

RESTRICTED

IONOSPHERIC DATA

ISSUED

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IONOSPHERIC DATA

This IRPL-F-series report, issued monthly, serves as one of the three current supplements to IRPL Radio Propagation Handbook, Part 1, (War Dept. TM11-499, Navy Dept. DNC-13-1). The supplements of the IRPL-D series, "Basic Radio Propagation Predictions Three Months in Advance," issued earlier in the month, include basic prediction charts, auxiliary charts and nomograms, as well as examples illustrative of their use. The supplements of the IRPL-E series, "Radio Propagation Predictions One Month in Advance", include revisions two months later of certain of the predictions given in the D series, and nomograms giving predictions in a form for rapid operational use. Before Sept. 1944 most of the material was combined in the single report, "Radio Propagation Conditions".

CONTENTS

TERMINOLOGY	Page 5
MONTHLY AVERAGES AND MEDIAN VALUES OF IONOSPHERIC DATA	Page 6

Monthly averages of critical frequencies, virtual heights and F2-layer maximum usable frequency factors; median values of highest frequency of Es reflections, and (graphical presentation only) percentage of total time of occurrence of Es above 3, 5, and 7 Mc.

Provisional data (received by telephone or telegraph)

September, 1944

Baffin Is., Canada	Table 1
Fairbanks, Alaska	Table 2
Reykjavik, Iceland	Table 3
Snainton, England	Table 4
Great Baddow, England	Table 5
Maui, Hawaii	Table 6
Trinidad, Brit. West Indies	Table 7
Huancayo, Peru	Table 8
Brisbane, Q., Australia	Table 9
Kermadec Is.	Table 10
Watheroo, W. Australia	Table 11
Simonstown, Union of S. Africa	Table 12
Mt. Stromlo, N.S.W., Australia	Table 13
Christchurch, N.Z.	Table 14
Campbell Is.	Table 15

August, 1944

Snainton, England	Table 16
Brisbane, Q., Australia	Table 17
Mt. Stromlo, N.S.W., Australia	Table 18

Final data

September, 1944

Churchill, Canada	Table 19
	Figs. 1 and 2
Ottawa, Canada	Table 20
	Figs. 3 and 4
Washington, D.C.	Table 21
	Figs. 5 and 6
San Francisco, California	Table 22
	Figs. 7 and 8
Baton Rouge, Louisiana	Table 23
	Figs. 9 and 10
San Juan, Puerto Rico	Table 24
	Figs. 11 and 12

August, 1944

Fairbanks, Alaska	Table 25 Figs. 13 and 14
Churchill, Canada	Figs. 15 and 16
Burghead, Scotland	Fig. 17
	Final data are identical with provisional data presented in September issue of this report, Table 4.
Great Baddow, England	Table 26 Figs. 18 and 19
Slough, England	Table 26 Fig. 18
Ottawa, Canada	Figs. 20 and 21
San Francisco, California	Figs. 22 and 23
Baton Rouge, Louisiana	Figs. 24 and 25
Maui, Hawaii	Table 27 Figs. 26 and 27
San Juan, Puerto Rico	Figs. 28 and 29
Trinidad, Brit. West Indies	Table 28 Figs. 30 and 31
Huancayo, Peru	Table 29 Figs. 32 and 33
Kermadec Is.	Table 30 Fig. 34
Christchurch, N.Z.	Table 31 Figs. 35 and 36
Campbell Is.	Fig. 37
	Final data are identical with provisional data presented in September issue of this report, Table 11.

July, 1944

Burghead, Scotland	Fig. 38
Sverdlovsk, U.S.S.R.	Table 32 Figs. 39 and 40
Tomsk, U.S.S.R.	Table 33 Figs. 41 and 42
Great Baddow, England	Table 34 Figs. 43 and 44
Slough, England	Fig. 43
Baton Rouge, Louisiana	Table 35
Delhi, England	Table 36
Brisbane, Q., Australia	Table 37 Figs. 45 and 46
Kermadec Is.	Fig. 47
Mt. Stromlo, N.S.W., Australia	Table 38 Figs. 48 and 49
Christchurch, N.Z.	Table 39
Campbell Is.	Fig. 50

June, 1944

Fairbanks, Alaska	Figs. 51 and 52
Reykjavik, Iceland	Figs. 53 and 54
Churchill, Canada	Figs. 55 and 56
Great Budlow, England	Figs. 57 and 58
Maui, Hawaii	Figs. 59 and 60
Trinidad, Brit. West Indies	Figs. 61 and 62
Brisbane, Q., Australia	Figs. 63 and 64
Watheroo, W. Australia	Figs. 65 and 66
Mt. Stromlo, N.S.W., Australia	Figs. 67 and 68
Christchurch, N.Z.	Figs. 69 and 70

May, 1944

Watheroo, W. Australia	Table 40
	Figs. 71 and 72

April, 1944

Watheroo, W. Australia	Figs. 73 and 74
----------------------------------	-----------------

March, 1944

Watheroo, W. Australia	Figs. 75 and 76
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IONOSPHERIC DATA FOR EVERY DAY AND HOUR Page 8

September, 1944

Washington, D.C.

h'F2	Table 41
f°F2	Table 42
h'Fl	Table 43
f°F1	Table 44
h'E	Table 45
f'E	Table 46
Es	Table 47
F2-M1500	Table 48
F2-M3000	Table 49
F2-M5500	Table 50
Fl-M1500	Table 51
E-M1500	Table 52

IONOSPHERE DISTURBANCES Page 9

Ionospheric storminess Table 53

Ionospheric character and principal storms observed
at Washington, D.C., September, 1944.

Magnetic character

Sudden Ionosphere Disturbances. - None observed at
Washington, D.C., during September.

ADDITION Page 9

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TERMINOLOGY

Note.-- The following symbols are used, conforming to the recommendations of the International Radio Propagation Conference held in Washington, D.C., 17 April to 5 May 1944.

f^oF2 - ordinary-wave critical frequency for the F2 layer. The term night F layer will no longer be used. The term F2 layer is now used for the night F layer as well as the daytime F2 layer.

f^oF1 - ordinary-wave critical frequency of the F1 layer.

f^oE - ordinary-wave critical frequency of the E layer.

$h'F2$ - minimum virtual height of the F2 layer.

$h'F1$ - minimum virtual height of the F1 layer.

$h'E$ - minimum virtual height of the E layer.

f_{Es} - highest frequency of Es reflections.

M - maximum usable frequency factor, to be followed by the distance in km.
Example: M3500 represents 3500-km maximum usable frequency factor.

muf - maximum usable frequency.

[] - interpolated value.

() - doubtful value.

A - characteristic not measurable because of blanketing by sporadic E.

B - characteristic not measurable because of loss of trace due to absorption.

C - characteristic not measurable because of equipment failure or interference.

D - characteristic higher than upper limit of recorder.

E - characteristic less than lower limit of recorder.

F - spread echoes.

G - $f^oF2 \leq f^oF1$.

H - stratification observed within region.

J - ordinary-wave critical frequency deduced from measured extraordinary-wave critical frequency.

K - ionosphere storm in progress.

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 IRFL predictions of radio propagation conditions. These data are furnished by the following:

Carnegie Institution of Washington (Department of Terrestrial Magnetism).

Baffin Is., Canada

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

Australian Council for Scientific and Industrial Research.

Radio Research Board, Australia

Brisbane, Q., Australia

Mt. Stromlo, Canberra, NSW, Australia.

Canadian Department of National Defence, Naval Service.

Churchill, Canada

Ottawa, Canada.

New Zealand Radio Research Committee.

Kermadec Is.

Christchurch (Canterbury University College Observatory)

Campbell Is.

Peoples' Commissar for Postal and Electric Communications, Moscow, U.S.S.R.

Tomsk, U.S.S.R.

Sverdlovsk, 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.

For their timely value, some of the tables presented are provisional data received by telephone or telegraph in which there may be small or infrequent errors. When final values are available such errors will be corrected in later issues of this report.

The final values presented, both in tabular and graphical form, although correct for the quantities stated, as reported to this laboratory,

may sometimes lead to an erroneous conception of typical values for the quantity under consideration. Standard scaling practice, following recommendations of the International Radio Propagation Conference held in Washington, D.C., 17 April to 5 May, 1944, is not yet universal, deviation from standard practice being most common in the cases of records where spread echoes are present. Even when standard scaling practice is used, intrinsically misleading results may arise from the monthly average being determined from only a few observations during the month. Two frequent types of such error, both particularly typical of stations in far northern or far southern latitudes are:

(a) Erroneously high values of monthly average critical frequencies caused by the frequent absence of record for cases where the critical frequency is below the lower frequency limit of the recorder. A median, rather than a mean, value of the critical frequency is more significant in such cases, the median being that for all times at which observations were made, the cases of such inability to read the records being counted as less than the lower frequency limit of the apparatus.

(b) Erroneously high values of monthly average F2-layer critical frequencies caused by the frequent occurrence of cases where the F1-layer critical frequency exceeds that of the F2-layer. This is characteristic of summer months during sunspot-cycle minimum, particularly in northern latitudes. In this case, also, median values are more significant than mean values, the median being that for all cases where observations are made, those cases where missing values result because of higher f^oF1 being counted as less than the f^oF1 . When, as is often the case, no great discrepancy is likely to exist between f^oF1 and f^oF2 , a typical value of f^oF2 may be obtained by taking the monthly average of observed f^oF2 together with observed f^oF1 for the cases where no f^oF2 could be measured.

The discrepancy between predicted and observed values of monthly average critical frequencies, particularly for far northern stations, is frequently because of the above reasons, the predictions being intended to represent typical values for the location under consideration.

It may be noted by inspection of the figures presenting comparison of data received for the months of August, September, and October with IRPL predictions made four months in advance, that, generally, the predictions have been in error by being too low, especially in temperate latitudes.

These predictions are based on average trends of solar activity as measured by sunspot number. In the past few months this activity has been somewhat abnormally high. Occurrence of both sunspots and calcium flocculi during the past few months has been slightly more frequent at high than at low solar latitudes, indicating that perhaps the sunspot minimum has just been passed.

Because of great fluctuations in solar activity, however, an observation period of but a few months is so short as to render a final conclusion as to this premature as yet.

IONOSPHERIC DATA FOR EVERY DAY AND HOUR

These data, observed at Washington, D.C., follow the scaling practices recommended by the International Radio Propagation Conference held in Washington, D.C., 17 April to 5 May 1944. (Cf. IRPL-C61, pp. 36-39).

In order to obtain typical values of monthly average $f^{\circ}F2$, for cases where the $f^{\circ}F2$ falls below the $f^{\circ}F1$, values of $f^{\circ}F1$ are used in taking the average, such cases being indicated in Table 42 by the symbol G, and a "less than" sign before the $f^{\circ}F1$ value inserted.

Because of the high variability of observed fEs, mean values are of little practical significance and are not given here.

Mean values of other quantities are given for all days of the month as well as for quiet days only. The criteria for selecting periods of ionospheric storminess, whose data are deleted in obtaining the mean values for quiet days only, are presented in IRPL-R5, "Criteria for Ionospheric Storminess", available to authorized persons upon request to the Chief of IRPL, National Bureau of Standards, Washington 25, D.C.

In determining the median values included in Tables 41 through 52, the following procedure has been adopted:

For all characteristics: Where the value is missing because of A, B, or C (see Terminology, above), that hour is omitted from the median count.

In addition,

For critical frequencies:

For all layers, where a value is missing because of E (see Terminology, above), it is counted as less than the lower limit of the recorder.

Where a value of $f^{\circ}F2$ is missing because of G (see Terminology, above), it is counted as less than the $f^{\circ}F1$ value for the same time.

Where values of $f^{\circ}E$ and $f^{\circ}F1$ are missing at the beginning or end of the diurnal curve, they are counted as less than the median frequency.

For virtual height:

Where a value of $h'F2$ is missing because of G (Cf. preceding section, Terminology, of this report), it is counted as greater than the median value.

For all virtual heights, values missing for any other reason than that given in the preceding paragraph are omitted from the median count.

For muf factors:

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

IONOSPHERIC DISTURBANCES

Table 53 presents ionospheric character figures and principal storms observed at Washington, D.C., during September 1944, as determined by the criteria presented in IRPL-R5, cited above, together with American magnetic K-figures which are usually covariant with them.

ERRATA

1. In the previous (September) issue of this report, the designations of the month were omitted from two tables of data presented, although proper designation was given in the table of contents. Table 4 should be designated "August, 1944". Table 20 should be designated "July, 1944."
2. In the September issue of this report, Table 10, the values given in the columns for $h'F1$ and $h'E$ should be interchanged.
3. In the September issue of this report, the value of noon $h'F2$ for Slough, England, as given at the end of Table 20, is erroneous and should be deleted.
4. In the September issue of this report, heading of Table 40, the value of E_0 for 1 mile should be " = 2460 millivolts per meter."

ADDENDA

In the September issue of this report, Tables 10 and 25, the times of reporting data from Christchurch, N.Z., should be those of 172.5°E .

Table 1

Baffin Island, Canada (70°5'N, 68°6'W)

Table 2

Fairbanks, Alaska (64°5'N, 147°8'W)

Time	$h^{\circ}F2$	$f^{\circ}F2$	$h^{\circ}F1$	$f^{\circ}F1$	$h^{\circ}E$	$f^{\circ}E$	$F2=M3000$	September, 1944
00	260	2.82						
01	275	2.71						
02	270	2.54						
03	276	2.71						
04	259	2.87						
05	247	3.27						
06	261	3.58	2.26	3.06				
07	269	3.86	2.25	3.20				
08	296	4.18	2.26	3.38	133	2.37		
09	310	4.43	2.50	3.45	127	2.48		
10	317	4.74	2.51	3.51	120	2.47		
11	298	4.67	2.28	3.65	123	2.45		
12	534	4.52	2.24	3.59	117	2.44		
13	299	4.64	2.25	3.51	127	2.40		
14	337	4.55	2.19	3.44	138	2.38		
15	289	4.68	2.28	3.53	143	2.35		
16	274	4.47	2.19	3.09	135	2.27		
17	258	4.35	2.38	2.90				
18	241	4.22						
19	238	4.08						
20	246	5.71						
21	245	3.48						
22	246	3.12						
23	251	2.53						

Time: 750W.

Length of time sweep: 2 Mo to 16 Mo in one minute. Supplemented by
mammal apparatus with low frequency limit 1.6 Mo.Time: 1500W.
Length of time sweep: 16 Mo to 0.6 Mo in fifteen minutes.

Table 3

Time	$h^{\circ}F2$	$f^{\circ}F2$	$h^{\circ}F1$	$f^{\circ}F1$	$h^{\circ}E$	$f^{\circ}E$	$F2=M3000$	September, 1944
00	300	5.00						
01	300	5.20						
02	330							
03								
04	280	5.60						
05	205	2.70						
06	236	5.19	250	2.60	100	2.60		
07	213	3.79	200	3.30				
08	219	4.17	247	4.00	107	2.50		
09	226	4.55	203	3.73	102	2.50		
10	276	4.76	206	3.81	100	2.64		
11	286	4.92	193	3.89	98	2.63		
12	282	5.09	205	3.96	97	2.77		
13	278	5.06	203	3.97	97	2.71		
14	283	5.15	201	3.94	101	2.65		
15	256	5.07	202	5.00	100	2.59		
16	246	5.06	212	5.70	109	2.52		
17	220	4.98	200	5.37	133			
18	220	4.84						
19	217	4.66						
20	210	4.47						
21	210	4.30						
22	240	3.20						
23	250	2.90						

Time: 1500W.
Length of time sweep: 2 Mo to 16 Mo in one minute.Time: 1500W.
Length of time sweep: 16 Mo to 0.6 Mo in fifteen minutes.

Table 4

Time	$h^{\circ}F2$	$f^{\circ}F2$	$h^{\circ}F1$	$f^{\circ}F1$	$h^{\circ}E$	$f^{\circ}E$	$F2=M3000$	September, 1944
00								
01	300	5.00						
02	330	5.20						
03								
04	280	5.60						
05	205	2.70						
06	236	5.19	250	2.60	100	2.60		
07	213	3.79	200	3.30				
08	219	4.17	247	4.00	107	2.50		
09	226	4.55	203	3.73	102	2.50		
10	276	4.76	206	3.81	100	2.64		
11	286	4.92	193	3.89	98	2.63		
12	282	5.09	205	3.96	97	2.77		
13	278	5.06	203	3.97	97	2.71		
14	283	5.15	201	3.94	101	2.65		
15	256	5.07	202	5.00	100	2.59		
16	246	5.06	212	5.70	109	2.52		
17	220	4.98	200	5.37	133			
18	220	4.84						
19	217	4.66						
20	210	4.47						
21	210	4.30						
22	240	3.20						
23	250	2.90						

Time: 1500W.
Length of time sweep: 16 Mo to 0.6 Mo in fifteen minutes.Time: 1500W.
Length of time sweep: 2 Mo to 16 Mo in one minute.Time: 0°.
Length of time sweep: 2 Mo to 16 Mo in one minute.

Table 5

Great Beddoe, England (61°7'N, 0°52'E)						September, 1944					
Time	h°F2	f°F1	h°F1	f°E	f°E	Time	h°F2	f°F1	h°F1	f°E	f°E
00	3°5		2°9	2°9	00	268	4°10				3°0
01	3°2		2°9	2°9	01	261	4°08				3°2
02	3°1		2°9	2°9	02	242	4°02				3°4
03	3°1		2°9	2°9	03	230	3°59				3°6
04	3°0		2°9	2°9	04	245	3°07				3°5
05	2°8		3°1	3°1	05	253	2°94				3°4
06	3°7		3°4	3°4	06	267	3°01				3°2
07	4°4		3°4	3°4	07	231	5°47	224	3°66	112	2°26
08	4°9		3°4	3°4	08	267	6°58	212	4°14	112	2°75
09	5°2		3°4	3°4	09	297	6°76	204	4°51	110	3°13
10	5°4		3°4	3°4	10	358	7°57	203	4°67	109	3°28
11	5°5		3°2	3°2	11	350	8°65	207	4°67	116	3°42
12	5°4		3°2	3°2	12	336	9°75	205	4°68	113	3°47
13	5°4		3°2	3°2	13	316	10°40	4°62	114	3°47	3°0
14	5°4		3°2	3°2	14	304	10°72	209	4°63	115	3°59
15	5°4		3°2	3°2	15	286	10°80	218	4°47	114	3°21
16	5°4		3°2	3°2	16	265	10°80	212	4°26	110	3°27
17	5°5		3°2	3°2	17	258	10°15	222	3°85	110	2°54
18	5°9		3°2	3°2	18	216	8°47	219	2°92		3°6
19	6°1		3°1	3°1	19	213	5°94				3°4
20	6°6		3°1	3°1	20	231	4°89				3°2
21	4°7		3°1	3°1	21	252	4°27				3°1
22	4°0		3°0	3°0	22	281	3°82				2°9
23	3°5		2°9	2°9	23	281	4°01				3°0

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

Time: 160°W.
Length of time sweep: 2 Mo to 16 Mo in one minute.

Table 7

Trinidad, British West Indies (10°6'N, 61°3'W)						September, 1944					
Time	h°F2	f°F1	h°F1	f°E	f°E	Time	h°F2	f°F1	h°F1	f°E	f°E
00	292	3°67		2°9	00	234	6°03				3°2
01	273	4°14		3°0	01	235	5°62				3°3
02	262	3°76		3°2	02	234	5°06				3°3
03	252	3°58		3°2	03	238	4°19				3°3
04	252	3°40		3°5	04	251	3°40				3°3
05	258	3°04		3°5	05	272	2°96				3°1
06	243	3°76		3°3	06	247	4°26				3°2
07	260	5°44	2°35	3°4	07	228	6°39				3°3
08	298	6°04	2°34	2°87	08	314	7°29	215	4°24		3°0
09	303	6°59	2°37	4°47 (113)	09	348	7°37	208	4°42	3°30	2°6
10	335	7°31	2°28	4°56 113	10	368	7°06	206	4°46		2°6
11	345	8°09	2°24	4°50 112	11	381	6°93	202	4°48		2°6
12	338	8°91	2°17	4°58 115	12	585	6°82	201	4°49		2°5
13	332	9°60	2°16	4°54 113	13	371	6°94	200	4°45	3°65	2°5
14	308	10°33	2°32	4°46 112	14	360	7°25	200	4°41		2°6
15	289	10°55	2°25	4°32 111	15	334	7°49	200	4°25	3°04	2°6
16	281	9°99	2°32	4°11 113	16	231	7°71	208	4°07	2°70	2°7
17	261	9°39	2°30	3°22 2°40	17	239	7°69			2°21	2°7
18	240	8°40			18	265	7°67			1°05	2°8
19	238	6°79			19	302	6°61			2°8	2°8
20	235	6°70			20	292	6°77			2°8	2°8
21	246	4°94			21	260	6°98			3°0	3°0
22	290	4°09			22	254	7°15			3°2	3°2
23	306	3°61			23	230	6°82			3°3	3°3

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

Table 6

Maui, Hawaii (20°8'N, 156°5'W)						September, 1944					
Time	h°F2	f°F1	h°F1	f°E	f°E	Time	h°F2	f°F1	h°F1	f°E	f°E
00	268	4°10				00	234	6°03			
01	261	4°08				01	235	5°62			
02	242	4°02				02	234	5°06			
03	250	3°59				03	238	4°19			
04	245	3°07				04	251	3°40			
05	253	2°94				05	272	2°96			
06	267	3°01				06	247	4°26			
07	231	5°47	224			07	228	6°39			
08	267	6°58	212			08	314	7°29	215	4°24	
09	297	6°76	204			09	348	7°37	208	4°42	
10	358	7°57	203			10	368	7°06	206	4°46	
11	350	8°65	207			11	381	6°93	202	4°48	
12	336	9°75	205			12	585	6°82	201	4°49	
13	316	10°40	208			13	371	6°94	200	4°45	
14	304	10°72	209			14	360	7°25	200	4°41	
15	286	10°80	218			15	334	7°49	200	4°25	
16	265	10°80	212			16	231	7°71	208	4°07	
17	17	10°15	222			17	239	7°69			
18	216	8°47	219			18	265	7°67			
19	213	5°94	219			19	302	6°61			
20	20	4°89	219			20	292	6°77			
21	21	4°27	219			21	260	6°98			
22	22	4°27	219			22	254	7°15			
23	23	2.8	219			23	230	6°82			

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

Table 9

Brisbane, Q., Australia (27°5'S, 153°0'E)

September, 1944.

Table 10

Kermadec Island (29°29'S, 177°09'W)

September, 1944

Time	h°F2	f°F2	h°F1	f°F1	h°E	f°E	fES	F2-M3000	Time	h°F2	f°F2	h°F1	f°F1	h°E	f°E	fES	F2-M3000
00	4.0								0015	265	4.00						
01	3.9								0100								
02	3.9								0200								
03	3.8								0310	249	2.89						
04	3.0								0400	285	2.72						
05	2.9								0500	294	2.58						
06	3.5								0600	267	3.43						1.33
07	5.0								0700	260	5.19						2.05
08	5.9								0800	273	5.92						2.54
09	6.4								0900	281	6.11						2.31
10	6.7								1000	295	6.95						2.25
11	6.6								1100	301	6.21						3.14
12	6.6								1200	297	6.58						3.24
13	6.6								1300	283	6.68						3.24
14	6.3								1400	281	6.28						3.14
15	6.0								1500	281	6.01						2.96
16	5.5								1600	266	5.66						2.60
17	5.3								1700	249	5.35						2.05
18	5.0								1800	239	4.92						
19	4.8								1850	258	4.82						
20	4.4								2000	275	4.49						
21	4.4								2100	286	4.41						
22	4.3								2200								
23	4.2								2300								

Time: 150°E.
Length of time sweep: 2.0 sec to 12.6 sec in two minutes, thirty seconds.Time: Local.
Length of time sweep: 1.8 sec to 12.6 sec. Manual operation.

Table 11

Watheroo, Western Australia (30°3'S, 115.9°E).

September, 1944.

Time	h°F2	f°F2	h°F1	f°F1	h°E	f°E	fES	F2-M3000	Time	h°F2	f°F2	h°F1	f°F1	h°E	f°E	fES	F2-M3000
00	244	3.59							00	3.0							3.01
01	241	3.62							01	3.01							3.01
02	231	3.71							02	3.02							3.02
03	225	3.59							03	3.02							3.4
04	232	3.35							04	3.01							5.02
05	204	3.40							04	3.01							3.2
06	245	3.61							05	3.1							3.03
07	244	4.76							06	3.02							4.6
08	271	5.13							07	3.04							5.03
09	307	5.61							08	3.05							5.06
10	314	5.74							09	3.02							6.00
11	315	6.17							10	3.02							6.03
12	296	6.57							11	3.01							6.9
13	283	6.89							12	3.02							6.03
14	281	6.44							13	3.03							7.02
15	282	6.09							14	3.03							8.0
16	264	5.35							15	3.03							7.07
17	242	5.46							16	3.03							7.03
18	226	5.01							17	3.04							6.9
19	228	4.42							18	3.03							6.03
20	235	3.87							19	3.02							5.02
21	244	3.72							20	3.01							4.01
22	244	3.68							21	3.00							3.00
23	249	3.65							22	3.00							3.02

Time: 120°E.
Length of time sweep: 16 sec to 0.5 sec in fifteen minutes.Time: Local.
Length of time sweep: 1.8 sec to 12.6 sec. Manual operation.

Table 12

Simonstown, Union of S. Africa (33°09'S, 18.7°E)

September, 1944

Time	h°F2	f°F2	h°F1	f°F1	h°E	f°E	fES	F2-M3000	Time	h°F2	f°F2	h°F1	f°F1	h°E	f°E	fES	F2-M3000
00	244	3.0							00	3.01							
01	241	3.01							01	3.01							
02	231	3.02							02	3.02							
03	225	3.03							03	3.03							
04	232	3.04							04	3.04							
05	204	3.04							05	3.05							
06	245	3.05							06	3.05							
07	244	4.05							07	3.06							
08	271	5.05							08	3.05							
09	307	5.61							09	3.05							
10	314	5.74							10	3.06							
11	315	6.17							11	3.06							
12	296	6.57							12	3.06							
13	283	6.89							13	3.06							
14	281	6.44							14	3.06							
15	282	6.09							15	3.06							
16	264	5.35							16	3.07							
17	242	5.46							17	3.07							
18	226	5.01							18	3.07							
19	228	4.42							19	3.07							
20	235	3.87							20	3.07							
21	244	3.72							21	3.07							
22	244	3.68							22	3.07							
23	249	3.65							23	3.07							

Time: 150°E.
Length of time sweep: 2 sec to 16 sec in one minute.

Length of time sweep: 1.8 sec to 12.6 sec. Manual operation.

Table 15

Mt. Stromlo, N.S.W., Australia (35°30'S, 149°0'E)

September, 1944

Time	h'F2	f'F2	h'F1	f'F1	h'E	f'E	F2-M3000
00	5.6	3.1	3.2	0.1	261	3.21	
01	3.6	3.2	3.2	0.2	262	2.93	
02	3.5	3.2	3.2	0.2	264	2.95	
03	3.4	3.3	3.3	0.3	261	2.79	
04	3.1	3.2	0.4		261		
05	3.0	3.1	0.6	246	2.94		
06	5.7	3.5	0.6	228	4.09		
07	4.8	3.3	0.7	223	4.47	214	3.40
08	5.5	3.2	0.8	265	4.82	212	3.83
09	5.7	3.2	0.9	286	5.02	207	3.95
10	5.7	3.2	1.0	303	5.30	101	2.93
11	6.1	5.2	1.1	297	5.30	208	4.03
12	6.4	5.2	1.2	234	5.32	206	4.02
13	6.3	5.2	1.3	283	6.41	210	3.99
14	6.1	5.3	1.4	267	5.56	209	3.90
15	5.8	5.3	1.5	261	5.82	210	3.80
16	5.5	5.3	1.6	243	5.06	209	3.37
17	5.4	5.3	1.7	231	4.85		
18	5.0	5.2	1.8	228	4.52		
19	4.6	5.1	1.9	258	4.54		
20	4.2	5.1	2.0	265	4.05		
21	4.1	5.1	2.1	271	3.33		
22	3.9	5.1	2.2	273	3.61		
23	3.7	5.1	2.3	289	3.32		

Time: 1500'E.
Length of time sweep: 1.6 Mc to 12.5 Mc in two minutes.

Table 15

Campbell Islands (52°0'S, 169°0'E)

September, 1944

Time	h'F2	f'F2	h'F1	f'F1	h'E	f'E	F2-M3000
00	3.2	0.1	3.2	0.1	3.2		
01	3.2	0.2	3.2	0.2	3.2		
02	3.1	0.3	3.1	0.3	2.9		
03	3.0	0.4	3.0	0.4	3.0		
04	3.0	0.5	3.0	0.5	3.4		
05	3.0	0.6	3.0	0.6	3.8		
06	3.0	0.7	3.0	0.7	4.1		
07	261	3.83					
08	288	4.65	214	3.68	122	2.60	
09	280	5.00	215	3.52	129	2.61	
10	312	4.93	214	4.03	116	2.76	
11	315	4.99	211	4.04	115	2.76	
12	314	5.15	213	3.94	117	2.74	
13	280	5.00					
14	288	4.61					
15	270	4.20					
16	291	3.50					
17	270	4.20					
18	291	3.50					
19	270	4.20					
20	291	3.50					
21	270	4.20					
22	291	3.50					
23	270	4.20					

Time: Local
Length of time sweep: 1 Mc to 12 Mc. Manual operation.

