CRPL-F24

IONOSPHERIC DATA

ISSUED

AUGUST, 1946

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

On July 1, 1946, the Interservice Radio Propagation Laboratory ceased to exist as such. At that time the duties and functions of the IRPL were absorbed by the Central Radio Propagation Laboratory, established at the National Bureau of Standards on May 1, 1946, to act as an organization for centralizing and coordinating basic research and prediction service in the field of radio wave propagation.

The IRPL-F series, "Ionospheric Data", commencing with the July 1946 issue, is known as the CRPL-F series.

CRPL-F 24 CENTRAL RADIO PROPAGATION LABORATORY
NATIONAL BUREAU OF STANDARDS
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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 CRPL, for the Canadian stations, and for all others sending in detailed tabulations to the CRPL, 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 equaled 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 (Es):

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

Values of fEs missing for any other reason, and values of hEs 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 ar 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 same conventions are used by the CRPL in computing the medians from tabulations of daily and hourly data for stations other than Washington, beginning with the tables in IRPL-F16.

"Extent of E" is defined as follows: the highest value of $f^{o}E$. This is usually Es, but may include cases of normal E which were difficult to distinguish from Es owing to the absence of a definite cusp.

MONTHLY AVERAGES AND MEDIAN VALUES OF IONOSPHERIC DATA

The ionospheric data given here in graphical and tabular form were assembled by the Central Radio Propagation Laboratory for analysis and correlation, incidental to CRPL 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 Department of Scientific and Industrial Research
(National Physical Laboratory):
- Slough, England
- Great Baddow, England
- Burghead, Scotland
- Capetown, Union of S. Africa
- Colombo, Ceylon
- Oslo, Norway
- Cairo, Egypt
- Falkland Is.
- Tromso, Norway

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

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

South African Council for Scientific and Industrial Research:
- Johannesburg, Union of S. Africa.

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 Institution of Washington (Department of Terrestrial Magnetism):
Christmas I.
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
Okinawa, I.

National Bureau of Standards (Central Radio Propagation Laboratory):
Washington, D. C.
San Francisco, California (Stanford University)
Baton Rouge, Louisiana (Louisiana State University)
San Juan, Puerto Rico (University of Puerto Rico)
Boston, Massachusetts (Harvard University)
Fairbanks, Alaska (University of Alaska, College, Alaska)

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
Peiping, China

National Wuhan University:
Loshan, China

The tables of "provisional data" give values (1) as reported either to the CRPL or other central laboratory by telephone or telegraph; or (2) which are reported in summary form by stations from which monthly ionosperic 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 CRPL, but, because of variations in practice in the interpretation of records and scaling and manner of reporting of values, may at times give an erroneous conception of typical ionospheric characteristics at the station. Some of these errors are due to:

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

b. Omission of values where $f^{o}F2$ is less than or equal to $f^{o}F1$, 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 CRPL-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 89 presents ionosphere character figures for Washington, D. C., during July 1946, as determined by the criteria presented in the report IRPL-R5, "Criteria for Ionospheric Storminess," together with American magnetic K-figures which are usually covariant with them.

Table 91 gives provisional radio propagation quality figures for North Atlantic and North Pacific areas, for 01 to 12 and 13 to 24 GCT, June 1946, compared with the CRPL daily radio disturbance warnings, which are primarily for the North Atlantic paths, the CRPL weekly radio propagation forecasts of probable disturbed periods, and the half-day American geomagnetic K-figures.

The radio propagation quality figures for the North Atlantic were prepared from radio traffic and ionospheric data reported to the CRPL, 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 CRPL, in a manner similar to that of IRPL-R31. The master scale of IRPL-R31 was used to formulate conversion scales for the North Pacific reports. Currently, beginning with CRPL-F23, issued July 1946, the North Pacific radio propagation quality figures reported are prepared from these revised conversion scales rather than, as hitherto, from the conversion scales of report IRPL-R13, "Ionospheric and Radio Propagation Disturbances, October 1943 through February 1945," issued 24 May 1945.

These radio propagation quality figures give a consensus of opinion of actual radio propagation conditions as reported by the half day over the two general areas. It should be borne in mind, however, that though the quality may be disturbed according to the CRPL scale, the cause of the disturbance is not necessarily known. There are many variables that must be considered. In addition to ionospheric storminess itself as the

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

AMERICAN RELATIVE SUNSPOT NUMBERS

Table 92 presents the daily median values of relative sunspot numbers as reported by American observers. The reports have been reduced, by appropriate constants, approximately to the Zurich scale of relative sunspot numbers. The monthly relative sunspot number is the mean of the daily median values listed in the table. This method was devised by Mr. A. H. Shapley of DTM, CIW. Details will be found in "Popular Astronomy," Vol. 54, No. 7, pp. 351 to 358, Aug. 1946; title: American Observations of Relative Sunspot Numbers in 1945 for Application to Ionospheric Prediction - by A. H. Shapley.

SUNSPOT GROUP OF JULY 19 THROUGH AUGUST 2, 1946 AND ASSOCIATED TERRESTRIAL EFFECTS

The sunspot group crossing the solar disc July 19 through August 2, 1946, though only about two-thirds the size of the largest one on record on the disc January 29 to February 11, 1946, was rated as one of the five largest of all time by the Mt. Wilson Observatory. The average size of the group was 3500 millionths of the sun's visible disc, according to the reports of the U.S. Naval Observatory, or about 70 times the area of the earth. It was easily visible to the naked eye through smoked glass.

As with the February group, many solar flares were observed which were accompanied by SID. Table 90 of this report presents the sudden

ionosphere disturbances for the whole month. The most severe and prolonged SID occurred on July 25, beginning about 1510 GCT, and resembled the one of Feb. 6, 1946, reported in IRPL-F21, "Ionospheric Data," issued May, 1946.

A moderate geomagnetic storm with no individual K-figure greater than four was recorded by the Cheltenham, Md. Observatory of the U. S. Coast and Geodetic Survey from 0800 GCT, July 25, to 0600 GCT, July 26. A storm of unusual severity was reported beginning with a sudden commencement at 1845 GCT, July 26, during the course of which two consecutive K figures of 9 (maximum geomagnetic disturbance) occurred. This sudden commencement would indicate a travel time for the corpuscular stream from the sun to the earth of about 27½ hours, if the stream started at the time of the flare that gave rise to the severe SID of July 25. The sunspot group was crossing the sun's central meridian on July 26, thus being in a favorable position for causing disturbance on that date and the days following.

The severe geomagnetic storm ended at 1300 GCT, July 27, but a moderate to severe storm followed at 2000 GCT, July 28, lasting until 1900 GCT, July 30. Though the trace was quiet after then, the general level of the horizontal geomagnetic intensity was depressed below normal through August 1.

Other evidence of the pronounced terrestrial effects associated with this sunspot group was the prevalence of brilliant aurora in the early Greenwich hours of July 27. A spectacular display of rays from horizon to beyond the zenith with changing form and color was observed at Washington, D.C.

Beginning with CRPL-J 159, "Radio Propagation Forecast," issued July 3, 1946, July 26-27 was listed as a probable disturbed period and the period was extended July 27-30 in CRPL-J 161, issued July 26. The North Atlantic radio propagation disturbance warning was broadcast continuously on WWV, Washington, D. C., from 2100 GCT, July 25, through 2100 GCT, July 31.

The radio propagation reports received by the CRPL have clearly indicated the correctness of the above forecasts. Fairbanks, Alaska, reported a blackout of vertical-incidence ionosphere records from 1800 GCT, July 26 to 0800 GCT, July 28, from 1200 GCT, July 28, to 0800 GCT, July 29, from 1300 GCT July 29 to 0400 GCT July 30, and 1200-1400 and 1800 GCT, July 30. Churchill, Canada, reported complete blackout from 1700 GCT July 25 into July 28 with conditions much below normal into July 31 and still moderately disturbed on August 1. Ottawa, Canada, Prince Rupert, B.C. and St. John's, Newfoundland, also reported a blackout of vertical-incidence reflections on July26-27. Even the Washington, D.C., ionospheric records were blacked out from 0100 to 0900 GCT July 27. Table 91 of this report presents the ionospheric storminess character figures for Washington, D.C., for this period in detail.

Such radio traffic data thus far reported by the FCC, Army, Navy, and commercial networks indicated European stations to be unheard most of July 26-27 with at least moderate disturbance continuing into July 31.

ERRATA

1. CRPL-F23, Table 52:
   The asterisk (*) in the heading of FEs column, referring to the note at the bottom of the page, was omitted.

2. CRPL-F23:
   Table 39, for hours indicated, should read as follows:

	$f^{o}F2$
20	8.6
21	8.6
22	8.5
23	8.6

   Table 42, for hours indicated, should read as follows:

	fEs
01	2.7
02	2.7
03	2.6
04	2.6

   Table 80, for date indicated, should read as follows:

Date	No.
10	36

3. The position of Cairo, Egypt, as given in IRPL-F18 through -F22, should have been $30.6^{o}N$, $31.9^{o}E$.

4. The position of Falkland Is., as given in IRPL-F19 through -F21, should have been $51.7^{o}S$, $57.7^{o}W$.

Table 1 (Provisional Data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.3						2.9
01		4.5						3.0
02		4.4						3.0
03		4.4						3.0
04		4.3						3.0
05		4.4						2.8
06		4.4						2.8
07		4.6						2.5
08		4.9						2.6
09		5.0						2.7
10		5.0						2.7
11								
12		4.8						2.7
13		4.9						2.8
14		4.7						2.6
15		4.9						2.7
16		4.9						2.8
17		4.7						2.7
18		4.7						2.9
19		4.6						2.9
20		4.7						2.9
21		4.5						2.9
22		4.5						2.9
23		4.4						3.0

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

Table 2 (Provisional Data)

Fairbanks, Alaska (64.8°N, 147.8°W) July 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	300	4.5				1.8	3.5	2.7
01	310	4.4					5.5	2.7
02	330	4.8					5.0	2.6
03	380	4.8				2.1	4.2	2.6
04	420	5.0	300	3.6		2.4	5.0	2.6
05	420	5.4	250	3.9		2.6	5.1	2.6
06	460	5.2	240	4.1		3.0	3.8	2.4
07	470	5.2	240	4.3		3.0	3.5	2.5
08	460	5.5	230	4.4		3.1	3.8	2.5
09	480	5.7	220	4.5		3.3	3.6	2.5
10	480	5.5	230	4.6		3.4	3.6	2.5
11	460	5.4	220	4.6		3.5	3.6	2.5
12	490	5.7	220	4.7		3.5	3.4	2.5
13	490	5.6	220	4.7		3.3	3.4	2.5
14	500	5.5	230	4.7		3.3	3.6	2.5
15	440	5.6	220	4.6		3.3	3.3	2.6
16	440	5.7	230	4.5		3.2	3.3	2.6
17	400	5.6	230	4.3		3.0	3.2	2.6
18	320	5.6	250	3.9		2.8	3.2	2.7
19	270	5.6	250	3.8		2.5	3.2	2.8
20	280	5.5				2.1	3.5	2.8
21	290	5.2				1.9	3.3	2.8
22	270	5.0				1.6	4.0	2.8
23	280	5.0				1.6	3.5	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) July 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.6						2.7
01		4.6						2.8
02		4.5						2.8
03		4.7						2.9
04		4.6						2.8
05		4.7						2.7
06		5.1						2.8
07		5.4						2.8
08		5.4						2.6
09		5.4						2.7
10		5.7						2.6
11		6.0						2.7
12		6.1						2.7
13		6.3						2.7
14		6.4						2.6
15		6.4						2.7
16		6.3						2.7
17								2.9
18								2.8
19		6.2						2.8
20		5.5						2.8
21		5.0						2.8
22		4.9						2.7
23		5.0						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) July 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.2						3.1
01		3.8						3.0
02		3.8						2.9
03		3.1						2.9
04		3.2						3.0
05		4.1						2.8
06		4.8						2.8
07		5.2						2.8
08		5.1						2.7
09		5.3						2.7
10		5.6						2.6
11		5.8						2.8
12		5.8						2.8
13		5.7						2.7
14		5.7						2.8
15		5.7						2.7
16		5.8						2.8
17		5.8						2.9
18		5.8						3.0
19		6.0						3.1
20		5.9						3.2
21		5.7						3.1
22		5.2						3.1
23		4.7						3.1

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

Table 5 (Provisional Data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	5.5						2.7
01								
02								
03								
04								
05								
06	420	5.8	250	4.3		2.9	6.2	2.5
07	320	6.5		4.8		2.7	5.8	2.6
08	420	6.1	320	4.5		3.0	5.4	2.6
09	400	6.3	220	4.9		2.9	5.0	2.6
10	400	6.5	210	5.0		3.1	5.1	2.6
11	380						5.0	2.9
12	390	6.6	190	5.1		3.3	6.2	2.7
13	390	6.4	200	5.0		3.1	5.0	2.7
14	400	6.1	200	5.0			5.0	2.7
15	420	5.9	200	4.9		3.2	5.3	2.7
16	370	5.9	230	4.5			5.8	2.9
17	340	5.7	240			3.1	4.5	3.0
18	290	6.1				2.6	4.5	3.0
19	280	6.4					4.6	2.9
20	260	6.4					5.0	3.0
21	270	6.8					4.0	2.8
22	270	6.4					3.5	2.8
23	290	6.0					4.9	2.7

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

Table 6 (Provisional Data)

St. John's, Newfoundland, 47.6°N, 52.7°W) July 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.9						3.0
01		5.9						3.1
02		5.3						3.1
03		4.8						3.1
04		4.4						3.2
05		4.0						3.3
06		5.0						3.3
07		5.0						3.3
08		5.7						3.1
09		5.8						3.2
10		6.0						3.1
11		6.3						3.1
12		6.0						3.0
13		6.1						3.0
14		6.0						3.0
15		6.4						3.0
16		6.7						3.0
17		6.8						3.1
18		6.8						3.1
19		7.0						3.2
20		6.8						3.1
21		6.8						3.0
22		6.6						3.0
23		6.5						3.1

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

Table 7 (Provisional Data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.1						2.9
01		4.7						2.9
02		3.9						3.0
03		3.7						3.0
04		3.3						3.0
05		3.8						3.0
06		4.4						3.0
07		4.8						3.0
08		5.7						2.9
09		5.9						2.8
10		6.0						2.7
11		6.1						2.8
12		5.8						2.6
13		6.0						2.6
14		6.4						2.6
15		6.3						2.6
16		6.2						2.6
17		6.5						2.7
18		6.8						2.7
19		6.9						2.8
20		7.1						2.8
21		6.9						2.8
22		6.4						2.9
23		5.1						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) July 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		6.1						2.7
01		5.4						2.6
02		4.9						2.7
03		4.6						2.7
04		4.7						2.7
05		4.3						2.8
06		4.6						2.8
07		5.1						2.8
08		5.6						2.8
09		6.0						2.7
10		8.5						2.7
11		6.6						2.7
12		6.5						2.8
13		6.6						2.7
14		6.7						2.6
15		6.5						2.6
16		6.8						2.8
17		6.8						2.8
18		6.8						2.7
19		6.8						2.7
20		8.7						2.7
21		6.6						2.7
22		6.7						2.7
23		6.5						2.6

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) July 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.0						2.6
01		4.9						2.6
02		4.8						2.6
03		4.4						2.6
04		4.1						2.6
05		4.0						2.7
06		4.9						2.7
07		5.8						2.7
08		6.4						2.8
09		7.2						2.7
10		7.4						2.8
11		7.6						2.7
12		8.0						2.8
13		7.8						2.8
14		7.6						2.8
15		7.5						2.8
16		7.4						2.9
17		7.2						2.9
18		7.2						3.0
19		6.8						3.0
20		7.0						3.0
21		6.2						2.8
22		5.5						2.8
23		5.0						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) July 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.4						3.0
01		5.0						3.0
02		4.8						2.9
03		4.7						3.0
04		4.7						3.0
05		4.6						3.0
06		5.5						2.9
07		6.5						2.9
08		7.3						2.9
09		8.0						2.9
10		8.2						2.9
11		8.1						2.9
12		8.6						2.8
13		10.9						2.8
14		8.2						2.8
15		8.4						2.9
16		8.5						2.9
17		8.3						3.0
18		8.0						3.0
19		7.3						3.1
20		6.7						3.0
21		6.4						3.0
22		6.0						2.9
23		5.8						2.9

Time: 90.0°W.
Sweep: 1.9 Mc to 9.8 Mc in three minutes, 30 seconds.
Median values.

Table 11 (Provisional Data)

Trinidad, British West Indies (10.6°N, 61.2°W) July 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	9.4						2.9
01	260	9.0						2.9
02	250	8.3						2.9
03	260	7.8						3.0
04	250	7.0						3.1
05	260	6.5						3.1
06	250	6.8				3.6	3.3	3.2
07	240	7.3	220	5.0		3.3	3.4	3.1
08	290	7.9	220	5.3		3.5	4.0	2.9
09	350	8.7	220	5.6		3.8	4.4	2.6
10	360	9.5	220	5.5		4.0	4.6	2.6
11	370	10.8	220	5.6		4.1	4.6	2.6
12	360	11.3	220	5.5		4.0	4.7	2.7
13	350	11.7	220	5.4		4.0	5.0	2.7
14	350	11.6	220	5.3		3.8	5.0	2.7
15	340	11.7	230	5.1		3.6	5.1	2.8
16	320	11.8	240	4.7		3.0	4.9	2.8
17	310	11.3				2.3	4.6	2.8
18	290	10.5					3.8	2.8
19	270	10.1					4.4	2.7
20	290	10.7					3.8	2.7
21	280	10.6					2.6	2.8
22	280	10.4					2.1	2.8
23	270	10.0						2.9

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

Table 12 (Provisional Data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.2						2.9
01		4.2						2.9
02		4.1						3.0
03		3.8						3.0
04		3.6						2.8
05		3.4						2.6
06		3.6						3.0
07		6.3						3.3
08		8.1						3.3
09		9.4						3.3
10		9.6						3.2
11		9.1						3.2
12		8.7						3.1
13		8.9						3.1
14		9.1						3.0
15		8.8						3.1
16		8.2						3.1
17		8.0						3.1
18		7.0						3.1
19		6.1						2.9
20		5.3						3.0
21		5.1						2.9
22		4.6						3.0
23		4.2						2.8

Time: Local.
Sweep: 2.2 Mc to 13.5 Mc in two minutes, thirty seconds.
Median values

Table 12 (Provisional Data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMe	F2-M3000
00		3.5						2.9
01		3.6						2.8
02		3.8						2.9
03		3 8						3.0
04		3.6						2.9
05		3.3						2.9
06		3.2						3.1
07		5.4						3.3
08		7.8						3.4
09		8.6						3.4
10		9.2						3.3
11		9.3						3.2
12		9.2						3.1
13		9.6						3.1
14		9.5						3.1
15		9.7						3.1
16		9.4						3.1
17		8.4						3.2
18		6.8						3.1
19		5.3						3.1
20		4.3						3.2
21		3.7						3.0
22		3.7						2.9
23		3.5						2.8

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

Table 14 (Provisional Data)

Camberra, Australia (35.3°S, 149.0°E) July 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMe	F2-M3000
00		4.0						2.7
01		4.0						2.7
02		4.0						2.8
03		3.9						2.7
04		3.9						2.7
05		3.6						2.8
06		3.3						2.7
07		4.6						2.9
08		7.3						3.1
09		8.2						3.1
10		8.5						3.1
11		8.7						3.0
12		8.5						3.0
13		8.8						3.0
14		8.4						3.0
15		8.4						3.0
16		8.1						3.0
17		7.6						3.0
18		6.6						3.0
19		5.8						2.9
20		5.1						2.8
21		4.5						2.8
22		4.3						2.8
23		4.1						2.7

Time: Local.
Sweep: 1.6 Mc to 12.5 Mc in two minutes.
Median values.

Table 15 (Provisional Data; supersedes Table 1, CRPL-F23)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMe	F2-M3000
00	290	4.4						3.0
01	300	4.4						3.0
02	300	4.4						3.0
03	350	4.4						3.9
04	390	4.3						2.8
05	490	4.3						2.6
06	460	4.4						2.6
07	450	4.5						2.7
08	475	4.8						2.6
09	(400)	(5.0)						2.9
10	(400)	(5.2)						2.8
11	430	5.2						2.8
12	400	5.2					2.6	2.9
13	(400)	(5.2)						2.9
14	450	5.0						2.7
15	450	5.0						2.7
16	450	4.8						2.7
17	385	4.9						2.9
18	370	4.7						2.9
19	360	4.8						2.9
20	360	4.7						2.9
21	335	4.7						2.9
22	300	4.5						3.0
23	290	4.4						3.1

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

Table 16 (Provisional Data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMe	F2-M3000
00		4.8						2.8
01		4.9						2.8
02		4.4						2.9
03		4.4						2.9
04		4.7						2.9
05		4.7						2.9
06		4.8						2.8
07		5.0						2.9
08		5.4						2.8
09		5.4						2.7
10		5.7						2.7
11		5.8						2.7
12		5.9						2.8
13		6.0						2.7
14		6.2						2.7
15		6.3						2.7
16		6.4						2.7
17		6.2						2.8
18		6.1						2.9
19		5.8						2.9
20		5.6						2.9
21		5.4						2.9
22		5.2						2.8
23		5.0						2.8

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

Table 17 (Provisional Data)

Okinawa I. (26.3°N, 127.8°E) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	f°s	F2-M3000
00		7.9					6.0	2.7
01		7.9					5.6	2.7
02		7.9					5.3	2.8
03		7.1					5.1	2.7
04		6.8					4.7	2.9
05		6.6					4.7	2.8
06		6.9					5.0	3.0
07		7.4				2.6	5.1	3.1
08		7.4				3.2	6.2	2.9
09		8.1		5.2		3.5	7.4	2.8
10		8.3		5.2		3.7	7.2	2.6
11		9.6		5.2		3.9	7.5	2.5
12		9.7		5.4		4.1	6.3	2.6
13		10.6		5.2		4.0	6.8	2.7
14		10.8		5.3		3.9	5.6	2.8
15		11.0		5.2		3.7	5.5	2.8
16		10.9		5.1		3.4	5.3	2.8
17		10.9		4.9		3.2	6.2	2.8
18		10.7		4.5		2.6	6.3	2.9
19		10.2					5.5	3.0
20		8.6					5.6	2.8
21		8.1					4.7	2.6
22		8.3					4.1	2.5
23		8.3					3.8	2.6

Time: 135.0°E.
Median values.

Table 18 (Provisional Data)

Guam I. (13.6°N, 144.8°E) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	f°s	F2-M3000
00	330	8.6					2.6	2.8
01	320	7.0					2.4	2.8
02	310	6.9					2.2	2.9
03	300	6.6						2.9
04	280	6.4						3.1
05	250	5.5						3.2
06	260	6.0					2.4	3.2
07	240	7.3					5.8	3.1
08	250	8.2	220	4.2		3.3	6.8	2.9
09	290	8.7	220	5.0			7.2	2.7
10	250	9.5	210	5.3			6.8	2.5
11	260	9.7	210	5.5			6.7	2.5
12	290	10.1	200	5.5		4.1	7.3	2.4
13	400	10.4	200	5.5			6.8	2.4
14	390	11.3	200	5.4			6.7	2.5
15	360	11.5	210	5.3			7.0	2.5
16	320	11.8	210	5.1			7.0	2.6
17	300	11.8	230	4.7			7.0	2.6
18	270	11.7					6.7	2.7
19	280	11.4					6.9	2.7
20	330	10.3					6.3	2.5
21	360	9.2					3.9	2.5
22	350	9.1					3.6	2.5
23	350	8.5					3.0	2.6

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

Table 19 (Provisional Data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	f°s	F2-M3000
00		8.5						2.8
01		7.6					1.5	3.0
02		7.4					<1.6	3.0
03		6.8					<1.6	3.0
04		6.3					<1.6	3.1
05		5.5					1.8	3.1
06		4.9					<1.6	2.9
07		7.2		3.0		2.2	3.4	3.0
08		8.9				3.0	5.3	2.9
09		9.3				3.5	5.4	2.6
10		9.4		5.3		3.8	6.0	2.4
11		9.4		5.2		3.9	6.0	2.3
12		9.5		5.5		3.9	6.8	2.3
13		9.7		5.4		4.2	6.9	2.3
14		9.9					8.5	2.3
15		10.0		5.4		3.9	6.8	2.3
16		10.2		5.3		3.6	6.0	2.3
17		10.5				3.3	7.1	2.4
18		10.6				2.6	5.9	2.5
19		10.5					6.1	2.5
20		9.5					4.8	
21		9.1					3.5	
22		8.2					3.4	
23		8.2					3.1	

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

Table 20 (Provisional Data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	f°s	F2-M3000
00		4.0						3.0
01		4.1						3.0
02		4.1						3.0
03		4.2						3.0
04		4.1						3.0
05		3.9						3.0
06		3.8						3.2
07		5.9						3.5
08		7.7						3.4
09		8.8						3.4
10		9.4						3.4
11		8.9						3.3
12		8.8						3.3
13		8.6						3.3
14		8.8						3.4
15		8.8						.5
16		8.5						
17		7.8						
18		6.6						
19		5.2						
20		4.5						
21		4.6						
22		4.2						
23		4.1						

Time: Local.
Sweep: 2.2 Mc to 12.5 Mc in two minutes, [illegible]
Median values.

Table 21 (Provisional Data)

Watheroo, W. Australia (30.3°S, 116.9°E) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMin	F2-M3000
00		3.6						2.9
01		3.6						2.9
02		3.9						3.0
03		3.7						3.0
04		3.6						3.0
05		3.3						3.1
06		3.3						3.3
07		5.4						3.3
08		7.7						3.4
09		8.3						3.4
10		8.3						3.4
11		9.1						3.3
12		9.3						3.3
13		9.4						3.3
14		9.7						3.3
15		9.3						3.2
16		9.3						3.3
17		8.0						3.2
18		6.3						3.3
19		4.7						3.1
20		3.6						3.3
21		3.3						3.0
22		3.3						2.9
23		3.3						2.9

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

Table 22 (Provisional Data; supersedes Table 1, IRPL-F22)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMin	F2-M3000
00		4.3						3.0
01		4.3						3.1
02		4.0						3.0
03		3.6						3.0
04		3.9						3.9
05		3.8						2.8
06		3.9						2.9
07		4.4						2.7
08		4.5						2.9
09		5.1					2.9	2.9
10		5.2						2.9
11		5.4					3.0	2.9
12		5.2						2.8
13		5.1						2.8
14		5.0						2.9
15		5.2						2.8
16		5.0						2.8
17		4.9						2.9
18		6.2						2.9
19		4.8						3.0
20		4.8						3.0
21		4.6						3.1
22		4.5						3.1
23		4.3						3.1

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

Table 23 (Provisional Data)

Leningrad (LENI), U.S.S.R. (59.9°N, 30.3°E) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMin	F2-M3000
00		5.1						
01		5.2						
02		5.5						
03		5.7						
04		5.7						
05		5.9						
06		6.0						
07		6.2						
08		6.2						
09		6.2						
10		6.1						
11		6.2						
12		6.1						
13		6.2						
14		6.5						
15		6.0						
16		6.0						
17		6.0						
18		6.9						
19		5.9						
20		5.7						
21		5.5						
22		5.3						
23		5.4						

Time: 30.0°E.
Sweep: 1.6 Mc to 9.0 Mc in five to ten minutes. Manual operation.
Average values.

Table 24 (Provisional Data)

Sverdlovsk, U.S.S.R. (56.7°N, 61.1°E) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMin	F2-M3000
00		8.1						
01		8.2						
02		8.3						
03		8.2						
04		7.6						
05		7.9						
06		7.2						
07		7.6						
08		7.2						
09		7.4						
10		7.6						
11		7.0						
12		7.2						
13		7.0						
14		6.8						
15		6.9						
16		6.7						
17		6.8						
18		6.7						
19		6.3						
20		5.7						
21		5.4						
22		5.0						
23		4.6						

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

Table 25 (Provisional Data)

Alma Ata, U.S.S.R. (43.2°N, 76.9°E) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		6.0						
01		6.0						
02		6.0						
03		7.2						
04		7.2						
05		7.5						
06		8.4						
07		9.0						
08		9.6						
09		9.8						
10		9.1						
11		9.6						
12		6.7						
13		9.4						
14		9.6						
15		8.7						
16		8.5						
17		8.1						
18		7.3						
19		7.0						
20		6.7						
21		6.6						
22		6.2						
23		6.5						

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

Table 26 (Provisional Data; supersedes Table 1, IRFL-F21)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.4						3.1
01		3.8						3.0
02		3.8						3.2
03		3.7						3.1
04		4.0						3.2
05		3.9						3.2
06		4.1						3.1
07		4.5						3.0
08		4.8						3.0
09		5.2						3.0
10		5.1						3.0
11		5.2						3.0
12		5.2						3.0
13		5.4						3.0
14		4.9						3.0
15		4.9						2.9
16		5.2						3.0
17		5.0						3.0
18		5.0						3.1
19		4.9						3.1
20		4.8						3.1
21		4.4						3.2
22		4.6						3.2
23		4.4						3.1

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

Table 27 (Provisional Data)

Leningrad (LDBS), U.S.S.R. (59.9°N. 30.3°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.0						
01		4.1						
02		3.9						
03		4.2						
04		5.0						
05		5.5						
06		6.3						
07		7.0						
08		7.4						
09		7.5						
10		7.8						
11		7.8						
12		7.8						
13		7.9						
14		7.6						
15		7.4						
16		7.2						
17		7.0						
18		6.9						
19		6.4						
20		5.8						
21		5.2						
22		4.8						
23		4.4						

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

Table 28 (Provisional Data)

Alma Ata, U.S.S.R. (43.2°N, 76.9°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.3						
01		5.1						
02		5.1						
03		5.2						
04		7.0						
05		6.1						
06		8.7						
07		9.4						
08		9.4						
09		10.0						
10		10.6						
11		10.5						
12		10.2						
13		10.3						
14		10.2						
15		9.3						
16		8.7						
17		7.8						
18		7.1						
19		7.0						
20		6.1						
21		6.0						
22		5.8						
23		5.5						

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

Table 29 (Provisional Data; supersedes Table 1, IRPL-F20)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.8						3.1
01		4.4						3.1
02		3.6						3.0
03		3.4						3.1
04		2.9						3.0
05		3.2						3.1
06		3.6						3.1
07		4.4						3.1
08		5.0						3.2
09		5.3						3.2
10		5.8						3.2
11		5.5						3.2
12		5.7						3.1
13		5.6						3.3
14		5.6						3.1
15		5.8						3.1
16		5.5						3.2
17		5.4						3.2
18		5.5						3.2
19		5.4						3.1
20		5.0						3.1
21		5.2						3.2
22		4.2						3.1
23		4.7						3.1

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

Table 30 (Provisional Data; supersedes Table 12, IRPL-F20)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.8						3.3
01		3.7						3.3
02		3.4						3.2
03		3.2						3.8
04		3.3						3.2
05		3.4						3.2
06		3.5						3.3
07		3.5						3.2
08		4.3						3.4
09		5.2						3.4
10		5.4						3.5
11		5.4						3.4
12		5.7						3.4
13		5.2						3.2
14		5.4						3.4
15		5.2						3.4
16		5.3						3.4
17		5.2						3.4
18		5.2						3.3
19		4.8						3.4
20		4.3						3.3
21		3.8						3.4
22		3.5						3.2
23		3.6						3.2

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

Table 31 (Provisional Data; supersedes Table 11, IRPL-F19)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.8						3.2
01		2.8						3.2
02		2.4						3.3
03		2.4						3.4
04								3.4
05								(3.2)
06								3.2
07		3.6						3.2
08		3.9						3.3
09		3.8						3.3
10		3.8						3.4
11		4.0						3.3
12		4.6						3.4
13		4.8						3.4
14		4.6						3.4
15		4.6						3.4
16		4.4						3.3
17		4.2						3.3
18		3.5						3.4
19		3.1					3.0	3.4
20		3.0						3.4
21		2.5						3.3
22		2.6						3.3
23		2.8						3.3

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

Table 32 (Provisional Data; supersedes Table 1, IRPL-F17)

Clyde, Baffin I. (70.5°N, 68.6°W) December 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.5						3.1
01		2.5						3.1
02		2.3						3.1
03		2.4						3.1
04								3.2
05		2.6						3.2
06		2.4						3.2
07		2.6						3.1
08		3.0						3.2
09		3.4						3.3
10		3.6						3.3
11		4.2						3.2
12		4.2						3.2
13		4.0						3.2
14		4.6						3.2
15		4.2						3.2
16		3.8						3.2
17		2.6						3.1
18		2.4						3.2
19		3.0					3.0	3.2
20		2.8						3.2
21		2.8						3.2
22		2.7						3.1
23		2.5						3.2

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

Table 33 (Provisional Data; supersedes Table 11, IRPL-F17)

Clyde, Baffin I. (70.5°N, 68.6°W) November 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.0						3.2
01		3.0						3.2
02		3.0						3.2
03		3.0						3.2
04		2.9						3.3
05		3.0						3.2
06		3.2						3.2
07		3.4					3.0	3.2
08		3.8						3.3
09		4.8						3.2
10		5.0						3.4
11		5.4						3.3
12		5.8						3.3
13		5.9						3.3
14		5.8						3.3
15		5.4						3.3
16		5.0						3.2
17		5.6						3.2
18		4.7					3.0	3.2
19		3.8					3.0	3.2
20		4.0					3.0	3.2
21		3.7						3.2
22		3.8						3.2
23		2.9					3.0	3.2

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

Table 34

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	280	5.7					3.3	2.7
01	280	5.1					2.8	2.7
02	280	4.7					2.4	2.7
03	280	4.3					2.4	2.7
04	300	3.7					2.8	2.7
05	290	3.9			110	1.6	3.2	2.8
06	280	4.7	230	3.7	110	(2.3)	4.3	2.9
07	295	5.0	230	4.3	110	(2.8)	4.2	2.7
08	400	5.6	220	4.6	110	(3.2)	5.1	2.8
09	420	6.0	210	4.9	110	(3.5)	4.7	2.6
10	415	(6.0)	210	5.0	110	(3.7)	4.3	2.7
11	430	6.1	200	5.1	110	(3.8)	4.2	2.6
12	490	6.1	(210)	5.2	110	(3.9)	4.6	2.6
13	(430)	(6.3)	(220)	5.1	110	(3.8)	4.1	2.6
14	410	6.7	220	5.0	110	(3.8)	4.4	2.6
15	400	6.6	220	5.0	110	(3.7)	4.0	2.7
16	360	6.7	220	4.8	110	(3.6)	3.8	2.7
17	350	6.8	225	(4.5)	110	(3.1)	3.9	2.8
18	310	7.0	230	(4.0)	110	2.6	3.8	2.8
19	270	6.7			110	1.9	3.6	2.8
20	250	6.9					2.9	2.8
21	260	(6.8)					3.4	(2.8)
22	270	(6.4)					3.0	(2.8)
23	280	(5.9)					2.9	(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 35 (Supersedes Table 2, CRPL-F23)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	330	4.6				2.0	4.8	2.7
01	338	4.6				2.2	5.5	2.7
02	350	5.0				2.0	3.9	2.7
03	368	5.0	282	3.3		2.3	5.6	2.6
04	400	5.2	260	3.6		2.5	5.3	2.6
05	422	5.1	250	3.9		2.8	5.3	2.5
06	430	5.4	245	4.0		3.0	5.3	2.6
07	465	5.5	220	4.2		3.2	4.8	2.4
08	480	5.5	220	4.3		3.2	3.5	2.5
09	435	5.6	220	4.4		3.2	3.4	2.6
10	478	5.6	225	4.6		3.3	3.3	2.4
11	495	5.5	220	4.6		3.3	3.6	2.5
12	470	5.6	220	4.7		3.3	3.5	2.5
13	440	5.8	220	4.8		3.3	3.3	2.6
14	440	5.8	230	4.7		3.3	3.3	2.6
15	455	5.8	225	4.6		3.2	3.3	2.5
16	400	5.8	230	4.5		3.0	3.0	2.7
17	370	5.8	240	4.4		2.9	3.3	2.7
18	328	5.8	240	4.0		2.7	3.3	2.8
19	315	5.6	250	4.0		2.5	4.7	2.8
20	280	5.6	260	3.3		2.1	3.6	2.8
21	280	5.3				1.9	4.4	2.9
22	300	4.6				1.6	4.0	2.8
23	320	4.8					3.9	2.8

