IRPL-F22

IONOSPHERIC DATA

ISSUED

JUNE, 1946

PREPARED BY INTERSERVICE RADIO PROPAGATION LABORATORY
National Bureau of Standards
Washington, D.C.

IRPL-F22 INTERSERVICE RADIO PROPAGATION LABORATORY Issued
NATIONAL BUREAU OF STANDARDS 20 June, 1946
WASHINGTON, D.C.

Organized under Joint U.S. Communications Board

IONOSPHERIC DATA

CONTENTS

Final data

Final Data

Final data

TERMINOLOGY AND SCALING PRACTICES

The symbols and terminology used in this report are those adopted by the International Radio Propagation Conference, and given in detail on pages 24 to 26 of the report IRPL-C61, "Report of International Radio Propagation Conference, " and in the section on "Terminology", in reports IRPL-F1, 2, 3, 4, 5.

In the past, ionospheric conditions were summarized on a monthly basis by using average or mean values, for each hour of the day, for each month. However, following the recommendations of the International Radio Propagation Conference, held in Washington 17 April to 5 May 1944, beginning with data for 1 Jan. 1945, median values were used by IRPL wherever possible. Thus, median values are given for Washington, for all stations reporting directly to the IRPL, for the Canadian stations, and for all others sending in detailed tabulations to the IRPL, from which medians can be computed.

Where averages are reported, they are, at any hour, the average for all the days during the month for which numerical data existed.

The monthly median values used here are the values equalled or exceeded on half the days of the month at the given hour. 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 in the report referred to above, IRPL-C61.

a. For all ionospheric characteristics:
Values missing because of A, B, C or F (see terminology referred to above) are omitted from the median count.

b. For critical frequencies and virtual heights:

Values missing because of E are counted as equal to or less than the lower limit of the recorder.

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 $f^{o}F2$, as equal to or less than $f^{o}F1$.

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 factors (M-factors):

Values missing because of G 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 (E_s):

Values of fE_s missing because no E_s reflections appeared, the equipment functioning normally otherwise, are counted as equal to or less than the lower limit of the recorder.

Values of fE_s missing for any other reason, and values of hE_s 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, no median value is computed, the data being considered insufficient.

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, so long as there are at least five values, the median is not considered as 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.

It is expected that this practice will be of assistance in evaluating the monthly median Washington data.

The ionospheric data given here in graphical and tabular form were assembled by the Interservice Radio Propagation Laboratory for analysis and correlation, incidental to IRPL predictions of radio propagation conditions. The following are the sources of the data:

Australian Council for Scientific and Industrial Research,
Radio Research Board, Australia:
Brisbane, Australia
Canberra, Australia
Cape York, Australia
Hobart, Tasmania

British National Physical Laboratory, and Inter-Services Ionosphere Bureau:
Slough, England
Great Baddow, England
Burghead, Scotland
Capetown, Union of S. Africa
Colombo, Ceylon
Oslo, Norway
Cairo, Egypt
Falkland Is.

Canadian Radio Wave Propagation Committee:
Churchill, Canada
Ottawa, Canada
St. John's, Newfoundland
Prince Rupert, Canada
Clyde, Baffin I.
Victoria Beach, Canada
Swan River, Manitoba (Mobile unit)
The Pas, Manitoba (Mobile unit)

New Zealand Radio Research Committee:
Kermadec Is.
Christchurch (Canterbury University College Observatory)
Campbell I.
Pitcairn I.
Rarotonga I.

Scientific Research Institute of Terrestrial Magnetism, Moscow, U.S.S.R.:
Bukhta, Tikhaya, U.S.S.R.
Tomsk, U.S.S.R.
Sverdlovsk, U.S.S.R.
Moscow, U.S.S.R.
Leningrad, U.S.S.R.
Alma Ata, U.S.S.R.

Carnegie Insititution of Washington (Department ofTerrestrial Magnetism):
Christmas I.
Fairbanks, Alaska (University of Alaska, College, Alaska)
Maui, Hawaii
Trinidad, Brit. West Indies
Huancayo, Peru
Watheroo, W. Australia
Adak, Alaska

United States Army Signal Corps:
Leyte, Philippine Is.
Guam I.
Tokyo, Japan

National Bureau of Standards:
Washington, D.C.

Stanford University:
San Francisco, California

Louisiana State University:
Baton Rouge, Louisiana

University of Puerto Rico:
San Juan, P.R.

Harvard University:
Boston, Massachusetts

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

Radio Wave Research Laboratories, Central Broadcasting Administration:
Chungking, China

National Wuhan University:
Loshan, China

The tables of "provisional data" give values (1) as reported either to the IRPL or other central laboratory by telephone or telegraph; or (2) which are reported in summary form by stations from which monthly ionospheric data for every day and every hour may normally be expected at a later date.

The tables and graphs of "final data" are correct for the values reported to the IRPL, 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 these errors are due to:

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

b. Omission of values where f^0F2 is less than or equal to f^0F1, leading to erroneously high values of monthly average or median values.

c. Omission of values where 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 reports, IRPL-F1, 2, 3, 4, and 5.

The dashed-line prediction curves of the graphs of ionospheric data are obtained from the predicted zero-muf contour charts of the IRPL-D series publications. Predictions for individual stations used to construct the charts may be more accurate than the values read from the chart since some smoothing of the contours is necessary to allow for the longitude effect within a zone.

Discrepancies between predicted and observed values are often ascribable to these effects.

IONOSPHERIC DATA FOR EVERY DAY AND HOUR

These data, observed at Washington, D.C., 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 under "Terminology and Scaling Practices" above.

IONOSPHERE DISTURBANCES

Table 81 presents ionosphere character fugures for Washington, D.C., during May 1946, as determined by the criteria presented in the report IRPL-E5, "Criteria for Ionospheric Storminess", together with American magnetic K-figures which are usually covariant with them.

Table 84 gives provisional radio propagation quality figures for North Atlantic and North Pacific areas, for 01 to 12 and 13 to 24 GCT, April 1946, compared with the IRPL daily radio disturbance warnings, which are primarily for the North Atlantic paths, the IRPL weekly radio propa-

gation forecasts of probable disturbed periods (beginning with the forecast of 5 April 1946, daily numerical estimates for zones A, B, and C were suspended) and the half-day American geomagnetic K-figures.

The radio propagation quality figures for the North Atlantic were prepared from radio traffic and ionospheric data, reported to the IRPL, in the manner described in detail in report IRPL-R31, "North Atlantic Radio Propagation Disturbances October 1943 through October 1945", issued 1 Feb. 1946.

The radio propagation quality figures for the North Pacific were prepared from radio traffic and ionospheric data, reported to the IRPL, in the manner described in detail in report IRPL-R13, "Ionospheric and Radio Propagation Disturbances, October 1943 through February 1945", issued 24 May 1945.

IONOSPHERIC MEASURES OF SOLAR ACTIVITY FOR THE PAST SOLAR CYCLE

Critical frequencies of all the regular ionospheric layers exhibit well-defined, approximately linear trends with solar activity, so that, for any time and place,

$$f^{\circ} = f_1(t) + f_2(t)S \qquad (1)$$

where f° is the critical frequency, f_1 and f_2 are functions of the time of day, t, and S is the smoothed sunspot number. Where sufficient ionospheric data have been taken, so that the functions $f_1(t)$ and $f_2(t)$ are well known, and for values of f° such that their variation with solar activity is large in comparison to their random variation, it is possible, therefore, to obtain from the critical frequency, f°, a value of S in the above equation. This value of ionospheric "sunspot number" will not, in general, be exactly equal to the observed sunspot number for the time under consideration, but will correspond more nearly with the smoothed sunspot number for this time. Because of this fact, and because both the observations of f° and the trends $f_1(t)$ and $f_2(t)$, which are derived from many observations, are far less erratic, inherently, and less subject to observational errors than are sunspot numbers, these values of ionospheric "sunspot number" seem likely to be better measures of solar activity than are observed sunspot numbers. (Cf. IRPL-R26, "The Ionosphere as a Measure of Solar Activity").

A convenient and rapid means of estimating "S", the ionospheric "sunspot number", is by means of nomographic representations of Eq. 1, above, examples of which are given for each month of the year for data from Washington, D.C., Huancayo, Peru and Watheroo, W. Australia, stations where

ionospheric trends are particularly well established, in the report cited above.

In constructing such nomograms, use is made of the fact that the collinearity of three points having coordinates x_1y_1, x_2y_2, x_3y_3, may be expressed by the determinant

$$\begin{vmatrix} x_1 & y_1 & 1 \\ x_2 & y_2 & 1 \\ x_3 & y_3 & 1 \end{vmatrix} = 0$$

If the coordinates $x = 0$, $y = 0$ are arbitrarily taken to represent the lower left-hand corner of such nomograms, δ taken as the width of the nomogram, and parallel side scales, equally subdivided, taken to represent values of f° and S, with scale factors ℓ_1 and ℓ_2, respectively, L being the total length of the f° scale, the determinant for the expression of Eq. 1 may be given as

$$\begin{vmatrix} 0 & (L-\ell_1 f^\circ) & 1 \\ \delta & \ell_2 S & 1 \\ F & G & 1 \end{vmatrix} = 0$$

This delineates the nomogram as one having a left-hand vertical scale of $(L-\ell_1 f^\circ)$, a right-hand vertical scale $\ell_2 S$, and a third scale whose x and y coordinates at each point are F and G, respectively, the values of F and G to be found by reference to Eq. 1.

To find F and G:

By expansion of the above determinant,

$$F\left[L - \ell_1 f^\circ\right] + \delta G - \ell_2 SF - (L - \ell_1 f^\circ)\delta = 0$$

Substituting the value of S, from Eq. 1,

$$S = \frac{f^\circ - f_1(t)}{f_2(t)}$$

$$F\left[L - \ell_1 f^\circ\right] + \delta G - \ell_2 \frac{f^\circ - f_1(t)}{f_2(t)} F - (L - \ell_1 f^\circ)\delta = 0,$$

or, collecting terms in f°,

$$f^{o}\left[-F\ell_1 - \frac{\ell_2 F}{f_2(t)} + \ell_1\delta\right] + \left[FL + \delta G + \frac{\ell_2 f_1(t) F}{f_2(t)} - L\delta\right] = 0.$$

Since this must hold for all values of f^{o}, the coefficient of f^{o}, and the term not involving f^{o}, must vanish identically, and

$$F = \frac{\ell_1\ \delta}{\left[\ell_1 + \dfrac{\ell_2}{f_2(t)}\right]}$$

$$G = \frac{L - \ell_2\ \ell_1 f_1(t)}{f_2(t)\left[\ell_1 + \dfrac{\ell_2}{f_2(t)}\right]} - \frac{L\ \ell_1}{\ell_1 + \dfrac{\ell_2}{f_2(t)}}$$

The curved nomogram scale, FG, lies between the two parallel vertical scales, since the relationship between f^{o} and S, as expressed in Eq. 1 is direct, and their scale values, as chosen, run oppositely. Its x-coordinate, F, at any point, is a measure of the relative variability of f^{o} with S, since it involves $f_2(t)$, only, besides the arbitrary constants establishing the nomogram scales.

Thus, positions on the central scale of these nomogrmas, such that F is large, represent the best hours of the day for determining "S" from ionospheric observations. In general, these hours are those near midday.

Fig. 77 presents values of ionospheric "sunspot number" for the past solar cycle, and the beginning of the present cycle, determined, as were the values given for a limited portion of this period, by the method used in IRPL-R26, "The Ionosphere as a Measure of Solar Activity". Each value is the average of values of "S" obtained from the nomograms of IRPL-R26, and the $f^{o}F2$ for the five hours centered on noon for Washington, D.C., Huancayo, Peru, and Watheroo, W. Australia. In cases where data from all three stations were not available, the data from those available were used, corrected by the average factor, for the month concerned, relating their values of "S" to those determined from all three stations, when data from all were available.

The nomograms of IRPL-R26 were made using yearly-average trends of $f^{o}F_2$, to which were applied average values (monthly indexes) for all data available,

of the ratio of pertinent monthly values to the yearly-average value centered on the month.

The values of ionospheric "sunspot number" presented in Fig. 78 were determined in the same manner as those presented in Fig. 77, except that, in this case, a different set of nomograms were used, constructed from directly plotted monthly trends. Thus the deviation in values between Figs. 77 and 78 are probably as great as are likely to be obtained with use of the same original data. It may be seen that even with this difference, most of the small variations in the cycle are nearly identical in the two cases.

Fig. 79 presents actual sunspot data for the same period.

In all cases, dots represent monthly-average values, while solid lines represent twelve-month running-average values.

It may be readily seen that the deviations of ionospheric "sunspot numbers" from their running-average values is far less than those for ordinary sunspot numbers. Moreover, the running-average curves for ionospheric "sunspot numbers" are far smoother. Since major variations in both ionospheric "sunspot number" curves and the ordinary sunspot number curve nearly always agree, it seems probable that many of the small irregularities in the latter curve are not truly representative of basic solar activity, and that the ionospheric "sunspot numbers" might be therefore expected to correlate better with other geophysical phenomena.

Table 1 (Provisional Data)

Clyde, Baffin I. (70.5°N, 68.6°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.3						3.1
01		4.2						3.1
02		4.0						3.0
03		3.7						3.0
04		4.0						3.0
05		3.9						2.8
06		3.9						2.9
07		4.4						2.8
08		4.9						2.8
09		5.1						2.9
10		5.2						2.8
11		5.4						2.9
12		5.2						2.8
13		5.1						2.8
14		4.9						2.8
15		5.2						2.9
16		5.1						2.9
17		4.9						2.9
18		5.2						2.9
19		4.8						3.0
20		4.8						3.0
21		4.6						3.1
22		4.5						3.1
23		4.4						3.1

Time: 75.0°W.
Sweep: 2.0 to 16.0 Mc in one minute.
Median values.

Table 2 (Provisional Data)

Fairbanks, Alaska (64.9°N, 147.8°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	300	4.4					5.2	2.7
01	310	4.8					4.5	2.7
02	310	4.8				1.7	5.4	2.8
03	340	5.0				2.0	4.6	2.8
04	380	5.1	280	3.3		2.2	4.2	2.6
05	450	5.0	260	3.8		2.5	4.9	2.5
06	450	5.2	250	3.9		2.8	4.0	2.5
07	440	5.5	240	4.2		2.9	3.9	2.5
08	440	5.6	230	4.2		3.0	3.4	2.5
09	450	5.9	230	4.4		3.2	3.3	2.5
10	430	5.8	240	4.5		3.3	3.3	2.5
11	440	5.6	230	4.6		3.3	3.5	2.6
12	440	5.8	230	4.6		3.3	3.5	2.5
13	440	6.0	230	4.5		3.3	3.4	2.6
14	440	5.9	220	4.6		3.2	3.5	2.6
15	430	6.0	240	4.5		3.1	3.2	2.7
16	400	6.0	240	4.3		3.0	3.2	2.6
17	400	5.5	250	4.1		2.8	3.0	2.7
18	300	5.5	260	3.9		2.5	3.2	2.8
19	280	5.3				2.3	3.6	2.8
20	280	5.4				2.0	3.3	2.9
21	280	4.8				1.8	3.8	2.8
22	290	4.5				1.6	4.8	2.8
23	300	4.0				1.5	4.7	2.8

Time: 150.0°W.
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 3 (Provisional Data)

Churchill, Canada (58.8°N, 94.2°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.4						2.7
01		4.5						2.9
02		4.6						2.9
03		4.2						3.0
04		4.3						2.9
05		4.4						3.0
06		4.6						2.8
07		5.3						2.8
08		5.7						2.7
09		5.5						2.7
10		5.7						2.7
11		5.9						2.7
12		6.1						2.7
13		6.1						2.6
14		6.5						2.6
15		6.4						2.7
16		6.3						2.7
17		6.2						2.9
18		6.0						2.8
19		5.7						2.9
20		5.0						2.8
21		5.0						2.8
22		4.8						2.9
23		4.5						2.8

Time: 90.0°W.
Sweep: 2.0 Mc to 16.0 Mc in one minute.
Median values.

Table 4 (Provisional Data)

Prince Rupert, Canada (54.3°N, 130.3°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.3						3.0
01		4.2						3.0
02		4.0						2.8
03		3.7						2.9
04		3.7						2.9
05		4.1						2.9
06		4.7						2.9
07		4.9						2.8
08		5.3						2.8
09		5.5						2.8
10		5.8						2.8
11		5.9						2.8
12		6.3						2.9
13		5.9						2.8
14		5.9						2.8
15		6.0						2.9
16		6.0						3.0
17		6.1						3.0
18		6.1						3.1
19		6.2						3.2
20		6.2						3.2
21		6.2						3.2
22		5.6						3.1
23		5.0						3.1

Time: 120.0°W.
Sweep: Manual operation.
Median values.

Table 5 (Provisional Data)

The Pas, Manitoba (54.0°N, 101.0°W) May 1946*

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.2						
01		3.6						
02		3.5						
03		3.9						
04		3.8						
05		3.6						
06		4.4						
07		4.5						
08		4.9						
09		4.9						
10		5.4						
11		5.7						
12		5.2						
13		5.6						
14		6.0						
15		5.9						
16		5.9						
17		6.0						
18		5.7						
19		5.7						
20		5.6						
21		5.4						
22		5.6						
23		4.8						

Time: 90.0°W.
Median values.
*Data for approximately fifteen days around the middle of the month.

Table 6 (Provisional Data)

St. John's Newfoundland (47.7°N, 52.7°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.5						2.9
01		5.0						3.2
02		4.8						3.0
03		4.5						3.1
04		4.1						3.1
05		4.3						3.2
06		4.9						3.4
07		4.8						3.4
08		5.0						3.4
09		5.6						3.3
10		6.0						3.5
11		5.1						3.2
12		6.3						3.2
13		6.5						3.3
14		6.5						3.1
15		6.8						3.2
16		7.1						3.2
17		7.2						3.3
18		7.1						3.2
19		7.1						3.2
20		7.4						3.3
21		6.9						3.3
22		6.2						3.1
23		5.5						3.1

Time: 52.5°W.
Sweep: Manual operation.
Median values.

Table 7 (Provisional Data)

Ottawa, Canada (45.5°N, 75.8°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.0						2.7
01		3.9						2.9
02		3.5						2.9
03		3.4						3.0
04		3.3						2.9
05		3.9						2.9
06		4.4						2.9
07		5.0						2.8
08		5.4						2.8
09		5.4						2.7
10		5.3						2.7
11		5.6						2.8
12		5.8						2.7
13		5.9						2.6
14		5.8						2.6
15		6.0						2.6
16		6.2						2.6
17		6.3						2.7
18		6.3						2.7
19		6.1						2.8
20		6.0						2.8
21		5.9						2.7
22		5.4						2.7
23		4.8						2.8

Time: 75.0°W.
Sweep: 1.93 Mc to 13.5 Mc. Manual operation.
Median values.

Table 8 (Provisional Data)

Boston, Massachusetts (42.4°N, 71.2°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.1						2.6
01		4.7						2.6
02		4.5						2.6
03		4.0						2.7
04		3.7						2.8
05		4.2						2.9
06		4.5						3.0
07		5.3						2.9
08		6.1						2.9
09		6.1						3.0
10		6.3						2.8
11		6.4						2.9
12		6.4						2.7
13		7.2						2.7
14		7.4						2.9
15		7.3						2.7
16		6.6						2.7
17		6.6						2.9
18		7.0						2.8
19		6.9						2.9
20		6.9						2.9
21		6.5						2.7
22		6.0						2.7
23		5.6						2.7

Time: 75.0°W.
Sweep: 0.85 Mc to 13.75 Mc in one minute.
Median values.

Table 9 (Provisional Data)

San Francisco, California (37.4°N, 122.2°W) — May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.1						2.6
01		4.9						2.7
02		4.8						2.7
03		4.7						2.7
04		4.2						2.7
05		4.3						2.8
06		5.4						2.8
07		6.0						2.7
08		6.7						2.6
09		7.1						2.6
10		6.9						2.7
11		7.6						2.7
12		7.4						2.7
13		7.6						2.8
14		7.8						2.8
15		7.6						2.8
16		7.6						2.9
17		7.4						2.9
18		7.1						3.0
19		6.8						3.0
20		6.6						3.0
21		6.2						2.8
22		5.6						2.8
23		5.3						2.6

Time: 120.0°W.
Sweep: 0.8 Mc to 12.0 Mc in six minutes. Record centered on the hour.
Median values.

Table 10 (Provisional Data)

Baton Rouge, Louisiana (30.5°N, 91.2°W) — May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.3						2.7
01		5.3						2.8
02		5.1						2.8
03		4.9						2.9
04		4.7						2.8
05		4.3						2.9
06		5.7						3.0
07		5.6						3.0
08		5.8						2.8
09		6.7						2.8
10		7.2						2.6
11		8.0						2.7
12		8.1						2.6
13		8.4						2.7
14		9.1						2.8
15		8.5						2.8
16		8.2						2.8
17		8.2						2.8
18		8.1						2.9
19		7.8						3.0
20		6.8						3.0
21		5.9						2.9
22		5.6						2.8
23		5.3						2.8

Time: 90.0°W.
Sweep: 1.9 Mc to 9.8 Mc in three minutes, thirty seconds.
Median values.

Table 11 (Provisional Data)

Maui, Hawaii (20.8°N, 156.5°W) — May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	300	7.8					3.1	2.8
01	290	7.6					3.4	2.9
02	270	7.4					3.0	2.8
03	280	6.1					E	2.8
04	300	5.9					2.6	2.8
05	290	5.5					E	2.8
06	260	5.6					E	2.8
07	250	6.2	240			2.6	E	2.9
08	270	8.0	250			3.2	4.2	2.6
09	300	9.0	220	5.2		3.3	E	2.5
10	370	10.1	220	5.4			E	2.5
11	360	11.0	220	5.4			E	2.6
12	360	11.6	220	5.4			E	2.6
13	350	12.1	220	5.3			E	2.6
14	350	12.2	220	5.1			E	2.7
15	340	12.6	220	5.2		3.6	E	2.8
16	310	13.1	230	5.0		3.4	E	2.9
17	290	12.9	250	4.6		3.0	4.5	2.9
18	250	11.8	240			2.4	3.9	3.0
19	250	11.4					3.2	2.9
20	250	9.9					3.5	2.8
21	270	8.9					3.4	2.8
22	270	8.4					3.2	2.8
23	300	8.0					3.0	2.7

Time: 150.0°W.
Sweep: 2.2 Mc to 16.0 Mc in one minute.
Median values.

Table 12 (Provisional Data)

Trinidad, Brit. West Indies (10.6°N, 61.2°W) — May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	9.8						3.0
01	250	8.8						3.0
02	250	8.5						3.0
03	250	7.6						3.1
04	240	6.2						3.0
05	260	5.8						3.0
06	260	6.0					2.0	3.0
07	230	7.4				2.5	2.8	3.1
08	260	8.4	220	4.6		3.0	3.9	2.9
09	280	9.1	220	5.0		3.6	4.3	2.8
10	320	10.3	220	5.4		3.8	4.5	2.7
11	330	11.3	230	5.4		3.9	4.5	2.8
12	330	11.5	220	5.4		4.1	4.5	2.8
13	320	12.5	220	5.3		4.1	4.7	2.9
14	320	12.6	220	5.2		3.9	4.8	2.9
15	320	12.1	220	5.2		3.8	4.9	2.8
16	310	12.5	230	5.0		3.5	4.8	2.8
17	270	11.8	230	4.4		2.8	4.5	2.8
18	270	10.9					4.0	2.8
19	270	10.8					3.0	2.8
20	290	11.0					2.4	2.8
21	280	10.8					2.1	2.8
22	280	10.8						2.9
23	270	11.0						2.9

Time: 60.0°W.
Sweep: Manual operation.
Median values.

Table 13 (Provisional Data)

Peiping, China (39.9°N, 116.5°E) * April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		6.1						
01		6.1						
02		5.6						
03		5.0						
04		4.7						
05		4.6						
06		7.1						
07		8.1						
08		8.3						
09		8.5						
10		10.0						
11		10.7						
12		10.9						
13		10.9						
14		10.8						
15		9.7						
16		9.1						
17		9.0						
18		8.5						
19		8.0						
20		7.7						
21		7.3						
22		7.0						
23		6.6						

Time: Tokyo
Median values.
*Approximate

Table 14 (Provisional Data)

Chungking, China (29.4°N, 106.6°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		10.6						3.0
01		9.9						3.0
02		8.0						3.0
03		6.6						3.3
04		5.8						3.2
05		5.5						3.1
06		7.1						3.1
07		8.2						3.0
08		10.2						3.0
09		10.8						3.0
10		12.2						3.1
11		12.5D						3.0
12		13.7D						3.0
13		13.3D						
14		13.6D						3.1
15		13.6D						3.1
16		13.1D						3.2
17		12.6D						3.2
18		12.4D						3.2
19		11.0						3.3
20		9.9						3.1
21		8.8						3.1
22		8.9						3.1
23		9.6						3.1

Time: 105.0°E.
Sweep: 3.3 Mc to 12.3 Mc in fifteen minutes. Manual operation.
Median values.

Table 15 (Provisional Data)

Guam I. (13.5°N, 144.8°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	12.6						3.1
01	250	12.0						3.3
02	230	10.0						3.2
03	250	7.8						3.1
04	250	7.0						3.2
05	240	5.4					2.2	3.1
06	250	5.0					2.5	3.1
07	250	8.2				2.6	3.2	3.3
08	250	10.2	240			3.3	3.6	3.1
09	260	11.0	230	5.0		3.6	5.9	2.8
10	290	11.4	210	5.3			4.6	2.5
11	300	11.3	210	5.5			5.0	2.4
12	320	11.3	210	5.5				2.4
13	310	11.7	210	5.6				2.4
14	310	12.4	220	5.5				2.5
15	300	13.5	230	5.2				2.5
16	290	14.0	240	4.8		3.5		2.6
17	270	14.3	250			3.1	3.8	2.5
18	260	13.8					3.6	2.6
19	300	12.9					3.6	2.5
20	350	12.5					2.2	2.6
21	320	11.3						2.6
22	290	12.3					2.0	2.7
23	270	12.7					1.7	2.9

Time: 150.0°E.
Sweep: Manual operation.
Average values.

Table 16 (Provisional Data)

Leyte, Philippine Is. (11.0°N, 125.0°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		11.3					2.4	3.2
01		11.1					2.5	3.2
02		8.6					2.3	3.2
03		7.3					2.3	3.1
04		6.1					2.5	3.1
05		5.1					3.2	3.1
06		4.6					3.8	3.0
07		7.7		3.0		2.1	4.4	3.0
08		10.1		4.2		3.0	5.0	2.9
09		11.4		5.0		3.4	6.4	2.7
10		11.1		5.2		3.7	7.0	2.4
11		10.4		5.4		3.9	6.8	2.4
12		10.4		5.6		4.0	6.7	2.4
13		10.9		5.4		4.0	6.6	2.4
14		11.5		5.4		4.0	6.5	2.4
15		12.2		5.2		3.9	6.5	2.4
16		12.9		5.0		3.6	5.7	2.5
17		13.4		4.3		3.3	5.0	2.5
18		13.1		3.3		2.3	5.5	2.5
19		12.6					5.0	2.4
20		10.9					2.7	2.3
21		11.3					2.2	2.3
22		13.2					2.5	2.8
23		11.8					3.0	2.8

Time: 135.0°E.
Sweep: Manual operation.
Median values.

Table 17 (Provisional Data)

Rarotonga I. (21.3°S, 159.8°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		7.8						3.1
01		6.9						3.1
02		5.9						2.9
03		5.1						3.0
04		4.6						2.8
05		4.5						2.8
06		4.9						2.8
07		8.6						3.3
08		11.0						3.2
09		11.5						3.2
10		12.5						3.1
11		12.5						3.0
12		12.6						3.0
13		13.8						3.0
14		14.0						3.0
15		13.5						2.9
16		12.5						3.0
17		12.4						3.0
18		12.0						3.1
19		11.2						3.1
20		10.1						2.9
21		9.4						2.9
22		8.6						3.0
23		7.9						3.0

Time: 157.5°W.
Sweep: 2.0 Mc to 16.0 Mc. Manual operation.
Median values.

Table 18 (Provisional Data)

Kermadec Islands (29.2°S, 177.9°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02								
03								
04								
05								
06		5.6						2.9
07		8.3						3.2
08		10.5						3.1
09		10.7						3.1
10		11.4						3.0
11		11.4						3.0
12		10.7						2.9
13		11.5						2.8
14		11.5						2.9
15		11.1						2.9
16		10.8						2.8
17		9.9						3.0
18		8.7						2.9
19		7.4						2.7
20								
21								
22								
23								

Time: 180.0°E.
Sweep: 1.8 Mc to 12.0 Mc. Manual operation.
Median values.

Table 19 (Provisional Data)

Watheroo, W. Australia (30.3°S, 115.9°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.0						2.8
01		4.9						2.8
02		4.8						3.0
03		4.5						3.0
04		3.9						2.9
05		4.0						2.8
06		4.6						3.0
07		7.3						3.3
08		8.9						3.3
09		9.7						3.2
10		10.8						3.2
11		10.8						3.1
12		11.1						3.0
13		11.3						3.0
14		10.1						3.0
15		11.0						3.0
16		10.7						3.1
17		9.7						3.1
18		8.5						3.1
19		7.1						3.0
20		6.5						3.0
21		5.7						3.0
22		5.3						2.8
23		4.9						2.8

Time: 120.0°E.
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 20 (Provisional Data)

Hobart, Tasmania (42.8°S, 147.4°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.8						2.9
01		4.3						2.8
02		3.8						2.9
03		3.6						3.0
04		3.3						3.0
05		2.8						3.1
06		3.2						3.1
07		5.5						3.3
08		7.0						3.3
09		8.2						3.2
10		9.0						3.2
11		9.8						3.1
12		10.3						3.1
13		10.7						3.1
14		10.3						3.1
15		10.2						3.1
16		10.0						3.1
17		9.6						3.1
18		8.5						3.1
19		7.4						3.0
20		6.2						3.0
21		5.6						3.0
22		5.2						2.9
23		5.2						2.9

Time: 150.0°E.
Sweep: 1.0 Mc to 13.0 Mc in one minute, fifty-five seconds.
Median values.

Table 21 (Provisional Data)

Christchurch, N. Z. (43.5°S, 172.6°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	280	5.5						
01	270	5.5						
02	270	5.2						
03	270	4.8						
04	260	4.2						
05	250	3.6						
06	260	3.6						
07	240	5.3				1.6		
08	240	7.8	240	3.5		2.5		
09	240	9.0	230	4.2		2.9		
10	250	9.5	220	4.5		3.2		
11	250	10.2	220	4.7		3.2		
12	260	10.8	230	4.7		3.3		
13	260	11.0	230	4.6		3.3		
14	260	10.9	230	4.5		3.2		
15	260	10.4	240	4.2		3.0		
16	240	10.0				2.5		
17	240	9.7				1.8		
18	230	8.9						
19	240	7.2						
20	260	6.6						
21	250	5.6						
22	270	5.8						
23	270	5.4						

Time: 172.5°E.
Sweep: 1.0 Mc to 13.0 Mc. Automatic.
Median values.

Table 22 (Provisional Data)*

Kermadec Islands (29.2°S, 177.9°W) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	315	7.3						2.6
01								
02								
03	315	6.4						2.5
04								
05	300	5.8						2.6
06	290	6.6						2.8
07	275	9.0			140	2.4		3.0
08	275	10.3	255	4.2	130	3.0		3.0
09	280	10.4	250	4.6	120	3.4		3.0
10	300	10.8	250	5.0	120	3.5		2.9
11	310	11.2	240	5.1	120	3.7		2.9
12	320	D	250	5.3	120	3.8		2.8
13	320	D	255	5.2	120	3.8		2.8
14	325	11.3	265	5.0	120	3.6		2.7
15	320	10.8	270	4.8	120	3.4		2.8
16	305	10.4	275	4.5	120	3.1		2.7
17	290	10.2	275	3.6	135	2.6		2.8
18	275	9.4						2.8
19	275	8.4						2.6
20	300	8.2						2.6
21	320	8.0						2.5
22								
23								

Time: 180.0°E.
Sweep: 1.8 Mc to 12.0 Mc. Manual operation.
Median values.
*Revision of Table 16 in IRPL-F22.

Table 23 (Provisional Data)

Watheroo, W. Australia (30.3°S, 115.9°E) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.5						2.7
01		5.2						2.7
02		4.8						2.8
03		4.5						2.8
04		4.1						2.8
05		4.0						2.7
06		4.9						3.0
07		6.7						3.2
08		7.2						3.1
09		8.4						3.1
10		9.1						3.0
11		9.7						2.9
12		10.0						2.9
13		10.2						2.8
14		10.1						2.8
15		9.8						2.9
16		9.5						2.9
17		9.0						3.0
18		8.7						3.0
19		7.9						3.0
20		7.0						2.9
21		6.4						2.8
22		5.9						2.8
23		5.6						2.7

Time: Local.
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 24 (Provisional Data)

Hobart, Tasmania (42.3°S, 147.4°E) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.4						2.9
01		5.2						2.9
02		4.9						2.9
03		4.3						3.0
04		3.6						3.0
05		3.2						3.0
06		4.1						3.2
07		5.6						3.3
08		6.2						3.2
09		7.1						3.2
10		7.7						3.1
11		8.5						3.1
12		8.6						3.0
13		8.9						3.0
14		9.1						3.0
15		9.0						3.0
16		8.9						3.0
17		8.6						3.0
18		8.5						3.0
19		8.2						3.0
20		7.2						2.9
21		6.4						2.8
22		5.0						2.8
23		5.7						2.8

Time: Local.
Sweep: 1.0 Mc to 13.0 Mc in one minute, fifty-five seconds.
Median values.

Table 25 (Provisional Data)

Campbell Island (52.5°S, 169.2°E) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02								
03								
04								
05	300	4.1						2.6
06								
07	250	6.2		4.0	130	2.5	2.7	2.9
08	285	7.2	250	4.5	125	2.9	3.0	2.9
09	300	7.7	240	4.4	125	3.1	3.4	2.9
10	290	8.4	240	4.6	125	3.2	3.4	2.9
11	300	8.5	250	4.7	125	3.3	3.4	2.9
12	295	8.7	240	4.7	130	3.3	3.4	2.9
13	300	9.0	240	4.7	125	3.3	3.4	2.9
14	300	8.8	250	4.6	130	3.3	3.3	2.9
15	285	8.8	250	4.5	130	3.1	3.2	2.9
16	275	8.8	250	4.4	130	2.9		2.9
17	260	8.8	250	4.5	130	2.4	3.7	2.9
18	255	8.6			150	2.3		2.9
19	250	8.1					3.3	2.8
20								
21	280	7.1					4.8	2.6
22								
23	310	6.0					5.6	2.4

Time: 165.0°E.
Sweep: 1.0 Mc to 15 Mc. Manual operation.
Median values.

Table 26

Washington, D.C. (39.0°N, 77.5°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	290	5.3						2.7
01	290	5.0						2.7
02	290	4.8						2.8
03	280	3.9					1.1	2.8
04	290	3.6						2.8
05	275	3.8			120	(1.7)	2.2	2.9
06	285	4.8	245	3.7	110	2.2	3.0	3.0
07	405	5.2	230	4.1	110	2.7	3.8	2.7
08	405	5.6	220	4.5	110	(3.0)	3.8	2.8
09	400	5.6	210	4.8	110	(3.2)	3.9	2.7
10	465	5.6	210	4.8	110	(3.6)	4.0	2.8
11	4 -	6.0	200	5.0	110	(3.8)	3.9	2.7
12	440	6.1	210	5.1	110	(3.8)	3.9	2.6
13	430	6.6	220	5.0	110	(3.7)	4.0	2.7
14	400	6.8	220	5.0	110	(3.7)	3.8	2.7
15	380	6.7	220	4.9	110	(3.5)	3.8	2.8
16	355	6.9	230	4.7	110	(3.3)	3.6	2.8
17	330	7.0	240	4.4	110	2.9	3.9	2.8
18	300	7.2	240	(3.7)	115	2.3	3.0	2.8
19	260	7.2			120	(1.8)	2.8	2.9
20	250	6.8					2.6	2.9
21	260	6.2					2.8	(2.8)
22	280	6.0						(2.7)
23	280	5.8						2.7

Time: 75.0°W
Sweep: 0.75 Mc to 11.5 Mc in 3.4 minutes supplemented by 0.8 Mc to 14.0 Mc in two minutes.
Median values.

Table 27

(Revision of previously published provisional data)

Fairbanks, Alaska (64.9°N, 147.8°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	328	4.0					3.6	2.6
01	338	3.6					4.4	2.6
02	342	3.8					5.2	2.6
03	362	4.0					5.0	2.7
04	372	4.2					4.6	2.6
05	390	4.7	290	3.2		2.1	4.8	2.6
06	410	4.9	285	3.6		2.4	3.8	2.6
07	420	5.0	260	3.9		2.7	3.4	2.6
08	438	5.2	240	4.1		2.9	3.3	2.6
09	415	5.5	240	4.3		3.0	3.0	2.6
10	425	5.7	240	4.4		3.1	3.1	2.5
11	395	6.0	240	4.4		3.2	3.1	2.7
12	385	6.2	238	4.5		3.2		2.7
13	365	6.4	240	4.5		3.2	3.1	2.7
14	352	6.5	230	4.4		3.1	3.0	2.7
15	315	6.7	240	4.3		2.9	3.0	2.8
16	260	6.8	240	4.2		2.7	2.7	2.8
17	252	6.6				2.4	2.5	2.9
18	262	6.4				2.1	2.8	2.9
19	268	6.4				1.7	2.9	2.9
20	260	5.4				1.2	3.1	2.9
21	275	5.0				1.2	3.1	2.8
22	285	4.8					3.0	2.8
23	318	3.6					4.0	2.6

Time: 150.0°W.
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.

Table 28

(Revision of previously published provisional data)

Prince Rupert, Canada (54.3°N, 130.3°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	240	3.9						2.9
01	260	3.4						2.8
02	240	3.3						2.8
03	280	3.3					2.1	2.8
04	296	3.2						2.8
05	270	3.3					1.6	2.8
06	250	4.0	220		110	1.7		3.0
07	285	4.8	210	3.7	100	2.2		3.0
08	330	5.3	200	4.2	90	2.6		2.9
09	315	5.8	190	4.4	90	2.9		2.9
10	346	6.1	180	4.6	90	3.2		2.9
11	335	6.5	170	4.6	90	3.3		2.9
12	320	7.1	170	4.8	90	3.4		2.9
13	320	6.9	180	4.8	90	3.4		2.9
14	300	7.0	180	4.7	90	3.3		3.0
15	290	7.1	190	4.5	90	3.3		3.0
16	260	7.0	190	4.4	90	3.1		3.0
17	250	7.0	190	4.2	90	2.8		3.2
18	220	6.9	200	3.8	90	2.5		3.2
19	210	6.7	210		100	2.0		3.2
20	210	6.6						3.2
21	210	5.9						3.2
22	210	5.2						3.1
23	220	4.4						3.0

Time: 120.0°W.
Sweep: Manual operation.

Table 29

Swan River, Manitoba (52.1°N, 101.2°W) April 1946

(9th through 22nd only)

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	290	(3.7)						
01	300	(3.1)						
02	310	3.0						
03	300	2.7					2.0	
04	(300)	(2.7)					1.5	
05	(300)	(2.6)						
06	(265)	(3.9)						
07	(250)	(4.4)			120			
08	(270)	(4.8)			110	2.6		
09	(340)		220		110	2.6		
10			220		110	3.1		
11			245	4 4	110			
12								
13			200					
14	(350)		220					
15	(360)	(5.6)	230	4.5				
16	310	(6.4)	220	4.4	110	2.9		
17	(305)	(6.8)	230	4.1	110	2.8		
18	255	(6.7)			110	2.5		
19	250	(6.0)						
20	250	5.9						
21	250	5.1						
22	250	4.6						
23	250	4.7						

Time: 90.0°W.
Sweep: 1.2 Mc to 16.0 Mc in approximately two minutes.
Median values.

