IONOSPHERIC DATA

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NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
BOULDER, COLORADO

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CONTENTS

SYMBOLS, TERMINOLOGY, CONVENTIONS

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

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

The following conventions are used in determining the medians for hours when no measured values are given because of equipment limitations and ionospheric irregularities. Symbols used are those given in Document No. 626-E referred to above, plus an additional symbol, R: "Scaling of characteristic is influenced or prevented by absorption in the neighborhood of the critical frequency," (May 1955).

a. For all ionospheric characteristics:

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

b. For critical frequencies and virtual heights:

Values of 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 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; the symbol D, only when it replaces a frequency characteristic.

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

c. For MUF factor (M-factors):

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

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

d. For sporadic E (Es):

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

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	30	8	18	46	54	91	115	117	121	79	22
August	27	8	18	49	57	96	111	123	122	77	20
July	22	8	20	51	60	101	108	125	116	73	
June	18	9	21	52	63	103	108	129	112	67	
May	16	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 72 and figures 1 to 144 were assembled by the Central Radio Propagation Laboratory for analysis and correlation, incidental to CRPL prediction of radio propagation conditions. The data are median values unless otherwise indicated. The following are the sources of the data in this issue:

Republica Argentina, Ministerio de Marina:
Buenos Aires, Argentina
Decepcion I.

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

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

British Department of Scientific and Industrial Research, Radio Research Board:
Ibadan, Nigeria (University College of Ibadan)
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

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

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

The Royal Netherlands Meteorological Institute:
De Bilt, Holland

Indian Council of Scientific and Industrial Research, Radio Research Committee, New Delhi, India:
Ahmedabad, India (Physical Research Laboratory)
Calcutta, India (Institute of Radio Physics and Electronics)

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

Post, Telephone and Telegraph Administration, Berne, Switzerland:
Schwarzenburg, Switzerland

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

National Bureau of Standards (Central Radio Propagation Laboratory):
Guam I.
Huancayo, Peru (Instituto Geofisico de Huancayo)
Maui, Hawaii
Narsarssuak, Greenland
Panama Canal Zone
Puerto Rico, W. I.
San Francisco, California (Stanford University)
Washington, D. C.

HOURLY IONOSPHERIC DATA AT WASHINGTON, D. C.

The data given in tables 73 through 84 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 85 presents ionosphere character figures for Washington, D. C., during September 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.

RADIO PROPAGATION QUALITY FIGURES

Tables 86a and 86b give for August 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 87 through 89 give the observations of the solar corona during September 1955, obtained at Climax, Colorado, by the High Altitude Observatory of Harvard University and the University of Colorado. Tables 90 through 92 list the coronal observations obtained at

Sacramento Peak, New Mexico, during September 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 87 gives the intensities of the green (5303A) line of the emission spectrum of the solar corona; table 88 gives similarly the intensities of the first red (6374A) coronal line; and table 89, the intensities of the second red (6702A) coronal line; all observed at Climax in September 1955.

Table 90 gives the intensities of the green (5303A) coronal line; table 91, the intensities of the first red (6374A) coronal line; and table 92, the intensities of the second red (6702A) coronal line; all observed at Sacramento Peak in September 1955.

The following symbols are used in tables 87 through 92; a, observation of low weight for whole limb (if in date column) or for portion of limb indicated; -, corona not visible; and X, no observation for whole limb (if in date column) or for portion of limb indicated.

RELATIVE SUNSPOT NUMBERS

Table 93 lists the daily provisional Zürich relative sunspot number, R_Z, for September 1955, as communicated by the Swiss Federal Observatory. Table 94 contains the daily American relative sunspot number, R_A', for August 1955, as compiled by the Solar Division, American Association of Variable Star Observers.

OBSERVATIONS OF SOLAR FLARES

Table 95 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

Table 96 lists 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 12 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).

SUDDEN IONOSPHERE DISTURBANCES

Tables 97 and 98 list, respectively, the sudden ionosphere disturbances observed at Washington, D. C., for September 1955 and at Nederhorst den Berg, Netherlands, for July and August 1955.

ERRATA

1. F116, page 33, table 67, Ionospheric Storminess at Washington, D. C. Change time of beginning and end of first storm listed to read 0200 GCT March 24 and 0100 GCT March 25, 1954.

2. In the detailed tabulations of Washington, D. C., ionospheric data for March, May, June, July, September and October, 1954, and January through August 1955 (F116, 118, 119, 120, 122, 123, 126 - 133, respectively) all K's should be moved 5 hours ealier than shown.

Table 1

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

Time	h'F2	foF2	b'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	3.7					<1.6	3.0
01	280	3.5					<1.6	3.0
02	270	3.3					<1.6	3.0
03	270	3.0					<1.6	3.0
04	270	2.6					<1.6	3.1
05	280	2.3					<1.6	3.0
06	250	3.8	---	---	---	<1.6	<1.6	3.35
07	250	5.2	230	---	110	2.2	3.0	3.4
08	260	5.8	210	4.0	110	2.6	3.3	3.3
09	280	6.2	210	4.3	110	2.9	3.2	3.3
10	290	6.4	200	4.4	100	3.1	3.4	3.2
11	300	6.6	190	4.5	100	3.3		3.1
12	300	6.8	200	4.6	100	3.3		3.1
13	310	6.6	200	4.6	100	3.2		3.2
14	300	6.7	210	4.5	100	3.2		3.2
15	300	6.7	210	4.4	110	3.0		3.15
16	280	6.6	220	4.2	110	2.6	2.6	3.2
17	250	6.7	230	---	110	2.2	3.1	3.3
18	230	6.4	---	---	---	<1.6		3.3
19	220	6.0					<1.6	3.3
20	240	5.0					<1.6	3.1
21	250	4.5					<1.6	3.0
22	270	4.1					<1.6	3.0
23	270	3.9					<1.6	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) August 1955

Time	b'F2	foF2	b'F1	foF1	h'E	foE	fEs	(M3000)F2
00	310	3.0					4.3	3.05
01	310	(2.9)					3.7	3.1
02	(340)	(2.9)					4.2	(3.05)
03	(320)	(2.8)					4.7	(3.1)
04	(260)	(3.1)					4.8	(3.25)
05	260	3.4	---	---	---	---	4.4	3.3
06	270	3.9	230	3.3	110	2.0	3.9	3.3
07	300	4.1	220	3.7	120	2.4	3.4	3.3
08	330	4.4	210	3.9	110	2.6	3.2	3.15
09	340	4.6	210	4.0	110	2.8	3.1	3.2
10	360	4.7	210	4.1	110	2.9	3.2	3.0
11	360	4.8	210	4.1	110	3.0		3.0
12	360	4.8	210	4.2	110	3.0		3.0
13	360	4.8	210	4.2	110	3.0		3.0
14	370	4.8	210	4.1	110	2.9		3.0
15	370	4.8	220	4.0	110	2.8		3.0
16	330	4.8	220	4.0	110	2.7	3.8	3.1
17	320	4.7	220	3.8	110	2.4	3.9	3.1
18	300	4.6	240	3.5	120	2.0	4.2	3.15
19	290	4.6	260	3.4	120	2.0	4.3	3.2
20	270	4.0	---	---	---	---	5.5	3.2
21	300	3.6					5.9	3.1
22	280	(3.5)					5.3	(3.15)
23	280	(3.1)					6.4	(3.2)

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) August 1955

Time	h'F2	foF2	b'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	3.6					1.4	2.95
01	260	3.1					2.4	2.9
02	265	2.7					2.3	2.9
03	270	2.5					2.0	2.9
04	260	2.6	265	---	---	1.2	1.6	3.0
05	---	3.4	245	---	110	1.6	1.9	3.05
06	(340)	4.0	225	---	105	2.0	3.3	3.1
07	385	4.4	220	3.8	105	2.4	3.5	3.05
08	335	4.8	215	4.0	105	2.6	3.7	3.05
09	350	5.2	205	4.1	100	2.8	3.9	3.05
10	325	5.4	210	4.2	100	3.0	3.9	3.15
11	340	5.3	210	4.3	100	3.0	4.0	3.1
12	330	5.5	210	4.4	100	3.0	3.9	3.1
13	325	5.4	205	4.4	100	3.0	3.7	3.1
14	335	5.2	210	4.3	100	3.0	3.5	3.15
15	320	5.2	210	4.2	100	2.9	3.3	3.2
16	320	5.0	210	4.2	105	2.8	3.1	3.1
17	320	5.1	230	4.0	105	2.5	3.7	3.1
18	290	5.2	240	---	110	2.2	3.6	3.1
19	265	5.6	250	---	110	2.0	3.4	3.1
20	250	5.8	---	---	---	---	2.8	3.1
21	245	5.8					2.5	3.1
22	245	5.1					1.7	3.05
23	250	4.4					1.6	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) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	3.6					3.0	2.9
01	290	3.0					3.0	2.9
02	300	2.7					3.2	2.85
03	310	2.6			---	E	3.1	2.9
04	290	3.0	260	2.8	---	E	3.2	2.9
05	325	3.8	260	3.0	140	1.8	3.4	3.0
06	355	4.3	245	3.5	125	2.2	3.6	3.0
07	365	4.5	240	3.8	115	2.5	4.1	2.9
08	350	5.0	235	4.0	115	2.7	4.0	2.95
09	370	5.3	225	4.2	110	2.8	4.5	2.9
10	350	5.4	220	4.3	110	3.0	4.3	3.0
11	345	5.4	220	4.4	110	3.1	4.2	3.1
12	350	5.4	215	4.4	110	3.1	4.1	3.05
13	350	5.5	220	4.4	110	3.1	4.1	3.1
14	350	5.2	220	4.2	110	3.1	3.9	3.1
15	330	5.2	230	4.2	110	3.0	3.5	3.1
16	330	5.1	230	4.0	110	2.8	3.5	3.1
17	340	5.1	250	3.8	115	2.5	3.9	3.0
18	300	5.2	255	3.5	125	2.1	3.6	3.1
19	290	5.5	265	(2.9)	---	1.8	3.5	3.0
20	260	6.0			---	E	3.2	3.0
21	260	5.7			---	E	2.8	3.0
22	260	5.1					3.1	3.0
23	270	4.2					2.7	3.0

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) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	3.8					3.4	3.1
01	270	3.5					2.4	3.0
02	280	3.5					2.6	2.9
03	270	3.4					2.2	3.0
04	280	3.2			130	1.4	2.7	3.0
05	280	3.8	250	3.0	120	1.6	2.9	2.95
06	370	4.4	230	3.5	110	2.1	3.7	3.0
07	370	4.9	230	3.8	110	2.5	4.0	3.0
08	350	5.1	220	3.9	100	2.8	4.4	3.0
09	340	5.3	210	4.2	100	3.0	5.0	3.1
10	340	5.3	200	4.2	100	3.0	4.8	3.1
11	360	5.3	200	4.3	110	3.0	5.3	3.1
12	380	5.0	200	4.4	110	3.2	5.3	3.0
13	380	5.0	200	4.3	100	2.9	4.4	3.0
14	340	4.9	200	4.3	110	3.0	4.1	3.1
15	<370	4.8	210	4.1	100	2.7	3.6	3.0
16	320	4.9	220	4.0	110	2.6	3.9	3.15
17	300	4.9	230	3.9	110	2.4	3.9	3.2
18	270	4.9	240	---	120	2.0	3.8	3.2
19	260	5.5			---	---	4.2	3.15
20	250	5.8					3.9	3.1
21	250	5.6					4.2	3.1
22	240	4.9					3.6	3.15
23	240	4.2					3.1	3.1

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

Table 6

Ft. Monmouth, New Jersey (40.3°N, 74.1°W) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	3.4					<1.7	3.1
01	270	3.1					<2.3	3.0
02	270	2.7					<1.9	3.1
03	<280	2.4					<1.7	3.0
04	260	2.3					<1.6	3.1
05	260	2.7	---	---	---	---	<1.9	3.2
06	240	4.0	230	3.4	120	1.7	2.2	3.4
07	300	4.7	220	3.7	110	(2.5)	3.3	3.3
08	310	5.1	210	4.1	110	(2.8)	3.5	3.25
09	320	5.3	200	4.2	110	(3.0)	3.8	3.3
10	330	5.6	210	4.4	110	(3.2)	4.0	3.1
11	360	5.4	190	4.4	110	(3.4)	3.5	3.1
12	350	5.3	200	4.4	110	3.4	3.4	3.1
13	370	5.4	200	4.4	110	3.4	3.4	3.0
14	340	5.4	200	4.3	110	(3.3)	3.4	3.1
15	330	5.4	210	4.2	110	3.1	3.2	3.1
16	330	5.4	220	4.0	110	2.9	3.0	3.1
17	300	5.6	220	(3.8)	110	(2.5)	2.8	3.1
18	260	5.8	240	(3.4)	120	---	3.2	3.1
19	250	6.0	---	---			3.0	3.1
20	240	6.2					2.4	3.1
21	250	5.4					<2.6	3.1
22	250	4.4					<1.8	3.1
23	260	3.9					<1.8	3.1

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

Table 7

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	3.7					3.6	3.0
01	280	3.6					3.0	3.0
02	270	3.7					2.1	3.0
03	260	3.6					2.1	3.1
04	250	3.4					2.5	3.1
05	250	3.4					<1.8	3.1
06	270	4.2	230	3.1	120	1.8	3.3	3.2
07	300	5.2	220	3.7	110	(2.4)	4.7	3.2
08	300	5.8	200	4.1	100	(2.8)	5.3	3.2
09	<320	5.6	200	4.3	100	3.0	5.8	3.1
10	340	5.8	190	4.4	100	3.3	6.0	3.0
11	350	6.0	190	4.5	100	(3.4)	7.0	3.0
12	360	5.9	200	4.5	100	3.4	5.7	2.9
13	350	6.2	200	4.5	100	3.4	4.7	2.9
14	330	6.2	200	4.5	100	3.4	4.5	3.0
15	320	6.2	210	4.3	100	3.2	4.7	3.1
16	310	6.2	220	4.2	110	3.0	4.1	3.1
17	290	6.1	220	3.9	110	2.6	3.9	3.1
18	260	6.0	230	(3.1)	110	(2.1)	3.5	3.2
19	240	6.4					3.4	3.2
20	230	6.2					2.9	3.3
21	220	5.2					2.8	3.2
22	240	4.2					<2.0	3.1
23	270	3.9					3.5	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) — August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	310	(4.8)					3.7	(3.0)
01	300	(4.7)					4.3	(3.0)
02	270	(4.6)					3.7	(3.2)
03	250	(4.4)					3.7	3.2
04	250	(4.2)					>3.5	(3.3)
05	250	(3.6)					3.7	(3.2)
06	250	3.9	---	---	---	---	3.7	3.3
07	250	5.9	230	---	110	(2.2)	4.2	3.5
08	250	6.2	220	4.0	110	(2.7)	>4.0	3.5
09	270	6.2	210	(4.5)	110	(3.0)	5.2	3.45
10	320	6.3	210	4.7	110	---	6.2	3.1
11	360	6.7	200	4.7	---	---	5.6	2.9
12	360	7.2	220	4.0	110	---	6.0	2.9
13	340	8.2	220	4.8	110	(3.6)	5.4	3.0
14	340	0.4	220	4.7	110	---	5.1	2.9
15	320	8.8	210	4.6	---	---	5.0	3.0
16	310	0.7	220	4.4	---	---	4.6	3.0
17	300	8.8	230	4.2	110	2.8	5.3	3.05
18	270	8.6	240	---	110	>2.3	5.0	3.1
19	250	>9.0	---	---			4.8	(3.2)
20	230	(7.3)					>5.0	(3.35)
21	240	(6.1)					>4.5	(3.2)
22	260	5.2					3.7	(3.0)
23	300	(5.2)					4.0	2.9

Time: 135.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 9

Formosa, China (25.0°N, 121.5°E) — August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	5.6					2.9	2.8
01	200	5.6					3.3	2.9
02	280	5.7					2.8	2.9
03	270	5.1					2.0	3.25
04	260	4.4					3.2	(3.05)
05	260	4.1					3.0	3.05
06	260	5.0					3.3	3.1
07	250	6.5	230	4.1	---	---	4.6	3.3
08	280	6.7	220	4.3	110	3.0	6.0	3.3
09	310	6.8	210	4.5	110	3.2	6.4	3.0
10	360	7.2	200	4.7	110	3.4	6.0	2.0
11	370	0.0	200	4.0	---	---	6.4	2.7
12	360	9.1	210	4.9	---	---	5.6	2.8
13	340	9.8	210	4.0	---	---	5.8	2.9
14	320	10.3	210	4.6	---	---	4.7	2.9
15	310	10.6	220	4.6	---	---	5.2	3.0
16	290	10.6	220	4.4	---	---	4.4	3.1
17	280	10.4	240	4.1	110	(2.6)	4.3	3.2
18	240	10.2	240	3.6	---	---	4.2	3.3
19	240	9.2					4.1	3.2
20	240	>7.8					3.6	3.15
21	240	6.2					3.2	3.05
22	300	5.6					3.2	2.8
23	320	(6.0)					3.2	2.8

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

Table 10

Maui, Hawaii (20.0°N, 156.5°W) — August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	350	(4.9)					3.4	(2.7)
01	330	(5.2)					3.2	(2.75)
02	300	5.1					3.2	2.9
03	200	4.4					2.6	3.0
04	300	3.8					2.4	2.8
05	300	3.4					2.6	2.9
06	300	3.9			---	---	2.0	3.0
07	300	5.5	260	---	130	2.1	4.5	3.0
08	330	5.8	240	4.1	120	2.7	5.5	2.9
09	400	6.1	230	4.4	120	3.0	7.0	2.65
10	480	6.4	220	4.7	120	3.3	6.6	2.4
11	470	7.2	230	4.7	120	3.4	7.4	2.4
12	470	0.0	230	4.6	120	3.6	5.6	2.4
13	450	0.4	240	4.7	120	3.6	5.7	2.5
14	420	9.6	(230)	4.6	120	3.5	5.7	2.6
15	390	10.4	250	4.4	120	3.3	5.7	2.7
16	350	11.0	260	4.3	120	3.1	5.5	2.8
17	330	11.2	260	4.1	130	2.7	5.6	2.9
18	300	10.7	270	---	130	2.1	4.9	3.0
19	260	9.7					4.3	3.2
20	260	7.2					4.0	3.0
21	270	5.9					3.5	2.8
22	320	5.2					2.3	2.7
23	340	4.0					2.7	2.7

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) — August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	4.8					<2.0	3.0
01	270	5.0					<1.0	3.1
02	250	4.6					<1.7	3.1
03	250	4.2					<1.7	3.2
04	260	3.8					<1.7	3.1
05	260	3.4					<1.7	3.15
06	250	3.5	---	---			<1.7	3.2
07	240	5.2	220	---	120	2.1	3.0	3.5
08	280	5.7	220	4.2	110	2.6	4.0	3.4
09	300	5.8	200	4.4	110	3.0	4.3	3.2
10	320	6.2	200	4.5	110	3.2	4.8	3.1
11	350	6.6	210	4.6	110	3.4	4.9	2.9
12	350	7.7	210	4.7	110	3.5	5.0	2.9
13	330	8.4	210	4.6	110	3.5	4.8	2.9
14	320	8.7	210	4.6	110	3.4	4.6	3.0
15	310	9.0	220	4.5	110	3.3	4.4	3.0
16	300	8.7	210	4.3	110	3.1	4.4	3.1
17	280	8.5	220	4.0	110	2.7	3.8	3.1
18	260	8.2	220	3.6	120	2.2	3.2	3.2
19	230	8.0					3.1	3.3
20	220	7.0					2.3	3.2
21	240	5.4					2.2	3.1
22	270	5.2					2.0	3.0
23	280	4.9					<2.4	3.0

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) — August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	330	3.9					2.0	2.8
01	320	3.6					2.0	2.85
02	300	3.2					<2.0	3.0
03	280	3.0					<1.8	3.2
04	250	3.0					<1.5	3.3
05	230	2.9					2.0	3.5
06	240	3.3					1.0	3.35
07	(240)	5.8	220	---	110	2.0	2.3	3.4
08	260	7.0	200	---	100	2.7	3.7	3.2
09	320	7.4	200	4.4	100	3.1	3.8	2.95
10	340	7.6	200	4.6	100	3.3	3.8	2.6
11	380	7.8	200	4.6	100	3.4	4.1	2.5
12	390	0.0	200	4.6	100	3.5	4.4	2.5
13	400	8.7	200	4.6	100	3.5	4.6	2.55
14	370	8.9	200	4.5	100	3.4	4.2	2.6
15	350	9.2	200	4.5	100	3.3	4.4	2.7
16	350	9.6	210	4.4	100	3.0	4.7	2.0
17	320	10.4	220	---	100	2.7	4.0	2.9
18	200	10.6	230	---	---	---	4.5	3.1
19	230	10.5					4.0	3.2
20	230	8.0					3.8	3.2
21	250	7.0					3.0	3.1
22	270	5.6					2.4	3.0
23	300	4.5					2.4	2.8

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) August 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	4.7					<1.6	3.1
01	240	5.0					<1.6	3.2
02	240	4.0					<1.6	3.15
03	260	3.4					1.9	3.1
04	260	3.3					<1.8	3.1
05	250	3.2					2.1	3.2
06	260	3.3					2.4	3.2
07	260	5.2	220	3.6	120	2.1	2.7	3.4
08	300	5.6	200	4.3	110	2.7	3.7	3.1
09	380	5.6	200	4.6	110	3.1	4.0	2.8
10	400	6.7	190	4.6	110	3.3	4.3	2.7
11	420	7.6	190	4.5	110	3.5	4.4	2.6
12	400	9.0	200	4.6	110	3.5	4.7	2.7
13	370	9.7	200	4.6	110	3.6	4.8	2.8
14	370	10.0	210	4.5	110	3.5	4.4	2.8
15	330	10.8	200	4.4	110	3.3	4.5	3.0
16	310	11.3	210	4.3	110	3.0	4.3	3.0
17	280	11.0	220	4.1	110	2.6	3.6	3.2
18	250	10.0	230	(3.2)	120	1.9	3.2	3.3
19	220	9.0					3.0	3.3
20	230	6.0					2.3	3.2
21	250	6.2					2.1	3.1
22	260	5.4					<1.7	3.0
23	280	5.2					1.9	3.0

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) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	4.3	230	3.0	110	1.8		3.2
01	280	4.3	220	3.0	105	1.9		3.1
02	280	4.2	220	3.0	105	1.9		3.2
03	290	4.2	220	3.0	100	2.0	3.0	3.1
04	310	4.3	220	3.2	100	2.1	4.5	3.2
05	350	4.2	220	3.4	100	2.2		3.1
06	350	4.4	210	3.6	100	2.4	4.0	3.0
07	380	4.4	210	3.7	100	2.5	5.0	3.0
08	370	4.5	210	3.8	100	2.7	4.5	2.95
09	400	4.5	200	3.9	100	2.8	4.1	2.9
10	400	4.5	200	4.0	100	3.0	4.0	2.9
11	420	4.6	200	4.0	100	3.0	5.7	2.85
12	420	4.6	200	4.0	100	3.0	4.0	2.75
13	400	4.0	200	4.0	100	3.0	5.8	2.9
14	400	4.6	200	3.9	100	2.9	4.0	2.9
15	420	4.6	200	3.9	100	2.9	4.2	2.8
16	400	4.8	200	3.8	100	2.0		2.8
17	380	4.8	200	3.7	100	2.6		2.95
18	370	4.5	200	3.8	100	2.5		2.9
19	350	4.8	210	3.6	100	2.4		2.95
20	310	4.5	210	3.4	100	2.2		3.0
21	300	4.5	220	3.2	105	2.1		3.05
22	290	4.5	220	3.2	105	2.0	4.0	3.1
23	280	4.5	220	3.0	105	1.9		3.1

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) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(280)	4.4	---	---			4.0	3.1
01	(275)	4.2	250	---			4.3	2.9
02	300	4.5	255	2.9	---	---	3.3	3.0
03	330	4.4	240	3.2	---	2.1	3.2	2.9
04	350	4.5	240	3.3	100	2.2	3.2	2.95
05	375	4.5	220	3.6	100	2.2	3.1	2.9
06	360	4.8	210	3.7	100	2.4	3.0	2.9
07	375	4.8	205	3.8	100	2.6	3.0	2.9
08	380	4.9	205	4.0	100	2.7	3.1	2.9
09	375	4.9	210	4.1	100	2.8	3.2	2.9
10	365	5.1	200	4.2	100	2.9	3.2	2.9
11	380	5.0	200	4.2	100	3.0	3.2	2.9
12	375	5.0	205	4.2	100	2.9	3.2	3.0
13	390	4.9	200	4.2	100	2.9	3.2	2.95
14	380	4.9	200	4.2	100	2.9	3.0	3.0
15	370	4.9	205	4.1	100	2.8	3.0	3.05
16	355	4.8	205	4.0	100	2.7	<2.9	3.05
17	340	4.8	205	3.8	100	2.6	3.0	3.1
18	320	4.8	215	3.8	105	2.3	3.0	3.1
19	(340)	4.8	235	---	105	2.2	3.5	3.15
20	---	4.6	245	---	105	2.0	3.7	3.1
21	(255)	4.5	250	---	110	---	3.6	3.1
22	(290)	4.5	255	---	---	---	4.4	3.1
23	(290)	4.5	---	---			3.8	2.9

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

Table 16

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	230	4.3			110	1.3	5.0	3.1
01	240	4.2	---	---	110	1.2	5.0	3.1
02	250	3.9	230	---	105	1.4	5.0	3.1
03	250	4.0	240	2.1	105	1.6	5.1	3.2
04	280	3.9	240	2.8	105	1.0	5.0	3.2
05	300	4.1	220	3.3	100	2.1	6.0	3.1
06	360	4.2	220	3.6	100	2.5	6.2	3.0
07	360	4.3	210	3.8	100	2.8	6.0	3.0
08	400	4.3	200	3.9	100	3.0	5.5	3.0
09	450	4.6	210	4.1	100	3.2	5.9	2.7
10	470	4.6	210	4.2	100	3.3	6.0	2.7
11	420	4.8	210	4.3	100	3.3	6.0	2.8
12	430	4.8	210	4.3	100	3.3	6.0	2.8
13	430	4.0	200	4.2	100	3.3	5.4	2.8
14	430	5.0	200	4.2	100	3.2	5.2	2.8
15	380	5.2	200	4.2	100	3.2	6.0	2.9
16	370	5.2	200	4.1	100	3.1	5.3	2.9
17	350	5.1	210	4.1	100	3.0	5.1	3.0
18	330	5.1	220	3.9	100	2.8	5.2	3.1
19	300	5.0	230	3.7	100	2.5	5.0	3.1
20	270	5.0	230	3.1	105	2.3	5.4	3.1
21	250	4.7	240	---	105	2.0	6.0	3.1
22	240	4.5	---	---	105	1.7	6.8	3.2
23	240	4.4			105	1.5	6.0	3.1

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

Table 17

Oslo, Norway (60.0°N, 11.1°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	4.3					<1.4	3.0
01	250	4.0					<1.4	2.9
02	260	3.6			---	---	1.2	2.9
03	270	3.6	270	---	110	1.2	1.4	2.9
04	300	3.6	250	---	110	1.5	1.6	3.0
05	320	4.2	230	3.3	105	1.9	2.5	3.0
06	320	4.6	220	3.6	100	2.3	3.2	3.1
07	350	4.7	215	3.8	100	2.6	3.6	3.05
08	370	4.0	210	4.0	100	2.0	3.8	2.95
09	360	5.1	210	4.2	100	2.9	4.0	3.05
10	360	5.2	210	4.3	100	3.0	3.0	3.05
11	350	5.4	200	4.4	100	3.0	4.3	3.05
12	360	5.3	200	4.4	100	3.1	4.2	3.05
13	355	5.3	200	4.4	100	3.1	3.7	3.0
14	390	5.2	205	4.4	100	3.0	3.7	3.0
15	360	5.2	200	4.3	100	3.0	3.4	3.0
16	360	5.0	200	4.2	100	2.9	3.4	3.0
17	350	5.1	220	4.1	100	2.7	3.8	3.0
18	320	5.2	225	4.0	105	2.4	3.8	3.05
19	290	5.4	240	---	110	2.1	3.7	3.1
20	260	5.4	245	---	110	1.8	3.0	3.15
21	245	5.4	250	---	---	---	<1.9	3.1
22	245	5.3					<1.7	3.1
23	245	4.9					<1.6	3.0

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

Table 18

Upsala, Sweden (59.8°N, 17.6°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	4.5					2.5	3.0
01	265	4.2					2.9	3.0
02	270	3.0			---	E	3.0	3.0
03	290	3.7	270	(2.7)	---	E	3.1	3.0
04	340	4.0	250	3.0	135	1.7	3.1	2.9
05	360	4.4	230	3.4	120	2.2	3.3	3.0
06	345	4.7	220	3.0	110	2.4	3.8	3.0
07	360	4.8	210	4.0	110	2.7	3.9	3.0
08	380	5.1	210	4.1	105	2.9	4.3	2.9
09	355	5.2	210	4.3	105	3.0	4.6	2.95
10	365	5.4	205	4.4	105	3.1	4.7	3.0
11	360	5.4	210	4.4	105	3.2	4.8	3.0
12	360	5.4	200	4.4	105	3.2	4.9	3.0
13	365	5.3	200	4.4	105	3.2	4.5	3.1
14	370	5.2	205	4.4	105	3.1	4.2	3.0
15	360	5.3	210	4.3	105	3.0	4.0	3.1
16	350	5.1	210	4.2	110	2.9	3.8	3.0
17	340	5.1	220	4.0	110	2.7	3.8	3.1
18	320	5.2	240	3.8	110	2.4	3.0	3.1
19	290	5.3	240	3.3	115	2.0	3.5	3.1
20	265	5.3	245	2.0	---	1.6	3.3	3.1
21	255	5.5			---	E	3.0	3.1
22	250	5.4					2.6	3.1
23	255	5.0					2.3	3.1

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

Table 19

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	4.0					6.7	(3.2)
01	200	4.0					7.5	(3.3)
02	300	4.0					6.3	(3.3)
03	300	4.0			---	---	5.0	---
04	280	3.8			---	---	5.4	(3.2)
05	290	4.0	---	---	---	---	5.0	3.05
06	360	4.1	230	3.9	110	3.3	5.2	2.8
07	360	4.3	220	4.0	110	3.1	5.5	2.6
08	420	4.4	220	4.0	105	3.2	5.5	2.75
09	430	4.5	210	4.0	105	3.2	5.6	2.0
10	400	4.8	200	4.2	110	3.2	5.5	2.8
11	390	5.0	200	4.2	110	3.2	5.5	3.0
12	420	5.0	200	4.2	110	3.3	6.0	2.9
13	440	4.9	200	4.2	110	3.3	5.5	2.95
14	400	4.9	200	4.2	110	3.2	6.0	2.05
15	400	5.0	210	4.1	110	3.2	5.0	2.9
16	370	5.3	210	4.0	110	3.1	4.5	3.0
17	340	5.3	220	4.0	110	3.0	4.4	3.0
18	330	5.1	230	4.0	110	2.8	4.9	3.05
19	300	4.9	240	3.5	110	2.9	4.5	3.1
20	300	4.6	---	---	120	2.9	4.2	3.1
21	300	4.5			120	2.8	5.0	3.2
22	270	4.3			---	---	7.0	(3.2)
23	290	(4.1)					8.2	---

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

Table 20

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	4.6						2.9
01	260	4.0						2.9
02	260	3.8						2.8
03	260	3.4						2.8
04	240	3.7	250	---	---	---		2.9
05	330	4.2	230	3.4	120	2.0	2.3	2.95
06	310	4.6	225	3.8	110	2.4	3.1	3.0
07	350	5.0	210	4.0	105	2.7	3.6	3.0
08	350	5.1	205	4.2	100	3.0	3.8	2.95
09	355	5.2	210	4.2	100	3.1	3.9	3.0
10	330	5.4	210	4.4	100	3.2	4.0	3.1
11	345	5.4	200	4.4	100	3.2	4.0	3.0
12	360	5.5	200	4.4	100	3.3	4.2	3.0
13	340	5.2	200	4.4	100	3.2	3.8	3.1
14	360	5.2	210	4.4	100	3.2	3.6	2.9
15	350	5.2	210	4.2	105	3.1	3.6	3.0
16	350	5.2	210	4.1	100	2.9	3.5	3.0
17	320	5.2	220	3.9	110	2.6	3.4	3.1
18	300	5.4	230	3.6	110	2.2	3.4	3.0
19	270	5.9	235	3.0	135	1.8	3.4	3.1
20	240	6.2	---	---			2.1	3.2
21	230	5.9					2.3	3.1
22	230	5.3						3.0
23	250	4.8					2.0	2.9

Time: 0.0°.
Sweep: 0.8 Mc to 20.0 Mc in 20 seconds.

Table 21

Lindau/Harz, Germany (51.6°N, 10.1°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	4.7					2.7	3.0
01	250	4.4					2.7	3.0
02	250	4.0					2.6	3.0
03	250	3.6			---	E	2.6	3.0
04	250	3.6	---	---	---	E	2.7	3.1
05	280	4.0	230	3.2	115	1.6	3.0	3.1
06	315	4.5	215	3.6	100	2.1	3.6	3.1
07	320	5.0	210	3.9	100	2.6	3.9	3.2
08	340	5.1	215	4.1	100	2.8	4.0	3.1
09	325	5.4	200	4.2	9.5	3.0	5.1	3.1
10	350	5.4	200	4.4	9.5	3.1	4.9	3.1
11	340	5.6	200	4.4	9.5	3.2	5.2	3.15
12	325	5.7	200	4.5	9.5	3.2	4.4	3.2
13	360	5.4	190	4.4	9.5	3.2	4.2	3.0
14	350	5.4	190	4.4	9.5	3.2	4.4	3.1
15	350	5.3	200	4.4	9.5	3.2	4.6	3.1
16	340	5.3	205	4.2	9.5	3.0	4.2	3.0
17	330	5.4	205	4.0	100	2.0	4.2	3.1
18	300	5.5	215	3.8	100	2.5	4.4	3.1
19	280	5.7	230	3.4	100	2.0	4.2	3.2
20	250	6.3	240	---	---	1.4	3.6	3.2
21	230	6.4					3.4	3.2
22	230	6.1					3.0	3.1
23	240	5.3					2.0	3.1

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

Table 22

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	2.8						3.0
01	300	2.5					3.0	3.0
02	300	(2.2)					4.2	3.0
03	310	(2.4)					3.5	(3.0)
04	310	(2.4)					3.8	3.0
05	240	3.0	---	---	130	(1.9)	3.5	3.0
06	430	3.8	220	3.3	120	2.2	3.6	2.6
07	460	4.0	210	3.0	110	2.6		2.6
08	470	4.3	220	4.0	110	2.9		2.7
09	430	4.7	210	4.1	105	3.1	3.1	2.85
10	400	4.9	200	4.2	105	3.2	3.4	3.0
11	400	5.0	200	4.3	105	3.3	3.6	2.9
12	410	5.0	200	4.3	105	3.4	3.7	2.9
13	430	5.0	200	4.3	105	3.4	3.5	2.8
14	420	5.0	200	4.3	105	3.5	3.5	2.9
15	400	5.0	210	4.3	110	3.3	3.4	2.85
16	380	5.0	210	4.2	110	3.2	3.2	3.0
17	360	5.0	210	4.0	110	3.0		3.0
18	320	5.1	220	3.9	110	2.8		3.1
19	300	5.0	230	3.6	120	2.3		3.1
20	260	5.0	250	2.9	120	(1.9)	3.3	3.2
21	240	5.0					2.6	3.2
22	250	4.4					2.2	3.1
23	250	3.4					2.5	3.1

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

Table 23

Schwarzenburg, Switzerland (46.8°N, 7.3°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	5.0						3.3
01	280	4.5						3.3
02	260	4.3						3.3
03	260	4.0						3.2
04	250	3.8						3.4
05	240	3.7	---	---	---	---		3.4
06	220	4.4	200	3.3	100	2.0		3.55
07	300	5.0	200	3.8	100	2.5		3.6
08	300	5.4	200	4.1	100	2.0	4.5	3.45
09	300	5.4	200	4.3	100	3.0		3.5
10	300	5.8	200	4.4	100	3.1	4.8	3.4
11	300	6.0	200	4.4	100	3.2		3.35
12	300	5.8	200	4.4	100	3.3		3.5
13	300	5.8	200	4.5	100	3.3		3.4
14	310	5.6	200	4.4	100	3.2		3.3
15	300	5.7	200	4.4	100	3.2		3.3
16	300	5.4	200	4.2	100	3.0		3.4
17	300	5.4	200	4.0	100	2.9		3.4
18	300	5.4	200	4.0	100	2.6		3.4
19	(250)	(5.3)	---	---	100	2.0		(3.45)
20	220	6.6			---	---		3.5
21	200	7.0						3.55
22	210	6.0						3.5
23	230	5.3						3.4

Time: 15.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 30 seconds.

Table 24

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	3.2					2.0	3.0
01	280	3.0					2.4	2.9
02	300	2.6					2.4	2.9
03	300	2.3					2.8	3.0
04	300	2.2					3.0	3.0
05	250	3.2	250	---	130	1.8	3.0	3.1
06	360	3.9	230	3.4	115	2.2	3.1	3.0
07	360	4.4	230	3.8	115	2.7	3.7	3.0
08	380	4.7	230	4.1	115	3.0	3.7	3.0
09	400	5.0	220	4.3	110	3.2	4.0	2.9
10	390	5.0	220	4.4	110	3.3	5.0	3.0
11	430	5.1	210	4.5	110	3.5	4.7	2.9
12	400	5.0	220	4.5	110	3.5	4.3	2.8
13	430	5.0	220	4.5	110	3.6	4.4	2.9
14	440	5.0	220	4.5	110	3.6	4.4	2.85
15	410	5.1	230	4.4	110	3.3	3.8	2.9
16	370	5.2	240	4.2	115	3.2	3.5	2.9
17	360	5.3	230	4.0	115	2.9	3.4	2.95
18	320	5.5	230	3.5	120	2.5	4.2	3.0
19	200	5.7	240	3.0	130	1.9	4.0	3.0
20	260	5.8			---	---	3.2	3.1
21	250	5.4					2.7	3.1
22	260	4.6					3.0	3.0
23	260	4.0					2.5	3.0

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

Table 25

San Francisco, California (37.4°N, 122.2°W) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	(280)	(4.0)					(3.8)	(2.9)
01	(280)	(3.9)					(3.8)	(2.9)
02	(280)	(3.8)					(3.4)	(3.0)
03	(280)	(3.8)					(3.1)	(2.9)
04	(260)	(3.6)					(2.4)	(3.0)
05	270	(3.1)	260	---			<1.9	(3.0)
06	340	4.2	240	(3.4)	(110)	---	(3.4)	3.1
07	370	4.6	210	(3.8)	(110)	---	4.1	2.9
08	380	5.2	(210)	(4.0)	(120)	(3.0)	4.4	2.8
09	370	5.5	200	(4.2)	(110)	(3.2)	4.7	2.9
10	400	5.4	(200)	4.4	(110)	(3.2)	5.4	2.9
11	380	5.5	(210)	4.4	(110)	---	5.4	2.9
12	370	5.4	200	4.4	(110)	(3.4)	5.3	2.9
13	400	5.5	220	(4.4)	(110)	---	4.9	2.85
14	400	5.6	220	4.4	(110)	(3.3)	4.7	2.8
15	360	5.6	220	(4.3)	(110)	(3.3)	4.4	2.9
16	360	5.6	220	(4.2)	(110)	---	4.2	2.9
17	330	5.5	230	(4.0)	(110)	(2.8)	3.8	3.0
18	300	5.5	230	(3.6)	(110)	---	3.8	3.1
19	260	5.4	(240)	---			(3.7)	3.2
20	(250)	(5.8)					(3.4)	(3.15)
21	(240)	(5.7)					(4.0)	(3.2)
22	(240)	(4.8)					(3.4)	(3.2)
23	(250)	(4.1)					(3.2)	(3.0)

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

Table 26

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	3.8					<2.0	2.8
01	280	4.7					2.2	3.0
02	250	4.5					2.6	3.3
03	250	3.2					2.4	3.2
04	260	2.8					2.5	3.1
05	250	2.6					3.9	3.2
06	230	4.8					3.3	3.3
07	250	6.1	210	---	110	2.3	6.2	3.2
08	300	6.9	210	---	100	---	6.8	3.0
09	360	6.8	200	4.4	100	3.2	7.0	2.6
10	410	7.2	190	4.5	100	(3.4)	6.8	2.5
11	420	7.8	190	4.5	100	3.5	6.8	2.5
12	400	8.2	190	4.5	100	---	7.0	2.5
13	400	8.6	200	4.4	100	3.5	6.6	2.6
14	410	8.7	200	4.3	100	3.4	6.4	2.5
15	400	9.0	200	4.2	100	3.2	5.6	2.7
16	340	9.5	210	4.1	100	2.8	5.0	2.75
17	300	9.6	220	---	110	2.5	4.2	3.0
18	230	9.2					4.4	3.0
19	240	8.6					4.2	3.0
20	260	7.6					3.4	3.0
21	260	6.5					2.7	3.0
22	300	5.6					2.7	2.9
23	310	4.0					2.2	2.8

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

Table 27

Leopoldville, Belgian Congo (4.4°S, 15.2°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M2000)F2
00	220	4.6					3.0	2.6
01	220	3.6					2.8	2.5
02	230	3.6					2.1	2.5
03	240	3.0					2.8	2.6
04	240	2.5					2.9	2.7
05	260	3.2					2.5	2.5
06	250	6.0	240	---	120	2.2	3.0	2.8
07	270	7.0	225	4.0	110	2.8	3.9	2.7
08	270	7.3	210	4.4	110	3.1	4.2	2.65
09	285	7.3	200	4.5	105	3.3	4.4	2.5
10	290	7.7	200	4.5	105	3.4	4.4	2.5
11	290	8.8	200	4.5	105	3.4	4.6	2.4
12	300	9.8	200	4.5	105	3.4	4.6	2.4
13	300	9.6	210	4.4	105	3.3	4.4	2.2
14	305	9.8	250	4.4	110	3.1	3.6	2.3
15	290	10.3	220	4.0	110	2.8	4.5	2.3
16	250	9.8	240	---	120	2.2	3.8	2.4
17	230	9.7	---	---			3.3	2.5
18	220	8.9					3.0	2.7
19	205	6.8					3.1	2.8
20	200	5.3					3.0	2.8
21	220	4.4					3.1	2.3
22	250	4.5					2.6	2.4
23	240	4.4					2.9	2.7

Time: 0.0°.
Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 28

Elisabethville, Belgian Congo (11.6°S, 27.5°E) July 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M2000)F2
00	260	2.0					2.7	2.5
01	250	2.2					3.1	2.45
02	270	2.0					3.1	2.4
03	260	2.0					2.9	2.5
04	250	2.2					3.2	2.6
05	235	5.1	<230	---	125	1.7	2.6	2.75
06	245	6.0	220	---	115	2.6	2.4	2.8
07	250	6.4	220	4.1	110	3.0	3.6	2.8
08	270	6.2	215	4.4	110	3.2	4.0	2.6
09	280	6.4	210	4.5	105	3.3	4.4	2.6
10	275	6.5	200	4.6	105	3.3	4.5	2.6
11	300	6.2	210	4.6	105	3.3	4.6	2.5
12	290	6.0	205	4.3	105	3.2	4.2	2.5
13	290	6.0	210	4.2	110	3.0	4.0	2.5
14	265	6.2	230	---	110	2.8	3.8	2.5
15	250	6.0	230	---	115	2.2	3.8	2.5
16	240	6.0					3.2	2.5
17	225	5.8					3.0	2.7
18	210	4.0					2.6	2.8
19	230	2.9					2.6	2.6
20	230	2.6					2.5	2.6
21	250	2.2					2.5	2.5
22	240	2.2					2.0	2.5
23	235	2.1					2.3	2.7

Time: 0.0°.
Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 29

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	230	4.8						3.3
01	240	4.3						3.3
02	230	4.2						3.3
03	240	3.8						3.3
04	250	3.0						3.3
05	240	2.6						3.3
06	230	2.6						3.05
07	240	4.9	---	---	110	2.1	5.8	3.2
08	---	6.2	210	---	110	2.6	8.1	3.0
09	340	6.8	200	4.2	110	---	10.6	2.7
10	360	6.6	200	4.3	110	---	11.2	2.6
11	390	6.6	190	4.4	110	---	11.5	2.55
12	400	6.3	190	4.4	100	---	11.7	2.6
13	400	6.6	190	4.4	110	---	12.0	2.5
14	400	6.6	190	4.3	110	---	11.4	2.5
15	370	6.8	200	4.3	110	---	11.2	2.5
16	---	6.8	200	---	110	---	9.3	2.6
17	(220)	7.0	220	---	110	---	5.8	2.7
18	250	6.8					<1.5	2.8
19	270	6.3					<1.5	2.9
20	250	6.0					<1.5	3.0
21	240	5.9					<1.5	3.1
22	230	5.3					<1.5	3.3
23	230	5.0					<1.5	3.3

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

Table 30

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	4.3	220	3.0	105	1.9		3.1
01	290	4.5	230	3.0	105	1.9		3.1
02	290	4.3	220	3.1	105	2.0		3.1
03	320	4.1	220	3.2	105	2.0	3.6	3.1
04	350	4.3	220	3.2	105	2.1	4.9	3.05
05	350	4.2	220	3.4	100	2.3	3.8	3.0
06	390	4.2	210	3.5	100	2.4	4.0	2.85
07	390	4.3	210	3.6	100	2.6		3.0
08	420	4.4	210	3.8	100	2.8	4.2	2.8
09	420	4.4	210	3.8	100	2.8	3.4	2.9
10	420	4.6	210	3.9	100	2.9		2.7
11	420	4.7	200	3.9	100	3.0	3.5	2.8
12	440	4.6	200	4.0	100	3.0		2.7
13	440	4.8	200	3.9	100	3.0		2.6
14	450	4.6	200	3.9	100	2.9		2.85
15	420	4.6	200	3.9	100	2.9		2.7
16	420	4.5	210	3.8	100	2.8	4.0	2.8
17	400	4.7	210	3.8	100	2.7		2.9
18	380	4.5	210	3.7	100	2.5		2.9
19	350	4.6	210	3.6	100	2.4		3.0
20	350	4.4	210	3.5	105	2.2		3.0
21	300	4.4	220	3.2	105	2.1		3.0
22	300	4.6	220	3.1	105	2.0		3.0
23	300	4.4	220	3.1	105	1.9		3.1

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

Table 31

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	4.2	---	---	105	1.3	4.8	3.1
01	250	4.2	---	---	110	1.3	4.1	3.1
02	240	4.0	---	---	105	1.5	3.8	3.1
03	260	4.0	240	2.6	105	1.7	4.0	3.1
04	280	4.0	230	3.0	105	1.9	5.0	3.15
05	310	4.1	220	3.3	105	2.2	5.3	3.0
06	390	4.2	220	3.5	100	2.5	5.5	2.9
07	400	4.3	220	3.8	100	2.8	5.9	2.9
08	430	4.4	210	4.0	100	3.0	6.4	2.7
09	470	4.5	220	4.1	100	3.2	5.8	2.6
10	480	4.6	230	4.2	100	3.4	6.0	G
11	450	4.8	220	4.2	100	3.4	6.0	2.8
12	440	4.7	220	4.2	100	3.3	6.0	2.85
13	430	4.9	210	4.2	100	3.2	6.0	2.8
14	400	5.0	210	4.2	100	3.2	6.0	2.8
15	380	5.2	200	4.1	100	3.1	6.0	2.9
16	360	5.3	210	4.1	100	3.0	6.0	2.9
17	360	5.2	210	4.0	100	3.0	5.9	3.0
18	340	5.1	220	3.9	100	2.8	5.6	3.0
19	320	5.0	230	3.6	105	2.6	6.8	3.1
20	290	4.9	240	3.3	105	2.3	6.6	3.1
21	270	4.8	240	2.9	105	2.0	7.1	3.1
22	250	4.5	---	---	105	1.9	6.6	3.1
23	250	4.3	---	---	105	1.4	5.0	3.1

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

Table 32

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	4.0					9.0	---
01	270	4.0					7.8	---
02	280	4.0					6.8	---
03	280	4.0					6.2	(3.1)
04	290	4.0	---	---			5.4	(3.1)
05	260	4.0	240	3.7	---	---	5.5	(3.1)
06	370	4.2	230	3.8	105	3.0	6.0	(2.85)
07	420	4.3	240	4.0	100	3.2	6.0	(2.7)
08	420	4.4	220	4.0	100	3.1	6.5	(2.85)
09	450	4.6	220	4.0	110	3.2	6.0	2.8
10	410	4.7	210	4.1	110	3.3	6.4	2.8
11	430	4.8	210	4.2	110	3.2	6.0	2.85
12	430	5.0	200	4.2	110	3.3	6.0	2.85
13	440	4.8	200	4.2	110	3.3	6.0	2.8
14	400	5.0	200	4.2	110	3.2	5.8	2.85
15	400	5.0	210	4.2	110	3.2	5.3	2.8
16	360	5.2	210	4.1	115	3.0	5.5	2.9
17	350	5.3	220	4.0	110	3.0	5.0	3.0
18	340	5.1	240	3.9	120	2.8	4.8	2.9
19	320	4.8	250	(3.6)	120	2.6	4.9	3.0
20	300	4.6	---	---	120	2.8	5.0	3.2
21	280	4.4			---	(2.8)	6.5	(3.15)
22	280	4.3			---	---	7.5	3.05
23	290	4.2					9.2	(3.2)

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

Table 33

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	4.6					1.9	2.9
01	270	4.1					1.9	2.9
02	270	3.9						2.8
03	270	3.8					2.0	2.9
04	305	4.0	230	2.8	130	1.8	2.1	2.9
05	320	4.4	230	3.5	115	2.1	3.0	2.9
06	350	4.8	220	3.8	110	2.4	3.4	3.0
07	365	4.9	210	4.0	105	2.8	4.0	2.9
08	340	5.2	210	4.2	100	3.0	3.9	3.0
09	340	5.4	225	4.4	100	3.2	4.0	3.0
10	330	5.3	215	4.5	100	3.3	4.0	3.1
11	360	5.4	200	4.5	100	3.4	3.8	3.1
12	380	5.3	215	4.5	100	3.4	3.7	2.9
13	380	5.2	220	4.4	100	3.3	4.1	3.0
14	350	5.2	215	4.4	100	3.3	3.6	3.1
15	350	5.3	210	4.3	105	3.1	3.5	3.0
16	330	5.4	220	4.2	105	3.0	4.0	3.0
17	320	5.4	225	4.0	110	2.7	4.5	3.0
18	295	5.6	230	3.6	110	2.3	4.2	3.05
19	270	5.8	240	3.0	130	1.9	3.4	3.1
20	240	6.2					3.4	3.15
21	240	6.1					3.2	3.1
22	240	5.5						3.0
23	250	5.1					2.9	3.0

Time: 0.0°.
Sweep: 0.8 Mc to 20.0 Mc in 20 seconds.

Table 34

Lindau/Harz, Germany (51.6°N, 10.1°E) June 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	4.8					2.5	3.0
01	255	4.4					2.8	3.0
02	250	4.0					2.3	2.9
03	260	3.8			---	E	2.4	3.0
04	270	3.8	250	---	---	E	2.7	3.1
05	300	4.2	230	3.0	110	1.8	2.8	3.1
06	310	4.6	220	3.6	100	2.2	3.6	3.1
07	320	5.0	215	3.8	100	2.6	4.2	3.1
08	350	5.1	210	4.0	100	2.8	4.8	3.0
09	340	5.3	200	4.2	100	3.0	5.1	3.1
10	340	5.4	200	4.3	100	3.1	5.1	3.1
11	335	5.5	200	4.4	95	3.2	5.3	3.1
12	350	5.4	200	4.4	100	3.3	5.0	3.05
13	360	5.2	200	4.4	100	3.2	4.6	3.0
14	360	5.2	200	4.4	100	3.2	4.3	3.0
15	350	5.2	205	4.2	100	3.2	4.5	3.0
16	340	5.2	205	4.2	95	3.0	4.3	3.0
17	320	5.2	220	4.0	100	2.8	4.6	3.1
18	300	5.4	220	3.8	100	2.4	5.0	3.1
19	280	5.6	230	3.4	100	2.0	4.0	3.2
20	250	5.9	230	---	115	1.4	3.4	3.2
21	240	6.4					4.3	3.1
22	235	6.0					3.5	3.1
23	240	5.5					2.8	3.1

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

Table 35

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	3.0						3.0
01	300	2.8					3.6	3.0
02	310	2.8					4.0	(3.0)
03	300	2.8					4.0	3.0
04	290	3.0					3.3	3.0
05	260	3.3	---	---	120	1.9	3.8	3.0
06	460	3.8	220	3.4	120	2.3		2.8
07	440	4.0	220	3.8	110	2.7		2.8
08	470	4.2	200	3.9	110	2.9		2.7
09	480	4.6	200	4.0	110	3.0		2.7
10	420	4.8	200	4.1	110	3.2	3.3	2.75
11	410	5.0	200	4.2	110	3.2	3.4	2.9
12	440	4.9	200	4.3	110	3.2	3.4	2.8
13	430	4.9	200	4.3	110	3.3	3.4	2.8
14	430	5.0	200	4.3	110	3.2	3.4	2.9
15	400	5.0	200	4.2	110	3.2	3.3	2.9
16	400	5.0	210	4.1	110	3.0	3.1	2.9
17	360	5.0	220	4.0	110	2.9		3.0
18	340	5.0	220	3.9	115	2.7		3.0
19	290	5.2	230	3.4	120	2.3		3.1
20	260	5.0	240	---	130	1.9		3.1
21	240	5.0						3.1
22	250	4.4						3.15
23	260	3.4					2.8	3.0

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

Table 36

Schwarzenburg, Switzerland (46.8°N, 7.3°E) June 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	4.8						3.3
01	260	4.6						3.3
02	260	4.3						3.3
03	280	4.0						3.3
04	250	3.8						3.3
05	230	4.0	---	---	100	2.0		3.4
06	300	4.6	200	3.4	100	2.1		3.4
07	300	5.0	200	4.0	100	2.5		3.4
08	300	5.2	200	4.0	100	2.8		3.5
09	300	5.5	200	4.2	100	3.0		3.4
10	300	5.6	200	4.4	100	3.0	4.8	3.4
11	300	5.9	200	4.4	100	3.2	5.0	3.4
12	300	6.0	200	4.4	100	3.3	5.0	3.5
13	340	5.6	200	4.4	100	3.3	5.2	3.3
14	310	5.5	200	4.4	100	3.2		3.3
15	320	5.6	200	4.4	100	3.2		3.3
16	300	5.6	200	4.2	100	3.0		3.3
17	300	5.4	200	4.1	100	2.8	4.6	3.4
18	300	5.8	200	3.9	100	2.5		3.45
19	(250)	(5.8)			100	2.0		(3.4)
20	240	6.0						3.5
21	210	6.4						3.4
22	220	6.0						3.5
23	230	5.6						3.35

Time: 15.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 30 seconds.

Table 37

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	3.2						3.0
01	290	2.8						3.0
02	290	2.5						3.0
03	300	2.2					2.8	2.95
04	280	2.4					2.6	3.1
05	250	3.3	230	---	125	1.8	2.4	3.2
06	360	3.8	220	3.5	110	2.4	3.2	(3.05)
07	400	4.2	220	3.9	105	2.7	3.2	2.9
08	420	4.5	220	4.0	105	3.0	3.3	2.9
09	380	4.8	220	4.2	105	3.2	3.4	3.0
10	400	5.0	210	4.3	105	3.4	3.6	2.95
11	380	5.1	210	4.3	105	3.5	3.9	3.0
12	420	5.0	210	4.3	105	3.6	4.0	3.0
13	380	5.1	200	4.3	105	3.6	3.9	2.9
14	400	5.0	220	4.3	105	3.5	3.6	2.9
15	380	5.1	210	4.2	105	3.3	3.3	2.9
16	360	5.2	220	4.1	105	3.1	3.1	3.0
17	340	5.2	230	3.9	110	2.8		3.0
18	300	5.5	230	3.6	110	2.4		3.0
19	270	5.7	250	2.9	125	1.9	3.2	3.1
20	250	5.6					3.4	3.1
21	250	5.3					2.4	3.0
22	250	4.4					3.1	3.0
23	260	3.8					3.2	3.0

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

Table 38

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	5.6					3.2	
01	280	5.2					3.0	
02	280	5.0					2.5	
03	260	4.6					2.7	
04	280	4.7					1.9	
05	310	5.2					3.5	
06	330	5.5					4.2	
07	320	5.6					6.0	
08	320	5.6					6.2	
09	360	5.5					5.9	
10	400	5.2					6.1	
11	400	5.2					5.4	
12	400	5.3					4.6	
13	410	5.4					4.6	
14	400	5.3					4.8	
15	370	5.5					5.6	
16	360	5.5					4.7	
17	340	5.5					5.3	
18	320	5.7					4.6	
19	290	6.0					4.6	
20	260	6.5					4.0	
21	270	6.5					4.1	
22	270	6.0					3.8	
23	260	5.8					3.0	

Time: 135.0°E.
Sweep: 1.0 Mc to 22.2 Mc in 1 minute.

