

CRPL-F140 PART A

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PART A
IONOSPHERIC DATA

ISSUED
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U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

CRPL-F140
PART A

NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
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SYMBOLS, TERMINOLOGY, CONVENTIONS

Beginning with data reported for January 1952, the symbols, terminology, and conventions for the determination of median values used in this report (CRPL-F series) conform as far as practicable to those adopted at the Sixth Meeting of the International Radio Consultative Committee (C.C.I.R.) in Geneva, 1951. Excerpts concerning symbols and terminology from Document No. 626-E of this Meeting are given on pages 2-7 of the report CRPL-F89, "Ionospheric Data," issued January 1952. Reprints of these pages are available upon request.

Beginning with data for January 1945, median values are published wherever possible. Where averages are reported, they are, at any hour, the average for all the days during the month for which numerical data exist.

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 Document No. 626-E referred to above, plus an additional symbol, R: "Scaling of characteristic is influenced or prevented by absorption in the neighborhood of the critical frequency," (May 1955). Also, beginning with January 1956, additional meanings are assigned to T: A smoothed value which better fits the observations, replacing a doubtful or clearly inconsistent observed value; and to U: f_{oF2} minus f_{oF1} is 0.5 Mc or less (used with (M3000)F2).

a. For all ionospheric characteristics:

Values missing because of A, C, F, L, M, N, Q, R, S, or T are omitted from the median count.

b. For critical frequencies and virtual heights:

Values of f_{oF2} (and f_{oE} near sunrise and sunset) missing because of E are counted as equal to or less than the lower limit of the recorder. Values of $h'F2$ (and $h'E$ near sunrise and sunset) missing for this reason are counted usually as equal to or greater than the median. Other characteristics missing because of E are omitted from the median count.

Values missing because of G are counted:

1. For f_{oF2} , as equal to or less than f_{oF1} .
2. For $h'F2$, as equal to or greater than the median.

The symbol W is included in the median count only when it replaces a height characteristic; the symbol D, only when it replaces a frequency characteristic.

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

c. For MUF factor (M-factors):

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

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

d. For sporadic E (Es):

Values of fEs missing because of E or G (and B when applied to the daytime E region only) are counted as equal to or less than the median foE, or equal to or less than the lower frequency limit of the recorder.

At night B for fEs is counted on the low side when there is a numerical value of foF2; otherwise it is omitted from the median count.

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

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

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

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

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

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

The tables and graphs of ionospheric data are correct for the values reported to the CRPL, but, because of variations in practice

in the interpretation of records and scaling and manner of reporting of values, may at times give an erroneous conception of typical ionospheric characteristics at the station. Some of the errors are due to:

- a. Differences in scaling records when spread echoes are present.
- b. Omission of values when f_{oF2} is less than or equal to f_{oF1} , leading to erroneously high values of monthly averages or median values.
- c. Omission of values when critical frequencies are less than the lower frequency limit of the recorder, also leading to erroneously high values of monthly average or median values.

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

Ordinarily, a blank space in the fEs column of a table is the result of the fact that a majority of the readings for the month are below the lower limit of the recorder or less than the corresponding values of f_{oE} . Blank spaces at the beginning and end of columns of $h'F1$, f_{oF1} , $h'E$, and f_{oE} are usually the result of diurnal variation in these characteristics. Complete absence of medians of $h'F1$ and f_{oF1} is usually the result of seasonal effects.

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

- a. Predictions for individual stations used to construct the charts may be more accurate than the values read from the charts since some smoothing of the contours is necessary to allow for the longitude effect within a zone. Thus, inasmuch as the predicted contours are for the center of each zone, part of the discrepancy between the predicted and observed values as given in the F series may be caused by the fact that the station is not centrally located within the zone.
- b. The final presentation of the predictions is dependent upon the latest available ionospheric and radio propagation data, as well as upon predicted sunspot number.
- c. There is no indication on the graphs of the relative reliability of the data; it is necessary to consult the tables for such information.

PREDICTED AND OBSERVED SUNSPOT NUMBERS

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

| <u>Month</u> | <u>Predicted Sunspot Number</u> | | | | | | | | | | |
|--------------|---------------------------------|------|------|------|------|------|------|------|------|------|------|
| | 1956 | 1955 | 1954 | 1953 | 1952 | 1951 | 1950 | 1949 | 1948 | 1947 | 1946 |
| December | 42 | 11 | 15 | 33 | 53 | 86 | 108 | 114 | 126 | 85 | |
| November | 35 | 10 | 16 | 38 | 52 | 87 | 112 | 115 | 124 | 83 | |
| October | 31 | 10 | 17 | 43 | 52 | 90 | 114 | 116 | 119 | 81 | |
| September | 119 | 30 | 8 | 18 | 46 | 54 | 91 | 115 | 117 | 121 | 79 |
| August | 105 | 27 | 8 | 18 | 49 | 57 | 96 | 111 | 123 | 122 | 77 |
| July | 95 | 22 | 8 | 20 | 51 | 60 | 101 | 108 | 125 | 116 | 73 |
| June | 89 | 18 | 9 | 21 | 52 | 63 | 103 | 108 | 129 | 112 | 67 |
| May | 77 | 16 | 10 | 22 | 52 | 68 | 102 | 108 | 130 | 109 | 67 |
| April | 68 | 13 | 10 | 24 | 52 | 74 | 101 | 109 | 133 | 107 | 62 |
| March | 60 | 14 | 11 | 27 | 52 | 78 | 103 | 111 | 133 | 105 | 51 |
| February | 53 | 14 | 12 | 29 | 51 | 82 | 103 | 113 | 133 | 90 | 46 |
| January | 48 | 12 | 14 | 30 | 53 | 85 | 105 | 112 | 130 | 88 | 42 |

The latest available information follows concerning the corresponding observed Zürich numbers (some of which may be subject to minor change) beginning with the minimum of April 1954.

Observed Sunspot Number

| <u>Month</u> | <u>Jan.</u> | <u>Feb.</u> | <u>Mar.</u> | <u>Apr.</u> | <u>May</u> | <u>June</u> | <u>July</u> | <u>Aug.</u> | <u>Sept.</u> | <u>Oct.</u> | <u>Nov.</u> | <u>Dec.</u> |
|--------------|-------------|-------------|-------------|-------------|------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|
| 1954 | | | | 3 | 4 | 4 | 5 | 7 | 8 | 8 | 9 | 12 |
| 1955 | 14 | 16 | 19 | 23 | 29 | 35 | 40 | 46 | 55 | | | |

WORLD-WIDE SOURCES OF IONOSPHERIC DATA

The ionospheric data given here in tables 1 to 60 and figures 1 to 120 were assembled by the Central Radio Propagation Laboratory for analysis and correlation, incidental to CRPL prediction of radio propagation conditions. The data are median values unless otherwise indicated. The following are the sources of the data in this issue:

Republica Argentina, Ministerio de Marina:
Buenos Aires, Argentina

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

University of Graz:
Graz, Austria

Meteorological Service of the Belgian Congo and Ruanda-Urundi:
Elisabethville, Belgian Congo
Leopoldville, Belgian Congo

Defence Research Board, Canada:
Baker Lake, Canada
Churchill, Canada
Ottawa, Canada
Resolute Bay, Canada
Winnipeg, Canada

Radio Wave Research Laboratories, National Taiwan University,
Taipeh, Formosa, China:
Formosa, China

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

The Royal Netherlands Meteorological Institute:
De Bilt, Holland

Icelandic Post and Telegraph Administration:
Reykjavik, Iceland

Norwegian Defence Research Establishment, Kjeller per Lillestrom,
Norway:
Oslo, Norway
Tromso, Norway

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

Research Institute of National Defence, Stockholm, Sweden:
Upsala, Sweden

Post, Telephone and Telegraph Administration, Berne, Switzerland:

Schwarzenburg, Switzerland

United States Army Signal Corps:

Adak, Alaska

Ft. Monmouth, New Jersey

Okinawa I.

White Sands, New Mexico

National Bureau of Standards (Central Radio Propagation Laboratory):

Fairbanks, Alaska (Geophysical Institute of the
University of Alaska)

Guam I.

Huancayo, Peru (Instituto Geofisico de Huancayo)

Maui, Hawaii

Narsarssuak, Greenland

Panama Canal Zone

Puerto Rico, W. I.

San Francisco, California (Stanford University)

Talara, Peru (Instituto Geofisico de Huancayo)

Washington, D. C.

HOURLY IONOSPHERIC DATA AT WASHINGTON, D. C.

The data given in tables 61 through 71 follow the scaling practices given in the report IRPL-C61, "Report of International Radio Propagation Conference," pages 36 to 39, and the median values are determined by the conventions given above under "Symbols, Terminology, Conventions." Beginning with September 1949, the data are taken at Ft. Belvoir, Virginia.

The interpretation of a cell is as follows: U F
 32

The U is a weight meaning doubtful. Other weights are I, interpolated, D, greater than, and E, less than. Absence of a letter in the upper left position means full weight is given to the observation.

Symbols such as F above are given in the upper right position.

There should be no difficulty in the placing of the decimal point. For the time being, a final zero will be found in each value of foF1 and foE. Thus at a later date it will be possible to register more closely scaled values of these characteristics, whenever such are reported.

TABLES OF IONOSPHERIC DATA

Table 1

| Time | Washington, D. C. (38.7°N, 77.1°W) | | | | | | | March 1956 |
|------|------------------------------------|------|------|------|-------|-----|-------|------------|
| | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | |
| 00 | 270 | 6.0 | | | (2.6) | | 2.85 | |
| 01 | 270 | 5.6 | | | | | 2.80 | |
| 02 | 270 | 5.5 | | | | | 2.80 | |
| 03 | 270 | 5.0 | | | | | 2.80 | |
| 04 | 270 | 4.6 | | | | | 2.75 | |
| 05 | 280 | 4.2 | | | | | 2.80 | |
| 06 | 260 | 4.5 | | | | | 2.90 | |
| 07 | 240 | 6.6 | 255 | --- | 115 | 2.2 | 3.20 | |
| 08 | 240 | 8.0 | 230 | --- | 109 | 2.7 | 2.5 | 3.20 |
| .09 | 250 | 9.0 | 220 | --- | 109 | 3.1 | 3.0 | 3.20 |
| 10 | 250 | 9.8 | 215 | --- | 107 | 3.3 | 3.00 | |
| 11 | 270 | 10.5 | 210 | 5.0 | 105 | 3.5 | 3.00 | |
| 12 | 270 | 11.0 | 210 | 4.9 | 105 | 3.6 | 2.90 | |
| 13 | 280 | 11.0 | 220 | 4.6 | 103 | 3.6 | 2.90 | |
| 14 | 270 | 10.7 | 220 | 4.8 | 107 | 3.5 | 2.90 | |
| 15 | 270 | 10.8 | 220 | 4.6 | 109 | 3.3 | 2.90 | |
| 16 | 250 | 10.6 | 230 | --- | <111 | 3.1 | 2.90 | |
| 17 | 240 | 10.0 | 240 | --- | 115 | 2.6 | 3.00 | |
| 18 | 240 | 9.7 | | | 129 | 1.8 | 3.00 | |
| 19 | 230 | 8.7 | | | | | 3.00 | |
| 20 | 240 | 7.7 | | | | | 2.95 | |
| 21 | 250 | 7.2 | | | (1.6) | | 2.90 | |
| 22 | 260 | 6.8 | | | | | 2.85 | |
| 23 | 260 | 6.5 | | | | | (2.1) | 2.90 |

Time: 75.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 3

| Time | Fairbanks, Alaska (64.9°N, 147.8°W) | | | | | | | February 1956 |
|------|-------------------------------------|-------|------|------|-----|-------|-----|---------------|
| | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | |
| 00 | | | | | | | 3.4 | (2.95) |
| 01 | | (2.4) | | | | | 4.2 | (2.85) |
| 02 | | (2.2) | | | | | 5.2 | (2.80) |
| 03 | | (2.7) | | | | | 4.2 | --- |
| 04 | | (2.6) | | | | | 3.9 | --- |
| 05 | | (3.2) | | | | | 4.0 | (2.80) |
| 06 | | (3.1) | | | | | 2.2 | (2.95) |
| 07 | | (3.0) | | | | | | (2.95) |
| 08 | | (4.2) | | | | | | (3.20) |
| 09 | | (5.6) | | | 124 | (2.2) | | (3.30) |
| 10 | | (6.5) | | | 118 | (2.4) | | (3.35) |
| 11 | | (7.2) | | | 118 | (2.6) | | 3.25 |
| 12 | | 7.4 | | | 117 | (2.6) | | 3.25 |
| 13 | | (7.8) | | | 117 | (2.6) | | (3.20) |
| 14 | | (8.4) | | | 122 | (2.5) | | (3.20) |
| 15 | | (8.2) | | | 123 | (2.2) | | (3.30) |
| 16 | | (7.8) | | | 125 | (1.8) | | (3.30) |
| 17 | | (7.0) | | | | | | (3.20) |
| 18 | | (5.3) | | | | | | (3.30) |
| 19 | | (4.2) | | | | | | (3.25) |
| 20 | | (3.0) | | | | | | (3.20) |
| 21 | | (3.3) | | | | | | (3.20) |
| 22 | | (2.8) | | | | | 1.9 | (3.05) |
| 23 | | (2.6) | | | | | 2.3 | (3.00) |

Time: 150.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 5

| Time | Oslo, Norway (60.0°N, 11.1°E) | | | | | | | February 1956 |
|------|-------------------------------|------|------|------|-----|-----|------|---------------|
| | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | |
| 00 | 300 | 2.8 | | | | | <1.3 | 2.65 |
| 01 | 300 | 2.4 | | | | | <1.3 | 2.60 |
| 02 | 300 | 2.2 | | | | | <1.1 | 2.65 |
| 03 | 300 | 2.2 | | | | | <1.0 | 2.70 |
| 04 | 300 | 2.1 | | | | | <1.1 | 2.70 |
| 05 | 290 | 2.2 | | | | | <1.3 | 2.75 |
| 06 | 270 | 2.2 | | | | | <1.4 | 2.90 |
| 07 | 270 | 2.9 | | | | | <1.6 | 2.90 |
| 08 | 240 | 4.8 | | | | | | 3.15 |
| 09 | 235 | 6.6 | --- | --- | 120 | 2.2 | | 3.30 |
| 10 | 235 | 7.5 | 240 | --- | 115 | 2.4 | 2.8 | 3.20 |
| 11 | 240 | 0.1 | 240 | --- | 115 | 2.7 | | 3.20 |
| 12 | 240 | 0.4 | 235 | --- | 115 | 2.8 | | 3.30 |
| 13 | 240 | 0.4 | 230 | --- | 115 | 2.8 | | 3.20 |
| 14 | 240 | 0.6 | 240 | --- | 120 | 2.8 | | 3.20 |
| 15 | 240 | 0.7 | 245 | --- | 120 | 2.5 | | 3.20 |
| 16 | 230 | 7.9 | 245 | --- | --- | 2.2 | | 3.30 |
| 17 | 220 | 7.5 | --- | --- | --- | --- | <1.6 | 3.30 |
| 18 | 220 | 6.6 | | | | | <1.5 | 3.15 |
| 19 | 220 | 5.0 | | | | | <1.6 | 3.10 |
| 20 | 245 | 4.0 | | | | | <1.4 | 2.90 |
| 21 | (260) | 3.3 | | | | | <1.4 | 2.75 |
| 22 | (265) | 2.9 | | | | | <1.5 | 2.75 |
| 23 | (270) | 2.8 | | | | | <1.4 | 2.70 |

Time: 15.0°E.

Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 2

| Time | Tromso, Norway (69.7°N, 19.0°E) | | | | | | | February 1956 |
|------|---------------------------------|------|------|------|-----|-----|-----|---------------|
| | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | |
| 00 | | | | | | | | 3.7 |
| 01 | | | | | | | | <4.0 |
| 02 | | | | | | | | 3.7 |
| 03 | | | | | | | | (2.70) |
| 04 | | | | | | | | 3.0 |
| 05 | | | | | | | | 2.5 |
| 06 | | | | | | | | 2.80 |
| 07 | | | | | | | | 2.1 |
| 08 | | | | | | | | 2.85 |
| 09 | | | | | | | | <1.9 |
| 10 | | | | | | | | 3.10 |
| 11 | | | | | | | | 3.10 |
| 12 | | | | | | | | 3.10 |
| 13 | | | | | | | | 3.10 |
| 14 | | | | | | | | 3.15 |
| 15 | | | | | | | | 3.20 |
| 16 | | | | | | | | 3.10 |
| 17 | | | | | | | | 3.00 |
| 18 | | | | | | | | 2.2 |
| 19 | | | | | | | | 3.00 |
| 20 | | | | | | | | 4.0 |
| 21 | | | | | | | | 4.0 |
| 22 | | | | | | | | 3.5 |
| 23 | | | | | | | | 4.0 |

Time: 15.0°E.

Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 4

| Time | Narsarssuak, Greenland (61.2°N, 45.4°W) | | | | | | | February 1956 |
|------|---|------|------|------|-----|-----|-----|---------------|
| | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | |
| 00 | | | | | | | | 4.2 |
| 01 | | | | | | | | 3.6 |
| 02 | | | | | | | | 3.8 |
| 03 | | | | | | | | 4.3 |
| 04 | | | | | | | | 4.4 |
| 05 | | | | | | | | 3.8 |
| 06 | | | | | | | | 3.8 |
| 07 | | | | | | | | 2.9 |
| 08 | | | | | | | | (3.05) |
| 09 | | | | | | | | (3.30) |
| 10 | | | | | | | | (3.20) |
| 11 | | | | | | | | 3.20 |
| 12 | | | | | | | | 3.15 |
| 13 | | | | | | | | 3.10 |
| 14 | | | | | | | | 3.10 |
| 15 | | | | | | | | 3.2 |
| 16 | | | | | | | | 3.2 |
| 17 | | | | | | | | 3.3 |
| 18 | | | | | | | | 3.2 |
| 19 | | | | | | | | 3.1 |
| 20 | | | | | | | | 2.9 |
| 21 | | | | | | | | 2.9 |
| 22 | | | | | | | | 2.8 |
| 23 | | | | | | | | 2.85 |

Time: 45.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 6

| Time | Upsala, Sweden (59.8°N, 17.6°E) | | | | | | | February 1956 |
|------|---------------------------------|------|------|-------|-----|-----|-----|---------------|
| | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | |
| 00 | 330 | 2.4 | | | | | | 2.0 |
| 01 | 325 | 2.5 | | | | | | 2.75 |
| 02 | 330 | 2.4 | | | | | | 2.8 |
| 03 | 310 | 2.4 | | | | | | 2.8 |
| 04 | 300 | 2.3 | | | | | | 2.8 |
| 05 | 300 | 2.2 | | | | | | 2.85 |
| 06 | 295 | 2.4 | | | | | | 2.9 |
| 07 | 260 | 3.8 | | | | | | 3.0 |
| 08 | 230 | 5.8 | | | | | | 3.2 |
| 09 | 230 | 7.2 | 245 | 3.5 | 115 | 2.2 | 2.5 | 3.3 |
| 10 | 225 | 7.8 | 220 | 3.6 | 110 | 2.5 | 2.7 | 3.3 |
| 11 | 230 | 8.3 | 215 | (3.7) | 110 | 2.6 | 2.7 | 3.2 |
| 12 | 240 | 8.7 | 220 | 3.6 | 110 | 2.7 | 2.3 | 3.3 |
| 13 | 230 | 8.6 | 225 | 3.6 | 110 | 2.8 | | 3.25 |
| 14 | 230 | 8.8 | 235 | 3.6 | 110 | 2.6 | | 3.2 |
| 15 | 230 | 8.7 | --- | --- | 115 | 2.4 | 2.3 | 3.3 |
| 16 | 220 | 8.0 | | | 125 | 1.8 | 2.4 | 3.3 |
| 17 | 210 | 7.3 | | | --- | E | 2.6 | 3.2 |
| 18 | 215 | 6.0 | | | --- | E | | 3.2 |
| 19 | 225 | 4.2 | | | --- | E | | 3.1 |
| 20 | 255 | 3.4 | | | | | | 2.9 |
| 21 | 290 | 2.9 | | | | | | 2.9 |
| 22 | 300 | 2.8 | | | | | | 2.8 |
| 23 | 330 | 2.7 | | | | | | 2.85 |

Time: 15.0°E.

Sweep: 1.4 Mc to 17.0 Mc in 6 minutes, automatic operation.

Table 7

| Adak, Alaska (51.0°N, 176.6°W) | | | | | | | February 1956 | |
|--------------------------------|------|-------|------|------|-------|-------|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 330 | 2.8 | | | | | 2.70 | |
| 01 | 340 | (2.8) | | | | | (2.65) | |
| 02 | 340 | 2.9 | | | | | 2.65 | |
| 03 | 320 | 2.9 | | | | | 2.70 | |
| 04 | 320 | 2.9 | | | | | 2.70 | |
| 05 | 300 | 2.9 | | | | | 2.75 | |
| 06 | 280 | 2.8 | | | | | 2.75 | |
| 07 | 250 | 4.8 | | | | | 3.00 | |
| 08 | 240 | 6.9 | | | 122 | 2.2 | | 3.25 |
| 09 | 250 | 7.8 | --- | --- | 122 | (2.7) | | 3.15 |
| 10 | 250 | 9.0 | 250 | --- | 127 | (3.0) | | 3.10 |
| 11 | 260 | 9.8 | 250 | --- | 124 | (3.0) | | 3.05 |
| 12 | 250 | 10.0 | 250 | --- | 121 | (2.9) | | 3.10 |
| 13 | 250 | 10.3 | 260 | --- | (121) | (2.8) | | 3.10 |
| 14 | 250 | 10.3 | 250 | --- | 122 | (2.7) | | 3.10 |
| 15 | 250 | 9.7 | --- | --- | 125 | 2.7 | | 3.15 |
| 16 | 240 | 8.8 | | | 130 | 2.2 | | 3.15 |
| 17 | 230 | 7.6 | | | | | 3.10 | |
| 18 | 240 | 6.2 | | | | | 3.10 | |
| 19 | 240 | 4.6 | | | | | 3.15 | |
| 20 | 250 | 3.2 | | | | | 3.00 | |
| 21 | 260 | 2.7 | | | | | 2.85 | |
| 22 | 300 | 2.8 | | | | | 2.80 | |
| 23 | 320 | 2.6 | | | | | 2.65 | |

Time: 180.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 9

| Ft. Monmouth, New Jersey (40.3°N, 74.1°W) | | | | | | | February 1956 | |
|---|------|------|------|------|-----|-------|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 280 | 3.9 | | | | | 2.95 | |
| 01 | <280 | 3.8 | | | | | 2.90 | |
| 02 | 270 | 4.2 | | | | | 2.90 | |
| 03 | 270 | 3.9 | | | | | 2.90 | |
| 04 | 260 | 3.8 | | | | | 3.00 | |
| 05 | 250 | 3.6 | | | | | 3.00 | |
| 06 | 250 | 3.1 | | | | | 3.00 | |
| 07 | 240 | 5.1 | | | --- | <1.7 | | 3.25 |
| 08 | 230 | 7.2 | 235 | --- | 119 | (2.6) | | 3.40 |
| 09 | 230 | 8.1 | 220 | --- | 111 | (3.0) | | 3.40 |
| 10 | 240 | 9.0 | 220 | --- | 111 | (3.2) | | 3.25 |
| 11 | 250 | 9.8 | 215 | --- | 111 | (3.5) | | 3.20 |
| 12 | 250 | 9.7 | <220 | 4.5 | 111 | (3.5) | | 3.10 |
| 13 | 250 | 9.0 | 220 | --- | 111 | (3.5) | | 3.10 |
| 14 | 250 | 10.0 | 220 | --- | 111 | (3.4) | | 3.10 |
| 15 | 240 | 9.0 | 220 | --- | 115 | (3.0) | | 3.10 |
| 16 | 240 | 9.6 | 230 | --- | 114 | (2.7) | | 3.15 |
| 17 | 230 | 9.2 | --- | --- | 123 | (2.0) | | 3.15 |
| 18 | 220 | 8.4 | | | | | 3.15 | |
| 19 | 230 | 7.3 | | | | | 3.10 | |
| 20 | 230 | 6.0 | | | | | 3.15 | |
| 21 | 240 | 5.3 | | | | | 3.05 | |
| 22 | 250 | 5.1 | | | | | 3.00 | |
| 23 | 260 | 4.5 | | | | | 3.00 | |

Time: 75.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 11

| Okinawa I. (26.3°N, 127.0°E) | | | | | | | February 1956 | |
|------------------------------|------|------|------|------|-----|-------|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 260 | 6.7 | | | | | 1.8 | 2.90 |
| 01 | 260 | 6.7 | | | | | | 2.95 |
| 02 | 250 | 5.8 | | | | | 2.2 | 3.00 |
| 03 | 240 | 4.9 | | | | | 2.1 | 3.10 |
| 04 | 230 | 4.0 | | | | | 2.2 | 3.25 |
| 05 | 240 | 3.0 | | | | | 2.2 | 3.00 |
| 06 | 280 | 3.1 | | | | | 2.2 | 2.90 |
| 07 | 270 | 5.0 | | | --- | --- | 2.1 | 3.10 |
| 08 | 230 | 7.9 | --- | --- | 115 | 2.5 | 4.1 | 3.40 |
| 09 | 240 | 9.6 | 230 | --- | 111 | (3.1) | 4.5 | 3.30 |
| 10 | 270 | 11.0 | 230 | --- | 109 | 3.4 | 4.5 | 3.20 |
| 11 | 270 | 12.0 | 220 | --- | 109 | 3.7 | 4.8 | 3.15 |
| 12 | 200 | 12.6 | 220 | --- | 109 | (3.8) | 5.5 | 3.10 |
| 13 | 300 | 13.2 | 220 | --- | 107 | (3.8) | 5.0 | 2.90 |
| 14 | 290 | 14.6 | 220 | --- | 107 | (3.7) | 5.2 | 2.95 |
| 15 | 200 | 14.6 | 220 | --- | 109 | (3.6) | 5.2 | 2.95 |
| 16 | 270 | 14.3 | 230 | --- | 117 | >3.4 | 4.8 | 3.00 |
| 17 | 240 | 14.0 | 240 | --- | --- | --- | 3.9 | 3.00 |
| 18 | 230 | 13.7 | | | 125 | 1.9 | 3.5 | 3.00 |
| 19 | 220 | 12.3 | | | | | 3.1 | 3.00 |
| 20 | 230 | 11.6 | | | | | 3.0 | 3.00 |
| 21 | 230 | 10.4 | | | | | 2.2 | 3.05 |
| 22 | 220 | 9.0 | | | | | 2.0 | 3.05 |
| 23 | 260 | 7.1 | | | | | | 2.85 |

Time: 135.0°E.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 7

Table 8

| Graz, Austria (47.1°N, 15.5°E) | | | | | | | February 1956 | |
|--------------------------------|------|------|------|------|-----|-----|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 300 | 4.0 | | | | | | |
| 01 | 300 | 4.4 | | | | | | |
| 02 | 300 | 3.7 | | | | | | |
| 03 | 320 | 3.9 | | | | | | |
| 04 | 300 | 3.7 | | | | | | |
| 05 | 290 | 3.6 | | | | | | |
| 06 | 300 | 3.3 | | | | | | |
| 07 | 250 | 5.0 | | | | | | |
| 08 | 220 | 7.4 | | | | | | |
| 09 | 210 | 8.6 | | | | | | |
| 10 | 230 | 9.3 | | | | | | |
| 11 | 230 | 9.9 | | | | | | |
| 12 | 250 | 9.5 | | | | | | |
| 13 | 230 | 9.4 | | | | | | |
| 14 | 230 | 9.2 | | | | | | |
| 15 | 240 | 9.1 | | | | | | |
| 16 | 220 | 8.9 | | | | | | |
| 17 | 210 | 8.0 | | | | | | |
| 18 | 230 | 7.0 | | | | | | |
| 19 | 250 | 6.2 | | | | | | |
| 20 | 250 | 4.6 | | | | | | |
| 21 | 275 | 3.6 | | | | | | |
| 22 | 300 | 4.0 | | | | | | |
| 23 | 325 | 3.8 | | | | | | |

Time: 15.0°E.

Sweep: 2.5 Mc to 12.0 Mc in 2 minutes.

Table 9

| White Sands, New Mexico (32.3°N, 106.5°W) | | | | | | | February 1956 | |
|---|------|------|------|------|-------|-------|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 270 | 3.8 | | | | | | |
| 01 | <270 | 3.7 | | | | | | |
| 02 | 260 | 4.0 | | | | | | |
| 03 | 250 | 4.0 | | | | | | |
| 04 | 240 | 3.6 | | | | | | |
| 05 | <280 | 3.6 | | | | | | |
| 06 | 270 | 3.5 | | | | | | |
| 07 | 240 | 5.7 | | | | | | |
| 08 | 230 | 8.0 | 230 | --- | 111 | (2.6) | 3.2 | |
| 09 | 240 | 9.1 | 230 | --- | (109) | (3.1) | 4.0 | |
| 10 | 250 | 9.9 | 220 | --- | 109 | (3.3) | 4.2 | |
| 11 | 270 | 10.0 | 215 | --- | (4.9) | (111) | (3.5) | |
| 12 | 260 | 10.0 | 215 | --- | (4.8) | (113) | (3.6) | |
| 13 | 270 | 11.0 | 215 | --- | (4.8) | 111 | (3.6) | |
| 14 | 260 | 10.5 | 220 | --- | (4.7) | 111 | (3.5) | |
| 15 | 250 | 10.3 | 225 | --- | (4.3) | 111 | (3.3) | |
| 16 | 240 | 10.2 | 230 | --- | (3.8) | 111 | (2.9) | |
| 17 | 230 | 9.0 | --- | --- | 115 | --- | 3.2 | |
| 18 | 220 | 8.5 | | | | | | |
| 19 | 220 | 6.8 | | | | | | |
| 20 | 230 | 5.7 | | | | | | |
| 21 | 230 | 4.4 | | | | | | |
| 22 | 250 | 3.0 | | | | | | |
| 23 | <270 | 4.1 | | | | | | |

Time: 105.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 11

| Formosa, China (25.0°N, 121.5°E) | | | | | | | February 1956 | |
|----------------------------------|-------|-------|------|------|-------|-----|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 250 | 7.4 | | | | | | |
| 01 | 240 | 5.2 | | | | | | |
| 02 | 240 | 4.4 | | | | | | |
| 03 | (240) | (3.2) | | | | | | |
| 04 | (240) | (2.7) | | | | | | |
| 05 | (280) | (2.6) | | | | | | |
| 06 | (280) | (2.6) | | | | | | |
| 07 | (240) | (5.0) | | | | | | |
| 08 | 250 | 0.5 | --- | --- | 120 | 2.8 | | |
| 09 | 260 | 10.5 | 240 | --- | 120 | 3.2 | 3.5 | |
| 10 | 260 | 12.0 | 240 | --- | (4.7) | 120 | 3.4 | |
| 11 | 200 | 12.9 | 220 | --- | (4.7) | 110 | 3.5 | |
| 12 | 270 | 13.1 | 220 | --- | 120 | 3.5 | 4.8 | |
| 13 | (280) | 15.0 | 220 | --- | 120 | 3.5 | 4.3 | |
| 14 | 280 | 15.7 | 220 | --- | 4.7 | 120 | 3.5 | |
| 15 | 280 | >16.0 | 240 | --- | 4.7 | 120 | 3.5 | |
| 16 | (270) | 16.0 | 240 | --- | (4.5) | --- | 3.0 | |
| 17 | 240 | 15.8 | --- | --- | --- | --- | 3.1 | |
| 18 | 240 | >14.3 | --- | --- | --- | --- | 3.2 | |
| 19 | 240 | 15.3 | --- | --- | --- | --- | 2.3 | |
| 20 | 240 | >14.0 | --- | --- | --- | --- | | |

Table 13

| Maui, Hawaii (20.8°N, 156.5°W) | | | | | | | February 1956 | | |
|--------------------------------|------|------|------|-------|-----|-----|---------------|-----------|--|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 | |
| 00 | 250 | 4.5 | | | | | 2.90 | | |
| 01 | 250 | 4.2 | | | | | 3.05 | | |
| 02 | 250 | 3.8 | | | | | 3.05 | | |
| 03 | 240 | 3.4 | | | | | 3.10 | | |
| 04 | 260 | 2.5 | | | | | 2.85 | | |
| 05 | 300 | 2.4 | | | | | 2.80 | | |
| 06 | 310 | 2.4 | | | | | 2.75 | | |
| 07 | 270 | 5.0 | | | | | 3.05 | | |
| 08 | 250 | 8.0 | 245 | --- | 120 | 2.6 | 3.9 | 3.20 | |
| 09 | 270 | 9.7 | 240 | --- | 117 | 3.2 | 3.7 | 3.05 | |
| 10 | 290 | 11.4 | 230 | (4.9) | 111 | 3.5 | 4.1 | 3.00 | |
| 11 | 290 | 12.5 | 225 | 5.0 | 111 | 3.7 | 4.5 | 3.00 | |
| 12 | 290 | 12.8 | 220 | 5.2 | 111 | 3.8 | 4.4 | 2.90 | |
| 13 | 300 | 13.7 | 220 | 5.2 | 109 | 3.7 | 4.8 | 2.80 | |
| 14 | 300 | 14.5 | 220 | (5.3) | 111 | 3.6 | 5.1 | 2.80 | |
| 15 | 290 | 14.3 | 230 | --- | 111 | 3.6 | 4.5 | 2.85 | |
| 16 | 270 | 13.5 | 235 | --- | 111 | 3.2 | 4.2 | 2.90 | |
| 17 | 260 | 12.5 | 240 | --- | 115 | 2.7 | 3.8 | 3.00 | |
| 18 | 240 | 11.5 | | --- | | 4.2 | | 3.10 | |
| 19 | 220 | 10.0 | | | | 4.1 | | 3.15 | |
| 20 | 230 | 7.6 | | | | 2.3 | | 2.90 | |
| 21 | 250 | 6.8 | | | | 2.7 | | 2.95 | |
| 22 | 240 | 6.4 | | | | 2.1 | | 3.10 | |
| 23 | 230 | 5.0 | | | | 1.3 | | 3.10 | |

Time: 150.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 15

| Guam I. (13.6°N, 144.9°E) | | | | | | | February 1956 | | |
|---------------------------|-------|------|------|------|-----|-----|---------------|-----------|--|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 | |
| 00 | 220 | 8.7 | | | | 2.6 | | 3.2 | |
| 01 | 220 | 8.5 | | | | 2.1 | | 3.3 | |
| 02 | 220 | 7.6 | | | | 1.6 | | 3.3 | |
| 03 | 230 | 5.8 | | | | 1.2 | | 3.2 | |
| 04 | 240 | 5.0 | | | | 1.9 | | 3.2 | |
| 05 | 240 | 4.6 | | | | 1.8 | | 3.2 | |
| 06 | 240 | 3.6 | | | | 1.9 | | 3.25 | |
| 07 | 250 | 6.2 | | --- | --- | 2.5 | | 3.2 | |
| 08 | 240 | 9.3 | 240 | --- | 115 | 2.8 | 3.2 | 3.3 | |
| 09 | --- | 11.0 | 225 | --- | 111 | 3.2 | 3.8 | 3.2 | |
| 10 | (280) | 12.0 | 220 | --- | 111 | 3.5 | 4.0 | 2.9 | |
| 11 | (290) | 11.7 | 210 | --- | 111 | 3.6 | 3.6 | 2.6 | |
| 12 | (280) | 10.4 | 200 | 5.0 | 112 | 3.6 | | 2.5 | |
| 13 | --- | 10.7 | 200 | --- | 112 | 3.6 | | 2.4 | |
| 14 | --- | 10.5 | 200 | --- | 113 | 3.6 | 3.8 | 2.4 | |
| 15 | --- | 10.8 | <210 | --- | 111 | 3.4 | 3.8 | 2.4 | |
| 16 | --- | 10.9 | 220 | --- | 111 | 3.1 | 3.9 | 2.5 | |
| 17 | --- | 11.5 | 240 | --- | 115 | 2.8 | 3.3 | 2.7 | |
| 18 | 260 | 12.0 | | --- | | 2.8 | | 2.75 | |
| 19 | 300 | 11.7 | | | | 2.1 | | 2.7 | |
| 20 | 300 | 11.0 | | | | | | 2.65 | |
| 21 | 250 | 10.4 | | | | 2.0 | | 2.8 | |
| 22 | 240 | 10.3 | | | | 2.9 | | 3.0 | |
| 23 | 230 | 9.0 | | | | 3.5 | | 3.2 | |

Time: 150.0°E.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 17

| Resolute Bay, Canada (74.7°N, 94.9°W) | | | | | | | January 1956 | | |
|---------------------------------------|------|------|------|------|-----|-----|--------------|-----------|--|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 | |
| 00 | 260 | 3.2 | | | | | 3.1 | | |
| 01 | 240 | 3.1 | | | | | 3.0 | | |
| 02 | 250 | 3.0 | | | | | 3.0 | | |
| 03 | 260 | 2.9 | | | | | 3.0 | | |
| 04 | 240 | 2.9 | | | | | 1.2 | 2.9 | |
| 05 | 250 | 2.9 | | | | | 4.0 | 3.0 | |
| 06 | 270 | 3.0 | | --- | --- | 4.0 | | 2.95 | |
| 07 | 270 | 2.9 | | --- | --- | 4.0 | | (3.0) | |
| 08 | 270 | 3.1 | | --- | --- | 2.0 | | 3.0 | |
| 09 | 240 | 3.8 | | --- | --- | | 2.9 | | |
| 10 | 250 | 3.8 | | --- | --- | | 3.0 | | |
| 11 | 250 | 4.1 | | 120 | 1.3 | 2.5 | | 3.0 | |
| 12 | 250 | 4.2 | | 120 | 1.4 | | 3.15 | | |
| 13 | 240 | 4.9 | | 110 | 1.2 | | 3.0 | | |
| 14 | 240 | 5.0 | | 110 | 1.2 | | 3.1 | | |
| 15 | 230 | 5.1 | | --- | 1.1 | | 3.0 | | |
| 16 | 240 | 4.3 | | | | | 3.0 | | |
| 17 | 240 | 4.3 | | | | | 3.1 | | |
| 18 | 250 | 4.0 | | | | | 1.4 | 3.0 | |
| 19 | 240 | 4.0 | | | | | 2.0 | (3.05) | |
| 20 | 250 | 4.0 | | | | | 3.0 | (3.0) | |
| 21 | 250 | 3.8 | | | | | 4.0 | (3.0) | |
| 22 | 250 | 3.2 | | | | | 3.0 | | |
| 23 | 240 | 3.4 | | | | | 3.0 | | |

Time: 90.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 14

| Puerto Rico, W. I. (18.5°N, 67.2°W) | | | | | | | February 1956 | | |
|-------------------------------------|------|------|------|------|-----|-----|---------------|-----------|--|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 | |
| 00 | 270 | | 5.4 | | | | | 2.90 | |
| 01 | 270 | | 5.0 | | | | | 3.00 | |
| 02 | 270 | | 4.9 | | | | | 3.10 | |
| 03 | 250 | | 4.5 | | | | | 3.10 | |
| 04 | 270 | | 4.1 | | | | | 3.00 | |
| 05 | 280 | | 3.6 | | | | | 2.80 | |
| 06 | 290 | | 3.8 | | | | | 2.85 | |
| 07 | 250 | | 5.4 | | | | | 3.15 | |
| 08 | 240 | | 8.2 | 240 | | | 119 | 2.5 | |
| 09 | 260 | | 9.5 | 235 | | | 117 | 3.1 | |
| 10 | 270 | | 10.9 | 230 | | | 115 | 3.5 | |
| 11 | 270 | | 11.4 | 220 | | | 115 | 3.6 | |
| 12 | 280 | | 10.8 | 220 | | | 111 | 3.8 | |
| 13 | 285 | | 11.1 | 220 | | | 115 | (3.7) | |
| 14 | 290 | | 10.8 | 220 | | | 112 | 3.7 | |
| 15 | 300 | | 10.5 | 230 | | | 115 | 3.5 | |
| 16 | 290 | | 9.7 | 230 | | | 119 | 3.6 | |
| 17 | 260 | | 9.8 | 250 | | | 119 | 2.9 | |
| 18 | 250 | | 9.6 | | | | | 3.00 | |
| 19 | 235 | | 9.2 | | | | | 3.10 | |
| 20 | 230 | | 7.8 | | | | | 2.0 | |
| 21 | 250 | | 6.2 | | | | | 2.95 | |
| 22 | 270 | | 5.9 | | | | | 2.90 | |
| 23 | 260 | | 5.7 | | | | | 2.95 | |

Time: 60.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 16

| Panama Canal Zone (9.4°N, 79.9°W) | | | | | | | February 1956 | | |
|-----------------------------------|------|------|--------|------|-----|-----|---------------|-----------|--|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 | |
| 00 | 230 | | 7.1 | | | | | 3.25 | |
| 01 | 230 | | 4.3 | | | | | 3.30 | |
| 02 | 240 | | 3.6 | | | | | 3.10 | |
| 03 | 250 | | 3.2 | | | | | 3.00 | |
| 04 | 270 | | 3.0 | | | | | 1.9 | |
| 05 | 280 | | 2.8 | | | | | 2.90 | |
| 06 | 290 | | 3.0 | | | | | 2.6 | |
| 07 | 260 | | 6.6 | | | | | 3.20 | |
| 08 | 260 | | 9.0 | 240 | | | 117 | (2.9) | |
| 09 | 270 | | 11.0 | 230 | | | 115 | (3.3) | |
| 10 | 280 | | 11.9 | 215 | | | 114 | 3.6 | |
| 11 | 290 | | 11.8 | 210 | | | 113 | (3.9) | |
| 12 | 300 | | 12.0 | 205 | | | 111 | (4.0) | |
| 13 | 310 | | 12.2 | 210 | | | 111 | 4.2 | |
| 14 | 320 | | 12.3 | 220 | | | 110 | (3.7) | |
| 15 | 320 | | 12.1 | 230 | | | 113 | 4.2 | |
| 16 | 300 | | 12.1 | 240 | | | 110 | 3.2 | |
| 17 | 270 | | 11.8 | 245 | | | 116 | 2.9 | |
| 18 | 240 | | 11.0 | | | | | 3.4 | |
| 19 | 240 | | (10.4) | | | | | 3.3 | |
| 20 | 230 | | (9.8) | | | | | 3.05 | |
| 21 | 230 | | (8.7) | | | | | 2.1 | |
| 22 | 240 | | (7.4) | | | | | 3.00 | |
| 23 | 240 | | 7.8 | | | | | 3.00 | |

Time: 75.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 17

| Baker Lake, Canada (64.3°N, 96.0°W) | | | | | | | January 1956 | | |
|-------------------------------------|------|------|------|------|-----|-----|--------------|-----------|-----|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 | |
| 00 | 280 | | 3.2 | | | | 110 | 1.3 | 5.3 |
| 01 | 280 | | 2.9 | | | | 115 | 1.3 | 6.0 |
| 02 | 280 | | 2.9 | | | | 120 | 1.1 | 6.0 |
| 03 | 280 | | 2.6 | | | | 130 | 1.0 | 4.8 |
| 04 | 300 | | 2.7 | | | | 120 | 1.2 | 4.2 |
| 05 | 300 | | 2.6 | | | | 120 | 1.3 | 4.4 |
| 06 | 280 | | 2.7 | | | | 125 | 1.5 | 4.7 |
| 07 | 300 | | 3.2 | | | | 110 | 1.6 | 5.0 |
| 08 | 300 | | 3.1 | | | | 115 | 2.0 | 5.1 |
| 09 | 290 | | 3.7 | | | | 115 | 2.1 | 5.0 |
| 10 | 270 | | 4.6 | | | | 110 | 2.3 | 4.0 |
| 11 | 280 | | 5.0 | 270 | | | 110 | 2.4 | 4.5 |
| 12 | 270 | | 5.2 | 260 | | | 110 | 2.7 | 3.0 |
| | | | | | | | | | |

Table 19

| Reykjavik, Iceland (64.1°N, 21.8°W) | | | | | | | January 1956 | |
|-------------------------------------|-------|------|------|------|-----|--------|--------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | --- | | | | 5.0 | | | |
| 01 | --- | | | | 4.2 | | | |
| 02 | --- | | | | 4.4 | ---- | | |
| 03 | --- | | | | 4.2 | ---- | | |
| 04 | --- | | | | 3.8 | ---- | | |
| 05 | (2.5) | | | | 3.6 | ---- | | |
| 06 | (3.0) | | | | | (3.10) | | |
| 07 | (2.6) | | | | | (2.80) | | |
| 08 | (2.4) | | | | | (3.00) | | |
| 09 | (3.5) | | | | | (3.10) | | |
| 10 | 5.0 | | | | | 3.30 | | |
| 11 | 6.0 | | | | | 3.30 | | |
| 12 | 6.5 | | | | | 3.30 | | |
| 13 | 6.9 | | | | | 3.35 | | |
| 14 | (6.4) | | | | | (3.25) | | |
| 15 | (5.8) | | | | | (3.35) | | |
| 16 | (4.5) | | | | | (3.20) | | |
| 17 | (3.8) | | | | 2.5 | (3.25) | | |
| 18 | --- | | | | 3.8 | ---- | | |
| 19 | --- | | | | 4.3 | ---- | | |
| 20 | --- | | | | 4.0 | ---- | | |
| 21 | --- | | | | 4.1 | ---- | | |
| 22 | --- | | | | 5.0 | ---- | | |
| 23 | --- | | | | 5.8 | ---- | | |

Time: 15.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 16.2 seconds.

Table 21

| Oe Bilt, Holland (52.1°N, 5.2°E) | | | | | | | January 1956 | |
|----------------------------------|------|-------|------|------|-----|-----|--------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 300 | (2.8) | | | | | 2.3 | |
| 01 | 300 | 2.8 | | | | | 2.3 | |
| 02 | 305 | (2.5) | | | | | 2.3 | |
| 03 | 300 | (2.2) | | | | | 2.3 | |
| 04 | 300 | (2.2) | | | | | 2.2 | |
| 05 | 270 | (2.3) | | | | | 2.5 | |
| 06 | 270 | (2.2) | | | | | 2.7 | |
| 07 | 250 | 3.0 | | | | | 2.8 | |
| 08 | 220 | 5.4 | | | 130 | 1.9 | 3.2 | |
| 09 | 220 | 6.8 | --- | --- | 130 | 2.2 | 3.3 | |
| 10 | 220 | 7.4 | 230 | 3.4 | 120 | 2.5 | 3.3 | |
| 11 | 230 | 8.0 | 210 | 3.6 | 120 | 2.6 | 3.3 | |
| 12 | 225 | 8.0 | 220 | 3.6 | 120 | 2.7 | 3.3 | |
| 13 | 230 | 8.0 | 220 | 3.4 | 120 | 2.7 | 3.3 | |
| 14 | 225 | 7.6 | 230 | 3.4 | 120 | 2.4 | 3.3 | |
| 15 | 220 | 7.0 | | | 130 | 2.1 | 3.3 | |
| 16 | 220 | 6.7 | --- | --- | | | 3.2 | |
| 17 | 220 | 5.6 | | | | | 3.2 | |
| 18 | 220 | 4.3 | | | | | 3.1 | |
| 19 | 255 | 3.5 | | | | | 2.7 | |
| 20 | 200 | 3.0 | | | | | 2.6 | |
| 21 | 290 | 2.8 | | | | | 2.5 | |
| 22 | 300 | 2.8 | | | | | 2.45 | |
| 23 | 300 | (2.9) | | | | | 2.3 | |

Time: 0.0°.

Sweep: 0.8 Mc to 20.0 Mc in 20 seconds.

Table 23

| Schwarzenburg, Switzerland (46.0°N, 7.3°E) | | | | | | | January 1956 | |
|--|------|------|------|------|-----|-----|--------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 290 | 3.4 | | | | | 3.2 | |
| 01 | 280 | 3.3 | | | | | 3.2 | |
| 02 | 300 | 3.2 | | | | | 3.2 | |
| 03 | 300 | 3.1 | | | | | 3.2 | |
| 04 | 290 | 3.0 | | | | | 3.2 | |
| 05 | 280 | 2.6 | | | | | 3.3 | |
| 06 | 250 | 2.6 | | | | | 3.4 | |
| 07 | 260 | 2.6 | | | | | 3.4 | |
| 08 | 200 | 4.6 | --- | --- | | | 3.7 | |
| 09 | 200 | 6.9 | | | 100 | 2.1 | 3.8 | |
| 10 | 200 | 8.5 | | | 100 | 2.5 | 3.8 | |
| 11 | 200 | 8.6 | | | 100 | 2.7 | 3.8 | |
| 12 | 200 | 8.8 | | | 100 | 2.9 | 3.8 | |
| 13 | 200 | 8.5 | | | 100 | 2.9 | 3.7 | |
| 14 | 200 | 8.5 | | | 100 | 2.8 | 3.7 | |
| 15 | 200 | 8.4 | | | 100 | 2.6 | 3.8 | |
| 16 | 200 | 7.5 | | | 100 | 2.4 | 3.7 | |
| 17 | 200 | 7.0 | | | 100 | 2.0 | 3.8 | |
| 18 | 200 | 6.0 | | | | | 3.7 | |
| 19 | 200 | 4.6 | | | | | 3.7 | |
| 20 | 210 | 3.8 | | | | | 3.5 | |
| 21 | 270 | 3.5 | | | | | 3.3 | |
| 22 | 295 | 3.2 | | | | | 3.1 | |
| 23 | 300 | 3.2 | | | | | 3.1 | |

Time: 15.0°E.

Sweep: 1.0 Mc to 25.0 Mc in 30 seconds.

