IONOSPHERIC DATA

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IRPL-F8 INTERSERVICE RADIO PROPAGATION LABORATORY
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IONOSPHERIC DATA

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 are 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 6.

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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, 5, and 6.

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
Cape York, Q., 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.
Rarotonga 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.
United States Army Air Forces, Pacific Ocean Area
Guam I.
Kwajalein Atoll
Harvard University, Boston, Mass.

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 $f^{o}F2$ is less than or equal to $f^{o}F1$, leading to erroneously high values of monthly average or median values.

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

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

IONOSPHERIC DATA FOR EVERY DAY AND HOUR

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

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 (see IRPL-C61, loc. cit.), 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 March, 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.

Table 59 presents sudden ionospheric disturbances, as observed at Washington, D.C., during March 1945.

NEW STATIONS

Stations for which data appear in this report for the first time are as follows:

A. Rarotonga I. (Cook Is.), 21.4°S, 159.6°W, operated by New Zealand Radio Research Committee. See Table 31 and Fig. 29.

B. Boston, Mass. (Lexington, Mass.), 42.4°N, 71.2°W, operated by Harvard University. See Table 21 and Figs. 9 and 10.

ERRATA

1. All the values reported for Moscow and Tykhi Bay in IRPL-F6 (Feb. 1945) as $f^{o}F2$ were actually $f^{x}F2$.

2. The provisional values of M-3000 reported for Baffin I. for the following months are in error and should be disregarded:

October, appearing in IRPL-F3 (Nov. 1944)
November, appearing in IRPL-F4 (Dec. 1944)
December, appearing in IRPL-F5 (Jan. 1945)
January, appearing in IRPL-F6 (Feb. 1945).

Corrected values will be reported as received.

Table 1 (Provisional data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	300	2.5						3.0
01	300	2.4						3.0
02	300	2.6						3.0
03	300	2.3						3.1
04	320	2.1						3.3
05	290	2.8						3.2
06	270	3.2						3.0
07	260	3.3	260	3.0				3.2
08	310	4.0	250	3.2				2.9
09	350	4.1	240	3.2	112	2.4		3.0
10	350	4.1	250	3.5	110	2.4		3.0
11	380	4.2	250	3.4	110	2.4		3.1
12	340	4.6	240	3.5	112	2.4		3.0
13	350	4.4	240	3.5	111	2.4		3.1
14	350	4.4	240	3.4	114	2.4		2.8
15	260	4.2	230	3.2				3.0
16	300	4.2	240	3.0				3.2
17	260	4.2						3.1
18	260	3.8						3.1
19	260	3.6						3.0
20	260	3.2						3.1
21	280	3.1						3.2
22	300	2.7						2.9
23	290	2.6						3.0

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

Table 2 (Provisional Data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	315	1.9						2.8
01	305	2.2						2.8
02	330	2.2						2.9
03	350	2.0						2.8
04	345	2.2						2.9
05	325	2.2						2.8
06	282	2.6				1.5		3.2
07	260	3.3				2.2		3.1
08	245	3.8				2.2		3.2
09	300	4.2	230	3.8		2.4		3.1
10	302	4.4	218	3.6		2.5		3.0
11	345	4.5	220	3.6		2.6		3.0
12	302	4.7	228	3.7		2.5		3.2
13	310	4.7	225	3.6		2.4		3.1
14	272	5.0	226	3.8		2.4		3.1
15	242	5.0	235	3.5		2.3		3.1
16	250	5.0	225	3.1		2.0		3.2
17	245	5.0				1.6		3.3
18	245	4.2				1.5		3.1
19	248	3.9				1.4		3.1
20	250	2.9				1.0		3.1
21	265	2.2						3.1
22	270	2.0						3.1
23	300	2.0						2.9

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

Table 3 (Provisional Data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02								
03								
04								
05								
06	270	2.6						3.2
07	230	3.4						3.3
08	220	3.9						3.2
09	210	4.5			111	2.5		3.3
10	210	4.3	200	3.8	111	2.6		3.3
11	240	5.1	200	3.7	113	2.4		3.1
12	280	5.3	220	3.6	113	2.6		3.3
13	250	5.5	200	3.8	111	2.6		3.2
14	250	5.7	200	3.8	113	2.4		3.3
15	240	5.4	210	3.6	110	2.4		3.3
16	240	4.9	230	3.4	110	2.4		3.4
17	230	5.0	230	3.0				3.4
18	230	4.6						3.4
19	230	4.6						3.2
20	240	4.3						3.2
21	230	4.5						3.2
22	240	3.6						3.1
23	280	3.0						3.1

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

Table 4 (Provisional Data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.4						3.1
01								
02		3.0						2.9
03								
04		3.2						2.8
05								
06		3.3						3.0
07		3.9						3.1
08		4.2						3.1
09		4.6						3.0
10		4.9						3.0
11		5.1						3.0
12		5.2						3.0
13		5.2						3.0
14		5.2						3.0
15		5.3						3.1
16		5.1						2.9
17		5.1						3.0
18		4.7						3.0
19		4.5						2.9
20		4.1						3.0
21		3.3						2.9
22		3.2						2.9
23		3.6						2.9

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

Table 5 (Provisional Data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.9						2.7
01		2.7						2.7
02		2.7						2.7
03		2.8						2.7
04		2.3						2.8
05		2.1						2.9
06		2.8						3.0
07		4.0						3.2
08		4.7						3.3
09		5.1						3.2
10		5.5						3.3
11		5.8						3.1
12		5.8						3.2
13		5.8						3.2
14		5.9						3.2
15		5.9						3.2
16		5.8						3.2
17		5.8						3.2
18		5.7						3.3
19		5.4						3.1
20		4.6						3.0
21		3.7						2.9
22		3.1						2.8
23		3.0						2.7

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

Table 7 (Provisional Data)

Christmas I. (2.0°N, 157°W.) March, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	240	8.2						3.4
01								
02								
03								
04								
05								
06	250	2.5						3.2
07	240	5.9			120	2.4		3.3
08	230	7.7						3.0
09	305	8.0	220	4.4	115	3.0		2.7
10	320	7.5	210	4.8				2.7
11	340	7.3	200	4.7				2.7
12	340	7.8	200	4.8				2.8
13	330	8.4	200	4.8				2.6
14	320	9.3	200	4.7				2.7
15	300	10.0	195	4.8				2.8
16	300	10.8	210	4.2				3.0
17	265	10.8	230		110			3.1
18	245	10.8						3.2
19	250	10.8						3.0
20	250	10.2						3.0
21	240	9.2						3.2
22	240	9.0						3.1
23	240	8.8						3.2

Time: 150°W.
Length of time sweep: Manual operation.
Median values.

Table 8 (Provisional Data)

Maui, Hawaii (20.8°N, 158.5°W) March, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	260	3.8						3.1
01	240	3.8						3.2
02	240	3.8						3.4
03	220	3.4						3.4
04	220	2.5						3.4
05	260	2.3						3.0
06	300	2.4						3.0
07	230	5.0						3.5
08	220	8.4	220		120	2.5		3.3
09	260	7.7	200	4.6	110	2.9		3.1
10	300	8.6	200	4.7	110	3.2		3.0
11	300	9.8	200	4.7	110	3.4		2.9
12	320	11.2	200	4.7	110	3.4		2.9
13	290	12.8	200	4.8	110	3.4		3.1
14	280	13.0	200	4.7	110	3.4		3.0
15	280	12.8	200	4.8	110	3.2		3.2
16	240	10.8	200	4.3	110	3.0		3.4
17	230	9.0	200	3.8	110	2.8		3.4
18	220	7.8						3.4
19	220	8.0						3.4
20	220	4.7						3.3
21	250	4.2						3.1
22	270	3.8						2.9
23	280	3.8						3.1

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

Table 8 (Provisional Data)

Huancayo, Peru (12°S, 75.3°W) March, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		8.2						3.2
01		7.0						3.2
02		5.5						3.2
03		4.3						3.3
04		3.2						3.3
05		2.2						3.2
06		4.1						3.2
07		7.1						3.3
08		8.3						3.1
09		9.0						2.8
10		8.8						2.6
11		8.4						2.6
12		8.4						2.6
13		8.8						2.6
14		8.8						2.7
15		9.2						2.6
16		9.8						2.6
17		9.4						2.6
18		9.2						2.6
19		8.8						2.7
20		8.4						2.8
21		8.5						2.9
22		8.5						3.0
23		8.4						3.1

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

Table 9 (Provisional Data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.5						3.1
01		3.4						3.0
02		3.3						3.0
03		3.3						3.1
04		3.3						3.1
05		3.2						3.1
06		2.9						3.1
07		4.1						3.2
08		5.8						3.2
09		6.7						3.1
10		7.1						3.1
11		7.5						3.0
12		8.1						3.0
13		8.5						2.9
14		8.5						3.0
15		8.5						3.0
16		8.4						3.0
17		8.0						3.1
18		7.5						3.2
19		6.7						3.2
20		5.3						3.2
21		4.2						3.1
22		4.0						3.1
23		3.6						3.1

Time: 15°E.
Length of time sweep: 2 Mc to 16 Mc in fifteen minutes.
Mean values.

Table 10 (Provisional Data)

Christchurch, N.Z. (43.5°S, 172.6°E) March, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	269	4.00						
01	258	3.69						
02	253	3.36						
03	251	3.02						
04	250	2.65						
05	256	2.34						
06	242	3.12						
07	239	4.49	214	3.41	93	2.13		
08	275	5.31	211	3.76	95	2.59		
09	281	5.80	206	4.06	95	2.75		
10	275	6.35	212	4.29	95	2.89		
11	281	6.35	213	4.39	93	3.10		
12	299	6.55	211	4.43	97	3.13		
13	289	6.61	213	4.40	95	3.11		
14	283	6.80	221	4.35	97	3.05		
15	278	6.40	222	4.14	98	2.90		
16	270	6.29	226	3.84	98	2.62		
17	247	6.22	228	3.46	99	2.23		
18	233	6.16			96	1.78		
19	237	6.33						
20	245	5.79						
21	255	5.34						
22	259	4.80						
23	263	4.22						

Time: 172.5°E.
Length of time sweep: 2.5 Mc to 12 Mc in two minutes.
Mean values.

Table 11 (Provisional Data)

Burghead, Scotland (57.7°N, 3.5°W) February, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.4						
01		2.3						
02		2.3						
03		2.1						
04		2.0						
05		1.9						
06		1.9						
07		2.4						
08		3.9						
09		4.8						
10		5.5						
11		5.6						
12		6.0						
13		6.2						
14		6.0						
15		5.8						
16		5.5						
17		5.3						
18		4.8						
19		4.3						
20		3.4						
21		2.9						
22		2.6						
23		2.5						

Time: 0°
Mean values.

Table 12 (Provisional Data)

Delhi, India (28.6°N, 77.2°E) February, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.7						
01		2.9						
02		2.8						
03		2.8						
04		2.7						
05		2.5						
06		2.7						
07		3.2						
08		6.5						
09		7.4						
10		7.9						
11		8.2						
12		8.2						
13		8.6						
14		8.8						
15		8.4						
16		7.7						
17		7.5						
18		6.9						
19		5.1						
20		3.9						
21		3.3						
22		2.9						
23		2.8						

Time: 75°E.
Mean values.

Table 13 (Provisional Data)

Cape York, Q., Australia (11.0°S, 142.4°E) February, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		7.4						3.2
01		6.7						3.4
02		5.7						3.3
03		4.8						3.3
04		3.8						3.5
05		2.9						3.3
06		3.3						3.3
07		5.3						3.4
08		6.3						3.2
09		7.3						3.1
10		8.3						2.9
11		9.3						2.9
12		9.4						3.9
13		11.1						3.1
14		11.4						3.3
15		11.1						3.3
16		10.4						3.2
17		9.5						3.1
18		8.6						3.1
19		8.0						2.9
20		7.9						2.9
21		7.8						2.9
22		7.5						3.0
23		7.5						3.1

Time: 150°E.
Mean values.

Table 14 (Provisional Data)

Watheroo, W. Australia (30.3°S, 115.9°E) February, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	263	4.09						2.9
01	258	4.03						2.9
02	247	3.73						3.0
03	246	3.46						3.0
04	248	3.19						3.0
05	247	2.93						3.0
06	245	3.83				1.52		3.2
07	259	4.83				2.21		3.3
08	319	5.24	221	4.02		2.73		3.1
09	345	5.53	213	4.26		3.03		3.0
10	350	5.79	212	4.38		3.18		3.0
11	352	6.15	202	4.43		3.28		3.0
12	334	6.66	213	4.47		3.31		3.0
13	320	6.91	213	4.45		3.30		3.0
14	321	7.06	217	4.42		3.27		3.0
15	307	7.17	222	4.30		3.16		3.0
16	288	7.03	220	4.12		2.93		3.2
17	278	6.59	217	3.80		2.58		3.2
18	252	6.32				1.94		3.2
19	230	5.97						3.2
20	233	5.40						3.0
21	244	4.73						3.0
22	257	4.34						2.9
23	265	4.20						2.9

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

Table 15 (Provisional Data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	304	4.27						
01	289	4.21						
02	277	4.01						
03	272	3.62						
04	265	3.19						
05	269	2.89						
06	255	4.03						
07	279	4.69	234	3.44	115	2.37		
08	300	5.13	227	3.83	111	2.70		
09	325	5.44	215	3.98	104	2.99		
10	335	5.78	211	4.11	101	3.14		
11	345	6.02	213	4.30	102	3.28		
12	343	6.09	209	4.37	102	3.36		
13	339	6.32	209	4.35	102	3.33		
14	330	6.42	211	4.27	102	3.22		
15	309	6.45	210	4.17	103	3.09		
16	296	6.43	213	4.00	103	2.93		
17	283	6.20	218	3.65	104	2.59		
18	265	5.93	229	3.20	116	2.16		
19	254	5.83						
20	259	5.44						
21	268	5.02						
22	281	4.60						
23	295	4.46						

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

Table 16 (Provisional Data)

Slough, England (51.5°N, 0.6°W) January, 1946

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		2.75						
01		2.78						
02		2.72						
03		2.50						
04		2.38						
05		2.29						
06		2.11						
07		2.17						
08		4.12						
09		5.48						
10		5.99						
11		6.37						
12		6.37						
13		6.24						
14		6.13						
15		5.60						
16		5.19						
17		4.43						
18		3.40						
19		2.87						
20		2.63						
21		2.77						
22		2.75						
23		2.86						

Time: Local
Mean values.

Table 17

Ottawa, Canada (45.5°N, 75.8°W) March, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	320	2.9						2.8
01	350	2.8					2.8	2.8
02		2.5					3.0	2.7
03		2.5					2.9	2.8
04		2.4					3.0	2.7
05		2.3					3.0	2.6
06	280	3.1						3.0
07	240	4.0	240	3.4	125	2.4		3.2
08	250	4.8	220	4.0	130	2.5	3.6	3.2
09	280	5.2	220	4.0	120	2.7	4.2	3.1
10	290	5.5	200	4.1	120	2.9	4.4	3.1
11	300	5.7	210	4.2	120	3.0	4.6	3.1
12	310	5.8	200	4.3	120	3.0	4.8	3.0
13	305	6.0	210	4.3	120	3.0	4.0	3.1
14	300	6.0	210	4.2	120	3.0		3.1
15	290	6.0	220	4.1	120	2.9		3.1
16	280	6.0	230	3.8	120	2.6		3.1
17	260	6.0	240	3.3	130	2.4		3.1
18	240	5.9						3.1
19	240	5.5						3.0
20	250	4.6						3.0
21	260	4.0						2.9
22	280	3.7						2.8
23	290	3.0						2.8

Time: 75°W
Length of Time Sweep: 1.93 Mc to 13.5 Mc Manual operation.
Median values.

Table 18

Boston, Mass. (42.4°N, 71.2°W) March, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	2.6						3.2
01	260	2.3						3.2
02	265	1.9					1.1	3.2
03	275	1.9					1.1	3.2
04	270	1.9					1.1	3.2
05	265	1.9						3.3
06	250	3.1			130	1.8		3.6
07	240	4.5	230	2.3	125	2.1		3.7
08	250	4.8	222	3.8	120	2.5		3.6
09	300	5.3	225	4.0	120	2.7		3.5
10	305	5.6	220	4.1	120	2.8		3.5
11	310	5.8	222	4.3	120	2.9		3.4
12	305	6.0	230	4.2	120	3.0		3.4
13	310	6.1	228	4.2	120	3.0		3.4
14	300	6.2	230	4.0	120	2.8		3.5
15	300	6.2	232	3.8	120	2.7		3.4
16	270	6.0	240	3.5	120	2.4		3.5
17	250	5.8	250		130	2.0		3.5
18	240	5.7			130	1.2		3.5
19	235	5.2			120			3.4
20	245	4.3						3.3
21	255	3.7						3.2
22	265	3.2						3.2
23	270	2.9						3.2

Time: 75°W.
Median values.

Table 19

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	280	2.9						2.9
01	280	2.6						2.9
02	280	2.6						2.9
03	280	2.4						3.0
04	260	2.2						3.0
05	270	2.2						3.0
06	260	2.5						3.1
07	240	4.4			120	2.0	2.3	3.3
08	260	5.0	225	3.6	120	2.4	3.1	3.3
09	280	5.4	220	4.0	120	2.8	3.0	3.2
10	300	5.6	220	4.2	120	3.0		3.1
11	310	5.9	220	4.3	120	3.2		3.1
12	300	6.3	220	4.3	120	3.3		3.0
13	300	6.3	230	4.3	120	3.2		3.1
14	300	6.4	220	4.2	120	3.2		3.1
15	300	6.5	230	4.1	120	3.0		3.1
16	280	6.2	235	3.8	120	2.7	2.8	3.1
17	260	6.2	240	3.4	120	2.2		3.2
18	240	6.0			140	1.8		3.2
19	240	5.4						3.1
20	240	4.6						3.0
21	260	3.9						3.0
22	270	3.5						3.0
23	280	3.2						2.9

Time: 75°W.
Length of time sweep: 0.8 Mc to 14 Mc in two minutes.
Median values.

Table 20

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	270	3.2						3.0
01	270	3.3						3.0
02	280	3.2						3.0
03	270	3.3						3.0
04	270	3.3						3.1
05	265	3.3						3.0
06	260	3.3						3.1
07	250	4.9	245	2.8	120	2.0	2.7	3.3
08	250	5.9	230	3.7	120	2.4	3.3	3.3
09	270	6.6	220	3.9	120	2.7	3.4	3.2
10	280	6.8	215	4.1	120	3.0	3.7	3.2
11	300	7.3	200	4.2	120	3.2	3.5	3.0
12	300	7.4	220	4.3	120	3.3		3.1
13	290	7.5	220	4.2	120	3.3		3.2
14	280	7.4	220	4.2	120	3.2		3.2
15	280	7.0	240	4.0	120	3.0	3.4	3.2
16	265	6.7	240	3.8	120	2.7	3.3	3.3
17	250	6.4	240	3.2	120	2.3	2.7	3.3
18	235	6.2					2.6	3.4
19	230	4.7						3.2
20	240	3.9						3.2
21	260	3.5					2.4	3.1
22	260	3.3					1.9	3.1
23	260	3.3						3.1

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

Table 21

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	295	3.4						2.9
01	290	3.4						2.9
02	290	3.4						3.0
03	280	3.3						3.0
04	280	3.2						3.0
05	295	3.1						2.9
06	270	3.4						3.1
07	250	5.3			130	2.1		3.3
08	280	6.0	240	3.7	130	2.5		3.3
09	290	6.2	230	4.3	120	2.8		3.1
10	300	6.5	220	4.5	120	3.1		3.1
11	310	7.0	220	4.5	120	3.2		3.0
12	300	7.6	240	4.5	120	3.2		3.0
13	300	8.0	240	4.6	120	3.2		3.1
14	300	7.8	240	4.5	120	3.2		3.0
15	290	7.7	240	4.4	120	3.1		3.1
16	280	7.4	250	3.9	120	2.8		3.1
17	250	7.3			130	2.2		3.2
18	240	6.6						3.3
19	240	5.0						3.2
20	250	4.0						3.1
21	290	3.5						2.9
22	300	3.5						2.9
23	300	3.5						2.9

Time: 90°W.
Length of time sweep: 1.9 Mc to 9.8 in three minutes thirty seconds.
Median values.

Table 22

San Juan, Puerto Rico (18.4°N, 66.1°W) March, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00		3.7						2.9
01		3.8						2.9
02		4.0						3.0
03		4.0						3.0
04		3.8						3.2
05		3.1						3.2
06		3.2						3.1
07	285	4.7						3.2
08	290	6.0		3.5				3.1
09	310	6.4	250	4.2		3.1		3.1
10	310	7.1	250	4.4		3.3		3.1
11	300	8.7	240	4.5		3.4		3.0
12	300	9.0	250	4.6		3.4		2.9
13	300	9.2	250	4.6		3.4		3.0
14	300	9.2	250	4.5		3.4		3.0
15	290	8.8	250	4.4		3.2		3.0
16	290	8.3	250	4.2			4.2	3.1
17	270	8.2	250	3.7				3.1
18	275	7.0						3.2
19	280	6.2						3.1
20		5.1						3.0
21		4.3						2.9
22		4.2						2.8
23		4.0						2.8

Time: 60°W.
Length of time sweep: 2.7 Mc to 11.4 Mc in twelve minutes. Record centered on the hour.
Median values.

Table 23

(Additional corrections to previously published provisional data)

Fairbanks, Alaska (64.9°N, 147.8°W.) February, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00							3.6	2.9
01	315						3.5	
02	335						3.6	
03	332						3.8	
04	335						3.5	
05	338						3.2	
06	368						3.1	
07							3.1	
08							2.4	
09			-	-			2.1	
10	245		215				2.8	
11		5.1	222				2.5	
12		5.4					2.3	
13	235							
14								
15								
16								
17						-	1.6	
18							2.9	
19	235						3.0	
20	278						3.0	
21							3.0	
22	295						3.2	
23	305						3.2	

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

Table 24

(Corrections and additions to previously published provisional data)

Reykjavik, Iceland (64.1°N, 21.7°W.) February, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00							3.4	
01							3.4	
02							3.5	
03							3.4	
04								
05								
06	-	-						-
07	-	-						-
08								3.3
09								
10								3.5
11			-	-	-	-		3.5
12			-	-	-	-		3.4
13	215		-	-				
14				-	-	-		
15								3.4
16								
17								3.3
18		4.4						3.3
19		2.9						-
20	-	-					3.0	-
21							3.6	
22	-	-					2.4	-
23							4.2	

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

Table 25

(Additions and corrections to previously published provisional data)

Churchill, Canada (58.5°N, 94.2°W) February, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	330						5.8	3.2
01	290	3.6					4.0	
02	290	3.0					3.8	
03	310	3.3					3.6	
04							3.6	
05							3.7	
06							4.6	
07	310	2.9					4.1	
08	275						3.8	
09	290	4.3	240	3.1	120	2.7		
10	275	4.8	230	3.3	120	2.9		
11	290		235	3.4	110	2.7		3.3
12	290		250	3.6	120	2.8		
13	285		240	3.8	120	2.7		
14	280	5.8	230	3.6	125	2.8		
15	265	6.0	230	3.5	125	2.7		
16	250		240	3.1	130	2.6		
17	240				120	2.8		
18	250				130	2.7	2.8	
19	280						3.8	
20	290	3.6					4.0	
21	300						4.2	
22	300	3.6					4.8	
23	320	3.6					5.6	

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

Table 26

(Additions and corrections to previously published provisional data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02		3.1						
03								
04		2.8						
05		2.4						
06								
07		3.0						
08		5.0				1.8		
09		5.7		3.0		2.2		
10				3.6		2.4		
11		6.4		3.7		2.6		
12				3.8		2.7		
13		5.3		3.7		2.6		
14				3.5		2.5		
15		6.1		3.4		2.3		
16						2.0		
17		5.6						
18		4.8						
19		4.1						
20		3.4						
21		3.2						
22		3.1						
23		3.1						

Time: 0°
Length of time sweep: Manual operation.
Mean values of M-3000.
Median values f°F2, f°F1, f°E, Es.
Slough, England (51.5°N, 0.6°W).
Noon f°F2 = 6.5 Mc.
Median value.

Table 27

(Additions and corrections to previously published provisional data)

Maui, Hawaii (20.9°N, 156.5°W) February, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01	260							
02	245	3.3						
03	240							3.5
04	220							3.5
05								
06								
07								
08						2.4		
09					110			
10					105			
11								
12			195		105			
13	285				105		4.4	
14					105		4.7	
15					105		4.8	
16	235	10.6					4.3	
17						2.5	3.5	
18		7.2						
19	205	5.0						
20		3.8						3.3
21								
22								
23								

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

Table 28

Trinidad, Brit. West Indies (10.6°N, 61.2° W) February, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	290	3.3						
01	270	3.1						
02	240	3.4						
03	220	3.8						3.4
04	280	2.8						3.2
05	292	2.5						3.0
06	270	2.8						3.1
07	240	5.2				1.9		3.3
08	250	6.0			105	2.6		3.3
09	298	6.9	235	4.4	105	3.0		3.2
10	298	8.1	230	4.6	108	3.2		3.2
11	300	8.0	215	4.7	108	3.4		3.1
12	300	8.2	218	4.7	105	3.5		3.0
13	305	8.7	245	4.7	105	3.4		3.0
14	300	8.5	260	4.7	108	3.3		2.9
15	305	8.4	250	4.5	105	3.2		3.0
16	300	9.3	250	4.3	100	3.0		3.0
17	265	9.9			108	2.5	3.3	3.2
18	245	9.0					3.2	3.2
19	220	7.3					2.6	3.2
20	220	4.9						3.2
21	270	3.6						3.0
22	300	3.0						2.9
23	300	3.6						2.9

Time: 60°W.
Length of time sweep: 2 Mc to 16 Mc in one minute.
Median values.