Table 14

Christchurch, N.Z. (43°56'S, 172°60'E)

September, 1944

Time	h'F2	f'F2	h'F1	f'F1	h'E	f'E	F2-M3000
00	3.1	0.1	3.2	0.1	262	2.93	
01	3.2	0.2	3.2	0.2	264	2.95	
02	3.2	0.3	3.2	0.3	261	2.79	
03	3.3	0.4	3.4	0.4	261	2.61	
04	3.4	0.5	3.5	0.5	246	2.51	
05	3.5	0.6	3.5	0.6	228	2.94	
06	3.5	0.7	3.6	0.7	223	4.09	
07	3.5	0.8	3.6	0.8	265	4.47	
08	3.6	0.9	3.7	0.9	286	4.82	
09	3.6	1.0	3.7	1.0	303	5.02	
10	3.7	1.1	3.8	1.1	297	5.30	
11	3.8	1.2	3.9	1.2	234	5.32	
12	3.8	1.3	3.9	1.3	283	6.41	
13	3.8	1.4	3.9	1.4	267	5.56	
14	3.9	1.5	4.0	1.5	261	5.82	
15	3.9	1.6	4.0	1.6	243	5.06	
16	4.0	1.7	4.1	1.7	231	4.85	
17	4.0	1.8	4.1	1.8	228	4.52	
18	4.0	1.9	4.1	1.9	258	4.54	
19	4.0	2.0	4.1	2.0	265	4.05	
20	4.0	2.1	4.1	2.1	271	3.33	
21	4.0	2.2	4.1	2.2	273	3.61	
22	4.0	2.3	4.1	2.3	289	3.32	

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

Table 16

Stainton, England (54°20'N, 0°6'W)

August, 1944

Time	h'F2	f'F2	h'F1	f'F1	h'E	f'E	F2-M3000
00	3.2	0.1	3.2	0.1	3.2		
01	3.2	0.2	3.2	0.2	3.1		
02	3.1	0.3	3.1	0.3	2.9		
03	3.0	0.4	3.0	0.4	3.0		
04	3.0	0.5	3.0	0.5	3.4		
05	3.0	0.6	3.0	0.6	3.8		
06	3.0	0.7	3.0	0.7	4.1		
07	261	3.83					
08	288	4.65	214	3.68	122	2.60	
09	280	5.00	215	3.52	129	2.61	
10	312	4.93	214	4.03	116	2.76	
11	315	4.99	211	4.04	115	2.76	
12	314	5.15	213	3.94	117	2.74	
13	280	5.00					
14	288	4.61					
15	270	4.20					
16	291	3.50					
17	270	4.20					
18	291	3.50					
19	270	4.20					
20	291	3.50					
21	270	4.20					
22	291	3.50					
23	270	4.20					

Time: 0°
Length of time sweep: 2 Mc to 16 Mc in one minute.

Table 17

Brisbane, 4°S., Australia (27.5°S., 153.0°E.)

August, 1944

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

August, 1944

Table 18

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

August, 1944

Time	h°F2	f°F2	h°F1	f°F1	h°E	f°E	F2-M3000	Time	h°F2	f°F2	h°F1	f°F1	h°E	f°E	F2-M3000
00	288	3.58						00	275	3.26					
01	273	3.56						01	274	3.29					
02	272	3.50						02	274	3.20					
03	246	3.39						03	264	3.27					
04			2.90					04	255	3.10					
05			2.61					05	264	2.66					
06			2.37					06	284	2.48					
07	246	4.60						07	254	3.66					
08	276	5.27	245	3.70				08	253	4.61					
09	291	5.56	239	4.03	119	2.70		09	272	5.18					
10	292	5.32	230	4.26	117	2.90		10	292	5.27					
11	303	5.39	219	4.32	115	2.99		11	303	5.52					
12	304	5.97	211	4.31	116	3.02		12	308	5.36					
13	308	5.36	210	4.27	118	2.97		13	315	5.69					
14	294	5.94	212	4.15	122	2.85		14	296	5.59					
15	274	5.64	223	3.37	2.63			15	276	5.47					
16	264	5.22	218	3.36				16	255	5.18					
17	243	4.97						17	240	4.87					
18	251	4.40						18	239	4.19					
19	267	3.39						19	255	3.54					
20	287	3.72						20	262	3.51					
21	284	3.71						21	265	3.36					
22	290	3.65						22	264	3.21					
23	292	3.60						23	279	3.08					

Time: 150°E.

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

Time: 150°E.

Length of time sweep: 1.6 Mc to 12.5 Mc in two minutes.

Table 19

Churchill, Canada (58.8°N., 94.2°W.)

September, 1944

Ottawa, Canada (45.5°N., 75.8°W.)

September, 1944

Table 20

Time	h°F2	f°F2	h°F1	f°F1	h°E	f°E	F2-M3000	Time	h°F2	f°F2	h°F1	f°F1	h°E	f°E	F2-M3000
00	291	3.7						00	347	2.7					
01	340	3.9						01	352	2.6					
02	343	3.7						02	394	2.6					
03	322	3.8						03	376	2.7					
04	330	3.6						04	358	2.6					
05	327	3.9	246	3.05	108	3.0	4.2	05	322	3.0					
06			263	3.05	99	3.2	3.8	06	268	3.8					
07	314	4.4	268	3.8	96	3.3	4.0	07	266	4.5					
08	330	4.4	268	3.9	103	3.2	3.6	08	304	4.9					
09	346	4.6	231	3.9	103	3.1	3.1	09	322	5.3					
10	362	4.3	220	4.0	102	3.0	3.0	10	321	5.4					
11	360	4.9	214	4.0	105	3.1	3.0	11	329	5.5					
12	349	5.0	210	4.0	101	3.0	3.1	12	325	5.6					
13	353	5.1	217	4.0	103	2.9	2.9	13	321	5.6					
14	338	5.2	222	4.0	103	2.9	3.0	14	319	5.6					
15	321	5.4	229	3.9	105	2.9	3.0	15	315	5.6					
16	311	5.4	233	3.7	111	2.7		16	289	5.6					
17	291	5.4	237	3.4	120	2.7		17	273	5.6					
18	282	5.1	237	3.5	110	2.8		18	271	5.7					
19	291	4.4			112	2.3	3.05	19	259	5.6					
20	320	4.2			116	2.9	4.7	20	269	4.6					
21	293	4.2			115	2.9	5.6	21	276	3.8					
22	291	4.2			115	2.9	5.4	22	297	3.1					
23	286	4.3			6.1	3.1		23	328	2.8					

Time: 90°W.

Length of time sweep: 2 Mc to 16 Mc in one minute.

Length of time sweep: 1.83 Mc to 13.5 Mc. Mammal operation.

Table 21

Washington, D.C. (38.0°N, 77.5°W)

September, 1944

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

September, 1944

Time	h'F2	f'F2	h'F1	f'F1	h'E	f'E	h'F2	f'F2	h'F1	f'F1	h'E	f'E	h'F2	f'F2	h'F1	f'F1	h'E	f'E
00	270	2.71			2.4	3.0	00	262	3.25				2.3				3.0	
01	271	2.50			2.4	3.0	01	262	3.26				3.1				3.1	
02	268	2.33			2.4	3.0	02	265	3.20				3.1				3.1	
03	260	2.18			2.4	3.0	03	263	3.18				3.0				3.0	
04	263	2.02			2.5	3.1	04	263	3.17				3.0				3.0	
05	276	1.96			1.58	3.4	05	265	3.26				3.1				3.1	
06	247	3.27			125	3.2	07	277	4.90	2.90			3.38	115	2.15	2.8	5.2	5.2
07	261	4.41	222		3.20	120	2.16	2.22	3.4	08	286	6.54	223	3.84	110	2.59	5.3	5.3
08	277	4.92	220		3.72	120	2.59	2.8	3.4	09	316	6.56	209	4.06	108	2.88	5.3	5.3
09	307	5.29	219		3.99	119	2.32	3.3	3.2	10	328	6.00	206	4.20	107	3.15	5.1	5.1
10	304	5.46	212		4.14	116	3.06	3.2	3.2	11	344	5.84	201	4.28	106	3.24	5.1	5.1
11	317	5.66	206		4.18	117	3.18	*	3.2	12	360	5.92	216	4.28	105	3.26	5.0	5.0
12	325	5.57	206		4.23	115	3.21	*	3.1	13	331	6.25	221	4.28	104	3.22	5.1	5.1
13	317	5.78	210		4.21	114	3.18	*	3.1	14	316	6.29	228	4.23	104	3.14	5.2	5.2
14	316	5.86	218		4.16	113	3.11	*	3.1	15	300	6.24	221	4.10	104	2.94	5.2	5.2
15	306	5.74	226		4.03	116	2.92	*	3.1	16	287	6.00	229	3.82	106	2.67	5.2	5.2
16	292	5.80	234		3.77	117	2.63	2.6	3.2	17	249	5.79	235	3.47	108	2.27	5.7	5.7
17	267	5.82	235		3.41	119	2.15	2.4	3.2	18	226	5.27				3.4	3.4	3.4
18	242	5.64	245		2.70	126	1.74	2.1	3.2	19	220	4.63				2.8	3.4	3.4
19	233	5.48							2.4	20	228	3.67				2.4	3.5	3.5
20	235	4.80							3.2	21	262	3.36				2.7	3.3	3.3
21	244	4.03							3.4	22	256	3.28				3.0	3.1	3.1
22	254	3.35							3.4	23	257	3.27				2.4	3.1	3.1
23	264	2.94							3.1							2.5	3.0	3.0

Time: 75°W.

Length of time sweep: 0.8 Mc to 14.0 Mc in two minutes.

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

Table 23

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

September, 1944

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

September, 1944

Time	h'F2	f'F2	h'F1	f'F1	h'E	f'E	h'F2	f'F2	h'F1	f'F1	h'E	f'E	h'F2	f'F2	h'F1	f'F1	h'E	f'E
00	300	3.36			3.0		00						3.56					
01	299	3.38			3.0		01						3.79					
02	291	3.36			3.2		02						3.64					
03	281	3.32			3.2		03						3.46					
04	283	3.13			3.1		04						3.07					
05	291	3.12			3.0		05						3.05					
06	263	4.24			3.2		06						4.08					
07	293	5.42	243		3.54	132	2.20	2.20	3.3	07	267	5.22				3.18		
08	290	5.75	235		4.08	120	2.62	3.3	3.3	08	298	5.59				3.18		
09	317	5.68	230		4.40	121	2.90	3.2	3.2	09	320	6.02				3.02		
10	352	5.85	218		4.49	120	3.10	3.0	3.1	10	341	6.16				3.14		
11	356	6.22	226		4.56	120	3.17	3.0	3.0	11	356	6.75				3.31		
12	348	6.64	231		4.59	121	3.22	3.17	3.0	12	359	7.29				3.36		
13	346	6.69	237		4.57	120	3.22	3.22	3.0	13	342	8.18				3.36		
14	335	7.12	239		4.51	120	5.16	3.0	3.0	14	316	8.94				3.32		
15	7.26	249	4.42		4.92	121	2.98	3.1	3.1	15	295	9.06				3.48		
16	805	7.51	247		4.12	123	2.64	3.0	3.1	16	280	8.75				3.07		
17	277	7.48	246		5.48	132	2.19	3.2	3.2	17	268	8.13				3.57		
18	241	6.75	250						3.3	18	248	7.06				3.10		
19	233	5.39							3.4	19	247	5.80				3.3		
20	258	4.05							3.4	20	4.55					3.1		
21	282	5.47							3.0	21	3.85					2.8		
22	292	3.35							3.0	22	3.69					2.8		
23	296	3.52							3.0	23	3.54					2.8		

Time: 90°W.
Length of time sweep: 1.9 Mc to 9.8 Mc in three minutes thirty seconds.
Record centered on the hour.Time: 120°W.
Length of time sweep: 0.8 Mc to 12 Mc in eleven minutes. Record centered on the hour.

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

Table 25

(Corrections and additions to previously issued provisional data)

Fairbanks, Alaska ($64^{\circ}30'N$, $147^{\circ}8'W$)

August, 1944

Time	h^*F2	f^*F2	h^*F1	f^*F1	h^*E	f^*E	$F2-M3000$	$F2-M3000$
00	298		5.3		0.0		3.5	
01		0.1	5.4		0.1		3.5	
02	316		5.6		0.2		3.1	
03		0.2	5.0		0.3		2.9	
04		0.4	3.2		0.4		2.9	
05		0.6		3.1	0.5		3.3	1.5
06		0.8	2.16	3.3	0.6		3.9	3.4
07		0.7		3.2	0.7		4.3	3.7
08	4.01			3.0	0.8		4.6	3.9
09	464		3.72	2.71	3.0		5.0	4.0
10		1.0		3.0	0.9		5.0	2.9
11	431		4.42		3.1	2.8	10	4.1
12		4.39			3.1		5.1	4.2
13	443			2.82	3.2		12	4.2
14	424				3.0		13	3.1
15				2.60	3.0		14	4.2
16	379				2.41	2.9		3.0
17					2.41	2.8	15	4.1
18	281				3.0	3.0	16	2.9
19					1.70	2.6	17	2.7
20						3.2	18	2.4
21						2.0	19	3.4
22						2.0	20	1.9
23						2.1	21	1.5
						2.2	22	
						2.3	23	

Time: 1500^W.

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

Table 27

(Corrections and additions to previously issued provisional data)

Honolulu, Hawaii ($20^{\circ}8'N$, $156^{\circ}5'W$)

August, 1944

Time	h^*F2	f^*F2	h^*F1	f^*F1	h^*E	f^*E	$F2-M3000$	$F2-M3000$
00					2.8		0.0	
01					2.5	3.0	0.1	
02					2.4		0.2	
03						3.2	0.3	
04						0.4		
05							0.6	
06							0.8	
07							0.9	
08	5.76		4.47		3.0		10	
09	5.51				4.5		11	
10					4.6		12	
11					4.6		13	
12					4.4		14	
13					4.4		13	
14	4.46		110		3.34	4.6	14	
15					4.6	2.9	15	
16					4.5		16	
17					5.5		17	
18					4.7		18	
19	7.36				4.0		19	
20					3.7		20	
21					3.2		21	
22	280		4.96		3.2		22	
23					3.0		23	

Time: 1500^W.

Length of time sweep: 2 Mo to 16 Mo in one minute.

Table 25

(Corrections and additions to previously issued provisional data)

Great Baddow, England ($51^{\circ}7'N$, $0^{\circ}55'W$)

August, 1944

Time	h^*F2	f^*F2	h^*F1	f^*F1	h^*E	f^*E	$F2-M3000$	$F2-M3000$
00	298		5.3		0.0		3.5	
01		0.1	5.4		0.1		3.5	
02	316		5.6		0.2		3.1	
03		0.2	5.0		0.3		2.9	
04		0.4	3.2		0.4		2.9	
05		0.6		3.1	0.5		3.3	1.5
06		0.8	2.16	3.3	0.6		3.9	3.4
07		0.7		3.2	0.7		4.3	3.7
08	4.01			3.0	0.8		4.6	4.0
09	464		3.72	2.71	3.0		5.0	4.0
10		1.0		3.0	0.9		5.0	2.9
11	431		4.42		3.1	2.8	10	4.1
12		4.39			3.1		5.1	4.2
13	443			2.82	3.2		12	4.2
14	424				3.0		13	3.1
15				2.60	3.0		14	4.2
16					2.41	2.9		3.0
17					3.0	3.0		2.9
18					1.70	2.6		3.4
19						3.2		3.4
20						2.0		1.9
21						2.1		1.5
22						2.2		
23						2.3		

Time: 0⁰.Slough, England ($51^{\circ}5'N$, $0^{\circ}6'W$)Noon $f^*F2 = 5.10$ Mo.

Table 28

(Corrections and additions to previously issued provisional data).

Trinidad, British West Indies ($10^{\circ}6'N$, $61^{\circ}3'W$)

August, 1944

Time	h^*F2	f^*F2	h^*F1	f^*F1	h^*E	f^*E	$F2-M3000$	$F2-M3000$
00					2.8		0.0	
01					2.5	3.0	0.1	
02					2.4		0.2	
03						3.2	0.3	
04						0.4		
05							0.6	
06							0.8	
07							0.9	
08	5.76		4.47		3.0		10	
09	5.51				4.5		11	
10					4.6		12	
11					4.6		13	
12					4.4		14	
13					4.4		13	
14	4.46		110		3.34	4.6	14	
15					4.6	2.9	15	
16					4.5		16	
17					5.5		17	
18					4.7		18	
19	7.36				4.0		19	
20					3.7		20	
21					3.2		21	
22	280		4.96		3.2		22	
23					3.0		23	

Time: 600^W.

Length of time sweep: 2 Mo to 16 Mo in one minute.

(Corrections and additions to previously issued provisional data)

Huancayo, Peru (12.0°S, 75.3°W)

August, 1944

(Corrections to previously issued provisional data)

Kernadeo Island (29.2°S, 177.9°W)

August, 1944

Time	h^*F2	f^*F2	h^*Fl	f^*Fl	h^*E	f^*E	f^*S	$F2-M3000$
00								
01								
02								
03								
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

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

Table 31

(Corrections and additions to previously issued provisional data)

Christchurch, N.Z. (43.5°S, 172.6°E).

August, 1944

Time	h^*F2	f^*F2	h^*Fl	f^*Fl	h^*E	f^*E	f^*S	$F2-M3000$
00								
01								
02								
03								
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

Time: 172.5°E.
Length of time sweep: 2.5 Mc to 12 Mc in two minutes.Time: Local.
Length of time sweep: 1.8 Mc to 12.8 Mc. Manual I operation.

Table 32

(Corrections to previously issued provisional data)

July, 1944

Time	h^*F2	f^*F2	h^*Fl	f^*Fl	h^*E	f^*E	f^*S	$F2-M3000$
00								
01								
02								
03								
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								

Time: Local.

Table 53
Tomsk, USSR (56°40'N, 85°00'E)

Time	h°F2	f°F2	h°E	f°E	h°E	f°E	F2-M3000
00	242	4°95					
01	245	4°55					
02	250	4°1					
03	250	3°8					
04	251	3°5					
05	252	3°6					
06	292	3°95	226	3°05	107	1°3	
07	326	4°2	220	3°4	107	2°2	
08	369	4°5	222	4°0	104	2°4	
09	397	4°6	226	3°9	104	2°7	
10	359	4°8	218	4°0	106	2°8	
11	363	5°0	210	4°1	102	2°9	
12	382	5°1	209	4°5	104	3°2	
13	398	5°1	209	4°2	102	3°2	
14	362	5°2	216	4°25	102	3°3	
15	333	5°0	216	4°2	102	3°3	
16	339	4°9	203	4°1	101	3°1	
17	350	4°8	214	4°0	103	2°9	
18	331	4°7	213	3°35	107	2°7	
19	310	4°7	216	3°6	107	2°5	
20	291	4°7	232	3°4	109	2°2	
21	270	4°9	234	3°3	113	1°8	
22	246	5°06					
23	244	5°1					

Time: 105°E.

Time: 0°

Length of time sweep: Manual operation.

Table 34

Great Budlow, England (51°7'N, 0°5'E)
July, 1944

Time	Time	fES
00	00	2°1
01	01	2°3
02	02	2°1
03	03	2°3
04	04	2°5
05	05	3°2
06	06	4°0
07	07	4°8
08	08	4°7
09	09	4°5
10	10	5°2
11	11	4°8
12	12	5°2
13	13	4°4
14	14	4°4
15	15	4°1
16	16	4°3
17	17	4°3
18	18	4°5
19	19	4°3
20	20	3°8
21	21	3°8
22	22	3°1
23	23	2°9

Table 35

(Corrections to data previously issued
in "Ionospheric Data", issued August 1944)

Baton Rouge, Louisiana (30.5°N, 91.2°W)
July, 1944

Table 36

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

Table 37

Brisbane, Q., Australia (27.5°S, 153.0°E)
July, 1944

Time	F2-M3000
00	3.0
01	3.0
02	3.1
03	3.1
04	3.1
05	3.2
06	3.2
07	3.0
08	3.1
09	3.0
10	3.1
11	3.0
12	3.0
13	2.9
14	3.0
15	3.0
16	3.1
17	3.2
18	3.2
19	3.2
20	3.3
21	3.2
22	3.1
23	3.0

Time	f ^o F2
00	3.54
01	3.61
02	3.50
03	3.32
04	3.17
05	3.34
06	4.22
07	5.28
08	5.90
09	6.27
10	6.76
11	7.07
12	7.03
13	7.50
14	7.64
15	7.51
16	7.06
17	6.75
18	6.65
19	6.70
20	5.78
21	5.42
22	4.52
23	4.15

Time	fEs
00	
01	
02	
03	
04	
05	
06	
07	
08	
09	
10	
11	
12	3.0
13	
14	3.8
15	3.9
16	4.0
17	3.7

Time: 90°W.

Length of time sweep: 1.9 Mc to 9.8 Mc in
three minutes, thirty seconds. Record
centered on the hour.

Time: 75°E.

Time: 150°E.

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

Table 38

Mt. Stromlo, N.S.W., Australia
(35.5°S, 149.0°E)
July, 1944

Time	fEs
00	
01	
02	
03	
04	
05	
06	
07	
08	
09	
10	
11	3.8
12	3.9
13	4.3
14	4.0
15	4.0
16	
17	
18	
19	
20	
21	
22	
23	

Time: 150°E.

Length of time sweep: 1.6 Mc to
12.5 Mc in two minutes.

Table 39

Christchurch, N.Z. (43.5°S, 172.6°E)
July, 1944

Time	fEs
00	4.0
01	4.0
02	4.2
03	3.8
04	
05	
06	
07	
08	
09	
10	4.4
11	4.5
12	5.1
13	5.0
14	5.2
15	4.7
16	3.6
17	4.0
18	3.7
19	3.4
20	
21	
22	
23	

Time: 172.5°E.

Length of time sweep: 2.5 Mc to 12 Mc
in two minutes.

Table 40

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

Time	fEs
00	2.9
01	2.9
02	2.8
03	2.8
04	2.9
05	2.9
06	2.9
07	2.8
08	2.9
09	3.1
10	3.1
11	3.7
12	3.4
13	3.5
14	3.8
15	3.1
16	3.2
17	3.0
18	3.0
19	2.9
20	2.8
21	2.8
22	2.8
23	2.8

Time: 120°E.

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

TABLE 41
IONOSPHERE DATA:
Washington, D.C.
(Location) Ionosphere Station

National Bureau Of Standards
(Institution)

RESTRICTED

Day	TIME: 75° W MERIDIAN												Hourly values of h_F in km for September 1944													
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	230	260	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	
2	230	290	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320	320	
3	240	290	260	300	270	280	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	
4	240	280	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	
5	260	280	280	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	
6	260	260	240	260	260	260	260	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	
7	280	290	230	260	260	280	300	260	240	280	500	340	320	340	340	340	340	340	340	340	340	340	340	340	340	
8	260	250	260	260	260	270	280	260	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	
9	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	
10	260	260	260	260	260	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	
11	260	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	
12	290	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	
13	260	280	260	260	260	260	260	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	
14	260	260	240	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	
15	260	270	260	260	260	260	260	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	
16	260	260	260	260	260	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	
17	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	
18	260	260	260	240	280	300	300	260	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	
19	260	280	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	
20	270	260	260	260	260	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	
21	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C		
22	280	260	270	270	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	280	
23	230	260	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	
24	260	280	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
25	270	270	260	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	
26	270	280	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	
27	280	320	260	280	300	300	300	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	
28	290	280	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	
29	280	280	260	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	
30	280	280	1310	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	260	
31																										
Sum	7820	7860	7520	7280	7360	7970	7170	7040	7750	8900	8830	9510	9750	9520	9470	9180	8750	8000	7250	7000	7060	7320	730	7670	193610	
Mean ¹	270	271	268	260	263	275	247	251	277	307	304	317	325	317	316	306	292	267	242	235	235	244	254	264	264	
Mean ²	270	270	266	266	258	262	274	246	249	275	302	302	303	302	301	287	264	234	235	235	244	254	254	265	265	
Median	260	270	260	260	260	260	260	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	

1 For all days of the month
2 Far quiet days

h' F₂

September, 1944

Washington, D. C. Ionosphere Station

TABLE 43
IONOSPHERE DATA-3

RESTRICTED

(Institution) National Bureau Of Standards TIME: 75°W MERIDIAN
Hourly values of $h^1 F_1$ in m for September 1944 (Month)

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	Sum	Mean
1	220	220	220	200	220	220	220	220	220	220	220	220	220	220	220	240	240 ^K	240	240	240	240	240	240	240	240	
2	240 ^K	240 ^K	220 ^K	200 ^K	220 ^K	240 ^K																				
3	220	220	220	220	200	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	
4	230	220 ^A	220 ^A	200	220	200	220	200	220	200	220	200	220	200	220	240	240	240	240	240	240	240	240	240	240	
5	220	220	220	220	220	220	220	220	220	220	220	220	220	220	220	240	240	240	240	240	240	240	240	240	240	
6	220	200	220	220	200	200	200	200	200	200	200	200	200	200	200	220	220	220	220	220	220	220	220	220	220	
7	210	220	180	200	200	200	200	200	200	200	200	200	200	200	200	220	220	220	220	220	220	220	220	220	220	
8	220	200	220	220	220	220	220	220	220	220	220	220	220	220	220	240	240	240	240	240	240	240	240	240	240	
9	240	220	220	220	220	220	220	220	220	220	220	220	220	220	220	240	240	240	240	240	240	240	240	240	240	
10	240	220	240	220	220	220	220	220	220	220	220	220	220	220	220	240	240 ^K									
11	220	220	220	220	200 ^H	220	220	220	220	220	220	220	220	220	220	240	240	240	240	240	240	240	240	240	240	
12	(200)	200 ^H	220	200	220	220	220	220	220	220	220	220	220	220	220	240	240	240	240	240	240	240	240	240	240	
13		240	220	220	220	220	220	220	220	220	220	220	220	220	220	240	240	240	240	240	240	240	240	240	240	
14	C	C	220	220	220	220	200	220	220	220	220	220	220	220	220	240	240	240	240	240	240	240	240	240	240	
15		230	220	200	200	180 ^H	220	220	220	220	220	220	220	220	220	240	240	240	240	240	240	240	240	240	240	
16		200	220	220	220	200	200	200	200	200	200	200	200	200	200	240	240	240	240	240	240	240	240	240	240	
17		220	240	220	220	200	200	200	200	200	200	200	200	200	200	A	210	210	210	210	210	210	210	210	210	
18		220	210	230	200 ^H	190	200 ^H	210 ^H	200 ^H	240	240	240	240	240	240	240	240	240	240							
19		220	220	200	200 ^H	240	240	240	240	240	240	240	240	240	240											
20		220	220	220	220	220	220	220	220	220	220	220	220	220	220	240	240	240	240	240	240	240	240	240	240	
21	C	C	200	200	200	200	200	200	200	200	200	200	200	200	200	240	240	240	240	240	240	240	240	240	240	
22		220	240	210	220	200	200	200	200	200	200	200	200	200	200	240	240	240	240	240	240	240	240	240	240	
23		220	210	210	210	210	210	210	210	210	210	210	210	210	210	240	240	240	240	240	240	240	240	240	240	
24			220	220	220	220	220	220	220	220	220	220	220	220	220	240	240	240	240	240	240	240	240	240	240	
25			220 ^H	220	220	220	200	200	200	200	200	200	200	200	200	240	240	240	240	240	240	240	240	240	240	
26			220	220	220	220	210	210	210	210	210	210	210	210	210	240	240	240	240	240	240	240	240	240	240	
27			220	220	220	220	220	220	220	220	220	220	220	220	220	240	240	240	240	240	240	240	240	240	240	
28			220	220	220	220	210	210	210	210	210	210	210	210	210	240	240	240	240	240	240	240	240	240	240	
29			230	230	200 ^H	220	220	220	220	220	220	220	220	220	220	240	240	240	240	240	240	240	240	240	240	
30			K	220 ^K	220 ^K	200 ^K	240 ^K																			
31				2880	5720	6360	6350	5960	6170	6290	63550	6790	6790	5650	490											66000
Sum				2222	2220	219	2182	206	206	2110	2110	2110	2110	2110	2110											
Mean ¹				220	219	219	2182	206	206	206	206	206	206	206	206											
Mean ²				220	220	220	220	220	220	220	220	220	220	220	220											
Median																										

For all days of the month

For quiet days

$h^1 F_1$

September, 1944

Washington, D. C.
 (Location)
 National Bureau Of Standards
 (Institution)

TABLE 44
 IONOSPHERE DATA-4

RESTRICTED

Hourly values of f_1 and f_0 for September 1944
 (Months)

TIME: 75° W MERIDIAN

Records measured by: S.M.O.
 H.P.G.

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	Sum	Mean			
1									3.4	3.8	4.0	4.1	4.3	4.4	4.3	4.2	3.9	3.7	K						4.4	4.4			
2									3.4	3.8	4.0	4.1	4.1	4.1	4.2	4.2	3.8	3.3	3.7							4.5	4.6		
3									3.8	4.0	4.2	4.2	4.3	4.3	4.2	4.1	3.9	3.6								4.0	6		
4									3.4	3.9	4.1	4.2	4.3	4.2	4.4	4.2	4.2	4.0	3.5							4.4	4		
5									(3.9)	4.1	4.2	4.3	4.3	4.2	4.4	4.2	4.2	4.0	3.5							4.0	5		
6									3.5	3.8	4.0	4.3	4.3	4.3	4.3	4.2	4.1	3.8	3.5							4.4	2		
7									(3.5)	4.2	4.3	4.2	4.2	4.2	4.2	4.2	4.1	3.8	3.3							4.0	0		
8									(3.8)	3.8	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.0	3.5							4.3	0		
9									(3.7)	4.1	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.1	3.8	3.5						4.0	5		
10									3.4	3.8	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.9	(3.5) K						4.3	9		
11									(3.5)	(3.9)	3.9	4.2	4.2	4.3	4.3	4.2	4.2	4.2	4.1	3.9	3.5						4.4	0	
12									(2.8)	(3.7) H	4.1	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.9	3.5						4.3	4	
13									C	4.1	4.2	4.2	4.1	4.2	4.2	4.2	4.2	4.2	4.0	(3.8) A						3.2	9		
14									C	3.9	4.1	4.1	4.2	4.2	4.3	4.2	4.2	4.2	4.0	3.7	(3.2)						3.5	8	
15									3.9	4.0	4.1	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)						3.6	7
16									3.7	4.1	(4.2)	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	(3.7) B						3.6	5		
17									3.0	3.7	(4.0)	4.2	4.2	3.9	4.3	4.2	4.2	4.2	4.1	A						3.5	6		
18									3.4	3.8	(4.1) H	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	(4.1)	3.8	(3.3)						3.8	7	
19									3.7	3.9	4.1	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.1	3.8	(3.1)						3.9	6	
20									3.6	3.9	4.1	4.2	4.2	4.3	4.3	4.2	4.2	4.0	3.8							3.6	4		
21									C	C	4.1	4.2	4.2	4.1	4.2	4.2	4.2	4.2	4.1	3.9	3.6						2.8	2	
22									(2.8)	3.7	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	3.9	3.0						4.1	7		
23									4.0	4.1	(4.2)	(4.2)	(4.2)	(4.2)	(4.2)	(4.2)	(4.2)	(4.2)	(4.2)	(4.2)	(4.2)						3.2	6	
24									3.8	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.0	3.6							3.1	8		
25									3.7	3.9	4.2	4.2	4.2	4.1	4.1	4.1	4.1	3.8	3.7							3.5	8		
26									3.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.8	3.7						3.5	5		
27									3.6	3.9	4.0	4.0	4.1	4.1	4.1	4.1	4.1	4.1	3.9	3.7						3.2	5		
28									3.7	3.9	3.9	4.2	4.2	4.2	4.2	4.2	4.2	4.1	4.0	(3.6)						3.5	7		
29									K	(3.7) K	4.0	4.0	4.0	4.2	4.2	4.2	4.2	4.1	4.1	K	3.6					3.5	7		
30									32.0	89.3	115.6	124.1	125.5	126.8	126.9	124.7	120.8	109.4	54.5	2.7						115.7			
Sum									32.0	37.2	39.9	44.4	44.8	42.8	42.1	41.6	40.3	37.7	34.1	2.70									
Mean ¹									31.8	37.2	39.8	44.4	44.8	42.4	42.1	41.6	40.4	37.7	33.8	2.70									
Mean ²									37	4.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.0	3.8	3.0									
Median																													

For all days of the month

2 For quiet days

September, 1944

f_1

TABLE 45
IONOSPHERE DATA-5
(Location) Washington, D. C.
(Institution) Ionosphere Station

TIME: 75° W MERIDIAN												Hourly values of h_E in km for September 1944												RECORDED by: S.W.O. H.P.G.			
(Month)												1944															
National Bureau Of Standards												RECORDED measured by: S.W.O. H.P.G.															
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	Sat.	Mean	
1																										1250	
2																										1550	
3																										1530	
4																										1510	
5																										1250	
6																										1536	
7																										1580	
8																										1470	
9																										1540	
10																										1440	
11																										1450	
12																										1220	
13																										1300	
14																										1050	
15																										1410	
16																										1220	
17																										1270	
18																										1240	
19																										1290	
20																										1300	
21																										950	
22																										1350	
23																										1320	
24																										1390	
25																										1280	
26																										1310	
27																										1290	
28																										1290	
29																										1320	
30																										1220	
31																										14060	
Sum																											
Mean 1																											
Mean 2																											
Variation																											

2 For quiet days

For all days of the month

September, 1944

h_E

TABLE 46
IONOSPHERE DATA-6

Washington, D. C. Ionosphere Station

RESTRICTED

Hourly values of f° E_{in} [No. for September 1944 (Month)]

Record measured by S.M.O.
H.P.G.