Table 39

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	5.4					3.5	
01	300	5.2					3.5	
02	290	5.0					3.4	
03	280	4.9					3.4	
04	290	4.6					3.1	
05	280	4.8					3.5	
06	320	5.5					4.4	
07	350	5.8					5.6	
08	350	6.0					6.4	
09	350	6.0					7.0	
10	350	5.8					7.0	
11	410	5.9					6.9	
12	410	5.6					6.5	
13	400	5.6					6.5	
14	390	5.6					5.6	
15	370	5.9					5.6	
16	340	5.9					5.3	
17	340	6.0					5.5	
18	320	6.2					4.8	
19	290	6.6					5.2	
20	280	6.8					4.8	
21	280	6.3					5.5	
22	290	5.9					4.4	
23	300	5.8					4.5	

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

Table 40

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	280	5.6					4.7	2.9
01	290	5.5					4.9	2.9
02	280	5.4					4.5	2.9
03	260	5.0					4.5	3.0
04	250	4.5					3.5	3.0
05	240	4.8	230	---	140	1.7	3.0	3.2
06	290	5.4	230	3.7	110	2.4	4.1	3.1
07	300	5.8	220	4.0	110	2.8	5.2	3.15
08	310	6.0	240	4.3	110	3.0	5.8	3.1
09	310	6.0	220	4.5	110	3.2	5.6	3.2
10	330	6.0	220	4.5	110	3.2	6.4	3.0
11	340	5.8	240	4.5	110	3.3	6.4	3.1
12	390	5.8	210	4.5	110	3.4	6.2	2.85
13	380	6.0	220	4.5	110	3.2	5.6	2.9
14	360	6.0	220	4.4	110	3.3	6.1	2.9
15	340	6.4	220	4.3	110	3.2	6.1	3.0
16	320	6.3	230	4.2	110	2.9	5.8	3.0
17	300	6.4	240	4.0	110	2.5	5.6	3.0
18	280	6.9	250	3.5	120	2.0	5.4	3.1
19	260	7.0					4.8	3.0
20	250	6.7					5.4	3.1
21	250	6.1					5.2	3.0
22	280	5.8					5.5	2.95
23	280	5.9					5.0	2.9

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

Table 41

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	6.1					5.9	
01	290	6.0					5.8	
02	270	6.3					5.9	
03	260	5.3					4.0	
04	270	4.1					3.8	
05	260	4.0					3.0	
06	260	5.3					3.8	
07	280	5.9					4.8	
08	300	6.1					6.0	
09	300	6.4					7.0	
10	340	6.0					8.0	
11	380	6.0					8.5	
12	400	6.2					6.7	
13	380	6.6					6.6	
14	360	7.2					6.0	
15	340	7.6					5.9	
16	330	7.8					5.9	
17	300	7.4					5.9	
18	290	7.4					4.8	
19	270	7.4					4.8	
20	260	7.0					4.4	
21	270	6.3					3.8	
22	300	6.1					5.9	
23	300	6.2					5.7	

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

Table 42

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	4.8					2.4	3.0
01	270	4.7					3.0	3.1
02	260	4.3					2.2	3.1
03	250	3.8					2.2	3.1
04	250	3.1					2.1	3.2
05	260	3.0					1.9	3.1
06	240	5.0					4.0	3.4
07	260	6.2	210	---	110	2.4	6.0	3.2
08	310	6.7	200	---	100	(2.9)	7.0	2.9
09	360	7.3	200	4.4	110	(3.2)	6.8	2.6
10	400	7.8	200	4.4	100	3.4	7.2	2.5
11	420	8.4	190	4.5	100	(3.5)	7.3	2.4
12	400	8.4	200	4.4	100	3.5	7.0	2.4
13	400	8.5	200	4.5	100	(3.5)	6.6	2.4
14	390	8.8	200	4.4	100	3.4	6.0	2.5
15	370	9.2	200	4.2	100	---	6.4	2.6
16	320	9.6	210	(4.0)	110	2.8	6.4	2.8
17	290	9.6	220	---	110	2.4	5.0	3.0
18	240	9.4					4.8	3.0
19	240	9.2					4.4	3.1
20	250	7.9					4.0	3.0
21	300	6.7					2.7	2.9
22	300	5.5					<2.2	2.85
23	310	4.8					2.0	2.8

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

Table 43

Leopoldville, Belgian Congo (4.4°S, 15.2°E) June 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M2000)F2
00	240	4.0					2.2	2.6
01	225	3.2					3.0	2.6
02	235	3.0					2.8	2.6
03	250	2.6					2.6	2.4
04	235	2.6					2.6	2.65
05	240	3.7	---	---			3.0	2.6
06	245	6.0	230	---	115	2.2	2.5	2.7
07	265	7.1	220	4.1	110	2.7	3.0	2.7
08	280	7.4	210	4.3	110	3.1	3.5	2.55
09	285	8.5	200	4.5	105	3.3	3.6	2.5
10	280	8.8	200	4.5	105	3.4	3.9	2.5
11	290	9.2	200	4.6	105	3.4	4.1	2.3
12	290	10.2	200	4.6	105	3.4	4.1	2.4
13	275	10.0	240	4.5	105	3.2	3.4	2.4
14	280	10.1	220	4.3	110	3.0	3.4	2.3
15	260	9.8	235	4.0	110	2.7	4.1	2.5
16	235	9.1	235	---	120	2.1	3.7	2.5
17	225	8.2					4.0	2.6
18	215	7.4					3.0	2.7
19	210	6.2					2.9	2.9
20	210	4.2					3.0	2.8
21	230	4.1					2.8	2.4
22	240	3.8					2.8	2.3
23	240	4.2					2.9	2.5

Time: 0.0°.
Sweep: 1.0 Mc to 16.0 Mc in 7 seconds.

Table 44

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	220	4.6					<1.5	3.4
01	230	3.9						3.4
02	230	4.1						3.3
03	230	3.9						3.3
04	240	3.1						3.25
05	270	2.8						3.25
06	280	2.6			---	E		3.0
07	230	5.2	---	---	110	2.0	6.4	3.2
08	---	6.6	210	---	110	2.6	9.2	3.0
09	310	7.2	200	4.2	100	---	10.5	2.8
10	330	6.8	190	4.4	100	---	11.3	2.7
11	360	6.8	190	4.4	100	---	11.6	2.6
12	380	6.6	190	4.4	100	---	11.8	2.6
13	380	6.6	190	4.4	100	---	11.5	2.6
14	340	6.7	190	4.4	100	---	11.6	2.6
15	(350)	6.9	190	4.4	100	---	11.0	2.6
16	---	7.2	200	---	110	---	9.0	2.8
17	230	7.2	230	---	110	2.1	5.8	2.8
18	250	7.2			---	---	<1.5	2.9
19	270	6.6					<1.5	2.9
20	250	6.5					<1.6	2.9
21	<230	6.7					<1.6	3.2
22	<220	6.0					<1.6	3.4
23	220	5.2						3.4

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

Table 45

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	3.5						3.1
01	250	3.5						3.1
02	250	3.6						3.1
03	240	3.8						3.2
04	240	3.9						3.3
05	210	3.6						3.3
06	210	3.3						3.3
07	210	3.9				1.3		3.4
08	210	5.4	---	2.8		1.9		3.7
09	230	5.9	200	3.7		2.5	2.5	3.6
10	250	6.4	210	4.0		2.8		3.5
11	250	6.3	200	4.2		3.0	3.0	3.55
12	260	6.5	200	4.2		3.0	3.7	3.4
13	250	6.8	210	4.3		3.0	3.7	3.6
14	250	6.7	200	4.1		2.9	3.5	3.45
15	250	6.7	210	3.8		2.7	3.2	3.5
16	230	6.7	210	3.3		2.3		3.5
17	210	6.0	---	---		1.8	2.4	3.6
18	200	4.4					3.1	3.5
19	210	3.1					2.8	3.3
20	220	2.9					2.7	3.3
21	240	3.0						3.2
22	240	3.1						3.2
23	240	3.2						3.1

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

Table 46

Buenos Aires, Argentina (34.5°S, 58.5°W) June 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	2.9						3.0
01	300	2.8						3.0
02	280	2.9						3.15
03	260	2.7						3.3
04	250	2.7						3.5
05	250	2.4						3.4
06	300	2.0						3.2
07	250	3.6						3.5
08	220	5.2						3.55
09	240	5.6	220		110	(2.5)		3.5
10	260	6.4	220		---	---	2.8	3.5
11	250	6.6	200		---	---	3.5	3.5
12	250	6.9	200		110	3.2	3.8	3.5
13	260	6.7	200					3.4
14	260	7.2	200					3.5
15	240	7.8	230					3.5
16	220	6.8						3.6
17	210	5.5						3.6
18	220	3.9						3.5
19	260	3.8						3.3
20	270	3.8						3.3
21	260	3.7						3.4
22	260	3.2						3.4
23	310	2.9						3.0

Time: 60.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 47

Decepcion I. (63.0°S, 60.7°W) June 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	330	2.6						(3.0)
01	320	2.7						(3.0)
02	320	2.7						3.0
03	310	2.7						3.1
04	310	2.6						3.1
05	300	2.6						3.2
06	290	2.4						(3.2)
07	290	2.3						(3.4)
08	300	2.3						(3.2)
09	220	3.5					2.0	3.6
10	220	4.6					3.4	3.7
11	210	4.6					3.2	3.8
12	210	4.7					2.6	3.8
13	220	4.8					2.6	(3.7)
14	210	4.5					2.0	3.7
15	210	4.1						3.6
16	220	3.3					2.2	3.6
17	260	2.6					2.6	3.4
18	280	2.4					2.1	(3.4)
19	300	2.2						(3.3)
20	310	2.2						(3.1)
21	320	2.2						(3.1)
22	330	2.4						(3.0)
23	350	2.5						(3.0)

Time: 60.0°W.
Sweep: 1.5 Mc to 16.0 Mc in 15 minutes, manual operation.

Table 48

Rarotonga I. (21.3°S, 159.8°W) May 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	3.0					2.3	3.0
01	270	3.0					2.2	3.1
02	250	3.2					1.8	3.1
03	250	3.2					2.5	3.2
04	250	3.0					1.9	3.2
05	250	2.8					2.0	3.15
06	270	2.8					2.3	3.0
07	250	5.1	240	---	130	1.5	3.1	3.35
08	250	6.6	240	3.8	---	2.4	4.0	3.5
09	260	7.2	230	4.2	120	2.8	4.0	3.5
10	260	7.6	220	4.4	105	3.0	4.0	3.5
11	260	6.8	220	4.4	105	3.2	4.0	3.5
12	270	6.8	210	4.4	105	3.2	4.0	3.4
13	270	7.0	220	4.4	100	3.2	4.0	3.45
14	260	7.0	200	4.3	---	3.1	5.0	3.3
15	260	7.0	220	4.0	---	2.9	4.0	3.3
16	250	6.8	230	3.8	---	2.6	3.9	3.4
17	250	6.8	250	---	120	1.9	3.9	3.3
18	240	6.5					3.8	3.35
19	230	4.6*					3.2	3.35
20	250	3.7					3.0	3.1
21	260	3.6					2.5	3.1
22	250	3.4					2.5	3.2
23	250	3.2					2.2	3.2

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

Table 49

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

Time	h'F2	foF2	b'F1	foF1	b'E	foE	fEs	(M3000)F2
00	240	2.8						3.0
01	250	2.9						3.1
02	240	2.9						3.1
03	<250	2.9						3.1
04	<230	2.9						3.2
05	220	2.7						3.2
06	220	2.6						3.2
07	220	4.7			---	1.9		3.5
08	230	5.9	220	3.4	120	2.4		3.6
09	250	6.1	210	4.0	110	2.7		3.5
10	270	6.8	210	4.3	110	3.0	3.7	3.3
11	260	7.0	200	4.4	110	3.2		3.3
12	260	6.8	200	4.4	110	3.2		3.3
13	270	6.7	200	4.3	110	3.2	3.8	3.3
14	260	6.6	200	4.1	110	3.0	3.8	3.3
15	260	6.5	200	4.0	110	2.8	3.6	3.3
16	230	6.4	220	3.4	120	2.5	3.1	3.4
17	220	6.0			110	2.0	2.7	3.5
18	210	4.3						3.5
19	<220	3.0					1.9	3.4
20	<240	2.9					1.9	3.1
21	240	3.3						3.3
22	230	3.1						3.2
23	230	2.9						3.2

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

Table 50

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

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	2.7						3.0
01	250	2.7						3.0
02	260	2.8						3.0
03	260	2.8						3.0
04	260	2.8						3.1
05	<250	2.9						3.2
06	240	2.8						3.2
07	230	2.7						3.3
08	220	4.7			140	1.9		3.5
09	230	5.7	220	3.4	120	2.4		3.5
10	250	6.1	220	3.8	120	2.7		3.4
11	260	6.5	210	4.1	110	2.9		3.3
12	260	6.9	210	4.2	110	3.0		3.3
13	260	6.7	200	4.2	110	3.1		3.3
14	270	6.4	220	4.2	120	3.0		3.2
15	270	7.0	220	4.0	120	2.8		3.3
16	250	7.2	220	3.5	120	2.6	3.1	3.4
17	230	6.3	220	2.7	120	2.1		3.4
18	210	5.1			---	---		3.5
19	220	3.0						3.5
20	240	2.5						3.2
21	240	2.7						3.3
22	230	2.7						3.3
23	240	2.5						3.2

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

Table 51

Decepcion I. (63.0°S, 60.7°W) — May 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	310	2.8						3.1
01	310	2.7						3.1
02	310	2.8						3.1
03	310	2.8						3.1
04	310	2.8						3.2
05	290	2.8						3.2
06	280	2.8						3.4
07	260	2.8						3.5
08	220	3.4						3.6
09	210	4.2						3.7
10	220	5.0						3.8
11	210	5.0					2.4	3.8
12	210	5.2					2.0	3.8
13	210	5.2						3.8
14	210	5.0						3.8
15	210	4.2						3.7
16	210	3.9						3.7
17	220	3.5						3.7
18	250	2.9						3.5
19	270	2.6						3.5
20	300	2.4						(3.2)
21	310	2.5						(3.1)
22	310	2.6						3.1
23	310	2.7						3.1

Time: 60.0°W.
Sweep: 1.5 Mc to 16.0 Mc in 15 minutes, manual operation.

Table 52*

Slough, England (51.5°N, 0.6°W) — April 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	290	3.1						2.8
01	285	2.9					2.5	2.8
02	285	2.8					2.6	2.75
03	285	2.6					2.6	2.8
04	275	2.5					2.6	2.85
05	255	3.0					2.6	2.95
06	275	3.7	235	2.9	130	1.8	3.1	3.2
07	305	4.2	230	3.5	120	2.2	3.1	3.15
08	350	4.6	225	3.8	115	2.6	3.7	3.05
09	375	4.8	225	4.0	115	2.7	3.8	3.1
10	370	5.2	215	4.1	115	3.0	3.9	3.1
11	345	5.2	215	4.2	115	3.1	3.8	3.15
12	360	5.2	210	4.3	115	3.1	4.2	3.05
13	340	5.4	215	4.2	115	3.1	4.0	3.15
14	335	5.3	220	4.2	115	3.0	3.6	3.15
15	315	5.4	225	4.1	115	2.9	3.5	3.15
16	300	5.5	230	3.9	115	2.6	3.1	3.15
17	280	5.5	230	3.6	120	2.3	3.2	3.15
18	260	5.5	235	3.0	140	1.9	2.9	3.15
19	250	5.6					2.4	3.1
20	245	5.5					2.4	3.05
21	250	4.6						3.1
22	265	3.7						2.95
23	290	3.4						2.8

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

Rarotonga I. (21.3°S, 159.8°W) — April 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	3.8					2.5	3.1
01	280	3.4					2.4	3.1
02	300	3.3					1.9	3.0
03	280	3.2					1.8	3.0
04	290	2.9					2.3	3.0
05	290	3.0					2.6	3.1
06	270	3.3					2.6	3.2
07	250	6.0	240	3.0	---	1.9	3.5	3.5
08	250	7.0	240	4.0	110	2.5	3.9	3.6
09	260	7.2	230	4.3	105	2.9	3.9	3.4
10	270	8.1	210	4.4	105	3.1	4.1	3.5
11	260	8.2	210	4.5	100	3.3	4.1	3.4
12	260	7.5	200	4.5	100	3.3	4.2	3.4
13	280	6.8	200	4.5	100	3.3	5.0	3.2
14	290	8.0	200	4.4	100	3.2	5.1	3.25
15	270	7.6	260	4.4	105	3.0	5.0	3.3
16	250	8.5	240	4.0	105	2.7	4.4	3.35
17	240	7.5	230	---	---	---	4.2	3.45
18	230	6.7					3.9	3.4
19	250	5.7					3.9	3.3
20	250	5.0					3.9	3.1
21	280	4.2					3.2	2.9
22	280	4.0					3.0	3.1
23	260	3.8					2.6	3.1

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

Table 54*

Ibadan, Nigeria (7.4°N, 4.0°E) — March 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	240	6.6						
01	245	6.1					1.7	
02	245	5.4					2.2	
03	230	4.2					1.6	
04	225	2.7					1.6	
05	230	2.0					3.3	
06	245	4.0	230	---	120	1.2	3.8	
07	260	6.4	215	---	115	2.1	5.0	
08	305	7.4	200	---	115	2.8	10.4	
09	335	7.8	200	4.4	115	3.2	11.6	
10	345	7.6	200	4.5	110	3.3	11.8	
11	350	7.5	200	4.5	110	3.4	11.3	
12	365	7.6	200	4.5	110	3.4	11.6	
13	350	8.0	200	4.5	110	3.4	11.2	
14	330	8.4	200	4.4	110	3.3	10.6	
15	315	8.6	205	(4.2)	110	3.0	9.2	
16	315	8.6	205	---	110	2.7	5.7	
17	---	8.8	230	---	115	2.1	3.9	
18	260	9.0	---	---	135	1.4	3.1	
19	290	8.4					1.1	
20	285	8.2						
21	260	8.0						
22	250	7.4						
23	235	7.0						

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 55

Ahmedabad, India (23.0°N, 72.6°E) February 1955

Time	h'F2	foF2	b'F1	foF1	h'E	foE	fEs	(M3000)F2
00	270	2.9					2.8	3.15
01	260	2.7					3.0	3.25
02	260	2.7					2.6	3.15
03	250	2.9					2.8	3.35
04	230	2.6					3.2	3.55
05	235	2.0					2.7	3.55
06	270	2.0					2.5	3.2
07	235	4.8			125	1.6	3.5	3.55
08	245	6.4	225	3.9	110	2.4	3.8	3.5
09	270	7.2	215	4.2	105	2.8	3.8	3.4
10	265	8.5	210	4.4	105	3.0	4.0	3.4
11	270	9.2	205	4.5	105	3.2	4.0	3.3
12	275	9.6	205	4.6	105	3.3	3.8	3.2
13	290	10.6	210	4.5	105	3.3	3.8	3.15
14	280	11.2	215	4.5	105	3.2	4.0	3.2
15	250	11.2	225	4.3	105	3.0	3.5	3.4
16	240	10.1	220	4.0	110	2.7	3.6	3.5
17	230	8.4	230	3.3	110	2.2	3.7	3.55
18	215	8.2			---	---	3.2	3.55
19	205	>7.0					2.9	3.5
20	210	5.7					2.6	3.3
21	225	4.8					2.0	3.3
22	235	3.7					2.8	3.3
23	250	3.0					3.0	3.2

Time: 75.0°E.
Sweep: 0.6 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 56

Calcutta, India (22.9°N, 88.5°E) February 1955

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	3.1						3.2
01	240	3.0						(3.35)
02	(240)	2.5					1.8	(3.25)
03	240	2.8					1.9	3.25
04	(240)	2.4					1.8	(3.25)
05	(240)	(2.2)					2.0	---
06	(270)	(1.9)					2.2	---
07	(240)	(4.5)	190	2.1	110	1.8	2.1	(3.3)
08	240	(6.9)	220	3.3	100	2.4		(3.4)
09	270	7.4	220	4.4	100	3.0		(3.2)
10	300	(10.0)	200	4.5	100	3.1		(3.05)
11	280	(10.5)	200	4.5	100	3.3		---
12	290	(10.5)	200	4.5	100	3.4		(2.8)
13	280	(10.7)	200	4.5	100	3.4		(3.1)
14	280	(10.8)	200	4.5	100	3.3		(3.2)
15	250	(11.0)	220	4.4	100	3.0		(3.35)
16	240	10.1	220	4.0	100	2.7	3.7	3.4
17	220	9.2	220	3.4	100	2.2	3.2	3.4
18	200	8.5	---	---			3.2	3.4
19	200	6.8					3.2	(3.3)
20	220	5.0					2.9	(3.3)
21	240	4.5					3.2	(3.25)
22	240	4.2					2.7	3.3
23	240	3.7					2.0	3.3

Time: 90.0°E.
Sweep: 1.0 Mc to 13.0 Mc in 1 minute 55 seconds.

Table 57

Poitiers, France (46.6°N, 0.3°E) December 1954

Time	h'F2	foF2	b'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	3.1						3.1
01	255	3.1						(3.15)
02	<270	3.2						(3.1)
03	260	3.1						3.1
04	250	3.0						(3.2)
05	<235	2.8						(3.35)
06	230	2.5						(3.35)
07	<225	2.9			---	E		3.4
08	210	4.4	<175	1.9	---	E	2.0	3.8
09	220	5.0	180	2.6	120	2.0		3.8
10	225	5.4	220	3.2	115	2.4	2.6	3.8
11	235	5.7	220	3.6	115	2.5		3.7
12	230	5.6	210	3.6	115	2.6		3.6
13	230	5.5	225	3.5	120	2.5		3.8
14	225	5.2	220	3.0	120	2.2		3.75
15	220	5.0	230	2.5	---	1.9	2.4	3.75
16	210	4.8	---	1.7	---	E	2.0	3.7
17	200	3.3			---	---	2.6	3.55
18	250	2.8					2.3	3.2
19	250	3.1					2.4	3.2
20	<235	3.3					2.3	3.25
21	<240	3.1					1.8	3.1
22	250	3.1					2.0	(3.1)
23	255	3.2						(3.0)

Time: 0.0°.
Sweep: 1.6 Mc to 16.8 Mc in 1 minute.

Table 58

Casablanca, Morocco (33.6°N, 7.6°W) December 1954

Time	h'F2	foF2	b'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	3.1						3.05
01	---	3.1						3.05
02	---	3.1						3.1
03	---	3.1						3.2
04	---	3.1						3.3
05	---	2.8						3.5
06	---	2.2						3.2
07	---	2.7						3.2
08	220	5.2	(225)	---	---	E		3.75
09	230	5.6	215	(3.3)	115	2.3	2.6	3.7
10	240	5.7	215	3.8	110	2.7		3.65
11	240	6.2	205	4.0	105	2.9	3.6	3.7
12	250	5.9	200	4.1	110	3.0		3.65
13	250	5.8	205	4.0	110	2.9		3.65
14	250	5.4	220	3.9	110	2.8	3.0	3.6
15	245	5.6	220	3.6	110	2.6		3.6
16	235	5.3	225	3.2	115	2.2	2.5	3.7
17	220	4.5			---	E	2.5	3.7
18	---	3.7					2.1	3.5
19	---	3.2					1.9	3.3
20	---	3.1					2.1	3.2
21	---	3.2						3.1
22	---	3.2					2.1	3.1
23	---	3.1						3.1

Time: 0.0°.
Sweep: 1.6 Mc to 16.0 Mc in 1 minute 15 seconds.

Table 59

Poitiers, France (46.6°N, 0.3°E) November 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	275	3.2					2.2	3.0
01	275	3.3					2.2	3.0
02	265	3.4					2.0	3.0
03	260	3.3					2.2	3.0
04	250	3.0					2.2	3.2
05	230	2.8					2.0	(3.3)
06	250	2.4						(3.35)
07	225	3.8	---	1.7	---	E		3.45
08	220	4.9	195	2.4	---	1.9		3.7
09	230	5.2	215	3.2	115	2.3	2.6	3.7
10	235	5.8	220	3.5	110	2.5	3.4	3.65
11	250	6.0	220	3.8	110	2.6	3.2	3.65
12	240	6.2	225	3.8	115	2.6	3.1	3.6
13	240	5.7	220	3.6	115	2.6		3.55
14	245	5.8	230	3.5	120	2.4		3.55
15	230	6.0	235	3.0	120	2.1		3.65
16	220	5.2	---	1.0	---	E	2.4	3.7
17	210	4.2			---	E	2.5	3.5
18	<240	3.2					2.4	3.35
19	245	3.2					2.2	3.25
20	245	3.0					2.0	3.3
21	<255	3.0						3.0
22	<275	3.1						3.05
23	270	3.0					1.8	3.0

Time: 0.0°.
Sweep: 1.6 Mc to 16.8 Mc in 1 minute.

Table 60

Casablanca, Morocco (33.6°N, 7.6°W) November 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	3.3					2.2	3.0
01	---	3.2					2.2	3.0
02	---	3.2					2.0	3.05
03	---	3.3					2.1	3.1
04	---	3.4					2.0	3.5
05	---	3.0					1.9	3.5
06	---	2.5						3.15
07	235	3.9					1.8	3.5
08	230	5.7	220	(2.8)	110	2.0		3.7
09	240	5.9	225	(3.8)	110	2.5	3.0	3.65
10	250	6.2	220	4.0	105	2.8	3.3	3.6
11	250	6.5	210	4.2	105	2.9	3.4	3.6
12	250	6.4	210	4.2	105	3.0		3.6
13	260	6.7	215	4.2	105	3.0		3.5
14	250	6.7	235	4.1	105	2.9		3.6
15	250	6.4	225	3.8	110	2.7	3.3	3.5
16	235	6.3	230	3.2	105	2.3	3.2	3.6
17	220	5.5	---	---	---	E	3.0	3.7
18	<210	4.0					3.0	3.6
19	---	3.1					2.6	3.1
20	---	3.1					2.2	3.05
21	---	3.3					2.2	3.1
22	---	3.2					2.2	3.05
23	---	3.1					2.1	3.0

Time: 0.0°.
Sweep: 1.6 Mc to 16.0 Mc in 1 minute 15 seconds.

Table 61

Poitiers, France (46.6°N, 0.3°E) October 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	3.1						2.9
01	280	3.1					2.2	2.95
02	275	3.1					2.0	2.95
03	270	3.0					2.3	3.0
04	255	2.9					2.0	3.1
05	250	2.4					2.4	3.2
06	245	3.0			---	E	2.2	3.3
07	230	4.4	215	2.2	---	1.6	2.2	3.65
08	240	5.1	220	3.4	115	2.3	2.5	3.6
09	255	5.3	220	3.8	110	2.5	3.1	3.5
10	250	6.1	215	4.0	110	2.6	3.6	3.5
11	255	6.6	205	4.1	105	2.7	3.8	3.5
12	250	6.2	205	4.1	105	2.7	3.7	3.45
13	260	6.0	215	4.0	105	2.6	3.8	3.4
14	255	6.0	230	3.9	110	2.7	3.5	3.5
15	250	6.1	230	3.8	<115	2.5	3.5	3.4
16	245	6.0	245	(3.2)	120	2.1	3.4	3.4
17	230	5.4	---	(2.2)	---	E	2.8	3.45
18	235	5.0			---	E	3.0	3.3
19	240	4.6					2.6	3.25
20	240	3.9					2.3	3.2
21	250	3.5					2.3	3.1
22	260	3.3					2.2	3.0
23	270	3.2						2.95

Time: 0.0°.
Sweep: 1.6 Mc to 16.8 Mc in 1 minute.

Table 62

Casablanca, Morocco (33.6°N, 7.6°W) October 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	3.1					1.9	3.0
01	---	3.1					2.0	3.0
02	---	3.1					1.9	3.0
03	---	3.2					2.0	3.0
04	---	3.2					2.1	3.3
05	---	2.8					1.9	3.4
06	---	2.5					1.9	3.25
07	225	4.5	230	---	---	1.7	2.2	3.65
08	240	6.0	225	3.5	105	2.3	3.2	3.6
09	245	6.6	215	4.0	105	2.6	3.5	3.65
10	250	6.8	210	4.2	100	2.9	3.6	3.55
11	250	6.8	200	4.3	100	3.0	3.6	3.6
12	255	6.6	190	4.4	100	3.1	3.6	3.45
13	270	6.9	200	(4.4)	100	3.1	3.5	3.4
14	270	6.7	220	4.4	100	3.0	3.3	3.35
15	265	7.0	230	4.2	100	2.9	3.6	3.4
16	250	7.2	230	3.8	110	2.5	3.6	3.4
17	245	7.4	240	3.5	115	2.1	3.2	3.5
18	215	7.2	---	---			2.9	3.6
19	<210	5.4					2.4	3.6
20	---	3.8					2.2	3.2
21	---	3.5					2.1	3.15
22	---	3.4					2.2	3.1
23	---	3.2					2.0	3.05

Time: 0.0°.
Sweep: 1.6 Mc to 16.0 Mc in 1 minute 15 seconds.

Table 63

Poitiers, France (46.6°N, 0.3°E) September 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	<270	3.0					2.1	3.0
01	<280	3.0					2.2	2.9
02	<280	2.9					2.1	2.95
03	<275	2.8					2.0	2.95
04	<270	2.6					2.2	3.0
05	<240	2.4			---	E	2.3	3.2
06	240	3.3	---	---	---	E	2.3	3.35
07	270	3.8	220	3.3	115	2.0	2.6	3.5
08	300	4.3	220	3.7	110	2.4	3.0	(3.4)
09	320	4.6	210	3.9	105	2.7	3.0	(3.3)
10	310	5.0	210	4.0	105	2.9	3.5	3.4
11	300	5.0	200	4.1	100	3.0	3.7	3.45
12	335	5.0	200	4.1	100	2.9	3.5	3.4
13	310	4.9	200	4.1	105	3.0	3.4	(3.35)
14	300	5.0	220	4.0	100	2.9	3.4	3.3
15	300	5.0	220	3.9	105	2.8	3.0	3.2
16	300	5.0	235	3.7	110	2.4	2.8	3.3
17	280	5.1	235	3.2	---	2.0	2.8	3.3
18	250	5.4	240	2.7	---	E	2.6	3.2
19	245	5.3			---	---	2.5	3.2
20	240	5.2					2.6	(3.2)
21	245	4.4					2.7	3.2
22	250	3.4					2.8	3.1
23	265	3.1					2.2	3.0

Time: 0.0°.
Sweep: 1.6 Mc to 16.8 Mc in 1 minute.

Table 64

Casablanca, Morocco (33.6°N, 7.6°W) September 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	2.9					2.2	3.05
01	---	3.0					2.2	3.0
02	---	3.0					2.1	3.0
03	---	2.7					2.0	3.1
04	---	2.7					2.1	3.2
05	---	2.6					2.0	3.2
06	230	2.7			---	---	2.2	3.4
07	240	4.1	225	(2.8)	120	1.9	2.8	3.7
08	265	4.7	215	3.7	105	2.4	3.6	3.5
09	270	5.2	210	4.0	100	2.7	4.0	3.5
10	275	5.4	200	4.2	100	3.0	3.6	3.5
11	285	5.5	200	4.4	100	3.1	3.8	3.5
12	310	5.4	195	4.4	100	3.1	3.8	3.3
13	315	5.7	195	4.3	100	3.2	3.6	3.25
14	315	5.5	220	4.3	100	3.1		3.3
15	320	5.9	215	4.2	100	3.0		3.2
16	310	5.9	225	4.0	100	2.7	3.4	3.15
17	280	6.6	240	3.7	105	2.4	3.6	3.3
18	260	(6.8)	240	2.9	120	1.8	3.4	3.3
19	<230	6.9					2.9	3.4
20	<210	6.0					2.5	3.55
21	---	4.6					2.9	3.4
22	---	3.2					2.3	3.1
23	---	3.0					2.1	3.0

Time: 0.0°.
Sweep: 1.6 Mc to 16.0 Mc in 1 minute 15 seconds.

Table 65

Poitiers, France (46.6°N, 0.3°E) August 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	3.4					3.2	3.05
01	260	3.2					2.6	3.0
02	<275	3.0					2.6	(3.0)
03	270	2.9					2.5	3.0
04	260	2.8					2.5	(3.1)
05	<255	3.0	---	---	---	E	2.6	3.1
06	275	3.9	225	3.1	---	1.8	2.8	3.3
07	320	4.2	220	3.6	105	2.3	3.3	(3.5)
08	350	4.6	220	3.9	100	2.6	3.8	(3.15)
09	345	4.9	210	4.0	100	2.8	3.6	3.4
10	310	5.0	210	4.1	100	3.0	4.7	(3.3)
11	330	5.0	200	4.2	100	3.0	4.6	(3.3)
12	335	4.9	200	4.2	100	3.0	3.8	---
13	360	4.8	200	4.2	100	3.0	4.0	---
14	375	4.8	210	4.2	100	3.0	3.9	---
15	360	4.8	215	4.0	100	2.9	3.8	(3.2)
16	320	4.8	225	3.9	100	2.7	3.5	3.2
17	315	4.9	220	3.7	110	2.4	3.4	3.0
18	290	5.4	240	3.2	---	1.8	3.6	3.15
19	250	5.9	250	2.4	---	E	3.1	3.15
20	230	5.7					3.1	(3.3)
21	230	5.1					3.4	3.35
22	245	4.4					3.2	3.2
23	250	3.5					3.4	3.05

Time: 0.0°.
Sweep: 1.6 Mc to 16.8 Mc in 1 minute.

Table 66

Casablanca, Morocco (33.6°N, 7.6°W) August 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	3.2					3.0	3.0
01	---	2.8					2.9	3.0
02	---	3.1					2.5	3.0
03	---	2.8					2.6	3.0
04	---	2.6					2.3	3.05
05	---	2.6					2.5	3.2
06	<240	3.1	---	---			2.5	3.3
07	250	4.2	225	3.4	115	2.0	3.6	3.6
08	275	5.0	230	3.7	105	2.5	4.0	3.5
09	280	5.1	215	4.0	105	2.8	4.2	3.55
10	310	5.2	200	4.2	105	3.1	4.2	3.35
11	325	5.0	200	---	105	3.2	4.0	3.25
12	350	5.2	---	(4.4)	105	3.2	3.6	3.2
13	350	5.2	200	---	105	3.3	3.6	3.1
14	360	5.2	---	4.2	105	3.2		3.1
15	350	5.6	210	(4.2)	105	3.1		3.1
16	325	5.8	220	4.1	105	2.9	3.5	3.1
17	300	6.2	230	3.8	105	2.6	3.8	3.2
18	290	6.2	230	3.5	110	2.1	4.0	3.1
19	255	6.8	240	2.6	---	---	3.4	3.3
20	220	6.6					3.0	3.45
21	<215	5.2					3.0	3.4
22	---	3.7					3.5	3.2
23	---	3.4					3.4	3.1

Time: 0.0°.
Sweep: 1.6 Mc to 16.0 Mc in 1 minute 15 seconds.

Table 67

Poitiers, France (46.6°N, 0.3°E) — July 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	3.5					3.3	3.05
01	260	3.3					3.4	(2.95)
02	270	3.2					3.0	3.0
03	270	3.0					3.2	(3.0)
04	270	2.9	---	---	---	E	3.4	(3.0)
05	295	3.4	240	2.8	---	E	3.2	3.2
06	300	4.2	230	3.4	110	2.1	3.4	3.2
07	350	4.4	230	3.7	110	2.5	4.4	---
08	325	4.6	210	3.9	100	2.8	4.2	(3.2)
09	330	4.8	210	4.1	100	2.9	4.4	---
10	375	4.8	205	4.1	100	3.0	4.2	---
11	335	5.0	200	4.2	100	3.1	4.2	---
12	400	4.7	195	4.2	100	3.1	4.3	---
13	370	4.8	200	4.2	100	3.1	4.7	---
14	390	4.0	210	4.2	100	3.1	4.3	---
15	360	4.8	210	4.0	100	3.0	4.3	(3.25)
16	360	4.8	215	3.9	105	2.8	4.3	(3.15)
17	350	4.9	220	3.7	110	2.6	4.9	3.05
18	310	5.0	220	3.4	110	2.2	4.8	3.05
19	260	5.1	240	2.8	---	1.6	5.1	3.15
20	245	5.6			---	E	4.5	3.2
21	240	5.2					4.1	3.2
22	240	4.6					3.6	3.2
23	250	4.0					3.4	3.05

Time: 0.0°.
Sweep: 1.6 Mc to 16.0 Mc in 1 minute.

Table 68

Casablanca, Morocco (33.6°N, 7.6°W) — July 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	3.4					3.5	3.1
01	---	3.1					3.5	3.0
02	---	3.0					4.0	(3.0)
03	---	3.0					3.4	3.05
04	---	2.0					3.3	(3.2)
05	---	2.6					3.0	3.3
06	235	3.5	235	---			3.0	3.4
07	270	4.4	230	3.5	110	2.2	3.6	3.5
08	275	5.0	220	3.8	105	2.6	4.1	3.6
09	300	5.0	200	4.0	100	2.9	4.9	3.5
10	310	5.2	200	(4.2)	100	3.1	4.5	3.3
11	300	5.4	---	(4.3)	100	3.2	5.5	3.4
12	(330)	(5.1)	---	---	100	3.3	4.8	(3.2)
13	(390)	(5.1)	---	---	100	3.3	4.4	(3.0)
14	345	5.4	---	---	100	3.3	3.5	3.2
15	350	5.5	200	4.2	100	3.2	3.6	3.05
16	320	5.9	225	4.0	100	3.0	3.5	3.2
17	330	5.6	225	3.8	105	2.7	3.9	3.1
18	300	6.1	240	3.6	110	2.3	3.6	3.1
19	255	6.6	240	3.0	---	1.7	3.5	3.2
20	<225	6.2					2.9	3.4
21	210	5.5					3.7	3.4
22	---	4.3					3.5	3.25
23	---	3.6					4.0	3.1

Time: 0.0°.
Sweep: 1.6 Mc to 16.0 Mc in 1 minute 15 seconds.

Table 69

Poitiers, France (46.6°N, 0.3°E) — June 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	250	3.9					2.6	3.1
01	255	3.6					2.0	3.05
02	<260	3.4					2.3	3.1
03	<270	3.2					2.6	3.0
04	250	3.3	---	---	---	E	2.6	3.1
05	310	4.0	235	3.0	---	1.7	2.8	3.2
06	320	4.5	230	3.5	110	2.2	3.3	3.2
07	300	4.9	210	3.0	105	2.6	4.5	3.3
08	305	5.1	215	4.0	100	2.0	5.0	(3.2)
09	320	5.0	210	4.1	100	3.0	5.0	(3.2)
10	335	5.0	205	4.2	100	3.1	4.4	---
11	375	5.0	200	4.3	100	3.2	4.6	(3.05)
12	370	4.9	200	4.2	100	3.2	4.0	(3.25)
13	390	(4.9)	210	4.2	100	3.2	4.4	---
14	380	5.0	205	4.2	100	3.1	4.5	(3.15)
15	360	4.9	225	4.1	100	3.0	4.4	(3.1)
16	355	4.9	220	4.0	105	2.8	5.0	(3.1)
17	320	5.1	230	3.8	110	2.6	5.7	(3.2)
18	300	5.4	230	3.4	110	2.2	4.9	3.1
19	275	5.8	---	2.9	---	1.6	5.2	3.15
20	240	6.0			---	E	4.0	(3.25)
21	230	5.0			---	---	3.2	3.2
22	230	5.2					3.1	3.25
23	245	4.2					2.6	3.2

Time: 0.0°.
Sweep: 1.6 Mc to 16.8 Mc in 1 minute.

Table 70

Casablanca, Morocco (33.6°N, 7.6°W) — June 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	4.1					3.9	(3.15)
01	---	3.8					3.9	(3.0)
02	---	3.6					3.5	(3.1)
03	---	(3.1)					3.3	(3.05)
04	---	(3.0)					3.5	---
05	---	(2.8)					3.6	(3.2)
06	240	4.0	235	---	---	---	3.6	3.5
07	250	5.0	230	3.6	105	2.2	4.4	3.7
08	265	5.4	205	3.0	100	2.6	4.7	3.55
09	290	5.2	210	4.1	100	2.9	5.1	3.4
10	(290)	5.2	---	---	100	3.0	5.6	(3.5)
11	(375)	(5.4)	---	---	100	3.2	5.4	(3.05)
12	---	(5.8)	200	---	100	3.3	4.0	---
13	(385)	(5.3)	200	---	100	3.3	3.6	(3.0)
14	340	5.6	---	---	100	3.2	4.0	3.1
15	320	5.7	---	4.2	100	3.2	5.2	3.1
16	325	6.0	225	4.0	100	3.0	5.0	3.1
17	300	6.4	---	3.0	105	2.7	5.9	3.1
18	295	7.0	250	3.5	105	2.2	5.6	3.15
19	260	7.2	---	3.0	---	---	4.7	3.3
20	225	(7.5)					4.2	3.4
21	---	>6.0					4.2	3.4
22	---	4.3					3.6	3.4
23	---	4.2					4.3	3.2

Time: 0.0°.
Sweep: 1.6 Mc to 16.0 Mc in 1 minute 15 seconds.

Table 71

Poitiers, France (46.6°N, 0.3°E) — May 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	260	3.6					2.3	3.0
01	260	3.4					1.0	3.0
02	270	3.3					2.0	2.95
03	<270	3.2					2.2	3.0
04	270	3.0					2.4	3.0
05	280	3.8	240	2.8	---	E	2.4	3.25
06	300	4.2	235	3.4	115	2.1	2.8	3.3
07	320	4.5	225	3.7	110	2.5	3.2	(3.1)
08	320	4.0	220	4.0	105	2.8	3.8	(3.35)
09	305	5.0	215	4.1	100	2.9	3.8	3.4
10	340	5.1	200	4.2	100	3.0	3.7	3.1
11	330	5.0	210	4.2	100	3.1	3.9	(3.05)
12	360	5.1	210	4.2	100	3.1	3.8	(3.3)
13	360	5.2	210	4.2	100	3.1	3.9	(3.15)
14	345	5.1	220	4.2	100	3.0	4.0	3.0
15	350	5.0	220	4.1	105	3.0	4.0	3.1
16	325	5.1	230	4.0	110	2.8	3.8	3.15
17	300	5.3	235	3.7	110	2.4	3.6	3.1
18	290	5.4	240	3.3	120	2.0	3.1	3.15
19	255	5.9	---	2.6	---	E	3.3	3.2
20	245	(6.0)					2.6	---
21	240	5.6					2.8	3.2
22	225	4.9					2.6	3.25
23	250	3.9					2.6	3.1

Time: 0.0°.
Sweep: 1.6 Mc to 16.8 Mc in 1 minute.

Table 72

Casablanca, Morocco (33.6°N, 7.6°W) — May 1954

Time	h'F2	foF2	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	---	3.5					2.9	2.9
01	---	3.3					2.6	3.0
02	---	3.3					2.7	3.1
03	---	3.1					2.4	3.2
04	---	2.9					3.1	3.1
05	---	2.6					3.1	3.2
06	235	3.9	---	---	---	---	3.0	3.6
07	250	5.1	225	3.4	110	2.1	3.6	3.6
08	240	5.0	220	3.8	105	2.6	4.3	3.7
09	260	5.0	210	4.0	100	2.9	4.5	3.6
10	315	5.0	(200)	4.2	100	3.1	4.7	3.4
11	(350)	(5.2)	---	---	100	3.2	4.9	(3.1)
12	365	5.6	---	---	100	3.3	3.0	3.05
13	350	5.0	210	---	100	3.3	3.4	3.0
14	345	6.3	---	---	100	3.2	4.0	3.05
15	320	6.4	220	(4.2)	100	3.1	4.8	3.1
16	300	6.9	225	4.0	100	2.9	4.8	3.1
17	295	7.2	240	3.8	105	2.6	4.7	3.15
18	270	7.4	230	3.5	110	2.2	4.2	3.3
19	245	7.4	235	2.6	---	---	3.6	3.35
20	<220	(6.5)					3.4	3.35
21	---	5.0					3.1	3.5
22	---	4.3					2.5	3.2
23	---	3.8					3.2	3.0

Time: 0.0°.
Sweep: 1.6 Mc to 16.0 Mc in 1 minute 15 seconds.

TABLE 73

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

Form adopted June 1946

IONOSPHERIC DATA

h' F2 (Characteristic), Km (Unit), September (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: J.W.P., L.F.M., N.B., J.J.S

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
1	250	240	250	280	270	300	290	L	(350)L	340	330	350H	340	370	350	320	330	300	250	250	260	260	280	250		
2	270	280	290	240	260	<350S	270	320	470	(420)F	350	350	400H	330	350	330	(320)L	310	260	240	240	270	280	270		
3	270	270	280	(300)S	(280)S	(300)S	(250)A	(310)L	370	360	350	390	370	340	350	350	320	300	250	240	250	260	280	260		
4	240	290	250	260	(270)S	S	260	(390)F	(390)F	530	460	370	470	380F	380	380	370	320	250	260	270	270	280	270		
5	250	300	300	290	300	(320)S	250	280	300	320	360	330	340	350	310	320	280	270	250	230	230	260	270	280		
6	270	280	280	240	300F	(310)S	250	240	300	290	300	330	340	320	330	340	300	[280]A	270	250	250	260	270	280		
7	270	260	260	250	280	320	250	250	270	290	270	310	310	310	300	290	280	270	240	240	240	240	250	260		
8	280	270	250	250	250	280	240	260	L	300	290	320	320	310	280	300	280	(260)L	240	240	230	240	250	300		
9	280	280	(290)A	260	230	270	240	240	260	270	300	330	320	340	300	300	280	270	250	230	240	240	(240)S	260		
10	270	280	270	270	270	(240)S	250	300	290	290	290	300	360	330	310	310	300	280	250	230	220	240	260	270		
11	280	280	280	270	270	250	250	240	290	260	290	300	320	300	300	300	280	250	230	220	240	250	270	270		
12	280	260	260	(310)S	240H	280	250	(240)L	260	300	300	300	320	280	310	300	280	(260)L	240	240	250	230	250	290		
13	300	240	260	270	(240)S	(300)S	250	L	300	300	300	360	300	310	310	300	280	250	240	220	230	260	260	270		
14	280	280	280	(270)S	(240)S	(300)S	250	(260)L	260	290	270	300	300	280	280	280	L	(260)L	240	220	220	230	250	260		
15	270	280	260	270	250	250	240	(240)L	240	270	L	330	300	300	290	300	270	240	220	220	210	240	280	270		
16	270	280	270	240	250	240	250	240	280H	280	270	290	310	280	280H	300	270	(250)L	230	220	230	230	240	240		
17	280	(300)S	(300)S	280	(250)S	[270]S	240	(240)L	250	L H	330	310	320	320	280	320	280	260	240	230	240	240	270	280		
18	(240)S	280	(280)S	(280)S	280	270	250	L	260	320	270	300	300	310	300	280	260	240	230	220	230	260	(290)S	280		
19	270	270	260	250	260	(280)S	230	(250)L	250	(250)L H	280	280	310	280	270	260	260	230	220	220	240	260	270	260		
20	260	260	270	240	(280)S	(300)S	230	240H	L	280	250	280	290	280	280	280	270	240	220	220	250	250	250	260		
21	260	270	270	260	250	270	240	230	240	260	260H	270	(290)L	240	280	280	280	250	230	230	250	260	260	290		
22	270	260	260	260	240	(240)S	240	L	240	270	310	300	280	280	270	280	(280)L	250	230	220	220	240	250	260		
23	(240)S	(240)S	(240)S	(280)S	(270)S	(300)S	240	(250)L	320H	(240)H	(300)H	(310)H	300	310	300	310	270	240	220	220	240	(250)S	(280)S	290		
24	240	270	250	240	260	240	240	250	(240)L	(260)L H	280	280	280	300	300	290	260	250	220	220	230	250	270	270		
25	270	270	270	260	250	250	240	250	250	270	(250)L	270	300	310	280	280	270	250	220	210	220	250	260	250		
26	270	270	270	250	240	240	230	L	250	250	270H	270	300	290	300	290	260	240	220	220	230	240	270	270		
27	280	270	270	270	230	270	240	260	260	250	270	320H	300	270	270	280	270	250	230	230	230	240	270	270		
28	240	300	280	270	250	250	240	240	240	250	270	250	280	270	270	290	260	240	220	220	230	240	260	290		
29	300	290	280	260	270	(300)S	250	250	240	250	260	280H	300	310	310	260	260	240	220	230	240	280	290	270		
30	250	290	[390]S	340	380	400	270	240	L	290	280	280	300	280	270	270	250	240	230	220	230	240	270	290		
31																										
Median	270	280	270	270	270	280	250	250	260	280	290	300	300	310	300	300	280	250	230	220	240	250	270	270		
Count	30	30	30	30	30	28	30	25	27	29	29	30	30	30	30	30	29	30	30	30	30	30	30	30		

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

TABLE 74

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

Form adopted June 1946

IONOSPHERIC DATA

fo F2 (Characteristic), Mc (Unit), September (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 J.W.P., L.F.M., N.B., J.J.S.

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	45	44	34 F	31 F	29 F	29 F	38	45	47	54	56	55 H	61	58	58	62	56	55	60	51	57	(52) S	50	45
2	37	36	29	26	(25) S	(18) P S	37	46	45) S	(53) F S	57	58	60 H	62	60	57	54	56	56	58	57	48	(47) J	43 F
3	39	32	29	27	26	22	39	(46) S	48 F	55 F	(50) F	55 F	56	57	57	57	58	60	59	58	(56) P S	(50) P S	(46) P S	(47) J S
4	42) P S	39	38	31	26	(17) J S	33	(42) P F	48) F	46 F	50 F	50 F	50	55 F	52	54	55	56	58	52	52 S	(48) J S	(44) J S	41 F
5	38 F	33	31	29	24 F	23 F	38	50	55	60 F	58	63	66	65	60	67 F	66	63	62	62	56	48	45 F	42
6	41 F	36 F	33 F	26 F	22 F	22 F	38 F	54	54	59	61 F	62	62	63	60	60	64	[64] A	63	63	57	(55) P S	48	44 F
7	42 F	38 F	37 F	33 F	24 F	25 F	43	58	66	68	71	68	70	68	73	68	67	68	66	67	62 F	(50) J S	(49) F S	48 F
8	46 F	45 F	40 F	33 F	28 F	23 F	41 F	55	58	64	68	68	72	76	74	72	67	62	62	70	66	57	47 F	(45) J S
9	46 F	43	40	38	35	29	46	66	72	68	67	69	75	74	73	70	68	70	71	72	64	(58) S	48	48
10	47	42	42	37	34	30	33	52	56	65	62	60	62	60	65	64	62	63	68	72	60) S	49	45	42
11	39	39	37	35	33	32	43	58	62	62	66	74	74	76	72	72	76	72	76	63	60	54	49	47
12	43	43	34	32	32 H	34	42	54	58	70	74	76	78	80	65	69	70	68	66	66	[66] S	62	48	42
13	41	42	39	(30) F	[26] F S	23 F	35 F	44	54	60	62	62	63	66	63	64	65	63	58	58	47	44	38 F	34 F
14	31 F	30 F	28 F	26	(21) P S	21	38	58	63	69	68	68	72	76	70	68	66	67	78	70	50	48	40	38
15	34	33	31	30	28	26 F	42	54	63	69	63	63	70	72	67	70	75	76	70	64	48	44	41	38
16	36	35	33	31	29	24	38	49	62 H	68	70	68	72	68	66 H	65	68	66	67	60	60	51	43	38
17	34	32	30	29 F	22	(18) J S	34	50	51	56 H	59	63	62	64	60	54	57	56	56	50	45	42	36	32
18	29	27	27	25	24	(23) F S	37	52	58	60	68	68	68	72	72	68	63	63	62	52	39	36	33	32
19	31	27	27	24	22	22	39	56	70	60 H	66	69	68	75	77	68	66	67	62	56	48	41	40	39
20	36	33	31	29	22	21	37	55 H	57	63	67	69	68	64	64	65	69	68	60	53	48	45	41	39
21	37 F	32	31	29	30	27 F	40	57	59	62	68 H	63	63	63	66	62	63	62	(61) P S	56	48	43	41	39
22	39	36	34	(31) F S	24	21	36	51	56	60	62	67	69	64	64	60	60	67	63	62	50	45	40	35
23	30	29	28	27	25	23	35	(47) F S	52 H	(57) H	(52) H J	(56) H	58	65	68	67	74	67	70	54	47) S	[38] F S	(35) J F	34
24	32	31	33	(35) F S	28 F	26 F	37	57	54	63 H	64	66	63	64	63	67	68	72	66	60	47	44	37 F	36
25	35	35) S	35 F	34 F	31 F	31 F	37	49	55	59	58	62	62	63	68	63	66	75	76	(58) S	44	40	37	36
26	35 F	34 F	33 F	36 F	33 F	33	41	50	58	61	65 H	68	66	63	64	67	72	67	70	56	47	43	37	38
27	37	37	37	35	32	28	36	48	63	60	63	64 H	75	74	76	78	75	68	62	63	55	44	38	34
28	36	35	33	34	31	28	38	62	66	75	74	78	74	76	77	76	82	72	72	68	49	42	34	32
29	32	32	31	28 F	23 F	21 F	33 F	54	69	66	69	68 H	70	78	85	92	84	80	77	59	48	41	38	39
30	34	24 F	[20] F S	(21) F	24 F	(21) J F	31 F	45	58	68	65	73	78	90	82	(80) S	(78) P S	(78) S	76	68	(49) J S	39) F S	(32) F S	(29) F S
31																								
Median	37	35	33	30	26	23	38	52	58	62	64	66	68	66	67	67	66	67	64	60	50	45	41	39
Count	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836048

TABLE 75

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

Form adopted June 1946

IONOSPHERIC DATA

fo F2 (Characteristic), Mc (Unit), September (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: J.W.P., L.F.M., N.B., J.J.S.

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	4.5	3.9 F	3.2 F	3.0 F	2.8 F	3.2 J	4.0	4.6	5.0	5.6	5.7	6.0	5.8	6.0	6.0	5.8	5.6	5.8	5.4	5.6	5.6	5.0	5.1	3.8
2	3.5	3.2	2.9	2.6	(2.1) S	2.8	4.1	4.8	S (4.9) F	5.6	5.8	6.0	6.2	6.0	5.8	5.6	5.4	5.8	5.7	5.7	5.2	R [4.6] F	4.4 F	4.0
3	3.5	3.1	2.7	2.7	2.3	2.9	4.6	(4.7) F	H (5.0) F	H (5.7) F	5.7 F	(5.6) F	5.7	5.8	5.8 F	5.8	5.8	6.0	5.7	S 5.8 J	S 5.6 J	S 4.8 J	S (4.6) J	S (4.1) P
4	3.4	4.2	3.5	2.8	2.0	2.5	P (3.8) F	[4.6] F	4.6 F	4.9	5.0	5.2 F	5.2 F	5.4 F	5.4	5.3	5.4	5.8	5.3	5.3 F	S 4.8 J	4.6	S (4.0) J	S (4.1) J
5	3.5 F	3.2	3.1 F	2.7 F	2.3 F	2.7 F	4.5	5.1	5.2 F	5.6 F	6.2	6.3 F	6.6	6.8	6.6 F	6.6	6.2	6.3	6.3	6.0	4.9	4.8	4.4	4.0 F
6	3.5 F	3.5 F	2.9 F	2.6 F	2.0 F	2.7 F	4.7 F	4.4	5.8 F	6.0	6.1	6.2	6.2	6.0	6.0	6.3	6.3	(6.0) R	6.3	6.3	5.5	5.0	4.4	4.4
7	3.1 F	3.7 F	3.7 F	2.9 F	2.6 F	2.7 F	5.2	5.9	6.6	7.0	6.6	6.9	7.0	7.0	7.2	6.9	6.6	6.6 F	6.7	6.8	5.9	5.0	4.9	4.8
8	4.5 F	4.1 F	3.5 F	3.3 F	2.4 F	2.9 F	4.8	6.0	6.4	6.8	6.8	6.8	7.6	7.8	7.2	7.0	6.6	6.2	6.3	7.0	6.2	5.2	(4.6) F	4.6 F
9	4.6	4.2	4.1	3.8	3.0	3.5	5.7	7.2	7.0	6.6	6.8	7.5	7.3	7.4	6.8	7.2	6.8	7.1	7.2	6.8	6.3	5.3	4.7	4.7
10	4.4	4.3	3.4	3.5	3.3 J	3.3	4.5	5.4	6.0	6.4	6.3	6.1	6.5	6.8	6.3	6.3	6.3	6.6	6.9	6.8	P (5.2) S	4.8	4.5	4.1
11	3.9	3.9	3.8	3.4	3.3	3.3	(5.1) S	5.6	6.3	6.4	6.6	7.0	7.0	7.4	6.9	7.6	7.2	6.8	7.0	6.3	S 5.6 J	5.0	4.8	4.3
12	4.2	3.9	3.1	3.5	3.2	3.6	5.2	5.4	6.6	7.0	7.6	7.5	8.0	7.2	6.8	6.8	6.9	6.6	6.6	6.8	S 6.6 J	4.6	4.3	4.0
13	4.1	4.1	(3.4) F	F 2.7 J	2.4	2.7	4.2	4.8	5.8	6.0	6.3	6.4	6.8	6.6	6.6	6.4	6.3	5.8	5.8	5.2	4.5	4.1 F	3.6 F	3.3 F
14	3.1 F	2.9 F	S 2.7 J	S 2.6 J	S 2.2 J	S 2.6 J	5.2	6.3	6.3	7.0	6.6	7.0	7.2	7.4	6.8	6.4	6.6	7.4	7.2	6.0	5.2	4.5	3.9	3.6
15	3.4	3.2	3.0	2.8 F	2.7	3.0	4.8	5.8	6.8	6.6	6.2	6.9	7.0	7.0	6.8	7.2	7.8	7.4	6.6	5.9	4.8	4.2	4.0	3.7
16	3.5	3.4	3.1	2.7	2.7	2.8	4.8	5.7	6.8 H	7.0	6.8	6.8	7.4	6.8	6.6	6.6	6.8	6.6	6.6	6.2	5.4	4.8	3.9	3.5
17	3.2	3.1	2.9	J (2.6) S	2.0 J	2.5	4.2 H	5.0	5.7	5.6	5.8	6.2	6.2	6.2	5.7	5.8	5.5	5.6	5.5	4.9	4.4	3.7	3.3	3.0
18	2.7	2.7	2.7	2.4	2.2	S (2.6) F	4.7	5.8	5.8	6.6	6.5	6.8	6.3	7.4	7.2	6.4	6.2	6.1	5.5	4.5	3.7	3.4	3.3	3.1
19	3.0	2.7	2.5	2.3	2.2	2.7	4.5	6.1	6.2	6.2	6.9	6.8	7.0	7.5	7.4	6.3	6.8	6.4	6.0	5.0	4.2	4.1	3.9	3.8
20	3.5	3.2	3.2	2.5	S (2.1) F	2.5	4.6	5.8	5.4	6.8	6.8	6.4	6.7	6.4	6.7	6.6	6.8	6.4	5.9	4.9	4.7	4.4	4.0	3.7
21	3.4	3.2	3.0	2.4	2.8 F	3.0	5.0	6.3	6.2	6.4	6.7	6.0	6.3	6.6	6.5	6.3	6.2	6.2	5.6	4.8	4.6	4.5	4.1	3.9
22	3.4	3.4	3.3	2.8	2.1 F	2.4	4.4	5.4	6.1	5.7	6.3	7.0	6.6	6.6	6.2	5.9	6.3	6.4	6.3	5.8	4.7	4.3	3.7	3.2
23	3.0	2.8	2.7 F	2.7	2.4	2.4	4.1 H	5.1 H	H (5.6) S	H (6.2) J	5.8 H	5.8	(6.2) H	6.7	6.6	7.5	7.6	7.2	(6.0) S	S (4.8) J	S (4.2) J	P (3.7) S	S (3.4) P	3.3
24	3.2	3.2	3.4	3.0	2.7 F	(2.6) F	4.6	5.3	6.3 H	6.1	6.5	6.4	6.4	6.3	6.4	6.8	7.0	6.8	6.4	4.8	4.4	S (3.8) F	3.5	3.6
25	3.5	3.3	3.4 F	3.2 F	3.1 F	3.1	4.4	5.4	5.6	5.8	6.2	6.2	6.3	6.6	6.6	6.3	7.0	7.6	6.8	(5.1) S	4.1	3.7	3.7	3.5
26	S (3.2) F	3.3 F	3.5 F	3.4 F	3.3	3.3 F	4.8	5.6	5.7	6.2	6.7	6.1	6.7	6.3	6.5	7.0	7.2	7.0	5.8	5.0	4.5	3.8	3.8	3.7
27	3.9	3.6	3.4	3.5	3.0	2.7	4.4	5.3	6.4	6.1	6.3 H	6.7	7.7 H	7.6	7.6	7.5	7.0	6.6	6.3	6.0	4.9	4.0	3.6	3.4
28	3.4	3.6	3.4	3.4	2.7	2.8	5.1	6.6	7.0	7.5	7.8	7.6	7.5	7.7	7.6	8.0	8.0	7.5	6.8	5.9	4.7	3.9	3.2	3.1
29	3.2	3.1	3.1 F	2.6 F	2.2 F	2.2 F	4.4	6.3	7.1	6.9	6.9	7.0	7.5	8.0	9.4	8.8	8.2	7.8	6.8	5.2	4.7	4.2	3.9	3.8
30	2.9	F (1.9) S	2.2 F	1.9 F	2.2 F	2.2	4.2 F	4.9	6.2	6.8	7.2	(7.9) S	8.6	8.6	8.2	8.2	7.6	7.5	(7.6) S	5.8	S (4.4) J	3.4	3.0	S (3.0) F
31																								
Median	3.5	3.3	3.2	2.8	2.4	2.8	4.6	5.4	6.2	6.3	6.5	6.6	6.7	6.8	6.6	6.6	6.7	6.6	6.3	5.8	4.8	4.4	4.0	3.8
Count	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

TABLE 76

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

Form adopted June 1946

IONOSPHERIC DATA

h' F1 (Characteristic), Km (Unit) September (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 J.W.P., L.F.M., N.B., J.J.S.

