

CRPL-F221 PART A

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PART A
IONOSPHERIC DATA

ISSUED
JANUARY 1963

U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS
CENTRAL RADIO PROPAGATION LABORATORY
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IONOSPHERIC DATA

CONTENTS

	<u>Page</u>
Ionospheric Data (revised text)	ii
Table of Smoothed Observed Zurich Sunspot Numbers	iii
World-Wide Sources of Ionospheric Data	iv
Tables of Ionospheric Data	1
Graphs of Ionospheric Data	26
Index of Tables and Graphs of Ionospheric Data in CRPL-F221 (Part A)	51

IONOSPHERIC DATA

The CRPL-F series bulletins are issued as part of the responsibility of the Central Radio Propagation Laboratory for the exchange and dissemination of ionospheric and related geophysical data. While originally a by-product of the collection of data by the CRPL for use in radio propagation studies, the CRPL-F series bulletins, Part A, "Ionospheric Data," and Part B, "Solar-Geophysical Data," have provided useful service by collecting and making available a wide variety of data in convenient form for use in research, not only on radio propagation and the ionosphere, but also on a wide variety of geophysical problems.

The current form of the tables of ionospheric data provides the monthly medians and, in addition, the number of values entering into median determination (count) for all ionospheric characteristics listed. Also, the upper and lower quartile values, indicated by UQ and LQ in the tables, are listed for foF2, h'F2, h'F, and M(3000)F2. Quartile values are not listed for the other characteristics because of space limitations. The tables are prepared by IBM machine methods, which, by improving the speed and efficiency of preparation, permit earlier publication of the data.

Beginning with this issue, CRPL-F221, Part A, "Ionospheric Data," the hourly median values for the graphs of critical frequencies and M(3000)F2 are plotted by machine methods instead of manually, as heretofore. Graphs of critical frequencies and M(3000)F2 will continue to appear. Graphs of percentage of time of occurrence for fEs and virtual heights of the regular ionospheric layers are no longer included. This change was necessary to provide space for the enlarged tables. Data on percentage of time of occurrence of fEs above 3, 5, and 7 Mc are still available from the CRPL and the IGY World Data Center A for Airglow and Ionosphere.

For many years, the tables of ionospheric data appearing in the F series, Part A, listed values of medians recomputed at CRPL. While this practice enforced a certain uniformity, it was subject to some valid criticism for tampering with original data. The tables and graphs now show the ionospheric data just as they are provided by the originating laboratory. Responsibility for the accuracy and reliability of the data now rests entirely with the originator.

Gaps in the tables when data normally might be expected indicate the data were not provided by the originator. Following the recommendation of the World-Wide Soundings Committee, only values of median foEs are listed. In the few cases where fEs is still reported instead of foEs, the data will not be printed. Data will appear in the F series, Part A, only when the complete daily-hourly tabulations have been received by the CRPL or the IGY World Data Center A for Airglow and Ionosphere.

Information on symbols, terminology, and conventions may be found in the "URSI Handbook of Ionogram Interpretation and Reduction, of the World-Wide Soundings Committee," edited by W. R. Piggott and K. Rawer (Elsevier, 1961), which supersedes previous documents. A list of symbols is available from CRPL on request.

The following table contains the latest available information on smoothed observed Zurich sunspot numbers, beginning with the minimum of April 1954. Final numbers are listed through June 1961, the succeeding values being based on provisional data.

Smoothed Observed Zurich Sunspot Number

Month	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	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	146	141	137	132
1960	129	125	122	120	117	114	109	102	98	93	88	84
1961	80	75	69	64	60	56	53	52	52	51	50	48
1962	44	41	39	38	38	37						

Units of Ionospheric Data Tables

foF2, foEs - - - Tenths of a megacycle
 foF1, FoE - - - Hundredths of a megacycle
 h'F2, h'F, h'E - Kilometers
 (M3000)F2 - - - Hundredths

NOTE: Occasionally, when the median falls between two of the observed values, the median is carried an extra decimal place beyond these units. Those cases are easily identifiable by the extra digit appearing to the right of the number, in a column usually left blank.

MED - Median
 CNT - Count
 UQ - Upper Quartile
 LQ - Lower Quartile

WORLD - WIDE SOURCES OF IONOSPHERIC DATA

The ionospheric data given here in tables 1 to 100 and figures 1 to 100 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:

Central African Institute for Scientific Research:
Lwiro, Congo

Meteorological Service of Congo:
Leopoldville, Congo

Republica Argentina, Ministerio de Marina:
Trelew, Argentina

Meteorological Service, Province of Macau, Asia:
Macau

Commonwealth of Australia, Ionospheric Prediction Service of the
Commonwealth Observatory:
Brisbane, Australia
Canberra, Australia
Hobart, Tasmania
Townsville, Australia
Wilkes Station, Antarctica

Australian Department of National Development, Bureau of Mineral
Resources, Geology and Geophysics:
Mundaring, Western Australia

University of Graz:
Graz, Austria

Belgian Royal Meteorological Institute:
Dourbes, Belgium

Electronics Directorate of the Brazilian Navy:
Natal, Brazil

Escola Politecnica, University of Sao Paulo:
Sao Paulo, Brazil

British Department of Scientific and Industrial Research, Radio
Research Board:

Falkland Is.
Ibadan, Nigeria (University College of Ibadan)
Inverness, Scotland
Port Lockroy
Singapore, British Malaya
Slough, England

Defence Research Board, Canada:
Churchill, Canada

Universidad de Concepcion:
Concepcion, Chile

Radio Wave Research Laboratories, National Taiwan University, Taipei,
Formosa, China:
Formosa, China

Czechoslovak Academy of Sciences:
Pruhonice, Czechoslovakia

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

The Finnish Academy of Sciences and Letters:
Sodankyla, Finland

Ionospheric Research Group (GRI), France:
Dakar, French West Africa
Djibouti, French Somaliland
Tahiti, Society Is.
Tananarive, Madagascar

Heinrich Hertz Institute, German Academy of Sciences, Berlin:
Juliusruh/Rugen, Germany

Institute for Ionospheric Research, Lindau Uber Northeim, Hannover,
Germany:
Lindau/Harz, Germany
Tsumeb, South West Africa

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

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

Ministry of Posts and Telecommunications, Radio Research Laboratories,
Tokyo, Japan:

Akita, Japan
Tokyo (Kokubunji), Japan
Wakkanai, Japan
Yamagawa, Japan

Norwegian Defence Research Establishment, Kjeller per Lillestrom,
Norway:

Tromso, Norway

Institute of Telecommunication, Warsaw, Poland:

Warsaw, Poland

Research Institute of National Defence, Stockholm, Sweden:

Kiruna, Sweden
Lycksele, Sweden
Uppsala, 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
Ft. Monmouth, New Jersey
Grand Bahama I.
White Sands, New Mexico

National Bureau of Standards (Central Radio Propagation Laboratory):

Anchorage, Alaska
Pole Station, Antarctica

TABLES OF IONOSPHERIC DATA

March 1962 - June 1959

TABLE 2

LULEÅ, SWEDEN		165°46N, 22°11E																			TIME 15:00				
HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
f _o F ₂	MED	28	21	18	19	23	30	36	43	48	51	56	56	57	59	59	59	58	56	50	48	44	41	33	38
CNT	U	7	6	2	4	3	6	10	13	27	27	25	27	29	28	28	27	24	23	16	12	6	6	4	
UO																									
LO																									
h'F ₂	MED	340	310	315	325	325	325	285	285	245	240	235	230	225	225	235	240	240	245	245	245	245	250	285	
CNT	U	28	14	16	14	10	12	14	10	10	29	29	28	28	29	29	29	29	27	26	26	25	20	22	
UO																									
LO																									
M3000F ₂	MED	280	280	300	290	290	310	320	340	330	330	320	330	320	330	330	330	330	330	320	340	330	340	300	
CNT	U	6	6	1	3	1	6	10	13	26	27	24	25	29	27	27	25	23	22	15	12	6	6	5	
UO																									
LO																									
f _o F ₁	MED																								
CNT	U																								
UO																									
LO																									
f _o E	MED	160	160	190	230	250	270	270	270	270	270	270	270	270	250	240	220	200	180						
CNT	U	2	5	10	25	23	23	23	23	23	23	23	23	23	24	26	19	11	2						
UO																									
LO																									
h'E	MED	135	125	135	150	135	135	135	135	135	135	135	135	135	130	130	135	140	145						
CNT	U	2	4	4	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7						
UO																									
LO																									
f _o E _s	MED	23	23	19	20	21	16	18	19	23	25	27	27	27	27	27	27	27	27	27	27	27	27	27	
CNT	U	6	2	8	3	2	5	11	25	24	25	24	25	25	25	26	26	21	16	6	5	6	7		
UO																									
LO																									

SWEEP 0.65 MC TO 25.0 MC IN 5 MINUTES - AUTOMATIC.

MARCH, 1962

TABLE 1

KIRUNA, SWEDEN		167°46N, 69°41E																			TIME 13:00				
HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
f _o F ₂	MED	25	22	25	26	26	28	34	40	47	49	53	54	55	57	56	57	56	54	53	48	42	35	27	30
CNT	U	2	8	6	9	13	19	26	27	30	30	30	30	29	28	29	26	27	24	16	10	5	4	2	3
UO																									
LO																									
h'F ₂	MED	465	300	275	465	360	470	465	360	470	465	360	470	465	360	470	465	360	470	465	360	470	465	360	
CNT	U	4	12	19	20	23	22	12	6	3															
UO																									
LO																									
h'F	MED	310	305	305	300	300	275	255	240	230	220	210	210	210	210	220	225	235	240	245	245	250	255	260	
CNT	U	14	14	17	19	19	19	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	
UO																									
LO																									
M3000F ₂	MED	290	290	280	300	300	320	330	340	340	340	340	340	340	340	340	340	340	340	340	340	340	290	290	
CNT	U	2	7	5	7	11	19	26	27	30	30	30	30	29	27	26	27	22	16	9	5	3	2	2	
UO																									
LO																									
f _o F ₁	MED																								
CNT	U																								
UO																									
LO																									
f _o E	MED	150	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	
CNT	U	1	4	11	18	24	27	24	25	25	22	20	13	2											
UO																									
LO																									
h'E	MED	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	
CNT	U	2	9	13	16	16	15	17	15	11	9	2													
UO																									
LO																									
f _o E _s	MED	40	30	35	30	34	24																		
CNT	U	14	12	10	11	7	14	4	0	29	27	48	27	27	28	28	27	18	10	10	13	15	12		
UO																									
LO																									

SWEEP 9.8 MC TO 15.0 MC IN 30 SECONDS

MARCH, 1962

TABLE 4

NURMIJARVI, FINLAND		160°58N, 24°46E																			TIME 10:00			
HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f _o F ₂	MED	26	24	25	25	21	27	23	36	45	52	55	57	59	62	61	62	61	58	58	53	50	37	
CNT	U	1	1	27	2	23	1	26	42	50	56	59	63	65	67	60	65	61	60	53	48	24		
UO																								
LO																								
h'F ₂	MED	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
CNT	U	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
UO																								
LO																								
M3000F ₂	MED	310	300	300	300	290	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
CNT	U	1	1	3	3	1	6	18	19	23	25	27	27	27	27	28	29	30	30	30	30	30	30	
UO																								
LO																								
f _o F ₁	MED																							
CNT	U																							
UO																								
LO																								
f _o E	MED	185	203	210	232	255	260	258	250	240	226	200	190											
CNT	U	1	1	16	22	18	15	21	12	12	12	13	3											

TABLE 17
(135+35, 149+0E)

CANNBERRA, AUSTRALIA

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	MED CNT UD LO	48 28	47 29	46 29	45 27	41 28	37 28	37 28	36 28															
h'F2	MED CNT UD LO																							
h'F	MED CNT UD LO																							
M3000IF2	MED CNT UD LO	285 24	290 26	300 24	310 25	310 24	310 26																	
f6F1	MED CNT UD LO																							
f6E	MED CNT UD LO																							
h'E	MED CNT UD LO																							
f6Ea	MED CNT UD LO																							

SLEEP 1.0 MC TO 25.0 MC IN 30 SECONDS.

MARCH, 1962

TABLE 18
(142+55, 147+2E)

HOBBART, TASMANIA

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	MED CNT UD LO	39 22	38 23	36 24	36 25	32 25	28 21	33 24																
h'F2	MED CNT UD LO																							
h'F	MED CNT UD LO																							
M3000IF2	MED CNT UD LO	310 14	310 13	305 15	310 13	320 14	325 11	350 18	355 13	355 20	355 21													
f6F1	MED CNT UD LO																							
f6E	MED CNT UD LO																							
h'E	MED CNT UD LO																							
f6Ea	MED CNT UD LO																							

SLEEP 1.0 MC TO 16.0 MC IN 1 MINUTE 55 SECONDS.

MARCH, 1962

TABLE 19
(169+7N, 19+0E)

FRONSÖ, NORWAY

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	MED CNT UD LO	25 16	20 18																					
h'F2	MED CNT UD LO																							
h'F	MED CNT UD LO																							
M3000IF2	MED CNT UD LO	290 270																						
f6F1	MED CNT UD LO																							
f6E	MED CNT UD LO																							
h'E	MED CNT UD LO																							
f6Ea	MED CNT UD LO																							

SLEEP 0.7 MC TO 25.0 MC IN 5 MINUTES AUTOMATIC.

FEBRUARY, 1962

TABLE 20
(167+8N, 20+4E)

KIRUNA, SWEDEN

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	MED CNT UD LO	23 11	24 11	22 10	20 12	24 10	22 9	22 13	22 19	22 24	22 27	22 28												
h'F2	MED CNT UD LO																							
h'F	MED CNT UD LO																							
M3000IF2	MED CNT UD LO	310 11	310 10	310 10	300 12	300 15	300 11																	
f6F1	MED CNT UD LO																							
f6E	MED CNT UD LO																							
h'E	MED CNT UD LO																							
f6Ea	MED CNT UD LO																							

SLEEP 0.8 MC TO 15.0 MC IN 30 SECONDS

FEBRUARY, 1962

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
f0F2	MED	22	22	24	18	17	17	17	21	38	54	58	59	60	62	64	62	50	57	48	40	34	26	24	23
	CNT	17	16	16	18	21	18	20	23	28	24	26	25	23	26	28	27	25	24	25	24	20	21	23	
	LO																								
h'F2	MED									235	255	255	250	400	430										
	CNT									1	6	8	8	7	1										
	LO																								
h'F	MED	300	300	300	300	290	290	260	230	225	220	220	215	220	220	225	230	220	225	235	250	270	275	300	
	CNT	27	28	27	26	21	8	17	26	27	27	28	26	27	28	28	27	28	28	23	20	15	12	11	
	LO																								
M3000F2	MED	275	275	465	470	280	285	480	470	345	345	340	340	335	340	335	335	330	340	315	300	285	285	275	
	CNT	16	15	15	16	21	7	14	44	46	24	25	25	25	26	28	45	23	19	24	22	23	18	21	
	LO																								
f0F1	MED									380	390	420	410												
	CNT									2	2	1	1												
	LO																								
f0E	MED									120	165	200	240	250	255	235	205	160	160	160					
	CNT									6	22	23	28	26	27	27	20	20	6						
	LO																								
h'E	MED									190	130	125	125	125	120	120	125	125	130	130					
	CNT									1	5	10	21	24	25	26	28	28	19	2					
	LO																								
f0Es	MED																								
	CNT																								
	LO																								

SWEEP 0-07 MC TO 25.0 MC IN 5 MINUTES. AUTOMATIC. FEBRUARY, 1964.

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f0F2	MED	19	18	18	16	15	15	17	26	44	55	60	62	64	63	62	59	56	51	40	32	24	20	19
	CNT	27	26	27	28	28	28	28	28	28	28	28	28	28	28	28	28	28	27	27	27	27	28	27
	LO																							
h'F2	MED																							
	CNT																							
	LO																							
h'F	MED	395	385	270	270	260	265	255	240	215	210	210	210	215	215	215	215	210	210	210	210	210	210	210
	CNT	28	27	28	28	28	28	27	28	28	28	28	28	28	28	28	28	28	27	27	27	27	28	27
	LO																							
M3000F2	MED	270	270	275	275	280	270	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310	310
	CNT	27	26	27	28	28	28	27	27	26	28	28	28	28	28	28	28	28	28	28	28	28	28	28
	LO																							
f0F1	MED																							
	CNT																							
	LO																							
f0E	MED																							
	CNT																							
	LO																							
h'E	MED																							
	CNT																							
	LO																							

SWEEP 0-03 MC TO 20.0 MC IN 3 MINUTES. FEBRUARY, 1964.

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f0F2	MED	30	31	32	30	25	23	26	42	55	60	64	65	65	66	66	64	60	50	44	42	36	33	31
	CNT	27	27	26	27	27	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
	LO																							
h'F2	MED																							
	CNT																							
	LO																							
h'F	MED	270	265	270	260	260	260	265	265	265	265	265	265	265	265	265	265	265	265	265	265	265	265	265
	CNT	27	27	26	27	27	27	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26	26
	LO																							
M3000F2	MED	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270	270
	CNT	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
	LO																							
f0F1	MED																							
	CNT																							
	LO																							
f0E	MED																							
	CNT																							
	LO																							
h'E	MED																							
	CNT																							
	LO																							

SWEEP 0-07 MC TO 25.0 MC IN 5 MINUTES. AUTOMATIC. FEBRUARY, 1964.

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f0F2	MED	30	29	29	23	22</																		

TABLE 24
SOFTENEX SWITZERLAND
(160+BN, 6+ZE)

HOUR	TIME 15:00E																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
f6F2	MED	315	34	31	34	31	30	255	285	455	27	60	675	96	57	655	89	63	57	505	45	71	35	23	215
	CNT	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
	LO	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
h'F2	MED							1	1	4	5	5	4	4											
	CNT																								
	LO																								
h'F	MED	285	285	280	280	280	275	270	250	430	225	215	215	220	220	210	230	425	220	230	235	250	270	275	275
	CNT	28	28	28	28	28	27	26	27	28	28	28	27	26	27	27	28	28	28	27	28	28	27	27	27
	LO	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
MIS0001F2	MED	295	300	295	295	300	316	315	350	355	350	345	340	350	350	340	350	340	345	320	320	310	305	295	295
	CNT	27	27	27	28	28	27	28	25	22	20	18	20	23	23	24	24	24	20	22	23	24	26	26	25
	LO	27	27	27	28	28	27	28	25	22	20	18	20	23	23	24	24	24	20	22	23	24	26	26	25
f6F1	MED							1	1	4	4	5	4	3	3										
	CNT																								
	LO																								
f6E	MED							230	270	280	280	280	280	280	270	280	270	280	270	280	270	280	270	280	270
	CNT							22	25	26	24	24	23	22	22	22	22	22	22	22	22	22	22	22	22
	LO																								
h'E	MED							120	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110
	CNT							24	23	26	26	25	25	24	27	15									
	LO																								
f6Es	MED							E	G	G	G	G	G	G	G	G	G	G	E	E	E	E	E	E	E
	CNT							28	28	28	28	28	28	28	28	27	26	26	28	28	28	28	28	28	28
	LO																								

SWEEP 1+0 MC TO 25+0 MC IN 30 SECONDS. FEBRUARY, 1962

TABLE 25
SOFTENEX SWITZERLAND
(160+BN, 6+ZE)

HOUR	TIME 15:00E																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
f6F2	MED	315	34	31	34	31	30	255	285	455	27	60	675	96	57	655	89	63	57	505	45	71	35	23	215
	CNT	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
	LO	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
h'F2	MED							1	1	4	5	5	4	4											
	CNT																								
	LO																								
h'F	MED	285	285	280	280	280	275	270	250	430	225	215	215	220	220	210	230	425	220	230	235	250	270	275	275
	CNT	28	28	28	28	28	27	26	27	28	28	28	27	26	27	27	28	28	28	27	28	28	27	27	27
	LO	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28	28
MIS0001F2	MED	295	300	295	295	300	316	315	350	355	350	345	340	350	350	340	350	340	345	320	320	310	305	295	295
	CNT	27	27	27	28	28	27	28	25	22	20	18	20	23	23	24	24	24	20	22	23	24	26	26	25
	LO	27	27	27	28	28	27	28	25	22	20	18	20	23	23	24	24	24	20	22	23	24	26	26	25
f6F1	MED							1	1	4	4	5	4	3	3										
	CNT																								
	LO																								
f6E	MED							230	270	280	280	280	280	280	270	280	270	280	270	280	270	280	270	280	270
	CNT							22	25	26	24	24	23	22	22	22	22	22	22	22	22	22	22	22	22
	LO																								
h'E	MED							120	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	110	
	CNT							24	23	26	26	25	25	24	27	15									
	LO																								
f6Es	MED							E	G	G	G	G	G	G	G	G	G	G	E	E	E	E	E	E	
	CNT							28	28	28	28	28	28	28	28	27	26	26	28	28	28	28	28	28	
	LO																								

SWEEP 2+0 MC TO 13+0 MC IN 50 SECONDS. FEBRUARY, 1962

TABLE 26
MISKABELL JAPAN
(165+BN, 14+ZE)

HOUR	TIME 15:00E																							
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
f6F2	MED	375	36	36	35	34	30	57	68	72	77	77	73	71	71	70	70	70	70	70	70	70	70	70
	CNT	44	41	40	38	35	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	LO	34	33	35	33	33	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
h'F2	MED							245	260	255	260	270	270	270	270	270	270	270	270	270	270	270	270	270
	CNT							2	8	12	16	16	16	16	16	16	16	16	16	16	16	16	16	16
	LO																							
h'F	MED	305	280	270	265	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
	CNT	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
	LO	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27	27
MIS0001F2	MED	375	36	36	35	34	30	57	68	72	77	77	73	71	71	70	70	70	70	70	70	70	70	70
	CNT	44	41	40	38	35	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36	36
	LO	34	33	35	33	33	30	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
f6F1	MED							300	310	310	310	310												

TABLE 30 FUMONGA, CHINA (125-0N, 121-5E)

Table with columns for HOUR, MED, CHT, and various time intervals (00-23). Includes sub-tables for f6F2, n'F2, n'F, MID0001F2, f6F1, f6E, n'E, and f6Ea.