Table 20

| Churchill, Canada (58.8°N, 94.2°W) | | | | | | | January 1956 | |
|------------------------------------|------|-------|------|------|-----|-----|--------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 300 | (3.4) | | | | | 120 | 2.8 |
| 01 | 320 | 3.5 | | | | | 120 | 2.6 |
| 02 | 310 | (3.5) | | | | | 125 | 2.8 |
| 03 | 300 | 3.3 | | | | | 125 | 2.0 |
| 04 | 300 | 3.6 | | | | | 125 | 2.5 |
| 05 | 320 | (3.5) | | | | | 120 | 2.5 |
| 06 | 340 | 3.9 | --- | --- | | | 120 | 3.0 |
| 07 | 330 | 3.5 | --- | --- | | | 115 | 3.0 |
| 08 | 320 | 3.6 | --- | --- | | | 110 | 2.8 |
| 09 | 290 | 4.9 | --- | --- | | | 120 | 2.9 |
| 10 | 270 | 6.1 | --- | --- | | | 120 | 2.9 |
| 11 | 260 | 7.0 | --- | --- | | | 120 | 2.5 |
| 12 | 260 | 8.0 | --- | --- | | | 120 | 2.6 |
| 13 | 260 | 8.8 | --- | --- | | | 120 | 2.6 |
| 14 | 250 | 9.1 | --- | --- | | | 130 | 2.4 |
| 15 | 250 | 9.0 | --- | --- | | | 130 | 2.4 |
| 16 | 250 | 8.0 | | | | | 130 | 2.0 |
| 17 | 260 | 5.8 | | | | | 130 | 2.3 |
| 18 | 290 | 4.8 | | | | | 130 | 2.8 |
| 19 | 300 | 4.4 | | | | | 115 | 2.7 |
| 20 | 300 | 4.2 | | | | | 120 | 2.8 |
| 21 | 300 | 4.0 | | | | | 120 | 3.0 |
| 22 | 300 | 3.8 | | | | | 120 | 2.9 |
| 23 | 300 | 3.6 | --- | --- | | | 6.0 | --- |

Time: 90.0°W.

Sweep: 0.6 Mc to 15.0 Mc in 16 seconds.

Table 22

| Winnipeg, Canada (49.9°N, 97.4°W) | | | | | | | January 1956 | |
|-----------------------------------|------|------|------|------|-----|-----|--------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 310 | 2.6 | | | | | <1.7 | 2.8 |
| 01 | 310 | 2.6 | | | | | <1.7 | 2.8 |
| 02 | 300 | 2.6 | | | | | 3.0 | |
| 03 | 320 | 2.6 | | | | | <1.8 | 2.75 |
| 04 | 330 | 2.5 | | | | | 3.0 | 2.7 |
| 05 | 320 | 2.6 | | | | | <2.0 | 2.75 |
| 06 | 310 | 2.2 | | | | | <1.7 | 2.8 |
| 07 | 300 | 2.0 | | | | | <1.7 | 2.9 |
| 08 | 270 | 3.6 | --- | --- | | | <1.7 | 2.9 |
| 09 | 250 | 5.5 | | | | | 120 | 2.0 |
| 10 | 250 | 6.9 | 250 | --- | | | 120 | 2.5 |
| 11 | 250 | 7.8 | 240 | --- | | | 130 | 2.8 |
| 12 | 260 | 8.5 | 240 | 3.9 | 120 | 2.9 | | 3.0 |
| 13 | 260 | 8.9 | 240 | 3.8 | 125 | 2.9 | | 3.0 |
| 14 | 260 | 9.3 | 240 | --- | 120 | 2.9 | | 3.0 |
| 15 | 260 | 9.9 | 250 | --- | 125 | 2.8 | | 3.0 |
| 16 | 240 | 0.9 | | | | | 130 | 2.3 |
| 17 | 240 | 0.6 | | | | | | 3.0 |
| 18 | 230 | 6.9 | | | | | <1.7 | 3.0 |
| 19 | 240 | 5.5 | | | | | <1.7 | 3.0 |
| 20 | 260 | 3.9 | | | | | <1.7 | 3.0 |
| 21 | 260 | 3.1 | | | | | <1.7 | 2.9 |
| 22 | 290 | 2.9 | | | | | <1.7 | 2.8 |
| 23 | 300 | 2.6 | | | | | <1.7 | 2.8 |

Time: 90.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 15 seconds.

Table 24

| Ottawa, Canada (45.4°N, 75.9°W) | | | | | | | January 1956 | |
|---------------------------------|------|------|------|------|-----|-----|--------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 300 | 2.8 | | | | | <1.6 | 2.9 |
| 01 | 300 | 2.7 | | | | | <1.6 | 2.9 |
| 02 | 300 | 2.6 | | | | | <1.6 | 2.9 |
| 03 | 280 | 2.5 | | | | | <1.6 | 2.9 |
| 04 | 280 | 2.5 | | | | | <1.6 | 3.0 |
| 05 | 290 | 2.4 | | | | | <1.6 | 3.0 |
| 06 | 280 | 2.2 | | | | | <1.6 | 3.0 |
| 07 | 280 | 2.6 | | | | | <1.6 | 3.0 |
| 08 | 230 | 7.0 | 230 | --- | | | 120 | 2.4 |
| 09 | 240 | 8.4 | 230 | 4.0 | 120 | 2.9 | | 3.4 |
| 10 | 240 | 8.4 | 230 | 4.0 | 110 | 3.0 | | 3.3 |
| 11 | 250 | 9.1 | 230 | 4.0 | 110 | 3.0 | | 3.2 |
| 12 | 250 | 9.3 | 230 | 4.1 | 115 | 3.0 | | 3.2 |
| 13 | 250 | 9.0 | 230 | 4.0 | 110 | 3.1 | | 3.2 |
| 14 | 250 | 9.5 | 230 | 4.0 | 115 | 2.9 | | 3.2 |
| 15 | 240 | 9.5 | 240 | 3.6 | 115 | 2.7 | | 3.2 |
| 16 | 230 | 9.0 | 240 | --- | 120 | 2.2 | | 3.2 |
| 17 | 230 | 8.4 | | | | | 1.7 | 3.2 |
| 18 | 230 | 7.0 | | | | | | <1.6 |
| 19 | 230 | 5.7 | | | | | | <1.6 |
| 20 | 250 | 4.3 | | | | | | <1.6 |
| 21 | 260 | 3.8 | | | | | | <1.6 |
| 22 | 260 | 3.2 | | | | | | <1.6 |
| | | | | | | | | |

Table 25

| Leopoldville, Belgian Congo (4.4°S, 15.2°E) | | | | | | | | January 1954 |
|---|------|-------|------|------|-----|-----|------|--------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 260 | 7.0 | | | | | 2.7 | |
| 01 | 245 | 6.2 | | | | | 2.8 | |
| 02 | 240 | 6.0 | | | | | 2.8 | |
| 03 | 250 | 5.0 | | | | 1.5 | 2.75 | |
| 04 | 270 | 4.1 | | | | | 2.7 | |
| 05 | 265 | 4.6 | --- | --- | 140 | 1.8 | 2.3 | 2.8 |
| 06 | 255 | 6.9 | 240 | --- | 115 | 2.5 | 3.1 | 2.8 |
| 07 | 295 | 8.0 | 230 | --- | 110 | 3.2 | | 2.6 |
| 08 | 325 | 8.9 | 220 | 5.2 | 110 | 3.6 | | 2.4 |
| 09 | 360 | 9.5 | 220 | 5.1 | 110 | 3.7 | | 2.3 |
| 10 | 465 | 10.0 | 220 | 5.3 | 110 | 4.0 | | 2.2 |
| 11 | 400 | 11.2 | 210 | 5.1 | 110 | 4.0 | | 2.3 |
| 12 | 360 | 11.8 | 210 | 5.0 | 110 | 4.0 | | 2.4 |
| 13 | 360 | 11.6 | 210 | 5.0 | 110 | 3.8 | | 2.4 |
| 14 | 360 | 11.5 | 220 | 5.0 | 110 | 3.5 | | 2.4 |
| 15 | 380 | 11.1 | 225 | 5.0 | 110 | 3.2 | | 2.3 |
| 16 | 340 | 11.2 | 240 | --- | 110 | 2.6 | 3.1 | 2.4 |
| 17 | 280 | 10.8 | 270 | --- | --- | 2.9 | | 2.4 |
| 18 | 310 | 10.2 | | | | 2.1 | | 2.4 |
| 19 | 310 | 10.4 | | | | 2.0 | | 2.4 |
| 20 | 260 | >11.0 | | | | | 2.6 | |
| 21 | 230 | >11.0 | | | | | 2.8 | |
| 22 | 225 | 9.0 | | | | | 2.8 | |
| 23 | 230 | 7.1 | | | | | 2.7 | |

Time: 0.0°.

Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 27

| Resolute Bay, Canada (74.7°N, 94.9°W) | | | | | | | | December 1955 |
|---------------------------------------|------|------|------|------|-----|------|--------|---------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 250 | 3.2 | | | | <1.0 | 3.0 | |
| 01 | 250 | 3.2 | | | | 2.2 | 3.0 | |
| 02 | 250 | 3.2 | | | | <1.0 | 3.0 | |
| 03 | 250 | 3.2 | | | | <1.5 | 3.1 | |
| 04 | 260 | 2.9 | | | | 4.0 | 3.0 | |
| 05 | 260 | 3.0 | | | | 4.0 | 3.0 | |
| 06 | 260 | 3.1 | | | | 3.8 | 3.1 | |
| 07 | 260 | 3.1 | | | | 3.5 | 3.0 | |
| 08 | 260 | 3.2 | | | | 3.8 | 3.0 | |
| 09 | 250 | 4.0 | | | | 2.0 | 2.9 | |
| 10 | 230 | 4.5 | | | | <1.0 | 3.05 | |
| 11 | 230 | 4.6 | | | | <1.0 | 3.0 | |
| 12 | 230 | 5.0 | | | | <1.0 | 3.1 | |
| 13 | 230 | 5.0 | | | | 1.5 | (3.05) | |
| 14 | 230 | 4.9 | | | | <1.0 | 3.0 | |
| 15 | 230 | 5.0 | | | | <1.0 | 3.1 | |
| 16 | 230 | 4.7 | | | | <1.0 | (3.2) | |
| 17 | 240 | 4.6 | | | | <1.0 | 3.05 | |
| 18 | 240 | 5.0 | | | | 1.2 | 3.1 | |
| 19 | 240 | 4.2 | | | | 3.6 | 3.0 | |
| 20 | 240 | 4.3 | | | | 2.5 | 3.1 | |
| 21 | 240 | 3.9 | | | | <1.9 | (3.1) | |
| 22 | 250 | 3.7 | | | | <1.8 | 3.0 | |
| 23 | 240 | 3.5 | | | | 3.0 | 3.0 | |

Time: 90.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 29

| Reykjavik, Iceland (64.1°N, 21.8°W) | | | | | | | | December 1955 |
|-------------------------------------|-------|-------|------|------|-----|------|--------|---------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | <350 | (3.0) | | | | 3.3 | --- | |
| 01 | 340 | (2.8) | | | | 3.8 | --- | |
| 02 | 320 | (3.2) | | | | 3.8 | --- | |
| 03 | 300 | --- | | | | 3.0 | | |
| 04 | 300 | (3.2) | | | | <2.5 | --- | |
| 05 | 290 | (3.2) | | | | 2.5 | (2.9) | |
| 06 | 280 | (3.2) | | | | 1.7 | --- | |
| 07 | 270 | (3.1) | | | | <1.5 | (3.0) | |
| 08 | 280 | 2.6 | | | | <1.5 | (2.95) | |
| 09 | 260 | 3.4 | | | | <1.6 | 3.05 | |
| 10 | 230 | 5.2 | | | | 3.3 | | |
| 11 | 230 | 6.2 | | | | 3.3 | | |
| 12 | 230 | 7.2 | --- | --- | | 3.3 | | |
| 13 | 220 | 7.2 | --- | --- | | 3.3 | | |
| 14 | 220 | 7.2 | | | | 3.3 | | |
| 15 | 220 | (6.4) | | | | <1.6 | 3.2 | |
| 16 | 240 | (4.9) | | | | 1.8 | (3.2) | |
| 17 | 250 | 4.3 | | | | <1.7 | 3.2 | |
| 18 | 260 | (3.6) | | | | 2.9 | (3.1) | |
| 19 | 290 | (3.1) | | | | 2.8 | (3.0) | |
| 20 | (300) | (2.8) | | | | 3.2 | --- | |
| 21 | (300) | (2.6) | | | | 3.8 | --- | |
| 22 | --- | --- | | | | 3.6 | | |
| 23 | (340) | --- | | | | 3.8 | | |

Time: 15.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 16.2 seconds.

Table 26

| Elisabethville, Belgian Congo (11.6°S, 27.5°E) | | | | | | | | January 1956 |
|--|------|------|------|------|-----|-----|-----|--------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 240 | 7.0 | | | | | | 1.4 |
| 01 | 235 | 5.9 | | | | | | 2.7 |
| 02 | 250 | 4.9 | | | | | | 1.6 |
| 03 | 265 | 3.8 | | | | | | 1.8 |
| 04 | 270 | 4.4 | --- | --- | --- | --- | --- | 2.2 |
| 05 | 255 | 6.2 | 240 | --- | 115 | 2.5 | 2.6 | 2.8 |
| 06 | 310 | 7.3 | 235 | --- | 110 | 3.1 | 3.5 | 2.6 |
| 07 | 335 | 8.4 | 225 | 4.9 | 110 | 3.5 | 3.6 | 2.45 |
| 08 | 350 | 9.6 | 220 | 5.0 | 110 | 3.8 | 3.9 | 2.3 |
| 09 | 365 | 10.1 | 215 | 5.0 | 110 | 4.0 | | 2.3 |
| 10 | 370 | 10.6 | 210 | 5.0 | 110 | 4.0 | | 2.35 |
| 11 | 350 | 11.1 | 220 | 5.0 | 110 | 4.0 | 4.0 | 2.45 |
| 12 | 330 | 11.3 | 220 | 5.0 | 110 | 4.0 | | 2.5 |
| 13 | 320 | 10.8 | 225 | 4.9 | 110 | 3.7 | 4.1 | 2.5 |
| 14 | 325 | 10.0 | 220 | 4.7 | 110 | 3.3 | 4.0 | 2.4 |
| 15 | 300 | 9.6 | 230 | --- | 110 | 2.8 | 3.8 | 2.4 |
| 16 | 300 | 9.8 | 250 | --- | 115 | 2.1 | 2.8 | 2.45 |
| 17 | 270 | 9.6 | | | | | | 2.4 |
| 18 | 285 | 10.0 | | | | | | 2.6 |
| 19 | 265 | 10.3 | | | | | | 2.6 |
| 20 | 250 | 10.2 | | | | | | 2.7 |
| 21 | 240 | 8.9 | | | | | | 1.8 |
| 22 | 255 | >8.0 | | | | | | 2.6 |
| 23 | 250 | 7.4 | | | | | | 2.6 |

Time: 0.0°.

Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 28

| Baker Lake, Canada (64.3°N, 96.0°W) | | | | | | | | December 1955 |
|-------------------------------------|------|------|------|------|-----|-----|-----|---------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 260 | 3.1 | | | | 120 | 5.1 | 3.0 |
| 01 | 260 | 3.2 | | | | --- | 4.7 | 3.0 |
| 02 | 280 | 3.1 | | | | 125 | 4.4 | 3.0 |
| 03 | 270 | 3.0 | | | | 135 | 4.6 | 3.0 |
| 04 | 280 | 3.0 | | | | 130 | 5.0 | 3.0 |
| 05 | 280 | 3.3 | | | | 130 | 4.4 | 3.0 |
| 06 | 280 | 3.4 | | | | 125 | 4.1 | 3.0 |
| 07 | 280 | 3.3 | | | | 120 | 4.0 | 3.0 |
| 08 | 300 | 3.4 | | | | 120 | 4.5 | 2.95 |
| 09 | 300 | 4.0 | | | | 115 | 4.5 | 3.0 |
| 10 | 280 | 4.9 | | | | 110 | 4.0 | 3.1 |
| 11 | 260 | 5.3 | | | | 110 | 4.0 | 3.1 |
| 12 | 250 | 6.0 | | | | 110 | 3.9 | 3.1 |
| 13 | 250 | 7.3 | | | | 110 | 2.9 | 3.1 |
| 14 | 250 | 8.1 | | | | 110 | 3.8 | 3.1 |
| 15 | 250 | 6.1 | | | | 110 | 3.2 | 3.0 |
| 16 | 260 | 4.8 | | | | 120 | 4.2 | 3.0 |
| 17 | 280 | 4.4 | | | | 120 | 3.4 | 3.0 |
| 18 | 280 | 4.2 | | | | 125 | 4.0 | 3.0 |
| 19 | 270 | 4.0 | | | | 125 | 4.3 | 3.05 |
| 20 | 260 | 3.9 | | | | 125 | 5.0 | 3.0 |
| 21 | 270 | 3.5 | | | | 130 | 7.0 | 3.0 |
| 22 | 270 | 3.3 | | | | 120 | 6.0 | 2.9 |
| 23 | 270 | 3.0 | | | | 140 | 6.0 | 3.0 |

Time: 90.0°W.

Sweep: 0.6 Mc to 15.0 Mc in 16 seconds.

Table 30

| Churchill, Canada (50.0°N, 94.2°W) | | | | | | | | December 1955 |
|------------------------------------|------|-------|------|------|-----|-----|-----|---------------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 310 | (3.5) | | | | 120 | 6.0 | --- |
| 01 | 300 | (3.4) | | | | 125 | 2.4 | --- |
| 02 | 290 | 3.5 | | | | 130 | 4.8 | --- |
| 03 | 300 | 3.5 | | | | 120 | 2.2 | 4.2 |
| 04 | 320 | 3.8 | | | | 120 | 2.8 | 4.3 |
| 05 | 320 | 3.8 | | | | 110 | 4.7 | 3.2 |
| 06 | 300 | 4.0 | | | | 125 | 4.6 | 3.2 |
| 07 | 300 | 3.8 | | | | 120 | 3.0 | 4.3 |
| 08 | 300 | 3.6 | | | | 110 | 2.6 | 4.3 |
| 09 | 260 | 5.0 | | | | 110 | 2.2 | 3.3 |
| 10 | 250 | 6.9 | | | | 120 | 2.2 | 3.4 |
| 11 | 240 | 8.0 | | | | 120 | 2.3 | 2.4 |
| 12 | 250 | 8.4 | --- | --- | | 120 | 2.5 | 3.0 |
| 13 | 250 | 9.0 | --- | --- | | 120 | 2.8 | 3.3 |
| 14 | 250 | 10.0 | | | | 120 | 2.4 | 3.3 |
| 15 | 240 | 9.0 | | | | 120 | 2.2 | 3.3 |

Table 31

| Lindau/Harz, Germany (51.6°N, 10.1°E) | | | | | | | December 1955 | |
|---------------------------------------|------|------|------|------|-----|-----|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 300 | 3.0 | | | 2.4 | | 2.9 | |
| 01 | 290 | 3.2 | | | 2.4 | | 2.9 | |
| 02 | 290 | 3.2 | | | 2.6 | | 2.9 | |
| 03 | 270 | 3.2 | | | 2.4 | | 3.0 | |
| 04 | 265 | 2.8 | | | 2.4 | | 3.0 | |
| 05 | 250 | 2.6 | | | 2.4 | | 3.1 | |
| 06 | 240 | 2.6 | | | 2.2 | | 3.3 | |
| 07 | 250 | 2.4 | | | 2.4 | | 3.2 | |
| 08 | 225 | 4.4 | --- | E | 2.4 | | 3.4 | |
| 09 | 210 | 6.6 | 130 | 1.9 | 3.2 | 3.5 | | |
| 10 | 220 | 8.0 | 110 | 2.3 | 3.5 | 3.5 | | |
| 11 | 220 | 8.4 | 105 | 2.6 | 3.8 | 3.5 | | |
| 12 | 220 | 8.6 | 105 | 2.6 | 3.9 | 3.5 | | |
| 13 | 220 | 8.4 | 110 | 2.6 | 3.9 | 3.5 | | |
| 14 | 225 | 8.4 | 110 | 2.4 | 3.9 | 3.5 | | |
| 15 | 220 | 8.0 | 115 | 2.1 | 3.8 | 3.5 | | |
| 16 | 215 | 7.0 | --- | E | 3.2 | 3.5 | | |
| 17 | 210 | 6.0 | | | 2.8 | 3.4 | | |
| 18 | 215 | 4.8 | | | 2.8 | 3.4 | | |
| 19 | 230 | 3.6 | | | 2.9 | 3.2 | | |
| 20 | 235 | 3.0 | | | 2.4 | 3.3 | | |
| 21 | 260 | 2.6 | | | 2.6 | 3.0 | | |
| 22 | 300 | 2.7 | | | 2.6 | 2.9 | | |
| 23 | 300 | 2.8 | | | 2.4 | 2.9 | | |

Time: 15.0°W.

Sweep: 1.0 Mc to 16.0 Mc in 4 minutes.

Table 33

| Ottawa, Canada (45.4°N, 75.9°W) | | | | | | | December 1955 | |
|---------------------------------|------|------|------|------|------|-----|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 290 | 2.9 | | | <1.6 | | 2.9 | |
| 01 | 290 | 2.8 | | | <1.6 | | 2.9 | |
| 02 | 300 | 3.0 | | | <1.6 | | 2.85 | |
| 03 | 290 | 3.0 | | | <1.6 | | 2.9 | |
| 04 | 270 | 3.0 | | | <1.6 | | 3.0 | |
| 05 | 270 | 3.0 | | | <1.6 | | 3.0 | |
| 06 | 270 | 2.8 | | | <1.6 | | 3.0 | |
| 07 | 260 | 3.0 | | | <1.6 | | 3.0 | |
| 08 | 230 | 6.0 | 140 | 2.1 | | | 3.3 | |
| 09 | 230 | 7.5 | --- | 120 | 2.5 | | 3.4 | |
| 10 | 240 | 8.8 | 230 | --- | 115 | 2.9 | 3.4 | |
| 11 | 250 | 9.4 | 230 | 4.0 | 110 | 3.0 | 3.3 | |
| 12 | 240 | 9.5 | 230 | 4.0 | 115 | 3.0 | 3.3 | |
| 13 | 240 | 9.4 | 230 | 4.0 | 120 | 3.0 | 3.2 | |
| 14 | 240 | 9.3 | 230 | --- | 120 | 2.8 | 3.3 | |
| 15 | 240 | 9.2 | 240 | --- | 120 | 2.5 | 3.3 | |
| 16 | 220 | 9.0 | --- | --- | 115 | 2.0 | 3.3 | |
| 17 | 220 | 7.2 | | | <1.6 | | 3.3 | |
| 18 | 230 | 6.7 | | | <1.6 | | 3.1 | |
| 19 | 240 | 5.2 | | | <1.6 | | 3.2 | |
| 20 | 240 | 4.4 | | | <1.7 | | 3.1 | |
| 21 | 260 | 3.5 | | | <1.6 | | 3.0 | |
| 22 | 290 | 3.0 | | | <1.6 | | 2.9 | |
| 23 | 290 | 3.0 | | | <1.6 | | 2.9 | |

Time: 75.0°W.

Sweep: 1.0 Mc to 15.0 Mc in 15 seconds.

Table 35

| Leopoldville, Belgian Congo (4.4°S, 15.2°E) | | | | | | | December 1955 | |
|---|------|-------|------|------|-----|------|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M2000)F2 |
| 00 | 250 | 8.4 | | | | | 2.2 | |
| 01 | 250 | 0.0 | | | | | 2.3 | |
| 02 | 230 | 7.1 | | | | | 2.35 | |
| 03 | 225 | 6.0 | | | | | 2.4 | |
| 04 | 230 | 4.9 | | | | | 2.5 | |
| 05 | 250 | 6.0 | --- | --- | 130 | 2.0 | 2.5 | 2.5 |
| 06 | 255 | 7.1 | 230 | --- | 110 | 2.6 | 3.1 | 2.4 |
| 07 | 300 | 8.2 | 220 | --- | 110 | 3.2 | 2.2 | |
| 08 | 315 | 9.0 | 210 | 4.9 | 110 | 3.5 | 3.5 | 2.0 |
| 09 | 370 | 9.9 | 205 | 5.0 | 105 | 3.6 | 1.9 | |
| 10 | 485 | 10.1 | 210 | 5.0 | 110 | 3.7 | 4.0 | 1.8 |
| 11 | 480 | 10.9 | 215 | 5.3 | 110 | 3.6 | 4.1 | 1.8 |
| 12 | 440 | 11.4 | 205 | 5.1 | 110 | 3.7 | | 1.9 |
| 13 | 395 | 12.1 | 220 | 5.0 | 110 | 3.6 | | 2.0 |
| 14 | 390 | 12.0 | 230 | 5.0 | 110 | 3.4 | 3.5 | 1.9 |
| 15 | 400 | 12.2 | 220 | --- | 115 | 3.1 | 3.6 | 1.9 |
| 16 | 355 | 12.5 | 240 | --- | 120 | 2.5 | 3.3 | 2.0 |
| 17 | 200 | 11.7 | --- | --- | | 3.1 | 2.1 | |
| 18 | 295 | 11.1 | | | 3.0 | | 2.0 | |
| 19 | 310 | 11.4 | | | 2.5 | <2.1 | | |
| 20 | 270 | 13.4 | | | 2.7 | | 2.2 | |
| 21 | 230 | >13.0 | | | | | 2.5 | |
| 22 | 215 | 10.3 | | | | | 2.4 | |
| 23 | 225 | 0.9 | | | | | 2.2 | |

Time: 0.0°.

Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 32

| Winnipeg, Canada (49.9°N, 97.4°W) | | | | | | | December 1955 | |
|-----------------------------------|------|------|------|------|-----|-----|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 310 | | 2.3 | | | | <1.7 | 2.9 |
| 01 | 310 | | 2.3 | | | | <1.7 | 2.8 |
| 02 | 310 | | 2.4 | | | | <1.7 | 2.8 |
| 03 | 310 | | 2.3 | | | | <1.7 | 2.8 |
| 04 | 300 | | 2.3 | | | | <1.7 | 2.8 |
| 05 | 310 | | 2.3 | | | | <1.7 | 2.8 |
| 06 | 300 | | 2.2 | | | | <1.7 | 2.9 |
| 07 | 300 | | 2.2 | | | | <1.7 | 2.9 |
| 08 | 270 | | 3.8 | | | | 1.7 | 3.0 |
| 09 | 240 | | 5.8 | | | | --- | 3.15 |
| 10 | 240 | | 7.3 | 250 | --- | 120 | 2.5 | 3.2 |
| 11 | 250 | | 8.7 | 240 | --- | 130 | 2.8 | 3.2 |
| 12 | 250 | | 9.0 | 240 | --- | 120 | 2.8 | 3.1 |
| 13 | 250 | | 9.3 | 240 | --- | 120 | 2.8 | 3.05 |
| 14 | 250 | | 9.8 | 240 | --- | 120 | 2.7 | 3.1 |
| 15 | 240 | | 9.8 | 250 | --- | 120 | 2.4 | 3.1 |
| 16 | 230 | | 8.8 | 130 | 2.0 | | | 3.1 |
| 17 | 230 | | 7.6 | --- | --- | --- | <1.7 | 3.05 |
| 18 | 230 | | 6.3 | --- | --- | --- | <1.7 | 3.0 |
| 19 | 240 | | 5.0 | --- | --- | --- | <1.7 | 3.0 |
| 20 | 240 | | 3.9 | --- | --- | --- | <1.7 | 3.0 |
| 21 | 280 | | 2.9 | --- | --- | --- | <1.7 | 3.0 |
| 22 | 290 | | 2.4 | --- | --- | --- | <1.7 | 2.9 |
| 23 | 300 | | 2.3 | --- | --- | --- | <1.7 | 2.9 |

Time: 90.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 15 seconds.

Table 34

| White Sands, New Mexico (32.3°N, 106.5°W) | | | | | | | December 1955 | |
|---|------|------|------|------|-------|-----|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 300 | | 3.0 | | | | 2.2 | 2.8 |
| 01 | 280 | | 3.2 | | | | 1.8 | 2.9 |
| 02 | 270 | | 3.4 | | | | <1.7 | 2.9 |
| 03 | 270 | | 3.4 | | | | <1.7 | 3.0 |
| 04 | 260 | | 3.4 | | | | <1.6 | 3.0 |
| 05 | 270 | | 3.2 | | | | <1.7 | 2.8 |
| 06 | 280 | | 3.1 | | | | <1.7 | 2.9 |
| 07 | 250 | | 5.0 | | | | 2.2 | 3.1 |
| 08 | 240 | | 6.8 | 230 | --- | 120 | 2.9 | 3.3 |
| 09 | 240 | | 8.8 | 220 | --- | 120 | (3.1) | 3.3 |
| 10 | 240 | | 9.4 | 220 | --- | 110 | 5.2 | 3.3 |
| 11 | 240 | | 9.4 | 220 | --- | 110 | (3.3) | 5.2 |
| 12 | 260 | | 10.2 | 210 | (4.5) | 110 | 3.4 | 5.4 |
| 13 | 250 | | 9.8 | 220 | (4.4) | 120 | (3.3) | 4.8 |
| 14 | 250 | | 9.6 | 230 | (4.0) | 110 | 3.2 | 4.5 |
| 15 | 240 | | 9.0 | 220 | --- | 120 | 2.9 | 4.7 |
| 16 | 230 | | 8.8 | 210 | --- | 120 | 2.4 | 3.25 |
| 17 | 230 | | 8.0 | --- | --- | --- | 2.0 | 3.3 |
| 18 | 220 | | 5.9 | --- | --- | --- | 2.0 | 3.3 |
| 19 | 230 | | 4.6 | --- | --- | --- | 2.0 | 3.3 |
| 20 | 250 | | 3.2 | --- | --- | --- | 2.4 | 3.3 |
| 21 | 250 | | 3.0 | --- | --- | --- | 2.0 | 3.2 |
| 22 | 270 | | 3.0 | --- | --- | --- | 2.7 | 3.0 |
| 23 | 270 | | 2.9 | --- | --- | --- | 3.1 | 3.0 |

Time: 105.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 36

| Talara, Peru (4.6°S, 81.3°W) | | | | | | | December 1955 | |
|------------------------------|------|------|------|------|-----|-----|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 260 | | 9.4 | | | | 5.4 | (3.2) |
| 01 | 250 | | 7.8 | | | | 4.7 | 3.25 |
| 02 | 230 | | 6.2 | | | | 4.2 | 3.25 |
| 03 | 230 | | 4.8 | | | | 4.7 | 3.2 |
| 04 | 240 | | 4.2 | | | | 4.3 | 3.3 |
| 05 | 240 | | 3.4 | | | | 3.8 | 3.2 |
| 06 | 260 | | 4.3 | | | | 3.9 | 2.95 |
| 07 | 250 | | 7.7 | 250 | --- | 120 | 2.2 | 4.8 |
| 08 | --- | | 10.4 | 230 | --- | 110 | 3.0 | 5.8 |
| 09 | 290 | | 11.7 | 230 | --- | 110 | 3.3 | 5.6 |
| 10 | 300 | | 12.0 | 210 | 5.0 | 110 | 3.6 | 6.4 |
| 11 | 320 | | 12.4 | 200 | 5.0 | 110 | 3.8 | 6.6 |
| 12 | 330 | | 12.6 | | | | | |

Table 37

| Ellisabethville, Belgian Congo (11.6°S, 27.5°E) | | | | | | | December 1955 | |
|---|------|-------|------|------|-----|-----|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 250 | 7.6 | | | | | 2.3 | |
| 01 | 240 | 6.8 | | | | | 2.3 | |
| 02 | 230 | 5.9 | | | | | 2.3 | |
| 03 | 235 | 4.9 | | | | | 2.3 | |
| 04 | 245 | 5.4 | --- | --- | 140 | 1.8 | 2.0 | 2.4 |
| 05 | 275 | 6.7 | 230 | --- | 110 | 2.7 | | 2.3 |
| 06 | 310 | 7.8 | 225 | --- | 105 | 3.2 | | 2.2 |
| 07 | 340 | 9.0 | 215 | 5.0 | 105 | 3.5 | | 2.0 |
| 08 | 350 | 9.9 | 210 | 5.0 | 105 | 3.7 | | 1.9 |
| 09 | 355 | 10.3 | --- | --- | 5.0 | 105 | 3.9 | 1.9 |
| 10 | 370 | 10.8 | 210 | 5.2 | 105 | 3.9 | | 1.9 |
| 11 | 380 | 11.2 | 200 | 5.0 | 105 | 3.9 | | 1.9 |
| 12 | 360 | >11.6 | --- | 5.0 | 105 | 3.8 | | 2.0 |
| 13 | 340 | 11.6 | 225 | 4.8 | 105 | 3.6 | | 2.0 |
| 14 | 320 | 11.3 | 230 | 4.6 | 105 | 3.3 | | 2.0 |
| 15 | 310 | 11.1 | 230 | --- | 110 | 2.7 | 3.2 | 2.0 |
| 16 | 280 | 11.0 | 255 | --- | --- | 2.0 | 3.0 | 2.0 |
| 17 | 265 | 10.8 | | | | | 2.6 | 2.0 |
| 18 | 275 | 11.0 | | | | | 2.3 | 2.1 |
| 19 | 260 | 10.8 | | | | | 1.9 | 2.1 |
| 20 | 255 | 10.9 | | | | | 2.0 | 2.2 |
| 21 | 245 | 10.5 | | | | | 2.3 | |
| 22 | 235 | 9.1 | | | | | 2.2 | |
| 23 | 240 | 8.2 | | | | | 2.2 | |

Time: 0.0°.

Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 39

| Resolute Bay, Canada (74.7°N, 94.9°W) | | | | | | | November 1955 | |
|---------------------------------------|------|------|------|------|-----|-----|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 250 | 3.2 | | --- | --- | | 3.1 | |
| 01 | 250 | 3.4 | | --- | --- | | 3.05 | |
| 02 | 240 | 3.2 | | --- | --- | | 3.0 | |
| 03 | 250 | 3.1 | | --- | --- | | 3.0 | |
| 04 | 260 | 3.0 | | --- | --- | | (3.0) | |
| 05 | 270 | 3.1 | | --- | --- | | 3.1 | |
| 06 | 250 | 3.2 | | --- | --- | | 3.0 | |
| 07 | 250 | 3.4 | | --- | --- | | 3.1 | |
| 08 | 240 | 4.0 | | --- | --- | | (3.1) | |
| 09 | 240 | 4.3 | | --- | --- | | 3.1 | |
| 10 | 240 | 5.0 | | 100 | 1.5 | | 3.1 | |
| 11 | 240 | 5.0 | | 100 | 1.6 | | 3.2 | |
| 12 | 230 | 5.8 | | 100 | 1.7 | | 3.25 | |
| 13 | 230 | 5.3 | | 100 | 1.6 | | 3.2 | |
| 14 | 220 | 5.3 | | 100 | 1.4 | | 3.2 | |
| 15 | 240 | 5.0 | | --- | --- | | 3.2 | |
| 16 | 230 | 4.6 | | --- | --- | | 3.3 | |
| 17 | 230 | 4.7 | | --- | --- | | 3.2 | |
| 18 | 240 | 4.1 | | --- | --- | | (3.0) | |
| 19 | 250 | 4.2 | | --- | --- | | 3.0 | |
| 20 | 240 | 3.7 | | | | | 3.0 | |
| 21 | 240 | 3.7 | | | | | 3.1 | |
| 22 | 250 | 3.4 | | | | | 3.05 | |
| 23 | 240 | 3.2 | | | | | 3.1 | |

Time: 90.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 41

| Churchill, Canada (58.8°N, 94.2°W) | | | | | | | November 1955 | |
|------------------------------------|------|-------|------|------|-----|-------|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 280 | (3.3) | | --- | --- | 6.6 | (3.0) | |
| 01 | 300 | 3.4 | | --- | --- | 5.3 | (2.9) | |
| 02 | 300 | (3.5) | | 125 | 2.6 | 4.5 | (2.9) | |
| 03 | 320 | (3.4) | | 130 | 2.5 | 4.0 | (2.8) | |
| 04 | 300 | 3.7 | | 125 | 2.6 | 4.0 | 2.95 | |
| 05 | 340 | 3.8 | | 120 | 2.9 | 4.5 | (2.0) | |
| 06 | 340 | (3.7) | | 120 | 2.5 | 4.4 | (2.8) | |
| 07 | 350 | 3.8 | | 120 | 2.8 | 4.2 | 2.8 | |
| 08 | 300 | 4.5 | | 120 | 3.2 | 4.3 | 3.1 | |
| 09 | 270 | 5.4 | | 120 | 2.9 | 3.5 | 3.2 | |
| 10 | 260 | 6.5 | --- | 120 | 2.8 | 3.8 | 3.2 | |
| 11 | 260 | 7.0 | 250 | --- | 120 | 2.6 | | 3.3 |
| 12 | 250 | 7.8 | 240 | --- | 120 | 2.7 | | 3.2 |
| 13 | 250 | 8.2 | 260 | --- | 120 | 2.6 | | 3.25 |
| 14 | 250 | 8.9 | --- | --- | 130 | 2.5 | | 3.2 |
| 15 | 240 | 8.4 | | 130 | 2.2 | 2.4 | 3.2 | |
| 16 | 240 | 7.9 | | 125 | 2.0 | 3.0 | 3.25 | |
| 17 | 250 | 7.0 | | 130 | 2.1 | 3.0 | 3.1 | |
| 18 | 280 | 5.0 | | 120 | 2.4 | 3.0 | 3.0 | |
| 19 | 300 | 4.4 | | 125 | 2.6 | 3.4 | 3.05 | |
| 20 | 300 | 3.9 | | 120 | 2.7 | 3.6 | 2.8 | |
| 21 | 290 | 4.0 | | 115 | 3.0 | 4.6 | 3.0 | |
| 22 | 300 | 3.8 | | 125 | 2.5 | 5.0 | (3.0) | |
| 23 | 280 | 3.4 | --- | --- | 6.0 | (2.9) | | |

Time: 90.0°W.

Sweep: 0.6 Mc to 15.0 Mc in 16 seconds.

Table 38

| Huancayo, Peru (12.0°S, 75.3°W) | | | | | | | December 1955 | |
|---------------------------------|-------|-------|------|------|-----|-----|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 400 | --- | | | | | <1.6 | |
| 01 | 370 | --- | | | | | <1.6 | |
| 02 | 320 | (5.4) | | | | | <1.7 | (3.1) |
| 03 | 290 | 4.8 | | | | | <1.6 | (3.2) |
| 04 | 240 | 4.3 | | | | | <1.6 | 3.3 |
| 05 | 250 | 3.3 | | | | | <1.5 | 3.1 |
| 06 | 260 | 6.6 | | | | | 130 | 1.9 |
| 07 | (240) | 9.1 | 240 | --- | 110 | 2.7 | 9.0 | 3.0 |
| 08 | --- | 10.7 | 220 | --- | 110 | 3.2 | 11.7 | 2.8 |
| 09 | (290) | 11.5 | 210 | 4.8 | 110 | 3.6 | 11.8 | 2.6 |
| 10 | 300 | 11.7 | 210 | 5.0 | 110 | 3.8 | 12.4 | 2.4 |
| 11 | 320 | 12.0 | 210 | 5.1 | 110 | | 12.7 | 2.3 |
| 12 | 320 | 12.0 | 200 | 5.1 | 110 | | 12.7 | 2.3 |
| 13 | 310 | 12.0 | 200 | 5.0 | 110 | | 12.5 | 2.4 |
| 14 | (320) | 12.0 | 200 | 5.0 | 110 | | 11.9 | 2.4 |
| 15 | (300) | 11.9 | 200 | 4.6 | 110 | | 11.4 | 2.4 |
| 16 | --- | 11.5 | 210 | --- | 110 | 3.1 | 10.5 | 2.4 |
| 17 | (240) | 11.8 | 240 | --- | 110 | 2.7 | 9.3 | 2.4 |
| 18 | 270 | 11.5 | | | | | 120 | (2.0) |
| 19 | 300 | 10.9 | | | | | <1.6 | 2.4 |
| 20 | 350 | 10.0 | | | | | <1.6 | 2.3 |
| 21 | 390 | 9.3 | | | | | <1.7 | 2.25 |
| 22 | 400 | (8.6) | | | | | <1.6 | (2.5) |
| 23 | 400 | --- | | | | | <1.7 | --- |

Time: 75.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 40

| Baker Lake, Canada (64.3°N, 96.0°W) | | | | | | | November 1955 | |
|-------------------------------------|------|------|------|------|-----|-----|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 260 | 3.1 | | | | | 135 | 1.0 |
| 01 | 270 | 3.1 | | | | | 125 | 1.0 |
| 02 | 270 | 2.9 | | | | | 125 | 1.0 |
| 03 | 290 | 2.7 | | | | | 130 | 1.0 |
| 04 | 280 | 2.8 | | | | | 130 | 1.3 |
| 05 | 300 | 2.9 | | | | | 130 | 1.3 |
| 06 | 300 | 2.9 | | | | | 125 | 1.6 |
| 07 | 310 | 3.0 | | | | | 120 | 1.8 |
| 08 | 290 | 3.5 | | | | | 120 | 2.2 |
| 09 | 270 | 4.8 | 260 | --- | 110 | 2.6 | 5.0 | 3.1 |
| 10 | 260 | 5.8 | 260 | <3.0 | 110 | 2.6 | 3.2 | 3.1 |
| 11 | 260 | 6.4 | 260 | <3.0 | 110 | 2.6 | 3.4 | 3.1 |
| 12 | 260 | 7.5 | 260 | <3.0 | 110 | 2.4 | 2.6 | 3.1 |
| 13 | 250 | 7.2 | 260 | --- | 110 | 2.1 | 4.6 | 3.1 |
| 14 | 250 | 6.2 | --- | --- | 110 | 2.1 | 4.8 | 3.0 |
| 15 | 260 | 5.0 | --- | --- | 115 | 1.8 | 4.6 | 3.0 |
| 16 | 260 | 4.4 | | | | | 120 | 2.0 |
| 17 | 290 | 4.0 | | | | | 120 | 2.0 |
| 18 | 260 | 4.2 | | | | | 125 | 1.8 |
| 19 | 260 | 3.9 | | | | | 120 | 1.4 |
| 20 | 260 | 3.4 | | | | | 120 | 1.1 |
| 21 | 260 | 3.1 | | | | | 110 | 1.1 |
| 22 | 260 | 3.1 | | | | | 110 | 1.1 |
| 23 | 270 | 3.0 | | | | | 110 | 1.1 |

Time: 15.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 4 minutes.

Table 43

| Winnipeg, Canada (49.9°N, 97.4°W) | | | | | | | November 1955 | |
|-----------------------------------|------|------|------|------|------|------|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 300 | 2.6 | | | <1.8 | 2.9 | | |
| 01 | 310 | 2.3 | | | <1.7 | 2.8 | | |
| 02 | 310 | 2.4 | | | <1.8 | 2.9 | | |
| 03 | 310 | 2.4 | | | 2.0 | 2.9 | | |
| 04 | 310 | 2.3 | | | <1.8 | 2.9 | | |
| 05 | 310 | 2.2 | | | <1.8 | 2.85 | | |
| 06 | 320 | 2.1 | | | <1.7 | 2.9 | | |
| 07 | 300 | 2.8 | | | <1.7 | 3.0 | | |
| 08 | 260 | 5.0 | | 120 | 1.9 | 3.1 | | |
| 09 | 240 | 6.2 | 240 | --- | 130 | 2.3 | 3.2 | |
| 10 | 250 | 7.0 | 240 | 3.8 | 120 | 2.7 | 3.15 | |
| 11 | 260 | 7.9 | 230 | 4.0 | 120 | 2.9 | 3.1 | |
| 12 | 260 | 8.3 | 240 | 4.0 | 120 | 2.9 | 3.1 | |
| 13 | 260 | 8.5 | 240 | 4.0 | 120 | 2.9 | 3.1 | |
| 14 | 260 | 8.8 | 240 | 3.9 | 120 | 2.8 | 3.1 | |
| 15 | 250 | 8.7 | 250 | --- | 120 | 2.5 | 3.1 | |
| 16 | 240 | 8.1 | | --- | 2.0 | 3.2 | | |
| 17 | 230 | 7.2 | | | <1.8 | 3.1 | | |
| 18 | 230 | 6.2 | | | <1.7 | 3.1 | | |
| 19 | 240 | 5.0 | | | <1.7 | 3.0 | | |
| 20 | 250 | 3.8 | | | <1.7 | 3.0 | | |
| 21 | 280 | 3.2 | | | <1.7 | 3.0 | | |
| 22 | 290 | 2.9 | | | <1.7 | 3.0 | | |
| 23 | 300 | 2.5 | | | <1.8 | 3.0 | | |

Time: 90.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 15 seconds.

Table 45

| San Francisco, California (37.4°N, 122.2°W) | | | | | | | November 1955 | |
|---|-------|-------|------|-------|-------|--------|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 250 | (3.2) | | | (3.1) | (2.9) | | |
| 01 | 250 | (3.4) | | | (3.2) | (3.0) | | |
| 02 | <260 | (3.3) | | | (2.6) | (3.0) | | |
| 03 | (260) | (3.4) | | | (2.9) | (2.9) | | |
| 04 | <260 | (3.4) | | | (2.6) | (3.0) | | |
| 05 | (260) | (3.4) | | | (2.6) | (2.85) | | |
| 06 | (260) | (3.4) | | | (2.4) | (2.9) | | |
| 07 | 230 | (5.6) | --- | --- | <120 | (1.9) | (1.9) | (3.3) |
| 08 | 230 | (7.9) | 220 | --- | (110) | (2.3) | (3.3) | (3.5) |
| 09 | 230 | (8.8) | 210 | (4.0) | (100) | (2.6) | (4.2) | (3.4) |
| 10 | 230 | 9.0 | 200 | (4.3) | (110) | (3.0) | (3.8) | 3.4 |
| 11 | 240 | 9.2 | 200 | (4.4) | (110) | (3.1) | (3.9) | 3.2 |
| 12 | 240 | 9.7 | 210 | (4.4) | (110) | (3.3) | | 3.2 |
| 13 | 240 | (9.7) | 210 | (4.4) | (110) | 3.2 | | (3.2) |
| 14 | 240 | 9.5 | 220 | --- | (110) | (3.0) | | 3.3 |
| 15 | 230 | 9.0 | 220 | (3.3) | (110) | (2.8) | | 3.3 |
| 16 | 220 | 8.5 | --- | --- | (110) | (2.2) | | 3.4 |
| 17 | 200 | 7.0 | --- | --- | | (2.3) | | 3.4 |
| 18 | 200 | (4.9) | | | | (2.4) | | (3.4) |
| 19 | 220 | (3.8) | | | | (2.3) | | (3.3) |
| 20 | 230 | 3.1 | | | | (2.3) | | 3.3 |
| 21 | (250) | (2.9) | | | | 2.1 | | (3.1) |
| 22 | 250 | (3.0) | | | | <1.8 | | (3.0) |
| 23 | (250) | (3.2) | | | | (2.4) | | (3.0) |

Time: 120.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 47

| Huancayo, Peru (12.0°S, 75.3°W) | | | | | | | November 1955 | |
|---------------------------------|-------|-------|------|------|------|--------|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 350 | --- | | | <1.6 | --- | | |
| 01 | 320 | --- | | | <1.5 | --- | | |
| 02 | 290 | (6.0) | | | <1.6 | (3.15) | | |
| 03 | 240 | 5.0 | | | <1.5 | 3.3 | | |
| 04 | 240 | 4.2 | | | <1.4 | 3.3 | | |
| 05 | 240 | 4.2 | | | <1.4 | 3.1 | | |
| 06 | 250 | 7.2 | | 120 | 2.0 | 3.2 | 3.1 | |
| 07 | --- | 9.5 | 230 | --- | 110 | 2.7 | 7.2 | 3.1 |
| 08 | --- | 10.8 | 210 | --- | 110 | 3.2 | 11.3 | 2.9 |
| 09 | (300) | 11.8 | 210 | 5.0 | 110 | --- | 11.8 | 2.7 |
| 10 | 290 | 12.0 | 200 | 5.0 | 110 | --- | 12.6 | 2.5 |
| 11 | 310 | 12.1 | 200 | 5.0 | 110 | --- | 12.8 | 2.4 |
| 12 | 310 | 12.4 | 200 | 5.0 | 110 | --- | 12.4 | 2.4 |
| 13 | 290 | 12.0 | 200 | 4.9 | 110 | --- | 12.2 | 2.45 |
| 14 | 290 | 12.0 | 200 | 4.8 | 110 | --- | 12.0 | 2.4 |
| 15 | --- | 12.1 | 200 | --- | 110 | --- | 11.4 | 2.4 |
| 16 | --- | 12.0 | 210 | --- | 110 | --- | 10.6 | 2.35 |
| 17 | 250 | 11.6 | 240 | --- | 110 | --- | 8.6 | 2.4 |
| 18 | 270 | 11.0 | --- | --- | --- | <2.3 | 2.4 | |
| 19 | 310 | 10.0 | --- | --- | --- | <1.5 | 2.4 | |
| 20 | 350 | 9.0 | --- | --- | --- | <1.5 | 2.3 | |
| 21 | 360 | (9.3) | --- | --- | --- | <1.5 | (2.4) | |
| 22 | 400 | --- | --- | --- | --- | <1.6 | --- | |
| 23 | 400 | --- | --- | --- | --- | <1.6 | --- | |

Time: 75.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 44

| Ottawa, Canada (45.4°N, 75.9°W) | | | | | | | November 1955 | |
|---------------------------------|------|------|------|------|-----|-----|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 290 | 3.0 | | | | | | <1.6 |
| 01 | 300 | 3.0 | | | | | | 2.9 |
| 02 | 290 | 2.8 | | | | | | 2.95 |
| 03 | 290 | 2.8 | | | | | | 3.0 |
| 04 | 280 | 2.7 | | | | | | 3.0 |
| 05 | 280 | 2.4 | | | | | | 3.0 |
| 06 | 290 | 2.3 | | | | | | 3.0 |
| 07 | 250 | 4.1 | | | | | | 3.2 |
| 08 | 240 | 6.2 | --- | --- | --- | 120 | 2.2 | 3.3 |
| 09 | 240 | 7.8 | 230 | 3.7 | 120 | 2.6 | | 3.3 |
| 10 | 240 | 8.4 | 220 | 4.0 | 110 | 2.9 | | 3.3 |
| 11 | 250 | 9.0 | 220 | 4.2 | 110 | 3.0 | | 3.3 |
| 12 | 250 | 9.1 | 220 | 4.2 | 110 | 3.0 | | 3.3 |
| 13 | 250 | 9.5 | 230 | 4.0 | 115 | 3.0 | | 3.2 |
| 14 | 250 | 9.1 | 240 | 4.0 | 120 | 2.8 | | 3.3 |
| 15 | 240 | 9.2 | 240 | 3.4 | 120 | 2.5 | | 3.2 |
| 16 | 230 | 9.0 | | | | 120 | 2.0 | 3.3 |
| 17 | 220 | 7.6 | | | | | | <1.7 |
| 18 | 230 | 6.4 | | | | | | 3.3 |
| 19 | 240 | 5.2 | | | | | | 3.1 |
| 20 | 250 | 4.2 | | | | | | 3.1 |
| 21 | 260 | 3.5 | | | | | | 3.0 |
| 22 | 280 | 3.4 | | | | | | 3.0 |
| 23 | 290 | 3.1 | | | | | | 3.0 |

Time: 75.0°W.