Table 29

Christmas I (2.0°N, 157.0°W) February, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	250	5.6						3.4
01								
02								
03								
04								
05								
06	250							3.3
07	250	5.2					2.4	3.3
08	230	7.1	230				3.4	3.0
09	320	7.6	210	4.4			4.3	2.6
10	350	7.3	205	4.6			4.7	2.5
11	350	7.2	202	4.6			5.0	2.6
12	360	7.3	200	4.7			5.4	2.6
13	360	7.6	190	4.7			5.6	2.6
14	330	8.3	190	4.6			5.0	2.8
15	330	8.4	190	4.5			4.6	2.7
16	310	9.6	190				4.6	2.9
17	260	10.2	230				3.6	3.0
18	250	10.1					3.0	3.1
19	245	9.6					1.8	3.2
20	245	9.0					2.2	3.2
21	240	8.4					2.4	3.2
22	245	7.4					2.4	3.3
23	240	6.4					2.4	3.3

Time: 150°W.
Length of time sweep: Manual Operation.
Median values.

Table 30

(Additions and corrections to previously published provisional data)

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

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								3.0
01								3.2
02								3.1
03								3.2
04								3.3
05	255							3.3
06							2.5	
07							3.2	
08							5.2	
09							5.5	
10							5.5	2.6
11						-	5.5	2.6
12						-	5.5	2.6
13							5.5	
14							5.5	
15							5.5	
16							5.5	2.7
17							4.5	2.6
18							2.6	
19								
20								2.8
21	295							
22								
23								3.0

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

Table 31

Rarotonga I. (21.4°S, 159.6°W) February, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02								
03								
04								
05	305	3.94						
06								
07	261	6.63		3.57		2.48		
08								
09	308	8.40		4.61		3.16		
10								
11	340	10.20		4.76		3.39		
12								
13	313	12.30		4.76		3.47		
14								
15	299	11.20		4.60		3.29		
16								
17	293	9.71		4.11		2.89		
18								
19	261	8.23						
20	279	7.17						
21								
22								
23								

Time: 160°W.
Mean values.

Table 32

Pitcairn I. (25.0°S, 130°W) February, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01	231	5.55						
02								
03								
04	279	3.87						
05								
06	246	7.26						
07								
08	296	8.02	219	4.72				
09								
10	312	10.50	198	4.61				
11								
12	281	10.50	215	4.64				
13								
14	268	9.92	223	4.43				
15								
16								
17								
18	267	6.47						
19								
20								
21	302	6.15						
22								
23								

Time: 150°W.
Length of time sweep: Manual operation.
Mean values.

Table 33

(Corrections to previously published provisional data)

Kermadec Is. (29.2°S, 177.9°W) February, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
0010								
01								
02								
0310								
04								
05		3.84						
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16		7.22						
17								
18								
1850								
20								
21								
22								
23								

Time: Local.
Length of time sweep: 1.8 Mc to 12.8 Mc. Manual operation.
Mean values.

Table 34

Campbell I. (52.5°S, 169.0°E) February, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01								
02								
03								
04								
05	232	3.62						
06								
07	261	4.64	214	3.63	103	2.75		
08								
09	348	5.19	218	4.01	101	3.04		
10								
11	345	4.98	199	4.25	102	3.09		
12	319	5.49	205	4.33	100	3.30		
13			208	4.36	100	3.14		
14								
15	300	5.31	206	4.09	103	2.96		
16								
17	264	5.66	202	3.66	106	2.52		
18								
19	223	6.03						
20								
21	239	4.89						
22								
23								

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

Table 35

(Corrections and additions to previously published provisional data)

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							3.5	
01							3.4	
02							3.8	
03							3.1	
04	-	-						-
05	-	-						-
06	-	-						-
07	-	-						-
08	265	-						-
09	225	2.6						
10								3.5
11								3.6
12		5.8						
13		5.6						3.6
14		5.4						
15								3.5
16								3.4
17		4.0						
18	215	-						3.3
19	-	-					3.3	-
20	-	-					3.4	-
21	-	-					3.5	-
22	-	-					3.5	-
23							3.4	

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

Table 36

(Corrections to previously published provisional data)

Burghead, Scotland (57.7°N, 3.5°W) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01		2.2						
02		2.2						
03		2.0						
04		2.2						
05		2.0						
06		1.8						
07								
08		2.9						
09		4.4						
10		5.2						
11		5.9						
12								
13		6.3						
14		6.1						
15								
16								
17		4.3						
18		3.0						
19		2.6						
20		2.4						
21		2.3						
22								
23		2.1						

Time: 0°
Median values.

Table 37

(Additions and corrections to previously puolished provisional data)

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		2.99						
01		2.99						
02		2.93						
03		2.85						
04		2.45						
05		2.18						
06		1.94						
07		2.14						
08		4.44				1.60		
09		5.75				2.00		
10		6.14		3.1		2.25		
11		6.54		3.3		2.40		
12		6.69		3.5		2.50		
13		6.33		3.4		2.40		
14		6.30		3.4		2.20		
15		5.82				2.00		
16		5.26				1.70		
17		4.51						
18		3.50						
19		2.74						
20		2.63						
21		2.72						
22		2.80						
23		2.72						

Time: 0°
Length of time sweep: Manual operation.
Median values $f^{o}F2$, $f^{o}F1$, $f^{o}E$.
Mean values F2-M3000.
Slough, England (51.5°N, 0.6°W)
noon $f^{o}F2$ = 6.5
Median values.

Table 38

(Additions and corrections to previously published provisional data)

Trinidad, Brit. West Indies (10.6°N, 61.3°W) January, 1945

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								
09								
10								
11								
12								
13								
14								
15								
16								
17							3.1	
18						-	2.8	
19						-	3.0	
20							2.6	
21								
22								
23	305							

Time: 60°W.
Length of time sweep: 2 Mc to 16 Mc in one minute.
Median values.

Table 39

(Additions and corrections to previously published provisional data).

Christmas I. (2.0°N, 157.3°W) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								3.4
01								
02								
03								
04								
05								
06	-	-						-
07	245						2.4	
08	228			-	-	-	3.4	2.9
09					-		4.1	
10	355						4.6	2.6
11							4.9	2.6
12							5.4	
13							5.0	
14					-	-	4.6	
15			182		-	-	3.9	
16			212		-	-	3.5	
17					-		3.2	
18	245				-		2.6	3.2
19		8.3						
20								
21	250							3.2
22								
23								3.4

Time: 150°W.
Length of time sweep: Manual operation.
Median values.

Table 40

Cape York, Q., Australia (11.0°S, 142.4°E) January, 1945

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	243	6.57						3.15
01	232	6.17						3.19
02	238	5.60						3.22
03	239	4.98						3.21
04	229	4.21						3.35
05	243	3.31						3.24
06	249	3.21						3.26
07	229	4.94	203		106	2.05		3.39
08	296	5.90	214	4.10	97	2.65		3.30
09	350	6.29	208	4.38	96	3.05		2.99
10	583	7.39	198	4.52	96	3.37		2.77
11	380	8.63	196	4.66	96	3.49		2.77
12	372	9.49	191	4.76	95	3.55		2.82
13	344	10.47	187	4.61	95	3.54		2.94
14	286	11.48	187	4.60	96	3.52		3.16
15	276	10.33	196	4.58	93	3.38		3.17
16	283	8.62	206	4.42	93	3.18		3.07
17	295	7.79	211	4.12	93	2.88		3.05
18	265	6.84	220		100	2.37		2.96
19	256	6.62						2.84
20	289	6.96						2.84
21	281	7.22						2.93
22	262	7.22						3.05
23	241	6.99						3.13

Time: 150°E.
Mean values.

Table 41

(Corrections to previously published provisional data).

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								
01								
02								
03								3.0
04		3.2						
05								
06		3.9						3.0
07								3.2
08								
09		6.1						
10								
11								2.8
12								
13		7.7						
14		7.9						2.9
15		8.1						
16		7.6						
17		6.7						
18								
19		6.5						
20								
21		5.2						
22								
23		3.9						3.0

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

Table 42

(Additions and corrections to previously published provisional data).

Trinidad, Brit. West Indies (10.6°N, 61.3°W) December, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00								
01							2.7	
02							2.7	
03								
04								
05								3.1
06								
07					-			
08								
09				4.35				
10			227					
11								
12						3.36		
13								
14								
15								
16								
17							3.4	
18							3.7	
19							3.4	
20							3.4	3.1
21							2.7	
22							2.5	
23								

Time: 60°W.
Length of time sweep: 2 Mc to 16 Mc in one minute.
Mean values.

Table 43

(Additions and corrections ro previously published provisional data)

Christmas I. (2.0°N, 157.0°W) 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					-	-	2.8	
08			-	-			4.0	
09	314				-	-	4.5	
10							5.2	
11							5.4	
12					-		5.2	
13						3.55	5.0	
14							4.5	
15							4.4	2.8
16	295						4.5	
17						-	3.2	
18					-	-	2.8	
19	245						2.3	
20	242						1.9	
21								
22	249							3.2
23								

Time: 150°W.
Length of time sweep: Manual operation.
Mean values.

Table 44

Cape York (11.0°S, 142.4°E) December, 1944

Time	h'F2	f°F2	h'F1	f°F1	h'E	f°E	fEs	F2-M3000
00	252	7.67						
01	260	6.81						
02	247	6.64						3.1
03	242	6.14						
04	240	5.82						
05	246	4.36						
06	250	4.40						3.3
07	225	5.75			98	2.28		3.5
08	250	5.88	216		97	2.86		3.2
09	322	6.59	222	4.37	98	3.17		
10	354	7.15	201	4.66	97	3.40		
11	366	7.64	197	4.71	97	3.56		
12	364	8.77	207	4.82	98	3.58		2.7
13	342	9.98	208	4.71	96	3.59		
14	304	10.59	191	4.68	97	3.48		
15	300	10.29	198	4.66	98	3.34		
16	297	9.36		4.49	96	3.12		
17	298	9.03	203		96	2.74		
18	267	8.48						
19	272	8.26						
20	288	8.38						2.8
21	272	8.65						
22	246	8.65						
23	248	7.86						

Time: 150°E.
Mean values.

TABLE 45

IONOSPHERE DATA—1

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $h'F2$ in [mc / km] for March (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	(240)	260	280	280	260	240	240	230	220	240	260	260	300	280	280	280	260	240	220	240	220	260	280	280
2	280	300	280	280	280	260	260	220	230	220	240	280	280	280	280	260	260	240	220	230	240	260	260	260
3	260	280	260	240	260	260	260	240	200	320	300	300	280	320	300	280	260	240	230	240	220	260	260	260
4	(280)	260	280	280	(260)	260	260	240	220	260	300	280	300	310	300	270	260	240	220	220	240	260	240	260
5	280	300	300	280	270	280	240	240	260	260	300	300	300	320	300	290	280	240	220	260	260	260	280	280
6	300	280	260	250	220	260	280	240	240	240	320	280	280	280	300	280	280	240	240	240	240	240	280	260
7	280	300	280	280	280	280	260	240	220	250	280	280	280	300	300	[28]K	260	240	230	240	240	240	270	280
8	280	260	260	260	280	260	270	260	340	320	320	280	280	280	280	280	260	280	240	220	230	260	280	280
9	280	280	300	260	260	260	260	240	[24]H	(280)	300	320	320	310	300	300	280	260	240	230	(240)	230	(280)	290
10	280	280	260	260	260	260	240	240	240	270	300	300	(300)	300	280	280	260	260	240	240	300	280	300	290
11	280	260	240	280K	260K	260K	300K	240K	220K	(340)K	(460)K	[48]CK	(480)K	(410)K	(480)K	(400)K	(380)K	(280)K	240K	260K	260K	280K	300K	300K
12	280K	280K	310K	300K	280K	290K	(280)K	240K	(290)K	(280)K	340K	340K	320K	340K	300K	340K	320K	280K	270K	240K	270K	240K	260K	280K
13	280K	300K	300K	300K	300K	(320)K	320	250	(330)	320	360	300	300	290	320	300	270	250	240	240	260	260	270	280
14	260	260	280	280	260	240	260	240H	220H	240	280	290	290	280	290	280	270	250	240	230	280K	300K	(320)K	340K
15	300K	280K	260K	260K	320K	(360)K	320K	270K	360K	380K	380K	540K	400K	290K	330K	340K	330K	280K	260K	260K	280K	280	280	270
16	260	260	280	260	280	280	280	250	280	320	320	360	340	320	340	300	280	270	240	240	240	280	300	260
17	260	260	260	280	280	[30]B	280	220	220	260	340	320	300	300	320	280	280	240	240	240	260	260	260	280
18	260	260	260	240	240	280	260	220	260	270	300	300	280	320	300	280	280	260	200	240	240	260	240	260
19	260	280	290	280	260	280	260	260	260	260	300	350	330	300	300	290	280	260	240	220	220	260	260	280
20	260	260	260	260	260	270	260	250	240	280	280	320	320	320	300	300	340	260	250	230	220	240	260	300
21	290	300	300	280	(280)	260	260	240	260	300	290	300	300	300	300	300	260	270	240	220	240	270	280	280
22	300	280	280	260	260	270	260	240	280	300	300	310	280	300	300	280	280	260	240	260	(250)	260	260	260
23	260	260	270	280	280	270	260	220	260	340	360	350	320	300	300	300	(290)	280	260	240	240	240	260	260
24	260	260	280	280	260	260	280	240	280	280	300	330	360	320	340	320	290	280	260	240	250	260	280	260
25	260	260	260	260	260	250	250	240	260	300	320	300	300	320	310	290	300	220	260	240	280	300	280K	250K
26	260K	280K	260K	280K	260K	400K	300K	250K	220K	400K	520K	GK	620K	420K	380K	460K	360K	(360)K	270K	280K	280K	260K	280K	280K
27	280K	280K	280K	260K	290K	280K	300K	240K	360K	(420)K	580K	(500)K	380K	360K	400K	360K	320K	320K	260K	250K	250K	250K	260K	300K
28	290K	300K	280K	320K	340K	300K	300K	280K	GK	GK	GK	GK	GK	GK	GK	GK	540K	410K	280K	260K	250K	260K	300K	(340)K
29	320K	340K	300K	290K	300K	320K	260	230	260	320	380	380	360	360	340	340	340	300	260	240	240	250	270	280
30	280	280	280	280	280	(280)	260	260	260	250	260	(280)	300	300	300	300	290	260	240	220	240	260	260	260
31	260	250	260	260	260	260	240	240	240	260	310	310	300	300	300	300	280	280	250	220	220	240	260	260
Sum																								
Median	280	280	280	280	260	270	260	240	260	280	300	310	300	300	300	300	280	260	240	240	240	260	270	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 $\left\{\begin{matrix}Mc\\ kc\end{matrix}\right.$ for March (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	2.9	2.8 F	2.7 F	2.8	2.9	3.0	2.5 F	4.6	5.8	6.6	6.4	6.2	6.8	6.8	7.4	7.5	7.3	7.2	6.2	5.4	3.8	2.9	2.5	2.3
2	2.2	2.1 F	2.1 F	2.2	2.4	2.3 F	2.4	4.2	5.6	5.8	(6.0)	6.6	7.0	7.0	7.6	7.0	7.2	7.2	6.4	5.7	4.8	4.2	3.9	3.7
3	3.7	3.7	3.5	3.0	2.6	2.6	2.5	3.9	4.5	4.9	5.5	5.9	6.6	6.7	6.7	7.1	6.5	6.2	5.7	4.9	4.6	3.4	3.1	2.9
4	2.7	(2.4)	2.3	2.6	2.6 F	2.8	3.0	4.4	4.8	5.4	5.4	5.8	6.0	6.2	6.4	6.6	6.0	6.2	5.9	4.8	4.8	4.2	3.5	2.9
5	2.6	2.5 F	2.8	3.0	3.0	3.1	3.3	4.9	5.5	5.5	6.0	6.4	6.6	6.8	7.8	7.8	(7.8)	7.0	5.4	5.2	4.2	3.6	3.2	3.1
6	3.0	3.1	3.2	3.0	2.4	2.1	2.2	4.6	5.4	5.9	5.5	(6.6)	(7.4)	7.3	7.6	7.6	7.3	7.3	6.4	6.0	4.6	3.5	3.3	3.0
7	2.7	2.6	2.5 F	2.4 F	2.3 F	2.2 F	2.2 F	4.0	5.0	(5.8)	5.8	6.3	(6.8)	6.9	6.2	[6.7] K	7.0	6.7	6.0	5.3	4.6	4.0	3.5	3.3
8	(3.2) F	3.3	(3.1)	3.0	2.9	2.7 F	2.6 F	3.8	4.6	5.0	6.4	6.4	6.7	7.1	6.9	6.4	5.6	6.0	6.6	6.4	4.6 F	(3.6) F	(3.5) F	2.6 F
9	2.2 F	2.3 F	2.2 F	2.1 F	2.1 F	2.3 F	2.2 F	3.6	[4.2] H	4.6	5.3	5.6	5.4	6.2	6.0	6.4	6.9	6.6	6.3	5.4	4.7	3.7 F	(3.2) F	(2.8) F
10	2.6 F	(2.6) F	2.8 F	2.9 F	2.8 F	2.8 F	3.0 F	4.7	5.6	5.7	5.9	6.4	[6.5] B	6.7	7.0	7.2	6.9	6.4	6.2	5.5 J	(4.2) J	C	C	C
11	C	C	(3.3)	(2.4) F K	2.0 F K	(1.4) F K	2.0 F K	(3.2) F K	[4.0] F K	4.5 J K	(4.5) J K	4.2 J K	(4.6) K	(5.4) K	(4.8) J K	5.2 K	(4.7) J K	(4.7) J K	C K	C K	C K	(2.9) F K	(2.5) F K	(2.6) F K
12	[2.3] F K	(2.1) F K	1.5 F K	(1.3) F K	(1.5) F K	2.0 F K	(1.7) F K	4.3 J K	5.5 K	(5.3) K	5.7 K	6.2 K	6.8 K	7.4 K	8.2 K	7.8 K	(8.7) K	(8.8) K	(5.8) F K	5.6 K	3.9 F K	[2.7] F K	(2.2) F K	[2.0] F K
13	(1.7) F K	(2.2) F K	2.1 F K	2.0 F K	(1.8) F K	(1.6) F K	(1.8) F	(3.8)	4.2	4.6	5.4	5.8	(6.1)	5.6	5.4	5.8	5.6	6.0	5.8	5.2	4.7	4.0 F	3.7 F	3.5 F
14	3.2 F	2.6 F	2.6 F	2.5 F	2.4 F	2.3	2.4	4.6 H	5.6 H	5.7	6.8	7.5	7.4	7.5	6.4	6.7	6.3	6.4	6.8	6.6	(4.7) K	4.4 K	(4.0) K	4.0 K
15	4.0 K	3.5 F K	[2.7] F K	(1.9) F K	(1.5) F K	(1.6) F K	2.0 F K	3.7 K	4.3 K	4.6 K	4.9 K	4.7 K	5.4 K	5.2 K	5.0 K	5.4 K	5.4 K	4.9 K	5.0 K	4.4 K	(4.6) K	(4.5)	4.4	4.3
16	3.7 F	3.3 F	2.9 F	2.6 F	2.2 F	1.9 F	2.2 F	3.9	4.9	5.1	5.5	5.3	5.8	6.0	5.9	5.8	5.4	5.4	5.0	4.7	3.7 F	3.4 F	3.3 F	3.0 F
17	2.6 F	2.3 F	2.4 F	2.1	1.8	(1.9)	(2.5)	3.9	4.5	5.4	5.6	5.4	6.2	6.3	6.3	6.4	6.2	5.9	5.2	4.9	4.1	3.9	3.7	3.3 J
18	3.2 F	2.8 F	2.5 F	2.3 F	2.1 F	1.8 F	2.4	5.2	5.3	5.6	6.4	6.8	6.6	6.0	6.6	6.9	7.0	6.4	6.4	5.5	4.6	4.3	3.7	3.5
19	2.8 F	2.2 F	2.0 F	2.1 F	2.2 F	2.1 F	2.9	4.4	5.4	5.8	5.6	5.7	5.9	6.2	6.0	6.4	6.1	6.2	6.4	5.8	4.0	3.7	3.2	3.1
20	3.1	2.8	2.7	2.4 F	2.2	2.5	2.8	4.6	5.0	5.1	5.4	5.7	6.3	6.3	6.9	7.0	7.0	7.0	7.2	6.8	4.7	3.9	3.3	2.6
21	2.2 F	2.1 F	2.3 F	2.4 F	2.1 F	(1.9) F	2.8 F	4.6	5.1	5.5	6.4	6.5	6.4	6.4	6.4	7.2	6.4	6.3	6.0	5.4	4.5	3.7	3.5	3.4
22	3.3 F	2.9 F	2.7 F	2.5 F	2.3 F	2.3 F	2.9	4.6	5.2	5.6	5.8	6.2	6.8	6.5	6.9	6.5	6.2	6.2	6.2	5.7	4.9	4.5	3.8	3.4 F
23	3.0 F	2.7 F	2.4 F	2.3 F	2.4 F	2.4 F	3.0 F	4.4	4.7	5.0	5.1	5.5	6.2	6.2	6.0	5.5	5.5	5.5	5.4	5.2	4.7	4.0 F	3.7 F	3.2 F
24	2.8 F	2.6 F	(2.2) F	1.8 F	(2.2) F	(1.9) F	2.8 F	4.5	5.5	6.0	6.2	5.8	5.4	6.0	5.9	6.0	6.2	5.8	6.0	5.8	5.3	4.8 F	(4.2) F	4.0 F
25	(3.6) F	3.5 F	3.2 F	3.0 F	3.0 F	3.1 F	3.6 F	5.0	5.5	5.8	5.8	6.5	(6.1)	6.0	6.2	6.0	5.8	5.9	6.0	6.0	5.5	5.3	5.0 K	5.0 K
26	3.8 K	3.3 K	3.0 K	2.0 K	[1.2] F K	(1.3) F K	2.3 F K	3.5 K	3.9 K	4.2 K	4.4 K	<4.0 ° K	4.4 K	5.0 K	4.9 K	4.4 K	4.5 K	4.6 K	4.2 K	4.0 K	3.8 F K	3.8 F K	(3.5) F K	(2.4) F K
27	2.2 F K	2.1 F K	(2.1) F K	2.1 F K	2.2 F K	2.3 F K	2.8 K	4.1 K	4.5 K	4.3 K	4.5 K	4.7 K	5.1 K	5.4 K	5.0 K	5.4 K	5.4 K	5.1 K	5.3 K	5.3 F K	4.8 K	4.3 K	3.5 K	3.2 K
28	3.2 K	2.7 K	2.6 K	2.2 K	2.0 K	(1.6) F K	2.3 K	3.0 K	<3.3 ° K	<3.6 ° K	<3.8 ° K	<3.9 ° K	<4.0 ° K	<4.0 ° K	<4.0 ° K	<3.9 ° K	4.1 K	4.1 K	4.1 K	3.9 K	3.3 K	2.2 F K	(1.7) F K	(1.7) F K
29	1.8 F K	(1.8) F K	(1.7) F K	1.4 F K	(1.3) F K	1.6 F K	3.3 F	4.4	4.8	5.1	5.3	5.7	5.6	5.5	5.7	5.4	5.3	5.5	5.5	5.0	4.6	4.0	3.5 F	3.3 F
30	2.9 F	2.6 F	2.2 F	2.1 F	1.7 F	1.6 F	3.3	(5.5)	6.0	7.2	6.0	(6.3)	6.8	6.6	6.7	6.7	6.4	6.6	6.5	5.5	4.5	3.9	3.8 F	3.5 F
31	3.3 F	3.3 F	2.7 F	2.6 F	2.3 F	2.3 F	3.8 F	5.4	6.0	6.6	(6.7)	(6.4)	6.8	7.1	7.2	6.8	6.6	6.6	6.7	6.6	5.5	4.7	4.3 F	4.3
Obs.																								
Median	2.9	2.6	2.6	2.4	2.2	2.2	2.5	4.4	5.0	5.4	5.6	5.9	6.3	6.3	6.4	6.5	6.2	6.2	6.0	5.4	4.6	3.9	3.5	3.2

TABLE 47

IONOSPHERE DATA – 3

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Half Hourly values of $f^{o}F2$ in Mc for March (Month) 1945