SWEEP 1-0 MC TO 25-0 MC IN 27 SECONDS* FEBRUARY, 1962

TABLE 31 GRAND BARRAMA I. (128-0N, 78-2W)

Table with columns for HOUR, MED, CHT, and various time intervals (00-23). Includes sub-tables for f6F2, n'F2, n'F, MID0001F2, f6F1, f6E, n'E, and f6Ea.

SWEEP 1-0 MC TO 25-0 MC IN 13-5 SECONDS* FEBRUARY, 1962

TABLE 32 SINGAPORE, BRITISH MALAYA (1-13N, 103-3E)

Table with columns for HOUR, MED, CHT, and various time intervals (00-23). Includes sub-tables for f6F2, n'F2, n'F, MID0001F2, f6F1, f6E, n'E, and f6Ea.

SWEEP 0-67 MC TO 25-0 MC IN 5 MINUTES* AUTOMATIC. FEBRUARY, 1962

TABLE 33 BRISBANE, AUSTRALIA (27-35S, 152-36E)

Table with columns for HOUR, MED, CHT, and various time intervals (00-23). Includes sub-tables for f6F2, n'F2, n'F, MID0001F2, f6F1, f6E, n'E, and f6Ea.

SWEEP 1-0 MC TO 16-0 MC IN 1 MINUTE 55 SECONDS. FEBRUARY, 1962

TABLE 34

Table with columns for HOUR, MED, CHT, and various time intervals (00-23). Includes sub-tables for f6F2, n'F2, n'F, MID0001F2, f6F1, f6E, n'E, and f6Ea.

SWEEP 1-0 MC TO 25-0 MC IN 13-5 SECONDS* FEBRUARY, 1962

TABLE 42

CANBERRA, AUSTRALIA 135°35' E 35°05' S

HOURLY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
fF2	MED CNT UO LO	51 48 23	46 39 23	39 23	36 23	31 23	24 24	52 24	54 24	57 15	60 21	65 18	67 20	69 20	69 21	69 22	69 23	69 23	69 24						
h'F2	MED CNT UO LO																								
h'F	MED CNT UO LO																								
MIS0001F2	MED CNT UO LO	285 8	310 8	320 13	310 14	300 13	305 15	290 15	285 15	280 15	275 15	270 15	265 15	260 15	255 15	250 15	245 15	240 15	235 15	230 15	225 15	220 15	215 15	210 15	205 15
fF1	MED CNT UO LO																								
fF0E	MED CNT UO LO																								
h'E	MED CNT UO LO																								
fF0E*	MED CNT UO LO																								

TIME 1500.0E

SWEEP 1.0 MC TO 20.0 MC IN 30 SECONDS. FEBRUARY, 1962.

TABLE 41

PUNDIRINGA W. AUSTRALIA 132°05' E 110°22' S

HOURLY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
fF2	MED CNT UO LO	42 20	42 24	40 26	37 26	34 27	32 27	33 27	31 26	29 26	27 26														
h'F2	MED CNT UO LO																								
h'F	MED CNT UO LO																								
MIS0001F2	MED CNT UO LO	300 19	300 23	305 24	310 26	310 28	310 29	310 30																	
fF1	MED CNT UO LO																								
fF0E	MED CNT UO LO																								
h'E	MED CNT UO LO																								
fF0E*	MED CNT UO LO																								

TIME 1400.0E

SWEEP 1.0 MC TO 20.0 MC IN 18 SECONDS. FEBRUARY, 1962.

TABLE 43

HOBART, TASMANIA 142°55' E 41°22' S

HOURLY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
fF2	MED CNT UO LO	67 11	64 14	39 14	39 14	35 14	35 14	30 14	29 14																
h'F2	MED CNT UO LO																								
h'F	MED CNT UO LO																								
MIS0001F2	MED CNT UO LO	315 5	310 11	310 10	315 10																				
fF1	MED CNT UO LO																								
fF0E	MED CNT UO LO																								
h'E	MED CNT UO LO																								
fF0E*	MED CNT UO LO																								

TIME 1500.0E

SWEEP 1.0 MC TO 18.0 MC IN 1 MINUTE 55 SECONDS. FEBRUARY, 1962.

TABLE 44

FALKLAND IS. 151°15' W 57°00' S

HOURLY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
fF2	MED CNT UO LO	84 15																							
h'F2	MED CNT UO LO																								
h'F	MED CNT UO LO																								
MIS0001F2	MED CNT UO LO	285 11	280 11	285 11	285 11	290 11																			
fF1	MED CNT UO LO																								
fF0E	MED CNT UO LO																								
h'E	MED CNT UO LO																								
fF0E*	MED CNT UO LO																								

TIME 00.00*

SWEEP 1.0 MC TO 25.0 MC IN 30 SECONDS. FEBRUARY, 1962.

TABLE 45

HOBART, TASMANIA 142°55' E 41°22' S

HOURLY	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
fF2	MED CNT UO LO	67 11	64 14	39 14	39 14	35 14	35 14	30 14	29 14																
h'F2	MED CNT UO LO																								
h'F	MED CNT UO LO																								
MIS0001F2	MED CNT UO LO	315 5	310 11	310 10	315 10																				
fF1	MED CNT UO LO																								
fF0E	MED CNT UO LO																								
h'E	MED CNT UO LO																								
fF0E*	MED CNT UO LO																								

TIME 1500.0E

SWEEP 1.0 MC TO 18.0 MC IN 1 MINUTE 55 SECONDS. FEBRUARY, 1962.

TABLE 30
OSPREY, ALASKA, WETZON
(59+8N, 174+0E)

TIME	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
fF2	MED CMT UO LO	17 23 26	16 19 19	15 16 16	15 17 20																			
nF2	MED CMT UO LO																							
nF	MED CMT UO LO	24 24																						
MIXOOOIF2	MED CMT UO LO	280 280																						
fF1	MED CMT																							
fF6	MED CMT	61 1																						
nF6	MED CMT																							
fF6*	MED CMT	24 26	23 29																					

SLEEP 0-13 MC TO 20-0 MC IN 3 MINUTES.
JANUARY, 1962

TABLE 31
NORMLARVIL, FINLAND
(60+38N, 24+48E)

TIME	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
fF2	MED CMT UO LO	37 15 16																							
nF2	MED CMT UO LO																								
nF	MED CMT UO LO	315 315																							
MIXOOOIF2	MED CMT UO LO	340 340																							
fF1	MED CMT																								
fF6	MED CMT	170 1	180 5	205 7	210 2	210 4																			
nF6	MED CMT																								
fF6*	MED CMT	28 3	50 2	64 5	71 4	72 3																			

SLEEP 1-0 MC TO 25-0 MC IN 1 MINUTE.
JANUARY, 1962

TABLE 32
SLOUGH, ENGLAND
(51+27N, 0+48E)

TIME	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
fF2	MED CMT UO LO	32 27	30 29																					
nF2	MED CMT UO LO																							
nF	MED CMT UO LO	270 270	260 260																					
MIXOOOIF2	MED CMT UO LO	270 270	260 260																					
fF1	MED CMT																							
fF6	MED CMT	24 26	23 29																					
nF6	MED CMT																							
fF6*	MED CMT	24 26	23 29																					

SLEEP 0-13 MC TO 20-0 MC IN 3 MINUTES.
JANUARY, 1962

TABLE 33
INVERNESS, SCOTLAND
(57+44N, 4+28E)

TIME	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
fF2	MED CMT UO LO	23 19	20 19																					
nF2	MED CMT UO LO																							
nF	MED CMT UO LO	300 300	285 285	295 295	300 300																			
MIXOOOIF2	MED CMT UO LO	280 280																						
fF1	MED CMT																							
fF6	MED CMT	14 18	10 10																					
nF6	MED CMT																							
fF6*	MED CMT	14 18	10 10																					

SLEEP 0-457 M TO 25-0 MC IN 5 MINUTES, AUTOMATIC.
JANUARY, 1962

TABLE 54

COORBES, BELGIUM 1304 hrs, 54.6E TIME 15:0E

14.1.66, 12.5E1

HOOR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
f6F2	MED	33	35	35	35	32	35	30	27	35	34	64	67	60	60	61	60	56	50	42	34	31	29	30	28
	CNT	28	28	30	28	28	28	27	28	30	30	29	30	30	30	31	30	27	30	31	30	26	30	28	29
	UQ																								
	LD																								
h'F2	MED	280	280	270	270	270	280	250	235	235	230	250	250	250	240	235	230	230	230	230	230	230	230	230	230
	CNT	29	31	30	30	29	29	29	29	29	29	28	28	28	28	28	28	28	28	28	28	28	28	28	28
	UQ																								
	LD																								
h'F	MED	295	275	300	305	310	325	325	340	365	360	365	365	365	360	350	350	360	360	335	330	330	315	305	300
	CNT	26	25	26	23	26	25	24	29	21	20	24	27	28	24	26	27	28	27	28	29	29	30	28	25
	UQ																								
	LD																								
M13000IF2	MED	200	250	270	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270
	CNT	13	12	23	21	18	19	00	14																
	UQ																								
	LD																								
f6F1	MED	140	120	110	110	115	115	100	140																
	CNT	110	20	20	21	16	18	18	100																
	UQ																								
	LD																								
f6E	MED	200	250	270	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270
	CNT	13	12	23	21	18	19	00	14																
	UQ																								
	LD																								
h'E	MED	140	120	110	110	115	115	100	140																
	CNT	110	20	20	21	16	18	18	100																
	UQ																								
	LD																								
f6Es	MED	200	250	270	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270
	CNT	13	12	23	21	18	19	00	14																
	UQ																								
	LD																								

SHEEP 14.0 MC TO 25.0 MC IN 30 SECONDS

JANUARY, 1966

TABLE 56

ROPE, ITALY 14.1.66, 12.5E1

14.1.66, 12.5E1

HOOR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
f6F2	MED	33	33	34	34	32	35	30	32	51	60	69	73	64	61	63	63	59	46	42	35	33	31	31	31
	CNT	26	27	26	23	26	21	19	25	48	26	24	21	28	27	23	26	28	20	21	19	23	22	22	21
	UQ	36	36	36	36	35	36	38	38	53	67	80	78	70	57	67	62	56	53	34	30	28	28	28	
	LD	31	32	32	32	31	31	29	29	49	51	64	61	60	58	58	60	54	45	35	34	30	28	28	
h'F2	MED	290	295	300	305	310	310	305	350	350	345	355	355	350	340	345	355	345	340	330	330	300	300	295	
	CNT	23	22	22	22	22	22	22	26	24	24	23	23	23	23	23	24	24	24	24	24	24	24	24	
	UQ	28	28	28	28	28	28	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
	LD	275	270	270	275	280	280	280	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	
h'F	MED	300	280	270	260	250	250	240	220	210	215	210	210	210	210	210	210	210	210	210	210	210	210	210	
	CNT	26	27	26	23	26	21	19	25	48	26	24	21	28	27	23	26	28	20	21	19	23	22	22	
	UQ	300	295	290	280	270	260	260	255	230	230	230	230	230	230	230	230	230	230	230	230	230	230	230	
	LD	270	270	260	250	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	240	
M13000IF2	MED	290	295	300	305	310	310	305	350	350	345	355	355	350	340	345	355	345	340	330	330	300	300	295	
	CNT	23	22	22	22	22	22	22	26	24	24	23	23	23	23	23	24	24	24	24	24	24	24	24	
	UQ	28	28	28	28	28	28	28	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
	LD	275	270	270	275	280	280	280	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	290	
f6F1	MED	140	120	110	110	115	115	100	140																
	CNT	110	20	20	21	16	18	18	100																
	UQ																								
	LD																								
f6E	MED	200	250	270	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270	280	
	CNT	13	12	23	21	18	19	00	14																
	UQ																								
	LD																								
h'E	MED	140	120	110	110	115	115	100	140																
	CNT	110	20	20	21	16	18	18	100																
	UQ																								
	LD																								
f6Es	MED	200	250	270	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270	280	270	280	
	CNT	13	12	23	21	18	19	00	14																
	UQ																								
	LD																								

SHEEP 14.0 MC TO 25.0 MC IN 30 SECONDS

JANUARY, 1966

Table 65
GRAND BARRANA, I.

(26-0N, 78-2W)

TIME 75-00

TABLE 65

TABLE 65

TIME 75-00	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
16F2	U MED CNT UQ LQ	74 56 19 64 48	75 44 22 47 58	76 53 22 46 57	77 53 22 46 57	78 53 22 46 57	79 53 22 46 57	80 53 22 46 57	81 53 22 46 57	82 53 22 46 57	83 53 22 46 57	84 53 22 46 57	85 53 22 46 57	86 53 22 46 57	87 53 22 46 57	88 53 22 46 57	89 53 22 46 57	90 53 22 46 57	91 53 22 46 57	92 53 22 46 57	93 53 22 46 57	94 53 22 46 57	95 53 22 46 57	96 53 22 46 57	97 53 22 46 57	98 53 22 46 57	99 53 22 46 57	00 53 22 46 57																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
16F2	U MED CNT UQ LQ	289 346 262	310 355 290	329 382 307	349 394 312	370 415 330	390 435 345	410 455 365	430 475 385	450 495 405	470 515 425	490 535 445	510 555 465	530 575 485	550 595 505	570 615 525	590 635 545	610 655 565	630 675 585	650 695 605	670 715 625	690 735 645	710 755 665	730 775 685	750 795 705	770 815 725	790 835 745	810 855 765	830 875 785	850 895 805	870 915 825	890 935 845	910 955 865	930 975 885	950 995 905	970 1015 925	990 1035 945	1010 1055 965	1030 1075 985	1050 1095 1005	1070 1115 1025	1090 1135 1045	1110 1155 1065	1130 1175 1085	1150 1195 1105	1170 1215 1125	1190 1235 1145	1210 1255 1165	1230 1275 1185	1250 1295 1205	1270 1315 1225	1290 1335 1245	1310 1355 1265	1330 1375 1285	1350 1395 1305	1370 1415 1325	1390 1435 1345	1410 1455 1365	1430 1475 1385	1450 1495 1405	1470 1515 1425	1490 1535 1445	1510 1555 1465	1530 1575 1485	1550 1595 1505	1570 1615 1525	1590 1635 1545	1610 1655 1565	1630 1675 1585	1650 1695 1605	1670 1715 1625	1690 1735 1645	1710 1755 1665	1730 1775 1685	1750 1795 1705	1770 1815 1725	1790 1835 1745	1810 1855 1765	1830 1875 1785	1850 1895 1805	1870 1915 1825	1890 1935 1845	1910 1955 1865	1930 1975 1885	1950 1995 1905	1970 2015 1925	1990 2035 1945	2010 2055 1965	2030 2075 1985	2050 2095 2005	2070 2115 2025	2090 2135 2045	2110 2155 2065	2130 2175 2085	2150 2195 2105	2170 2215 2125	2190 2235 2145	2210 2255 2165	2230 2275 2185	2250 2295 2205	2270 2315 2225	2290 2335 2245	2310 2355 2265	2330 2375 2285	2350 2395 2305	2370 2415 2325	2390 2435 2345	2410 2455 2365	2430 2475 2385	2450 2495 2405	2470 2515 2425	2490 2535 2445	2510 2555 2465	2530 2575 2485	2550 2595 2505	2570 2615 2525	2590 2635 2545	2610 2655 2565	2630 2675 2585	2650 2695 2605	2670 2715 2625	2690 2735 2645	2710 2755 2665	2730 2775 2685	2750 2795 2705	2770 2815 2725	2790 2835 2745	2810 2855 2765	2830 2875 2785	2850 2895 2805	2870 2915 2825	2890 2935 2845	2910 2955 2865	2930 2975 2885	2950 2995 2905	2970 3015 2925	2990 3035 2945	3010 3055 2965	3030 3075 2985	3050 3095 3005	3070 3115 3025	3090 3135 3045	3110 3155 3065	3130 3175 3085	3150 3195 3105	3170 3215 3125	3190 3235 3145	3210 3255 3165	3230 3275 3185	3250 3295 3205	3270 3315 3225	3290 3335 3245	3310 3355 3265	3330 3375 3285	3350 3395 3305	3370 3415 3325	3390 3435 3345	3410 3455 3365	3430 3475 3385	3450 3495 3405	3470 3515 3425	3490 3535 3445	3510 3555 3465	3530 3575 3485	3550 3595 3505	3570 3615 3525	3590 3635 3545	3610 3655 3565	3630 3675 3585	3650 3695 3605	3670 3715 3625	3690 3735 3645	3710 3755 3665	3730 3775 3685	3750 3795 3705	3770 3815 3725	3790 3835 3745	3810 3855 3765	3830 3875 3785	3850 3895 3805	3870 3915 3825	3890 3935 3845	3910 3955 3865	3930 3975 3885	3950 3995 3905	3970 4015 3925	3990 4035 3945	4010 4055 3965	4030 4075 3985	4050 4095 4005	4070 4115 4025	4090 4135 4045	4110 4155 4065	4130 4175 4085	4150 4195 4105	4170 4215 4125	4190 4235 4145	4210 4255 4165	4230 4275 4185	4250 4295 4205	4270 4315 4225	4290 4335 4245	4310 4355 4265	4330 4375 4285	4350 4395 4305	4370 4415 4325	4390 4435 4345	4410 4455 4365	4430 4475 4385	4450 4495 4405	4470 4515 4425	4490 4535 4445	4510 4555 4465	4530 4575 4485	4550 4595 4505	4570 4615 4525	4590 4635 4545	4610 4655 4565	4630 4675 4585	4650 4695 4605	4670 4715 4625	4690 4735 4645	4710 4755 4665	4730 4775 4685	4750 4795 4705	4770 4815 4725	4790 4835 4745	4810 4855 4765	4830 4875 4785	4850 4895 4805	4870 4915 4825	4890 4935 4845	4910 4955 4865	4930 4975 4885	4950 4995 4905	4970 5015 4925	4990 5035 4945	5010 5055 4965	5030 5075 4985	5050 5095 5005	5070 5115 5025	5090 5135 5045	5110 5155 5065	5130 5175 5085	5150 5195 5105	5170 5215 5125	5190 5235 5145	5210 5255 5165	5230 5275 5185	5250 5295 5205	5270 5315 5225	5290 5335 5245	5310 5355 5265	5330 5375 5285	5350 5395 5305	5370 5415 5325	5390 5435 5345	5410 5455 5365	5430 5475 5385	5450 5495 5405	5470 5515 5425	5490 5535 5445	5510 5555 5465	5530 5575 5485	5550 5595 5505	5570 5615 5525	5590 5635 5545	5610 5655 5565	5630 5675 5585	5650 5695 5605	5670 5715 5625	5690 5735 5645	5710 5755 5665	5730 5775 5685	5750 5795 5705	5770 5815 5725	5790 5835 5745	5810 5855 5765	5830 5875 5785	5850 5895 5805	5870 5915 5825	5890 5935 5845	5910 5955 5865	5930 5975 5885	5950 5995 5905	5970 6015 5925	5990 6035 5945	6010 6055 5965	6030 6075 5985	6050 6095 6005	6070 6115 6025	6090 6135 6045	6110 6155 6065	6130 6175 6085	6150 6195 6105	6170 6215 6125	6190 6235 6145	6210 6255 6165	6230 6275 6185	6250 6295 6205	6270 6315 6225	6290 6335 6245	6310 6355 6265	6330 6375 6285	6350 6395 6305	6370 6415 6325	6390 6435 6345	6410 6455 6365	6430 6475 6385	6450 6495 6405	6470 6515 6425	6490 6535 6445	6510 6555 6465	6530 6575 6485	6550 6595 6505	6570 6615 6525	6590 6635 6545	6610 6655 6565	6630 6675 6585	6650 6695 6605	6670 6715 6625	6690 6735 6645	6710 6755 6665	6730 6775 6685	6750 6795 6705	6770 6815 6725	6790 6835 6745	6810 6855 6765	6830 6875 6785	6850 6895 6805	6870 6915 6825	6890 6935 6845	6910 6955 6865	6930 6975 6885	6950 6995 6905	6970 7015 6925	6990 7035 6945	7010 7055 6965	7030 7075 6985	7050 7095 7005	7070 7115 7025	7090 7135 7045	7110 7155 7065	7130 7175 7085	7150 7195 7105	7170 7215 7125	7190 7235 7145	7210 7255 7165	7230 7275 7185	7250 7295 7205	7270 7315 7225	7290 7335 7245	7310 7355 7265	7330 7375 7285	7350 7395 7305	7370 7415 7325	7390 7435 7345	7410 7455 7365	7430 7475 7385	7450 7495 7405	7470 7515 7425	7490 7535 7445	7510 7555 7465	7530 7575 7485	7550 7595 7505	7570 7615 7525	7590 7635 7545	7610 7655 7565	7630 7675 7585	7650 7695 7605	7670 7715 7625	7690 7735 7645	7710 7755 7665	7730 7775 7685	7750 7795 7705	7770 7815 7725	7790 7835 7745	7810 7855 7765	7830 7875 7785	7850 7895 7805	7870 7915 7825	7890 7935 7845	7910 7955 7865	7930 7975 7885	7950 7995 7905	7970 8015 7925	7990 8035 7945	8010 8055 7965	8030 8075 7985	8050 8095 8005	8070 8115 8025	8090 8135 8045	8110 8155 8065	8130 8175 8085	8150 8195 8105	8170 8215 8125	8190 8235 8145	8210 8255 8165	8230 8275 8185	8250 8295 8205	8270 8315 8225	8290 8335 8245	8310 8355 8265	8330 8375 8285	8350 8395 8305	8370 8415 8325	8390 8435 8345	8410 8455 8365	8430 8475 8385	8450 8495 8405	8470 8515 8425	8490 8535 8445	8510 8555 8465	8530 8575 8485	8550 8595 8505	8570 8615 8525	8590 8635 8545	8610 8655 8565	8630 8675 8585	8650 8695 8605	8670 8715 8625	8690 8735 8645	8710 8755 8665	8730 8775 8685	8750 8795 8705	8770 8815 8725	8790 8835 8745	8810 8855 8765	8830 8875 8785	8850 8895 8805	8870 8915 8825	8890 8935 8845	8910 8955 8865	8930 8975 8885	8950 8995 8905	8970 9015 8925	8990 9035 8945	9010 9055 8965	9030 9075 8985	9050 9095 9005	9070 9115 9025	9090 9135 9045	9110 9155 9065	9130 9175 9085	9150 9195 9105	9170 9215 9125	9190 9235 9145	9210 9255 9165	9230 9275 9185	9250 9295 9205	9270 9315 9225	9290 9335 9245	9310 9355 9265	9330 9375 9285	9350 9395 9305	9370 9415 9325	9390 9435 9345	9410 9455 9365	9430 9475 9385	9450 9495 9405	9470 9515 9425	9490 9535 9445	9510 9555 9465	9530 9575 9485	9550 9595 9505	9570 9615 9525	9590 9635 9545	9610 9655 9565	9630 9675 9585	9650 9695 9605	9670 9715 9625	9690 9735 9645	9710 9755 9665	9730 9775 9685	9750 9795 9705	9770 9815 9725	9790 9835 9745	9810 9855 9765	9830 9875 9785	9850 9895 9805	9870 9915 9825	9890 9935 9845	9910 9955 9865	9930 9975 9885	9950 9995 9905	9970 10015 9925	9990 10035 9945	10010 10055 9965	10030 10075 9985	10050 10095 10005	10070 10115 10025	10090 10135 10045	10110 10155 10065	10130 10175 10085	10150 10195 10105	10170 10215 10125	10190 10235 10145	10210 10255 10165	10230 10275 10185	10250 10295 10205	10270 10315 10225	10290 10335 10245	10310 10355 10265	10330 10375 10285	10350 10395 10305	10370 10415 10325	10390 10435 10345	10410 10455 10365	10430 10475 10385	10450 10495 10405	10470 10515 10425	10490 10

