PART A

IONOSPHERIC DATA

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

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PART A

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CENTRAL RADIO PROPAGATION LABORATORY
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CONTENTS

SYMBOLS. TERMINOLOGY. CONVENTIONS

Beginning with data reported for January 1952, and continuing through December 1956, the symbols, terminology, and conventions for the determination of median values used in this report (CRPL-F series) conform as far as practicable to those adopted at the Sixth Meeting of the International Radio Consultative Committee (C.C.I.R.) in Geneva, 1951. Excerpts concerning symbols and terminology from Document No. 626-E of this Meeting are given on pages 2-7 of the report CRPL-F89, "Ionospheric Data," issued January 1952. Reprints of these pages are available upon request.

Beginning with data for January 1957, the symbols used are given in NBS Report 5033, "Summary of Changes in Ionospheric Vertical Soundings, Observing and Scaling Procedures - Effective 1 January 1957," which draws upon the First Report of the Special Committee on World-Wide Ionospheric Soundings (URSI/AGI), Brussels, Sept. 2, 1956. A list of these symbols is available upon request.

In the Second Report of the Special Committee on World-Wide Ionospheric Soundings of the URSI/AGI Committee, May 1957, a new descriptive letter was introduced:

M Measurement questionable because the ordinary and extraordinary components are not distinguishable.

There was an expansion in meaning of the following:

Z (1) (qualifying letter) Measurement deduced from the third magnetoionic component.
(2) (descriptive letter) Third magnetoionic component present.

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

The following conventions are used in determining the medians for hours when no measured values are given because of equipment limitations and ionospheric irregularities. Symbols used are those given above.

a. For all ionospheric characteristics:

Values missing because of A, C, F, H, L, N or R are omitted from the median count.

b. For critical frequencies and virtual heights:

Values of foF2 (and foE near sunrise and sunset) missing because of E are counted as equal to or less than the lower limit of the recorder. Values of h'F (and h'E near sunrise and sunset) missing for this reason are counted usually as equal to or greater than the median. Other characteristics missing because of E are omitted from the median count.

Values missing because of G are counted:

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

The symbol W is included in the median count only when it replaces a height characteristic; the descriptive symbol D, only when it replaces a frequency characteristic.

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

c. For MUF factor (M-factors):

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

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

d. For sporadic E (Es):

Values of fEs missing because of E or G are counted as equal to or less than the median foE, or equal to or less than the lower frequency limit of the recorder.

B for fEs is counted on the low side when there is a numerical value of a higher layer characteristic; otherwise it is omitted from the median count.

S for fEs is counted on the low side at night; during the day it is omitted from the median count (beginning with data for November 1957).

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

Beginning with CRPL-F188, Part A, issued April 1960, the count is given for foF2 in the tables of medians. It is regretted that space limitations prevent including detailed counts for other characteristics.

To indicate further in a general manner the relative reliability of the data, for the F2 layer, h'F or foEs, if the count is from five to nine, or, for all layers, if more than half of the data used to compute the medians are doubtful (either doubtful or interpolated), the median is enclosed in parentheses. Medians are computed for less than five values for foF2 only.

Ordinarily, a blank space in the fEs or foEs column of a table is the result of the fact that a majority of the readings for the month are below the lower limit of the recorder or less than the corresponding values of foE. Blank spaces at the beginning and end of columns of h'F2 or h'F1, foF1, h'E, and foE are usually the result of diurnal variation in these characteristics. Complete absence of medians of h'F1 and foF1 is usually the result of seasonal effects.

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

The tables may contain median values of either foEs or fEs. The graph of median Es corresponds to the table. Percentage curves of fEs are estimated from values of foEs when necessary.

The latest available information follows concerning the smoothed observed Zürich numbers beginning with the minimum of April 1954. Final numbers are listed through June 1959.

Smoothed Observed Sunspot Number

Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1954				3	4	4	5	7	8	8	9	12
1955	14	16	19	23	29	35	40	46	55	64	73	81
1956	89	98	109	119	127	137	146	150	151	156	160	164
1957	170	172	174	181	186	188	191	194	197	200	201	200
1958	199	201	201	197	191	187	185	185	184	182	181	180
1959	179	177	174	169	165	161	156	151	145	140	136	
1960												

WORLD-WIDE SOURCES OF IONOSPHERIC DATA

The ionospheric data given here in tables 1 to 72 and figures 1 to 144 were assembled by the Central Radio Propagation Laboratory for analysis and correlation, incidental to CRPL prediction of radio propagation conditions. The data are median values unless otherwise indicated. The following are the sources of the data in this issue:

Republica Argentina, Ministerio de Marina:
- Buenos Aires, Argentina
- La Quiaca, Argentina
- Tucuman, Argentina

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

Belgian Royal Meteorological Institute:
- Lwiro (Central African Institute for Scientific Research)

Universidad Mayor de San Andres:
- La Paz, Bolivia

Electronics Directorate of the Brazilian Navy:
- Natal, Brazil

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

Defence Research Board, Canada:
- Alert, Canada
- Meanook, Canada

Universidad de Concepcion:
- Concepcion, Chile

Radio Wave Research Laboratories, National Taiwan University, Taipeh, Formosa, China:
- Formosa, China

Instituto Geofisico de Los Andes Colombianos:
- Bogota, Colombia

General Direction of Posts and Telegraphs, Helsinki, Finland:
Numijarvi, Finland

The Finnish Academy of Sciences and Letters:
Sodankyla, Finland

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

Ionospheric Institute, Breisach, Germany:
Freiburg, Germany

Central Institute of Meteorology, Budapest, Hungary:
Budapest, Hungary

National Institute of Geophysics, City University, Rome, Italy:
Rome, Italy

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

Telecommunication Administration, Oslo, Norway:
Svalbard, Norway

Manila Observatory:
Baguio, P. I.

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

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

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

United States Army Signal Corps:
Adak, Alaska
Cape Canaveral, Florida
Thule, Greenland

National Bureau of Standards (Central Radio Propagation Laboratory):
Anchorage, Alaska
Byrd Station, Antarctica
Fairbanks (College), Alaska (Geophysical Institute of the University of Alaska)
Huancayo, Peru (Insituto Geofisico de Huancayo)
Point Barrow, Alaska
Pole Station, Antarctica

TABULATIONS OF ELECTRON DENSITY DATA

Reduction of hourly ionospheric vertical soundings to electron density profiles has become a part of the systematic ionospheric data program of the Central Radio Propagation Laboratory, National Bureau of Standards. Scalings of ionograms for this purpose are being provided by ionosphere stations operated by CRPL and the U. S. Army Signal Corps. For the present, the hourly profile data from one CRPL station, Puerto Rico, are appearing in the monthly CRPL-F Reports, Part A. These data are in place of the standard ionogram reductions formerly provided by this Station. The very considerable task of scaling the ionograms for this purpose is being undertaken by T. R. Gilliland, Engineer in Charge, Puerto Rico Ionosphere Sounding Station; the computations are performed at the NBS Boulder Laboratories by a group headed by J. W. Wright. Basic conversion of virtual to true heights uses the well-known matrix method developed by K. G. Budden of the Cavendish Laboratory, Cambridge University, programmed for an IBM 704 computer.

The tabulations provide the following basic electron density profile data for each hour of each day of the month:

Quantity	Units	Remarks
Electron Density (N)	$x10^3$ = electrons/cm^3	Body of table; given at each 10 km of height.
NMAX	$x10^3$ = electrons/cm^3	Always the highest value of N at each hour. To maintain this rule, the electron density at the next 10 km increment above HMAX is always given as exactly equal to NMAX (unless HMAX coincides with a 10 km level).
QUALification	(Alphabetic)	A standard scaling letter qualifying the observation when necessary.
HMIN	Kilometers	The height of zero or very low electron density, obtained by linear extrapolation of the electron density vs. height curve.
SCAT	Kilometers	One half of the half-thickness of the parabola best fitting the upper portion of the F region profile. Approximates the scale height near the level HMAX.
HMAX	Kilometers	The height of maximum electron density, determined by fitting a parabola to the upper portion of the profile.
SHMAX	$x10^{10}$ = electrons/cm^2 column.	Obtained by integration of the profile between the limits HMIN and HMAX.

Tabulations of the average electron densities each hour, at each 10 km level, for the quiet ionosphere, are also given. These averages include the profiles obtained when the magnetic character figure Kp is less than 4+. The number of profiles entering the average for each hour is given by CNT. The other parameters of the layer, HMIN, SCAT, HMAX, SHMAX, are averaged in a similar way.

Before the averaging process, the individual profiles are extrapolated above HMAX by a Chapman distribution of 100 km scale height. This assumed model seems to agree well with the few published measurements dealing with the topside profile of the F-region.* Extrapolation is necessary in order to calculate homogeneous averages near HMAX and the average profiles are, in fact, given up to 950 km. Also given are the average estimated integrated electron densities to infinity, SHINF (same units as SHMAX); this is an approximation to the total electron content in a column of the ionosphere.

*See Wright, J.W. "A Model of the F-Region Above HMAX F2" J.Geophys.Res. V.65 pp 185-191.

ELECTRON DENSITY

PUERTO RICO 60 W 1 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL												J
HMIN	110	110	110	107	109	103	199	191	187	218	261	224
SCAT	53•1	63•2	71•0	68•2	71•0	66•5	59•3	47•4	59•2	54•0	49•8	54•8
HMAXF	317	336	345	346	350	345	335	323	340	370	369	344
SHMAX	2216	2400	2533	2331	2294	1942	1630	1090	887	705	595	575
KM												
380										875		
370										875	906	
360					1984		1969			867	899	
350			2161	2033	1984	1846	1765		1027	845	873	794
340		2294	2151	2028	1974	1843	1734		1027	805	828	792
330		2289	2141	2003	1944	1821	1679	1526	1040	754	768	780
320	2430	2256	2069	1957	1894	1777	1604	1526	998	688	679	754
310	2420	2199	1985	1886	1824	1710	1570	1301	960	612	573	716
300	2370	2103	1894	1795	1730	1614	1555	1446	910	529	437	663
290	2272	1965	1786	1685	1619	1479	1376	1350	846	439	286	595
280	2128	1843	1647	1555	1493	1374	1282	1232	768	349	150	508
270	1952	1643	1500	1416	1356	1240	960	1096	686	262	64•2	407
260	1756	1513	1340	1274	1222	1096	742	930	597	187		286
250	1555	1341	1197	1135	1096	960	527	770	508	124		161
240	1322	1126	1050	996	960	834	347	587	410	86•4		83•8
230	1085	951	917	863	834	706	198	389	305	49•6		40•2
220	898	804	794	747	716	564	112	240	198	12•4		
210	741	673	691	643	608	493	60•0	117	112			
200	617	563	601	554	516	403	49•6	49•6	57•7			
190	521	477	527	477	429	322			4•5			
180	442	409	446	417	358	256						
170	378	354	383	354	297	203						
160	322	310	328	313	248	166						
150	275	262	283	274	211	139						
140	237	229	246	234	183	120						
130	213	212	216	201	161	109						
120	192	200	196	185	150	101						
110	40•2	49•6	49•6	112	97•2	60•0						

ELECTRON DENSITY

PUERTO RICO 60 W 2 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL				A				A				A
HMIN	227	220	239	228	210	198	191	239	110	110	109	
SCAT	49•6	46•7	40•6	40•1	41•8	72•6	56•1	40•8	43•7	53•7	48•8	
HMAXF	336	334	333	324	301	370	341	320	280	305	295	
SHMAX	444	372	313	307	232	344	241	281	478	1614	1808	
KM												
380						329						
370						329						
360						327						
350						323	286					
340	670	578	557			315	286					
330	668	572	556	599		302	283	532		1922		
320	653	561	541	597		288	276	532				
310	624	535	508	580	417	271	264	524		1922		
300	583	498	461	542	417	251	247	500		1918	2294	
290	526	446	398	488	410	229	226	465	1252	1885	2288	
280	452	382	310	417	390	205	202	403	1252	1819	2240	
270	366	305	219	335	362	179	175	318	1238	1719	2142	
260	269	226	139	240	316	155	148	219	1190	1594	2002	
250	161	143	67•2	135	252	129	123	112	1109	1418	1807	
240	76•7	74•7	12•4	66•2	174	104	97•2	12•4	996	1212	1581	
230	41•0	44•5		12•4	97•2	80•9	75•9		853	984	1323	
220					53•0	60•0	59•0		679	777	1025	
210						42•9	45•9		516	608	794	
200						8•5	26•5		389	477	608	
190									286	381	484	
180									219	302	389	
170									170	240	319	
160									138	198	268	
150									117	163	229	
140									105	142	198	
130									93•3	136	178	
120									79•4	131	167	
110									12•4	49•6	97•2	

ELECTRON DENSITY

PUERTO RICO 60 W 2 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL	A		A	A	A	A						
HMIN	110	109					229	186	188	220	258	238
SCAT	59•9	62•3					67•0	59•2	65•0	74•4	48•1	48•4
HMAXF	327	342					360	349	370	426	391	366
SHMAX	2072	2257					1824	1323	1012	978	660	674
KM												
430										906		
420										905		
410										896		
400										880	928	
390										851	928	
380									1027	817	917	
370							2080		1027	777	885	960
360							2080		1020	733	834	956
350		2032					2069	1500	1000	682	762	933
340		2031					2035	1493	965	621	679	888
330	1969	2017					1978	1464	924	550	579	825
320	1961	1967					1897	1403	875	477	477	740
310	1927	1894					1786	1327	810	397	375	643
300	1853	1786					1669	1240	741	321	262	540
290	1761	1669					1517	1136	666	245	165	428
280	1652	1530					1341	1019	588	182	97•2	310
270	1522	1389					1155	887	508	135	55•9	179
260	1383	1247					932	754	424	99•8	12•4	101
250	1240	1130					643	622	342	72•9		55•3
240	1084	997					286	498	262	50•6		12•4
230	942	875					12•4	369	183	33•5		
220	815	754						254	127			
210	709	662						143	80•9			
200	620	578						74•7	51•2			
190	540	504						28•2	12•4			
180	468	436										
170	402	375										
160	347	323										
150	300	278										
140	257	237										
130	223	205										
120	205	189										
110	49•6	112										

ELECTRON DENSITY

PUERTO RICO 60 W 3 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL		A	F	[illegible]						A	[illegible]	A
HMIN	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SCAT	30.4	41.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	45.8	65.1
HMAXF	[illegible]	31[illegible]		[illegible]		[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	310
SHMAX	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1700	[illegible]	[illegible]
KM												
370				461								
360			49[illegible]	458								
350			48[illegible]	445								
340			477	421	417	[illegible]	[illegible]					
330			457	387	41[illegible]	[illegible]	[illegible]					
320		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	47[illegible]				[illegible]
310	854	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	474				[illegible]
300	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]
290	817	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
280	733	[illegible]	[illegible]	101	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
270	60[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
260	477	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
250	[illegible]	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
240	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1464	[illegible]
230	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
220	[illegible]	[illegible]			[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	1151
210					[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	744	[illegible]
200					[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]
190									[illegible]	[illegible]	477	[illegible]
180									[illegible]	[illegible]	[illegible]	[illegible]
170									[illegible]	[illegible]	[illegible]	[illegible]
160									[illegible]	[illegible]	[illegible]	[illegible]
150									[illegible]	[illegible]	[illegible]	[illegible]
140									[illegible]	[illegible]	[illegible]	[illegible]
130									[illegible]	[illegible]	[illegible]	[illegible]
120									[illegible]	[illegible]	[illegible]	[illegible]
110									[illegible]	114	[illegible]	[illegible]

ELECTRON DENSITY

PUERTO RICO [illegible]

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL	[illegible]	[illegible]										
HMIN	[illegible]	[illegible]										
SCAT	64.7	[illegible]			[illegible]				[illegible]	[illegible]	[illegible]	[illegible]
HMAXF	[illegible]	[illegible]								[illegible]	[illegible]	[illegible]
SHMAX	[illegible]	[illegible]							[illegible]	[illegible]	[illegible]	[illegible]
KM												
410										[illegible]		
180	[illegible]	[illegible]			[illegible]							
170	397	[illegible]			[illegible]							
160	341	[illegible]			[illegible]							
110	[illegible]	[illegible]			[illegible]							

ELECTRON DENSITY

PUERTO RICO 60 W 4 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL											[illegible]	[illegible]
HMIN	193	198	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
SCAT	55.6	55.4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]
HMAXF	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	31[illegible]
SHMAX	[illegible]	545	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]				[illegible]	[illegible]
KM												
380						310						
370					[illegible]	[illegible]						
360					309	[illegible]						
350					304	301						
340					295	290						
330	960	716	58[illegible]		291	273	335					
320	959	712	581	446	26[illegible]	253	335	[illegible]				161
310	944	[illegible]	564	44[illegible]	242	[illegible]	[illegible]	573			[illegible]	[illegible]
300	913	668	526	427	219	202	325	563			[illegible]	2129
290	867	629	463	402	192	174	311	[illegible]			[illegible]	2072
280	806	579	396	367	163	145	292	496			1968	1979
270	724	512	310	318	127	119	268	436	[illegible]		1857	1864
260	632	435	[illegible]	258	[illegible]	[illegible]	236	348	[illegible]		1708	1727
250	530	349	112	189	[illegible]	[illegible]	196	251	[illegible]		1528	1568
240	389	26[illegible]	[illegible]	120	[illegible]	[illegible]	161	161	[illegible]		1329	1400
230	255	170		65.1		41.7	123	97.[illegible]	1027		1124	1230
220	143	102		[illegible]		[illegible]	83.8	55.9	834		944	1050
210	76.[illegible]	57.1					52.9	12.4	608		780	875
200	42.3	12.4					12.4		433		643	716
190									296		523	592
180									207		429	490
170									155		358	398
160									124		299	329
150									107		251	283
140									95.8		213	243
130									90.3		187	213
120									84.8		169	191
110									60.0		49.6	60.[illegible]

ELECTRON DENSITY

PUERTO RICO [illegible]

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL	[illegible]		[illegible]									
HMIN			11[illegible]	[illegible]	[illegible]							
SCAT			[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
HMAXF			[illegible]							[illegible]	[illegible]	[illegible]
SHMAX			[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
KM												
370				[illegible]						[illegible]	[illegible]	
360				[illegible]	[illegible]						64	[illegible]
350				[illegible]	[illegible]				[illegible]			
340			[illegible]	[illegible]	[illegible]				[illegible]			[illegible]
330				[illegible]				[illegible]	[illegible]		[illegible]	[illegible]
320			[illegible]		[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
310			[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
300			[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
290			[illegible]	1691	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	47[illegible]	[illegible]
280			[illegible]	1540	148[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	434
270			1627	1376	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
260			1446	121[illegible]	117[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	174	[illegible]
250			[illegible]	1064	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
240			1088	937	8[illegible]		[illegible]	[illegible]	[illegible]	74.[illegible]	65.[illegible]	[illegible]
230			[illegible]	814	75[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	12.4
220			[illegible]	701	65[illegible]			[illegible]	[illegible]			
210			[illegible]	594	564			127	104			
200			54[illegible]	497	48[illegible]			[illegible]	60.0			
190			438	405	40[illegible]				12.4			
180			352	321	335							
170			286	251	290							
160			223	191	234							
150			195	168	198							
140			178	157	170							
130			171	151	154							
120			163	146	143							

ELECTRON DENSITY

PUERTO RICO 60 W 5 FEB 1960

TIME	0000	01[illegible]	[illegible]	[illegible]	0400	[illegible]	[illegible]	[illegible]	08[illegible]	[illegible]900	1000	1100
QUAL											B	A
HMIN	238	227	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	110	109	110	
SCAT	42.0	39.8	37.[illegible]	[illegible]	[illegible]	73.8	[illegible]	[illegible]	44.7	45.7	51.8	
HMAXF	339	340	311	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	285	292	306	
SHMAX	440	443	426	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	366	1353	1769	
KM												
400						199						
390						189						
380						[illegible]						
370						[illegible]	194					
360						176	193					
350		754			[illegible]	169	189					
340	745	754			[illegible]	161	[illegible]					
330	737	742			[illegible]	150	171	492				
320	705	706	[illegible]		277	137	159	492				
310	654	649	[illegible]		[illegible]	[illegible]	142	485			2044	
300	586	[illegible]	46		267	104	121	474		1801	2037	
290	497	465	794		[illegible]	[illegible]	[illegible]	451	1215	1800	1994	
280	395	362	716		[illegible]	[illegible]	[illegible]	420	1212	1771	1911	
270	286	249	547	60	[illegible]	[illegible]	61.6	375	1182	1698	1786	
260	161	143	417	[illegible]	[illegible]	41.7	44.3	324	1121	1580	1627	
250	77.0	39.[illegible]	[illegible]	55	219	12.4	[illegible]	255	1042	1424	1446	
240	[illegible]	53.3	97.[illegible]	477	202			189	910	1215	1262	
230		18.1	25.6	335	179			127	754	979	1050	
220				161	149			83.8	608	754	[illegible]	
210				75.[illegible]	109			51.[illegible]	462	599	[illegible]	
200				12.4	60.0			[illegible]	335	477	[illegible]	
190					12.4				248	379	446	
180									179	305	371	
170									136	251	310	
160									109	210	262	
150									96.1	179	226	
140									90.[illegible]	157	196	
130									85.7	142	177	
120									77.[illegible]	135	167	
110									40.[illegible]	33.3	97.[illegible]	

ELECTRON OENSITY

PUERTO RICO 60 W 5 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	[illegible]	2100	2200	2300
QUAL	A											
HMIN		108	110	110	111	111	218	[illegible]	[illegible]	229	245	218
SCAT		71.1	76.8	69.3	63.0	62.5	63.6	66.6	[illegible]	60.5	52.[illegible]	[illegible].7
HMAXF		356	362	351	360	350	345	342	[illegible]	334	375	366
SHMAX		2535	2516	2245	2266	2178	1864	1487	1076	940	797	775
KM												
390										1096		
380										1094	107[illegible]	
370			2000		2032				1215	1080	1073	949
360		2161	2000	1907	2032	2227			1215	1050	1052	947
350		2156	1988	1907	2018	2227	2294	1669	1200	1004	1015	930
340		2132	1959	1895	1975	2212	2249	1665	1165	946	960	895
330		2086	1914	1863	1913	2169	2260	1656	110[illegible]	875	985	948
320		2018	1844	1811	1911	2099	2203	1624	1033	786	794	79[illegible]
310		1932	1769	1730	1696	1994	2112	1574	[illegible]45	686	679	716
300		1823	1676	1636	1564	1863	2004	1501	951	581	552	633
290		1690	1555	1529	1424	1707	1364	1417	754	469	417	540
280		1540	1438	1410	1280	1539	1669	1312	661	352	277	446
270		1387	1712	1287	1143	1741	1446	117[illegible]	565	240	171	347
260		1240	1198	1151	1004	1095	11[illegible]0	1026	466	150	87.0	252
250		1065	1088	1033	875	906	575	966	277	89.7	42.4	166
240		926	969	923	762	735	477	693	286	51.7		93.5
230		810	854	521	661	592	161	497	194	6.5		54.1
220		705	745	728	573	470	29.2	286	127			12.4
210		613	643	643	507	391		112	54.7			
200		535	540	558	445	310		12.4	12.4			
190		464	454	477	383	252						
180		401	381	389	327	205						
170		346	322	324	275	169						
160		297	272	273	230	142						
150		252	232	230	195	122						
140		199	198	196	170	110						
130		178	189	176	155	105						
120		168	179	164	144	99.2						
110		148	43.6	40.[illegible]								

ELECTPON OFNSITY

PUERTO RICO 60 W 6 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL									S		9	
HMIN	238	239	216	210	218	251	218	189	109	110		109
SCAT	50.8	41.7	58.4	52.2	54.6	72.1	[illegible].1	49.6	54.5	46.4		55.3
HMAXF	368	334	332	350	346	398	329	319	304	303		315
SHMAX	599	497	434	445	392	458	[illegible]59	455	1056	1664		2289
KM												
400						484						
390						483						
380						477						
370	834					467						
360	829			582		451						
350	808			582	516	431						
340	768	906	573	577	514	407	492					
330	716	905	573	561	505	378	489					
320	649	882	568	534	487	342	477	643				2500
310	564	834	554	497	459	299	456	637	1316	2161		2495
300	469	759	530	445	425	248	429	619	1314	2158		2454
290	362	652	499	395	380	194	389	587	1294	2117		2373
280	262	508	462	335	326	143	338	543	1252	2032		2246
270	161	324	410	268	266	83.8	286	484	1188	1886		2083
260	97.2	150	346	207	205	47.5	219	411	1104	1694		1881
250	55.0	71.4	274	143	147		156	330	992	1446		1645
240	12.4	12.4	188	97.2	94.7		97.2	251	852	1212		1407
230			97.2	64.4	55.5		55.7	179	693	993		1183
220			40.2	42.6	12.4		1[illegible].4	118	540	776		960
210								75.9	389	608		794
200								47.9	269	468		658
190								7.1	179	362		551
180									123	290		462
170									95.9	229		386
160									87.0	186		324
150									81.6	155		275
140									78.2	134		235
130									74.8	123		206
120									71.4	117		188
110									40.2	49.6		97.2

ELECTRON OENSITY

PUERTO RICO 60 W 6 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL	A											
HMIN		113	111	111	111	111	199	211	219	223	224	201
SCAT		61.8	64.7	68.0	72.9	59.3	57.2	55.4	51.7	55.0	66.1	46.8
HMAXF		335	346	350	35[illegible]	[illegible]	350	334	340	358	357	333
SHMAX		2465	2643	2660	2437	1745	1675	1285	995	1020	1110	834
KM												
360				2430	2112		2063			1341	1341	
350			2430	2430	2111		2063		1406	1334	1337	
340		2413	2421	241[illegible]	209[illegible]	2063	2048	1669	1406	1305	1319	1215
330		2410	2384	2380	2065	2062	2001	1666	1394	1254	1284	1214
320		2379	2317	2315	2013	2033	1925	1640	1355	1179	1234	1192
310		2317	2214	2224	1940	1935	1806	1587	1283	1088	1170	1143
300		2213	2087	2104	1844	1907	1669	1500	1194	960	1096	1063
290		2088	1939	1962	1732	1786	1500	1392	1079	813	987	960
280		1938	1786	1786	1600	1647	1303	1262	927	659	851	834
270		1762	1595	1596	1462	1486	1096	1116	754	494	657	704
260		1568	1401	1389	1318	1312	353	951	573	335	446	551
250		1370	1218	1188	1175	1113	629	767	379	198	262	389
240		1182	1050	1004	1028	928	417	573	219	112	119	249
230		1004	892	863	875	754	274	362	112	49.6	49.6	143
220		843	765	742	738	601	154	127	12.4			83.8
210		697	657	636	608	477	71.4					47.5
200		580	565	540	508	389	12.4					
190		488	484	462	417	306						
180		413	414	393	341	240						
170		351	351	335	282	192						
160		300	300	288	236	156						
150		258	258	248	203	132						
140		219	223	215	177	115						
130		191	196	190	157	106						
120		161	179	164	144	99.3						

ELECTRON [illegible]ENSITY

PUERTO RICO — 60 W — 7 FEB 196[illegible]

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL							A					
HMIN	213	214	219	209	197	198	222	[illegible]	110	110	110	110
SCAT	38.1	42.6	40.8	35.3	54.9	48.7	[illegible]	[illegible]	42.0	44.0	[illegible]	[illegible]
HMAXF	300	316	319	278	326	[illegible]	344	[illegible]	[illegible]	277	298	297
SHMAX	554	404	405	248	256	175	158	355	[illegible]	[illegible]	1831	1870
KM												
360								[illegible]				
350							196	439				
340							198	435				
330					310		196	426				
320		679	726		309		190	412				
310	1096	676	718		304	262	182	396				
300	1096	656	688		295	261	169	374			2260	[illegible]
290	1077	619	643		281	255	155	342	1203		2246	2217
280	1020	562	562	557	262	[illegible]	138	296	[illegible]	1846	2189	[illegible]
270	927	483	456	550	240	[illegible]	118	240	1260	1835	[illegible]	[illegible]
260	785	389	335	520	215	205	[illegible]	179	[illegible]	1778	[illegible]	[illegible]
250	608	286	212	471	134	[illegible]	[illegible]	[illegible]	[illegible]	1669	[illegible]	1740
240	362	179	112	389	153	133	[illegible]	[illegible]	917	[illegible]	[illegible]	[illegible]
230	152	97.2	56.9	262	120	93.6	[illegible]		730	1322	1240	[illegible]
220	56.5	46.3	4.9	112	86.3	[illegible]			540	1063	[illegible]	[illegible]
210				12.4	54.0	44.7			389	817	754	875
200					17.7	8.1			291	[illegible]	595	626
190									219	446	477	[illegible]
180									165	335	[illegible]	[illegible]
170									127	266	[illegible]	[illegible]
160									103	219	286	320
150									94.0	183	244	[illegible]
140									89.2	157	212	234
130									84.4	141	186	204
120									76.1	132	168	186
110									12.4	60.0	49.6	49.6

ELECTRON DENSITY

PUERTO PICO — 60 W — 7 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL			S				A					
HMIN	110	109	109	108	109	111	219	215	199	201	215	218
SCAT	55.3	62.2	70.1	63.4	65.4	62.7	51.7	54.0	53.4	61.0	47.7	55.2
HMAXF	314	328	345	330	338	336	332	320	333	347	338	341
SHMAX	1923	2113	2272	2050	1891	1728	1303	1076	910	896	666	676
KM												
350			1969							1061		917
340			1966	2032	1786	1756	1876		1191	1057	982	917
330		2063	1946	2032	1779	1752	1875	1555	1190	1039	975	907
320	2032	2056	1906	2020	1752	1727	1952	1555	1174	1007	946	883
310	2029	2022	1846	1983	1704	1681	1792	1543	1137	960	895	843
300	1999	1962	1763	1921	1631	1611	1698	1504	1078	899	823	794
290	1935	1871	1669	1829	1548	1516	1570	1438	999	827	730	716
280	1833	1756	1545	1719	1434	1401	1404	1346	899	737	620	624
270	1704	1619	1405	1581	1302	1268	1209	1229	781	635	500	508
260	1545	1457	1252	1426	1178	1109	982	1077	658	525	362	389
250	1361	1275	1115	1252	1050	949	716	875	540	405	240	262
240	1176	1122	969	1096	907	786	389	608	417	286	135	152
230	1004	944	834	896	777	643	127	335	286	179	71.4	71.4
220	834	794	731	715	665	525	12.4	112	143	93.6	33.1	20.7
210	707	679	638	584	557	434			71.4	49.6		
200	608	568	560	477	460	358			12.4			
190	526	477	491	398	362	295						
180	460	410	426	335	286	240						
170	396	353	365	286	227	196						
160	335	302	310	245	179	161						
150	286	260	262	209	146	136						
140	244	219	227	177	130	117						
130	210	195	198	159	122	106						
120	188	185	187	151	116	97.2						
110	40.2	83.8	143	127	97.2							

ELECTRON OENSITY

PUERTO RICO — 60 W — 8 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL					S	A						
HMIN	219	218	232	213	206	246	197	236	109	110	110	110
SCAT	53.8	46.6	35.6	36.2	27.6	63.1	77.9	39.3	38.4	50.8	50.7	52.5
HMAXF	328	331	313	289	267	399	353	320	278	295	301	310
SHMAX	557	464	332	298	144	227	213	221	778	1413	1673	2028
KM												
400						251						
390						250						
380						245						
370						237						
360						225	198					
350						212	198					
340		716				196	197					
330	814	716				176	194	417				
320	810	707	679			152	189	417				2294
310	792	679	678			127	183	411			2032	2294
300	760	643	656			105	175	391		1756	2031	2273
290	716	579	611	643		83.8	165	359		1752	2009	2210
280	654	503	533	632		64.7	153	310	1191	1720	1946	2099
270	573	410	428	597	389	49.6	141	246	1179	1651	1840	1955
260	462	310	310	540	383	36.6	127	173	1127	1555	1698	1772
250	335	209	179	446	353	9.7	114	92.5	1038	1419	1520	1555
240	179	112	66.8	286	298		101	40.2	905	1249	1298	1313
230	77.7	60.0		143	212		86.3		741	1050	1096	1122
220	12.4	12.4		57.2	97.2		70.0		573	834	875	937
210					40.2		51.6		434	659	698	776
200							17.5		325	508	549	643
190									250	389	431	508
180									198	315	348	417
170									161	255	286	349
160									133	209	238	298
150									113	176	201	257
140									103	153	175	224
130									88.2	139	159	197
120									75.5	130	148	182
110									12.4	49.6	12.4	40.2

ELECTRON DENSITY

PUERTO RICO — 60 W — 8 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL		A	A	A	A			A				
HMIN	110	110		110	110	110	219	199	207	238	233	222
SCAT	53.4	64.2		60.5	60.2	58.3	51.8	61.1	50.3	58.3	50.0	48.9
HMAXF	309	328		346	335	330	322	326	355	376	350	330
SHMAX	2027	2159		1948	1919	1976	1400	1073	709	797	677	528
KM												
380										1004		
370										1002		
360									939	986	1004	
350				1771					937	955	1004	
340				1766	1937	2193			919	910	995	804
330		2048		1738	1934	2193	2048	1341	882	852	966	804
320		2040		1687	1907	2177	2047	1338	825	772	917	794
310	2294	2007		1602	1853	2129	2020	1318	754	679	850	769
300	2278	1950		1500	1771	2048	1956	1281	666	564	754	726
290	2223	1865		1381	1669	1926	1853	1223	568	446	643	668
280	2123	1763		1256	1526	1786	1714	1150	466	327	500	586
270	1989	1627		1122	1379	1613	1536	1060	362	209	348	489
260	1815	1475		991	1224	1410	1312	935	270	116	198	377
250	1607	1311		875	1050	1169	1050	794	190	60.0	101	255
240	1384	1159		764	888	943	754	634	127	12.4	49.6	122
230	1143	1004		674	731	743	389	467	83.8			57.4
220	935	854		601	608	573	49.6	286	52.7			
210	754	716		540	503	446		112	17.5			
200	615	608		491	417	357		12.4				
190	503	516		440	345	286						
180	417	439		386	289	226						
170	358	373		332	243	185						
160	310	318		282	204	155						
150	265	272		237	175	132						
140	229	232		198	154	117						
130	204	202		176	139	107						
120	186	185		161	130	99.9						
110	49.6	49.6		40.2	12.4	12.4						

ELECTRON DENSITY

PUERTO RICO 60 W 9 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL							A					
HMIN	220	209	208	186	215	260	211	215	109	110	108	109
SCAT	43.9	37.7	38.0	28.4	93.0	63.6	61.9	44.4	46.6	48.1	48.3	51.9
HMAXF	340	304	278	241	341	394	358	317	279	294	291	298
SHMAX	550	455	395	320	157	127	165	298	932	1556	1734	1950
KM												
400					127	143						
390					127	143						
380					127	142						
370					125	138						
360					123	133	184					
350	854				121	126	183					
340	854				117	117	180					
330	844				113	106	174					
320	812				108	94.1	167	492				
310	754	875			102	80.9	159	489				
300	679	872			96.3	68.1	145	475		2048	2227	2294
290	590	844			88.8	55.9	129	446		2045	2226	2279
280	482	788	875		81.1	44.9	112	410	1354	2006	2197	2222
270	373	695	866		73.0	25.6	94.4	355	1341	1924	2120	2119
260	262	573	826		64.6		78.6	286	1296	1798	1994	1980
250	161	417	754	335	55.8		64.3	205	1220	1626	1823	1786
240	97.2	253	643	335	46.9		52.3	127	1122	1400	1604	1572
230	49.6	112	446	323	35.4		42.4	71.4	960	1114	1341	1341
220		60.0	161	291	12.4		22.0	33.1	739	875	1063	1121
210		4.5	40.2	233					531	668	819	901
200				119					380	508	628	716
190				42.8					271	401	489	560
180									202	323	397	446
170									156	262	331	375
160									127	219	283	321
150									108	183	244	276
140									95.7	158	211	240
130									89.8	141	184	209
120									83.8	132	168	189
110									40.2	49.6	71.4	71.4

ELECTRON DENSITY

PUERTO RICO 60 W 9 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL			A	A	A							
HMIN	109	109				110	201	188	188	199	208	209
SCAT	60.2	64.5				56.7	46.3	51.8	58.7	55.8	43.4	47.6
HMAXF	303	325				333	311	325	348	341	327	330
SHMAX	1781	1949				1823	1155	1018	908	764	547	467
KM												
350									1061	960		
340						2032			1056	960		688
330		1801				2030		1367	1036	951	875	688
320		1798				2005	1846	1364	1000	926	869	681
310	1846	1776				1949	1845	1338	949	885	842	658
300	1845	1733				1857	1818	1286	884	830	789	620
290	1825	1669				1742	1748	1207	805	759	716	567
280	1780	1579				1589	1632	1108	716	679	618	498
270	1710	1472				1407	1479	981	608	581	508	417
260	1610	1341				1205	1275	834	508	477	380	335
250	1491	1207				987	1032	695	409	371	262	240
240	1341	1075				794	716	540	298	262	161	157
230	1195	938				620	389	371	210	173	97.2	94.2
220	1050	810				486	189	219	137	97.2	55.3	52.8
210	875	703				389	71.4	120	86.3	54.8	12.4	6.1
200	716	608				320		64.1	53.8	5.5		
190	585	530				262		12.4	12.4			
180	477	458				219						
170	384	394				182						
160	326	340				151						
150	282	297				127						
140	245	258				112						
130	212	219				104						
120	190	192				93.5						
110	112	127				12.4						

ELECTRON OENSITY

PUERTO RICO 60 W 10 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL				J								
HMIN	249	229	240	216	196	213	225	260	110	109	109	108
SCAT	46.3	44.8	41.8	34.7	55.3	109	66.2	49.6	43.7	45.2	44.3	55.2
HMAXF	349	334	320	308	298	415	374	350	285	293	299	300
SHMAX	412	420	311	242	253	342	224	298	811	1370	1766	2197
KM												
420						240						
410						240						
400						239						
390						237						
380						234	240					
370						230	240					
360						225	237	477				
350	670					219	232	477				
340	663	679				211	224	472				
330	643	677	590			203	213	458				
320	604	662	590			195	199	434				
310	551	628	582	477		184	183	404				2571
300	477	580	555	471	362	173	165	356		1815	2379	2571
290	380	513	516	446	360	161	143	291	1179	1813	2355	2549
280	271	432	452	401	352	146	123	211	1176	1775	2271	2484
270	161	335	362	335	338	130	102	112	1146	1693	2125	2373
260	76.1	229	240	262	318	114	80.6		1086	1567	1924	2231
250	12.4	121	106	183	294	97.2	60.0		993	1396	1669	2032
240		56.4		112	262	78.7	44.4		853	1170	1341	1786
230		5.2		58.5	214	60.0	15.8		688	949	1096	1510
220				23.3	155	41.3			519	754	834	1221
210					87.5				389	581	629	960
200					40.2				286	462	490	716
190									219	373	399	552
180									173	306	332	446
170									137	254	281	374
160									112	212	240	321
150									97.2	179	206	275
140									91.5	156	179	238
130									85.9	141	160	210
120									76.9	132	151	191
110									12.4	97.2	127	161

ELECTRON OENSITY

PUERTO RICO 60 W 10 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL												
HMIN	108	109	109	109	110	109	199	220	198	197	230	210
SCAT	65.1	67.6	64.2	69.8	63.2	65.2	58.3	58.9	45.2	59.3	52.7	49.1
HMAXF	317	329	329	329	326	339	333	345	318	339	357	317
SHMAX	2117	2231	1996	1986	1733	1738	1282	1208	787	652	527	388
KM												
360											735	
350								1555			732	
340						1727	1612	1553		804	716	
330		2096	1907	1846	1727	1718	1611	1530		798	686	
320	2048	2087	1897	1838	1723	1690	1592	1485	1215	782	643	608
310	2042	2056	1864	1811	1699	1641	1549	1416	1205	754	588	605
300	2014	2001	1808	1765	1654	1572	1479	1334	1165	716	512	590
290	1962	1924	1724	1701	1588	1476	1392	1220	1096	664	422	562
280	1883	1824	1623	1615	1495	1367	1280	1071	995	597	326	524
270	1786	1703	1499	1515	1383	1240	1143	887	868	516	219	468
260	1669	1555	1354	1392	1256	1130	988	679	716	426	131	389
250	1511	1384	1200	1252	1096	977	808	477	555	335	80.5	286
240	1341	1196	1036	1086	950	815	608	262	401	245	47.7	179
230	1184	1004	875	928	794	666	406	127	249	161		97.2
220	1017	849	734	778	661	532	219	12.4	127	92.8		52.8
210	845	704	622	643	540	417	83.8		64.9	55.6		
200	695	585	527	534	446	320	12.4		12.4	18.1		
190	573	493	452	441	375	245						
180	477	425	393	371	316	191						
170	404	370	344	317	267	149						
160	345	325	300	272	228	116						
150	297	286	260	235	194	103						
140	256	248	224	204	166	95.3						
130	219	217	196	179	145	91.1						
120	194	193	180	165	134	86.0						
110	179	143	60.0	60.0	83.8	60.0						

ELECTRON DENSITY

PUERTO RICO 60 W 11 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL	J											
HM1N	218	217	229	199	198	196	[illegible]	216	109	110	108	109
SCAT	42.4	28.9	40.5	37.2	86.[illegible]	71.1	63.4	71.2	37.4	42.1	48.4	54.6
HMAXF	325	291	319	268	361	349	356	351	281	281	286	285
SHMAX	321	198	277	184	186	147	114	346	704	1093	1375	1301
KM												
370					161							
360					161		131	389				
350					160	148	131	389				
340					158	147	129	387				
330	540				156	145	125	380				
320	539		500		152	141	119	370				
310	524		493		147	136	113	357				
300	495	477	471		141	131	104	342				
290	449	476	434		134	124	94.7	323	1096	1542	1741	1528
280	389	459	382		127	114	84.[illegible]	294	1095	1541	1735	1525
270	315	412	314	396	117	102	7[illegible]	252	1071	1516	1695	1500
260	230	340	231	391	106	88.[illegible]	60.[illegible]	203	1004	1446	1614	1446
250	138	240	138	372	94.4	77.[illegible]	40.[illegible]	151	904	1341	1508	1369
240	83.[illegible]	143	61.[illegible]	339	85.7	65.[illegible]	40.[illegible]	97.[illegible]	767	1186	1351	1262
230	52.[illegible]	71.4	1[illegible].4	292	71.4	55.1	1[illegible].4	57.1	608	1004	1179	1143
220	12.4	20.[illegible]		204	60.0	45.[illegible]		1[illegible].4	468	794	984	996
210				90.4	49.6	32.[illegible]			351	608	768	834
200				12.4	12.4	10.1			262	466	589	663
190									205	362	465	508
180									154	286	375	398
170									118	230	310	325
160									95.[illegible]	187	254	273
150									83.2	154	213	230
140									79.3	134	179	193
130									75.4	127	158	166
120									71.4	114	149	152
110									12.4	40.2	117	83.8

ELECTRON DENSITY

PUERTO RICO 60 W 11 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL											A	F
HM1N	109	109	109	109	109	109	209	206	203	200	236	241
SCAT	61.9	61.1	62.1	62.1	70.1	60.[illegible]	68.0	52.0	55.2	39.9	56.0	46.[illegible]
HMAXF	310	315	324	3[illegible]	4[illegible]	[illegible]28	342	[illegible]29	350	303	383	347
SHMAX	1557	1592	1671	1[illegible]0	1889	1650	1535	854	784	364	531	409
KM												
390											679	
380											678	
370											669	
360									993		649	
350					1683		1786		993		617	643
340					1676		1785		985		576	640
330			1583	1500	1652	1786	1771	1143	959		520	623
320	1555	1569	1582	1498	1611	1777	1738	1133	917		451	588
310	1555	1567	1564	1478	1555	1745	1686	1103	860	616	375	544
300	1546	1547	1526	1435	1474	1688	1614	1050	786	615	290	483
290	1516	1506	1467	1367	1383	1606	1532	976	692	600	214	405
280	1466	1446	1384	1284	1274	1505	1419	891	586	564	154	310
270	1395	1357	1286	1192	114	1372	1268	784	477	504	108	209
260	1311	1255	1166	1076	496	1210	1086	659	362	442	74.4	112
250	1198	113	1043	970	856	10 2	875	540	275	366	49.6	60.0
240	1066	1004	917	841	732	834	608	408	184	281	17.1	
230	917	875	808	729	630	667	335	286	115	198		
220	782	754	703	629	540	503	112	161	69.4	121		
210	657	643	608	540	470	400	12.4	49.6	40.2	60.0		
200	554	540	522	463	407	315						
190	472	460	446	399	351	256						
180	405	389	382	343	301	213						
170	352	335	329	293	257	179						
160	306	290	286	249	219	151						
150	262	251	246	210	189	130						
140	216	212	212	179	163	115						
130	179	179	184	158	142	105						
120	167	168	169	150	132	97.7						
110	97.2	83.8	97.[illegible]	112	97.2	12.4						

ELECTRON DENSITY

PUERTO RICO 60 W 12 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL	F											
HM1N	240	223	202	208	185	296	263	260	111	111	110	107
SCAT	47.7	37.2	48.6	43.2	97.2	65.9	86.5	49.[illegible]	35.5	35.2	42.5	49.1
HMAXF	357	306	292	285	345	407	418	351	275	267	283	245
SHMAX	419	363	306	155	118	81	125	205	714	998	1273	1555
KM												
420							112					
410						97.0	111					
400						96.9	110					
390						95.6	109					
380						93.1	106					
370						89.5	103					
360	625					84.8	99.0	323				
350	621				97.0	78.6	94.1	322				
340	604				97.2	72.2	88.8	319				
330	573				96.6	64.1	83.4	308				
320	528				95.6	54.8	76.5	293				
310	471	726			94.1	44.0	68.8	271				
300	408	721	508		92.0	16.0	59.5	240				
290	335	691	508	286	89.5		49.6	193			1727	2032
280	234	635	500	285	86.4		40.9	140	1265		1724	2027
270	133	553	481	277	82.7		17.4	78.3	1259	1669	1684	1985
260	77.1	437	453	262	78.5				1208	1650	1597	1907
250	46.6	300	417	242	74.3				1110	1567	1466	1778
240		143	353	210	69.6				949	1419	1277	1609
230		54.8	262	161	64.0				716	1206	1096	1375
220			161	91.5	57.9				508	960	875	1066
210			60.0	26.8	50.5				335	697	689	818
200					41.7				236	497	540	608
190					15.4				174	362	437	471
180									135	279	358	389
170									108	224	298	332
160									91.1	185	248	289
150									82.2	155	207	252
140									78.5	133	175	219
130									74.8	121	157	189
120									68.2	112	148	171
110											60.0	143

ELECTRON DENSITY

PUERTO RICO 60 W 12 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL			S				C	C	C	C	C	C
HM1N	108	109	108	109	109	110						
SCAT	55.1	52.3	66.4	76.0	73.4	70.5						
HMAXF	296	289	318	324	336	347						
SHMAX	1538	1364	1585	1547	1582	1670						
KM												
350						1583						
340					1367	1580						
330				1341	1365	1562						
320			1446	1340	1352	1527						
310			1441	1329	1326	1477						
300	1669		1420	1307	1287	1407						
290	1663	1555	1383	1273	1235	1323						
280	1632	1543	1327	1225	1166	1220						
270	1573	1502	1253	1168	1096	1116						
260	1483	1429	1168	1102	1004	976						
250	1371	1324	1071	1019	912	834						
240	1240	1201	960	917	811	687						
230	1096	1058	851	821	708	563						
220	933	898	746	724	608	446						
210	777	742	652	628	522	354						
200	643	608	569	529	446	283						
190	540	508	496	439	375	229						
180	454	429	427	368	316	186						
170	385	369	362	310	268	149						
160	329	321	310	262	229	121						
150	286	279	270	225	198	105						
140	247	242	237	189	173	95.5						
130	213	212	210	164	148	90.9						
120	191	190	189	152	133	86.2						
110	161	143	143	127	97.2	49.6						

ELECTRON DENSITY

PUERTO RICO 60 W 13 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL	C	C	C	C	C	C	C	C	C			
HMIN										110	110	109
SCAT										33.4	42.5	48.9
HMAXF										262	281	280
SHMAX										934	1341	1428
KM												
290											1907	1771
280											1907	1771
270										1555	1877	1752
260										1554	1795	1697
250										1507	1658	1601
240										1385	1470	1476
230										1208	1240	1307
220										960	960	1122
210										754	716	932
200										559	540	754
190										426	429	589
180										335	352	459
170										270	294	373
160										224	250	319
150										188	213	278
140										161	185	242
130										142	163	212
120										131	151	191
110										12.4	60.0	127

ELECTRON DENSITY

PUERTO RICO 60 W 13 FE8 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL		A	A		A							
HMIN	108			111	109	112	218	207	199	198	238	208
SCAT	48.6			55.8	62.7	57.4	47.1	57.0	53.2	60.7	49.9	54.1
HMAXF	293			320	323	330	320	317	343	354	354	330
SHMAX	1454			1609	1700	1700	1149	1091	808	715	498	438
KM												
360										844	716	
350									1004	843	715	
340						1846			1003	833	701	590
330				1683	1727	1846	1861		989	812	673	590
320				1683	1725	1831	1861	1500	955	778	630	585
310				1669	1708	1789	1840	1494	901	733	573	570
300	1697			1629	1668	1718	1775	1466	837	679	508	544
290	1696			1561	1606	1616	1676	1415	754	608	417	508
280	1666			1460	1520	1489	1530	1341	664	524	328	464
270	1601			1341	1416	1341	1324	1248	573	437	231	403
260	1495			1201	1287	1155	1074	1127	477	345	143	335
250	1359			1050	1130	975	754	960	384	256	71.4	267
240	1201			892	972	806	446	737	298	171	22.3	191
230	1041			754	804	655	143	508	208	115		118
220	875			643	654	522	26.8	262	127	76.0		62.8
210	729			548	540	423		71.4	67.4	49.6		12.4
200	608			470	446	349			12.4	12.4		
190	502			401	377	289						
180	423			339	317	240						
170	362			290	262	198						
160	313			252	222	165						
150	269			219	186	138						
140	229			184	157	120						
130	198			161	140	108						
120	187			146	130	98.0						
110	143				71.4							

ELECTRON OENSITY

PUERTO RICO 60 W 14 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL												A
HMIN	245	241	223	216	208	205	220	220	113	109	108	109
SCAT	42.1	39.0	59.9	58.0	45.6	74.4	46.3	52.0	43.7	46.3	41.4	43.5
HMAXF	348	330	347	335	298	388	344	309	288	296	288	299
SHMAX	341	280	407	312	207	309	251	282	798	1377	1640	1925
KM												
390						286						
380						285						
370						281						
360						275						
350	573		524			267	362					
340	568	516	522	410		255	361					
330	546	516	513	409		242	353					
320	508	508	497	403		226	337					
310	454	482	473	390		207	312	446				
300	381	440	444	371	348	185	278	443		1818		2716
290	301	384	406	348	346	163	240	432	1061	1812	2361	2686
280	219	310	354	317	335	141	198	412	1051	1766	2340	2583
270	136	225	286	276	316	119	157	386	1014	1678	2251	2410
260	75.0	137	219	227	290	99.9	119	349	948	1555	2090	2161
250	33.1	63.8	138	169	252	81.7	83.8	295	855	1376	1864	1786
240			74.4	112	203	65.3	57.7	219	741	1125	1582	1426
230			41.7	64.2	139	51.0	40.2	112	623	902	1259	1096
220				25.6	76.3	40.2			501	700	960	794
210					21.2	12.4			403	540	704	592
200									323	436	532	477
190									258	353	417	402
180									208	292	348	348
170									167	240	296	305
160									136	202	255	262
150									114	172	222	217
140									98.3	151	192	181
130									90.3	139	168	161
120									79.8	131	152	152
110										83.8	97.2	127

ELECTRON OENSITY

PUERTO RICO 60 W 14 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL	A	A	A	A	A	A	A	A	A	A		
HMIN							199			208	199	181
SCAT							48.8			46.2	40.6	64.0
HMAXF							322			311	296	349
SHMAX							1281			539	331	304
KM												
350												310
340												309
330												303
320							1861					294
310							1860			844		281
300							1835			844		
290							1766			832	573	262
280							1657			801	570	242
270							1520			748	552	220
260							1341			679	514	198
250							1143			583	461	174
240							929			477	396	151
230							679			362	317	128
220							417			256	230	107
210							191			127	136	87.8
200							83.8			26.8	68.8	70.0
190							12.4				12.4	54.4
												36.8

ELECTRON DENSITY

PUERTO RICO 60 W 15 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL							A					
HMIN	288	258	232	219	198	182	196	230	111	111	109	107
SCAT	51.4	48.5	35.8	26.6	29.1	62.3	82.8	51.3	47.4	53.4	55.6	45.8
HMAXF	402	357	315	274	260	327	356	319	282	291	296	301
SHMAX	248	266	210	176	86	160	151	207	719	1251	1433	1769
KM												
410	348											
400	348											
390	343											
380	332											
370	314											
360	290	410					135					
350	259	408					135					
340	219	397					134					
330	179	377				179	132					
320	136	349	424			179	129	323				
310	88.9	312	422			176	124	320				2243
300	54.0	262	405			171	118	311		1528	1612	2243
290	12.4	204	370			164	112	296	960	1528	1606	2212
280		143	320	516		153	105	278	960	1512	1576	2128
270		78.1	255	514	219	142	97.7	249	945	1470	1520	1989
260		22.3	167	482	219	127	89.1	209	909	1398	1437	1801
250			89.8	417	212	112	80.4	161	853	1308	1323	1555
240			46.5	286	193	94.6	71.4	102	774	1180	1189	1302
230				112	161	78.8	62.3		667	1020	1041	1004
220				12.4	112	64.5	51.9		540	824	875	782
210					60.0	52.2	41.5		432	643	716	624
200					12.4	42.1	12.4		327	497	573	518
190						19.9			248	389	461	446
180									191	310	380	389
170									150	252	317	343
160									120	209	270	303
150									101	175	234	267
140									93.1	151	201	235
130									87.6	129	175	208
120									77.0	117	151	175
110										83.8	136	

ELECTRON DENSITY

PUERTO RICO 60 W 15 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL												F
HMIN	110	109	107	109	104	110	149	180	176	185	196	251
SCAT	51.3	50.5	56.6	64.4	61.6	56.6	47.6	49.2	48.0	49.2	53.4	34.4
HMAXF	298	313	321	327	324	310	306	301	316	311	323	332
SHMAX	1842	1910	2071	1956	1794	1539	1168	845	593	431	371	330
KM												
340												688
330			2243	2128	1815						500	688
320		2227	2242	2121	1810	1786			875	643	499	668
310		2225	2216	2089	1786	1786	1407	1240	871	643	492	620
300	2260	2191	2154	2031	1730	1770	1408	1240	850	635	477	540
290	2246	2114	2038	1948	1661	1726	1350	1223	809	613	451	446
280	2189	1990	1926	1836	1559	1652	1760	1181	754	579	417	310
270	2090	1830	1761	1702	1434	1555	1626	1114	671	532	373	179
260	1947	1621	1555	1543	1299	1427	1457	1020	573	464	322	71.4
250	1764	1381	1341	1368	1131	1268	1260	899	467	384	262	
240	1524	1143	1039	1182	884	1078	975	754	355	295	198	
230	1240	917	875	991	834	875	446	597	240	203	138	
220	1004	736	716	794	695	679	178	417	143	121	87.7	
210	772	597	589	643	573	527	83.8	228	71.4	71.4	52.2	
200	573	498	494	50	477	403	12.4	97.1	27.2	34.0	12.4	
190	456	427	421	417	389	310		12.4				
180	381	373	362	343	318	243						
170	329	329	317	291	259	198						
160	290	290	277	249	215	165						
150	254	254	240	212	183	140						
140	219	224	204	179	155	122						
130	194	203	178	159	139	109						
120	183	187	168	150	131	98.5						
110	44.6	97.2	83.8	112	97.2	12.4						