Sweep: 1.0 Mc to 15.0 Mc in 15 seconds.

Table 46

| Talara, Peru (4.6°S, 81.3°W) | | | | | | | November 1955 | |
|------------------------------|-------|--------|------|-------|-----|-------|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | (260) | (10.1) | | | | | | 5.6 |
| 01 | (240) | (8.5) | | | | | | 5.3 |
| 02 | 230 | (7.0) | | | | | | 5.7 |
| 03 | 230 | 5.3 | | | | | | 3.2 |
| 04 | 240 | 4.6 | | | | | | 3.2 |
| 05 | 230 | 3.9 | | | | | | 4.8 |
| 06 | 270 | 5.2 | | | | | | 3.2 |
| 07 | 240 | 8.4 | --- | --- | 120 | (2.4) | 4.4 | 3.1 |
| 08 | --- | 10.8 | 230 | --- | 110 | (3.0) | 5.2 | 3.05 |
| 09 | (280) | 11.9 | 210 | --- | 110 | 3.4 | 5.1 | 3.0 |
| 10 | (290) | (12.4) | 200 | --- | 110 | 3.6 | 5.5 | 2.8 |
| 11 | (290) | 12.8 | 200 | --- | 110 | 3.7 | 5.8 | 2.7 |
| 12 | (300) | 12.6 | 200 | (5.0) | 110 | 3.8 | 6.5 | 2.6 |
| 13 | (300) | (12.6) | 200 | --- | 100 | 3.6 | 5.4 | (2.6) |
| 14 | (300) | (12.6) | 200 | --- | 100 | 3.6 | 5.6 | (2.55) |
| 15 | --- | (12.4) | 200 | --- | 100 | 3.4 | 6.1 | (2.5) |
| 16 | --- | (12.4) | 220 | --- | 110 | (3.0) | 7.2 | (2.6) |
| 17 | --- | (12.6) | 240 | --- | 110 | (2.6) | 7.1 | (2.7) |
| 18 | 260 | (12.8) | --- | --- | | | 5.2 | (2.7) |
| 19 | 270 | (12.2) | --- | --- | | | 4.8 | (2.8) |
| 20 | 300 | (12.5) | --- | --- | | | 4.2 | (2.9) |
| 21 | 270 | (12.2) | --- | --- | | | 3.2 | (3.0) |
| 22 | 260 | (11.3) | --- | --- | | | 2.5 | (2.95) |
| 23 | 270 | (11.0) | --- | --- | | | 4.3 | (2.9) |

Time: 30.0°E.

Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 49

| Capetown, Union of S. Africa (34.2°S, 18.3°E) | | | | | | | November 1955 | |
|---|------|------|------|------|-----|-----|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | <270 | 4.6 | | | | 2.0 | 2.8 | |
| 01 | 270 | 4.5 | | | | 1.6 | 2.8 | |
| 02 | <280 | 4.4 | | | | 2.0 | 2.7 | |
| 03 | <270 | 4.3 | | | | | 2.8 | |
| 04 | 260 | 4.3 | | | | 1.8 | 2.8 | |
| 05 | 260 | 4.0 | | | | | 2.9 | |
| 06 | 250 | 5.4 | 260 | --- | 130 | 1.8 | 2.2 | 3.1 |
| 07 | 270 | 6.7 | 240 | 3.8 | 120 | 2.5 | | 3.1 |
| 08 | 300 | 7.8 | 230 | 4.5 | 110 | 3.0 | 3.6 | 2.9 |
| 09 | 310 | 9.0 | 220 | 4.8 | 110 | 3.3 | 3.9 | 2.8 |
| 10 | 320 | 9.4 | 220 | 5.0 | 110 | 3.5 | 4.0 | 2.8 |
| 11 | 330 | 10.0 | 210 | 5.2 | 110 | 3.6 | 4.0 | 2.7 |
| 12 | 330 | 10.2 | 210 | 5.1 | 110 | 3.7 | 4.0 | 2.7 |
| 13 | 340 | 10.6 | 210 | 5.1 | 110 | 3.7 | 4.0 | 2.7 |
| 14 | 320 | 10.7 | 220 | 5.1 | 110 | 3.6 | | 2.8 |
| 15 | 320 | 10.4 | 220 | 4.9 | 110 | 3.6 | | 2.8 |
| 16 | 300 | 10.2 | 220 | 4.7 | 110 | 3.3 | 3.6 | 2.8 |
| 17 | 280 | 10.0 | 220 | 4.5 | 110 | 3.0 | | 2.9 |
| 18 | 260 | 9.8 | 240 | 3.7 | 110 | 2.6 | 2.9 | 3.0 |
| 19 | 240 | 9.0 | 240 | --- | 130 | 1.9 | 2.4 | 3.1 |
| 20 | 230 | 8.2 | | | | | 1.9 | 3.1 |
| 21 | 220 | 6.9 | | | | | 2.0 | 3.0 |
| 22 | 240 | 5.8 | | | | | 1.8 | 3.0 |
| 23 | 250 | 5.0 | | | | | 1.9 | 2.9 |

Time: 30.0°E.

Sweep: 1.0 Mc to 15.0 Mc in 7 seconds.

Table 51

| Lindau/Harz, Germany (51.6°N, 10.1°E) | | | | | | | October 1955 | |
|---------------------------------------|------|------|------|------|-----|-----|--------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 275 | 3.8 | | | | 2.0 | 2.9 | |
| 01 | 285 | 3.8 | | | | 2.2 | 2.9 | |
| 02 | 280 | 3.8 | | | | 1.9 | 2.9 | |
| 03 | 275 | 3.6 | | | | 2.2 | 2.9 | |
| 04 | 270 | 3.4 | | | | 2.3 | 3.0 | |
| 05 | 250 | 2.8 | | | | 2.4 | 3.15 | |
| 06 | 250 | 3.0 | --- | --- | E | 2.4 | 3.15 | |
| 07 | 230 | 4.8 | --- | --- | 110 | 1.6 | 2.4 | 3.5 |
| 08 | 225 | 6.1 | 230 | | 110 | 2.2 | 2.8 | 3.5 |
| 09 | 230 | 6.8 | 220 | | 100 | 2.4 | 3.4 | 3.5 |
| 10 | 245 | 7.6 | 210 | | 100 | 2.8 | 3.8 | 3.5 |
| 11 | 240 | 8.2 | 205 | | 100 | 2.8 | 3.7 | 3.5 |
| 12 | 245 | 8.4 | 205 | | 100 | 2.9 | 3.8 | 3.4 |
| 13 | 240 | 8.3 | 205 | | 100 | 2.8 | 3.6 | 3.3 |
| 14 | 245 | 8.4 | 210 | | 100 | 2.8 | 3.5 | 3.4 |
| 15 | 230 | 8.2 | 220 | | 100 | 2.6 | 3.4 | 3.4 |
| 16 | 230 | 8.0 | 230 | | 105 | 2.2 | 3.1 | 3.4 |
| 17 | 225 | 7.3 | --- | --- | 108 | 1.8 | 2.8 | 3.4 |
| 18 | 220 | 6.8 | --- | --- | E | 2.6 | 3.3 | |
| 19 | 225 | 6.2 | | | | 2.4 | 3.2 | |
| 20 | 225 | 5.2 | | | | 2.7 | 3.2 | |
| 21 | 230 | 4.4 | | | | 2.4 | 3.2 | |
| 22 | 255 | 3.8 | | | | 2.2 | 3.0 | |
| 23 | 280 | 3.8 | | | | 2.2 | 2.9 | |

Time: 15.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 4 minutes.

Table 53

| Brisbane, Australia (27.5°S, 153.0°E) | | | | | | | September 1955 | |
|---------------------------------------|------|------|------|------|-----|-----|----------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 260 | 4.6 | | | | | 3.0 | |
| 01 | 250 | 4.5 | | | | | 3.1 | |
| 02 | 240 | 4.2 | | | | | 3.1 | |
| 03 | 240 | 3.6 | | | | | 3.0 | |
| 04 | 270 | 3.4 | | | | | 2.9 | |
| 05 | 280 | 3.3 | | | | | 2.9 | |
| 06 | 250 | 4.5 | --- | --- | E | | 3.3 | |
| 07 | 240 | 6.2 | 250 | --- | 120 | 2.2 | | 3.3 |
| 08 | 270 | 6.9 | 235 | 4.2 | 110 | 2.7 | | 3.2 |
| 09 | 280 | 7.4 | 230 | 4.4 | 110 | 3.0 | 3.5 | 3.2 |
| 10 | 275 | 7.6 | 220 | 4.6 | 110 | 3.2 | 4.2 | 3.2 |
| 11 | 280 | 7.5 | 205 | 4.6 | 120 | 3.3 | 3.8 | 3.1 |
| 12 | 280 | 7.9 | 200 | 4.5 | 120 | 3.3 | 4.1 | 3.1 |
| 13 | 285 | 7.2 | 210 | 4.5 | 120 | 3.3 | 4.5 | 3.1 |
| 14 | 280 | 7.0 | 210 | 4.4 | 120 | 3.2 | 4.1 | 3.1 |
| 15 | 280 | 7.0 | 220 | 4.3 | 120 | 2.9 | 4.0 | 3.1 |
| 16 | 250 | 6.8 | 220 | --- | 120 | 2.6 | 3.6 | 3.2 |
| 17 | 240 | 6.4 | | | 130 | 1.8 | | 3.2 |
| 18 | 240 | 5.8 | | | | | 3.0 | |
| 19 | 250 | 5.4 | | | | | 2.9 | |
| 20 | 260 | 5.0 | | | | | 2.9 | |
| 21 | 280 | 5.0 | | | | | 2.8 | |
| 22 | 265 | 5.0 | | | | | 2.9 | |
| 23 | 260 | 4.8 | | | | | 2.9 | |

Time: 150.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 50

| Buenos Aires, Argentina (34.5°S, 50.5°W) | | | | | | | November 1955 | |
|--|------|------|-------|------|-----|-----|---------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 300 | 8.6 | | | | | | 2.8 |
| 01 | 290 | 8.5 | | | | | | 2.9 |
| 02 | 280 | 8.0 | | | | | | 2.9 |
| 03 | 270 | 7.7 | | | | | | 2.9 |
| 04 | 260 | 7.4 | | | | | | 3.0 |
| 05 | 230 | 7.5 | --- | --- | --- | 100 | 2.0 | 3.1 |
| 06 | 230 | 7.8 | 210 | --- | 100 | 2.6 | 3.4 | 3.2 |
| 07 | 250 | 8.2 | 220 | --- | 100 | 3.0 | 3.7 | 3.0 |
| 08 | 270 | 8.2 | 210 | --- | 100 | 3.3 | 4.0 | 3.0 |
| 09 | 300 | 9.0 | 210 | --- | 100 | | | |
| 10 | 310 | 9.8 | 210 | --- | 100 | | | |
| 11 | 350 | 11.0 | 200 | --- | 100 | | | |
| 12 | 320 | 11.6 | 200 | --- | 100 | | | |
| 13 | 300 | 12.3 | 210 | --- | 100 | | | |
| 14 | 300 | 13.0 | 200 | --- | 100 | | | |
| 15 | 290 | 12.8 | 210 | --- | 100 | | | |
| 16 | 270 | 11.5 | 220 | --- | 100 | | | |
| 17 | 260 | 11.0 | (220) | --- | 100 | | | |
| 18 | 240 | 10.2 | --- | --- | 100 | | | |
| 19 | 270 | 9.6 | 210 | --- | 100 | | | |
| 20 | 260 | 9.1 | 200 | --- | 100 | | | |
| 21 | 300 | 8.8 | 210 | --- | 100 | | | |
| 22 | 310 | 8.8 | 210 | --- | 100 | | | |
| 23 | 310 | 8.7 | 210 | --- | 100 | | | |

Time: 60.0°W.

Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 52

| Townsville, Australia (19.3°S, 146.7°E) | | | | | | | September 1955 | |
|---|------|-------|------|------|-----|-----|----------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 240 | >5.0 | | | | | | 2.0 |
| 01 | 235 | >4.9 | | | | | | 3.3 |
| 02 | 220 | >4.0 | | | | | | 3.35 |
| 03 | 240 | 3.0 | | | | | | 1.8 |
| 04 | 270 | 3.0 | | | | | | 3.15 |
| 05 | 280 | 3.2 | | | | | | 3.0 |
| 06 | 260 | 3.4 | | | | | | 3.2 |
| 07 | 250 | 6.0 | 240 | --- | 110 | 2.0 | | 3.4 |
| 08 | 260 | 7.8 | 230 | 4.1 | 100 | 2.7 | | 3.4 |
| 09 | 280 | 8.2 | 220 | 4.5 | 100 | 3.1 | 3.8 | (3.4) |
| 10 | 260 | >8.5 | 210 | 4.6 | 100 | 3.3 | 4.2 | 3.4 |
| 11 | 270 | >8.5 | 200 | 4.7 | 100 | 3.4 | 4.0 | 3.4 |
| 12 | 275 | >7.8 | 200 | 4.7 | 100 | 3.5 | 4.6 | 3.3 |
| 13 | 285 | 7.4 | 200 | 4.6 | 100 | 3.4 | 4.7 | 3.2 |
| 14 | 290 | 7.4 | 200 | 4.6 | 100 | 3.3 | 4.6 | 3.2 |
| 15 | 290 | 7.4 | 210 | 4.5 | 100 | 3.2 | 3.7 | 3.3 |
| 16 | 260 | 7.5 | 210 | 4.1 | 100 | 2.9 | | 3.4 |
| 17 | 240 | >6.5 | 225 | 3.4 | 110 | 2.5 | 3.4 | 3.3 |
| 18 | 240 | >6.0 | 225 | 3.4 | 150 | 1.7 | 2.2 | 3.2 |
| 19 | 250 | 5.9 | | | | | | 2.4 |
| 20 | 250 | 5.8 | | | | | | 3.0 |
| 21 | 260 | >5.2 | | | | | | 2.0 |
| 22 | 270 | (5.7) | | | | | | (3.0) |
| 23 | 260 | >5.0 | | | | | | 1.8 |

Time: 150.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 54

| Canberra, Australia (35.3°S, 149.0°E) | | | | | | | September 1955 | |
|---------------------------------------|------|------|------|-------|-----|-----|----------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | --- | 4.0 | | | | | | 3.0 |
| 01 | --- | 4.0 | | | | | | 3.1 |
| 02 | --- | 3.8 | | | | | | 3.1 |
| 03 | --- | 3.6 | | | | | | 3.1 |
| 04 | --- | 3.2 | | | | | | 3.1 |
| 05 | --- | 3.0 | | | | | | 3.0 |
| 06 | 245 | 3.4 | | | | | | 3.2 |
| 07 | 240 | 5.0 | --- | --- | --- | 2.0 | | 3.4 |
| 08 | 260 | 5.8 | 230 | (4.0) | 110 | 2.6 | | 3.4 |
| 09 | 280 | 6.1 | 220 | 4.3 | 110 | 3.0 | 3.2 | 3.3 |
| 10 | 280 | 6.6 | 210 | 4.4 | | | | |

Table 55

| Hobart, Tasmania (42.9°S, 147.3°E) | | | | | | | September 1955 | |
|------------------------------------|------|------|------|------|-----|-----|----------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 270 | 2.6 | | | | | 2.9 | |
| 01 | 270 | 2.5 | | | | | 2.9 | |
| 02 | 290 | 2.2 | | | | | 2.9 | |
| 03 | 270 | 2.1 | | | | | 2.9 | |
| 04 | 250 | 2.0 | | | | | 3.0 | |
| 05 | 290 | 1.8 | | | | | 2.9 | |
| 06 | 250 | 2.0 | | | | | 3.0 | |
| 07 | 240 | 4.0 | | | 100 | 1.8 | 3.1 | |
| 08 | 220 | 4.8 | | | 100 | 2.3 | 3.1 | |
| 09 | 200 | 5.5 | --- | --- | 100 | 2.0 | 3.1 | |
| 10 | 300 | 6.0 | 200 | 4.4 | 100 | 3.0 | 3.1 | |
| 11 | 300 | 6.2 | 200 | 4.5 | 100 | 3.1 | 3.1 | |
| 12 | 300 | 6.5 | 200 | 4.5 | 100 | 3.2 | 3.1 | |
| 13 | 300 | 6.5 | 200 | 4.4 | 100 | 3.2 | 3.1 | |
| 14 | 300 | 6.5 | 200 | 4.3 | 100 | 3.0 | 3.1 | |
| 15 | 220 | 6.5 | 200 | 4.1 | 100 | 2.8 | 3.05 | |
| 16 | 210 | 6.3 | | | 100 | 2.4 | 3.1 | |
| 17 | 230 | 6.0 | | | 100 | 1.9 | 3.1 | |
| 18 | 240 | 5.6 | | | 120 | 1.4 | 3.1 | |
| 19 | 240 | 5.2 | | | | | 2.9 | |
| 20 | 250 | 4.6 | | | | | 2.9 | |
| 21 | 250 | 4.0 | | | | | 2.0 | |
| 22 | 270 | 3.5 | | | | | 2.85 | |
| 23 | 260 | 3.2 | | | | | 2.8 | |

Time: 150.0°E.

Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 57

| Brisbane, Australia (27.5°S, 153.0°E) | | | | | | | August 1955 | |
|---------------------------------------|-------|-------|------|------|-----|-----|-------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 260 | (3.7) | | | | | (3.1) | |
| 01 | 260 | (3.6) | | | | | (3.1) | |
| 02 | 250 | 3.7 | | | | | (3.1) | |
| 03 | 250 | 3.9 | | | | | 3.25 | |
| 04 | 250 | (3.5) | | | | | (3.3) | |
| 05 | 275 | (3.0) | | | | | (3.1) | |
| 06 | 250 | 3.1 | | | | | (3.1) | |
| 07 | 240 | 5.0 | --- | E | | | 3.4 | |
| 08 | (260) | 5.6 | 240 | 4.0 | --- | --- | (3.7) | 3.4 |
| 09 | 275 | 6.0 | 240 | 4.2 | 120 | 3.0 | 3.8 | 3.3 |
| 10 | 270 | 6.5 | 230 | 4.3 | 120 | 3.2 | 4.0 | 3.4 |
| 11 | 280 | 6.3 | 220 | 4.4 | 120 | 3.3 | (4.1) | 3.3 |
| 12 | 280 | 6.4 | 210 | 4.3 | 120 | 3.3 | (4.3) | 3.35 |
| 13 | 300 | 6.0 | 200 | 4.3 | 120 | 3.1 | (4.0) | 3.2 |
| 14 | 280 | 6.5 | 200 | 4.2 | 120 | 3.0 | (4.0) | 3.3 |
| 15 | 250 | 6.1 | 200 | 4.0 | --- | --- | (3.8) | 3.3 |
| 16 | (240) | 5.8 | --- | --- | --- | --- | (4.0) | 3.4 |
| 17 | 240 | 5.2 | | | | | 3.35 | |
| 18 | 245 | 4.6 | | | | | 3.2 | |
| 19 | 250 | 4.0 | | | | | 3.2 | |
| 20 | 270 | 4.2 | | | | | 3.1 | |
| 21 | 270 | 3.6 | | | | | (3.1) | |
| 22 | 270 | 3.5 | | | | | (3.0) | |
| 23 | 275 | (3.5) | | | | | (3.1) | |

Time: 150.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 59

| Hobart, Tasmania (42.9°S, 147.3°E) | | | | | | | August 1955 | |
|------------------------------------|------|------|------|------|-----|-----|-------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 200 | 2.0 | | | | | 3.0 | |
| 01 | 205 | 2.0 | | | | | 2.9 | |
| 02 | 290 | 2.0 | | | | | 2.9 | |
| 03 | 200 | 2.0 | | | | | 3.0 | |
| 04 | 270 | 2.0 | | | | | 3.0 | |
| 05 | 250 | 2.0 | | | | | 3.0 | |
| 06 | 280 | 2.0 | | | | | 3.0 | |
| 07 | 250 | 3.0 | --- | E | | | 3.1 | |
| 08 | 220 | 4.5 | | | 100 | 1.9 | 3.1 | |
| 09 | 200 | 4.8 | | | 100 | 2.4 | 3.2 | |
| 10 | 200 | 5.5 | | | 100 | 2.7 | 3.2 | |
| 11 | 200 | 5.7 | --- | --- | 100 | 2.9 | 3.1 | |
| 12 | 200 | 5.9 | 200 | 4.1 | 100 | 3.0 | 3.1 | |
| 13 | 200 | 6.0 | --- | --- | 100 | 3.0 | 3.1 | |
| 14 | 205 | 6.0 | --- | --- | 100 | 2.8 | 3.2 | |
| 15 | 200 | 5.8 | | | 100 | 2.5 | 3.2 | |
| 16 | 215 | 5.7 | | | 100 | 2.0 | 3.2 | |
| 17 | 220 | 5.5 | | | 120 | 1.3 | 3.1 | |
| 18 | 220 | 4.5 | | | | | 3.0 | |
| 19 | 250 | 4.0 | | | | | 3.0 | |
| 20 | 250 | 3.4 | | | | | 3.0 | |
| 21 | 250 | 3.0 | | | | | 3.0 | |
| 22 | 270 | 2.3 | | | | | 3.0 | |
| 23 | 280 | 2.0 | | | | | 3.0 | |

Time: 150.0°E.

Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 56

| Townsville, Australia (19.3°S, 146.7°E) | | | | | | | August 1955 | |
|---|------|-------|------|------|-----|-----|-------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | 240 | >3.0 | | | | | 2.1 | --- |
| 01 | 230 | >3.0 | | | | | 2.1 | --- |
| 02 | 230 | 3.1 | | | | | 2.1 | (3.3) |
| 03 | 210 | 3.0 | | | | | 2.4 | (3.4) |
| 04 | 230 | >2.8 | | | | | 2.1 | (3.4) |
| 05 | 250 | 2.4 | | | | | 2.1 | 3.2 |
| 06 | 270 | >2.4 | | | | | E | 3.1 |
| 07 | 240 | 4.7 | --- | --- | 130 | 1.8 | 2.1 | 3.5 |
| 08 | 250 | >5.9 | 230 | 3.9 | 100 | 2.5 | 3.5 | |
| 09 | 265 | 6.6 | 210 | 4.2 | 100 | 2.9 | 3.8 | 3.5 |
| 10 | 265 | 7.1 | 215 | 4.4 | 100 | 3.2 | 3.5 | |
| 11 | 260 | 6.8 | 210 | 4.4 | 100 | 3.3 | 4.3 | 3.5 |
| 12 | 275 | 6.8 | 200 | 4.5 | 100 | 3.4 | 4.4 | 3.5 |
| 13 | 280 | 6.4 | 200 | 4.5 | 100 | 3.3 | 4.4 | 3.4 |
| 14 | 270 | 6.4 | 200 | 4.4 | 100 | 3.2 | 4.3 | 3.5 |
| 15 | 275 | 6.0 | 200 | 4.2 | 100 | 3.1 | 4.3 | 3.4 |
| 16 | 260 | >6.1 | 200 | 4.0 | 100 | 2.8 | 4.1 | 3.5 |
| 17 | 240 | 5.9 | 225 | 3.5 | 110 | 2.2 | 3.6 | 3.5 |
| 18 | 230 | 5.1 | | | | | 3.0 | 3.45 |
| 19 | 230 | 4.6 | | | | | 2.3 | 3.3 |
| 20 | 240 | 3.9 | | | | | 2.1 | 3.2 |
| 21 | 250 | 3.7 | | | | | 2.1 | 3.2 |
| 22 | 250 | 3.5 | | | | | 2.1 | (3.1) |
| 23 | 245 | (3.4) | | | | | 2.0 | --- |

Time: 150.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 58

| Canberra, Australia (35.3°S, 149.0°E) | | | | | | | August 1955 | |
|---------------------------------------|------|-------|------|-------|-----|-------|-------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | --- | 3.1 | | | | | | 3.1 |
| 01 | --- | 3.2 | | | | | | 3.05 |
| 02 | --- | 3.4 | | | | | | 3.2 |
| 03 | --- | 3.5 | | | | | | 3.25 |
| 04 | --- | 3.4 | | | | | | 3.15 |
| 05 | --- | 3.1 | | | | | | 3.15 |
| 06 | --- | 2.9 | | | | | | 3.15 |
| 07 | 230 | 4.2 | | | | | | 3.5 |
| 08 | 230 | 5.0 | 230 | 4.0 | 110 | 2.3 | | 3.5 |
| 09 | 250 | 5.5 | 220 | (4.0) | 110 | 2.7 | | 3.5 |
| 10 | 270 | 5.7 | 210 | 4.2 | 110 | 3.0 | | 3.4 |
| 11 | 270 | 6.0 | 210 | 4.3 | 110 | 3.1 | | 3.5 |
| 12 | 280 | 6.3 | 200 | 4.3 | 110 | 3.2 | 3.5 | 3.4 |
| 13 | 275 | 6.0 | 210 | 4.3 | 110 | 3.1 | 3.3 | 3.4 |
| 14 | 270 | 6.4 | 200 | 4.2 | 100 | 3.1 | 3.1 | 3.5 |
| 15 | 250 | 6.0 | 200 | 4.0 | 100 | 2.8 | 3.3 | 3.5 |
| 16 | 240 | 5.9 | 210 | (3.5) | 100 | 2.5 | 2.5 | 3.6 |
| 17 | 220 | 5.1 | 210 | (2.5) | --- | (1.9) | | 3.4 |
| 18 | --- | 4.8 | | | | | | 3.25 |
| 19 | --- | 4.4 | | | | | | 3.2 |
| 20 | --- | 3.9 | | | | | | 3.2 |
| 21 | --- | 3.4 | | | | | | 3.1 |
| 22 | --- | 3.2 | | | | | | 3.1 |
| 23 | --- | (3.1) | | | | | | 3.1 |

Time: 150.0°E.

Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.

Table 60

| Brisbane, Australia (27.5°S, 153.0°E) | | | | | | | April 1955 | |
|---------------------------------------|-------|-------|------|------|-----|-----|------------|-----------|
| Time | h'F2 | foF2 | h'F1 | foF1 | h'E | foE | fEs | (M3000)F2 |
| 00 | (270) | 3.8 | | | | | 2.8 | (3.0) |
| 01 | 280 | 4.0 | | | | | 2.9 | |
| 02 | 260 | 4.0 | | | | | 2.3 | 3.0 |
| 03 | 250 | 4.0 | | | | | 2.8 | 3.1 |
| 04 | 230 | 3.7 | | | | | 3.4 | |
| 05 | 240 | 2.6 | | | | | 3.2 | |
| 06 | 250 | 3.5 | | | | | 3.35 | |
| 07 | 240 | 5.4 | --- | --- | --- | --- | | 3.5 |
| 08 | --- | 6.0 | 230 | 4.0 | --- | --- | | 3.4 |
| 09 | 265 | 6.3 | 225 | 4.2 | --- | --- | (5.0) | 3.4 |
| 10 | (270) | 7.2 | --- | 4.3 | --- | --- | (5.2) | 3.4 |
| 11 | 250 | 7.4 | --- | 4.3 | --- | --- | (4.7) | (3.45) |
| 12 | (260) | 6.8 | --- | 4.3 | --- | --- | (5.0) | (3.4) |
| 13 | (270) | (6.5) | --- | 4.2 | --- | --- | (4.8) | (3.25) |
| 14 | (250) | (6.7) | --- | 4.2 | --- | --- | (5.0) | (3.3) |
| 15 | (250) | >7.0 | --- | 4.2 | --- | --- | (4.8) | <3.4 |
| | | | | | | | | |

TABLE 61
IONOSPHERIC DATA

faF2, Mc, March 1956

75°W Mean Time

Station: Washington, D.C. Lat. 38.7°N Long. 77.1°W Sweep 1.0 Mc to 25.0 Mc in 13.5 sec. Manual Automatic

| | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | |
|-----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|
| 01 | 40 | 36 | 34 | 28 | 25 | 21 | 22 | 54 | 78 | 85 | 98 | 102 | 110 | 110 | 105 | 108 | 108 | 102 | 94 | 82 | 70 | 62 | 51 | 48 | |
| 02 | 49 | 45 | 36 | 40 | 33 | 42 | 39 | 58 | 80 | 90 | 103 | 115 | 115 | 115 | 115 | 112 | 110 | 105 | 100 | 98 | 84 | 72 | 66 | 64 | 60 |
| 03 | 46 | 35 | 31 | 28 | 24 | 29 | 24 | 30 | 35 | 38 | 40 | 42 | 43 | 43 | 41 | 49 | 55 | 61 | 45 | 32 | 28 | 19 | 21 | F | F |
| 04 | 24 | 19 | 19 | 18 | 17 | 20 | 43 | 55 | 78 | 84 | 97 | 96 | 103 | 99 | 94 | 90 | 94 | 90 | 74 | 71 | 64 | 56 | 50 | F | F |
| 05 | 44 | 44 | 40 | | | 39 | 35 | 56 | 75 | 86 | 94 | 98 | 101 | 104 | 105 | 108 | 108 | 102 | 94 | 85 | 75 | 72 | 60 | 58 | |
| 06 | 58 | 58 | 56 | 50 | 48 | 45 | 46 | 62 | 80 | 94 | 100 | 105 | 110 | 110 | 110 | 110 | 106 | 100 | 93 | 84 | 68 | 61 | 56 | 50 | |
| 07 | 48 | 46 | 44 | 40 | 37 | 33 | 33 | 63 | 75 | 93 | 98 | 103 | 107 | 110 | 106 | 105 | 110 | 108 | 98 | 82 | 73 | 65 | 56 | 55 | |
| 08 | 50 | 48 | 48 | 44 | 40 | 39 | 38 | 66 | 85 | 90 | 98 | 98 | 108 | 110 | 105 | 106 | 106 | 102 | 98 | 83 | 72 | 66 | 57 | 52 | |
| 09 | 50 | 50 | 47 | 48 | 46 | 43 | 40 | 66 | 80 | 86 | 96 | 105 | 105 | 109 | 105 | 107 | 105 | 100 | 98 | 90 | 84 | 76 | 68 | 63 | |
| 10 | 58 | 52 | 52 | 58 | 49 | 43 | 45 | 76 | 96 | 100 | 108 | 112 | 114 | 115 | 115 | 115 | 114 | 110 | 107 | 100 | 100 | 80 | 86 | 68 | |
| 11 | 85 | 74 | 62 | 58 | 68 | 71 | 81 | 84 | 97 | 105 | 105 | 103 | 105 | 109 | 107 | 108 | 108 | 98 | 92 | 85 | 79 | 77 | 74 | 64 | |
| 12 | 59 | 53 | 44 | 43 | 38 | 38 | 38 | 58 | 70 | 75 | 90 | 96 | 100 | 103 | 105 | 100 | 100 | 96 | 93 | 79 | 74 | 67 | 62 | 58 | |
| 13 | 53 | 51 | 52 | 48 | 40 | 40 | 43 | 71 | 95 | 98 | 109 | 115 | 116 | 107 | 118 | 113 | 110 | 102 | 94 | 84 | 77 | 72 | 70 | 68 | |
| 14 | 62 | 60 | 56 | 50 | 39 | 33 | 38 | 70 | 86 | 102 | 105 | 107 | 112 | 114 | 112 | 110 | 103 | 100 | 98 | 88 | 84 | 77 | 66 | 66 | |
| 15 | 65 | 66 | 63 | 53 | 49 | 45 | 44 | 63 | 78 | 90 | 105 | 110 | 110 | 110 | 110 | 107 | 107 | 108 | 99 | 91 | 77 | 75 | 70 | 66 | |
| 16 | 62 | 60 | 56 | 52 | 49 | 47 | 48 | 70 | 80 | 89 | 100 | 107 | 110 | 110 | 108 | 108 | 106 | 102 | 97 | 90 | 76 | 72 | 68 | 66 | |
| 17 | 60 | 59 | 60 | 59 | 55 | 53 | 57 | 74 | 90 | 100 | 105 | 114 | 110 | 117 | 116 | 114 | 114 | 110 | 103 | 92 | 80 | 78 | 74 | 71 | |
| 18 | 68 | 69 | 58 | 55 | 53 | 54 | 62 | 83 | 96 | 107 | 111 | 111 | 114 | 115 | 117 | 118 | 114 | 112 | 102 | 94 | 78 | 75 | 72 | 70 | |
| 19 | 68 | 68 | 63 | 62 | 56 | 51 | 54 | 76 | 92 | 102 | 110 | 111 | 115 | 118 | 122 | 116 | 114 | 104 | 105 | 99 | 92 | 84 | 87 | 84 | |
| 20 | 78 | 71 | 70 | 59 | 55 | 49 | 56 | 84 | 99 | 110 | 115 | 115 | 120 | 120 | 116 | 116 | 115 | 112 | 107 | 96 | 80 | 78 | 74 | 76 | |
| 21 | 64 | 59 | 55 | 46 | 39 | 42 | 50 | 62 | 66 | 67 | 70 | 82 | 94 | 94 | 102 | 96 | 93 | 90 | 84 | 76 | 68 | 56 | 40 | 19 | |
| 22 | 37 | 29 | 30 | 34 | 30 | 30 | 32 | 44 | 46 | 50 | 52 | 54 | 54 | 54 | 58 | 61 | 62 | 74 | 88 | 87 | 85 | 66 | 44 | 45 | |
| 23 | 34 | 32 | 33 | 33 | 29 | 25 | 33 | 54 | 72 | 86 | 96 | 100 | 101 | 98 | 93 | 92 | 96 | 92 | 93 | 84 | 72 | 68 | 68 | 64 | |
| 24 | 62 | 60 | 56 | 52 | 45 | 42 | 47 | 63 | 72 | 70 | 80 | 88 | 94 | 96 | 93 | 92 | 86 | 90 | 98 | 90 | 86 | 76 | 72 | 70 | |
| 25 | 60 | 58 | 56 | 48 | 48 | 45 | 50 | 80 | 98 | 108 | 110 | 115 | 121 | 118 | 117 | 117 | 117 | 115 | 112 | 97 | 85 | 84 | 76 | 68 | |
| 26 | 64 | 56 | 54 | 52 | 45 | 25 | 41 | 63 | 73 | 73 | 69 | 76 | 82 | 86 | 87 | 91 | 90 | 86 | 88 | 86 | 77 | 70 | 69 | 60 | |
| 27 | 59 | 56 | 55 | 50 | 49 | 39 | 48 | 73 | 91 | 100 | 113 | 120 | 121 | 117 | 115 | 116 | 116 | 115 | 108 | 98 | 94 | 87 | 85 | 73 | |
| 28 | 76 | 74 | 72 | 67 | 57 | 50 | 52 | 67 | 77 | 78 | 85 | 94 | 96 | 98 | 96 | 97 | 98 | 92 | 96 | 100 | 100 | 68 | 70 | 70 | |
| 29 | 70 | 70 | 59 | 44 | 27 | 32 | 56 | 74 | 86 | 92 | 98 | 105 | 111 | 116 | 112 | 110 | 108 | 97 | 97 | 92 | 78 | 71 | 70 | 67 | |
| 30 | 58 | 51 | 49 | 52 | 48 | 40 | 52 | 79 | 94 | 106 | 109 | 132 | 126 | 126 | 120 | 120 | 115 | 117 | 118 | 105 | 86 | 79 | 74 | 72 | |
| 31 | 69 | 68 | 64 | 55 | 50 | 46 | 48 | 60 | 64 | 66 | 66 | 63 | 66 | 66 | 66 | 68 | 70 | 71 | 70 | 65 | 58 | 51 | 47 | | |
| MED | 60 | 56 | 55 | 50 | 46 | 42 | 45 | 66 | 80 | 90 | 98 | 105 | 110 | 110 | 107 | 108 | 106 | 100 | 97 | 87 | 77 | 72 | 68 | 65 | |
| NO | 30 | 31 | 31 | 30 | 30 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 30 | |

CENTRAL RADIO PROPAGATION LABORATORY, NATIONAL BUREAU OF STANDARDS, BOULDER, COLO.

TABLE 62
IONOSPHERIC DATA

faF2, Mc, March 1956

75°W Mean Time

Station: Washington, D.C. Lat. 38.7° N Long. 77.1° W Sweep 1.0 Mc to 25.0 Mc in 13.5 sec. Manual Automatic

| | 0030 | 0130 | 0230 | 0330 | 0430 | 0530 | 0630 | 0730 | 0830 | 0930 | 1030 | 1130 | 1230 | 1330 | 1430 | 1530 | 1630 | 1730 | 1830 | 1930 | 2030 | 2130 | 2230 | 2300 | | |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|
| 01 | F | F | F | F | F | F | F | F | 85 | 96 | 105 | 105 | 110 | 110 | 106 | 107 | 107 | 99 | 89 | 77 | 68 | 57 | 50 | 49 | | |
| 02 | 37 | 35 | 32 | 29 | 24 | 20 | 36 | 67 | | | | | | | | | | | | | | | | | | |
| 03 | 46 | 37 | 39 | 32 | 35 | 42 | 45 | 72 | 78 | 100 | 110 | 112 | 115 | 115 | 110 | 110 | 102 | 100 | 90 | 76 | 64 | 64 | 67 | 54 | | |
| 04 | 38 | 31 | 26 | 31 | 26 | 26 | 28 | 32 | 37 | 39 | 41 | 42 | 43 | 42 | 46 | 52 | 65 | 52 | 39 | 32 | 23 | 20 | 18 | | | |
| 05 | U | J | I | C | I | F | U | F | F | F | E | E | G | E | G | E | G | | F | F | F | F | F | F | | |
| 06 | 22 | 19 | 19 | 17 | 16 | 32 | 50 | 71 | 75 | 95 | 96 | 100 | 103 | 96 | 92 | 94 | 93 | 82 | 72 | 68 | 59 | 53 | 48 | | | |
| 07 | 40 | 42 | | | 38 | 35 | 44 | 68 | 80 | 90 | 98 | 103 | 103 | 105 | 106 | 113 | 105 | 98 | 94 | 76 | 72 | 64 | 58 | 60 | | |
| 08 | 58 | 57 | 56 | 48 | 47 | 44 | 51 | 70 | 92 | 99 | 103 | 110 | 110 | 110 | 110 | 107 | 106 | 96 | 92 | 74 | 66 | 58 | 54 | 48 | | |
| 09 | 48 | 45 | 43 | 39 | 35 | 32 | 47 | 75 | 82 | 97 | 100 | 106 | 107 | 105 | 102 | 108 | 108 | 105 | 90 | 78 | 71 | 59 | 55 | 52 | | |
| 10 | 50 | 49 | 45 | 42 | 39 | 37 | 50 | 75 | 87 | 92 | 96 | 100 | 112 | 105 | 105 | 108 | 105 | 102 | 90 | 80 | 72 | 59 | 54 | 52 | | |
| 11 | U | F | U | F | U | F | F | F | | | | | | | | | | | | | | | | | | |
| 12 | 50 | 48 | 47 | 46 | 44 | 41 | 52 | 77 | 84 | 94 | 100 | 103 | 105 | 106 | 105 | 105 | 102 | 100 | 96 | 86 | 80 | 72 | 67 | 61 | | |
| 13 | 52 | 50 | 52 | 50 | 47 | 43 | 54 | 86 | 102 | 107 | 110 | 115 | 115 | 112 | 115 | 115 | 110 | 110 | 98 | 105 | 90 | 84 | 71 | 60 | | |
| 14 | U | J | U | J | F | | F | F | | | | | | | | | | | | | | | | | | |
| 15 | 80 | 72 | 60 | 65 | 68 | 77 | 78 | 92 | 102 | 107 | 103 | 103 | 107 | 110 | 106 | 107 | 103 | 96 | 88 | 82 | 78 | 76 | 70 | 61 | | |
| 16 | F | F | F | F | F | F | F | F | | | | | | | | | | | | | | | | | | |
| 17 | 56 | 48 | 44 | 40 | 38 | 31 | 45 | 66 | 70 | 85 | 92 | 100 | 105 | 105 | 104 | 102 | 100 | 92 | 90 | 76 | 72 | 66 | 60 | 53 | | |
| 18 | F | F | F | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | 54 | 52 | 52 | 44 | 41 | 42 | 58 | 88 | 100 | 105 | 109 | 110 | 116 | 116 | 116 | 113 | 104 | 100 | 90 | 77 | 74 | 72 | 70 | 67 | | |
| 20 | 58 | 59 | 52 | 46 | 37 | 31 | 56 | 78 | 96 | 97 | 103 | 110 | 110 | 112 | 113 | 108 | 102 | 100 | 96 | 87 | 78 | 68 | 67 | 66 | | |
| 21 | 64 | 67 | 59 | 50 | 47 | 43 | 54 | 72 | 89 | 96 | 111 | 110 | 108 | 107 | 108 | 107 | 110 | 107 | 101 | 81 | 76 | 71 | 69 | 66 | | |
| 22 | 63 | 58 | 48 | 38 | 42 | 47 | 58 | 63 | 67 | 69 | 74 | 90 | 92 | 98 | 100 | 92 | 93 | 90 | 82 | 70 | 70 | 50 | 28 | 23 | | |
| 23 | U | F | U | F | F | U | J | F | F | | | | | | | | | | | | | | | | | |
| 24 | 35 | 31 | 35 | 30 | 30 | 29 | 39 | 45 | 49 | 49 | 52 | 54 | 54 | 56 | 58 | 61 | 66 | 84 | 86 | 88 | 72 | 58 | 47 | 38 | | |
| 25 | U | F | U | F | U | F | U | F | F | F | F | F | F | F | F | F | F | | | | | | | | | |
| 26 | 32 | 32 | 34 | 33 | 28 | 25 | 43 | 62 | 78 | 94 | 102 | 101 | 100 | 96 | 94 | 94 | 94 | 93 | 90 | 76 | 70 | 68 | 64 | 62 | | |
| 27 | 60 | 58 | 56 | 48 | 44 | 40 | 58 | 68 | 70 | 76 | 85 | 94 | 94 | 95 | 92 | 92 | 88 | 92 | 94 | 88 | 84 | 72 | 72 | 68 | | |
| 28 | 58 | 52 | 48 | 47 | 42 | 70 | 87 | 102 | 105 | 113 | 117 | 122 | 119 | 117 | 118 | 115 | 111 | 112 | 90 | 85 | 78 | 70 | 68 | 66 | | |
| 29 | 62 | 54 | 53 | 48 | 38 | 28 | 54 | 72 | 70 | 72 | 71 | 79 | 84 | 86 | 88 | 90 | 88 | 90 | 78 | 74 | 70 | 66 | 60 | | | |
| 30 | 58 | 55 | 53 | 49 | 42 | 36 | 61 | 82 | 98 | 104 | 115 | 123 | 116 | 120 | 122 | 117 | 114 | 106 | 100 | 96 | 90 | 84 | 84 | 71 | | |
| 31 | 65 | 68 | 71 | 63 | 52 | 48 | 60 | 68 | 75 | 82 | 88 | 96 | 100 | 98 | 98 | 98 | 92 | 90 | 112 | 100 | 95 | 68 | 70 | 71 | | |
| 32 | 69 | 68 | 60 | 34 | 28 | 35 | 63 | 84 | 92 | 96 | 103 | 111 | 113 | 114 | 113 | 110 | 103 | 98 | 95 | 86 | 76 | 69 | 68 | 62 | | |
| 33 | 50 | 48 | 52 | 52 | 44 | 41 | 68 | 89 | 103 | 107 | 115 | 126 | 112 | 120 | 115 | 117 | 117 | 117 | 100 | 100 | 89 | 78 | 76 | 76 | | |
| 34 | 68 | 65 | 61 | 53 | 47 | 47 | 56 | 63 | 64 | 68 | 64 | 66 | 66 | 66 | 67 | 67 | 70 | 72 | 71 | 68 | 58 | 54 | 47 | 40 | | |
| MED | 58 | 55 | 52 | 48 | 42 | 41 | 56 | 75 | 87 | 96 | 103 | 106 | 108 | 110 | 106 | 107 | 104 | 99 | 94 | 82 | 76 | 68 | 67 | 61 | | |
| NO | 30 | 31 | 30 | 30 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 30 | | |

TABLE 63
IONOSPHERIC DATA

fo FI, Mc, Morsch 1956

Station: Washington, D. C. Lot. 38.7°N Long. 77.1°W Sweep 1.0 Mc to 25.0 Mc in 13.5 sec. Manual Automatic

| | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | Q7 | Q8 | Q9 | Q10 | Q11 | Q12 | Q13 | Q14 | Q15 | Q16 | Q17 | Q18 | Q19 | Q20 | Q21 | Q22 | Q23 | | |
|-----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|--|
| 01 | | | | | | | | Q | L | L | L | L | 460 | L | L | L | Q | Q | | | | | | | |
| 02 | | | | | | | | Q | Q | L | L | L | 450 | L | L | L | Q | | | | | | | | |
| 03 | | | | | | | | Q | L | F | F | F | | | H | | | Q | | | | | | | |
| | | | | | | | | 380 | 400 | 420 | 430 | 430 | 410 | 400 | 370 | 350 | | | | | | | | | |
| 04 | | | | | | | | Q | L | L | L | L | L | L | L | L | Q | | | | | | | | |
| 05 | | | | | | | | Q | L | L | L | L | L | L | L | L | Q | | | | | | | | |
| 06 | | | | | | | | Q | Q | L | L | L | L | L | L | L | L | Q | | | | | | | |
| 07 | | | | | | | | Q | Q | L | L | L | L | L | L | L | L | Q | | | | | | | |
| 08 | | | | | | | | Q | L | L | L | L | L | L | L | L | L | Q | | | | | | | |
| 09 | | | | | | | | Q | L | L | L | 430 | 430 | 430 | L | L | L | Q | | | | | | | |
| 10 | | | | | | | | Q | L | L | L | L | 480 | 450 | L | L | Q | Q | | | | | | | |
| 11 | | | | | | | | Q | L | L | L | L | L | L | L | L | L | Q | | | | | | | |
| 12 | | | | | | | | Q | L | L | L | L | L | L | L | L | L | L | | | | | | | |
| 13 | | | | | | | | Q | L | L | B | L | L | 470 | L | L | L | Q | Q | | | | | | |
| 14 | | | | | | | | Q | Q | L | L | L | L | L | L | L | L | L | Q | | | | | | |
| 15 | | | | | | | | Q | L | L | L | L | B | L | L | L | L | Q | Q | | | | | | |
| 16 | | | | | | | | Q | Q | L | L | L | L | L | L | L | L | Q | Q | | | | | | |
| 17 | | | | | | | | Q | L | L | L | L | L | L | L | L | L | Q | Q | | | | | | |
| 18 | | | | | | | | Q | L | L | L | L | L | L | L | L | L | Q | Q | | | | | | |
| 19 | | | | | | | | Q | L | L | L | L | L | L | L | L | L | Q | Q | | | | | | |
| 20 | | | | | | | | Q | Q | L | L | L | L | L | L | L | L | Q | Q | | | | | | |
| 21 | | | | | | | | L | L | L | L | H | L | 540 | L | L | L | L | L | Q | | | | | |
| 22 | | | | | | | | L | 410 | 440 | 470 | 480 | 490 | 490 | H | 480 | 480 | 460 | 460 | 410 | Q | | | | |
| 23 | | | | | | | | Q | L | L | L | L | L | 500 | L | L | 490 | 440 | L | Q | Q | | | | |
| 24 | | | | | | | | Q | L | L | L | U | L | 560 | U | L | L | L | L | L | Q | Q | | | |
| 25 | | | | | | | | Q | L | L | L | 580 | L | L | L | L | L | L | L | Q | Q | | | | |
| 26 | | | | | | | | L | L | L | U | L | 530 | 530 | H | U | L | U | U | L | L | L | Q | | |
| 27 | | | | | | | | Q | L | L | L | L | 520 | 520 | 520 | 470 | 470 | 460 | L | L | L | L | Q | | |
| 28 | | | | | | | | Q | L | L | L | L | 470 | L | L | L | C | L | L | Q | Q | | | | |
| 29 | | | | | | | | Q | L | L | L | L | L | L | L | L | L | L | Q | Q | | | | | |
| 30 | | | | | | | | Q | L | L | L | L | L | L | L | L | L | L | L | L | Q | | | | |
| 31 | | | | | | | | L | L | I | B | 480 | 500 | 520 | 520 | 520 | 510 | 480 | 430 | U | L | L | Q | | |
| MED | | | | | | | | | | | | | | | 500 | 490 | 460 | 480 | 460 | | | | | | |
| NO | | | | | | | | | | | | | | | 1 | 3 | 4 | 9 | 7 | 8 | 6 | 5 | 3 | 2 | |

TABLE 64
IONOSPHERIC DATA

foE, Mc, March 1956

75° W Mean Time

Station Washington, D.C. Lat. 38.7° N Long. 77.1° W Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual Automatic

| | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | | | | | | | | | |
|-----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----|----|----|--|--|--|--|--|--|--|--|--|
| 01 | | | | | | | | S | 250 | 300 | 330 | 340 | 350 | 350 | 330 | 320 | 280 | 240 | | | | | | | | | | | | | | | |
| 02 | | | | | | | | U S | 160 | 250 | 290 | 300 | 330 | 350 | 350 | 330 | 320 | 280 | | B | | | | | | | | | | | | | |
| 03 | | | | | | | | U A | 200 | 240 | 290 | 310 | 320 | 330 | 330 | 320 | 300 | 250 | | B | B | | | | | | | | | | | | |
| 04 | | | | | | | | H | 210 | 240 | 290 | 310 | 330 | 320 | 330 | 330 | 320 | 290 | 230 | | | | | | | | | | | | | | |
| 05 | | | | | | | | A | A | H | H | 300 | 320 | 330 | 330 | 310 | 290 | 310 | 280 | | A | | | | | | | | | | | | |
| 06 | | | | | | | | A | 240 | 280 | 330 | | H | A | A | H | H | H | U A | U A | | | | | | | | | | | | | |
| 07 | | | | | | | | E S | 160 | 260 | 300 | 330 | 340 | 340 | 330 | 340 | 320 | 300 | 240 | H | A | | | | | | | | | | | | |
| 08 | | | | | | | | U P | 160 | 260 | 310 | 330 | 350 | 350 | 350 | 340 | 330 | 300 | 250 | 180 | U A | U P | | | | | | | | | | | |
| 09 | | | | | | | | H | 210 | 280 | 320 | 330 | 350 | 360 | 350 | 350 | 330 | 310 | | A | | | | | | | | | | | | | |
| 10 | | | | | | | | I | 200 | 270 | 310 | 340 | 360 | 380 | 370 | 350 | 340 | 310 | 250 | | | | | | | | | | | | | | |
| 11 | | | | | | | | H | 220 | 280 | 310 | 340 | 340 | 350 | 350 | 300 | 310 | 320 | 310 | 250 | 160 | | | | | | | | | | | | |
| 12 | | | | | | | | H | 200 | 270 | 310 | 330 | 350 | 360 | 360 | 350 | 350 | 330 | 300 | 230 | | | | | | | | | | | | | |
| 13 | | | | | | | | A | 270 | | A | B | H | 370 | 370 | 360 | 340 | 310 | 260 | E S | | | | | | | | | | | | | |
| 14 | | | | | | | | H | 180 | 260 | 290 | 320 | 350 | 370 | 370 | 360 | 340 | 310 | 250 | | S | | | | | | | | | | | | |
| 15 | | | | | | | | H | 210 | 270 | 310 | 320 | 340 | 360 | 370 | 360 | 340 | 310 | 260 | 180 | F U R U S | | | | | | | | | | | | |
| 16 | | | | | | | | H | 210 | 260 | 290 | 310 | 350 | 350 | 360 | 350 | 330 | 310 | 260 | 180 | U S | | | | | | | | | | | | |
| 17 | | | | | | | | H | 230 | 280 | 310 | 320 | 360 | 380 | 370 | 370 | 350 | 320 | 260 | 170 | | | | | | | | | | | | | |
| 18 | | | | | | | | A | A | A | U R | | H | U A | | | | | H | S | | | | | | | | | | | | | |
| 19 | | | | | | | | H | 210 | 270 | 300 | 310 | 350 | 360 | 370 | 360 | 340 | 300 | 280 | 180 | U H | | | | | | | | | | | | |
| 20 | | | | | | | | A | 300 | 330 | | A | A | H | 350 | 360 | 350 | 340 | 320 | 270 | H S | | | | | | | | | | | | |
| 21 | | | | | | | | H | 220 | 280 | 320 | 340 | 360 | 350 | 350 | 330 | 330 | 300 | 250 | | A | | | | | | | | | | | | |
| 22 | | | | | | | | H | 220 | 260 | 310 | | A | A | A | A | A | 330 | 300 | 250 | 190 | | | | | | | | | | | | |
| 23 | | | | | | | | H | 230 | 280 | 320 | 330 | 350 | 360 | 370 | 360 | 320 | 310 | 260 | | H S | | | | | | | | | | | | |
| 24 | | | | | | | | A | 290 | 320 | | | | 360 | 360 | 360 | 340 | 310 | 270 | 180 | | | | | | | | | | | | | |
| 25 | | | | | | | | H | 230 | 270 | 310 | 320 | 350 | 370 | 350 | 350 | 350 | 330 | 310 | 260 | | | | | | | | | | | | | |
| 26 | | | | | | | | H | 220 | 270 | 300 | 310 | 320 | 330 | 330 | 340 | 320 | 300 | 260 | | | | | | | | | | | | | | |
| 27 | | | | | | | | H | 240 | 290 | 320 | 330 | 330 | 360 | 360 | 360 | 330 | 310 | 260 | 170 | | | | | | | | | | | | | |
| 28 | | | | | | | | H | 230 | 280 | 300 | 330 | 330 | 330 | 360 | 340 | 320 | 310 | 260 | 200 | | | | | | | | | | | | | |
| 29 | | | | | | | | H | 160 | 230 | 280 | 320 | 330 | 340 | 340 | 350 | 340 | 320 | 300 | 260 | 200 | | | | | | | | | | | | |
| 30 | | | | | | | | H | 230 | 290 | 320 | 350 | 370 | 360 | 360 | 350 | 330 | 310 | 250 | 180 | | | | | | | | | | | | | |
| 31 | | | | | | | | H | 240 | 280 | 320 | 350 | 360 | 360 | 360 | 350 | 340 | 300 | 250 | 180 | U H | | | | | | | | | | | | |
| MED | | | | | | | | H | 220 | 270 | 310 | 330 | 350 | 360 | 360 | 350 | 330 | 310 | 260 | 180 | | | | | | | | | | | | | |
| NO | | | | | | | | 1 | 24 | 29 | 29 | 27 | 27 | 29 | 30 | 30 | 31 | 31 | 27 | 14 | | | | | | | | | | | | | |

CENTRAL RADIO PROPAGATION LABORATORY, NATIONAL BUREAU OF STANDARDS, BOULDER, COLO.