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

Table 36

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	285	4.8					5.4	2.8
01	295	4.9					3.6	2.8
02	290	4.4					4.0	2.9
03	290	4.4					3.8	2.9
04	315	4.8		3.3			3.7	2.9
05	420	4.9	280	3.7	130	2.7	3.6	2.8
06	430	4.8	240	4.0	130	3.1	3.6	2.8
07	470	5.0	230	4.2	120	3.2	3.3	2.6
08	460	5.4	250	4.6	120	3.6	3.4	2.7
09	475	5.4	230	4.7	120	3.6	3.2	2.7
10	445	5.8	240	4.8	120	3.6		2.7
11	480	5.8	230	4.8	120	3.6		2.6
12	440	6.0	230	4.8	120	3.5		2.6
13	440	6.0	230	4.8	120	3.5		2.7
14	435	6.2	230	4.8	120	3.6		2.7
15	420	6.3	230	4.8	120	3.5		2.7
16	400	6.4	240	4.6	120	3.4		2.7
17	370	6.2	240	4.5	120	3.3		2.8
18	350	6.1	245	4.3	130	3.0		2.8
19	340	5.8	260	3.9	130	3.0	3.2	2.9
20	310	5.6	270	3.4	130	3.0	3.0	2.9
21	290	5.4			140	2.6	4.0	2.9
22	290	5.2					4.5	2.8
23	310	5.0					6.0	2.8

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

Table 37 (Supersedes Table 3, CRPL-F23)

Prince Rupert, Canada (54.3°N, 130.3°

June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	235	4.4						3.0
01	260	4.0						3.0
02	260	3.5						3.0
03	270	3.3						3.0
04	270	3.5	240					3.0
05	350	4.4	220	3.3	110	1.9	3.6	2.9
06	385	4.9	200	3.8	90	2.3	3.5	2.8
07	390	5.1	190	4.0	90	2.7	3.0	2.8
08	400	5.5	180	4.2	80	2.5	3.4	2.7
09	410	5.5	170	4.4	80	3.1	3.7	2.8
10	440	5.6	170	4.6	80	3.3	3.8	2.7
11	410	5.8	170	4.7	80	3.4	3.9	2.8
12	395	5.9	180	4.8	80	3.4	4.0	2.8
13	400	5.9	180	4.8	80	3.4	3.9	2.8
14	400	5.8	170	4.8	80	3.4	4.0	2.8
15	390	5.9	180	4.8	80	3.4	3.7	2.8
16	370	6.0	180	4.7	80	3.2	3.8	2.9
17	350	5.8	190	4.5	80	3.1		3.0
18	305	6.0	190	4.3	90	2.9	2.9	3.0
19	270	6.0	200	4.0	90	2.6	2.8	3.1
20	230	6.0	210	3.2	100	2.2	2.9	3.2
21	220	6.0					3.4	3.2
22	220	5.5					2.5	3.2
23	220	5.4						3.1

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

Table 38 (Supersedes Table 4, CRPL-F23)

Adak, Alaska (51.9°N, 176.6°W)

June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	6.2						2.7
01	270	5.8					(1.9)	(2.7)
02	290	5.2						
03	310	4.8						(2.7)
04	340	5.2						(2.7)
05	410	5.6						(2.6)
06	385	6.0	220	4.2		2.9	(3.0)	(2.6)
07	390	6.4	220	4.5		3.2	(4.9)	(2.7)
08	520	5.7	205	4.8		3.4	(4.6)	(2.6)
09	520	6.0	205	4.9		3.5	(4.6)	(2.5)
10	385	6.8		5.2		3.5	(5.0)	(2.7)
11	400	6.7		5.2			(4.1)	(2.8)
12	385	6.4	200	5.0		3.6	3.9	2.8
13	400	6.6	200	5.0		3.6	3.9	2.8
14	470	6.2	205	5.0		3.6	4.2	2.6
15	372	6.4	220	4.9		3.4	3.8	2.8
16	350	6.3	220	4.8		3.0	4.1	2.8
17	330	6.6	230	4.6		2.8	3.6	2.9
18	290	6.6					4.1	2.9
19	270	6.6					3.6	(2.9)
20	270	6.8					2.3	(2.9)
21	280	7.0					3.1	(2.8)
22	270	7.0					2.4	(2.8)
23	275	6.7					2.1	(2.7)

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

Table 39 (Supersedes Table 5, CRPL-F23)

St. John's, Newfoundland (47.6°N, 52.7°W)

June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	5.7					2.8	3.0
01	250	5.5					3.0	3.0
02	(260)	(4.4)					3.1	(3.0)
03	(270)	(5.2)					3.8	(3.0)
04	(260)	(4.5)					3.8	(3.3)
05	240	4.2					2.6	3.2
06	240	4.8	205	3.6	95	2.3	3.0	3.3
07	250	5.4	200	4.0	90	2.7	3.2	3.3
08	280	5.6	190	4.4	90	3.0		3.3
09	290	5.7	200	4.6	90	3.0	4.0	3.3
10	285	6.0	180	4.8	90	3.4	3.9	3.3
11	295	6.2	180	4.9	90	3.4	3.5	3.2
12	320	6.2	180	5.0	90	3.4	3.8	3.1
13	325	6.6	180	5.0	90	3.2	3.8	3.1
14	320	6.2	180	5.0	90	3.3		3.1
15	310	6.6	180	4.8	90	3.1		3.0
16	300	6.7	200	4.7	90	3.1		3.1
17	300	7.1	200	4.4	90	3.0	3.0	3.1
18	280	7.0	205	4.0	100	2.7		3.1
19	250	7.2	205	3.4	100	2.3	3.5	3.1
20	240	7.3					3.4	3.3
21	230	7.2					3.3	3.1
22	240	6.8						3.1
23	250	6.4					3.0	3.1

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

Table 40 (Supersedes Table 6, CRPL-F23)

Ottawa, Canada (45.5°N, 75.5°W)

June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	300	4.7						2.8
01	300	4.2						2.9
02	310	3.6						2.9
03	330	3.2						2.9
04	300	3.2						2.9
05	280	3.6						3.0
06	270	4.5	230	4.0	130	2.8		2.8
07	360	5.3	220	4.2	120	2.9		2.8
08	410	5.3	220	4.6	120	3.2		2.6
09	410	5.7	215	4.8	110	3.3		2.6
10	415	5.6	210	5.0	110	3.4		2.6
11	390	6.0	210	5.0	110	3.6		2.7
12	430	6.1	210	5.0	110	3.6	3.6	2.5
13	410	6.6	210	5.0	110	3.6	4.0	2.5
14	420	6.5	220	5.1	110	3.5		2.6
15	400	6.4	220	4.8	110	3.4		2.6
16	360	6.7	215	4.8	120	3.2		2.6
17	350	7.0	225	4.5	120	3.0		2.7
18	330	7.1	235	4.1	120	2.8		2.7
19	270	7.1	260	3.5	130	2.6		2.8
20	260	7.2						2.8
21	270	6.9			130	2.8		2.8
22	270	6.2						2.8
23	280	5.4						2.8

Time: 75.0°W.
Sweep: 1.0 Mc to 13.5 Mc, Manual operation.
Median values.

Table 41

Christchurch, New Zealand (43.5°S, 172.6°E) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	290	3.4					2.8	
01	270	3.3					2.2	
02	280	3.4					2.9	
03	265	3.0					2.8	
04	250	2.8					2.8	
05	260	2.5					2.1	
06	250	2.4					3.0	
07	240	3.0					2.6	
08	230	6.0				1.8	2.9	
09	230	7.6				2.4	3.8	
10	230	7.7	220	4.0		2.8	3.6	
11	230	8.0	220	4.2		2.9	3.4	
12	250	8.1	210	4.3		3.0	4.3	
13	240	8.3	230	4.2		2.9	4.9	
14	240	8.8	230	4.0		2.8	4.1	
15	230	8.1	230	3.8		2.4	3.6	
16	230	7.7				1.8	3.1	
17	220	6.6					3.0	
18	230	5.3					2.8	
19	240	4.9					3.1	
20	260	4.0						
21	260	3.7					1.8	
22	270	3.7					2.8	
23	280	3.5					2.8	

Time: 172.6°E
Sweep: 1.0 Mc to 13.0 Mc. Automatic.
Median values.

Table 42 (Supersedes Table 7, CRPL-F23)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	295	5.4						3.6
01	290	5.2						2.8
02	285	4.6						3.6
03	280	4.1					1.6	3.7
04	280	4.3						3.7
05	275	4.6			126	2.3		3.8
06	288	4.7			122	1.9		3.9
07	332	5.5	275	4.6	122	2.6		3.8
08	350	6.0	270	4.7	126	2.7		3.8
09	372	6.4	275	4.8				3.7
10	375	6.3	280	4.9				3.8
11	400	6.5	280	4.9				3.6
12	400	6.6	280	4.9				3.7
13	405	6.8	280	5.2				3.6
14	395	6.6	280	4.8				3.7
15	408	6.7	280	4.8				3.6
16	370	6.9	275	4.8				3.7
17	280	6.6	275	4.8				3.7
18	329	6.8	280	4.8				3.7
19	395	6.9					2.0	3.7
20	390	6.9					2.2	3.7
21	370	6.8					1.6	3.7
22	350	6.6					1.4	3.6
23	340	5.7					1.8	3.5

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

Table 43 (Supersedes Table 8, CRPL-F23)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	290	5.3					3.4	2.6
01	300	5.0					3.4	2.6
02	300	4.8					2.8	2.6
03	300	4.7					2.5	2.6
04	300	4.3					2.6	2.6
05	280	4.2	295	2.9				2.8
06	340	5.2	240	3.8	120	2.4	3.0	2.8
07	360	5.8	220	4.4	110	2.9	3.8	2.7
08	390	6.5	220	4.8	100	3.2	3.9	2.8
09	385	6.5	200	4.9	100	3.6	4.0	2.6
10	400	6.6	200	5.1	100	3.6	4.2	2.6
11	400	7.0	200	5.1	100	3.7	4.2	2.7
12	400	7.2	200	5.0	100	3.7	4.1	2.7
13	380	6.8	205	5.0	100	3.7	4.0	2.7
14	390	7.1	220	5.0	100	3.7	3.9	2.8
15	380	7.0	220	4.9	100	3.5	4.1	2.9
16	355	6.6	220	4.7	100	3.4	3.9	2.8
17	320	6.6	230	4.5	100	3.1	3.7	2.9
18	300	6.4	240	4.0	115	2.5	3.6	2.9
19	260	7.0					3.8	3.0
20	250	6.7					3.7	3.0
21	260	6.6					3.6	2.8
22	280	6.0					3.6	2.8
23	300	5.4					3.6	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 44

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	(280)	7.8					5.1	2.9
01	270	8.1					4.2	2.9
02	260	7.1					3.8	3.0
03	260	6.8					3.5	2.9
04	260	6.6					2.9	2.9
05	250	6.9	230	3.2		1.9	3.2	3.1
06	230	7.5	200		100	2.5	4.4	3.8
07	260	7.9	(210)	4.4	100	3.0	5.3	3.2
08	245	7.8	205	4.6	100	3.4	6.2	3.1
09	295	7.4	(195)	5.1	100	3.7	7.2	3.1
10	300	7.4	190	5.3	100	3.9	6.8	2.9
11	330	7.8	185	5.4	100	4.0	7.6	3.0
12	340	7.9		5.5	100	4.0	7.2	3.0
13	320	8.4	190	5.4	100	3.9	6.8	3.1
14	300	8.6	175	5.2	100	3.9	6.4	3.1
15	300	8.2	(190)	5.0	100	3.7	5.8	3.1
16	295	8.0	205	5.0	100	3.4	5.9	3.2
17	275	8.1	(230)	4.4	100	3.0	5.6	3.2
18	260	8.1			100	2.4	5.4	3.2
19	250	8.1					4.6	3.1
20	260	7.7					6.3	2.9
21	280	7.6					5.8	2.9
22	280	7.8					6.1	2.9
23	290	7.6					5.4	2.8

Time: 135.0°E.
Sweep: Lower limit of frequency, 3.0 Mc.
Median values.

Table 45 (Supersedes Table 9, CRPL-F23)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	310	5.6					3.0	2.8
01	300	5.6					3.2	2.9
02	290	5.1					3.0	2.9
03	300	4.9						2.8
04	310	4.6						2.8
05	300	4.7						2.9
06	300	5.5	250	3.5	130	2.2	3.5	3.0
07	305	6.0	250	4.3	120	2.7	4.4	3.0
08	295	6.6	240	4.6	120	3.1	4.6	2.9
09	290	6.4	230	4.8	120	3.3	4.5	2.8
10	290	6.7	230	4.9	110	3.4	4.4	2.8
11	300	7.0	230	5.0	120	3.4		2.8
12	300	7.1	230	5.0	120	3.5		2.8
13	300	7.4	240	5.0	120	3.5		2.8
14	300	7.5	240	5.0	120	3.5		2.7
15	300	7.5	240	4.9	120	3.4		2.8
16	300	7.5	245	4.7	120	3.4		2.8
17	300	7.5	250	4.5	120	3.0	3.8	2.9
18	320	7.3	250	3.7	130	2.3	3.0	2.9
19	290	7.5					3.0	3.0
20	280	6.6					2.8	3.0
21	270	6.4					2.5	3.0
22	290	6.0					2.3	2.9
23	300	5.7					2.9	2.9

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

Table 46

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		7.4						2.7
01		7.6						2.8
02		7.4						2.8
03		7.0						2.8
04		6.4						2.8
05		6.0						2.8
06		6.0						2.8
07	300	7.0						2.9
08	350	7.5	230	4.4				2.8
09	350	7.8	210	4.8		3.2		2.6
10	385	8.8	220	4.9		3.5		2.6
11	390	9.2	220	5.2		3.6		2.5
12	400	9.9	220	5.1		3.5		2.5
13	385	10.5	220	5.1		3.6		2.6
14	380	10.6	240	(5.0)		3.5		2.6
15	380	10.8	250	5.0		3.5		2.7
16	360	10.4	240	4.6		3.3		2.6
17	330	10.4	230	4.1		3.2		2.8
18	320	9.5					4.4	2.8
19	300	8.8						2.8
20		8.7						2.7
21		8.8						2.7
22		8.5						2.8
23		8.9						2.7

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

Table 47 (Supersedes Table 11, CRPL-F23)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	255	9.3						3.1
01	255	8.5						3.0
02	260	8.2						3.0
03	260	7.6						3.0
04	250	7.0						3.1
05	250	6.5						3.1
06	250	6.6					2.6	3.0
07	240	7.2	245	4.3	120	2.6	3.4	3.2
08	280	7.8	220	4.9	110	3.1	4.4	2.9
09	330	8.4	210	5.1	110	3.4	4.6	2.7
10	350	8.8	220	5.2	110	3.7	4.8	2.6
11	400	9.8	220	5.3	110	3.9	5.0	2.6
12	370	10.6	210	5.2	110	4.0	5.0	2.7
13	345	11.2	220	5.2	110	4.0	5.1	2.7
14	340	11.4	220	5.2	110	3.9	5.0	2.8
15	330	11.6	225	5.2	110	3.6	5.1	2.8
16	310	11.4	220	5.0	110	3.4	5.4	2.8
17	295	10.7	230	4.5	100	2.9	4.7	2.8
18	270	10.3			100	2.2	4.7	2.6
19	280	10.2					4.2	2.7
20	300	10.4					3.1	2.7
21	285	10.5					4.4	2.8
22	270	10.4					4.4	2.9
23	260	10.4					2.0	3.0

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

Table 48 (Supersedes Table 12, CRPL-F23)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	7.8					2.4	2.9
01	260	8.1					2.4	2.9
02	265	7.8					2.3	2.9
03	260	7.6					2.1	3.1
04	245	6.8					2.1	3.1
05	230	5.5					2.1	3.3
06	240	4.6					2.1	3.0
07	250	6.3			120	2.3	3.5	2.9
08	230	7.8			120	3.0	5.2	2.8
09	220	8.3	230		110	3.5	5.6	2.6
10	320	9.0	220	5.0	110	3.7	5.9	2.5
11	340	9.0	210	5.1	110	3.8	7.0	2.4
12	360	9.2	210	5.2			8.2	2.4
13	350	9.4	210	5.2			8.5	2.3
14	360	9.6	210	5.1			8.5	2.3
15	360	10.0	210	5.0			8.6	2.3
16	300	9.8	210			3.3	8.5	2.4
17	220	9.6				3.0	6.8	2.4
18	300	9.4				2.3	4.9	2.4
19	300	9.0					3.5	2.4
20	365	8.4					2.0	2.4
21	350	8.1					2.0	2.4
22	325	8.3					2.4	2.5
23	300	8.2					2.5	2.8

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

Table 49

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	230	6.9						3.1
01	230	6.9						3.1
02	230	5.8						3.2
03	235	5.2						3.2
04	240	4.5						3.2
05	240	3.8						3.0
06	280	4.4				1.4	2.8	2.9
07	260	7.0				2.4	3.2	3.0
08	230	8.6				2.9	5.6	2.8
09	225	9.2	215	4.9			8.3	2.6
10	295	9.0	210	5.0			9.5	2.5
11	330	8.6	200	5.1			9.5	2.5
12	350	8.8	200	5.1			9.6	2.4
13	325	9.0	200	5.0			9.6	2.4
14	320	8.8	200	4.8			9.4	2.3
15	230	8.6	220	4.8			9.0	2.3
16	230	8.8				2.8	5.6	2.4
17	260	8.7				2.1	4.8	2.4
18	295	8.3				1.0		2.5
19	300	8.0						2.4
20	295	7.8						2.5
21	270	7.9						2.7
22	240	7.4						2.8
23	230	7.0						3.0

Time: 75.0°W.
Sweep: 16.0 Mc to 0.5 Mc in fifteen minutes.
Median values.

Table 50

Johannesburg, Union of South Africa (26.2°S, 28.0°E) June 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.8						3.0
01		2.9					2.2	3.0
02		3.0						3.0
03		3.0						3.1
04		3.0						3.2
05		2.8						3.1
06		2.8					2.4	3.1
07	220	5.3					2.8	3.2
08	220	7.4	200	2.8	100	2.6	3.1	3.5
09	230	8.3	210	3.7	100	3.0		3.4
10	240	9.2	210	4.5	100	3.3	3.6	3.2
11	240	8.9	200	4.5	100	3.4	3.7	3.2
12	260	9.0	200	4.5	100	3.5	3.7	3.2
13	260	9.4	200	4.5	100	3.5	3.8	3.2
14	250	9.3	210	4.4	100	3.4	3.8	3.2
15	250	9.5	210	4.1	100	3.1	3.5	3.2
16	230	9.3	220		100	2.7	3.4	3.2
17	210	8.6				2.0	2.9	3.4
18	200	6.4					2.8	3.4
19		5.8					2.6	3.3
20		3.4					2.7	3.3
21		3.0					2.3	3.3
22		2.1					2.1	3.2
23		2.9						3.1

Time: 30.0°E.
Sweep: 2.0 Mc to 15.0 Mc in eight seconds.
Median values.

Table 51 (Supersedes Table 5, IRPL-F22)

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	(300)	(4.2)					3.5	
01	(310)	(3.6)					5.0	
02	(245)	(2.5)					3.9	
03	(235)	(2.7)					4.5	
04	(210)						4.2	
05	(270)	(3.6)					3.6	
06	(245)	(4.4)	240	3.6	100	2.4	3.6	
07	(230)	(4.5)	215	3.9	100	2.7		
08	(230)	4.9	200	4.2	100	2.9	3.1	
09	(255)	4.9	200	4.3	100	3.1		
10	(220)	5.4	200	4.4	100	3.2		
11	(280)	(5.3)	200	4.6	100	3.3		
12	(250)	(5.2)	200	4.6	100	3.5		
13	(230)	(5.4)	200	4.7	100	3.2		
14	(300)	(6.0)	210	4.6	100	3.4		
15	305	5.9	210	4.6	100	3.3		
16	290	6.0	210	4.5	100	3.2		
17	350	6.0	210	4.3	110	2.8		
18	335	5.8	230	4.0	110	2.7		
19	300	5.7	240		110	2.4	2.6	
20	290	5.6			115	2.6	2.1	
21	(280)	(5.4)					4.0	
22	(235)	(5.6)					4.0	
23	(240)	(4.8)					6.0	

Time: 90.0°W.
Sweep: 1.2 Mc to 16.0 Mc in approximately 2 minutes.
Median values.
*Data for approximately fifteen days around the middle of the month

Table 52

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	(305)	5.3					3.6	(2.6)
01							(2.5)	
02							(3.2)	
03							(3.0)	
04		(3.5)					(2.8)	(2.6)
05	(500)	(4.2)					(3.2)	(2.5)
06	450	(4.8)	240	(3.8)		2.5	3.1	2.6
07	(410)	(5.1)		(4.0)		(3.0)	(3.6)	(2.7)
08	(420)	(5.1)		(4.4)		3.2	(4.0)	(2.8)
09	(335)	(5.4)		(4.4)		(3.4)	(4.6)	(3.0)
10	(330)	(5.5)		(4.7)		3.4	(4.2)	(3.0)
11	(300)	(5.3)				(3.4)		(3.2)
12	(315)	(5.6)		(4.7)		(3.4)	4.0	(2.9)
13	(370)	(5.6)	(210)	(4.6)		(3.2)	(3.8)	(2.8)
14	(350)	(5.6)		(4.7)		(3.4)	(4.0)	(3.0)
15	(358)	(5.7)	(215)	(4.7)		3.3	3.4	(2.9)
16	(345)	(5.9)		(4.6)		(3.0)	(3.8)	(3.0)
17	(300)	(6.2)		(4.2)		(2.9)		(3.0)
18	(270)	6.3				(2.4)	(3.9)	(3.0)
19	(260)	(6.9)					(4.1)	(3.0)
20								
21								
22								
23								

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

Table 53 (Supersedes Table 6, IRPL-F22)

St. John's Newfoundland (47.6°N, 52.7°W) May 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	5.4						2.9
01	270	5.0						3.1
02	270	4.8						3.0
03	270	4.4						3.0
04	260	4.1						3.1
05	240	4.3						3.2
06	220	4.9	[illegible]	3.2	110	2.3		3.3
07	210	4.8	[illegible]	3.8	90	2.5		[illegible]
08	200	5.0	190	4.0	90	2.8		[illegible]
09	210	5.6	190	4.6	90	3.0		[illegible]
10	240	6.1	190	4.8	80	3.1		[illegible]
11	250	6.2	190	4.9	90	3.1		[illegible]
12	250	6.4	175	5.0	80	3.2		3.2
13	260	6.5	180	4.9	90	3.1		[illegible]
14	285	6.6	180	4.9	90	3.0		[illegible]
15	275	6.8	190	4.7	90	2.9		[illegible]
16	260	7.1	200	4.7	90	2.9		[illegible]
17	260	7.2	200	4.4	90	2.7		3.2
18	260	7.2	210	3.9	95	2.6		3.2
19	250	7.3	215	3.9	100	2.4		3.2
20	235	7.4						3.2
21	225	6.9						3.2
22	245	6.1						3.1
23	250	5.7						3.1

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

Table 54

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	240	9.0					4.4	2.9
01	245	8.0					3.8	2.9
02	240	7.4					3.4	2.8
03	240	6.7					3.0	3.0
04	250	6.2					2.8	2.8
05	270	6.0		3.4			E	2.9
06	240	7.6	240	3.9	100	2.9	3.9	3.0
07	255	8.3	225	4.4	100	3.1	5.6	3.1
08	280	9.2	220	5.0	100	3.5	6.6	2.9
09	290	10.0	240	5.4	100	3.8	8.0	2.7
10	320	10.8	220		100	4.2	7.0	2.8
11	320	11.9	210	5.2	100	4.3	7.6	2.7
12	325	13.0	220	5.4	90	4.4	7.6	2.7
13	320	13.5	210	5.3	100	4.2	7.8	2.8
14	290	14.0	220	5.2	100	4.1	5.9	2.9
15	285	14.5	240	5.0	90	3.9	5.2	2.8
16	275	13.8	220	4.8	90	3.5	5.4	2.9
17	260	12.4	215	4.7	90	3.2	5.7	3.0
18	240	12.2	210	4.4	80		4.6	3.2
19	220	10.5					4.1	3.1
20	220	9.2					5.2	3.0
21	245	9.2					4.8	3.0
22	260	8.8					5.9	2.9
23	245	8.3					4.6	2.9

Time: 105.0°E
Sweep: 2.1 Mc to 16.1 Mc in fifteen minutes.
Median values.

Table 55 (Supersedes Table 11, IRPL-F22)

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	295	7.8					3.1	2.8
01	290	7.6					3.4	2.9
02	270	7.4					3.0	2.8
03	280	6.2						2.8
04	300	5.9					2.6	2.8
05	290	5.5						2.8
06	265	5.6						2.8
07	250	6.7	240			2.6		2.9
08	270	8.0	250			3.2	4.2	2.6
09	300	9.0	220	5.2		3.3		2.5
10	350	10.1	220	5.4				2.5
11	360	10.9	220	5.4				2.6
12	360	11.6	225	5.4				2.6
13	350	12.1	220	5.3				2.6
14	350	12.2	230	5.2				2.7
15	335	12.6	235	5.1		3.6		2.8
16	310	13.1	230	5.0		3.4		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					3.4	2.8
21	270	8.9					3.4	2.9
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 56 (Supersedes Table 14, CRPL-F23)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		10.0					3.6	2.8
01		9.8					3.6	3.2
02		8.6					3.0	3.2
03		7.4					2.8	3.2
04		6.0					<2.6	3.2
05		4.8					2.8	3.1
06		4.2					<2.6	3.0
07		7.6				2.3	4.2	3.0
08		9.6		4.1		3.1	5.4	2.8
09		10.3		4.9		3.6	6.5	2.6
10		9.8		5.4		3.8	7.0	2.4
11		10.2		5.5		4.0	7.8	2.4
12		10.3		5.8		4.0	7.5	2.4
13		10.5		5.6		4.1	7.5	2.3
14		10.7		5.5		4.0	6.5	2.3
15		10.8		5.3		3.9	6.2	2.3
16		11.1		5.1		3.7	6.4	2.4
17		10.8		4.4		3.2	5.8	2.4
18		11.6				2.6	6.3	2.5
19		11.2					4.7	2.6
20		9.9					<4.1	2.4
21		9.3					3.1	2.4
22		9.3					2.8	2.6
23		9.4					3.4	2.8

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

Table 57 (Supersedes Table 15, CRPL-F43)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	250	9.6					2.7	3.0
01	250	9.4					2.5	3.0
02	250	9.2					2.6	3.0
03	230	8.6					2.6	3.2
04	230	7.6					2.3	3.2
05	220	6.2					2.1	3.2
06	250	5.6					2.1	3.0
07	260	6.7				2.4	3.7	2.9
08	240	8.6			120	3.1	6.2	2.8
09	220	9.5			110	3.5	7.0	2.6
10	290	9.9	215	5.0			7.7	2.5
11	310	9.8	220	5.0			8.4	2.4
12	320	10.2	210	5.1			8.5	2.4
13	320	10.5	210	5.1			8.6	2.4
14	340	10.5	210	5.1			8.7	2.3
15	320	10.6	210	5.0			8.8	2.3
16	220	10.8	215	4.5		3.4	8.8	2.3
17	230	10.1			110	3.0	7.5	2.4
18	260	9.9				2.4	5.2	2.4
19	310	9.5					3.0	2.4
20	345	9.0					1.8	2.4
21	330	8.8					2.5	2.4
22	300	9.2					2.5	2.6
23	280	9.6					2.6	2.8

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

Table 58

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	280	4.3						2.9
01	290	4.3						3.0
02	280	4.4						3.0
03	270	4.6						3.0
04	260	4.2						3.0
05	265	3.7						3.1
06	250	4.3						3.2
07	220	7.5						3.5
08	220	9.0			120	2.7		3.5
09	230	10.2	202		110	3.1		3.4
10	240	10.3	210		105	3.3		3.4
11	240	10.2	200	5.0	110	3.4		3.3
12	260	10.2	200	5.0	105	3.4	3.7	3.2
13	260	10.0	200	5.0	110	3.4	3.5	3.2
14	250	10.5	205	4.7	110	3.3	3.6	3.2
15	240	10.4	205		120	3.0		3.2
16	230	9.8			120	2.7		3.2
17	220	8.5						3.2
18	220	6.5						3.2
19	240	5.4						3.0
20	260	5.1						3.1
21	270	5.2						3.0
22	255	5.0						3.1
23	270	4.5						2.9

Time: 150.0°E.
Sweep: 1.2 Mc to 12.5 Mc in two minutes, thirty seconds.
Median values.

Table 59

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	(300)	4.0					2.8	
01	(305)	4.2					3.6	
02	315	4.0						
03	(300)	4.4					2.7	
04	(280)	4.4					2.8	2.9
05	(260)	3.8					2.4	
06	(280)	3.6						
07	250	4.8					2.6	
08	250	(7.4)				2.6		
09	(250)	(8.5)			110	3.0		3.1
10	270	8.8	250	4.6	110	3.2		3.1
11	(260)	(8.9)	230	4.5	110	3.4		3.1
12	265	8.8	230	4.5	108	3.4		3.1
13	265	9.0	230	4.6	105	3.4		
14	270	9.2	250	4.6	110	3.4	4.1	
15	250	9.2	245	3.9	105	3.0		
16	250	9.0			100	2.5		3.2
17	240	8.0					2.7	3.2
18	250	6.4					3.1	3.0
19	260	5.7						2.8
20	265	4.8						2.8
21	285	4.5						2.7
22	300	4.2						2.7
23	300	4.0					2.8	

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

Table 60

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	3.2					3.2	3.1
01	280	3.2					3.0	3.0
02	275	2.8					3.4	3.2
03	275	2.4					2.8	3.2
04	260	2.6					3.0	3.2
05	245	2.4					3.0	3.3
06	245	2.3					3.2	3.3
07	250	3.5				(1.4)	3.1	3.3
08	225	6.1				(2.2)	2.8	3.5
09	220	7.5				(2.6)	2.9	3.5
10	245	8.6	225			2.9	3.4	3.4
11	250	8.8	210	4.4		3.0	3.4	3.3
12	250	9.7	210	4.4		3.1	3.4	3.3
13	250	9.8	210	4.4		3.1	3.5	3.2
14	250	10.2	225	4.0		3.0	3.5	3.2
15	230	9.6	220	3.8		2.6	3.4	3.3
16	225	9.5				2.3	3.0	3.3
17	220	8.5				(1.6)	2.8	3.2
18	220	6.9					2.6	3.1
19	225	5.5					2.5	3.2
20	240	4.5					2.5	3.2
21	250	3.6					2.5	3.2
22	250	3.4					2.6	3.1
23	260	3.2					2.6	3.2

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

Table 61

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs	F2-M3000
00	290	3.5					3.0	
01	290	3.7					2.9	
02	280	3.7					3.0	
03	280	3.4					2.7	
04	270	3.4					2.8	
05	260	3.2					2.6	
06	265	2.8					2.6	
07	250	4.4					3.0	
08	235	6.4				2.1	2.9	
09	235	7.8	240	3.7		3.6		
10	240	8.8	230	4.3		2.9		
11	250	8.6	230	4.3		3.0	4.3	
12	260	9.0	230	4.4		3.0	4.5	
13	260	9.9	235	4.4		3.0	4.6	
14	250	9.7	230	4.0		2.8		
15	240	9.4	240	3.6		2.6	2.7	
16	235	8.9				2.1	2.9	
17	230	7.8				1.6	3.0	
18	240	6.6					2.6	
19	250	5.8					2.6	
20	260	5.0					3.0	
21	250	4.4					2.5	
22	270	4.0					2.8	
23	280	3.6					2.9	

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

Table 62 (Supersedes Table 3, IRPL-F21)

Churchill, Canada (58.8°N, 94.2°W) April 946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs	F2-M3000
00	290	5.0					4.3	2.7
01	300	4.8					5.0	2.7
02	300	4.8					4.4	2.7
03	340	4.0					3.8	2.9
04	340	3.7					3.6	2.8
05	330	4.2			140	2.8	3.7	2.9
06	330	4.6	285	3.9	130	3.2	3.4	2.9
07	330	4.8	260	4.0	130	3.0	4.2	3.0
08	380	5.0	245	4.2	130	3.1	3.6	2.8
09	410	5.5	240	4.5	130	3.4	4.0	2.8
10	380	5.8	240	4.6	130	3.4		2.8
11	410	5.8	230	4.7	130	3.4		2.8
12	390	5.3	235	4.8	130	3.4		2.7
13	410	6.4	230	4.8	130	3.4		2.7
14	400	6.6	230	4.6	130	3.2		2.7
15	390	6.6	235	4.4	140	3.2		2.8
16	345	6.3	240	4.4	130	3.2		2.8
17	340	6.3	240	4.2	130	2.9		2.9
18	315	6.0	260	3.8	130	3.0	3.4	2.9
19	300	5.6	250	4.1	130	2.6	3.6	3.0
20	290	5.4					3.6	2.9
21	305	5.0					3.9	2.8
22	310	4.8					4.2	2.8
23	290	4.8					5.0	2.8

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

Table 63 (Supersedes Table 1, IRPL-F22)

Peiping, China (39.9°E, 116.4°E) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs	F2-M3000
00		(6.3)						
01								
02		(5.5)						
03		(5.0)						
04		(4.5)						
05		(4.6)						
06		(7.0)						
07		8.1						
08		(8.8)						
09								
10								
11		(11.0)						
12		(11.0)						
13		11.0						
14		(11.0)						
15		9.3						
16		9.0						
17		(9.0)						
18		8.5						
19		8.0						
20		(7.5)						
21								
22								
23		(6.3)						

Time: 120.0°E.
Median values.