TABLE 74
LINDAU/PARSZ, GERMANY
151+0N+ 10+1E

HOUR	TIME 15+0E																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
16 F2	MED	31	315	32	318	298	-3.2	239	297	331	86	72	803	801	864	804	816	788	645	605	57	45	309	326	35
CNT		21	21	40	16	18	20	20	20	28	27	27	26	26	-1	28	28	28	28	28	28	28	28	28	28
UO																									
LO																									
17 F2	MED																								
CNT																									
UO																									
LO																									
18 F2	MED																								
CNT																									
UO																									
LO																									

TABLE 75
MARSZAK, POLAND
152+2N+ 21+2E

HOUR	TIME 15+0E																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
16 F2	MED																								
CNT																									
UO																									
LO																									
17 F2	MED																								
CNT																									
UO																									
LO																									

TABLE 76
GUEBOUFI, FRENCH-SOMALI-LAND
151+00N+ 03+20E

HOUR	TIME 02+0E																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
16 F2	MED																								
CNT																									
UO																									
LO																									
17 F2	MED																								
CNT																									
UO																									
LO																									

TABLE 77
SHEEP 1+0 MC TO 10+0 MC IN 4 MINUTES

HOUR	TIME 10+0E																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
16 F2	MED																								
CNT																									
UO																									
LO																									
17 F2	MED																								
CNT																									
UO																									
LO																									

TABLE 78
SHEEP 1+0 MC TO 10+0 MC IN 20 SECONDS

HOUR	TIME 10+0E																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
16 F2	MED																								
CNT																									
UO																									
LO																									
17 F2	MED																								
CNT																									
UO																									
LO																									

TABLE 79
SHEEP 1+0 MC TO 10+0 MC IN 4 MINUTES

HOUR	TIME 10+0E																								
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
16 F2	MED																								
CNT																									
UO																									
LO																									
17 F2	MED																								
CNT																									
UO																									
LO																									

TABLE 82

TRILLEM, ARGENTINA

163225- 0532H1

SAD PALLUIS BRAZIL

123155A -0623H1

1175- 0030M

TABLE 83

FALLAND 154

TABLE 84

TABLE 85

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16F2	MED CNT UO LO	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12	75 15 12
17F2	MED CNT UO LO	250 475 275	300 295																					
17F	MED CNT UO LO	300 13	295 13	300 13	295 13	300 13	295 13	300 13	295 13	300 13	295 13	300 13	295 13	300 13	295 13	300 13	295 13	300 13	295 13	300 13	295 13	300 13	295 13	300 13
M130001F2	MED CNT UO LO	280 370	270 470	280 470																				
16FI	MED CNT																							
16E	MED CNT																							
17E	MED CNT																							
16Es	MED CNT																							

SHEEP 143 MC TO 1840 MC IN 30 SECONDS FEBRUARY 1991

TABLE 86

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16F2	MED CNT UO LO	67 18	65 16	59 16																				
17F2	MED CNT UO LO																							
17F	MED CNT UO LO	390 18	260 19																					
M130001F2	MED CNT UO LO	355 6	260 6																					
16FI	MED CNT																							
16E	MED CNT																							
17E	MED CNT																							
16Es	MED CNT																							

SHEEP 143 MC TO 1840 MC IN 30 SECONDS FEBRUARY 1991

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16F2	MED CNT UO LO	99 120 90	96 142 78	96 142 81																				
17F2	MED CNT UO LO																							
17F	MED CNT UO LO	260 20	250 22	230 22	240 19	245 17	250 16	240 16																
M130001F2	MED CNT UO LO	295 6	300 7	345 12	320 18	315 17	330 12	325 12	330 12															
16FI	MED CNT																							
16E	MED CNT																							
17E	MED CNT																							
16Es	MED CNT																							

SHEEP 140 MC TO 2540 MC FEBRUARY 1991

TABLE 87

HOUR	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16F2	MED CNT UO LO	88 11	63 12	62 11	61 10	58 15	60 19	66 20	67 20	72 21	79 24	83 24	86 25											
17F2	MED CNT UO LO																							
17F	MED CNT UO LO	250 2	260 1	270 3	280 6	285 9	300 14																	
M130001F2	MED CNT UO LO	250 2	260 1	270 3	280 6	285 9	300 14																	
16FI	MED CNT																							
16E	MED CNT																							
17E	MED CNT																							
16Es	MED CNT																							

SHEEP 1467 MC TO 4240 MC IN 5 MINUTES AUTOMATIC FEBRUARY 1991

HOURL	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16F2	MED CNT UO LO	54 28 29	56 27	48 27	48 27																			
16F2	MED CNT UO LO	54 28	56 27	48 27	48 27																			
16F	MED CNT UO LO	54 28	56 27	48 27	48 27																			
M130001F2	MED CNT UO LO	300 28	295 27	480 27	280 27	270 27	260 27	250 27	240 27	230 27	220 27	210 27	200 27	190 27	180 27	170 27	160 27	150 27	140 27	130 27	120 27	110 27	100 27	90 27
16F1	MED CNT																							
16E	MED CNT	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
16E	MED CNT	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

HOURL	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16F2	MED CNT UO LO	118 5	113 5																					
16F2	MED CNT UO LO	118 5	113 5																					
16F	MED CNT UO LO	118 5	113 5																					
M130001F2	MED CNT UO LO	230 28	235 28	245 28	250 28	255 28	260 28	265 28	270 28	275 28	280 28	285 28	290 28	295 28	300 28	305 28	310 28	315 28	320 28	325 28	330 28	335 28	340 28	345 28
16F1	MED CNT																							
16E	MED CNT	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
16E	MED CNT	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

HOURL	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
16F2	MED CNT UO LO	118 5	113 5																					
16F2	MED CNT UO LO	118 5	113 5																					
16F	MED CNT UO LO	118 5	113 5																					
M130001F2	MED CNT UO LO	230 28	235 28	245 28	250 28	255 28	260 28	265 28	270 28	275 28	280 28	285 28	290 28	295 28	300 28	305 28	310 28	315 28	320 28	325 28	330 28	335 28	340 28	345 28
16F1	MED CNT																							
16E	MED CNT	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
16E	MED CNT	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

TABLE 80
LANSING, MICHIGAN
(1-2-35, 28-65)

Table with columns for HOUR, MED, CNT, and time slots from 00 to 23. Includes data for f6F2, n'F2, n'F, M130001F2, f6FI, f6E, n'E, and f6EA.

TABLE 81
NATAL, BRAZIL
(1-5-75, 35-80)

Table with columns for HOUR, MED, CNT, and time slots from 00 to 23. Includes data for f6F2, n'F2, n'F, M130001F2, f6FI, f6E, n'E, and f6EA.

SWEEP 1-45 MI. TO 25+0 MC IN 3 MINUTES. MARCH, 1960

SWEEP 1-45 MI. TO 25+0 MC. OCTOBER, 1960

TABLE 82
TOMSVILLE, AUSTRALIA
(19-435, 146-7E)

Table with columns for HOUR, MED, CNT, and time slots from 00 to 23. Includes data for f6F2, n'F2, n'F, M130001F2, f6FI, f6E, n'E, and f6EA.

TABLE 83
NATAL, BRAZIL
(1-5-75, 35-80)

Table with columns for HOUR, MED, CNT, and time slots from 00 to 23. Includes data for f6F2, n'F2, n'F, M130001F2, f6FI, f6E, n'E, and f6EA.

SWEEP 1-45 MI. TO 25+0 MC. MARCH, 1960

SWEEP 1-45 MI. TO 25+0 MC. MARCH, 1960

TABLE 11
WELLS STATION (86433+110+26)

HOUR	00		01		02		03		04		05		06		07		08		09		10		11		12		13		14		15		16		17		18		19		20		21		22		23								
	U	LO																																																					
16F2	MED	34	56	57	51	96	82	70	62	64	66	61	57	53	50	40	45	46	34	36	35	38	46	50	55	58	56	50	45	40	35	30	25	20	15	10	7	5	4	3	2	1	1	1	1	1	1	1	1						
	CNT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1						
	UO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1				
	LO																																																						
16F2	MED	250	440	230	420	230	420	230	430	235	470	480	480	270	460	225	270	275	250	265	270	440	470	270	250	240	270	260	270	260	270	260	270	260	270	260	270	260	270	260	270	260	270	260	270	260	270	260	270	260	270	260	270		
	CNT	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22	42	22		
	UO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	LO																																																						

TABLE 12
PORT LOCARDO (104853+834781)

HOUR	00		01		02		03		04		05		06		07		08		09		10		11		12		13		14		15		16		17		18		19		20		21		22		23								
	U	LO																																																					
16F2	MED	300	315	320	340	320	310	290	270	250	440	450	240	240	445	240	235	440	240	250	250	450	450	260	270	270	260	270	260	270	260	270	260	270	260	270	260	270	260	270	260	270	260	270	260	270	260	270	260	270	260	270			
	CNT	24	22	22	22	20	17	21	23	22	19	20	14	17	20	21	24	22	21	23	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22		
	UO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
	LO																																																						

TABLE 13
WEEP 1+0 MC TO 25+0 MC IN 15 SECONDS

TABLE 14
WEEP 0+87 MC TO 25+0 MC IN 5 MINUTS AUTOMATIC

TABLE 15
RACAU (122+08+113+9E)

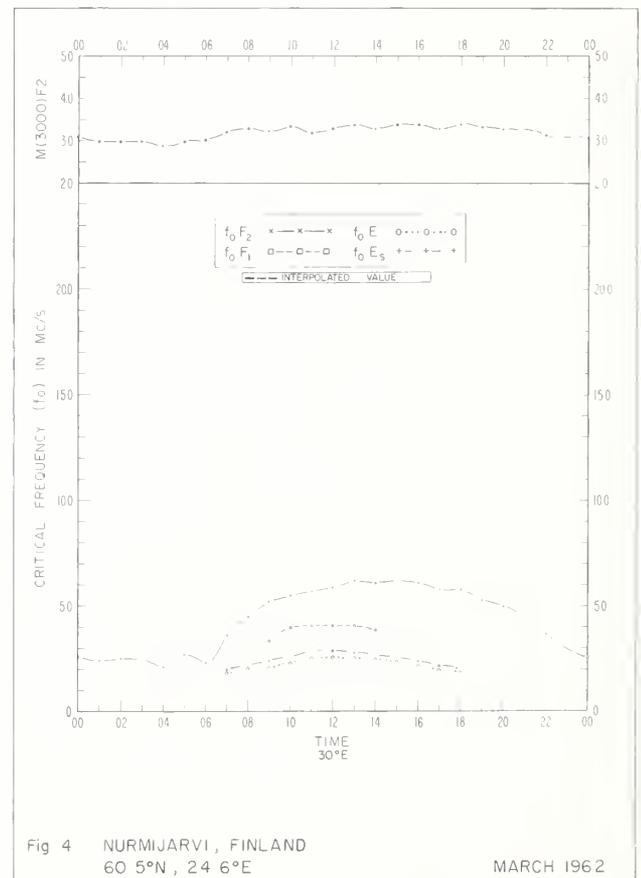
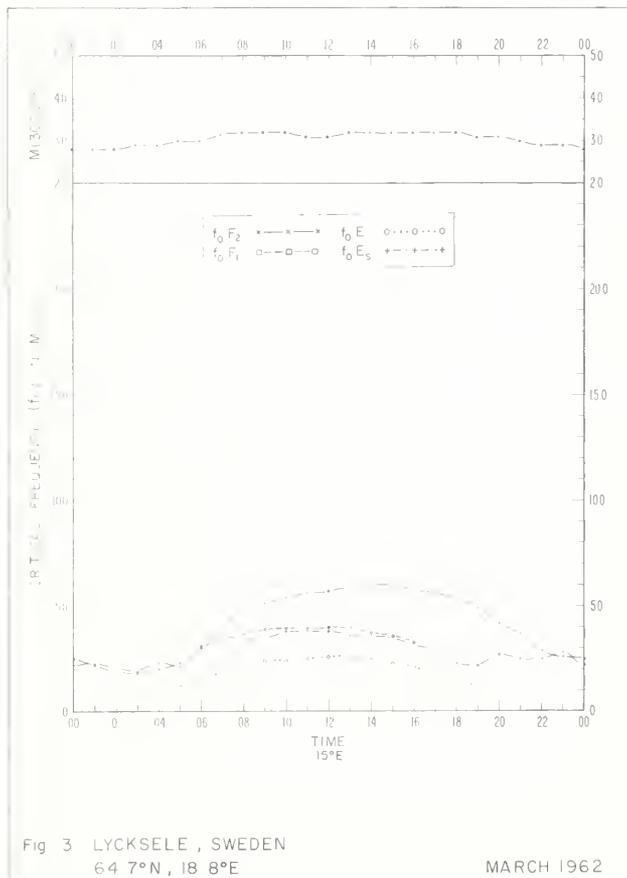
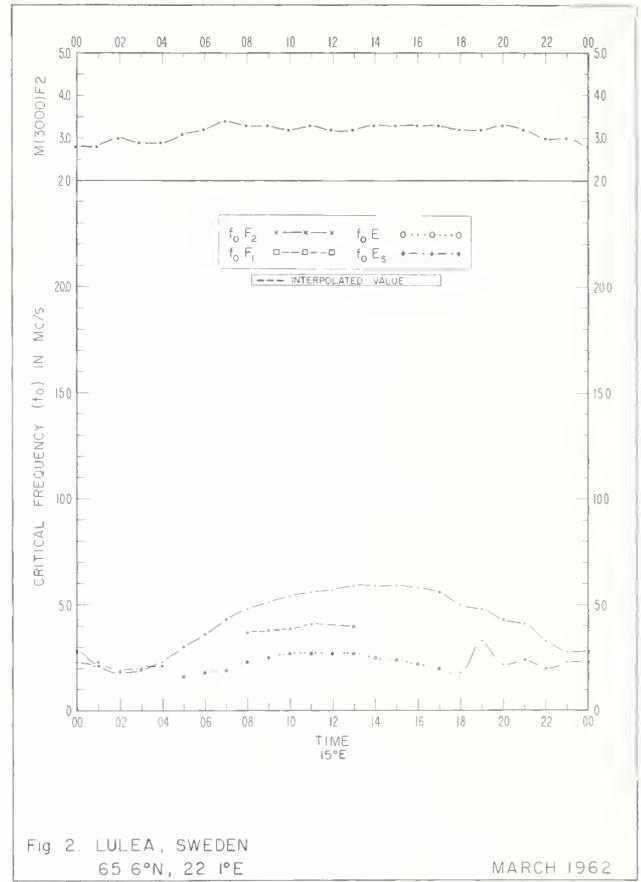
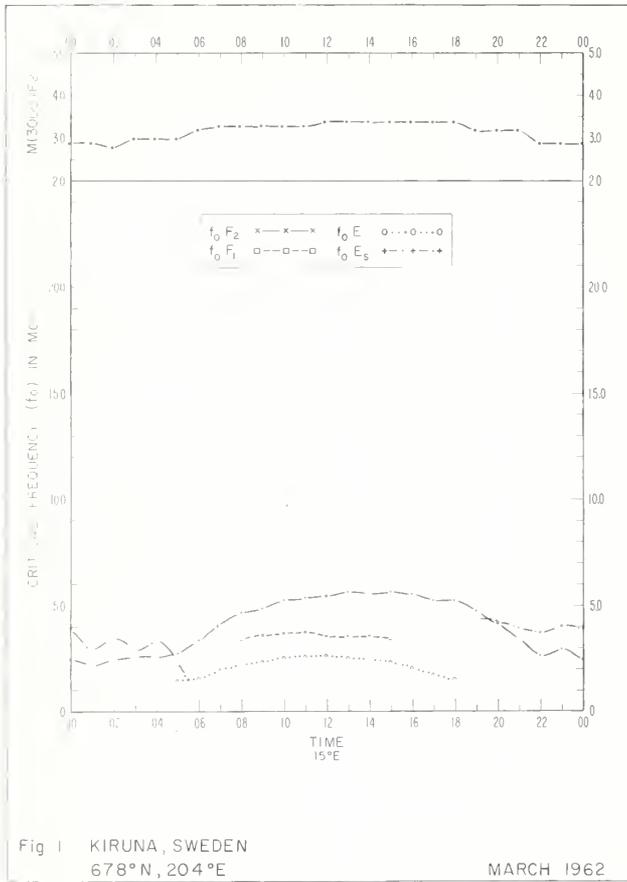
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	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO	U	LO				
16F2	MED	150	148	141	118	100	84	88	130	110	120	130	140	145	148	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	150	
	CNT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
	UO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	LO																																																			

