IRPL-F6

IONOSPHERIC DATA

ISSUED

FEBRUARY, 1945

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

"This document contains information affecting the national defense of the United States within the meaning of the Espionage Act,50 U.S.C., 31 and 32. Its transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law."

IRPL-F6 INTERSERVICE RADIO PROPAGATION LABORATORY
NATIONAL BUREAU OF STANDARDS
WASHINGTON, D.C.

Issued
20 Feb. 1945

Organized under Joint U.S. Communications Board.

IONOSPHERIC DATA

Special Note.- Following the recommendations of the International Radio Propagation Conference, held in Washington 17 April to 5 May 1944, median values of all ionospheric characteristics will be reported, beginning with data for January, 1945, for Washington, for all stations reporting to the IRPL, i.e., Baffin I., Canada; Christmas I.; Fairbanks, Alaska; Reykjavik, Iceland; Maui, Hawaii; Trinidad, Brit. West Indies; Huancayo, Peru; Watheroo, W. Australia; San Francisco, Calif.; Baton Rouge, La.; San Juan, Puerto Rico, and for the Canadian stations at Churchill and Ottawa, Canada. Conventions used in determining median values are given on page

CONTENTS

Provisional data (continued)

Final data

Final data (continued)

TERMINOLOGY

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

MONTHLY AVERAGES AND MEDIAN VALUES OF IONOSPHERIC DATA

The tables and graphs of ionospheric data presented here are assembled by the Interservice Radio Propagation Laboratory for analysis and correlation principally incidental to IRPL predictions of radio propagation conditions. These data are furnished by the following:

Carnegie Institution of Washington (Department of Terrestrial Magnetism)
- Baffin I., Canada
- Christmas I.
- Fairbanks, Alaska (University of Alaska, College, Alaska)
- Reykjavik, Iceland
- Maui, Hawaii
- Trinidad, Brit. West Indies
- Huancayo, Peru
- Watheroo, W. Australia

British National Physical Laboratory, and Inter-Services Ionosphere Bureau
- Radio Research Station, Slough, England
- Great Baddow, England
- Burghead, Scotland
- Delhi, India
- Madras, India
- Simonstown, Union of S. Africa

Australian Council for Scientific and Industrial Research
Radio Research Board, Australia
Brisbane, Q., Australia
Mt. Stromlo, Canberra, NSW, Australia

Canadian Department of National Defence, Naval Service
Churchill, Canada
Ottawa, Canada

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

Peoples' Commissar for Postal and Electric Communications, Moscow, U.S.S.R.
Tykhi Bay, U.S.S.R.
Tomsk, U.S.S.R.
Sverdlovsk, U.S.S.R.
Moscow, U.S.S.R.

National Bureau of Standards, Washington, D.C.
Stanford University, (San Francisco), California
Louisiana State University, Baton Rouge, Louisiana
University of Puerto Rico, San Juan, P.R.

The "provisional data" tables give values as reported to the IRPL by telephone or telegraph. Any errors in these values will be corrected in later issues of the F-series reports.

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

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

b. Omission of values where $f^{\circ}F2$ is less than or equal to $f^{\circ}F1$, leading to erroneously high values of monthly average or median values.

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

These effects were discussed on pages 6 and 7 of the previous F-series reports, IRPL-F1, 2, 3, 4, and 5. Discrepancies between predicted and observed values are often ascribable to these effects.

Data for Tykhi Bay, U.S.S.R., are averages of observations made only on four to six days a month, except for the hours 09, 11, 13, 18, 21, and 23, at which times observations were made every day.

IONOSPHERIC DATA FOR EVERY DAY AND HOUR

These data, observed at Washington, D.C., follow the scaling practices given in the report IRPL-C61, "Report of International Radio Propagation Conference", pages 36 to 39.

In determining the median values presented in this report, the following Conventions have been adopted:

a. For all characteristics: where the value is missing because of A, B, or C (see IRPL-C61, loc. cit.), that hour is omitted from the median count.

b. In addition,

(1) For critical frequencies:
For all layers, where a value is missing because of E (see IRPL-C61, loc. cit.), it is counted as less than the lower limit of the recorder.

(2) For virtual heights:
Values missing for any reason are omitted from the median count.

(3) For muf factors:
Where a value is missing because of G, it is counted as less than the median count.
Values missing for any other reason are omitted from the median count.

IONOSPHERE DISTURBANCES

Table 58 presents ionospheric character figures for Washington, D.C., during January, 1945, as determined by the criteria presented in the report IRPL-R5, "Criteria for Ionospheric Storminess", together with American magnetic K-figures which are usually covariant with them.

NOTE ON LONGITUDE EFFECT

Ionospheric data recently obtained by a special group in the United States Army Air Forces, Pacific Ocean Area, giving observations made at the temporary stations at Guam I. and Kwajalein Atoll, afford additional evidence that ionospheric characteristics near the geomagnetic equator are closely similar, irrespective of both geographic latitude and longitude, at the same season. (Cf. IRPL-F4, "Ionospheric Data", issued December 1944, p.7). Figs. 42, 44, and 45 present mass plots of $f^{o}F2$ observed at these stations, together with average values of F2-M3000. The notable spread exhibited by the night values of $f^{o}F2$ at both stations has long been characteristic of observations made at Huancayo, Peru, which is also

near the geomagnetic equator. Figs. 43 and 46 present comparisons of observations of $f^{o}F2$ made during the months of December, 1944, and January, 1945, respectively, at Guam I., Kwajalein Atoll, Christmas I., and Huancayo, Peru. Although these stations are widely separated in both latitude and longitude, they are at nearly equal geomagnetic latitudes, as follows:

	Geographic Longitude	Geographic Latitude	Geomagnetic Latitude
Guam I.	144.8°E	13.5°N	3.0°N
Kwajalein Atoll	168.0°E	9.0°N	2.0°N
Christmas I.	157.0°W	2.0°N	2.0°N
Huancayo, Peru	75.3°W	12.0°S	0.6°S

It may be seen that the $f^{o}F2$ graphs for all these stations are nearly identical.

ERRATA

1. Tabulations of data from Tomsk, U.S.S.R., received recently by the IRPL indicate that the times of observation of these data have previously been reported incorrectly as those for 90°E. They are reported on 105°E time. This time correction applies to the following tables and figures in previous issues of this report:

IRPL-F2	Table 33	Figs. 41 and 42
IRPL-F3	Table 36	Figs. 50 and 51

2. In the report IRPL-F3, Table 36 and Fig. 50, data for Tomsk, U.S.S.R., erroneously reported as $f^{o}F2$ and $f^{o}F1$, are actually $f^{x}F2$ and $f^{x}F1$.

3. In the previous issue of this report, IRPL-F5, Table 29 and Fig. 24 present data for Christchurch, N.Z., November, 1944, instead of for Campbell I., as stated. The slight differences between Figs. 23 and 24 were caused by the inclusion of half-hourly values in the graphs of Fig. 23. Data for Campbell I. for November, 1944, are presented in the table and graph immediately following.

Campbell I. (52.5°S, 169.0°E) November, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02								
03								
04								
05	245	4.23			140	2.29		
06								
07	296	4.66	230	3.83	119	2.67		
08								
09	305	5.60	210	4.23	109	2.96		
10								
11	310	6.14	216	4.43	108	3.02		
12	305	5.80	213	4.33	106	3.09		
13	303	5.89	208	4.35	108	3.02		
14								
15	315	5.96	220	4.14	104	2.94		
16								
17	265	6.02	232	3.55	124	2.47		
18								
19	243	6.19						
20								
21	255	5.86						
22								
23								

Time: 165°E.
Length of time sweep: 1 Mc to 12 Mc. Manual operation.

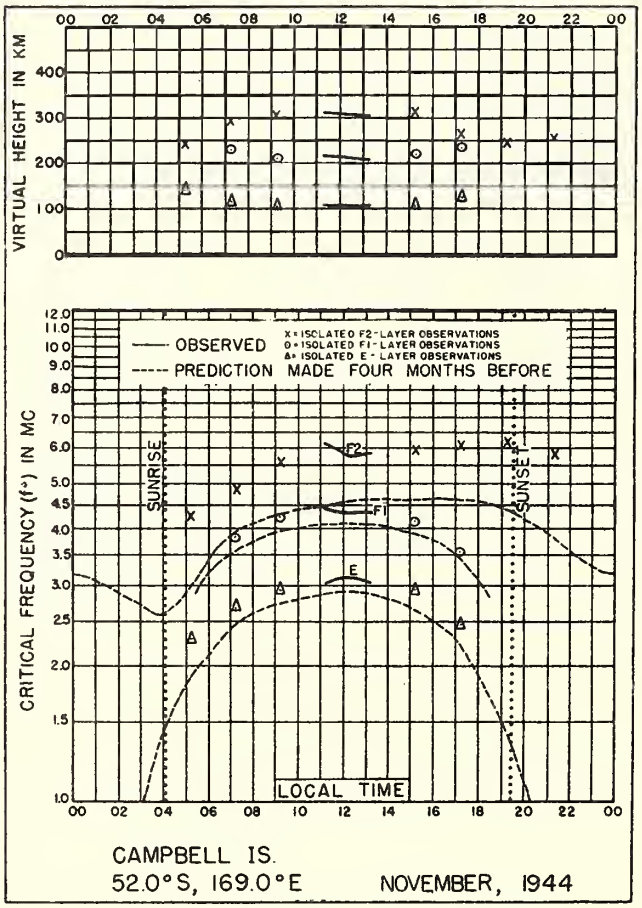

Table 1

Baffin I., Canada (70.5°N, 68.6°W) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	280	1.9						4.4
01	300	2.1						3.9
02	300	2.6						3.2
03	290	2.1						4.1
04	300	2.2						4.0
05	310	2.1						3.7
06	300	2.4						3.2
07	290	2.9						3.1
08	250	2.8						3.3
09	250	3.2						3.4
10	250	3.6						3.1
11	250	3.7						3.1
12	240	4.2						3.2
13	240	3.8						3.2
14	250	4.2						2.9
15	240	4.0						3.2
16	250	3.9						2.8
17	240	3.5						3.1
18	250	3.3						3.1
19	270	3.2						3.2
20	260	3.0						3.1
21	260	2.6						3.2
22	280	2.4						3.4
23	300	2.4						3.4

Time: 75°W.
Length of time sweep: 2 Mc to 16 Mc in one minute.

Table 2

Fairbanks, Alaska (64.9°N, 147.8°W) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	290	1.4						3.2
01	310	1.1						3.0
02	350	1.8						2.8
03	330	2.0						2.9
04	340	2.2						3.0
05	320	2.2				1.2		3.0
06	300	2.0				1.1		3.0
07	300	1.9				1.2		3.0
08	280	2.2				1.2		3.1
09	240	3.5				1.4		3.2
10	230	4.3				1.8		3.4
11	230	5.2				1.9		3.4
12	240	5.4				1.9		3.4
13	220	5.7				1.8		3.4
14	220	5.4				1.6		3.4
15	220	4.8				1.3		3.4
16	220	4.2						3.3
17	230	3.2						3.2
18	250	2.1						3.2
19	270	1.5				1.0		3.2
20	290	1.4				0.9		3.2
21	280	1.3						3.2
22	300	1.4				1.0		3.2
23	300	1.4						3.2

Time: 150°W.
Length of time sweep: 16 Mc to 0.5 Mc in fifteen minutes.

Table 3

Reykjavik, Iceland (64.1°N, 21.7°W) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02								
03								
04	310	2.7						3.1
05	260	2.8						3.2
06	290	2.3						3.3
07	300	1.7						3.5
08	270	1.9						3.4
09	230	2.7						3.4
10	200	3.9						3.7
11	190	5.0						3.8
12	200	5.9						3.7
13	200	5.7						3.7
14	190	5.5						3.6
15	190	5.4						3.4
16	200	4.9						3.3
17	210	4.1						3.3
18	220	3.4						3.5
19	270	2.9						3.1
20	290	2.6						3.4
21	340	2.4						3.3
22	340	2.4						3.3
23								

Time: 15°W.
Length of time sweep: 2 Mc to 16 Mc in one minute.

Table 4

Churchill, Canada (58.8°N, 94.2°W) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01		3.2						3.0
02		3.3						3.0
03		3.6						3.1
04								
05		3.6						3.0
06		3.0						3.0
07		3.2						3.0
08		2.8						3.1
09		3.7						3.3
10		4.8						3.3
11		5.4						3.4
12		5.8						3.3
13		6.3						3.3
14		6.5						3.2
15		6.3						3.2
16		6.0						3.2
17		5.2						3.1
18		4.0						3.1
19		3.4						3.0
20		3.3						2.9
21		3.4						3.0
22		3.2						3.0
23		3.2						3.2

Time: 90°W.
Length of time sweep: 2 Mc to 16 Mc in one minute.

Table 5

Great Baddow, England (51.7°N, 0.5°E) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.0						2.8
01		2.9						2.8
02		2.8						2.8
03		2.6						2.9
04		2.4						2.9
05		2.3						3.1
06		2.1						3.1
07		2.1						3.0
08		4.3						3.5
09		5.6						3.5
10		6.2						3.6
11		6.4						3.5
12		6.5						3.5
13		6.4						3.5
14		6.3						3.5
15		5.7						3.6
16		5.3						3.4
17		4.5						3.3
18		3.4						3.2
19		2.8						3.1
20		2.7						2.9
21		2.8						2.9
22		2.8						2.9
23		2.7						2.9

Time: 0°.
Length of time sweep: Manual operation.

Table 6

San Francisco, Calif. (37.4°N, 122.2°W) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.9						3.2
01		2.3						3.2
02		3.0						3.2
03		3.0						3.1
04		2.9						3.1
05		2.8						3.1
06		2.3						3.2
07		3.2						3.2
08		5.0						3.5
09		5.6						3.4
10		7.0						3.2
11		8.2						3.4
12		8.1						3.4
13		7.3						3.4
14		6.7						3.3
15		6.7						3.4
16		6.3						3.5
17		4.8						3.4
18		4.0						3.4
19		3.1						3.4
20		2.3						3.4
21		2.2						3.1
22		2.4						3.0
23		2.9						3.1

Time: 120°W.
Length of time sweep: 0.8 Mc to 12 Mc in six minutes. Record centered on the hour.

Table 7

Maui, Hawaii (20.8°N, 156.5°W) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	300	3.2						3.0
01	260	3.8						3.1
02	240	3.2						3.5
03	230	2.8						3.5
04								
05								
06								
07	270	3.2						3.1
08	240	6.1			120	2.5		3.4
09	260	7.8	220	4.3	110	2.8		3.3
10	240	9.0	200	4.5	110	3.0		3.4
11	260	9.3	190	4.6	100	3.2		3.2
12	290	10.0	190	4.8	100	3.3		3.0
13	280	11.3	200	4.7	100	3.4		3.1
14	250	11.8	200	4.7	100	3.3		3.2
15	250	10.4	200	4.4	110	3.1		3.2
16	240	8.8	200	4.1	110	2.8		3.5
17	230	7.1				2.3		3.6
18	200	5.6						3.7
19	210	3.6						3.6
20	250	3.4						3.2
21	220	3.7						3.5
22	250	3.4						3.2
23	290	2.5						2.8

Time: 150°W.
Length of time sweep: 2 Mc to 16 Mc in one minute.

Table 8

Huancayo, Peru (12.0°S, 75.3°W) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.9						3.0
01		4.2						3.0
02		3.1						3.1
03		3.3						3.3
04		3.2						3.1
05		2.6						3.1
06		5.0						3.2
07		7.0						3.1
08		8.1						3.0
09		8.3						2.7
10		8.1						2.5
11		7.8						2.5
12		7.6						2.5
13		7.9						2.6
14		8.3						2.7
15		8.6						2.8
16		8.9						2.8
17		8.8						2.8
18		8.9						2.9
19		8.6						2.9
20		7.7						2.9
21		6.6						2.9
22		6.0						2.9
23		5.4						2.8

Time: 75°W.
Length of time sweep: 16 Mc to 0.5 Mc in fifteen minutes.

Length of time sweep: 16 Mc to 0.8 Mc in fifteen minutes.

Table 9

Brisbane, Q., Australia (27.5°S, 153.0°E) Jamuary, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.6						3.0
01		5.0						3.0
02		4.3						3.0
03		3.8						3.0
04		3.4						2.9
05		3.4						3.0
06		4.6						3.2
07		5.2						3.1
08		5.6						3.0
09		6.2						2.8
10		7.1						2.8
11		7.3						2.8
12		7.4						2.8
13		7.3						2.8
14		8.1						2.9
15		7.9						3.0
16		7.6						3.1
17		6.9						3.1
18		6.0						3.1
19		5.6						2.8
20		5.8						2.7
21		5.9						2.7
22		5.9						2.8
23		5.9						2.9

Time: 150°E.
Length of time sweep: 2.2 Mc to 12.5 Mc in two minutes, thirty seconds.

Table 10

Simonstown, Union of S. Africa (33.9°S, 18.7°E) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.8						3.0
01		3.7						3.0
02		3.6						3.0
03		3.4						3.1
04		3.3						3.1
05		3.2						3.1
06		4.0						3.1
07		5.0						3.1
08		5.5						3.0
09		6.0						2.9
10		6.3						2.9
11		6.8						2.9
12		7.3						2.9
13		7.6						2.9
14		7.7						3.0
15		7.8						3.0
16		7.3						3.1
17		6.3						3.1
18		6.5						3.1
19		6.2						3.2
20		5.8						3.1
21		5.3						3.2
22		4.6						3.1
23		4.0						3.1

Time: 15°E.
Length of time sweep: 2 Mc to 16 Mc in one minute.

Table 11

Mt. Stromlo, N.S.W., Australia (35.3°S, 149.0°E) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.3						3.0
01		4.4						3.0
02		3.9						3.0
03		3.6						3.0
04		3.3						3.0
05		3.5						3.0
06		4.6						3.0
07		5.1						3.0
08		5.4						3.0
09		6.1						2.9
10		6.3						3.0
11		6.4						3.0
12		6.5						3.0
13		6.5						3.0
14		6.4						3.0
15		6.4						3.0
16		6.4						3.0
17		6.3						3.0
18		6.2						3.0
19		5.3						3.0
20		5.6						2.9
21		5.5						3.0
22		5.3						3.0
23		5.2						2.9

Time: 150°E.
Length of time sweep: 1.6 Mc to 12.5 Mc in two minutes.

Table 12

Burghead, Scotland (57.7°N, 3.5°W) December, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.3						
01		2.2						
02		2.0						
03		2.0						
04		2.1						
05		2.0						
06		2.1						
07		1.9						
08		2.4						
09		3.9						
10		4.8						
11		5.3						
12		5.8						
13		5.7						
14		5.5						
15		5.1						
16		4.7						
17		3.9						
18		3.1						
19		2.4						
20		2.3						
21		2.3						
22		2.3						
23		2.3						

Time: 0°.

Table 13

Delhi, India (28.6°N, 77.2°E) December, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.5						
01		2.6						
02		2.4						
03		2.4						
04		2.3						
05		2.2						
06		2.3						
07		5.6						
08		6.8						
09		7.2						
10		7.2						
11		7.3						
12		7.7						
13		8.0						
14		7.7						
15		7.3						
16		6.8						
17		5.6						
18		4.4						
19		3.6						
20		3.6						
21		2.8						
22		2.6						
23		2.6						

Time: 75°E.

Table 14

Pitcairn I. (25.0°S, 130.0°W) December, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01	272	5.77						
02								
03								
04	276	5.10						
05								
06	260	7.10	228	4.24				
07								
08	326	8.27	223	4.49				
09								
10	324	9.69	220	5.00				
11								
12	299	10.10	213	4.82				
13								
14	284	9.71	233	4.44				
15								
16								
17								
18	274	6.33						
19								
20								
21	322	6.48						
22								
23								

Time: 150°W.

Table 15

Watheroo, Western Australia (30.3°S, 115.9°E) December, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	268	4.73						2.8
01	266	4.23						2.9
02	267	3.87						2.9
03	271	3.60						2.8
04	268	3.29						2.9
05	262	3.53						3.1
06	271	4.50				2.01		3.2
07	293	4.89	238	3.89		2.57		3.0
08	363	5.42	229	4.19		2.95		2.9
09	407	5.83	230	4.32		3.19		2.8
10	361	6.34	227	4.42		3.29		2.9
11	354	6.72	222	4.53		3.38		2.8
12	361	7.11	225	4.55		3.39		2.8
13	336	7.52	222	4.52		3.39		2.9
14	343	7.42	226	4.44		3.33		2.9
15	329	7.27	226	4.34		3.23		2.9
16	317	6.94	228	4.19		3.00		2.9
17	307	6.62	230	3.87		2.60		3.0
18	289	6.43				2.03		3.0
19	253	6.18						3.0
20	256	6.02						2.9
21	261	5.52						2.9
22	270	5.09						2.9
23	276	4.98						2.9

Time: 120°E.
Length of time sweep: 16 Mc to 0.5 Mc in fifteen minutes.

Table 16

Washington, D.C. (39.0°N, 77.5°W) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	280	2.0					3.0	3.0
01	280	2.0					2.9	3.0
02	270	2.3					2.9	3.0
03	260	2.5					3.0	3.0
04	260	2.4					2.9	3.0
05	240	2.6					2.9	3.2
06	240	2.4					2.9	3.2
07	240	2.5					2.9	3.2
08	220	4.3			120	1.8	2.6	3.5
09	220	5.2	200		120	2.3	2.9	3.4
10	250	6.1	220	3.8	120	2.7	3.0	3.4
11	260	6.7	220	4.0	120	2.9	3.1	3.4
12	260	6.6	220	4.0	120	3.0		3.4
13	260	6.5	220	3.9	120	2.9	2.9	3.3
14	260	6.6	210	3.3	120	2.8	3.0	3.3
15	250	6.6	220	3.6	120	2.5	2.7	3.4
16	240	5.7	220		120	2.1	2.4	3.4
17	220	5.5			120	1.7	2.0	3.3
18	220	4.3					2.2	3.2
19	220	4.0					2.2	3.3
20	230	2.9					2.2	3.3
21	260	2.4					2.8	3.0
22	280	2.2					3.0	3.0
23	280	2.2					2.9	3.0

Time: 75°W.
Length of time sweep: 0.3 Mc to 14.0 Mc in two minutes.

Length of time sweep: 16 Mc to 0.5 Mc in fifteen minutes.

Table 17

Baton Rouge, Louisiana (30.5°N, 91.2°W) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	290	3.4						3.0
01	290	3.4						3.1
02	270	3.3						3.1
03	260	3.3						3.2
04	250	3.6						3.3
05	270	3.2						3.0
06	270	3.1						3.1
07	240	4.4						3.4
08	240	5.6			130	2.1		3.5
09	260	5.7	240	3.7	120	2.5		3.4
10	290	6.3	240	4.3	120	2.9		3.3
11	290	8.0	240	4.3	120	3.0		3.1
12	280	8.2	240	4.5	120	3.1		3.2
13	290	7.0	240	4.5	120	3.1		3.2
14	290	6.3	240	4.4	120	3.0		3.1
15	290	7.5	240	3.7	120	2.7		3.1
16	250	7.1	240	3.5	130	2.3		3.4
17	240	6.0						3.3
18	230	4.3						3.4
19	240	3.4						3.3
20	260	2.8						3.3
21	300	2.8						3.0
22	300	2.8						2.9
23	300	3.3						3.0

Time: 90°W.
Length of time sweep: 1.3 Mc to 9.3 Mc in three minutes, thirty seconds.
Record centered on the hour.