Table 64 (Supersedes Table 16, IRPL-F22)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fMs	F2-M3000
00		(11.0)					<2.5	(3.2)
01		(11.1)					<2.5	(3.2)
02		8.6					<2.5	3.2
03		7.6					<2.5	3.1
04		6.0					<2.5	3.1
05		5.1					3.0	3.1
06		4.5					3.8	3.0
07		7.6				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		11.0		5.2		3.7	7.0	2.4
11		10.3		5.4		3.9	6.8	2.4
12		10.2		5.6		4.0	6.6	2.4
13		10.8		5.4		4.0	6.6	2.4
14		11.3		5.4		4.0	6.6	2.4
15		12.1		5.2		3.9	6.6	2.4
16		13.6		5.0		3.6	5.6	2.4
17		13.5		4.3		3.2	5.0	2.5
18		13.1		3.3		2.3	5.5	2.5
19		12.5					5.0	2.4
20		10.6					<2.5	2.3
21		(10.7)					<2.5	2.3
22							<2.5	
23							<2.5	

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

Table 65

Singapore, Brit. Malaya (1.35 N, 103.8 E) April 1946 (Int through 11th)

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	f°	F2-M3000
00		11.1						
01		10.3						
02		9.4						
03		8.4						
04		7.9						
05		7.1						
06		6.6						
07		8.8						
08		11.5						
09		12.0						
10		11.9						
11		11.0						
12		11.1						
13		11.9						
14		12.1						
15		12.0						
16		12.0						
17		12.0						
18		12.0						
19		11.8						
20		11.8						
21		11.9						
22		11.8						
23		11.5						

Time: 112.5°E.
Sweep: 1.1 Mc to 15.0 Mc in ten to fifteen minutes. Manual operation.
Median values.

Table 66

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	f°	F2-M3000
00	270	6.3						3.0
01	270	6.2						3.0
02	260	5.8						3.1
03	240	5.4						3.2
04	260	4.5						2.9
05	270	4.4						3.1
06	240	5.2						3.2
07	210	8.5				2.4		3.6
08	220	9.4			110	2.9		3.4
09	210	11.0	210		110	3.3	3.0	3.3
10	230	11.5	300	4.8	108	3.4	3.5	3.3
11	245	11.5	300	5.0	108	3.5	3.7	3.2
12	240	11.4	300	4.8	108	3.6	3.3	3.1
13	255	11.6	300	4.8	110	3.5	3.8	3.1
14	225	11.9	300	4.6	110	3.4		3.2
15	230	11.5			110	3.2		3.1
16	230	11.0			118	2.7	2.7	3.1
17	220	10.2						3.2
18	220	8.6						3.1
19	230	7.4						3.0
20	260	7.2						3.0
21	255	7.0						3.0
22	260	6.2						3.0
23	270	6.2						2.9

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

Table 67

Falkland Is. (51.7°S, 57.7°W) April 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	*	F2-M3000
00		4.3						2.6
01		4.3						
02		4.2						2.6
03		3.9						
04		4.0						2.8
05		4.0						
06		4.2						3.0
07		6.5						
08		8.2					2.9	3.5
09		9.5					3.3	
10		10.9					3.7	3.3
11		12.2					3.6	
12		11.4					3.5	3.4
13		11.0					3.4	
14		9.3					3.4	3.4
15		9.4					3.2	
16		8.8					3.0	3.5
17		8.0						
18		7.2						3.3
19		5.5						
20		4.7						3.2
21		4.4						
22		4.2						2.7
23		4.1						

Time: 60.0°W.
Median values.
* Data sheet labeled "Extent of E." See this issue, page 6, last paragraph.

Table 68

Peshawar, India (34.0°N, 71.5°E) March 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	f°	F2-M3000
00								
01								
02								
03								
04								
05								
06								
07	270	8.6				3.2		
08	300	9.4				3.0		3.2
09	300	10.6				3.3		
10	330	11.4				3.5		
11	330	11.8				3.6		
12	330	12.3				3.6		2.8
13	330	12.5				3.7		
14	330	12.3				3.6		
15	330	11.8				3.5		
16	330	11.6				3.5		2.9
17	330	11.2				3.2		
18	300	10.6				3.0		
19	300	9.0				2.9		
20	330	7.2				2.9		2.9
21	330	6.2				2.1		
22	360	5.6				2.8		
23	360	5.2						

Time: Local.
Sweep: Manual operation.
M3000, average values; other columns, median values.
* Height at 0.83 f°F2.

Table 69

Delhi, India (28.6°N, 77.1°E) March 1946

Time	° h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	M3000
00	380	6.0						3.5
01	390	5.2						
02	380	5.2						
03	390	4.4						
04	380	4.4						2.7
05	390	4.5						
06	380	5.6						
07	380	8.2						
08	380	9.5						2.7
09	380	11.2						
10	380	12.2						
11	390	12.8						
12	390	13.1						2.6
13	390	(13.0)						
14	380	(13.0)						
15	380	12.9						
16	390	12.6						
17	380	12.8						
18	390	11.8						
19	380	12.0						
20								
21								
22	390	6.8						
23	380	6.5						

Time: Local.
Sweep: Manual operation.
M3000, average values; other columns, median values.
° Height at 0.83 f°F2.

Table 70

Bombay, India (19.0°N, 72.0°E) March 1946

Time	° h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	M3000
00								2.8
01								
02								
03								
04								
05								
06	300	4.8						
07	300	8.6						
08	300	11.0						3.1
09	360	12.7						
10	390	13.7						
11	420	14.3						
12	420	14.6						
13	450	14.4						
14	420	14.3						
15	420	14.4						
16	405	14.6						2.6
17	420	14.3						
18	420	14.2						
19	420	14.1						
20	390	14.0						
21	375	13.6						
22	360	11.9						
23								

Time: Local.
Sweep: Manual operation.
M3000, average values; other columns, median values.
° Height at 0.83 f°F2.

Table 71

Madras, India (13.0°N, 80.2°E) March 1946

Time	° h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	M3000
00		11.6						
01								
02								
03								
04								
05								
06								
07	300	8.8						
08	360	10.0						2.9
09	400	10.8						
10	420	11.0						
11	420	10.8						
12	450	10.5						2.6
13	480	10.8						
14	480	11.4						
15	480	11.8						
16	420	12.0						2.6
17	460	12.8						
18	420	13.4						
19	450	13.2						
20	390	11.6						2.7
21	360	11.8						
22	360	11.0						
23	300	10.8						

Time: Local
Sweep: Manual operation.
M3000, average values; other columns, median values.
° Height at 0.83 f°F2.

Table 72

Singapore, Brit. Malaya (1.35°N, 103.8°E) March 1946 (15th through 31st)

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	M3000
00		10.2						
01		8.9						
02		7.9						
03		7.3						
04		6.7						
05		6.2						
06		6.6						
07		8.0						
08		10.4						
09		11.2						
10		11.4						
11		11.4						
12		10.6						
13		11.4						
14		11.9						
15		12.0						
16		12.0						
17		12.0						
18		11.8						
19		11.5						
20		11.6						
21		11.3						
22		11.3						
23		10.7						

Time: 112.5°E.
Sweep: 1.1 Mc to 16.0 Mc in ten to fifteen minutes. Manual operation.
Median values.

Table 73

Peshawar, India (34.0°N. 71.3°E) February 1946

Time	*h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02								
03								
04								
05								
06								
07	270	6.5				2.2		
08	270	7.8				2.9		3.3
09	270	8.4				3.1		
10	300	9.6				3.4		
11	300	10.4				3.6		
12	300	10.3				3.6		3.1
13	300	9.3				3.5		
14	300	9.4				3.8		
15	300	9.2				3.7		
16	300	8.7				3.4		3.1
17	300	8.4				3.0		
18	300	7.5				2.7		
19	300	6.4						
20	300	5.1						3.0
21	300	4.0						
22	315	3.7						
23	330	3.4						

Time: Local.
Sweep: Manual operation.
M3000, average values; other columns, median values.
* Height at 0.83 f°F2.

Table 74

Delhi, India (28.6°N. 77.1°E) February 1946

Time	*h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	390	3.8						
01	390	3.8						
02	360	3.4						
03	390	3.6						
04	360	3.3						
05	360	3.1						
06	350	3.6						
07	345	5.8						
08	330	8.2						
09	350	9.0						
10	360	9.9						
11	360	10.5						
12	360	11.6						
13	360	11.0						
14	360	11.4						
15	360	10.7						
16	360	10.6						
17	360	10.8						
18	360	9.0						
19	330	7.5						
20								
21								
22	390	3.7						
23	390	3.9						

Time: Local
Sweep: Manual operation.
Median values.
*Height at 0.83 f°F2.

Table 75

Bombay, India (19.0°N, 73.0°E) February 1946

Time	* h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	323	11.1						3.0
01	315	10.5						
02	300	9.0						
03	300	8.3						
04	370	5.5						3.2
05	280	5.0						
06	300	3.5						
07	300	7.1						
08	300	9.8						3.1
09	300	11.2						
10	330	12.6						
11	360	13.0						
12	390	13.4						2.7
13	390	13.9						
14	360	13.7						
15	360	13.9						
16	330	13.9						2.9
17	330	14.2						
18	330	13.9						
19	330	13.7						
20	330	13.1						2.9
21	330	13.2						
22	315	12.1						
23	338	11.4						

Time: Local.
Sweep: Manual operation.
M3000, average values; other columns, median values.
* Height at 0.83 f°F2.

Table 76

Madras, India (13.0°N. 80.2°E) February 1946

Time	*h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02								
03								
04								
05								
06								
07	300	7.0						
08	390	9.4						
09	420	10.2						
10	450	10.4						
11	480	10.5						
12	450	10.6						
13	450	10.7						
14	480	11.2						
15	480	11.4						
16	450	11.7						
17	450	11.5						
18	450	11.2						
19	480	10.8						
20	450	9.8						
21	420	9.7						
22	360	10.2						
23								

Time: Local.
Sweep: Manual operation.
Median values.
* Height at 0.83 f°F2.

TABLE 77

IONOSPHERE DATA- I

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

National Bureau Of Standards (Institution)

Hourly values of $h'F_2$ in [mc / km] for July (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	(280)	[280]A	(270)	[280]A	270	(340)	[350]K	330K	[340]CK	CK	GK	520K	(470)K	AK	AK	400K	400K	320	300	260	270	[280]A	270
2	300	320	280	[280]A	[310]A	270	390	430	450	380	[410]C	[430]C	420	(410)	410	370	330	340	310	[290]A	(260)	260	250	260
3	300	280	280	260	320	350	500K	510K	GK	GK	GK	GK	530K	440K	500K	390K	380K	360K	310K	280K	[280]K	[260]A	260	270
4	270	250	260	260	260	260	250	270	310	(350)	330	(340)	380	350	(370)	350	320	380	300	250	(250)	250	(290)	[290]A
5	270	260	260	250	250	260	(280)	270	310	(300)	310	330	360	[360]C	350	350	320	280	280	270	230	240	270	[280]A
6	270	280	280	290	280	290	280	330	390	310	330	360	370	[370]C	370	350	340	310	280	[260]A	(270)	240	250K	270K
7	290K	320K	290K	310K	270K	270K	470K	550K	480K	390K	600K	470K	[530]K	450K	(570)K	420K	400K	350K	310K	260K	250K	260K	300K	(280)
8	[290]A	300	300	300	320	310	(280)	G	CK	CK	(430)K	390K	(680)K	(580)K	480K	500K	400K	350K	320K	[300]AK	250K	270K	260	260
9	270	[270]A	280A	290	300	300A	400	410	[500]CK	(500)K	CK	CK	(610)K	[500]BK	450K	530K	490K	370K	(360)K	260K	260K	(260)K	270K	270
10	270	260	270	270	320	(280)	660	570	500	340	(450)	(380)	(530)	420	390	450	360	340	290	290	250	250	280	290
11	280	260	[270]A	280	320	290	(350)	350	300	420	[350]C	(440)	410	[430]C	(440)	380	410	380	320	(270)	250	260	270	280
12	270	280	280	300	300	280	(340)	(400)	420	370	400	370	(430)	[430]C	(440)	390	370	(360)	(310)	250	250	250	260	280
13	280	280	260	280	300	270	280	510	430	400	[470]C	460	480	[420]C	370	420	410	370	320	280	260	260	[300]A	260
14	250	280	230	240	280	250	(250)	350	510	430	500	(530)	G	[480]C	390	410	380	[400]A	330	[290]A	[270]A	260	260	250
15	310	320	270	280	280	270	280	360	400	440	380	370	(420)	460	[430]C	(350)	370	C	C	C	C	C	C	C
16	C	C	C	C	C	C	C	C	C	310	(390)	360	(480)	420	360	340	340	340	310	260	(250)	300	300	280
17	250	250	320	280	280	270	(280)	390	350	420	(410)	(410)	(410)	390	380	400	340	330	300	260	230	240	250	250
18	270	280	270	300	300	270	250	450	[390]A	(370)	[500]A	560	G	480	(430)	390	C	C	C	C K	250K	270K	270K	290K
19	270K	260K	310K	340K	330K	300K	GK	GK	GK	GK	GK	GK	GK	GK	GK	GK	[560]AK	540B	[400]CK	310K	(300)K	300K	(300)K	[300]AK
20	(300)K	310K	290K	(280)K	(320)K	280K	340K	380K	350K	550K	530K	CK	AK	AK	BK	(490)K	[400]BK	[360]CK	320K	290K	(280)	(310)	290	250
21	290	280	280	280	260	260	260	(340)	390	530	420	B	B	B	B	(440)	400	[360]A	300	250	250	270	270	280
22	270	310	300	270	[290]A	280	(350)	390	370	(500)	[450]C	[500]K	[520]C	[500]C	450	(460)	410	370	320	280	260	260	250	(240)
23	300	280	280	270	C	C	C	C	C	480	(400)	560	[450]C	[450]B	(430)	440	370	370	300	260	270	260	270	290
24	280	280	290	280	280	260	260	(280)	330	310	310	350	310H	360	350	360	330	300	270	250	230	C	C	C
25	C	C	C	C	C	C	C	C	C	300	380K	360K	BK	BK	BK	BK	BK	350K	300K	280K	270K	250K	(250)K	280K
26	290K	300K	330K	280K	280K	300K	270K	460K	420K	490K	[440]CK	430K	450K	[460]CK	(430)K	[530]BC	450K	380K	310K	290K	BK	BK	BK	BK
27	BK	BK	BK	BK	BK	(420)K	410K	GK	660K	GK	BK	(460)K	360K	(390)K	[390]BK	[400]BK	380K	340K	350K	260K	260K	290K	(290)K	[300]AK
28	320K	(340)K	(360)K	300K	300K	290K	260	230	360	440	400	380	520	410	(410)	410	340	340	280	270	240	270	280	[290]A
29	270	320	320	330	330	320	260	G	630	470	(560)	C	G	C	(430)	430	370	370	330	(270)	300	280	310	300
30	280	240	270	280	C	C	C	C	C	480	G	G	G	(470)	410	400	430	340	320	260	C	C	C	C
31	C	C	C	C	C	C	C	C	C	CH	[320]C	370	360	350	350	340	320	310	280	260	220	260	270	290
Sum																								
Median	280	280	280	280	300	280	280	395	400	420	415	430	490	(430)	410	400	380	350	310	270	250	260	270	280
Count	27	27	27	27	25	26	26	26	25	29	28	27	28	27	27	29	29	29	29	29	28	27	27	27

TABLE 78

IONOSPHERE DATA- 2

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of f^0F_2 in {Mc / Kc} for July (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	6.1	5.5	5.2	4.7	3.9	4.5	5.4	(6.3)K	6.5K	[6.2]CK	CK	<5.3GK	5.7K	(5.9)K	AK	AK	6.2K	6.1K	6.4	6.7	6.6	6.5	(6.4)	(6.0)J
2	5.7	5.6	(5.6)	[4.9]A	3.7F	3.9	4.9	5.1	5.5	(6.0)	C	C	6.5	6.6	6.9	7.0	7.0	6.9	(7.2)	7.7	8.1	(7.8)J	(7.3)	6.6
3	(6.0)J	(5.8)	5.6	(5.2)	(4.5)	(3.9)J	(4.0)K	4.4K	<4.4GK	<4.5GK	<4.7GK	<5.0GK	5.4K	5.7K	[5.7]CK	(6.1)K	(6.0)K	6.2K	6.1K	6.1K	6.7	6.8	(6.2)J	(5.8)
4	5.6	[5.1]C	4.7	4.3F	3.6K	4.6	6.4	6.6	8.3	8.0	7.8	(6.9)	7.2	7.8	7.6	7.8	7.9	7.6	8.3	8.4	8.0	(7.3)	(6.6)	6.6
5	6.3	6.0	5.6	5.0	4.6F	(4.8)	6.0	[7.0]C	7.8	8.4	(8.9)J	8.4	8.0	8.1	8.5	8.6	8.5	(8.3)	8.4	8.6	(7.7)	7.0	6.7	(6.4)
6	(5.9)J	(5.5)	5.3	5.0	4.5	4.5F	(5.7)	6.4	6.8	7.0	8.0	7.7	7.7	(7.8)J	7.6	8.0	7.8	8.0	(8.1)	(8.0)	(7.9)	(7.8)	6.8K	(5.9)JK
7	(6.0)JK	4.7K	5.0K	4.9K	(4.9)K	4.1K	4.5K	5.0K	5.3K	(6.1)JK	(5.5)K	5.9K	[5.8]CK	(5.7)K	(5.9)JK	6.6K	7.0K	7.4K	8.0K	(8.4)K	8.0K	[7.6]CK	6.8K	6.8
8	(5.8)	5.5	4.3	3.6	3.5	3.6	(4.1)	<4.3G	[5.0]CK	(4.9)K	(5.5)K	(5.1)K	(5.2)	(5.5)K	(5.7)JK	(5.8)K	(6.1)JK	(6.3)K	6.5K	(6.2)JK	(6.0)JK	(6.4)K	(6.7)J	(6.0)
9	5.7	5.5	(4.2)	3.6	3.5	3.8	4.7	5.0	[5.1]CK	(5.4)K	(5.3)K	(5.4)K	(5.2)	[5.4]BK	(5.5)K	(5.4)K	5.4K	(5.8)JK	(5.9)JK	6.0K	(6.0)JK	(6.1)JK	(5.9)K	(5.8)J
10	(5.5)	(4.9)	4.2	(3.8)	2.9F	3.4	(4.2)	4.7	(5.3)	(6.5)	[5.9]C	(6.3)J	(6.0)	6.3	6.6	6.1	6.6	6.5	(6.4)	(6.1)	(6.2)	(6.2)J	(6.1)J	6.0
11	(5.8)J	(5.5)	5.3	4.4	4.0	3.9	4.7	(5.7)J	7.1	6.8	[6.7]C	(6.8)	6.8	[6.5]C	(6.2)	6.4	5.8	6.0	(6.3)J	(6.2)J	(5.9)	(5.5)	5.6	(5.2)
12	4.9	(4.7)J	3.8	3.5F	(3.0)F	3.5	4.3	4.9	5.4	(5.8)	(6.2)	(6.0)J	(6.2)J	[6.0]C	[5.7]C	6.4	6.4	6.0	6.4	6.6	6.4	(6.2)J	(6.0)J	(5.5)
13	(5.3)	(5.2)	5.0F	(3.9)F	(3.6)F	(3.7)	4.7	5.0	5.3	5.7	[5.7]C	5.7	5.4	(6.0)	6.0	(6.0)	6.2	6.2	(6.1)	(6.2)	(6.2)J	6.0	(5.7)	(5.7)J
14	(5.3)	4.6F	4.4	3.9F	3.6F	4.2	4.9	(5.6)J	5.9	(5.7)	[5.9]C	[5.7]C	<4.9G	[6.0]C	6.0	6.2	(5.9	[5.9]A	5.6	(5.9)	(5.8)J	(6.2)	(6.0)	(5.6)
15	4.6F	4.3F	4.4	4.2F	3.9F	4.0	4.6	4.9	(5.5)	5.8	6.0	[6.0]C	[6.0]C	(5.8)	6.2	6.6	6.0	C	C	C	C	C	C	C
16	C	C	C	C	C	C	C	C	C	6.6	6.6	6.5	6.2	6.9	7.6	7.1	7.6	7.2	8.0	8.0	7.6	7.4	(7.2)	7.0
17	6.6	5.7	4.8	(4.7)	3.7	3.6	4.5	5.2	6.0	6.0	6.0	6.6	6.6	6.9	7.0	6.8	7.0	7.2	7.2	7.7	7.1	(6.4)	(5.8)	5.6
18	(5.0)	5.0F	(4.9)	(3.6)F	3.5F	4.0	4.7	5.0	[5.8]A	6.0	[5.9]A	(5.6)J	<4.9G	(6.0)	6.8	6.6	C	C	C	C K	(6.4)K	(7.2)K	(5.9)K	7.0K
19	6.6K	(5.3)K	4.3K	(2.5)FK	(2.1)FK	3.2FK	<3.6GK	<4.0GK	<4.3GK	<4.5GK	<4.6GK	<(4.7)GK	<(4.8)GK	<(4.9)GK	<4.8GK	<(4.4)GK	(5.1)AK	(4.3)K	5.2K	4.8K	5.4K	(5.6)K	5.4K	4.3K
20	(3.5)JK	3.4FK	3.3FK	(2.4)FK	(2.3)FK	3.6K	5.4K	5.2K	5.3K	5.2K	(5.6)K	CK	AK	AK	BK	CK	BK	[6.4]CK	6.6K	6.7K	(7.0)	(6.5)J	(6.4)J	(5.8)
21	5.2	4.9	4.7	4.4	4.3	4.5	5.0	5.4	(5.7)	(5.6)	(6.0)	B	B	B	B	(6.6)	6.7	[7.0]A	7.2	7.0	6.9	(6.4)	(6.5)	(5.6)
22	(5.4)	(4.6)	5.0	4.6)	4.2	4.3	5.0	5.6	[6.0]J	6.0	[6.3]C	[6.1]C	[6.0]C	[6.2]C	6.5	6.6	6.7	(7.3)	7.0	7.6	(7.7)	(6.6)J	(7.0)	(5.0)
23	4.7	4.3	4.2	3.5	C	C	C	C	C	5.4	[5.6]C	(5.8)	[6.2]C	[6.3]B	(6.3)	6.4	6.7	6.8	7.0	6.6	6.9	(6.5)	6.0	(5.8)J
24	5.7	5.4	5.0	4.5F	4.5	(4.5)F	(6.2)	7.1	(8.2)	9.0	8.7	8.9	8.6H	8.8	8.6	8.8	8.7	8.9	9.0H	(8.8)J	(8.5)	C	C	C
25	C	C	C	C	C	C	C	C	C	7.6	(7.8)JK	8.0K	BK	BK	BK	BK	BK	7.6K	8.0K	7.7K	7.9K	(7.8)K	6.9K	(6.2)JK
26	6.0K	5.4K	5.0K	(5.1)K	(4.8)K	(4.5)K	4.9FK	(4.7)FK	5.7K	(5.9)K	[6.0]CK	6.4K	6.6K	(6.7)K	6.8K	[6.3]CK	7.2K	8.8K	8.0K	(9.6)K	BK	BK	BK	BK
27	BK	BK	BK	BK	BK	2.8K	(3.8)K	<3.8GK	(4.9)K	<(4.7)GK	BK	6.8K	7.1K	6.8K	[6.7]BK	[6.6]BK	6.1K	6.2K	5.9K	5.4K	5.3K	(4.8)K	4.3FK	(3.8)K
28	3.3FK	(2.8)K	2.5K	2.3K	(2.1)JK	(3.2)K	5.0	5.5	6.1	6.2	6.6	6.7	6.4	7.0	7.0	(7.2)	7.5	7.5	8.1	8.0	7.8	(7.3)	6.9	6.1
29	(5.8)J	(4.9)	3.3F	(2.4)F	(2.3)F	3.2F	4.3	<4.7G	5.0	(5.6)	C	C	<5.2G	C	7.0	6.8	6.9	6.3	6.5	6.7	5.8	(6.5)J	(6.2)	6.0
30	5.0F	4.4F	3.7F	2.8F	C	C	C	C	C	6.0	<5.3G	<5.3G	<5.2G	6.6	7.2	6.9	6.6	6.5	6.7	6.6	C	C	C	C
31	C	C	C	C	C	C	C	C	C	8.0H	7.9H	7.4	8.6	8.7	8.6	8.6	8.4	8.2	8.6	8.2	(8.2)	7.6	(7.2)	6.8
Sum																								
Median	5.7	5.1	4.7	4.2	3.7	3.9	4.7	5.0	5.6	6.0	6.0	6.1	6.1	(6.3)	6.7	6.6	6.7	6.8	7.2	6.7	6.9	(6.5)	(6.4)	(5.9)
Count	27	27	27	27	25	26	26	26	26	31	27	27	28	27	27	28	28	29	29	29	28	27	27	27

TABLE 79

IONOSPHERE DATA - 3

Washington, D.C. Ionosphere Station
(Location)

National Bureau Of Standards
(Institution)

Half hourly values of f^0F_2 in Mc/sec for July (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	(6.0)J	(5.5)J	4.8	4.2	3.7	5.0	[5.8]A	6.9K	(6.4)K	(6.1)JK	CK	<(5.2)GK	(5.8)K	AK	AK	AK	6.0K	6.3K	6.5	(6.7)	(6.6)	(6.5)	(6.1)J	(5.9)
2	(5.6)	(5.5)	5.5	4.3	3.8	4.3	5.1	5.3	(5.7)	6.3	C	C	[6.6]C	(6.6)	6.9	(6.7)	6.8	7.0	7.5	(7.7)	(8.0)J	(7.6)J	6.9	(6.2)
3	(6.7)	(5.7)J	(5.5)J	4.7	(4.2)J	(4.0)J	(4.5)K	<4.3GK	<4.3GK	<4.6GK	<4.8GK	<4.9GK	(5.7)K	5.7K	(5.8)K	6.0K	6.0K	6.2K	6.2K	(6.3)K	6.8	6.3	(5.8)J	5.6
4	(5.2)	5.0	4.4	3.8F	3.8F	(5.3)	6.3	7.4	7.9	8.0	(6.9)	7.2	7.8	7.5	7.6	7.9	7.6	8.0	8.4	(8.2)	7.6	7.0	6.7	(6.3)
5	6.3	5.7	5.4	4.3F	(4.2)JF	5.6	6.7	(7.4)	(7.8)J	8.5	(8.9)	7.9	8.0	8.2	8.5	8.4	(8.8)	8.1	(8.4)	(8.3)	(7.3)	6.8	6.6	(5.9)J
6	5.7	5.3	5.0	(4.5)	4.2	5.1	5.9	6.6	(6.8)	7.6	8.2	7.7	7.8	7.8	7.6	7.8	7.9	8.0	(8.3)	(8.0)J	(8.1)	(7.2)	(6.1)JK	(6.1)JK
7	(5.4)K	4.9K	4.9K	4.9K	(4.5)JK	3.9K	4.7K	5.4K	(5.0)JK	(5.8)K	(5.4)K	6.0K	[5.7]CK	(5.8)K	(6.0)JK	(6.6)K	7.1K	7.9K	(8.3)K	(7.7)JK	7.9K	6.8K	(7.2)K	(6.4)
8	5.7	4.6	(4.0)	3.4	3.2	3.9	4.5	(4.9)	[5.0]CK	(4.8)K	[5.4]CK	[5.1]CK	(5.6)K	(5.6)K	(5.9)K	(5.9)JK	6.2K	6.4K	(6.4)JK	(6.3)K	(<.3)JK	(6.5)K	(6.6)	5.5
9	5.5	4.7	3.5F	3.4	3.6	4.2	5.0	5.0	(5.2)K	(5.3)K	[5.4]CK	(5.3)K	[5.3]BK	[5.5]DK	(5.5)K	5.3K	(5.6)K	(5.6)JK	(6.0)JK	5.9K	(6.2)JK	(5.9)JK	(5.8)K	(5.5)
10	(5.5)	(4.6)	(4.1)J	(3.5)J	2.9	(3.7)	4.5	(4.8)	(6.0)J	(5.7)	[6.1]A	[6.0]C	[6.1]C	6.4	[6.4]C	(6.4)J	6.6	(6.4)J	(6.1)	(6.2)	(6.4)J	(6.1)J	(6.0)J	(5.9)J
11	(5.7)J	5.4	5.2	4.0	3.7	4.4	5.6	(6.3)J	(6.7)	(7.2)J	(6.0)J	6.7	6.6	(6.4)	6.4	(5.9)	5.6	6.3	(6.2)J	6.0	(5.5)	5.5	5.2	5.1
12	4.7	(4.1)J	3.8F	(3.2)J	3.0	3.8	4.8	(5.5)	(5.7)	[6.0]C	5.7	(6.2)J	[6.1]C	(5.8)	(5.6)	(6.4)	(6.0)J	6.4	6.4	6.6	(6.4)J	(6.0)J	(5.3)	(5.2)
13	(5.4)	5.1	(4.6)J	3.8F	(3.7)F	4.1	5.0	5.2	5.3	(5.8)	(5.7)	(5.7)J	6.0	(6.2)J	[6.0]C	5.9	(6.2)	6.2	(6.2)	(6.2)	(6.3)J	(5.5)	(5.5)	5.5
14	(4.9)J	4.6	4.2F	3.9F	3.5F	4.0	5.2	(5.8)J	5.9	(5.9)	5.8	[5.5]A	(5.8)	6.4	(6.2)	6.4	6.0	5.7	5.8	(5.9)J	(6.2)J	(6.2)J	(5.8)J	4.8F
15	4.5	4.4F	4.5	4.0F	3.7F	4.2F	4.8	5.3	[5.7]C	(5.7)	6.0	(6.0)	[5.9]C	(6.0)J	6.0	6.0	6.0	C	C	C	C	C	C	C
16	C	C	C	C	C	C	C	C	C	6.8	6.6	[6.4]C	6.6	7.2	7.6	7.2	7.4	7.6	8.2	(7.8)J	(7.4)	7.2	7.0	(6.4)J
17	(6.4)	5.C	4.7	4.0	3.3	(4.3)	4.7	5.8	(5.8)J	(5.7)	(6.4)	(6.4)J	6.0	6.8	6.9	6.8	7.0	7.2	7.4	7.5	6.6	(6.0)J	5.9	5.0
18	5.0F	5.0	4.3F	3.6F	(3.6)F	4.3	4.7	(5.4)J	[5.9]A	6.0	[5.8]A	5.6	5.9	6.0	6.6	C	C	C	C	(7.0)K	7.4K	7.0K	(6.4)JK	(6.4)JK
19	[6.5]CK	4.7K	3.7K	2.2FK	2.5FK	3.7K	<3.9GK	<4.2GK	<4.5GK	<4.5GK	<4.7GK	<5.0GK	<(4.8)GK	<(4.8)GK	<[4.5]GK	5.0K	5.1K	5.3K	5.2K	[5.2]AK	5.4K	[5.5]AK	(4.8)JK	[3.9]AK
20	3.5FK	(3.6)FK	(3.2)FK	(2.4)FK	2.5FK	4.2F	5.3K	5.2K	5.2K	(5.8)JK	(5.8)JK	AK	AK	BK	BK	BK	(5.8)JK	6.7K	6.5K	(6.2)K	7.0	6.6	6.3	5.3
21	5.2	4.8	4.6	4.4	4.2	4.9	5.1	[5.5]C	(5.6)J	6.C	B	B	B	B	(6.6)	(6.6)	6.8	7.2	7.1	6.8	(6.6)J	(6.4)J	(6.0)J	(5.5)
22	4.9	4.7	5.0	(4.5)J	3.9	4.6	(5.4)J	5.7	6.0	6.3	[6.2]C	[6.0]C	[6.1]C	[6.3]C	6.5	(6.7)	6.8	6.9	(7.2)	(7.8)J	(7.4)J	(7.0)J	(6.1)J	5.0
23	4.6	4.4	3.9	C	C	C	C	C	C	[5.5]C	[5.7]C	(6.0)J	[6.2]B	[6.3]B	[6.0]C	6.7	6.6	7.0	6.7	(6.2)J	6.6	(6.2)	(5.8)J	5.7
24	(5.2)	(5.2)	5.C	4.6F	4.2F	(5.3)	7.0	(7.6)	8.9	9.0	(9.0)J	8.7	8.7	9.0	8.8	8.9	8.8	9.0	(9.0)	(8.6)	C	C	C	C
25	C	C	C	C	C	C	C	C	C	7.8	7.9K	BK	BK	BK	BK	BK	7.7K	7.5K	(7.7)K	(7.7)JK	7.9K	(7.3)K	(6.2)JK	6.2K
26	(5.9)K	(5.3)K	5.1K	5.2K	4.4K	4.9K	<4.7GK	5.2K	[5.8]CK	5.8K	[6.0]CK	6.4K	6.4K	6.9K	(6.1)K	7.1K	7.1K	(8.9)K	(8.6)K	(9.2)JK	BK	BK	BK	BK
27	BK	BK	EK	BK	2.5K	(3.3)K	<3.8GK	<4.1GK	<(4.8)GK	CK	(6.1)K	(7.1)K	(7.0)K	[6.8]CK	[6.7]BK	6.5K	6.0K	5.9K	6.0K	5.4K	(4.8)K	(4.7)K	(4.4)K	3.5K
28	2.7FK	2.7K	2.4K	2.2K	2.3K	4.3K	5.2	(5.7)	6.0	[6.4]C	6.6	6.6	6.6	6.7	(7.2)	7.4	7.4	7.9	7.6	8.3	(7.1)	7.0	(6.7)	(6.2)J
29	5.2	3.6F	(3.5)	2.3F	(2.5)	3.9	4.6	<(4.4)G	5.2	5.6	C	C	<5.0G	6.6	6.8	6.8	6.5	6.4	6.7	5.9	(6.2)J	(6.2)	(6.2)	5.7
30	(4.7)F	(4.1)F	3.4F	2.6F	C	C	C	C	C	6.0	<5.3G	5.9	6.4	6.8	7.0	7.0	6.7	6.4	6.7	(6.6)J	C	C	C	C
31	C	C	C	C	C	C	C	C	C	8.3	8.0	8.6H	9.0	8.8	8.8	8.6	8.4	8.5	8.6	(8.4)	(7.4)	7.4	7.0	(6.9)
Sum																								
Median	(5.4)	4.7	4.5	4.0	3.7	4.3	5.0	5.4	(5.8)	6.0	(6.0)	6.0	6.2	6.4	6.6	6.7	6.6	6.9	6.7	(6.8)	(6.6)	(6.5)	(6.1)	(5.7)
Count	27	27	27	26	26	26	26	26	26	30	27	26	28	27	28	27	30	28	29	30	27	27	27	27

TABLE 80

IONOSPHERE DATA- 4

Washington, D.C. Ionosphere Station
(Location)

National Bureau Of Standards
(Institution)