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	2.8	2.7 F	2.8 F	2.8	2.8	2.6 F	3.2	5.4	6.2	6.5	6.6	6.3	6.9	7.3	7.0	7.2	7.2	7.2	5.5	4.4	3.4	2.7	2.4	2.4
2	2.2	2.2 F	2.2	2.3	2.3	2.4	3.5	5.1	6.0	5.9	[6.2] C	6.8	7.0	7.5	7.2	7.2	7.0	7.2	6.4	5.2	4.3	4.1	3.9	3.5
3	3.6	3.6	3.4	2.8	2.6	2.6	3.4	4.2	4.8	5.3	5.6	6.2	6.4	6.7	6.8	(6.8)	6.7	6.0	5.3	5.0	4.0	3.3	3.1	2.8
4	2.6	2.2	2.4	2.6	2.8	2.7	3.6	4.6	5.0	5.4	5.4	5.8	6.2	6.4	6.4	6.2	6.6	6.3	5.5	5.0	4.4	3.9	3.1	2.8
5	2.6 F	2.7 F	2.8	3.0	3.1	3.2	3.8	5.1	5.7	5.6	6.2	6.7	[6.7] C	7.6	7.5	8.2	7.5	6.5	5.1	5.0	4.0	3.4	3.1	3.1
6	3.0	3.2	2.9	2.9	2.4	2.1	3.4	5.4	6.2	(5.8)	(6.8)	7.0	7.2	7.4	7.2	7.7	7.6	6.8	6.2	5.4	4.0	3.3	3.2	2.9
7	2.7	2.5	2.4 F	2.4 F	2.2 F	2.1 F	3.1	4.5	5.3	5.4	5.9	6.9	6.6	6.7	[6.4] C	7.0	6.9	(6.2)	5.2	4.9	4.5	3.7	3.5	3.2 F
8	3.3 F	3.1 F	3.0 F	2.9	2.9	2.7	3.3	4.2	4.9	5.4	7.2	6.8	7.4	7.0	6.7	5.9	[5.8] C	6.4	6.6	5.2	3.9 F	(3.4) F	2.6 F	2.7 F
9	2.2 F	[2.3] A	(2.2) F	2.3 F	2.3 F	2.3 F	2.8	3.8	4.5	5.0	5.5	5.8	5.9	6.2	6.2	6.5	6.8	6.4	5.8	5.1	4.1 F	3.4 F	(2.9) F	2.6 F
10	2.6 F	2.7 F	2.7 F	2.8 F	2.8 F	2.8 F	3.9	5.3	5.5	5.6	(6.0)	6.5	6.8	(7.3)	6.8	6.9	6.7	5.9	5.6	4.7 J	C	C	C	C
11	C	(3.5)	2.6 F	2.3 F K	1.8 F K	(1.4) F K	(2.7) F K	[3.5] F K	(4.3) J K	[4.5] F K	(4.7) K	(4.6) J K	4.9 J K	(4.7) J K	5.1 K	5.0 K	(4.8) J K	(4.7) K	C K	C K	(3.4) F K	(2.8) F K	2.6 F K	(2.3) F K
12	(2.6) F K	(1.7) F K	(1.3) F K	(1.2) F K	(1.6) F K	(2.3) F K	(3.3) K	(5.4) J K	5.4 K	5.4 K	6.4 K	6.5 K	7.2 K	8.0 K	7.6 K	8.0 J K	9.6 K	(8.7) K	6.0 K	4.1 F K	(3.6) F K	[2.3] F K	(2.2) F K	1.8 F K
13	(1.9) F K	(2.2) F K	(2.0) F K	(1.9) F K	(1.8) F K	(1.6) F K	3.0 F	4.2	(4.4)	(4.8)	5.6	5.6	5.9	5.6	5.7	5.4	5.7	(6.0)	5.4	4.7	4.5	3.9	3.6 F	3.3 F
14	2.9 F	2.6 F	2.6 F	2.6 F	(2.4) F	2.0 F	3.6	5.1 H	5.5	6.4	7.0	(7.6)	7.7	7.0	6.4	6.4	6.3	6.6	6.8	5.4	4.7 K	(4.3) K	4.0 K	4.2 K
15	3.6 F K	(3.6) F K	[2.2] F K	(1.6) F K	(1.5) F K	1.7 F K	3.0 K	3.9 K	4.6 K	4.9 K	[4.9] F K	5.0 K	5.4 K	5.6 K	5.2 K	5.1 K	5.4 K	4.9 K	4.9 K	4.2 K	4.8 K	4.5	4.2	3.9
16	3.4 F	2.9 F	2.9 F	2.2 F	2.1 F	1.9 F	(3.4)	4.3	5.1	5.4	5.4	5.6	6.0	(6.2)	5.7	5.4	5.4	5.1 H	4.8	4.1	(3.4) F	3.3	3.2 F	2.7 F
17	2.4 F	2.4 F	2.2 F	2.0	1.8 F	1.9	3.4	4.3	4.7	(5.3)	5.7	6.0	6.3	6.2	6.5	6.4	(6.0)	5.6	4.8	4.3	4.1	3.9	3.6	(3.3)
18	3.0 F	2.7 F	(2.5) F	2.2 F	1.9 F	1.9 F	4.0	4.9	5.4	6.0	6.6	7.1	6.2	(6.5)	6.8	7.2	7.0	6.4	6.0	(5.0)	4.5	4.2	3.5	3.1
19	2.3 F	2.1 F	2.1 F	2.1 F	2.2	2.1	3.7	4.9	5.6	6.0	5.6	[5.8] C	6.0	(6.2)	6.0	6.3	6.0	6.4	6.1	5.0	3.9	(3.3)	3.0	3.1
20	2.9	2.7	2.4 F	2.5	2.2 F	2.2 F	3.9	4.9	5.1	(5.3)	(5.4)	(5.4)	6.2	6.8	7.0	6.6	(7.5)	7.7	6.8	6.0	4.3	3.4	2.9	(2.5)
21	2.1 F	2.3 F	2.6 F	2.6 F	2.0 F	1.6 F	3.9	4.9	5.3	6.2	6.2	6.7	6.7	6.4	6.7	7.4	6.3	6.3	6.2	4.8	4.0	3.5	3.6	3.4
22	3.2 F	2.7 F	2.6 F	2.4 F	2.3 F	2.3 F	3.9	4.8	5.4	5.7	6.0	6.5	6.8	6.5	6.7	6.3	6.3	6.2	5.7	5.3	4.5	4.3	3.8	3.2 F
23	2.8 F	2.6 F	2.3 F	2.4 F	2.4 F	2.3 F	3.9	4.7	4.9	5.4	5.4	5.7	6.0	(6.2)	6.0	5.5	5.5	5.5	5.4	4.8	4.3	3.8	3.3 F	(2.9) F
24	(2.6) F	(2.6) F	1.8 F	1.8 F	(2.2) F	2.2 F	4.0	5.2	5.7	6.0	6.1	5.6	5.8	5.8	5.9	6.2	6.0	5.8	5.8	5.5	5.1	4.3	4.0 F	3.8 F
25	(3.5) F	3.4 F	3.2 F	3.0 F	3.1 F	3.2 F	4.4	5.2	5.5	5.9	6.3	6.4	5.8	5.8	6.2	5.8	6.0	5.8 H	6.2	5.9	5.5	5.0	5.0 K	4.6 K
26	3.6 K	3.2 K	2.6 K	(1.8) F K	[1.2] F K	1.7 F K	3.2 F K	3.8 K	4.1 K	4.4 K	< 4.1 Q K	4.5 K	4.8 K	5.0 K	4.4 K	4.5 K	4.4 K	4.5 K	[4.1] F K	3.8 F K	4.0 F K	3.7 F K	3.3 F K	2.3 F K
27	(2.1) F K	(2.1) F K	2.0 F K	2.2 F K	2.4 F K	1.9 F K	3.7 K	4.2 K	4.5 K	4.7 K	4.6 K	5.0 K	5.0 K	5.3 K	4.9 K	5.5 K	5.1 K	5.1 K	5.7 K	5.3 K	4.6 K	3.8 K	3.5 K	3.4 K
28	3.0 K	2.7 K	2.2 K	2.1 F K	2.0 F K	1.7 K	2.7 K	3.4 K	< 3.4 Q K	< 3.7 Q K	< 3.8 Q K	< 4.0 Q K	< 4.0 Q K	< 4.1	< 4.0 Q K	4.2 K	3.9 K	4.0 K	4.1 K	3.6 K	(2.7) F K	1.8 F K	(1.7) F K	(1.7) F K
29	(1.7) F K	(1.7) F K	(1.4) F K	1.3 K	(1.4) F K	1.8 F K	4.4	4.9	4.7	(5.7)	5.4	5.6	5.6	5.7	5.4	5.6	5.5	5.5	5.3	5.0	4.2	3.7 F	3.4 F	3.1 F
30	2.7 F	2.3 F	2.2 F	1.8 F	1.7 F	1.8 F	4.6	(5.9)	6.8	6.4	6.4	6.4	6.7	6.7	6.6	6.4	6.5	6.6	5.9	4.9	4.1 F	3.8 F	3.8 F	3.4 F
31	3.3 F	2.9 F	2.7 F	2.3 F	2.3 F	2.6 F	4.5 F	5.5	6.0	6.2	6.4	6.4	6.6	7.1	7.1	6.6	6.5	6.7	6.7	6.0	5.3	4.7	4.4 F	4.2 F
Sum																								
Median	2.8	2.7	2.4	2.3	2.2	2.1	3.6	4.9	5.3	5.4	5.9	6.2	6.2	6.4	6.4	6.4	6.3	6.2	5.7	5.0	4.2	3.7	3.4	3.1

TABLE 48

IONOSPHERE DATA – 4

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of $h'F_1$ in km for March (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										220	220	200	200	240	240	240								
2											220	210	220	(240)	(240)	220	220							
3										220	200	200	200	240	240	220	220							
4										220	220	220	240	230	220	220	240							
5									240	220H	200	200	200	240	220	230	240							
6										220	240	(220)	180H	240	220	220	210							
7										220	220	220	220	230	240	[230]C	240							
8									240	220	220	220	220	220	220	240	220	220						
9										(240)	200	[200]B	220	230	220	240	220	240						
10									220	210	200	220	[240]B	240	[240]C	(260)	240	240						
11								K	K	220K	220K	220K	220K	(240)K	(240)K	(240)K	230K	240K						
12								K	240K	(230)K	200K	240K	240K	240K	260K	230K	240K	K						
13									240	220	200H	220	240	240	220	220	240							
14											240	200	220	220	220	220	240H							
15								K	240K	200HK	(220)K	220K	200K	240K	240K	240K	260K	260K						
16									220	220	220	220	220	220	220	220	250	240						
17										220	200	240	200	230	220	240	240							
18									220	220	220	220	230	200	220	230	260	230						
19									230	200	200	210	200	220	220H	220	260	240						
20									220	200	200	200	240	200	220	220	220	240						
21									220	220	220	210	220	240	220	220	220	240						
22									200	200H	240	200H	220	220	220	240	220	240						
23									240	220	220	220	200	220	220	220	220	240						
24									240	240	210	220	200	220	220	230	230	240						
25									220	220	220	220	220	220	220	220	220							
26								K	K	210K	220K	240K	240K	260K	240K	240K	220K	260K						
27								K	220K	220K	220K	220K	260K	220K	240K	220K	240K	240K						
28								K	260K	260K	240K	220K	240K	220K	240K	240K	240K	280K						
29									220	220	210	220	220	200	220	240	220	240						
30								240	230	220	200	220	220	210	220	220	220	240						
31									220	240	210	200	200	200	220	220	240	240						
Sum																								
Median									225	220	220	220	220	230	220	230	235	240						

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 for March (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											[4.1]	4.2	(4.3)	4.2	4.3	4.1								
2												4.3	4.4	4.2	4.1									
3										(3.8)	(4.2)	4.2	4.2	(4.4)	4.2	4.1								
4												4.2	4.3	4.3	4.4	4.0								
5										(3.9)H	4.2	4.2	[4.2]	4.3	4.3	4.1	3.8							
6											4.5	[4.5]	4.3H	4.4	4.2	4.0								
7											(4.0)	4.3	4.3	4.3	4.2	[4.1]C								
8									3.6	[3.9]	4.2	4.3	4.4	4.4	4.2	4.0								
9										A	4.1	4.2	4.2	4.2	4.1	4.1								
10										3.9	[4.1]	(4.3)	[4.4]B	[4.2]B	C	C	C							
11									K	CK	CK	CK	CK	CK	CK	CK	CK	K						
12									CK	CK	CK	4.3K	4.4K	4.4K	4.4K	4.1K	4.0K	K						
13											4.1H	4.2	4.3	4.3	(4.2)									
14											4.2	4.4	4.4	4.4	(4.2)	(4.1)	H							
15									K	3.8HK	4.0K	4.1K	4.2K	4.1K	4.1K	3.9K	3.7K	3.2K						
16										(3.9)	4.1	4.2	4.3	4.2	4.1	4.0	(3.8)	3.3						
17										3.7	(4.0)	(4.2)	4.2	4.2	4.2	(4.0)	[3.8]							
18										4.0	4.2	4.3	4.4	4.3	4.2	4.2	3.8							
19									(3.6)	4.0	4.1	4.3	4.4	4.3	(4.2)H	4.2								
20										3.8	(4.1)	4.3	4.3	(4.2)	4.2	4.1	(4.0)	(3.5)						
21									3.5	4.0	4.2	4.4	4.4	4.3	4.2	4.1	3.7							
22										(4.0)H	4.2	4.4H	4.4	4.3	4.3	4.1								
23									(3.6)	4.1	4.2	4.3	4.3	4.4	4.2	4.1	[3.8]							
24									3.8	4.1	4.2	4.2	4.3	4.4	4.3	4.1	3.9							
25									(3.7)	4.1	4.2	4.3	4.4	4.3	4.3	4.1	(3.8)							
26									K	3.9K	4.1K	4.0K	4.1K	4.1K	4.1K	3.9K	3.8K	K						
27									3.7K	4.0K	4.1K	4.2K	4.3K	4.2K	4.2K	4.1K	4.0K	K						
28									3.3K	3.6K	3.8K	3.9K	4.0K	4.0K	4.0K	3.9K	3.8K	3.4K						
29									(4.0)	4.1	4.3	4.4	4.4	4.4	4.4	4.1	(4.0)	3.5						
30									(4.0)	4.2	4.4	[4.5]	4.5	4.5	4.4	4.3	4.0							
31										4.3	(4.7)	(4.5)	4.5	4.5	4.4	4.3	(4.1)							
Sum																								
Median									3.6	4.0	4.2	4.3	4.3	4.3	4.2	4.1	3.8	3.4						

TABLE 50

IONOSPHERE DATA – 6

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of h'E in (km) for March (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									120	120	120	110	130	[130]B	120	120	130	120						
2									130	120	120	120	120	120	120	120	120	120						
3								140	120	120	120	120	120	120	120	120	120	140						
4								120	120	120	120	120	120	120	120	120	120	140						
5								140	120	120	120	120	120	120	120	120	120	120						
6								140	120	120	120	120	120	120	130	120	130	140	B					
7								120	120	120	120	110	120	120	120	[120]C	120	130						
8								140	120	120	120	120	120	120	120	120	120	120						
9								120	120	120	120	120	120	120	120	120	120	130	130					
10								140	120	120	120	120	[120]B	120	[120]C	130	120	130	140					
11							K	120K	120K	120K	120K	120K	120K	120K	120K	120K	130K	120K	140K					
12							K	120K	120K	120K	120K	120K	120K	120K	120K	120K	120K	140H K	140K					
13									120	120	120	120	120	110	110	120	120	130	100					
14								140	120	120	120	110	120	120	120	120	120	130						
15							K	130K	120K	120K	110K	120K	120K	120K	110K	120K	120K	120K	160K					
16								120	120	120	120	120	120	120	120	120	120	120	140					
17								120	120	110	120	120	120	120	120	120	120	120						
18								120	120	110	110	120	120	120	120	120	120	120						
19								140	120	120	120	120	120	120	120	120	130	130	140					
20								140	120	120	120	120	120	120	120	120	120	120	120					
21								120	110	120	120	120	120H	110	120	110	120	120	140					
22								140	120	120	120	120	120	120	120	120	120	120	120					
23								120	120	120	120	120	120	120	120	120	120	130	140					
24								120	120	120	110	120	120	120	120	120	120	120	140					
25								120	120	120	120	120	120	120	120	120	120	120	140					
26							K	120K	120K	100K	120K	120K	120K	120K	120K	120K	120K	130K	140K					
27							K	120K	120K	120K	120K	120K	120K	120K	120K	120K	120K	120K	120K					
28							160K	130K	120K	120K	120K	120K	120K	120K	120K	120K	120K	120K	110K					
29							140	120	110	120	110	110	120	110	120	120	120	120	140					
30							140	120	120	120	120	120	120	110	120	120	120	120	140					
31								120	120	120	120	120	120	110	120	120	120	120	120					
Sum																								
Median							140	120	120	120	120	120	120	120	120	120	120	120	140					

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 March (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									[2.2]A	(2.7)	(3.1)	[3.2]A	3.3	[3.2]B	3.1	2.9	2.6	2.1						
2									2.3	2.7	3.1	3.2	(3.3)	[3.2]B	[3.2]B	3.0	2.7	2.1						
3								1.7	2.3	2.8	3.0	3.4	[3.3]B	[3.2]B	3.1	2.9	2.6	2.2						
4								(1.6)	2.2	2.8	3.0	[3.2]A	3.3	3.3	3.2	3.1	2.5	2.2						
5								1.6	2.3	2.8	3.0	3.2	3.2	3.3	(3.2)	2.9	2.6	(2.3)						
6								(1.6)F	(2.2)	2.8	[3.0]B	3.2	(3.2)	3.4	3.3	3.0	2.6	2.2	1.5					
7								(1.7)F	2.3	2.8	3.0	3.2	[3.2]A	(3.2)	3.1	[3.0]C	2.7	2.3						
8								1.8	[2.3]A	2.6	[2.9]A	(3.1)	(3.3)	3.2	(3.1)	2.9	2.7	(2.2)						
9								A	A	A	A	[3.3]B	3.3	(3.2)	3.2	2.9	(2.8)	(2.2)	A					
10								1.7	2.4	(2.8)	(3.0)	(3.2)	B	B	[3.3]C	3.1	2.7	A	C					
11							K	A K	[2.3]AK	[2.6]A	[2.8]AK	(3.0)K	3.2K	3.2K	[3.2]AK	3.0K	2.7K	2.3K	A K					
12							K	A K	A K	A K	(2.9)K	3.1HK	3.2K	(3.2)K	3.2K	3.0K	2.6K	2.1HK	(1.6)K					
13									A	A	3.0	(3.2)	3.3	(3.3)	(3.1)	3.0	2.6	2.2	A					
14								1.8	2.5	[2.8]A	[3.0]A	3.2	[3.2]A	(3.2)	(3.1)	3.0	2.6	(2.2)						
15							K	2.0K	(2.5)K	[2.8]AK	(2.9)K	3.1K	3.2K	(3.2)K	(3.0)K	2.9K	(2.5)K	2.1K	1.6K					
16								[2.0]A	2.5	2.8	3.0	3.1	(3.2)	(3.2)	3.1	2.9	2.6	2.1	(1.7)					
17								(1.9)	2.4	2.7	3.0	3.2	3.2	(3.2)	(3.1)	3.0	2.6	(2.2)						
18								2.0	(2.4)	(2.7)	(3.0)	(3.2)	3.3	3.3	3.2	3.1	[2.7]A	2.3						
19								2.0	(2.3)	(2.6)	[2.9]C	[3.2]B	3.3	3.3	(3.2)	3.0	2.8	2.2	1.7					
20								(2.0)	2.5	2.8	3.1	(3.2)	3.2	(3.2)	(3.1)	3.0	2.6	[2.2]A	(1.9)					
21								[1.9]A	2.3	[2.7]A	[3.0]A	[3.1]A	(3.3)H	3.3	3.2	3.1	2.8	2.3	A					
22								A	A	(2.8)	3.1	3.3	3.3	[3.3]A	3.3	3.1	2.9	(2.3)	1.8					
23								2.0	(2.5)	2.8	(3.0)	(3.2)	(3.2)	(3.3)	(3.2)	3.1	2.8	(2.4)	(1.7)					
24								A	A	A	B	A	B	(3.3)	3.2	3.1	2.7	2.3	A					
25								(2.0)	[2.5]A	(2.9)	3.1	[3.2]A	3.3	[3.2]A	(3.3)	3.0	2.7	2.3	(1.6)					
26							K	(2.1)K	2.6K	(2.9)K	(3.2)K	(3.2)K	3.2K	(3.2)K	3.2K	3.0K	2.7K	2.3K	(1.8)FK					
27							K	2.1K	2.4K	2.9K	(3.1)K	3.2K	(3.3)K	3.3K	3.2K	3.0K	2.7K	(2.3)K	A K					
28							(1.5)K	2.0K	2.5K	2.9K	3.0K	[3.2]AK	3.2K	3.2K	3.2K	3.0K	2.7K	2.3K	1.8K					
29							(1.6)	2.2	[2.6]A	2.9	3.2	(3.3)	(3.3)	(3.2)	3.2	3.1	2.7	2.4	1.9					
30							A	(2.3)	[2.7]A	3.2	(3.2)	(3.3)	3.4	3.3	3.3	3.2	2.9	2.4	1.8					
31								2.3	(2.4)	(2.6)	3.2	(3.3)	3.4	3.4	3.4	3.2	2.8	2.5	1.8					
Sum																								
Median								2.0	2.4	2.8	3.0	3.2	3.3	3.2	3.2	3.0	2.7	2.2	1.8					

TABLE 52

IONOSPHERE DATA—B

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of E_S in (No Gap) for March (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	3.2 140			2.4 120	3.1 120	3.2 120	2.4 120		4.2 120	3.1 140	4.1 140	4.0 110	3.4 140	3.5 140	3.6 140	4.2 130	3.0 130	3.1 120	2.1 130	3.0 130				
2	2.9 120					2.9 120					C								3.2 120		2.4 120			
3		0.9 120	0.8 120	3.1 120		5.2 120	2.4 160			3.1 140					C									
4				3.1 160	3.0 120	3.2 120	4.0 130				3.6 140	3.6 120	3.6 120										2.9 120	2.9 120
5	3.0 110	2.2 100	2.8 120		2.9 120			3.0 120		3.0 140	3.6 140		C				2.3 140				2.4 140			
6					1.9 120		2.3 140		4.0 120	3.1 120						3.1 120	2.9 130	2.2 160		2.8 120	3.0 110	2.3 140		
7	2.4 120				3.0 120	2.9 100	3.0 110	3.0 120	3.0 120				4.0 120		C	C		2.3 150						3.4 120
8	3.1 140			3.0 110	2.3 120	2.3 120		3.4 130	3.1 120	3.4 120	4.3 120	3.5 120	3.4 140		3.2 140	3.0 140	C	3.4 140	2.7 120				4.0 120	2.9 120
9	2.9 120	3.2 120	3.1 120	3.1 120	2.3 120	3.1 120	4.1 120	4.0 120	8.0 120	4.4 120	4.2 120					3.2 140	3.2 120	3.6 140	3.4 130	4.2 120	4.5 120	4.2 120	5.0 120	3.2 120
10	2.9 120	2.4 120	2.4 120	2.7 120			2.5 140			3.4 120			B	3.6 120	C	(3.5) 130	3.3 120	3.5 130						
11							3.0 130	(3.1) 120	3.3 120	2.8 120	3.1 120			3.4 120	3.4 120	3.1 120	3.1 140	3.1 140	1.9 140	2.6 130	3.1 120			2.5 110
12			(2.3) 120	(1.9) 120	(2.4) 120	3.2 180	3.4 140	3.4 120	3.1 120	3.4 120					3.9 120	3.3 130		2.1 140		1.8 120			2.9 120	3.2 120
13	3.3 120	3.8 110	3.7 120	2.3 120				(2.9) 120	(3.1) 120	3.0 120						3.0 180	2.8 160	2.4 140	2.7 100		2.5 130		2.7 120	2.8 120
14										3.8 120	3.8 140		5.4 120											
15			1.0 140						3.7 100	2.9 140	C													
16				2.3 120	4.8 140		3.2 120	3.1 120														2.4 120		
17														3.4 120	4.1 120	4.1 120	3.8 120							
18	2.4 110		4.3 120	4.0 120	2.0 120	4.0 110		3.0 130	3.0 120	3.0 120	3.1 120					3.4 140	3.1 120	3.1 130	3.5 110	3.1 100				
19	4.4 120	2.4 120						2.3 140	2.8 120	3.0 120		C				3.1 150	3.1 140	2.7 130						
20				2.7 120								(3.6) 140	3.6 120					2.4 120	1.8 120		3.2 120		2.8 120	3.6 120
21	3.1 120	3.4 120	4.3 120	4.9 120	4.1 110	3.6 120		2.4 120	2.8 120	3.8 120	3.1 120	4.0 120	3.6 130		3.4 120		2.9 120		1.8 140		2.4 120	5.2 120	3.6 H 120	4.3 120
22	4.4 120	4.0 120	3.0 120	1.0 120	3.0 120	3.0 120		2.3 120	2.9 120	3.1 120	3.1 140	3.4 120	4.3 120	4.3 120			3.4 130	3.4 120	3.0 120	3.0 120	2.7 120	3.0 120	2.3 120	
23					2.4 120	2.4 120			3.6 120	3.1 120	3.1 120		3.6 140											
24								3.3 120	3.2 120	3.6 120	4.1 120	3.9 120		3.4 140			2.9 130		2.7 160					
25									3.1 120	3.0 120	3.9 140	3.8 120	3.6 130			3.1 120	3.1 130							
26							2.7 120	2.1 120							3.3 140	3.2 140	3.2 120	·	C					
27			2.8 140				2.4 140	3.1 120	3.1 140		3.1 120								1.9 120					
28						3.0 120	1.9 160		3.1 120								3.1 120		3.1 110	2.0 120			3.1 120	3.0 120
29		2.9 120							3.1 110	3.1 120														
30							3.1 120	3.6 120	3.5 120	(3.8) 120				3.6 120	3.4 120	3.4 120	3.1 120	(3.0) 120				2.2 120		
31	2.8 120	1.0 120					2.9 120	3.1 120	4.2 120	3.8 120			3.5 140											
Sum																								
Median	*	*	*	*	*	*	*	2.3	3.1	3.0	*	*	*	*	*	*	2.8	*	*	*	*	*	*	*

* Less than median f°_{E}, or less than lower frequency limit of apparatus.