Table 18

San Juan, Puerto Rico (13.4°N, 66.1°W) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.6						3.0
01		3.8						2.9
02		3.9						3.1
03		4.2						3.2
04		3.3						3.0
05		3.2						3.0
06		3.3						2.9
07	290	4.4						3.2
08	280	6.4		3.2				3.3
09	280	6.8	260	4.0		2.9		3.4
10	290	6.7	240	4.2		3.0		3.3
11	290	6.9	220	4.3		3.1		3.3
12	320	6.9	230	4.4		3.2		3.2
13	300	7.2	225	4.4		3.1		3.2
14	300	7.0	260	4.4		3.0		3.1
15	320	6.9	240	4.2		3.0		3.0
16	330	6.7	250	3.8		2.9		2.9
17	295	7.0		3.3				3.2
18	250	6.2						3.4
19	260	4.2						3.2
20		3.7						3.1
21		3.9						3.2
22		3.6						2.9
23		3.3						2.9

Time: 60°W.
Length of time sweep: 2.3 Mc to 11 Mc in twelve minutes.

Table 19

(Corrections and additions to previously published provisional data).

Fairbanks, Alaska (64.9°N, 147.8°W) December, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00							4.3	
01							5.5	
02							3.3	
03							4.9	
04							4.7	
05							4.9	
06							3.2	
07							3.0	3.1
08							3.0	
09							2.7	3.4
10							2.3	
11							2.3	
12							2.3	
13							2.6	
14							2.5	
15							2.4	
16							2.3	
17							3.0	
18							3.0	
19							3.1	3.2
20							3.2	
21							3.3	
22							3.3	
23							5.5	

Time: 150°W.
Length of time sweep: 16 Mc to 0.5 Mc in fifteen minutes.

Table 20

(Corrections and additions to previously published provisional data).

Churchill, Canada (58.8°N, 94.2°W) December, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00							5.4	
01	334	3.2					4.6	
02	300						3.8	
03	335						4.6	
04	342						3.7	
05							4.0	
06							4.2	
07							3.9	
08	287	3.2					3.6	
09	282	4.0			116		3.3	
10	262				106	3.0		
11	254				111	2.9		
12	258				116	2.7		
13	256		230	3.0	112	2.7		3.2
14	254				113	2.9		3.2
15	248				114	2.9		
16	248				133	2.8		
17	286				123	2.7		
18	297				126	2.7	2.8	
19	315				116	2.7	3.5	
20	318				118	2.7	3.9	
21	341	3.1					4.6	
22	304	3.6					5.0	
23	341	3.3					5.9	

Time: 90°W.
Length of time sweep: 2 Mc to 16 Mc in one minute.

Table 21

(Additions to previously published provisional data).

Great Baddow, England (51.7°N, 0.5°E) December, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02								
03								
04								
05								
06								
07								
08						1.8		
09						1.9		
10				3.0		2.2		
11				3.3		2.3		
12				3.3		2.3		
13				3.1		2.3		
14				2.7		2.1		
15						1.8		
16						1.5		
17								
18							1.8	
19								
20								
21								
22								
23								

Time: 0°.
Length of time sweep: Manual operation.

Table 22

(Corrections and additions to previously published provisional data).

Ottawa, Canada (45.5°N, 75.8°W) December, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	346						3.0	
01	343						2.9	
02	345						3.0	
03	351						3.0	
04	355						3.0	
05	313						3.0	
06	324						3.0	
07	283						2.4	3.2
08	238		230	3.0	128	2.5	3.8	
09	239		221	3.4	129	2.5	4.2	
10	241	6.8	219	3.6	125	2.6	4.8	
11	247		224	3.7	123	2.8	4.2	
12	248		222	3.9	124	2.8		
13	251		217	3.7	125	2.6	3.9	
14	244		227	3.4	128	2.5	3.2	
15	243		224	3.0	134	2.4	2.9	
16	236							3.4
17	243							
18	254							
19	263							3.2
20	298						2.1	
21	329	2.8					3.0	
22	340						2.9	
23	363						2.8	

Time: 75°W.
Length of time sweep: 1.93 Mc to 13.5 Mc. Manual operation.

Table 23

(Corrections and additions to previously published provisional data).

Huancayo, Peru (12.0°S, 75.3°W) December, 1944.

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	325	3.69						2.8
01	319	3.26						
02	310	2.94						3.0
03	313	2.74						
04	308	2.67						
05	291	2.42						
06	243	5.65				2.13	2.8	
07	240	7.33				2.69	3.2	
08	301	8.38	211	4.52		3.12	5.5	
09	332	8.59	214	4.65		-	5.5	
10	383	8.52	208	4.73		-	5.5	
11	389	8.25	205	4.69		-	5.5	
12	378	8.37	205	4.72		-	5.5	
13	383	8.60	202	4.69		-	5.5	
14	353	8.92	202	4.62		3.55	5.5	
15	338	9.17	211	4.48		3.22	5.4	2.7
16	273	9.18	214	4.39		2.97	5.5	
17	245	9.18				2.49	3.2	
18	259	9.14				1.64	2.9	
19	270	8.59						
20	294	7.90						
21	310	6.84						
22	330	5.78						2.6
23	341	4.63						2.6

Time: 75°W.
Length of time sweep: 18 Mc to 0.5 Mc in fifteen minutes.

Table 24

Tykhi Bay, U.S.S.R. (80.3°N, 52.8°E) November, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.4						
01		3.9						
02		5.1						
03		5.2						
04		5.8						
05		5.3						
06		5.0						
07		4.9						
08		3.8						
09		4.1						
10		4.2						
11		4.4						
12		4.6						
13		5.6						
14		5.7						
15		5.6						
16		5.8						
17		4.9						
18		5.2						
19		5.2						
20		5.3						
21		4.9						
22		5.0						
23		4.8						

Time: 45°E.

Table 25

Sverdlovsk, U.S.S.R. (56.8°N, 61.1°E) November, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	2.8						
01	260	2.9						
02	250	3.0						
03	250	2.9						
04	250	2.8						
05	250	2.6						
06	245	2.5						
07	220	3.2						
08	200	4.7			160	1.8		
09	200	5.9			130	2.0		
10	200	6.2			120	2.1		
11	200	6.4			115	2.4		
12	200	6.3			110	2.4		
13	200	6.2			120	2.3		
14	200	5.8			120	2.1		
15	190	5.0			130	1.8		
16	200	4.2						
17	210	3.7						
18	220	2.9						
19	240	2.6						
20	250	2.4						
21	260	2.3						
22	260	3.0						
23	255	2.5						

Time: 60°E.

Table 26

(Additions to previously published provisional data)

Great Baddow, England (51.7°N, 0.5°E) November, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02								
03								
04								
05								
06								
07						1.4		
08				2.4		1.8		
09				3.0		2.2		
10				3.2		2.4		
11				3.5		2.5		
12				3.5		2.5		
13				3.3		2.4		
14				3.0		2.2		
15						2.0		
16						1.6		
17								
18								
19								
20								
21								
22								
23								

Time: 0°.
Length of time sweep: Manual operation.
Slough, England (51.5°N, 0.6°E)
noon f°F2 = 6.34 Mc.

Table 27

(Corrections and additions to previously published provisional data).

Brisbane, Australia (27.5°S, 153.0°E) November, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	272	5.70					3.8	
01	256	5.48					3.2	
02	248	4.75					3.7	
03	253	4.10					2.9	3.2
04	252	3.63						
05	235	4.24						
06	238	5.01	231					
07	287	5.64	225	4.15	118	2.67		3.2
08	306	6.23	208	4.37	114	2.98	4.5	3.3
09	312	6.76	203	4.49	112	3.20	4.7	
10	318	7.40	203	4.55	110	3.28	4.0	
11	307	8.14	196	4.60	110	3.34	4.0	
12	299	8.42	186	4.60	109	3.40	3.5	
13	290	8.36	210	4.55	110	3.34	3.2	3.2
14	294	8.08	224	4.48	114	3.18	3.0	
15	282	7.95	222	4.30	118	3.02	3.3	
16	275	7.75	231	4.02	116	2.70	3.5	
17	257	7.50					4.2	
18	243	7.12					3.8	
19	255	6.47					3.7	
20	264	6.20					3.8	
21	290	5.94					3.6	
22	289	5.93					3.8	
23	291	5.86					3.7	

Time: 150°E.
Length of time sweep: 2.2 Mc to 12.5 Mc in two minutes, thirty seconds.

Table 28

(Corrections and additions to previously published provisional data).

Simonstown, Union of S. Africa (33.9°S, 18.7°E) November, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.84						
01		3.86						
02		3.77						
03		3.66						
04		3.71						
05		3.84						
06		4.65						
07		5.58						
08		6.39						
09		6.91						
10		7.27						
11		7.67						
12		8.15						
13		8.99						
14		8.90						
15		8.66						
16		8.25						
17		7.76						
18		7.72						
19		7.04						
20		6.22						
21		5.15						
22		4.01						
23		3.95						

Time: 15°E.
Length of time sweep: 2 Mc to 16 Mc in one minute.

Table 29

(Corrections and additions to previously published provisional data).

Mt. Stromlo, Australia (35.3°S, 149.0°E) November, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	281	4.88						
01	272	4.76						3.0
02	267	4.37						
03	264	3.72						
04	272	3.41						
05	260	3.67						
06	261	4.46				2.11		
07	306	5.02	236	3.76	110	2.52		
08	333	5.44	223	4.08	106	2.83		
09	326	5.91	214	4.26	101	3.05	5.5	
10	320	6.32	216	4.41	102	3.20	5.2	
11	320	6.74	209	4.48	103	3.35	4.4	
12	330	6.56	210	4.49	101	3.44		
13	328	6.62	212	4.40	102	3.34	4.2	
14	317	6.66	212	4.34	103	3.12	4.2	
15	311	6.60	219	4.15	105	2.93	4.0	
16	297	6.52	220	3.95	108	2.74		
17	287	6.32	228	3.59	111	2.47	4.3	
18	266	6.17					4.1	
19	257	6.09						3.2
20	252	5.70						
21	271	5.22						
22	289	5.02						
23	285	4.96						

Time: 150°E.
Length of time sweep: 1.6 Mc to 12.5 Mc in two minutes.

Table 30

Tykhi Bay, U.S.S.R. (80.3°N, 52.8°E) October, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.1						
01		5.1						
02		4.5						
03		4.5						
04		4.3						
05		4.8						
06		4.5						
07		5.9						
08		4.3						
09		5.5						
10		5.6						
11		5.9						
12		6.1						
13		5.6						
14								
15		6.6						
16		6.1						
17		5.7						
18		5.7						
19		6.0						
20		6.0						
21		5.5						
22		5.3						
23		5.5						

Time: 45°E.

Table 31

Sverdlovsk, U.S.S.R. (56.8°N, 61.1°E) October, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	2.9						
01	280	2.8						
02	280	2.8						
03	280	2.8						
04	280	2.8						
05	280	2.7						
06	250	3.0						
07	220	4.3			130	2.0		
08	220	5.3			120	2.2		
09	210	6.1			110	2.4		
10	210	6.6			110	2.5		
11	210	6.7			110	2.6		
12	200	6.6			110	2.6		
13	210	6.3			110	2.6		
14	210	6.0			110	2.5		
15	220	5.9			120	2.2		
16	210	5.4			120	2.1		
17	210	5.0			120	1.9		
18	220	4.7						
19	230	4.1						
20	240	3.6						
21	250	3.2						
22	260	3.0						
23	270	3.0						

Time: 60°E.

Table 32

Moscow, U.S.S.R. (55.8°N, 37.6°E) October, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
0030		3.7						
0130		4.0						
0230		3.9						
0330		3.8						
0430		3.7						
0530		4.2						
0630		4.4						
0730		5.4						
0830		6.2						
0930		6.7						
1030		7.0						
1130		6.7						
1230		6.3						
1330		6.7						
1430		6.6						
1530		6.3						
1630		6.1						
1730		6.0						
1830		5.8						
1930		5.4						
2030		4.9						
2130		4.1						
2230		3.9						
2330		3.8						

Time: Local.

Table 33

(Corrections and additions to previously published provisional data).

Delhi, India (28.6°N, 77.2°E) October, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.32						
01		2.30						
02		2.84						
03		2.37						
04		2.63						
05		2.72						
06		4.12						
07		6.25						
08		7.20						
09		7.34						
10		8.55						
11		[illegible]						
12		10.26						
13		11.17						
14		10.98						
15		9.81						
16		8.71						
17		7.52						
18		5.87						
19		4.31						
20		3.69						
21		3.32						
22		3.24						
23		3.12						

Time: 75°E.

Table 34

Sverdlovsk, U.S.S.R. (56.8°N, 61.1°E) September, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	250	3.4						
01	270	3.2						
02	270	3.0						
03	280	3.0						
04	280	3.0						
05	260	3.1						
06	230	3.8			120	1.9		
07	220	4.5			120	2.1		
08	240	5.1	210	3.3	110	2.4		
09	250	5.6	210	3.9	107	2.6		
10	240	5.9	210	4.1	110	2.7		
11	250	6.1	200	4.1	105	2.8		
12	250	6.1	200	4.2	110	2.9		
13	240	6.0	215	4.0	110	2.8		
14	240	5.7	210	4.1	110	2.7		
15	220	5.6	210	4.0	110	2.8		
16	220	5.3			110	2.4		
17	220	5.0			120	2.1		
18	220	4.9			130	1.9		
19	230	4.8			115	1.8		
20	240	4.3						
21	240	4.3						
22	250	4.0						
23	250	3.6						

Time: 60°E.

Table 35

Moscow, U.S.S.R. (55.8°N, 37.6°E) September, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
0030		4.3						
0130		4.3						
0230		4.3						
0330		4.2						
0430		4.2						
0530		4.5						
0630		5.0						
0730		5.4						
0830		5.3						
0930		6.0						
1030		6.2						
1130		6.3						
1230		6.2						
1330		6.1						
1430		6.0						
1530		5.9						
1630		5.7						
1730		5.6						
1330		6.0						
1930		6.4						
2030		6.2						
2130		6.0						
2230		5.6						
2330		5.2						

Time: Local.

Table 36

Moscow, U.S.S.R. (55.8°N, 37.6°E) August, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
0030		4.7						
0130		4.3						
0230		4.3						
0330		4.1						
0430		4.3						
0530		4.8						
0630		5.2						
0730		5.5						
0830		5.7						
0930		5.9						
1030		6.1						
1130		6.1						
1230		6.0						
1330		5.9						
1430		5.9						
1530		5.8						
1630		5.6						
1730		5.5						
1830		5.7						
1930		6.0						
2030		6.5						
2130		6.4						
2230		5.9						
2330		5.8						

Time: Local.

Table 37

Moscow, U.S.S.R. (55.8°N, 37.6°E) July, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.1						
01		4.8						
02		4.5						
03		4.1						
04		4.3						
05		4.7						
06		5.2						
07		5.6						
08		5.8						
09		5.8						
10		5.9						
11		5.9						
12		5.8						
13		5.7						
14		5.6						
15		5.4						
16		5.4						
17		5.4						
18		5.4						
19		5.5						
20		6.0						
21		6.4						
22		6.4						
23		6.0						

Time: Local.

Table 38

Moscow, U.S.S.R. (55.8°N, 37.6°E) June, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.8						
01		5.0						
02		4.4						
03		4.4						
04		4.6						
05		5.2						
06		5.5						
07		5.7						
08		5.8						
09		5.9						
10		6.1						
11		6.2						
12		6.0						
13		5.8						
14		5.7						
15		5.6						
16		5.5						
17		5.5						
18		5.5						
19		5.6						
20		6.2						
21		6.6						
22		6.6						
23		6.2						

Time: Local.

Table 39

Tykhi Bay, U.S.S.R. (80.3°N, 52.6°E) May, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.1						
01		5.1						
02		5.2						
03		5.4						
04		5.5						
05		5.2						
06		5.0						
07		5.2						
08		5.5						
09		5.1						
10		5.5						
11		5.4						
12		5.4						
13		5.1						
14		5.5						
15		5.8						
16		5.5						
17		5.7						
18		5.4						
19		5.6						
20		5.3						
21		4.8						
22								
23		4.9						

Time: 45°E.

Table 40

Moscow, U.S.S.R. (55.8°N, 37.6°E) May, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		5.0						
01		4.8						
02		4.4						
03		4.2						
04		4.4						
05		4.6						
06		5.0						
07		5.3						
08		5.6						
09		5.9						
10		6.1						
11		6.2						
12		6.2						
13		6.0						
14		5.9						
15		5.8						
16		5.6						
17		5.6						
18		5.6						
19		5.8						
20		6.1						
21		6.2						
22		6.2						
23		6.6						

Time: Local.

Table 41

Tykhi Bay, U.S.S.R. (80.3°N, 52.8°E) April, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.6						
01		4.4						
02		4.7						
03		4.4						
04		4.2						
05								
06								
07								
08								
09		4.9						
10		4.1						
11		4.8						
12		4.4						
13		5.1						
14		5.5						
15		5.3						
16		5.0						
17		5.3						
18		5.3						
19		4.9						
20		4.6						
21		4.7						
22		4.5						
23		4.8						

Time: 45°E.

Table 42

Moscow, U.S.S.R. (55.8°N, 37.6°E) April, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.2						
01		4.0						
02		3.7						
03		3.5						
04		3.4						
05		3.7						
06		4.2						
07		4.8						
08		5.2						
09		5.5						
10		5.8						
11		5.8						
12		5.9						
13		5.9						
14		5.9						
15		5.8						
16		5.7						
17		5.5						
18		5.4						
19		5.2						
20		5.2						
21		5.0						
22		4.8						
23		4.4						

Time: Local.

Table 43

Tykhi Bay, U.S.S.R. (80.3°N, 52.8°E) March, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		4.3						
01		4.2						
02		4.6						
03		3.7						
04		4.0						
05		4.6						
06		4.3						
07								
08		4.9						
09		4.8						
10		5.2						
11		5.1						
12		5.3						
13		5.3						
14		5.7						
15		5.5						
16		5.3						
17		5.3						
18		5.1						
19		5.1						
20		5.1						
21		4.6						
22		4.6						
23		4.6						

Time: 45°E.

Table 44

Moscow, U.S.S.R. (55.8°N, 37.6°E) March, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.6						
01		3.6						
02		3.5						
03		3.4						
04		3.3						
05		3.4						
06		3.6						
07		4.6						
08		5.1						
09		5.5						
10		5.9						
11		6.0						
12		6.1						
13		6.1						
14		6.0						
15		5.9						
16		5.5						
17		5.3						
18		5.1						
19		4.9						
20		4.6						
21		4.0						
22		3.6						
23		3.6						

Time: Local.

TABLE 45
IONOSPHERE DATA-1

RESTRICTED

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

National Bureau Of Standards (Institution)

Hourly values of $h'F_2$ in km for January (Month) 1945

Records measured by: M.R.R., A.F.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	260	260	260	240	300	260	[280]A	260	220	220	260	260	260	260	240	260	230	240	240	230	230	260	260	270
2	280	270	280	260	270	240	230	(250)	220	230	230	260	260	240	240	230	220	220	260	260	240	260	(280)	(290)
3	260	280	260	260	240	220	250	260	220	220	260	250	260	240	260	240	220	220	(250)	260	A	A	A	(280)
4	320	270	260	230	240	220	230	260	220	220	(260)	260	260	240	260	260	240	220	220	C	C	280	300	300
5	300	280	270	240	240	240	230	220	220	(230)	270	260	280	240	260	240	240	220	220	220	220	300	290	260
6	(280)	280	260	(270)	260	230	220	220	230	230	230	240	260	260	260	260	220	230	210	220	220	280	290	320
7	290	300	280	(300)	(260)	(240)	260	240	220	220	240	240	260	250	260	240	220	240	230	220	220	290	280	270
8	270	260	260	260	260	240	220	200	210	220	240	240	260	260	260	240	220	220	220	220	240	260	(280)	280
9	250	260	280	280	260	250	230	240	220	200H	240	240	270	260	260	240	240	240	240	220	260K	280K	280K	240K
10	240K	270K	300K	290K	280K	260K	240K	240	230	230	280	270	280	260	240	240	220	240	220	220	(240)	(310)	280	290
11	280	280	270	250	260	240	240	270	210	240	220	[250]C	250	240	240	240	220	240	220	220	230	280	280	260
12	270	270	260	250	260	250	240	240	220	220	250	240	260	250	250	240	220	260	230	220	230	240	240	240
13	280	260	270	260	270	250	240	230	220	220	240	260	240	280	240	220	200	220	220	220	220	240	280	290
14	300	300	280	240	240	240	240	220	220	230	220	260	240	260	240	260	220	220	210	220	220	260	280	300
15	260	280	280	270	240	260	250	300	120	220	340	280	320	C	C	280	260	230	240	260	260	280	310	300
16	270	260	270	300	240	260	240	260	240	240	260	270	260	260	260	260	240	240	220	240	240	240	260	260
17	260	260	260	260	260	240	240	200	220	240	250	260	260	260	260	260	240	220	230	220	220	240	260	270
18	280	280	270	260	280	260	290	260	220	220	260	250	250	280	280	250	240	240	230	220	240	260	260	260
19	300	280	280	250	260	240	240	240	220	220	240	260	280	260	270	260	230	220	220	200	240	240	270	260
20	250	(280)	280	260	260	220	240	240	220	230	260	240	240	280	260	250	240	220	220	(230)	A	A	280	280
21	300	280	260	260	230	240	240	220	210	240	280	260	240	250	260	240	240	220	220	220	260	280	260	260
22	280	250	270	270	280	260	220	220	220	220	240	240	(250)	300	[280]C	250	240	230	210	200	(260)	280	290	280
23	(330)	A	A	A	A	300	260	260	220	240	260	240	240	280	270	260	240	230	240	220	220	(260)	270	280
24	280	300	300	280	260	240	240	240	220	210	240	240	250	260	260	240	240	220	240	240	230	240	(280)	280
25	300	280	260	280	260	250	260	250	240	220	240	240	260	280	260	260	230	220	240	240	240	(240)	260	(260)
26	280	260	230	240	240	240	250	240	220	220	240	240	260	280	280	260	240	240	210	240	220	(220)	(280)	260
27	260	240	260	260	260	220	220	220	220	260	(250)	260	240	240	260	270	240	220	220	240	240	260	260	250
28	260	280	260	250	260	250	220	220	220	250	260	260	240	(250)	280	280	260	220	240	(280)	220K	300K	300K	300K
29	340K	290K	CK	CK	CK	CK	CK	290K	[280]CK	220K	[280]CK	290K	280K	300K	300K	280K	270K	240K	240K	250K	240K	240K	300K	(300)K
30	(420)K	340K	280	280	280	260	220	220	240	220	240	280	260	260	260	240	230	220	240	220	220	260	260	270
31	280	260	260	260	270	260	240	220	220	220	240	250	260	250	270	280	260	220	220	210	200	260	(300)	(290)
Median	280	280	270	260	260	240	240	240	220	220	250	260	260	260	260	250	240	220	220	220	230	260	280	280

TABLE 46

IONOSPHERE DATA - 2

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $f^{\circ}F_2$ in Mc for January (Month) 1945