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							260	240	230	210	210 H	210 H	210	220	220	230	230	230	250							
2							Q	250	220	210 H	190 H	180 H	170 H	210 H	220	220	220	220	240							
3							A	220	220	200 F	190 H	180 H	200	210 H	210	210 H	230 H	230	Q							
4							Q	210 F	220 F	200 F	200 F	200 H	200	200	210	210	210	230	250							
5							Q	230	210 H	210	200	200	220	210	220	210	220 H	230	240							
6							Q	220	200	200	190	200	200	200	220	230	230	A	A							
7							Q	230	220	210 H	180 H	180 H	200	200	210 H	200	220	210	Q							
8							Q	210	210	210 H	200 H	180 H	220	210 H	210 H	210	210	220	Q							
9							Q	220	210	(210) A	200 H	190 H	190 H	210	200 H	190 H	220	220	Q							
10							Q	240	220	220 H	190 H	210	190	190 H	220 H	220	220	230	Q							
11							Q	220	200 H	220	180 H	180 H	230 H	210 H	220 H	210	200 H	230	Q							
12							Q	220	200	200 H	180 H	190 H	220	200	220 H	200 H	210	230	Q							
13							Q	230	210 H	200 H	200 H	220 H	190	200 H	210 H	220	220	230	Q							
14							Q	230	220	210	210	200	210	180 H	200 H	200	210	220	Q							
15							Q	220	220	200	210	190	210	210	220	210	220	230	Q							
16							Q	210	220	200	190 H	180 H	230 H	210 H	200	200	220	230	Q							
17							Q	220	200	200	220	180	240	180	200 H	200 H	220	230	Q							
18							Q	230	210	210	200 H	200 H	190 H	240	210	220	220	220	Q							
19							Q	230	210	210	190 H	180	220	200	200 H	220	220	230	Q							
20							Q	220	230	210 H	210 H	200	180 H	200	180 H	200 H	230	230	Q							
21							Q	230	220	200	200	140	180	180 H	220	210	220	240	Q							
22							Q	230	220	210	200	200 H	200	210	180	210	230	240	Q							
23							Q	230	210	190 H	200 H	190 H	180 H	190 H	230	220 H	220	230	Q							
24							Q	240	230	210 H	200 H	190 H	200 H	220 H	220	210	220	230	Q							
25							Q	210	200	210	180 H	190	180 H	220	200 H	220	210	230	Q							
26							Q	220	200 H	200 H	190 H	190 H	190	190 H	190 H	210	220	220	Q							
27							Q	230	210	210 H	190 H	200 H	200	200	210 H	230	230	230	Q							
28							Q	Q	210	200 H	200 H	190 H	180 H	180 H	210	220 H	240	230	Q							
29							Q	Q	210	200	180	220	180 H	190 H	220	230	230	240	Q							
30							Q	Q	230	220	210	200	180	190	230	220	220	A	Q							
31																										
Median							—	230	210	210	200	190	200	200	210	210	220	230	—							
Count							1	27	30	30	30	30	30	30	30	30	30	28	4							

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 831048

TABLE 77

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

Form adopted June 1946

IONOSPHERIC DATA

fo F1 (Characteristic), Mc (Unit) September (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: J.W.P., L.F.M., N.B., J.J.S.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23		
1							L	3.8	4.0	4.3	4.4 H	4.5 H	4.6	4.6	4.5	4.4	4.1	L	L							
2							Q	3.6	4.0 F	4.4 F H	4.4 H	4.6 H	4.7 H	4.6 H	4.6	4.5	(4.0) L	L	L							
3							A	L	4.0 F	4.4 F	4.5 H	4.6 F H	4.6	4.7 H	4.6 F	4.4 H	L H	L	Q							
4							Q	(3.7) F	4.0 F	4.2 F	4.5	4.5 F H	4.6	4.5	4.6	4.5	4.2	L	L							
5							Q	L	4.1 H	4.4	4.5 F	4.6	4.9	4.8	4.7	4.6	(4.2) L H	L	L							
6							Q	L	4.1	4.3 F	4.5	4.8	4.8	4.7	4.7	4.5	4.2	A	A							
7							Q	L	L	4.4 H	4.5 H	4.7 H	4.7	4.8	4.6	4.3	4.2	L	Q							
8							Q	L	L	4.6 H	4.6	4.7 H	4.8	4.8 H	4.7 H	4.6	4.3	L	Q							
9							Q	L	L	L	4.5 H	4.6 H	4.7 H	4.8	4.6 H	4.5 H	L	L	Q							
10							Q	L	(4.0) L	4.3 H	4.5 H	4.6	4.7	4.6 H	4.5 H	4.4	(3.0) L	L	Q							
11							Q	L	L H	L	4.6 H	4.6 H	4.9 H	4.7 H	4.5 H	4.5	L H	L	Q							
12							Q	L	L	L H	(4.5) L H	4.7 H	4.8	4.7	(4.6) H L	4.4 H	L	L	Q							
13							Q	L	4.0 H	4.3 H	4.4 H	4.6 H	4.6	4.6 H	4.5 H	4.3	(3.9) L	L	Q							
14							Q	L	L	(4.4) L	(4.5) L	4.6	4.7	4.5 H	4.6 H	4.1	L	L	Q							
15							Q	L	L	(4.3) L	L	4.7	4.6	4.6	4.5	(4.4) L	L	L	Q							
16							Q	L	L	4.2	4.3 H	4.4 H	(4.7) H L	(4.6) H	4.3	(4.3) L	L	L	Q							
17							Q	L	L	L	4.3	4.3	4.4	4.5	4.3 H	4.2 H	L	L	Q							
18							Q	L	L	4.3	4.3 H	4.4 H	4.4 H	4.5	4.4	L	L	L	Q							
19							Q	L	L	L	4.4 H	4.4	4.6	4.4	4.4 H	(4.2) L	L	L	Q							
20							Q	L	L	4.2 H	4.3 H	4.4	4.5 H	4.3	4.3 H	L H	L	L	Q							
21							Q	L	L	4.2	4.3	4.4	(4.4) L	4.4 H	(4.4) L	L	L	L	Q							
22							Q	L	L	(4.2) L	4.4	4.4 H	4.4	4.4	4.3	L	L	L	Q							
23							Q	L	3.8	L H	(4.2) H	(4.3) H	(4.4) H	(4.4) H	4.3	(4.2) L H	L	L	Q							
24							Q	L	L	L H	(4.3) H	4.4 H	4.5 H	4.5 H	4.4	4.1	L	L	Q							
25							Q	L	L	4.2	(4.3) H	4.5	4.5 H	4.5	4.3 H	L	3.7	L	Q							
26							Q	L	L	L H	(4.4) L	4.2 H	4.5	4.5 H	4.3 H	4.1	L	L	Q							
27							Q	L	L	L H	4.2 H	4.5 H	4.5	4.3	4.4 H	(4.2) L	L	L	Q							
28							Q	Q	L	4.0 H	4.5 H	(4.3) L H	4.4 H	L H	(4.4) L	L H	L	L	Q							
29							Q	Q	(3.5) L	3.9	4.1	(4.7) L	4.6 H	4.7 H	4.3	L	L	L	Q							
30							Q	Q	L	(4.4) L	4.4	4.5	(5.0) F	4.6	L	L	L	L	Q							
31																										
Median							—	—	4.0	4.3	4.4	4.5	4.6	4.6	4.5	4.4	4.2	—	—							
Count								3	10	21	29	30	30	29	29	22	10									

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

CPO 83:048

TABLE 78

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

Form adopted June 1946

IONOSPHERIC DATA

h' E (Characteristic), Km (Unit), September (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 J.W.P., L.F.M., N.B., J.J.S.

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	120	110	110	110 H	100 H	100 H	110 H	110 H	110 H	110	S					
2							S	120 H	110	110 H	110 H	[110] A H	110 H	110 H	(110) B	110 H	110 H	110 H	S					
3							A	110	110 H	110 H	110	110 H	110	(110) B	110 H	110	110 H	120 H	S					
4							S	110 H	110	110	110	110 H	110	110	100 H	100	110	110 H	120 H					
5							(120) S	110	110	110	100	100	(100) A	110	100	110	110	110	120					
6							(120) S	110 H	110	110	100	(110) B	(110) B	110	100	100	110	110	(120) S					
7							S	120	110	110	100	100	100	100	100	100	(100) A H	(100) A	A					
8							S	110	110	100	100	100	110	100	110	100 H	(120) A	100 H	S					
9							S	110	(110) A H	110	100	[100] A	100	100	(100) A H	100 H	110 H	110 H	S					
10							S	120 H	110	100 H	100 H	100 H	100	100	100	110 H	110 H	110 H	S					
11							S	120 H	110 H	(120) A	110	100	100	(120) A	100	100	110	110	S					
12							S	110	110	(120) A	100 H	100 H	100	100 H	100 H	110	110	110	S					
13							S	110	100	100	100	100	100	100	100	110	110	110	S					
14							S	110 H	100 H	100	100 H	100 H	100	100	100	100	100	110	S					
15							S	100	110	100 H	100	100	100	100	100	100	100 H	110	S					
16							S	110	110	110	100	100	100 H	100	100	100	110	110	S					
17							S	120	(100) A	110	100	100	100	100	100	100	110	110	S					
18							S	110	110	100	100	100	100	110	100	100	110	110	S					
19							S	110	110	100	100	110	110	100 H	110	110	110	120	S					
20							S	120	110 H	(110) A	(110) A	(100) A	(100) A	110	100 H	100 H	110	120	S					
21								120 H	110	110	100	100	100	100	100	110	110	110	S					
22								110	110	110	110	110	100	100	110	110	110	120	S					
23								(120) S	120 H	110 H	110	A	A	110 H	110	110 H	110	(110) S	S					
24								110 H	A	A	A	110 H	110 H	110 H	110 H	110	110	(120) S H	S					
25								S	110	110 H	100	100	100 H	100	100	110	110	120	S					
26								110 H	110 H	110	110	100	100 H	100	100	110 H	110 H	120 H	S					
27								120 H	110	110	100	100	100	100 H	100 H	100	110 H	120	S					
28								120	100	[110] A	110	100	100	100	110 H	110	110	120	S					
29								120	110	110	110 H	100 H	A	A	(100) A	(100) A	120	120 H	S					
30								120 H	100 H	110	100	100	100	100	110	110 H	110	(120) S	S					
31																								
Median							—	110	110	110	100	100	100	100	100	110	110	110	—					
Count							2	29	24	29	24	24	28	29	30	30	30	30	3					

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

PC-810048

TABLE 79

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

Form adopted June 1946

IONOSPHERIC DATA

fo E (Characteristic), Mc (Unit), September (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: J.W.P., L.F.M., N.B., J.J.S.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							< 1.7 S	A	A	A	A	3.4 H	3.5 H	3.4 H	3.3 H	3.2 H	2.9 H	2.5	< 1.6 S					
2							(1.7) S	2.3 H	(2.7) A	(3.0) H	3.2 H	(3.3) H	3.5 H	3.4 H	3.2	3.1 H	2.9 H	2.5 H	(2.0) S					
3							A	(2.5) A	(2.9) H	(3.0) H	[3.2] A	(3.4) H	3.5	3.5	3.4 H	3.2	(2.9) H	2.5 H	(1.7) A					
4							< 1.6 S	(2.3) H	[2.7] A	3.1 F	[3.2] A	3.4 H	A	A	3.3 H	3.1	2.8	2.5 H	1.8 H					
5							1.7	A	A	A	A	A	A	A	3.3 F	3.1	2.8	2.4	1.7					
6							1.7	2.3 H	2.6	A	A	A	A	A	3.4	3.2	2.9	2.5	A					
7							< 1.6 S	2.2	2.7	[2.9] A	3.1	A	A	3.3	3.2	3.1	2.9 H	(2.4) A	A					
8							< 1.7 S	2.1	[2.6] A	3.1	[3.2] A	3.4	A	A	A	3.1 H	2.9	2.4 H	< 1.6 S					
9							< 1.8 S	A	2.8 H	A	A	A	(3.4) A	3.5	3.4 H	3.2 H	2.8 H	(2.5) H	< 1.9 S					
10							< 1.6 S	2.4 H	[2.8] A	3.1 H	3.3 H	3.4 H	3.5	3.4	3.2	3.0 H	(2.5) A H	A H	< 1.8 S					
11							< 1.6 S	(2.6) F H	2.8 H	3.1	[3.2] A	3.4	3.5	3.4	3.3	3.1	2.8	(2.2) A	< 1.7 S					
12							< 1.7 S	2.3	2.7	3.0	3.2 H	3.3 H	(3.3) P	3.3 H	3.2 H	3.0	2.8	2.3	< 1.6 S					
13							< 1.7 S	A	2.7	2.9	3.1	3.2	3.3	3.3	3.2	3.0	2.7	2.3	< 1.6 S					
14							< 1.8 S	2.4 H	2.7 H	3.0	3.2 H	3.3 H	3.4	3.4	3.2	3.0	2.7	2.3	< 1.7 S					
15							< 1.8 S	A	A	A H	3.1	3.3	(3.3) A	3.3	(3.2) A	3.0	2.6 H	2.2	< 1.7 S					
16							< 1.7 S	A	2.6	3.0	[3.2] A	3.3	3.3 H	3.3	3.2	3.0	2.6	A	< 1.6 S					
17							< 1.6 S	2.2	(2.6) A	2.9	A	A	(3.2) P	(3.2) P	3.1	2.9	2.5	2.2	< 1.6 S					
18							< 1.9 S	A	(2.6) A	2.8	3.1	3.2	3.3	3.2	3.1	[3.0] A	(2.6) P	A	< 1.6 S					
19							< 1.6 S	A	A	(2.9) A	3.1	3.2	(3.2) A	(3.2) A H	3.2	2.9	2.6	2.1	< 1.6 S					
20							< 1.6 S	2.2	2.7 H	A	A	A	A	2.9	3.1 H	2.9 H	2.7	2.2	< 1.6 S					
21							< 1.6 S	2.2 H	2.6	(2.9) A	[3.1] A	(3.3) P	3.3	3.2	3.1	A	A	A	< 1.6 S					
22							< 1.6 S	A	2.6	A	A	3.2	3.2	3.2	3.1	2.9	2.4	A	< 1.6 S					
23							< 1.6 S	2.0	2.6 H	(2.8) A H	(3.0) A	A	A	3.1 H	3.0	2.8 H	2.6	(2.0) A	< 1.6 S					
24							< 1.6 S	(2.2) H	A	A	A	3.1 H	3.1 H	3.2 H	3.1 H	2.9	2.6	2.1 H	< 1.6 S					
25							< 1.6 S	5	A	2.9 H	3.1	A	3.1 H	3.2	3.1	2.9	2.6	A	< 1.6 S					
26							< 1.6 S	2.1 H	2.6 F H	2.9	A	A	3.3 H	3.2	3.1	2.8 H	2.6 H	2.0 H	< 1.6 S					
27							< 1.7 S	2.1 H	A	A	3.1 A	[3.1] A	3.1	3.1 H	3.1 H	2.8 F	2.5 H	2.1	< 1.6 S					
28							< 1.6 S	A	2.4	[2.7] A	3.0	A	A	A	3.1 H	2.9	2.5	(1.9) S	< 1.5 S					
29							< 1.6 S	2.1	A	A	(3.1) P H	(3.1) P H	A	A	(3.1) A	3.0 A	2.6	2.1 H	< 1.6 S					
30							< 1.6 S	2.1 H	2.5 H	2.9	(3.2) R	[3.2] A	3.3	(3.2) P	3.1	(2.9) H	2.6	2.0	< 1.6 S					
31																								
Median							< 1.6	2.2	2.6	2.9	3.1	3.3	3.3	3.2	3.2	3.0	2.6	2.2	< 1.6					
Count							29	19	22	20	21	20	21	24	29	29	29	24	28					

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

TABLE 80

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

Form adopted June 1946

IONOSPHERIC DATA

E s (Characteristic) . Mc (Unit) September (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 J.W.P, L.F.M, N.B., J.J.S.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	<1.6 S	<1.6 S	<1.7 S	<1.6 S	<1.3 S	<1.6 S	3.7 110	3.2 120	3.0 120	4.0Y 120	3.4 110	G	G	G	G	G	G	3.7 130	2.9Y 120	3.1Y 110H	2.8 120	4.0 110	<1.6 S	<1.6 S
2	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	3.1Y 130	3.3 130	3.8Y (130)S	5.0 110	G	3.0 110	G	G	G	G	G	G	G	<1.6 S	2.3 100	2.7Y 100H	4.2 120	3.6 110
3	2.1 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.2 130	3.3 120	5.0 110	G	G	3.7 H 110	G	G	G	G	G	G	G	3.1 120	<1.6 S	2.3 120	<1.6 S	<1.6 S	<1.6 S
4	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.2Y 130	2.2Y 130	3.0Y 120	3.2Y 120	2.8 120	6.5 130	4.8 H 110	G	3.4 110	4.9 110	G	G	3.2 100	4.8 100	2.8 120	3.3 110	3.2 110	<1.6 S	<1.6 S	<1.6 S
5	<1.6 S	<1.6 S	<1.3 S	<1.2 S	<1.2 S	<1.6 S	G	3.3 110	4.8 H 110	3.8 110	3.4 100	3.6 100	3.5 H 100	3.5 110	3.5 130	G	G	G	2.9 120	2.4 120	2.2 110	4.0F 110	2.1 120	<1.6 S
6	<1.6 S	<1.6 S	<1.3 S	1.9 100	<1.6 S	<1.6 S	G	4.4 110	3.7 110	5.0 110	3.2 H 110	4.2 100	4.3 100	4.2 110	4.5 130	4.9 120	G	12.6 110	4.8 110	4.7 110	3.1 110	<1.7 S	2.8 100	<1.6 S
7	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	1.9 120	2.4 120	3.8 120	3.2 120	4.5 110	3.5 110	4.0 100	G	G	G	3.3 100	4.6 100	3.3 100	3.0 100	3.0 100	2.3 100	2.0 100	<1.6 S
8	<1.6 S	<1.6 S	<1.4 S	<1.3 S	3.0 140	<1.6 S	G	5.0 100	3.6 110	3.2 110	3.5 110	G	3.5 110	3.3 110	3.3 110	G	2.5 100	G	G	<1.6 S	<1.6 S	<1.6 S	2.3 110	2.2 110
9	2.8 100	3.0 100	3.7 100	3.2F 100	2.4 110	2.7 120	G	3.2 110	3.4Y 110	4.3 100	4.3 100	4.6 100	4.0Y 110	G	3.5Y 100	4.0 130	8.0Y 100	G	<1.9 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
10	<1.6 S	<1.6 S	<1.5 S	<1.7 S	<1.6 S	<1.7 S	G	G	3.8 110	G	G	G	G	G	G	G	3.1 120	3.3Y 120	<1.8 S	<1.7 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
11	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.3 S	<1.6 S	G	G	G	3.6 100	4.7 H 100	G	G	3.5 100	G	G	(4.9)S 120	3.3 110	G	2.3 100	2.4 100	<1.6 S	<1.6 S	<1.6 S
12	<1.6 S	<1.6 S	<1.3 S	<1.2 S	<1.3 S	<1.6 S	4.4 100	3.1 120	3.3Y 100	2.0 100	G	G	G	G	G	(3.7)S 120	G	G	1.8 130	2.1 120	<1.6 S	<1.6 S	<1.6 S	<1.6 S
13	<1.6 S	<1.6 S	<1.3 S	<1.6 S	<1.6 S	<1.6 S	G	3.2 H 130	G	G	G	G	G	G	G	G	G	G	1.8 130	<1.6 S	<1.6 S	<1.6 S	2.4 110	2.1 110
14	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.7 S	G	G	G	G	7.0Y 120	G	G	G	G	G	3.7 120	3.1 120	G	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
15	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	G	4.2 100	3.4 110	3.2 110	G	G	3.4 100	G	4.0 110	3.1 130	3.3 120	2.4 130	G	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
16	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.1 120	G	2.9 120	G	G	4.3 110	G	G	G	G	G	3.7 120	3.2 120	G	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
17	2.3 100	2.3 100	2.2 100	<1.6 S	<1.6 S	<1.7 S	G	G	3.1 H 110	3.4 110	3.8 100	4.0 100	G	G	G	G	G	G	G	<1.6 S	<1.6 S	<1.6 S	<1.7 S	<1.6 S
18	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	1.7 120	3.0 H 100	(3.2)S 110	3.1 110	G	G	G	G	G	(3.7)S 110	G	2.3 120	G	2.4 110	<1.6 S	<1.6 S	<1.6 S	<1.6 S
19	<1.2 S	<1.6 S	<1.2 S	3.8 100	<1.3 S	<1.6 S	G	2.9Y 110	3.5 110	3.1 110	G	G	6.4Y 120	3.3 110	G	G	2.9 130	3.2 120	G	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
20	2.4 100	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	G	G	G	3.8 110	3.2 110	3.6 100H	3.2 100H	3.5 100	G	G	G	G	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.7 S
21	<1.6 S	<1.6 S	<1.6 S	<1.3 S	<1.6 S	<1.6 S	<1.6 S	3.1 140	3.8 120	4.7 110	4.7 110	G	G	G	3.8 120	3.6Y 120	3.6 110	2.4 120	2.2 120	2.1 110	<1.6 S	<1.6 S	<1.6 S	<1.6 S
22	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	3.5 110	3.2 120	3.6 110	3.9 110	G	G	G	G	G	G	3.1 130	G	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
23	<1.7 S	<1.6 S	<1.6 S	<1.6 S	2.9 110	<1.6 S	<1.6 S	2.9 130	2.8 130	3.2 130	3.2 120	3.1 110	3.2 110	4.1Y 120	4.2Y 120	G	2.7 140	3.1 120	G	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
24	<1.6 S	2.1 H 110	2.1 130	2.4 120	3.1 120	2.3 110	<1.6 S	G	3.4Y 110	2.9 110	3.5Y 110	G	4.4Y 100	4.6Y 110	G	G	G	3.2 120	G	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
25	<1.6 S	<1.7 S	<1.6 S	<1.6 S	<1.3 S	3.1Y 120	<1.6 S	2.0 120	2.5 110	G	G	4.1 110	4.1 110	3.4 120	G	3.1 130	9.0Y 100H	3.1 120	G	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
26	<1.6 S	<1.6 S	<1.4 S	2.3 120	<1.3 S	<1.6 S	2.3 110	G	G	G	4.2 110	3.2 120	G	G	G	G	5.5 120	3.1 130	G	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
27	<1.6 S	<1.6 S	<1.6 S	<1.6 S	2.1 120	<1.5 S	<1.7 S	G	5.3 H 100	4.2 110	3.9 120	4.2 110	G	G	G	4.5 110	G	3.1 130	G	<1.6 S	<1.6 S	2.3 110	<1.7 S	<1.6 S
28	2.0 110	<1.6 S	<1.4 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S	3.5 H 100	3.6 110	4.4 110	G	3.5 110	3.0 120	3.1 100	G	G	G	3.0 120	G	<1.6 S	<1.6 S	<1.6 S	<1.6 S	<1.6 S
29	2.2 110	2.8 100	2.7 100	2.3 110	2.1 110	2.2 110	<1.6 S	G	5.0 H 100	3.7 H 110	3.0 110	G	4.3 100	4.2 100	3.3 H 100	3.8 H 100	3.2 H 100	5.0 H 100	2.3 100	<1.6 S	<1.6 S	<1.7 S	<1.6 S	<1.6 S
30	2.7 100	2.6 110	<1.6 S	<1.5 S	<1.6 S	<1.6 S	<1.6 S	3.0 140	3.3 130	G	G	3.3 110	G	G	G	G	(1.0)S 110	3.1 130	G	<1.6 S	<1.6 S	2.4 110	2.5 110	2.1 110
31																								
Median	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	3.0	3.3	3.2	3.4	**	**	**	**	**	2.6	3.1	**	<1.6	<1.6	<1.6	<1.6	<1.6
Count	29	29	29	29	30	27	29	30	30	30	30	30	30	30	30	30	30	30	27	29	30	28	28	29

** 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 ☒

GPO 836048

TABLE 81

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

Form adopted June 1946

IONOSPHERIC DATA

(M 1500)F2 (Characteristic) — (Unit) — September (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: J.W.P., L.F.M., N.B., J.J.S.

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.1	2.1	2.2 F	2.0 F	2.0 F	2.0 F	2.2	2.0	2.0	2.1	2.1	2.0 H	2.0	2.0	2.0	2.1	2.1	2.1	2.3	2.0	2.0	(2.1) S	2.0	2.2
2	1.9	1.9	1.9	2.0	(2.2) S	P S	2.3	2.2	(1.7) S	(1.9) F S	2.0	2.1	1.9 H	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.0	(2.0) S	2.0 F
3	2.0	2.1	1.9	1.9	2.0	2.0	2.3	(2.2) S	2.0 F	2.0 F	(2.1) F	2.0 F	2.0	2.1	2.1	2.1	2.1	2.2	2.3	2.1	(2.0) P S	(2.0) P S	(2.0) P S	J S
4	(2.0) P S	1.9	2.1	2.2	1.9	J S	2.3	(2.0) P F	(2.0) F	1.7 F	1.8 F	2.1 F	1.8	2.0 F	1.9	1.9	1.9	1.9	2.3	1.9	1.9 J S	J S	J S	S
5	2.2 F	1.9	1.8	1.9	2.0 F	2.0 F	2.2	2.3	2.2	2.2 F	2.0	2.1	2.1	2.0	2.0	2.0 F	2.2	2.2	2.2	2.1	2.0	2.0	1.9 F	1.9
6	2.0 F	2.0 F	2.0 F	2.1 F	2.1 F	2.2 F	2.2 F	2.5	2.2	2.3	2.2 F	2.0	2.0	2.2	2.2	2.0	2.1	A	2.1	2.1	2.0	(1.9) P S	1.9	1.9 F
7	1.9 F	2.1 F	2.1 F	2.2 F	2.0 F	2.0 F	2.3	2.3	2.3	2.2	2.3	2.1	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1 F	J S	(2.1) F S	2.1 F
8	1.9 F	2.0 F	2.1 F	2.1 F	2.2 F	2.2 F	2.4 F	2.3	2.2	2.2	2.3	2.1	2.0	2.0	2.2	2.1	2.1	2.2	2.1	2.0	2.1	2.0	2.1 F	J S
9	1.9 F	2.0	1.9	2.0	2.2	1.9	2.2	2.3	2.3	2.3	2.1	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	(2.2) S	2.1	2.0
10	2.0	1.9	2.0	2.0	1.9	2.0	2.2	2.2	2.2	2.2	2.2	2.2	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	(2.2) S	2.1	2.0	1.9
11	1.9	1.9	1.9	1.9	1.9	2.1	2.3	2.6	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.3	2.0	2.0	2.1	2.0	1.9
12	1.9	2.0	2.0	1.8	1.9 H	2.0	2.2	2.4	2.3	2.1	2.1	2.1	2.0	2.2	2.1	2.1	2.2	2.1	2.1	2.0	S	2.1	2.0	1.8
13	1.8	1.9	2.0	(2.0) F	F S	1.9 F	2.1 F	2.1	2.2	2.1	2.1	1.9	2.2	2.1	2.2	2.1	2.2	2.3	2.2	2.2	2.1	2.0	2.0 F	2.0 F
14	2.0 F	2.0 F	2.0 F	2.1	(2.0) P S	2.0	2.2	2.3	2.4	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.1	2.2	2.3	2.2	2.3	2.2	2.0	2.1
15	2.1	2.0	2.1	2.0	2.1	2.1 F	2.3	2.4	2.5	2.4	2.2	2.1	2.2	2.2	2.2	2.1	2.1	2.4	2.3	2.3	2.2	2.0	1.9	2.0
16	2.0	2.0	2.0	2.2	2.2	2.3	2.3	2.4	2.1 H	2.2	2.1	2.2	2.0	2.2	2.1 H	2.2	2.2	2.2	2.3	2.2	2.1	2.1	2.1	2.2
17	1.9	1.9	1.9	2.0 F	2.2	J S	2.4	2.4	2.4	2.1 H	2.1	2.2	2.1	2.1	2.4	2.1	2.2	2.3	2.2	2.2	2.1	2.1	2.0	2.0
18	1.9	1.9	2.0	2.0	2.1	(2.1) F S	2.2	2.1	2.4	2.1	2.3	2.2	2.2	2.1	2.2	2.2	2.3	2.4	2.4	2.2	2.1	2.0	1.9	2.0
19	2.0	2.1	2.1	2.2	2.1	2.1	2.4	2.3	2.5	2.2 H	2.3	2.3	2.1	2.2	2.2	2.3	2.3	2.4	2.2	2.2	2.2	2.0	2.0	2.1
20	2.0	2.0	2.0	2.2	2.0	2.0	2.4	2.5 H	2.3	2.3	2.4	2.3	2.2	2.3	2.2	2.2	2.2	2.3	2.3	2.3	2.1	2.1	2.0	2.1
21	2.1 F	2.1	2.0	2.0	2.2	2.0 F	2.3	2.4	2.5	2.5	2.4 H	2.4	2.1	2.2	2.2	2.2	2.2	2.3	(2.3) P S	2.2	2.1	2.0	2.0	1.9
22	2.0	2.1	2.1	(2.1) F S	2.3	2.0	2.3	2.3	2.4	2.3	2.0	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.3	2.2	2.2	2.1	2.0	2.1
23	2.0	1.9	2.0	1.9	2.1	2.0	2.3	(2.3) F S	2.2 H	(2.4) H	J H	(2.1) H	2.2	2.2	2.1	2.0	2.2	2.3	2.3	2.2	(2.1) S	F S	J S	2.0
24	2.0	2.1	2.2	(2.3) F S	2.3 F	2.4 F	2.4	2.5	2.2	2.2 H	2.3	2.2	2.3	2.2	2.2	2.2	2.2	2.3	2.3	2.4	2.0	2.1	2.0 F	2.0
25	2.0	(2.0) S	2.2 F	2.2 F	2.1 F	2.1 F	2.2	2.4	2.4	2.4	2.3	2.4	2.3	2.2	2.3	2.3	2.3	2.3	2.4	(2.4) S	2.1	2.1	2.1	2.0
26	2.0 F	2.0 F	2.1 F	2.1 F	2.2 F	2.3	2.3	2.5	2.4	2.4	2.2 H	2.4	2.2	2.3	2.2	2.2	2.2	2.3	2.4	2.3	2.2	2.1	2.0	1.9
27	1.9	2.0	2.0	2.0	2.2	2.0	2.2	2.4	2.3	2.3	2.1	2.0 H	2.1	2.2	2.1	2.1	2.2	2.3	2.2	2.1	2.2	2.0	1.9	2.0
28	1.9	1.9	1.9	1.9	2.1	2.0	2.2	2.4	2.2	2.4	2.2	2.3	2.2	2.2	2.2	2.1	2.2	2.2	2.3	2.2	2.2	2.0	2.0	1.9
29	1.9	1.9	2.0	2.2 F	2.1 F	2.1 F	2.2 F	2.3	2.4	2.4	2.3	2.0 H	2.1	2.1	1.9	2.1	2.1	2.2	2.3	2.2	2.0	1.9	1.9	2.1
30	2.2	2.0 F	F S	(2.0) F	1.9 F	J F	2.3 F	2.4	2.2	2.2	2.1	2.1	2.0	2.2	2.2	(2.1) S	(2.2) P S	(2.2) S	2.1	2.2	J S	(2.0) F S	(2.0) F S	(1.9) F S
31																								
Medion	2.0	2.0	2.0	2.0	2.1	2.0	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.2	2.2	2.1	2.2	2.2	2.3	2.2	2.1	2.0	2.0	2.0
Count	30	30	29	30	29	26	30	30	30	30	29	30	30	30	30	30	30	29	30	30	28	27	28	27

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 834048

TABLE 82

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

Form adopted June 1946

IONOSPHERIC DATA

(M3000)F2 (Characteristic), _____ (Unit), September (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: J.W.P., L.F.M., N.B., J.J.S.

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	31	31	32 F	30 F	30 F	30 F	32	30	3.0	3.1	31	30 H	30	30	30	31	31	31	33	30	30	(31) S	30	32
2	29	29	29	30	(32) S	P S	34	3.2	(2.6) S	(2.8) F S	3.0	3.1	28 H	31	31	31	31	31	32	31	31	30	(30) S	30 F
3	30	31	28	28	30	30	33	(3.2) S	3.0 F	3.0 F	(3.1) F	30 F	30	31	31	31	31	32	33	31	(30) P S	(30) P S	(30) P S	J S
4	(30) P S	29	32	32	29	J S	34	(3.0) P F	(3.0) F	2.6 F	2.7 F	3.1 F	27	30 F	29	29	29	29	33	29	29 J S	J S	J S	F S
5	32 F	28	27	29	30 F	30 F	32	3.4	32	3.2 F	30	31	31	30	30	30 F	32	32	32	31	30	30	29 F	29
6	30 F	30 F	30 F	31 F	31 F	32 F	32 F	36	3.2	3.4	33 F	30	30	32	32	30	31	H	31	31	30	(29) P S	29	28 F
7	29 F	31 F	31 F	32 F	30 F	30 F	34	3.3	34	3.2	34	31	31	31	31	32	32	33	32	33	31 F	J S	(31) F S	31 F
8	29 F	30 F	31 F	31 F	33 F	33 F	34 F	3.3	3.3	3.3	33	31	30	30	32	32	32	32	31	30	31	30	3.1 F	J S
9	29 F	30	29	30	32	2.9	32	33	3.3	3.4	3.1	3.0	30	31	32	31	31	31	31	31	31	(32) S	31	30
10	30	28	30	29	29	30	32	32	3.2	32	33	33	30	30	31	31	31	31	32	32	(32) S	31	30	29
11	29	29	28	29	29	31	33	3.7	3.3	3.4	34	3.3	31	31	32	31	32	32	34	30	30	31	30	29
12	29	30	30	28	29 H	30	33	35	3.4	32	32	31	30	32	31	32	33	32	31	30	S	31	30	28
13	27	29	31	(30) F	F S	29 F	31 F	31	3.3	32	31	29	33	32	32	32	33	34	33	33	31	30	30 F	30 F
14	30 F	30 F	30 F	31	(30) P S	30	32	3.4	35	33	3.3	32	32	33	33	31	32	32	34	33	34	33	30	31
15	31	30	31	30	31	31 F	34	35	36	3.4	32	31	32	33	32	32	31	35	34	33	32	30	29	30
16	30	30	30	32	32	34	34	35	31 H	32	31	32	30	32	32 H	33	32	32	34	33	32	32	31	32
17	29	29	29	30 F	32	J S	35	3.4	3.4	31 H	3.1	32	31	32	34	32	33	33	33	32	32	31	30	30
18	29	29	30	30	31	(31) F S	33	32	35	32	34	32	33	31	32	33	34	35	35	33	32	30	29	30
19	30	31	31	32	31	31	35	34	36	33 H	34	34	32	33	33	34	33	35	33	32	32	30	30	31
20	30	30	30	33	30	30	34	35 H	33	33	35	34	33	33	33	32	32	34	34	34	31	31	30	31
21	31 F	31	30	30	32	30 F	34	35	36	36	34 H	35	32	32	32	33	33	34	(34) P S	33	31	30	30	29
22	30	31	31	(31) F S	34	30	34	34	35	34	30	32	33	33	34	32	33	33	34	33	33	31	30	31
23	30	29	30	29	31	30	34	(34) F S	32 H	(35) H	J H	(31) H	33	32	31	30	33	33	34	33	(31) S	F S	J S	30
24	30	32	32	(33) F S	33 F	35 F	35	36	33	32 H	34	33	33	32	32	32	32	34	34	34	30	31	30 F	30
25	30	(30) S	32 F	32 F	31 F	31 F	33	35	35	35	34	35	34	32	33	33	33	34	35	(35) S	32	31	31	30
26	30 F	30 F	31 F	31 F	33 F	34	34	36	34	34	32 H	35	33	33	32	32	33	33	34	33	32	31	30	29
27	29	30	30	30	33	30	32	34	34	33	31	30 H	31	32	31	31	32	33	32	31	32	30	29	30
28	28	28	28	29	31	30	32	35	32	35	33	34	32	32	32	31	32	32	33	33	32	30	30	29
29	28	29	30	32 F	31 F	31 F	33 F	33	35	35	33	29 H	31	31	29	31	31	33	33	33	30	29	28	31
30	32	30 F	F S	(30) F	29 F	J F	34 F	35	32	33	31	31	30	32	32	(31) S	(33) P S	(33) S	32	33	J S	(30) F S	(30) P S	(28) F S
31																								
Median	30	30	30	30	31	30	335	34	3.3	3.3	32	31	31	32	32	3.15	32	33	33	33	31	30	30	30
Count	30	30	29	30	29	26	30	30	30	30	29	30	30	30	30	30	30	29	30	30	28	27	28	27

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

CPO 836048

TABLE 83

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

Form adopted June 1946

IONOSPHERIC DATA

(M3000) F1 (Characteristic), _____ (Unit), September (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: J.W.P., L.F.M., N.B., J.J.S.

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

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

TABLE 84

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

Form adopted June 1946

IONOSPHERIC DATA

(M1500)E , ____ September , 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 J.W.P., L.F.M., N.B., J.J.S.

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	A	A	A	A	4.1 H	4.2 H	4.2 H	4.2 H	4.2 H	4.2 H	4.3	s							
2							s	4.4 H	(4.3) A	(4.3) H	4.4 H	(4.3) H	4.2 H	4.1 H	4.4	4.2 H	4.1 H	4.2 H	(4.1) s							
3							A	(4.0) A	(4.3) H	(4.3) H	A	(4.4) H	4.3	4.3	4.4 H	4.4	(4.4) H	4.2 H	(4.3) A							
4							s	(4.2) H	A	4.4 F	A	4.4 H	A	A	4.4 H	4.4	4.4	4.3 H	4.4 H							
5							4.5	A	A	A	A	A	A	A	4.5 F	4.5	4.4	4.4	4.5							
6							4.4	4.3 H	4.4	A	A	A	A	A	4.2	4.3	4.3	4.4	A							
7							s	4.4	4.4	A	4.5	A	A	4.5	4.4	4.4	4.4 H	(4.3) A	A							
8							s	4.5	A	4.4	A	4.4	A	A	A	4.4 H	4.4	4.4 H	s							
9							s	A	4.2 H	A	A	A	(4.1) A	4.1	4.3 H	4.3 H	4.2 H	(4.2) H	s							
10							s	4.2 H	A	4.5 H	4.5 H	4.2 H	4.2	4.2	4.4	4.3 H	(4.4) A H	A H	s							
11							s	(4.3) F H	4.2 H	4.3	A	4.3	4.3	4.3	4.2	4.4	4.3	(4.5) A	s							
12							s	4.4	4.2	4.3	4.3 H	4.4 H	(4.3) P	4.2 H	4.3 H	4.4	4.4	4.4	s							
13							s	A	4.4	4.4	4.4	4.4	4.4	4.3	4.3	4.3	4.4	4.4	s							
14							s	4.4 H	4.4 H	4.4	4.4 H	4.4 H	4.4	4.4	4.4	4.4	4.4	4.4	s							
15							s	A	A	A H	4.4	4.4	(4.4) A	4.4	(4.4) A	4.4	4.4 H	4.1	s							
16							s	A	4.4	4.4	A	4.3	4.4 H	4.3	4.3	4.4	4.4	A	s							
17							s	4.4	(4.2) A	4.3	A	A	(4.4) P	(4.4) P	4.3	4.4	4.4	4.1	s							
18							s	A	(4.4) A	4.4	4.4	4.4	4.4	4.4	4.3	A	(4.3) P	A	s							
19							s	A	A	(4.4) A	4.4	4.4	(4.4) A	(4.4) A H	4.3	4.4	4.4	4.4	s							
20							s	4.3	4.3 H	A	A	A	A	4.5	4.3 H	4.3 H	4.3	4.3	s							
21								4.3 H	4.4	(4.4) A	A	(4.4) P	4.3	4.3	4.3	A	A	A	s							
22								A	4.4	A	A	4.4	4.4	4.3	4.4	4.4	4.4	A	s							
23								4.4	4.3 H	A H	A	A	A	4.4 H	4.4	4.4 H	4.3	(4.4) A	s							
24								(4.3) H	A	A	A	4.4 H	4.4 H	4.1 H	4.2 H	4.3	4.3	4.2 H	s							
25								s	A	4.4 H	4.4	A	4.4 H	4.3	4.3	4.3	4.3	A	s							
26								4.4 H	4.4 F H	4.4	A	A	4.2 H	4.3	4.3	4.4 H	4.2 H	4.3 H	s							
27								4.3 H	A	A	(4.5) A	A	4.4	4.3 H	4.2 H	4.4 F	4.2 H	4.2	s							
28								A	4.5	A	4.5	A	A	A	4.4 H	4.3	4.4	(4.5) s	s							
29								4.3	A	A	(4.3) P H	(4.4) P H	A	A	(4.4) A	(4.4) A	4.4	4.2 H	s							
30								4.4 H	4.3 H	4.4	(4.4) R	A	4.4	(4.4) P	4.3	4.3 H	4.3	4.2 H	s							
31																										
Median							—	4.3	4.4	4.4	4.4	4.4	4.4	4.3	4.3	4.4	4.4	4.3	—							
Count							2	19	19	17	14	18	21	24	29	28	29	24	4							

Sweep 1.0 Mc to 25.0 Mc in 13.5 sec.

Manual ☐ Automatic ☒

GPO 836041

Table 85

Ionospheric Storminess at Washington, D. C.

September 1955

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

Table 86a

Radio Propagation Quality Figures

(Including Comparisons with Short-Term and Advance Forecasts)

North Atlantic Path - August 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)	Day (2)
1	7	6	7	7	7	6	7	7	7	7	7		1	1
2	7	6	7	7	7	7	7	7	7	7	7		1	1
3	7	6	7	7	7	7	7	7	7	7	7		3	2
4	7	6	7	7	7	7	7	6	7	7	7		(4)	3
5	7	5	7	7	6	5	7	6	6	7	7		3	3
6	7	(4)	6	6	6	5	6	6	6	7	7		(5)	3
7	5	(3)	6	6	5	(4)	6	6	5	7	7		(4)	3
8	6	5	7	7	5	5	7	7	6	7	7		2	2
9	6	6	7	7	7	6	6	7	7	7	7		2	2
10	7	6	7	7	7	6	7	7	7	6	7		2	1
11	6	6	7	7	7	6	7	7	7	6	7		1	2
12	7	6	7	7	7	6	7	7	7	7	7		2	1
13	7	7	7	7	7	7	7	7	7	7	7		2	2
14	7	6	7	7	7	7	7	7	7	7	7		3	3
15	7	6	7	7	7	6	7	7	7	7	7		3	1
16	7	6	7	7	7	6	7	7	7	7	7		2	2
17	7	6	7	7	7	6	7	7	7	7	7		1	2
18	7	6	7	7	7	7	7	7	6	7	7		3	2
19	6	5	7	7	7	6	7	7	6	7	7		2	1
20	6	6	7	7	7	6	7	7	6	7	7		1	1
21	6	5	7	7	6	6	7	7	7	7	7		2	2
22	6	6	7	7	7	6	7	7	6	7	7		0	1
23	6	6	7	7	6	6	7	7	7	7	7		1	1
24	7	6	7	7	6	6	7	7	7	7	7		2	2
25	6	6	7	7	6	6	7	7	7	7	7		2	2
26	6	5	7	7	7	6	7	7	7	7	7		2	2
27	6	5	7	7	7	6	7	7	7	7	7		1	2
28	6	5	7	7	7	6	7	6	6	7	7		(4)	2
29	6	5	7	7	6	5	7	7	7	7	7		2	3
30	6	5	7	7	6	5	7	7	7	7	7		1	2
31	6	6	7	7	7	6	7	7	7	6	6		2	2

Score:

Quiet Periods	P	18	19	30	28		19	21	
	S	13	10	1	3		11	9	
	U	0	0	0	0		1	1	
	F	0	0	0	0		0	0	
Disturbed Periods	P	0	0	0	0		0	0	
	S	0	2	0	0		0	0	
	U	0	0	0	0		0	0	
	F	0	0	0	0		0	0	

Scales:

Q-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; $K_{Ch} \geq 4$ 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 ≥ 5, or both ≤ 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)

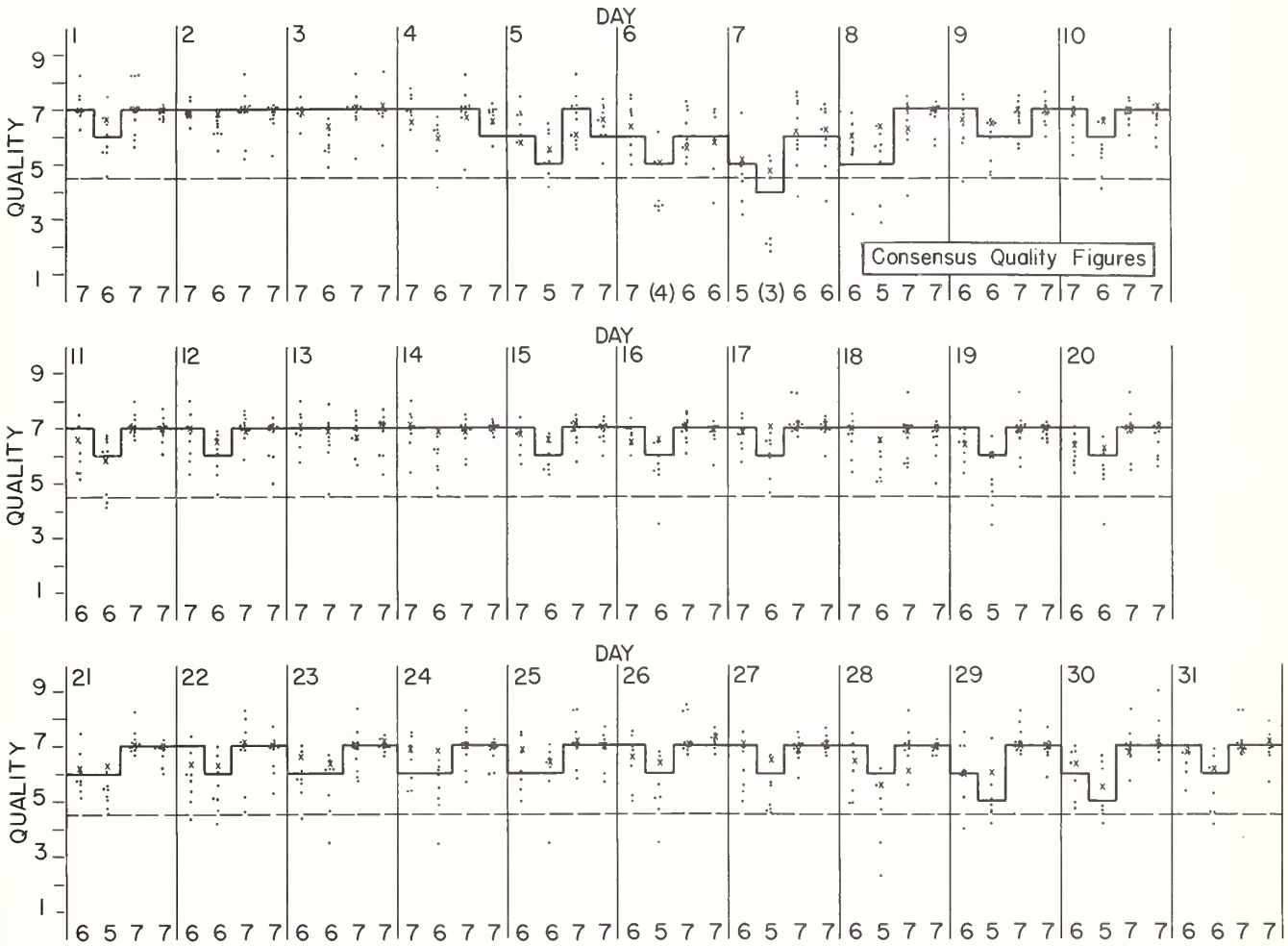
Table 86 b

Short-Term Forecosts — AUGUST 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) – AUGUST 1955

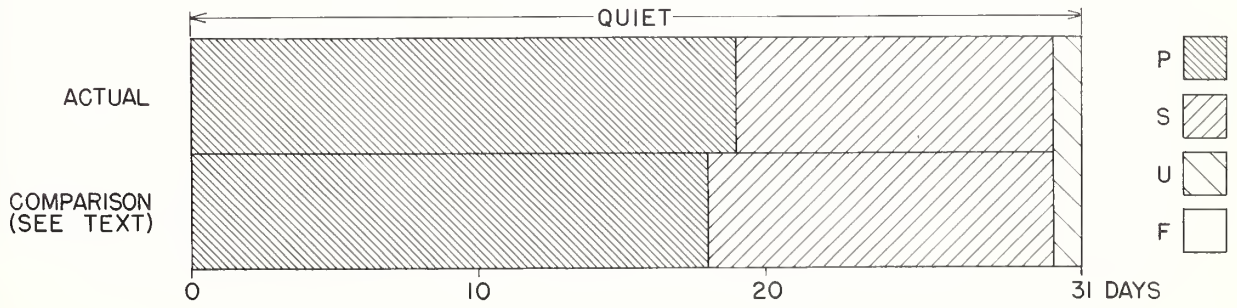


Table 87a

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 UT	Degrees north of the solar equator																		0°	Degrees south of the solar equator																	
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																					
Sep 1.6a	-	-	-	-	-	-	-	-	-	3	6	6	12	14	14	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.x																																					
3.7	-	-	-	-	-	-	-	-	-	-	2	6	20	11	5	-	-	-	-	-	-	-	-	16	18	15	10	4	-	-	-	-	-	-	-	-	-
4.7	-	-	-	-	-	-	-	-	-	-	-	5	19	5	-	-	-	-	-	-	-	-	-	5	10	10	5	-	-	-	-	-	-	-	-	-	-
5.7a	-	-	-	-	-	-	-	5	10	10	15	10	44	20	-	-	-	-	-	-	-	-	-	3	15	15	3	-	-	-	-	-	-	-	-	-	-
6.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.6	-	-	-	-	-	-	-	-	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.x																																					
18.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19.9	-	-	-	-	-	-	-	-	10	27	40	59	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.8a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	36	42	-	-	-	-	-	-	-	45	25	35	-	-	-	-	-	-	-	-	-	-
23.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	48	66	17	-	-	-	-	-	10	40	60	30	-	-	-	-	-	-	-	-	-	-
24.7a	-	6	6	10	4	-	-	-	-	-	-	-	-	-	15	42	96	5	-	-	-	-	-	10	30	54	55	41	6	-	-	-	-	-	-	-	-
25.7	X	X	X	X	-	-	-	-	-	-	3	4	15	32	50	25	12	-	-	-	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X
26.x																																					
27.7	-	-	-	-	-	-	-	-	-	-	-	5	30	91	66	62	35	-	-	-	-	-	4	23	39	19	3	2	-	-	-	-	-	-	-	-	-
28.7	-	-	-	-	-	-	-	-	-	-	5	30	66	60	53	-	-	-	-	-	-	20	46	82	8	-	-	-	-	-	-	-	-	-	-	-	-
29.6	-	-	-	-	-	-	-	-	-	-	-	8	38	34	45	22	-	-	-	-	-	-	-	5	72	42	30	20	-	-	-	-	-	-	-	-	-
30.6	-	-	-	-	-	-	-	-	5	12	13	36	35	2	-	-	-	-	-	-	26	35	40	22	12	-	-	-	-	-	-	-	-	-	-	-	-

Table 88a

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 UT	Degrees north of the solar equator																		0°	Degrees south of the solar equator																	
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																					
Sep 1.6a	-	-	-	-	-	-	-	-	-	-	-	-	10	20	10	5	10	5	10	7	7	7	5	20	20	15	-	-	-	-	-	-	-	-	-	-	-
2.x																																					
3.7a	-	-	-	-	-	-	5	5	5	-	-	-	4	14	14	5	16	10	5	10	15	15	10	30	50	5	-	-	-	10	10	-	-	-	-	-	-
4.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.7a	-	-	-	-	-	-	-	-	-	-	-	-	20	40	40	10	30	30	5	5	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-
6.6a	-	-	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-
7.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	16	-	-	5	10	5	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10	15	15	15	20	20	30	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-
9.7a	3	-	-	-	-	-	-	-	-	-	-	-	2	3	3	3	3	3	4	4	4	4	4	4	6	7	7	7	4	4	2	2	2	-	-	-	-
10.6a	X	X	X	X	-	-	-	-	-	-	-	-	5	5	5	-	-	-	-	-	-	-	-	-	-	-	10	15	10	-	-	-	-	-	-	-	-	-
11.x																																					
12.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-
14.6a	-	-	-	-	-	-	10	5	10	15	5	15	5	5	5	5	5	5	10	20	20	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10	10	10	10	15	15	15	25	20	25	10	-	5	5	-	-	-	-	-	-	-	-
16.6a	-	-	-	-	-	-	-	5	5	5	5	5	5	5	5	5	5	5	5	5	5	10	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-
17.x																																					
18.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	25	25	15	5	10	5	10	15	25	20	20	20	-	-	-	-	-	-	-	-	-
19.9a	-	-	-	10	10	10	10	10	20	35	45	20	10	10	10	25	30	15	15	20	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20.x																																					
21.x																																					
22.6	-	-	10	5	5	5	5	5	5	5	5	5	5	5	5	15	24	10	10	10	5	5	15	12	24	20	-	-	-	-	-	-	-	-	-	-	-
23.6	-	-	-	-	-	-	-	-	-	-	5	5	6	6	7	5	15	12	2	6	4	4	4	8	7	3	-	-	-	-	-	-	-	-	-	-	-
24.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	20	24	15	12	16	14	14	14	16	20	10	5	-	-	-	-	-	-	-	-	3	3
25.x																																					
26.x																																					
27.7	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	28	56	3	3	4	5	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
28.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	3	3	2	-	-	-	-	-	3	3	5	6	5	-	-	-	-	-	-	-	-	-
29.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	8	30	20	5	5	5	5	10	5	5	8	6	5	4	4	5	5	-	-	-	-	-	-	-
30.6a	-	-	-	-	-	-	5	5	5	5	5	6	4	38	12	10	8	12	14	12	5	-	-	20	5	-	-	-	-	-	-	-	-	-	-	-	-