(Institution) National Bureau Of Standards

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	Sum	Mean				
1									A	(2.6) ^A	(3.2) ^A	3.3	3.3	A	A	3.0	[2.7] ^A	(2.4) ^H							23.5					
2									1.7 ^K	2.3 ^K	(2.0) ^K	B ^K	C ^K	A ^K	[3.2] ^K	(3.2) ^K	2.8 ^K	(2.2)	1.7							25.8				
3									1.7	2.3	(2.6)	2.7	A	A	A	(3.2)	(3.1)	(2.9)	2.3	(1.8)							22.6			
4									A	A	A	(3.2)	(3.3)	C ^J ^C	[3.3] ^H	[2.7] ^B	2.3	A								20.9				
5									(2.3)	(2.7)	2.9	(3.1) ^A	A	C	A	(3.1)	(2.7)	2.6	2.2							21.6				
6									1.7	2.4	(2.8)	(3.0) ^A	(3.7) ^B	(3.2)	(3.3)	3.2	3.0	2.7	(2.1)	(1.8)							35.4			
7									(1.5)	(2.3) ^A	(2.6)	2.9	3.1	(3.1) ^B	(3.2) ^B	3.2	3.1	3.0	2.7	2.3	(1.8)						34.5			
8									(2.3)	2.6	(2.7)	(2.8) ^A	(3.0) ^A	(3.2)	C	A	A	(2.8)	2.3	1.8						~3.5				
9									1.5	2.2	2.5	(2.8)	(3.1)	3.0	(3.2) ^A	3.3	[3.3] ^A	(3.0)	2.7	2.3	1.8						34.0			
10									(1.4)	(2.2) ^A	(2.6)	(2.8)	(3.1) ^C	(3.2) ^A	(3.1) ^A	(3.1) ^A	(3.2)	3.0	2.7 ^K	2.2 ^K						32.9				
11									(2.2) ^F	(2.7)	2.9	(3.1)	(3.2)	3.3	(3.2) ^A	(3.2) ^B	2.7	(2.2)	A						31.7					
12									(2.2) ^F	2.6	(2.9)	(3.1) ^A	(3.3)	3.3	(3.3)	(3.1)	2.9	2.6	(2.2)						31.5					
13									2.2	2.7	(3.0)	3.2	(3.3)	B	B	B	A	A	2.3						16.7					
14									C	C	3.0	3.2	(3.2)	(3.2)	(3.2)	(3.2)	(3.2)	B	B	(2.7)	A					15.6				
15									2.2	2.7	A	A	A	(3.1) ^B	(3.1)	(2.7)	(2.7)	A							22.1					
16									2.2	2.7	B	B	(3.2)	3.3	(3.3)	(3.1)	(2.7) ^B	(2.7) ^H	(2.7)	2.2 ^H						25.6				
17									(2.2)	(2.7)	2.9	3.0	(2.9)	A	A	(3.1) ^B	(3.0) ^A	2.7	(2.1)						24.6					
18									2.0	(2.8) ^B	B	B	B	B	B	B	B	B	(2.7)	(2.2)						12.3				
19									(2.2)	2.6	B	B	B	(3.1)	B	B	B	B	B	(2.7)	(2.2)						15.7			
20									2.1	2.5	(2.7)	B	B	B	B	B	B	B	B	(2.7) ^B	2.1						12.1			
21									C	C	C	B	B	(3.1)	B	C	(2.9)	(2.7)	2.1							10.5				
22									(1.9)	2.4	2.7	(2.9) ^A	B	B	B	B	B	A	2.5	2.1	(1.5)						16.0			
23									A	(2.6)	(2.7) ^B	(3.0)	C	B	(3.0)	B	B	B	2.4	2.1							15.0			
24									C	1.9 ^H	2.4	(2.6)	2.9	B	B	(3.0)	(2.9)	(2.8) ^B	3.5	(1.9)							15.7			
25									2.0	2.4	(2.7) ^B	B	B	B	C	B	B	B	2.5	1.8						11.4				
26									A	A	A	A	A	(3.1)	(3.1) ^B	(3.0)	(2.7)	2.3	1.9 ^H							10.1				
27									1.9 ^H	2.4	(2.8) ^B	(2.9) ^A	(3.1) ^B	B	B	C	2.8	2.5	2.1						10.4					
28									2.1 ^H	2.4	(2.7)	B	A	(3.1) ^B	(3.1) ^B	(2.8) ^B	2.5	(1.9)								10.4				
29									1.1.8 ^A	A	A	A	A	B	B	B	B	B	2.6	1.8 ^H						9.0				
30									X	2.5 ^K	(2.7) ^K	B	K	B	K	B	K	B	K	(2.9) ^K	2.4	A						10.0		
31									9.5	51.9	64.8	62.1	48.9	44.2	51.4	47.7	49.7	67.2	76.2	59.7	1/2.2							~45.5		
	Sum								1.58	21.6	25.9	28.2	3.06	31.6	3.21	3.18	3.11	2.92	2.63	2.13	1.74									
	Mean ¹								1.56	2.14	2.59	2.82	3.06	3.16	3.18	3.10	2.92	2.62	2.12	1.74										
	Mean ²																													
	Median								2.2	2.6	2.8	3.1	3.2	3.2	3.2	3.1	2.9	2.7	2.7	2.2										

For all days of the month

2 For quiet days

September, 1944

f^o E

TABLE 47
IONOSPHERE DATA-7

Washington, D. C. Ionosphere Station

Washington, D. C.

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National Bureau of Standards

For all days of the month

2 For quiet days

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TABLE 48
IONOSPHERE DATA-8

Washington, D. C. Ionosphere Station

National Bureau Of Standards

(Institution)

TIME: 75° W MERIDIAN

Records measured by: S.M.S.
H.P.G.

RESTRICTED

Bulletin values of F2 MI500 for September 1944
(Month)

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	Sun	Mean	
1	1.92	2.00	1.98	2.04 ^F	1.91	A	2.10	2.20	2.30	2.10	2.03	1.97	2.01	2.00	1.98 ^K	2.00 ^K	2.06 ^K	1.98 ^K	2.20 ^F	1.95 ^F	2.20 ^F	1.95 ^F	2.20 ^F	1.96 ^F			
2	1.93 ^K	1.97 ^K	1.95 ^K	1.93 ^K	2.01 ^K	1.94 ^K	2.01 ^K	2.15 ^K	2.12 ^K	1.77 ^K	1.77 ^K	1.82 ^K	1.83 ^K														
3	1.88 ^F	1.95 ^F	1.91 ^F	2.00 ^F	2.11 ^F	2.17 ^F	2.48	2.20	2.10	2.12	1.21	1.17	2.09	2.00	2.03	2.22	2.19	2.12	2.06	2.11	2.11	2.11	2.11	2.11	2.11		
4	(1.95)F	(1.70)F	(1.77)F	(2.00)F	(1.33)F	(1.86)F	2.23	2.31	2.24	2.11	2.30	1.92	1.85	C	2.01	1.90	2.01	2.05	2.19	2.13	2.23 ^F						
5	2.00F	1.99F	2.05F	2.06	2.20	2.15F	2.28F	2.32	2.20	2.19	2.25	2.05	C	2.09	2.02	2.11	2.11	2.22	2.15	2.18	2.10	2.15	2.07	2.12	2.12	2.12	
6	2.01	2.10	2.20F	1.94F	(2.00)F	1.94F	2.00F	2.35	2.25	2.29	2.21	2.15	2.14	2.10	2.29	2.05	1.99	1.97	2.01	2.00	2.17	2.23	2.00	2.17	2.00	2.17	
7	1.97	1.89	1.92	1.87	(1.95)F	1.91	2.19	2.42	2.23	1.65	2.37	2.10	2.01	2.06	1.95	2.11	2.17	2.16	2.32	2.27	2.10	2.06	2.04	2.10	2.10	2.10	
8	2.06F	2.05	2.00F	2.05F	2.00F	2.01F	2.35	(2.43)	2.12	2.08	1.97	2.07	2.12	C	2.05	1.87	2.01	2.03	2.10	2.11	2.14F	2.11F	2.26F	2.14F	2.14F	2.14F	2.14F
9	1.94F	2.07F	1.95	1.96F	2.05F	2.11F	2.30	2.40	2.40	2.40	2.20	2.14	2.08	2.07	2.00	2.15	2.03	2.09	2.11	2.19	2.12	2.20	2.10	2.01	1.93	1.93	
10	1.95	1.76	2.17F	2.03F	1.96F	1.85F	2.21	2.27	2.13	2.17	(1.97)	2.06	2.07	2.08	2.02	2.00	1.94	2.07	2.10	2.10	2.10	2.10	2.10	2.10	2.10	2.10	
11	2.26 ^F	(1.92)F	(1.77)F	(1.95)F	(2.25)F	(2.22)F	2.23 ^F	2.17	2.02	2.10	2.26	2.07	2.04	2.08	2.04	2.07	2.11	2.05	2.16	2.21	2.21	2.20	2.20	2.20	2.20	2.20	
12	1.93	1.95	1.77	(2.02)	1.89F	A	2.19	2.38	2.30	2.23	2.06	(2.21)	2.15	2.03	1.96	2.10	2.10	2.10	2.13	2.30	2.25	2.18	2.02	1.97	1.97	1.97	1.97
13	2.00	2.09	1.77	2.03	2.27F	2.10F	2.20	2.20	(2.38)	2.20	2.15	2.30	2.06	2.07	2.04	2.17	2.12	2.22	2.24	2.15	2.11	2.25	2.08	2.03	2.03	2.03	
14	2.01	2.03	2.10	1.98	1.98	(2.08)F	2.17	C	2.07	2.12	2.15	2.13	2.16	2.16	2.17	2.27	2.30	2.26	2.26	2.26	2.26	2.26	2.26	2.26	2.26		
15	2.05	2.37	2.00	1.93	2.08	2.17	2.27	2.44	(2.40)	2.21	2.02	2.02	2.37	(2.29)	2.16	2.25	2.35	2.38	2.37	2.34	2.34	2.34	2.34	2.34	2.34	2.34	
16	2.03	2.21	2.13	2.13	2.30	2.24	2.40	2.45	(2.39)	(1.87)	2.26	2.12	2.17	2.15	(2.28)	2.22	2.20	2.15	2.24	2.20	2.15	2.14	2.11	2.11	2.11		
17	2.00	2.06	2.18	2.15	2.10	2.24	2.29	(2.29)	(2.18)	2.26	2.3	2.17	2.18	(2.13)	2.12	2.11	2.23	(2.27)	2.14	2.20	2.16	2.01	2.01	2.01	2.01	2.01	
18	2.00	2.05	2.00	1.96	1.97	1.93	2.29	C	(2.24)	(2.28)	(2.30)	(2.30)	2.15	2.21	2.10	2.11	2.28	2.21	2.27	2.16	2.19	2.12	2.05	2.01	4.97	4.97	
19	2.00	1.91	1.67	2.04	2.03F	2.16F	2.40	2.25	(2.43)	2.39	2.24	2.28	2.16	2.10	2.03	2.03	2.06	2.21	2.20	2.34	2.37	2.30	2.11	2.22	2.00	2.01	
20	2.02	1.99	1.93	2.14F	2.10	2.29	2.59	2.47	(2.49)	2.36	2.16	2.13	2.07	2.14	2.13	2.33	(2.11)	2.01	2.3	2.07	2.11	2.25	2.00	2.02	2.02	2.02	
21	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
22	1.95	2.01	2.15F	2.00F	2.10F	2.15F	2.24	2.30	2.21	2.06	2.27	2.03	1.77	2.22	2.17	2.17	2.11	2.11	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17	2.17
23	2.07	2.04	2.13	2.21	(2.20)F	2.36	2.30	2.50	2.40	(2.24)	2.20	2.05	2.05	2.05	2.05	2.05	2.05	2.27	2.08	2.15	2.15	2.15	2.15	2.15	2.15	2.15	
24	1.70	2.00	A	A	(2.26)F	2.08	2.07	(2.33)	1.91	2.02	2.02	2.11	2.11	2.20	2.20	2.35	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	
25	2.00F	1.91	2.01	1.95F	1.78)F	2.07F	2.19	2.35	2.14	2.34	2.14	2.17	2.17	2.17	2.17	2.17	2.17	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	2.22	
26	2.04	1.97	2.03F	2.00F	2.07F	1.95F	2.36	2.20	2.21	2.12	(2.31)	2.60	2.07	2.10	2.11	2.17	2.22	2.22	2.25	2.17	2.17	2.17	2.17	2.17	2.17	2.17	
27	2.02	1.93F	2.04F	2.00	1.97	2.03	2.17	2.40	(2.17)	2.13	2.11	2.02	2.02	2.02	2.02	2.07	2.07	2.16	2.32	2.10	2.10	2.10	2.10	2.10	2.10	2.10	
28	1.15	1.78	2.07F	2.12	2.21F	2.25F	2.32	2.54	2.27	2.24	2.24	2.15	2.15	2.15	2.15	2.15	2.15	2.32	2.32	2.34	2.20	2.17	2.01	2.00	2.00	2.00	
29	1.92	1.97	2.01	2.11	2.05	1.97	1.21/1.81	2.25	2.22	(2.38)	2.27	2.33	1.77	2.23	2.11	2.17	2.15	2.26	2.31	2.27	2.27	2.27	2.27	2.27	2.27	2.27	2.27
30	1.98	1.84	1.91	2.03	1.96	2.00	2.10	2.05	2.38	2.17	2.07A	1.52	1.83K	1.78K	1.86K	2.10	2.10	2.10	2.10	2.07	2.07	2.07	2.07	2.07	2.07	2.07	
31																											
Sum	57.84	57.62	56.86	57.23	56.14	55.72	62.17	63.73	62.96	62.33	61.53	60.27	58.23	58.19	62.59	63.76	65.53	64.50	63.57	62.11	59.17	56.92	54.61	2.3			
Mean ¹	1.97	1.99	2.03	2.02	2.04	2.08	2.27	2.30	2.17	2.15	2.12	2.08	2.09	2.09	2.12	2.19	2.18	2.15	2.12	2.07	2.04	2.03					
Mean ²	1.78	1.77	2.05	2.03	2.04	2.08	2.27	2.32	2.15	2.18	2.10	2.07	2.09	2.09	2.10	2.14	2.19	2.16	2.12	2.07	2.04	2.03					
Median	2.00	1.97	2.01	2.02	2.05	2.10	2.24	2.30	2.17	2.13	2.08	2.07	2.07	2.07	2.07	2.12	2.12	2.12	2.12	2.06	2.06	2.06	2.06	2.06	2.06		

For all days of the month

For quiet days

F2-MI500

September 1944

Washington, D.C.
(Location)

IONOSPHERE DATA - 9
TABLE 49

RESTRICTED

Ionosphere Station

National Bureau Of Standards
(Institution)

Hourly values of F2-M3000 for September 1944
(Month)

Records measured by: S.M.O.
H.P.G.

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	Sum	Mean
1	2.90	3.03	2.95	3.04 ^a	2.92	2.91	H	3.10	3.29	3.40	3.14	3.03	3.00	3.05	3.02	3.00	3.08	3.08 ^a	3.02 ^a	3.08 ^a	3.01 ^a	3.01 ^a	3.01 ^a	3.01 ^a	70.15	
2	3.13 ^a	3.00 ^a	2.88 ^a	(3.02)	(3.02)	(3.10)	(2.82)	3.24 ^a	3.27 ^a	3.20 ^a	(2.67)	K	(2.75)	(2.80)	(2.80)	(2.80)	2.80 ^a	2.82 ^a	2.90 ^a	3.10	3.15	3.10	3.10	3.13 ^a	2.95 ^a	(3.17) ^a
3	2.82 ^a	2.99 ^a	(3.12)	(3.00)	(3.00)	(3.15)	(3.01)	3.53	3.28	3.12	(3.23)	3.12	3.20	3.06	3.01	3.09	3.32	3.24	3.16	3.20	3.23	3.23	3.23	3.23	6.9.17	
4	(2.98) ^a	(2.95) ^a	(3.15)	(3.01)	(2.82)	(2.91)	(3.47)	3.32	3.30	3.19	(3.25)	3.17	3.40	2.90	2.83	C	3.02	2.89	3.12	3.07	3.12	3.28	3.20	3.20	75.45	
5	3.05 ^a	3.02 ^a	3.19 ^a	3.12	3.25	3.19 ^a	3.40 ^a	3.35	3.29	3.21	3.30	3.10	C	3.11	3.11	3.15	3.17	3.30	3.20	3.20	3.20	3.20	3.20	3.20	3.20	71.72
6	3.06	3.12	3.23 ^a	2.94 ^a	3.03 ^a	3.19 ^a	3.30	3.49	3.33	3.40	3.29	3.20	3.25	3.10	2.87	3.17	2.98	3.06	(3.02)	3.00	3.20	3.24	3.01	3.00	75.52	
7	3.00	2.87	2.83	2.47	2.99 ^a	2.89	3.21	3.48	3.39	2.50	3.10	3.15	3.01	3.11	2.95	3.16	3.21	3.22	3.42	3.29	3.12	3.03	3.10	3.13	73.62	
8	3.10 ^a	3.11	3.00 ^a	3.07	3.05 ^a	3.04 ^a	3.48	(3.51)	3.17	3.11	2.96	3.10	3.20	3.12	3.12	2.80	3.06	3.05	3.13	3.28 ^a	3.11 ^a	3.11 ^a	3.19 ^a	3.31 ^a	72.11	
9	(2.99) ^a	3.10 ^a	2.90	2.98 ^a	3.08 ^a	3.15 ^a	3.05 ^a	3.41	3.49	3.24	3.19	3.12	3.13	3.02	3.19	3.06	3.17	3.20	3.20	3.17	3.25	3.18	3.10	3.01	75.59	
10	2.95	2.95	3.29 ^a	3.02 ^a	3.02 ^a	3.02 ^a	2.87 ^a	3.25	3.33	3.23	3.21	(2.99)	3.14	3.10	3.10	3.05	2.97 ^a	3.15 ^a	3.14 ^a	74.37						
11	(3.31) ^a	(2.96) ^a	(2.64)	(2.81)	(3.03)	(3.03)	(3.20)	(3.25)	(3.20)	(3.16)	(3.14)	(3.10)	(3.10)	(3.10)	(3.10)	(2.98)	3.15	3.11	3.20	3.24	3.24	3.25	3.25	3.25	74.88	
12	2.94	2.99	2.97	(3.10)	2.83 ^a	H	3.24	3.46	3.38	3.39	3.08	(3.21)	3.24	3.10	2.97	3.15	3.12	3.17	3.40	3.30	3.20	3.20	3.20	3.20	3.20	72.47
13	2.96	3.10	2.98	3.05	3.00 ^a	3.16 ^a	3.23	3.21	(3.42)	3.25	3.20	3.39	3.05	3.17	3.10	3.23	3.27	3.25	3.20	3.20	3.15	3.32	3.10	3.08	75.89	
14	3.03	3.10	3.11	3.00	3.00	3.08 ^a	3.19	C	3.49	3.50	3.22	3.08	3.21	3.21	3.21	3.10	3.54	3.30	3.31	(3.32)	3.10	3.07	3.07	3.07	70.05	
15	3.14	3.08	2.99	2.92	3.10	3.20	3.30	3.49	(3.45)	3.30	3.05	3.36	3.41	3.10	3.24	3.38	3.38	3.42	3.27	3.15	3.30	2.93	3.01	3.08	77.05	
16	3.09	3.05	3.21	3.16	3.42	3.25	3.47	3.50	(3.32)	3.51	(2.89)	3.30	3.30	3.21	3.29	3.20	(3.31)	3.30	3.23	3.17	3.08	3.12	3.09	3.20	77.59	
17	3.05	3.13	3.25	3.21	3.16	3.11 ^a	3.31	(3.34)	3.43	(3.30)	(3.43)	3.40	3.24	3.22	(3.20)	3.14	3.15	3.11	(3.39)	3.12	3.45	2.95	2.96	3.09	76.95	
18	3.03	3.03	3.00	2.95	3.00	2.92	3.39	C	(3.30)	(3.11)	(3.38)	3.21	3.29	3.15	3.21	3.12	3.12	3.31	3.30	3.20	3.24	3.13	3.10	3.07	72.74	
19	2.99	2.88	2.98	3.14	3.03 ^a	3.19	3.47	3.30	3.39	3.22	3.18	3.04	3.04	3.09	3.29	3.21	3.39	3.39	3.45	3.45	3.30	3.18	3.30	3.07	77.25	
20	3.05	3.02	2.89	3.20	3.41	3.60	(3.67)	3.42	(3.21)	3.19	3.21	3.15	3.13	3.20	3.15	3.19	(3.14)	3.01	3.18	3.10	3.12	C	3.05	4.45	74.35	
21	C	C	C	C	C	C	C	C	C	3.25	3.24	3.22	3.24	(3.12)	3.22	3.19	3.28	3.24	3.10	3.14	3.14	3.00	3.05	3.05	44.54	
22	2.94	3.01	3.22 ^a	3.05 ^a	3.18 ^a	3.20	3.29	3.40	3.28	3.11	3.40	3.09	3.00	3.07	3.15	3.24	3.22	3.20	3.20	3.20	3.20	3.20	3.20	75.26		
23	3.10	3.07	3.20	3.00	(3.05)	(3.31)	3.37	-3.63	3.49	(3.31)	3.30	3.20	3.14	3.09	3.20	3.20	3.19	3.14	2.88	3.22	3.01	3.01	3.01	3.01	73.28	
24	2.88	3.02	H	H	3.10	3.10	3.29	2.90	3.05	3.31	3.20	3.07	3.31	3.21	3.14	3.21	3.14	3.21	3.21	3.21	3.21	3.21	3.21	3.21	74.35	
25	3.03 ^a	2.90	3.05	3.00 ^a	3.10 ^a	(2.76)	3.26	3.40	3.23	3.45	3.30	3.26	3.24	C	3.19	3.29	3.20	3.22	3.29	3.24	3.10	3.09	2.96	2.96	72.55	
26	3.10	2.98	3.10	3.00 ^a	3.09 ^a	2.98 ^a	3.32	3.27	3.30	3.18	(3.40)	3.09	3.11	3.16	3.14	3.29	3.23	3.30	3.26	3.26	3.26	3.26	3.26	3.26	75.80	
27	3.04	2.93 ^a	3.05 ^a	3.00	2.95	3.04	3.22	3.41	(3.25)	3.17	3.15	3.06	3.18	3.17	C	3.07	3.08	3.20	3.25	3.13	3.27	3.11	2.90	2.95	71.70	
28	2.90	3.04	3.10 ^a	3.20	3.20 ^a	(3.25)	3.20	3.38	3.69	3.35	3.32	3.21	3.17	3.20	3.19	3.42	3.35	3.41	3.24	3.24	3.21	3.04	3.00	3.02	77.29	
29	2.90	2.96	3.05	3.13	3.00	3.30	3.23	(3.46)	3.31	3.42	3.00	3.30	3.14	3.22	3.17	3.32	3.38	3.38	3.38	3.38	3.04	3.03	3.00	3.00	75.91	
30	3.00	2.82	2.89	3.10	2.96	3.02	3.26 ^a	3.13 ^a	3.48 ^a	3.23 ^a	3.10 ^a	2.30 ^a	2.78 ^a	2.79 ^a	2.79 ^a	3.14	3.27	3.08	3.10	2.93	3.03	A	A	66.32		
31	87.46	87.11	83.47	84.61	83.50	91.620	90.86	93.74	93.46	92.97	92.05	96.53	87.50	86.97	93.89	95.29	97.08	92.83	95.70	94.39	92.77	88.76	85.74	2177.32		
Mean ¹	3.01	3.00	3.04	3.06	3.09	3.32	3.36	3.22	3.20	3.17	3.12	3.12	3.11	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.06	3.06	3.06		
Mean ²	2.99	3.01	3.07	3.04	3.06	3.10	3.32	3.36	3.24	3.22	3.15	3.14	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.09	3.09	3.09		
Median	3.00	3.02	3.05	3.03	3.06	3.11	3.32	3.35	3.24	3.23	3.20	3.13	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.03	3.03	3.03		

For all days of the month

September, 1944

F2-M3000

TABLE 50
IONOSPHERE DATA-10

(Location) Washington, D.C.

Ionosphere Station

RESTRICTED

National Bureau Of Standards
(Institution)

Records measured by: S.M.O.