Table 30

Adak, Alaska (51.9°N. 176.6°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	310	4.8						2.8
01	(320)	(4.4)						(2.8)
02	(320)	(4.2)						(2.8)
03	(325)	(4.0)						(2.5)
04	(320)	(3.8)						(2.8)
05	(280)	(4.8)						(2.7)
06	260	5.2	235	3.8		2.5		2.8
07	255	6.0	220	4.2		2.8	3.2	3.0
08	305	6.5	220	4.5		3.2		3.0
09	300	6.8	210	4.7		3.4		3.0
10	290	7.0	210	4.6		3.5	3.3	3.0
11	290	7.0	200	4.8		3.5		3.0
12	280	8.0	200	4.7		3.5		3.0
13	280	7.7	205	4.8		3.5		3.0
14	260	7.4	220	4.8		3.4		3.0
15	240	7.5	220	4.7		3.2		3.1
16	230	7.6				3.0	3.4	3.1
17	240	7.4				2.6	3.0	3.1
18	240	7.4				2.2		3.1
19	(240)	(7.6)						(3.0)
20	(240)	(7.5)						(3.0)
21	(250)	(6.2)						(2.9)
22	(260)	(5.2)						(2.8)
23	(320)	(4.8)						(2.6)

Time: 180.0°W
Sweep: Manual operation.
Median values.

Table 31

(Revision of previously published provisional data)

Ottawa, Canada (45.5°N, 75.8°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	290	4.7						2.8
01	300	3.5						2.9
02	330	3.1						2.9
03	315	3.2						2.9
04	320	3.1						2.9
05	300	3.3						2.9
06	250	4.6						3.1
07	240	5.6	220	3.6	130	2.6		3.1
08	230	6.3	230	4.4	120	2.9		3.0
09	240	6.5	216	4.6	120	3.1		2.9
10	330	6.9	210	5.0	120	3.3		2.8
11	320	7.2	199	5.0	120	3.4		2.8
12	320	8.0	200	5.1	120	3.4		2.8
13	335	8.4	210	5.1	120	3.5		2.7
14	330	8.4	210	5.0	120	3.4		2.7
15	310	8.4	220	4.9	120	3.3		2.7
16	310	8.6	230	4.8	120	3.2		2.8
17	285	7.9	235	4.5	120	2.9		2.8
18	250	7.8			140	2.4		2.8
19	260	7.8						2.8
20	250	7.4						2.9
21	250	6.8						2.8
22	270	5.8						2.8
23	300	4.8						2.8

Time: 75.0°W.
Sweep: 1.93 Mc to 13.5 Mc. Manual operation.
Median values.

Table 32

(Revision of previously published provisional data)

Boston, Massachusetts (42.4°N. 71.2°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	300	4.1						2.7
01	300	4.0						2.7
02	298	3.7						2.7
03	290	4.2						2.8
04	275	4.6						2.8
05	275	4.7						3.0
06	(255)	(6.0)						(3.0)
07	(270)	(6.9)						(3.0)
08	(280)	(6.7)						(2.9)
09	(332)	(6.1)						(2.7)
10	(342)	(6.6)	250	4.7				(2.8)
11	(350)	(6.5)	250	5.0				(2.9)
12	(350)	(6.5)	242	4.8				(2.9)
13	(350)	(6.5)	250	4.5				(2.9)
14	(325)	(6.5)						(3.0)
15	310	7.0						3.0
16	282	7.0						2.9
17	292	(6.7)						(2.8)
18	260	6.2						3.0
19	260	6.5						2.8
20	260	6.2						2.8
21	260	5.6						2.8
22	280	4.8						2.8
23	300	4.7						2.7

Time: 75.0°W.
Sweep: 0.85 Mc to 13.75 Mc in one minute.
Median values.

Table 33

(Revision of previously published provisional data)

San Francisco, California (37.4°N, 122.2°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	290	4.6						2.6
01	290	4.7						2.6
02	280	4.6						2.7
03	280	4.6					2.4	2.8
04	260	4.3						2.8
05	280	4.2						2.8
06	240	5.4			120	1.8		3.0
07	240	6.6	240	3.8	110	2.6		3.1
08	280	7.4	220	4.3	110	3.0		3.0
09	280	7.6	210	4.6	110	3.4		2.9
10	280	9.3	200	4.8	110	3.6		2.7
11	315	9.1	210	5.2	110	3.7		2.8
12	310	9.6	210	5.2	110	3.7		2.8
13	300	9.7	210	5.2	110	3.8		2.9
14	300	10.0	220	5.0	110	3.7		2.9
15	280	9.6	220	5.0	110	3.5		2.9
16	280	9.2	220	4.5	110	3.2		2.9
17	250	8.7	240	4.0	110	2.8		2.8
18	240	8.5	240	3.2	115	2.7		2.8
19	230	8.0						2.8
20	220	6.6						2.8
21	235	5.8						2.9
22	255	5.4						2.8
23	275	5.0						2.7

Time: 120.0°W.
Sweep: 0.8 Mc to 12.0 Mc in six minutes. Record centered on the hour.
Median values.

Table 34

(Revision of previously published provisional data)

Baton Rouge, Louisiana (30.5°N, 91.2°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	310	5.4						2.8
01	310	5.2						2.8
02	300	5.2						2.8
03	300	4.9						2.8
04	295	4.6						2.8
05	300	4.4						2.9
06	280	5.4						3.0
07	280	7.0	250	3.7	130	2.3		3.1
08	280	8.4	250	3.9	120	2.8		3.0
09	300	9.2	240	4.3	120	3.1		2.9
10	305	9.5	240	4.5	120	3.3		2.9
11	320	9.6	240	4.6	120	3.3		3.0
12	320	9.6	240	4.6	120	3.4		3.1
13	330	9.6	245	4.7	120	3.4		3.1
14	325	9.6	245	4.6	120	3.4		3.1
15	310	9.6	245	4.5	120	3.3		3.1
16	300	9.5	250	4.3	120	3.0		3.1
17	290	9.4	250	3.9	120	2.7		3.1
18	270	9.2			130	2.1		3.0
19	250	8.2						3.0
20	250	6.6						2.9
21	270	6.0						2.8
22	300	5.4						2.7
23	310	5.3						2.7

Time: 90.0°W.
Sweep: 1.9 Mc to 9.8 Mc in three minutes, thirty seconds.
Median values.

Table 35

Maui, Hawaii (20.8°N, 156.5°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	8.0						3.0
01	250	7.6						3.2
02	250	6.4						3.0
03	250	4.3						3.0
04	280	4.4						2.8
05	300	4.2						2.8
06	275	4.7						2.9
07	250	7.4				2.4		3.1
08	250	9.0	250			3.0		3.0
09	270	9.6	240			3.4		2.8
10	300	10.6	220	5.4				2.6
11	330	12.1	210	5.3				2.7
12	330	13.2	210	5.4				2.8
13	300	13.8	220	5.2				2.9
14	300	14.0	225	5.2				2.9
15	300	14.0	220	5.1		3.6		2.9
16	290	14.3	220	4.7		3.3		2.9
17	250	13.8	220			2.9		3.0
18	245	13.2				2.4		3.0
19	240	12.2						3.0
20	250	10.4						2.9
21	250	9.6						2.8
22	270	8.7						2.8
23	280	8.3						2.8

Time: 150.0°W
Sweep: 2.2 Mc to 16.0 Mc in one minute.
Median values.

Table 36

San Juan, Puerto Rico (18.4°N, 66.1°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		8.0						2.8
01		7.4						2.8
02		7.0						2.9
03		5.8						2.8
04		4.8						2.8
05		4.4						2.7
06		4.8						2.8
07	250	7.1						3.0
08	270	8.6		3.6				2.9
09	300	9.5	230	4.1		3.2		2.9
10	320	10.3	220	4.9		3.4		2.8
11	330	11.0	230	5.0		3.5		2.7
12	330	11.9	220	5.1		3.5		2.8
13	330	11.8	230	5.1		3.5		2.8
14	330	11.4	230	5.0		3.5		2.8
15	320	11.1	230	4.6		3.5		2.7
16	300	10.7	230	4.2		3.2		2.8
17	290	10.4	250					2.8
18	270	10.4						2.8
19	270	9.4						2.9
20		8.6						2.8
21		7.8						2.7
22		7.9						2.8
23		8.1						2.7

Time: 60.0°W.
Sweep: Record centered on the hour.
Median values.

Table 37

(Revision of previously published provisional data)

Trinidad, Brit. West Indies (10.6°N, 61.2°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	10.4						3.1
01	240	9.0						3.2
02	220	7.6						3.2
03	240	5.8						3.0
04	260	5.0						2.9
05	280	4.8						2.9
06	270	5.8						3.0
07	245	7.8			120	2.4	2.6	3.2
08	250	9.5	230	4.5	120	3.1	3.8	3.1
09	280	10.6	220	5.1	120	3.5	4.0	3.0
10	300	11.6	220	5.4	120	3.8	4.2	2.9
11	300	12.3	220	5.4	120	3.9	4.2	2.9
12	300	13.0	220	5.4	120	4.0	4.4	2.9
13	300	13.0	220	5.4	120	4.0	4.4	2.9
14	300	13.0	220	5.3	120	3.9	4.5	2.9
15	290	12.4	230	5.2	120	3.8	4.6	2.9
16	280	11.6	230	4.7	120	3.3	4.4	2.9
17	280	11.6	240	4.4	120	2.7	4.0	2.9
18	260	10.9					2.6	3.0
19	270	10.5					2.1	2.9
20	280	10.8						2.8
21	280	10.8						2.9
22	280	11.0						3.0
23	270	10.6						3.0

Time: 60.0°W.
Sweep: Manual operation.
Median values.

Table 38

(Revision of previously published provisional data)

Christmas Island (1.9°N, 157.3°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	220	10.5					2.6	3.1
01	230	9.3					2.6	3.1
02	240	8.2					2.1	3.0
03	230	7.9					2.1	3.1
04	240	7.2					2.1	3.1
05	230	6.4					2.6	3.2
06	240	5.4					2.6	3.2
07	260	8.0			120	2.3	3.5	3.0
08	240	9.7			110	3.1	5.4	2.8
09	220	10.2				3.5	7.0	2.6
10	230	10.4	220				8.2	2.4
11	285	10.5	210	5.1			8.5	2.4
12	30[illegible]	10.6	210	5.2			8.6	2.4
13	300	10.6	210	5.1			8.5	2.4
14	(300)	11.1	210	5.0			8.5	2.4
15	(210)	11.5	210				8.4	2.4
16	220	11.5	210		115	3.5	7.6	2.4
17	240	11.5				3.0	7.0	2.4
18	270	11.0					5.7	2.4
19	320	10.6					3.8	2.3
20	350	10.0					2.8	2.3
21	300	10.0					2.6	2.5
22	270	10.0					2.2	2.7
23	240	11.0					2.7	3.0

Time: 150.0°W.
Sweep: 1.5 Mc to 13.0 Mc in one minute, thirty seconds.
Median values.

Table 39

Huancayo, Peru (12.0°S, 75.3°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	220	8.6						3.1
01	230	7.4						3.1
02	240	8.3						3.1
03	250	5.8						3.1
04	260	5.0						3.2
05	245	4.1						3.2
06	260	5.2				1.6	2.8	3.0
07	240	8.9				2.6	3.0	3.1
08	230	10.8				3.2	8.0	2.8
09	270	11.3	220	5.1		3.6	8.4	2.5
10	280	10.8	200	5.2		3.9	9.4	2.4
11	290	10.1	200	5.2			9.7	2.4
12	300	10.5	200	5.2			9.6	2.3
13	290	10.6	200	5.1			9.5	2.3
14	280	10.9	200	5.0			9.0	2.4
15	210	11.3	200	4.6		3.5	8.3	2.4
16	240	11.7				3.0	8.2	2.4
17	280	11.5				2.4	4.9	2.4
18	300	10.9				1.1	2.8	2.3
19	350	9.9						2.3
20	290	9.8						2.4
21	270	9.6						2.6
22	230	9.8						2.9
23	220	9.1						3.0

Time: 75°W.
Sweep: 18.0 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 40

Adak, Alaska (51.9°N, 176.8°W) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	340	3.6						2.6
01	(330)	3.4						(2.8)
02	(340)	(3.4)						(2.7)
03	(350)	(3.5)						(2.6)
04	(380)	(3.4)						(2.6)
05	(390)	(3.4)						(2.6)
06	270	4.4					2.4	3.0
07	230	5.7				2.5	2.5	3.2
08	220	7.0				2.8	3.2	3.2
09	230	7.5				3.1	3.2	3.3
10	230	9.2				3.3		3.2
11	250	9.7	220	4.5		3.4	3.8	3.0
12	240	10.3	210	4.4		3.5		3.1
13	230	10.1	220	4.4		3.4		3.1
14	245	9.8	215	4.4		3.3		3.1
15	230	9.2				3.1		3.1
16	230	9.0				2.8		3.1
17	230	8.7				2.4	2.8	3.2
18	220	7.4						3.1
19	(220)	(8.8)					(2.6)	(3.1)
20	(230)	(5.6)					(2.4)	(3.1)
21	(24[illegible])	(4.7)						(3.0)
22	(260)	(3.8)						(2.8)
23	(320)	(3.4)					(2.4)	(2.8)

Time: 180.0°W.
Sweep: Manual operation.
Median values.

Table 41

Great Baddow, England (51.7°N, 0.5°E) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.3						2.7
01		4.2					0.8	2.6
02		3.8					0.7	2.8
03		3.6					0.8	2.7
04		3.0					0.7	2.7
05		2.8					0.8	2.7
06		3.7					1.0	3.0
07		5.8				2.0	2.0	3.3
08		7.0				2.6	2.7	3.2
09		7.8		3.6		2.9	3.0	3.2
10		8.7		4.4		3.0		3.2
11		8.9				3.2		3.1
12		9.4		4.8		3.2		3.1
13		9.5				3.2		3.0
14		9.7				3.0		3.0
15		9.5		4.0		2.8		3.1
16		9.4				2.6	2.6	3.2
17		8.9				2.1	2.1	3.2
18		8.7					2.0	3.2
19		7.6						3.1
20		6.5						3.0
21		5.6						2.9
22		5.0						2.8
23		4.6						2.8

Time: 0.0°
Sweep: Manual operation.
Median values.

Table 42

Tokyo, Japan (35.8°N, 139.6°E) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.6						2.8
01		5.7						2.8
02		5.6						2.9
03		5.2						3.0
04		4.8						2.9
05		4.6						2.9
06		6.1						3.2
07		8.6					2.9	3.4
08		9.7					3.2	3.3
09		10.3					3.6	3.3
10		11.4					4.0	3.2
11		12.0					3.7	3.2
12		12.2					4.0	3.2
13		12.0					4.0	3.1
14		11.4					3.9	3.2
15		11.2					4.0	3.2
16		10.9					3.4	3.2
17		10.6					3.1	3.3
18		9.4					2.9	3.4
19		7.6					2.4	3.2
20		6.7					2.4	3.0
21		6.5						3.0
22		8.3					2.1	2.8
23		6.1						2.8

Time: 135.0°E.
Sweep:
Median values.

Table 43

Cairo, Egypt (30.0°N 31.2°E) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	* fEs	F2-M3000
00		7.1						2.8
01		6.7						
02		8.7						2.8
03		5.8						
04		4.5						2.8
05		3.8						
06		5.0						3.0
07		7.8				2.3	2.4	
08		9.6					3.0	3.1
09		10.8					3.4	
10		11.6					3.4	3.0
11		12.6					3.6	
12		13.2					3.6	2.9
13		13.0					3.8	
14		12.9					3.6	3.0
15		12.6				3.3	3.4	
16		11.7				3.0	3.2	3.0
17		11.2				2.4	3.6	
18		10.2					2.9	3.1
19		8.6						
20		8.1						2.8
21		7.5						
22		7.8						(2.8)
23		7.0						

Time: 30.0°E.
Sweep:
Median values.
* Original data sheet labeled "Extent of E".

Table 44

(Revision of previously published provisional data)

Chungking, China (29.4°N, 106.8°E) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	240	7.8						3.1
01	240	7.1						3.0
02	240	6.8						3.2
03	220	6.0						3.3
04	245	5.0						3.4
05	260	4.7						3.1
06	250	5.4	250					3.2
07	220	7.8	195	4.4				3.4
08	220	10.4	200	5.1				3.2
09	230	12.0	205	5.4				3.0
10	250	13.2	210	5.8				(3.0)
11	260	14.0	210	6.0				
12	275	14.0	210	6.0				
13	290	14.0D	220	6.0				
14	280	14.0D	220	6.0				
15	260	13.5	220	5.4				(3.2)
16	240	13.5	220	5.2				(3.3)
17	230	13.8	230					
18	205	13.8						
19	200	13.5						(3.3)
20	205	12.0						3.2
21	220	11.2						3.1
22	240	9.0						3.1
23	240	8.3						3.0

Time: 105.0°E.
Sweep: 3.3 Mc to 12.3 Mc in fifteen minutes. Manual operation.
Median values.

Table 45

Guam I. (13.5°N, 144.8°E) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	240	11.5					2.8	3.2
01	240	10.9						3.3
02	230	10.3						3.3
03	220	8.0						3.2
04	235	6.0						3.1
05	240	4.6					2.0	3.3
06	240	4.8					2.6	3.2
07	250	7.4			120	2.5	2.8	3.2
08	240	10.6	220		120	3.0	3.6	3.1
09	240	11.9	220		120	3.5	3.9	2.9
10	265	12.2	210	5.0	120	3.7	4.0	2.6
11	280	12.0	200	5.3	110	3.8		2.5
12	280	11.3	200	5.2	110			2.4
13	280	11.5	190	5.3	110			2.4
14	280	12.6	200	5.2	110			2.5
15	270	13.4	210		110			2.6
16	240	14.2	230		110	3.5	4.6	2.7
17	240	14.7			120	3.0	4.2	2.7
18	260	14.3			120		3.9	2.7
19	300	14.0					3.7	2.6
20	340	13.9						2.5
21	270	13.5						2.8
22	240	12.7					2.4	(2.9)
23	230	13.0					3.0	3.1

Time: 150.0°E.
Sweep: Manual operation.
Median values.

Table 47

(Revision of previously published provisional data)

Adak, Alaska (51.9°N, 176.6°W) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	350	3.2						2.7
01	310	3.4						
02	320	3.4						2.8
03		3.2						2.6
04		3.2						
05	300	3.2						2.8
06	300	3.2						2.8
07	240	4.7						3.2
08	220	6.0						3.3
09	220	7.3				2.8		3.4
10	230	8.3	210	3.8		3.0		3.3
11	240	9.0	210	3.7		3.0		3.3
12	220	8.7	210	2.8		3.1		3.3
13	230	9.0				3.0		3.4
14	225	8.6				2.9		3.3
15	220	8.1				2.7		3.3
16	220	7.3				2.5		3.4
17	220	6.4					2.6	3.2
18	220	4.9					2.5	3.4
19	215	4.3						3.4
20	240	3.6						3.0
21	260	3.2						3.0
22	295	3.2						2.7
23	290	3.2						2.8

Time: 180.0°W.
Sweep: Manual operation.
Median values.

(Revision of previously published provisional data)

Christmas I. (1.9°N, 157.3°W) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	220	10.7					2.6	3.1
01	230	9.8					2.6	3.2
02	230	8.0					2.3	3.2
03	240	7.3					2.1	3.2
04	240	6.6					1.8	3.2
05	235	5.8					2.2	3.2
06	230	4.8					2.7	3.2
07	260	7.6				2.4	3.4	3.1
08	240	9.9			110	3.0	6.1	2.9
09	220	10.7			110	3.4	7.2	2.5
10	230	10.4	220	5.0			8.2	2.4
11	285	10.2	210	5.1			8.4	2.4
12	300	10.4	210	5.2			8.7	2.4
13	300	10.8	200	5.2			8.5	2.3
14	280	11.4	210	5.2			8.2	2.4
15	225	11.8	210				7.9	2.4
16	220	12.0			110	3.5	7.0	2.5
17	240	12.0			120	3.2	6.6	2.5
18	260	11.7				2.5	5.0	2.5
19	300	11.7					3.5	2.4
20	340	11.0					1.8	2.3
21	300	10.5					2.1	2.5
22	260	10.5					2.6	2.8
23	240	11.4					2.6	3.0

Time: 150.0°W.
Sweep: 1.5 Mc to 13.0 Mc in one minute, thirty seconds.
Median values.

Table 48

Tokyo, Japan (35.6°N, 139.6°E) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.8					2.0	2.8
01		3.8						2.8
02		3.6						2.8
03		3.8						2.9
04		3.6						2.9
05		3.4					2.2	2.8
06		3.8						3.0
07		7.2					2.3	3.5
08		8.4					2.9	3.5
09		9.7					3.3	3.5
10		9.8					3.9	3.4
11		10.5					4.0	3.4
12		10.7					4.2	3.3
13		9.8					4.2	3.4
14		9.5					4.0	3.3
15		9.1					3.7	3.4
16		8.6					3.2	3.5
17		7.8					2.9	3.4
18		6.0					2.5	3.4
19		5.1					2.2	3.2
20		4.5						3.2
21		4.1					2.2	2.9
22		4.0					2.2	2.8
23		3.8					2.3	2.8

Time: 135.0°E.
Median values.

Table 49

Guam I. (13.5°N, 144.8°E) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	230	9.6					2.0	3.2
01	230	8.5					2.1	3.1
02	230	8.4						3.3
03	220	6.6						3.4
04	240	5.4						3.2
05	240	4.5					2.0	3.2
06	255	4.0					1.6	3.1
07	260	6.2			100		2.4	3.1
08	240	9.9			110		3.4	3.2
09	235	11.5			110	3.2	3.4	3.1
10	270	12.6	210	4.9	110		3.9	2.8
11	285	12.3	200	5.1	110			2.6
12	285	11.5	190	5.0	110			2.4
13	290	11.0	180	5.0	110			2.5
14	285	11.1	190	5.0	110			2.4
15	280	11.5	200		110			2.6
16	250	11.8			110	3.2	3.8	2.6
17	250	12.5			120		3.8	2.7
18	260	12.5			110		2.8	2.8
19	280	12.0						2.7
20	300	11.6						2.6
21	260	11.5						2.8
22	230	10.4					3.0	3.0
23	220	10.3					2.8	3.1

Time: 150.0°E.
Sweep: Manual operation.
Median values.

Table 50

(Revision of previously published provisional data)

Leyte, Philippine Is. (11.0°N, 125.0°E) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		9.0					4.4	3.1
01		8.0					4.0	3.2
02		7.3					3.7	3.2
03		5.9					3.3	3.3
04		4.7					3.0	3.2
05		3.8					2.9	3.2
06		3.0					3.0	3.1
07		4.6					3.9	3.0
08		8.9	3.8	2.7			5.2	3.1
09		10.3	4.2	3.1			6.1	2.8
10		11.0	4.9	3.5			6.5	2.7
11		10.2	5.2	3.7			6.8	2.5
12		10.1	5.2	3.8			6.6	2.5
13		10.0	5.2	3.9			6.5	2.5
14		10.0	5.2	3.9			6.8	2.5
15		10.0	5.1	3.7			6.6	2.5
16		10.7	4.7	3.4			6.4	2.5
17		10.4	4.0	2.9			6.4	2.6
18		10.5	2.7	2.0			5.5	2.5
19		10.0					5.5	2.5
20		9.0					3.5	2.4
21		9.5					2.4	2.6
22		9.3					4.0	2.8
23		9.4					4.6	3.0

Time: 135.0°E.
Sweep: Manual operation.
Median values.

Table 51

(Revision of previously published provisional data)

Cape York, Australia (11.0°S, 142.4°E) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	250	9.5					2.2	3.1
01	225	9.0					2.3	3.2
02	230	8.0					2.2	3.2
03	230	7.1					2.3	3.1
04	230	6.5					2.7	3.0
05	230	5.5					2.4	3.1
06	250	4.5					2.7	3.0
07	240	6.1				2.5	2.9	3.3
08	232	7.6				3.0	3.6	3.2
09	260	8.5	220	5.0		3.6	4.0	3.0
10	310	9.4	200	5.4			4.5	2.8
11	350	10.0	212	5.5			4.5	2.8
12	340	11.5	212	5.4			4.5	(2.8)
13	350	*D	225	5.5			4.8	
14	325	D	220	5.4			4.8	
15	300	D	200	5.2			4.5	
16	300	D	212	5.0		3.5	4.5	(3.0)
17	290	11.2	225	4.8		3.2	3.5	2.9
18	250	11.0				2.6	2.8	2.8
19	262	10.2					2.7	[illegible]
20	285	9.8					2.7	[illegible]
21	287	9.8					2.6	2.8
22	290	9.6					2.3	2.8
23	275	9.1					2.1	2.9

Time: 150.0°E.
Sweep: 1.0 Mc to 13.0 Mc in one minute, fifty-five seconds.
Median values.
*D - see page 6, paragraph b of this issue.

Table 52

(Revision of previously published provisional data)

Brisbane, Australia (27.5°S, 153.0°E) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	6.8					3.0	3.0
01	250	6.6					3.3	3.0
02	260	6.0						3.0
03	260	5.4						3.0
04	270	4.8						3.0
05	260	4.8						3.1
06	230	5.6						3.4
07	220	6.6			120	2.6	2.9	3.4
08	230	7.2		4.8	115	3.1	4.0	3.2
09	300	8.0	210	5.1	110	3.5	4.6	3.0
10	300	8.7	200	5.2	110	3.5	5.2	3.0
11	310	9.0	192	5.4	110	3.7	5.5	2.9
12	300	9.6	202	5.3	110	3.9	5.2	3.0
13	300	9.5	200	5.3	110	3.7	4.6	3.0
14	300	9.0	200	5.2	110	3.8	4.5	3.0
15	300	9.2	210	5.0	110	3.6	3.8	3.0
16	290	9.0	220	4.6	112	3.2	3.8	3.0
17	240	8.7			115	2.7	3.5	3.1
18	240	8.4					2.5	3.1
19	240	7.8					3.0	3.0
20	270	7.3					2.7	2.8
21	300	7.2						2.8
22	305	7.0						2.8
23	290	7.2						2.9

Time: 150.0°E.
Sweep: 2.2 Mc to 12.5 Mc in two minutes, thirty seconds.
Median values.

Table 53

(Revision of previously published provisional data)

Watheroo, W. Australia (30.3°S, 115.9°E) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	265	5.9					3.6	2.8
01	268	5.3					4.0	2.9
02	242	4.8					4.0	2.8
03	260	4.5					3.2	2.8
04	260	4.1					3.6	2.8
05	270	3.8					3.2	2.8
06	265	4.4				1.8	3.2	3.0
07	235	5.8				2.6	3.8	3.2
08	275	6.3	225	4.4		3.1	4.1	3.1
09	320	7.0	220	4.9		3.4	4.8	3.0
10	320	7.4	215	5.0		3.5	4.1	3.0
11	330	8.3	210	5.1		3.6	4.4	2.9
12	325	9.1	220	5.2		3.6	4.1	2.9
13	328	9.0	220	5.1		3.7	4.0	2.9
14	320	9.1	230	5.1		3.6	4.6	2.9
15	315	9.1	225	5.0		3.6	3.9	2.9
16	300	8.6	230	4.8		3.4	4.2	3.0
17	250	8.3				3.0	3.9	3.0
18	240	7.8				2.5	3.5	3.1
19	240	7.4					3.3	3.0
20	235	7.2					2.8	2.9
21	250	6.6					2.8	2.8
22	262	6.2					2.9	2.8
23	270	6.0					3.0	2.8

Time: 120.0°E.
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 54

(Revision of previously published provisional data)

Canberra, Australia (35.3°S, 149.0°E) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	290	5.6					3.3	2.9
01	280	5.7					3.0	3.0
02	275	5.1					3.2	3.0
03	290	4.5					2.4	2.9
04	290	4.0						2.8
05	290	3.8						2.9
06	260	4.6			120	2.0		3.0
07	270	5.4	250	3.8	110	2.6		3.0
08	290	6.1	240	4.2	110	3.0	3.6	3.0
09	320	6.7	220	4.5	100	3.3	4.2	2.9
10	330	7.8	215	4.6	100	3.5	4.4	2.9
11	310	7.7	205	4.6	100	3.6	4.2	3.0
12	320	7.9	210	4.7	100	3.6	4.2	2.9
13	340	8.0	210	4.7	100	3.6	3.9	3.0
14	350	7.6	210	4.7	100	3.6	4.0	2.9
15	320	7.6	220	4.6	100	3.5	3.1	2.9
16	310	7.6	242	4.5	100	3.2	3.6	2.9
17	300	7.1	240	4.1	100	3.0	3.6	3.0
18	260	7.1	250	3.6	110	2.3	3.5	3.0
19	250	7.1				1.7	2.1	3.0
20	250	6.6						3.0
21	260	6.0						2.9
22	290	5.6					3.1	2.9
23	295	5.8					3.3	2.9

Time: 150.0°E.
Sweep: 1.6 Mc to 12.5 Mc in two minutes.
Median values.

Table 55

(Revision of previously published provisional data)

Hobart, Tasmania (42.8°S, 147.4°E) February 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	278	5.5					2.7	2.9
01	270	5.0					3.0	2.8
02	275	4.5					2.9	2.9
03	265	3.7					2.7	3.0
04	270	3.4					2.8	3.0
05	275	3.4				(1.4)	3.0	3.1
06	250	4.5				(2.2)	2.8	3.2
07	250	5.2		4.2	105	2.6	2.8	3.2
08	300	5.5	225	4.4	108	3.0	3.6	3.2
09	350	6.0	230	4.6	100	3.3	3.8	3.0
10	380	6.0	215	4.8	100	3.5	3.9	2.9
11	370	6.5	200	4.9	100	3.6	4.0	2.9
12	350	6.5	200	5.0	100	3.8	3.9	3.0
13	350	6.9	200	5.0	100	3.6	4.4	2.9
14	350	7.0	215	4.9	100	3.6	3.6	2.9
15	350	7.0	225	4.7	100	3.5	3.7	2.9
16	322	6.8	225	4.7	100	3.3	3.6	3.0
17	310	7.0	230	4.4	100	3.0	3.6	3.0
18	250	7.5	238	3.9	110	2.5	3.0	3.0
19	250	7.6				(2.0)	2.9	3.0
20	250	7.0					3.0	3.0
21	250	6.5					3.6	2.9
22	275	6.0					3.6	2.8
23	275	5.7					3.6	2.8

Time: 150.0°E.
Sweep: 1.0 Mc to 13.0 Mc in one minute, fifty-five seconds.
Median values.

Table 56

Bukhta Tikhaya, U.S.S.R. (80.3°E, 82.7°E) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	3.1						
01	260	3.5						
02								
03								
04								
05								
06								
07								
08								
09								
10	320	3.4						
11								
12	280	3.2						
13								
14	260	4.2						
15								
16								
17								
18								
19	260	3.9						
20								
21								
22	240	4.3						
23								

Time: 60.0°E
Sweep: 1.5 Mc to 9.5 Mc in five to ten minutes. Manual operation.
Average values.

Table 57

Tokyo, Japan (35.6 N, 139.6 E) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.1					2.4	2.9
01		3.5					2.4	2.9
02		3.3					2.2	3.0
03		3.1						3.1
04		3.0					2.2	3.2
05		3.0					2.0	3.0
06		2.7					2.0	3.3
07		4.9					2.4	3.6
08		6.1					2.6	3.8
09		7.0					3.2	3.6
10		8.1					3.8	3.7
11		8.0					3.9	3.8
12		7.8					3.7	3.7
13		7.2					3.8	3.6
14		7.1					3.7	3.6
15		6.7					3.5	3.8
16		5.8					3.0	3.8
17		4.9					3.0	3.6
18		4.4					2.9	3.6
19		3.8					2.5	3.5
20		3.4					2.6	3.3
21		2.8					2.2	3.2
22		3.0					2.1	3.0
23		3.2					2.4	2.9

Time: 135.0°E.
Sweep:
Median values.

Table 58

(Revision of previously published provisional data)

Leyte, Philippine Is. (11.0°N, 125.0°E) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.5					3.2	3.2
01		4.8					3.2	3.3
02		4.2					2.9	3.3
03		3.2					2.7	3.4
04		2.7					2.4	3.2
05		2.3					2.4	3.1
06		2.0					2.4	3.1
07		3.8					3.0	3.0
08		7.1				2.4	4.2	3.1
09		9.0					5.0	3.0
10		9.2		4.9		3.4	6.5	2.8
11		8.5		5.0		3.5	5.6	2.6
12		8.4		5.0		3.5	6.6	2.5
13		8.2		5.1			6.4	2.5
14		8.4		5.0		3.6	6.4	2.6
15		8.6		4.9		3.5	6.2	2.6
16		8.9		4.6		3.0	5.2	2.6
17		9.1				2.8	4.9	2.7
18		9.0				2.0	4.6	2.8
19		8.8					3.7	2.8
20		8.1					3.8	2.7
21		7.8					3.4	2.9
22		7.2					3.2	3.2
23		6.2					3.6	3.2

Time: 135.0°E.
Sweep: Manual operation.
Median values.

Table 59

(Revision of previously published provisional data)

Watheroo, W. Australia (30.3°S, 115.9°E) January 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	250	5.5					3.7	3.0
01	250	4.9					4.1	2.9
02	250	4.6					3.5	3.0
03	250	3.9					3.3	2.9
04	255	3.6					3.9	3.0
05	270	3.2					3.4	3.0
06	240	4.5				2.0	4.2	3.3
07	270	5.3	235	4.4		2.6	4.0	3.2
08	330	5.7	230	4.4		3.0	4.5	3.0
09	350	6.2	220	4.6		3.3	4.9	3.0
10	355	6.4	210	4.6		3.5	4.7	2.9
11	360	6.8	210	4.7		3.5	4.9	2.8
12	360	7.3	210	4.7		3.5	5.1	2.8
13	335	7.9	220	4.7		3.5	5.0	2.9
14	325	7.7	210	4.7		3.4	5.0	3.0
15	310	7.6	228	4.6		3.4	4.9	3.0
16	300	7.2	220	4.4		3.2	4.7	3.0
17	295	7.0	225	4.2		2.8	4.0	3.1
18	280	6.5	232	3.5		2.2	4.0	3.1
19	248	6.4					3.6	3.1
20	250	6.4					2.9	2.9
21	260	5.8					2.9	2.8
22	275	5.6					3.1	2.9
23	270	5.6					3.6	2.9

Time: Local
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 60

(Revision of previously published provisional data)

Bukhta Tikhaya, U.S.S.R. (80.3°N, 52.7°E) December 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	250	5.1						
01	250	4.3						
02								
03								
04								
05								
06								
07								
08								
09								
10	300	4.3						
11								
12	270	3.7						
13								
14	290	4.9						
15								
16								
17								
18								
19	260	4.8						
20								
21								
22	250	4.6						
23								

Time: 60.0°E.
Sweep: 1.5 Mc to 9.5 Mc in five to ten minutes. Manual operation.
Average values.

Table 61

Leningrad, U.S.S.R. (WETKAS) (60.0°N, 30.3°E) December 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	360	2.9						
01	380	3.7						
02	370	3.3						
03	370	3.2						
04	370	2.9						
05	340	3.0						
06	280	2.3						
07	260	2.7						
08	250	3.5						
09	230	5.0						
10	220	5.7						
11	220	6.3						
12	220	6.7						
13	220	6.6						
14	220	6.2						
15	220	5.7						
16	220	5.2						
17								
18								
19								
20								
21								
22								
23	380	3.4						

Time: 30.0°E.
Sweep: Manual operation.
Average values.

Table 62

Leningrad, U.S.S.R. (LDRS) (59.9°N, 30.3°E) December 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	360	2.9						
01	370	2.9						
02	360	2.9						
03	350	3.0						
04	360	3.1						
05	350	3.5						
06	320	4.0						
07								
08	290	4.9						
09	270	5.6						
10	280	5.9						
11	280	5.9						
12	280	6.0						
13	280	6.2						
14	280	5.9						
15	290	5.6						
16	290	5.3						
17	280	4.8						
18								
19	300	3.9						
20	310	3.6						
21	330	3.3						
22	370	2.6						
23	350	2.9						

Time: 30.0°E.
Sweep: 1.5 Mc to 9.0 Mc in five to ten minutes.
Average values.

Table 63

Moscow, U.S.S.R. (55.9°N, 37.3°E) December 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	380	2.6						
01	370	2.7						
02	370	2.8						
03	370	2.7						
04	360	2.6						
05	350	2.5						
06	330	2.5						
07	310	2.8						
08	230	5.0				2.1		
09	230	6.3				2.1		
10	220	6.8				2.2		
11	220	7.2				2.3		
12	220	7.1				2.4		
13	220	7.1				2.2		
14	220	6.7				2.1		
15	220	5.8				2.1		
16	220	5.0						
17	240	4.4						
18	260	3.2						
19	290	2.7						
20	330	2.6						
21	370	2.5						
22	370	2.4						
23	370							

Time: 30.0°E.
Sweep: 1.8 Mc to 10.0 Mc in ten minutes.
Average values.

Table 64

Alma Ata, U.S.S.R. (43.2°N, 76.9°E) December 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	210	3.3						
01	220	3.4						
02	220	3.1						
03	220	3.1						
04	210	3.4						
05	200	3.4						
06	210	4.1						
07	200	5.2			100	2.6		
08	200	6.4			110	2.9		
09	200	6.7			110	3.5		
10	200	7.2			110	3.2		
11	200	7.3			100	3.5		
12	200	7.2			110	4.0		
13	200	6.9			110	3.7		
14	200	6.8			110	3.4		
15	200	6.8			100	3.2		
16	200	6.2			110	2.6		
17	200	5.5			100	2.9		
18	210	4.6						
19	210	3.9						
20	210	3.4						
21	220	3.5						
22	210	3.4						
23	210	3.2						

Time: 75.0°E.
Sweep: 2.0 Mc to 14.0 Mc in ten to twenty minutes. Manual operation.
Average values.

Table 85

Leyte, Philippine Is. (11.0°N, 125.0°E) December 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMe	F2-M3000
00		5.8					3.0	3.3
01		4.8					2.9	3.3
02		4.2					2.7	3.3
03		3.5					2.5	3.3
04		2.9					2.1	3.3
05		2.8					2.2	3.2
06		5.9		2.8		1.8	3.1	3.2
07		8.2		3.6		2.8	4.0	3.1
08		9.7		4.4		3.1	5.2	3.0
09		10.3		4.8		3.4	8.1	2.7
10		9.2		5.0		3.5	6.4	2.6
11		9.0		5.0		3.8	6.6	2.6
12		9.0		5.0		3.7	8.8	2.8
13		9.3		5.0		3.6	7.0	2.8
14		9.8		4.8		3.4	8.3	2.6
15		10.0		4.5		3.1	8.2	2.7
16		10.1		4.0		2.7	8.8	2.8
17		10.3		2.8		1.9	5.2	2.9
18		9.3					5.0	2.8
19		8.4					3.9	2.8
20		8.5					3.8	2.9
21		7.6					3.8	3.2
22		7.2					3.7	3.2
23		8.2					3.3	3.3

Time: *120°E.
Sweep: Manual operation.
Median values.
*Subsequent months published in this issue have been received at 135°E.

