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IONOSPHERIC DATA

ISSUED
MAY 1955

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

CRPL-F 129

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Issued
24 May 1955

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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.

a. For all ionospheric characteristics:

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

b. For critical frequencies and virtual heights:

Values of foF2 (and foE near sunrise and sunset) missing because of E are counted as equal to or less than the lower limit of the recorder. Values of h'F2 (and h'E near sunrise and sunset) missing for this reason are counted 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 D are counted as equal to or greater than the upper limit of the recorder.

Values missing because of G are counted:

1. For foF2, as equal to or less than foF1.
2. For h'F2, as equal to or greater than the median.

The symbol W is included in the median count only when it replaces a height characteristic. This practice represents a change from that listed in issues previous to CRPL-F78.

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.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Month	Predicted Sunspot Number										
	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946	1945
December		11	15	33	53	86	108	114	126	85	38
November		10	16	38	52	87	112	115	124	83	36
October		10	17	43	52	90	114	116	119	81	23
September		8	18	46	54	91	115	117	121	79	22
August		8	18	49	57	96	111	123	122	77	20
July		8	20	51	60	101	108	125	116	73	
June		9	21	52	63	103	108	129	112	67	
May		10	22	52	68	102	108	130	109	67	
April	13	10	24	52	74	101	109	133	107	62	
March	14	11	27	52	78	103	111	133	105	51	
February	14	12	29	51	82	103	113	133	90	46	
January	12	14	30	53	85	105	112	130	88	42	

WORLD-WIDE SOURCES OF IONOSPHERIC DATA

The ionospheric data given here in tables 1 to 78 and figures 1 to 155 were assembled by the Central Radio Propagation Laboratory for analysis and correlation, incidental to CRPL prediction of radio propagation conditions. The data are median values unless otherwise indicated. The following are the sources of the data in this issue:

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

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

University of Graz:
- Graz, Austria

University of Sao Paulo:
- Sao Paulo, Brazil

British Department of Scientific and Industrial Research, Radio Research Board:
- Falkland Is.
- Ibadan, Nigeria (University College of Ibadan)
- Inverness, Scotland
- Port Lockroy
- Singapore, British Malaya
- Slough, England

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

The Royal Netherlands Meteorological Institute:
- De Bilt, Holland

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

Indian Council of Scientific and Industrial Research, Radio Research Committee:
- Calcutta, India

Ministry of Postal Services, Radio Research Laboratories, Tokyo, Japan:
- Akita, Japan
- Tokyo (Kokubunji), Japan
- Wakkanai, Japan
- Yamagawa, Japan

Christchurch Geophysical Observatory, New Zealand Department of Scientific and Industrial Research:
- Christchurch, New Zealand
- Rarotonga, Cook Is.

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

Manila Observatory:
- Baguio, P. I.

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

Research Laboratory of Electronics, Chalmers University of Technology, Gothenburg, Sweden:
- Kiruna, Sweden

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

Royal Board of Swedish Telegraphs, Radio Department, Stockholm, Sweden:
Lulea, Sweden

United States Army Signal Corps:
Adak, Alaska
Okinawa I.
White Sands, New Mexico

National Bureau of Standards (Central Radio Propagation Laboratory):
Anchorage, Alaska
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.
Washington, D. C.

HOURLY IONOSPHERIC DATA AT WASHINGTON, D. C.

The data given in tables 79 through 90 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.

IONOSPHERIC STORMINESS AT WASHINGTON, D.C.

Table 91 presents ionosphere character figures for Washington, D. C., during April 1955, as determined by the criteria given in the report IRPL-R5, "Criteria for Ionospheric Storminess," together with Cheltenham, Maryland, geomagnetic K-figures, which are usually covariant with them.

SUDDEN IONOSPHERE DISTURBANCES

Table 92 lists the sudden ionosphere disturbances observed at Washington, D. C. for April 1955.

RADIO PROPAGATION QUALITY FIGURES

Tables 93a and 93b give for March 1955 the radio propagation quality figures for the North Atlantic area, the relevant CRPL advance and short-term forecasts, a summary geomagnetic activity index and sundry comparisons, specifically as follows:

(a) radio propagation quality figures, Qa, separately for each 6-hour interval of the Greenwich day, viz., 00-06, 06-12, 12-18, 18-24 hours UT (Universal Time or GCT).
(b) whole-day radio quality indices (beginning October 1952). Each index is a weighted average of the four quarter-day Qa-figures, before rounding off, with half weight given to quality grades 5 and 6. This procedure tends to give whole-day indices suitable for comparison with whole-day advance forecasts which designate whenever possible the days when significant disturbance or unusually quiet conditions will occur.
(c) short-term forecasts, issued by CRPL every six hours (nominally one hour before 00^h, 06^h, 12^h, 18^h UT) and applicable to the period 1 to 13 (especially 1 to 7) hours ahead. Note that new scoring rules have been adopted beginning with October 1952 data.
(d) advance forecasts, issued semiweekly (CRPL-J reports) and applicable 1 to 3 or 4 days ahead, 4 or 5 to 7 days ahead, and 8 to 25 days ahead. These forecasts are scored against the whole-day quality indices.
(e) half-day averages of the geomagnetic K indices measured by the Cheltenham Magnetic Observatory of the U. S. Coast and Geodetic Survey.
(f) illustration of the comparison of short-term forecasts with Qa-figures and also with estimates of radio quality based on CRPL observations only.
(g) illustration of the outcome of advance forecasts (1 to 3 or 4 days ahead) and, for comparison, the outcome of a type of "blind" forecast. For the latter the frequency for each quality grade, as determined from the distribution of quality grades in the four most recent months of the current season, is partitioned among the grades observed in the current month in proportion to the frequencies observed in the current month.

These radio propagation quality figures, Qa, are prepared from radio traffic data reported to CRPL by American Telephone and Telegraph Company, Mackay Radio and Telegraph Company, RCA Communications, Inc., Marconi Company, British Admiralty Signal and Radar Establishment, and the following agencies of the U. S. Government:--Coast Guard, Navy, Army Signal Corps, and U. S. Information Agency. The method of calculation, summarized below, is similar to that described in a 1946 report, IRPL-R31, now out of print. Only reports of radio transmission on North Atlantic paths closely approximating New York-London are included in the estimation of quality.

The original reports are submitted on various scales and for various time intervals. The observations for each 6-hour interval are averaged on the quality scale of the original reports. These 6-hour indices are then adjusted to the 1 to 9 quality-figure scale by a conversion table prepared by comparing the distribution of these indices for at least four months, usually a year, with a master distribution determined from analysis of the reports originally made on the 1 to 9 quality-figure scale. A report whose distribution is the same as the master is thereby converted linearly to the Q-figure scale. The 6-hourly quality figures are (subjectively) weighted means of the reports received for that period. These 6-hourly quality figures replace, beginning January 1953, the half-daily quality figures which formerly appeared in this table. (These forecasts and quality indices are prepared by the North Atlantic Radio Warning Service, the CRPL forecasting center at Ft. Belvoir, Virginia.)

These quality figures are, in effect, a consensus of reported radio propagation conditions. The reasons for low quality are not necessarily known and may not be limited to ionospheric storminess. For instance, low quality may result from improper frequency usage for the path and time of day. Although, wherever it is reported, frequency usage is included in the rating of reports, it must often be an assumption that the reports refer to optimum working frequencies. It is more difficult to eliminate from the indices conditions of low quality because of multipath, interference, etc. These considerations should be taken into account in interpreting research correlations between the Q-figures and solar, auroral, geomagnetic or similar indices.

Note: A tabulation of forecasts for the North Pacific area and comparisons with observed radio propagation conditions will appear in a later issue.

OBSERVATIONS OF THE SOLAR CORONA

Tables 94 through 96 give the observations of the solar corona during April 1955, obtained at Climax, Colorado, by the High Altitude Observatory of Harvard University and the University of Colorado. Tables 97 through 99 list the coronal observations obtained at

Sacramento Peak, New Mexico, during April 1955, derived by Harvard College Observatory as a part of its performance of a research contract with the Upper Air Research Observatory, Geophysical Research Directorate, Air Force Cambridge Research Center. The data are listed separately for east and west limbs at 5-degree intervals of position angle north and south of the Solar Equator at the limb. The time of observation is given to the nearest tenth of a day, GCT.

Beginning with January 1, 1955, the Climax, Colorado, coronal measurements are reported in absolute units rather than on the arbitrary relative scale that has been used in the past. Absolute intensities are given in millionths of the intensity in one angstrom of the spectrum of the center of the solar disk at the wavelength of the coronal line. Two conversion tables from arbitrary relative to absolute units were published in CRPL-F127, March 1955. One table gave the green-line conversions to absolute units applicable for all readings made since 1943. The other table gave the red-line conversions applicable for the years 1952 to the present. For earlier years a table is available from the High Altitude Observatory, Boulder, Colorado, showing changes in red-green sensitivity. Absolute yellow-line (λ5694) intensities may be obtained approximately by multiplying the values in the λ5303 table by 0.75. Absolute far red (λ6702) may be obtained approximately by multiplying the values in the λ6374 table by 0.9.

The Sacramento Peak measurements will continue to be on an arbitrary relative scale.

Table 94 gives the intensities of the green (5303A) line of the emission spectrum of the solar corona; table 95 gives similarly the intensities of the first red (6374A) coronal line; and table 96, the intensities of the second red (6702A) coronal line; all observed at Climax in April 1955.

Table 97 gives the intensities of the green (5303A) coronal line; table 98, the intensities of the first red (6374A) coronal line; and table 99, the intensities of the second red (6702A) coronal line; all observed at Sacramento Peak in April 1955.

The following symbols are used in tables 94 through 99; a, observation of low weight for whole limb (if in date column) or for portion of limb indicated; -, coronal not visible; and X, no observation for whole limb (if in date column) or for portion of limb indicated.

RELATIVE SUNSPOT NUMBERS

Table 100 lists the daily provisional Zürich relative sunspot number, R_Z, for April 1955, as communicated by the Swiss Federal Observatory. Table 101 contains the daily American relative sunspot number, R_A', for March 1955, as compiled by the Solar Division, American Association of Variable Star Observers.

OBSERVATIONS OF SOLAR FLARES

Table 102 gives the preliminary record of solar flares reported to the CRPL. These reports are communicated on a rapid schedule at the sacrifice of detailed accuracy. Definitive and complete records are published later in the Quarterly Bulletin of Solar Activity, I.A.U., in various observatory publications, and elsewhere. The present listing serves to identify and roughly describe the phenomena observed. Details should be sought from the reporting observatory.

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

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

INDICES OF GEOMAGNETIC ACTIVITY

Tables 103 and 104 list various indices of geomagnetic activity based on data from magnetic observatories widely distributed throughout the world. The indices are: (1) preliminary international character-figures, C; (2) geomagnetic planetary three-hour-range indices, Kp; (3) daily "equivalent amplitude" Ap; (4) magnetically selected quiet and disturbed days.

The C-figure is the arithmetic mean of the subjective classification by all observatories of each day's magnetic activity on a scale of 0 (quiet) to 2 (storm). The magnetically quiet and disturbed days are selected by the international scheme outlined on pages 219-227 in the December 1943 issue of Terrestrial Magnetism and Atmospheric Electricity. The details of the currently used method follow. For each day of a month, its geomagnetic activity is assigned by weighting equally the following three criteria: (1) the sum of the eight Kp's; (2) the greatest Kp; and (3) the sum of the squares of the eight Kp's.

Kp is the mean standardized K-index from 11 observatories between geomagnetic latitudes 47 and 63 degrees. The scale is 0 (very quiet) to 9 (extremely disturbed), expressed in thirds of a unit, e.g., 5- is 4 2/3, 5o is 5 0/3, and 5+ is 5 1/3. This planetary index is designed to measure solar particle-radiation by its magnetic effects, specifically to meet the needs of research workers in the ionospheric field. A complete description of Kp has appeared in Bulletin 12b, "Geomagnetic Indices C and K, 1948," published in Washington, D. C., 1949, by the Association of Terrestrial Magnetism and Electricity, International Union of Geodesy and Geophysics.

Ap indicates magnetic activity on a linear scale rather than the quasi-logarithmic scale of the K-indices. The column headed Ap gives the daily average for the eight values ap per day, where ap is defined as one-half the average gamma range of the most disturbed of the three force components, in the three-hour interval at standard stations. Ap is computed from the 8 indices Kp per day, see IATME Bulletin No. 12h (for 1953), p. VIII f. Values of Ap (like Kp and Cp) have been published for the Polar Year 1932/33 and currently since January 1937.

The Committee on Characterization of Magnetic Disturbance, ATME, IUGG, has kindly supplied this table. The Meteorological Office, De Bilt, Holland, collects the data and compiles C and selected days. The Chairman of the Committee computes the planetary index. Current tables are also published quarterly in the Journal of Geophysical Research along with data on sudden commencements (sc) and solar flare effects (sfe).

TABLES OF IONOSPHERIC DATA

Table 1

Washington, D. C. (38.7°N, 77.1°W) — April 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(280)	2.8						3.1
01	(280)	2.5						3.0
02	(280)	2.4						3.0
03	280	2.3						3.1
04	(280)	2.2						3.1
05	(270)	2.2						3.1
06	240	3.5	240	---	120	1.8		3.4
07	270	4.2	220	3.4	110	2.1	2.9	3.3
08	310	4.5	210	3.8	110	2.5	3.3	3.3
09	320	4.9	200	4.0	100	2.0	3.6	3.2
10	320	5.0	200	4.1	100	2.9	3.2	3.2
11	350	5.2	190	4.2	100	3.1	3.3	3.1
12	360	5.2	200	4.3	100	3.1		3.0
13	340	5.3	200	4.2	100	3.1		3.1
14	340	5.4	210	4.2	100	3.1		3.1
15	320	5.4	210	4.1	100	2.9		3.2
16	310	5.2	220	3.9	110	2.7		3.2
17	300	5.2	220	3.5	110	2.3		3.2
18	270	5.3	240	---	120	1.0	2.0	3.25
19	230	5.6						3.25
20	230	5.0						3.3
21	240	4.0						3.2
22	260	3.2						3.1
23	(270)	2.9						3.0

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 2

Narsarssuak, Greenland (61.2°N, 45.4°W) — March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	---					4.3	---
01	---	---					3.0	---
02	---	---					3.5	---
03	---	---					4.0	
04	---	---					3.9	---
05	---	---					4.3	---
06	(280)	(2.6)					4.0	---
07	260	3.1			---	---	1.6	3.4
08	270	3.6	220	---	120	2.0		3.3
09	320	3.9	220	3.4	120	2.2		3.2
10	300	4.2	210	3.5	110	2.2		3.3
11	310	4.4	210	3.6	110	2.4		3.3
12	320	4.4	220	3.6	110	2.3		3.1
13	330	4.4	220	3.6	120	(2.3)		3.15
14	340	4.3	230	3.5	120	2.3		3.1
15	320	4.5	230	3.5	120	2.2		3.1
16	310	4.2	240	3.5	120	2.0	2.4	3.2
17	280	3.7	240	---	---	---	2.4	3.2
18	260	3.4	---	---	---	---	3.9	3.2
19	(260)	(3.0)					4.2	3.1
20	(280)	(2.5)					4.7	3.1
21	<290	(2.2)					5.8	(3.2)
22	---	(2.2)					6.2	(3.15)
23	---	---					4.5	---

Time: 45.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 3

Oslo, Norway (60.0°N, 11.1°E) — March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	2.0						(2.9)
01	(290)	1.7						2.9
02	(285)	1.4						2.9
03	(290)	1.6					1.0	2.85
04	---	1.4						2.9
05	---	1.6						3.0
06	250	2.2	---	---	125	(1.2)		3.2
07	250	3.0	240	---	115	1.7		3.35
08	250	3.9	235	---	110	2.0		3.4
09	260	4.2	220	---	110	2.2		3.45
10	290	4.4	210	3.8	110	2.4	2.5	3.35
11	295	4.6	200	3.8	110	2.5	2.6	3.3
12	300	4.9	205	3.8	110	2.6		3.3
13	290	5.0	200	3.0	110	2.6		3.25
14	275	5.2	210	3.8	110	2.5		3.35
15	260	5.0	220	3.7	105	2.4		3.4
16	260	4.8	225	---	115	2.2		3.35
17	250	4.6	240	---	115	1.8		3.35
18	245	4.6	245	---	---	1.6		3.25
19	245	4.2					2.6	3.2
20	250	3.8					(2.6)	3.15
21	(250)	2.8					(1.7)	3.1
22	---	2.3					(1.9)	3.1
23	---	2.0						2.95

Time: 15.0°E.
Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 4

Upsala, Sweden (59.8°N, 17.6°E) — March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	330	(2.0)					2.2	(2.9)
01	340	(1.8)					2.5	(2.8)
02	330	(1.8)					2.6	(2.9)
03	360	(1.7)					2.6	(2.0)
04	360	(1.6)					2.5	2.8
05	300	(1.7)			---	---	2.4	2.9
06	260	2.5			---	E	2.3	3.1
07	240	3.5	230	(2.9)	---	1.6	2.8	3.3
08	200	4.0	215	3.1	120	2.0	2.0	3.3
09	200	4.4	210	3.5	115	2.3	3.0	3.3
10	290	4.0	200	3.7	110	2.5	3.2	3.2
11	300	4.9	200	3.0	110	2.6	3.2	3.2
12	300	4.0	200	3.0	110	2.6	3.1	3.3
13	290	5.0	205	3.0	110	2.5		3.3
14	275	5.1	210	3.7	110	2.4	2.0	3.3
15	260	5.1	215	3.5	110	2.2		3.4
16	250	4.8	220	3.2	115	2.1	2.6	3.3
17	235	4.6	240	(2.0)	---	1.7		3.3
18	240	4.5			---	E	1.9	3.1
19	240	4.2						3.1
20	240	3.5						3.1
21	260	(2.8)						(3.0)
22	290	(2.4)						(3.0)
23	330	2.1						2.9

Time: 15.0°E.
Sweep: 1.4 Mc to 17.0 Mc in 6 minutes, automatic operation.

Table 5

Adak, Alaska (51.9°N, 176.6°W) — March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	2.0						3.0
01	270	2.9						3.0
02	260	2.8						3.05
03	260	2.7						3.0
04	270	2.7						3.0
05	250	2.7						3.1
06	240	3.3	---	---	130	1.5		3.4
07	220	4.3	210	---	120	1.8		3.6
08	230	4.7	210	3.2	110	2.2	2.3	3.6
09	260	5.1	210	3.0	110	2.5	2.0	3.4
10	260	5.5	210	3.9	110	2.7	4.2	3.3
11	270	5.7	200	4.0	110	2.0		3.4
12	270	6.0	200	4.0	110	2.8		3.4
13	260	5.9	200	4.0	110	2.7	2.7	3.4
14	250	5.7	210	3.9	110	2.6	2.6	3.5
15	260	5.8	210	3.6	110	2.5		3.4
16	240	5.6	220	2.8	110	2.2		3.5
17	230	5.0	---	---	120	1.8	1.0	3.5
18	220	4.5			140	1.5		3.4
19	230	4.0						3.3
20	220	3.8						3.3
21	240	3.1						3.2
22	250	3.0						3.1
23	260	2.0						3.1

Time: 180.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 6

Graz, Austria (47.1°N, 15.5°E) — March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	3.1						
01	290	3.2						
02	290	3.0						
03	290	3.0						
04	290	3.0						
05	260	2.9						
06	250	3.2	---	---	---	---		
07	230	4.2	---	---	---	---		
08	240	4.9	210	3.5				
09	250	(5.1)	200	3.9			3.4	
10	260	(5.7)	200	4.0			3.4	
11	250	5.4	190	4.0			3.6	
12	260	5.4	190	4.1				
13	270	(5.8)	200	4.1				
14	250	5.4	200	4.0				
15	260	5.4	210	3.9				
16	240	5.4	220	3.5				
17	230	(5.2)	---	---				
18	230	(5.0)						
19	240	(4.7)						
20	250	(4.2)						
21	250	3.9						
22	200	3.6						
23	200	3.3						

Time: 15.0°E.
Sweep: 2.5 Mc to 12.0 Mc in 2 minutes.

Table 7

White Sands, New Mexico (32.3°N, 106.5°W) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	3.4						3.0
01	260	3.3						3.0
02	260	3.4						3.0
03	260	3.3						3.05
04	250	3.2						3.1
05	260	3.1						3.1
06	250	3.3						3.1
07	240	4.8	230	---	120	1.9		3.4
08	260	5.6	220	3.7	110	2.4	2.8	3.3
09	280	5.0	210	4.0	110	2.7	3.1	3.3
10	300	6.0	200	4.3	110	2.9	3.7	3.2
11	320	6.2	200	4.3	100	3.1	3.4	3.0
12	310	6.8	200	4.4	100	3.2	4.0	3.0
13	300	7.2	210	4.3	110	3.2	3.8	3.1
14	290	7.3	210	4.3	110	3.1	3.9	3.2
15	300	6.6	220	4.1	110	2.9	3.1	3.2
16	270	6.4	220	3.8	110	2.6	2.7	3.3
17	250	6.2	230	(3.4)	110	2.2	2.2	3.4
18	220	5.5	---	---	---	---	2.0	3.5
19	220	4.1					2.2	3.4
20	230	3.1					2.2	3.2
21	270	3.1						3.0
22	<270	3.2						3.0
23	270	3.4						3.0

Time: 105.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 8

Okinawa I. (26.3°N, 127.8°E) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	(3.4)					1.8	(2.9)
01	290	(3.4)						3.0
02	270	3.3						3.1
03	250	3.4						3.35
04	250	2.8						3.2
05	260	2.6						3.15
06	250	3.2					2.4	3.2
07	240	5.3	240	---	130	2.0	2.3	3.5
08	270	5.8	240	---	120	2.6		3.4
09	300	6.4	240	4.3	120	3.0	3.3	3.2
10	320	7.3	220	4.5	120	3.1	3.5	3.1
11	320	8.0	220	4.5	120	3.2	3.6	2.9
12	340	9.4	220	4.5	(120)	(3.3)	3.5	2.9
13	310	11.2	230	4.5	120	(3.2)		(3.0)
14	290	(11.1)	240	4.5	120	3.1		3.15
15	270	10.2	240	4.3	120	3.0		3.3
16	270	8.5	240	---	120	2.7	3.6	3.3
17	250	7.6	250	---	130	2.2	3.2	3.4
18	240	7.1			---	---	2.9	3.4
19	230	6.0					2.4	3.3
20	240	4.9					2.0	3.3
21	260	3.9					2.2	2.95
22	300	3.7						2.9
23	320	3.5						2.9

Time: 127.5°E.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 9

Formosa, China (25.0°N, 121.5°E) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	<280	3.9						2.95
01	260	3.8						3.05
02	240	3.6						3.1
03	240	3.4						3.4
04	240	3.2						3.3
05	240	2.7						3.35
06	240	3.1						3.2
07	220	5.4			120	(2.2)		3.6
08	220	6.2	200	3.7	100	2.8		3.3
09	280	7.0	210	4.2	100	2.9	3.3	3.3
10	290	8.0	210	4.4	100	3.2	3.4	3.1
11	320	9.4	210	4.5	100	3.2	3.6	3.1
12	300	10.9	220	4.5	100	3.3		3.05
13	280	12.5	220	4.6	110	3.3		3.1
14	260	12.4	220	4.5	120	3.2	3.2	3.2
15	250	11.5	220	4.3	100	3.1	3.8	3.35
16	240	10.4	220	3.9	100	2.8	3.7	3.3
17	240	9.0	240	3.7	---	---	3.4	3.55
18	220	8.1					2.4	3.5
19	200	7.2					2.6	3.6
20	200	5.9					2.1	3.4
21	240	5.0					1.9	3.3
22	270	4.0					1.9	3.1
23	260	3.8						3.1

Time: 120.0°E.
Sweep: 1.1 Mc to 19.5 Mc in 15 minutes, manual operation.

Table 10

Maui, Hawaii (20.8°N, 156.5°W) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	3.4						2.95
01	270	3.2						3.1
02	260	3.2						3.2
03	240	2.6						3.4
04	280	2.4						3.0
05	280	2.1						3.1
06	300	2.1						2.9
07	250	4.6	---	---	130	1.7		3.3
08	280	5.8	240	---	120	2.4		3.2
09	320	6.4	230	4.3	120	2.0	3.8	3.0
10	350	7.8	220	4.5	120	3.1	5.2	2.8
11	340	8.9	220	4.5	120	3.2	4.5	2.8
12	330	10.0	210	4.6	120	3.3	5.2	2.9
13	330	10.7	210	4.6	120	3.3	5.0	2.9
14	320	10.6	210	4.5	120	3.3	5.6	2.9
15	310	10.6	220	4.4	120	3.1	3.9	3.0
16	290	10.0	240	4.2	120	2.9	3.5	3.1
17	270	9.0	250	3.8	130	2.4	3.8	3.2
18	250	7.8	---	---	---	1.8	3.5	3.3
19	240	5.9					2.8	3.2
20	240	5.2					2.2	3.1
21	250	3.7					1.8	3.0
22	300	3.2						2.8
23	310	3.2						2.8

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 11

Puerto Rico, W. I. (18.5°N, 67.2°W) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	3.3						2.9
01	280	3.5						3.0
02	260	3.8						3.2
03	230	3.8						3.4
04	220	3.5						3.5
05	240	3.0						3.2
06	270	2.5						3.1
07	220	4.4	---	---	---	---		3.6
08	240	5.3	210	---	110	2.3		3.5
09	270	5.7	200	4.0	110	2.8		3.4
10	300	6.2	220	4.4	110	3.0		3.2
11	290	7.1	240	4.5	110	3.2		3.2
12	300	7.5	230	4.5	110	3.3		3.1
13	310	8.0	230	4.5	110	3.3		3.1
14	290	9.0	230	4.4	110	3.3		3.1
15	270	9.0	230	4.3	110	3.1		3.3
16	270	8.1	230	4.1	110	2.9	4.3	3.3
17	250	7.5	230	---	110	2.5	4.2	3.4
18	240	7.4	220	---	---	---	3.6	3.5
19	210	6.2					2.3	3.5
20	220	4.8						3.4
21	250	3.6						3.1
22	290	3.3						2.9
23	300	3.3						2.9

Time: 60.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 12

Guam I. (13.6°N, 144.9°E) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	6.4						3.1
01	250	5.7						3.15
02	250	5.4						3.25
03	230	4.4						3.5
04	220	3.6						3.5
05	230	2.8						3.5
06	240	2.2					1.6	3.5
07	240	5.1	230	---	120	1.6	2.2	3.6
08	260	6.5	230	---	110	2.4		3.5
09	300	7.4	210	(4.2)	110	2.9		3.1
10	330	8.1	200	4.4	110	3.1		2.7
11	340	8.5	200	4.5	110	(3.2)		2.5
12	350	8.1	200	4.5	(110)	(3.3)		2.4
13	350	8.2	200	4.5	110	3.3		2.4
14	340	8.6	200	4.4	110	(3.2)		2.6
15	320	9.4	200	4.4	110	(3.1)		2.8
16	300	10.3	220	4.2	110	2.9	3.4	3.0
17	280	10.6	240	---	110	2.4	3.4	3.2
18	250	10.4	240	---	120	1.7	2.9	3.2
19	250	10.0					1.9	3.1
20	240	9.4						3.2
21	230	8.5						3.3
22	230	7.4						3.2
23	250	6.7					2.2	3.15

Time: 150.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 13

Panama Canal Zone (9.4°N, 79.9°W) March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	3.3					2.5	3.0
01	250	3.7					2.6	3.4
02	220	3.6					2.5	3.7
03	220	2.6					1.9	3.5
04	230	2.4					2.2	3.4
05	260	2.2					2.3	3.1
06	290	2.3					2.8	3.0
07	240	4.8			130	1.9	3.8	3.5
08	280	5.8	240	(4.1)	120	2.5	3.8	3.3
09	320	6.3	200	4.4	110	3.0	3.7	3.1
10	340	7.5	200	4.5	110	3.2	4.4	2.9
11	340	9.0	200	4.5	110	3.4	4.4	2.9
12	330	9.8	200	4.6	110	3.4	4.3	3.0
13	330	10.5	200	4.6	110	3.4	4.3	3.0
14	310	11.5	220	4.5	110	3.4	4.3	3.1
15	290	12.0	220	4.4	110	3.2	4.5	3.2
16	270	12.0	230	4.2	110	3.0	4.5	3.35
17	250	11.3	230	(3.9)	110	2.5	4.3	3.4
18	220	10.0	230	---	---	---	3.5	3.6
19	210	6.8					3.3	3.5
20	230	5.2					3.0	3.3
21	240	4.4					2.7	3.1
22	270	3.7					2.8	3.0
23	300	3.2					2.7	2.9

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 14

Resolute Bay, Canada (74.7°N, 94.9°W) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	2.6						3.2
01	270	2.4					3.0	(3.3)
02	260	2.2					3.0	(3.2)
03	250	2.2					2.0	3.2
04	250	2.2					3.0	(3.2)
05	250	2.1					3.7	3.2
06	260	2.5					3.0	(3.3)
07	250	2.6			---	---	2.5	3.3
08	250	2.7			120	1.2	3.2	3.2
09	250	3.2	---	---	110	1.4		3.3
10	240	3.4	---	---	110	1.5		3.3
11	250	3.5	230	2.6	110	1.5		3.3
12	250	3.6	220	---	110	1.5		3.3
13	250	3.9	240	---	120	1.5		3.3
14	250	3.6	230	---	110	1.5		3.3
15	240	3.8	---	---	110	1.4		3.35
16	240	3.7	---	---	120	1.3		3.3
17	240	3.7			120	1.2		3.2
18	240	3.5			---	---		3.25
19	240	3.1						3.3
20	240	3.0						3.2
21	<250	3.0						3.2
22	240	2.9						3.2
23	240	2.6						3.3

Time: 90.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 15

Tromso, Norway (69.7°N, 19.0°E) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	---					4.4	---
01	---	---					4.5	---
02	---	---					3.4	---
03	---	(2.0)					4.2	---
04	---	(1.7)					3.8	---
05	---	---					3.0	---
06	---	(1.6)					3.2	(3.1)
07	(290)	2.2					2.8	3.1
08	250	3.2	---	---	---	---	2.8	3.3
09	245	3.7	---	---	---	---	2.2	3.4
10	240	4.2	240	---	---	---	2.8	3.4
11	240	4.4	230	---	---	2.0	2.8	3.4
12	240	4.6	235	---	---	1.9	2.7	3.4
13	235	4.6	220	---	---	1.9		3.4
14	240	4.6	230	---	---	1.8	2.0	3.4
15	240	4.2	---	---	---	1.5	2.8	3.4
16	240	3.4			---	---	3.0	3.4
17	245	2.6			---	---	3.8	3.2
18	(250)	2.6					3.0	3.1
19	(270)	(2.4)					4.0	(3.0)
20	---	(1.9)					4.0	---
21	---	---					4.0	---
22	---	---					4.0	---
23	---	---					4.0	---

Time: 15.0°E.
Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 16

Kiruna, Sweden (67.8°N, 20.3°E) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(350)	(2.4)					2.4	(3.35)
01	(335)	(2.0)					2.2	(3.45)
02	(310)	(2.1)						(3.4)
03	310	2.0						3.4
04	(320)	2.0						3.0
05	---	(2.0)						(3.35)
06	---	---						---
07	(270)	(2.7)						(3.4)
08	250	3.2						3.5
09	250	3.9	---	---	---	---		3.6
10	250	4.1	230	3.0	110	2.0		3.6
11	250	4.2	220	3.0	125	2.0		3.65
12	240	4.2	220	3.0	120	2.0		3.6
13	240	4.9	220	3.0	140	1.9		3.7
14	240	4.2	225	2.8	---	---		3.6
15	230	4.1	---	---	---	---		3.7
16	240	3.4						3.5
17	255	3.0						3.4
18	260	2.7						3.3
19	(300)	(2.2)						(3.4)
20	---	(2.2)					2.8	(3.3)
21	---	---					2.3	---
22	---	---					2.8	---
23	---	---					2.8	---

Time: 15.0°E.
Sweep: 0.8 Mc to 15.0 Mc in 30 seconds.

Table 17

Lulea, Sweden (65.6°N, 22.1°E) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	340	(1.9)					2.1	
01								
02	(330)	(1.8)					2.2	
03								
04	340	(2.1)					1.8	
05								
06	(340)	---						
07								
08	240	3.6	---	---	---	1.6	1.9	
09								
10	220	4.5	150	2.1	120	1.9	2.3	
11								
12	220	4.8	180	2.2	130	1.9	2.3	
13								
14	220	4.6	160	2.2	140	1.8	2.3	
15								
16	230	3.9	---	1.7	---	---		
17								
18	250	2.2						
19								
20	(280)	---						
21								
22	(320)	---						
23								

Time: 15.0°E.
Sweep: 1.5 Mc to 10.0 Mc in 6 minutes, automatic operation.

Table 18

Fairbanks, Alaska (64.9°N, 147.8°W) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(320)	---					5.4	---
01	---	(2.6)					6.0	(2.7)
02	---	(3.0)					6.3	---
03	(340)	(2.5)					6.0	(2.85)
04	<340	(2.6)					6.0	(2.9)
05	---	(2.3)					6.5	---
06	(340)	(2.5)					6.0	---
07	<300	(2.7)					5.0	(3.1)
08	260	(3.2)	---	---	---	---	2.2	(3.3)
09	240	(3.8)	220	---	120	(1.9)	2.2	3.4
10	250	(4.4)	220	---	120	(2.1)		(3.4)
11	250	4.8	210	---	110	(2.2)		3.4
12	250	5.0	210	---	120	2.3		3.4
13	230	(5.1)	210	---	110	2.1		(3.5)
14	220	5.4	220	---	120	(2.0)		3.5
15	220	(5.2)	---	---	120	(1.8)		3.5
16	220	(4.8)	---	---	---	---	1.6	(3.4)
17	220	(4.5)					1.2	(3.4)
18	230	(3.4)					5.0	(3.3)
19	250	(2.5)					4.7	(3.3)
20	290	(2.2)					4.6	(3.1)
21	290	(1.8)					4.9	(3.1)
22	(300)	(1.9)					4.4	(3.1)
23	(320)	(2.0)					5.0	(2.9)

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 19

Baker Lake, Canada (64.3°N, 96.0°W) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	2.3			---	---	6.2	3.1
01	290	2.3			---	---	6.5	3.1
02	260	2.2			---	---	6.0	3.1
03	280	2.2			110	1.1	6.0	3.1
04	300	2.0			130	(1.2)	5.6	3.1
05	300	2.1			130	1.5	5.8	(3.0)
06	300	2.3			130	1.7	5.0	(2.9)
07	280	2.6			120	1.9	6.0	(3.3)
08	280	3.2			120	2.1	5.5	(3.4)
09	270	4.0	---	---	110	2.6	6.0	3.3
10	260	4.0	250	<3.1	120	2.6	5.7	3.3
11	280	4.3	240	3.1	120	2.8	6.3	3.2
12	290	4.9	240	<3.2	120	2.7	7.0	3.1
13	290	5.0	240	3.3	120	2.7	6.3	3.1
14	280	4.9	250	3.3	120	2.6	6.2	3.1
15	280	4.9	260	3.2	130	2.3	6.0	3.2
16	260	4.3	250	2.9	120	2.2	5.0	3.2
17	270	4.2	---	---	120	2.0	5.0	3.2
18	270	3.4			120	2.0	5.0	3.1
19	260	3.2			120	1.8	6.5	3.1
20	260	3.0			120	1.3	7.2	3.2
21	250	3.0			120	1.1	6.6	3.1
22	240	2.7			130	1.0	5.0	3.2
23	250	2.5			140	1.0	6.6	3.1

Time: 90.0°W.
Sweep: 0.6 Mc to 10.0 Mc in 16 seconds.

Table 20

Anchorage, Alaska (61.2°N, 149.9°W) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	E						---
01	---	E						---
02	---	E					2.8	(2.9)
03	---	E					2.9	---
04	---	E					2.4	(2.9)
05	---	E					1.9	(3.0)
06	360	1.1					1.5	(2.9)
07	200	2.0			---	---	1.2	3.1
08	250	3.1	---	---	120	1.6	1.8	3.3
09	250	4.0	230	---	120	(1.8)		3.3
10	250	4.7	230	---	120	2.1		3.3
11	260	5.3	230	(3.5)	120	2.2		3.4
12	250	5.3	230	(3.5)	120	2.3		3.4
13	240	5.4	220	---	120	2.3		3.4
14	240	5.3	220	---	120	2.1		3.4
15	230	5.2	240	---	120	1.9		3.5
16	230	4.8	---	---	---	1.8		3.5
17	230	4.4					1.2	3.4
18	230	3.8						3.35
19	240	2.5						3.3
20	270	1.9						3.1
21	<320	1.3						3.2
22	---	E						---
23	---	E						(3.0)

Time: 150.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 21

Churchill, Canada (58.8°N, 94.2°W) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	(2.9)			---	---	6.2	---
01	---	(3.0)			---	---	6.0	
02	(270)	(2.7)			---	---	6.0	---
03	---	(2.7)			---	---	5.2	---
04	(290)	(2.6)			---	---	5.0	---
05	---	---			---	---	5.7	
06	---	---			---	---	6.0	
07	---	---			---	---	5.0	---
08	(280)	(3.5)			---	---	5.8	(3.3)
09	280	4.3	---	---	120	2.5	6.0	3.3
10	290	4.6	250	3.4	120	2.5	6.0	3.3
11	290	4.6	240	3.6	120	2.6	6.4	3.3
12	300	5.0	240	3.7	120	2.6	6.5	3.3
13	300	5.1	230	3.7	120	2.7	6.1	3.25
14	280	5.4	240	3.6	120	2.7	6.0	3.3
15	280	5.8	240	3.3	130	2.5	6.0	3.3
16	260	5.3	220	3.1	130	2.2	5.0	3.3
17	250	5.0	---	---	130	1.8	4.5	3.4
18	260	4.3			150	1.4	4.3	3.3
19	280	3.6			---	---	4.6	(3.35)
20	280	3.2			---	---	5.2	---
21	280	3.0			---	---	6.0	---
22	(300)	3.0			---	---	7.9	---
23	(280)	(3.0)					8.0	

Time: 90.0°W.
Sweep: 0.6 Mc to 10.0 Mc in 16 seconds.

Table 22

De Bilt, Holland (52.1°N, 5.2°E) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	3.1						2.8
01	260	3.2						2.9
02	275	3.4						(2.8)
03	270	3.1						2.8
04	275	2.9						2.8
05	275	2.1						2.85
06	250	2.1						2.9
07	225	3.4	---	---	---	1.6		3.3
08	225	4.6	220	2.6	120	2.0		3.5
09	230	5.0	205	3.4	110	2.3		3.5
10	240	5.6	200	3.7	110	2.5		3.5
11	250	5.8	200	3.8	110	2.7		3.5
12	245	6.0	210	4.0	105	2.8		3.5
13	250	5.6	210	3.8	110	2.7		3.5
14	245	5.0	220	3.6	105	2.5		3.45
15	230	5.8	225	3.3	115	2.2		3.45
16	220	5.4	---	---	125	1.9		3.5
17	220	5.1						3.3
18	225	4.6						3.1
19	235	4.3						(3.1)
20	240	3.7						(3.0)
21	250	3.3						(2.8)
22	270	3.1						(2.7)
23	270	3.0						(2.75)

Time: 0.0°.
Sweep: 1.4 Mc to 11.2 Mc in 6 minutes, automatic operation.

Table 23

Winnipeg, Canada (49.9°N, 97.4°W) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	320	2.0						(3.0)
01	310	2.3						(3.1)
02	350	2.0					2.9	(3.05)
03	(310)	(2.0)					3.3	(3.1)
04	(310)	(2.0)					4.0	
05	(330)	(2.0)					4.0	---
06	(340)	(2.2)					3.5	---
07	300	2.1						3.0
08	240	3.6			120	1.0		3.3
09	260	4.4	220	3.1	120	2.1		3.4
10	260	5.0	210	3.6	120	2.5		3.4
11	260	5.4	210	3.0	120	2.7		3.3
12	280	6.0	210	3.9	110	2.0		3.4
13	200	6.0	210	4.0	120	2.0		3.3
14	270	6.2	220	3.9	120	2.0		3.3
15	260	6.1	230	3.7	120	2.6		3.4
16	240	6.0	230	3.2	120	2.4		3.4
17	230	5.8			130	2.0		3.4
18	230	5.0						3.4
19	230	4.0						3.3
20	250	3.0						3.2
21	260	2.4						3.1
22	290	2.0						3.2
23	320	2.0						(3.0)

Time: 90.0°W.
Sweep: 1.0 Mc to 10.0 Mc in 16 seconds.

Table 24

Ottawa, Canada (45.4°N, 75.9°W) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	360	1.9						3.0
01	360	1.9						3.0
02	350	1.8						3.0
03	310	1.9						3.0
04	310	1.9						3.0
05	310	2.0						3.0
06	330	1.9						3.1
07	250	3.0						3.4
08	230	4.4	220	---	120	2.0		3.5
09	250	5.0	210	3.5	110	2.5		3.5
10	260	5.6	210	3.8	110	2.7		3.4
11	270	5.9	210	4.0	110	2.9		3.4
12	270	6.0	210	4.0	110	3.0		3.4
13	270	6.2	210	4.0	110	2.9		3.3
14	270	6.2	220	4.0	110	2.8		3.35
15	260	6.2	220	3.8	110	2.6		3.4
16	250	6.0	230	3.2	120	2.3		3.4
17	230	5.8	230	---	140	1.8		3.4
18	220	5.2						3.3
19	230	4.2						3.3
20	240	3.3						3.3
21	260	2.7						3.2
22	290	2.1						3.0
23	300	2.0						3.0

Time: 75.0°W.
Sweep: 1.0 Mc to 10.0 Mc in 15 seconds.

Table 25

Wakkanai, Japan (45.4°N, 141.7°E) February 1955

Time	h'F2	foF2	b'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	3.5					2.3	
01	260	3.5					2.4	
02	260	3.4					2.3	
03	270	3.2					2.3	
04	260	3.3					2.3	
05	250	3.2					2.3	
06	240	3.2					2.2	
07	220	4.8					2.4	
08	230	5.5						
09	240	5.8						
10	250	6.5						
11	260	6.9						
12	250	7.1						
13	250	6.3						
14	250	6.2						
15	250	6.0						
16	240	5.8						
17	230	5.3					2.3	
18	230	4.0					2.6	
19	250	3.4					2.5	
20	260	3.4					2.4	
21	280	3.2					2.4	
22	280	3.3					2.4	
23	280	3.4						

Time: 135.0°E.
Sweep: 1.0 Mc to 22.0 Mc in 1 minute.

Table 26

Akita, Japan (39.7°N, 140.1°E) February 1955

Time	h'F2	foF2	b'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	3.4					2.8	
01	260	3.4					2.5	
02	250	3.2					2.5	
03	260	3.2					2.5	
04	250	3.3					2.5	
05	250	3.0					2.2	
06	240	3.0					2.2	
07	220	5.0					2.4	
08	230	5.8					3.0	
09	240	6.0					3.5	
10	250	6.1					3.5	
11	250	6.9					4.0	
12	250	7.1					4.0	
13	250	7.0					4.0	
14	250	6.3					3.5	
15	240	6.0					3.5	
16	240	5.6					3.5	
17	230	5.6					3.0	
18	220	4.6					3.5	
19	240	3.6					3.3	
20	250	3.4					3.0	
21	260	3.2					3.1	
22	280	3.2					2.8	
23	280	3.3					2.8	

Time: 135.0°E.
Sweep: 0.85 Mc to 22.0 Mc in 2 minutes.

Table 27

Tokyo, Japan (35.7°N, 139.5°E) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	3.1					2.6	3.0
01	260	3.2					2.5	3.0
02	250	3.2					2.6	3.1
03	250	3.0					2.5	3.1
04	240	3.1					2.5	3.1
05	250	2.7					2.5	3.0
06	250	2.7					2.3	3.1
07	230	5.1	230	2.2	130	1.8	2.5	3.5
08	230	6.0	230	3.5	120	2.4	3.0	3.5
09	240	6.6	230	4.0	110	2.7	3.2	3.45
10	250	7.0	220	4.2	110	3.0	3.2	3.5
11	260	7.2	220	4.3	110	3.1	3.4	3.4
12	270	7.2	210	4.4	110	3.2	3.2	3.3
13	260	7.2	230	4.4	110	3.1	3.0	3.3
14	260	6.7	230	4.2	110	3.0	3.2	3.3
15	250	6.4	230	4.0	110	2.7	3.5	3.3
16	240	6.0	230	3.5	120	2.3	3.3	3.4
17	230	5.6	---	---	120	1.7	3.0	3.4
18	220	4.8					3.2	3.5
19	230	3.8					3.0	3.3
20	250	3.3					2.9	3.1
21	260	3.1					3.0	2.9
22	290	3.0					3.0	2.9
23	290	3.2					3.0	2.9

Time: 135.0°E.
Sweep: 1.0 Mc to 17.2 Mc in 2 minutes.

Table 28

Yamagawa, Japan (31.2°N, 130.6°E) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	3.1					2.7	
01	280	3.2					2.3	
02	260	3.2					2.4	
03	260	3.0					2.3	
04	250	3.0					2.3	
05	260	2.6					2.3	
06	300	2.4					2.3	
07	240	3.8					2.4	
08	240	5.8						
09	250	6.5						
10	260	6.8						
11	260	7.4					3.7	
12	280	7.2						
13	280	7.8						
14	280	8.4						
15	270	7.8						
16	260	6.8					3.6	
17	240	6.0					3.4	
18	230	5.5					2.4	
19	230	4.6					2.7	
20	260	3.6					2.4	
21	270	3.2					3.0	
22	280	3.2					3.2	
23	300	3.0					3.0	

Time: 135.0°E.
Sweep: 1.0 Mc to 22.0 Mc in 1 minute.

Table 29

Baguio, P.I. (16.4°N, 120.6°E) February 1955

Time	h'F2	foF2	b'F1	foF1	h'E	foE	fEs	(M3000)F2
00	220	5.3						3.3
01	230	4.1						3.3
02	230	4.0					1.5	3.4
03	210	3.1					1.5	3.6
04	210	1.9						3.6
05	(280)	1.5					1.7	3.4
06	290	2.0					1.7	3.1
07	230	5.2			120	1.8	2.3	3.6
08	(260)	6.7	220	---	110	2.5	3.1	3.4
09	290	7.5	200	---	110	2.8	3.6	3.1
10	320	8.4	200	---	100	3.1	4.2	2.8
11	350	9.6	190	(4.4)	100	3.2	4.1	2.5
12	350	9.0	190	(4.4)	100	3.3	4.1	2.5
13	330	8.9	190	4.4	100	3.3	4.0	2.7
14	310	9.4	200	4.3	100	3.2	4.0	2.9
15	300	10.0	200	---	100	3.0	4.2	3.1
16	280	10.3	220	---	110	2.6	4.0	3.2
17	240	10.4	220	---	110	2.1	3.7	3.4
18	220	9.4					2.9	3.4
19	220	8.6					2.2	3.3
20	210	8.0					2.2	3.2
21	220	7.2					2.6	3.1
22	240	6.5					2.9	3.3
23	230	6.1						3.4

Time: 120.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 30

Huancayo, Peru (12.0°S, 75.3°W) February 1955

Time	h'F2	foF2	b'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	7.7						3.25
01	240	6.2						3.3
02	260	5.2					3.8	3.4
03	270	4.0						3.3
04	260	3.2						3.3
05	260	2.8						3.4
06	250	3.5			100	---		3.2
07	(270)	6.4	230	---	110	2.2	3.9	3.4
08	290	7.6	210	---	110	2.8	7.6	3.2
09	320	8.1	200	4.3	100	---	12.1	2.9
10	350	8.4	200	4.4	100	---	12.2	2.6
11	380	7.8	200	4.5	100	---	12.9	2.5
12	380	7.3	190	4.5	100	---	12.9	2.5
13	380	7.5	190	4.5	100	---	12.9	2.5
14	370	7.8	190	4.4	100	---	12.7	2.6
15	340	7.8	200	4.2	100	---	12.2	2.6
16	320	8.0	200	---	100	---	11.7	2.6
17	(280)	8.4	210	---	100	---	10.9	2.7
18	240	8.4			120	---	6.6	2.8
19	270	8.0					4.6	2.9
20	280	7.8						2.85
21	280	7.6						3.0
22	250	7.4						3.0
23	240	7.4						3.1

Time: 75.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 31

Watheroo, W. Australia (30.3°S, 115.9°E) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	3.9					2.4	3.0
01	250	3.6					3.6	3.1
02	250	3.6					3.6	3.1
03	250	3.4					3.6	3.1
04	250	3.2					2.4	3.2
05	250	3.1					1.0	3.1
06	250	3.6				1.5		3.3
07	260	4.4	240	3.5		2.2	3.2	3.3
08	340	5.0	220	4.0		2.8	3.7	3.0
09	360	5.4	210	4.3		3.1	3.9	3.0
10	340	5.6	210	4.4		3.3	3.8	3.1
11	330	6.0	200	4.5		3.4	4.0	3.0
12	330	6.5	200	4.6		3.4	4.0	3.1
13	330	6.6	200	4.5		3.4	4.0	3.1
14	330	6.6	190	4.5		3.4	3.9	3.1
15	330	6.2	200	4.4		3.3	3.8	3.1
16	300	6.0	210	4.3		3.1	3.0	3.15
17	300	5.6	220	4.0		2.8		3.1
18	260	5.1	240	3.4		2.2		3.2
19	250	4.8				1.5		3.25
20	240	4.6						3.2
21	250	4.5						3.1
22	260	4.2						3.0
23	260	4.0						3.0

Time: 120.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 1 minute 45 seconds.

Table 32

Wakkanai, Japan (45.4°N, 141.7°E) January 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	3.1					2.4	
01	280	3.2					2.5	
02	270	3.1					2.3	
03	270	3.1					2.3	
04	260	3.1					2.3	
05	250	3.0					2.5	
06	250	2.5					2.6	
07	240	3.3					2.5	
08	230	5.2						
09	230	5.8						
10	240	6.3						
11	240	6.7						
12	240	6.2						
13	250	6.0						
14	240	5.4						
15	230	5.2						
16	230	4.5					2.8	
17	240	3.5					3.0	
18	250	3.2					3.2	
19	260	3.1					3.5	
20	260	3.0					3.0	
21	290	3.0					2.7	
22	290	3.2					2.6	
23	280	3.1					2.5	

Time: 135.0°E.
Sweep: 1.0 Mc to 22.0 Mc in 1 minute.

Table 33

Akita, Japan (39.7°N, 140.1°E) January 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	3.0					2.5	
01	280	3.0					2.5	
02	270	3.0					2.4	
03	250	3.0					2.5	
04	240	3.2					2.7	
05	250	2.9					2.5	
06	260	2.6					2.4	
07	230	3.8					3.0	
08	230	5.4					3.3	
09	240	6.0					3.5	
10	250	6.5					3.6	
11	250	6.5					3.5	
12	250	6.2					3.8	
13	250	5.8					3.6	
14	240	5.5					4.0	
15	240	5.2					3.5	
16	230	4.0					3.4	
17	230	3.9					3.2	
18	240	3.5					3.5	
19	240	3.2					3.5	
20	250	3.2					3.6	
21	260	3.0					2.9	
22	270	3.0					3.5	
23	280	3.0					2.8	

Time: 135.0°E.
Sweep: 0.05 Mc to 22.0 Mc in 2 minutes.

Table 34

Tokyo, Japan (35.7°N, 139.5°E) January 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	2.9					2.6	3.0
01	270	2.9					2.5	3.0
02	260	3.0					2.5	3.1
03	250	3.0					2.5	3.1
04	240	2.9					2.5	3.2
05	250	2.6					2.5	3.0
06	260	2.6					2.5	3.0
07	230	4.2	---	---	160	1.6	2.7	3.4
08	230	5.7	230	3.2	120	2.2	2.9	3.5
09	240	6.5	220	3.7	120	2.5	3.2	3.5
10	250	7.0	220	4.0	120	2.0	3.2	3.4
11	250	6.9	220	4.1	110	3.0	2.9	3.5
12	250	6.4	220	4.1	120	3.0	3.2	3.4
13	250	6.0	230	4.0	120	3.0	3.2	3.4
14	250	6.0	230	4.0	110	2.8	3.2	3.5
15	240	5.4	230	3.3	120	2.5	3.2	3.5
16	230	4.9	220	2.5	120	2.0	3.2	3.5
17	220	4.2			---	---	3.0	3.4
18	240	3.7					3.1	3.2
19	240	3.3					3.2	3.2
20	240	3.2					3.0	3.2
21	250	3.0					2.7	3.1
22	270	2.9					2.0	3.0
23	200	2.9					2.6	3.0

Time: 135.0°E.
Sweep: 1.0 Mc to 17.2 Mc in 2 minutes.

Table 35

Yamagawa, Japan (31.2°N, 130.6°E) January 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	2.9					2.3	
01	300	2.9					2.3	
02	260	3.0					2.3	
03	260	2.9					2.3	
04	240	2.8					2.3	
05	280	2.4					2.3	
06	300	2.4					2.3	
07	260	3.0					2.4	
08	240	5.5					3.0	
09	260	6.0					3.1	
10	260	7.0					3.7	
11	260	7.3					3.8	
12	260	6.7					3.8	
13	270	6.7					5.0	
14	280	6.5					3.8	
15	260	6.2					4.4	
16	250	5.0					3.7	
17	240	5.1					3.4	
18	240	4.0					3.5	
19	250	3.6					3.4	
20	260	3.2					3.4	
21	266	3.1					3.0	
22	270	2.8					2.4	
23	300	3.0					2.4	

Time: 135.0°E.
Sweep: 1.0 Mc to 22.0 Mc in 1 minute.

Table 36

Baguio, P. I. (16.4°N, 120.6°E) January 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	3.2					2.0	3.2
01	230	2.9					1.9	3.4
02	240	2.4					2.0	3.4
03	240	2.0					1.8	3.4
04	260	1.7					1.8	3.3
05	(260)	1.6					2.0	(3.3)
06	300	1.6					2.3	3.0
07	230	4.8			120	1.9	2.7	3.4
08	200	6.6	220	---	110	2.5	4.3	3.3
09	300	7.7	210	---	110	2.8	4.5	3.1
10	310	0.4	200	(4.2)	110	3.0	7.0	3.0
11	350	8.4	200	4.3	100	3.2	7.0	2.75
12	340	0.4	190	4.3	100	3.3	7.5	2.7
13	330	0.6	200	(4.3)	100	3.2	6.8	2.75
14	320	0.6	200	(4.2)	100	3.1	6.4	2.9
15	300	0.7	220	---	100	2.9	7.0	3.05
16	260	8.8	220	---	100	2.6	4.4	3.3
17	220	8.3	---	---	---	---	4.2	3.5
18	210	7.4					4.0	3.5
19	210	6.4					4.0	3.45
20	220	5.4					4.0	3.2
21	230	5.2					3.2	3.3
22	220	4.4					2.3	3.4
23	240	3.5					1.9	3.3

Time: 120.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 37

Johannesburg, Union of S. Africa (26.2°S, 28.1°E) January 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	3.8					2.8	3.1
01	250	3.6					2.9	3.0
02	250	3.2					3.8	3.05
03	<260	3.1					2.9	3.1
04	250	2.9					2.7	3.1
05	250	2.8					2.0	3.1
06	240	4.1	240	2.9	120	1.9		3.2
07	300	5.0	230	3.8	110	2.4	3.4	3.2
08	330	5.4	220	4.1	110	2.8	3.9	3.0
09	320	6.0	210	4.3	110	3.1	4.2	3.0
10	330	6.4	210	4.4	110	3.3	4.3	3.0
11	350	6.5	200	4.5	110	3.4	4.2	2.9
12	350	6.8	200	4.6	110	3.5	4.1	2.9
13	340	6.8	200	4.5	110	3.5		2.9
14	330	6.8	200	4.4	110	3.4	3.9	3.0
15	320	6.8	200	4.3	110	3.3	4.0	3.05
16	300	6.5	210	4.1	110	3.0	3.8	3.1
17	290	5.9	210	3.9	110	2.7	3.6	3.1
18	270	5.6	230	3.3	120	2.2	3.0	3.2
19	240	5.6					2.5	3.2
20	240	5.5					2.2	3.1
21	240	4.8					2.1	3.2
22	250	4.3					2.1	3.0
23	260	3.9					2.3	3.0

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

Table 38

Watheroo, W. Australia (30.3°S, 115.9°E) January 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	4.1					3.9	3.1
01	250	3.9					3.8	3.1
02	260	3.5					3.7	3.1
03	260	3.3					3.2	3.1
04	250	3.1					2.4	3.0
05	270	2.8					1.8	3.0
06	250	3.8	---	---		1.7	2.1	3.1
07	320	4.3	230	3.7		2.3	3.1	3.2
08	310	5.0	240	4.1		2.9	3.7	3.1
09	400	5.5	220	4.3		3.1	4.0	2.8
10	380	5.9	210	4.4		3.3	4.2	2.9
11	360	6.2	200	4.5		3.4	4.1	2.8
12	340	6.2	200	4.5		3.5	4.1	3.0
13	350	6.2	220	4.5		3.4	4.2	3.0
14	350	6.1	210	4.5		3.4	3.8	3.0
15	340	6.2	220	4.4		3.3	3.8	3.1
16	330	5.8	220	4.2		3.1	3.6	3.1
17	320	5.6	240	4.0		2.8	3.5	3.2
18	300	5.0	230	3.5		2.3	3.5	3.1
19	260	4.4	---	---		---	2.1	3.2
20	250	4.3					2.1	3.3
21	250	4.3					1.8	3.2
22	250	4.2					3.2	3.15
23	270	4.2					3.8	3.15

Time: 120.0°E.
Sweep: 1.0 Mc to 16.0 Mc in 2 minutes.

Table 39

Capetown, Union of S. Africa (34.2°S, 18.3°E) January 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	3.4					2.1	3.0
01	270	3.4					2.3	2.9
02	270	3.4					2.2	2.9
03	260	3.3					2.1	3.0
04	260	3.3					1.9	3.0
05	260	3.1						3.0
06	250	3.6	---	---	140	1.6		3.2
07	280	4.7	240	3.5	120	2.2		3.2
08	340	5.2	230	3.9	120	2.6	3.1	3.0
09	350	5.6	230	4.1	110	3.0	4.0	3.0
10	370	5.8	220	4.3	110	3.2	3.7	2.9
11	350	6.1	210	4.4	110	3.3	4.0	2.9
12	350	6.4	200	4.5	110	3.4	4.5	2.9
13	350	6.4	200	4.5	110	3.4	4.2	2.9
14	340	6.7	200	4.4	110	3.4	3.8	2.9
15	340	6.7	200	(4.3)	110	3.3	3.9	3.0
16	320	6.3	210	4.2	110	3.2	3.8	3.0
17	310	5.7	210	4.0	110	3.0	3.5	3.1
18	300	5.6	220	3.8	120	2.7	3.2	3.1
19	270	5.4	230	3.1	120	2.1	2.9	3.2
20	240	5.3					2.4	3.2
21	240	4.9					2.2	3.2
22	240	4.2					1.8	3.1
23	260	3.6					2.0	3.0

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

Table 40

Tromso, Norway (69.7°N, 19.0°E) December 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	(2.0)					4.1	---
01	---	(2.2)					4.2	(2.95)
02	---	(2.4)					3.2	(3.1)
03	---	2.2					3.2	3.05
04	(290)	2.0					2.8	3.1
05	(295)	1.8					2.7	3.05
06	(260)	1.5					2.2	3.1
07	---	1.4					2.9	(3.1)
08	(250)	1.4					2.9	3.1
09	245	2.2					2.0	3.1
10	225	2.8			---	---	2.8	3.35
11	220	3.5			---	1.1	1.8	3.35
12	215	3.8			---	---	2.6	3.35
13	215	3.5			---	---	2.3	3.35
14	220	3.0					2.7	3.3
15	230	2.3					2.7	3.3
16	240	1.8					2.8	3.2
17	---	1.5					2.8	(3.1)
18	---	(1.4)					3.0	---
19	---	---					4.0	---
20	---	---					3.8	---
21	---	---					4.0	---
22	---	---					3.9	---
23	---	---					4.0	---

Time: 15.0°E.
Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 41

Rarotonga I. (21.3°S, 159.8°W) December 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	5.6					4.5	3.3
01	260	4.4					3.7	3.4
02	270	4.5					3.6	3.1
03	300	4.2					3.2	3.0
04	300	4.2					3.6	(3.1)
05	300	3.0					3.7	3.0
06	250	4.5	---	---	---	E	3.0	3.1
07	280	5.0	230	3.9	110	2.3	4.2	3.3
08	300	6.5	220	4.2	105	2.8	5.0	3.15
09	330	7.6	220	4.4	105	3.1	5.8	2.9
10	330	0.2	200	4.4	105	3.2	5.4	2.9
11	330	9.1	200	4.5	105	3.4	5.5	2.9
12	350	9.5	210	4.4	105	3.4	5.0	2.9
13	320	10.0	210	4.4	105	3.4	4.6	3.0
14	320	10.8	220	4.4	105	3.3	4.8	3.0
15	300	9.8	220	4.3	105	3.2	5.0	3.15
16	300	9.2	230	4.1	105	3.0	5.3	3.2
17	280	0.8	230	3.9	110	2.7	4.9	3.2
18	260	7.7	240	3.2	115	2.1	5.0	3.2
19	260	6.4					4.6	2.95
20	300	6.6					4.2	2.9
21	300	6.5					4.0	2.9
22	300	6.2					4.0	2.9
23	290	6.1					4.0	3.15

Time: 157.5°W.
Sweep: 1.5 Mc to 20.0 [illegible] in 5 minutes, manual operation.