Hourly values of F2-M3500 for September
(Month)

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	Sum	Mean	
1	3.1/	3.20	3.15	3.28 ^f	3.05	A	3.30	3.46	3.60	3.29	3.24	3.17	3.28	3.22	3.20	3.2	3.25	3.22 ^f	3.20 ^f	3.25 ^f	3.20 ^f	3.20 ^f	3.20 ^f	3.09 ^f	3.37 ^f	74.56	
2	3.30 ^f	3.22 ^f	(3.28) ^f	(3.30) ^f	(3.10) ^f	3.4/ ^f	(3.10) ^f	(3.00) ^f	(2.89) ^f	G	K	(2.91) ^f	(3.00) ^f	(3.17) ^f	(3.00) ^f	3.08 ^f	3.0/	3.0/	3.3/	3.1/	3.1/	3.1/	3.0/	3.0/	3.37 ^f	73.84	
3	3.0/	3.15 ^f	3.43 ^f	(3.22) ^f	(3.49) ^f	3.7/	3.43	3.35	3.37	(3.4/)	3.30	3.2/	3.25	3.22	3.25	3.49	3.4/	3.4/	3.34	3.34	3.40	3.40	(3.42) ^f	(3.42) ^f	80.25		
4	(3.10) ^f	(3.15) ^f	(3.3) ^f	(3.30) ^f	(3.28) ^f	(3.16) ^f	3.55	3.50	3.60	3.57	3.50	3.50	3.50	3.50	3.50	3.50	C	3.28	3.10	3.26	3.32	3.45	3.45	3.50	3.50	76.33	
5	3.21 ^f	3.23 ^f	3.40 ^f	3.29	3.41	3.47 ^f	3.55 ^f	3.46	3.46	3.45	3.28	C	3.31	3.27	3.31	3.45	3.34	3.34	3.34	3.40	3.40	3.40	3.40	3.40	3.40	77.36	
6	3.2/	3.32	3.47 ^f	3.11 ^f	(3.25) ^f	3.55 ^f	3.58	3.65	3.49	3.45	3.42	3.38	3.29	3.09	3.30	3.15	3.19	(3.17)	3.17	3.17	3.35	3.44	3.19	3.19	3.19	79.81	
7	3.19	3.10	3.10	3.05	(3.17) ^f	3.06	3.40	3.65	3.59	2.7/	3.30	3.34	3.22	3.30	3.30	3.14	3.4/	3.4/	3.40	3.38	3.47	3.47	3.31	3.22	3.26	3.30	78.48
8	3.10 ^f	3.20 ^f	3.20 ^f	3.24 ^f	3.24 ^f	3.29 ^f	3.65	(3.70)	3.36	3.28	3.20	3.27	3.40	C	3.25	3.05	3.27	3.27	3.27	3.29	3.45 ^f	(3.32) ^f	3.47 ^f	3.38 ^f	76.28		
9	(3.02) ^f	3.30 ^f	3.04	3.17 ^f	3.21 ^f	3.17	3.32	3.50	3.67	3.41	3.36	3.30	3.29	3.20	3.27	3.27	3.32	3.32	3.32	3.38	3.41	3.28	3.25	3.25	3.21	79.75	
10	3.1/	3.14	3.42 ^f	3.42 ^f	3.22 ^f	(3.19) ^f	(3.09) ^f	3.42	3.49	3.40	3.41	(3.19)	3.31	3.30	3.29	3.24	3.23	3.23	3.23	3.31 ^f	(3.31) ^f	78.77					
11	(3.50) ^f	(3.10) ^f	2.88 ^f	(3.10) ^f	(2.95) ^f	(3.48) ^f	(3.40)	3.24	3.30	3.24	3.24	3.25	3.25	3.25	3.25	3.28	3.28	3.28	3.28	3.37	3.45	3.40	3.19	3.19	3.19	79.48	
12	3.10	3.12	3.16	(3.29)	3.00 ^f	A	3.43	3.60	3.60	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.41	3.41	3.29	3.30	3.54	3.40	3.40	3.29	3.29	3.29	76.34
13	3.19	3.25	3.20	3.25	3.30 ^f	3.38	3.40	(3.60)	3.45	3.39	3.39	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	3.41	76.21
14	3.25	3.24	3.30	3.16	3.14	(3.30) ^f	3.41	C	3.64	3.64	3.46	3.39	3.24	3.40	3.41	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	3.48	73.87
15	3.31	3.22	3.19	3.12	3.30	3.38	3.47	3.69	(3.70)	(3.43)	3.25	3.50	3.55	(3.34)	3.41	3.50	3.53	3.53	3.53	3.45	3.45	3.30	3.47	3.47	3.24	3.27	81.29
16	3.29	3.21	3.38	3.37	3.56	3.40	3.59	3.72	3.59	3.72	3.74	(3.44)	(3.10)	3.49	3.44	3.41	3.41	3.39	3.39	3.40	3.40	3.40	3.40	3.40	3.40	3.40	79.70
17	3.20	3.27	3.40	3.40	3.30	3.35 ^f	3.50	3.50	3.50	3.24	(3.50)	3.41	3.29	3.29	3.29	3.29	3.29	3.29	3.29	3.29	3.47	3.47	3.47	3.21	3.21	76.34	
18	3.11	3.24	3.19	3.11	3.18	3.10	3.57	C	(3.44)	(3.30)	(3.50)	3.40	3.43	3.30	3.30	3.30	3.30	3.30	3.30	3.30	3.32	3.32	3.32	3.32	3.32	76.59	
19	3.31	3.07	(3.20)	3.36	3.24 ^f	(3.39) ^f	3.66	(3.50)	(3.60)	3.69	3.47	3.50	3.44	3.33	3.23	3.23	3.26	3.26	3.26	3.46	3.41	3.51	3.60	3.46	3.50	(3.18)	81.67
20	3.21	3.21	3.16	(3.40) ^f	3.40	3.60	(3.81) ^f	3.72	(3.68) ^f	3.60	(3.40)	3.38	3.41	3.36	3.29	3.29	3.36	3.36	3.36	3.47	3.30	3.44	3.40	3.36	3.21	3.35	81.70
21	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	78.23	
22	3.11	3.20	3.40 ^f	3.43 ^f	3.35 ^f	3.40	3.47	3.50	3.50	3.54	3.23	3.19	3.24	3.23	3.23	3.23	3.27	3.27	3.27	3.28	3.43	3.43	3.21	3.21	3.21	79.23	
23	3.28	3.22	3.40	3.40	3.45	(3.20)	(3.52)	3.49	3.75	3.64	(3.50) ^f	3.43	3.25	3.33	3.52	3.29	3.29	3.29	3.29	3.29	3.29	3.34	3.34	3.34	3.34	3.34	77.37
24	3.07	3.20	A	A	(3.30) ^f	3.29	3.20	(3.40)	3.11	3.24	3.47	3.37	3.46	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	3.24	69.11
25	3.21	3.11	3.24	3.20 ^f	3.27 ^f	(2.89) ^f	3.41	3.60	3.62	3.47	3.40	3.41	C	3.39	3.48	3.49	3.49	3.49	3.49	3.49	3.47 ^f	3.28	3.26	3.11	3.11	3.11	76.72
26	3.27	3.17	3.18	3.30 ^f	3.20 ^f	3.12 ^f	3.50	3.45	3.49	3.58	3.27	3.29	3.30	3.37	3.46	3.40	3.45	3.53	3.47	3.47	3.47	3.47	3.47	3.47	3.47	80.21	
27	3.26	3.16	3.07	3.22 ^f	3.18	3.12	3.21	3.40	3.60	(3.43)	3.35	3.21	3.40	3.22	C	3.23	3.25	3.40	3.50	3.43	3.43	3.43	3.43	3.43	3.43	75.75	
28	3.13	3.21	3.32 ^f	3.39	3.40 ^f	(3.49) ^f	3.34	3.49	3.80	3.47	3.37	3.37	3.38	3.32	3.37	3.35	3.55	3.55	3.53	3.40	3.40	3.40	3.40	3.40	3.40	81.23	
29	3.10	3.13	3.21	3.33	3.20	3.14	(3.40)	3.48	3.40	(3.61)	3.50	3.55	3.55	3.20	3.50	3.36	3.36	3.33	3.48	3.49	3.49	3.49	3.49	3.49	3.49	80.06	
30	3.20	3.02	3.02	3.28	3.10	3.21	3.48 ^f	3.30 ^f	3.64 ^f	3.43 ^f	3.20	3.50	3.00 ^f	3.13	K	2.99	2.99	3.28	3.28	3.28	3.27	3.27	3.27	3.27	A	70.43	
31	92.69	92.31	90.83	90.93	91.10	88.89	91.27	95.31	98.49	98.19	96.99	95.96	92.71	91.87	99.34	97.71	98.07	99.08	97.93	98.07	94.08	91.13	93.02	94.96			
Sum	Mean ¹	3.20	3.18	3.24	3.25	3.25	3.49	3.53	3.52	3.49	3.47	3.44	3.41	3.31	3.28	3.31	3.34	3.34	3.38	3.38	3.38	3.38	3.38	3.38	3.38		
	Mean ²	3.18	3.16	3.25	3.25	3.25	3.30	3.54	3.52	3.49	3.47	3.44	3.41	3.32	3.33	3.33	3.34	3.34	3.36	3.36	3.36	3.36	3.36	3.36	3.36		
	Median	3.20	3.20	3.22	3.24	3.24	3.24	3.48	3.50	3.49	3.47	3.44	3.41	3.35	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32	3.32		

¹For all days of the month

²For quiet days

September, 1944

F2-M3500

TABLE 5
IONOSPHERE DATA-11

Washington, D.C. Ionosphere Station

RESTRICTED

National Bureau Of Standards (Institution)

Hourly Values of F1-M1500 for September 1944
(Month)

Records measured by: S.M.O.
H.P.G.

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	Sum	Mean				
1									2.61	2.65	2.67	2.72	2.60	2.55	2.40 ^a	2.50	2.51	2.45	2.37 ^a	16				2.37 ^a	2.37 ^a					
2									2.46 ^x	2.50 ^x	2.53 ^x	2.75 ^x	2.72 ^x	2.82 ^x	2.82 ^x	2.40 ^x	2.46 ^x	2.47 ^x	2.50	2.45 ^x				3.270	3.270					
3									2.52 ^x	2.60	2.50	2.74	2.56	2.51	2.48 ^x	2.52	2.46	2.46	2.46	2.46	2.46	2.46	2.46		2.55 ^a					
4									2.62	A	2.48	2.65	2.79	2.70	2.84	C	2.42	2.36	2.50 ^x							2.55 ^a				
5									2.61	1.53	2.65	2.71 ^x	2.85	C	2.50	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45	2.45					
6									2.61 ^x	2.64	2.73	2.85	2.70	2.79	2.72	2.52	2.60	2.57	2.40	2.40	2.40	2.40	2.40		2.873					
7									(2.80)	2.53	2.76	2.74	2.61	2.70	2.40	2.38	2.52	2.51								2.595				
8									(2.70)	2.49 ^x	2.50	2.60	2.61	C	2.58	2.42	2.29	2.44								2.51				
9									(2.60)	2.40 ^x	2.57	2.65	2.63	2.58	2.55	2.55	2.45 ^x		2.524											
10									2.42	2.55 ^x	2.50	2.67	2.63	2.86	2.80	2.50	2.42 ^x		2.787											
11									(2.60)	2.65	2.51	2.63 ^x	2.60	2.80 ^x	2.80 ^x	2.65	2.70	2.70	2.70	2.70	2.70	2.70	2.70		2.787					
12									(2.90)	2.50 ^x	2.60	2.51	2.60	2.65	2.57 ^x	2.37 ^x	2.37 ^x	2.37 ^x	2.37 ^x	2.37 ^x	2.37 ^x	2.37 ^x		2.930						
13									C	2.51 ^x	2.68	2.74	2.67	2.63	2.85 ^x	(2.35 ^x)	2.50	A								1.733				
14									C	2.68	2.80	2.70	2.75	2.65 ^x	2.75	2.75	2.75	2.75	2.75	2.75	2.75	2.75					2.572			
15									2.50	2.61	2.86	2.86 ^x	2.85 ^x	2.85 ^x	2.85 ^x	2.85 ^x	2.85 ^x	2.85 ^x	2.85 ^x	2.85 ^x	2.85 ^x	2.85 ^x					2.828			
16									2.80	2.66	(2.82 ^x)	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80	2.80					2.930		
17									2.62	(2.50)	2.70 ^x	2.54 ^x	2.90	2.70 ^x	2.70 ^x	2.64 ^x	2.64 ^x	2.64 ^x	A									2.373		
18									2.85	(2.80)	2.80 ^x	2.80 ^x	2.80 ^x	2.80 ^x	2.80 ^x	2.80 ^x	2.80 ^x	2.80 ^x	2.80 ^x	2.80 ^x	2.80 ^x	2.80 ^x					2.637			
19									(2.51)	2.69	2.63	2.72 ^x	2.72 ^x	2.83	2.64 ^x	2.72 ^x	2.72 ^x	2.72 ^x	2.72 ^x	2.72 ^x	2.72 ^x	2.72 ^x					2.626			
20									2.79	2.67	2.72	2.72	2.65	2.65	2.68 ^x	2.59	2.59	2.50	2.56									2.381		
21									C	C	2.66	2.61	2.82	2.82	(2.45 ^x)	C	2.70	2.70	2.70									1.535		
22									2.80	2.48	2.51	2.47	2.72	2.89	2.54 ^x	(2.50 ^x)	2.76	2.76	2.76									2.337		
23									2.64 ^x	2.46	C	2.51	2.50	2.50	2.40	2.50	2.53 ^x	2.51	2.51	2.51									2.626	
24									2.57	2.61	2.50	2.68	2.68 ^x	2.64 ^x	2.55 ^x	2.42 ^x	2.30												2.381	
25									2.77 ^x	2.57 ^x	2.50	2.72	2.80	C	2.50	2.50	2.47	2.47											2.373	
26									2.57	2.57	2.57	2.80	2.60	2.67 ^x	2.40 ^x	2.65	2.48												2.337	
27									2.60	2.73	2.48	2.61	2.59	2.50	C	2.71	2.33												1.775	
28									2.51	(2.60)	2.50	2.74	(2.57) ^x	2.43	2.37 ^x	(2.51)												2.023		
29									2.50	A	2.72	2.79	2.78	2.94	2.75 ^x	2.35 ^x	2.49	2.60											2.328	
30									K	(2.47) ^x	2.69 ^x	2.74 ^x	2.73 ^x	2.68 ^x	2.38 ^x	2.37 ^x	2.47 ^x	2.44 ^x										2.285		
31									28.95	59.51	72.75	79.17	78.98	78.54	72.97	67.71	74.14	68.76	39.92	2.75									72.375	
									2.63	2.59	2.60	2.64	2.72	2.71	2.61	2.51	2.47	2.47	2.49	2.45										
									2.65	2.60	2.60	2.63	2.72	2.70	2.62	2.52	2.47	2.47	2.51	2.45										
									2.61	2.55	2.60	2.64	2.72	2.70	2.60	2.50	2.46	2.46	2.46	2.45										

1For all days of the month

2For quiet days

F1-M1500 September, 1944

TABLE 52
IONOSPHERE DATA-12

(Location) Washington, D.C.
(Institution) National Bureau Of Standards

Ionosphere Station

National Bureau Of Standards

Hourly values of E-M1500 for September, 1944.

S.M.O.
H.P.G.

RESTRICTED

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	24	Mean
1											A	K	(3.86)	4.00	4.10	A	A	(3.89)	A	(3.73) ¹	K				1.958	
2											K	K	K	K	K	K	K	K	(3.73) ²	(3.69)				11.21		
3																									1.539	
4																									7.73	
5																									7.75	
6																									2.571	
7																									30.21	
8																									18.45	
9																									22.31	
10											A	(3.85)	C	A	A	(3.82)	3.76	3.76	3.50	(3.73)	A	K			1.906	
11											F	(3.92)	4.00	(4.00)	3.95										2.371	
12											F	(3.76)	(3.97)	(3.82)	(4.00)	3.94	(3.69)	3.91	3.79	(3.71)					34.50	
13											C	(3.97)	(3.80)	3.90	(4.10)		B	A	A	A					19.38	
14											C	(3.95)	3.91	(3.89)	(3.90)	3.91	B	B	B	(3.78)	A				23.40	
15											(4.00)	3.85	A	A	B	3.89	B	(3.80)	3.84						19.38	
16											3.86	3.83	B	(4.00)	3.95										31.10	
17											(3.94)	(3.84)	3.79	(4.00)	B	A	A	B	(3.80)	3.82						23.37
18											3.88	B	B	B	B	B	B	B	(3.90)	(3.90)						11.50
19											(3.56)	3.86	B	B	B	(3.74)	B	B	(3.80)	(3.80)	(3.66)	(3.60)				22.21
20											3.84	4.00	B	B	B	B	B	B	B	B	B	B	B		11.82	
21											C	C	C	B	B	B	B	B	C	(3.68)	3.59	3.89			15.88	
22											(3.89)	3.88	A	B	B	B	B	B	B	A	A	(3.90)	3.90			19.02
23											(3.61)	B	(3.74)	C	B	B	B	B	B	B	(3.81)	(3.81)			18.75	
24											C	3.85 ²	3.28	(3.90)	B	B	B	B	B	B	B	B	B		23.28	
25											3.77	3.80	B	B	B	B	B	C	B	B	B	B	B		15.32	
26											A	A	A	A	A	(4.11)	B	(3.80)	(3.89)	3.94	3.94	4.00			19.72	
27											(3.90) ³	3.80	B	A	B	B	B	C	3.71	3.73	3.90			11.34		
28											A	3.69	B	A	B	B	B	B	B	(3.70)	(3.79)				19.08	
29											A	A	A	A	B	B	B	B	B	B	B	B	B		7.95	
30											K	(3.68) ⁴	(3.89) ⁵	(4.00) ⁶	B	K	B	K	B	K	B	K	(3.70) ⁷	A		19.27
31											7.19	5.321	6.537	4.673	31.08	23.81	39.45	35.02	30.48	49.36	9.570	7.203	17.54			566.97
Sum											3.60	3.80	3.84	3.89	3.88	3.97	3.94	3.89	3.81	3.80	3.82	3.79	3.51			
Mean ¹											3.60	3.81	3.84	3.88	3.88	3.93	3.94	3.89	3.81	3.80	3.83	3.79	3.51			
Mean ²											3.60	3.82	3.85	3.92	3.92	3.98	4.01	3.98	3.91	3.80	3.84	3.77	3.50			
Median																										

²For quiet days

¹For all days of the month

September, 1944

E-M1500

Table 53

Ionospheric Storminess, September, 1944

Day	Ionospheric Character*		Principal Storms		Magnetic Character**	
	00-12 GCT	12-24 GCT	Beginning GCT	End GCT	00-12 GCT	12-24 GCT
September						
1	2	2	2130	----	3	2
2	4	4	----	2200	4	3
3	3	2			2	1
4	3	2			1	2
5	2	1			2	1
6	1	1			1	2
7	2	2			2	1
8	2	2			2	2
9	1	1			2	1
10	2	3	2100	----	2	2
11	4	2	----	1000	2	2
12	2	2			3	2
13	2	1			1	2
14	1	1			2	2
15	1	2			2	0
16	1	2			1	1
17	1	1			1	2
18	1	2			2	2
19	2	1			1	1
20	2	0			1	3
21	***	2			3	2
22	2	3			2	2
23	1	1			2	2
24	3	3			4	3
25	1	1			2	2
26	2	2			2	2
27	3	2			2	2
28	2	1			2	1
29	2	2			2	1
30	2	4	1100	2100	2	4

*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.

***No record.

---- Dashes indicate continuance of ionospheric storminess.

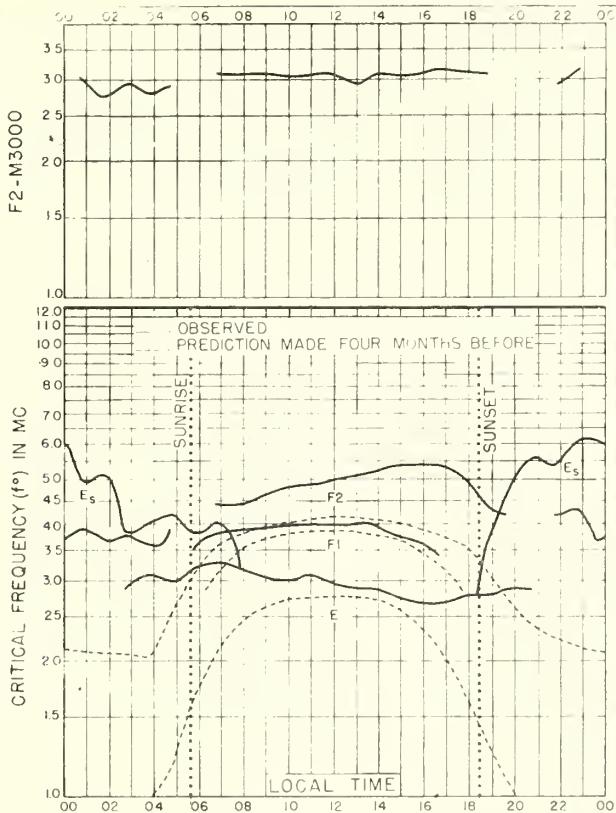


Fig. 1 CHURCHILL, CANADA
588° N, 942° W SEPTEMBER, 1944

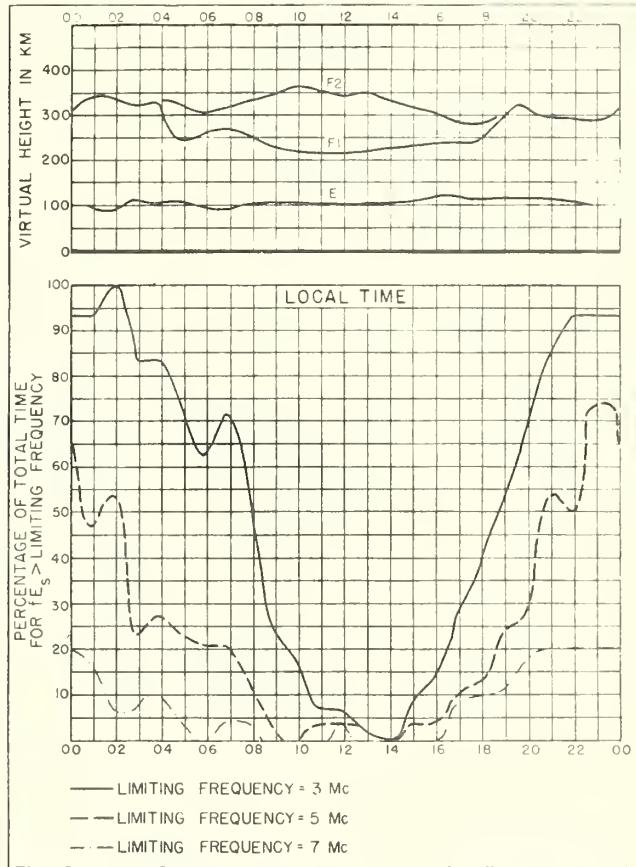


Fig. 2 CHURCHILL, CANADA SEPTEMBER, 1944

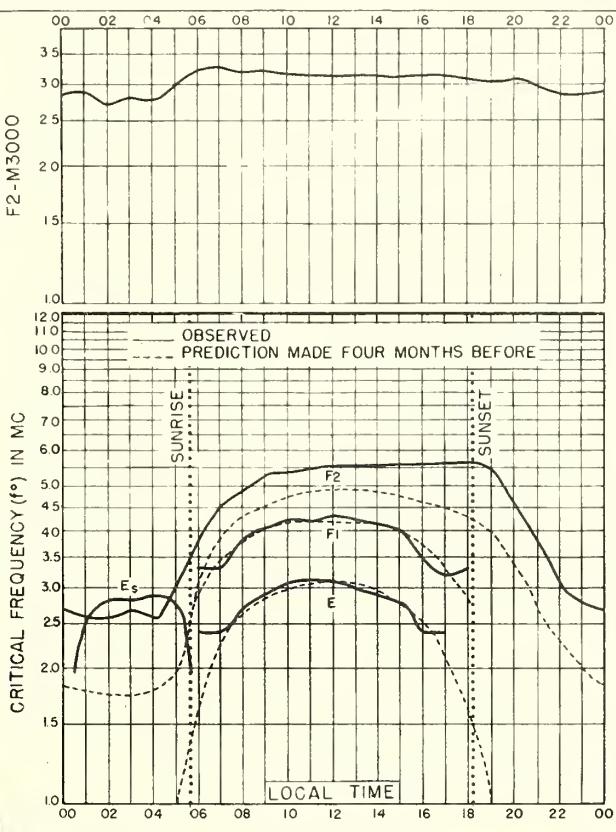


Fig. 3 OTTAWA, CANADA
455°N, 758°W SEPTEMBER, 1944

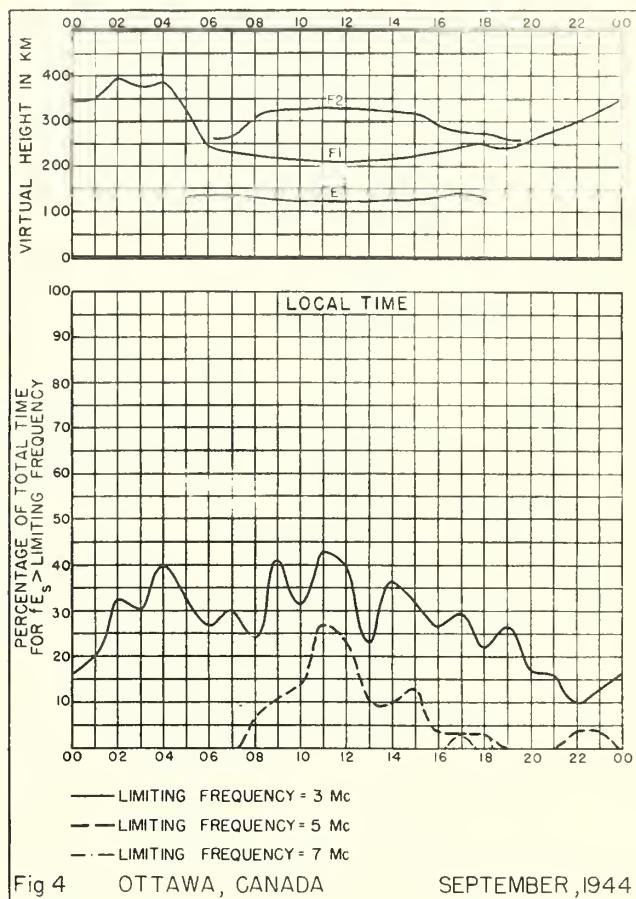
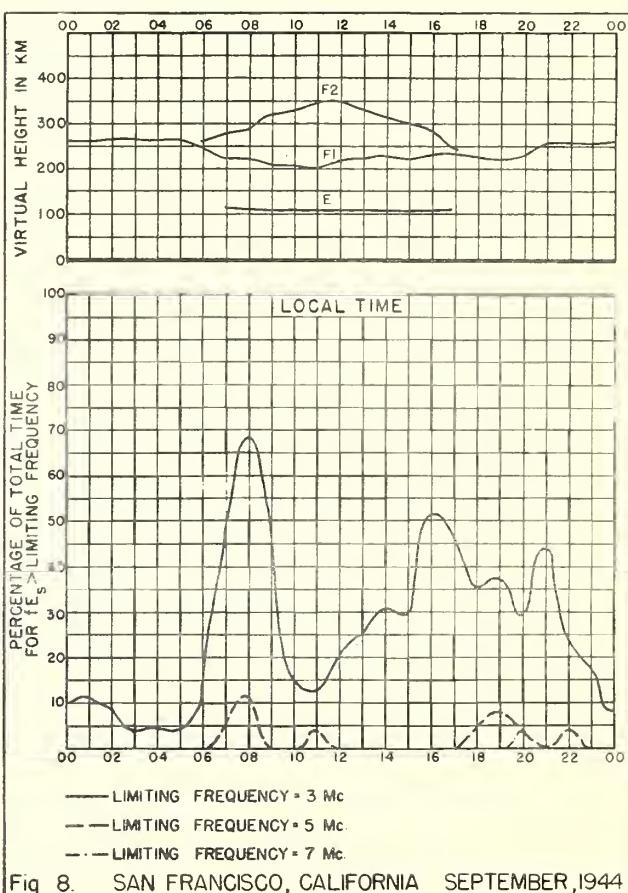
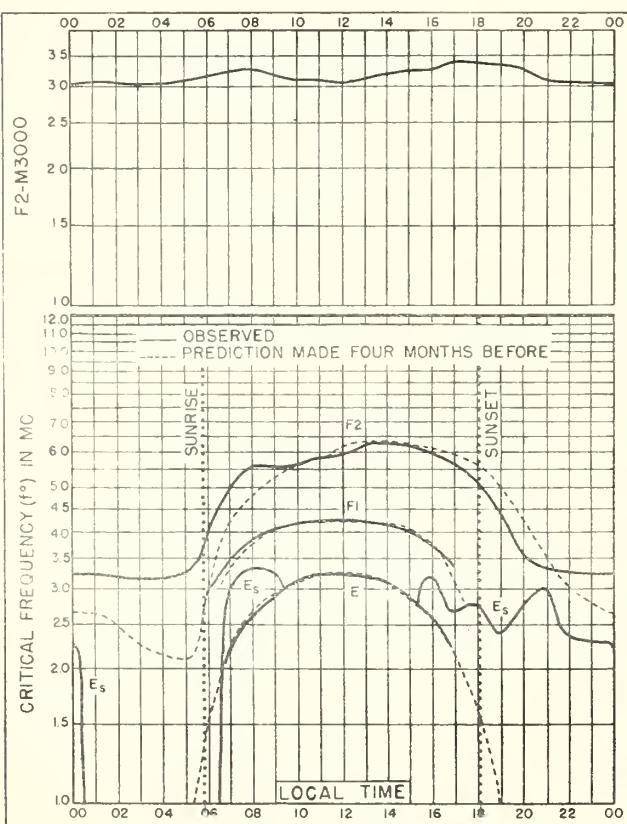
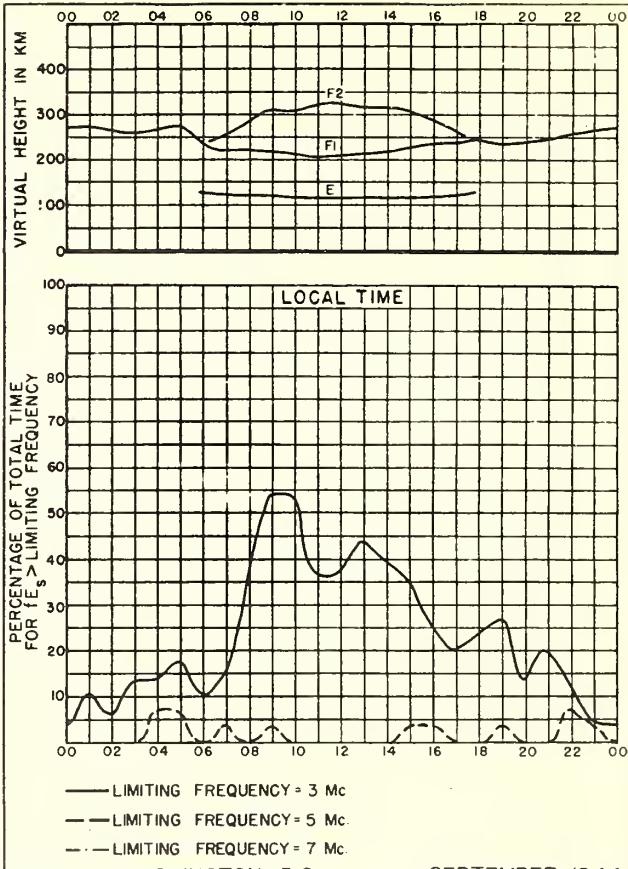
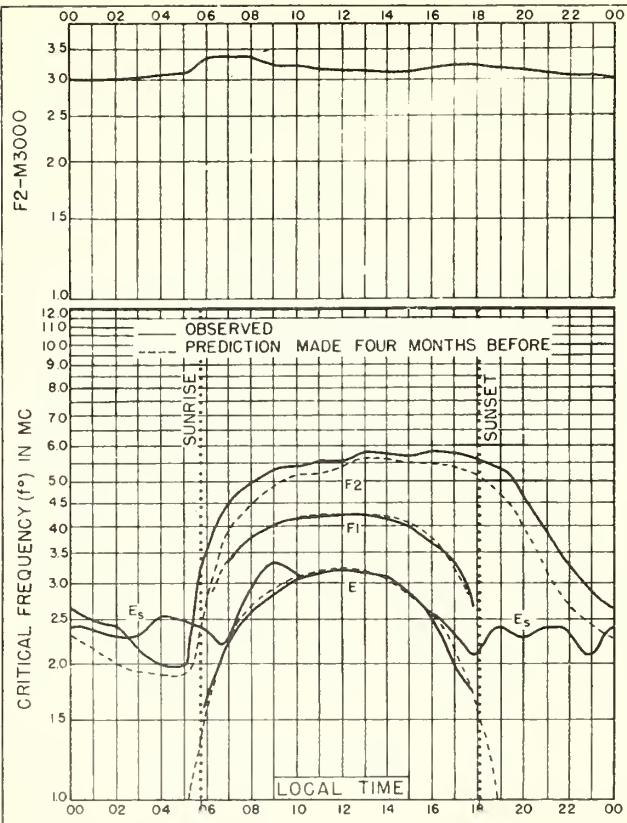