Table 86

(Revision of previously published provisional data)

Sverdlovsk, U.S.S.R. (58.7°N, 61.1°E) October 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMe	F2-M3000
00	270	3.3						2.8
01	270	3.3						2.8
02	270	3.2						2.8
03	270	3.2						3.0
04	270	3.1						2.8
05	260	2.9						3.0
06	230	3.4						3.0
07	200	6.2			120	1.8		3.8
08	200	6.6			100	2.3		3.6
09	200	7.1			100	2.8		3.5
10	200	8.2			100	2.8		3.8
11	190	8.4			100	2.9		3.6
12	190	8.3			100	2.8		3.5
13	190	8.4			100	2.7		3.5
14	200	8.1			100	2.6		3.8
15	200	7.8			100	2.3		3.6
16	190	7.0			100	2.0		3.7
17	190	6.5						3.6
18	200	6.0						3.5
19	200	5.0						3.4
20	210	4.4						3.2
21	220	3.8						3.2
22	230	3.7						3.0
23	260	3.3						2.8

Time: 60.0°E.
Sweep: 1.5 Mc to 14.0 Mc on five to thirteen minutes. Manual operation.
Median values.

Table 87

(Revision of previously published provisional data)

St. John's, Newfoundland (47.7°N, 52.7°W) October 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMe	F2-M3000
00	250	3.6						3.3
01	280	3.2						3.1
02	250	3.0						3.3
03	280	2.6						3.2
04	280	2.4					2.1	3.3
05	270	2.2					2.0	3.2
06	255	2.8			100	1.7	1.8	3.3
07	240	5.4	220	3.1	110	1.9	2.9	3.4
08	240	6.3	210	3.5	110	2.3	3.5	3.4
09	240	7.2	200	3.9	110	2.8		3.4
10	240	7.8	200	4.2	100	2.9		3.4
11	250	8.5	190	4.4	100	3.0		3.3
12	260	8.8	200	4.4	100	3.1		3.4
13	250	8.8	200	4.4	100	3.0		3.3
14	240	8.5	200	4.1	100	2.9		3.3
15	240	8.8	210	3.9	100	2.7		3.3
16	230	8.7	210	3.5	110	2.3		3.3
17	235	8.4	220	3.2	100	1.9		3.4
18	230	7.2	200	3.0	100	1.7	2.0	3.4
19	220	6.3	210	2.5				3.3
20	220	5.2						3.2
21	240	4.8						3.2
22	245	4.5						3.1
23	255	3.8						3.2

Time: 52.5°W.
Sweep: Manual operation.
Median values.

Table 88

Alma Ata, U.S.S.R. (43.2°N, 76.9°E) September 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMe	F2-M3000
00	210	4.8						
01	220	4.6						
02	220	4.5						
03	220	4.4						
04	220	4.2						
05	220	4.7				(2.2)		
06	210	5.1			110	2.6		
07	210	5.8			120	2.7		
08	210	6.2	180	4.1	110	3.3		
09	200	7.0	180	4.4	100	3.7		
10	210	7.2	180	4.5	110	3.7		
11	200	7.4	180	4.7	110	4.0		
12	200	7.0	190	4.6	110	4.0		
13	210	6.8	180	4.6	100	3.9		
14	210	6.8	200	4.6	110	3.8		
15	220	6.5	180	4.6	110	3.7		
16	220	6.6	200	4.6	110	3.4		
17	190	6.3			100	3.3		
18	200	6.6			100			
19	200	6.1						
20	200	5.8						
21	200	5.3						
22	200	5.1						
23	210	4.9						

Time: 75.0°E.
Sweep: 2.0 Mc to 14.0 Mc in ten to twenty minutes. Manual operation.
Average values.

TABLE 69

IONOSPHERE DATA- I

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $h'F_2$ in (km) for May (Month) 1946

Records measured by: J. M.C. J. L.S.

TIME: 75° W MERIDIAN

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	280	300	300	290	280	290	280	270	310	(370)	390	350	340	340	340	340	320	270	270	240	230	270	280	290
2	290	300	300	290	280	280	250	270	300	280	300	340	370	330	320	330	[300]C	270	270	250	270	290	250	270
3	280	280	260	280	270	270	250	310	340	330	400	350	370	380	360	360	330	300	280	280	240	240	280	270
4	290	300	290	270	250	290	290	310H	480	(450)	(630)	510	570	[440]C	[420]C	[400]C	360	340	310	250	260	270	270	280
5	310	290	270	270	(310)	270	240	(260)	250	270	330	350	330	330	310	320	310	300	270	240	240	230	270	280
6	300K	260K	320K	350K	350K	330K	460K	600K	GK	600K	730K	830K	540K	460K	400K	460K	380K	340K	280K	270K	260K	280K	300K	270K
7	290K	(360)K	(430)K	(340)K	(420)K	300K	GK	GK	GK	GK	GK	GK	800K	890K	[690]CK	[560]CK	450K	430K	310K	270K	270K	(280)K	310K	250K
8	270K	290K	290K	360K	340K	(330)K	270K	GK	GK	GK	GK	CK	GK	GK	670K	550K	570K	440K	350K	280K	250K	260K	250K	300K
9	280K	320K	320K	330K	330K	300K	250K	510K	560K	GK	700K	GK	GK	GK	670K	540K	490K	440K	320K	290K	260K	270K	250K	260K
10	270K	300K	300K	310K	290K	270K	300K	GK	540K	480	380	(330)	370	400	320	330	320	300	270	250	240	260	290	310
11	310	280K	320K	280K	350K	320K	280K	340K	260K	(280)K	350K	540K	490K	510K	420	380	380	340	270	250	250	260	270	270
12	280	270	260	250	280	290	300	470	420	590	580	440	560	[470]C	420	370	350	A	C	260	270	280	290	290
13	300	270	260	250	260	260	240	270	270	320	310	(330)	330	340	340	310	290	C	C	C	C	C	C	C
14	C	C	C	C	C	C	C	C	C	(480)	460	440	390	A	A	370	350	310	270	(260)	280	280	[300]A	300
15	(310)	(300)A	280	260	(300)	240	280	260	300	330	310	340	(320)	320	320	320	320	300	270	270	250	220	260	260
16	270	290	290	280	240	250	240	330	370	400	520	380	(360)	400	400	380	C	C	270	260	(240)	(290)	280	280
17	280	270	250	250	290	250	290	(280)	410	410	(490)	370	(480)	400	[390]C	340	420	380	330	270	(300)	280	300	310
18	300	260	240	240	300	260	290	620	330	390	G	(440)	420	430	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	C	C	[340]C	[360]C	330	300	320	340	310	300	260	(240)	240	290	290
20	300	(300)	(290)	310	290	270	270	(270)	290	300	280	330	330	330	320	320	320	320K	310K	250K	220K	220K	260K	280K
21	270K	270K	290K	320K	310K	310K	(250)K	450K	GK	(680)K	600K	650K	540K	550	440	440	460	380	300	260	260	250	270K	280K
22	350K	(350)K	300K	310K	310K	290K	250K	590K	660K	580K	390K	630K	[550]CK	[470]CK	(400)K	490K	370	360	320	270	260	280	320	300
23	300	270	270	300	320	280	220	520	(420)	[420]C	470	380	(450)	(450)	380	350	360	300	280	240	230	260	280	310
24	310	340	290	290	250	250	240	440	680	450	520	(420)	[440]A	[430]A	400	390	330	350	280	(280)	C	C	260	280
25	280	300	310	270	290	290	370	500	480	(550)	480	420	450	400	360	350	310	310	290	240	240	240	280	280
26	270	240	280	270	250	270	380	430	390	370	430	460	(450)	(430)	510	440	410	380	340	310	(250)	(230)	250	300
27	270	260	250	260	250	C	C	C	C	[380]C	430	(470)	430	430	420	400	360	340	300	270	230	(260)	280	310
28	300	310	310	280	270	280	330	350	320	340	(370)	(380)	[390]C	(390)	[360]C	C	C	C	C	C	C	(250)	280	270
29	260	280	280	280	260	270	330	330	390	400	(430)	450	440	430	400	380	400	340	300	260	240	240	260	280
30	270	260	260	270	260	230	350	340	400	[390]C	[470]C	450	(490)	410	400	400	390	330	300	250	240	230	260	280
31	300	310	290	280	270	230H	(400)	480	450	[510]A	[550]A	480	(490)	450	410	400	370	330	300	270	260	270	270	270
Sun																								
Median	290	290	290	280	290	275	285	405	405	400	465	430	440	430	400	380	355	330	300	260	250	260	280	280

TABLE 70

IONOSPHERE DATA- 2

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of f^0F_2 in Mc for May (Month) 1946

Records measured by: J.M.C. J.L.S.

TIME: 75° W MERIDIAN

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	5.3	4.9[F]	4.7[F]	4.4	4.5	4.7	6.0	6.6[H]	6.8	(7.4)	7.8	8.0	8.8	9.0	8.7	8.8	8.7	8.6	8.4	(7.6)	(6.8)	6.5	6.0	6.0
2	(5.7)[J]	5.4	5.2	4.8	4.3	4.3	5.9	7.0	7.6	8.0	8.0	8.2	8.4	8.7	9.0	8.6	[8.5][C]	8.4	8.5	8.5	8.0	8.0	6.6	6.0
3	5.8	5.6	5.0	5.0	4.3	4.2	5.2	5.8	6.4	7.0	7.3	7.6	7.6	7.8	8.2	8.3	8.6	8.4	7.8	7.5	(7.2)	(6.4)	(6.3)[J]	6.0
4	5.8	5.8	5.7	5.5[J]	5.0	4.4	5.2	5.7[H]	5.6	5.6	(5.4)	(6.0)	6.4	[6.6][C]	[6.9][C]	[7.0][C]	7.2	7.0	6.8	6.8	6.2	6.0	5.7	5.3
5	5.0	5.0	(4.5)[F]	(4.0)	3.6[F]	4.0[F]	5.7	6.1	7.0	7.4	8.2	8.4	9.2	9.2	9.2	9.2	9.2	9.2	9.4	9.0	[8.5][C]	7.6	7.0	6.8
6	(6.2)[K]	6.5[K]	4.2[F,K]	(2.9)[F,K]	3.7[K]	4.0[K]	4.1[K]	4.3[K]	<4.2[G,K]	5.1[K]	(5.1)[K]	(5.3)[K]	5.8[K]	(6.0)[K]	6.2[K]	6.2[K]	6.4[K]	6.5[K]	6.4[K]	6.6[K]	6.6[K]	6.0[K]	5.8[K]	5.5[K]
7	3.7[F,K]	1.9[F,K]	(1.5)[J,K]	(1.3)[F,K]	(1.4)[F,K]	2.2[F,K]	<3.3[G,K]	<3.8[G,K]	<4.1[G,K]	<4.3[G,K]	<4.5[G,K]	<(4.6)[G,K]	(5.0)[K]	4.9[K]	[5.1][C,K]	[5.2][C,K]	5.3[K]	5.7[K]	(6.1)[K]	(6.0)[K]	(6.3)[K]	[6.1][C,K]	(6.0)[K]	(5.8)[K]
8	4.9[K]	5.1[K]	(3.8)[F,K]	(2.5)[J,K]	(2.0)[F,K]	(2.9)[J,K]	3.5[F,K]	<3.8[G,K]	<4.1[G,K]	<4.3[G,K]	<(4.4)[G,K]	C [K]	<4.8[G,K]	<4.8[G,K]	5.0[K]	5.2[K]	5.3[K]	5.4[K]	5.7[K]	6.0[K]	6.0[K]	5.8[K]	5.1[K]	4.6[K]
9	(4.3)[K]	3.3[F,K]	(3.1)[F,K]	2.2[F,K]	2.1[F,K]	3.2[K]	4.0[K]	4.5[K]	4.6[K]	<4.5[G,K]	5.0[K]	<4.7[G,K]	<4.8[G,K]	<4.7[G,K]	4.9[K]	5.1[K]	5.3[K]	5.4[K]	5.3[K]	5.2[K]	5.3[K]	4.7[K]	4.5[K]	4.0[K]
10	(3.6)[F,K]	(2.5)[F,K]	2.0[F,K]	2.2[F,K]	2.4[F,K]	3.4[K]	4.2[K]	<4.2[G,K]	(5.0)[K]	5.2	(5.9)	6.4	6.8	6.8	7.0	7.2	7.0	7.2	7.4	7.1	7.0	6.2	5.7	5.6
11	5.7	5.6[K]	(5.3)[K]	3.8[F,K]	2.4[F,K]	3.1[F,K]	4.0[K]	5.2[K]	6.4[K]	(5.3)[K]	(5.3)[K]	5.4[K]	5.6[K]	5.6[K]	6.2	6.5	6.6	6.4	6.2	6.4	6.4	6.0	5.8	5.0[F]
12	4.7[F]	(4.4)[F]	4.1[F]	3.6[F]	3.0[F]	3.4[F]	4.6	4.5[F]	5.1	5.0	5.1[F]	(5.5)	5.3	[5.6][C]	(6.0)	6.1	6.5	(6.8)	[6.7][C]	6.5	6.5	5.7	5.4	5.2
13	5.1	5.0	4.1[F]	3.6[F]	2.7[F]	3.4[F]	4.7[F]	6.3	6.8	6.8	7.4	7.3	8.0	8.2	8.2	8.8	8.7	C	C	C	C	C	C	C
14	C	C	C	C	C	C	C	C	C	5.4	5.4	5.7	5.7	[5.8][A]	[6.2][A]	6.4	6.5	6.6	6.6	6.6	6.2	5.6	5.2	4.6
15	4.5	(4.3)	3.7[F]	3.9[F]	3.3[F]	3.7[F]	5.0	(5.6)	6.4	(6.8)	7.0	7.6	7.4	7.6	7.9	(7.4)	7.7	8.0	8.2	8.2	(8.4)	(7.2)	6.2	5.7
16	5.4	5.0	5.0	4.9	4.3	4.5	5.4	5.0[H]	5.4	5.6	5.5	(6.0)	(6.4)	6.2	6.3	6.6	C	C	7.3	(7.3)	6.5	(6.0)[J]	(5.8)[J]	5.4
17	5.3	5.0	5.0	4.4	3.6	4.2	5.2	(5.4)	5.7	(5.7)	(6.0)	6.4	(6.1)	(6.2)	6.7	(6.2)	5.3	5.6	6.0	6.0	(5.6)	5.7	5.4	5.2
18	5.3	(5.1)	(4.5)	(3.5)	2.8	3.8	5.1	5.4	(5.7)	(5.5)	[5.7][G]	(5.8)	(5.9)	5.9	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	C	C	[7.2][C]	[7.4][C]	7.6	(7.8)	(7.4)	7.3	7.2	7.8	(8.2)	8.1	(7.2)	(6.3)	(6.0)[J]
20	5.9	(5.8)	4.9	4.8	4.3	4.8	(7.0)	(6.6)	7.6	8.4	(8.0)	8.2	8.6	8.6	8.4	(8.4)	8.0	8.0[K]	9.0[K]	(10.2)[J,K]	[9.7][C,K]	(7.8)[K]	(7.4)[K]	6.2[K]
21	5.3[K]	4.5[K]	4.2[K]	3.2[F,K]	2.2[F,K]	3.3[F,K]	(4.0)[K]	4.3[F,K]	<4.7[G,K]	(4.6)[K]	5.0[K]	5.0[K]	5.4[K]	5.4	(6.0)	6.0	5.7	6.8	6.8	6.2	6.4	(6.0)[J]	(5.6)[K]	(5.8)[J,K]
22	(4.6)[K]	(3.5)[F,K]	(2.8)[F,K]	2.8[F,K]	2.6[F,K]	3.6[F,K]	4.0[K]	4.5[K]	4.9[K]	5.3[K]	(5.8)[J,K]	(5.7)[K]	[5.4][C,K]	[6.1][C]	6.4[K]	5.8[K]	6.4	6.2	6.6	6.8	6.4	5.6	(5.6)	5.2
23	4.8[F]	4.5[F]	3.7[F]	2.9[F]	2.1[F]	(3.6)	(4.6)	5.0	(5.2)	[5.6][C]	5.6	(6.0)	(6.0)[J]	6.6	7.4	7.2	7.6	8.0	8.6	(8.0)	(6.6)	(6.2)	5.7	5.2
24	4.7[F]	4.6	4.3[F]	(3.8)[F]	(3.4)[F]	3.8[F]	4.5	4.8[F]	4.8	5.4	5.3	(6.3)	[6.5][A]	[6.6][A]	6.8	6.8	7.2	6.8	7.2	(7.0)	C	C	(7.0)	(6.4)
25	(6.0)	5.2	4.6	4.1	3.9	3.9	4.4	4.9	5.2	(5.0)	(5.5)	(6.2)	6.4	7.2	7.6	8.0	8.4	8.0	8.6	8.8	7.8	7.2	6.3[J]	(5.8)
26	(6.2)	4.8	4.7	4.2	3.7	4.5	5.1	5.3	(5.6)	5.7	5.5	(5.8)	(5.8)[J]	(5.8)	6.0	6.4	6.6	7.0	7.2	7.2	7.2	6.4	(6.2)	5.8
27	(5.4)[J]	(5.1)	4.6	4.2	3.8[F]	C	C	C	C	[6.6][C]	(6.6)	6.8	6.6	6.8	6.9	(7.2)	7.2	7.4	7.6	(7.9)	(7.2)	(6.8)	(6.1)	5.9
28	5.8	(5.3)[J]	5.1	5.1	[4.9][C]	4.5	5.3	5.9[J]	6.8	6.6	6.8	7.0	7.0	(7.0)	[7.5][C]	C	C	C	C	C	C	(6.9)	6.2	6.3
29	(5.6)	5.2	5.0	4.7	4.3	4.3	4.9	5.6	5.9	(5.9)	(5.8)	6.0	(6.0)	6.2	6.5	(6.4)	6.8	7.2	7.1	7.0	7.2	(6.0)	5.8	5.2
30	(5.2)	(4.6)	4.3[F]	3.8[F]	3.4[F]	(3.8)[F]	4.9	5.7	5.8	[5.9][C]	[5.8][C]	5.9	(6.0)	6.6	6.6	6.6	6.8	7.2	7.6	(7.2)	7.7	6.9	(6.2)	6.0
31	(5.3)	5.4	5.2	4.5	4.2	3.9[H]	4.3	(4.8)	5.3	(5.4)	[5.3][A]	5.7	5.8	6.0	6.3	6.0	6.4	6.4	6.8	7.3	7.0	6.6	6.4	6.3
Sum																								
Median	5.3	5.0	4.5	3.9	3.6	3.8	4.8	5.2	5.6	5.6	5.6	6.0	6.1	6.6	6.8	6.7	6.9	7.0	7.2	7.2	6.8	6.2	6.0	5.8

TABLE 71

IONOSPHERE DATA - 3

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Half hourly values of f^0F_2 in Mc for May (Month) 1946

Records measured by: J.M.C. J.L.S.

TIME: 75°W MERIDIAN

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	5.0	4.9[F]	4.6	4.5	4.4	5.1	(6.4)	6.6	7.4	7.6	(8.0)	8.2	8.6	9.1	9.0	8.6	8.8	8.4	7.9	7.6	6.9	(6.1)	6.0	5.8
2	5.7	5.4	5.0	4.7	4.7	4.9	6.6	(7.4)[J]	7.9	8.3	8.2	8.5	8.9	9.0	8.4	8.6	8.4	8.4	8.8	8.2	7.5	6.6	6.2	(5.8)
3	5.7	5.6	5.0	4.7	4.7	4.6	5.5	5.9	6.8	7.4	7.8	7.4	7.8	8.0	(8.1)	8.2	8.4	8.0	7.6	7.6	7.1	6.4	(6.6)	5.8
4	5.7	5.7	5.6	5.3	4.5	4.8	(5.4)	5.5	5.7	5.8	(5.5)	(5.8)	6.4	[6.7][C]	7.0	7.0	7.0	6.8	7.0	6.6	6.0	6.0	5.3	5.2
5	5.0	5.0	4.2	3.7[F]	3.6[F]	5.0	5.8	6.4	7.6	8.7	8.6	[8.9][C]	9.2	9.2	9.2	9.2	9.2	9.4	9.4	8.8	8.7	(7.2)	7.0	6.4
6	6.6[K]	5.5[K]	(3.8)[F,K]	(2.7)[F,K]	4.0[K]	4.4[F]	(4.6)[K]	r(4.0)[G,K]	(4.6)[K]	5.2[K]	5.3[K]	<5.1[G,K]	<5.2[G,K]	(5.8)[K]	6.3[K]	6.5[K]	6.5[K]	6.6[K]	6.1[K]	6.2[K]	(6.1)[K]	6.0[J,K]	5.7[K]	4.6[F,K]
7	3.2[F,K]	(1.4)[F,K]	(1.4)[F,K]	[0.9][F,K]	4.5[J,K]	2.9[F,K]	<3.6[G,K]	<4.0[G,K]	<4.2[G,K]	<4.4[G,K]	<4.6[G,K]	5.0[K]	(5.0)[K]	(5.0)[K]	5.1[K]	[5.3][C,K]	5.5[K]	5.9[K]	(6.2)[K]	(6.2)[K]	(6.0)[K]	(6.1)[K]	(5.8)[K]	(5.5)[K]
8	5.1[K]	4.7[K]	3.4[K]	(2.3)[K]	(3.5)[K]	3.2[K]	<3.6[G,K]	<4.0[G,K]	<4.2[G,K]	<4.4[G,K]	<4.6[G,K]	<4.8[G,K]	<4.8[G,K]	<4.8[G,K]	5.0[K]	5.3[K]	5.3[K]	5.6[K]	5.8[K]	(6.2)[K]	5.8[K]	(5.2)[J,K]	(5.0)[K]	4.7[K]
9	4.0[K]	3.3[F,K]	2.2[F,K]	2.0[F]	2.5[F,K]	3.6[K]	4.0[K]	4.5[K]	<4.5[G,K]	5.0[K]	<4.7[G,K]	4.9[K]	<4.7[G,K]	4.9[K]	(4.8)[K]	5.2[K]	5.5[K]	5.2[K]	5.3[K]	5.1[K]	5.1[K]	4.4[K]	(4.3)[K]	4.2[K]
10	(3.5)[F,K]	2.3[F,K]	2.1[F,K]	2.4[F,K]	3.3[F,K]	3.9[K]	<3.9[G,K]	4.4[K]	5.1[K]	(5.7)	(6.0)	6.4	6.8	7.2	7.2	7.2	7.2	7.2	7.4	7.0	(6.4)	6.0	(5.7)[K]	5.5
11	5.8	(5.0)[K]	4.2[K]	(2.3)[F,K]	[2.4][F,K]	3.6[F,K]	4.8[K]	5.9[J,K]	(5.5)	(5.4)[K]	<5.1[G,K]	5.4[K]	(5.5)[K]	(5.8)[K]	6.0	6.5	6.4	6.4	6.3	6.5	(6.2)	5.9	5.2	4.9
12	4.5	4.3[F]	4.0[F]	3.2[F]	2.9[F]	4.2	4.7	4.9	(5.0)	5.3	5.3	5.4	(5.5)	5.7	(6.0)	6.3	6.7	[6.8][A]	[6.8][C]	6.5	6.0	5.7	5.3	5.2
13	5.0	4.5[F]	3.7[F]	3.2[F]	2.4[F]	4.2[F]	5.7	6.6	6.0[J]	[7.1][C]	(7.2)	7.7	8.4	8.0	8.6	8.8	8.7	c	c	c	e	c	c	c
14	c	c	c	c	c	c	c	e	c	5.3	5.3	5.6	(5.6)	(6.1)	(6.3)	6.5	(6.3)	6.8	6.6	6.6	6.0	5.5	4.9	4.7
15	4.5	4.2	3.9	3.1	3.4	4.2[F]	5.3	5.8	6.6	7.6	(7.4)	8.0	7.6	7.6	(7.3)	7.4	8.0	8.4	8.1	8.4	7.8	6.6	6.1	5.6[J]
16	5.2	5.2	(4.8)	4.8	(4.5)	5.1	5.1	5.5	5.3	5.4	(5.7)	6.0[J]	(6.0)[J]	6.4	6.4	c	c	7.2	7.2	(7.0)	6.6	(5.9)	5.6	(5.4)
17	5.3	5.1	4.7	3.8	(3.8)	4.6	5.4	5.7	(6.0)	(5.7)	(6.4)	(6.1)	(6.0)	6.2	[6.5][A]	5.7	5.6	5.4	6.4	5.5	5.8	(5.6)	5.1	4.9
18	5.4	(4.9)	4.4	2.9	2.9	(4.7)	4.9	5.6	(5.3)	5.7	5.7	(5.8)	5.8	5.9	c	c	c	c	c	c	c	c	c	c
19	c	c	c	c	c	c	c	c	c	c	c	[7.3][C]	7.4	7.6	7.6	7.3	7.2	7.4	8.0	8.3	(7.4)	6.9	(6.0)	6.1
20	5.8	5.3	4.9	4.0[F]	4.3	5.4	6.6	7.4	7.6	(8.2)	8.2	[8.3][C]	8.6	9.0	8.4	8.0	8.2	8.4[K]	(9.8)[K]	[10.1][C]	(9.3)[J,K]	(7.4)[K]	(6.9)[K]	5.7[K]
21	4.9[K]	4.2[K]	3.9[K]	3.0[F,K]	[2.6][F,K]	3.9[F,K]	(4.5)[K]	5.0[K]	4.8[K]	4.7[K]	<4.7[G,K]	5.4[K]	5.3[K]	5.8	6.0	6.2	6.2	6.9	6.2	6.0	(6.4)	(5.8)[J]	(5.8)[J,K]	[5.3][C,K]
22	(4.3)[K]	(2.8)[F,K]	2.8[F,K]	2.6[F,K]	2.8[K]	3.8[F,K]	4.2[K]	4.5[K]	5.0[K]	5.7[K]	(5.8)[K]	5.6[K]	(5.7)[K]	6.4[K]	5.9[K]	6.1[K]	6.6	6.3	6.6	6.6	6.2	(5.6)	5.2	5.1
23	5.0[F]	4.2[F]	3.4[F]	2.6[F]	2.6[F]	4.0[F]	4.6	5.2	5.5	5.4	6.3	(5.8)	(6.4)	7.0	7.6	7.2	7.7	8.0	8.4	(8.0)	(6.4)[J]	6.0	5.6	5.0
24	4.6[F]	4.3[F]	(4.0)[F]	(3.6)[F]	(3.4)[J]	4.5	(4.4)[F]	[4.8][A]	[5.1][A]	(5.2)	(5.8)	[6.4][A]	6.5	6.7	6.8	7.0	7.0	7.0	7.2	c	c	(7.7)	6.6	(6.6)
25	5.5	4.8	4.5	4.3	3.4	4.2	4.7	5.0	5.3	(5.5)	(5.3)	(5.6)	6.4	7.4	7.7	8.2	7.8	8.2	8.8	[8.4][C]	7.6	(6.2)	6.2	6.1[J]
26	5.1	4.5[F]	4.2	3.8	4.0	4.8	5.1	5.3	(5.8)	5.7	5.9	6.0[J]	[5.8][C]	6.0[J]	(5.8)[J]	6.4	6.7	7.2	7.0	7.4	6.8	(6.0)	6.0	(5.6)[J]
27	5.3	(4.9)	4.2	3.9[F]	c	c	c	e	6.6	6.6	(6.8)	(6.6)	6.6	6.6	7.2	7.2	7.2	(7.6)	[7.8][C]	7.6	6.8	6.2	6.0[J]	5.8
28	5.5	5.2	5.1	5.0	(4.9)	4.9	(5.6)[J]	(6.6)[J]	6.5	6.5	7.0	[7.1][C]	[7.5][C]	7.4	7.6	c	c	c	c	c	(6.6)[J]	(6.4)[J]	(6.4)	
29	5.6	5.1	4.8	4.2	4.0	4.3	5.2	5.6	5.8	(5.9)	(6.0)	6.6	6.1	6.4	6.5	6.9	6.8	7.0	7.0	7.1	6.8	6.1	5.3	(5.2)
30	(5.4)	4.5[F]	(4.0)[F]	3.7[F]	3.2[F]	(4.7)	5.2	5.8	6.0	[5.8][C]	(5.7)	5.8	6.3	6.6	6.6	6.6	6.9	7.6	7.6	7.8	7.6	6.3	(6.1)	5.5
31	5.5	(4.9)	4.5	(4.4)	4.0	4.2	4.7	5.3	[5.3][A]	5.2	(5.4)	[5.8][A]	(5.4)	6.0	6.3	6.2	6.5	6.7	7.0	7.2	6.8	6.4	(6.4)[J]	6.0[J]
Sum																								
Median	5.2	4.9	4.2	3.7	3.4	4.4	5.0	5.5	5.5	5.7	5.8	6.0	6.3	6.6	6.7	7.0	7.0	7.1	7.1	7.1	6.6	6.1	5.8	5.5

TABLE 72

IONOSPHERE DATA- 4

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $h'F_1$ in {km / mc} for May (Month) 1946

Records measured by: J.M.C. J.L.S

TIME: 75° W MERIDIAN

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							250	230	220	220	210	180	200	220^{M}	230	210^{M}	230	230	240					
2								240	210	210	210	210	210	220	[210]^{c}	210	[220]^{c}	240	250					
3								(220)	(240)	240	220	(210)	220	(220)	220	240	230	240	260					
4							260	240	230	210	230	(220)	[230]^{c}	[250]^{c}	[240]^{c}	[230]^{c}	220	240	260					
5								A	200	200	240	220	210	230	(230)	250	230	250						
6							280^{K}	270^{K}	210^{K}	190^{K}	230^{K}	230^{K}	220^{K}	230^{K}	230^{K}	220^{K}	220^{K}	240^{K}	230^{M}	A				
7							260^{K}	250^{K}	260^{K}	230^{K}	220^{M}	200^{K}	220^{K}	210^{M}	[210]^{c}	[210]^{c}	(270)^{M}	240^{K}	260^{K}	K				
8							K	250^{K}	230^{K}	210^{K}	200^{M}	[210]^{c}	220^{K}	210^{K}	210^{K}	250^{K}	240^{K}	250^{K}	270^{K}	K				
9							K	(230)^{K}	200^{K}	210^{K}	200^{K}	200^{K}	230^{K}	220^{K}	220^{K}	220^{K}	220^{K}	230^{K}	250^{K}	K				
10							250^{K}	230^{K}	200^{M}	200	200	200	210^{M}	210	240	220	210	(220)	250					
11							K	240^{K}		200^{K}	190^{M}	190^{K}	210^{K}	220^{K}	210	210	230	240	230					
12							240	220	210	210	210	200	210	[230]^{c}	230	(240)	A	A	C					
13								240	230	210	210	200^{M}	[210]^{M}	(240)	200	(230)	A	C	C					
14							C	C	C	(250)	(220)	(240)	220	A	A	A	220	[240]^{A}	220					
15							220	220	230	200	200	(190)^{M}	[220]^{c}	200^{M}	210	210	220^{M}	[240]^{A}	240					
16							230	220	220	210	200	200	190^{M}	220	220	(250)	C	C	A					
17							230	A	A	A	200^{M}	230	220^{M}	230	240	[230]^{A}	200	240	260					
18							240	220	240	210	190	220	200	230	(210)	C	C	C	C					
19							C	C	C	C	C	[220]^{c}	[210]^{c}	230	220^{M}	210	210	(240)	240					
20							250	[230]^{M}	230	200^{M}	200	170^{M}	210^{M}	210	240	220	210	220^{K}	250^{K}	K				
21							250^{K}	230^{K}	210^{K}	200^{K}	180^{K}	190^{K}	200^{K}	250	220	230	230	230	240					
22							K	240^{K}	220^{M}	210^{K}	200^{K}	[200]^{c}	230^{K}	[230]^{c}	220^{K}	230^{K}	230	230	250					
23								230	[230]^{A}	210	220	210	210	240	260	220	210	220	240					
24								230	(230)	(220)	(230)	(210)	A	A	230	220	(220)	230^{M}	230					
25							240	[240]^{c}	210	200^{M}	210^{M}	(190)	180^{M}	180^{M}	170^{M}	230	230	230	220					
26							220	220	220	220	210	200	210	190	210	230	230	230	(230)	(250)				
27							C	C	C	[210]^{c}	210	200	190	200	[220]^{c}	C	C	C	A					
28							260	230	230	190^{M}	C	C	C	C	C	C	C	C	C					
29							220	220	210	200	200	220	210	200	210	220	230	230	230					
30							220	(230)	230	[230]^{c}	[240]^{c}	210	200	200^{M}	210^{M}	220	230	220	230					
31							250^{M}	230	A	A	A	A	240	230	230	240	230	250	260					
Num																								
Median							245	230	220	210	210	200	210	220	220	220	230	240	240					

TABLE 73

IONOSPHERE DATA- 5

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $f^{o}F_1$ in {Mc / kc} for May (Month) 1946

Records measured by: J.M.C. J.L.S.

TIME: 75° W MERIDIAN

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							L	L	4.6	5.0	5.2	5.1	5.3	5.3 H	5.0	5.1 H	4.9	L	L					
2								4.2	5.0	5.1	5.2	5.5	[5.7] C	5.4	[5.2] C	[4.9] L	[4.8] C	L	L					
3								(4.4)	(4.8)	5.0	5.3	(5.3)	(5.4)	5.4	5.2	5.2	4.9	L	L					
4							L	L	4.7	4.7	5.0	5.0	5.1	[5.0] C	[5.0] C	(5.0)	4.9	4.5	L					
5								A	4.4	[4.9] L	5.7	(5.5)	(5.7)	5.4	5.3	[5.2] L	(5.0)	L						
6							3.4 K	4.0 K	4.2 K	4.6 K	4.8 K	5.0 K	5.1 K	5.1 K	5.1 K	5.2 K	5.0 K	L K	L K	K				
7							3.3 F K	3.8 K	4.1 K	4.3 K	4.5 H K	(4.6) K	4.8 K	4.8 K	[4.7] C K	[4.7] C K	4.7 K	4.5 K	L K	K				
8							K	3.8 K	4.1 K	4.3 K	(4.4) H K	[4.7] C K	4.8 K	4.8 K	4.8 K	4.6 K	4.5 K	4.3 K	(3.8) K	K				
9							K	4.1 K	4.4 K	4.5 K	4.7 K	4.7 K	4.8 K	4.7 K	4.5 K	4.4 K	4.3 K	4.1 K	(3.7) K	K				
10							L K	4.2 K	4.3 H K	4.5	(5.0)	5.0	5.2 H	5.2	5.0	4.8	4.7	(4.3)	L					
11							K	4.3 K	4.4 H K	(4.3) K	4.8 H K	5.0 K	5.0 K	5.0 K	5.0	4.9	4.7	(4.3)	L					
12							L	(4.1)	4.3	4.5	4.8	4.8	4.9	[4.9] C	4.8	4.7	(4.6)	A	C					
13								L	(4.6)	5.0	(4.8)	(5.2) H	5.1	5.0	4.9	4.9	A	C	C					
14							C	C	C	4.8	(4.7)	4.8	4.8	A	A	4.6	4.7	[4.2] A	L					
15							L	L	(4.5)	(4.7)	4.8	4.9 H	(5.0)	5.0 H	4.8	4.8	4.7	(4.3)	L					
16							L	4.0	4.3	4.7	4.8	4.8	(4.9) H	5.0	5.0	4.9	C	C	A					
17							L	A	[4.5] A	4.8	(5.0) H	5.1	5.0	4.8	(4.9)	[4.8] A	4.6	(4.2)	L					
18							(3.5)	4.8	4.5	4.7	(4.8)	(4.9)	4.9	4.9	C	C	C	C	C					
19							C	C	C	C	C	[5.0] C	[5.1] C	5.2	5.1	5.2	(5.0)	4.5	L					
20							L	A	(4.8)	5.0 H	4.8	5.1 H	5.3 H	(5.0)	(5.0)	4.9	(4.7)	4.5 K	L K	K				
21							(3.7) K	4.0 K	4.7 K	4.5 K	4.6 K	4.7 K	4.7 K	4.8	4.6	4.6	4.4	4.2	L					
22							K	4.2 K	4.5 K	4.8 K	4.7 K	(5.2) K	5.0 K	[4.9] C K	5.0 K	4.8 K	4.7	4.3	3.7					
23								(4.1)	[4.6] A	(4.8)	5.0	5.0	5.1	5.1	5.0	5.0	4.6	4.4	L					
24								(4.3)	4.5	4.6	4.8	5.0	A	A	5.1	5.2	4.7	4.5 H	(3.3)					
25							3.8	4.4	4.6	4.8 H	4.9 H	5.1	5.3 H	5.3 H	5.2 H	(5.2)	(4.9)	(4.5)	L					
26							(4.0)	4.2	4.3	4.5	4.7	5.0	5.1	5.0	5.2	5.1	5.0	4.9	4.7	L				
27							C	C	C	[4.9] C	5.1	5.2	5.2	5.2	[5.1] C	[5.0] C	5.0	4.6	L					
28							3.7	4.4	4.7	4.9 H	C	C	C	C	C	C	C	C	C					
29							L	4.3	4.6	4.8	5.0	5.0	5.2	5.0	5.0	4.8	4.8	4.5	L					
30							3.8	4.3	4.6	[4.8] C	[4.9] C	5.0	5.0	5.0 H	5.0 H	(4.9)	4.7	4.2	L					
31							L H	4.0	A	A	A	4.9	4.9	5.0	4.8	4.7	4.8	4.4	L					
Sum																								
Median							3.7	4.2	4.5	4.8	4.8	5.0	5.1	5.0	5.0	4.9	4.7	4.4	(3.7)					

TABLE 74

IONOSPHERE DATA- 6

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of h'_E in {km / m} for MAY (Month) 1946

Records measured by: J.M.C. J.L.S.