TABLE 65
IONOSPHERIC DATA

fEs, Mc, March 1956

75° W Mean Time

Station: Washington, D.C. Lat. 38.7°N Long. 77.1°W Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual Automatic

| | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | |
|-----|----|----|----|----|----|----|----|----|----|-----|----|-----|----|----|-----|----|----|----|----|----|----|----|----|----|----|
| 01 | S | S | S | E | E | S | S | 32 | 37 | G | G | G | G | G | G | G | G | G | G | S | E | S | S | S | |
| 02 | S | S | S | S | S | S | S | G | G | G | G | G | G | G | G | G | G | G | S | S | S | S | S | | |
| 03 | S | S | E | E | E | S | | 18 | 21 | 29 | 30 | G | 50 | G | 40 | G | G | B | B | B | S | 13 | E | S | |
| 04 | S | 30 | 17 | 17 | 29 | 32 | | E | G | G | 32 | G | 31 | 33 | G | G | G | G | S | S | S | S | S | E | |
| 05 | E | E | E | C | C | S | | 14 | 18 | 25 | 29 | G | G | C | G | G | 30 | 42 | 21 | S | S | S | S | 13 | 13 |
| 06 | 37 | 20 | 12 | 12 | E | S | S | 18 | 26 | 30 | 41 | 44 | 60 | 45 | 31 | 22 | 32 | 25 | 20 | 20 | 17 | 16 | S | S | |
| 07 | S | S | S | S | S | S | S | G | G | 66 | 34 | 37 | 38 | 35 | 19 | 19 | 25 | 20 | 17 | 16 | S | S | E | S | |
| 08 | S | E | S | E | E | E | S | | G | G | G | G | G | G | G | G | F | G | S | S | S | S | S | S | |
| 09 | S | S | S | S | S | S | S | 46 | Y | G | G | G | G | G | G | G | 26 | S | S | S | S | S | S | S | |
| 10 | S | E | S | S | E | S | S | G | G | 33 | 26 | 38 | 38 | G | G | G | G | G | S | S | S | S | S | S | |
| 11 | 30 | 24 | E | E | S | E | S | G | G | G | G | 113 | 48 | 44 | 42 | G | G | G | S | S | S | S | S | 25 | |
| 12 | S | E | E | E | E | E | E | G | G | 42 | 42 | G | G | 66 | 42 | G | 38 | S | S | S | S | S | E | | |
| 13 | 23 | E | E | S | S | S | S | 20 | 40 | 39 | B | 31 | 84 | 70 | 20 | 44 | 44 | 35 | S | S | S | S | S | S | |
| 14 | S | S | S | S | E | S | S | G | 34 | 30 | 33 | 36 | 24 | 22 | Y | G | G | 34 | G | S | S | S | S | 21 | |
| 15 | S | S | E | E | S | S | S | G | G | G | 41 | 36 | 36 | 36 | Y | B | Y | G | G | S | S | S | S | | |
| 16 | S | S | S | E | E | S | S | G | G | C | C | G | G | G | G | G | G | G | S | S | S | S | S | 21 | |
| 17 | S | S | S | S | S | S | S | G | G | 33 | 41 | 42 | G | 78 | G | G | G | G | S | S | S | S | E | S | |
| 18 | S | S | E | E | S | S | S | | Y | 36 | 37 | 41 | 68 | Y | 38 | G | G | G | S | E | S | S | S | S | |
| 19 | S | S | E | E | E | E | S | 42 | 37 | 40 | 44 | 56 | G | 37 | 26 | 23 | 34 | 29 | G | S | S | S | S | S | |
| 20 | S | 23 | 24 | 28 | 30 | 22 | 28 | 44 | G | 41 | 50 | 44 | 36 | G | G | G | G | 33 | 19 | S | S | 48 | 34 | 30 | |
| 21 | S | S | S | S | S | S | S | G | 42 | 37 | G | 40 | 40 | G | G | G | G | G | S | S | S | S | S | S | |
| 22 | S | S | E | E | S | E | | G | 28 | 37 | 33 | 34 | 34 | 45 | 31 | 30 | G | G | S | S | S | S | S | S | |
| 23 | S | S | S | E | Y | S | | G | G | G | G | G | G | Y | 110 | 84 | G | G | S | 19 | 19 | 23 | S | S | |
| 24 | S | S | S | 40 | 43 | 30 | 31 | 37 | 45 | 110 | 54 | G | G | G | 20 | 21 | 19 | G | S | S | S | S | S | | |
| 25 | S | S | S | E | E | E | | 25 | 60 | G | G | G | G | 36 | G | G | G | G | S | E | S | S | S | S | |
| 26 | S | E | E | E | E | S | S | G | Y | 32 | 26 | 34 | G | G | 34 | 35 | 34 | G | G | C | S | E | S | E | 35 |
| 27 | S | S | S | 31 | 27 | E | S | G | G | G | G | G | G | G | G | 34 | G | G | G | S | S | E | S | S | |
| 28 | S | S | S | S | S | S | S | 17 | 32 | 37 | 32 | 34 | 34 | 36 | 72 | 40 | C | G | G | S | S | S | S | S | |
| 29 | S | 28 | S | S | E | S | G | 78 | G | G | G | G | G | 22 | 19 | G | G | G | S | S | S | E | S | S | |
| 30 | S | S | S | S | S | S | S | G | G | 32 | 32 | G | G | G | G | G | G | G | S | S | E | S | S | | |
| 31 | S | S | S | 33 | S | S | S | 18 | 40 | B | G | G | G | G | 34 | G | G | G | 20 | 45 | E | S | S | S | |
| MED | U | 26 | | | | | U | 18 | | 25 | 30 | | | | | | | | | U | 16 | | U | 21 | |
| NO | 6 | 11 | 13 | 19 | 17 | 11 | 9 | 31 | 31 | 29 | 30 | 31 | 31 | 30 | 31 | 30 | 31 | 31 | 31 | 24 | 4 | 7 | 7 | 6 | 7 |

CENTRAL RADIO PROPAGATION LABORATORY, NATIONAL BUREAU OF STANDARDS, BOULDER, COLO.

TABLE 66
IONOSPHERIC DATA

f min, Mc, March 1956

75° W Mean Time

Station: Washington, D.C. Lat. 38.7° N Long. 77.1° W Sweep 1.0 Mc to 25.0 Mc in 13.5 sec. Manual Automatic

TABLE 67
IONOSPHERIC DATA

$h^{\circ} F_2$, Km, March 1956

Station: Washington, D.C. Lot. 38.7° N Long. 77.1° W Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

75° W Mean Time

Manual Automatic

| | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|-----|-----|-----|--|
| 01 | 280 | 280 | 280 | 290 | 290 | 280 | 320 | 250 | 240 | 240 | 250 | 250 | 270 | 280 | 260 | 250 | 250 | 240 | 220 | 220 | 230 | 230 | 250 | 270 | | | | | |
| | U S | U S | U S | U S | U S | U S | | F | F | L | G | G | G | G | G | G | G | H | 670 | 470 | 410 | 300 | 300 | U S | | | | | |
| 02 | 290 | 280 | 340 | 290 | 300 | 260 | 230 | 240 | 230 | 240 | 250 | 270 | 260 | 260 | 260 | 260 | 250 | 230 | 230 | 210 | 240 | 260 | 300 | 280 | U S U S | | | | |
| | U F | U S | U S | U S | U S | U S | | | | | | | | | | | | | | | | | | | 260 460 | | | | |
| 03 | 330 | 360 | 320 | 350 | 300 | 320 | 400 | 320 | | L | | | | | | | | | | | | | | | | | | | |
| | U F | U S | U S | U S | U S | U S | | | | | | | | | | | | | | | | | | | | | | | |
| 04 | 480 | 370 | 450 | 400 | 330 | 280 | 340 | 260 | | | 250 | | 260 | 290 | 280 | 250 | 250 | 250 | 240 | 230 | 220 | 240 | 240 | 240 | 240 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 05 | 250 | 270 | 280 | | | | | 270 | 250 | 230 | 250 | 250 | 270 | 260 | 270 | | | | | 250 | 240 | 230 | 220 | 250 | 250 | 250 | 260 | | |
| | C | C | F | F | F | F | | | | | | | | | | | | | | | | | | | | | | | |
| 06 | 270 | 270 | 260 | 250 | 270 | 260 | 260 | 240 | 230 | 250 | 250 | 270 | 260 | 260 | 270 | 260 | 240 | 230 | 230 | 230 | 230 | 230 | 230 | 240 | 250 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 07 | 270 | 260 | 260 | 250 | 260 | 260 | 260 | 230 | 230 | 250 | 250 | 260 | 270 | 260 | 270 | 270 | 250 | 240 | 220 | 215 | 230 | 240 | 230 | 260 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 08 | 260 | 260 | 250 | 250 | 250 | 250 | 240 | 230 | 240 | 240 | 240 | 250 | 290 | 260 | 240 | 240 | 230 | 240 | 220 | 220 | 220 | 240 | 250 | 250 | 250 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 09 | 270 | 270 | 270 | 270 | 250 | 240 | 230 | 220 | 230 | 240 | 250 | 250 | 250 | 280 | 250 | 250 | 270 | 250 | 240 | 230 | 230 | 230 | 240 | 240 | 240 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 250 | 300 | 300 | 270 | 270 | 250 | 260 | 250 | 240 | 240 | 250 | 250 | 270 | 270 | 280 | 250 | 240 | 250 | 270 | 300 | 260 | 280 | 230 | 260 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | 250 | 230 | 290 | 270 | 290 | 250 | 260 | 240 | 260 | 260 | 250 | 270 | 290 | 280 | | | | | 240 | 240 | 240 | 230 | 250 | 250 | 240 | 240 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 12 | 250 | 270 | 280 | 290 | 280 | 290 | 290 | 250 | 250 | 270 | 270 | 260 | 270 | 270 | 270 | 270 | 260 | 240 | 240 | 220 | 240 | 240 | 250 | 250 | 270 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 13 | 290 | 270 | 270 | 230 | 260 | 290 | 260 | 230 | 240 | 240 | 260 | | 270 | 270 | 260 | 250 | 240 | 240 | 220 | 230 | 250 | 250 | 260 | 260 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | 260 | 250 | 240 | 240 | 250 | 290 | 320 | 230 | 230 | 250 | 270 | 260 | 250 | 280 | 270 | 250 | 250 | 250 | 240 | 230 | 240 | 250 | 250 | 270 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | 260 | 260 | 260 | 250 | 260 | 270 | 290 | 240 | 240 | 250 | 280 | 270 | 250 | 260 | 280 | 250 | 250 | 240 | 230 | 220 | 240 | 250 | 260 | 260 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | 260 | 250 | 260 | 280 | 300 | 320 | 290 | 240 | 230 | 250 | 260 | 270 | 270 | 290 | 290 | 280 | | | | 240 | 240 | 240 | 240 | 240 | 260 | 260 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | 270 | 280 | 280 | 260 | 260 | 250 | 250 | 240 | 260 | 250 | 250 | 290 | 260 | 270 | 270 | 270 | 270 | 240 | 240 | 220 | 230 | 240 | 250 | 260 | 260 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | 250 | 260 | 270 | 270 | 290 | 280 | 250 | 230 | 230 | 260 | 250 | 260 | 260 | 300 | 290 | 260 | 250 | 250 | 230 | 230 | 230 | 250 | 260 | 270 | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 19 | 270 | 270 | 250 | 260 | 240 | 250 | 250 | 230 | 240 | 240 | 250 | 300 | 310 | 250 | 250 | 250 | 240 | 250 | 240 | 240 | 260 | 270 | 270 | 250 | 250 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | 230 | 250 | 250 | 250 | 270 | 250 | 260 | 230 | 230 | 230 | 250 | | 280 | | L | U L | L | L | 250 | 240 | 230 | 230 | 240 | 280 | 260 | 240 | | | |
| | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U A | U S | | | |
| 21 | 280 | 280 | 290 | 340 | 340 | 330 | 310 | 260 | 260 | 270 | 270 | 370 | | L | L | L | L | 320 | | 280 | 270 | 270 | 290 | 290 | 400 | 510 | | | |
| | U S | U S | U S | U S | U S | U S | U S | L | L | | | | | | | | | | | | | | | | | | | | |
| 22 | 400 | 380 | 370 | 330 | 350 | 340 | 340 | | | | | | 510 | 550 | 600 | 570 | 640 | 530 | 470 | 470 | 400 | 280 | 250 | 240 | 280 | 260 | 350 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 23 | 330 | 420 | 390 | 330 | 340 | 350 | 320 | 270 | 280 | 250 | 260 | 260 | 270 | 280 | 270 | 270 | | | | 250 | 240 | 230 | 230 | 260 | 250 | 260 | | | |
| | F | F | F | F | U A | U A | U A | | | | | | | | | | | | | | | | | | | | | | |
| 24 | 280 | 280 | 270 | 280 | 300 | 270 | 260 | 250 | 260 | 270 | 330 | | | | | 340 | 340 | | | | 250 | 270 | 250 | 230 | 250 | 260 | 250 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | 230 | 290 | 280 | 280 | 270 | 290 | 260 | 240 | 240 | 250 | 230 | | | | | 290 | 270 | 270 | 250 | 250 | 230 | 240 | 210 | 240 | 240 | 230 | 250 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 26 | 250 | 230 | 260 | 260 | 270 | 290 | 290 | 280 | 280 | | | | | | | 380 | 380 | 360 | 350 | 330 | 300 | 280 | 250 | 240 | 240 | 250 | 270 | 270 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 27 | 290 | 290 | 280 | 280 | 270 | 260 | 250 | 240 | 250 | 240 | | | | | | 260 | 260 | 290 | | | | | 230 | 250 | 240 | 260 | 230 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 28 | 280 | 260 | 260 | 250 | 250 | 280 | 280 | 250 | 280 | 320 | 300 | 290 | | | | 290 | 300 | 290 | 290 | 280 | 280 | 270 | 270 | 240 | 240 | 330 | 300 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 29 | 280 | 270 | 270 | 320 | 390 | 330 | 270 | 250 | 260 | 250 | | | | | | 270 | 300 | 290 | 270 | 260 | 250 | 250 | 240 | 220 | 250 | 270 | 260 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 30 | 250 | 300 | 310 | 270 | 250 | 260 | 250 | 240 | 250 | 240 | 240 | 270 | 280 | 250 | 330 | 280 | 250 | 250 | 240 | 240 | 220 | 220 | 220 | 240 | 270 | 270 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 31 | 250 | 280 | 270 | 280 | 290 | 310 | 300 | 290 | 330 | 380 | 420 | 470 | 450 | 470 | 430 | 390 | 340 | 290 | 270 | 270 | 270 | 270 | 270 | 270 | 270 | 280 | | | |
| MED | 270 | 270 | 270 | 270 | 270 | 280 | 260 | 240 | 240 | 250 | 250 | 270 | 270 | 280 | 270 | 270 | 270 | 250 | 240 | 240 | 230 | 240 | 250 | 260 | 260 | | | | |
| NO | 31 | 31 | 31 | 30 | 30 | 31 | 31 | 30 | 28 | 30 | 28 | 26 | 27 | 28 | 27 | 27 | 26 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | | | | |

CENTRAL RADIO PROPAGATION LABORATORY, NATIONAL BUREAU OF STANDARDS, BOULDER, COLO.

TABLE 68
IONOSPHERIC DATA

h¹ F1, Km, March 1956

75° W Mean Time

Station: Washington, D.C. Lat. 38.7° N Long. 77.1° W Sweep 1.0 Mc to 25.0 Mc in 13.5 sec. Manual Automatic

| | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | | | | |
|-----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|--|--|--|--|
| 01 | | | | | | | | | 240 | 210 | 210 | 230 | 210 | 220 | 220 | 235 | 220 | | | | | | | | | | | |
| 02 | | | | | | | | | | 220 | 230 | 200 | 200 | 220 | 220 | 220 | 220 | 230 | | | | | | | | | | |
| 03 | | | | | | | | | 230 | 215 | 200 | 240 | 235 | 240 | 250 | 230 | 250 | 290 | | | | | | | | | | |
| 04 | | | | | | | | | 230 | 230 | 215 | 210 | 200 | 205 | 210 | 215 | 235 | | | | | | | | | | | |
| 05 | | | | | | | | | 220 | 210 | 200 | 210 | 210 | 210 | 220 | 220 | 230 | | | | | | | | | | | |
| 06 | | | | | | | | | | 220 | 215 | 220 | 215 | 205 | 205 | 215 | 230 | | | | | | | | | | | |
| 07 | | | | | | | | | | 215 | 215 | 200 | 205 | 210 | 215 | 200 | 230 | 240 | | | | | | | | | | |
| 08 | | | | | | | | | | 230 | 220 | 210 | 210 | 205 | 210 | 210 | 210 | 210 | 210 | 225 | | | | | | | | |
| 09 | | | | | | | | | | 225 | 220 | 210 | 200 | 200 | 220 | 220 | 230 | 230 | | | | | | | | | | |
| 10 | | | | | | | | | | 230 | 230 | 230 | 220 | 210 | 220 | 220 | 230 | | | | | | | | | | | |
| 11 | | | | | | | | | | 230 | 215 | 215 | 200 | 230 | 220 | 215 | 220 | 220 | 220 | 240 | | | | | | | | |
| 12 | | | | | | | | | | 240 | 225 | 215 | 220 | 200 | 200 | 210 | 215 | 240 | 240 | | | | | | | | | |
| 13 | | | | | | | | | | 230 | 210 | 210 | 205 | 215 | 215 | 200 | 215 | 230 | | | | | | | | | | |
| 14 | | | | | | | | | | | 210 | 205 | 210 | 200 | 215 | 220 | 230 | 225 | 240 | | | | | | | | | |
| 15 | | | | | | | | | | | 230 | 210 | 215 | 185 | 210 | 220 | 220 | 215 | 225 | | | | | | | | | |
| 16 | | | | | | | | | | | 220 | 210 | 215 | 210 | 230 | 215 | 220 | 235 | | | | | | | | | | |
| 17 | | | | | | | | | | | 235 | 220 | 215 | 220 | 215 | 215 | 220 | 215 | 225 | | | | | | | | | |
| 18 | | | | | | | | | | | 225 | 220 | 215 | 210 | 205 | 215 | 225 | 220 | 230 | 240 | | | | | | | | |
| 19 | | | | | | | | | | | 225 | 215 | 215 | 200 | 205 | 235 | 230 | 210 | 225 | | | | | | | | | |
| 20 | | | | | | | | | | | 220 | 210 | 200 | 190 | 230 | 230 | 230 | 220 | | | | | | | | | | |
| 21 | | | | | | | | | | | 250 | 230 | 215 | 220 | 210 | 230 | 235 | 230 | 225 | 240 | 250 | | | | | | | |
| 22 | | | | | | | | | | | 280 | 250 | 240 | 210 | 200 | 200 | 240 | 240 | 240 | 240 | 270 | | | | | | | |
| 23 | | | | | | | | | | | 240 | 230 | 220 | 220 | 200 | 200 | 210 | 205 | 230 | | | | | | | | | |
| 24 | | | | | | | | | | | 230 | 210 | 200 | 200 | 230 | 230 | 220 | 220 | 230 | 240 | | | | | | | | |
| 25 | | | | | | | | | | | | 230 | 230 | 215 | 200 | 230 | 230 | 220 | 220 | 215 | 220 | | | | | | | |
| 26 | | | | | | | | | | | | 260 | 235 | 240 | 220 | 205 | 195 | 220 | 220 | 230 | 225 | 235 | | | | | | |
| 27 | | | | | | | | | | | | 230 | 225 | 205 | 215 | 210 | 210 | 220 | 225 | 225 | 235 | | | | | | | |
| 28 | | | | | | | | | | | | 240 | 225 | 215 | 215 | 210 | 220 | 230 | 235 | 240 | 250 | | | | | | | |
| 29 | | | | | | | | | | | | 250 | 230 | 220 | 220 | 215 | 220 | 215 | 230 | 225 | 230 | | | | | | | |
| 30 | | | | | | | | | | | | 230 | 220 | 210 | 205 | 230 | 225 | 220 | 230 | 240 | 250 | | | | | | | |
| 31 | | | | | | | | | | | | 275 | 240 | 245 | 230 | 220 | 220 | 220 | 230 | 235 | 235 | 250 | | | | | | |
| MED | | | | | | | | | | | | 255 | 230 | 220 | 215 | 210 | 210 | 220 | 220 | 230 | 230 | 240 | | | | | | |
| NO | | | | | | | | | | | | 6 | 25 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 30 | 15 | | | | | | |

CENTRAL RADIO PROPAGATION LABORATORY, NATIONAL BUREAU OF STANDARDS, BOULDER, COLO.

TABLE 69
IONOSPHERIC DATA

h'E, Km, March 1956

Station: Washington, D.C. Lat. 38.7° N Long. 77.1° W Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

75° W Mean Time

Manual Automatic

| | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | | |
|-----|-----|----|----|----|----|----|----|----|-----|-----|-------------|-----|-------------------|-----|-----|-----|---------|-----|-----|-----|-----|----|----|----|--|--|
| 01 | | | | | | | | | 113 | 109 | 109 | 109 | 105 | 105 | 107 | 101 | 109 | 109 | 113 | S | | | | | | |
| | E S | | | | | | | | 137 | 109 | 105 | 109 | 109 | 109 | 109 | 105 | 105 | 115 | B | | | | | | | |
| 02 | | | | | | | | | | | | | | | | | | | B | B | | | | | | |
| 03 | | | | | | | | | 129 | 119 | 101 | 107 | 109 | 109 | 101 | 109 | 109 | 111 | | | | | | | | |
| | H H | | | | | | | | | H H | H H | H H | | | | | | | | | | | | | | |
| 04 | | | | | | | | | 127 | 117 | 109 | 109 | 107 | 109 | 109 | 109 | 109 | 111 | 119 | | | | | | | |
| | A | | | | | | | | | H H | | | U C I C | | | | | | A | | | | | | | |
| 05 | | | | | | | | | 119 | 109 | 111 | 119 | 109 | 106 | 103 | 115 | 115 | | | | | | | | | |
| | U A | | | | | | | | 125 | 113 | 109 | 109 | 109 | 109 | 110 | 111 | 111 | | H A | A | | | | | | |
| 06 | | | | | | | | | | S | | | | | | | | | | | | | | | | |
| | | | | | | | | | | 115 | 109 | 107 | 105 | 105 | 103 | 111 | 111 | 115 | 119 | | A | | | | | |
| 07 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 08 | | | | | | | | | 125 | 109 | 109 | 109 | 109 | 109 | 105 | 103 | 105 | 111 | 119 | 135 | | | | | | |
| | U S | H | | | | | | | 139 | 105 | 111 | 111 | 109 | 105 | 101 | 111 | 109 | 111 | 121 | | | | | | | |
| 09 | | | | | | | | | | U A | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | 125 | 111 | 109 | 121 | 109 | 109 | 105 | 105 | 115 | 111 | 121 | | | | | | | |
| | H H | | | | | | | | | H H | H | | | | | | | H H | S | | | | | | | |
| 11 | | | | | | | | | 111 | 103 | 103 | 101 | 105 | 103 | 101 | 107 | 101 | 101 | 115 | | | | | | | |
| | H H | | | | | | | | 111 | 109 | 109 | 105 | 103 | 101 | 103 | 101 | 105 | 109 | 117 | | | | | | | |
| 12 | | | | | | | | | | U S | | | I B | | | | U A U A | | | S | | | | | | |
| | | | | | | | | | 111 | 107 | 107 | 106 | 105 | 105 | 109 | 109 | 109 | 109 | 111 | | | | | | | |
| 13 | | | | | | | | | | H | | | E A E A E A | | | | | | S | | | | | | | |
| | | | | | | | | | 117 | 107 | 107 | 105 | 121 | 113 | 111 | 107 | 109 | 109 | 117 | | | | | | | |
| 14 | | | | | | | | | | H | | | E A B E A | | | | | | S | | | | | | | |
| | | | | | | | | | 111 | 109 | 105 | 107 | 117 | | | 115 | 109 | 107 | 109 | 117 | | | | | | |
| 15 | | | | | | | | | | E S | I C U C I C | | | | | | | | U S | | | | | | | |
| | | | | | | | | | 121 | 115 | 109 | 109 | 109 | 107 | 107 | 107 | 109 | 109 | 113 | 119 | 131 | | | | | |
| 16 | | | | | | | | | | U S | | | | | | | | | E S | | | | | | | |
| | | | | | | | | | 119 | 113 | 109 | 109 | 109 | 105 | 105 | 109 | 109 | 111 | 115 | 141 | | | | | | |
| 17 | | | | | | | | | | | | | H E A | | | | | | H S | | | | | | | |
| | | | | | | | | | 115 | 109 | 109 | 107 | 105 | 109 | 107 | 109 | 109 | 109 | 115 | | | | | | | |
| 18 | | | | | | | | | | H H | | | I A H E A E A E A | | | | | | E S | | | | | | | |
| | | | | | | | | | 115 | 113 | 109 | 109 | 105 | 105 | 121 | 117 | 117 | 103 | 105 | 131 | | | | | | |
| 19 | | | | | | | | | | H H | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | 121 | 109 | 109 | 107 | 105 | 101 | 103 | 105 | 105 | 111 | 111 | | H S | | | | | |
| | | | | | | | | | 119 | 109 | 109 | 109 | 105 | 105 | 103 | 101 | 109 | 111 | 115 | 135 | | | | | | |
| 21 | | | | | | | | | | H | | | | | | | | | | | | | | | | |
| | | | | | | | | | 117 | 111 | 111 | 109 | 109 | 109 | 109 | 109 | 105 | 119 | 119 | 129 | | | | | | |
| 22 | | | | | | | | | | H | | | | | | | | | H S | | | | | | | |
| | | | | | | | | | 111 | 115 | 111 | 107 | 101 | 101 | 101 | 101 | 101 | 109 | 109 | 115 | | | | | | |
| 23 | | | | | | | | | | H | | | | | | | | | | | | | | | | |
| | | | | | | | | | 115 | 103 | 101 | 101 | 101 | 101 | 101 | 109 | 111 | 111 | 111 | 130 | | | | | | |
| 24 | | | | | | | | | | H | | | | | | | | | S | | | | | | | |
| | | | | | | | | | 111 | 105 | 101 | 101 | 101 | 105 | 103 | 101 | 101 | 101 | 101 | | | | | | | |
| 25 | | | | | | | | | | E S | E A E A | | | | | | H H H H | | | | | | | | | |
| | | | | | | | | | 117 | 119 | 117 | 101 | 99 | 99 | 99 | 99 | 99 | 99 | 113 | 113 | | | | | | |
| 26 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 115 | 107 | 101 | 101 | 105 | 101 | 101 | 101 | 101 | 109 | 109 | 129 | | | | | | |
| 27 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 113 | 109 | 103 | 103 | 101 | 109 | 101 | 101 | 109 | 107 | 105 | 111 | 120 | | | | | |
| 28 | | | | | | | | | | | | | | | | | | I C | | | | | | | | |
| | | | | | | | | | 119 | 111 | 111 | 109 | 109 | 107 | 111 | 111 | 111 | 109 | 110 | 127 | | | | | | |
| 29 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 115 | 109 | 105 | 103 | 101 | 101 | 101 | 101 | 101 | 109 | 109 | 119 | | | | | | |
| 30 | | | | | | | | | | H | I B | H H | U B | | | | | | E S | E S | | | | | | |
| | | | | | | | | | 119 | 105 | 105 | 101 | 109 | 101 | 101 | 101 | 99 | 111 | 109 | 121 | | | | | | |
| 31 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MED | | | | | | | | | 115 | 109 | 109 | 107 | 105 | 105 | 103 | 107 | 109 | 111 | 115 | 129 | | | | | | |
| NO | | | | | | | | | 1 | 26 | 30 | 30 | 31 | 29 | 29 | 27 | 30 | 30 | 30 | 30 | 27 | 10 | | | | |

TABLE 70
IONOSPHERIC DATA

(M 3000) F2, March 1956

75° W Mean Time

Station Washington, D.C. Lat. 38.7° N Long. 77.1° W Sweep 1.0 Mc to 25.0 Mc in 13.5 sec. Manual Automatic

| | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 01 | 280 | 290 | 280 | 290 | 280 | 290 | 280 | 280 | 310 | 320 | 310 | 310 | 300 | 300 | 300 | 310 | 315 | 325 | 305 | 305 | 310 | 285 | 270 | F |
| 02 | 275 | 280 | 250 | 260 | 290 | 295 | 310 | 330 | 340 | 345 | 310 | 310 | 305 | 300 | 305 | 300 | 300 | 310 | 310 | 300 | 310 | 290 | 260 | 290 |
| 03 | 260 | 270 | 250 | 250 | 290 | 270 | 250 | 300 | 320 | | | | | | | | 225 | 240 | 260 | 295 | 310 | 300 | 270 | 300 |
| 04 | 240 | 250 | 250 | 270 | 290 | 300 | 330 | 310 | 340 | 300 | 305 | 305 | 315 | 310 | 305 | 310 | 315 | 320 | 310 | 300 | 310 | 315 | 310 | |
| 05 | 310 | 290 | 300 | | C | C | F | F | 300 | 310 | 330 | 340 | 320 | 320 | 310 | 310 | 300 | 310 | 310 | 310 | 300 | 290 | 290 | |
| 06 | 290 | 290 | 290 | 300 | 300 | 290 | 300 | 330 | 340 | 325 | 320 | 320 | 320 | 310 | 300 | 300 | 310 | 305 | 305 | 310 | 305 | 300 | 300 | 290 |
| 07 | 290 | 290 | 295 | 300 | 290 | 290 | 290 | 320 | 345 | 335 | 310 | 320 | 305 | 310 | 310 | 300 | 305 | 305 | 325 | 300 | 305 | 305 | 290 | 285 |
| 08 | 290 | 290 | 295 | 295 | 300 | 305 | 310 | 330 | 350 | 335 | 310 | 315 | 310 | 320 | 300 | 295 | 310 | 315 | 315 | 305 | 310 | 320 | 300 | 300 |
| 09 | 300 | 290 | 295 | 290 | 300 | 310 | 310 | 340 | 350 | 340 | 320 | 310 | 310 | 310 | 300 | 300 | 300 | 310 | 300 | 300 | 310 | 310 | 300 | 300 |
| 10 | 290 | 270 | 270 | 290 | 290 | 290 | 320 | 325 | 320 | 300 | 300 | 290 | 290 | 280 | 285 | 290 | 285 | 280 | 270 | 275 | 260 | 290 | 270 | |
| 11 | 270 | 260 | 280 | 250 | 275 | 280 | 310 | 310 | 305 | 300 | 290 | 290 | 290 | 290 | 290 | 290 | 300 | 290 | 285 | 295 | 300 | 295 | 290 | |
| 12 | 290 | 285 | 280 | 260 | 270 | 270 | 310 | 330 | 320 | 320 | 300 | 300 | 290 | 290 | 290 | 290 | 300 | 300 | 290 | 300 | 290 | 285 | 270 | |
| 13 | 280 | 280 | 280 | 300 | 260 | 270 | 275 | 320 | 315 | 320 | 300 | 290 | 290 | 290 | 290 | 290 | 300 | 305 | 290 | 285 | 280 | 280 | 280 | |
| 14 | 285 | 290 | 285 | 290 | 280 | 270 | 260 | 330 | 320 | 325 | 315 | 305 | 295 | 290 | 300 | 295 | 300 | 300 | 300 | 300 | 295 | 300 | 290 | |
| 15 | 285 | 280 | 290 | 290 | 270 | 280 | 280 | 310 | 340 | 310 | 305 | 310 | 295 | 290 | 290 | 295 | 300 | 305 | 320 | 300 | 300 | 290 | 285 | |
| 16 | 290 | 290 | 290 | 280 | 270 | 290 | 320 | 320 | 305 | 305 | 300 | 300 | 295 | 305 | 300 | 305 | 305 | 305 | 295 | 300 | 300 | 300 | 295 | |
| 17 | 285 | 280 | 285 | 290 | 295 | 290 | 310 | 340 | 330 | 310 | 300 | 300 | 290 | 290 | 290 | 290 | 290 | 300 | 300 | 290 | 285 | 290 | 295 | 290 |
| 18 | 290 | 290 | 280 | 280 | 270 | 270 | 320 | 320 | 310 | 310 | 295 | 290 | 285 | 285 | 285 | 290 | 295 | 300 | 305 | 295 | 305 | 285 | 290 | 270 |
| 19 | 285 | 275 | 280 | 275 | 280 | 285 | 300 | 320 | 325 | 300 | 295 | 290 | 285 | 290 | 280 | 285 | 290 | 280 | 290 | 280 | 280 | 280 | 270 | 280 |
| 20 | 275 | 275 | 290 | 295 | 290 | 290 | 300 | 310 | 330 | 320 | 310 | 300 | 285 | 300 | 290 | 290 | 290 | 300 | 310 | 300 | 295 | 285 | 285 | 300 |
| 21 | 290 | 280 | 260 | 240 | 255 | 250 | 290 | 310 | 305 | 300 | 285 | 275 | 270 | 260 | 255 | 265 | 265 | 285 | 285 | 280 | 270 | 265 | 235 | |
| 22 | 250 | 250 | 260 | 250 | 250 | 280 | 280 | 250 | 260 | 250 | 230 | 240 | 225 | 245 | 255 | 250 | 240 | 280 | 280 | 285 | 270 | 270 | 250 | |
| 23 | 260 | 240 | 250 | 270 | 270 | 280 | 280 | 310 | 310 | 300 | 310 | 305 | 300 | 305 | 305 | 300 | 310 | 310 | 300 | 290 | 290 | 270 | 280 | |
| 24 | 270 | 270 | 275 | 290 | 270 | 290 | 300 | 310 | 330 | 320 | 290 | 270 | 265 | 265 | 280 | 280 | 285 | 275 | 295 | 290 | 280 | 280 | 275 | |
| 25 | 280 | 265 | 275 | 270 | 270 | 280 | 310 | 340 | 330 | 330 | 300 | 300 | 295 | 295 | 290 | 290 | 290 | 300 | 300 | 315 | 295 | 290 | 300 | |
| 26 | 285 | 280 | 280 | 280 | 285 | 280 | 285 | 310 | 315 | 295 | 275 | 270 | 270 | 275 | 275 | 290 | 290 | 290 | 295 | 300 | 295 | 290 | 285 | |
| 27 | 270 | 270 | 270 | 270 | 270 | 280 | 320 | 325 | 320 | 310 | 300 | 290 | 285 | 285 | 280 | 280 | 285 | 290 | 290 | 280 | 275 | 280 | 285 | |
| 28 | 270 | 280 | 275 | 280 | 280 | 260 | 285 | 300 | 320 | 285 | 290 | 295 | 285 | 290 | 280 | 280 | 280 | 280 | 275 | 275 | 280 | 290 | 255 | |
| 29 | 275 | 245 | 270 | 265 | 250 | 270 | 290 | 310 | 310 | 320 | 300 | 290 | 290 | 290 | 290 | 295 | 300 | 300 | 305 | 300 | 290 | 300 | 285 | |
| 30 | 300 | 290 | 270 | 275 | 295 | 295 | 310 | 330 | 320 | 320 | 300 | 315 | 305 | 295 | 295 | 280 | 300 | 270 | 295 | 300 | 310 | 275 | 290 | |
| 31 | 280 | 240 | 260 | 260 | 250 | 250 | 270 | 300 | 280 | B | 270 | 255 | 260 | 260 | 265 | 270 | 280 | 290 | 295 | 295 | 290 | 270 | 275 | |
| MED | 285 | 280 | 280 | 280 | 275 | 280 | 290 | 320 | 320 | 320 | 300 | 300 | 290 | 290 | 290 | 290 | 300 | 300 | 300 | 300 | 295 | 290 | 285 | |
| NO | 30 | 30 | 29 | 30 | 30 | 30 | 31 | 31 | 31 | 30 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 29 | |

CENTRAL RADIO PROPAGATION LABORATORY, NATIONAL BUREAU OF STANDARDS, BOULDER, COLO.

TABLE 71
IONOSPHERIC DATA

(M3000) FI, March 1956

Station Washington, D.C. Lat. 38.7° N Long. 77.1° W Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

75° W Mean Time

Manual Automatic

| | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | |
|-----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|--|
| 01 | | | | | | | | Q | L | L | L | L | L | 390 | L | L | L | Q | Q | | | | | | |
| 02 | | | | | | | | Q | Q | L | L | L | L | 400 | L | L | L | Q | | | | | | | |
| 03 | | | | | | | | Q | F | F | F | H | | | | | | | Q | | | | | | |
| 04 | | | | | | | | 380 | 380 | 350 | 360 | 370 | 350 | 350 | 330 | 305 | | | | | | | | | |
| 05 | | | | | | | | Q | L | L | L | H | L | H | L | L | L | Q | | | | | | | |
| 06 | | | | | | | | Q | Q | L | L | L | L | H | H | L | L | Q | | | | | | | |
| 07 | | | | | | | | Q | Q | H | L | H | L | H | L | L | H | L | Q | | | | | | |
| 08 | | | | | | | | Q | L | L | L | L | L | L | L | L | L | L | Q | | | | | | |
| 09 | | | | | | | | Q | L | L | L | 420 | 410 | 400 | L | L | L | L | Q | | | | | | |
| 10 | | | | | | | | Q | L | L | L | L | 380 | 390 | L | L | Q | Q | | | | | | | |
| 11 | | | | | | | | Q | L | H | L | H | L | L | H | L | L | Q | | | | | | | |
| 12 | | | | | | | | Q | L | L | L | L | L | L | L | L | L | L | L | | | | | | |
| 13 | | | | | | | | Q | L | H | B | H | L | 390 | L | L | L | Q | Q | | | | | | |
| 14 | | | | | | | | Q | Q | L | H | L | L | H | L | L | L | L | Q | | | | | | |
| 15 | | | | | | | | Q | L | L | L | H | I | B | L | L | L | L | Q | Q | | | | | |
| 16 | | | | | | | | Q | Q | L | L | L | L | L | L | L | L | Q | Q | | | | | | |
| 17 | | | | | | | | Q | L | L | L | L | L | H | H | L | Q | Q | | | | | | | |
| 18 | | | | | | | | Q | L | L | L | L | L | L | L | L | L | L | Q | | | | | | |
| 19 | | | | | | | | Q | L | L | L | H | H | H | L | L | L | Q | Q | | | | | | |
| 20 | | | | | | | | Q | Q | L | L | L | L | L | L | L | L | L | Q | Q | | | | | |
| 21 | | | | | | | | L | L | L | L | H | L | L | L | L | L | L | Q | | | | | | |
| 22 | | | | | | | | L | 340 | 340 | 360 | 360 | 350 | 340 | 340 | 330 | 320 | 310 | Q | | | | | | |
| 23 | | | | | | | | Q | L | L | L | 390 | L | L | 390 | 400 | L | Q | Q | | | | | | |
| 24 | | | | | | | | Q | L | L | L | U | U | U | L | L | L | L | Q | | | | | | |
| 25 | | | | | | | | L | L | L | L | L | L | L | L | L | L | L | Q | Q | | | | | |
| 26 | | | | | | | | L | L | L | U | H | H | U | U | U | U | L | L | Q | | | | | |
| 27 | | | | | | | | Q | L | L | L | 340 | 340 | 340 | 350 | 370 | 370 | L | L | L | Q | | | | |
| 28 | | | | | | | | Q | L | L | L | 370 | L | L | L | I | C | L | L | Q | | | | | |
| 29 | | | | | | | | Q | L | L | L | L | L | L | L | L | L | Q | Q | | | | | | |
| 30 | | | | | | | | Q | L | L | L | L | L | L | L | L | L | L | Q | | | | | | |
| 31 | | | | | | | | L | L | I | B | 340 | 340 | 335 | 330 | 345 | 340 | 360 | U | L | L | Q | | | |
| MED | | | | | | | | | | | | | 350 | 350 | 380 | 360 | 350 | | | | | | | | |
| NO | | | | | | | | | | | | | 1 | 2 | 4 | 9 | 7 | 8 | 6 | 5 | 3 | 2 | | | |

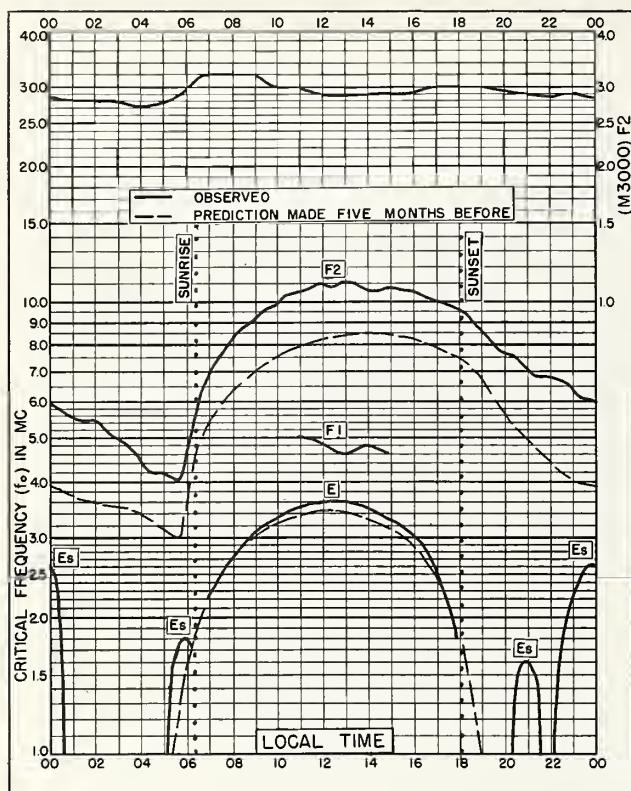


Fig. 1. WASHINGTON, D. C.

38.7°N, 77.1°W

MARCH 1956

NBS 503

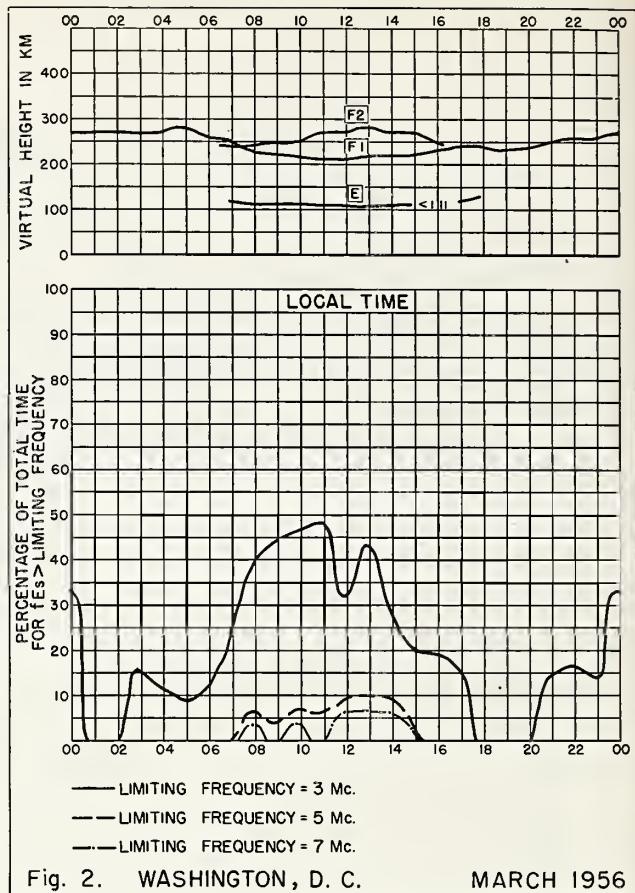


Fig. 2. WASHINGTON, D. C.