TABLE 53

IONOSPHERE DATA — 9

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of F2-M1500 for March (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	2.1	2.0^{F}	2.0^{F}	2.0	2.1	2.1	(2.2)^{F}	2.2	2.3	2.4	(2.2)	2.3	2.1	2.1	2.3	2.2	2.2	2.2	2.4	2.1	2.3	2.1	2.0	2.0
2	2.0	1.9^{F}	(1.9)^{F}	1.9	1.9	2.1^{F}	2.2	2.3	2.5	2.4	2.1	2.2	2.1	2.1	2.3	2.1	2.1	2.2	2.1	2.0	2.0	1.9	2.0	2.0
3	2.0	1.9	2.0	2.0	2.0	1.9	2.0	2.2	2.2	2.0	2.1	2.0	2.0	2.0	2.2	2.1	(2.2)	2.1	2.2	2.0	2.1	2.2	2.0	2.0
4	1.9	(1.9)	1.9	1.9	2.0^{F}	2.0	2.0	2.3	2.3	2.2	2.1	2.3	2.2	2.1	2.1	2.2	2.1	2.2	2.2	2.0	2.0	2.1	2.2	2.0
5	2.0	1.9^{F}	1.9	1.9	1.9	1.9	2.0	2.3	2.2	2.4	2.1	2.1	1.9	1.9	2.0	2.1	(2.1)	2.2	2.2	2.0	2.0	2.0	1.8	1.9
6	1.8	1.9	2.0	2.0	2.0	1.9	2.1	2.2	2.4	2.3	2.1	2.2	(2.2)	2.1	2.1	2.1	1.9	2.2	2.1	2.2	2.2	2.0	2.0	1.9
7	1.8	1.8	1.9^{F}	1.9^{F}	1.9^{F}	1.9^{F}	1.9^{F}	2.2	2.3	2.1	2.2	2.1	(2.2)	2.1	2.0	C	2.1	2.2	2.2	2.1	2.1	2.0	2.0	1.9
8	(1.9)^{F}	1.9^{F}	(2.0)	1.9	1.8	1.9^{F}	1.9^{F}	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.0	2.2	2.1	2.1	2.1	(2.1)^{F}	(2.0)^{F}	F	(2.0)^{F}
9	(1.9)^{F}	(1.7)^{F}	1.7^{F}	(1.8)^{F}	(1.8)^{F}	(1.9)^{F}	(1.9)^{F}	2.2	A	2.2	2.2	2.1	2.1	2.1	2.1	2.0	2.1	2.2	2.2	2.2	2.2	(2.2)^{F}	(2.0)^{F}	(1.9)^{F}
10	(1.8)^{F}	(1.8)^{F}	(2.0)^{F}	2.0^{F}	(2.1)^{F}	(2.1)^{F}	2.2^{F}	2.4	2.5	2.2	2.2	2.0	B	2.0	2.1	2.2	2.3	2.3	2.1	J	J	C	C	C
11	C	C	(2.3)	(1.9)$^{F}_{K}$	(2.0)$^{F}_{K}$	(2.1)$^{F}_{K}$	(1.9)$^{F}_{K}$	(2.0)$^{F}_{K}$	C K	J K	J K	C K	J K	(1.8)K	J K	(1.8)K	J K	J K	C K	C K	C K	(1.9)$^{F}_{K}$	(2.1)$^{F}_{K}$	(1.9)$^{F}_{K}$
12	F K	(1.9)$^{F}_{K}$	(1.8)$^{F}_{K}$	(1.9)$^{F}_{K}$	(2.0)$^{F}_{K}$	(1.9)$^{F}_{K}$	(2.1)$^{F}_{K}$	J K	2.2K	(2.2)K	2.0K	1.9K	1.8K	1.8K	2.0K	1.8K	1.8K	(2.0)K	(2.0)$^{F}_{K}$	2.1K	2.0$^{F}_{K}$	F K	(1.9)$^{F}_{K}$	F K
13	F K	(1.8)$^{F}_{K}$	(1.8)$^{F}_{K}$	(1.8)$^{F}_{K}$	(1.9)$^{F}_{K}$	(1.8)$^{F}_{K}$	(2.0)^{F}	(2.1)	2.1	(2.1)	1.9	2.2	(2.1)	2.3	2.1	2.1	2.2	(2.2)	2.2	2.0	(1.9)	(2.0)^{F}	(2.0)^{F}	(2.0)^{F}
14	(1.9)^{F}	2.0^{F}	1.9^{F}	2.0^{F}	2.0^{F}	2.1	(2.0)	2.2^{H}	2.4^{H}	(2.0)	2.1	2.0	2.1	2.1	2.2	2.1	2.2	2.0	2.1	2.0	(1.9)^{K}	1.8^{K}	(1.6)K	(1.6)K
15	(1.8)^{K}	(1.9)$^{F}_{K}$	F K	(1.8)$^{F}_{K}$	(1.6)$^{F}_{K}$	(1.6)$^{F}_{K}$	(1.9)$^{F}_{K}$	2.1K	1.9K	1.9K	1.9K	1.6K	1.8K	1.9K	2.1K	1.8K	2.0K	2.0K	2.0K	1.8K	1.8K	1.8	2.0	1.9
16	1.9^{F}	(1.9)^{F}	(1.9)^{F}	(2.0)^{F}	1.7^{F}	(2.0)^{F}	(2.0)^{F}	2.2	2.0	2.1	2.0	1.9	2.0	2.0	2.2	2.1	2.0	2.2	2.1	2.0	2.0^{F}	(1.9)^{F}	1.9^{F}	(1.9)^{F}
17	(2.0)^{F}	(2.0)^{F}	2.1^{F}	2.0	2.0	B	(2.0)	2.2	2.1	2.5	2.0	2.0	2.1	2.1	2.0	2.2	2.0	2.1	2.1	2.0	1.9	1.9	1.9	J
18	2.0^{F}	(2.0)^{F}	(2.0)^{F}	(2.1)^{F}	2.0^{F}	(2.0)^{F}	2.1	2.3	2.2	2.3	2.1	2.0	(2.2)	2.1	2.0	2.1	2.1	2.1	2.1	2.1	1.9	2.0	2.0	2.0
19	(2.0)^{F}	(1.9)^{F}	(1.9)^{F}	(1.8)^{F}	(2.0)^{F}	(1.9)^{F}	1.9	2.2	2.3	2.3	2.2	2.2	2.0	2.2	2.0	2.2	2.0	2.1	2.2	2.2	2.1	2.0	2.0	1.9
20	2.0	2.0	1.9	2.0^{F}	2.1	1.9	2.1	2.3	2.4	2.3	2.3	(2.0)	2.0	1.9	2.0	2.0	1.8	2.0	2.1	2.0	2.1	2.1	2.0	2.0
21	(1.9)^{F}	1.9^{F}	(2.0)^{F}	(2.0)^{F}	(2.1)^{F}	(1.9)^{F}	2.0^{F}	2.2	2.2	2.1	2.2	2.1	2.1	2.1	2.0	2.1	2.2	2.1	2.1	2.2	2.1	(1.9)	1.9	1.9
22	1.9^{F}	(2.0)^{F}	2.1^{F}	2.1^{F}	(2.0)^{F}	(1.9)^{F}	2.1	2.2	2.2	2.0	2.2	2.0	2.1	2.1	2.1	2.2	2.2	2.1	2.1	2.0	2.1	1.9	2.0	2.0^{F}
23	2.0^{F}	(2.0)^{F}	(2.0)^{F}	2.0^{F}	(1.9)^{F}	1.9^{F}	2.1^{F}	2.2	2.3	2.0	2.0	2.0	2.0	2.1	2.1	2.2	2.1	2.2	2.2	2.0	2.0	2.0^{F}	(2.1)^{F}	(2.0)^{F}
24	(2.0)^{F}	2.0^{F}	(1.9)^{F}	(2.0)^{F}	(2.0)^{F}	(2.1)^{F}	(2.1)^{F}	2.1	2.2	2.2	2.1	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.0	1.9	(1.9)^{F}	(1.9)^{F}	(1.9)^{F}
25	(1.9)^{F}	(1.9)^{F}	(2.0)^{F}	(2.0)^{F}	(2.0)^{F}	(2.0)^{F}	(2.3)^{F}	2.5	2.3	2.1	2.1	2.1	(2.3)	2.1	2.0	2.1	2.1	2.0	2.0	2.1	1.8	1.7	1.8K	1.9K
26	1.9K	1.8K	1.9K	1.8K	F K	F K	(1.9)$^{F}_{K}$	2.2K	2.2K	(1.8)K	1.6K	G K	(1.4)K	1.8K	1.9K	1.7K	2.0K	1.8K	2.1K	1.8K	1.9$^{F}_{K}$	1.9$^{F}_{K}$	(2.0)$^{F}_{K}$	(1.8)$^{F}_{K}$
27	(1.8)$^{F}_{K}$	(1.7)$^{F}_{K}$	(1.7)$^{F}_{K}$	(1.9)$^{F}_{K}$	(1.8)$^{F}_{K}$	(1.8)$^{F}_{K}$	2.0K	2.1K	(1.9)K	(1.9)K	1.6K	(1.7)K	(1.9)K	2.0K	1.9K	2.0K	2.0K	2.0K	2.0K	2.0$^{F}_{K}$	2.0K	2.0K	1.9K	1.7K
28	1.8K	1.7K	1.7K	1.7K	1.8K	(2.0)$^{F}_{K}$	2.0K	2.2K	G K	G K	G K	G K	G K	G K	G K	G K	1.6K	1.8K	2.0K	2.1K	2.0$^{F}_{K}$	(2.1)$^{F}_{K}$	(1.9)$^{F}_{K}$	(1.9)$^{F}_{K}$
29	(1.7)$^{F}_{K}$	(1.8)$^{F}_{K}$	(1.8)$^{F}_{K}$	(2.0)$^{F}_{K}$	(1.9)$^{F}_{K}$	2.0$^{F}_{K}$	(2.1)^{F}	2.3	(2.4)	2.1	2.0	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.0	2.0	2.0	(2.0)^{F}	(1.9)^{F}
30	(2.0)^{F}	(1.8)^{F}	(2.0)^{F}	(2.0)^{F}	(2.2)^{F}	(2.0)^{F}	2.3	(2.4)	2.3	(2.4)	2.4	(1.9)	2.1	2.1	2.1	2.1	2.1	2.2	2.3	2.3	2.1	2.0	(2.1)^{F}	(2.2)^{F}
31	(2.0)^{F}	(1.9)^{F}	(2.1)^{F}	(1.8)^{F}	(2.1)^{F}	(2.2)^{F}	(2.5)^{F}	2.4	2.4	2.4	(2.2)	(2.1)	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.0	1.9	1.9	2.0
Sum																								
Median	1.9	1.9	1.9	2.0	2.0	1.9	2.0	2.2	2.3	2.2	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	1.9

TABLE 54

IONOSPHERE DATA—10

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of F2-M3000 for March (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	3.1	3.0 F	3.0 F	3.0	3.2	3.1	(3.3) F	3.3	3.3	3.5	(3.2)	3.3	3.2	3.1	3.4	3.2	3.2	3.2	3.5	3.2	3.4	3.1	3.0	3.0
2	3.0	2.9 F	(2.9) F	2.9	2.9	3.1 F	3.2	3.4	3.6	3.5	(3.1)	3.3	3.1	3.1	3.4	3.1	3.2	3.3	3.2	3.0	3.1	2.9	3.0	3.0
3	3.0	2.9	3.1	3.0	3.1	2.8	3.1	3.3	3.3	3.0	3.2	3.0	3.0	3.1	3.2	3.2	(3.3)	3.1	3.2	3.0	3.1	3.2	3.0	3.1
4	2.9	(2.9)	2.9	2.8	3.0 F	3.0	3.0	3.4	3.3	3.2	3.2	3.4	3.2	3.1	3.1	3.3	3.2	3.2	3.3	3.0	3.1	3.1	3.2	3.1
5	3.0	2.8 F	2.8	2.8	2.8	2.9	3.0	3.4	3.3	3.5	3.2	3.1	2.9	2.9	3.0	3.2	(3.2)	3.2	3.2	3.0	3.0	3.1	2.8	2.9
6	2.8	2.9	3.0	3.0	3.0	2.9	3.2	3.2	3.5	3.4	3.1	3.3	(3.2)	3.2	3.2	3.1	2.9	3.3	3.2	3.3	3.3	3.0	3.0	2.9
7	2.8	2.8	2.9 F	2.9 F	2.9 F	2.9 F	2.9 F	3.3	3.4	3.1	3.2	3.2	(3.2)	3.2	3.0	C	3.1	3.3	3.2	3.1	3.1	3.0	3.0	2.9
8	(2.8) F	2.9 F	(3.0)	2.8	2.8	3.0 F	3.0 F	3.1	3.2	3.2	3.0	3.0	3.0	3.2	3.2	3.0	3.2	3.1	3.2	3.1	(3.1) F	(3.0) F	F	(3.1) F
9	(2.9) F	(2.6) F	2.6 F	(2.7) F	(2.8) F	(2.9) F	(3.0) F	3.3	A	3.2	3.3	3.2	3.1	3.1	3.1	3.0	3.1	3.2	3.2	3.2	3.2	(3.2) F	(3.0) F	(2.9) F
10	(2.7) F	(2.7) F	(3.0) F	3.0 F	(3.1) F	(3.1) F	3.2 F	3.5	3.6	3.3	3.3	3.0	B	3.1	3.2	3.2	3.3	3.3	3.2	J	J	C	C	C
11	C	C	(3.3)	(2.8) F K	(3.0) F K	(3.1) F K	(2.8) F K	(2.9) F K	C K	J K	J K	C K	J K	(2.7) K	J K	(2.7) K	J K	J K	C K	C K	C K	(2.9) F K	(3.1) F K	(2.8) F K
12	F K	(2.9) F K	(2.7) F K	(2.9) F K	(3.0) F K	(2.8) F K	3.2 F K	J K	3.3 K	(3.3) K	3.0 K	2.8 K	2.7 K	2.8 K	2.9 K	2.7 K	2.8 K	(3.2) K	(3.0) F K	3.1 K	3.0 F K	F K	(3.0) F K	F K
13	F K	(2.7) F K	(2.7) F K	(2.7) F K	(2.8) F K	(2.8) F K	(2.9) F	(3.1)	3.1	(3.2)	2.9	3.2	(3.2)	3.4	3.1	3.2	3.2	(3.3)	3.3	3.1	(2.9)	(3.0) F	(3.0) F	(3.0) F
14	(2.8) F	3.0 F	2.9 F	3.1 F	3.0 F	3.1	(3.0)	3.2 H	3.4 H	(3.0)	3.1	3.1	3.1	3.2	3.2	3.2	3.2	3.1	3.2	3.1	(2.9) K	2.7 K	(2.5) K	(2.5) K
15	(2.7) K	(2.9) F K	F K	(2.7) F K	(2.5) F K	(2.5) F K	(2.8) F K	3.1 K	2.9 K	2.9 K	2.9 K	2.4 K	2.7 K	2.8 K	3.2 K	2.8 K	3.0 K	3.1 K	3.0 K	2.7 K	(2.8) K	(2.7)	3.0	2.9
16	2.9 F	(2.9) F	(2.9) F	(3.0) F	2.6 F	(3.0) F	(3.0) F	3.2	3.0	3.1	3.1	2.9	3.0	3.0	3.2	3.2	3.0	3.2	3.1	3.1	3.0 F	(2.9) F	2.9 F	(2.8) F
17	(3.0) F	(3.1) F	3.1 F	3.0	3.0	B	(2.9)	3.3	3.1	3.5	3.1	3.0	3.2	3.2	3.0	3.3	3.0	3.2	3.2	3.0	2.9	2.9	2.9	J
18	3.0 F	(3.0) F	(3.0) F	(3.1) F	3.1 F	(3.0) F	3.1	3.3	3.3	3.4	3.1	3.0	(3.2)	3.1	3.0	3.1	3.1	3.2	3.1	3.1	2.9	3.0	3.0	3.0
19	(3.0) F	(2.8) F	(2.8) F	(2.8) F	(3.0) F	(2.9) F	2.9	3.3	3.3	3.4	3.3	3.2	3.0	3.3	3.0	3.2	3.1	3.1	3.2	3.3	3.1	3.0	3.1	2.8
20	3.0	3.0	3.0	3.0 F	3.1	2.9	3.2	3.3	3.4	3.3	3.4	(3.0)	3.0	3.0	3.0	3.0	2.7	3.0	3.1	3.0	3.2	3.2	3.0	3.0
21	(2.9) F	2.8 F	(3.0) F	(3.0) F	(3.1) F	(2.9) F	3.1 F	3.3	3.2	3.1	3.2	3.2	3.1	3.2	3.0	3.1	3.3	3.1	3.2	3.2	3.1	(2.9)	2.9	2.9
22	2.9 F	(3.0) F	3.1 F	3.1 F	(3.0) F	(2.8) F	3.1	3.2	3.3	3.0	3.3	3.1	3.2	3.2	3.1	3.3	3.2	3.1	3.1	3.1	3.1	2.9	3.0	3.0 F
23	3.0 F	3.0 F	(3.0) F	3.0 F	(2.9) F	2.9 F	3.1 F	3.2	3.3	3.1	3.0	3.1	3.0	3.1	3.1	3.2	3.1	3.2	3.2	3.0	3.0	3.1 F	(3.1) F	(3.0) F
24	(3.0) F	3.1 F	(2.8) F	(3.0) F	(3.0) F	(3.0) F	(3.1) F	3.1	3.3	3.2	3.1	3.0	3.0	3.1	3.1	3.0	3.1	3.1	3.1	3.1	2.8	(2.8) F	(2.9) F	(2.9) F
25	(3.0) F	(2.9) F	(3.0) F	(3.0) F	(3.0) F	(3.0) F	(3.3) F	3.5	3.4	3.2	3.1	3.2	(3.3)	3.1	3.0	3.2	3.1	3.0	3.0	3.1	2.7	2.6	2.8 K	2.9 K
26	2.9 K	2.8 K	2.9 K	2.7 K	F K	F K	(2.9) F K	3.2 K	3.2 K	(2.8) K	2.4 K	G K	(2.2) K	2.8 K	2.9 K	2.6 K	3.0 K	2.8 K	3.1 K	2.7 K	2.9 F K	2.9 F K	(3.0) F K	(2.8) F K
27	(2.8) F K	(2.6) F K	(2.6) F K	(2.9) F K	(2.7) F K	(2.7) F K	3.0 K	3.2 K	(2.9) K	(2.9) K	2.4 K	(2.6) K	(2.9) K	2.9 K	2.8 K	3.0 K	3.1 K	2.9 K	3.0 K	3.0 F K	3.0 K	3.0 K	2.9 K	2.6 K
28	2.7 K	2.6 K	2.6 K	2.6 K	2.7 K	(3.0) F K	3.0 K	3.1 K	G K	G K	G K	G K	G K	G K	G K	G K	2.4 K	2.6 K	2.9 K	3.1 K	3.1 K	(3.1) F K	(2.8) F K	(2.8) F K
29	(2.5) F K	(2.7) F K	(2.7) F K	(3.0) F K	(2.8) F K	3.0 F K	(3.1) F	3.4	(3.4)	3.0	3.0	2.9	3.0	3.0	3.0	3.0	2.9	3.0	3.1	3.0	3.0	2.9	(2.9) F	(2.8) F
30	(2.9) F	(2.8) F	(2.9) F	(3.0) F	(3.2) F	(3.0) F	3.3	(3.4)	3.4	(3.4)	3.4	(2.7)	3.0	3.1	3.1	3.1	3.0	3.2	3.3	3.3	3.1	3.0	(3.1) F	(3.2) F
31	(3.1) F	(2.9) F	(3.1) F	(2.8) F	(3.0) F	(3.1) F	(3.5) F	3.4	3.4	3.4	(3.3)	(3.1)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.2	2.9	2.9	2.9	3.0
Sum																								
Median	2.9	2.9	2.9	3.0	3.0	3.0	3.1	3.3	3.3	3.2	3.1	3.1	3.0	3.1	3.1	3.1	3.1	3.2	3.2	3.1	3.0	3.0	3.0	2.9

TABLE 55

IONOSPHERE DATA—II

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of F2-M3500 for March (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	3.2	3.2 F	3.2 F	3.2	3.3	3.3	(3.5) F	3.4	3.4	3.7	(3.4)	3.5	3.4	3.3	3.5	3.4	3.4	3.4	3.6	3.4	3.5	3.3	3.2	3.2
2	3.2	3.1 F	(3.1) F	3.1	3.1	3.3 F	3.4	3.5	3.7	3.6	3.3	3.5	3.2	3.3	3.6	3.3	3.4	3.5	3.3	3.2	3.2	3.1	3.2	3.2
3	3.2	3.1	3.2	3.2	3.3	3.0	3.3	3.5	3.5	3.2	3.4	3.2	3.2	3.2	3.4	3.3	(3.5)	3.3	3.4	3.2	3.2	3.4	3.2	3.3
4	3.1	(3.1)	3.1	3.0	3.2 F	3.2	3.2	3.5	3.5	3.4	3.4	3.5	3.4	3.3	3.3	3.4	3.4	3.4	3.4	3.2	3.2	3.3	3.4	3.3
5	3.2	3.0 F	3.0	3.0	3.0	3.1	3.2	3.6	3.5	3.7	3.4	3.3	3.1	3.1	3.2	3.3	(3.4)	3.4	3.4	3.2	3.2	3.2	3.0	3.0
6	3.0	3.1	3.2	3.2	3.1	3.1	3.4	3.4	3.7	3.5	3.3	3.5	(3.4)	3.4	3.3	3.3	3.1	3.5	3.4	3.5	3.5	3.2	3.2	3.1
7	3.0	3.0	3.1 F	3.1 F	3.1 F	3.1 F	3.1 F	3.4	3.5	3.3	3.4	3.3	(3.4)	3.3	3.2	C	3.3	3.4	3.4	3.3	3.3	3.2	3.2	3.1
8	(3.1) F	3.1 F	(3.2)	3.0	3.0	3.1 F	3.1 F	3.3	3.4	3.4	3.2	3.2	3.2	3.3	3.3	3.2	3.4	3.3	3.4	3.3	(3.3) F	(3.2) F	F	(3.3) F
9	(3.1) F	(2.8) F	2.8 F	(2.9) F	(3.0) F	(3.1) F	(3.1) F	3.5	A	3.4	3.4	3.4	3.3	3.3	3.2	3.2	3.3	3.4	3.4	3.4	3.4	(3.4) F	(3.2) F	(3.1) F
10	(2.9) F	(2.9) F	(3.2) F	3.2 F	(3.3) F	(3.3) F	3.4 F	3.6	3.7	3.4	3.4	3.2	B	3.3	3.4	3.4	3.5	3.4	3.3	J	J	C	C	C
11	C	C	(3.5)	(3.0) F K	(3.2) F K	(3.2) F K	(3.0) F K	(3.1) F K	C K	J K	J K	C K	J K	(2.9) K	J K	(2.9) K	J K	J K	C K	C K	C K	(3.2) F K	(3.3) F K	(3.0) F K
12	F K	(3.1) F K	(2.9) F K	(3.2) F K	(3.2) F K	(3.1) F K	(3.3) F K	J K	3.5 K	(3.5) K	3.2 K	3.0 K	2.9 K	3.0 K	3.1 K	2.9 K	3.0 K	(3.3) K	(3.2) F K	3.3 K	3.2 F K	F K	(3.2) F K	F K
13	F K	(2.9) F K	(2.9) F K	(2.9) F K	(3.1) F K	(3.0) F K	(3.1) F	(3.2)	3.3	(3.4)	3.1	3.4	(3.4)	3.6	3.3	3.4	3.4	(3.5)	3.4	3.3	(3.1)	(3.2) F	(3.1) F	(3.1) F
14	(3.0) F	3.2 F	3.1 F	3.3 F	3.2 F	3.3	(3.2)	3.4 H	3.6 H	(3.1)	3.3	3.3	3.3	3.3	3.4	3.3	3.4	3.2	3.4	3.3	(3.1) K	2.9 K	(2.7) K	(2.7) K
15	(2.9) K	(3.1) F K	F K	(2.9) F K	(2.7) F K	(2.7) F K	(3.0) F K	3.3 K	3.0 K	3.1 K	3.1 K	2.6 K	2.9 K	3.0 K	3.3 K	3.0 K	3.2 K	3.2 K	3.1 K	2.9 K	3.0 K	2.9	3.1	3.1
16	3.1 F	(3.1) F	(3.1) F	(3.2) F	2.8 F	(3.2) F	(3.2) F	3.4	3.2	3.3	3.2	3.1	3.2	3.2	3.4	3.3	3.2	3.4	3.3	3.3	3.2 F	(3.1) F	3.1 F	(3.0) F
17	(3.2) F	(3.3) F	3.3 F	3.2	3.2	B	(3.1)	3.5	3.3	3.7	3.3	3.2	3.4	3.4	3.2	3.5	3.2	3.4	3.4	3.2	3.1	3.1	3.1	J
18	3.2 F	(3.2) F	(3.2) F	(3.3) F	3.3 F	(3.2) F	3.3	3.5	3.4	3.6	3.2	3.2	(3.4)	3.3	3.2	3.3	3.3	3.4	3.3	3.3	3.1	3.2	3.3	3.2
19	(3.2) F	(3.0) F	(3.0) F	(3.0) F	(3.2) F	(3.1) F	3.1	3.5	3.5	3.5	3.5	3.4	3.2	3.5	3.2	3.4	3.2	3.3	3.4	3.4	3.3	3.2	3.3	3.0
20	3.2	3.2	3.2	3.2 F	3.3	3.1	3.4	3.5	3.6	3.5	3.6	(3.2)	3.2	3.2	3.2	3.2	2.9	3.2	3.3	3.2	3.3	3.3	3.2	3.2
21	(3.1) F	3.0 F	(3.2) F	(3.2) F	(3.3) F	(3.1) F	3.2 F	3.5	3.4	3.3	3.3	3.4	3.3	3.4	3.2	3.3	3.5	3.3	3.4	3.4	3.3	(3.1)	3.1	3.1
22	3.1 F	(3.2) F	3.3 F	3.3 F	(3.2) F	(3.0) F	3.3	3.4	3.5	3.2	3.4	3.3	3.4	3.3	3.3	3.4	3.4	3.3	3.2	3.3	3.3	3.1	3.2	3.2 F
23	3.2 F	3.2 F	(3.2) F	3.2 F	(3.1) F	3.1 F	3.3 F	3.4	3.5	3.3	3.2	3.3	3.2	3.3	3.3	3.4	3.3	3.4	3.4	3.2	3.2	3.3 F	(3.3) F	(3.2) F
24	(3.2) F	3.3 F	(3.0) F	(3.3) F	(3.2) F	(3.3) F	(3.4) F	3.3	3.5	3.4	3.3	3.2	3.2	3.3	3.3	3.2	3.3	3.3	3.3	3.3	3.0	(3.0) F	(3.1) F	(3.1) F
25	(3.1) F	(3.1) F	(3.2) F	(3.2) F	(3.2) F	(3.2) F	(3.5) F	3.7	3.6	3.3	3.3	3.3	(3.5)	3.3	3.2	3.3	3.3	3.2	3.2	3.3	2.9	2.8	3.0 K	3.1 K
26	3.1 K	3.0 K	3.1 K	2.8 K	F K	F K	(3.0) F K	3.4 K	3.4 K	(3.0) K	2.6 K	G K	(2.4) K	3.0 K	3.1 K	2.8 K	3.2 K	3.0 K	3.3 K	2.9 K	3.1 F K	3.1 F K	(3.2) F K	(3.0) F K
27	(2.9) F K	(2.8) F K	(2.8) F K	(3.1) F K	(2.9) F K	(2.9) F K	3.2 K	3.4 K	(3.1) K	(3.1) K	2.6 K	(2.8) K	(3.0) K	3.1 K	3.0 K	3.2 K	3.3 K	3.1 K	3.2 K	3.2 F K	3.2 K	3.2 K	3.1 K	2.8 K
28	2.9 K	2.8 K	2.8 K	2.8 K	2.9 K	(3.2) F K	3.2 K	3.3 K	G K	G K	G K	G K	G K	G K	G K	G K	2.6 K	2.9 K	3.1 K	3.3 K	3.2 K	(3.3) F K	(3.0) F K	(3.0) F K
29	(2.7) F K	(2.9) F K	(2.9) F K	(3.2) F K	(3.0) F K	3.2 F K	(3.3) F	3.6	(3.6)	3.2	3.2	3.1	3.2	3.2	3.2	3.3	3.1	3.2	3.3	3.2	3.2	3.1	(3.2) F	(3.1) F
30	(3.1) F	(3.0) F	(3.1) F	(3.2) F	(3.3) F	(3.2) F	3.5	(3.6)	3.6	(3.6)	3.6	(2.9)	3.2	3.3	3.3	3.3	3.2	3.4	3.5	3.5	3.3	3.2	(3.3) F	(3.4) F
31	(3.3) F	(3.1) F	(3.3) F	(3.0) F	(3.2) F	(3.3) F	(3.6) F	3.6	3.5	3.6	(3.5)	(3.3)	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.1	3.1	3.1	3.2
Sum																								
Median	3.1	3.1	3.1	3.2	3.2	3.1	3.2	3.4	3.5	3.4	3.3	3.3	3.2	3.3	3.3	3.3	3.3	3.3	3.4	3.3	3.2	3.2	3.2	3.1