ELECTRON DENSITY

PUERTO RICO 60 W 16 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL								S	S			A
HMIN	229	202	219	204	196	196	222	189	110	109	108	109
SCAT	38.9	42.4	38.3	25.9	85.4	79.5	54.5	51.0	43.7	46.0	43.8	42.1
HMAXF	318	292	301	260	363	367	324	296	262	294	296	274
SHMAX	334	268	224	140	196	137	91	223	545	1079	1598	1553
KM												
370					170	123						
360					170	123						
350					169	122						
340					167	119						
330					164	116	127					
320	625				159	112	127					
310	619		439		153	106	125					
300	593	477	439		147	99.9	121	329		1341	2177	
290	546	477	429		140	92.7	115	328		1339	2166	
280	477	468	405		130	84.9	106	321		1311	2102	2361
270	389	446	367	410	120	76.5	97.2	308	794	1252	1979	2355
260	293	414	310	410	108	68.1	83.8	291	793	1160	1809	2291
250	169	362	229	396	96.6	60.0	69.2	266	778	1039	1555	2161
240	71.4	290	143	351	84.6	51.9	53.3	227	741	897	1265	1968
230	12.4	209	68.2	271	72.2	45.2	32.2	179	687	754	1004	1700
220		122	12.4	143	59.3	37.0		132	608	608	754	1367
210		57.4		49.6	46.0	21.6		83.8	497	491	583	936
200					16.6	6.2		49.6	381	404	459	630
190								6.7	286	341	381	458
180									212	289	325	368
170									161	245	282	315
160									130	206	245	274
150									110	174	212	233
140									98.6	148	185	195
130									83.8	135	163	175
120									74.8	122	152	167
110									12.4	83.8	127	71.4

ELECTRON DENSITY

PUERTO RICO 60 W 16 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL												
HMIN	109	108	109	108	107	110	199	209	198	217	189	217
SCAT	59.2	63.7	62.4	61.2	61.4	51.7	42.4	45.4	43.3	53.7	60.6	54.3
HMAXF	309	321	331	325	324	307	304	307	311	334	335	340
SHMAX	1766	1865	2044	1975	1861	1497	962	749	599	522	460	378
KM												
350												516
340			1969							735	540	516
330		1786	1969	2000	1891					734	539	511
320		1786	1954	1996	1889				960	723	532	498
310	1786	1773	1915	1969	1866	1846	1583	1240	960	698	517	475
300	1774	1739	1850	1916	1819	1837	1579	1232	944	661	495	446
290	1738	1683	1757	1835	1740	1796	1540	1196	900	613	467	405
280	1675	1601	1639	1724	1645	1719	1459	1130	834	546	429	351
270	1583	1506	1501	1591	1524	1603	1341	1034	745	456	385	286
260	1469	1384	1352	1433	1376	1456	1168	894	643	362	335	215
250	1341	1240	1184	1240	1215	1282	960	731	517	240	276	143
240	1201	1104	1004	1075	1039	1073	754	540	373	154	222	88.3
230	1063	960	857	887	875	875	508	335	240	79.4	168	53.2
220	924	814	727	729	725	679	286	112	127	31.0	116	17.7
210	794	685	622	595	590	508	112	12.4	60.0		73.5	
200	671	573	535	489	477	389	12.4		12.4		47.6	
190	549	487	463	413	398	310					7.3	
180	446	417	400	362	335	244						
170	371	362	346	320	282	198						
160	316	315	300	280	237	167						
150	273	276	260	240	200	141						
140	233	240	223	204	172	121						
130	201	209	188	172	149	108						
120	185	190	170	154	135	98.3						
110	71.4	161	127	127	103	12.4						

ELECTRON DENSITY

PUERTO RICO 60 W 17 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
OUAL						F		S				
HMIN	245	243	223	232	188	205	187	199	111	109	107	107
SCAT	52.5	39.3	54.9	43.2	30.6	67.3	61.8	44.7	45.0	51.9	46.8	59.4
HMAXF	372	330	341	319	244	377	316	290	261	287	287	304
SHMAX	353	270	301	300	146	227	153	213	568	1008	1373	1408
KM												
380	477					224						
370	476					223						
360	471					221						
350	456		410			214						
340	432	508	410			205						
330	401	508	406			195						
320	362	500	395	548		183	179					
310	310	475	377	542		168	179					1420
300	252	436	354	521		152	176	355				1418
290	198	374	322	487		136	171	355		1215	1786	1401
280	143	296	282	436		118	164	350		1209	1775	1364
270	93.7	206	232	355		102	154	336	834	1181	1725	1303
260	58.7	112	179	240		86.3	142	315	834	1131	1632	1232
250	29.4	49.6	123	118	403	71.4	128	283	821	1061	1506	1130
240			71.4	54.1	401	59.3	112	240	787	960	1341	1022
230			41.7		381	47.9	95.2	191	734	834	1109	903
220					346	35.7	78.8	136	657	679	875	782
210					262	12.4	62.3	74.7	540	553	679	671
200					83.8		45.5	12.4	417	452	528	573
190					20.7		12.4		310	369	427	487
180									228	302	357	417
170									168	247	304	355
160									127	203	262	301
150									106	167	227	257
140									93.4	141	198	222
130									85.7	126	170	186
120									74.4	117	153	169
110										71.4	127	143

ELECTRON DENSITY

PUERTO RICO 60 W 17 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
OUAL			A			A	A				J	F
HMIN	109	108	108	109	109	109	199	199	209	204	228	198
SCAT	58.1	58.2	51.5	62.4	59.1	46.9	52.8	46.7	55.7	62.0	44.0	55.7
HMAXF	320	324	313	331	342	315	317	304	331	362	345	350
SHMAX	1759	2031	1901	2060	2027	1751	1489	1046	846	749	525	682
KM												
370										875		
360										875		834
350					2032					867	814	834
340				2032	2031				1143	848	811	828
330	1786	2128		2031	2011				1143	817	790	808
320	1786	2125	2193	2016	1961	2327	2144		1131	774	746	772
310	1773	2095	2192	1974	1876	2321	2134	1697	1101	721	679	725
300	1733	2032	2159	1907	1761	2270	2087	1694	1050	656	602	668
290	1669	1943	2086	1808	1627	2161	2000	1657	983	573	508	599
280	1570	1824	1967	1689	1482	1998	1887	1582	899	477	412	521
270	1446	1669	1812	1546	1317	1797	1717	1469	794	377	310	438
260	1312	1466	1621	1376	1118	1555	1496	1314	656	286	198	351
250	1172	1240	1413	1186	949	1261	1240	1116	508	198	112	262
240	1023	1050	1143	1004	794	1004	917	834	335	127	62.8	186
230	858	834	942	834	668	730	540	508	179	85.7	12.4	127
220	716	679	754	691	564	540	286	253	79.9	55.6		81.4
210	592	566	608	582	481	417	97.2	106	12.4	26.8		49.6
200	497	481	503	497	413	315	12.4	12.4				12.4
190	423	420	426	428	355	240						
180	369	373	362	369	302	202						
170	327	335	313	319	257	167						
160	291	302	269	276	219	140						
150	256	269	230	242	186	121						
140	223	234	201	215	159	106						
130	198	205	180	187	142	95.1						
120	184	189	170	168	133	88.8						
110	127	143	143	97.2	83.8	60.0						

ELECTRON DENSITY

PUERTO RICO 60 W 18 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
OUAL	J	A			A		A					
HMIN	222	199	249	221	235	198	196	197	110	109	105	108
SCAT	44.9	47.6	44.1	40.4	48.3	64.1	57.7	50.1	50.8	49.3	48.9	53.2
HMAXF	344	322	350	312	350	349	347	347	306	297	301	293
SHMAX	529	505	428	364	401	457	461	619	1325	1717	1974	1889
KM												
360			716		599							
350	794		716		599	508	565	834				
340	792		708		592	506	563	829				
330	775	764	679		573	497	553	809				
320	735	764	635	688	540	483	533	768				
310	679	751	573	688	494	461	509	716	1727		2500	
300	608	722	482	674	438	435	473	648	1720	2227	2500	2294
290	524	679	378	638	370	402	423	559	1684	2216	2471	2292
280	432	613	262	583	286	362	362	459	1606	2161	2390	2259
270	335	528	143	499	198	317	302	362	1506	2061	2253	2186
260	240	424	66.1	377	112	268	240	275	1370	1918	2071	2067
250	139	310	12.4	232	66.1	219	182	198	1191	1723	1829	1918
240	83.8	206		112	32.2	168	132	143	1004	1468	1555	1721
230	45.4	127		54.0		122	94.9	100	778	1209	1240	1486
220		78.4				79.3	67.4	68.8	573	960	938	1177
210		49.6				49.6	46.9	46.7	398	703	726	891
200		6.9				12.4	16.5	12.4	286	524	573	679
190									211	409	463	540
180									161	325	383	437
170									125	258	321	370
160									102	207	274	319
150									94.1	175	236	278
140									90.1	146	209	240
130									86.1	127	177	212
120									75.9	118	154	176
110									12.4	97.2	134	127

ELECTRON DENSITY

PUERTO RICO 60 W 18 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
OUAL			A	A	A	A	S				A	J
HMIN	107	108					189	189	189	208	267	217
SCAT	65.1	55.4					48.1	46.9	39.3	59.3	44.8	42.7
HMAXF	331	314					307	313	270	324	386	335
SHMAX	2440	2147					1295	1023	498	324	276	301
KM												
390											417	
380											415	
370											403	
360											380	
350											347	
340	2294										306	477
330	2293									424	257	475
320	2278	2361						1542		424	205	462
310	2235	2359					1969	1540		418	152	435
300	2165	2325					1959	1512		407	106	395
290	2064	2254					1909	1446		389	71.4	343
280	1942	2141					1816	1350	982	367	47.9	280
270	1786	1991					1679	1213	982	339	12.4	215
260	1617	1805					1502	1058	967	298		156
250	1446	1589					1275	875	917	247		108
240	1240	1341					1004	643	840	183		73.6
230	1083	1143					716	432	725	120		48.2
220	929	928					431	240	562	63.3		12.4
210	794	754					219	127	335	12.4		
200	679	608					83.8	66.8	143			
190	564	496					12.4	12.4	12.4			
180	464	410										
170	383	347										
160	327	300										
150	286	262										
140	251	230										
130	216	202										
120	192	188										
110	161	161										

ELECTRON DENSITY

PUERTO RICO 60 W 19 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL	A	A	A	A				A			A	
HMIN	214	219	208	200	198	215	197	209	112	109	107	108
SCAT	47.1	42.8	44.6	19.2	48.1	65.6	52.9	40.2	42.5	48.4	53.7	45.6
HMAXF	332	311	309	248	281	350	324	282	254	265	293	292
SHMAX	287	230	283	107	85	129	138	230	556	856	1366	1501
KM												
360						143						
350						143						
340	432					142						
330	431					140	179					
320	425	403				136	179					
310	408	403	477			130	176					
300	382	396	473			122	170				1569	1907
290	347	377	457		139	113	161	454			1568	1906
280	300	352	429		139	101	148	454			1545	1874
270	240	310	392		137	89.3	133	444		1143	1495	1796
260	179	248	331		132	76.7	114	421	875	1140	1414	1669
250	127	179	252	396	124	64.4	94.0	389	873	1116	1306	1498
240	83.8	112	167	378	113	51.4	75.5	331	852	1067	1177	1301
230	55.5	60.0	97.2	310	99.8	40.2	60.0	249	806	993	1023	1050
220	26.8	4.5	57.4	187	82.6	12.4	47.4	143	735	895	857	834
210			12.4	76.2	58.4		32.5	12.4	630	769	696	679
200					12.4		7.4		508	630	566	554
190									377	484	468	465
180									250	362	389	398
170									161	278	326	342
160									120	219	271	296
150									97.2	171	225	254
140									84.9	140	188	215
130									78.5	128	161	179
120									72.6	117	151	169
110										83.8	127	143

ELECTRON DENSITY

PUERTO RICO 60 W 19 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL	A	A										
HMIN	109	108	110	111	109	110	214	200	194	196	216	252
SCAT	48.5	51.2	55.3	53.7	67.4	51.5	51.1	44.0	57.1	55.9	68.5	51.7
HMAXF	298	308	315	318	336	315	322	301	312	314	404	377
SHMAX	1730	1919	2057	1762	2036	1576	1412	1048	916	526	460	354
KM												
410											446	
400											446	
390											442	
380											433	454
370											419	442
360											399	471
350											376	451
340					1907						348	422
330					1902		2128				316	384
320			2310	1907	1878	1907	2127		1240	697	281	335
310		2260	2305	1895	1834	1903	2099	1786	1240	697	244	283
300	2161	2247	2267	1850	1764	1869	070	1785	1227	686	210	224
290	2146	2192	2190	1769	1669	1799	19.0	1758	1195	665	179	161
280	2086	2044	2074	1651	1567	1694	1769	1684	1143	632	147	106
270	1976	1947	1927	1513	1446	1555	1578	1566	1076	588	120	68.5
260	1829	1766	173.	1356	1311	137.	1341	1396	983	533	96.0	42.5
250	1631	1529	1512	1200	1156	1158	1004	1174	857	459	74.1	
240	1386	1259	1276	1050	1004	948	808	897	707	377	55.6	
230	1096	1035	1004	891	860	754	240	573	540	286	41.7	
220	875	834	804	734	716	584	60.0	262	362	212	12.4	
210	693	670	643	599	592	461		91.	179	137		
200	551	548	529	489	490	362			60.0	49.6		
190	455	461	446	405	398	293						
180	385	394	379	335	323	240						
170	333	342	324	286	268	196						
160	290	297	277	240	224	161						
150	247	256	229	198	188	138						
140	206	219	194	161	157	120						
130	181	197	175	153	141	108						
120	170	185	165	146	132	101						
110	143	127	83.8		71.4	49.6						

ELECTRON DENSITY

PUERTO RICO 60 W 20 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL		S										A
HMIN	299	270	238	211	197	201	203	236	109	109	115	110
SCAT	49.0	43.0	47.1	36.3	49.0	54.9	68.7	31.1	39.7	44.2	54.4	38.3
HMAXF	408	344	334	284	298	311	373	302	276	275	293	285
SHMAX	338	296	357	296	217	191	196	213	778	1164	1475	1482
KM												
410	508											
400	504											
390	490											
380	465						189					
370	432						189					
360	384						187					
350	324	557					183					
340	253	555	599				177					
330	179	542	598				169					
320	112	513	585			262	160					
310	57.2	470	559			262	148	508				
300	4.9	409	523		335	260	135	508			1727	
290		317	461	643	333	253	121	490			1725	2243
280		198	370	641	324	242	107	446	1191	1669	1700	2233
270		12.4	262	620	307	225	94.2	376	1185	1664	1647	2161
260			153	577	286	206	82.6	278	1143	1623	1564	2001
250			74.7	508	254	182	71.4	161	1069	1539	1463	1786
240			21.7	389	214	150	62.4	49.6	944	1425	1319	1464
230				219	161	114	52.8		794	1240	1143	1096
220				83.8	106	75.9	43.5		643	1020	960	794
210					60.0	44.5	21.4		488	767	754	618
200					19.3				362	561	608	495
190									262	417	477	410
180									194	328	389	352
170									143	262	322	310
160									115	215	268	270
150									96.2	179	225	233
140									83.8	151	191	200
130									78.6	130	164	178
120									73.4	118	143	165
110									12.4	83.8		49.6

ELECTRON DENSITY

PUERTO RICO 60 W 20 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL			A		A	A				J		
HMIN	110	110	106	105	105		208	189	202	204	208	228
SCAT	49.9	63.6	51.5	64.3	61.0		45.8	54.0	53.2	53.1	51.2	45.3
HMAXF	300	329	311	325	317		31.	313	330	325	333	338
SHMAX	1723	2358	2042	1348	2102		1246	1012	709	568	462	375
KM												
340									960		634	599
330		2361		2379					960	774	633	595
320		2351	2396	2374	2277		1922	1341	952	772	624	576
310	2063	2311	2395	2344	2269		1925	1340	927	759	601	543
300	2063	2242	2367	2285	2234		1896	1321	884	733	568	496
290	2044	2144	2293	2198	2166		1831	1279	826	690	523	430
280	1983	2032	2174	2079	2068		1723	1211	749	638	465	350
270	1878	1865	2013	1938	1941		1582	1128	649	569	396	262
260	1738	1669	1800	1761	1786		1405	1014	540	488	322	179
250	1555	1433	1555	1555	1585		1177	875	423	398	251	104
240	1325	1210	1321	1341	1364		875	738	303	300	183	60.0
230	1096	994	1050	1120	1111		608	598	198	204	119	12.4
220	889	804	822	892	875		198	446	116	112	60.0	
210	708	654	643	697	692		40.2	276	55.1	53.4	12.4	
200	573	540	523	551	529			112				
190	477	462	437	446	400			12.4				
180	410	402	375	367	320							
170	353	354	324	310	262							
160	306	314	280	265	219							
150	262	275	240	226	185							
140	228	234	207	190	161							
130	198	202	184	166	145							
120	182	186	171	154	136							
110	49.6	83.8	143	145	127							

ELECTRON DENSITY

PUERTO RICO 60 W 21 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL												
HMIN	248	243	207	191	189	214	261	204	109	108	108	108
SCAT	44.8	39.7	38.3	24.5	44.4	77.7	67.2	34.3	38.1	40.4	56.2	53.1
HMAXF	355	331	296	239	274	373	385	276	263	266	306	300
SHMAX	338	338	317	173	82	139	127	217	636	845	1553	1926
KM												
390							152					
380						131	152					
370						131	150					
360	540					130	146					
350	538					128	140					
340	525	634				124	133					
330	496	634				119	125					
320	457	621				115	112					
310	401	589				109	97.2				1683	2310
300	331	540	616			101	80.6				1678	2310
290	253	455	612			93.0	63.6				1648	2290
280	179	353	588		139	83.8	48.0	492			1591	2229
270	112	240	545		129	74.3	36.8	488	993	1240	1506	2125
260	60.0	127	477		136	64.5		466	992	1232	1401	1991
250	12.4	56.0	373		129	55.4		422	965	1189	1261	1800
240			252	565	118	46.6		356	904	1109	1131	1555
230			143	546	104	34.7		246	810	988	960	1284
220			71.4	484	87.2	12.4		127	679	834	794	986
210			20.3	246	66.2			26.8	540	643	654	754
200				112	43.3				404	498	540	593
190					3.8				304	389	441	477
180									229	310	362	400
170									179	249	304	347
160									143	205	254	305
150									120	172	214	269
140									106	147	176	233
130									94.3	131	157	203
120									78.5	119	150	175
110									49.6	97.2	127	143

ELECTRON DENSITY

PUERTO RICO 60 W 21 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL						A						
HMIN	108	109	109	109	109		219	209	199	209	209	230
SCAT	59.1	50.8	59.8	59.2	63.1		44.9	47.5	43.0	55.2	45.7	48.4
HMAXF	312	304	323	316	321		311	315	293	317	319	330
SHMAX	2040	1792	1869	1722	1793		961	985	657	649	459	411
KM												
340												661
330			1907		1786							661
320	2161		1905	1786	1788		1626	1569		939	735	653
310	2160	2128	1882	1782	1772		1625	1564		934	727	632
300	2138	2125	1832	1755	1736		1600	1528	1143	915	700	597
290	2084	2088	1753	1703	1677		1529	1456	1142	880	659	549
280	1998	2004	1659	1619	1592		1425	1354	1119	834	597	477
270	1894	1882	1522	1516	1492		1281	1211	1064	765	508	380
260	1743	1722	1366	1391	1367		1096	1024	980	679	404	262
250	1555	1532	1189	1240	1223		834	754	860	540	286	143
240	1358	1305	1004	1076	1080		540	508	706	379	188	63.6
230	1173	1096	854	917	917		262	262	523	219	112	
220	960	875	716	754	771		40.2	104	335	91.3	63.7	
210	774	679	598	630	632			12.4	112	12.4	12.4	
200	608	540	508	520	516				12.4			
190	503	435	431	433	423							
180	421	369	367	367	350							
170	362	323	310	314	292							
160	306	283	262	270	246							
150	257	242	216	231	211							
140	219	212	188	197	179							
130	198	195	174	174	157							
120	187	185	165	162	145							
110	152	143	71.4	112	71.4							

ELECTRON DENSITY

PUERTO RICO 60 W 22 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL										S	B	
HMIN	211	214	199	188	210	208	248	216	110	109		109
SCAT	38.2	53.4	53.6	34.8	34.4	74.3	53.7	33.2	43.7	47.1		55.1
HMAXF	300	324	306	267	280	343	355	272	268	284		291
SHMAX	292	332	282	168	127	172	114	161	568	990		1494
KM												
360							156					
350						179	156					
340						179	153					
330		469				178	148					
320		468				175	139					
310	557	461	410			170	128					
300	557	444	409			164	115					1669
290	548	421	401		274	156	99.1			1240		1668
280	519	389	387		274	148	81.5	389		1237		1651
270	473	347	368	348	268	138	64.8	388	834	1211		1607
260	405	293	340	344	250	125	49.6	376	826	1157		1532
250	310	229	297	326	223	108	12.4	346	797	1074		1436
240	219	161	240	295	179	88.6		299	746	960		1307
230	117	97.2	174	248	124	67.2		224	673	834		1168
220	56.3	46.3	107	184	66.5	46.2		112	573	708		1016
210			55.6	117		7.7			454	580		853
200			4.9	60.0					343	471		695
190				12.4					246	379		554
180									173	306		437
170									124	248		362
160									101	198		310
150									88.8	164		270
140									81.6	138		234
130									77.3	124		204
120									73.1	117		186
110									40.2	83.8		127

ELECTRON DENSITY

PUERTO RICO 60 W 22 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL				A	A							
HMIN	109	108	109		109	109	220	200	199	188	211	213
SCAT	54.4	52.1	52.7		51.4	56.1	53.4	59.1	43.3	47.0	49.4	53.1
HMAXF	294	308	294		315	309	321	327	305	310	329	332
SHMAX	1669	1684	1541		1531	1514	1140	1121	666	576	501	431
KM												
340												599
330							1640	1446			745	599
320					1756		1640	1441		844	739	592
310		1876			1751	1741	1621	1415	1072	844	716	573
300	1907	1866	1786		1717	1731	1574	1369	1069	835	682	547
290	1904	1822	1782		1645	1693	1498	1300	1040	807	629	508
280	1874	1737	1755		1543	1620	1394	1219	981	754	558	456
270	1812	1626	1689		1409	1530	1262	1106	896	692	477	394
260	1712	1480	1589		1254	1413	1096	960	787	613	362	324
250	1588	1300	1466		1061	1266	875	794	663	518	262	245
240	1432	1123	1309		875	1086	643	595	528	417	155	153
230	1252	938	1143		716	917	362	389	362	316	83.8	83.8
220	1050	766	941		585	733	12.4	190	219	207	49.6	43.1
210	847	628	754		487	573		76.5	97.2	123		
200	663	523	587		412	446			12.4	65.9		
190	519	452	477		355	341				12.4		
180	426	396	397		306	262						
170	366	351	346		259	209						
160	324	310	305		219	169						
150	289	274	267		179	141						
140	255	240	231		155	122						
130	219	207	200		140	110						
120	192	188	187		132	102						
110	143	143	127		83.8	60.0						

ELECTRON DENSITY

PUERTO RICO 60 W 23 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL		F										
HMIN	253	247	215	198	198	228	217	219	111	109	112	112
SCAT	58.7	53.4	31.1	39.0	35.8	55.8	71.3	36.2	43.8	51.6	46.1	48.4
HMAXF	387	358	286	276	267	342	361	286	269	293	297	282
SHMAX	481	484	348	248	142	152	209	209	631	1200	1542	1488
KM												
390	599											
380	597											
370	586						219					
360	566	697					219					
350	540	693				198	217					
340	503	677				198	214					
330	454	649				196	208					
320	396	608				191	201					
310	331	556				182	191					
300	266	482				169	181			1446	2032	
290	198	394	865			155	166	461		1445	2021	1937
280	127	286	857	508		137	148	458		1425	1964	1937
270	71.4	167	809	505	304	116	127	439	896	1377	1857	1909
260	41.7	71.4	716	487	301	94.2	104	404	887	1304	1713	1840
250		20.3	551	456	288	71.4	82.0	350	853	1214	1501	1729
240			310	404	264	48.7	60.0	251	801	1069	1240	1583
230			120	310	225	12.4	44.6	127	716	917	1004	1384
220			46.0	179	168		12.4	12.4	616	740	767	1168
210				83.8	104				500	586	595	917
200				20.7	25.6				389	466	469	699
190									298	378	384	508
180									224	310	324	405
170									169	258	278	332
160									131	216	234	283
150									108	182	198	243
140									95.5	155	169	209
130									90.3	139	155	190
120									85.2	131	146	173
110										60.0		

ELECTRON DENSITY

PUERTO RICO 60 W 23 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL						A						
HMIN	110	108	109	109	107	111	206	199	194	218	228	209
SCAT	48.1	55.1	59.9	57.0	58.0	57.9	47.6	54.4	63.0	63.1	41.9	41.8
HMAXF	308	308	320	322	315	309	314	327	303	372	335	303
SHMAX	1776	1803	1896	1809	1727	1545	1012	1130	678	605	430	374
KM												
380										679		
370										679		
360										673		
350										658		
340										634	726	
330			1922	1907				1555		603	723	
320			1922	1906	1922		1555	1549		562	704	
310	2128	2000	1909	1885	1918	1756	1553	1517	917	514	662	670
300	2115	1989	1868	1836	1888	1746	1523	1460	917	454	602	669
290	2057	1946	1801	1753	1829	1700	1459	1375	907	389	523	654
280	1954	1865	1703	1648	1736	1642	1356	1268	886	321	427	619
270	1812	1764	1585	1508	1621	1555	1224	1127	854	257	310	567
260	1601	1619	1446	1350	1480	1446	1064	938	813	198	198	491
250	1357	1446	1271	1163	1305	1303	875	716	754	140	107	389
240	1131	1240	1096	971	1096	1135	630	477	667	89.0	57.5	262
230	917	1050	917	794	875	960	417	300	540	55.1	12.4	149
220	730	847	763	643	696	779	219	161	375	12.4		67.4
210	596	679	636	540	551	608	49.6	83.8	179			12.4
200	508	547	540	461	434	446		12.4	60.0			
190	446	454	461	402	350	335						
180	407	389	401	355	286	251						
170	366	335	352	315	240	198						
160	318	290	307	276	201	161						
150	268	252	266	240	171	135						
140	219	219	225	202	150	118						
130	195	196	196	177	139	107						
120	184	185	183	165	131	99.4						
110	40.2	127	97.2	112	112							

ELECTRON DENSITY

PUERTO RICO 60 W 24 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL		F	F	F								
HMIN	208	228	232	219	190	187	229	198	113	111	111	109
SCAT	55.1	50.6	42.6	40.2	26.3	97.8	70.6	46.0	46.7	65.6	46.9	51.3
HMAXF	336	340	318	300	237	358	374	297	273	305	295	289
SHMAX	326	269	249	255	88	165	135	243	695	1297	1452	1539
KM												
380							139					
370							139					
360						131	138					
350		389				131	135					
340	424	389				130	131					
330	423	385				128	125					
320	416	374	461			126	118					
310	401	355	457	492		123	111			1341		
300	379	332	440	492		120	101	403	960	1339	1861	
290	352	296	410	485		115	89.2	400		1324	1855	1937
280	316	254	370	463		110	77.3	389	960	1293	1812	1921
270	274	204	310	425		104	65.1	369	960	1247	1727	1869
260	226	151	207	373		98.1	53.6	341	943	1187	1599	1778
250	179	97.2	97.2	301		90.8	43.8	294	903	1116	1433	1655
240	127	55.3	46.9	179	268	83.3	26.2	231	844	1004	1218	1490
230	79.6	12.4		83.8	264	75.0	3.2	161	754	875	1004	1280
220	49.6			12.4	240	65.9		97.2	643	734	794	1004
210	12.4				203	55.6		54.9	516	596	608	754
200					112	44.0		12.4	389	485	485	573
190						12.4			296	396	399	446
180									223	323	332	367
170									172	262	280	310
160									138	211	240	259
150									114	174	203	216
140									102	151	168	189
130									91.7	127	155	174
120									78.8	116	147	165
110												127

ELECTRON DENSITY

PUERTO RICO 60 W 24 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL								A	A		A	
HMIN	109	108	109	107	108	110	214			205	207	202
SCAT	60.3	51.6	55.2	68.1	56.3	52.3	49.9			53.2	56.1	49.1
HMAXF	307	297	307	332	304	307	315			357	349	322
SHMAX	1806	1570	1584	1788	1445	1355	1058			628	649	466
KM												
360										794		
350										791	834	
340				1612						774	829	
330				1611						743	811	688
320				1600			1640			698	778	688
310	1907		1669	1571	1612	1640	1635			643	735	678
300	1901	1815	1662	1524	1609	1633	1601			573	679	654
290	1871	1808	1630	1460	1585	1598	1531			494	608	614
280	1816	1768	1571	1371	1530	1529	1446			417	522	563
270	1731	1694	1478	1266	1455	1436	1304			331	426	494
260	1630	1587	1362	1161	1358	1309	1126			252	310	410
250	1489	1446	1230	1042	1240	1143	894			179	198	310
240	1318	1272	1096	917	1073	976	608			120	132	219
230	1143	1096	926	794	917	794	310			80.8	83.8	127
220	937	902	783	691	754	627	71.4			52.6	53.7	76.4
210	754	731	665	598	594	491				22.0	17.7	43.9
200	608	594	573	521	477	384						
190	492	485	495	455	389	296						
180	417	406	427	389	324	236						
170	362	346	369	326	277	186						
160	320	298	321	272	240	143						
150	279	256	276	231	210	122						
140	235	222	233	195	175	110						
130	198	198	198	160	143	105						
120	187	185	183	151	135	99.6						
110	143	143	97.2	127	112	12.4						

ELECTRON DENSITY

PUERTO RICO 60 W 25 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL				A		S	S					
HMIN	213	199	221	221	201	187	204	210	111	109	108	109
SCAT	38.6	48.9	33.2	49.3	35.5	59.6	77.7	36.2	44.6	43.1	51.1	48.3
HMAXF	311	307	293	314	273	307	377	287	256	267	289	291
SHMAX	320	320	184	221	130	155	178	200	604	831	1276	1527
KM												
380							161					
370							160					
360							159					
350							156					
340							152					
330							146					
320	582			355			139					
310	582	492		354		193	131					
300	570	490	410	348		193	121					1907
290	540	477	409	333		189	110	417			1555	1906
280	488	454	393	315	280	183	98.0	414			1544	1882
270	417	422	362	288	279	174	85.9	395		1143	1504	1817
260	335	379	305	240	271	164	74.7	362	917	1136	1431	1712
250	240	320	232	179	251	150	64.6	310	912	1101	1332	1567
240	143	240	135	112	223	132	54.6	231	886	1034	1195	1375
230	78.1	156	60.0	57.2	173	112	45.7	143	841	938	1036	1166
220	43.6	92.6			112	87.0	33.5	66.7	765	811	850	917
210		53.0			52.6	64.6	12.4		643	670	679	716
200		6.1				45.1			497	540	528	562
190						12.4			362	431	430	457
180									254	343	357	389
170									187	274	299	335
160									147	223	249	296
150									119	182	204	259
140									101	153	172	225
130									91.3	131	158	198
120									83.8	119	150	185
110										83.8	127	127

ELECTRON DENSITY

PUERTO RICO 60 W 25 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL						A					F	
HMIN	109	107	106	108	107	110	219	219	195	188	187	230
SCAT	52.5	55.5	51.9	65.9	66.1	51.5	50.8	46.2	38.8	50.9	52.6	45.1
HMAXF	296	304	301	319	332	310	318	317	277	324	347	333
SHMAX	1535	1563	1570	1659	1762	1371	990	931	563	548	441	293
KM												
350											532	
340					1669						530	461
330					1668					745	518	461
320				1555	1654	1727	1473	1528		744	495	451
310		1640	1741	1548	1621	1727	1464	1518		730	464	430
300	1756	1638	1741	1523	1568	1709	1428	1474		701	426	398
290	1750	1613	1722	1480	1494	1660	1362	1393		660	382	354
280	1714	1563	1669	1416	1406	1577	1268	1276	1143	608	335	302
270	1643	1479	1582	1341	1295	1466	1149	1127	1134	536	286	245
260	1555	1378	1467	1246	1157	1320	995	933	1090	458	237	179
250	1418	1250	1325	1129	1016	1157	817	679	1011	369	190	112
240	1240	1119	1169	1004	863	960	608	389	885	277	146	60.0
230	1085	969	1004	882	724	732	362	143	695	192	109	
220	894	820	834	754	608	508	46.6	12.4	417	127	83.8	
210	716	689	686	643	521	375			161	78.7	60.0	
200	573	579	565	549	446	280			49.6	49.6	44.3	
190	477	490	477	470	389	219				12.4	12.4	
180	404	423	408	403	335	175						
170	350	371	359	345	286	140						
160	307	329	319	296	243	117						
150	268	290	286	254	209	104						
140	231	250	252	219	176	95.8						
130	198	214	219	188	147	91.2						
120	187	192	197	171	136	86.6						
110	127	161	179	143	127	49.6						

ELECTRON DENSITY

PUERTO RICO 60 W 26 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL	F	F					F			A	A	A
HMIN	256	267	247	220	209	213	267	239	110	109		107
SCAT	63.7	55.7	43.3	38.4	31.1	49.3	57.3	41.3	42.9	43.1		49.6
HMAXF	391	388	341	297	278	302	392	302	262	266		300
SHMAX	352	317	291	267	176	142	163	260	720	865		1607
KM												
400	410						203					
390	410	424					203					
380	407	422					201					
370	398	413					196					
360	385	398					188					
350	367	375	508				176					
340	345	346	508				161					
330	316	310	500				143					
320	281	262	479				124					
310	240	205	448			229	105	540				1876
300	194	146	398	557		229	83.8	540				1876
290	146	97.2	322	552		226	62.5	528				1857
280	97.2	57.5	234	529	417	218	45.3	501				1800
270	60.0	19.0	143	496	410	206	12.4	461	1096	1215		1692
260	23.7		71.4	417	381	190		389	1095	1210		1555
250			29.1	304	335	167		274	1074	1175		1403
240				169	257	134		60.0	1023	1107		1217
230				71.4	161	87.7			942	1004		1004
220					76.8	44.7			834	875		834
210					12.4				668	716		679
200									498	573		554
190									362	439		466
180									256	343		404
170									191	272		356
160									151	219		315
150									123	179		276
140									104	150		242
130									93.5	128		198
120									86.2	119		174
110									49.6	97.2		152

ELECTRON DENSITY

PUERTO RICO 60 W 26 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL												
HMIN	110	111	106	109	108	108	229	200	198	228	250	218
SCAT	50.7	48.6	61.0	58.7	61.1	54.2	54.9	50.2	44.8	60.4	47.3	48.1
HMAXF	309	302	311	315	321	316	330	319	315	375	367	331
SHMAX	1903	1812	1880	1721	1672	1469	1198	1035	675	821	691	719
KM												
380										982		
370										981	1050	
360										968	1044	
350										941	1016	
340							1697			900	965	1096
330					1683		1697			847	890	1096
320			1907	1756	1683	1669	1682	1555	1084	782	787	1082
310	2193	2193	1907	1753	1670	1663	1629	1542	1080	703	663	1044
300	2178	2193	1892	1727	1635	1631	1562	1497	1052	615	540	981
290	2120	2160	1853	1676	1577	1571	1466	1421	998	508	389	896
280	2018	2042	1786	1591	1491	1477	1341	1324	917	389	240	794
270	1877	1953	1687	1490	1389	1362	1191	1182	806	271	127	656
260	1690	1786	1574	1367	1267	1217	1004	1004	665	167	60.0	508
250	1465	1568	1437	1227	1120	1050	716	754	498	97.2		322
240	1240	1310	1280	1065	984	888	417	477	335	56.0		161
230	1016	1096	1129	917	848	729	60.0	262	192	12.4		80.0
220	834	860	960	770	716	584		136	106			21.7
210	679	679	794	643	593	465		65.1	60.0			
200	563	551	643	546	493	376			12.4			
190	477	468	524	462	409	310						
180	417	413	433	396	340	256						
170	365	366	370	345	283	211						
160	323	325	323	300	236	174						
150	286	286	283	260	200	143						
140	254	250	246	219	169	120						
130	215	222	213	187	147	108						
120	189	189	193	170	136	101						
110	40.2		179	127	118	78.0						

ELECTRON DENSITY

PUERTO RICO 60 W 27 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL												
HMIN	211	210	258	254	218	199	187	208	111	110	109	110
SCAT	57.5	57.0	56.7	46.7	42.4	59.9	61.9	34.3	54.6	55.9	56.6	51.5
HMAXF	340	332	382	375	316	349	320	274	274	286	311	317
SHMAX	683	580	475	412	357	530	420	268	668	1040	1608	2011
KM												
390			625									
380			625	608								
370			618	606								
360			601	593								
350	928		575	565		634						
340	928	784	540	525		630						
330	920	784	493	469		618	500					
320	899	776	435	401	608	597	500				1697	2243
310	862	755	362	328	604	567	497				1697	2234
300	814	723	286	254	585	530	487				1681	2185
290	749	679	198	186	549	481	470			1167	1638	2088
280	654	624	116	117	496	417	449	608	834	1164	1569	1958
270	540	545	60.0	68.5	429	349	420	606	833	1144	1473	1786
260	401	446	12.4	35.9	345	278	382	583	820	1105	1352	1585
250	240	335			240	211	335	540	794	1050	1204	1368
240	127	219			143	152	286	456	754	972	1050	1120
230	71.4	112			71.4	102	232	335	698	875	890	935
220	44.5	56.2			21.2	66.1	179	198	622	773	741	769
210						43.9	121	49.6	526	667	608	643
200						3.1	68.3		417	558	516	540
190							20.3		322	452	446	465
180									235	356	389	407
170									179	282	340	362
160									140	234	292	320
150									116	198	245	286
140									100	171	202	251
130									92.4	148	171	201
120									86.3	133	153	173
110										49.6	112	83.8

ELECTRON DENSITY

PUERTO RICO 60 W 27 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL	A		A	A	A	A		S				
HMIN	109	108	108			110	199	196	187	202	230	216
SCAT	40.0	62.0	60.7			51.3	55.4	45.2	53.1	56.6	47.2	43.4
HMAXF	288	316	313			319	327	305	317	353	348	310
SHMAX	1739	2183	1821			1597	1376	957	699	588	488	352
KM												
360										716		
350										716	735	
340										706	730	
330							1846			686	708	
320		2260	1876			1937	1838		896	651	668	608
310		2255	1875			1923	1801	1528	892	610	613	608
300		2223	1853			1873	1735	1523	871	556	540	599
290	2643	2161	1806			1786	1635	1486	834	493	456	573
280	2615	2070	1726			1653	1510	1411	782	421	356	534
270	2498	1949	1628			1495	1354	1297	723	348	262	477
260	2321	1805	1507			1323	1165	1143	655	275	161	400
250	2032	1618	1367			1116	946	960	573	204	93.9	304
240	1669	1409	1199			907	679	754	490	139	49.6	187
230	1240	1200	1023			695	389	524	389	92.4		93.6
220	896	984	853			530	190	286	286	60.0		40.2
210	643	784	694			404	83.8	127	179	35.7		
200	477	622	567			316	12.4	43.9	89.4			
190	389	500	466			253			33.5			
180	335	411	395			207						
170	286	350	341			171						
160	252	302	297			143						
150	225	259	249			124						
140	206	223	208			112						
130	194	200	184			105						
120	185	188	171			97.9						
110	112	161	161									

ELECTRON DENSITY

PUERTO RICO 60 W 28 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL	F	F	A									
HMIN	248	255	249	226	201	208	197	231	110	110	110	109
SCAT	45.8	43.3	43.7	41.5	56.6	40.7	71.6	40.5	47.9	49.3	53.5	53.1
HMAXF	353	349	340	320	322	283	360	305	270	284	296	302
SHMAX	356	366	368	345	352	205	198	261	737	1177	1481	1628
KM												
370							189					
360	557						189					
350	556	634	634				188					
340	546	628	634				185					
330	518	604	626	608	461		180					
320	481	564	599	604	461		173					
310	435	508	557	598	456		164	508				1846
300	379	428	501	573	444		154	506			1683	1845
290	310	335	428	528	425	403	142	490		1473	1678	1820
280	234	219	335	465	399	402	129	459	1004	1471	1646	1763
270	137	105	219	389	366	393	116	414	1004	1445	1585	1669
260	63.3	45.0	83.8	292	324	371	103	345	994	1388	1489	1555
250	12.4		12.4	179	275	340	90.8	251	963	1300	1368	1392
240				89.8	219	293	78.8	127	909	1185	1228	1219
230				40.2	161	219	67.5		834	1037	1079	1026
220					92.8	104	56.3		729	875	917	834
210					49.6	24.6	44.7		608	679	754	679
200							12.4		477	540	608	557
190									354	434	490	466
180									262	352	399	397
170									195	290	335	340
160									152	240	283	292
150									124	205	242	252
140									106	174	209	213
130									94.6	149	171	184
120									87.1	134	152	170
110									40.2	49.6	49.6	112

ELECTRON DENSITY

PUERTO RICO 60 W 28 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL				A								
HMIN	110	109	109	108	109	112	217	222	199	198	215	244
SCAT	53.5	50.4	62.5	59.6	53.4	59.5	46.1	46.0	41.8	55.9	56.4	62.2
HMAXF	315	309	319	334	330	318	317	309	283	346	369	385
SHMAX	1918	1890	1887	1926	1875	1732	1171	1095	627	783	629	623
KM												
390												735
380												734
370											764	725
360											759	706
350										960	742	679
340				1876	2016					957	713	640
330				1874	2016					940	674	593
320	2161		1846	1850	1999	1937	1922			906	619	536
310	2156	2193	1837	1800	1947	1928	1912	1861		858	552	470
300	2118	2176	1805	1722	1852	1892	1859	1844		794	477	396
290	2043	2116	1749	1625	1728	1828	1760	1785	1179	716	402	310
280	1932	2009	1669	1492	1576	1731	1622	1681	1177	631	327	226
270	1786	1860	1566	1341	1402	1613	1428	1531	1150	540	246	133
260	1585	1669	1438	1156	1218	1470	1180	1341	1088	446	179	71.4
250	1358	1467	1294	994	1036	1303	853	1112	994	344	121	40.2
240	1143	1240	1159	854	859	1079	540	716	860	249	80.5	
230	932	1044	1004	731	716	875	198	262	679	161	52.6	
220	745	834	857	632	601	679	49.6		389	94.7	22.0	
210	598	651	716	556	508	508			143	56.7		
200	498	531	595	497	433	389			12.4	12.4		
190	429	446	494	446	369	310						
180	375	389	414	389	317	244						
170	329	342	352	335	270	198						
160	288	300	304	281	231	162						
150	244	260	262	236	198	135						
140	210	221	222	202	173	117						
130	194	198	197	179	156	107						
120	184	188	186	168	146	100						
110	49.6	143	143	127	83.8							

ELECTRON DENSITY

PUERTO RICO 60 W 29 FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
QUAL	F	C	C	C	C	C	C	C	C			
HMIN	265									109	109	108
SCAT	49.7									46.1	59.7	55.2
HMAXF	381									285	320	305
SHMAX	390									1034	1736	1897
KM												
390	565											
380	565											
370	558											
360	540											
350	508											
340	467											
330	417										1786	
320	352										1786	
310	286										1773	2177
300	203										1736	2172
290	124									1303	1674	2136
280	71.4									1300	1585	2063
270	32.2									1270	1475	1951
260										1205	1341	1813
250										1120	1194	1631
240										995	1035	1421
230										851	866	1143
220										707	716	917
210										573	585	716
200										477	484	573
190										389	405	461
180										322	343	389
170										268	291	335
160										223	244	286
150										187	198	245
140										159	171	204
130										141	157	179
120										133	150	169
110										97.2	127	127

ELECTRON DENSITY

PUERTO RICO 60 W 29 FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
QUAL						A	A	A				
HMIN	108	110	110	108	108			188	189	185	224	249
SCAT	57.2	63.2	56.8	50.5	51.0			46.2	44.6	54.0	61.4	48.0
HMAXF	318	330	340	320	326			326	316	318	374	358
SHMAX	2125	2179	2325	2055	2131			1086	817	730	631	597
KM												
380											745	
370											744	
360											735	917
350			2396								716	911
340		2128	2396								686	886
330		2128	2377	2396	2500			1583			649	840
320	2294	2115	2321	2396	2492			1576	1252	971	598	775
310	2282	2076	2228	2374	2439			1535	1247	966	532	687
300	2236	2007	2096	2306	2338			1457	1212	945	456	582
290	2154	1922	1933	2180	2187			1350	1143	907	377	457
280	2040	1804	1725	2032	1989			1186	1050	853	300	310
270	1890	1651	1492	1818	1764			1004	917	782	229	179
260	1698	1475	1253	1587	1519			834	768	695	155	77.1
250	1474	1285	1050	1341	1270			643	608	595	97.2	12.4
240	1223	1121	875	1078	1004			446	446	477	61.8	
230	1004	936	716	875	794			286	303	354	33.5	
220	810	777	603	695	634			179	179	233		
210	662	636	527	560	508			105	97.2	127		
200	547	535	466	460	417			60.0	55.2	71.4		
190	462	457	417	389	343			12.4	5.2	34.0		
180	399	396	373	338	286							
170	351	347	335	299	240							
160	310	305	297	262	200							
150	269	262	260	230	168							
140	230	224	222	198	148							
130	200	197	196	177	138							
120	187	185	185	166	132							
110	143	60.0	112	127	97.2							

AVERAGE ELECTRON DENSITY — KP BELOW 4.5

PUERTO RICO — 60 W — FEB 1960

TIME	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100
COUNT	25	24	26	26	26	25	24	25	26	27	25	26
HMIN	235	228	226	213	201	216	213	219	110	110	109	109
RATIO	5.5	5.8	6.1	7.0	5.6	4.3	4.2	5.9	5.1	4.7	4.5	4.4
SCAT	46.6	43.9	43.5	38.0	55.4	66.0	63.7	45.5	44.4	47.7	49.9	51.9
NMAX	636	592	574	491	308	261	240	470	1110	1610	1979	2099
HMAXF	344	327	320	296	312	357	352	312	277	286	297	299
SHMAX	401	350	324	248	210	231	207	279	776	1236	1608	1777
SHINF	2195	2020	1942	1633	1078	968	884	1605	3908	5778	7190	7697
KM												
950	50.0	43.4	40.5	31.5	21.0	22.3	19.6	32.3	64.1	97.2	125	134
900	64.1	55.7	51.9	40.5	26.9	28.6	25.1	41.4	82.2	125	160	172
850	82.2	71.4	66.6	51.9	34.5	36.7	32.2	53.0	105	160	205	220
800	105	91.5	85.3	66.5	44.3	47.0	41.2	68.0	135	205	263	283
750	135	117	109	85.2	56.7	60.1	52.7	87.1	173	263	337	362
700	172	150	140	109	72.4	76.6	67.3	111	222	336	431	463
650	219	191	178	139	92.2	97.2	85.6	142	283	429	550	591
600	276	242	226	176	117	122	108	180	361	546	700	752
550	346	303	284	222	147	152	135	227	457	691	884	950
500	425	376	352	277	182	186	166	282	574	867	1106	1187
490	442	391	367	289	190	193	172	294	600	905	1155	1239
480	459	407	382	302	197	199	179	306	627	945	1205	1292
470	476	423	397	314	205	206	185	319	654	986	1256	1347
460	492	439	413	327	213	213	191	331	683	1027	1308	1402
450	509	454	428	339	221	219	198	344	711	1070	1361	1459
440	525	470	443	352	229	225	204	356	741	1113	1415	1515
430	541	486	458	365	237	231	210	369	770	1156	1468	1572
420	556	501	473	378	244	236	215	381	800	1200	1522	1629
410	570	515	488	390	252	241	220	393	830	1244	1576	1686
400	583	529	502	403	259	245	225	405	861	1287	1629	1741
390	594	542	515	414	266	248	229	416	890	1329	1680	1796
380	602	554	527	426	272	250	232	426	920	1371	1730	1848
370	608	564	537	436	278	250	235	436	948	1411	1777	1897
360	610	572	546	445	283	249	236	444	976	1449	1822	1943
350	608	577	553	453	287	247	236	452	1002	1484	1862	1984
340	601	580	558	458	290	242	234	457	1026	1516	1898	2020
330	587	577	559	461	292	235	230	459	1048	1545	1928	2050
320	564	567	555	461	292	227	223	458	1067	1568	1951	2073
310	532	547	543	458	291	215	213	454	1083	1586	1967	2086
300	490	514	522	449	287	200	200	442	1094	1597	1973	2086
290	437	468	488	436	280	185	183	422	1100	1597	1960	2063
280	374	406	438	416	269	168	164	391	1098	1577	1915	2008
270	301	327	372	389	254	148	142	348	1081	1532	1829	1913
260	226	249	290	350	234	128	120	291	1042	1458	1703	1782
250	151	174	203	297	207	106	97.5	231	977	1347	1538	1610
240	84.3	104	124	234	174	85.8	77.2	159	882	1196	1338	1409
230	42.2	55.0	65.2	162	136	64.3	57.6	96.3	760	1018	1122	1190
220	16.5	22.0	25.4	91.5	94.7	42.3	37.3	51.8	623	827	898	970
210	3.5	7.2	7.3	42.7	57.2	23.6	24.4	18.1	485	649	705	780
200	1.7	.8	.2	12.9	21.1	8.4	10.3	5.4	365	506	557	625
190				2.1	3.5	1.8	1.4	.6	271	397	449	504
180					.6				201	317	370	417
170									153	256	311	352
160									123	210	263	302
150									104	175	223	260
140									93.9	150	191	224
130									86.6	134	168	195
120									77.8	124	155	177
110									17.7	62.7	82.2	108

AVERAGE ELECTRON DENSITY — KP BELOW 4.5

PUERTO RICO — 60 W — FEB 1960

TIME	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300
COUNT	24	25	21	21	23	19	24					
HMIN	109	109	109	109	109	110	211					
RATIO	4.1	3.9	3.8	3.7	3.8	4.1	5.1					
SCAT	55.3	58.6	60.8	63.6	62.2	58.0	52.7					
NMAX	2066	2071	1988	1914	1903	1850	1857					
HMAXF	309	320	325	331	333	324	325					
SHMAX	1884	2017	2003	1986	1922	1676	1309					
SHINF	7711	7857	7611	7386	7291	6896	6547					
KM												
950	139	148	145	143	144	134	136					
900	178	189	186	184	185	172	174					
850	228	243	239	236	237	221	223					
800	293	311	306	302	304	283	286					
750	375	398	392	387	389	362	366					
700	479	509	500	495	496	463	468					
650	611	649	637	630	632	590	596					
600	777	823	808	798	800	747	755					
550	979	1035	1015	1001	1004	940	949					
500	1221	1285	1258	1239	1241	1165	1176					
450	1492	1560	1524	1497	1497	1413	1425					
440	1548	1616	1577	1548	1547	1463	1475					
430	1604	1671	1630	1599	1598	1512	1524					
420	1660	1726	1681	1647	1646	1561	1572					
410	1715	1778	1731	1694	1692	1607	1618					
400	1768	1829	1778	1738	1735	1652	1662					
390	1819	1876	1825	1779	1775	1693	1703					
380	1867	1920	1867	1816	1810	1731	1741					
370	1912	1959	1897	1847	1840	1765	1774					
360	1952	1993	1927	1873	1864	1794	1802					
350	1987	2021	1950	1892	1881	1816	1823					
340	2017	2040	1964	1902	1887	1831	1836					
330	2038	2049	1968	1900	1881	1837	1838					
320	2051	2046	1957	1884	1857	1828	1825					
310	2051	2025	1927	1845	1813	1801	1790					
300	2031	1981	1874	1783	1744	1750	1729					
290	1985	1910	1796	1697	1653	1671	1631					
280	1905	1809	1697	1588	1537	1564	1500					
270	1793	1679	1561	1460	1406	1434	1334					
260	1647	1524	1413	1315	1260	1279	1134					
250	1470	1346	1254	1159	1103	1103	897					
240	1272	1161	1085	1001	944	920	601					
230	1071	984	924	852	799	745	314					
220	884	817	778	717	662	585	120					
210	722	675	653	604	549	458	40.5					
200	592	562	549	510	457	360	7.8					
190	494	475	465	433	380	286	.5					
180	421	408	397	369	318	228						
170	362	353	342	315	267	185						
160	314	308	295	269	225	152						
150	271	267	254	231	191	129						
140	233	229	219	198	165	113						
130	203	202	194	173	146	104						
120	187	186	180	160	136	97.1						
110	105	111	105	94.0	79.7	25.3						

TABLES OF IONOSPHERIC DATA

MARCH 1960 - OCTOBER 1956

Table 1

Point Barrow, Alaska (71.3° N, 156.8° W.) March 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		4.6	16					4.8	2.72
01		(4.6)	7					5.6	(2.65)
02		(4.2)	11					4.0	(2.60)
03		(4.6)	11					2.0	(2.58)
04		(4.3)	12					3.1	(2.65)
05		(4.4)	10					2.7	(2.55)
06		(4.4)	17					3.1	(2.38)
07		4.4	12					3.5	2.40
08		5.4	16					3.6	2.60
09		5.0	20						2.65
10		5.5	21						2.75
11		5.85	22						2.75
12		6.0	25						2.78
13		6.3	25						2.80
14		6.6	26						2.75
15		7.0	29						2.80
16		7.3	29						2.90
17		7.15	28						2.90
18		6.6	26						2.90
19		5.7	23						2.90
20		4.35	22					3.8	2.85
21		(4.0)	20					3.6	(2.70)
22		(4.1)	14					3.9	(2.75)
23		(4.1)	9					5.2	(2.70)

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

Table 2

Fairbanks, Alaska (64.9° N, 147.8° W.) March 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(4.1)	7					4.8	----
01		(4.2)	7					4.6	(2.52)
02		(4.5)	13					4.4	(2.60)
03		(4.7)	7					4.3	(2.45)
04		(4.65)	10					4.0	(2.60)
05		(4.6)	14					3.2	(2.58)
06		(4.5)	19					3.0	(2.65)
07		5.4	15						2.70
08		5.6	18						2.70
09		5.7	24						2.72
10		6.0	25						2.80
11		6.5	25						2.80
12		6.75	26						2.80
13		7.05	26						2.82
14		7.0	28						2.80
15		7.3	25						2.95
16		7.4	25						3.00
17		7.1	26						3.00
18		6.9	23						3.02
19		6.0	25						2.95
20		4.85	22						2.92
21		4.0	18					2.7	2.85
22		(3.9)	15					3.6	(2.78)
23		(4.5)	11					4.2	(2.80)