MARCH 1956

NBS 490

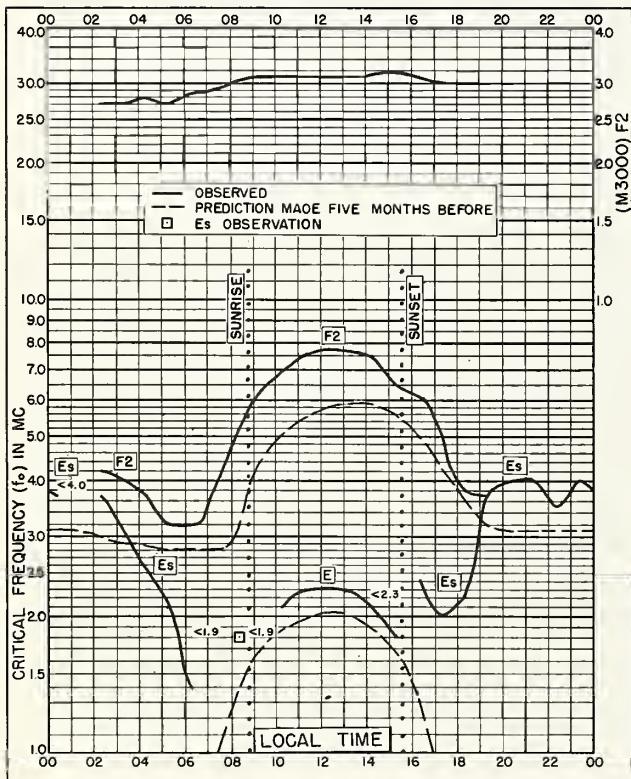


Fig. 3. TROMSO, NORWAY

69.7°N, 19.0°E

FEBRUARY 1956

NBS 503

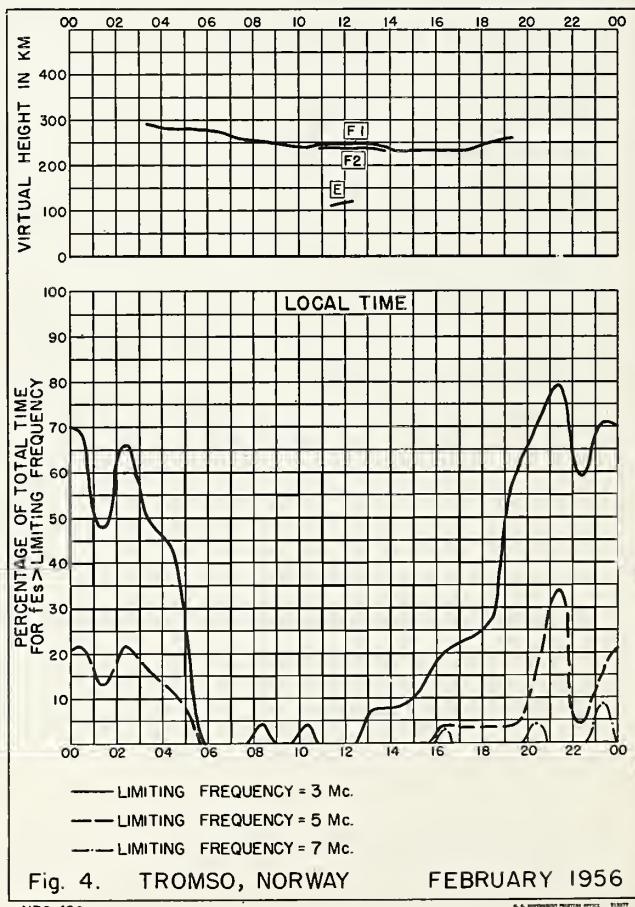


Fig. 4. TROMSO, NORWAY

FEBRUARY 1956

NBS 490

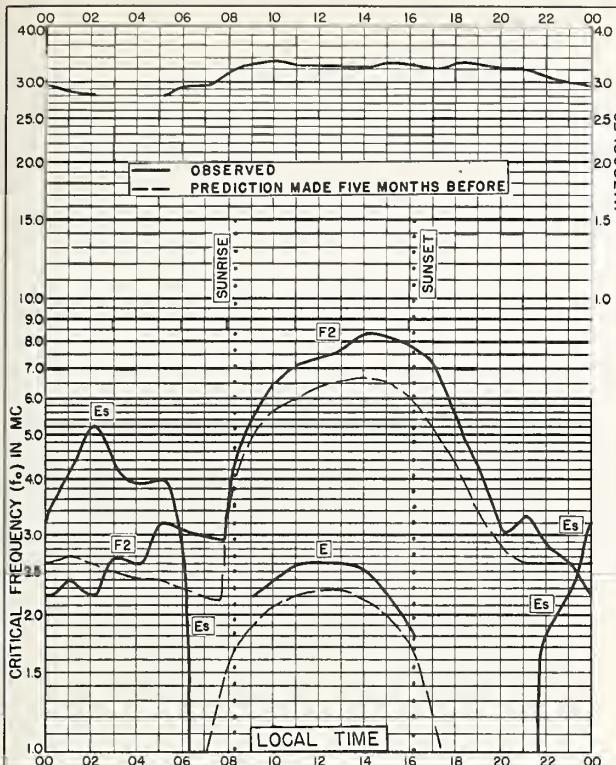


Fig. 5. FAIRBANKS, ALASKA
64.9°N, 147.8°W FEBRUARY 1956

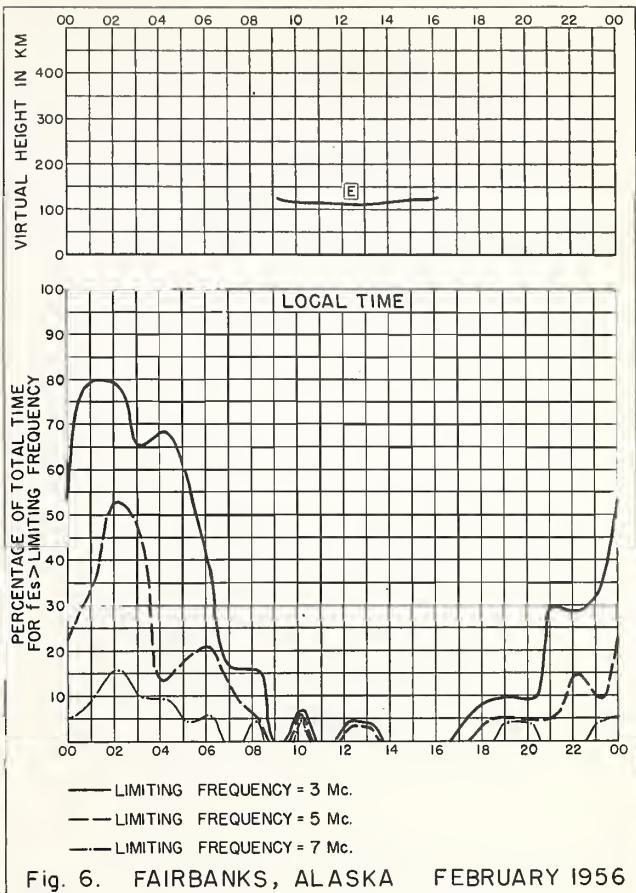


Fig. 6. FAIRBANKS, ALASKA FEBRUARY 1956

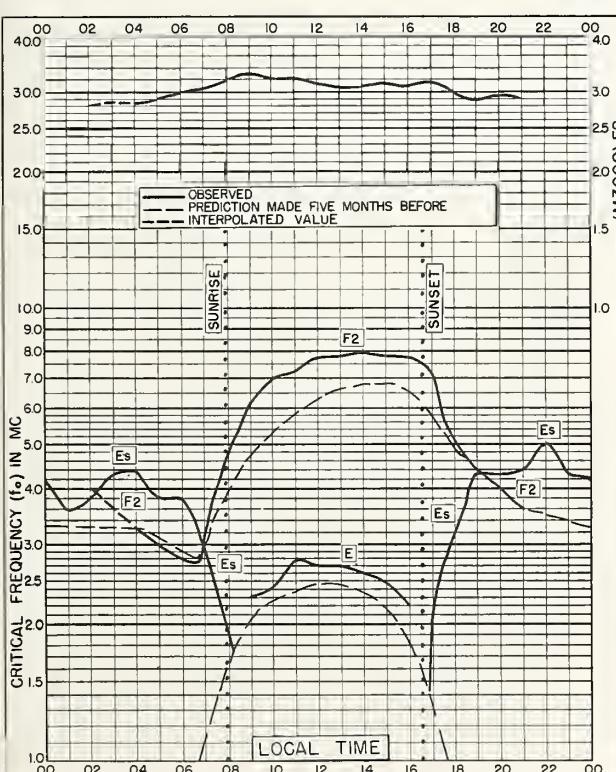
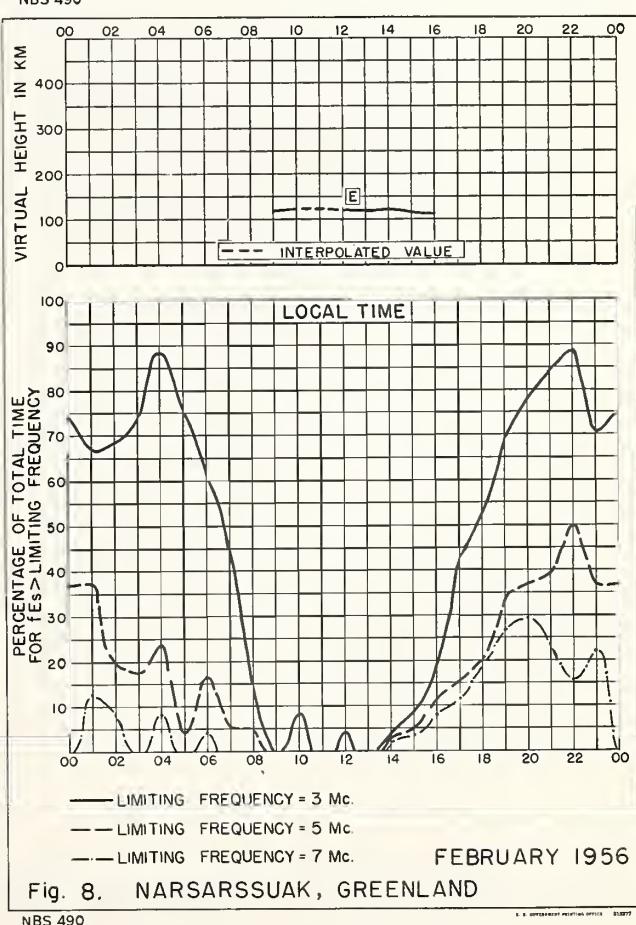


Fig. 7. NARSARSSUAK, GREENLAND
61.2°N, 45.4°W FEBRUARY 1956



FEBRUARY 1956
Fig. 8. NARSARSSUAK, GREENLAND

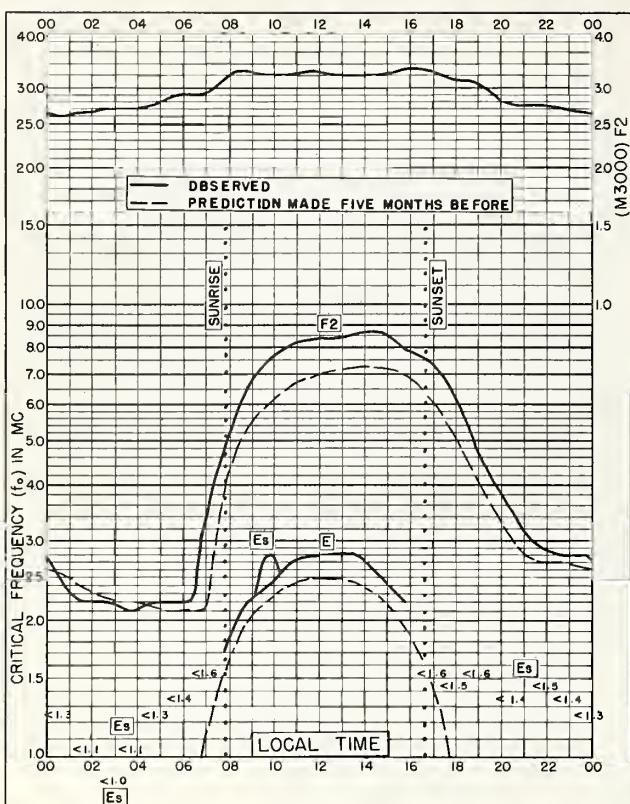


Fig. 9. OSLO, NORWAY
60.0°N, 11.1°E FEBRUARY 1956

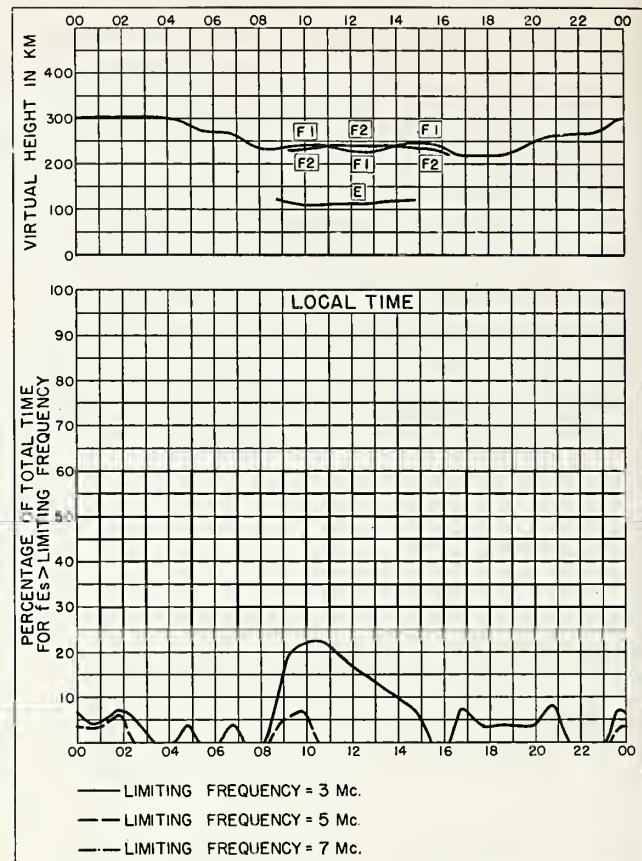


Fig. 10. OSLO, NORWAY FEBRUARY 1956

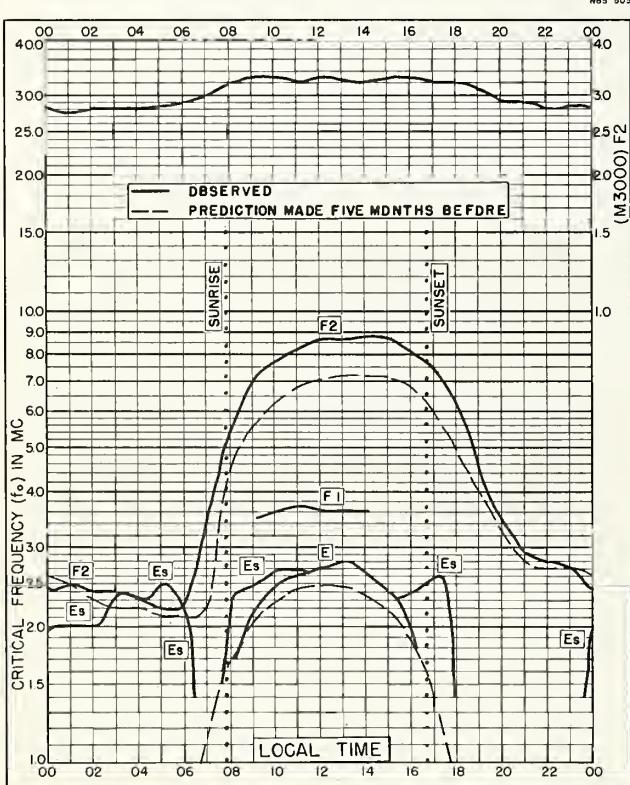


Fig. 11. UPSALA, SWEDEN
59.8°N, 17.6°E FEBRUARY 1956

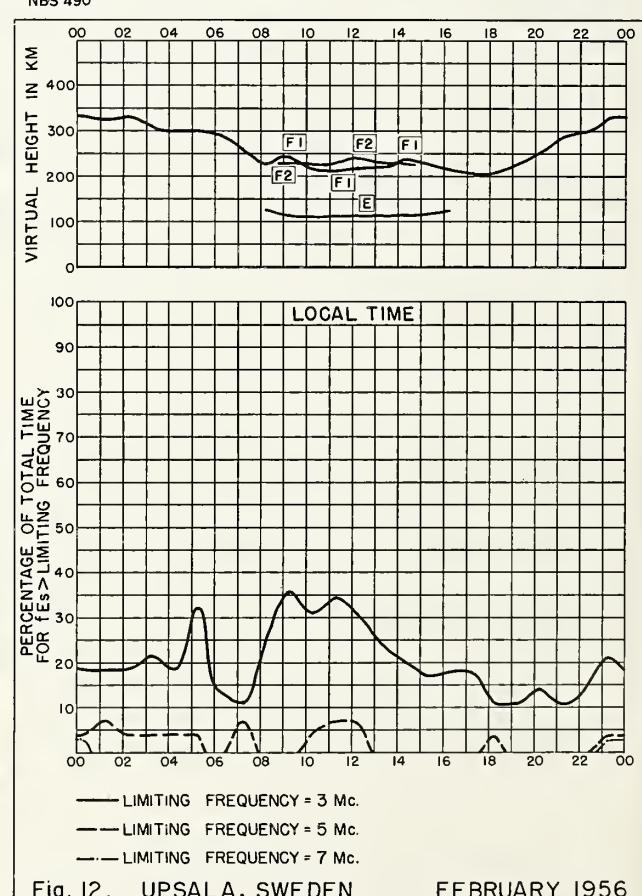


Fig. 12. UPSALA, SWEDEN FEBRUARY 1956

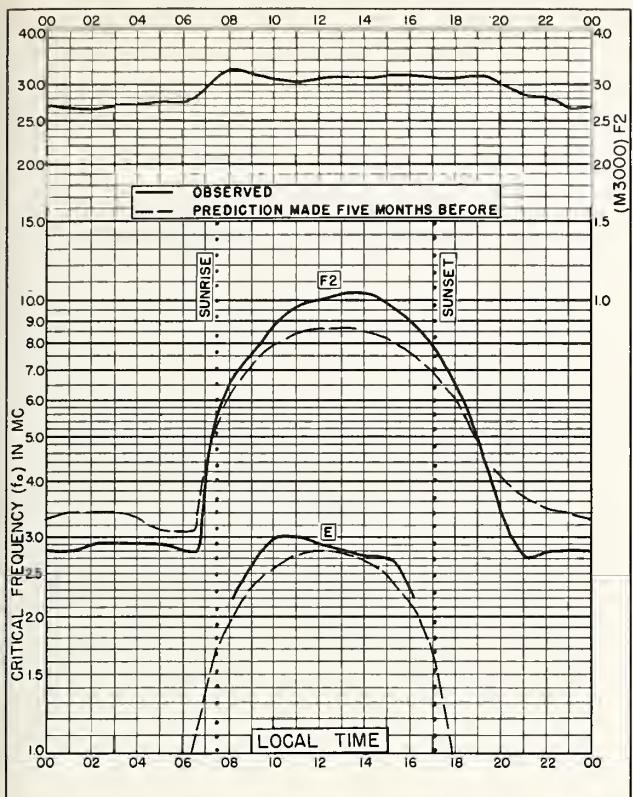


Fig. 13. ADAK, ALASKA
51.9°N, 176.6°W FEBRUARY 1956

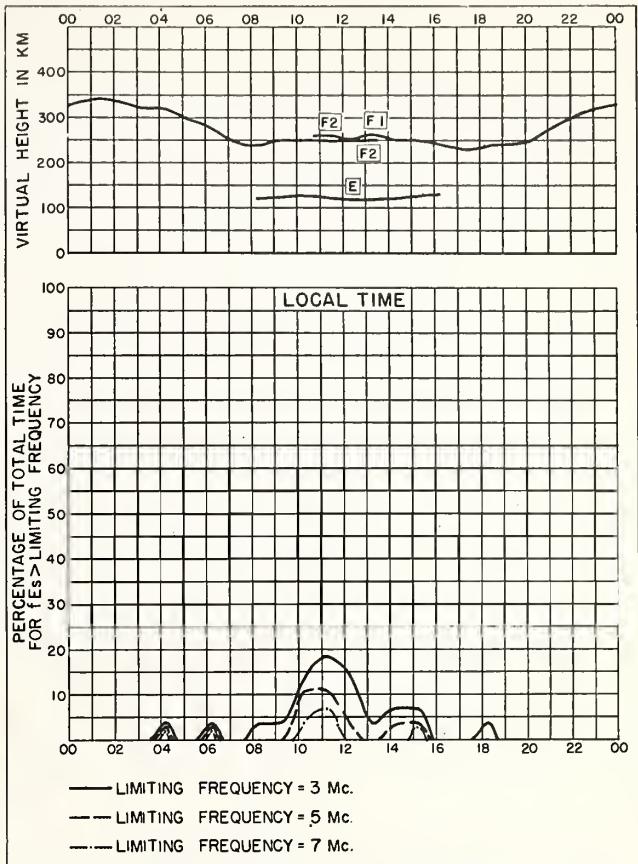


Fig. 14. ADAK, ALASKA FEBRUARY 1956

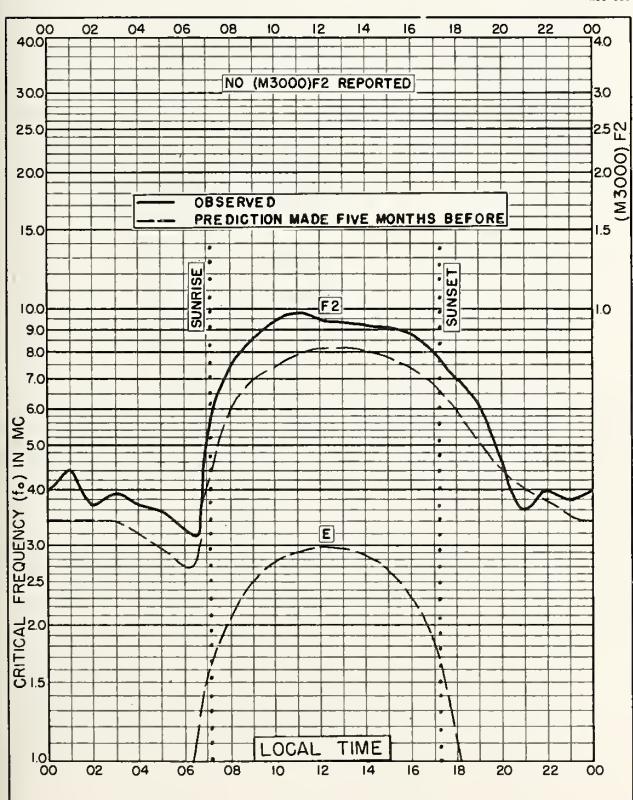


Fig. 15. GRAZ, AUSTRIA
47.1°N, 15.5°E FEBRUARY 1956

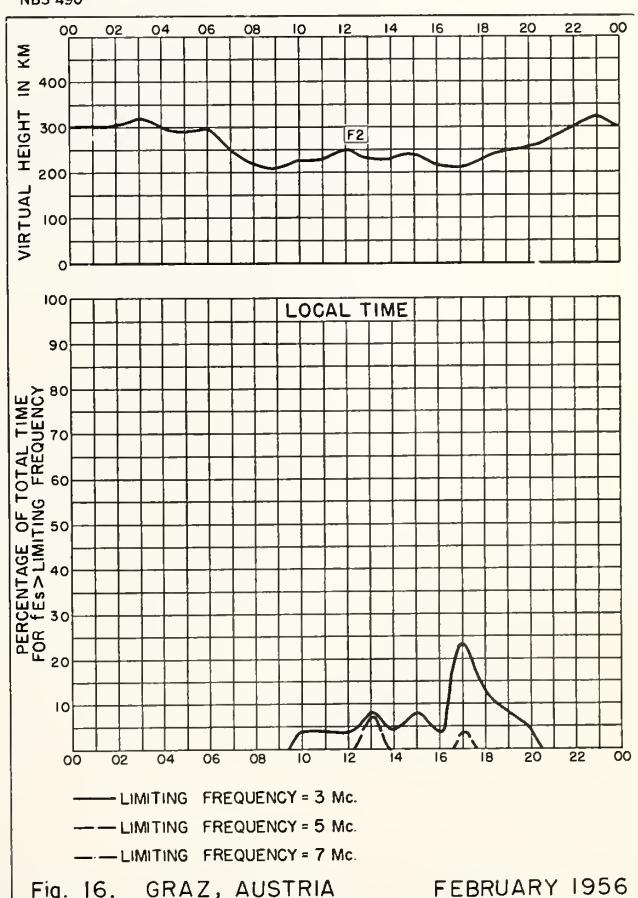


Fig. 16. GRAZ, AUSTRIA FEBRUARY 1956

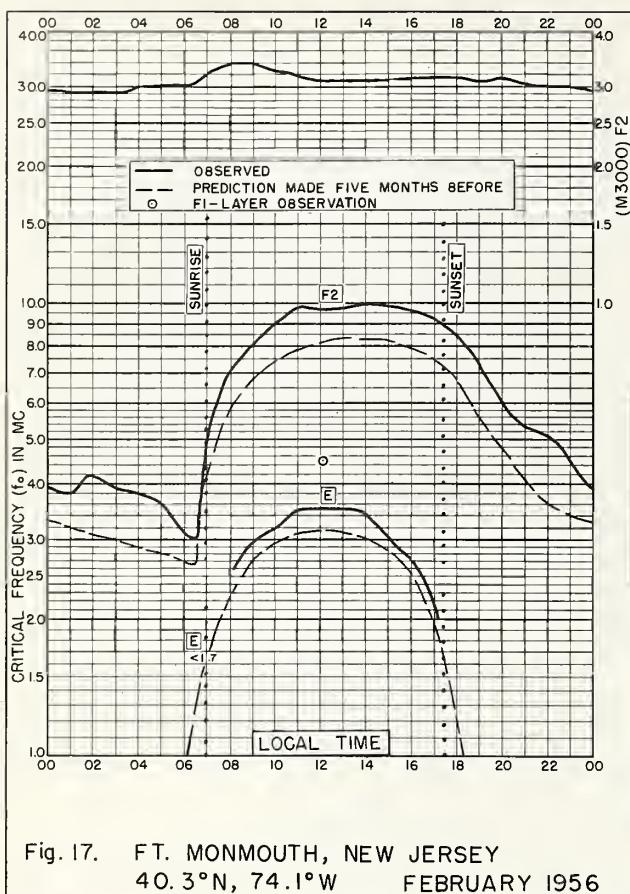
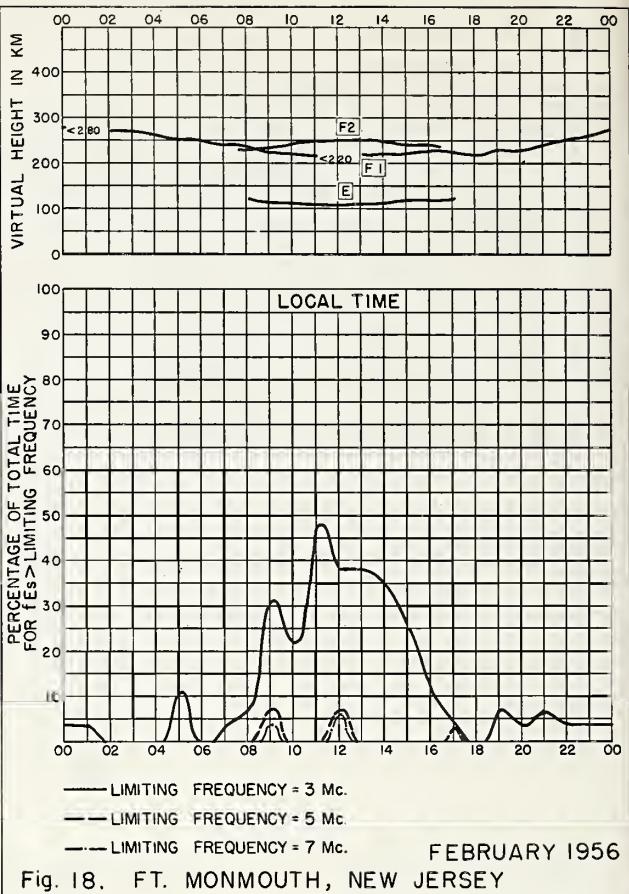


Fig. 17. FT. MONMOUTH, NEW JERSEY
40.3°N, 74.1°W FEBRUARY 1956



NBS 490 FEBRUARY 1956
U.S. GOVERNMENT PRINTING OFFICE 23277

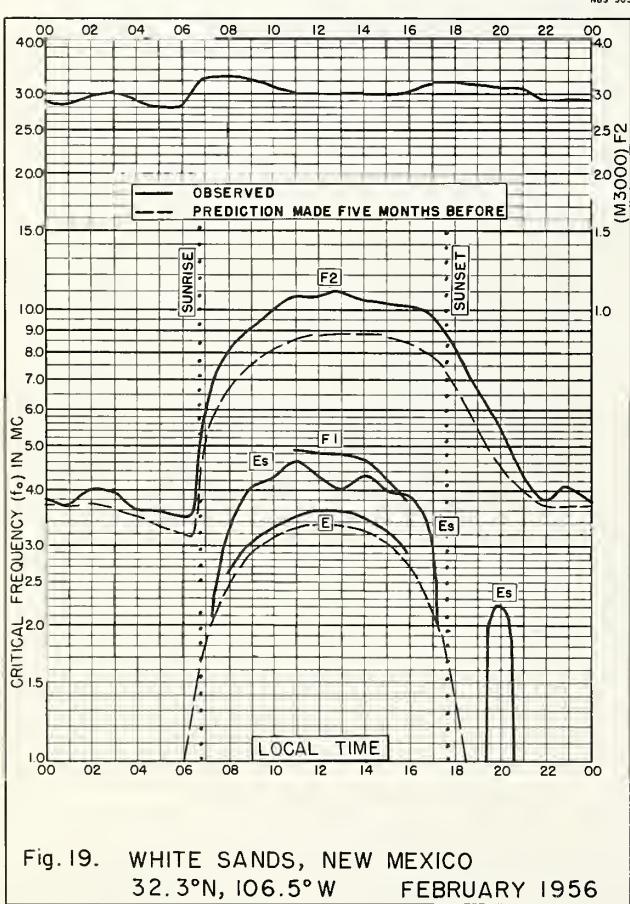
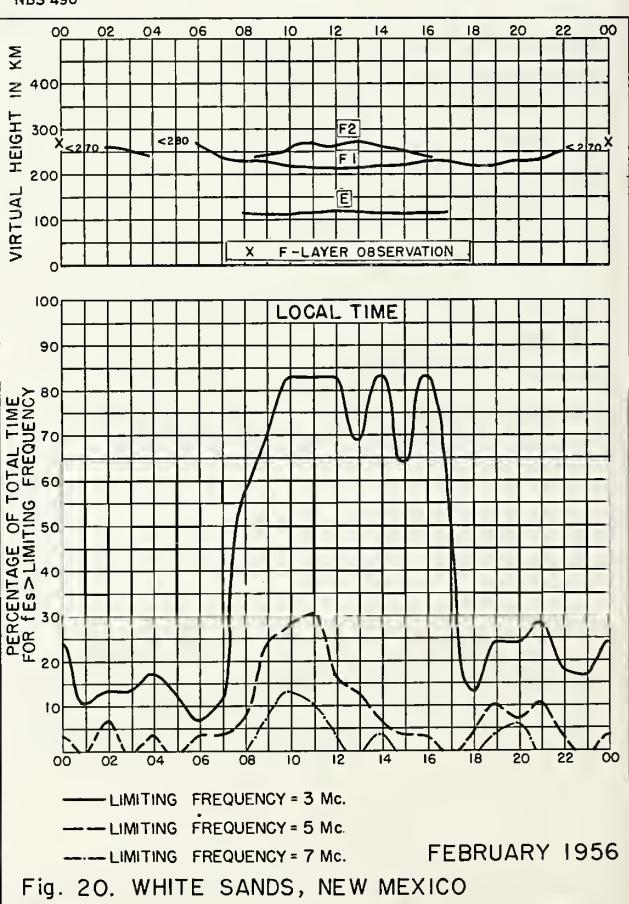


Fig. 19. WHITE SANDS, NEW MEXICO
32.3°N, 106.5°W FEBRUARY 1956



NBS 490 FEBRUARY 1956
U.S. GOVERNMENT PRINTING OFFICE 23277

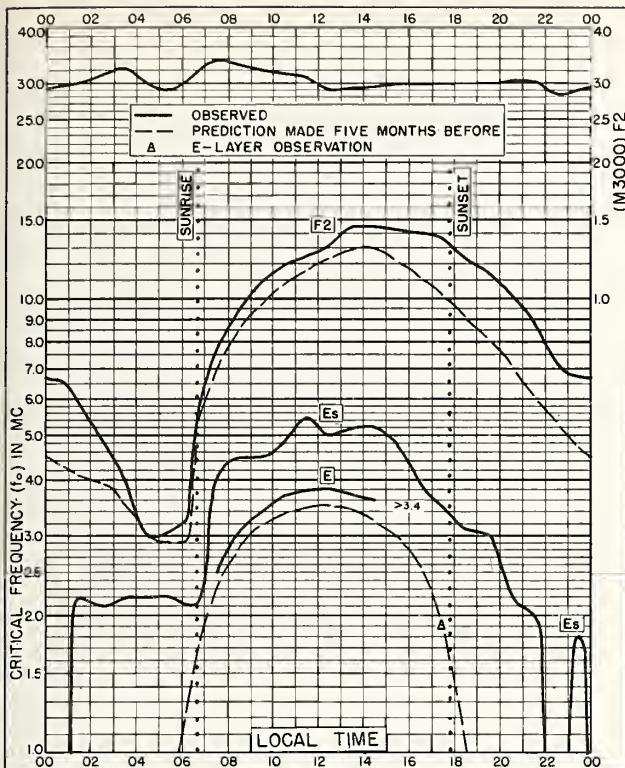


Fig. 21. OKINAWA I.
26.3°N, 127.8°E FEBRUARY 1956

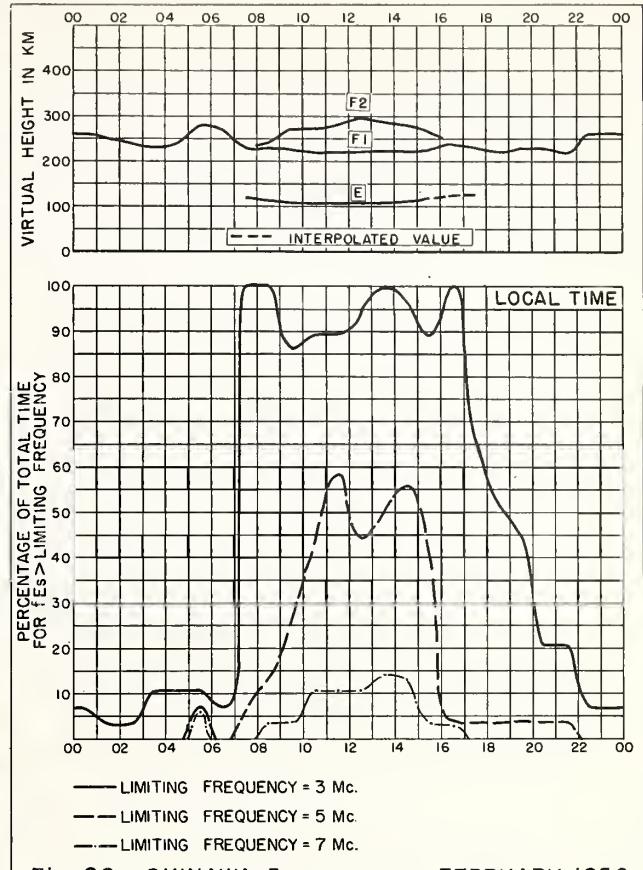


Fig. 22. OKINAWA I. FEBRUARY 1956

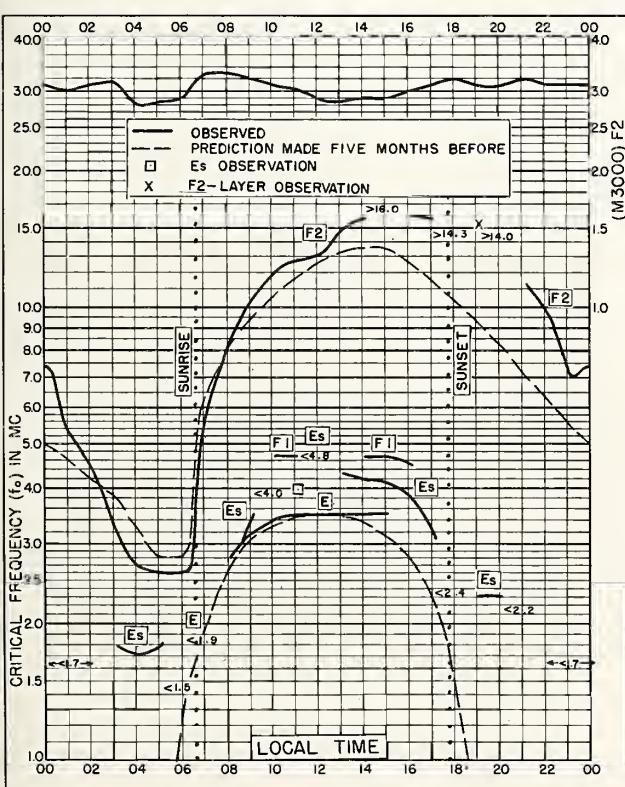


Fig. 23. FORMOSA, CHINA
25.0°N, 121.5°E FEBRUARY 1956

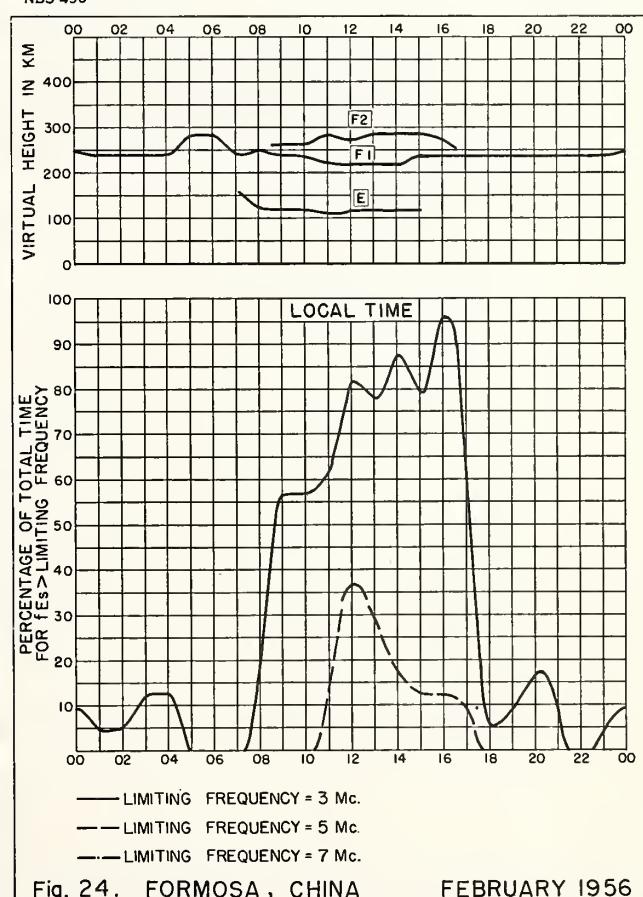


Fig. 24. FORMOSA, CHINA FEBRUARY 1956

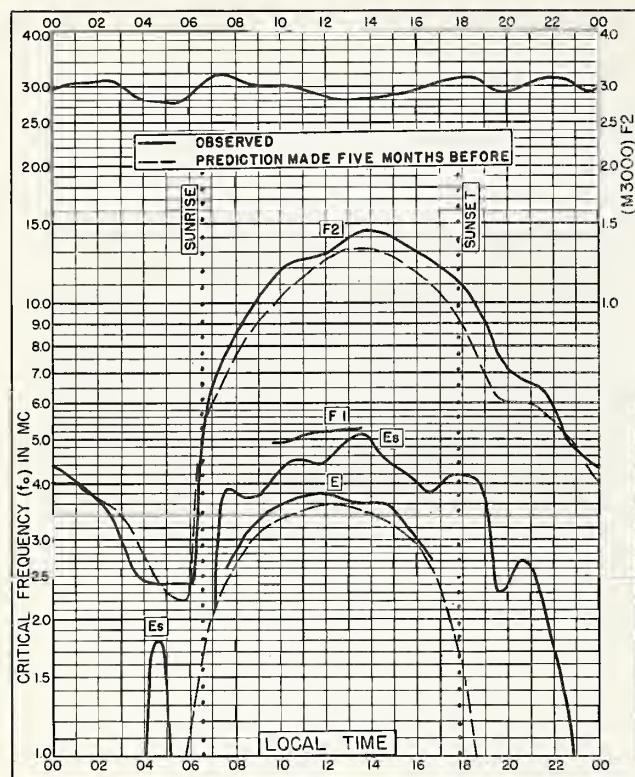


Fig. 25. MAUI, HAWAII
20.8°N, 156.5°W FEBRUARY 1956

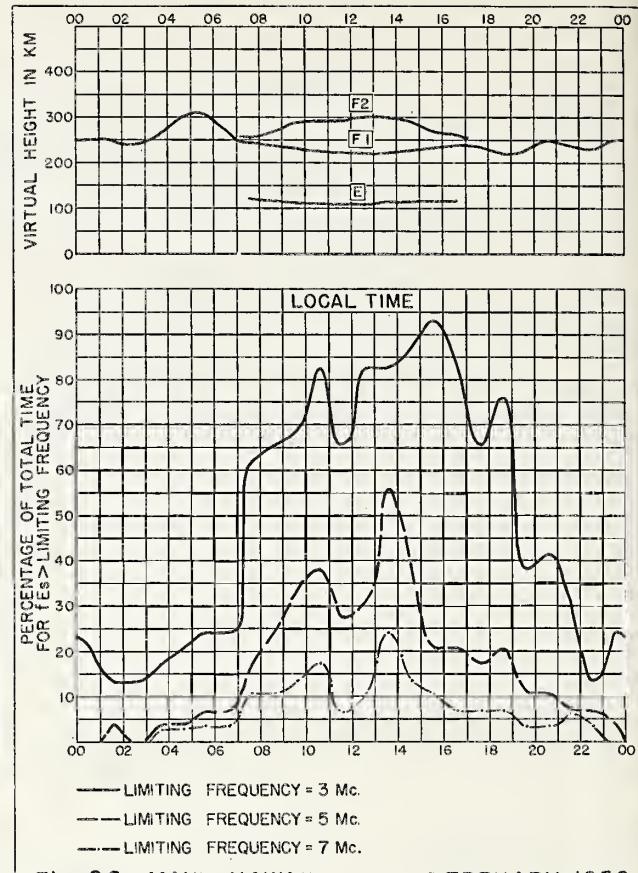


Fig. 26. MAUI, HAWAII FEBRUARY 1956

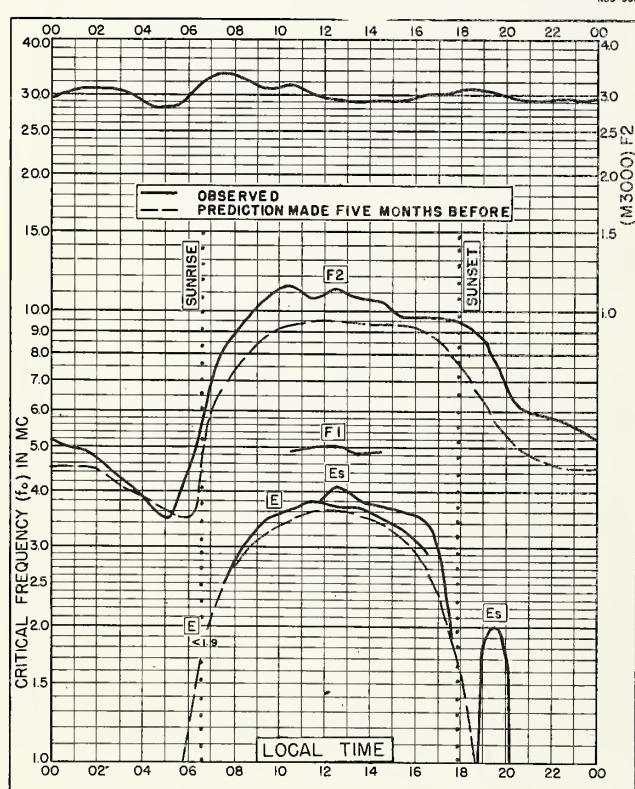


Fig. 27. PUERTO RICO, W. I.
18.5°N, 67.2°W FEBRUARY 1956

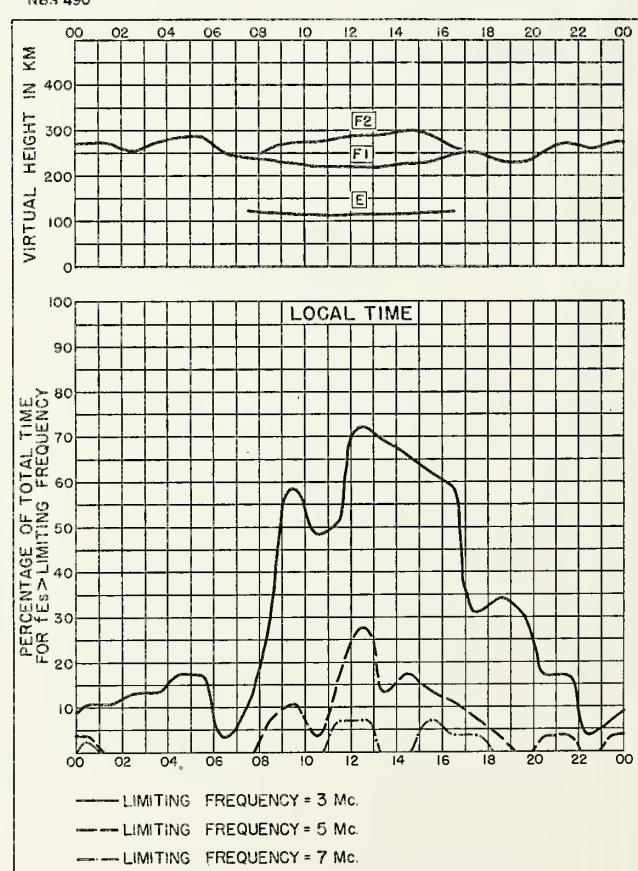


Fig. 28. PUERTO RICO, W. I. FEBRUARY 1956

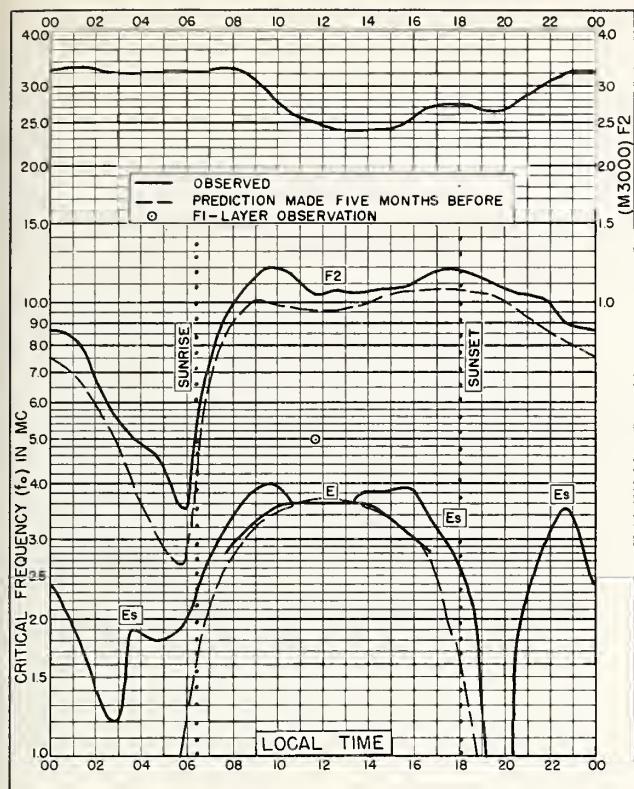


Fig. 29. GUAM I.
13.6°N, 144.9°E FEBRUARY 1956

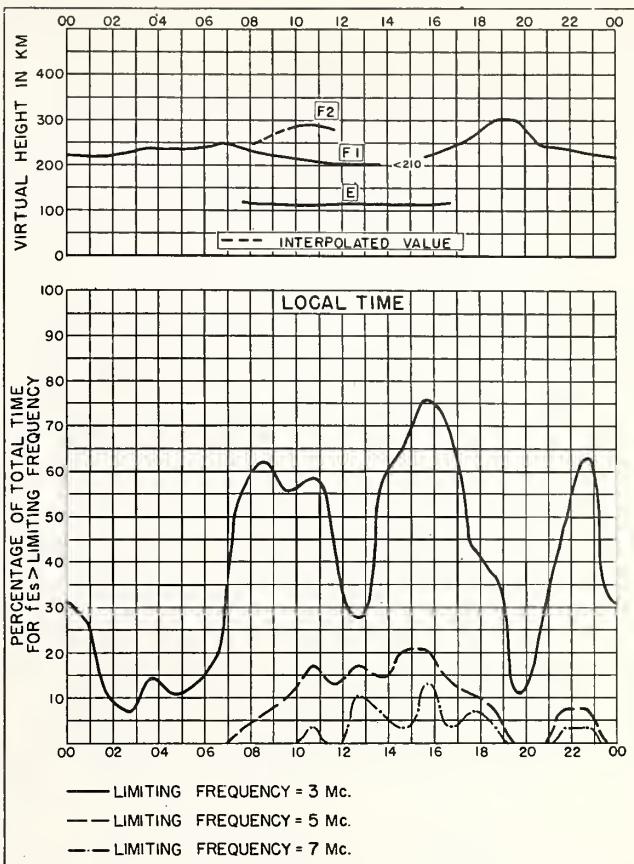


Fig. 30. GUAM I. FEBRUARY 1956

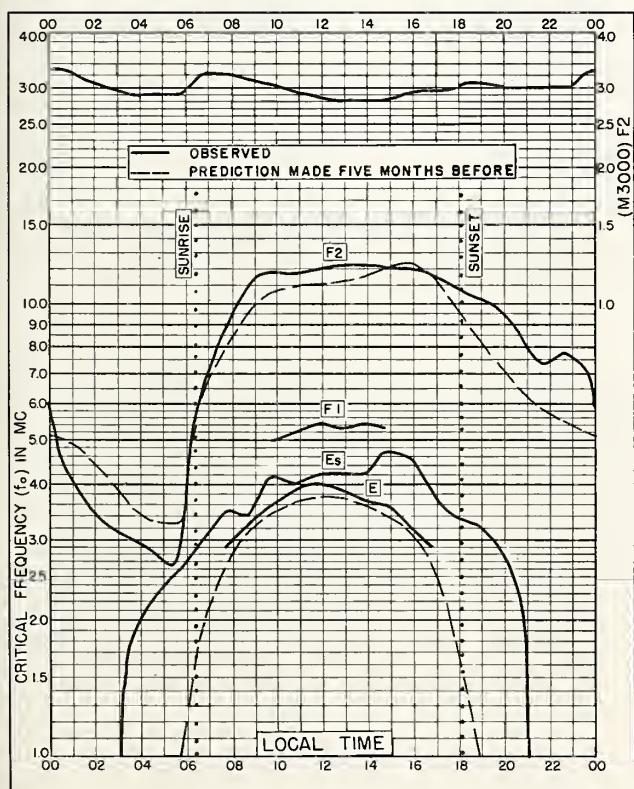


Fig. 31. PANAMA CANAL ZONE
9.4°N, 79.9°W FEBRUARY 1956

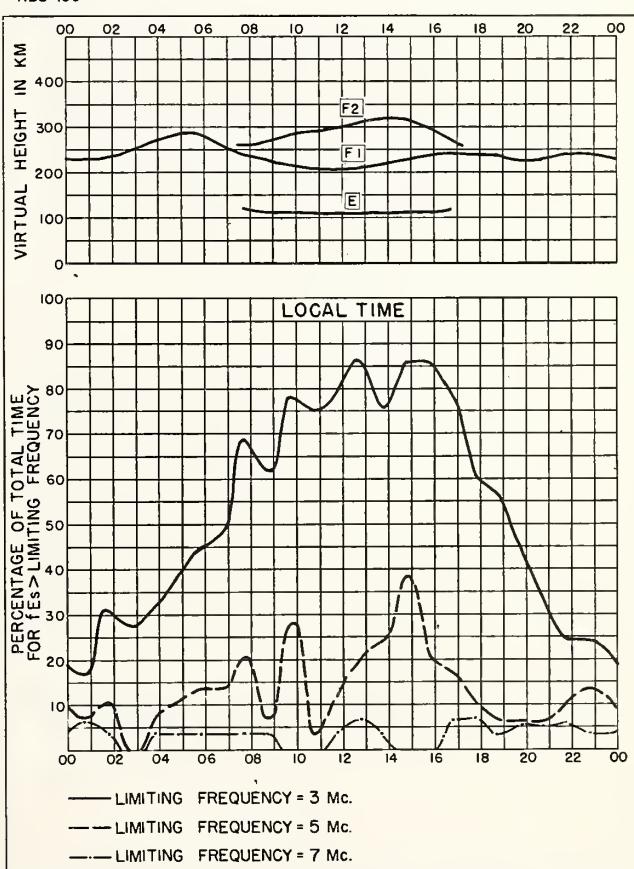


Fig. 32. PANAMA CANAL ZONE FEBRUARY 1956

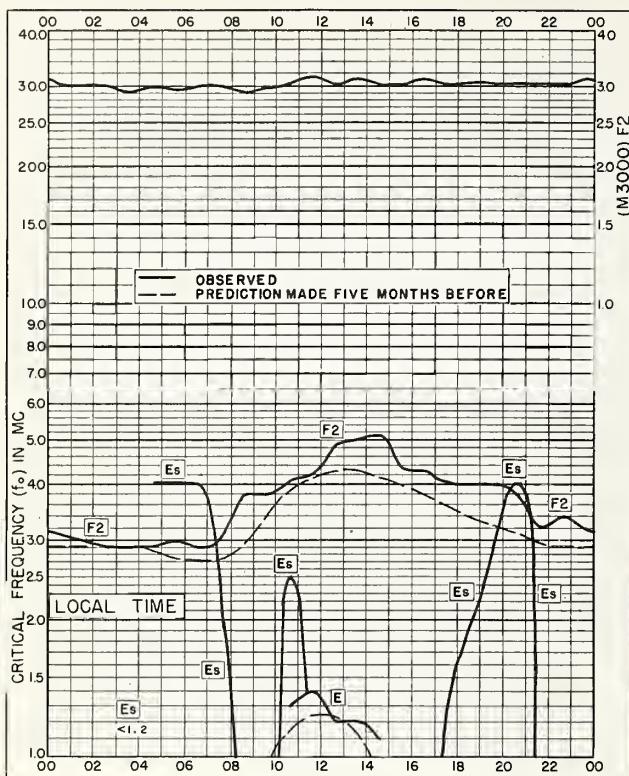


Fig. 33. RESOLUTE BAY, CANADA
74.7°N, 94.9°W JANUARY 1956

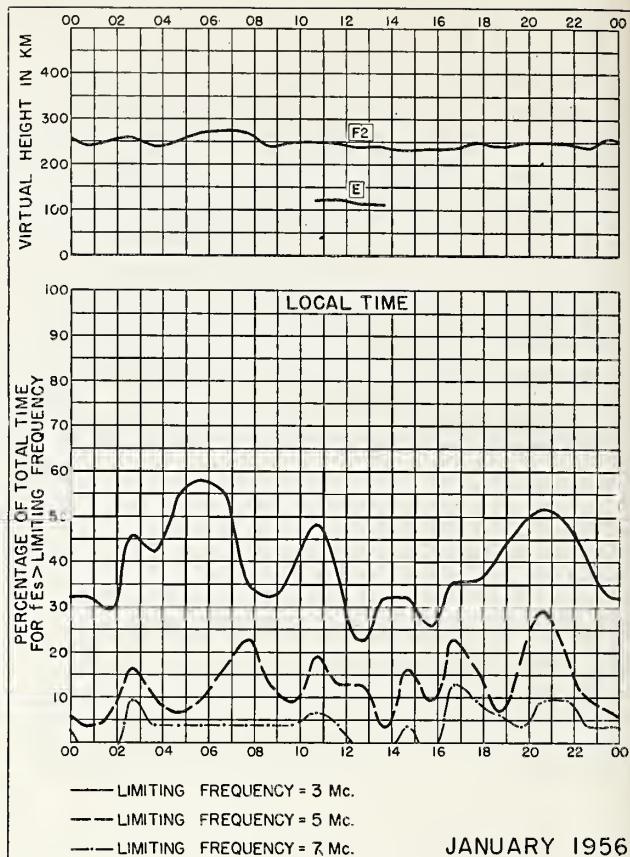


Fig. 34. RESOLUTE BAY, CANADA

NBS 490

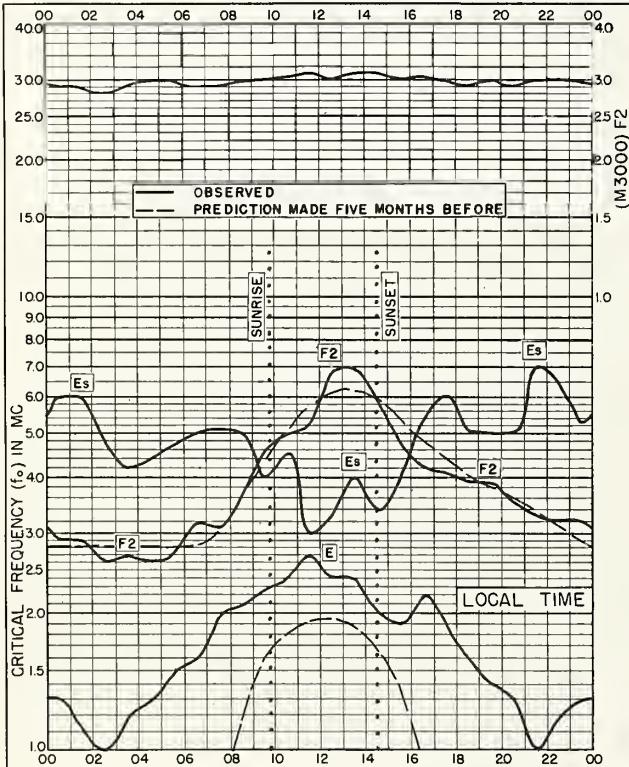
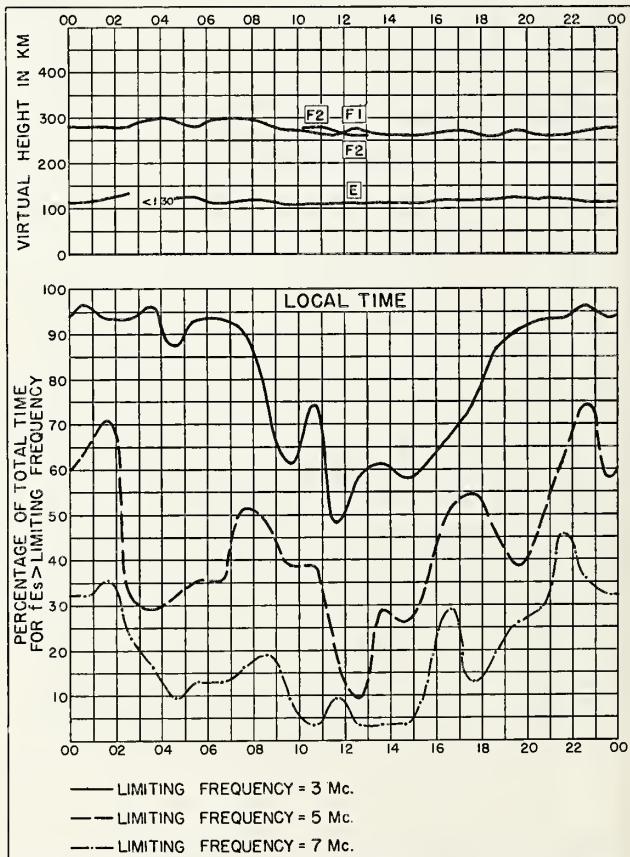