TABLE 56

IONOSPHERE DATA — 12

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of Fi—M3000 for March (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												3.7	(3.6)	3.7	3.6	3.5								
2												3.7	3.7	3.7	3.5									
3										(3.6)	(3.5)	3.5	3.6	(3.6)	3.6	(3.5)								
4												3.5	3.7	3.6	3.7	3.6								
5										(3.6)H	3.5	3.5		3.4	3.4	3.4	3.5							
6											3.6		3.6H	3.4	3.8	3.7								
7											(3.7)	3.6	3.5	3.4	3.6	C								
8									(3.4)		3.4	3.5	3.6	3.5	3.5	3.6								
9										A	3.5	3.5	3.8	3.5	3.5	3.9								
10										3.7		(3.6)	B	B	C	C	C							
11									K	C K	C K	C K	C K	C K	C K	C K	C K	K						
12									C K	C K	C K	3.4K	3.4K	3.2K	3.3K	3.4K	3.2K	K						
13											3.5H	3.6	3.4	3.6	(3.6)									
14											3.6	3.5	3.7	3.6	(3.7)	(3.5)	H							
15									K	(3.3)H	3.6K	3.5K	3.6K	3.5K	3.5K	3.4K	3.3K	(3.6)K						
16										(3.6)	3.4	3.5	3.4	3.5	3.4	3.4	(3.5)	3.6						
17										3.6	(3.6)	3.7	3.7	3.7	3.6	(3.5)								
18										3.7	3.5	3.7	3.5	3.7	3.5	3.4	3.6							
19									(3.8)	3.7	3.7	3.5	3.5	3.6	(3.6)H	3.5								
20										3.8	(3.5)	(3.7)	3.8	(3.8)	3.4	3.5	(3.4)	(3.6)						
21									3.8	3.6	3.5	3.6	3.6	3.6	3.7	3.4	3.7							
22										3.5H	3.8	3.4H	3.6	3.7	3.5	3.6								
23									(3.7)	3.6	3.8	3.7	3.8	3.6	3.5	3.6								
24									3.5	3.4	3.7	3.6	3.7	3.5	3.5	3.8	3.5							
25									(3.8)	3.5	3.6	3.6	(3.6)	3.6	3.5	3.5	(3.5)							
26									K	3.7K	3.6K	3.7K	3.5K	3.4K	3.5K	3.5K	3.4K	K						
27									3.5K	3.6K	3.4K	3.6K	3.5K	3.6K	3.4K	3.3K	3.5K	K						
28									3.3K	3.5K	3.7K	3.8K	3.7K	3.8K	3.5K	3.5K	3.4K	3.4K						
29									(3.7)	3.6	3.7	3.6	3.6	3.7	3.5	3.5	(3.8)	3.5						
30										3.6	3.7		3.7	3.6	3.6	3.6	3.6							
31										3.5	(3.5)	(3.8)	3.8	3.6	3.6	3.5	(3.6)							
Sum																								
Median									3.7	3.6	3.6	3.6	3.6	3.6	3.5	3.5	3.5	3.6						

TABLE 57

IONOSPHERE DATA--13

RESTRICTED

Washington, D.C. (Location) Ionosphere Station

National Bureau Of Standards (Institution)

Hourly values of E-M1500 for March (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	3.7	A	A	(3.9)	B	(3.8)	3.8	3.7							
2									(3.6)	3.5	3.7	3.8	(3.7)	B	B	3.6	3.6	3.9						
3								3.6	(3.8)	3.8	3.9	3.6	B	B	3.8	(3.8)	3.9	3.5						
4								(3.5)	3.6	3.8	(3.8)	A	4.0	3.7	3.8	3.9	3.9	3.6						
5								3.8	3.8	3.8	3.8	3.9	3.9	3.6	(3.8)	3.9	3.7	(3.8)						
6								F	(3.8)	(4.0)	B	3.8	(4.0)	3.7	3.6	3.8	3.8	3.7	B					
7								$(3.7)^F$	3.8	3.8	3.8	3.9	A	(3.8)	3.8	C	3.6	3.6						
8								(3.8)	A	3.9	A	(3.7)	A	3.8	(3.8)	3.8	3.7	A						
9								A	A	A	A	B	3.8	(3.8)	3.9	3.7	A	A	A					
10								(3.5)	(3.7)	(3.7)	(3.8)	(3.7)	B	B	C	(3.9)	A	A	C					
11							K	A^K	A^K	A^K	A^K	$(3.8)^K$	3.7^K	3.8^K	A^K	$(3.9)^K$	3.8^K	$(3.8)^K$	A^K					
12							K	A^K	A^K	A^K	$(4.0)^K$	$3.8^{H,K}$	3.9^K	$(3.9)^K$	3.8^K	3.8^K	3.9^K	$(3.8)^{H,K}$	$(3.6)^K$					
13									A	A	(4.1)	(3.8)	(3.8)	(3.8)	(4.0)	3.6	3.8	3.8	A					
14								3.5	3.7	A	A	(3.9)	A	(4.0)	(4.0)	3.8	4.0	(3.7)						
15							K	$(4.0)^K$	$(3.7)^K$	A^K	$(4.0)^K$	3.9^K	4.0^K	$(3.7)^K$	$(3.9)^K$	3.7^K	$(3.8)^K$	3.8^K	3.5^K					
16								A	(3.6)	(3.9)	3.8	4.0	(3.8)	(3.8)	3.9	3.9	3.8	3.8	(3.5)					
17								(3.8)	3.7	3.9	(3.7)	3.8	3.9	(3.9)	(3.8)	3.9	(3.9)	(3.7)						
18								(3.6)	(3.9)	(4.0)	(3.9)	(3.9)	3.8	3.8	(3.6)	3.7	A	(3.8)						
19								(3.8)	(4.0)	(3.8)	C	B	(3.8)	3.7	(3.6)	3.8	3.7	3.8	(3.9)					
20								(3.5)	3.7	3.9	3.8	(3.9)	(3.9)	(3.8)	(3.8)	3.8	3.9	A	A					
21								A	(4.0)	A	A	A	$(3.8)^H$	3.7	4.0	3.8	(3.8)	3.8	A					
22								A	A	(3.8)	3.9	3.9	3.9	A	3.8	3.9	3.8	A	A					
23								(3.5)	(3.9)	(3.9)	(4.0)	(4.0)	(4.0)	(3.8)	(3.8)	3.7	3.8	(3.8)	(3.7)					
24								A	A	A	B	A	B	(4.0)	3.8	3.8	3.9	(3.9)	A					
25								(3.8)	A	A	(3.8)	A	(3.9)	A	(3.8)	(3.8)	3.8	3.9	(3.6)					
26							K	$(3.9)^K$	3.7^K	$(3.7)^K$	$(3.8)^K$	$(3.7)^K$	3.8^K	$(3.9)^K$	3.8^K	3.8^K	3.9^K	3.7^K	$(3.4)^K$					
27							K	3.9^K	4.0^K	3.7^K	$(3.7)^K$	4.0^K	$(3.8)^K$	4.0^K	3.9^K	3.9^K	3.9^K	$(3.9)^K$	A^K					
28							$(3.5)^K$	3.7^K	3.7^K	3.6^K	3.7^K	A^K	3.9^K	4.1^K	4.0^K	4.0^K	4.1^K	3.8^K	$(4.0)^K$					
29							(3.9)	3.6	A	(4.0)	4.1	(4.1)	(3.8)	(4.0)	4.1	3.9	3.8	3.8	3.8					
30							A	A	A	4.0	(4.2)	(4.2)	4.1	4.1	(4.0)	4.0	(4.0)	A	3.7					
31								A	(4.2)	A	4.1	(4.2)	4.1	4.2	4.1	3.9	4.1	3.8	3.8					
Sum																								
Median								3.7	3.8	3.8	3.8	3.9	3.9	3.8	3.8	3.8	3.8	3.8	3.7					

Table 58

Ionospheric Storminess, March, 1945

Day	Ionospheric Character* 00-12 GCT	12-24 GCT	Principal Storms Beginning GCT	End GCT	Magnetic Character** 00-12 GCT	12-24 GCT
March						
1	1	1			2	1
2	3	1			1	2
3	1	2			3	1
4	2	2			1	1
5	2	1			1	4
6	1	0			2	3
7	2	1			2	2
8	1	2			3	2
9	2	3			1	1
10	2	1			1	1
11	2	5	0800	—/	4	3
12	4	4	—		3	5
13	4	2	—	1100	3	1
14	1	2			2	2
15	4	4	0100		4	4
16	2	2	—	0200	3	3
17	1	2			2	1
18	1	1			2	2
19	2	2			1	1
20	1	2			2	3
21	3	1			2	2
22	1	1			1	0
23	1	2			1	1
24	1	2			2	2
25	0	2			1	3
26	4	6	0300	—	4	4
27	4	4	—	—	3	3
28	4	6	—	1100	5	3
29	5	3	—		3	2
30	2	1			1	1
31	1	2			0	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 disturbance.

Table 59. Sudden Ionosphere Disturbances

Observed at Washington, D.C.

Day	GCT Beginning	GCT End	Locations of transmitters	Relative intensity at minimum*	Other phenomena
Mar. 10	1641	1800	Ohio, D.C., England, Mexico, Brazil, Chile	0.01	
21	1507	1530	Ohio, D.C., England, Mexico, Brazil, Chile	0.1	
29	1712	1730	Ohio, D.C., England, Mexico, Brazil, Chile, Hawaii	0.1	Terr.mag.pulse** 1712-1724

*Ratio of received field intensity during fadeout to average field intensity before and after, for station W8XAL, 6080 kilocycles, 600 kilometers distant.