Records measured by: M.R.R. A.F.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.2F	2.0F	(1.8)F	(1.7)F	(2.0)F	(2.3)F	[1.8]A	1.8F	4.2F	5.4	6.6	(7.4)	(7.3)	6.3	6.2	7.0	6.1	6.4	4.9F	3.5F	(2.3)F	2.3F	2.6F	2.4F
2	2.6F	2.9F	3.1F	3.1F	3.5	3.7	3.4	(2.5)	(4.8)	5.2	5.8	7.8	7.0	7.1	7.3	(7.5)	5.9	5.5	4.2	4.0	3.2	2.3F	2.6	(2.4)F
3	(2.3)F	2.3F	2.9F	3.0	3.2	2.6	1.9F	2.3F	4.4	5.2	5.7	(6.9)	6.6	6.7	6.8	6.7	5.4	4.8	(4.0)	3.5	A	A	A	1.9
4	2.1	2.5F	2.3F	2.5F	2.6F	2.7F	2.3F	2.3F	4.3	5.2	5.8	6.4	7.1	6.2	(6.7)	6.3	6.8	6.2	4.6	C	C	2.1F	(1.8)F	(1.8)F
5	(1.8)F	(1.9)F	(2.2)F	(2.6)F	(3.3)F	(3.2)F	(3.2)F	(2.8)F	4.0F	5.3	6.2	(6.7)	6.3	6.0	7.0	6.4	5.7	5.1	4.1F	3.3F	2.2F	(1.9)F	2.2F	(2.5)F
6	2.5)F	(2.5)F	(2.6)F	3.5F	(3.6)F	3.6F	3.2F	2.7F	4.9	6.3	6.0	(7.1)	6.2	6.4	6.2	6.6	5.6	(5.6)	4.6	3.2F	2.3F	(1.8)F	1.7F	1.9F
7	1.9F	1.8F	(2.0)F	2.6F	(2.5)F	3.2F	3.2F	(3.0)F	4.7	4.8H	(6.9)	6.4	6.2	6.6	6.2	6.4	5.2	5.0	4.8F	3.8F	2.2F	1.9F	2.0F	1.9F
8	(1.8)F	(2.0)F	2.1F	2.1F	2.2F	(3.0)F	(3.1)F	2.8F	4.5	5.3F	6.4	6.8	(6.9)	(6.9)	6.4	6.5	6.1	6.0	5.2	3.5F	2.2F	2.1F	(2.1)F	2.2F
9	2.0F	1.8F	1.7F	1.8F	(2.3)F	3.3F	2.9F	3.1F	4.7	5.2F H	(6.0)J	6.7	6.4	7.1	6.8	6.6	6.0	6.0	6.0	5.4	4.5K	3.7F K	3.9F K	4.1F K
10	4.4F K	3.7F K	3.1F K	(2.5)F K	(2.2)F K	1.9F K	[2.0]C K	2.0F	4.1	5.0	6.2	(7.0)	7.4	(7.2)	(7.8)	7.2	5.7	5.9	5.0	3.3F	2.8F	2.1F	2.1F	2.1F
11	(1.7)F	(1.6)F	1.5F	1.9F	2.0F	2.3F	2.1F	2.2F	4.4	(5.4)	5.8	[6.4]C	6.3	6.0	6.2M	5.8	4.7F	4.6F	4.4	3.9F	2.9F	2.1F	1.9F	2.2F
12	2.0F	1.8F	1.7F	1.7F	1.8F	1.9F	2.1F	2.3F	4.6	5.4	6.1	6.3	6.7	6.6	6.6	5.7	5.2	4.7F	4.6F	3.9F	3.4F	(3.4)F	3.2F	2.5F
13	2.0F	(2.5)F	2.6F	2.7F	3.2F	(3.3)F	3.2F	3.2	4.3	5.8	5.9	6.7	(7.0)	6.4	6.2	6.0	5.3	5.0	4.3F	3.7F	3.2F	2.2F	2.0F	1.9F
14	1.8F	1.8F	1.8F	(2.0)F	2.0F	2.1F	(2.4)F	(2.2)F	4.5	5.2	5.3	6.0	6.4	6.5	6.1	6.4	5.7	5.2	(4.3)F	4.0	2.8F	2.5F	2.2F	2.2F
15	2.3F	1.9F	(2.6)F	2.7F	[2.8]F	(2.5)F	[2.0]F	1.9F	3.8F	4.2	5.3	6.4	6.3	C	C	(7.0)	6.6	5.5	3.6F	2.8F	2.6F	2.7	2.3F	2.3F
16	(2.7)F	2.6F	2.0F	1.8F	2.0F	2.1F	(2.3)F	2.4F	4.7	5.8	6.1	(7.0)	6.8	6.5	6.6	6.8	5.7	5.7	5.2	4.0F	3.4	2.9	2.5F	2.1F
17	2.0F	2.2F	2.5F	2.5F	2.4F	2.5	1.9F	2.1F	4.5	5.0	5.7	6.8	6.6	7.0	6.3	6.3	6.5	5.7	4.8	4.0	2.9F	2.5F	2.5F	2.2F
18	2.0F	1.9F	1.9F	1.8F	1.8F	1.7F	1.8F	2.3F	5.4	4.9	6.6	6.5	6.4	6.6	7.0	6.5	5.7	5.7	6.4	4.8	3.6	2.5)F	2.9F	(2.5)F
19	2.2F	2.5F	2.6	3.0	2.8	2.9	2.4	(2.7)F	4.6	5.1	5.7	7.0	6.8	6.4	6.8	7.2	5.7	5.5	5.7	3.8	3.2	2.7	2.6	2.4F
20	2.3	2.3	2.6	3.0	2.8F	2.8F	2.0F	(2.3)F	5.1	5.4	6.6	(6.8	6.8	(6.7)	(7.3)	(7.4)	5.8	5.2	4.7	4.8	[2.4]A	1.8F	2.1F	2.0F
21	1.9F	2.0F	(2.5)F	2.0F	(1.8)F	1.8F	1.7F	2.1F	4.3	5.2	6.4	7.8	(6.5	6.7	6.9	6.8	5.5	5.2	5.2	4.2	2.8F	2.5F	2.2F	2.0
22	1.7F	1.6F	1.6F	(1.8)F	2.0F	2.2F	2.3F	(2.6)F	4.9	(5.1)	6.5	6.2	5.9	6.8	[7.2]C	7.0	5.7	4.7	4.7	4.2	2.5	2.1	1.8	1.8
23	1.8F	A	A	A	A	2.2F	2.2F	2.9F	4.4	5.0	6.0	6.2	5.8	(6.4)	6.7	6.3	5.1	4.9	5.0	4.6	3.3	2.5F	2.1F	2.0F
24	1.8F	1.8F	2.0F	2.0F	(2.4)F	2.7F	2.8	2.6F	4.3	5.1	6.2	6.1	5.6	5.8	5.9	5.8	5.4	5.0	4.3F	4.3	3.7	2.3F	2.0F	2.1F
25	1.9F	2.0F	2.1F	1.9F	2.3)F	3.2F	3.0F	3.3F	5.2	(5.6)	6.3	6.1	5.4	6.0	6.6	6.4	5.7	4.8	5.3	4.0F	3.4	2.7F	2.5F	2.4F
26	2.2F	2.4F	2.3F	2.6F	(2.8)F	(3.3)F	3.7F	4.0F	5.6	5.7	6.7	6.6	6.8	6.0	(7.3)	7.0	(7.1)	6.7	5.7	5.5	4.2	3.2	2.4F	3.2
27	3.2F	3.2F	3.4F	3.4F	3.5F	3.9	3.3	3.5	5.2	5.9	7.3	7.7	7.6	(6.5)	6.4	6.7	6.8	5.8	4.8	4.4	3.8	3.2	3.1	3.6
28	2.7F	[2.9]C	3.0	3.1	3.1F	3.1F	3.3	3.3F	5.1	6.2	6.8	(8.4)	7.4	6.5	6.8	(7.5)	7.4	(7.2)	7.0	5.2	3.8K	4.0K	3.8)F K	(1.8)F K
29	1.5F K	2.0F K	C K	C K	C K	C K	C K	2.2F K	[3.5]C K	4.3K	[5.2]C K	5.2K	5.3K	5.8K	6.3K	5.7K	6.0K	5.4K	5.4K	4.4F K	4.0F K	2.5J K	2.2F K	(1.6)F K
30	1.7F K	(1.4)F K	1.5F	1.5F	1.8F	1.9F	1.8F	2.3F	4.3	5.7	5.8	(7.0	(7.0)	6.2	(6.7)	6.4	[6.0]C	4.8	4.4	4.5	2.9	2.3F	2.3F	2.6F
31	2.5F	(2.5)F	2.1F	1.9F	2.0F	2.3F	2.7F	3.0	4.7	(6.3)J	6.6	6.6	(7.2)	6.2	6.1	7.1	(6.9)	5.6	4.8	4.0	2.6	2.1	1.9	2.0
Median	2.0	2.0	2.3	2.5	2.4	2.6	2.4	2.5	4.5	5.2	6.1	6.7	6.6	6.5	6.6	6.6	5.7	5.5	4.8	4.0	2.9	2.4	2.2	2.2

TABLE 47

IONOSPHERE DATA-3

RESTRICTED

Washington, D.C. Ionosphere Station
(Location)

National Bureau Of Standards
(Institution)

Half Hourly values of $f^{\circ}F_2$ in (Mo) for January 1945
(Month)

Records measured by: M.R.R.
A.F.

TIME: 75° W MERIDIAN

Day	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330
1	2.2 F	2.0 F	(1.7) F	(1.7) F	(2.1) F	(1.8) F	1.6 F	3.3 F	4.5	6.2	(7.2)	7.2	6.5	6.1	6.8	6.6	5.6	5.4	4.5 F	2.9 F	(2.1) F	(2.3) F	(2.4) F	2.5 F
2	2.8 F	3.0 F	3.0 F	3.3	3.7	3.7	2.9	3.6	4.8	6.1	7.0	(7.3)	6.9	7.4)	7.8 J	6.4	5.1	5.1	4.3	3.6	2.6	2.3	(2.5) F	(2.5) F
3	2.3 F	2.6 F	3.0 F	3.1 F	2.9 F	2.3 F	1.8 F	3.5	5.2	5.8	6.1	6.5	(7.4)	6.3	6.4	5.7	5.4	(4.8)	(3.5	A	A	A	A	1.9
4	2.3 F	2.3 F	2.3 F	2.6 F	2.7 F	2.6 F	(2.1) F	3.8	5.0	5.5	6.5	6.4	7.0	6.1	6.2	6.4	6.7	6.2	(3.8) F	C	C	2.1 F	(1.8) F	(1.8) F
5	(2.1) F	(2.1) F	(2.3) F	(3.3) F	3.3 F	(3.2) F	(2.9) F	(3.6) F	5.1	5.4	6.5	7.0	6.1 F	6.4	7.0	6.5	5.2	5.0	3.8 F	2.8 F	2.0 F	2.0 F	(2.4) F	(2.5) F
6	2.3) F	(2.5) F	(3.0) F	(3.6) F	3.8 F	3.5 F	(2.8) F	3.7 F	(5.3)	6.0	6.4	(6.8)	6.4	6.2	6.2	6.5	5.5	5.4	3.8 F	2.7 F	2.0 F	1.8 F	(1.8) F	1.9 F
7	1.8 F	2.0 F	(2.1) F	(2.5) F	(2.7) F	3.1 F	(2.9) F	3.8	4.5 F	5.4	6.1	6.2	6.2	6.4	6.6	6.2	6.0	5.0 F	4.5 F	3.0 F	2.0 F	2.0 F	2.0 F	(1.9) F
8	(1.8) F	2.1 F	2.1 F	(2.1) F	2.3 F	3.2 F	2.8 F	3.9 F	5.1	6.2	6.6	(6.8)	6.1	(6.4)	6.6	6.1	(5.8)	5.6	(4.6)	3.0 F	(2.1) F	2.1 F	(2.1) F	2.0 F
9	2.0 F	1.7) F	1.7 F	2.0 F	(3.2) F	3.1 F	2.7 F	3.8 F	4.9 H	6.0	6.2	(5.8)	7.2	6.8	7.1	6.3	5.8	6.2	6.2	4.4	3.9 F_K	3.4 F_K	4.3 F_K	3.9 F_K
10	4.6 F_K	3.4 F_K	2.8 F_K	2.0 F_K	(1.8) F_K	(1.7) F_K	(1.9) F_K	3.0 F	4.8 H	5.4	6.4	(7.0)	7.4	7.2	(7.5)	6.4	5.6	6.0	4.0	3.2 F	2.2 F	2.1 F	2.2 F	1.9 F
11	1.6 F	1.6 F	1.8 F	(1.7) F	2.2 F	2.2 F	1.8 F	3.6	4.2	5.9	6.4	[6.3] C	5.8	6.1 H	[6.0] C	5.7	5.1	5.0	4.4	3.5	2.3 F	2.0 F	2.1 F	2.1 F
12	1.8 F	1.8 F	1.6 F	1.7 F	1.9 F	2.1 F	2.1 F	3.5 F	4.9	5.2	6.2	6.2	6.6	6.5	5.9	5.5	(5.0)	4.8 F	4.4 F	3.7 F	3.2 F	3.3	(3.1) F	2.2
13	2.2 F	2.6 F	2.6 F	3.0 F	(3.3) F	3.1 F	(3.0) F	3.6 F	5.0	5.1	6.4	(7.2)	6.4	6.7	6.3	6.0	5.3	4.6	4.0	3.7	2.7 F	2.0 F	1.9 F	1.8 F
14	1.8 F	1.8 F	1.8 F	2.0 F	2.1 F	(2.2) F	(2.4) F	3.5 F	5.0	5.9	6.1	6.1	6.4	6.6	6.2	6.3	5.3	5.0	(4.4) F	3.6 F	2.5 F	2.2 F	2.3 F	(2.5) F
15	2.1 F	2.1 F	2.6) F	[2.8] F	(2.6) F	[2.4] F	[1.8] F	(3.2) F	4.0	4.6	6.2	6.1	C	C	6.7	6.6	5.7	4.7	3.1	2.6 F	2.6 F	2.1 F	2.3 F	(2.6) F
16	(2.3) F	2.5) F	(1.9) F	1.8 F	1.9 F	2.4 F	2.4 F	3.4	4.6	6.5	6.8	(7.2)	6.6	6.5	7.0	6.2	5.6	5.7	4.7	3.8 F	3.4	2.5 F	2.3 F	2.1 F
17	(2.1) F	(2.2) F	2.6 F	2.3 F	2.6 F	2.1	1.8 F	3.3	4.9	5.4	6.2	6.8	6.7	6.3	6.0	6.3	5.9	5.2	4.6	3.5	2.6 F	2.6 F	2.4 F	2.1 F
18	1.9 F	1.9 F	1.8 F	1.8 F	1.8 F	1.7 F	1.7 F	3.8 F	4.7	6.0	7.0	7.0	6.1	6.8	6.7	6.8	5.5	6.2	5.7	4.0	3.2	2.8 F	2.8 F	(2.2) F
19	2.5	2.6 F	2.8	2.9	2.9	(2.9) F	2.7	3.8	(5.0)	5.2	6.8	7.4	6.3	6.4	6.8	6.9	5.7	6.1	5.7	3.4	2.8	2.6	2.4	2.4 F
20	2.3	2.4	2.9	2.8	3.2	2.5 F	2.9 F	3.6 F	5.1	5.6	6.8	7.2	5.5	6.6	7.1	6.6	5.4	4.7	4.6	(3.1) A	[2.0] A	1.8 F	(2.0) F	1.9 F
21	2.0 F	2.2 F	(2.2) F	(2.1) F	1.8 F	1.8 F	1.7 F	3.5	4.5	4.9	7.1	6.2	(6.2)	7.0	7.2	6.0	5.4	5.3	5.0	3.2 F	2.8 F	(2.3) F	2.3	(1.9)
22	(1.6)	1.6 F	1.7 F	2.0 F	2.3 F	(2.3) F	1.7 F	4.3	4.8	(5.5)	(6.8)	6.2	6.4	6.5	7.4	6.4	5.1	5.0	4.7	3.2	2.2	2.0	1.8	1.7 F
23	A	A	A	A	(2.0)	2.2 F	2.1 F	3.8 F	4.5	5.8	(6.9)	(6.6)	6.4	(6.5)	6.3	5.7	5.0	4.9	5.2	3.7 F	2.6 F	2.2	2.0 F	2.0 F
24	1.8 F	2.0 F	2.0 F	2.3 F	2.6 F	2.8	2.5 F	3.9	5.1	6.2	(6.5)	6.0	5.9	6.4	5.9	5.7	5.0	4.7	4.3	4.0	2.3 F	2.1	2.0 F	1.9 F
25	1.9 F	2.1 F	1.8 F	1.9 F	2.9 F	3.2 F	3.2 F	4.2	5.5	5.6	6.3	6.2	5.6	5.9	6.6	6.5	5.4	4.9	4.6	3.7	3.0	2.6 F	2.4 F	2.3 F
26	2.4 F	2.4 F	2.6 F	2.7 F	2.8 F	3.3 F	3.7 F	4.9	5.3	6.4	6.6	6.7	6.7	7.3	7.1	7.0	7.0	6.6	5.4	4.9	3.7	2.8 F	3.0	3.2 F
27	3.1 F	3.1 F	3.4 F	3.5 F	3.8 F	3.6	3.4	4.3	5.4	6.7	7.5	7.4	6.7	6.5	6.4	6.9	6.5	5.4	4.7	3.9	3.4	3.1	3.2	3.0
28	2.9 F	2.9 F	3.1	2.9 F	3.1 F	3.3 F	3.3	4.5	5.0	(7.4)	(6.8)	(7.8)	6.8	6.2	7.2	(7.8)	7.0	7.2	6.0	4.1 F	3.7 K	3.9 F_K	[2.6] F_K	(1.5) F_K
29	(1.8) F_K	2.0 F_K	C K	C K	C K	C K	1.7 F_K	[3.1] C_K	3.9 H_K	[4.8] C_K	5.3 K	5.2 K	5.6 K	5.8 K	5.8 K	5.6 K	6.4 K	5.4 K	4.5 K	4.2 F_K	3.1 F_K	2.3 F_K	2.0 F_K	(1.7) F_K
30	1.4 F_K	1.4 F_K	1.7 F	1.6 F	2.1 F	2.0 F	1.8 F	3.8 F	5.2	6.0	6.5	(7.0)	6.6	6.4	6.6	6.5	5.6	4.3	4.5 F	3.5 F	2.1 F	(2.5) F	2.3 F	(2.6) F
31	2.6 F	2.4 F	1.9 F	1.9 F	2.0 F	2.6 F	2.8	4.1	(5.6)	(6.4)	6.5	6.4	(6.3)	6.3	6.4	7.0	6.0	5.2	4.3	3.4	2.3 F	1.9	2.0	2.0
Median	2.1	2.2	2.2	2.3	2.4	2.6	2.4	3.7	5.0	5.8	6.5	6.7	6.4	6.4	6.6	6.4	5.6	5.2	4.5	3.5	2.6	2.2	2.3	2.1

TABLE 48

IONOSPHERE DATA - 4

RESTRICTED

Washington, D.C. Ionosphere Station
(Location)

National Bureau Of Standards
(Institution)

Hourly values of $h'F_1$ in km for January 1945
(Month)

Records measured by: M.R.R.
A.F.

TIME: 75° W MERIDIAN

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

TABLE 49

IONOSPHERE DATA - 5

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $f^{\circ}F_1$ in {Mc / Mo} for January (Month) 1945

Records measured by: M.R.R. A.F.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1													(4.0)	(3.8)										
2														(3.8)	H									
3																								
4												3.9	4.0	3.9										
5													3.9	[3.8]	(3.6)									
6														3.9	H									
7														(3.9)										
8													(3.9)	3.9										
9																								
10													(4.0)	3.8	3.4									
11										H		C	4.1	3.8	H									
12												4.0	4.0											
13												4.0	4.0											
14												(4.0)	(4.0)	(3.9)										
15											3.9	3.9	B	C	C									
16												3.9	[3.9]		H									
17										2.9	[3.7]	[3.9]H	3.9	3.9										
18										H			4.1											
19										H				[4.0]	[3.9]	(3.5)								
20													4.0	4.1 H										
21												4.1	[4.2]	3.9	H									
22													(4.0)	4.0	[3.8]	(3.5)								
23												3.9	4.0	(3.8)	[3.8]									
24											[3.8]	[3.9]	[4.0]	[3.9]H										
25													4.0											
26											H	4.1	4.2	[4.3]	(4.3)	3.9								
27												(4.2)	(4.2)	(4.0)										
28												4.2	4.4	4.1		H								
29										H K	K	3.8K	3.9K	4.0K	3.8K	K								
30												(4.0)	4.0											
31												3.9	4.1	4.1	[3.9]	(3.8)H								
Median											3.8	4.0	4.0	3.9	3.8	3.6								

RESTRICTED

TABLE 50

IONOSPHERE DATA-6

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of h'_E in (km) for January (Month) 1945

Records measured by: M.R.R. A.F.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1									100	120	120	120	110	120	120	120	120							
2									120	110	120	110	110	130	110	120	120							
3									120	110	120	110	120	120	110	100	110							
4									(120)	[120]^H	110	120	110	120	120	120^H	120							
5									120	120	120	120	120	120	120	120^H	120^H							
6									120	120^H	120	120	110	110	110^H	120^H	100							
7									120	120	110^H	120	110	120	120	120	120							
8									120	120	120	120	120	120	120	110	120							
9									(120)	120	120	120	120	120	120	120	120							
10									120	120	120	120	130	120	110	120	120	(110)						
11									140	130	120	[120]^C	120	120	120^H	110	110							
12									120	120^H	120^H	120	110	120	120	110	120	120						
13									120	120	120	120	120	120	120	100	100							
14									120	120	120	120	120	120	120^H	120	130	(140)						
15									120	120	140	B	B	C	C	140	130^H	(150)						
16									120	120	120	120	120	120	120	120	120	120						
17									120	120	120	120	120	120	120	120	120	[130]^C						
18									120	120	110^H	110	120	110	120	120	140	(120)						
19									120	120	110	120	120	130	120	120	130	140						
20									120	120^H	120	120	110	120	120	110	120							
21									140	120	120^H	120	120	120	110	110	120	110						
22									(130)	120	120	120	120	120	[120]^C	110	110	110						
23									(110)	120	120^H	120	120	120	120	110	130	140						
24									120^H	120	120	130	120	120^H	120	120	120	130						
25									140	120	120	110	120	120	120^H	120	120	120						
26									120	120	120	120	120	120	120	120	120	120						
27									110	110^H	120^H	100	120	120	120	120	120	130						
28									120^H	120^H	120^H	110	120	120	120	120	120	(120)						
29									C^K	130^K	[120]^{K,C}	120^K	110^K	120^K	120^K	120^K	140^K	K						
30									120^H	120	120	120	120	120	120	120	120	120						
31									120	120^H	120^H	120	120	120	120	120	120	120						
Median									120	120	120	120	120	120	120	120	120	120						

TABLE 51

IONOSPHERE DATA - 7

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $f^{\circ}E$ in {Mc} for January (Month) 1945

Records measured by: M.R.R. A.F.