Fig. 4 OTTAWA, CANADA SEPTEMBER, 1944



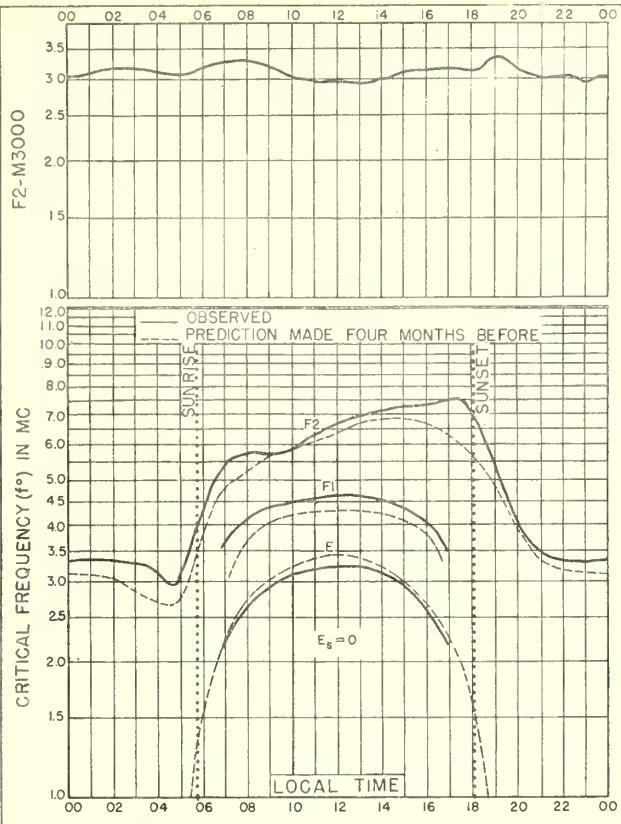


Fig 9. BATON ROUGE, LOUISIANA
30.5°N, 91.2°W SEPTEMBER, 1944

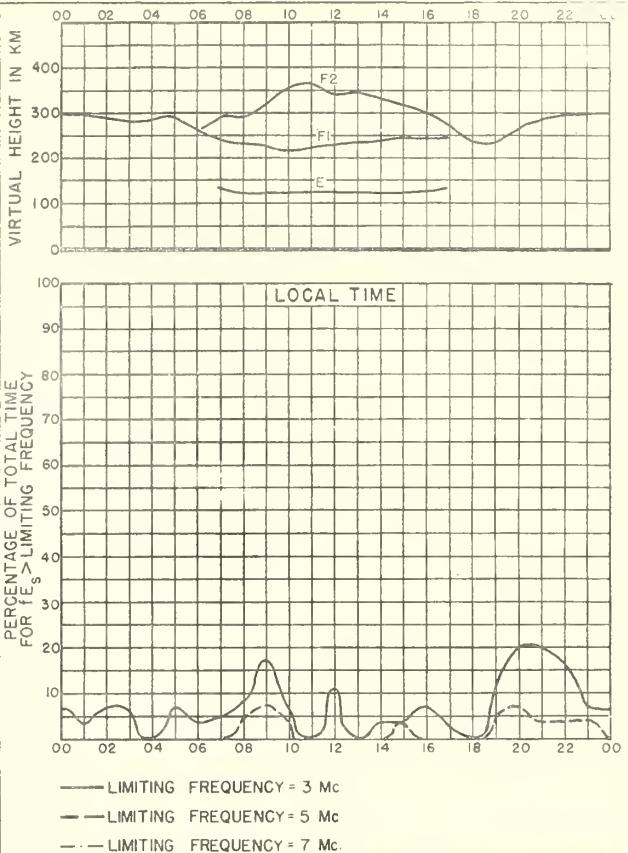


Fig 10. BATON ROUGE, LOUISIANA SEPTEMBER, 1944

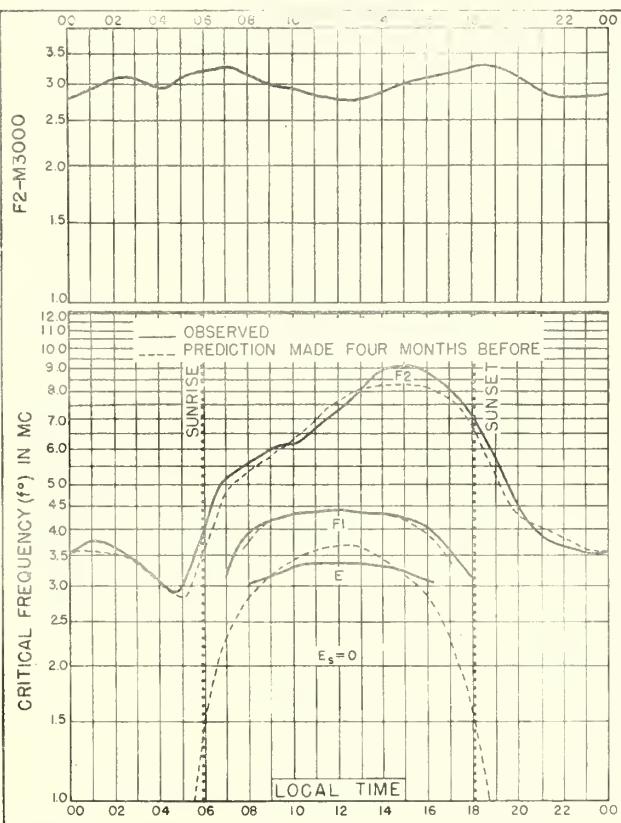


Fig 11 SAN JUAN, PUERTO RICO
18.4°N, 66.1°W SEPTEMBER, 1944

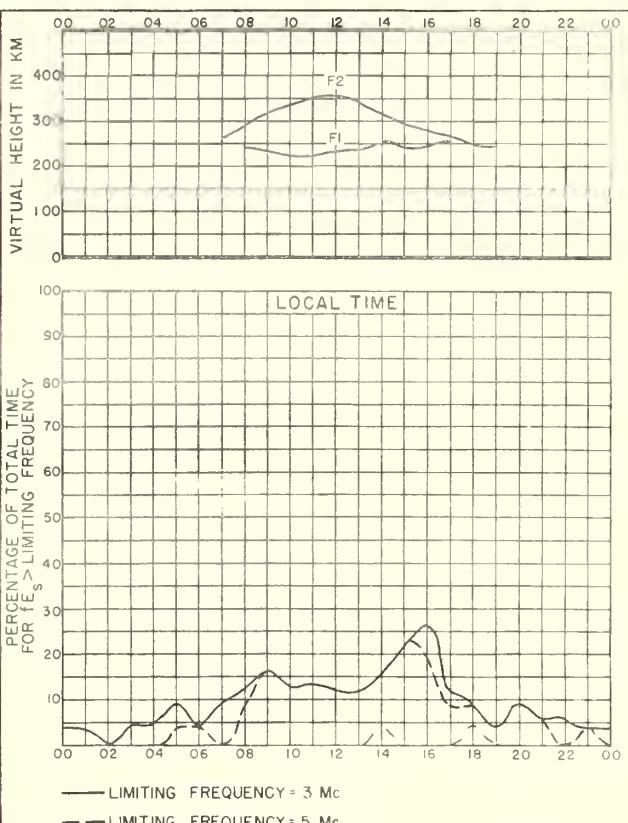


Fig 12 SAN JUAN, PUERTO RICO SEPTEMBER, 1944

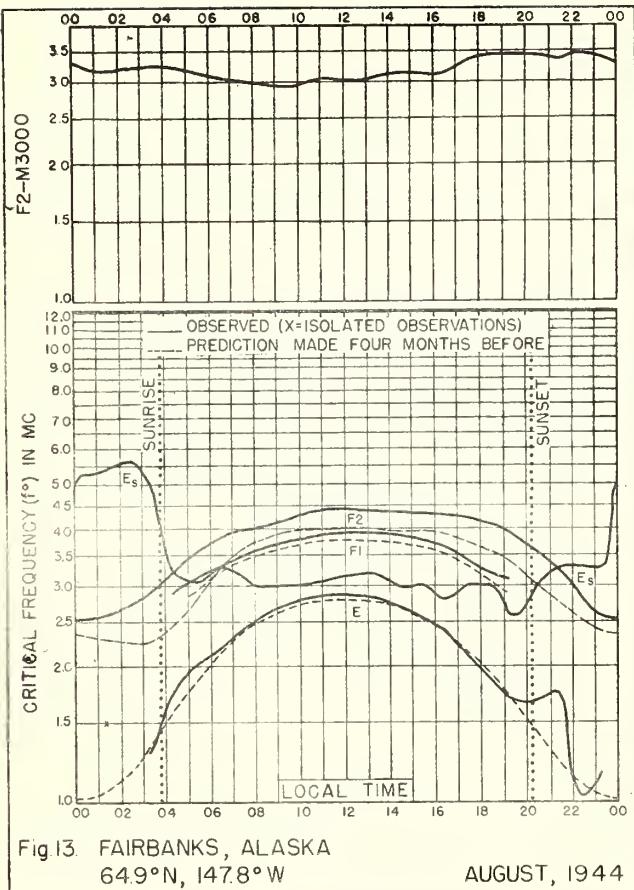


Fig 13. FAIRBANKS, ALASKA
64°N, 147.8°W

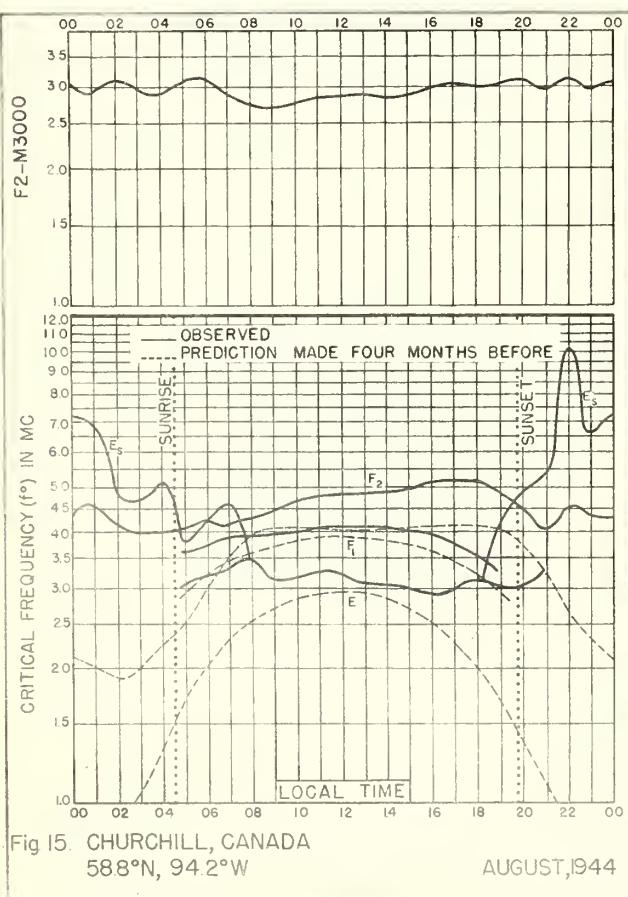


Fig 15. CHURCHILL, CANADA
58.8°N, 94.2°W

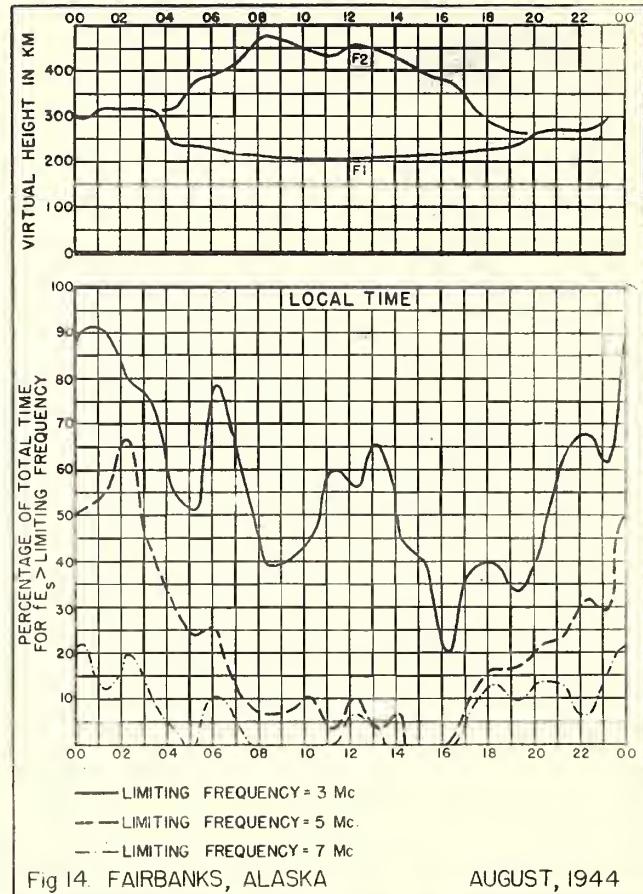


Fig 14. FAIRBANKS, ALASKA AUGUST, 1944

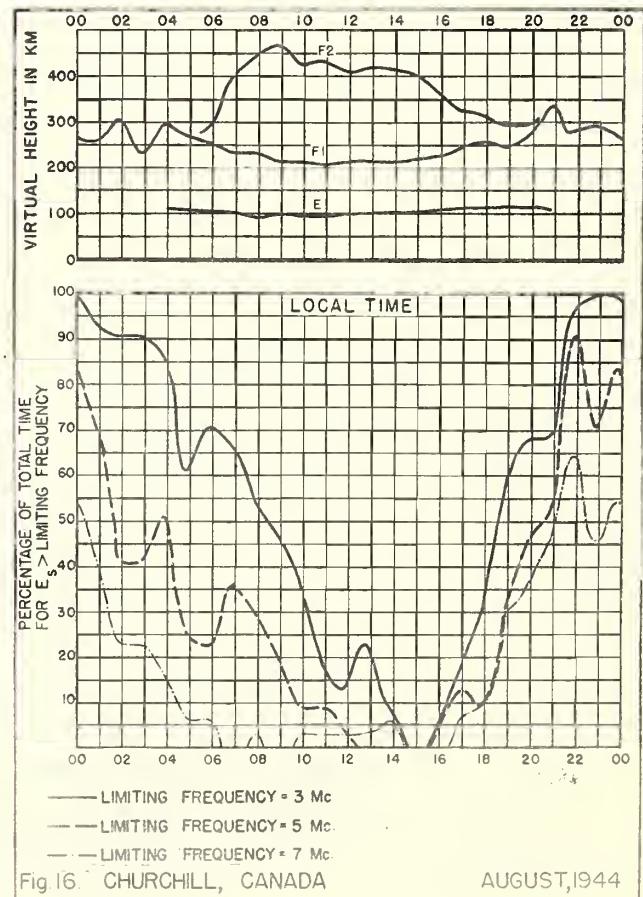


Fig 16. CHURCHILL, CANADA AUGUST, 1944

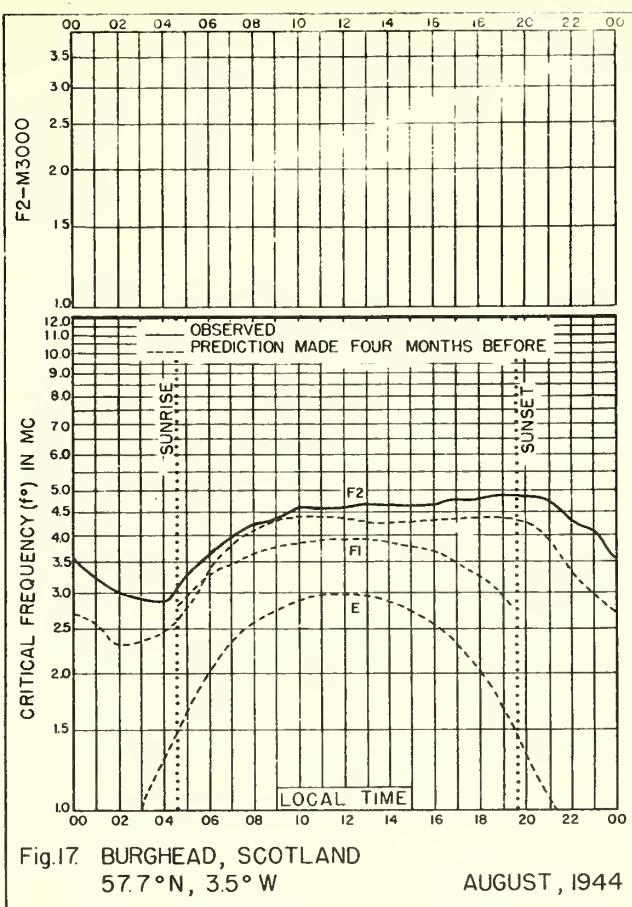


Fig.17. BURGHEAD, SCOTLAND
57.7°N, 3.5°W AUGUST, 1944

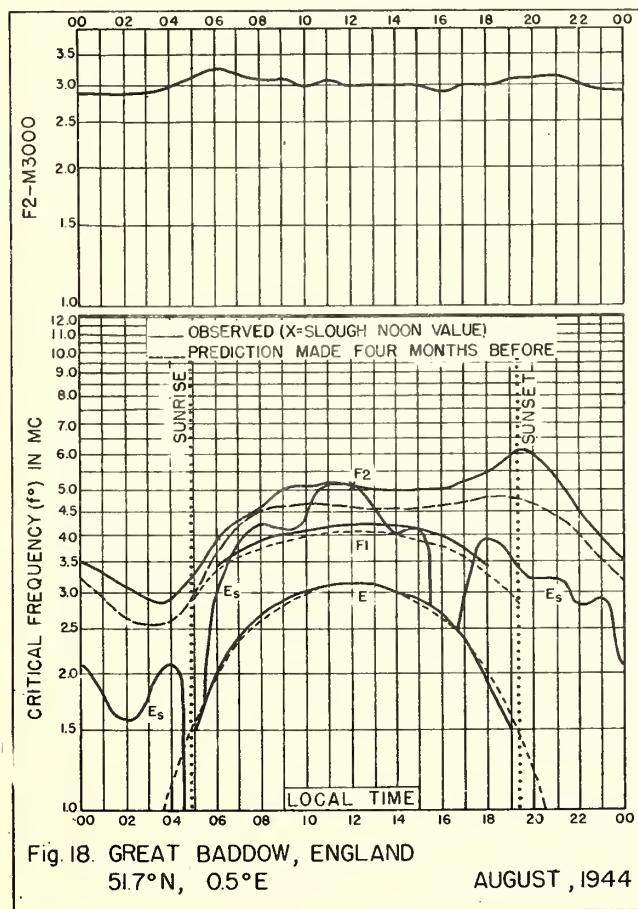


Fig.18. GREAT BADDOW, ENGLAND
51.7°N, 0.5°E AUGUST, 1944

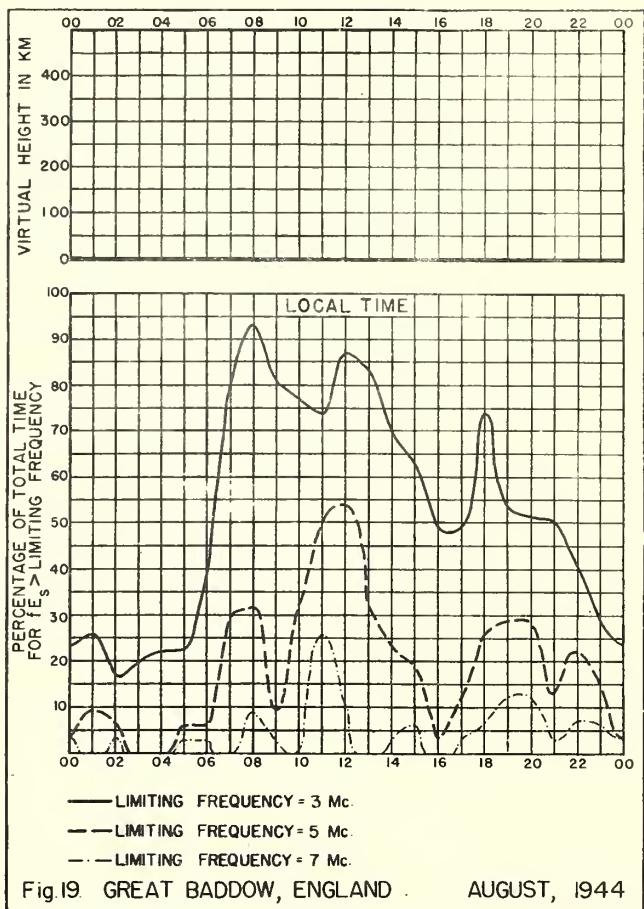
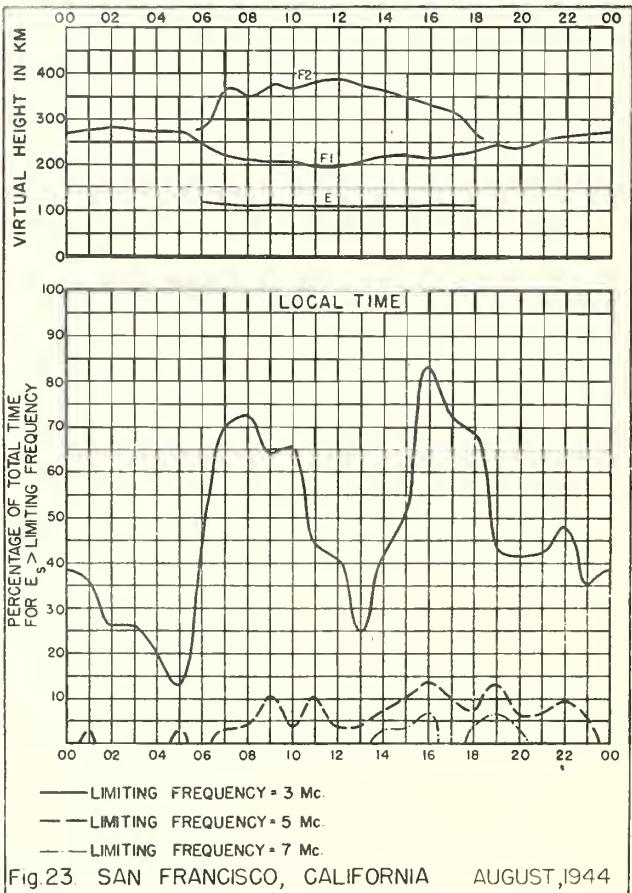
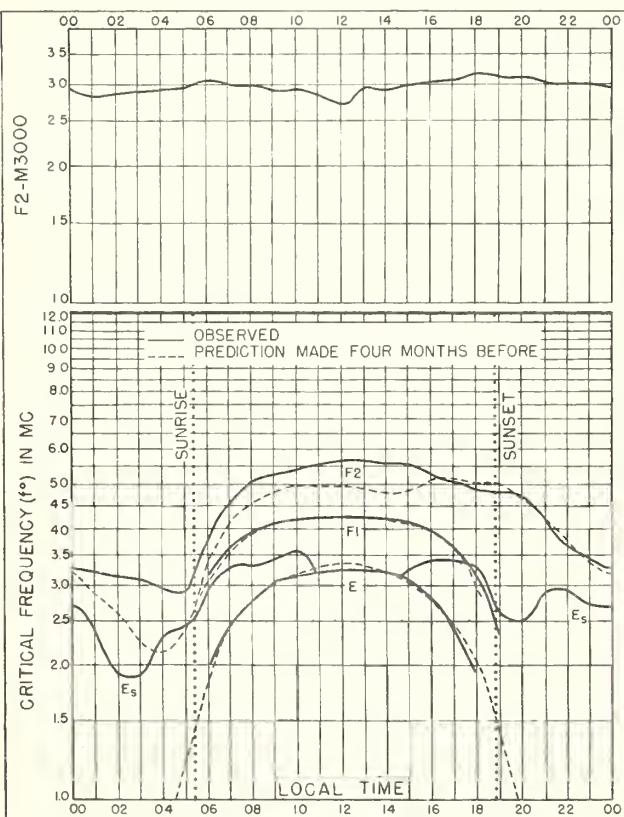
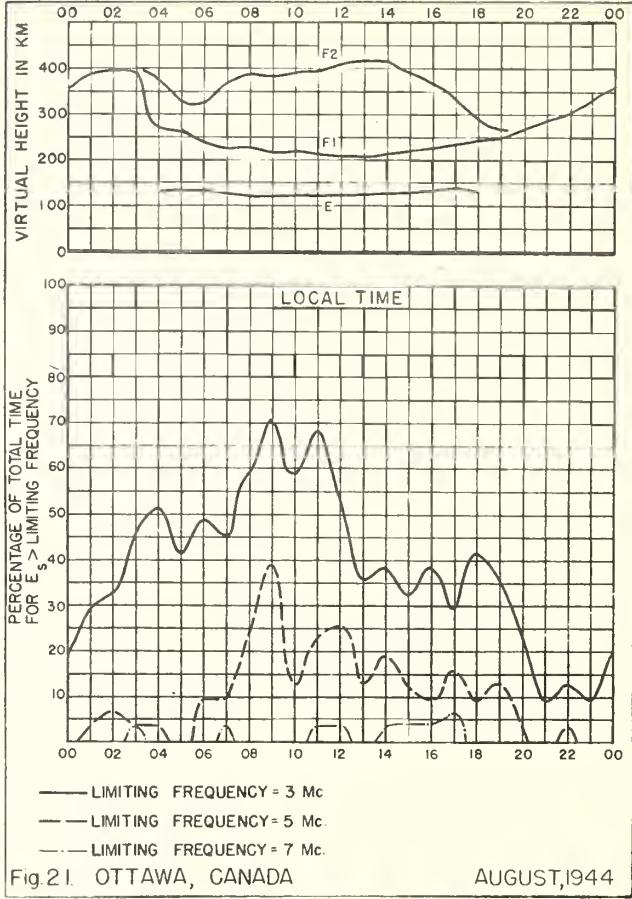
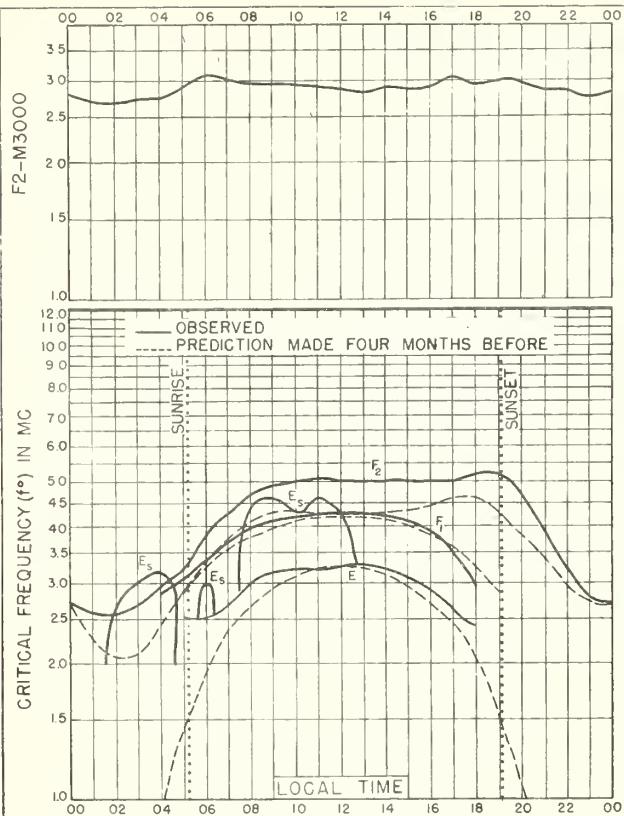