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

Table 3

Anchorage, Alaska (61.2° N, 149.9° W.) March 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(3.05)	20					2.3	(2.55)
01		(2.8)	25					2.0	(2.55)
02		(2.0)	23					2.2	(2.60)
03		(2.8)	25					2.0	(2.50)
04		(3.25)	24					2.1	(2.50)
05		(2.9)	25			---	----	1.0	(2.60)
06		(3.85)	28			119	1.60		(2.70)
07		4.6	26			119	2.00		2.90
08		5.3	27		4.0	115	2.50		2.00
09		5.9	29		4.1	112	2.75		2.80
10		6.3	30		4.3	113	2.90		2.75
11		6.6	31		(4.2)	111	3.00		2.85
12		6.9	31		4.4	111	3.00		2.85
13		7.05	30		---	109	3.00		2.95
14		7.6	30		---	109	2.98		2.90
15		7.75	30		---	111	2.72		3.00
16		7.9	31		---	115	2.50		3.05
17		7.65	30			121	2.10		3.05
18		7.7	28			<143	(1.65)		3.10
19		6.75	28			---	----		3.08
20		5.2	27						3.05
21		4.1	28						3.00
22		3.65	26						2.85
23		(3.0)	27					1.5	(2.72)

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

Table 4

Baguio, P. I. (16.4° N, 120.6° E.) March 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>12.2	24	250					(3.15)
01		>11.6	24	240					(3.20)
02		>10.0	29	235					3.25
03		6.8	27	230					3.02
04		5.75	28	260					2.85
05		5.1	27	270				2.0	2.90
06		5.9	29	290				1.8	2.82
07		9.1	31	265		129	(2.50)	2.8	3.05
08	---	(11.2)	31	255		120	3.15	3.2	(3.00)
09	---	(12.4)	31	(245)		121	(3.50)	3.8	(2.75)
10	---	>13.0	31	(235)		<120	(3.80)		(2.50)
11	---	>12.4	30	(230)		(121)	----		(2.40)
12	---	>12.0	30	<230		119	----		(2.35)
13	---	>12.0	31	(220)		119	----		(2.35)
14	---	>12.2	31	(230)		121	(3.80)		(2.40)
15	---	>12.6	30	240		121	(3.50)		(2.68)
16		>12.4	30	250		121	3.30		(2.70)
17		>11.0	31	265		125	(2.60)	2.8	----
18		>10.4	31	290		---	----		(2.52)
19		>11.1	30	370					(2.45)
20		>10.5	11	340					----
21		>11.0	14	270					----
22		>11.0	18	250					(3.00)
23		>11.5	20	258					(3.10)

Time: 120.0° E.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 5

Fairbanks, Alaska (64.9° N, 147.8° W.) February 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(2.8)	8					4.2	(2.70)
01		(4.0)	11					4.5	(2.50)
02		(4.3)	7					4.9	(2.55)
03		(3.0)	5					4.6	----
04		(5.8)	9					3.6	(2.45)
05		(4.3)	13					4.4	(2.55)
06		(3.9)	13					3.8	(2.50)
07		(4.1)	18					3.1	(2.65)
08		4.9	20						2.80
09		6.0	24						3.00
10		6.9	25						3.00
11		7.8	27						3.00
12		8.6	27						3.00
13		9.0	27						3.00
14		9.4	29						3.00
15		10.0	28						3.05
16		9.4	29						3.10
17		8.7	28						3.02
18		7.0	25						3.05
19		(5.6)	25						(3.05)
20		(4.5)	23						(2.98)
21		(4.2)	21					2.7	(2.90)
22		(3.25)	16					3.6	(2.80)
23		3.65	10					3.5	(2.00)

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

Table 6

Adak, Alaska (51.9° N, 176.6° W.) February 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		3.2	24	300					2.65
01		3.2	24	310					2.65
02		3.2	25	315					2.60
03		3.1	25	315					2.60
04		3.1	25	325					2.52
05		3.2	26	315					2.55
06		3.25	28	310					2.65
07		4.7	29	230		120	1.70		3.00
08		7.3	29	220		110	2.15	2.2	3.30
09		9.2	29	220		108	2.60		3.25
10	---	11.0	28	215	---	105	2.95		3.20
11	---	11.8	29	220	---	107	3.10		3.20
12	---	12.1	29	215	---	107	3.10		3.15
13	---	11.9	29	215		110	3.02		3.20
14	---	11.8	28	220		110	2.90		3.20
15		11.2	28	220		111	2.68		3.20
16		10.5	29	215		115	2.25		3.25
17		9.3	29	210		128	1.72		3.25
18		7.3	29	205					3.20
19		5.85	28	215					3.30
20		4.35	26	215					3.32
21		3.5	25	240					3.00
22		3.25	24	265					2.90
23		3.2	25	275					2.72

Time: 180.0° W.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 7

Huancayo, Peru (12.0° S, 75.3° W.) February 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		8.55	12	260					2.80
01		8.6	13	250					2.90
02		8.1	21	240					3.00
03		7.7	22	235					3.10
04		7.3	23	230				3.3	3.15
05		7.05	22	230				3.9	3.20
06		6.4	23	260		---	1.60	3.8	3.00
07		9.9	25	245		117	2.60	3.0	3.10
08		12.0	27	230		111	3.20	6.7	2.90
09	---	13.3	25	220		111	(3.60)	7.6	2.75
10	---	13.9	24	210		109	(3.05)	9.0	2.50
11	---	13.0	23	210		---	(4.05)	9.2	2.30
12	---	13.2	23	205		109	(4.15)	9.0	2.25
13	---	12.7	23	200		109	(4.12)	9.0	2.20
14	---	12.6	21	200		111	(4.00)	7.7	2.25
15	---	12.0	21	205		111	(3.80)	7.5	2.30
16	---	12.65	22	210		111	(3.40)	7.5	2.25
17		12.6	23	245		115	(2.95)	7.0	2.22
18		11.65	24	270		121	(2.18)	5.4	2.15
19		11.0	23	325					2.25
20		9.75	10	390					2.18
21		9.95	16	350					2.30
22		9.7	12	330					(2.40)
23		9.5	12	310					(2.55)

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

Table 8

Thule, Greenland (76.6° N, 68.7° W.) January 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(4.05)	12	260					(2.92)
01		(4.6)	15	270					(2.70)
02		(4.15)	8	270					(2.80)
03		(3.6)	9	275					(2.70)
04		(4.05)	18	280					(2.70)
05		(4.25)	10	265					(2.88)
06		(4.1)	10	265					(2.80)
07		(3.8)	13	260					(2.78)
08		(4.4)	15	255					(2.90)
09		(4.3)	15	240					(3.00)
10		(5.1)	13	240				3.9	(2.95)
11		(5.7)	15	235				2.1	(2.98)
12		(6.35)	16	240					(3.05)
13		(6.25)	18	240					(2.95)
14		(6.5)	17	240					(2.85)
15		(6.0)	19	240					(2.95)
16		(6.35)	14	240				4.2	(2.90)
17		(6.3)	14	250				3.3	(2.85)
18		(6.0)	15	255					(2.78)
19		(6.7)	16	250					(2.88)
20		(5.85)	16	260		---	---		(2.88)
21		(5.65)	18	260					(2.80)
22		(5.0)	15	250					(2.78)
23		(4.9)	18	260					(2.82)

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

Table 9

Huancayo, Peru (12.0° S, 75.3° W.) January 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(8.5)	9	325					(2.62)
01		(7.7)	9	295					(2.85)
02		8.15	12	270					2.85
03		7.5	15	250					2.98
04		6.9	17	235				3.2	3.18
05		5.6	21	230				4.2	3.25
06		7.6	27	270		<139	1.82	4.3	3.00
07		10.4	28	245		117	2.80	5.1	2.95
08		12.25	30	235		111	(3.35)	7.4	2.78
09		12.9	31	220		109	(3.80)	8.9	2.55
10	---	13.0	31	215	---	111	(4.05)	9.0	2.35
11	---	12.2	31	210	---	111	(4.20)	9.6	2.20
12	---	11.8	31	200	---	109	(4.30)	9.5	2.15
13	---	11.6	31	200	---	111	(4.20)	9.0	2.15
14	---	12.0	30	200	---	111	(4.05)	8.2	2.22
15	---	12.0	30	200	---	111	(3.85)	8.0	2.20
16	---	12.3	29	220		109	(3.50)	0.0	2.20
17		12.2	29	250		111	(3.05)	7.0	2.20
18		12.1	31	275		125	(2.30)	5.2	2.25
19		11.6	31	320					2.25
20		10.8	27	390					2.15
21		9.65	18	<390					2.12
22		10.0	10	350					2.28
23		(9.55)	8	345					(2.50)

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

Table 10

La Paz, Bolivia (16.5° S, 68.1° W.) January 1960

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>9.15	6	350				3.0	(2.50)
01		(8.85)	6	325				3.2	(2.72)
02		(8.5)	7	320				2.9	(2.75)
03		(7.6)	9	275				3.0	(2.80)
04		7.15	12	250				3.2	2.95
05		6.6	15	230					3.10
06		6.7	10	240		---	----	3.0	3.00
07		9.2	22	245		111	2.50	4.5	3.00
08		11.4	23	225		103	3.20	5.0	2.08
09	---	12.0	25	215		103	3.70	5.5	2.70
10	---	12.1	26	210		101	(4.00)	7.1	2.50
11	---	12.25	26	200		101	----	7.4	2.35
12	---	11.7	28	200		103	----	7.5	2.25
13	---	11.0	27	200		101	----	7.2	2.30
14	---	12.1	28	200		101	----	6.0	2.35
15	---	12.4	26	200	---	101	----	6.0	2.35
16	---	12.45	28	200	---	103	(3.80)	6.0	2.30
17	---	12.55	28	230		104	(3.35)	5.4	2.25
18		>12.05	28	240		105	(2.80)	5.6	2.30
19		11.6	20	280		137	2.00	3.4	2.25
20		10.45	20	370					2.20
21		9.8	13	430					2.15
22		(10.4)	7	400					(2.25)
23		>9.1	6	385				2.5	----

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

Table 11

Bogota, Colombia (4.5° N, 74.2° W.) December 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		9.35	30	205					3.40
01		6.5	27	200				2.5	3.35
02		>4.85	26	230				3.1	2.90
03		4.2	25	260				3.1	2.85
04		3.65	28	265				3.0	2.80
05		4.1	28	285				2.9	2.70
06		6.8	31	270		---	1.85	2.5	2.95
07		10.8	31	245		111	2.65	3.2	3.10
08	---	13.2	31	230		109	3.20		3.18
09	(265)	13.6	31	215		107	3.60	3.0	3.15
10	280	13.8	31	210	---	108	3.90		3.05
11	300	13.5	31	200	---	107	4.00	4.3	2.95
12	(330)	13.4	31	210	---	109	4.00	4.2	2.85
13	(380)	13.1	31	<215	---	107	3.98	4.2	2.75
14	(345)	13.2	31	230	---	109	(3.05)	4.4	2.75
15	---	13.2	31	240	---	107	3.60	4.2	2.75
16	---	13.0	31	<250		111	3.20	4.4	2.85
17		12.8	31	250		(115)	2.55	4.2	2.90
18		12.7	31	250				4.5	3.00
19		12.5	31	235				4.4	3.10
20		12.1	31	210				3.3	3.05
21		12.3	31	220				3.0	2.95
22		12.75	30	235				2.5	3.10
23		13.0	31	225				2.1	3.30

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

Table 12

Natal, Brazil (5.3° S, 35.1° W.) November 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(11.0)	12	230					(3.05)
01		11.0	19	235				3.2	(2.95)
02		9.6	19	240				3.2	3.00
03		9.0	23	250				3.2	3.00
04		8.5	21	250				3.2	3.02
05		7.7	23	235				3.2	3.10
06		0.2	25	255		<153	1.70		3.08
07		10.4	26	250		119	2.75	2.9	3.08
08		11.8	27	235		111	3.30	4.3	2.95
09		12.7	26	230		113	3.70	5.4	2.70
10		13.1	26	220		111	(3.95)	6.2	2.52
11	---	13.1	27	210		111	(4.10)	7.2	2.40
12	---	13.0	28	210		(111)	(4.10)	8.0	2.35
13	---	13.0	28	205		(108)	(4.05)	8.0	2.30
14	---	12.8	29	205		(107)	(4.00)	6.6	2.30
15	---	13.1	29	215		(109)	(3.75)	6.2	2.30
16		13.0	27	230		(111)	(3.40)	6.0	2.30
17		12.85	28	255		113	(2.90)	5.8	2.25
18		12.5	29	285		---	----	4.4	2.20
19		10.4	28	390					2.10
20		(9.3)	6	430					(2.10)
21		>10.0	3	370					----
22		(10.15)	6	305					(2.52)
23		>10.25	8	255					(2.88)

Time: 30.0° W.
Sweep: 1.0 Mc to 25.0 Mc in 32.4 seconds.

Table 13

Tromso, Norway (69.7° N, 19.0° E.) August 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		5.4	12	380				4.0	2.40
01		5.6	12	365		---	----	3.9	2.40
02		5.8	13	360		---	----	3.2	2.55
03		5.7	11	350		---	----	4.1	2.45
04	---	5.9	14	330	----	---	2.00	3.8	2.55
05	---	6.3	16	270	----	105	2.30		2.70
06	605	6.6	17	250	4.10	110	2.70		2.55
07	600	6.6	20	250	4.50	110	3.00		2.55
08	690	7.0	23	250	4.50	110	3.20		2.55
09	550	7.2	22	245	4.75	110	3.20		2.55
10	490	7.1	22	240	4.70	110	3.20		2.55
11	515	7.0	25	240	4.90	110	3.30		2.50
12	450	7.2	24	240	5.00	110	3.40		2.55
13	445	7.0	27	240	5.00	110	3.40		2.55
14	490	6.9	25	245	4.75	110	3.20		2.55
15	---	6.7	23	245	----	110	3.15		2.55
16	---	6.3	25	250	----	110	3.10		2.60
17	---	6.2	27	270	----	110	2.90		2.70
18	---	6.2	25	295	----	120	2.70	2.9	2.70
19	---	6.5	20	205		110	2.40	3.6	2.70
20		5.8	26	310		115	2.20	3.6	2.55
21		5.8	10	340		---	----	3.9	2.60
22		5.9	13	320		---	----	4.0	2.50
23		5.5	0	360		---	----	3.0	2.40

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

Table 14

Kiruna, Sweden (67.8° N, 20.3° E.) August 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		4.8	15	340				4.4	2.4
01		5.2	10	<350				3.7	2.6
02		5.3	13	335				3.6	2.6
03	---	5.2	18	325	---	---	---	3.0	2.6
04	---	5.2	21	290	---	---	1.8	2.4	2.6
05	---	5.9	18	260	---	120	2.2		2.8
06	---	6.3	21	250	4.0	115	2.6	2.6	2.6
07	545	6.5	22	240	4.4	110	2.8		2.8
08	520	6.9	24	240	4.8	110	3.0		2.6
09	440	7.0	27	240	4.8	105	3.0		2.6
10	435	7.0	27	230	4.9	105	3.2		2.6
11	420	6.8	29	220	5.2	105	3.3		2.6
12	420	7.0	29	225	5.2	105	3.3		2.6
13	430	7.0	29	225	5.2	105	3.3		2.6
14	400	6.8	29	230	5.1	105	3.2		2.7
15	430	6.7	28	230	4.8	110	3.0		2.7
16	415	6.4	28	240	4.7	110	2.9		2.7
17	---	6.0	29	250	---	110	2.7	3.0	2.7
18	---	6.2	29	275	---	115	2.5	2.8	2.8
19		6.2	24	265		125	2.0	3.0	2.0
20		5.8	26	300		---	1.8	3.4	2.6
21		6.0	21	300		---	---	3.4	2.7
22		5.5	17	330				3.8	2.6
23		5.3	17	340				4.3	2.5

Time: 15.0° E.
Sweep: 0.8 Mc to 14.0 Mc in 30 seconds.

Table 15

Sodankyla, Finland (67.4° N, 26.6° E.) August 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		5.6	12	350				4.3	2.50
01		(5.9)	7	300		---	----	4.4	(2.60)
02		(5.2)	6	360		---	E	4.3	(2.50)
03		5.6	10	320		---	E	4.0	2.60
04		5.4	12	345		---	E	4.2	2.60
05		5.6	19	295	---	120	2.30	4.1	2.65
06		5.7	24	260	---	115	2.60	4.3	2.65
07		6.2	24	250	---	110	2.00	4.3	2.60
08		6.0	25	240	4.6	115	3.00	4.0	2.65
09		6.9	25	240	---	110	3.25	4.2	2.65
10		7.2	26	230	4.9	110	3.35	4.0	2.60
11		7.3	23	230	---	110	3.50	4.3	2.65
12		7.1	26	225	---	110	3.50	4.0	2.65
13		7.0	26	225	---	110	3.50	4.2	2.60
14		7.0	27	225	---	110	3.45	4.3	2.65
15		7.1	27	230	---	110	3.40	4.0	2.70
16		6.8	27	230		115	3.20	4.2	2.70
17		6.5	27	250		110	3.00	4.2	2.75
18		6.6	24	250		120	2.90	4.0	2.00
19		6.4	27	275		115	2.70	4.0	2.80
20		6.4	18	275		115	2.50	4.0	2.00
21		6.5	15	315		---	E	3.0	2.00
22		6.4	17	290		---	E	3.3	2.70
23		5.8	12	335		---	E	3.6	2.50

Time: 30.0° E.
Sweep: 1.4 Mc to 22.0 Mc in 8 minutes, automatic operation.

Table 16

Lulea, Sweden (65.6° N, 22.1° E.) August 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(5.4)	21	340		---	---	3.1	---
01		5.4	22	340		---	---	3.0	(2.3)
02		5.2	22	325		---	---	2.6	(2.4)
03	---	5.0	24	310	---	---	1.9	1.9	(2.5)
04	---	5.4	20	200	---	135	2.1		(2.6)
05	---	6.0	19	250	---	125	2.4		2.6
06	(450)	6.0	23	250	4.5	120	2.0		2.5
07	(490)	6.5	27	250	4.6	110	3.1		2.5
08	(510)	6.9	26	240	4.0	110	3.3		2.5
09	450	7.5	25	240	5.0	110	3.4		2.6
10	435	7.0	27	230	5.1	110	3.5		2.5
11	450	6.9	29	220	5.2	110	3.7		2.5
12	445	7.0	27	225	5.2	105	3.6		2.5
13	435	7.0	28	230	5.2	110	3.6		2.6
14	(430)	>7.0	20	235	5.1	110	3.4		2.6
15	(410)	7.0	27	235	5.0	110	3.3		2.5
16		6.6	29	250	---	115	3.0		2.5
17		6.6	20	250	---	120	2.0		2.6
18		6.4	20	260		130	2.6		2.7
19		6.3	28	265		140	2.2	2.3	2.7
20		6.0	25	275		155	1.9	2.1	2.6
21		5.6	25	300		---	1.5	3.0	2.5
22		5.4	22	300		---	---	3.0	(2.5)
23		5.5	19	315		---	---	3.0	---

Time: 15.0° E.
Sweep: 0.65 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 17

Budapest, Hungary (47.4° N, 19.2° E.) August 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fEs	(M3000)F2
00		6.2	27	330					
01		6.1	28	330					
02		5.8	26	315					
03		5.6	26	320					
04	---	6.2	25	285	---	125	2.2	3.0	
05	---	6.8	28	255	---	120	2.6	3.2	
06	(350)	7.4	24	245	4.8	115	3.1	4.0	
07	330	0.4	29	245	5.1	110	3.4	4.5	
08	375	8.4	30	230	5.4	110	3.6	4.0	
09	400	8.5	26	235	5.6	105	3.6	4.4	
10	365	8.8	29	230	5.7	105	3.7	4.4	
11	390	9.0	30	235	5.8	110	3.7	4.6	
12	380	3.8	30	230	5.8	110	3.6	4.6	
13	390	8.5	31	240	5.0	110	3.7	4.4	
14	(370)	0.5	29	240	5.6	110	3.6	3.7	
15	(385)	8.3	30	250	5.2	110	3.3	4.2	
16	---	0.0	20	260	---	120	3.0	3.7	
17		0.2	28	275		125	2.4	4.5	
18		(7.2)	23	280		---	---	4.9	
19		>7.0	20	270				4.1	
20		(6.7)	23	290				3.6	
21		(6.6)	26	290				3.2	
22		(6.6)	27	310				3.2	
23		(6.2)	28	320				3.0	

Time: 0.0°.
Sweep: 1.0 Mc to 20.0 Mc in 35 seconds.

Table 18

Rome, Italy (41.8° N, 12.5° E.) August 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(7.6)	23	330				3.8	2.45
01		7.3	24	320				3.2	2.45
02		7.2	26	320				3.1	2.45
03		6.8	28	310				3.0	2.50
04		6.2	28	300				3.2	2.50
05		6.2	28	300		140	1.7	2.7	2.65
06		(7.0)	25	260		120	2.3	3.0	2.90
07	---	(8.2)	26	250	---	110	2.9	3.7	3.00
08	---	(8.8)	26	240	---	110	3.3	5.3	3.00
09	---	9.1	23	240	---	110	3.6	5.2	2.85
10	(445)	8.9	27	220	5.7	110	3.0	5.5	2.70
11	400	9.4	28	230	5.8	110	3.8	5.6	2.70
12	(400)	9.7	26	230	5.8	110	3.9	6.0	2.65
13	(400)	9.7	27	240	6.0	110	4.0	5.5	2.65
14	(390)	9.4	30	240	5.0	110	3.0	5.4	2.70
15	---	9.4	30	240	---	110	3.0		2.70
16	---	9.2	27	250	---	110	3.5	4.9	2.75
17	---	(9.1)	27	250	---	110	3.2	4.3	2.75
18		(9.0)	22	270		120	2.6	4.6	2.05
19		(9.2)	19	280		140	1.8	4.6	(2.05)
20		(9.0)	17	270				4.6	2.00
21		(8.6)	19	280				5.0	(2.75)
22		(0.6)	13	280				5.2	2.70
23		(7.8)	17	300				4.0	2.55

Time: 15.0° E.
Sweep: 1.4 Mc to 15.0 Mc in 5 minutes, automatic operation.

Table 19

Formosa, China (25.0° N, 121.5° E.) August 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(11.7)	23	300					2.70
01		11.9	25	260					2.70
02		9.8	25	260				1.9	2.75
03		>9.2	24	260				1.9	2.85
04		8.2	22	250					2.75
05		7.3	25	270					2.70
06		8.0	29	250					2.90
07		9.6	27	240				4.2	3.10
08		10.4	27	230				5.0	2.95
09		10.6	26	(240)				5.6	2.70
10	---	11.6	26	(240)	----			6.0	2.50
11	---	>13.0	25	<240	----			5.8	2.50
12	(400)	14.0	26	<260	----		---	5.6	2.60
13	(390)	13.7	25	<270	(6.30)			5.6	2.65
14	380	14.2	25	<270	(6.60)			>5.5	2.65
15	(360)	14.4	26	<250	(6.40)			5.4	2.65
16	340	14.3	30	240	----		---	4.8	2.70
17	---	>14.0	28	260			---	4.8	2.70
18		14.2	28	<280			---	4.7	2.80
19		14.4	27	280				4.5	2.70
20		>13.8	26	280				3.6	2.70
21		13.8	24	300				2.7	(2.60)
22		>12.9	23	300					(2.60)
23		(12.9)	23	310					(2.65)

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

Table 20

Bogota, Colombia (4.5° N, 74.2° W.) August 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		9.9	23						
01		8.0	22						
02		7.4	21						
03		7.05	22						
04		6.95	22					2.0	
05		5.3	22					2.2	
06		6.05	20				1.90	2.4	
07		8.0	22				2.85	3.2	
08		8.75	22		---		3.45	4.0	
09		9.6	21		---		3.85	4.4	
10		10.8	21		---		4.10		
11		11.8	20		5.8		4.20		
12		12.8	21		(6.0)		4.30	4.5	
13		13.2	21		(6.0)		4.20	4.7	
14		13.9	21		(5.9)		4.10	4.7	
15		13.6	21		---		3.88	4.6	
16		13.1	21				3.45	4.6	
17		12.3	21				2.85	4.5	
18		12.3	22				----	3.2	
19		11.35	22					3.1	
20		11.35	22					3.0	
21		11.8	23					2.5	
22		11.55	22						
23		10.9	23						

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

Table 21

Townsville, Australia (19.3° S, 146.7° E.) August 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		6.7	23	250					2.85
01		6.1	23	250					2.85
02		5.4	25	250					2.95
03		4.2	26	250					2.95
04		4.0	24	280				2.5	2.75
05		3.8	22	<310					2.70
06		4.2	22	280				2.8	2.95
07		>7.9	20	250			2.30	2.9	(3.15)
08	---	(10.6)	22	250			3.00	3.1	3.20
09	(250)	12.0	22	240	---		3.40	3.5	3.10
10	---	12.4	23	240	---		3.70		3.00
11	(280)	11.9	23	230	---		3.85	3.8	3.00
12	290	11.4	24	225	5.8		3.95	4.1	2.85
13	(300)	11.2	23	225	---		3.90		2.80
14	---	11.0	21	220	---		3.80	4.2	2.75
15	---	>11.0	25	230	---		3.65	4.2	2.70
16	---	(11.0)	24	250			3.30	4.2	2.80
17		(10.5)	25	250			2.80	3.9	2.90
18		>10.0	19	250			(1.95)	3.7	(2.85)
19		>8.0	14	250				3.6	----
20		>7.0	16	250				3.1	----
21		>7.0	10	275				2.8	----
22		(7.2)	19	250					(2.90)
23		>6.8	20	250					(2.85)

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

Table 22

Brisbane, Australia (27.5°S, 152.9°E) August 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		6.6	22	270					2.70
01		6.0	24	260				2.0	2.70
02		5.5	25	260				2.2	2.75
03		5.5	23	260				2.1	2.65
04		4.8	25	255					2.60
05		4.7	26	260					2.65
06		5.5	26	250			<1.60		2.85
07		8.9	26	230			2.35		3.20
08		10.8	26	230			3.05		3.15
09		11.8	26	230			3.50		3.05
10		12.0	25	230			3.70	3.8	2.95
11		11.9	25	230			3.80	4.2	2.95
12		11.3	25	230			3.80	4.4	2.85
13		11.0	25	220			3.80	4.4	2.80
14		10.8	25	225			3.70	4.4	2.75
15		10.7	25	230			3.35	4.0	2.80
16		10.0	26	250			3.00	3.2	2.80
17		9.9	26	240			2.20		2.85
18		9.2	27	240			<1.60	2.0	2.85
19		7.8	27	250				2.0	2.75
20		7.7	27	250					2.75
21		7.5	25	260					2.75
22		6.8	26	250					2.75
23		6.6	26	260					2.70

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

Table 23

Tromso, Norway (69.7° N, 19.0° E.) July 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(5.8)	8	350		---	----	3.2	(2.55)
01	---	(6.0)	7	(350)	----	---	----	3.9	(2.55)
02	---	(6.4)	6	---	----	---	----	4.0	(2.55)
03	---	(6.1)	9	(315)	----	---	----	4.0	(2.55)
04	---	(6.0)	8	(265)	----	---	----	3.9	(2.55)
05	(515)	5.8	14	(250)	4.20	---	----		2.45
06	(450)	6.2	10	250	4.50	105	----		2.50
07	(445)	(6.1)	9	(240)	----	105	----		(2.55)
08	---	(6.3)	9	(250)	----	100	----		(2.55)
09	450	6.6	14	240	5.05	105	----		2.55
10	440	6.7	17	240	5.10	105	----		2.55
11	445	6.7	18	230	5.05	110	3.50		2.50
12	445	6.6	18	235	5.05	110	3.55		2.55
13	465	6.6	18	240	5.10	105	3.50		2.55
14	475	6.4	19	240	5.00	110	----		2.55
15	495	6.0	18	240	4.85	110	3.60		2.55
16	(495)	6.2	18	245	4.85	110	3.30		2.55
17	---	6.4	19	250	----	110	3.20		2.70
18	---	6.4	20	275	----	110	3.40		2.70
19	---	6.2	16	205	----	115	3.20	3.6	2.70
20	---	6.2	14	290	----	---	----	3.9	2.80
21	---	6.4	11	305	----	---	----	4.2	(2.60)
22	---	5.8	11	340	----	---	----	3.1	(2.55)
23		(5.4)	6	(305)		---	----	4.0	(2.40)

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

Table 24

Lulea, Sweden (65.6° N, 22.1° E.) July 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(5.6)	19	350		---	1.8	>2.7	(2.6)
01		(5.8)	18	310		---	(2.3)	2.6	(2.6)
02	---	(6.0)	16	295	---	---	(2.0)	2.6	(2.6)
03	---	5.8	17	270	3.5	---	2.3		2.6
04	(425)	6.0	18	250	3.9	---	2.5		2.6
05	(430)	5.9	18	245	4.2	---	2.8		2.7
06	(405)	6.1	17	245	4.5	110	3.0		2.6
07	(400)	6.4	18	(230)	4.8	---	3.3		2.5
08	400	6.5	20	225	4.9	105	3.3		2.6
09	405	6.6	19	230	5.0	---	3.5		2.6
10	400	6.6	21	(225)	5.1	---	3.6		2.6
11	405	6.6	22	220	5.2	100	3.7		2.6
12	400	6.5	23	220	5.2	100	3.6		2.6
13	395	6.6	24	220	5.2	105	3.6		2.65
14	440	6.5	23	225	5.2	105	3.4		2.55
15	375	6.2	22	(220)	5.0	---	3.4		2.7
16	---	6.4	21	(230)	5.0	110	3.2		2.7
17	---	6.5	20	230	4.6	---	3.0		2.7
18	---	6.5	23	250	4.4	---	(2.8)		2.8
19		6.3	23	255	---	---	2.6	2.6	2.8
20		6.3	24	260	---	---	2.4	2.4	2.7
21		6.2	20	295		---	2.0	2.6	(2.6)
22		(6.1)	19	300		---	(2.0)	2.3	(2.7)
23		(5.9)	18	305		---	(2.0)	3.0	(2.6)

Time: 15.0° E.
Sweep: 0.65 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 25

Nurmijarvi, Finland (60.5° N, 24.6° E.) July 1959

Time	h'F2	foF2	Count	h'F	foF1	h'E	foE	foEs	(M3000)F2
00		6.4	10						(2.60)
01		(6.7)	9						(2.65)
02		6.2	12						2.65
03		6.1	13		---				2.62
04		6.0	16		---				2.70
05		6.2	17		---		----		2.68
06		6.1	21		4.2		2.65		2.70
07		6.3	24		4.5		----		2.65
08		6.4	25		4.0		----		2.65
09		6.0	26		5.0		3.45	3.6	2.65
10		6.9	27		5.2		3.60		2.65
11		6.9	27		5.3		----	3.9	2.62
12		7.0	27		5.2		----	3.8	2.70
13		7.8	28		5.4		----		2.68
14		6.8	28		5.2		----		2.70
15		6.6	28		5.3		----		2.65
16		6.6	28		5.1		----		2.70
17		6.7	29		4.0		----		2.70
18		6.7	28		---		----		2.75
19		6.7	20				----		2.80
20		6.7	27				---	2.4	2.85
21		6.8	23						2.80
22		7.0	19						2.75
23		6.9	13						2.60

Time: 30.0° E.
Sweep: 1.0 Mc to 25.0 Mc in 1 minute.

Table 26

Upsala, Sweden (59.8° N, 17.6° E.) July 1959

Time	h'F2	foF2	Count	h'F	foF1	h'E	foE	fEs	(M3000)F2
00		6.2	29	300		---	----	3.7	2.5
01		6.0	28	305		---	0.90	3.6	2.5
02	---	6.0	27	295	---	---	1.10	3.4	2.5
03	300	6.0	29	300	2.7	110	1.50	4.2	2.5
04	365	6.1	30	270	3.6	105	1.98	4.0	2.6
05	390	6.1	31	245	4.8	105	2.45	4.0	2.6
06	405	6.3	30	240	4.6	105	2.75	4.0	2.6
07	430	6.4	30	230	4.0	105	3.15	4.2	2.6
08	445	6.9	29	230	5.0	105	3.30	4.2	2.6
09	430	7.0	29	225	5.2	105	3.50	4.4	2.5
10	450	7.8	20	225	5.3	105	3.60	4.4	2.6
11	430	7.1	29	230	5.3	105	3.65	4.4	2.6
12	460	7.0	29	225	5.4	105	3.65	4.1	2.6
13	470	6.9	29	220	5.5	105	3.65	4.1	2.6
14	440	6.9	29	220	5.3	105	3.60	4.0	2.6
15	420	6.8	30	225	5.2	105	3.50	3.6	2.6
16	400	6.9	30	230	5.0	105	3.35		2.6
17	370	6.0	30	240	5.0	110	3.15	4.0	2.7
18	355	7.0	30	240	4.5	110	2.70	4.2	2.8
19	335	6.8	30	260	4.0	110	2.30	4.0	2.8
20	---	7.0	29	270	---	110	1.80	3.2	2.8
21		7.2	29	275		110	1.40	3.1	2.7
22		7.0	29	200		120	0.90	3.0	2.6
23		6.8	29	290		115	0.80	3.3	2.6

Time: 15.0° E.
Sweep: 0.33 Mc to 20.0 Mc in 3 minutes.

Table 27

Sottens, Switzerland (46.6° N, 6.7° E.) July 1959

Time	h'F2	foF2	Count	h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	300	7.1	16						3.0
01	320	6.8	21						2.9
02	305	6.0	20						2.9
03	300	6.8	18						2.9
04	300	6.0	19						2.9
05	300	6.1	21	---	---				3.0
06	300	6.0	25	260	3.9	110	2.4	2.5	3.2
07	300	7.4	11	230	4.6	100	2.8	4.2	3.3
08	330	7.4	11	250	5.2	100	3.2	4.2	3.1
09	350	7.9	16	220	5.3	100	3.4	4.9	3.0
10	360	8.0	13	220	5.4	100	3.6	5.2	3.1
11	300	8.0	13	220	5.6	100	3.7	4.6	3.0
12	380	8.1	13	210	5.7	100	3.7	4.4	3.0
13	300	7.9	13	220	5.9	100	3.7	4.8	3.1
14	395	7.6	22	220	5.8	100	3.7	4.3	3.0
15	370	7.8	18	220	5.7	100	3.7	4.1	3.1
16	400	7.4	12	220	5.6	100	3.6	4.0	3.0
17	328	7.8	11	220	5.2	100	3.4	3.9	(3.2)
18	320	7.3	13	240	5.2	100	3.0	4.1	3.2
19	280	7.6	16	260	4.6	110	2.6	4.2	3.2
20	270	7.2	12					3.2	3.2
21	260	7.3	10						3.1
22	300	7.2	10					3.0	(2.9)
23	300	7.2	12						2.95

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

Table 28

Rome, Italy (41.8° N, 12.5° E.) July 1959

Time	h'F2	foF2	Count	h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(8.0)	23	310				3.5	(2.50)
01		(7.9)	25	310				3.2	(2.55)
02		(7.4)	24	300				3.1	(2.60)
03		7.0	25	300				3.1	2.55
04		6.6	28	300		---	---	3.1	2.55
05		6.8	28	280		140	1.9	2.7	2.60
06		7.8	29	260		120	2.5	3.1	2.75
07	---	8.5	27	250	---	110	3.0	4.5	2.80
08	---	8.4	22	250	5.0	110	3.4	5.4	2.80
09	(430)	8.8	26	240	5.3	110	3.6	5.2	2.70
10	(390)	8.8	26	240	5.5	110	3.0	5.3	2.65
11	400	9.2	24	230	5.7	110	3.9	6.0	2.60
12	410	9.5	25	220	5.8	110	3.9	5.3	2.60
13	390	9.1	26	220	5.8	110	4.0	5.1	2.60
14	390	9.2	26	220	5.9	110	4.0	4.7	2.65
15	410	9.1	27	240	5.5	110	3.8		2.65
16	(400)	8.7	26	240	5.4	110	3.6	4.7	2.70
17	---	8.6	25	240	---	110	3.3		2.75
18		8.8	24	260		120	2.8	4.4	2.80
19		9.0	19	200		120	2.0	5.4	(2.80)
20		(8.7)	16	270				4.7	(2.80)
21		(8.6)	15	280				4.5	(2.55)
22		(8.7)	19	280				3.6	(2.55)
23		(8.4)	19	310				4.0	(2.60)

Time: 15.0° E.
Sweep: 1.4 Mc to 15.0 Mc in 5 minutes, automatic operation.

Table 29

Ibadan, Nigeria (7.4°N, 3.9° E.) July 1959

Time	h'F2	foF2	Count	h'F	foF1	h'E	foE	foEs	(M3000)F2
00		6.6	28	350					----
01		6.4	28	340					----
02		6.0	28	340					----
03		5.6	28	295					(2.90)
04		(5.4)	28	250					(3.08)
05		4.8	29	250					3.15
06		7.9	29	260			2.10		3.00
07		10.9	29	245			3.00		2.95
08		12.5	28	230			3.50	7.0	2.80
09		(13.2)	30	220			3.85	9.0	(2.55)
10		13.1	31	215			(4.10)	9.6	(2.35)
11		(12.6)	30	210			(4.25)	9.0	2.20
12		11.2	31	205			(4.25)	9.5	2.20
13		11.0	31	205			(4.15)	9.0	2.20
14		10.9	31	205			(4.00)	9.8	2.20
15		11.4	31	210			(3.75)	9.0	2.25
16		(11.6)	30	230			3.30	7.0	(2.30)
17		(12.0)	30	250			2.80	6.3	(2.30)
18		>11.5	31	285			1.85		(2.25)
19		>9.4	27	360			----		(2.10)
20		8.7	29	370					(1.95)
21		8.1	30	410					----
22		7.0	29	400					----
23		6.0	29	380					

Time: 0.0°.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 30

Singapore, [illegible] (1.3°N, 103.8°E.) July 1959

Time	h'F2	foF2	Count	h'F	foF1	h'E	foE	foEs	(M3000)F2
00		11.9	24	230				3.3	3.10
01		(9.4)	23	230				3.4	3.10
02		7.8	26	220				3.4	3.10
03		6.8	26	240				3.1	3.00
04		5.6	26	230				<1.7	3.00
05		4.2	25	240				<1.7	3.10
06		6.0	26	290				1.8	2.90
07		9.5	24	255		90	2.70	2.1	2.65
08		12.3	21	245		110	(3.40)		2.65
09		14.1	22	230		110	3.70	4.2	2.75
10		14.7	23	220		105	4.00		2.50
11	---	13.9	21	215		105	(4.15)		2.20
12	410	13.1	23	210	---	105	(4.15)		2.10
13	400	12.3	24	210	---	105	(4.10)		2.05
14	425	(12.2)	23	210		105	4.10		2.15
15	340	12.8	22	220		105	3.70	3.8	2.20
16		12.4	23	240		105	----	3.8	2.30
17		(12.3)	27	245		110	2.80	3.8	2.30
18		12.5	27	265			----	3.6	2.40
19		12.9	26	295				3.2	2.50
20		13.1	20	310				2.6	2.55
21		(12.5)	15	280				2.2	2.70
22		(12.0)	19	230				4.2	2.70
23		12.6	20	240				4.0	2.90

Time: 105.0° E.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 31

Townsville, Australia (19.3° S, 146.7° E.) July 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		4.8	10	245					(3.00)
01		>4.2	14	250					(2.90)
02		4.0	13	250					(3.00)
03		3.7	14	250					3.00
04		3.3	14	250					2.80
05		3.1	14	<295					2.80
06		>3.5	13	275					3.00
07		>7.0	13	250			2.10		(3.15)
08		>9.5	13	250			2.90		----
09	---	(11.5)	13	240			3.40		3.20
10	---	11.8	12	230			3.60	3.6	3.10
11	(250)	11.6	16	230			3.80	4.3	3.00
12	---	11.3	17	230			3.88	4.5	3.00
13	(270)	11.0	16	230			3.05	5.4	2.90
14	(300)	(10.6)	16	230			3.70	5.5	2.00
15	---	(10.0)	13	<245			3.45	5.0	(2.80)
16		(10.2)	14	250			3.20	6.2	(2.90)
17		>9.8	13	250			2.60	5.0	----
18		>9.5	13	240			<1.70	4.4	----
19		(7.2)	11	240				4.0	----
20		>6.2	12	250				3.6	(2.80)
21		>6.3	12	270				3.1	(2.90)
22		(6.0)	11	250				2.7	(3.10)
23		>5.5	9	250				3.1	----

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

Table 32

Tromso, Norway (69.7° N, 19.0° E.) June 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(5.7)	9	360		---	----	4.0	(2.40)
01	---	6.0	14	380	----	---	----	4.0	2.55
02	---	6.2	13	340	----	110	2.50	4.3	2.50
03	455	6.1	17	270	3.80	---	2.60	4.0	2.45
04	430	6.4	28	260	4.05	110	2.75	3.2	2.55
05	450	6.2	22	250	4.45	110	2.90	3.8	2.45
06	460	6.6	21	250	4.65	105	3.15		2.50
07	490	6.9	21	250	4.75	105	3.25		2.50
08	460	6.8	23	240	5.00	105	3.50		2.55
09	450	6.6	26	240	5.10	110	3.45		2.45
10	460	7.2	30	230	5.10	105	3.55		2.45
11	460	7.2	26	230	5.15	105	3.60		2.45
12	500	7.0	28	225	5.30	105	3.65		2.40
13	495	6.8	29	230	5.20	105	3.65		2.40
14	480	6.6	27	240	5.10	105	3.60		2.55
15	475	6.6	27	230	5.10	105	3.50		2.55
16	460	6.4	27	240	4.90	105	3.35		2.55
17	(460)	6.4	28	250	4.60	110	3.25		2.55
18	---	6.4	27	260	----	110	3.00	3.9	2.70
19	(545)	6.5	27	260	----	115	2.98	4.0	2.60
20	---	6.2	24	305	----	115	2.70	3.9	2.60
21	---	6.2	20	310		---	3.10	4.0	2.60
22	---	5.9	19	310		---	----	4.0	2.55
23	---	5.8	16	360		---	----	3.8	2.45

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

Table 33

Kiruna, Sweden (67.8° N, 20.3° E.) June 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00	---	5.2	21	375	---			4.4	2.4
01	(365)	5.9	18	340	---	---	---	4.0	2.4
02	300	6.0	18	290	3.4	---	2.0	3.9	2.4
03	390	6.1	18	255	3.6	110	2.4	3.0	2.5
04	400	6.0	24	250	4.0	105	2.6	2.0	2.4
05	400	6.0	25	240	4.4	105	2.8		2.4
06	420	6.2	23	235	4.7	105	3.0		2.4
07	405	6.5	26	230	4.0	100	3.0		2.5
08	425	6.8	26	230	5.0	100	3.3	3.6	2.4
09	445	6.6	26	225	5.1	100	3.4	3.4	2.4
10	450	7.0	27	225	5.2	100	3.4		2.4
11	450	6.8	27	225	5.3	100	3.4		2.4
12	450	6.8	28	220	5.2	100	3.4		2.4
13	460	6.5	29	220	5.2	100	3.4		2.5
14	460	6.4	20	220	5.2	100	3.4		2.4
15	450	6.5	27	225	5.1	100	3.3		2.5
16	435	6.5	25	230	5.0	105	3.2	3.4	2.6
17	---	6.4	26	240	4.7	105	3.0	3.1	2.6
18	(460)	6.3	29	250	4.3	105	2.8	3.8	2.6
19	(540)	6.2	29	255	---	110	2.6	3.0	2.6
20	(390)	6.2	26	290	3.9	110	2.3	3.9	2.6
21	---	6.0	26	300	---	110	2.2	3.4	2.6
22	---	5.8	24	315	---	---	---	3.0	2.6
23		5.8	15	375				4.0	2.5

Time: 15.0° E.
Sweep: 0.8 Mc to 14.0 Mc in 30 seconds.

Table 34

Slough, England (51.5° N, 0.6° W.) June 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fuEs	(M3000)F2
00		7.7	30	290				2.4	2.50
01		7.2	30	300				2.4	2.50
02		7.2	30	300				1.8	2.45
03		6.7	29	300		---	1.15	1.8	2.50
04	---	6.8	30	300	---	115	1.80	2.1	2.60
05	370	7.2	30	260	---	110	2.45	2.7	2.60
06	430	7.4	30	245	4.4	105	2.90	3.4	2.70
07	300	7.8	28	235	4.8	100	3.30	3.8	2.65
08	330	8.2	28	225	5.0	100	3.50	4.3	2.60
09	400	8.2	30	225	5.5	100	3.75	4.6	2.60
10	435	8.2	30	215	5.5	100	3.85	4.8	2.60
11	430	8.0	30	215	5.6	100	4.00	4.3	2.68
12	415	8.0	30	220	5.7	108	4.05	4.3	2.60
13	430	7.8	28	220	5.7	100	3.95	4.6	2.60
14	420	7.8	30	220	5.5	108	3.90	4.4	2.60
15	410	7.8	28	220	5.5	100	3.80	4.2	2.60
16	405	7.8	29	235	5.3	100	3.60	4.2	2.70
17	400	7.8	28	245	4.9	105	3.35	4.1	2.65
18	---	8.0	29	240		105	2.95	5.0	2.75
19		8.1	27	255		115	2.50	3.4	2.00
20		8.1	29	270		---	1.90	4.0	2.75
21		8.2	29	270				3.0	2.70
22		8.0	30	<280				3.1	2.55
23		7.8	29	<290				2.2	2.50

Time: 0.0°.
Sweep: 0.65 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 35

Lwiro, Belgian Congo (2.3° S, 20.8° E.) June 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>12.9	28	230				(2.8)	(2.95)
01		(11.6)	27	225				(2.8)	3.01
02		10.6	26	230				(3.1)	2.91
03		9.8	23	220				(2.4)	2.91
04		7.9	27	235				(2.8)	3.00
05		7.1	27	235				(2.4)	3.18
06		8.0	29	260		---	E	(2.2)	3.02
07	250	11.2	30	245		121	2.60	(3.2)	3.19
08	260	12.8	30	230		---	3.25	4.2	3.24
09	270	12.9	30	220		111	3.70	(4.9)	3.10
10	295	13.2	30	215	---	111	3.95	4.8	2.92
11	330	13.1	30	205	(5.2)	109	4.05		2.77
12	365	13.3	30	200	(5.2)	109	4.15		2.69
13	300	13.4	30	200	(5.1)	109	4.05		2.60
14	395	13.5	30	210	(5.0)	111	3.95		2.51
15	390	13.4	30	220	---	111	3.70	4.2	2.52
16	370	13.7	30	230		111	3.30	4.4	2.56
17	---	14.0	30	245		117	2.70	(4.4)	2.61
18		14.8	30	270				(3.3)	2.76
19		>14.9	30	275				(2.8)	(2.02)
20		>13.6	30	270				(2.0)	(2.87)
21		>13.1	28	230				(2.0)	<2.94
22		(14.0)	29	230				(2.5)	<2.91
23		(13.5)	29	230				(2.3)	<3.11

Time: 30.0° E.
Sweep: 1.25 Mc to 20.0 Mc in 3 minutes.

Table 36

Townsville, Australia (19.3° S, 146.7° E.) June 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>5.0	9	250					----
01		4.5	13	250					(3.00)
02		>4.0	12	250					(2.85)
03		4.0	14	270					3.05
04		>4.0	11	270					(2.85)
05		3.8	13	270					(3.00)
06		3.9	16	250			<1.70		(3.20)
07		>7.0	9	250			2.00		----
08		----	3	240			2.90		
09		>10.0	6	240			3.30	3.7	----
10		>11.0	11	230			3.65		(3.10)
11		(11.2)	14	230			3.80	>4.6	3.00
12		(11.2)	13	230			3.80		(2.95)
13		>11.0	12	230			3.80	5.2	(3.00)
14		>10.7	8	220			3.70	4.4	----
15		>10.0	6	240			3.50	4.1	
16		----	2	250			3.20	4.1	
17		----	1	250			<2.60	4.0	
18		----	2	250			----	3.8	
19		>7.0	7	230				3.5	----
20		(6.1)	9	250				>3.0	----
21		>6.0	5	260					
22		>5.9	6	260					----
23		>5.0	8	250					----

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

Table 37

Townsville, Australia (19.3° S, 146.7° E.) May 1959 *

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>6.2	12	255					----
01		>6.5	9	250					(3.00)
02		5.6	12	265					(3.00)
03		4.3	11	260					(3.00)
04		>4.5	11	280					(2.90)
05		4.5	13	265					(2.95)
06		3.9	11	250		----			3.10
07		>7.0	7	240		2.15			
08		----	3	240		3.00			
09		>11.0	13	240		3.30			----
10		>12.0	13	240		3.55	3.8		(3.05)
11		(12.5)	13	230		3.80			(3.00)
12		(12.8)	14	230		3.75	4.0		(2.85)
13		>12.0	13	230		3.75	4.1		(2.85)
14		>11.5	11	230		3.60	4.1		----
15		>11.0	9	235		3.50			----
16		>10.5	6	245		3.20	3.4		----
17		----	1	250		2.50	3.7		
18		----	0	250		----	3.6		
19		----	1	250			3.4		
20		----	2	240			2.3		
21		----	3	250					
22		>6.0	5	250					
23		(6.2)	7	250					----

Time: 150.0° E.
Sweep: 1.0 Mc to 16.0 Mc in 1 minute 55 seconds.
* Observations taken 14th through 31st only.

Table 38

Concepcion, Chile (36.6° S, 73.0° W.) February 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		10.35	18	310				2.8	2.62
01		9.5	19	310				2.2	2.65
02		9.2	19	<300				2.7	2.60
03		>8.5	19	285				2.4	2.60
04		8.05	18	<298				2.3	2.50
05		8.05	18	310		---	E	1.8	2.50
06		9.35	18	245		119	2.32	2.5	2.82
07		10.8	18	230		109	3.00	3.2	2.92
08	---	11.7	18	230		105	3.45	3.8	2.90
09	---	11.9	22	220		106	3.75	4.2	2.80
10	---	12.4	23	220	---	109	----	4.5	2.65
11	(335)	12.9	23	(220)	---	107	----	4.7	2.65
12	360	13.75	24	230	6.5	109	----	4.7	2.65
13	360	13.8	25	(225)	---	109	(4.15)	>4.6	2.70
14	360	13.9	23	(230)	---	109	4.00	4.7	2.70
15	350	13.65	24	(240)	---	109	3.82	4.7	2.70
16	(340)	12.9	23	(240)	---	109	3.60	5.0	2.70
17	---	12.4	23	<250		111	(3.05)	4.8	2.75
18		12.6	23	(265)		111	2.40	4.4	2.75
19		12.5	22	290		---	----	4.0	2.70
20		>11.35	22	320				4.0	2.58
21		11.5	21	330				4.0	2.55
22		11.15	20	330				3.6	2.55
23		10.7	19	310				2.8	2.60

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

Table 39

Byrd Station (80.0° S, 120.0° W.) January 1959

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00	480	6.2	23	(275)	4.2	106	3.00		2.30
01	<515	6.2	19	<310	4.0	111	3.00	>3.1	2.30
02	565	5.6	19	<300	4.6	109	3.00		2.25
03	(530)	6.0	21	270	(4.3)	108	2.95		2.40
04	(560)	6.0	21	270	---	109	(2.90)		2.45
05	(600)	5.8	21	265	3.9	109	2.90		2.50
06	620	5.6	28	(260)	4.0	109	(3.02)		2.30
07	515	6.0	23	<260	4.4	105	3.00		2.50
08	<490	5.9	21	250	(4.6)	107	(3.12)		2.50
09	520	6.45	24	<250	4.7	105	----		2.45
10	540	6.5	24	260	4.8	105	----		2.38
11	470	7.0	21	245	4.8	105	(3.15)		2.50
12	495	6.95	28	245	4.8	107	>3.25		2.35
13	480	7.05	26	245	4.8	107	3.30		2.38
14	500	6.7	27	250	4.8	106	(3.40)		2.40
15	500	6.8	25	255	5.0	105	(3.32)		2.40
16	515	6.6	28	(260)	4.8	105	3.22		2.45
17	500	6.8	27	260	4.8	108	3.25		2.30
18	490	6.95	22	255	4.8	109	3.00		2.35
19	470	6.5	25	260	4.7	108	3.00		2.30
20	520	6.2	25	(280)	4.6	109	(3.00)		2.30
21	490	6.35	24	265	4.6	107	(3.20)		2.40
22	460	(6.5)	23	(270)	---	113	3.35		2.30
23	540	(6.4)	26	275	4.5	105	2.98		2.30

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

Table 40

Pole Station (90.0° S.) November 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00	450	7.1	29	250	(4.6)	103	2.75		2.55
01	450	6.9	28	245	(4.5)	103	2.80	3.2	2.48
02	(450)	7.1	28	250	4.4	103	(2.75)		2.45
03	460	7.0	27	250	4.5	101	2.80		2.40
04	450	7.0	29	245	4.4	103	(2.80)		2.35
05	455	(6.8)	30	245	4.3	101	2.80		(2.30)
06	450	6.95	28	245	(4.3)	101	(2.85)		2.35
07	455	(6.8)	26	230	4.2	101	2.80		(2.25)
08	440	(6.8)	28	230	4.2	101	2.88		(2.35)
09	490	6.2	26	245	4.3	101	2.95		2.25
10	515	6.0	27	255	4.3	101	(3.00)		2.30
11	550	5.7	25	260	4.3	101	3.00		2.30
12	580	5.6	27	265	4.3	103	3.00		2.35
13	(565)	5.95	28	255	4.6	103	2.98		2.45
14	515	6.3	30	250	4.5	102	2.90		2.45
15	(475)	6.9	29	250	(4.5)	101	(2.90)		2.55
16	(470)	7.1	28	250	(4.5)	101	2.95		2.50
17	(530)	6.7	25	250	(4.4)	101	2.80		2.55
18	475	6.3	29	250	4.3	101	(2.90)		2.50
19	445	6.5	28	245	(4.3)	103	2.98		2.60
20	(480)	6.6	27	250	4.5	102	>2.85		2.60
21	(430)	6.8	26	250	4.7	101	2.85		2.60
22	(460)	6.75	28	250	(4.8)	103	2.80		2.70
23	(420)	6.8	27	240	4.6	102	(2.72)		2.55

Time: 0.0°.
Sweep: 1.0 Mc to 25.0 Mc in 13.5 seconds.

Table 41

Hobart, Tasmania (42.9° S, 147.2° E.) September 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>7.0	25	270					2.60
01		>7.0	26	270					(2.50)
02		>6.5	25	280					(2.60)
03		>6.0	25	260					(2.60)
04		>5.0	26	270					(2.40)
05		>5.0	25	270					(2.60)
06		>6.0	26	270		---	1.50		----
07		>8.0	27	240		120	2.55		(3.05)
08		>10.2	28	230		110	3.05		3.00
09		>11.9	28	230		110	3.50		3.00
10		12.2	28	230		110	3.70		2.85
11		12.5	28	230		110	3.80		2.80
12		12.5	27	230		110	3.90	4.0	2.75
13		12.0	30	230		110	3.80		2.75
14		11.6	30	230		110	3.75		2.65
15		>11.0	29	230		110	3.55		2.60
16		>10.5	29	240		110	3.20		(2.60)
17		>10.0	27	240		120	2.60		(2.70)
18		>10.0	28	250		---	----		(2.70)
19		>9.5	28	250					(2.60)
20		>9.0	28	250					(2.70)
21		>8.5	27	260					2.65
22		>8.0	25	260					(2.70)
23		(7.3)	25	280					(2.65)

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

Table 42

Nurmijarvi, Finland (60.5°N, 24.6°E) August 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		6.6	13						2.55
01		6.0	17						2.50
02		5.6	15						2.55
03		5.3	17						2.55
04		5.0	13				----		2.55
05		5.8	19		---		----		2.70
06		6.0	26		---		2.30		2.65
07		6.4	24		---		2.60		2.70
08		7.0	27		---		2.10		2.70
09		7.5	24		5.2		3.30	...7	2.60
10		7.9	27		5.4		3.50		2.65
11		7.9	25		5.6		3.55	3.8	2.70
12		8.2	26		5.6		----	4.0	2.65
13		8.2	28		5.6		----		2.65
14		7.9	27		5.6		----		2.65
15		7.8	28		5.4		----		2.70
16		7.7	27		5.5		----		2.70
17		7.8	27				----		2.70
18		7.8	27				2.80		2.75
19		7.6	26				2.30		2.80
20		7.9	23						2.80
21		7.6	22						2.75
22		7.2	18						2.70
23		6.8	15						2.60

Time: 30.0°E.
Sweep: 1.0 Mc to 25.0 Mc in 1 minute.