TIME: 75° W MERIDIAN

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

TABLE 52

IONOSPHERE DATA - 8

RESTRICTED

Washington, D. C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of Es in {Mc} for January (Month) 1945

Records measured by: M. R. R.
A. F.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.8 110	(1.9) 120	3.1 140	6.6 120	5.7 120	4.6 H 120	4.8 H 120	4.3 110	4.5 110	3.4 H 120	3.5 120	3.9 110	4.4 100	3.6 120	3.8 110	3.8 110	3.2 120	2.0 120	2.7 120	3.8 120	3.9 120	3.5 120	3.9 120	3.2 120
2	3.9 120	3.5 120	4.2 120	4.0 120	3.5 120	3.5 110	4.0 120	4.2 110	3.3 120	4.1 H 110	4.0 110	3.8 110	4.5 110		3.0 120	3.5 120	3.9 120	5.5 120	4.2 110	4.2 110	4.0 110	3.9 120	4.1 110	3.1 110
3	3.1 120	3.0 120	4.2 120	4.2 120	5.6 120	5.4 120	4.2 120	4.3 120	(5.7) 120	3.8 110	4.1 120	4.0 110	4.3 110	4.2 120	3.9 110	3.9 100	3.5 H 110	3.2 120	4.3 120	4.3 120	4.2 120	4.2 120	4.0 120	3.9 110
4	4.0 110	3.5 110	3.0 110	2.8 120	2.4 110	3.0 M 110	3.0 140	3.3 120	3.1 120	4.6 110	3.6 110	3.9 120	3.7 110							C	C	6.1 120	3.8 120	
5		1.9 120	(2.3) 120	3.1 120	3.6 120	3.1 120	3.7 120	3.1 170	3.2 120	6.6 120	5.4 120	4.8 110	4.1 110	5.1 120	(3.0) 120	2.7 120	4.1 120	1.9 120	1.3 120	1.8 120		0.8 100	3.1 120	5.4 120
6	4.2 120	4.1 120	2.3 120	3.0 120	3.3 120	1.9 130		4.2 120	2.7 120	2.9 120	3.9 120	3.6 110	4.2 100	4.1 110	3.7 100	3.0 160	3.4 100	3.1 110	2.9 110	2.4 120		3.2 120	3.1 110	4.0 110
7	3.8 110	3.5 110	4.5 120	3.5 120	3.1 120	3.4 120	3.4 120	3.6 120	4.0 120	4.1 120	4.1 110	3.9 120				4.0 120	3.3 120	2.2 120		3.3 120	2.2 120	2.2 120	3.1 120	2.2 110
8	3.0 110	2.9 110		4.0 120	3.9 120	2.8 120			2.9 120		3.1 180			3.3 120	3.0 140	(3.9) 130	2.4 120				3.0 120	3.1 120	4.5 H 120	3.6 110
9	4.0 110	2.9 110	2.2 120	2.3 120	2.9 120	(2.0) 120	2.2 130	2.3 120	4.1 120	2.9 160			3.5 120	3.1 120			3.4 120	1.9 120	2.0 120		1.9 110	1.9 120	2.4 130	2.4 160
10	3.9 H 120	3.9 120	3.5 N 120	3.0 110	3.0 120	1.9 120		2.2 120	2.7 120	(2.8) 120	2.8 120					2.4 120	2.2 110	2.0 110	(1.8) 110	2.6 120	2.7 120	3.6 120	4.3 100	3.0 110
11	4.4 100	3.5 100	3.5 N 110	3.5 110	4.0 120	3.5 120	2.9 110	2.9 110		3.4 120	3.0 170	C		2.9 120			2.3 130	2.5 120	(2.9) 120	(3.1) 110	3.0 120	3.0 120	2.8 120	3.5 100
12	3.5 100	3.5 100	3.6 100	2.9 100	(0.9) 100	2.9 120	2.7 100						(3.4) 120	3.1 120	3.2 100	3.5 110	2.3 120				2.1 100	2.8 120	3.4 100	2.9 100
13	3.0 100	3.9 (1.00) N	3.9 100	3.7 100	2.6 100	2.8 100	2.9 100			3.0 120				3.0 120		3.1 140	2.0 100	2.8 100	3.0 120					4.6 100
14	2.9 100	3.0 100	3.0 100		2.8 120	2.9 110	4.0 110	3.8 100	2.3 120	4.0 120					2.7 140								(2.6) 120	2.9 110
15	3.1 110	1.9 120			2.3 120	2.3 120	3.3 120	2.9 120						C	C						0.8 140			
16									2.2 120	3.0 120		3.1 130	3.3 120	3.9 140	3.0 120	(2.8) 120	3.0 120		2.6 120					
17				2.2 120	2.9 100	2.9 120	2.9 120	2.2 140			3.0 120					2.6 160	2.4 130						3.0 120	2.9 100
18	3.5 120	3.6 120	2.9 120	2.9 120	(2.3) 120	2.2 120	4.1 120	2.4 120	3.2 120	3.1 120	3.4 110	3.1 110							3.6 140					
19	2.4 120	2.8 140	2.2 120	2.4 140	2.8 140	3.4 120					3.0 110				3.1 110						0.8 160			
20			2.2 120	2.2 120	2.3 120	3.4 110	2.2 120				3.3 160	3.5 140	3.1 140	3.1 140	3.4 110	3.3 110	(3.0) 120	2.9 120	6.2 120	6.7 120	6.0 120	4.5 120	(3.2) 120	2.3 120
21	2.3 140		2.7 120	2.4 120	3.2 140	3.0 120	3.3 120	3.0 120		(3.0) 120	(3.1) 120	4.0 110	4.1 120	3.3 120	2.7 140	2.4 110	3.1 120	4.0 110			2.4 130	1.9 120	(3.0) 120	2.6 120
22	3.0 120	2.3 120		3.6 120			3.0 110		(2.4) 120	2.5 120	(2.8) 120			3.2 160	3.8 140	3.5 110	2.2 110	2.2 110	3.2 110	3.9 100	3.7 110	2.7 120	2.9 110	3.0 110
23	5.3 110	4.0 110	4.2 100	4.8 110	4.6 100	4.4 100	3.2 110	2.9 120	3.4 110	3.4 120	3.1 160	4.0 140		4.4 120				2.9 130	(3.0) 120	2.7 110	3.5 120	3.4 120	2.8 120	3.0 H 120
24	3.5 H 110	3.0 120	2.9 120	4.1 110	(3.5) 120	2.9 100	(2.9) 120	(3.0) 120		2.9 120	3.8 120		3.2 120			3.5 130	3.0 120	(2.3) (1.60)	3.0 120	3.5 120	3.5 120	3.8 120	3.0 110	4.4 120
25	2.7 120	2.6 110	2.2 110	(3.0) 110	(2.9) 110	(3.9) 120	2.9 120	3.0 120	2.9 120	2.8 140	2.9 120				3.8 160	3.6 100	3.6 120	3.2 120	3.7 120	3.3 120	3.1 120	3.5 110	3.7 110	3.0 120
26	3.6 120	3.2 120	3.2 120	3.7 120	4.1 120	3.7 100	3.3 110	3.7 110	3.2 100		3.1 140	4.0 120	4.4 120	5.1 120	4.7 120	3.2 130	3.0 140	4.3 120	3.5 120	3.3 110	3.1 120	3.7 100	3.2 120	(2.8) 120
27	0.8 120	0.9 120	0.9 120	2.9 120	2.0 120	2.5 100	3.0 120	3.2 110	3.2 110						3.2 140	3.0 130	3.1 120					3.6 120	3.6 110	2.9 110
28	3.0 110	2.8 110	2.9 120 H	2.9 120	(2.9) 120	3.2 120 H	2.9 120	3.8 120	1.9 120	3.9 120	3.6 120	4.2 110												3.6 180
29	3.2 180	3.1 120 N	3.1 120 H	C	C	C	C		C		2.4 140	4.2 120	4.5 120	2.9 130	2.9 120	2.6 120		2.4 140			3.0 130	2.9 120	4.3 120	3.9 120
30		2.3 120	2.8 120	2.9 140		1.9 110				3.0 120									2.2 120			0.8 120	2.3 120	2.4 120
31	2.9 120	0.9 120	0.9 120	3.8 130			2.9 120								3.2 120			2.2 120	2.2 140	4.2 110		2.3 140	2.6 140	
Median	3.0	2.9	2.9	3.0	2.9	2.9	2.9	3.0	2.6	2.9	3.0	3.1		2.9	3.0	2.7	2.4	2.0	2.2	2.2	2.2	2.8	3.0	2.9

TABLE 53

IONOSPHERE DATA - 9

RESTRICTED

Washington, D.C. Ionosphere Station
(Location)

National Bureau Of Standards
(Institution)

Hourly values of F2-M1500 for January 1945
(Month)

Records measured by: M.R.R.
A.F.

TIME: 75° W MERIDIAN

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

TABLE 54

IONOSPHERE DATA - 10

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of F2-M3000 for January (Month) 1945

Records measured by: M.R.R. A.F

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(3.0)F	(3.2)F	(3.2)F	(3.2)F	(3.0)F	(3.2)F	A	(3.2)F	3.5F	3.4	3.3	(3.4)	(3.3)	3.4	3.2	3.3	3.2	3.5	(3.2)F	(3.5)F	(3.1)F	(3.2)F	(3.1)F	(3.0)F
2	(3.1)F	(2.9)F	(3.1)F	(3.0)F	2.9	3.1	3.4	(3.1)	(3.5)	3.3	3.1	3.4	3.2	3.3	3.4	(3.5)	(3.5)	3.4	(3.2)	3.2	3.3	(3.2)F	(2.9)	(3.0)F
3	(3.0)F	(3.1)F	(3.1)F	3.1	3.2	3.3	(3.1)F	(3.2)F	3.5	3.3	3.3	(3.4)	3.4	3.4	3.2	3.6	3.5	3.2	(3.2)	(3.5)	A	A	A	(3.0)
4	2.8	(2.9)F	(3.1)F	(3.3)F	(3.1)F	(3.2)F	(3.4)F	(3.1)F	3.5	3.4	3.0	3.4	3.2	3.5	(3.3)	3.2	3.3	3.4	3.5	C	C	(3.0)F	(3.0)F	(2.9)F
5	(3.0)F	(3.1)F	(2.8)F	(3.1)F	(3.1)F	(3.0)F	(3.2)F	(3.2)F	(3.3)F	(3.6)	3.2	(3.2)	3.3	(3.3)	3.3	3.4	3.5	3.2	(3.5)F	(3.5)F	(3.3)F	(2.9)F	(2.9)F	(3.0)F
6	(3.1)F	(2.8)F	(2.9)F	(3.1)F	(3.2)F	(3.2)F	(3.3)F	(3.5)F	(3.3)	3.5	3.2	(3.4)	3.1	3.4	3.3	3.3	3.6	(3.4)	3.5	(3.3)F	(3.2)F	(2.9)F	(3.2)F	(3.0)F
7	(3.0)F	(3.0)F	(2.8)F	(2.8)Fk	(3.2)F	(3.1)F	(3.1)F	(3.1)F	3.6	3.5H	(3.5)	(3.5)	3.5	3.4	3.3	3.4	3.5	3.2	3.2F	(3.4)F	(3.4)F	(3.0)F	(3.1)F	(3.0)F
8	(3.0)F	(3.0)F	(3.2)F	(3.0)F	(3.0)F	(3.1)F	(3.4)F	(3.1)F	3.6	(3.6)F	3.4	3.5	(3.3)	(3.4)	3.2	3.4	3.3	3.3	3.4	(3.4)F	(3.2)F	(3.0)F	(3.1)F	(3.1)F
9	(3.0)F	(3.2)F	(3.0)F	(3.0)F	(3.0)F	(3.2)F	(3.3)F	(3.3)F	3.6	3.5Fk	J	3.7	3.2	3.4	3.1	3.4	3.3	3.2	3.1	3.5	3.0K	(2.8)Fk	(2.8)Fk	(3.0)Fk
10	(3.0)Fk	(3.0)Fk	(2.6)Fk	(2.8)Fk	(2.8)Fk	(3.2)Fk	C K	(3.2)F	3.2	3.3	3.2	(3.3)	3.1	(3.3)	(3.5)	3.4	3.4	3.4	3.4	3.4F	(3.4)F	(3.0)F	(3.0)F	(3.0)F
11	(3.0)F	(3.1)F	(3.1)F	(3.0)F	(3.2)F	(3.1)F	(3.4)F	(3.2)F	3.7	(3.3)	(3.3)	C	3.3	3.5	3.1H	3.4	(3.5)F	(3.2)F	3.1	(3.3)F	(3.3)F	(2.8)F	(2.9)F	(2.8)F
12	(2.9)F	(3.0)F	(2.9)F	(3.0)F	(2.9)F	(3.0)F	(3.4)F	(3.4)F	3.6	3.4	3.4	(3.2)	3.3	3.4	3.4	3.2	3.4	3.4	(3.4)F	(3.4)F	(3.3)F	(3.2)F	(3.4)F	(3.2)F
13	(2.9)F	(3.1)F	(3.0)F	(3.2)F	(3.0)F	(3.2)F	(3.3)F	(3.5)	3.5	3.4	3.2	3.3	(3.3)	3.2	3.2	3.5	3.5	3.4	(3.5)F	(3.3)F	(3.4)F	(3.3)F	(2.9)F	(3.0)F
14	(2.9)F	(3.0)F	(3.0)F	(2.9)F	(3.1)F	(3.2)F	(3.2)F	(3.3)F	3.6	3.3	3.4	3.5	3.4	3.3	3.3	3.2	3.4	3.3	(3.3)F	3.3	(3.3)F	(3.0)F	2.8F	(3.0)F
15	(3.1)F	(3.0)F	(2.9)F	F	F	F	F	(3.0)F	(3.3)F	3.2	3.0	3.2	3.0	C	C	(3.2)	3.2	3.3	(3.2)F	(3.0)F	2.7F	(2.7)	(2.7)F	(2.9)F
16	(2.7)F	(2.8)F	(3.0)F	(2.7)F	(3.0)F	(2.8)F	(3.2)F	(3.2)F	3.4	3.3	3.4	(3.3)	3.4	3.3	3.2	3.4	3.5	3.1	3.2	(3.2)F	3.2	3.1	(3.0)F	(2.8)F
17	(2.8)F	(3.0)F	(3.1)F	(2.8)F	(3.0)F	(3.1)	(3.3)F	3.2F	3.4	3.3	3.5	3.3	3.3	3.3	3.2	3.2	3.2	3.2	3.3	3.3	(3.3)F	(3.0)F	(3.0)F	(2.9)F
18	(2.8)F	(2.9)F	(2.8)F	(3.0)F	(3.0)F	(3.1)F	(3.1)	(3.0)F	3.5	3.4	3.4	3.4	3.4	3.2	3.3	3.4	3.3	3.0	3.3	3.2	3.1	(3.2)F	(3.1)F	(3.1)F
19	3.0F	2.8F	2.9	2.9	3.0	3.2	(3.4)F	(3.1)F	3.5	3.5	3.4	3.4	3.2	3.0	3.2	3.3	3.2	3.0	3.3	3.5	3.1	3.0	3.0	3.0F
20	3.0	(2.9)	3.0	3.1	(3.2)F	3.4F	3.2F	(2.9)F	3.6	3.5	3.4	(3.5)	3.5	3.3	(3.4)	(3.4)	3.4	3.4	3.2	(3.5)	A	(2.8)F	(2.9)F	(3.2)F
21	(2.8)F	(2.8)F	F	F	(3.3)F	(3.3)F	(3.2)F	(3.2)F	3.6	3.4	3.1	3.4	3.6	3.1	3.3	3.3	3.3	3.4	(3.2)	3.3	(3.1)F	(3.1)F	3.2F	3.0
22	(3.0)F	2.9F	2.8F	(2.9)F	(3.0)F	(3.2)F	(3.2)F	(3.1)F	(3.2)	(3.8)	3.4	3.6	(3.3)	3.2	C	3.3	3.3	3.4	3.5	3.5	(3.2)	3.1	3.1	3.1
23	(3.0)F	A	A	A	A	(3.0)F	(3.1)F	(3.0)F	3.6	3.6	3.1	3.7	3.4	(3.4)	3.2	3.4	3.4	3.3	3.2	3.4	3.4	(3.5)F	(2.9)F	(3.0)F
24	(3.0)F	(3.1)F	(2.9)F	(3.1)F	(3.0)F	(3.2)F	3.2	3.1F	3.5	3.7	3.5	(3.5)	3.4	3.4	3.3	3.5	3.4	3.3	(3.1)F	3.1	3.4	(3.2)F	(2.9)F	(2.9)F
25	(2.9)F	(2.8)F	(2.8)F	(2.9)F	F	(3.0)F	(3.0)F	(3.4)F	3.5	(3.5)	3.4	(3.6)	3.4	3.1	3.3	3.4	3.4	3.0	3.2	(3.3)F	(3.2)	(3.3)F	(3.2F	(3.0)F
26	(3.1)F	(3.0)F	(3.1)F	(3.1)F	F	(3.2)F	(3.2)F	(3.3)F	(3.6)	3.4	(3.5)	3.6	3.4	3.2	(3.5)	3.5	(3.5)	3.2	3.4	3.2	3.4	(3.2)	(3.0)F	3.2
27	(3.1)F	(3.0)F	(3.1)F	(3.2)F	(3.1)F	3.4	3.1	3.4	3.3	3.5	(3.4)	(3.4)	3.5	3.7	3.2	3.3	3.3	3.4	3.2	3.2	3.3	3.2	3.1	3.2
28	3.1F	C	3.1	3.2	(3.2)F	3.3F	3.2	(3.5)F	3.5	3.2	3.2	(3.4)	3.4	3.3	3.1	3.4	3.3	(3.5)	3.1	(2.8)	2.6K	2.8K	F K	(2.9)Fk
29	(2.6)Fk	(2.6)Fk	C K	C K	C K	C K	C K	(2.9)Fk	C K	3.4K	C K	3.4K	3.4K	3.2K	3.2K	3.2K	3.2K	3.2K	(3.2)K	(2.9)Fk	(3.3)Fk	J Fk	(2.8)Fk	(3.1)Fk
30	(2.5)Fk	(2.9)Fk	(3.0)F	(3.1)F	(3.1)F	(3.3)F	(3.4)F	(3.2)F	3.1	3.3	3.4	3.4	(3.5)	3.6	(3.4)	3.3	C	3.5	3.2	3.4	3.3	(3.0)F	(3.1)F	(3.0)F
31	(3.1)F	(3.0)F	(3.0)F	3.2F	(2.9)F	(3.1)F	3.1F	3.3	3.6	J	3.5	3.4	(3.5)	3.3	3.4	3.2	3.3	3.5	3.3	3.4	3.2	3.0	(2.9)	(3.0)
Median	3.0	3.0	3.0	3.0	3.0	3.2	3.2	3.2	3.5	3.4	3.4	3.4	3.4	3.3	3.3	3.4	3.4	3.3	3.2	3.3	3.3	3.0	3.0	3.0

TABLE 55

IONOSPHERE DATA-II

RESTRICTED

Washington, D.C. Ionosphere Station
(Location)

National Bureau Of Standards
(Institution)

Hourly values of F2-M3500 for January 1945
(Month)

Records measured by: M.R.R.
A.F.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(3.2)F	(3.4)F	(3.4)F	(3.4)F	(3.2)F	(3.4)F	A	(3.4)F	3.7F	3.5	3.4	(3.6)	(3.5)	3.5	3.4	3.4	3.4	3.6	(3.4	(3.6)F	(3.3)F	(3.4)F	(3.2	(3.2 F
2	(3.2)F	(3.1)F	(3.3)F	(3.2)F	3.1	3.3	3.5	(3.3)	(3.7)	3.4	3.3	3.6	3.4	3.4	3.5	(3.7)	(3.7)	3.6	(3.4)	3.4	3.5	(3.4)F	(3.1	(3.2)F
3	(3.3)F	(3.3)F	(3.2)F	3.3	3.3	3.5	(3.3)F	(3.3)F	3.7	3.5	3.5	(3.6)	3.5	3.5	3.4	3.7	3.6	3.4	(3.4)	(3.4)	A	A	A	(3.2
4	3.0	(3.1)F	(3.3)F	(3.5)F	(3.3)F	(3.4)F	(3.5)F	(3.3)F	3.7	3.5	3.2	3.5	3.4	3.7	(3.5	3.4	3.4	3.5	3.5	C	C	(3.2)F	(3.2 F	.3 F
5	(3.2)F	3.3)F	(3.0)F	(3.3)F	(3.3)F	(3.2)F	(3.4)F	(3.4)F	(3.5)F	3.7	3.4	(3.4)	3.5	(3.5)	3.5	3.5	3.5	3.4	(3.5)F	(3.7)F	(3.4)F	(3.1)F	(3.1 F	(3.3)F
6	(3.3)F	(3.0)F	(3.1)F	(3.2)F	(3.4 C	(3.4)F	(3.5)F	(3.6)F	(3.5)	3.7	3.4	(3.6)	3.3	3.5	3.5	3.5	3.7	3.5	3.6	(3.5)F	3.5 F	(3.1 F	(3.4)F	(3.2 F
7	(3.2)F	(3.2)F	(3.1)F	(3.0)F	(3.4)F	3.3 F	(3.2)F	(3.3)F	3.7	3.6 H	(3.6)	3.6	3.6	3.6	3.5	3.5	3.6	3.4	3.5 F	(3.6)F	(3.6)F	3.2)F	3.3 F	(3.2)F
8	(3.2)F	(3.2)F	(3.4)F	(3.2)F	(3.2)F	(3.4)F	(3.6)F	(3.3)F	3.7	(3.7)F	3.6	3.6	(3.5)	(3.5)	3.4	3.5	3.5	3.5	3.6	3.6)F	(3.4)F	(3.2)F	(3.3)F	(3.3 F
9	(3.2)F	(3.3)F	(3.2)F	(3.1)F	(3.2)F	(3.4)F	(3.5)F	(3.5)F	3.7	3.7 M	J	3.8	3.4	3.5	3.3	3.5	3.5	3.4	3.3	3.6	3.2 K	(3.0)F K	(3.0 F K	3.2 F
10	(3.2)F K	(3.2)F K	(2.8)F K	(3.0)F K	3.0 F K	(3.4)F K	C K	(3.4)F	3.3	3.5	3.4	(3.5)	3.3	3.5)	(3.7)	3.5	3.5	3.5	3.5	3.6 F	(3.4)F	(3.2)F	(3.2 F	(3.2 F
11	(3.2)F	(3.4)F	(3.3)F	(3.2)F	(3.2)F	(3.3)F	(3.5)F	3.4)F	3.8	(3.5)	(3.5)	C	3.5	3.7	3.3 H	3.5	(3.7)F	(3.4 F	3.3	(3.5 F	(3.5)F	(3.0)F	(3.1 F	(3.0)F
12	(3.1)F	(3.2)F	(3.2)F	(3.3)F	(3.1)F	(3.2)F	(3.6)F	(3.6)F	3.5	3.7	3.6	(3.5)	3.5	3.6	3.5	3.4	3.6	3.6	(3.6)F	(3.6)F	(3.5)F	(3.4)F	(3.7)F	(3.4)F
13	(3.2)F	(3.3)F	(3.2)F	(3.4)F	(3.2)F	(3.4)F	(3.5)F	(3.8)	3.7	3.6	3.4	3.4	(3.5)	3.4	3.4	3.7	3.7	3.6	(3.7)F	(3.5)F	(3.6)F	(3.4)F	(3.2)F	3.2)F
14	(3.0)F	(3.2)F	(3.2)F	(3.2)F	(3.3)F	3.4)F	(3.4)F	(3.5)F	3.8	3.5	3.5	3.7	3.6	3.5	3.6	3.4	3.5	3.5	3.5)F	3.5	3.6)F	(3.2)F	3.5 F	(3.2)F
15	(3.3)F	(3.2)F	3.1)F	F	F	F	F	(3.3)F	(3.5)F	3.4	3.2	3.4	3.2	C	C	(3.4)	3.4	3.4	(3.4)F	(3.2)F	2.9 F	(2.9)	(2.9)F	(3.1)F
16	(2.9)F	(3.0)F	(3.2)F	(2.9)F	(3.1)F	(3.0)F	(3.3)F	(3.3)F	3.5	3.5	3.6	3.5)	3.6	3.5	3.4	3.5	3.7	3.3	3.4	(3.4)F	3.4	3.3	(3.3)F	(3.0)F
17	(3.0)F	(3.2)F	(3.3)F	(3.1)F	(3.2)F	(3.3)	(3.5)F	3.4 F	3.6	3.5	3.6	3.5	3.5	3.5	3.3	3.4	3.4	3.3	3.4	3.5	(3.5)F	(3.2)F	(3.2)F	(3.1)F
18	(3.0)F	(3.1)F	(3.1)F	(3.2)F	(3.2)F	(3.3)F	(3.3)F	(3.3)F	3.7	3.5	3.6	3.6	3.6	3.4	3.5	3.5	3.5	3.2	3.5	3.4	3.4	(3.4)F	(3.2)F	3.3)F
19	3.2 F	3.0 F	3.1	3.1	3.2	3.4	(3.6)F	(3.3)F	3.7	3.6	3.5	3.6	3.4	3.2	3.4	3.4	3.4	3.2	3.5	3.5	3.3	3.3	3.2	3.2 F
20	3.2	(3.2)	3.2	3.3	(3.5)F	3.6	3.4	(3.1)	3.8	3.7	3.5	(3.7)	3.6	3.5	(3.5)	(3.5)	3.5	3.5	3.4	(3.6)	A	(3.0)F	(3.2)F	(3.3)F
21	(3.1)F	(3.0)F	F	F	(3.5)F	(3.5)F	(3.4)F	(3.4)F	3.7	3.6	3.3	3.5	3.7	3.3	3.5	3.4	3.5	3.6	(3.4)	3.5	(3.3)F	(3.3)F	3.4 F	3.2
22	(3.2)F	3.1 F	3.0 F	(3.1)F	(3.2)F	(3.4)F	(3.4)F	(3.3)F	(3.4)	(3.9)	3.6	3.8	(3.4)	3.4	C	3.5	3.5	3.6	3.7	3.7	(3.4)	3.3	3.3	3.3
23	(3.2)F	A	A	A	A	3.2)F	(3.3)F	(3.2)F	3.8	3.7	3.3	3.8	3.6	(3.6)	3.4	3.6	3.6	3.5	3.3	3.6	3.5	(3.5)F	(3.1)F	(3.1)F
24	(3.2)F	(3.2)F	(3.1)F	(3.3)F	(3.2)F	(3.4)F	3.4	3.3 F	3.7	3.9	3.7	(3.7)	3.6	3.5	3.5	3.7	3.6	3.5	(3.2)F	3.3	3.6	(3.4)F	(3.1)F	(3.1)F
25	(3.1)F	(3.0)F	(3.0)F	(3.1)F	F	(3.2)F	(3.2)F	(3.6)F	3.7	(3.7)	3.7	(3.8)	3.6	3.2	3.5	3.6	3.7	3.2	3.4	(3.4)F	(3.4)	(3.5)F	(3.4)F	(3.1)F
26	(3.2)F	(3.2)F	(3.3)F	(3.3)F	F	(3.4)F	(3.4)F	(3.5)F	(3.8)	3.6	(3.6)	3.8	3.5	3.4	(3.6)	3.6	(3.7)	3.4	3.5	3.4	3.6	(3.4)	3.2 F	3.4
27	(3.3)F	(3.3)F	(3.3)F	(3.4 F	(3.3)F	3.6	3.3	3.6	3.5	3.6	(3.6)	(3.5)	3.7	3.9	3.3	3.5	3.5	3.6	3.4	3.4	3.5	3.4	3.3	3.3
28	3.2 F	C	3.3	3.3	(3.4)F	3.5 F	3.4	(3.7)F	3.7	3.4	3.4	(3.6)	3.6	3.5	3.3	3.5	3.4	3.7)	3.3	(3.0)	2.8 K	3.0 K	F K	(3.2)F K
29	(2.7)F K	(2.8)F K	C K	C K	C K	C K	C K	(3.1, F K	C K	3.6 K	C K	3.6 K	3.6 K	3.4 K	3.3 K	3.4 K	3.4 K	3.4 K	(3.4)K	(3.1)F K	(3.5)F K	J F K	(3.1)F K	(3.3)F K
30	(2.7)F K	(3.1)F K	(3.2)F	(3.3)F	(3.3)F	(3.5)F	(3.6)F	(3.3)F	3.3	3.5	3.6	3.6	(3.7)	3.8	(3.6)	3.5	C	3.8	3.4	3.6	3.5	(3.2)F	(3.3)F	3.2)F
31	(3.3)F	(3.2)F	(3.2)F	3.4 F	(3.1)F	(3.3)F	3.3 F	3.5	3.8	J	3.7	3.7	(3.7)	3.4	3.6	3.3	3.5	3.7	3.4	3.6	3.4	3.2	(3.1)	3.2
Median	3.2	3.2	3.2	3.2	3.2	3.4	3.4	3.4	3.7	3.6	3.5	3.6	3.5	3.5	3.5	3.5	3.5	3.5	3.4	3.5	3.5	3.2	3.2	3.2