Fig.19. GREAT BADDOW, ENGLAND AUGUST, 1944



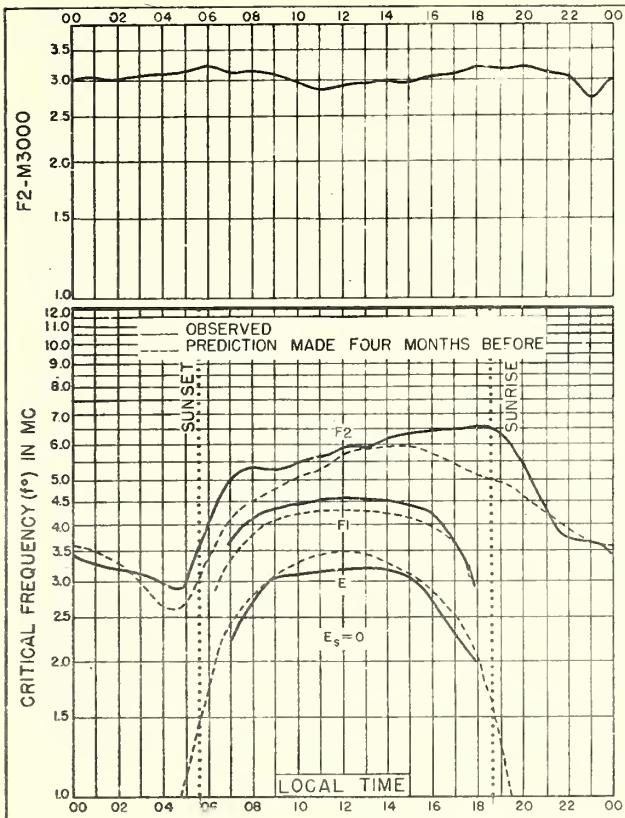


Fig. 24. BATON ROUGE, LOUISIANA
30°N, 91°W

AUGUST, 1944

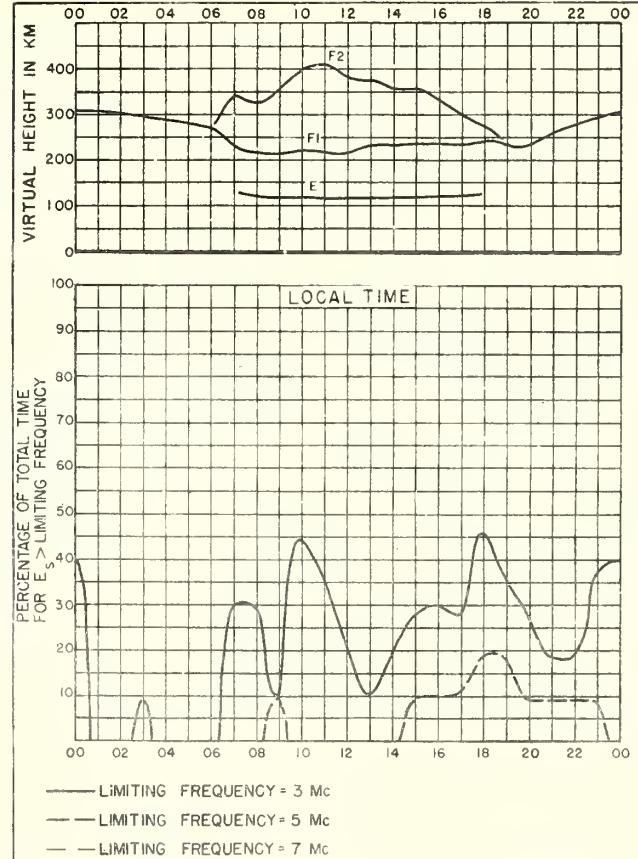


Fig. 25. BATON ROUGE, LOUISIANA

AUGUST, 1944

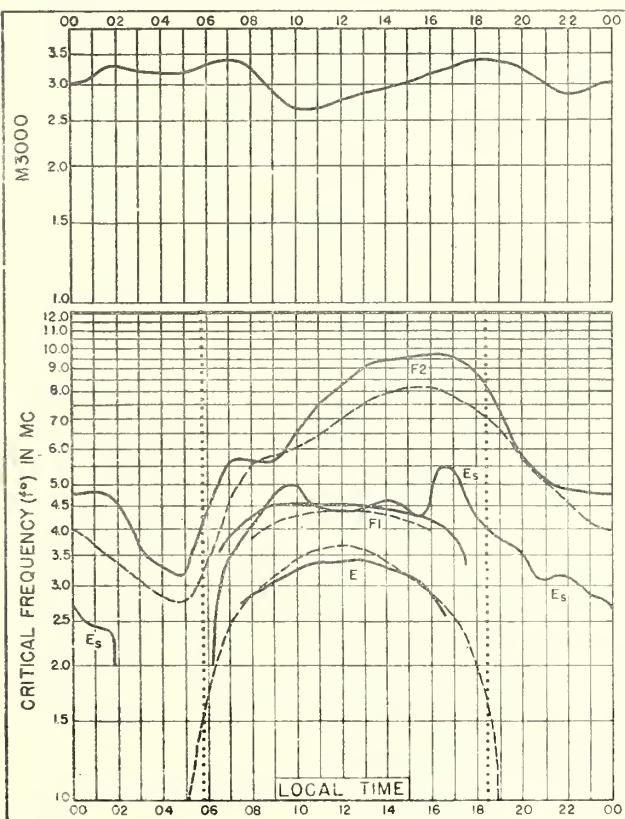


Fig. 26. MAUI, HAWAII
20.8°N, 156.5°W

AUGUST, 1944

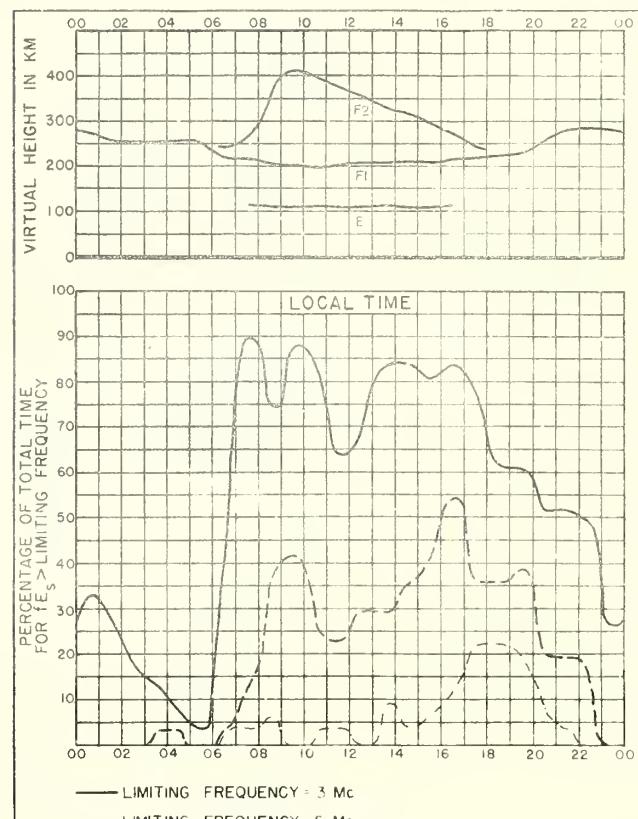
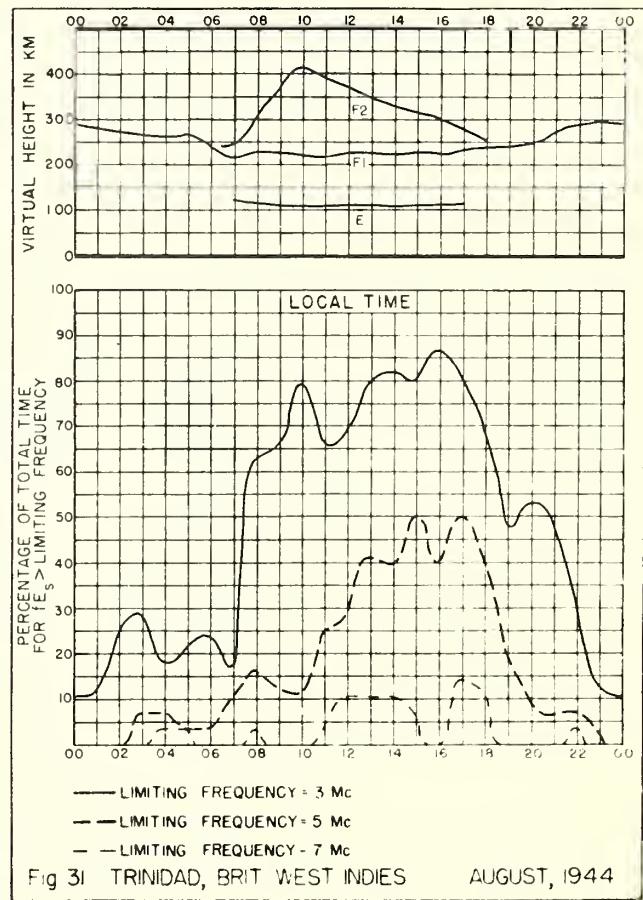
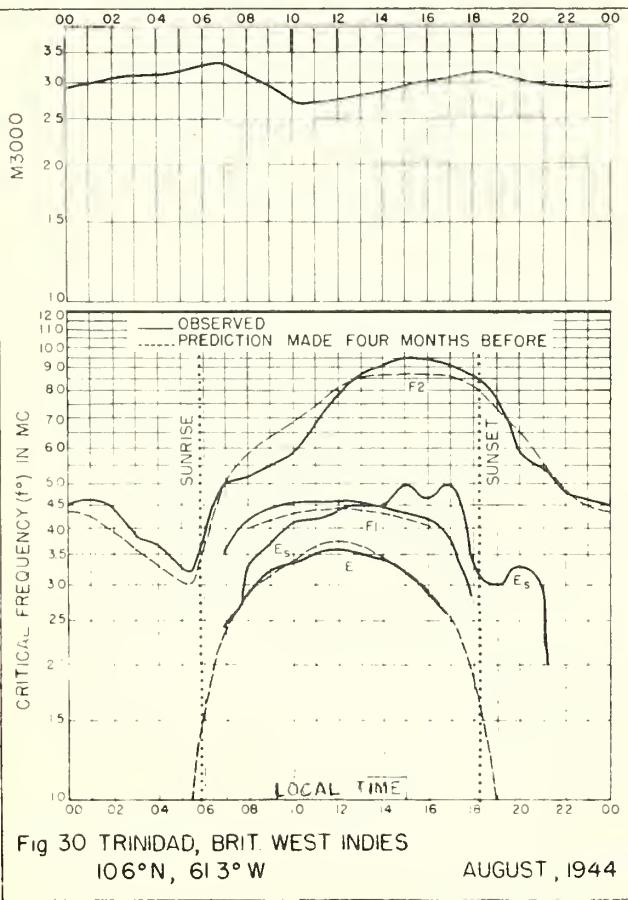
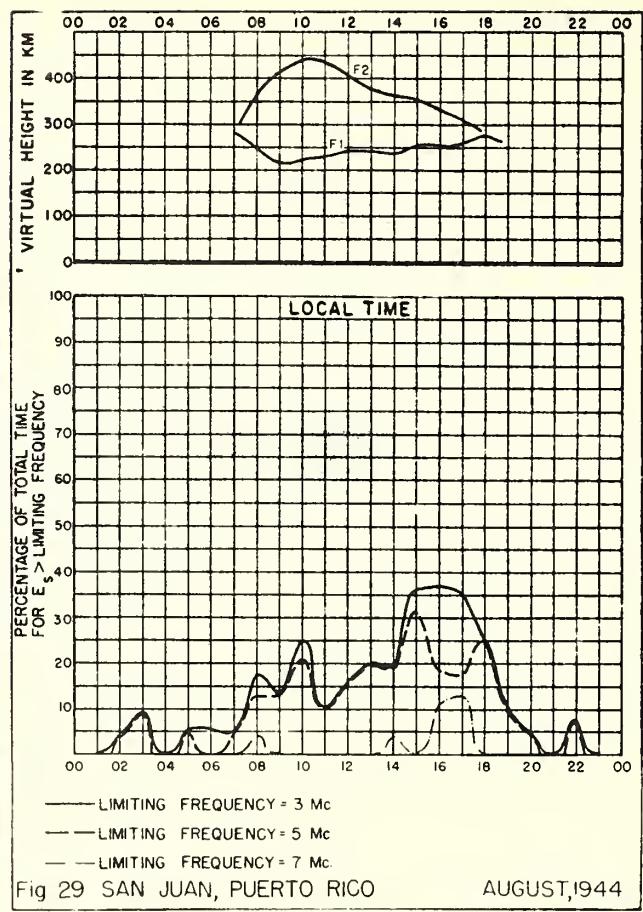
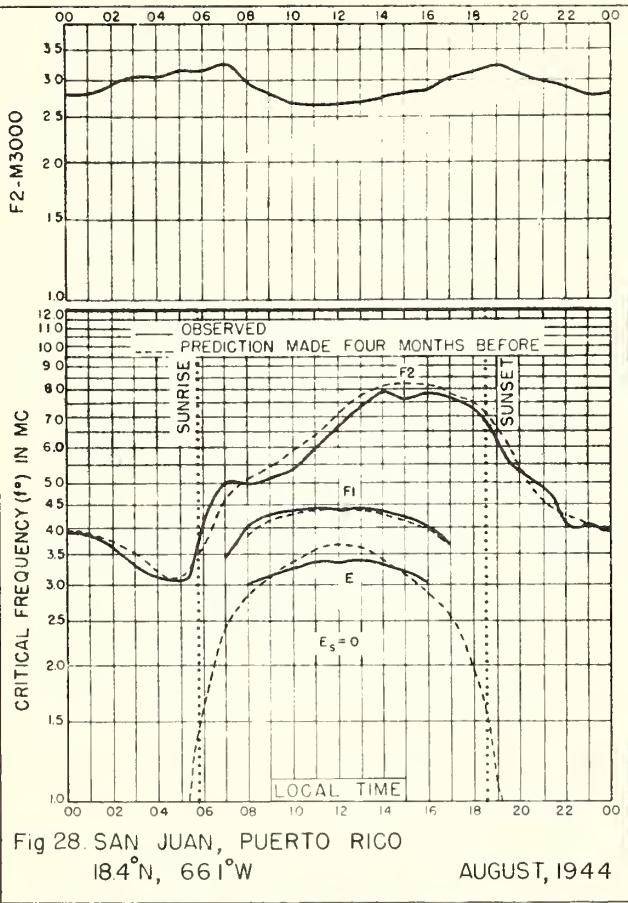
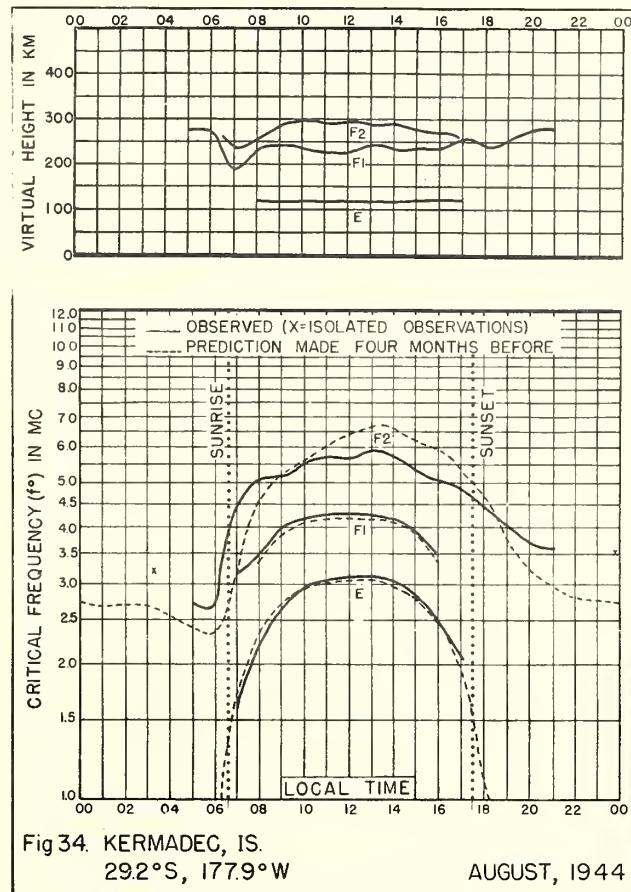
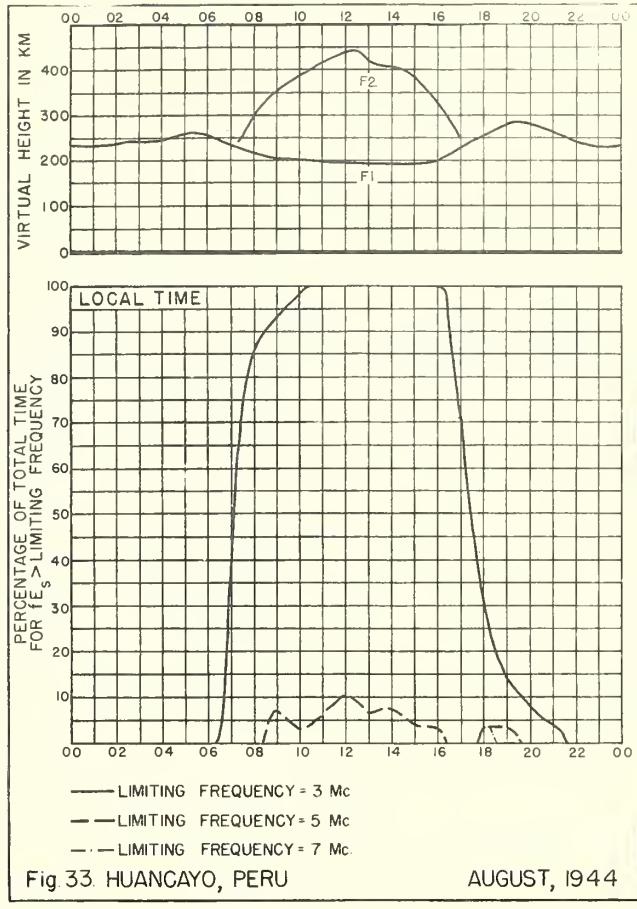
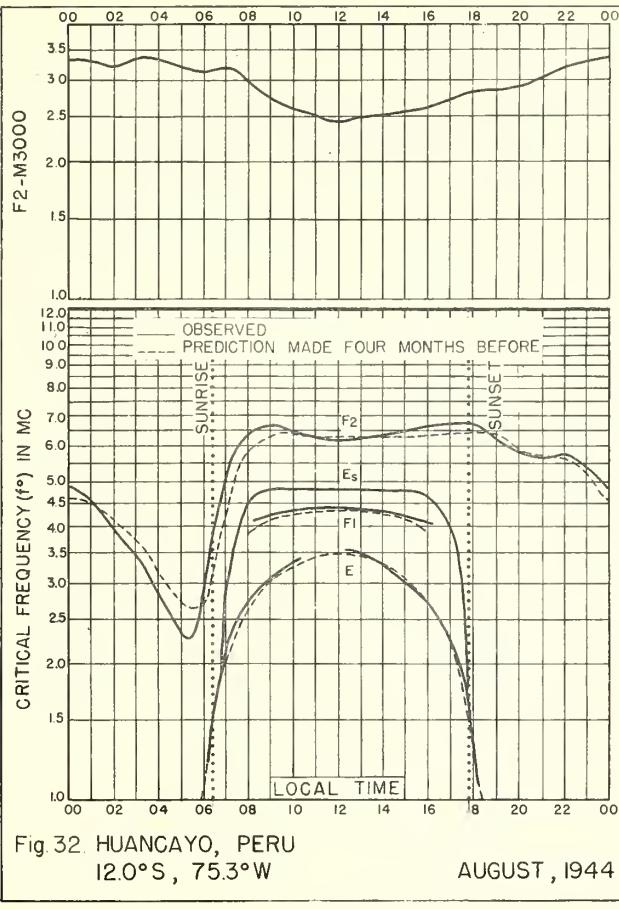
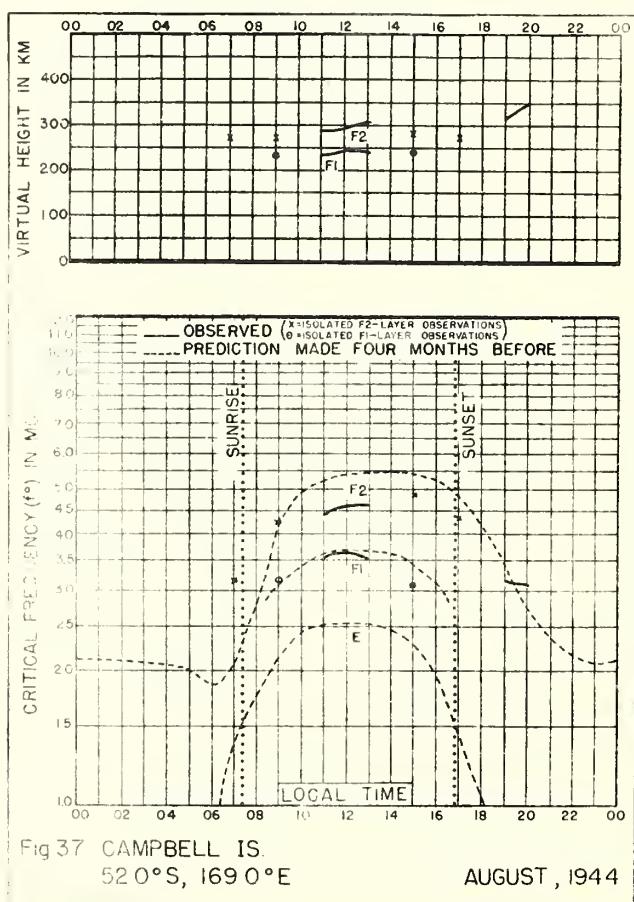
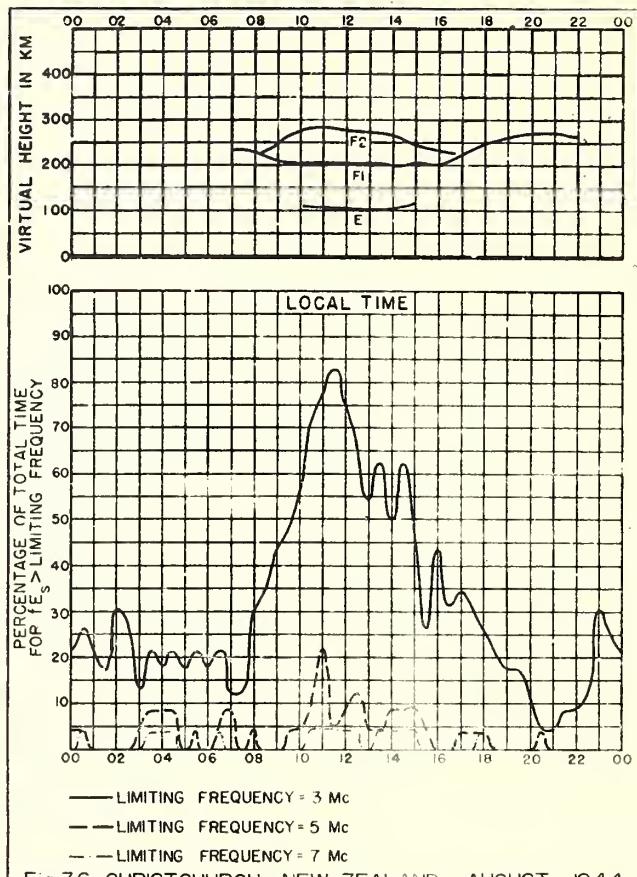
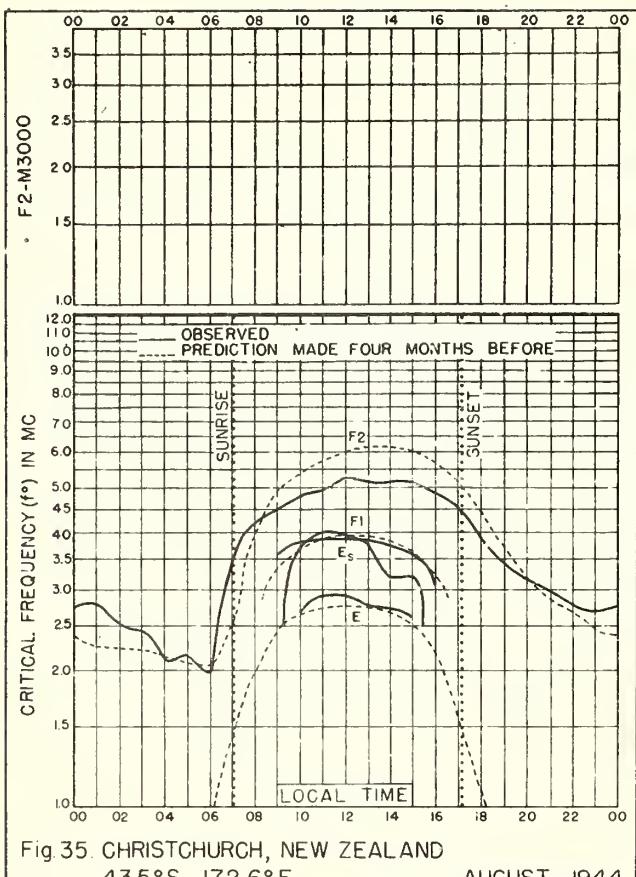


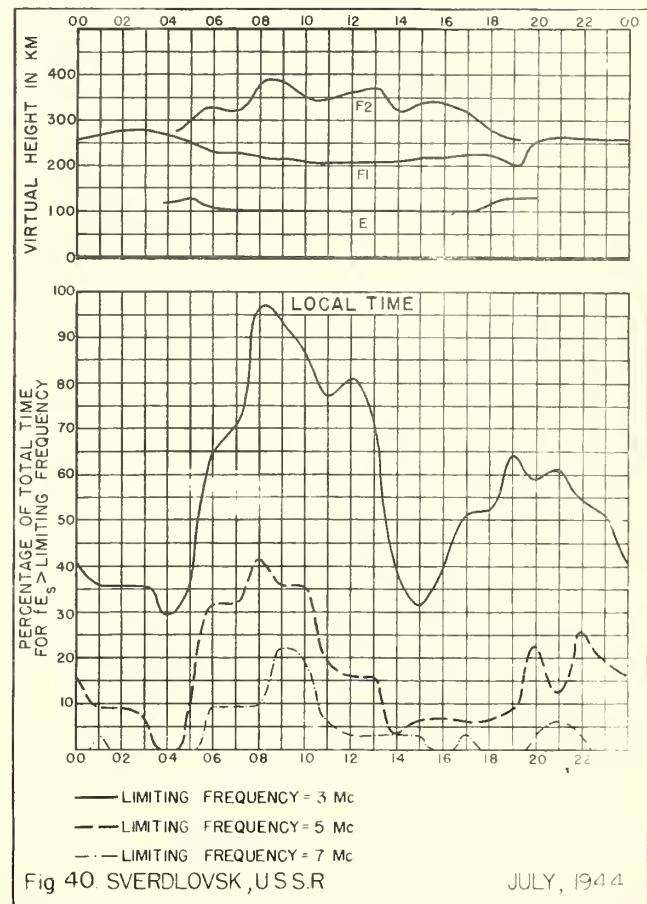
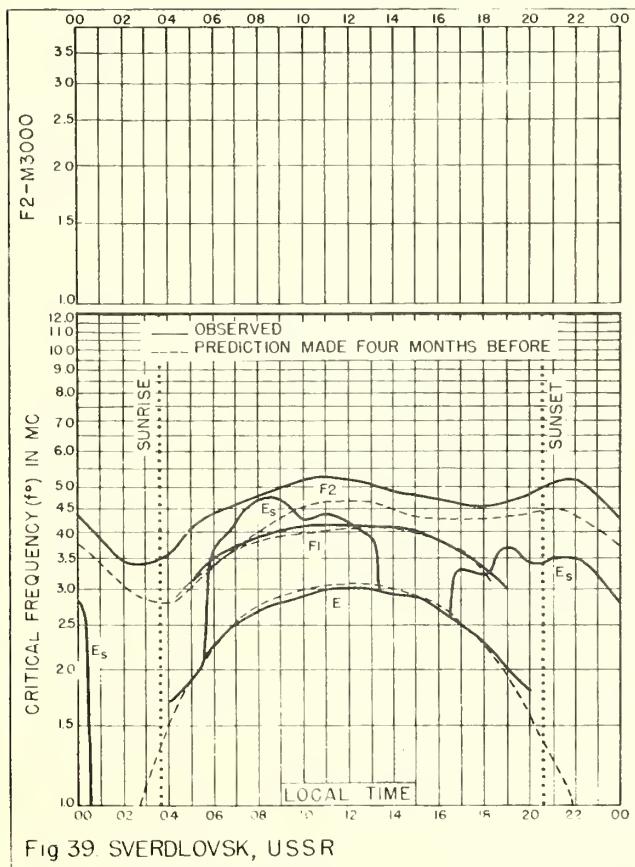
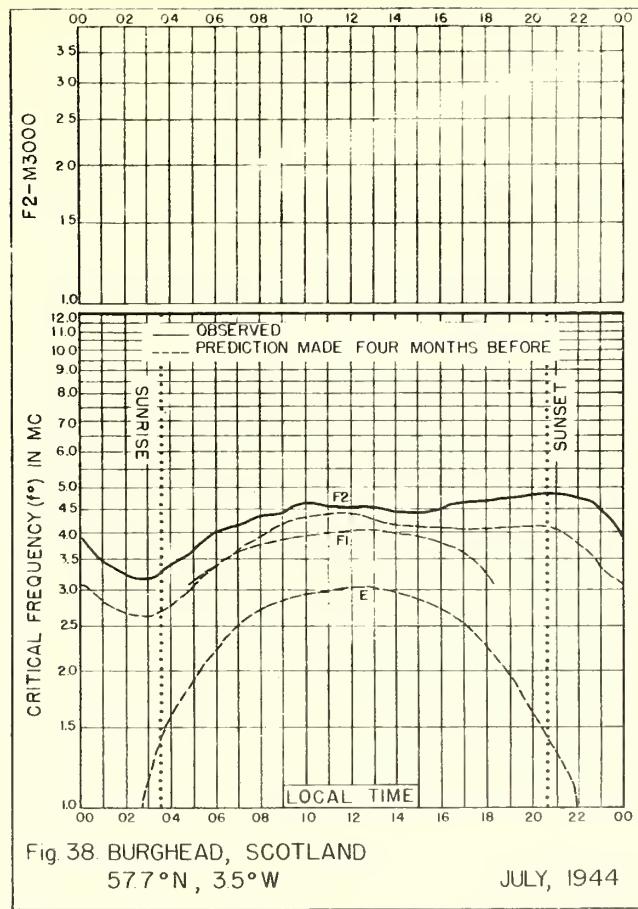
Fig. 27. MAUI, HAWAII