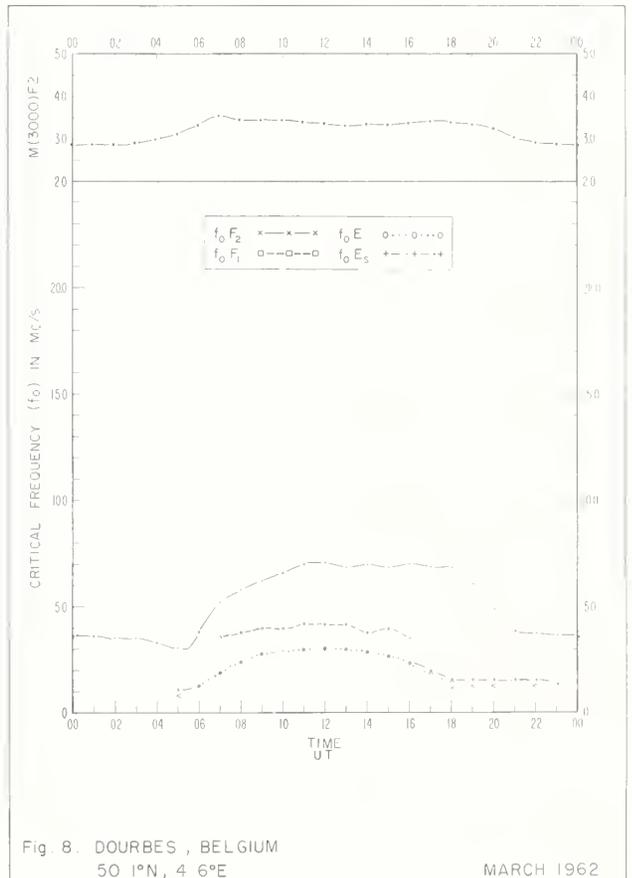
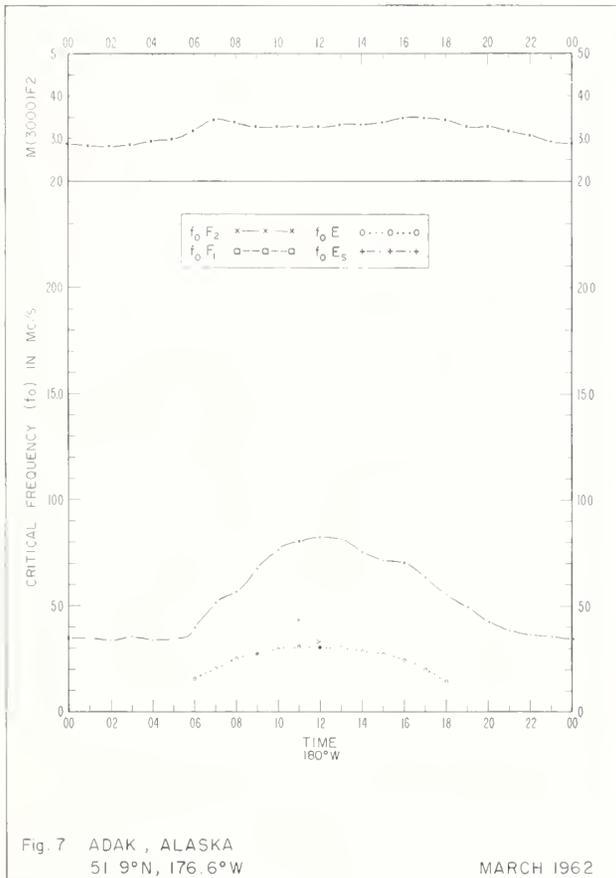
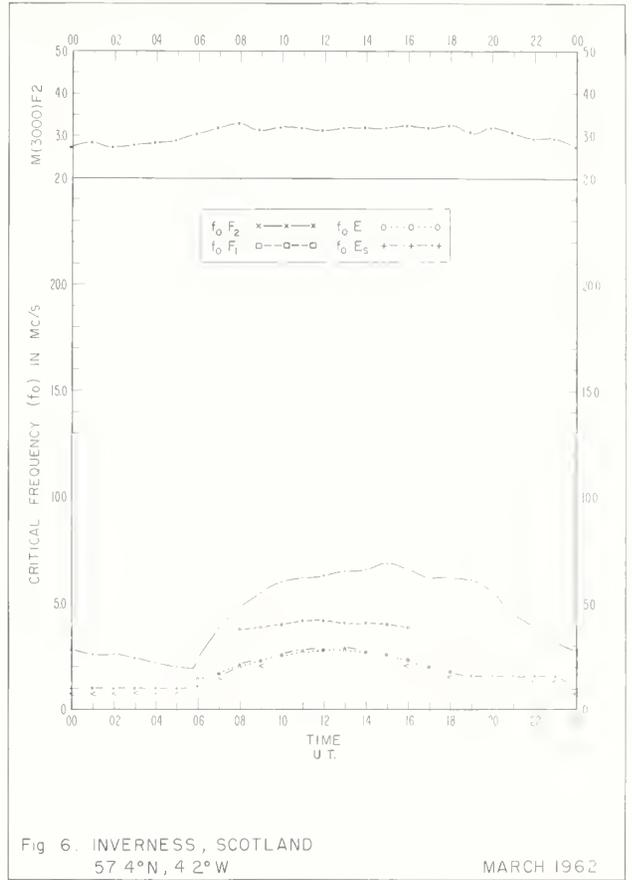
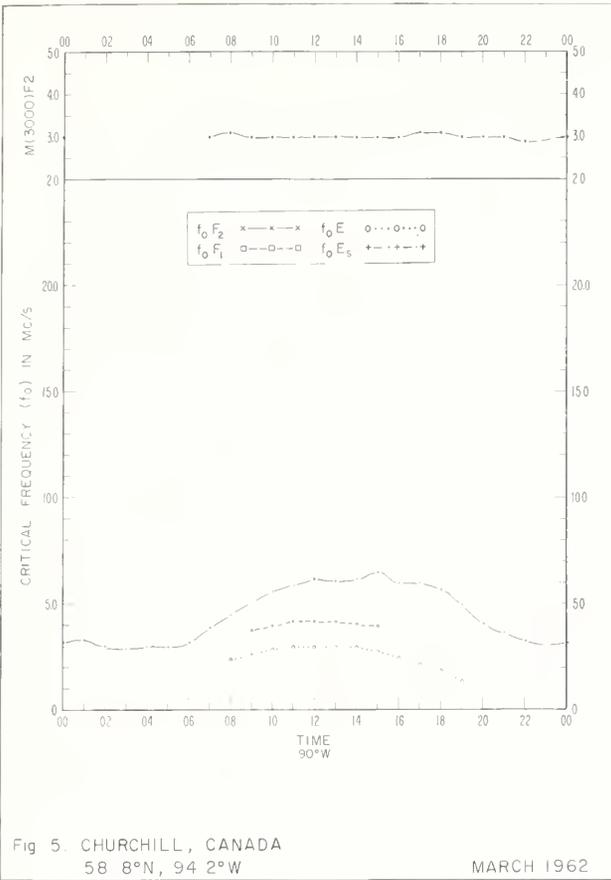
TABLE 16
L'HAZELE 2+000EN (104853+1048E1)

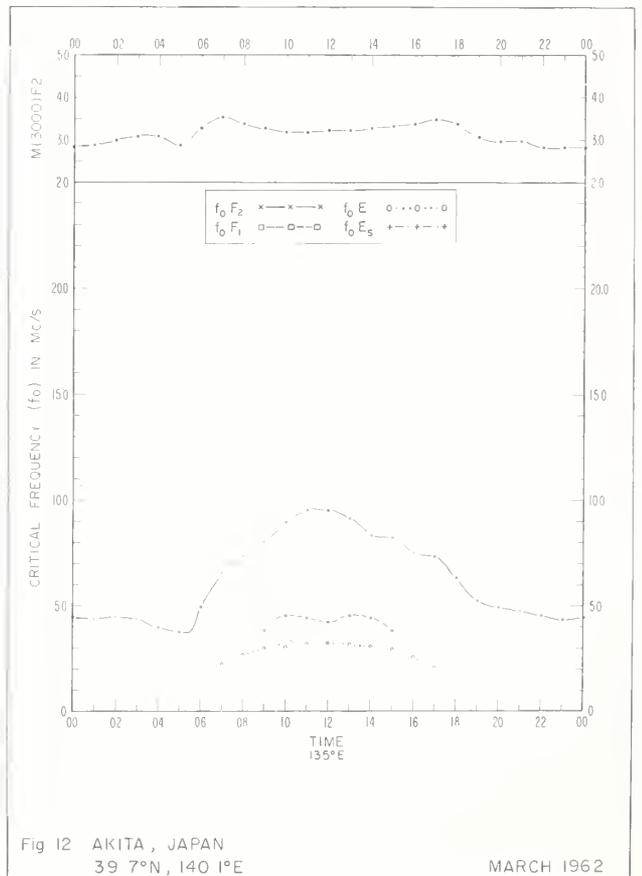
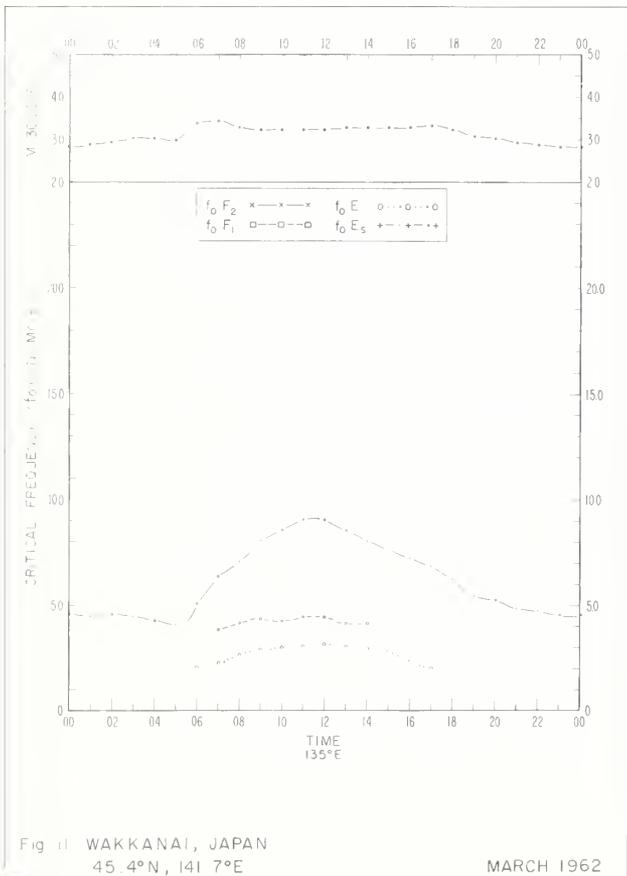
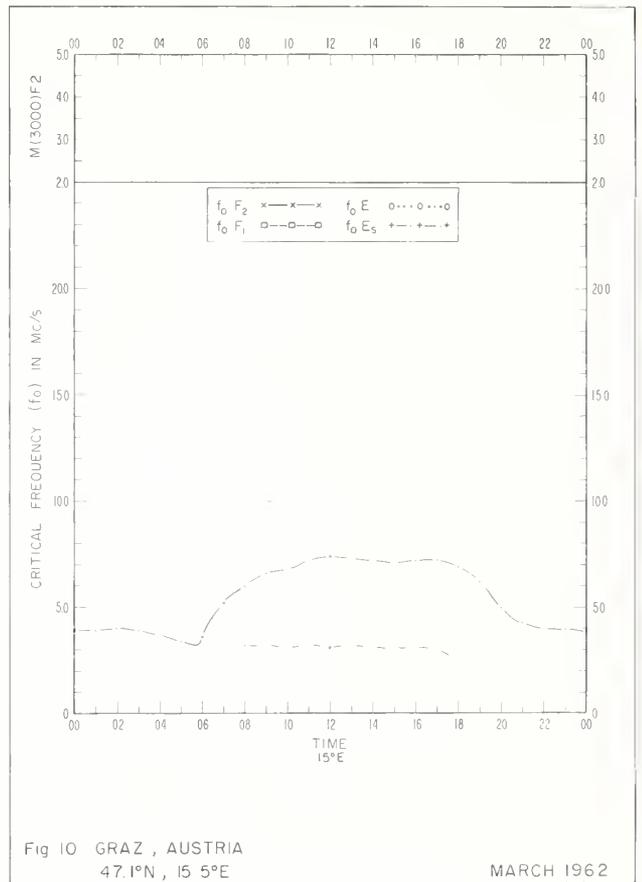
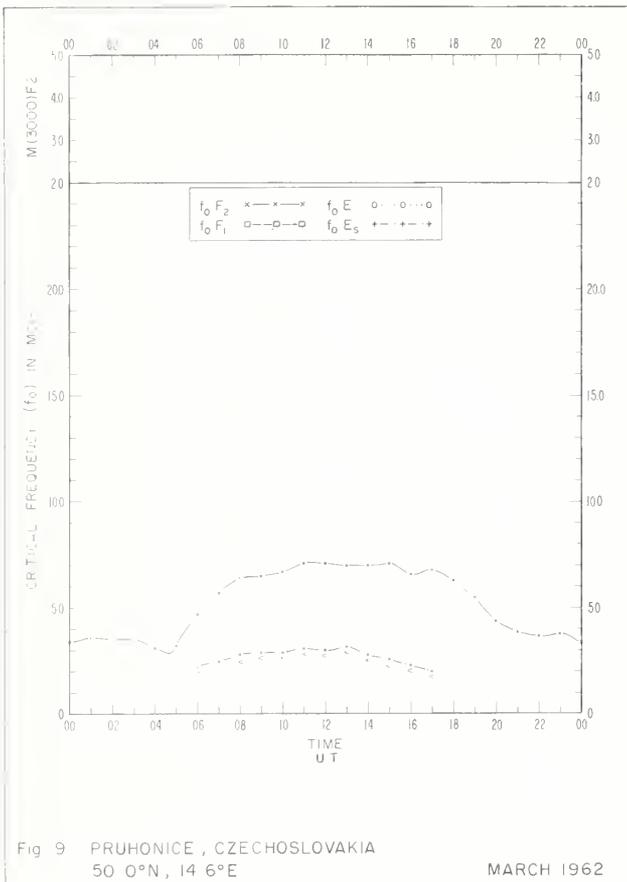
HOUR	00		01		02		03		04		05		06		07		08		09		10		11		12		13		14		15		16		17		18		19		20		21		22		23						
	U	LO																																																			
16F2	MED	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480	240	480		
	CNT	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	UO	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	LO																																																				

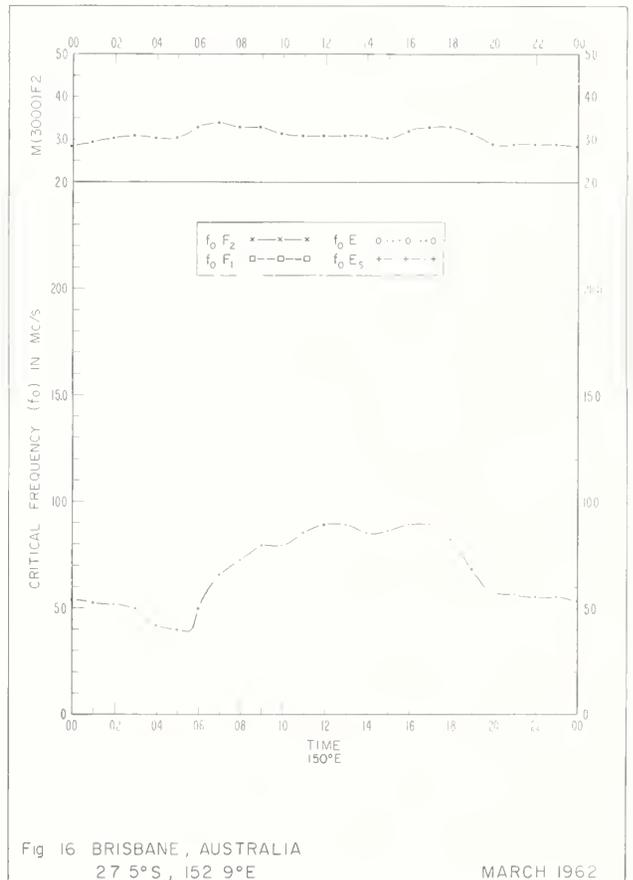
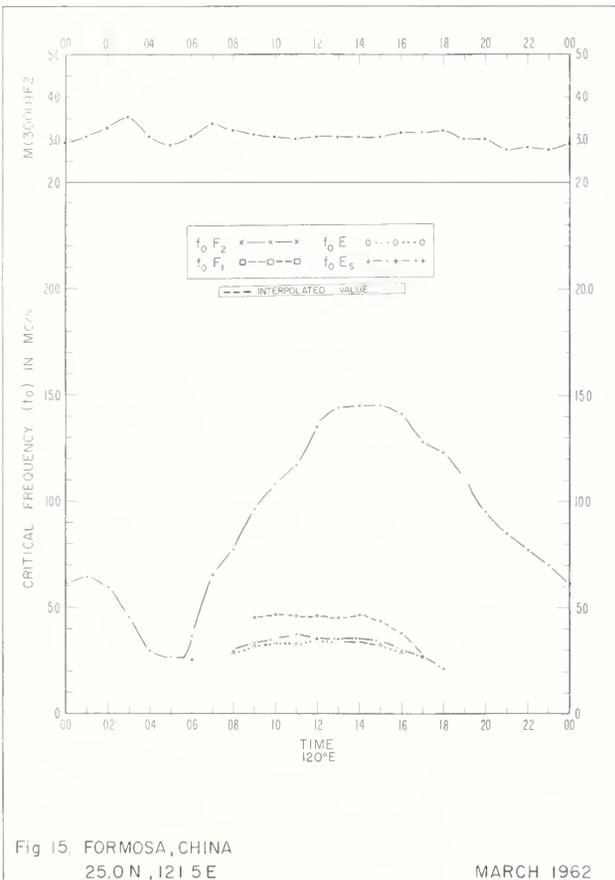
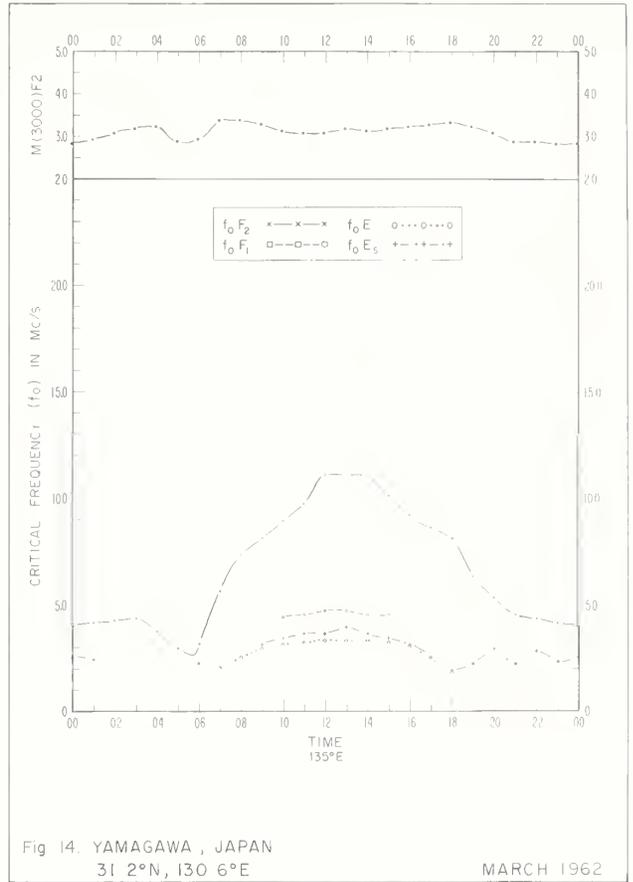
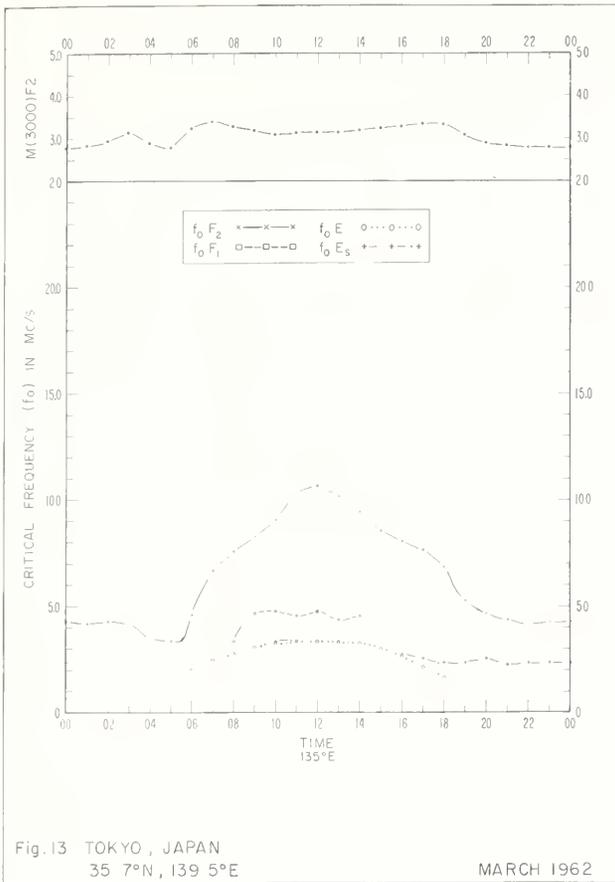
TABLE 17
WEEP 1+5 MC TO 20+5 MC IN 15 SECONDS