Table 87b

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																																					
Sep 1.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.x																																					
3.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	20	30	-	-	-	-	-	-	-	-	-
5.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	35	12	5	24	15	27	5	-	-	-	-	-	-	-
6.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-
8.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	36	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.7	-	-	-	-	-	-	-	-	-	-	-	-	5	13	13	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.6a	-	-	-	-	-	-	-	-	-	-	-	-	6	10	12	8	4	-	-	-	-	-	5	12	12	10	5	-	-	-	-	-	-	-	-	-	-	-
11.8	-	-	-	-	-	-	-	-	-	-	-	-	12	15	10	-	-	-	-	-	-	-	-	-	5	10	10	10	4	-	-	-	-	-	-	-	-	-
12.6	-	-	-	-	-	-	-	-	-	-	-	-	14	15	48	36	13	-	-	-	-	-	-	5	25	15	34	26	34	5	3	1	-	-	-	-	-
13.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	5	25	12	4	-	-	-	-	5	15	10	5	-	-	-	-	-	-	-	-	-	-	-	-
14.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	12	40	21	6	-	-	-	-	-	10	70	40	40	20	40	-	-	-	-	-	-	-	-	-
15.6	-	-	-	-	-	-	-	-	10	20	20	28	53	56	80	-	-	-	-	-	-	-	5	35	35	15	5	2	2	-	-	-	-	-	-	-	-
16.6	-	-	-	-	-	-	-	-	-	5	5	20	29	48	20	-	-	-	-	-	-	-	-	58	28	12	-	-	-	-	-	-	-	-	-	-	-
17.x																																					
18.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	80	40	-	-	-	-	-	-	-	-	-	-
19.9	-	-	-	-	-	-	-	-	-	-	10	10	18	20	60	-	-	-	-	-	-	-	-	36	50	25	-	-	-	-	-	-	-	-	-	-	-
20.8	-	-	-	-	-	-	-	-	-	-	-	-	-	15	39	15	-	-	-	-	-	-	-	65	48	20	-	-	-	-	-	-	-	-	-	-	-
21.8a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	24	5	5	-	-	-	-	-	5	40	50	24	5	-	-	-	-	-	-	-	-	-	-
22.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	20	27	5	-	-	-	-	-	-	-	-	20	44	29	-	-	-	-	-	-	-	-	-	-	-
23.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10	-	-	-	-	-	-
25.x																																					
26.x																																					
27.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	8	2	-	-	-	-	-	-	-	-	-	-
28.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	7	5	-	-	-	-	-	-	-	-	-

Table 88b

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																																					
Sep 1.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	5	5	5	5	10	15	10	25	15	25	10	-	-	-	-	-	-	-
2.x																																					
3.7a	-	-	-	-	-	-	-	-	-	-	2	5	5	5	5	15	20	15	5	5	-	-	-	-	10	10	20	35	5	-	-	-	-	-	-	-	-
4.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	10	10	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	5	10	5	5	-	-	-	-	5	15	5	-	-	-	-	-	-	-	-
6.6a	-	-	-	-	-	-	-	-	-	2	5	2	-	-	X	10	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.6a	-	-	-	-	-	-	-	-	-	-	-	5	5	5	5	5	8	8	10	10	8	8	8	8	-	-	-	-	8	8	-	-	-	-	-	-	-
8.6a	-	-	-	-	-	-	-	-	-	-	-	-	5	10	60	50	5	8	15	5	5	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	
10.6a	-	-	-	-	-	-	-	-	-	-	-	-	5	10	15	20	20	20	5	-	-	-	-	-	5	25	5	-	-	-	-	-	X	X	X	X	X
11.x																																					
12.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	6	6	6	3	3	3	3	7	10	10	20	28	36	16	5	-	-	-	-	-	-
13.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	5	25	5	-	-	-	-	-	-	-	-	5	15	25	20	-	-	-	-	-	-	-	-	-	-
14.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	20	5	10	20	20	20	20	20	50	20	40	7	5	-	-	-	-	-	-	-	-
15.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	25	20	5	-	-	-	-	-	10	10	15	10	5	-	-	-	-	-	-	-	-	-
16.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	40	50	30	-	-	-	-	-	-	-	10	5	15	5	10	5	-	-	-	-	-	-	-	-
17.x																																					
18.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15	30	20	15	10	15	15	5	5	10	20	40	10	5	5	-	-	-	-	-	-	-	-
19.9a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	20	20	20	10	10	10	15	25	15	-	-	5	20	-	-	-	-	-	-	-	-
20.x																																					
21.x																																					
22.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	20	16	12	12	15	15	15	5	5	25	10	-	-	-	-	-	-	-	-	-	-	-
23.6	-	-	-	-	-	-	3	3	2	2	2	2	2	3	5	7	7	16	5	4	4	6	6	8	7	7	15	10	20	4	-	-	-	-	-	-	-
24.7	3	3	-	-	-	-	-	-	-	-	-	-	-	6	6	8	8	8	14	15	15	15	15	15	20	20	10	15	-	-	-	-	-	-	-	-	-	-
25.x																																					
26.x																																					
27.7	-	-	-	-	-	-	-	X	X	X	X	X	X	X	X	10	12	10	10	10	8	6	6	12	12	18	20	6	-	-	-	-	-	-	-	-	-	-
28.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	5	6	10	10	10	10	15	16	5	7	8	5	-	-	-	-	-	-	-	-	-	-
29.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	8	12	12	24	8	8	6	6	6	5	5	12	3	3	-	-	-	-	-	-	-	-
30.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	8	8	15	8	8	8	5	5	4	3	5	32	8	-	-	-	-	-	-	-	-	-

Table 89a

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																																					
Sep 1.x																																					
2.x																																					
3.x																																					
4.x																																					
5.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.6a	-	-	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.x																																					
10.x																																					
11.x																																					
12.x																																					
13.x																																					
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26.x																																					
27.x																																					
28.x																																					
29.x																																					
30.x																																					

Table 90a

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																																					
Sep 1.6	-	-	-	-	2	3	6	8	8	8	10	8	30	34	36	32	16	12	7	4	4	6	12	36	46	50	29	14	7	6	3	2	2	-	-	-	-
2.6	-	-	-	-	3	5	7	7	7	8	14	15	32	46	48	19	12	8	5	4	4	7	17	26	46	49	21	20	14	8	6	4	3	2	-	-	-
3.8a	-	-	-	-	4	4	5	6	7	8	8	15	21	26	17	8	4	3	3	-	3	3	8	19	30	26	15	15	12	8	6	4	-	6	-	-	-
4.7a	-	-	-	-	4	4	4	6	6	7	7	10	15	17	8	4	3	4	4	4	-	-	-	10	14	12	10	7	6	6	4	3	-	-	-	-	-
5.7	-	-	-	-	-	3	4	5	12	13	14	14	26	30	23	8	-	-	-	-	-	-	5	8	12	16	15	14	8	6	8	8	6	-	-	-	-
6.7a	-	-	-	-	-	2	3	4	8	8	8	7	8	14	18	17	7	2	-	-	-	-	-	2	5	7	7	6	7	4	3	6	7	-	-	-	-
7.7a	2	2	-	-	-	-	-	6	6	5	6	5	4	18	16	8	5	2	-	-	-	-	-	2	3	5	5	4	4	3	3	4	4	-	-	-	-
8.7a	-	2	2	2	-	-	2	3	3	3	3	3	2	2	2	-	-	-	-	-	-	-	-	-	-	2	2	2	3	2	-	2	3	2	-	-	-
9.6a	-	-	-	-	-	2	4	5	5	5	6	4	3	3	3	-	-	2	-	-	-	-	-	-	-	4	2	2	2	-	2	4	4	5	3	-	-
10.x																																					
11.x																																					
12.7a	-	4	-	-	-	4	6	7	6	5	3	3	3	4	4	4	3	4	-	-	-	-	-	3	-	3	3	4	4	-	-	-	-	3	3	3	3
13.7a	-	-	3	-	-	-	4	6	6	4	3	3	-	4	4	4	4	-	-	-	-	-	-	3	4	4	4	3	3	-	-	-	-	-	-	4	4
14.7a	-	-	-	-	3	4	4	6	5	5	5	-	4	4	4	5	5	5	-	-	-	-	-	-	-	3	4	4	4	-	-	-	-	-	-	-	-
15.7a	-	-	-	-	-	2	3	6	5	4	4	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-
16.7a	-	-	-	-	2	3	4	7	14	13	6	3	-	2	2	-	-	-	-	-	-	2	2	2	2	2	2	2	-	-	-	-	-	-	-	-	-
17.9a	-	-	-	-	-	2	4	6	12	13	21	15	4	2	4	3	3	-	-	-	-	-	-	-	-	4	4	3	-	-	-	-	-	-	-	-	-
18.6	-	2	3	-	2	4	6	7	14	20	42	44	19	6	12	12	8	3	3	3	2	-	2	4	4	6	14	6	4	3	-	-	-	-	-	-	-
19.6	-	-	-	-	-	-	3	4	7	15	23	26	19	8	4	6	7	4	3	2	-	2	3	5	6	6	7	6	5	2	-	-	-	-	-	-	-
20.6	-	-	-	-	-	-	-	7	10	15	17	19	19	8	6	6	6	5	2	-	-	2	5	7	8	8	14	10	6	3	2	-	-	-	-	-	-
21.7	-	-	-	-	-	-	-	6	14	13	14	18	17	16	14	12	6	5	4	2	2	5	8	17	19	23	21	8	7	5	2	2	-	-	-	-	-
22.7	-	-	-	-	-	3	4	8	10	12	15	15	14	15	19	34	29	8	4	3	-	8	17	26	28	28	17	8	6	4	4	3	-	-	-	-	-
23.8	-	-	-	-	-	-	2	6	7	7	8	15	16	18	27	38	44	15	5	2	-	2	10	17	26	30	18	14	7	5	3	2	-	-	-	-	-
24.9	-	-	-	3	3	4	6	7	8	12	17	26	29	26	40	46	36	15	8	4	5	7	8	15	19	32	26	17	12	8	5	-	-	-	-	-	-
25.7	-	-	-	-	-	-	3	5	7	12	16	24	36	34	39	38	23	13	6	2	3	5	7	13	16	17	18	16	12	8	6	2	-	-	-	-	-
26.x																																					
27.6	-	-	-	-	-	-	6	10	12	12	15	21	36	44	46	44	40	26	8	5	5	6	14	28	36	42	17	12	10	8	8	8	4	-	-	-	-
28.6	-	-	-	-	-	2	5	12	14	14	15	21	34	42	49	42	40	15	12	7	3	4	12	23	38	49	34	17	8	7	6	6	4	-	-	-	-
29.7	-	-	-	-	-	-	4	8	12	14	14	19	38	40	46	36	23	12	8	2	-	5	15	23	42	42	38	29	7	4	4	6	6	3	-	-	-
30.6	-	-	-	-	-	3	7	10	12	14	15	19	29	36	42	29	12	6	4	3	3	6	17	23	38	38	30	24	12	6	6	6	7	6	-	-	-

Table 89b

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																																							
Sep 1.x																																							
2.x																																							
3.x																																							
4.x																																							
5.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.x																																							
10.x																																							
11.x																																							
12.x																																							
13.x																																							
14.x																																							
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19.x																																							
20.x																																							
21.x																																							
22.x																																							
23.x																																							
24.x																																							
25.x																																							
26.x																																							
27.x																																							
28.x																																							
29.x																																							
30.x																																							

Table 90b

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																																							
Sep 1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	3	3	4	8	7	6	7	6	3	-	-	-
2.6	-	-	-	-	-	-	-	-	-	2	3	3	4	3	3	4	2	-	-	-	-	-	2	2	-	3	5	5	14	16	14	12	10	7	3	-	-	-
3.8a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5	5	8	17	18	15	8	8	6	4	-	-	-	-
4.7a	-	-	-	-	-	-	-	4	3	4	6	6	4	-	-	-	3	-	-	-	-	6	12	12	7	8	10	15	15	12	6	4	4	-	-	-	-
5.7	-	-	-	-	-	-	-	3	3	4	4	5	5	8	7	4	3	3	3	-	-	4	8	15	17	7	8	15	19	15	6	6	3	-	-	-	-
6.7a	-	-	-	-	-	2	2	3	3	3	3	4	3	5	8	7	6	3	2	-	-	-	-	2	7	6	7	7	10	13	7	6	4	2	-	-	-
7.7a	-	-	-	-	-	-	2	3	4	3	2	5	8	12	14	7	2	-	-	-	-	-	-	2	4	6	6	7	6	4	4	3	3	2	2	2	2
8.7a	-	-	-	-	-	-	-	3	3	3	3	3	5	13	16	15	7	2	-	-	-	-	3	4	6	5	4	4	4	3	2	2	2	-	-	-	-
9.6a	-	-	-	-	-	-	2	3	3	4	6	5	7	14	16	18	12	6	2	2	3	4	5	6	8	12	8	7	6	6	3	3	3	3	2	-	-
10.x																																							
11.x																																							
12.7a	3	4	-	-	-	3	3	4	6	7	8	12	15	20	21	15	8	6	3	6	8	12	15	17	21	21	29	15	8	7	6	5	4	-	-	-	-
13.7a	4	4	3	4	3	3	5	7	6	8	12	15	21	26	34	34	15	6	4	4	8	21	34	34	29	23	26	17	12	8	6	6	6	4	3	-	-
14.7a	-	-	-	3	3	4	5	6	6	7	8	12	19	23	38	34	12	8	6	5	7	15	29	29	30	29	21	15	10	8	7	8	3	-	-	-	-
15.7a	-	-	-	-	-	-	2	2	3	12	14	17	19	25	27	18	8	4	3	3	2	6	8	28	30	35	17	14	7	6	6	6	5	4	-	-	-
16.7a	-	-	-	-	2	2	3	4	4	7	24	24	18	38	40	18	7	5	3	2	-	2	5	12	40	36	26	13	8	6	4	4	3	2	-	-	-
17.9a	-	-	-	-	-	-	3	4	6	6	14	18	16	17	24	16	5	-	-	-	-	2	3	7	24	23	15	10	7	6	4	4	5	3	2	-	-
18.6	-	-	-	-	-	4	6	7	12	14	21	23	21	30	34	23	6	4	2	3	-	-	3	6	17	38	38	20	17	14	6	5	4	4	4	2	-
19.6	-	-	-	-	-	-	-	4	8	8	10	14	15	15	14	8	4	-	-	-	-	-	2	6	23	29	26	15	15	12	8	4	3	2	2	-	-
*20.6	-	-	-	-	-	-	2	7	12	6	8	12	15	21	50	34	10	2	-	-	-	2	15	34	46	36	26	16	16	17	15	6	4	2	-	-	-
21.7	-	-	-	-	-	-	-	6	7	7	7	8	14	15	34	42	15	6	2	-	-	3	6	15	46	38	30	26	17	15	17	10	6	2	-	-	-
22.7	-	-	-	-	-	3	4	4	5	6	7	8	15	17	25	19	8	6	4	-	-	3	12	19	26	34	35	15	12	15	12	8	-	-	-	-	-
23.8	-	-	-	-	-	-	-	3	5	3	4	4	4	5	12	6	3	2	-	-	-	-	2	5	8	19	17	13	10	8	11	8	6	2	-	-	-	-
24.9	-	-	-	-	-	-	2	3	4	4	6	5	6	5	3	3	3	4	3	-	-	3	3	6	10	14	15	15	15	15	*15	13	8	-	-	-	-
25.7	-	-	-	-	-	-	-	2	-	-	3	3	2	2	2	-	-	-	-	-	-	-	-	2	10	6	10	10	11	12	12	8	7	3	2	-	-	-
26.x																																							
27.6	-	-	-	-	-	-	-	-	-	-	2	3	6	4	3	2	-	-	-	-	-	-	-	2	5	8	18	8	7	5	6	7	8	8	7	4	3	-
28.6	-	-	-	-	-	-	-	-	-	-	2	2	4	4	3	-	-	-	-	-	-	-	-	2	3	3	6	12	7	6	5	8	6	6	4	3	2	-
29.7	-	-	-	-	-	-	-	-	-	-	3	3	5	12	6	3	-	-	-	-	-	-	-	-	-	-	3	7	14	12	7	7	6	6	6	3	2	-	-
30.6	-	-	-	-	-	-	-	-	2	3	3	4	8	15	7	4	4	3	3	4	-	3	4	4	3	12	17	12	8	8	8	8	6	5	3	3	-

* Yellow line, intensity 3, S21 - S23.

Table 91a

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

Date UT	Degrees north of the solar equator																		0°	Degrees south of the solar equator															
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																				
Sep 1.6	3	3	4	3	4	3	3	2	3	3	3	4	7	15	14	6	16	15	6	8	7	7	7	23	12	12	3	4	3	4	3	2	2	3	2	4
2.6	2	3	3	3	3	3	3	3	4	5	4	6	8	19	17	6	8	12	12	14	15	15	14	21	19	8	2	-	3	5	6	4	3	3	2	3	3
3.8a	2	3	2	3	-	-	-	-	4	2	3	8	15	17	18	12	14	10	8	12	14	14	14	28	19	4	-	-	-	-	-	-	-	-	-	-	-
4.7a	-	-	-	-	4	-	-	3	3	-	-	-	12	17	17	6	8	8	8	8	10	8	12	15	16	-	-	-	-	-	-	-	-	-	-	-	-
5.7	2	3	2	2	3	-	2	-	3	3	2	-	15	18	23	23	17	17	15	12	12	12	12	14	14	8	6	2	-	3	-	3	-	2	3	3	3
6.7a	-	-	-	-	2	2	-	-	-	-	2	-	-	16	4	32	18	13	10	8	7	8	8	7	4	6	5	4	2	2	2	-	2	2	2	3
7.7a	-	-	2	2	-	-	-	-	-	-	2	3	4	7	7	19	17	15	10	8	8	8	7	6	4	6	5	4	4	-	-	-	2	2	-	-	3
8.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	5	6	6	7	6	7	7	5	5	4	2	2	-	-	-	-	-	-	-	-	2
9.6a	2	2	2	-	-	2	2	-	2	3	4	4	4	5	4	4	5	7	8	7	7	7	8	10	8	7	6	4	4	3	2	-	-	3	3	2	3
10.x																																				
11.x																																				
12.7a	-	4	4	-	-	3	3	3	3	3	5	5	4	4	5	6	6	10	12	12	12	8	8	8	7	7	7	6	5	4	-	2	2	2	2	3	2
13.7a	4	2	2	2	-	2	2	3	4	5	6	4	6	7	4	5	7	8	10	10	10	10	10	7	6	7	6	5	3	-	-	-	2	2	-	-	-
14.7a	3	2	-	-	-	-	3	6	6	4	4	6	6	6	5	6	6	7	8	10	7	8	8	7	6	4	5	5	4	4	-	-	-	-	-	-	-
15.7a	-	-	-	-	2	-	2	2	6	6	5	5	5	5	4	5	6	6	6	6	6	7	6	6	6	4	3	3	-	2	-	-	-	-	-	-	-
16.7a	2	-	3	2	3	-	-	-	4	10	7	6	5	6	5	6	5	6	7	7	6	8	8	8	7	7	7	6	-	-	-	-	-	-	-	4	3
17.9a	2	2	-	2	2	-	-	-	5	3	8	7	-	2	-	-	-	7	6	6	7	7	7	7	8	7	5	3	4	-	-	-	-	2	2	2	-
18.6	4	3	4	3	4	4	4	3	7	7	15	14	12	6	4	6	8	8	12	12	10	8	8	8	10	8	7	7	6	5	3	2	2	3	3	4	4
19.6	4	4	2	2	3	4	4	3	3	6	14	16	15	8	6	4	6	8	8	7	8	7	8	7	6	6	6	5	4	4	4	2	2	2	2	2	3
20.6	3	4	3	2	2	3	3	4	6	5	6	10	8	6	7	6	5	5	6	7	7	8	8	7	6	4	6	6	5	4	4	3	3	3	3	4	3
21.7	4	3	3	3	3	3	3	3	6	5	6	6	7	8	8	16	7	7	7	8	7	7	8	15	17	10	6	4	4	3	4	2	2	2	3	4	3
22.7	3	3	4	4	-	3	2	4	6	5	5	5	10	10	7	17	27	19	7	10	8	12	12	29	23	21	3	5	5	4	3	4	-	-	-	3	3
23.8	2	3	-	2	-	-	2	-	5	3	6	7	13	11	11	7	26	20	12	10	8	7	8	12	22	22	4	4	6	5	3	-	-	2	2	3	3
24.9	4	4	4	4	2	3	3	3	4	6	6	15	12	26	21	23	26	19	17	16	16	15	19	26	19	14	8	-	6	5	4	2	4	4	2	5	4
25.7	2	3	3	3	3	-	2	3	2	2	4	13	14	16	10	30	30	18	13	15	14	12	8	14	12	14	6	4	-	2	-	2	-	3	2	3	3
26.x																																					
27.6	4	4	4	5	4	3	2	3	3	2	2	3	6	12	29	6	44	12	8	7	8	8	5	6	8	12	5	4	5	3	4	4	3	3	4	5	6
28.6	4	4	4	3	4	3	3	3	2	3	4	4	4	6	12	8	15	12	5	6	8	7	5	6	6	5	7	5	6	3	3	2	3	3	4	4	5
29.7	4	4	3	5	4	3	2	3	3	3	4	2	7	7	15	26	12	12	8	8	8	8	7	12	18	8	7	6	6	6	3	2	2	2	4	4	6
30 6	4	4	4	4	3	3	-	2	4	6	5	3	10	4	28	26	16	15	14	12	12	8	13	24	23	7	7	7	7	5	4	3	4	4	4	4	5

Table 92a

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

Date UT	Degrees north of the solar equator																		0°	Degrees south of the solar equator															
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																				
Sep 1.6	-	-	-	-	-	-	-	-	-	-	-	-	3	4	4	4	2	2	-	-	-	-	2	3	6	7	4	2	-	-	-	-	-	-	-	-	-
2.6	-	-	-	-	-	-	-	-	-	-	-	-	3	5	7	3	2	-	-	-	-	-	2	3	4	5	5	3	2	-	-	-	-	-	-	-	-
3.8a	-	-	-	-	-	-	-	-	-	-	-	2	3	4	2	-	-	-	-	-	-	-	2	3	5	2	4	4	2	-	-	-	-	-	-	-	-
4.7a	-	-	-	-	-	-	-	-	-	-	-	-	3	4	3	-	-	-	-	-	-	-	-	2	3	3	-	-	-	-	-	-	-	-	-	-	-
5.7	-	-	-	-	-	-	-	-	2	2	-	2	3	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.x																																					
11.x																																					
12.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16.7a	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17.9a	-	-	-	-	-	-	-	-	-	2	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
18.6	-	-	-	-	-	-	-	-	-	2	4	4	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19.6	-	-	-	-	-	-	-	-	2	3	3	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20.6	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
21.7	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	-	-	-	-	-	-	-	2	2	2	3	2	-	-	-	-	-	-	-	-	-	-
22.7	-	-	-	-	-	-	-	-	-	-	2	2	-	-	3	4	4	-	-	-	-	-	-	3	3	3	2	-	-	-	-	-	-	-	-	-	-
23.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4	5	-	-	-	-	-	-	-	3	2	-	-	-	-	-	-	-	-	-	-	-
24.9	-	-	-	-	-	-	-	-	-	-	2	2	2	-	5	8	5	-	-	-	-	-	-	-	2	3	3	2	-	-	-	-	-	-	-	-	-
25.7	-	-	-	-	-	-	-	-	-	-	-	-	3	3	3	4	2	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-
26.x																																					
27.6	-	-	-	-	-	-	-	-	-	2	2	3	5	5	6	6	5	2	-	-	-	-	3	4	4	4	3	-	-	-	-	-	-	-	-	-	-
28.6	-	-	-	-	-	-	-	-	2	2	3	3	4	6	6	6	6	2	2	-	-	-	2	3	4	5	6	4	-	-	-	-	-	-	-	-	-
29.7	-	-	-	-	-	-	-	-	2	2	3	3	4	5	5	5	4	4	-	-	-	-	-	2	3	5	5	4	2	2	-	-	-	-	-	-	-
30.6	-	-	-	-	-	-	-	-	-	2	-	-	2	6	7	4	2	-	-	-	-	-	2	3	4	6	5	3	2	-	-	-	-	-	-	-	-

Table 91b

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

Date UT	Degrees south of the solar equator																		0°	Degrees north of the solar equator															
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																				
Sep 1.6	4	3	3	3	3	2	2	2	2	4	6	6	6	5	8	12	14	12	12	12	10	7	7	7	7	8	8	15	10	12	3	3	2	2	2	3
2.6	3	3	4	3	2	2	3	2	2	3	6	7	6	6	10	16	16	8	8	8	8	6	7	7	7	8	15	20	19	16	4	2	3	3	3	2	2
3.8a	-	-	-	-	-	-	-	-	-	2	3	4	3	2	3	10	12	8	8	8	7	-	6	7	5	2	17	15	14	7	6	4	2	2	-	2	2
4.7a	-	-	-	-	-	-	-	-	-	-	-	3	4	4	6	7	7	8	7	8	7	8	8	10	-	3	7	12	10	8	4	-	-	-	-	-	-
5.7	3	4	4	3	3	-	2	3	4	4	5	-	3	6	8	10	10	10	12	12	10	10	8	14	6	7	6	8	16	10	7	4	6	2	-	2	2
6.7a	3	3	-	2	2	2	2	-	-	3	3	2	2	3	7	6	12	11	10	9	7	8	7	11	9	7	10	6	2	7	6	3	5	2	-	2	-
7.7a	3	2	3	3	-	2	-	-	2	3	4	3	6	5	6	7	8	8	7	7	6	7	7	7	6	7	12	2	3	7	4	3	2	5	-	-	-
8.7a	2	2	-	-	-	-	-	-	-	-	-	-	3	4	13	5	6	6	5	4	5	2	3	3	3	3	5	4	3	2	-	-	-	2	2	2	-
9.6a	3	3	3	2	3	2	2	3	2	2	4	3	3	7	10	14	15	8	7	8	7	8	4	5	6	6	7	6	5	5	4	3	2	3	2	3	2
10.x																																					
11.x																																					
12.7a	2	-	-	-	-	-	-	3	3	4	5	-	-	6	14	5	4	6	10	8	8	7	8	17	17	21	26	3	-	-	-	-	-	-	-	-	-
13.7a	-	-	-	4	3	-	-	2	2	4	6	6	2	8	10	6	4	5	5	6	4	14	10	18	16	17	24	-	-	-	-	-	-	4	3	-	4
14.7a	-	-	-	-	-	2	-	-	3	2	2	4	3	3	12	13	4	4	4	-	2	12	15	6	17	14	14	12	-	-	-	-	-	-	2	2	3
15.7a	-	-	2	-	-	-	-	-	2	4	3	4	7	16	16	17	12	7	6	2	2	2	8	12	7	13	4	4	3	2	-	-	-	-	-	-	-
16.7a	3	-	3	2	-	-	2	2	3	4	7	-	10	29	24	17	10	10	8	7	7	6	3	7	17	4	7	6	3	2	-	-	2	2	-	2	2
17.9a	-	-	-	-	-	-	-	-	-	2	3	2	-	10	17	15	10	8	8	7	8	7	6	8	17	3	3	3	-	-	-	-	-	-	-	3	2
18.6	4	4	3	3	4	4	3	2	3	4	4	4	4	4	26	21	19	15	15	15	12	12	15	15	20	23	5	4	4	4	3	3	3	3	3	3	4
19.6	3	3	3	3	2	2	2	2	3	3	3	3	2	4	17	12	15	14	12	12	13	10	8	12	14	12	4	3	2	4	6	3	2	3	4	4	4
20.6	3	4	3	4	3	2	3	3	3	4	5	5	4	6	8	19	15	15	14	14	15	14	12	15	26	8	5	4	2	2	3	3	2	4	3	3	3
21.7	3	4	4	3	4	3	2	2	4	5	6	4	3	7	15	26	17	14	15	14	15	10	8	21	19	21	17	4	3	2	3	3	3	2	3	4	4
22.7	3	3	3	-	3	-	-	-	3	4	4	3	8	15	19	24	17	17	16	15	15	13	12	17	26	23	13	4	4	3	4	3	-	-	4	5	3
23.8	3	3	2	3	-	-	-	-	-	3	4	4	5	8	8	17	16	15	12	12	10	13	14	12	15	15	15	16	2	2	2	2	3	3	3	3	2
24.9	4	4	2	4	4	3	4	4	6	6	6	7	10	13	14	15	14	14	14	14	15	15	15	17	17	15	13	7	6	-	3	3	4	4	4	3	4
25.7	3	4	3	2	2	2	-	2	3	4	5	6	7	10	8	14	12	13	14	14	15	13	13	16	34	22	7	4	5	-	3	-	2	3	2	3	2
26.x																																					
27.6	6	5	4	4	3	3	2	3	3	4	7	8	8	7	12	12	12	15	12	12	12	14	15	12	12	19	19	7	5	5	4	3	3	3	3	4	4
28.6	5	4	4	3	3	2	2	2	4	5	6	6	8	10	14	15	14	15	15	15	15	15	12	10	12	15	18	8	4	5	3	3	3	3	3	4	4
29.7	6	5	3	3	2	2	3	2	2	3	4	5	6	6	15	12	8	14	14	15	12	12	7	6	7	12	17	6	5	6	5	3	2	3	3	2	4
30.6	5	4	4	2	2	-	-	-	4	6	6	7	6	12	12	12	13	12	13	13	12	10	7	7	8	17	20	8	7	7	5	-	-	-	4	3	4

Table 92b

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

Date UT	Degrees south of the solar equator																		0°	Degrees north of the solar equator															
	90	85	80	75	70	65	60	55	50	45	40	35	30	25	20	15	10	5		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
1955																																				
Sep 1.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3.8a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	4	3	2	-	-	-	-	-	-
4.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	4	4	2	-	-	-	-	-	-
5.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	4	3	-	-	-	-	-	-
6.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9.6a	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	3	3	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10.x																																					
11.x																																					
12.7a	-	-	-	-	-	-	-	-	-	-	-	2	4	4	3	2	-	-	-	-	-	-	3	3	3	4	4	-	3	3	-	-	-	-	-	-	-
13.7a	-	-	-	-	-	-	-	-	-	-	3	3	4	4	5	4	3	-	-	-	2	2	5	4	4	4	4	2	2	-	-	-	-	-	-	-	-
14.7a	-	-	-	-	-	-	-	-	-	-	-	2	4	5	6	5	-	-	-	-	-	-	3	4	6	5	3	2	-	-	-	-	-	-	-	-	-
15.7a	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	2	-	-	-	-	-	-	-	2	4	3	2	-	-	-	-	-	-	-	-	-	-
16.7a	-	-	-	-	-	-	-	-	-	-	3	3	3	4	2	-	-	-	-	-	-	-	-	-	5	4	3	-	-	-	-	-	-	-	-	-	-
17.9a	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3	2	-	-	-	-	-	-	-	-	-	3	2	-	-	-	-	-	-	-	-	-	-
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24.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
26.x																																					
27.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-
28.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
29.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Table 93

Zürich Provisional Relative Sunspot Numbers

September 1955

Date	R_Z*	Date	R_Z*
1	89	17	38
2	88	18	41
3	80	19	29
4	85	20	23
5	78	21	7
6	70	22	0
7	74	23	7
8	68	24	25
9	64	25	30
10	52	26	11
11	40	27	21
12	40	28	12
13	40	29	9
14	33	30	32
15	46	Mean:	41.9
16	25		

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

Table 94

American Relative Sunspot Numbers

August 1955

Date	R_A'	Date	R_A'
1	23	17	12
2	10	18	15
3	5	19	14
4	3	20	16
5	25	21	19
6	43	22	20
7	48	23	11
8	58	24	4
9	78	25	16
10	78	26	26
11	76	27	54
12	70	28	55
13	53	29	59
14	45	30	61
15	32	31	75
16	30	Mean:	36.6

Table 95

Solar Flares, September 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	Importance	SID Observed
S. Peak	Sept. 1	1605	1740	95	45	S26	E70	1707	13	0.7	1-	
S. Peak	Sept. 2	1629	1632	3	19	N19	E69	1630	11	0.8	1-	
S. Peak	Sept. 2	1650	1715	25	91	N28	E30	1700	12	0.6	1-	
S. Peak	Sept. 2	1700	1720	20	39	N25	E69	1705	15	0.9	1-	
S. Peak	Sept. 2	1845	1955	70	124	S25	E59	1855	17	0.7	1	
S. Peak	Sept. 2	1936	2000	24	26	S25	E57	1945	12	0.7	1-	
S. Peak	Sept. 2	2320B	2341	-	52	S22	E17	2334	11	0.7	1-	
S. Peak	Sept. 2	2328	2405A	-	320	N26	E65	2337	22	0.3	2	
S. Peak	Sept. 3	1605	1625	20	32	N26	E80	1610	14	0.7	1-	
S. Peak	Sept. 3	2120	2403A	-	26	S22	W19	2350	12	0.6	1-	
S. Peak	Sept. 4	1840	1930	50	65	S21	W31	1901	20	0.8	1-	
S. Peak	Sept. 4	2000	2105	65	32	S21	W32	2007	15	0.7	1-	
S. Peak	Sept. 4	2115	2245	90	52	S21	W32	2200	13	0.4	1-	
S. Peak	Sept. 5	1425	1455	30	28	S22	W43	1435	12	0.7	1-	
S. Peak	Sept. 5	2320	2345	25	13	S27	E13	2326	10	0.6	1-	
S. Peak	Sept. 8	1410	1430	20	35	N17	W15	1419	11	0.5	1-	
S. Peak	Sept. 8	1745	1800	15	18	N28	E17	1755	10	0.8	1-	
S. Peak	Sept. 8	1805	1835	30	85	N28	E16	1818	13	0.7	1-	
McMath	Sept. 8	1815B	1830	-	-	N25	E15	-	-	-	1-	
S. Peak	Sept. 10	1528	1630	62	33	N37	W53	1545	12	0.6	1-	

(continued)

Table 95 (Cont'd.)

Solar Flares, September 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	Importance	SID Observed
S. Peak	Sept. 13	1340B	1355	-	52	N27	W48	1340B	12	0.4	1-	
S. Peak	Sept. 13	1745A	1830	-	149	S25	W39	1804	12	0.2	1	
S. Peak	Sept. 18	1827B	1840	-	35	N22	W61	1836	12	0.3	1-	
S. Peak	Sept. 19	1335B	1400	-	33	S26	W65	1341	13	0.6	1-	
S. Peak	Sept. 19	1420	1440	20	71	S26	W65	1428	14	0.5	1-	
S. Peak	Sept. 19	1635	1705	30	84	S25	W65	1650	13	0.5	1-	
S. Peak	Sept. 20	2050	2145	55	32	S26	W90	2108	16	0.5	1-	
S. Peak	Sept. 20	2230B	2245	-	32	S26	W90	2235	13	0.7	1-	
S. Peak	Sept. 26	2233B	2303	-	130	S22	E37	2239	15	0.2	1	
S. Peak	Sept. 27	1525	1600	35	30	S22	E28	1542	11	0.8	1-	
S. Peak	Sept. 27	1625	1700	35	87	S23	E29	1638	17	0.2	1	Yes
S. Peak	Sept. 30	1335B	1400	-	19	N30	E64	1348	11	0.8	1-	
S. Peak	Sept. 30	1420	1520	60	26	N30	E64	1445	14	0.7	1-	

S. Peak = Sacramento Peak. B = Before given time. A = After given time.

Table 96

Indices of Geomagnetic Activity for August 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

August 1955	C	Values Kp, Three-hour Gr. interval 1 2 3 4	5 6 7 8	Sum	Ap	Final Selected Days
1	0.2	1+ 1- 1- 1o	2o 1+ 1o 1-	9-	4	Five
2	0.3	2+ 1+ 0+ 0o	0+ 0+ 1o 3-	8+	4	Quiet
3	0.7	4o 2+ 2+ 2-	2- 3- 2- 3-	19o	11	
4	1.4	3- 4o 3o 5+	5o 4+ 4o 4o	32+	30	1
5	1.0	2o 2o 4o 3+	3o 3+ 4+ 4o	26o	19	11
						22
6	1.4	3+ 3+ 5+ 5+	4- 5- 3o 5o	34-	34	23
7	1.1	3o 3o 4- 4-	3+ 2o 4o 3-	25+	17	25
8	0.6	2+ 1o 2- 3o	3o 2o 2o 2-	17-	9	
9	0.3	2+ 1+ 2o 2-	2o 1o 2o 1+	14-	6	
10	0.2	1o 2+ 1+ 2-	2- 1+ 1o 2-	12o	6	
11	0.1	1+ 1+ 1- 1-	0+ 0+ 1+ 2-	8-	4	Five
12	0.1	2o 1o 2- 2-	1o 0+ 1o 1-	9+	4	Disturbed
13	0.3	1+ 2o 1+ 3-	1+ 1o 1o 3-	13+	7	
14	0.8	3o 2- 1+ 3-	1+ 3- 3+ 3o	19o	11	4
15	0.6	3+ 3+ 2+ 2o	3- 1o 0+ 1-	16-	9	5
						6
16	0.2	0o 2+ 3o 0+	1o 0+ 1o 1+	9+	5	7
17	0.3	1+ 0+ 1- 1+	2- 2+ 2o 2+	12o	6	28
18	0.3	1+ 2+ 2+ 2+	2- 1+ 2o 2o	15+	7	
19	0.4	1+ 2+ 2+ 1+	1+ 1+ 2- 2o	14-	6	
20	0.2	1+ 1- 1o 2o	1+ 2- 1o 1-	10-	5	
21	0.2	2+ 2o 2o 0+	1- 0+ 1o 1o	10-	5	Ten
22	0.0	0o 0+ 0+ 0o	0+ 0+ 1o 1o	3+	2	Quiet
23	0.0	0+ 0+ 1+ 0+	1- 1- 0+ 1o	5o	3	
24	0.3	0+ 1o 1+ 3-	2o 1o 1- 1o	10o	5	1
25	0.2	1o 0+ 1o 1+	2- 1+ 1+ 1o	9o	4	2
						11
26	0.2	1+ 1+ 1o 2+	2+ 1+ 1+ 2-	13-	6	12
27	0.3	0+ 1- 1o 1-	1- 2- 2o 3-	10-	5	20
28	1.0	1- 4- 6o 4-	3- 2- 2- 1+	21+	20	21
29	0.7	3o 2o 2+ 2o	2o 1+ 3o 3+	19o	10	22
30	0.1	2- 1+ 1o 2o	1- 2- 1+ 1+	11o	5	23
31	0.3	2- 2- 1o 2o	1+ 1o 1+ 2+	12+	6	25
Mean:	0.43			Mean:	9	27

Table 97

Sudden Ionosphere Disturbances Observed at Washington, D. C.

1955 Day	GCT Beginning	GCT End	Location of transmitters	Relative intensity at minimum*	Other phenomena
Sept. 27	1635	1653	England, Mexico, North Dakota	**	Solar flare*** 1625

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

**Station KQ2XAU transmitter off the air from 0940-1200.

***Time of observation at Sacramento Peak, New Mexico.

Table 98

Sudden Ionosphere Disturbances Reported by the Netherlands Postal and Telecommunication Services, as Observed at Nederhorst den Berg, Netherlands

1955 Day	GCT Beginning	GCT End	Location of transmitters	Other phenomena
July				
3	1315	1345	Paramaribo	Reinforcement 1313-1415
4	0932	1006	Karachi, Paramaribo	Reinforcement 0931-1023
Aug.				
8	1318.5	1341	Karachi, Paramaribo, Washington, D. C.	Reinforcement 1321-1400
9	0734.5	0800	Karachi	Reinforcement 0734.5-0812

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.

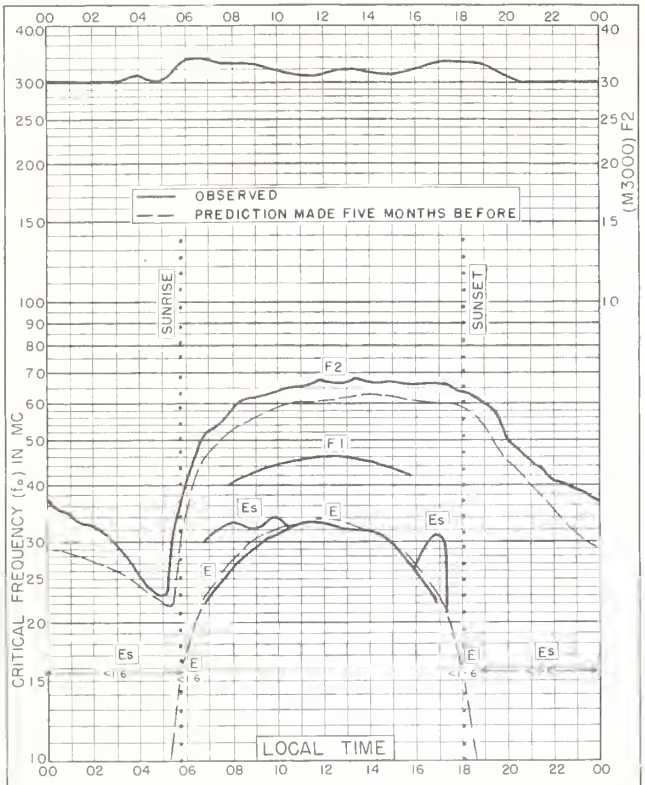


Fig. 1. WASHINGTON, D. C.
38.7°N, 77.1°W SEPTEMBER 1955

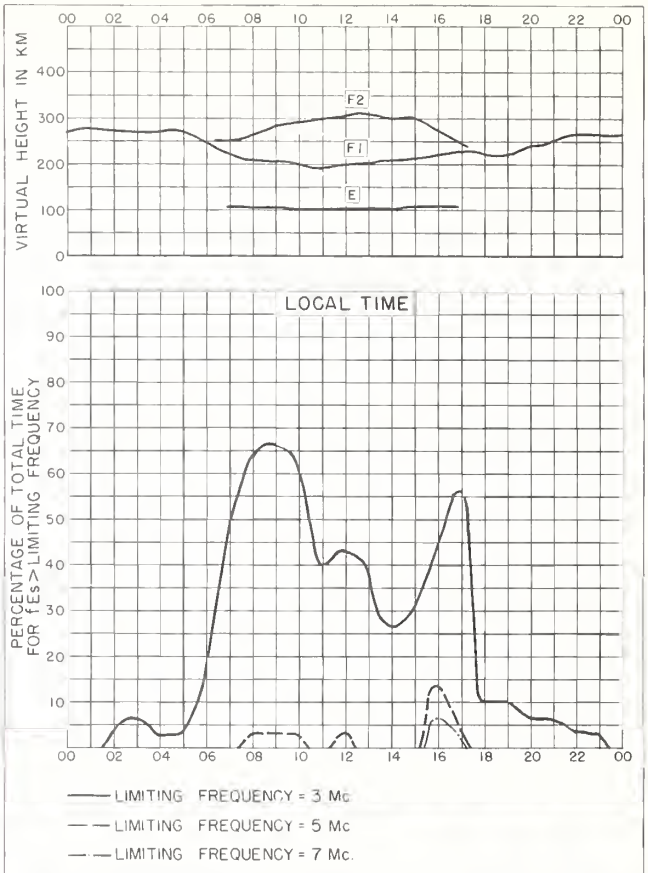


Fig 2. WASHINGTON, D. C. SEPTEMBER 1955

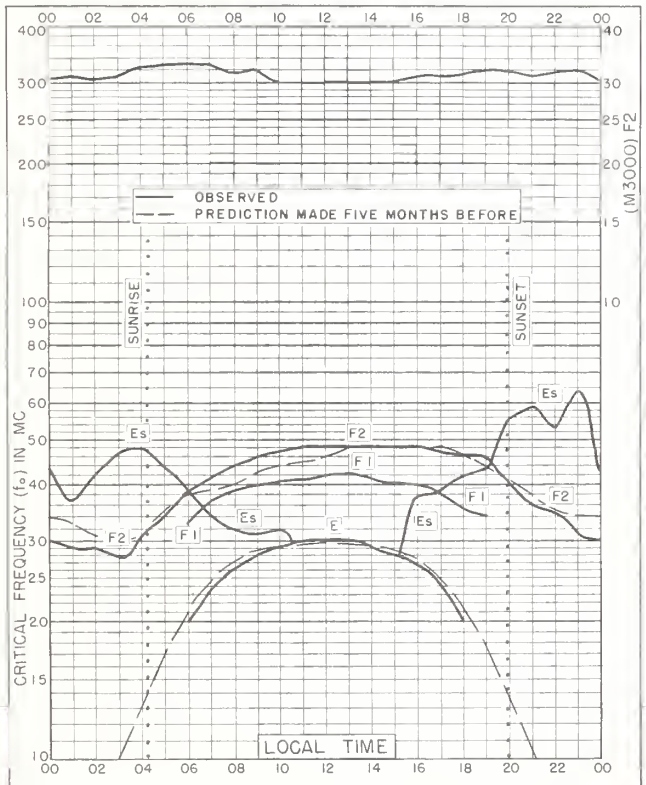


Fig. 3. NARSARSSUAK, GREENLAND
61.2°N, 45.4°W AUGUST 1955

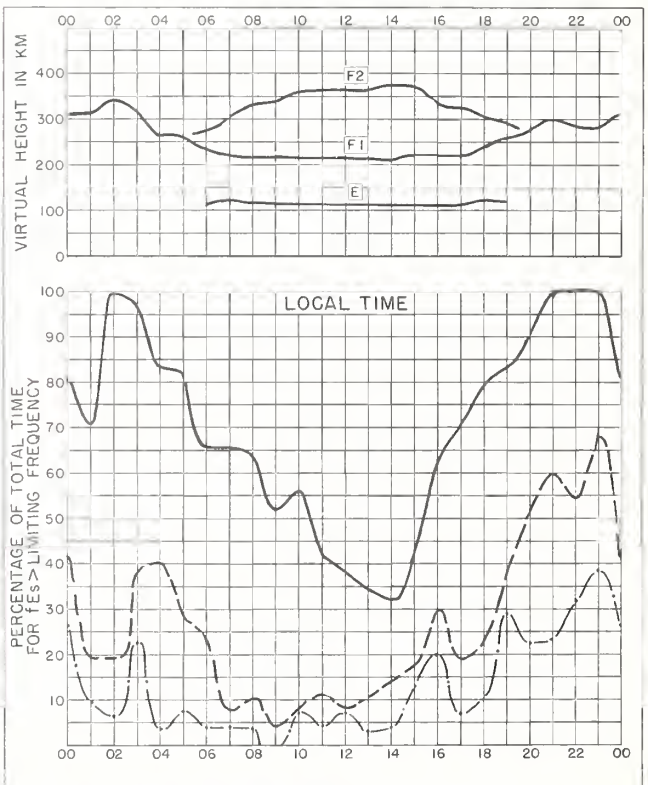


Fig. 4. NARSARSSUAK, GREENLAND AUGUST 1955

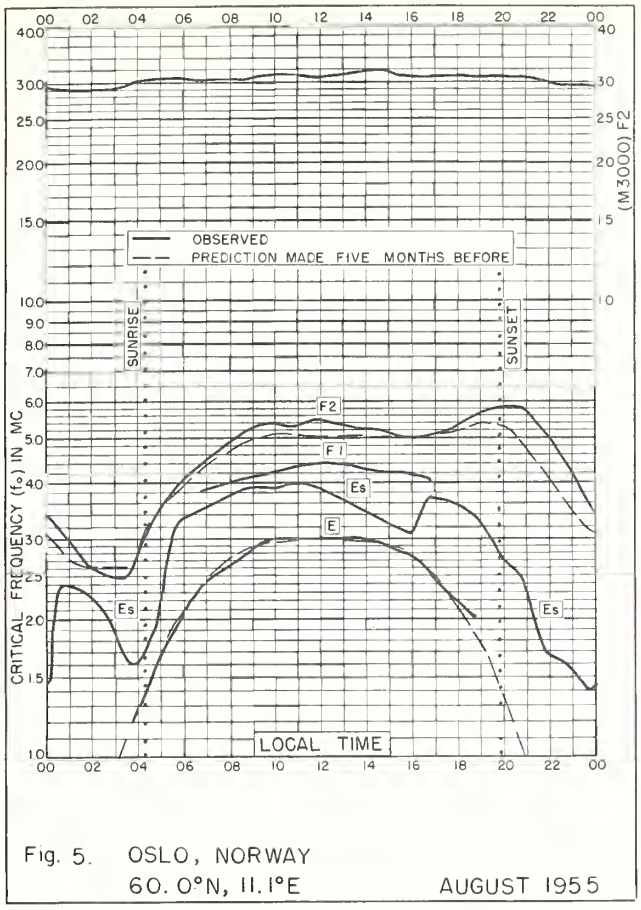


Fig. 5. OSLO, NORWAY
60.0°N, 11.1°E AUGUST 1955

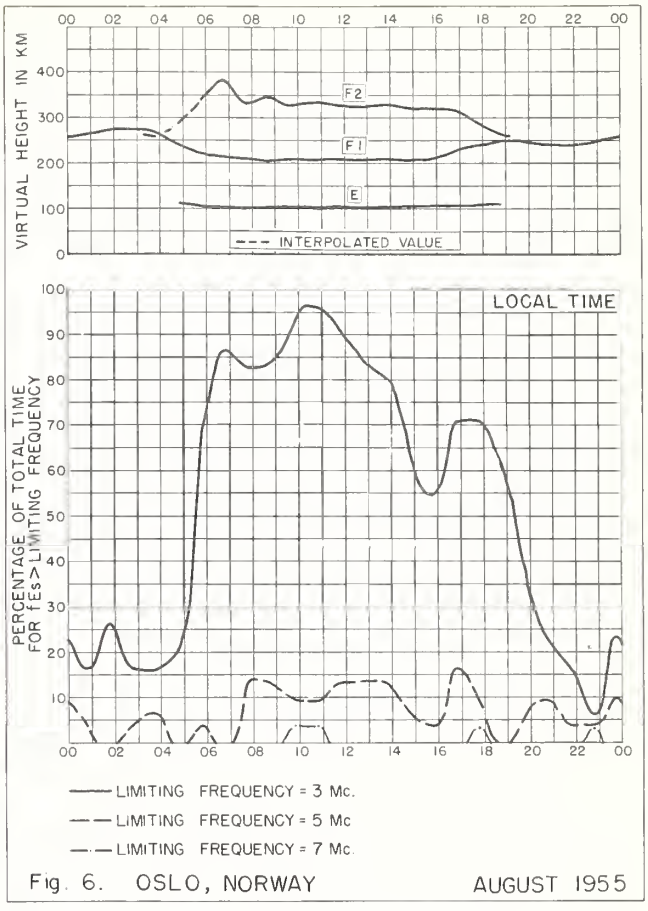


Fig. 6. OSLO, NORWAY AUGUST 1955

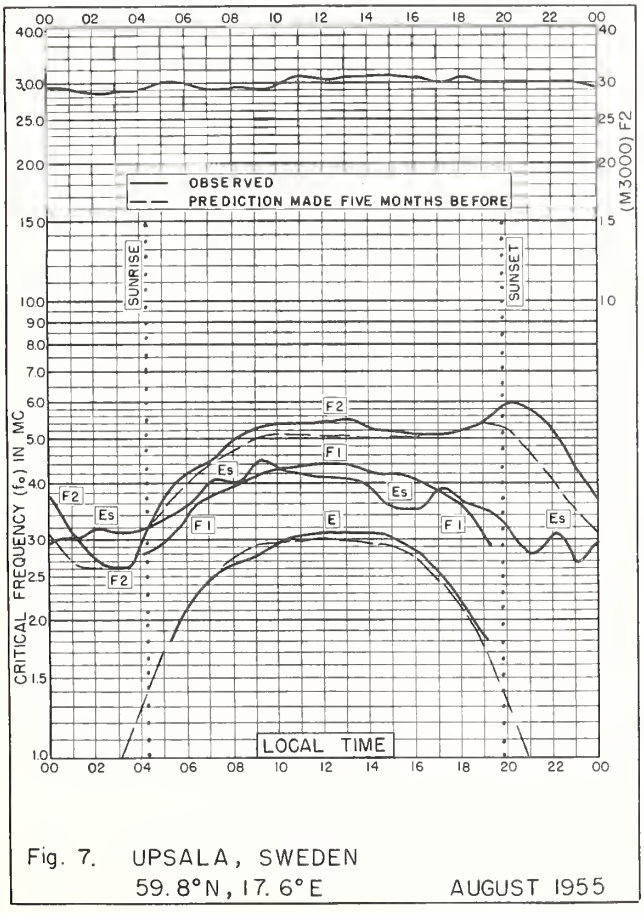


Fig. 7. UPSALA, SWEDEN
59.8°N, 17.6°E AUGUST 1955

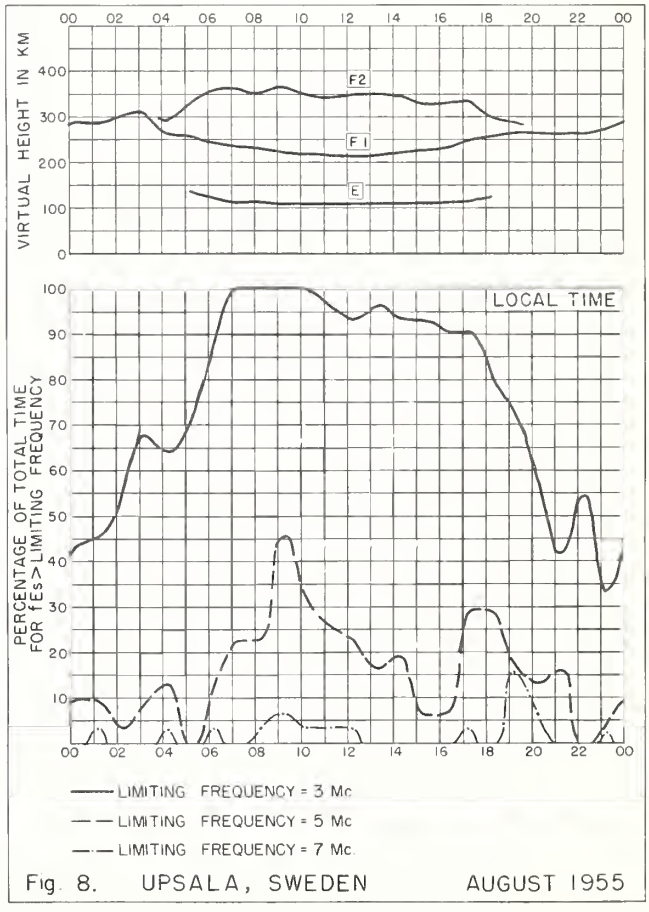


Fig. 8. UPSALA, SWEDEN AUGUST 1955

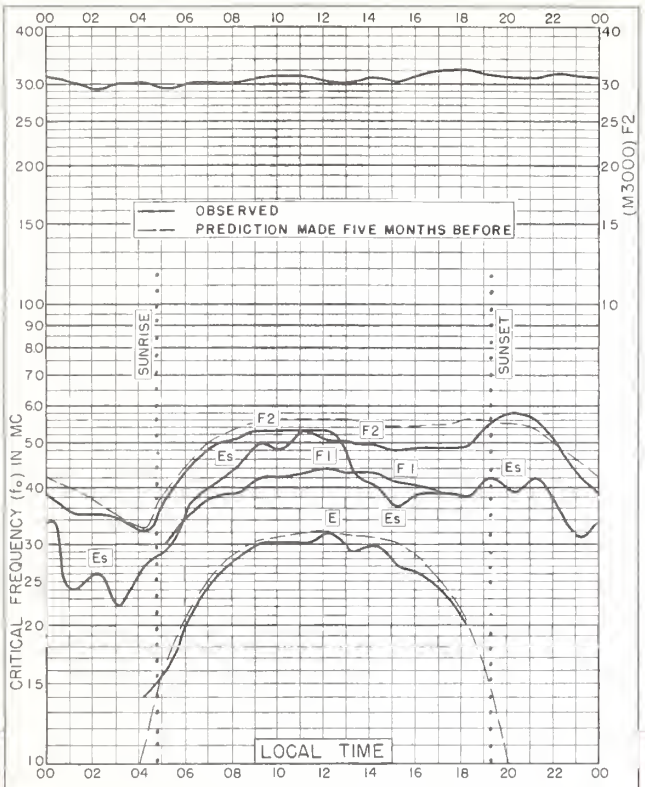


Fig. 9. ADAK, ALASKA
51.9°N, 176.6°W AUGUST 1955

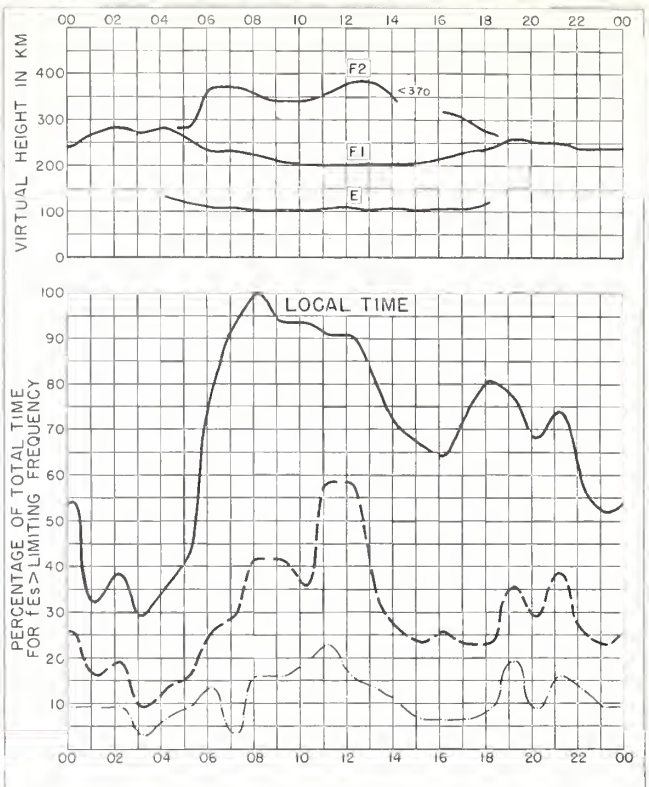


Fig. 10. ADAK, ALASKA AUGUST 1955

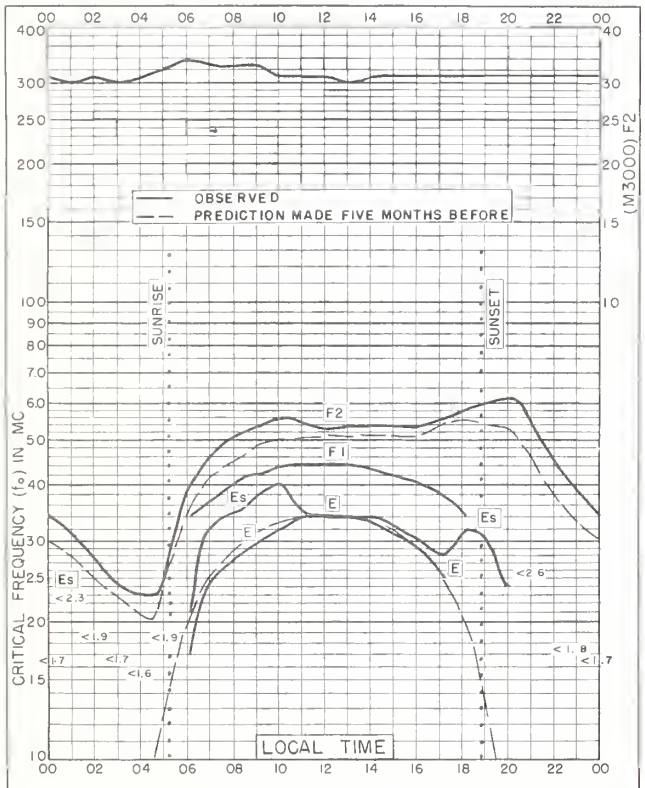


Fig. 11. FT. MONMOUTH, NEW JERSEY
40.3°N, 74.1°W AUGUST 1955

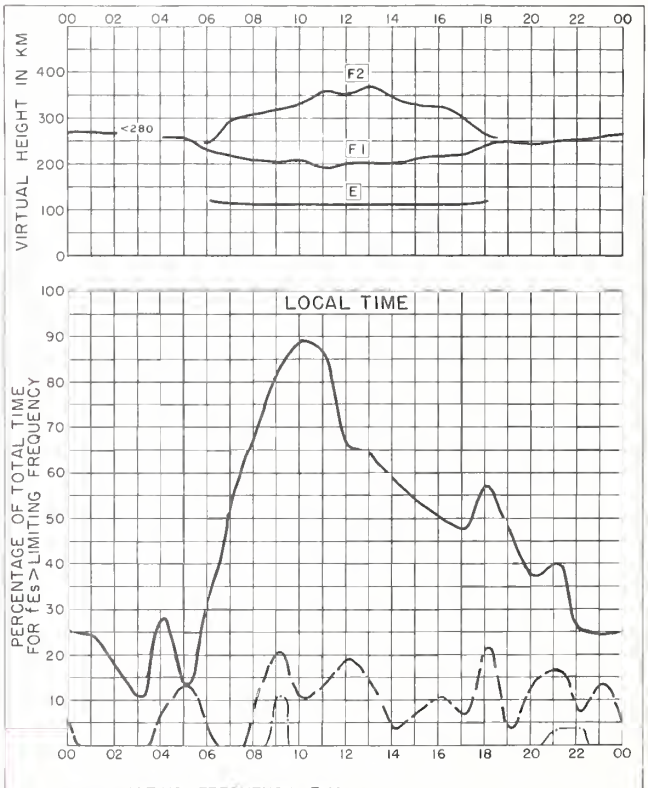


Fig. 12. FT. MONMOUTH, NEW JERSEY AUGUST 1955

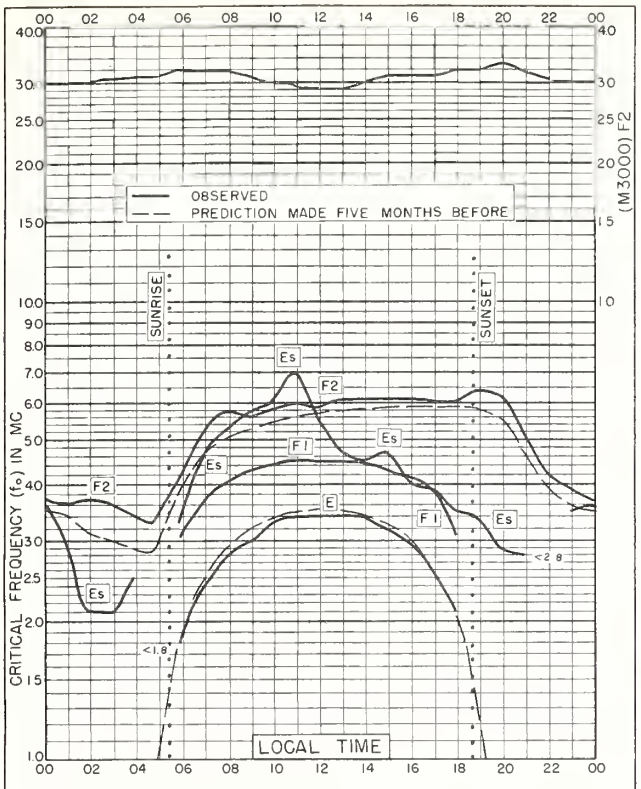
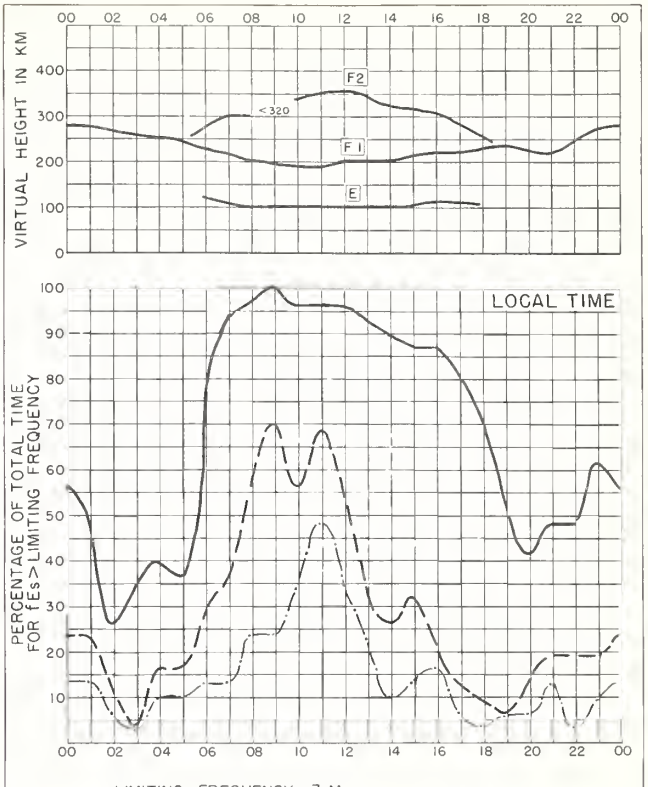