Fig. 35. BAKER LAKE, CANADA
64.3°N, 96.0°W JANUARY 1956



NBS 490

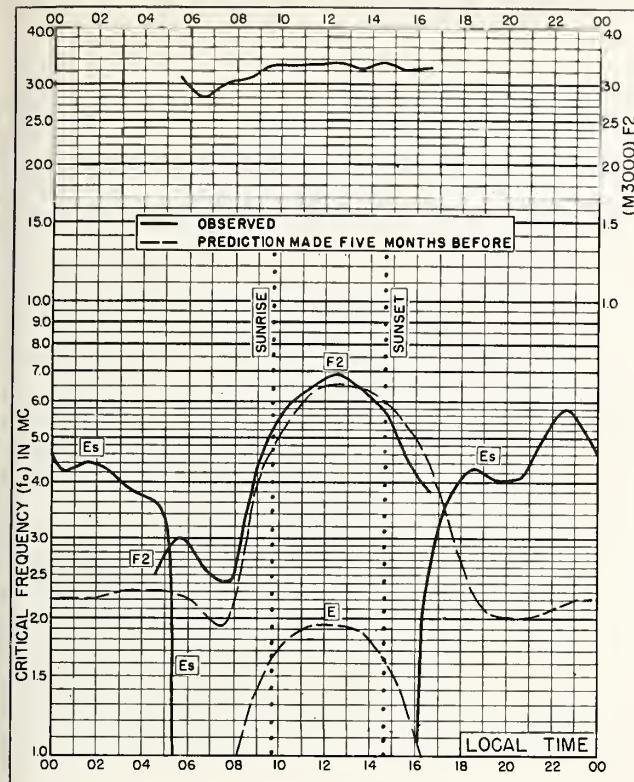


Fig. 37. REYKJAVIK, ICELAND
64.1°N, 21.8°W JANUARY 1956

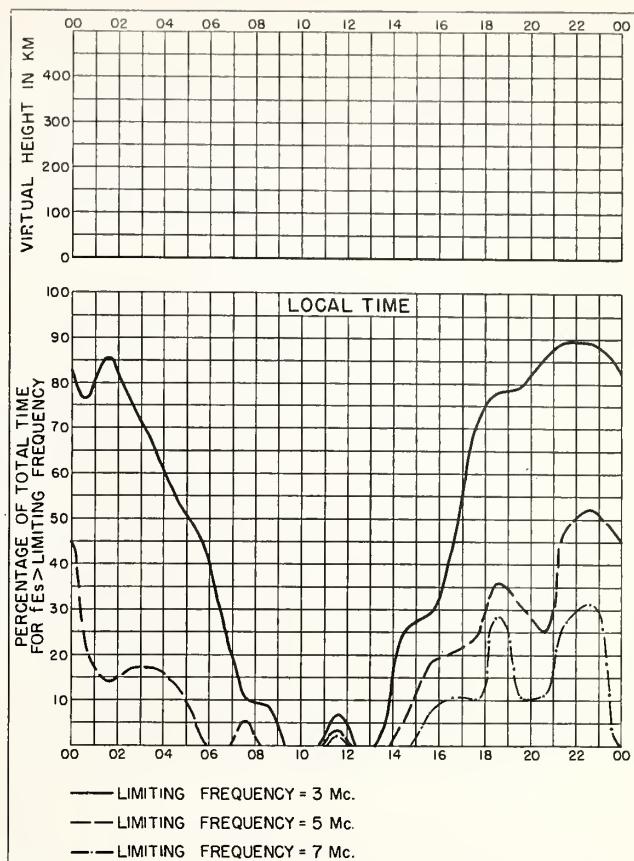


Fig. 38. REYKJAVIK, ICELAND JANUARY 1956

NBS 490

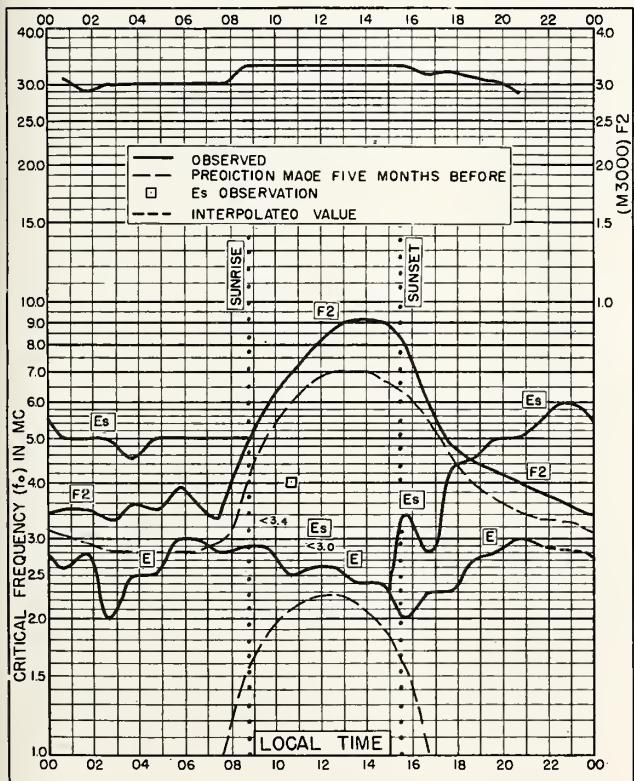


Fig. 39. CHURCHILL, CANADA
58.8°N, 94.2°W JANUARY 1956

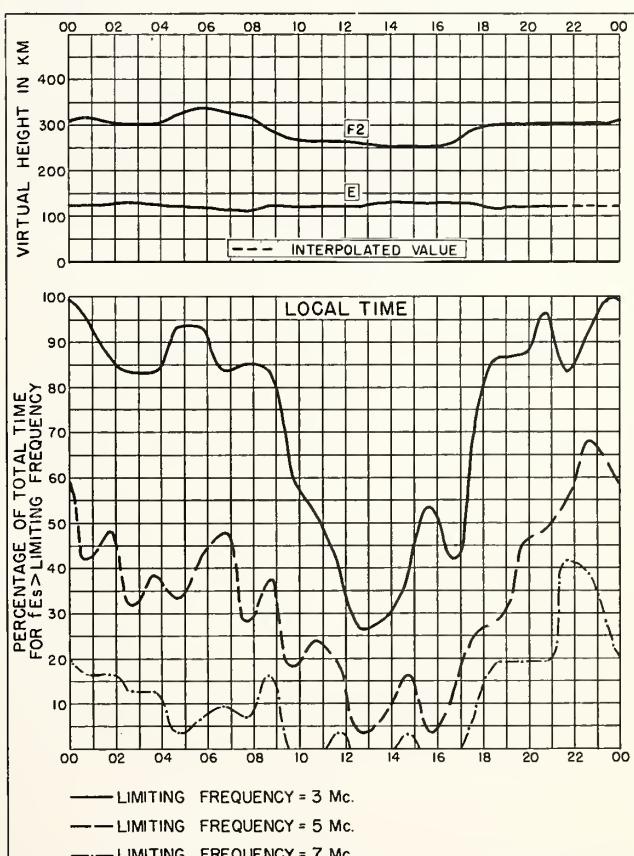


Fig. 40. CHURCHILL, CANADA JANUARY 1956

NBS 490

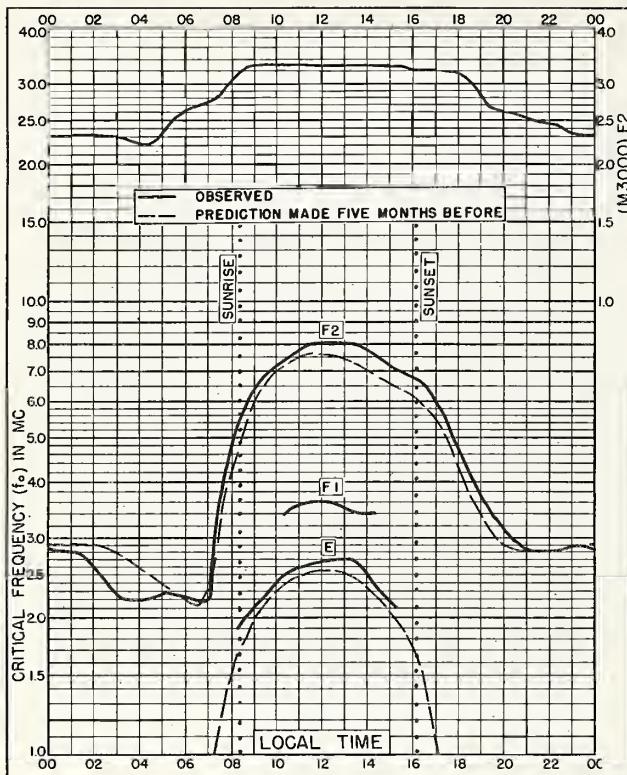


Fig. 41. De BILT, HOLLAND
52.1°N, 5.2°E JANUARY 1956

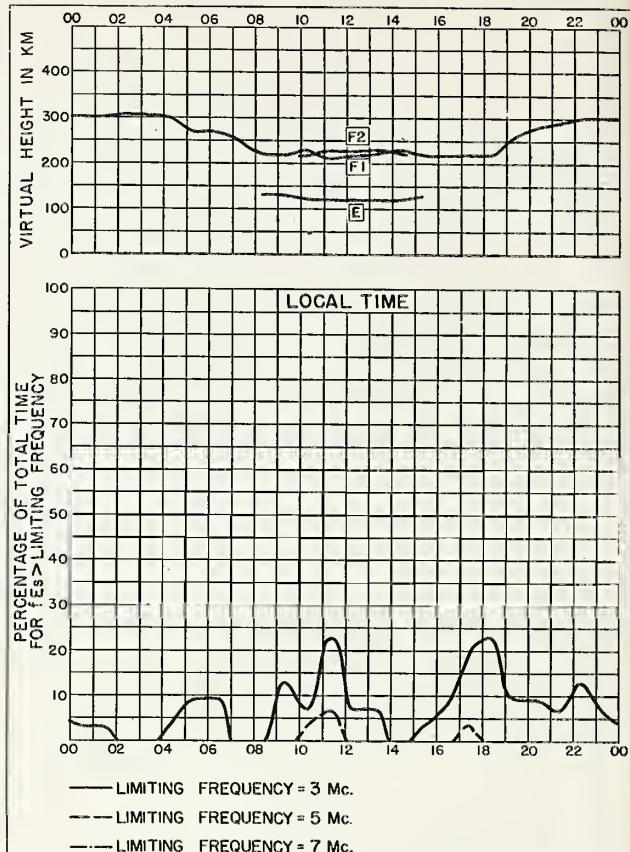


Fig. 42. De BILT, HOLLAND JANUARY 1956
NBS 490

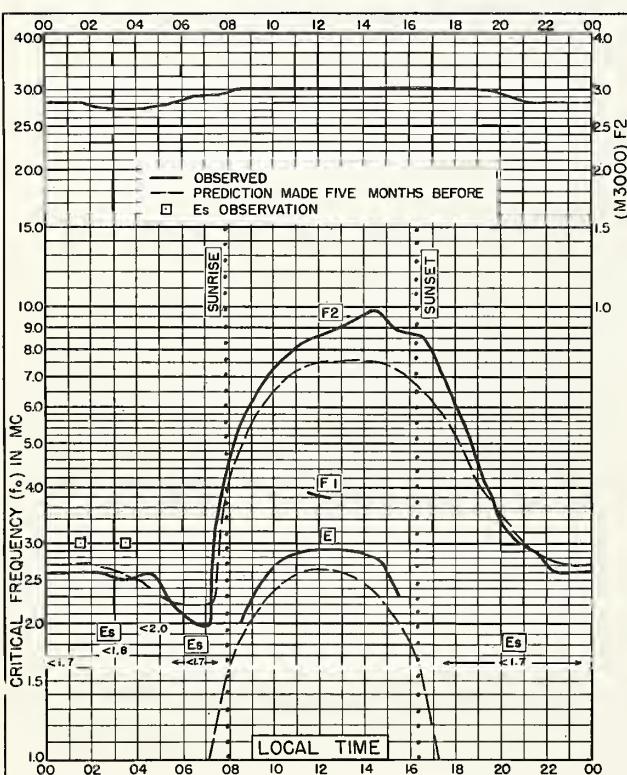


Fig. 43. WINNIPEG, CANADA
49.9°N, 97.4°W JANUARY 1956

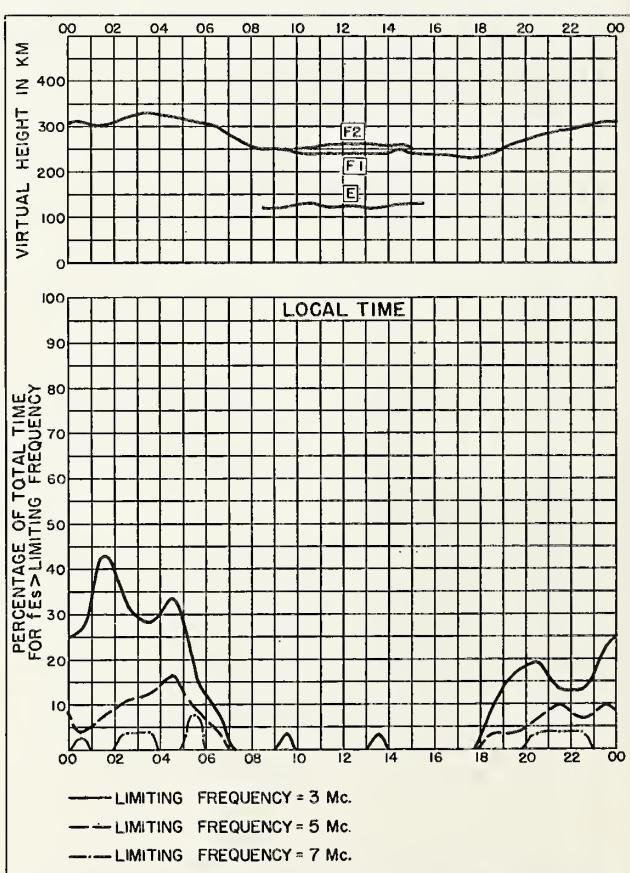


Fig. 44. WINNIPEG, CANADA JANUARY 1956
NBS 490

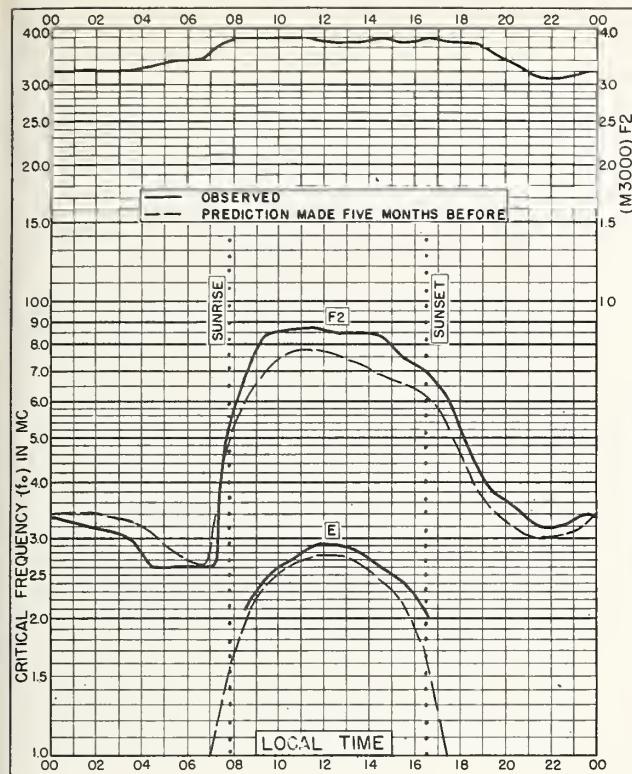
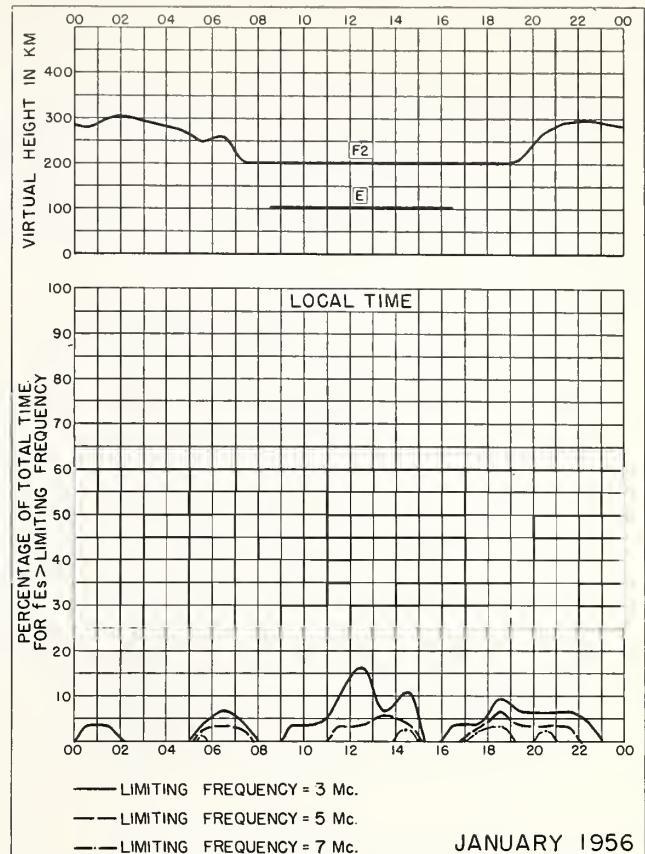


Fig. 45. SCHWARZENBURG, SWITZERLAND
46.8°N, 7.3°E JANUARY 1956



JANUARY 1956

Fig. 46. SCHWARZENBURG, SWITZERLAND

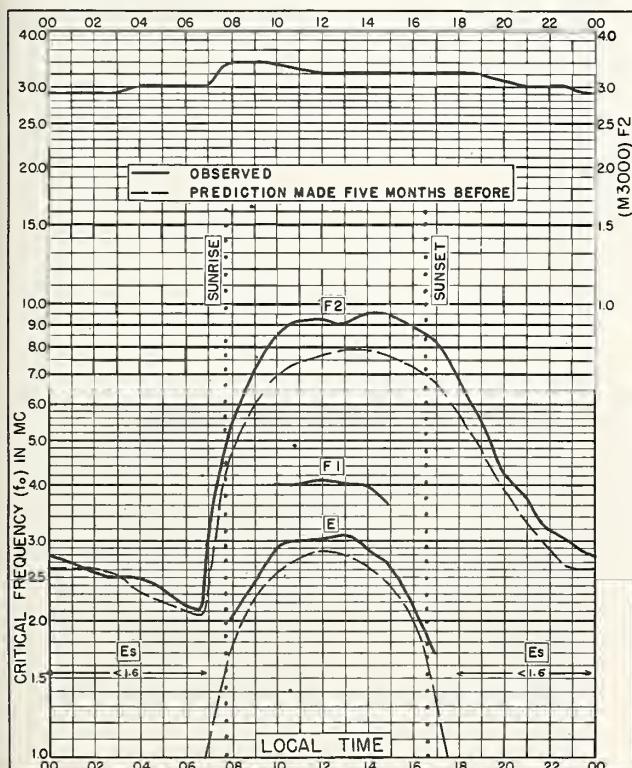
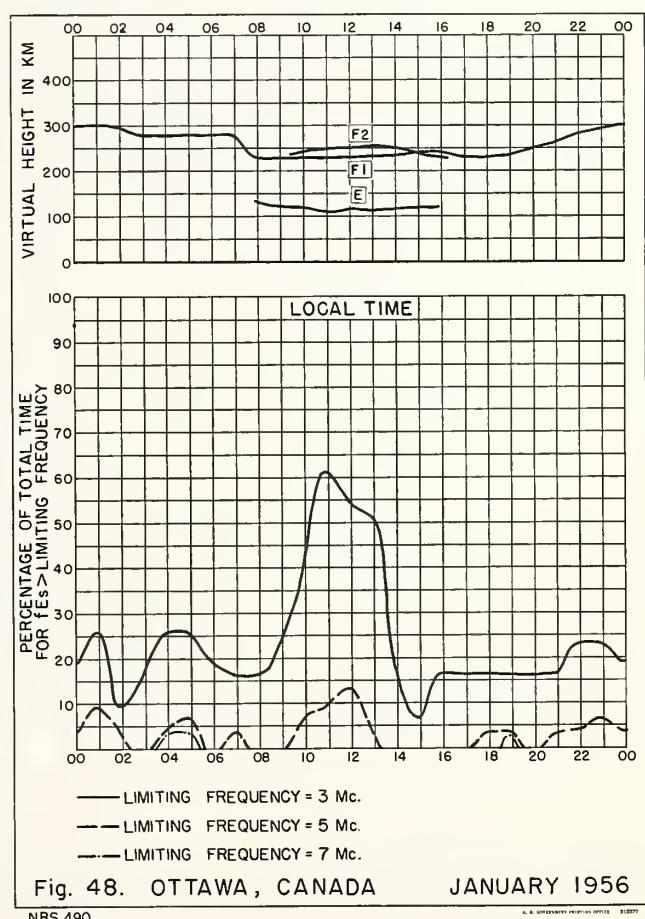


Fig. 47. OTTAWA, CANADA
45.4°N, 75.9°W JANUARY 1956



JANUARY 1956

NBS 490

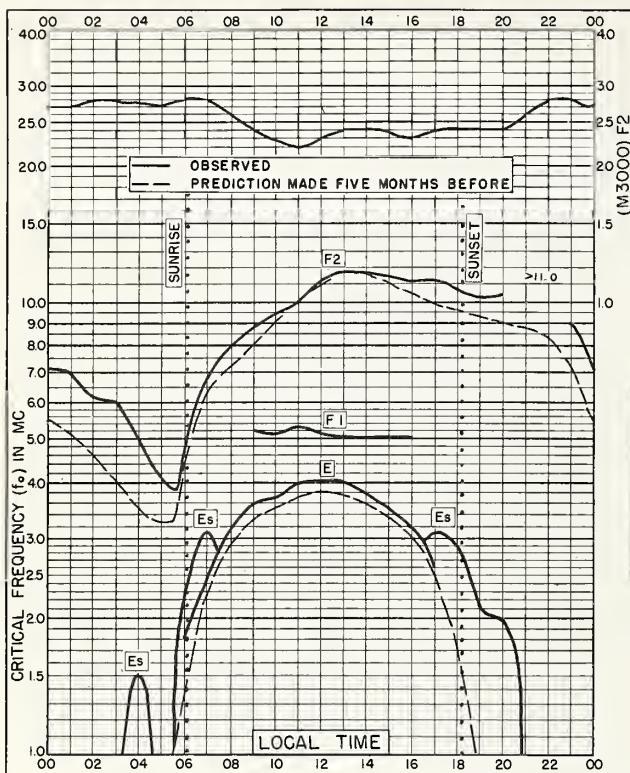


Fig. 49. LEOPOLDVILLE, BELGIAN CONGO
4.4°S, 15.2°E JANUARY 1956

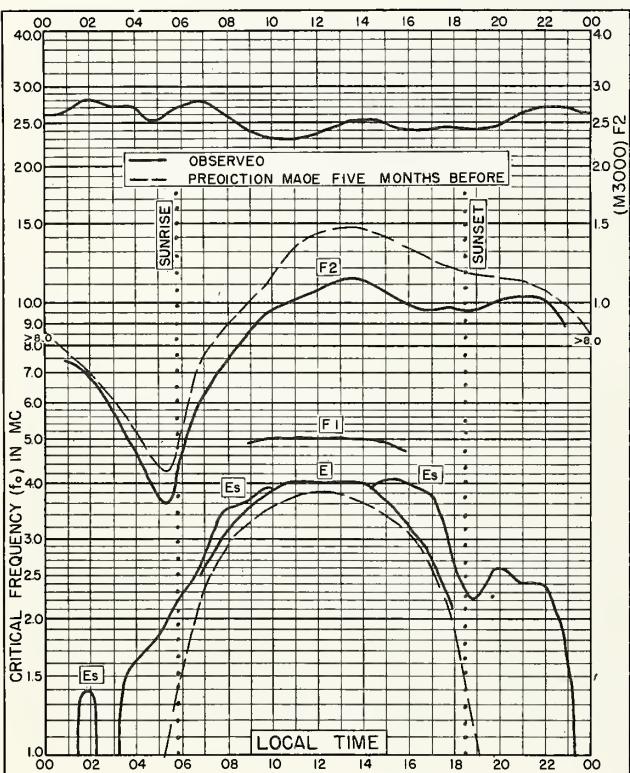
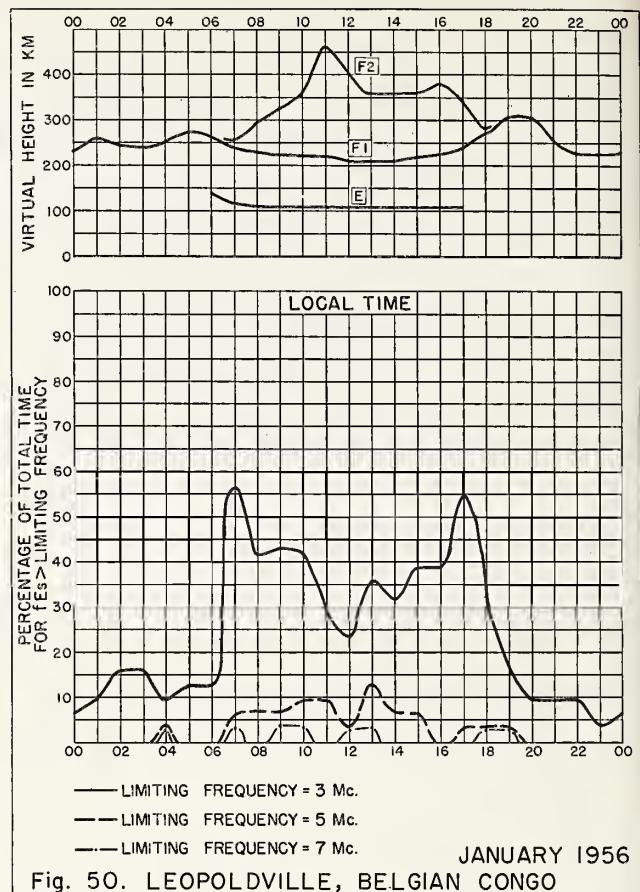
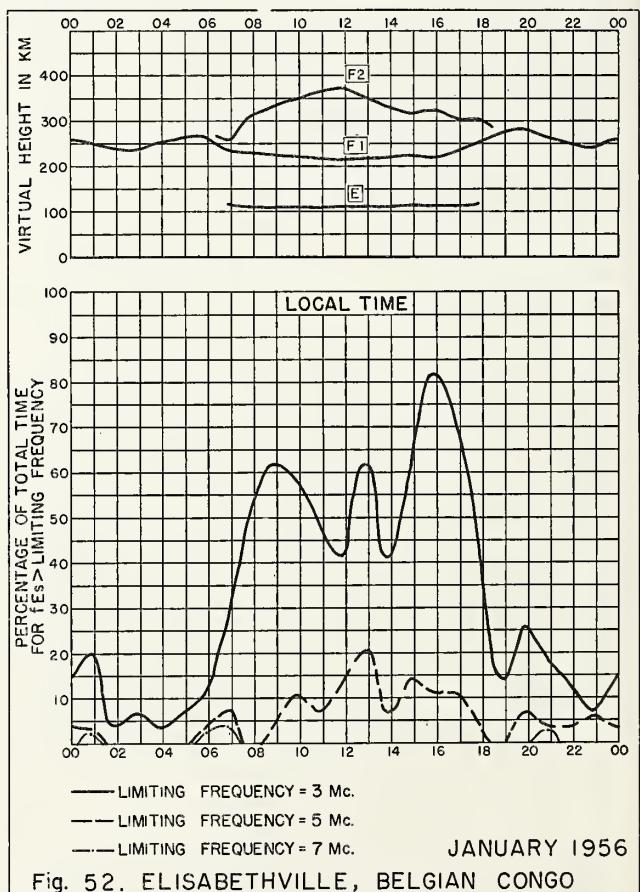


Fig. 51. ELISABETHVILLE, BELGIAN CONGO
II. 6°S, 27.5°E JANUARY 1956



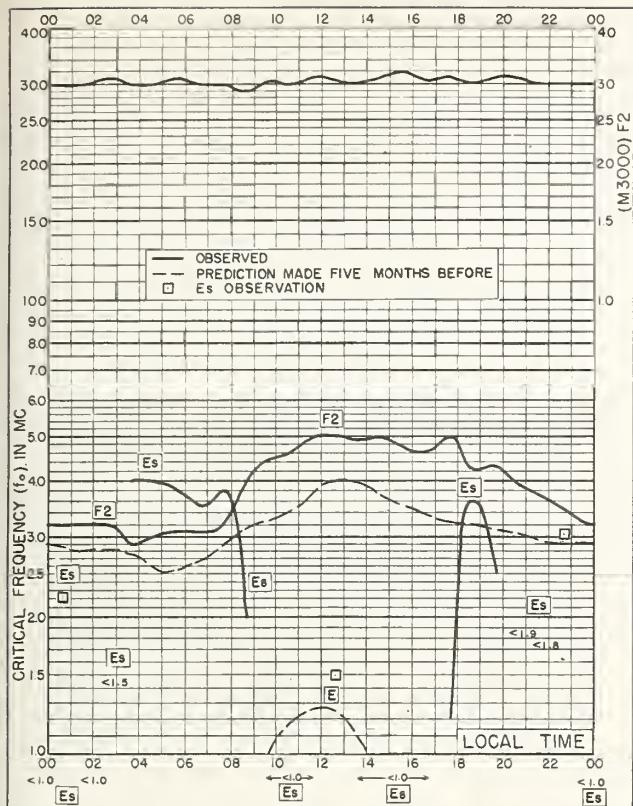


Fig. 53. RESOLUTE BAY, CANADA
74.7°N, 94.9°W DECEMBER 1955

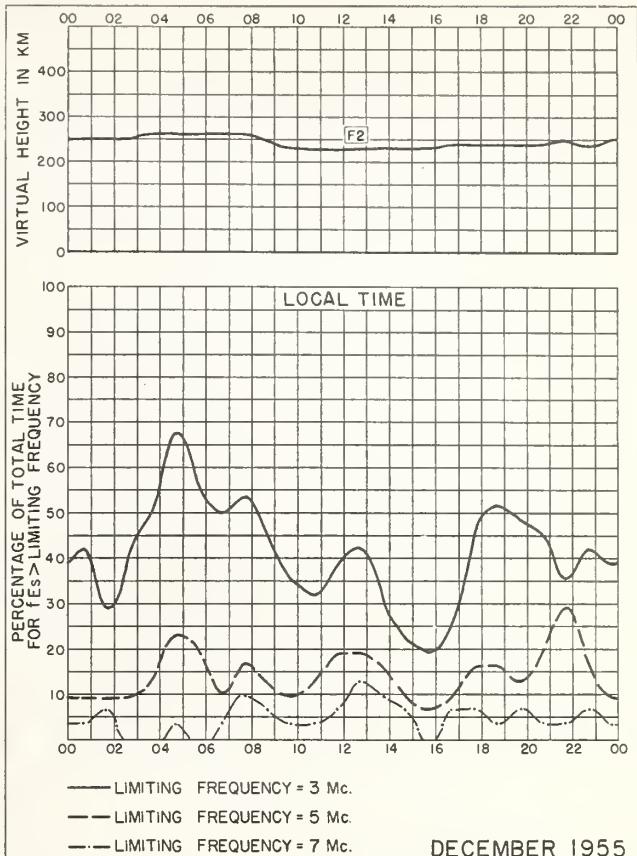


Fig. 54. RESOLUTE BAY, CANADA DECEMBER 1955

NBS 490

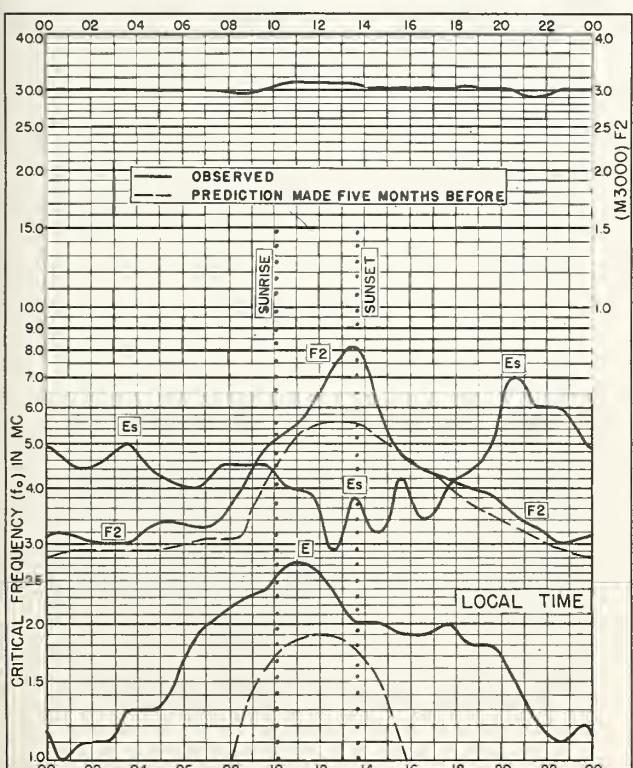


Fig. 55. BAKER LAKE, CANADA
64.3°N, 96.0°W DECEMBER 1955

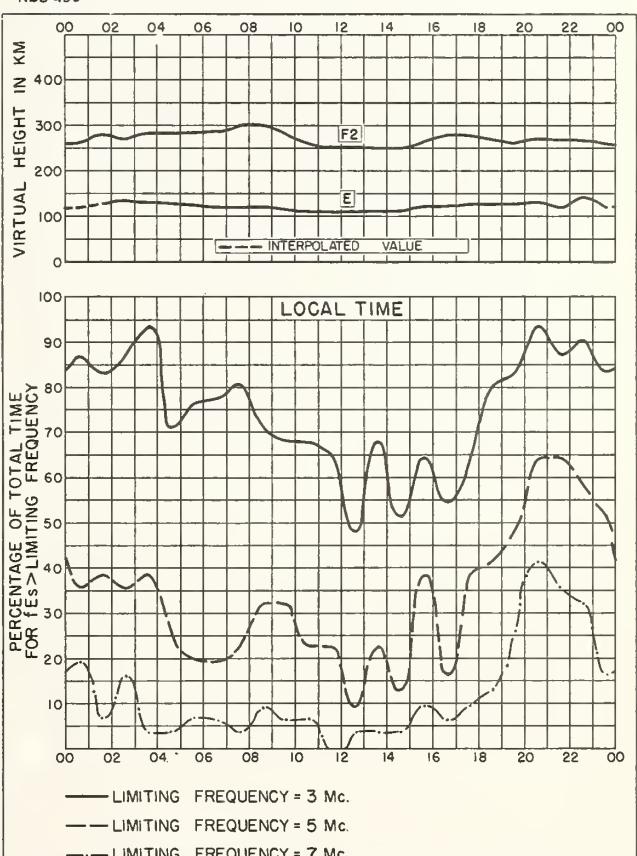
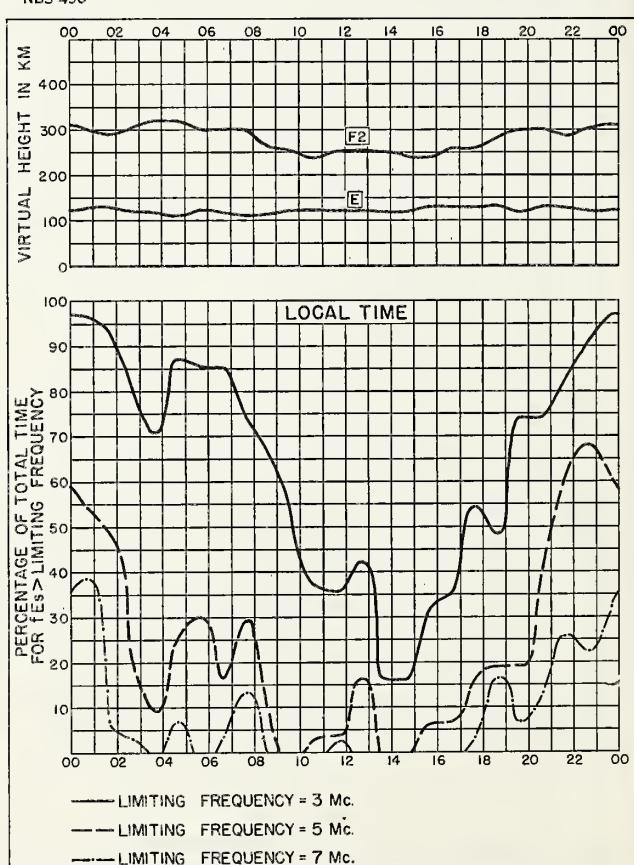
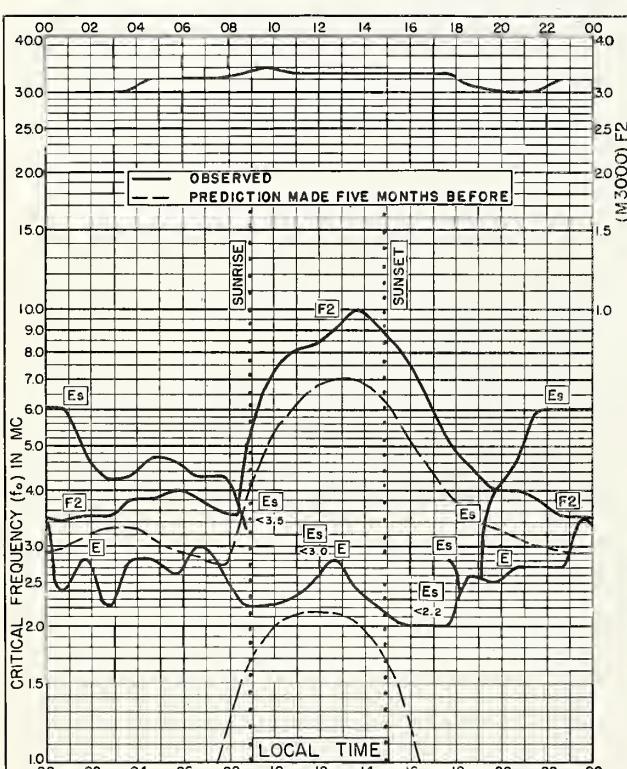
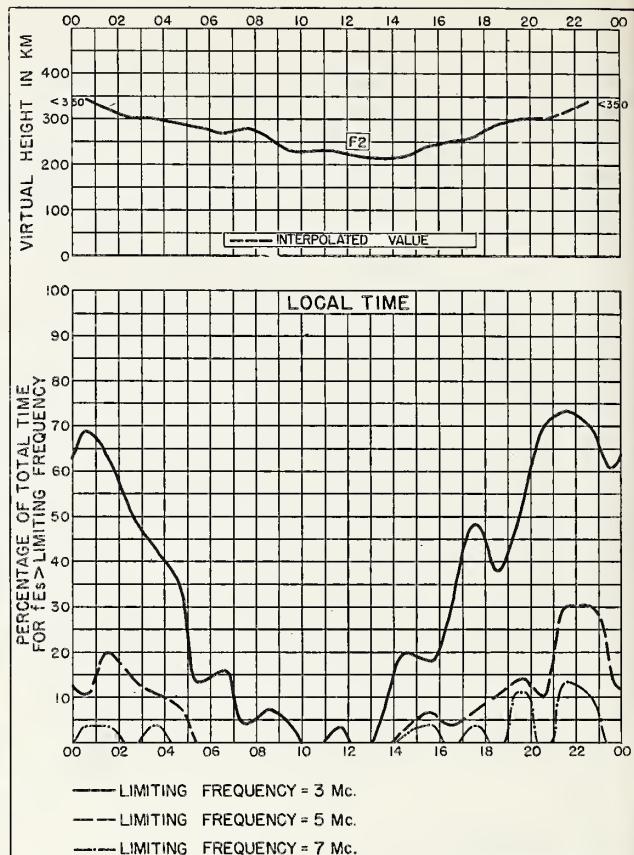
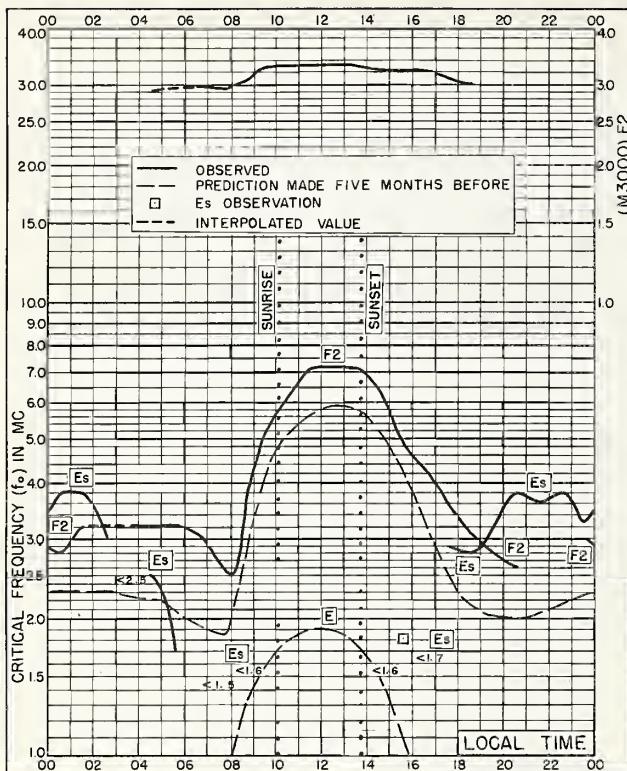