TIME: 75° W MERIDIAN

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							120	110	110	110	110	110	100	100	110	110	110	110	120^{H}					
2						120	120	110	110	110	110	100	110	(120)	(120)	110	[110]^{C}	110	120	120				
3						120	120	110	110	110	110	110	110	110	110	110	110	110	120					
4							120	110	110	110	110	110	110	[110]^{C}	[110]^{C}	110	110	110	120	120				
5							110	110	110	110	110	110	110	110	110	110	110	110	110					
6						K	110^{K}	110^{K}	110^{K}	100^{K}	110^{K}	110^{K}	110^{K}	110^{K}	110^{K}	110^{K}	110^{K}	110^{K}	120^{K}	120^{K}	K			
7						K	110^{K}	110^{K}	110^{K}	110^{K}	110^{K}	100^{K}	110^{K}	110^{K}	[110]$^{C}_{K}$	[110]$^{C}_{K}$	110^{K}	110^{K}	120^{K}	[130]$^{C}_{K}$	K			
8						K	120^{K}	110^{K}	[110]$^{C}_{K}$	(110)^{K}	110^{K}	[110]$^{C}_{K}$	110^{K}	100^{K}	100^{K}	110^{K}	110^{K}	110^{K}	120^{K}	120^{K}	K			
9						120^{K}	110^{K}	110^{K}	110^{K}	110^{K}	110^{K}	110^{K}	100^{K}	110^{K}	110^{K}	110^{K}	110^{K}	110^{K}	120^{K}	120^{K}	K			
10						20^{K}	110^{K}	110^{K}	100^{K}	110	110	110	100	100	110	110	110	110	120					
11						K	110^{K}	110^{K}	120^{K}	100^{K}	100^{K}	100^{K}	110^{K}	110^{K}	110	100	110	110	120	120				
12						120	120	110	110	110	110	100	100	110	100	110	110	110	[110]^{C}	110				
13							110^{H}	110^{H}	110	110	100	100	110	110	110	110	110	C	C					
14							C	C	C	110	110	110	110	110	110	110	110	110	120	110				
15							110	110	110	110	110	100	100	100	110	110	110	110	110					
16							120	110	110	100	100	100	100	100	100	110	C	C	110					
17						(120)	110^{H}	110	110	110	110	110	110	110	110	110	110	110^{H}	120					
18							120	120	110	110	110	110	110	110	(110)	C	C	C	C					
19							C	C	C	C	C	[100]^{C}	[110]^{C}	110	110	110	110	110	110					
20							110	110	100	110	110	110	100	100	100	100	110	110^{K}	110^{K}	(130)^{K}	K			
21	C^{K}	C^{K}	K	K	K	130^{K}	120$^{H}_{K}$	110^{K}	110^{K}	100^{K}	110^{K}	110^{K}	100^{K}	110	110	110	110	110	120					
22						120^{K}	110^{K}	110^{K}	110^{K}	110^{K}	100^{K}	110^{K}	110^{K}	110^{K}	110^{K}	110^{K}	110	110	120					
23						120	120	110	110	110	110	110	110	110	110	110	110	110	110	120^{H}				
24						130)	110	110	110	110	110	110	110	110	110	110	110	110	110					
25						120	120	110	110	110	110	110	110	110	110	110	110	110	110	120				
26						120	110	120	110	110	110	100	110	110	110	110	110	110	110	110	110			
27						C	C	C	C	[110]^{C}	110	100	100	100	100	110	110	110	110					
28						120)	110^{H}	110	110	110^{H}	100	110	110	100	110	C	C	C	C					
29						130)	110	110	110	110	110	110	110	100	110	110	110	110	110	120				
30						120	110	110	110	[110]^{C}	[110]^{C}	110	110	110	110	110	110	110	110	(120)				
31							110	110	110	110	110	100	100	110	110	110	110	110	110	120				
Sum																								
Median						120	110	110	110	110	110	110	110	110	110	110	110	110	115	120				

TABLE 75

IONOSPHERE DATA - 7

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $f^{\circ}E$ in $\left\{\begin{smallmatrix}Mc\\ kc\end{smallmatrix}\right.$ for MAY (Month) 1946

Records measured by: J.M.C. J.L.S.

TIME: 75°W MERIDIAN

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							(2.1)	2.8	A	A	A	3.8	[3.9]^{A}	(3.9)	(3.7)	(3.5)	(3.9)	3.0	23^{H}					
2						C	2.1	2.9	[3.2]^{A}	(3.2)	A	B	(3.8)	C	C	(3.7)	[3.3]^{C}	(3.0)	2.2	A				
3						A	A	2.9	A	A	A	A	A	A	[3.7]^{A}	3.6	[3.4]^{C}	[3.0]^{C}	A					
4							(2.2)	2.8	(3.2)	3.5	[3.7]^{B}	(3.8)	(3.8)	C	C	C	3.4	3.0	(2.3)	A				
5							A	2.7	(3.0)	(3.6)	8.7	(3.8)	3.8	[3.7]^{A}	(3.7)	3.5	[3.2]^{C}	2.4	2.3					
6						K	2.2^{K}	(2.7)^{K}	C^{K}	C^{K}	B^{K}	(3.7)^{K}	(3.8)^{K}	(3.7)^{K}	3.7^{K}	3.5^{K}	3.3^{K}	2.9^{K}	2.3^{K}	A^{K}	K			
7						K	2.2^{K}	(2.8)^{K}	(3.0)^{K}	A^{K}	A^{K}	A^{K}	(3.8)^{K}	(3.8)^{K}	C^{K}	C^{K}	(3.2)^{K}	2.4^{K}	(2.5)^{K}	[1.8]$^{C}_{K}$	K			
8						K	(2.2)^{K}	C^{K}	C^{K}	A^{K}	A^{K}	C^{K}	C^{K}	(3.7)^{K}	[3.6]$^{C}_{K}$	[3.4]$^{C}_{K}$	[3.1]$^{C}_{K}$	2.8^{K}	2.2^{K}	A^{K}	K			
9						(1.7)^{K}	2.4^{K}	2.7^{K}	(3.1)^{K}	C^{K}	C.^{K}	A^{K}	[3.7]$^{C}_{K}$	[3.6]$^{A}_{K}$	C^{K}	C^{K}	3.0^{K}	2.7^{K}	2.2^{K}	(1.8)^{K}	K			
10						1.7^{K}	(2.3)^{K}	(2.6)^{K}	[3.2]$^{C}_{K}$	[3.4]^{C}	[3.0]^{A}	(3.7)	(3.8)	3.7	3.5	[3.4]^{C}	(3.2)	[2.7]^{A}	A					
11						K	(2.3)^{K}	2.7^{K}	(3.1)^{K}	A^{K}	A^{K}	B^{K}	(3.9)^{K}	[3.8]$^{C}_{K}$	(3.7)	[3.6]^{A}	(3.3)	2.8	2.3	A				
12						(1.5)	2.1	(2.6)	A	A	A	A	(3.8)	[3.8]^{A}	[3.7]^{C}	(3.5)	(3.1)	2.7	C	A				
13							2.2^{H}	2.7^{H}	(3.0)	[3.2]^{A}	[3.4]^{A}	[3.6]^{C}	[3.8]^{A}	(3.6)	3.6	3.4	(3.1)	C	C					
14							C	C	C	(3.2)	(3.2)	(3.3)	A	A	A	(3.4)	3.2	2.6	[2.1]^{A}	A				
15							[2.3]^{A}	(2.9)	A	A	A	A	A	A	A	[3.5]^{A}	(3.2)	2.8	(2.2)					
16							(2.3)	2.7	[3.0]^{C}	8.3	A	A	(3.7)	[3.7]^{A}	(3.6)	(3.5)	C	C	2.3					
17						(1.7)	2.2^{H}	2.6	2.8	(3.1)	A	B	(3.8)	[3.7]^{A}	3.5	[3.3]^{A}	[3.1]^{A}	2.7^{H}	(2.4)					
18							(2.2)	2.7	[3.0]^{C}	(3.2)	C	A	B	(3.6)	C	C	C	C	C					
19							C	C	C	C	C	C	C	(3.7)	3.6	(3.5)	3.3	(2.8)	2.3					
20							2.2	2.8	3.1	(3.4)	(3.4)	(3.7)	3.7	(3.7)	(3.7)	3.6	3.3	(2.9)^{K}	2.3^{K}	1.8^{K}	K	K	K	K
21	(1.2)$^{J}_{K}$	(1.2)$^{J}_{K}$	K	K	K	1.6^{K}	2.2$^{H}_{K}$	2.7^{K}	(3.0)^{K}	C^{K}	A^{K}	(3.8)^{K}	(3.7)^{K}	[3.7]^{C}	3.8	[3.5]^{C}	(3.4)	2.4	2.4					
22						A^{K}	2.3^{K}	(2.6)^{K}	(3.0)^{K}	C^{K}	C^{K}	3.5^{K}	C^{K}	C^{K}	3.8^{K}	(3.5)^{K}	[3.2]^{C}	2.8	2.5					
23						1.7	(2.3)	(2.7)	(2.9)	[3.3]^{A}	(3.7)	[3.8]^{A}	(3.8)	3.7	(3.7)	(3.5)	(3.0)	2.8	2.3	(1.5)^{H}				
24						C	2.3	2.7	[2.9]^{A}	[3.1]^{A}	A	A	A	A	C	A	(3.6)	(3.1)	2.4					
25						(1.7)	2.3	[2.8]^{C}	(3.3)	[3.6]^{A}	(3.8)	(3.8)	(3.8)	(3.7)	[3.6]^{C}	(3.7)	(3.2)	(2.9)	2.4	A				
26						(1.9)	A	C	(2.9)	(3.2)	[3.4]^{C}	(3.7)	C	C	(3.7)	(3.8)	[3.7]^{C}	(3.5)^{H}	[3.1]^{C}	2.8	1.9			
27						C	C	C	C	C	A	(4.0)	[3.9]^{C}	C	C	C	C	C	2.4					
28						(1.7)	2.2^{H}	2.9	3.3	3.5^{H}	C	C	C	C	C	C	C	C	C					
29						1.7	(2.3)	(2.8)	C	C	(3.7)	(3.8)	[3.8]^{A}	[3.8]^{A}	(3.7)	3.6	3.4	(2.9)	2.4	A				
30						(1.6)	(2.3)	(2.7)	[2.9]^{A}	C	C	3.7	C	A	(3.6)	(3.5)	[3.3]^{C}	(2.9)	(2.5)	(1.6)				
31							2.3	(2.7)	(3.1)	(3.2)	(3.3)	A	A	12	A	3.6	[3.3]^{A}	2.8	2.3	A				
Sum																								
Median						(1.7)	2.2	2.7	(3.0)	(3.2)	(3.6)	(3.8)	(3.8)	(3.7)	(3.7)	(3.5)	(3.3)	2.7	2.3	(1.8)				

TABLE 76

IONOSPHERE DATA - 8

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of E_s in (No / km) for MAY (Month) 1946

Records measured by: J.M.C. J.L.S.

TIME: 75° W MERIDIAN

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	2.5/110	2.6/110					4.4/110	3.8/130	(5.2)/110	3.7/110	3.9/110	5.3/100	5.3/100	4.0/110	3.8/110	3.8/130	3.5/140			(1.9)/130				1.7/120
2	2.8/130	5.1/120	4.3/120	(3.8)/150		(2.2)/120	5.3/120	3.6/120	3.8/110	3.9/120	3.9/130		4.3/120			3.9/130		3.8/120	2.6/120	1.7/120	(5.1)/110	4.2/110		2.9/120
3	2.9/110				2.2/110	2.8/120	2.9/110	5.3/150	(5.2)/110	3.8/110	5.3/110	6.5/110	3.9/110	3.9/110	(5.0)/110			2.9/120	3.7/110	2.9/110			2.7/110	
4			2.2/120	1.1/130	2.7/110	2.3/110	2.7/120	3.1/120	3.7/120	4.8/110	5.2/120	4.5/120	5.3/120	C	5.3/110	C	(4.7)/120	4.9/120	4.2/120	2.7/110	3.7/110	2.9/110	2.9/110	3.6/110
5	3.7/120	2.9/130	2.9/120	4.5/110	5.3/110	5.3/110	(5.2)/110	5.0/120		5.3/120	5.1/120	5.3/110	6.6/100	4.3/110	4.0/120	5.0/120		4.1/130	5.4/110	2.7/110	1.7/130	2.9/110		
6						(3.8)/110	5.3/100	(2.9)/130	3.8/110	5.0/110				4.0/150	4.2/130	5.3/110	(4.6)/130	3.6/120		1.9/120				
7						5.3/100	(3.8)/110		5.2/110	3.8/110	3.9/110	3.9/100	3.9/120		C	C	4.9/140	2.8/150						
8							5.3/100	5.3/130		3.6(110)	5.3/110	5.9/100						2.9/140	3.6/120	1.9/120				
9	2.3/150	2.4/140		2.7/170		2.5/150	3.0/130	(3.8)/120			3.9/100	3.7/110	3.9/110	3.9/110			3.6/130	3.0/120	2.7/130		2.5/150	2.7/130	(2.9)/130	2.3/160
10	3.7/130	2.9/130				1.7/130		(2.7)/120		3.8/110	3.8/110	4.0/110	3.9/130	4.0/110	3.8/120	4.0/120	3.7/120	5.3/110	4.3/120	2.4/110		2.8/120		
11				1.8/120	2.0/120	(2.1)/140	2.4/120	4.5/110	3.8/120	5.3/100	3.9/100					3.8/110	3.7/130	4.4/120	4.5/120	3.6/110	2.8/110	2.9/110	3.5/110	2.3/120
12					1.5/120	3.0/120	3.4/120	3.8/120	3.4/110	4.0/110	3.9/100	3.8/100	3.9/100	4.0/110		5.2/120	5.3/120	11.4/110	C	5.3/110	5.3/110	5.0/110		2.3/110
13	2.4/110	2.9/120	2.7/120	2.4/110	2.4/170	2.2/140		3.1/140	3.4/120	3.8/110	4.0/100		5.3/110	5.0/130	5.0/120	5.8/120	5.4/110	C	C	C	C	C	C	.C
14	C	C	C	C	C	C	C	C	C	5.3/110	5.3/110	5.0/110	5.3/110	7.3/110	7.4/110	5.3/110	4.3/130	6.8/110	7.0/120	4.3/110	4.3/110	5.4/110	5.4/110	4.3/110
15	(5.1)/100	5.3/100	5.0/100	4.0/100	4.0/100	5.3/100	2.9/100	3.9/110	5.0/110	5.4/110	8.2/110	5.6/100	5.7/100	6.2/100	3.9/110	3.8/110	3.8/110	5.2/120	4.8/120	5.8/110	4.3/110	5.3/110	(3.3)/110	
16		2.4/110	2.6/110	2.8/110		2.3/130	2.7/130	2.9/120	3.5/120	3.8/110	3.8/100	5.2/100	4.0/100	5.2/100	5.3/130	5.0/130	C	(7.5)/120	7.0/110	6.8/110	(7.4)/110	6.7/110	3.7/110	
17			4.1/100	3.5/110	4.0/110	(3.3)/120	4.3/130	6.0/110	6.0/110	5.3/110	(3.8)/110		4.0/100	4.3/110	9.6/110	7.1/110	(3.8)/110	2.9/130		4.4/110	6.8/120	1.6/140		
18	(2.2)/110		2.3/110	3.8/110	2.9/120		2.9/150	5.2/140	3.2/120	3.7/120	3.8/110	4.0/110			C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	C	C	5.3/100		4.0/110	4.9/120		5.7/120	(7.6)/110	(8.3)/110	(9.4)/110	7.2/110		5.3/110	5.3/110
20	5.3/110	5.4/110	5.3/110	5.3/110	5.3/110	5.2/110	4.7/110	6.0/110	4.9/120	3.9/120	3.8/120		4.4/100	4.3/120								2.9/100		
21						(1.3)/130		5.2/110		5.2/100	3.8/110								3.0/120	3.4/120	(2.6)/120			
22						1.8/120	3.6/110	3.2/110	(5.2)/110	3.6/120	3.8/110	3.9/110		C			3.5/110	4.2/130	3.6/120	3.1/120				
23					2.2/140	2.3/120	4.0/120	5.2/110	8.4/110	6.6/110	5.3/110	(3.9)/110							(2.3)/130			2.3/190	1.9/180	
24	3.5/120	4.6/120					5.0/150	6.6/110	8.6/110	5.2/110	5.4/110	11.4/110	>11.5/100	8.6/110		5.2/110	3.5/140	4.3/120	2.7/130	C	C	C		
25									4.1/110	4.4/110	(4.1)/110	5.3/110			4.1/130	5.0/120	5.1/120	4.3/110	3.0/120	2.9/120	2.7/110			
26				(2.3)/100			(2.6)/110			3.3/120	4.2/130				3.9/110			3.7/130		4.3/120	2.9/110	2.7/110	(3.0)/110	6.0/110
27	2.7/110	1.2/110	(1.2)/120	(1.2)/130	2.3/120	C	C	C	4.2/120	3.7/100	4.0/110							4.0/130	(5.0)/110	4.4/110	(2.9)/110		(2.9)/110	
28		(2.4)/110	(2.4)/120	2.3/110			2.9/130	3.8/120	5.2/110		C	C	C	C	C	C	C	C	C	C	2.3/120	(2.9)/110		
29						2.4/120	2.8/110			4.0/110	4.0/110	3.9/110	4.1/110	4.0/110					3.4/120	3.8/110	2.9/110		2.4/110	2.5/110
30	2.4/110	2.4/110		2.2/100	1.4/120	3.0/120	(3.9)/110	5.0/120	4.5/110	C	C	(4.1)/110		5.0/110	3.8/120				(2.2)/130					
31							2.4/150	3.4/110	5.8/120	10.0/110	11.5/110	9.4/110	9.8/100		5.1/110	3.8/130	4.0/110	4.8/120	3.0/120	(5.1)/120	5.7/110	5.7/110	2.4/110	
Sum																								
Median	* *	* *	* *	* *	1.1	* *	2.2	3.0	3.8	3.8	3.9	4.0	3.9	3.9	4.0	3.8	3.8	3.6	3.9	3.0	2.9	2.6	2.5	* *	* *

* * Median fE_s less than median f°_E, or less than lower frequency limit of recorder.

TABLE 77

IONOSPHERE DATA - 9

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of F2-MI500 for MAY (Month) 1946

Records measured by: J.M.C. J.L.S.

TIME: 75° W MERIDIAN

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	1.8	(1.8)F	1.8F	1.8	1.8	2.0	2.0	(1.9)M	2.1	(1.8)	1.8	1.8	2.0	1.8	1.8	1.8	1.9	1.9	2.0	(1.9)	(1.9)	(1.9)	1.8	1.8
2	(1.8)J	1.8	1.8	1.7	1.7	1.9	2.1	2.2	2.2	2.0	2.0	1.9	1.8	1.9	1.9	1.9	C	1.9	2.0	2.0	(1.9)	(1.8)	(1.8)	1.7
3	1.8	1.8	1.8	1.8	1.8	1.9	2.0	2.0	1.9	1.9	1.7	1.8	1.9	1.8	1.8	1.8	1.8	1.9	1.9	1.9	(1.9)	(1.8)	(1.8)J	1.8
4	1.7	1.7	1.7	2.0J	1.8	1.8	1.9	(1.8)M	1.6	1.7	(1.5)	(1.6)	1.5	C	C	C	1.8	1.8	1.8	1.9	(1.9)	1.8	1.7	1.8
5	1.7	1.8	(1.9)F	(1.9)	1.8F	2.0F	2.2	2.1	2.0	1.9	1.9	1.8	1.9	1.9	1.8	1.9	1.8	1.8	1.9	2.0	C	(1.8)	1.8	1.7
6	(1.8)K	1.8K	(1.6)FK	(1.8)FK	1.5K	1.8K	1.6K	1.5K	GK	1.5K	(1.4)K	(1.3)K	1.6K	(1.7)K	(1.9)K	1.7K	1.8K	1.9K	1.9K	1.9K	1.8K	1.7K	1.7K	1.7K
7	(1.9)FK	(1.7)FK	(1.6)TK	(1.6)FK	(1.5)FK	(1.8)FK	GK	GK	GK	GK	GK	GK	(1.4)K	(1.3)K	CK	CK	1.7K	1.7K	(1.9)K	(2.1)K	(2.0)K	CK	(1.7)K	(2.0)K
8	(1.7)K	(2.0)K	(1.9)K	(1.6)JK	(1.8)FK	(1.8)JK	2.1FK	GK	GK	GK	GK	CK	GK	GK	(1.5)K	1.6K	1.6K	1.7K	1.8K	1.9K	1.8K	1.8K	1.8K	1.7K
9	(1.7)K	(1.7)FK	(1.7)FK	(1.8)FK	(1.7)FK	2.0K	2.0K	1.6K	1.6K	GK	(1.4)K	GK	GK	GK	(1.4)K	1.5K	1.6K	1.7K	1.9K	1.9K	(1.9)K	1.8K	1.8K	(1.8)K
10	(1.9)FK	(1.7)FK	(1.6)FK	(1.8)FK	(1.9)FK	2.0K	(2.0)K	GK	(1.5)K	1.7	(1.9)	(2.1)	1.9	1.8	2.0	2.0	1.9	2.0	2.0	2.1	1.8	(1.8)	(1.8)	1.7
11	1.7	1.8K	(1.7)K	(1.9)FK	(1.7)FK	(1.7)FK	1.8K	2.0K	2.3K	(2.3)K	(2.1)K	(1.6)K	1.7K	(1.6)K	1.8	1.8	1.9	1.9	2.0	1.9	1.8	(1.9)	(1.9)	1.9F
12	(1.8)F	(1.9)F	(1.8)F	(2.0)F	(2.0)F	1.9F	1.9	(1.6)	1.8	1.5	(1.5)F	(1.8)	(1.5)	C	(1.8)	1.9	1.9	A	C	2.0	1.8	1.8	1.7	1.7
13	1.7	1.9	(1.8)F	1.9F	(1.9)F	(2.0)F	2.1F	2.2	2.1	2.0	1.9	1.9	2.0	1.9	1.9	1.9	2.0	C	C	e	C	C	C	C
14	C	C	C	C	C	C	C	C	C	(1.7)	(1.7)	1.7	1.9	A	A	1.9	1.9	1.9	2.1	(2.1)	2.0	(2.1)	A	1.8
15	1.8	A	2.0F	2.0F	1.9F	(2.1)F	2.2	(2.1)	2.1	(1.9)	2.0	1.9	1.9	2.0	1.9	(1.9)	1.9	2.0	2.0	2.0	(2.1)	2.0	1.9	1.9
16	1.9	1.8	1.9	1.9	(1.9)	2.1	2.4	(2.0)M	1.9	(1.7)	1.6	(1.9)	(1.9)	1.8	1.7	1.8	C	C	2.1	(2.0)	(2.0)	(1.9)J	(1.8)J	1.8
17	1.8	1.8	1.9	1.9	1.7	2.2	2.2	(1.8)	1.7	(1.8)	(1.6	1.8	(1.7)	(1.8)	(1.8)	(2.1)	1.8	1.7	1.8	(2.0)	(1.9)	1.9	1.7	1.7
18	1.7	(2.0)	(1.9)	(2.0)	1.7	2.0	2.1	1.5	(2.1)	(1.9)	G	(1.9)	(1.8)	(1.8)	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	C	C	C	C	1.9	(2.0)	(2.1)	1.9	1.9	2.0	(1.9)	1.9	(2.0)	(1.8)	(1.8)J
20	1.9	(1.8)	1.9	1.8	(1.7)	2.0	(2.1)	(2.5)	2.0	2.0	(2.1)	1.8	1.9	1.9	1.9	(1.8)	1.8	1.8K	1.7K	(2.0)JK	CK	(2.1)K	(1.8)K	1.8K
21	2.0K	1.8K	1.7K	1.7FK	(1.8)FK	(1.9)FK	(1.6)K	(1.8)FK	GK	(1.4)K	1.5K	1.4K	1.5K	1.5	(1.7)	1.7	1.6	1.6	2.0	1.9	(1.8)	(1.8)J	(1.8)K	(1.7)JK
22	(1.6)K	(1.6)FK	(1.8)FK	1.8FK	(1.8)FK	1.9FK	2.0K	(1.5)K	1.4K	(1.5)K	(1.9)JK	(1.5)K	CK	CK	(1.8)K	1.6K	1.8K	1.8K	1.8K	1.9K	1.8K	1.7K	(1.6)	1.8
23	1.8F	1.8F	1.9F	1.8F	(1.8)F	(2.0)	(1.7)	1.5	(1.9)	C	1.7	(2.0)	(1.8)J	1.6	1.8	1.8	1.8	1.9	1.9	(1.8)	(1.9)	(1.8)	1.8	1.7
24	1.7F	1.8	(1.8)F	(1.9)F	(2.0)F	(2.2)F	2.1	(1.8)F	1.4	1.7	1.5	(1.8)	A	A	1.8	1.7	1.9	1.8	1.8	(1.8)	C	C	(1.9)	(1.8)
25	(1.7)	1.8	1.7	1.8	1.8	1.8	1.9	1.6	1.6	(1.6)	(1.7)	(1.8)	(1.7)	1.7	1.8	1.8	1.8	1.9	1.8	1.9	1.9	1.9	(1.8)J	(1.8)
26	(2.0)	1.8	1.8	1.8	1.9	1.9	1.8	1.8	(1.8)	1.9	1.7	(1.7)	(1.8)J	(1.8)	1.6	1.7	1.8	1.8	1.9	1.8	2.0	2.0	(1.8)	1.8
27	C	(1.9)	1.9	1.8	2.0F	C	C	C	C	C	(1.8)	1.6	1.7	(1.7)	1.7	(1.7)	1.8	1.8	1.9	(2.0)	(2.0)	(1.9)	(1.7)	1.7
28	1.7	(1.7)J	1.7	1.8	C	1.8	2.0	(1.9)J	1.9	1.8	1.9	1.7	(1.7)	(1.8)	C	C	C	C	C	C	C	C	1.8	1.8
29	(1.9)	1.7	1.7	1.7	1.8	1.9	2.1	2.0	1.9	1.8	(1.7)	1.8	(1.8)	1.7	1.7	(1.8)	1.7	1.8	1.9	1.9	1.9	(2.0)	1.9	(1.8)
30	(1.8)	(1.8)	(1.9)F	(1.9)F	(1.9)F	(2.1)F	(2.0)	2.0	1.8	C	C	(1.7)	(1.6)	1.7	1.7	1.8	1.8	1.8	1.9	(1.9)	1.9	1.9	(1.9)	1.8
31	(1.7)	1.8	1.7	1.8	1.8	1.7H	1.8	(1.6)	1.7	A	A	1.7	(1.6)	1.7	1.8	1.8	1.8	1.9	1.9	2.0	1.8	1.8	1.7	1.8
Sum																								
Median	1.8	1.8	1.8	1.8	1.8	1.9	2.0	1.9	1.8	1.8	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	1.9	(1.8)	(1.8)	1.8

TABLE 78

IONOSPHERE DATA- 10

Washington, D. C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of F2-M3000 for MAY (Month) 1946

Records measured by: J. M. C., J. L. S.

TIME: 75° W MERIDIAN

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	2.7	(2.8)^{F}	2.8^{F}	2.8	2.8	3.0	3.0	(2.8)^{H}	3.1	(2.8)	2.8	2.8	3.0	2.8	2.7	2.8	2.8	2.9	3.0	(2.9)	(2.9)	(2.8)	2.7	2.7
2	(2.8)^{J}	2.7	2.7	2.6	2.7	2.9	3.1	3.2	3.2	3.0	2.9	2.8	2.8	2.9	2.9	2.8	C	2.9	3.0	3.0	(2.9)	(2.8)	(2.8)	2.7
3	2.8	2.7	2.8	2.7	2.8	2.8	2.9	3.0	2.9	2.9	2.7	2.8	2.8	2.7	2.8	2.7	2.8	2.8	2.8	2.9	(2.8)	(2.8)	(2.8)^{J}	2.8
4	2.6	2.6	2.7	2.9^{J}	2.7	2.8	2.8	(2.7)^{H}	2.5	2.6	(2.3)	(2.5)	2.3	C	C	C	2.7	2.8	2.8	2.9	(2.9)	2.8	2.6	2.7
5	2.7	2.8	(2.8)^{F}	(2.9)	2.8^{F}	3.0^{F}	3.2	3.1	3.0	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.9	C	(2.8)	2.8	2.6
6	(2.7)^{K}	2.7^{K}	(2.5)$^{F}_{K}$	(2.7)$^{F}_{K}$	2.3^{K}	2.7^{K}	2.5^{K}	2.3^{K}	G^{K}	2.3^{K}	(2.1)^{K}	(2.0)^{K}	2.4^{K}	(2.5)^{K}	(2.8)^{K}	2.6^{K}	2.7^{K}	2.8^{K}	2.9^{K}	2.9^{K}	2.7^{K}	2.7^{K}	2.6^{K}	2.7^{K}
7	(2.9)$^{F}_{K}$	(2.6)$^{F}_{K}$	(2.5)$^{J}_{K}$	(2.5)$^{F}_{K}$	(2.2)$^{F}_{K}$	(2.7)$^{F}_{K}$	G^{K}	G^{K}	G^{K}	G^{K}	G^{K}	G^{K}	(2.1)^{K}	(2.0)^{K}	C^{K}	C^{K}	2.6^{K}	2.6^{K}	(2.9)^{K}	(3.1)^{K}	(3.0)^{K}	C^{K}	(2.6)^{K}	(3.0)^{K}
8	(2.6)^{K}	(3.0)^{K}	(2.9)$^{F}_{K}$	(2.5)$^{J}_{K}$	(2.8)$^{F}_{K}$	(2.8)$^{J}_{K}$	3.1$^{F}_{K}$	G^{K}	G^{K}	G^{K}	G^{K}	C^{K}	G^{K}	G^{K}	(2.2)^{K}	2.4^{K}	2.5^{K}	2.6^{K}	2.7^{K}	2.9^{K}	2.8^{K}	2.7^{K}	2.8^{K}	2.6^{K}
9	(2.7)^{K}	(2.6)$^{F}_{K}$	(2.6)$^{F}_{K}$	(2.8)$^{F}_{K}$	(2.6)$^{F}_{K}$	3.0^{K}	3.0^{K}	2.5^{K}	2.5^{K}	G^{K}	(2.1)^{K}	G^{K}	G^{K}	G^{K}	(2.1)^{K}	2.3^{K}	2.5^{K}	2.6^{K}	2.9^{K}	2.9^{K}	(2.9)^{K}	2.8^{K}	2.7^{K}	(2.7)^{K}
10	(2.9)$^{F}_{K}$	(2.7)$^{F}_{K}$	(2.5)$^{F}_{K}$	(2.7)$^{F}_{K}$	(2.9)$^{F}_{K}$	2.9^{K}	(3.0)^{K}	G^{K}	(2.4)^{K}	2.6	(2.8)	(3.1)	2.8	2.8	2.9	3.0	2.9	3.0	3.0	3.1	2.7	(2.8)	(2.7)	2.6
11	2.7	2.7^{K}	(2.6)^{K}	(2.9)$^{F}_{K}$	(2.6)$^{F}_{K}$	(2.6)$^{F}_{K}$	2.7^{K}	3.0^{K}	3.4^{K}	(3.3)^{K}	(3.1)^{K}	(2.5)^{K}	2.6^{K}	(2.5)^{K}	2.7	2.7	2.9	2.9	3.0	2.9	2.7	(2.8)	(2.8)	2.8^{F}
12	(2.8)^{F}	(2.8)^{F}	(2.8)^{F}	(3.0)^{F}	(2.9)^{F}	2.9^{F}	2.9	(2.5)	2.8	2.3	(2.3)^{F}	(2.7)	(2.4)	C	(2.7)	2.9	2.8	A	C	3.0	2.8	2.8	2.7	2.7
13	2.7	2.9	(2.8)^{F}	2.9^{F}	(2.9)^{F}	(3.0)^{F}	3.1^{F}	3.2	3.1	3.0	2.8	2.9	3.0	2.8	2.8	2.9	3.0	C	C	C	C	C	C	C
14	C	C	C	C	C	C	C	C	C	(2.7)	(2.7)	2.7	2.9	A	A	2.8	2.8	2.9	3.1	(3.1)	3.0	(3.1)	A	2.8
15	2.7	A	3.0^{F}	3.0^{F}	2.9^{F}	(3.1)^{F}	3.2	(3.1)	3.1	(2.9)	3.0	2.8	2.9	3.0	2.9	(2.9)	2.8	2.9	3.0	2.9	(3.1)	3.0	2.9	2.9
16	2.8	2.7	2.7	2.9	(2.9)	3.1	3.4	(3.0)^{H}	2.9	(2.7)	2.4	(2.9)	(2.9)	2.7	2.7	2.7	C	C	3.1	(2.9)	(3.0)	(2.9)^{J}	(2.7)^{J}	2.7
17	2.8	2.7	2.7	2.9	2.6	3.2	3.2	(2.8)	2.7	(2.8)	(2.5)	2.8	(2.6)	(2.7)	(2.8)	(3.1)	2.8	2.7	2.8	(3.0)	(2.8)	2.8	2.6	2.7
18	2.7	(3.0)	(2.9)	(3.0)	2.7	3.0	3.1	2.3	(3.1)	(2.9)	G	(2.7)	(2.7)	(2.8)	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	C	C	C	C	2.9	(3.0)	(3.1)	2.9	2.9	3.0	(2.9)	2.9	(2.9)	(2.7)	(2.8)^{J}
20	2.9	(2.8)	2.8	2.7	(2.7)	3.0	(3.1)	(3.5)	3.0	3.0	(3.1)	2.8	2.9	2.9	2.9	(2.8)	2.8	2.7^{K}	2.6^{K}	(3.0)$^{J}_{K}$	C^{K}	(3.1)^{K}	(2.7)^{K}	2.8^{K}
21	3.0^{K}	2.7^{K}	2.6^{K}	2.6$^{F}_{K}$	(2.7)$^{F}_{K}$	(2.8)$^{F}_{K}$	(2.4)^{K}	(2.7)$^{F}_{K}$	G^{K}	(2.2)^{K}	2.3^{K}	2.2^{K}	2.4^{K}	2.3	(2.9)	2.6	2.5	2.5	3.0	2.9	(2.8)	(2.7)^{J}	(2.7)^{K}	(2.7)$^{J}_{K}$
22	(2.4)^{K}	(2.5)$^{F}_{K}$	(2.8)$^{F}_{K}$	2.7$^{F}_{K}$	(2.7)$^{F}_{K}$	2.9$^{F}_{K}$	2.9^{K}	(2.3)^{K}	2.2^{K}	(2.3)^{K}	(2.9)$^{J}_{K}$	(2.3)^{K}	C^{K}	C^{K}	(2.7)^{K}	2.4^{K}	2.7	2.8	2.8	2.8	2.8	2.6	(2.5)	2.7
23	2.8^{F}	2.8^{F}	2.9^{F}	2.7^{F}	(2.7)^{F}	(3.0)	(2.7)	2.3	(2.8)	C	2.6	(3.0)	(2.7)^{J}	2.5	2.7	2.7	2.8	2.9	2.8	(2.8)	(2.9)	(2.8)	2.7	2.6
24	2.6^{F}	2.7	(2.7)^{F}	(2.9)^{F}	(3.0)^{F}	(3.2)^{F}	3.1	(2.7)^{F}	2.1	2.6	2.4	(2.8)	A	A	2.7	2.7	2.8	2.7	2.7	(2.8)	C	C	(2.9)	(2.7)
25	(2.7)	2.7	2.6	2.7	2.8	2.7	2.9	2.5	2.6	(2.4)	(2.6)	(2.8)	(2.6)	2.7	2.7	2.8	2.8	2.9	2.8	2.9	2.9	2.9	(2.7)^{J}	(2.8)
26	(2.9)	2.8	2.8	2.8	2.9	2.9	2.8	2.7	(2.8)	2.8	2.6	(2.6)	(2.7)^{J}	(2.7)	2.5	2.6	2.7	2.7	2.8	2.8	3.0	3.0	(2.8)	2.7
27	C	(2.9)	2.9	2.8	3.0^{F}	C	C	C	C	C	(2.7)	2.5	2.6	2.6	2.6	(2.6)	2.7	2.8	2.8	(2.9)	(3.0)	(2.8)	(2.7)	2.7
28	2.7	(2.7)^{J}	2.6	2.7	C	2.8	2.9	(2.9)^{J}	2.8	2.8	2.8	2.7	(2.6)	(2.8)	C	C	C	C	C	C	C	C	2.8	2.8
29	(2.9)	2.7	2.7	2.7	2.7	2.9	3.1	3.0	2.8	(2.7)	(2.6)	2.7	(2.7)	2.6	2.7	(2.8)	2.7	2.8	2.8	2.8	2.8	(3.0)	2.9	(2.7)
30	(2.7)	(2.8)	(2.8)^{F}	(2.9)^{F}	(2.8)^{F}	(3.1)^{F}	(3.0)	3.0	2.8	C	C	(2.6)	(2.5)	2.6	2.7	2.7	2.7	2.7	2.9	(2.9)	2.9	2.8	(2.9)	2.7
31	(2.6)	2.7	2.6	2.7	2.8	2.6^{H}	2.8	(2.5)	2.6	A	A	2.6	(2.5)	2.7	2.7	2.8	2.8	2.8	2.9	2.9	2.8	2.8	2.7	2.7
Sum																								
Median	2.7	2.7	2.8	2.8	2.8	2.9	3.0	2.7	2.8	2.7	2.6	2.7	2.6	2.7	2.7	2.8	2.8	2.8	2.9	2.9	2.9	(2.8)	(2.7)	2.7

TABLE 79

IONOSPHERE DATA- II

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of E-MI500 for MAY (Month) 1946

Records measured by: J.M.C. J.L.S.

TIME: 75° W MERIDIAN

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							(4.5)	(4.4)	A	A	A	(4.4)	A	(4.2)	(4.2)	(4.1)	(4.2)	(4.2)	(4.3)^{H}					
2						C	4.2	4.2	A	C	C	B	(4.5)	C	C	(4.3)	C	(4.2)	A	A				
3						A	A	(4.2)	A	A	A	A	A	A	A	(4.3)	C	C	A					
4							A	4.3	(4.2)	4.3	B	(4.4)	A	C	C	C	4.2	4.1	A	A				
5							A	(4.3)	(4.3)	(4.2)	(4.3)	(4.3)	(4.2)	A	(4.3)	C	C	4.2	A					
6						K	(4.5)^{K}	(4.4)^{K}	C^{K}	C^{K}	B^{K}	(4.3)^{K}	(4.1)^{K}	(4.2)^{K}	(4.1)^{K}	C^{K}	(4.1)^{K}	4.2^{K}	4.3^{K}	A^{K}				
7						K	4.0^{K}	(4.5)^{K}	(4.4)^{K}	A^{K}	A^{K}	A^{K}	(4.9)^{K}	(4.3)^{K}	C^{K}	C^{K}	(4.1)^{K}	(4.1)^{K}	(4.0)^{K}	C^{K}				
8						K	(4.3)^{K}	C^{K}	C^{K}	A^{K}	A^{K}	C^{K}	C^{K}	(4.3)^{K}	C^{K}	C^{K}	C^{K}	4.2^{K}	(4.2)^{K}	A^{K}				
9						(4.4)^{K}	(4.3)^{K}	(4.2)^{K}	(4.3)^{K}	C^{K}	C^{K}	A^{K}	B^{K}	A^{K}	C^{K}	C^{K}	4.2^{K}	4.2^{K}	(4.2)^{K}	(4.3)^{K}				
10						4.2^{K}	(4.3)^{K}	(4.4)^{K}	C^{K}	C	A	A	(4.6	(4.3)	(4.3)	C	(4.0)	A	A					
11						K	(4.3)^{K}	4.3^{K}	(4.2)^{K}	A^{K}	A^{K}	B^{K}	(4.3)^{K}	C^{K}	(4.2)	A	(4.3)	(4.3)	4.2	A				
12						(4.1)	4.2	(4.4)	A	A	A	A	(4.3)	A	C	(4.2)	C	(4.4)	C	A				
13							(4.0)^{H}	(4.0)^{H}	(4.2)	A	A	C	A	C	(4.1)	(4.2)	(4.2)	C	C					
14							C	C	C	(4.3)	(4.3)	C	A	A	A	A	4.1	(4.5)	A	A				
15							A	(4.2)	A	A	A	A	A	A	A	A	A	4.3	(4.1)					
16							(3.9)	4.1	C	(4.4)	A	A	(4.4)	A	(4.4)	(4.1)	C	C	4.1					
17						(4.3)	(4.3)^{H}	(4.5)	(4.5)	(4.4)	A	B	(4.3)	A	(4.3)	A	A	(4.3)^{H}	(4.3)					
18							(4.1)	(4.5)	C	(4.2)	C	A	B	(4.5)	C	C	C	C	C					
19							C	C	C	C	C	C	C	(4.4)	(4.2)	(4.2)	4.0	A	4.3					
20							(4.2)	4.5	(4.2)	(4.2)	C	(4.5)	4.2	(4.2)	(4.3)	4.2	4.2	(4.5)^{K}	4.0^{K}	3.8^{K}	K	K	K	K	K
21	C^{K}	C^{K}	K	K	K	(3.7)^{K}	(4.1)^{K}	4.2^{K}	(4.3)^{K}	C^{K}	A^{K}	(4.5)^{K}	(4.3)^{K}	C	4.1	C	(4.2)	4.3	4.2					
22						A^{K}	(4.4)^{K}	A^{K}	(4.5)^{K}	C^{K}	C^{K}	(4.5)^{K}	C^{K}	C^{K}	4.5^{K}	(4.5)^{K}	C	4.4	(4.3)					
23						4.4	A	(4.5)	A	A	(4.6)	A	(4.3)	4.2	(4.2)	(4.4)	(4.4)	(4.3)	4.2	(4.3)^{H}				
24						C	4.3	4.4	A	A	A	A	A	A	C	A	(4.2)	(4.3)	(4.2)					
25						(4.4)	(4.4)	C	(4.5)	A	(4.6)	A	(4.5)	(4.4)	C	(4.3)	(4.3)	(4.3)	4.3	A				
26						(4.5)	A	C	(4.4)	(4.2)	C	(4.5)	C	C	(4.5)	(4.3)	C	(4.1)^{H}	C	4.3	(4.3)			
27						C	C	C	C	C	A	(4.3)	C	C	C	C	C	C	4.2					
28						(3.7)	4.2^{H}	4.3	4.4	4.4^{H}	C	C	C	C	C	C	C	C	C	C				
29						4.1	A	(4.2)	C	C	A	A	A	A	(4.2)	4.0	4.2	(4.2)	4.3	A				
30						A	(4.3)	A	A	C	C	4.3	C.	A	(4.3)	(4.3)	C	(4.1)	(4.1)	(4.2)				
31							(4.1)	(4.2)	(4.2)	A	A	A	-	B	A	4.2	A	4.3	(4.2)	A				
Sum																								
Median						(4.2)	(4.3)	(4.3)	(4.3)	(4.3)	A	(4.4)	(4.3)	(4.3)	(4.2)	(4.2)	(4.2)	(4.3)	4.2	(4.3)				

TABLE 80

IONOSPHERE DATA- 12

Washington, D.C. _____ Ionosphere Station
(Location)

National Bureau of Standards
(Institution)

Hourly values of F1-M3000 for MAY (Month) 1946

Records measured by: J.M.C.
J.L.S.