Fig. 13. WHITE SANDS, NEW MEXICO
32.3°N, 106.5°W AUGUST 1955



AUGUST 1955

Fig. 14. WHITE SANDS, NEW MEXICO

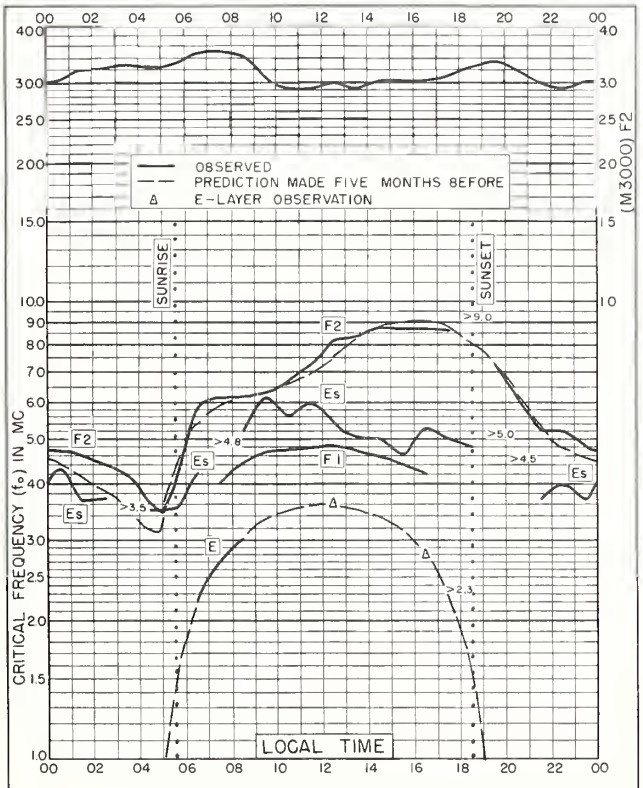


Fig. 15. OKINAWA I.
26.3°N, 127.8°E AUGUST 1955

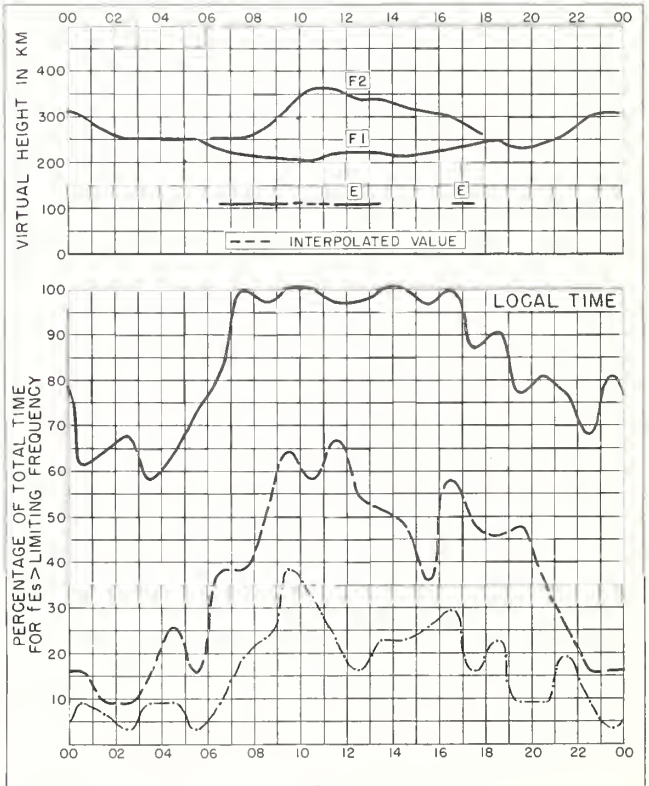


Fig. 16. OKINAWA I. AUGUST 1955

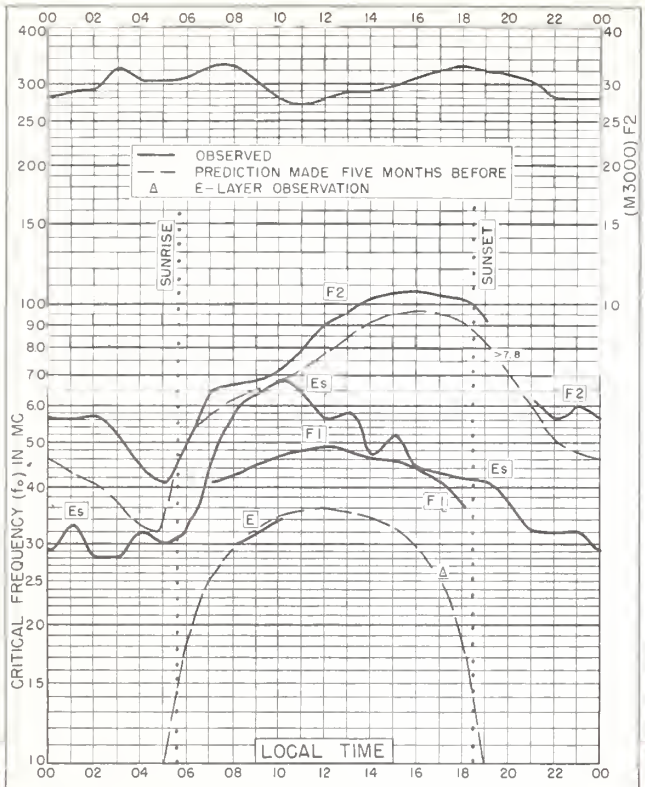


Fig. 17. FORMOSA, CHINA
25.0°N, 121.5°E AUGUST 1955

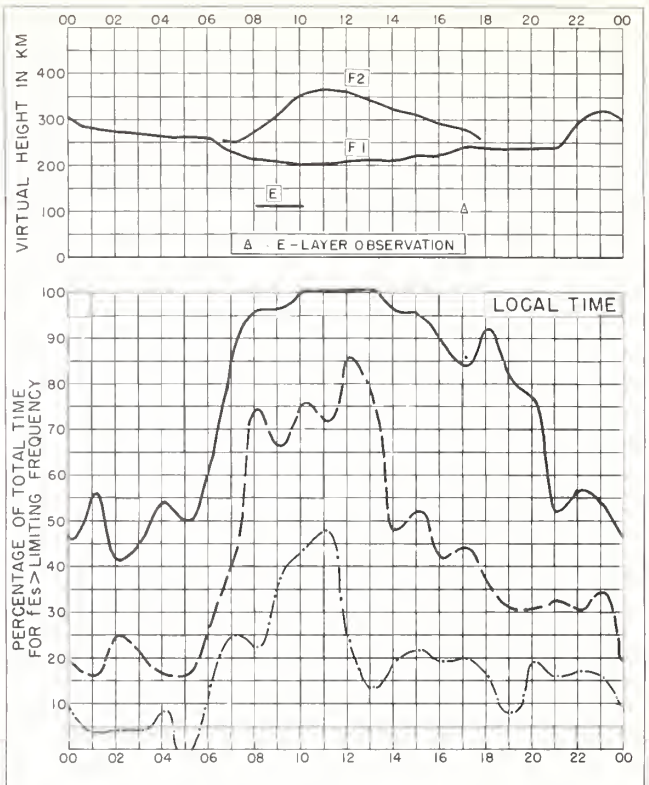


Fig. 18. FORMOSA, CHINA AUGUST 1955

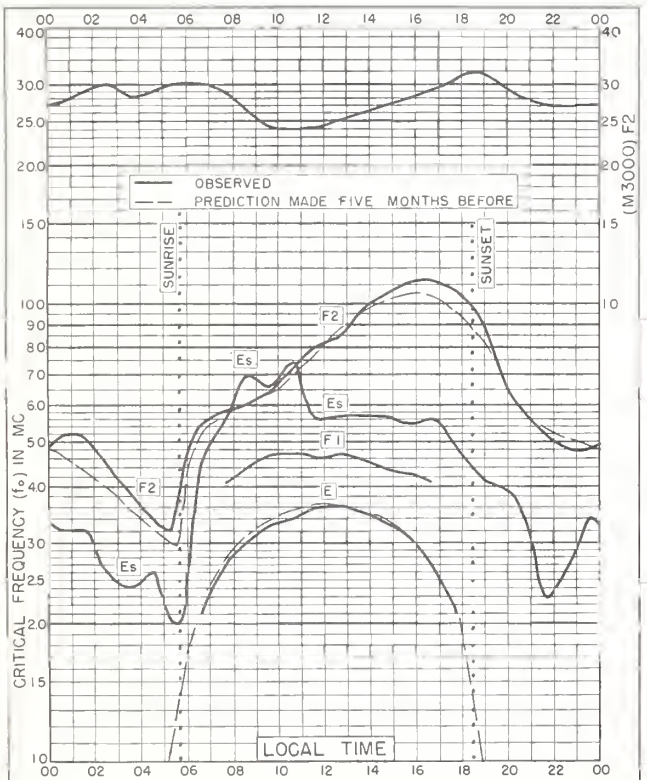


Fig. 19. MAUI, HAWAII
20.8°N, 156.5° W AUGUST 1955

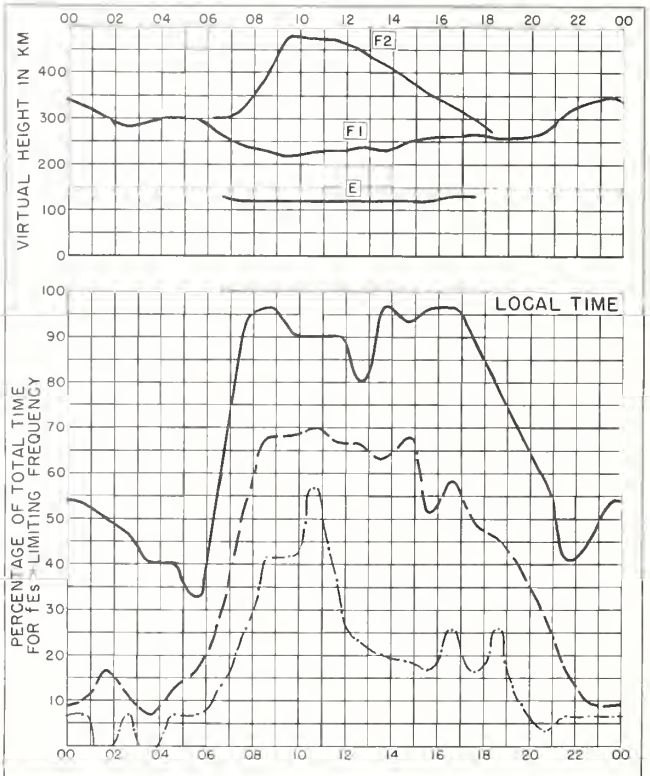


Fig. 20. MAUI, HAWAII AUGUST 1955

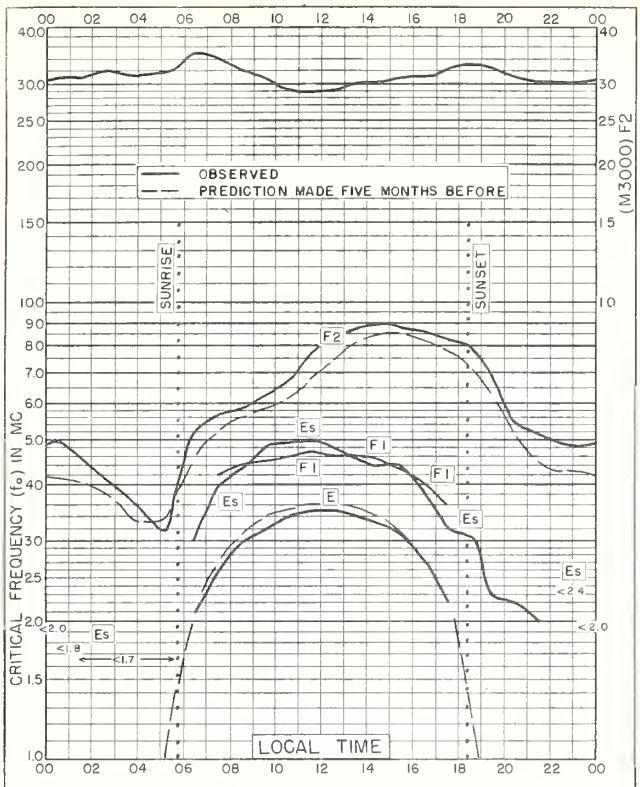


Fig. 21. PUERTO RICO, W. I.
18.5°N, 67.2° W AUGUST 1955

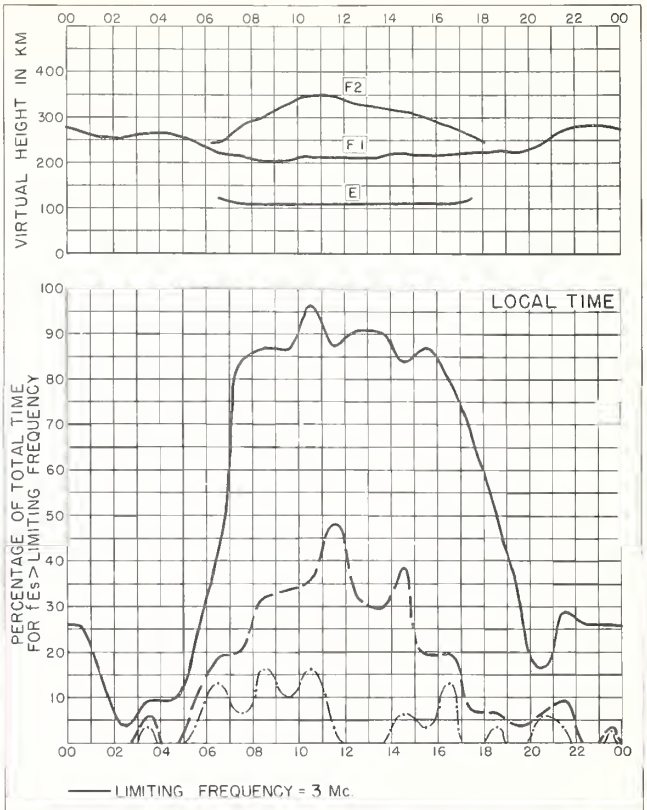


Fig. 22. PUERTO RICO, W. I. AUGUST 1955

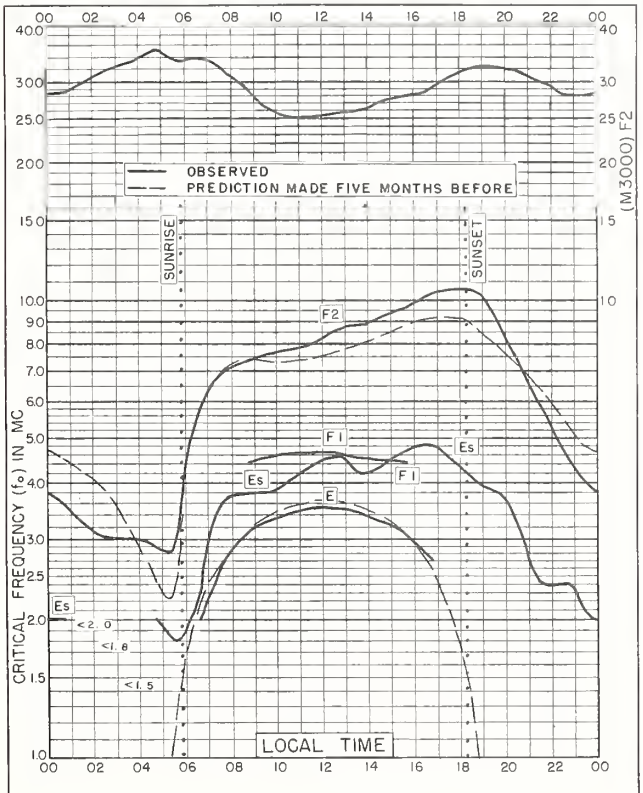


Fig. 23. GUAM I.
13.6°N, 144.9°E AUGUST 1955

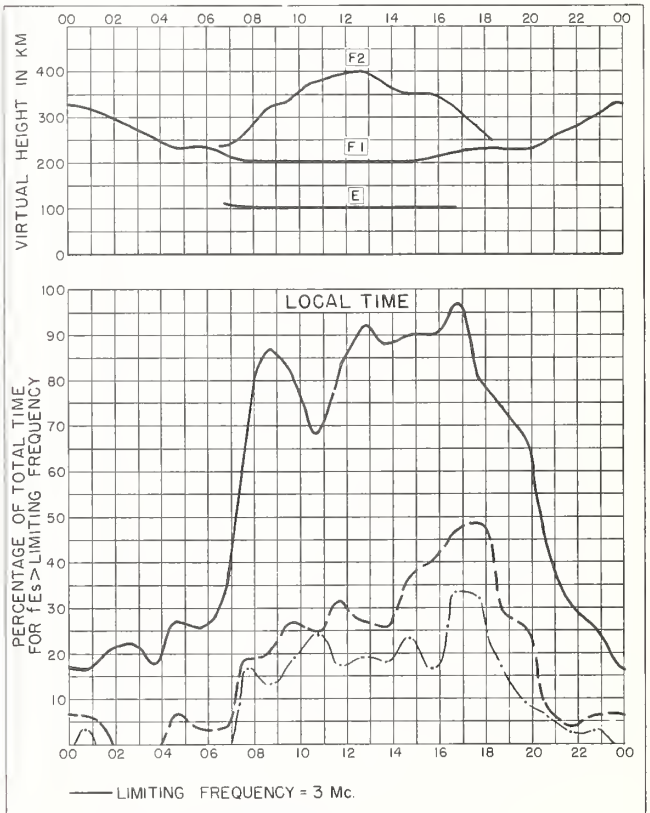


Fig. 24. GUAM I. AUGUST 1955

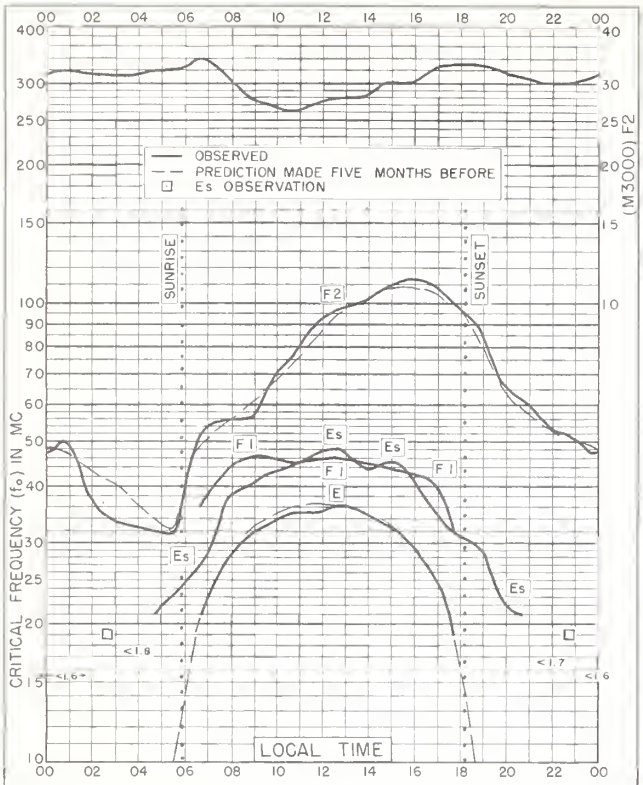


Fig. 25. PANAMA CANAL ZONE
9.4°N, 79.9°W AUGUST 1955

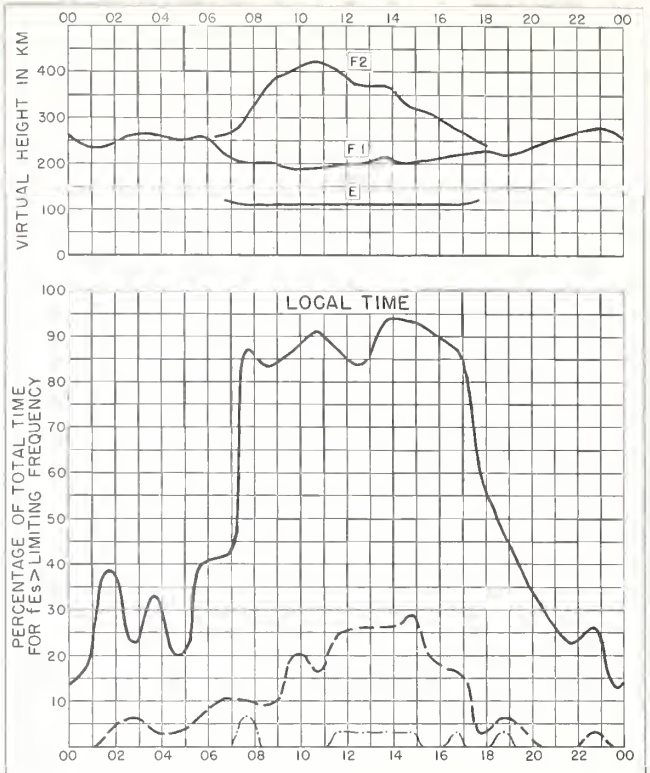


Fig. 26. PANAMA CANAL ZONE AUGUST 1955

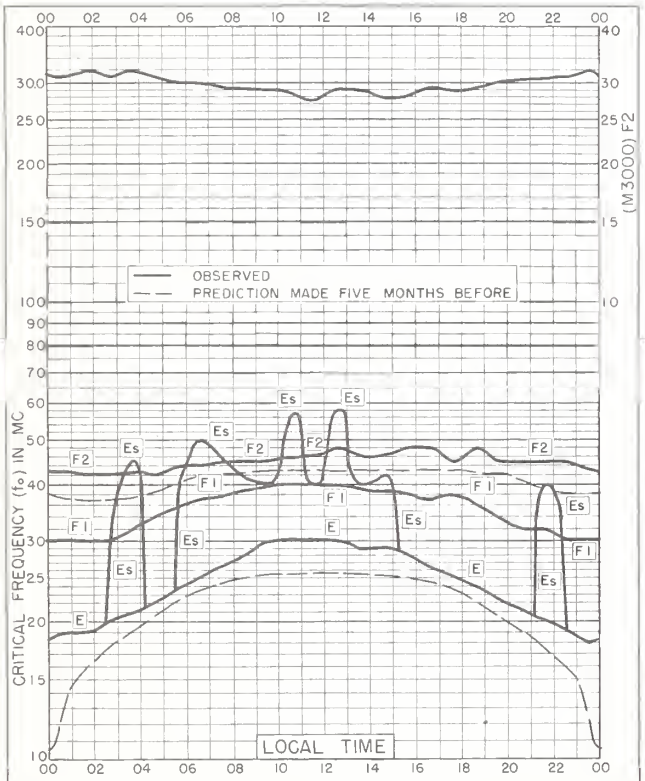


Fig. 27. RESOLUTE BAY, CANADA
74.7°N, 94.9°W JULY 1955

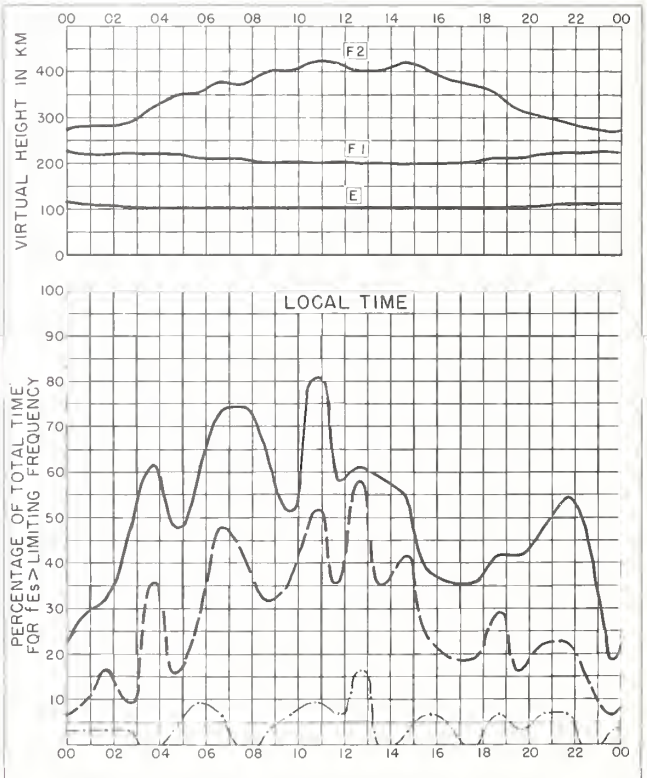


Fig. 28. RESOLUTE BAY, CANADA JULY 1955

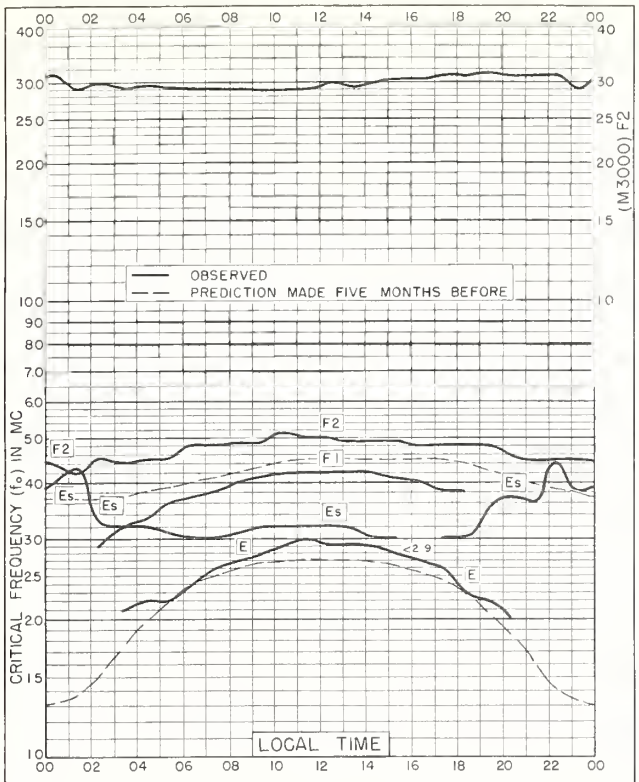


Fig. 29. TROMSO, NORWAY
69.7°N, 19.0°E JULY 1955

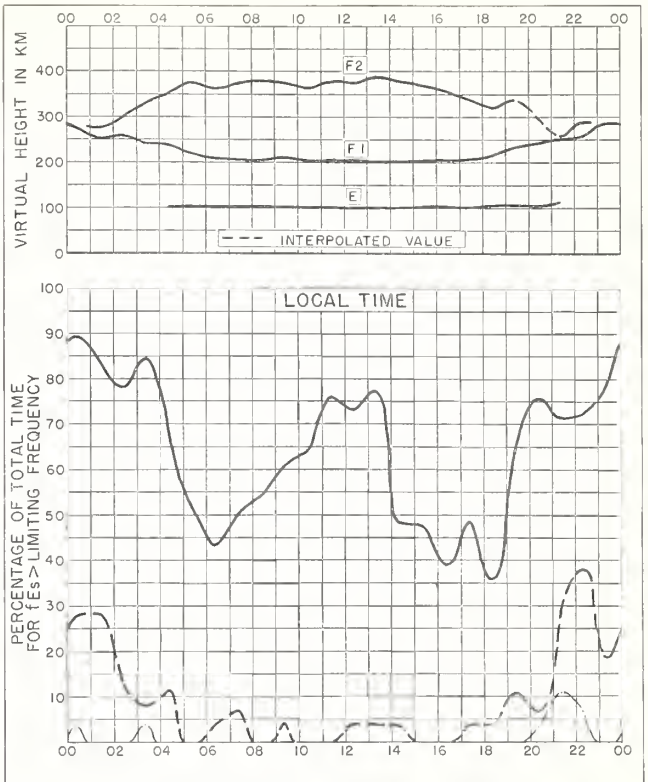


Fig. 30. TROMSO, NORWAY JULY 1955

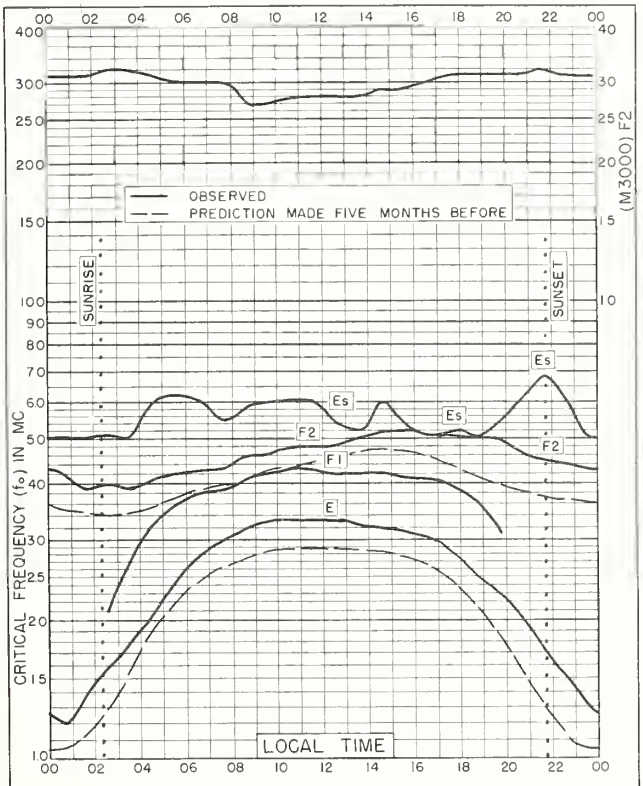


Fig. 31. BAKER LAKE, CANADA
64.3°N, 96.0°W JULY 1955

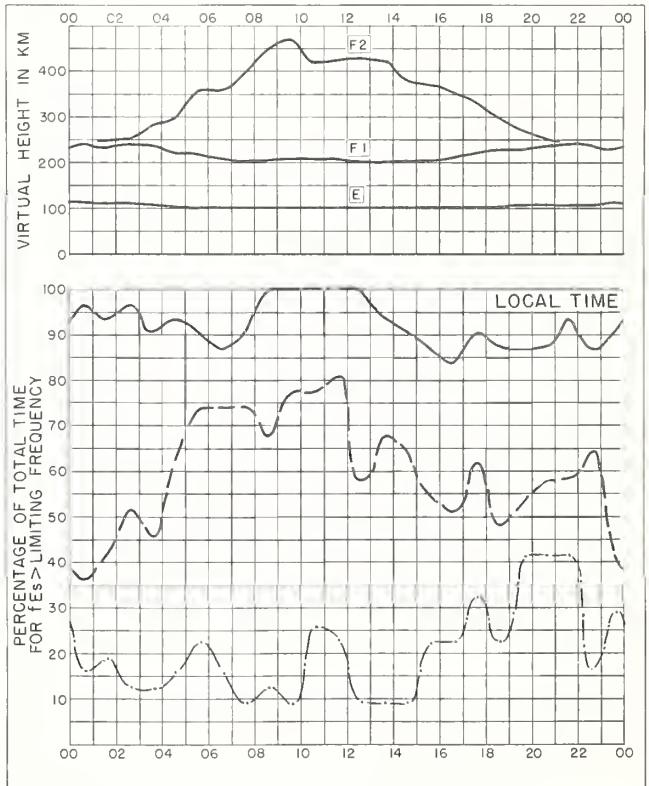


Fig. 32. BAKER LAKE, CANADA JULY 1955

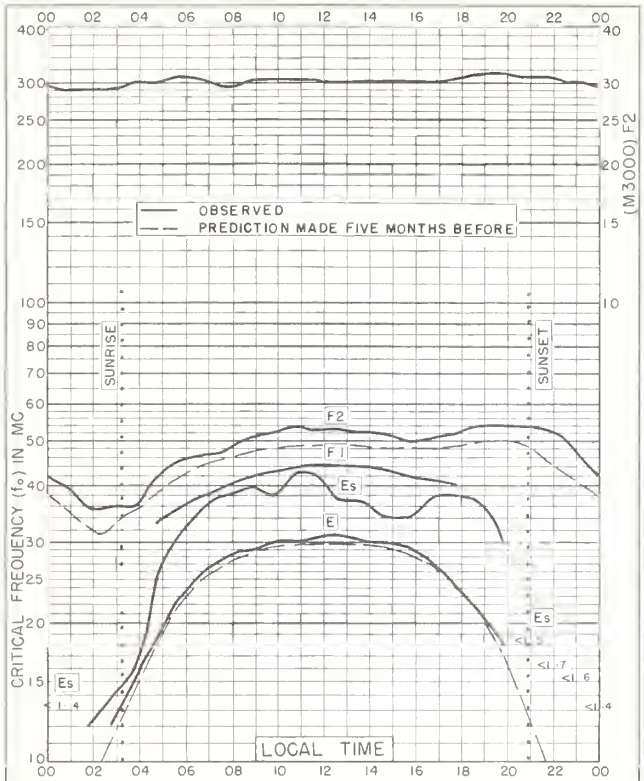


Fig. 33. OSLO, NORWAY
60.0°N, 11.1°E JULY 1955

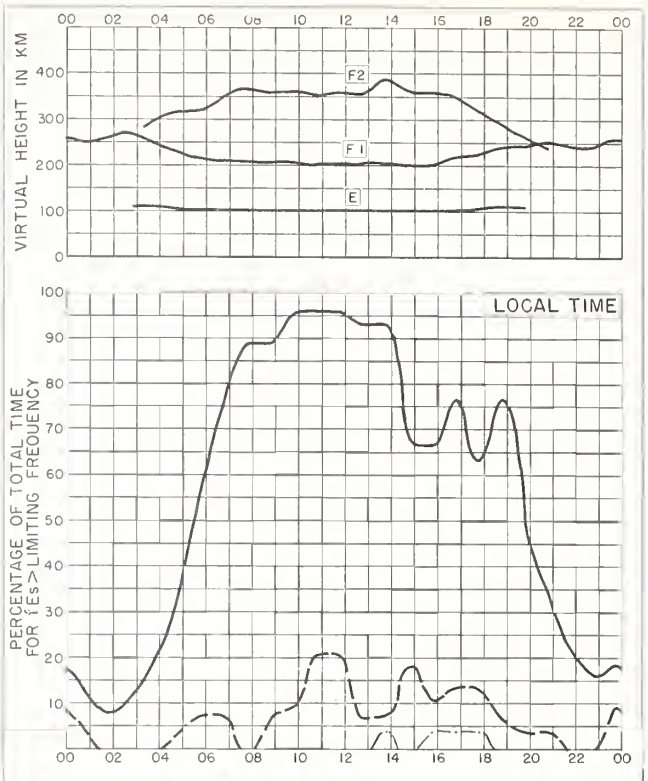


Fig. 34. OSLO, NORWAY JULY 1955

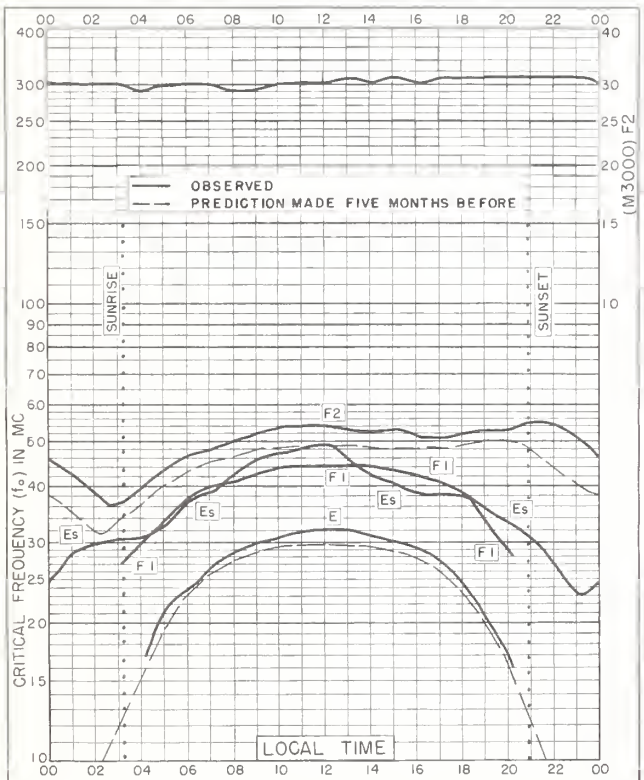


Fig. 35. UPSALA, SWEDEN
59.8°N, 17.6°E JULY 1955

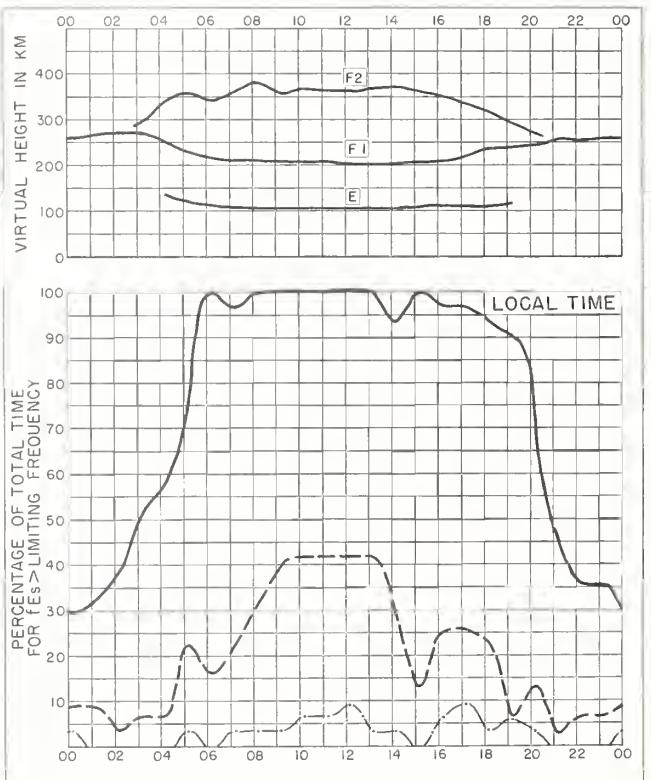


Fig. 36. UPSALA, SWEDEN JULY 1955

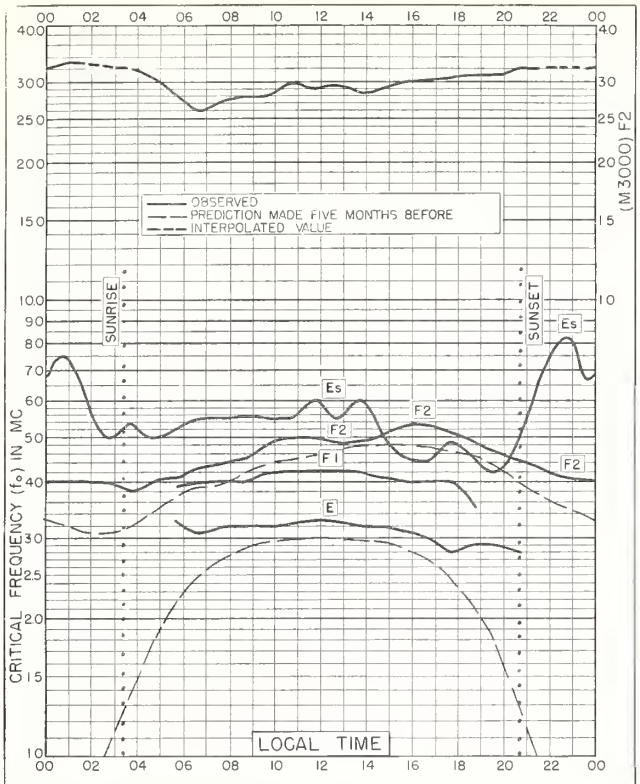


Fig. 37. CHURCHILL, CANADA
58.8°N, 94.2°W JULY 1955

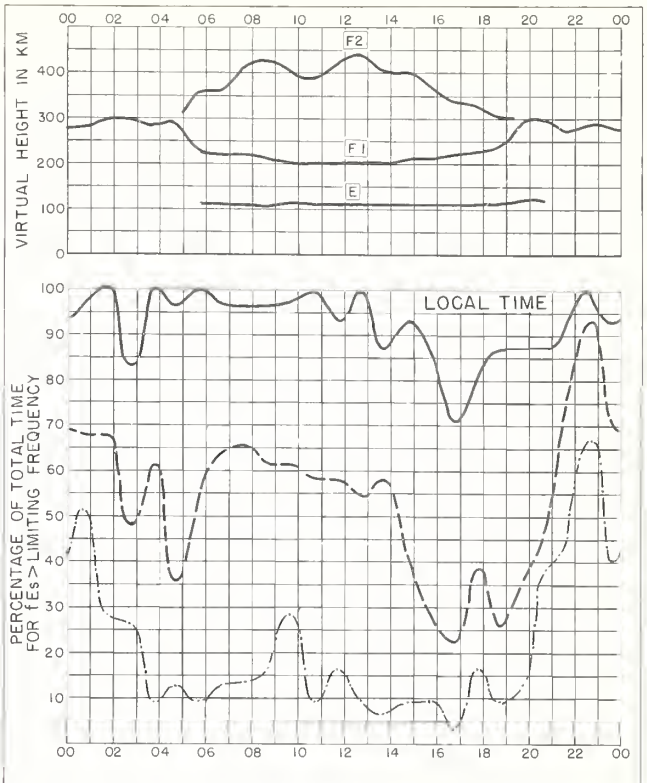


Fig. 38. CHURCHILL, CANADA JULY 1955

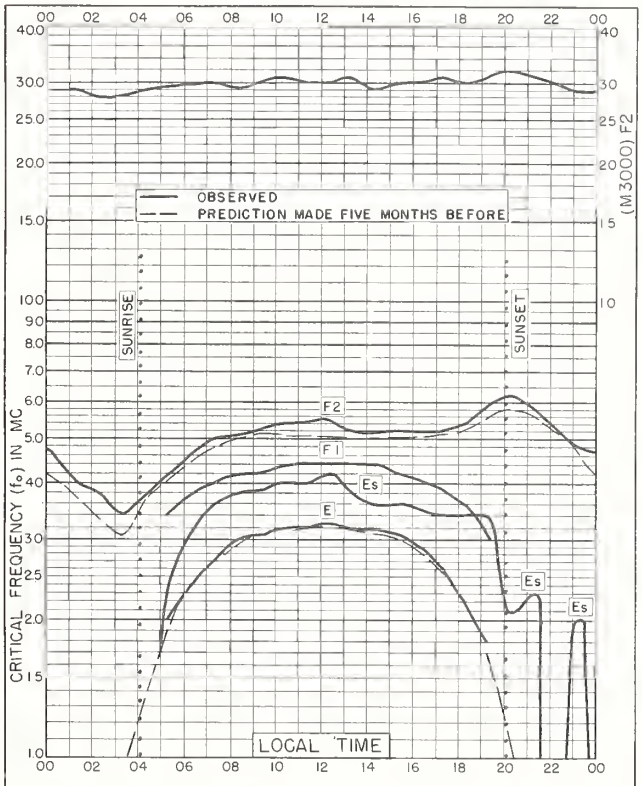


Fig. 39. De BILT, HOLLAND
52.1°N, 5.2°E JULY 1955

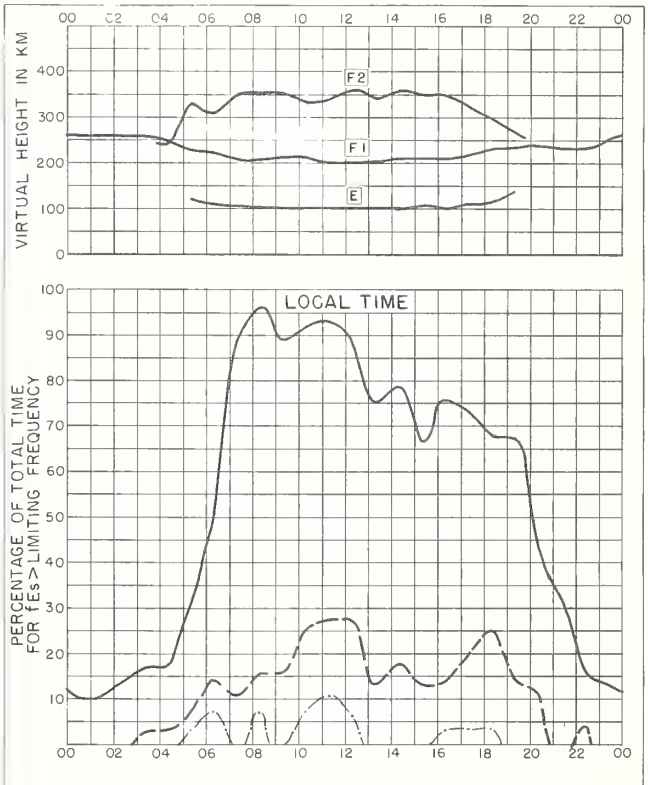


Fig. 40. De BILT, HOLLAND JULY 1955

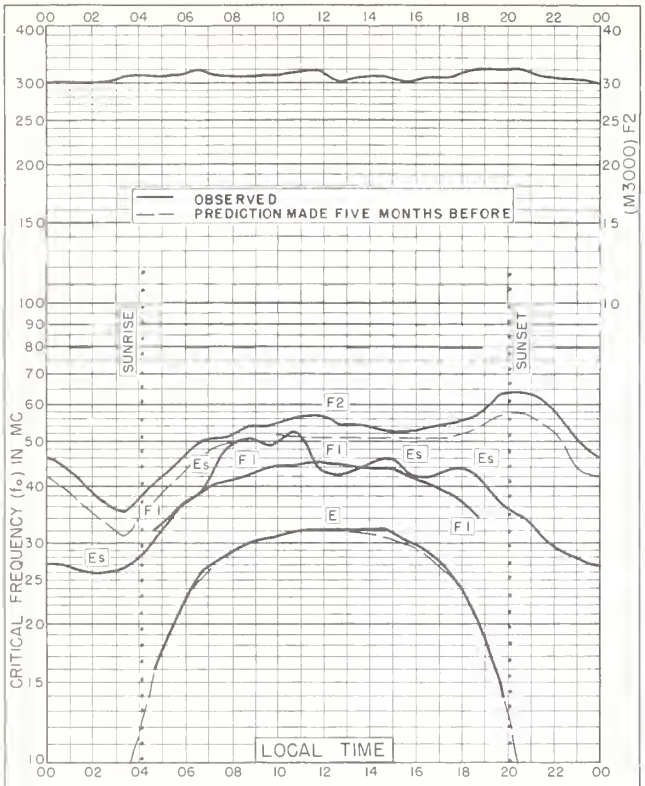


Fig. 41. LINDAU/HARZ, GERMANY
51.6°N, 10.1°E JULY 1955

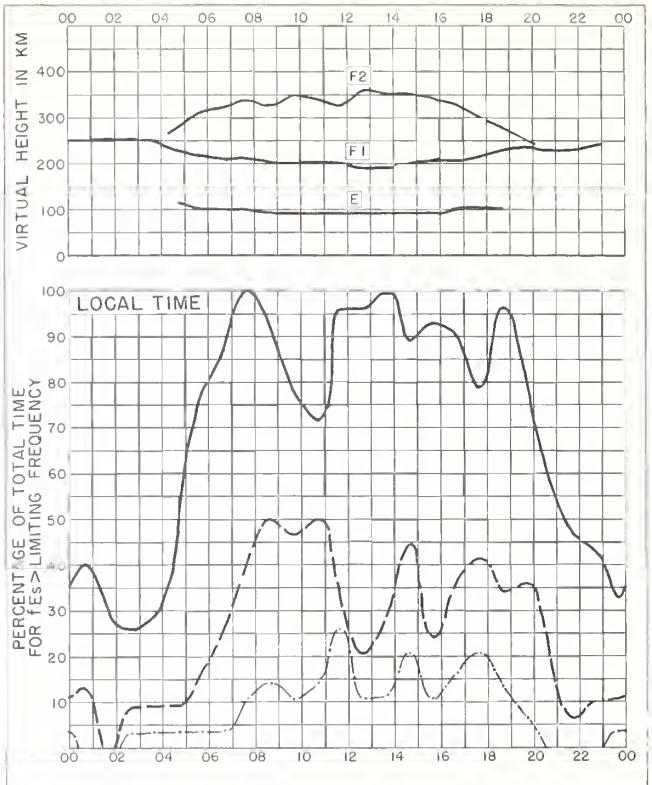


Fig. 42. LINDAU/HARZ, GERMANY JULY 1955

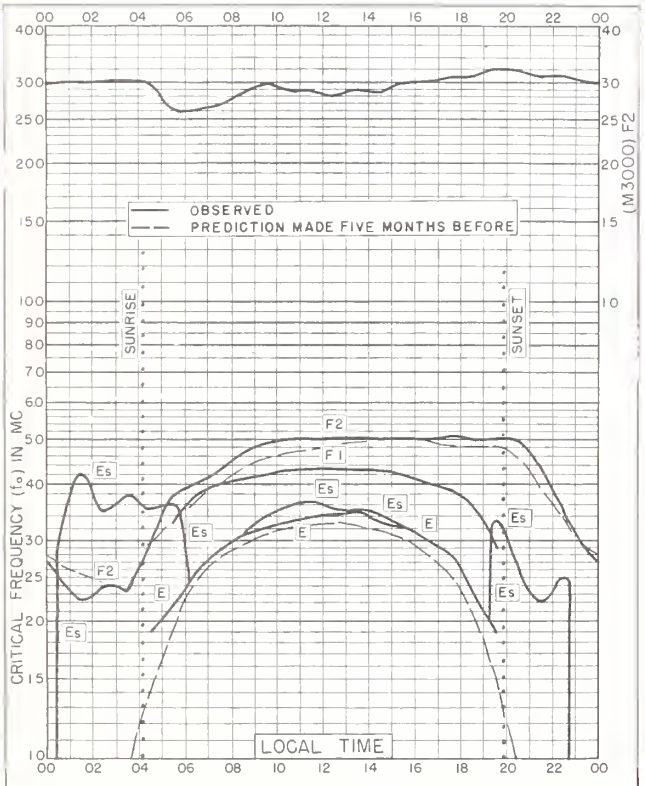


Fig. 43. WINNIPEG, CANADA
49.9°N, 97.4°W JULY 1955

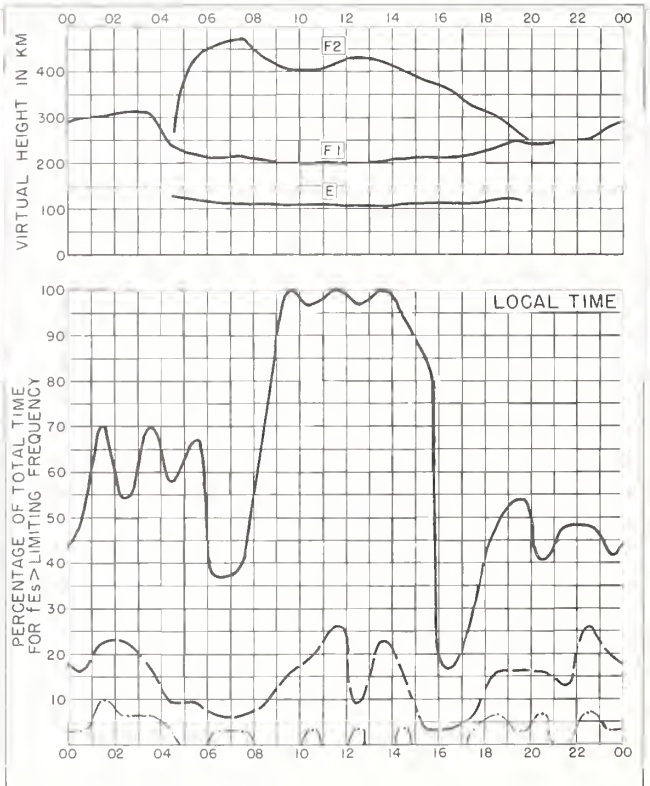


Fig. 44. WINNIPEG, CANADA JULY 1955

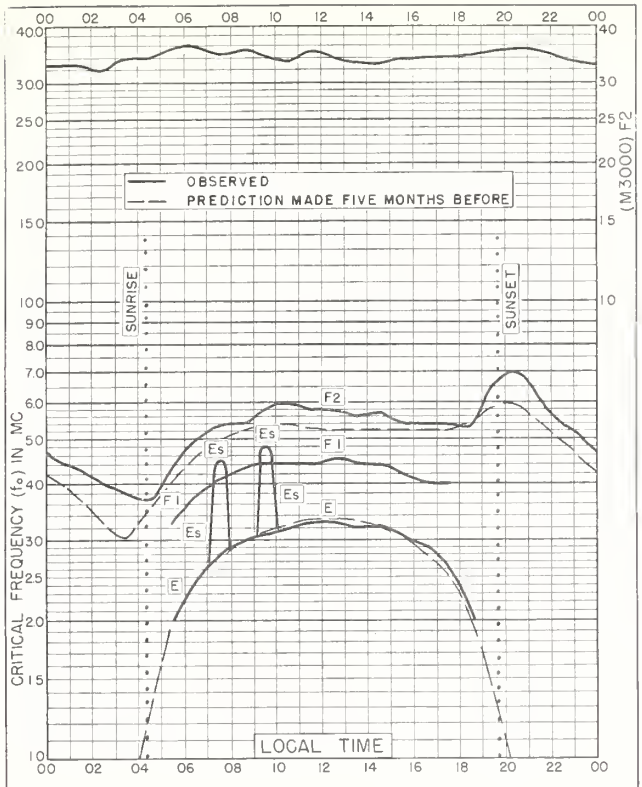
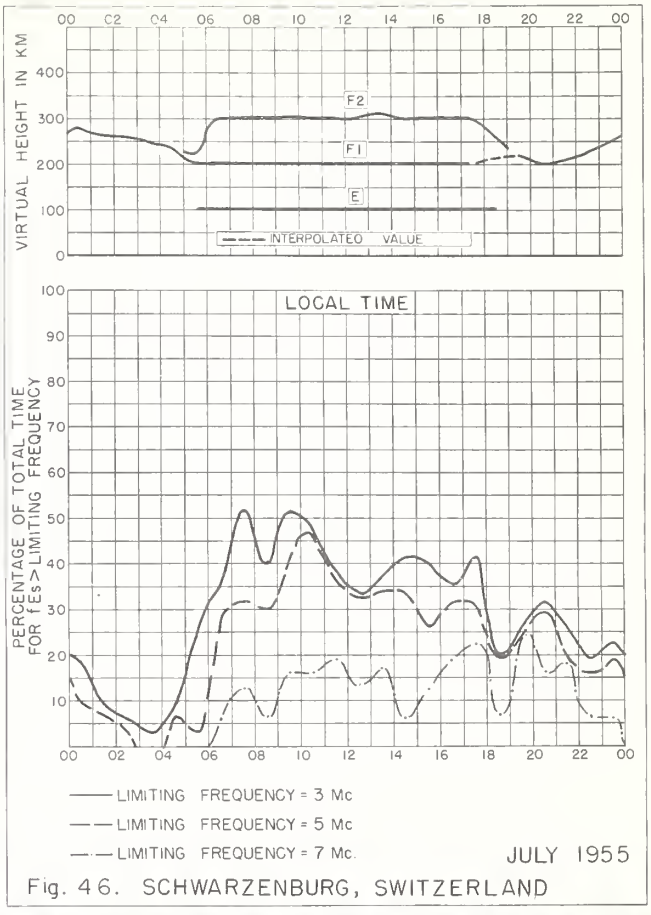