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

Records scaled 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							(230)	A K	A K	A K	200 H K	200 H K	(240) K	A K	A K	A K	A K	A K	A	A				
2							[230] A	[240] A	230	[230] A	(220)	200	220	210	210	210	200 H	210 H	220					
3						300	[230] A K	230 K	200 H K	170 H K	210 H K	200 H K	200 K	210 K	(230) K	230 K	210 K	220 K	240 K	A K				
4							(240)	240	230	220	200	[200] C	[200] C	190	[200] A	210	[210] A	220	230					
5							240	240	220	210	220 H	230	200 H	200	A	A	A	A	A					
6							230	220	200	210	170 H	210 H	(230) H	[220] A	220 H	230	200 H	210	A					
7							230 K	240 K	210 K	200 H K	210 H K	190 K	[210] A K	220 K	(240) K	240 K	220 K	230 H K	230 K					
8							(220)	230	[240] A K	210 K	[200] A K	200 K	200 K	(200) K	230 K	220 K	A K	A K	A K					
9							A	230	200 K	C K	C K	C K	(210) K	210 B K	220 K	220 K	(240) K	A K	230 K					
10							250	230	210	(230)	[210] A	200 H	(210)	200	210	[220] A	A	A	(240)	240				
11							[230] A	[220] A	190 H	200 H	230	220 H	210	(200)	220	A	A	250	A					
12							240	[230] C	220	210	200	200	220	[220] B	220	210	210	250	230					
13							(240)	210	230	220	210	210 H	(230)	(220)	210	210	210	220	220	240				
14							210	250	220 H	210 H	220	200	[220] A	220	[230] A	230	A	A	A	A				
15							230	220	200	220	210	(210)	210	200	210	[200] A	210	C	C					
16							C	C	C	210	(180)	180 H	[220] C	[220] A	230	[220] A	[220] A	220	(220)					
17							230	230	220	210	210	200	200	[210] A	210	210	220	230	210 H					
18								A	A	A	A	190	200	220	[220] C	210	C	C	C					
19							260 K	230 K	230 K	230 K	220 K	200 K	[250] C K	(230) K	230 K	[230] A K	[240] A K	320 K	(260) K					
20							230 K	220 K	220 K	(220) K	200 K	A K	A K	A K	B	B	B K	[220] K	A K					
21							230	220	220	(210)	190	B	B	B	B	C	220	[230] A	A					
22							240	(220) H	[230] A	230 H	[210] C	220	210	[210] C	220	(250)	240	[220] C	240					
23							C	C	C	210	[220] A	210	210	[220] B	[230] B	240	230	230	230					
24							240	220	[210] A	230	[220] A	190 H	220	(220)	210	(220) H	220	220	230					
25							C	C	C	210 H	210 K	(230) K	B K	B K	B K	B K	B K	B K	B K					
26							240 K	230 K	220 K	B K	A K	A K	(270) K	[260] C K	[230] A K	(220) K	250 H K	(250) K	[260] C K	B K				
27							290 K	(280) K	250 K	[250] B K	[230] B K	[240] B K	(260) K	230 H K	B K	B K	[220] C K	[260] C K	A K					
28									220	210	[230] B	220	(240)	[230] A	220	[230] A	[230] A	230	(240)					
29								240	210	230	190 H	[220] C	(210)	(210)	230	230	(230)	220	250					
30							C	C	C	B	B	[230] B	210	210	200 H	[210] B	[210] C	[220] B	220					
31							C	C	C	210	220	(210)	[200] C	230	(220)	220	230	230	250					
Sum																								
Median							230	230	220	210	210	200	(210)	(220)	220	220	220	225	230					
Count							22	23	24	26	27	27	28	27	25	24	22	22	19					

TABLE 81

IONOSPHERE DATA- 5

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of f^0F_1 for July (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	A^K	[4.8]^H_K	[4.9]^A_K	5.1^K_K	5.3^N_K	(5.2)^K	(5.1)^H	A^K	A^K	4.8^K	(4.6)^K	L	L				
2							(3.9	4.3	4.6	(5.0)	(5.1)	(5.2)	5.3	5.3	5.1	5.0	4.9^N	LH	L					
3						L	(3.5)^K	4.0^K	4.4^N_K	4.5^K_K	4.7^K_K	5.0^N_K	5.0^K	5.0^K	5.0^K	4.9^K	4.7^K	(4.4)^K	L^K	L^K				
4							L	L	5.0	5.0	5.3	(5.2)	(5.3)	5.1	(5.1)	5.0	(4.8)	(4.7)	(4.0)					
5							L	L	(4.9)	5.0	5.1^H	(5.2)	5.2^H	(5.1)	5.2	(5.1)	4.8	L	A					
6							L	(4.4)	4.9	(5.0)	5.2^H	(5.3)^K	(5.3)^K	[5.2]^C	(5.4)^K	(5.3)	5.0^H	L	L					
7							3.7^K	(4.0)^K	4.4^K	4.7^K_K	5.0^K_K	4.9^K	(5.0)^K	5.0^K	(5.0)^K	4.8^K	4.5^K	4.4^K_K	4.0^K					
8							L	(4.3)	[4.5]^C_K	4.5^K	(4.8)^K	4.7^K	4.9^K	(4.9)^K	5.0^K	(4.8)^K	4.8^K	A^K	L^K					
9							(3.8)	(4.2)	(4.6)^K	(4.6)^K	(4.9)^K	[4.4]^C_K	(4.9)^K	(5.0)^K	(4.9)^K	(4.8)^K	(4.7)^K	(4.4)^K	(3.9)^K					
10							3.7	4.2	(4.6)	4.8	5.0	5.0^H	(5.1)	(5.1)	5.0	5.0	[4.5]^K	(4.5)	L	L				
11							L	4.4	(4.7)	5.1	5.2	5.3^N	5.2	5.0	5.0	4.8	(4.8)	(4.5)	A					
12							L	4.2	4.7	4.9	4.9	5.0	5.0	5.0	5.0	5.0	4.9	(4.4)	L					
13							L	4.3	4.6	4.8	5.0	5.0	5.0	5.1	5.0	4.9	4.8	4.7	L	L				
14							L	(4.5)	5.3^H	4.9^H	(4.9)	(5.0)	(4.9)	5.0	5.0	5.0	[4.6]^A	[4.3]^A	(4.0)	A				
15							L	(4.2)	4.5	(4.7)	4.9	5.0	5.0	5.1	5.0	5.0	4.8	C	C					
16							C	C	C	(4.8)	(5.1)	(5.1)^H	5.2	5.1	5.0	5.0	4.9	(4.8)	(4.0)					
17							L	4.2	4.6	4.9	5.0	5.1	5.2	5.2	5.2	5.1	4.7	(4.4)	LH					
18								4.3	A	A	A	5.0	(4.9)	5.0	5.0	5.0	C	C	C					
19							3.6^K	4.0^K	4.3^K	4.5^K	4.6^K	(4.7)^K	(4.8)^K	(4.9)^K	4.8^K	(4.4)^K	[4.4]^A_K	(3.8)^K	C^K					
20							(3.8)^K	(4.4)^K	(4.6)^K	4.7^K	5.0^K	5.0^K	A^K	A^K	B^K	(5.0)^K	[4.7]^B_K	[4.5]^C_K	A^K					
21							L	L	(4.7)	5.0	(5.0)	B	B	B	B	[5.0]^C	4.8	[4.3]^A	L					
22							L	(4.4)^H	4.7	5.0^H	5.2	5.2	5.1	[5.1]^C	5.1	5.0	4.8	4.5	L					
23							C	C	C	4.8	5.0	5.1	5.2	[5.1]^B	5.0	5.0	(5.0)	4.7	L					
24							L	L	(5.4)	5.3	[5.3]^A	(5.5)^H	5.4	(5.5)	(5.5)	(5.5)^K	[4.8]^L	L	L					
25							C	C	C	LH	(5.6)^K	5.5^K	B^K	B^K	B^K	B^K	B^K	B^K	B^K					
26							L^K	4.3^K	4.7^K	5.0^K	5.0^K	5.1^K	5.3^K	(5.2)^K	[5.2]^A_K	4.8^K	4.8^N_K	4.6^K	[4.0]^L_K	L				
27							L^K	3.8^K	4.3^K	(4.7)^K	[5.0]^B_K	(5.1)^K	5.1^K	5.0^N_K	[4.9]^B_K	[4.8]^B_K	(4.7)^K	[4.4]^A_K	(4.0)^K					
28									5.0	5.1	(5.1)	5.2	[5.5]^C	(5.4)	(5.2)	(5.2)	(5.1)	(4.7)	L					
29								4.7	4.5	4.8	5.1^H	5.1	5.2	5.1	5.2	(5.1)	5.0	4.6	L					
30							C	C	C	5.0	5.3	5.3	5.2	5.1	5.3^N	(5.2)^N	5.2	4.5^N	L					
31							C	C	C	C	[5.3]^C	(5.5)	(5.6)	5.3	(5.3)	5.2	5.2	[4.9]^L	L					
Sum																								
Median							3.7	4.3	4.6	4.9	5.0	5.1	5.2	5.1	5.0	5.0	4.8	(4.5)	(4.0)					
Count							7	20	25	28	30	30	28	28	27	29	29	23	7					

TABLE 82

IONOSPHERE DATA- 6

Washington, D.C. Ionosphere Station
(Location)

National Bureau Of Standards
(Institution)

Hourly values of h'_E in km for July (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						110	110	110K	110K	110K	100K	110K	100K	110K	110K	110K	110K	110K	110	110				
2							110	110	110	110	110	110	110	100	110	110	110	110	110	110				
3						120	100K	110K	100K	110K	110K	100K	100K	100K	110K	110K	110K	110K	110K	110K				
4						C	110	110	110	110	110	110	110	100	110	110	110	110	110	110				
5						C	110	110	110	100	100	110	110	110	110	110	110	110	110	100				
6							120	110	110	110	110	110	110	110	110	110	110	110	110					
7						110K	110K	110K	110K	110K	110K	110K	110K	110K	110K	110K	110K	110K	110K	120K				
8							110	110	[110]C K	100K	110K	110K	110K	110K	110K	110K	110K	110K	120K	110K				
9						C	100	110	100K	CK	CK	CK	110K	110K	110K	110K	110K	110K	110K	100K				
10						110	110	110	110	110	110	110	110	110	110	110	110	110	110	120				
11							110	110	110	110	110	110	100	100	110	110	110	110	110	110				
12						110	110	110	110	100	100	100	110	110	120	110	110	110	110	(140)				
13							110	110	110	100	110	110	110	110	100	110	110	100	110	110				
14							110	100	110	100	110	100	110	100	100	110	110	100	110	110				
15						120	120	110	100	110	100	100	100	100	110	100	100	C	C	C				
16							C	C	C	100	100	100	110	100	110	110	110	110	110					
17							110	110	110	100	100	100	100	100	110	100	110	110	110	110				
18						110	110A	110	100	100	110	100	100	100	110	110	C	C	C	CK				
19							110K	100K	100K	100K	100K	110K	110K	100K	120K	110K	110K	110K	110K					
20							110K	110K	110	110K	100K	110K	110K	110K	110K	BK	BK	CK	120K					
21						110	110	110	110	110	110	B	B	100	110	100	110	110	110					
22							120	110	110	110	110	110	110	[110]C	110	110	110	110	110					
23							C	C	C	100	[110]B	110	120	[110]B	[110]B	100	110	110	110	C				
24							[120]C	110	110	110	110	110	110	110	110	110	110	110	110	110				
25							C	C	C	110	110K	110K	BK	BK	BK	BK	BK	BK	BK					
26						[120]C K	[120]C K	110K	110K	BK	BK	BK	BK	BK	110K	[110]B K	110K	120K	120K	BK				
27						BK	120K	110K	110K	BK	BK	BK	BK	BK	BK	BK	110K	110K	120K					
28							C	110	110	110	[110]B	120	100	[110]B	110	110	110	120	120	[120]C				
29							C	110	110	110	110	110	100	110	110	110	110	110	110					
30							C	C	C	B	B	B	100	110	100	110	110	120	[110]C					
31							C	C	C	110	[110]B	110	100	100	100	100	100	110	110					
Sum																								
Median						110	110	110	110	110	110	110	110	110	110	110	110	110	110	110				
Count						9	24	26	26	27	27	26	27	28	29	28	28	27	28	16				

TABLE 83

IONOSPHERE DATA - 7

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of f_0E and $M(3000)F2$ for July (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						A	[2.4]A	[2.9]A	[3.3]A	(3.5)K	[3.8]C K	[3.8]A	B K	A K	A K	A K	A K	A K	A	A				
2							A	2.9	3.3	3.6	[3.7]A	(3.8)	(3.8)	A	A	A	A	(2.9)	[2.4]A	A				
3						1.6	(2.3)K	[3.0]A	(3.4)K	(3.6)K	[3.8]C K	[4.0]C K	(3.8)K	(3.7)K	(3.8)K	(3.7)K	[3.5]C K	[3.1]A K	2.7K	A K				
4						1.7	[2.5]K	2.9	[3.4]A	[3.7]A	[3.8]C	[3.9]C	[3.9]A	A	A	A	A	A	A	A				
5						(1.6)	[2.9]A	(3.0)	[2.9]A	(3.6)	(3.7)	3.8	(3.9)	3.7	3.6	(3.8)	A	A	A	A				
6							A	C	A	A	3.8	(3.7)	(3.7)	[3.8]A	[3.8]A	[3.7]A	(3.6)	3.1	(2.5)					
7						C K	(2.3)K	(2.8)K	(3.3)K	(3.5)K	[3.7]C K	[3.9]A K	[3.9]A K	(3.8)K	[3.7]C K	(3.6)K	[3.2]A K	(2.9)K	[2.5]A K	2.0K				
8							A	2.8	C K	A K	3.6K	A K	A K	C K	(3.7)K	(3.6)K	A K	A K	A K	A K				
9						A	2.2	2.8	(3.1)K	C K	C K	C K	B K	A K	A K	3.6K	C K	A K	A K	2.0K				
10							2.3	(3.0)	(3.3)	(3.7)	(3.8)	[3.8]A	(3.8)	(3.8)	(3.6)	(3.8)	A	A	A	(1.9)				
11							(2.2)	[2.9]A	(3.2)	[3.5]C	[3.9]C	[3.8]C	3.9	(3.8)	(3.9)	(3.7)	[3.4]C	(3.0)	A					
12						1.7	(3.5)	[3.1]C	(3.6)	[3.7]A	3.7	3.9	(3.9)	B	B	A	[3.5]A	[3.2]C	[3.7]A	2.0				
13							3.3	(2.8)	3.3	3.5	[3.7]A	(3.9)	(3.8)	[3.9]A	(3.9)	(3.8)	3.5	(2.9)	2.5	1.9				
14							(3.3)	[3.0]A	[3.5]A	(3.6)	(3.6)	[3.7]A	[3.8]A	(3.7)	[3.8]A	3.7	(3.6)	(3.0)	[2.7]A	A				
15						1.6	3.0	[3.4]A	(3.2)	[3.3]A	[3.6]C	(3.8)	3.9	(3.8)	[3.7]A	[3.5]A	3.4	C	C	C				
16							C	C	C	A	(3.6)	[3.8]A	[3.8]A	[3.8]A	[3.8]A	(3.5)	(3.3)	A	A					
17							3.4	(2.8)	(3.2)	(3.6)	(3.6)	(3.8)	A	A	(3.9)	3.7	3.5	3.1	3.5	(1.8)				
18						A	(2.4)K	A	A	A	A	(3.9)	[3.9]A	[3.9]C	[3.8]A	(3.8)	C	C	C	C K				
19							3.4K	(3.9)K	[3.2]C K	[3.4]C K	[3.5]C K	(3.9)K	[3.9]A K	[3.9]A K	4.0K	3.9K	3.8K	3.2K	2.6K					
20							(3.3)K	[2.7]A K	3.2K	A K	A K	A K	A K	A K	A K	B K	B K	C K	A K					
21						A	A	A	[3.3]C	[3.7]C	3.8	B	B	B	C	[3.8]C	(3.6)	[3.0]C	2.6					
22							(3.2)	[2.8]A	[3.2]C	(3.4)	C	A	A	C	(3.8)	(3.7)	(3.5)	[3.2]C	2.6					
23							C	C	C	3.5	[3.7]D	3.9	B	B	B	(4.0)	(3.6)	3.2	2.6	C				
24							2.2	[2.4]A	2.9	(3.0)	[3.4]A	(3.7)	(3.9)	[4.0]C	[4.0]W	3.7	(3.6)	(3.3)	(2.7)	(1.9)K				
25							C	C	C	A	[3.8]A K	(3.7)K	B K	B K	B K	B K	B K	B K	B K					
26						C K	A K	2.9K	C K	B K	B K	B K	B K	B K	C K	B K	C K	C K	(2.4)K	B K				
27						B K	3.4K	2.9K	C K	B K	B K	B K	B K	B K	B K	B K	C K	C K	2.5K					
28							C	[2.9]C	[3.2]C	(3.6)	[3.8]D	(3.9)	B	B	C	C	A	A	2.7	C				
29							A	2.8	(3.0)	[3.4]A	[3.7]C	[3.9]D	[3.9]C	[3.8]D	(3.7)	(3.7)	[3.5]C	[3.0]C	2.6					
30							C	C	C	B	B	B	(3.9)	C	B	C	[3.4]C	[3.1]C	(2.5)					
31							C	C	C	(3.5)	B	C	C	C	C	(3.7)	(3.5)	(3.1)	2.6					
Sun																								
Median						1.6	(2.3)	(2.8)	(3.2)	(3.5)	(3.7)	(3.8)	(3.9)	(3.8)	(3.8)	(3.7)	(3.5)	(3.1)	2.6	1.9				
Count						5	19	23	21	21	23	22	18	14	17	21	18	17	19	7				

TABLE 84

IONOSPHERE DATA- 8

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of E_s in {Mc / km} for July (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	3.3/110	4.2/110	5.2/110	4.2/110	5.3/110	4.3/110	7.0/110	6.0/110	6.1/110	5.3/110	4.3/110	4.1/120	5.3/110	6.8/110	10.6/110	9.4/110	6.4/110	5.2/110	4.2/110	4.2/110	3.8/110	6.5/110	6.9/110	5.3/110
2	6.7/110	6.6/110	6.8/110	7.5/110	5.3/110	4.9/100	5.7/110	4.7/120	5.3/120	7.0/110	6.4/110	5.3/110	5.2/110	5.0/110	5.3/110	4.5/110	3.7/120	3.8/110	3.6/110	3.6/110	5.2/120	3.4/110	3.5/120	2.4/110
3	3.5/110	3.7/120	2.9/110			2.3/130	5.3/100	4.0/110	5.1/110		5.3/110	3.9/110	4.3/110	3.9/110		3.8/120	3.8/120	4.7/110	3.8/110	9.4/100	6.6/110	4.3/110		4.3/110
4	5.5/110	(2.9)/110	2.4/110	2.6/100	2.4/110	2.9/110	3.7/100	4.8/120	3.9/100	4.9/110		4.3/120	4.3/110	5.2/110	5.3/100	5.0/110	5.1/110	3.8/110	4.0/100	4.3/110	3.2/110	5.3/110	5.3/110	5.3/110
5	3.0/110	2.3/100	2.3/110			5.4/100	3.8/100	5.2/120	5.3/110	4.2/120	5.2/110	5.3/120	5.3/120	5.3/110	5.4/110	5.6/110	5.4/110	5.3/110	6.8/110	5.2/100	2.4/100	2.9/100	5.4/100	6.6/100
6	3.9/100	3.8/110	3.8/110	2.9/110	2.8/100	5.2/120	5.2/110	5.3/120	5.3/110	5.3/110	4.0/120	3.9/120	8.0/110	8.2/110	4.0/110	3.8/110	3.5/140	4.2/120	6.7/120	6.6/110	5.3/110	3.5/110	3.3/110	
7	2.9/110	2.3/160				2.9/110	3.7/110			3.7/130		4.2/100	5.2/110	4.8/120	5.1/110			3.8/140	3.5/120			2.4/150	3.5/120	3.8/120
8	5.5/110	3.8/110		2.3/130	4.3/120	3.9/110	4.2/100	3.9/120	C	4.0/120	5.4/110	5.2/110	4.2/110			3.9/110	5.3/110	5.5/110	4.8/110	3.7/110	5.7/110	2.7/120	2.9/110	3.7/110
9	(3.8)/110	5.7/110	5.2/100	2.9/100	(2.4)/100	4.5/120	5.3/100	4.2/120	4.0/110	C	C	C	3.8/110	5.3/110	3.8/110	4.0/120	5.3/110	5.4/100	4.0/100	(3.1)/100	2.9/110	2.4/120	2.3/110	2.9/110
10	2.6/110	2.0/100	2.4/110	2.9/110	3.9/100	5.1/100	5.3/100	4.3/110	3.9/110	5.3/120	6.6/120	5.3/110	5.0/120	5.3/120	5.0/110	5.5/110	6.4/110	5.2/110	3.6/100	3.5/110	2.4/110	2.4/120		3.6/110
11	4.4/110	5.3/110	5.2/110	6.3/110	5.3/110	2.9/120	5.2/110	4.2/120	3.8/110	3.9/110	4.3/120	5.3/120	5.3/120	4.0/110	5.3/110	5.3/110	5.2/120	5.0/110	5.3/110	2.9/110		4.7/110	2.9/120	2.3/110
12	2.3/120		2.3/120	2.7/120	2.8/110	3.9/110	3.9/110	4.2/110	5.3/100	4.5/100	3.9/110				4.0/120	4.0/100	3.8/110		4.3/100		1.9/130	2.9/130	2.9/100	2.9/120
13	3.2/110	2.7/110		2.4/110	2.4/110	2.3/110	4.6/110	4.4/120	4.0/120	5.0/110	6.6/110		4.2/120	4.0/120		3.8/120	3.7/120		2.5/140	2.9/110	2.9/110	4.0/110	5.4/110	2.4/110
14	3.4/100					2.4/100	3.8/110	4.1/120	3.9/110	3.9/110		7.6/110	5.2/110	4.1/110	5.4/110	7.8/120	7.8/110	>11.5/110	9.5/110	7.0/100	9.2/120	2.4/110		
15					3.6/100	2.9/110	3.6/110	3.9/110	3.7/110	4.9/100	3.7/110				5.1/110	5.3/100		C	C	C	C	C	C	C
16	C	C	C	C	C	C	C	C	C	5.2/110	5.3/110	5.2/110	5.0/110	5.2/110	5.3/120	5.4/110	6.6/110	5.3/110	5.3/110	4.3/110	3.8/120	4.6/110	4.6/110	4.7/110
17	4.7/110	2.7/110	3.5/110	2.9/100	2.7/100	2.7/100	2.9/110	4.5/120	5.1/120	7.2/110	3.8/110	4.2/120	5.3/120	5.1/110	4.0/110			4.3/120	2.8/130	3.5/110	2.3/120		2.3/120	2.9/110
18	3.4/110	2.9/110	4.7/100	6.6/100	5.1/100	4.1/110	5.3/110	5.3/100	7.0/110	11.2/110	10.2/110	5.2/110	5.2/120	4.0/120	5.1/110	4.3/110	C	C	C	2.3/110	2.3/120	2.4/120	2.3/110	
19	2.2/110	2.0/120				5.2/110	5.3/100	3.2/120	3.7/110		3.6/110		4.4/100	4.0/100	5.1/120	5.3/120	7.4/110	8.0/110	8.4/110	8.0/110	5.3/110	8.2/110	5.4/110	7.4/100
20	6.5/110	3.0/110	4.0/110	4.0/100	3.6/100	2.8/110	3.8/110	5.3/110	5.3/110	5.3/110	5.2/110	8.0/110	7.0/110	8.0/110	4.4/110	B	B	3.8/120	6.8/110	4.8/110	5.0/110	5.2/110	2.8/110	
21					2.3/100	3.3/110	4.4/110	4.4/110	3.6/130	4.3/120	4.4/120	B	B				3.8/130	5.0/110	5.3/120	5.3/110	5.3/110	4.3/110	2.7/110	
22	3.8/120	5.2/120	5.3/120	5.3/110	5.1/110	4.9/110	2.9/110	3.9/110	5.3/110	5.1/110	5.0/110	5.0/100	4.0/110	C		3.9/120	3.8/110					2.3/120	2.8/120	2.9/120
23	2.7/100		2.4/100	2.4/100	C	C	C	C	C	5.2/120	(5.1)/120	4.2/120	B	B	4.0/120	5.2/110			2.9/120	2.2/130		4.4/110	4.3/110	3.6/100
24	4.2/110	4.2/110	4.6/100	4.3/100	4.6/100	2.9/110	5.2/100	5.2/120	6.8/110	7.4/110	7.0/110				4.0/110	4.0/130		3.9/130		2.4/110	2.1/110	C	C	C
25	C	C	C	C	C	C	C	C	C	5.1/110	4.2/110	4.1/110	B	B	B	B	B							
26		2.8/120				1.5/120	3.0/120	6.6/110	5.2/110	4.1/110	5.3/100	4.4/110	4.7/110	4.1/120	6.3/110				2.8/110				3.8/120	3.9/120
27	4.0/140	B	B	B	3.6/120		6.6/170	3.7/120	5.1/110	3.8/110	3.8/110	3.8/130	5.0/110	C	B	B	3.8/140	5.2/120	5.3/110	2.2/110	3.3/110	8.2/110	7.2/110	8.6/100
28	4.1/100	4.7/100	2.9/100				3.5/110	4.1/120	4.0/110	2.9/120		4.4/110	4.5/110	4.8/110	5.3/110	5.3/110	5.3/120	3.5/120		2.4/120	2.3/110	3.5/110	3.2/110	6.3/110
29	2.9/120	2.7/110					2.9/110	3.1/110	3.7/110	3.9/110								3.9/130	2.9/110	5.2/110	6.6/120	1.5/140	2.3/160	
30					C	C	C	C	C		4.2/110				4.3/120		4.2/120		(3.1)/120	(1.6)/120	C	C	C	C
31	C	C	C	C	C	C	C	C	C	4.0/.20				5.2/100			3.6/120		2.7/120	5.1/110	5.3/110	4.3/110	3.5/110	
Sum																								
Median	3.3	2.8	2.4	2.4	2.8	2.9	4.3	4.2	5.1	4.7	4.3	4.2	4.6	4.1	4.4	4.0	3.8	3.9	3.8	3.6	2.9	3.4	3.0	2.9
Count	28	27	27	27	26	26	26	26	25	30	30	29	28	27	29	28	28	29	29	30	29	28	28	28

TABLE 85

IONOSPHERE DATA - 9

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of F2-M3000 for July (Month) 19 46

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

TABLE 86

IONOSPHERE DATA- 10

Washington, D. C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of F2-M3000 for July (Month) 19 46

Records measured by: J. M. C. W. 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	2.8	2.8	2.8	2.7	2.7	2.7	2.8	(2.8)K	2.8K	CK	CK	GK	(2.4)K	(2.6)K	AK	AK	2.7K	2.6K	2.7	2.8	2.8	2.6	(2.7)	(2.7)J
2	2.7	2.6	(2.8)	A	(2.6)F	2.6	2.7	2.7	2.7	(2.9)	C	C	2.6	2.5	2.6	2.7	2.8	2.6	(2.7)	2.8	2.7	(2.8)J	(2.7)	2.7
3	(2.6)J	(2.7)	2.6	(2.7)	(2.5)	(2.7)J	(2.5)K	2.5K	GK	GK	GK	GK	2.4K	2.6K	CK	(3.0)K	(2.9)K	2.9K	2.8K	2.8K	2.8	2.8	(2.8)J	(2.7)
4	2.7	C	2.8	3.0F	2.7F	3.0	3.0	3.0	2.9	2.8	2.9	(3.0)	2.7	2.7	2.6	2.7	2.8	2.8	2.7	2.9	2.8	(2.8)	(2.6)	2.7
5	2.8	2.8	2.8	2.9	2.8F	(3.0)	3.1	C	2.9	2.7	(3.0)J	2.7	2.7	2.6	2.8	2.7	2.8	(2.7)	2.8	2.8	(2.9)	2.8	2.8	(2.8)
6	(2.8)J	(2.8)	2.7	2.7	2.7	2.8F	(2.9)	2.9	2.6	2.8	2.8	2.6	2.7	(2.8)J	2.7	2.8	2.7	2.8	(2.8)	(2.8)	(2.8)	(2.9)	2.8K	(2.7)JK
7	(2.7)JK	2.5K	2.6K	2.5K	(2.8)K	2.6K	2.4K	2.3K	2.5K	(2.7)JK	(2.2)K	2.5K	CK	(2.5)K	(2.2)JK	2.5K	2.5K	2.7K	2.7K	(2.8)K	2.6K	CK	2.5K	2.7
8	(2.6)	2.6	2.5	2.5	2.5	2.7	(2.7)	G	CK	(2.3)K	(2.8)K	(2.9)K	(2.2)K	(2.3)K	(2.6)JK	(2.4)K	(2.7)JK	(2.8)K	2.7K	(2.9)JK	(2.8)JK	(2.7)K	(2.8)J	(2.7)
9	2.7	3.0	(2.8)	2.7	2.6	2.7	2.6	2.7	CK	(2.5)K	CK	CK	(2.4)K	BK	(2.6)K	(2.5)K	2.4K	(2.7)JK	(2.8)K	2.8K	(2.9)JK	(2.7)JK	(2.7)K	(2.7)J
10	(2.7)	(2.6)	(2.7)	(2.6)	(2.7)F	2.4	(2.2)	2.3	(2.4)	(2.8)	C	(2.9)J	(2.4)	2.6	2.7	2.5	2.7	2.8	(2.9)	(2.9)	(2.7)	(2.7)J	(2.7)J	2.6
11	(2.8)J	(2.9)	2.8	2.8	2.5	2.6	2.6	(2.8)J	3.0	2.5	C	(2.5)	(2.7)	C	(2.8)	2.8	2.8	2.7	(2.9)J	(3.0)J	(2.9)	(2.8)	2.8	(2.8)
12	2.7	(2.7)J	2.6	2.6F	(2.8)F	2.8	2.8	(2.7)	(2.8)	(2.9)	(2.8)	(2.6)J	(2.7)J	C	C	(2.8)	2.8	(2.8)	2.8	2.9	2.9	(2.9)J	(2.8)J	(2.7)
13	(2.8)	(2.8)	2.8F	(2.8)F	(2.8)F	(3.0)	3.1	2.5	2.7	2.8	C	2.6	(2.6)	C	2.9	(2.7)	2.8	2.8	(3.0)	(3.0)	(3.0)J	2.8	(2.8)	(2.9)J
14	(2.8)	2.8F	2.9	3.0F	2.7F	3.0	3.0	(3.0)J	(2.5)	(2.8)	C	C	G	C	2.8	2.8	(3.0)	A	2.8	(2.8)	(2.8)J	(2.8)	(2.9)	(2.9)
15	2.5F	2.5F	2.8	2.6F	2.8F	3.0	2.9	2.8	(2.8)	2.6	2.9	(3.0)	C	(2.7)	2.7	(3.0)	2.9	C	C	C	C	C	C	C
16	C	C	C	C	C	C	C	C	C	3.1	2.7	2.8	2.5	2.6	2.7	2.8	2.8	2.8	2.8	2.8	2.9	2.8	(2.7)	2.6
17	2.7	2.9	2.6	(2.8)	2.7	2.9	2.9	2.9	3.0	2.7	2.8	(2.8)	2.7	2.8	2.8	2.7	2.8	2.9	2.9	3.0	2.9	(2.8)	(2.8)	2.8
18	(2.7)	2.7F	(2.7)	(2.8)F	2.8F	3.0	2.9	2.6	A	2.9	A	(2.3)J	G	(2.5)	2.5	2.7	C	C	C	CK	(2.9)K	(2.7)JK	(2.7)K	2.7K
19	2.7K	(2.8)K	2.5K	(2.5)FK	(2.5)FK	2.9FK	GK	GK	GK	GK	GK	GK	GK	GK	GK	GK	AK	(2.5)K	2.7K	2.9K	2.8K	(2.7)JK	2.9K	(2.8)K
20	(2.6)JK	2.8FK	2.8FK	(3.0)FK	(2.7)FK	2.9K	3.0K	2.8K	3.0K	2.4K	(2.4)K	CK	AK	AK	BK	CK	BK	CK	2.8K	2.8K	(2.8)	(2.8)J	(2.8)J	(2.9)
21	2.6	2.8	2.6	2.6	2.8	3.1	3.1	2.8	(2.8)	(2.4)	(2.7)	B	B	B	B	(2.7)	2.6	A	2.8	2.7	2.8	(2.7)	(2.8)	(2.7)
22	(2.7)	(2.5)	2.7	(2.8)	2.7	3.0	2.7	2.8	(2.8)J	2.5	C	C	C	C	2.5	2.5	2.5	(2.6)	2.6	2.8	(2.8)	(2.8)J	(2.9)	(2.7)
23	2.7	2.5	2.7	2.7	C	C	C	C	C	2.6	C	(2.3)	C	B	(2.6)	2.5	2.7	2.6	2.9	2.8	2.7	(2.8)	2.7	(2.7)J
24	2.8	2.8	2.7	2.7F	2.8	(3.0)F	(3.2)	3.1	(2.8)	2.9	2.7	2.7	2.7H	2.8	2.7	2.7	2.8	2.8	2.9	(2.8)J	(2.8)	C	C	C
25	C	C	C	C	C	C	C	C	C	3.1	(2.9)JK	2.8K	BK	BK	BK	BK	BK	2.7K	2.8K	2.8K	2.7K	(2.8)K	2.8K	(2.7)JK
26	2.7K	2.5K	2.5K	(2.6)K	(2.8)K	2.7K	3.1FK	(2.6)FK	2.6K	(2.5)K	CK	2.8K	2.5K	(2.6)K	2.6K	CK	2.4K	2.5K	2.5K	(2.7)K	BK	BK	BK	BK
27	BK	BK	BK	BK	BK	2.4K	(2.7)K	GK	(2.1)K	GK	BK	2.5K	2.7K	2.8K	BK	BK	2.7K	2.8K	2.8K	3.0K	2.8K	(2.7)K	2.7FK	(2.7)K
28	2.7FK	(2.7)K	2.6K	2.6K	(2.7)JK	(2.9)K	3.1	3.0	3.0	2.6	2.7	2.9	2.4	2.7	2.6	(2.6)	2.7	2.7	2.9	2.8	2.9	(2.7)	2.6	2.7
29	(2.7)J	(2.6)	2.5F	(2.5)F	(2.5)F	(2.7)F	(2.9)	G	2.2	(2.5)	C	C	G	C	2.5	2.5	2.7	2.8	2.7	3.0	2.6	(2.7)J	(2.6)	2.6
30	2.9F	2.6F	2.7F	2.6F	C	C	C	C	C	2.5	G	G	G	2.5	2.7	2.7	2.7	2.8	2.8	2.9	C	C	C	C
31	C	C	C	C	C	C	C	C	C	2.6H	2.7H	2.8	2.7	2.7	2.7	2.7	2.7	2.9	2.9	2.8	(2.8)	2.7	(2.8)	2.7
Sum																								
Median	2.7	2.7	2.7	2.7	2.7	2.8	2.9	2.7	2.8	2.6	2.7	2.6	2.5	2.6	2.6	2.7	2.7	2.8	2.8	2.8	2.8	(2.8)	(2.8)	(2.7)
Count	27	26	27	26	25	26	26	25	23	30	18	24	24	26	24	26	27	26	29	29	28	26	27	27

TABLE 87

IONOSPHERE DATA- II

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of FI-M3000 for July (Month) 1948