Table 43

Lindau/Harz, Germany (51.6° N, 10.1° E.) August 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fEs	(M3000)F2
00		7.07	29	294				2.8	2.50
01		6.73	28	309				3.0	2.47
02		6.36	29	303				2.6	2.47
03		5.98	31	309		---	----	2.9	2.45
04		5.76	31	305		---	E	2.0	2.45
05		5.70	31	300		---	E	2.7	2.50
06		6.40	30	262	----	110	----	3.6	2.73
07	(368)	7.04	31	242	4.05	104	2.92	4.2	2.80
08	(414)	7.66	27	236	5.25	103	3.29	4.7	2.75
09	(435)	7.96	20	236	5.70	102	3.58	5.8	2.66
10	429	8.56	28	229	5.00	102	3.71	5.5	2.65
11	411	8.02	30	226	6.00	102	3.92	5.0	2.62
12	406	8.86	30	222	6.00	102	3.94	5.3	2.60
13	410	8.66	30	222	6.10	102	4.00	4.9	2.56
14	416	8.66	30	228	5.90	104	3.98	4.9	2.56
15	(437)	8.54	29	228	5.70	101	3.77	4.5	2.62
16	(410)	8.22	29	231	5.45	102	3.52	4.4	2.62
17	---	8.25	30	235	----	101	3.24	4.2	2.66
18		8.44	30	252	----	104	2.76	4.6	2.72
19		8.60	31	267		108	----	4.4	2.74
20		8.48	31	265		---	E	4.0	2.70
21		8.06	30	262		---	----	4.2	2.62
22		7.65	28	274				3.4	2.58
23		7.38	28	287				3.7	2.51

Time: 15.0° E.
Sweep: 1.0 Mc to 16.0 Mc in 4 minutes.

Table 44

Cape Canaveral, Florida (28.4° N, 80.6° W.) August 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		7.25	30	<310					2.60
01		>7.2	30	<310				2.6	2.60
02		6.9	30	300					2.55
03		6.7	30	<300					2.60
04		6.35	30	300					2.65
05		6.0	30	280					2.60
06		6.7	30	270		---	----		2.80
07	---	0.2	30	240	---	<119	2.08	3.0	2.95
08	---	9.2	30	<230	---	111	(3.45)	3.7	2.80
09	(360)	9.6	31	<225	(5.6)	109	3.80	4.3	2.70
10	390	10.1	30	<220	6.4	109	(4.05)	4.3	2.55
11	390	10.6	31	(215)	(6.2)	(109)	(4.28)	4.5	2.55
12	400	10.5	30	<230	6.4	(109)	(4.30)	4.6	2.55
13	400	10.3	31	215	6.4	109	4.35	4.5	2.50
14	390	10.05	30	(220)	(6.1)	109	4.20	4.4	2.55
15	400	10.0	31	225	(6.0)	(111)	4.05	4.2	2.55
16	390	9.7	30	230	(5.8)	(109)	3.80	4.1	2.55
17	(350)	9.3	31	240	---	<113	3.35	3.8	2.60
18		9.0	31	(250)		<119	----	3.2	2.60
19		8.8	30	260					2.70
20		8.15	30	270					2.60
21		7.85	30	(290)					2.60
22		7.65	30	300					2.60
23		7.4	29	(315)				2.4	2.55

Time: 75.0° W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 45

Townsville, Australia (19.3° S, 146.7° E.) August 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(6.6)	12	250					(2.95)
01		>6.5	18	250					(2.95)
02		>6.5	24	240					3.00
03		>5.2	26	230					2.90
04		4.6	25	260					2.90
05		>4.3	26	300					2.75
06		4.0	24	280		---	<1.70		2.95
07		>8.8	14	250		120	2.40		----
08	---	>12.0	21	250		110	3.20		(3.15)
09	(250)	13.1	24	240		110	3.50		3.05
10	---	13.3	26	230		110	3.00		3.00
11	(250)	12.6	26	220		110	3.90	4.2	2.85
12	---	12.0	27	220	---	110	4.00	4.4	2.80
13	(350)	12.0	27	210	6.6	110	3.95	4.5	2.70
14	---	11.8	27	230	6.8	110	3.80	4.3	2.60
15	---	>11.0	27	230	---	110	3.70	4.0	2.70
16	---	(10.8)	22	250	---	110	3.50	3.7	(2.65)
17	---	>10.0	7	250		120	2.85	3.4	----
18		---	1	260		110	2.00	3.7	----
19		---	1	255				3.1	----
20		>7.5	8	260				3.0	----
21		>7.0	8	<270					----
22		>7.0	0	260				1.9	----
23		>7.0	16	250					----

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

Table 46

Buenos Aires, Argentina (34.5° S, 58.5° W) August 1950

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		8.4	27	280					2.70
01		7.7	27	280					2.70
02		6.8	26	270					2.80
03		6.7	25	255					2.75
04		5.8	25	250					2.70
05		5.0	21	260					2.55
06		5.6	22	275					2.70
07		8.3	23	250					3.05
08		10.5	24	240					3.05
09		11.8	25	240					2.95
10	---	12.4	24	240					2.85
11	---	12.9	23	235	---	---	---		2.80
12	---	12.7	24	255	---				2.75
13	315	12.8	23	260	6.0	---	---		2.70
14	350	12.5	27	240	---				2.70
15	---	12.0	26	250	---	---	---		2.80
16		11.8	28	255					2.85
17		12.0	27	255					2.95
18		10.6	28	240		---	---		2.90
19		10.8	20	260					2.85
20		11.5	29	250					2.80
21		10.8	28	240					2.90
22		10.5	29	250					2.75
23		9.1	28	270					2.70

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

Table 47

Svalbard, Norway (78.2°N, 15.7°E) July 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00	(400)	4.8	19	260	----	110	2.40	3.1	(2.40)
01	470	5.0	22	255	3.75	110	2.50	3.0	2.45
02	500	5.0	25	250	3.75	110	2.60	2.9	2.35
03	520	4.9	23	245	3.90	110	2.65	3.0	2.30
04	530	4.9	21	240	4.00	110	2.80	3.0	2.35
05	535	(4.9)	18	240	4.20	105	3.00	3.0	2.35
06	600	(5.0)	18	245	4.30	105	----	3.2	2.25
07	625	(5.2)	22	250	4.40	105	3.20	3.2	2.30
08	570	5.4	22	240	4.60	105	3.30		2.30
09	535	5.8	21	245	4.65	105	3.30		2.40
10	510	6.2	25	235	4.80	105	3.35		2.40
11	400	6.2	21	235	4.05	105	3.30		2.50
12	500	6.0	20	225	4.70	105	3.30		2.40
13	510	(5.9)	19	215	4.00	105	3.30		2.35
14	540	5.8	25	210	4.80	105	3.25		2.35
15	535	6.0	22	240	4.00	105	3.20	4.6	2.40
16	450	6.0	23	240	4.00	105	3.10	5.1	2.50
17	495	(5.8)	20	250	4.70	105	2.95	4.6	2.45
18	465	5.0	21	250	4.40	105	----	7.1	2.45
19	450	5.9	22	255	----	110	----	6.0	(2.45)
20	430	5.8	22	250	----	110	2.70	4.0	2.55
21	430	5.7	19	260	----	110	2.60	5.2	2.60
22	440	(5.6)	22	250	----	110	2.60	4.0	2.50
23	445	5.1	22	250		110	2.55	3.2	(2.40)

Time: 15.0°E.
Sweep: 0.68 Mc to 24.6 Mc in 5 minutes, automatic operation.

Table 48

Lulea, Sweden (65.6° N, 22.1° E.) July 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00	---	5.5	21	330	---	130	1.8	3.0	(2.4)
01	---	5.4	23	340	---	130	1.7	2.6	2.4
02	450	5.3	24	320	3.2	130	1.9		2.4
03	450	5.4	25	280	3.5	125	2.2		2.4
04	430	5.6	24	260	3.9	120	2.5		2.4
05	470	5.6	27	250	4.2	120	2.8		2.4
06	490	5.8	26	240	4.6	110	3.0		2.35
07	480	6.3	24	230	4.8	110	3.3		2.35
08	470	6.4	24	230	5.1	110	3.3		2.4
09	460	6.5	23	235	5.2	110	3.4		2.35
10	470	>6.6	24	230	5.2	110	(3.6)		2.3
11	480	>6.7	24	230	5.4	110	(3.5)		2.35
12	480	6.8	26	230	5.3	110	(3.6)		2.4
13	470	6.9	26	230	5.3	110	(3.6)		2.3
14	475	6.5	25	230	5.2	110	(3.5)		2.4
15	480	6.4	27	230	5.1	110	3.4		2.4
16	440	6.4	27	235	5.1	115	3.3		2.5
17	(420)	6.4	27	250	4.8	120	3.2		2.5
18	---	6.1	27	250	---	120	2.9		2.6
19	---	6.2	27	270	---	125	2.7	2.8	2.65
20	---	6.1	25	275	---	130	2.3	2.7	2.6
21		(5.9)	26	295		135	2.1		2.5
22		5.9	25	315		150	1.9	2.8	2.4
23		5.0	23	340		---	1.7	2.7	2.4

Time: 15.0° E.
Sweep: 0.65 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 49

Lwiro, Belgian Congo (2.3° S, 20.8° E.) July 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>0.1	29	210				2.7	----
01		>8.8	29	215				2.3	<3.40
02		>8.0	30	225				1.9	<3.00
03		>0.0	28	230				2.2	(3.09)
04		>8.0	29	230				1.8	3.07
05		>7.0	29	230				2.2	3.25
06		7.1	29	260		---	E	2.0	3.04
07	(260)	>11.2	26	250	---	117	2.55	3.3	<3.32
08	260	13.7	23	235	---	110	3.30	4.0	<3.23
09	270	13.2	25	220	---	109	3.65	4.2	3.14
10	300	13.4	20	220	(5.3)	109	3.95	4.0	3.02
11	340	13.5	29	215	(5.5)	107	4.10		2.86
12	370	13.4	29	210	(5.5)	107	4.20		2.70
13	420	13.3	28	210	(5.4)	107	4.10		2.58
14	440	(13.4)	29	210	5.2	109	4.00		2.47
15	450	(13.2)	30	215	5.1	109	3.80	4.4	2.45
16	420	>13.0	30	230	(4.7)	109	3.40	3.8	2.56
17	---	(13.9)	29	250	---	113	2.90	3.5	2.59
18		>14.0	30	275		---	(1.50)	3.4	<2.68
19		>14.0	30	200				2.9	<3.14
20		>10.4	30	290				2.7	
21		>7.0	30	230				2.4	----
22		>7.0	30	220				2.7	----
23		>10.4	29	220				1.0	----

Time: 30.0° E.
Sweep: 1.25 Mc to 20.0 Mc in 3 minutes.

Table 50

Buenos Aires, Argentina (34.5°S, 58.5°W) July 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		6.8	22	300					2.70
01		6.4	22	280					2.70
02		6.2	22	270					2.75
03		6.0	22	260					2.90
04		5.4	22	240					3.10
05		4.1	21	260					2.80
06		3.0	19	270					2.70
07		6.4	22	260					3.05
08		9.6	22	230					3.25
09		10.5	20	240					3.25
10		10.8	22	235					3.20
11		10.9	22	230		---	---		3.05
12	---	11.5	21	240					2.95
13	---	11.9	21	235	---				2.85
14	---	12.5	22	250	---				3.00
15		12.3	23	245					2.95
16		11.8	22	250					2.95
17		11.8	22	230					3.20
18		10.8	22	215					3.10
19		9.6	21	230					3.00
20		9.0	21	235					2.90
21		10.0	21	240					3.00
22		8.3	21	240					2.90
23		7.6	21	270					2.65

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

Table 51

Svalbard, Norway (78.2° N, 15.7° E.) June 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00	400	5.1	19	240	3.95	105	2.60	2.9	2.35
01	490	5.5	19	250	4.00	105	2.60	2.9	2.30
02	455	5.0	23	240	4.00	105	2.75	3.0	2.35
03	450	5.6	23	240	4.00	105	2.90	3.1	2.40
04	505	5.6	22	230	4.30	105	2.90	3.1	2.35
05	525	5.6	23	240	4.35	105	3.00	3.2	2.30
06	610	5.2	18	250	4.30	100	3.20	3.2	2.15
07	570	5.9	19	245	4.75	100	3.30		2.25
08	530	6.2	10	240	4.00	100	3.30		2.30
09	510	6.1	17	240	4.05	100	3.35		2.35
10	500	6.5	22	240	4.95	100	3.30		2.40
11	510	6.2	20	225	4.95	100	3.35		2.35
12	540	6.2	18	220	5.00	100	3.35		2.30
13	540	6.2	24	220	4.05	100	3.30		2.30
14	505	6.2	23	225	5.00	100	3.30		2.40
15	505	6.3	27	225	4.90	100	3.25		2.40
16	475	6.3	23	225	4.75	100	3.25	4.0	2.40
17	450	6.2	24	245	4.65	100	3.15	3.8	2.50
18	495	6.4	25	240	4.65	100	3.10	3.0	2.50
19	455	6.3	23	245	4.40	105	3.00	4.4	2.50
20	(450)	6.3	20	245	----	105	2.90	3.9	2.55
21	(445)	5.0	14	250	----	105	2.80	4.1	2.50
22	435	5.8	20	245	4.10	105	2.70	3.3	2.40
23	445	5.5	19	250	4.00	110	2.70	2.9	2.40

Time: 15.0° E.
Sweep: 0.60 Mc to 24.6 Mc in 5 minutes, automatic operation.

Table 52

Lulea, Sweden (65.6° N, 22.1° E.) June 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00	---	6.2	22	330		---	1.7	3.1	2.4
01	---	6.2	22	330		---	1.0	2.7	2.4
02	(405)	6.2	23	300	---	---	2.1	2.5	2.4
03	400	6.1	23	270	3.8	130	2.4		2.4
04	400	6.4	24	260	4.1	115	2.7		2.45
05	440	6.5	24	245	4.5	115	3.0		2.45
06	475	6.4	26	240	4.7	110	3.2		2.4
07	500	6.4	27	230	4.9	110	3.3		2.3
08	485	6.7	26	225	5.1	105	3.5		2.3
09	480	6.8	27	230	5.2	105	3.6		2.3
10	500	6.0	26	230	5.3	105	3.6		2.3
11	500	6.7	20	225	5.3	105	3.8		2.35
12	500	6.7	29	230	5.4	110	(3.8)		2.3
13	500	6.6	20	225	5.4	105	3.8		2.3
14	500	6.6	29	230	5.4	110	3.7		2.4
15	490	6.5	28	230	5.2	110	3.6		2.4
16	450	6.5	29	230	5.2	110	3.4		2.5
17	410	6.6	28	250	(5.1)	115	3.2	3.5	2.5
18	(395)	6.6	20	250	---	115	3.0	3.4	2.6
19	(390)	6.5	28	260	---	120	2.7	3.0	2.6
20	---	6.6	26	270	---	130	2.4	2.9	2.6
21	---	6.4	27	315		150	2.1	3.0	2.5
22	---	6.2	27	330		---	1.9	3.0	2.5
23	---	6.3	24	335		---	1.0	2.7	2.4

Time: 15.0° E.
Sweep: 0.65 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 53

La Quiaca, Argentina (22.1° S, 65.6° W.) June 1958*

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>8.9	13	200					
01		0.0	14	210					(2.90)
02		>8.0	13	210					(2.90)
03		7.9	13	215					(2.00)
04		6.0	12	220					2.90
05		>5.1	12	220		---	---		<2.95
06		4.5	11	220		---	E		<3.10
07		>6.0	11	260		---	1.6		(2.90)
08		>9.1	11	220		99	2.6		
09	---	>11.5	11	210		99	3.2	3.3	
10	---	>11.4	9	(200)		97	---	3.4	
11	---	>11.3	9	---		95	---	3.9	
12	---	>11.0	9	---		---	---		
13	---	>10.4	10	---		97	---		
14	---	>10.2	10	---	6.4	---	---	3.6	
15		>9.9	9	(205)		99	---		
16		>10.3	10	(215)		99	---		
17		>9.1	13	220		---	2.4	2.8	
18		>9.0	10	(245)		---	---	3.1	
19		>8.3	9	(260)				2.3	
20		>8.7	6	(220)					
21		>9.0	7	(215)					
22		>0.0	10	(210)				2.2	
23		>9.2	13	200					----

Time: 60.0° W.
Sweep: 1.3 Mc to 10.0 Mc in 30 seconds.
* Observations taken 14th through 30th only.

Table 54

Buenos Aires, Argentina (34.5°S, 58.5°W) June 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		7.2	21	270					2.75
01		7.0	21	280					2.70
02		6.7	21	270					2.80
03		5.8	20	250					2.85
04		5.4	18	250					2.90
05		4.2	17	255					2.65
06		3.6	19	300					2.60
07		7.0	24	260					3.00
08		10.0	23	240		---	---		3.25
09		11.2	26	240		---	---		3.20
10		12.0	27	245		---	---		3.15
11		11.4	27	240		---	---		3.05
12	---	>11.5	27	240	---	---	---		<3.00
13	---	>11.3	27	240	---	---	---		2.95
14	---	12.2	28	240	---	---	---		2.85
15		12.0	25	250		---	---		2.95
16		12.4	26	240					3.05
17		11.2	26	225					3.10
18		10.2	27	225					3.00
19		10.6	26	240					3.05
20		10.2	27	235					3.00
21		9.4	25	235					2.95
22		8.5	24	250					2.85
23		8.0	22	260					2.75

Time: 68.0°W.
Sweep: 1.0 Mc to 25.0 Mc in 27 seconds.

Table 55

Luleå, Sweden (65.6° N, 22.1° E.) — May 1950

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(6.2)	24	355				2.6	(2.2)
01	---	(6.4)	22	350	---	---	---	2.8	(2.3)
02	---	(6.5)	23	340	---	---	1.8		(2.3)
03	---	6.4	25	300	3.5	130	2.0		2.3
04	(540)	6.2	26	270	3.8	120	2.4		2.3
05	(500)	6.4	25	255	4.3	120	2.8		2.4
06	490	6.6	27	245	4.7	115	3.0		2.3
07	480	7.0	27	245	5.0	110	3.3		2.4
08	500	7.3	27	230	5.2	110	3.4		2.4
09	510	7.4	28	230	5.3	110	3.7		2.4
10	520	7.4	27	230	5.3	110	3.8		2.4
11	505	7.4	30	230	5.5	110	3.8		2.3
12	495	7.6	29	230	5.6	110	3.7		2.4
13	490	7.6	30	230	5.5	110	3.7		2.4
14	490	7.5	31	230	5.4	110	3.6		2.4
15	475	7.5	31	235	5.2	110	3.4		2.5
16	(470)	7.3	29	240	5.0	110	3.3		2.55
17	---	7.5	28	250	---	120	3.0		2.6
18	---	7.2	29	260	---	120	2.7		2.6
19	---	7.3	29	270		120	2.4	2.6	2.6
20		6.8	29	280		130	2.1	3.0	2.5
21		(6.8)	25	290		---	1.8	2.8	2.5
22		(6.7)	25	330		---	1.6	2.9	(2.3)
23		(6.6)	18	340				3.2	(2.3)

Time: 15.0° E.
Sweep: 0.65 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 56

Svalbard, Norway (78.2° N, 15.7° E.) — April 1950

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00	---	5.6	18	305		---	1.05		2.40
01	---	4.9	21	325	----	---	1.60	2.0	2.35
02	---	5.0	26	300	----	120	2.00	2.1	2.45
03	---	4.9	20	300	----	120	2.20	2.6	(2.30)
04	545	4.9	19	290	3.70	120	2.20	2.8	2.40
05	560	5.0	24	280	3.75	115	2.20	3.0	2.30
06	615	5.2	18	275	3.80	115	2.65	3.1	2.30
07	500	6.0	20	265	3.90	115	2.75	3.2	(2.35)
08	540	6.9	19	260	4.10	110	----	3.2	2.30
09	490	7.7	23	250	4.30	110	3.20	3.2	2.40
10	475	8.1	27	250	4.40	110	3.20	3.2	2.40
11	510	7.3	26	250	4.30	110	3.10		2.30
12	545	7.0	24	245	4.60	110	3.10		2.40
13	510	6.8	27	250	4.45	110	3.00		2.30
14	480	7.1	28	250	4.55	110	3.10	3.1	2.45
15	470	7.1	28	255	----	110	2.90	3.1	2.50
16	425	7.2	25	260	----	115	2.80	3.3	2.55
17	380	7.2	24	260	4.35	115	2.55	3.7	2.50
18	---	7.1	25	265	----	115	----	3.8	2.55
19	---	6.8	24	270	----	115	----	6.6	2.55
20	---	7.1	25	280	----	120	2.30	3.3	2.50
21	---	6.8	23	295		120	----	3.2	2.50
22	---	6.4	21	300		---	1.95	2.2	2.45
23	---	6.0	19	305	----	120	1.90	2.0	2.45

Time: 15.0° E.
Sweep: 0.60 Mc to 24.6 Mc in 5 minutes, automatic operation.

Table 57

Tucuman, Argentina (26.9° S, 65.4°W.) — April 1950

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>16.0	18	240				2.1	(2.95)
01		>15.2	23	240				3.2	(3.10)
02		15.0	26	240				2.6	3.15
03		>13.1	26	225				2.4	3.30
04		8.4	26	205				2.2	3.30
05		6.8	26	225				1.2	2.85
06		6.7	26	250		---	----		2.85
07		9.1	25	255		131	2.20		3.00
08		13.1	28	230		101	2.90		3.20
09		>15.0	23	225		101	----	3.7	(3.15)
10		16.0	17	220		101	----	4.2	(2.90)
11	---	>15.9	16	(220)		101	----	4.8	(2.80)
12	---	>16.1	12	210	---	101	----	5.1	----
13	415	(17.0)	9	---	---	101	----	5.2	----
14	405	>17.2	8	(205)	---	101	----	5.2	----
15	410	(17.3)	7	230	---	101	----	5.0	----
16	380	----	2	240		99	----	4.5	
17		----	2	250		111	2.65	3.5	----
18		----	0	270		---	----	4.2	
19		----	0	320				2.5	
20		----	0	300					
21		----	0	250					
22		----	2	230					
23		>17.0	5	225					----

Time: 60.0° W.
Sweep: 1.0 Mc to 25.0 Mc in 30 seconds.

Table 58

Buenos Aires, Argentina (34.5° S, 58.5° W.) — April 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		11.3	29	260					2.85
01		10.7	29	295				3.0	2.65
02		10.0	20	295				3.4	2.65
03		9.6	27	270				3.0	2.70
04		7.8	27	225				3.6	2.50
05		6.7	26	245				3.4	2.40
06		6.0	27	300		---	---		2.50
07		10.1	29	240		---	---		2.95
08		13.5	29	235		---	---		3.00
09		15.0	29	235		---	---		2.95
10		15.5	29	230		119	---		2.85
11		15.5	29	235		---	---	5.0	2.70
12	---	15.5	29	235	---	---	---		2.65
13	(380)	15.8	29	240	---	---	---	4.9	2.60
14	(375)	16.3	29	245	7.8	---	---	4.7	2.65
15	---	16.5	28	245		---	---	4.1	2.70
16	---	16.2	28	255		---	---	3.6	2.70
17		15.8	29	260				3.9	2.75
18		15.1	29	260				4.0	2.00
19		>15.0	28	275					2.75
20		14.7	29	260					2.80
21		13.6	29	255					2.80
22		12.9	29	260					2.80
23		12.2	29	270					2.05

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

Table 59

Alert, Canada (82.5° N, 62.7° W.) — March 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fEs	(M3000)F2
00		6.0	15	360		---	---		
01		6.3	15	340		---	---		
02		5.8	16	340		---	---		
03		5.3	17	350		---	---		
04		5.8	14	370		---	---		
05		5.6	14	360		---	---		
06		6.9	14	380		---	---		
07		6.4	14	340		---	1.8		
08		7.0	13	340		---	1.9		
09		6.7	16	330		---	---		
10		6.8	14	380		---	---		
11		6.6	14	360		---	---		
12	---	6.8	14	350	---	---	---		
13	---	7.4	16	350	---	---	2.0		
14		7.9	17	330		---	---		
15		7.5	15	330		---	---		
16		8.0	14	320		---	1.8		
17		7.5	15	330		---	---		
18		6.0	17	320		---	---		
19		5.6	18	340		---	---		
20		5.8	18	340		---	---		
21		6.8	16	340		---	---		
22		5.4	16	360		---	---		
23		6.0	14	340		---	---		

Time: 75.0° W.
Sweep: 1.6 Mc to 20.0 Mc in 15 seconds.

Table 60

Luleå, Sweden (65.6° N, 22.1° E.) — March 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(5.9)	15	390				3.0	(2.4)
01		(5.8)	15	390		---	---	3.2	---
02		(5.6)	12	370				2.8	(2.3)
03		(5.4)	17	375					---
04		(5.1)	14	370					---
05		(5.5)	17	320		---	---		(2.45)
06		(5.6)	16	290		---	---		(2.7)
07		6.1	18	280		---	2.5		2.6
08	---	6.7	18	260		130	2.7		2.8
09	---	8.1	19	260		130	3.0		2.7
10	---	9.4	18	255		120	3.2		2.7
11	---	9.7	19	250		120	3.1		2.7
12	---	10.5	19	250		125	3.2		2.7
13	---	10.1	19	250		125	---		2.7
14	---	10.0	19	250		130	3.2		2.8
15	---	10.2	18	250		125	2.9		2.8
16	---	9.9	17	255		125	2.8		2.8
17	---	8.2	19	270		---	2.3		2.8
18		7.8	18	290		---	---		2.85
19		5.8	17	335		---	---	2.5	2.8
20		(5.6)	16	320				3.1	(2.9)
21		(5.2)	13	340				3.1	---
22		(5.4)	14	410				3.0	(2.45)
23		(5.4)	14	(380)				3.5	---

Time: 15.0° E.
Sweep: 0.65 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 61

Meanook, Canada (54.6° N, 113.3° W.) March 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fEs	(M3000)F2
00		5.1	15	320				4.6	
01		4.9	17	410				4.5	
02		5.0	15	400				4.5	
03		5.0	16	370				4.2	
04		5.6	17	360				3.9	
05		5.0	18	340				2.6	
06		5.1	19	310		---	---		
07		5.9	17	270		---	---		
08	---	6.0	19	250	---	---	2.7		
09	---	7.1	19	250	---	105	3.0		
10	---	7.0	19	220	---	100	3.0		
11	480	8.4	20	220	(5.0)	100	3.2		
12	(475)	8.6	23	230	(5.0)	105	3.4		
13	(500)	9.0	22	220	(5.3)	100	3.4		
14	---	9.2	24	240	---	105	3.2		
15	(430)	9.6	24	240	---	105	3.0		
16	(400)	10.1	24	240	---	110	3.0		
17	---	10.6	24	250		110	2.6		
18		10.2	20	250		---	2.0		
19		9.3	20	290		---	---		
20		6.9	19	200		---	---		
21		5.4	20	290		---	---	3.4	
22		5.2	20	310		---	---	3.5	
23		5.1	15	320				4.1	

Time: 105.0° W.
Sweep: 1.6 Mc to 20.0 Mc in 15 seconds.

Table 62

Alert, Canada (82.5° N, 62.7° W.) February 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fEs	(M3000)F2
00		5.6	20	340					
01		5.6	20	330					
02		6.0	22	330					
03		6.6	24	320					
04		6.2	22	340					
05		5.5	22	330					
06		5.6	23	330					
07		6.1	23	310					
08		6.3	22	300					
09		7.5	23	300					
10		7.0	24	310					
11		7.4	23	320					
12		0.0	25	310					
13		7.4	21	300					
14		7.0	26	310					
15		8.5	23	300					
16		0.1	23	310					
17		0.1	23	330					
18		6.7	24	320					
19		6.3	25	330					
20		5.8	22	320					
21		5.3	22	340					
22		6.0	21	340					
23		5.8	20	330					

Time: 75.0° W.
Sweep: 1.6 Mc to 20.0 Mc in 15 seconds.

Table 63

Lwiro, Belgian Congo (2.3° S, 28.8° E.) February 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		>12.8	15	220				(1.6)	(2.68)
01		(12.7)	15	240				(1.8)	(2.67)
02		>11.5	16	245				(1.7)	2.71
03		(11.3)	15	240				(1.6)	(2.77)
04		10.4	16	230				(1.7)	2.87
05		8.4	14	220				(1.6)	3.05
06		6.7	15	230		---	E	(1.6)	2.90
07	---	9.6	12	245		---	2.50	(3.5)	2.96
08	(250)	10.9	12	235		113	3.20	3.2	2.86
09	---	12.0	15	230	---	111	3.70		2.62
10	---	13.0	17	220	---	---	4.00		2.42
11	---	13.8	17	220	---	---	4.10		2.40
12	---	14.6	10	220	---	---	4.25		2.44
13	(440)	14.6	16	220	---	---	4.10		2.43
14	440	14.6	17	220	(5.0)	---	4.10		2.36
15	450	14.8	16	(230)	---	111	3.85		2.30
16	(420)	>14.7	16	240		113	3.60		2.35
17		14.8	16	250		113	3.05	3.3	2.34
18		>14.0	15	280		---	2.10	(2.3)	(2.39)
19		>13.5	15	345				(2.5)	(2.32)
20		>13.5	14	325				(1.9)	(2.40)
21		>15.2	14	265				(1.8)	(2.63)
22		>14.0	14	220				(1.7)	(2.08)
23		>14.0	14	215				(1.6)	(2.69)

Time: 30.0° E.
Sweep: 1.25 Mc to 20.0 Mc in 3 minutes.

Table 64

Alert, Canada (82.5° N, 62.7° W.) January 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fEs	(M3000)F2
00		6.7	27	300					
01		6.2	22	310					
02		6.0	23	300					
03		6.1	27	300					
04		5.9	20	300					
05		6.1	26	300					
06		5.6	25	300					
07		6.0	20	300					
08		6.3	28	300					
09		7.6	27	290					
10		7.4	25	290					
11		7.6	25	290					
12		7.8	29	290					
13		8.1	29	290					
14		7.8	27	200					
15		8.8	29	290					
16		7.6	29	300					
17		7.9	29	300					
18		7.5	27	300					
19		6.9	27	300					
20		6.1	29	310					
21		6.9	21	300					
22		6.4	26	300					
23		6.6	24	300					

Time: 75.0° W.
Sweep: 1.6 Mc to 20.0 Mc in 15 seconds.

Table 65

Lulea, Sweden (65.6° N., 22.1° E.) January 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		(5.5)	17	345				3.0	(2.4)
01		(6.0)	25	340		---	---	3.2	(2.4)
02		(5.9)	21	330		---	---	2.8	(2.4)
03		(6.2)	25	310		---	---	3.0	(2.5)
04		(6.3)	25	290		---	---		(2.5)
05		(6.0)	26	270		---	---		(2.5)
06		(5.5)	26	250					(2.55)
07		(5.1)	28	265					(2.5)
08		6.0	28	260		---	---		2.7
09		8.3	30	250		150	1.9		2.9
10		11.0	30	250		135	2.1		2.8
11		13.0	29	245		140	2.3		2.8
12		13.5	25	245		150	2.3		<2.9
13		13.4	25	235		150	2.2		2.8
14		13.4	27	230		160	2.0		2.8
15		11.5	30	230		---	1.7		2.8
16		10.5	29	225					2.85
17		7.6	28	230					2.9
18		(5.5)	26	260				1.6	2.75
19		(5.4)	21	280				1.9	(2.6)
20		(5.3)	21	275				2.6	(2.7)
21		(4.8)	19	315				3.1	(2.6)
22		(4.8)	13	345				3.1	(2.45)
23		(5.1)	11	360				3.4	(2.5)

Time: 15.0° E.
Sweep: 0.65 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 66

Meanook, Canada (54.6° N, 113.3° W.) January 1958

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fEs	(M3000)F2
00		5.2	24	290					
01		5.0	29	290				3.2	
02		5.0	26	310				3.6	
03		5.3	29	300				4.4	
04		5.2	26	310				4.0	
05		5.0	28	300		---	---		
06		5.1	28	300		---	---		
07		5.4	31	200		---	---		
08		5.2	31	200		---	---		
09		7.6	31	250		---	2.0		
10		10.2	31	230		(110)	2.5		
11		12.0	31	230		110	2.0		
12		13.3	31	220		110	3.0		
13		14.0	31	230		110	3.0		
14		14.1	30	220		110	2.9		
15		14.0	31	220		110	2.6		
16		14.0	31	220		---	2.3		
17		13.5	30	220		---	1.9		
18		12.1	30	220					
19		10.2	31	220					
20		8.8	30	220					
21		7.6	30	240					
22		6.0	29	250					
23		5.5	31	270					

Time: 105.0° W.
Sweep: 1.6 Mc to 20.0 Mc in 15 seconds.

Table 67

Port Lockroy (64.8°S, 63.5°W) December 1957

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	fEs	(M3000)F2
00	395	10.0	30	360		110	1.5	1.8	2.25
01	400	10.3	28	360		105	(1.4)	1.8	2.25
02	395	10.3	30	345		105	1.8	2.1	2.20
03	425	10.2	30	325	(3.8)	105	---	2.4	2.20
04	450	10.4	30	310	(3.9)	105	---	3.0	2.15
05	445	9.9	31	275	4.4	105	2.8	3.5	2.15
06	450	9.7	31	265	4.7	105	(3.1)	3.8	2.20
07	470	9.0	30	250	5.0	100	3.4	4.0	2.20
08	495	8.4	30	250	5.4	100	(3.7)	4.5	2.25
09	540	8.2	28	245	5.5	100	(3.9)	4.8	2.20
10	585	7.6	28	240	5.7	100	(3.9)	4.8	2.15
11	585	7.4	28	245	5.8	100	4.0	4.8	2.25
12	580	7.5	29	240	5.7	100	(4.0)	4.8	2.20
13	555	7.3	28	240	5.8	100	4.1	4.5	2.30
14	540	7.2	29	240	5.6	100	4.0	4.7	2.30
15	545	7.2	30	240	5.7	100	3.9	4.6	2.35
16	520	7.3	28	250	5.4	100	3.8	5.0	2.30
17	515	7.2	24	255	---	105	3.5	4.9	2.40
18	470	7.4	28	265	---	105	3.2	4.3	2.40
19	445	7.7	25	270		105	(2.9)	4.0	2.40
20	395	7.8	28	290		105	2.5	3.5	2.40
21		8.1	27	310		100	1.8	2.6	2.35
22		8.7	25	335		105	1.6	2.2	2.25
23		9.5	26	350		105	1.6	1.8	2.25

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 68

Port Lockroy (64.8°S, 63.5°W) October 1957

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		9.5	18	330			---		2.25
01		9.0	22	330			---		2.20
02		8.7	19	345			---	1.0	2.25
03		8.1	21	350			(1.2)		2.20
04	510	7.7	23	350	---	110	1.4		2.25
05	465	8.2	28	305	(3.8)	115	2.0		2.30
06	470	8.8	27	265	(4.4)	120	2.3		2.35
07	490	9.0	27	250	4.9	110	2.8	2.9	2.35
08	500	10.0	25	240	5.5	110	3.3	3.4	2.40
09	445	10.6	25	235	6.1	110	3.4	3.7	2.50
10	375	10.9	29	240	5.5	110	3.6	4.0	2.45
11	425	11.0	28	240	6.2	110	3.7	4.1	2.60
12	375	11.2	29	240	---	105	3.7		2.55
13		11.3	29	240		110	3.7		2.55
14		11.2	31	240		110	3.6		2.55
15		10.4	31	245		110	3.5		2.60
16		10.4	29	245		110	3.2		2.65
17		10.1	27	250		115	2.8		2.65
18		10.1	27	260		115	2.3		2.65
19		10.2	25	270		125	1.8	2.2	2.60
20		9.7	20	275			1.6		2.55
21		9.6	21	295			1.4		2.50
22		9.3	23	305			---		2.35
23		9.6	21	320			---		2.30

Time: 60.0°W.
Sweep: 0.67 Mc to 25.0 Mc in 5 minutes, automatic operation.

Table 69

Freiburg, Germany (48.1°N, 7.8°E) June 1957

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		7.9	28	305				2.1	2.45
01		7.4	26	305				2.2	2.50
02		7.2	28	305				2.3	2.45
03		6.8	26	315				2.4	2.50
04	---	7.1	27	280	----	121	(1.60)	2.4	2.60
05	385	7.6	26	255	4.00	111	2.60	3.2	2.60
06	390	8.2	28	240	5.05	107	3.10	3.9	2.60
07	400	8.2	27	235	5.50	105	3.40	4.3	2.55
08	395	8.3	27	225	5.50	105	3.70	5.3	2.60
09	420	8.4	28	(240)	5.85	103	3.90	5.2	2.55
10	415	8.6	28	225	5.85	103	4.00	4.8	2.50
11	410	8.7	26	215	5.80	103	4.00	4.6	2.50
12	435	8.6	27	225	6.00	105	4.05	4.6	2.50
13	435	8.6	26	225	5.70	105	4.00	4.6	2.55
14	420	8.6	28	225	5.65	104	3.90	4.6	2.55
15	405	8.4	26	235	5.70	105	3.70	4.4	2.60
16	390	8.0	27	235	5.40	107	3.50	4.4	2.65
17	340	8.2	26	245	----	109	3.10	4.3	2.65
18	---	8.4	26	255	----	111	2.60	(5.3)	2.75
19		8.4	23	275		123	<1.60	3.7	2.70
20		8.2	29	275				(3.8)	2.60
21		8.0	28	290				(3.1)	2.50
22		8.4	27	315				(2.7)	2.45
23		8.0	25	330				2.4	2.45

Time: 0.0°.
Sweep: 1.25 Mc to 20.0 Mc in 3 minutes.

Table 70

Freiburg, Germany (48.1°N, 7.8°E) May 1957

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		7.5	31	310				1.6	2.45
01		7.2	29	310					2.40
02		6.8	31	305				1.7	2.45
03		6.5	29	305				1.4	2.45
04		7.0	30	280		---	1.45	2.0	2.60
05		7.6	31	250		115	2.40	2.6	2.75
06	(325)	8.2	31	240	----	107	2.90	3.5	2.70
07	350	8.4	29	240	5.50	105	3.30	3.8	2.70
08	370	8.7	31	230	5.70	105	3.55	4.4	2.65
09	370	9.0	28	220	5.75	105	3.75	4.3	2.60
10	405	9.2	31	220	6.00	103	3.85	4.2	2.55
11	395	9.4	28	220	5.90	103	3.95	4.2	2.55
12	400	9.5	31	230	6.00	103	4.00	4.0	2.55
13	400	9.6	28	230	5.90	105	3.90	3.9	2.55
14	365	>9.6	31	230	5.75	104	3.80	4.1	2.60
15	395	9.4	27	235	5.60	107	3.55	4.2	2.65
16	350	9.0	30	240	(5.25)	108	3.30	4.1	2.70
17	---	9.0	30	250	----	111	2.90	3.5	2.70
18	---	9.2	30	260		116	2.30	3.0	<2.80
19		9.2	29	260		---	----	2.5	2.75
20		8.5	30	255				(2.4)	2.60
21		8.2	28	275				(2.5)	2.50
22		8.0	31	290				1.7	2.45
23		7.8	30	305				1.5	2.45

Time: 0.0°.
Sweep: 1.25 Mc to 20.0 Mc in 3 minutes.

Table 71

Freiburg, Germany (48.1° N, 7.8° E.) April 1957

Time	h'F2	foF2—Count		h'F	foF1	h'E	foE	foEs	(M3000)F2
00		7.0	30	320					2.35
01		6.7	29	320					2.35
02		6.4	29	305					2.35
03		6.2	29	295					2.40
04		5.8	28	280					2.50
05	---	6.1	29	260	----	119	1.70		2.75
06	---	7.0	28	240	----	111	2.55		2.85
07	---	8.0	30	230	----	103	3.00		2.80
08	375	9.0	30	225	5.50	103	3.35		2.70
09	380	9.8	30	220	5.80	103	3.60		2.65
10	370	10.6	30	220	5.70	103	3.80		2.70
11	360	11.0	28	225	6.30	103	3.80		2.60
12	355	11.2	30	230	6.15	105	3.90		2.65
13	355	11.2	30	230	6.15	103	3.80		2.65
14	360	11.0	30	230	6.05	105	3.70		2.65
15	---	10.7	30	235	(5.40)	105	3.50		2.65
16	---	10.6	30	240		107	3.05		2.75
17	---	10.4	29	245		111	2.55		2.75
18		10.2	28	250		<124	1.75	2.1	2.80
19		9.5	30	235				1.7	2.80
20		8.4	30	245					2.60
21		7.3	30	260					2.45
22		7.6	30	290					2.45
23		7.4	30	<310					2.40

Time: 0.0°.
Sweep: 1.25 Mc to 20.0 Mc in 3 minutes.

Table 72

Budapest, Hungary (47.4°N, 19.2°E) October 1956

Time	h'F2	foF2—Count		h'F1	foF1	h'E	foE	fEs	(M3000)F2
00	305	6.0	25						
01	305	6.0	24						
02	300	6.0	24						
03	280	5.7	23						
04	260	5.2	23						
05	260	6.7	25	---	---	---	---		
06	240	9.0	29	200	2.8	125	2.3		
07	235	10.4	29	220	3.5	120	2.9	3.1	
08	235	11.1	27	230	4.5	115	3.1	3.3	
09	230	11.6	23	220	4.6	115	3.3	3.7	
10	235	12.0	26	220	4.6	115	3.2	3.4	
11	230	11.5	22	225	4.7	110	3.2		
12	235	11.4	23	235	4.7	115	3.2		
13	235	11.4	24	225	4.1	115	3.1		
14	240	11.2	24	230	---	115	2.9	3.3	
15	240	11.4	24	---	---	120	2.4	3.4	
16	235	10.6	24	---	---	---	---	3.0	
17	235	9.7	27	---	---	---	---		
18	240	8.8	27						
19	255	7.7	24						
20	275	6.8	25						
21	295	6.5	23						
22	300	6.4	23						
23	300	6.2	23						

Time: 0.0°.
Sweep: 1.0 Mc to 20.0 Mc in 35 seconds.