Table 42

Christchurch, New Zealand (43.6°S, 172.8°E) December 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	5.0					3.8	3.0
01	260	4.5					3.2	3.1
02	260	3.9					3.5	3.1
03	260	3.6					2.8	3.1
04	260	3.6				E	2.7	3.1
05	250	4.2	250	3.0		1.6	2.7	3.2
06	280	4.6	240	3.6		2.2	3.8	3.3
07	310	4.9	240	3.9		2.6	4.7	3.1
08	300	5.5	230	4.1		2.9	5.2	3.25
09	310	5.6	---	4.2		3.1	5.6	3.2
10	300	6.0	200	4.3		3.2	5.7	3.2
11	310	5.9	220	4.4		3.2	4.9	3.2
12	320	5.8	220	4.4		3.3	4.8	3.2
13	330	5.7	220	4.3		3.2	4.7	3.1
14	330	5.8	220	4.3		3.2	4.6	3.1
15	320	5.7	220	4.2		3.1	4.5	3.1
16	320	5.5	230	4.1		2.9	4.5	3.1
17	300	5.6	240	3.8		2.6	4.4	3.1
18	280	5.6	250	3.4		2.1	4.3	3.2
19	260	5.8	---	---		1.5	4.8	3.1
20	250	6.2				---	3.4	3.1
21	260	6.0					4.4	3.0
22	260	5.6					3.4	3.0
23	260	5.4					3.7	3.0

Time: 172.5°E.
Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 43*

Inverness, Scotland (57.4°N, 4.2°W) October 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	310	2.0						2.7
01	330	2.1						2.8
02	330	2.0						2.8
03	320	1.9						2.7
04	315	1.8						2.9
05	290	1.6						3.0
06	295	1.9						3.0
07	250	3.0			150	1.6		3.3
08	240	3.8	235	2.5	135	1.7	1.8	3.4
09	290	4.7	225	3.3	120	2.1	2.6	3.3
10	305	5.0	215	3.5	115	2.3	2.7	3.3
11	290	5.4	210	3.6	115	2.4	2.6	3.3
12	270	5.6	205	3.7	110	2.4	2.6	3.4
13	265	5.6	205	3.6	110	2.4		3.4
14	265	5.4	210	3.3	110	2.3	2.4	3.4
15	255	5.2	220	3.3	125	2.2	2.4	3.4
16	240	4.9	(230)		135	1.9		3.4
17	230	4.8				1.7		3.3
18	250	4.6					1.9	3.1
19	250	4.4						3.1
20	260	3.8						3.2
21	255	2.0						3.1
22	310	2.2						2.9
23	320	2.0						2.8

Time: 0.0°.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 44*

Slough, England (51.5°N, 0.6°W) October 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	305	2.7					2.7	2.8
01	290	2.0					3.0	2.05
02	290	2.8					2.9	2.85
03	295	2.7					3.1	2.85
04	275	2.3					3.2	2.95
05	275	2.2					3.9	2.95
06	270	2.6					3.3	3.0
07	245	4.1	(230)	(2.3)	145	1.7	3.4	3.35
08	260	4.7	230	3.2	130	2.1	3.7	3.35
09	200	5.0	230	3.6	125	2.3	4.2	3.35
10	285	6.0	225	3.8	120	2.5	4.5	3.35
11	285	6.3	215	3.9	120	2.6	4.5	3.25
12	270	6.1	215	3.9	120	2.8	4.2	3.3
13	265	6.0	220	3.8	120	2.7	4.3	3.35
14	260	5.9	225	3.7	120	2.6	3.8	3.35
15	255	5.0	235	3.5	120	2.3	4.0	3.3
16	245	5.6	240	(3.0)	125	1.9	3.3	3.35
17	235	5.1					3.1	3.3
18	250	4.9					3.2	3.15
19	250	4.6					3.0	3.15
20	255	3.9					3.1	3.15
21	275	3.1					2.6	2.95
22	290	2.6					2.6	2.9
23	305	2.6					2.6	2.85

Time: 0.0°.
Sweep: 0.55 Mc to 16.5 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 45*

Singapore, British Malaya (1.3°N, 103.8°E) October 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	225	4.3						3.0
01	255	4.1						2.9
02	250	4.0						3.0
03	250	3.4					1.4	3.1
04	250	2.0					1.8	3.1
05	230	2.3					2.0	3.3
06	250	4.3					2.5	3.3
07	260	6.8	240	4.0	125	2.4	3.5	3.2
08	285	7.8	220	4.2	120	2.8	4.2	2.9
09	320	8.3	210	4.4	115	3.1	4.7	2.5
10	355	9.0	205	4.5	110	3.3	5.2	2.2
11	370	8.9	205	4.6	110	3.5	5.4	2.1
12	365	8.6	200	4.6	110	3.5	4.0	2.1
13	375	0.8	200	4.5	110	3.4	4.7	2.2
14	350	9.3	200	4.4	110	3.2	4.8	2.4
15	320	9.4	210	4.3	110	3.0	4.2	2.5
16	295	10.2	235	(4.1)	115	2.7	3.9	2.7
17	260	10.0	245		125	2.1	3.5	2.7
18	265	9.6					2.3	2.6
19	290	9.2					2.1	2.7
20	280	8.7					2.1	2.0
21	250	9.0					1.3	3.0
22	230	>9.0						3.3
23	210	6.1						3.4

Time: 105.0°E.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 46

Townsville, Australia (19.3°S, 146.7°E) October 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	(5.4)					2.2	(3.2)
01	230	4.3					2.5	3.3
02	240	3.3					1.8	3.2
03	260	3.2					1.8	3.1
04	280	3.0					2.0	3.0
05	280	2.8					1.8	3.0
06	250	>4.0			130	1.6	2.1	3.3
07	250	>5.5	240	---	100	2.2	3.2	3.3
08	200	6.3	230	4.0	100	2.7	4.1	3.2
09	290	6.8	210	4.3	100	3.0	4.3	3.2
10	300	7.4	220	4.4	100	3.2	4.4	3.1
11	310	8.0	200	4.4	110	3.3	4.4	3.1
12	300	8.4	200	4.4	110	3.3	4.1	3.1
13	290	8.0	200	4.2	110	3.3	4.1	3.1
14	300	7.7	200	4.4	100	3.2	>4.0	3.2
15	300	7.0	210	4.1	100	3.1	4.5	3.2
16	290	6.9	240	4.0	100	2.8	4.3	3.2
17	250	6.9	---	---	110	2.2	3.9	3.25
18	250	6.7					3.4	3.3
19	250	5.9					3.5	3.2
20	270	>5.6					3.4	3.1
21	270	>5.5					3.2	(3.1)
22	270	(5.2)					2.8	3.0
23	270	5.2					>2.6	(3.0)

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

Table 47

Sao Paulo, Brazil (23.5°S, 46.5°W) October 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	6.0						3.2
01	250	6.8						3.2
02	220	6.6						3.4
03	210	5.8						3.35
04	220	4.6						3.3
05	220	4.0						3.4
06	210	5.6						3.8
07	210	6.6	200	---	100	2.4		3.6
08	240	7.4	200	---	100	2.0		3.5
09	260	7.6	180	---	100	3.1		3.3
10	300	8.0	180	4.6	100	3.2		2.95
11	310	8.6	---	---	100	3.2		2.9
12	300	9.6	---	---	100	3.2		3.0
13	300	10.6	160	4.6	100	3.2	3.7	3.1
14	280	11.7	100	---	100	3.2		3.2
15	260	12.0	200	---	100	3.1		3.3
16	240	12.4	200	---	100	2.7	3.2	3.4
17	230	13.0	210	---	110	2.2	3.3	3.45
18	210	12.7			---	---	2.8	3.5
19	200	10.9					2.2	3.6
20	210	9.4						3.5
21	210	8.6						3.3
22	240	7.8						3.2
23	240	6.5						3.2

Time: Local.
Sweep: 1.75 Mc to 20.0 Mc in 7 minutes 18 seconds.

Table 48

Brisbane, Australia (27.5°S, 153.0°E) October 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	4.1					2.0	3.0
01	250	4.1						3.2
02	240	3.6						3.1
03	250	3.0						3.0
04	260	3.0						3.0
05	260	3.3			---	---		3.1
06	250	4.7	---	---	120	1.9		3.4
07	280	5.4	240	3.9	110	2.6		3.4
08	300	5.6	220	4.2	110	3.0		3.3
09	300	6.2	200	4.3	110	3.2	3.8	3.25
10	310	6.3	200	4.4	110	3.3	4.0	3.1
11	315	6.6	200	4.5	110	3.4		3.1
12	300	6.6	200	4.5	100	3.4		3.2
13	300	6.4	200	4.3	110	3.4		3.2
14	300	6.2	200	4.3	110	3.3		3.3
15	300	5.9	210	4.2	110	3.0		3.2
16	290	6.2	240	3.9	120	2.7	3.7	3.2
17	260	6.1	250	3.3	120	2.0		3.3
18	250	6.5			---	---		3.2
19	250	5.7						3.1
20	260	5.0						3.0
21	200	4.7						2.9
22	200	4.5						3.0
23	270	4.3						3.0

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

Table 49

Canberra, Australia (35.3°S, 149.0°E) October 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	3.6						2.9
01	<260	3.5						3.0
02	(240)	3.3						3.1
03	<240	(2.6)						2.9
04	---	(2.8)						2.9
05	(260)	2.8						3.0
06	260	4.0			---	1.9		3.3
07	280	4.4	240	3.7	110	2.3		3.2
08	350	4.9	230	4.0	110	2.7		3.1
09	350	5.1	220	4.1	110	2.9		3.1
10	360	5.5	210	4.2	110	3.1		3.1
11	350	5.5	200	4.2	110	3.1		3.0
12	340	5.8	200	4.2	110	3.2		3.0
13	325	5.7	210	4.2	110	3.2		3.1
14	330	5.5	210	4.1	110	3.1		3.1
15	330	5.6	225	4.1	110	2.9		3.0
16	300	5.5	240	3.9	110	2.7		3.2
17	290	5.4	250	(3.5)	(120)	2.2		3.2
18	250	5.6	---	---				3.1
19	---	5.2						3.1
20	---	4.7						3.1
21	---	4.1						2.9
22	---	3.6						2.9
23	---	3.6						2.9

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

Table 50

Hobart, Tasmania (42.9°S, 147.3°E) October 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	2.2						2.9
01	280	2.0						2.95
02	270	1.9						3.0
03	270	1.7						3.0
04	290	1.7						3.0
05	270	2.3						3.0
06	240	3.4			110	1.6		3.1
07	230	4.0	---	---	100	2.1		3.1
08	230	4.4	210	3.9	100	2.5		3.0
09	400	4.7	200	4.0	100	2.8		2.7
10	380	5.0	200	4.2	100	3.0		2.9
11	370	5.2	200	4.2	100	3.0		2.8
12	370	5.2	200	4.3	100	3.0		2.8
13	380	5.0	200	4.3	100	3.0		2.8
14	350	5.5	200	4.2	100	3.0		2.9
15	320	5.4	200	4.0	100	2.8		3.1
16	220	5.2	200	3.9	100	2.5		3.1
17	230	5.0			100	2.1		3.1
18	250	5.2			100	1.6		3.1
19	250	5.0						3.0
20	250	4.6						3.0
21	250	3.8						2.95
22	260	3.0						2.95
23	270	2.5						2.9

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

Table 51*

Inverness, Scotland (57.4°N, 4.2°W) September 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	330	(2.0)						2.8
01	335	(1.8)						2.8
02	340	1.7						2.8
03	350	1.6						(2.8)
04	340	1.6						(2.9)
05	305	1.8						2.9
06	255	2.5	(240)		(130)	(1.6)		3.2
07	(310)	3.2	225	2.8	135	1.8		3.2
08	325	3.6	220	3.3	120	2.1	2.4	3.1
09	430	4.0	210	3.6	115	2.3	2.6	3.0
10	385	4.1	210	3.7	115	2.5	2.8	3.1
11	425	4.1	205	3.8	110	2.6	2.9	3.1
12	385	4.4	205	3.8	105	2.6	2.8	3.1
13	390	4.4	205	3.9	110	2.5	2.8	3.1
14	370	4.3	210	3.8	110	2.6	2.7	3.1
15	355	4.3	215	3.7	110	2.5	2.5	3.1
16	340	4.4	225	3.4	115	2.3	2.5	3.1
17	305	4.2	235	3.2	125	1.9	2.5	3.1
18	265	4.3	255	(2.8)	150	1.7	2.7	3.1
19	260	4.5					2.3	3.1
20	255	4.3					2.4	3.1
21	265	3.1						3.1
22	305	2.5						3.0
23	315	2.1						2.9

Time: 0.0°.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 52*

Slough, England (51.5°N, 0.6°W) September 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	285	2.6					2.8	2.85
01	285	2.6					2.9	2.85
02	285	2.5					3.0	2.85
03	290	2.4					3.1	2.85
04	285	2.2					3.0	2.9
05	285	2.1					4.1	2.95
06	265	3.1	(235)		(130)	(1.6)	4.1	3.3
07	305	3.6	225	3.1	125	1.9	3.6	3.3
08	380	4.0	225	3.5	120	2.3	4.2	3.2
09	385	4.2	220	3.8	120	2.5	4.0	3.15
10	380	4.5	220	3.9	115	2.7	4.8	3.2
11	370	4.6	215	4.0	115	2.8	4.6	3.2
12	360	4.7	215	4.0	115	2.9	4.7	3.15
13	350	4.9	215	4.0	115	2.9	4.4	3.15
14	335	4.6	220	3.9	115	2.8	4.3	3.15
15	325	4.6	230	3.8	115	2.6	3.9	3.15
16	320	4.8	235	3.6	120	2.3	3.7	3.05
17	280	4.8	245	3.2	125	2.0	3.4	3.15
18	260	4.9	(250)		(125)	(1.7)	3.0	3.1
19	260	5.0					3.1	3.05
20	255	4.9					3.0	3.1
21	255	4.2					3.0	3.05
22	280	3.1					2.5	2.95
23	290	2.8					2.6	2.9

Time: 0.0°.
Sweep: 0.55 Mc to 16.5 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 53*

Singapore, British Malaya (1.3°N, 103.8°E) September 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	220	4.2					1.9	3.2
01	250	3.3					2.5	3.0
02	260	2.8					2.3	3.0
03	265	2.5					2.6	3.1
04	270	2.3					3.0	3.2
05	260	2.0					3.1	---
06	250	3.2					3.4	3.2
07	260	6.2	240		125	2.2	3.4	3.2
08	305	7.4	225	4.1	120	2.7	5.4	2.9
09	325	8.4	210	4.3	115	3.0	5.3	2.7
10	350	8.9	205	4.4	110	3.3	6.4	2.4
11	375	8.6	200	4.4	110	3.4	6.0	2.1
12	395	>8.1	200	4.5	110	3.4	5.8	2.1
13	375	8.4	200	4.4	110	3.4	5.4	2.4
14	345	8.5	200	4.3	110	3.3	5.2	2.5
15	340	8.6	200	4.2	110	3.0	3.8	2.5
16	320	8.8	210		115	2.7	4.0	2.6
17	300	9.0	230		120	2.2	3.6	2.8
18	255	9.1	245				2.8	2.9
19	240	8.8					2.9	3.0
20	240	8.2					2.8	3.1
21	235	7.0					2.8	3.2
22	230	6.6					2.2	3.3
23	220	6.0					2.5	3.3

Time: 105.0°E.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 54

Sao Paulo, Brazil (23.5°S, 46.5°W) September 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	230	4.1						3.3
01	240	4.5						3.4
02	210	4.2						3.6
03	210	3.4						3.5
04	280	2.8						3.2
05	270	2.4						3.3
06	220	3.8						3.5
07	210	5.2	210	---	100	2.0		3.7
08	250	6.0	200	---	100	2.6		3.6
09	280	6.9	200	4.2	100	2.9		3.4
10	300	8.0	200	4.3	100	3.1		3.25
11	280	8.9	180	4.4	100	3.1		3.2
12	290	9.6	180	4.4	100	(3.0)		3.2
13	300	10.0	180	4.3	100	3.0		3.1
14	280	10.6	180	4.2	100	3.0		3.3
15	260	10.5	200	4.0	100	2.9	3.6	3.4
16	230	10.1	200	---	100	2.7	3.4	3.5
17	220	9.8	200	---	100	(2.1)	3.0	3.5
18	200	8.6			---	---	2.2	3.6
19	200	7.5						3.5
20	200	6.4						3.5
21	210	5.5						3.3
22	240	5.1						3.3
23	240	4.5						3.3

Time: Local.
Sweep: 1.75 Mc to 20.0 Mc in 7 minutes 18 seconds.

Table 55*

Falkland Is. (51.7°S, 57.8°W) September 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	305	2.8					2.0	2.8
01	295	2.8					1.8	2.8
02	300	2.6						2.9
03	285	2.7						3.0
04	255	3.0						3.3
05	225	2.6						3.4
06	215	3.6			160	1.6		3.6
07	220	4.2			130	1.8	2.9	3.7
08	235	4.8	(230)		115	2.3	3.5	3.6
09	245	5.3	230		110	2.6	4.0	3.5
10	260	5.8	230	4.0	110	2.7	4.1	3.4
11	270	6.2	225	4.1	110	2.8	4.6	3.3
12	265	6.6	220	4.1	110	2.9	4.2	3.4
13	275	6.3	220	4.0	105	2.8	4.6	3.5
14	250	5.9	225	3.9	110	2.7	3.4	3.6
15	245	5.8	220	(3.7)	115	2.6	3.9	3.5
16	235	5.4	225	(3.4)	120	2.2	3.0	3.6
17	230	5.1			(145)	(1.9)	3.0	3.6
18	230	4.8					3.1	3.4
19	230	4.4					2.9	3.2
20	240	3.0						3.1
21	270	3.2						3.0
22	280	3.0					2.3	2.9
23	300	2.9					2.0	2.9

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 56*

Port Lockroy (64.8°S, 63.5°W) September 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	2.7						2.7
01	290	2.6						2.7
02	290	2.6						2.7
03	285	2.5					0.8	2.8
04	250	2.5					1.0	2.8
05	240	2.4					1.0	3.0
06	225	2.9					2.4	3.3
07	230	3.6			(160)	(1.7)		3.4
08	225	4.4	(185)		120	1.9	2.6	3.5
09	225	4.7	(205)		120	2.1	3.4	3.5
10	225	5.1	215		115	2.2	5.6	3.4
11	230	5.4	210	(3.0)	110	2.3	3.5	3.3
12	240	5.6	205		110	2.4	3.4	3.3
13	240	5.5	215		110	2.4	3.2	3.4
14	240	5.4	210		110	2.4	2.6	3.4
15	240	5.3	200		115	2.2		3.4
16	240	4.9	(190)	(2.4)	125	2.0	2.4	3.4
17	240	5.0			(145)	(1.8)	1.8	3.3
18	235	5.1						3.2
19	235	4.9						3.1
20	240	4.6						3.0
21	250	3.8						2.9
22	270	3.2						2.7
23	285	2.8						2.7

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 57

Tromso, Norway (69.7°N, 19.0°E) August 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	---					4.2	---
01	280	(3.4)					4.3	(3.05)
02	(305)	(3.4)	---	---			3.9	(3.1)
03	(310)	3.2	250	---	---	---	3.2	2.9
04	(400)	3.0	240	2.8	---	---	3.1	(2.9)
05	(475)	3.3	235	3.1	105	1.8	3.1	(2.7)
06	460	3.6	230	3.3	105	2.1	3.0	2.7
07	400	3.0	210	3.5	100	2.3	3.0	2.9
08	425	4.0	215	3.6	100	2.4	2.8	2.9
09	420	4.2	220	3.7	100	2.5		2.9
10	410	4.2	210	3.0	100	2.6	2.7	2.9
11	390	4.4	205	3.8	100	2.6	3.0	3.0
12	395	4.4	210	3.8	100	2.7	2.7	3.0
13	390	4.4	210	3.8	100	2.7		3.05
14	390	4.3	210	3.8	100	2.6		3.05
15	375	4.2	210	3.8	105	2.5	2.8	3.05
16	(380)	4.1	215	3.7	105	2.4	2.8	3.1
17	---	4.0	225	---	105	2.2	3.2	---
18	---	3.9	235	---	105	2.0	2.7	(3.2)
19	(285)	3.8	240	---	105	---	3.8	3.3
20	(265)	3.8	---	---	---	---	4.0	3.1
21	(270)	3.6	---	---			3.8	3.1
22	(300)	3.5					4.0	3.0
23	---	(3.7)					4.0	(3.0)

Time: 15.0°E.
Sweep: 0.7 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 58

Delhi, India (28.6°N, 77.1°E) August 1954

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	4.0						3.35
01	---	4.1						3.45
02	---	4.0						3.4
03								
04	---	4.0						3.45
05	250	4.2						3.5
06	240	4.4						3.55
07	240	5.4						3.5
08	260	5.9						3.4
09	280	5.9						3.3
10	280	6.5						3.15
11	280	>7.3						3.1
12	320	7.9						3.05
13	280	8.7						3.15
14	280	0.9						3.2
15	280	8.5						3.3
16	280	8.1						3.3
17	260	7.2						3.4
18	250	6.8						3.4
19	240	6.8						3.55
20	240	6.0						3.55
21	240	5.3						3.5
22	260	4.8						3.4
23	270	4.2						3.4

Time: 75.0°E.
Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.
**Average values; other columns, median values.

Table 59

Bombay, India (19.0°N, 73.0°E) August 1954

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2**
00								
01								
02								
03								
04								
05								
06:30	270	4.6						3.35
07	300	5.2						3.15
08:30	330	6.3						3.0
09	330	6.8						2.9
10	360	7.2						2.8
11	360	7.9						2.75
12	390	8.7						2.6
13	390	9.2						2.55
14	420	9.6						2.55
15	390	9.7						2.55
16	390	9.4						2.65
17	360	9.1						2.7
18	360	0.4						2.8
19	330	7.4						2.95
20	330	6.8						3.0
21	300	5.8						3.2
22	300	5.0						3.2
23								

Time: 75.0°E.
Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.
*Height at 0.03 foF2.
**Average values; other columns, median values.

Table 60

Madras, India (13.0°N, 80.2°E) August 1954

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2**
00								
01								
02								
03								
04								
05								
06	330	5.2						3.0
07	360	6.2						2.8
08	390	6.7						2.65
09	420	6.6						2.55
10	420	>6.5						2.5
11	420	6.5						2.5
12	420	6.5						2.5
13	420	6.8						2.5
14	420	7.2						2.55
15	400	7.6						2.55
16	390	8.3						2.6
17	400	>8.6						2.6
18	390	9.1						2.7
19	380	>7.8						2.75
20	360	>6.5						2.85
21	330	>5.0						2.95
22	---	---						2.95
23								

Time: 75.0°E.
Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.
**Average values; other columns, median values.

Table 61

Tiruchy, India (10.8°N, 78.8°E) August 1954

Time	*	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00								
01								
02								
03								
04								
05								
06	(340)	>4.8						2.9
07	420	6.2						2.5
08	480	6.6						2.3
09	510	6.4						2.25
10	540	6.2						2.15
11	540	6.1						2.1
12	540	6.1						2.1
13	540	6.4						2.1
14	540	6.7						2.1
15	510	7.1						2.25
16	480	7.6						2.3
17	480	7.9						2.35
18	450	7.8						2.45
19	420	7.5						2.5
20	---	(6.4)						2.6
21								
22								
23								

Time: 75.0°E.
Sweep: 1.5 Mc to 18.0 Mc in 5 minutes, manual operation.
*Height at 0.83 foF2.
**Average values; other columns, median values.

Table 62

Sao Paulo, Brazil (23.5°S, 46.5°W) August 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	220	3.1						3.5
01	220	3.6						3.5
02	210	3.6						3.7
03	200	3.1						3.9
04	---	2.0						3.4
05	---	E						(3.5)
06	---	2.0			---	---		3.35
07	200	4.5	---	---	---	E		3.9
08	230	4.9	200	---	100	2.3		3.9
09	260	5.2	200	4.0	100	2.7		3.6
10	280	6.0	190	4.1	100	2.9		3.4
11	270	7.4	180	4.1	100	3.0		3.5
12	260	8.0	170	4.2	100	3.1		3.5
13	280	9.0	180	4.2	100	(3.0)		3.5
14	250	9.0	170	4.1	100	3.0		3.5
15	240	9.2	180	3.9	100	2.8		3.5
16	230	9.1	190	---	100	2.6	3.0	3.7
17	200	8.4	---	---	---	E	2.9	3.9
18	180	6.5			---	---	2.8	3.9
19	180	4.9			---	---	2.6	3.7
20	200	3.6						3.6
21	220	3.4						3.4
22	220	3.4						3.5
23	220	3.2						3.6

Time: Local.
Sweep: 1.75 Mc to 20.0 Mc in 7 minutes 18 seconds.

Table 63*

Falkland Is. (51.7°S, 57.8°W) August 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	295	2.4						(2.9)
01	295	2.4						(3.0)
02	290	2.3						(3.1)
03	275	2.2						(3.1)
04	260	2.3						(3.2)
05	230	2.3						3.6
06	240	1.8			(180)	(1.3)		3.4
07	235	2.9			160	1.3		3.5
08	225	3.8			145	2.0	2.9	3.7
09	225	4.2	(210)		140	2.2	3.5	3.7
10	230	4.4	(215)	(3.3)	115	2.5	4.3	3.6
11	240	4.6	215	3.7	120	2.6	4.8	3.6
12	260	5.1	225	3.8	115	2.6	5.5	3.5
13	250	5.2	230	3.7	105	2.5	3.7	3.6
14	255	4.6	210	3.6	115	2.5	3.4	3.7
15	235	4.8	(220)	(3.2)	125	2.4	3.4	3.6
16	230	4.8			(150)	(2.0)	3.0	3.6
17	215	4.1					3.3	3.7
18	235	2.8					2.9	3.2
19	245	2.6					2.8	3.3
20	245	2.4					2.6	3.3
21	260	2.2					2.8	3.1
22	280	2.4					2.2	3.1
23	285	2.4					2.8	3.0

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 64*

Port Lockroy (64.8°S, 63.5°W) August 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	2.1					2.0	2.8
01	280	2.2						2.7
02	280	2.1						2.8
03	270	2.1						2.8
04	260	2.0					0.8	2.8
05	245	2.0					1.0	2.9
06	230	1.8					2.2	3.0
07	240	1.8					1.0	3.1
08	220	2.7					2.4	(3.3)
09	225	3.6				(1.7)	3.2	3.3
10	225	4.0			130	1.8	4.0	3.4
11	220	4.2			(125)	1.9	5.0	3.5
12	230	4.3			(120)	2.1	3.9	3.5
13	230	4.3			(120)	2.1	4.5	(3.5)
14	230	4.3			(120)	(1.9)	3.5	3.4
15	230	4.1			(135)	1.8	3.2	3.3
16	225	3.7					3.1	3.3
17	225	3.5					2.5	3.2
18	230	3.0					2.4	3.2
19	235	2.4					2.4	3.0
20	270	1.8						2.9
21	280	1.8						2.7
22	300	1.9						2.7
23	300	2.0					2.0	2.7

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 65

Calcutta, India (22.6°N, 88.4°E) June 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(270)	(5.4)					(3.8)	(3.05)
01	(270)	(5.2)					(3.2)	
02	(270)	(4.4)					(3.0)	
03	(240)	(5.0)					(3.4)	(3.2)
04	---	(4.0)					(3.0)	
05	---	(4.4)					(4.4)	
06	(240)	(4.8)						(3.25)
07	(240)	(5.3)				---	(5.8)	
08	(240)	(6.8)				---	(5.2)	
09	(240)	(8.3)				---	(5.3)	(2.85)
10	(240)	(8.4)				---	(4.6)	
11	(240)	(8.3)				---	(4.5)	
12	(240)	(9.0)				---	(4.4)	(2.85)
13	(240)	(9.3)				---	(4.2)	
14	(240)	(9.4)				---	4.4	
15	(240)	(9.3)					(5.2)	(2.85)
16	(240)	9.2					4.7	
17	(240)	(9.2)					(4.4)	
18	(255)	(8.7)						(2.7)
19	(240)	8.2					3.6	
20	(240)	(6.8)						
21	(240)	(5.8)						(3.1)
22	(255)	(5.0)						
23	(285)	(4.8)						

Time: 90.0°E.
Sweep: 0.5 Mc to 18.0 Mc in 10 minutes, semi-automatic operation.

Table 66

Sao Paulo, Brazil (23.5°S, 46.5°W) June 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	2.6						3.5
01	250	2.8						3.4
02	260	2.8						3.45
03	220	2.8						(3.55)
04	240	1.8						(3.6)
05	---	E						(3.5)
06	---	E						---
07	210	4.1						3.9
08	220	4.7	205	---	100	2.2		3.8
09	260	5.3	210	3.9	100	2.6		3.55
10	260	6.3	200	4.0	100	2.8		3.6
11	260	7.2	180	4.1	100	3.0		3.6
12	255	7.7	180	4.1	100	3.0		3.5
13	250	8.1	180	4.0	100	3.0		3.5
14	240	7.4	180	4.0	100	2.9		3.5
15	240	7.9	200	3.9	100	2.7		3.55
16	220	7.9	180	---	100	2.3	3.1	3.6
17	200	7.8			---	---	3.2	3.8
18	180	6.2					3.0	3.9
19	180	4.0					2.7	3.9
20	220	2.8					2.8	3.4
21	220	2.6					3.0	3.5
22	230	3.0					3.0	3.4
23	220	2.8					2.2	3.55

Time: Local.
Sweep: 1.75 Mc to 20.0 Mc in 7 minutes 18 seconds.

Table 67*

Port Lockroy (64.8°S, 63.5°W) — June 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	285	2.1					1.0	2.8
01	270	2.0					1.0	2.8
02	265	2.0					1.0	2.9
03	260	2.1					1.2	(2.9)
04	255	2.1					0.9	2.9
05	235	2.0					2.1	(2.9)
06	230	1.7					2.4	3.0
07	230	1.7					2.0	3.1
08	220	1.5					2.5	---
09	235	2.0					2.8	---
10	215	3.0					3.2	3.4
11	205	3.7					5.4	3.6
12	205	3.6					4.6	3.6
13	210	3.8					2.7	3.6
14	205	3.5					4.0	(3.7)
15	215	2.9					3.1	
16	235	2.3					2.7	(3.3)
17	240	1.8					2.5	3.3
18	265	1.7					2.6	(3.3)
19	270	1.6					2.5	(3.1)
20	285	1.6					2.4	(3.0)
21	290	1.6						2.9
22	285	1.8					2.0	2.8
23	285	1.9						2.8

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 68

Calcutta, India (22.6°N, 88.4°E) — May 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(260)	(3.9)						(2.7)
01	(270)	(3.6)						
02	(270)	(3.4)					(3.2)	
03	(270)	(3.8)					(3.2)	(2.95)
04	(240)	(3.5)						
05	(225)	(3.8)						
06	(225)	(4.8)						(3.3)
07	(225)	(6.4)				---	(4.1)	
08	220	(6.9)				---	3.8	
09	(240)	(7.6)				---	(3.8)	(3.1)
10	(240)	(7.8)				---	(4.2)	
11	(240)	9.0				---	(4.0)	
12	240	9.2				3.6		(3.1)
13	(240)	(10.0)				3.5		
14	(240)	(10.0)				---	(3.8)	
15	240	10.3				---	3.8	(3.1)
16	240	10.5				---	3.9	
17	(240)	(9.8)					(4.2)	
18	(240)	(8.5)					(3.6)	(3.1)
19	210	8.5					3.8	
20	(210)	(7.1)						
21	(220)	(6.1)						(3.2)
22	(270)	(3.8)						
23	(240)	(3.6)						

Time: 90.0°E.
Sweep: 0.5 Mc to 18.0 Mc in 10 minutes, semi-automatic operation.

Table 69

Sao Paulo, Brazil (23.5°S, 46.5°W) — May 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	3.9						3.4
01	240	3.9						3.4
02	240	3.4						3.3
03	220	3.2						3.6
04	310	2.3						(3.7)
05	---	E						---
06	---	E						---
07	230	4.6						3.55
08	240	5.8	210	---	---	2.4		3.4
09	270	6.8	220	4.1	110	2.7		3.45
10	280	7.8	220	4.1	105	2.9		3.4
11	280	8.8	200	4.3	100	3.0		3.5
12	280	9.4	190	4.2	100	2.9		3.3
13	280	10.0	200	4.1	100	3.0	(3.3)	3.25
14	280	9.4	200	4.1	100	2.9	3.9	3.2
15	260	9.8	---	---	100	2.8	3.9	3.3
16	230	9.2	220	---	---	---	3.7	3.55
17	210	8.5					3.2	3.6
18	200	6.6					3.2	3.75
19	210	4.8					2.8	3.6
20	240	3.8					3.2	3.3
21	250	3.9					3.0	3.4
22	230	4.1						3.4
23	230	3.9						3.5

Time: Local.
Sweep: 1.75 Mc to 20.0 Mc in 7 minutes 18 seconds.

Table 70

Calcutta, India (22.6°N, 88.4°E) — April 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(240)	(3.8)						(3.1)
01	(240)	(3.6)						
02	(210)	(3.6)						
03	(210)	(3.5)						(3.05)
04	(210)	(3.2)						
05	(210)	(3.0)						
06	240	(4.9)						(3.05)
07	225	(6.4)				---	(3.0)	
08	225	7.3				---	3.4	
09	240	(7.1)				---	(4.0)	(2.85)
10	210	(8.6)				---		
11	240	(9.9)				3.5		
12	240	10.6				3.6		(3.1)
13	240	10.8				3.4		
14	240	11.0				---		
15	(225)	11.0				---	2.4	(3.0)
16	(240)	(11.0)				---	(3.5)	
17	(240)	(11.0)				---		
18	230	11.0					2.8	(3.25)
19	210	8.6					3.4	
20	210	(6.7)						
21	(240)	(5.2)						(3.05)
22	(270)	(4.0)						
23	(240)	(3.8)						

Time: 90.0°E.
Sweep: 0.5 Mc to 18.0 Mc in 10 minutes, semi-automatic operation.

Table 71

Calcutta, India (22.6°N, 88.4°E) — March 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(240)	(4.6)						(2.95)
01	(255)	(4.9)						
02	(240)	(4.6)						
03	(240)	(4.1)						(3.05)
04	(225)	(3.4)						
05	(225)	(2.9)						
06	(240)	(3.4)						(3.1)
07	(240)	(5.1)				2.3		
08	225	6.4				2.7		
09	240	7.7				2.8		3.1
10	(240)	(8.7)				3.0		
11	210	9.7				3.3		
12	(210)	9.5				3.3		(3.05)
13	(225)	10.3				3.3		
14	(210)	(9.8)				3.0		
15	(210)	(10.2)				2.8		(2.95)
16	(240)	(10.0)				---		
17	(240)	10.3				---		
18	(210)	(9.8)						(3.05)
19	210	(8.9)						
20	(210)	(7.0)						
21	210	(4.9)					(2.9)	(3.05)
22	(210)	(4.3)						
23	(225)	(4.6)						

Time: 90.0°E.
Sweep: 0.5 Mc to 18.0 Mc in 10 minutes, semi-automatic operation.

Table 72*

Ibadan, Nigeria (7.4°N, 4.0°E) — July 1953

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	324	(3.8)					1.3	
01	(296)	---					1.9	
02	(343)	---					1.4	
03	(268)	---					1.4	
04	---	---					1.3	
05	(264)	(2.0)					1.6	
06	262	4.4	(251)		(124)	(1.6)	2.0	
07	(281)	6.1	215		114	(2.3)	4.2	
08	323	>7.0	217	4.0	113	2.9	5.0	
09	343	7.2	210	4.1	110	3.2	6.4	
10	374	6.9	203	4.3	111	3.3	9.8	
11	386	7.0	199	4.3	110	3.4	9.9	
12	393	6.8	198	4.3	109	3.4	10.0	
13	393	7.0	200	4.3	110	3.4	9.8	
14	378	6.9	196	4.2	110	3.3	9.8	
15	360	>7.0	198	4.1	110	3.1	8.8	
16	(332)	7.3	205		111	2.8	5.2	
17		7.6	239		113	2.0	4.8	
18	(259)	7.9	250		121	1.3	2.3	
19	260	7.4					4.7	
20	278	6.8					2.2	
21	271	5.8					2.0	
22	288	5.4					2.1	
23	302	(4.5)					1.8	

Time: 0.0°.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 73

Sao Paulo, Brazil (23.4°S, 46.5°W) July 1953

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	230	3.6						
01	280	3.4						
02	240	3.8						
03	230	3.9						
04	220	3.5						
05	---	E						
06	---	E						
07	220	4.0						
08	250	(5.2)						
09	270	5.5						
10	290	6.4						
11	290	6.9						
12	290	7.3						
13	300	7.7						
14	300	8.4						
15	280	9.3						
16	260	9.1						
17	230	7.8						
18	200	6.5						
19	200	5.6						
20	230	2.9						
21	230	3.4						
22	240	3.8						
23	220	(3.1)						

Time: Local.
Sweep: 2.5 Mc to 20.0 Mc in 6 minutes.

Table 74

Sao Paulo, Brazil (23.4°S, 46.5°W) June 1953

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	245	3.5						
01	230	3.3						
02	230	3.3						
03	220	3.6						
04	190	2.6						
05	---	E						
06	---	E						
07	(220)	(4.4)						
08	245	(5.5)						
09	260	5.8						
10	270	6.9						
11	280	7.2						
12	285	7.5						
13	280	8.2						
14	280	8.1						
15	280	9.0						
16	260	9.0						
17	225	8.6						
18	200	7.2						
19	195	---						
20	(230)	(3.0)						
21	(230)	(3.0)						
22	240	(3.6)						
23	(235)	(3.3)						

Time: Local.
Sweep: 2.5 Mc to 20.0 Mc in 6 minutes.

Table 75*

Ibadan, Nigeria (7.4°N, 4.0°E) May 1953

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	4.8						(3.0)
01	(300)	---					(2.1)	
02		---						
03		---						
04		---						
05	(350)	---					1.0	
06	245	4.9						3.5
07	270	6.6	(230)	(4.2)	(125)	(2.9)		3.4
08	300	7.6	220	4.3	125	3.1	5.3	3.1
09	330	7.9	215	4.4	120	3.4	6.0	2.7
10	350	7.6	205	4.4	120	3.4	6.9	2.6
11	370	7.6	200	4.5	120	3.5	8.4	2.4
12	350	7.8	200	4.4	120	3.5	6.8	2.6
13	345	7.8	195	4.4	120	3.5	6.7	2.5
14	335	7.8	190	4.4	120	3.4	6.5	2.6
15	320	8.4	195	4.3	120	3.2	6.5	2.6
16	295	9.1	215	4.2	120	2.8	6.4	2.7
17	270	8.8	230	4.1	(115)	2.5	4.6	2.8
18	245	8.9			(130)	(1.9)	3.7	2.8
19	255	8.3						2.9
20	270	7.3						2.9
21	285	5.8						3.0
22	305	5.8						3.0
23	295	5.4						(3.0)

Time: 0.0°.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 76

Sao Paulo, Brazil (23.4°S, 46.5°W) May 1953

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00		4.1						
01		4.2						
02		(4.2)						
03		5.6						
04		3.8						
05		2.7						
06		E						
07		(4.4)						
08		---						
09		6.5						
10		7.6						
11		9.1						
12		9.6						
13		9.8						
14		9.6						
15		10.2						
16		10.5						
17		10.3						
18		8.1						
19		---						
20		---						
21		(6.6)						
22		(6.7)						
23		(5.6)						

Time: Local.
Sweep: 2.5 Mc to 20.0 Mc in 6 minutes.

Table 77*

Ibadan, Nigeria (7.4°N, 4.0°E) April 1953

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	---						
01	(260)	---						
02	(240)	---						
03		---						
04	(250)	(3.7)						(3.4)
05	(260)	(3.1)						(3.2)
06	250	5.2					3.6	3.4
07	255	7.0	(235)	(4.2)	(115)	(2.7)	3.8	3.2
08	280	8.3	220	4.3	115	3.1	4.1	3.0
09	315	8.8	220	4.5	115	3.3	4.7	2.6
10	335	8.8	210	4.6	115	3.5	5.5	2.4
11	345	8.0	205	4.6	115	3.6	6.8	2.5
12	340	8.2	200	4.6	115	3.6	7.0	2.5
13	340	8.3	200	4.6	115	3.6	6.8	2.4
14	320	8.7	200	4.5	115	3.5	8.4	2.4
15	310	9.7	210	4.3	115	3.3	6.7	2.5
16	285	9.4	220	4.2	115	2.9	6.5	2.6
17	270	9.8			(115)	(2.4)	5.8	2.6
18	260	9.5					4.9	2.6
19	295	9.1					2.0	2.6
20	300	8.8						2.6
21	305	(7.9)						(2.6)
22	300	---						
23	285	---						

Time: 0.0°.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Table 78*

Ibadan, Nigeria (7.4°N, 4.°E) January 1953

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	>5.8					1.3	3.2
01	250	5.0					1.4	3.2
02	260	4.4					1.3	3.2
03	245	3.6						3.3
04	240	3.1					1.3	3.4
05	235	2.2					2.1	
06	265	3.4	255		115		2.3	3.2
07	245	6.4	240		110		3.5	2.9
08		6.8	215		105		5.0	2.7
09	350	7.0	205	4.5	105		5.0	2.5
10	380	6.4	205	4.6	105	3.4	5.0	2.5
11	380	7.0	200	4.6	105	3.5	5.0	2.4
12	370	7.3	200	4.6	100	3.5	5.5	2.6
13	365	7.8	200	4.6	105	3.4	5.3	2.6
14	350	8.0	205	4.5	105	3.4	5.0	2.7
15	330	8.6	220	4.3	105	3.0	4.0	2.7
16		8.8	220		105	2.7	3.4	2.7
17	260	8.4	240		115	2.2	2.9	
18	270	>7.3	270		115		2.1	
19	285	>6.9					1.1	
20	265	>7.2					2.0	
21	250	>6.8					2.1	
22	250	>6.8					1.0	
23	255	6.5					1.2	3.0

Time: 0.0°.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes.
*Average values except foF2 and fEs, which are median values.

Form adopted June 1946

TABLE 79

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

IONOSPHERIC DATA

h'F2 (Characteristic), Km. (Unit), April (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: E.J.W., J.W.P., L.F.M., J.J.S.

Calculated by: E.J.W., J.W.P., N.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
1	(300)$^{S}_{K}$	(320)$^{S}_{K}$	(280)^{S}	[300]^{S}	(300)^{S}	S	240	270	(260)^{L}	290^{H}	320	310	320	320	300	310	300	(310)^{L}	250	220	240	230	240^{K}	270^{K}		
2	(280)$^{S}_{K}$	(280)$^{S}_{K}$	(300)$^{S}_{K}$	(320)$^{S}_{K}$	(290)$^{S}_{K}$	(290)$^{S}_{K}$	250^{K}	230^{K}	430^{K}	G^{K}	G^{K}	G^{K}	G^{K}	580^{K}	550^{K}	500^{K}	400^{K}	400^{K}	(310)$^{L}_{K}$	240^{K}	(270)$^{A}_{K}$	240^{K}	(290)$^{S}_{K}$	(290)$^{S}_{K}$		
3	(270)$^{S}_{K}$	(270)$^{S}_{K}$	(290)$^{S}_{K}$	(280)^{S}	(240)^{S}	(260)^{S}	240	250	[270]^{L}	290	320	320	340	300	290	300	300	290	250	240	250	(250)^{S}	(250)^{S}	(240)^{S}		
4	260	290	280	260	270)^{S}	(320)^{S}	250	(250)^{L}	300	300	360	290	320	340	360	350	300	280	250	240	230	240	260	270		
5	250	280	250	260	(290)^{S}	(290)^{S}	250	(330)^{L}	G	G	G	G	G^{K}	G^{K}	G^{K}	500^{K}	380$^{F}_{K}$	330^{K}	(290)$^{L}_{K}$	260^{K}	250$^{F}_{K}$	270^{K}	(300)$^{S}_{K}$	(270)$^{S}_{K}$		
6	290^{K}	280^{K}	(300)$^{S}_{K}$	(320)$^{S}_{K}$	(320)$^{S}_{K}$	(310)$^{S}_{K}$	260^{K}	340^{K}	G^{K}	(470)$^{S}_{K}$	G^{K}	G^{K}	G^{K}	430^{K}	440^{K}	400^{K}	430^{K}	340^{K}	(280)$^{L}_{K}$	240^{K}	240^{K}	250^{K}	(260)$^{S}_{K}$	(290)$^{S}_{K}$		
7	(280)$^{S}_{K}$	(280)$^{S}_{K}$	(290)$^{S}_{K}$	(270)^{S}	(280)^{S}	(300)^{S}	250	230	320	280	300	310	310	310	340	320	300	(280)^{L}	240	230	220	220	(260)^{S}	(260)^{S}		
8	(260)^{S}	(280)^{S}	(300)^{S}	(300)^{S}	300)^{S}	(300)^{S}	240	220	L	360	390	390	330	310	320	300	300	270	250	230	230	(250)^{S}	(270)^{S}	280		
9	(280)^{S}	(290)^{S}	(300)^{S}	(280)^{S}	(280)^{S}	(270)^{S}	230	250	270	280	300	300^{H}	290	330	310	290	270	260	270	220	210	230	260	270		
10	260	260	(280)^{S}	(280)^{S}	270)^{S}	280)^{S}	240	450	380	330	400	380	400	[350]^{C}	[310]^{C}	300	300	(300)^{L}	250	240	230	240	(260)^{S}	(270)^{S}		
11	(280)^{S}	(300)^{S}	(300)^{S}	240	(260)^{S}	(230)^{S}	(220)^{S}	[250]^{L}	280	250^{H}	400	350	330	310	300	290	270	260	(240)^{L}	220	230	240	(300)^{S}	(270)^{S}		
12	(270)^{S}	(270)^{S}	(270)^{S}	270	240	(250)^{S}	220	(310)^{L}	310^{H}	320	(350)^{S}	310^{H}	350^{H}	340^{H}	350^{H}	(350)^{S}	(320)^{S}	320	280	230	230	220	240	(260)^{S}		
13	(290)^{S}	(320)^{S}	(280)^{S}	250	[280]^{S}	(320)^{S}	260	L	(390)^{S}	420	G	G	G	G^{K}	G^{K}	410$^{H}_{K}$	470^{K}	400^{K}	(320)$^{L}_{K}$	250^{K}	220^{K}	240^{K}	(240)$^{S}_{K}$	(280)$^{S}_{K}$		
14	(280)$^{S}_{K}$	(310)$^{S}_{K}$	(350)$^{S}_{K}$	(320)$^{S}_{K}$	(280)$^{S}_{K}$	(270)$^{S}_{K}$	250^{K}	G^{K}	G^{K}	G^{K}	G^{K}	590^{K}	550^{K}	420^{K}	350^{K}	350^{K}	350^{K}	310^{K}	(270)$^{L}_{K}$	240^{K}	230^{K}	240^{K}	250^{K}	(260)$^{S}_{K}$		
15	(280)$^{S}_{K}$	(270)$^{S}_{K}$	(270)^{S}	(280)^{S}	(260)^{S}	(240)^{S}	240	(270)^{L}	270	320	310	300	370	360	340	320	320	280	(260)^{L}	230	230	230	250	240		
16	(250)^{S}	(260)^{S}	(280)^{S}	(280)^{S}	(290)^{S}	(270)^{S}	230	280	320	290	290	330	350	340	320	330	330	300	260	230	220	220	230	(250)^{S}		
17	(250)^{S}	(270)^{S}	(280)^{S}	(280)^{S}	(280)^{S}	(280)^{S}	(260)^{L}	300	300	370	280	360	380	340	320	310	320	300	270	230	220	220	230	260		
18	280	270	280	270	240	260	230	260	360	310	300	320^{H}	390	370	360	320	310	(300)^{L}	280	230	(240)^{A}	250	240	260		
19	280	270	270	260	250	250	230	240	310	280	260	310	350	310	310	320	320	290	270	230	220	(230)^{A}	240	250		
20	260	280	(290)^{S}	290	240	240	240	240	280	280	320	330	330	330	320	310	280	270	270	230	220	220	(240)^{S}	(270)^{S}		
21	270	280	(290)^{S}	280	(270)^{S}	(290)^{S}	240	260	270	[300]^{M}	320^{H}	350^{H}	360	330	300	300	280	270	260	230	220	230	240	240		
22	290	300	280	250	250	270	240	280^{H}	330	300	310	320	420	320	340	310	300	310	260	230	230	(240)^{A}	240	(290)^{A}		
23	250)^{S}	270	(280)^{S}	(290)^{S}	(280)^{S}	260	250	260	260	340	300^{H}	310	330	320	330	300	290	280	260	230	220	230	240	250		
24	250	260	260	270	(260)^{S}	250	240	(290)^{L}	270	310^{H}	300	350^{H}	370	300^{H}	330	330	280	260^{K}	290^{K}	240^{K}	220^{K}	220^{K}	[240]$^{A}_{K}$	(270)$^{S}_{K}$		
25	(270)$^{S}_{K}$	(260)$^{S}_{K}$	(240)$^{S}_{K}$	240^{K}	(270)$^{S}_{K}$	(250)$^{S}_{K}$	(250)$^{A}_{K}$	(260)$^{L}_{K}$	270^{K}	280^{K}	300^{K}	350^{K}	320^{K}	320^{K}	340^{K}	320^{K}	280^{K}	290^{K}	270^{K}	240^{K}	220^{K}	230^{K}	(260)$^{S}_{K}$	290^{K}		
26	(340)$^{S}_{K}$	340^{K}	A^{K}	S^{K}	S^{K}	300^{K}	230^{K}	(400)$^{L}_{K}$	G^{K}	G^{K}	G^{K}	G^{K}	G^{K}	580^{K}	440^{K}	460^{K}	350^{K}	330^{K}	280^{K}	250^{K}	240^{K}	240^{K}	290	310		
27	[300]^{A}	300	290	310	(310)^{S}	290	240	(300)^{L}	G	330	330	350	360	400	340	440	M	M	270^{K}	280^{K}	270^{K}	260^{K}	350$^{F}_{K}$	S^{K}		
28	A^{K}	A^{K}	S^{K}	450^{K}	(520)$^{A}_{K}$	350^{K}	260^{K}	G^{K}	G^{K}	G^{K}	G^{K}	G^{K}	G^{K}	G^{K}	G^{K}	G^{K}	430^{K}	340^{K}	290^{K}	250^{K}	250^{K}	(250)$^{S}_{K}$	(320)$^{S}_{K}$	(330)$^{S}_{K}$		
29	(320)$^{S}_{K}$	S^{K}	S^{K}	S^{K}	E^{K}	(270)$^{S}_{K}$	220^{K}	(350)$^{S}_{K}$	280^{K}	640^{K}	540^{K}	360$^{H}_{K}$	410^{K}	410	390	320	340	300	240	230	210	(270)^{S}	260	280		
30	270	(300)^{S}	(280)^{S}	(280)^{S}	[270]^{S}	(260)^{S}	C	C	C	C	510	360	450	310	420	360	350	330	280	230	220	240	(270)^{S}	(320)^{S}		
31																										
Median	(280)	(280)	(280)	280	(280)	(270)	240	270	310	320	320	350	360	340	340	320	310	300	270	230	230	240	260	(270)		
Count	29	28	27	28	29	29	29	28	28	29	30	30	30	30	30	30	29	29	30	30	30	30	30	29		

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 80

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

Form adopted June 1946

IONOSPHERIC DATA

foF2 (Characteristic), Mc (Unit), April (Month), 1955

National Bureau of Standards (Institution)

Observed at Washington, D.C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

Scaled by: E.J.W., J.W.P., L.F.M., J.J.S.

Calculated by: E.J.W., N.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	K(2.2)PF	K(2.3)PF	(2.4)PF	(2.3)F	(2.2)PF	F B	2.9	4.2	4.5H	4.8H	5.0	5.2	5.4	5.4	5.4	5.2	5.2	4.9	5.8	(5.6)FS	(4.8)PS	(4.4)PS K	(3.4)PF K	(2.9)PF K
2	K(2.9)PF	2.3K	2.2K	K(2.0)FS	2.1K	K(2.1)PF	2.7K	3.3K	3.6K	<3.7GK	<3.8GK	<3.8GK	<3.8GK	4.1K	4.1K	4.1K	4.2K	3.7K	3.9K	3.9K	3.8K	3.2K	2.6K	2.3K
3	K(2.2)PS	K(2.2)PS	K(2.3)PF	(2.4)PS	2.4	(2.0)PS	3.3	4.3	4.3	5.2	5.1	5.7	6.0	6.2	6.0	5.2	5.0	5.1	4.6	4.8	4.6	(4.0)PS	(3.3)S	3.0
4	2.5	2.2	2.1	(2.0)FS	2.0	(1.8)FS	3.0	4.0	4.5	5.0	5.2	5.9	5.7	5.3	5.2	5.4	5.7	5.8	5.8	5.9	5.6	4.4	(3.5)JS	(3.0)JF
5	(2.9)JS	(2.7)F	(2.6)F	2.4	(2.2)JS	2.1	2.6	3.3H	<3.5G	<3.7G	<3.9G	<4.0G	<4.0GK	<4.0GK	<3.9GK	4.1K	4.2FK	3.9K	3.9K	3.8K	K(3.8)FS	2.9K	K(2.1)FS	K(2.7)FS
6	2.5K	2.4K	2.1K	1.9K	1.9K	1.9K	2.9K	3.7K	<3.6GK	K(4.0)PS	<3.9GK	<3.9GK	<4.0GK	4.4K	4.4K	4.4K	4.2K	4.2K	4.4K	4.5K	K(4.0)JS	K(4.0)JS	3.2K	K(3.2)PS
7	K(3.0)FS	2.9K	K(2.7)FS	(2.4)FS	(2.3)PS	(1.9)PS	(3.0)FS	3.9	4.9	5.4	5.6	5.3	5.9	5.5	5.4	5.4	5.6	5.3	5.4	5.6	5.2	3.6	3.1	2.9
8	2.7	2.2	2.0	(1.9)PS	(1.9)PS	(1.9)PS	2.9	3.4	(3.9)S	4.4	4.7	4.9	5.3	5.3	5.6	5.5	5.2	5.3	4.9	4.4	4.0	3.0	2.8	2.6
9	2.4	2.1	2.0	2.1	2.1	2.1	3.7	4.8	5.4	5.5	5.6	5.6H	6.0	5.8	6.0	6.0	5.8	5.4	5.7	6.5	5.0	3.5	3.1	2.9
10	2.7	2.5	(2.1)PS	2.0	2.0	2.0	3.3	4.2	4.2	4.6	4.6	5.0	5.1	[5.8]C	[5.6]C	5.5	5.3	4.9	4.9	5.2	4.8	3.8	3.0	2.7
11	(2.7)PS	(2.5)PS	(2.3)PS	(2.3)PS	2.2	(2.4)PS	3.4	4.2H	4.4	4.5H	4.8	5.0	5.4	5.5	5.6	5.9	5.6	5.3	5.2	5.2	4.6	3.8	3.5	3.4
12	3.2	3.1	2.8	2.7	2.5	(2.1)PS	(3.5)PS	4.2	4.6H	4.7	(4.8)HS	5.0H	(5.0)H	(5.0)H	5.0H	4.9H	4.9H	4.9	5.3	(5.6)S	(5.3)S	4.3	3.1	2.2
13	2.1	2.1	2.2	2.2	1.6	1.8	3.2	3.8	4.1	4.2	<3.9G	<4.0G	<4.0G	<4.0GK	<4.0GK	4.3HK	4.1K	4.2K	4.2K	4.7K	K(4.6)PS	K(3.6)PS	K(2.8)PF	2.3K
14	2.1K	2.1K	2.0K	K(2.1)PS	K(2.2)PS	2.4K	2.8K	<3.4GK	<3.5GK	<3.8GK	<3.9GK	4.4K	4.4K	4.7K	5.0K	4.8K	4.5K	4.4K	4.4K	4.3K	4.2K	3.4K	3.0K	2.7K
15	2.5K	2.5K	2.4	(2.3)PS	2.4	2.5	3.7	4.4	5.0	5.2	5.3	5.4	5.0	5.2	5.3	5.4	5.4	5.4	5.0	5.4	5.6	4.6	4.0	3.5
16	3.3	2.9	(2.5)PF	(2.4)PF	2.2	(2.6)PS	3.7	4.7	4.8	5.6	5.6	5.5	5.4	5.2	5.4	5.2	5.2	5.2	5.4	6.2	6.0	4.6	3.8	3.3
17	3.0	2.6	2.4	2.6	2.5	2.6	3.6	4.7	4.4	4.8	5.8	5.2H	5.0	5.3	5.3	5.3	5.2	5.0	5.3	5.9	5.7	4.3	3.7	3.1
18	3.0	2.8	2.6	2.6F	2.6F	2.7F	4.0	4.4	4.7H	5.1	5.3	5.4H	5.1	5.2	5.4	5.3	5.3	5.0	5.3	6.2	5.8	4.7	3.8	3.3
19	3.0	2.9	2.9	2.9	2.8	2.9	4.2	5.0	5.0	5.5	6.0	5.6	5.5	5.4	5.2	5.2	5.2	5.4	5.9	6.4	6.0	5.0	4.2	3.8
20	3.5	3.1F	(2.5)SF	2.6F	2.5	2.7	3.9	4.8	5.0	5.5	5.3	5.5	5.6	5.7	5.6	5.8	5.6	5.4	5.8	6.4	6.8	4.3	3.5	2.9
21	2.7	2.5	(2.4)SP	2.2	2.1	2.4	4.1	4.8	4.9	[5.0]M	5.0H	5.4H	5.4	5.7	5.9	5.9	6.1	5.6	5.9	6.4	6.2	5.2	4.2	3.7
22	3.5	2.9	2.8	2.8	2.5F	2.4F	3.9	(4.6)PS	5.2	5.2	5.4	5.2	5.0	5.4	5.5	5.6	5.2	5.3	5.6	(5.8)S	(5.8)FS	4.6	(3.3)PS	3.2
23	(3.0)S	2.6	2.4	2.5	(2.3)FS	2.3	3.9	4.6	4.9	5.2	5.5H	5.5	5.7	5.5	5.8	5.7	5.4	5.3	5.4	6.0	5.9	5.0	4.4	3.9
24	3.5	3.1	2.8	2.8	2.8	2.8	4.1	4.8	5.3	5.2H	5.4	(5.8)H	5.6	6.6H	6.8	7.0	8.0	6.7K	6.2K	7.0K	6.6K	4.4K	3.3K	2.8K
25	2.8K	2.6K	2.7K	2.4K	2.3K	2.7K	4.6K	5.2K	5.8K	6.3K	5.8K	5.9K	6.0K	6.0K	6.0K	6.6K	7.2K	6.6K	6.0K	6.1K	5.6K	3.9K	2.5K	2.4K
26	2.1K	2.1K	K(2.1)JA	K(1.8)JS	K(1.6)JS	K2.1FS	3.1K	3.6K	<3.6GK	<3.8GK	<4.0GK	<4.1GK	<4.1GK	4.3K	4.5K	4.5K	4.8K	4.7K	4.8K	5.0K	4.6K	4.0K	3.2	3.0
27	3.2	3.1	2.6	(2.3)A	2.0	2.5	3.6	3.8H	<4.1G	4.9	4.8	5.3	5.5	5.4	6.8	6.0	M	M	7.4K	4.2FK	4.4FK	(3.2)FK	2.1FK	(1.8)FK
28	AK	AK	AFK	2.2FK	(2.2)AK	1.9FK	3.0FK	<3.3GK	<3.7GK	<3.7GK	<3.9GK	<4.0GK	<4.1GK	<4.0GK	<3.9GK	<3.9GK	4.3K	4.6K	4.6K	4.2K	3.3K	2.4K	2.2K	1.9FK
29	K(1.8)FS	K(1.8)FS	FSK	FSK	<1.0EK	(2.2)SK	3.5K	(3.8)SK	3.8K	4.2K	4.3K	4.2HK	4.9K	4.9	5.2	5.8	5.7	6.8	7.0	5.8	5.0	4.0	3.6	3.3
30	2.9	2.7	(2.3)FS	(2.2)FS	(1.6)JS	(2.2)PF	C	C	C	C	4.6	4.7	4.8	5.3	4.9	4.9	4.8	5.0	5.2	5.4	4.7	3.2	2.4	(2.1)PF
31																								
Median	2.8	2.5	2.4	2.3	2.2	2.2	3.5	4.2	4.5	4.9	5.0	5.2	5.2	5.3	5.4	5.4	5.2	5.2	5.3	5.6	5.0	4.0	3.2	2.9
Count	29	29	28	29	30	29	29	29	29	29	30	30	30	30	30	30	29	29	30	30	30	30	30	30

Sweep 1.0 Mc to 25.0 Mc in 1.35 sec.