Fig. 45. SCHWARZENBURG, SWITZERLAND
46.8°N, 7.3°E JULY 1955



JULY 1955

Fig. 46. SCHWARZENBURG, SWITZERLAND

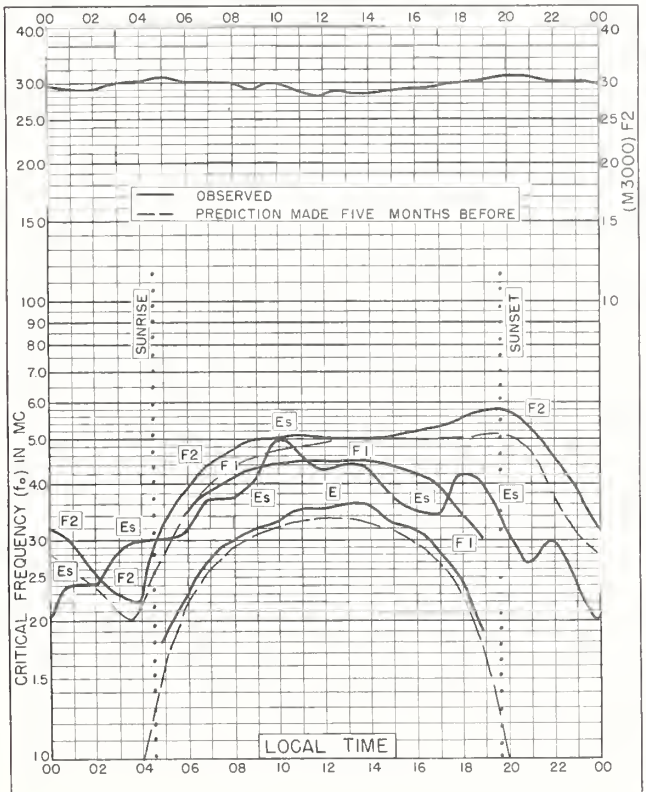


Fig. 47. OTTAWA, CANADA
45.4°N, 75.9° W JULY 1955

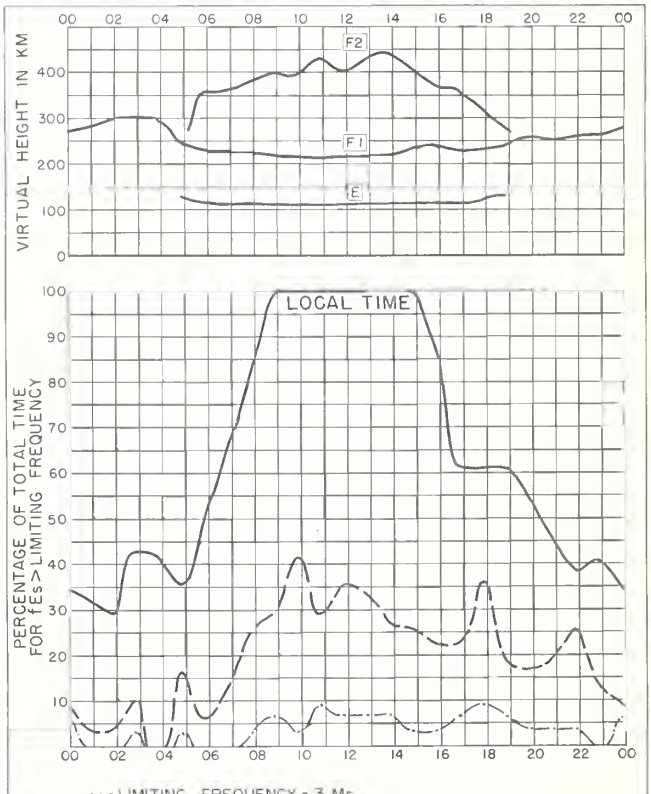


Fig. 48. OTTAWA, CANADA JULY 1955

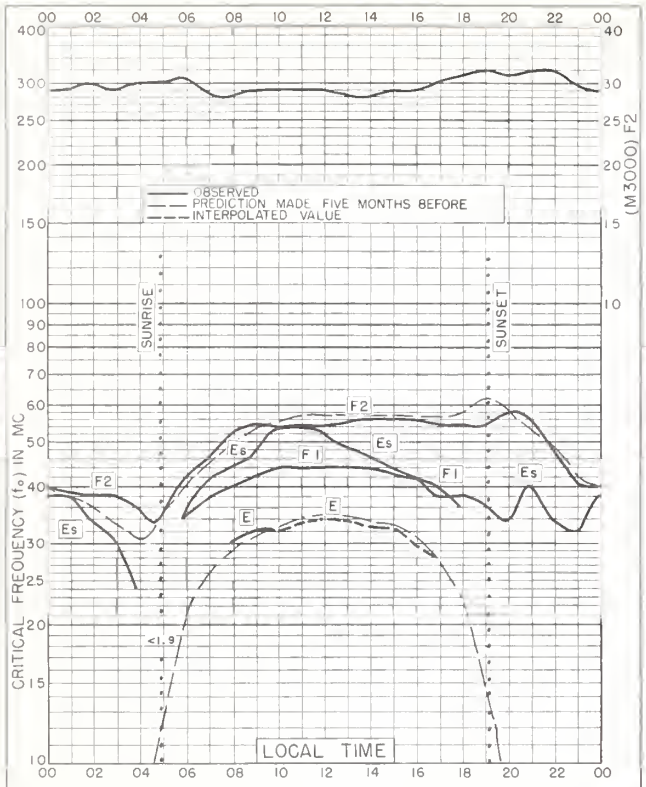


Fig. 49. SAN FRANCISCO, CALIFORNIA
37.4°N, 122.2°W JULY 1955

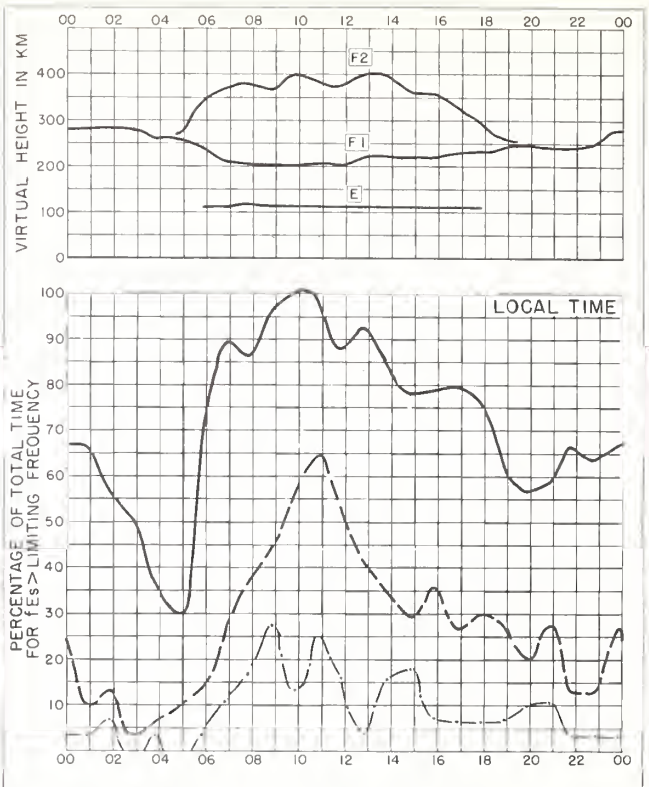


Fig. 50. SAN FRANCISCO, CALIFORNIA JULY 1955

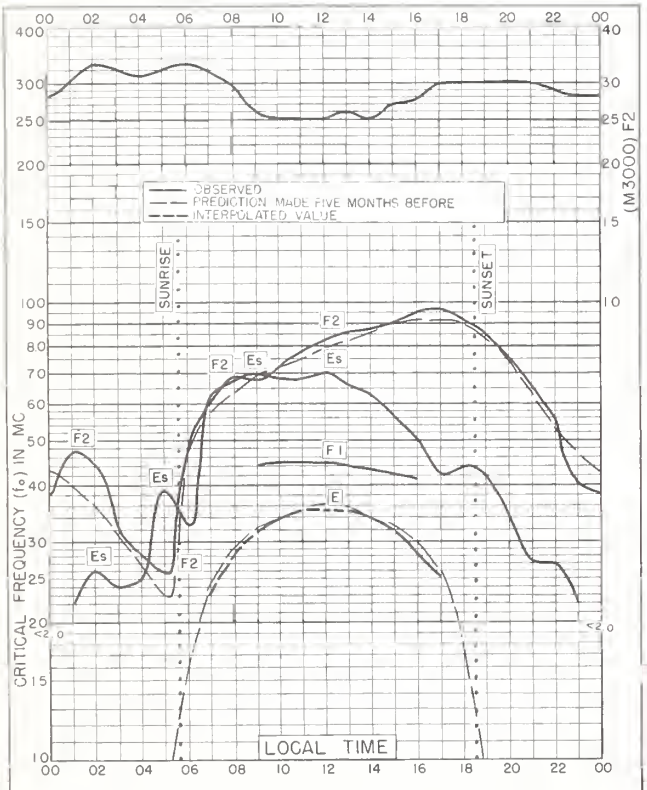


Fig. 51. BAGUIO, P. I.
16.4°N, 120.6° JULY 1955

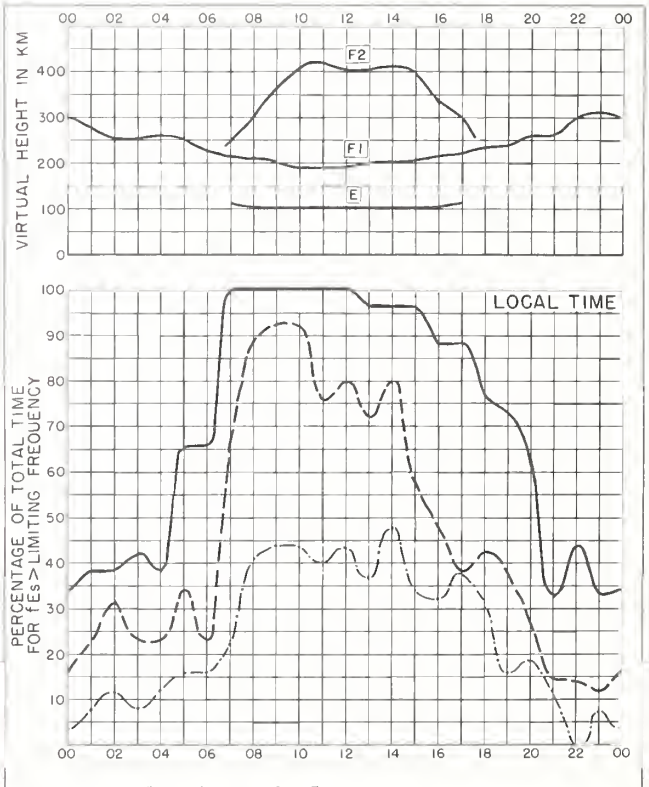


Fig. 52. BAGUIO, P.I. JULY 1955

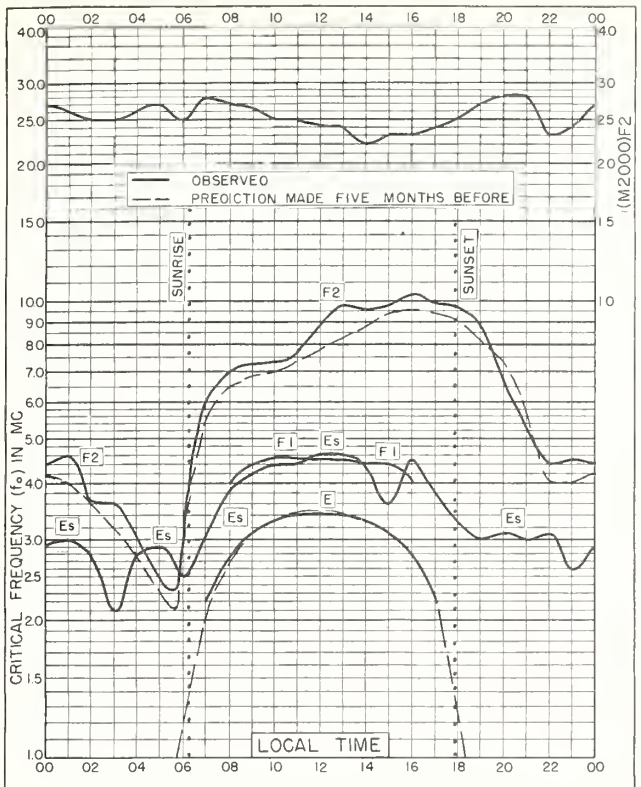
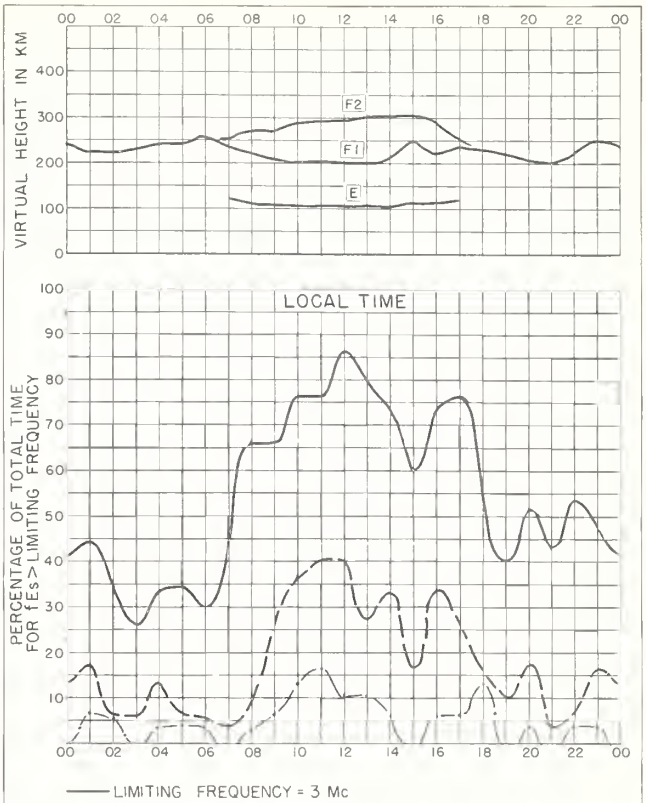


Fig. 53. LEOPOLDVILLE, BELGIAN CONGO
4.4°S, 15.2°E JULY 1955



JULY 1955

Fig. 54. LEOPOLDVILLE, BELGIAN CONGO

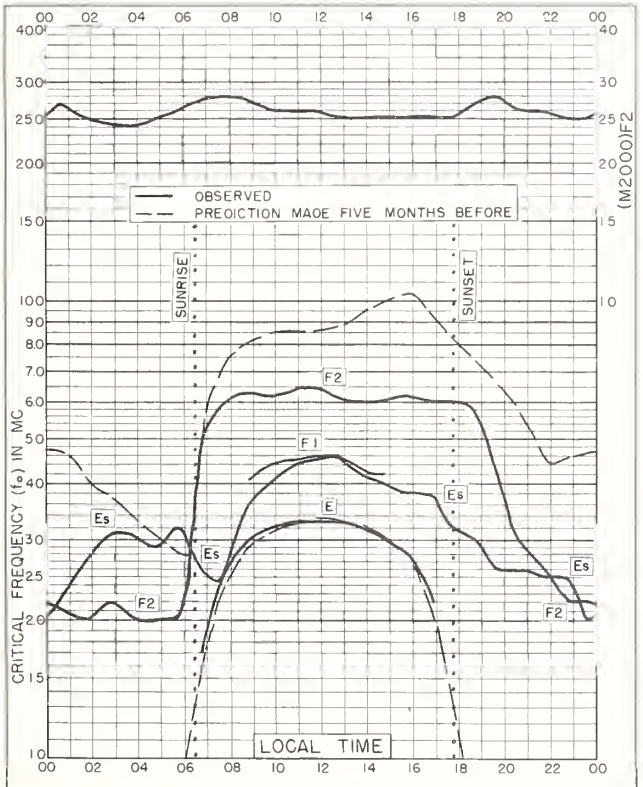
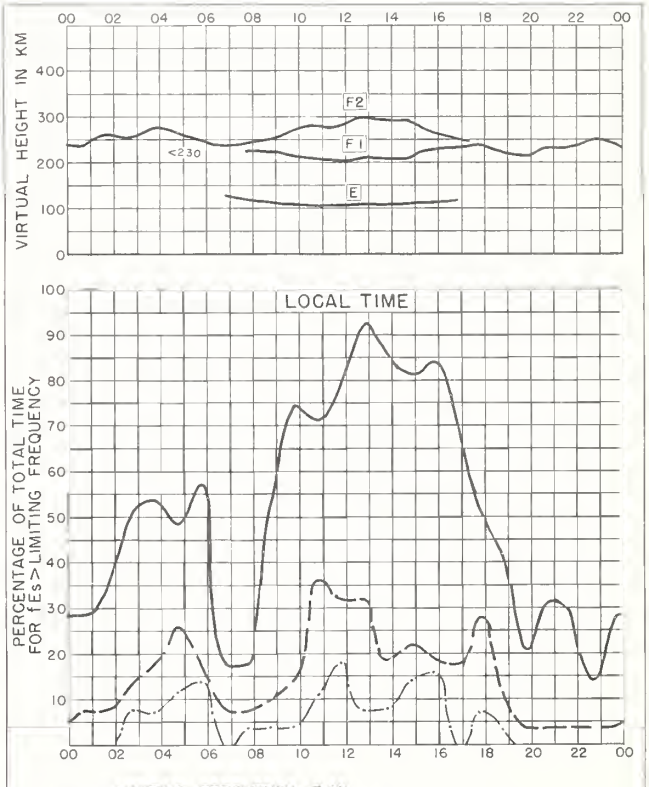


Fig. 55. ELISABETHVILLE, BELGIAN CONGO
11.6°S, 27.5°E JULY 1955



JULY 1955

Fig. 56. ELISABETHVILLE, BELGIAN CONGO

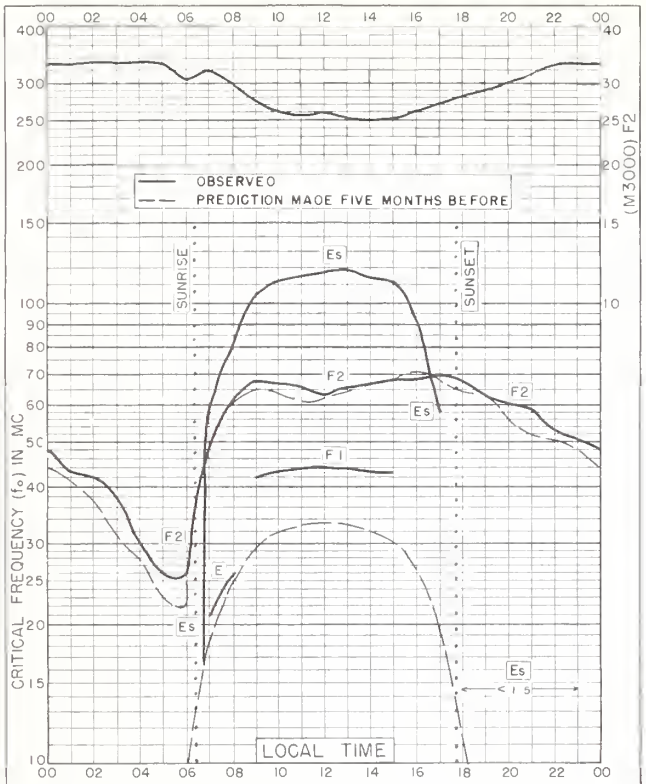


Fig. 57. HUANCAYO, PERU
12.0°S, 75.3°W JULY 1955

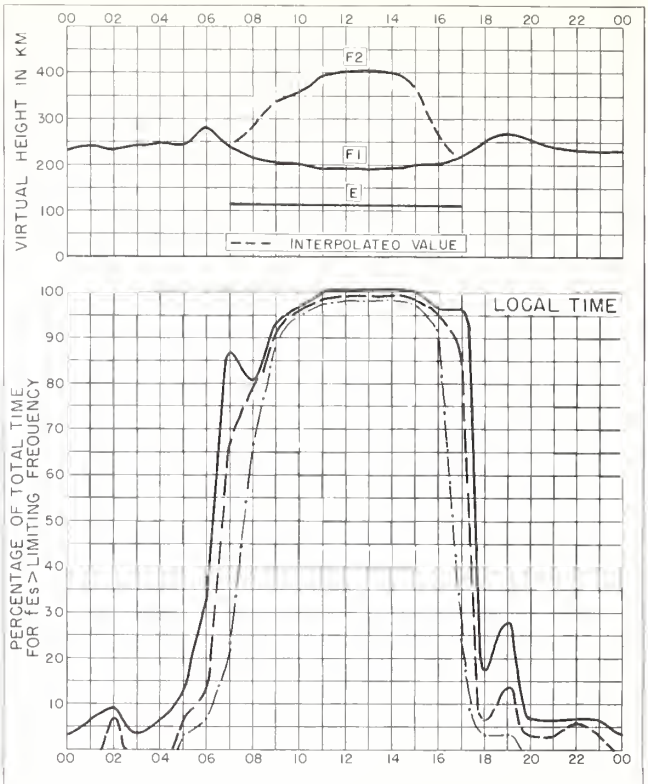


Fig. 58. HUANCAYO, PERU JULY 1955

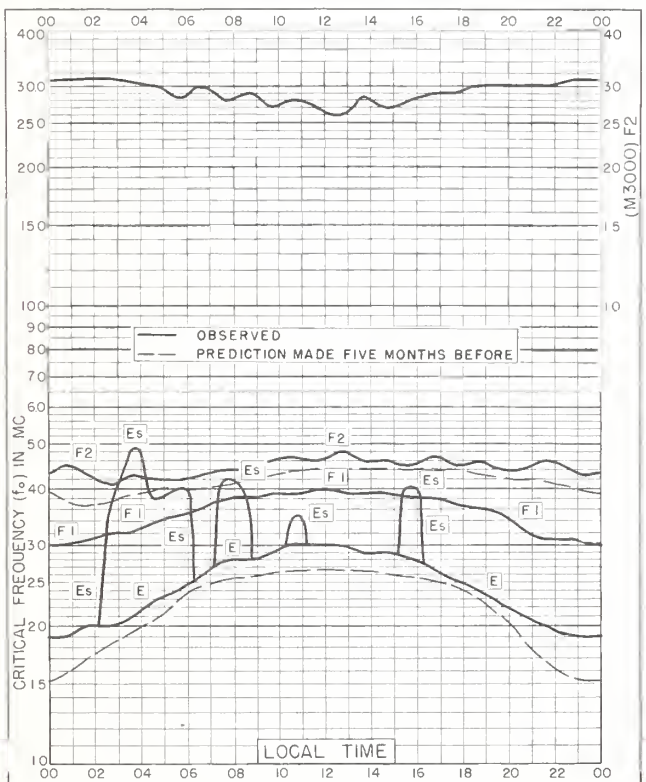


Fig. 59. RESOLUTE BAY, CANADA
74.7°N, 94.9°W JUNE 1955

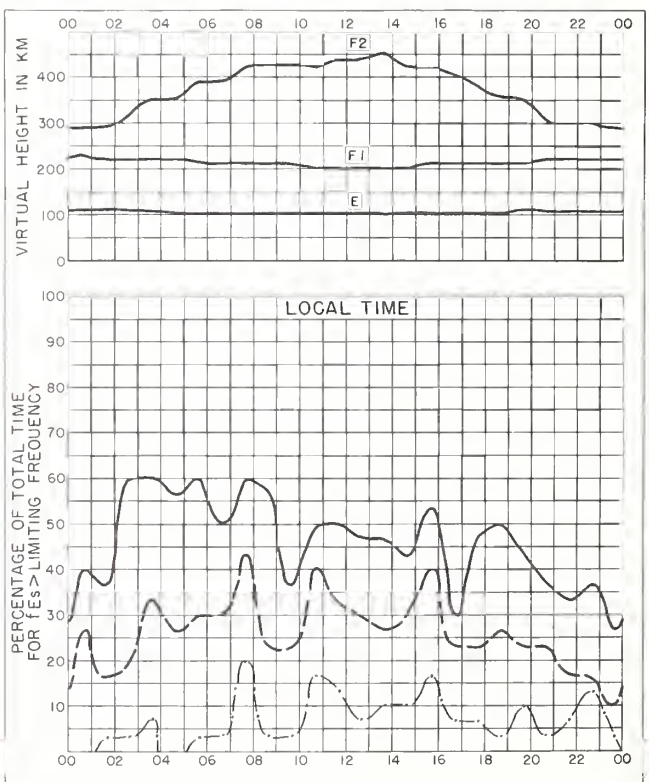


Fig. 60. RESOLUTE BAY, CANADA JUNE 1955

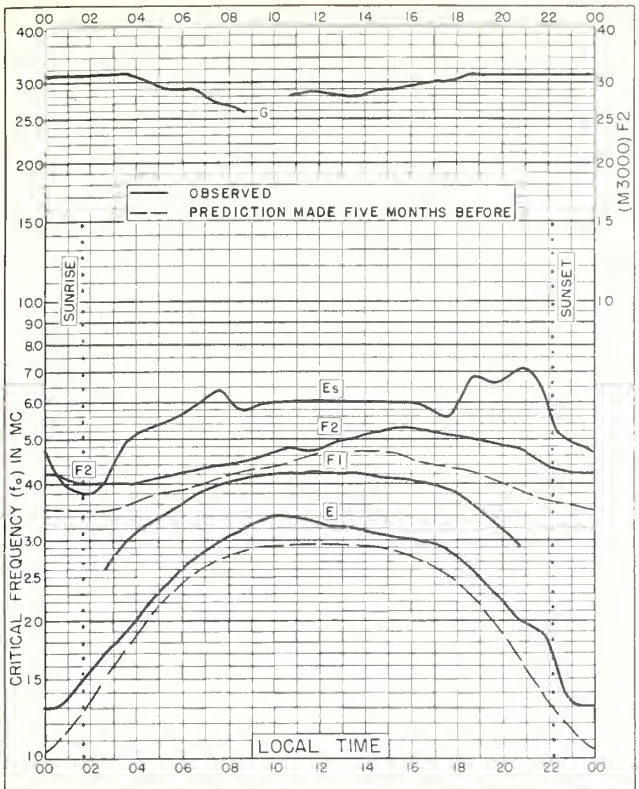


Fig. 61. BAKER LAKE, CANADA
64.3°N, 96.0°W JUNE 1955

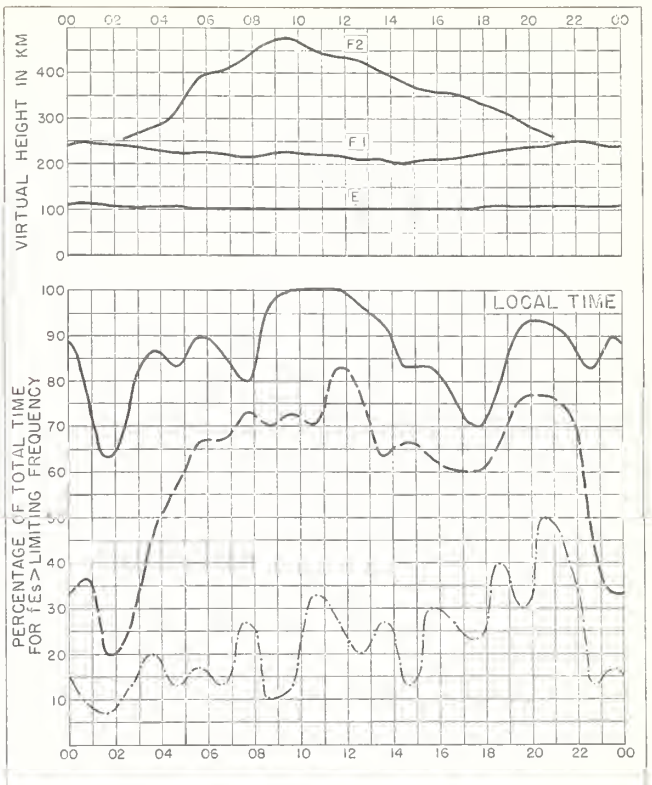


Fig. 62. BAKER LAKE, CANADA JUNE 1955

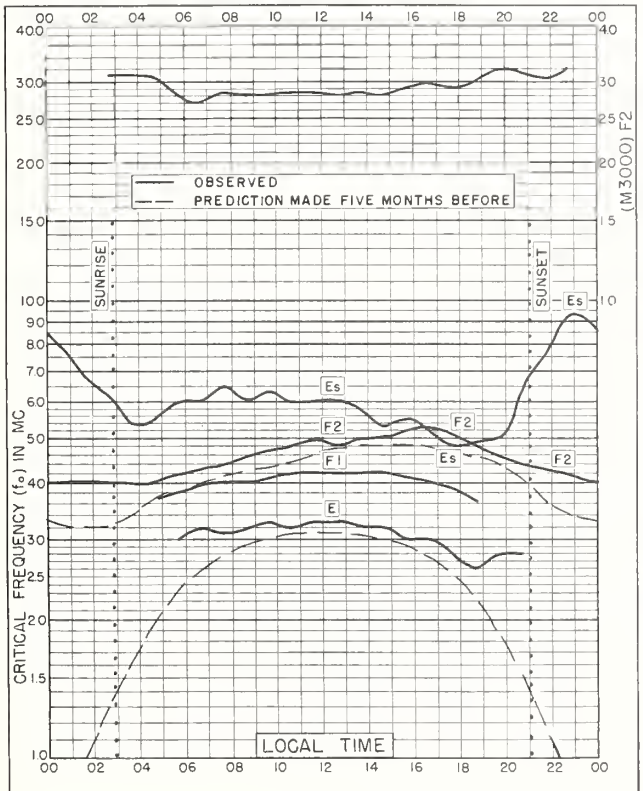


Fig. 63. CHURCHILL, CANADA
58.8°N, 94.2°W JUNE 1955

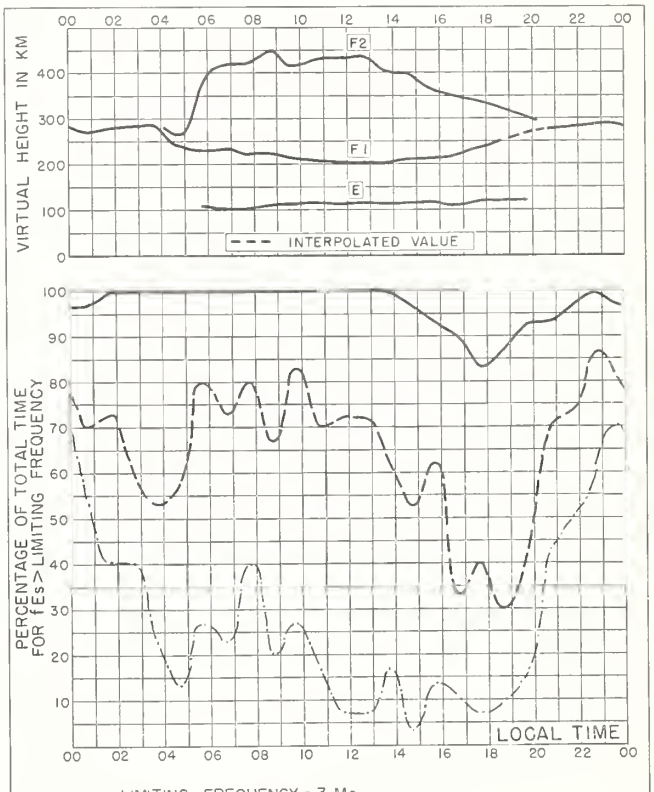


Fig. 64. CHURCHILL, CANADA JUNE 1955

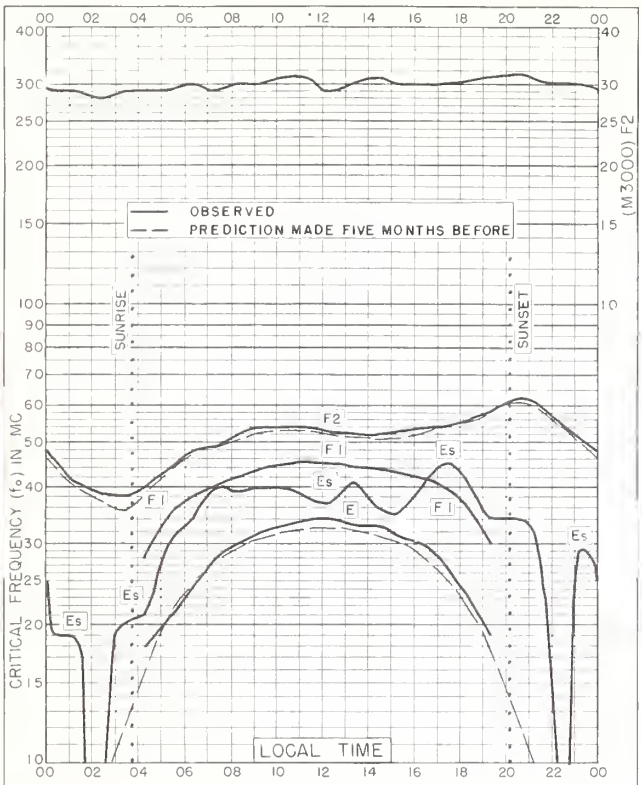


Fig. 65. De BILT, HOLLAND
52.1°N, 5.2°E JUNE 1955

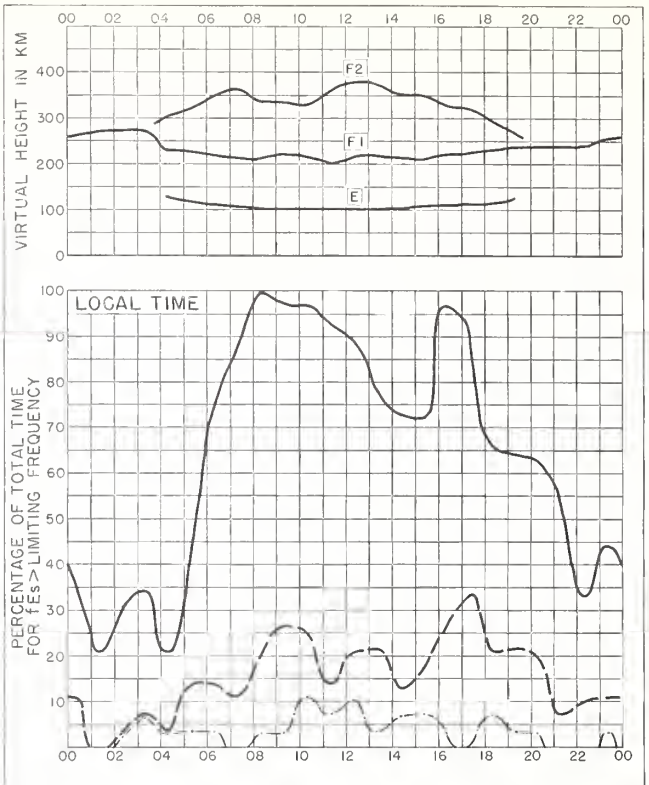


Fig. 66. De BILT, HOLLAND JUNE 1955

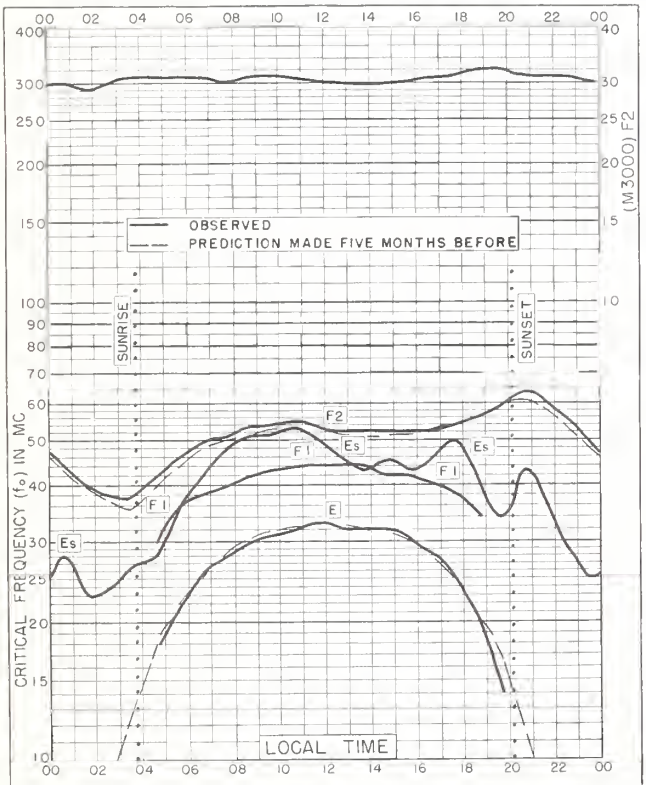


Fig. 67. LINDAU/HARZ, GERMANY
51.6°N, 10.1°E JUNE 1955

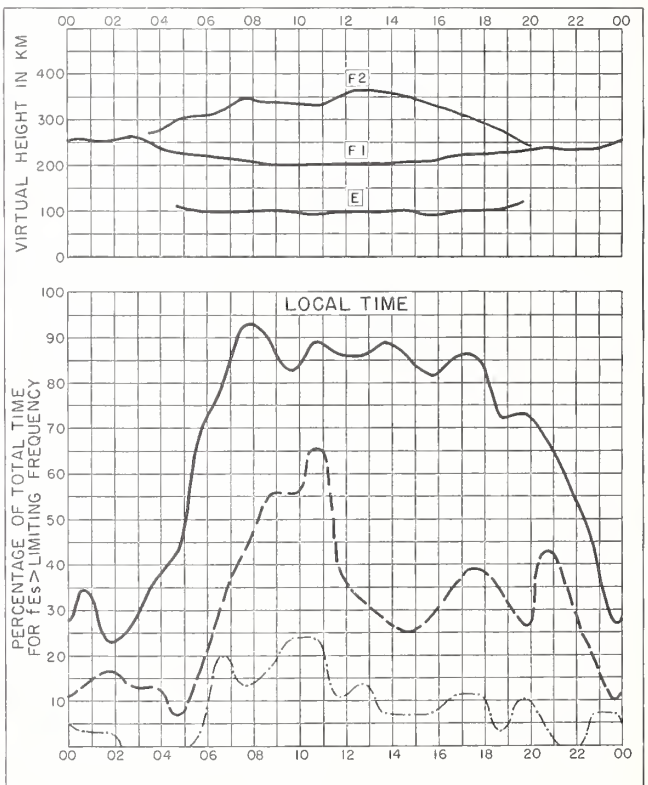


Fig. 68. LINDAU/HARZ, GERMANY JUNE 1955

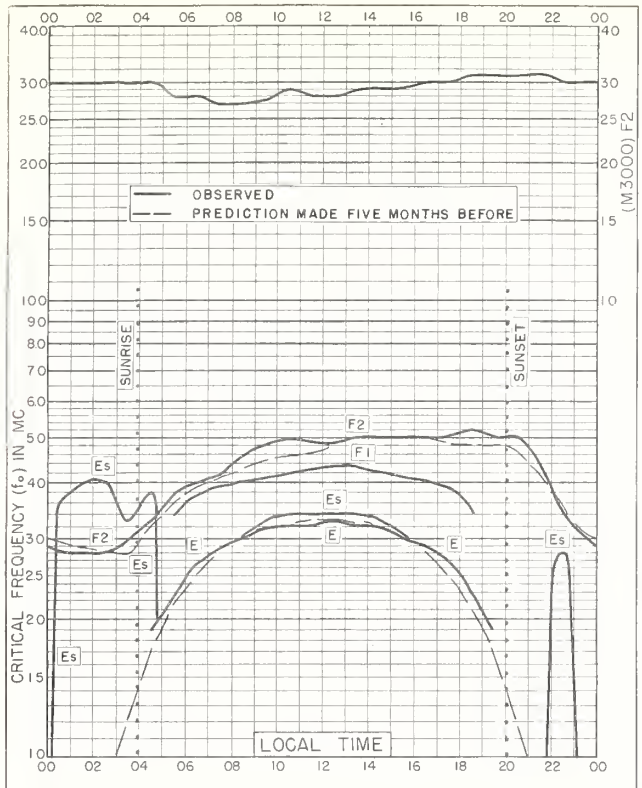


Fig. 69. WINNIPEG, CANADA
49.9°N, 97.4°W JUNE 1955

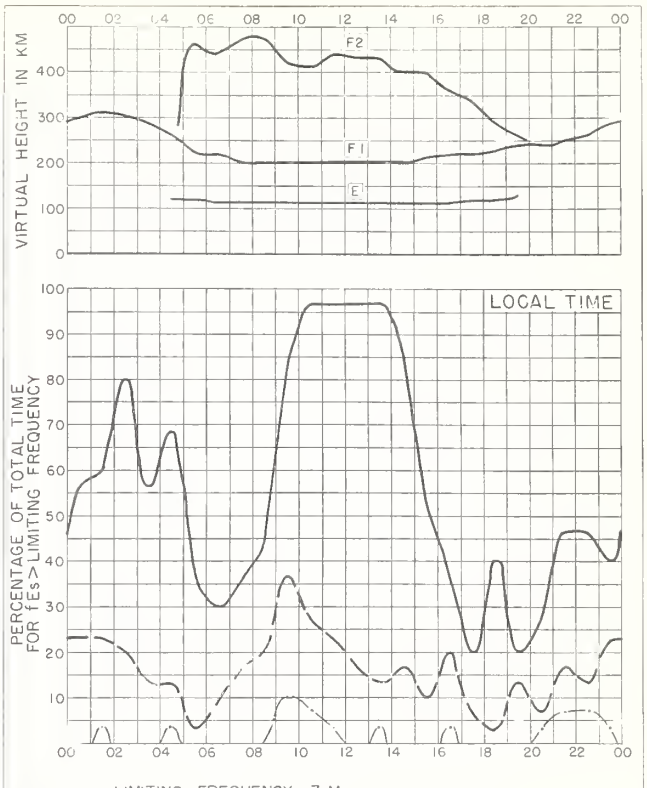


Fig. 70. WINNIPEG, CANADA JUNE 1955

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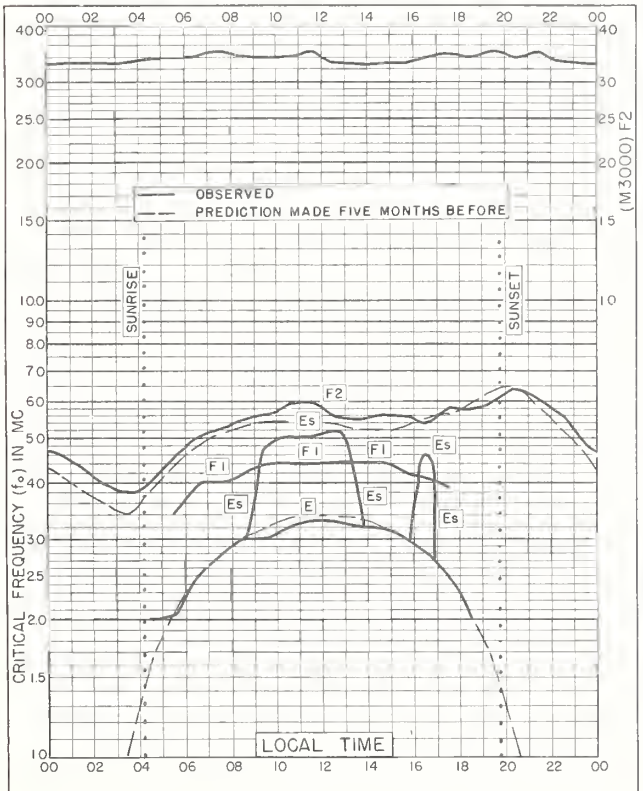