USCOMM-NBS-BL

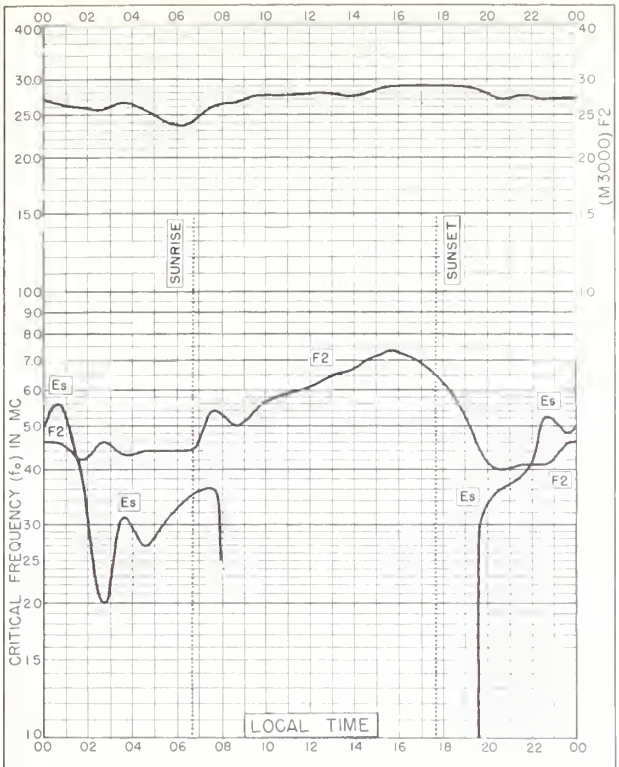

Fig 1. POINT BARROW, ALASKA
71.3° N, 156.8° W MARCH 1960

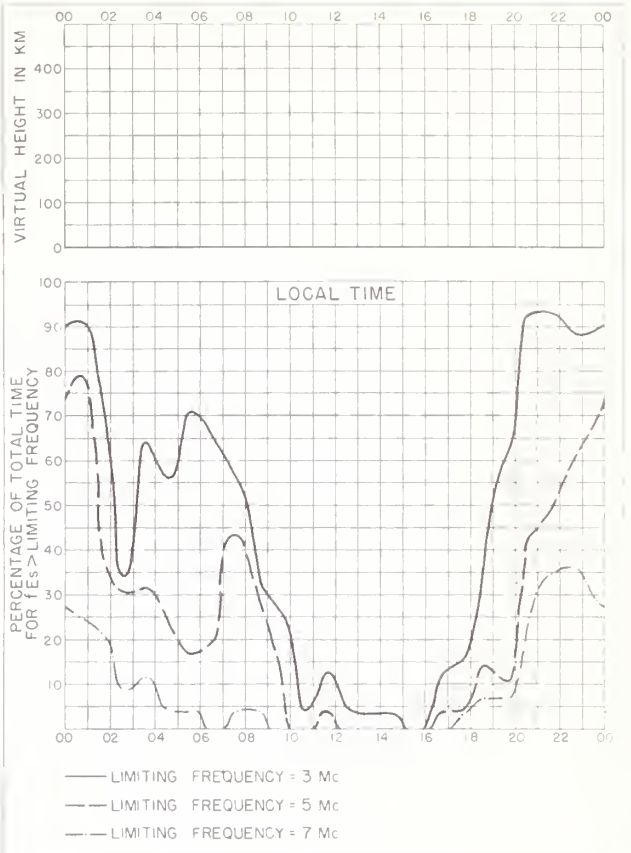

Fig 2. POINT BARROW, ALASKA MARCH 1960

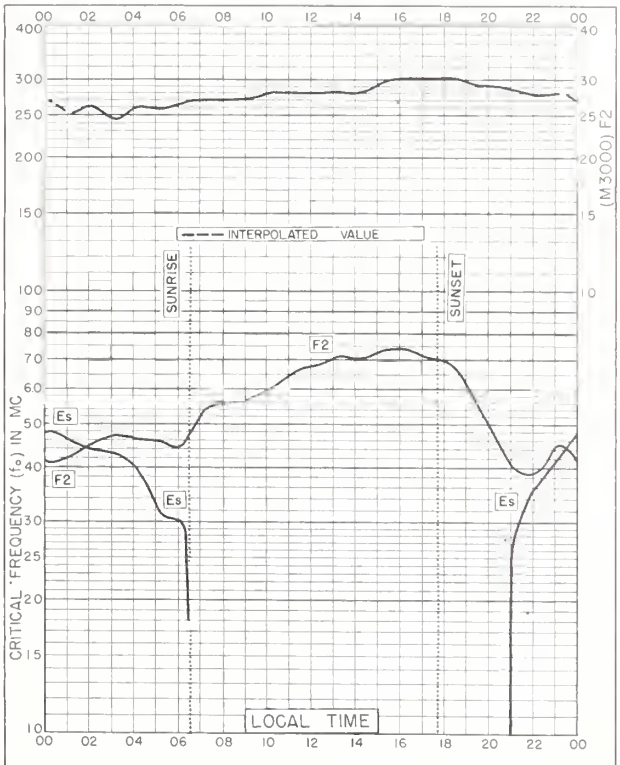

Fig. 3. FAIRBANKS, ALASKA
64.9° N, 147.8° W MARCH 196

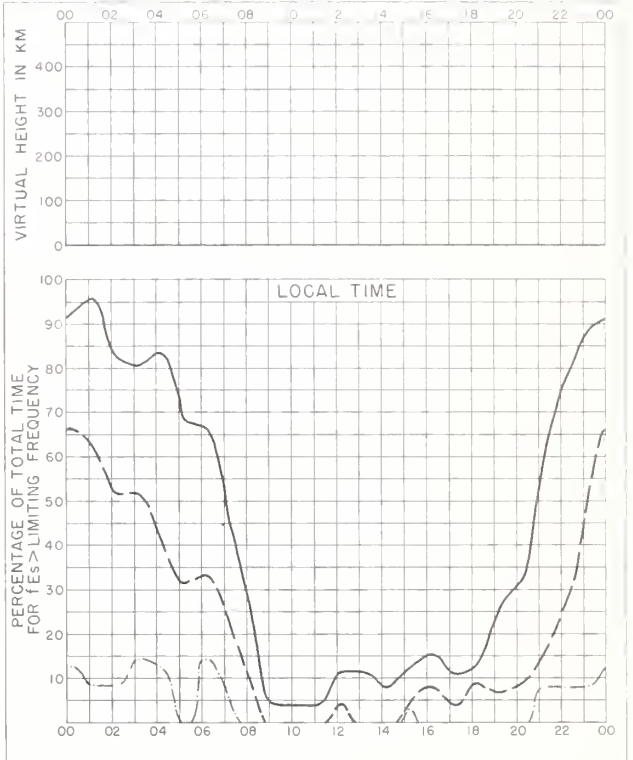

Fig 4. FAIRBANKS, ALASKA MARCH 1960

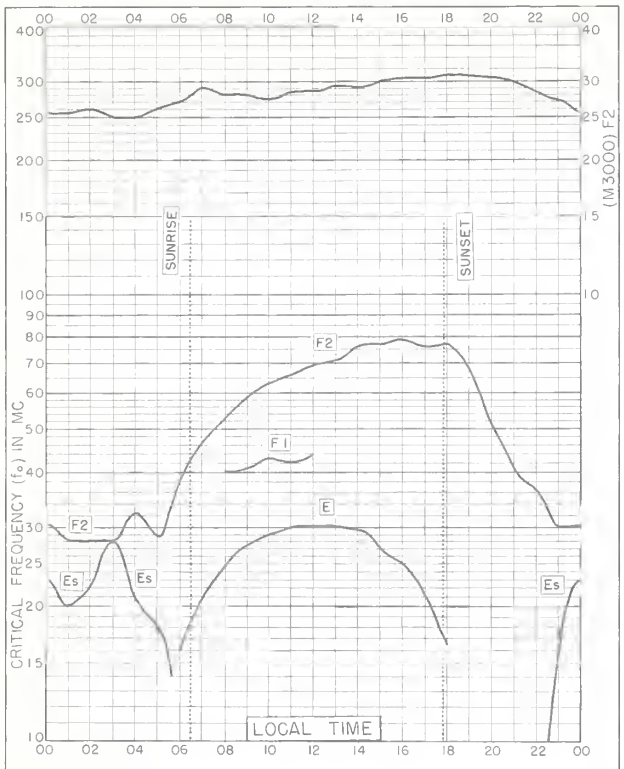

Fig. 5. ANCHORAGE, ALASKA
61.2° N, 149.9° W
MARCH 1960

NBS 503

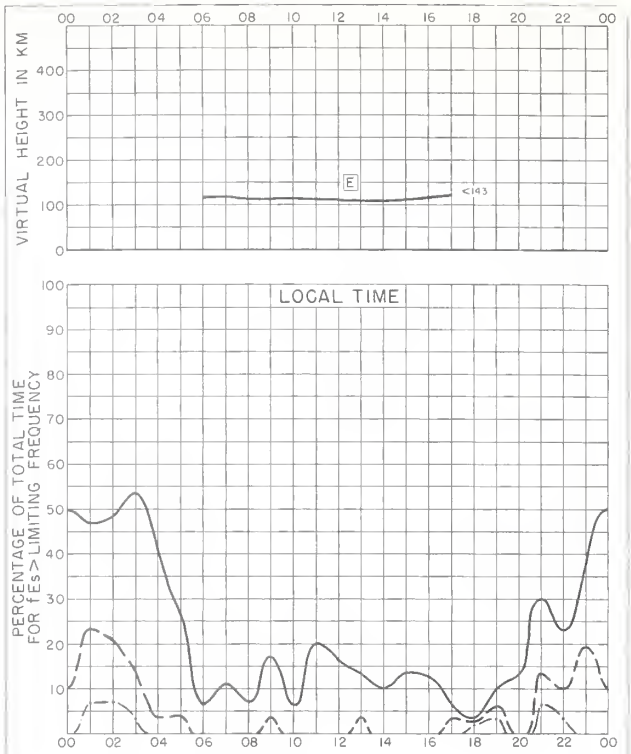

Fig. 6. ANCHORAGE, ALASKA MARCH 1960

NBS 490

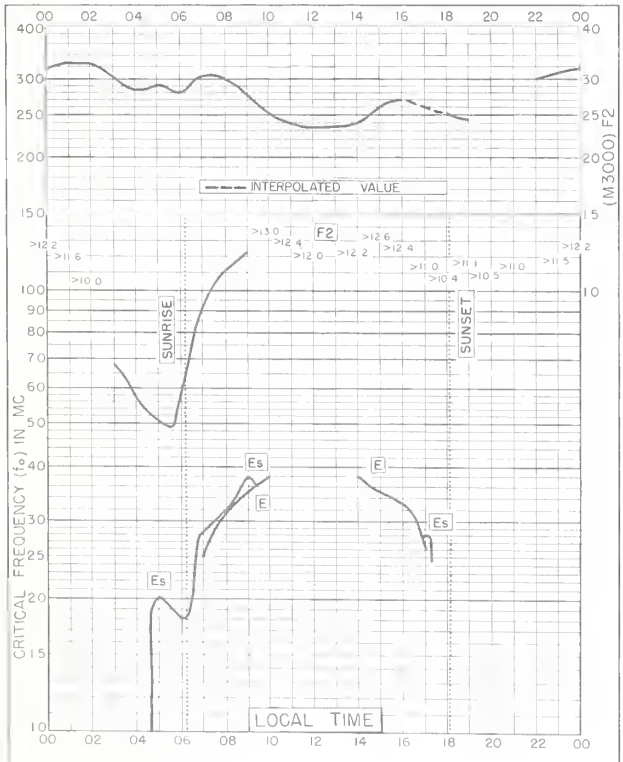

Fig 7. BAGUIO, P.I
16 4° N, 120.6° E
MARCH 1960

NBS 503

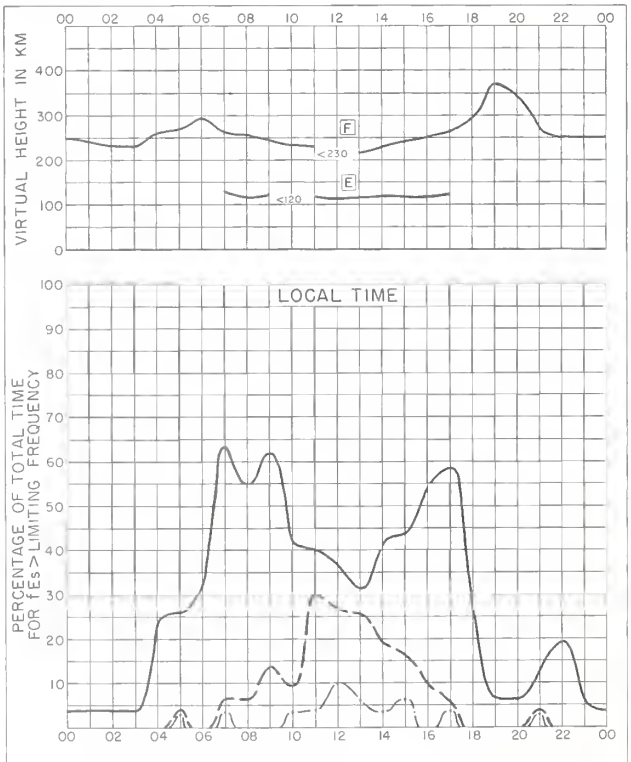

Fig. 8. BAGUIO, P.I. MARCH 1960

NBS 490

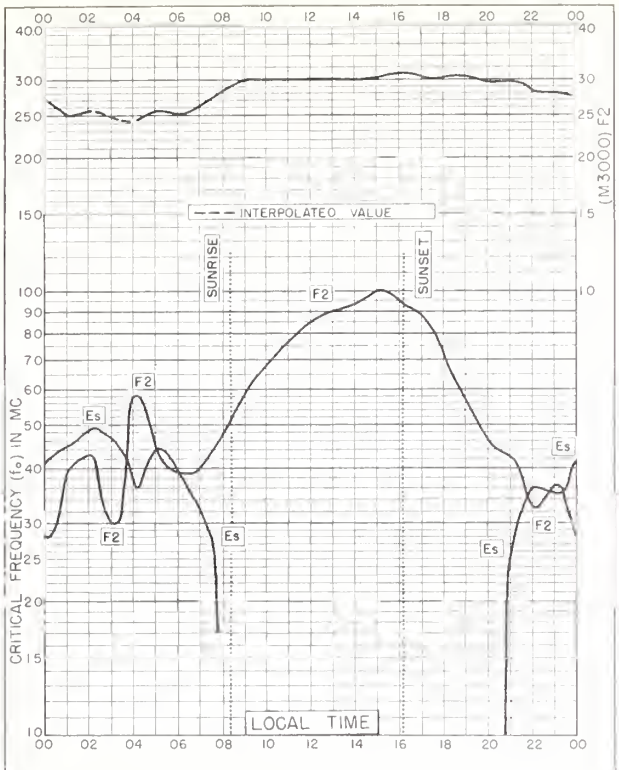

Fig 9. FAIRBANKS, ALASKA
64 9° N, 147.8° W FEBRUARY 1960

NBS 503

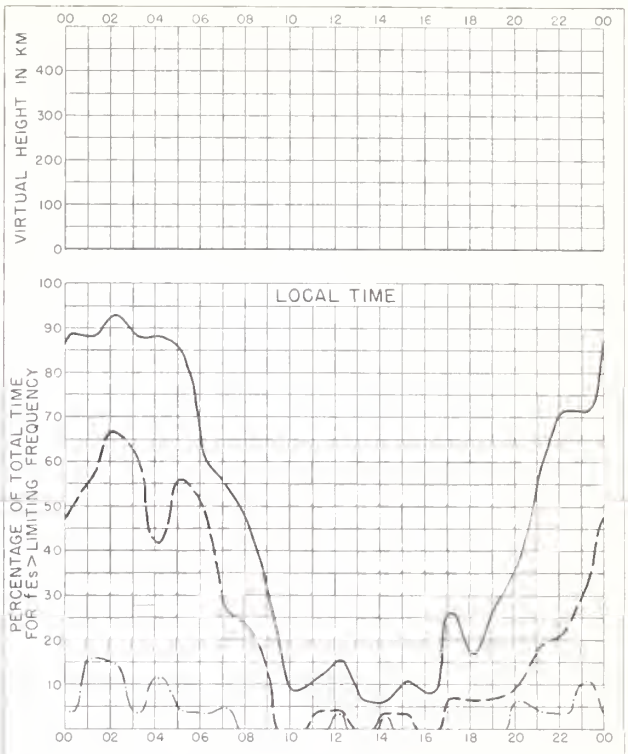

Fig 10. FAIRBANKS, ALASKA FEBRUARY 1960

NBS 490

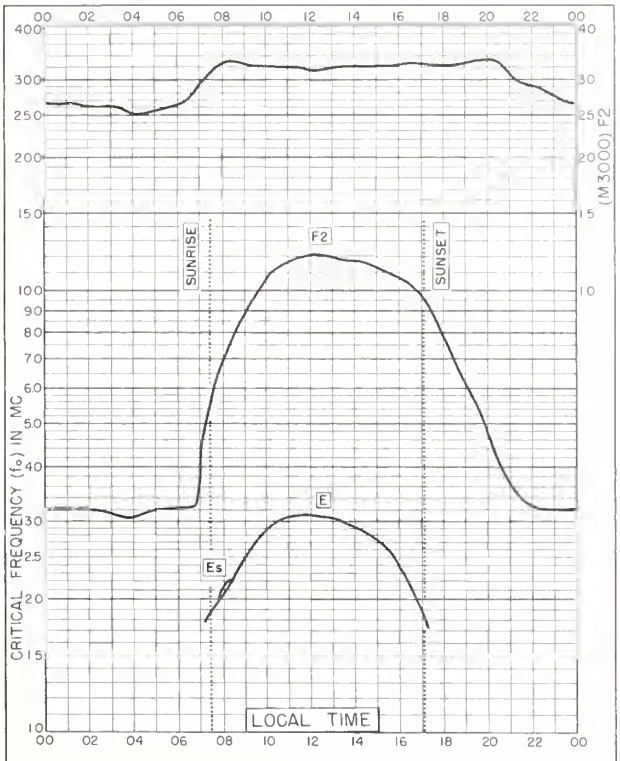

Fig. 11. ADAK, ALASKA
51.9° N, 176.6°W FEBRUARY 1960

NBS 503

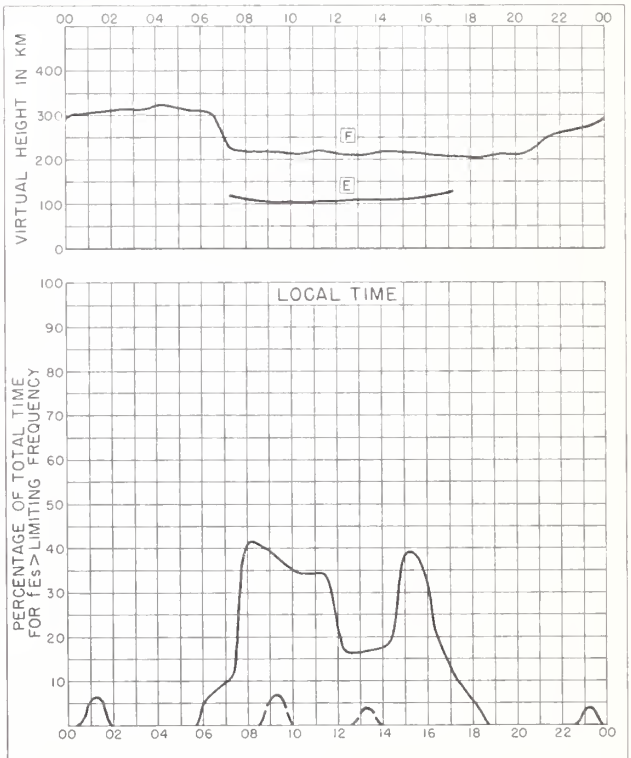

Fig 12. ADAK, ALASKA FEBRUARY 1960

NBS 490

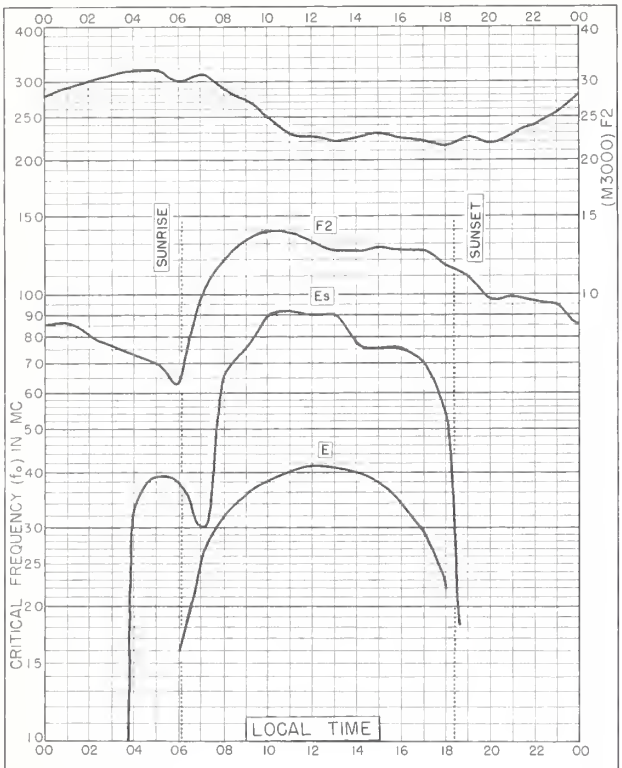

Fig 13. HUANCAYO, PERU
12.0° S, 75.3° W FEBRUARY 1960

NBS 503

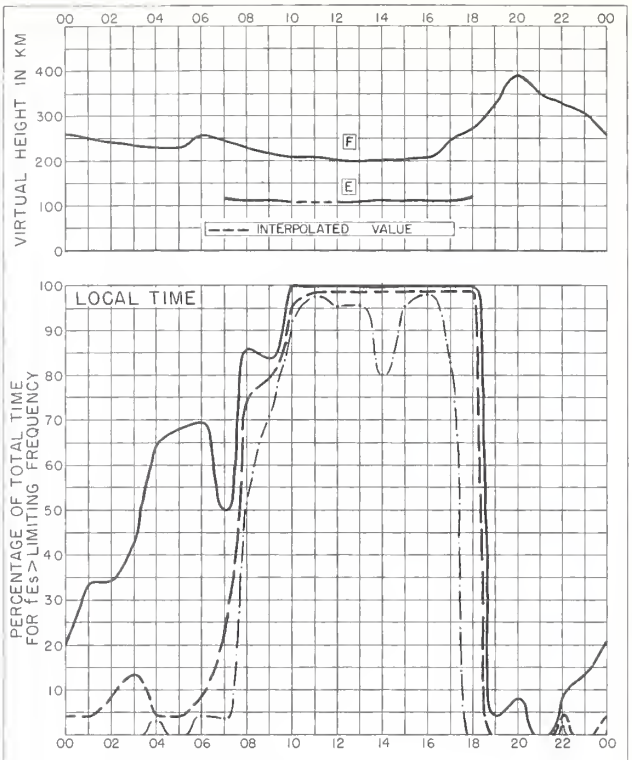

Fig. 14. HUANCAYO, PERU FEBRUARY 1960

NBS 490

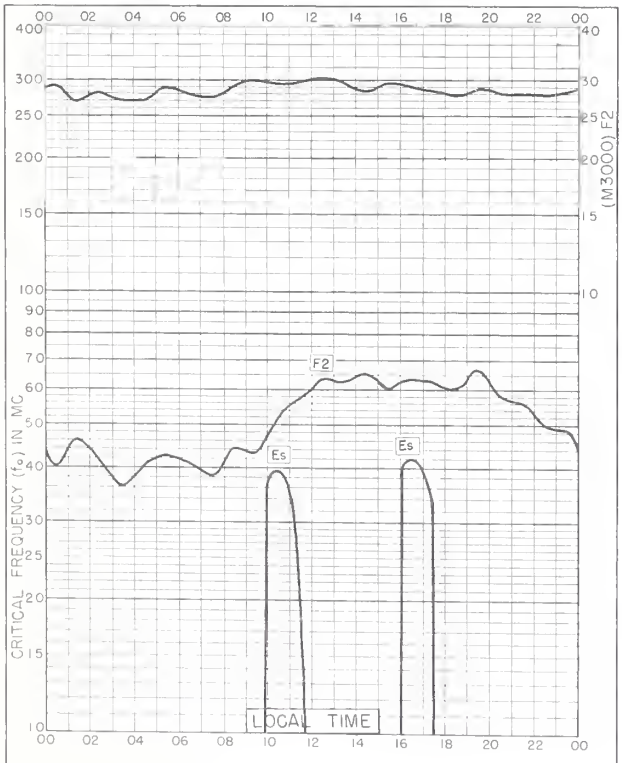

Fig 15. THULE, GREENLAND
76.6° N, 68.7° W JANUARY 1960

NBS 503

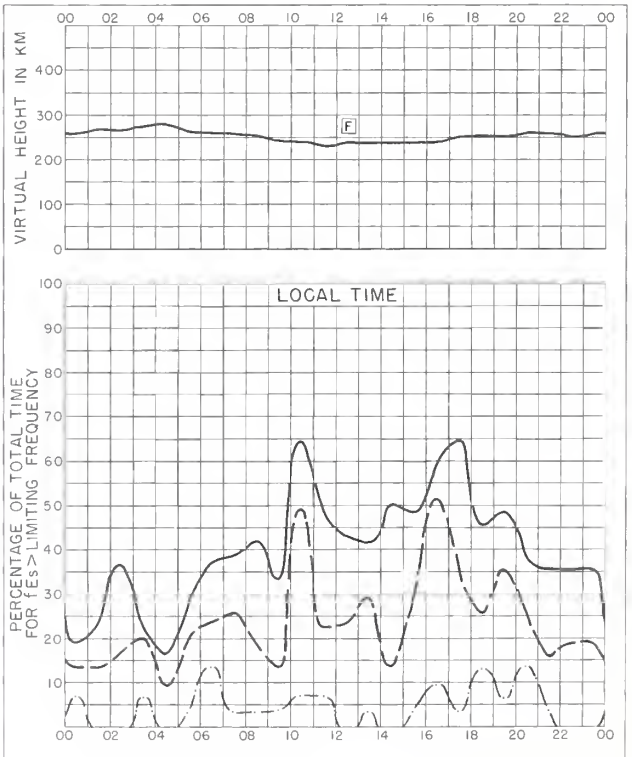

Fig. 16. THULE, GREENLAND JANUARY 1960

NBS 490

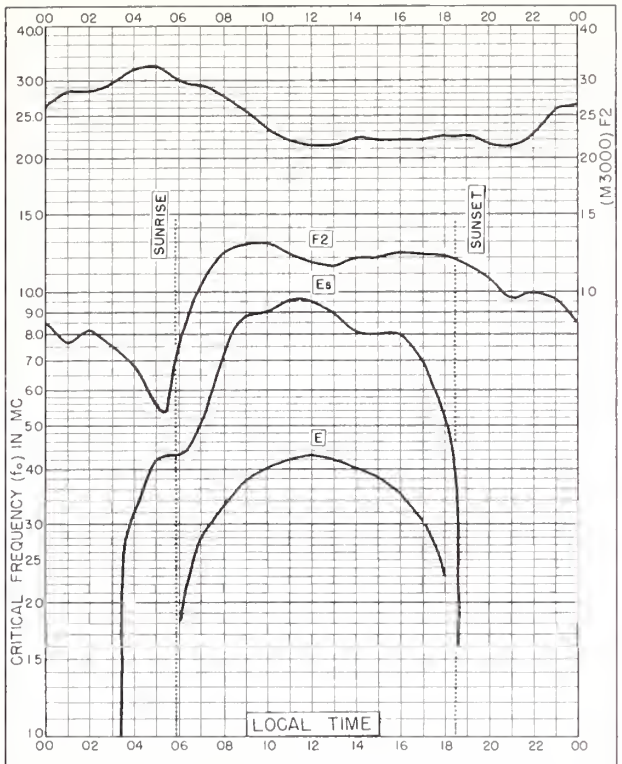

Fig. 17. HUANCAYO, PERU
12.0° S, 75.3° W JANUARY 1960

NBS 503

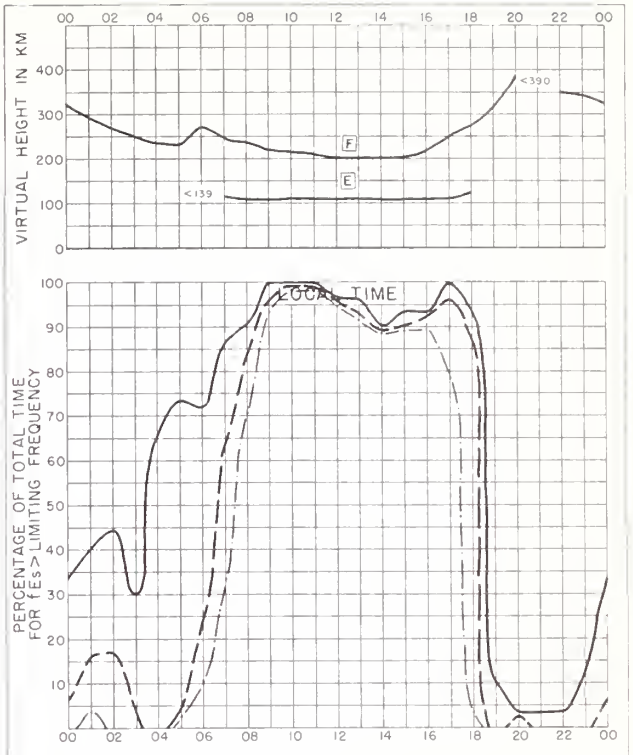

Fig. 18. HUANCAYO, PERU JANUARY 1960

NBS 490

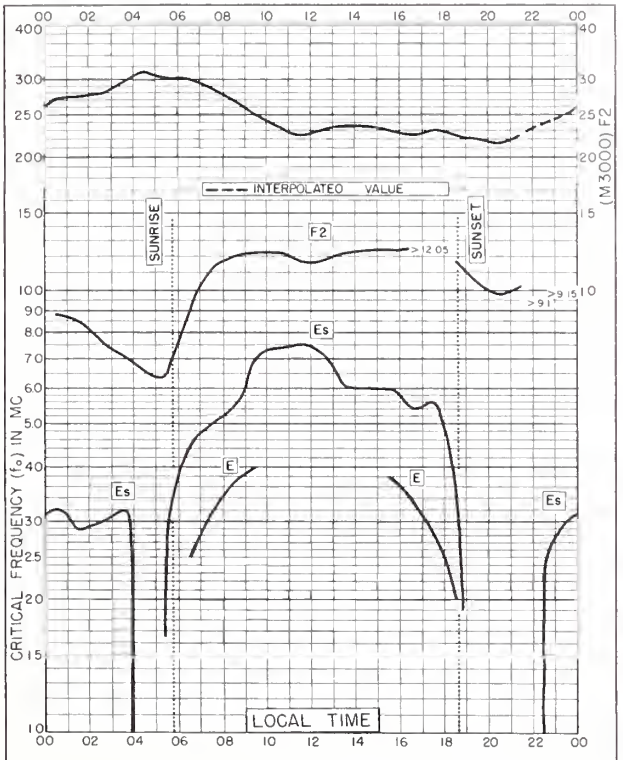

Fig. 19. LA PAZ, BOLIVIA
16.5° S, 68.1° W JANUARY 1960

NBS 503

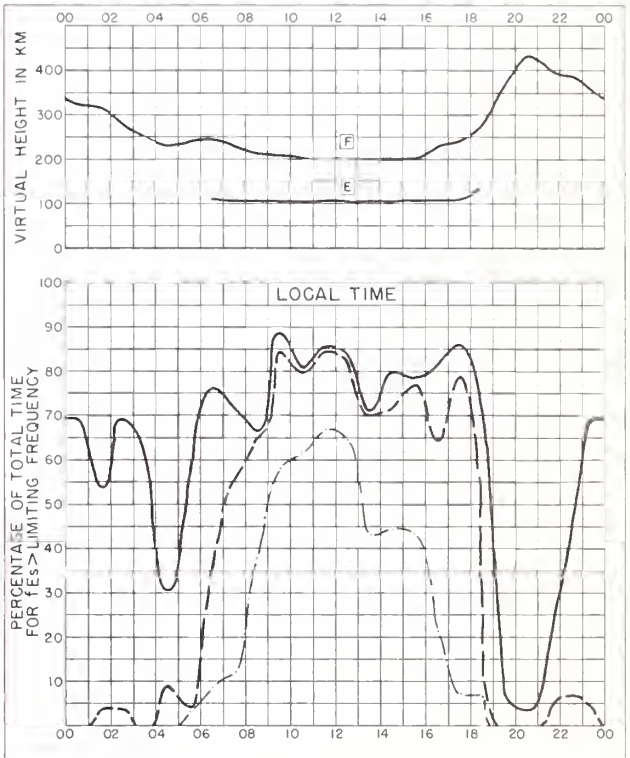

Fig. 20. LA PAZ, BOLIVIA JANUARY 1960

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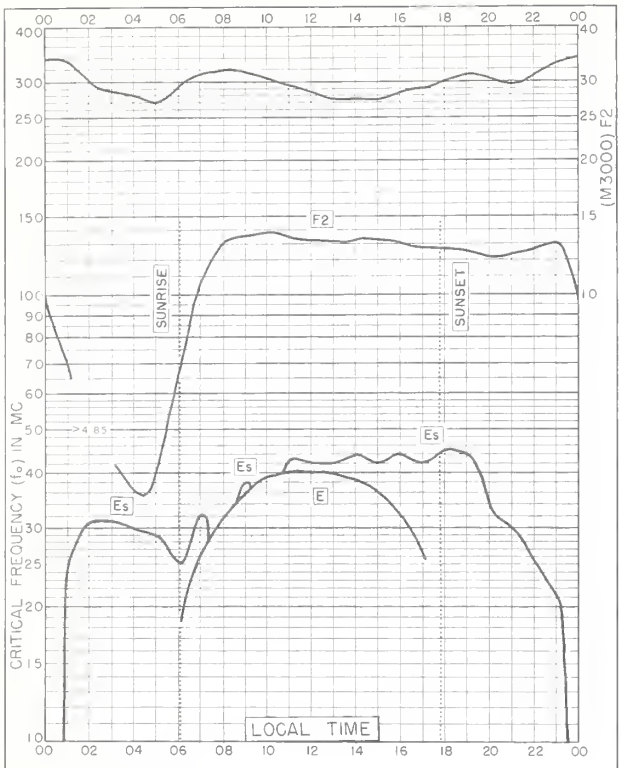

Fig. 21. BOGOTA, COLOMBIA
4.5° N, 74.2° W DECEMBER 1959

NBS 503

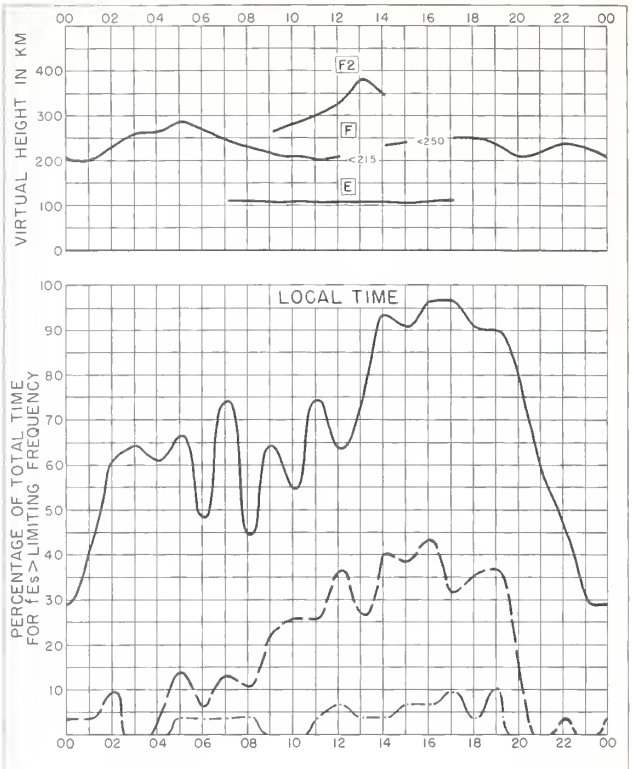

Fig. 22. BOGOTA, COLOMBIA DECEMBER 1959

NBS 490

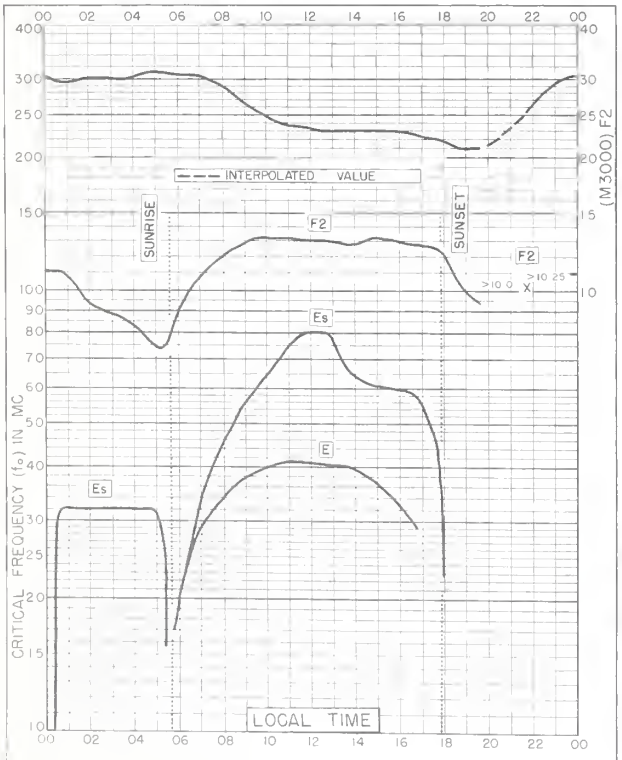

Fig 23. NATAL, BRAZIL
5.3° S, 351° W NOVEMBER 1959

NBS 503

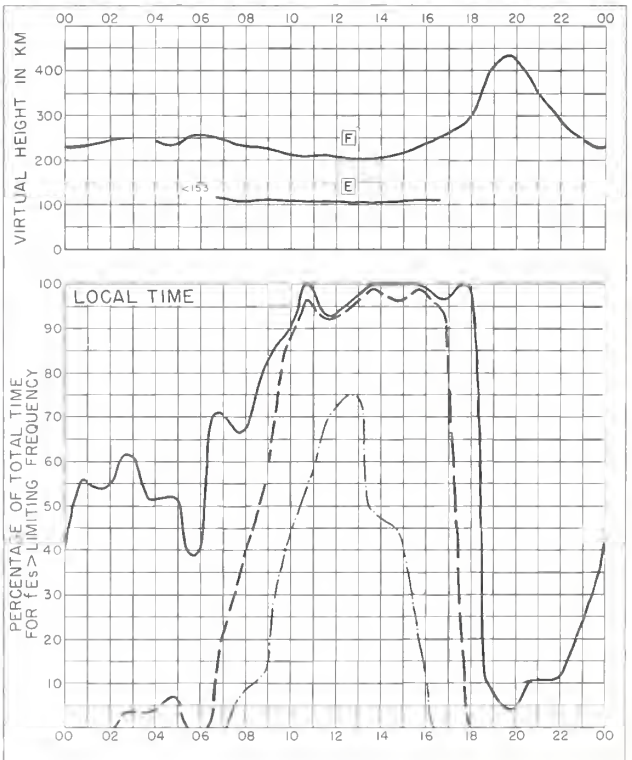

Fig. 24. NATAL, BRAZIL NOVEMBER 1959

NBS 490

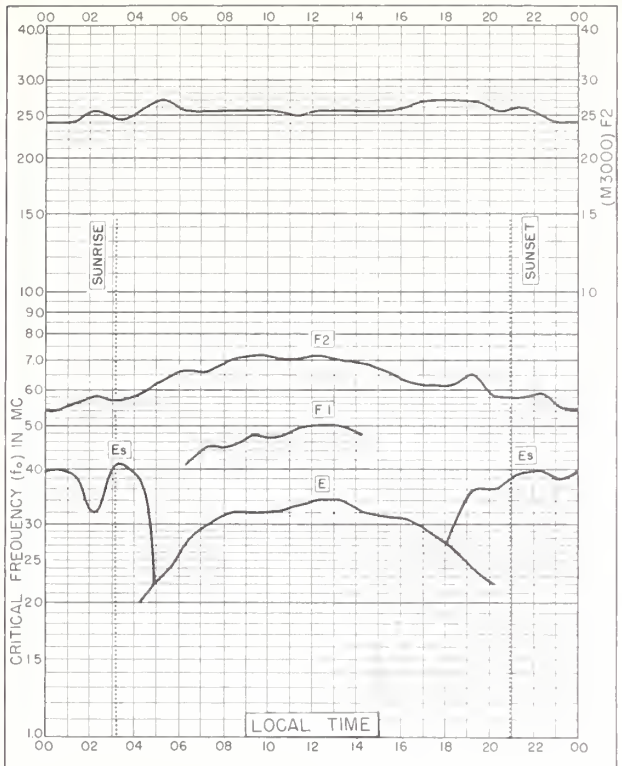

Fig 25. TROMSO, NORWAY
69.7° N, 19.0° E AUGUST 1959

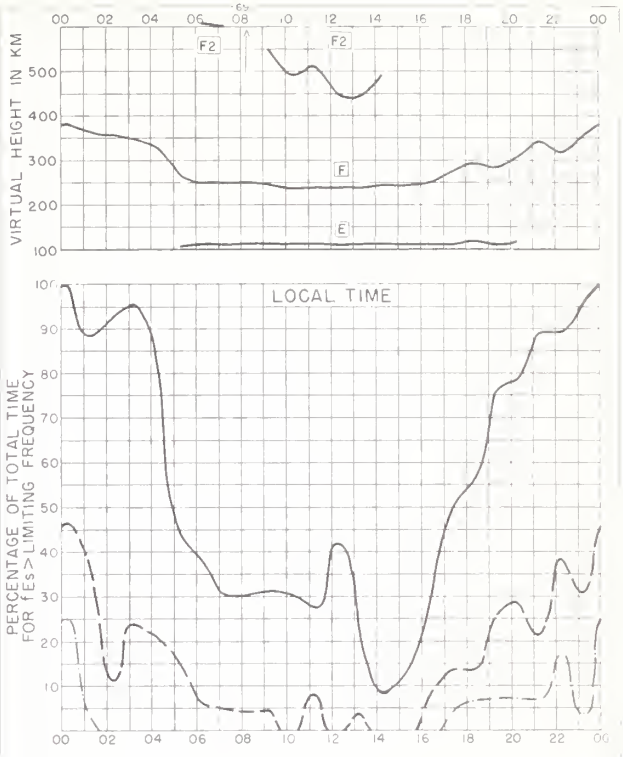

Fig 26. TROMSO, NORWAY AUGUST 1959

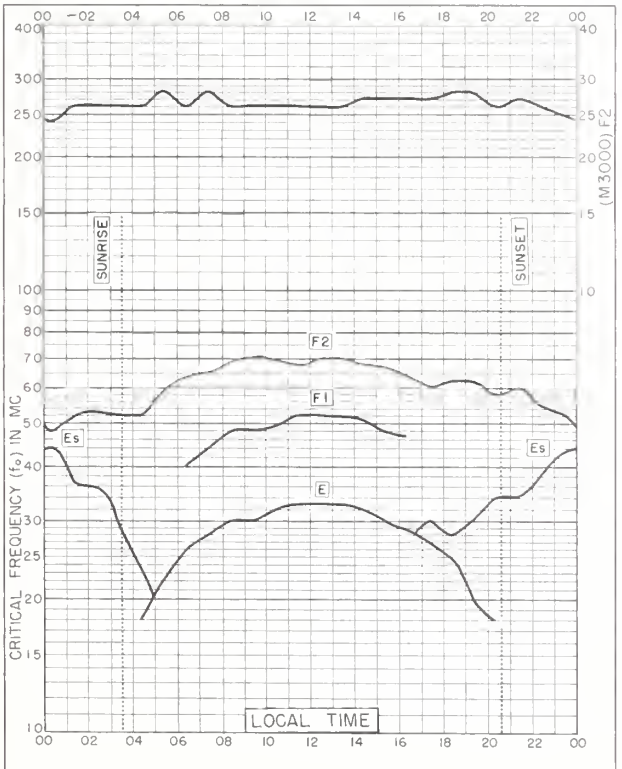

Fig. 27. KIRUNA, SWEDEN
67.8° N, 20.3° E AUGUST 1959

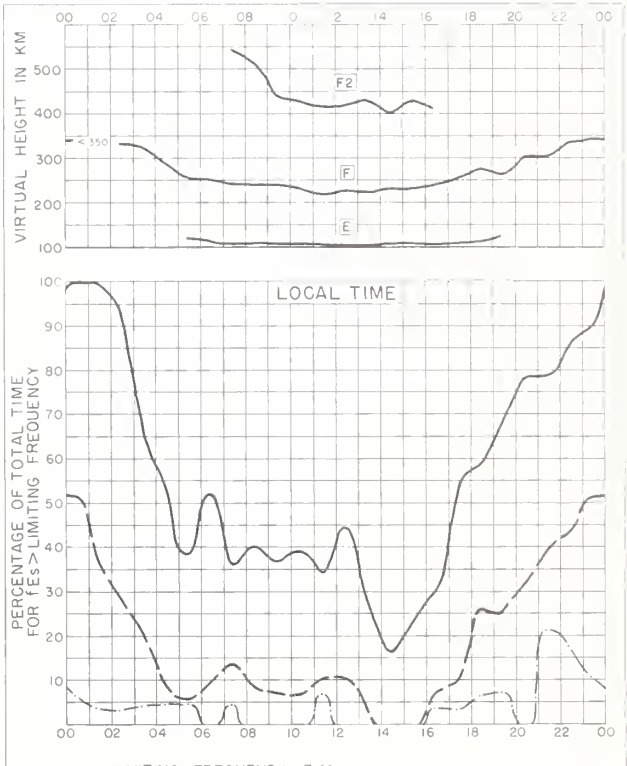

Fig 28. KIRUNA, SWEDEN AUGUST 1959

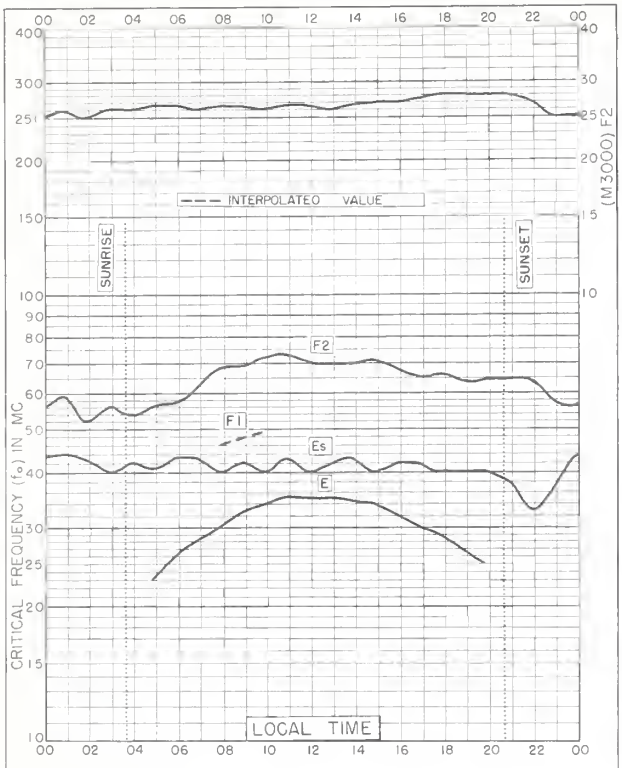

Fig. 29. SODANKYLA, FINLAND
67.4°N, 26.6°E AUGUST 1959

NBS 503

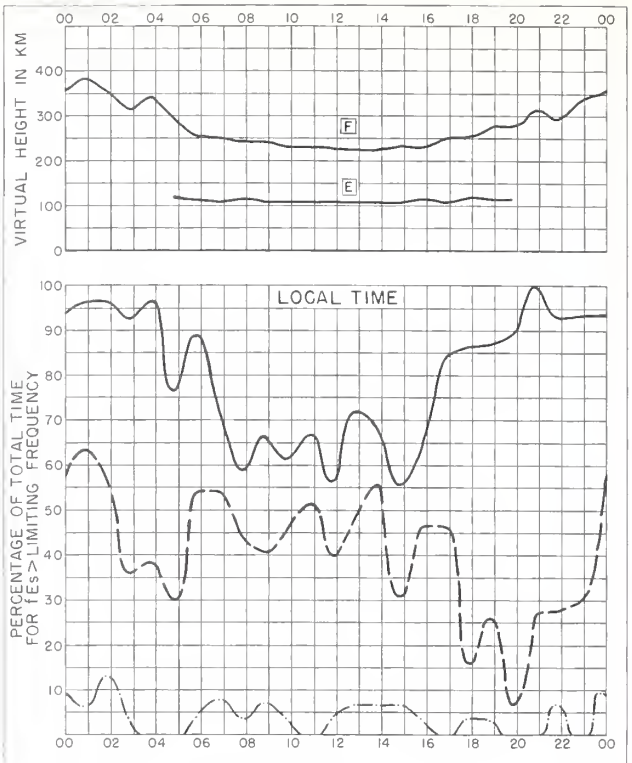

Fig. 30. SODANKYLA, FINLAND AUGUST 1959

NBS 490

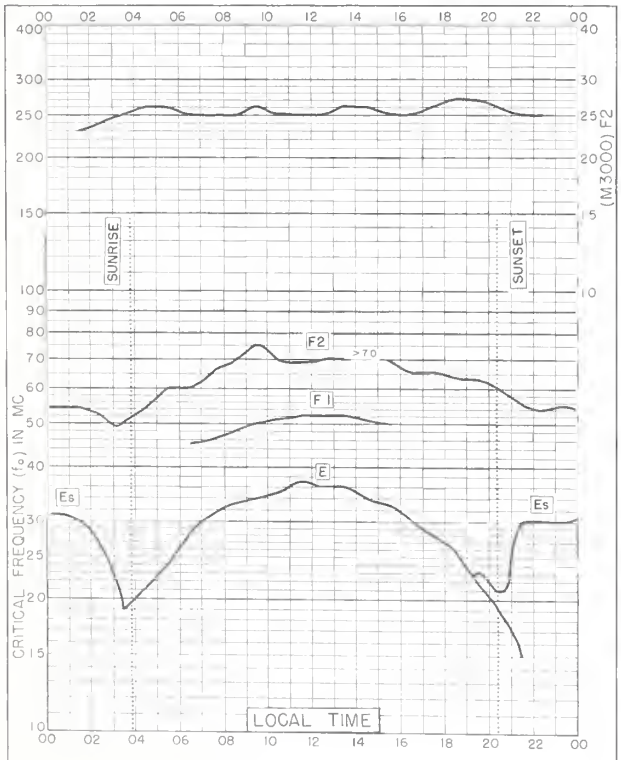

Fig. 31. LULEA, SWEDEN
65.6° N, 22.1°E AUGUST 1959

NBS 503

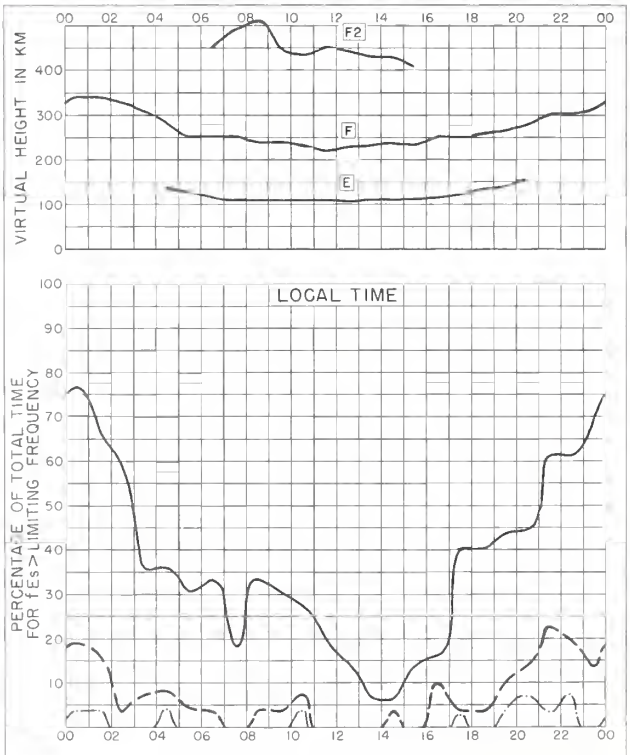

Fig 32. LULEA, SWEDEN AUGUST 1959

NBS 490

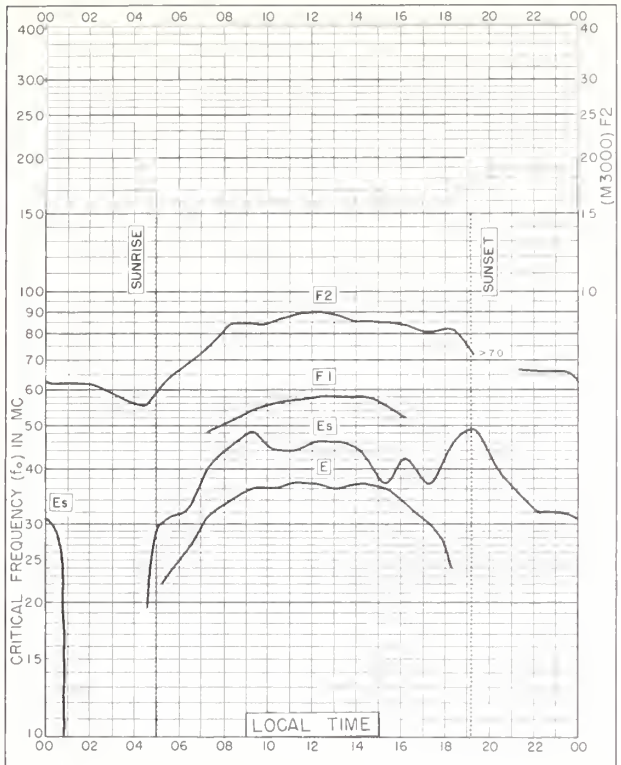

Fig 33. BUDAPEST, HUNGARY
47.4° N, 19.2°E AUGUST 1959

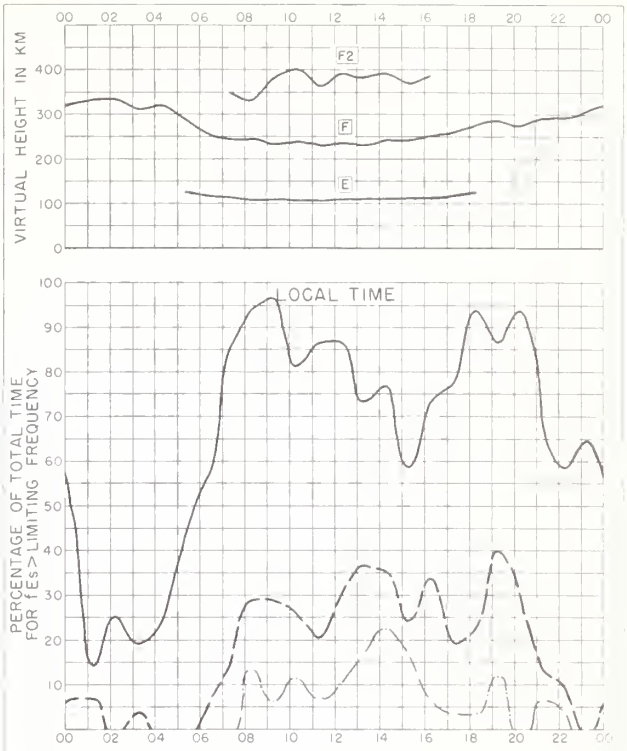

Fig. 34. BUDAPEST, HUNGARY AUGUST 1959

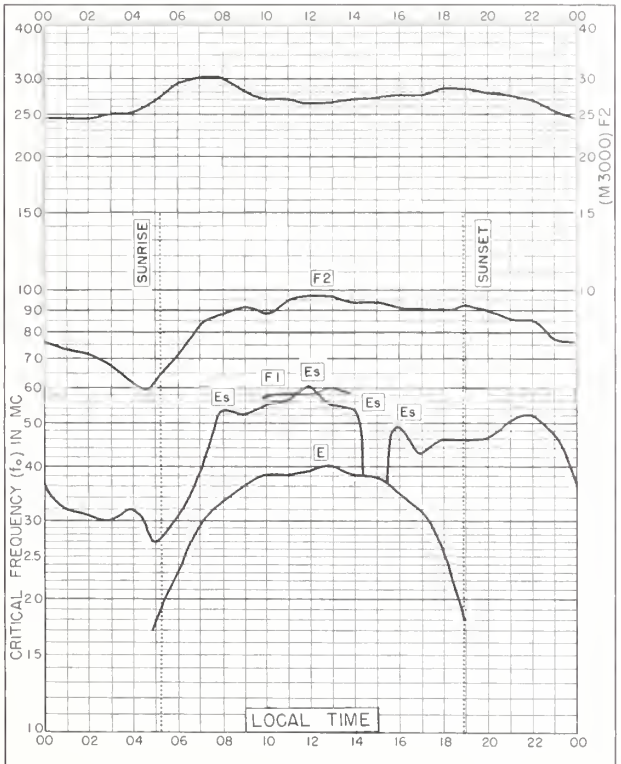

Fig 35. ROME, ITALY
41.8° N, 12.5° E AUGUST 1959

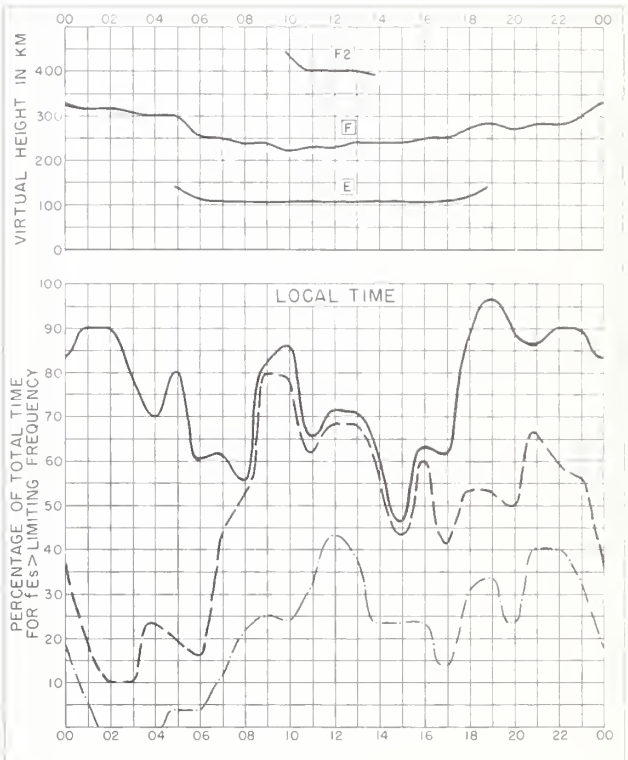

Fig. 36. ROME, ITALY AUGUST 1959

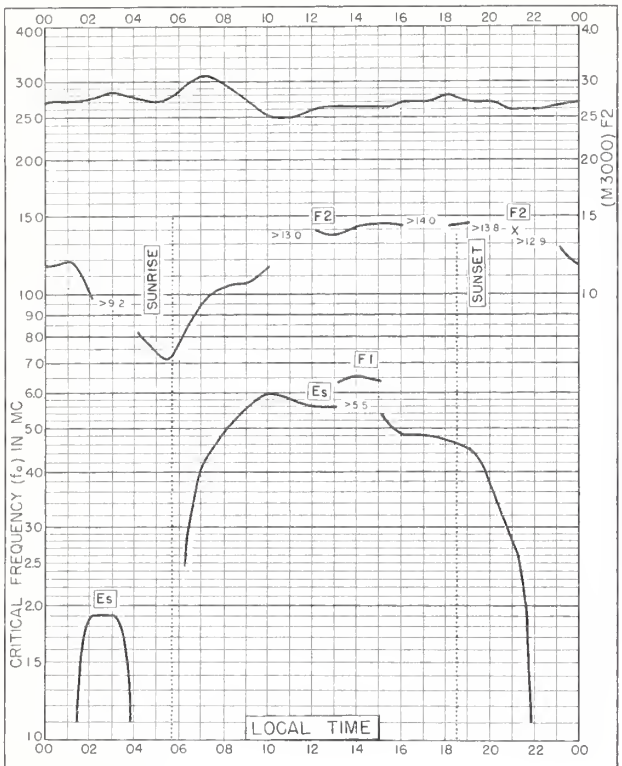

Fig. 37. FORMOSA, CHINA
25.0° N, 121.5° E
AUGUST 1959

NBS 503

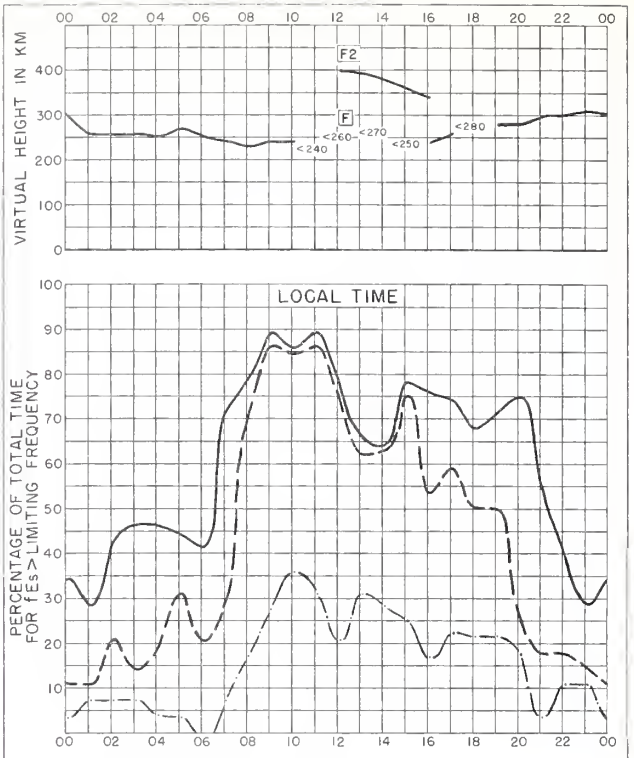

Fig. 38. FORMOSA, CHINA
AUGUST 1959

NBS 490

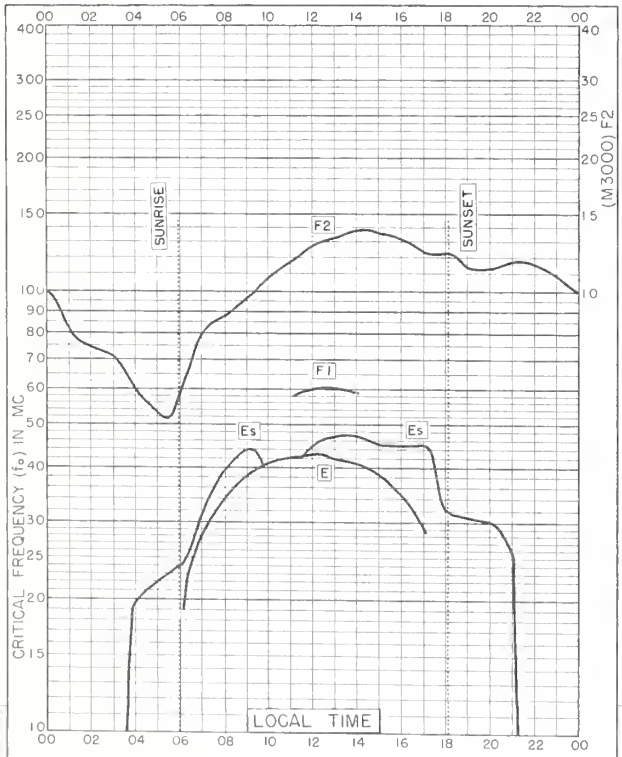

Fig 39. BOGOTA, COLOMBIA
4.5° N, 74.2° W
AUGUST 1959

NBS 503

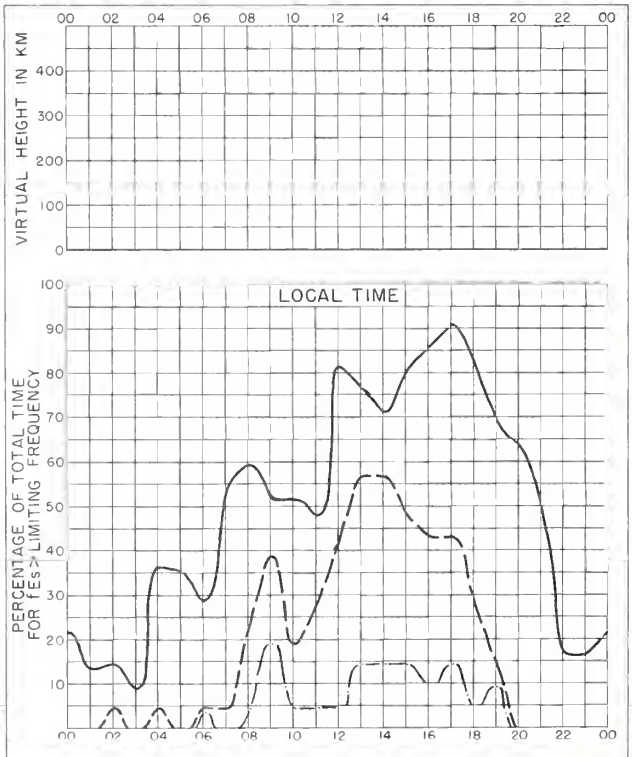

Fig 40. BOGOTA, COLOMBIA
AUGUST 1959

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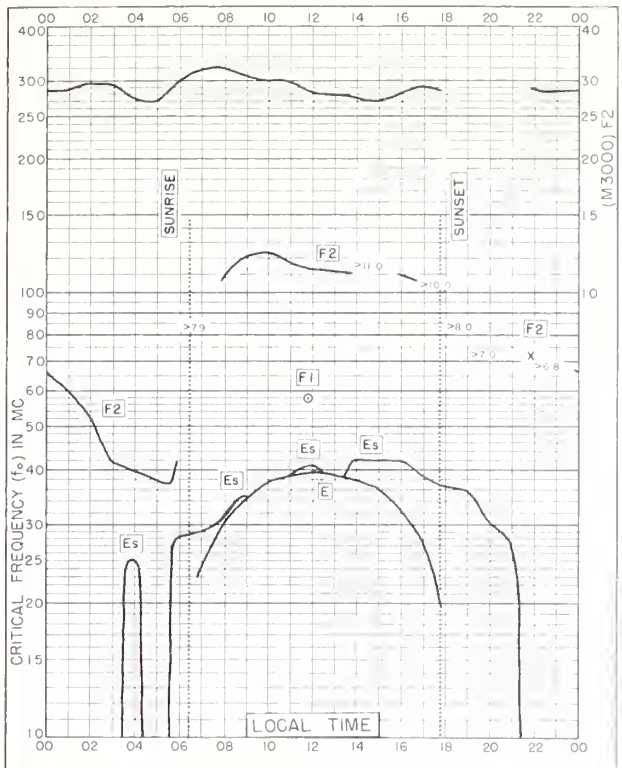

Fig. 41. TOWNSVILLE, AUSTRALIA
19.3°S, 146.7°E AUGUST 1959

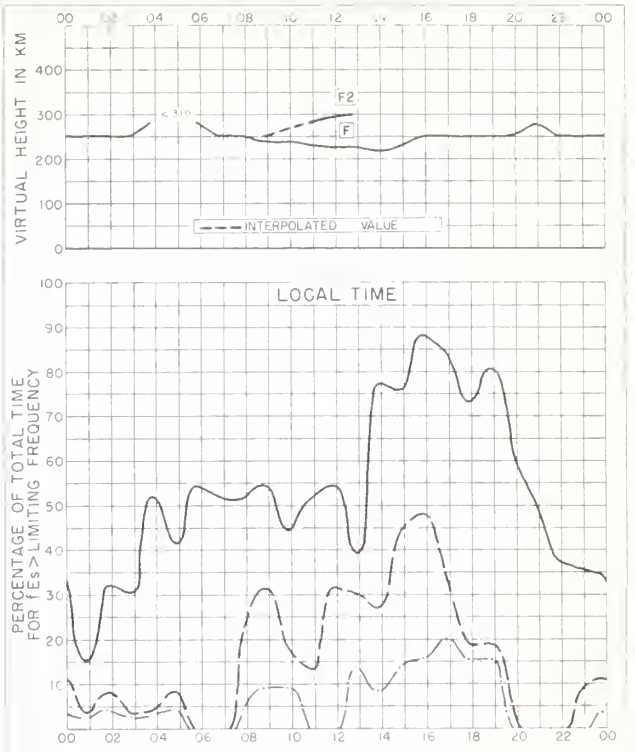

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Fig. 42. TOWNSVILLE, AUSTRALIA