Manual ☐ Automatic ☒

GPO 53-048

Form adapted June 1946

TABLE 81

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

IONOSPHERIC DATA

foF2 (Characteristic), Mc (Unit), April (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by E.J.W., J.W.P., L.F.M., J.J.S.

Calculated by E.J.W. N.B.

Day	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
1	K (2.2)PF	(2.1)PF	(2.4)JF	F	F	F B	3.7	4.7 H	4.7	4.9	5.0	(5.0)F	5.2	5.4	5.2	5.2	5.0	5.6	5.8	(5.4)FS	(4.6)PS	(4.2)PS	K (3.0)PF	K (2.9)FS
2	2.5 K	K (2.2)PS	K (2.1)FS	K (2.1)JS	K 2.1 JS	K (2.3)JS	3.1 K	3.4 K	< 3.7 GK	< 3.8 GK	< 3.8 GK	< 3.8 GK	4.2 K	4.2 K	4.2 K	4.1 K	4.1 K	3.8 K	4.1 K	3.9 K	3.5 K	2.8 K	2.4 K	2.2 K
3	2.2 JS	K 2.1 JS	2.2 JS	2.6 JS	2.4	2.5 JS	3.8	4.5	5.1	5.2	5.2	5.7	6.2	6.2	5.6	5.1	4.9	4.9	4.8	(4.8)PS	(4.2)PS	(3.7)JS	3.2	2.7
4	2.2	2.1	2.1	2.0	1.8	2.1 JS	3.8	4.4	4.9	5.0	5.5	5.8	5.4	5.0	5.2	5.7	5.6	5.9	5.8	(5.8)JS	4.7	3.8	(3.3)JF	(3.0)JF
5	(2.7)F	(2.8)F	(2.6)S	(2.3)JS	(2.2)JS	(2.2)JS	2.9	3.5	< 3.7 G	< 3.8 G	< 3.9 G	< 4.0 G	< 4.0 GK	< 4.0 GK	4.1 K	4.1 K	4.1 K	3.9 K	3.9 K	3.7 FK K	(3.6)FS	2.5 FK	2.7 FK	2.5 K
6	2.4 K	K (2.2)JS	2.0 K	K (1.9)JS	1.9 K	K (2.3)JS	3.3 K	3.5 K	3.7 K	< 3.9 GK	< 3.7 GK	4.4 K	4.4 K	4.4 K	4.4 K	4.2 K	4.2 K	4.2 K	4.3 K	4.6 K	K (4.0)JS	K (4.0)JS	K (3.0)JS	K (3.3)FS
7	3.1 K	2.8 K	2.4	2.4 JS	(2.2)FS	2.2 JS	3.6	4.4	4.9	5.4	5.6	5.5	5.7	5.3	5.4	5.5	5.4	5.4	5.4	5.4	4.4	3.1	3.0	2.9
8	2.5	2.0	2.0	1.4	1.9	2.3	3.3	3.6	4.2	4.7 H	4.7	5.3	5.4	5.2	5.6	5.4	5.3	5.0	4.7	4.2	3.5	2.8	2.7	2.4
9	2.2	2.1	2.1	2.1	2.2	2.7	4.5	(5.2)JH	(5.7)H	5.5	5.7	5.8	5.4	6.0	[6.0]C	5.9	5.6	5.2	6.4	5.6	4.2	3.2	3.0	2.8
10	2.5	2.3	2.0	2.0 JS	1.8	2.5	3.5	4.2	4.5 H	4.7	5.0 H	5.3	5.5	[5.9]C	5.4	5.4	5.2	5.0	5.0	5.2	4.3	3.3	2.9	2.6
11	2.7	2.4 JS	2.4	2.2 JS	2.2 JS	2.8	3.9	4.3	4.6	4.5	4.9	5.2	5.6	5.6	5.6	5.9	5.4	5.2	5.2	5.0	4.2	3.6	3.5	3.3
12	3.2	3.1	2.8	2.6	2.3	2.8	3.7	4.4	4.7 H	5.0 H	(4.9)H	(4.8)H	(5.1)H	4.8 H	4.9	5.0	4.9	(4.9)S	5.4	(5.4)S	5.0	3.4	2.6	2.1
13	2.1	2.2	2.3	1.9	(1.6)JS	2.5	3.5	(4.0)S	4.2	4.1	< 3.9 G	< 4.0 G	< 4.0 G	< 4.0 GK	4.1 K	4.1 K	(4.1)SK	4.3 K	4.4 K	4.9 K	(4.0)SK	(3.4)SK	2.4 K	2.2 K
14	K 2.0 JS	K 2.1 JS	2.0 K	K (2.1)PS	K 2.1 JS	2.6 K	3.3 K	< 3.5 GK	K 3.9 JS	4.2 K	4.3 K	< 4.0 GK	4.5 K	4.9 K	4.8 K	4.7 K	4.5 K	4.4 K	4.2 K	4.3 K	3.8 K	3.2 K	2.9 K	2.5 K
15	2.4 K	2.3	2.3	2.3	2.6	3.0	4.2	4.8	5.0	5.5	5.4	5.0	5.2	5.3	5.4	5.4	5.3	5.2	5.0	5.6	5.0	4.2	3.9	3.4
16	2.9	2.8	(2.6)JF	(2.4)PF	(2.6)PF	3.1	4.3	5.0	5.2	5.4	5.4	5.4	5.4	5.2	5.4	5.1	5.3	5.4	5.7	6.2	(5.4)PS	4.2	3.4	3.2
17	2.8	2.6	2.6	2.6	(2.6)S	3.2	4.2	4.9	4.8	5.2	5.4	5.3	5.1	5.4	5.3	5.2	5.0	5.2	(5.4)S	5.9	4.8	4.1	3.3	3.1
18	3.0	2.7	2.4	2.6 F	2.6 F	3.3	4.4	4.4	4.6	5.5	5.5	5.3	5.1	5.4	5.4	5.3	5.2	5.3	5.7	6.2	5.1	4.2	3.5	2.8 F
19	2.9	2.9	3.0	2.9	2.8	3.6	4.6	5.0 H	5.4	5.7	5.9	5.2	5.4 H	5.5	5.3	5.2	5.4	5.7	(6.2)JS	6.3	5.8 JS	4.5	3.9	3.6 FS
20	3.2	2.4 FS	(2.6)S	2.7 F	2.3	3.5	4.4	4.7	5.0	5.4	5.4	5.4	5.6	5.8	5.8	5.6	5.5	5.4	5.9	6.6	5.0	3.8	3.1	2.8
21	2.7	(2.5)JS	(2.3)JS	(2.1)JS	2.2	3.3	4.3	4.7	5.3	[5.4]M	5.6	5.2	5.7	6.1	5.8	5.9	5.7	5.6	6.2	6.6	5.8	4.8	4.1	3.3
22	3.1 F	2.9 FS	2.8	2.7	(2.2)FS	3.1	4.3	(5.0)JS	5.0	5.3	5.1	5.3	5.3	5.4	5.6	5.6	5.1	5.5	5.8	5.8 JS	(5.0)S	3.8	3.2	3.1
23	2.8	2.4	2.3	2.5 JS	2.2	3.1	4.4	(4.9)H	4.9	5.4 H	5.9 H	5.4 H	5.5	5.7	5.7	5.6	5.3	5.4	5.7	6.2	5.3	4.6	4.0	3.7
24	3.2	2.9	(2.7)PS	2.8	2.5	3.3	4.4	5.3	5.2	5.3	5.3	5.6	6.2	6.4	7.1	7.6	7.6	6.2 K	7.0 K	6.8 K	5.2 K	3.4 K	2.9 K	2.8 K
25	2.8 K	K 2.8 JS	2.3 K	K 1.9 JS	2.3 K	3.6 K	4.9 K	4.8 K	5.5 HK	6.0 K	5.6 K	6.2 HK	6.0 K	5.9 K	6.4 K	7.0 K	6.9 K	6.4 K	6.0 K	6.0 K	5.1 K	3.2 K	2.4 K	2.2 K
26	2.1 K	2.1 K	K (1.8)JS	K (1.5)JS	K (1.7)JS	2.8 K	3.3 K	3.7 K	< 3.7 GK	3.9 K	4.0 K	4.1 K	K < (4.0)GA	4.6 K	4.4 K	4.8 K	4.8 K	4.9 K	4.9 K	4.2 K	4.4 H	3.5	3.1	3.1 F
27	3.7 F	2.9	2.4	2.0	2.0	3.0	(3.7)A	4.2	(4.5)JS	4.9	5.1	5.3	(5.4)A	5.8	6.4	M	M	8.0 F	5.8 FK	(4.5)FK	3.5 FK	(2.2)FK	1.9 FK	S K
28	A K	A K	K (2.0)FS	A K	A FK	2.6 FK	3.4 K	K (3.7)JS	< 3.7 GK	< 3.8 GK	< 4.0 GK	< 4.0 GK	< 4.0 GK	< 4.0 GK	< 3.9 GK	(4.1)SK	4.5 K	4.6 K	4.4 K	3.7 K	3.0 K	2.5 K	2.1 FK	1.9 FK
29	K (1.8)FS	K (1.5)JS	F	< 1.0 EK	< 1.0 EK	2.9 K	3.5 K	< 3.6 GK	4.2 K	4.3 K	4.5 K	4.8 K	4.8	5.0	5.6	5.9	6.2	7.2	6.5	5.8	4.6	3.7	3.2	3.1
30	2.7	2.4	2.2 JF	1.9	(1.5)JS	(3.1)FS	C	C	C	C	< 4.1 G	4.6	[5.1]C	5.0	4.9	5.0	4.9	5.0	5.2	5.4	3.7	2.8	2.2	(2.2)F
31																								
Median	2.7	2.4	2.3	2.2	2.2	2.8	3.8	4.4	4.7	5.0	5.1	5.2	5.4	5.4	5.4	5.3	5.2	5.2	5.4	5.4	4.5	3.6	3.0	2.8
Count	29	29	29	28	28	29	29	29	29	29	30	30	30	30	30	29	29	30	30	30	30	30	30	29

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 82

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

Form adopted June 1946

IONOSPHERIC DATA

h'F1 (Characteristic), Km (Unit), April (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by E.J.W. J.W.P., L.F.M. J.J.S.

Calculated by E.J.W., N.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							Q	230	220	190	190^{H}	190^{H}	210	220	220	210	220	240	S					
2							Q^{K}	Q^{K}	210^{K}	190$^{H}_{K}$	200$^{H}_{K}$	170$^{H}_{K}$	240^{K}	210$^{H}_{K}$	220^{K}	220^{K}	210^{K}	230^{K}	(250)$^{S}_{K}$					
3							Q	220	210	220^{H}	210	200	190	210	220	210^{H}	210	230^{H}	240					
4							Q	230	220	200	200	180^{H}	190^{H}	210^{H}	200^{H}	220	230	230	240					
5							Q	250^{H}	210^{H}	220^{H}	190^{H}	190^{H}	180$^{H}_{K}$	200^{K}	220^{K}	200$^{H}_{K}$	230^{K}	230$^{H}_{K}$	250^{K}					
6							240^{K}	220^{K}	210$^{H}_{K}$	200^{K}	180^{K}	190^{K}	180$^{H}_{K}$	180$^{H}_{K}$	200^{K}	200$^{H}_{K}$	230^{K}	240^{K}	240^{K}					
7							Q	Q	210^{H}	200	240	190	260	230	210	210	230	220	240					
8							Q	Q	210	200^{H}	200	200	180^{H}	190^{H}	210	210	220	230	230					
9							Q	230	200	200	190^{H}	170^{H}	190^{H}	190^{H}	220	190^{H}	210^{H}	220	250					
10							Q	220	220	220	210	210^{H}	210	[210]^{C}	[210]^{C}	210	220	210	240					
11							Q	220	(200)^{A}	210	220	180	190^{H}	230	210	210	210	210	220					
12							Q	220	210	200	190^{H}	180^{H}	200^{H}	220^{H}	190^{H}	190^{H}	190^{H}	220^{H}	240					
13							Q	230	200	210	190	190	180^{H}	190$^{H}_{K}$	190$^{H}_{K}$	180$^{H}_{K}$	220$^{H}_{K}$	220$^{H}_{K}$	230^{K}					
14							K	220$^{H}_{K}$	220^{K}	200^{K}	210^{K}	180^{K}	180^{K}	200^{K}	180$^{H}_{K}$	220^{K}	210^{K}	220^{K}	240^{K}					
15							Q	220	210	200	200	200	200	190^{H}	190^{H}	200	210	220	230					
16							Q	230	200	220	190	190	180	200	200	200^{H}	210	230	230					
17							250	240	210	200^{H}	200^{H}	200	180^{H}	190	190	200	230	220	240					
18							Q	220	200^{H}	210^{H}	210	190^{H}	200	170^{H}	230	210^{H}	210^{H}	220	250					
19							Q	240^{H}	220	200	210^{H}	210	190	180^{H}	[200]^{A}	210	220^{H}	230	240					
20							Q	220	180^{H}	230	210	200	200^{H}	230^{H}	200^{H}	230^{H}	220	230	250					
21							Q	220	210	(200)^{M}	200^{H}	200	210^{H}	190	180	210	200^{H}	220^{H}	240					
22							240	200^{H}	200^{H}	210^{H}	210	200^{H}	200^{H}	200^{H}	190^{H}	200^{H}	220	210^{H}	A					
23							Q	230	210	200^{H}	240^{H}	200	200^{H}	180^{H}	190^{H}	210^{H}	210	220	230					
24							220	220^{H}	210	190	180^{H}	180^{H}	200^{H}	200^{H}	[220]^{A}	230^{H}	A	A^{K}	A^{K}					
25							A^{K}	A^{K}	210^{K}	200^{K}	190^{K}	180$^{H}_{K}$	210^{K}	200^{K}	200$^{H}_{K}$	200$^{H}_{K}$	210^{K}	230^{K}	A^{K}					
26							220^{K}	210$^{H}_{K}$	210^{K}	210^{K}	200^{K}	200$^{H}_{K}$	220^{K}	200^{K}	210^{K}	210^{K}	210$^{H}_{K}$	240^{K}	240^{K}					
27							A	210	190^{H}	(210)^{A}	200	190	180	190^{H}	210	210^{H}	M	M	230^{K}					
28							Q^{K}	230^{K}	210^{K}	200^{K}	200^{K}	190^{K}	(180)$^{A}_{K}$	(210)$^{A}_{K}$	(220)$^{A}_{K}$	220^{K}	230^{K}	220$^{H}_{K}$	240^{K}					
29							Q^{K}	220^{K}	200^{K}	200^{K}	200^{K}	190^{K}	210^{K}	220	240	220	220^{H}	210^{H}	220					
30							C	C	C	C	240	170^{H}	230	210	210	200	200	220	230					
31																								
Median							240	220	210	200	200	190	200	200	210	210	220	220	240					
Count							5	25	29	29	30	30	30	30	30	30	28	28	26					

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec

Manual ☐ Automatic ☒

GPO 83[illegible]

Form adopted June 1946

TABLE 83

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

IONOSPHERIC DATA

foFl (Characteristic), Mc (Unit), April (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by E.J.W., J.W.P., L.F.M., J.J.S.

Calculated by E.J.W., N.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							Q	L	L	3.7	4.1^{H}	4.2^{H}	4.2	4.2	4.1	3.9	L	L	L					
2							Q^{K}	Q^{K}	3.5^{K}	3.7^{HK}	3.8^{HK}	3.8^{FK}	3.8^{K}	3.8^{HK}	3.8^{K}	3.8^{K}	3.7^{K}	3.4^{K}	L^{K}					
3							Q	L	L	4.0^{H}	4.1	4.2	4.2	4.2	4.1	3.9^{H}	3.6	L	L					
4							Q	L	3.7	3.9	4.2	4.2^{H}	4.3^{H}	4.4^{H}	4.1^{H}	4.2	3.8	(3.4)^{L}	L					
5							Q	3.0^{H}	3.5^{H}	3.7^{H}	3.9^{H}	4.0^{H}	4.0^{HK}	4.0^{K}	3.9^{K}	3.8^{HK}	3.7^{FK}	3.4^{HK}	L^{K}					
6							L^{K}	3.4^{K}	3.6^{HK}	(3.7)^{SK}	3.9^{K}	3.9^{K}	4.0^{HK}	4.0^{HK}	4.0^{K}	3.8^{HK}	3.8^{K}	3.4^{K}	L^{K}					
7							Q	Q	3.8^{H}	3.8	4.1	4.1	4.3	4.2	4.2	(4.1)^{L}	L	L	L					
8							Q	Q	3.6	3.8^{H}	4.0	4.2	4.2^{H}	4.2	4.2	4.0	3.7	L	L					
9							Q	L	(3.6)^{L}	4.0	4.2^{H}	4.3^{H}	4.3^{H}	4.4^{H}	4.3	4.2^{H}	(3.7)^{L}	L	L					
10							Q	3.8	3.8	4.0	4.1	4.2^{H}	4.3	[4.2]^{C}	[4.2]^{C}	4.0	3.8	L	L					
11							Q	L	3.6	3.8	4.1	4.2	4.2^{H}	4.3	4.1	4.1	L	L	L					
12							Q	(2.9)^{L}	3.7	3.9	(4.0)^{H}	(4.1)^{H}	4.2^{H}	4.2^{H}	(4.1)^{H}	4.0^{H}	3.9^{H}	(3.3)^{L}	L					
13							Q	3.3	3.6	3.7	3.9	4.0	4.0^{H}	4.0^{HK}	(4.0)^{HK}	3.8^{HK}	(3.7)^{HK}	3.5^{HK}	L^{K}					
14							Q^{K}	3.4^{HK}	3.5^{K}	3.8^{K}	3.9^{K}	3.9^{K}	4.0^{K}	4.0^{K}	4.0^{HK}	4.0^{K}	3.9^{K}	3.5^{K}	L^{K}					
15							Q	L	3.8	4.0	4.1	4.1	4.3	4.3^{H}	4.2^{H}	4.1	3.9	L	L					
16							Q	L	4.0	4.1	4.1	4.2	4.3	4.3	4.2	4.1^{H}	4.0	L	L					
17							L	(3.6)^{L}	3.9	4.1^{H}	4.2^{H}	4.3	4.3^{H}	4.3	4.3	4.1	4.0	3.5	L					
18							Q	L	4.0^{H}	4.1^{H}	4.2	4.4^{H}	4.4	4.4^{H}	4.3	4.1^{H}	4.0^{H}	L	L					
19							Q	L	3.9	4.0	4.3^{H}	4.4	4.4	4.3	(4.2)^{A}	4.2	(4.0)^{L}	3.5	L					
20							Q	L	3.8^{H}	4.1	4.2	4.3	4.5^{H}	4.3^{H}	4.3^{H}	4.2^{H}	4.0	L	L					
21							Q	L	3.9	[4.2]^{M}	4.4^{H}	4.4	4.5^{H}	4.3	4.2	4.0	4.0^{H}	L	L					
22							L	3.5^{H}	(4.0)^{H}	4.1^{H}	4.1	4.2^{H}	4.3^{H}	4.2^{H}	4.2^{H}	4.1^{H}	3.8	(3.7)^{H}	L					
23							Q	L	(3.8)^{L}	4.2^{H}	4.3^{H}	4.3	4.3^{H}	4.3^{H}	4.3^{H}	4.2^{H}	4.0	3.5	L					
24							L	L	3.9	4.1	(4.2)^{H}	4.3^{H}	4.3^{H}	4.4^{H}	(4.2)^{A}	(4.1)^{H}	(3.9)^{S}	L^{K}	A^{K}					
25							A^{K}	A^{K}	4.0^{K}	4.0^{K}	4.3^{K}	4.5^{HK}	4.4^{K}	4.4^{K}	4.3^{HK}	4.2^{HK}	4.0^{K}	(3.7)^{LK}	L^{K}					
26							L^{K}	3.4^{HK}	3.6^{K}	3.8^{K}	4.0^{K}	4.1^{HK}	4.1^{K}	4.0^{K}	4.1^{K}	3.9^{K}	3.8^{HK}	3.5^{K}	L^{K}					
27							L	3.4	4.1^{H}	4.0	4.2	4.2	4.4	4.3^{H}	4.2	4.0	M	M	2.9^{K}					
28							Q^{K}	3.3^{K}	3.7^{FK}	3.7^{K}	3.9^{K}	4.0^{K}	4.1^{K}	4.0^{K}	3.9^{K}	3.9^{K}	3.7^{K}	3.5^{HK}	3.0^{K}					
29							Q^{K}	3.5^{K}	3.5^{K}	4.0^{K}	4.0^{K}	4.0^{K}	4.2^{K}	4.2	4.2	4.1	3.9^{H}	3.5^{H}	L					
30							C	C	C	C	4.1	4.1^{H}	4.2	4.2	4.2	4.1	4.0	3.6	L					
31																								
Median							—	3.4	3.8	4.0	4.1	4.2	4.3	4.2	4.2	4.1	3.9	3.5	—					
Count								12	27	29	30	30	30	30	30	30	26	16	2					

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

Form adopted June 1946

TABLE 84

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

IONOSPHERIC DATA

h'E (Characteristic), Km (Unit), April (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: E.J.W., J.W.P., L.F.M., J.J.S.

Calculated by: E.J.W., N.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							S	(120)$^{S}_{H}$	(110)^{S}	100	100^{H}	100	110	100	110	110	110	110	S					
2							S^{K}	^{K}110^{H}	110^{K}	^{K}100^{H}	^{K}100^{H}	100^{K}	^{K}100^{H}	^{K}100^{H}	100^{K}	100^{K}	110^{K}	110^{K}	S^{K}					
3							110	110	110	100^{H}	100^{H}	100^{H}	100	100^{H}	(100)^{H}	100^{H}	110	110	S					
4							S	110^{H}	100	110	100	100^{H}	100^{H}	100^{H}	100^{H}	100	110	120	130^{H}					
5							S	110^{H}	110	100^{H}	100	100	^{K}(100)$^{B}_{H}$	^{K}(110)$^{B}_{H}$	100^{K}	110^{K}	110^{K}	B^{K}	B^{K}					
6							S^{K}	110^{K}	^{K}110^{H}	^{K}100^{H}	100^{K}	100^{K}	110^{K}	^{K}100^{H}	100^{K}	100^{K}	100^{K}	110^{K}	^{K}(140)^{S}					
7							S	110^{H}	110	110	100	100^{H}	100	100	100	110	110	110	(130)^{S}					
8							S	110	110	100^{H}	100^{H}	100^{H}	100	100^{H}	100	100	110	110	(120)^{S}					
9							S	110^{H}	110	100	100^{H}	100^{H}	100^{H}	100	100^{H}	100	110^{H}	110	S					
10							S	(110)$^{S}_{H}$	110	110	100	100	100^{H}	[100]^{C}	[100]^{C}	100^{H}	100	110	S					
11							S	110	110	100^{H}	100	100	100	100	100	100^{H}	110	110	110					
12							S	120^{H}	110	100^{H}	100^{H}	100^{H}	100^{H}	(110)^{B}	110^{H}	110	110	110	(120)^{S}					
13							S	110^{H}	110^{H}	110	110	100	100	100^{K}	^{K}100^{H}	100^{K}	^{K}100^{H}	110^{K}	^{K}(140)^{S}					
14							S^{K}	110^{K}	110^{K}	100^{K}	100^{K}	100^{K}	100^{K}	^{K}100^{H}	100^{K}	^{K}100^{H}	100^{K}	110^{K}	^{K}(120)^{S}					
15							(140)^{S}	110	100	100	100	100	100^{H}	100^{H}	100	100	100	100	100					
16							S	110	100	100	100	100	100	100^{H}	100^{H}	100	110	110	(130)^{S}					
17							S	110^{H}	110	110	100^{H}	100	100	110	100	110	100	110^{H}	S					
18							S	110	110	110	110^{H}	100	100^{H}	100	100^{H}	(100)^{B}	110^{H}	110	120					
19							S	110	110^{H}	100^{H}	100^{H}	100	100^{H}	(100)^{B}	100	100	100^{H}	110	A					
20							S	100^{H}	100^{H}	100^{H}	(100)^{A}	100	100^{H}	100	100^{H}	100^{H}	110	120	120					
21							(120)^{S}	110	110^{H}	[100]^{M}	(100)^{A}	100^{H}	100	100	100	100	110	110	(110)^{A}					
22							S	110	100^{H}	100^{H}	100	100^{H}	100	100^{H}	100	100	100	A	A					
23							A	110^{H}	100	100	100	(100)^{S}	(100)$^{B}_{H}$	(100)$^{B}_{H}$	100^{H}	100	110	110^{H}	120					
24							S	110^{H}	100	100	100	100^{H}	100	100	100	100	100	^{K}100^{H}	120^{K}					
25							A^{K}	A^{K}	100^{K}	100^{K}	100^{K}	100^{K}	^{K}100^{B}	^{K}100^{H}	^{K}100^{B}	110^{K}	110^{K}	110^{K}	110^{K}					
26							120^{K}	110^{K}	110^{K}	100^{K}	100^{K}	100^{K}	^{K}100^{H}	100^{K}	100^{K}	100^{K}	110^{K}	110^{K}	120^{K}					
27							110^{H}	110	100	110	100	100	100	100^{H}	100	110	M	M	^{K}120^{H}					
28							S^{K}	A^{K}	A^{K}	A^{K}	A^{K}	100^{K}	100^{K}	100^{K}	100^{K}	110^{K}	^{K}110^{H}	110^{K}	S^{K}					
29							^{K}(110)$^{S}_{H}$	110^{K}	110^{K}	110^{K}	110^{K}	100^{K}	100^{K}	100	100	100	100	110	120					
30							C	C	C	C	100	100	100	100	100	100	100	100	(120)^{S}					
31																								
Median							120	110	110	100	100	100	100	100	100	100	110	110	120					
Count							6	27	28	28	29	30	30	30	30	30	29	27	20					

Sweep 1.0 Mc to 25.0 Mc in 1.35 sec.

Manual ☐ Automatic ☒

Form adopted June 1946

TABLE 85

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

IONOSPHERIC DATA

foE (Characteristic), Mc (Unit), April (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by E.J.W., J.W.P., L.F.M., J.J.S.

Calculated by E.J.W., N.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
1							S	(2.0)^{H}	(2.4)^{S}	2.6	2.9^{H}	3.0	3.1	3.1	3.1	2.9	2.5	2.1	S							
2							S^{K}	1.9$^{H}_{K}$	2.4^{K}	2.6$^{H}_{K}$	2.8$^{H}_{K}$	3.0^{K}	3.1$^{H}_{K}$	3.1$^{H}_{K}$	3.0^{K}	2.8^{K}	2.5^{K}	2.1^{K}	S^{K}							
3							S	2.1	2.3	2.7^{H}	2.9^{H}	3.0^{H}	(3.1)^{F}	3.1^{H}	(3.0)^{H}	2.8^{H}	2.6	2.1	S							
4							S	2.1^{H}	2.4	2.7	2.7	2.8^{H}	2.9^{H}	2.9^{H}	2.9^{H}	2.8	2.5	2.1	1.8^{H}							
5							S	2.0^{H}	2.4	(2.5)^{H}	S	A	3.1$^{H}_{K}$	3.0$^{H}_{K}$	3.0^{K}	2.8^{K}	2.6^{K}	B^{K}	B^{K}							
6							S^{K}	(2.2)$^{S}_{K}$	2.4$^{H}_{K}$	2.7$^{H}_{K}$	[2.8]$^{A}_{K}$	3.0^{K}	(3.1)$^{A}_{K}$	3.1$^{H}_{K}$	A^{K}	A^{K}	2.5^{K}	2.2^{K}	1.8^{K}							
7							S	2.1^{H}	(2.4)^{A}	2.7	2.9	3.1^{H}	3.1	3.1	3.1	2.9	2.6	2.2	1.7							
8							S	(1.9)^{A}	2.5	(2.7)^{H}	2.9^{H}	3.0^{H}	3.1	3.1^{H}	(3.0)^{A}	2.9	2.6	2.2	1.7							
9							S	(2.1)^{H}	(2.5)^{A}	(2.7)^{A}	3.0^{H}	3.1^{H}	3.1^{H}	3.1	3.1^{H}	3.0	2.7^{H}	2.3	S							
10							S	2.2^{H}	2.5	2.8	3.0	3.1	(3.2)^{H}	[3.2]^{C}	[3.0]^{C}	2.8^{A}	2.7	2.2	S							
11							S	(2.0)^{P}	(2.6)^{P}	2.7^{H}	3.0	3.1	A	A	A	2.9^{H}	2.5	2.4	(1.7)^{A}							
12							S	2.2^{H}	[2.4]^{S}	2.7^{H}	(2.8)^{H}	2.8^{H}	3.0^{H}	3.1	3.0^{H}	2.9	2.6	2.2	(1.8)^{S}							
13							S	2.1^{H}	(2.4)^{H}	(2.5)^{A}	A	A	(3.0)^{P}	3.1^{K}	3.0$^{H}_{K}$	2.8^{K}	2.6$^{H}_{K}$	2.2^{K}	1.8^{K}							
14							S^{K}	A^{K}	A^{K}	2.9^{K}	3.0^{K}	(3.0)$^{A}_{K}$	(3.0)$^{A}_{K}$	3.0$^{H}_{K}$	3.0^{K}	2.9$^{H}_{K}$	2.6^{K}	2.3^{K}	1.7^{K}							
15							1.6	2.0	2.5	2.6	A	A	3.1^{H}	3.1^{H}	A	A	A	A	A							
16							S	2.2	(2.5)^{A}	2.8	2.9	3.0	(3.2)^{A}	(3.2)^{A}	3.1	3.0	2.8	2.4	1.8							
17							S	2.2^{H}	2.6	2.9	2.9^{H}	(3.1)^{F}	[3.1]^{A}	3.1	3.1	2.9	2.8	2.3^{H}	S							
18							S	2.2	2.7	2.9	3.1^{H}	3.1	3.1^{H}	(3.1)^{P}	3.2^{H}	[3.0]^{A}	2.8^{H}	2.5	1.7							
19							S	2.1	2.6^{H}	2.9^{H}	3.1^{H}	[3.2]^{A}	3.2^{H}	A	A	A	2.8^{H}	2.4	A							
20							S	A	2.7^{H}	2.9^{H}	[3.1]^{A}	(3.3)^{F}	3.2^{H}	3.2	3.1^{H}	3.0^{H}	2.8	2.0	1.8							
21							1.7	2.1	2.8^{H}	M	A	3.0^{H}	3.2	3.2	3.1	(2.8)^{A}	(2.4)^{A}	(2.2)^{P}	A							
22							S	2.1	2.6^{H}	2.8^{H}	3.0	3.1^{H}	3.2	(3.2)^{H}	3.1	2.9	(2.7)^{S}	A	A							
23							A	2.3^{H}	2.6^{H}	2.8	A	A	(3.2)^{H}	(3.2)^{H}	3.1^{H}	3.0	2.8	2.4^{H}	1.8							
24							(1.7)^{S}	2.4^{H}	(2.5)^{A}	[2.9]^{A}	3.2	3.2^{H}	3.3	3.2	(3.2)^{A}	(3.1)^{A}	2.8	2.4$^{H}_{K}$	2.0^{K}							
25							A^{K}	A^{K}	(2.3)$^{A}_{K}$	A^{K}	A^{K}	A^{K}	3.2^{K}	(3.2)$^{P}_{K}$	3.1^{K}	3.0^{K}	2.8^{K}	2.5^{K}	1.8^{K}							
26							1.8^{K}	2.3^{K}	(2.7)$^{A}_{K}$	(2.9)$^{F}_{K}$	3.2^{K}	[3.2]$^{A}_{K}$	3.2$^{H}_{K}$	3.2^{K}	(3.1)$^{F}_{K}$	3.0^{K}	2.7^{K}	2.5^{K}	(1.9)$^{S}_{K}$							
27							1.8^{H}	(2.2)^{A}	2.7	2.8	3.0	(3.1)^{P}	3.2	3.2^{H}	3.0	3.0	M	M	1.7$^{H}_{K}$							
28							S^{K}	A^{K}	A^{K}	A^{K}	A^{K}	3.0^{K}	3.0^{K}	(3.0)$^{A}_{K}$	3.0^{K}	2.9^{K}	2.7$^{H}_{K}$	2.4^{K}	S^{K}							
29							(1.8)$^{H}_{K}$	2.2^{K}	2.6^{K}	[2.8]$^{A}_{K}$	2.9^{K}	3.1^{K}	3.1^{K}	[3.0]^{A}	2.9	2.8	2.8	2.4	1.9							
30							C	C	C	C	(2.9)^{A}	(3.1)^{A}	3.2	3.2	(3.1)^{A}	(3.0)^{A}	2.8	2.4	(2.0)^{P}							
31																										
Median							1.8	2.1	2.5	2.8	2.9	3.1	3.1	3.1	3.1	2.9	2.7	2.3	1.8							
Count							6	25	27	26	23	25	29	28	26	27	28	26	18							

Sweep 1.0 Mc to 25.0 Mc in 1.35 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 86

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

Form adopted June 1946

IONOSPHERIC DATA

Es (Characteristic), Mc-Km (Unit), April (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: E.J.W., J.W.P., L.F.M., J.J.S.

Calculated by: E.J.W., N.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E	E	E	E	(27)S/110	E	G	G	G	43/110	G	G	G	G	G	G	G	G	G	E	E	E	E	E
2	E	E	E	E	E	E	G	23Y/130	30Y/110	G	G	48Y/110	G	G	G	30/130	G	G	G	E	35/110	E	E	E
3	E	E	E	E	E	E	G	G	G	G	26/110	G	G	G	G	G	G	G	G	E	E	22/110	21/110	E
4	E	E	E	E	E	50/130	30/110	49/100	G	37/120	39/110	48/100	G	39/120 H	G	G	G	G	G	E	E	E	E	E
5	E	E	E	E	E	62/120	G	38Y/110	68/120	70/110 H	26/110	32/100	G	G	42/110	G	G	25/120	21/130	E	E	E	28/110	E
6	E	E	E	E	E	E	58/100 H	G	G	G	(37)/105 S	G	40Y/110	G	34/110	30/110	G	30/110	G	E	E	E	E	E
7	E	E	E	E	E	E	G	G	78Y/110	35Y/110	G	36Y/110	G	71Y/110	G	39/110	G	30Y/130	G	E	E	E	E	E
8	E	E	E	E	E	E	G	29Y/120	G	G	G	G	G	G	31/110	G	G	G	19/130	E	E	E	E	E
9	E	E	E	E	E	E	G	29Y/120	49Y/110	36/(110) S	36Y/120	G	G	G	36Y/110	G	G	G	G	E	E	E	E	E
10	E	E	E	E	E	E	(16)/(120) S	(37)S/(20) H	28/130	G	G	33/120	G	C	C	30Y/120	G	28/110	G	E	E	E	E	E
11	E	E	E	E	E	E	G	G	31/120	32/130	33/120	31/120	42Y/110	43/100	44/110 H	33/120	G	30/120	29Y/110	E	28/110	27/110	22/110	E
12	E	E	E	21/110	E	E	G	G	G	G	30/120	31/130	G	33/130	32/130	30/130	G	G	G	E	E	E	E	E
13	E	22/140	23/130	23/130	E	E	G	G	G	37Y/100	30/100 H	49/100	G	G	G	G	G	G	G	E	E	E	E	E
14	E	E	E	E	E	E	16/120	30Y/120	76Y/110	35Y/110	30/110	40Y/110	32/110	G	G	G	G	G	G	E	E	E	E	E
15	E	E	E	E	E	E	G	23/120	26/120	46Y/110 H	40/100	42/100	G	G	40Y/100	39Y/100	36Y/100	32Y/100	27Y/100	26Y/100	35Y/100	E	30/100	23/100
16	E	E	E	E	23/100	E	G	30/120	37Y/110	35/110	41Y/100	31/110	33/110	33/110	G	G	G	G	20/130	31Y/120	E	E	E	E
17	E	E	E	58Y/100	E	E	G	30Y/110	32Y/120	39/120	41/110	G	37/100	G	G	G	29/140	25/130	28/120	28/110	33/120	E	E	22/110
18	E	E	23/110	E	E	E	G	G	31/110	37/110	41/110	42/110	G	G	G	38/110	G	G	47/110	29/110	65/110	48/110	E	E
19	E	23/110	22/100	22/100	E	21/110	G	G	30/140	31/130	32/100 H	39/100 H	40/100	37/100	56/100	39/100	30/120	34/120	49/110	E	E	46/110	25/100	38Y/100
20	25/100	E	E	E	E	E	G	31/100 H	36/110	51/100	39/100	40/100	G	G	G	34/100	G	G	G	E	E	E	E	26/120
21	E	E	E	E	E	E	G	G	39/110 H	M	39/100	44/110	44/110	42/110	40/110	39/110	40/110	25/120 H	35/100	E	E	27/110	E	25/110
22	44/110	E	E	E	E	E	64/110 H	G	45/120	G	G	G	G	G	G	41/120	G	24/100	33/100	(23)S/110	43/110	63/110	E	37/110
23	24/110	E	E	33Y/110	E	E	29Y/120	34Y/110	33Y/120	43/110	41Y/110	33/110	G	G	G	G	G	G	29/130	E	E	E	E	E
24	E	E	E	E	E	E	G	G	70Y/110	32/100	G	G	G	36/120 H	54/120	42/120	42/120	41/120	38Y/110	30Y/110	E	28Y/130	40/120	27/120
25	E	E	E	E	24/110	40Y/110	35/110	40/110	52/110	38/110	38/110	50/100	39/100	G	G	G	G	29/130	35/120	E	E	E	E	24/120
26	E	22/130	28/120	E	E	24/120	74/120	32/110	37/110	46/120	45/120	74Y/110	45/110	58/110	45/110	G	33/130	26/120	22/130	E	E	E	E	28/110
27	38/130	42/130	E	43/110	24/110 H	35/110	46/120	54/100 H	45/110	66/110	50/110	57/110	55/110	37/130	80/110 H	G	M	M	G	E	E	E	E	25/130
28	42/110	49/110	56/110	47/110	50/110	53/110	36/110	43/100	38Y/100	47/100	31/100	33/100 H	67Y/110	45Y/110	45/110	31/120	G	G	22/120	29/110	E	E	E	E
29	E	E	E	E	70Y/120	E	G	34/110	40/110	30/110	43Y/110	G	G	48Y/100	G	G	G	G	22/110	17/110	E	E	E	E
30	E	E	29Y/100	64Y/120	E	E	C	C	C	C	30/100	(37)S/110	72Y/110	34/100	34/100	(33)S/100	31/120	G	G	E	E	E	E	E
31																								
Median	**	**	**	**	**	**	**	2.9	3.3	3.6	3.2	3.3	**	**	**	**	**	**	2.0	**	**	**	**	**
Count	30	30	30	30	30	30	29	29	29	28	30	30	30	29	29	30	29	29	30	30	30	30	30	30

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

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

Form adopted June 1946

TABLE 87

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

IONOSPHERIC DATA

(M1500) F2 (Characteristic), (Unit) April (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: E.J.W., J.W.P., L.F.M., J.J.S.

Calculated by: E.J.W., N.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
1	K(21)PF	K(20)PF	(22)PF	F	(21)PF	F B	24	24	23 H	22 H	22	22	22	22	22	22	22	21	23	(22)FS	(22)PS	(22)PS	K(21)PF	K(19)PF		
2	K(19)PF	20 K	19 K	K(19)FS	21 K	K(20)PF	22 K	25 K	19 K	G K	G K	G K	G K	16 K	16 K	17 K	20 K	19 K	21 K	22 K	21 K	22 K	20 K	21 K		
3	K(21)PS	K(21)PS	K(19)PF	(21)PS	23	(21)PS	25	24	25	23	22	21	20	21	23	22	22	22	22	22	21	(21)PS	(22)S	21		
4	21	U	21	(20)FS	20	(20)FS	23	24	23	23	20	23	22	21	20	20	22	21	23	22	22	22	J S	J F		
5	J S	(21)F	(22)F	23	(21)JS	20	22	22 H	G	G	G	G	G K	G K	G K	17 K	K 20 F	21 K	22 K	22 K	K(22)FS	21 K	K(20)FS	K(20)FS		
6	20 K	21 K	20 K	19 K	20 K	20 K	23 K	21 K	G K	K(18)PS	G K	G K	G K	19 K	19 K	20 K	19 K	21 K	22 K	22 K	K J S	K J S	20 K	K(20)PS		
7	K(21)FS	20 K	K(19)FS	(21)PS	(21)PS	(21)PS	(23)FS	22	22	24	22	22	22	22	21	21	22	22	23	22	23	23	20	20		
8	21	20	20	(20)PS	(19)PS	(20)PS	23	24	S	21	20	19	21	22	21	22	22	23	23	22	22	21	20	20		
9	21	21	20	21	21	21	23	23	25	24	22	21 H	23	21	21	22	23	23	22	24	24	21	21	20		
10	21	22	(21)PS	20	21	21	24	18	20	22	20	20	19	C	C	23	22	22	22	22	22	22	20	20		
11	(20)PS	(20)PS	(21)PS	(21)PS	21	(22)PS	23	22 H	22	24 H	19	21	22	22	23	23	23	24	23	23	22	21	20	20		
12	21	21	20	21	24	(20)PS	(23)PS	21	23 H	22	(21)HS	23 H	(21)H	(22)H	21 H	21 H	21 H	21	22	(22)S	(22)S	23	22	21		
13	20	19	21	23	S	20	22	20	20	19	G	G	G	G K	G K	K 19 H	18 K	19 K	20 K	21 K	K(23)PS	K(22)PS	K(21)PF	21 K		
14	20 K	19 K	19 K	K(20)PS	K(20)PS	21 K	22 K	G K	G K	G K	G K	16 K	16 K	19 K	21 K	21 K	20 K	21 K	22 K	22 K	22 K	22 K	22 K	20 K		
15	21 K	21 K	21	(21)PS	22	22	24	24	24	22	22	23	20	20	21	22	21	22	22	22	22	22	21	22		
16	21	20	(19)PF	(19)PF	19	(21)PS	23	23	23	23	23	21	21	21	22	21	21	22	23	22	23	23	22	21		
17	21	20	20	20	21	20	22	23	23	20	23	20 H	20	21	22	22	22	22	22	23	23	22	22	21		
18	20	20	20	21 F	22 F	22 F	21	24	19 H	22	23	21 H	19	20	20	22	22	21	21	22	23	22	22	21		
19	20	20	20	21	22	21	25	26	22	23	24	22	20	22	22	22	21	22	22	22	23	22	22	20		
20	21	20 F	(20)SF	20 F	23	23	23	25	24	24	22	22	21	22	21	22	22	23	22	22	23	23	22	20		
21	21	21	(20)SP	22	22	21	24	24	25	M	23 H	21 H	20	22	22	22	23	23	22	22	22	22	22	21		
22	19	20	20	22	23 F	21 F	25	(22)PS	21	23	23	23	19	22	21	22	22	21	22	(23)S	(22)PS	23	(22)PS	20		
23	(22)S	22	21	20	(21)PS	21	23	25	24	22	23 H	23	21	22	22	23	23	22	22	23	22	22	23	21		
24	22	21	21	22	21	22	24	22	24	22 H	22	(20)H	19	21 H	20	19	21	22 K	20 K	22 K	22 K	22 K	21 K	20 K		
25	20 K	21 K	22 K	22 K	21 K	22 K	25 K	24 K	23 K	23 K	22 K	20 K	21 K	21 K	20 K	20 K	22 K	21 K	22 K	22 K	22 K	21 K	20 K	20 K		
26	19 K	19 K	K J H	K J S	K J S	K 22 FS	24 K	20 K	G K	G K	G K	G K	G K	16 K	19 K	18 K	21 K	21 K	21 K	22 K	20 K	21 K	19	19		
27	19	20	20	(21)H	19	23	26	23 H	G	22	22	21	20	19	19	16	M	M	21 K	K 20 F	K 20 F	K(21)F	K 18 F	K(17)F		
28	H K	H K	K H F	K 17 F	K(15)H	K 20 F	K 23 F	G K	G K	G K	G K	G K	G K	G K	G K	G K	19 K	20 K	22 K	21 K	20 K	21 K	23 K	K 20 F		
29	K(20)FS	K(20)FS	K F S	K F S	E K	K(22)S	25 K	K(21)S	25 K	15 K	16 K	K 22 H	19 K	19	19	21	19	21	23	22	23	20	21	20		
30	21	18	(20)FS	(22)FS	J S	(21)PF	C	C	C	C	17	21	18	22	19	20	21	21	22	23	23	22	20	(20)PF		
31																										
Median	21	20	20	21	21	21	23	23	22	22	22	21	20	21	21	21	22	21	22	22	22	22	21	20		
Count	28	29	27	27	26	29	29	29	28	28	30	30	30	29	29	30	29	29	30	30	29	29	29	29		

Sweep 1.0 Mc to 25.0 Mc in 135 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 88

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

Form adopted June 1946

IONOSPHERIC DATA

(M3000)F2, _____ April, 1955
(Characteristic) (Unit) (Month)

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: E.J.W., J.W.P., L.F.M., J.J.S.

Calculated by: E.J.W., N.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	K (3.1) P F	K (3.0) P F	(3.2) P F	F	(3.1) P F	F B	3.4	3.5	3.4 H	3.3 H	3.3	3.3	3.3	3.2	3.3	3.3	3.3	3.1	3.4	(3.3) F S	(3.2) P S	(3.2) P S	K (3.2) P F	K (2.9) P F
2	K (2.9) P F	3.0 K	2.9 K	K (2.9) S F	3.1 K	K (3.0) P F	3.3 K	3.5 K	2.9 K	G K	G K	G K	G K	2.4 K	2.5 K	2.6 K	3.0 K	2.9 K	3.1 K	3.2 K	3.1 K	3.2 K	3.0 K	3.1 K
3	K (3.1) P S	K (3.1) P S	K (2.9) P F	(3.1) P S	3.3	(3.2) P S	3.6	3.5	3.5	3.4	3.2	3.2	3.0	3.2	3.3	3.2	3.2	3.3	3.3	3.2	3.1	(3.1) P S	(3.2) S	3.2
4	3.2	3.0	3.1	(3.0) F S	3.0	(3.0) F S	3.4	3.5	3.3	3.4	3.0	3.3	3.2	3.1	3.0	2.9	3.2	3.1	3.3	3.2	3.2	3.2	J S	J F
5	J S	(3.1) F	(3.2) F	3.3	(3.1) J S	3.0	3.2	3.2 H	G	G	G	G	G K	G K	G K	2.6 K	3.0 F K	3.1 K	3.2 K	3.2 K	K (3.2) F S	3.1 K	K (3.0) F S	K (3.0) F S
6	3.0 K	3.1 K	3.0 K	2.9 K	2.9 K	3.0 K	3.4 K	3.1 K	G K	K (2.7) P S	G K	G K	G K	2.9 K	2.8 K	3.0 K	2.8 K	3.1 K	3.2 K	3.2 K	J S K	J S K	3.0 K	K (3.0) P S
7	K (3.1) F S	3.0	K (2.9) F S	(3.1) P S	(3.1) P S	(3.1) P S	(3.4) F S	3.3	3.2	3.5	3.3	3.3	3.2	3.3	3.1	3.2	3.2	3.3	3.4	3.2	3.4	3.3	3.0	3.0
8	3.1	3.0	3.0	(3.0) P S	(2.9) P S	(3.0) P S	3.3	3.5	S	3.1	3.0	2.9	3.2	3.3	3.2	3.3	3.3	3.4	3.4	3.3	3.3	3.1	3.0	3.0
9	3.1	3.1	3.0	3.1	3.1	3.1	3.4	3.4	3.6	3.5	3.3	3.1 H	3.4	3.1	3.2	3.3	3.4	3.4	3.3	3.4	3.4	3.1	3.1	3.0
10	3.2	3.2	(3.1) P S	3.0	3.1	3.1	3.5	2.8	3.1	3.2	3.0	3.0	2.9	C	C	3.3	3.3	3.2	3.3	3.2	3.2	3.2	3.0	3.0
11	(3.0) P S	(3.0) P S	(3.1) P S	(3.1) P S	3.1	(3.2) P S	3.4	3.3 H	3.3	3.4 H	2.8	3.1	3.2	3.2	3.3	3.3	3.4	3.5	3.3	3.3	3.2	3.1	3.0	3.0
12	3.1	3.1	3.0	3.1	3.4	(3.0) P S	(3.4) P S	3.1	3.3 H	3.2	(3.1) H S	3.4 H	(3.2) H	(3.2) H	3.2 H	3.1 H	3.2 H	3.1	3.2	(3.3) S	(3.2) S	3.4	3.3	3.1
13	3.0	2.9	3.2	3.4	S	3.0	3.3	3.0	3.0	2.9	G	G	G	G K	G K	2.9 H K	2.7 K	2.9 K	2.9 K	3.1 K	K (3.3) P S	K (3.2) P S	K (3.1) P F	3.1 K
14	3.0 K	2.8 K	2.8 K	K (3.0) P S	K (3.0) P S	3.1 K	3.3 K	G K	G K	G K	G K	2.4 K	2.5 K	2.8 K	3.1 K	3.1 K	3.0 K	3.2 K	3.2 K	3.3 K	3.3 K	3.2 K	3.3 K	3.0 K
15	3.1 K	3.1 K	3.1	(3.1) P S	3.2	3.3	3.5	3.5	3.5	3.3	3.3	3.4	3.0	3.0	3.1	3.2	3.1	3.3	3.3	3.2	3.3	3.2	3.1	3.2
16	3.1	3.0	(2.9) P F	(2.9) P F	2.9	(3.1) P S	3.4	3.4	3.3	3.3	3.4	3.1	3.1	3.2	3.2	3.2	3.1	3.2	3.3	3.3	3.3	3.3	3.3	3.1
17	3.1	3.0	3.0	3.0	3.1	3.0	3.3	3.3	3.3	3.0	3.4	3.0 H	2.9	3.1	3.2	3.2	3.2	3.2	3.3	3.3	3.4	3.3	3.2	3.1
18	3.0	3.0	3.0	3.1 F	3.2 F	3.2 F	3.1	3.5	2.9 H	3.3	3.3	3.1 H	2.9	3.0	3.0	3.2	3.2	3.1	3.1	3.2	3.4	3.2	3.3	3.1
19	3.0	3.0	3.0	3.1	3.2	3.1	3.5	3.7	3.2	3.4	3.5	3.3	3.0	3.3	3.2	3.2	3.1	3.3	3.2	3.3	3.3	3.2	3.2	3.0
20	3.1	3.0 F	(3.0) S F	3.0 F	3.3	3.3	3.4	3.5	3.5	3.5	3.3	3.3	3.2	3.2	3.1	3.2	3.3	3.4	3.2	3.2	3.4	3.4	3.2	3.0
21	3.1	3.1	(3.0) S P	3.2	3.2	3.1	3.5	3.4	3.6	M	3.4 H	3.1 H	3.0	3.2	3.3	3.2	3.3	3.4	3.2	3.3	3.3	3.2	3.2	3.1
22	2.9	3.0	3.0	3.2	3.3 F	3.1 F	3.6	(3.3) P S	3.1	3.3	3.3	3.3	2.9	3.3	3.1	3.2	3.2	3.1	3.3	(3.4) S	(3.2) P S	3.3	(3.3) P S	3.0
23	(3.2) S	3.2	3.1	3.0	(3.1) P S	3.1	3.4	3.6	3.5	3.2	3.4 H	3.3	3.2	3.3	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.1
24	3.2	3.1	3.1	3.2	3.1	3.2	3.5	3.3	3.5	3.2 H	3.3	(3.0) H	2.9	3.2 H	3.0	2.9	3.1	3.2 K	3.0 K	3.3 K	3.3 K	3.3 K	3.1 K	3.0 K
25	3.0 K	3.1 K	3.2 K	3.3 K	3.1 K	3.3 K	3.6 K	3.4 K	3.4 K	3.4 K	3.3 K	3.0 K	3.1 K	3.1 K	3.0 K	3.0 K	3.2 K	3.1 K	3.2 K	3.2 K	3.2 K	3.1 K	3.0 K	3.0 K
26	2.8 K	2.9 K	J A K	J S K	J S K	3.2 F S	3.4 K	3.0 K	G K	G K	G K	G K	G K	2.4 K	2.8 K	2.7 K	3.1 K	3.1 K	3.1 K	3.2 K	3.0 K	3.1 K	2.9	2.9
27	2.9	3.0	3.0	(3.1) A	2.9	3.4	3.7	3.3 H	G	3.2	3.2	3.1	3.0	2.8	2.9	2.5	M	M	3.1 K	3.0 F K	3.0 F K	(3.1) F K	2.8 F K	(2.6) F K
28	A K	A K	A F K	2.6 F K	(2.3) A K	3.0 F K	3.3 F K	G K	G K	G K	G K	G K	G K	G K	G K	G K	2.8 K	3.0 K	3.2 K	3.1 K	3.0 K	3.1 K	3.4 K	3.0 F K
29	K (3.0) F S	K (3.0) F S	F S K	F S K	E K	(3.2) S K	3.6 K	(3.1) S K	3.6 K	2.3 K	2.5 K	3.2 H K	2.9 K	2.8	2.9	3.1	2.9	3.1	3.4	3.3	3.3	3.0	3.1	3.0
30	3.1	2.8	(3.0) F S	(3.2) F S	J S	(3.1) P F	C	C	C	C	2.6	3.1	2.7	3.3	2.9	3.0	3.1	3.1	3.3	3.3	3.4	3.3	3.0	(3.0) P F
31																								
Median	3.1	3.0	3.0	3.1	3.1	3.1	3.4	3.3	3.3	3.2	3.2	3.1	3.0	3.1	3.1	3.2	3.2	3.2	3.25	3.25	3.3	3.2	3.1	3.0
Count	28	29	27	27	26	29	29	29	28	28	30	30	30	29	29	30	29	29	30	30	29	29	29	29

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

Form adopted June 1946

TABLE 89

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

IONOSPHERIC DATA

(M3000) F1 (Characteristic), ____ (Unit), April (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: E.J.W., J.W.P., L.F.M., J.J.S.

Calculated by: E.J.W., N.B.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							Q	L	L	39	37 H	37 H	39	37	38	37	L	L	L					
2							Q K	Q K	39 K	40 H K	41 H K	42 F K	38 K	39 H K	37 K	37 K	37 K	35 K	L K					
3							Q	L	L	36 H	38	38	37	37	37	38 H	38	L	L					
4							Q	L	37	38	38	39 H	37 H	37 H	38 H	34	35	(36) L	L					
5							Q	36 H	37 H	38 H	40 H	40 H	41 H K	40 K	38 K	37 H K	37 F K	36 H K	L K					
6							L K	35 K	39 H K	(40) S K	42 K	41 K	39 H K	38 H K	38 K	38 H K	37 K	36 K	L K					
7							Q	Q	37 H	40	38	40	37	38	38	(37) L	L	L	L					
8							Q	Q	37	38 H	39	38	38 H	38	37	37	37	L	L					
9							Q	L	(38) L	39	39 H	39 H	39 H	37 H	38	37 H	(38) L	L	L					
10							Q	34	36	36	37	38 H	38	C	C	37	37	L	L					
11							Q	L	38	39	38	39	40 H	36	39	39	L	L	L					
12							Q	(38) L	39	38	(43) H	(42) H	40 H	40 H	(40) H	39 H	36 H	(37) L	L					
13							Q	36	37	40	41	41	40 H	39 H	(39) H K	40 H K	(38) H K	35 H K	L K					
14							Q K	36 H K	39 K	40 K	40 K	41 K	40 K	39 K	39 H K	36 K	36 K	35 K	L K					
15							Q	L	38	39	39	40	39	38 H	37 H	38	37	L	L					
16							Q	L	37	37	40	40	38	40	38	37 H	36	L	L					
17							L	(35) L	37	37 H	39 H	40	39 H	40	37	35	35	36	L					
18							Q	L	36 H	37 H	39	39 H	38	37 H	38	38 H	35 H	L	L					
19							Q	L	37	39	37 H	39	39	38	(37) A	37	(36) L	37	L					
20							Q	L	37 H	35	39	40	38 H	39 H	38 H	36 H	36	L	L					
21							Q	L	38	M	37 H	38	39 H	39	38	38	37 H	L	L					
22							L	38 H	(37) H	38 H	39	41 H	38 H	39 H	38 H	39 H	38	(37) H	L					
23							Q	L	(39) L	38 H	37 H	39	40 H	39 H	37 H	36 H	37	38	L					
24							L	L	37	40	(39) H	39 H	39 H	37 H	A	(37) H	(36) S	L K	A K					
25							A K	A K	36 K	40 K	37 K	38 H K	37 K	38 K	36 H K	36 H K	36 K	(36) L K	L K					
26							L K	36 H K	39 K	40 K	40 K	39 H K	40 K	39 K	37 K	38 K	36 H K	35 K	L K					
27							L	38	36 H	38	39	40	37	37 H	37	36	M	M	36 K					
28							Q K	36 K	38 F K	39 K	39 K	39 K	38 K	39 K	39 K	37 K	37 K	36 H K	37 K					
29							Q K	36 K	42 K	39 K	41 K	41 K	39 K	39	35	37	36 H	35 H	L					
30							C	C	C	C	39	42 H	38	38	38	37	36	36	L					
31																								
Median							—	36	37	39	39	40	39	38	38	37	36	36	—					
Count								12	27	28	30	30	30	29	28	30	26	16	2					

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 90

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

Form adopted June 1946

IONOSPHERIC DATA

(M1500) E (Characteristic), ____ (Unit), April (Month), 1955

Observed at Washington, D. C.

Lat 38.7°N, Long 77.1°W

75°W Mean Time

National Bureau of Standards (Institution)

Scaled by: E.J.W., J.W.P., L.F.M., J.J.S.

Calculated by: E.J.W., N.B.

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

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

CRPL 8JF14A

Table 91

Ionospheric Storminess at Washington, D. C.

April 1955

Day	Ionospheric character* 00-12 GCT	Ionospheric character* 12-24 GCT	Principal storms Beginning GCT	Principal storms End GCT	Geomagnetic character** 00-12 GCT	Geomagnetic character** 12-24 GCT
1	4	2	----	0100***	3	2
			2200	----		
2	2	6	----	----	3	3
3	2	3	----	0200	3	2
4	1	1			2	3
5	1	6	1200	----	3	3
6	4	5	----	----	3	2
7	2	2	----	0200	4	2
8	2	2			2	2
9	2	3			2	1
10	1	1			1	2
11	1	2			3	2
12	1	2			3	2
13	2	6	1300	----	3	3
14	4	4	----	----	3	1
15	1	2	----	0100	2	2
16	0	2			1	2
17	1	2			2	2
18	1	2			0	1
19	1	2			1	1
20	1	1			3	2
21	1	2			2	2
22	1	2			3	2
23	1	2			1	1
24	0	4	1700	----	2	4
25	1	2	----	0200	2	2
			0200	----		
26	4	5	----	2100	3	3
27	2	4	1800	----	3	4
28	6	6	----	----	4	3
29	5	3	----	1200	4	3
30	2	2			4	3

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

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

***Storm began 2200 GCT, March 30.

----Dashes indicate continuing storm.