Fig. 56. BAKER LAKE, CANADA DECEMBER 1955

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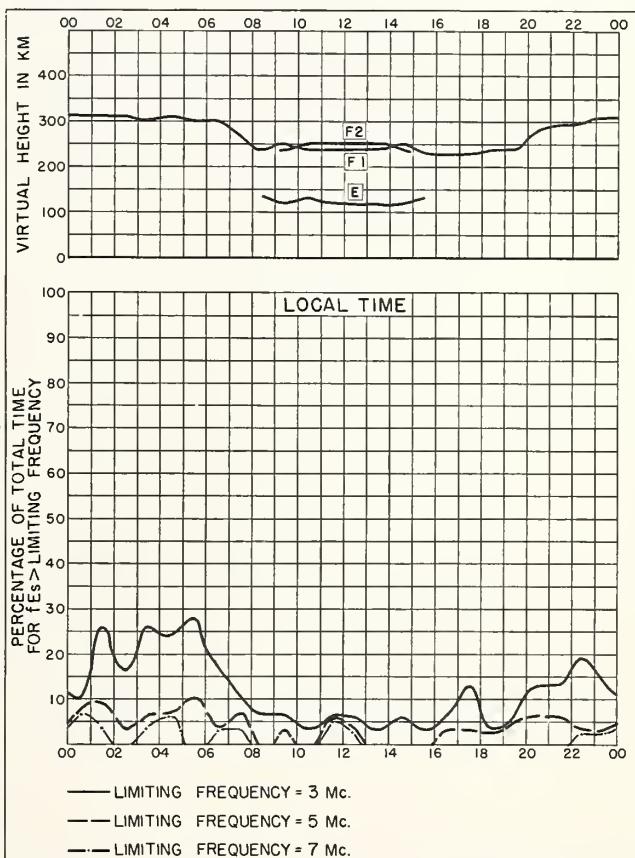
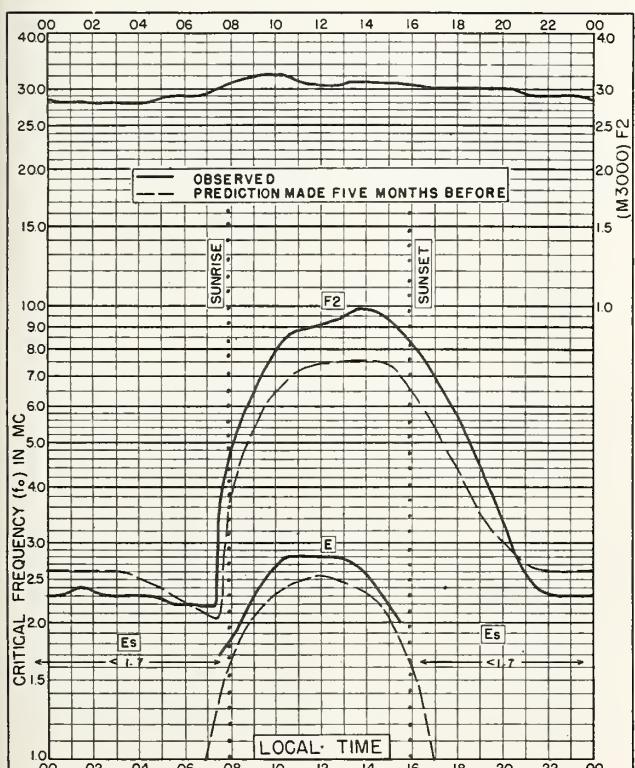
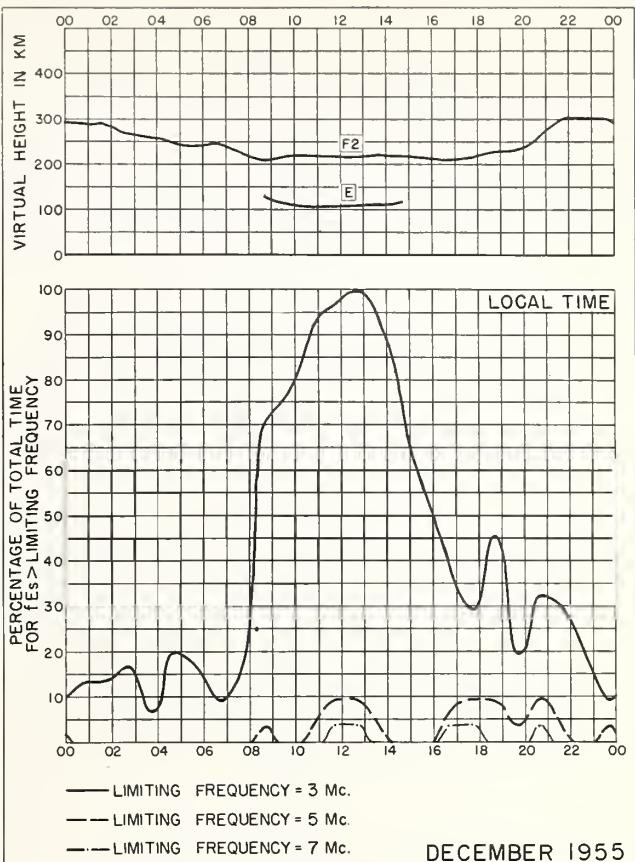
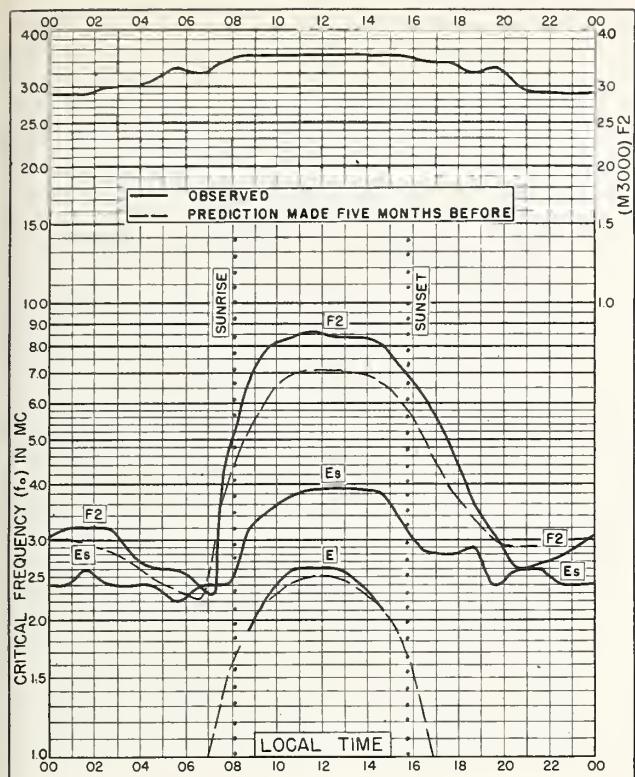
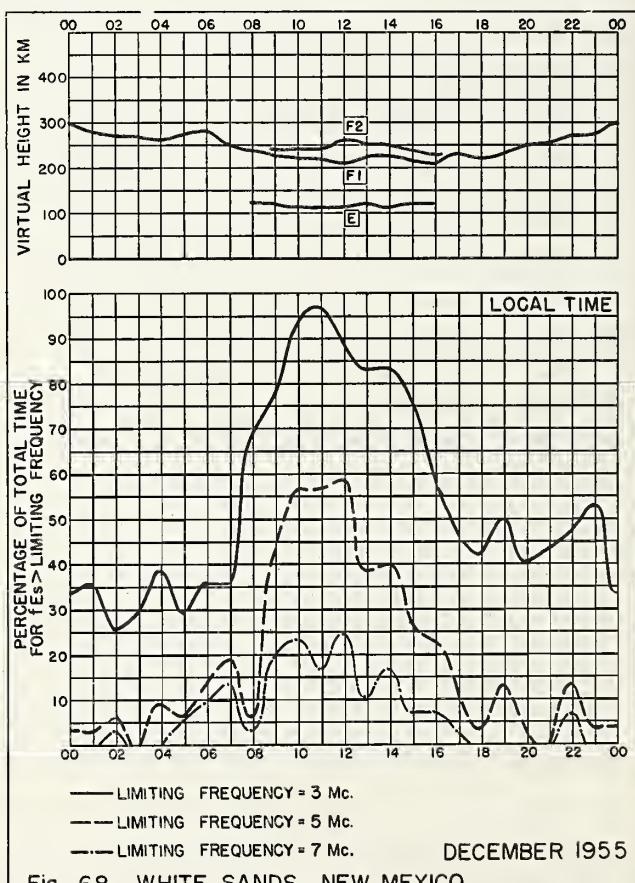
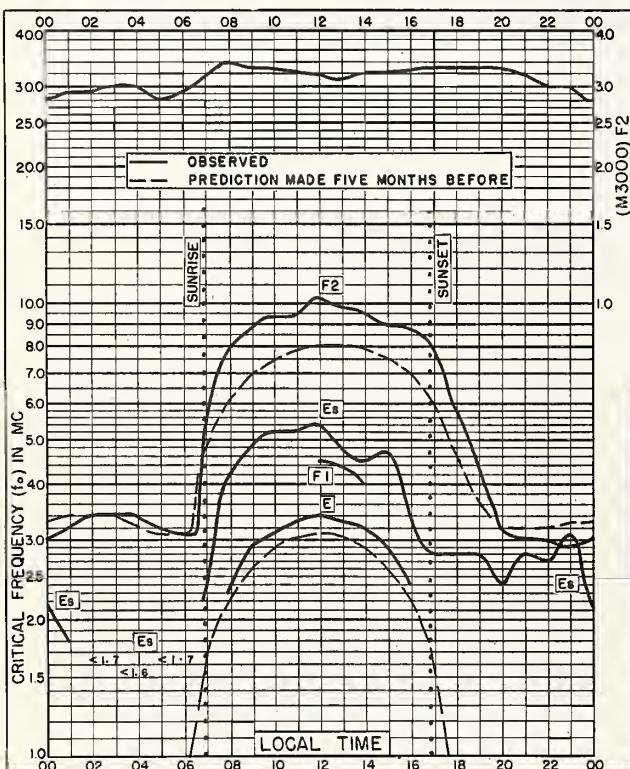
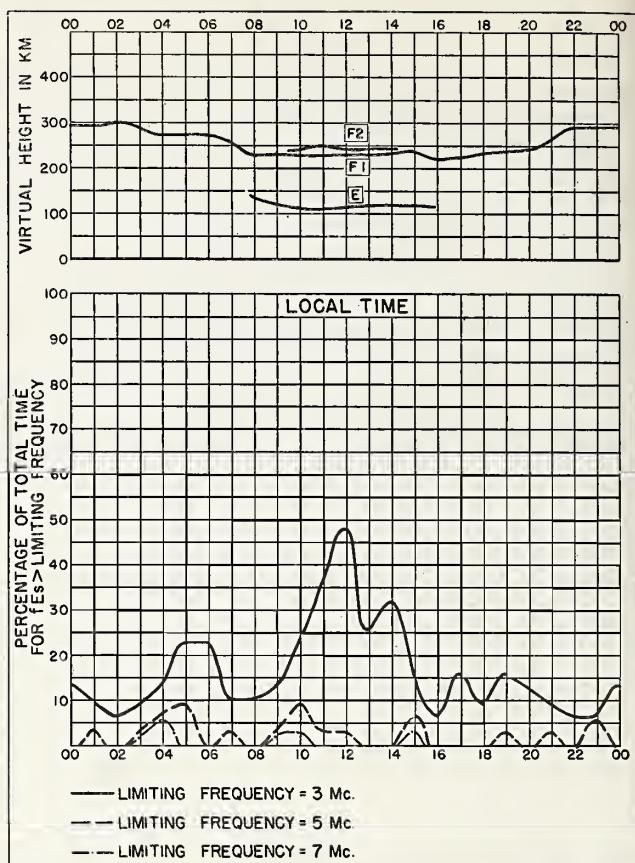
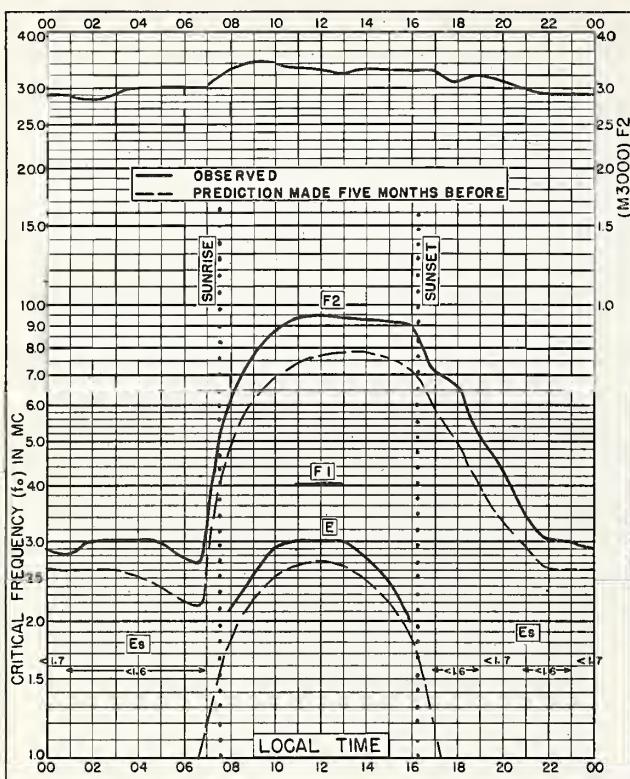


Fig. 63. WINNIPEG, CANADA
49.9°N, 97.4°W DECEMBER 1955

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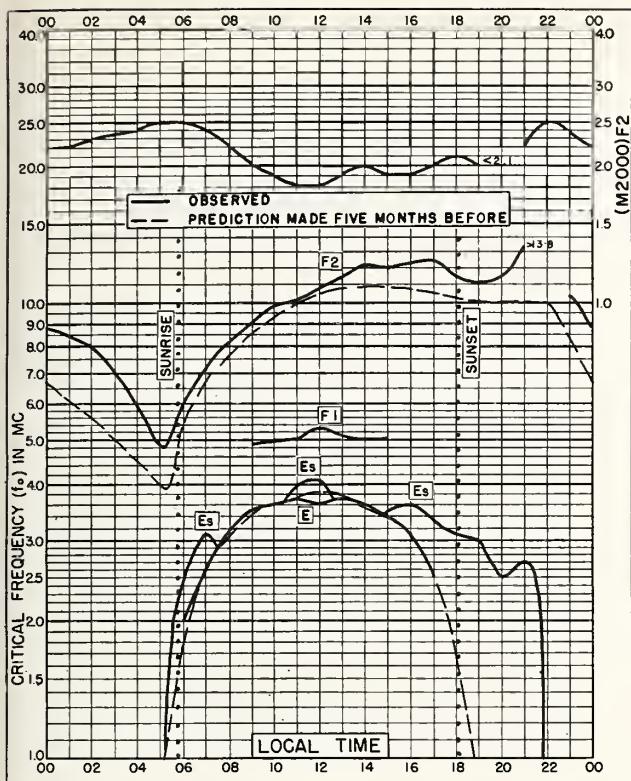


Fig. 69. LEOPOLDVILLE, BELGIAN CONGO
4.4°S, 15.2°E DECEMBER 1955

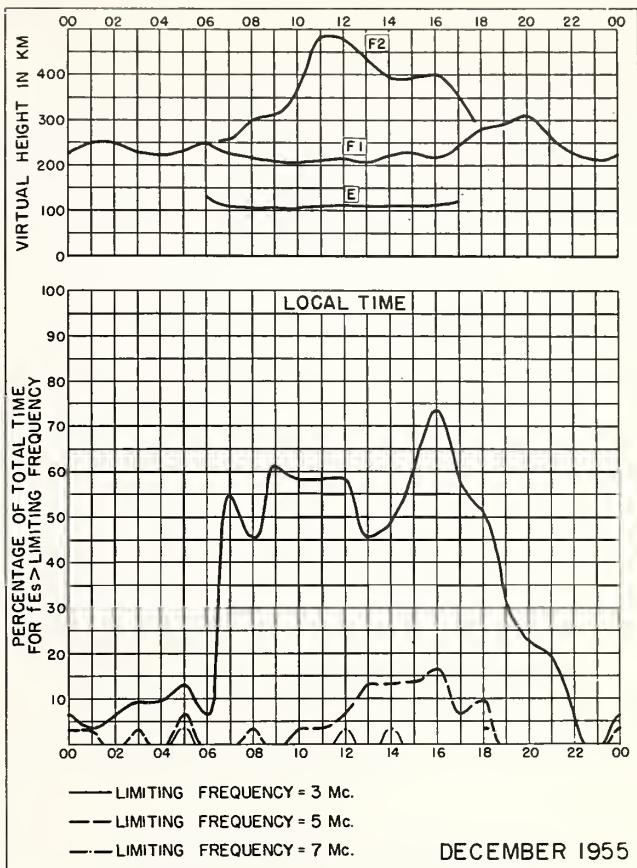


Fig. 70. LEOPOLDVILLE, BELGIAN CONGO

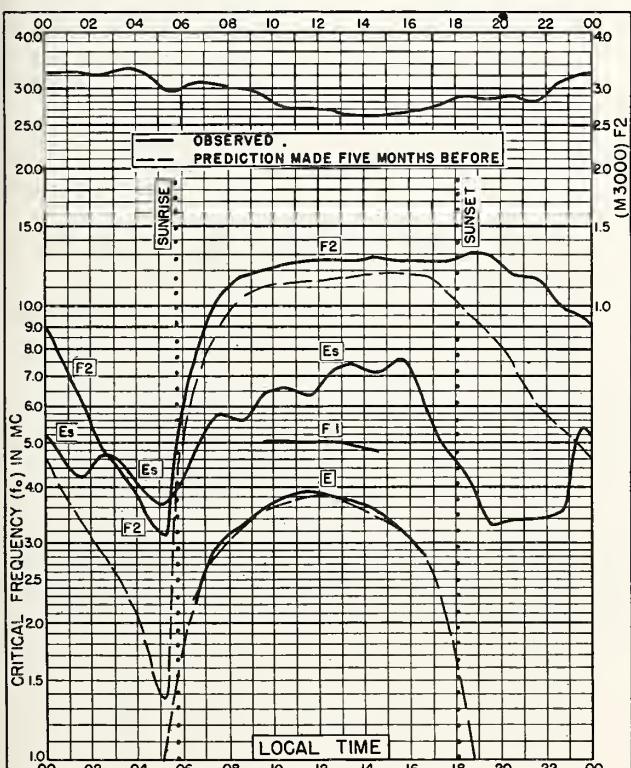


Fig. 71. TALARA, PERU
4.6°S, 81.3°W DECEMBER 1955

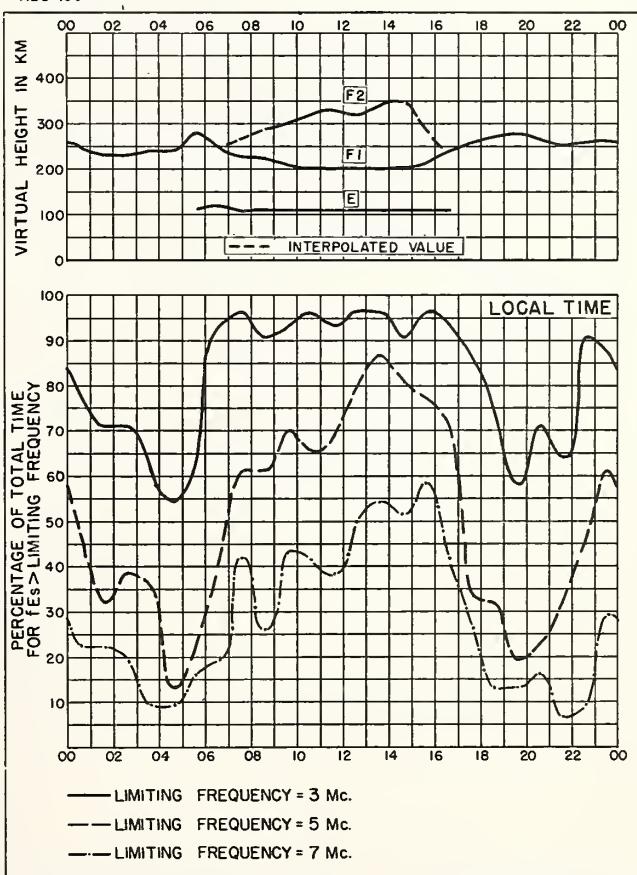


Fig. 72. TALARA, PERU DECEMBER 1955

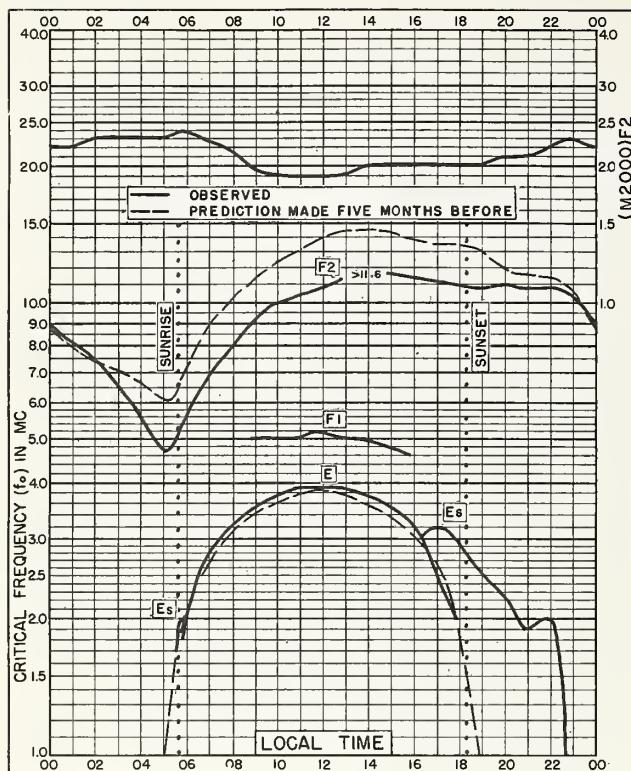


Fig. 73. ELISABETHVILLE, BELGIAN CONGO
II. 6°S, 27.5°E DECEMBER 1955

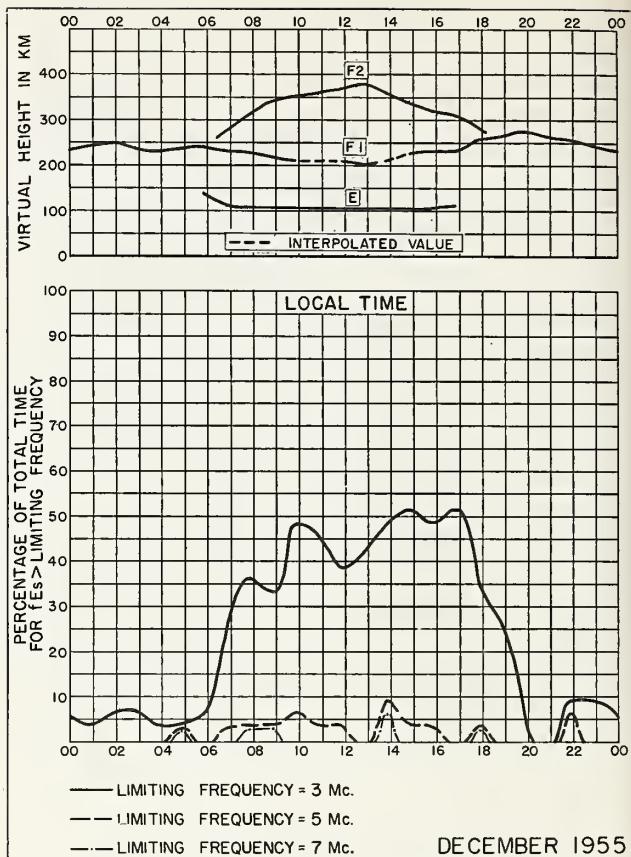


Fig. 74. ELISABETHVILLE, BELGIAN CONGO

NBS 490

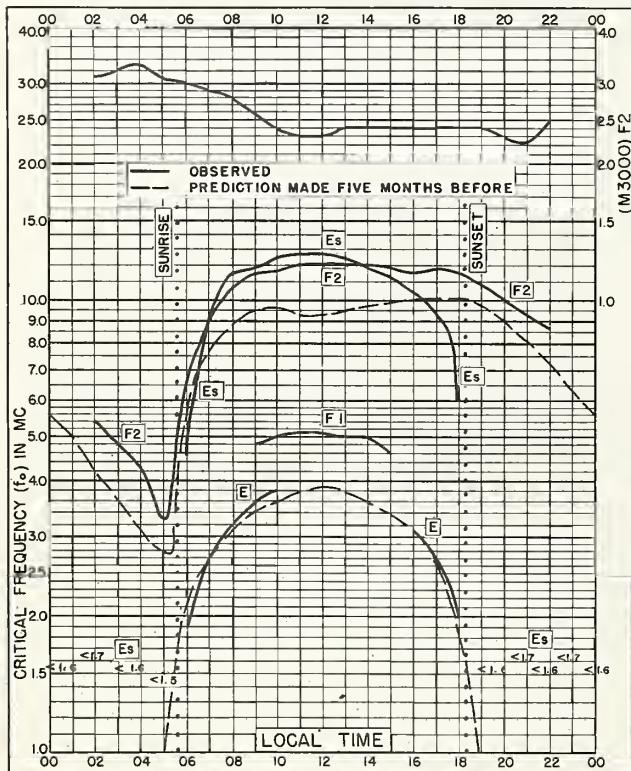
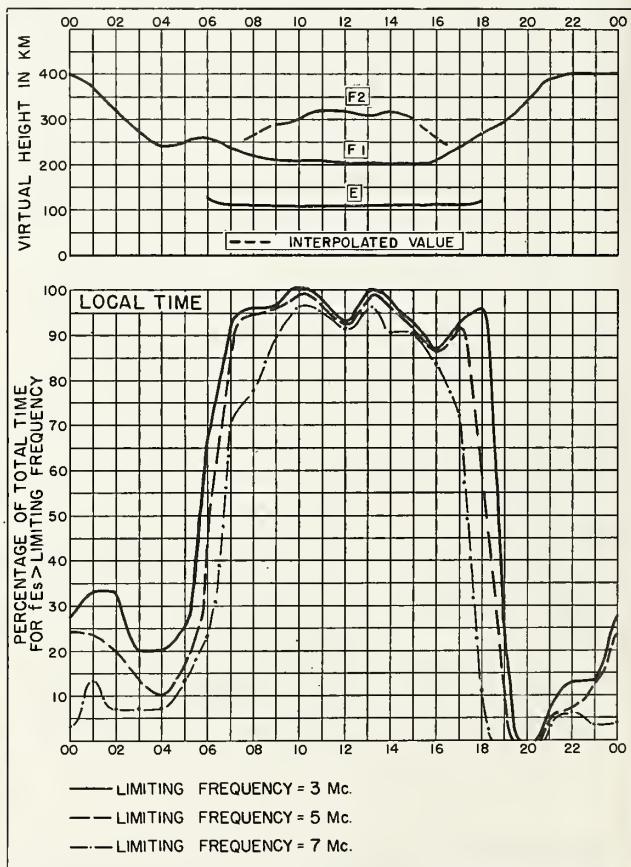


Fig. 75. HUANCAYO, PERU
12.0°S, 75.3°W DECEMBER 1955



NBS 490

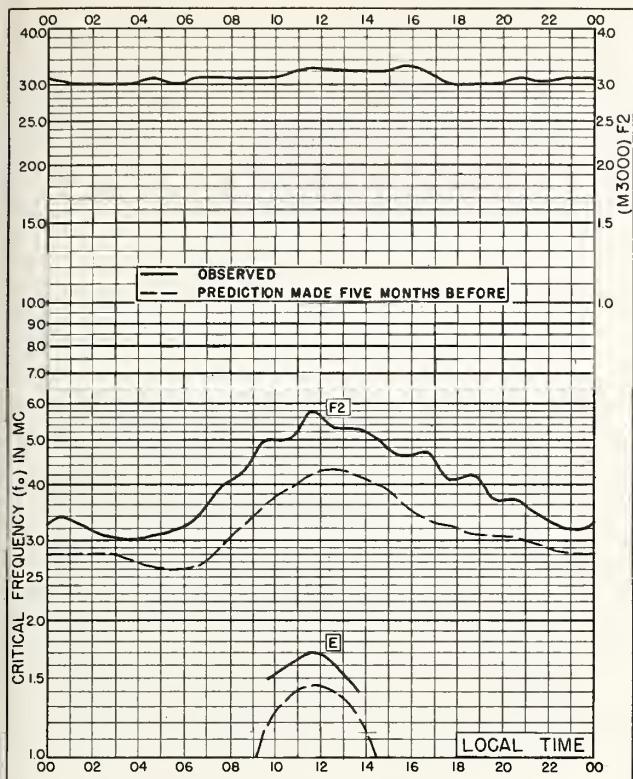


Fig. 77 RESOLUTE BAY, CANADA
74.7°N, 94.9°W NOVEMBER 1955

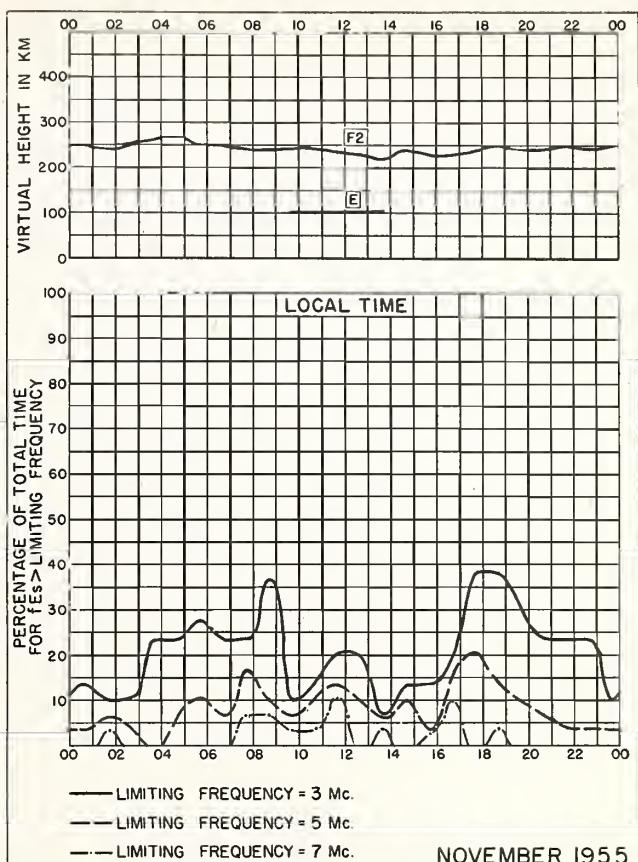


Fig. 78. RESOLUTE BAY, CANADA

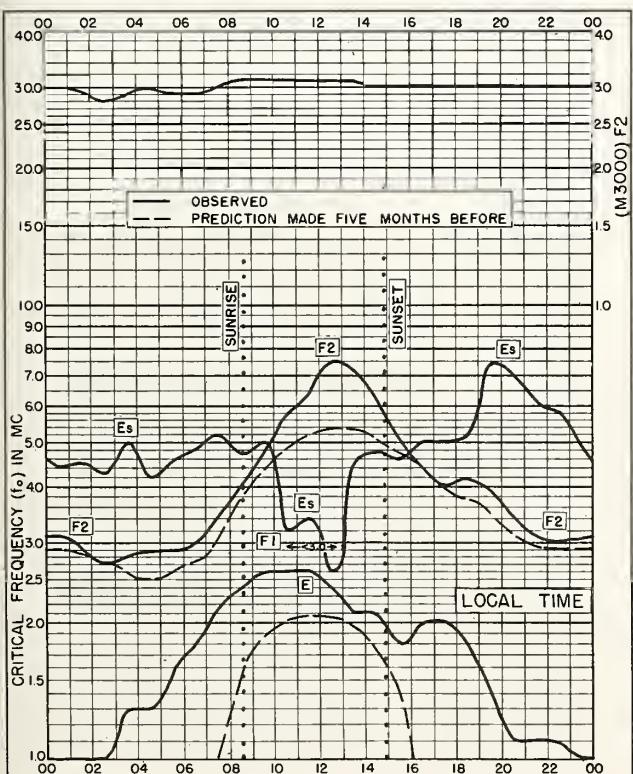


Fig. 79. BAKER LAKE, CANADA
64.3°N, 96.0°W NOVEMBER 1955

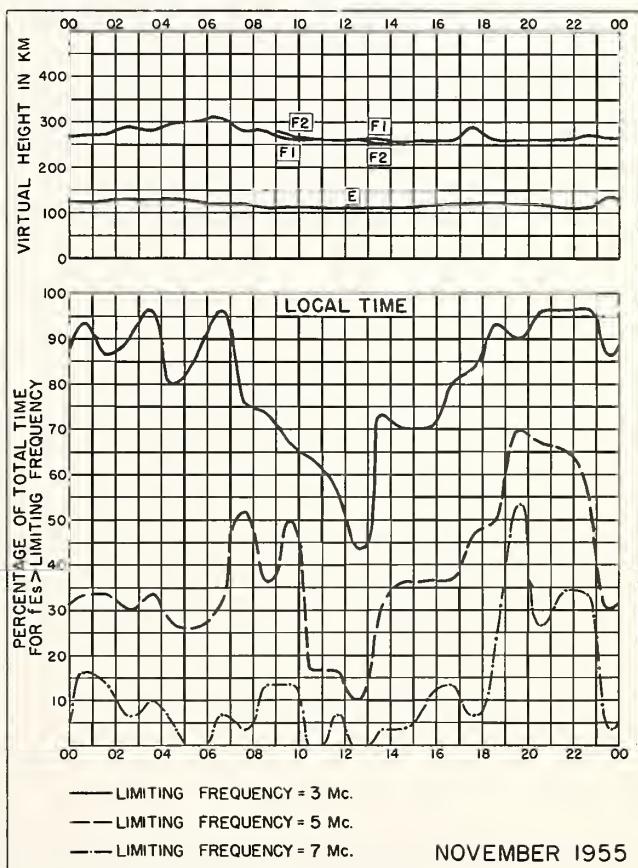


Fig. 80. BAKER LAKE, CANADA

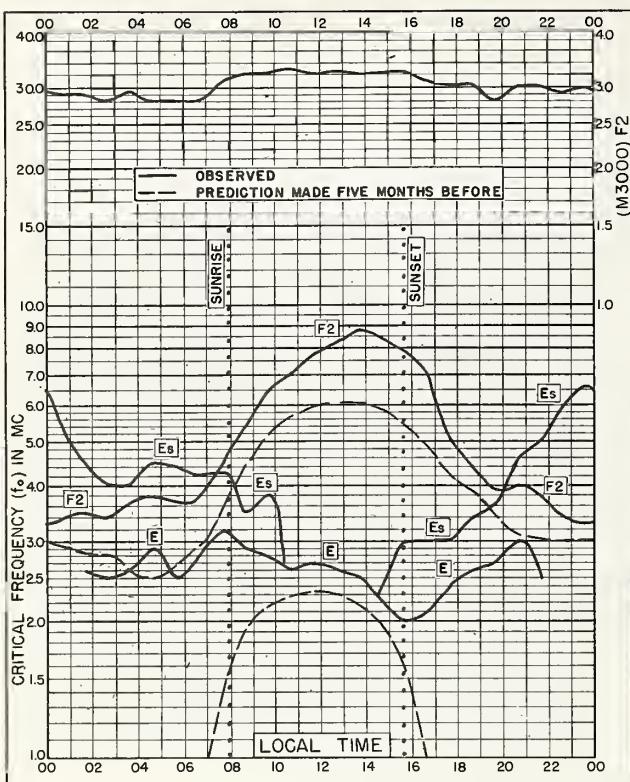


Fig. 81. CHURCHILL, CANADA
58.8°N, 94.2°W NOVEMBER 1955

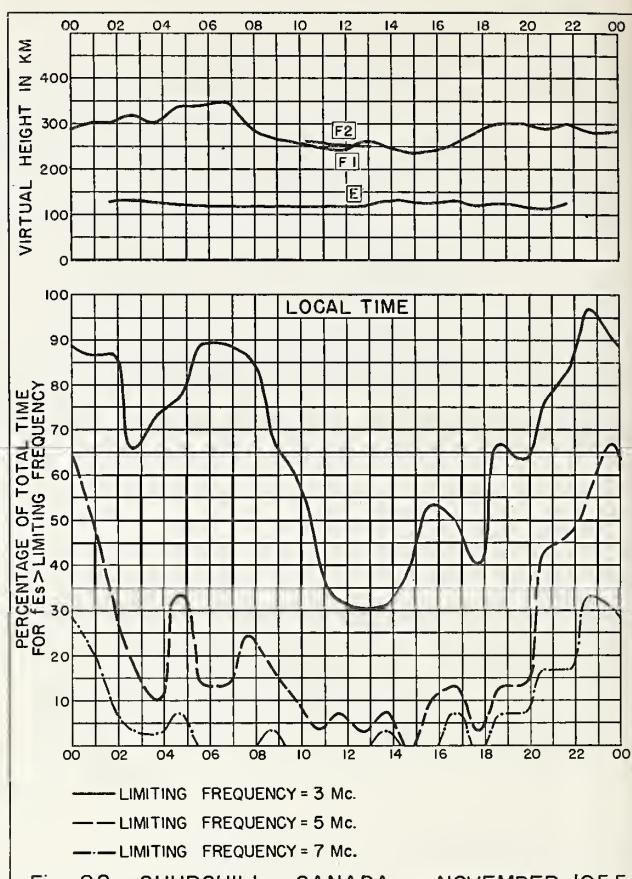


Fig. 82. CHURCHILL, CANADA NOVEMBER 1955

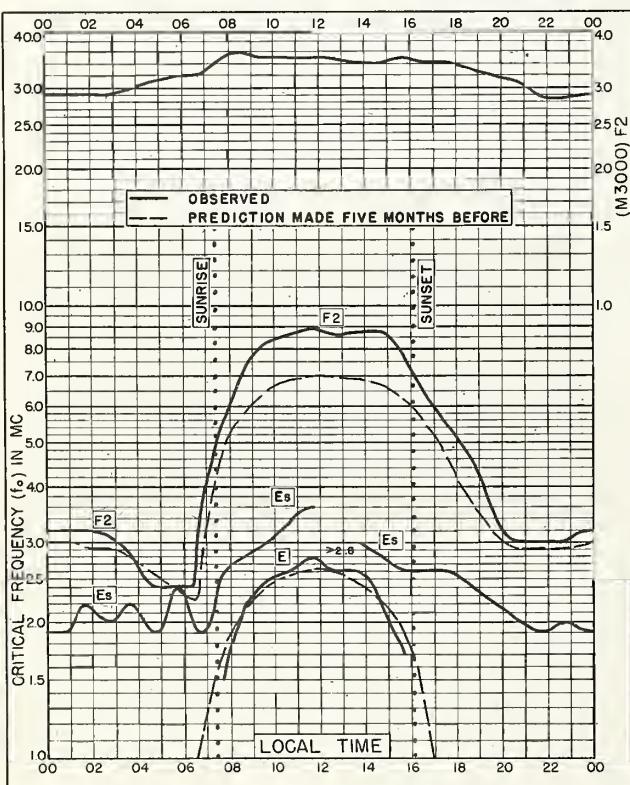


Fig. 83. LINDAU/HARZ, GERMANY
51.6°N, 10.1°E NOVEMBER 1955

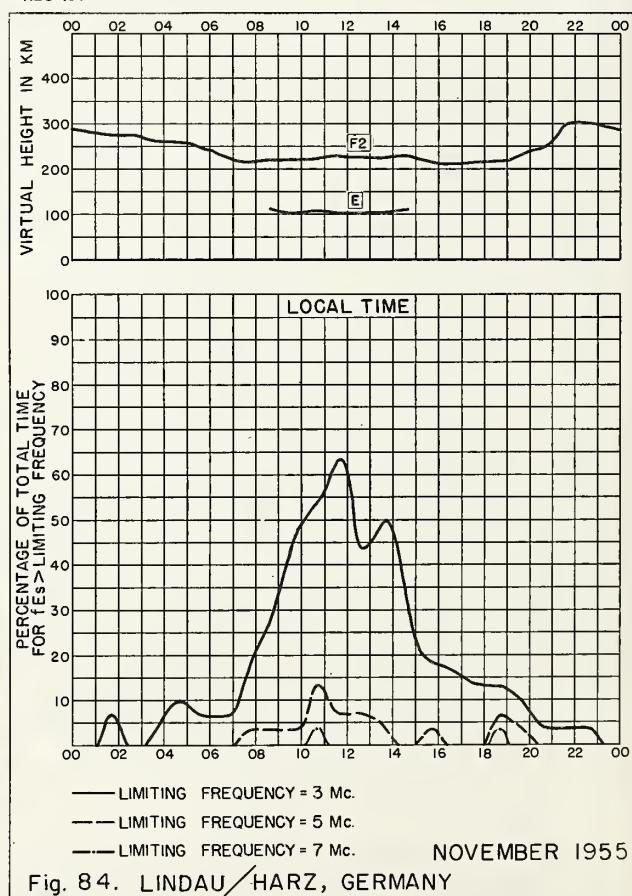


Fig. 84. LINDAU/HARZ, GERMANY NOVEMBER 1955

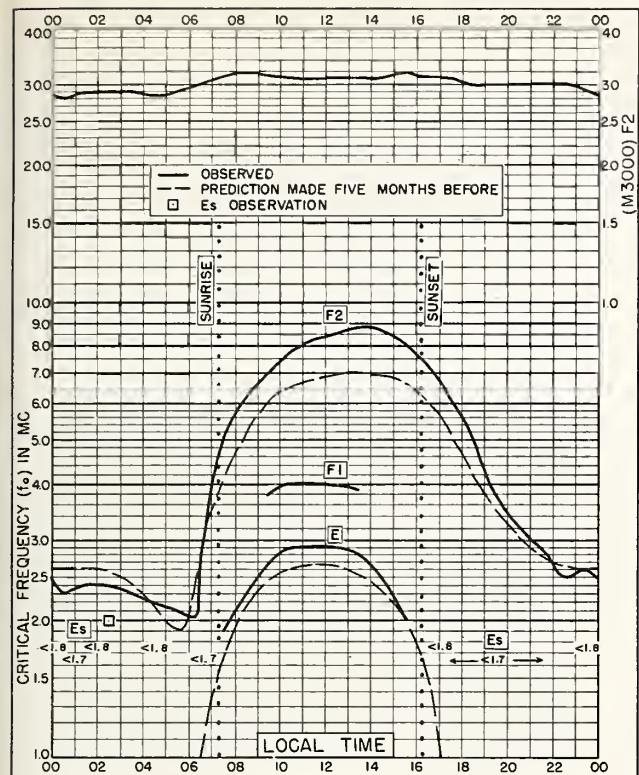


Fig. 85. WINNIPEG, CANADA
49.9°N, 97.4°W NOVEMBER 1955

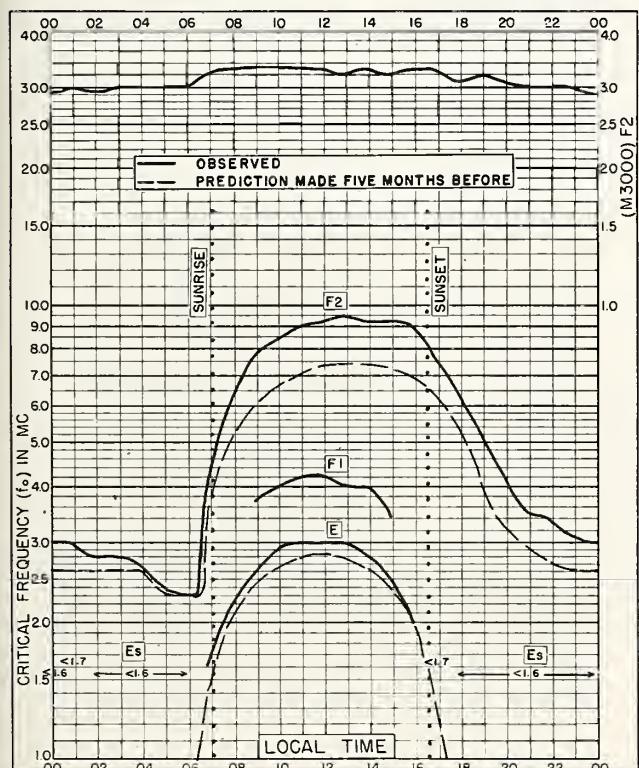
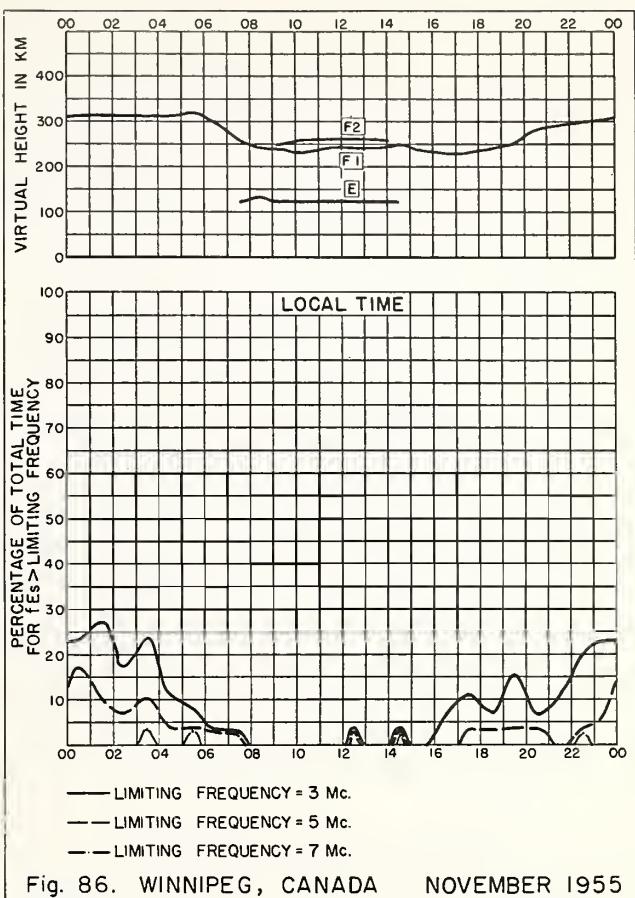
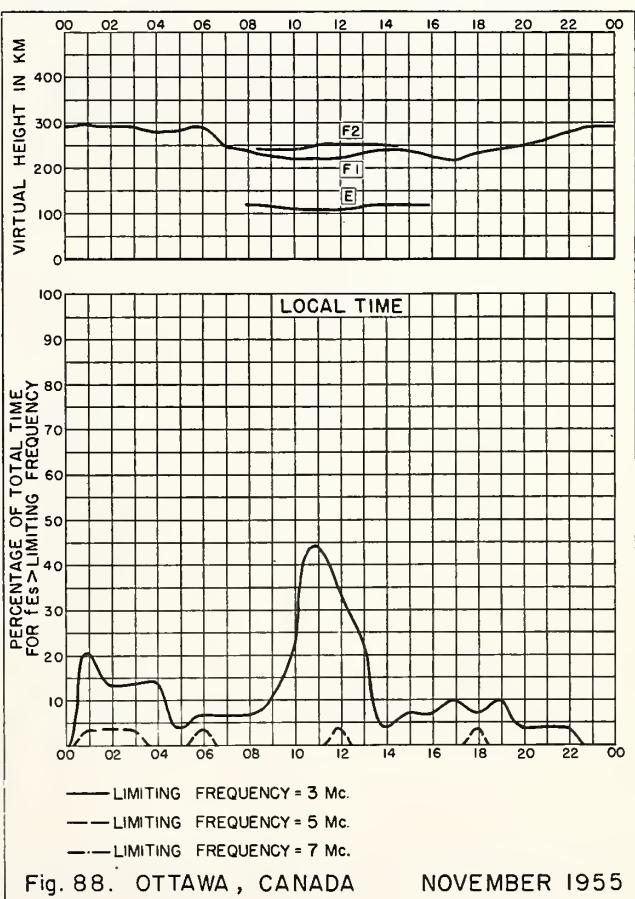