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

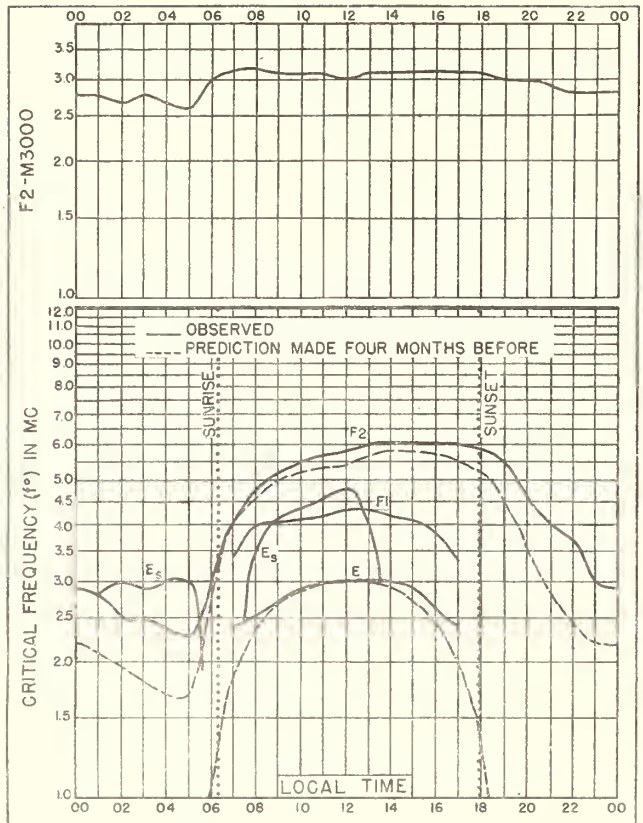

Fig. 1. OTTAWA, CANADA
45.5°N, 75.8°W
MARCH, 1945

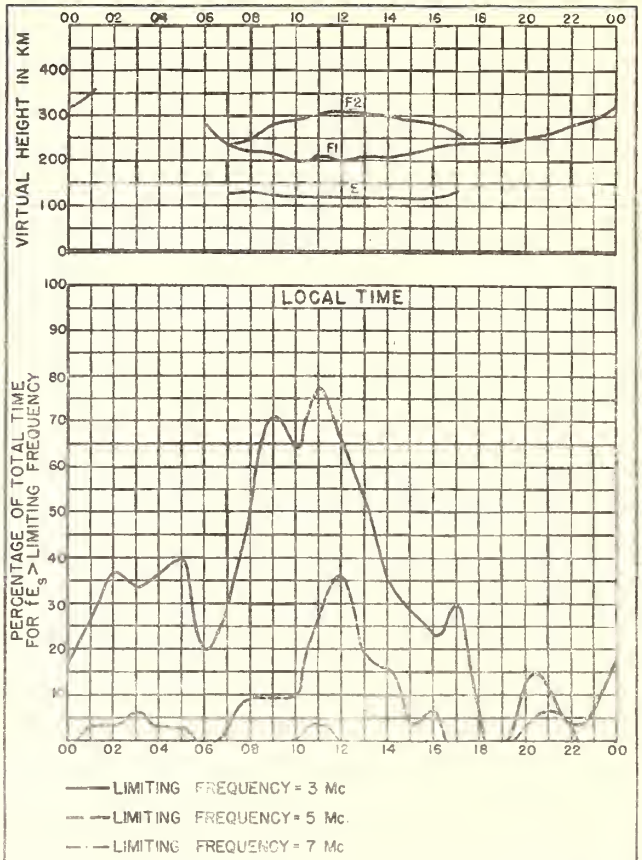

Fig. 2. OTTAWA, CANADA
MARCH, 1945

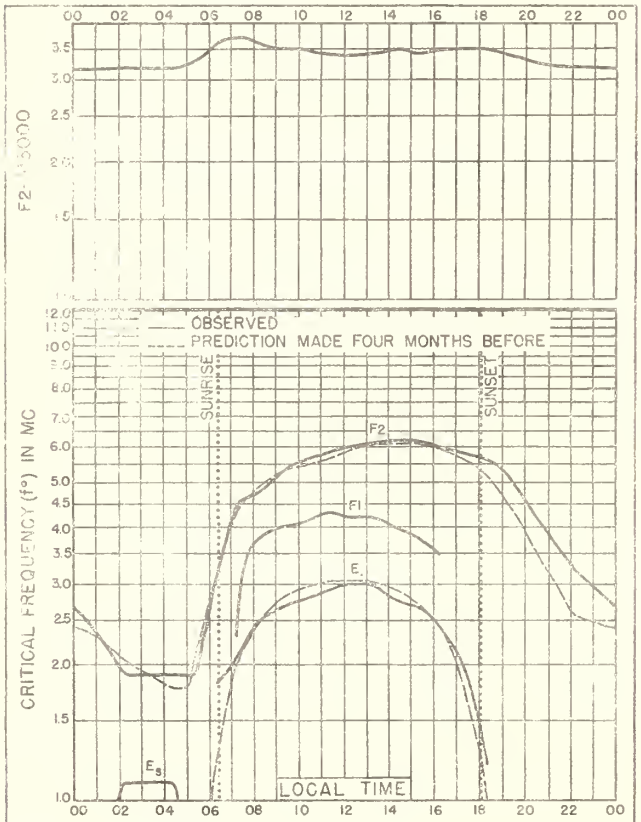

Fig. 3. BOSTON, MASSACHUSETTS
42.4°N, 71.2°W
MARCH, 1945

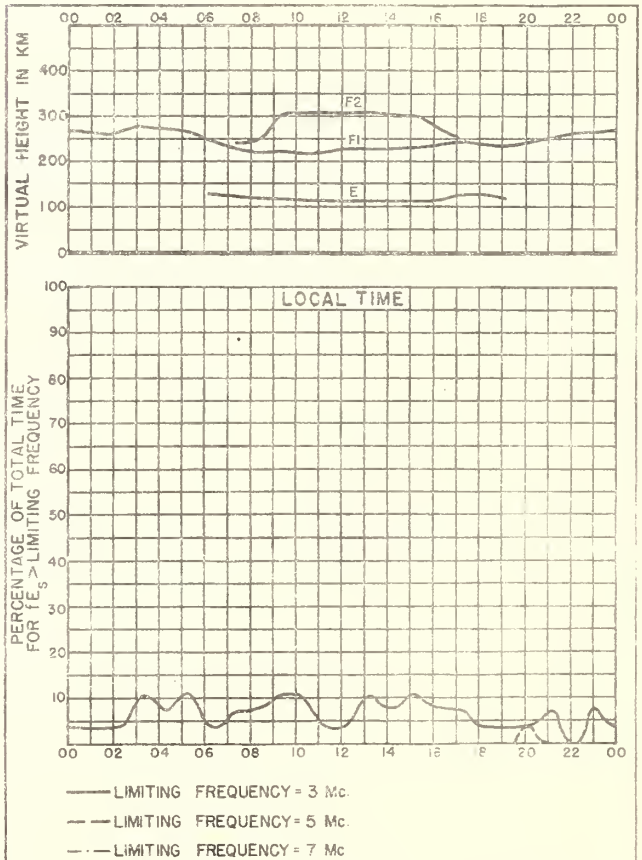

Fig. 4. BOSTON, MASSACHUSETTS
MARCH, 1945

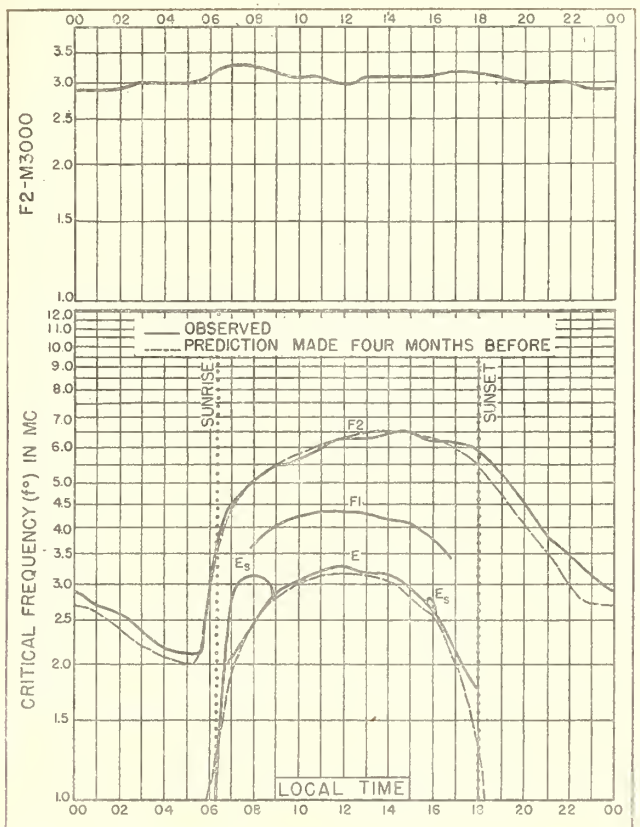

Fig.5. WASHINGTON, D.C.
39.0°N, 77.5°W MARCH, 1945

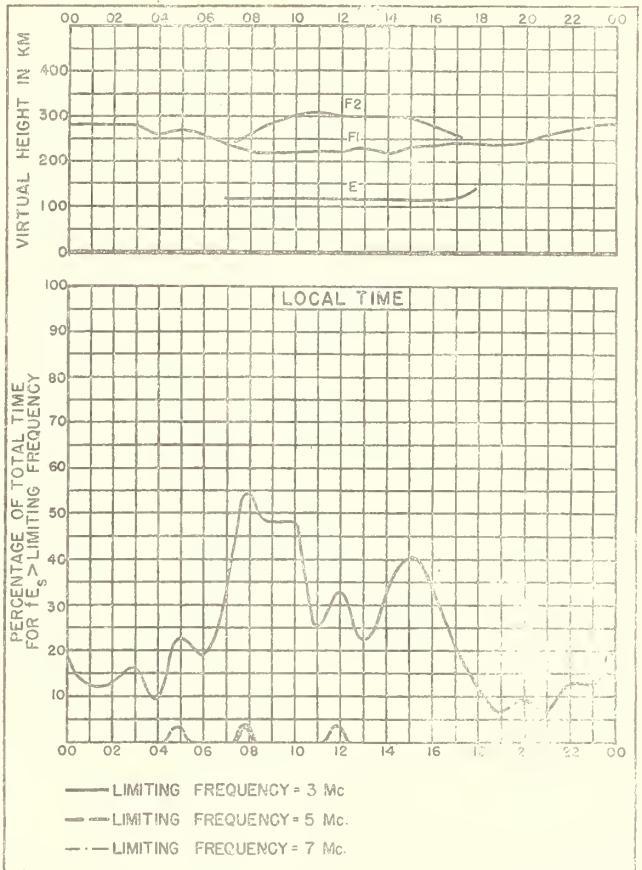

Fig.6. WASHINGTON, D.C. MARCH, 1945

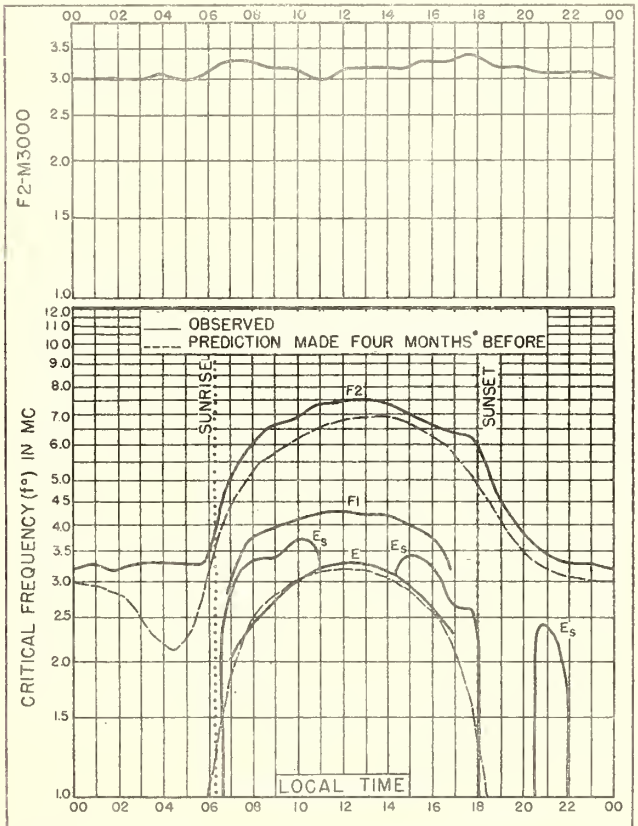

Fig.7. SAN FRANCISCO, CALIFORNIA
37.4°N, 122.2°W MARCH, 1945

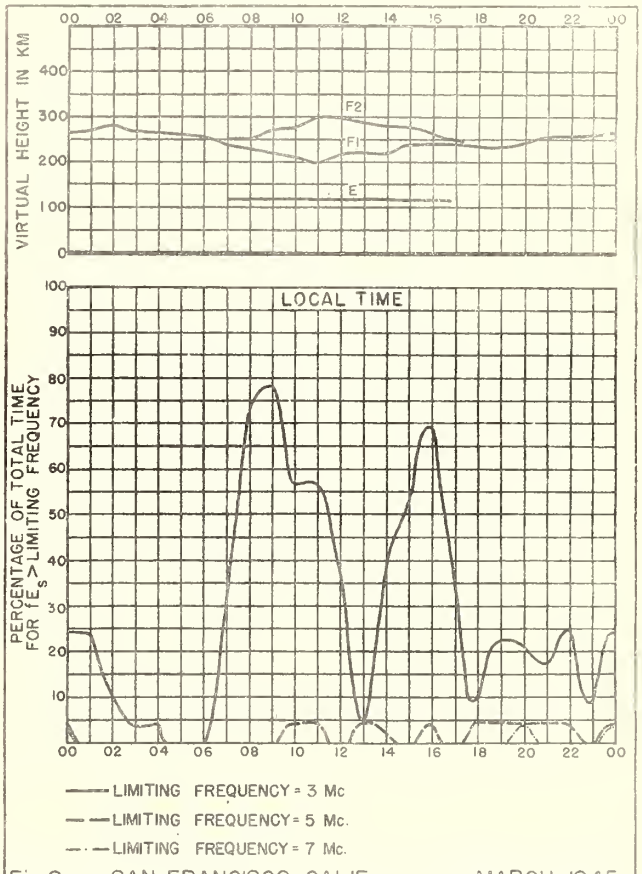

Fig.8. SAN FRANCISCO, CALIF. MARCH, 1945

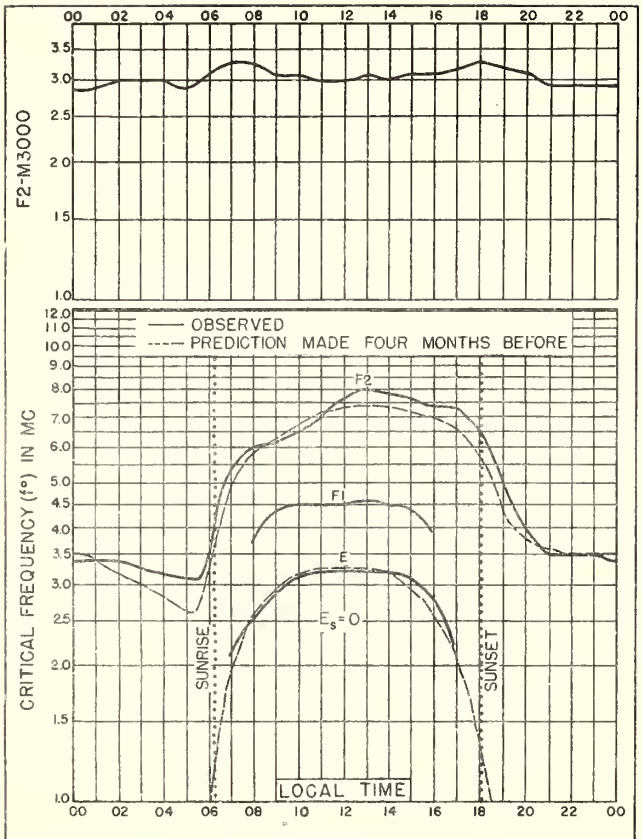

Fig. 9 BATON ROUGE, LOUISIANA
30.5°N, 91.2°W MARCH, 1945

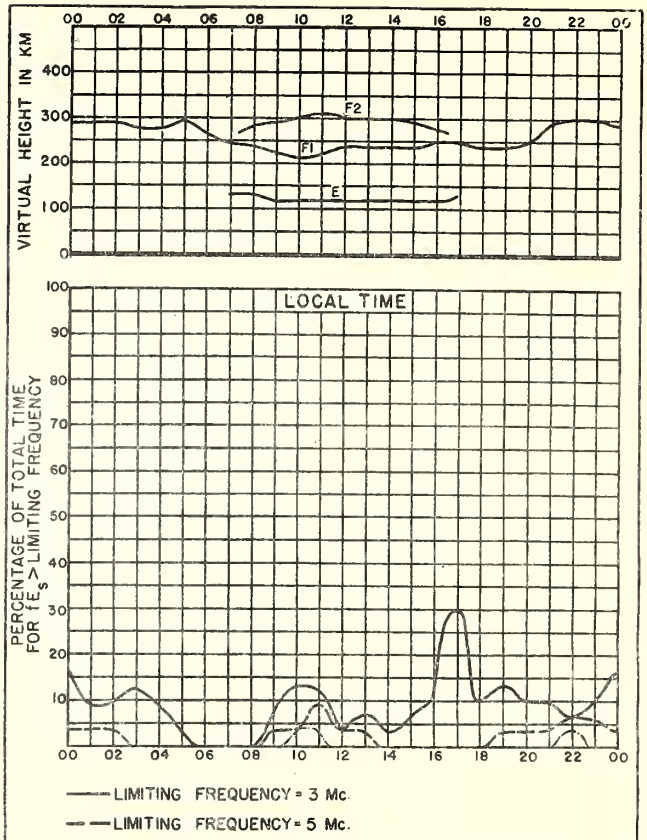

Fig.10. BATON ROUGE, LOUISIANA MARCH, 1945

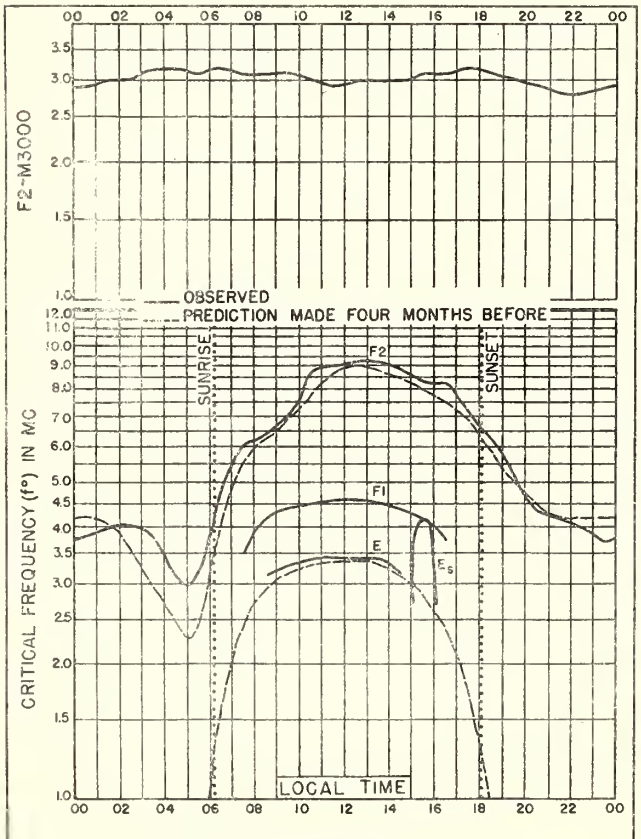

Fig.11. SAN JUAN, PUERTO RICO
18.4°N, 66.1°W MARCH, 1945

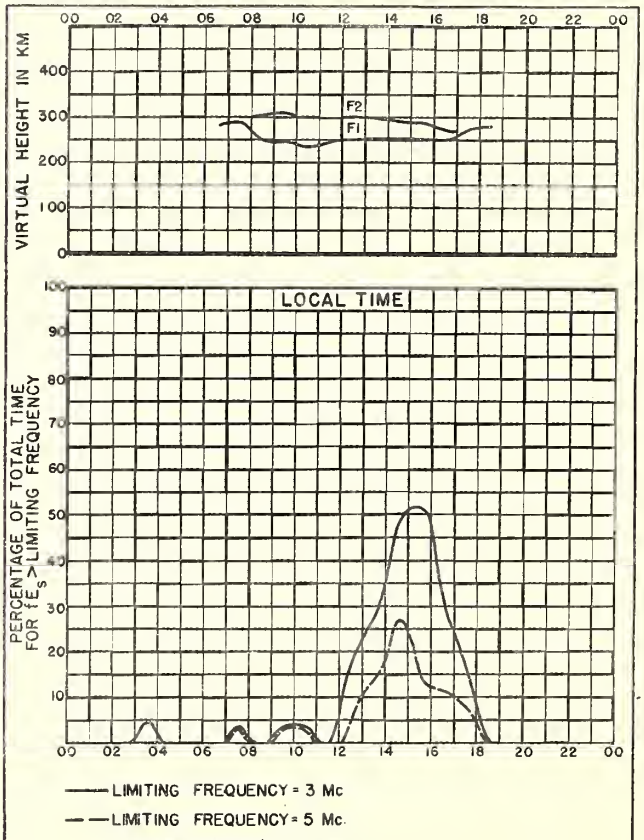

Fig.12. SAN JUAN, PUERTO RICO MARCH, 1945

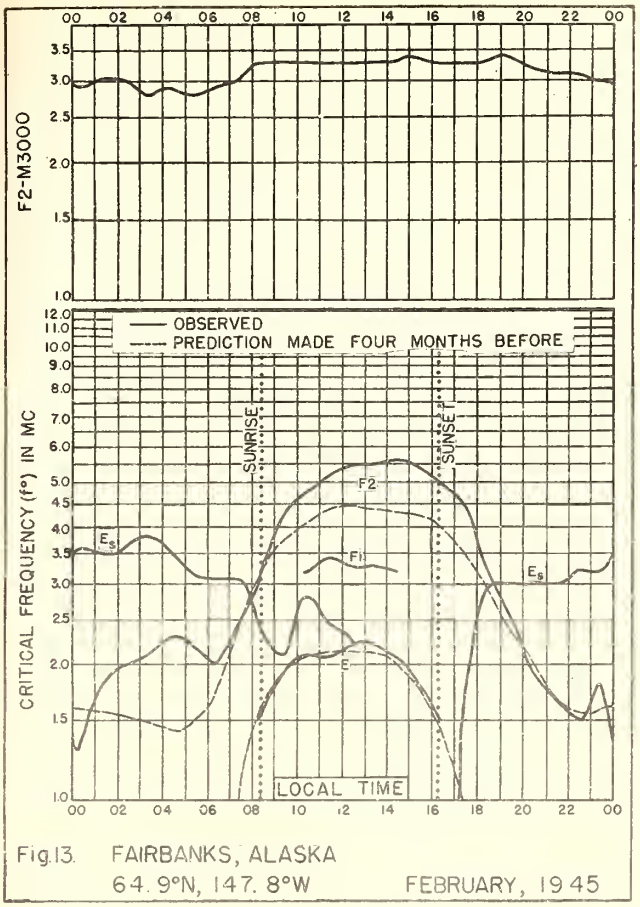

Fig.13. FAIRBANKS, ALASKA
64.9°N, 147.8°W FEBRUARY, 1945

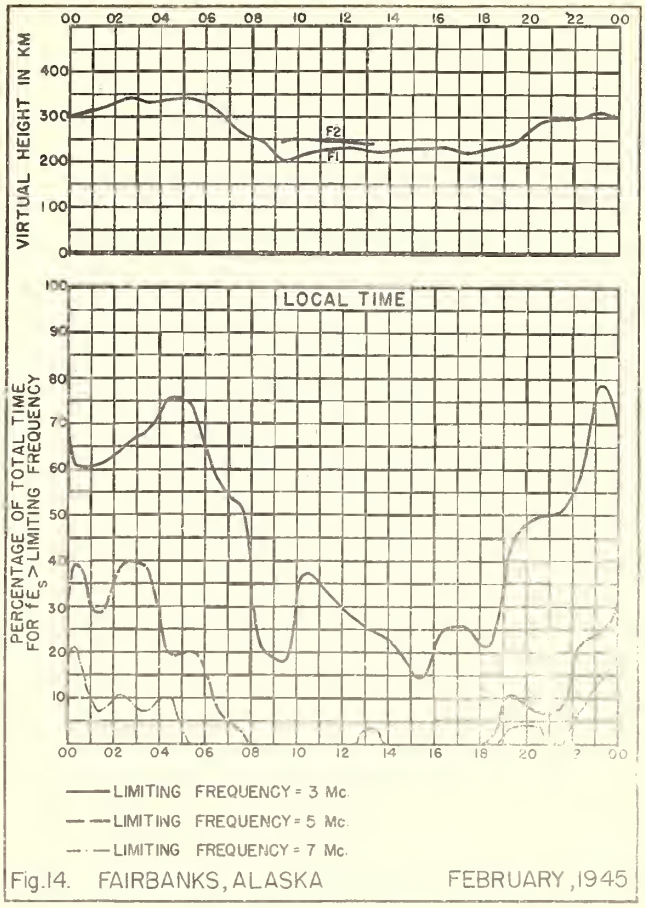

Fig.14. FAIRBANKS, ALASKA FEBRUARY, 1945

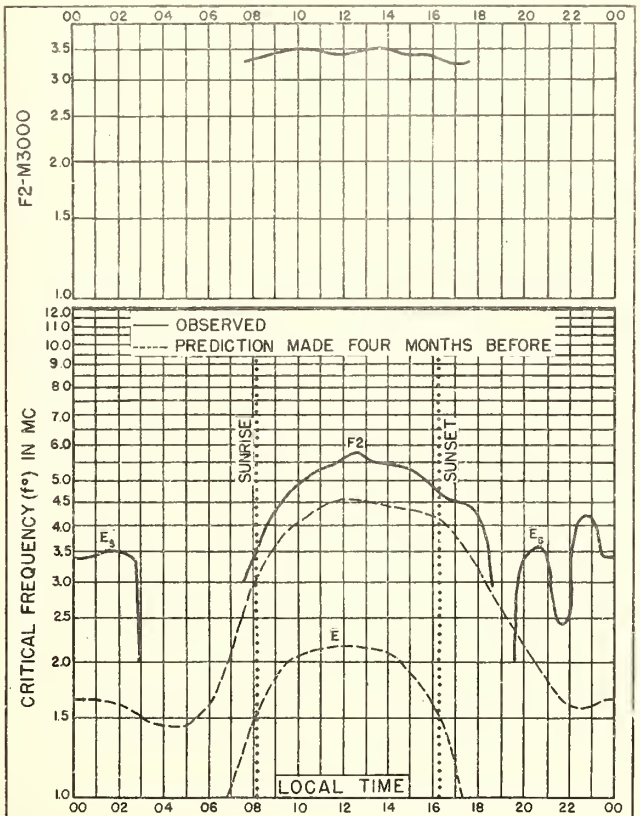

Fig. 15. REYKJAVIK, ICELAND
64.1°N, 21.7°W FEBRUARY, 1945

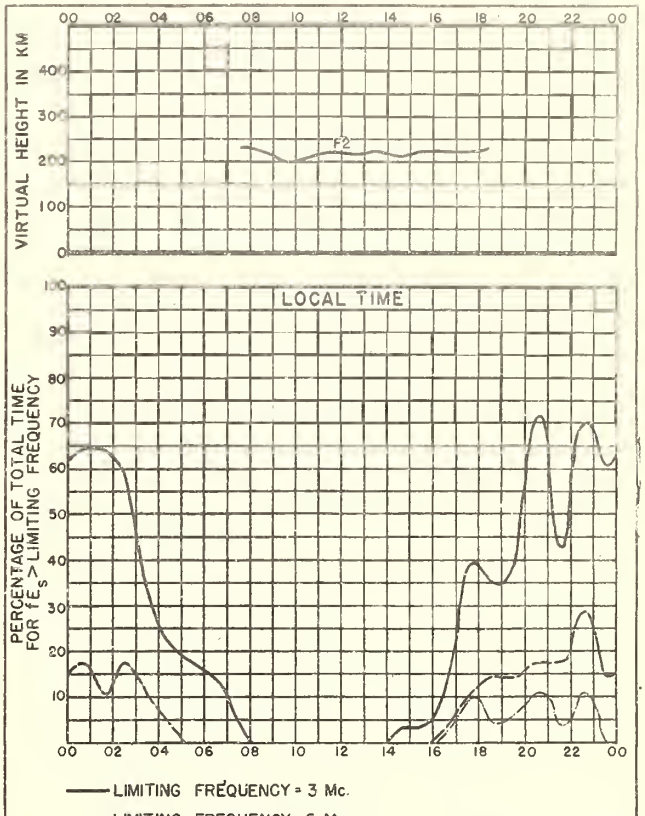

Fig.16. REYKJAVIK, ICELAND FEBRUARY, 1945

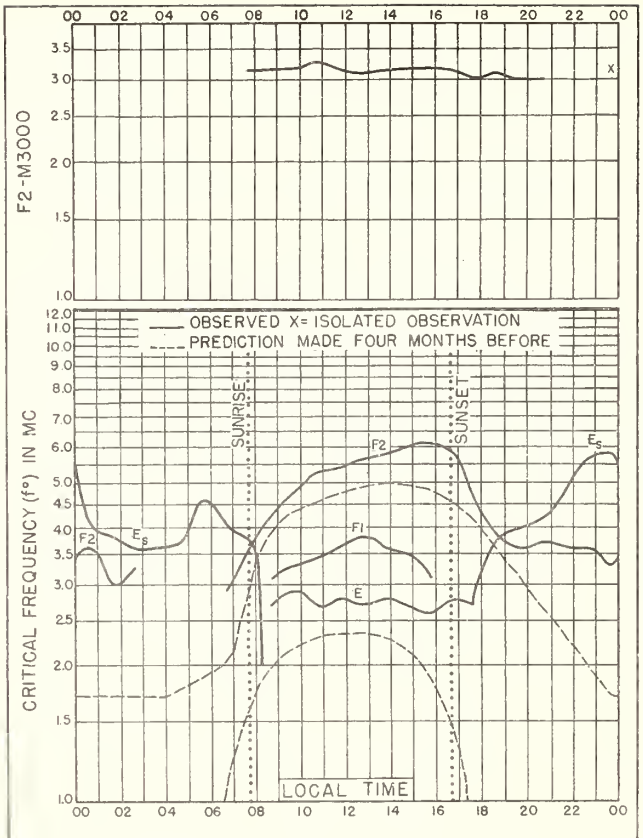

Fig.17. CHURCHILL, CANADA
58.8°N, 94.2°W FEBRUARY, 1945