Table 92

Sudden Ionosphere Disturbances Observed at Washington, D. C.

April 1955

1955	GCT Beginning	GCT End	Location of transmitters	Relative intensity at minimum*
Apr. 26	1705	1715	Ohio, England, Mexico, North Dakota	0.03

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

Note: Observers are invited to send to the CRPL information on times of beginning and end of sudden ionosphere disturbances for publication as above. Address letters to the Central Radio Propagation Laboratory, National Bureau of Standards, Boulder, Colorado; Attention: Mr. Vaughn Agy.

Table 93a

Radio Propagation Quality Figures

(Including Comparisons with Short-Term and Advance Forecasts)

North Atlantic Path - March 1955

Day	North Atlantic 6-hourly quality figures				Short-term forecasts issued about one hour in advance of:				Whole day quality index	Advance forecasts (J-reports) for whole day; issued in advance by:			Geomagnetic K_{Ch}	
	00 to 06	06 to 12	12 to 18	18 to 24	00	06	12	18		1-4 days	4-7 days	8-25 days	Half Day (1)	Half Day (2)
1	5	(4)	6	6	5	(4)	6	6	5	5	6		1	1
2	6	5	7	7	5	5	7	6	6	5	6		1	0
3	6	6	7	7	6	5	7	7	7	5	5		1	1
4	6	5	7	7	6	6	7	7	6	6	5		1	1
5	6	6	7	7	6	6	7	7	7	6	5		3	2
6	6	5	7	6	6	6	7	7	6	6	6		3	2
7	6	6	7	6	6	6	7	6	6	6	6		3	3
8	(4)	(4)	7	6	5	(4)	6	6	5	6	6		3	3
9	5	5	6	6	5	5	7	6	6	6	6		3	3
10	(4)	(4)	6	6	5	(4)	6	6	5	6	6		(4)	(4)
11	(4)	(3)	6	6	5	5	6	6	5	5	6		3	3
12	(4)	(5)	7	7	5	(4)	6	6	5	5	6		(4)	3
13	(4)	(4)	6	6	5	(4)	7	6	5	6	6		2	3
14	5	5	7	7	6	5	7	6	6	6	6		2	3
15	(4)	(4)	6	6	6	(4)	7	7	5	6	6		(4)	2
16	(3)	5	7	6	6	(4)	7	7	5	6	6		3	2
17	5	(4)	7	6	6	5	7	7	6	6	6		(4)	2
16	(4)	5	7	6	5	(4)	7	6	5	5	6		2	3
19	(4)	(4)	6	7	5	(4)	7	7	5	5	6		1	1
20	5	(4)	7	7	5	5	7	7	6	5	6		2	2
21	6	5	7	7	6	5	7	7	6	5	5		2	2
22	5	(4)	6	(4)	6	5	7	5	5	6	6		3	(4)
23	(3)	(4)	7	6	(4)	(3)	6	6	5	6	6		2	3
24	(3)	(4)	7	7	(4)	(4)	6	6	5	6	6		3	2
25	5	(4)	6	6	5	5	7	6	5	5	6		2	2
26	5	(4)	6	6	6	(4)	7	5	5	5	6		3	2
27	(4)	(4)	7	7	5	(4)	6	6	5	6	6		2	2
28	5	(4)	7	7	5	5	6	6	6	6	6		2	1
29	6	5	7	7	6	5	7	7	6	6	6		1	1
30	6	5	7	7	6	6	7	7	6	6	6		2	3
31	(4)	(3)	6	6	(4)	(4)	5	(4)	5	6	6		(6)	(4)

Score:

		00	06	12	18	1-4 days	4-7 days
Quiet Periods	P	13	7	17	18	16	10
	S	5	6	14	11	14	19
	U	0	0	0	0	1	2
	F	0	0	0	1	0	0
Disturbed Periods	P	1	9	0	0	0	0
	S	10	8	0	1	0	0
	U	0	1	0	0	0	0
	F	2	0	0	0	0	0

Scales:

Scale of Radio Propagation Quality
- (1) - useless
- (2) - very poor
- (3) - poor
- (4) - poor to fair
- 5 - fair
- 6 - fair to good
- 7 - good
- 8 - very good
- 9 - excellent

K-scale of Geomagnetic Activity
0 to 9, 9 representing the greatest disturbance; $K_{Ch} \geqslant 4$ indicates significant disturbance, enclosed in ( ) for emphasis

Scoring: (beginning October 1952)
- P - Perfect: forecast quality equal to observed
- S - Satisfactory: (beginning October 1952) forecast quality one grade different from observed
- U - Unsatisfactory: forecast quality two or more grades different from observed when both forecast and observed were $\geqslant 5$, or both $\leqslant 5$
- F - Failure: other times when forecast quality two or more grades different from observed

Symbols:
- X - probable disturbed date

Note: All times are UT (Universal Time or GCT)

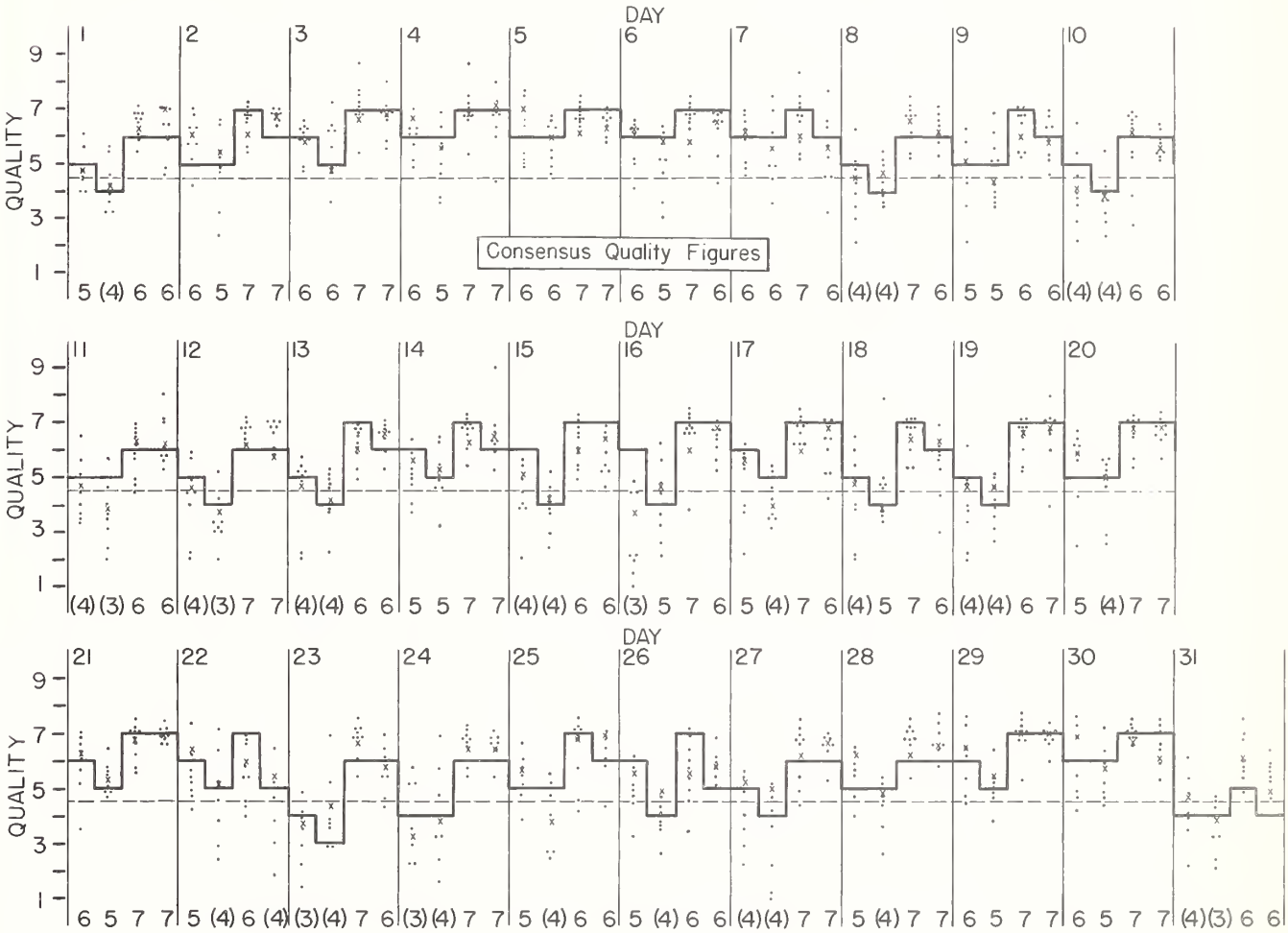
Table 93b

Short-Term Forecasts — March 1955

— Forecast

x CRPL observation (not in consensus)

● Individual reports of quality (adjusted to CRPL scale)



Outcome of Advance Forecasts (1 to 4 Days Ahead) - March 1955

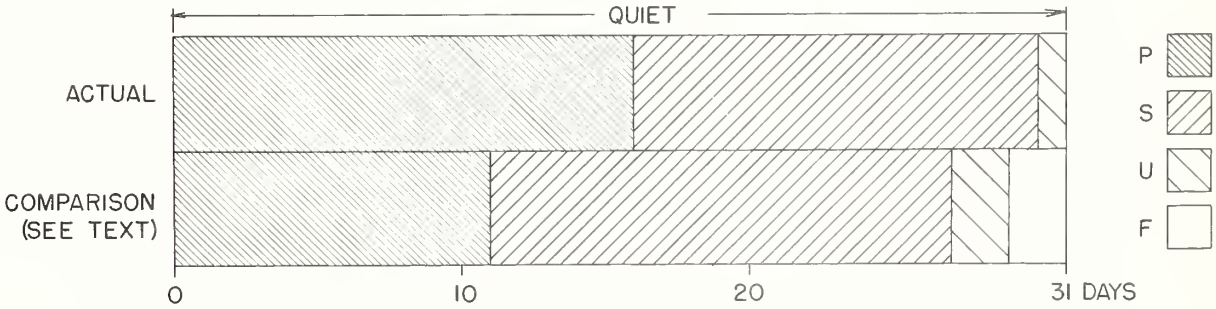


Table 24a

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

(Absolute values in millionths of the brightness of one angstrom at the center of the solar disk)

Date	Degrees north of the solar equator																		0°	Degrees south of the solar equator																	
UT	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																					
Apr 1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-
2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.x																																					
4.x																																					
5.x																																					
6.x																																					
7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.6	-	-	-	-	-	-	-	3	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.7a	-	-	-	-	-	-	-	-	-	2	4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.x																																					
13.9	-	-	-	-	-	-	1	1	1	1	1	1	1	2	2	3	2	2	-	-	-	3	3	6	12	13	6	2	2	2	-	-	-	-	-	-	-
14.x																																					
15.6	-	-	-	-	-	-	-	-	-	1	2	3	12	20	30	28	12	1	-	-	-	2	10	26	16	10	2	-	-	-	-	-	-	-	-	-	-
16.8	-	-	-	-	-	-	-	-	1	1	8	12	15	20	33	25	11	2	-	-	1	1	1	15	14	5	3	2	-	-	-	-	-	-	-	-	-
17.8	X	X	X	-	-	-	-	-	-	1	15	11	8	14	8	2	-	-	-	-	-	2	2	2	1	-	-	X	X	X	X	X	X	X	X	X	X
18.7	X	X	X	-	-	-	-	-	1	6	11	6	7	5	2	1	-	-	-	-	-	-	1	2	2	1	-	-	-	-	-	-	-	-	-	-	-
19.x																																					
20.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-
21.7	-	-	-	-	-	-	1	3	3	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	-	-	-	-	-	-	-
22.x																																					
23.x																																					
24.7	-	-	-	-	-	-	-	-	-	-	-	2	8	15	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25.8	-	-	-	-	-	-	-	-	1	1	2	17	14	22	15	2	-	-	-	-	-	-	-	-	-	1	2	1	-	-	-	-	-	-	-	-	-
26.8	-	-	-	-	-	-	-	1	1	2	7	13	14	15	24	10	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-
27.x																																					
28.6	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29.x																																					
30.6a	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	5	-	-	-	-	-	-	-	-	-

Table 25a

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

(Absolute values in millionths of the brightness of one angstrom at the center of the solar disk)

Date	Degrees north of the solar equator																		0°	Degrees south of the solar equator																	
UT	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																					
Apr 1.6	-	-	-	-	-	-	-	-	-	-	1	1	2	2	2	2	2	2	3	3	2	3	2	2	2	1	1	1	1	1	1	1	1	1	-	-	-
2.6	-	-	-	-	-	-	-	-	-	1	1	1	2	2	2	3	3	3	3	2	2	3	3	3	2	1	-	-	-	-	-	-	-	-	1	1	1
3.x																																					
4.x																																					
5.x																																					
6.x																																					
7.7	1	1	1	1	-	-	-	-	-	-	1	1	2	2	3	2	2	2	2	2	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
8.6	1	1	-	-	-	-	-	-	-	-	-	1	1	2	3	2	2	3	4	4	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9.7	1	1	-	-	-	-	-	-	-	-	-	-	1	3	2	2	2	2	3	3	2	2	2	1	1	1	1	1	1	1	1	1	-	-	-	-	-
10.6	1	1	1	1	-	-	-	-	-	-	-	-	1	2	2	3	4	4	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11.7a	1	1	1	-	-	-	-	-	-	1	1	3	9	4	3	3	3	3	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1
12.x																																					
13.9	2	2	2	2	2	1	1	1	2	3	3	3	3	3	4	4	4	5	4	4	4	3	3	3	7	7	3	3	3	2	2	1	1	1	1	2	1
14.x																																					
15.6	1	1	1	1	1	1	1	2	2	2	2	2	2	2	1	1	3	4	3	3	4	4	6	8	6	5	1	1	2	2	1	1	1	1	1	1	1
16.8	1	1	1	1	1	1	1	1	1	1	1	-	-	1	-	-	-	3	4	4	5	5	5	4	7	4	1	1	1	1	1	1	1	1	1	1	1
17.8	X	X	X	1	1	1	1	2	2	2	2	1	1	1	1	1	1	2	3	3	3	3	3	2	2	2	1	X	X	X	X	X	X	X	X	X	X
18.7	X	X	X	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	2	2	1	1	1	1	-	-	-	-	-	-	-	-	-	-	1	1
19.x																																					
20.8	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	2	3	2	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.7	-	-	-	-	-	-	-	-	-	1	1	2	2	3	2	2	2	2	2	3	2	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
22.x																																					
23.x																																					
24.7	-	-	-	-	-	-	-	-	-	-	-	1	3	4	4	3	2	2	2	2	2	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
25.8	-	-	-	-	-	-	-	-	-	-	1	4	5	7	8	7	5	1	2	2	2	2	1	1	1	1	1	1	-	-	-	-	-	-	-	1	1
26.8	-	-	-	-	-	-	-	-	-	-	1	4	4	10	14	11	4	4	5	5	4	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
27.x																																					
28.6	-	-	-	-	-	-	-	-	-	1	1	1	2	4	5	7	5	3	3	2	4	2	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-
29.x																																					
30.6a	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 95b

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

(Absolute values in millionths of the brightness of one angstrom at the center of the solar disk)

Date	Degrees south of the solar equator																			0°	Degrees north of the solar equator																	
UT	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5			5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																						
Apr 1.6	-	-	-	-	-	-	-	-	-	2	1	10	10	12	2	-	-	1	2	1	7	15	20	21	8	10	16	5	5	4	2	3	-	-	-	-	-
2.6	-	-	-	-	-	-	-	-	-	-	1	3	3	1	-	-	-	-	-	-	5	12	16	14	16	20	10	5	2	-	-	-	-	-	-	-	-
3.x																																						
4.x																																						
5.x																																						
6.x																																						
7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.6	-	-	-	-	-	-	-	-	-	1	2	4	4	2	-	-	-	-	-	-	-	-	-	-	2	6	5	3	1	-	-	-	-	-	-	-	-	-
9.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	12	37	17	2	2	-	-	-	-	-	-	-	-	-
10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	-	-	-	-	-	-	-	-	2	30	43	10	6	-	-	-	-	-	-	-	-	-	-
11.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	15	30	14	9	6	4	1	-	-	-	-	-	-	-	-	-	-
12.x																																						
13.9	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	1	1	2	3	2	1	1	1	1	-	-	-	-	-	-	-	-	-
14.x																																						
15.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	2	1	-	-	-	-	-	-	-	-	-
17.x																																						
18.7	-	-	-	-	-	-	-	-	1	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
19.x																																						
20.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
21.7	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1	-	-	-	-	-	-	-	1	1	1	-	-	-	-	1	1	1	-	-	-	-	-
22.x																																						
23.x																																						
24.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3	1	2	1	1	1	1	1	-	-	-	-	-
25.8	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	1	2	14	10	5	3	3	2	2	3	1	-	-	-	-
26.8	-	-	-	-	-	-	-	-	-	-	1	1	1	2	2	-	-	-	-	-	-	1	2	3	3	1	1	2	2	1	1	1	-	-	-	-	-	-
27.x																																						
28.6	-	-	-	-	-	-	-	-	-	1	1	4	9	14	5	1	-	-	-	-	2	2	3	2	1	1	1	-	-	-	-	-	-	-	-	-	-
29.x																																						
30.6a	-	-	-	-	-	-	-	-	-	-	-	-	2	9	4	-	-	-	-	-	-	3	5	3	2	-	-	-	-	-	-	-	-	-	X	X	X

Table 95b

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

(Absolute values in millionths of the brightness of one angstrom at the center of the solar disk)

Date	Degrees south of the solar equator																			0°	Degrees north of the solar equator																	
UT	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5			5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																						
Apr 1.6	-	-	-	-	-	1	1	2	2	1	2	4	11	2	3	5	5	4	3	2	2	1	1	2	2	3	11	1	-	-	-	-	-	-	-	-	-	-
2.6	-	-	-	-	-	-	-	-	-	1	1	3	2	3	3	3	3	2	2	1	3	2	2	1	1	1	7	-	-	-	-	-	-	-	-	-	-	-
3.x																																						
4.x																																						
5.x																																						
6.x																																						
7.7	1	1	1	1	1	1	1	-	-	-	-	-	-	-	2	1	3	3	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1
8.6	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	3	3	1	1	-	-	-	-	-	-	-	-	-	-	1
9.7	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4	4	3	4	5	5	4	4	15	26	12	4	3	-	-	-	-	-	-	-	1	1	1
10.6	1	1	1	1	1	1	1	1	1	1	1	1	1	5	3	2	2	3	7	8	9	9	16	18	10	3	2	1	1	1	1	1	1	1	1	1	1	1
11.7a	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	6	6	-	-	15	20	38	12	4	1	1	1	1	1	1	1	1	1	1	1	1	1
12.x																																						
13.9	1	2	1	1	1	1	1	1	1	1	1	1	2	4	6	6	6	6	6	4	4	11	11	6	3	3	2	2	1	1	1	1	1	1	2	2	2	2
14.x																																						
15.6	1	1	1	-	-	-	-	-	-	-	-	-	2	2	2	2	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
16.8	1	1	1	1	1	1	1	1	1	-	-	1	2	3	5	5	4	3	4	4	3	4	4	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1
17.x																																						
18.7	1	1	1	1	-	-	-	-	-	1	1	4	5	4	4	4	3	3	3	3	3	5	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1	X
19.x																																						
20.8	-	-	-	-	-	-	-	-	-	-	1	1	1	2	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	-	-	-	-	-	-	-	-	-
21.7	-	-	-	-	-	-	-	-	-	1	1	1	3	2	4	5	4	2	3	3	3	3	3	2	2	2	1	-	-	-	-	-	-	-	-	-	-	-
22.x																																						
23.x																																						
24.7	-	-	-	-	-	-	-	-	-	-	1	2	3	4	4	3	2	3	3	2	3	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25.8	1	1	1	1	1	1	1	1	1	1	3	3	3	4	4	3	3	3	3	3	3	3	4	2	2	1	1	-	-	-	-	-	1	1	-	-	-	-
26.8	1	1	1	1	1	1	-	-	-	2	2	2	3	3	3	1	2	2	2	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27.x																																						
28.6	-	-	-	-	-	-	-	-	1	1	1	2	3	4	3	4	3	4	3	3	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29.x																																						
30.6a	-	-	-	-	-	-	-	-	-	-	-	3	5	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X

Table 96a

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

(Absolute values in millionths of the brightness of one angstrom at the center of the solar disk)

Date	Degrees north of the solar equator																		0°	Degrees south of the solar equator																	
UT	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																					
Apr 1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.x																																					
4.x																																					
5.x																																					
6.x																																					
7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.x																																					
13.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.x																																					
15.6	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
16.8	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-
17.8	X	X	X	-	-	-	-	-	-	-	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X	X	X	X	X	X	X
18.7	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19.x																																					
20.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.x																																					
23.x																																					
24.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.8	-	-	-	-	-	-	-	-	-	-	1	2	2	2	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27.x																																					
28.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29.x																																					
30.6a	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 97a

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

(Arbitrary Scale)

Date	Degrees north of the solar equator																		0°	Degrees south of the solar equator																	
UT	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																					
Apr 1.7a	-	-	-	-	-	-	2	3	4	4	3	5	4	3	2	3	3	2	-	-	-	-	2	2	3	3	2	2	2	3	4	5	4	3	-	-	-
2.7a	-	-	-	-	-	-	-	-	3	3	2	3	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	3	2	2	-	-	-	-	-	-
3.x																																					
4.7a	-	-	-	-	-	-	-	-	2	3	5	4	3	4	2	2	-	-	-	-	-	2	3	3	2	-	-	2	3	3	2	3	-	-	-	-	-
5.7	-	-	-	-	-	-	-	2	2	3	3	3	3	2	3	2	-	-	-	-	-	-	-	2	3	3	2	2	2	-	-	-	-	-	-	-	-
6.7a	-	-	-	-	-	-	-	3	4	5	6	4	3	2	3	2	-	-	-	2	2	-	-	2	3	5	4	3	2	3	2	-	-	-	-	-	-
7.x																																					
8.7a	-	-	-	-	-	-	-	2	4	7	8	7	5	4	4	3	2	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-
9.7	-	-	-	-	-	-	3	8	7	8	7	4	4	3	2	-	-	-	-	-	-	-	-	2	-	-	-	-	2	2	2	3	2	-	-	-	-
10.7a	-	-	-	-	-	2	3	4	3	4	5	6	5	4	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.x																																					
12.x																																					
13.9a	-	-	-	-	-	-	-	-	-	-	3	3	3	4	4	3	2	-	-	-	3	3	3	2	3	5	6	5	3	-	-	-	-	-	-	-	-
14.7	-	-	-	-	2	3	4	4	4	5	6	5	5	8	12	13	14	11	5	3	3	2	5	11	28	39	20	12	8	6	5	3	-	-	-	-	-
15.7	-	-	-	-	-	-	2	3	4	4	5	5	6	12	13	16	14	11	5	5	3	3	4	5	22	23	14	10	5	4	3	2	-	-	-	-	-
16.6	-	-	-	-	2	3	3	3	3	3	7	8	11	14	16	28	16	11	2	-	-	2	3	5	16	23	16	11	8	7	5	3	-	-	-	-	-
17.x																																					
18.x																																					
19.x																																					
20.7a	-	-	-	-	-	-	2	3	5	6	5	3	3	2	2	3	4	3	-	-	-	-	-	2	3	3	4	4	3	3	3	2	-	-	-	-	-
21.x																																					
22.x																																					
23.7a	-	-	-	-	-	-	-	-	3	4	4	5	8	11	5	4	3	3	-	-	-	-	3	3	3	3	3	3	3	3	3	-	-	-	-	-	-
24.7	-	-	-	-	-	2	3	3	3	4	5	5	8	23	28	20	8	5	3	-	-	-	2	3	4	4	3	3	4	5	4	2	-	-	-	-	-
25.x																																					
26.7a	-	-	-	-	-	-	-	-	-	3	3	5	8	9	5	5	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27.x																																					
28.8a	-	-	-	-	-	-	-	-	-	2	3	3	4	4	5	4	3	2	-	-	-	-	-	-	-	-	-	2	2	2	-	-	-	-	-	-	-
29.x																																					
30.x																																					

Table 96b

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

(Absolute values in millionths of the brightness of one angstrom at the center of the solar disk)

Date	Degrees south of the solar equator																		0°	Degrees north of the solar equator																	
UT	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																					
Apr 1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.x																																					
4.x																																					
5.x																																					
6.x																																					
7.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-
10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	2	1	-	-	-	-	-	-	-	-	-	-	-
11.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-
12.x																																					
13.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.x																																					
15.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.x																																					
18.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
19.x																																					
20.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.x																																					
23.x																																					
24.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27.x																																					
28.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29.x																																					
30.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X

Table 97b

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

(Arbitrary Scale)

Date	Degrees south of the solar equator																		0°	Degrees north of the solar equator																	
UT	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																					
Apr 1.7a	-	-	-	-	-	-	-	2	2	3	3	3	4	5	10	8	5	4	3	3	5	6	11	14	13	10	11	18	3	2	2	-	-	-	-	-	-
2.7a	-	-	-	-	-	-	-	-	-	-	2	3	3	4	4	2	-	-	-	-	2	3	5	13	12	11	16	17	3	3	2	3	-	-	-	-	-
3.x																																					
4.7a	-	-	-	-	-	-	-	-	-	-	3	3	4	5	4	4	3	-	-	-	-	3	3	5	8	12	11	5	3	4	4	8	4	3	-	-	-
5.7	-	-	-	-	-	-	-	-	-	-	2	3	5	4	5	4	4	3	-	-	-	2	2	3	5	8	6	5	4	3	5	5	4	3	2	-	-
6.7a	-	-	-	-	-	-	-	-	2	3	4	5	8	7	5	4	3	2	-	-	2	3	2	3	4	5	6	7	6	7	7	5	2	-	-	-	-
7.x																																					
8.7a	-	-	-	-	-	-	-	-	-	2	3	5	4	4	3	2	-	-	-	-	-	-	3	5	12	15	11	5	3	3	2	2	-	-	-	-	-
9.7	-	-	-	-	-	-	-	2	3	4	5	4	5	6	4	3	2	-	-	-	-	2	3	14	30	28	14	5	5	4	3	2	-	-	-	-	-
10.7a	-	-	-	-	-	-	-	-	-	2	3	3	3	4	5	4	3	2	-	-	-	-	2	5	20	23	16	5	2	3	3	2	-	-	-	-	-
11.x																																					
12.x																																					
13.9a	-	-	-	-	-	-	-	-	3	4	3	3	3	3	-	-	-	-	-	-	-	3	4	4	4	5	4	4	4	3	-	-	-	-	-	-	-
14.7	-	-	-	-	-	-	2	3	3	3	4	5	4	3	2	-	-	-	-	-	-	-	-	2	4	5	4	5	7	6	5	3	2	-	-	-	-
15.7	-	-	-	-	-	-	-	3	4	4	4	3	3	3	-	-	-	-	-	-	-	-	-	-	2	3	3	4	4	3	3	-	-	-	-	-	-
16.6a	-	-	-	-	-	-	2	3	2	2	3	3	3	4	3	3	-	-	-	-	-	-	-	-	-	-	4	3	2	2	3	2	3	3	-	-	-
17.x																																					
18.x																																					
19.x																																					
20.7a	-	-	-	-	-	-	-	-	2	2	2	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	2	2	3	2	-	-	-
21.x																																					
22.x																																					
23.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	-	-	-	-	-	-	-	-	-	3	4	4	3	3	3	-	-	-	-	-	-	-
24.7	-	-	-	-	-	-	2	3	3	3	4	3	2	2	3	3	2	-	3	3	-	-	-	3	4	8	7	7	6	6	5	5	6	4	-	-	-
25.x																																					
26.7a	-	X	X	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4	11	12	11	7	6	5	4	4	3	-	-	-	-
27.x																																					
28.8a	-	-	-	-	-	-	-	-	-	3	4	4	5	11	10	8	4	3	-	-	3	4	5	4	5	3	3	4	5	4	4	3	2	-	-	-	-
29.x																																					
30.x																																					

Table 98a

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

Date	Degrees north of the solar equator																		0°	Degrees south of the solar equator																	
UT	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																					
Apr 1.7a	4	3	3	2	2	-	-	-	2	2	2	3	5	4	5	6	7	8	8	11	10	10	9	8	7	5	4	3	2	2	-	2	-	2	3	3	2
2.7a	2	2	3	-	-	-	-	-	2	3	3	4	5	5	6	7	8	10	11	13	8	7	5	6	7	6	5	3	2	2	-	-	2	2	-	3	2
3.x																																					
4.7a	3	2	2	3	2	2	2	3	3	4	5	5	6	8	9	8	8	9	8	8	7	8	9	10	8	8	9	3	3	2	3	2	2	2	2	3	3
5.7	3	3	3	3	2	2	2	2	3	4	4	5	5	7	8	9	9	8	8	8	6	6	5	5	7	8	5	3	2	2	2	3	2	3	3	2	3
6.7a	3	3	3	3	3	2	2	3	4	6	3	5	8	9	10	11	12	11	11	10	11	10	10	11	12	8	5	4	5	4	3	3	2	3	3	4	4
7.x																																					
8.7a	3	3	3	3	3	2	3	3	2	3	2	2	3	3	3	5	6	6	8	9	8	9	8	8	7	5	4	3	4	3	3	2	3	3	3	3	3
9.7	3	3	3	3	3	2	2	3	3	3	2	3	3	4	5	8	10	13	14	11	11	10	8	7	5	4	3	4	5	4	3	2	2	3	3	3	2
10.7a	2	2	2	2	3	2	2	3	3	3	2	2	3	8	9	10	8	9	8	9	8	6	4	3	3	4	3	3	4	3	2	3	2	3	3	4	3
11.x																																					
12.x																																					
13.9a	-	-	-	-	-	-	-	-	3	3	3	3	4	3	4	2	2	3	5	4	5	8	7	6	5	6	4	4	-	-	-	-	-	-	-	-	-
14.7	4	4	4	4	3	3	4	4	4	5	8	7	6	5	5	4	5	7	10	14	13	12	12	11	12	23	10	7	6	5	4	3	2	3	3	4	4
15.7	-	-	-	-	-	-	-	2	3	3	3	4	4	5	4	5	3	5	8	11	11	10	8	9	11	16	11	4	5	4	3	3	2	2	3	-	-
16.6	3	4	3	2	3	2	3	3	3	3	3	4	2	2	3	3	2	3	5	8	11	12	13	11	11	14	10	5	5	3	2	2	3	3	3	3	3
17.x																																					
18.x																																					
19.x																																					
20.7a	2	2	2	2	2	2	2	2	3	-	3	3	3	4	4	5	5	6	8	12	11	8	7	4	3	2	3	3	2	-	-	-	2	2	3	2	3
21.x																																					
22.x																																					
23.7a	-	-	-	-	-	-	-	-	-	2	2	2	3	13	13	12	9	8	6	5	5	4	4	3	2	-	-	-	-	-	-	-	-	-	-	-	-
24.7	2	3	3	3	3	3	2	2	4	2	3	3	3	23	20	25	20	11	12	13	11	11	10	6	8	5	4	5	3	3	2	2	2	3	3	2	3
25.x																																					
26.7a	-	-	-	-	-	-	-	-	-	-	-	-	3	4	5	12	11	5	8	7	5	3	4	5	4	3	3	2	-	-	-	-	-	-	-	-	-
27.x																																					
28.8a	-	-	-	-	-	-	-	-	-	2	2	3	3	4	5	8	11	10	7	5	6	5	8	5	5	6	5	4	2	-	-	-	-	-	-	-	-
29.x																																					
30.x																																					

Table 99a

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

Date	Degrees north of the solar equator																		0°	Degrees south of the solar equator																	
UT	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																					
Apr 1.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.x																																					
4.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.x																																					
8.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.x																																					
12.x																																					
13.9a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	5	4	3	-	-	-	-	-	-	-	-	-	-
15.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	4	4	3	-	-	-	-	-	-	-	-	-	-
16.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	2	3	2	-	-	-	-	-	-	-	-	-	-
17.x																																					
18.x																																					
19.x																																					
20.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.x																																					
22.x																																					
23.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24.7	-	-	-	-	-	-	-	-	-	-	-	-	2	3	3	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25.x																																					
26.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27.x																																					
28.8a	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29.x																																					
30.x																																					

Table 28b

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

Date	Degrees south of the solar equator																		0°	Degrees north of the solar equator																	
UT	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																					
Apr 1.7a	2	2	-	2	2	2	2	-	3	2	4	2	2	12	11	8	7	10	11	10	7	5	8	5	4	5	4	14	5	2	3	-	-	2	2	2	4
2.7a	2	2	2	2	2	-	-	3	3	2	4	4	4	5	5	9	8	9	7	8	4	5	4	5	4	3	14	23	4	2	2	2	2	3	3	2	2
3.x																																					
4.7a	3	3	2	2	2	2	-	2	3	3	2	2	2	3	4	4	5	8	10	11	6	5	5	3	3	3	4	5	4	2	2	-	-	-	2	3	3
5.7	3	2	2	2	3	2	2	2	3	2	3	2	3	5	3	2	5	8	10	12	7	5	4	3	3	3	4	4	3	3	2	2	-	2	2	2	3
6.7a	4	3	3	3	2	3	3	3	4	5	5	3	4	5	8	7	11	14	15	16	14	11	7	5	4	4	5	6	5	4	-	-	2	4	4	4	3
7.x																																					
8.7a	3	3	3	2	2	3	3	3	3	3	3	2	2	4	5	6	7	8	8	9	8	9	8	9	11	10	8	6	5	3	2	2	3	2	3	3	3
9.7	2	2	2	3	2	2	-	2	3	3	4	2	2	3	6	11	10	11	13	13	12	12	14	20	32	16	11	3	4	3	2	2	2	-	3	2	3
10.7a	3	3	3	3	3	2	3	3	2	2	-	-	-	2	5	12	10	8	9	8	9	11	15	16	23	18	8	3	2	2	2	3	2	2	2	2	2
11.x																																					
12.x																																					
13.9a	-	-	-	-	-	-	-	-	-	-	-	-	2	3	4	4	5	5	6	7	5	5	6	6	5	5	3	4	-	-	-	-	-	-	-	-	-
14.7	4	4	3	3	4	3	2	3	3	3	3	3	3	5	11	14	14	16	14	14	16	14	13	12	10	8	5	6	5	2	2	2	3	2	3	3	4
15.7	-	-	-	-	-	-	-	-	-	-	-	-	2	5	4	5	5	5	7	8	9	10	11	10	8	7	4	4	3	-	-	-	-	-	-	-	-
16.6a	3	2	3	5	4	3	-	-	3	2	3	2	3	6	5	8	5	5	4	6	5	5	5	6	5	5	4	3	3	2	3	2	3	3	2	3	3
17.x																																					
18.x																																					
19.x																																					
20.7a	3	2	2	2	-	2	2	-	2	2	-	3	3	3	3	4	5	5	6	7	5	3	3	4	3	2	3	5	4	3	3	3	2	2	-	2	2
21.x																																					
22.x																																					
23.7a	-	-	-	-	-	-	-	-	-	-	2	3	3	3	4	5	4	3	4	3	5	4	5	5	5	6	-	-	-	-	-	-	-	-	-	-	-
24.7	3	2	3	3	2	2	-	-	2	3	3	4	5	8	14	16	11	9	8	9	11	10	8	7	9	6	4	5	4	3	2	-	-	-	3	2	2
25.x																																					
26.7a	-	X	X	X	X	X	X	X	3	3	4	4	3	5	4	5	7	8	5	4	7	6	4	5	3	3	2	2	2	-	-	-	2	3	3	2	-
27.x																																					
28.8a	-	-	-	2	2	2	-	-	2	2	3	3	5	6	8	6	5	3	4	4	2	3	2	2	3	-	2	-	-	-	-	-	2	3	2	2	-
29.x																																					
30.x																																					

Table 29b

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

Date	Degrees south of the solar equator																		0°	Degrees north of the solar equator																	
UT	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																					
Apr 1.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	4	3	2	-	-	-	-	-	-	-	-	-	-	-
2.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	-	-	-	-	-	-	-	-	-
3.x																																					
4.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.x																																					
8.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
10.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	3	2	-	-	-	-	-	-	-	-	-	-
11.x																																					
12.x																																					
13.9a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.x																																					
18.x																																					
19.x																																					
20.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.x																																					
22.x																																					
23.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25.x																																					
26.7a	-	X	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27.x																																					
28.8a	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29.x																																					
30.x																																					

Table 100

Zürich Provisional Relative Sunspot Numbers

April 1955

Date	R_Z *	Date	R_Z *
1	9	17	13
2	14	18	0
3	8	19	0
4	21	20	0
5	36	21	8
6	30	22	0
7	32	23	0
8	31	24	8
9	19	25	0
10	10	26	0
11	0	27	10
12	0	28	22
13	0	29	23
14	0	30	29
15	7		
16	9	Mean:	11.3

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

Table 101

American Relative Sunspot Numbers

March 1955

Date	R_A	Date	R_A
1	29	17	0
2	22	18	0
3	19	19	0
4	14	20	0
5	10	21	2
6	10	22	0
7	3	23	0
8	3	24	0
9	2	25	0
10	0	26	0
11	0	27	2
12	0	28	0
13	0	29	6
14	0	30	13
15	0	31	12
16	0	Mean:	4.7

Table 102

Solar Flares March-April, 1955

Observatory	Date 1955	Time Observed Beginning (GCT)	Time Observed Ending (GCT)	Duration (Min)	Area (Mill) (of) (Visible) (Hemisph)	Position Latitude (Deg)	Position Longitude Diff (Deg)	Time of Maximum (GCT)	Int. of Maximum	Relative Area of Maximum (Tenths)	Importance	SID Observed
S. Peak	Mar. 3*	1820	1840	20	84	N25	W65	1825	10	.7	(1-)	None Obs. Wash.D.C.
Climax	Apr. 26	1614	1659	45	x	N35	E90	1632	x	x	1	Yes at 1704

S. Peak = Sacramento Peak.

( ) Importance rating deduced by CRPL from the reported observations.

* Inadvertently omitted in CRPL-F128.

Table 103

Indices of Geomagnetic Activity for February 1955

Preliminary values of international character-figures, C;
Geomagnetic planetary three-hour-range indices, Kp;
Daily "equivalent amplitude", Ap;
Magnetically selected quiet and disturbed days

Feb. 1955	C	Values Kp Three-hour Gr. interval 1	2	3	4	5	6	7	8	Sum	A_p	Final Selected Days
1	0.1	0o	0o	0+	1-	1+	1o	1o	1+	6-	3	Five
2	0.3	1o	0+	1+	1o	1+	2-	2-	2-	10o	5	Quiet
3	0.6	4-	3+	2+	1+	1o	2-	1o	2+	17-	10	
4	1.2	1o	2+	3-	5-	3o	3o	4o	4o	25-	18	1
5	0.9	4-	2+	3-	3-	3o	2+	3+	4o	24o	16	2
												10
6	0.9	2-	3+	3-	2+	3o	3+	3-	4-	23-	14	19
7	0.8	4-	4o	3-	2o	4o	3o	2o	1o	22+	15	27
8	1.0	2o	2-	2-	2o	2-	4-	4-	4-	20o	12	
9	0.6	2+	3-	4-	3+	2o	2+	3-	1o	20o	12	
10	0.2	1+	1+	3-	2-	1+	1o	2-	2-	13-	6	
11	1.1	1-	1o	1o	1+	2o	4-	5-	5-	19o	15	Five
12	0.8	3+	3+	2+	2o	2+	2o	3-	4-	22-	13	Disturbed
13	0.7	4o	3o	2-	3+	2-	3o	2+	0o	19o	12	
14	0.8	1+	3-	3-	2o	2+	3o	2+	4-	20o	11	4
15	0.4	3+	3o	3+	2o	1-	0o	0o	0o	12+	8	5
												22
16	0.5	0o	0+	1o	2+	3-	2-	2+	2o	12+	6	23
17	0.3	3o	2o	1o	2o	2o	0+	0+	2-	12+	6	28
18	0.5	1+	3+	2o	1+	0+	0o	3-	3+	14+	8	
19	0.1	2o	2+	2+	1-	2-	1o	1o	1+	12+	6	Ten
20	0.6	1o	3-	2o	2o	3-	2o	3-	1o	16o	8	Quiet
21	0.8	3o	5-	3o	2o	3-	2+	2o	2-	21+	14	1
22	0.8	3o	4+	3-	4-	3o	2o	3-	3-	24o	16	2
23	1.2	3+	3o	3o	4+	4+	4o	4o	2+	28+	22	10
24	0.8	3-	3o	3-	2o	3+	1+	3-	2-	19+	11	15
25	0.8	4-	4-	2-	3+	2+	3-	1+	3-	21+	13	16
												17
26	0.5	3+	4o	1+	2o	1+	1-	2-	1o	15+	9	18
27	0.2	0o	0+	2-	1o	1+	1+	2o	2+	10o	5	19
28	1.4	5+	6o	4o	4-	5o	3+	1-	2-	30-	32	20
Mean:	0.67									Mean:	12	27

Table 104

Indices of Geomagnetic Activity for March 1955

Preliminary values of international character-figures, C;
Geomagnetic planetary three-hour-range indices, Kp;
Daily "equivalent amplitude", Ap;
Magnetically selected quiet and disturbed days

Mar. 1955	C	Values Kp Three-hour Gr. interval 1	2	3	4	5	6	7	8	Sum	A_p	Final Selected Days
1	0.1	1-	1o	0+	1-	1o	1o	1+	1o	7o	4	Five
2	0.1	2-	1+	1+	1+	1-	1-	1-	0+	6o	4	Quiet
3	0.1	0o	2o	2o	1+	1o	0+	0o	0o	7-	3	1
4	0.2	0+	1o	1-	1+	0+	0o	2o	2+	8o	4	2
5	0.7	2+	3-	2-	2-	2-	2+	2+	3+	18o	9	3
												4
6	0.7	4o	2+	2o	3-	2+	1+	3o	2+	20o	12	29
7	1.3	5-	4-	3+	3+	1+	4+	6o	4o	31-	40	
8	1.1	4-	3-	3+	2o	2o	4+	4o	3o	25o	18	
9	1.4	4-	3+	4-	3-	3o	4o	5o	3+	29-	23	
10	1.1	3-	3o	4+	4o	4+	3-	4o	4-	29-	22	
11	1.0	3+	3+	4o	4-	4o	4-	2o	1+	25+	18	Five
12	1.0	4o	4+	4-	3-	3o	4-	4-	3+	28+	21	Disturbed
13	0.8	3-	3o	3-	2o	2+	3-	4o	3-	22o	13	7
14	0.9	4o	2+	1o	2+	2+	4-	3+	3o	22o	14	9
15	1.0	3+	4o	4+	3+	3-	2-	3o	3o	25+	18	22
												30
16	0.8	3o	4-	2-	1+	1-	2o	3-	3-	18-	10	31
17	0.9	3+	2o	3+	3+	3-	3o	1+	2o	21o	12	
18	1.1	2+	1+	3-	3o	3-	5-	4-	2o	22+	15	
19	0.3	3-	1o	2-	1-	1-	1+	2o	1o	11o	6	
20	0.3	2-	1+	2o	1+	1+	1-	1-	3+	12+	6	
21	0.5	3+	1o	2-	2-	2-	1o	2+	3-	15+	8	Ten
22	1.6	2-	2o	3o	5o	6o	6+	4-	2+	30o	35	Quiet
23	1.2	2o	1o	2o	1o	3+	4o	5o	5+	24-	21	1
24	0.5	4-	4o	3o	3o	2o	1o	1o	1-	18+	12	2
25	0.4	0+	0+	2o	2o	1-	2+	3-	2-	12o	6	3
												4
26	0.8	1-	2+	4o	3+	3+	2+	1-	2+	19o	12	19
27	0.6	1o	2-	2-	4+	3-	2+	2-	2-	17o	10	20
28	0.2	2o	1o	2+	2-	1o	0+	0+	2o	11-	5	21
29	0.0	2-	1o	1+	1+	1o	0o	0+	0+	7o	4	25
30	1.1	1+	0+	1o	3o	3-	2o	4+	6-	20+	18	28
31	1.6	6o	6o	6+	5o	3+	4+	5-	4+	40o	53	29
Mean:	0.75									Mean:	15	

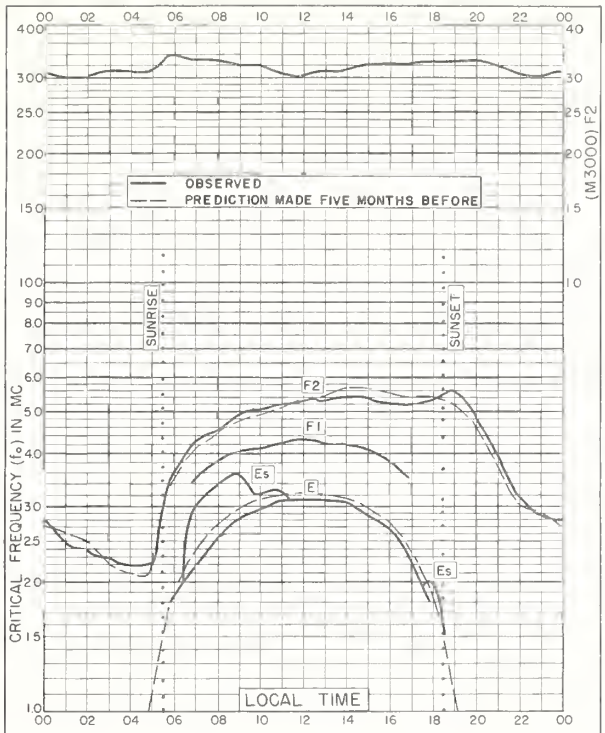


Fig. 1. WASHINGTON, D. C.
38.7°N, 77.1°W APRIL 1955

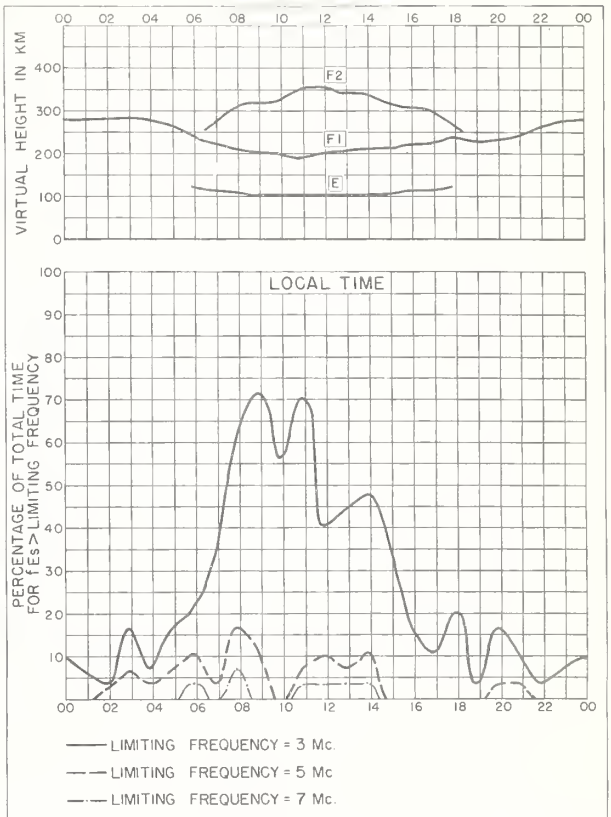


Fig. 2. WASHINGTON, D. C. APRIL 1955

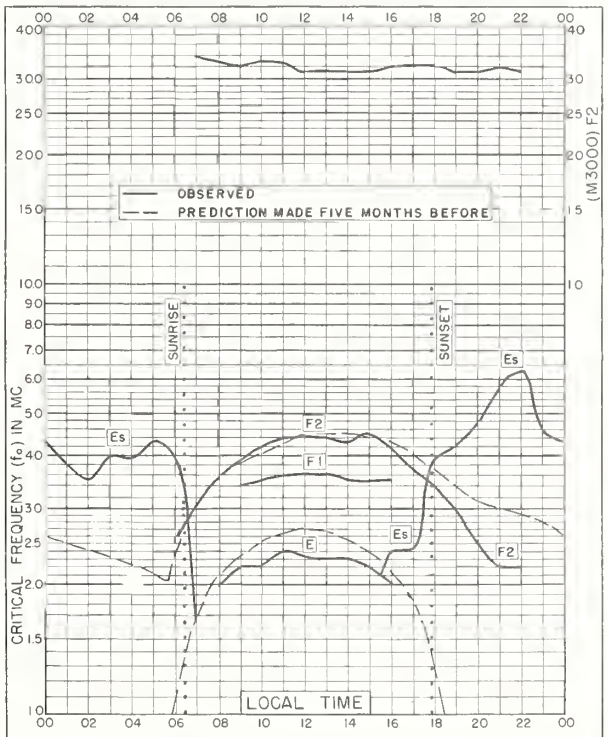


Fig. 3. NARSARSSUAK, GREENLAND
61.2°N, 45.4°W MARCH 1955

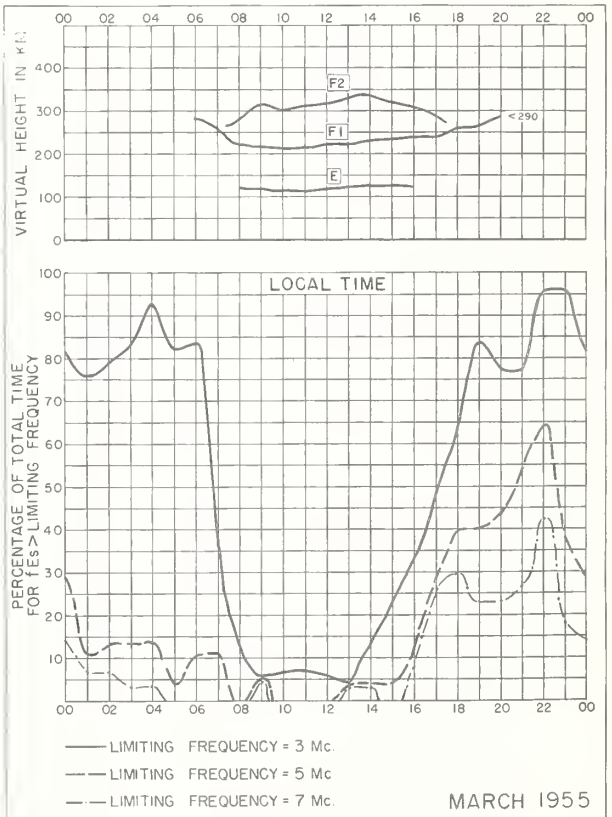


Fig. 4. NARSARSSUAK, GREENLAND MARCH 1955

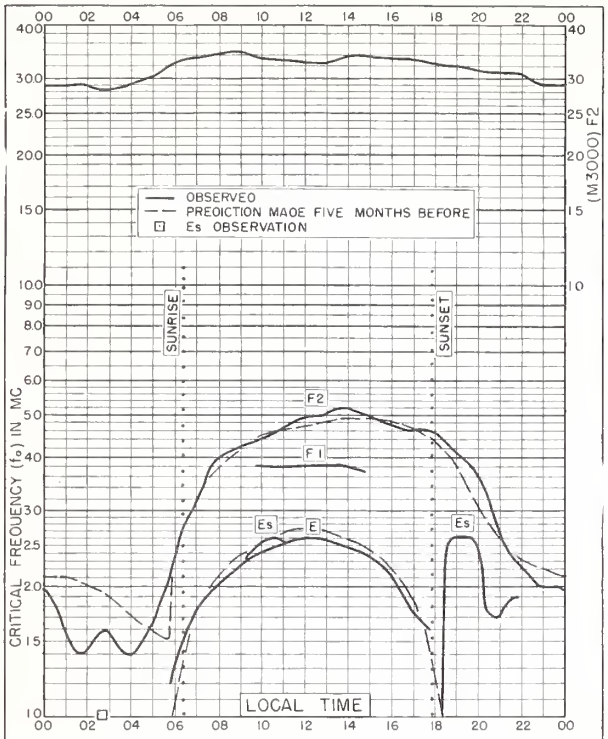


Fig. 5. OSLO, NORWAY
60.0°N, 11.1°E MARCH 1955

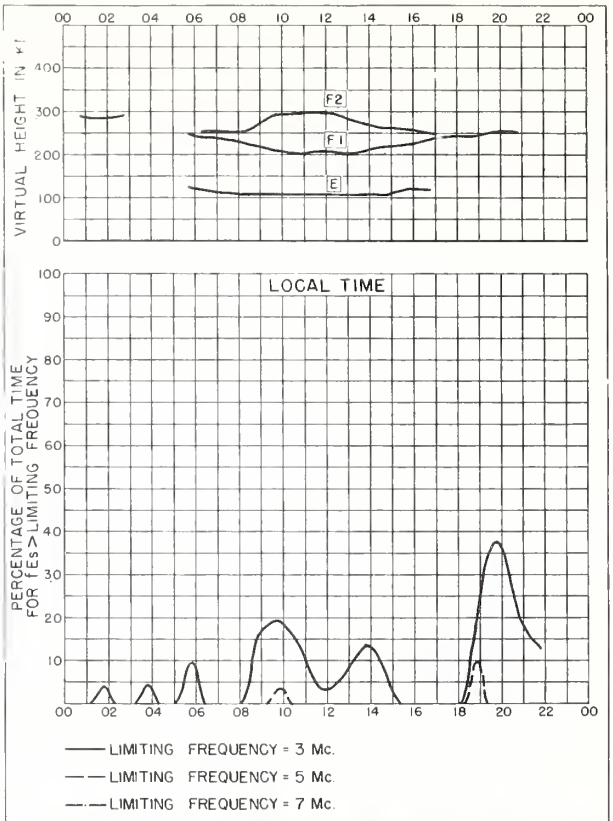


Fig. 6. OSLO, NORWAY MARCH 1955

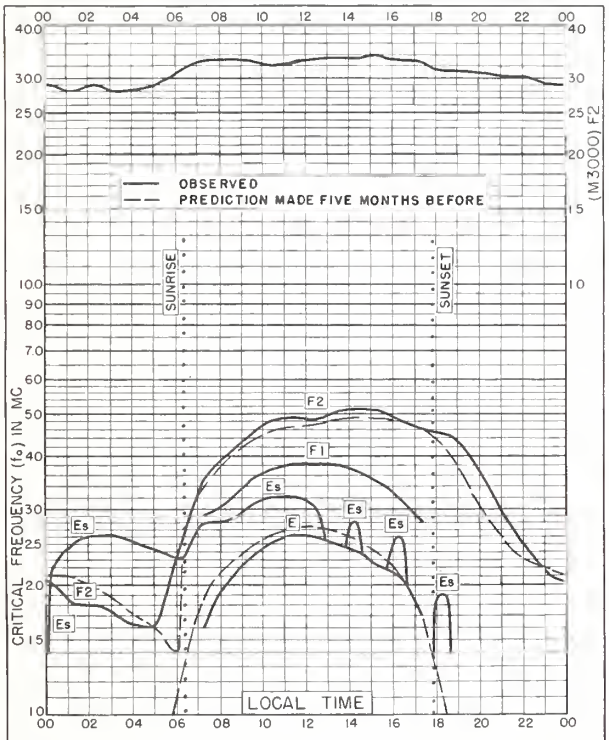


FIG 7. UPSALA, SWEDEN
59.8°N, 17.6°E MARCH 1955

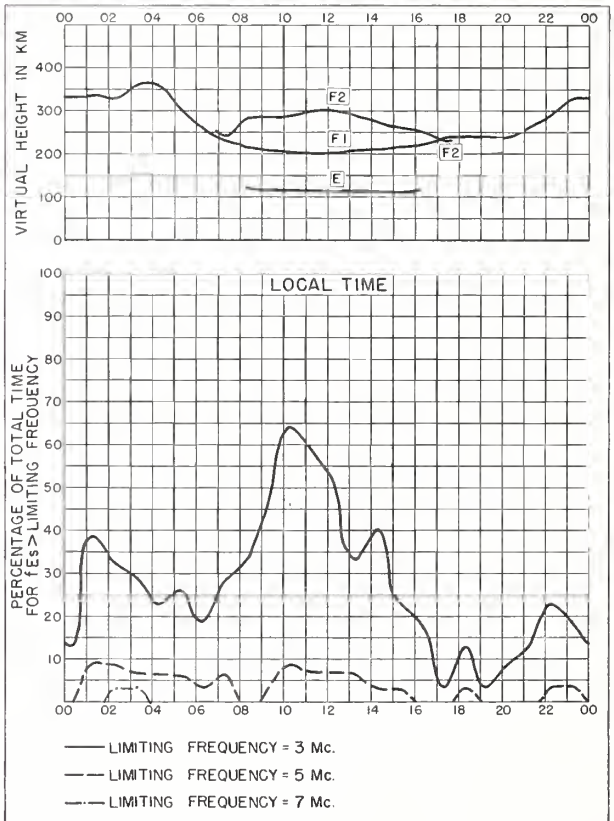


FIG. 8. UPSALA, SWEDEN MARCH 1955

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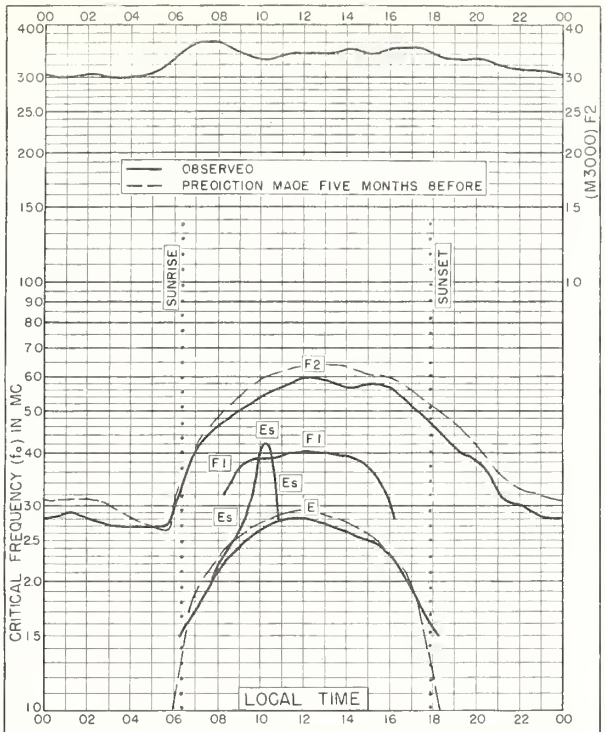