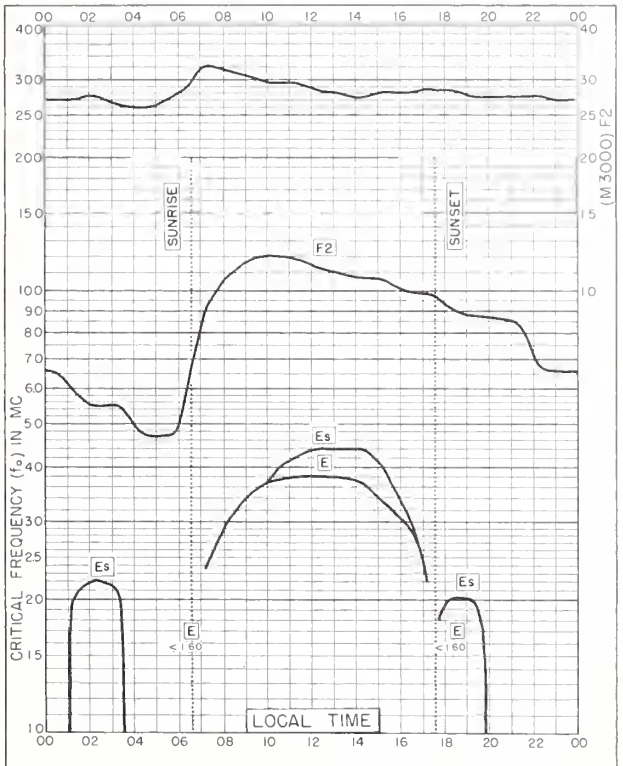

Fig. 43. BRISBANE, AUSTRALIA
27.5°S, 152.9°E AUGUST 1959

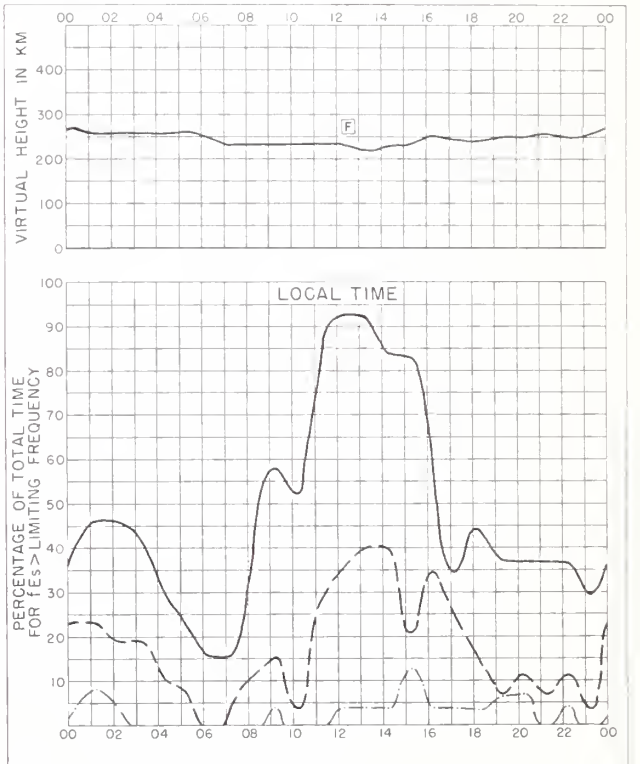

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Fig 44. BRISBANE, AUSTRALIA

Fig 45. TROMSO, NORWAY
69.7° N, 19.0° E JULY 1959

NBS 503

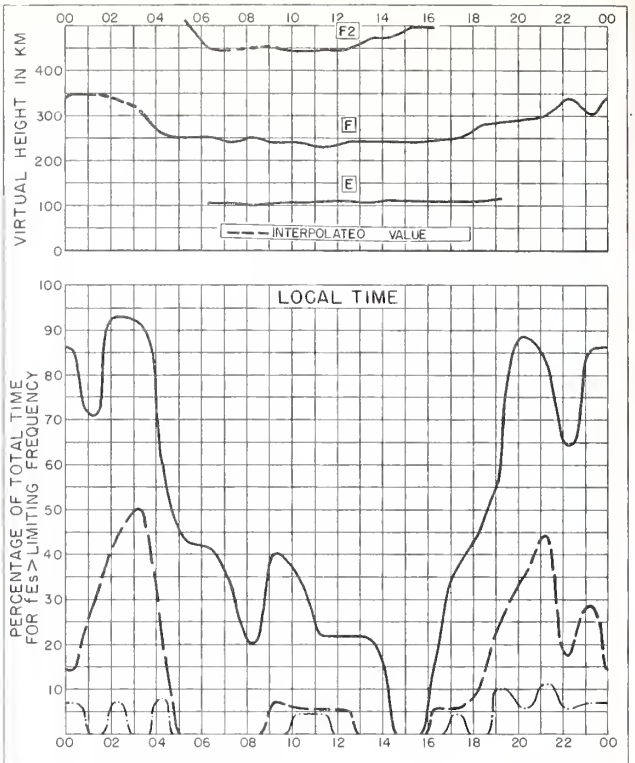

Fig 46. TROMSO, NORWAY JULY 1959

NBS 490

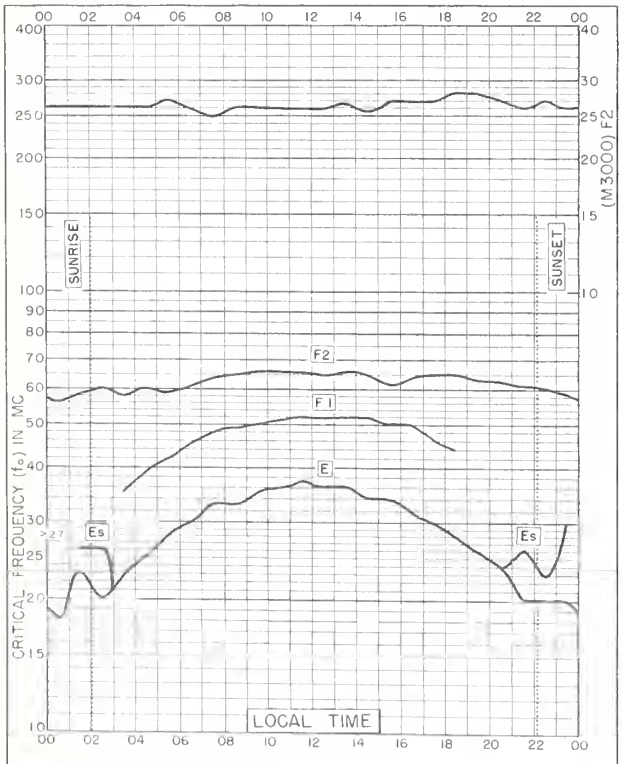

Fig 47. LULEA, SWEDEN
65.6° N, 22.1° E JULY 1959

NBS 503

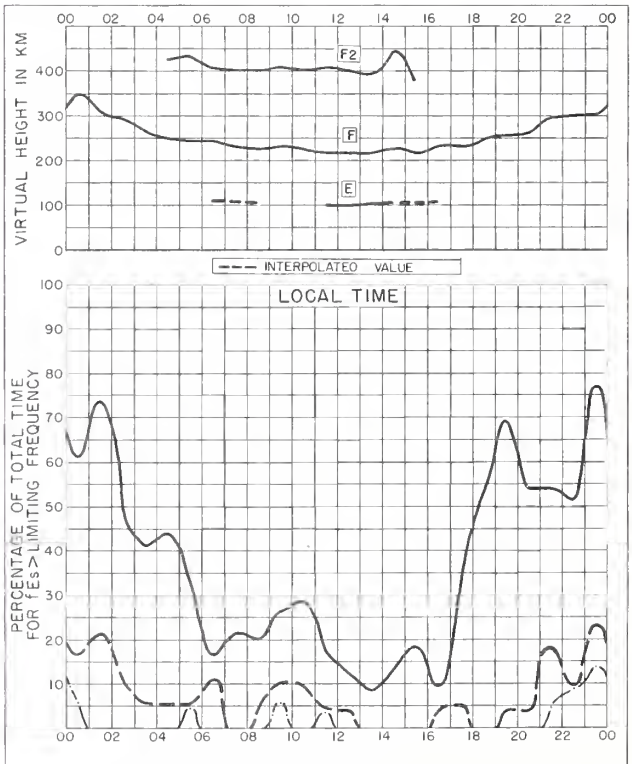

Fig. 48. LULEA, SWEDEN JULY 1959

NBS 490

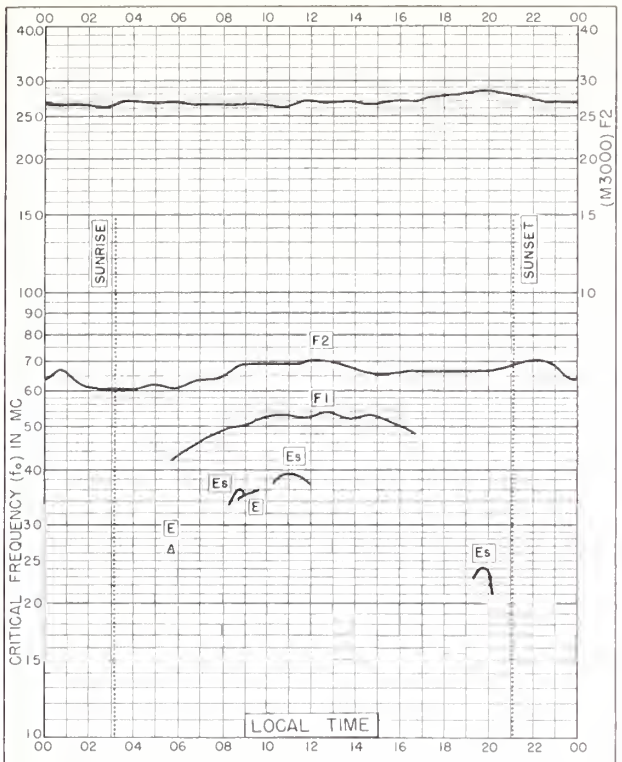

Fig 49. NURMIJARVI, FINLAND
60.5° N, 24.6° E JULY 1959

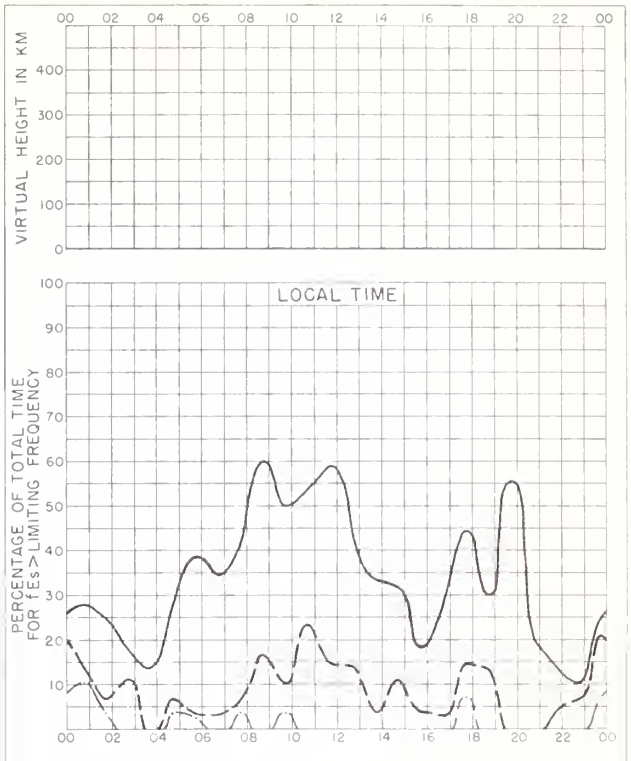

Fig. 50. NURMIJARVI, FINLAND JULY 1959

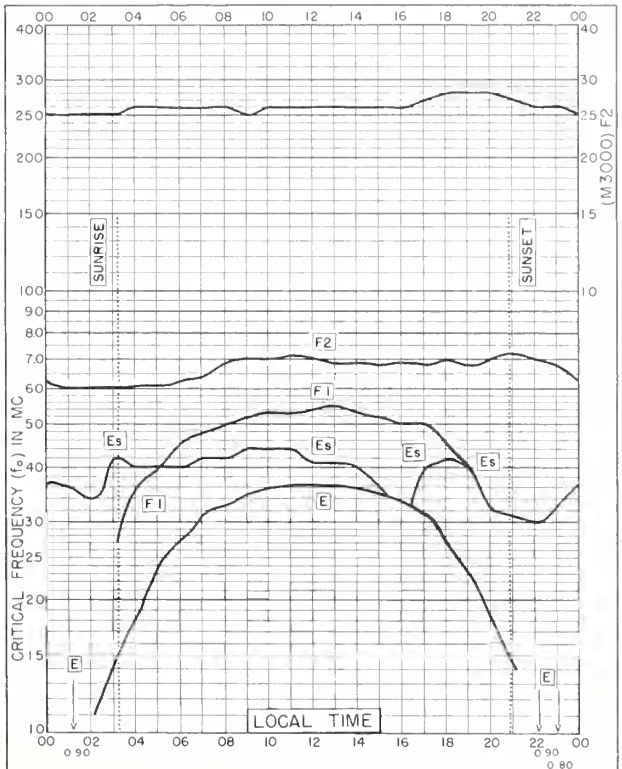

Fig. 51. UPSALA, SWEDEN
59.8° N, 17.6° E JULY 1959

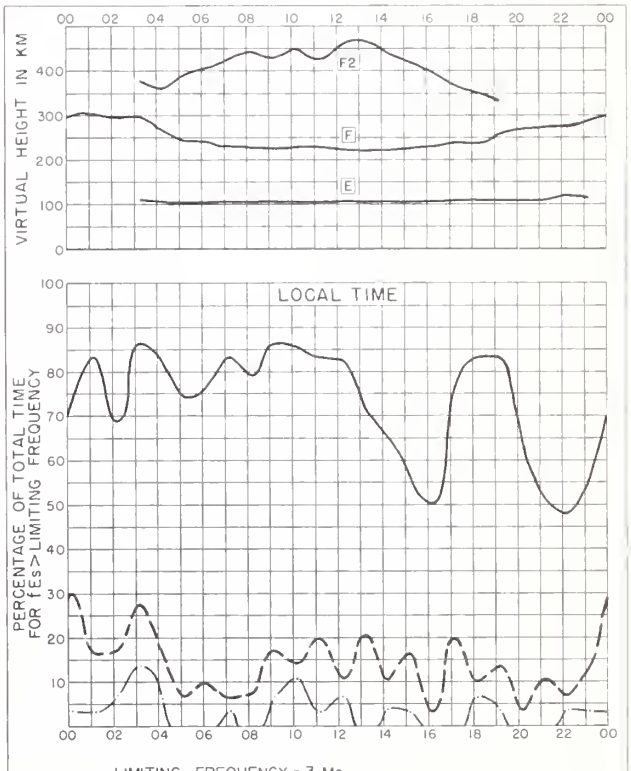

Fig. 52. UPSALA, SWEDEN JULY 1959

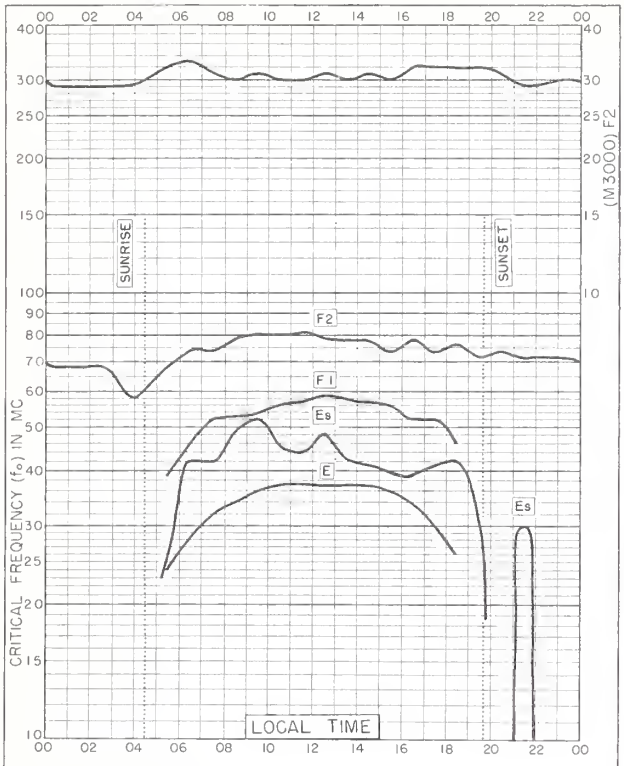

Fig. 53. SOTTENS, SWITZERLAND
46.6° N, 6.7°E JULY 1959

NBS 503

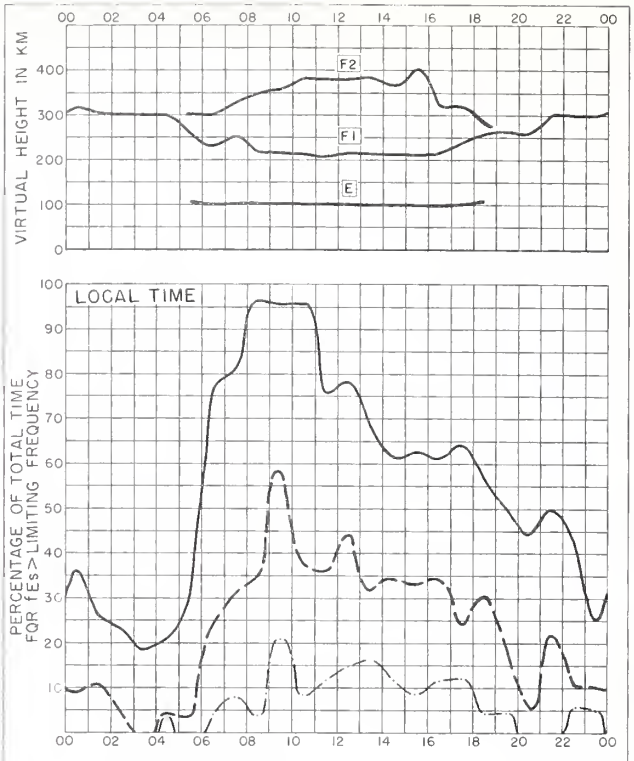

Fig. 54. SOTTENS, SWITZERLAND JULY 1959

NBS 490

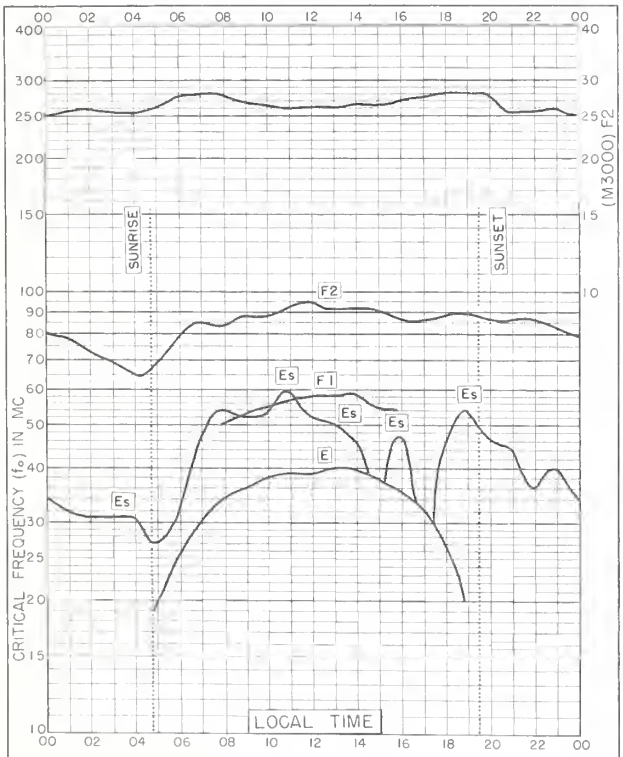

Fig. 55. ROME, ITALY
41.8°N, 12.5°E JULY 1959

NBS 503

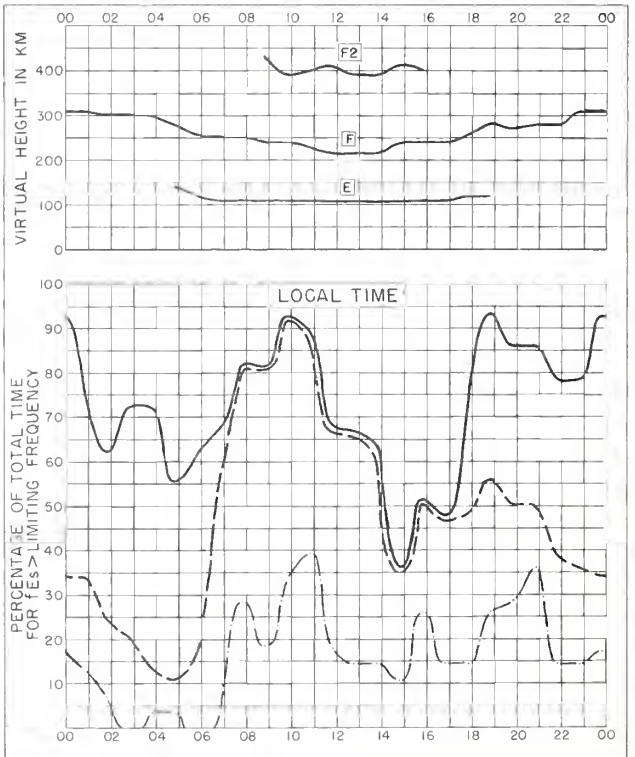

Fig. 56. ROME, ITALY JULY 1959

NBS 490

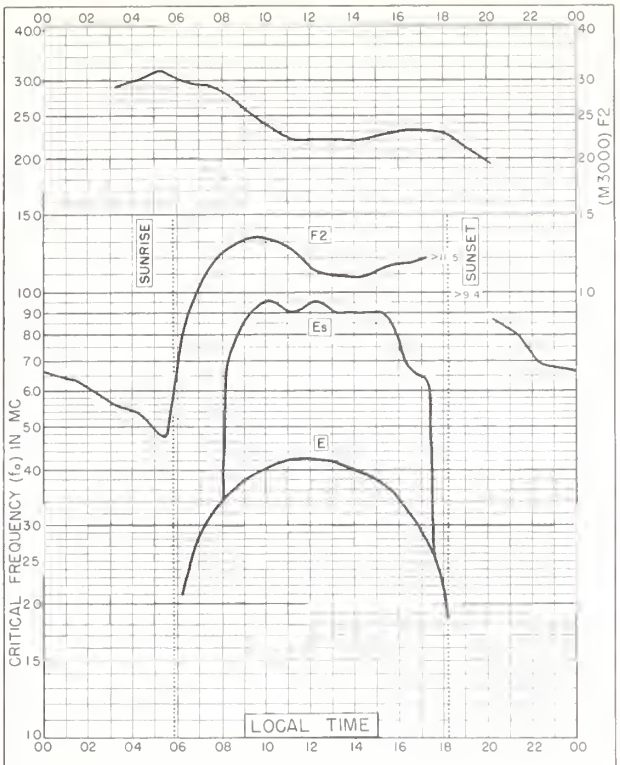

Fig. 57. IBADAN, NIGERIA
7.4°N, 3.9° E
JULY 1959

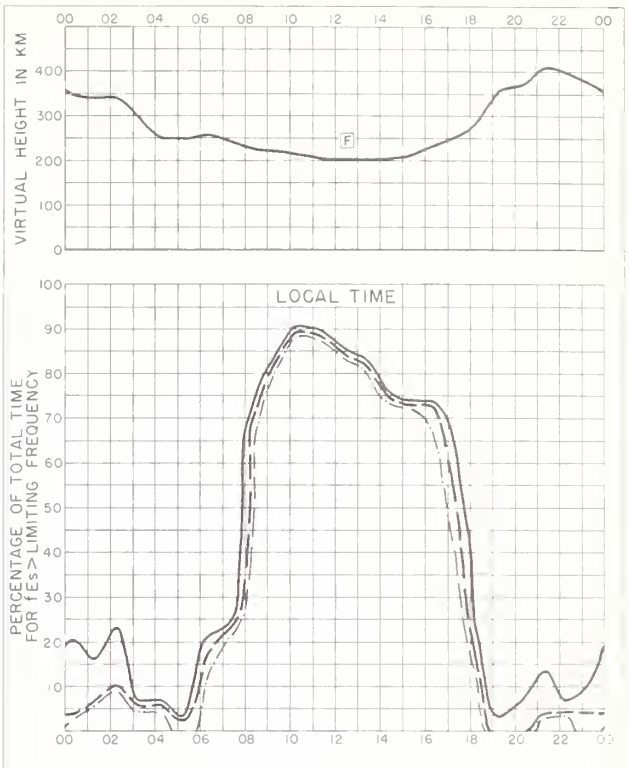

Fig 58. IBADAN, NIGERIA
JULY 1959

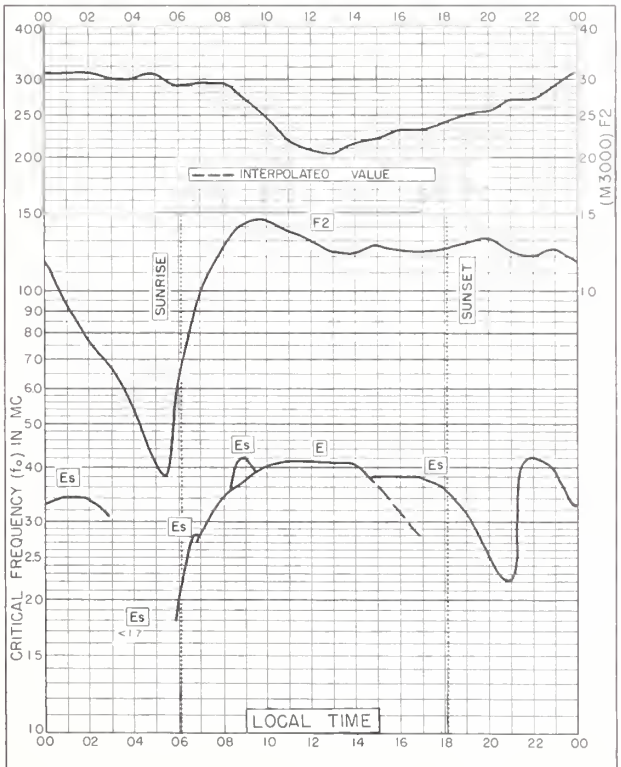

Fig. 59. SINGAPORE, BRITISH MALAYA
1.3°N, 103.8°E
JULY 1959

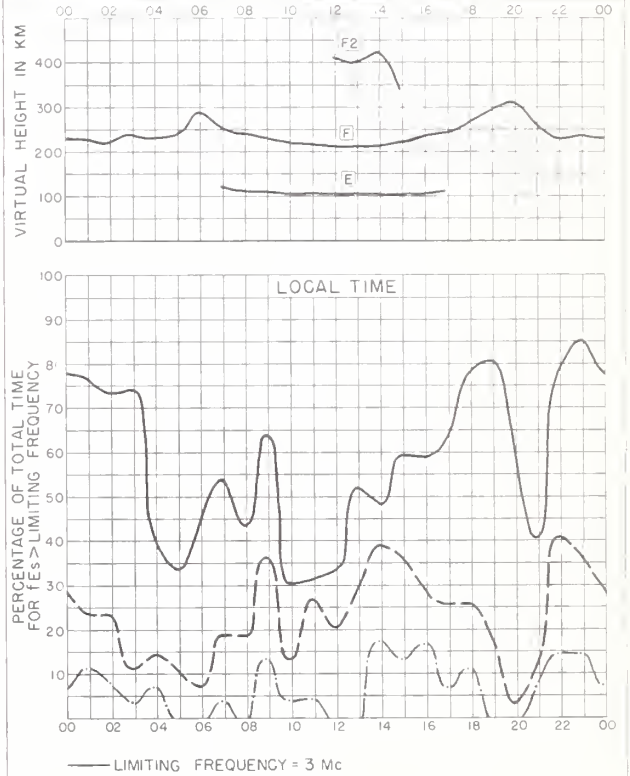

Fig. 60. SINGAPORE, BRITISH MALAYA
JULY 1959

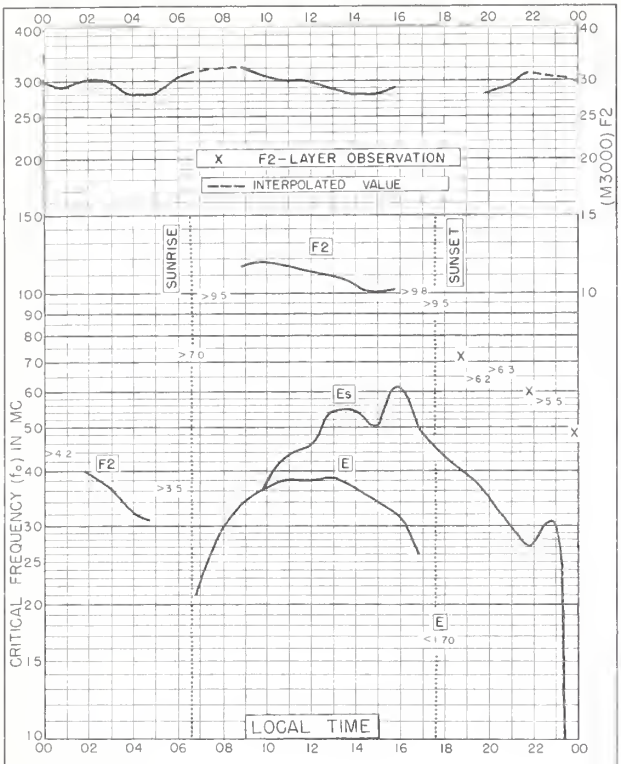

Fig 61. TOWNSVILLE, AUSTRALIA
19.3° S, 146.7° E JULY 1959

NBS 503

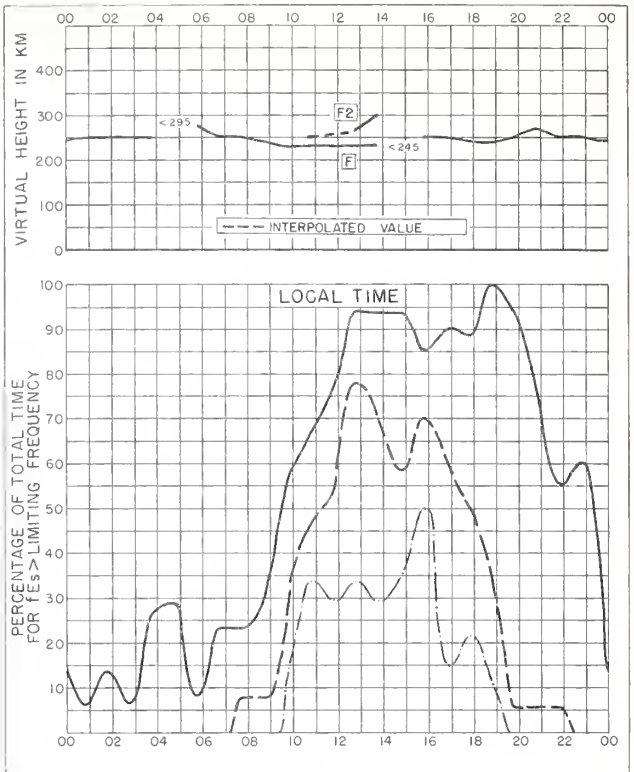

Fig 62. TOWNSVILLE, AUSTRALIA JULY 1959

NBS 490

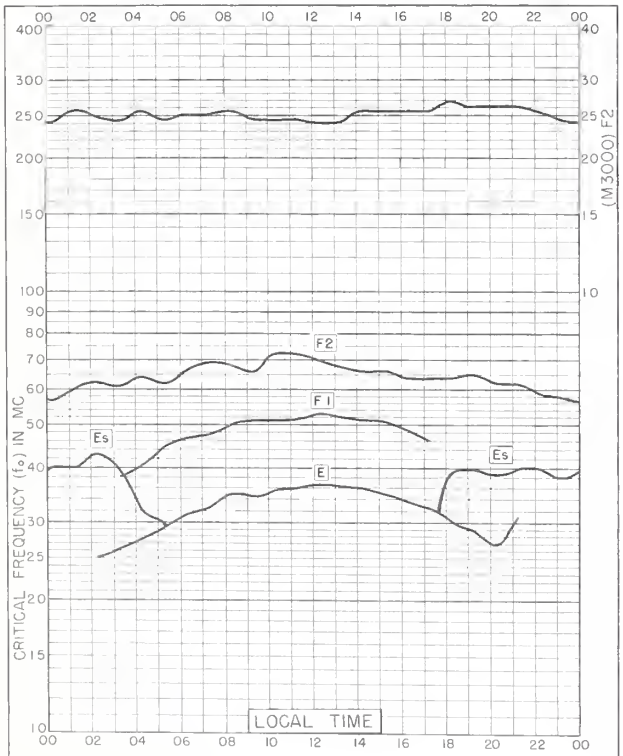

Fig 63. TROMSO, NORWAY
69.7°N, 19.0°E JUNE 1959

NBS 503

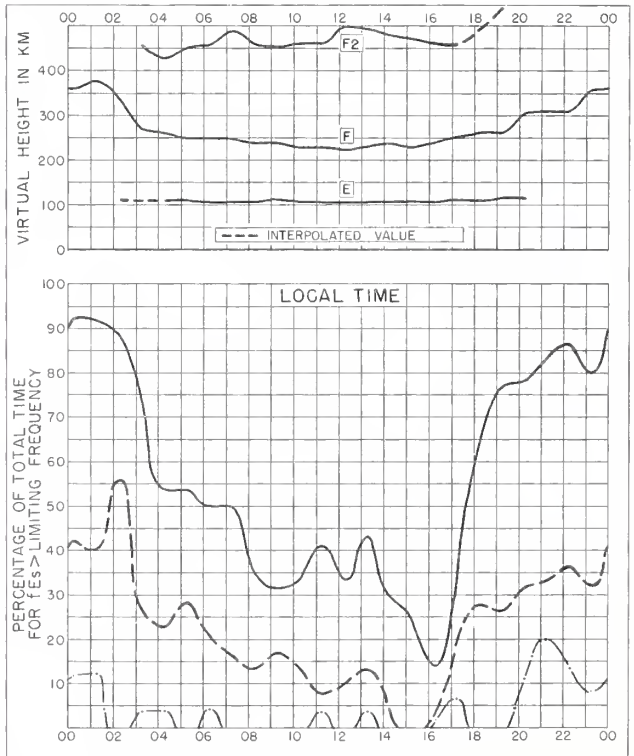

Fig. 64. TROMSO, NORWAY JUNE 1959

NBS 490

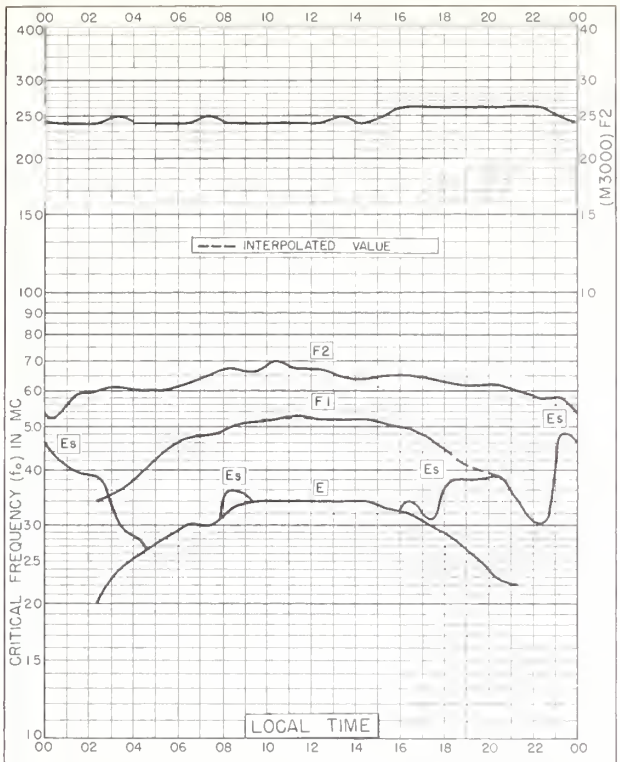

Fig. 65. KIRUNA, SWEDEN
67.8° N, 20.3° E
JUNE 1959

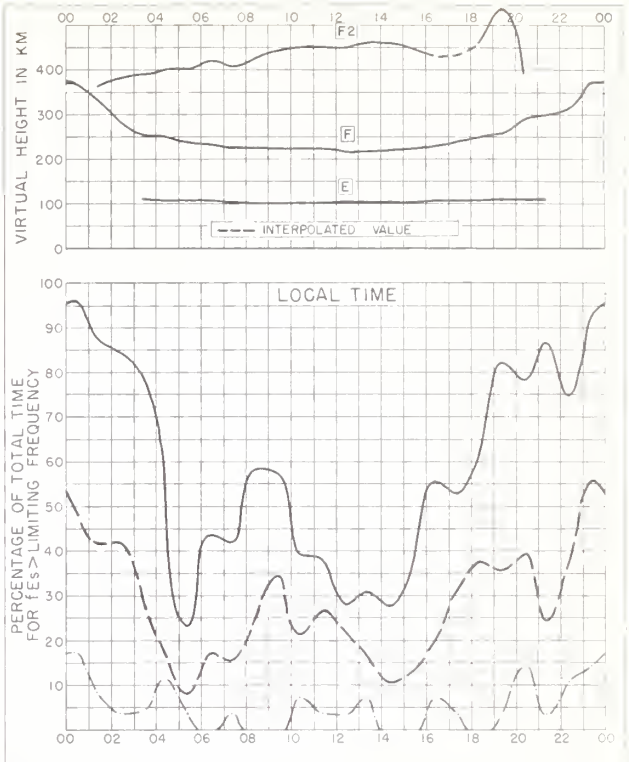

Fig. 66. KIRUNA, SWEDEN
JUNE 1959

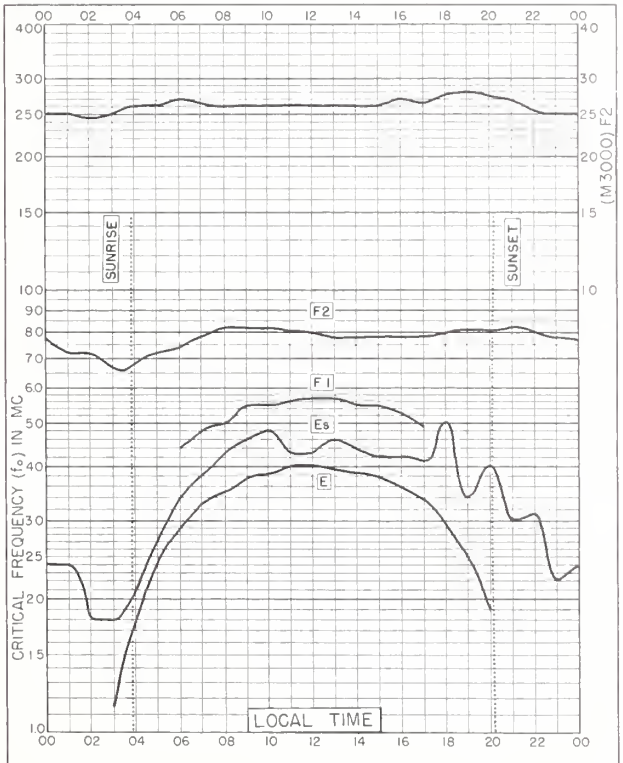

Fig 67. SLOUGH, ENGLAND
51.5° N, 0.6° W
JUNE 1959

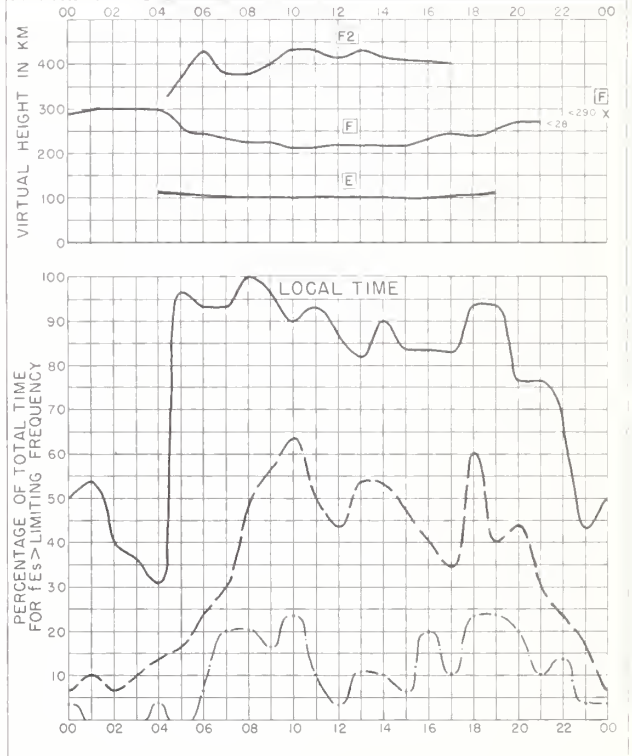

Fig. 68. SLOUGH, ENGLAND
JUNE 1959

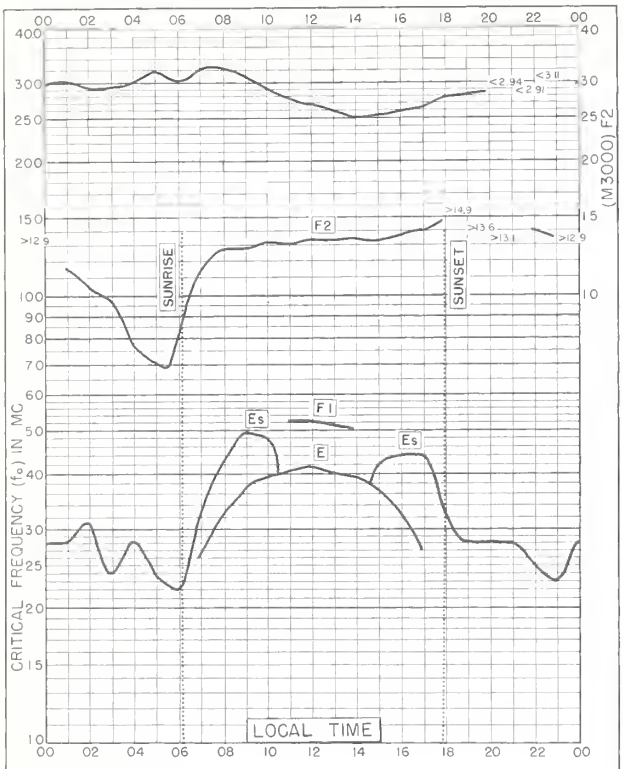

Fig. 69. LWIRO, BELGIAN CONGO
2.3°S, 28.8°E JUNE 1959

NBS 503

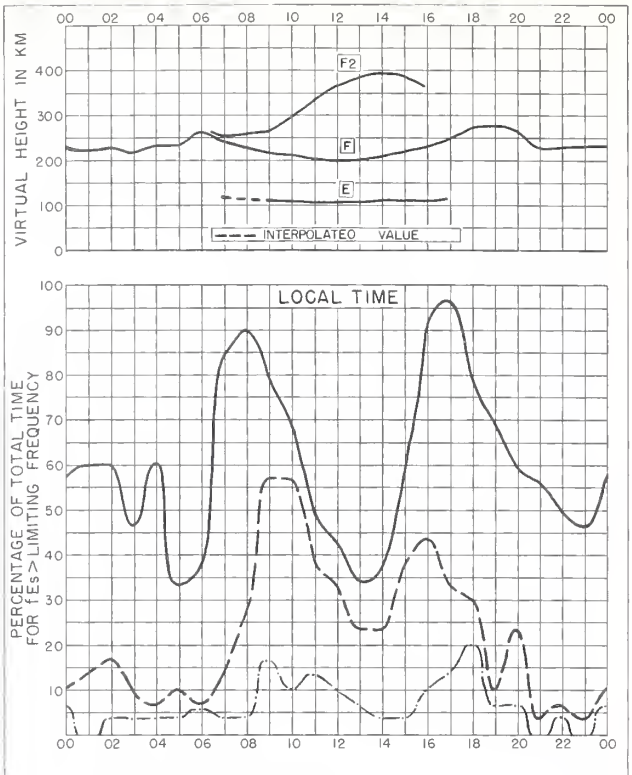

Fig. 70. LWIRO, BELGIAN CONGO JUNE 1959

NBS 490

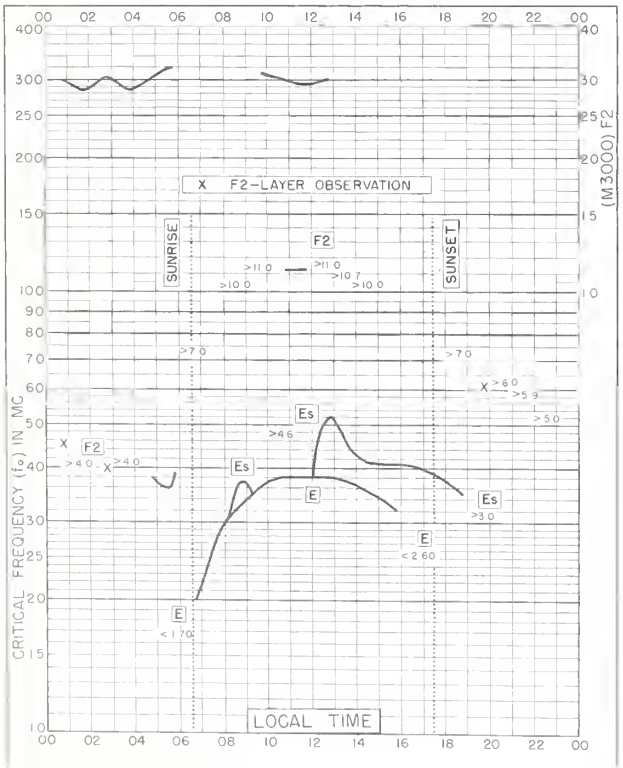

Fig 71. TOWNSVILLE, AUSTRALIA
19.3°S, 146.7° E JUNE 1959

NBS 503

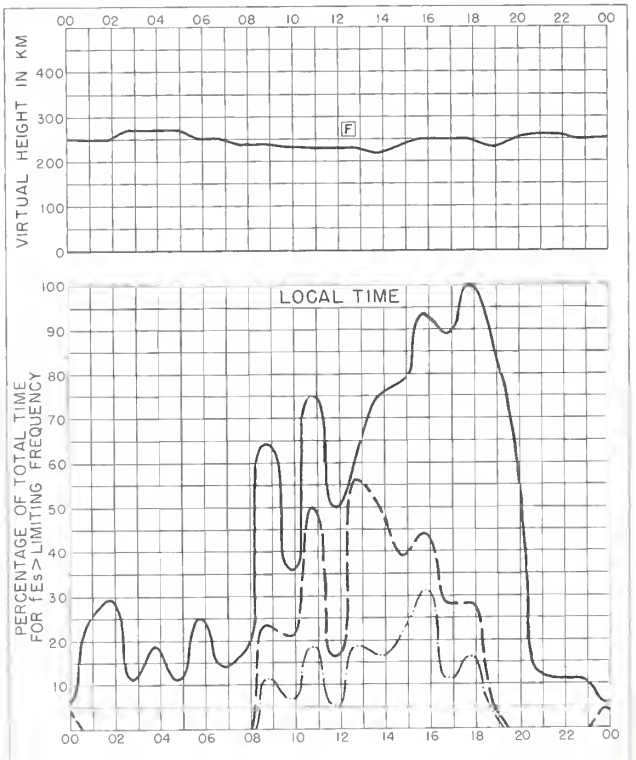

Fig. 72. TOWNSVILLE, AUSTRALIA JUNE 1959

NBS 490

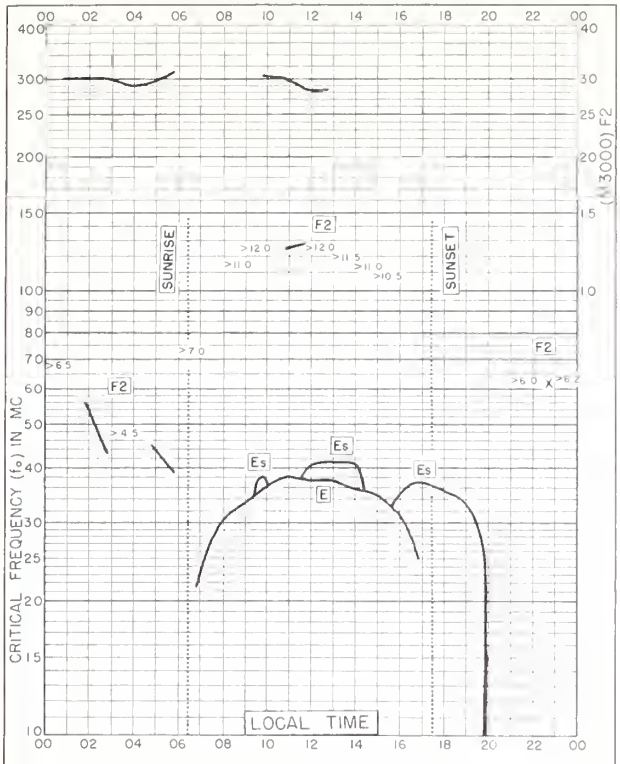

Fig 73. TOWNSVILLE, AUSTRALIA
19.3° S, 146.7° E MAY 1959

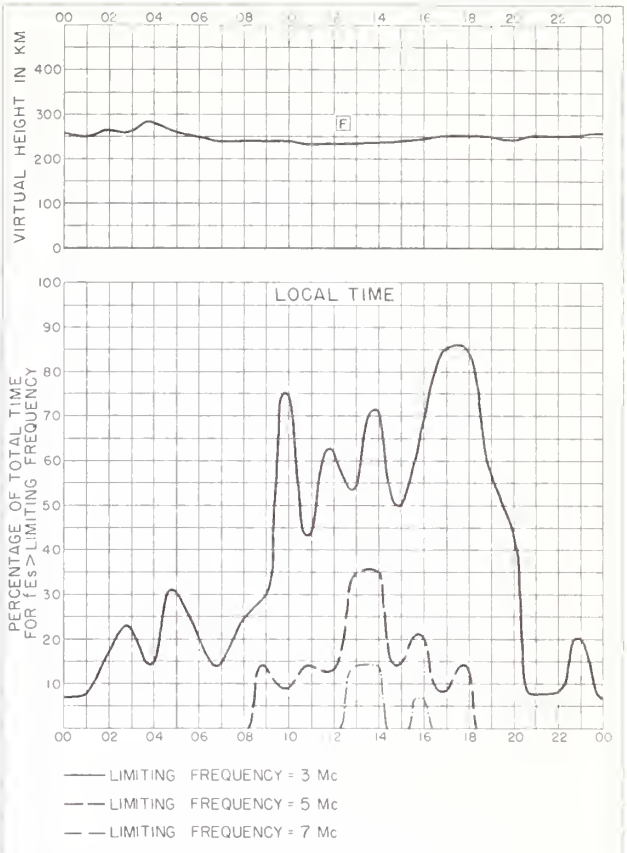

Fig 74. TOWNSVILLE, AUSTRALIA MAY 1959

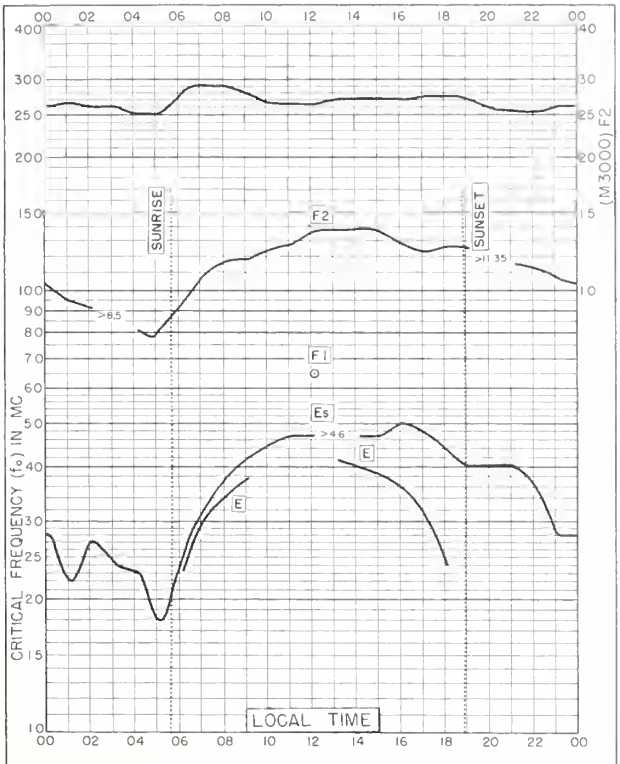

Fig. 75. CONCEPCION, CHILE
36.6°S. 73.0°W FEBRUARY 1959

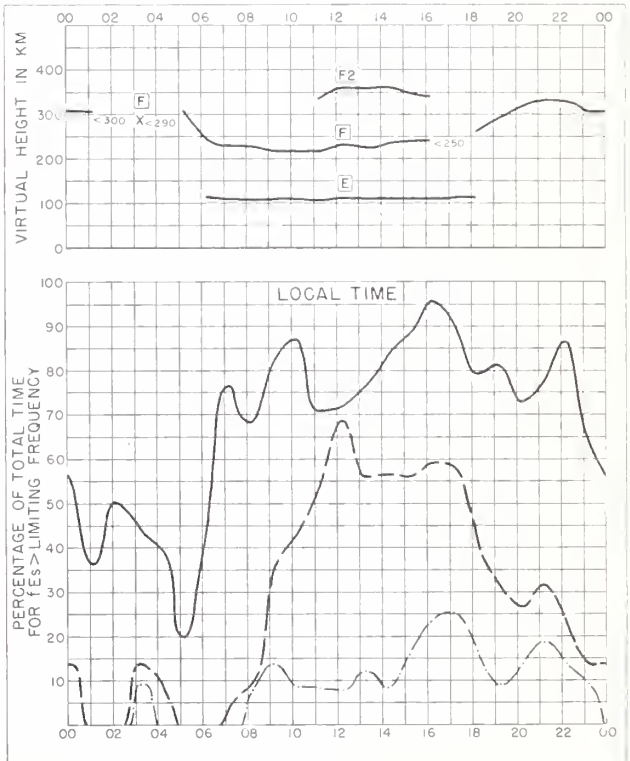

Fig. 76. CONCEPCION, CHILE FEBRUARY 1959

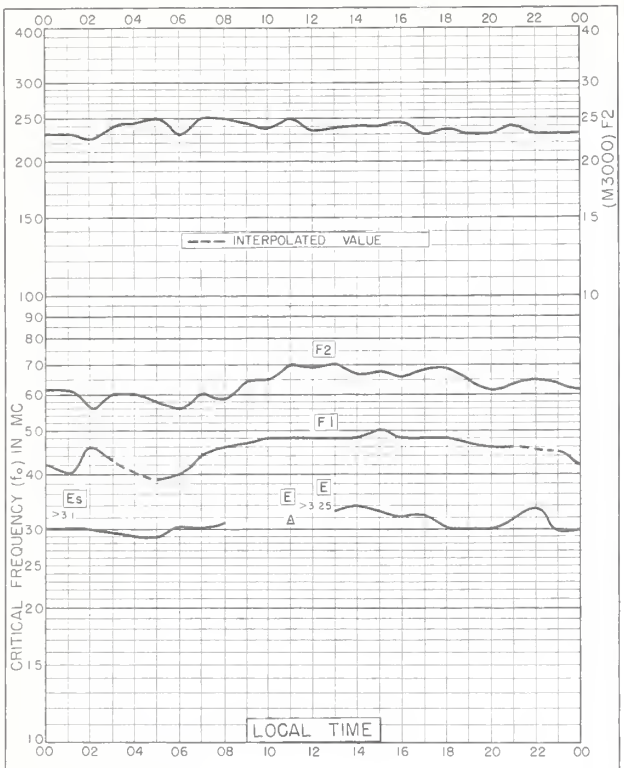

Fig. 77. BYRD STATION
80.0° S, 120.0° W JANUARY 1959

NBS 503

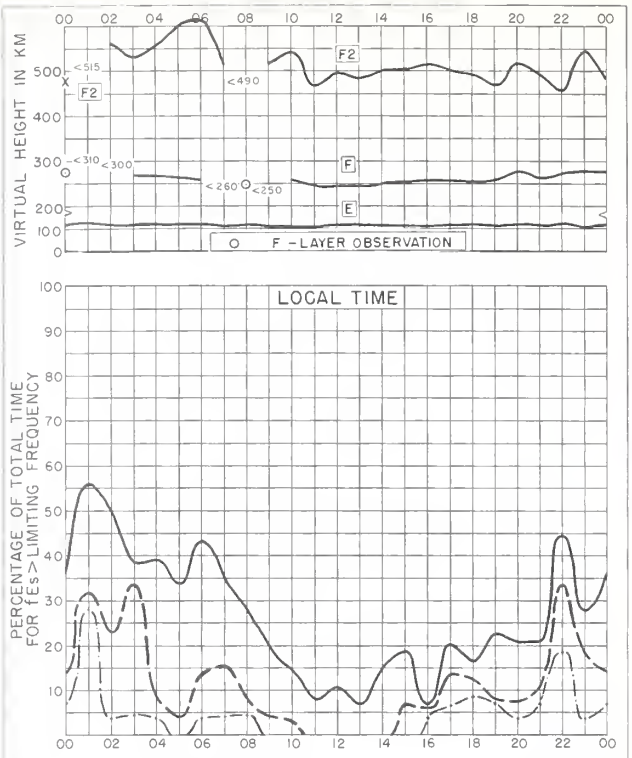

Fig. 78. BYRD STATION JANUARY 1959