Fig. 71. SCHWARZENBURG, SWITZERLAND
46.8°N, 7.3°E JUNE 1955

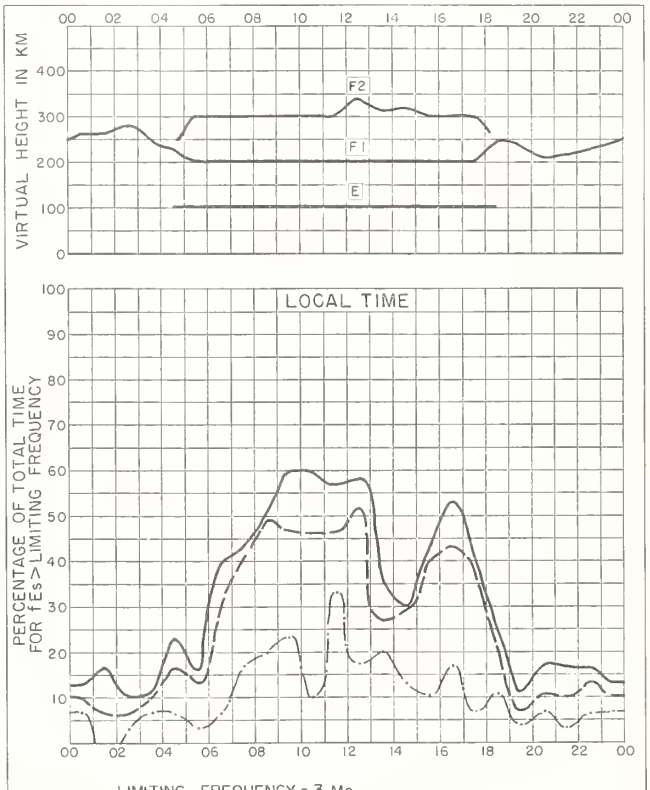


Fig. 72. SCHWARZENBURG, SWITZERLAND JUNE 1955

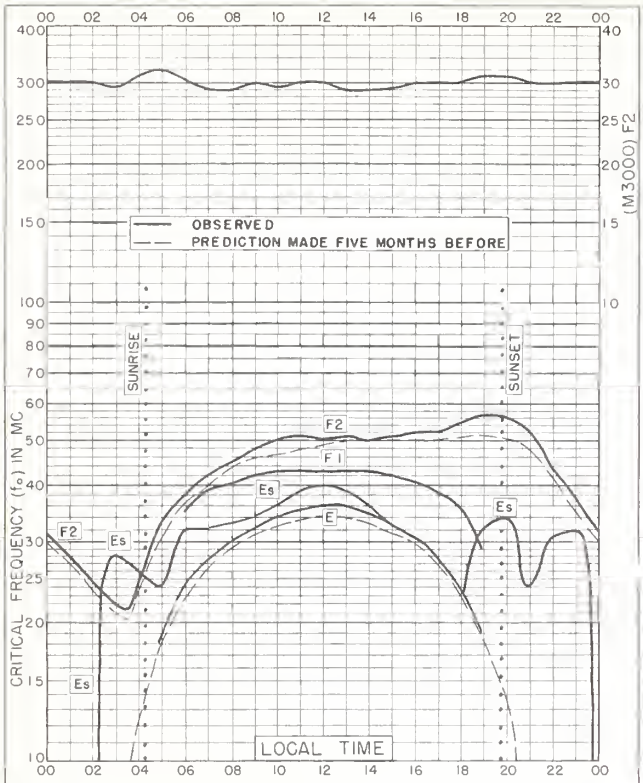


Fig. 73. OTTAWA, CANADA
45.4°N, 75.9°W JUNE 1955

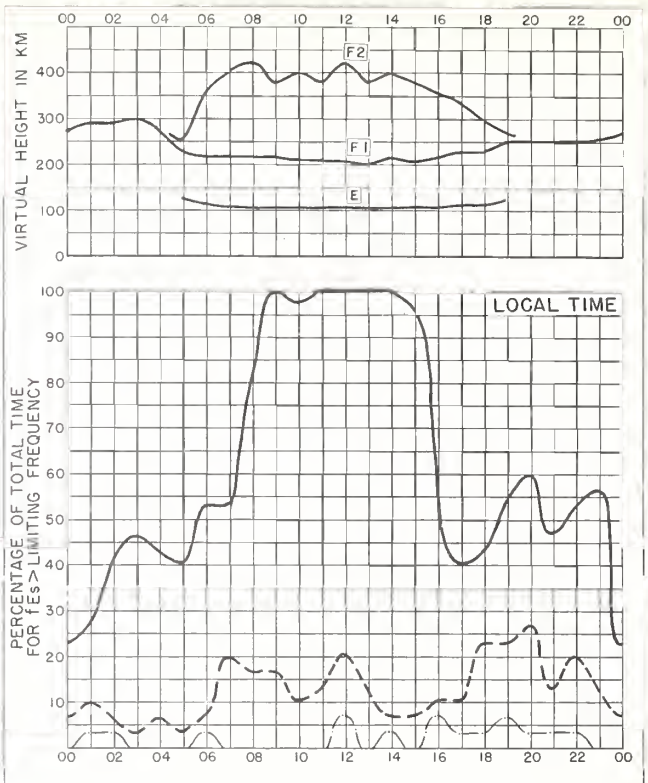


Fig. 74. OTTAWA, CANADA JUNE 1955

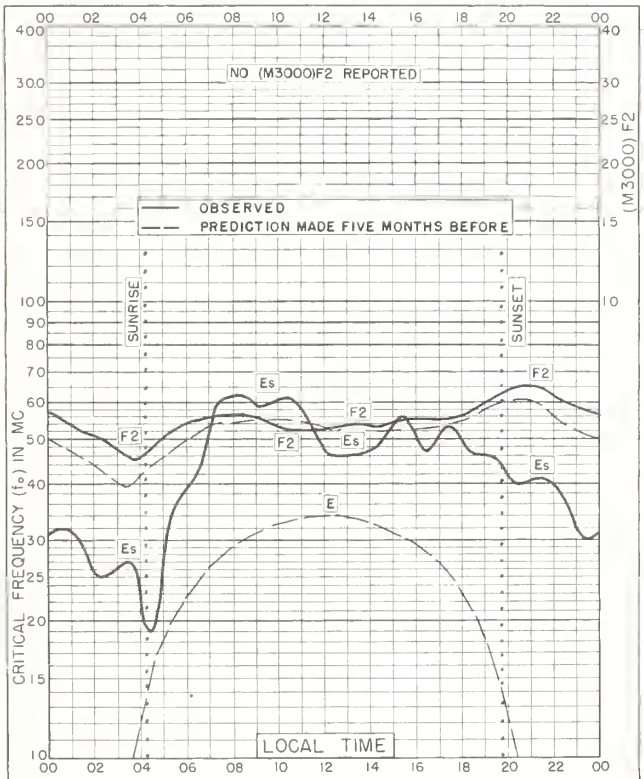


Fig. 75. WAKKANAI, JAPAN
45.4°N, 141.7°E JUNE 1955

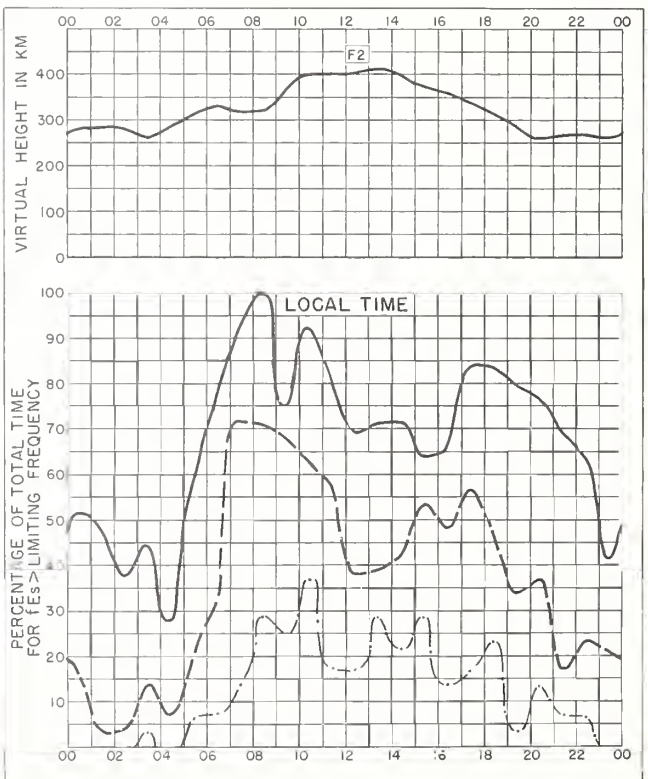


Fig. 76. WAKKANAI, JAPAN JUNE 1955

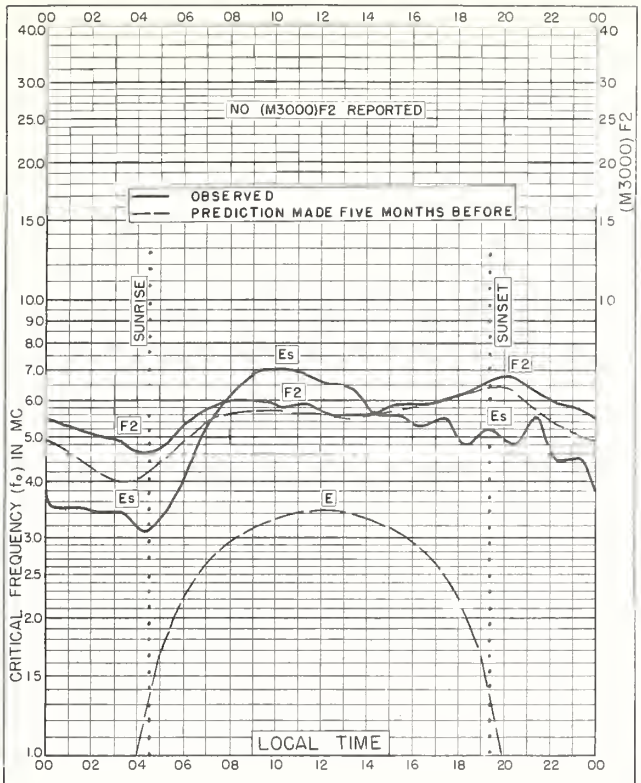


Fig. 77. AKITA, JAPAN
39.7°N, 140.1°E JUNE 1955

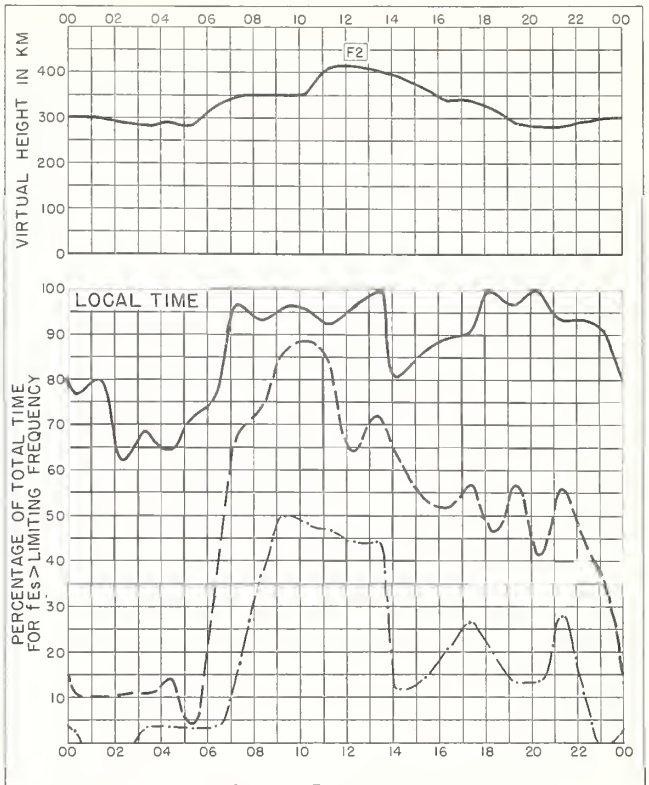


Fig. 78. AKITA, JAPAN JUNE 1955

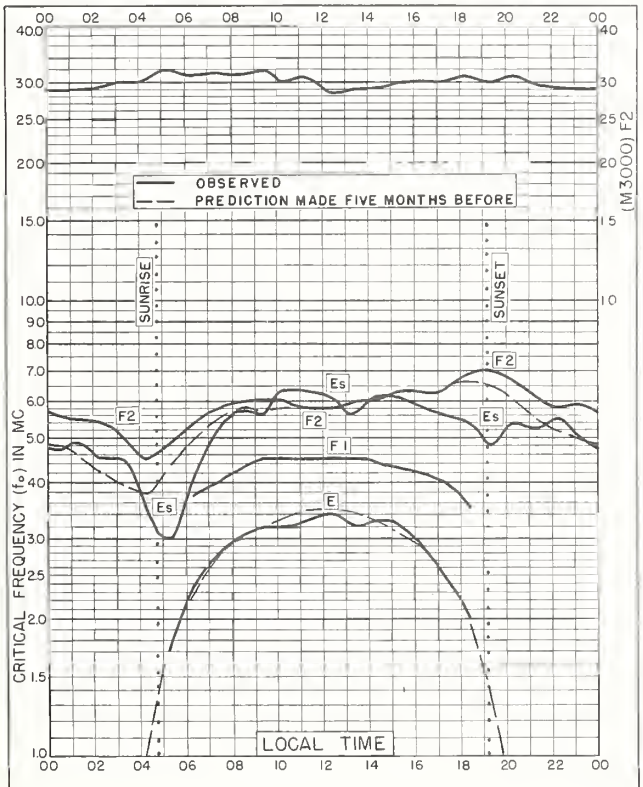


Fig. 79. TOKYO, JAPAN
35.7°N, 139.5°E JUNE 1955

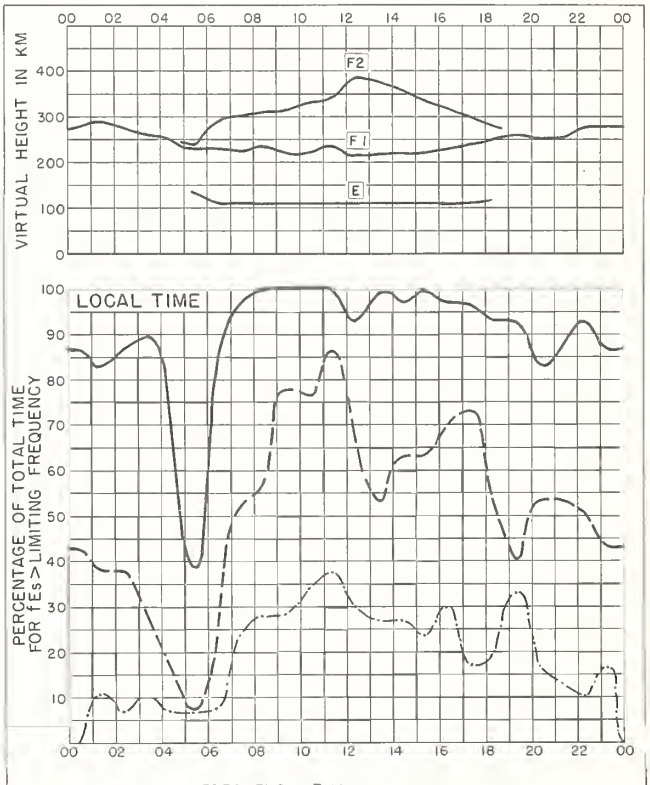


Fig. 80. TOKYO, JAPAN JUNE 1955

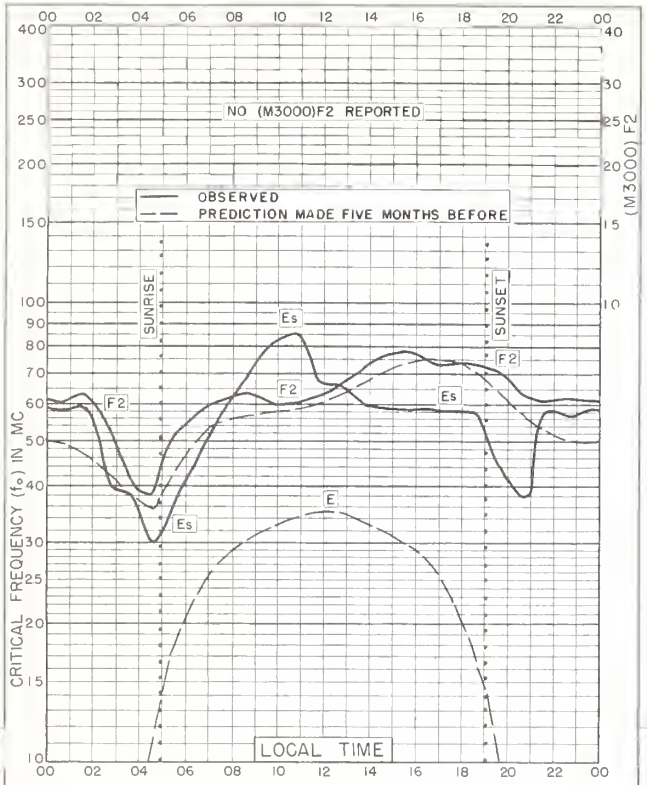


Fig. 81. YAMAGAWA, JAPAN
31.2°N, 130.6°E JUNE 1955

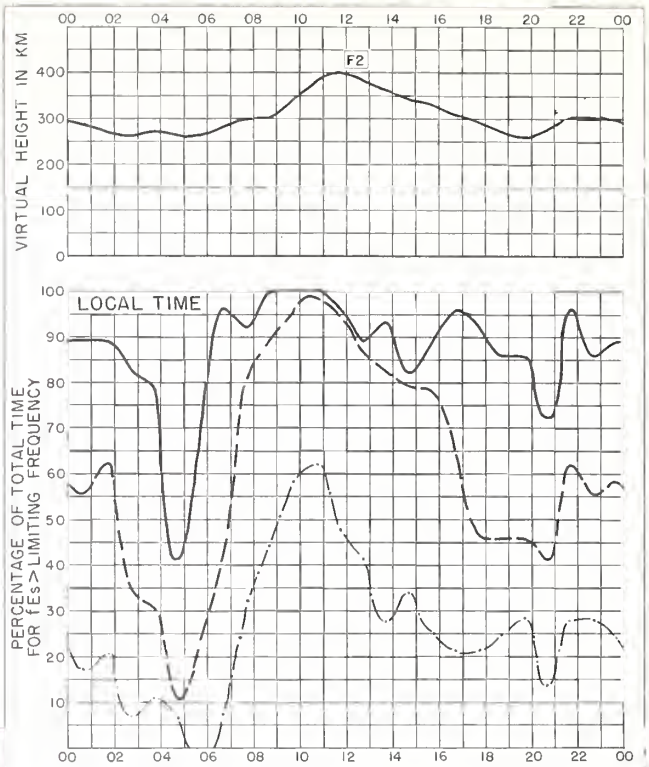


Fig. 82. YAMAGAWA, JAPAN JUNE 1955

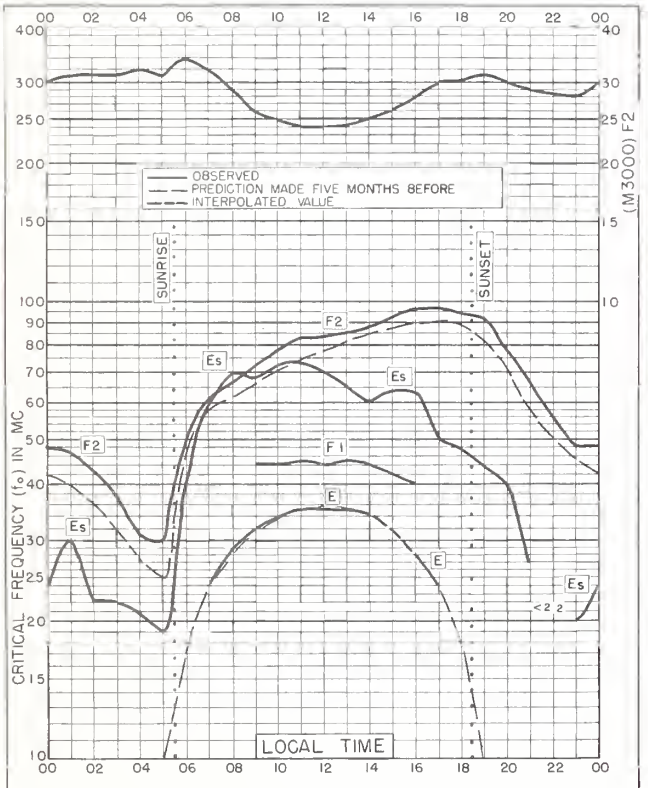


Fig. 83. BAGUIO, P. I.
16.4°N, 120.6°E JUNE 1955

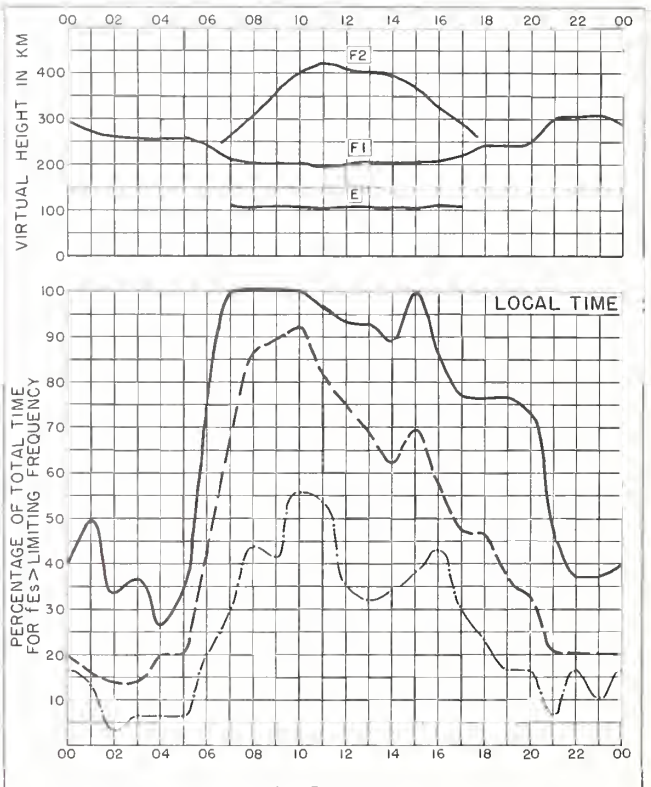


Fig. 84. BAGUIO, P. I. JUNE 1955

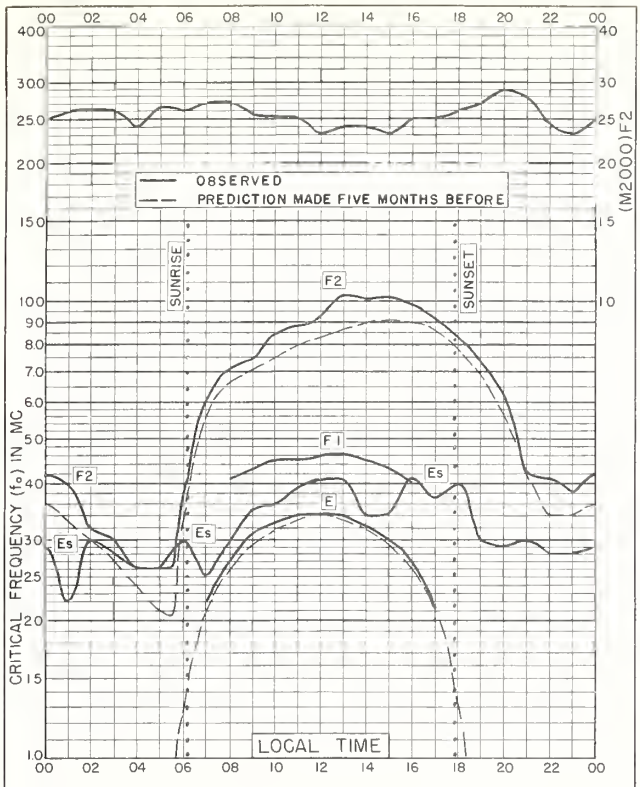
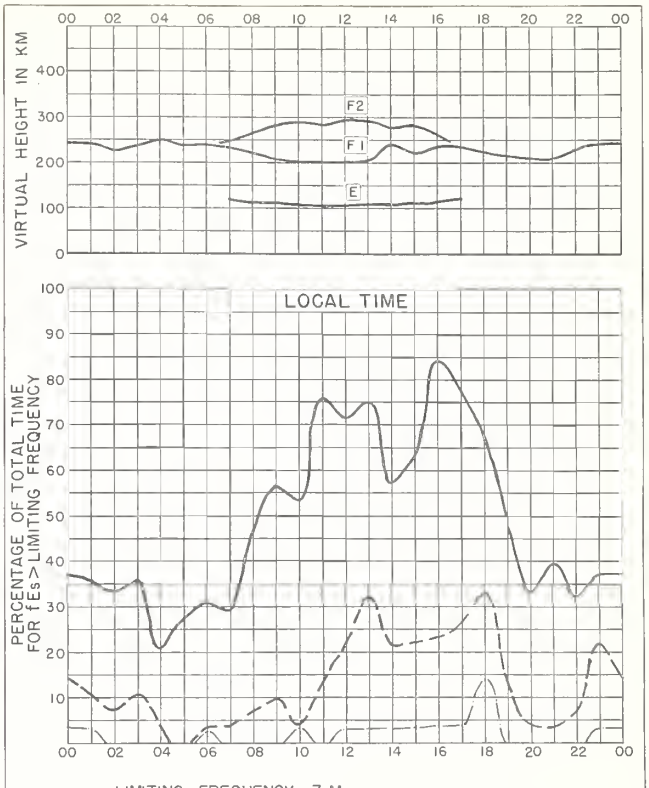


Fig. 85. LEOPOLDVILLE BELGIAN CONGO
4.4°S, 15.2°E JUNE 1955



JUNE 1955

Fig. 86. LEOPOLDVILLE, BELGIAN CONGO

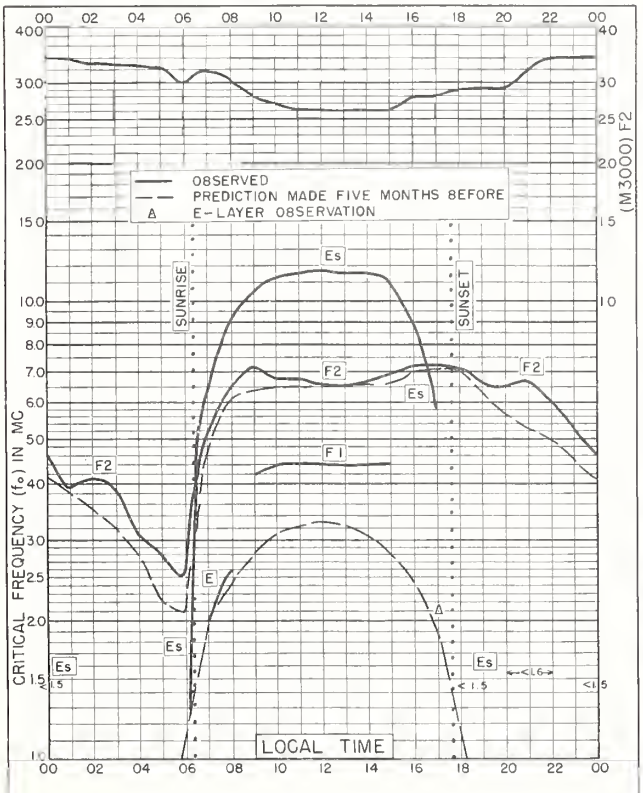


Fig. 87. HUANCAYO, PERU
12.0°S, 75.3°W JUNE 1955

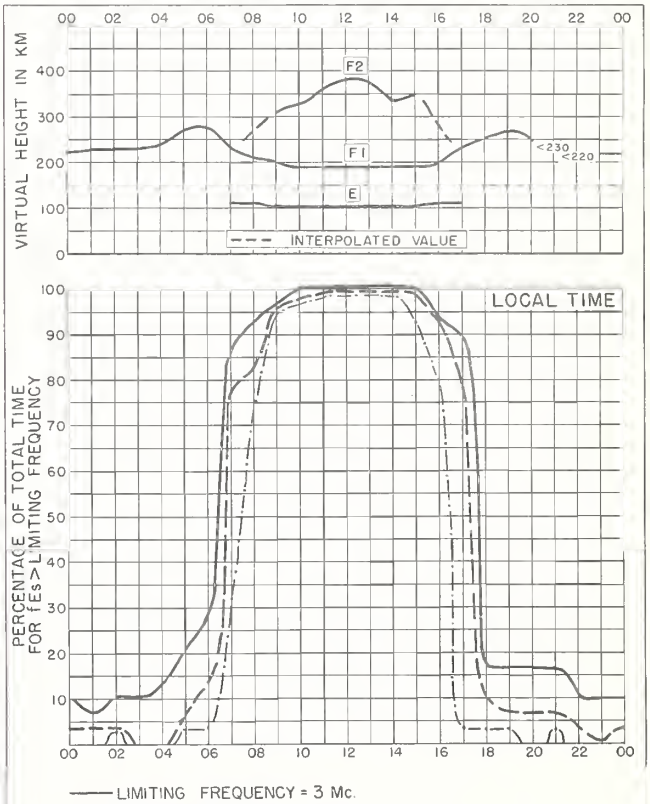


Fig. 88. HUANCAYO, PERU JUNE 1955

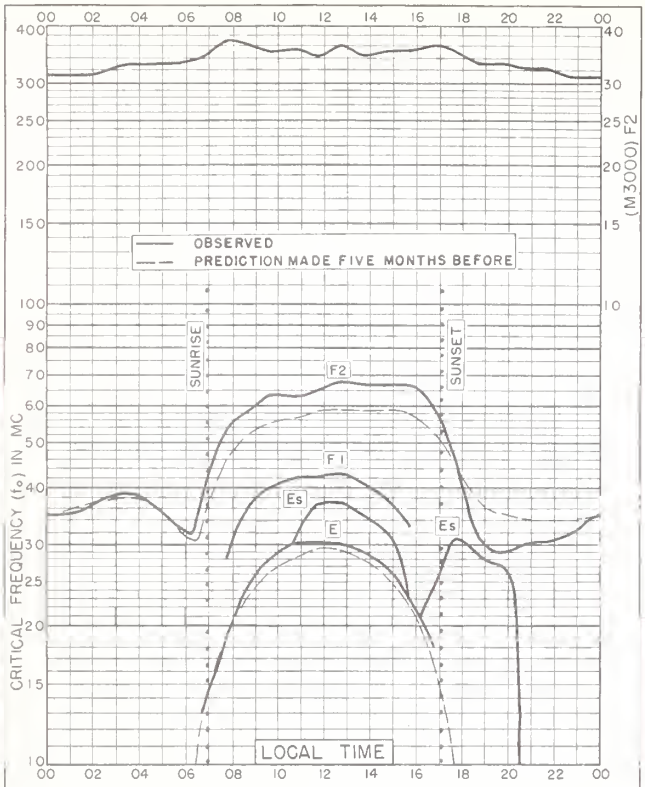


Fig. 89. WATHEROO, W. AUSTRALIA
30.3°S, 115.9°E JUNE 1955

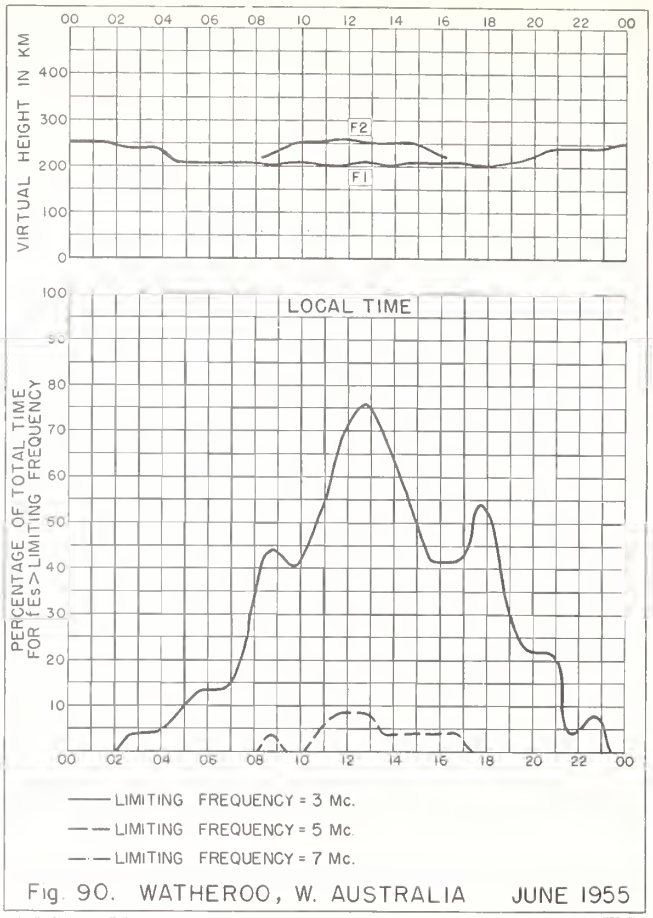


Fig. 90. WATHEROO, W. AUSTRALIA JUNE 1955

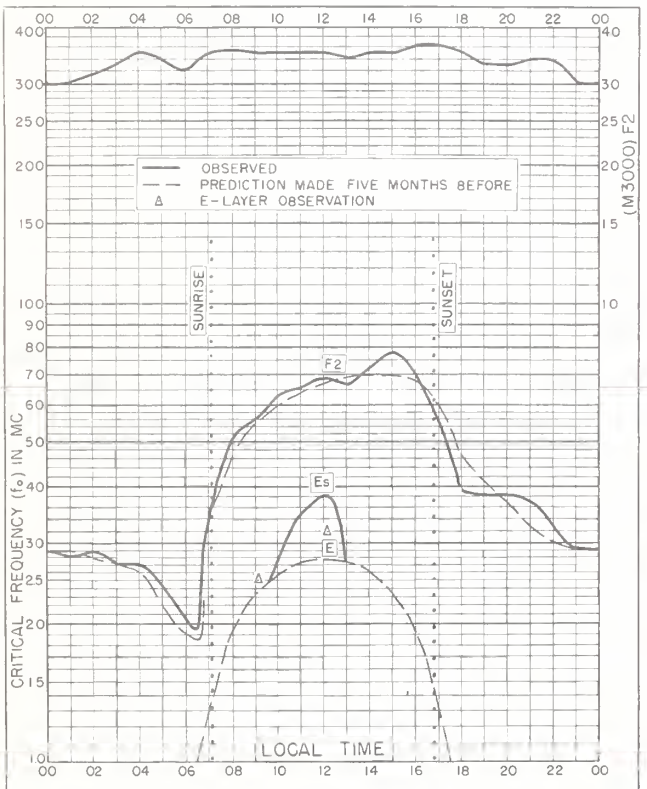


Fig. 91. BUENOS AIRES, ARGENTINA
34.5°S, 58.5°W JUNE 1955

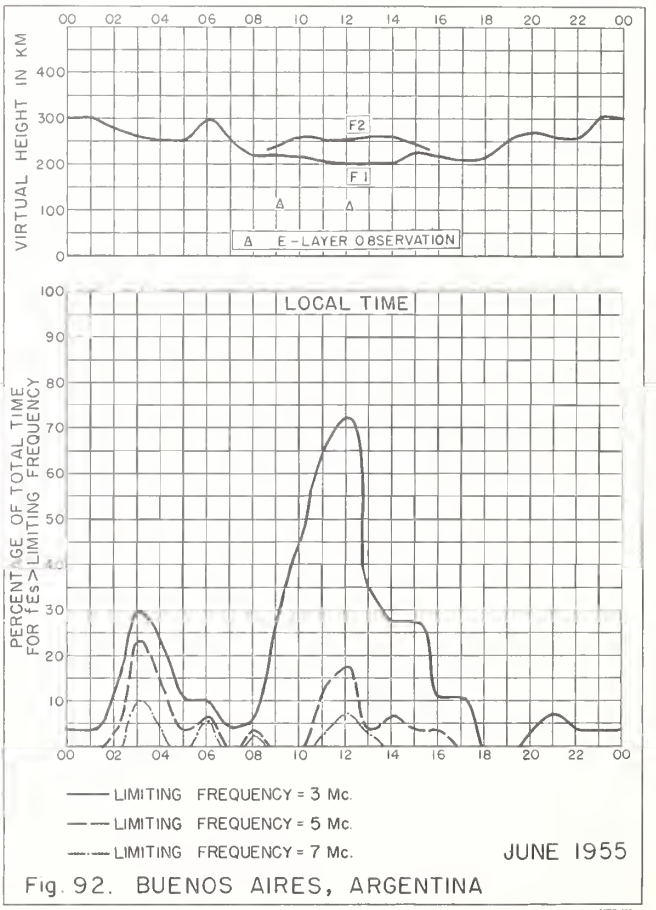


Fig. 92. BUENOS AIRES, ARGENTINA JUNE 1955

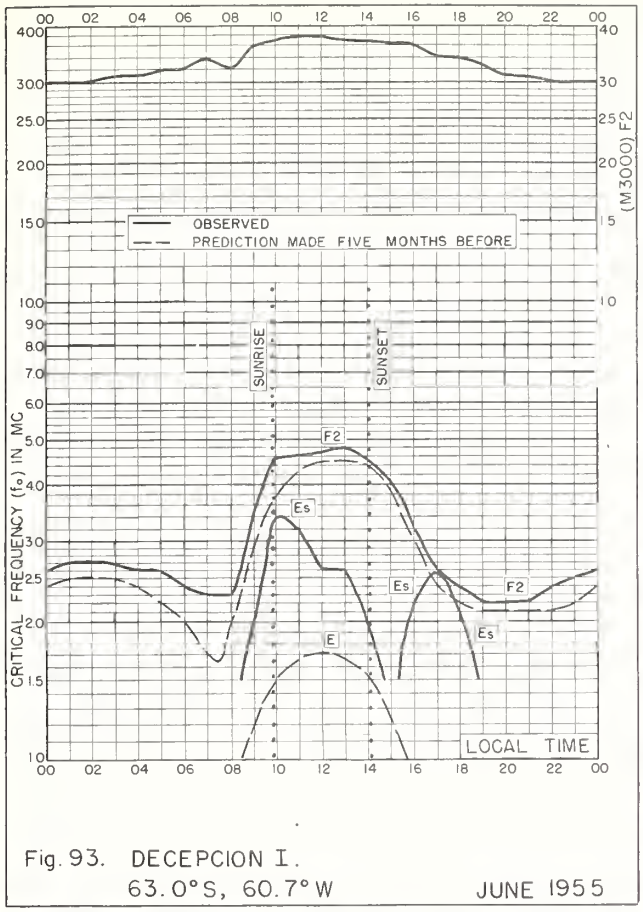


Fig. 93. DECEPCION I.
63.0°S, 60.7°W JUNE 1955

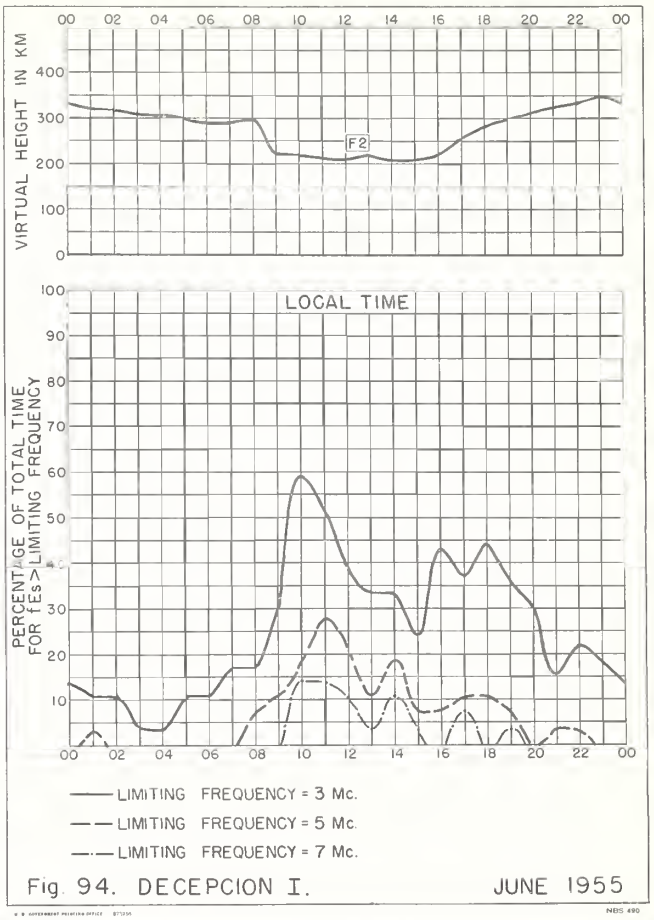


Fig. 94. DECEPCION I. JUNE 1955

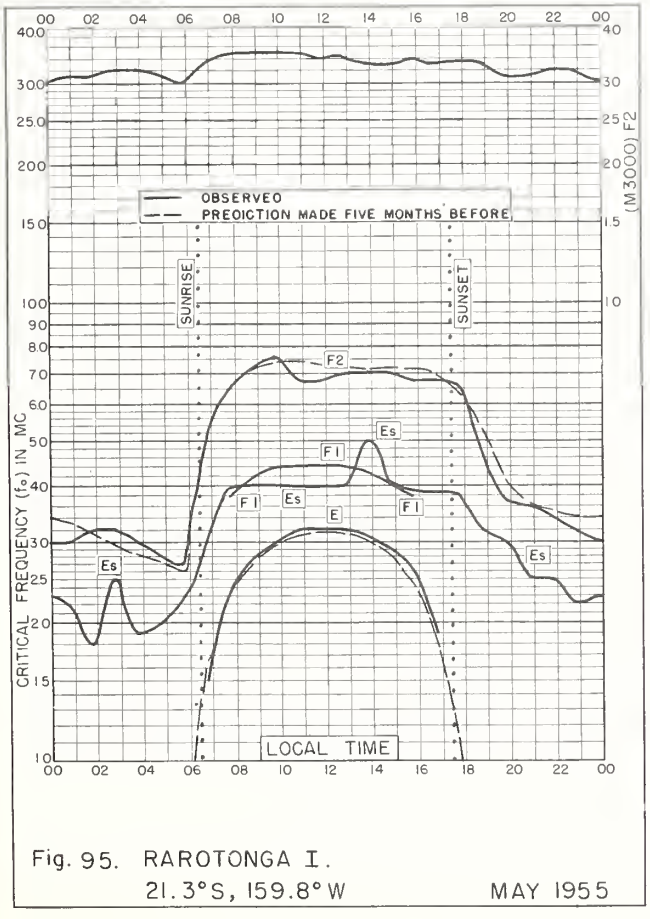


Fig. 95. RAROTONGA I.
21.3°S, 159.8°W MAY 1955

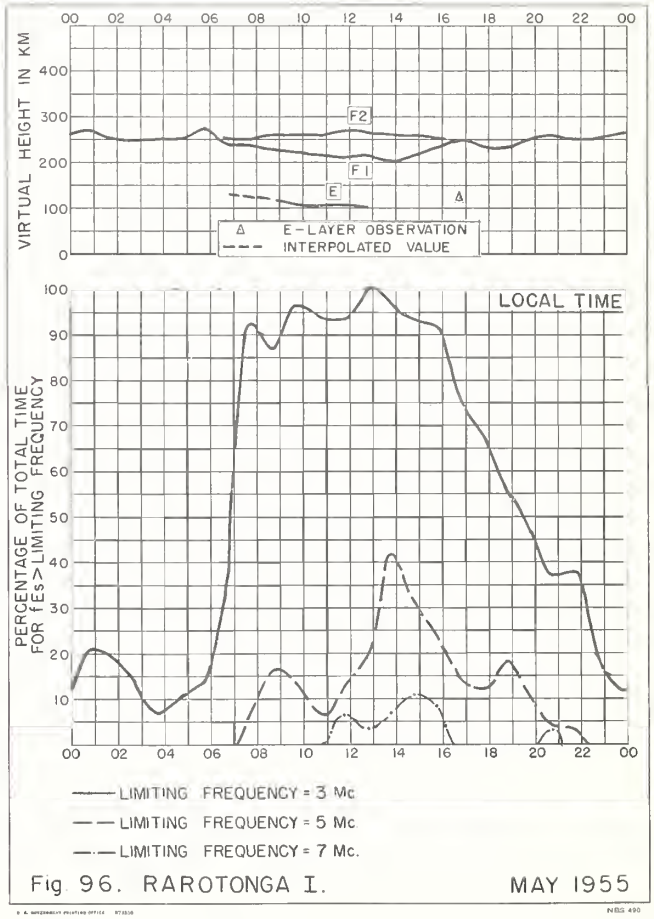


Fig. 96. RAROTONGA I. MAY 1955

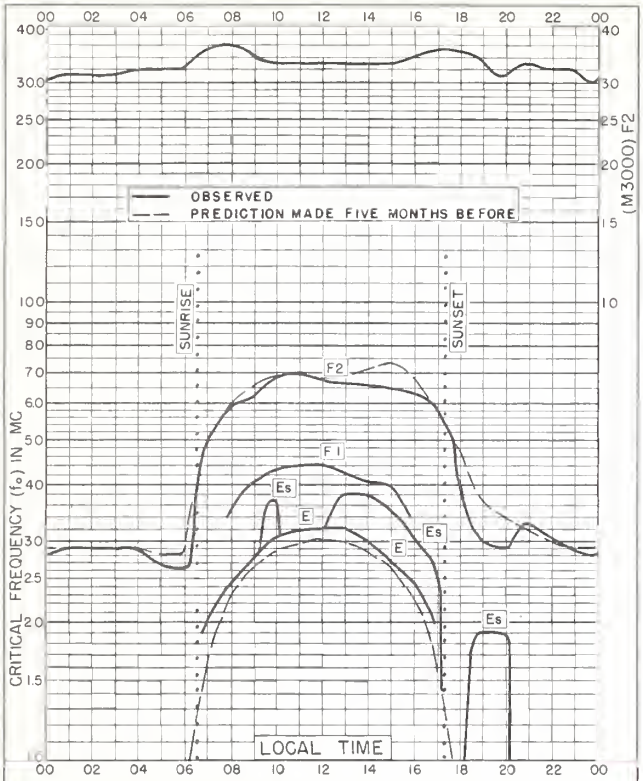
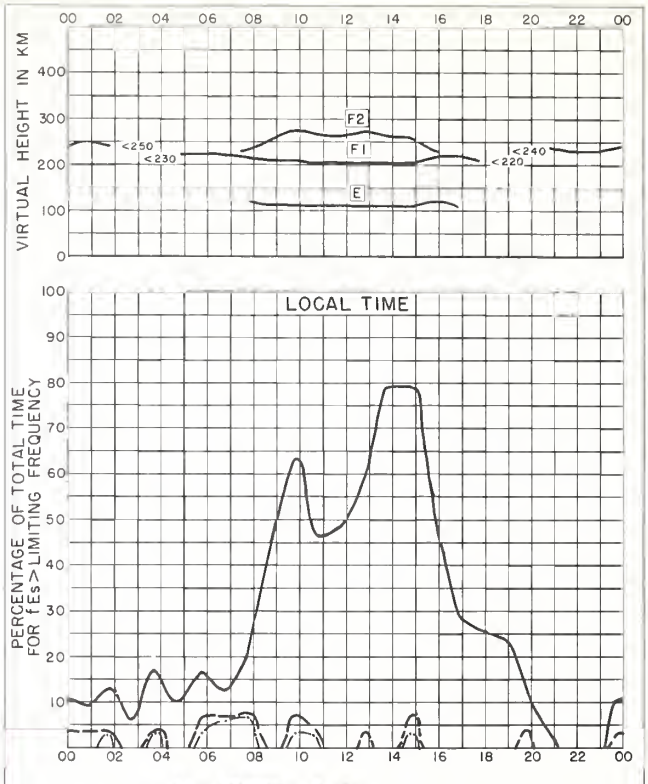


Fig. 97. JOHANNESBURG, UNION OF S. AFRICA
26.2° S, 28.1° E MAY 1955



MAY 1955

Fig. 98. JOHANNESBURG, UNION OF S. AFRICA

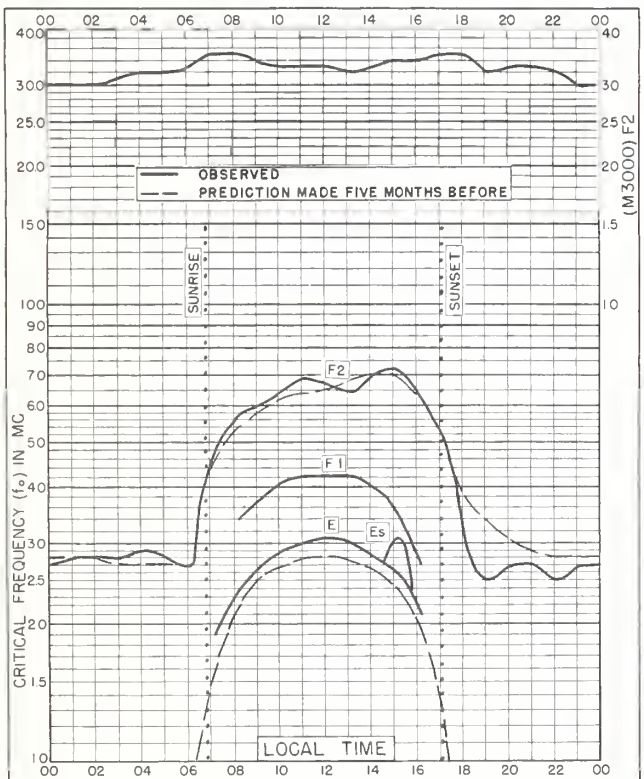
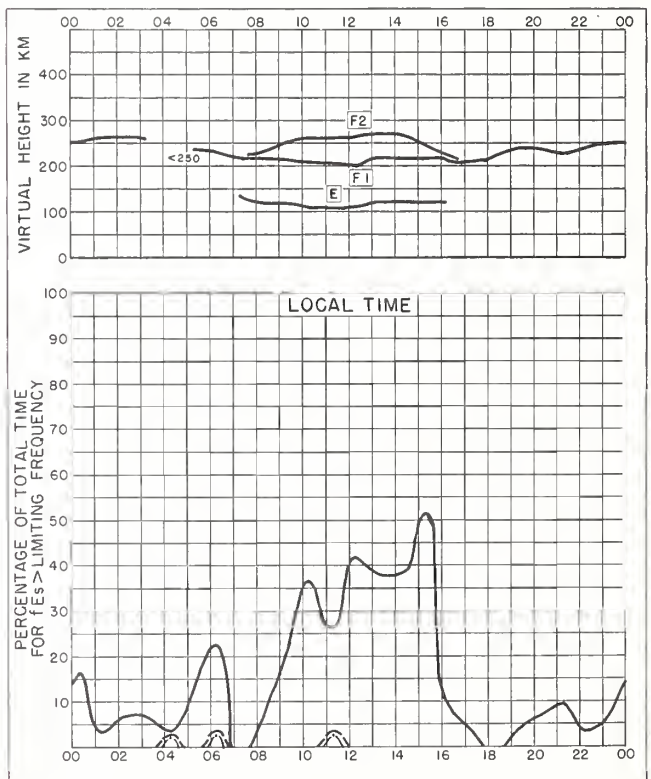