Fig. 9. ADAK, ALASKA
51.9°N, 176.6°W MARCH 1955

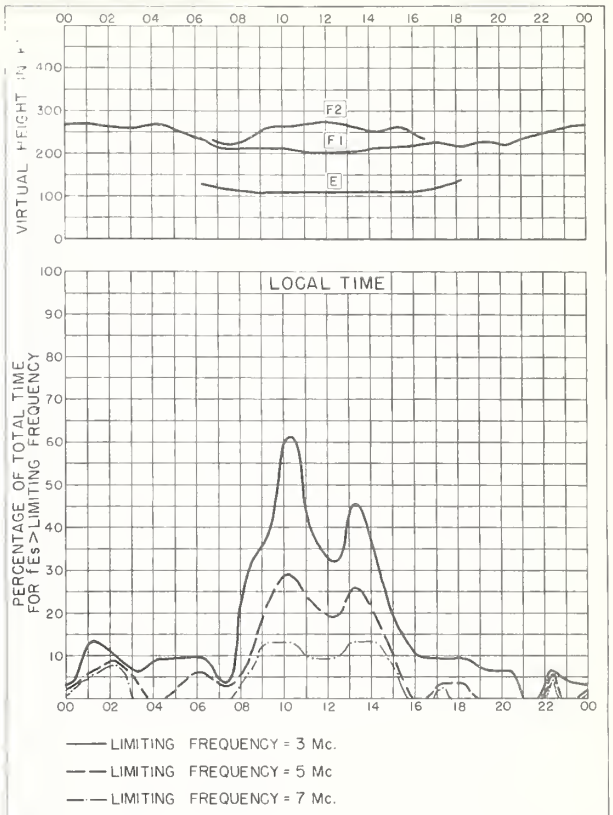


Fig. 10. ADAK, ALASKA MARCH 1955

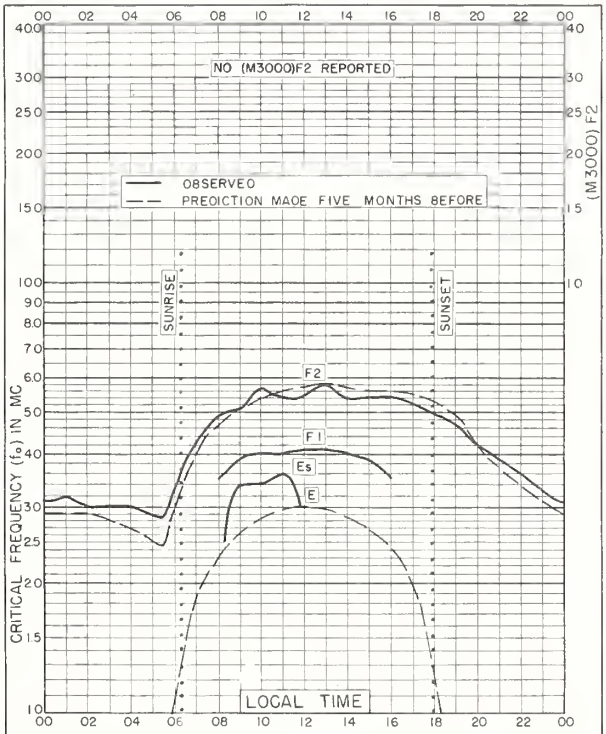


Fig. 11. GRAZ, AUSTRIA
47.1°N, 15.5°E MARCH 1955

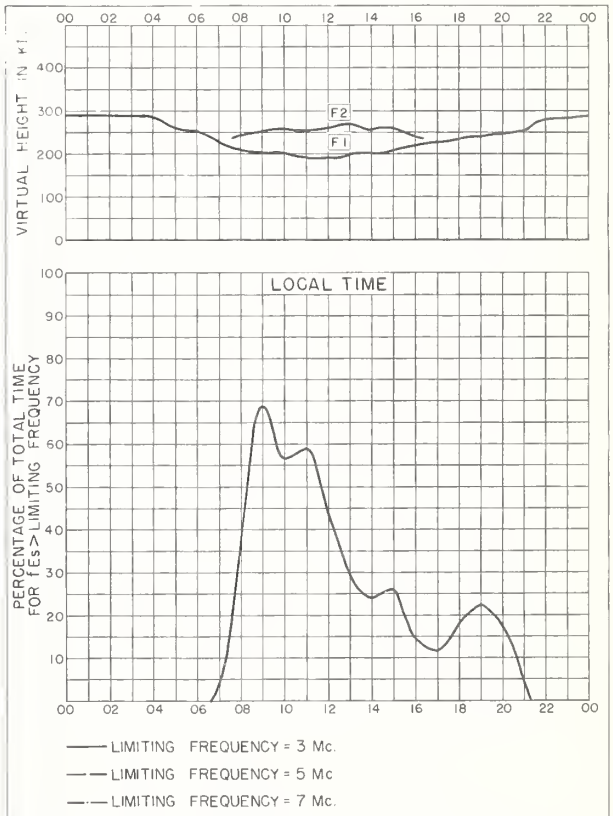


Fig. 12. GRAZ, AUSTRIA MARCH 1955

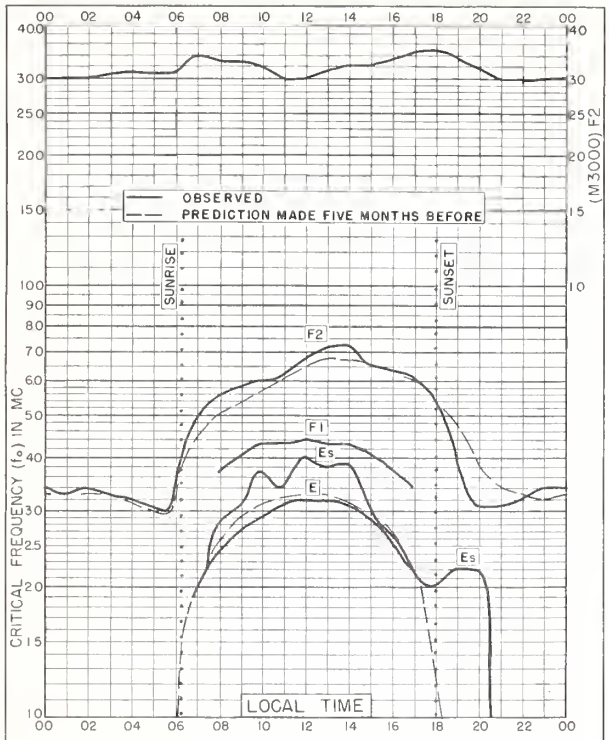


Fig. 13. WHITE SANDS, NEW MEXICO
32.3°N, 106.5°W MARCH 1955

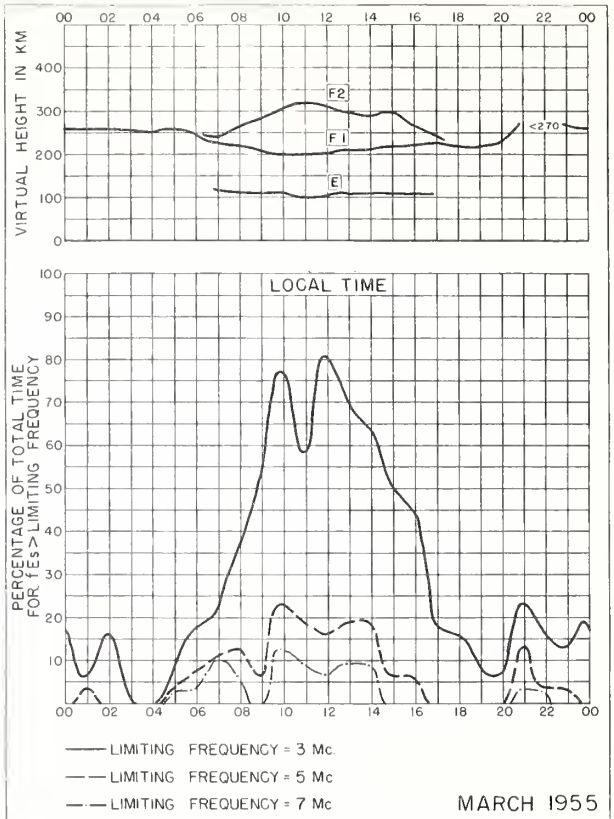


Fig. 14. WHITE SANDS, NEW MEXICO MARCH 1955

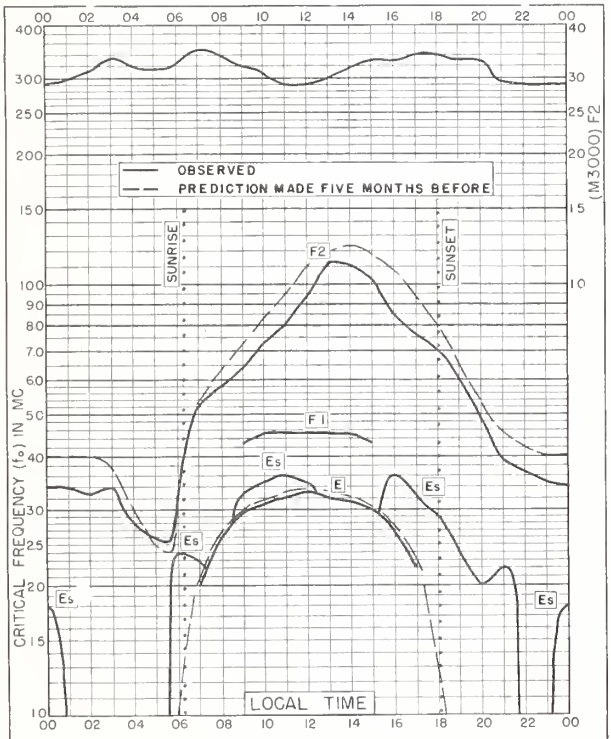


Fig. 15. OKINAWA I.
26.3°N, 127.8°E MARCH 1955

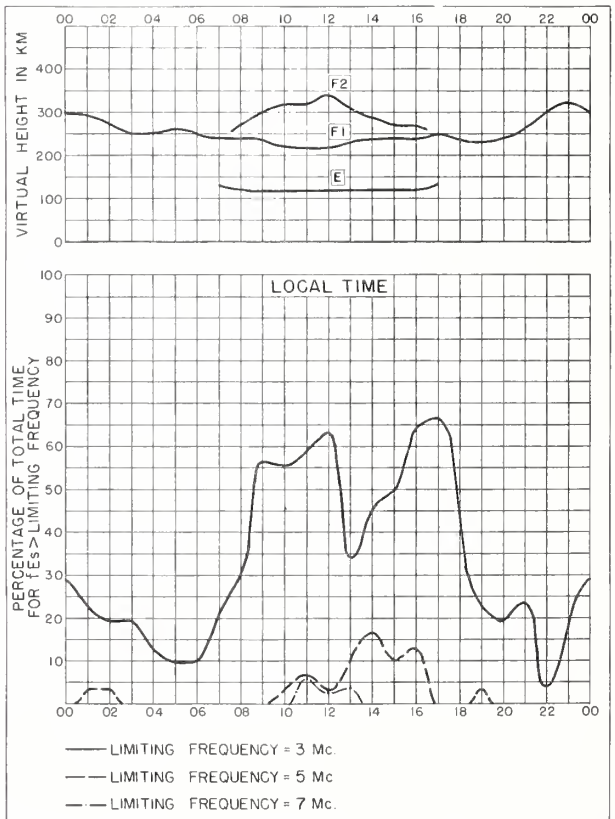


Fig. 16. OKINAWA I. MARCH 1955

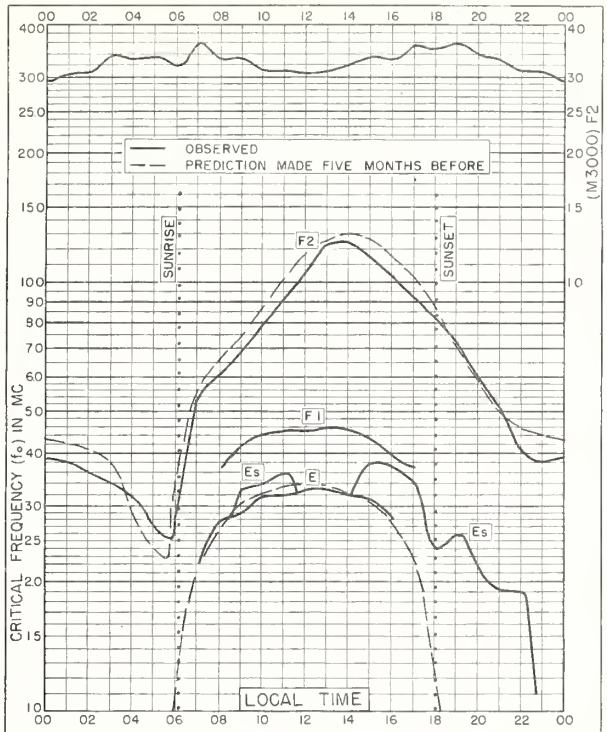


Fig. 17. FORMOSA, CHINA
25.0°N, 121.5°E MARCH 1955

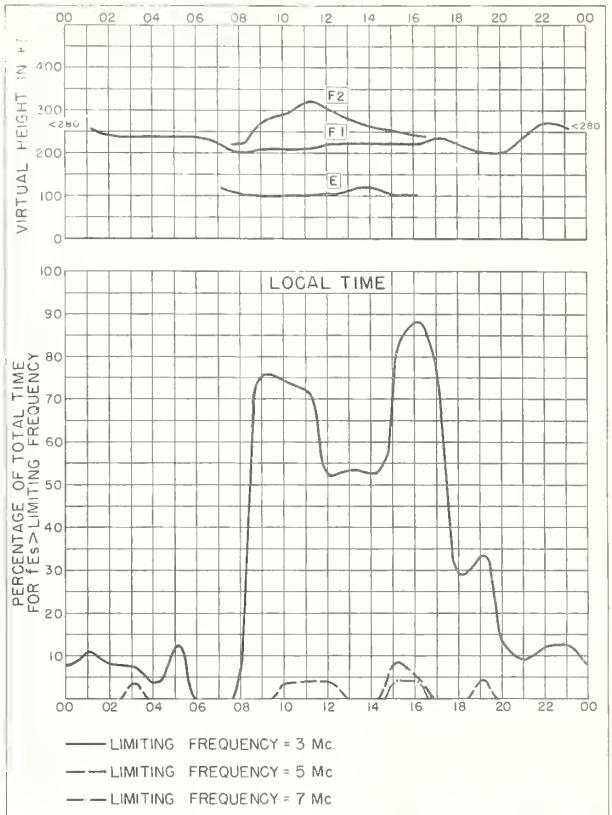


Fig. 18. FORMOSA, CHINA MARCH 1955

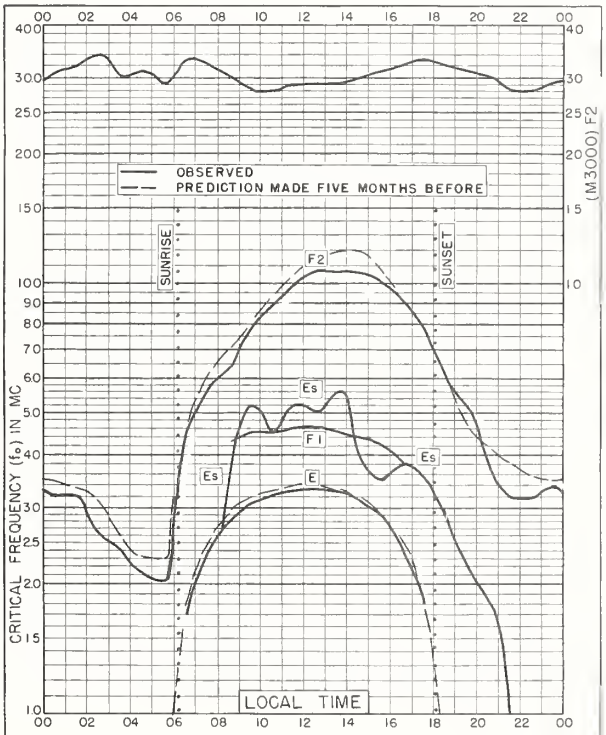


Fig. 19. MAUI, HAWAII
20.8°N, 156.5°W MARCH 1955

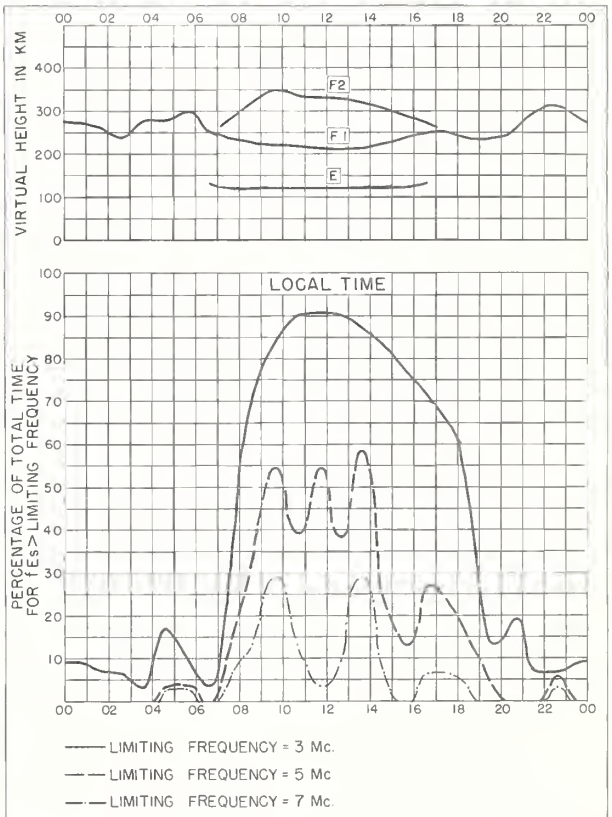


Fig. 20. MAUI, HAWAII MARCH 1955

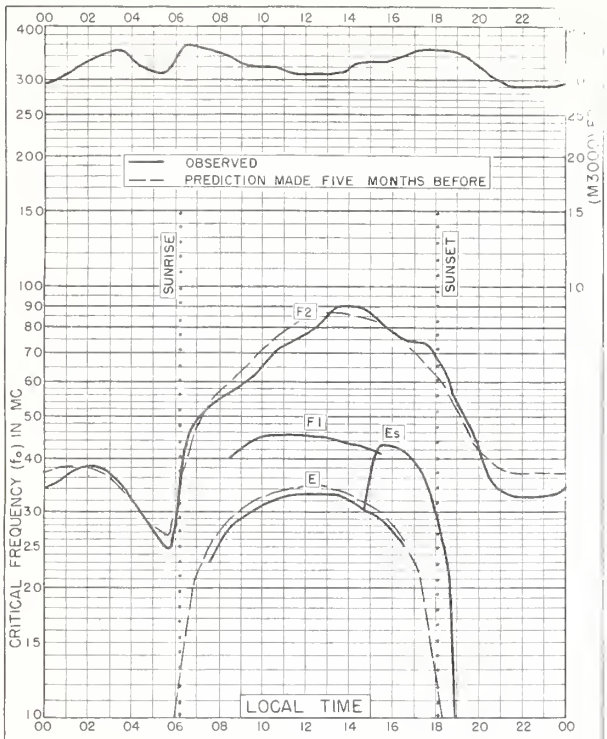


Fig. 21. PUERTO RICO, W. I.
18.5°N, 67.2°W MARCH 1955

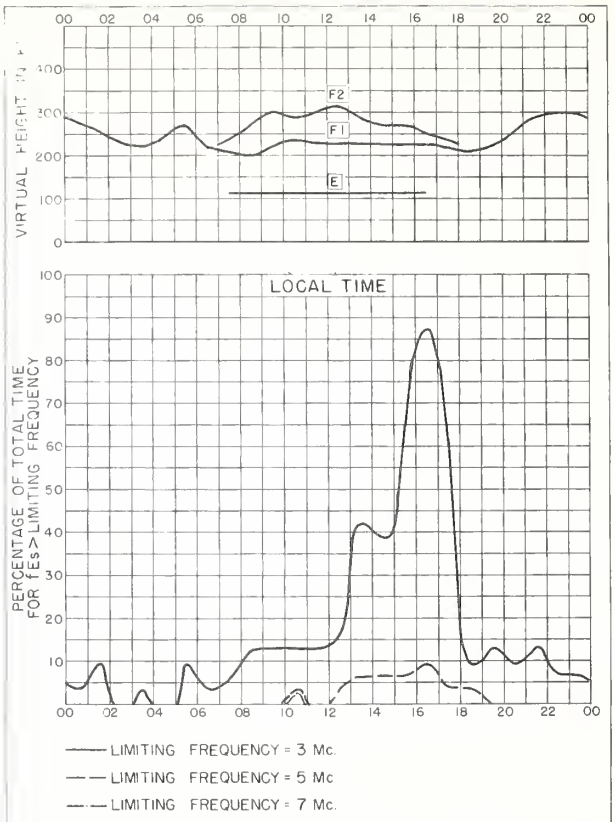


Fig. 22. PUERTO RICO, W. I. MARCH 1955

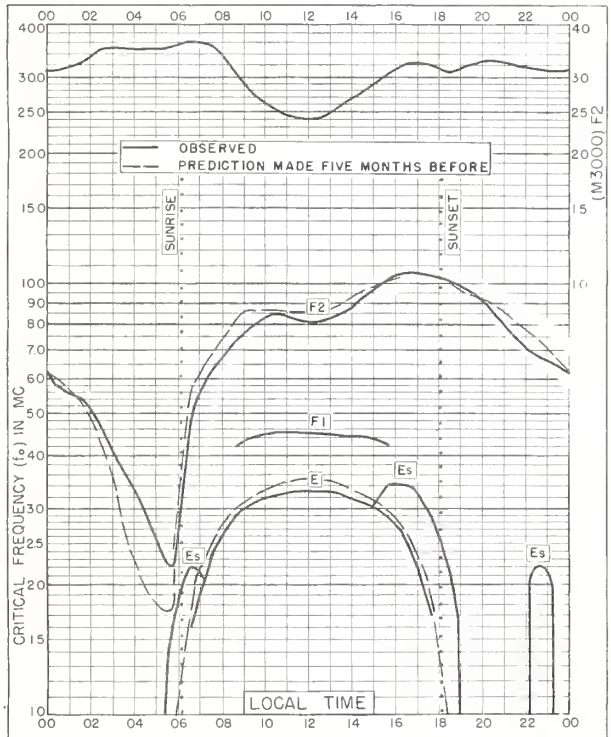


FIG 23. GUAM I
13.6°N, 144.9E MARCH 1955

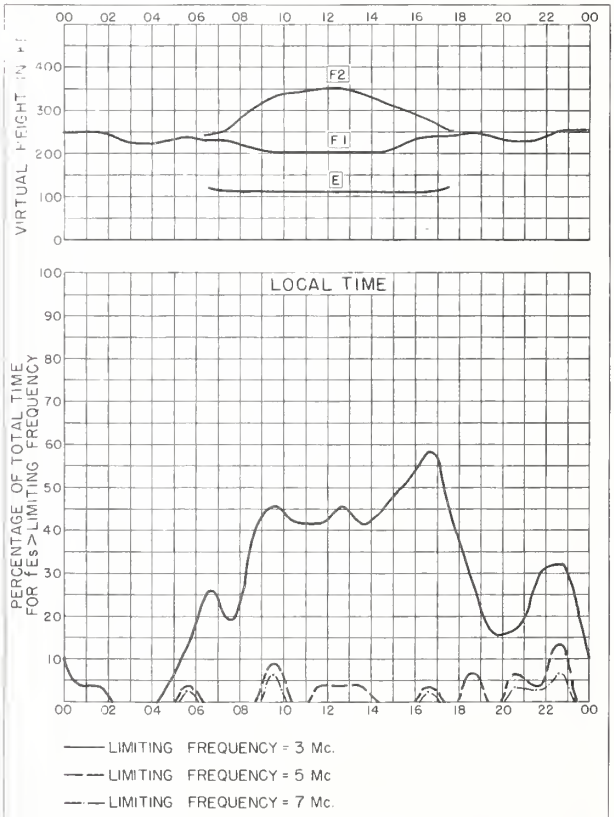


FIG 24. GUAM I. MARCH 1955

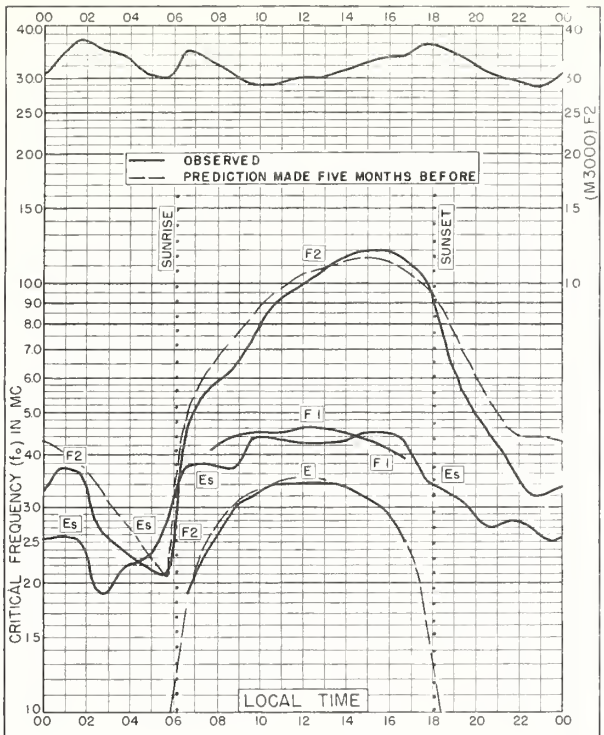


Fig. 25. PANAMA CANAL ZONE
9.4°N, 79.9°W MARCH 1955

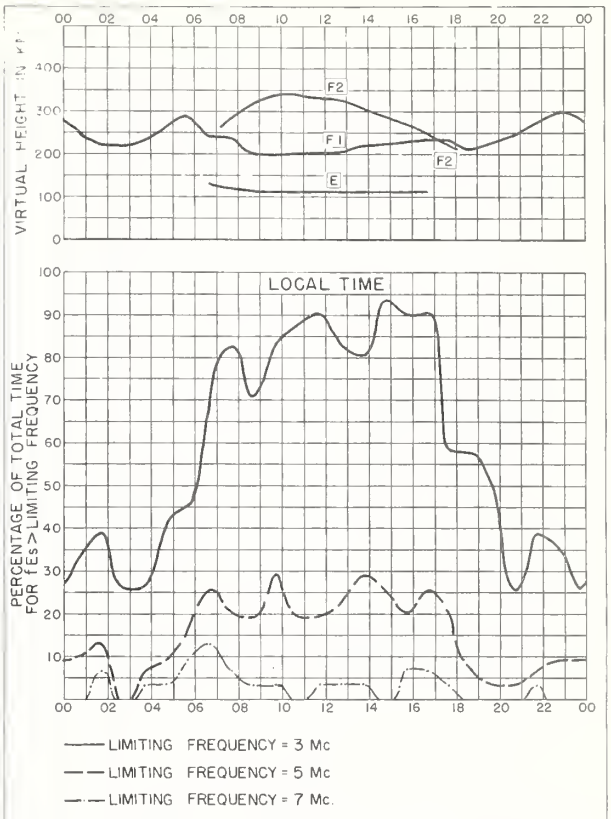


Fig. 26. PANAMA CANAL ZONE MARCH 1955

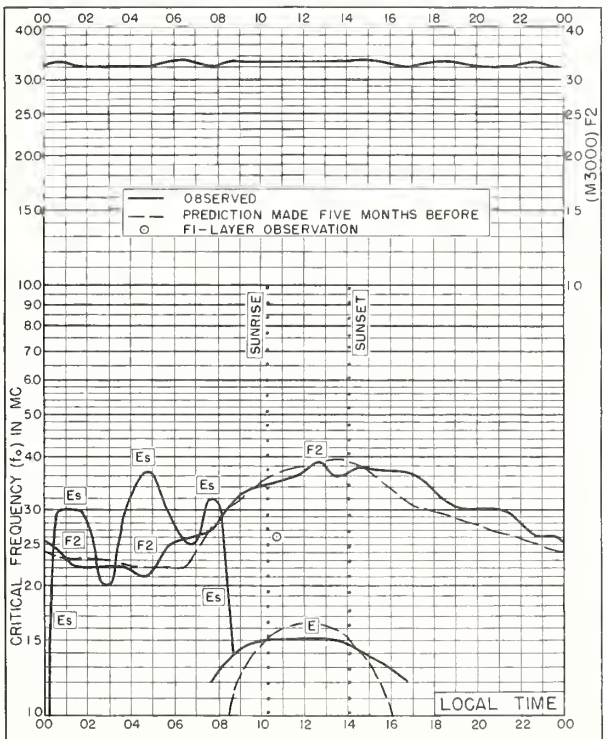


FIG. 27. RESOLUTE BAY, CANADA
74.7°N, 94.9°W FEBRUARY 1955

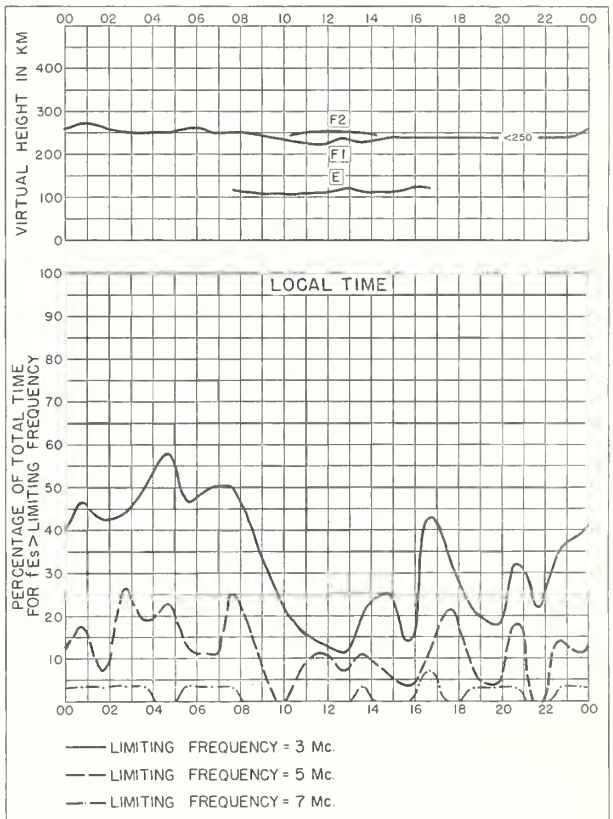


FIG. 28. RESOLUTE BAY, CANADA FEBRUARY 1955

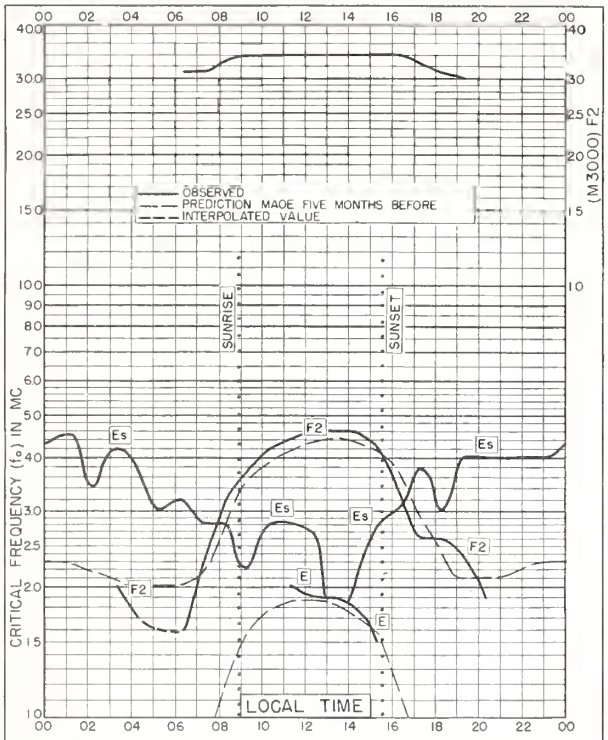


Fig. 29. TROMSO, NORWAY
69.7°N, 19.0°E FEBRUARY 1955

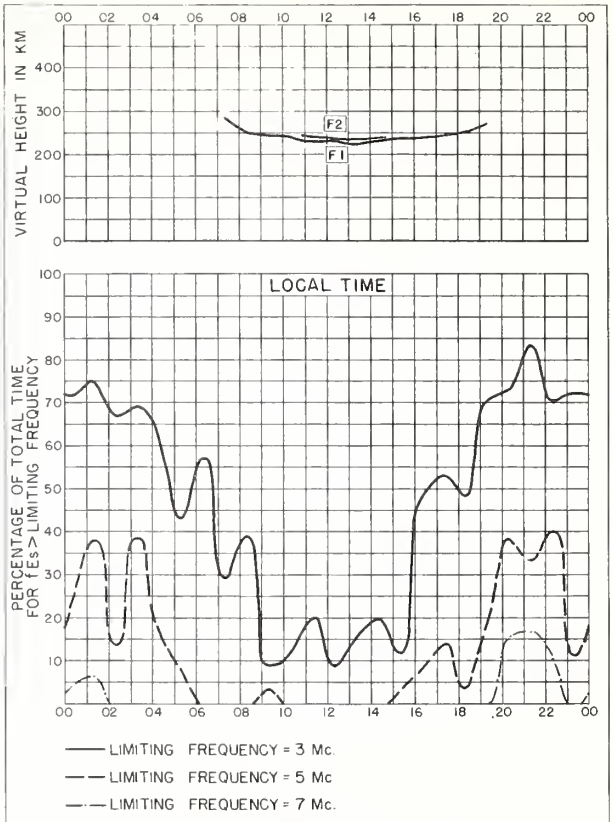


Fig. 30. TROMSO, NORWAY FEBRUARY 1955

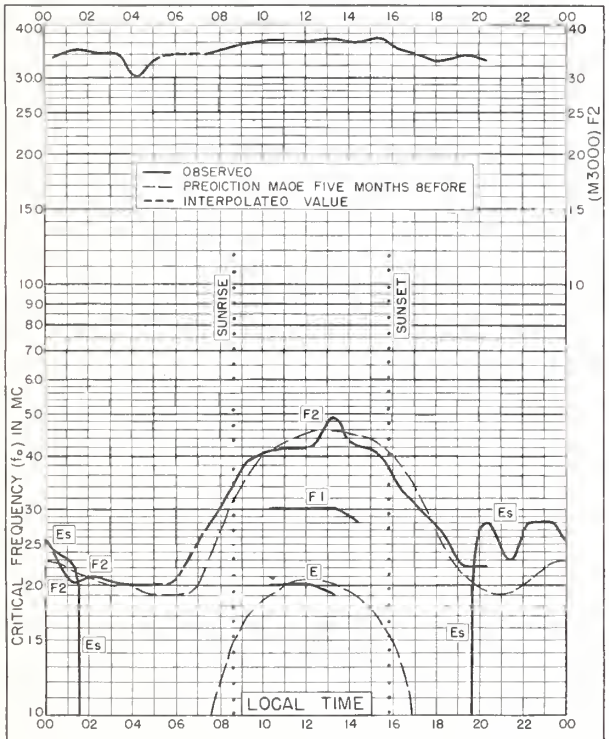


FIG. 31. KIRUNA, SWEDEN
67.8°N, 20.3°E FEBRUARY 1955

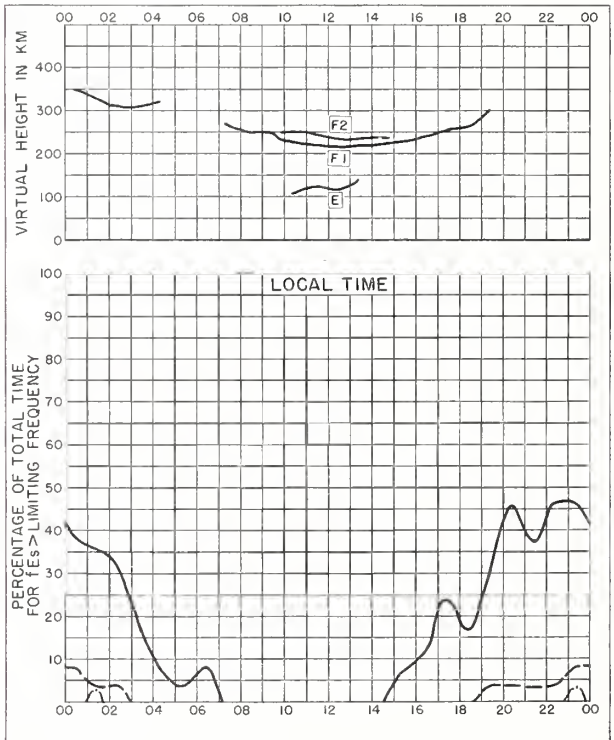


FIG. 32. KIRUNA, SWEDEN FEBRUARY 1955

NBS 490

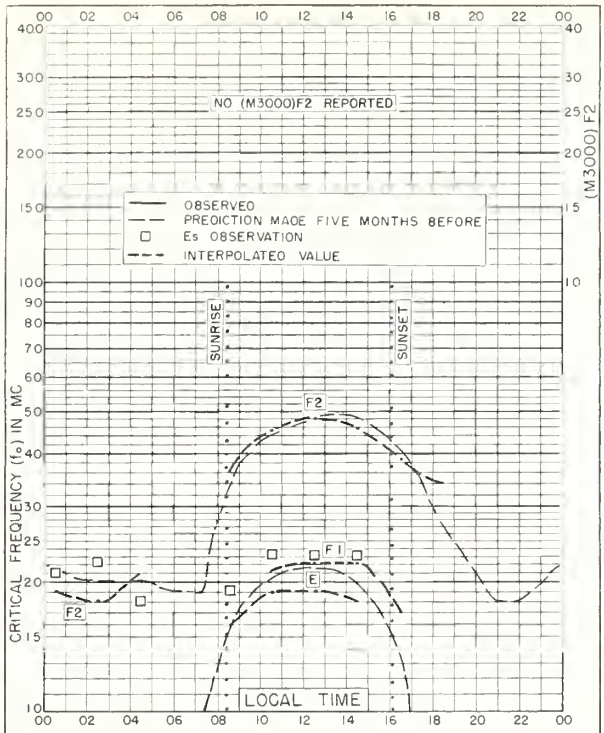


FIG 33. LULEA, SWEDEN
65.6°N, 22.1°E FEBRUARY 1955

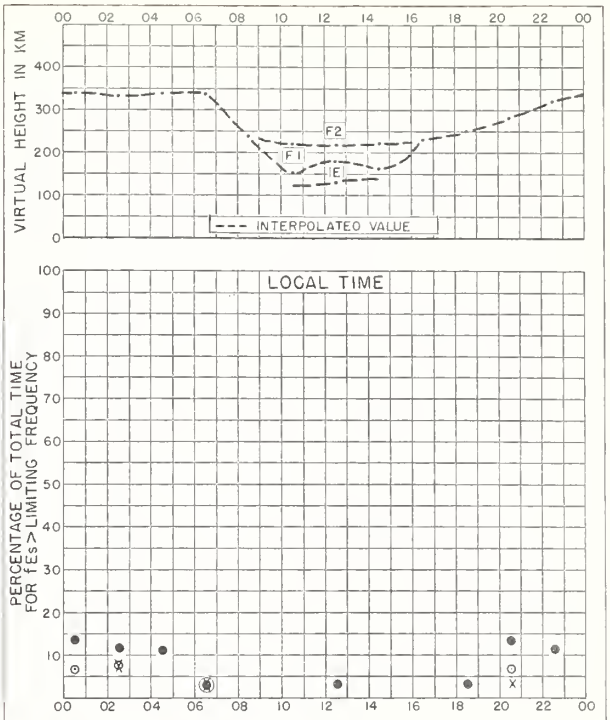


FIG. 34. LULEA, SWEDEN FEBRUARY 1955

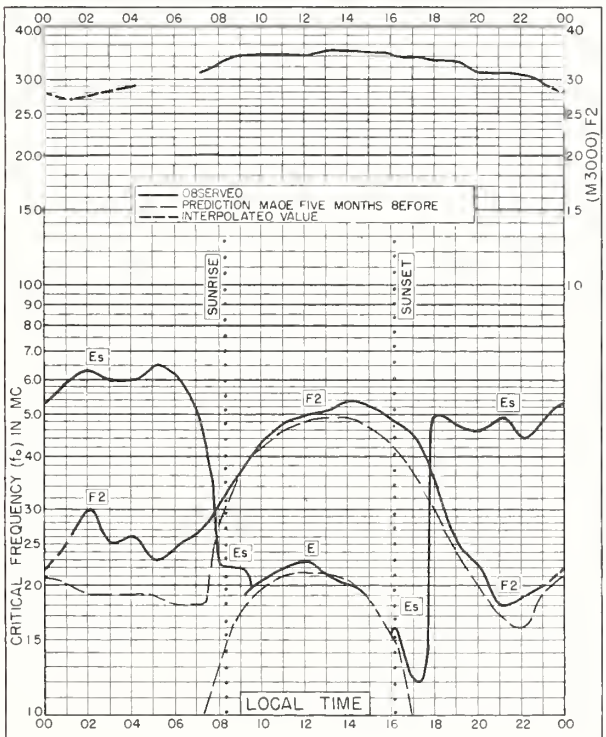


Fig. 35. FAIRBANKS, ALASKA
64.9°N, 147.8°W FEBRUARY 1955

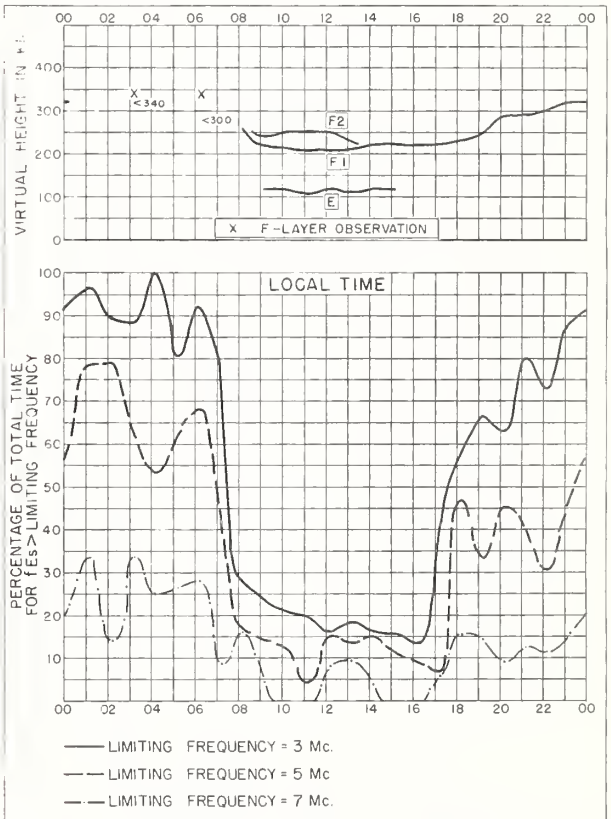


Fig. 36. FAIRBANKS, ALASKA FEBRUARY 1955

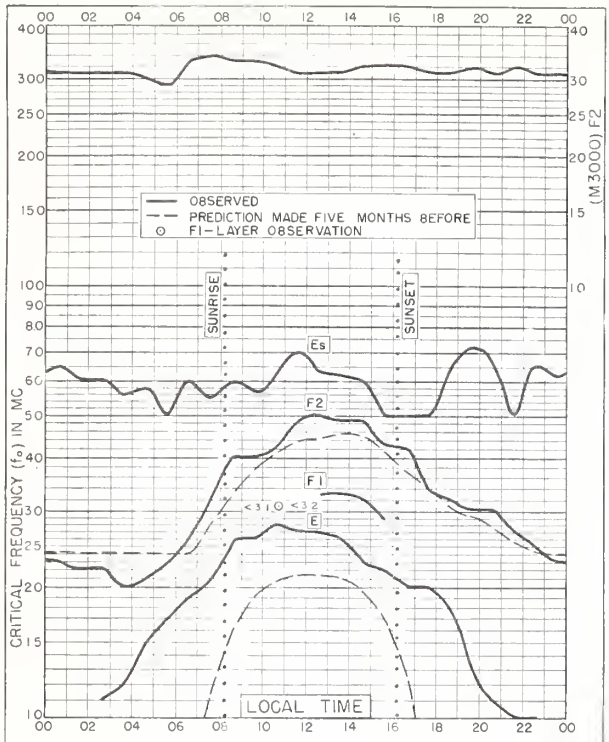
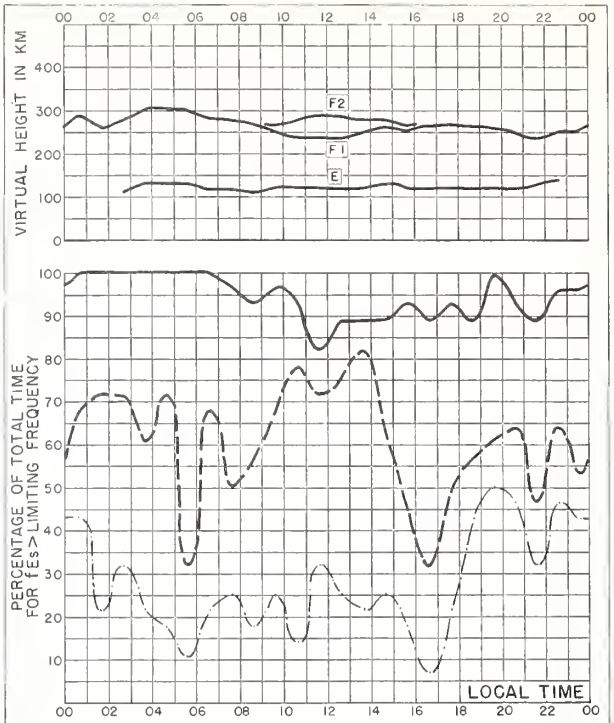