Records measured by J. M. G. 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						A	A	A K	A K	(4.3) K	C K	A K	B K	A K	A K	A K	A K	A K	A	A				
2							A	4.1	4.0	4.3	A	(4.4)	(4.3)	A	A	A	A	(4.2)	A	A				
3						4.0	(4.1) M	A K	(4.2) K	(4.3) K	C K	C K	(4.0) K	(4.5) K	(4.2) K	(4.3) K	C K	A K	4.3 K	A K				
4						C	C	4.2	A	A	C	C	A	A	A	A	A	A	A	A				
5						C	A	(4.3)	C	(4.3)	(4.5)	(4.5)	(4.5)	(4.3)	4.4	(4.5)	A	A	A	A				
6							A	C	A	A	4.1	(4.0)	(4.5)	A	A	A	(4.3)	4.2	(4.3)					
7						C K	(3.8) K	(4.3) K	(4.2) K	(4.3) K	C K	A K	A K	(4.2) K	C K	(4.3) K	C K	(4.0) K	A K	4.0 K				
8							A	4.1	C K	A K	4.3 K	A K	A K	C K	(4.2) K	(4.1) K	A K	A K	A K	A K				
9							4.1	4.1	(4.3) K	C K	C K	C K	B K	A K	A K	4.5 K	C K	A K	A K	3.6 K				
10							(3.8)	(4.0)	(4.1)	(4.1)	(4.4)	A	(4.3)	(4.3)	(4.3)	(4.4)	A	A	A	(3.7)				
11							(4.0)	A	(4.1)	C	C	C	(4.2)	(4.4)	(4.2)	(4.1)	C	(4.1)	A	A				
12						(3.6)	(3.4)	A	(4.5)	A	(4.2)	4.2	(4.2)	B	B	A	A	C	A	3.7				
13							4.0	(4.3)	4.4	(4.3)	A	(4.3)	(4.2)	A	(4.2)	(4.2)	4.3	(4.3)	(4.0)	(4.2)				
14							(4.1)	A	A	(4.3)	(4.6)	A	A	(4.3)	A	4.1	(4.1)	(4.2)	A	A				
15						4.5	(4.3)	A	(4.3)	A	C	(4.5)	4.2	(4.3)	A	A	4.3	C	C	C				
16							C	C	C	A	(4.3)	A	A	A	A	(4.1)	(4.3)	A	A					
17							(4.1)	(4.0)	(4.3)	(4.2)	(4.3)	(4.3)	A	A	(4.2)	4.2	4.3	4.3	4.2	(4.3)				
18						A	(4.1) M	A	A	A	A	(4.5)	A	C	A	(4.2)	C	C	C	C				
19							4.4 K	(4.3) K	C K	C K	C K	(4.3) K	A K	A K	(4.3) K	4.1 K	4.2 K	4.2 K	4.2 K					
20							(4.2) K	A K	(4.4) K	A K	A K	A K	A K	A K	A K	B K	B K	C K	A K					
21						A	A	A	C	C	4.2	B	B	B	C	C	(4.1)	C	4.1					
22							(4.1)	A	C	(4.5)	C	A	C	C	(4.2)	(4.2)	(4.1)	C	(4.1)					
23							C	C	C	4.2	B	4.2	B	B	B	(4.3)	(4.1)	4.0	4.0	C				
24							4.0	A	4.2	(4.4)	A	(4.3)	(4.2)	C	A	4.0	(4.0)	(4.0)	(4.0)	(4.0)				
25							C	C	C	A	A K	(4.5) K	B K	B K	B K	B K	B K	B K	B K					
26						C K	A K	4.2 K	C K	B K	B K	B K	B K	B K	C K	B K	C K	C K	(4.3) K	B K				
27						B K	4.0 K	(4.1) K	C K	B K	B K	B K	B K	B K	B K	B K	C K	C K	4.1 K					
28							C	C	C	(4.1)	B	(4.3)	B	B	C	C	A	A	(4.1)	C				
29							A	(4.3)	(4.2)	A	C	C	C	B	(4.2)	(4.3)	C	C	4.1					
30							C	C	C	B	B	B	(4.2)	C	B	C	C	C	(4.2)					
31							C	C	C	(4.2)	B	C	C	C	C	(4.2)	(4.2)	(4.0)	3.8					
Sum																								
Median							(4.1)	(4.2)	(4.2)	(4.3)	(4.3)	(4.3)	(4.2)	(4.3)	(4.2)	(4.2)	(4.2)	(4.2)	4.1	(4.0)				
Count							16	13	13	14	9	15	11	7	10	18	12	8	15	7				

TABLE 88

IONOSPHERE DATA-12

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of E-MI500 for July (Month) 1956

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	A K	A K	A K	3.7 N K	3.5 N K	(3.5) K	A K	A K	A K	3.3 K	(3.2) K	L	L				
2							3.1	3.4	3.5	A	(3.4)	(3.8)	3.4	3.5	3.8	3.6	3.6 N	L H	L					
3						L	(3.1) K	3.5 K	3.8 N K	3.8 N K	3.8 N K	3.9 N K	3.7 K	3.6 K	3.5 K	3.6 K	3.6 K	(3.5) K	L K	L K				
4							L	L	3.3	3.6	3.7	C	(3.3)	3.9	(3.5)	3.6	(3.4)	(3.3)	(3.5)					
5							L	L	(3.6)	3.6	3.6 N	(3.6)	3.8 N	(3.6)	3.6	(3.6)	3.6	L	A					
6							L	(3.4)	3.4	(3.6)	3.3 N	(3.5) N	(3.5) N	C	(3.6) N	(3.4)	3.5 N	L	L					
7							3.1 K	(3.5) K	3.5 K	3.6 K	3.7 N K	3.9 K	(3.4) K	3.6 K	(3.4) K	3.4 K	3.3 K	3.3 N K	3.4 K					
8							L	(3.2)	C K	3.7 K	A K	3.9 K	3.9 K	(3.6) K	3.5 K	(3.5) K	3.3 K	A K	L K					
9							(3.2)	(3.4)	(3.5) K	C K	C K	C K	(3.7) K	B K	(3.7) K	(3.7) K	(3.4) K	(3.3) K	(3.4) K					
10							3.2	3.3	(3.5)	3.5	A	(4.0) N	(3.7)	(3.5)	(3.7)	(3.2)	A	(3.5)	L	L				
11							L	(3.7)	(3.5)	(3.4)	3.6	(3.2) N	3.9	(3.6)	3.6	(3.4)	A	(3.4)	A					
12							L	3.5	(3.5)	3.6	3.8	(3.7)	3.7	B	(3.7)	3.8	3.4	(3.3)	L					
13							L	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.6	3.6	3.3	3.3	L	L				
14							L	(3.4)	3.0 N	(3.6) N	(3.9)	(3.6)	A	3.5	3.5	3.6	A	A	(3.4)	A				
15							L	(3.6)	3.5	(3.5)	3.6	3.7	3.8	3.8	3.5	A	3.5	C	C					
16							C	C	C	(3.4)	(3.9)	(4.0) N	C	A	3.7	A	A	(3.2)	(3.5)					
17							L	3.5	3.6	3.7	3.7	3.8	3.9	(3.5)	3.7	3.5	3.6	(3.5)	L H					
18								(3.3)	A	A	A	3.8	(4.0)	3.6	3.4	3.5	C	C	C					
19							3.2 K	3.5 K	3.5 K	3.8 K	3.9 K	(4.0) K	(3.8) K	(3.6) K	3.8 K	A K	A K	(3.3) K	C K					
20							(3.3) K	(3.6) K	(3.4) K	(3.8) K	3.8 K	A K	A K	A K	B K	B K	B K	C K	A K					
21							L	L	(3.4)	3.4	(3.7)	B	B	B	B	C	3.6	A	L					
22							L	(3.3) N	(3.4)	3.5 N	(3.3)	3.7	3.7	C	3.5	3.4	3.5	3.4	L					
23							C	C	C	3.6	A	3.7	3.7	B	B	3.4	(3.3)	3.2	L					
24							L	L	(3.6)	3.5	A	(3.6) K	3.7	(3.5)	(3.3)	(3.4) N	L	L	L					
25							C	C	C	L H	(3.4) K	(3.5) K	B K	B K	B K	B K	B K	B K	B K					
26							L K	3.5 K	3.6 K	3.1 K	(3.5) K	(3.6) K	(3.5) K	B K	A K	(3.6) K	3.2 N K	3.2 K	L K	L K				
27							L K	3.3 K	3.4 K	(3.4) K	B K	(3.3) K	3.4 K	(3.5) N K	B K	B K	C K	A K	(3.1) K					
28									3.5	3.6	(3.7)	3.8	C	(3.6)	(3.4)	(3.5)	(3.4)	(3.4)	L					
29								3.0	3.6	3.5	3.6 N	3.6	3.7	3.5	3.5	(3.4)	3.3	3.4	L					
30							C	C	C	B	(3.3)	B	3.6	3.8	(3.6) N	(3.2) N	(3.4)	(3.4) N	L					
31							C	C	C	C	C	(3.8)	(3.3)	3.7	(3.5)	3.5	3.3	L	L					
Sum																								
Median							3.2	3.4	3.5	3.6	3.7	3.7	3.7	3.6	3.6	3.5	3.4	3.3	(3.4)					
count							7	20	23	24	23	26	25	20	24	23	21	18	6					

Table 89

Ionospheric Storminess, July 1946

Day	Ionosphere Characters* 00-12 GCT	12-24 GCT	Principal Storms Beginning GCT	End GCT	Geomagnetic Characters** 00-12 GCT	12-24 GCT
July						
1	2	4	1200	2300	0	1
2	2	1			2	2
3	2	4	1100	----/	3	2
4	1	3	----	0100	1	1
5	1	3			1	1
6	2	3			1	1
7	3	4	0300	----	4	3
8	2	4		0400	2	2
			1300	----		
9	1	4	----	0300	3	2
			1300	----		
10	1	0	----	0400	2	2
11	2	1			2	2
12	2	2			1	1
13	2	1			1	1
14	1	3			2	3
15	2	3			3	1
16	***	1			1	3
17	2	1			3	2
18	1	3			2	4
19	3	5	0000	----	4	2
20	4	***	----	----	1	1
21	2	***	----	0100	2	2
22	2	3			2	2
23	2	2			3	3
24	2	3			1	1
25	***	***	1500	----	2	3
26	3	3	----	----	3	5
27	***	3	----	----	7	3
28	5	1	----	1100	2	3
29	3	3			4	4
30	3	3			4	3
31	***	3			2	1

*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.

***No readable record. Users are referred to Table 78 for detailed explanation.

/Dashes indicate continuing storm.

Table 90

Sudden Ionosphere Disturbances Observed at Washington, D.C.

Day	GCT Beginning	GCT End	Location of Transmitters	Relative intensity at minimum *	Other Phenomena
July					
4	1643	1750	Ohio, D.C., Mexico, Ontario, Surinam	0.1	
17	1921	2000	Ohio, D.C., Chile, England, Hawaii, Mexico, Surinam	0.01	
18	2309	2325	Ohio, D.C., Chile, Hawaii, Mexico, Ontario, Surinam	0.5	
19	1207	1230	D.C., England	0.1	
19	1619	1630	England	0.3	
19	1849	1935	Ohio, D.C., Chile, England, Hawaii, Mexico, Ontario	0.05	
19	2052	2130	Ohio, D.C., Chile, England, Hawaii, Mexico, Ontario, Surinam	0.05	
20	1048	1110	England	0.1	
20	1346	1415	England	0.1	
20	1623	1650	Ohio, D.C., England, Hawaii, Mexico	0.2	
20	1823	1850	Ohio, D.C., Chile, England, Hawaii, Mexico, New Brunswick, Surinam	0.3	
20	2208	2230	Ohio, D.C., Chile, Mexico, Ontario, Surinam	0.2	
21	1263	1320	Ohio, D.C., England, Mexico	0.1	Terr. mag. pulse** 1239-1250
21	1505	1715	Ohio, D.C., Chile, England, Mexico, New Brunswick, Ontario	0.0	Terr. mag. pulse** 1505-1510

Table 90 (Continued)

Day	GCT Beginning	GCT End	Location of Transmitters	Relative intensity at minimum*	Other Phenomena
July					
23	1428	1550	Ohio, D.C., Mexico, Ontario, Surinam	0.0	
23	1712	2040	Ohio, D.C., Mexico, Ontario, Surinam	0.0	
24	0312	0400	Hawaii	0.02	
24	1344	1420	Ohio, D.C., Chile, England, Mexico, Ontario, Surinam	0.03	
24	2204	2235	Ohio, D.C., Chile, Mexico	0.3	
25	1509	---	Ohio, D.C., Chile, England, Mexico, Ontario	0.03	
25	1559	----	Ohio, D.C., Chile, Mexico, Ontario	0.0	
29	0039	0100	England	0.1	
29	2011	2040	England	0.1	
30	1556	1640	Ohio, D.C., Chile, England, Hawaii, Mexico	0.0	
30	2148	2210	Ohio, D.C., Chile, Hawaii, Mexico, Ontario	0.05	

*Ratio of received field intensity during SID to average field intensity before and after, for station W8XAL, 6060 kilocycles, 600 kilometers distant, for all SID except the following: Station GIH, 15536 kilocycles, received in New York, 5340 kilometers distant, was used for the SID on July 19 at 1207 and at 1619, on July 20 at 1048 and at 1346, and on July 29. Station KQF, 13495 kilocycles, 7710 kilometers distant, was used for the SID on July 24 at 0312.

**As observed on Cheltenham magnetogram of the United States Coast and Geodetic Survey.

***Incomplete recovery of SID

Table 91

Provisional Radio Propagation Quality Figures
June 1946
Compared with CRPL Warnings and CRPL Probable Disturbed Period Forecasts

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

Score:				
H	6	5	1	0
M	1	2	0	1
G	16	20	17	21
(S)	5	3	3	3
S	2	0	9	5

*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: June 2-7, 21.

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.

Table 92

Daily Median Values of American Relative Sunspot Numbers*

July 1946

Date	No.	Date	No.
1	82	16	107
2	96	17	119
3	91	18	131
4	[illegible]	19	130
5	[illegible]	20	92
6	[illegible]	21	121
7	[illegible]	22	[illegible]
8	[illegible]	23	[illegible]
9	76	24	90
10	70	25	83
11	89	26	127
12	78	27	158
13	80	28	146
14	94	29	143
15	91	30	160
		31	126

No. Days 31 Mean 107.9

* Median of data from 21 observers.