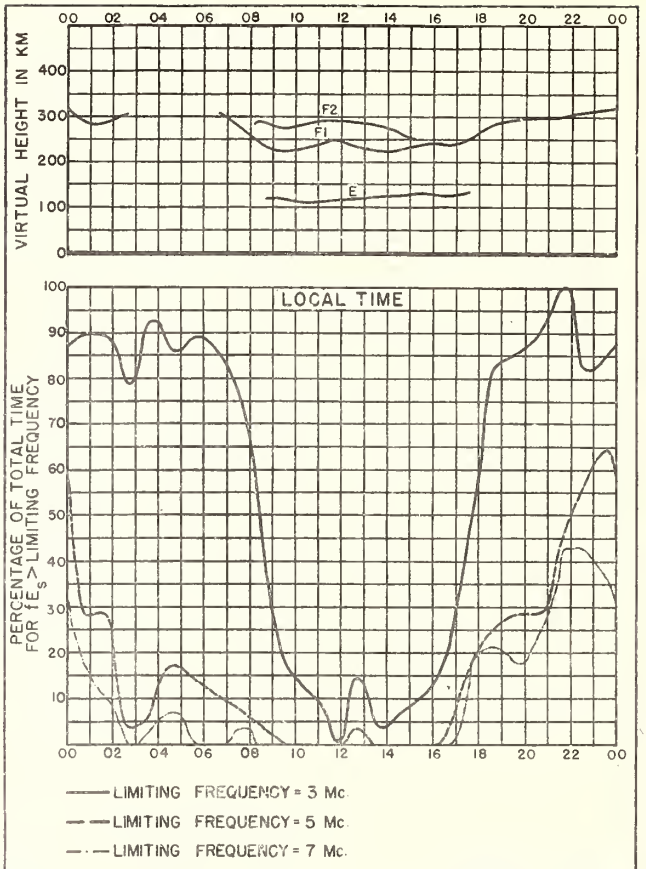

Fig.18. CHURCHILL, CANADA FEBRUARY, 1945

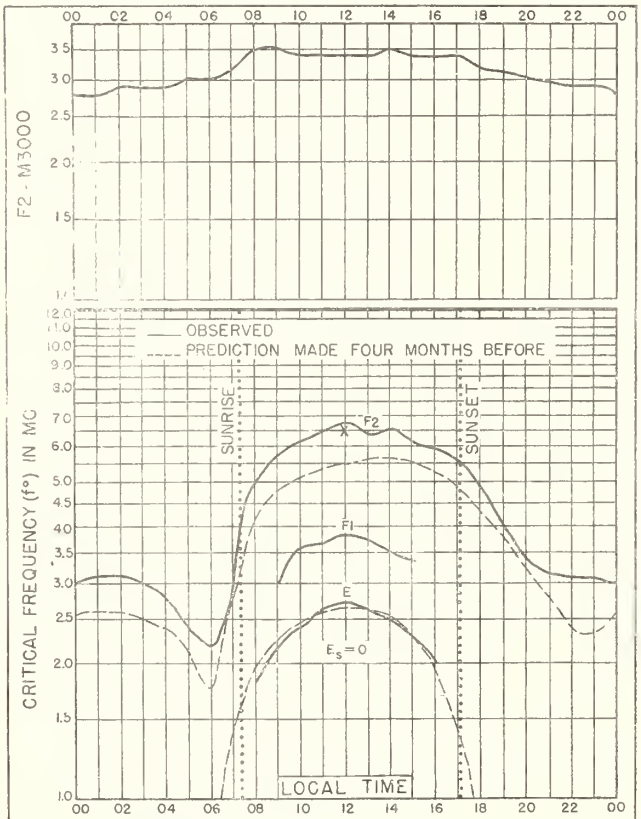

Fig. 19 GREAT BADDOW, ENGLAND
51.7°N, 0.5°E
X= SLOUGH, ENGLAND (NOON VALUE F2=6.5)
51.5°N, 0.6°W FEBRUARY, 1945

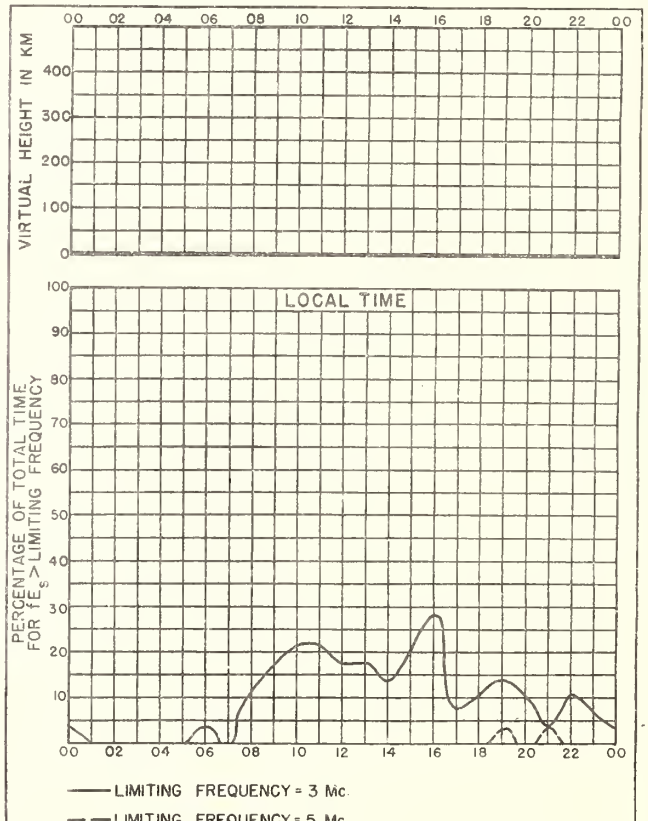

Fig 20. GREAT BADDOW, ENGLAND FEBRUARY, 1945

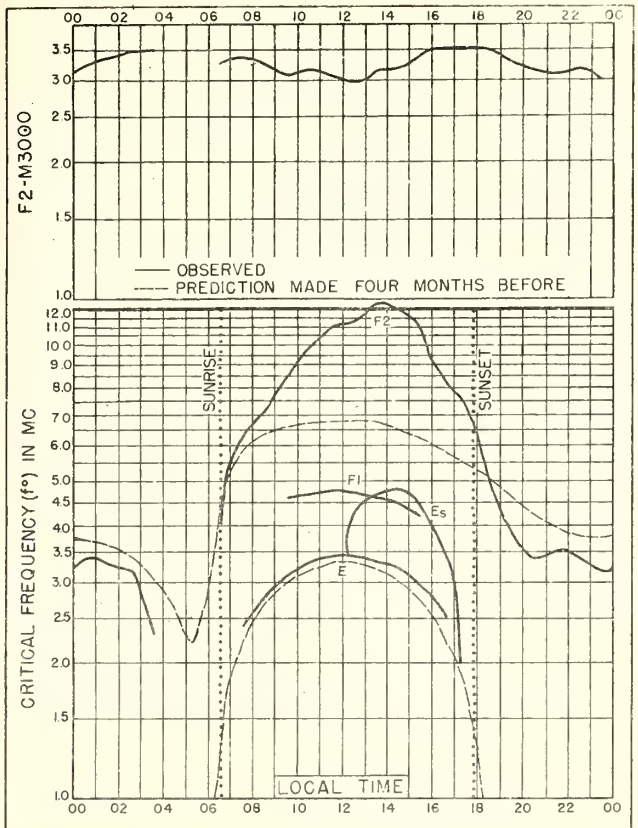

Fig.21. MAUI, HAWAII
20.8°N, 156.5°W FEBRUARY, 1945

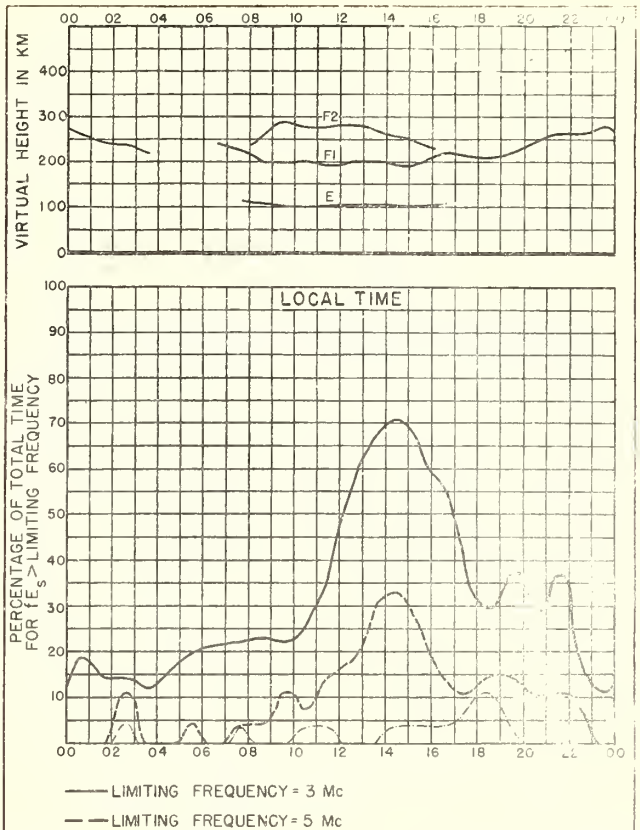

Fig.22. MAUI, HAWAII FEBRUARY, 1945

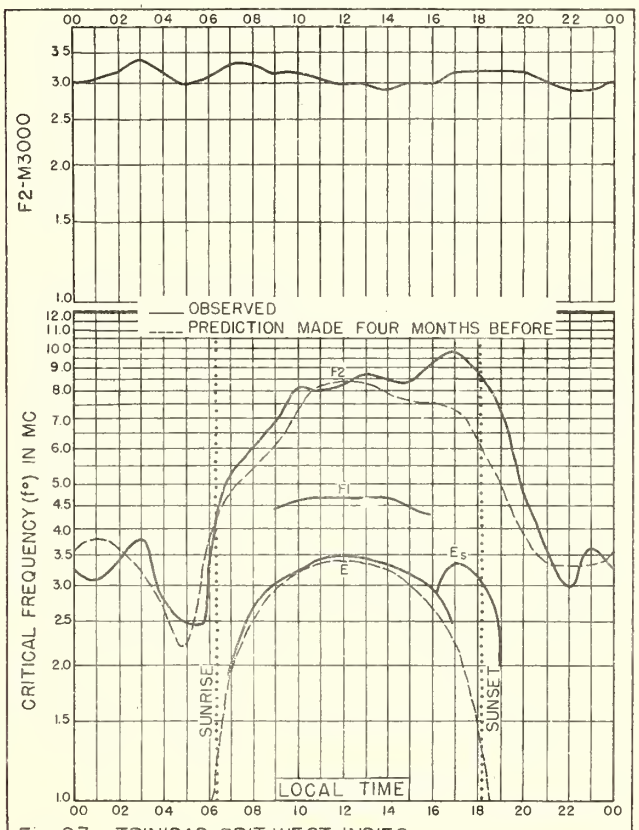

Fig 23. TRINIDAD, BRIT. WEST INDIES
10.6°N, 61.3°W FEBRUARY, 1945

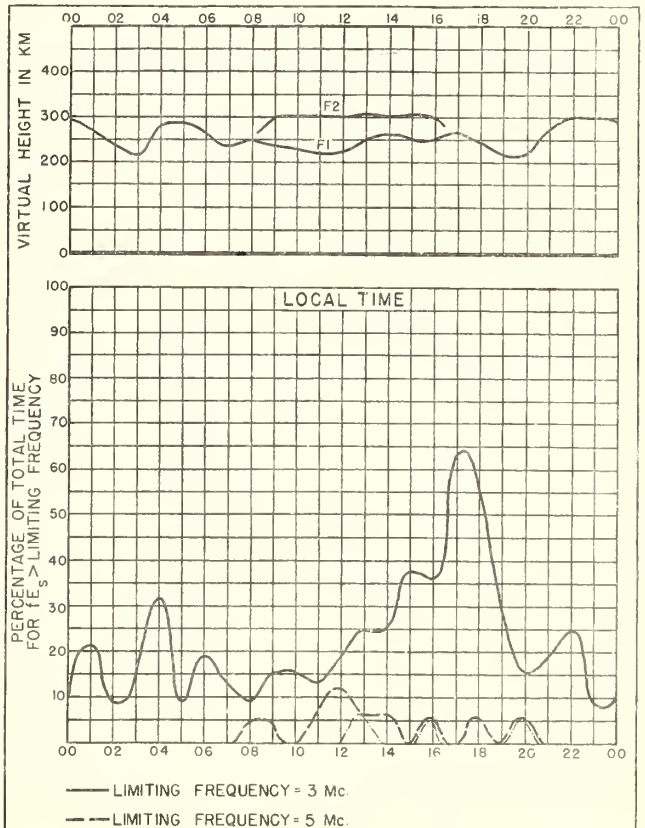

Fig 24. TRINIDAD, BRIT. WEST INDIES FEBRUARY, 1945

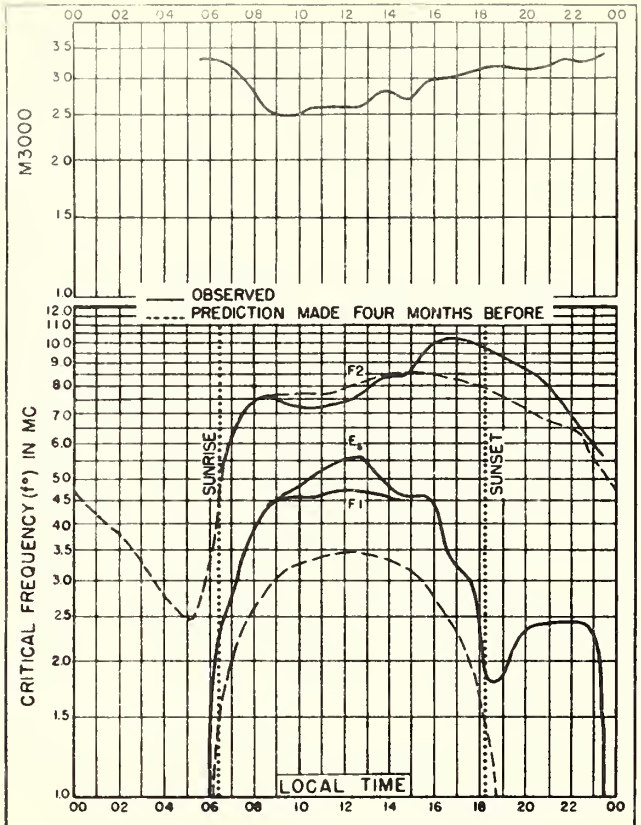

Fig.25. CHRISTMAS I.
2.0°N 157.0°W
FEBRUARY, 1945

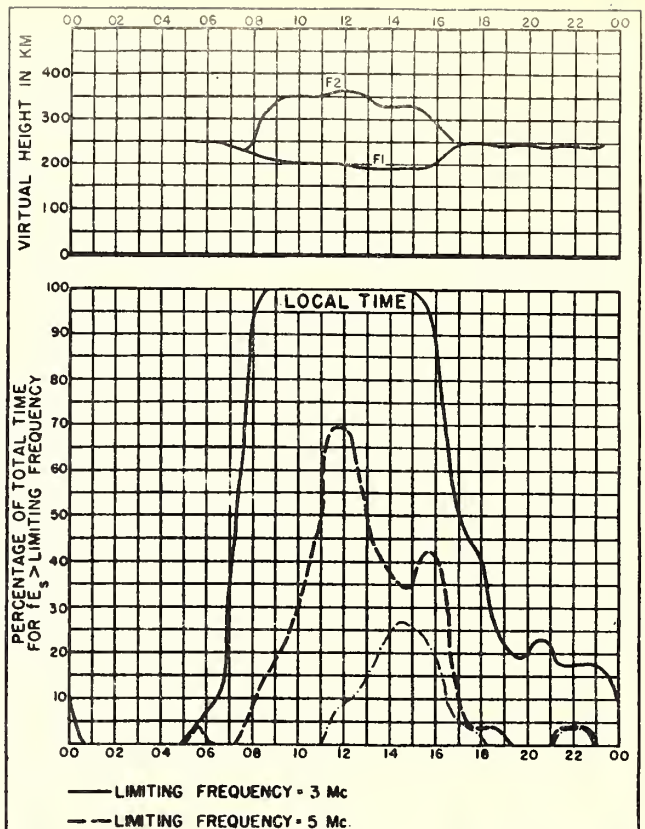

Fig.26. CHRISTMAS I.
FEBRUARY, 1945

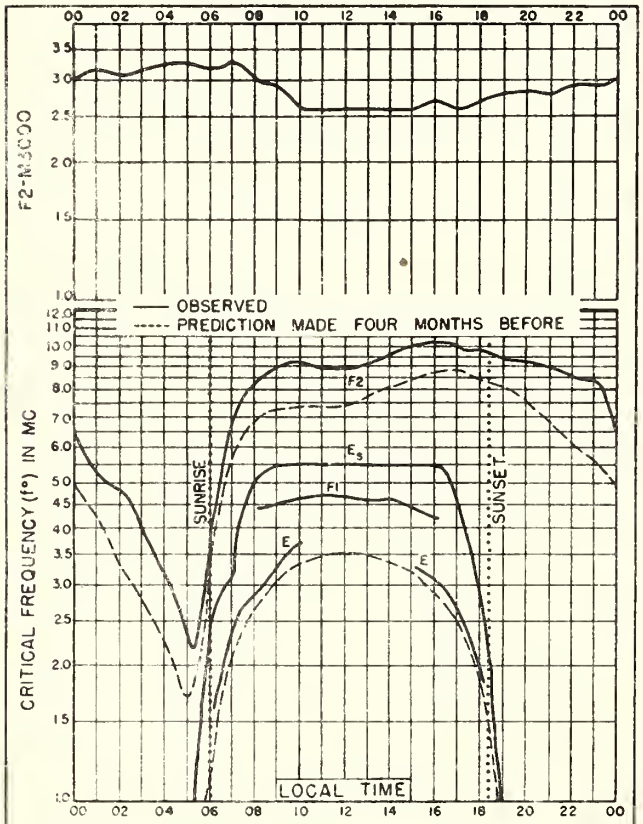

Fig.27. HUANCAYO, PERU
12.0°S, 75.3°W
FEBRUARY, 1945

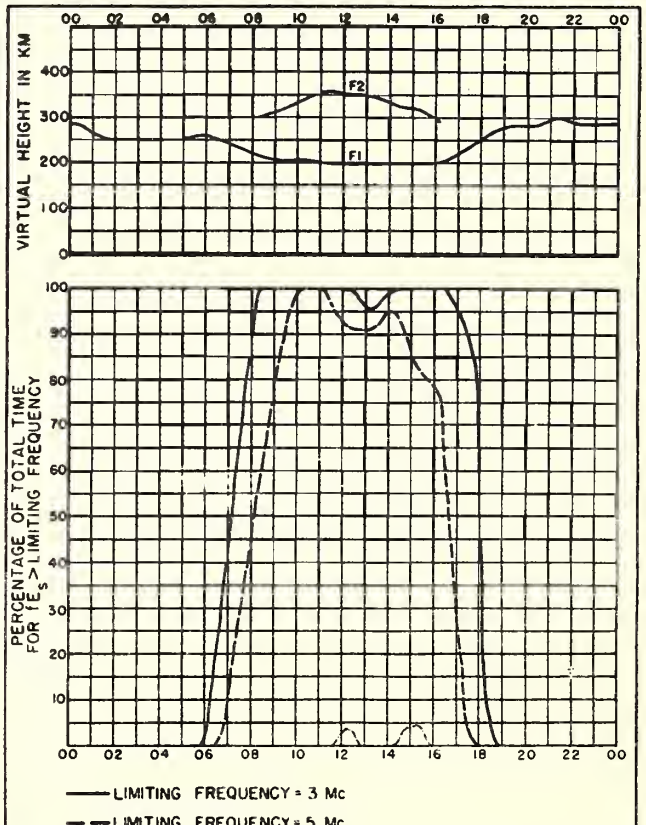

Fig.28. HUANCAYO, PERU
FEBRUARY, 1945

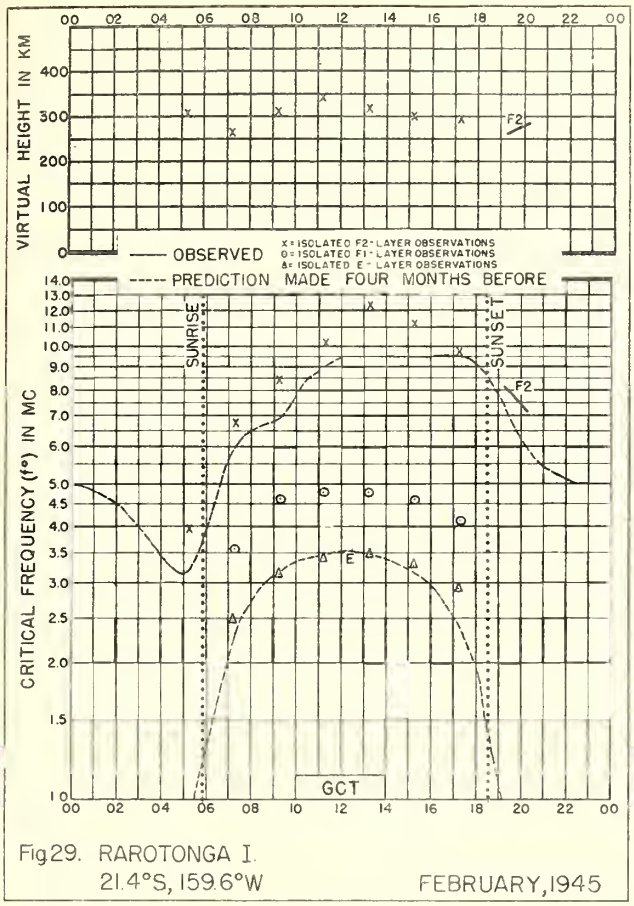

Fig.29. RAROTONGA I.
21.4°S, 159.6°W FEBRUARY, 1945

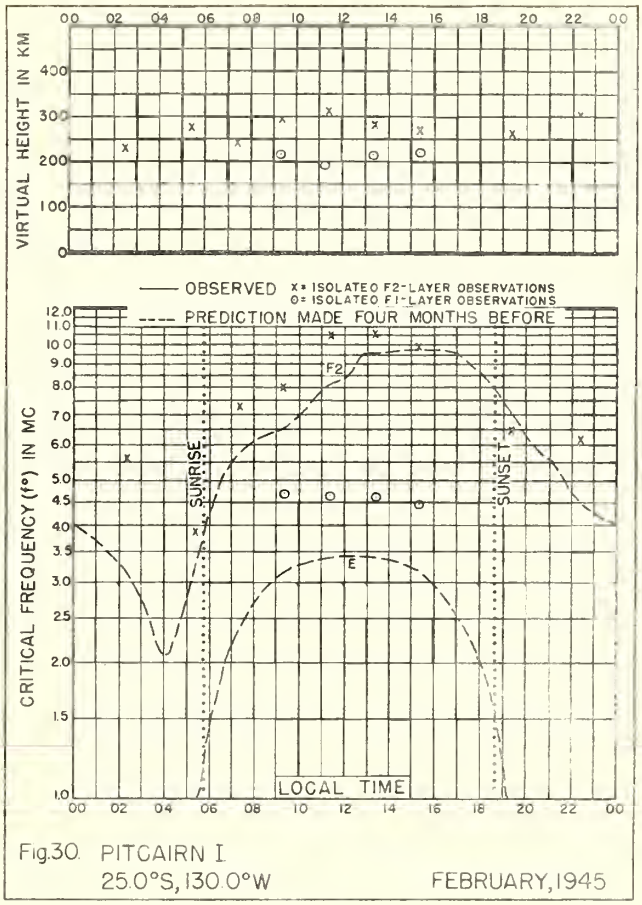

Fig.30. PITCAIRN I
25.0°S, 130.0°W FEBRUARY, 1945

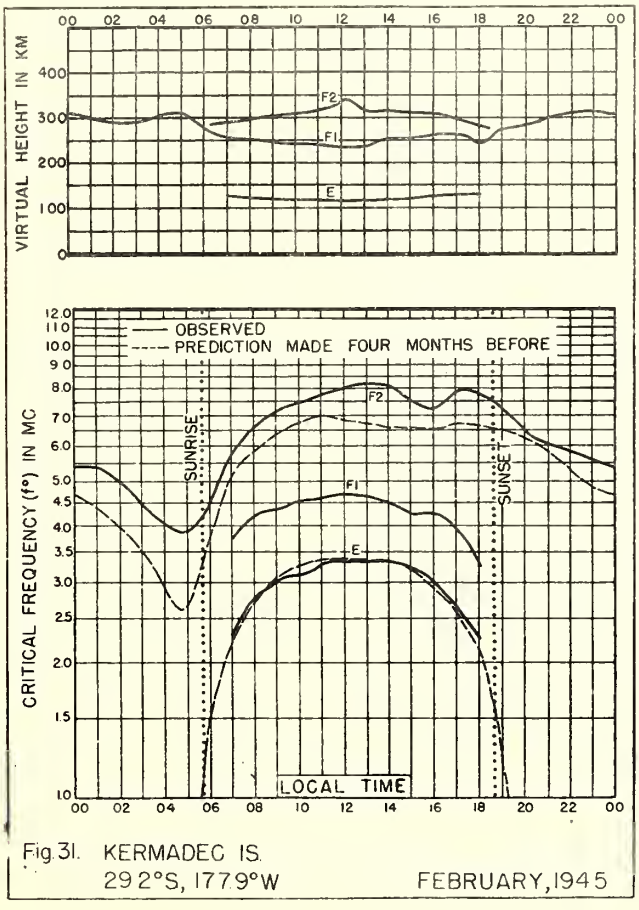

Fig.31. KERMADEC IS.
29.2°S, 177.9°W FEBRUARY, 1945

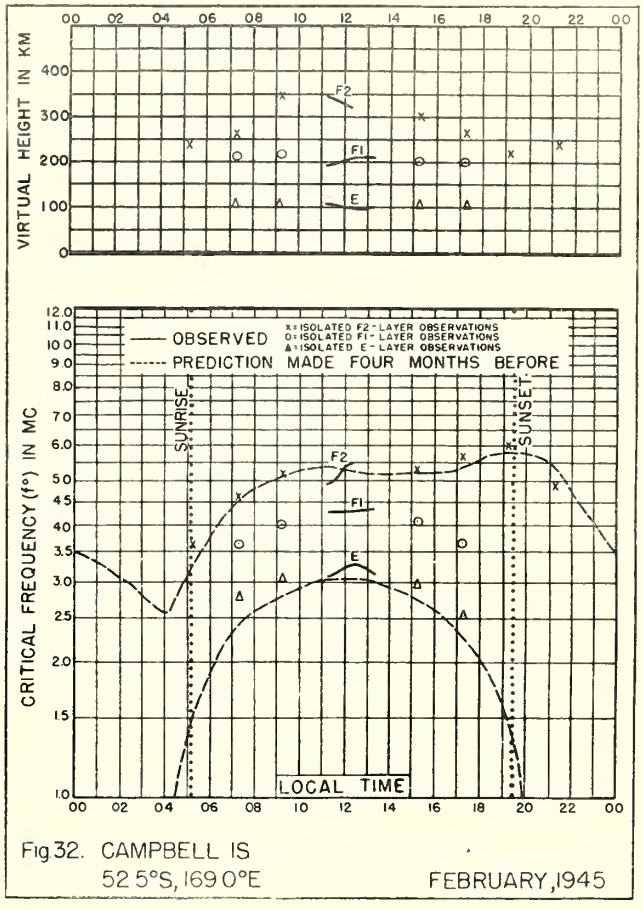

Fig.32. CAMPBELL IS
52.5°S, 169.0°E FEBRUARY, 1945

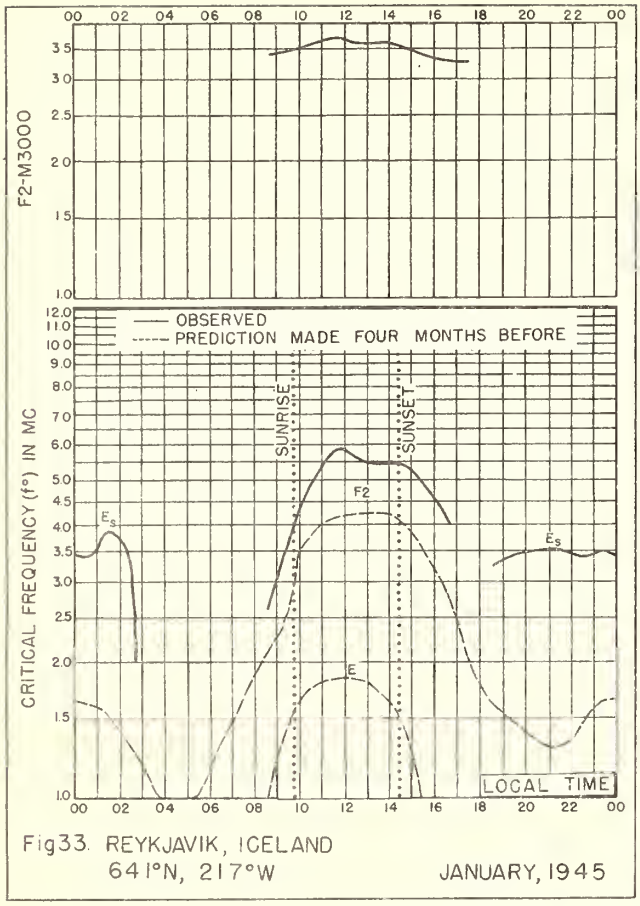

Fig33. REYKJAVIK, ICELAND
64.1°N, 21.7°W
JANUARY, 1945

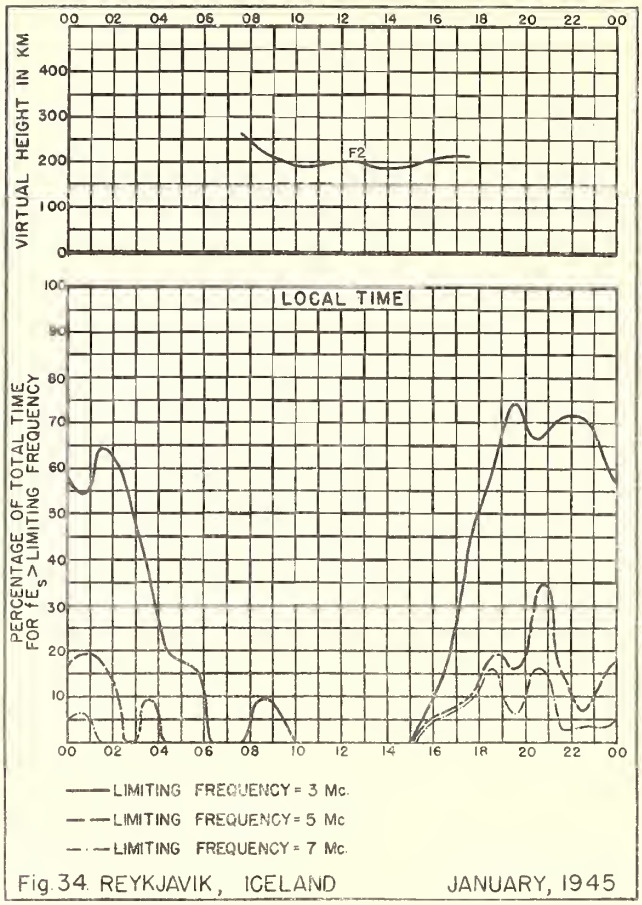

Fig.34. REYKJAVIK, ICELAND
JANUARY, 1945

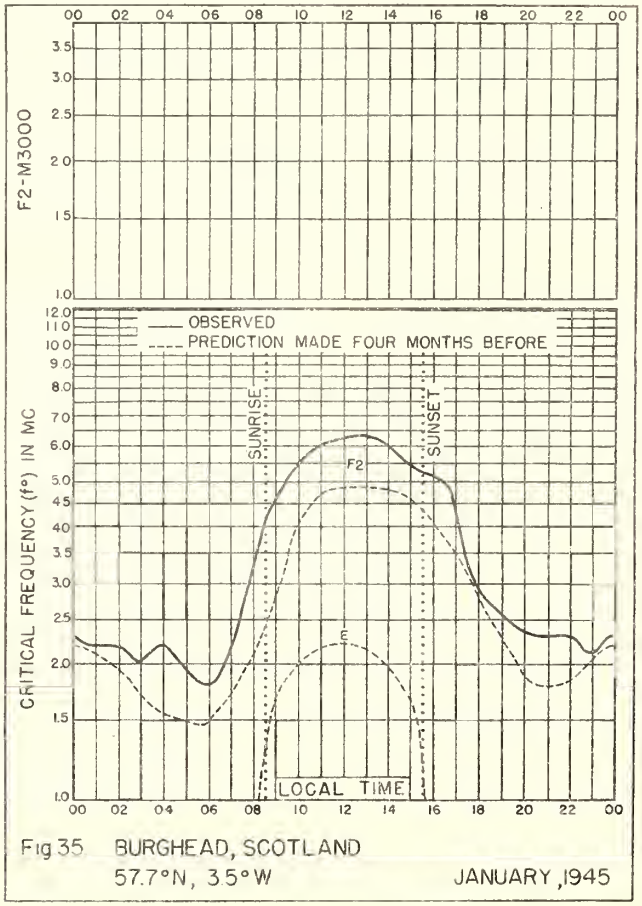