TABLE 18
WEEP 1+5 MC TO 20+5 MC IN 15 SECONDS









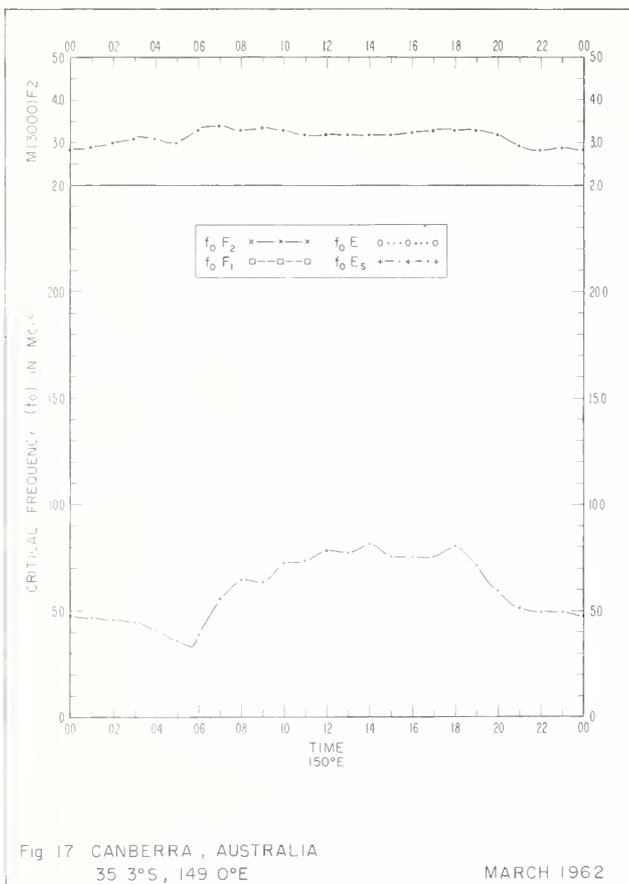


Fig 17 CANBERRA , AUSTRALIA
35 3°S, 149 0°E

MARCH 1962

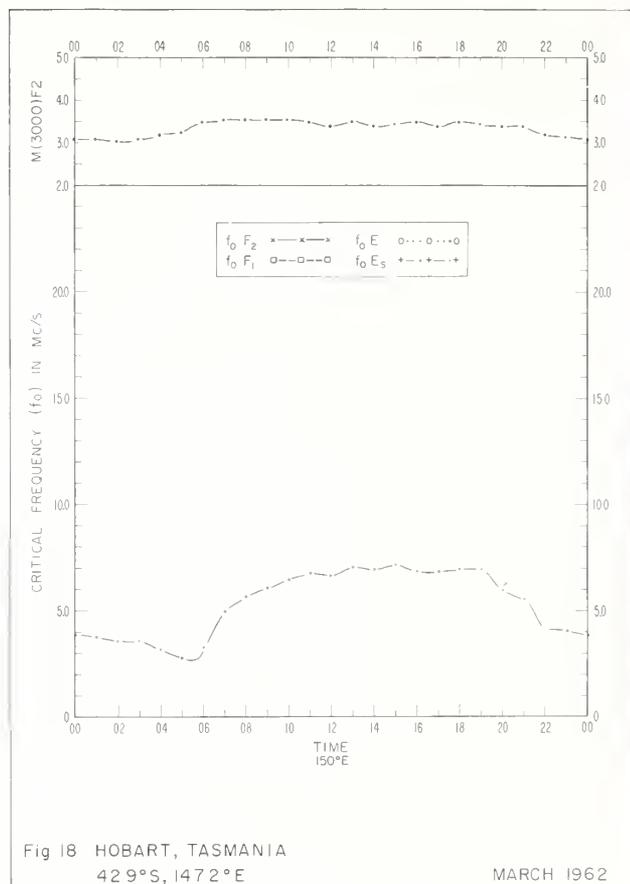


Fig 18 HOBART, TASMANIA
42 9°S, 147 2°E

MARCH 1962

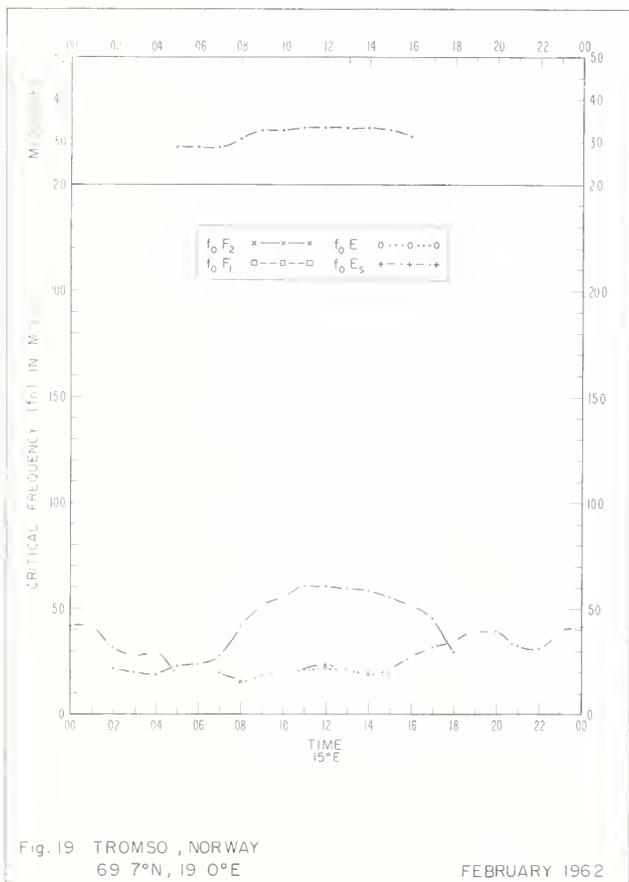


Fig. 19 TROMSØ , NORWAY
69 7°N, 19 0°E

FEBRUARY 1962

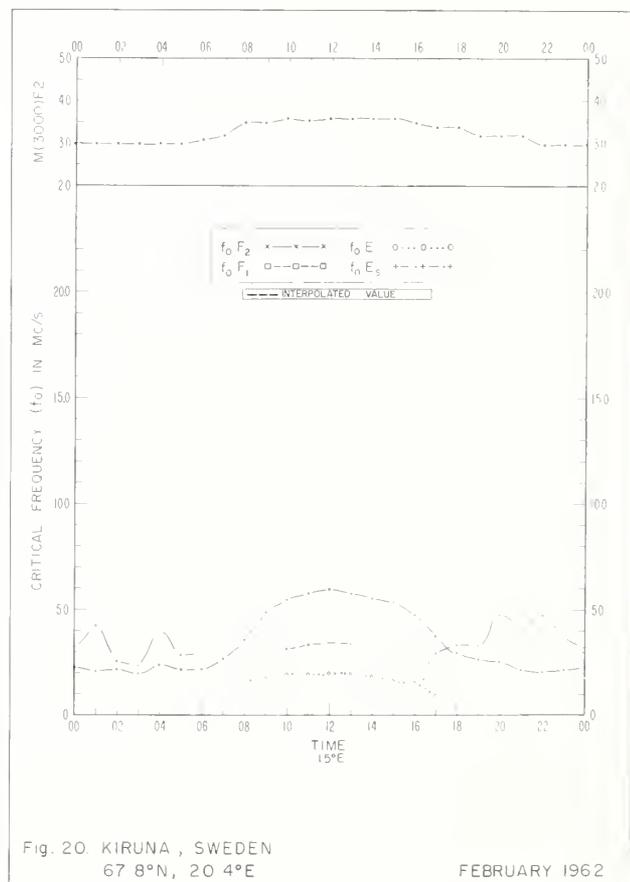
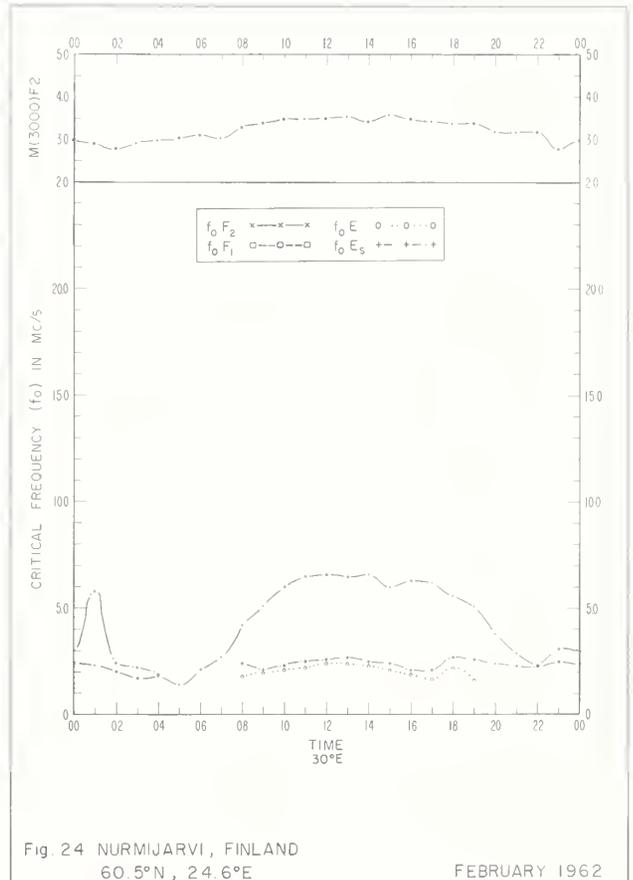
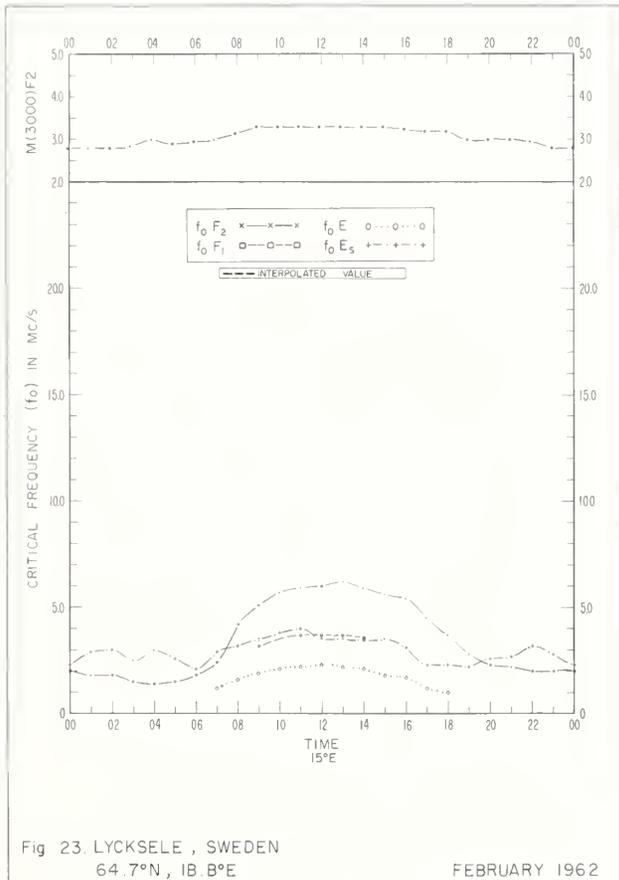
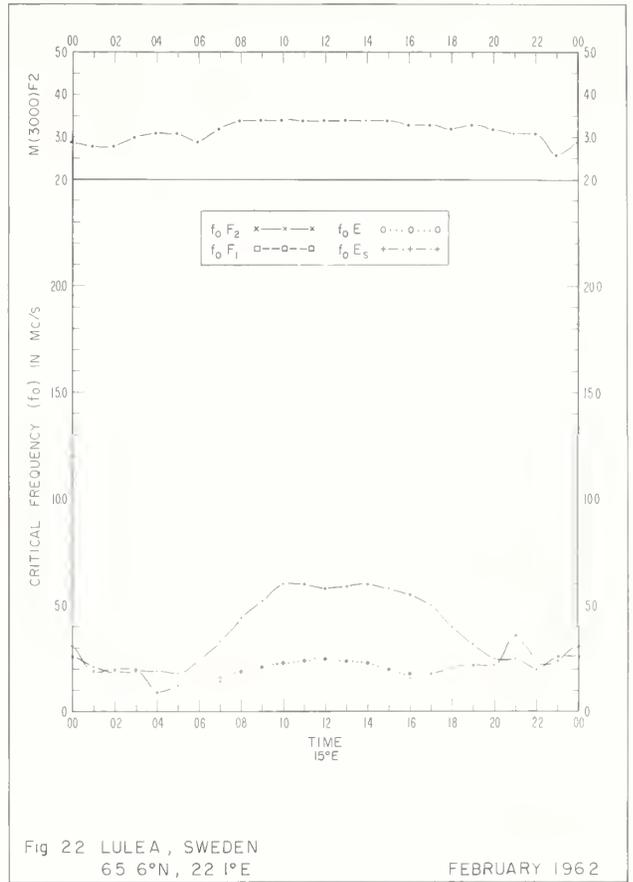
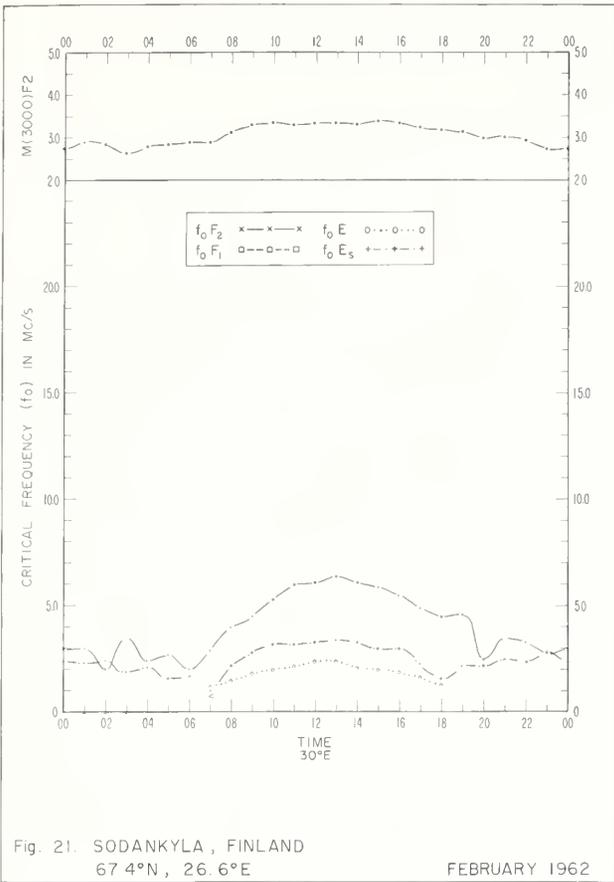
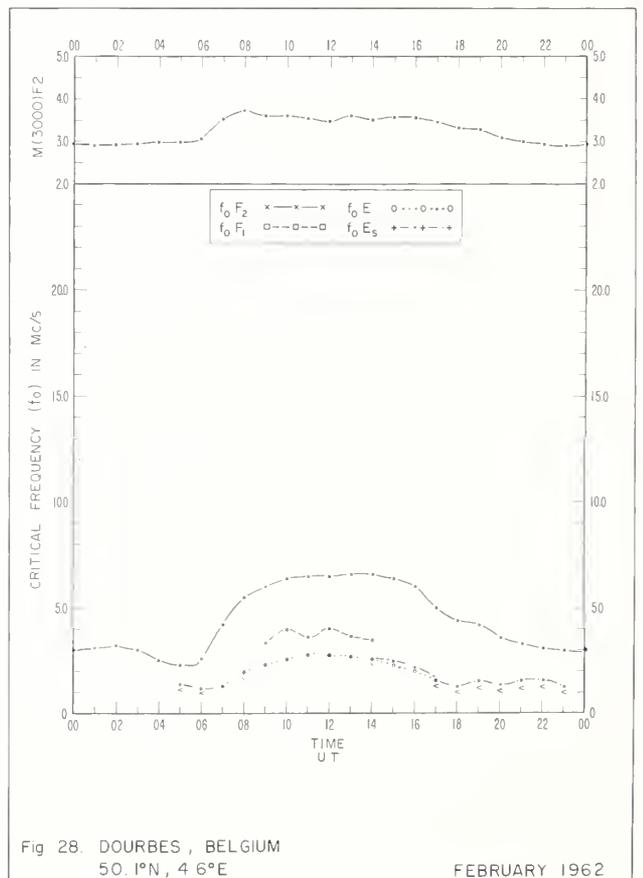
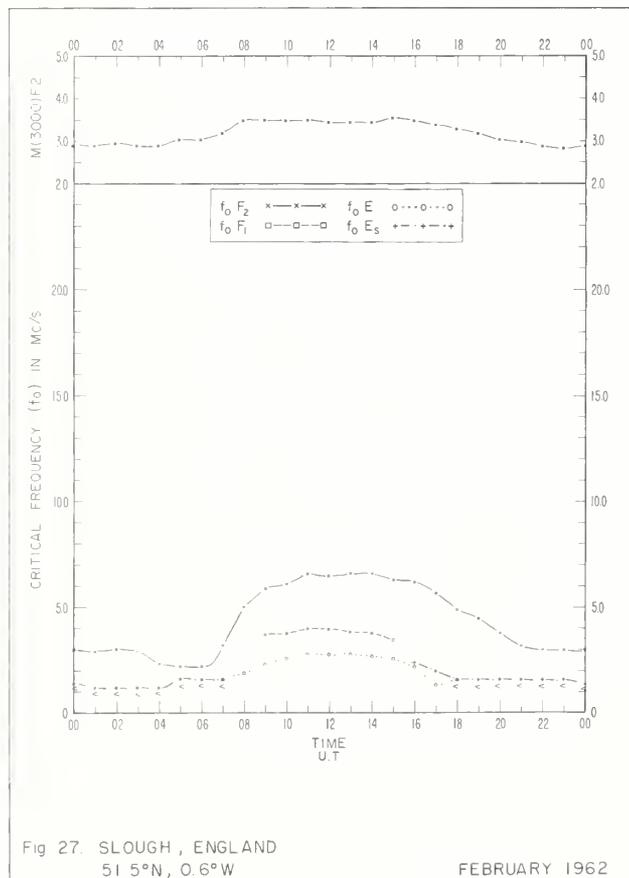
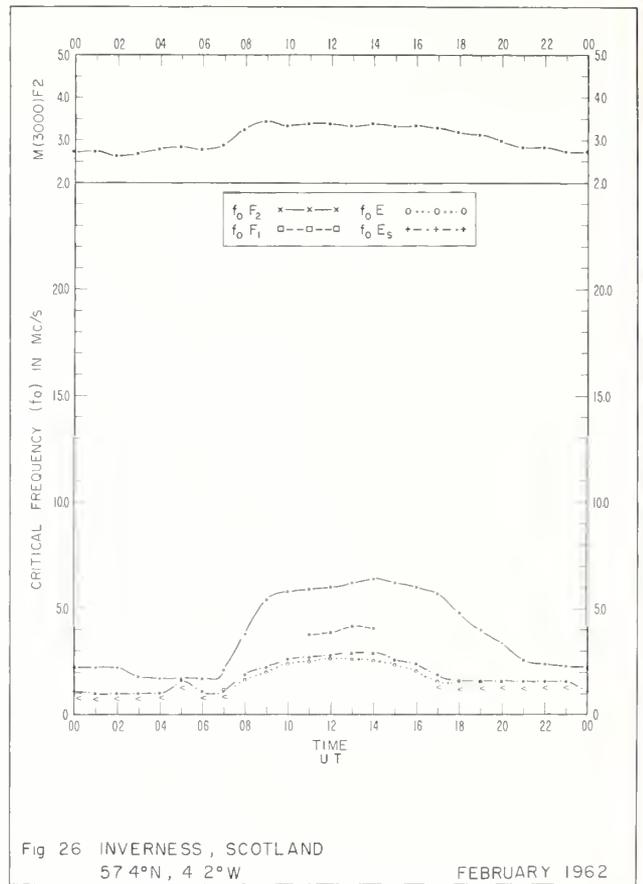
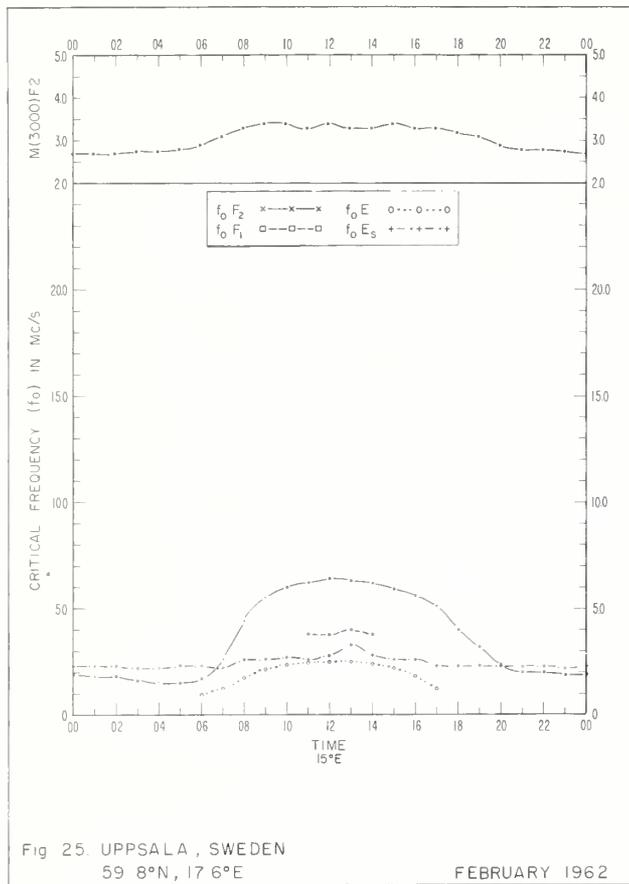