Fig. 37. BAKER LAKE, CANADA
64.3°N, 96.0°W FEBRUARY 1955



FEBRUARY 1955

Fig. 38. BAKER LAKE, CANADA

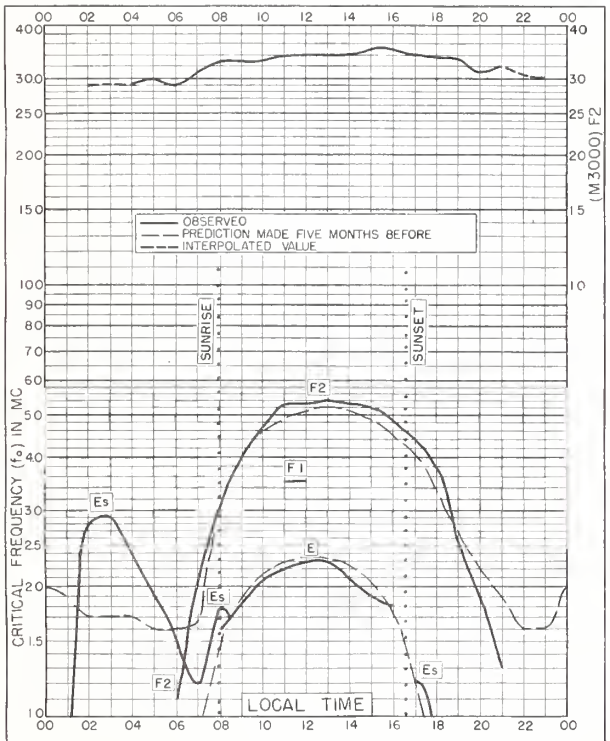


Fig. 39. ANCHORAGE, ALASKA
61.2°N, 149.9°W FEBRUARY 1955

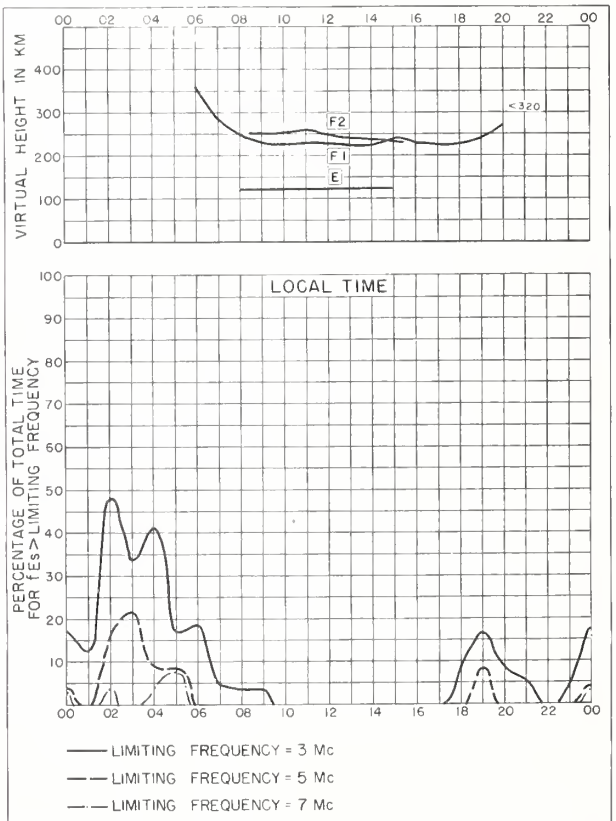


Fig. 40. ANCHORAGE, ALASKA FEBRUARY 1955

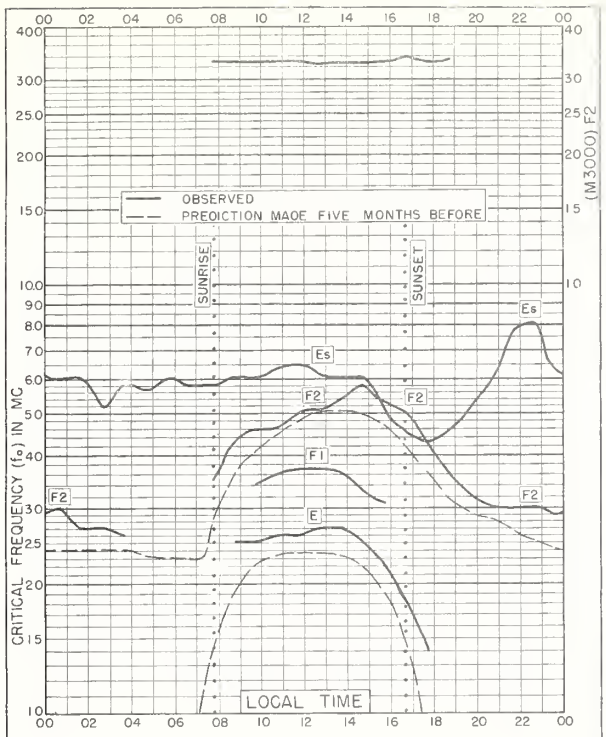


FIG 41. CHURCHILL, CANADA
58.8°N, 94.2°W FEBRUARY 1955

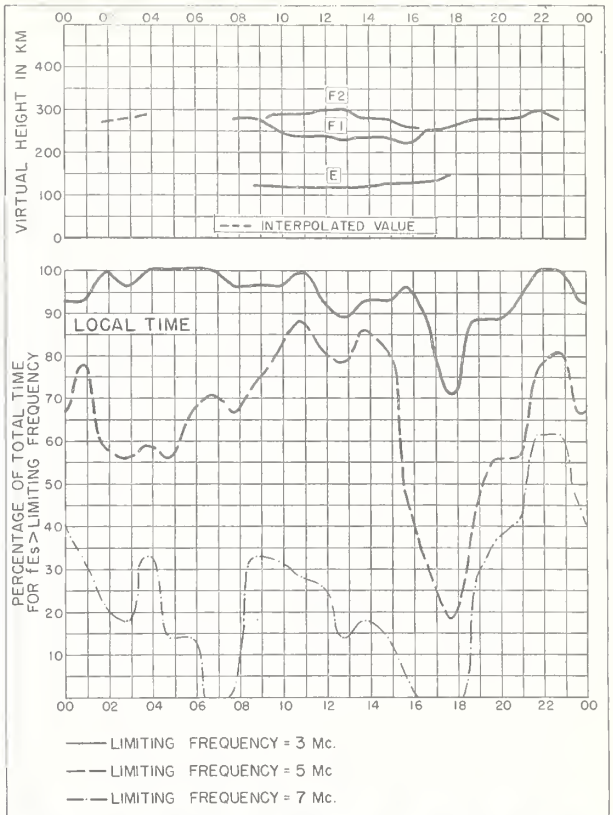


FIG. 42. CHURCHILL, CANADA FEBRUARY 1955

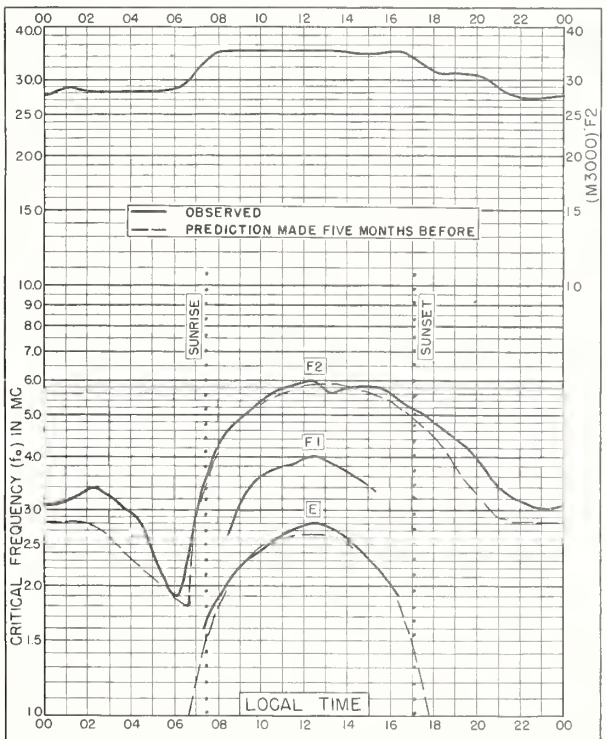


Fig. 43. De BILT, HOLLAND
52.1°N, 5.2°E FEBRUARY 1955

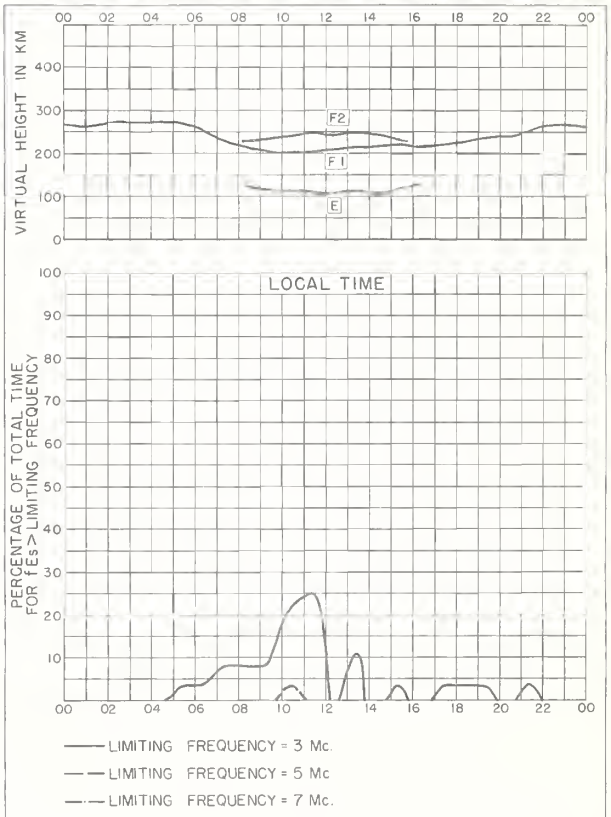


Fig. 44. De BILT, HOLLAND FEBRUARY 1955

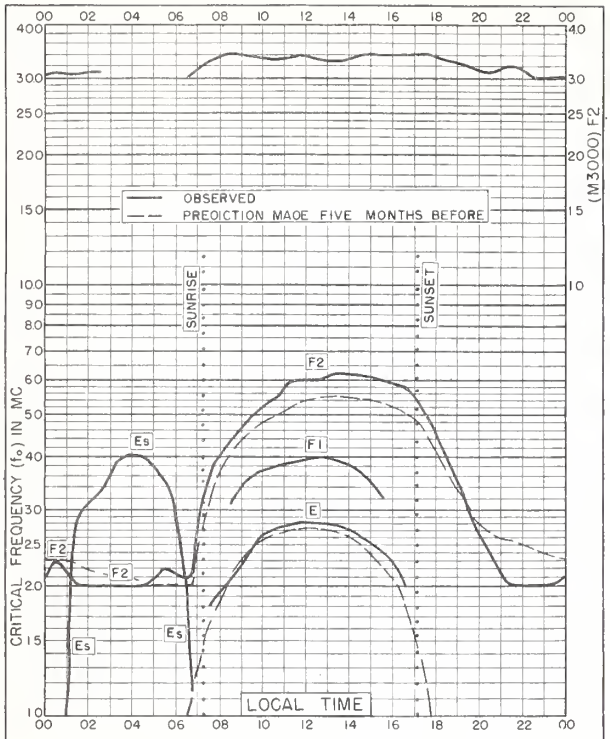


Fig. 45. WINNIPEG, CANADA
49.9°N, 97.4°W FEBRUARY 1955

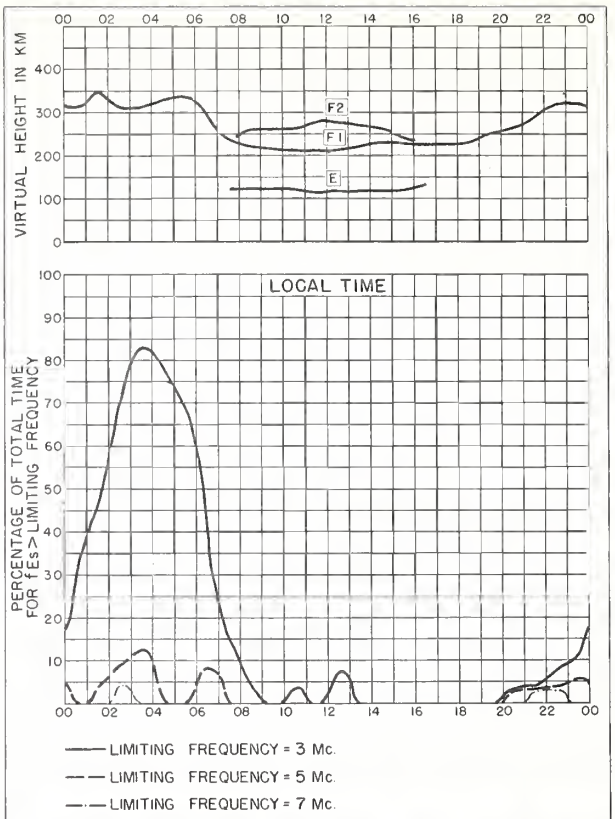


Fig. 46. WINNIPEG, CANADA FEBRUARY 1955

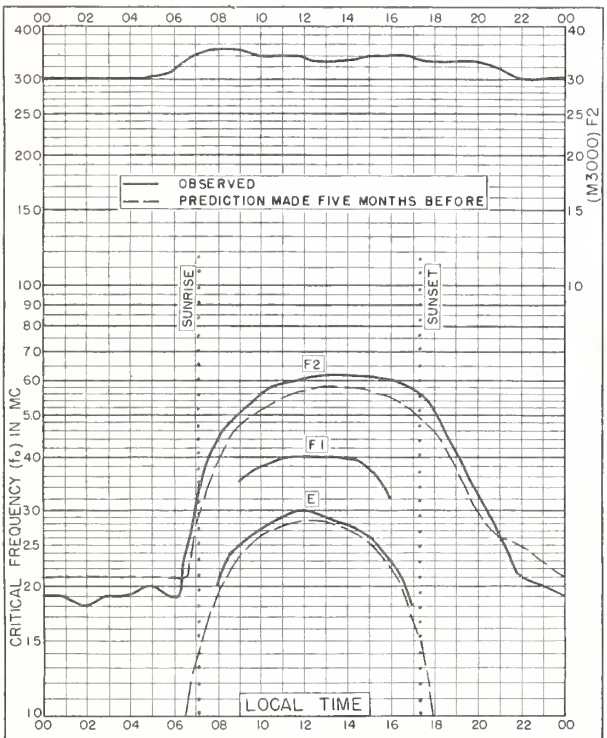


FIG 47. OTTAWA, CANADA
45.4°N, 75.9°W FEBRUARY 1955

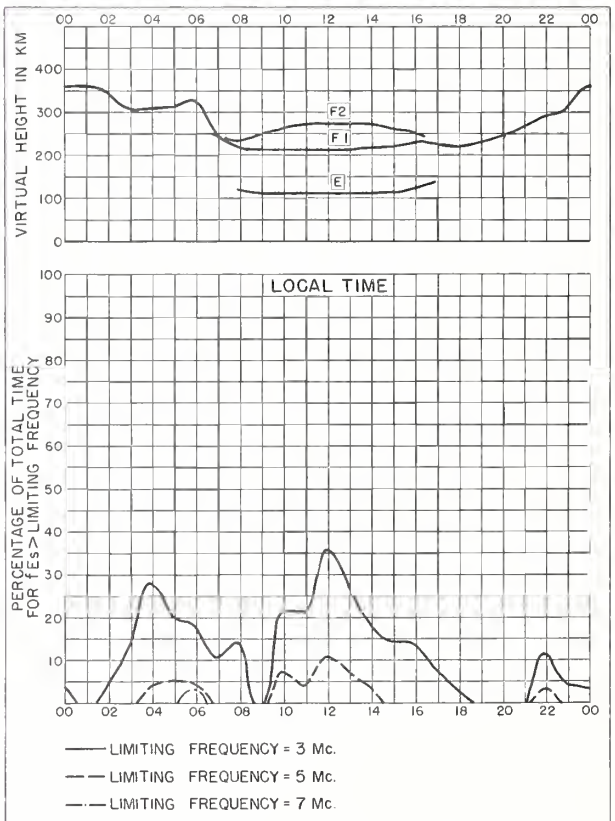


FIG 48. OTTAWA, CANADA FEBRUARY 1955

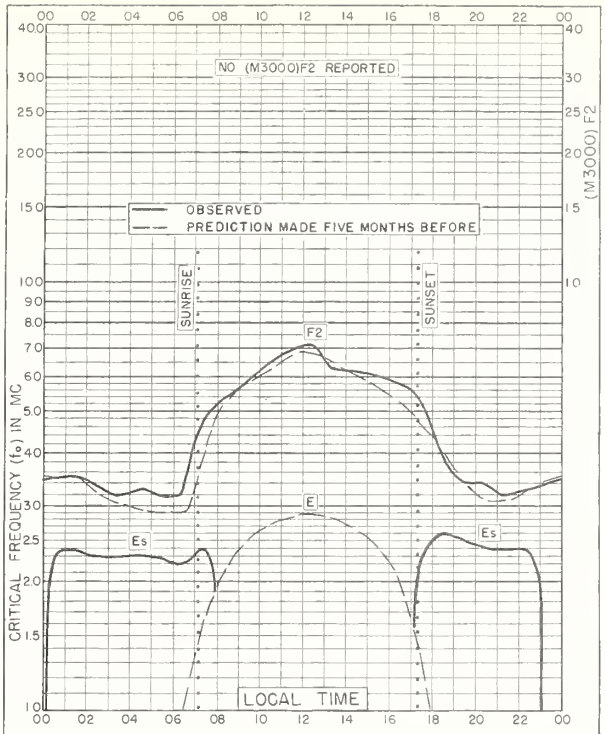


Fig. 49. WAKKANAI, JAPAN
45.4°N, 141.7°E FEBRUARY 1955

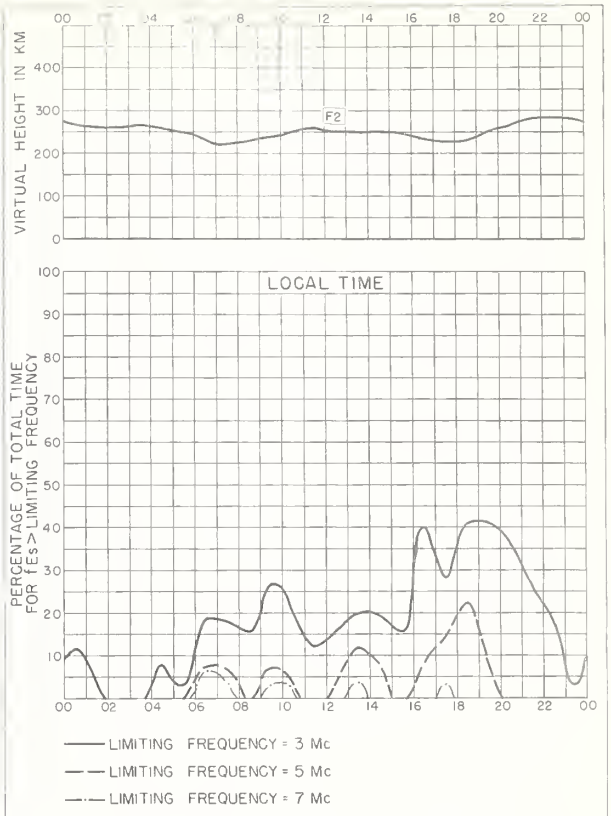


Fig. 50. WAKKANAI, JAPAN FEBRUARY 1955

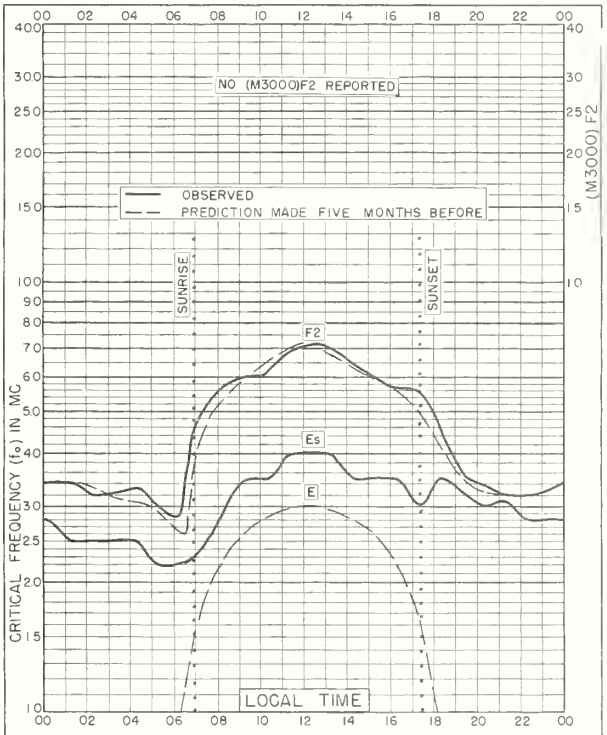


Fig. 51. AKITA, JAPAN
39.7°N, 140.1°E FEBRUARY 1955

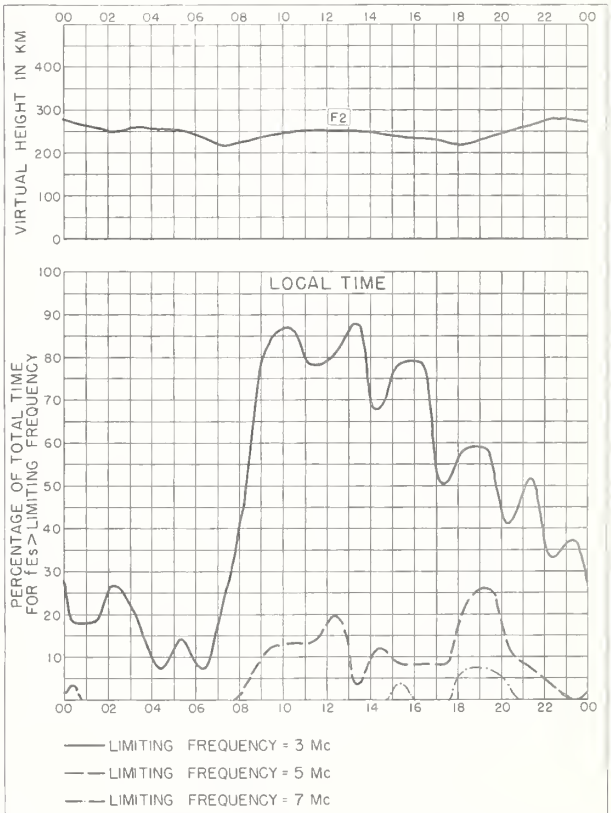


Fig. 52. AKITA, JAPAN FEBRUARY 1955

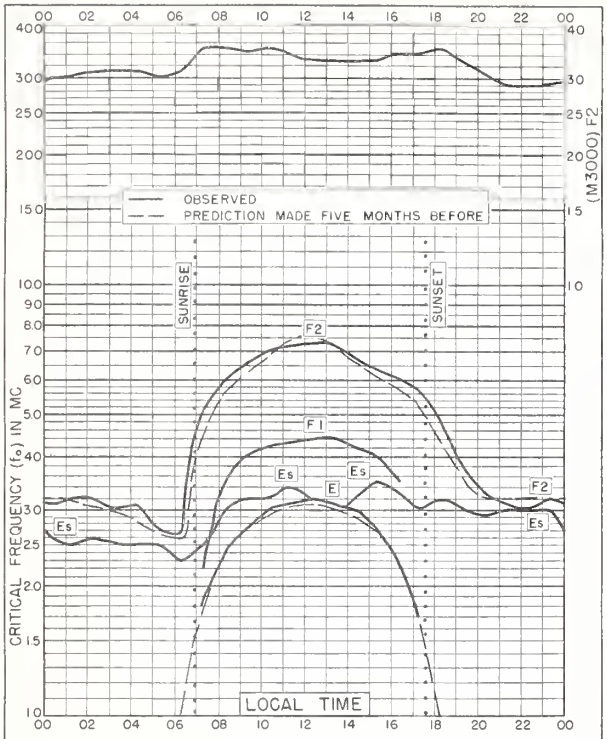


Fig. 53. TOKYO, JAPAN
35.7°N, 139.5°E FEBRUARY 1955

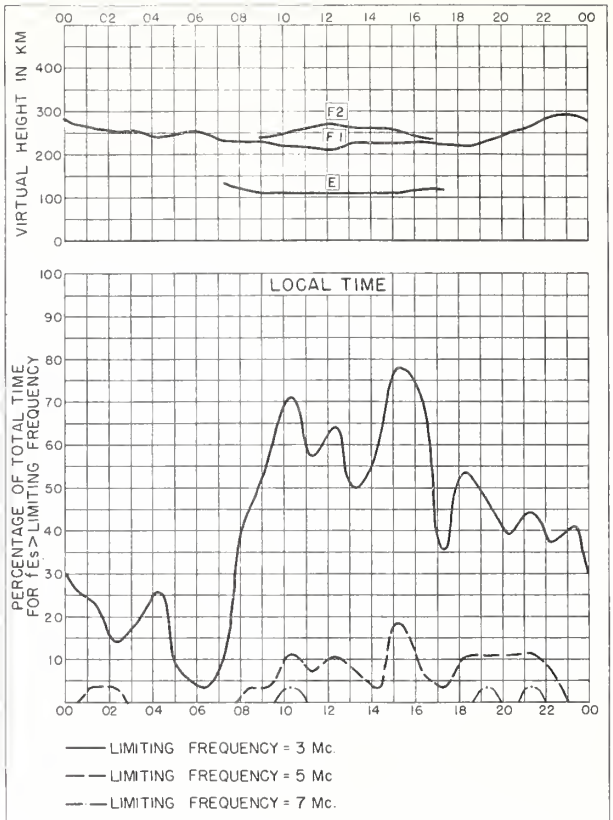


Fig. 54. TOKYO, JAPAN FEBRUARY 1955

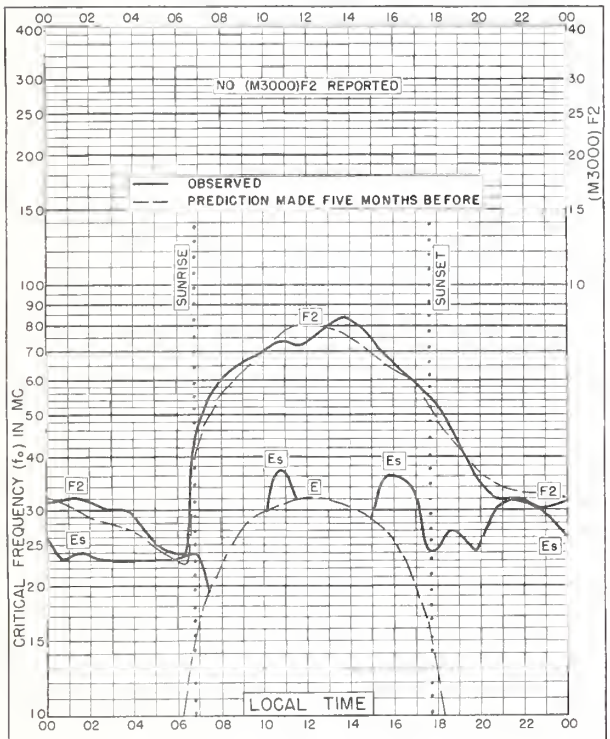


Fig. 55. YAMAGAWA, JAPAN
31.2°N, 130.6°E FEBRUARY 1955

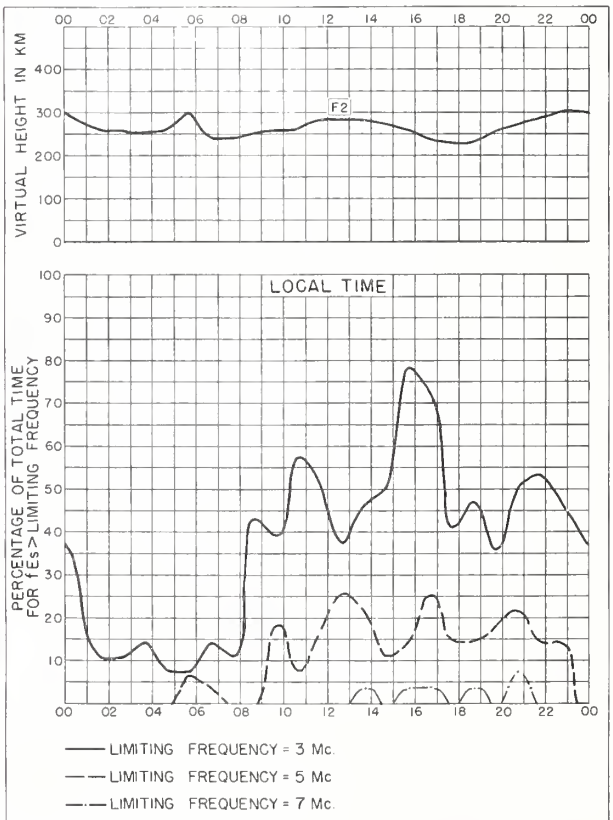


Fig. 56. YAMAGAWA, JAPAN FEBRUARY 1955

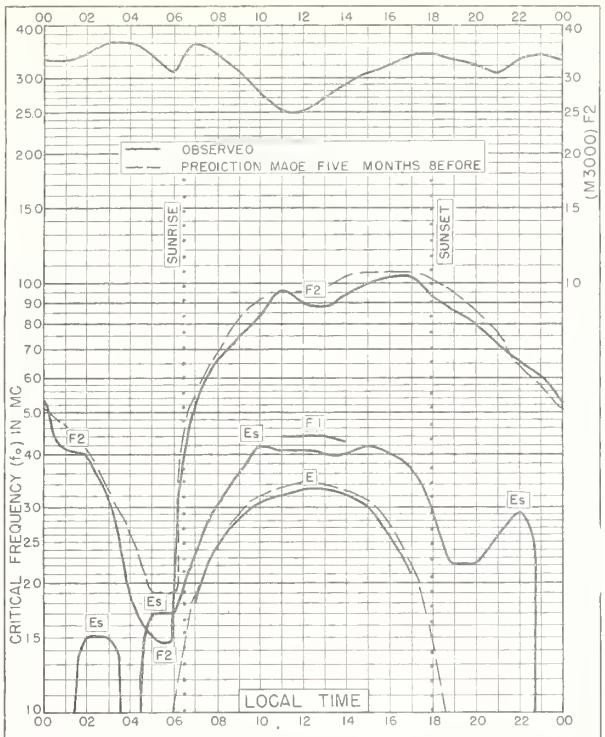


Fig. 57. BAGUIO, P. I.
16.4°N, 120.6°E FEBRUARY 1955

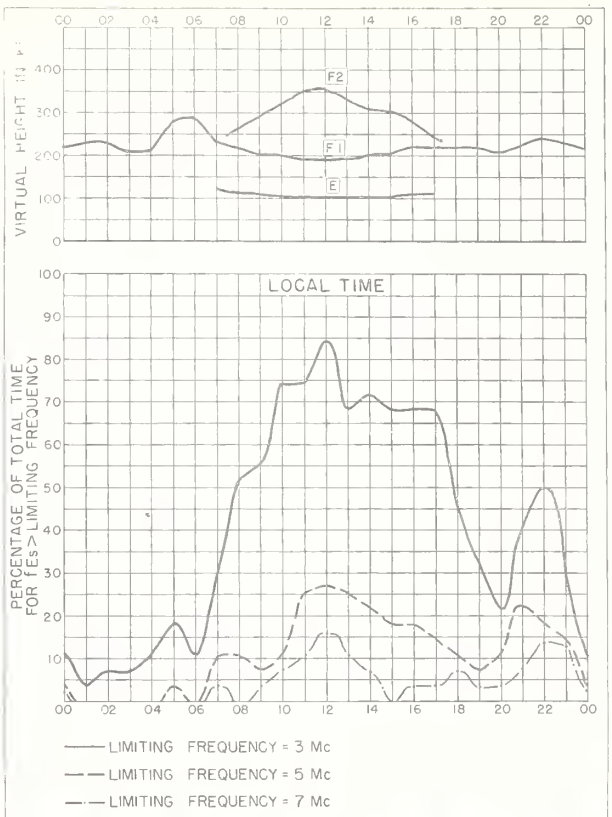


Fig. 58. BAGUIO, P. I. FEBRUARY 1955

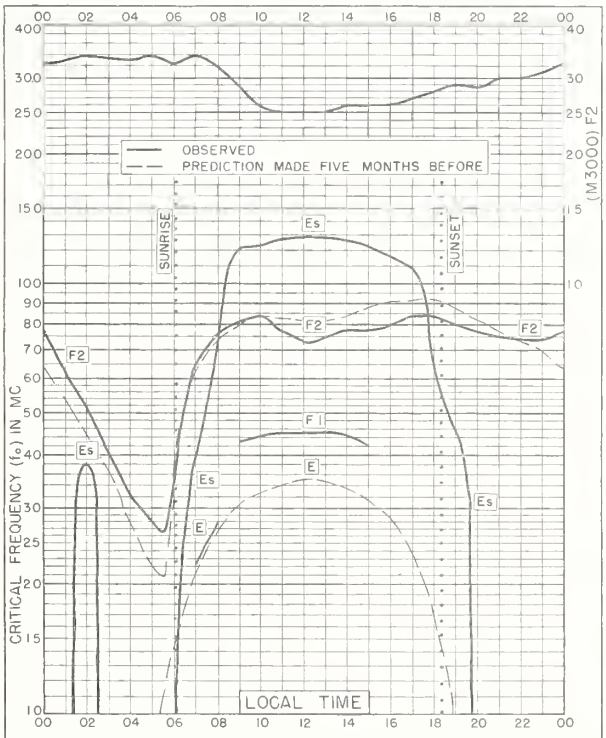


Fig. 59. HUANCAYO, PERU
12.0°S, 75.3°W FEBRUARY 1955

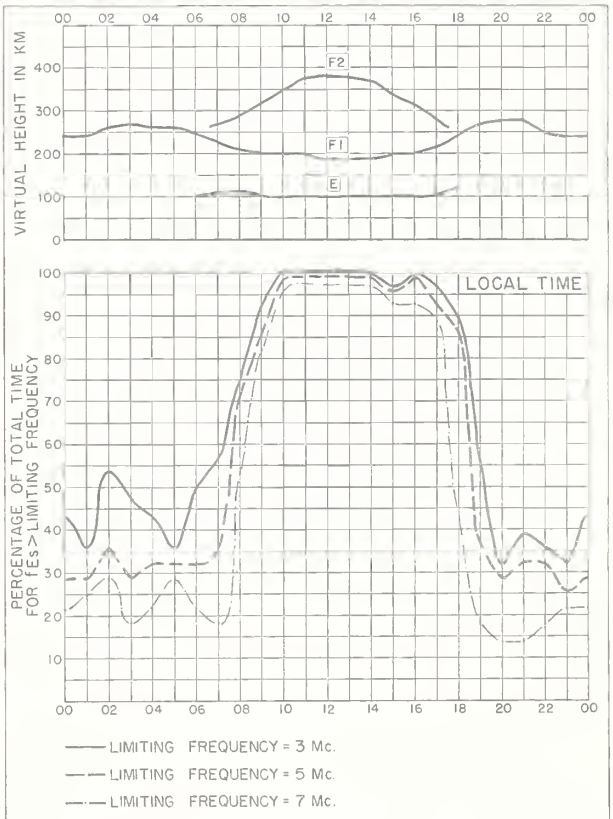


Fig. 60. HUANCAYO, PERU FEBRUARY 1955

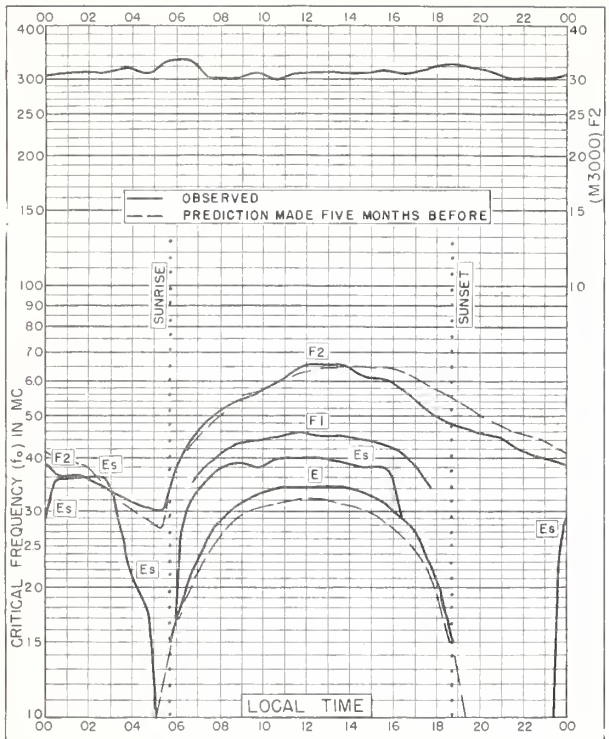
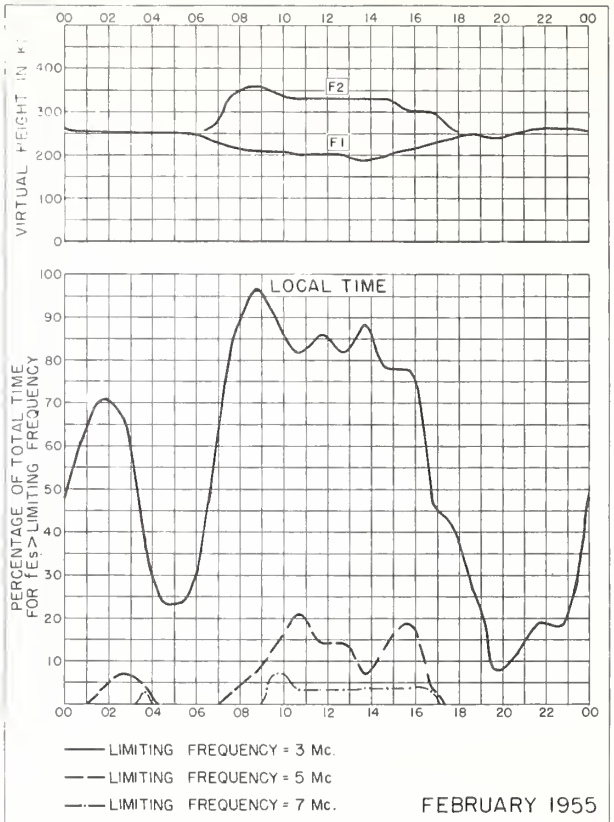


Fig. 61. WATHEROO, W. AUSTRALIA
30.3°S, 115.9°E FEBRUARY 1955



FEBRUARY 1955

Fig. 62. WATHEROO, W. AUSTRALIA

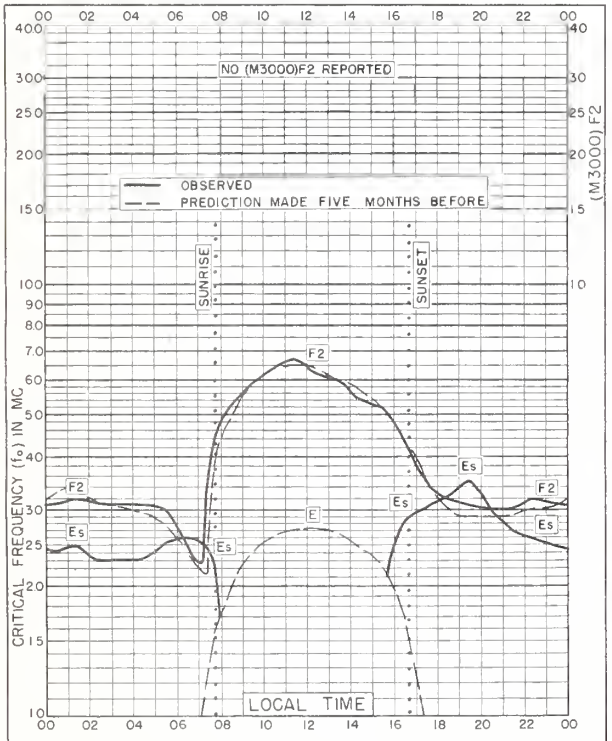


Fig. 63. WAKKANAI, JAPAN
45.4°N, 141.7°E JANUARY 1955

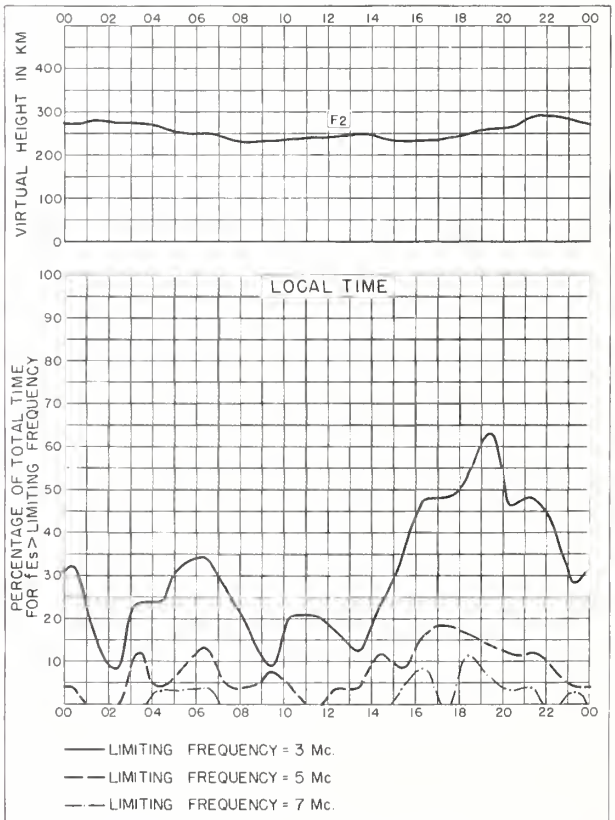


Fig. 64. WAKKANAI, JAPAN JANUARY 1955

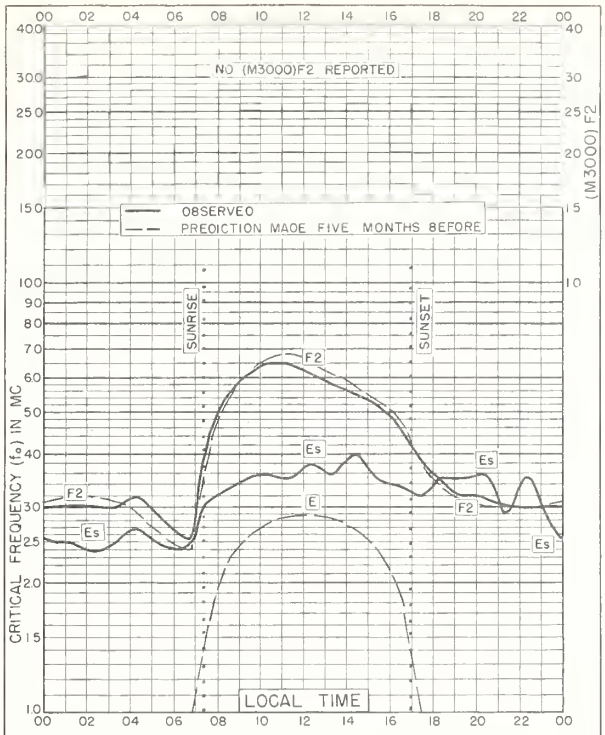


Fig. 65. AKITA, JAPAN
39.7°N, 140.1°E JANUARY 1955

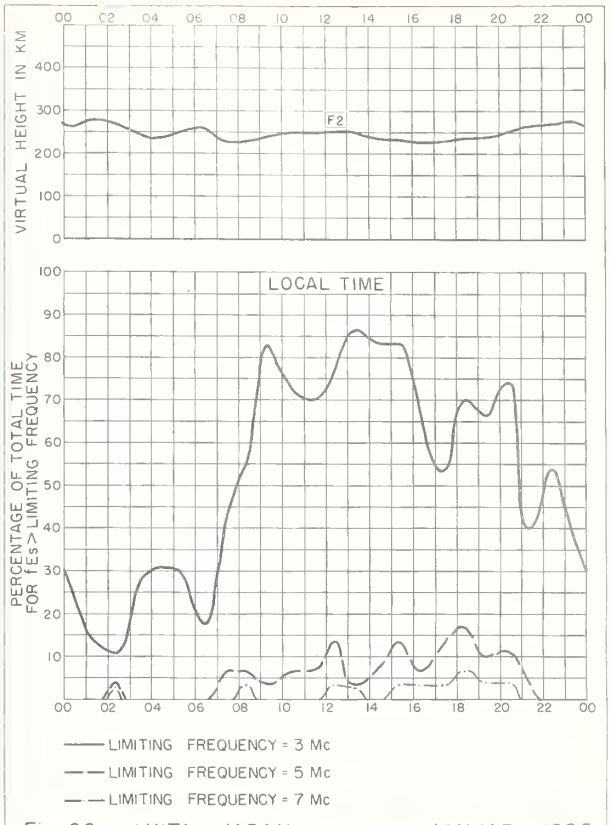


Fig. 66. AKITA, JAPAN JANUARY 1955

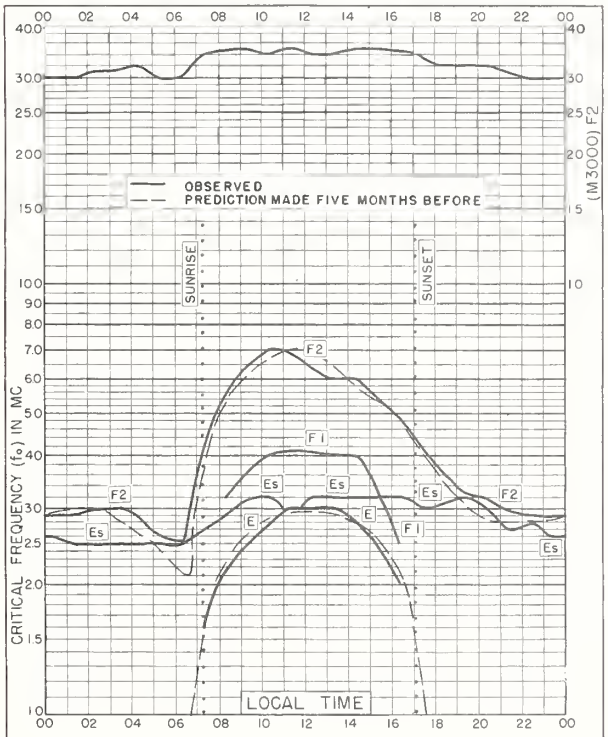


Fig. 67. TOKYO, JAPAN
35.7°N, 139.5°E JANUARY 1955

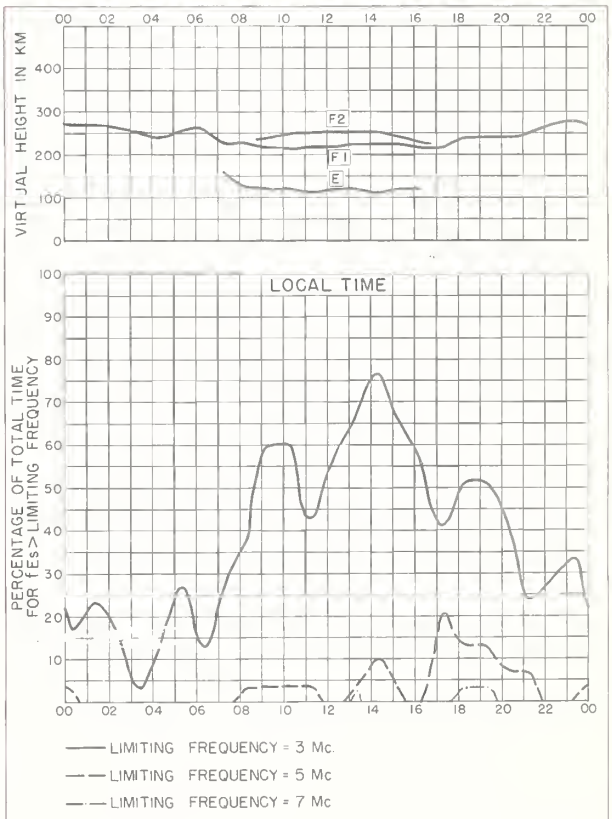


Fig. 68. TOKYO, JAPAN JANUARY 1955

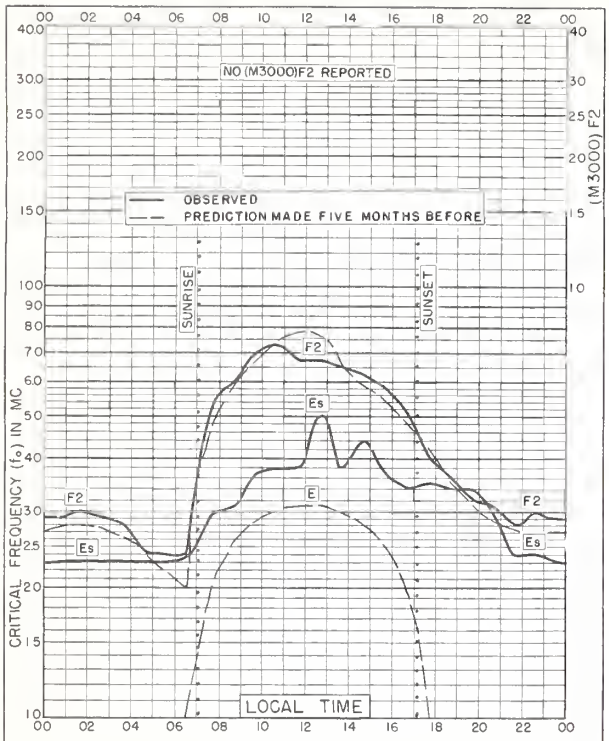


Fig. 69. YAMAGAWA, JAPAN
31.2°N, 130.6°E JANUARY 1955

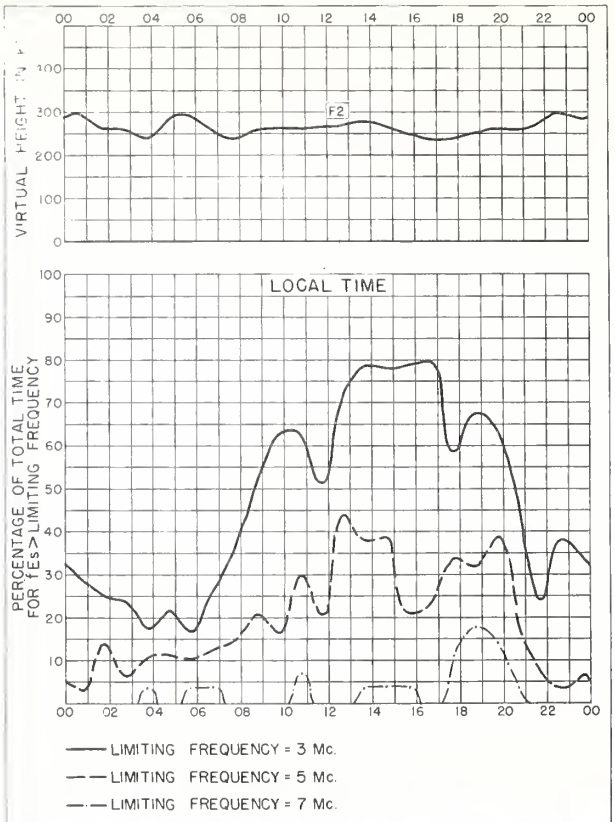


Fig. 70. YAMAGAWA, JAPAN JANUARY 1955

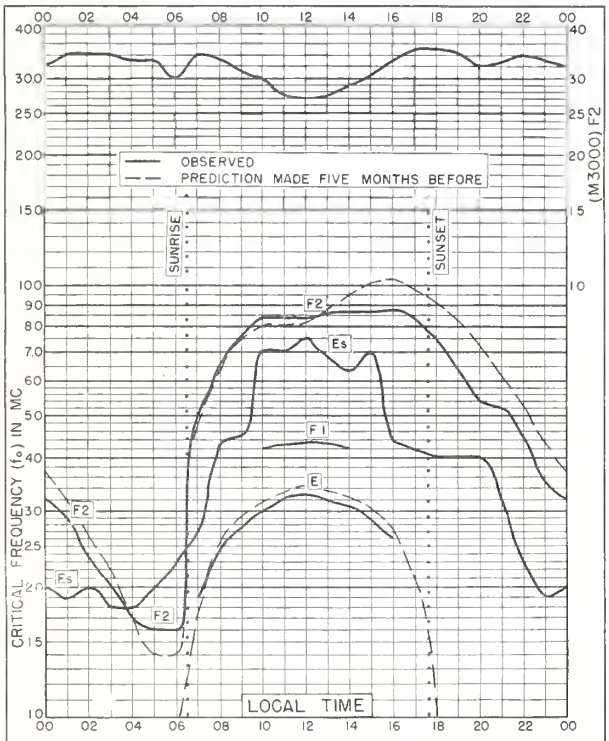


Fig. 71. BAGUIO, P. I.
16.4°N, 120.6° JANUARY 1955

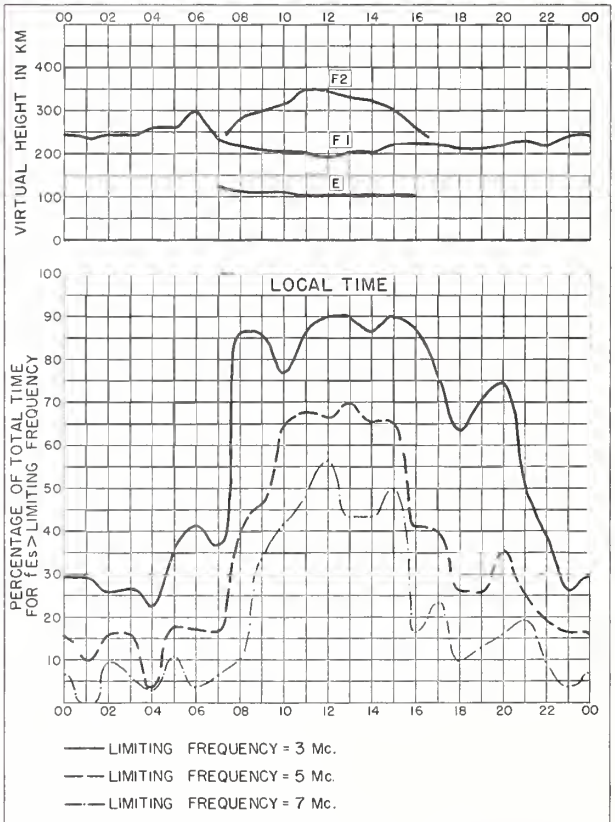


Fig. 72. BAGUIO, P. I. JANUARY 1955

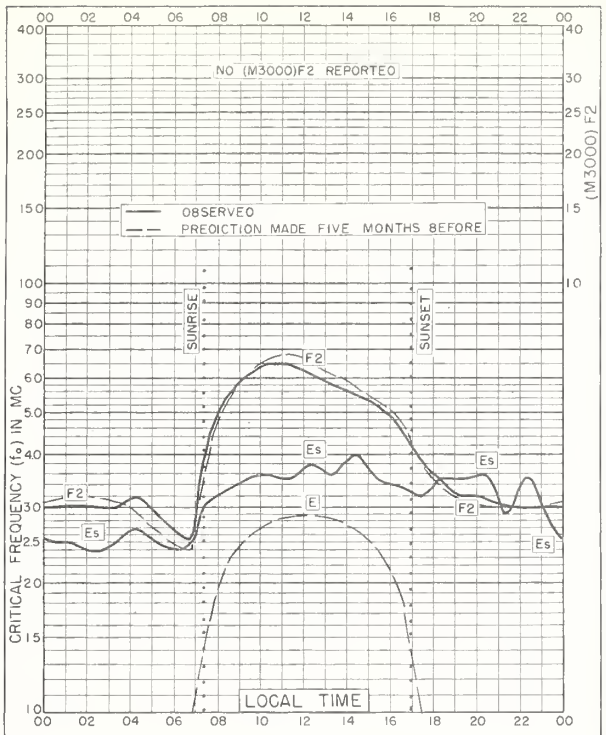


Fig. 65. AKITA, JAPAN
39.7°N, 140.1°E JANUARY 1955

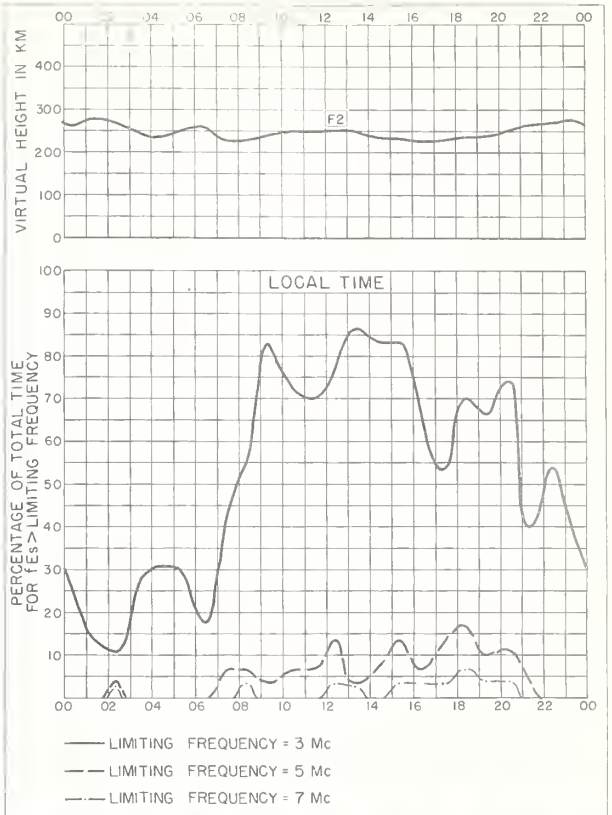


Fig. 66. AKITA, JAPAN JANUARY 1955

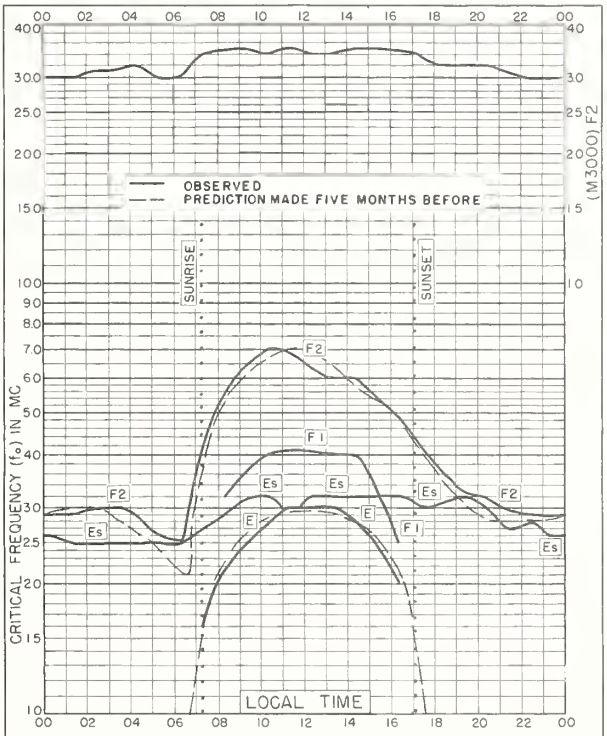


Fig. 67. TOKYO, JAPAN
35.7°N, 139.5°E JANUARY 1955

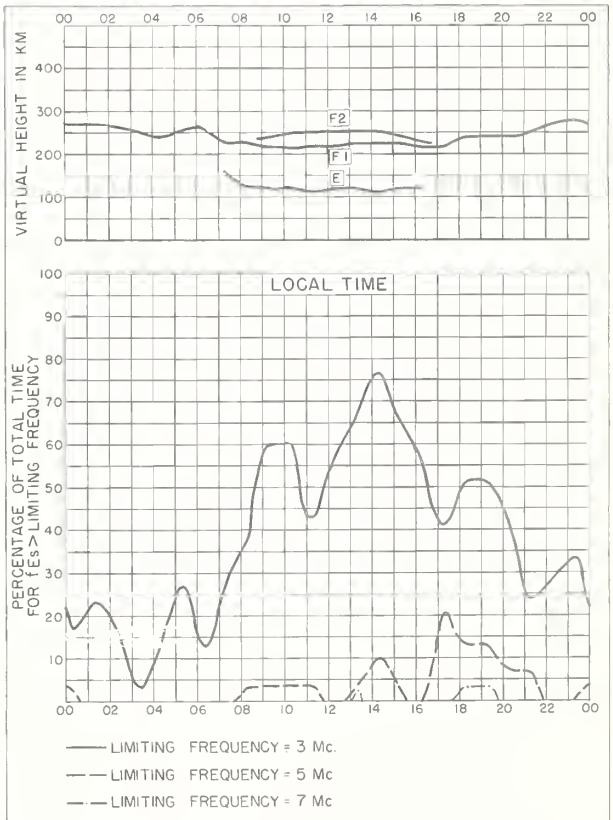


Fig. 68. TOKYO, JAPAN JANUARY 1955

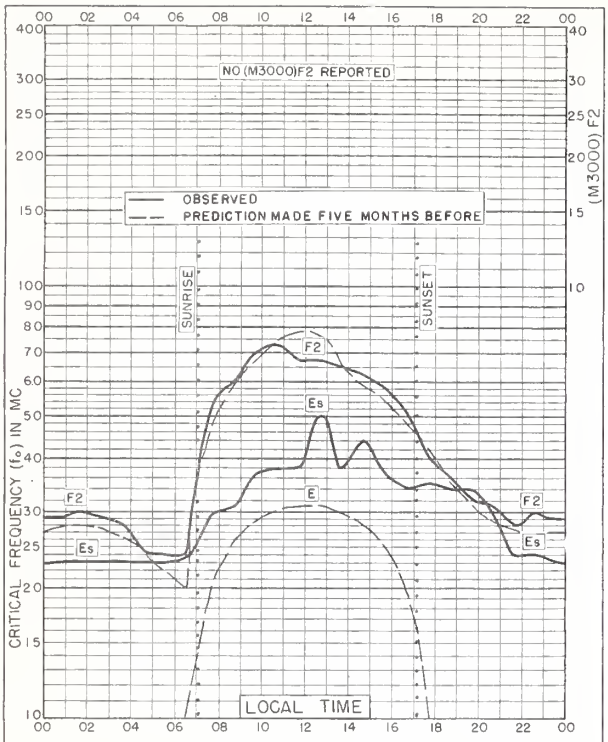


Fig. 69. YAMAGAWA, JAPAN
31.2°N, 130.6°E JANUARY 1955

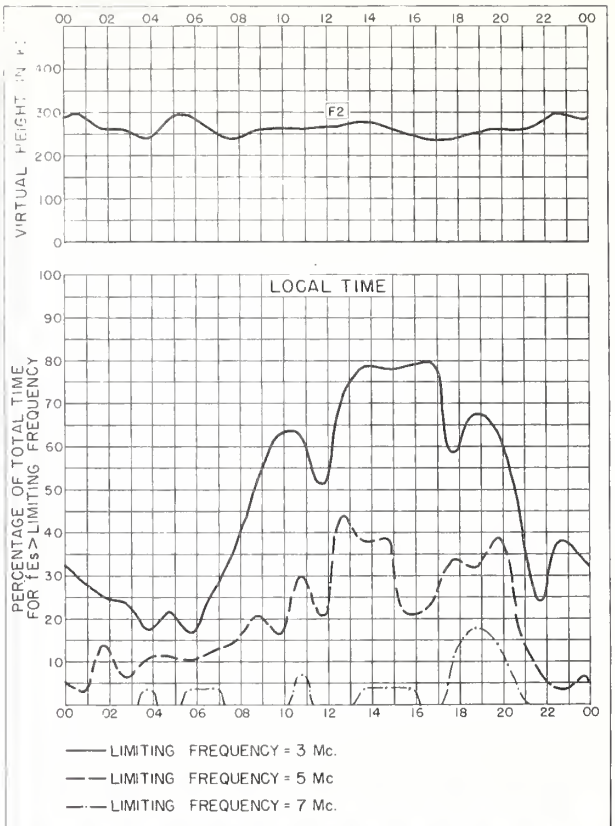


Fig. 70. YAMAGAWA, JAPAN JANUARY 1955

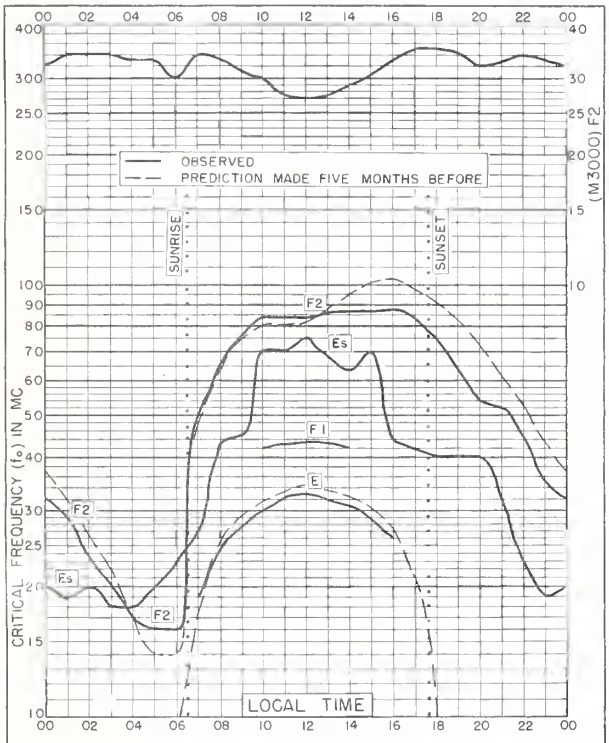


Fig. 71. BAGUIO, P. I.
16.4°N, 120.6° JANUARY 1955

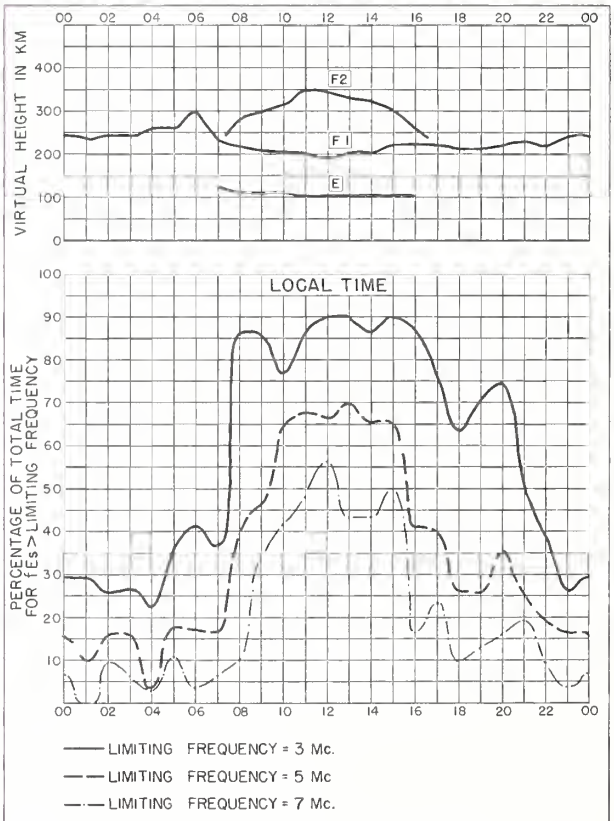


Fig. 72. BAGUIO, P. I. JANUARY 1955

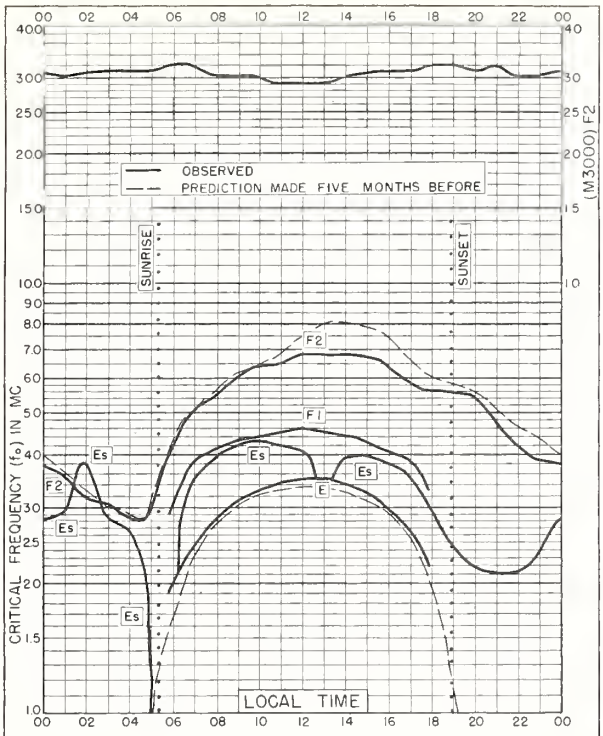
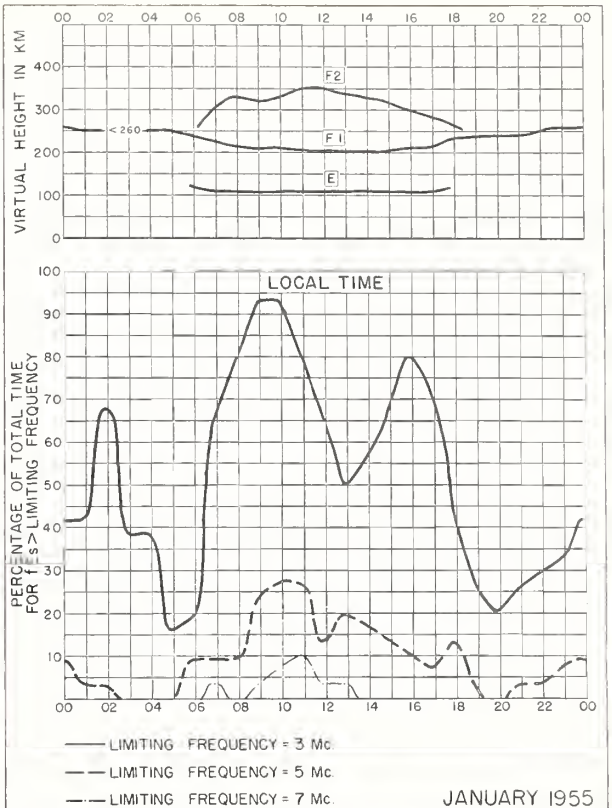


FIG. 73. JOHANNESBURG, UNION OF S. AFRICA
26.2°S, 28.1°E JANUARY 1955



JANUARY 1955

FIG. 74. JOHANNESBURG, UNION OF S AFRICA

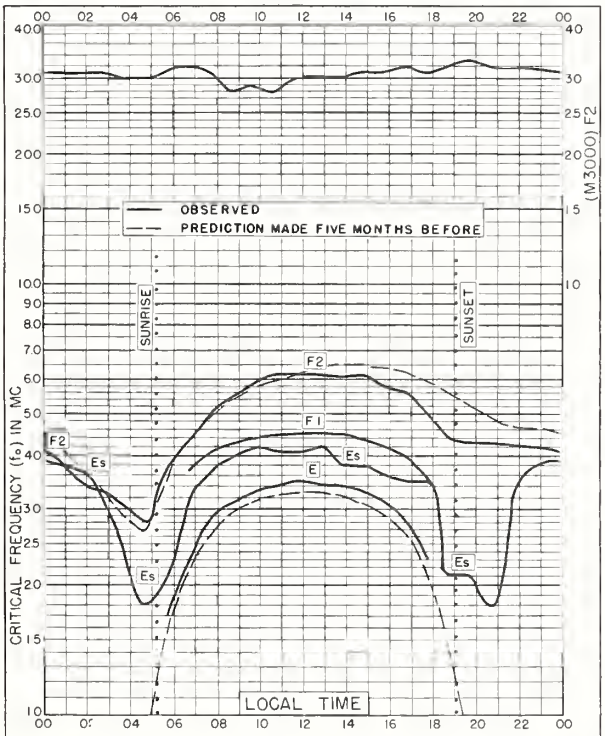
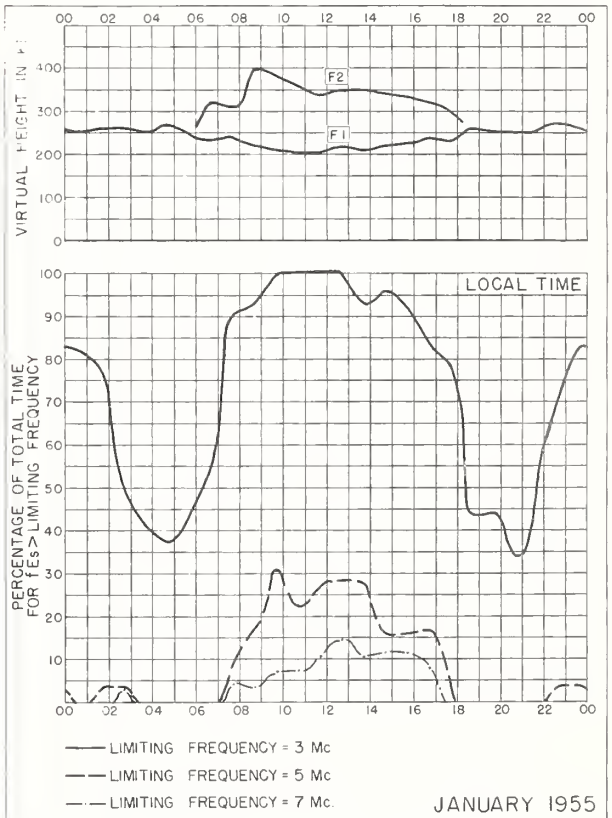


Fig. 75. WATHEROO, W. AUSTRALIA
30.3°S, 115.9°E JANUARY 1955



JANUARY 1955

Fig. 76. WATHEROO, W. AUSTRALIA

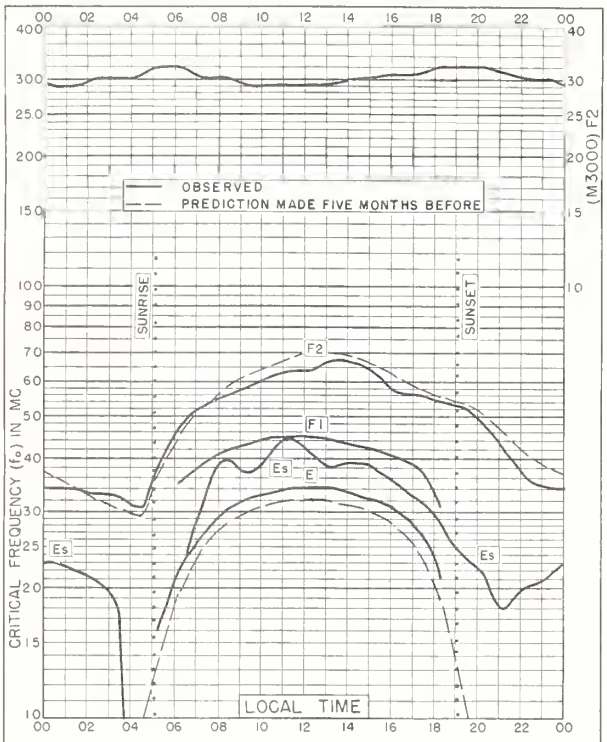
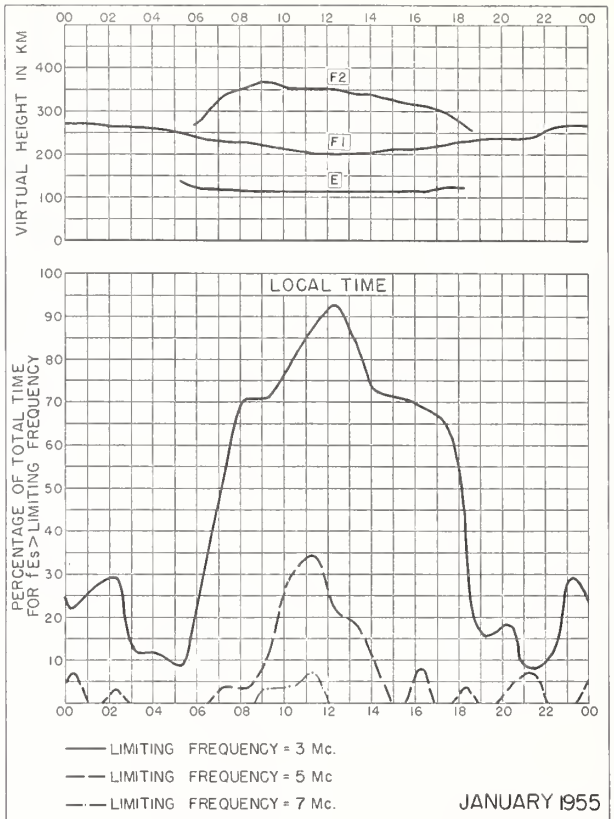