TABLE 56

IONOSPHERE DATA-12

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of FJ-M3000 for January (Month) 1945

Records measured by: M.R.R. A.F.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1													(3.6)	(3.7)										
2														(3.5)	H									
3																A								
4												3.7	3.7	3.7										
5													3.7		(3.9)									
6														3.7	H									
7														3.7										
8													(3.8)	3.5										
9																								
10													(3.6)	3.6	4.1									
11										H		C	3.8	3.9	H									
12												(3.8)	3.8											
13													3.8											
14												3.8	3.7	(3.7)										
15											3.3	3.4	B	C	C									
16												3.6			H									
17										4.0		H	3.8	3.7										
18										H			(3.8)		(3.6)									
19										H			3.6			(3.7)								
20														3.5H										
21											(3.7)	3.6		4.0	H									
22													(3.9)	(3.6)		(3.7)								
23													(3.8)	3.8										
24														H										
25													3.8											
26											H	3.6	3.7		(3.3)	3.7								
27												(3.7)	(3.8)	(3.6)										
28												3.7	3.8	3.8		H								
29									C K	H K	C K	3.7 K	3.6 K	3.4 K	3.5 K	K								
30												(3.8)	(3.6)											
31												3.7	3.6	3.9		3.8H								
Median										4.0	3.5	3.7	3.8	3.7	3.6	3.7								

TABLE 57

IONOSPHERE DATA-13

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of E-MI500 for January (Month) 1945

Records measured by: M.R.R. A F.

TIME: 75° W MERIDIAN

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1									A	2.8	2.6	2.7	2.3	2.8	(2.7)	3.0	3.7							
2									(3.5)	A	2.5	2.6	2.7	2.7	A	3.8	(3.7)							
3									(2.9)	2.9	2.6	A	2.9	2.8	A	A	A							
4									F	2.9[H]	2.6	2.6	2.6	2.6	2.7	(2.9)[H]	2.5							
5									A	A	A	A	(2.8)	(2.8)	(2.9)	(2.8)[H]	2.9[H]							
6									(3.0)	2.9[H]	2.5	2.9	A	A	(2.8)[H]	2.9[H]	2.9							
7									A	(2.2)	HA	2.7	2.9	2.7	2.6	2.7	2.9							
8									F	2.7	2.7	2.7	2.8	A	(2.7)	2.8	A							
9									2.5	2.6	2.7	2.9	2.7	A	2.5	2.7	A							
10									(2.9)	2.7	A	2.9	(2.6)	2.9	2.9	A	A	A						
11									2.7	2.6	2.7	C	2.9	2.9	2.9[H]	2.7	2.6							
12									(2.4)F	2.9[H]	2.7[H]	2.9	2.7	2.7	2.9	A	A	2.6F						
13									(2.3)F	F	2.7	2.9	(4.1)	A	2.9	2.9	A							
14									(2.2)	2.5	2.4	2.6	2.8	2.5	2.6[H]	2.7	(2.6)	F						
15									F	2.7	B	B	B	C	C	(2.7)	(2.6)[H]	(2.5)						
16									(2.6)F	2.7	(2.3)	2.5	(2.9)	(2.9)	A	A	A	F						
17									(2.6)	2.6	A	2.3	2.5	2.5	2.7	A	F	C						
18									F	(2.7)	2.3[H]	2.9	(2.8)	2.7	2.7	(2.7)	(2.5)	F						
19									(2.9)	(2.7)	2.5	2.7	2.6	2.7	A	(2.5)	2.5	2.9						
20									2.4	2.6[H]	2.7	2.6	2.3	2.6	A	A	A							
21									2.2	(2.9)	A	2.4	A	A	2.5	2.7	A	2.9						
22									(2.5)	A	2.7	2.8	2.9	(2.9)	C	A	(2.6)	A						
23									F	2.7	2.7[H]	2.7	(2.7)	(2.8)	2.6	2.6	2.6	2.6						
24									(2.3)[H]	A	2.4	2.6	(2.7)	(2.7)	2.7	2.6	A	2.6						
25									(2.5)F	(2.4)	2.7	2.5	2.7	2.6	(2.7)[H]	(2.6)	A	AF						
26									A F	(2.6)	2.9	A	A	A	A	A	(2.7)	(2.7)						
27									(3.0)[H]	2.6[H]	2.7[H]	(2.6)	(2.8)	2.7	(2.6)	2.8	(2.3)	2.6						
28									F	(2.7)[H]	2.9[H]	2.5	(2.7)	2.8	2.8	2.7	(2.6)	2.5						
29									C K	(2.5)K	C K	(2.7)K	2.7K	2.7K	A K	(2.5)K	2.5K	K						
30									(2.5)[H]	A	2.5	(2.5)	(2.4)	2.6	(2.8)	2.9	2.7	(2.7)						
31									C	(2.5)[H]	(2.6)[H]	(2.6)	(2.6)	2.9	(2.9)	2.7	2.6	A						
Median									2.5	2.7	2.7	2.7	2.8	2.7	2.8	2.7	2.6	2.6						

Table 58

Ionospheric Storminess, January, 1945

Day	Ionospheric Character* 00-12 GCT	12-24 GCT	Principal Storms/ Beginning GCT	End GCT	Magnetic Character** 00-12 GCT	12-24 GCT
January						
1	2	2			2	2
2	1	1			2	2
3	1	2			2	2
4	2	2			1	2
5	2	2			2	1
6	1	2			2	1
7	2	2			2	1
8	2	2			1	1
9	2	2			1	3
10	4	1	0100	1200	4	2
11	3	2			0	0
12	2	1			1	2
13	1	1			2	0
14	3	2			1	1
15	2	3			3	4
16	2	1			3	2
17	2	2			3	2
18	3	2			0	2
19	1	2			2	2
20	1	1			2	2
21	2	1			2	1
22	3	2			1	1
23	3	2			1	0
24	3	2			0	0
25	2	3			0	0
26	1	1			1	2
27	2	1			1	2
28	1	2			1	3
29	4	4	0100	----/	4	3
30	5	1	----	0700	3	2
31	1	1			1	1

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

**Average for 12 hours of American magnetic K-figure, determined by a number of observatories, on an arbitrary scale of 0 to 9, 9 representing the greatest disturbance.

/Dashes indicate continuance of ionospheric storminess.