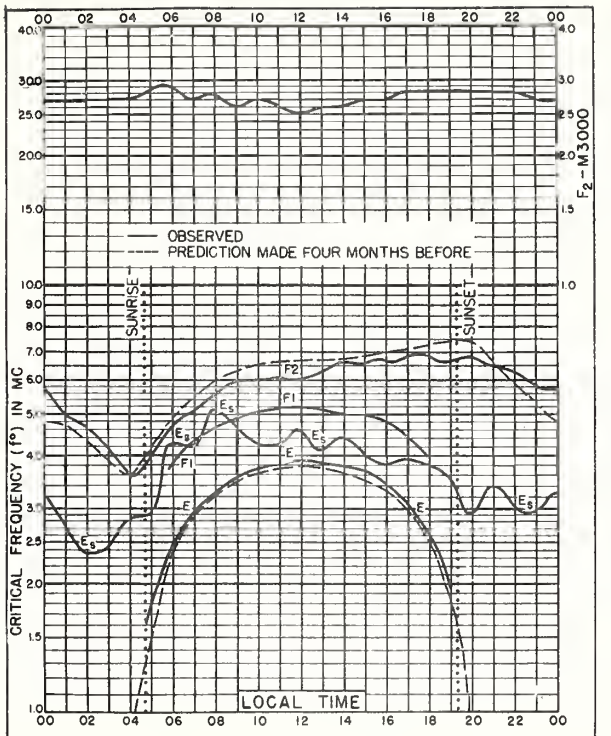

Fig. 1. WASHINGTON, D. C
39.0°N, 77.5°W JULY, 1946

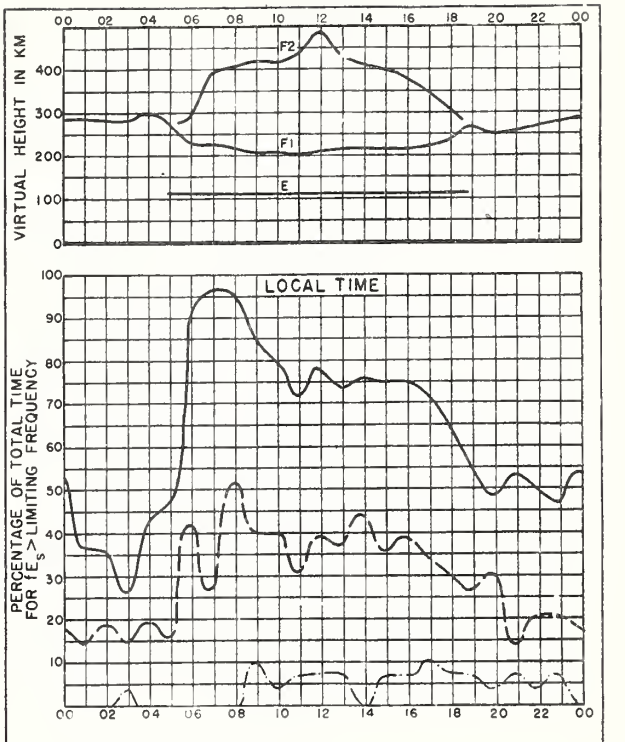

Fig. 2. WASHINGTON, D. C. JULY, 1946

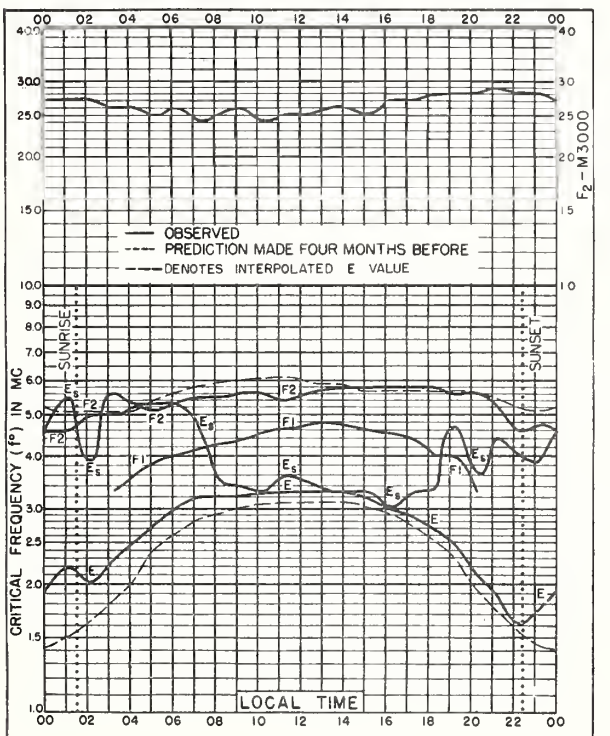

Fig. 3. FAIRBANKS, ALASKA
64.9°N, 147.8°W JUNE, 1946

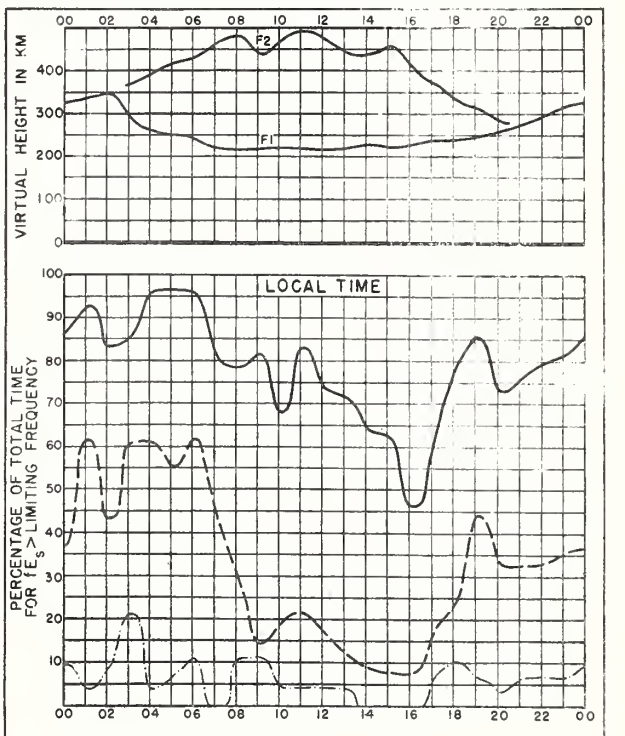

Fig. 4. FAIRBANKS, ALASKA JUNE, 1946

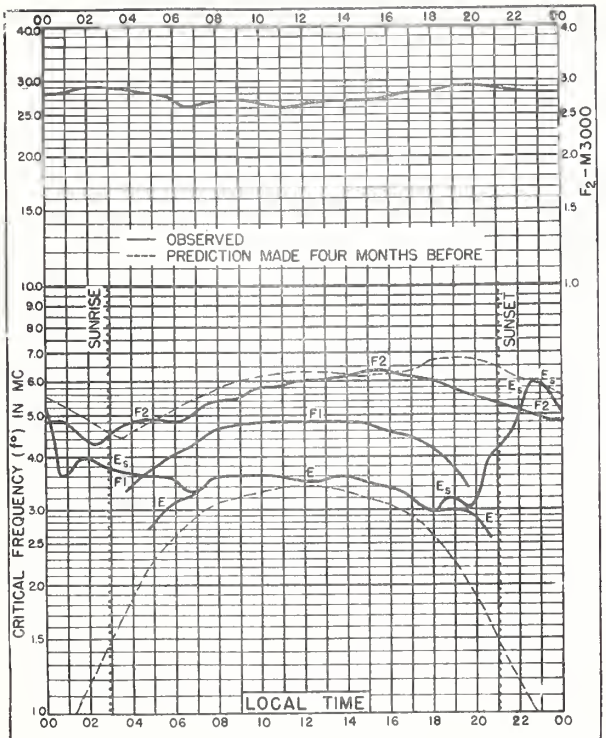

Fig. 5 CHURCHILL, CANADA
58.8°N, 94.2°W JUNE, 1946

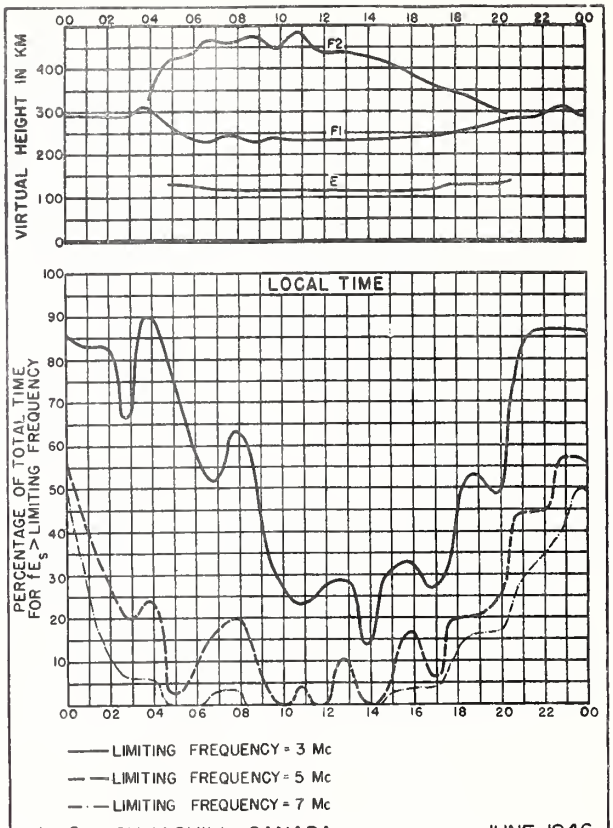

Fig. 6. CHURCHILL, CANADA JUNE, 1946

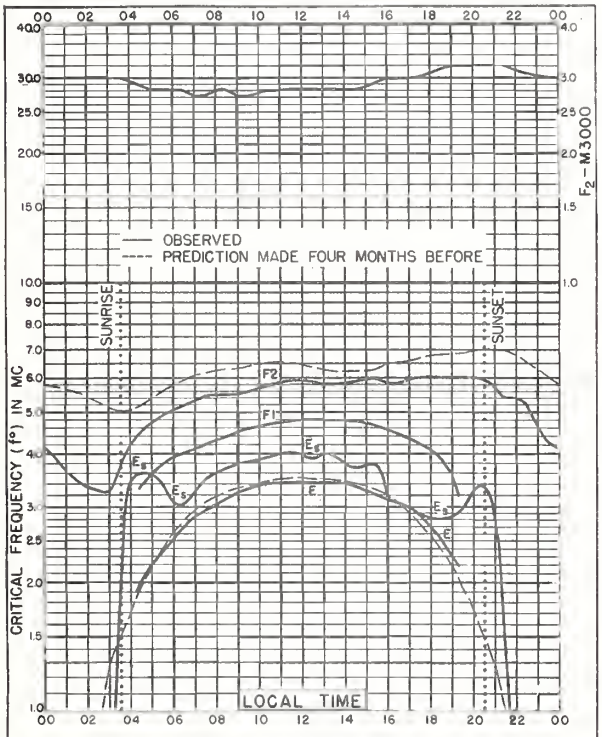

Fig. 7 PRINCE RUPERT, CANADA
54.3°N, 130.3°W JUNE, 1946

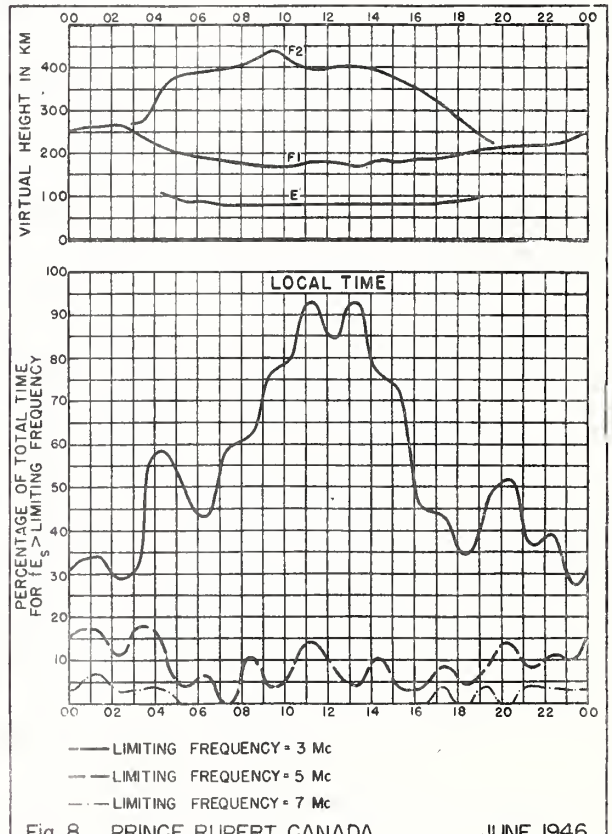

Fig. 8. PRINCE RUPERT, CANADA JUNE, 1946

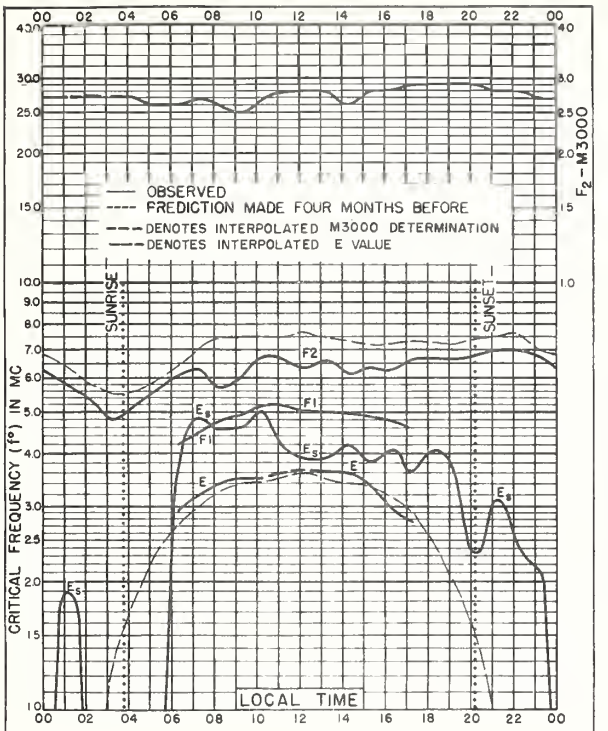

Fig. 9. ADAK, ALASKA
51.9°N, 176.6°W JUNE, 1946

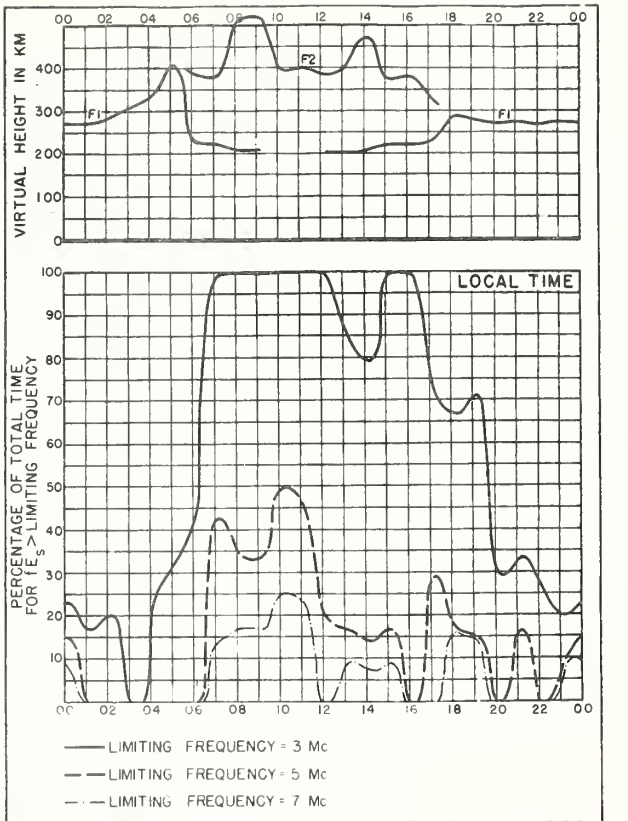

Fig. 10. ADAK, ALASKA JUNE, 1946

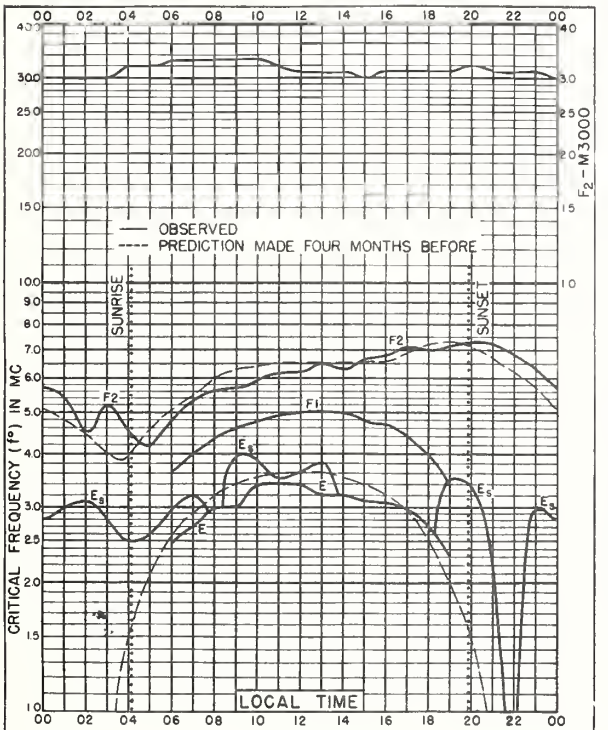

Fig. 11. ST. JOHN'S, NEWFOUNDLAND
47.6°N, 52.7°W JUNE, 1946

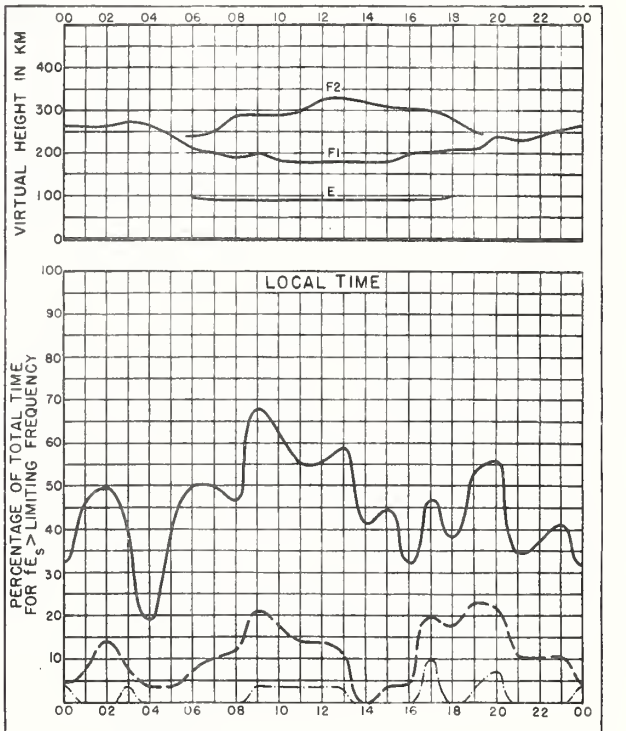

Fig. 12. ST. JOHN'S, NEWFOUNDLAND JUNE, 1946

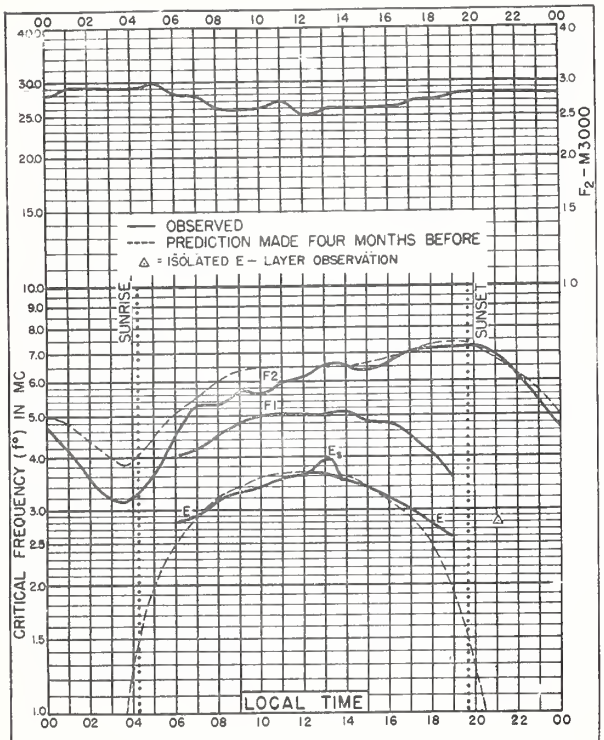

Fig. 13. OTTAWA, CANADA
45.5°N, 75.8°W
JUNE, 1946

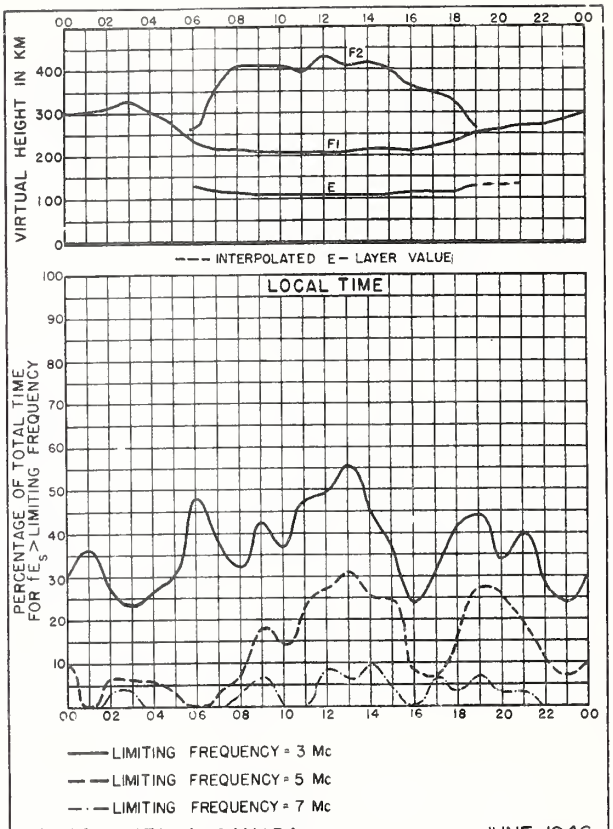

Fig. 14. OTTAWA, CANADA
JUNE, 1946

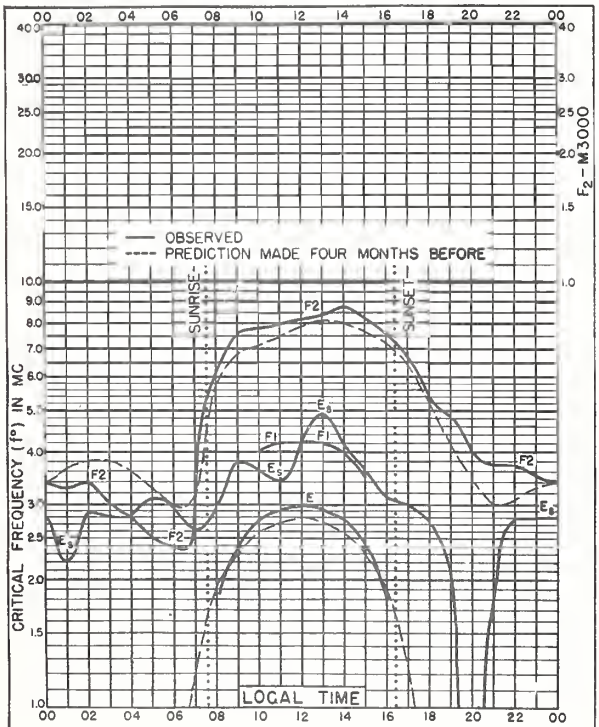

Fig. 15. CHRISTCHURCH, N.Z.
43.5°S, 172.6°E
JUNE, 1946

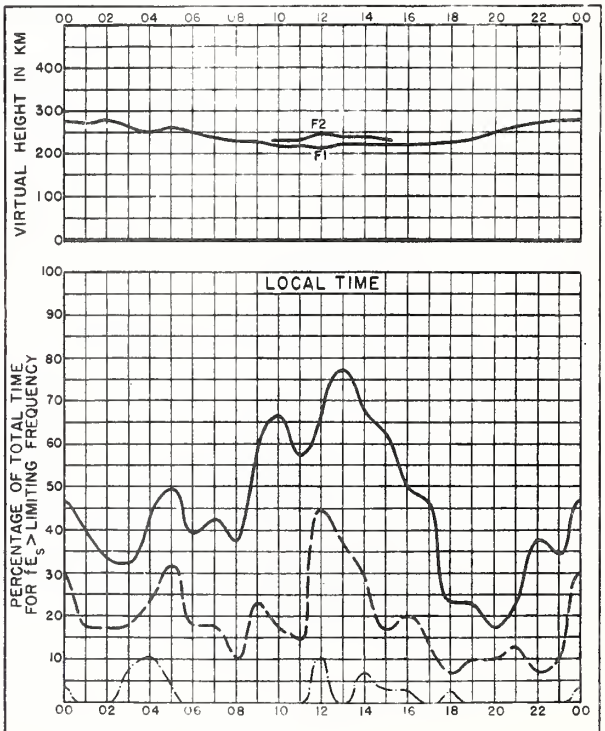

Fig. 16. CHRISTCHURCH, N.Z.
JUNE, 1946

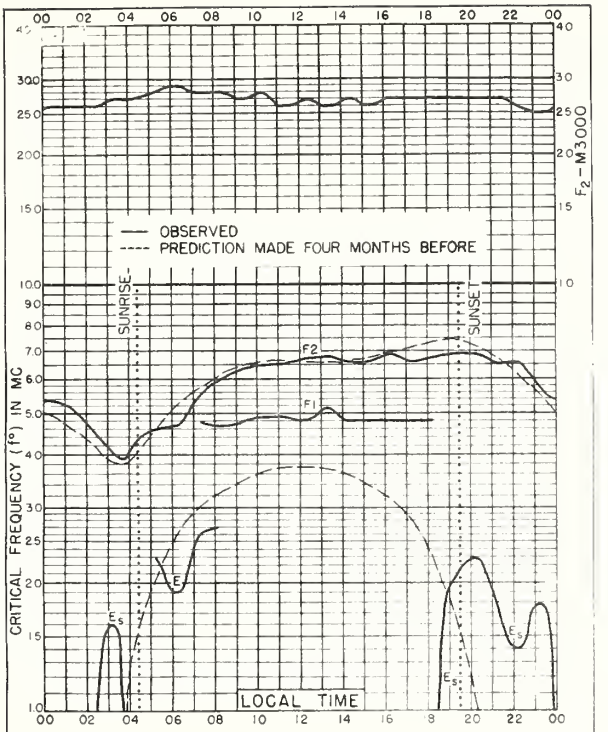

Fig 17 BOSTON, MASSACHUSETTS
42 4°N, 71 2°W JUNE, 1946

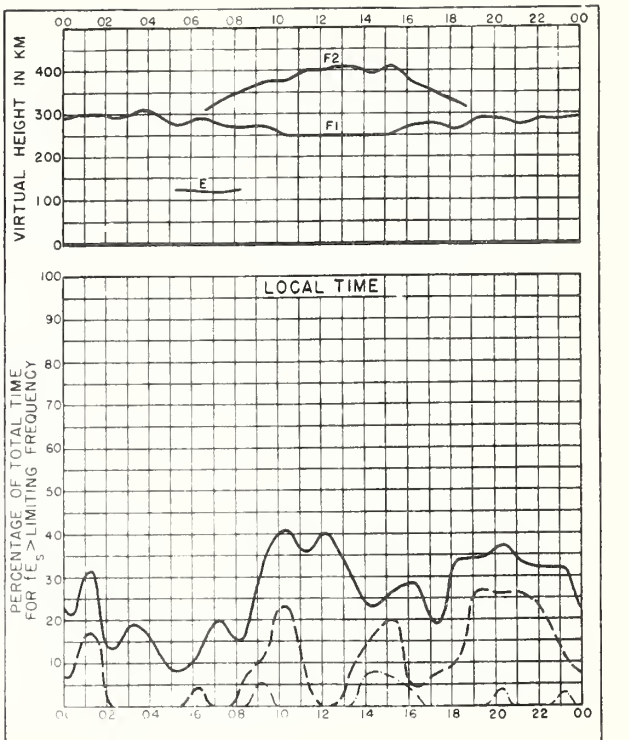

Fig 18 BOSTON, MASSACHUSETTS JUNE, 1946

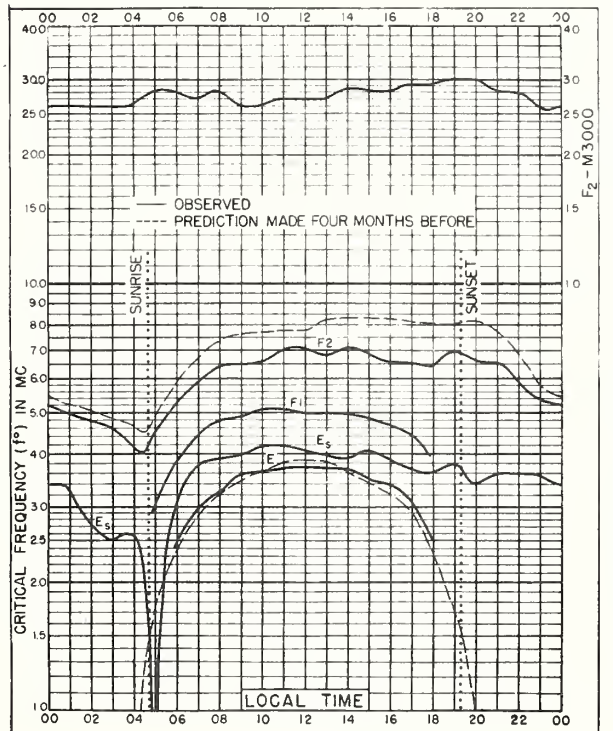

Fig. 19 SAN FRANCISCO, CALIFORNIA
37.4°N, 122.2°W JUNE, 1946

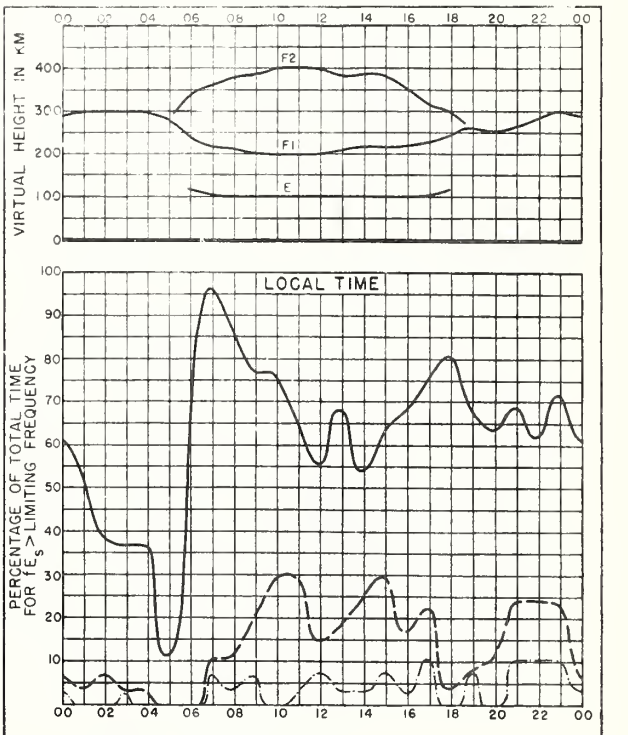

Fig. 20 SAN FRANCISCO, CALIFORNIA JUNE, 1946

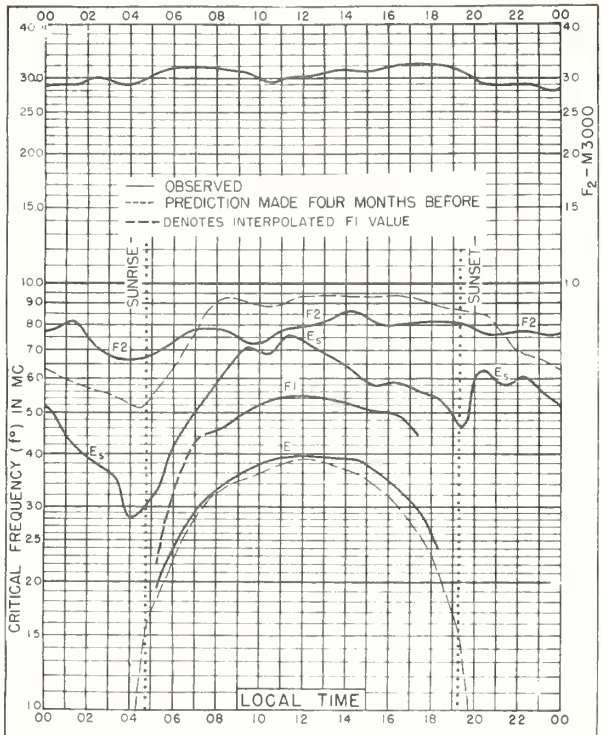

Fig. 21 TOKYO, JAPAN
35.6°N, 139.6°E
JUNE, 1946

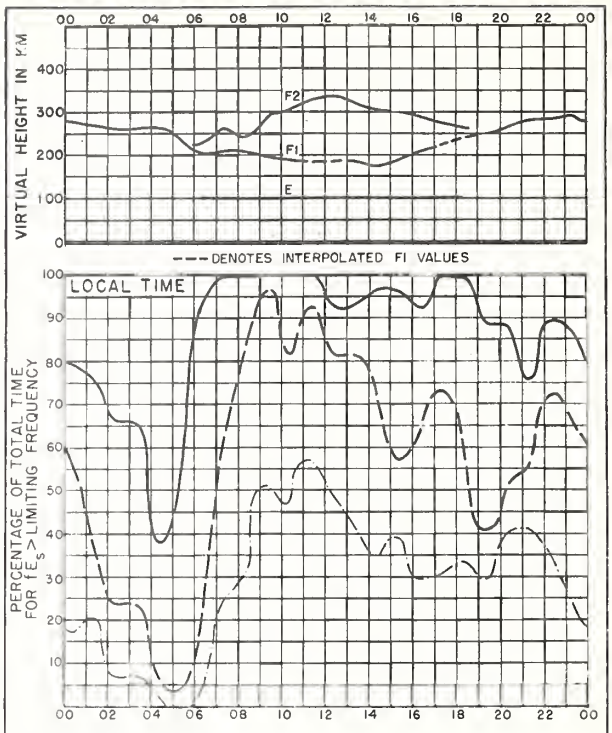

Fig 22 TOKYO, JAPAN
JUNE, 1946

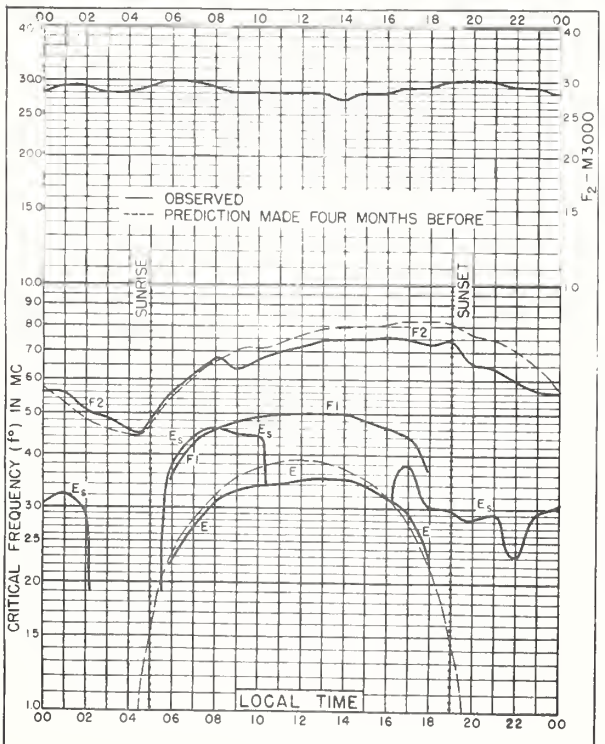

Fig. 23 BATON ROUGE, LOUISIANA
30.5°N, 91.2°W
JUNE, 1946

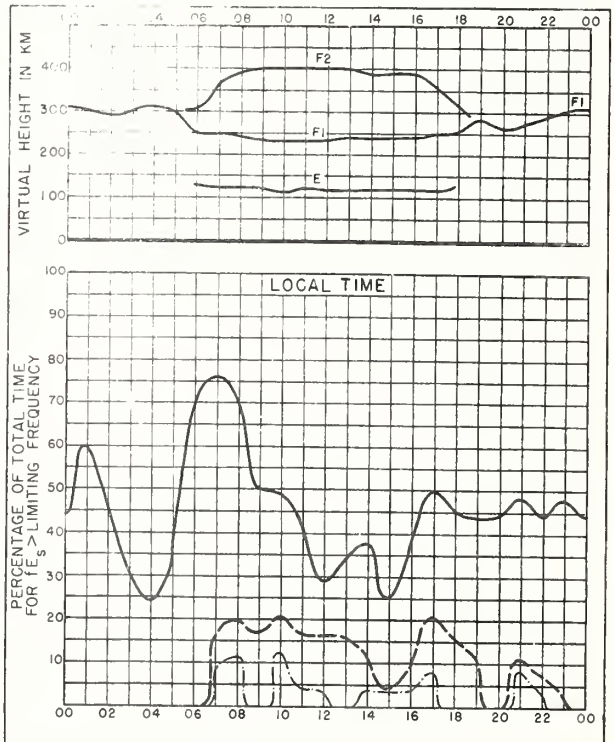

Fig. 24 BATON ROUGE, LOUISIANA
JUNE, 1946

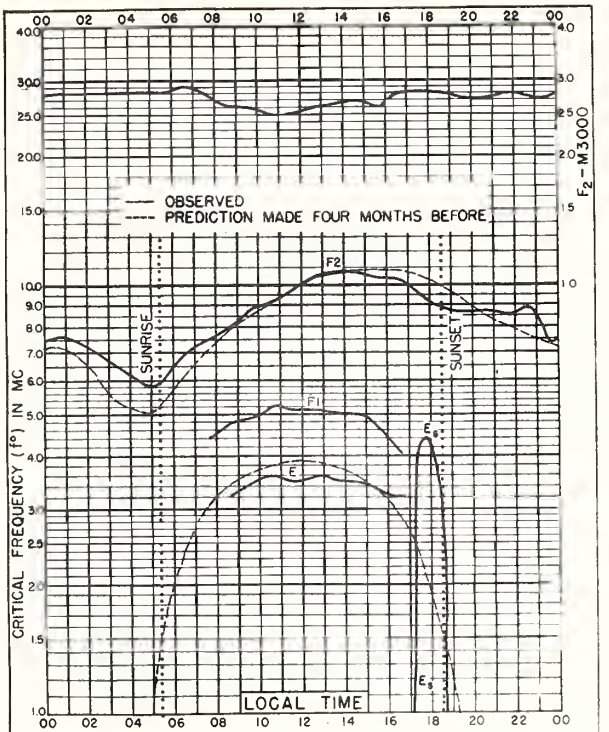

Fig. 25. SAN JUAN, PUERTO RICO
18.4°N, 66.1°W
JUNE, 1946

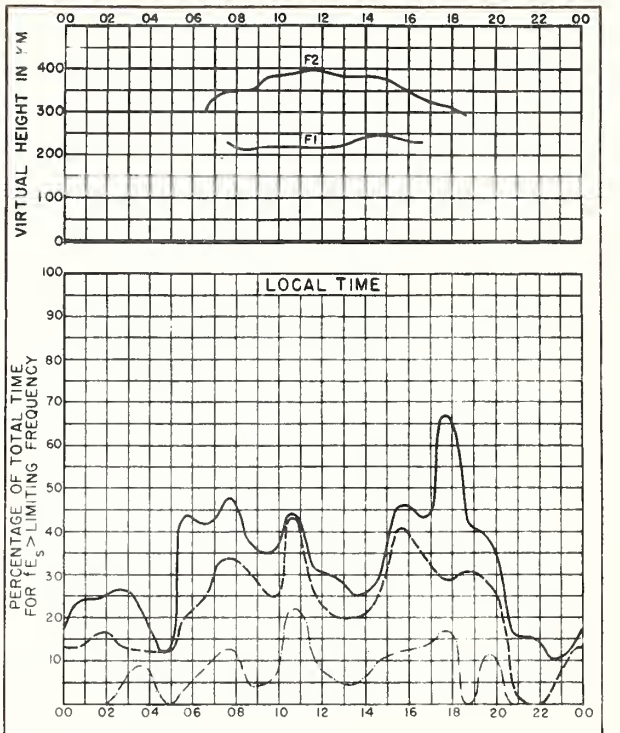

Fig. 26 SAN JUAN, PUERTO RICO
JUNE, 1946

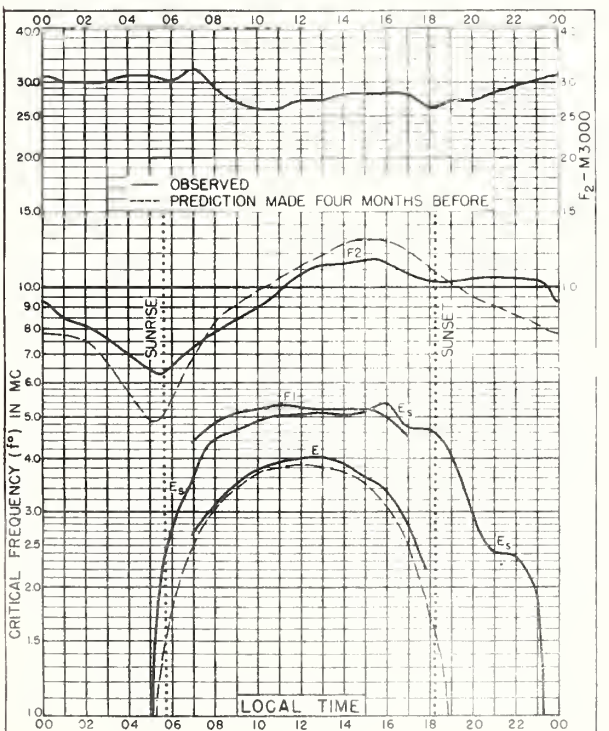

Fig. 27. TRINIDAD, BRIT. WEST INDIES
10.6°N, 61.2°W