Fig. 99. CAPETOWN, UNION OF S. AFRICA
34.2° S, 18.3° E MAY 1955



MAY 1955

Fig. 100. CAPETOWN, UNION OF S. AFRICA

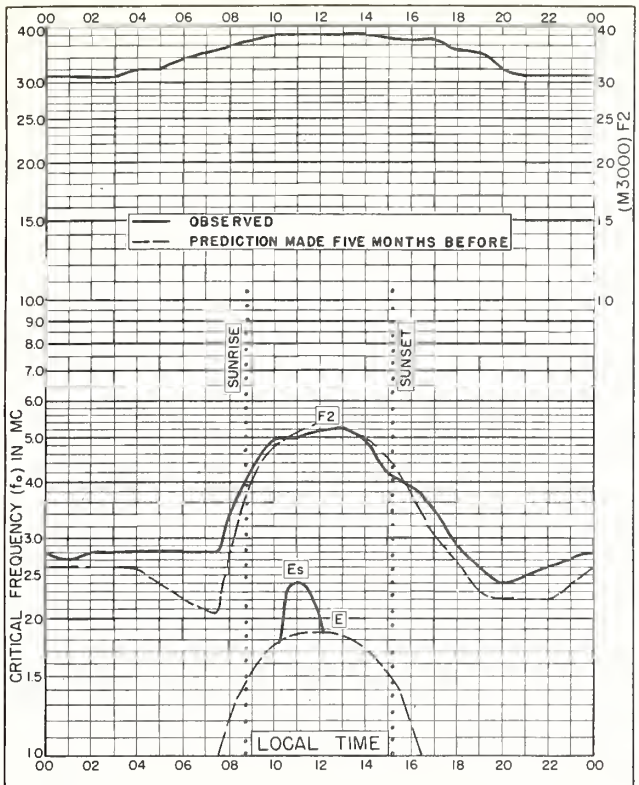


Fig. 101. DECEPCION I.
63.0°S, 60.7°W MAY 1955

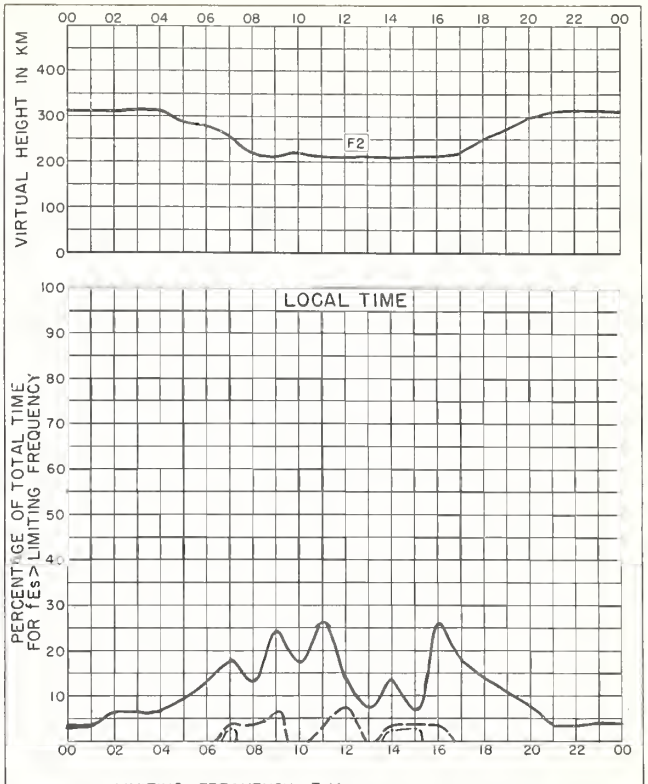


Fig. 102. DECEPCION I. MAY 1955

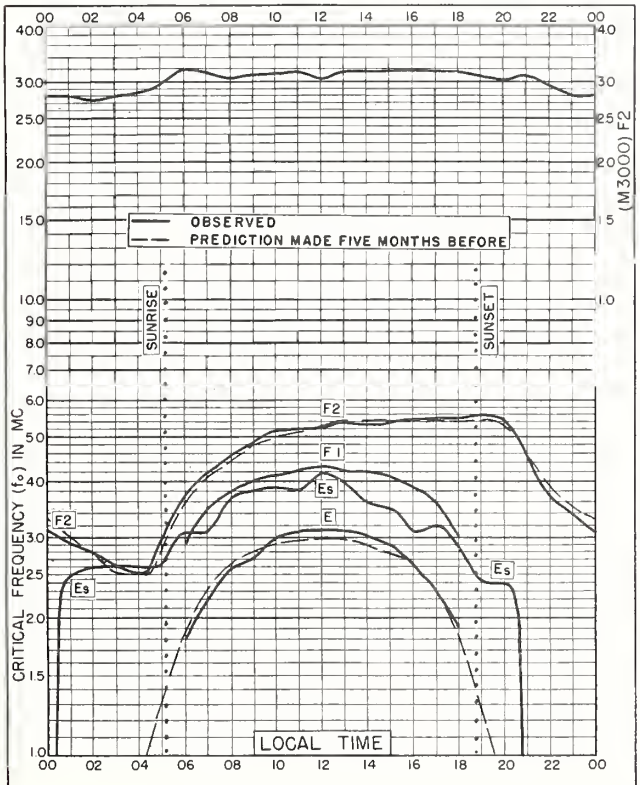


Fig. 103. SLOUGH, ENGLAND
51.5°N, 0.6°W APRIL 1955

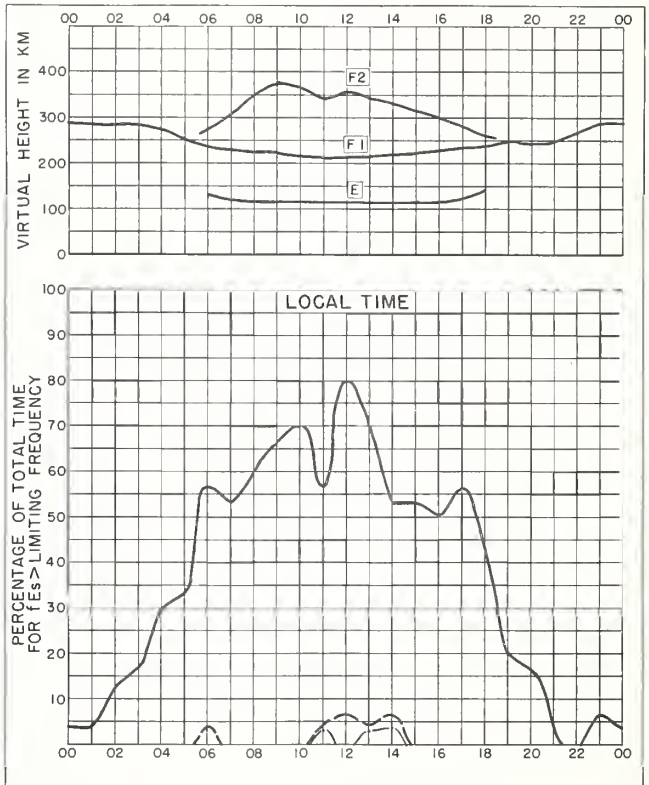


Fig. 104. SLOUGH, ENGLAND APRIL 1955

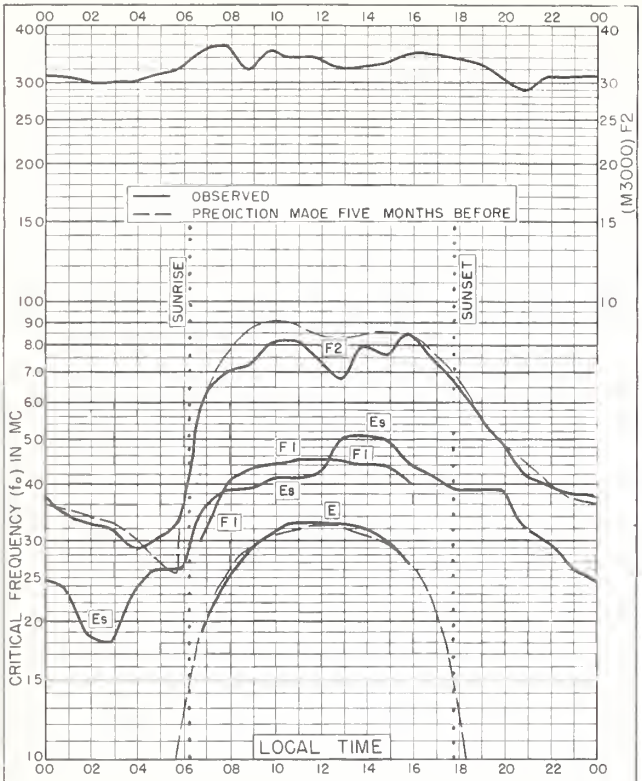


Fig. 105. RAROTONGA I.
21.3°S, 159.8°W APRIL 1955

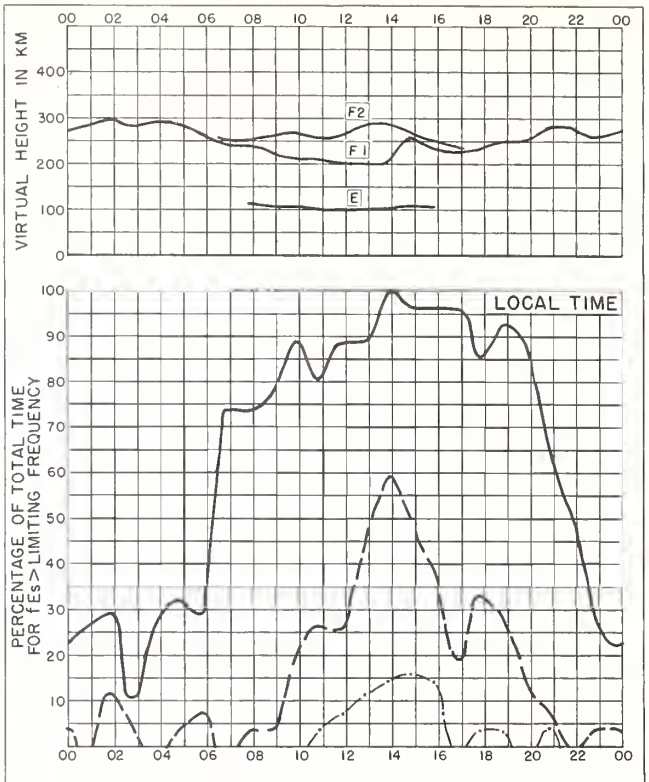


Fig. 106. RAROTONGA I. APRIL 1955

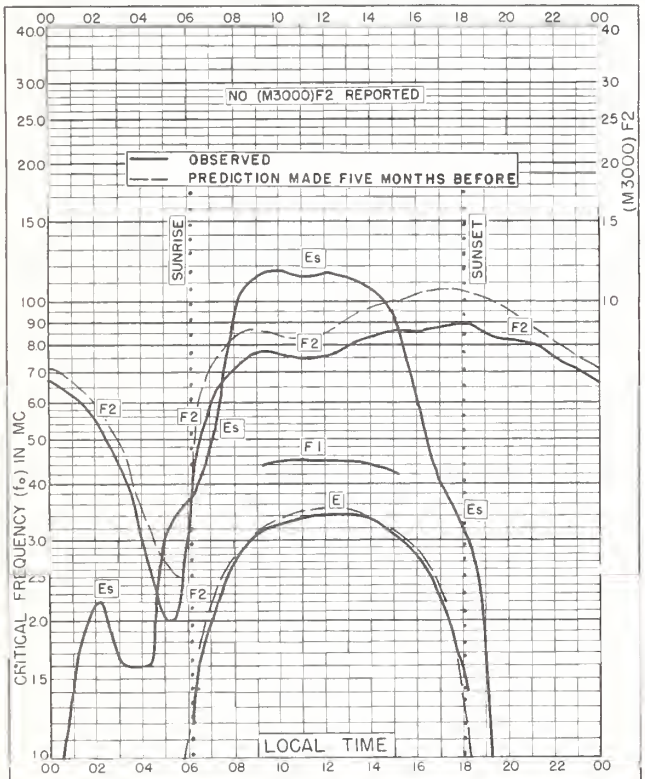


Fig. 107. IBADAN, NIGERIA
7.4°N, 4.0°E MARCH 1955

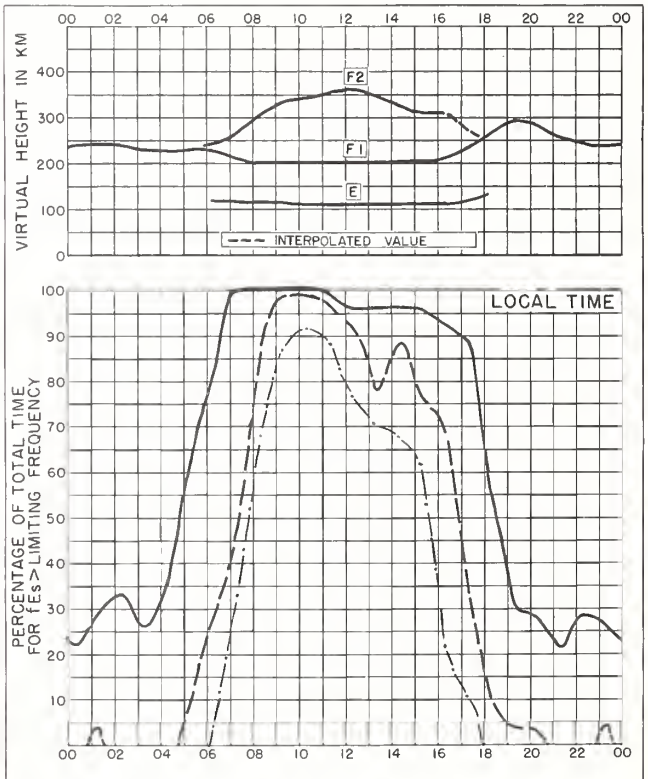


Fig. 108. IBADAN, NIGERIA MARCH 1955

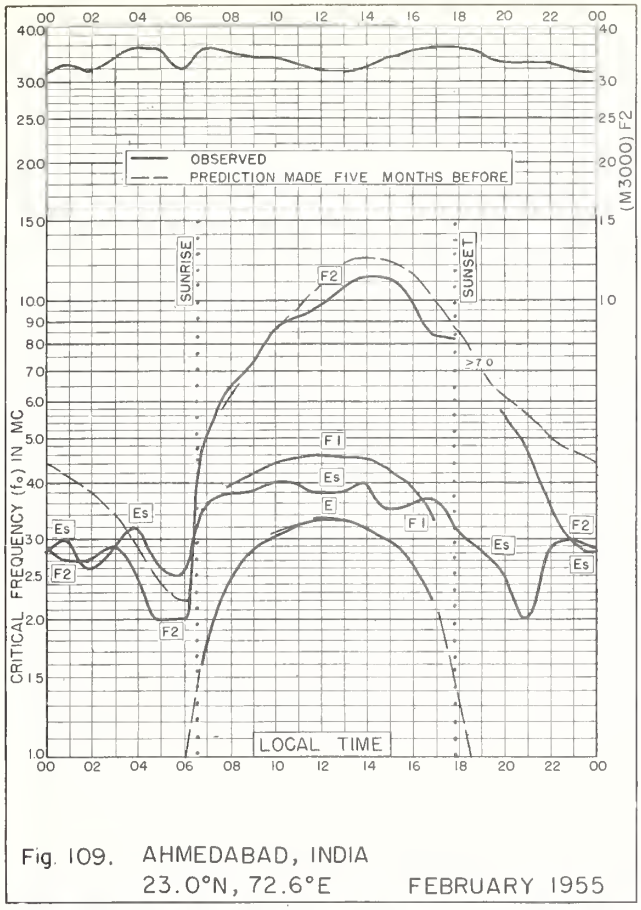


Fig. 109. AHMEDABAD, INDIA
23.0°N, 72.6°E FEBRUARY 1955

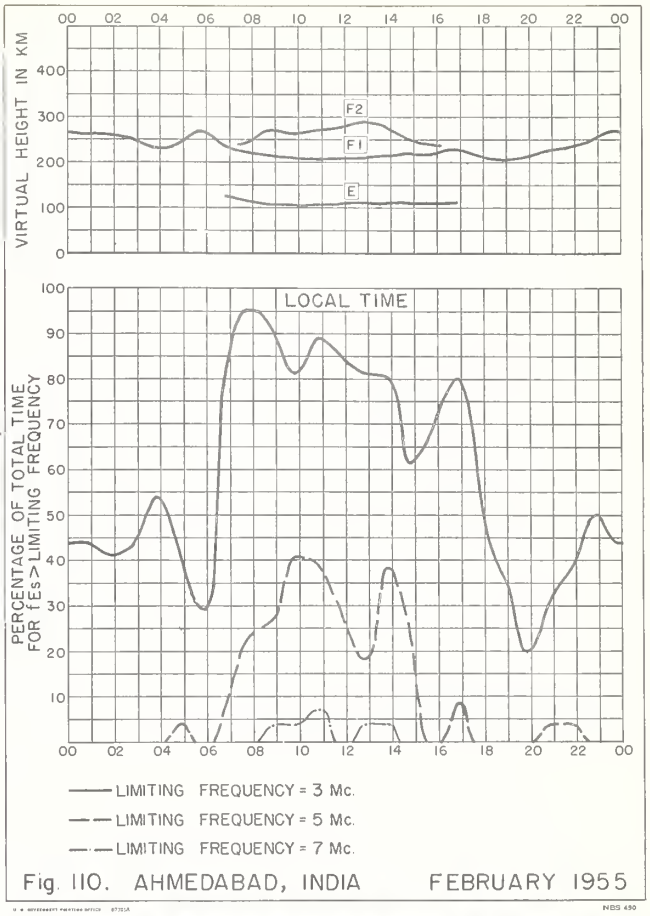


Fig. 110. AHMEDABAD, INDIA FEBRUARY 1955

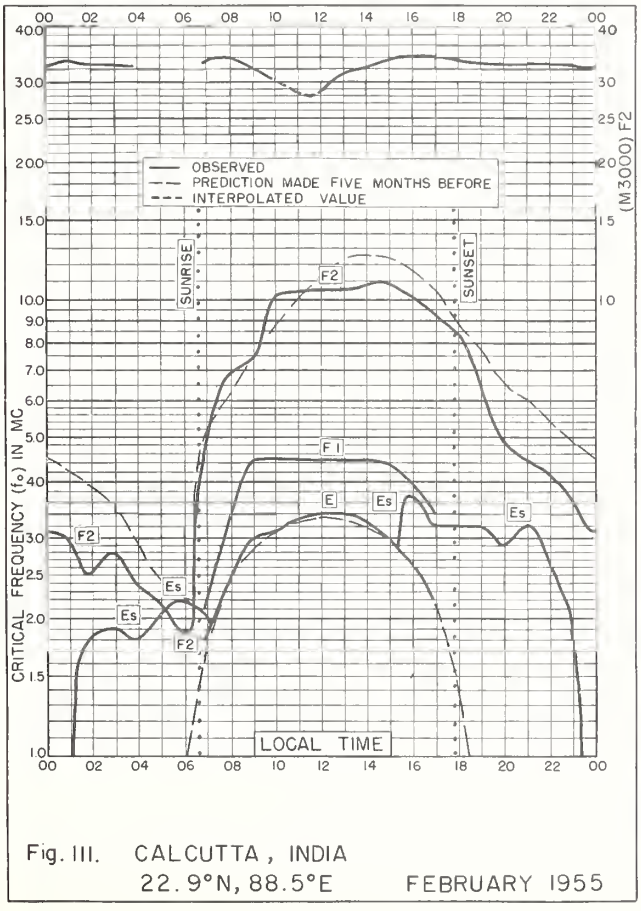


Fig. 111. CALCUTTA, INDIA
22.9°N, 88.5°E FEBRUARY 1955

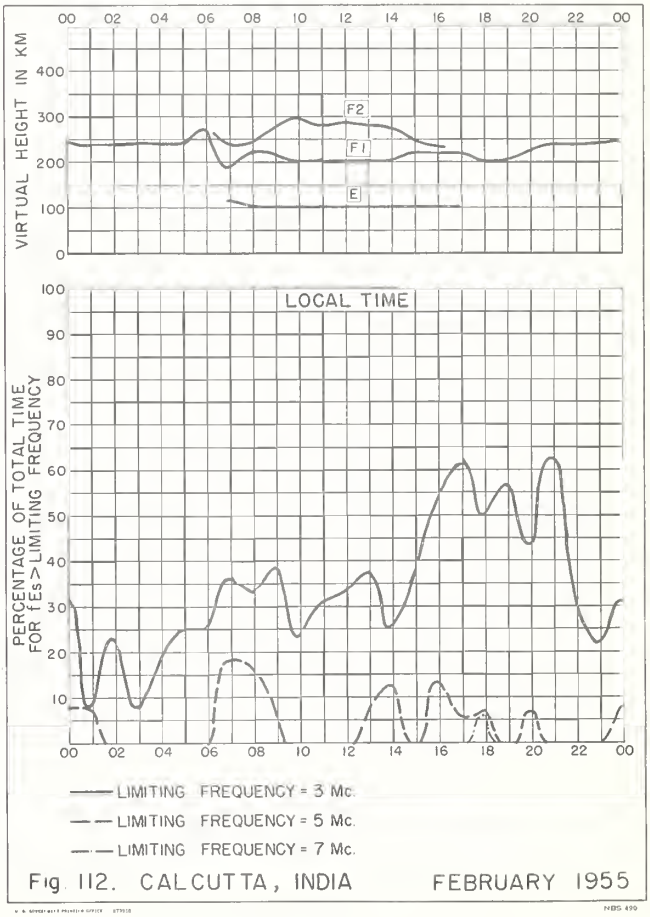


Fig. 112. CALCUTTA, INDIA FEBRUARY 1955

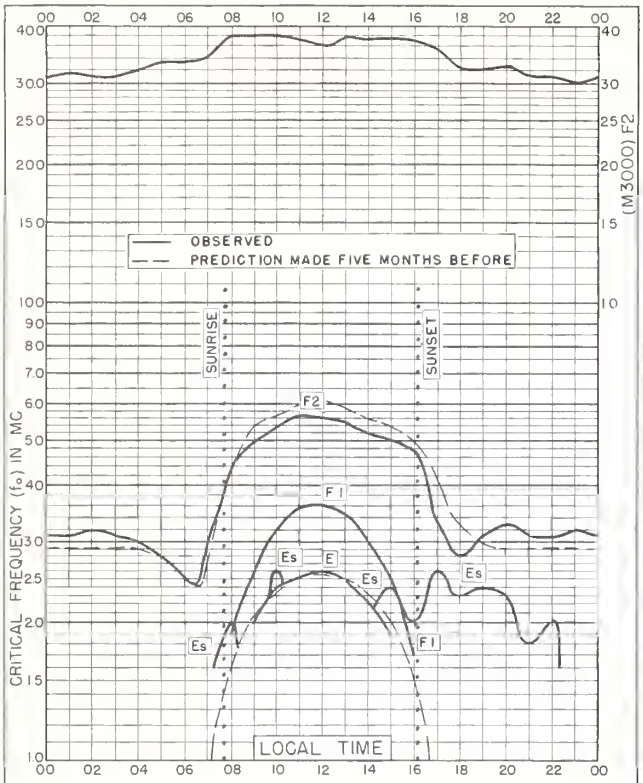


Fig. 113. POITIERS, FRANCE
46.6°N, 0.3°E DECEMBER 1954

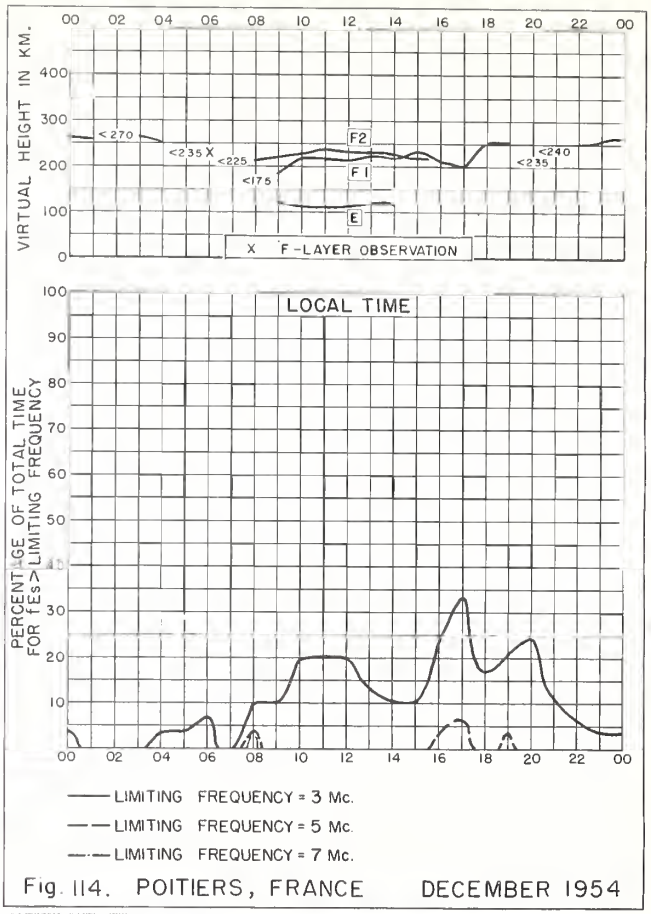


Fig. 114. POITIERS, FRANCE DECEMBER 1954

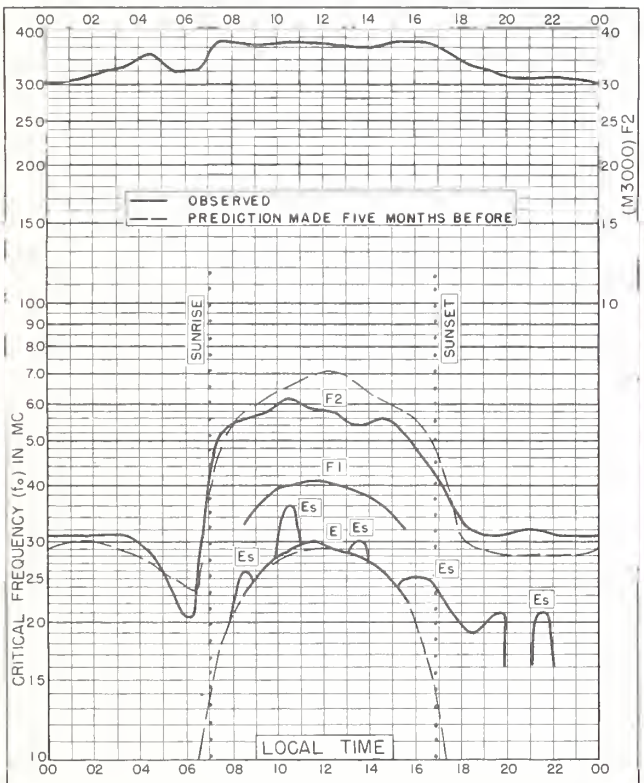


Fig. 115. CASABLANCA, MOROCCO
33.6°N, 7.6°W DECEMBER 1954

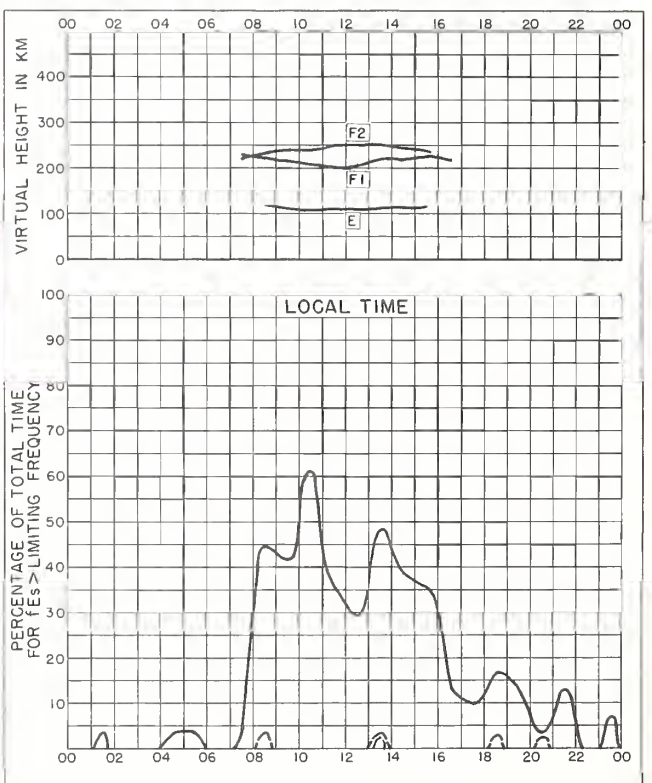


Fig. 116. CASABLANCA, MOROCCO DECEMBER 1954

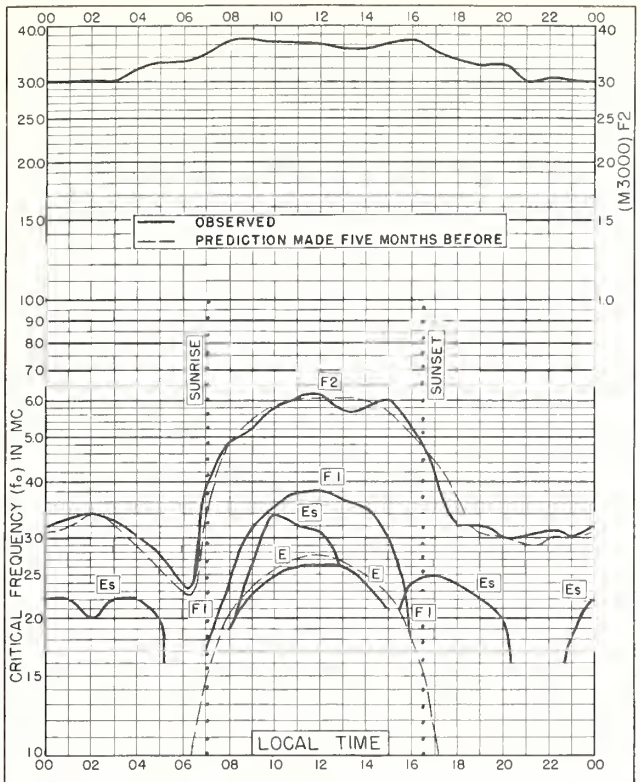


Fig. 117. POITIERS, FRANCE
46.6°N, 0.3°E NOVEMBER 1954

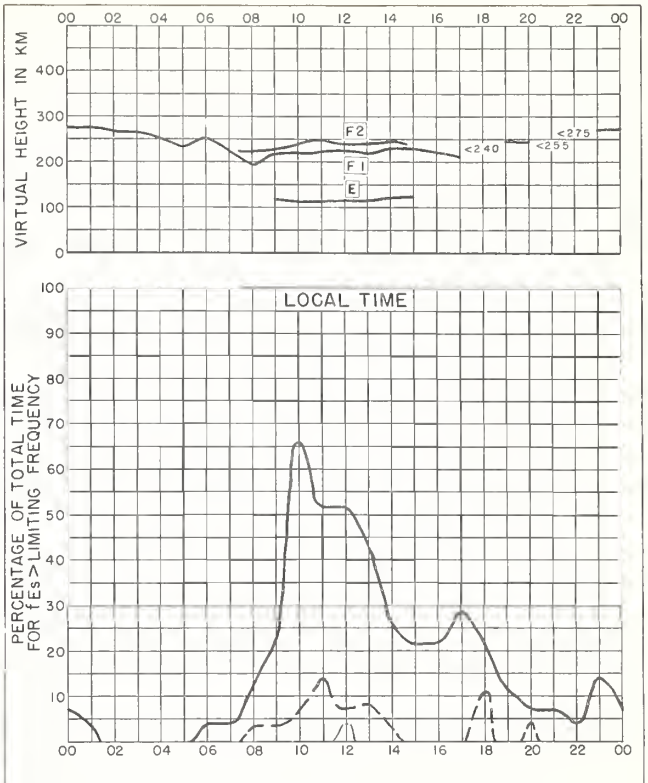


Fig. 118. POITIERS, FRANCE NOVEMBER 1954

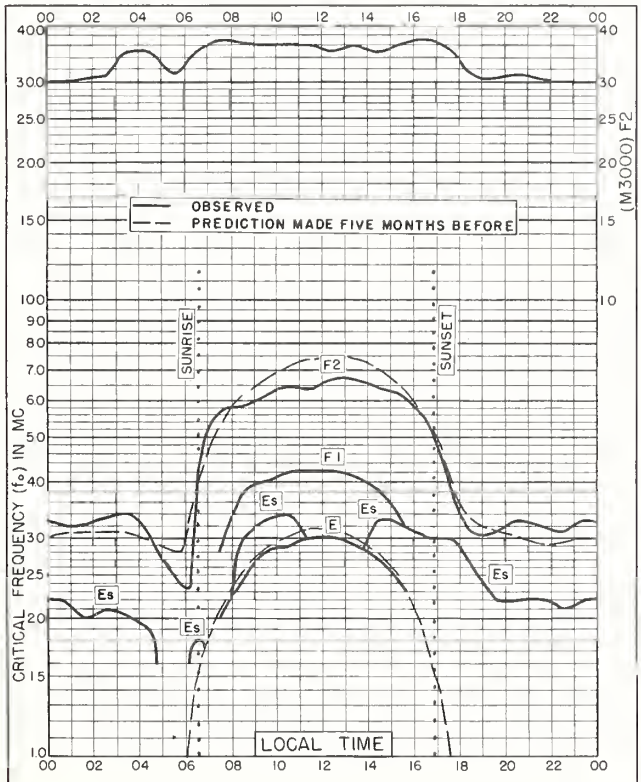


Fig. 119. CASABLANCA, MOROCCO
33.6°N, 7.6°W NOVEMBER 1954

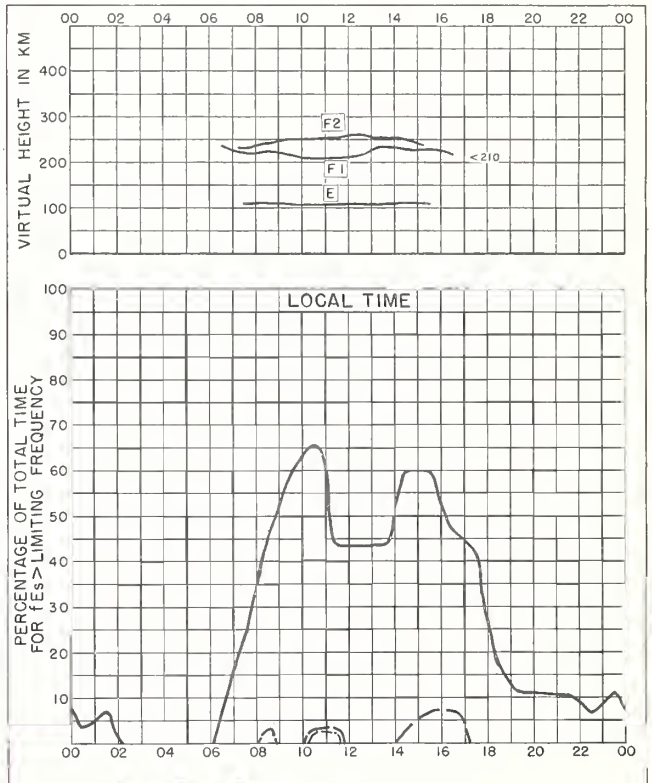


Fig. 120. CASABLANCA, MOROCCO NOVEMBER 1954

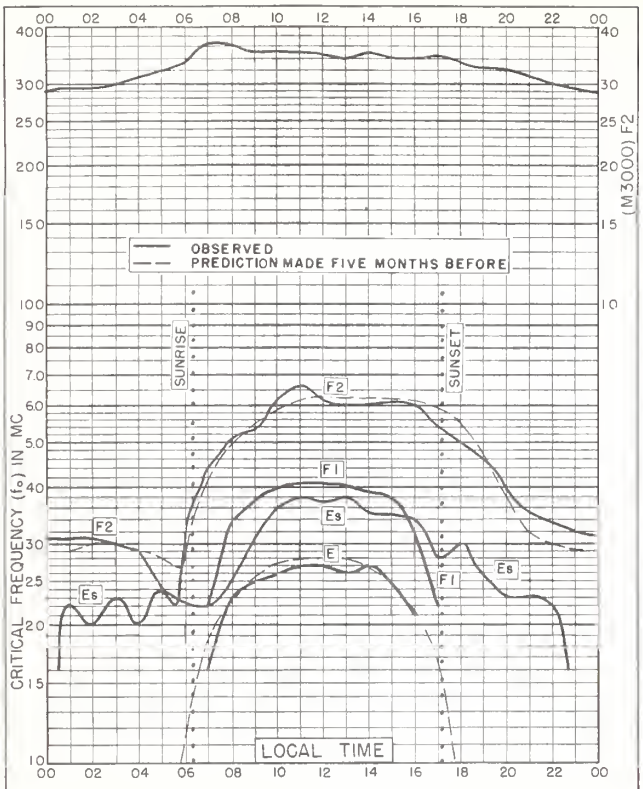


Fig. 121. POITIERS, FRANCE
46.6°N, 0.3°E OCTOBER 1954

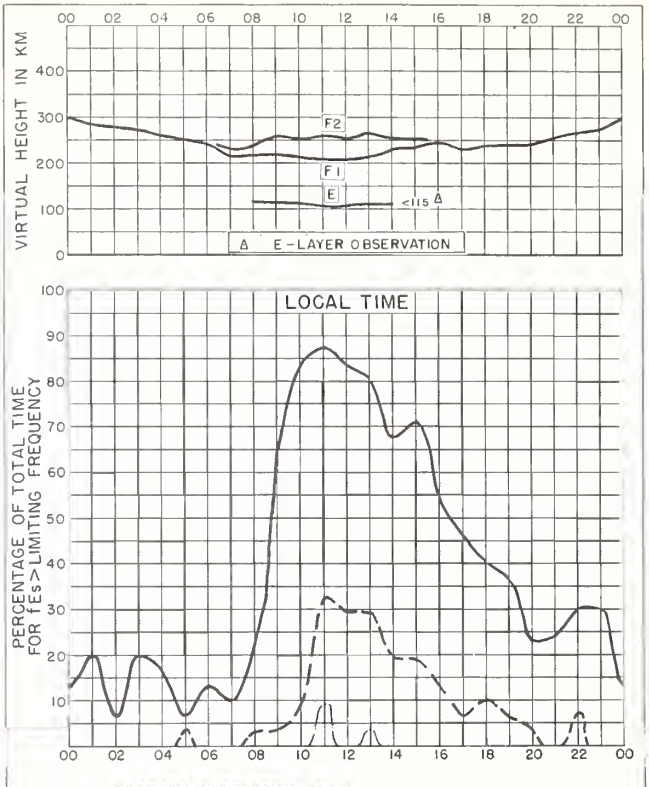


Fig. 122. POITIERS, FRANCE OCTOBER 1954

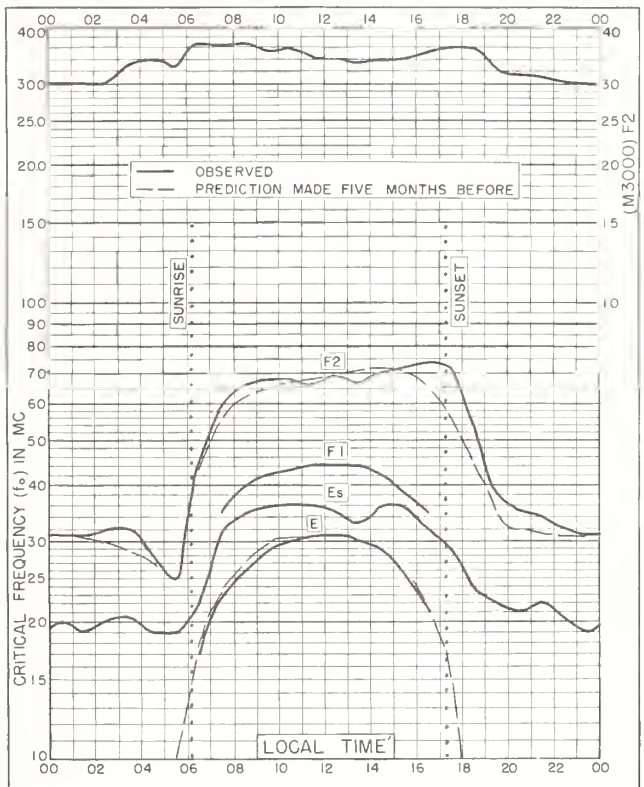


Fig. 123. CASABLANCA, MOROCCO
33.6°N, 7.6°W OCTOBER 1954

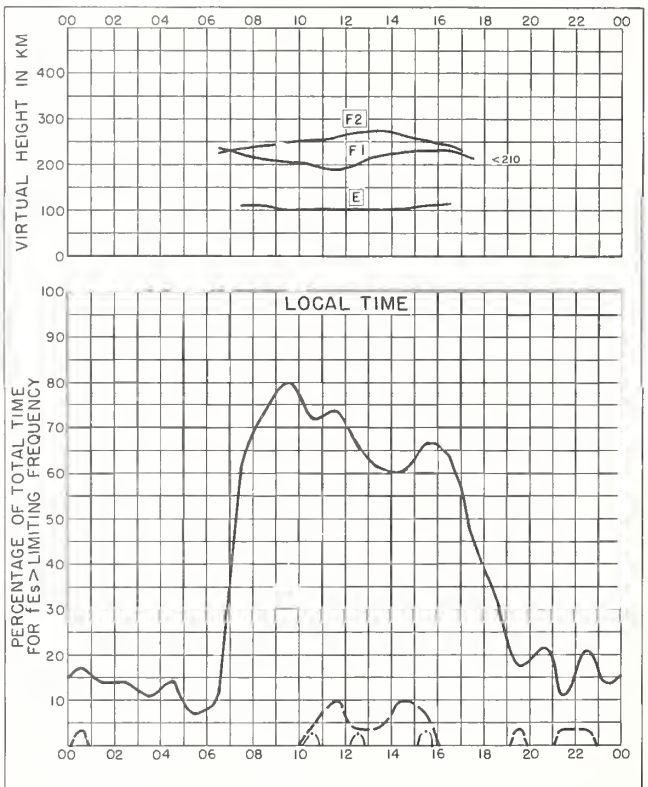


Fig. 124. CASABLANCA, MOROCCO OCTOBER 1954

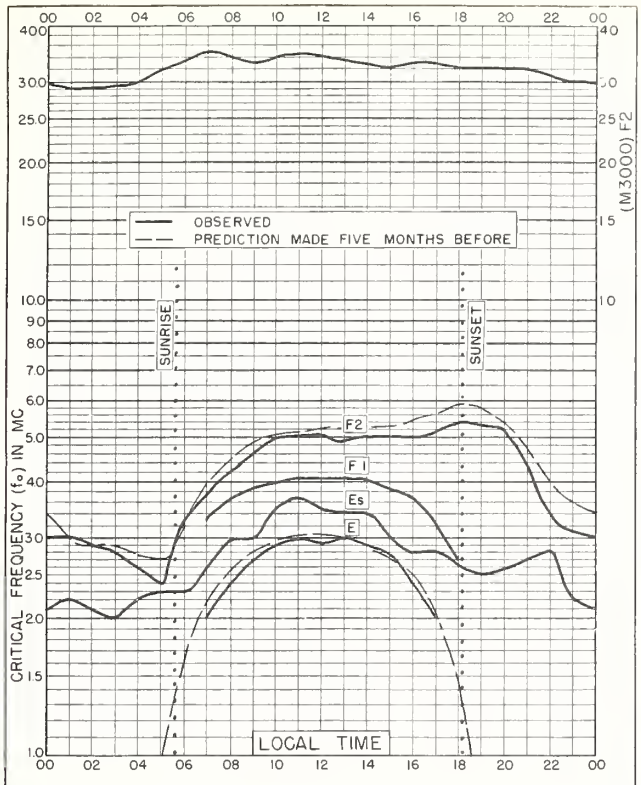


Fig. 125. POITIERS, FRANCE
46.6°N, 0.3°E SEPTEMBER 1954

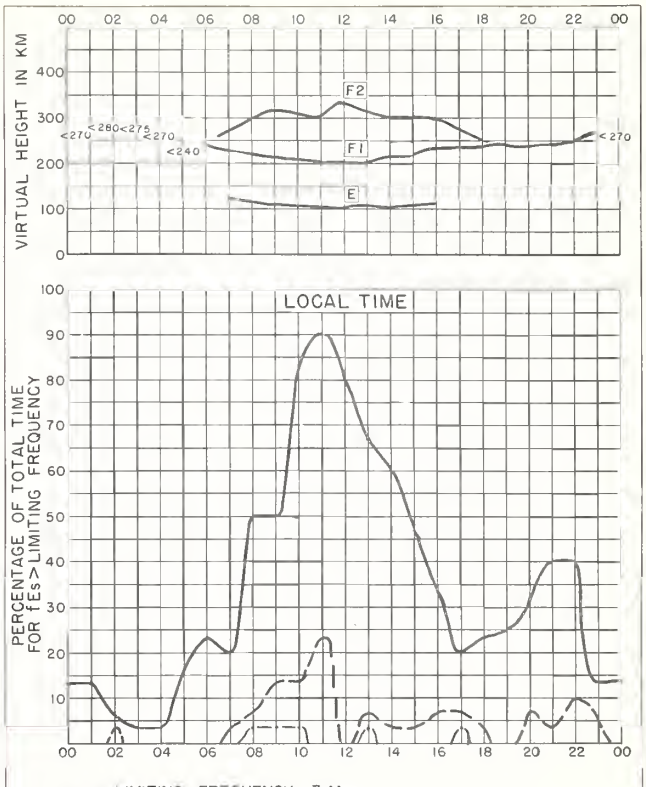


Fig. 126. POITIERS, FRANCE SEPTEMBER 1954

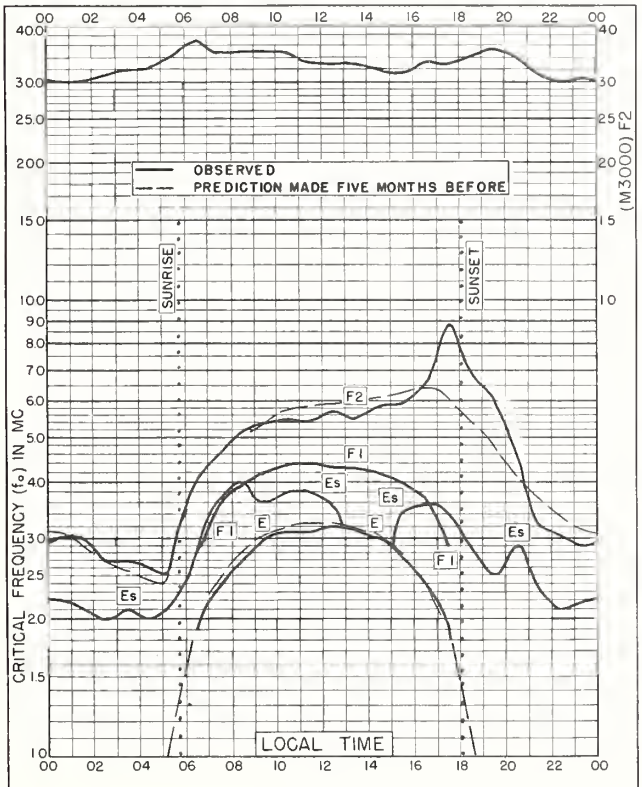
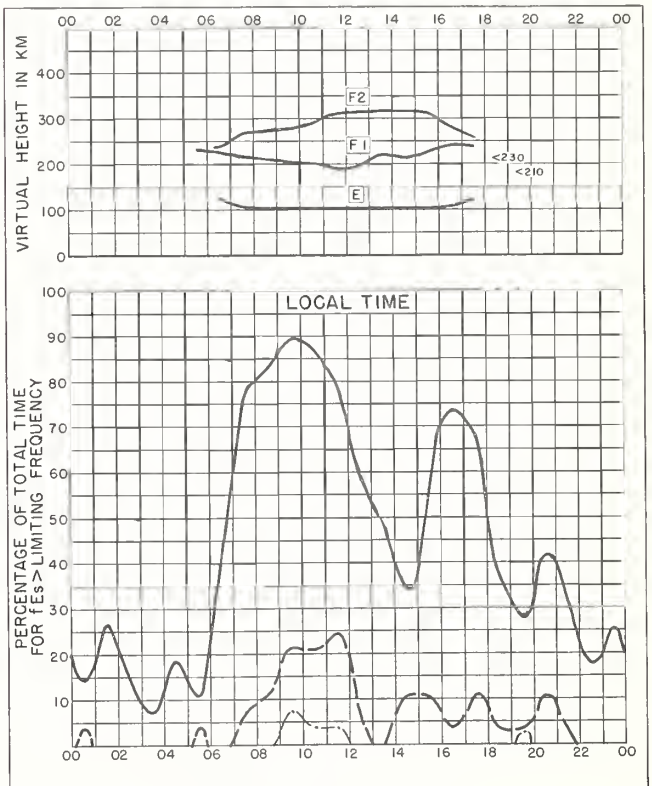


Fig. 127. CASABLANCA, MOROCCO
33.6°N, 7.6°W SEPTEMBER 1954



SEPTEMBER 1954

Fig. 128. CASABLANCA, MOROCCO

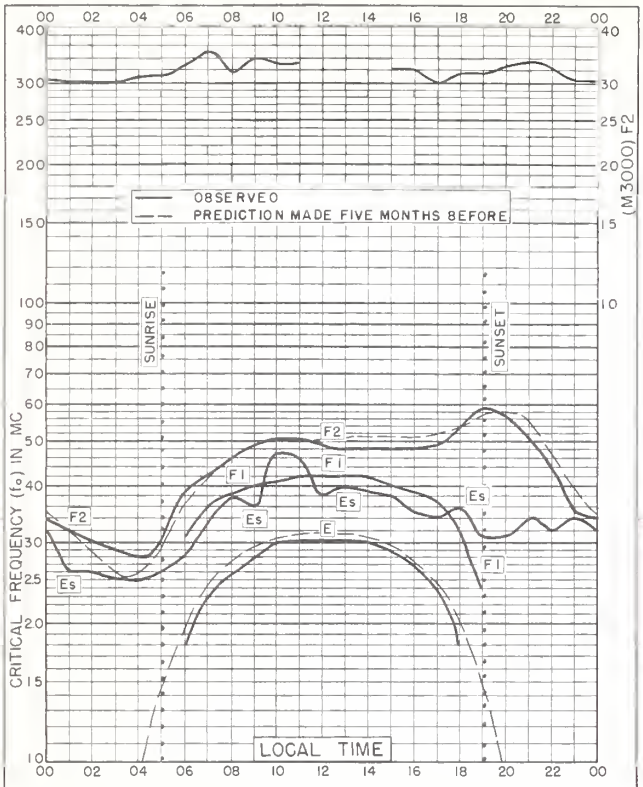


Fig. 129. POITIERS, FRANCE
46.6°N, 0.3°E AUGUST 1954

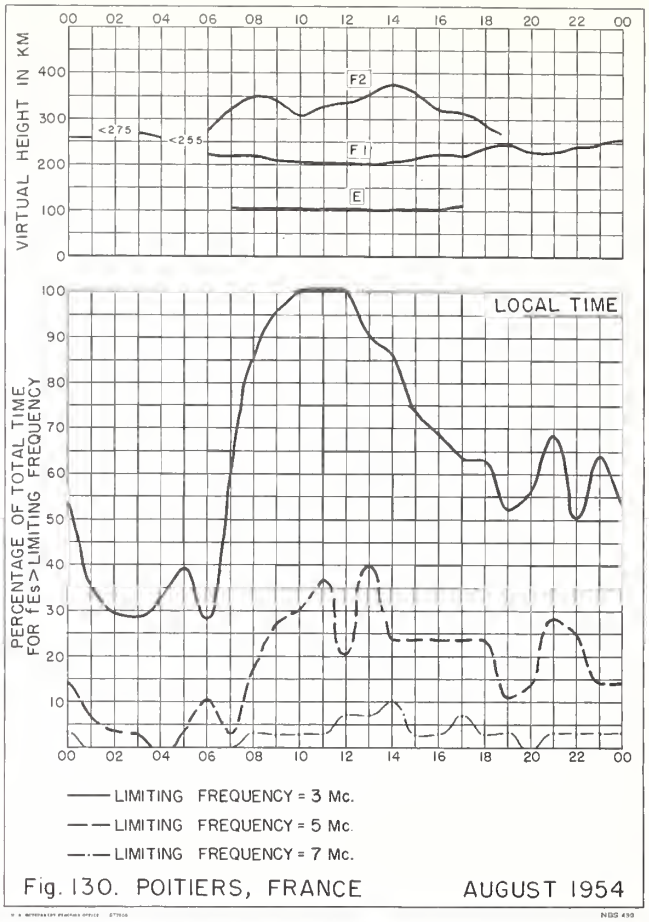


Fig. 130. POITIERS, FRANCE AUGUST 1954

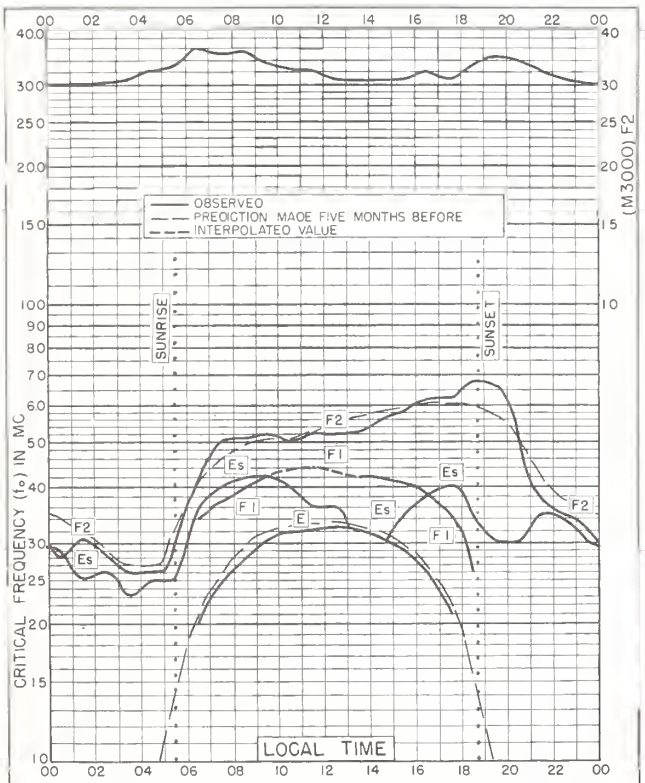


Fig. 131. CASABLANCA, MOROCCO
33.6°N, 7.6°W AUGUST 1954

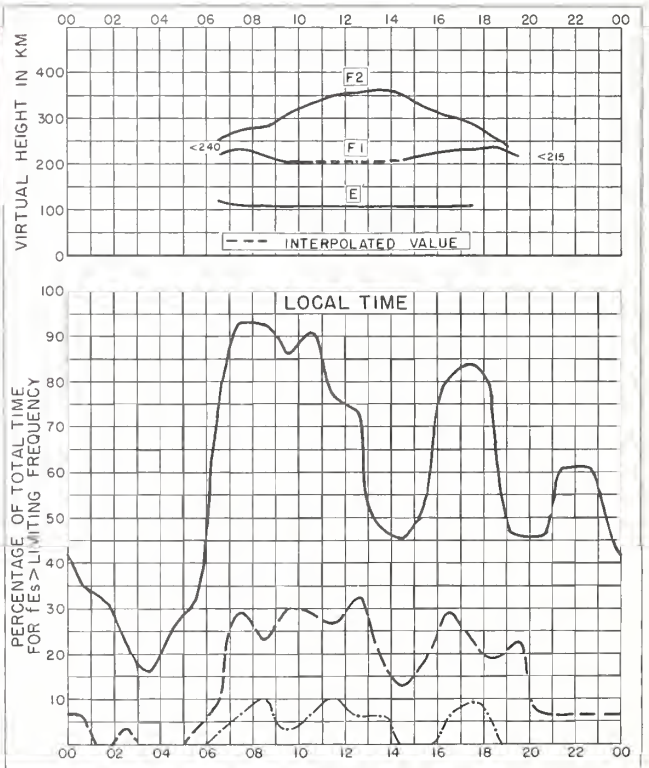


Fig. 132. CASABLANCA, MOROCCO AUGUST 1954

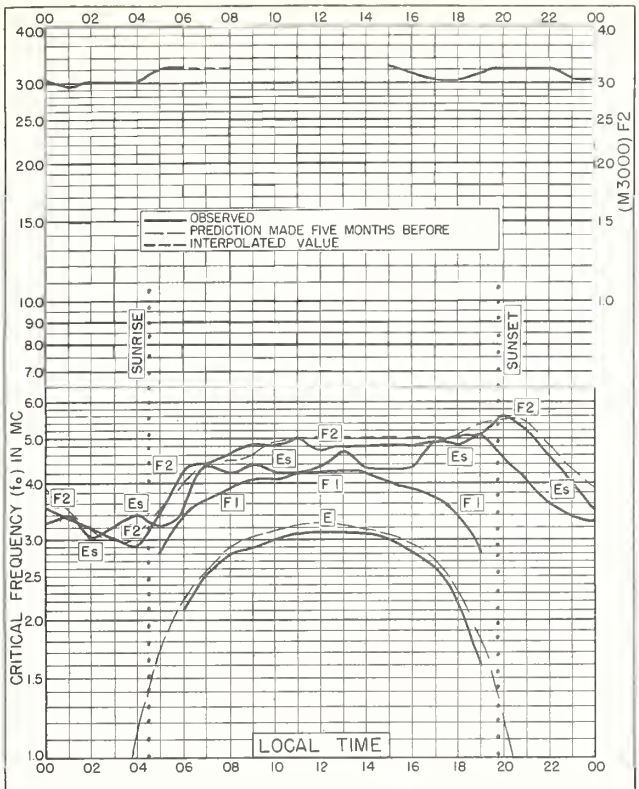


Fig. 133. POITIERS, FRANCE
46.6°N, 0.3°E JULY 1954

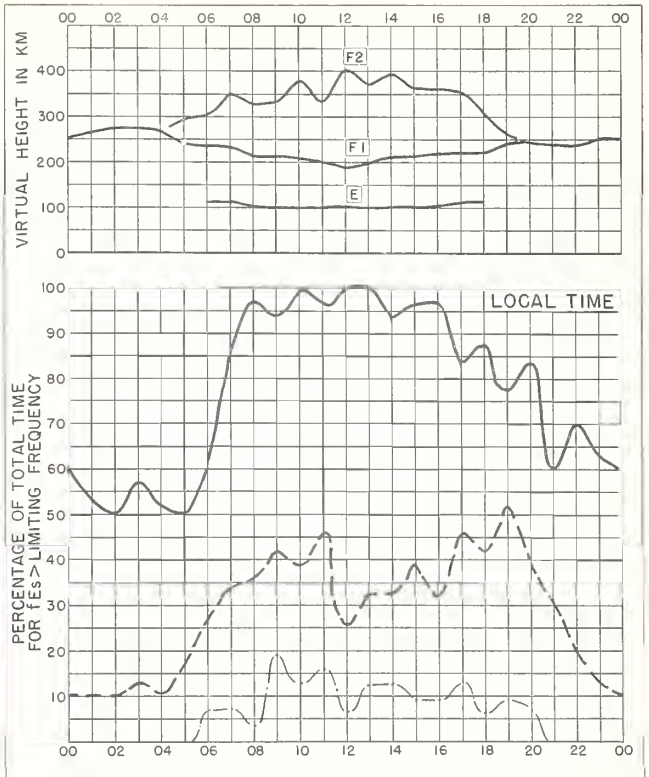


Fig. 134. POITIERS, FRANCE JULY 1954

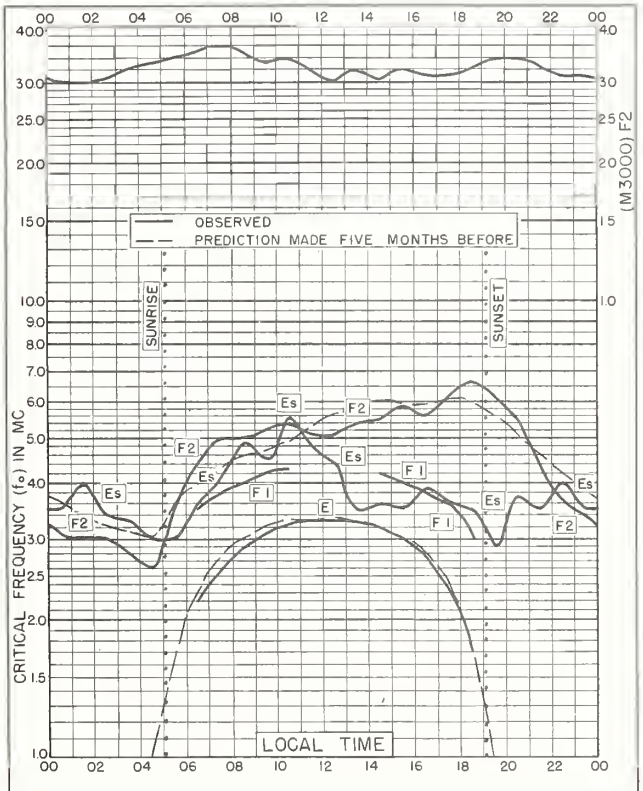


Fig. 135. CASABLANCA, MOROCCO
33.6°N, 7.6°W JULY 1954

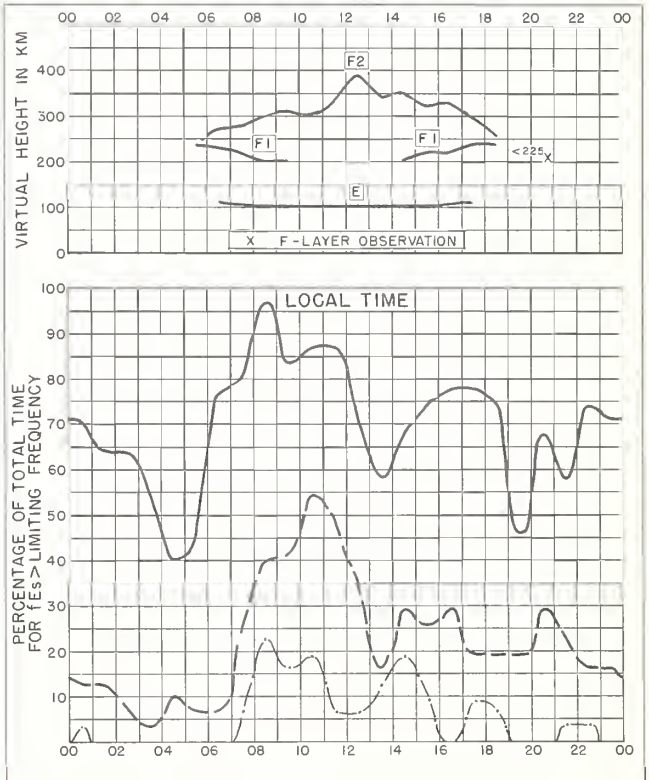


Fig. 136. CASABLANCA, MOROCCO JULY 1954

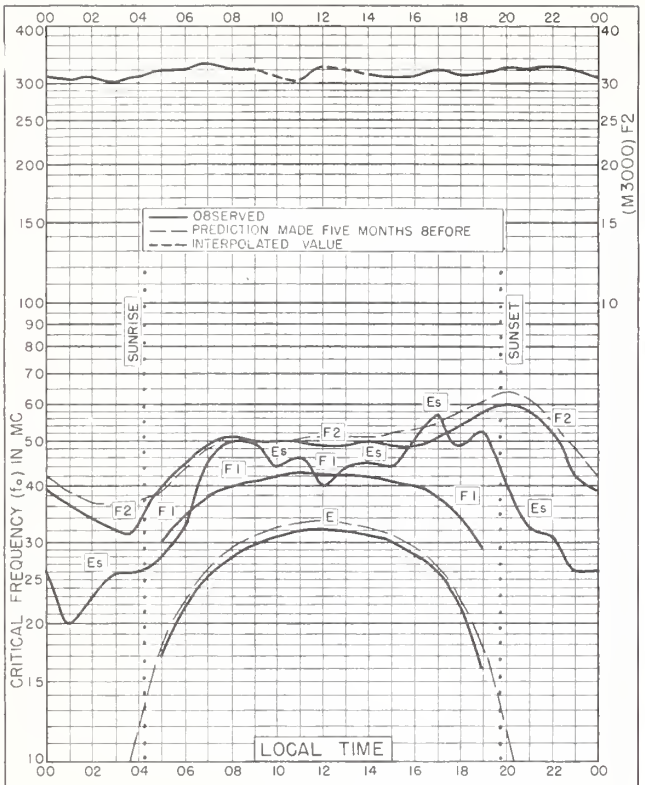


Fig. 137. POITIERS, FRANCE
46.6°N, 0.3°E JUNE 1954

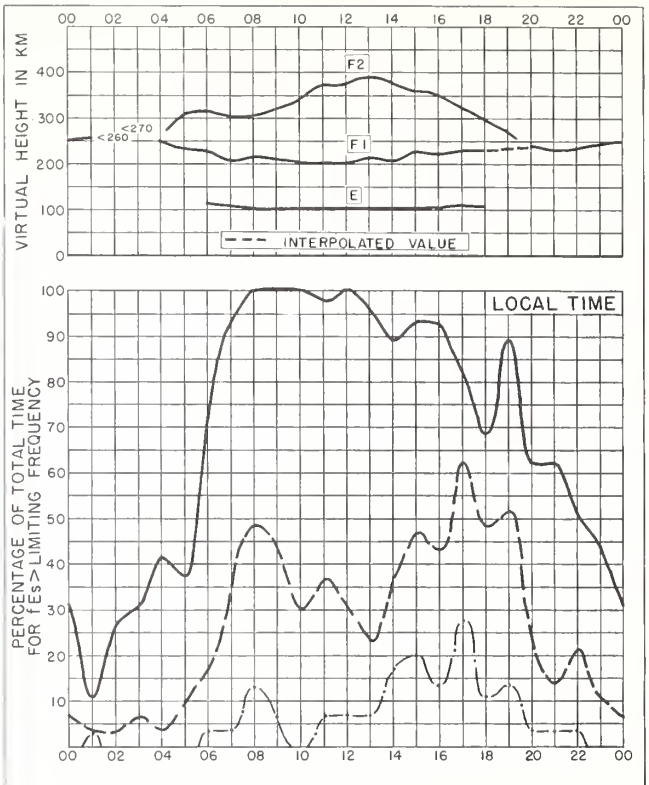


Fig. 138. POITIERS, FRANCE JUNE 1954

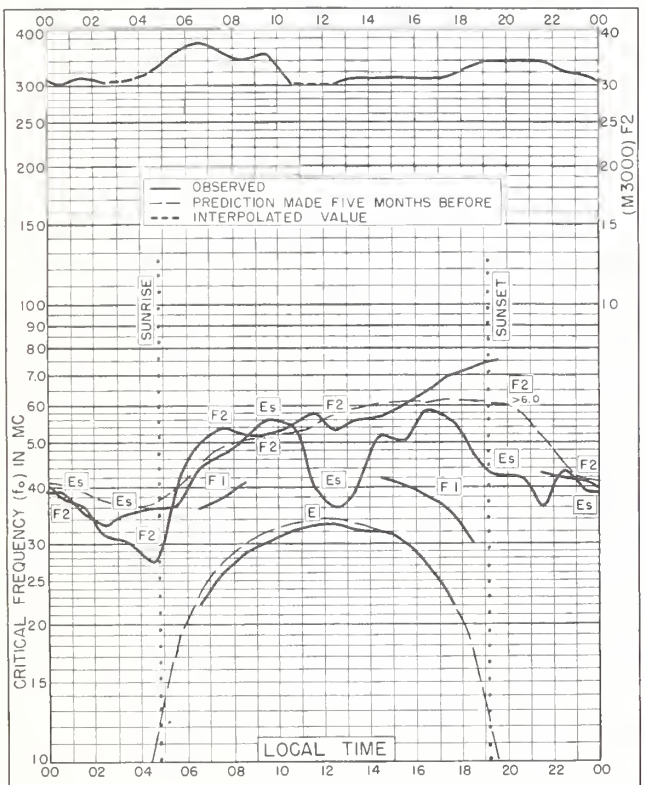


Fig. 139. CASABLANCA, MOROCCO
33.6°N, 7.6°W JUNE 1954

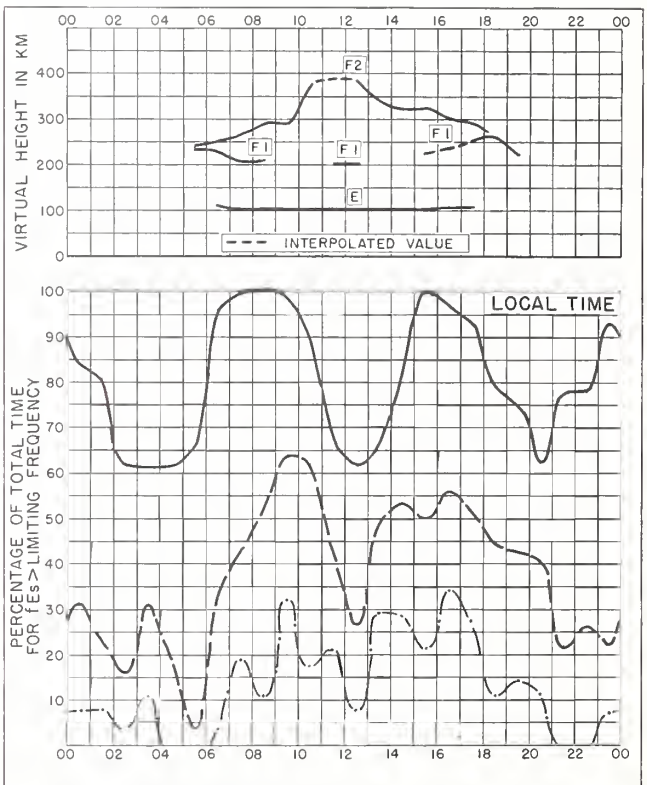


Fig. 140. CASABLANCA, MOROCCO JUNE 1954

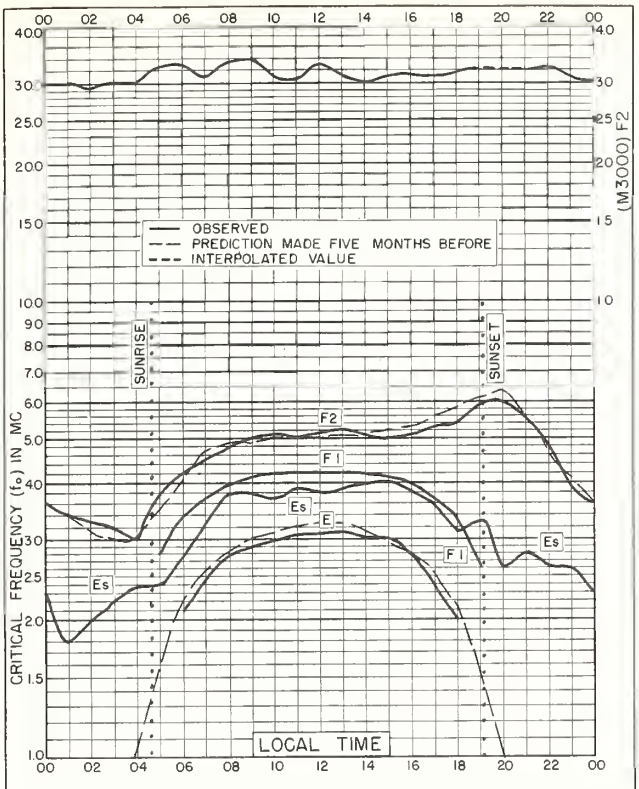


Fig. 141. POITIERS, FRANCE
46.6°N, 0.3°E MAY 1954

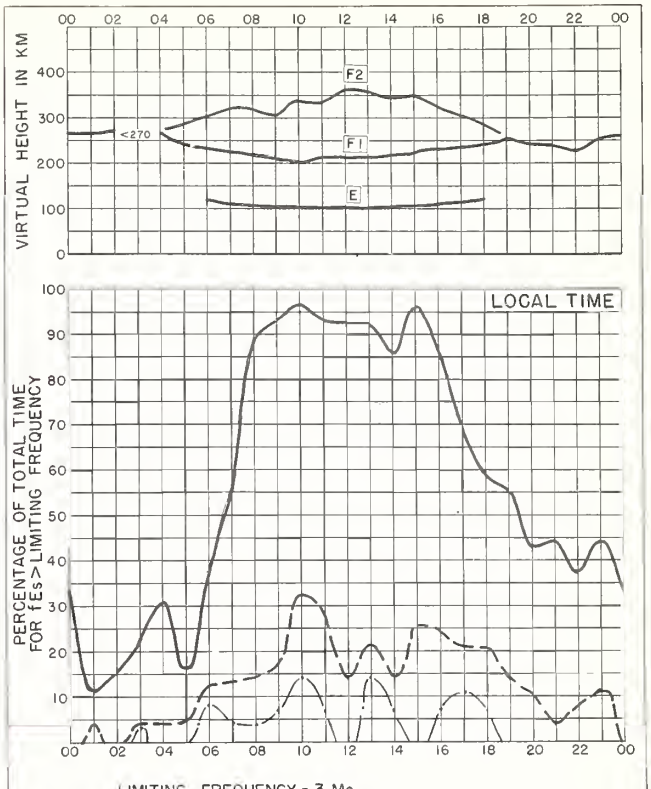


Fig. 142. POITIERS, FRANCE MAY 1954

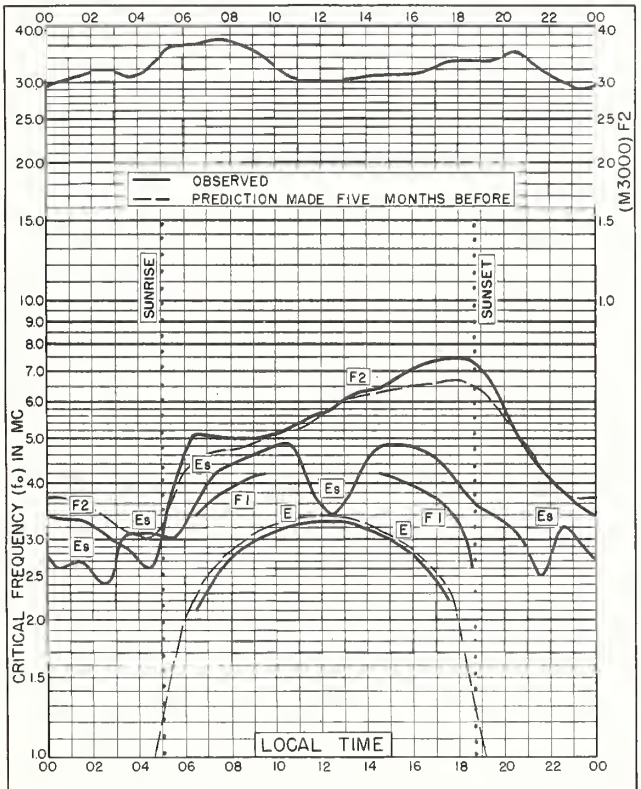


Fig. 143. CASABLANCA, MOROCCO
33.6°N, 7.6° W MAY 1954

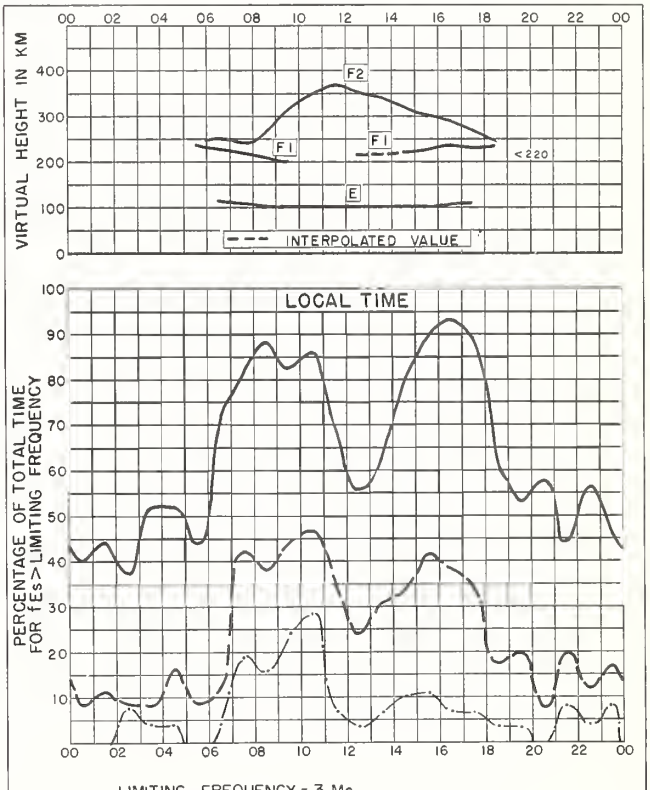


Fig. 144. CASABLANCA, MOROCCO MAY 1954

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Nov 06, 2017