Fig. 20 KIRUNA , SWEDEN
67 8°N, 20 4°E

FEBRUARY 1962





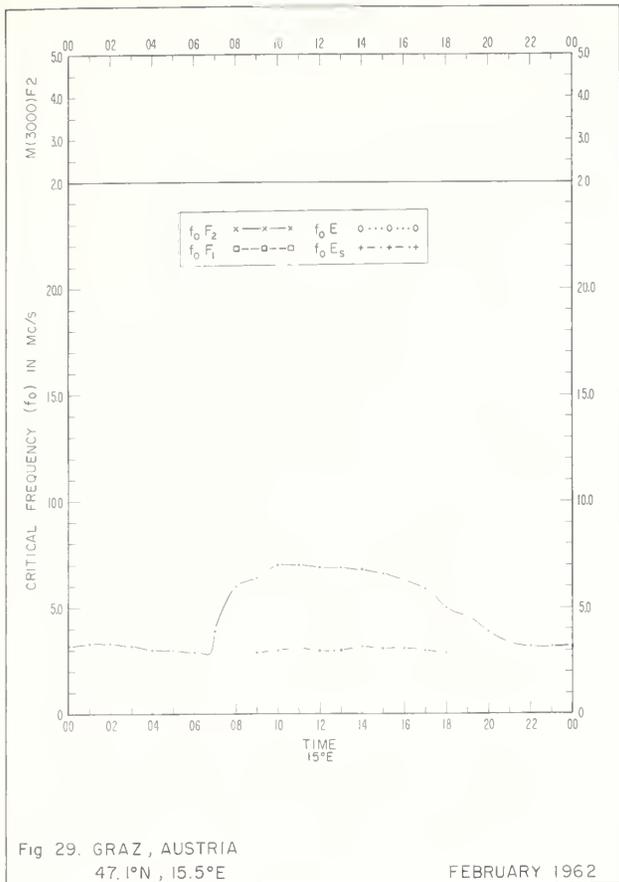


Fig 29. GRAZ , AUSTRIA
47.1°N , 15.5°E

FEBRUARY 1962

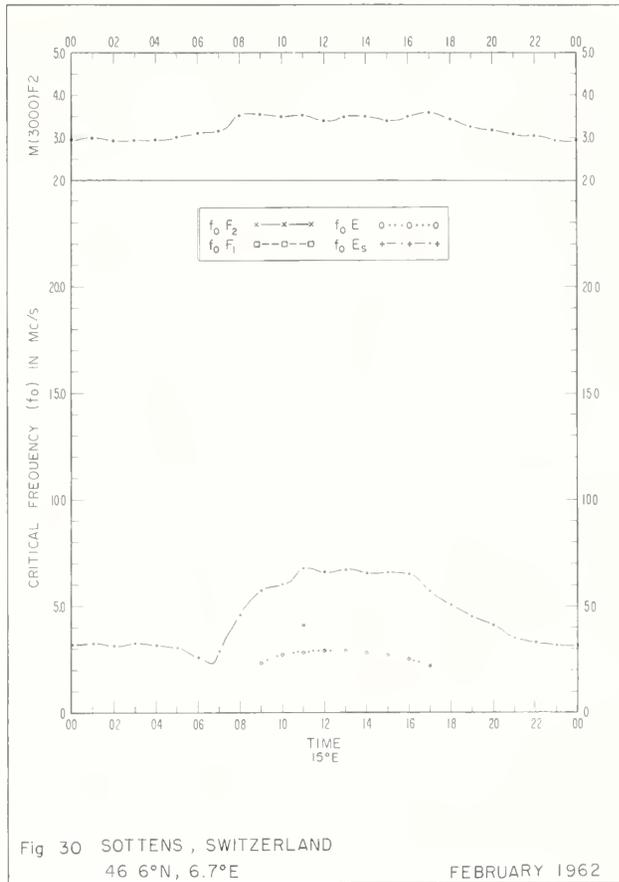


Fig 30 SOTTENS , SWITZERLAND
46 6°N , 6.7°E

FEBRUARY 1962

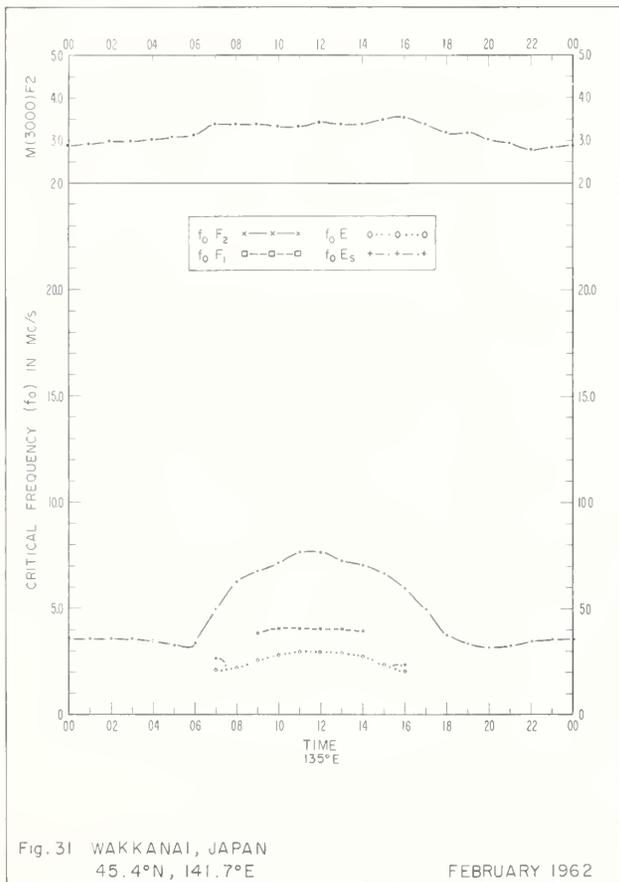


Fig.31 WAKKANAI , JAPAN
45.4°N , 141.7°E

FEBRUARY 1962

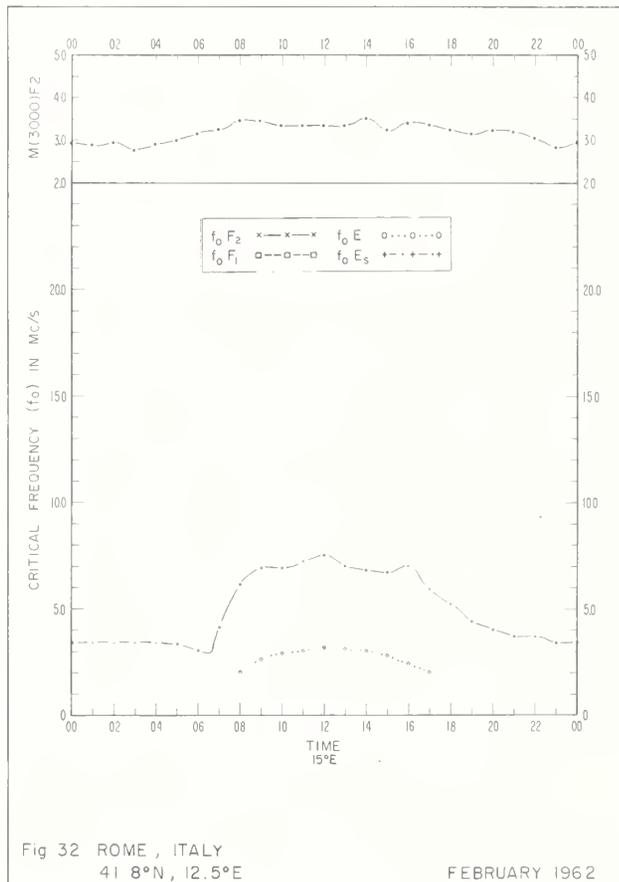
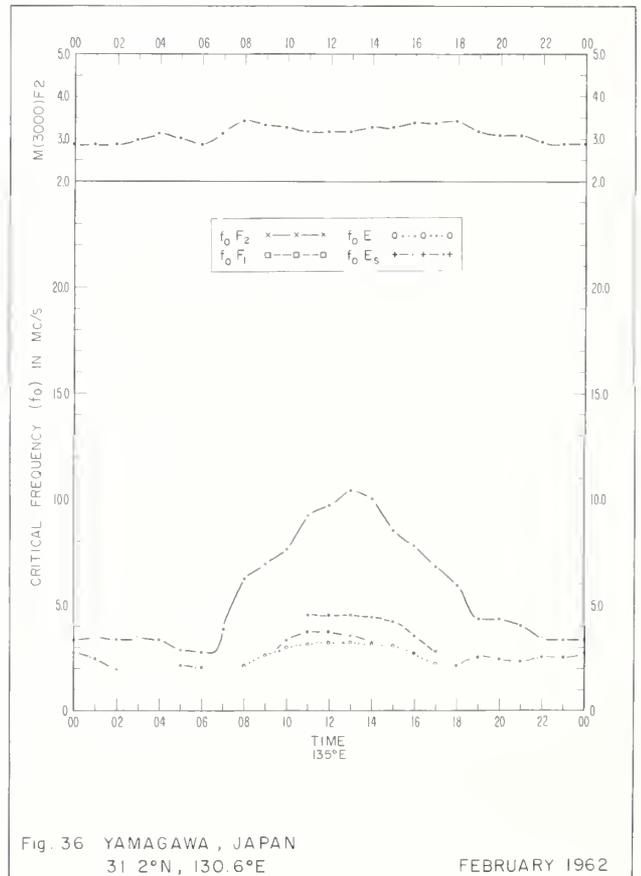
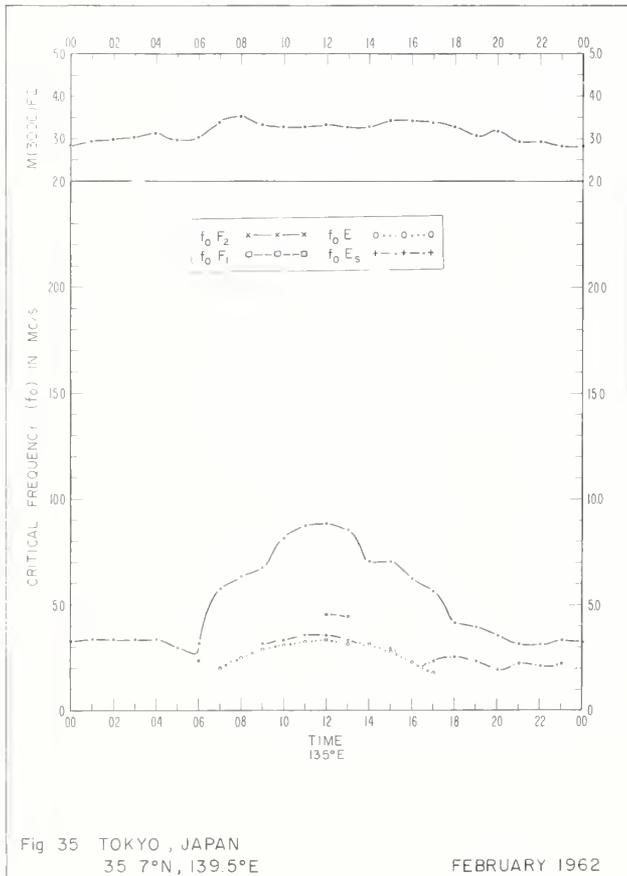
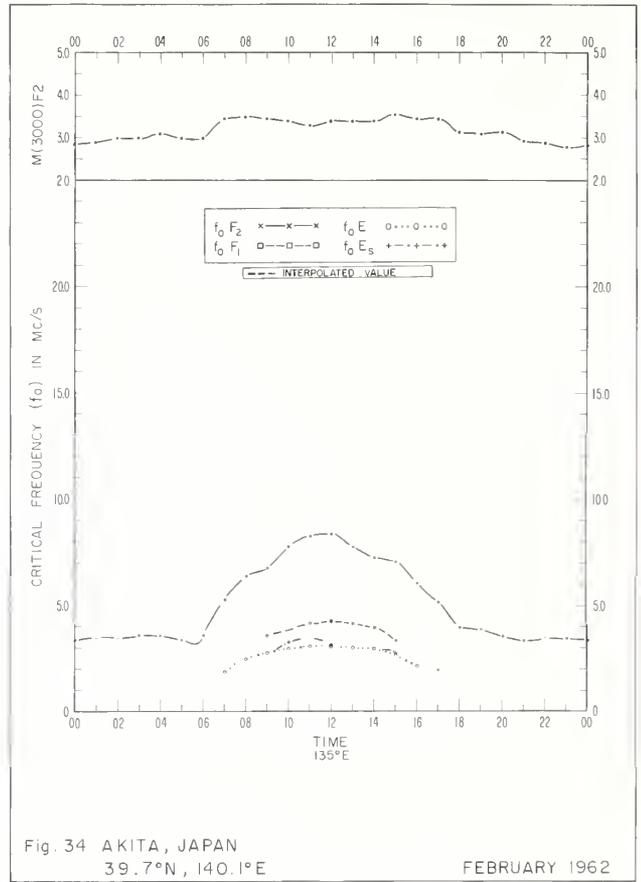
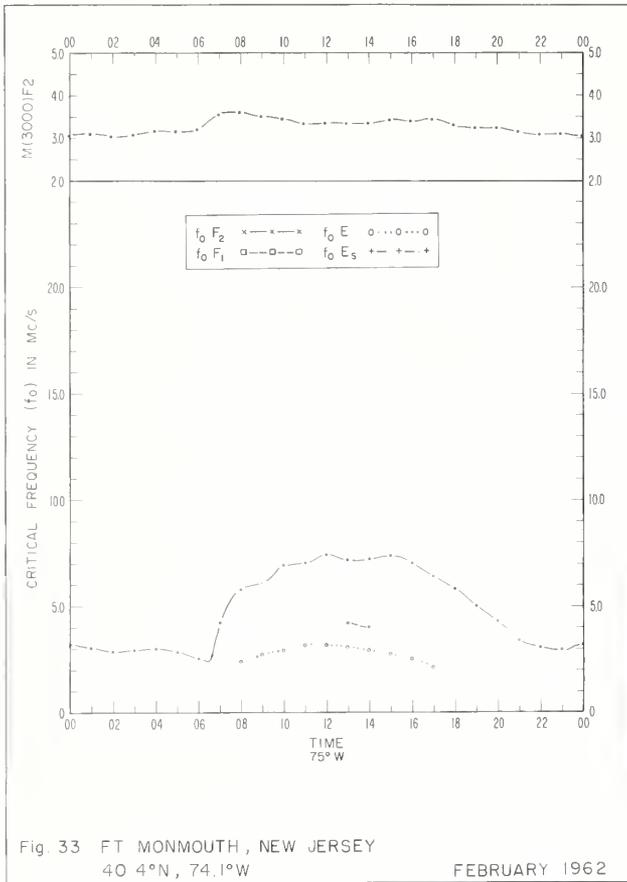
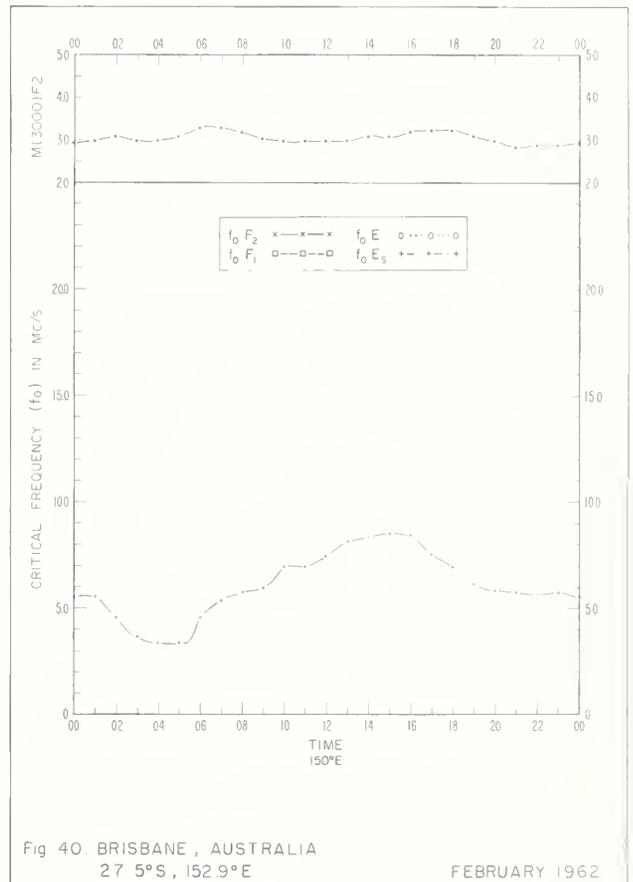
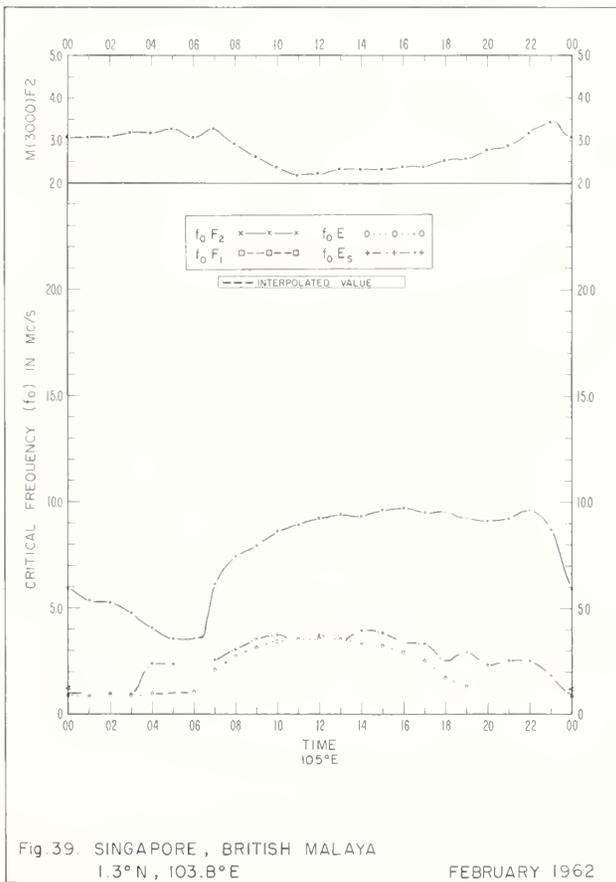
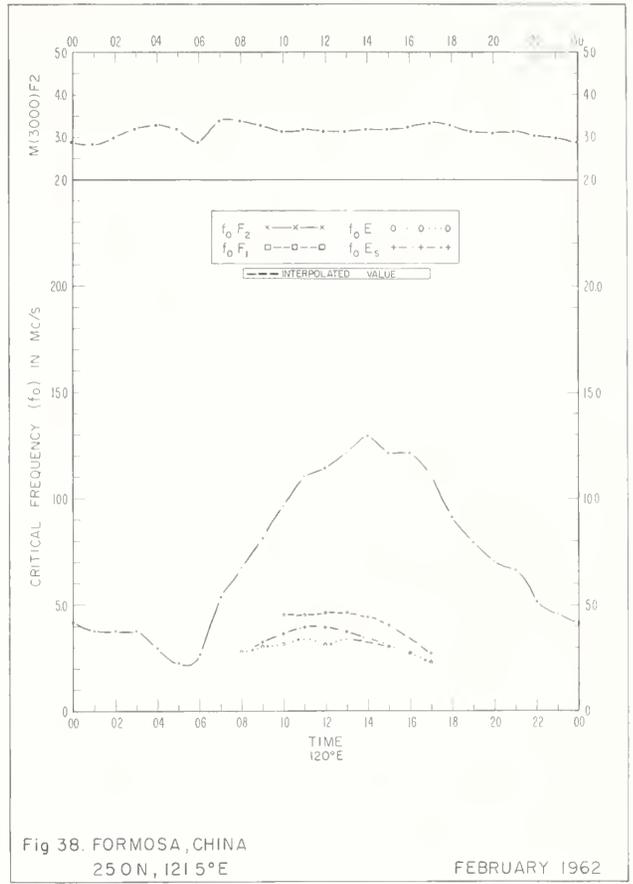
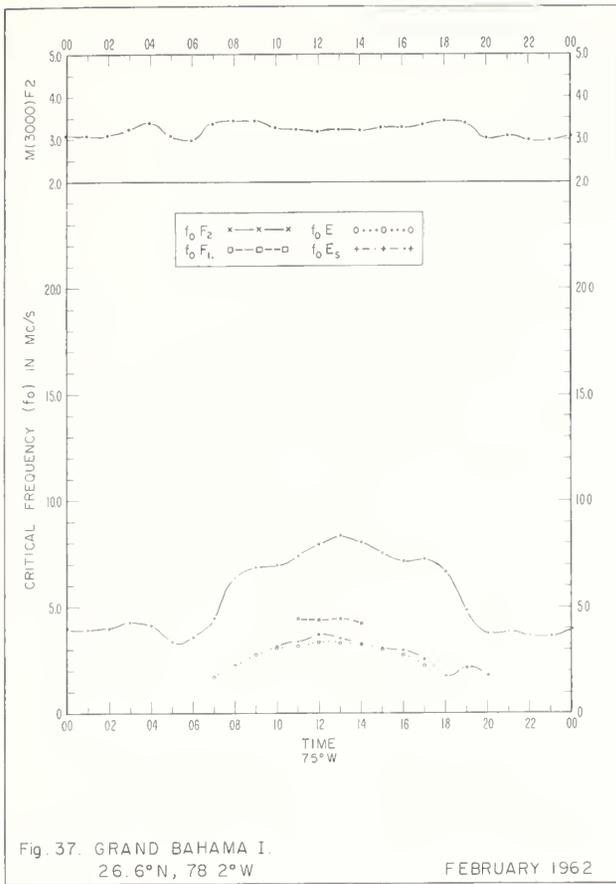
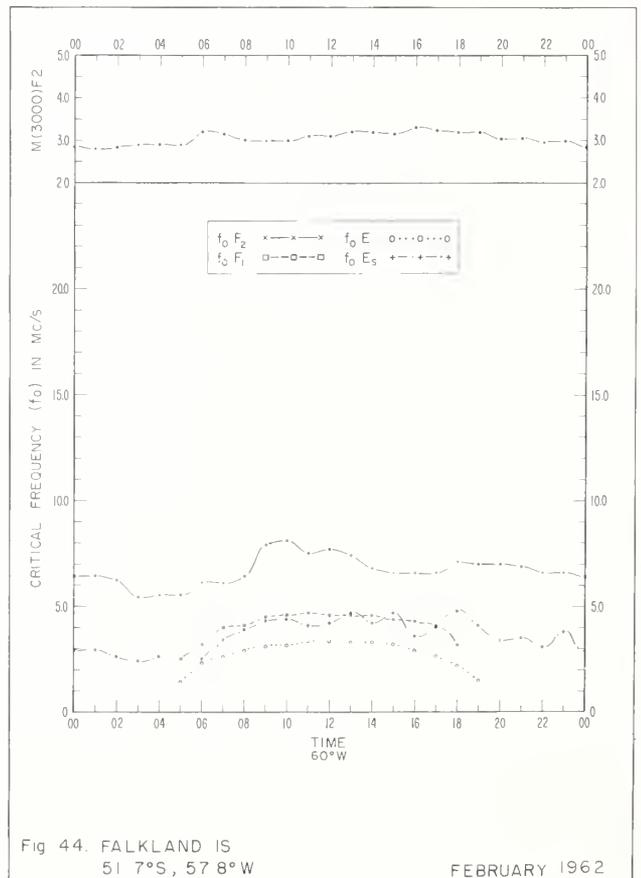
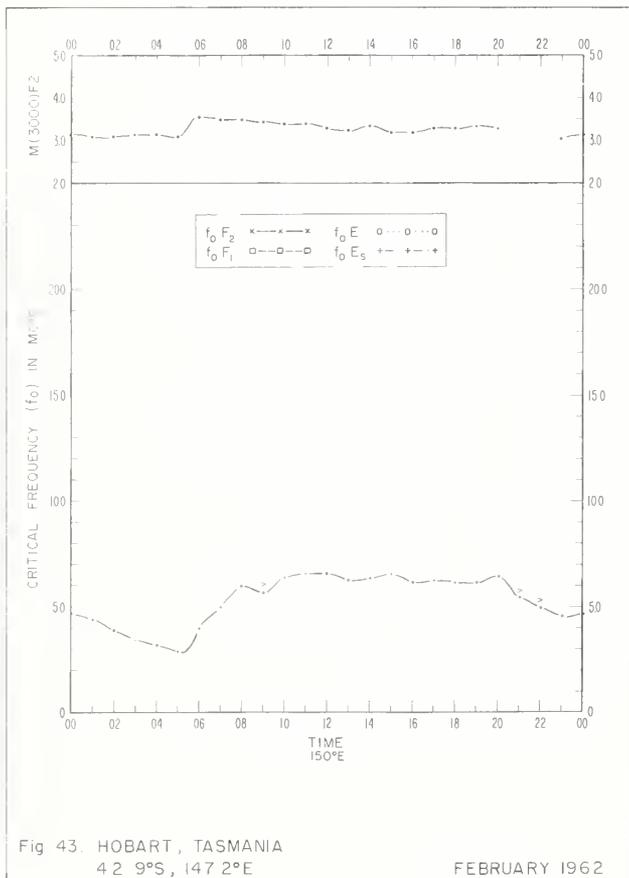
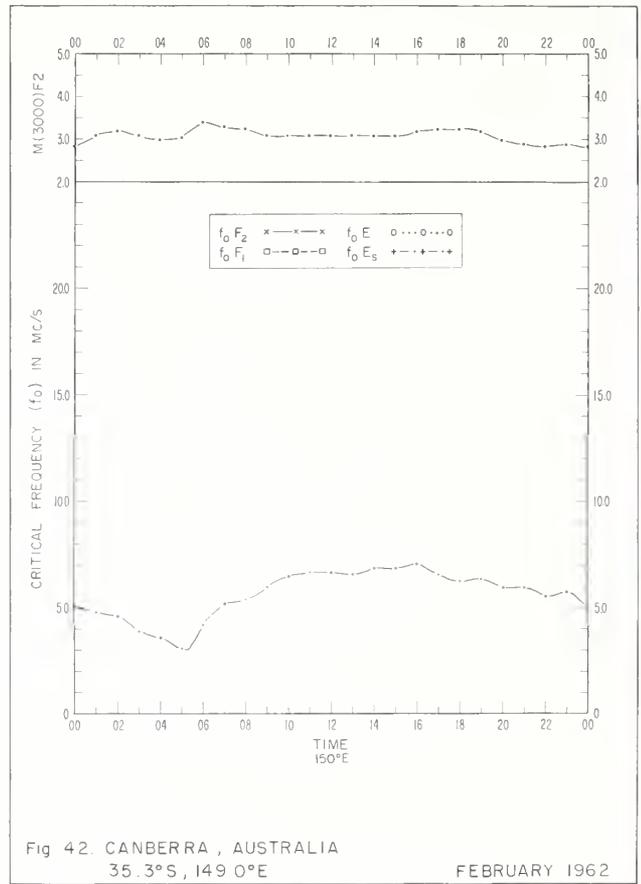
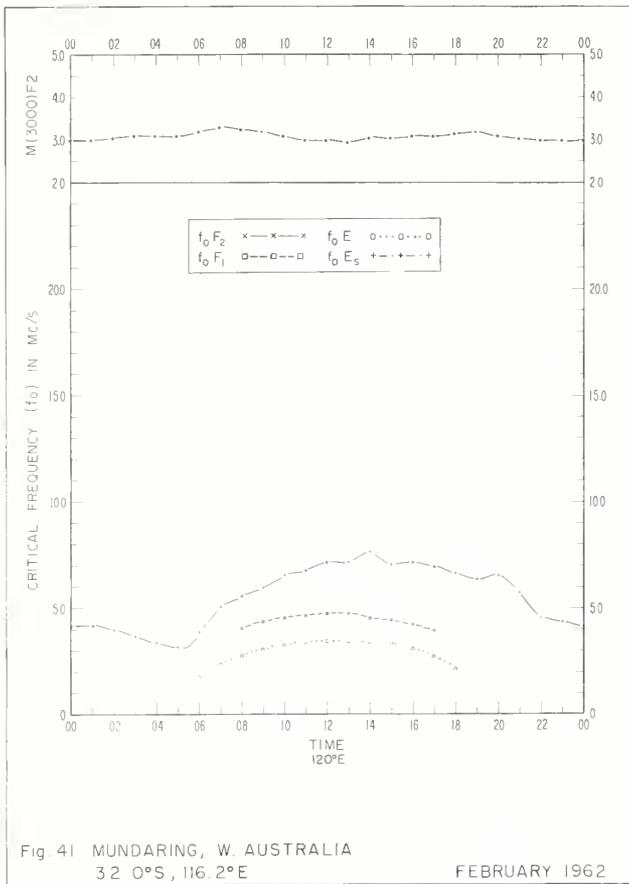