NBS 490

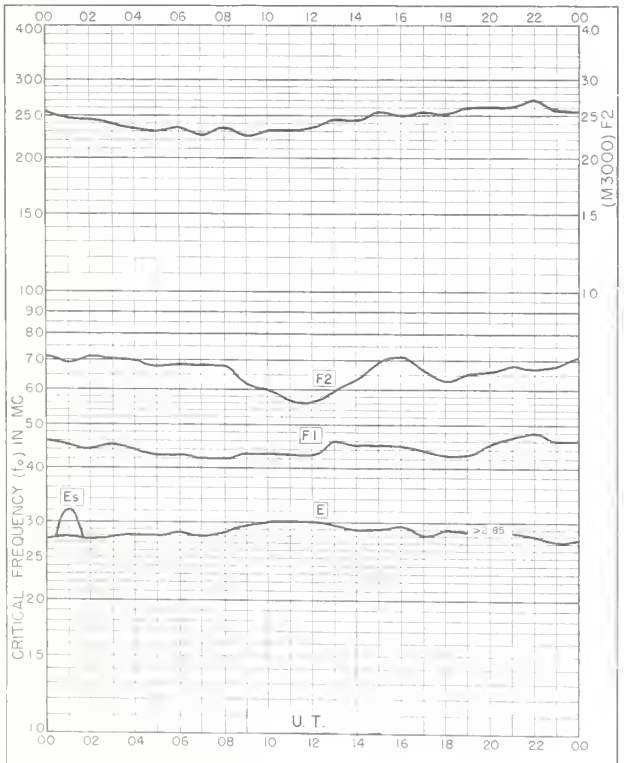

Fig. 79. POLE STATION
90.0°S NOVEMBER 1958

NBS 503

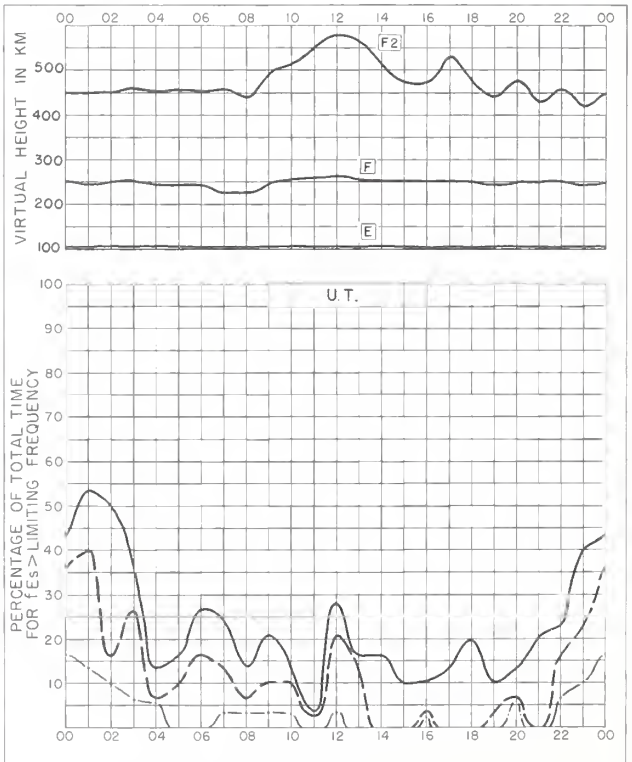

Fig. 80. POLE STATION NOVEMBER 1958

NBS 490

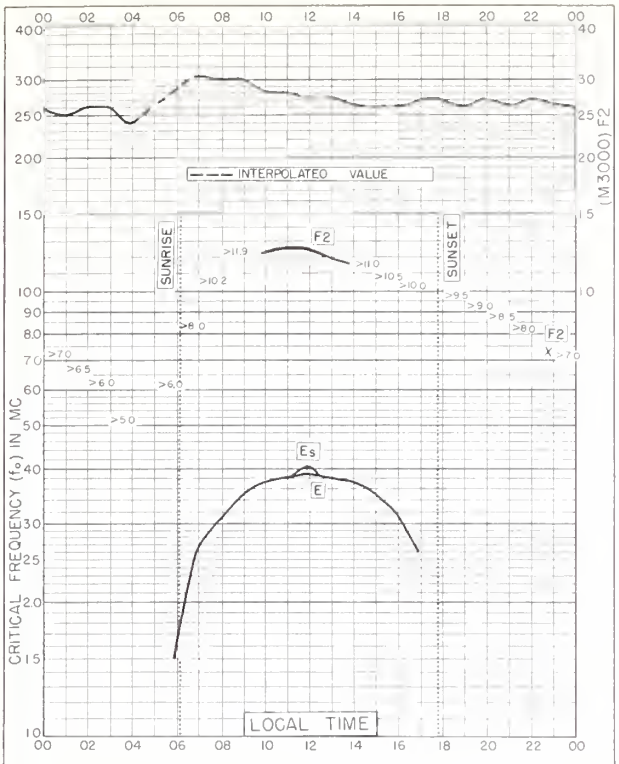

Fig. 81. HOBART, TASMANIA
42.9°S, 147.2°E SEPTEMBER 1958

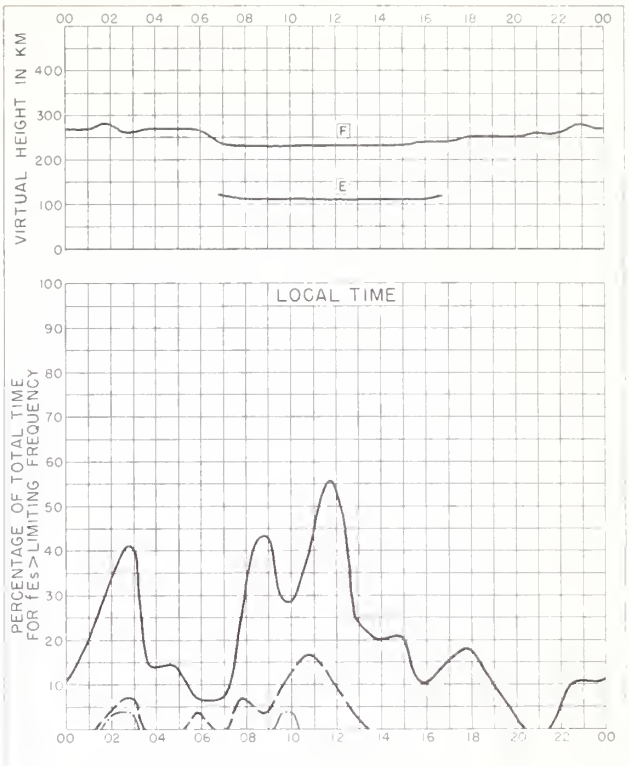

Fig. 82. HOBART, TASMANIA SEPTEMBER 1958

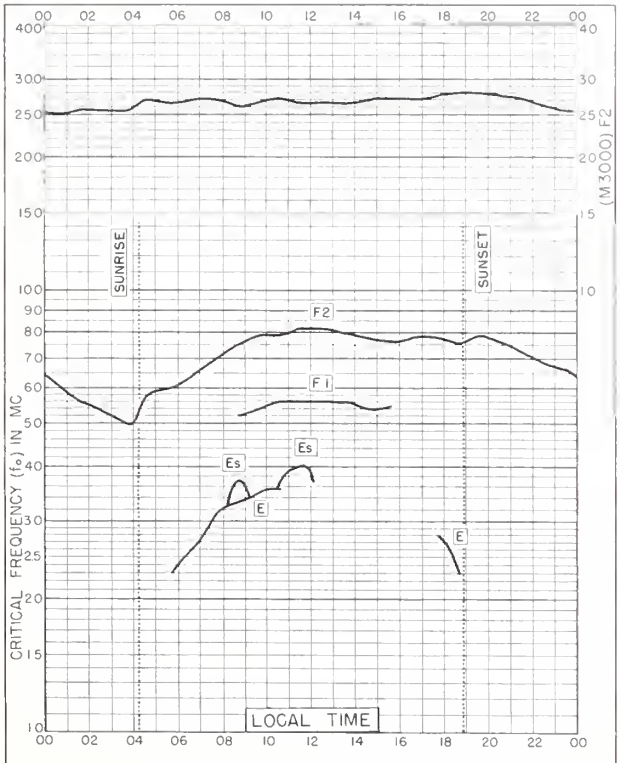

Fig.83. NURMIJARVI, FINLAND
60.5°N, 24.6°E AUGUST 1958

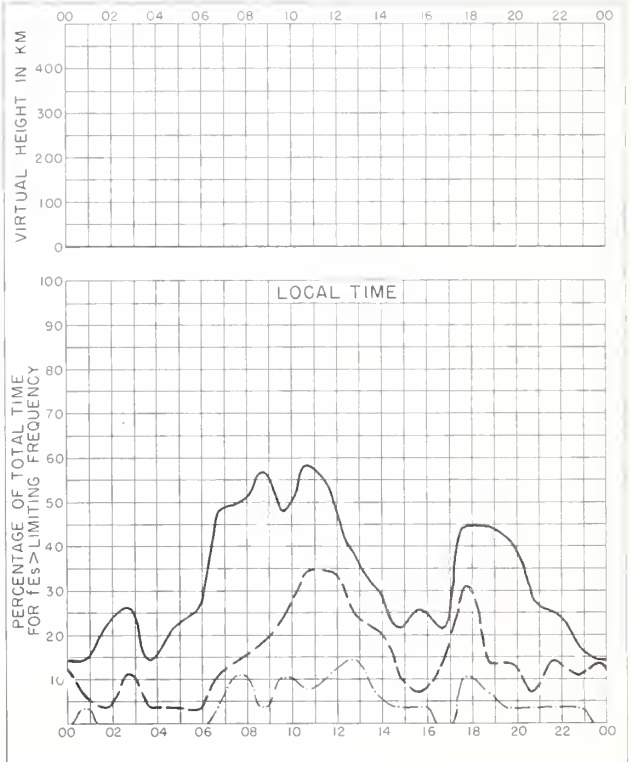

Fig. 84. NURMIJARVI, FINLAND AUGUST 1958

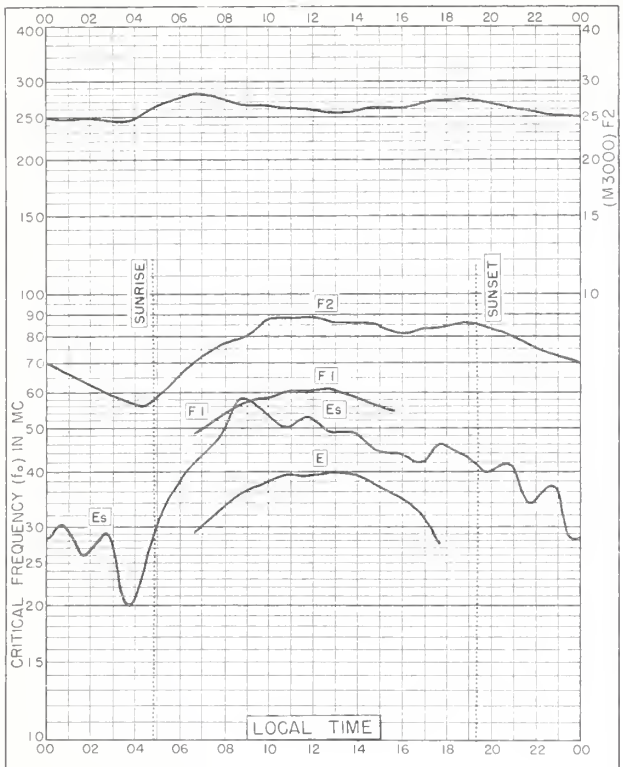

Fig. 85. LINDAU/HARZ, GERMANY
51.6° N, 10.1° E AUGUST 1958

NBS 503

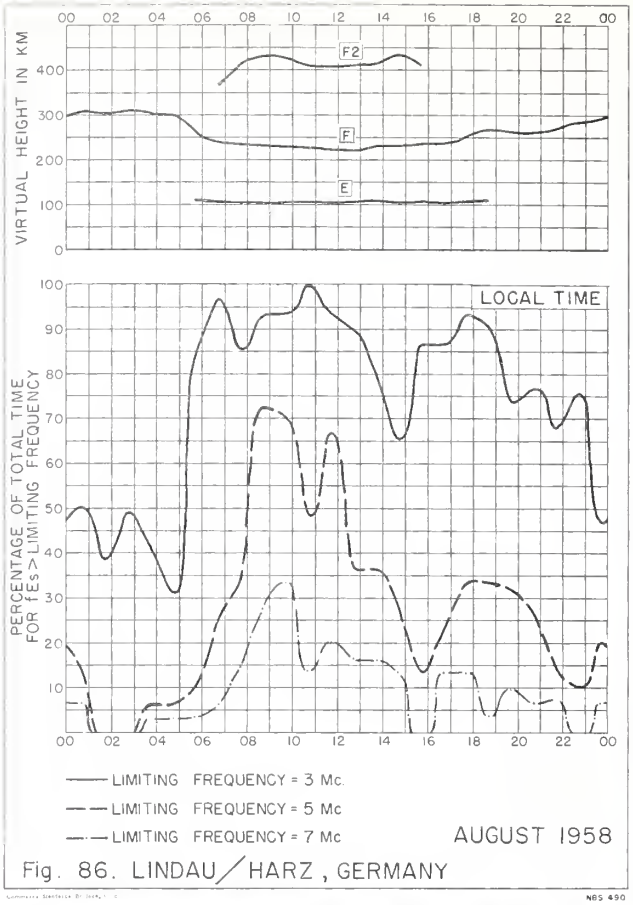

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Fig. 86. LINDAU/HARZ, GERMANY

NBS 490

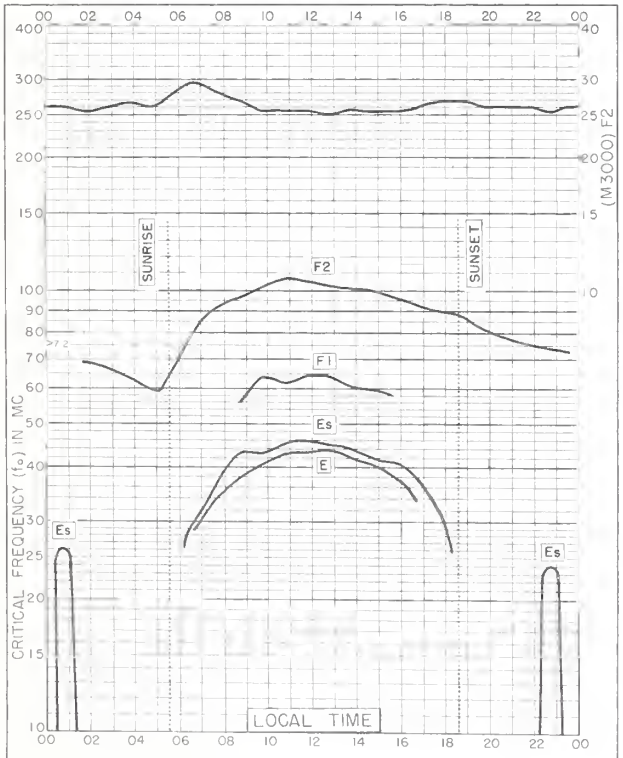
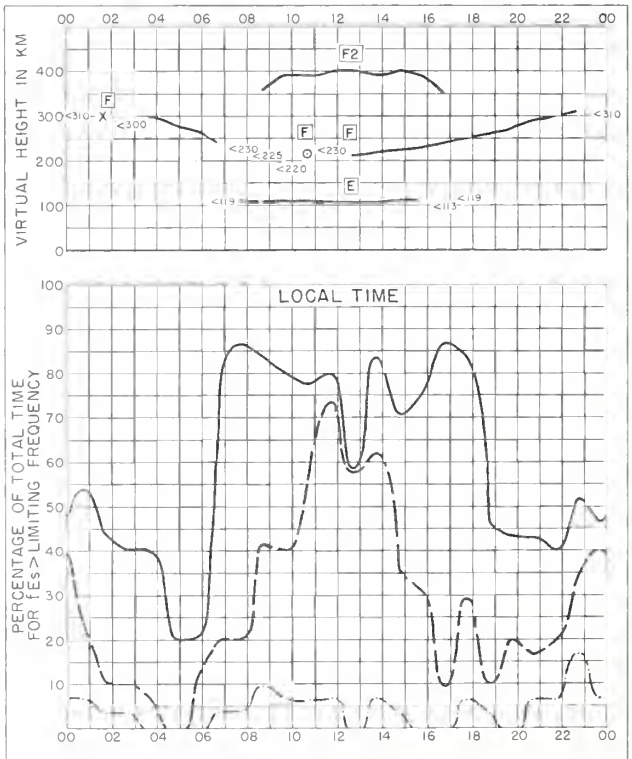


Fig 87. CAPE CANAVERAL, FLORIDA
28.4° N, 80.6° W AUGUST 1958

NBS 503



AUGUST 1958

Fig. 88. CAPE CANAVERAL, FLORIDA

NBS 490

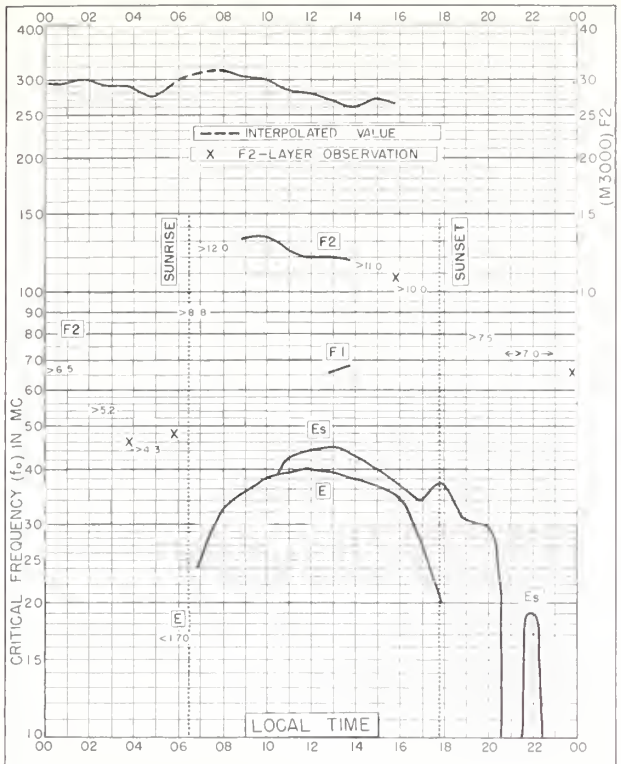


Fig. 89. TOWNSVILLE, AUSTRALIA
19.3°S, 146.7°E AUGUST 1958

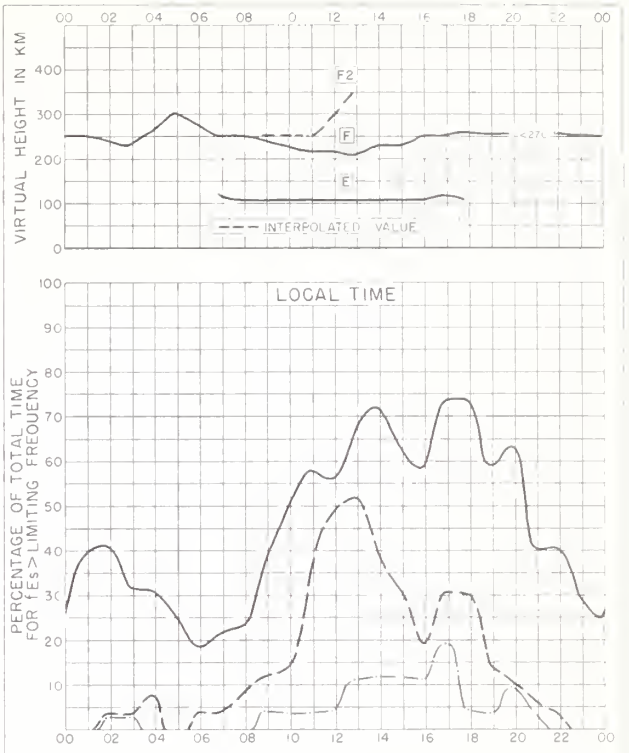


Fig. 90. TOWNSVILLE, AUSTRALIA AUGUST 1958

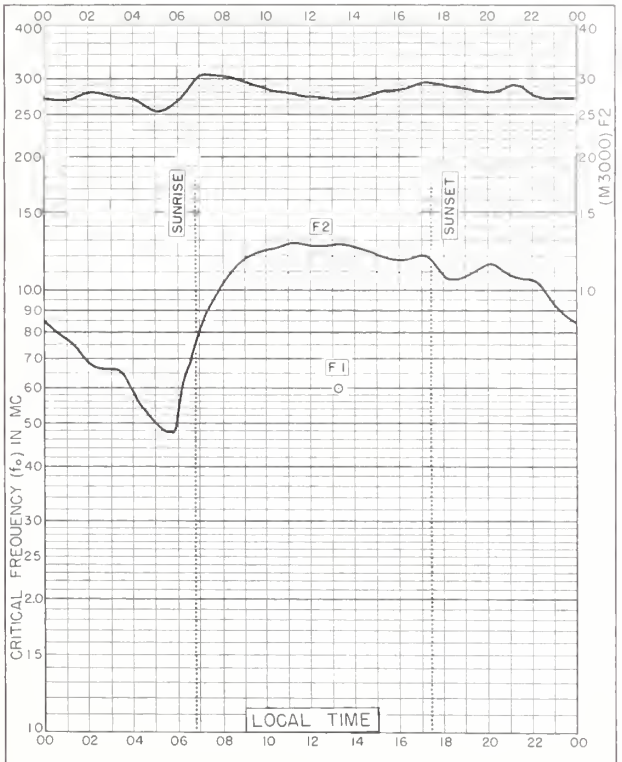


Fig 91. BUENOS AIRES, ARGENTINA
34.5° S, 58.5° W AUGUST 1958

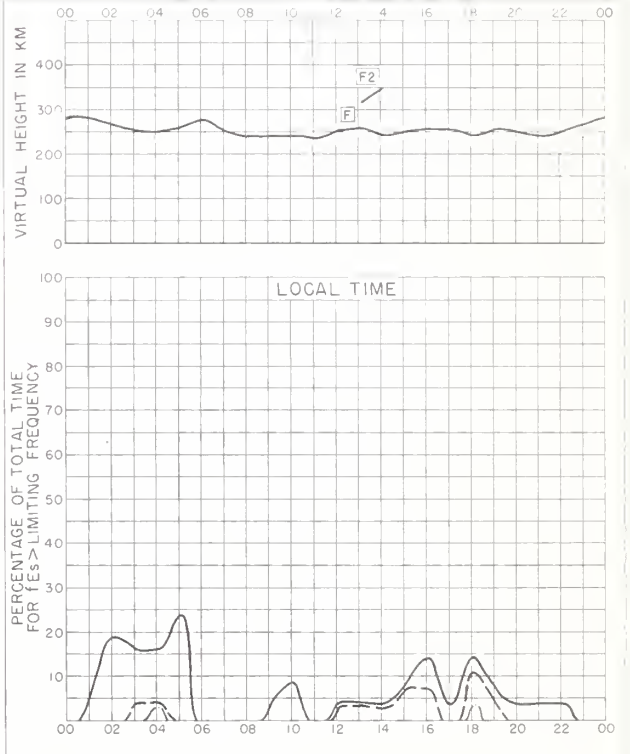


Fig 92. BUENOS AIRES, ARGENTINA AUGUST 1958

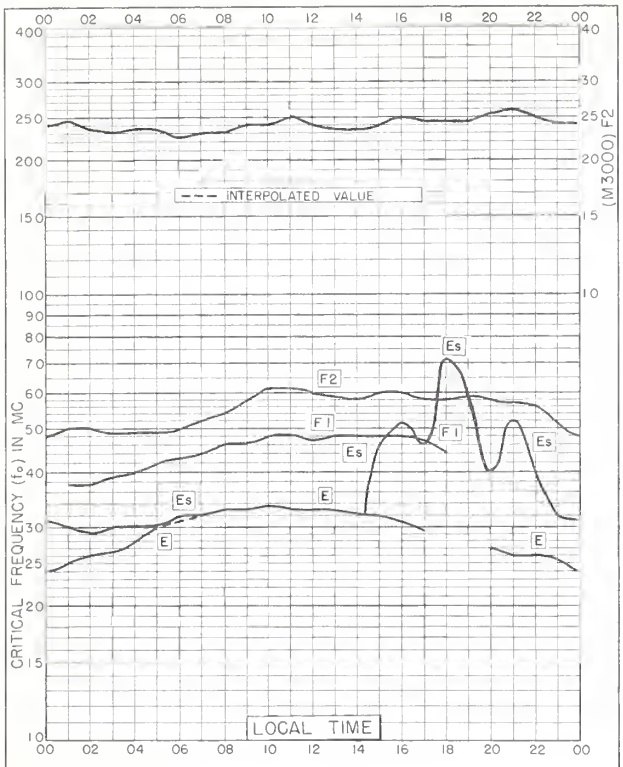


Fig. 93. SVALBARD, NORWAY
78.2° N, 15.7° E JULY 1958

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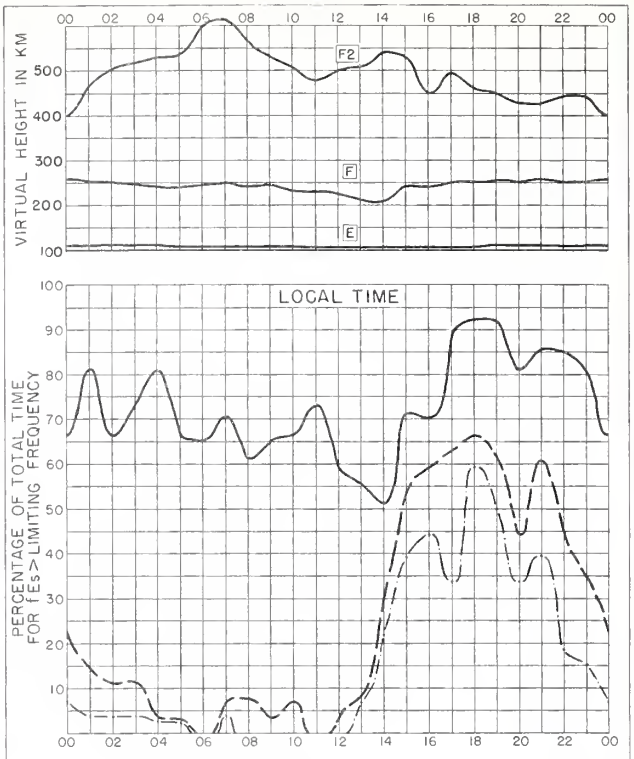

Fig. 94. SVALBARD, NORWAY JULY 1958

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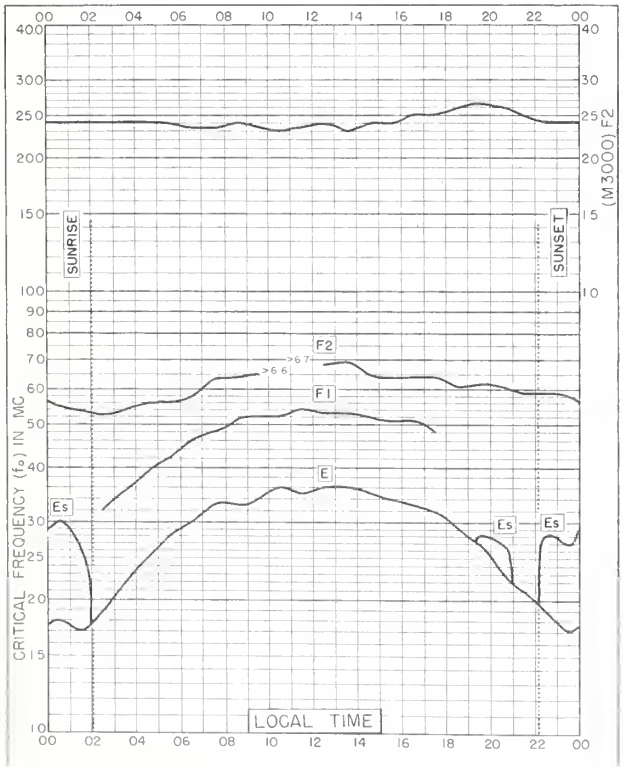

Fig. 95. LULEA, SWEDEN
65.6° N, 22.1° E JULY 1958

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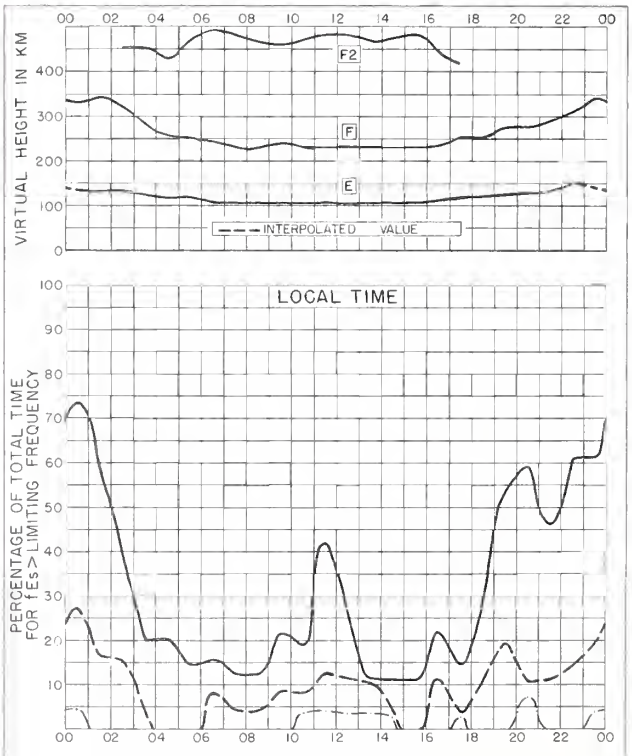

Fig 96. LULEA, SWEDEN JULY 1958

NBS 490

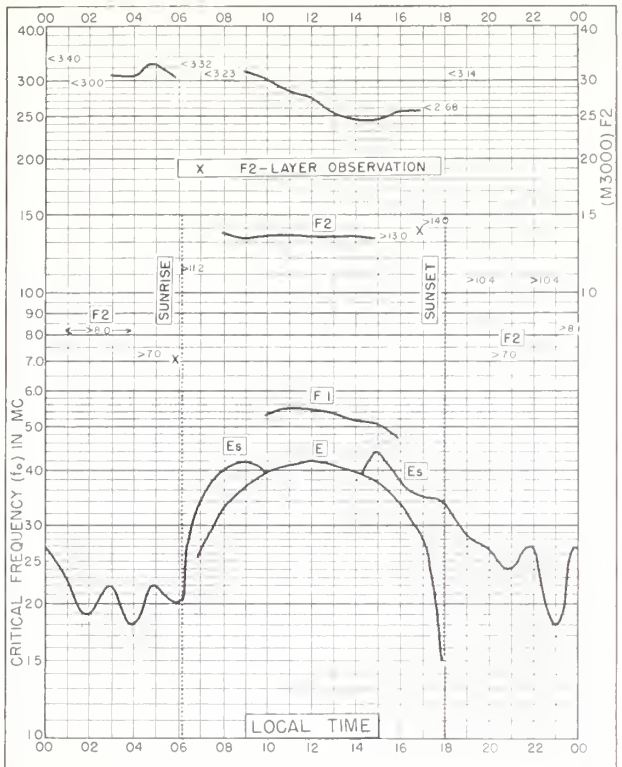

Fig. 97. LWIRO, BELGIAN CONGO
2.3° S, 28.8° E JULY 1958

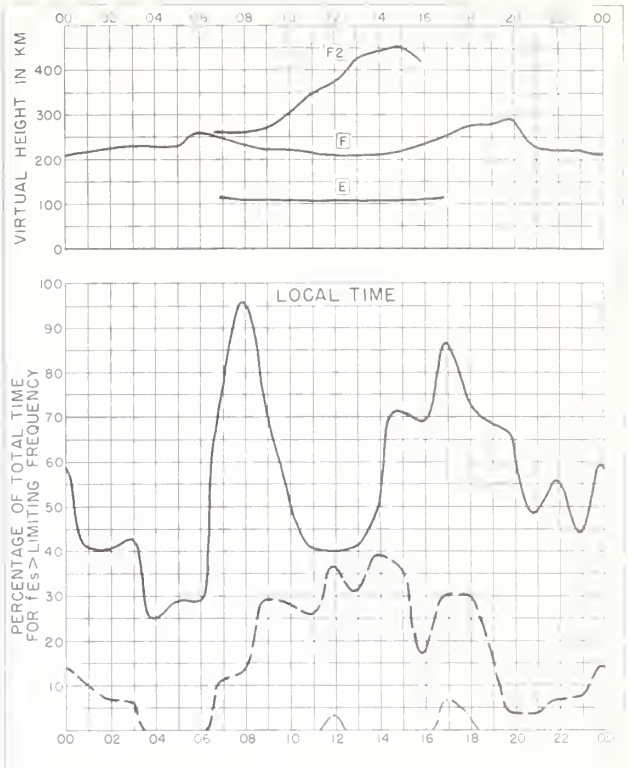

Fig. 98. LWIRO, BELGIAN CONGO JULY 1958

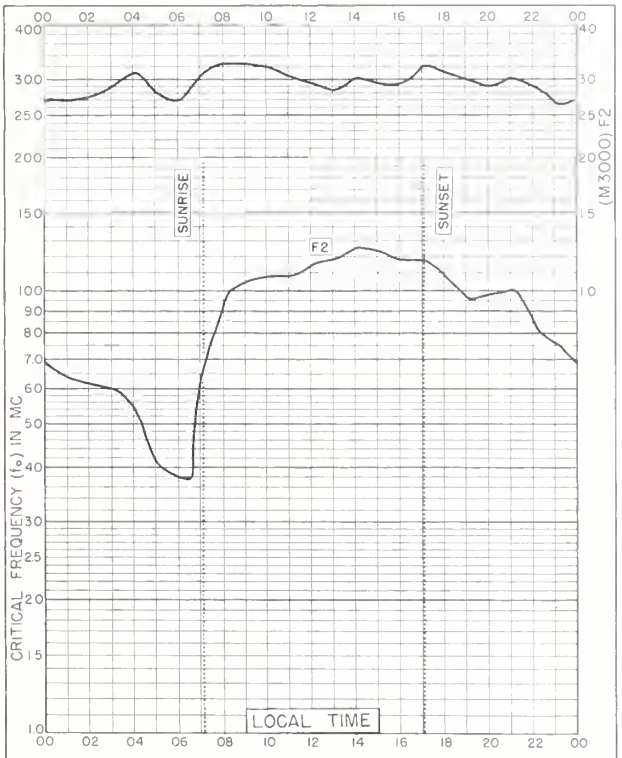

Fig. 99. BUENOS AIRES, ARGENTINA
34.5° S, 58.5° W JULY 1958

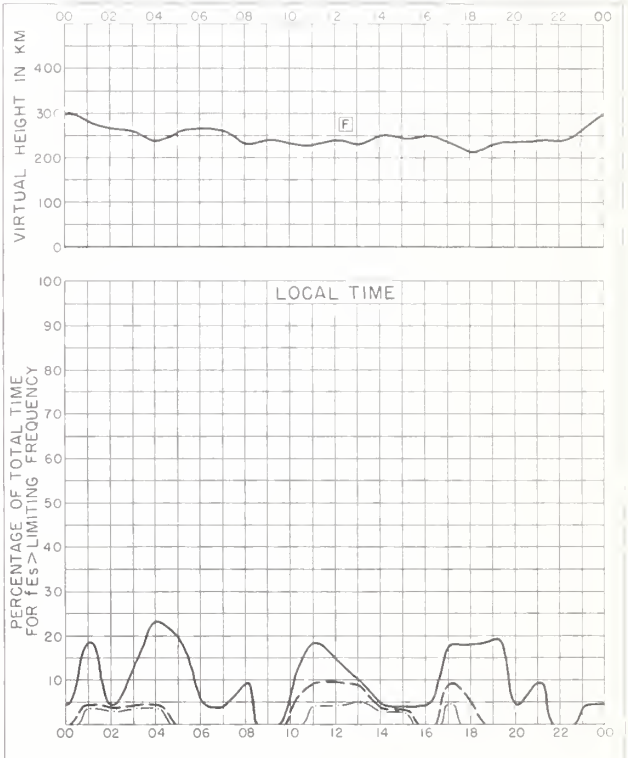

Fig 100. BUENOS AIRES, ARGENTINA JULY 1958

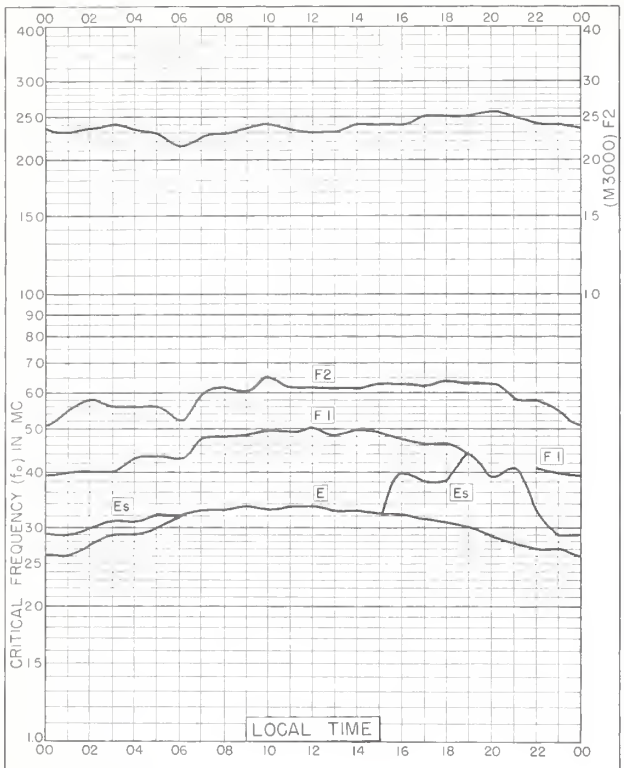

Fig. 101. SVALBARD, NORWAY
78.2°N, 15.7°E JUNE 1958

NBS 503

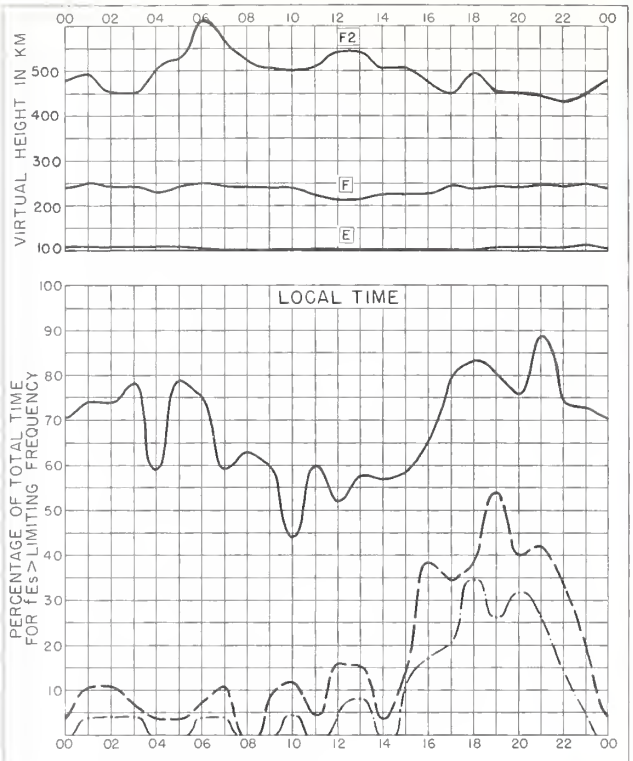

Fig. 102. SVALBARD, NORWAY JUNE 1958

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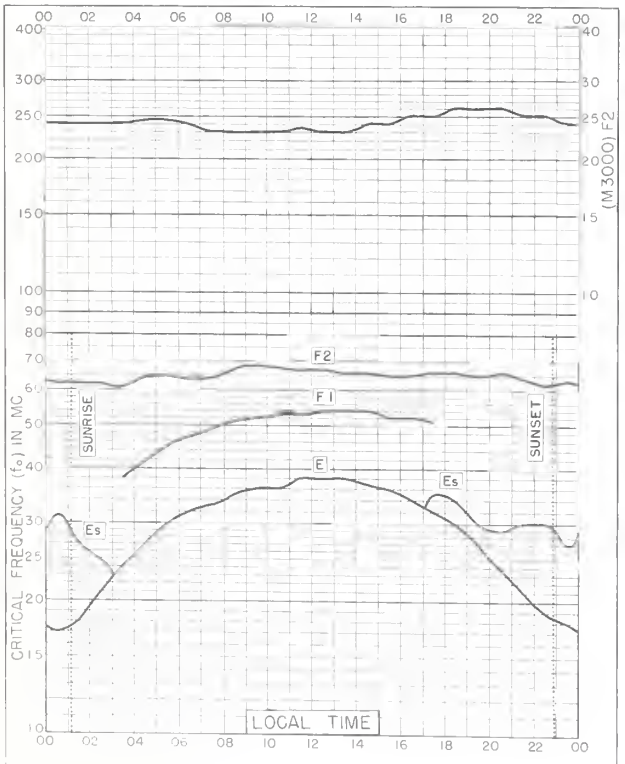

Fig. 103. LULEA, SWEDEN
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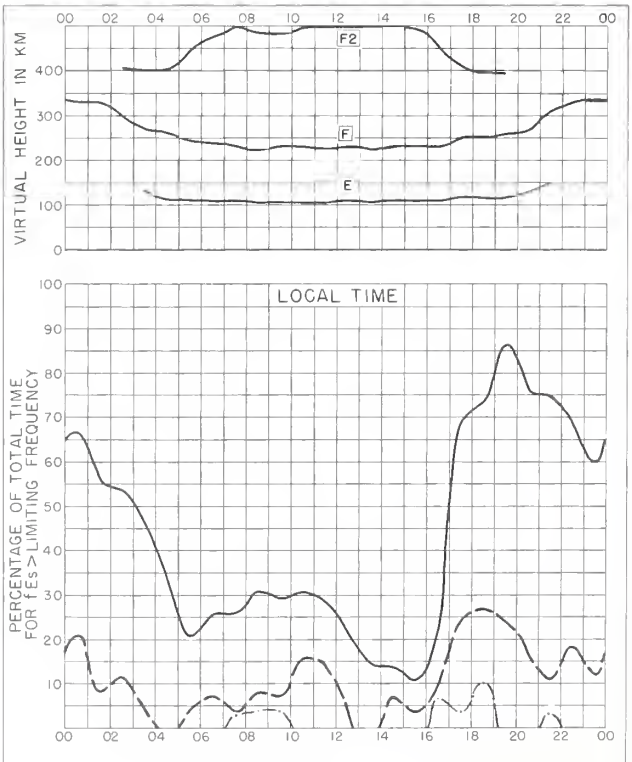

Fig. 104. LULEA, SWEDEN JUNE 1958

NBS 490

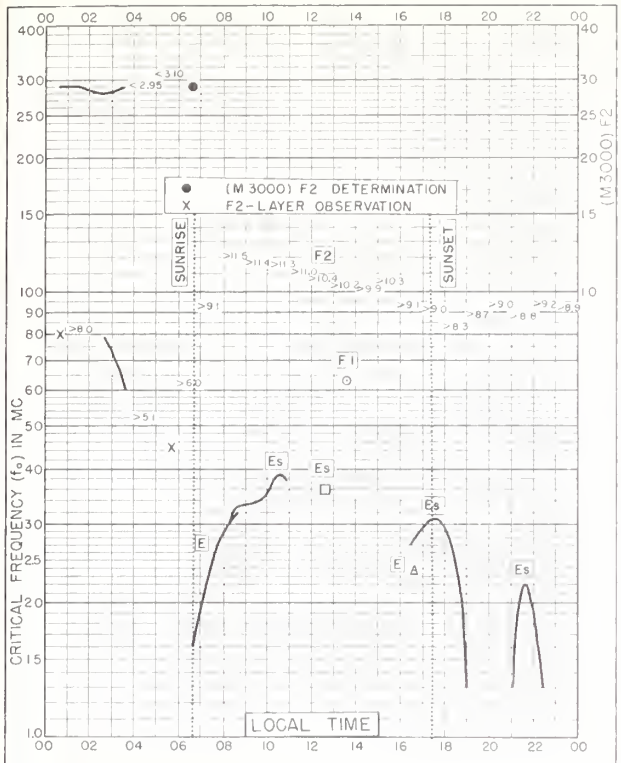

Fig. 105. La QUIACA, ARGENTINA
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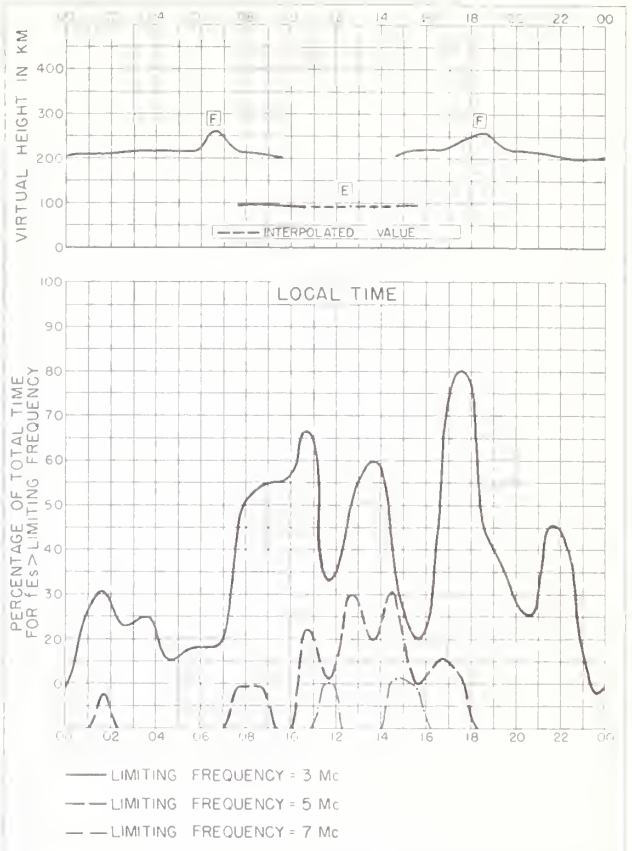

Fig. 106. La QUIACA, ARGENTINA JUNE 1958

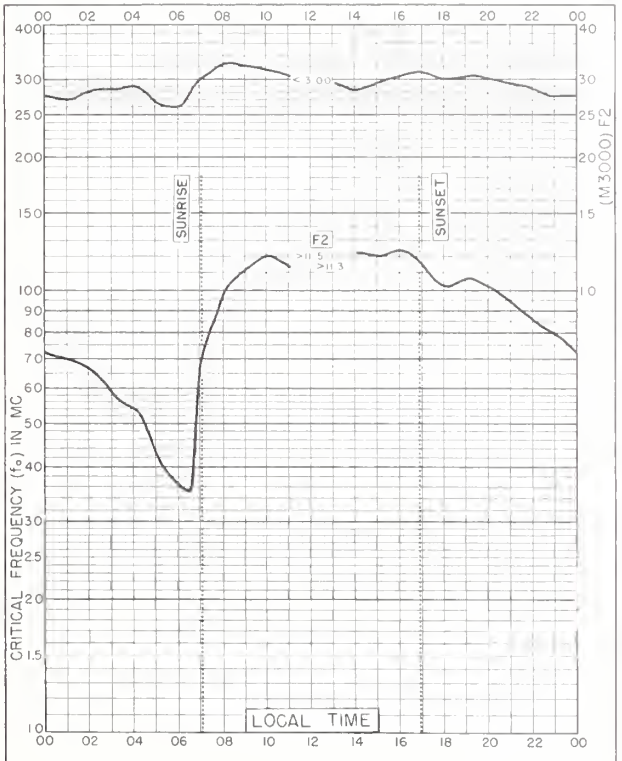

Fig. 107. BUENOS AIRES, ARGENTINA
34.5°S, 58.5°W JUNE 1958

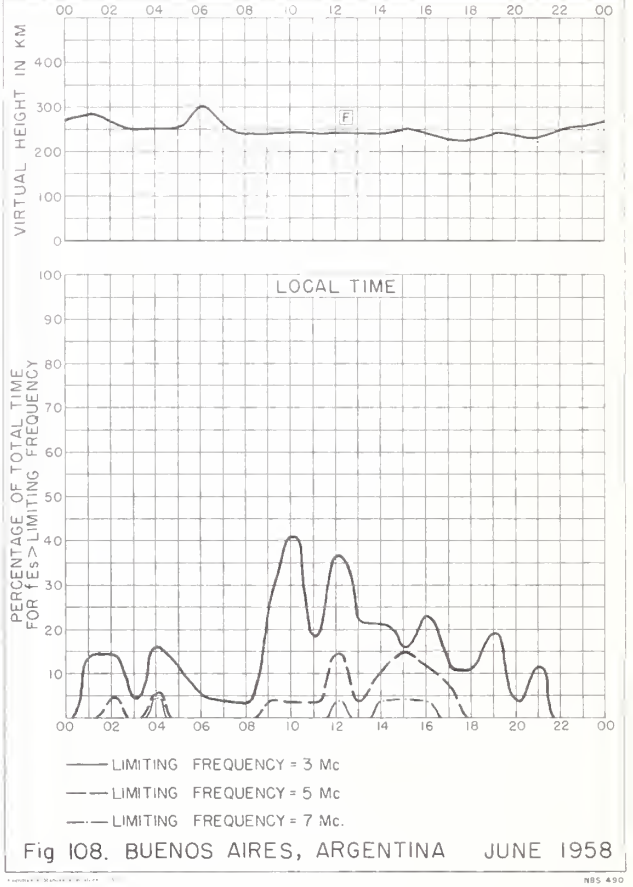

Fig 108. BUENOS AIRES, ARGENTINA JUNE 1958

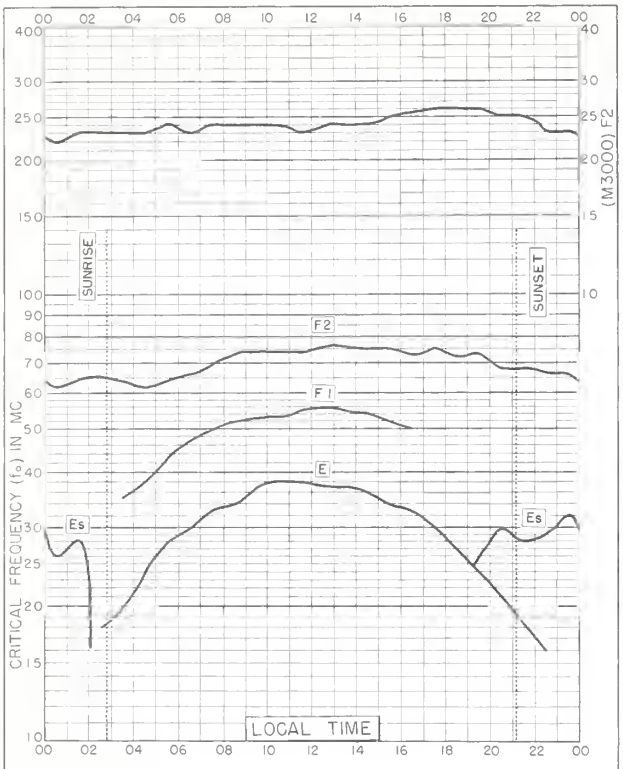

Fig 109. LULEA, SWEDEN
65.6° N, 22.1° E MAY 1958

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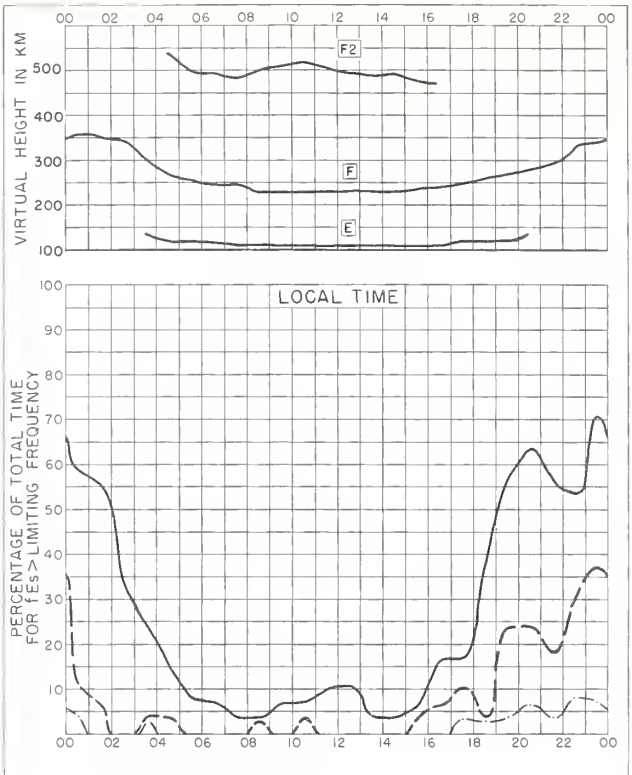

