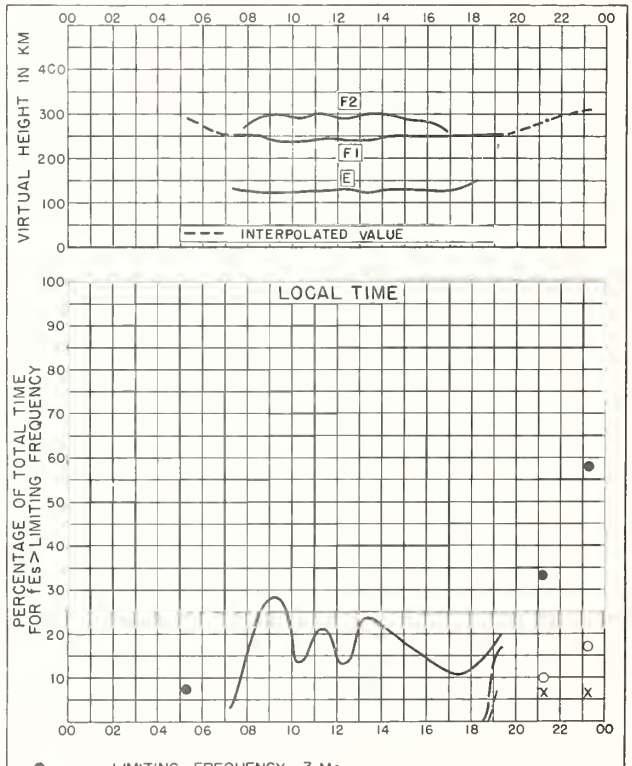


Fig. 100. CAMPBELL I. MARCH 1946

Index of Tables and Graphs of Ionospheric Data

in CRPL-F75

Index (CRPL-F75, continued)

CRPL and IRPL Reports

[A list of CRPL Section Reports is available from the Central Radio Propagation Laboratory upon request]

Daily:

Radio disturbance warnings, every half hour from broadcast station WWV of the National Bureau of Standards
Telephoned and telegraphed reports of ionospheric, solar, geomagnetic, and radio propagation data.

Weekly:

CRPL–J. Radio Propagation Forecast (of days most likely to be disturbed during following month).

Semimonthly:

CRPL–Ja. Semimonthly Frequency Revision Factors for CRPL Basic Radio Propagation Prediction Reports.

Monthly:

CRPL–D. Basic Radio Propagation Predictions—Three months in advance. (Dept. of the Army, TB 11–499– , monthly supplements to TM 11–499; Dept. of the Navy, DNC 13 ( ) series.)
CRPL–F. Ionospheric Data.

Quarterly:

*IRPL–A. Recommended Frequency Bands for Ships and Aircraft in the Atlantic and Pacific.
*IRPL–H. Frequency Guide for Operating Personnel.

Circulars of the National Bureau of Standards:

NBS Circular 462. Ionospheric Radio Propagation.
NBS Circular 465. Instructions for the Use of Basic Radio Propagation Predictions.

Reports issued in past:

IRPL–C61. Report of the International Radio Propagation Conference, 17 April to 5 May 1944.
IRPL–G1 through G12. Correlation of D. F. Errors With Ionospheric Conditions.
IRPL–R. Nonscheduled reports:
R4. Methods Used by IRPL for the Prediction of Ionosphere Characteristics and Maximum Usable Frequencies.
R5. Criteria for Ionospheric Storminess.
R6. Experimental Studies of Ionospheric Propagation as Applied to the Loran System.
R7. Second Report on Experimental Studies of Ionospheric Propagation as Applied to the Loran System.
R9. An Automatic Instantaneous Indicator of Skip Distance and MUF.
R10. A Proposal for the Use of Rockets for the Study of the Ionosphere.
**R11. A Nomographic Method for Both Prediction and Observation Correlation of Ionosphere Characteristics.
**R12. Short Time Variations in Ionospheric Characteristics.
R14. A Graphical Method for Calculating Ground Reflection Coefficients.
**R15. Predicted Limits for *F*2-Layer Radio Transmission Throughout the Solar Cycle.
**R17. Japanese Ionospheric Data—1943.
R18. Comparison of Geomagnetic Records and North Atlantic Radio Propagation Quality Figures—October 1943 Through May 1945.
**R21. Notes on the Preparation of Skip-Distance and MUF Charts for Use by Direction-Finder Stations. (For distances out to 4000 km.)
**R23. Solar-Cycle Data for Correlation with Radio Propagation Phenomena.
R24. Relations Between Band Width, Pulse Shape and Usefulness of Pulses in the Loran System.
**R25. The Prediction of Solar Activity as a Basis for the Prediction of Radio Propagation Phenomena.
R26. The Ionosphere as a Measure of Solar Activity.
R27. Relationships Between Radio Propagation Disturbance and Central Meridian Passage of Sunspots Grouped by Distance From Center of Disc.
**R30. Disturbance Rating in Values of IRPL Quality-Figure Scale from A. T. & T. Co. Transmission Disturbance Reports to Replace T. D. Figures as Reported.
R31. North Atlantic Radio Propagation Disturbances, October 1943 Through October 1945.
**R33. Ionospheric Data on File at IRPL.
**R34. The Interpretation of Recorded Values of *fEs*.
R35. Comparison of Percentage of Total Time of Second-Multiple *Es* Reflections and That of *fEs* in Excess of 3 Mc.
IRPL–T. Reports on tropospheric propagation:
T1. Radar operation and weather. (Superseded by JANP 101.)
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