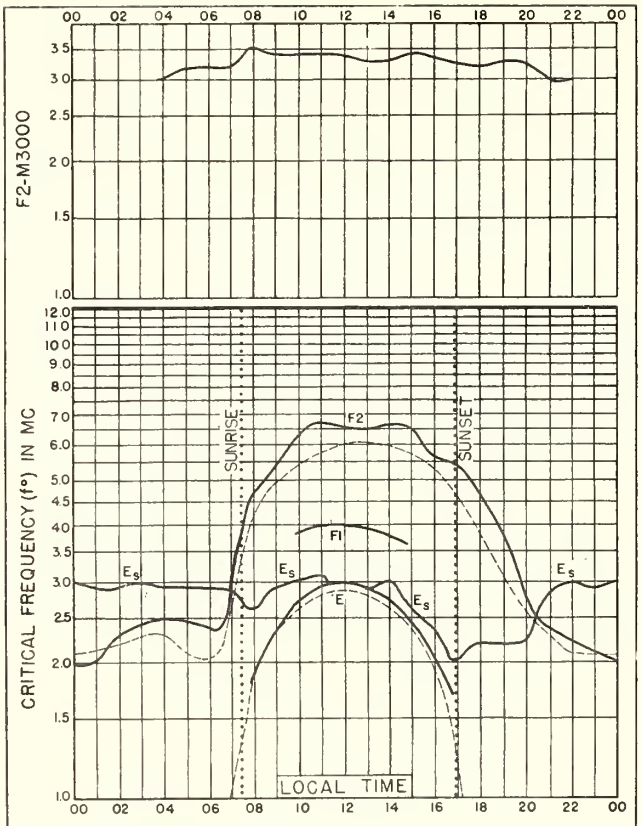

Fig. 1. WASHINGTON, D.C.
39.0°N, 77.5°W
JANUARY, 1945

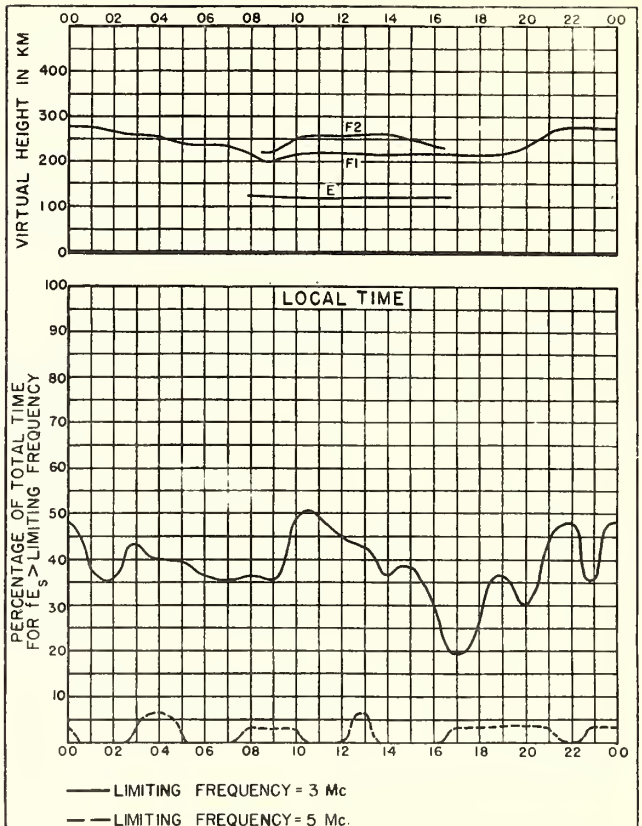

Fig. 2. WASHINGTON, D.C.
JANUARY, 1945

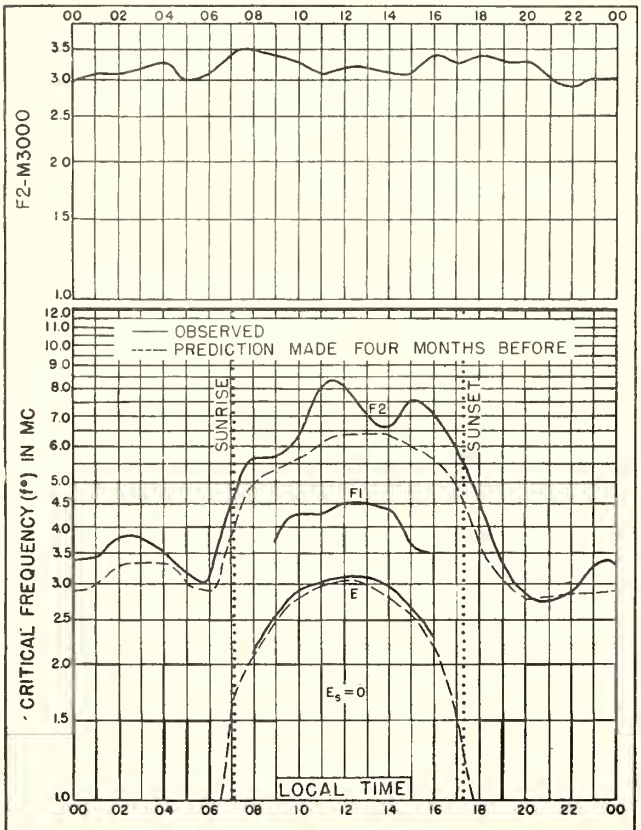

Fig 3. BATON ROUGE, LOUISIANA
30.5°N, 91.2°W
JANUARY, 1945

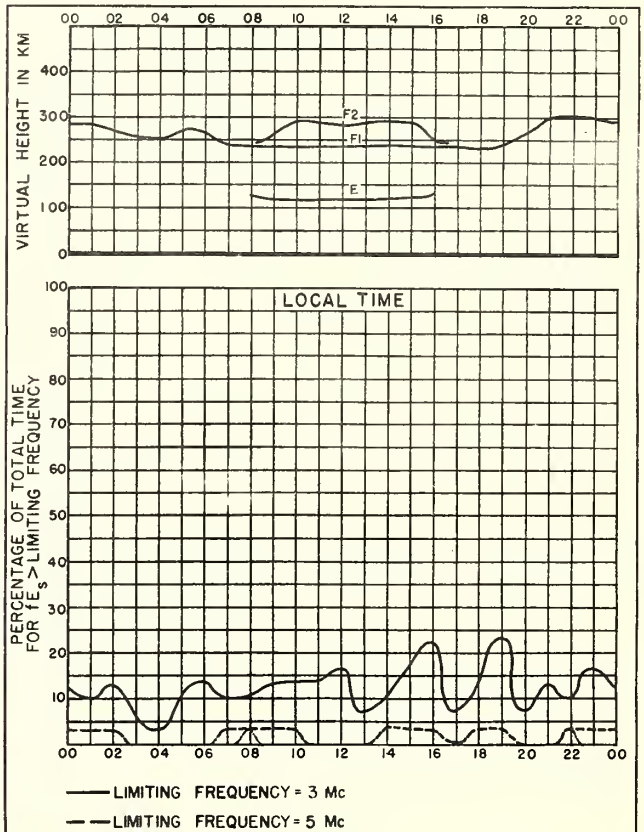

Fig. 4. BATON ROUGE, LOUISIANA
JANUARY, 1945

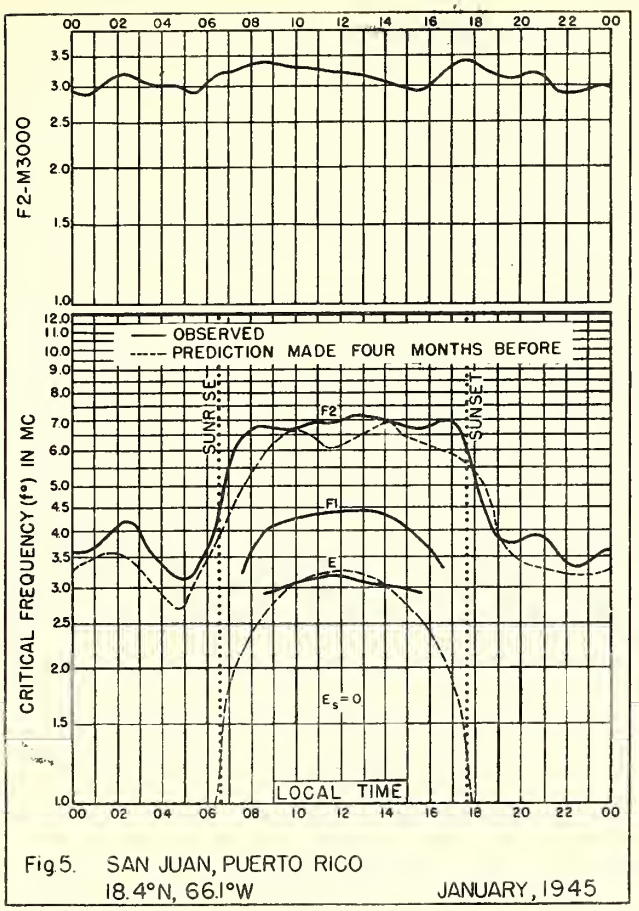

Fig.5. SAN JUAN, PUERTO RICO
18.4°N, 66.1°W JANUARY, 1945

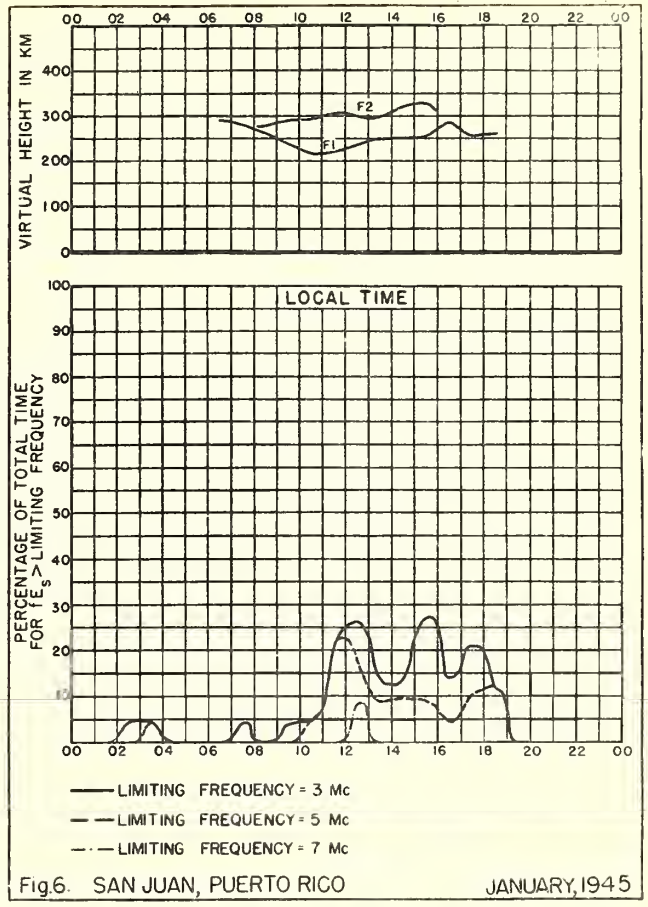

Fig.6. SAN JUAN, PUERTO RICO JANUARY, 1945

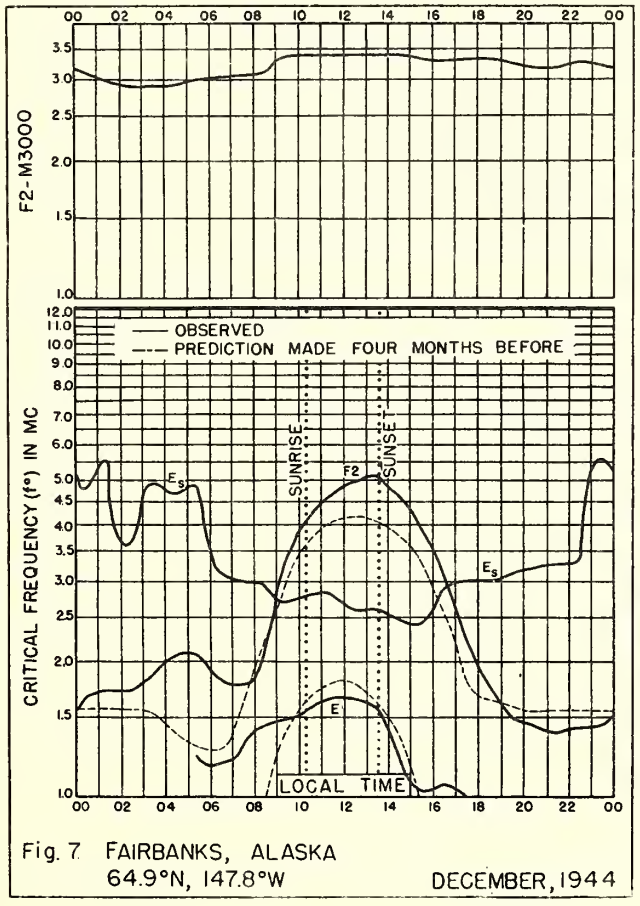

Fig. 7. FAIRBANKS, ALASKA
64.9°N, 147.8°W DECEMBER, 1944

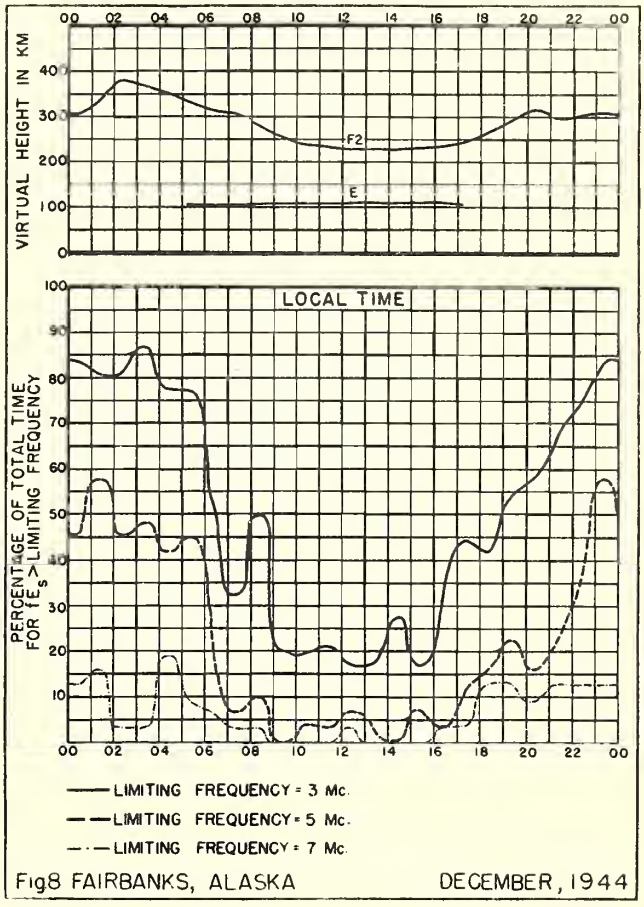

Fig8 FAIRBANKS, ALASKA DECEMBER, 1944

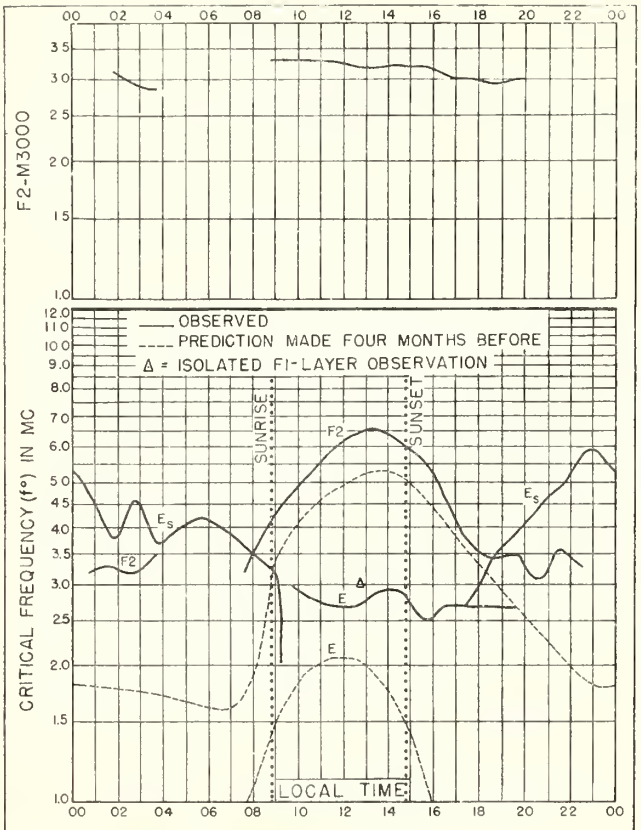

Fig. 9 CHURCHILL, CANADA
58.8°N, 94.2°W DECEMBER, 1944

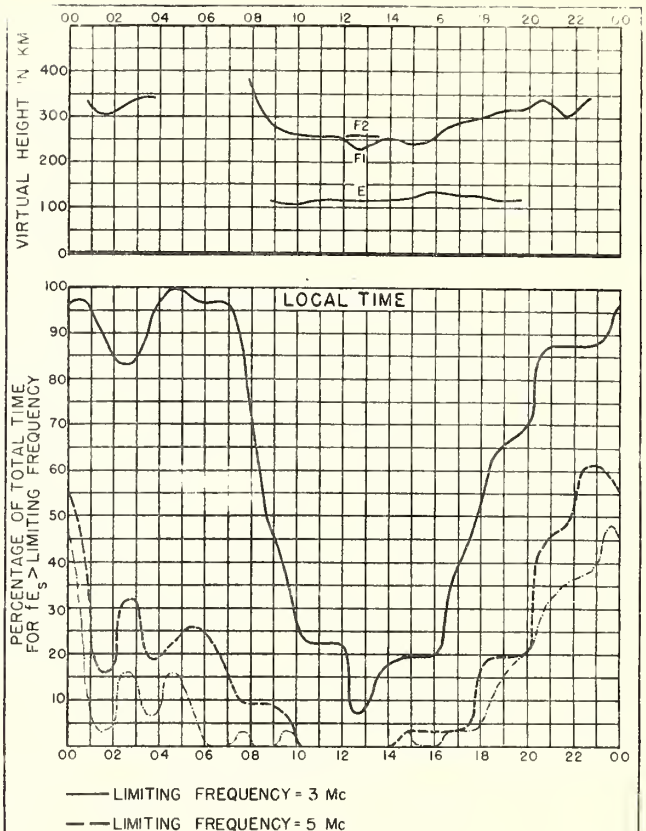

Fig10. CHURCHILL, CANADA DECEMBER, 1944

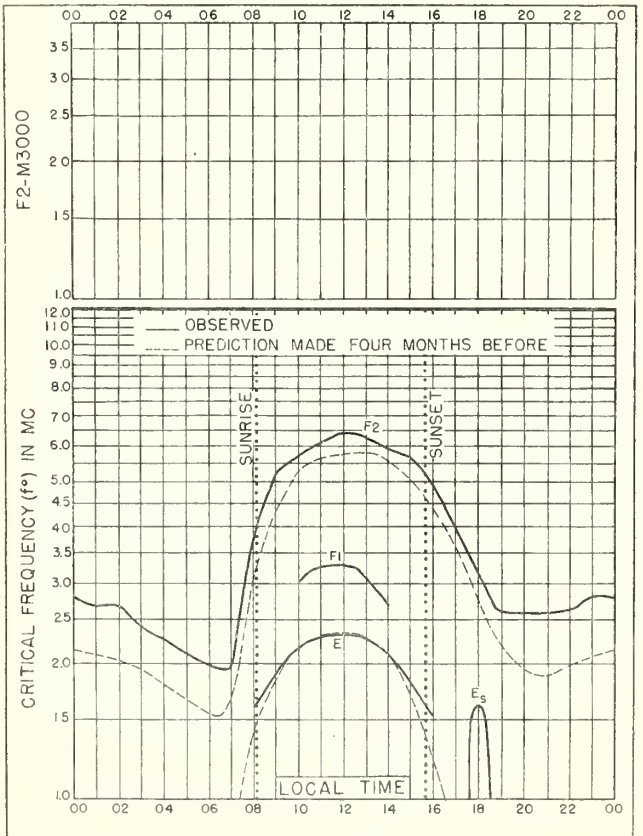

Fig 11 GREAT BADDOW, ENGLAND
51.7°N, 0.5°E DECEMBER, 1944

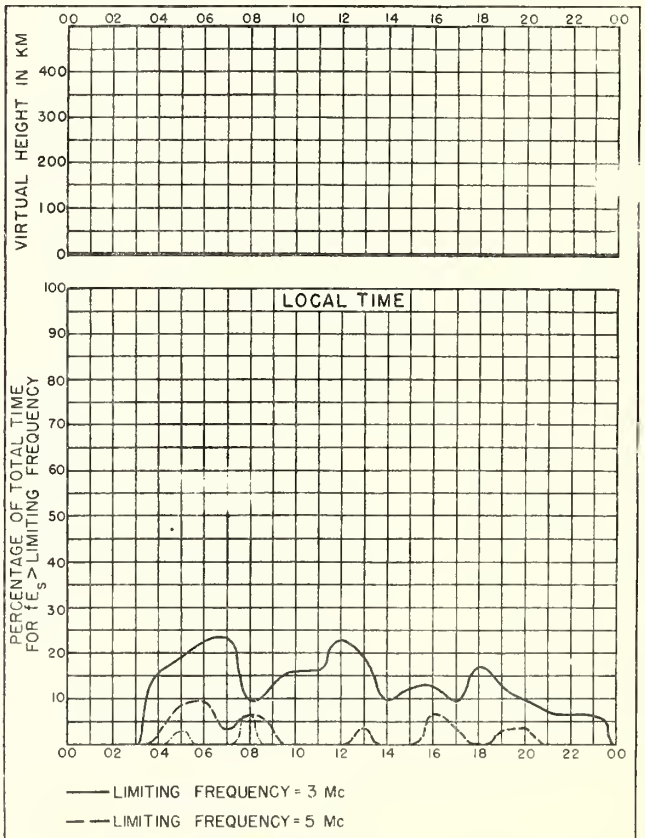

Fig 12 GREAT BADDOW, ENGLAND DECEMBER, 1944

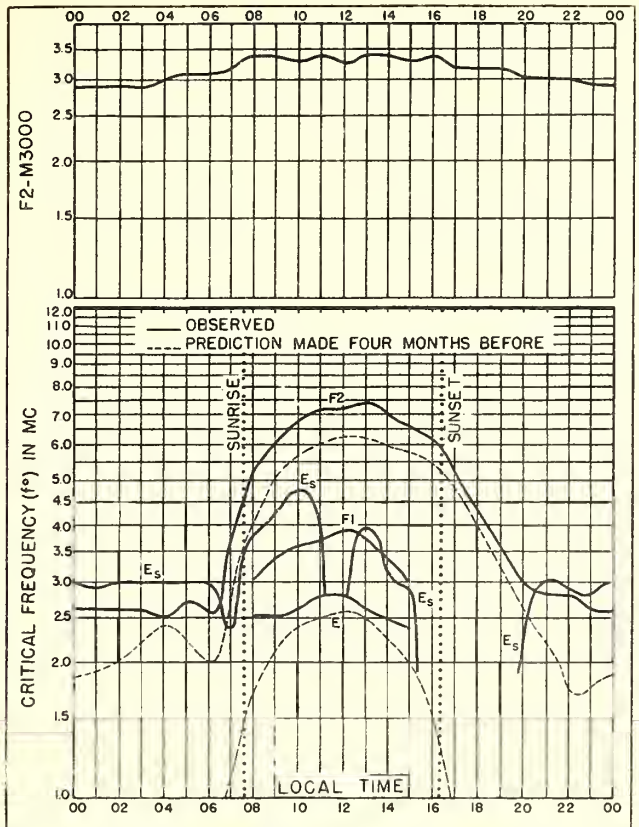

Fig 13. OTTAWA, CANADA
45.5°N, 75.8°W DECEMBER, 1944

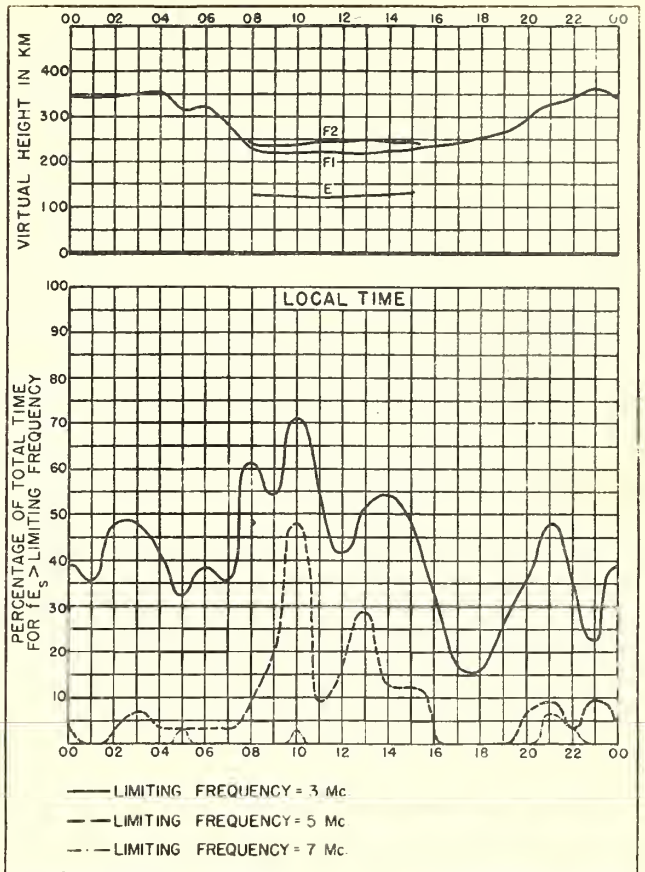

Fig.14 OTTAWA, CANADA DECEMBER, 1944

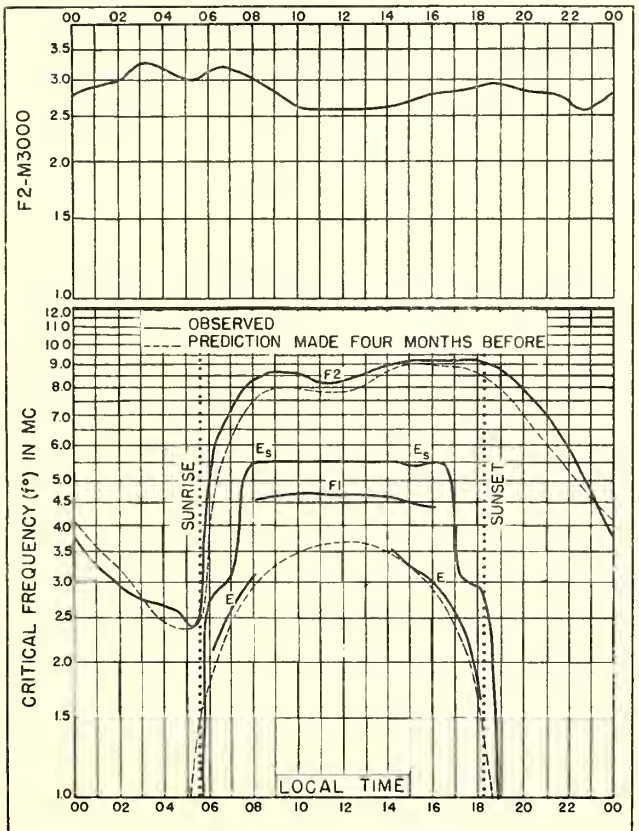

Fig.15. HUANCAYO, PERU
12.0°S, 75.3°W DECEMBER, 1944

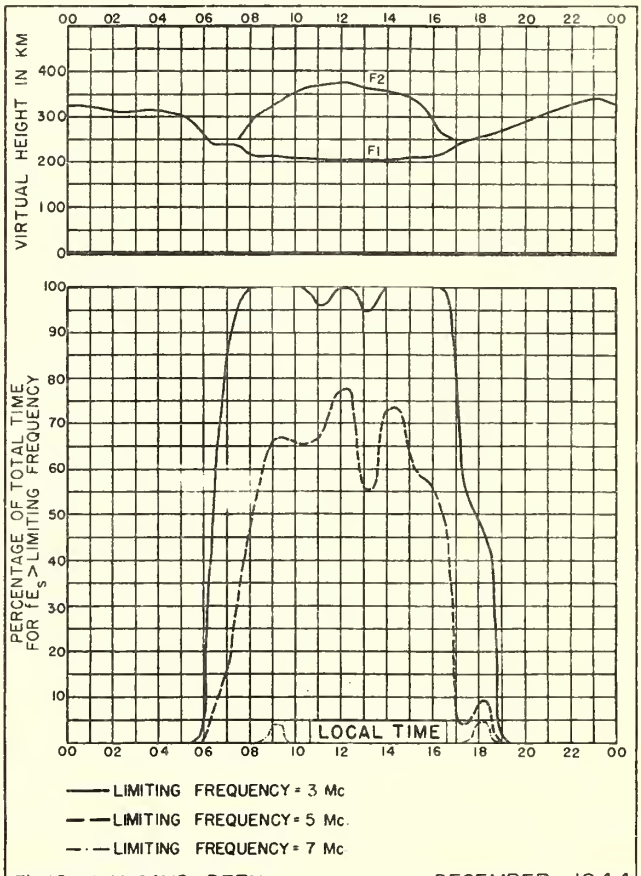

Fig.16 HUANCAYO, PERU DECEMBER, 1944

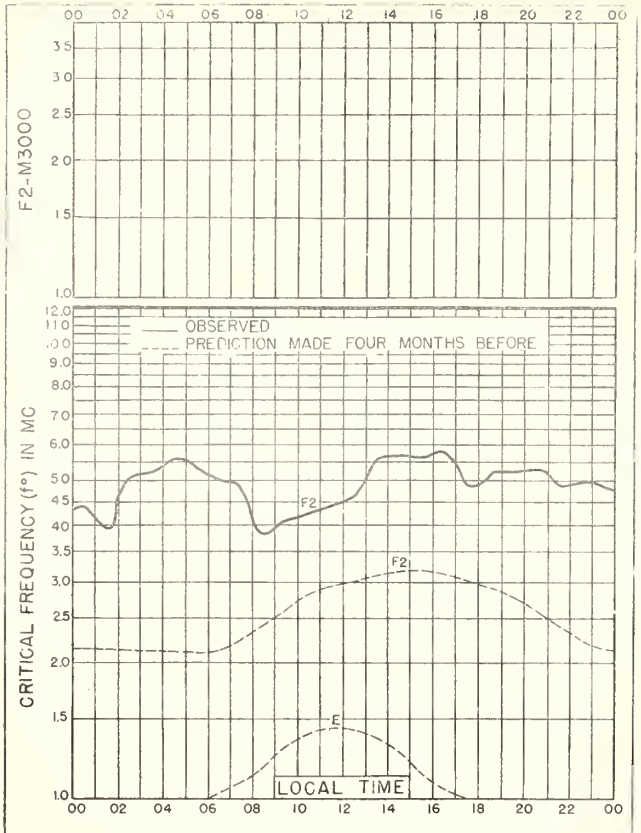

Fig.17 TYKHI BAY, U.S.S.R.
80.3°N, 52.8°E NOVEMBER, 1944

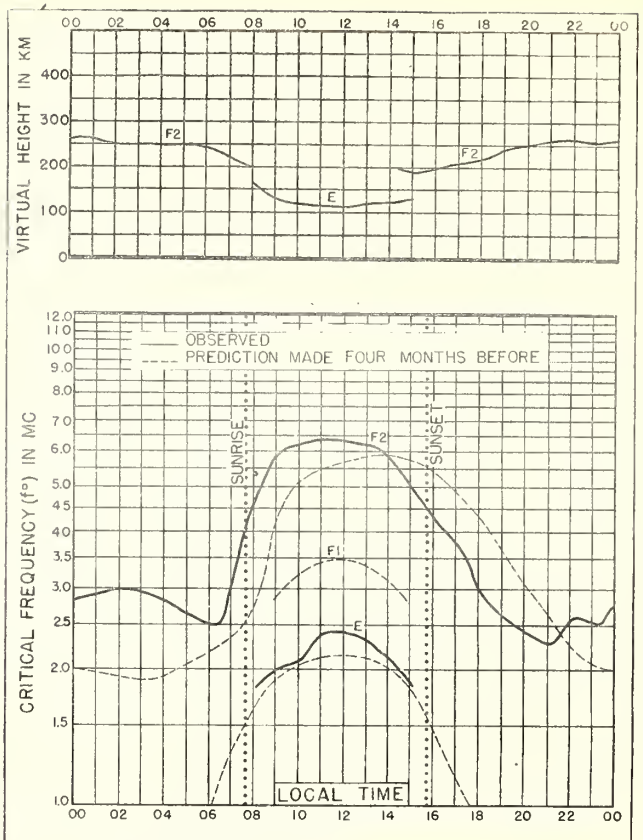

Fig.18 SVERDLOVSK, U.S.S.R.
56.8°N, 61.1°E NOVEMBER, 1944

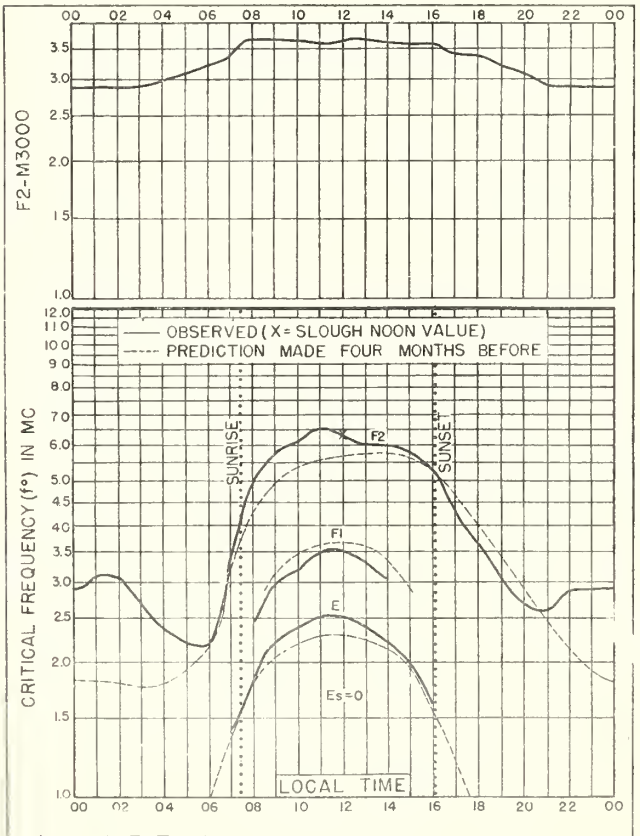

Fig.19 GREAT BADDOW, ENGLAND
51.7°N, 0.5°E NOVEMBER, 1944

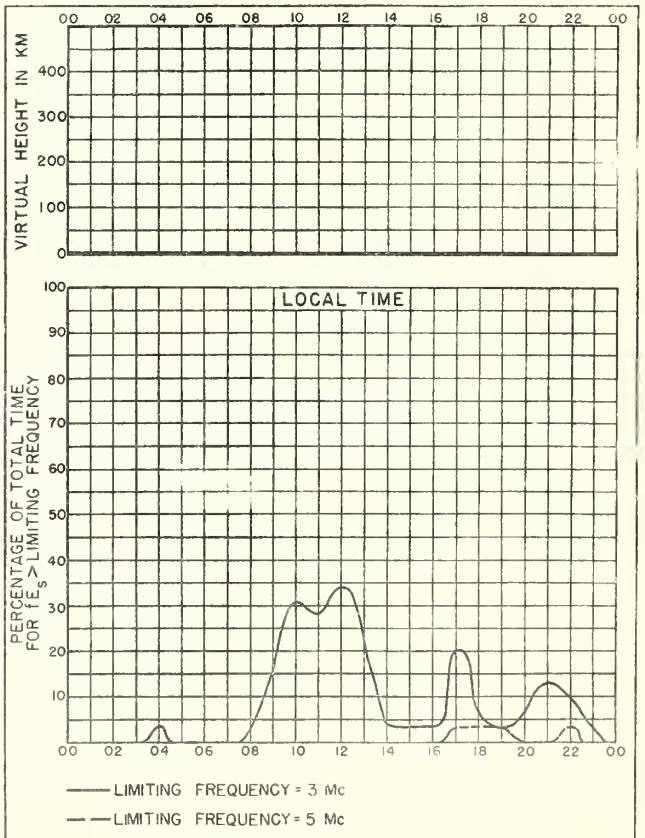

Fig.20 GREAT BADDOW, ENGLAND NOVEMBER, 1944

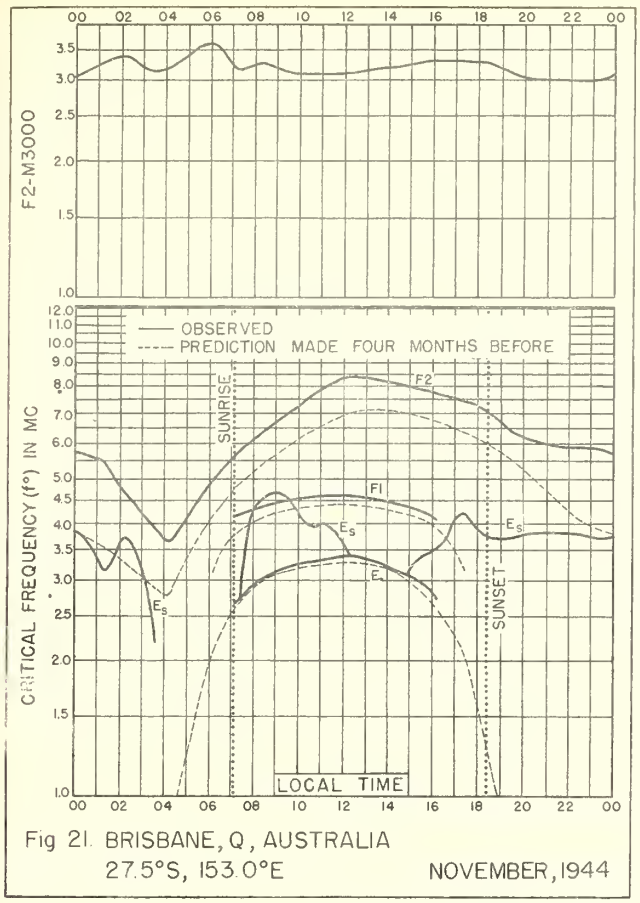

Fig 21. BRISBANE, Q, AUSTRALIA
27.5°S, 153.0°E NOVEMBER, 1944

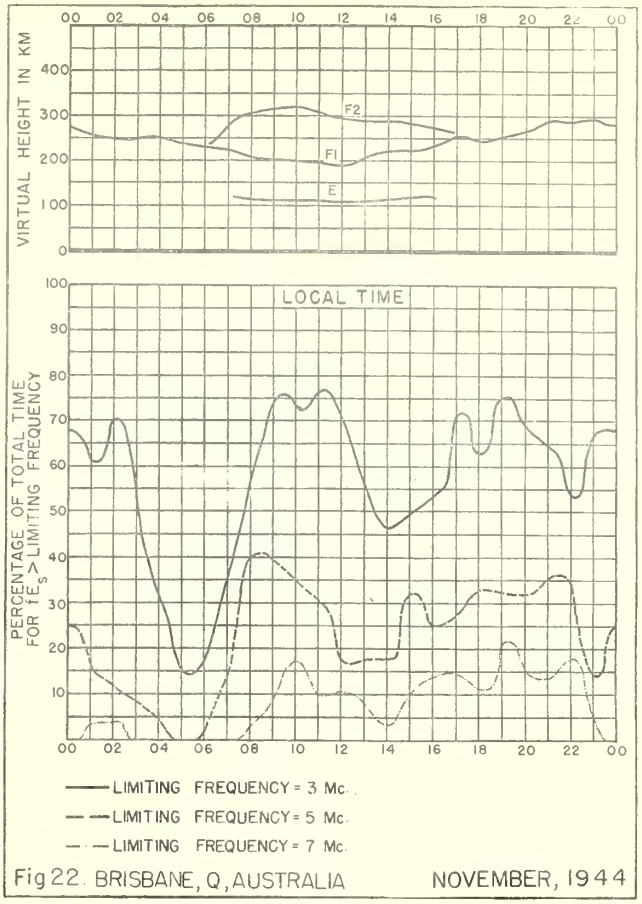

Fig 22. BRISBANE, Q, AUSTRALIA NOVEMBER, 1944

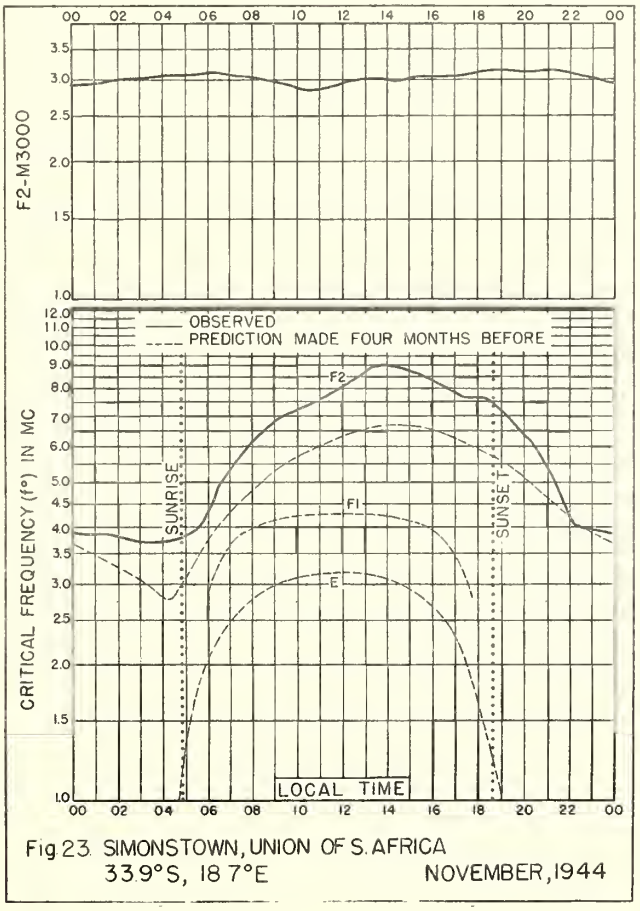