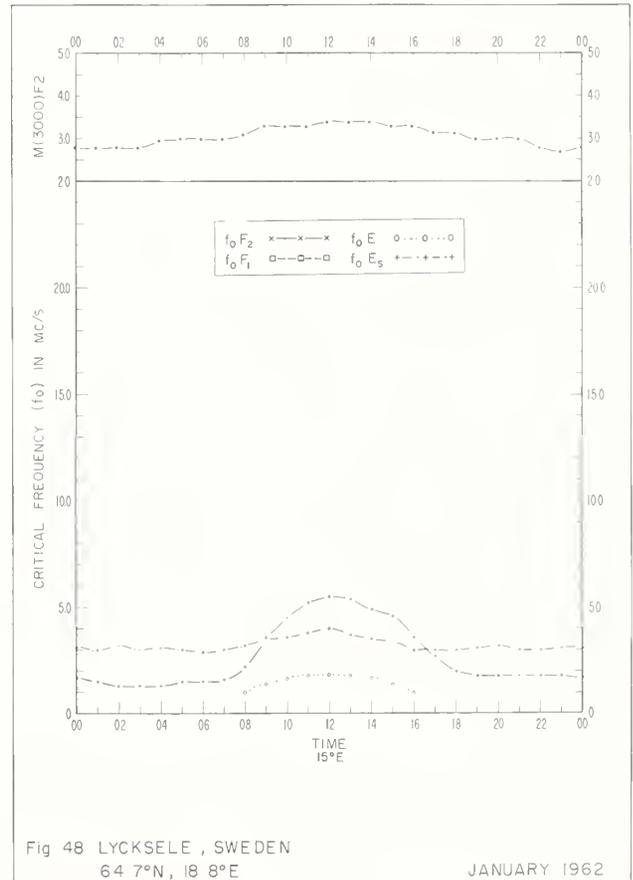
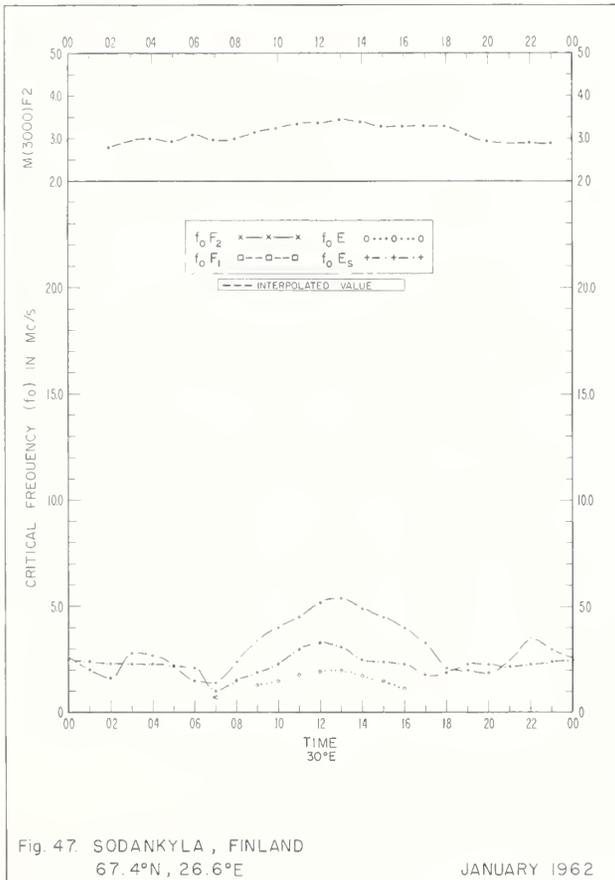
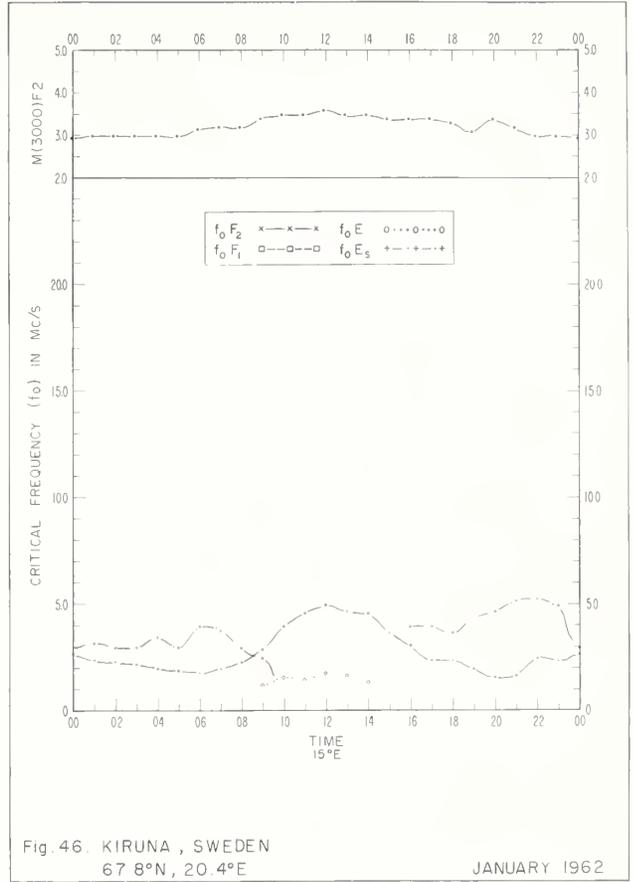
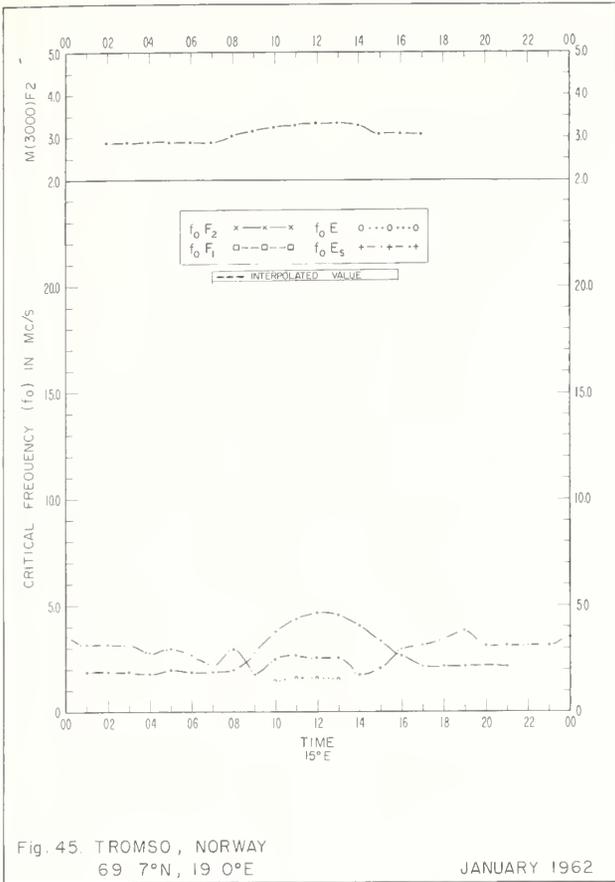
Fig 32 ROME , ITALY
41 8°N , 12.5°E