Fig 110. LULEA, SWEDEN MAY 1958

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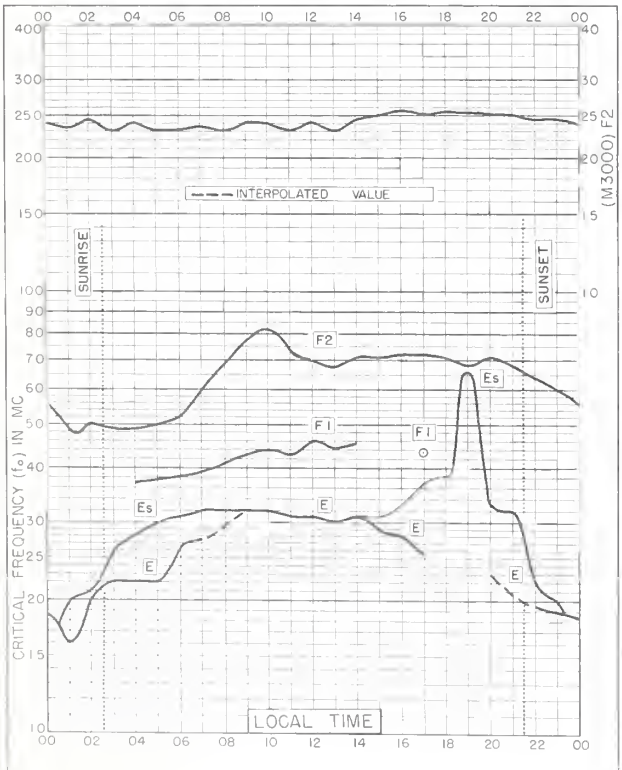

Fig 111. SVALBARD, NORWAY
78.2° N, 15.7° E APRIL 1958

NBS 503

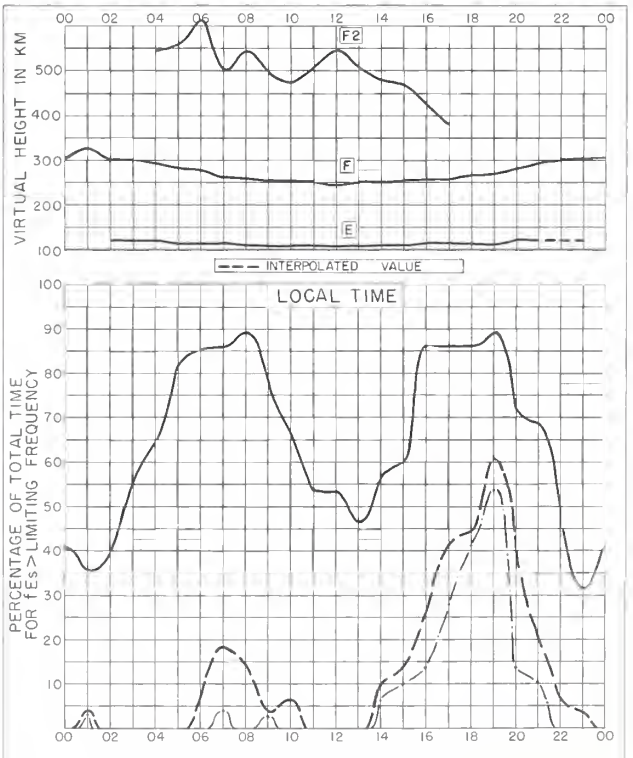

Fig. 112. SVALBARD, NORWAY APRIL 1958

NBS 490

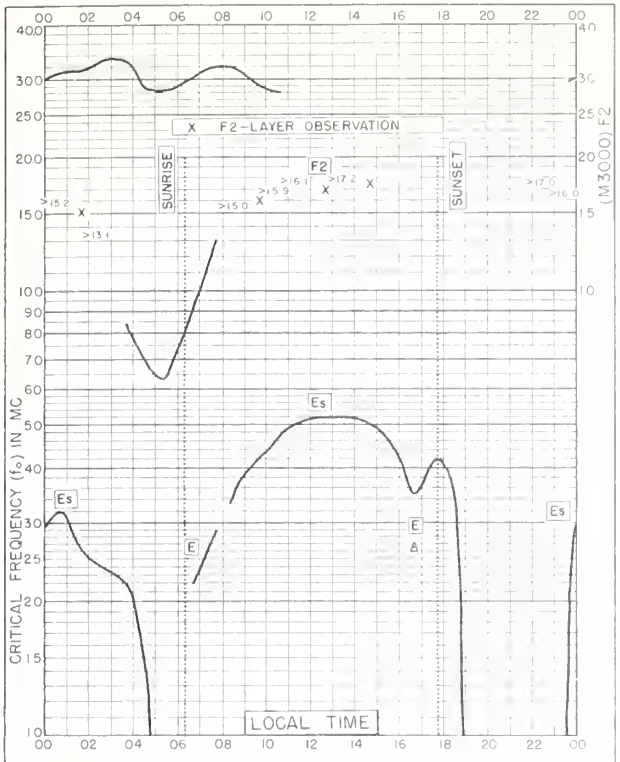

Fig. 113. TUCUMAN, ARGENTINA
26.9° S, 65.4° W APRIL 1958

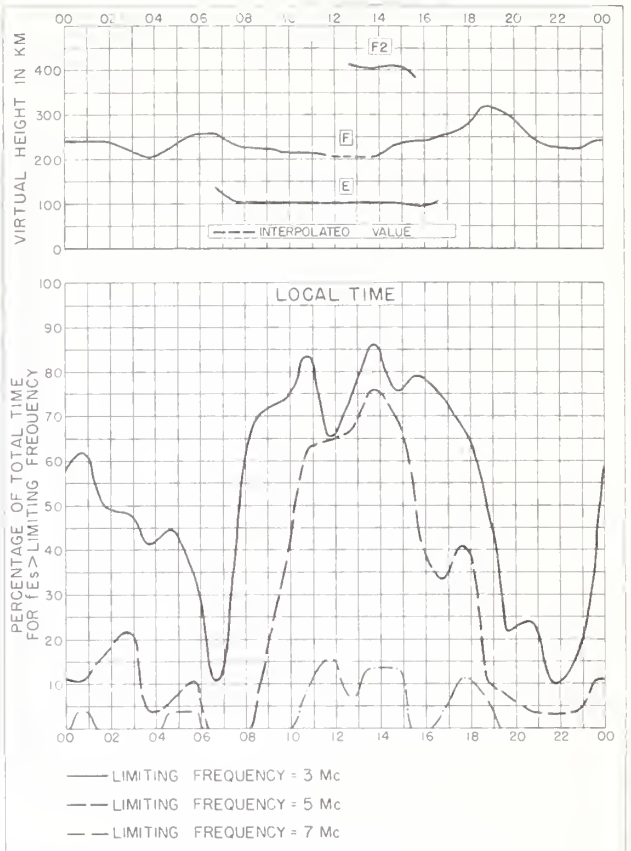

Fig. 114. TUCUMAN, ARGENTINA APRIL 1958

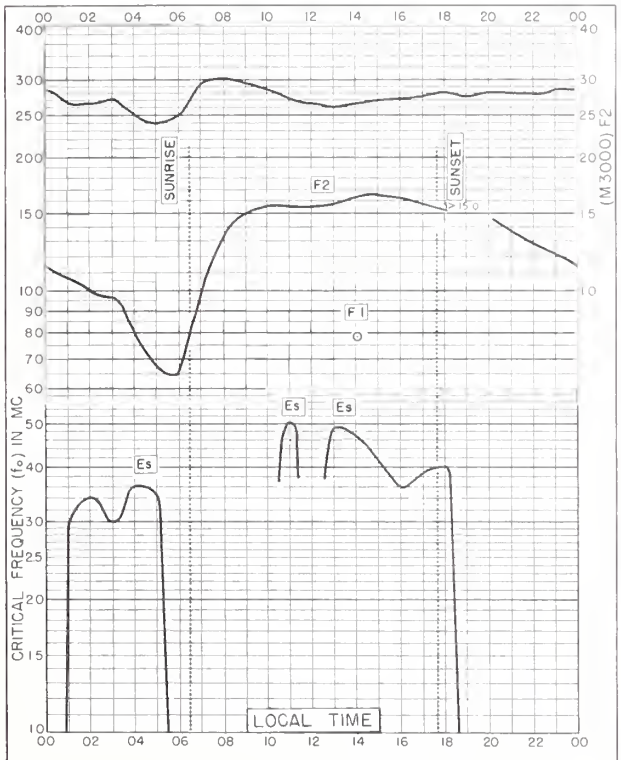

Fig. 115. BUENOS AIRES, ARGENTINA
34.5° S, 58.5° W APRIL 1958

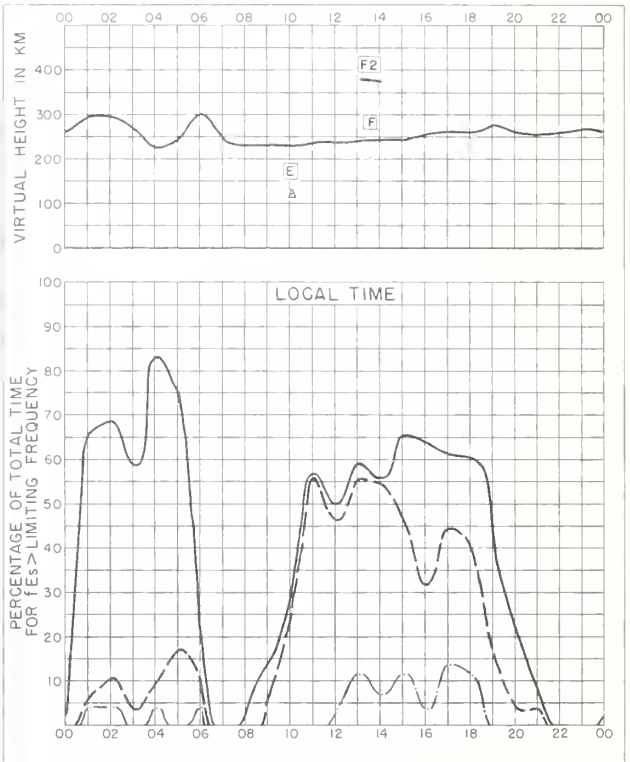

Fig 116. BUENOS AIRES, ARGENTINA APRIL 1958

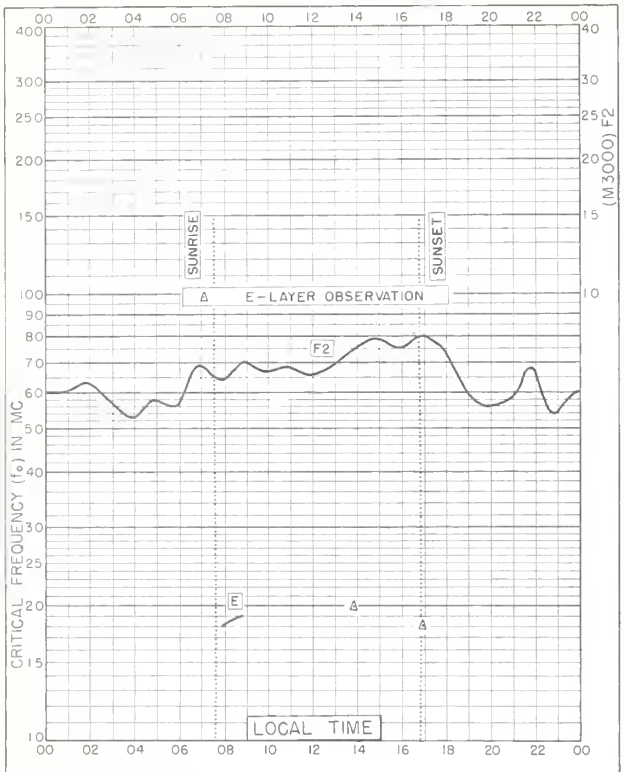

Fig 117. ALERT, CANADA
82.5° N, 62.7° W
MARCH 1958

NBS 503

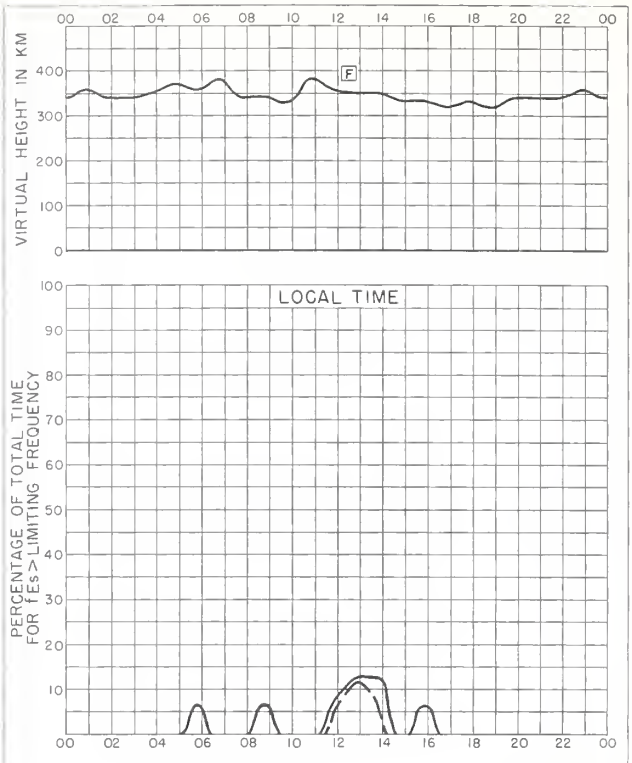

Fig. 118. ALERT, CANADA
MARCH 1958

NBS 490

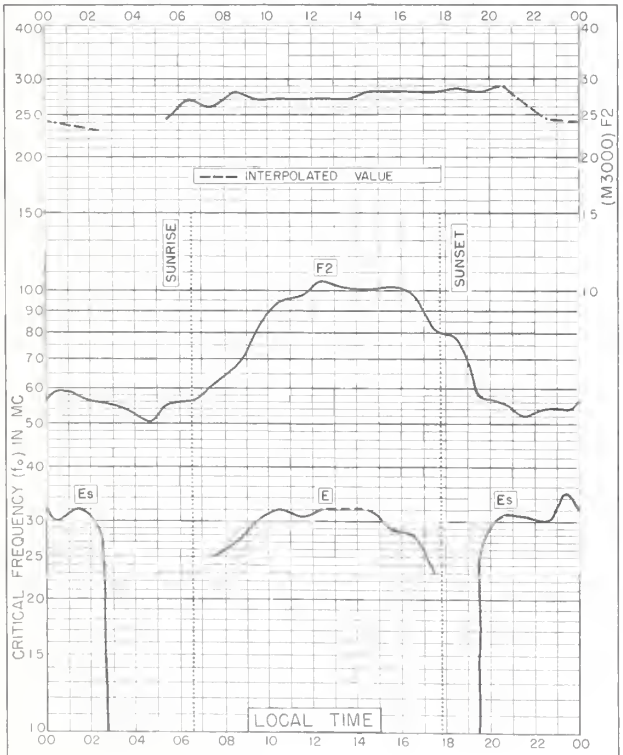

Fig 119. LULEA, SWEDEN
65.6° N, 22.1° E
MARCH 1958

NBS 503

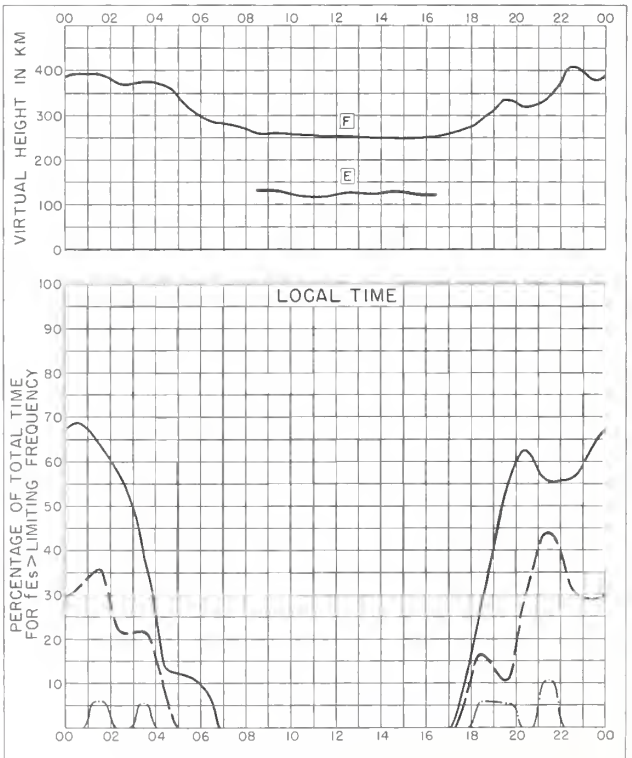

Fig. 120. LULEA, SWEDEN
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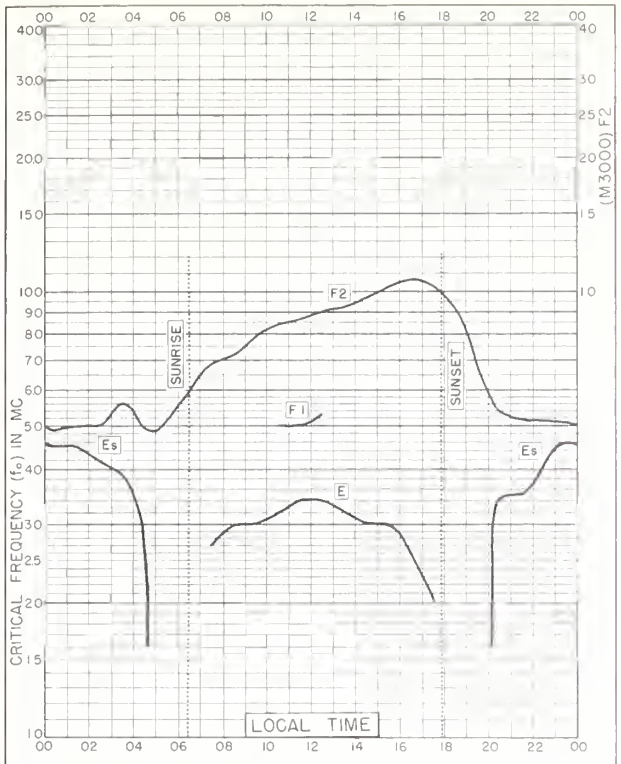

Fig. 121. MEANOOK, CANADA
54.6°N, 113.3°W MARCH 1958

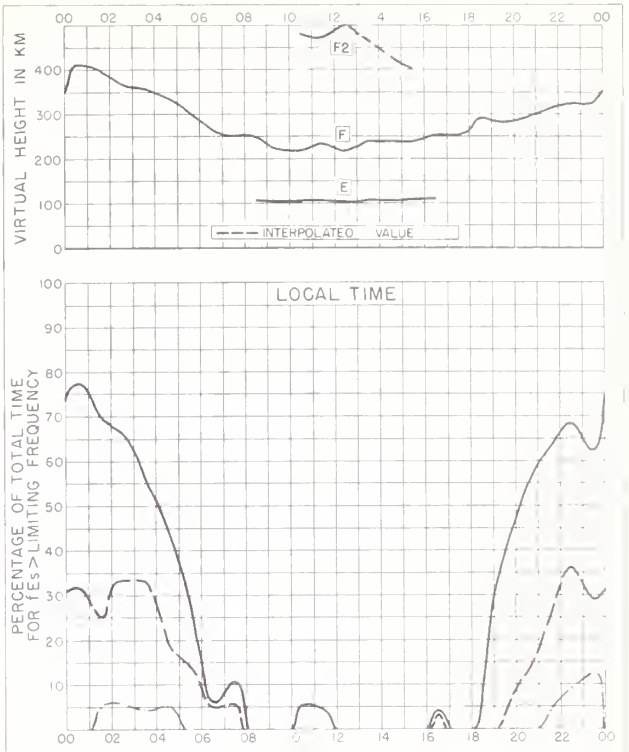

Fig. 122. MEANOOK, CANADA MARCH 1958

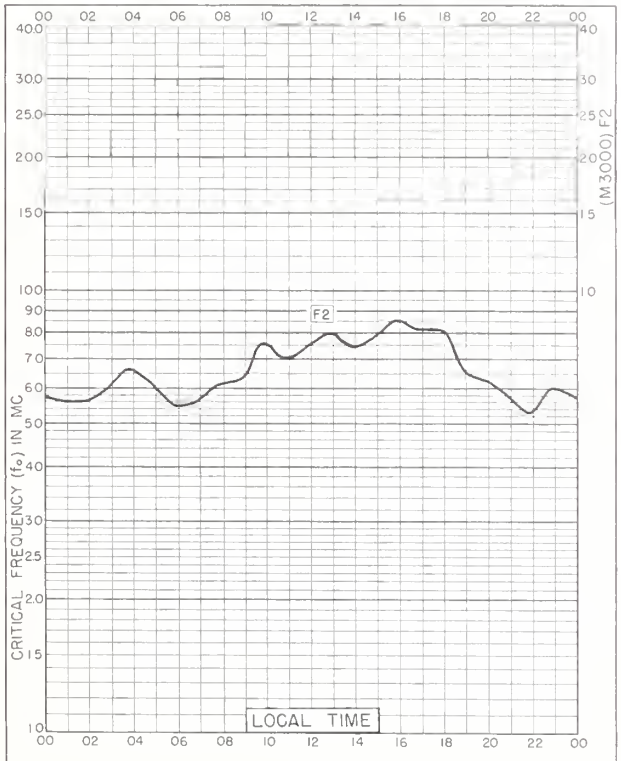

Fig. 123. ALERT, CANADA
82.5°N, 62.7° W FEBRUARY 1958

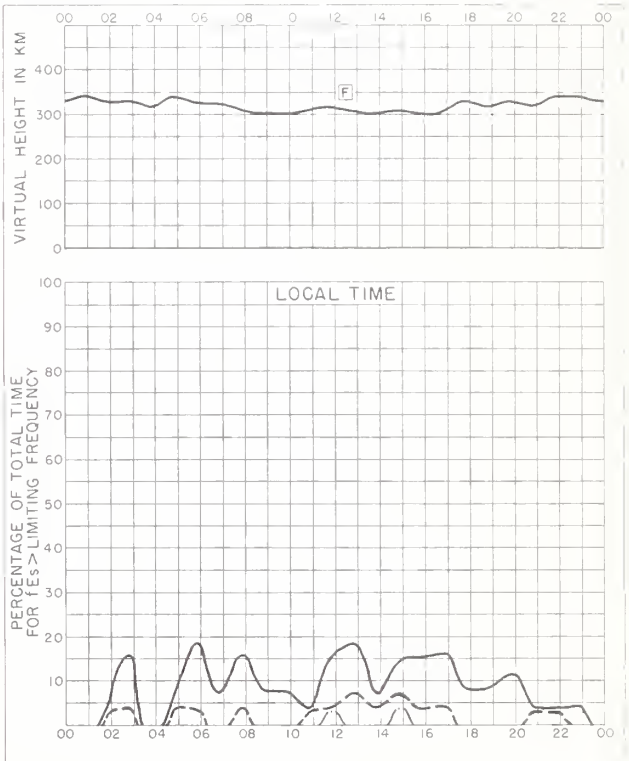

Fig. 124. ALERT, CANADA FEBRUARY 1958

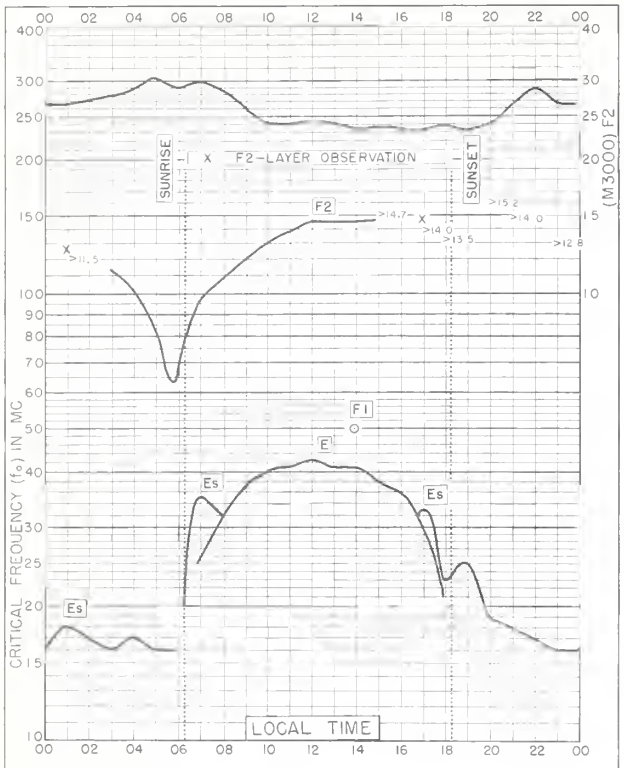

Fig 125. LWIRO, BELGIAN CONGO
2.3°S, 28.8°E FEBRUARY 1958

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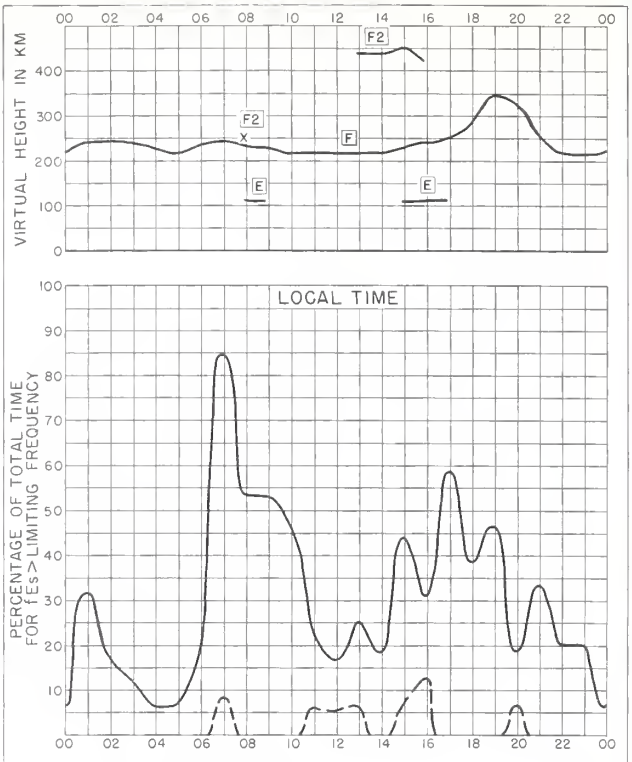

Fig 126. LWIRO, BELGIAN CONGO FEBRUARY 1958

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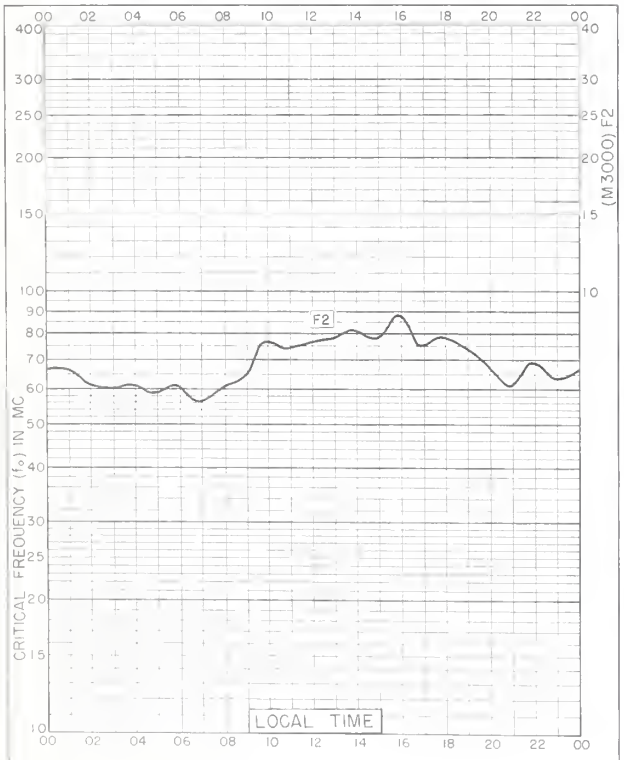

Fig 127. ALERT, CANADA
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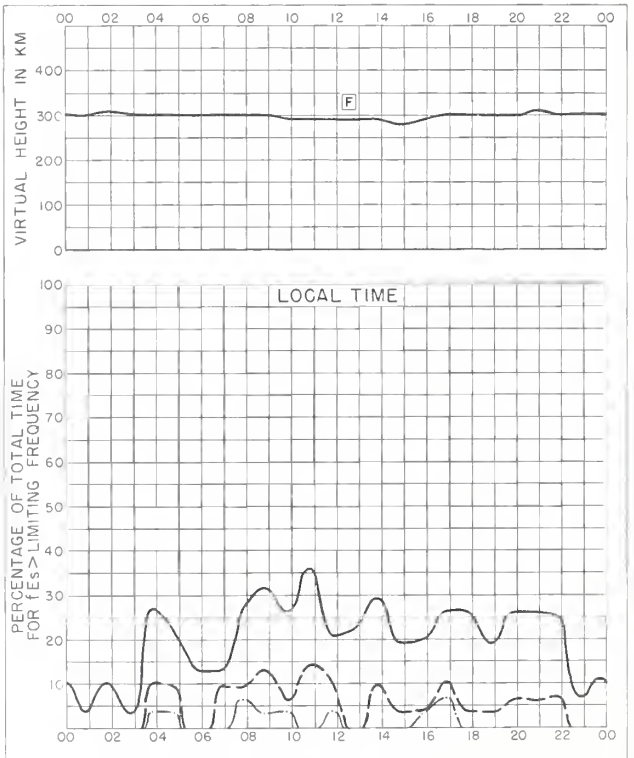

Fig. 128. ALERT, CANADA JANUARY 1958

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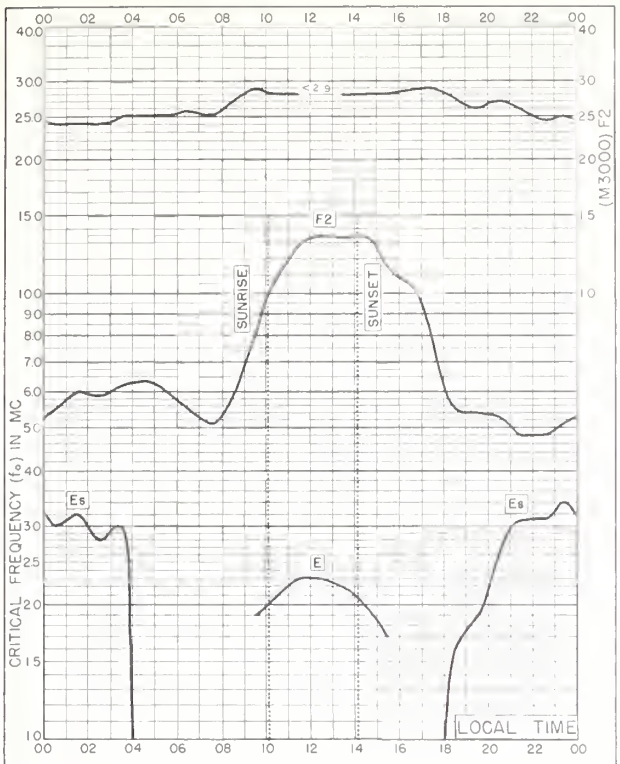

Fig. 129. LULEA, SWEDEN
65.6° N, 22.1° E JANUARY 1958

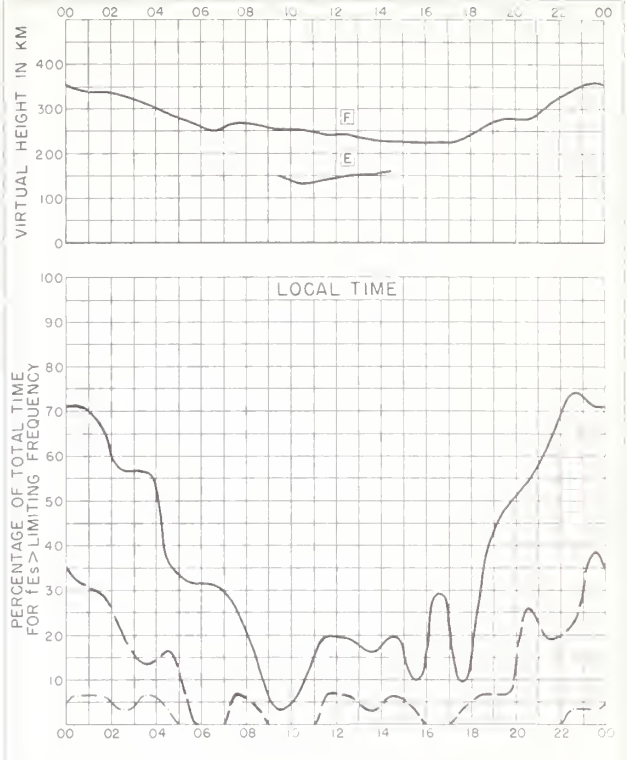

Fig. 130. LULEA, SWEDEN JANUARY 1958

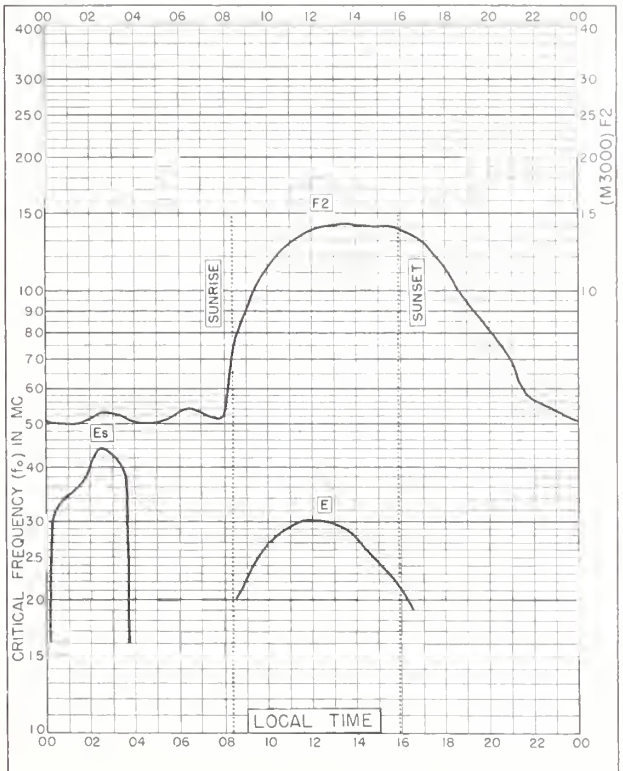

Fig 131. MEANOOK, CANADA
54.6° N, 113.3° W JANUARY 1958

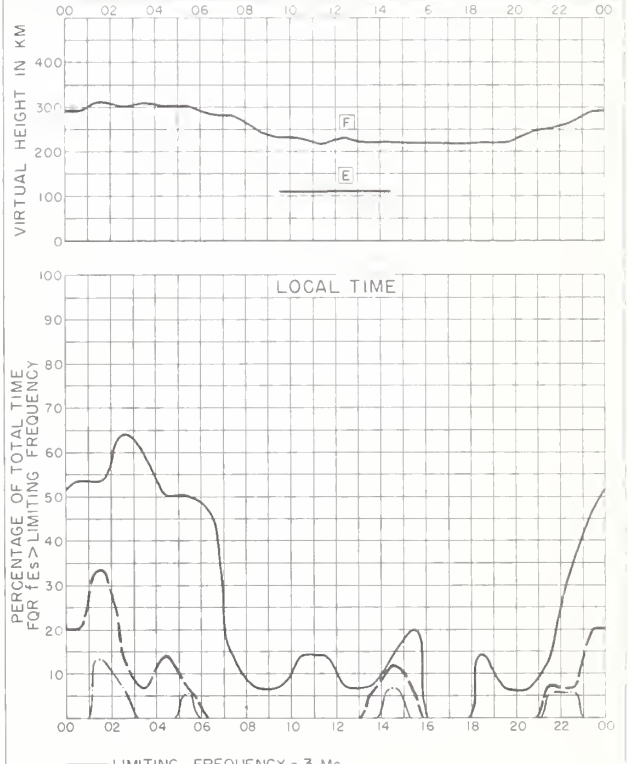

Fig. 132. MEANOOK, CANADA JANUARY 1958

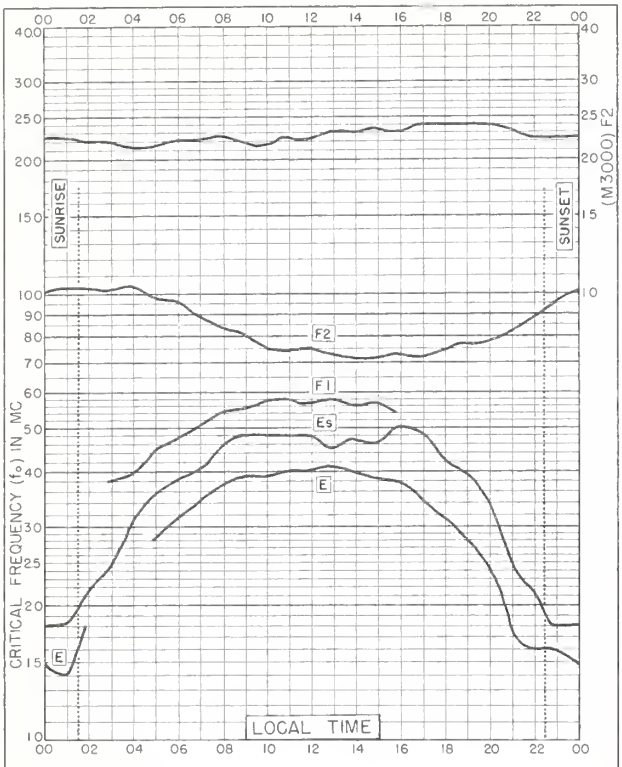

Fig. 133. PORT LOCKROY
64.8° S, 63.5° W DECEMBER 1957

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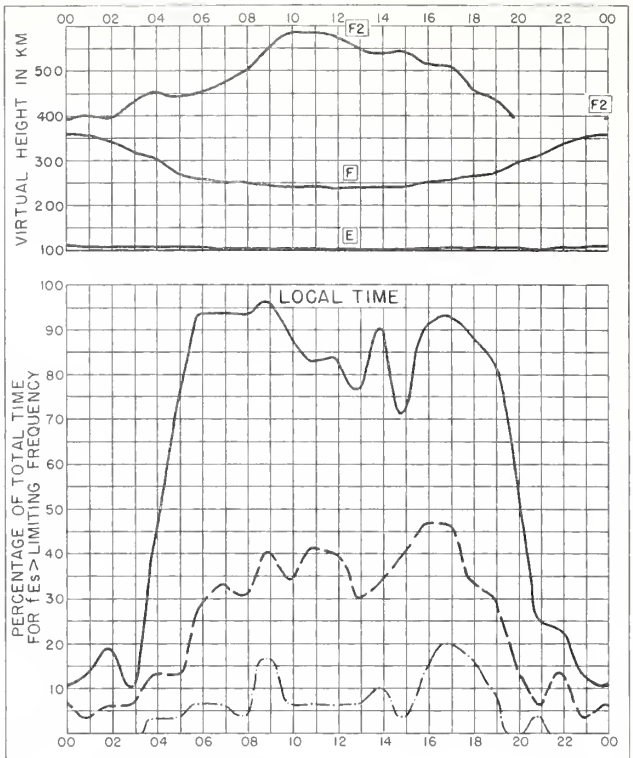

Fig 134. PORT LOCKROY DECEMBER 1957

NBS 490

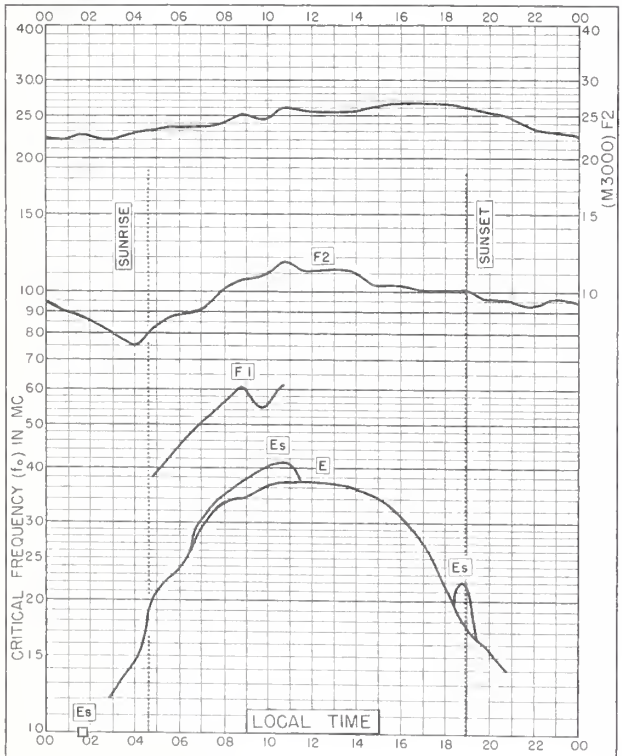

Fig 135. PORT LOCKROY
64.8° S, 63.5° W OCTOBER 1957

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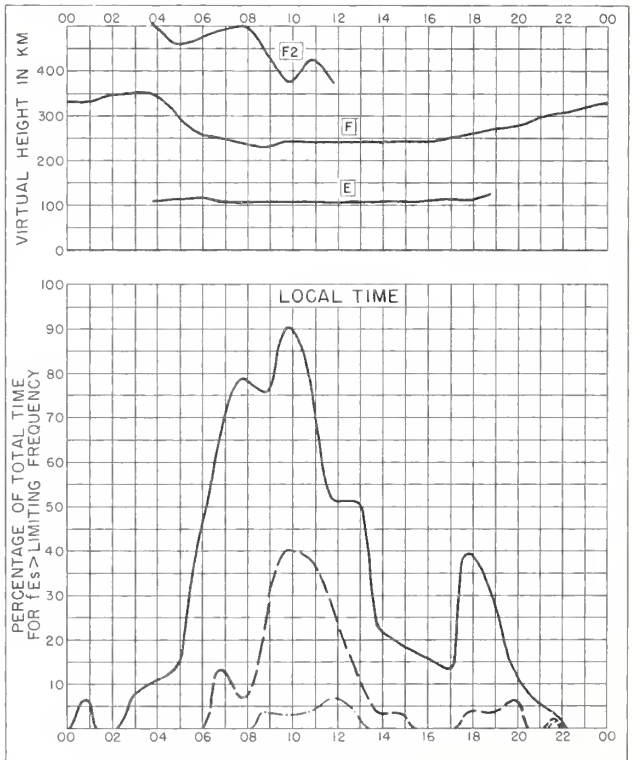

Fig. 136. PORT LOCKROY OCTOBER 1957

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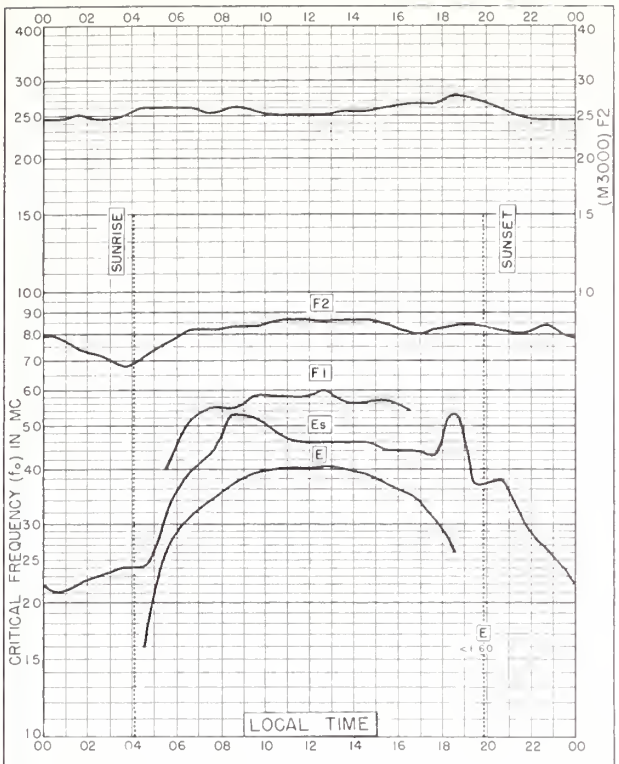

Fig. 137. FREIBURG, GERMANY
48.1° N, 7.8° E JUNE 1957

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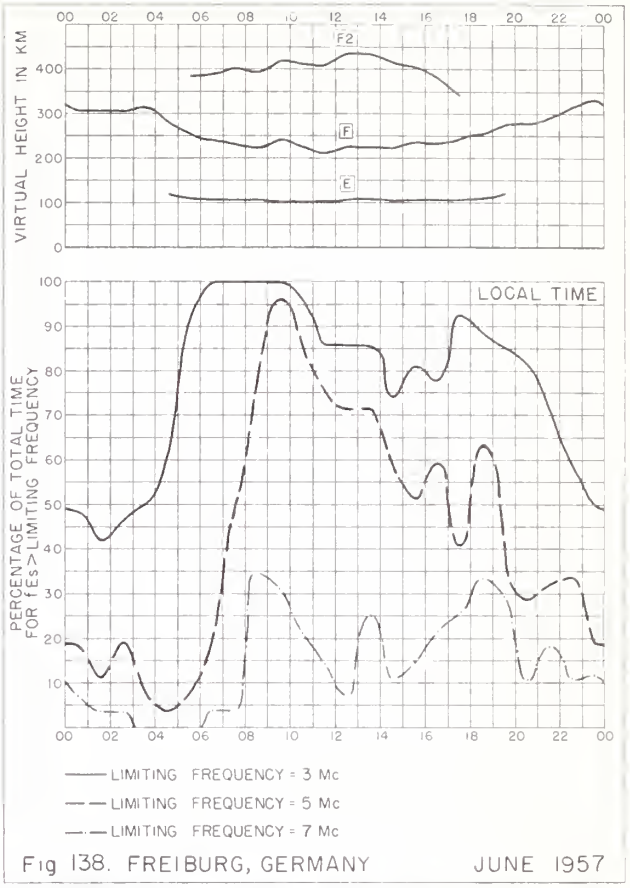

Fig. 138. FREIBURG, GERMANY JUNE 1957

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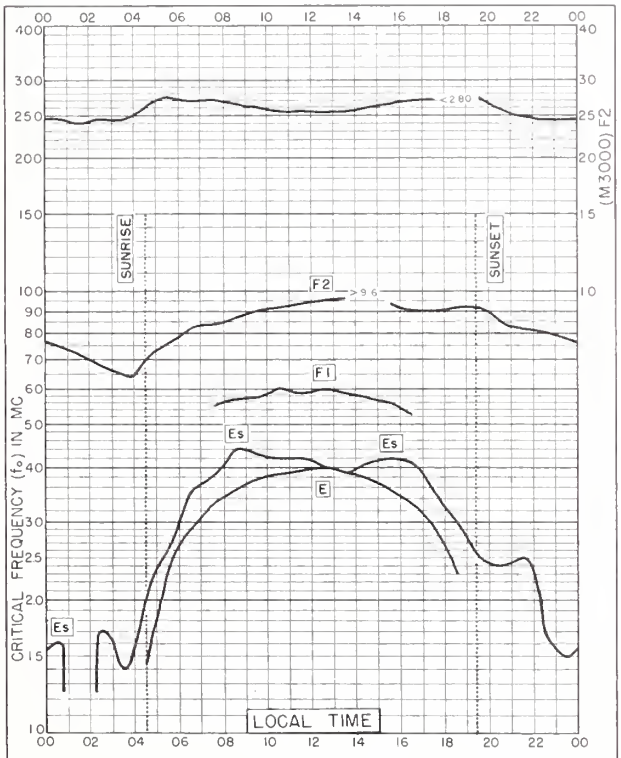

Fig. 139. FREIBURG, GERMANY
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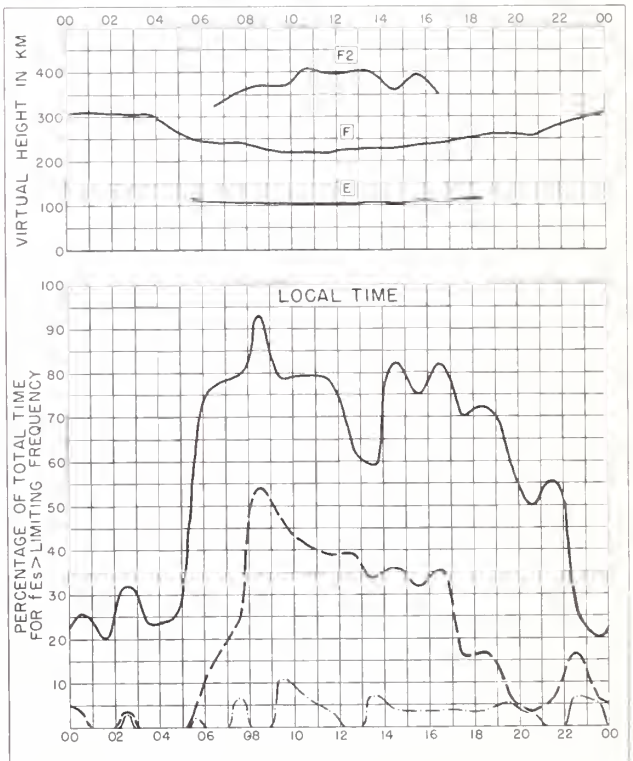

Fig. 140. FREIBURG, GERMANY MAY 1957

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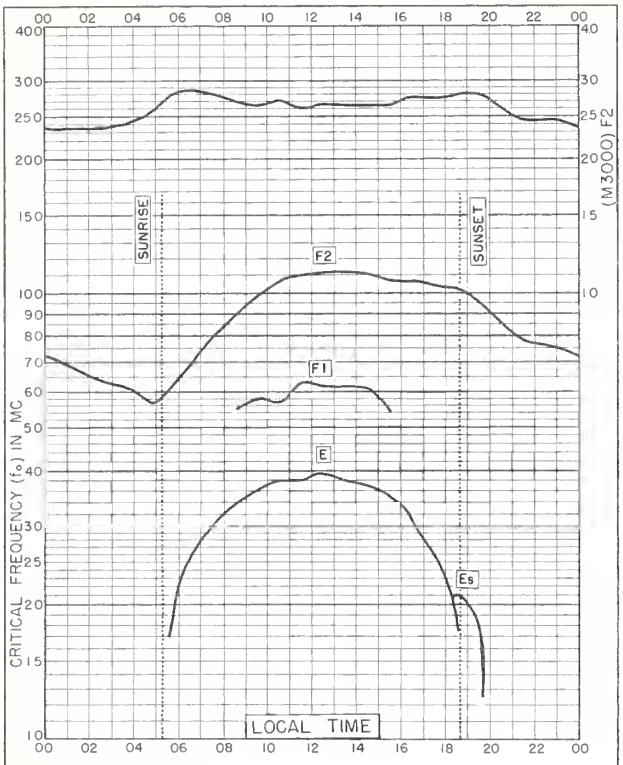

Fig. 141. FREIBURG, GERMANY
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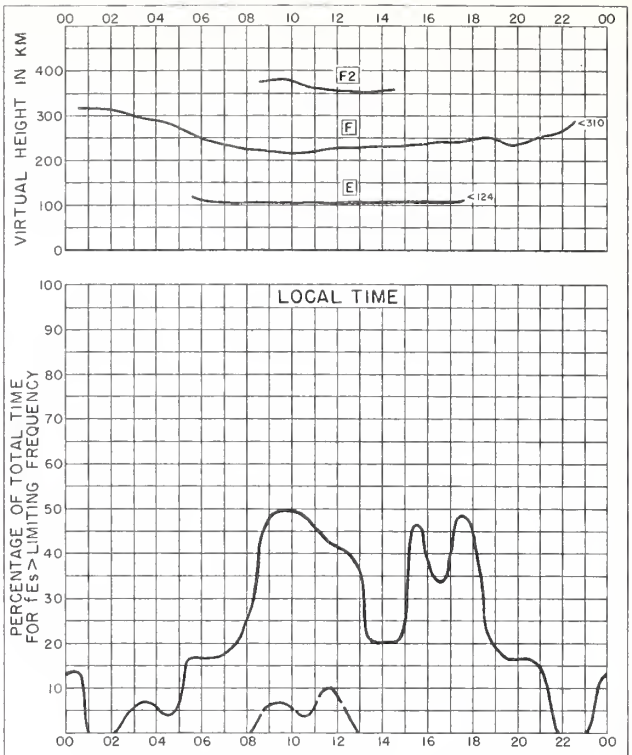

Fig. 142. FREIBURG, GERMANY APRIL 1957

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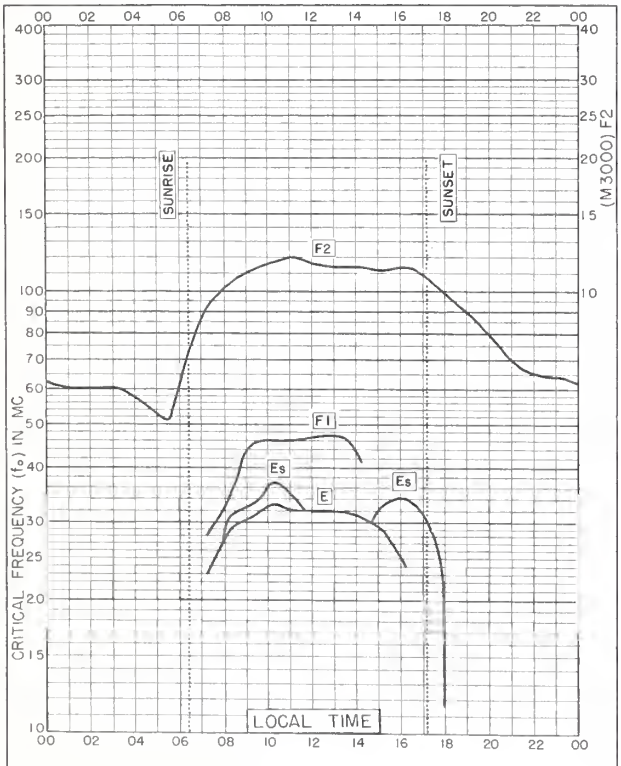

Fig. 143. BUDAPEST, HUNGARY
47.4°N, 19.2°E OCTOBER 1956

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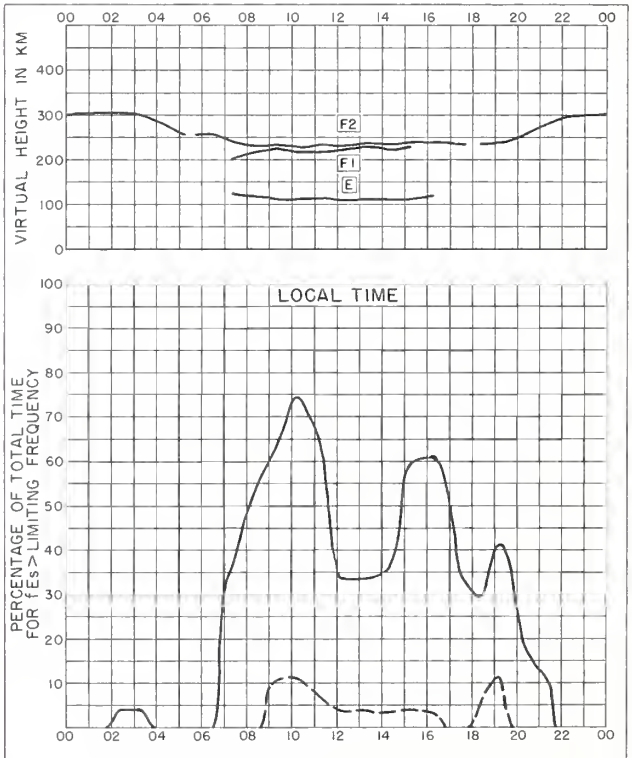

Fig. 144. BUDAPEST, HUNGARY OCTOBER 1956

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