JUNE, 1946

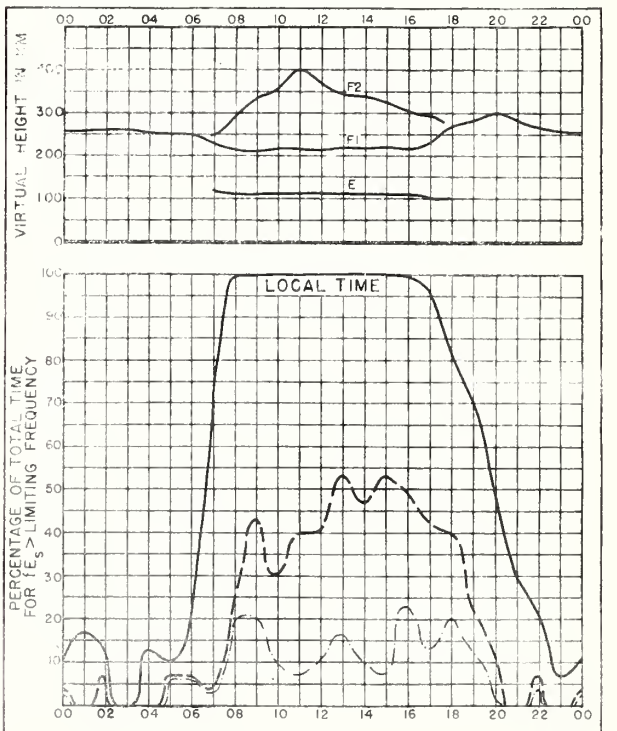

Fig. 28. TRINIDAD, BRIT. WEST INDIES
JUNE, 1946

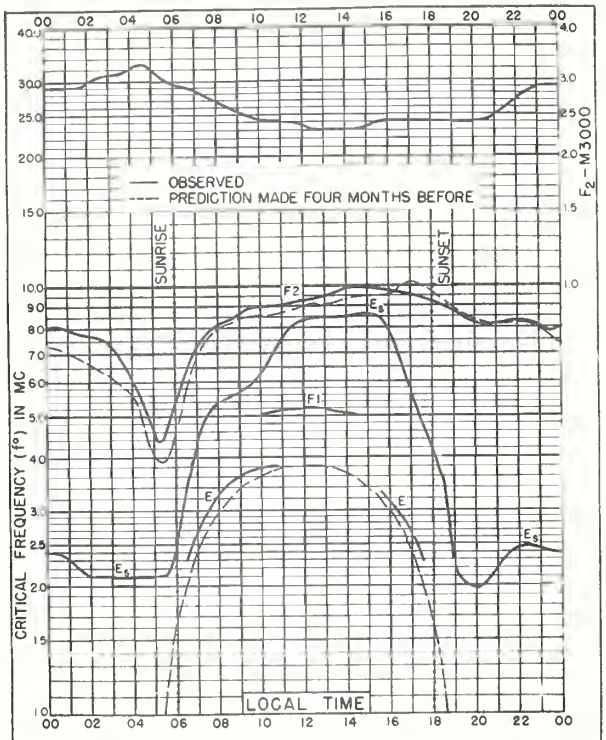

Fig. 29. CHRISTMAS I
1.9°N, 157.3°W
JUNE, 1946

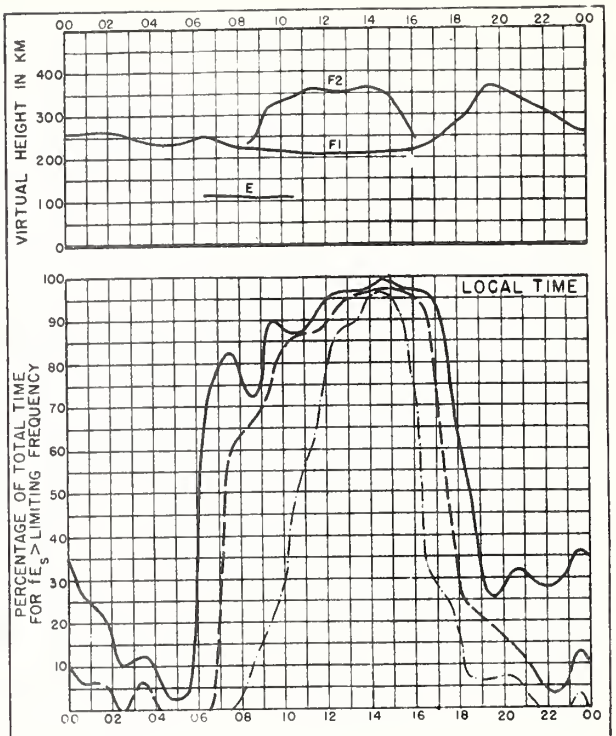

Fig. 30. CHRISTMAS I.
JUNE, 1946

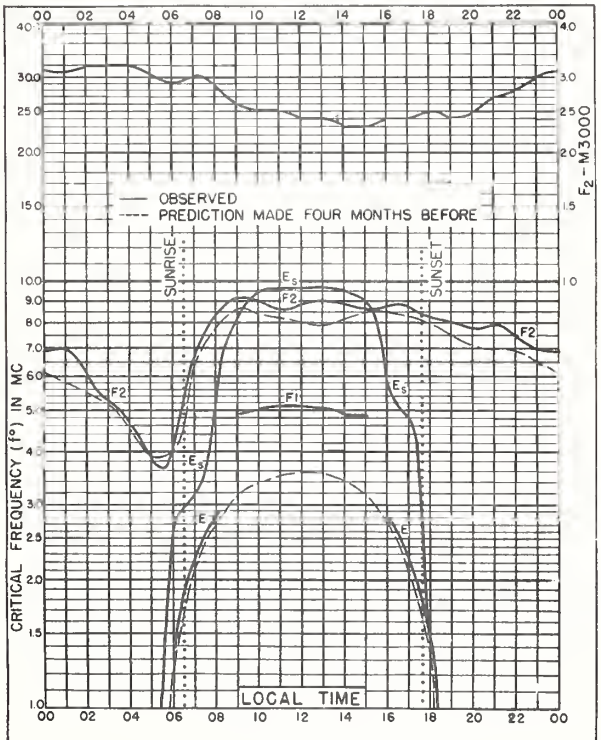

Fig. 31. HUANCAYO, PERU
12.0°S, 75.3°W
JUNE, 1946

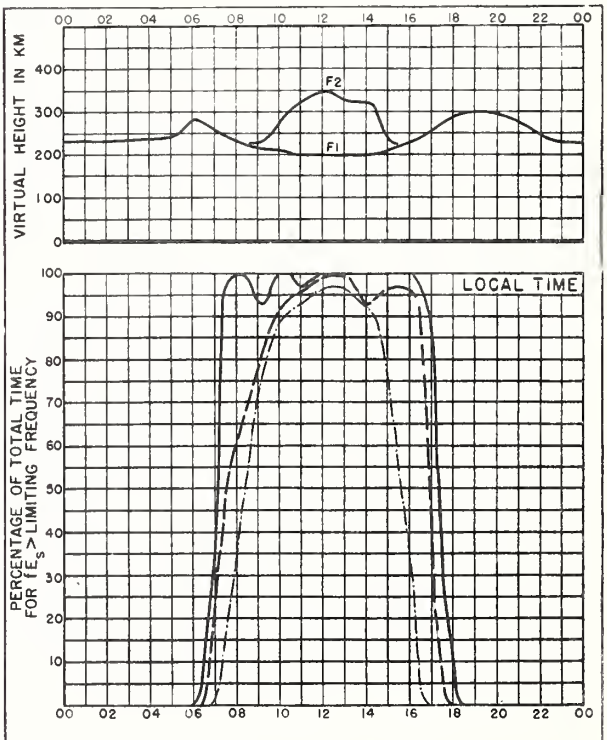

Fig. 32. HUANCAYO, PERU
JUNE, 1946

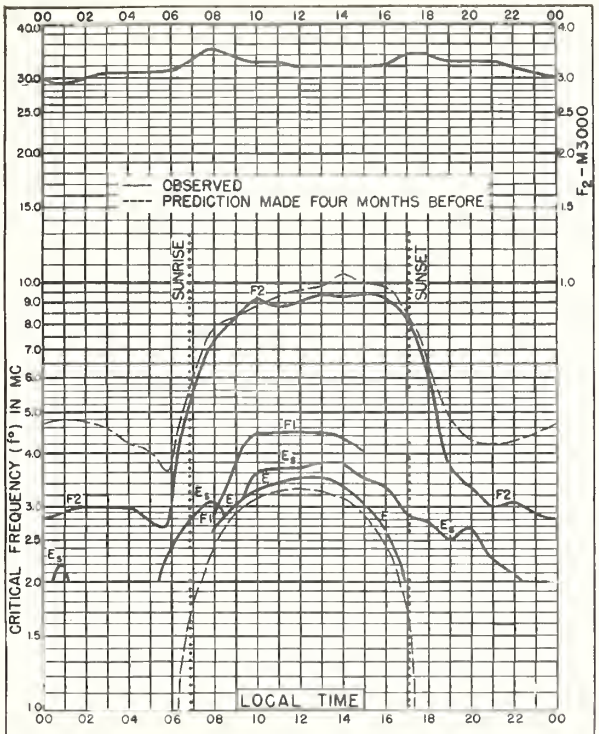

Fig. 33 JOHANNESBURG, UNION OF S. AFRICA
26.2°S, 28.0°E JUNE, 1946

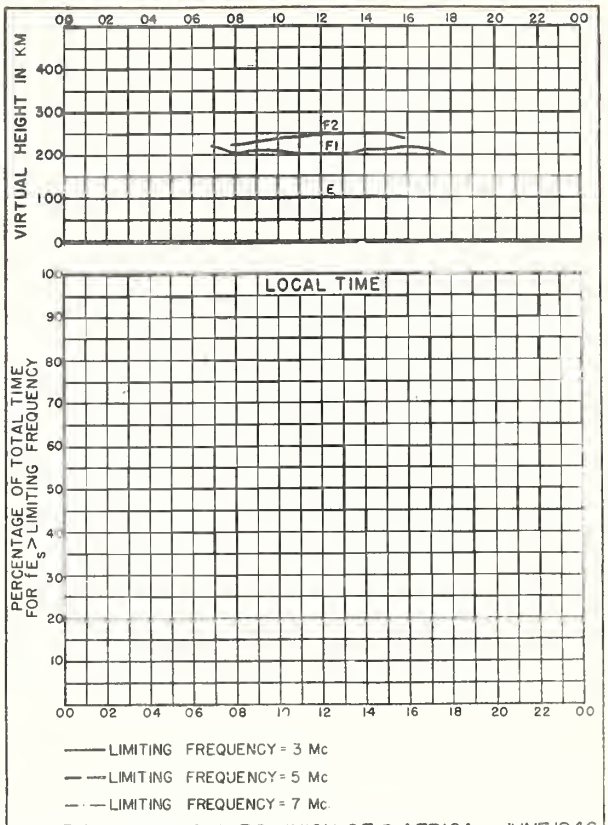

Fig. 34 JOHANNESBURG, UNION OF S. AFRICA JUNE, 1946

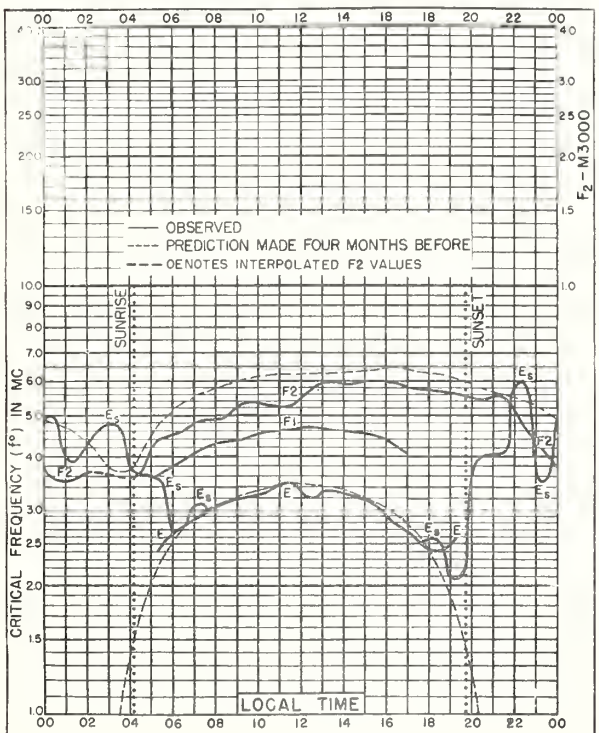

Fig. 35 THE PAS, MANITOBA
54.0°N, 101.0°W MAY, 1946

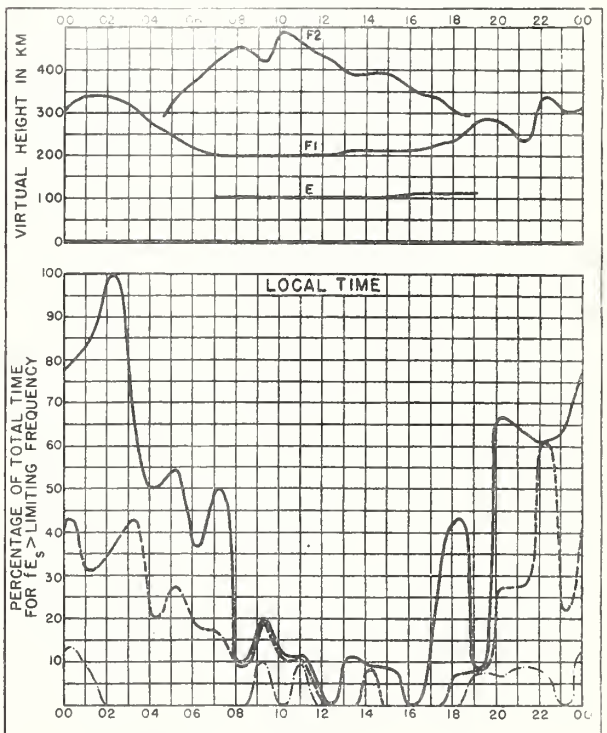

Fig. 36 THE PAS, MANITOBA MAY, 1946

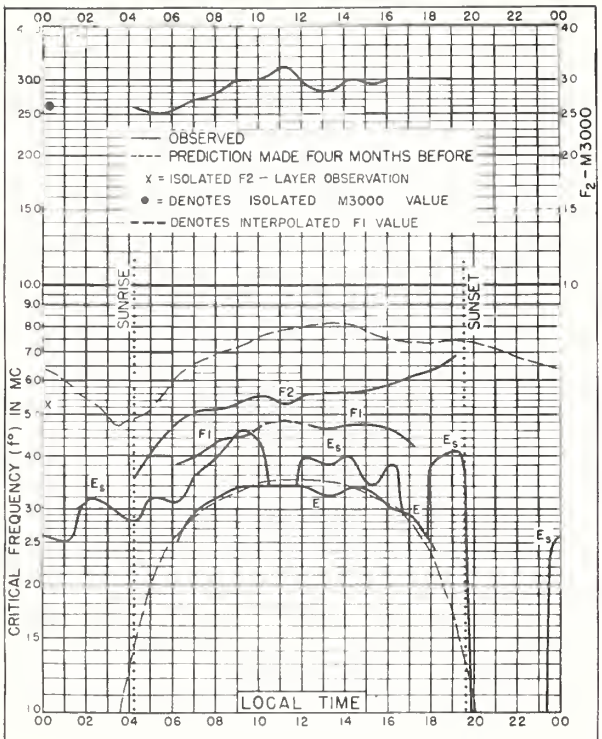

Fig 37 ADAK, ALASKA
51.9°N, 176.6°W MAY, 1946

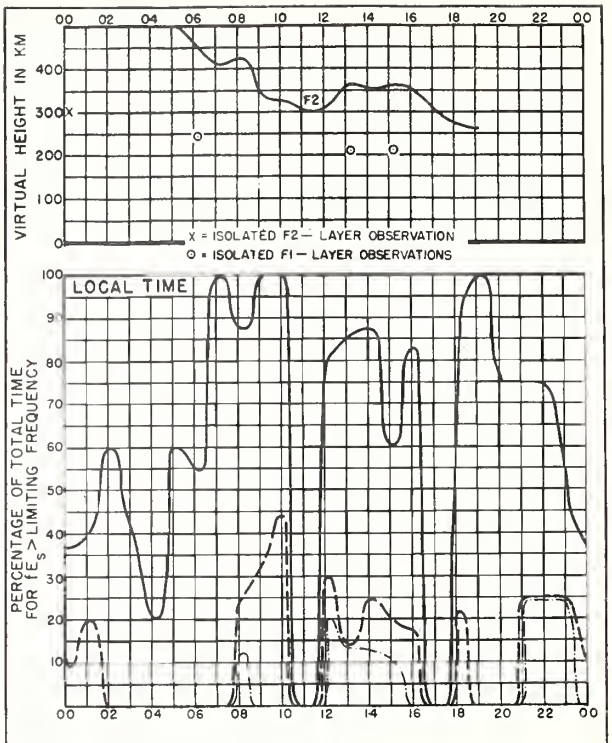

Fig. 38 ADAK, ALASKA MAY, 1946

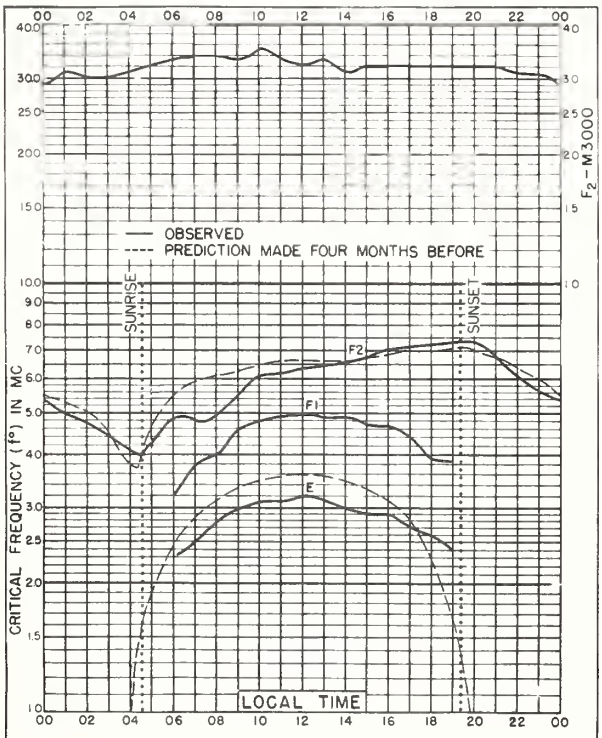

Fig. 39 ST. JOHN'S, NEWFOUNDLAND
47.6°N, 52.7°W MAY, 1946

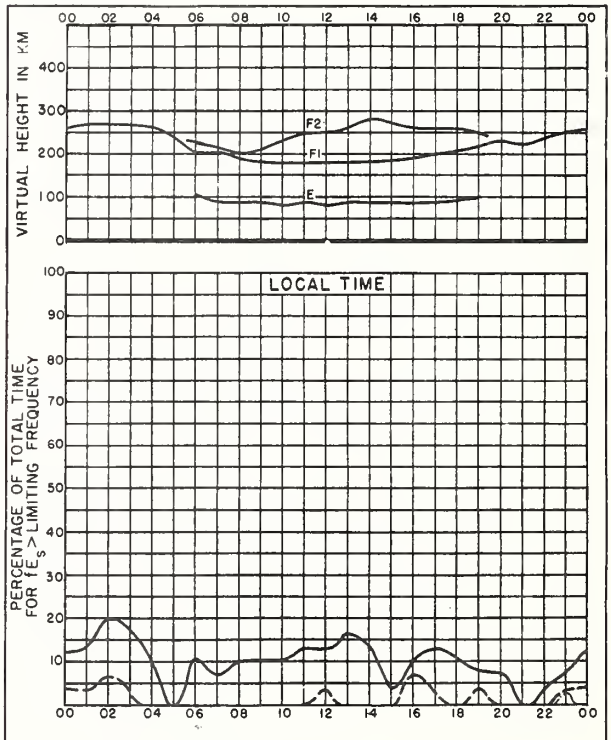

Fig. 40. ST. JOHN'S, NEWFOUNDLAND MAY, 1946

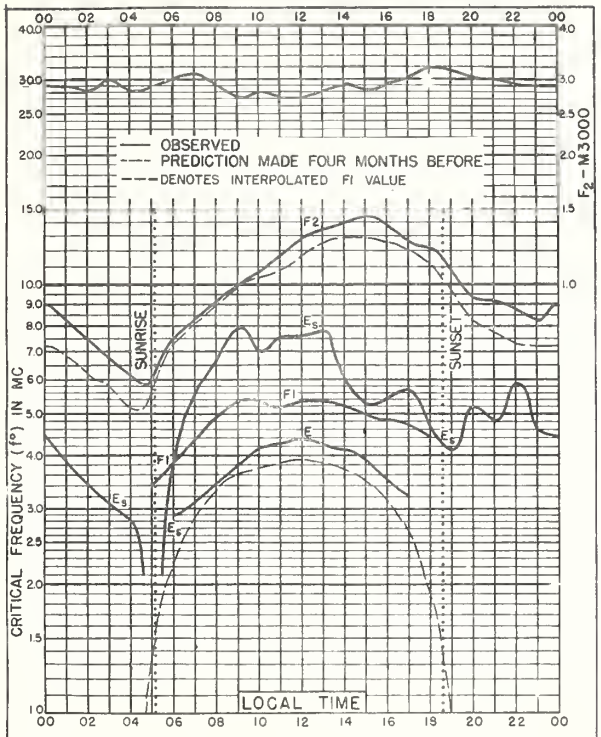

Fig. 41 CHUNGKING, CHINA
29.4°N, 106.8°E MAY, 1946

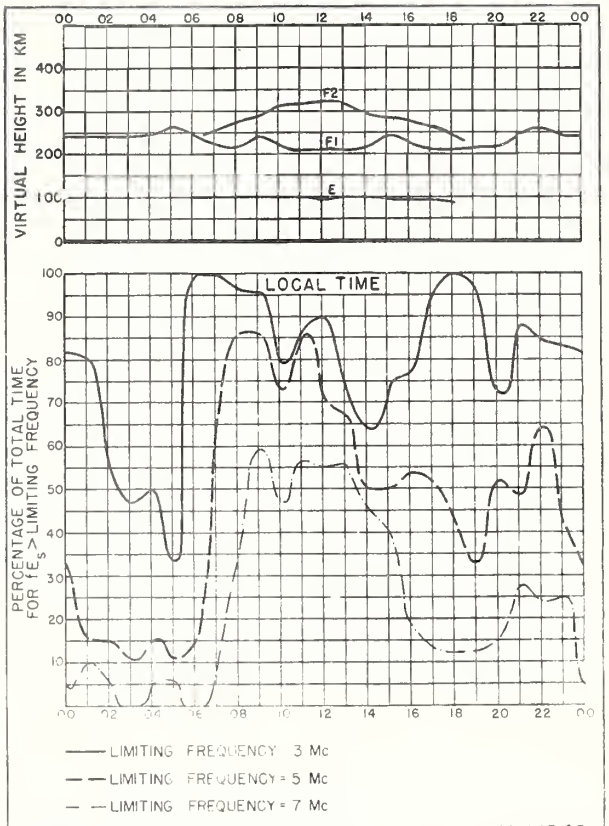

Fig. 42 CHUNGKING, CHINA MAY, 1946

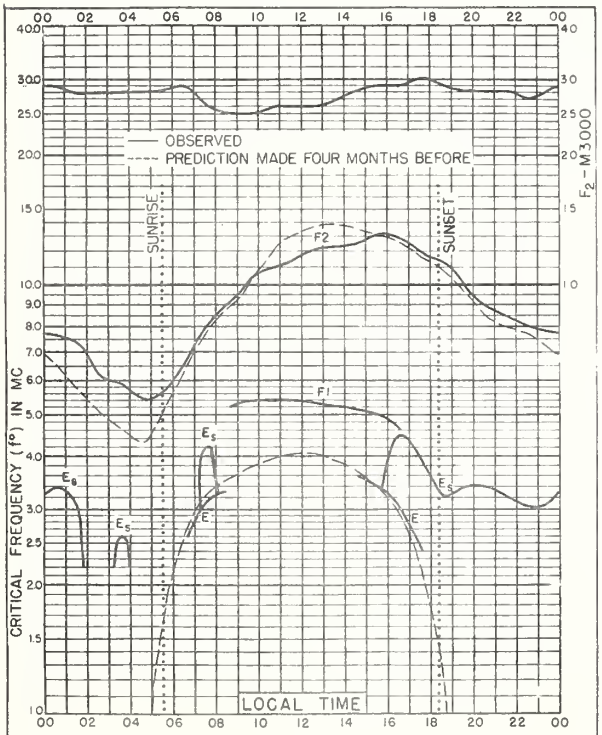

Fig. 43 MAUI, HAWAII
20.8°N, 156.5°W MAY, 1946

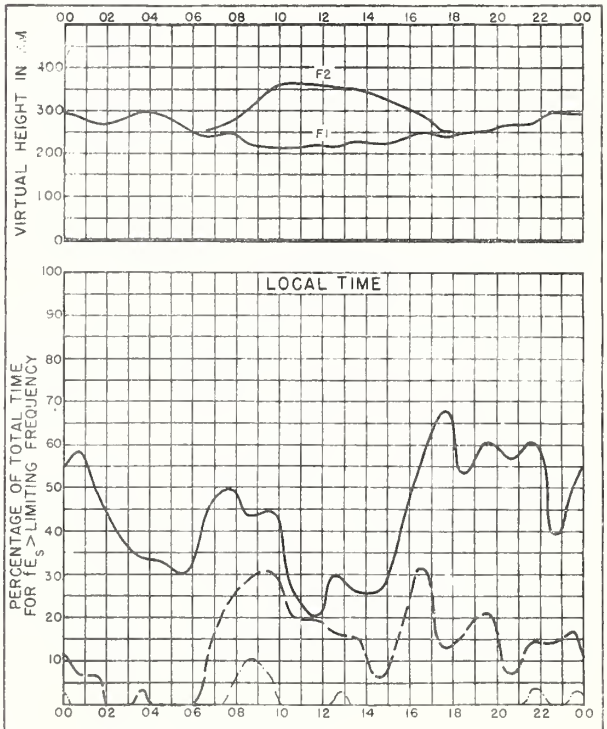

Fig. 44 MAUI, HAWAII MAY, 1946

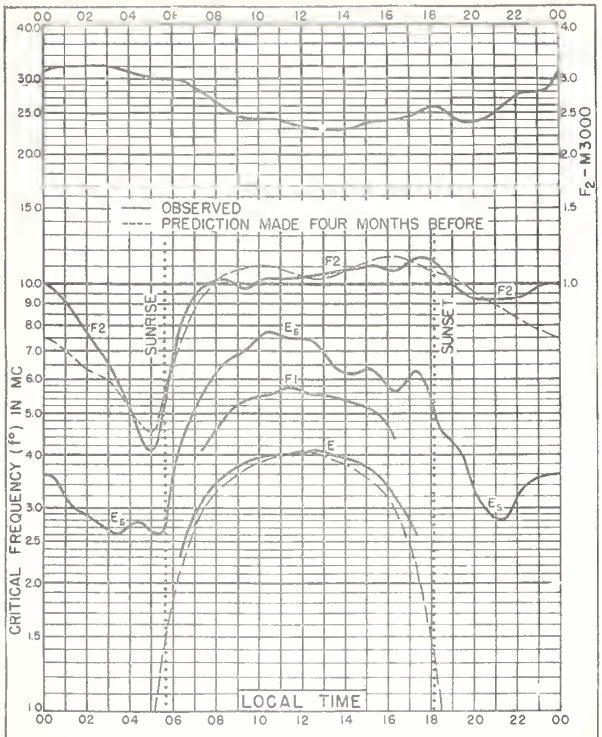

Fig. 45. LEYTE, PHILIPPINE IS.
11.0°N, 125.0°E MAY, 1946

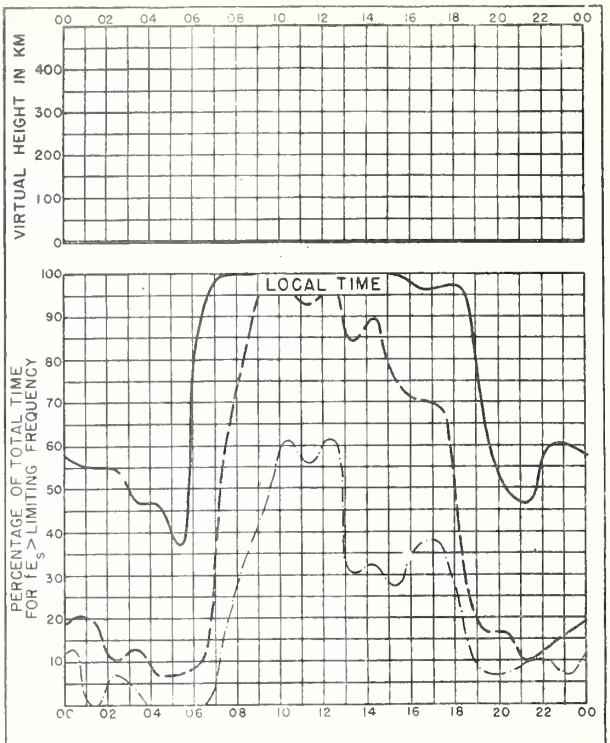

Fig 46 LEYTE, PHILIPPINE IS. MAY, 1946

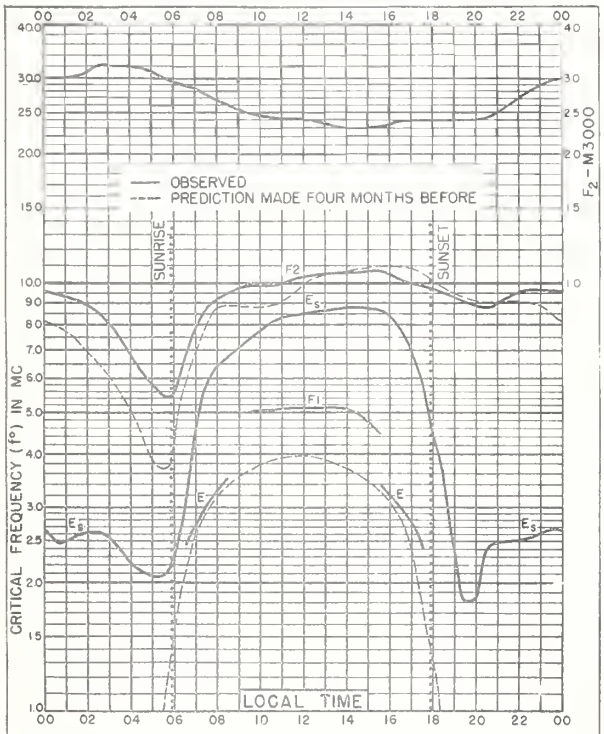

Fig. 47 CHRISTMAS I.
1.9°N, 157.3°W MAY, 1946

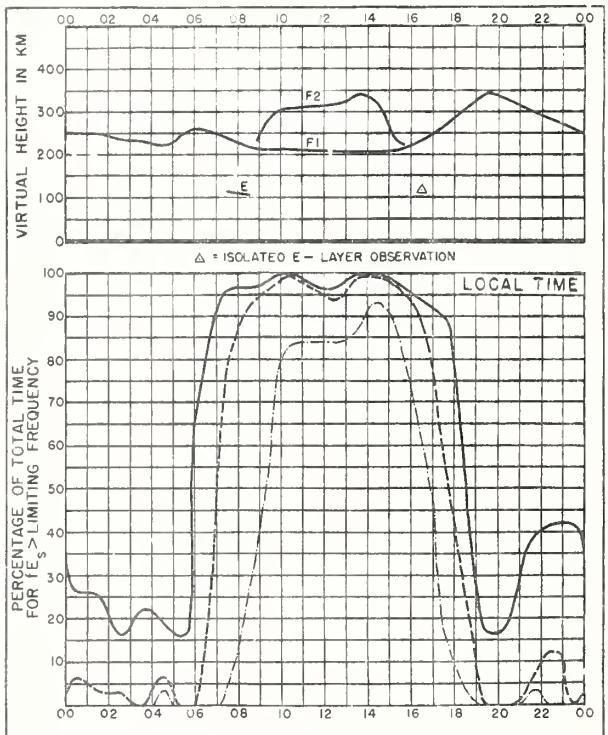

Fig 48. CHRISTMAS I MAY, 1946

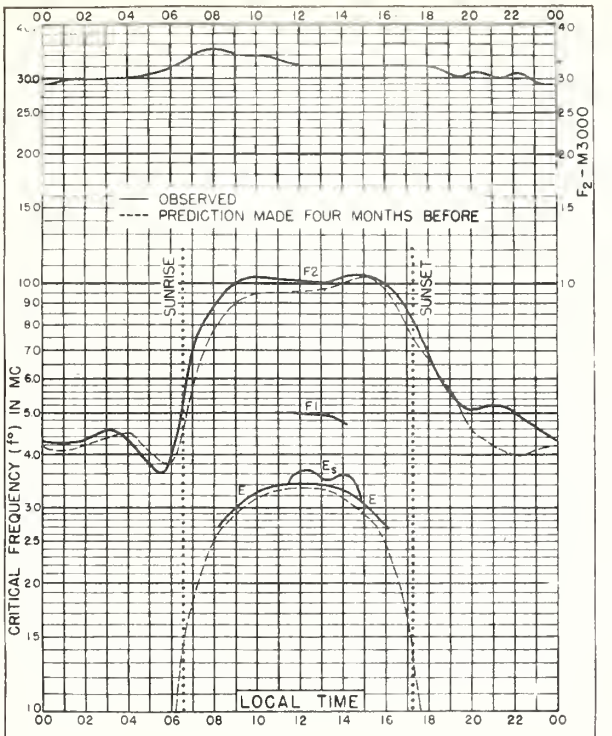

Fig. 49 BRISBANE, AUSTRALIA
27.5°S, 153.0°E MAY, 1946

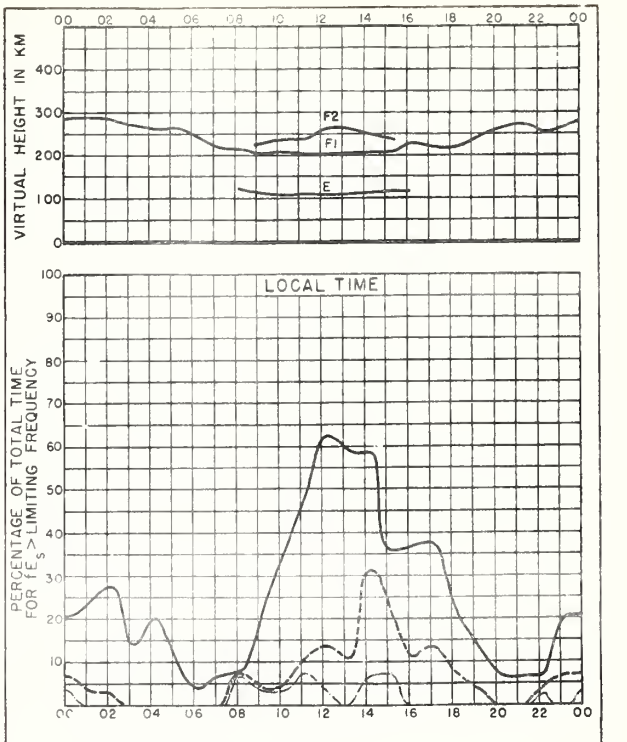

Fig. 50. BRISBANE, AUSTRALIA MAY, 1946

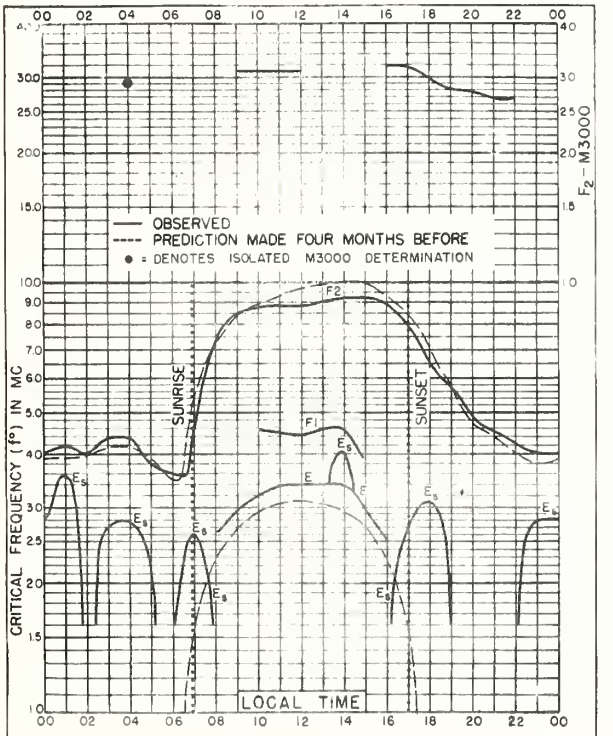

Fig. 51. CANBERRA, AUSTRALIA
35.3°S, 149.0°E MAY, 1946

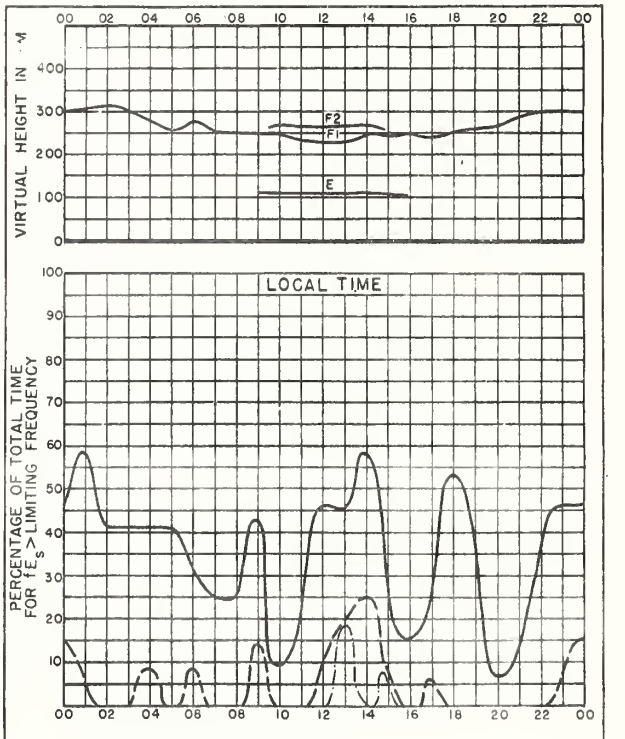

Fig. 52. CANBERRA, AUSTRALIA MAY, 1946

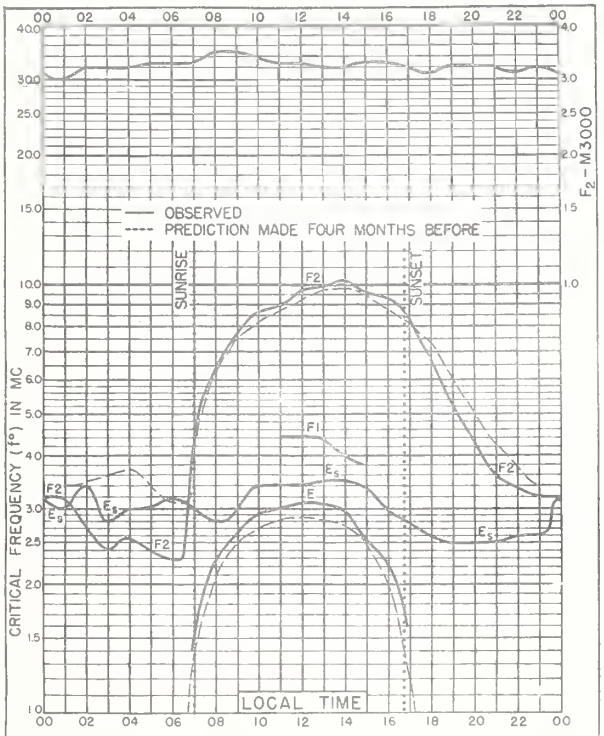

Fig. 53. HOBART, TASMANIA
42.8°S, 147.4°E MAY, 1946

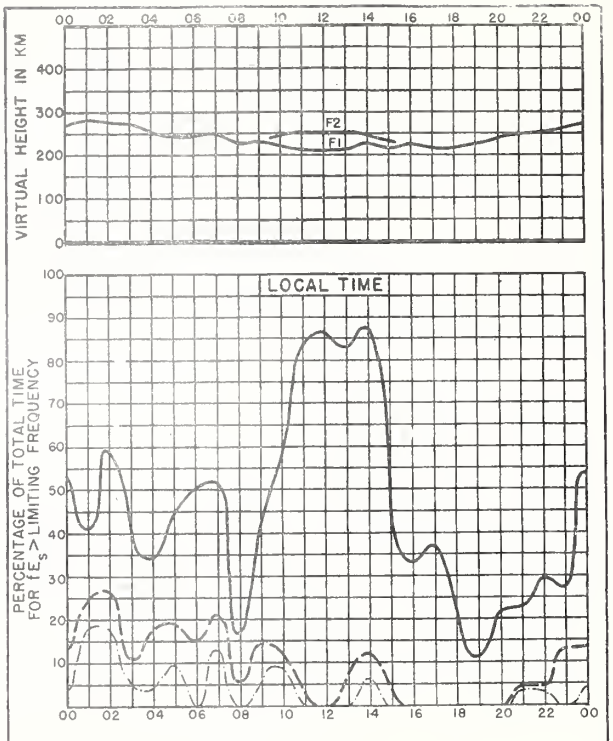

Fig. 54. HOBART, TASMANIA MAY, 1946

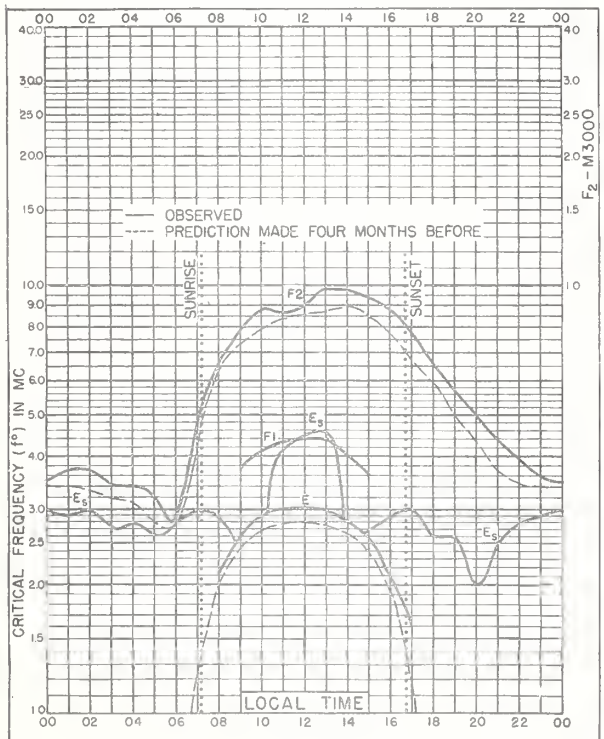