AUGUST, 1944









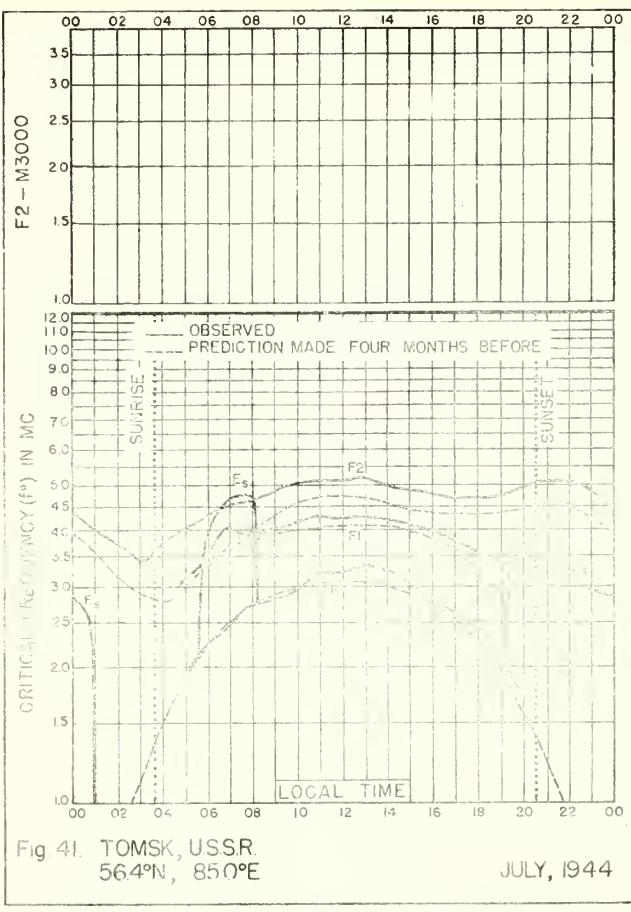


Fig. 41. TOMSK, USSR.
56.4°N, 85.0°E JULY, 1944

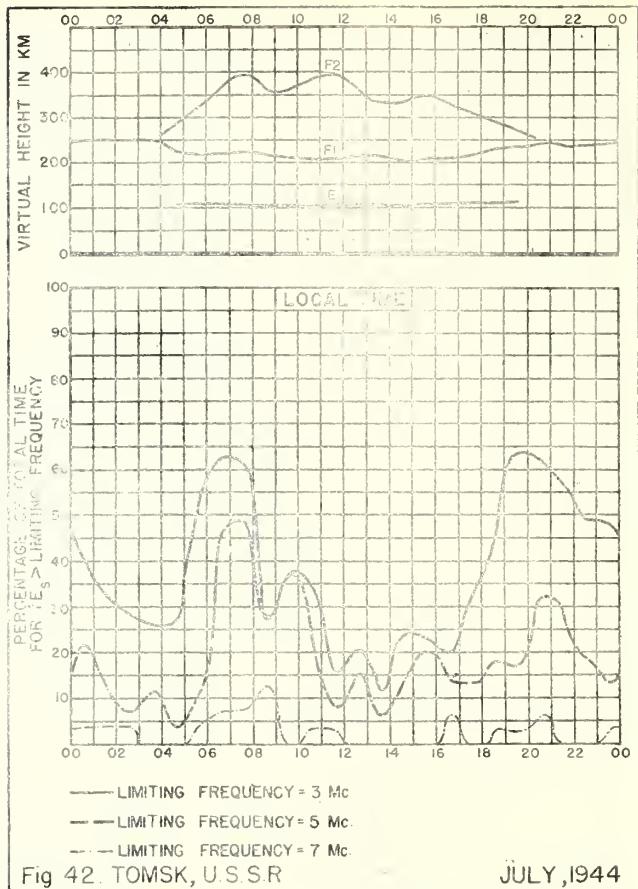


Fig. 42. TOMSK, U.S.S.R. JULY, 1944

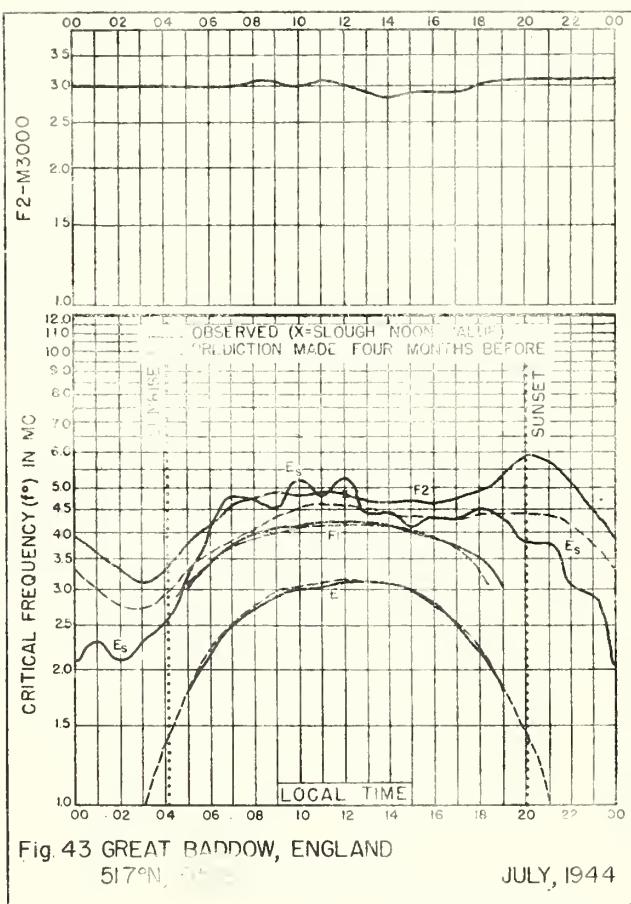


Fig. 43 GREAT BADDOW, ENGLAND
51.7°N, JULY, 1944

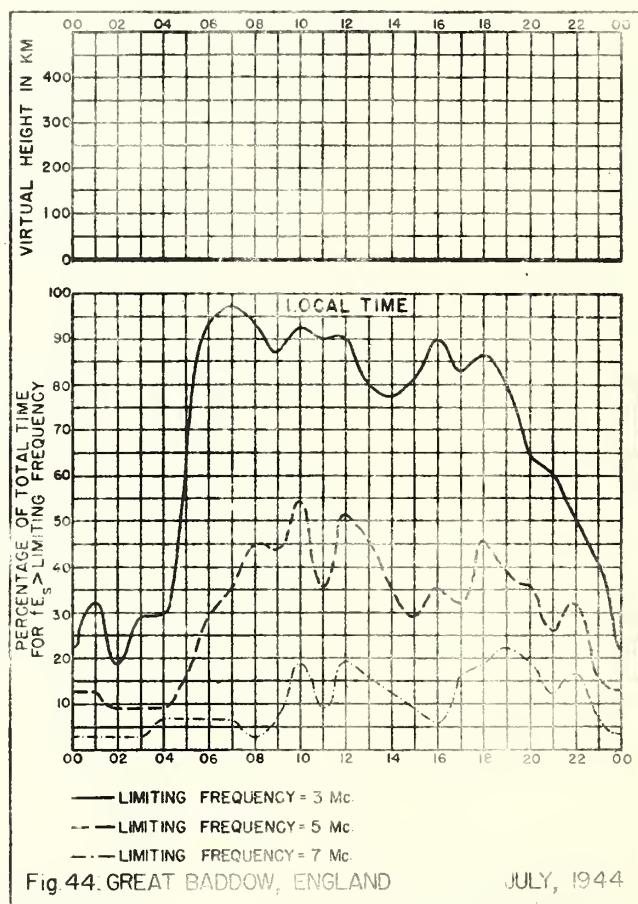
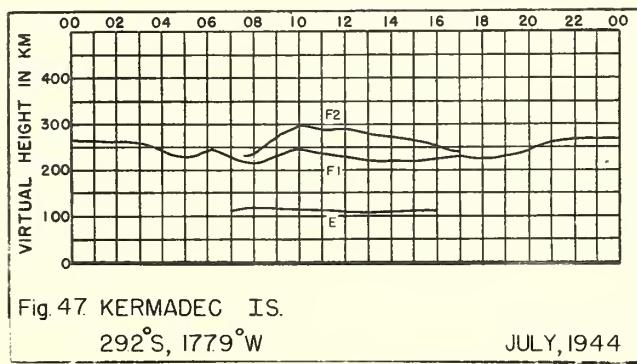
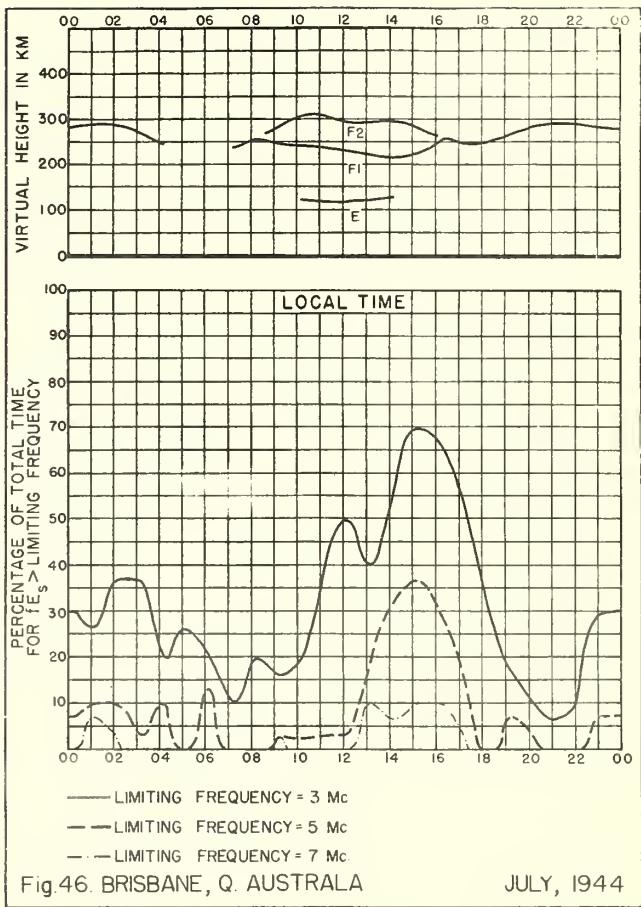
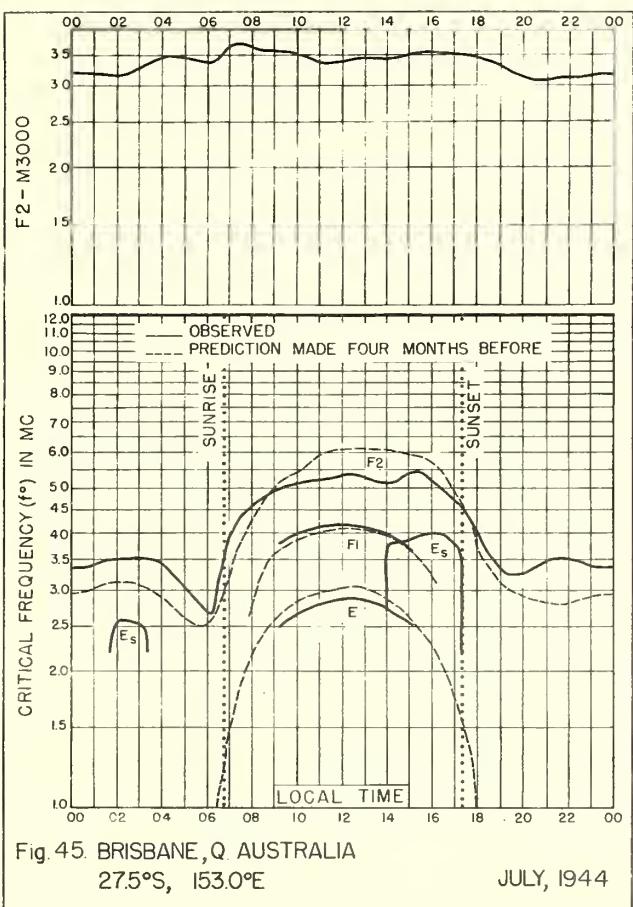
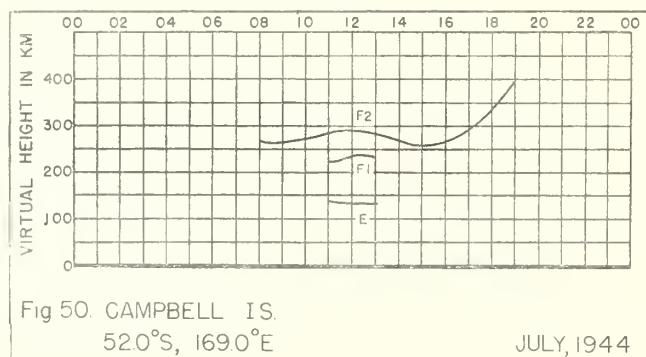
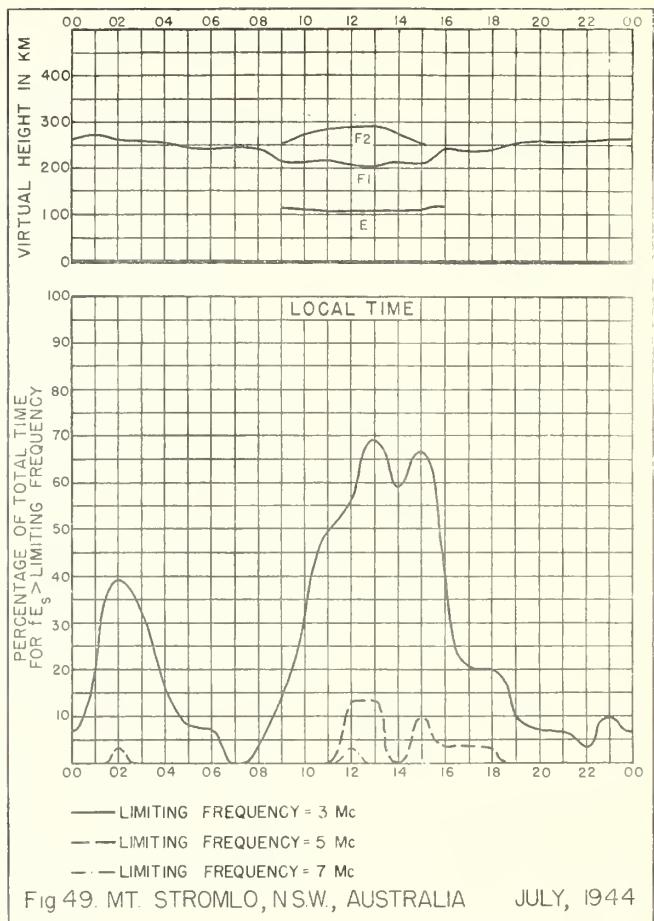
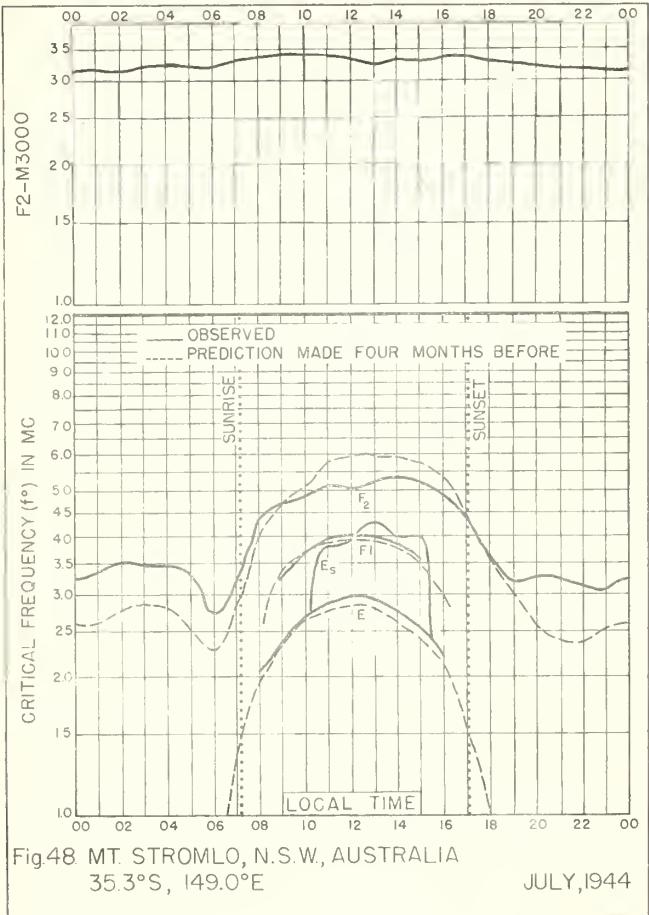
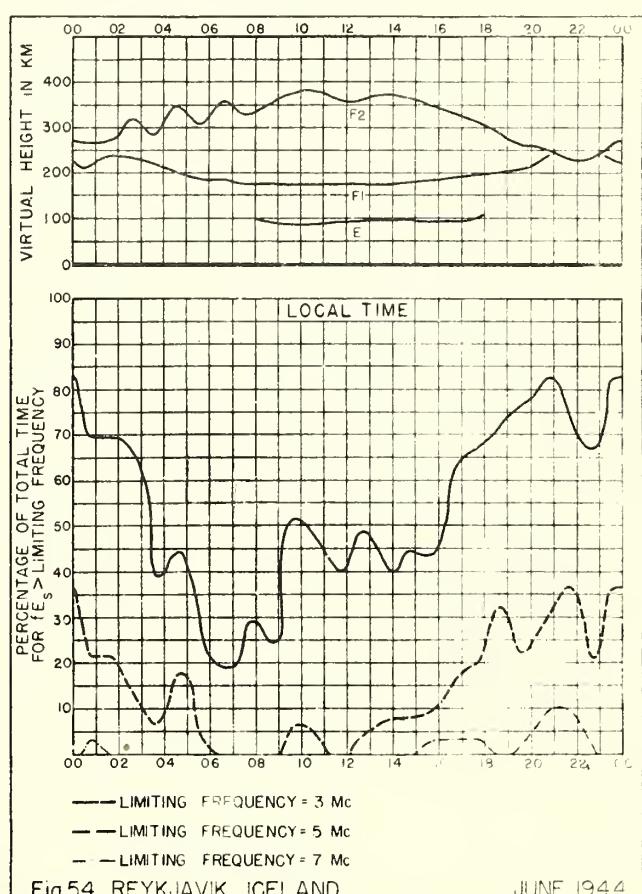
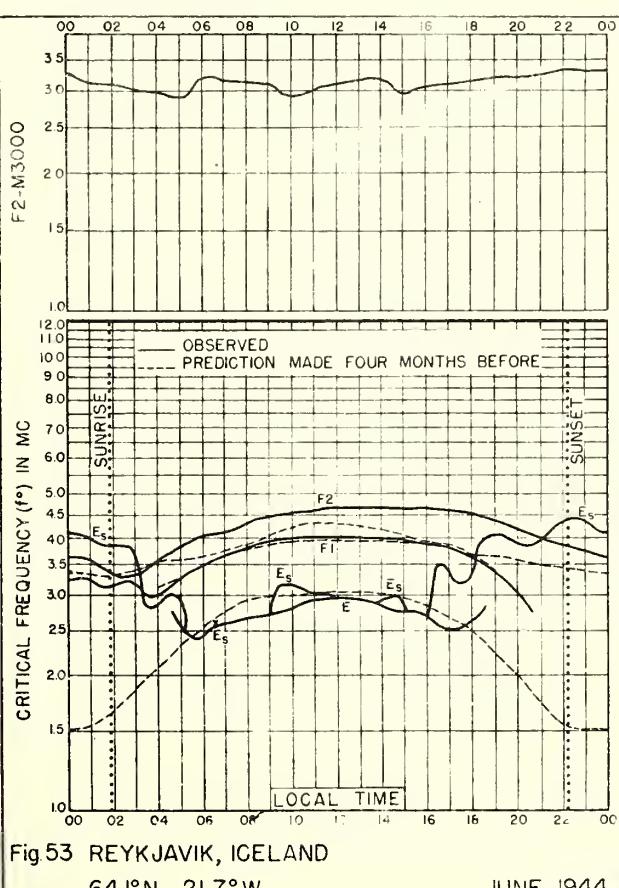
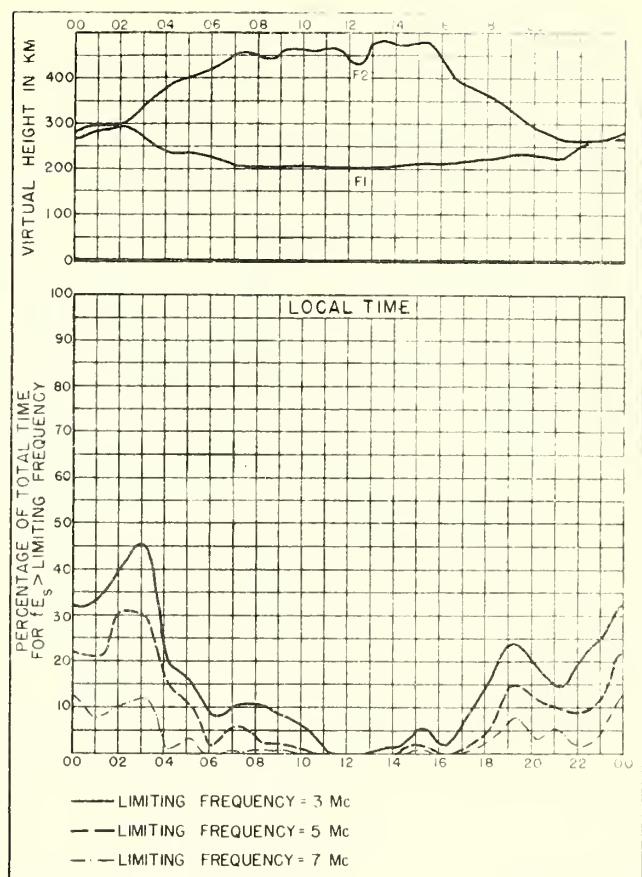
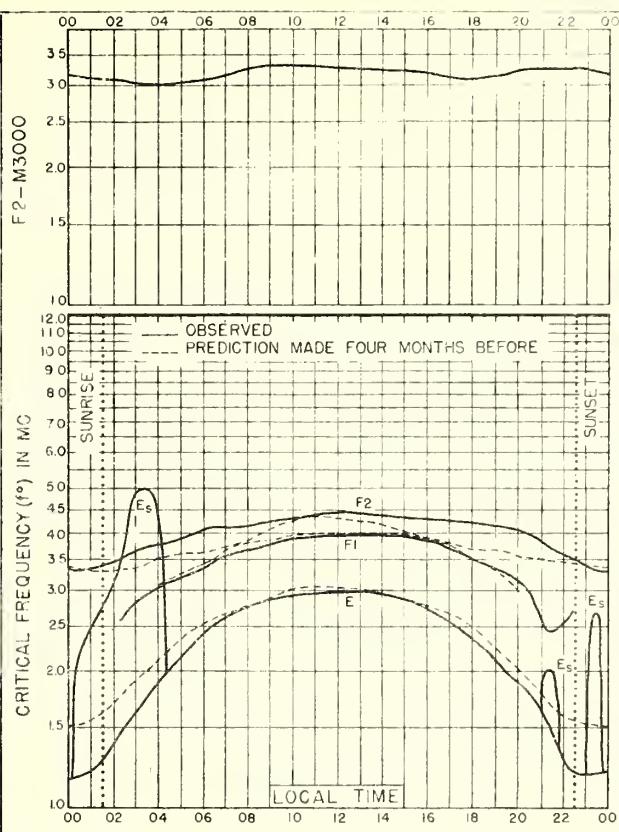
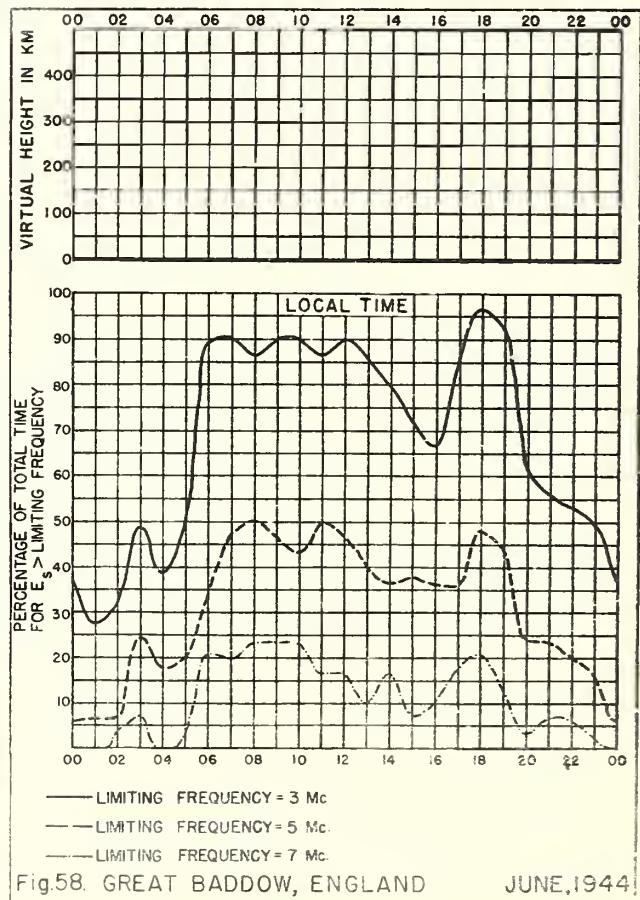
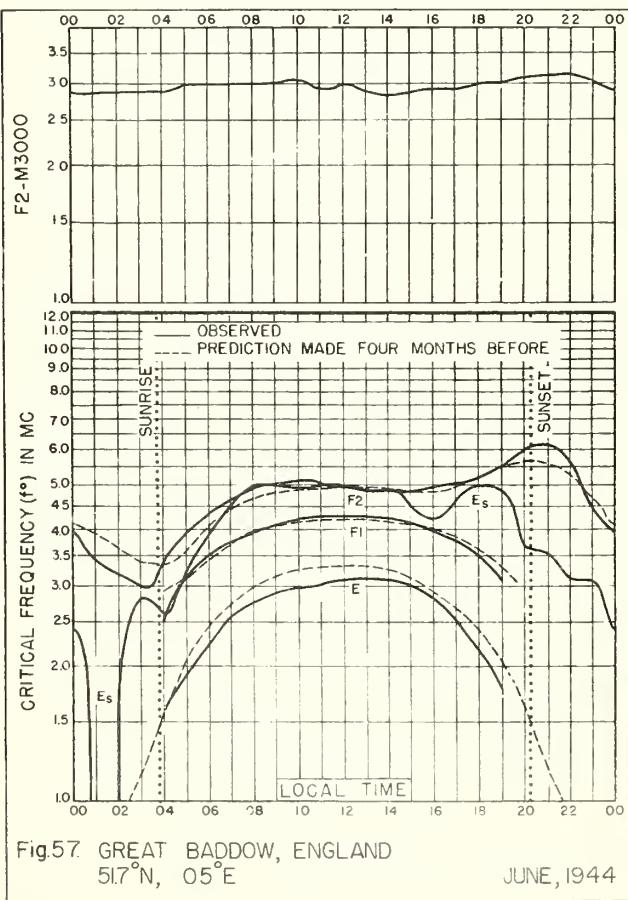
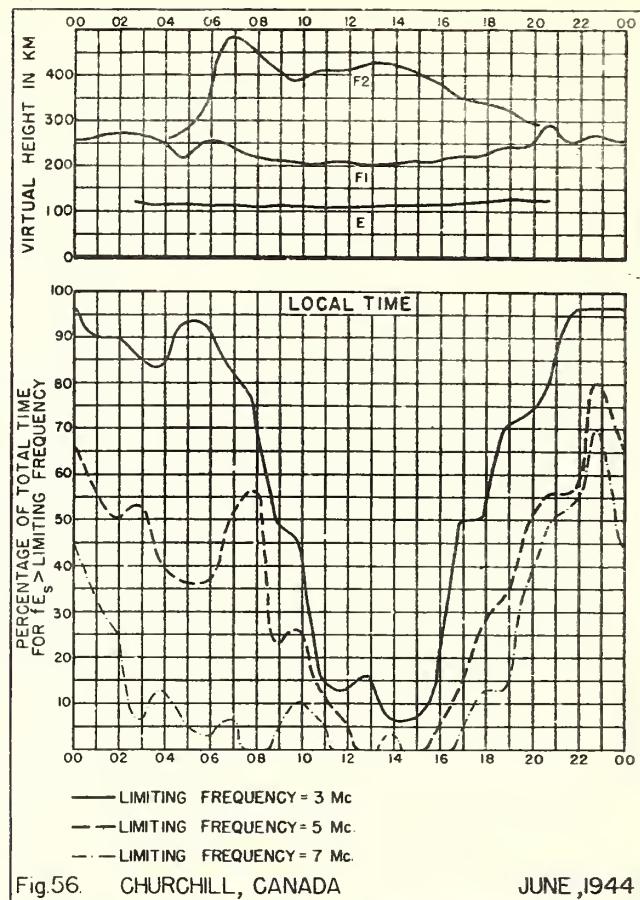
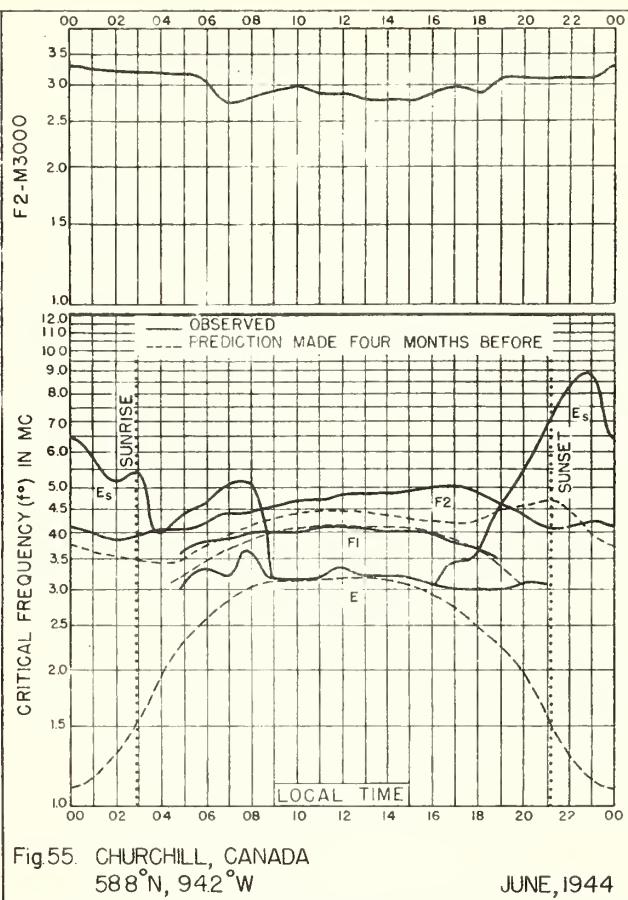