FIG. 77. CAPETOWN, UNION OF S. AFRICA
34.2°S, 18.3°E JANUARY 1955



JANUARY 1955

FIG. 78. CAPETOWN, UNION OF S. AFRICA

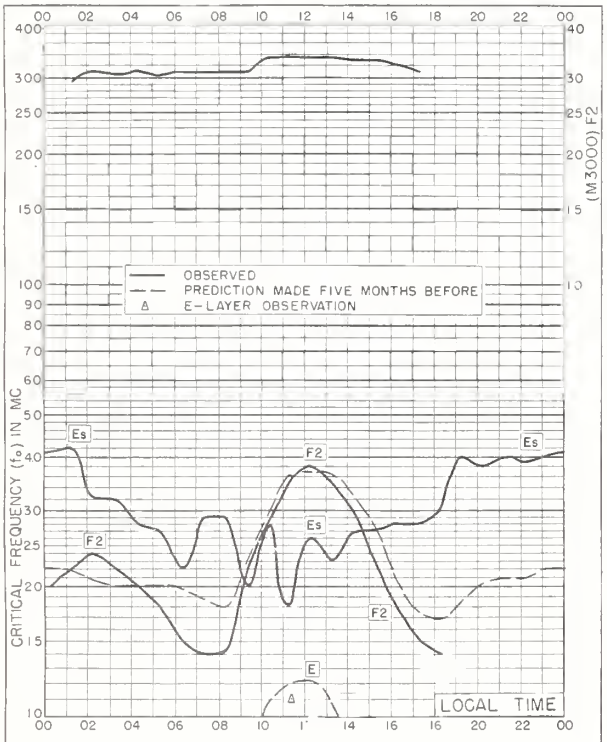


Fig. 79. TROMSO, NORWAY
69.7°N, 19.0°E DECEMBER 1954

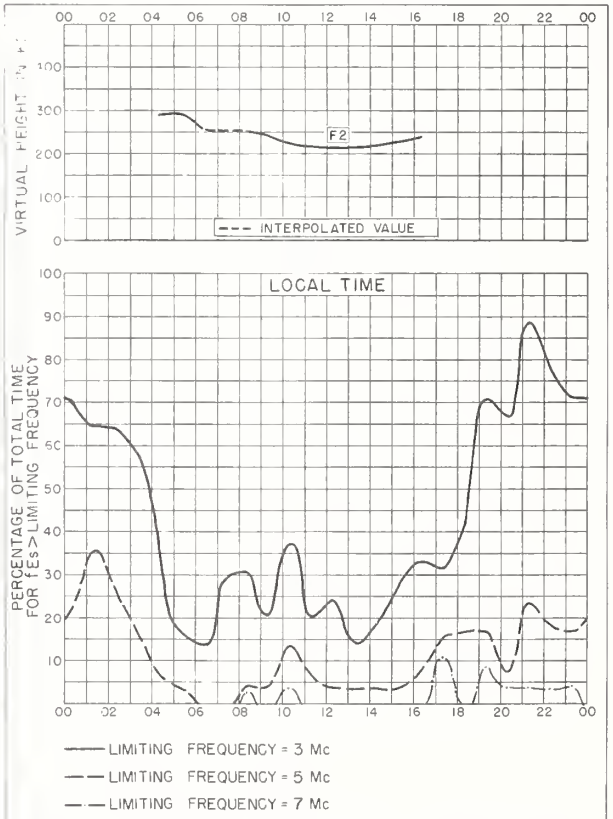


Fig. 80. TROMSO, NORWAY DECEMBER 1954

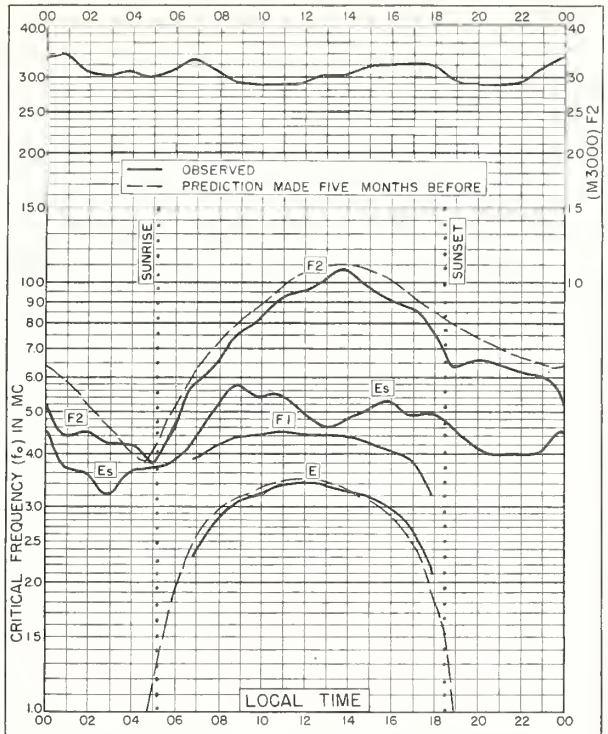


Fig. 81. RAROTONGA I.
21.3° S, 159.8° W DECEMBER 1954

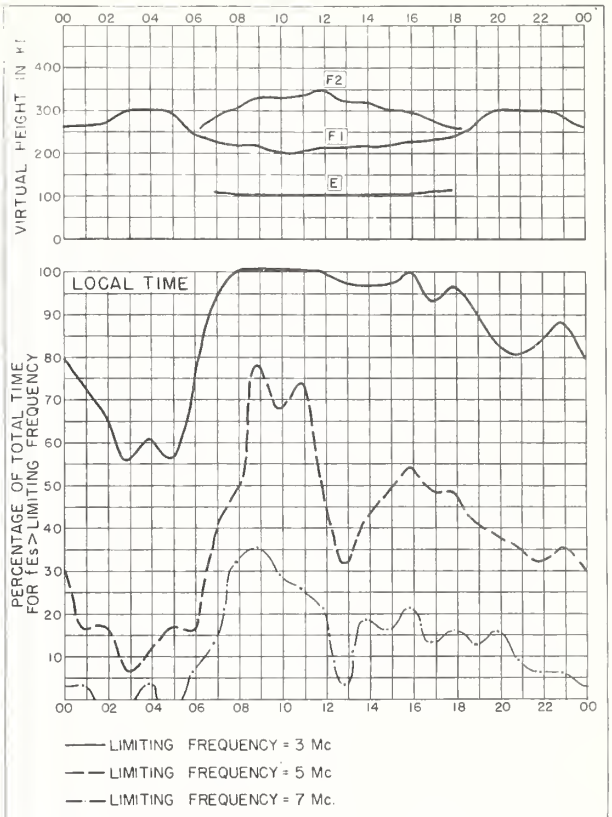


Fig. 82. RAROTONGA I. DECEMBER 1954

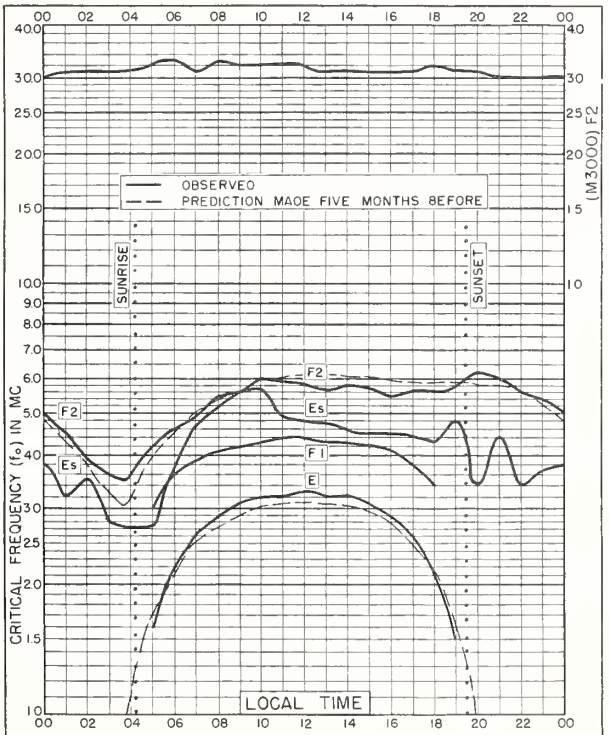
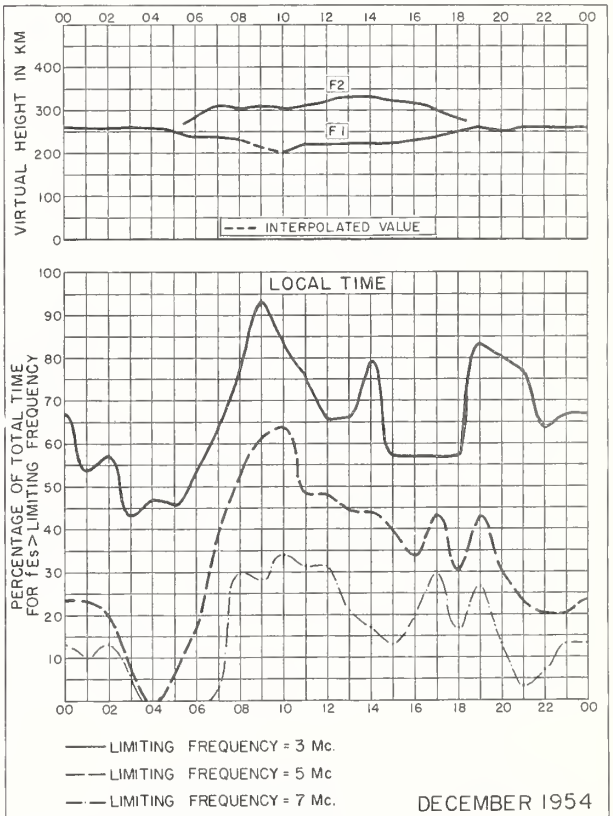


Fig. 83. CHRISTCHURCH, NEW ZEALAND
43.6° S, 172.8° E DECEMBER 1954



DECEMBER 1954

Fig. 84. CHRISTCHURCH, NEW ZEALAND

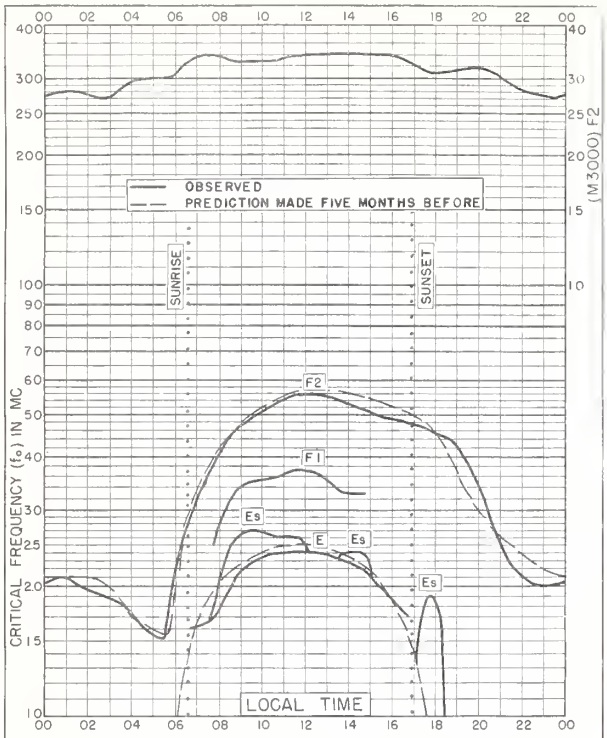


Fig. 85. INVERNESS, SCOTLAND
57.4°N, 4.2°W OCTOBER 1954

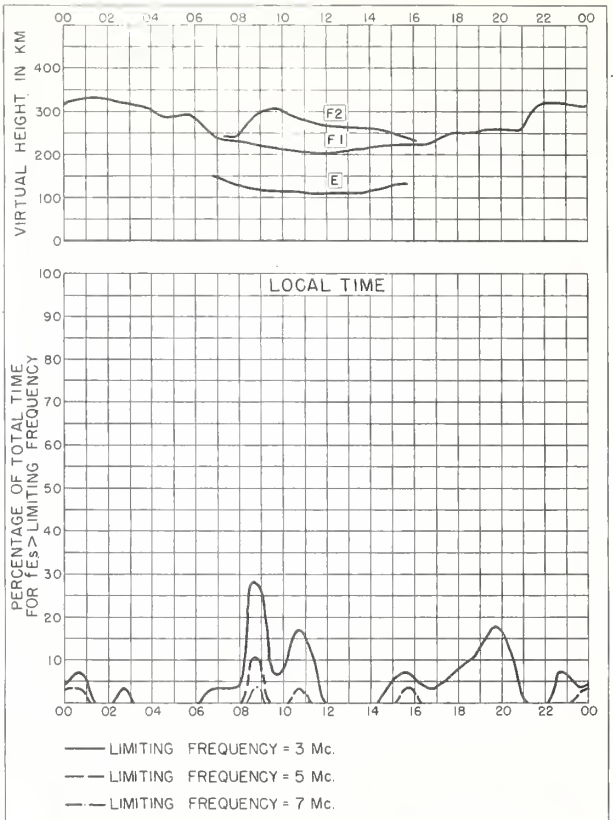


Fig. 86. INVERNESS, SCOTLAND OCTOBER 1954

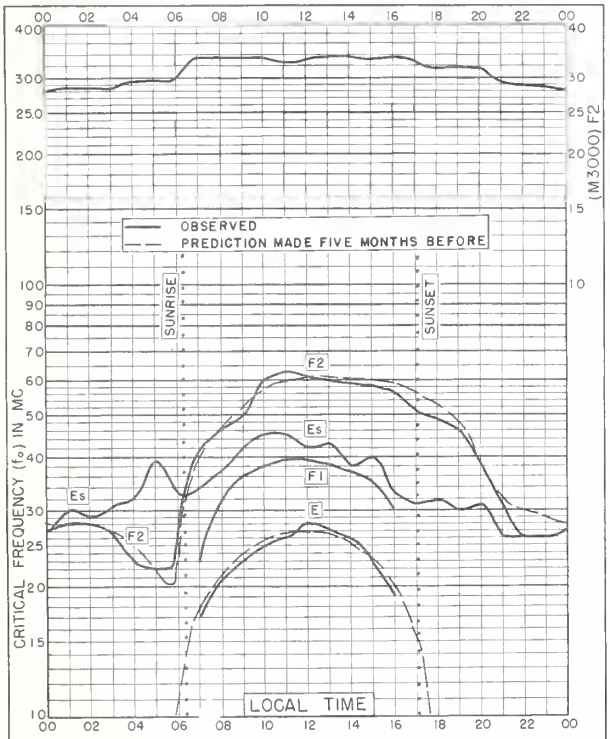


Fig. 87. SLOUGH, ENGLAND
51.5°N, 0.6°W OCTOBER 1954

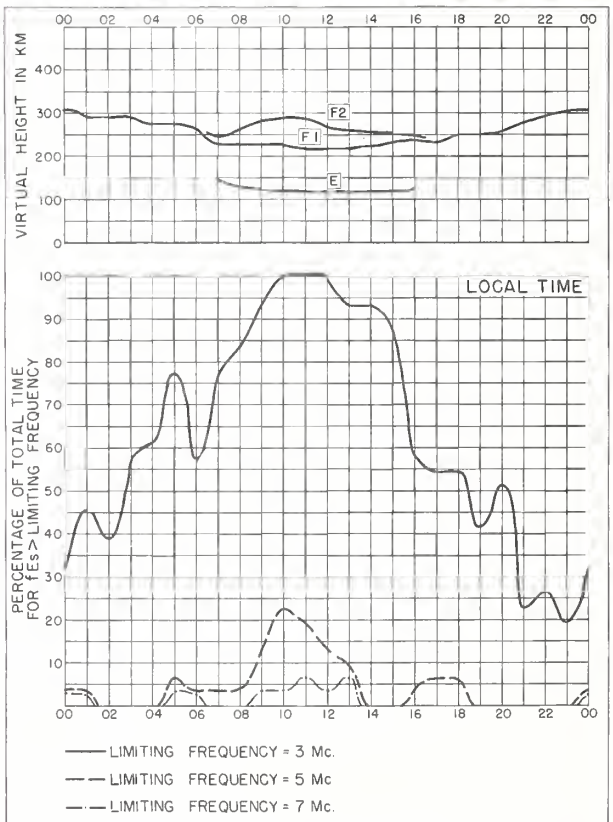


Fig. 88. SLOUGH, ENGLAND OCTOBER 1954

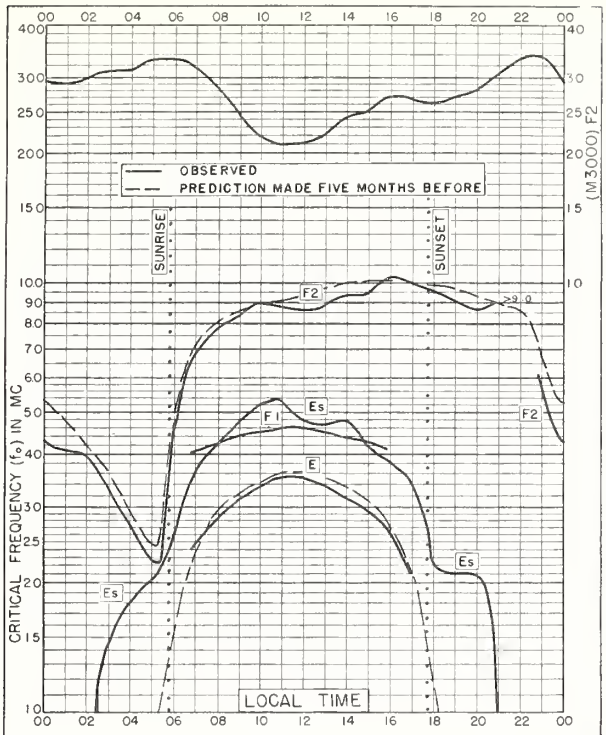
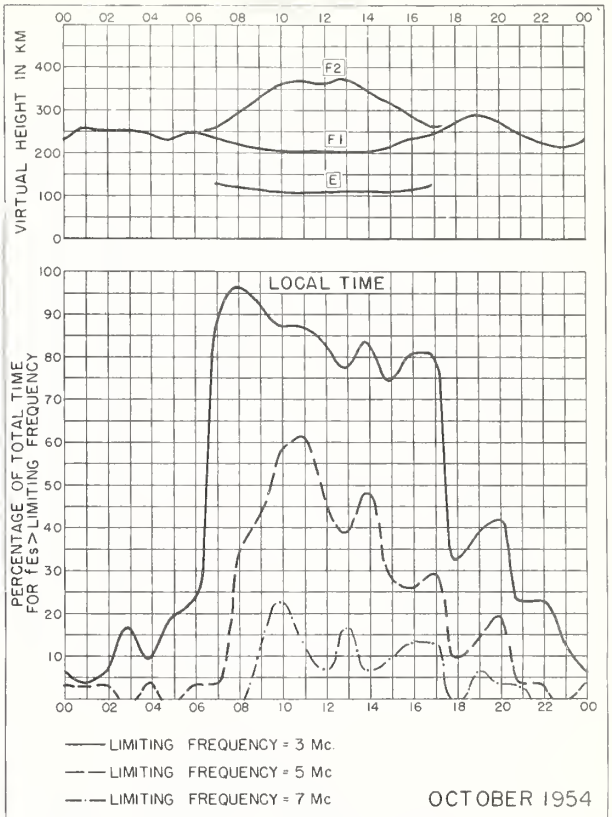


Fig. 89. SINGAPORE, BRITISH MALAYA
1.3°N, 103.8°E OCTOBER 1954



OCTOBER 1954

Fig. 90. SINGAPORE, BRITISH MALAYA

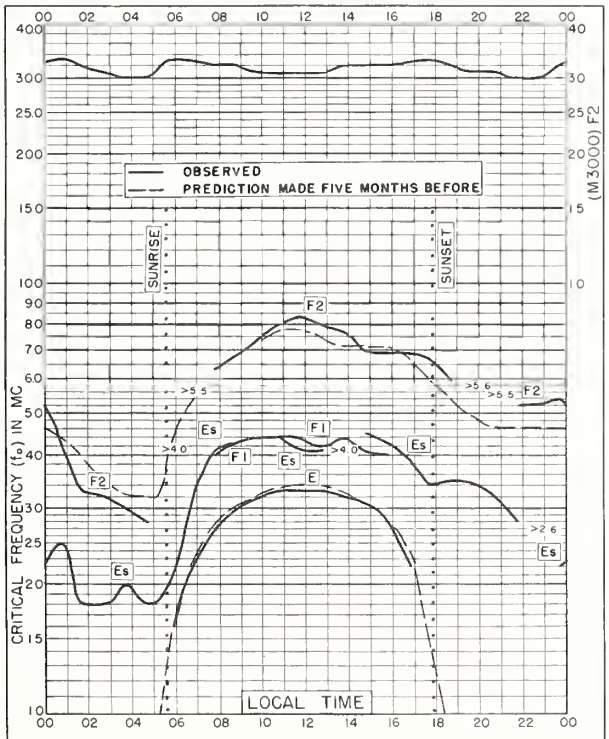


Fig. 91. TOWNSVILLE, AUSTRALIA
19.3°S, 146.7°E OCTOBER 1954

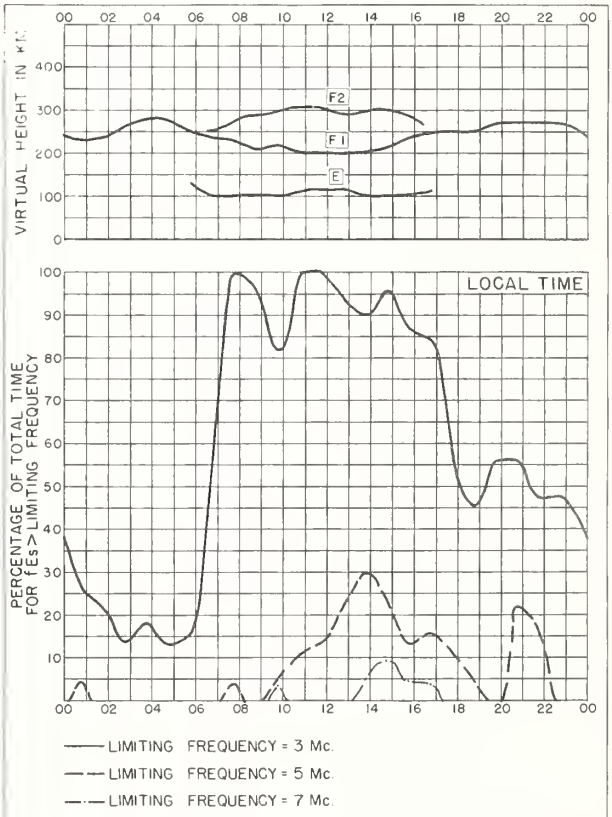


Fig. 92. TOWNSVILLE, AUSTRALIA OCTOBER 1954

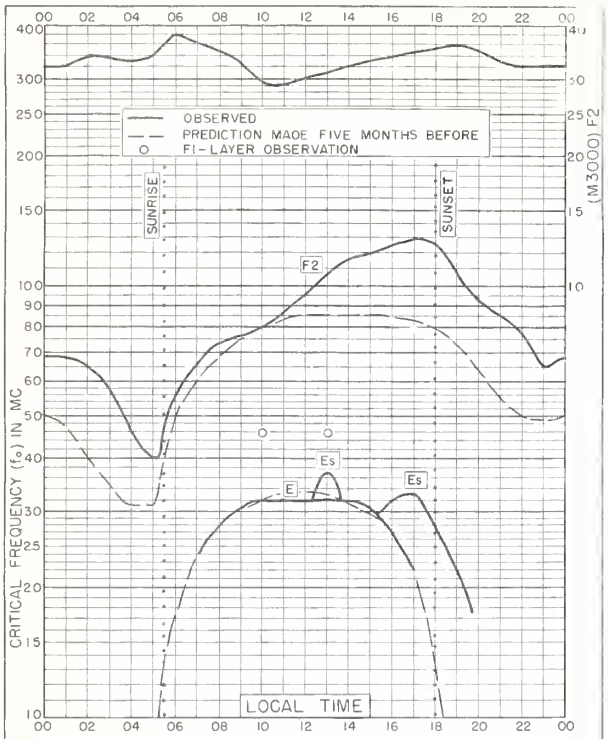


Fig. 93. SAO PAULO, BRAZIL
23.5°S, 46.5°W OCTOBER 1954

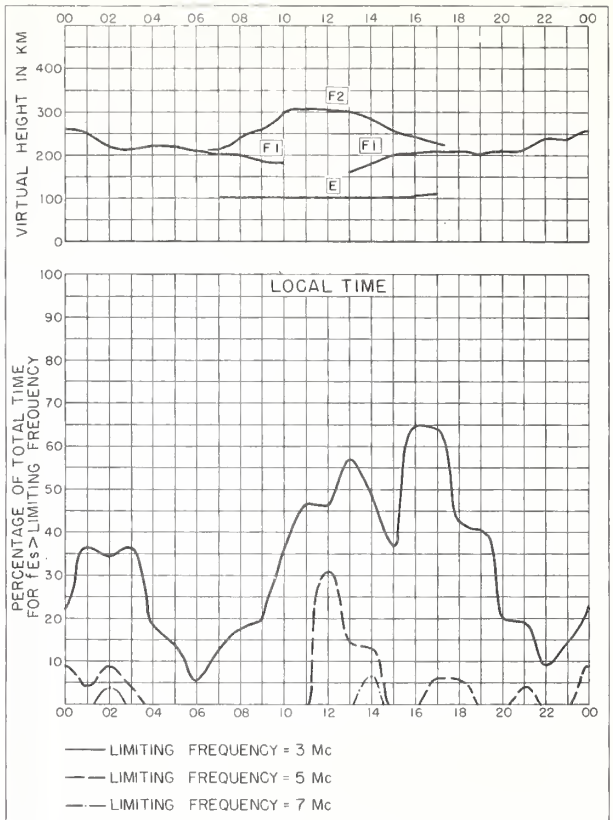


Fig. 94. SAO PAULO, BRAZIL OCTOBER 1954

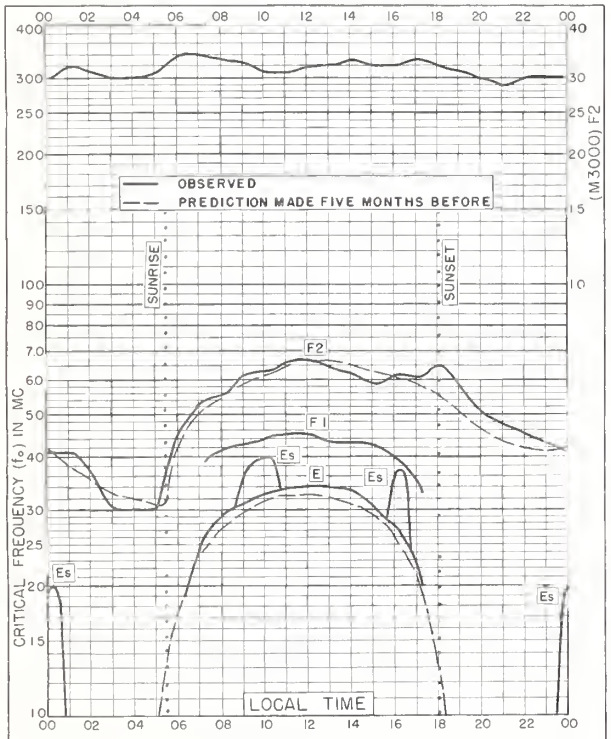


Fig. 95. BRISBANE, AUSTRALIA
27.5°S, 153.0°E OCTOBER 1954

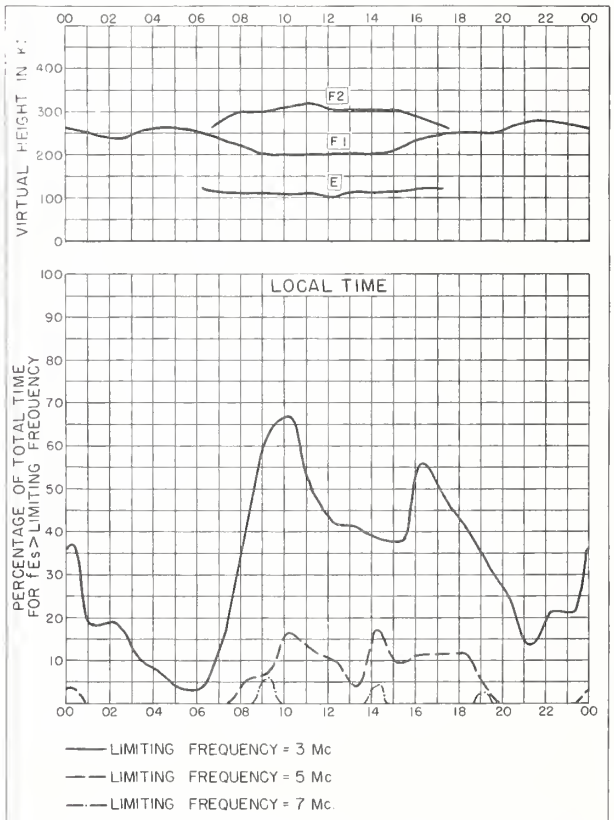


Fig. 96. BRISBANE, AUSTRALIA OCTOBER 1954

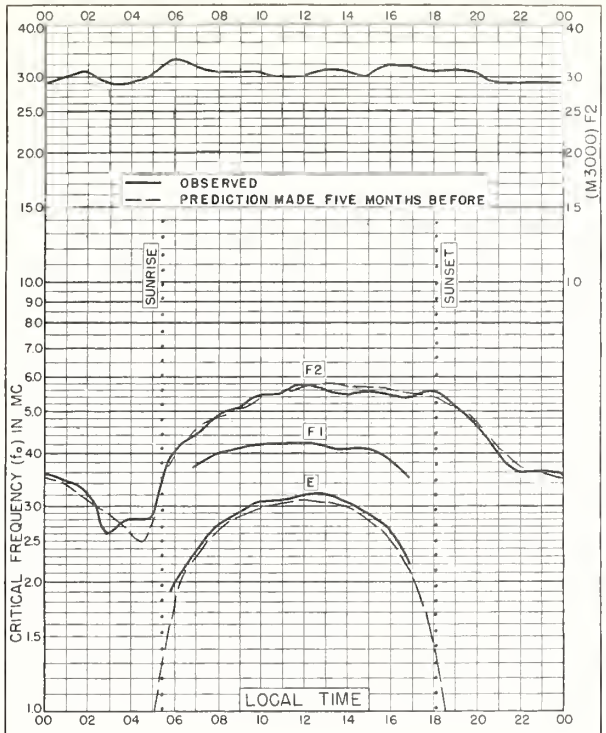


Fig. 97. CANBERRA, AUSTRALIA
35.3°S, 149.0°E OCTOBER 1954

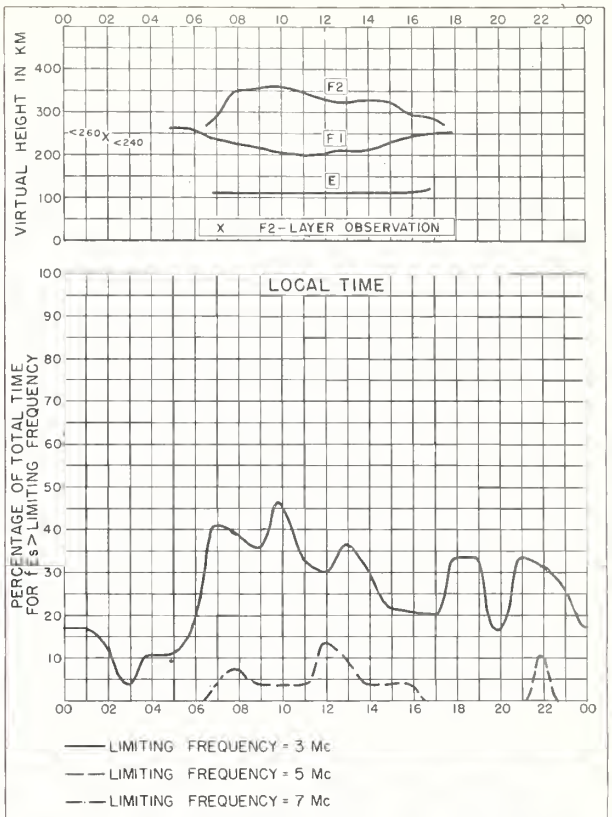


Fig. 98. CANBERRA, AUSTRALIA OCTOBER 1954

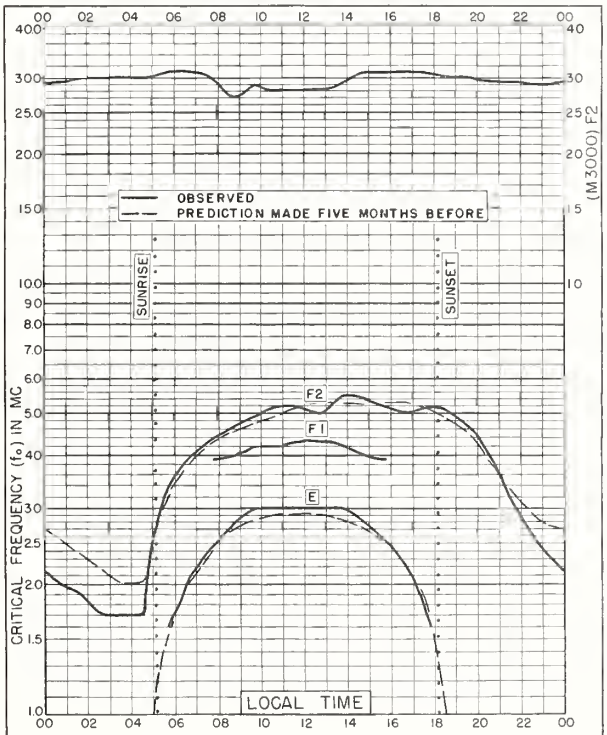


Fig. 99. HOBART, TASMANIA
42.9°S, 147.3°E OCTOBER 1954

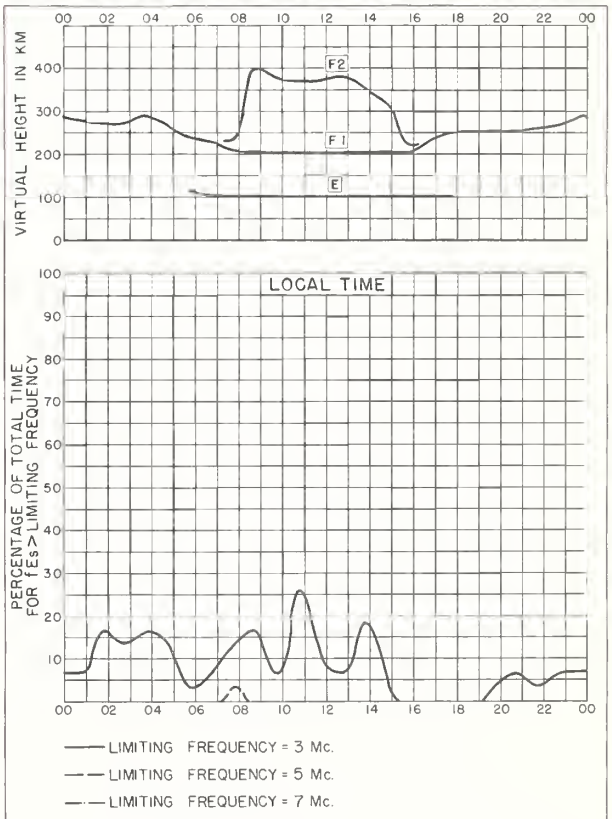


Fig. 100. HOBART, TASMANIA OCTOBER 1954

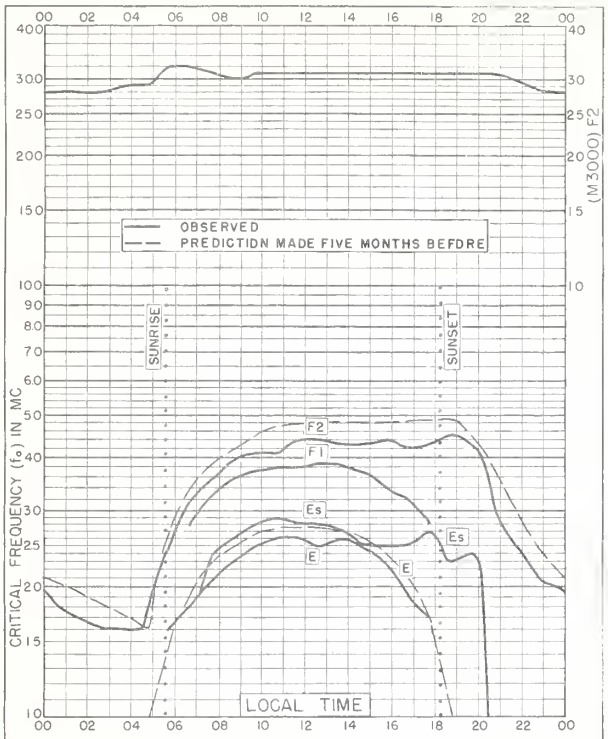


Fig. 101. INVERNESS, SCOTLAND
57.4°N, 4.2°W SEPTEMBER 1954

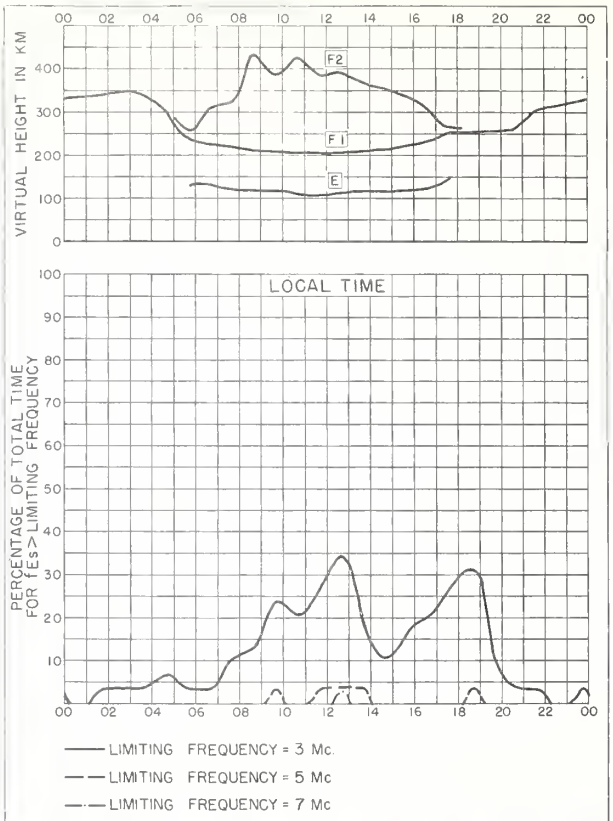


Fig. 102. INVERNESS, SCOTLAND SEPTEMBER 1954

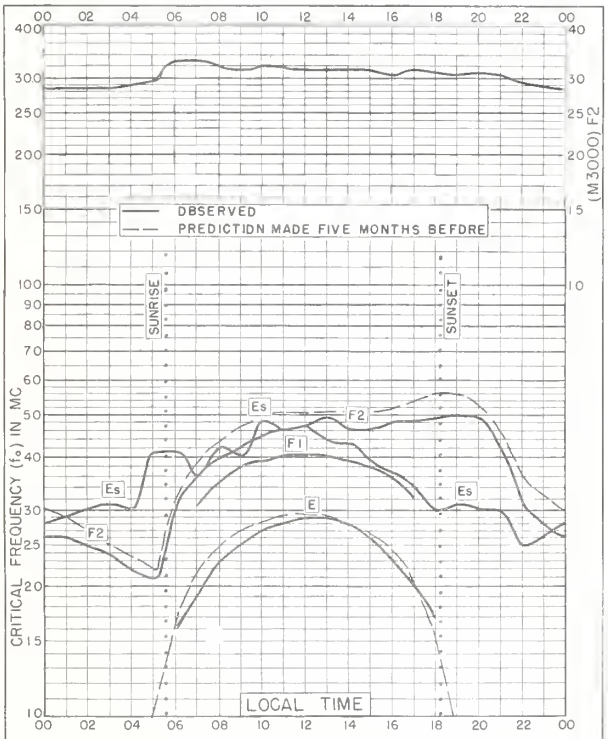


Fig. 103. SLOUGH, ENGLAND
51.5°N, 0.6°W SEPTEMBER 1954

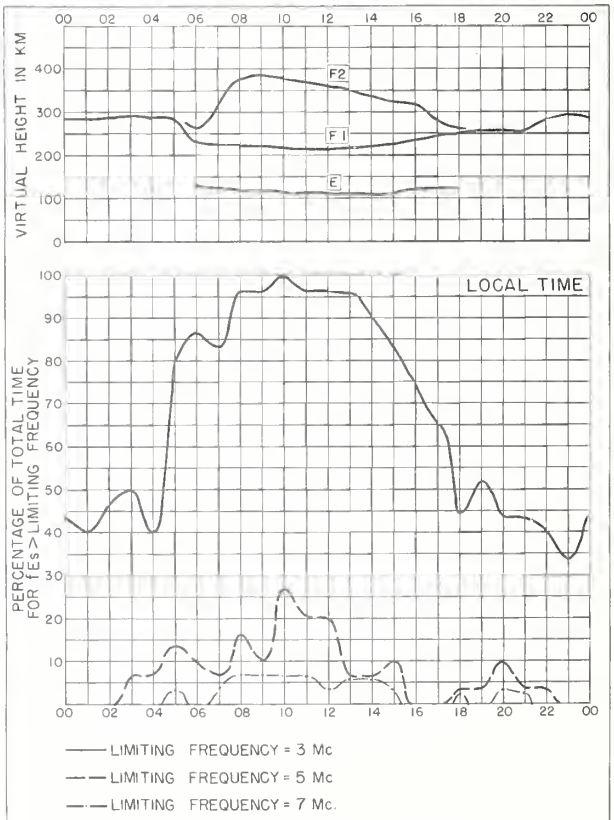
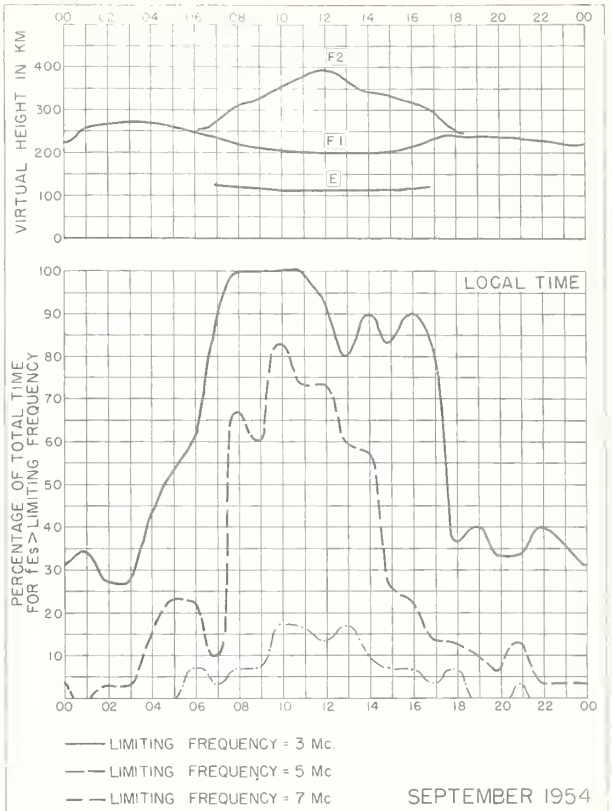