Fig. 55. CHRISTCHURCH, N. Z.
43.5°S, 172.6°E MAY, 1946

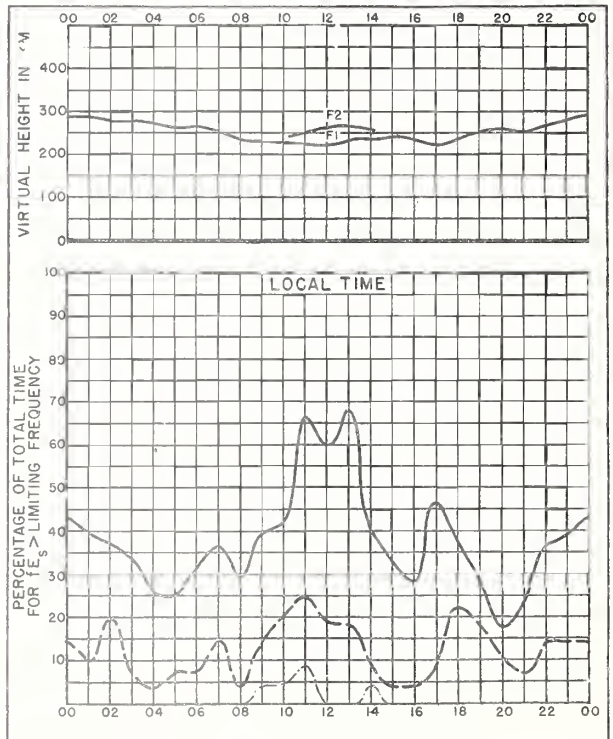

Fig. 56. CHRISTCHURCH, N. Z. MAY, 1946

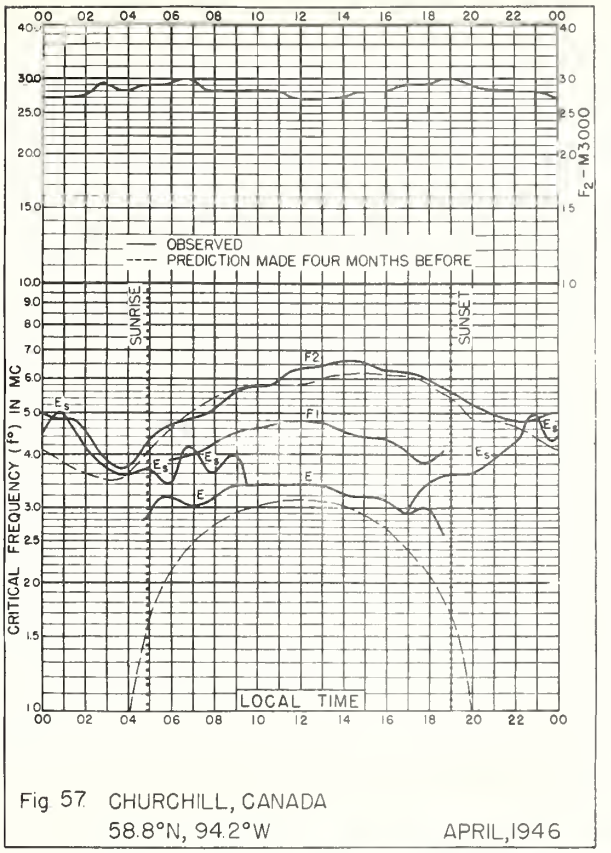

Fig. 57 CHURCHILL, CANADA
58.8°N, 94.2°W APRIL, 1946

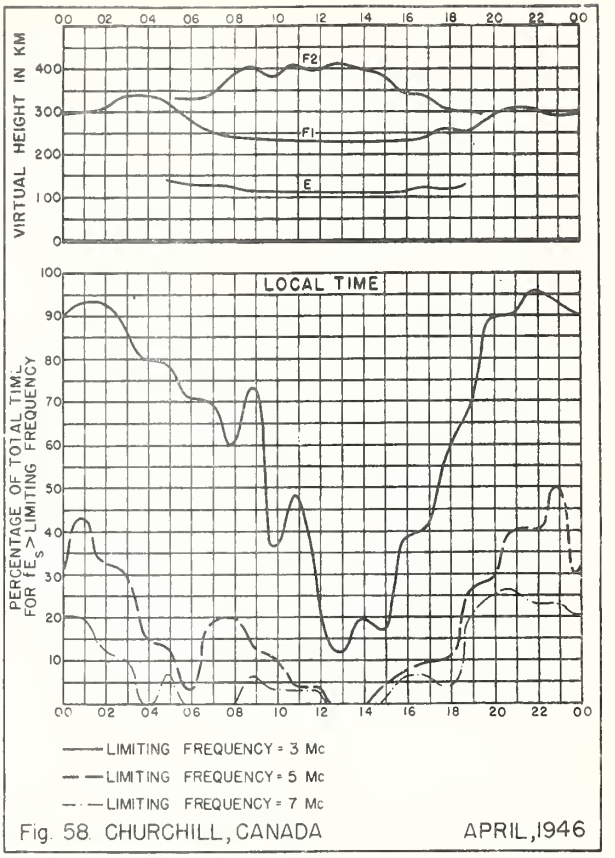

Fig. 58 CHURCHILL, CANADA APRIL, 1946

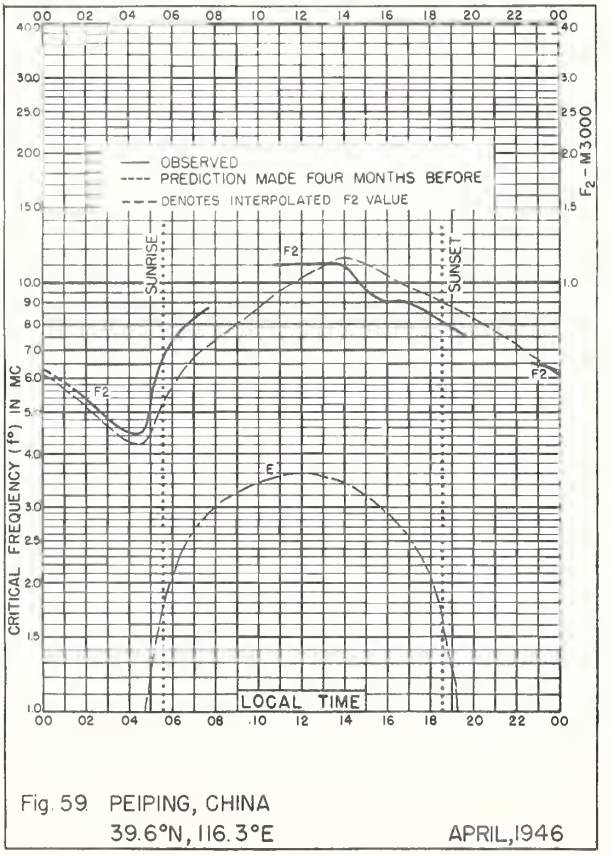

Fig. 59 PEIPING, CHINA
39.6°N, 116.3°E APRIL, 1946

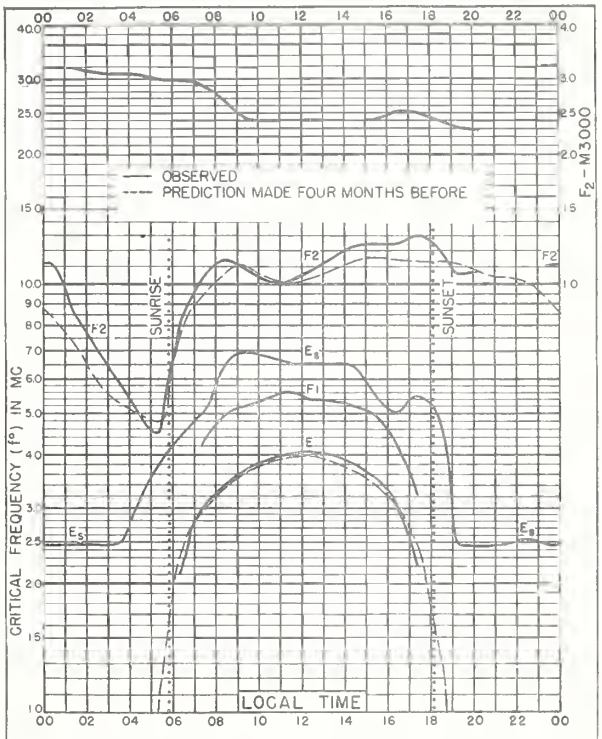

Fig. 60. LEYTE, PHILIPPINE IS
11.0°N, 125.0°E APRIL, 1946

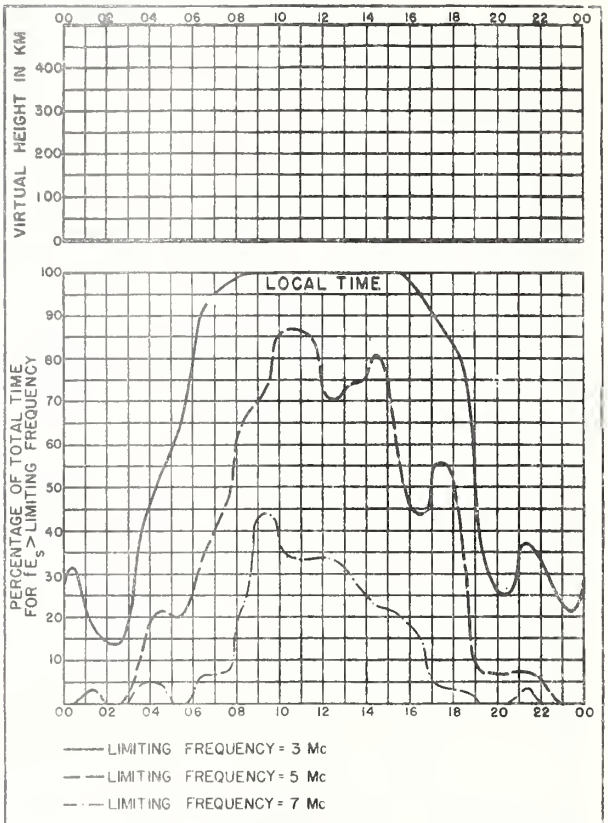

Fig. 61. LEYTE, PHILIPPINE IS. APRIL, 1946

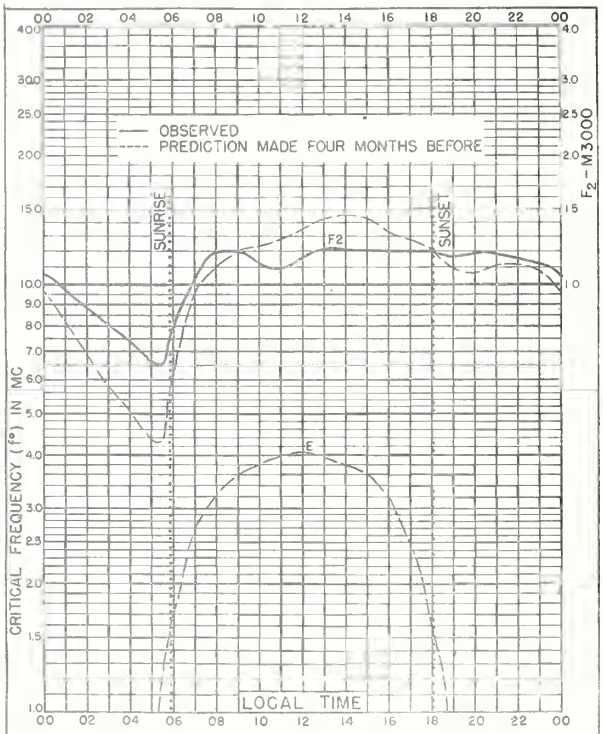

Fig. 62. SINGAPORE, BRITISH MALAYA
1.35°N, 103.8°E APRIL, 1946

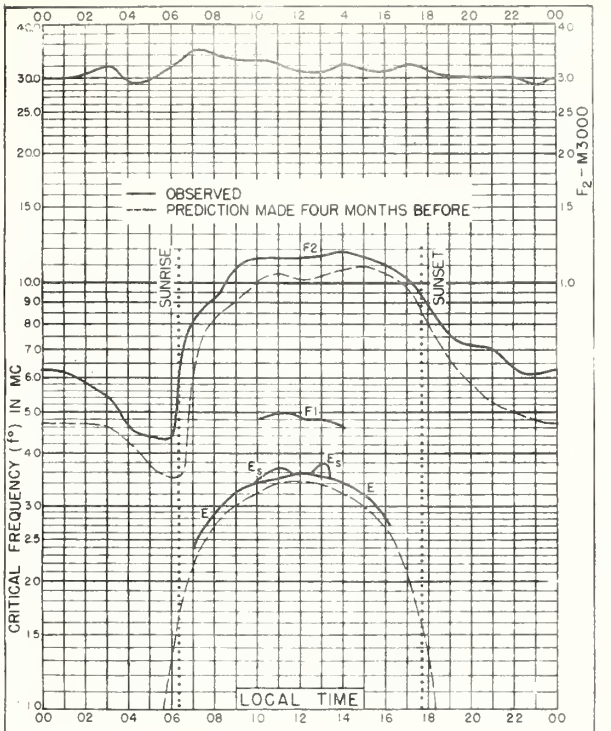

Fig. 63 BRISBANE, AUSTRALIA
27.5°S, 153.0°E APRIL, 1946

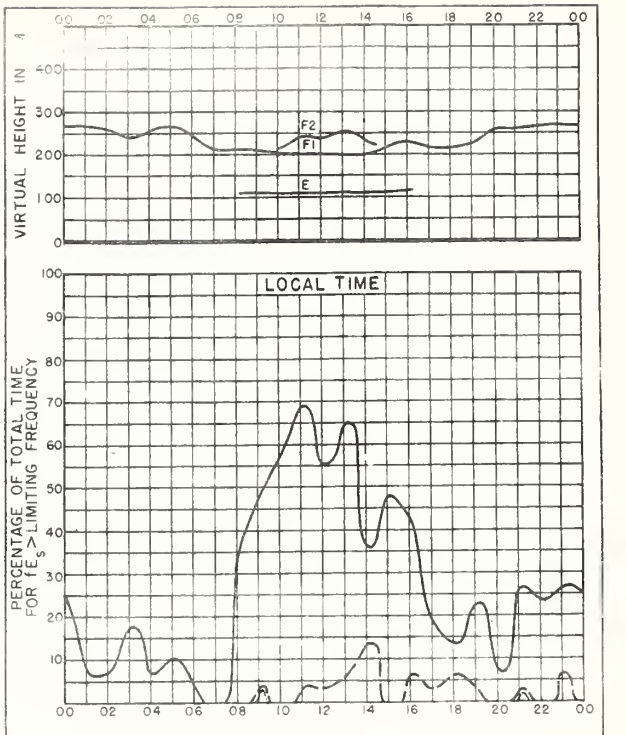

Fig. 64 BRISBANE, AUSTRALIA APRIL, 1946

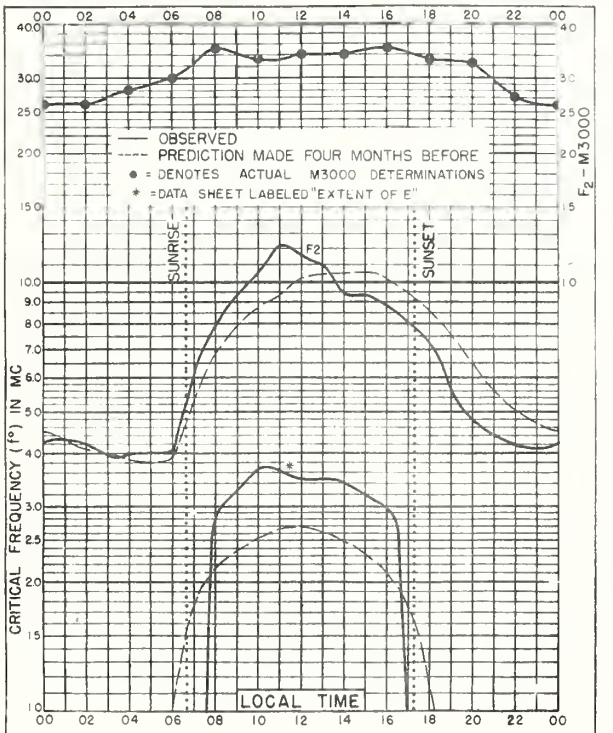

Fig. 65 FALKLAND IS
51.7°S, 57.7°W APRIL, 1946

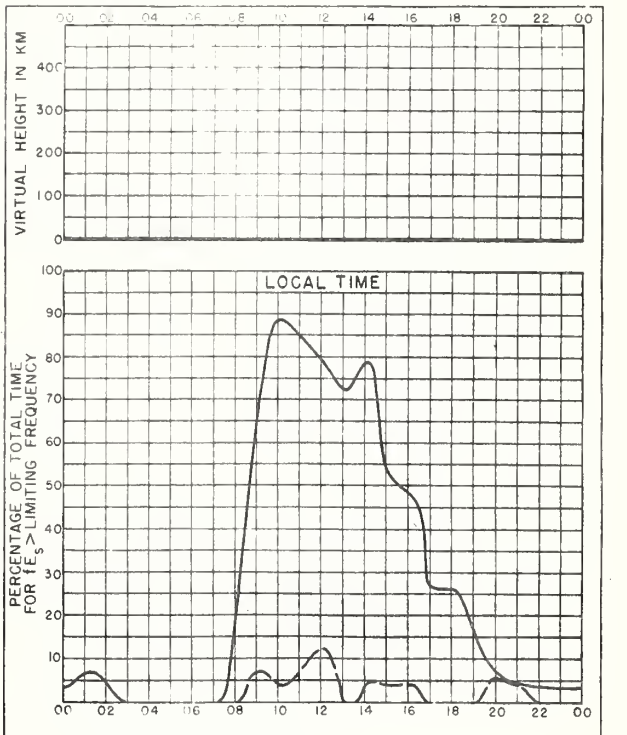

Fig. 66 FALKLAND IS. APRIL, 1946

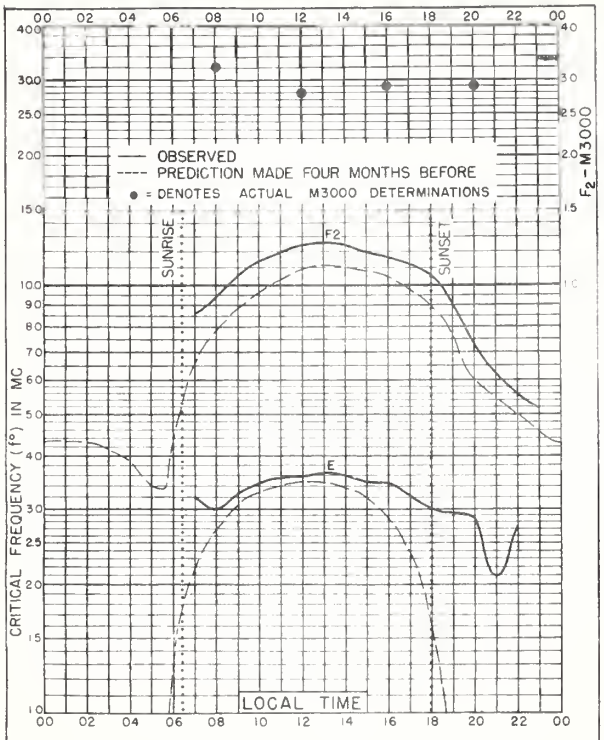

Fig 67 PESHAWAR, INDIA
34.0°N, 71.5°E MARCH, 1946

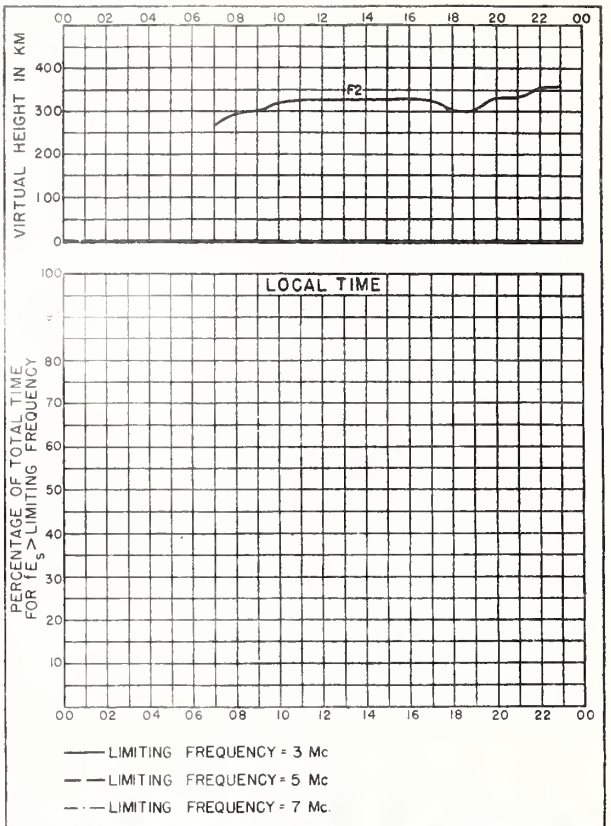

Fig 68 PESHAWAR, INDIA MARCH, 1946

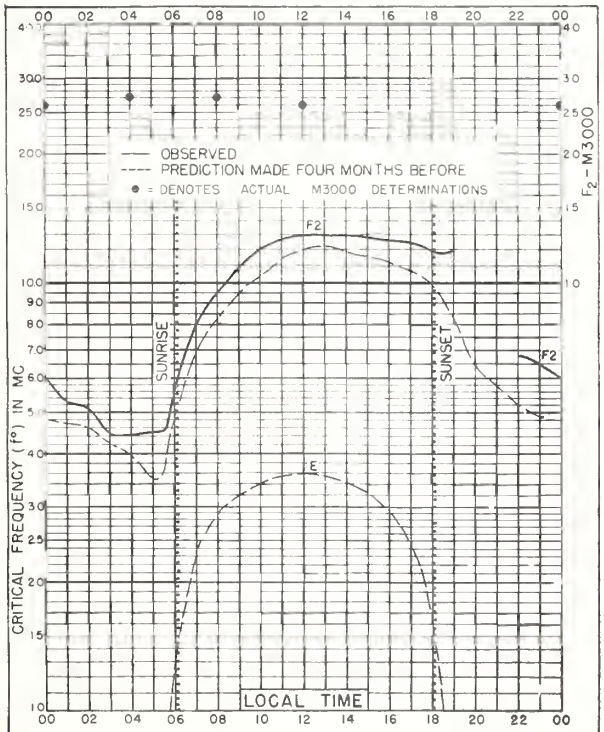

Fig 69 DELHI, INDIA
28.6°N, 77.1°E MARCH, 1946

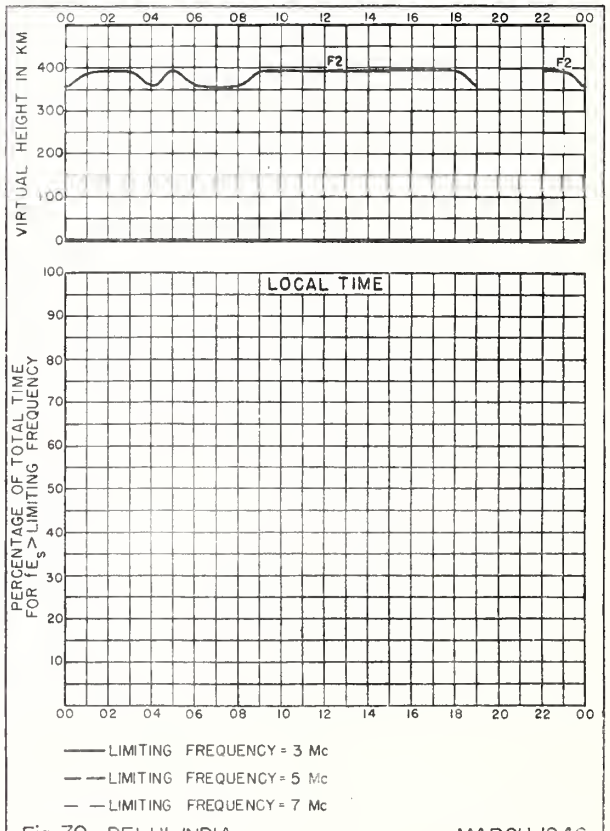

Fig 70 DELHI, INDIA MARCH, 1946

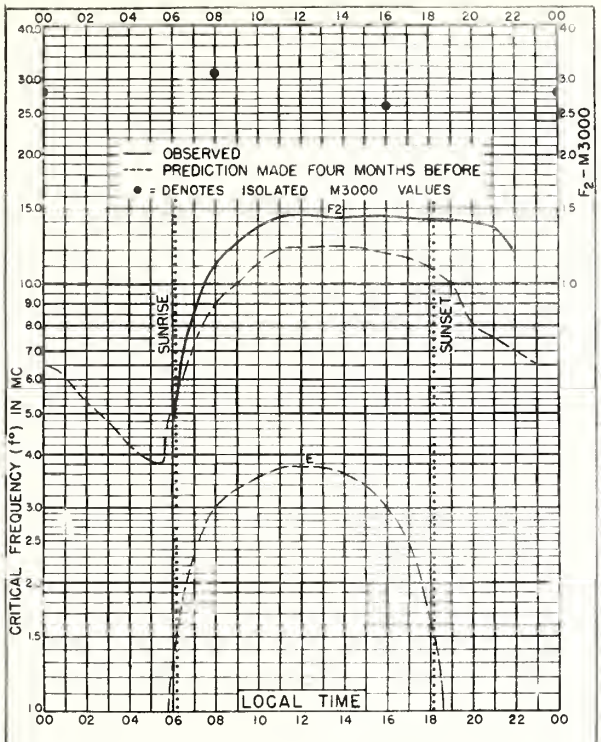

Fig. 71. BOMBAY, INDIA
19.0°N, 73.0°E MARCH, 1946

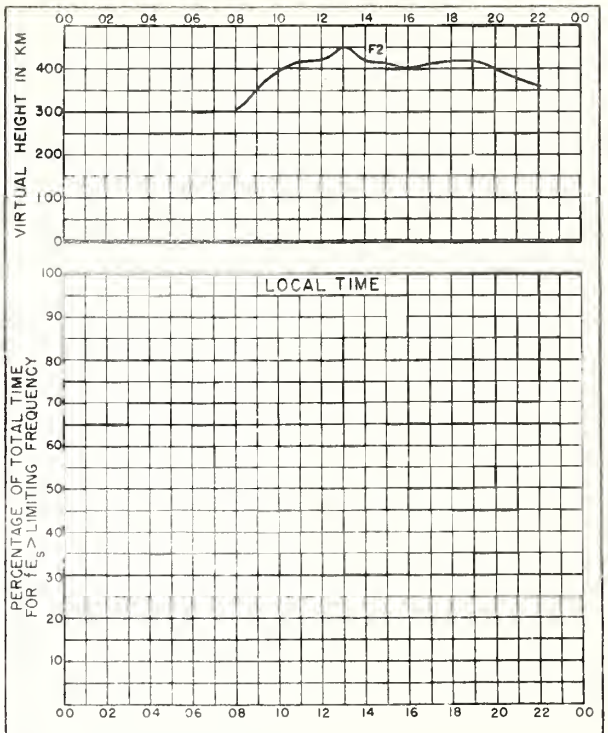

Fig 72 BOMBAY, INDIA MARCH, 1946

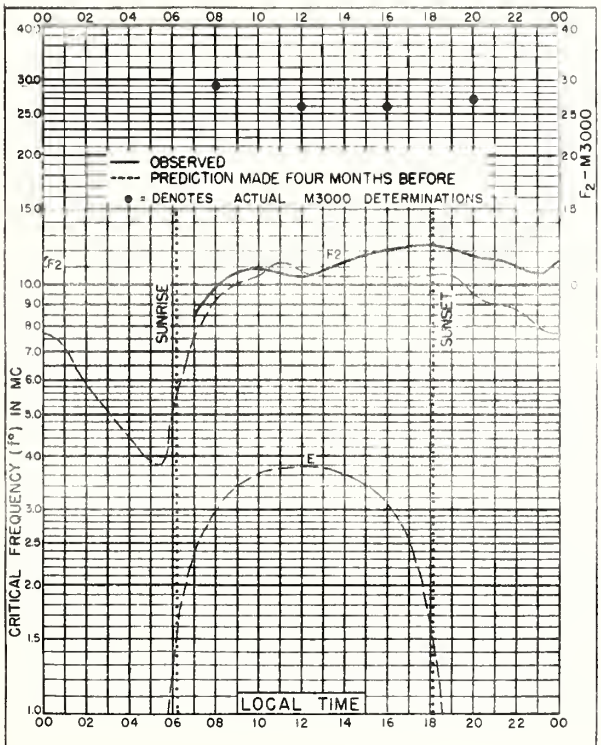

Fig 73. MADRAS, INDIA
13.0°N, 80.2°E MARCH, 1946

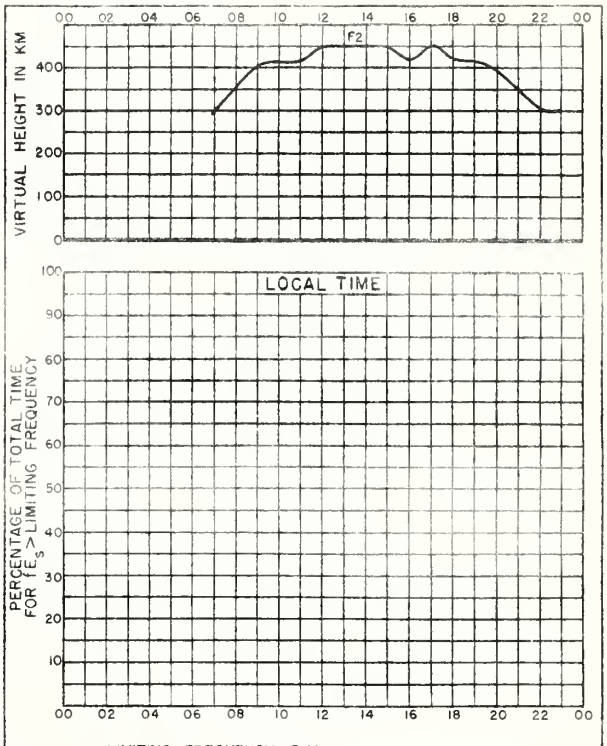

Fig. 74. MADRAS, INDIA MARCH, 1946

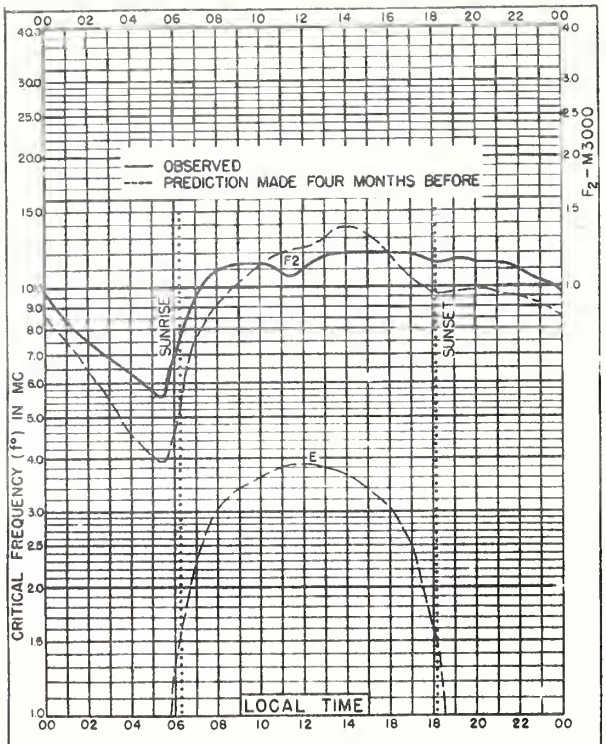

Fig 75 SINGAPORE, BRITISH MALAYA
1.35°N, 103.8°E MARCH, 1946

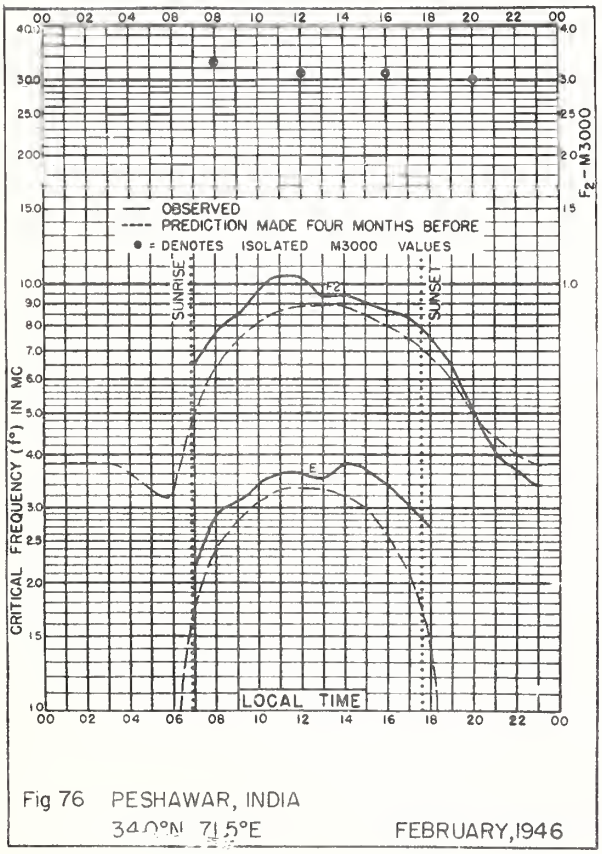

Fig 76 PESHAWAR, INDIA
34.0°N 71.5°E FEBRUARY, 1946

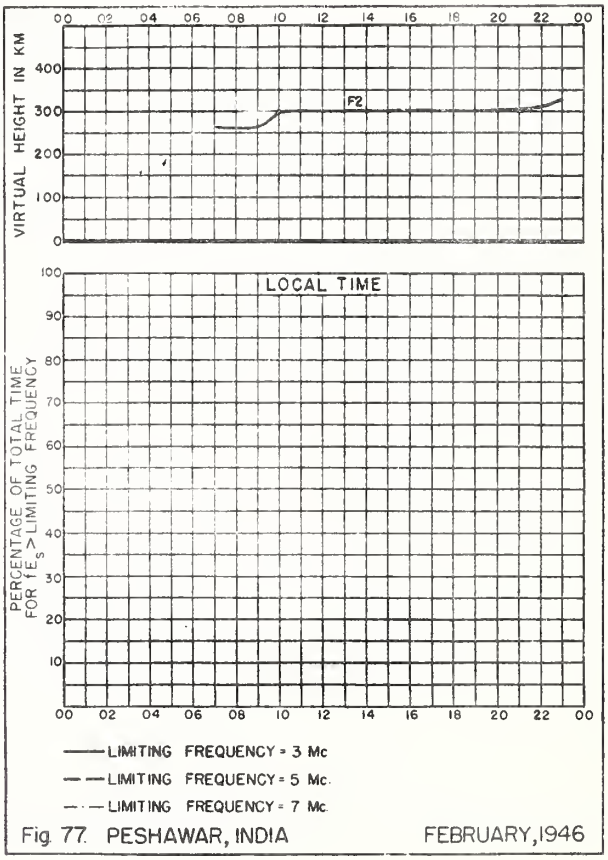

Fig. 77 PESHAWAR, INDIA FEBRUARY, 1946

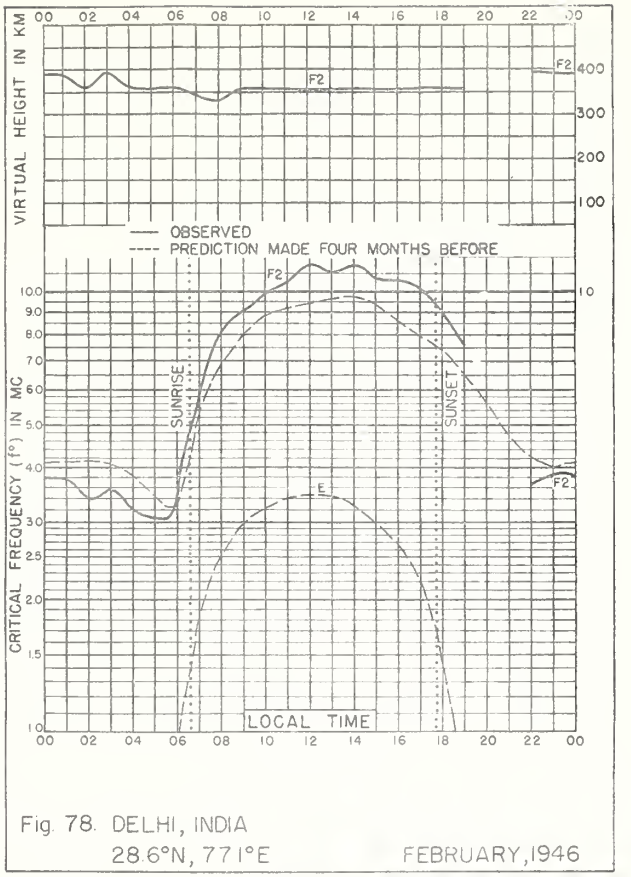

Fig. 78. DELHI, INDIA
28.6°N, 77.1°E FEBRUARY, 1946

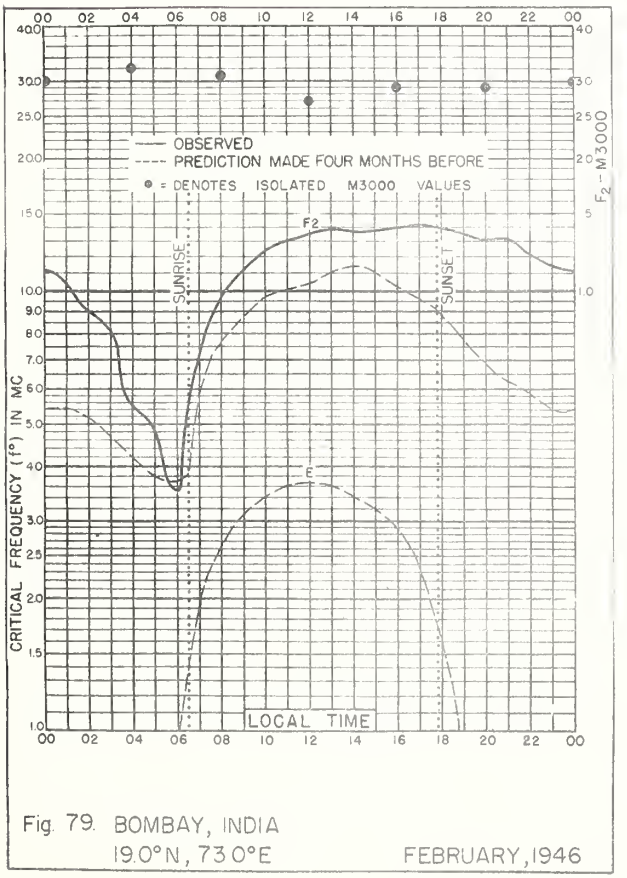

Fig. 79. BOMBAY, INDIA
19.0°N, 73.0°E FEBRUARY, 1946

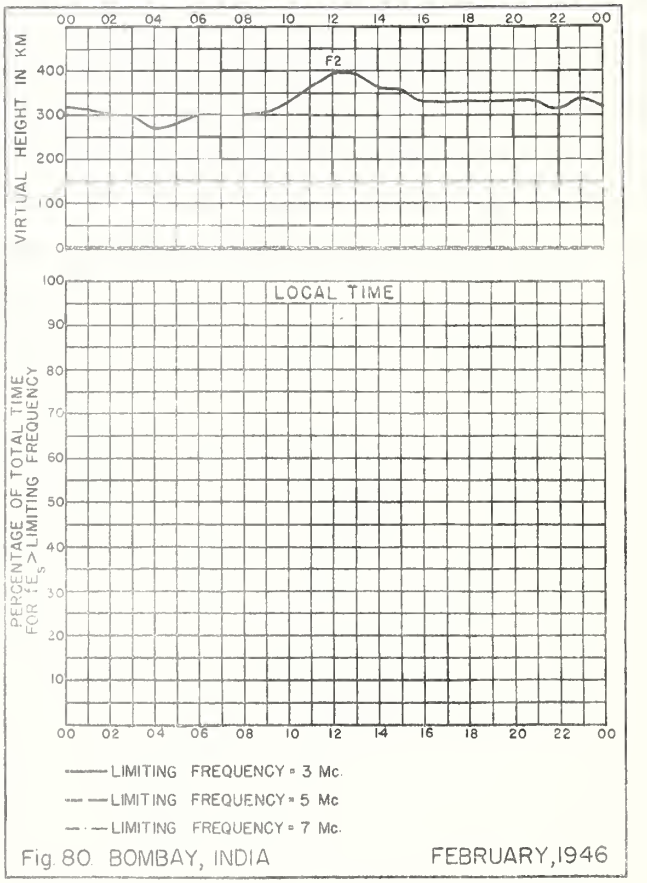

Fig. 80. BOMBAY, INDIA FEBRUARY, 1946

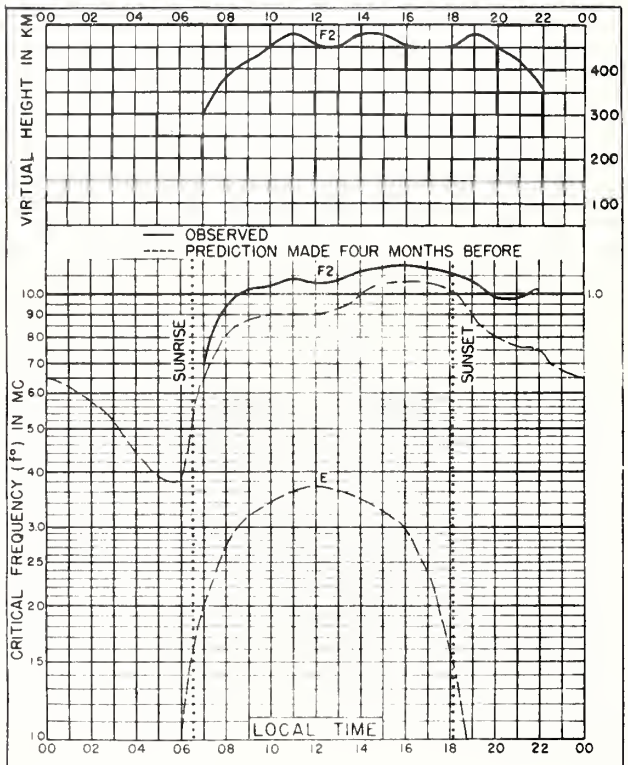

Fig 81 MADRAS, INDIA
13.0°N, 80.2°E FEBRUARY, 1946

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