Fig.35 BURGHEAD, SCOTLAND
57.7°N, 3.5°W
JANUARY, 1945

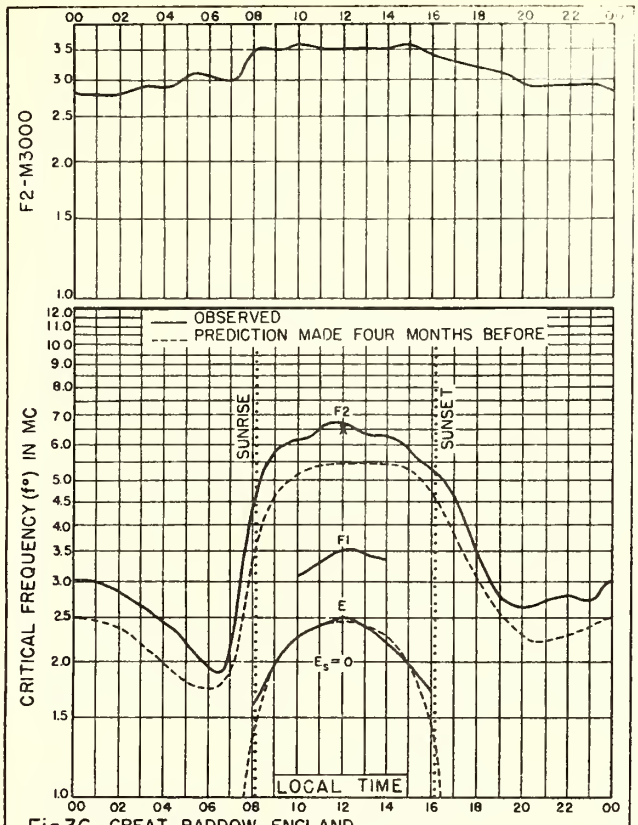

Fig.36. GREAT BADDOW, ENGLAND
51.7°N, 0.5°E
X = SLOUGH, ENGLAND (NOON VALUE F2 = 6.5)
51.5°N, 0.6°W
JANUARY, 1945

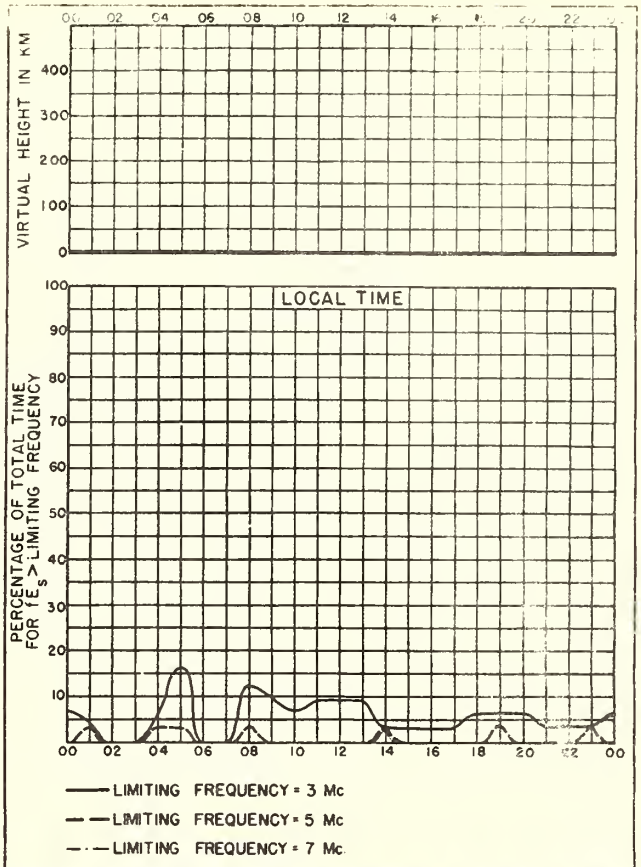

Fig.37. GREAT BADDOW, ENGLAND JANUARY, 1945

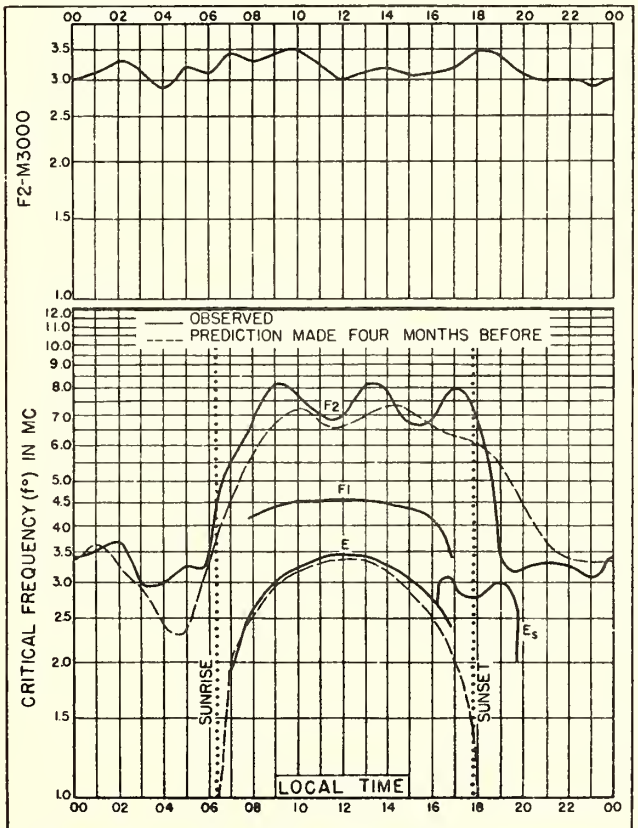

Fig.38. TRINIDAD, BRIT. WEST INDIES
10.6°N, 61.3°W
JANUARY, 1945

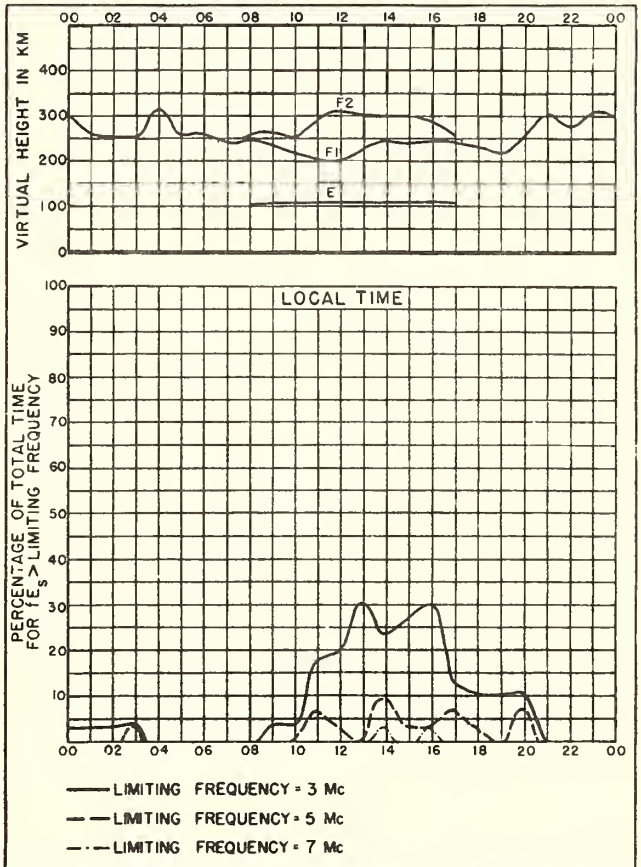

Fig.39. TRINIDAD, BRIT WEST INDIES JANUARY, 1945

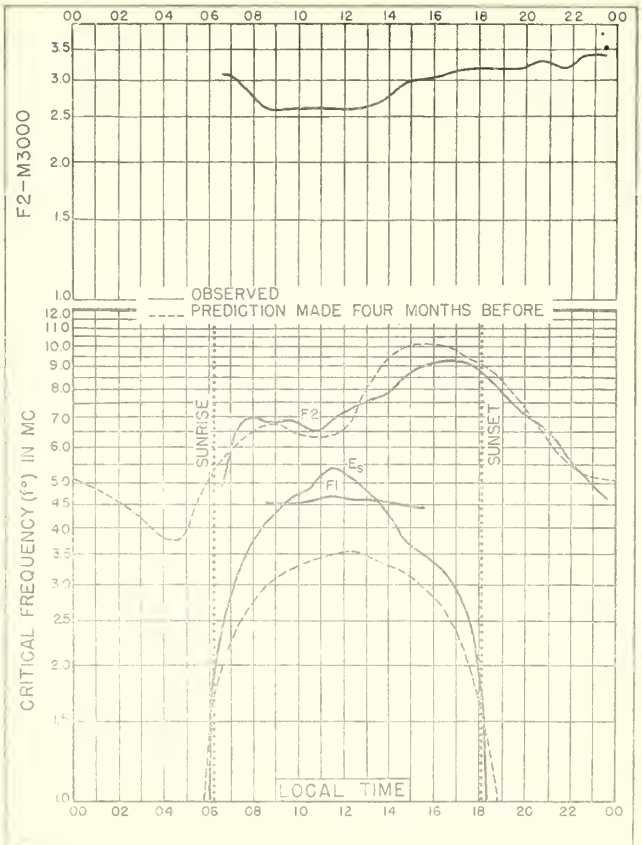

Fig.40. CHRISTMAS I.
2.0°N, 157.0° W
JANUARY, 1945

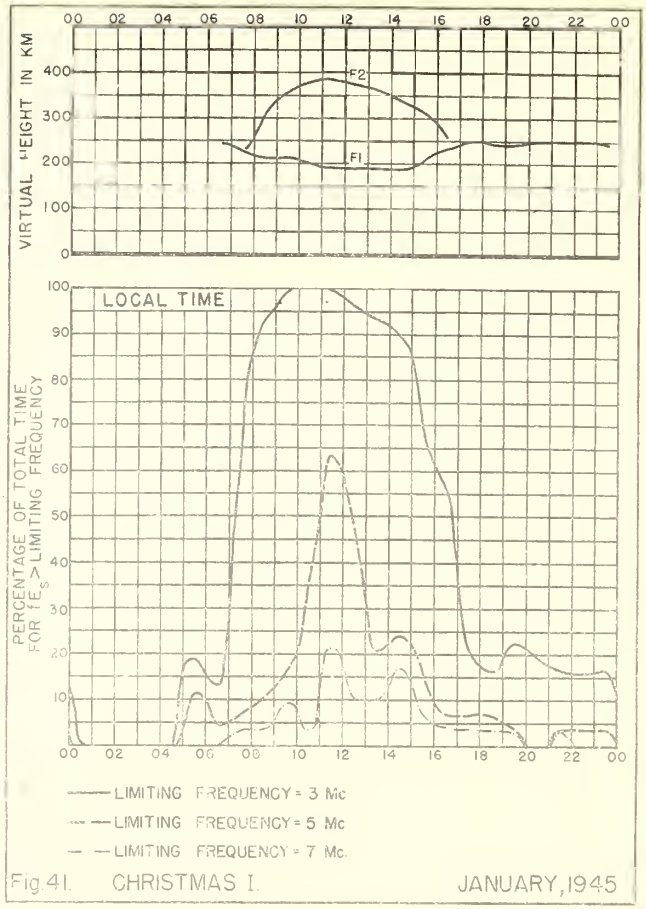

Fig.41. CHRISTMAS I.
JANUARY, 1945

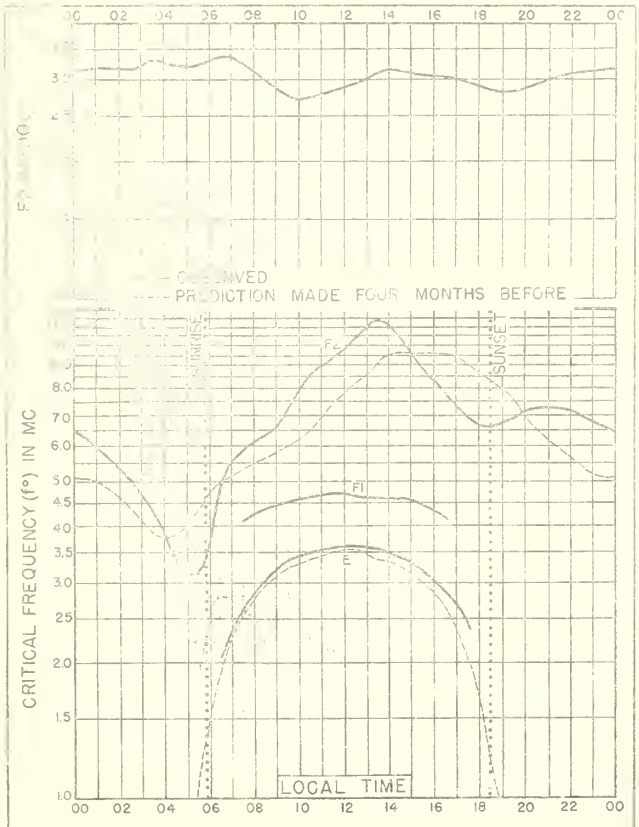

Fig.42. CAPE YORK, Q, AUSTRALIA
11.0°S, 142.4°E
JANUARY, 1945

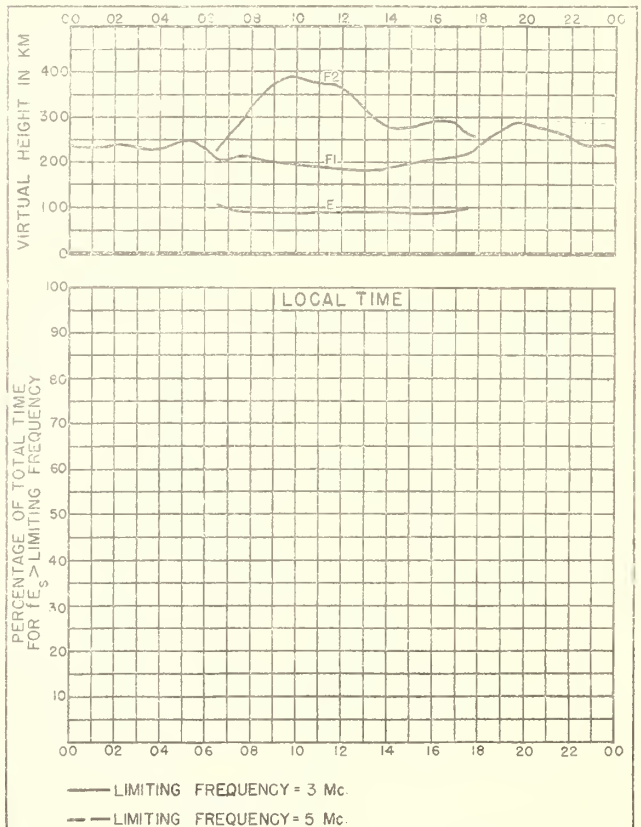

Fig.43. CAPE YORK, Q, AUSTRALIA
JANUARY, 1945

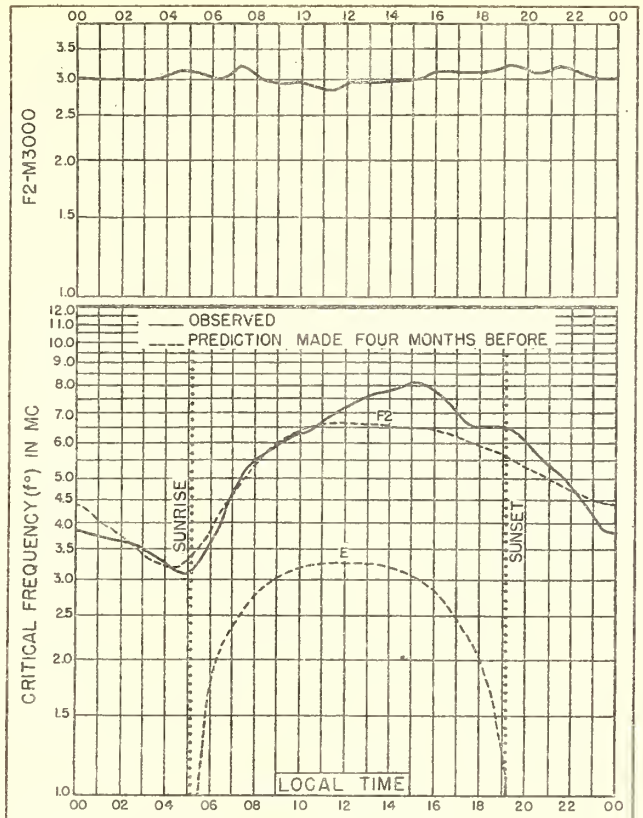

Fig.44 SIMONSTOWN, UNION OF S. AFRICA
33.9°S, 18.7°E JANUARY, 1945

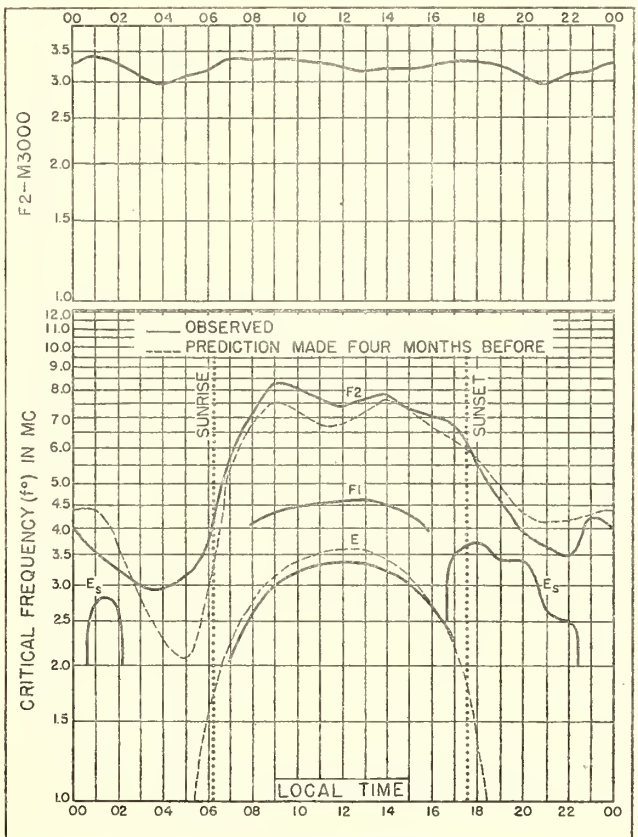

Fig.45. TRINIDAD, BRIT. WEST INDIES
10.6°N, 61.3° W DECEMBER, 1944

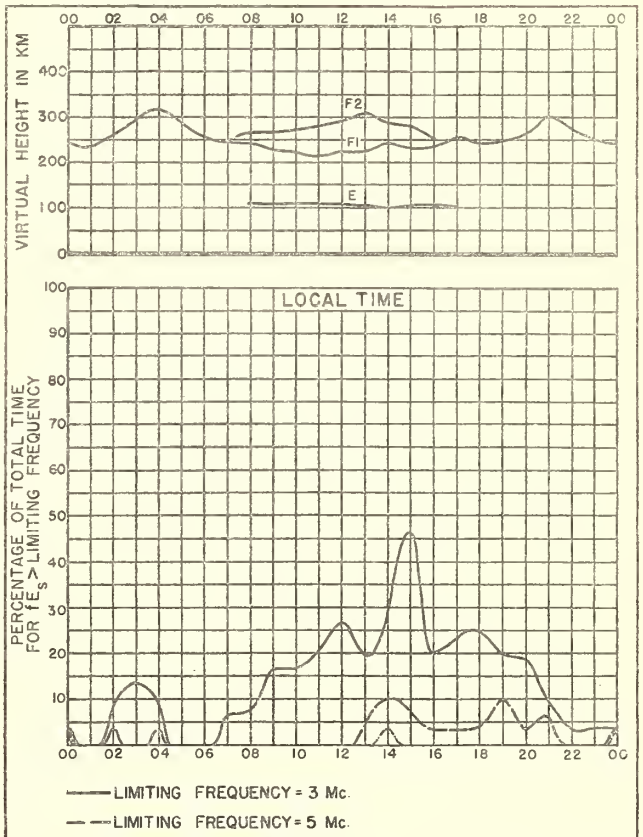

Fig.46. TRINIDAD, BRIT. WEST INDIES DECEMBER, 1944

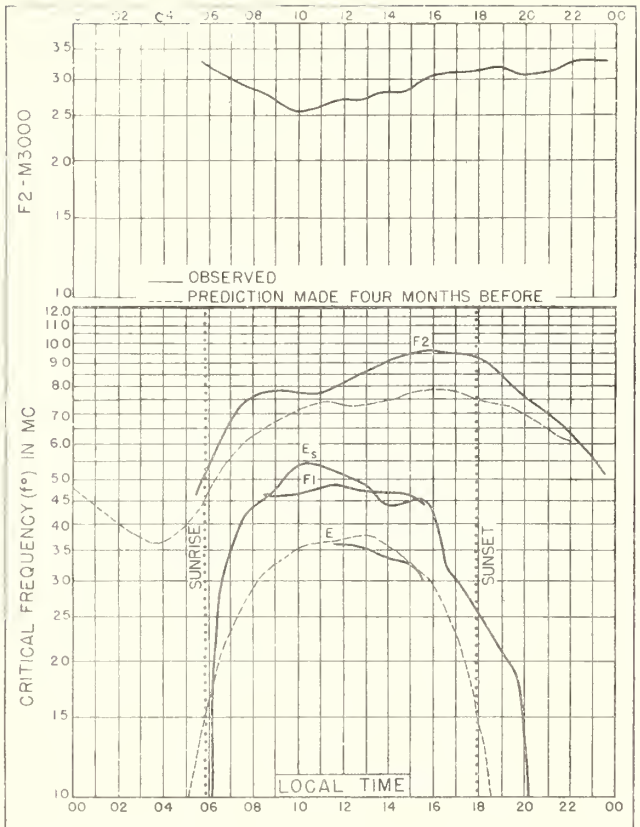

Fig.47. CHRISTMAS I.
2.0°N 157.0°W
DECEMBER, 1944

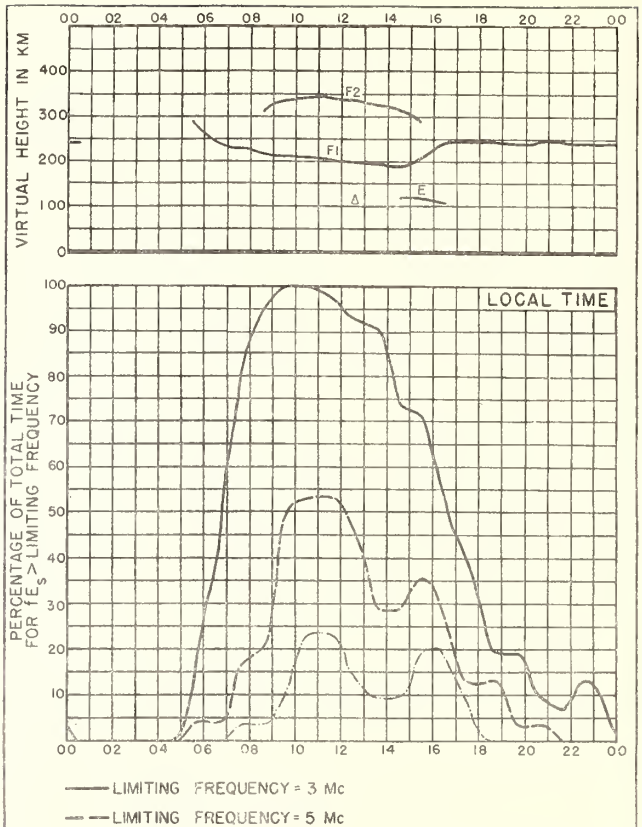

Fig.48. CHRISTMAS I. DECEMBER, 1944

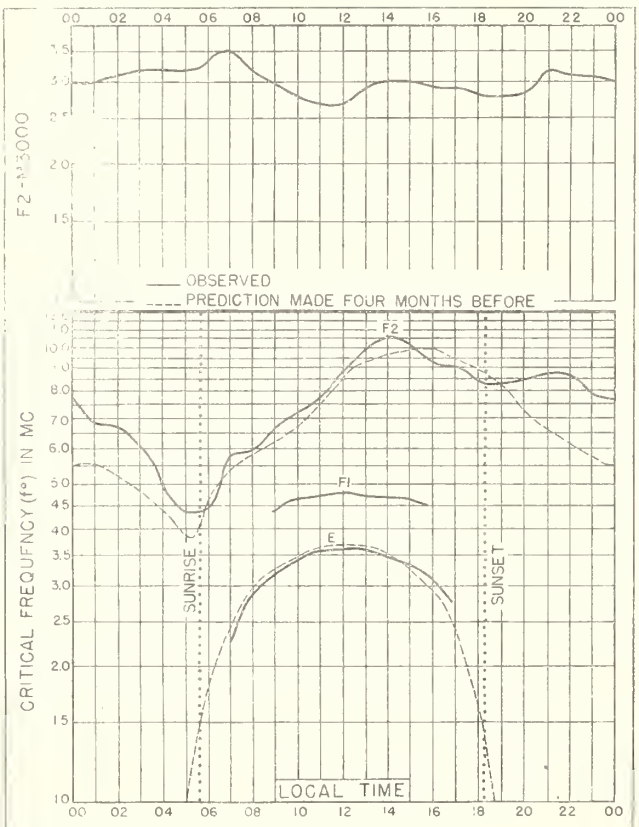

Fig.49. CAPE YORK, Q., AUSTRALIA
11.0°S, 142.4°E
DECEMBER, 1944

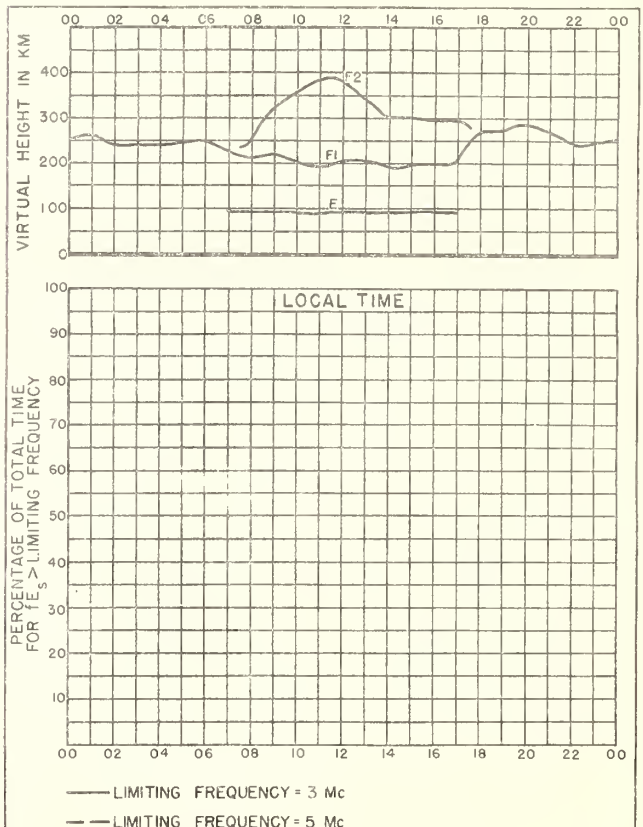

Fig.50. CAPE YORK, Q., AUSTRALIA DECEMBER, 1944

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