Fig. 87. OTTAWA, CANADA
45.4°N, 75.9°W NOVEMBER 1955



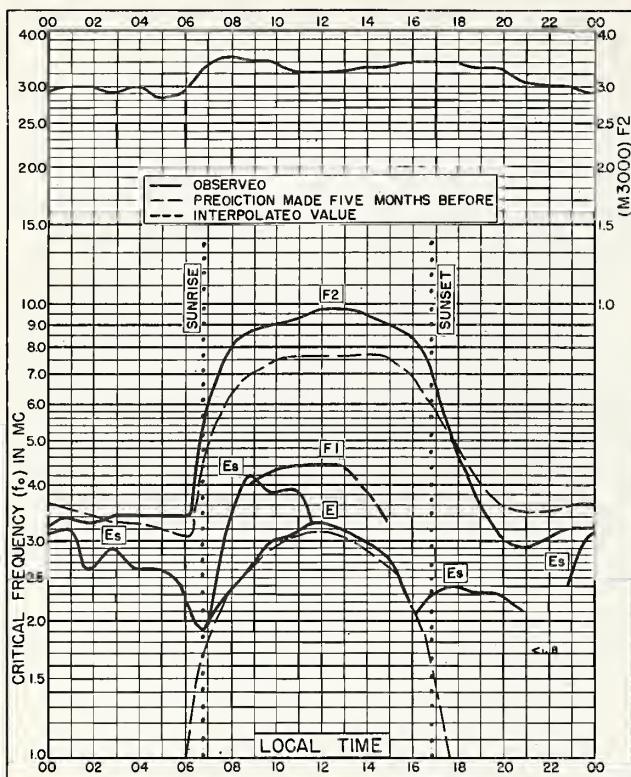


Fig. 89. SAN FRANCISCO, CALIFORNIA
37.4°N, 122.2°W NOVEMBER 1955

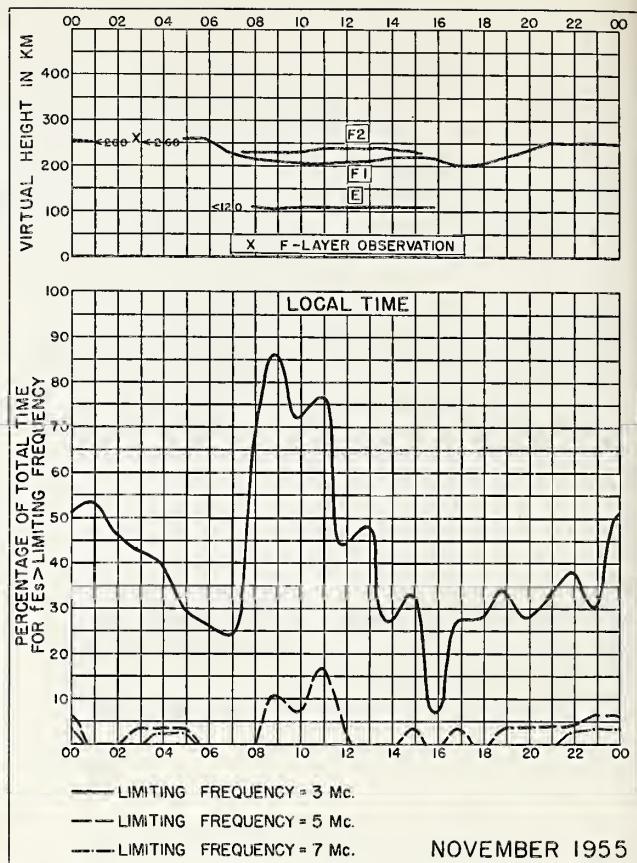


Fig. 90. SAN FRANCISCO, CALIFORNIA
NBS 490

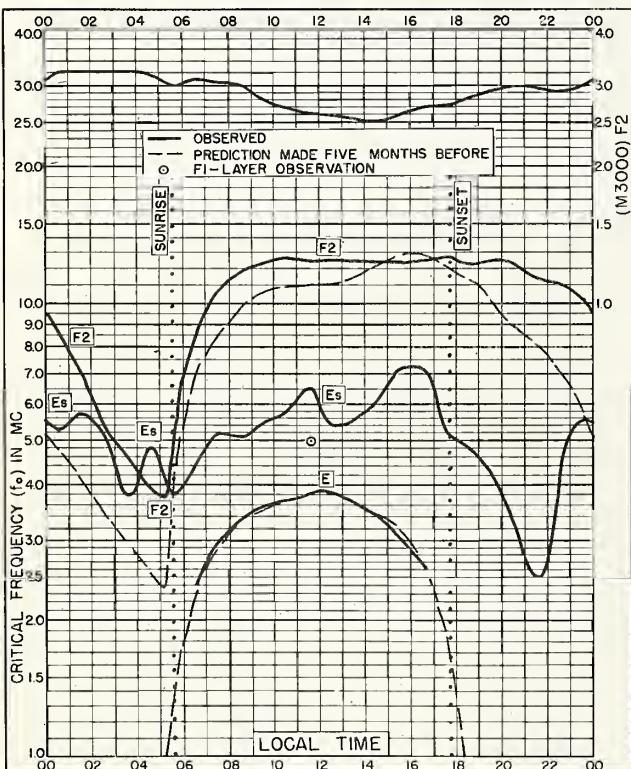


Fig. 91. TALARA, PERU
4.6°S, 81.3°W NOVEMBER 1955

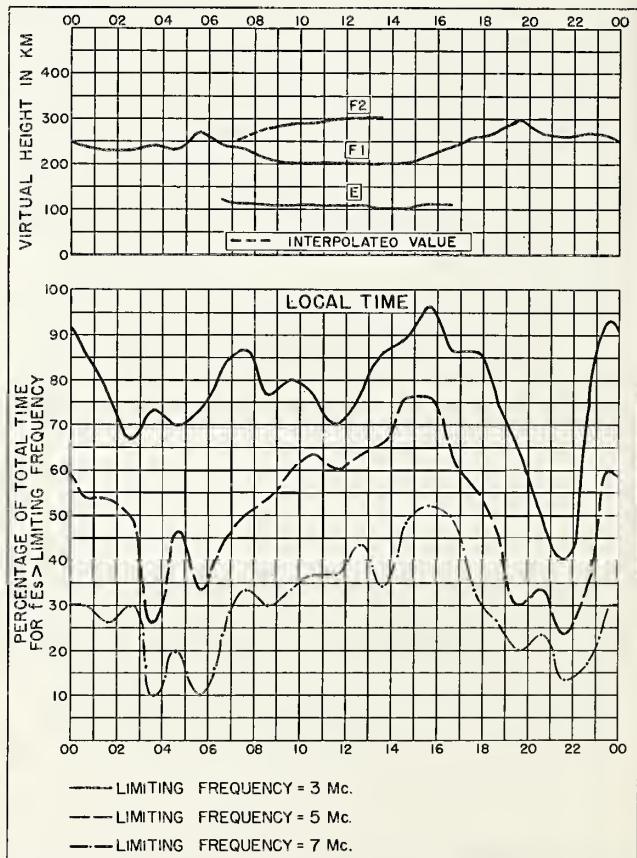


Fig. 92. TALARA, PERU
NBS 490

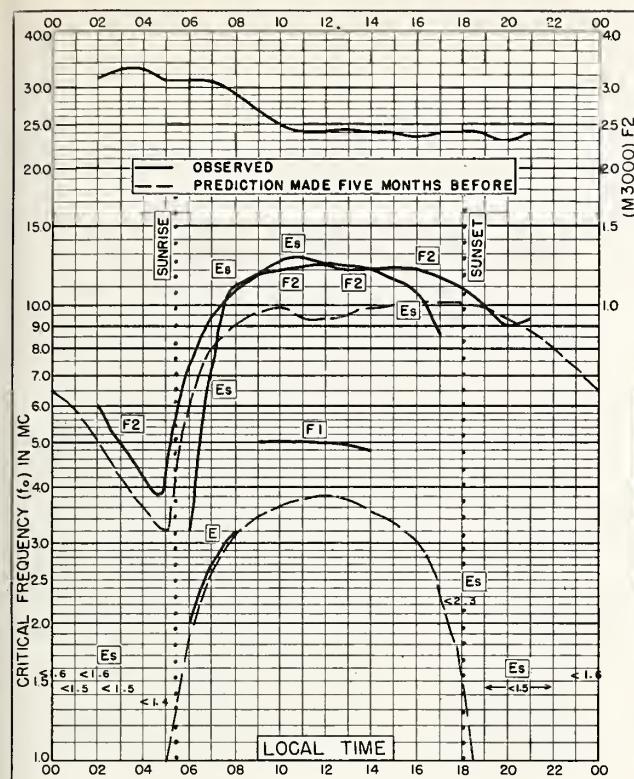


Fig. 93. HUANCAYO, PERU
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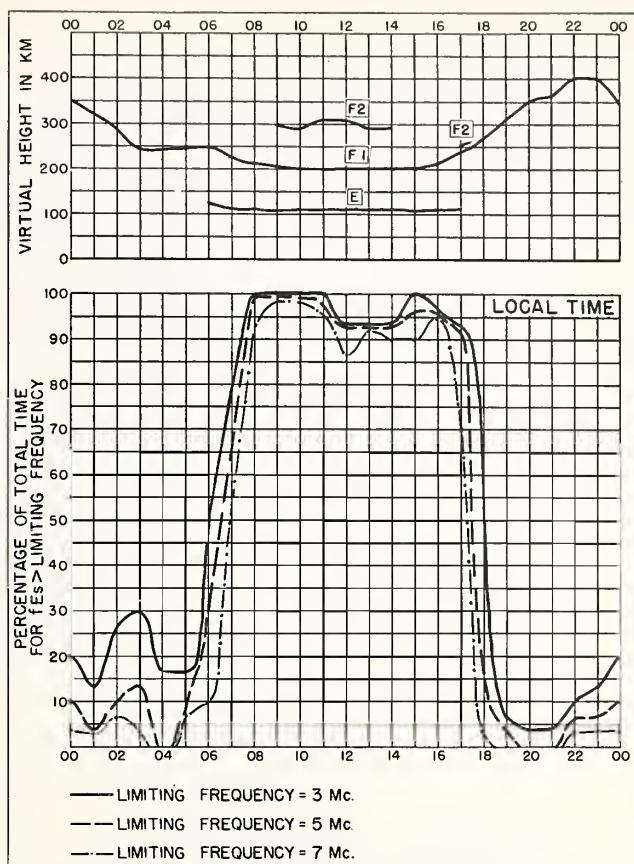


Fig. 94. HUANCAYO, PERU NOVEMBER 1955

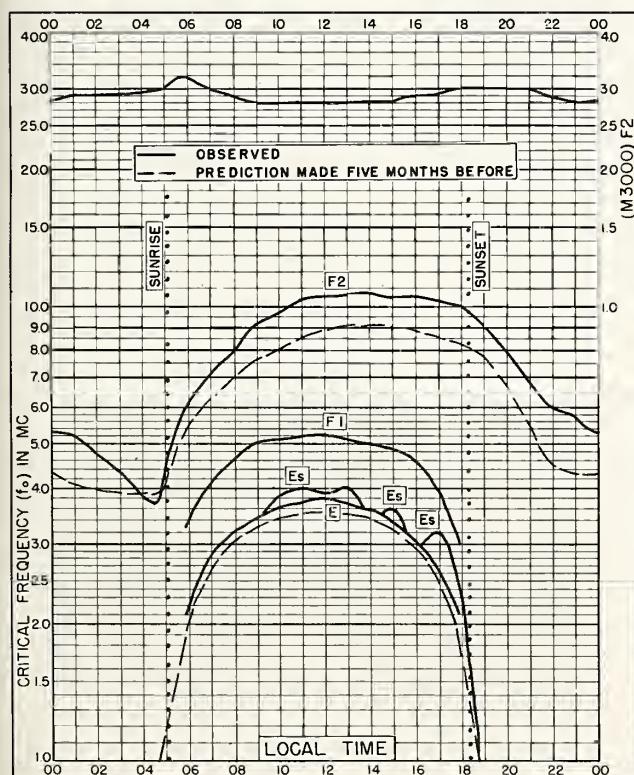


Fig. 95. JOHANNESBURG, UNION OF S. AFRICA
26.2°S, 28.1°E NOVEMBER 1955

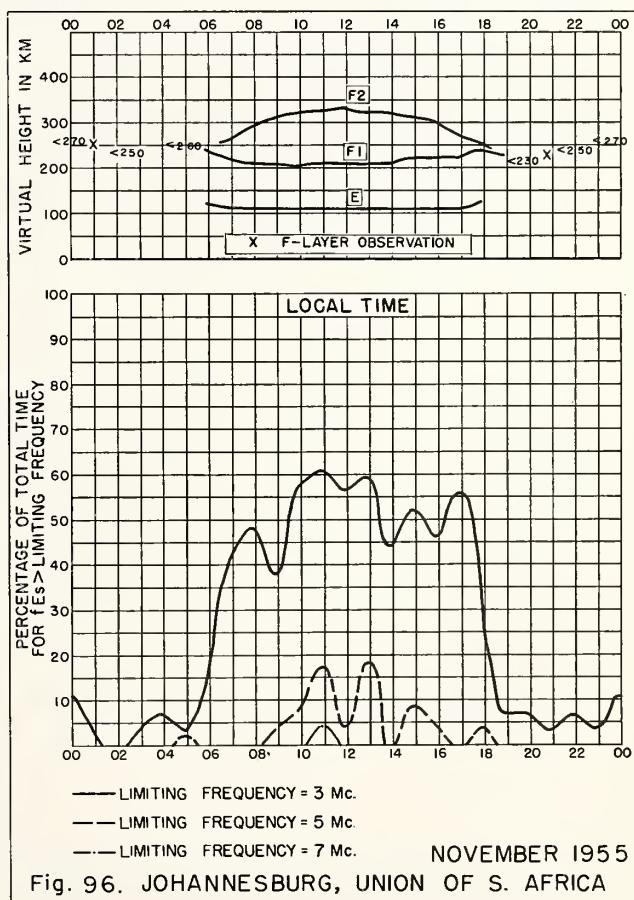
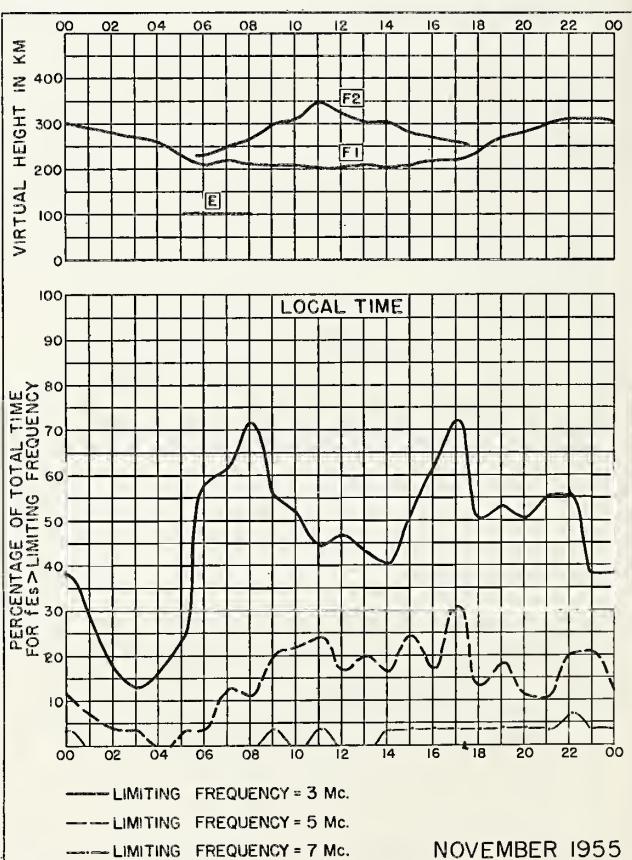
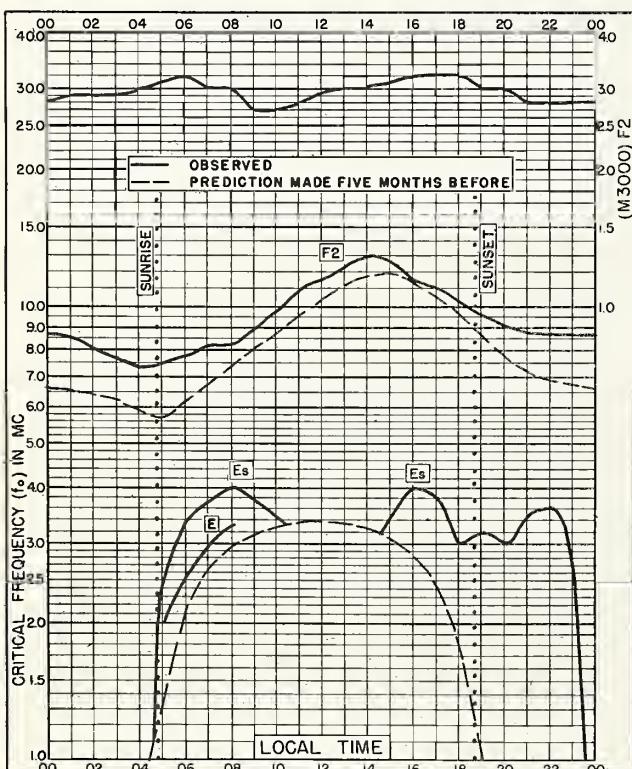
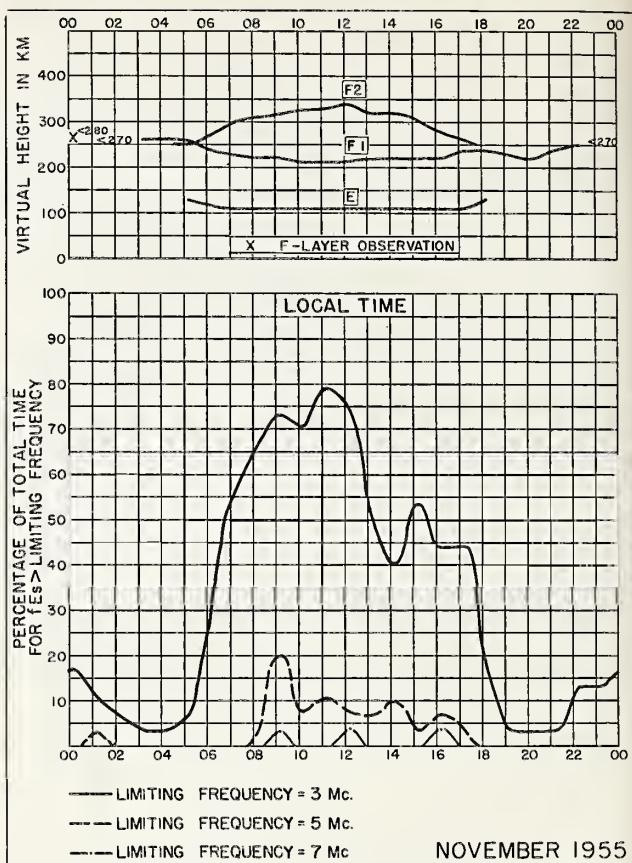
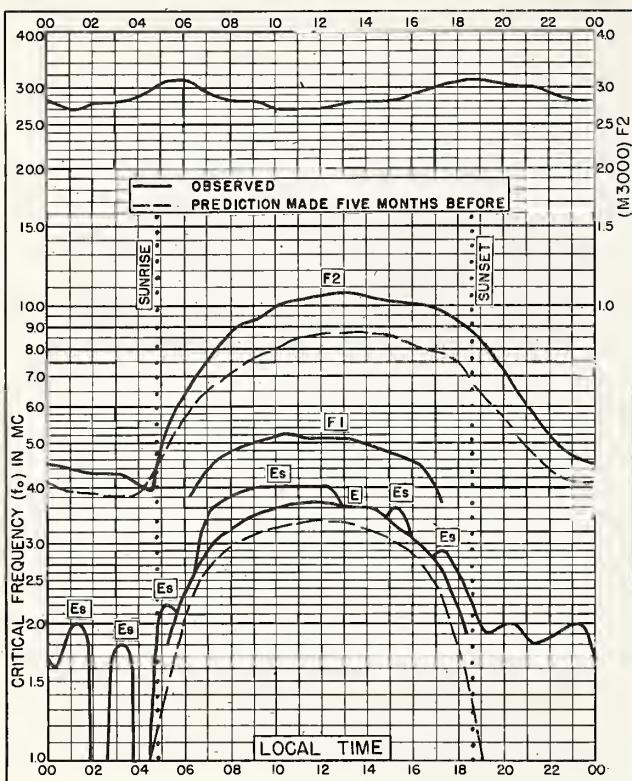


Fig. 96. JOHANNESBURG, UNION OF S. AFRICA NOVEMBER 1955



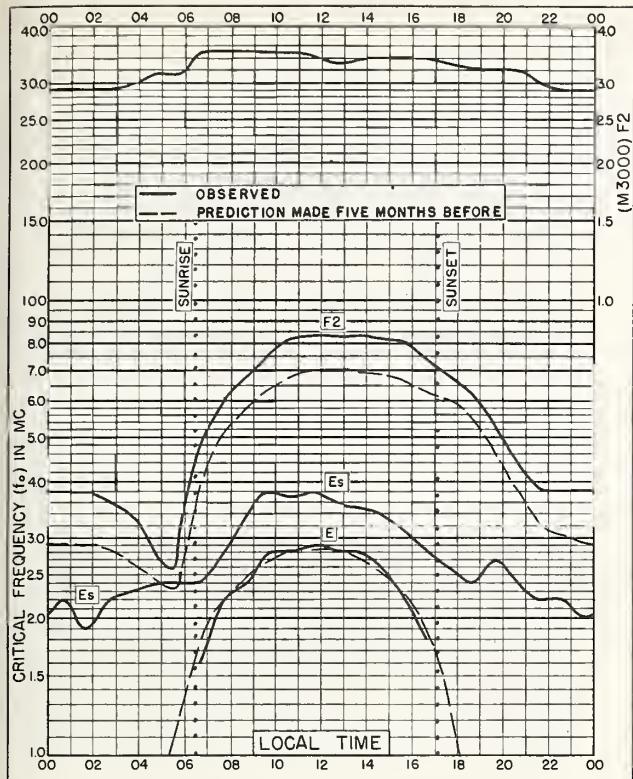


Fig. 101. LINDAU/HARZ, GERMANY
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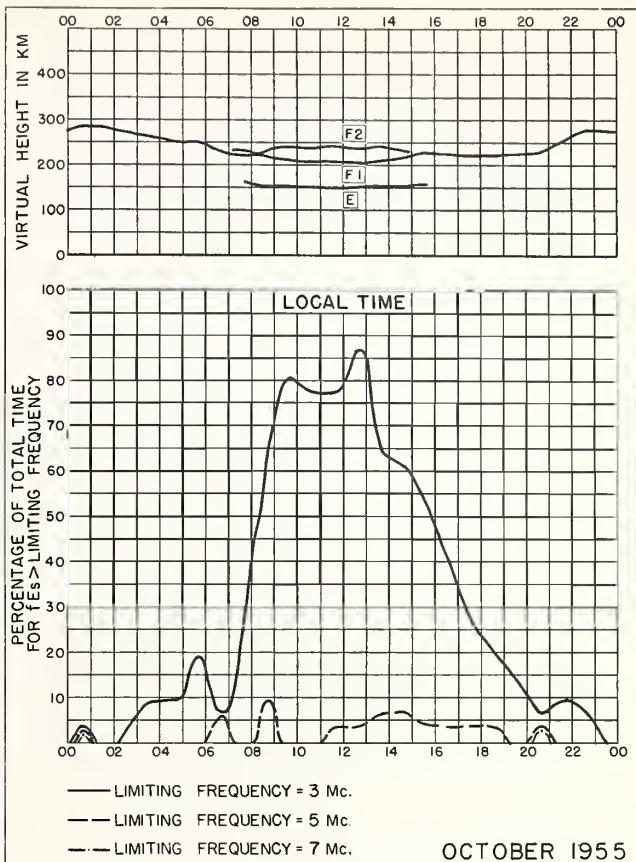


Fig. 102. LINDAU/HARZ, GERMANY

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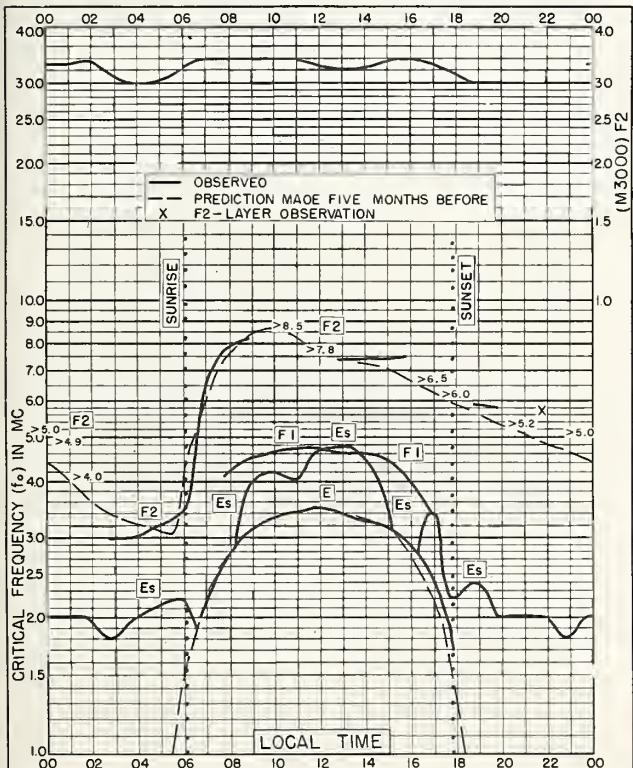


Fig. 103. TOWNSVILLE, AUSTRALIA
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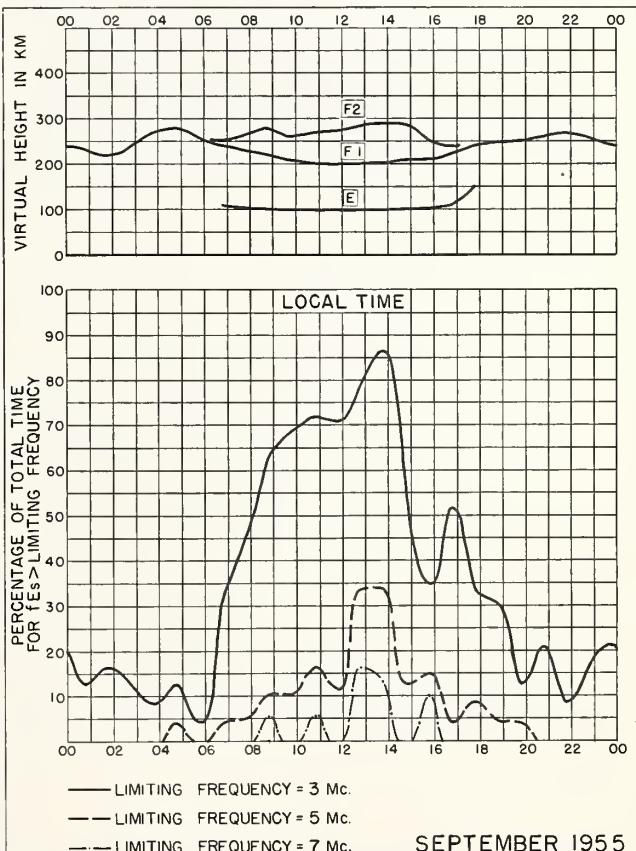


Fig. 104. TOWNSVILLE, AUSTRALIA

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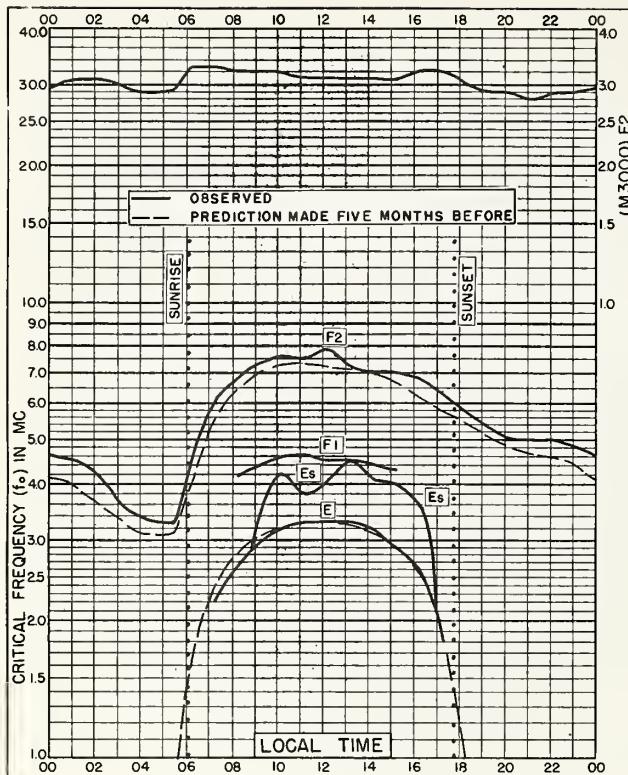


Fig. 105. BRISBANE, AUSTRALIA
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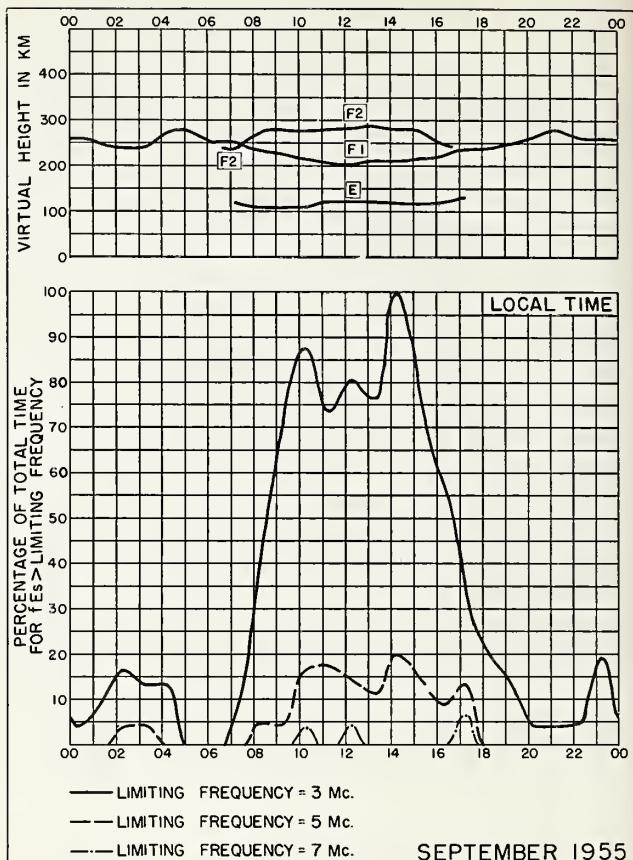


Fig. 106. BRISBANE, AUSTRALIA SEPTEMBER 1955

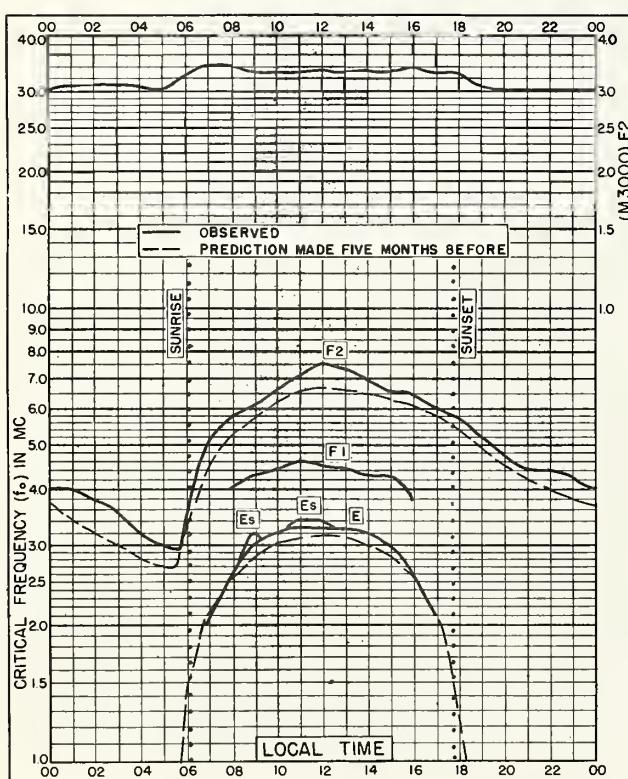


Fig. 107. CANBERRA, AUSTRALIA
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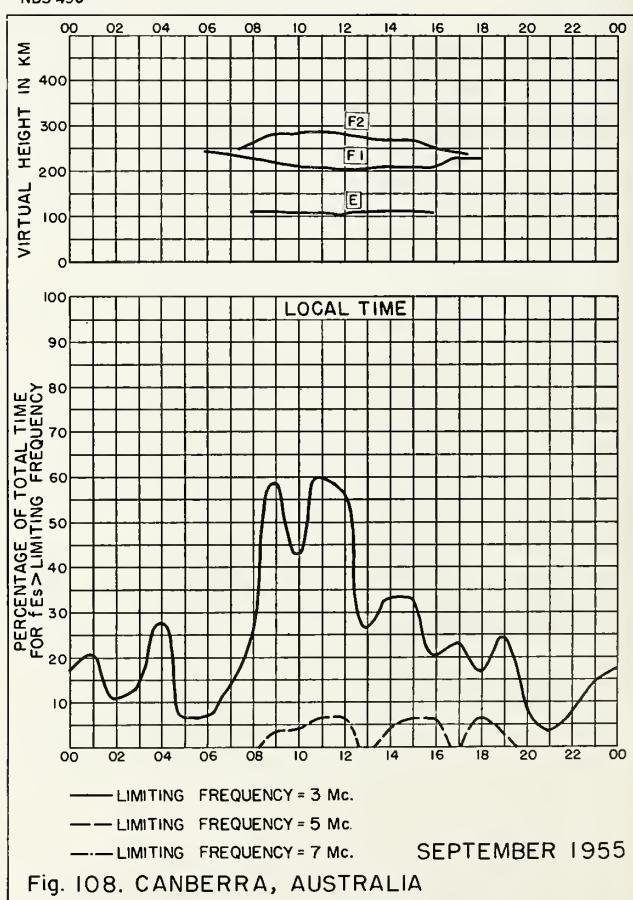


Fig. 108. CANBERRA, AUSTRALIA SEPTEMBER 1955

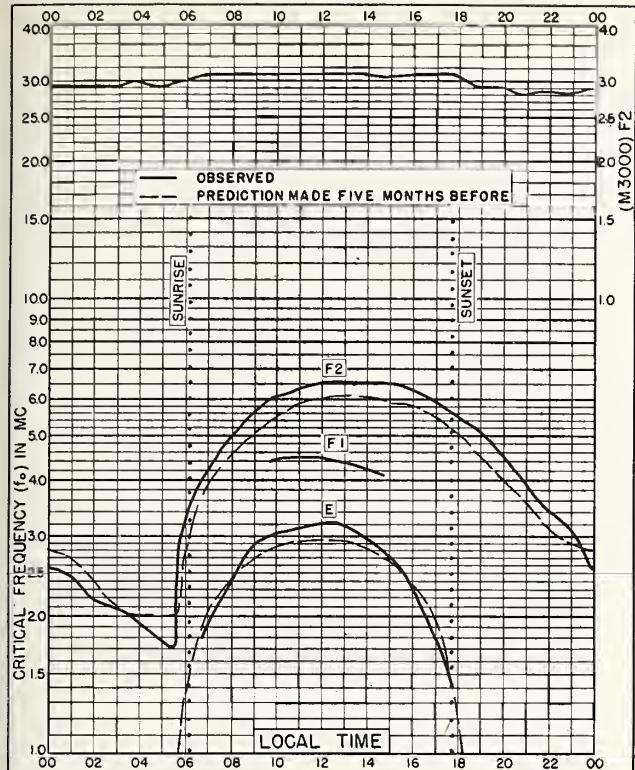


Fig. 109. HOBART, TASMANIA
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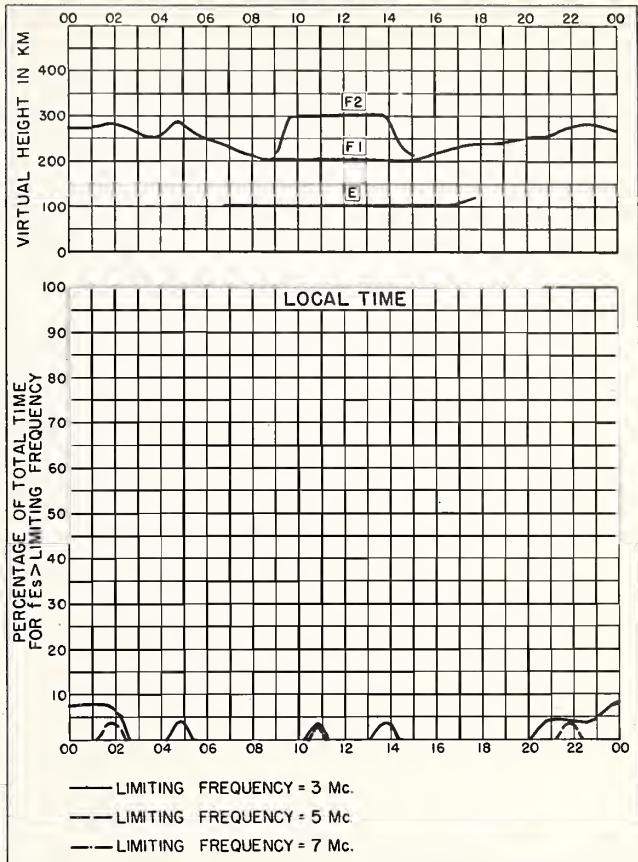


Fig. 110. HOBART, TASMANIA SEPTEMBER 1955

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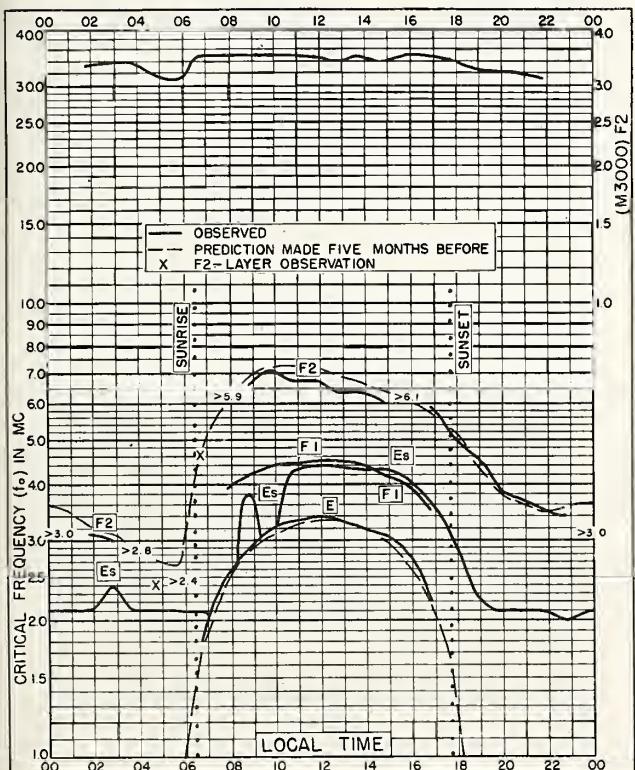
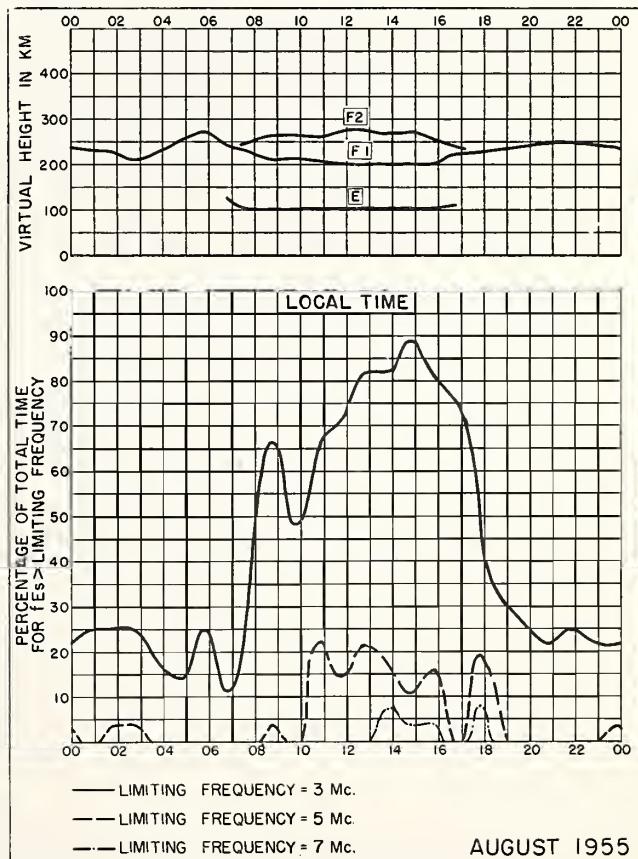


Fig. III. TOWNSVILLE, AUSTRALIA
19.3°S, 146.7°E AUGUST 1955



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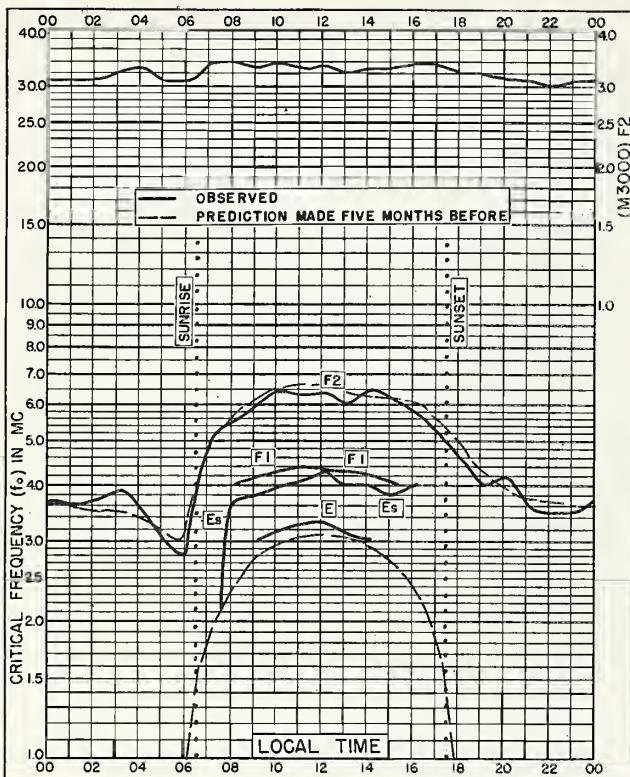


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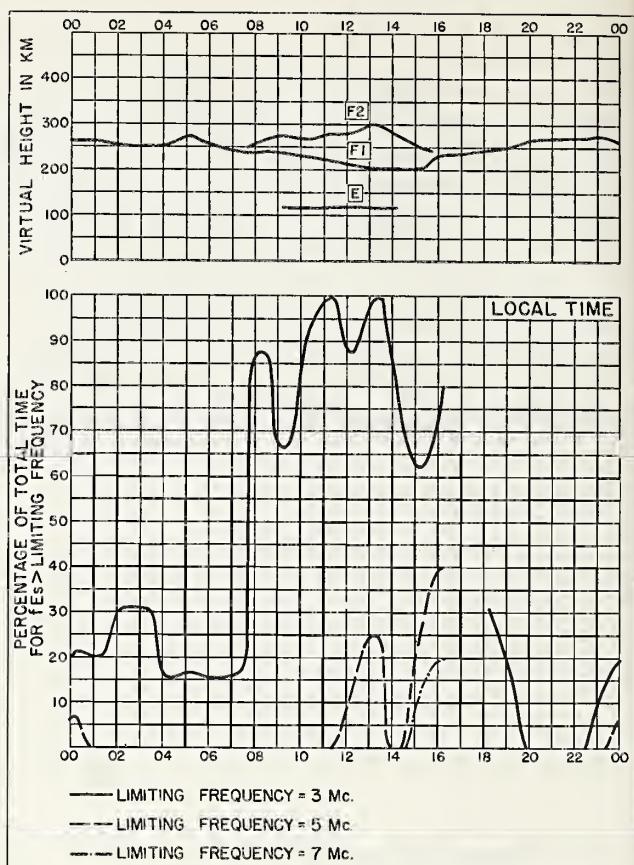


Fig. 114. BRISBANE, AUSTRALIA AUGUST 1955

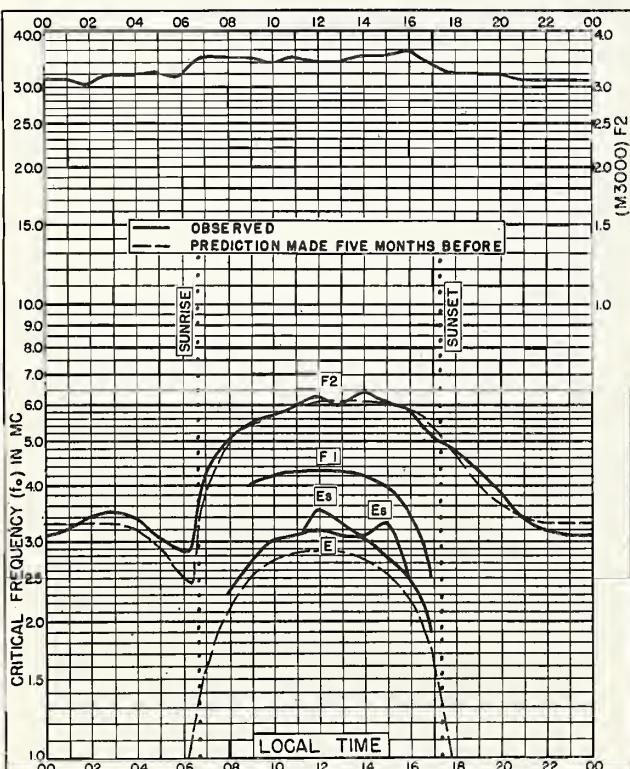


Fig. 115. CANBERRA, AUSTRALIA
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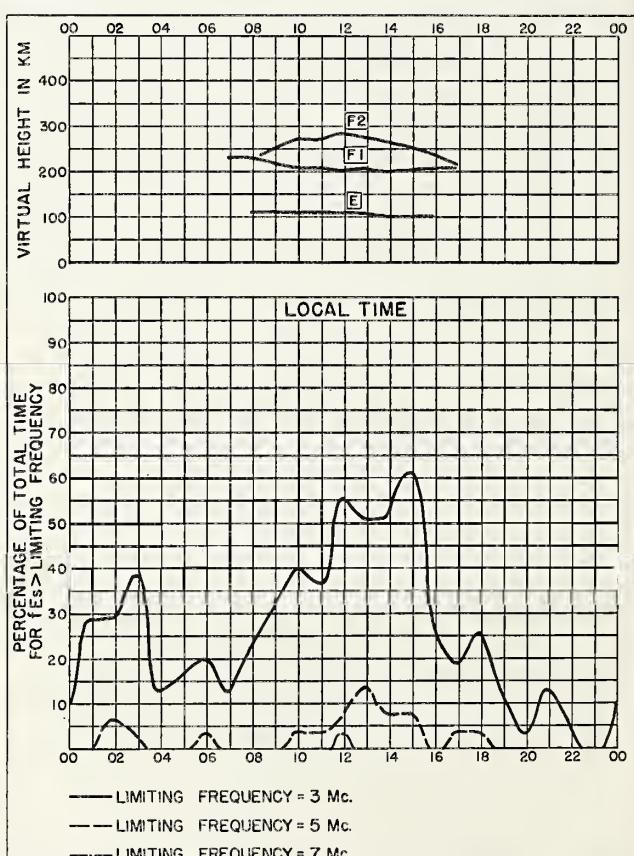


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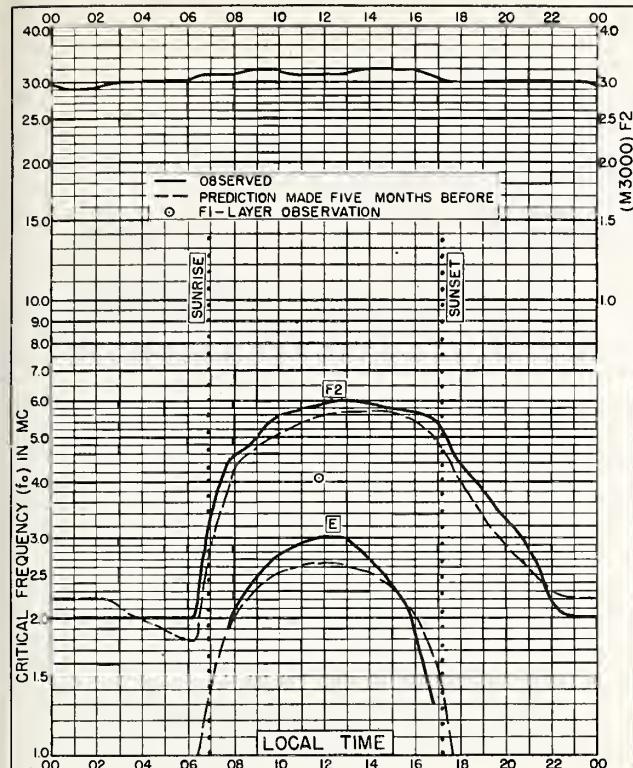


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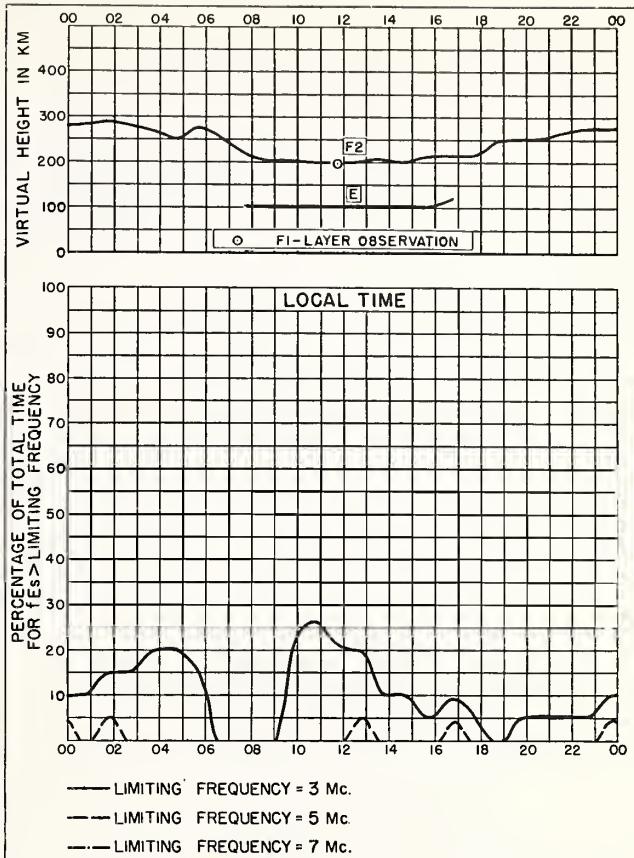


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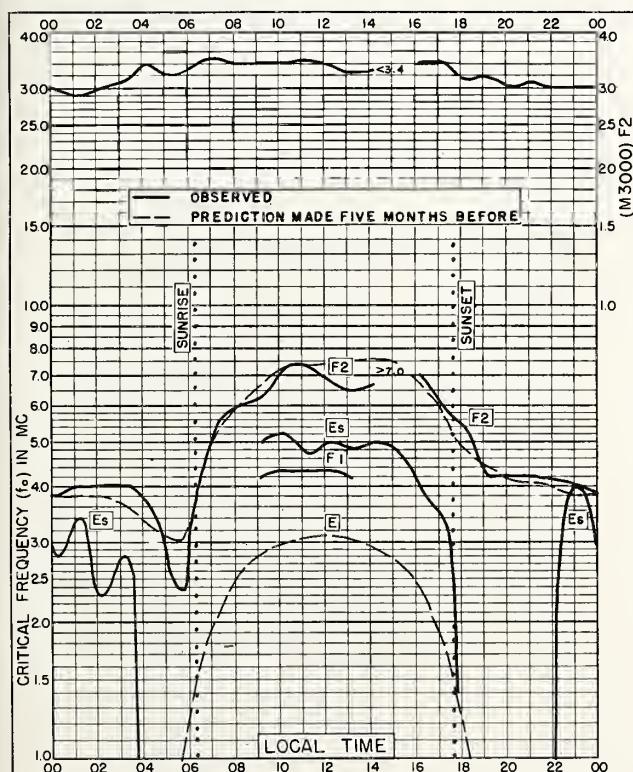


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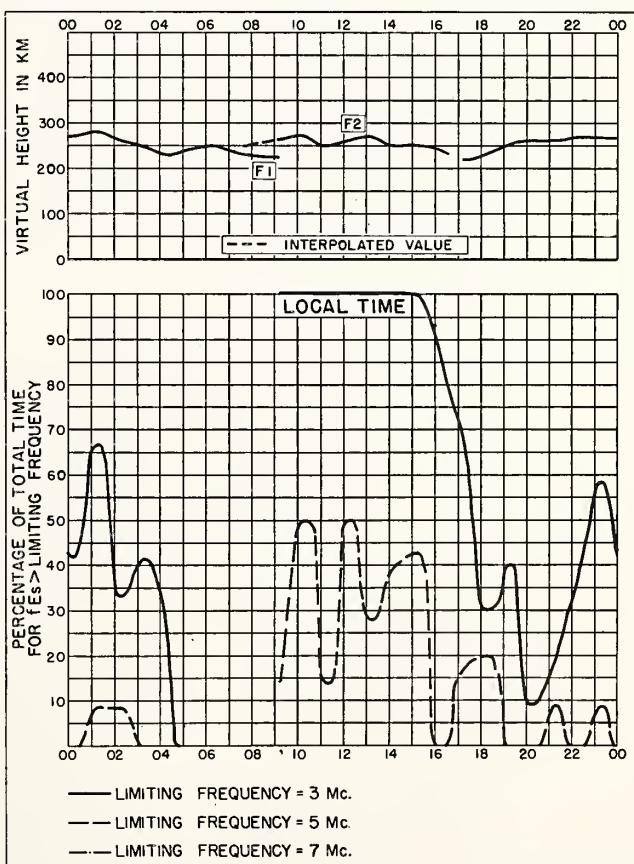


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(Part B). Solar-Geophysical Data.

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