TIME: 75° W MERIDIAN

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							L	L	3.5	(3.7)	3.7	3.8	3.6	(3.4)H	3.6	(3.4)H	3.5	L	L					
2								(3.6)	3.5	3.4	3.6	(3.6)	C	(3.4)	C	L	C	L	L					
3								(3.4)	(3.5)	3.5	3.6	(3.6)	(3.5)	3.5	3.4	3.4	3.3	L	L					
4							L	L	4.3	3.8	3.5	(3.8)	A	C	C	C	3.2	3.3	L					
5								A	(3.7)	L	3.4	(3.3)	(3.4)	3.5	3.7	L	(3.5)	L						
6							3.0K	3.3K	3.6K	3.7K	3.5K	3.3K	3.6K	3.5K	3.5K	3.4K	3.3K	L K	L K	K				
7							3.2FK	3.6K	3.5K	3.6K	3.5HK	(3.7)K	3.7K	(3.6)HK	CK	CK	3.2K	3.2K	L K	K				
8							K	3.4K	3.6K	3.8K	(3.9)HK	CK	3.7K	3.9K	(3.5)K	3.3K	3.4K	3.3K	(3.2)K	K				
9							K	3.3K	3.6K	3.8K	3.6K	3.9K	3.6K	3.6K	3.6K	3.6K	3.6K	3.4K	(3.2)K	K				
10							L K	3.5K	(3.6)HK	3.9	(3.7)	3.8	3.8H	3.6	3.6	3.5	3.5	(3.5)	L					
11							K	3.4K	(3.7)HK	(4.1)K	(4.0)HK	3.7K	3.7K	3.5K	3.6	3.4	3.4	3.4	L					
12							L	3.4	3.5	3.6	3.7	3.6	3.6	C	3.5	3.7	A	A	C					
13								L	(3.7)	3.6	(3.8)	(3.6)H	(3.5)	3.6	3.7	(3.5)	A	C	C					
14							C	C	C	(3.5)	(3.7)	3.7	3.7	A	A	A	3.3	A	L					
15							L	L	(3.4)	(3.7)	3.7	(3.7)H	A	(3.8)H	3.6	(3.6)	3.4H	A	L					
16							L	3.6	3.7	3.6	3.6	3.7	3.8H	3.7	3.4	3.3	C	C	A					
17							L	A	A	(3.4)	(3.4)H	3.4	3.6	3.6	3.4	A	3.5	(3.4)	L					
18							(3.6)	3.0	3.5	(3.8)	(3.6)	(3.7)	3.7	(3.6)	C	C	C	C	C					
19							C	C	C	C	C	C	C	3.4	(3.6)H	(3.3)	(3.4)	3.4	L					
20							L	A	(3.7)	(3.5)H	4.0	(3.8)H	3.7H	(4.0)	(3.6)	3.5	(3.5)	3.3K	L K	K				
21							(3.2)K	3.5K	3.5K	3.9K	4.1K	4.0K	3.7K	3.4	3.6	3.4	3.4	3.3	L					
22							K	3.4K	3.4K	3.5K	3.7K	(3.3)K	3.5K	CK	3.4K	3.4K	3.3	3.3	3.4					
23								(3.5)	A	(3.6)	3.7	3.7	3.8	3.4	3.4	3.3	3.5	3.5	L					
24								(3.4)	(3.7)	3.7	(3.7)	3.5	A	A	3.3	3.4	3.6	(3.3)H	(3.3)					
25							(3.3)	(3.3)	3.6	(3.7)H	(3.8)H	(4.1)	(3.9)H	(3.7)H	3.5H	(3.5)	(3.5)	(3.5)	L					
26							(3.4)	(3.3)	3.6	3.3	3.7	3.5	3.5	3.8	3.8	3.5	3.6	3.5	3.4	L				
27							C	C	C	C	3.6	3.8	3.7	3.6	C	C	(3.2)	(3.3)	LA					
28							3.3	3.5	3.6	(3.6)H	C	C	C	C	C	C	C	C	C					
29							L	3.5	3.5	3.7	3.8	3.6	3.6	3.7	3.6	3.4	3.3	3.3	L					
30							(3.7)	3.5	3.5	C	C	3.7	3.7	3.7H	(3.7)H	(3.4)	3.4	3.5	L					
31							LH	3.6	A	A	A	A	3.5	3.4	3.5	3.5	3.4	3.4	L					
Sum																								
Median							(3.3)	3.4	3.6	3.6	3.7	3.7	3.7	3.6	3.6	3.4	3.4	3.4	(3.3)					

Table 81

Ionospheric Storminess, May 1946

Day	Ionospheric Character* 00-12 GCT	12-24 GCT	Principal Storms Beginning GCT	End GCT	Geomagnetic Character** 00-12 GCT	12-24 GCT
May						
1	2	3			1	2
2	1	3			2	1
3	1	1			1	1
4	1	3			2	1
5	2	3			1	2
6	4	5	0500	----/	4	3
7	5	6	----	----	4	2
8	4	5	----	----	4	3
9	4	5	----	----	4	4
10	4	3	----	1400	3	3
11	2	4	0600	1900	4	3
12	1	3			2	2
13	1	3			2	1
14	***	3			1	1
15	2	1			1	1
16	2	2			2	2
17	1	2			2	2
18	1	2			3	2
19	***	3			1	0
20	2	3	2200	----	1	3
21	4	4	----	1800	4	3
22	4	4	0300	2100	4	3
23	2	1			3	4
24	3	1			3	3
25	2	3			3	2
26	1	3			2	2
27	1	0			1	1
28	2	2			2	2
29	1	1			2	1
30	1	2			1	2
31	2	3			3	2

*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 American magnetic K-figure, determined by a number of observatories, on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

/Dashes indicate continuing storm.

***No readable record.

Table 82

Sudden Ionosphere Disturbances Observed at Washington, D.C.

Day	GCT Beginning	GCT End	Location of transmitters	Relative intensity at minimum*
May 2	1124	1215	England	0.0
2	1758	1940	Ohio, D.C., England, Trinidad, Gold Coast	0.0
3	2120	2220	Ohio, D.C., England, Mexico, Trinidad, Hawaii, Chile	0.0
7	1150	1212	England	0.0
7	1911	1945	Ohio, D.C., Trinidad, Gold Coast	0.05
8	1254	1340	Ohio, D.C.	0.0
11	2214	2240	Ohio, D.C., Mexico, Hawaii, Gold Coast	0.1
13	1522	1550	England	0.1
17	1424	1440	Ohio, D.C., England, Mexico, Trinidad, Chile, Gold Coast	0.1
23	1430	1454	England	0.05
	1501	1519	England	0.1
	1527	1610	England	0.1

*Ratio of received field intensity during SID to average field intensity before and after, for station W8XAL, 6080 kilocycles, 600 kilometers distant, for all SID except the first on May 2, the first on May 7, and on May 13 and 23. Station GLH, 13525 kilocycles, received in New York, 5340 kilometers distant, was used for these SID.

Table 83

Sudden Ionosphere Disturbances Reported by Engineer-in-Chief

Cable and Wireless, Ltd.

Day	GCT Beginning	GCT End	Receiving Station	Locations of transmitters
May				
2	1125	1220	Brentwood, England	Austria, Belgian Congo, Brazil, Bulgaria, Canary Islands, Chile, Curacao, Greece, India, Iran, Kenya, Mozambique, Netherlands Guiana, Palestine, Portugal, Southern Rhodesia, Spain, Switzerland, Syria, Thailand, Turkey, U.S.S.R., Yugoslavia, Zanzibar
2	1125	1150	Somerton, England	Argentina, Ascension Island, Barbados, Canada, China, Egypt, Gold Coast, India, Japan, New York, Union of South Africa
2	1810	1920	Somerton, England	Argentina, Barbados, Canada, Egypt, New York
3	0620	0735	Brentwood, England	Austria, Bulgaria, French Equatorial Africa, Greece, India, Iran, Kenya, Madagascar, Mozambique, Southern Rhodesia, Switzerland,
5	0610	0820	Brentwood, England	Bulgaria, Falkland Islands, Greece, India, Iran, Kenya, Madagascar, Mozambique, Syria, U.S.S.R.
6	0610	0625	Brentwood, England	Bulgaria, Greece, India, Iran, Kenya, Southern Rhodesia, Switzerland, Syria, U.S.S.R.

Table 83 (continued)

Day	GCT Beginning	GCT End	Receiving Station	Locations of transmitters
May				
7	1135	1230	Brentwood, England	Belgian Congo, Brazil, Bulgaria, Chile, Colombia, Curacao, Greece, India, Kenya, Malta, Mozambique, Netherlands Guiana, Southern Rhodesia, Spain, Switzerland, Turkey, U.S.S.R., Yugoslavia, Zanzibar
7	1155	1215	Somerton, England	Argentina, Barbados, Canada, Egypt, New York, Union of South Africa

Table 84

Provisional Radio Propagation Quality Figures

April 1946

Compared with IRPL Warnings and IRPL Probable Disturbed Period Forecasts

Day	North Atlantic							North Pacific						
	Quality Figure		IRPL* Warning		IRPL** Probable Disturbed Period Forecast	Geomagnetic K_A		Quality Figure		IRPL* Warning		IRPL** Probable Disturbed Period Forecast	Geomagnetic K_A	
	01-12 GCT	13-24 GCT	01-12 GCT	13-24 GCT		01-12 GCT	13-24 GCT	01-12 GCT	13-24 GCT	01-12 GCT	13-24 GCT		01-12 GCT	13-24 GCT
1	5	6				3	2	5	6				3	2
2	5	5	X	X	X	3	3	6	6	X	X	X	3	3
3	5	6	X		X	1	2	5	6	X		X	1	2
4	6	6				1	1	6	(4)				1	1
5	6	6			X	1	2	6	6			X	1	2
6	6	6	X		X	2	2	7	5	X		X	2	2
7	6	7			X	3	2	7	6			X	3	2
8	5	7				2	2	7	6				2	2
9	5	6		X		3	4	6	5		X		3	4
10	5	6	X			2	1	6	6	X			2	1
11	5	7				1	1	7	7				1	1
12	6	6				1	3	7	6				1	3
13	5	6				3	3	7	6				3	3
14	5	6			X	2	3	5	7			X	2	3
15	(4)	5	X	X	X	5	4	6	(4)	X	X	X	5	4
16	5	6	X		X	2	2	5	5	X		X	2	2
17	6	7				2	1	7	7				2	1
18	5	6				2	2	7	6				2	2
19	6	7			X	1	1	8	7			X	1	1
20	6	7				1	1	7	7				1	1
21	6	7				0	1	8	6				0	1
22	6	7			X	2	3	6	6			X	2	3
23	(4)	(3)		X	X	4	6	6	(3)		X	X	4	6
24	(2)	(3)	X	X	X	6	4	5	(4)	X	X	X	6	4
25	(4)	5	X	X	X	3	0	6	6	X	X	X	3	0
26	6	6	X			1	2	7	5	X			1	2
27	6	7				2	0	6	6				2	0
28	6	6			X	1	3	7	6			X	1	3
29	5	6			X	2	2	6	5			X	2	2
30	6	7			X	1	1	7	5			X	1	1
Score:														
H			4		4					3		3		
M			0		0					1		1		
G			19		14					18		13		
(S)			4		5					3		6		
S			3		7					5		7		

Quality Figure Scale:

1 = Useless
2 = Very poor
3 = Poor
4 = Poor to fair
5 = Fair
6 = Fair to good
7 = Good
8 = Very good
9 = Excellent

Symbols

X = Warning given or probable disturbed date.
H = Quality 4 or worse on day or half day of warning.
M = Quality 4 or worse on day or half day of no warning.
G = Quality 5 or better on day of no warning.
(S) = Quality 5 on day of warning.
S = Quality 6 or better on day of warning.
( ) = Quality 4 or worse (disturbed).

Geomagnetic K_A on the standard scale of 0 to 9, 9 representing the greatest disturbance.

* Broadcast on WWV, Washington, D.C. Times of warnings recorded to nearest half-day as broadcast.

** In addition to dates marked X, the following were designated as probable disturbed days on forecasts more than eight days in advance of said dates:

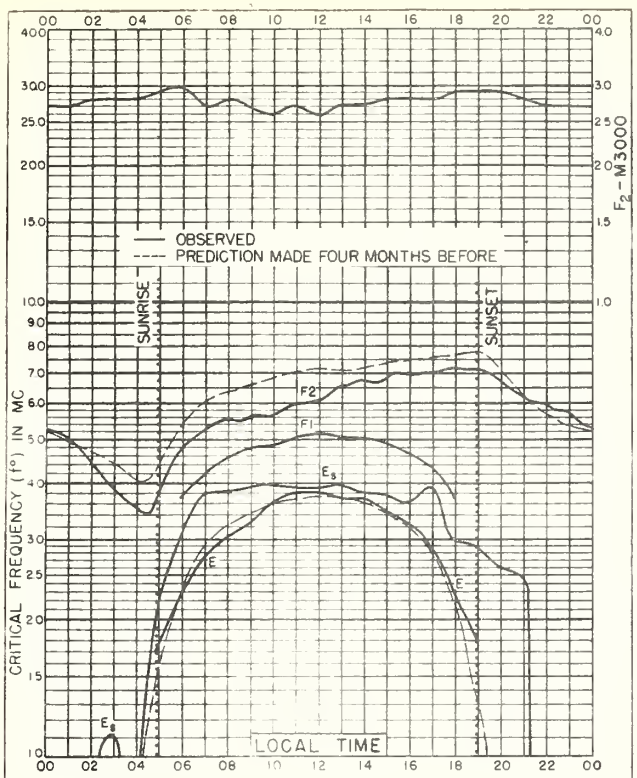


Fig. 1. WASHINGTON, D.C.
39.0°N, 77.5° W MAY, 1946

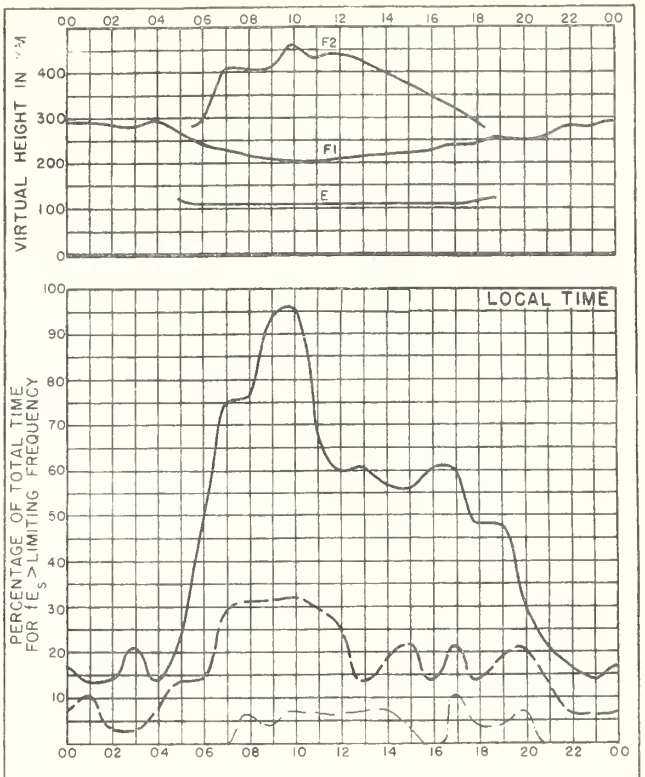


Fig. 2. WASHINGTON, D.C. MAY, 1946

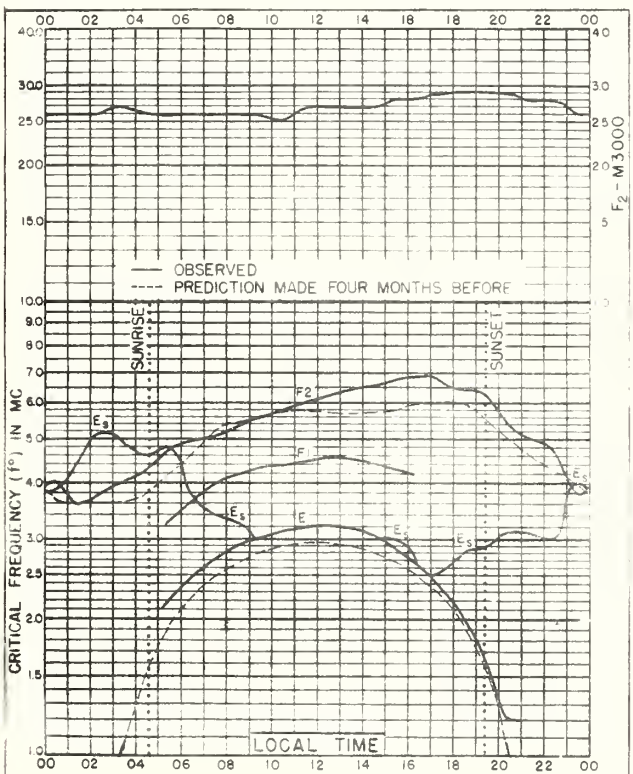


Fig. 3. FAIRBANKS, ALASKA
64.9°N, 147.8°W APRIL, 1946

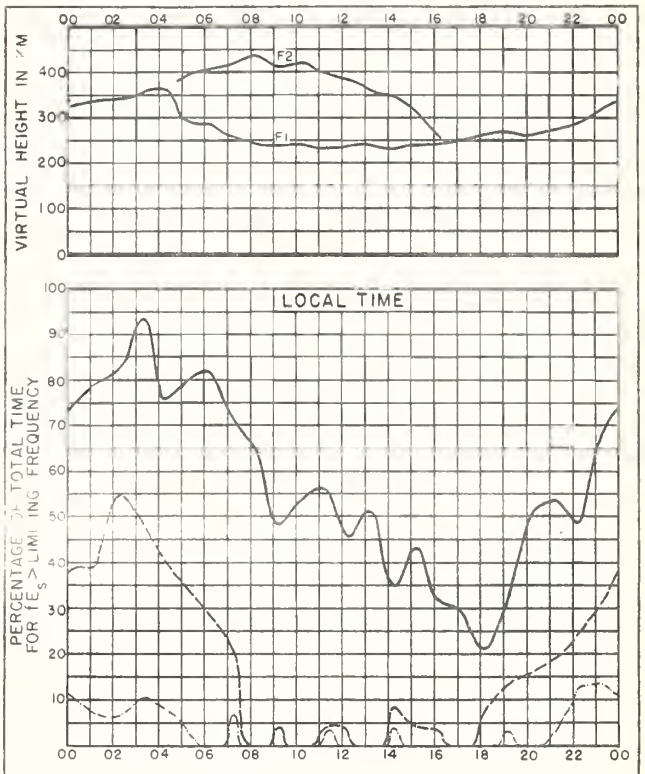


Fig. 4. FAIRBANKS, ALASKA APRIL, 1946

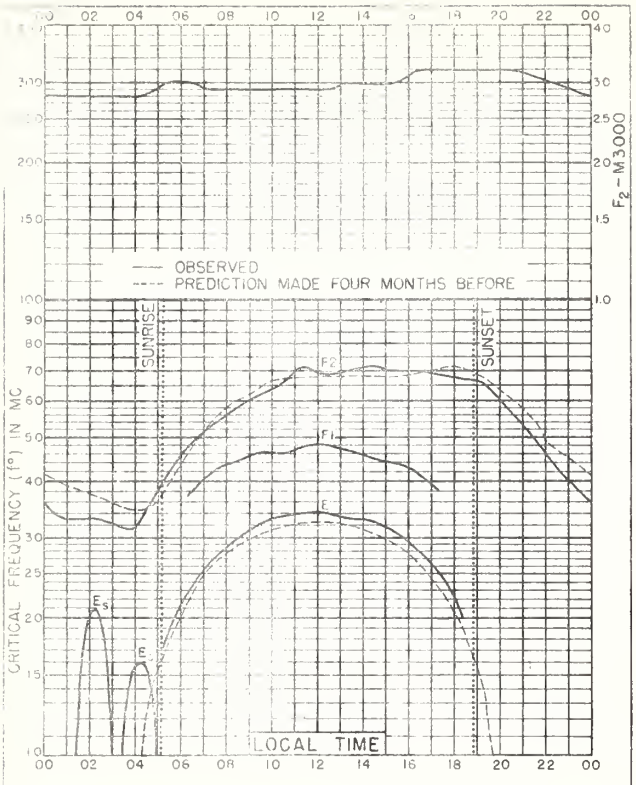


Fig. 5. PRINCE RUPERT, CANADA
54.3°N, 130.3°W APRIL, 1946

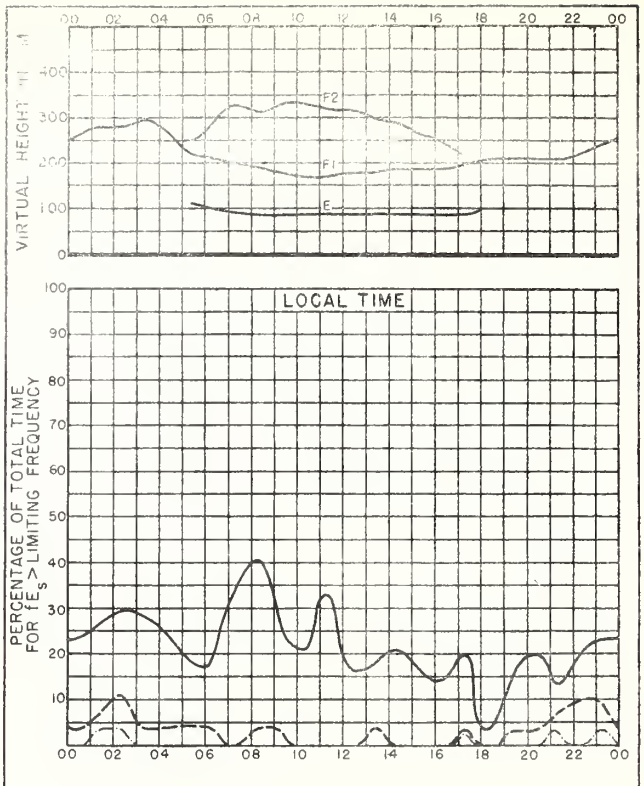


Fig. 6. PRINCE RUPERT, CANADA APRIL, 1946

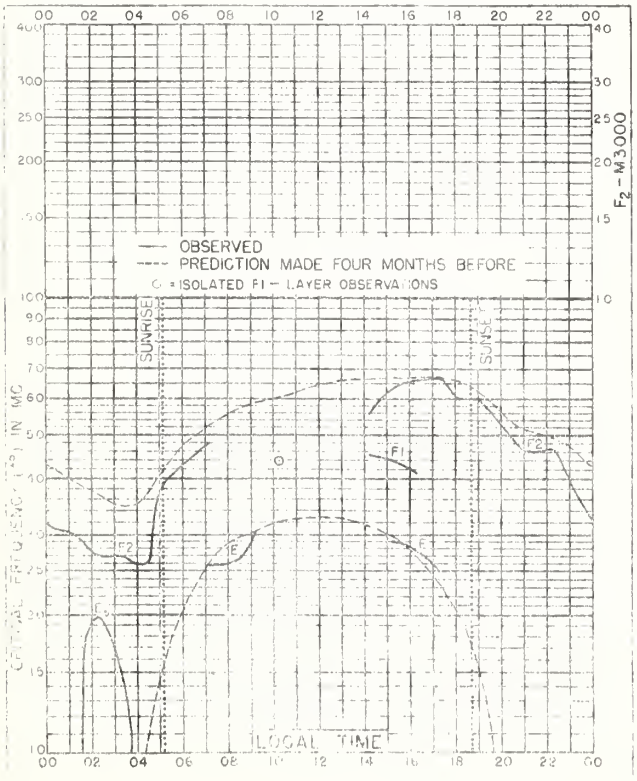


Fig. 7. SWAN RIVER, MANITOBA
52.1°N, 101.25°W APRIL, 1946

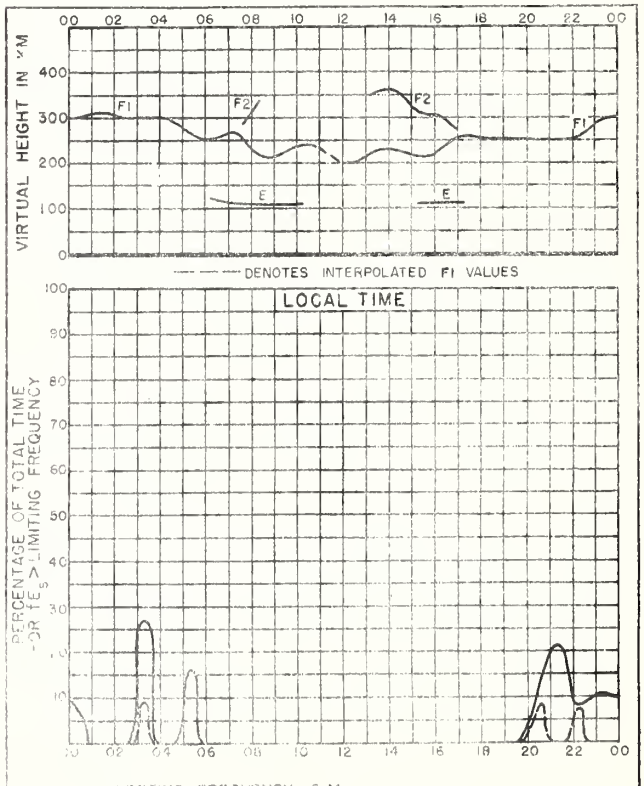


Fig. 8. SWAN RIVER, MANITOBA APRIL, 1946

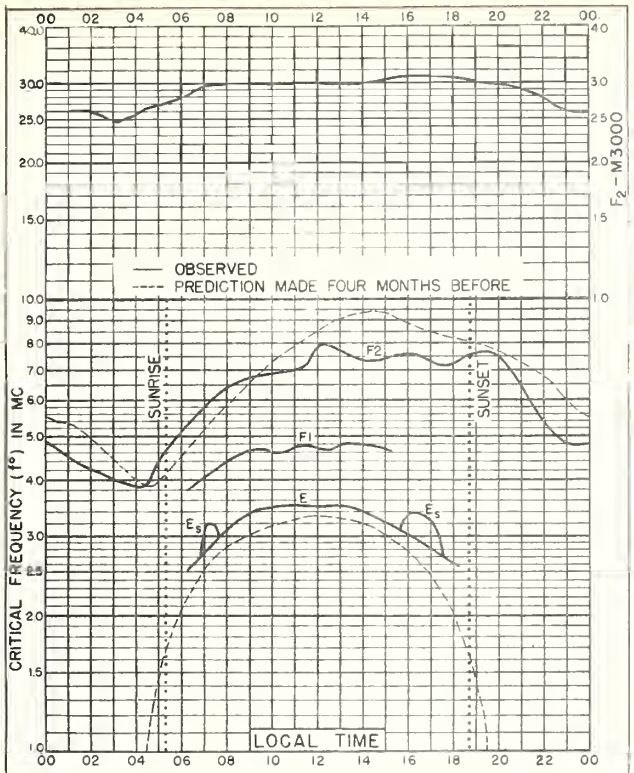


Fig. 9. ADAK, ALASKA
51.9°N, 176.6°W
APRIL, 1946

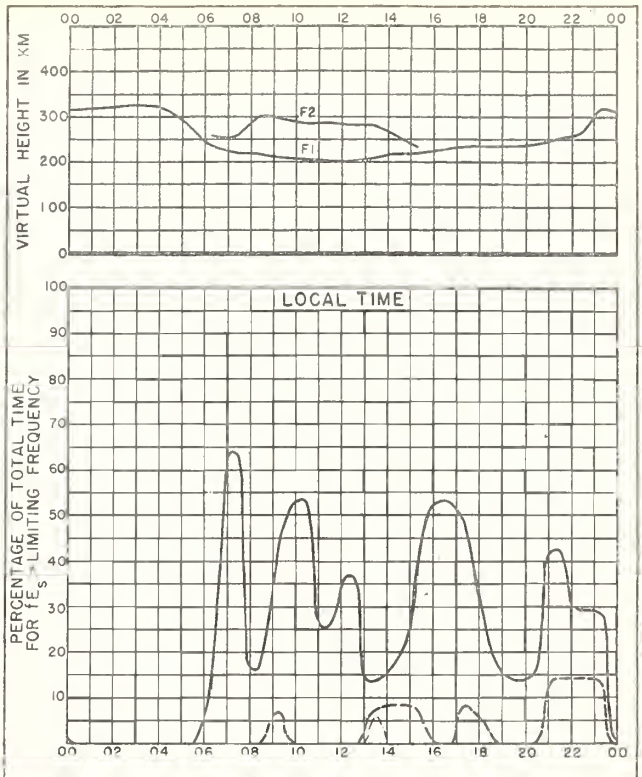


Fig. 10. ADAK, ALASKA
APRIL, 1946

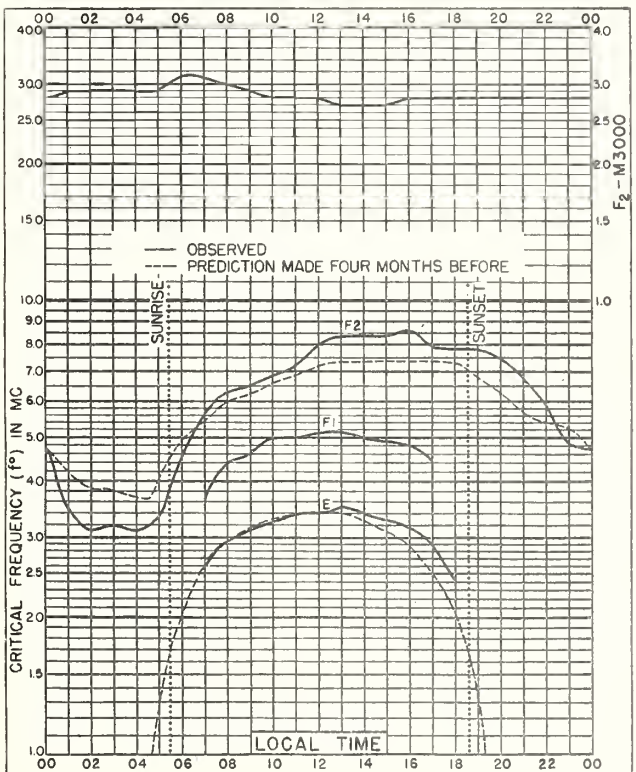


Fig. 11. OTTAWA, CANADA
45.5°N, 75.8°W
APRIL, 1946

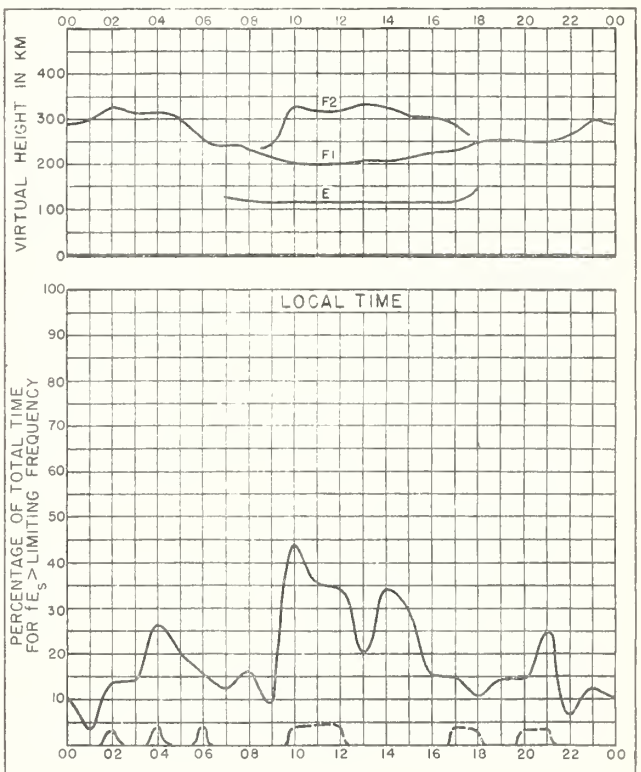


Fig. 12. OTTAWA, CANADA
APRIL, 1946

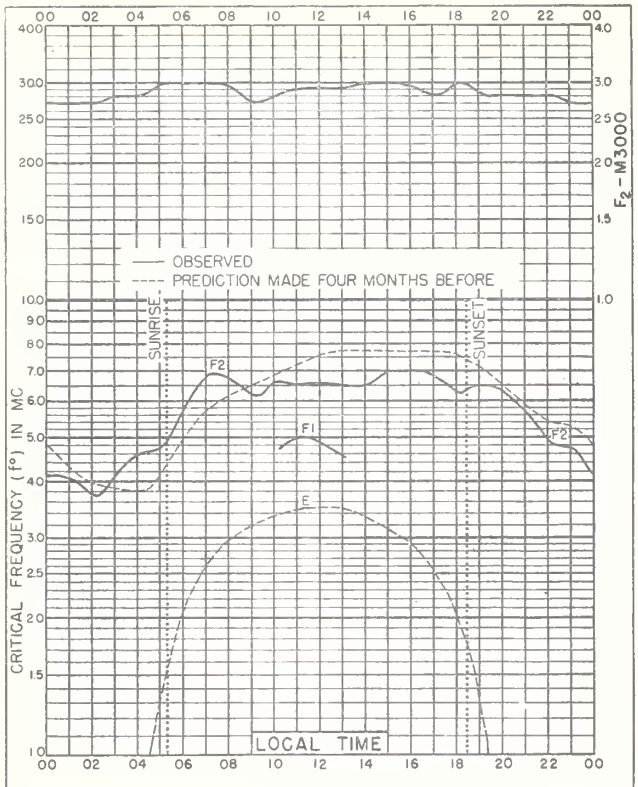


Fig. 13. BOSTON, MASSACHUSETTS
42.4°N, 71.2°W APRIL, 1946

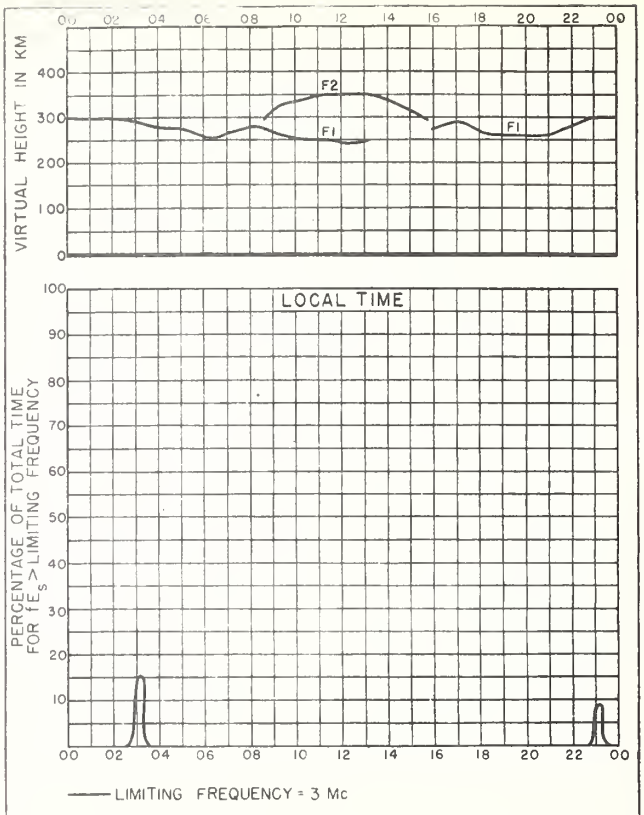


Fig. 14. BOSTON, MASSACHUSETTS APRIL, 1946

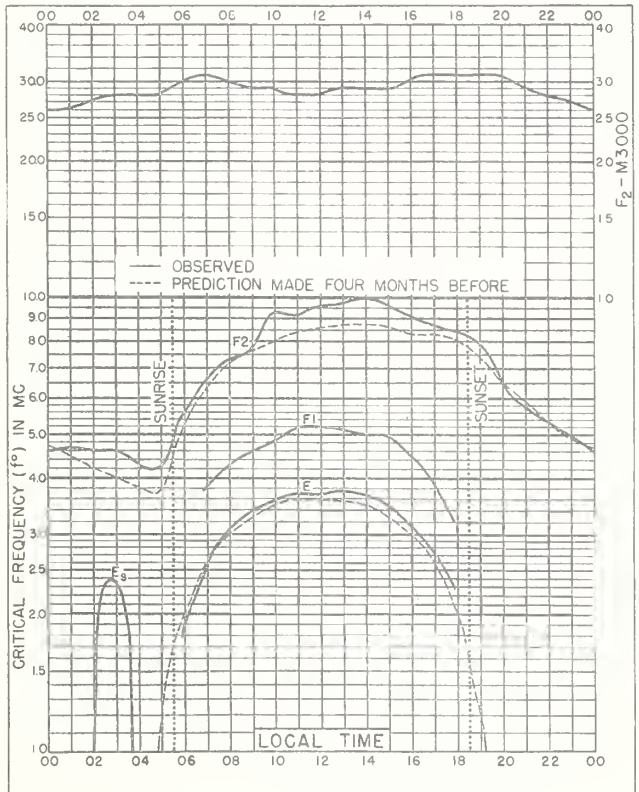


Fig. 15. SAN FRANCISCO, CALIFORNIA
37.4°N, 122.2°W APRIL, 1946

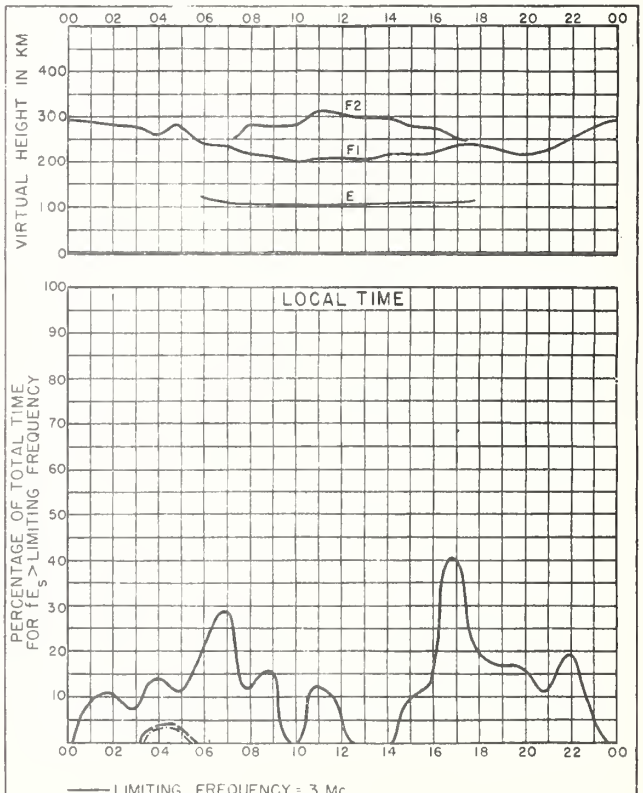


Fig 16. SAN FRANCISCO, CALIFORNIA APRIL, 1946

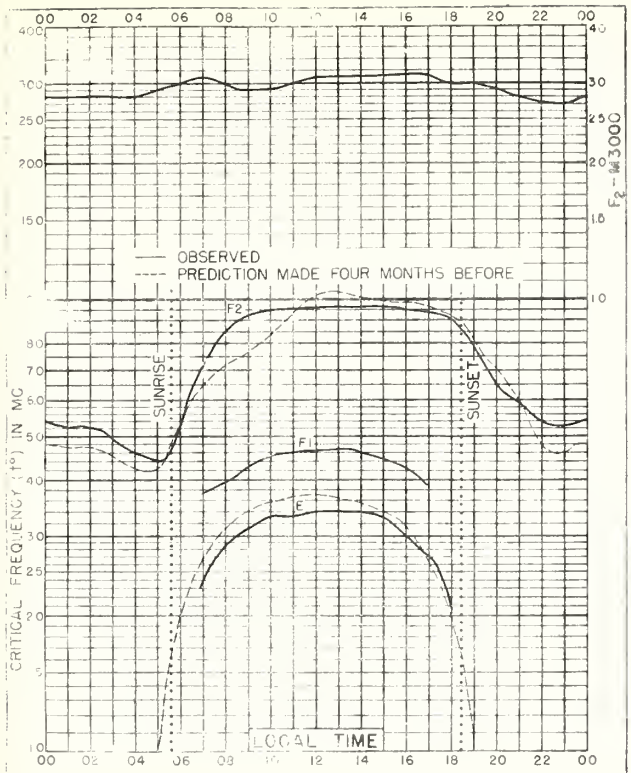


Fig 17. BATON ROUGE, LOUISIANA
30 5°N, 91 2°W
APRIL, 1946

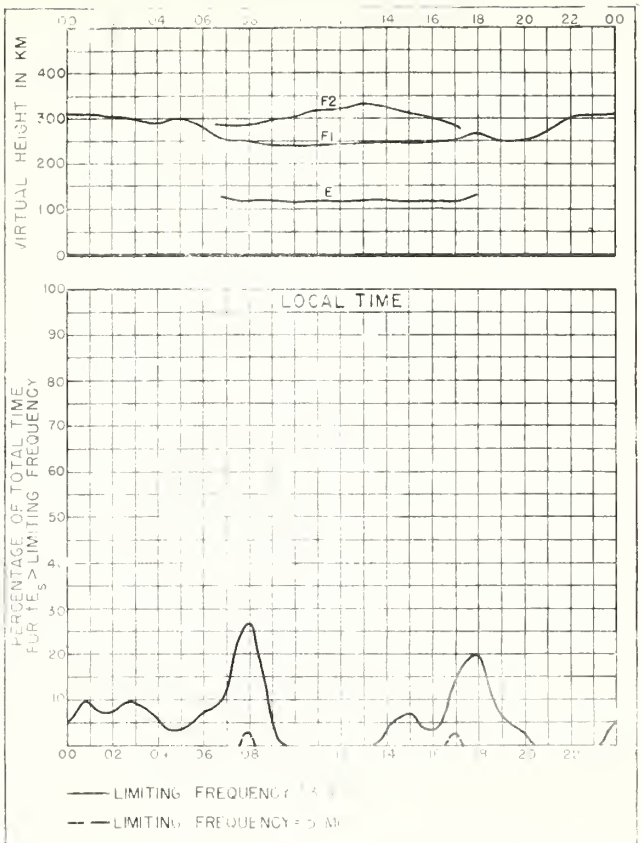


Fig 18 BATON ROUGE, LOUISIANA
APRIL, 1946

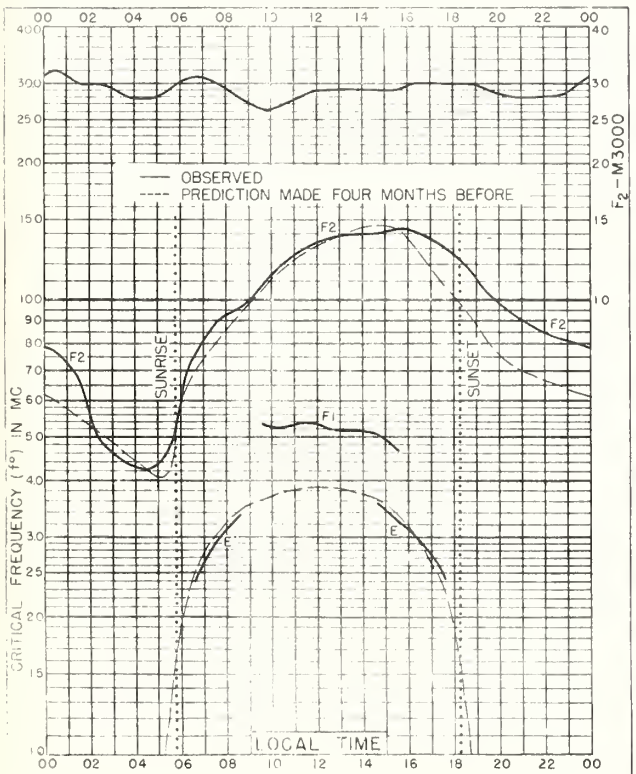


Fig. 19. MAUI, HAWAII
20.8°N, 156.5°W
APRIL, 1946

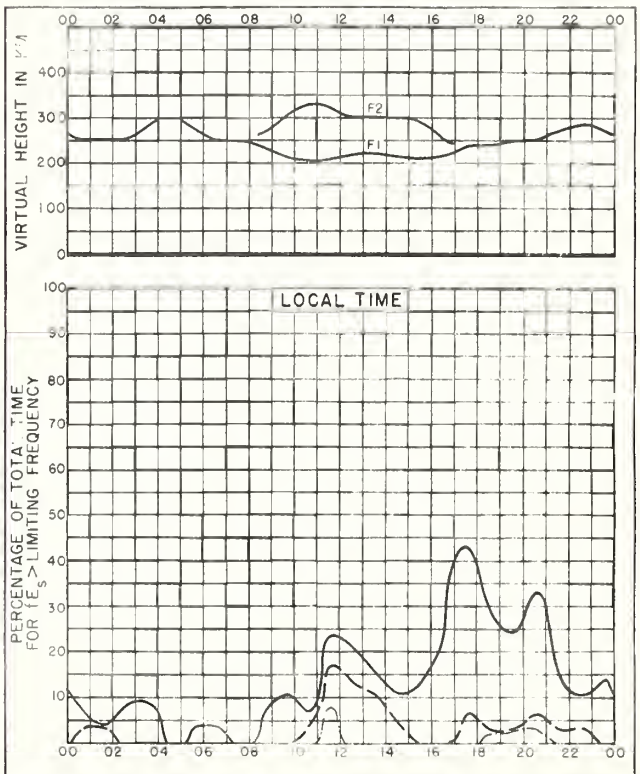


Fig. 20. MAUI, HAWAII
APRIL, 1946

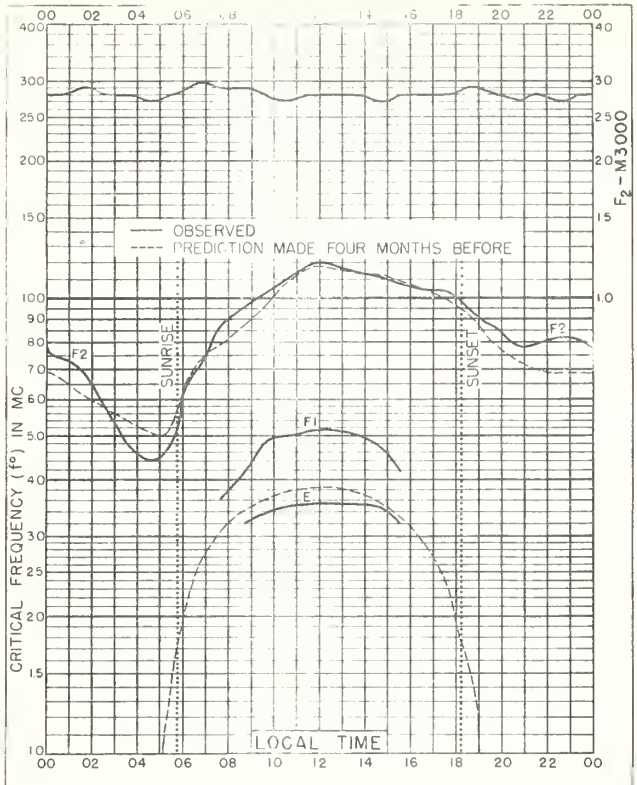


Fig 21. SAN JUAN, PUERTO RICO
18.4°N, 66.1°W APRIL, 1946

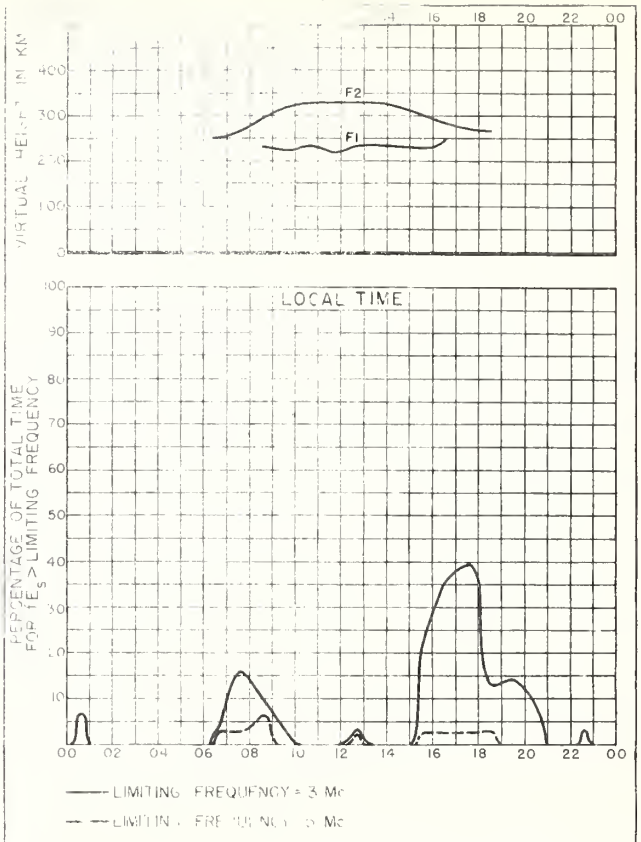


Fig 22. SAN JUAN, PUERTO RICO APRIL, 1946

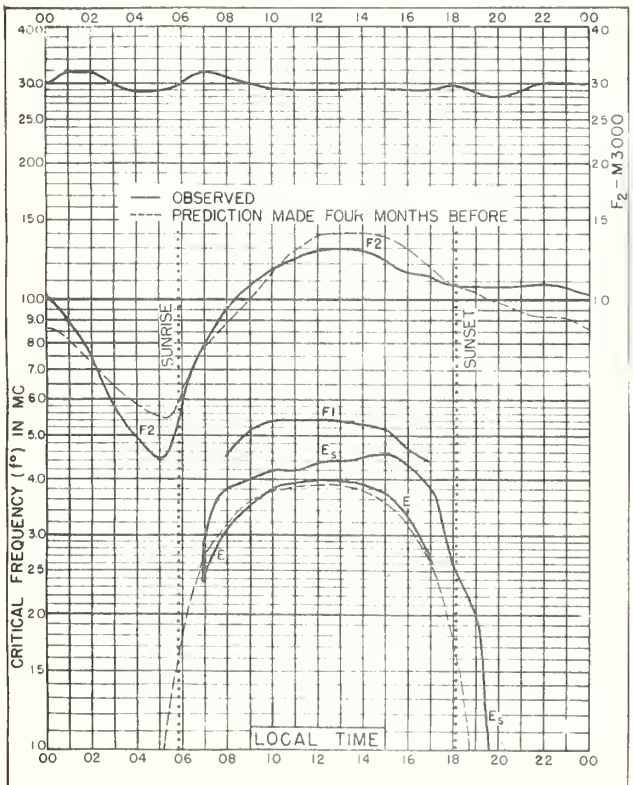


Fig. 23. TRINIDAD, BRIT. WEST INDIES
10.6°N, 61.2°W APRIL, 1946

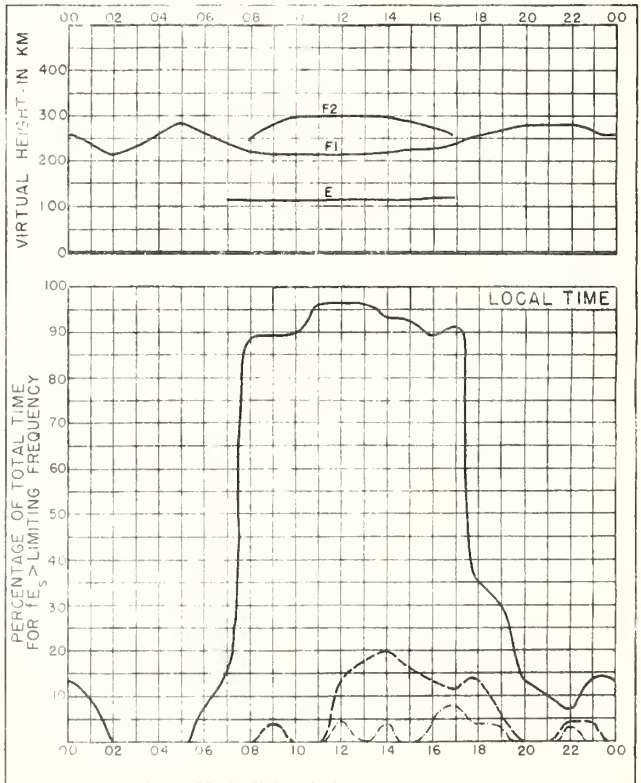


Fig. 24. TRINIDAD, BRIT. WEST INDIES APRIL, 1946

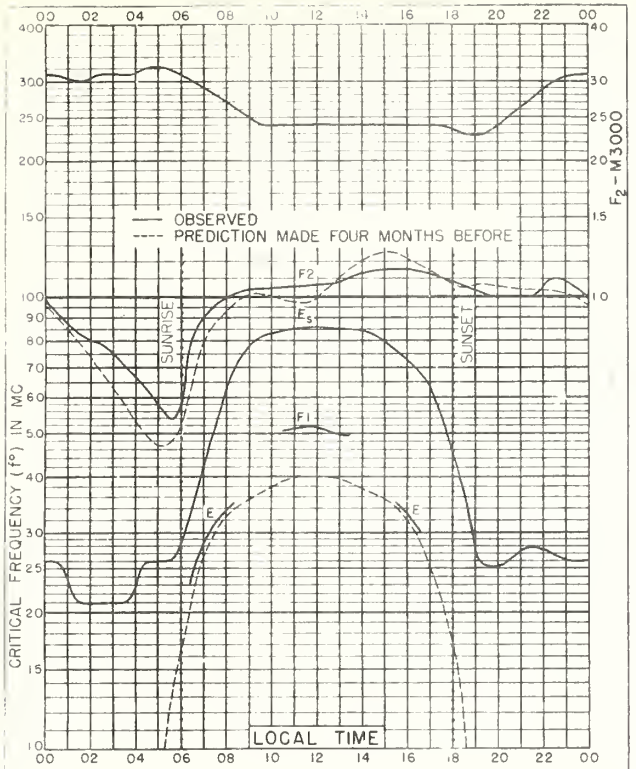


Fig.25. CHRISTMAS I.
1.9°N, 157.3°W.
APRIL, 1946

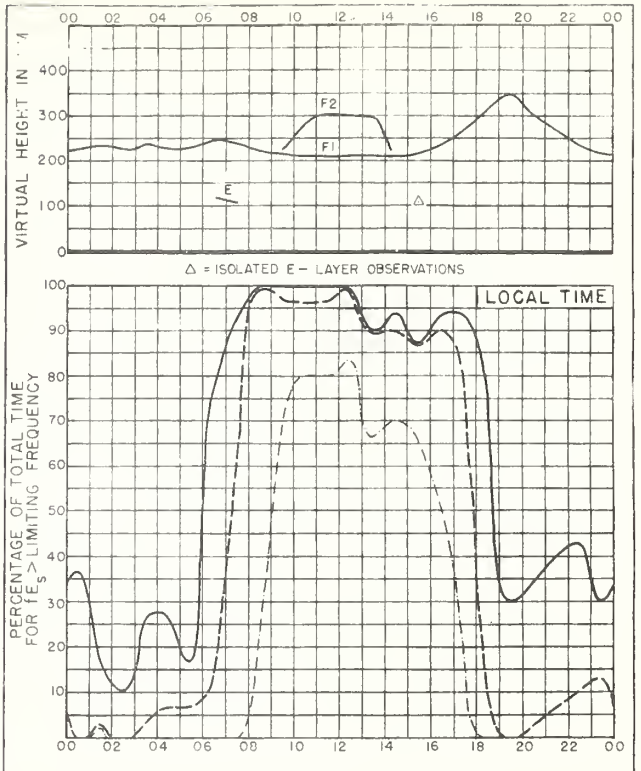


Fig.26. CHRISTMAS IS.
APRIL, 1946

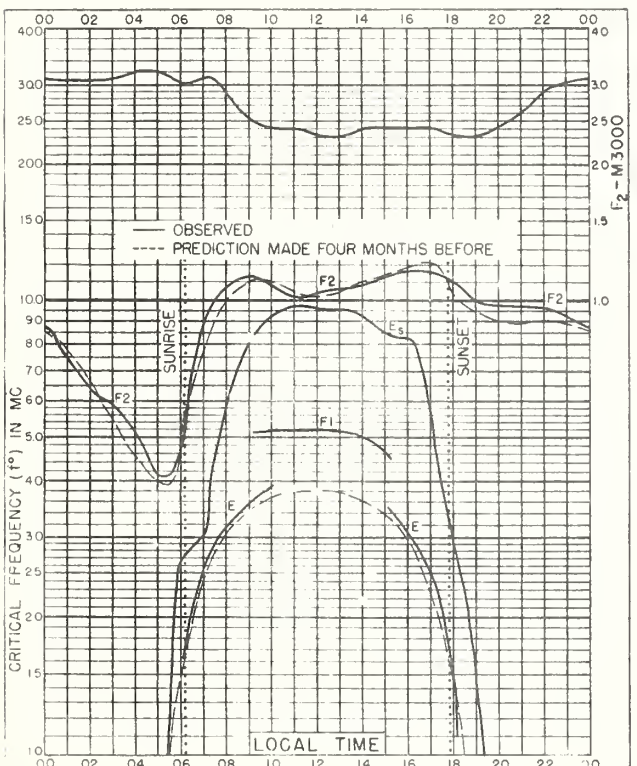


Fig.27. HUANCAYO, PERU
12.0°S, 75.3°W
APRIL, 1946

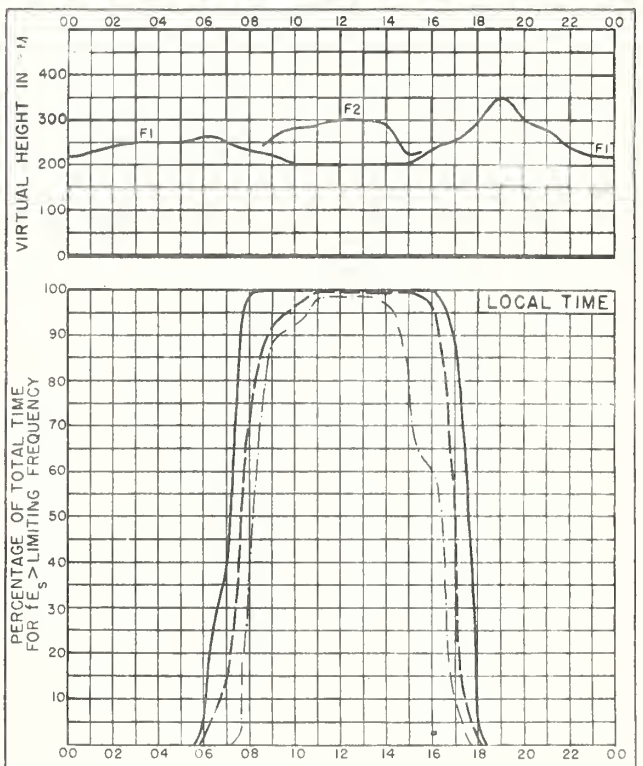


Fig.28. HUANCAYO, PERU
APRIL, 1946

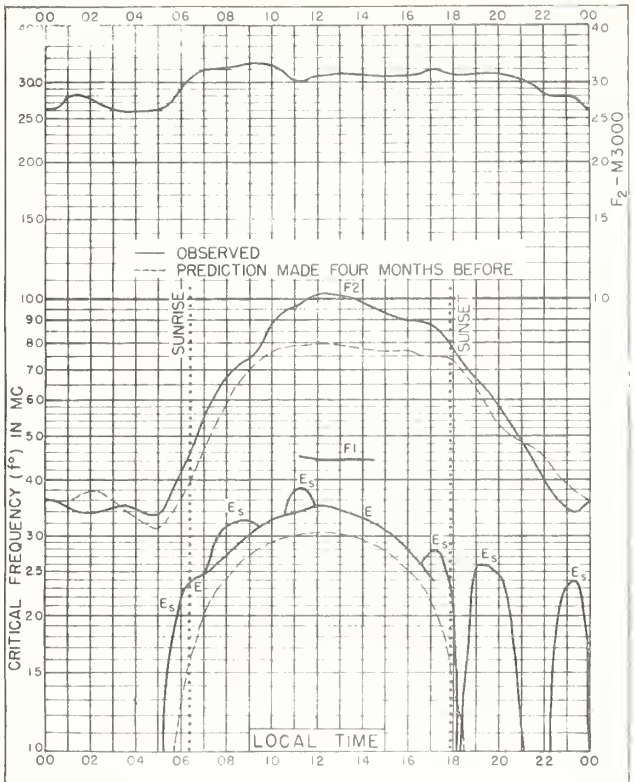


Fig 29 ADAK, ALASKA
51.9°N, 176.6°W MARCH, 1946

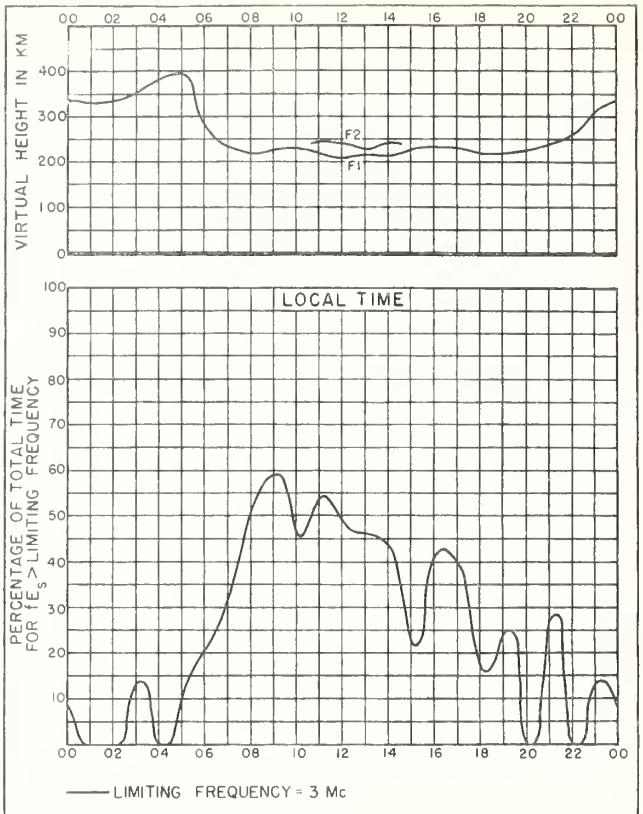


Fig 30. ADAK, ALASKA MARCH, 1946

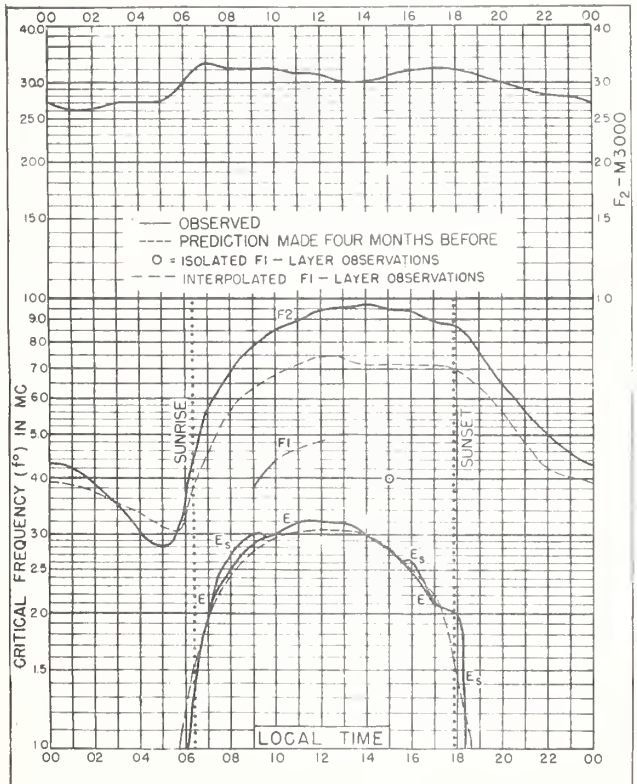


Fig. 31. GREAT BADDOW, ENGLAND
51.7°N, 0.5°E MARCH, 1946

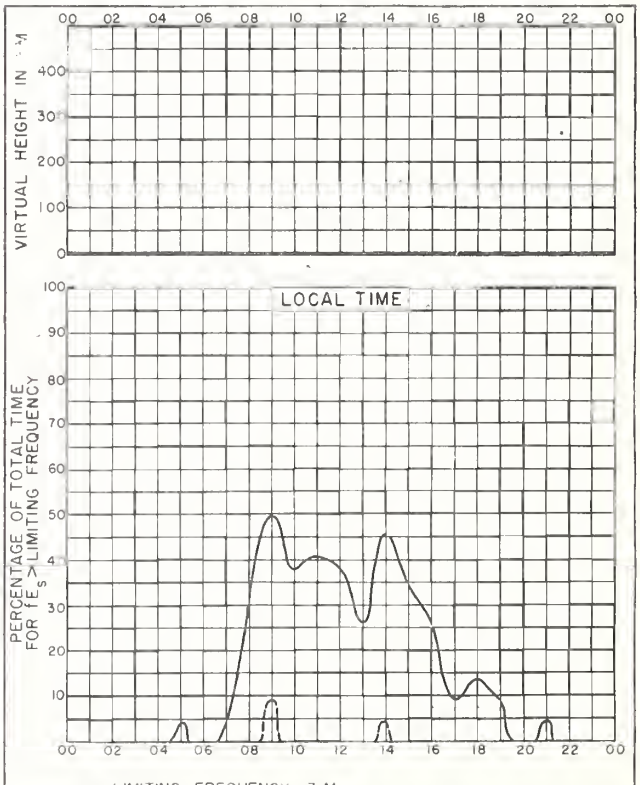


Fig. 32. GREAT BADDOW, ENGLAND MARCH, 1946

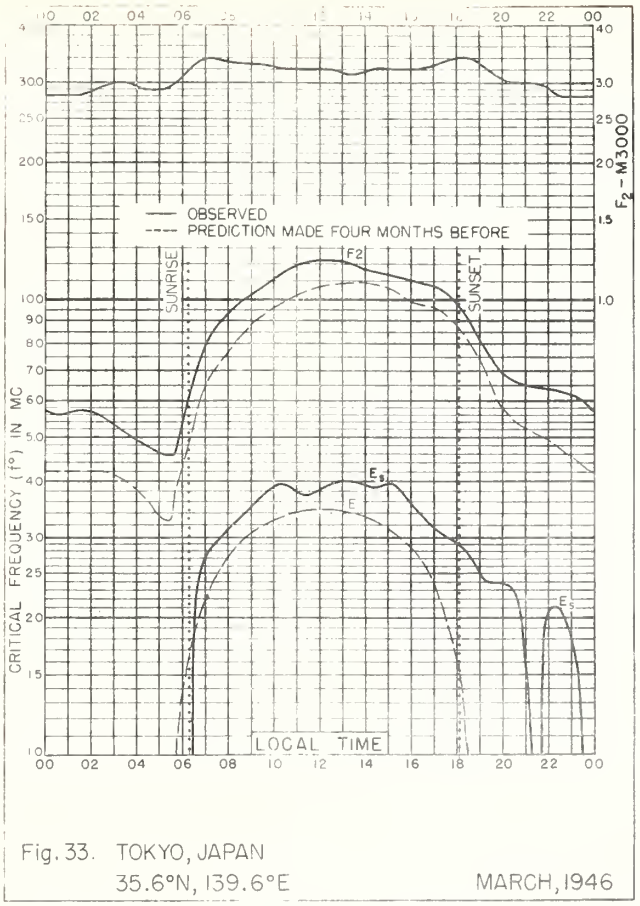
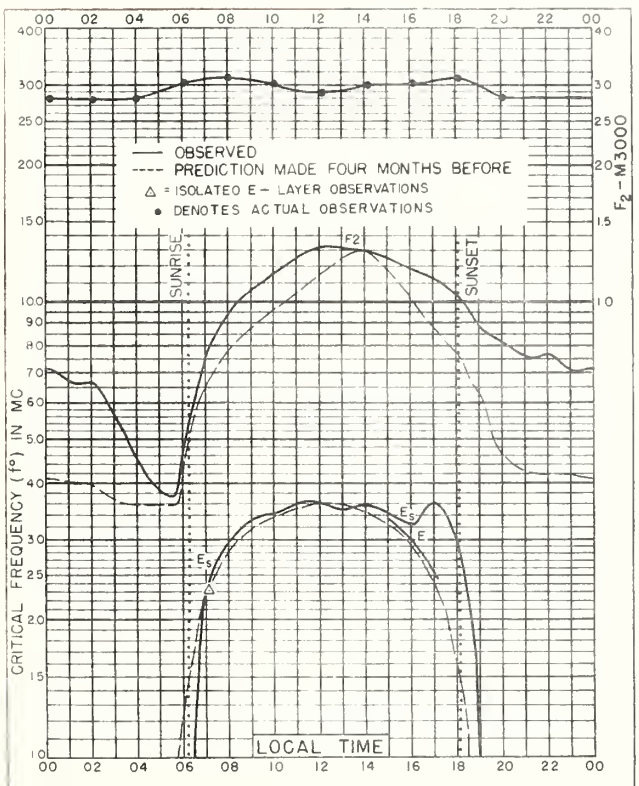


Fig. 33. TOKYO, JAPAN
35.6°N, 139.6°E MARCH, 1946



*See footnote on table #3 this issue.