Fig. 44. GREAT BADDOW, ENGLAND JULY, 1944









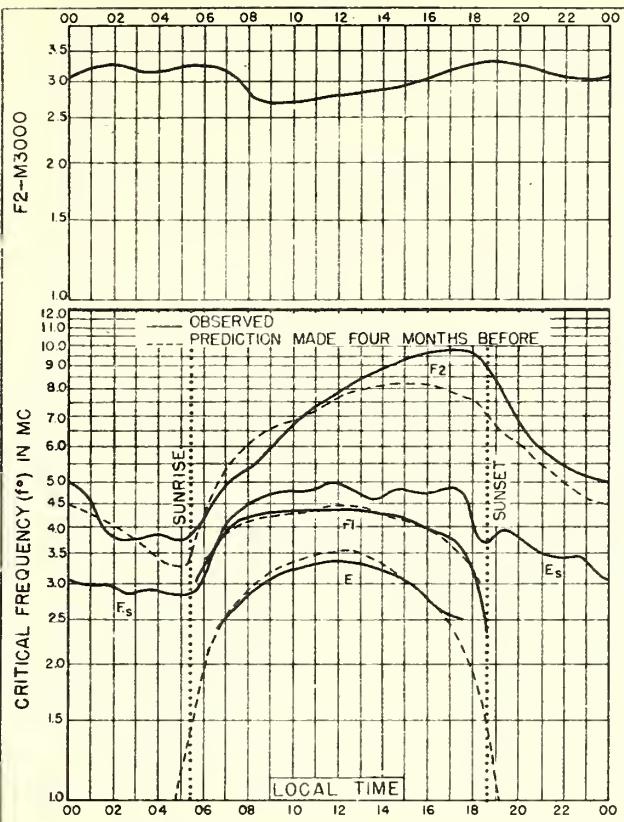


Fig.59. MAUI, HAWAII
20°8'N, 156.5°W

JUNE, 1944

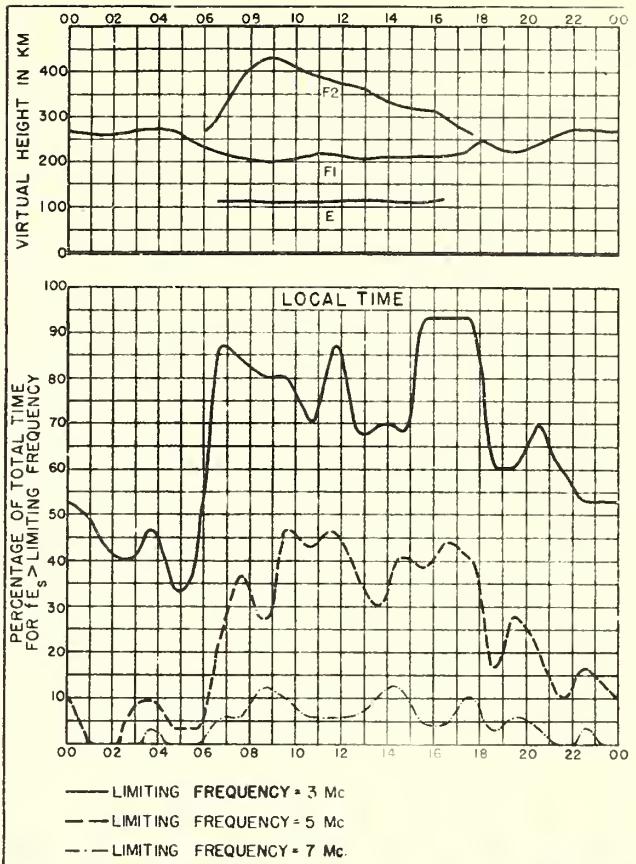


Fig.60. MAUI, HAWAII

JUNE, 1944

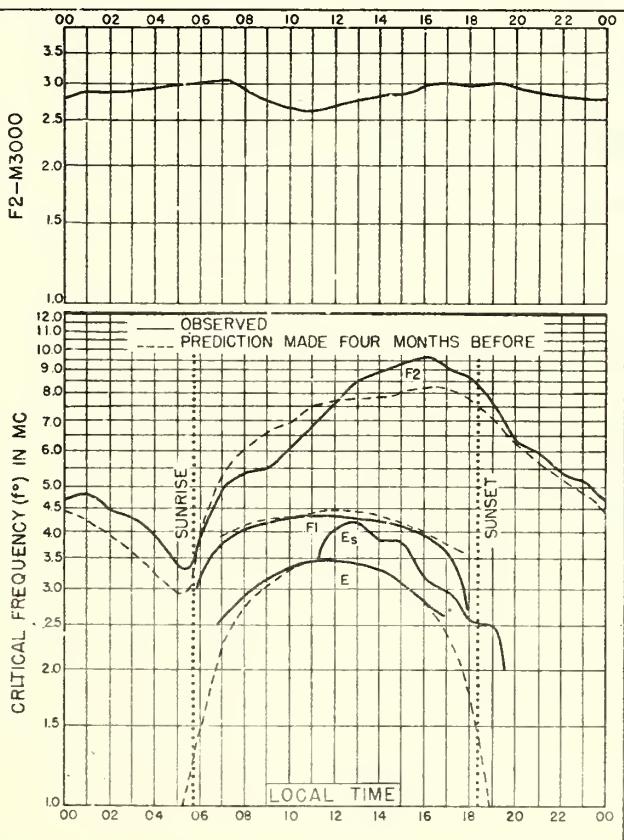


Fig.61. TRINIDAD, BRIT. WEST INDIES
10.6°N, 61.3°W

JUNE, 1944

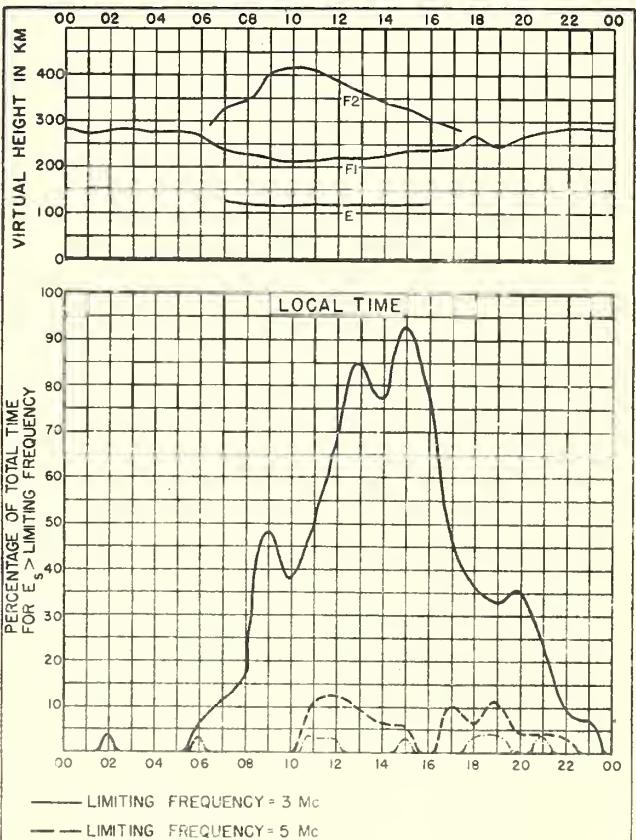
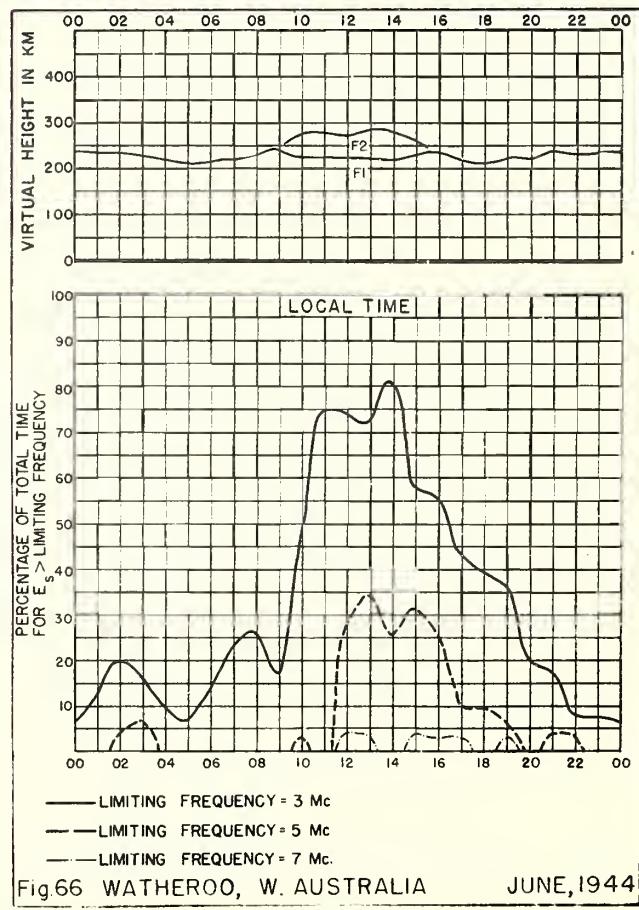
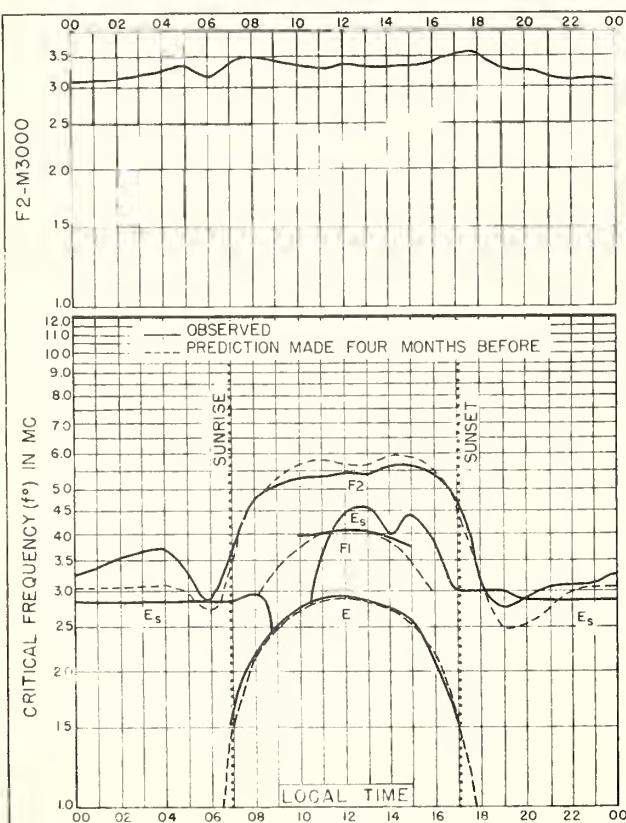
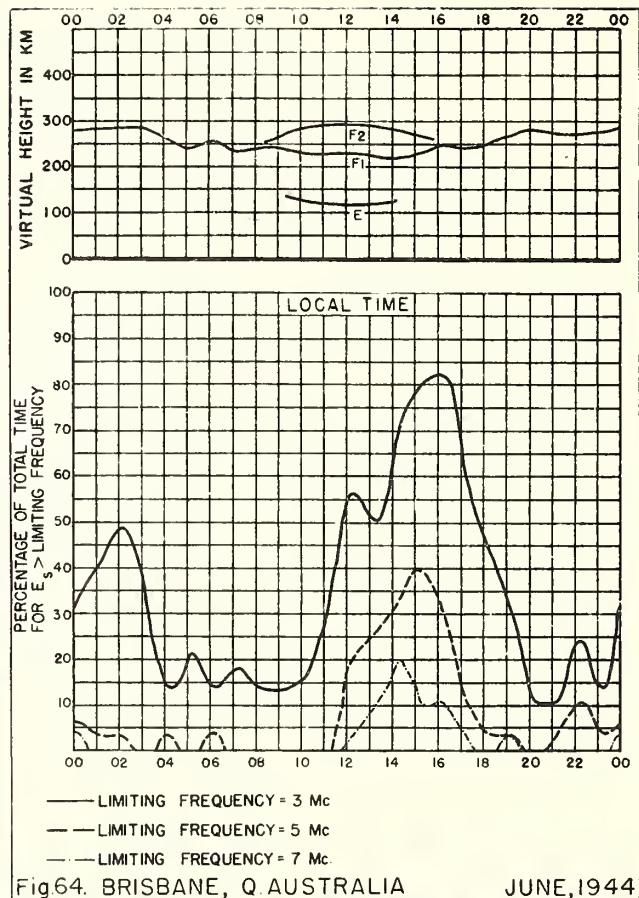
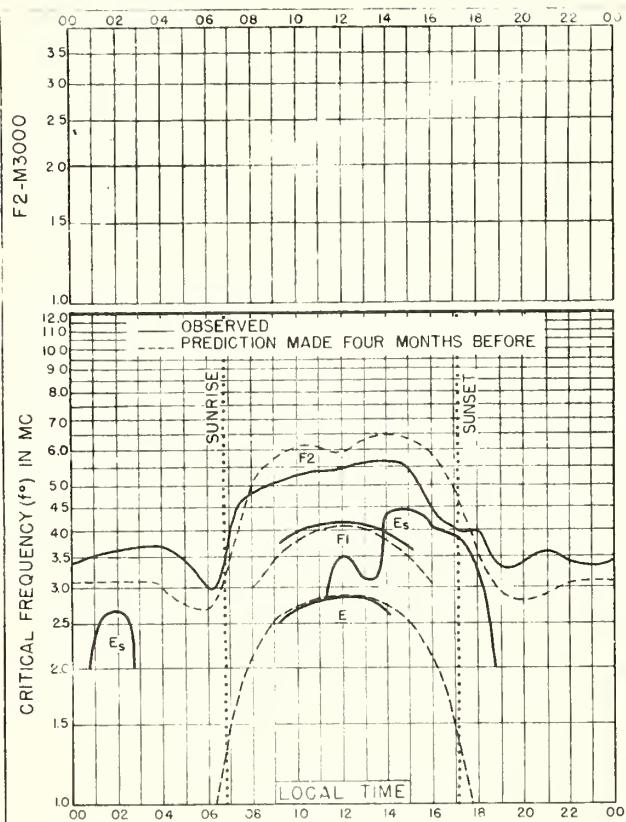


Fig.62. TRINIDAD, BRIT. WEST INDIES

JUNE, 1944



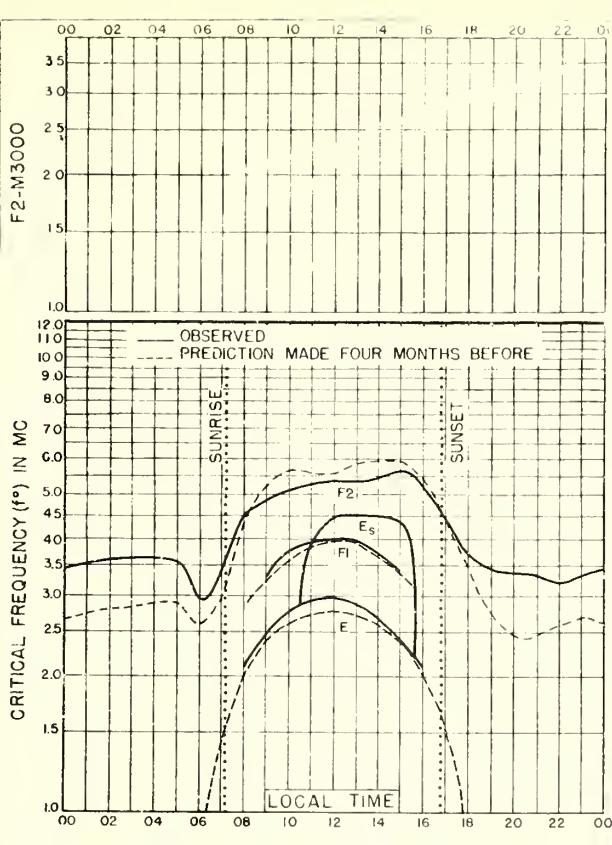


Fig 67. MT STROMLO, NSW, AUSTRALIA
353°S, 1490°E JUNE, 1944

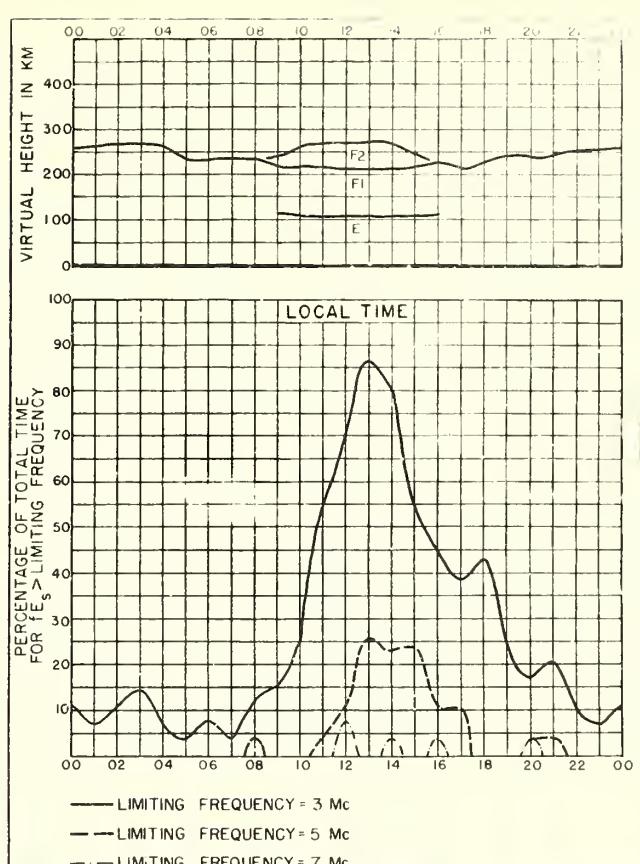


Fig 68. MT STROMLO, NSW, AUSTRALIA JUNE, 1944

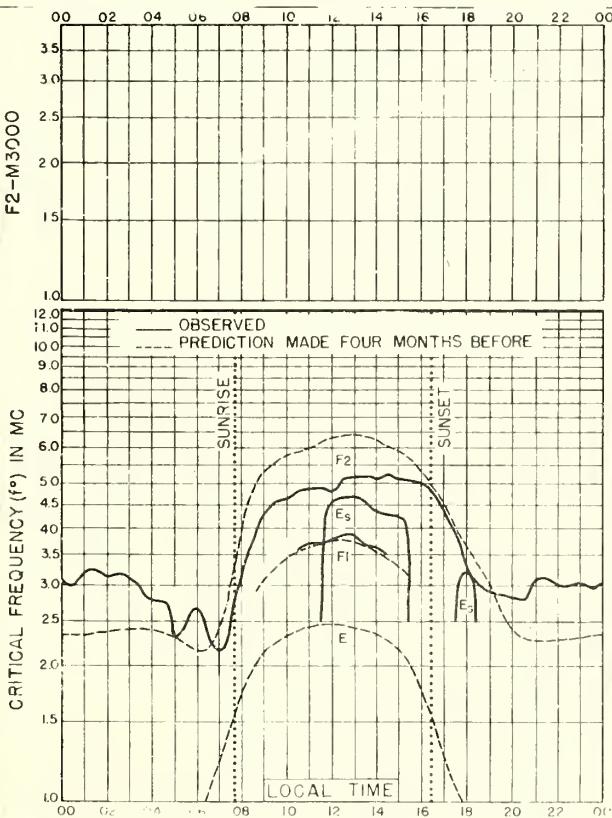


Fig 69 CHRISTCHURCH, NEW ZEALAND
435°S, 172.6°E JUNE, 1944

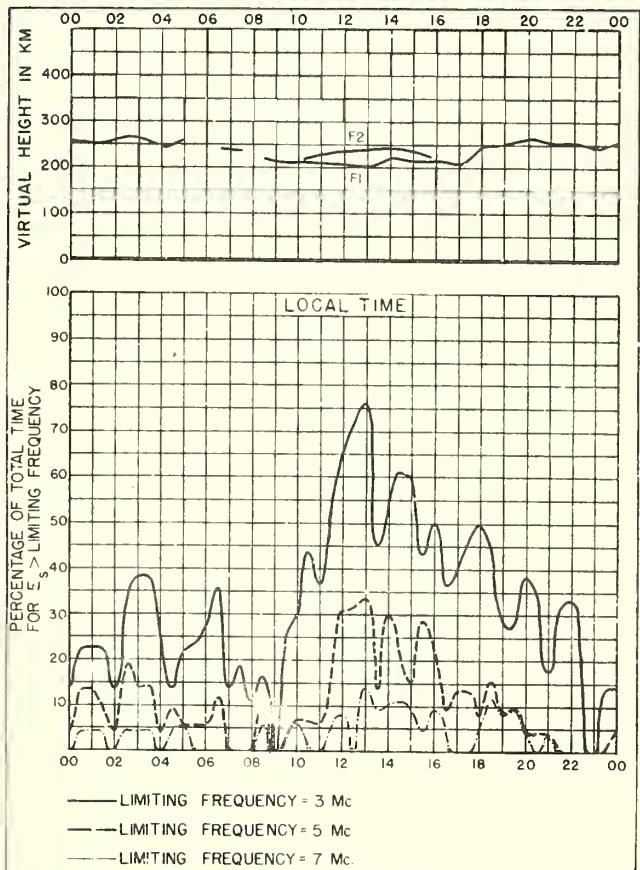


Fig 70 CHRISTCHURCH, NEW ZEALAND JUNE, 1944

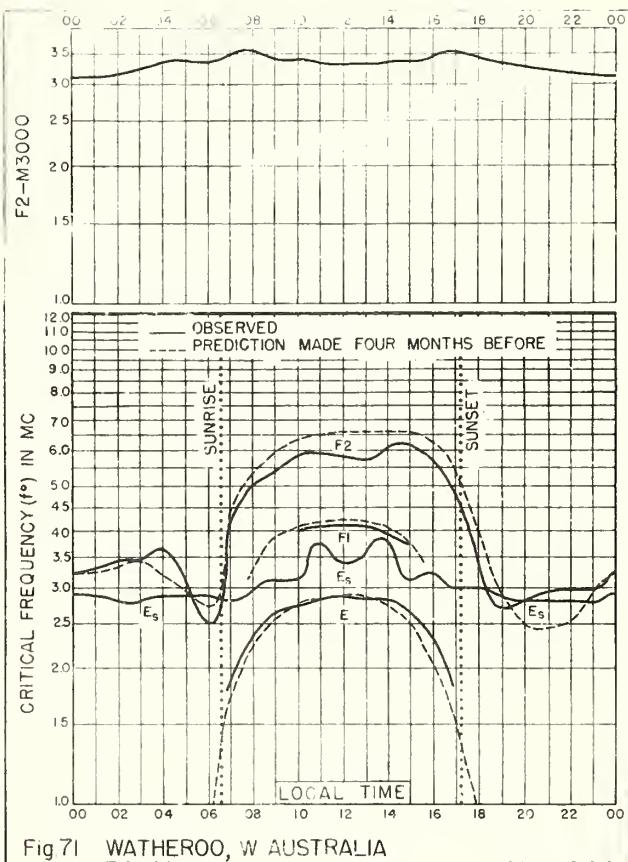


Fig 71 WATHEROO, W AUSTRALIA
30°S, 115°E MAY, 1944

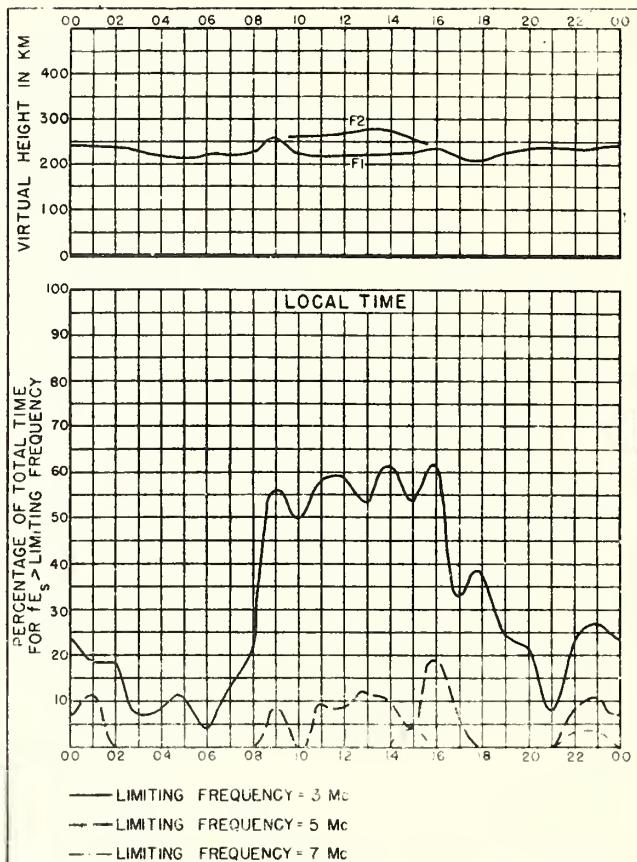


Fig 72 WATHEROO, W AUSTRALIA MAY, 1944

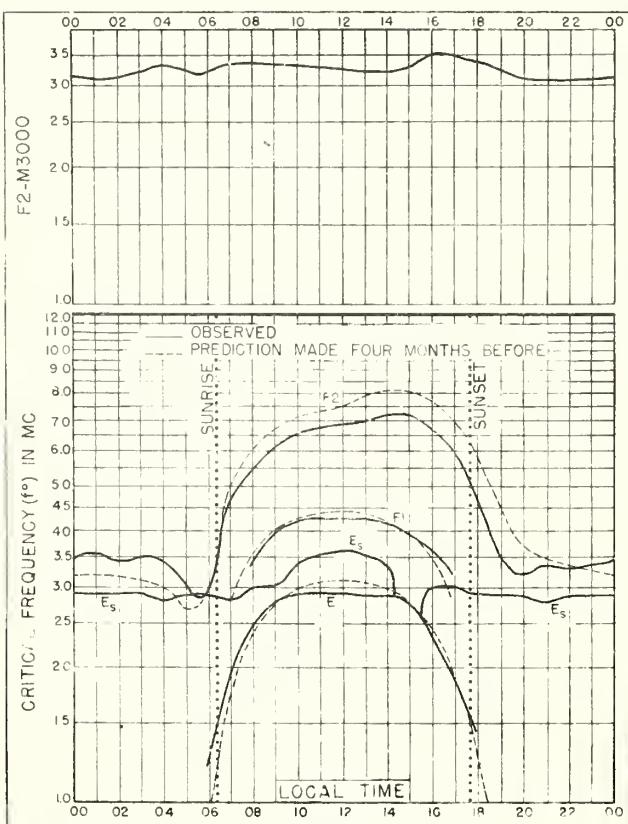


Fig 73 WATHEROO, W AUSTRALIA
30°S, 115°E APRIL, 1944

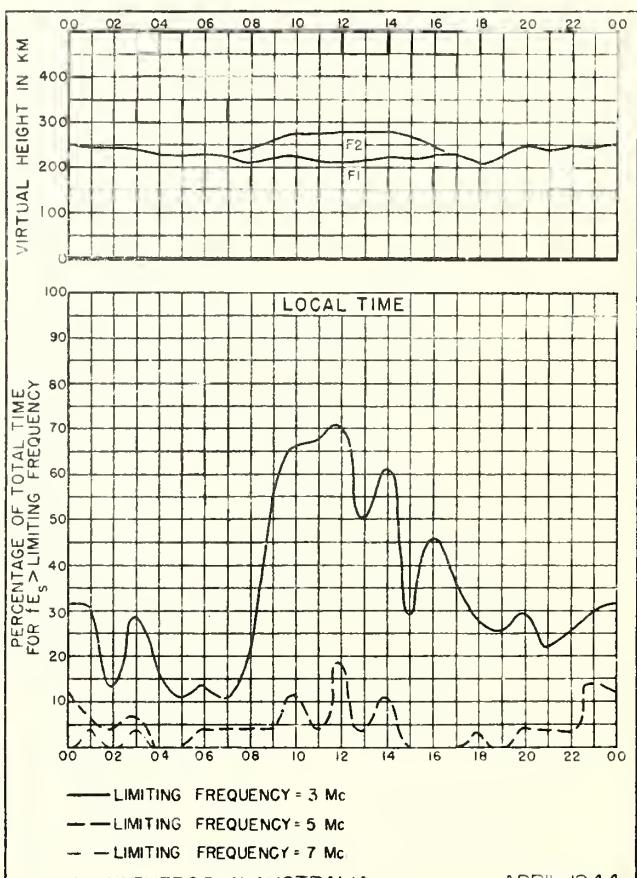


Fig 74 WATHEROO, W AUSTRALIA APRIL, 1944

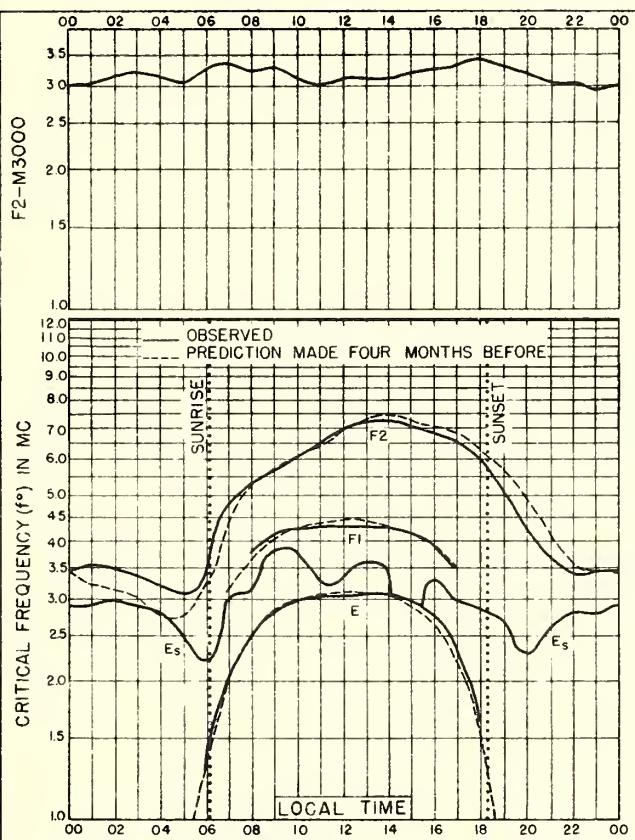


Fig. 75. WATHEROO, W. AUSTRALIA
30.3°S, 115.9°E MARCH, 1944

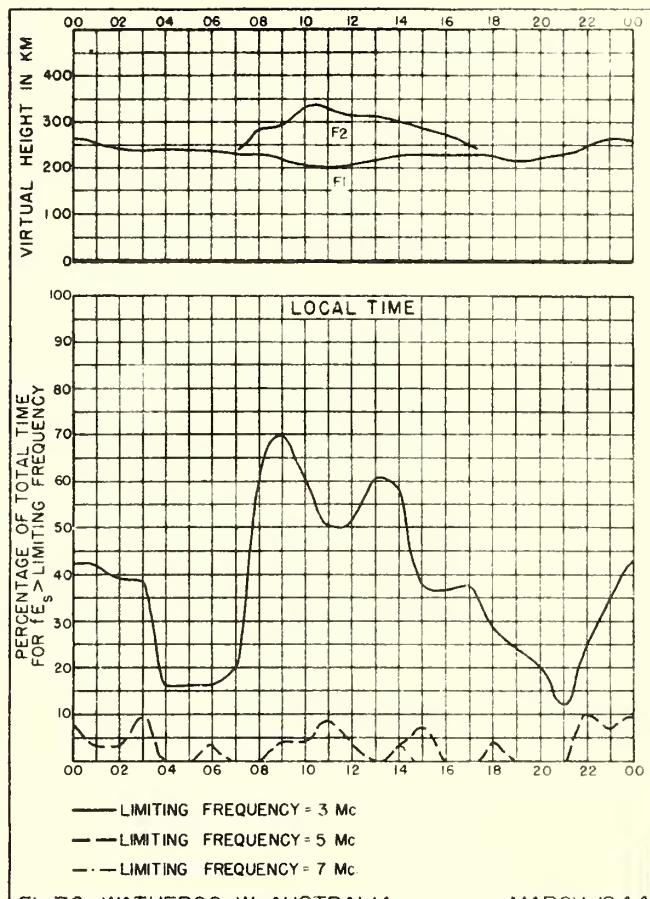


Fig. 76. WATHEROO, W. AUSTRALIA MARCH, 1944





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