Fig 23. SIMONSTOWN, UNION OF S. AFRICA
33.9°S, 18.7°E NOVEMBER, 1944

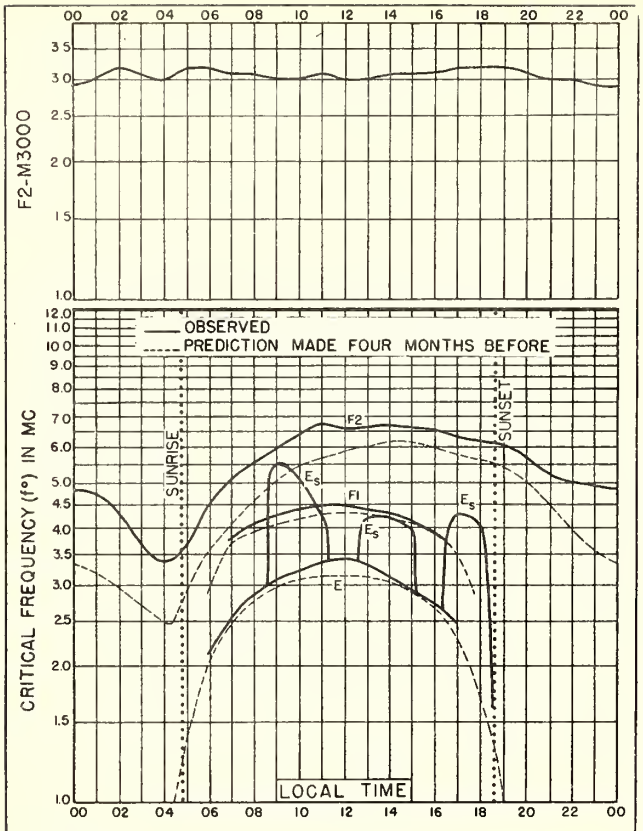

Fig. 24 MT. STROMLO, N.S.W., AUSTRALIA
35.3°S, 149.0°E NOVEMBER, 1944

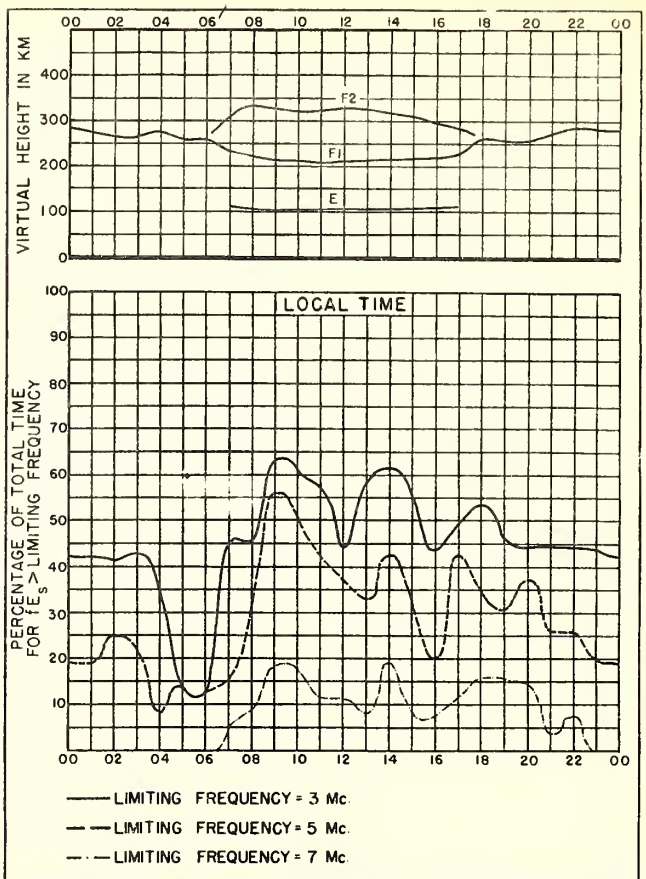

Fig. 25. MT. STROMLO, N.S.W., AUSTRALIA NOVEMBER, 1944

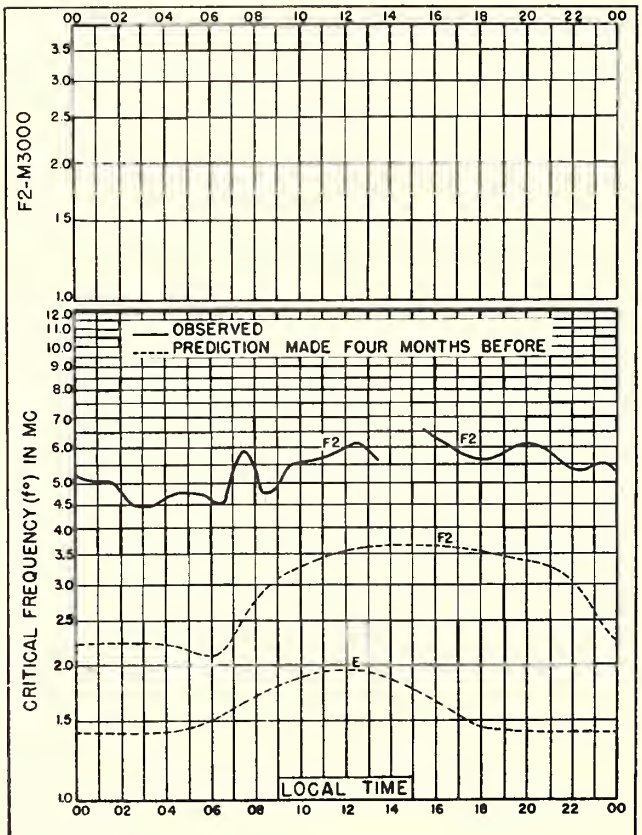

Fig. 26. TYKHI BAY, U.S.S.R.
80.3°N, 52.8°E OCTOBER, 1944

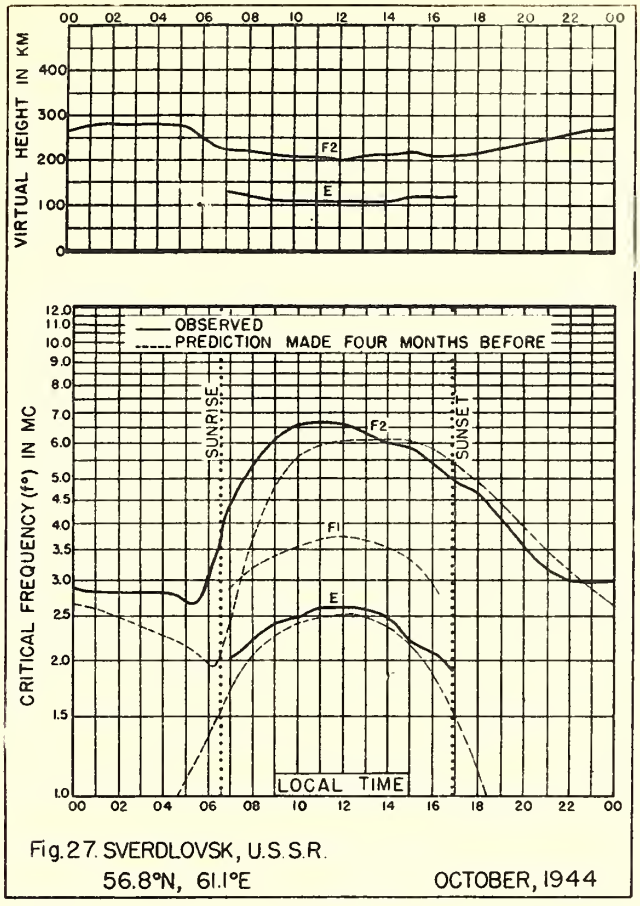

Fig.27. SVERDLOVSK, U.S.S.R.
56.8°N, 61.1°E OCTOBER, 1944

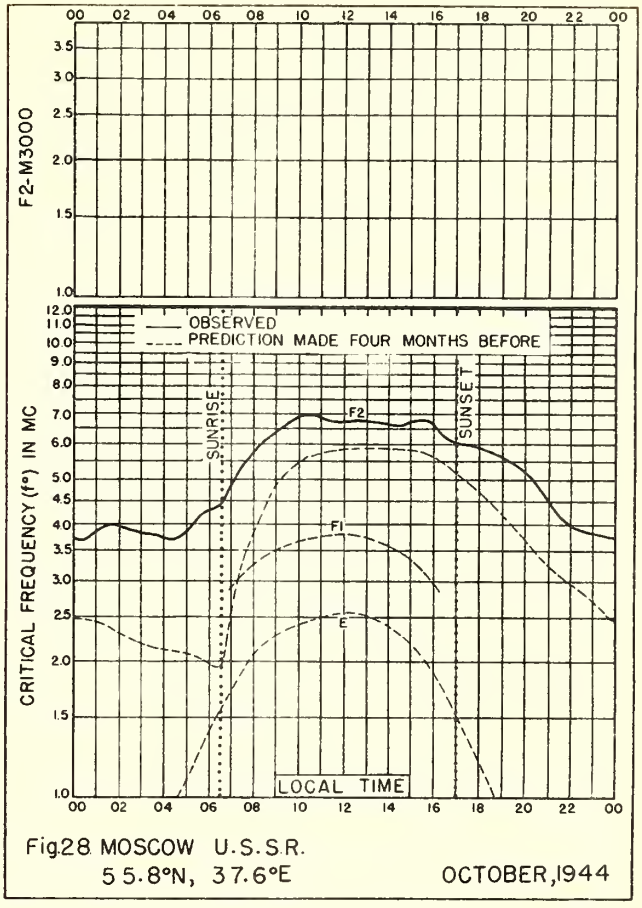

Fig.28 MOSCOW U.S.S.R.
55.8°N, 37.6°E OCTOBER, 1944

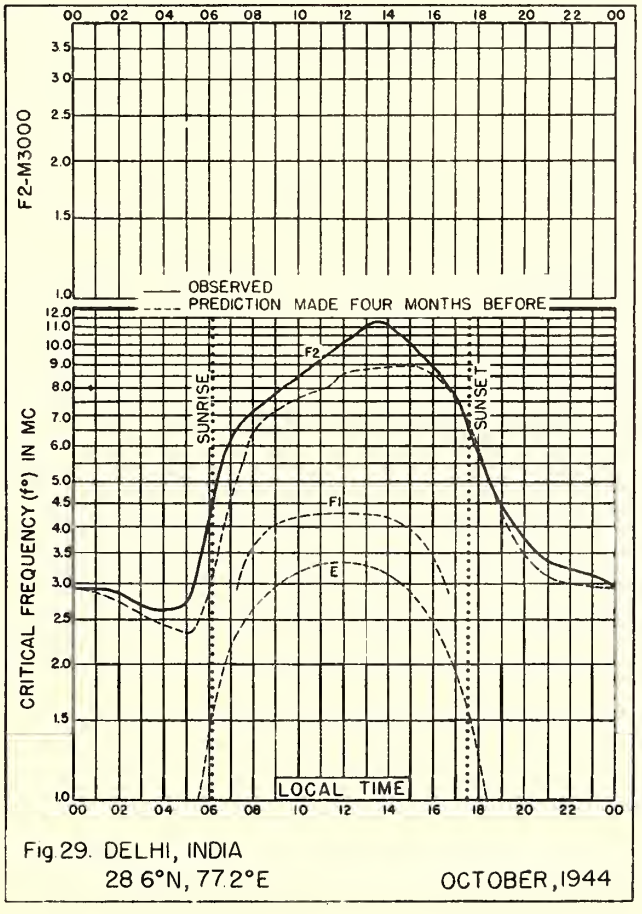

Fig.29. DELHI, INDIA
28.6°N, 77.2°E OCTOBER, 1944

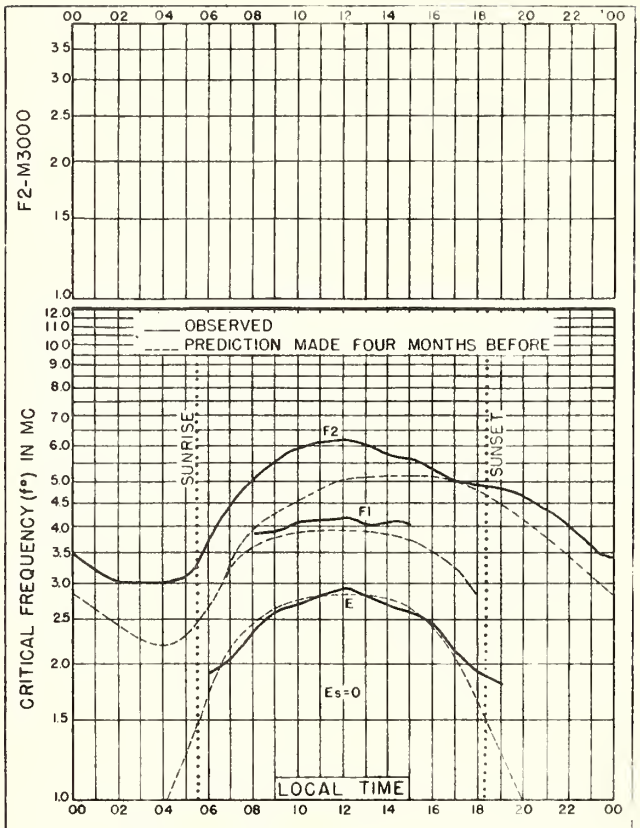

Fig.30 SVERDLOVSK, U.S.S.R.
56.8°N, 61.1°E SEPTEMBER, 1944

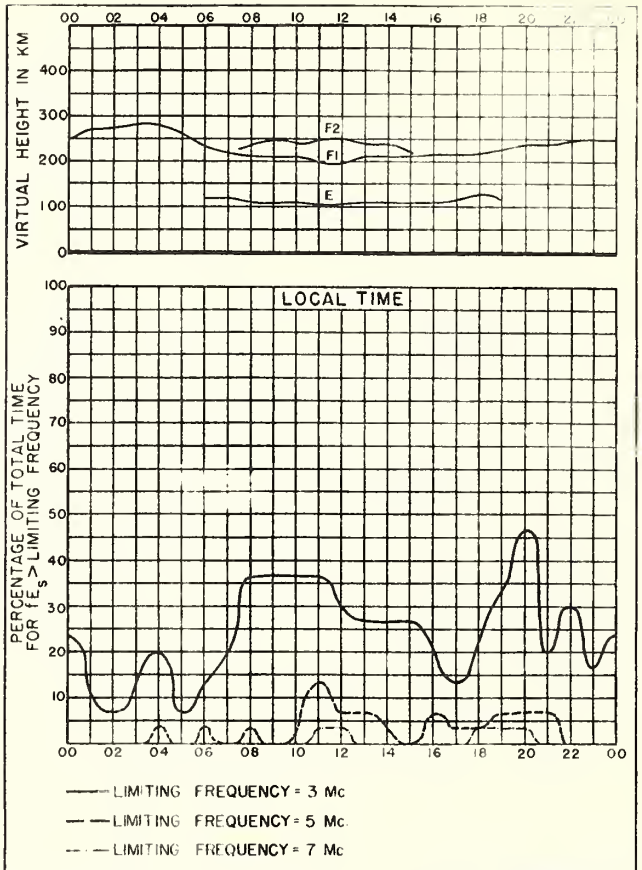

Fig. 31 SVERDLOVSK, U.S.S.R. SEPTEMBER, 1944

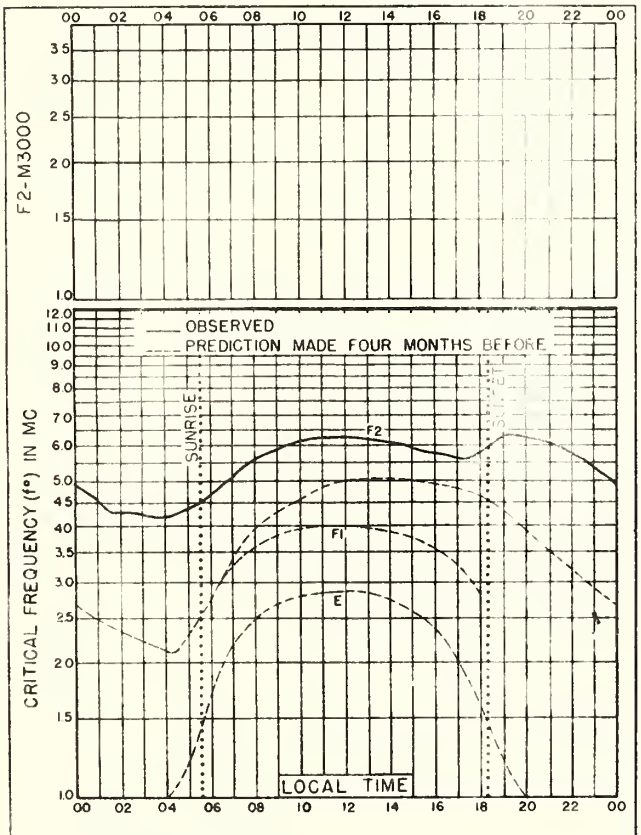

Fig32. MOSCOW U.S.S.R.
55.8°N, 37.6°E SEPTEMBER, 1944

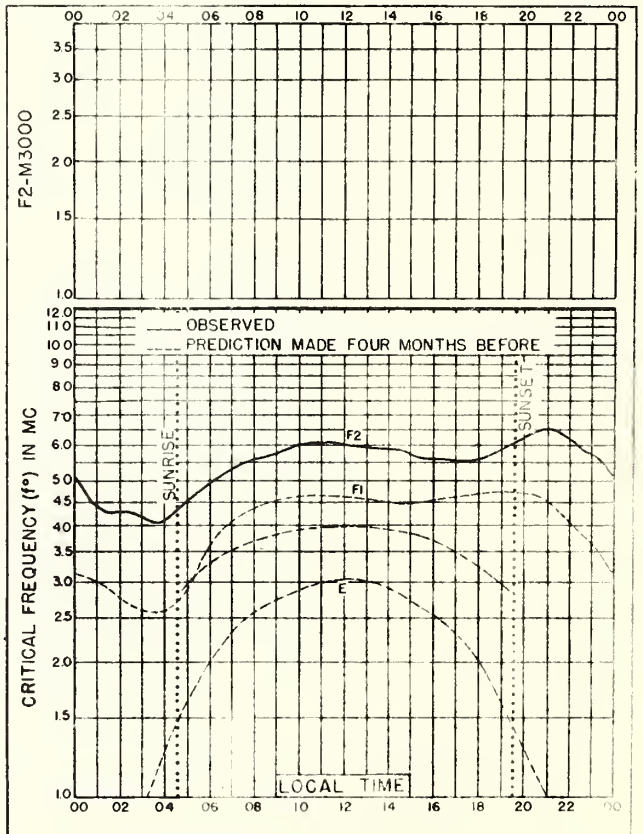

Fig33 MOSCOW, U.S.S.R.
55.8°N, 37.6°E AUGUST, 1944

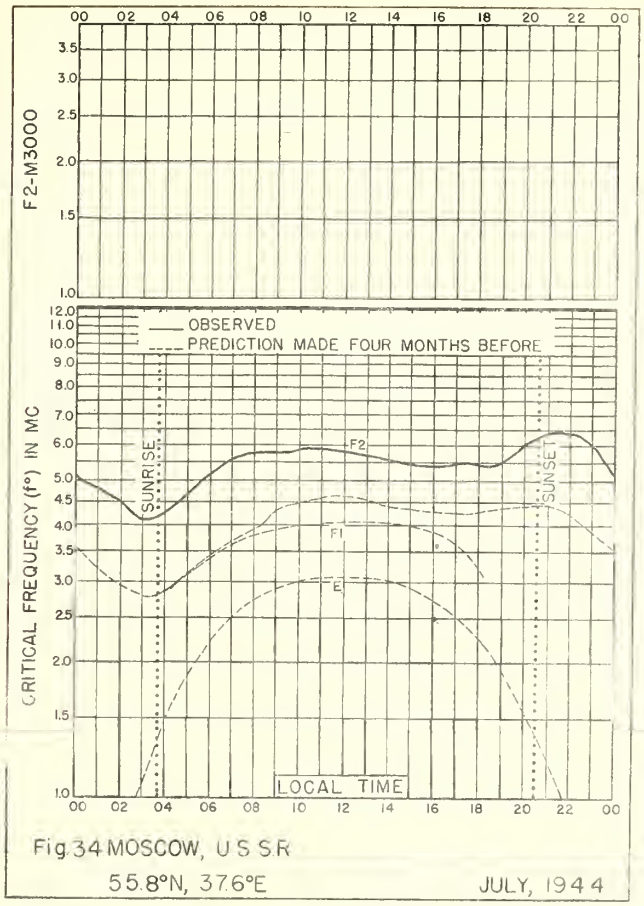

Fig 34 MOSCOW, U S S R
55.8°N, 37.6°E JULY, 1944

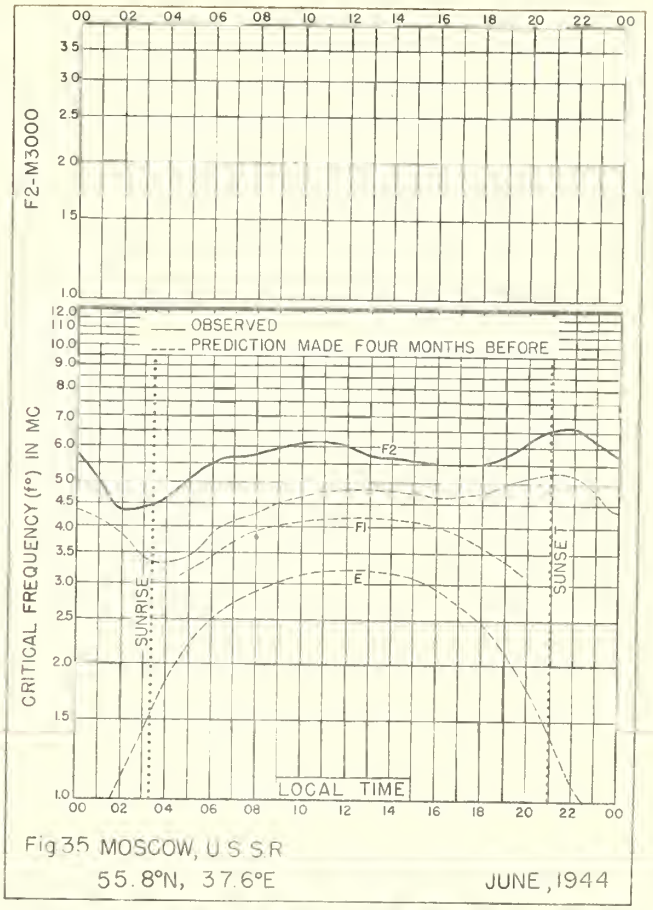

Fig 35 MOSCOW, U S S R
55.8°N, 37.6°E JUNE, 1944

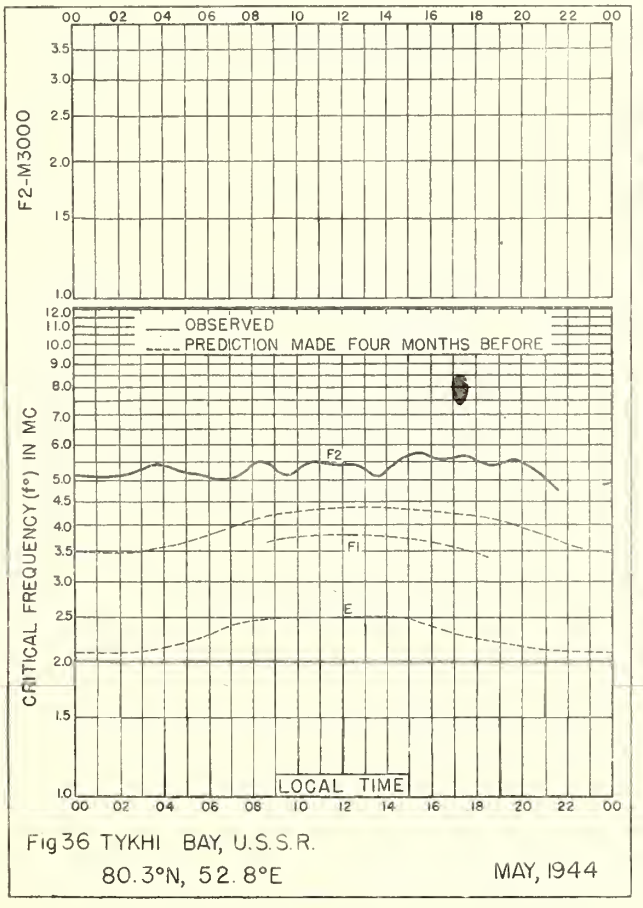

Fig 36 TYKHI BAY, U.S.S.R.
80.3°N, 52.8°E MAY, 1944

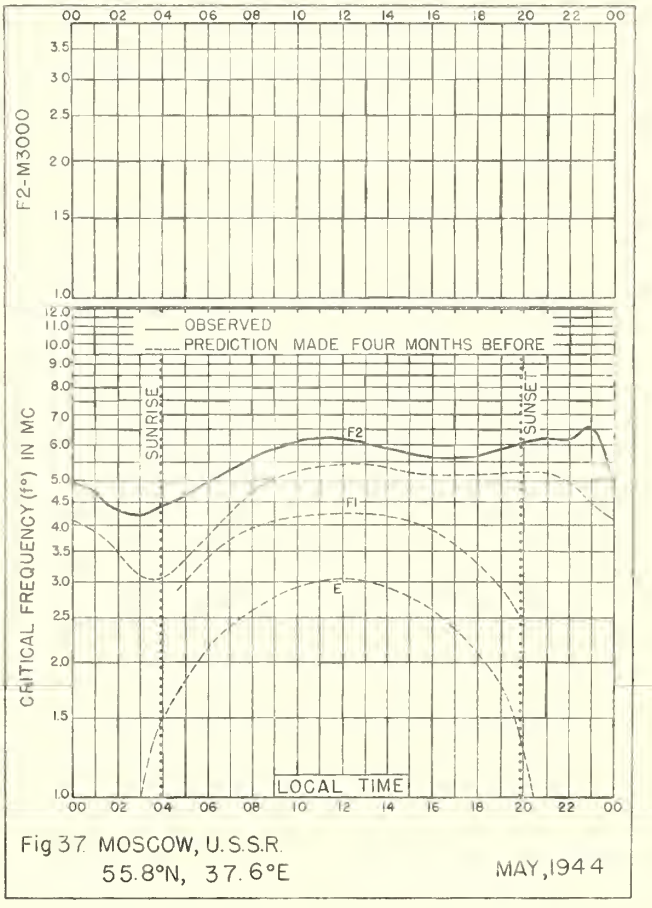

Fig 37 MOSCOW, U.S.S.R.
55.8°N, 37.6°E MAY, 1944

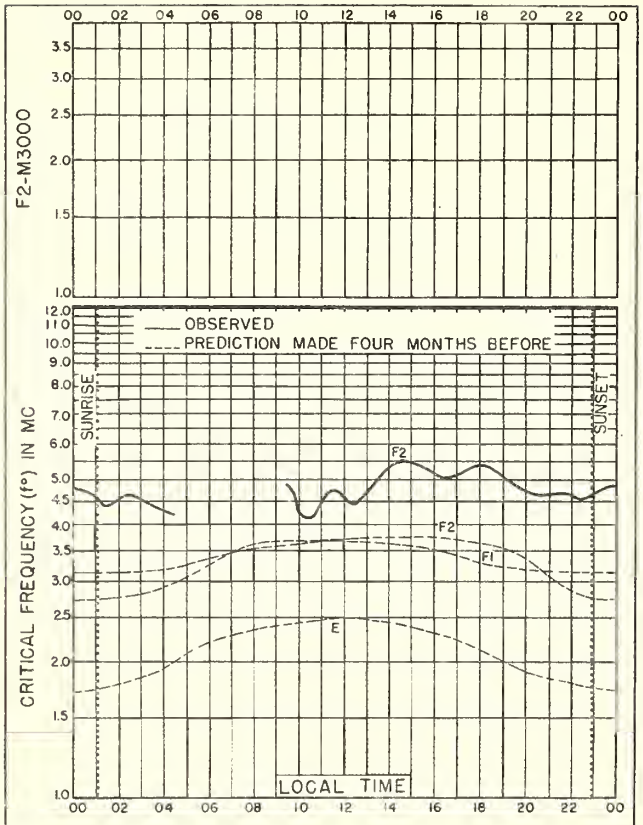

Fig. 38 TYKHI BAY, U.S.S.R.
80.3°N, 52.8°E APRIL, 1944

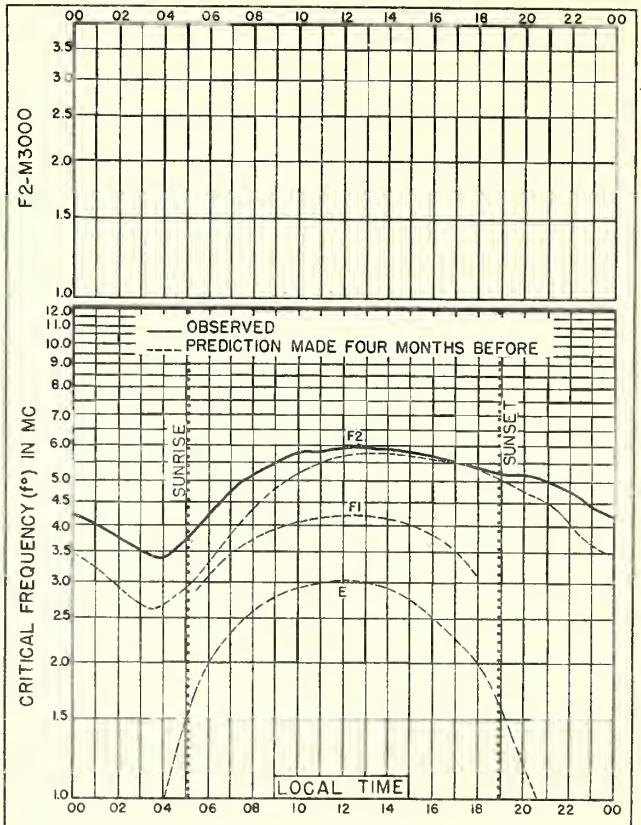

Fig. 39. MOSCOW, U.S.S.R.
55.8°N, 37.6°E APRIL, 1944

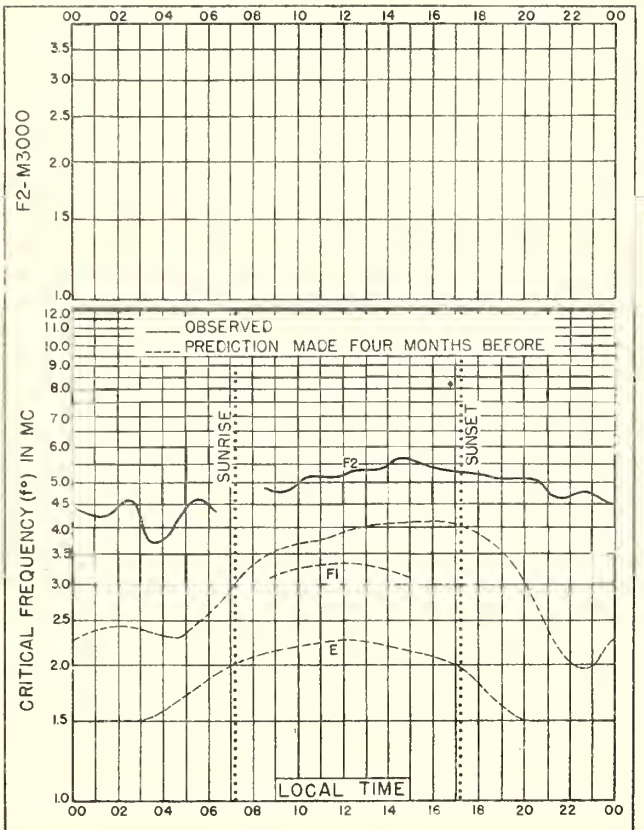

Fig. 40. TYKHI BAY, U.S.S.R.
80.3°N, 52.8°E MARCH, 1944

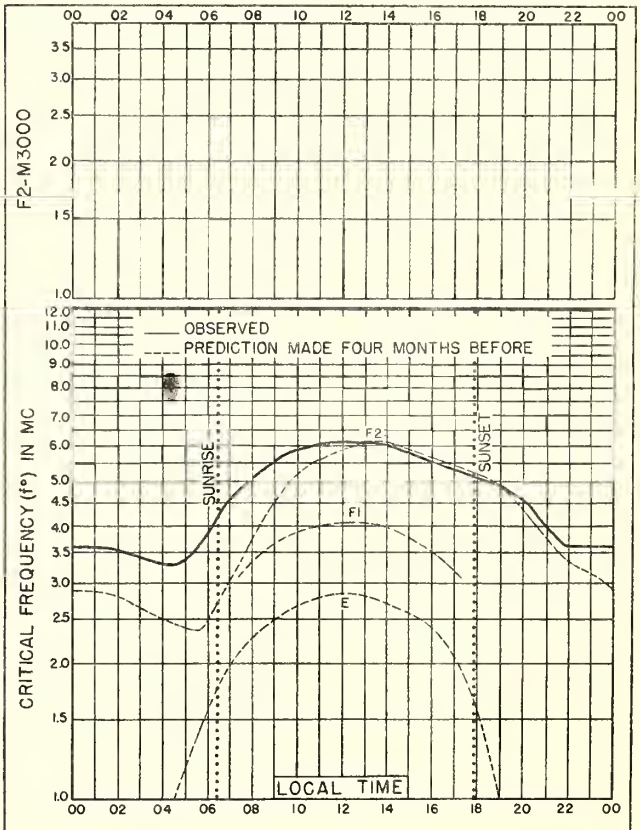

Fig. 41. MOSCOW, U.S.S.R.
55.8°N, 37.6°E MARCH, 1944

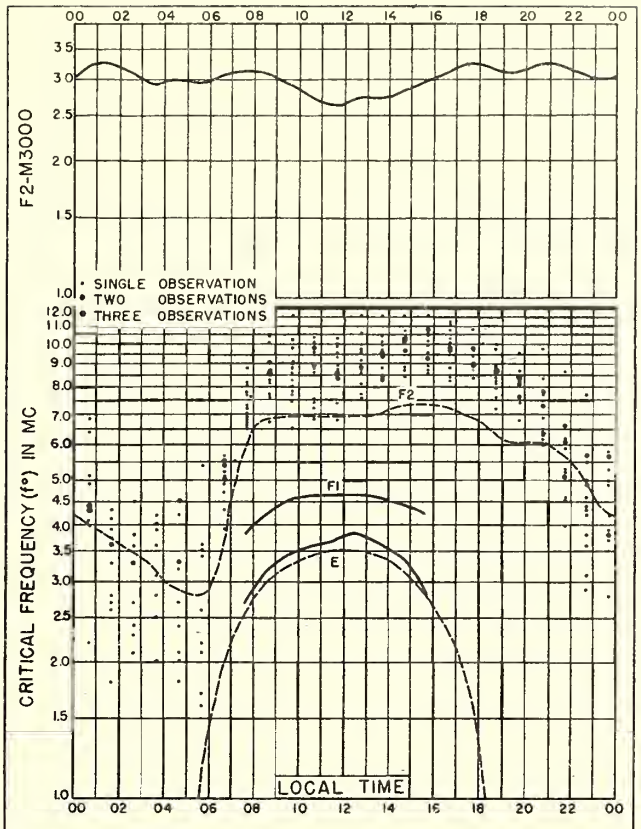

Fig. 42. GUAM I.
13.5°N, 144.8°E 17-31 DECEMBER, 1944

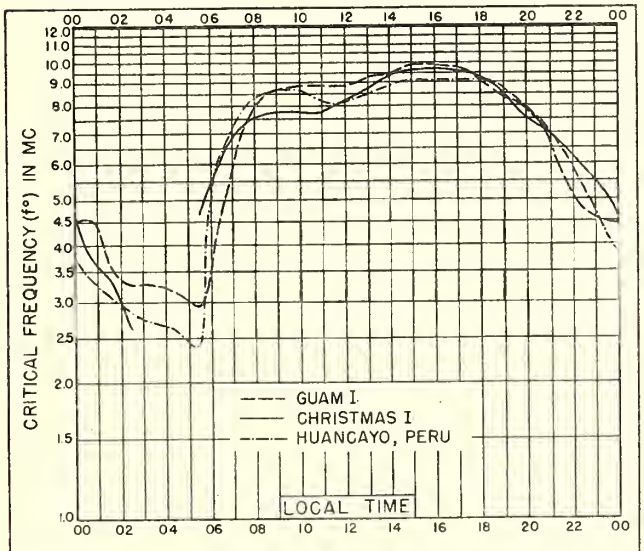

Fig. 43. COMPARISON OF f°F2 AT GUAM I (13.5°N, 144.8°E), CHRISTMAS I (2.0°N, 157.0°W), AND HUANCAYO, PERU (12.0°S, 75.3°W), DECEMBER, 1944.