Fig. 34. CAIRO, EGYPT
30.0°N, 31.2°E MARCH, 1946

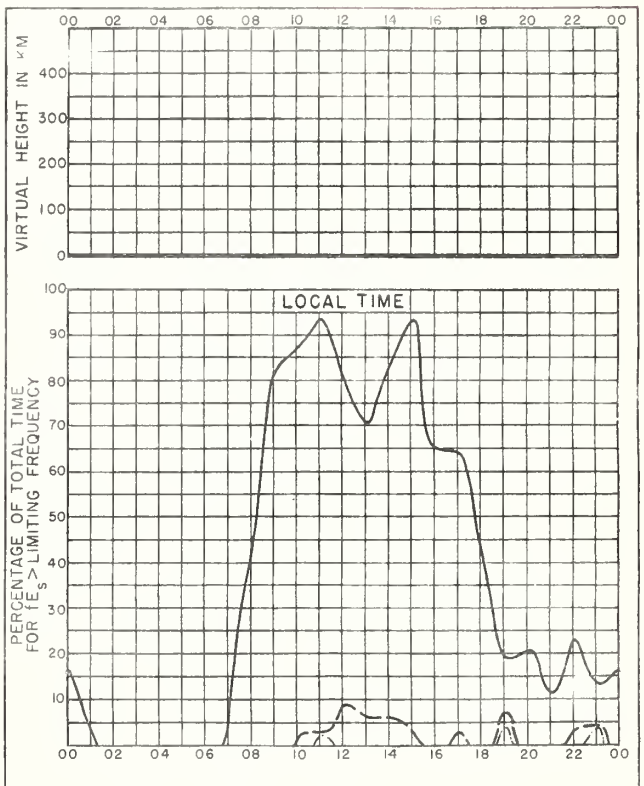


Fig. 35. CAIRO, EGYPT MARCH, 1946

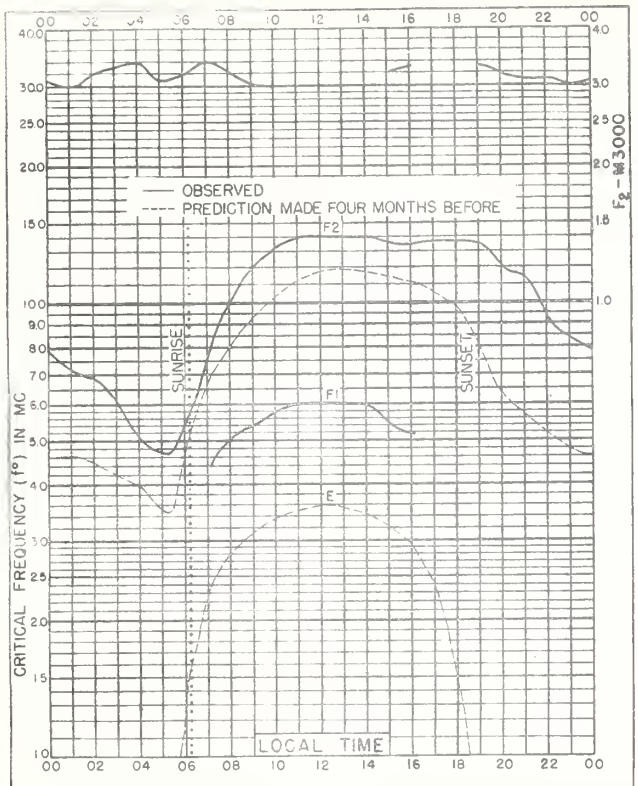


Fig 36. CHUNGKING, CHINA
29.4°N, 106.8°E MARCH, 1946

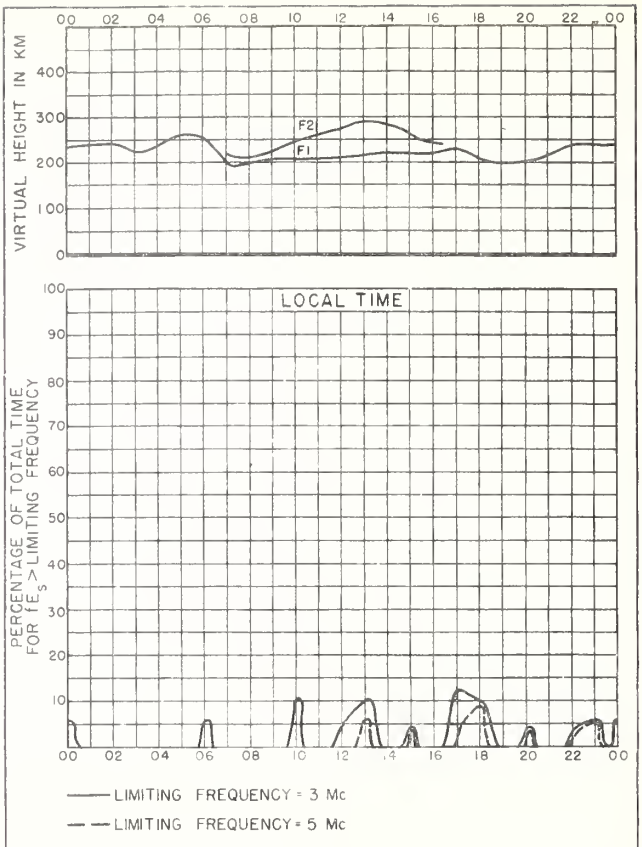


Fig 37. CHUNGKING, CHINA MARCH, 1946

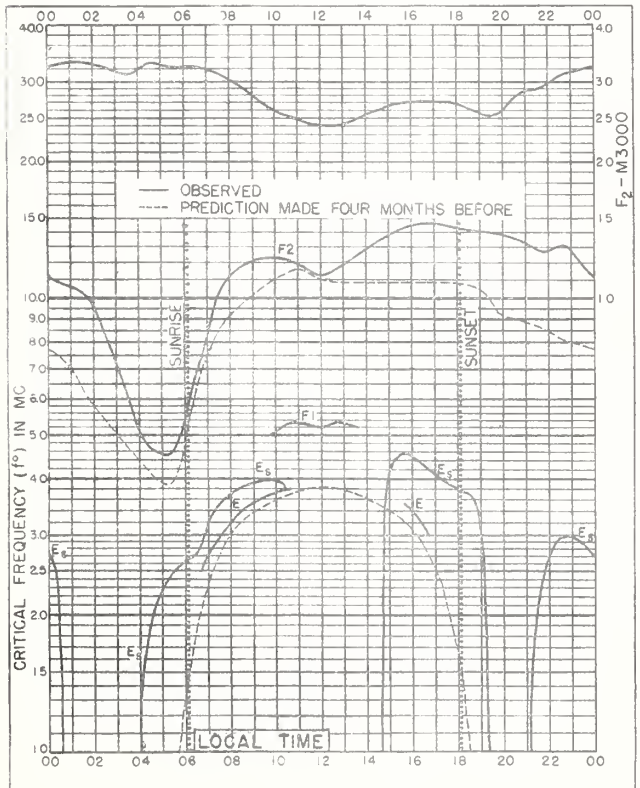


Fig. 38. GUAM I
13.5°N, 144.8°E MARCH, 1946

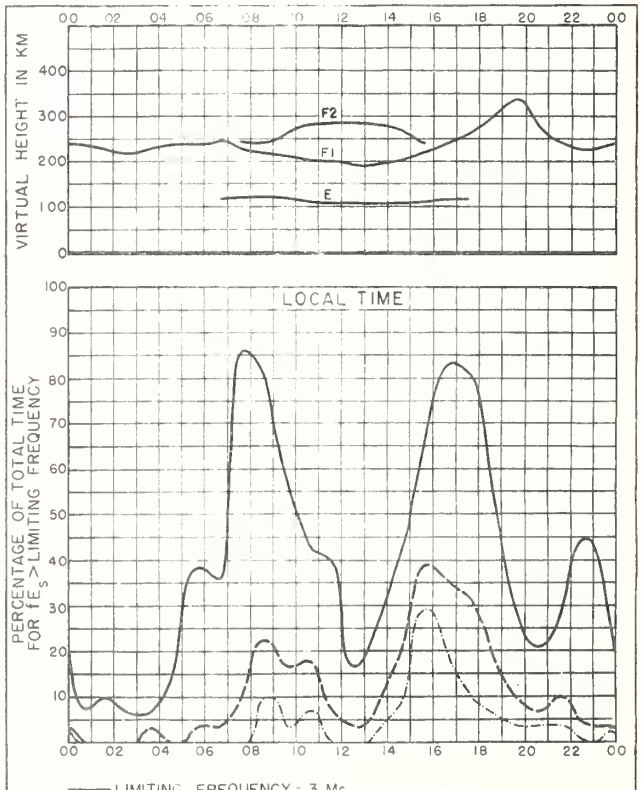


Fig. 39. GUAM I MARCH, 1946

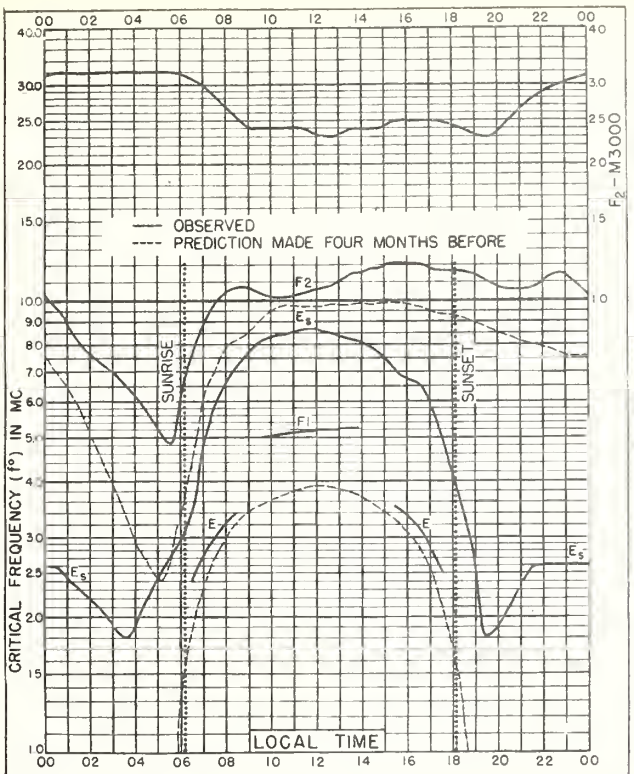


Fig.40. CHRISTMAS I.
1.9°N, 157.3°W
MARCH, 1946

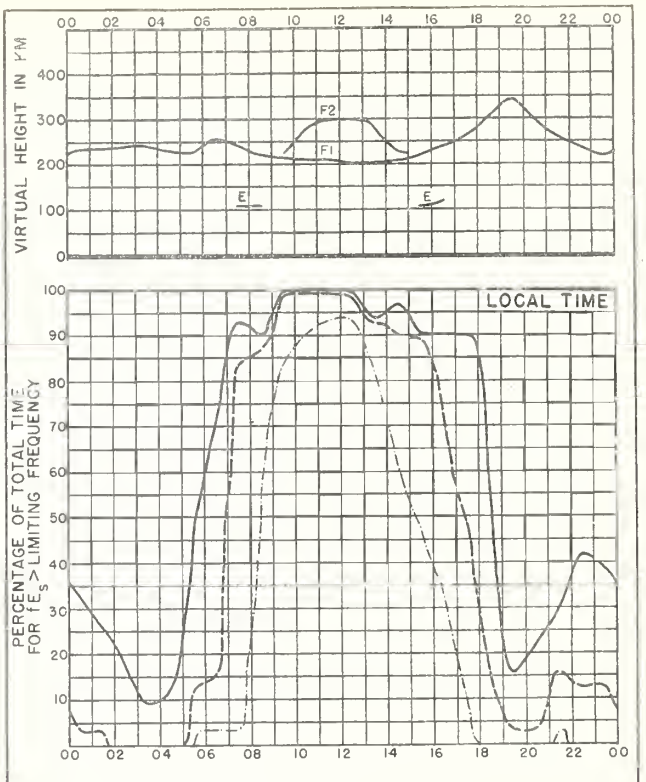


Fig.41. CHRISTMAS I.
MARCH, 1946

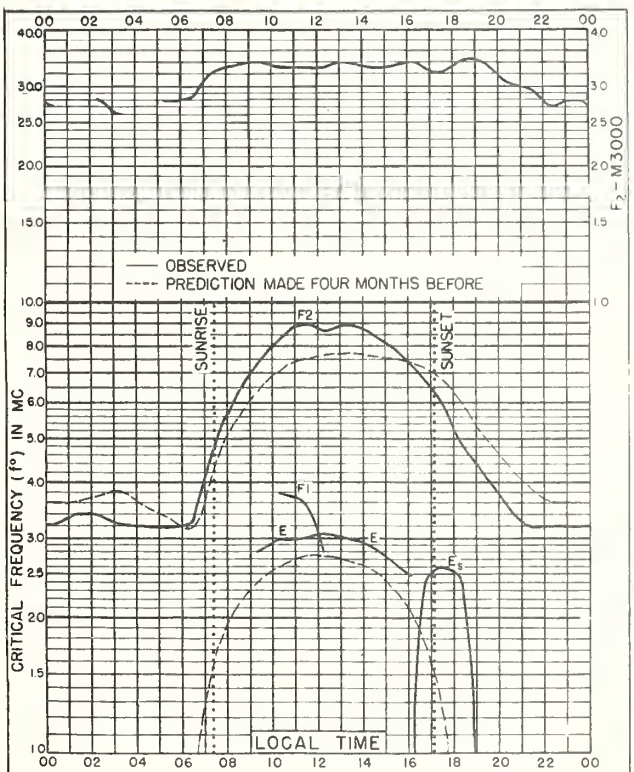


Fig 42. ADAK, ALASKA
51.9°N, 176.6°W
FEBRUARY, 1946

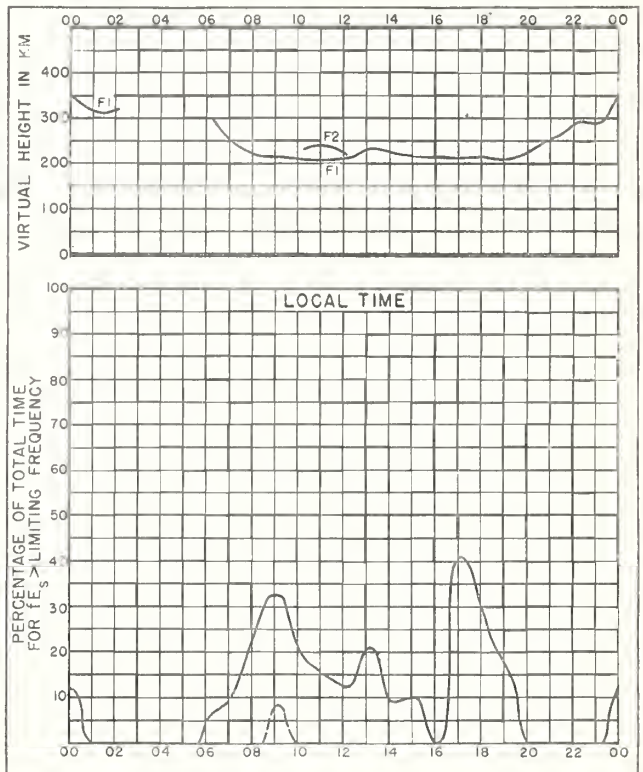


Fig 43. ADAK, ALASKA
FEBRUARY, 1946

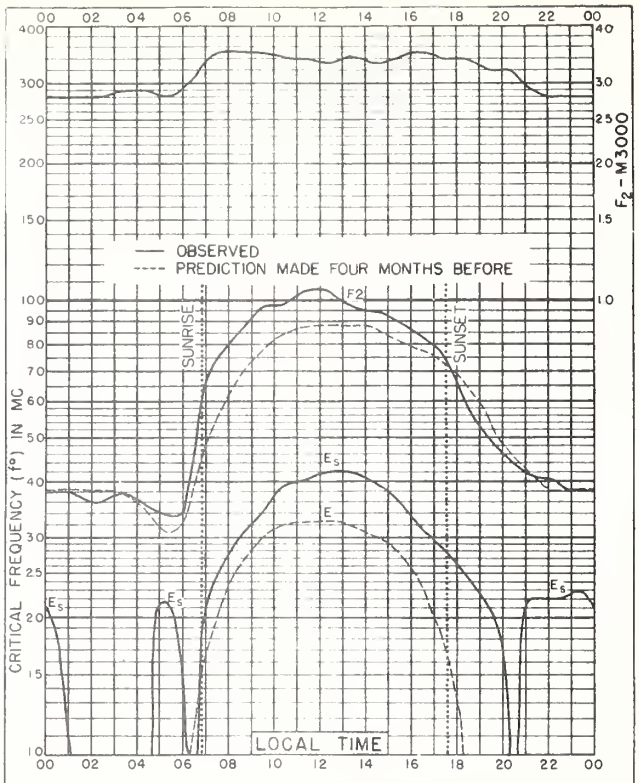


Fig.44. TOKYO, JAPAN
35.6°N, 139.6°E FEBRUARY, 1946

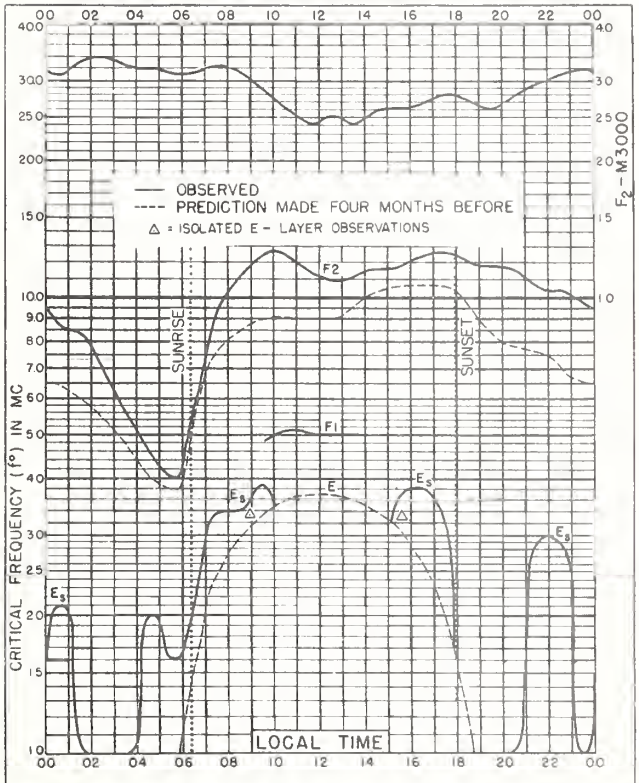


Fig 45. GUAM I
13.5°N, 144.8°E FEBRUARY, 1946

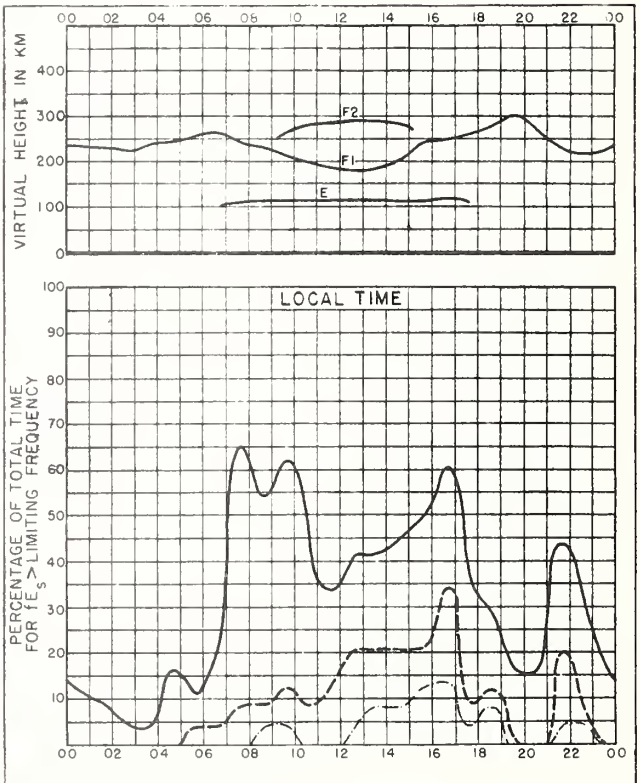


Fig 46. GUAM I FEBRUARY, 1946

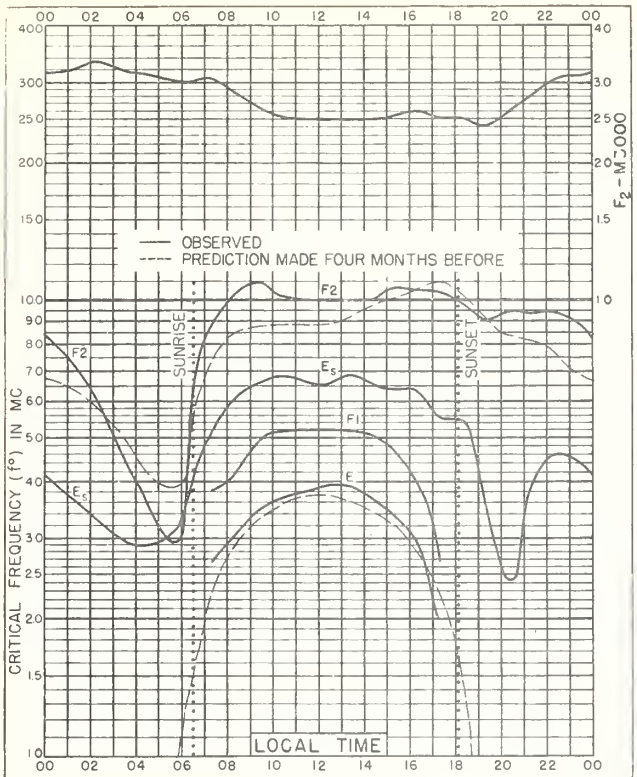


Fig. 47. LEYTE, PHILIPPINE IS.
11.0°N, 125.0°E FEBRUARY, 1946

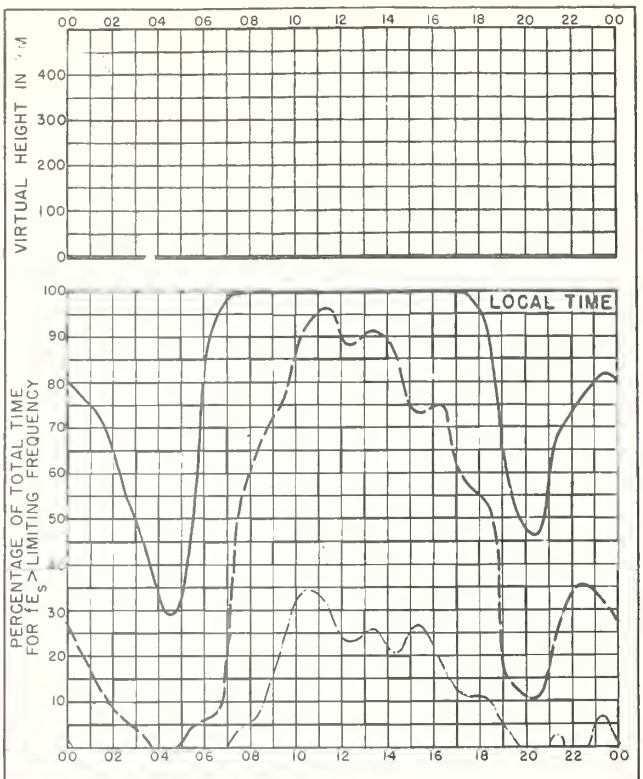
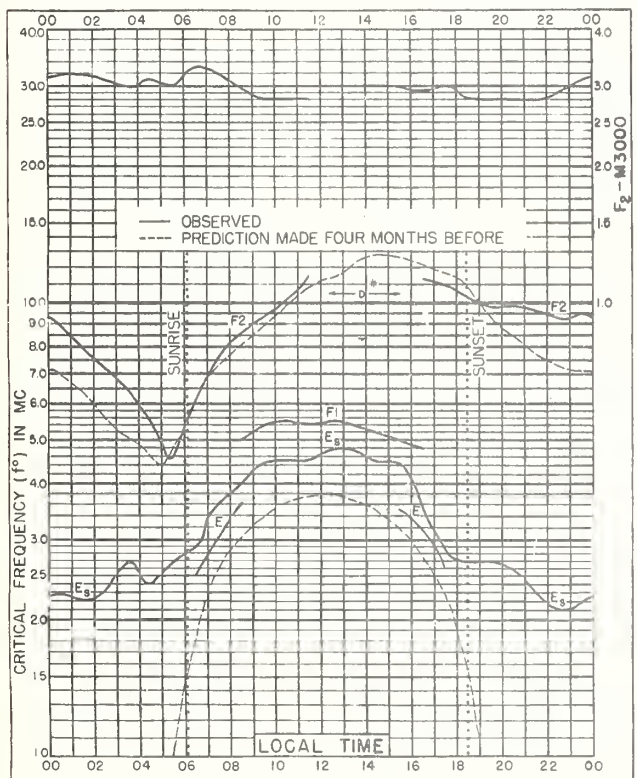


Fig. 48. LEYTE, PHILIPPINE IS. FEBRUARY, 1946



*See page 6 , paragraph b of this issue.