Fig. 104. SLOUGH, ENGLAND SEPTEMBER 1954

Fig. 105. SINGAPORE, BRITISH MALAYA
1.3°N, 103.8°E SEPTEMBER 1954



SEPTEMBER 1954

Fig. 106. SINGAPORE, BRITISH MALAYA

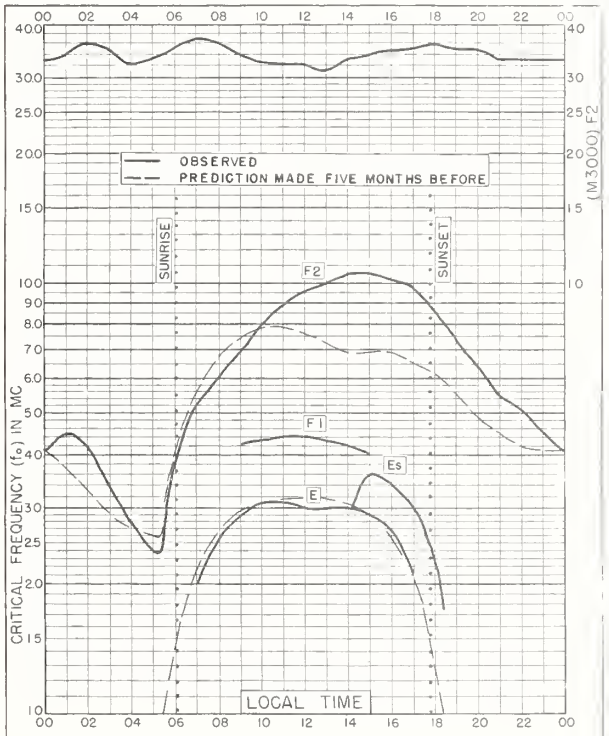


Fig. 107. SAO PAULO, BRAZIL
23.5°S, 46.5°W SEPTEMBER 1954

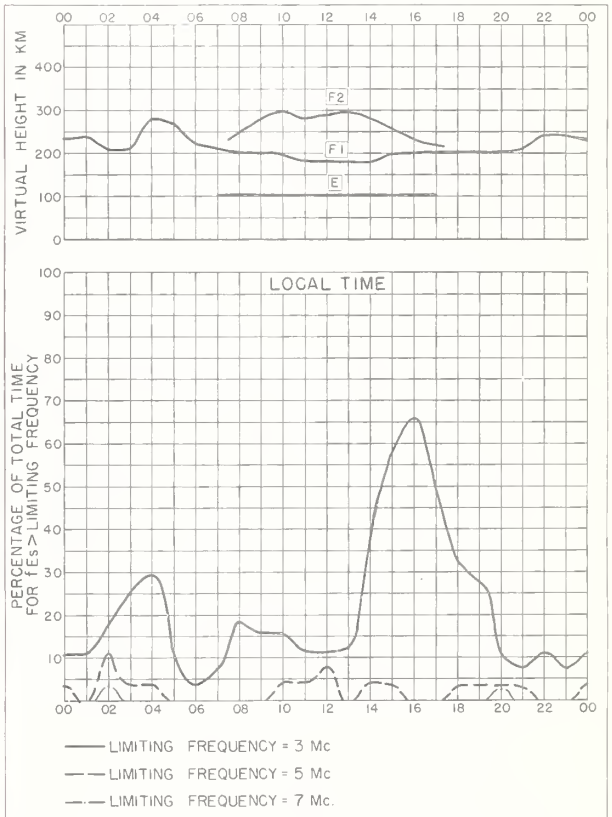


Fig. 108. SAO PAULO, BRAZIL SEPTEMBER 1954

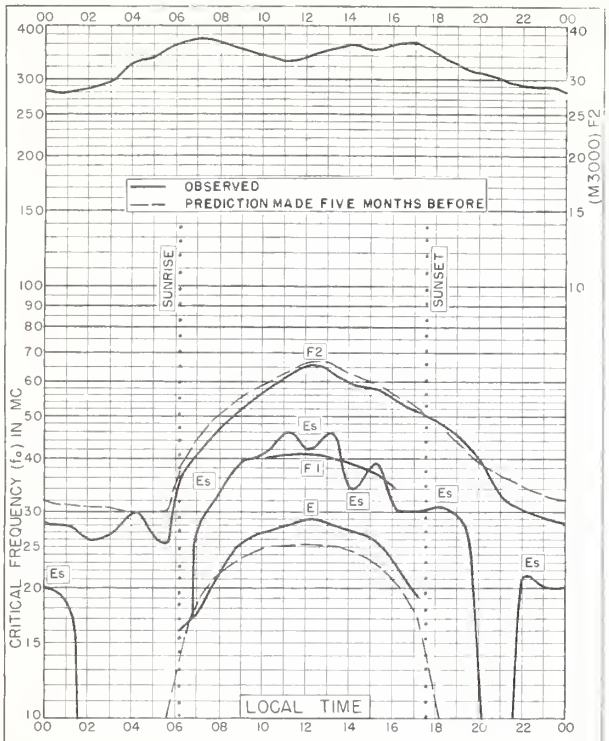


Fig. 109. FALKLAND IS.
51.7°S, 57.8°W SEPTEMBER 1954

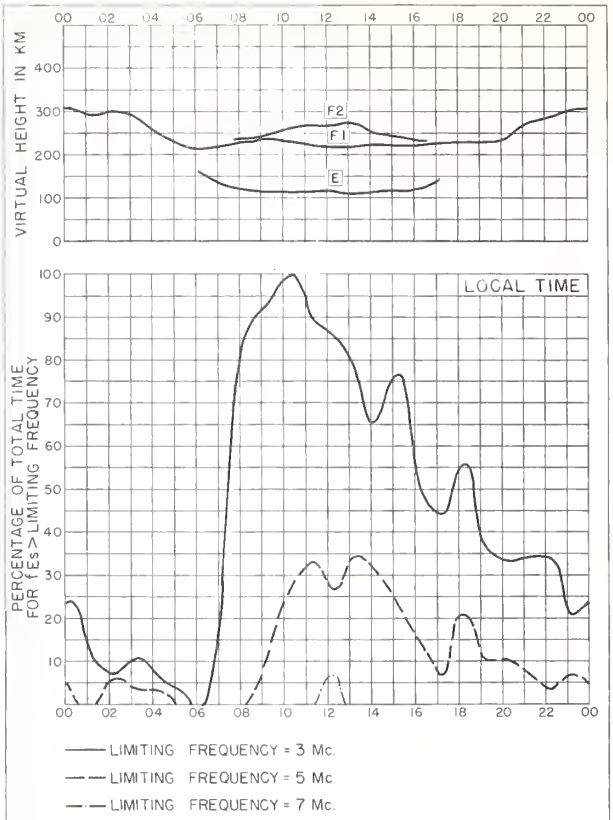


Fig. 110. FALKLAND IS. SEPTEMBER 1954

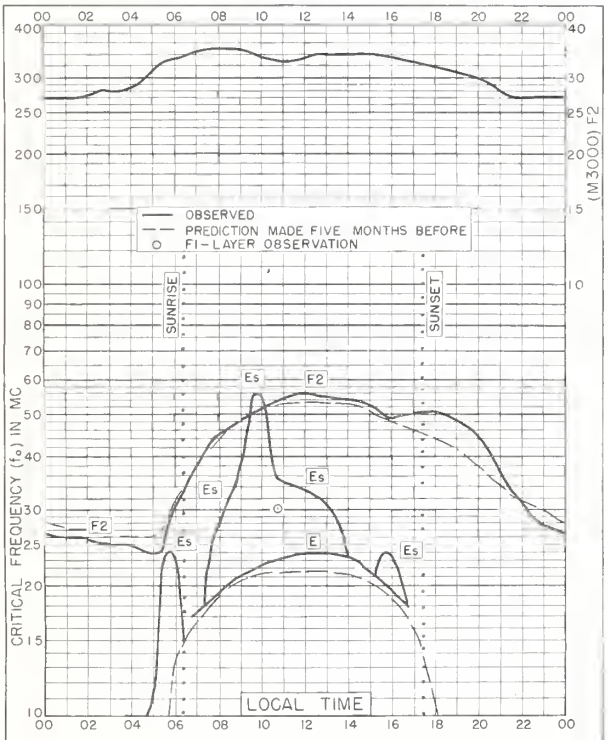


Fig. 111. PORT LOCKROY
64.8°S, 63.5°W SEPTEMBER 1954

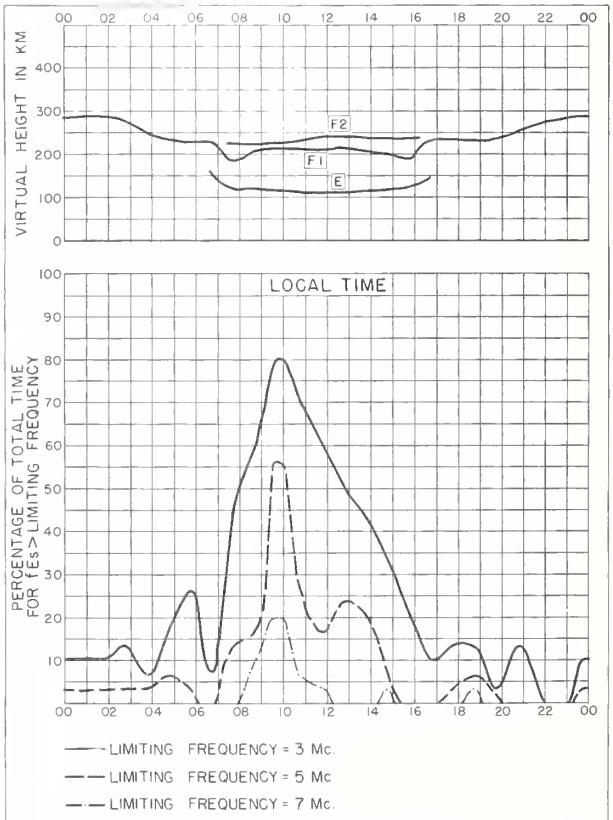


Fig. 112. PORT LOCKROY SEPTEMBER 1954

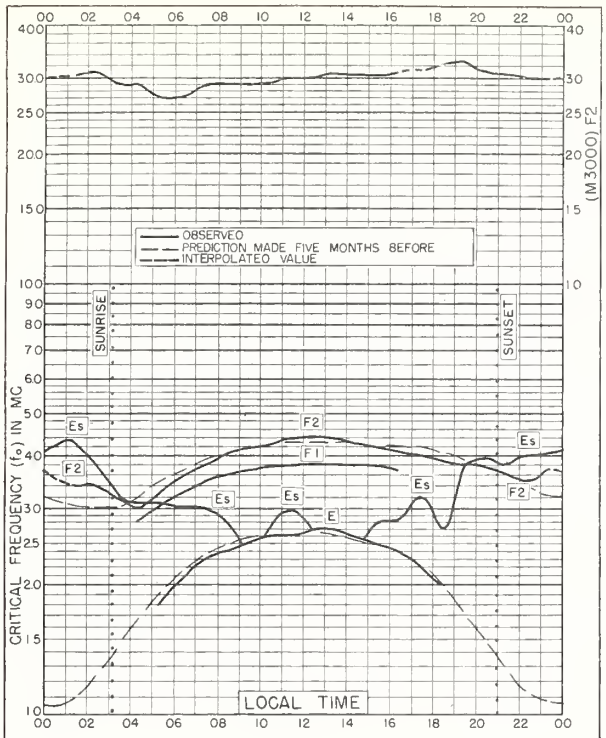


Fig. 113. TROMSO, NORWAY
69.7°N, 19.0°E AUGUST 1954

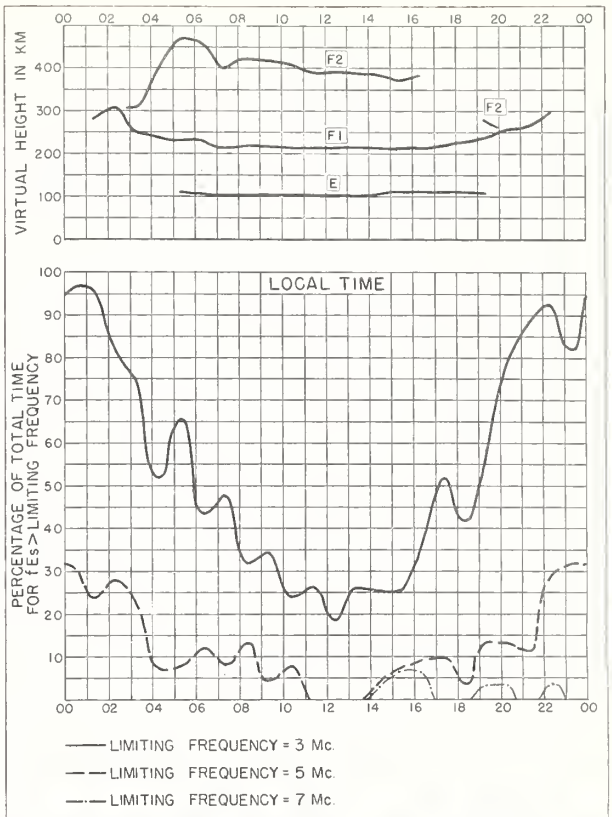


Fig. 114. TROMSO, NORWAY AUGUST 1954

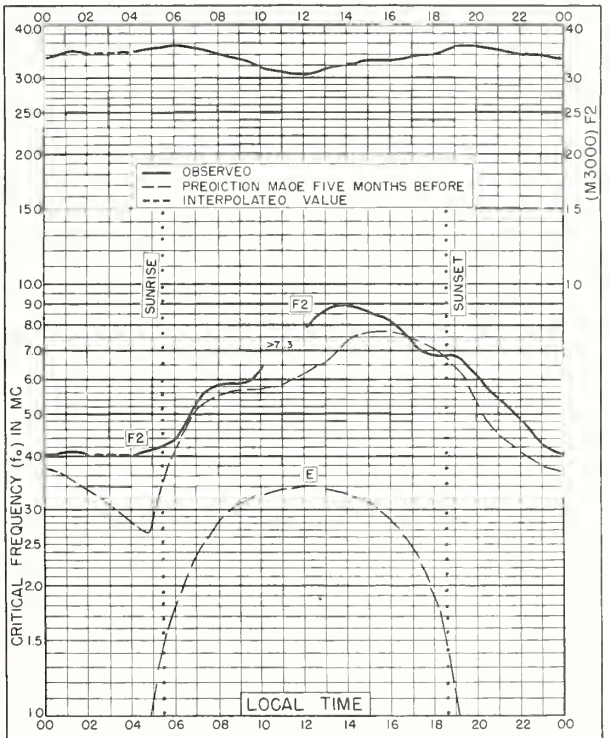


Fig. 115. DELHI, INDIA
28.6°N, 77.1°E AUGUST 1954

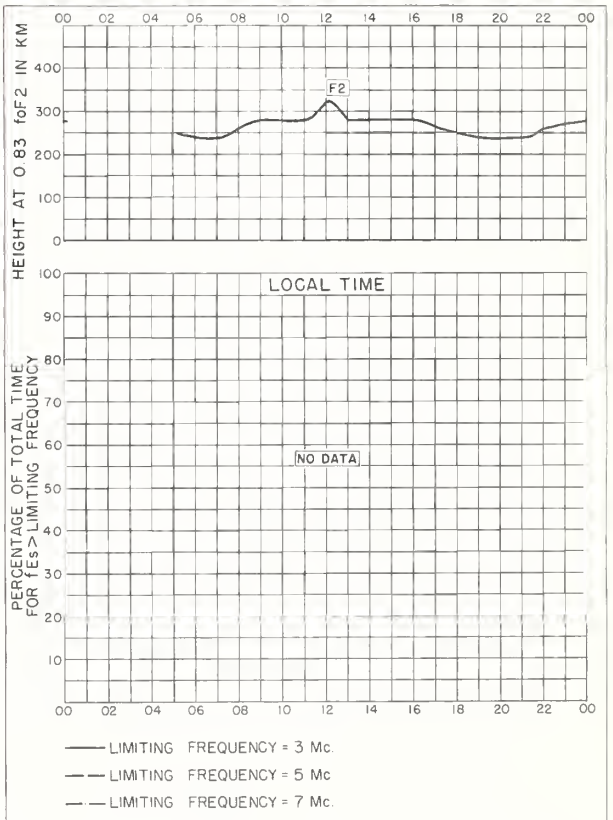


Fig. 116. DELHI, INDIA AUGUST 1954

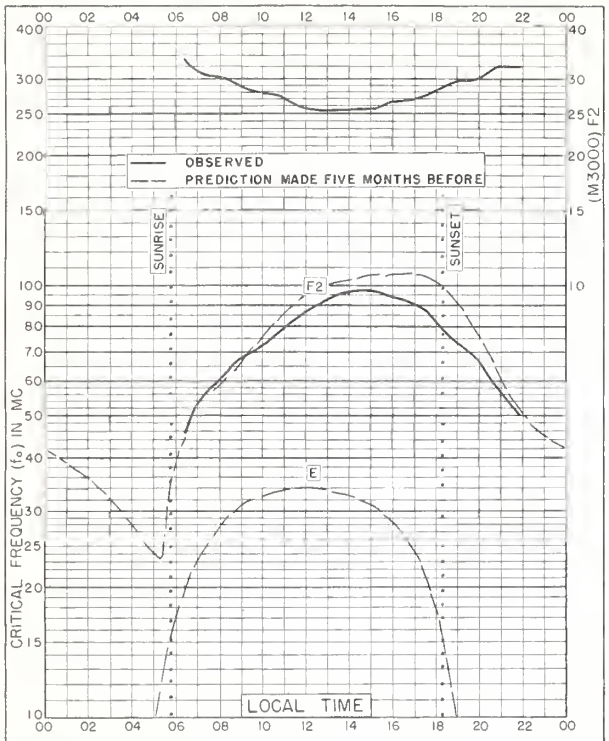


Fig. 117. BOMBAY, INDIA
19.0°N, 73.0°E AUGUST 1954

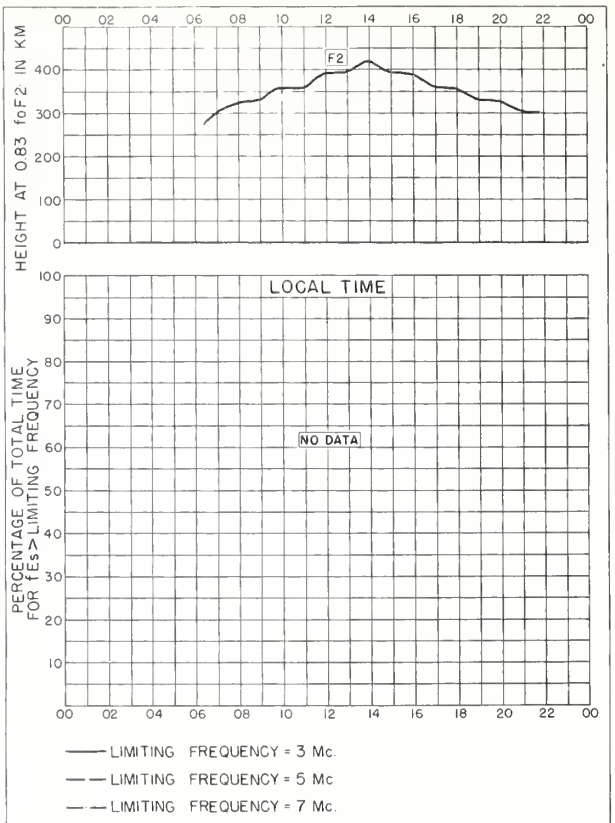


Fig. 118. BOMBAY, INDIA AUGUST 1954

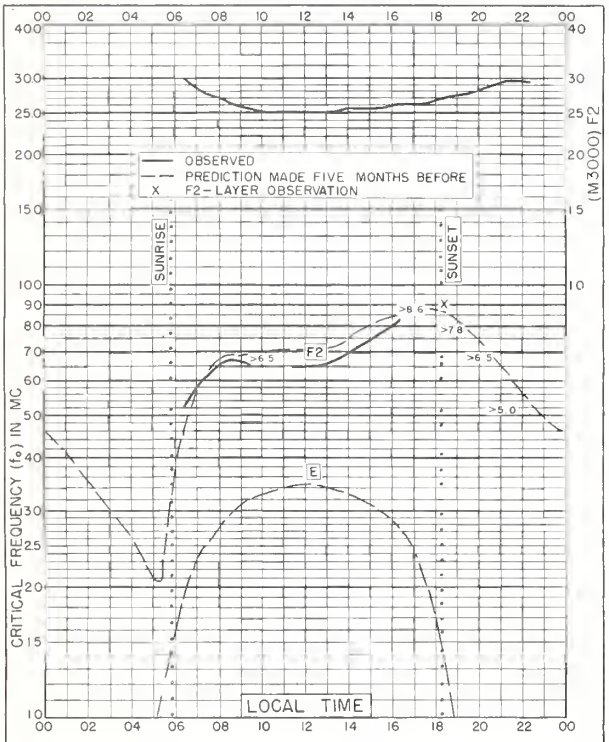


Fig. 119. MADRAS, INDIA
13.0°N, 80.2°E AUGUST 1954

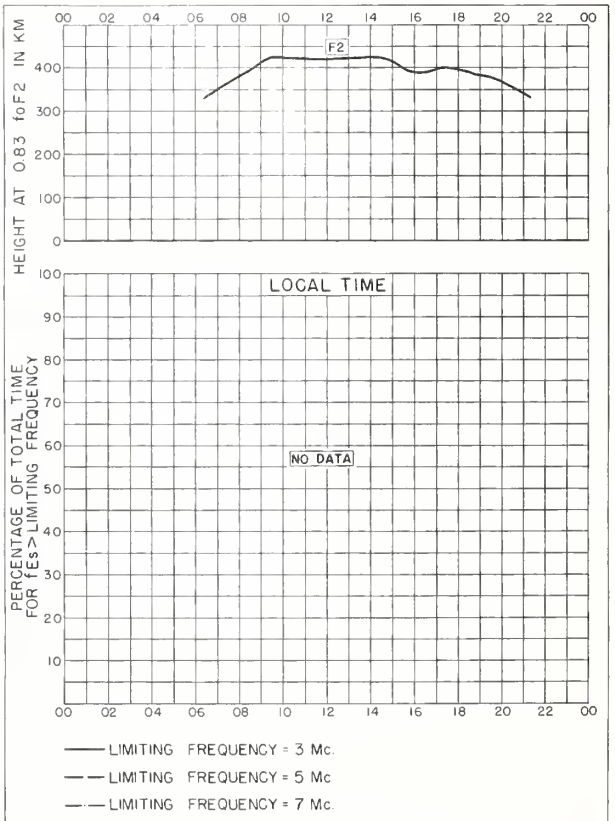


Fig. 120. MADRAS, INDIA AUGUST 1954

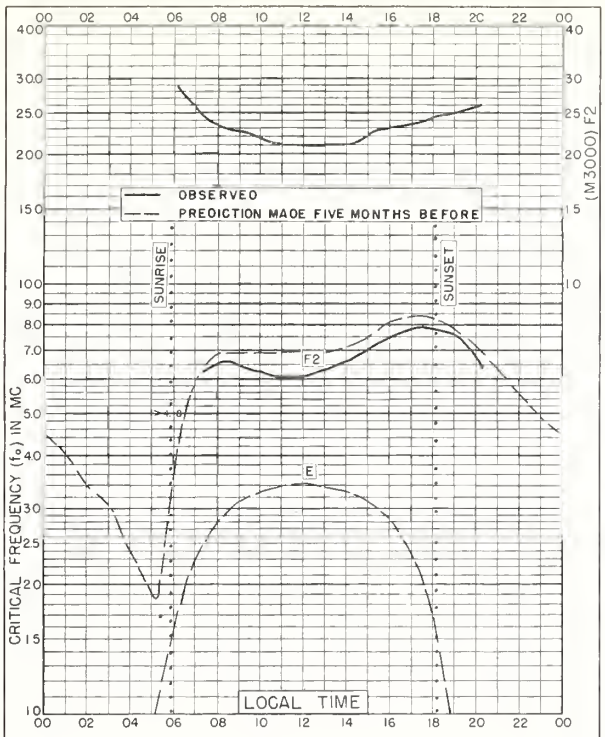


Fig 121. TIRUCHY, INDIA
10.8°N, 78.8°E AUGUST 1954

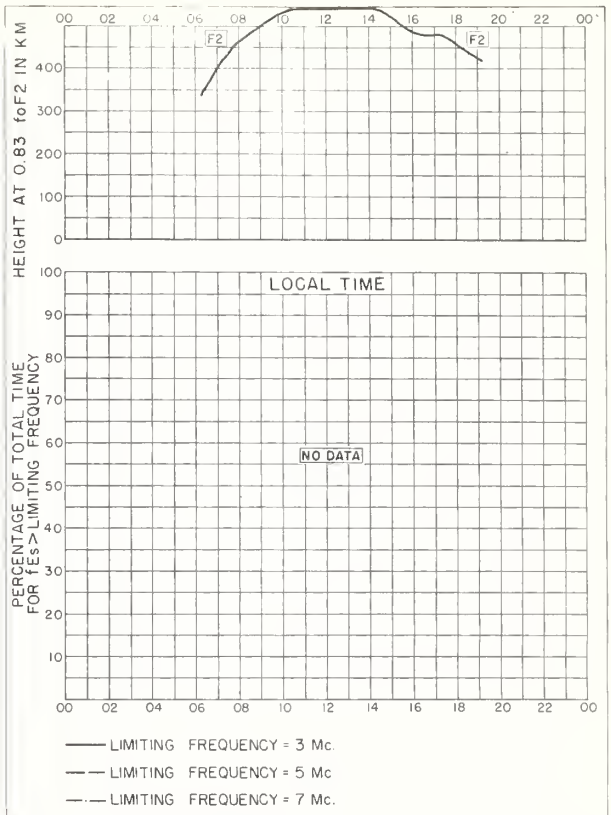


Fig. 122. TIRUCHY, INDIA AUGUST 1954

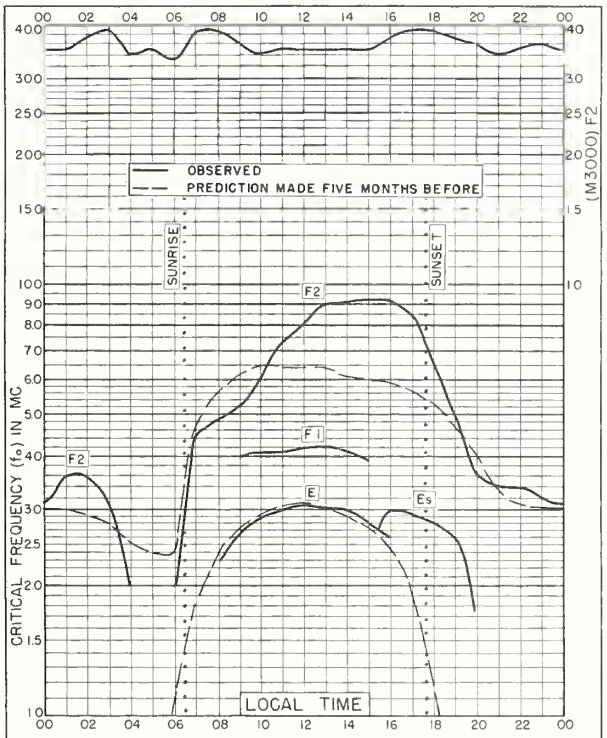


Fig. 123. SAO PAULO, BRAZIL
23.5°S, 46.5°W AUGUST 1954

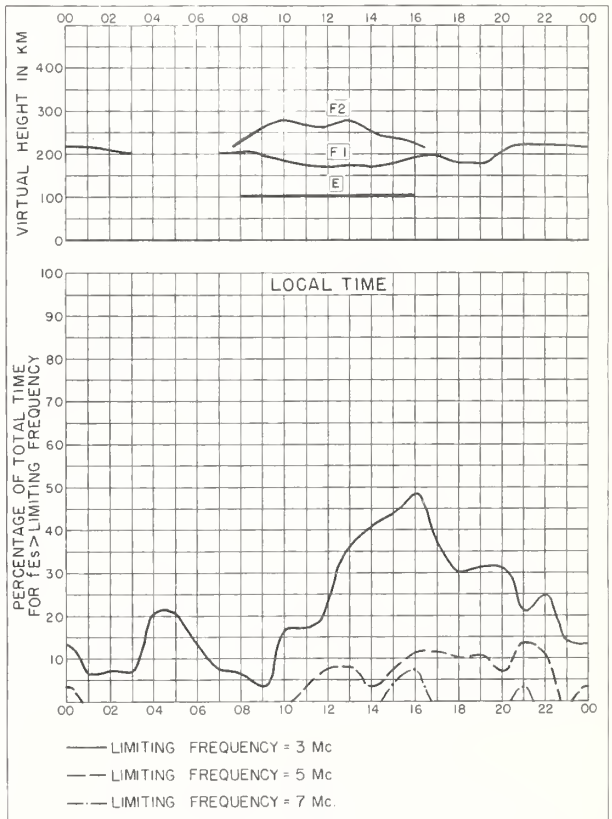


Fig. 124. SAO PAULO, BRAZIL AUGUST 1954

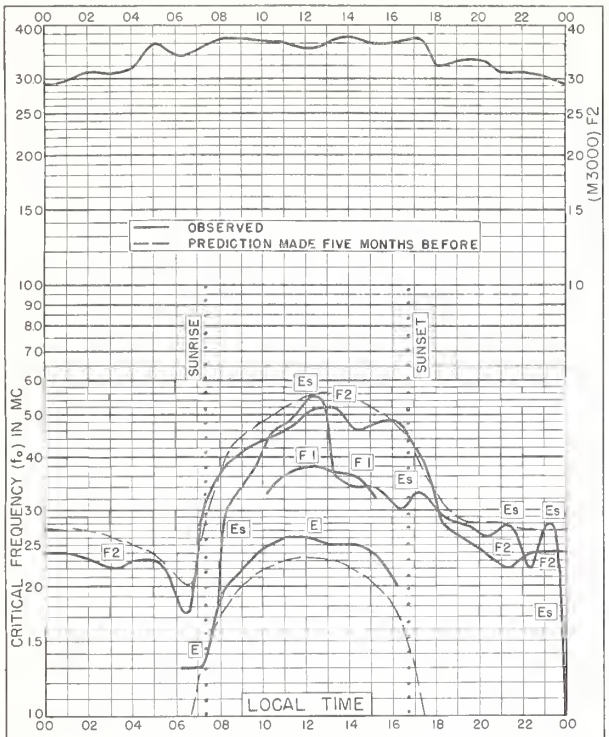
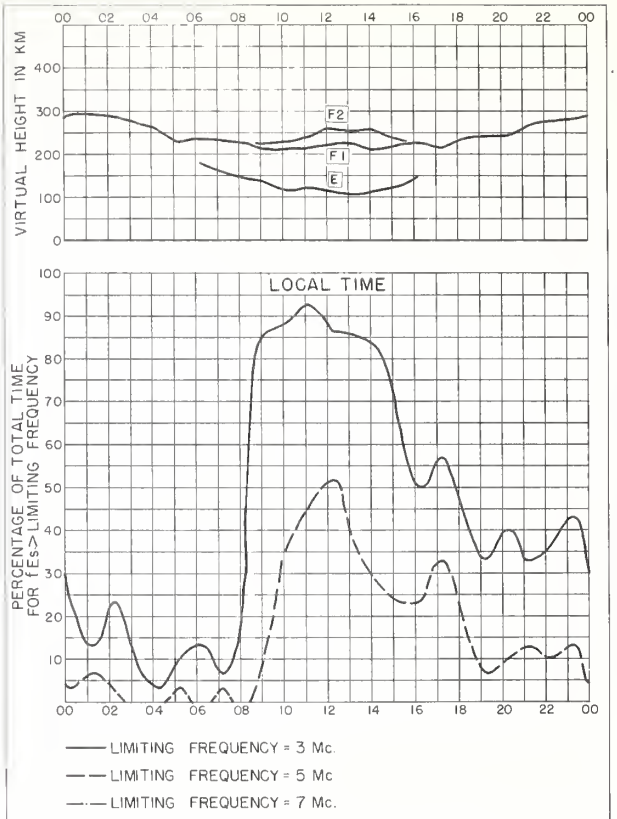


Fig. 125. FALKLAND IS.
51.7°S, 57.8°W AUGUST 1954



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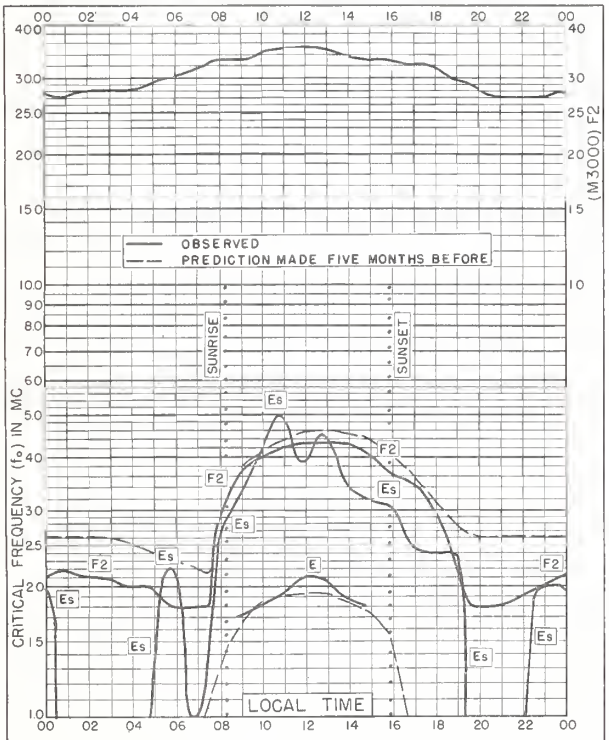

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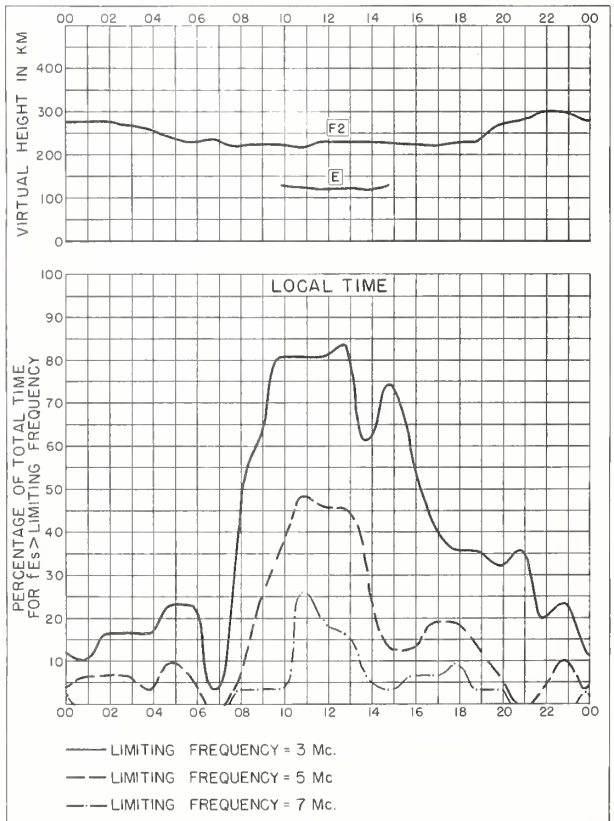

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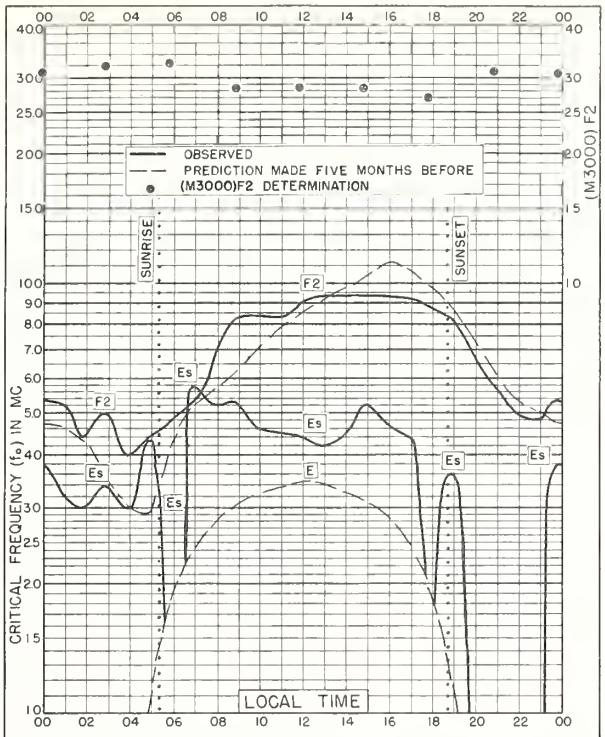

Fig. 129. CALCUTTA, INDIA
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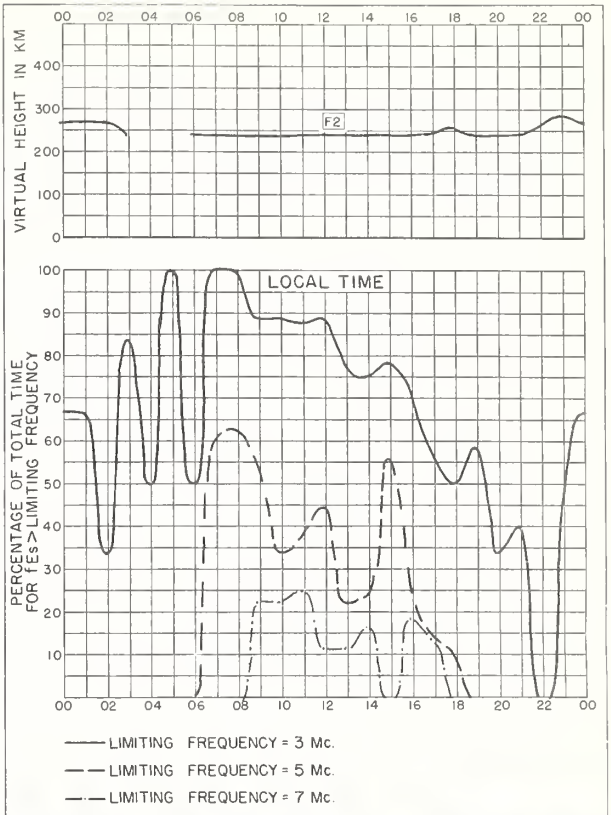
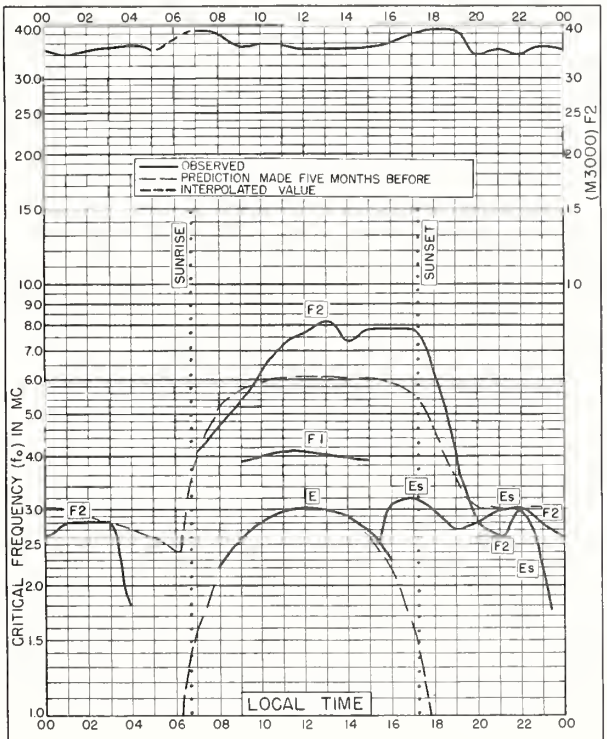


Fig. 130. CALCUTTA, INDIA JUNE 1954



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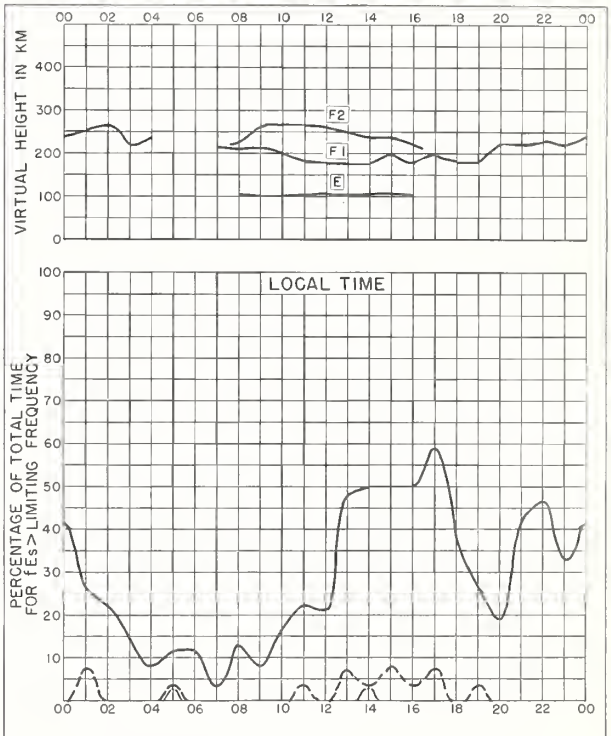

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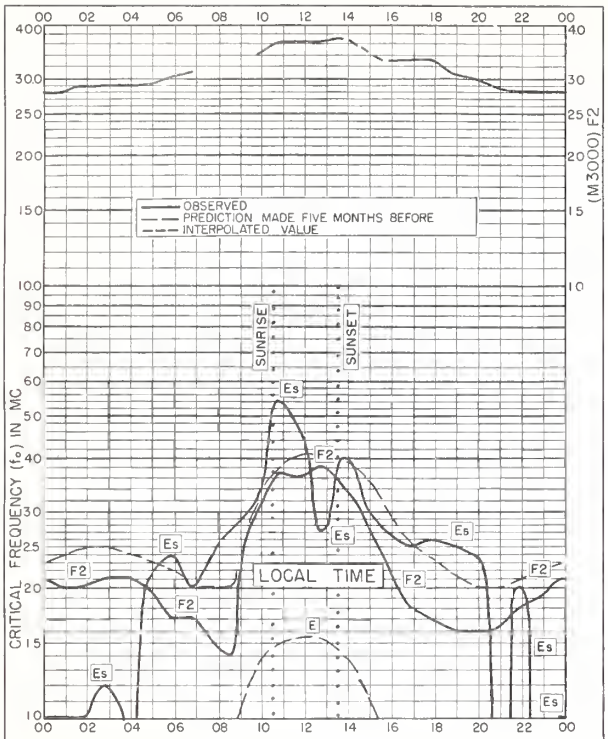

Fig. 133. PORT LOCKROY
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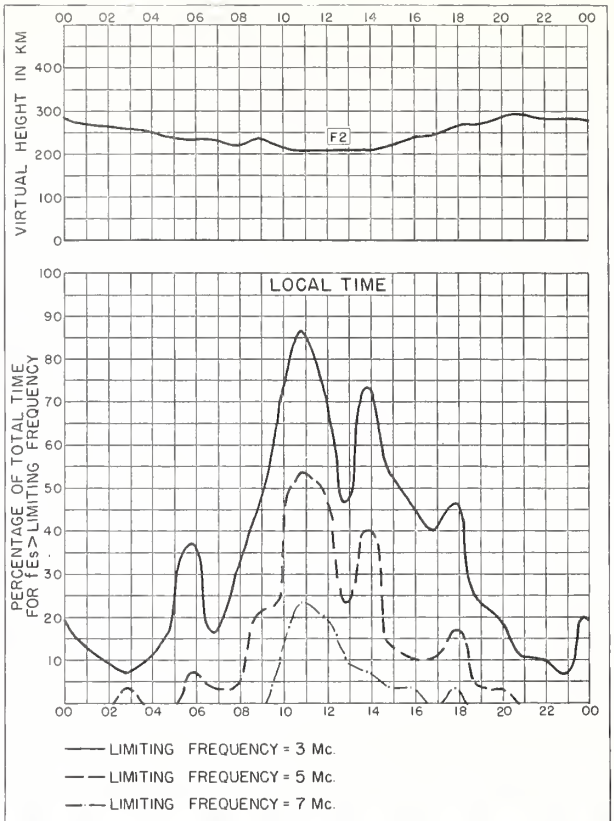

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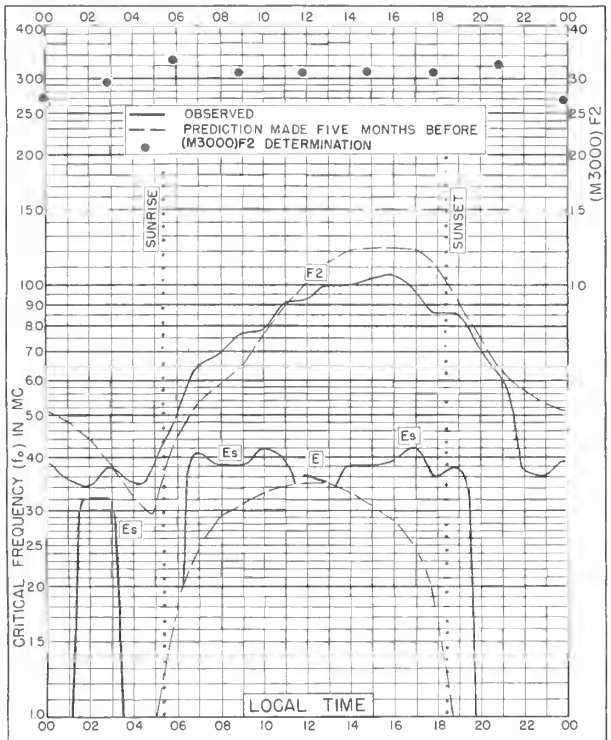

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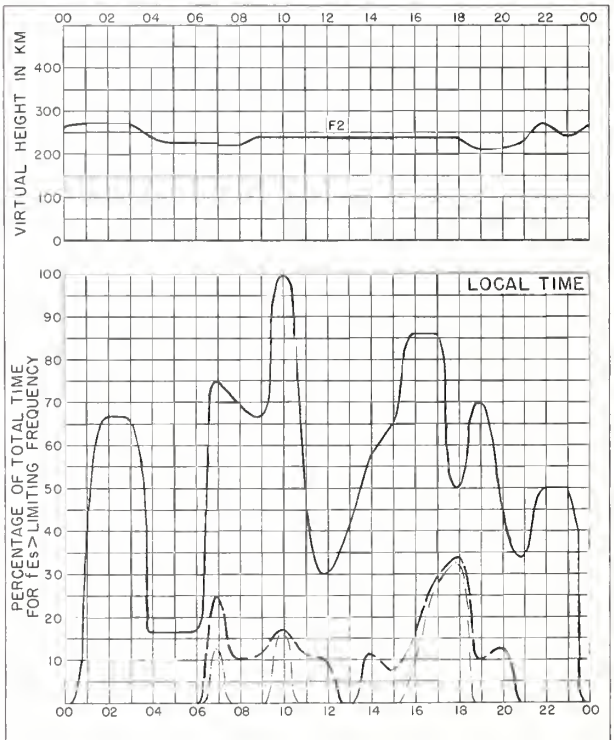

Fig. 136. CALCUTTA, INDIA MAY 1954

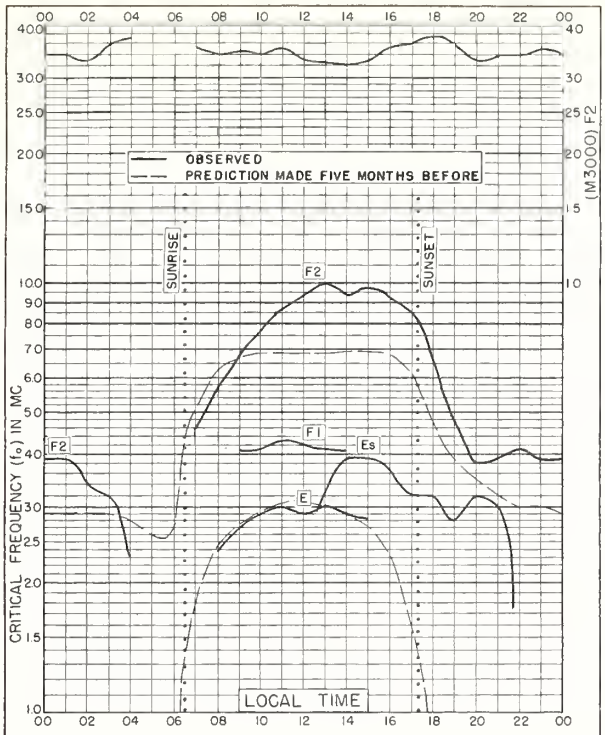

Fig. 137. SAO PAULO, BRAZIL
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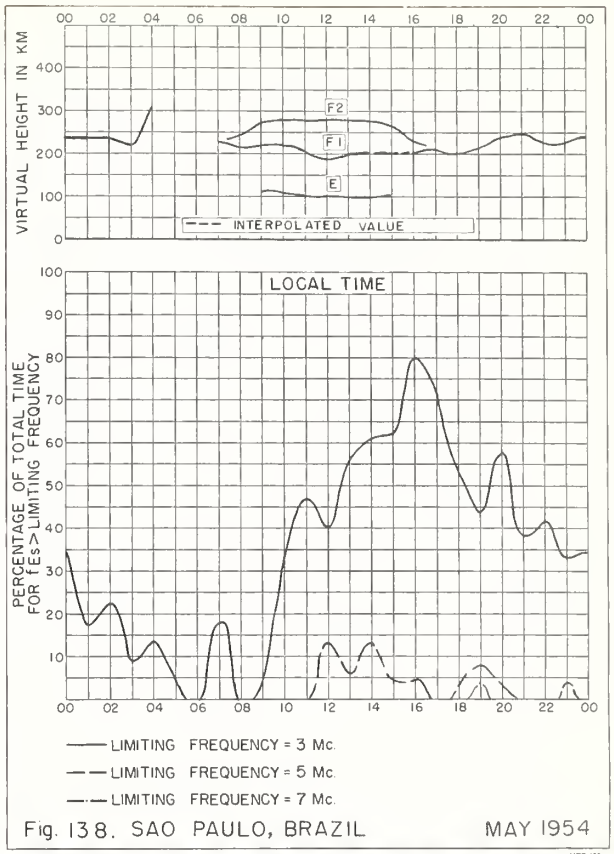

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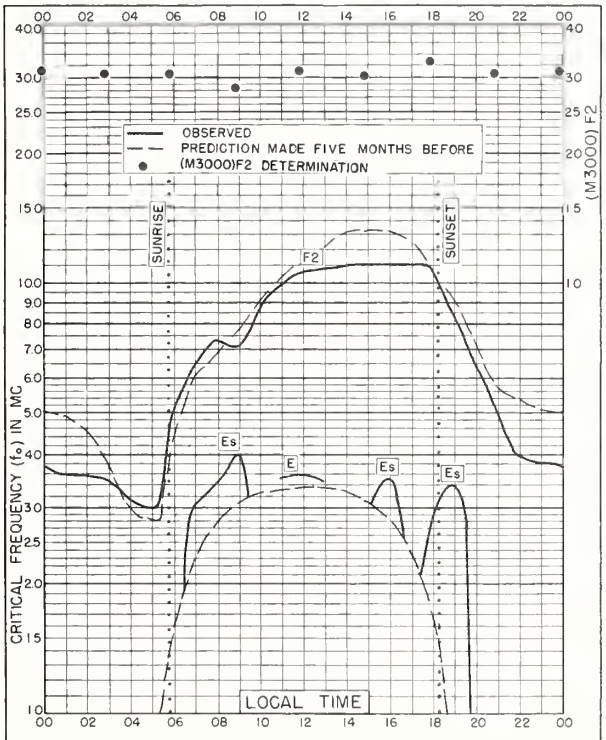

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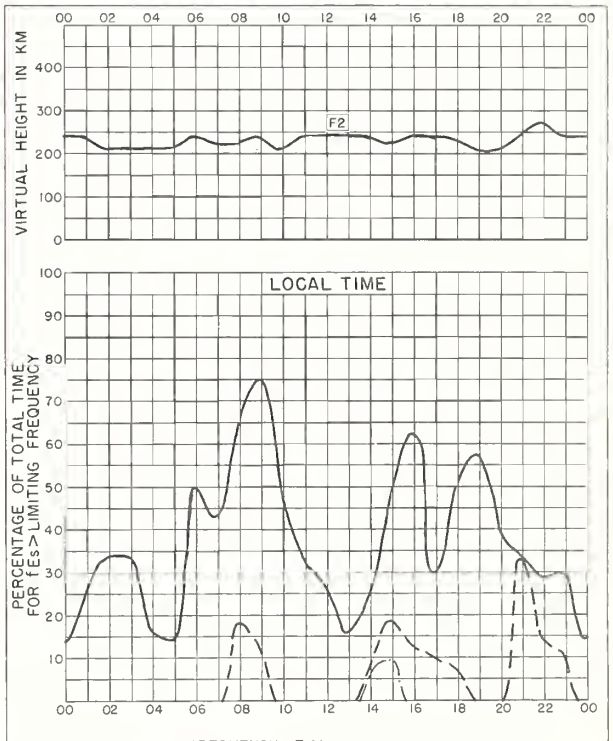

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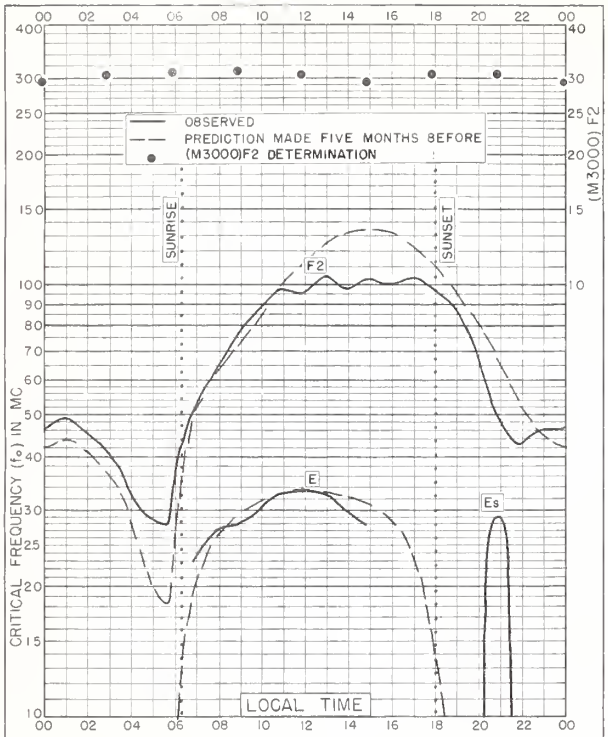

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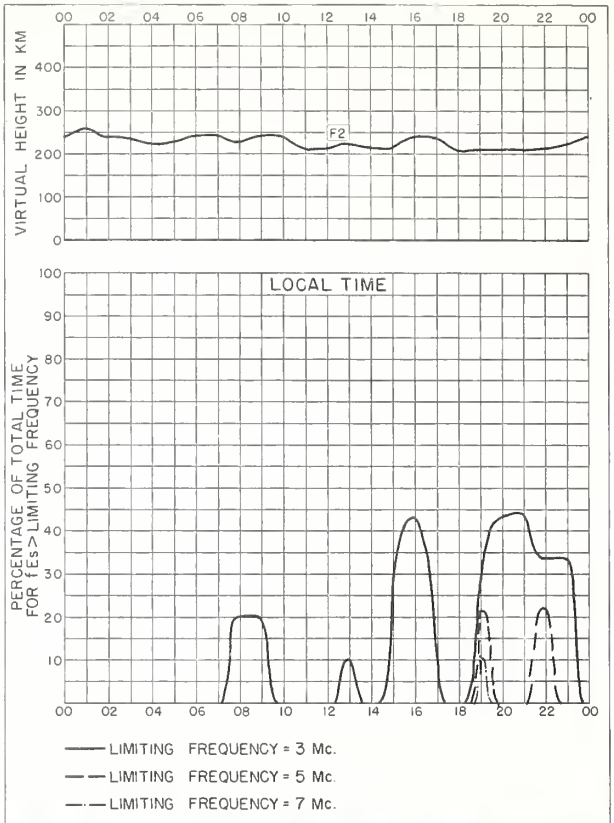

Fig. 142. CALCUTTA, INDIA MARCH 1954

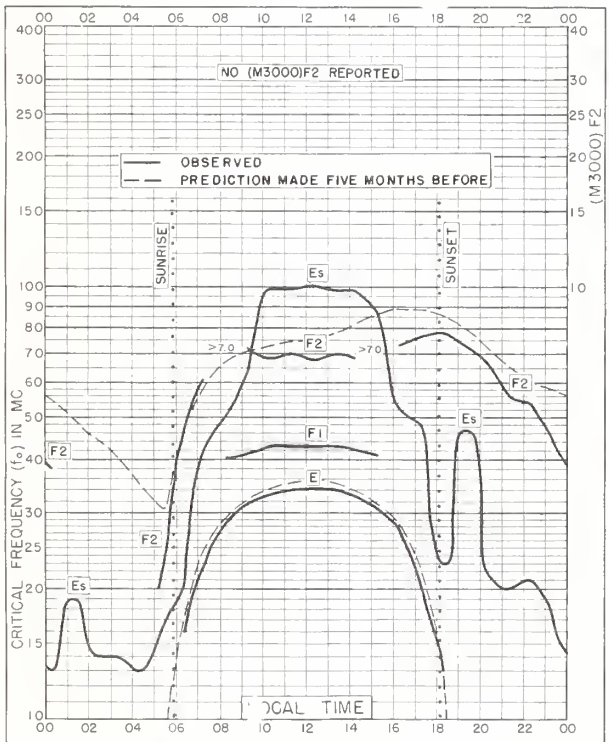

Fig. 143. IBADAN, NIGERIA
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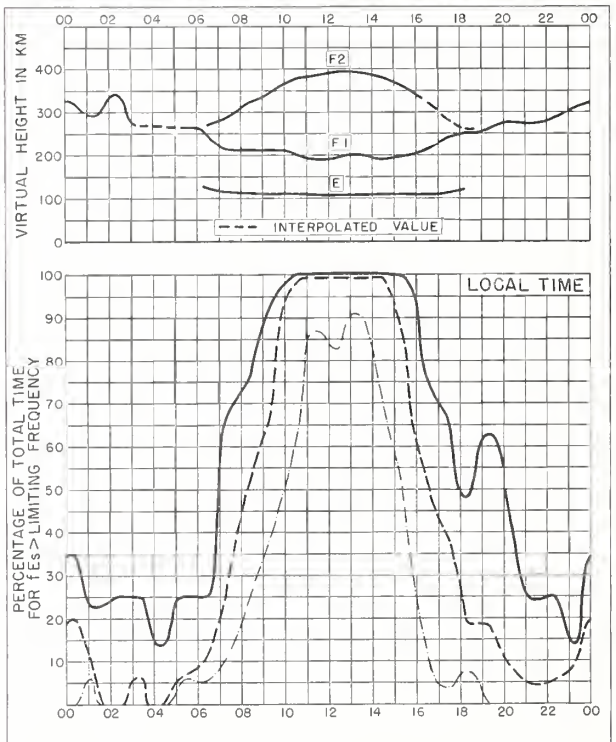

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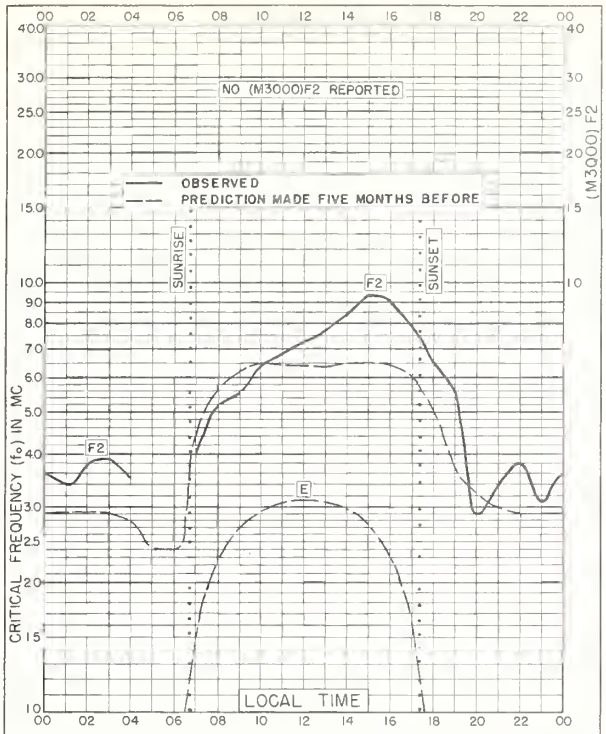

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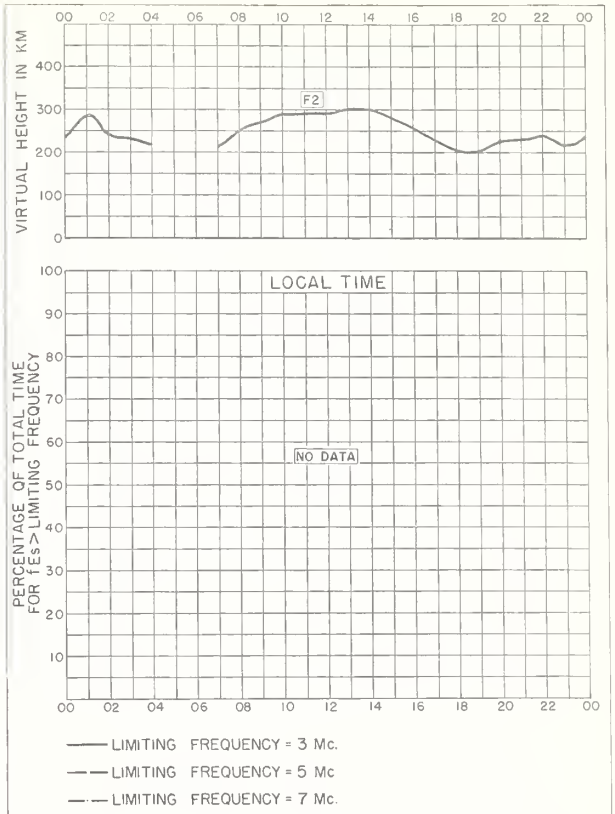

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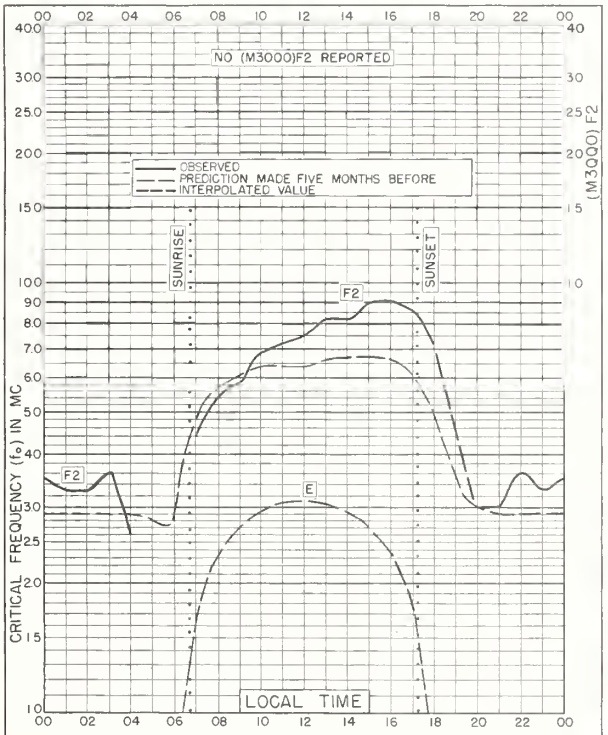

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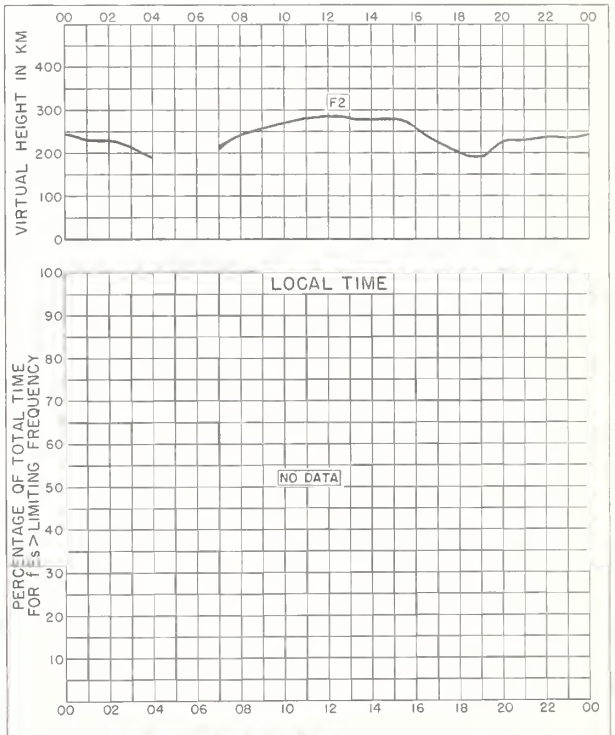

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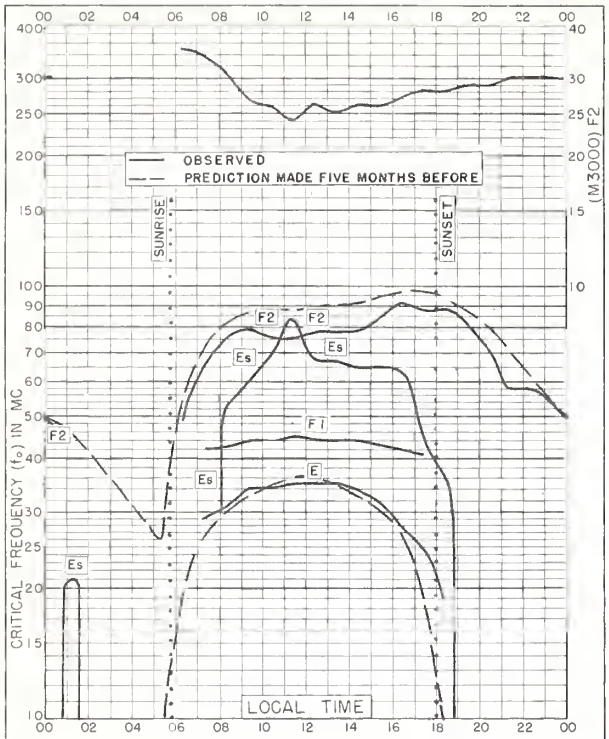

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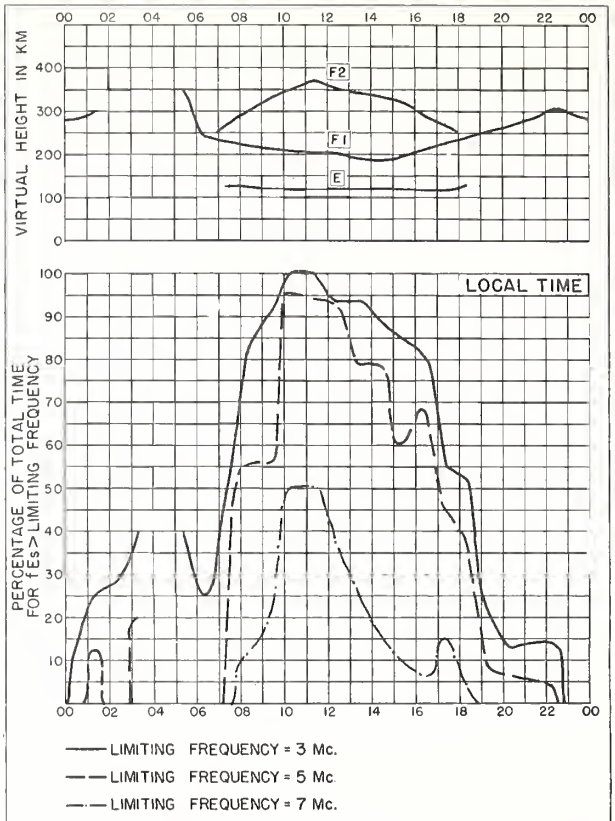

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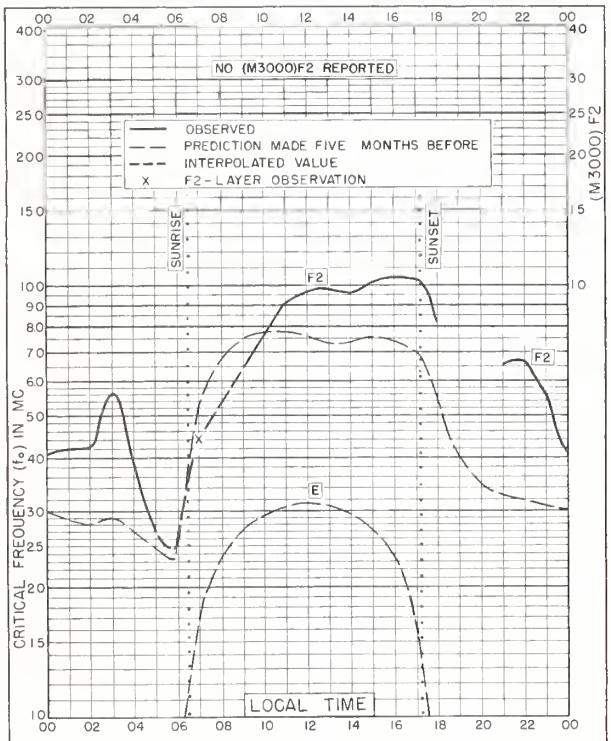

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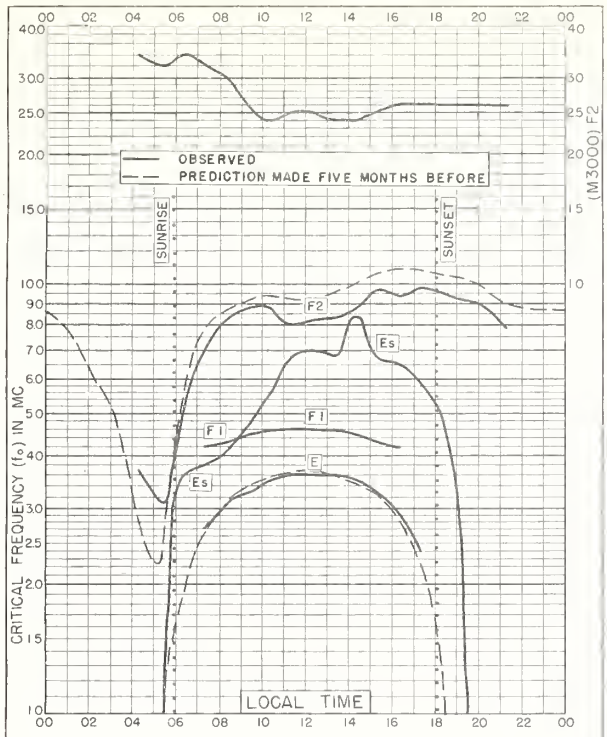

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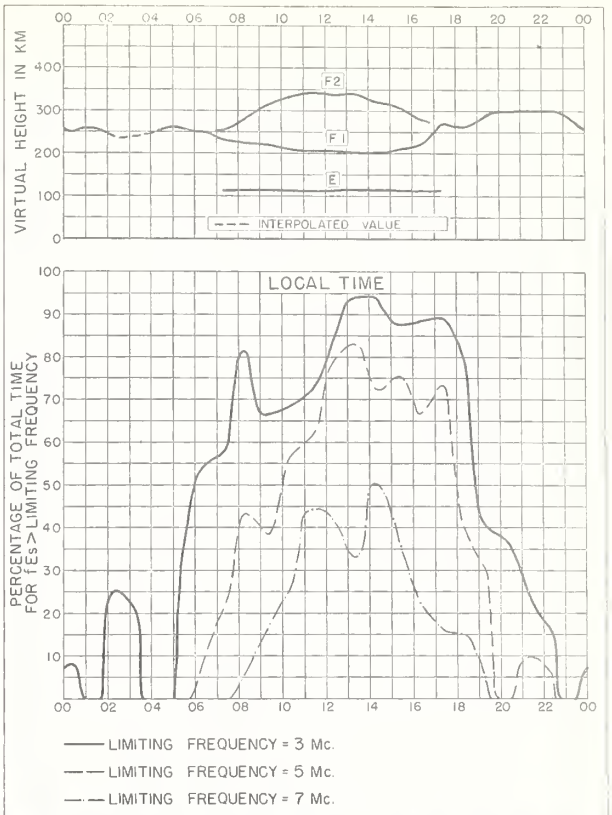

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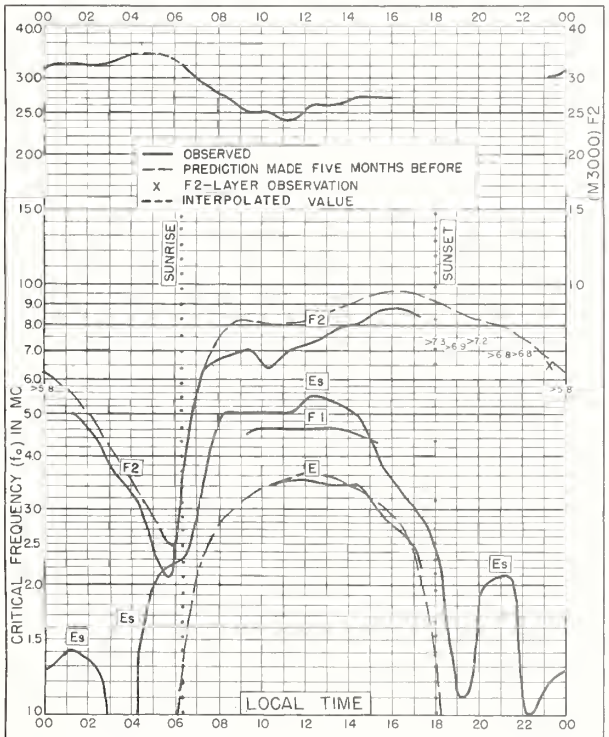

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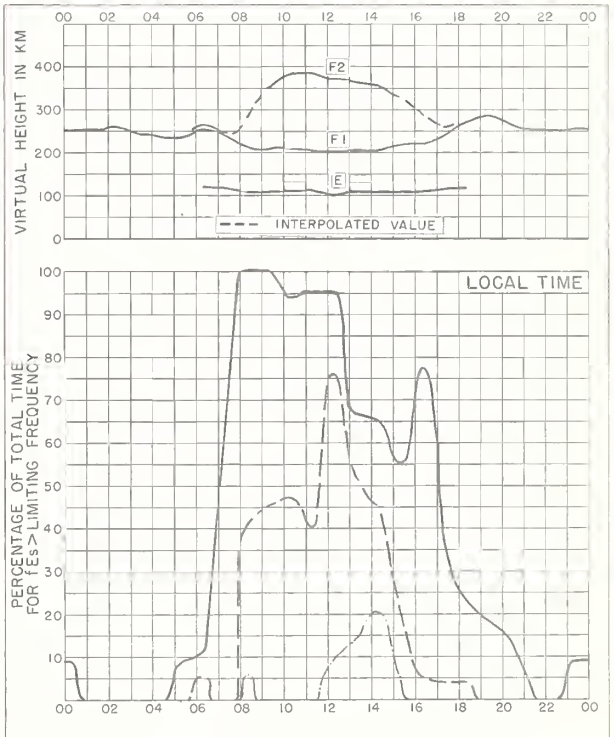

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Telephoned and telegraphed reports of ionospheric, solar, geomagnetic, and radio propagation data.

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

CRPL—Jp. North Pacific Radio Propagation Forecast (of days most likely to be disturbed during following month).

Semimonthly:

CRPL—Ja. Semimonthly Frequency Revision Factors For CRPL Basic Radio Propagation Prediction Reports.

Monthly:

CRPL—D. Basic Radio Propagation Predictions—Three months in advance. (Dept. of the Army, TB 11-499-, monthly supplements to TM 11-499; Dept. of the Navy, DNC 13 ( ) series; Dept. of the Air Force, TO 16-1B-2 series.) On sale by Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. Members of the Armed Forces should address cognizant military office.

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

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