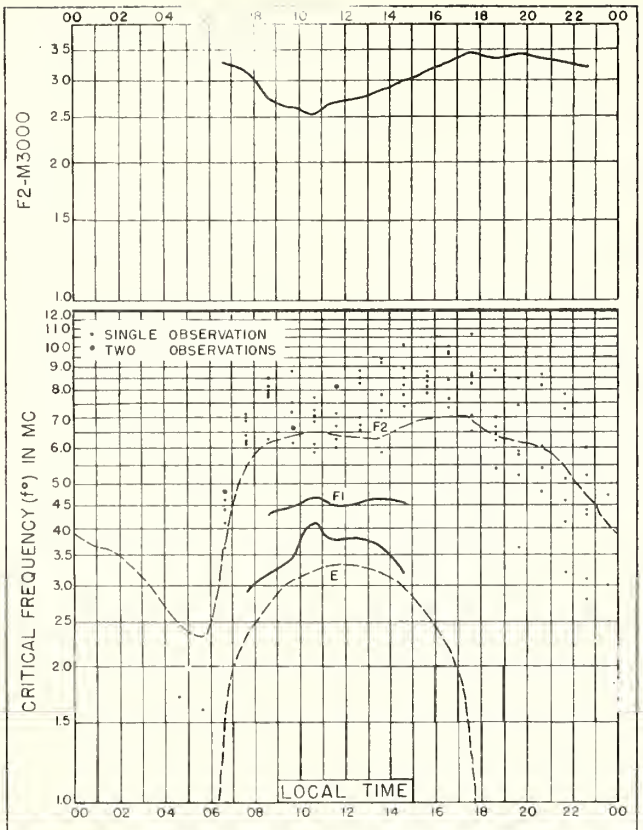

Fig 44 GUAM I
13.5°N, 144.8°E 1-6 JANUARY, 1945

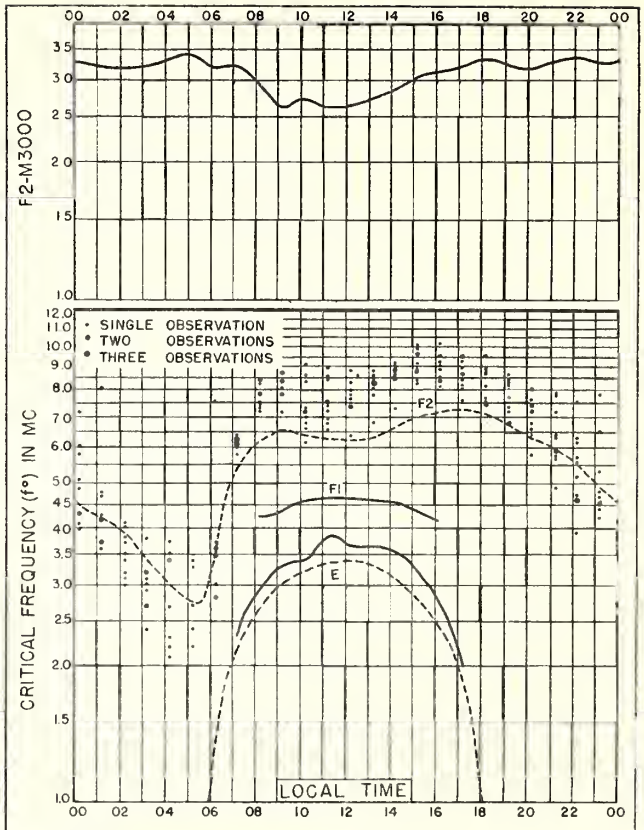

Fig. 45. KWAJALEIN ATOLL
9.0°N, 168.0°E 11-20 JANUARY, 1945

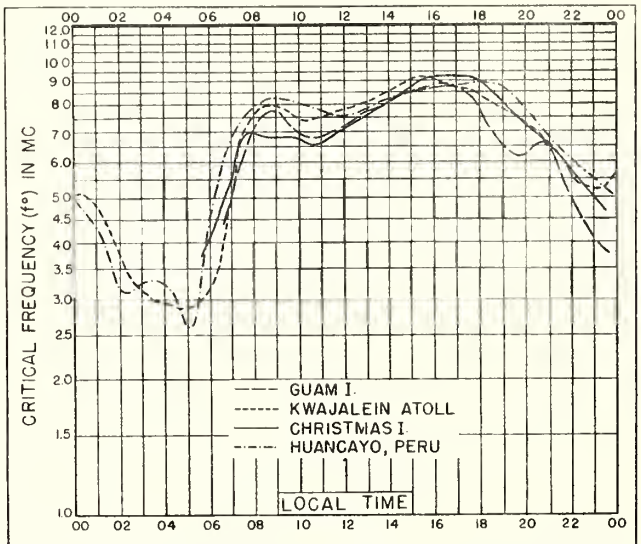

Fig. 46 COMPARISON OF $f^{\circ}F2$ AT GUAM I. (13.5°N, 144.8°E), KWAJALEIN ATOLL (9.0°N, 168.0°E), CHRISTMAS I. (2.0°N, 157.0°W), AND HUANCAYO, PERU (12.0°S, 75.3°W), JANUARY, 1945

IRPL REPORTS

Daily

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

Semiweekly

IRPL-J. Radio Propagation Forecast.

Monthly

IRPL-D. Basic Radio Propagation Predictions - Three months in advance.
IRPL-E. Discontinued.
IRPL-F. Ionospheric Data.

Bimonthly

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

Quarterly

IRPL-A. Recommended Frequency Bands for Ships and Aircraft in the Atlantic and Pacific.
IRPL-B. Recommended Frequency Bands for Submarines in the Pacific.
IRPL-K. Best Radio Frequencies for Aircraft and Ground Stations in the Atlantic.
IRPL-M. (WIMS Appendix N) Frequency Guide for Merchant Ships.

Semiannual

IRPL-H. Frequency Guide for Operating Personnel.

Special Reports, etc.

IRPL Radio Propagation Handbook, Part 1.
IRPL-C1 through C61. Reports and papers of the International Radio Propagation Conference, 17 April to 5 May 1944.
IRPL-R. Unscheduled reports.
- R1. Maximum Usable Frequency Graph Paper.
- R2 and R3. Obsolete.
- R4. Methods Used by IRPL for the Predictior of Ionosphere Characteristics and Maximum Usable Frequencies.
- R5. Criteria for Ionospheric Storminess.
- R6. Experimental studies of ionospheric propagation as applied to a navigation system.
- R7. Further studies of ionospheric propagation as applied to a navigation system.
- R8. The Prediction of Usable Frequencies over a Path of Short or Medium Length, Including the Effect of Es.
- R9. An Automatic Instantaneous Indicator of Skip Distance and MUF.

IRPL-T. Reports on Tropospheric Propagation.
- T1. Radio Operation and Weather. (Superseded by JANP 101).
- T2. Radio coverage and weather. (Superseded by JANP 102).