Fig. 49. CAPE YORK, AUSTRALIA
11.0°S, 142.4°E FEBRUARY, 1946

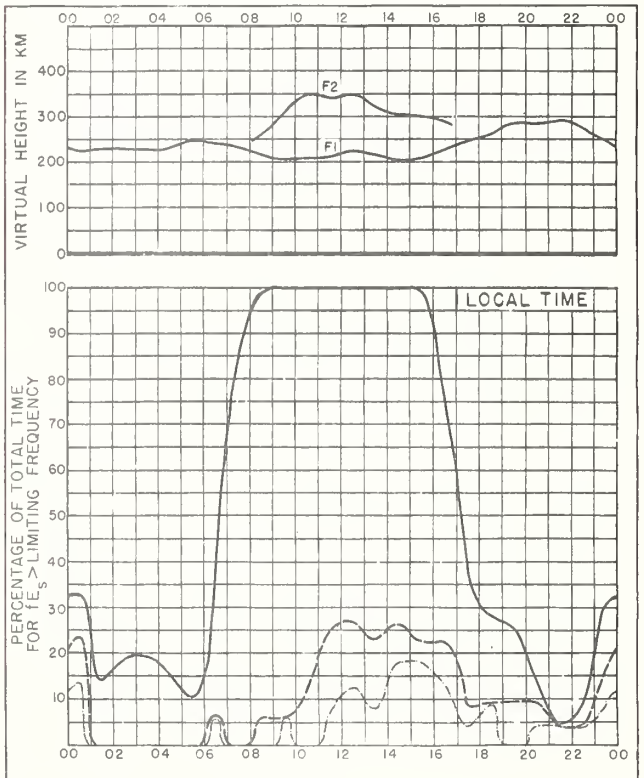


Fig. 50. CAPE YORK, AUSTRALIA FEBRUARY, 1946

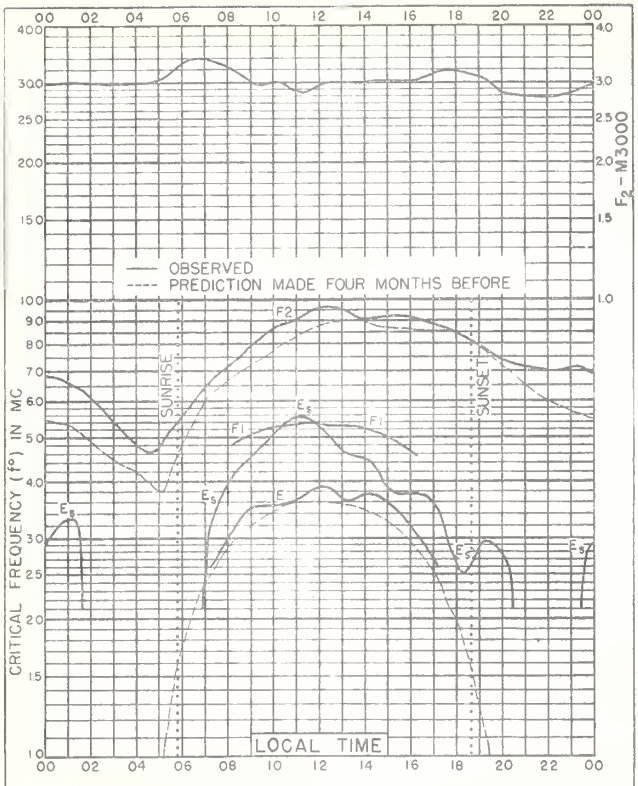


Fig. 51. BRISBANE, AUSTRALIA
27.5°S, 153.0°E FEBRUARY, 1946

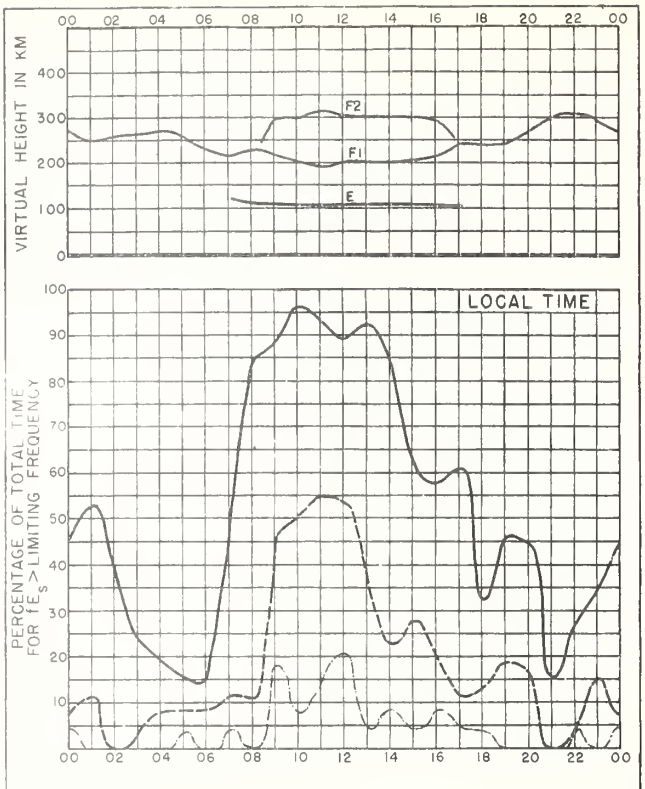


Fig. 52. BRISBANE, AUSTRALIA FEBRUARY, 1946

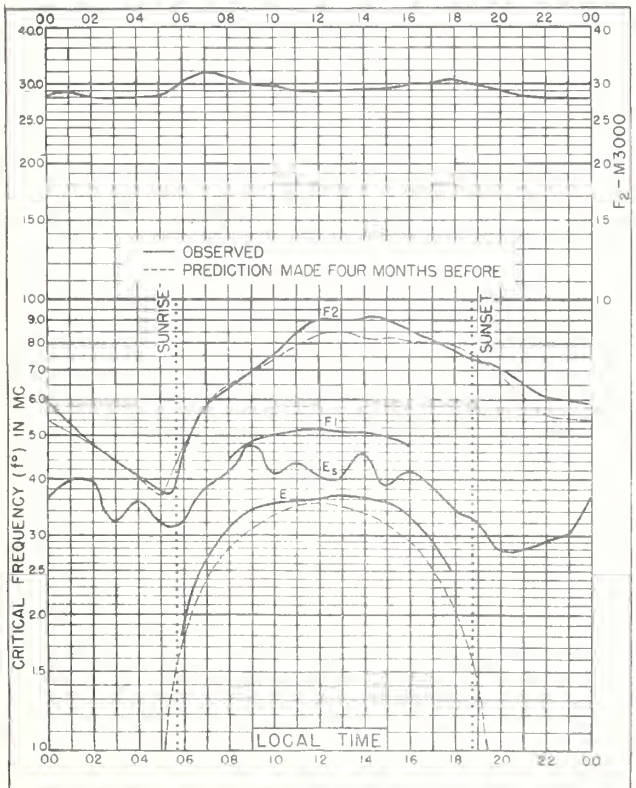


Fig. 53. WATHEROO, W. AUSTRALIA
30.3°S, 115.9°E FEBRUARY, 1946

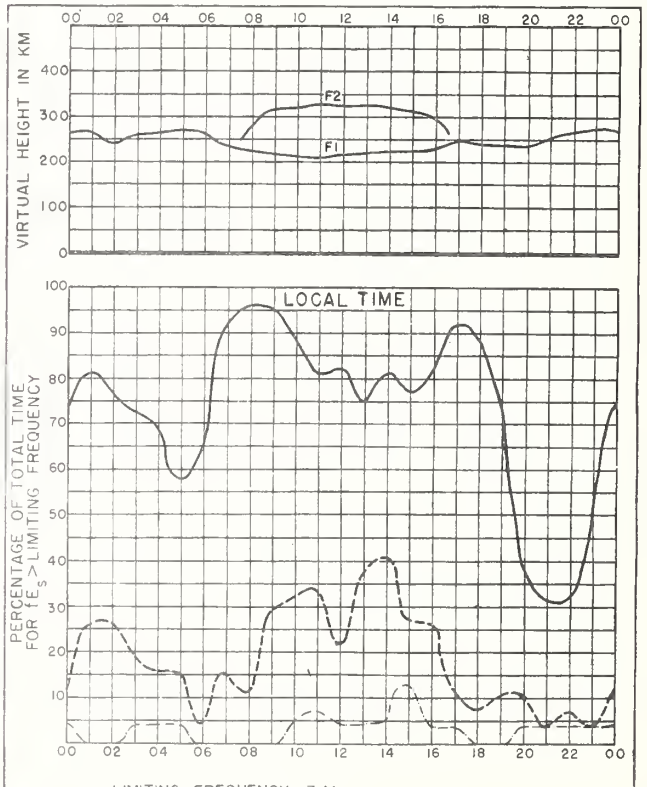


Fig. 54. WATHEROO, W. AUSTRALIA FEBRUARY, 1946

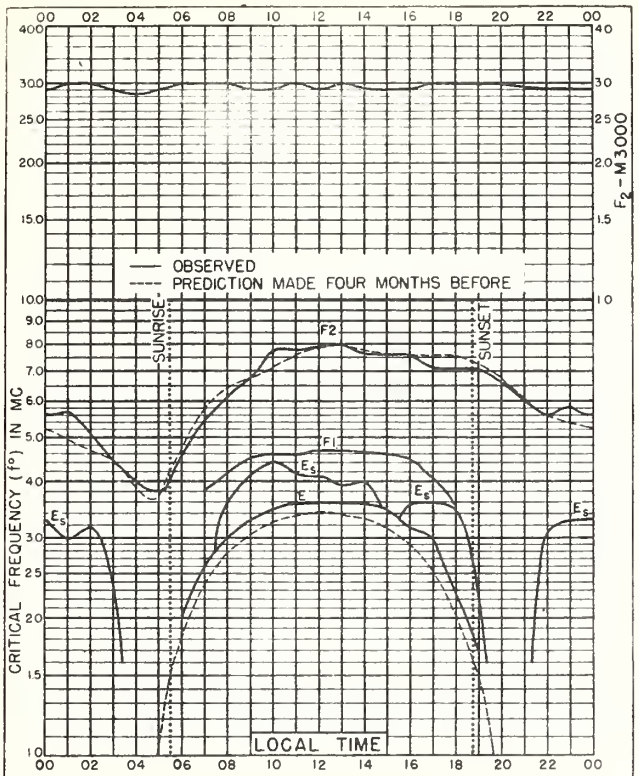


Fig 55. CANBERRA, AUSTRALIA
35.3°S, 149.0°E FEBRUARY, 1946

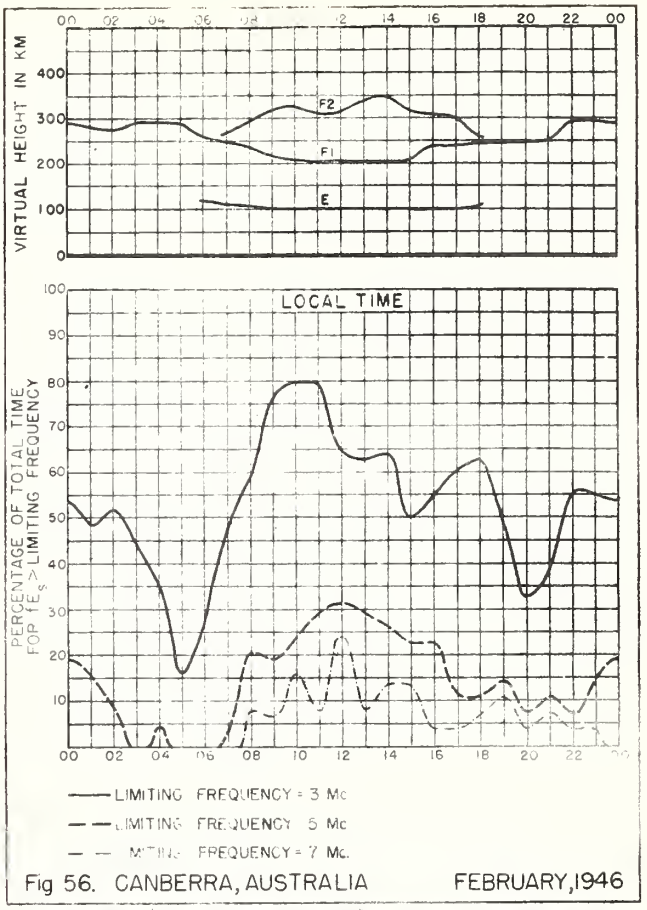


Fig 56. CANBERRA, AUSTRALIA FEBRUARY, 1946

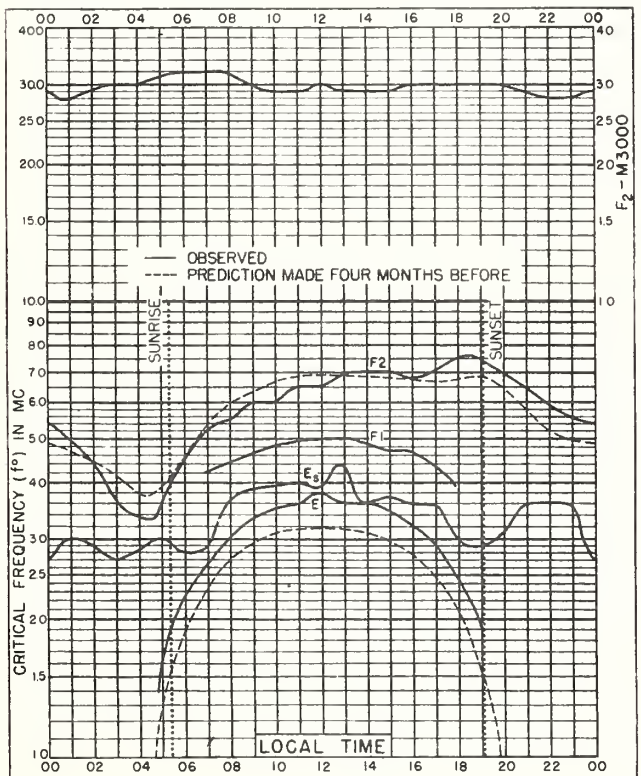


Fig. 57. HOBART, TASMANIA
42.8°S, 147.4°E FEBRUARY, 1946

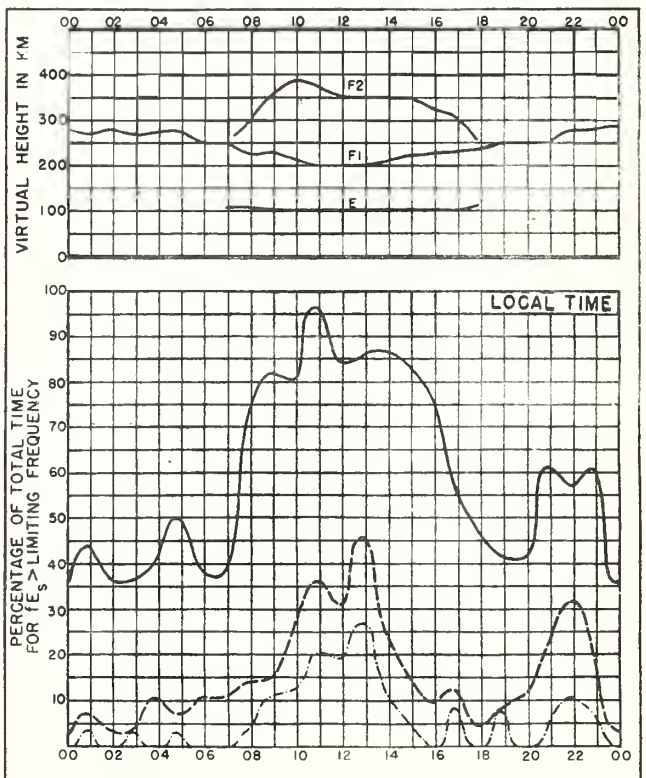


Fig. 58. HOBART, TASMANIA FEBRUARY, 1946

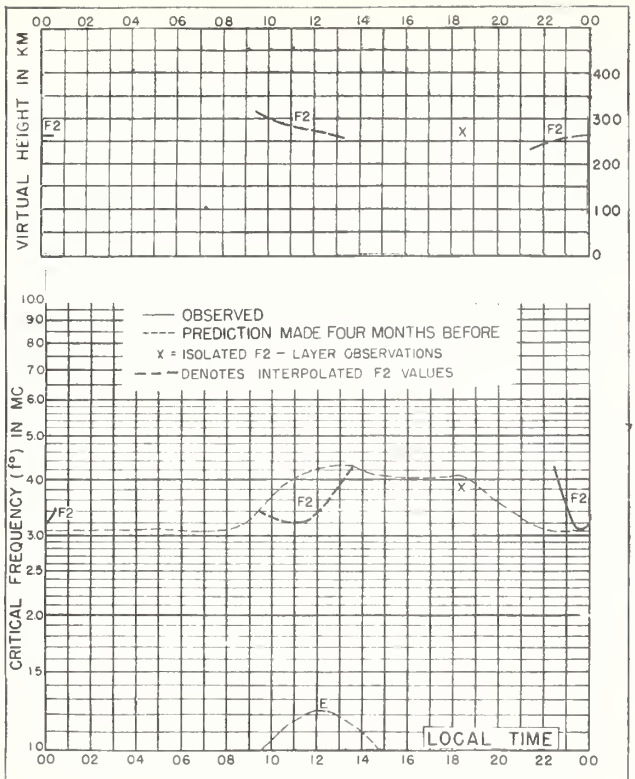


Fig. 59. BUKHTA TIKHAYA
80.3°N, 52.7°E JANUARY, 1946

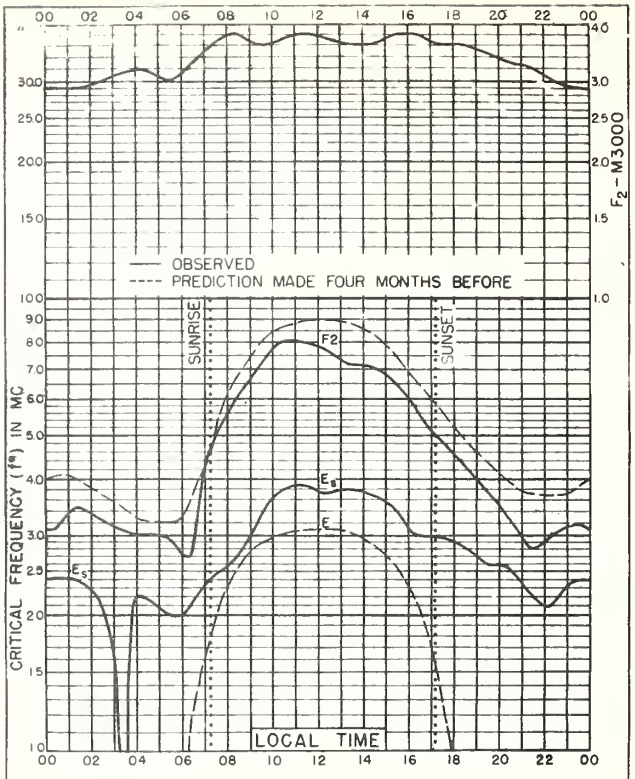


Fig. 60. TOKYO, JAPAN
35.6°N, 139.6°E JANUARY, 1946

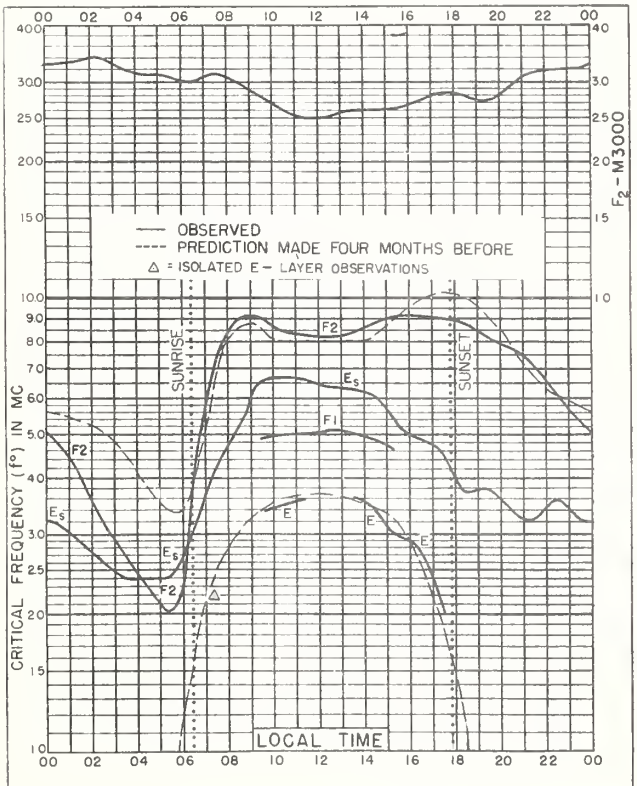


Fig. 61. LEYTE, PHILIPPINE IS.
11.0°N, 125.0°E JANUARY, 1946

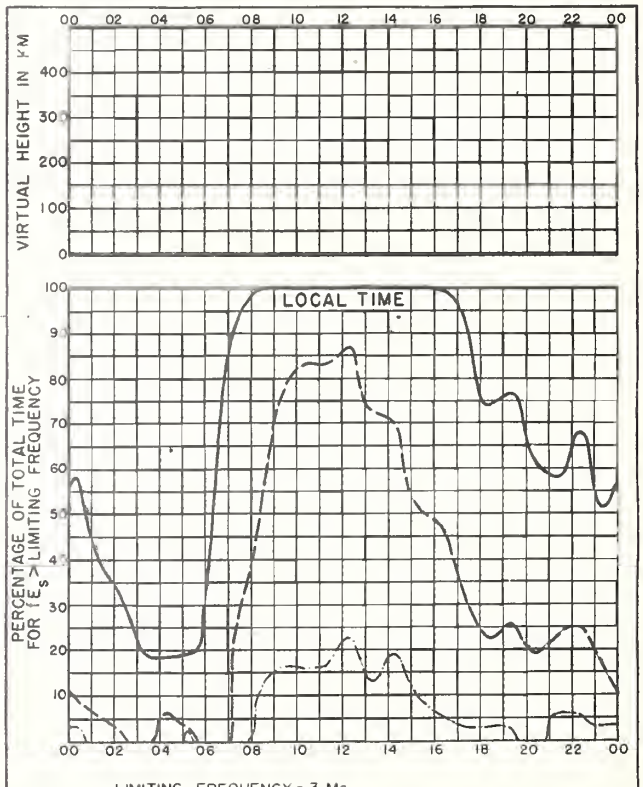


Fig. 62. LEYTE, PHILIPPINE IS. JANUARY, 1946

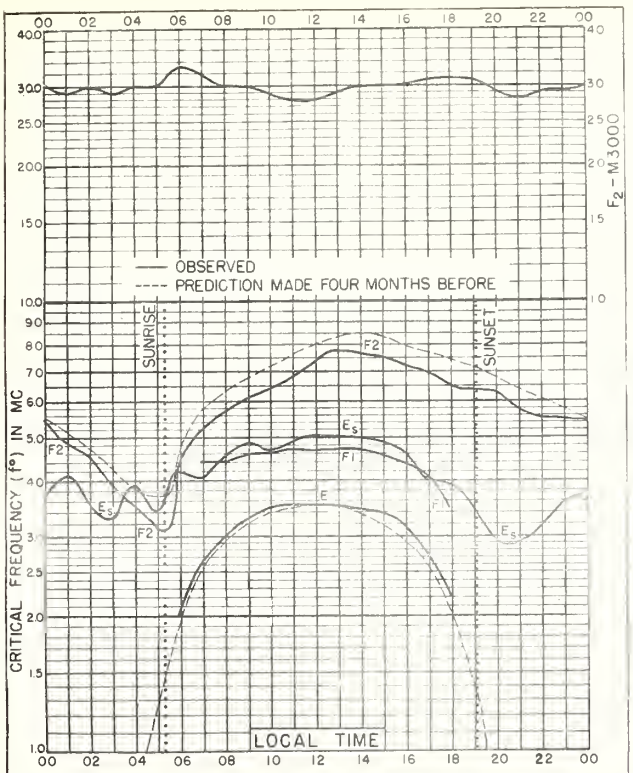


Fig. 63. WATHEROO, W. AUSTRALIA
30.3°S, 115.9°E JANUARY, 1946

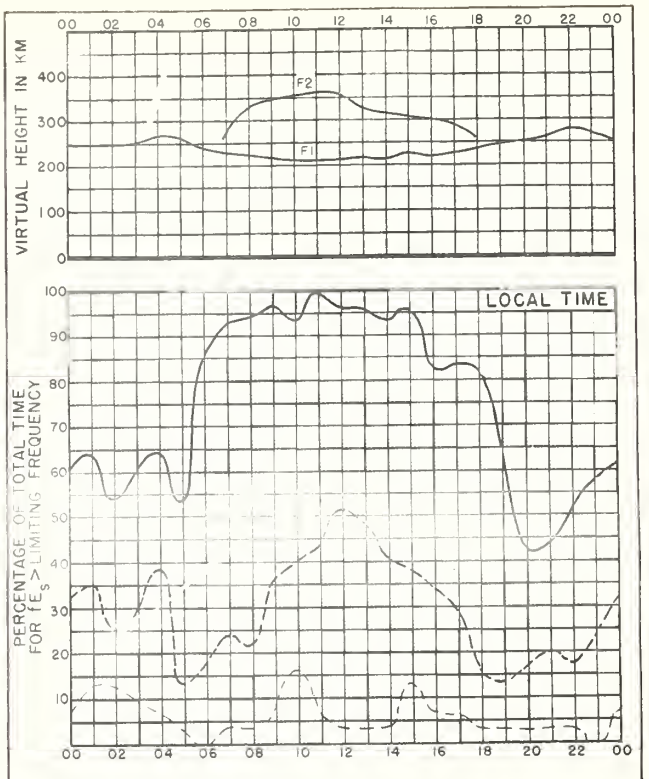


Fig. 64. WATHEROO, W. AUSTRALIA JANUARY, 1946

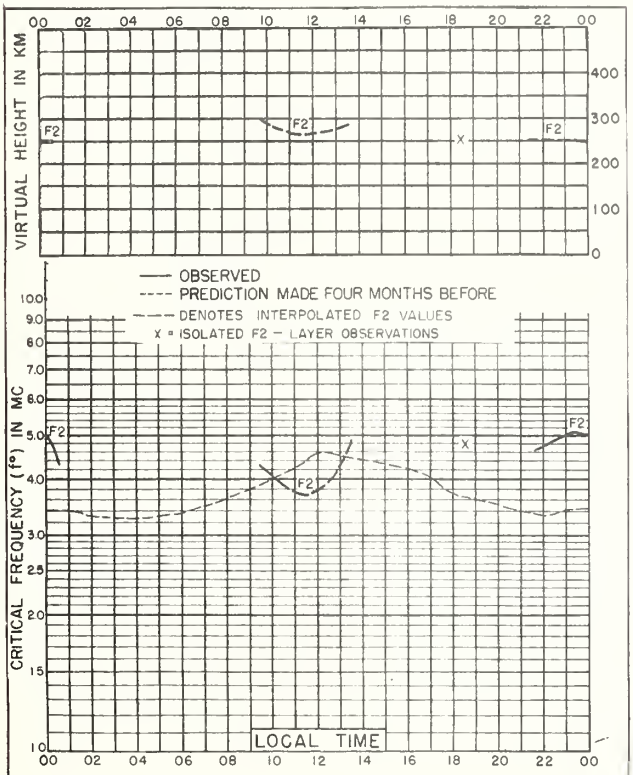


Fig. 65. BUKHTA TIKHAYA, U.S.S.R.
80.3°N, 52.7°E DECEMBER, 1945

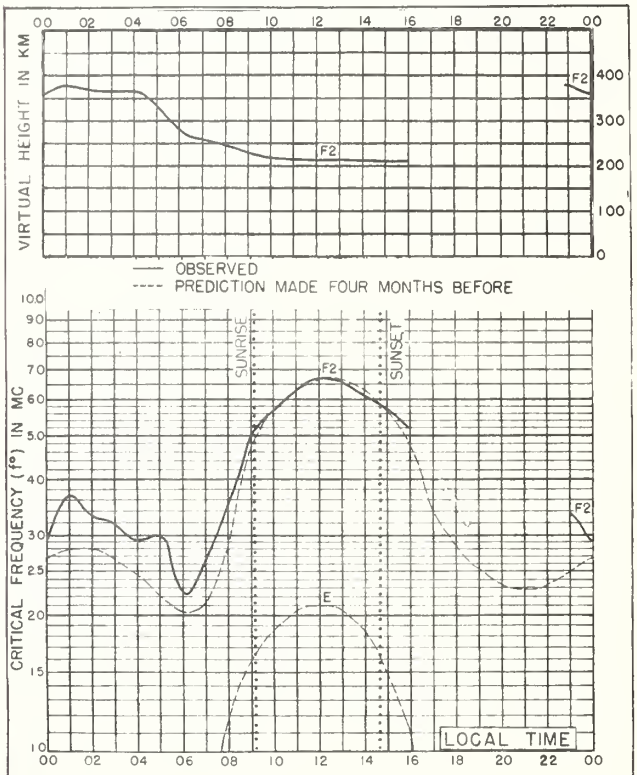


Fig. 66. LENINGRAD, U.S.S.R. (WETKAS)
60.0°N, 30.3°E DECEMBER, 1945

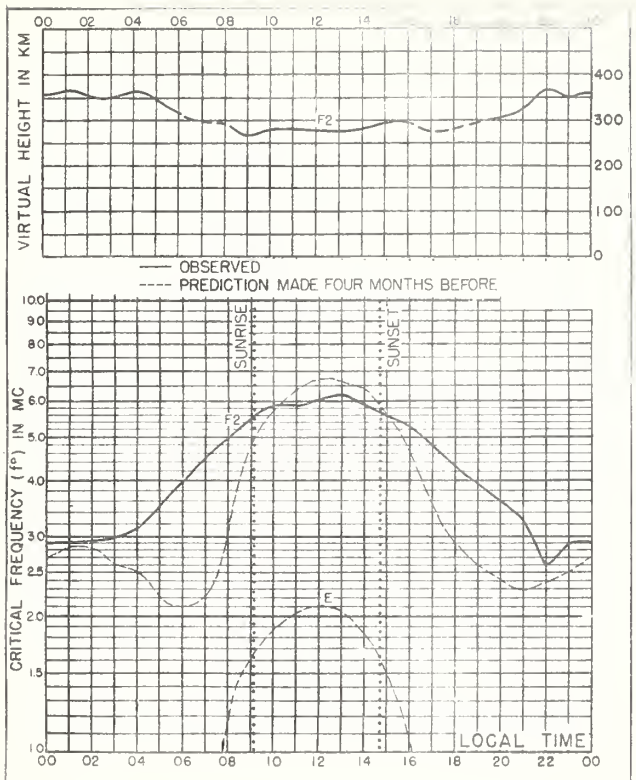


Fig. 67. LENINGRAD, U.S.S.R. (LDRS)
59.9°N, 30.3°E DECEMBER, 1945

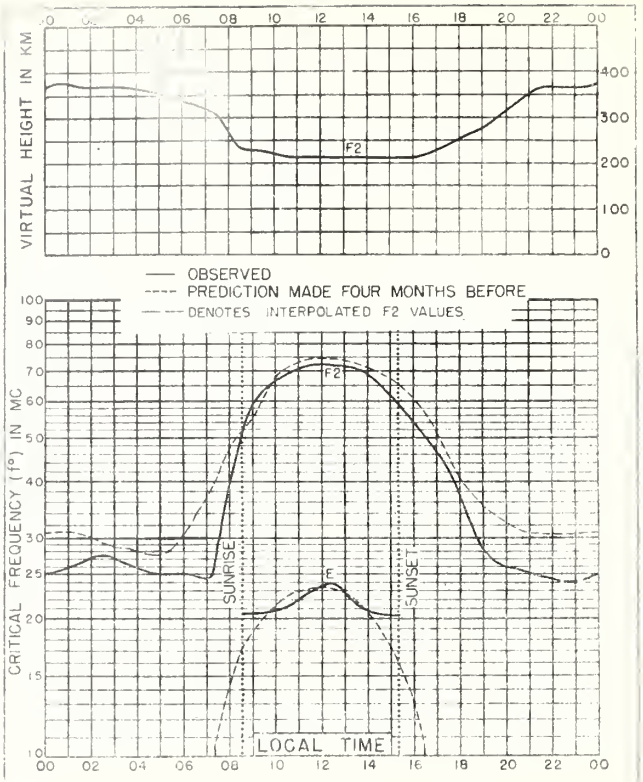


Fig. 68. MOSCOW, U.S.S.R.
55.9°N, 37.3°E DECEMBER, 1945

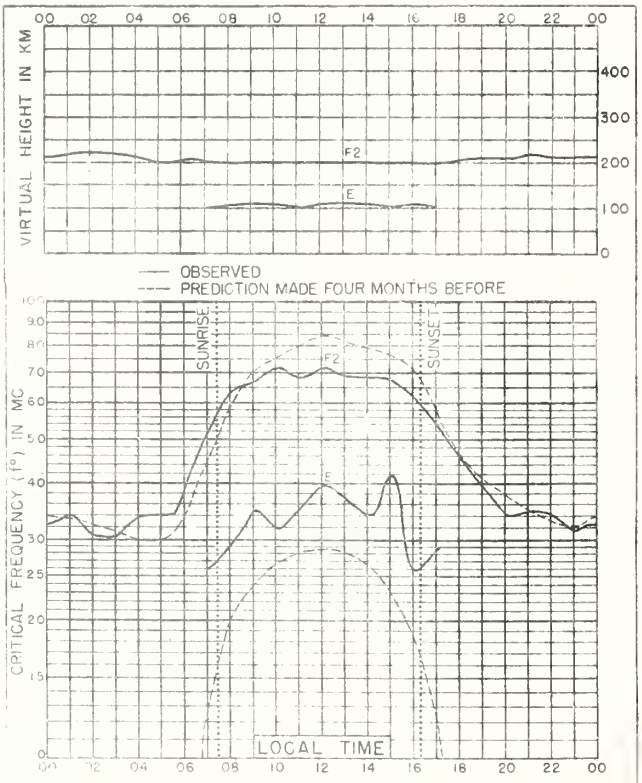


Fig. 69 ALMA ATA, U.S.S.R.
43.2°N, 76.9°E DECEMBER, 1945

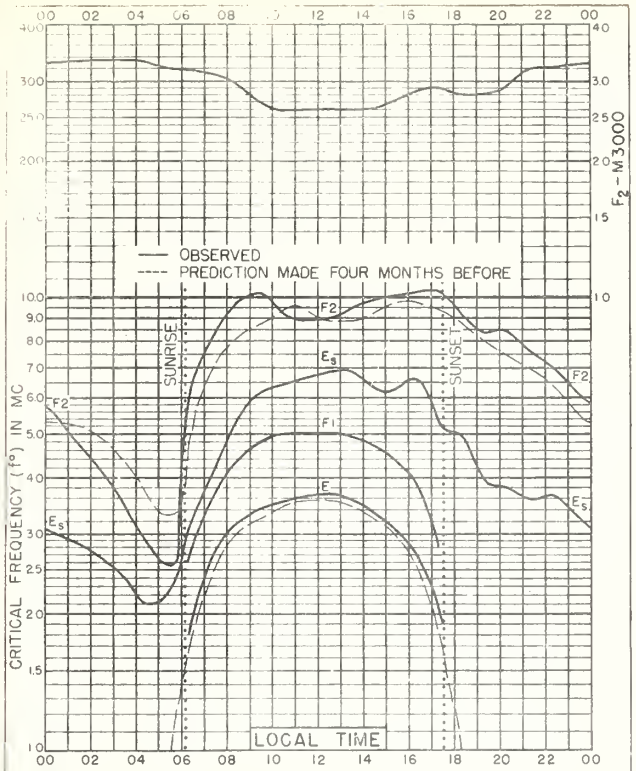


Fig. 70. LEYTE, PHILIPPINE IS.
11.0°N, 125.0°E DECEMBER, 1945

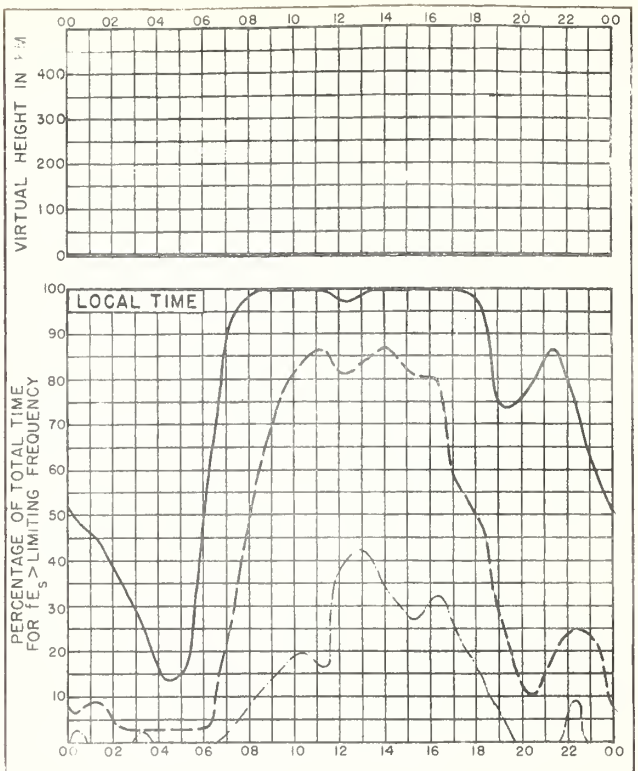


Fig. 71. LEYTE, PHILIPPINE IS. DECEMBER, 1945

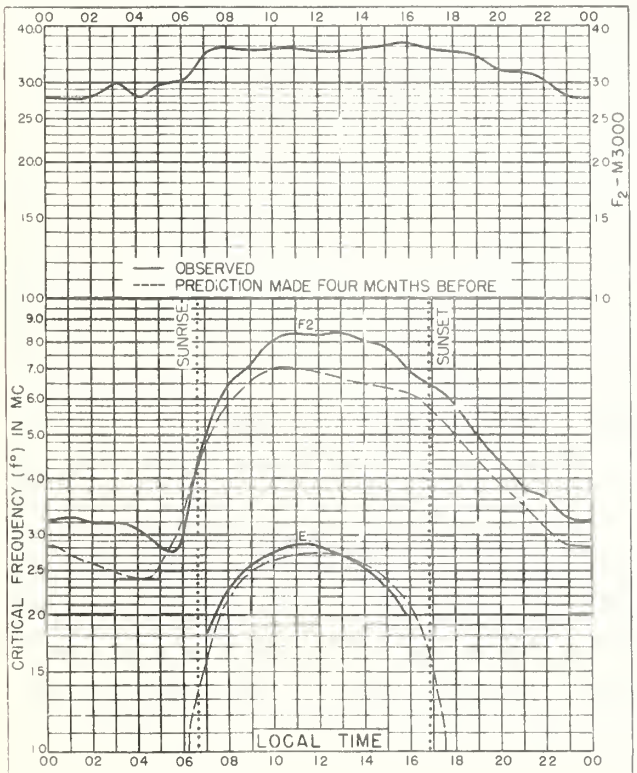


Fig. 72. SVERDLOVSK, U.S.S.R.
56.7°N, 61.1°E OCTOBER, 1945

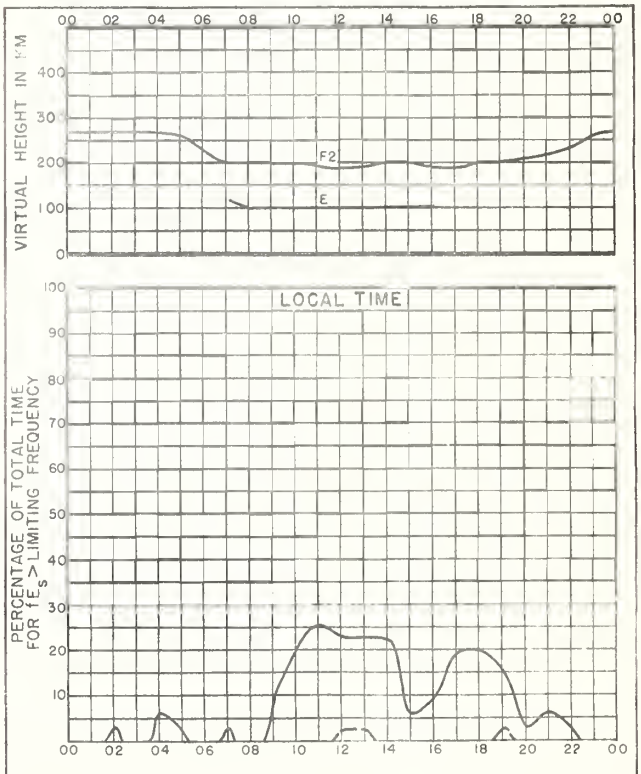


Fig. 73. SVERDLOVSK, U.S.S.R. OCTOBER, 1945

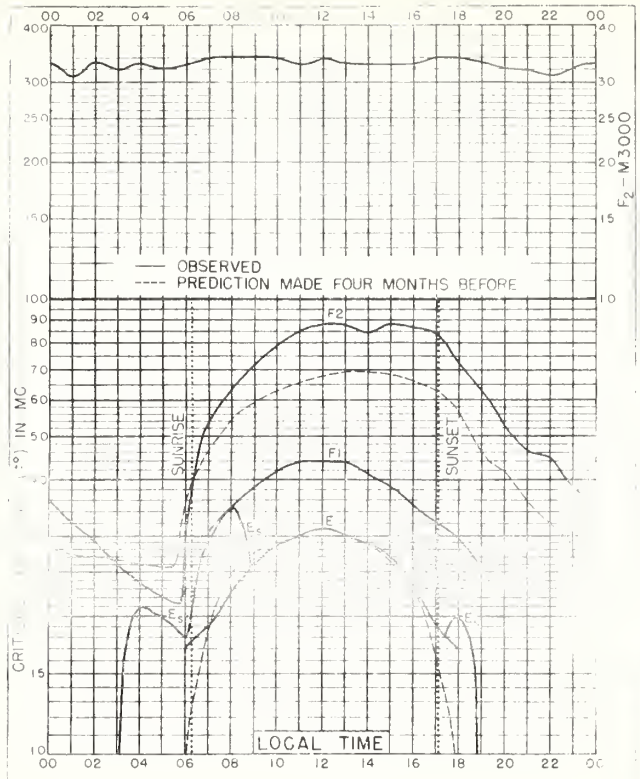


Fig. 74. ST. JOHN'S, NEWFOUNDLAND
47.6°N, 52.7°W OCTOBER, 1945

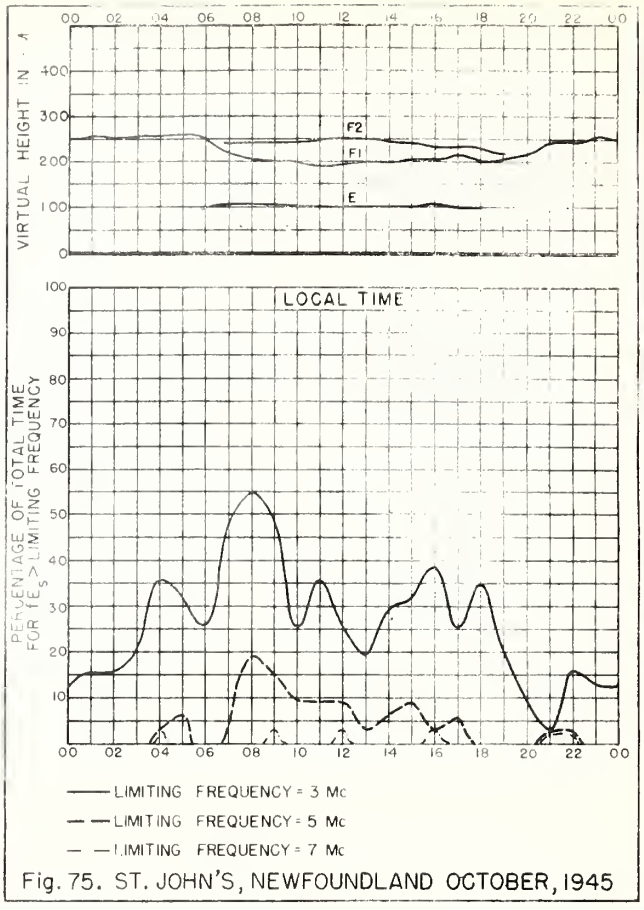


Fig. 75. ST. JOHN'S, NEWFOUNDLAND OCTOBER, 1945

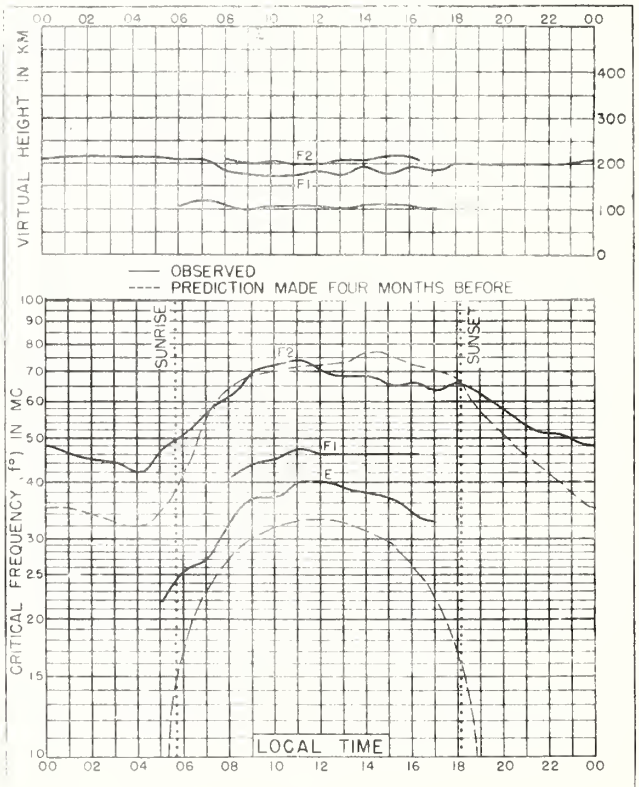


Fig. 76. ALMA ATA, U.S.S.R.
43.2°N, 76.9°E SEPTEMBER, 1945

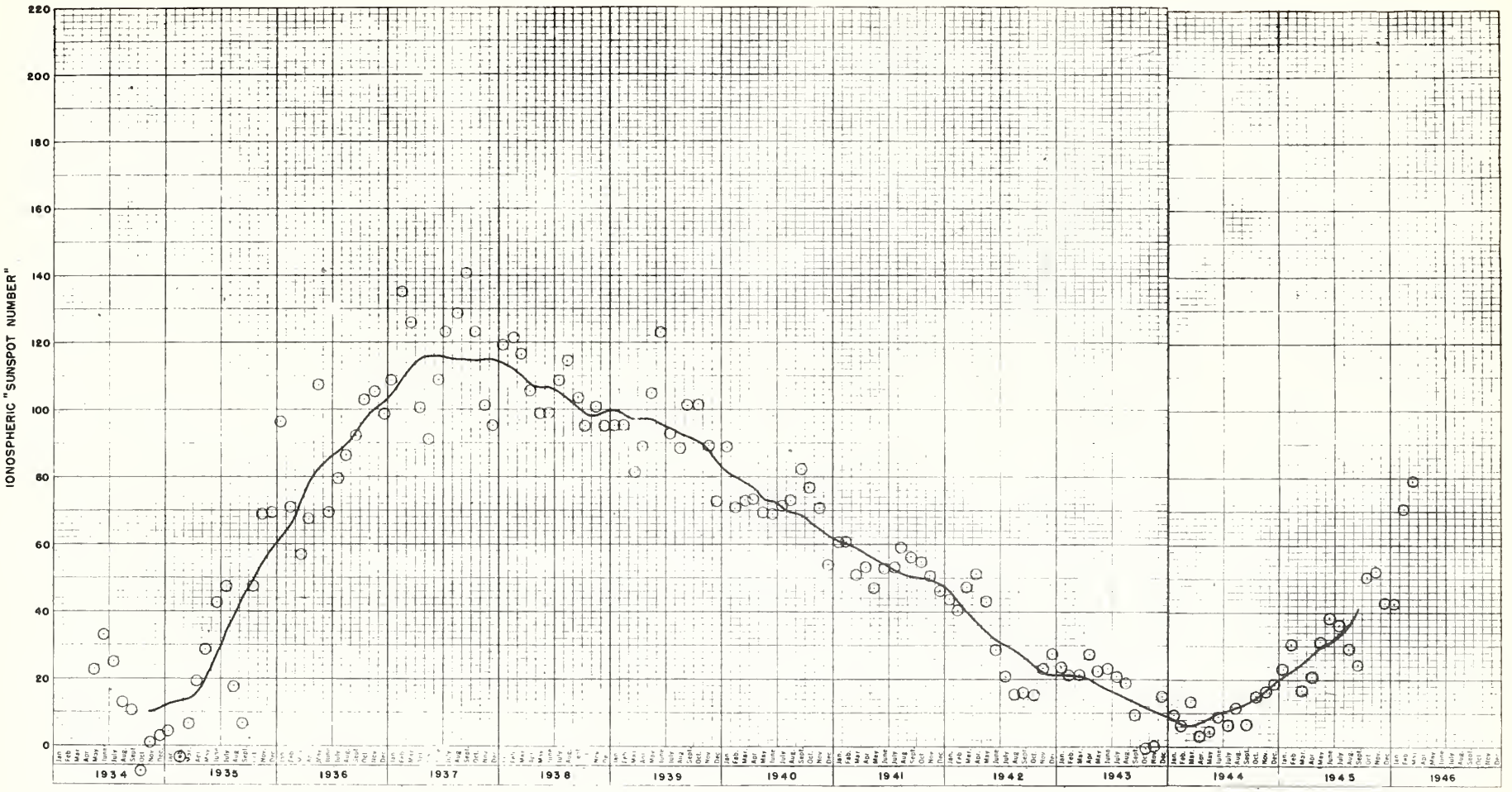


Fig. 77. VARIATION OF IONOSPHERIC "SUNSPOT NUMBER" AS DETERMINED BY YEARLY–AVERAGE TREND AND AVERAGE MONTHLY INDEX OF $f^{\circ}F_2$

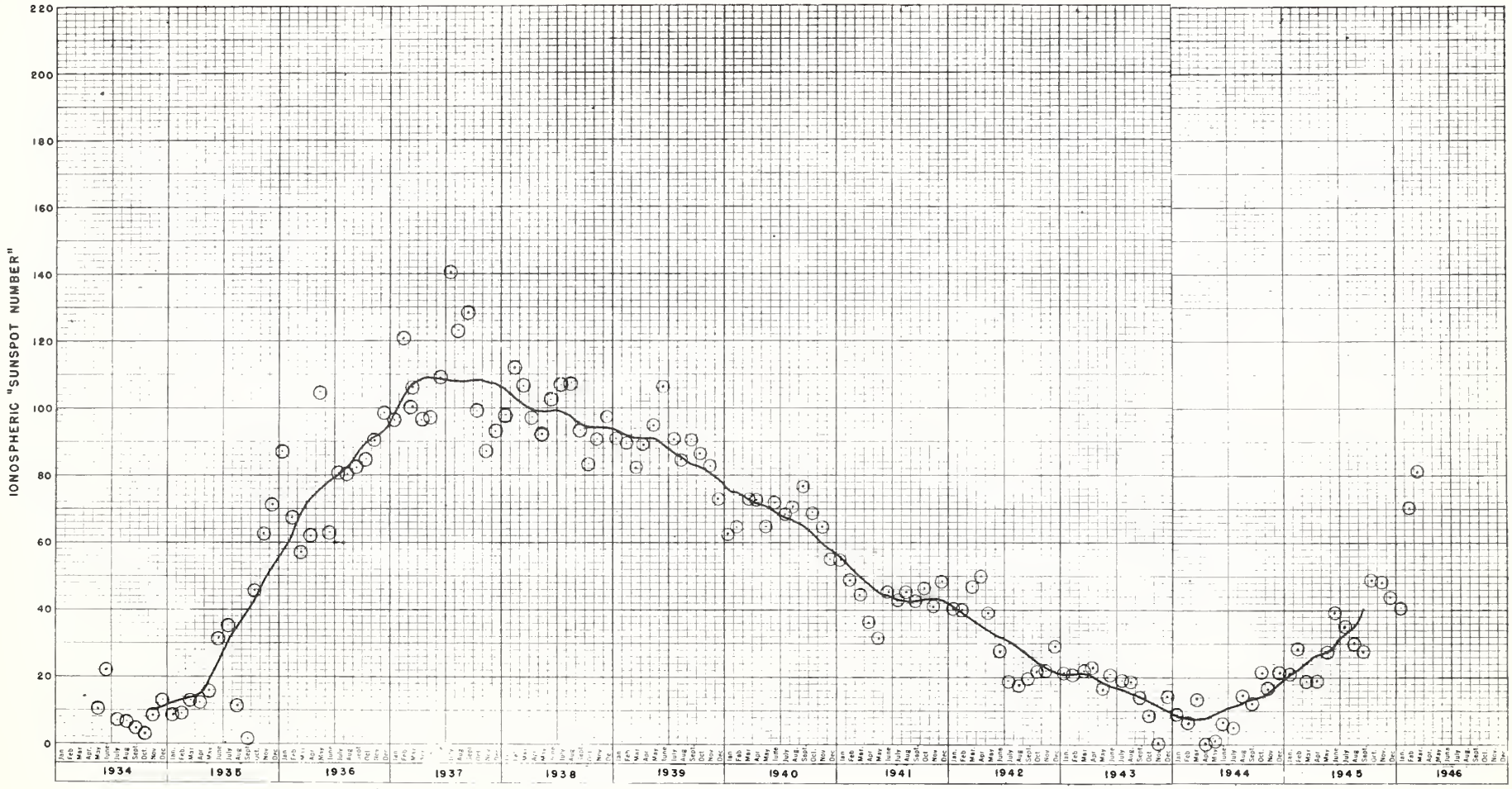


Fig. 78. VARIATION OF IONOSPHERIC "SUNSPOT NUMBER" AS DETERMINED BY TREND OF MONTHLY AVERAGE $f^{\circ}F_2$

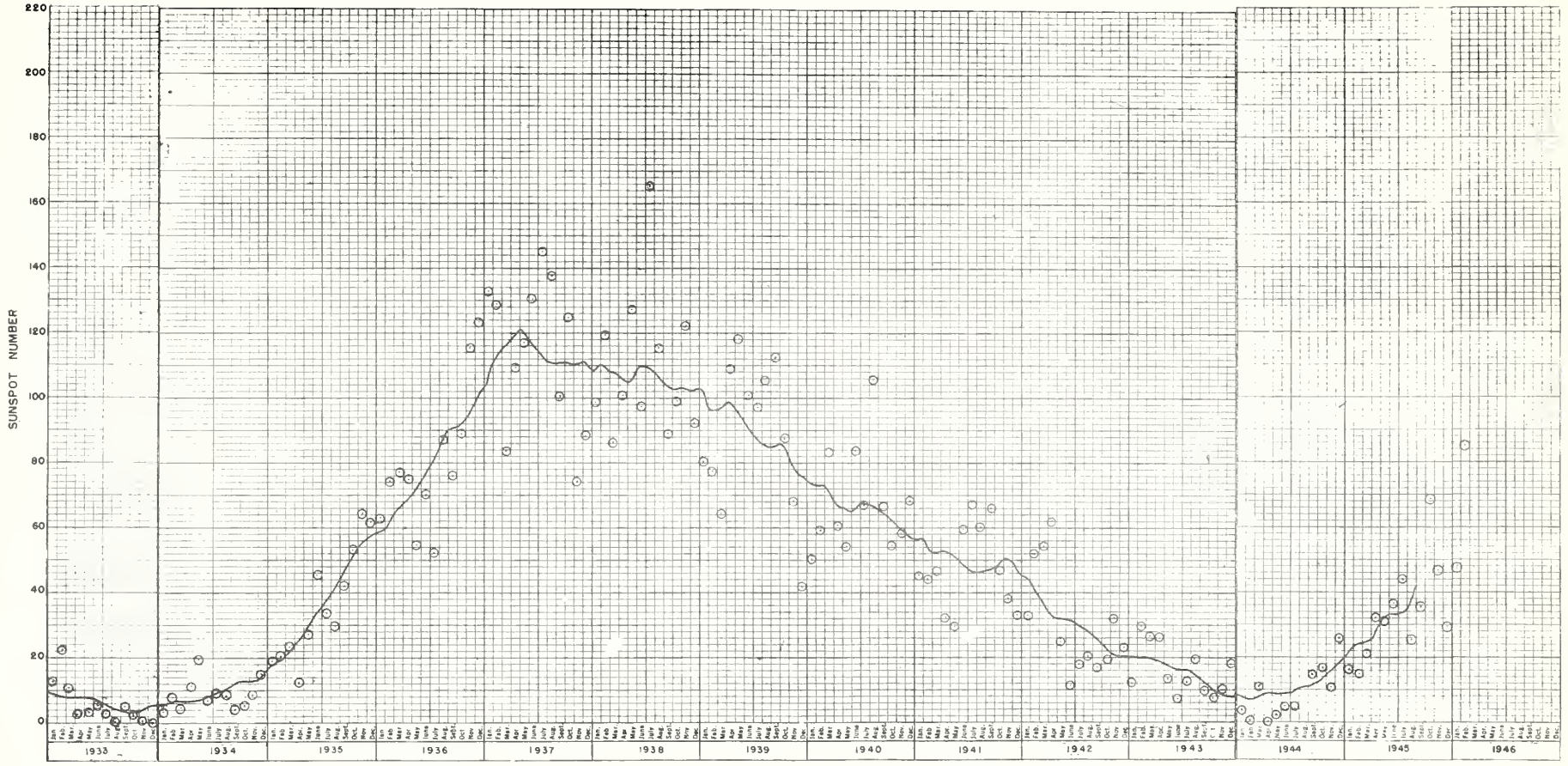


Fig. 79. VARIATION OF ZURICH SUNSPOT NUMBER.

Daily:
Telephoned and telegraphed reports of ionospheric, solar, geomagnetic, and radio propagation data from various places.
Radio disturbance warnings.

Semiweekly:
IRPL-J. Radio Propagation Forecast.

Semimonthly:
IRPL-Ja. Semimonthly Frequency Revision Factors for IRPL Basic Radio Propagation Prediction Reports. (Issued with IRPL-J series approximately one week in advance.)

Monthly:
IRPL-D. Basic Radio Propagation Predictions - Three months in advance. War Dept. TB 11-499- , monthly supplements to TM 11-499; Navy Dept. (DNC-13-1( ), monthly supplements to DNC-13-1.)

IRPL-F. Ionospheric Data.

Bimonthly:

IRPL-G. Correlation of D. F. Errors With Ionospheric Conditions.

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

Special Reports, etc.:
IRPL Radio Propagation Handbook, Part I. (War Dept. TM 11-499; Navy Dept. DNC-13-1.)
IRPL-C1 through C61. Reports and papers of the International Radio Propagation Conference, 17 April to 5 May 1944.
IRPL-R. Unscheduled reports:
R1. Maximum Usable Frequency Graph Paper.
R2 and R3. Obsolete.
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.
R8. The Prediction of Usable Frequencies Over a Path of Short or Medium Length, Including the Effects of Es.
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.
R13. Ionospheric and Radio Propagation Disturbances, October 1943 Through February 1945.
R14. A Graphical Method for Calculating Ground Reflection Coefficients.
R15. Predicted Limits for F2-layer Radio Transmission Throughout the Solar Cycle.
R16. Predicted F2-layer Frequencies Throughout the Solar Cycle, for Summer, Winter, and Equinox Season.
R17. Japanese Ionospheric Data - 1943.
R18. Comparison of Geomagnetic Records and North Atlantic Radio Propagation Quality Figures - October 1943 through May 1945.
R19. Nomographic Predictions of F2-layer Frequencies Throughout the Solar Cycle, for June.
R20. Nomographic Predictions of F2-layer Frequencies Throughout the Solar Cycle, for September.
R21. Notes on the Preparation of Skip-Distance and MUF Charts for Use by Direction-Finder Stations. (For distances out to 4000 km.)
R22. Nomographic Predictions of F2-layer Frequencies Throughout the Solar Cycle, for December.
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 Predictions 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.
R28. Nomographic Predictions of F2-Layer Frequencies Throughout the Solar Cycle for January.
R29. Revised Classification of Radio Subjects Used in National Bureau of Standards (N.B.S. Letter Circular LC-814 superseding circular C385).
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.
R32. Nomographic Predictions of F2-Layer Frequencies Throughout the Solar Cycle, for February.
R33. Ionospheric Data on File at IRPL.
R34. The Interpretation of Recorded Values of fEs.
R35. Comparison of Percentage of Total Time of Occurrence 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.)
T2. Radar Coverage and Weather. (Superseded by JANP 102.)

---

*Items bearing this symbol are distributed only by U.S. Navy in NONREGISTERED PUBLICATIONS MEMORANDA (NRPM). IRPL-A and -H issued under one cover with NRPM identifying numbers.