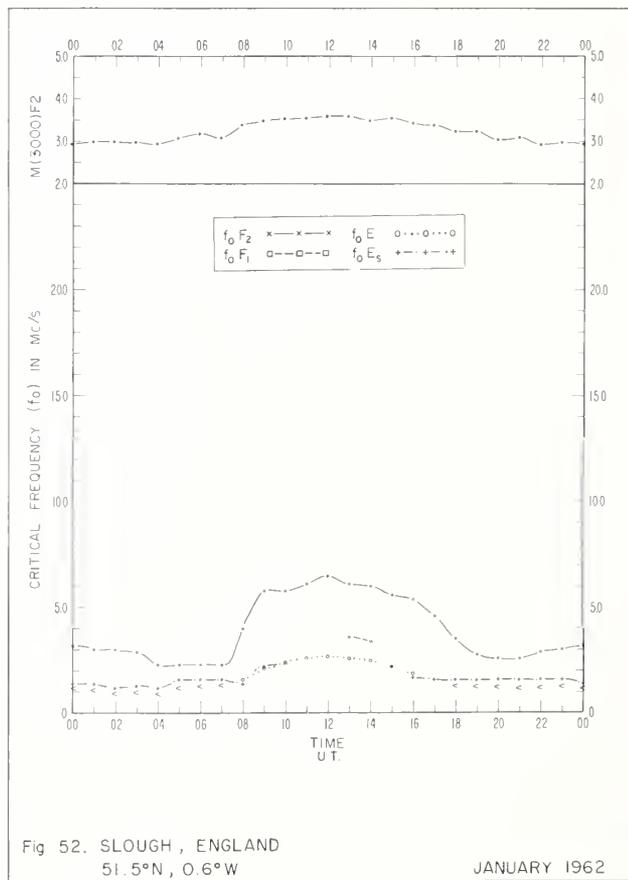
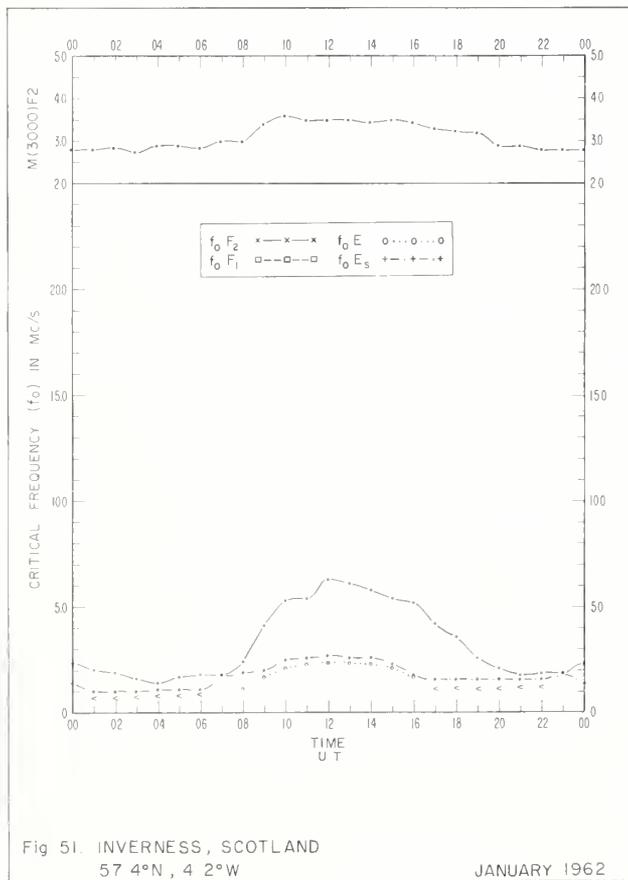
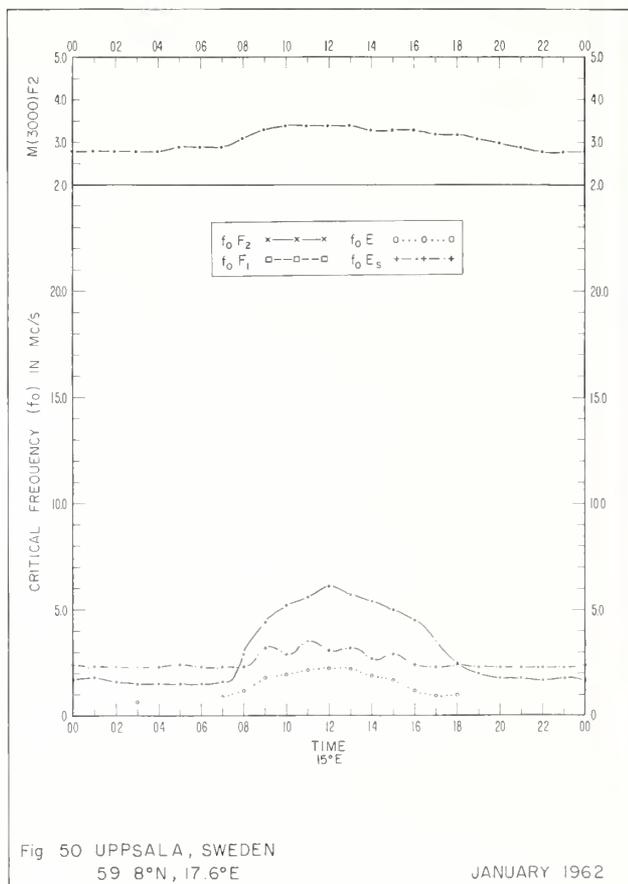
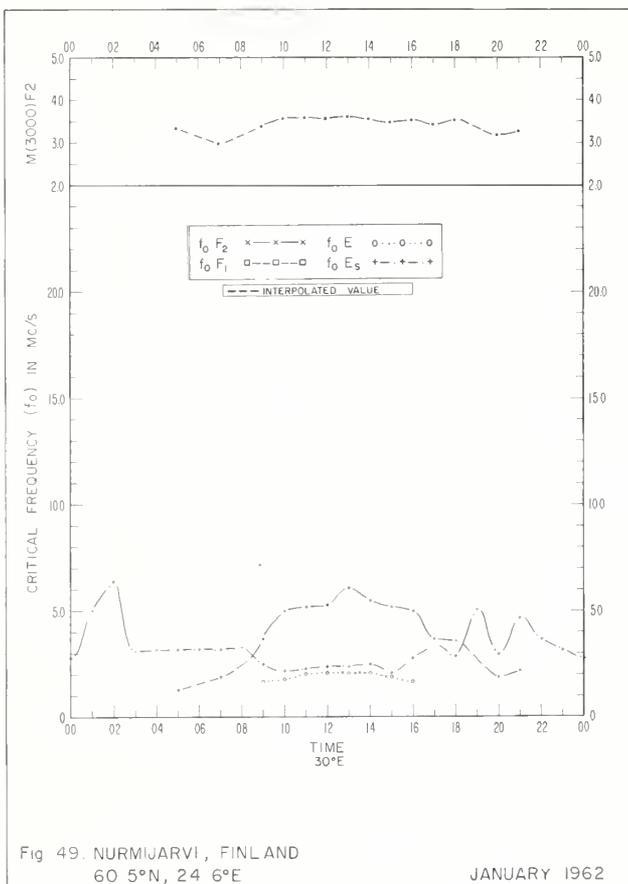
FEBRUARY 1962











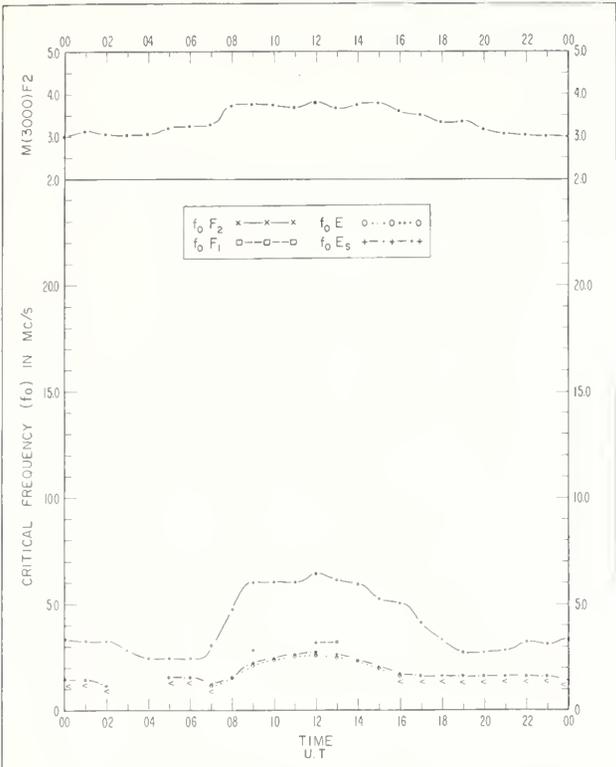


Fig. 53 DOURBES, BELGIUM
50 1°N, 4 6°E
JANUARY 1962

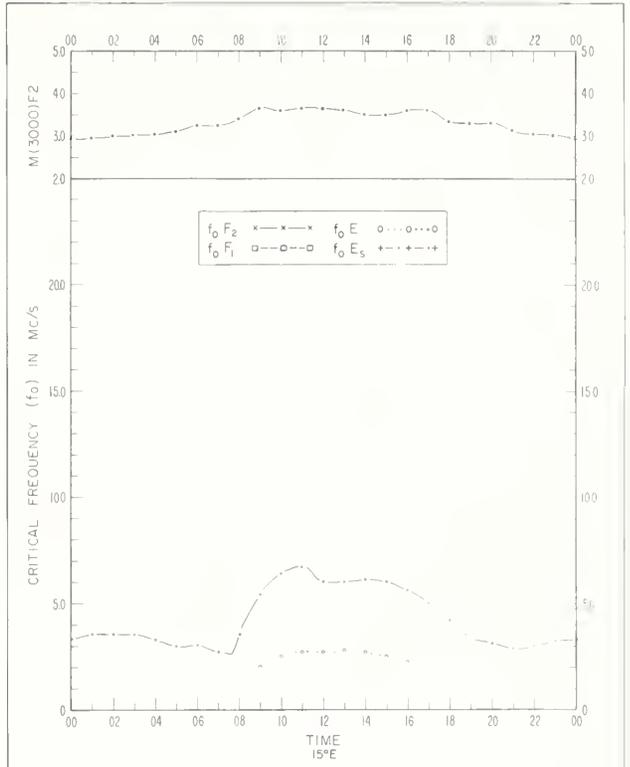


Fig. 54 SOTTENS, SWITZERLAND
46 6°N, 6 7°E
JANUARY 1962

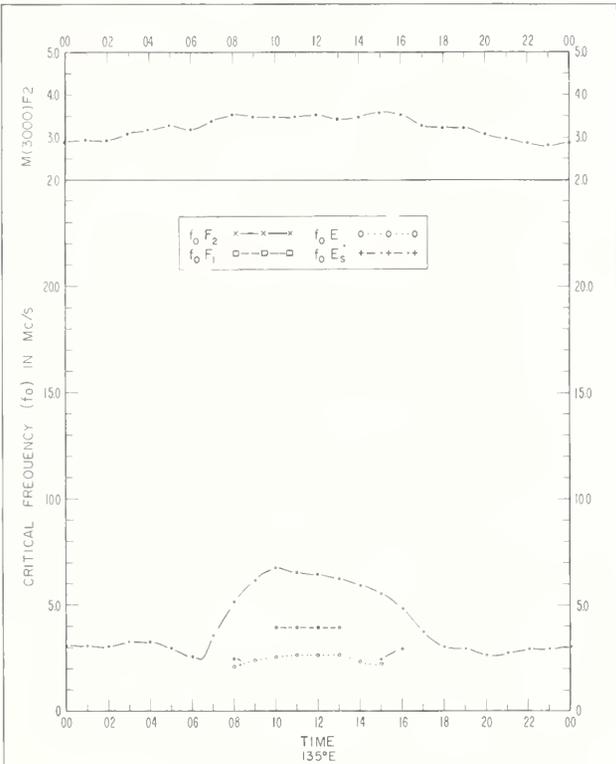


Fig. 55. WAKKANAI, JAPAN
45.4°N, 141.7°E
JANUARY 1962

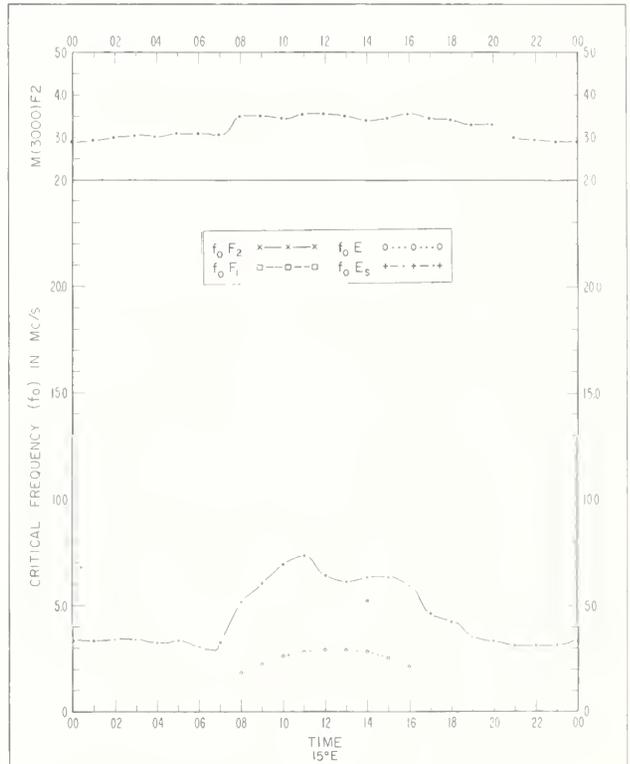
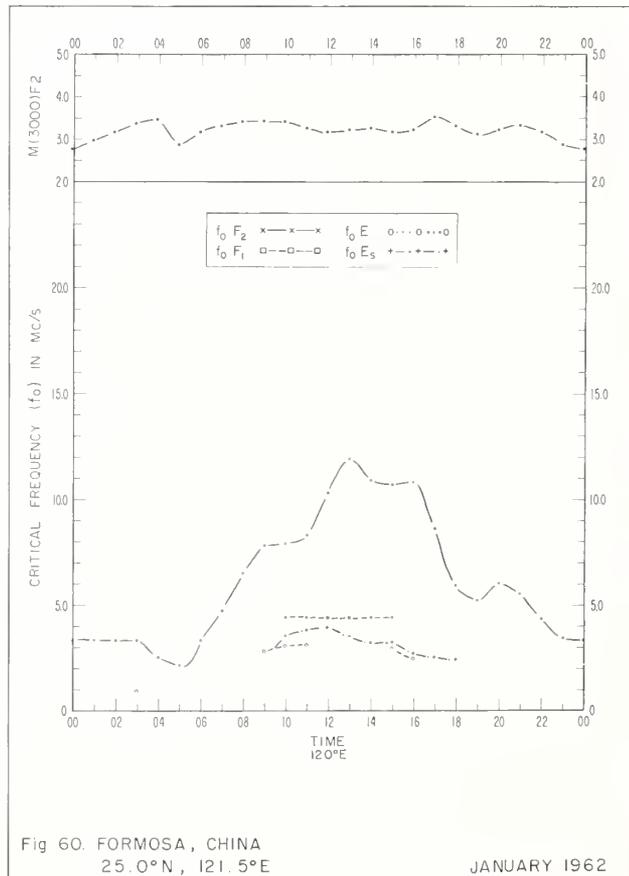
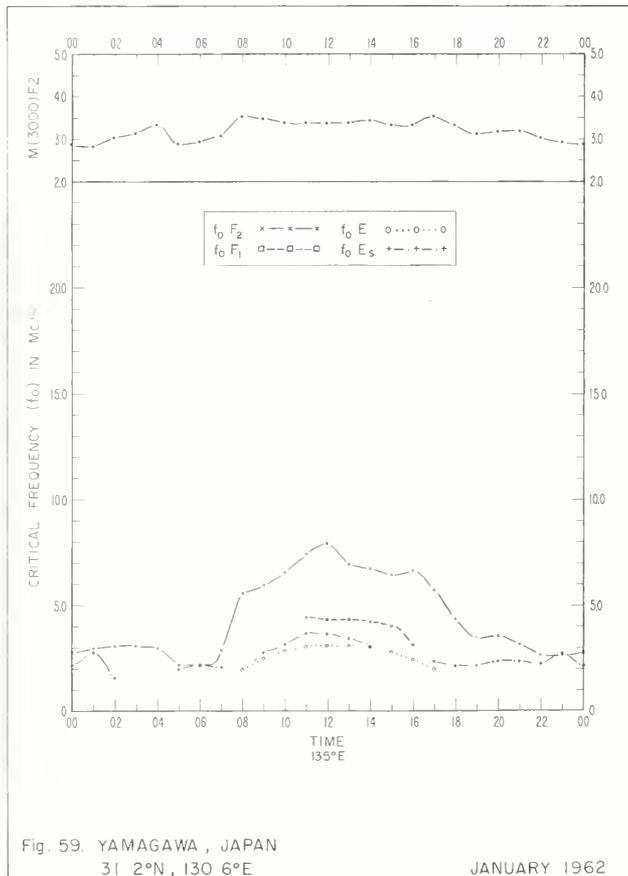
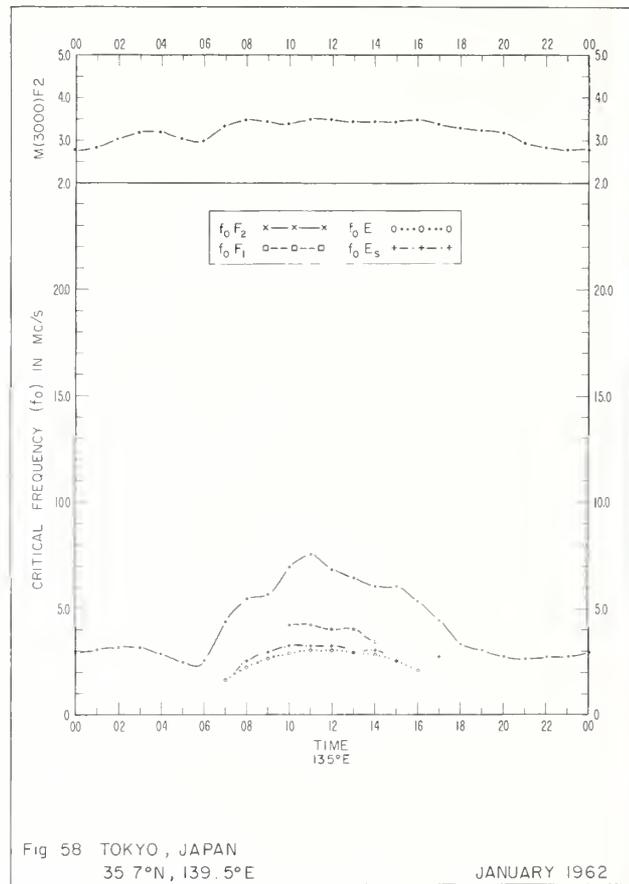
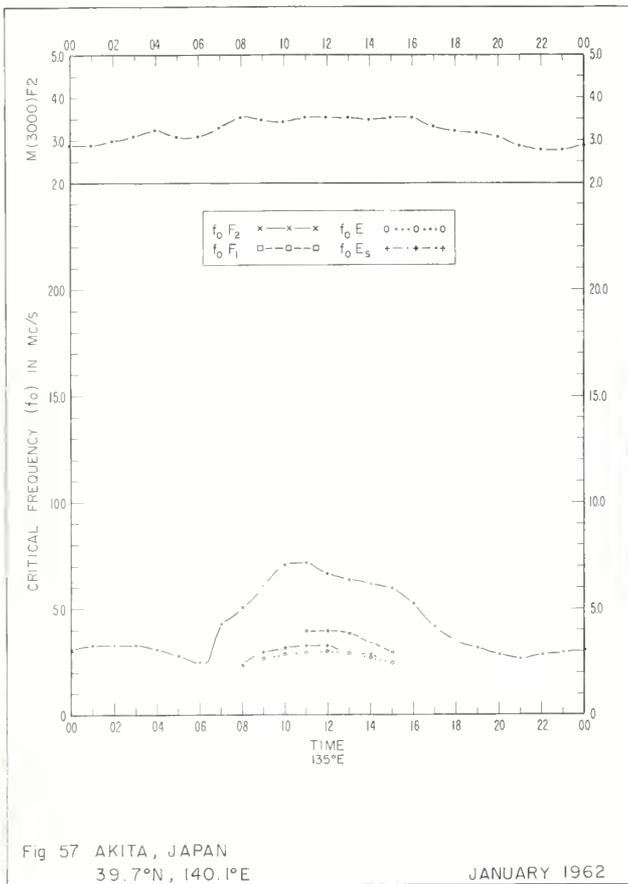
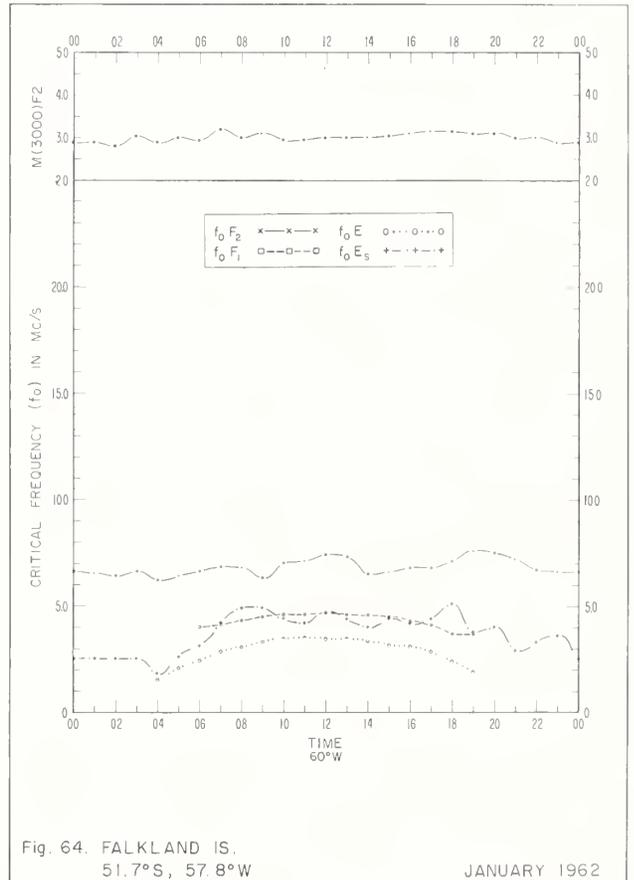
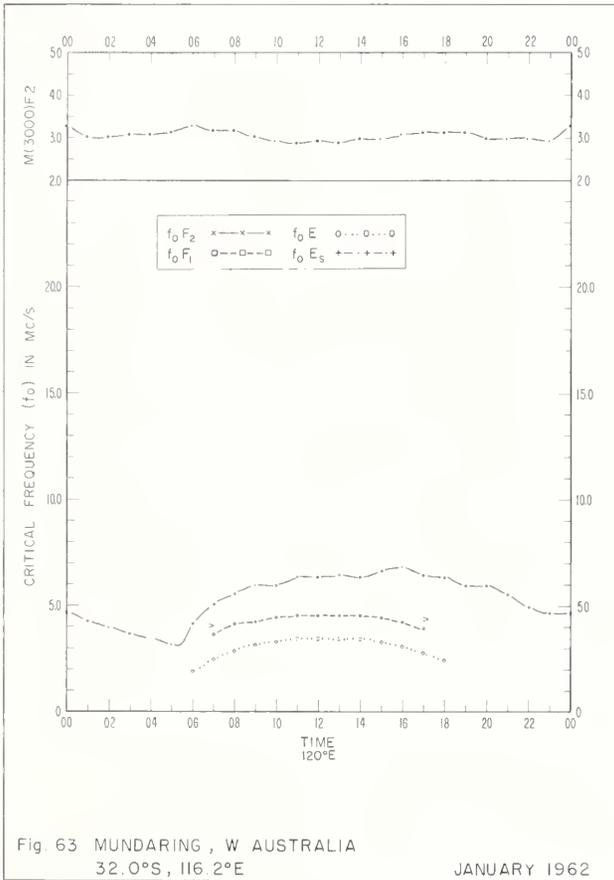
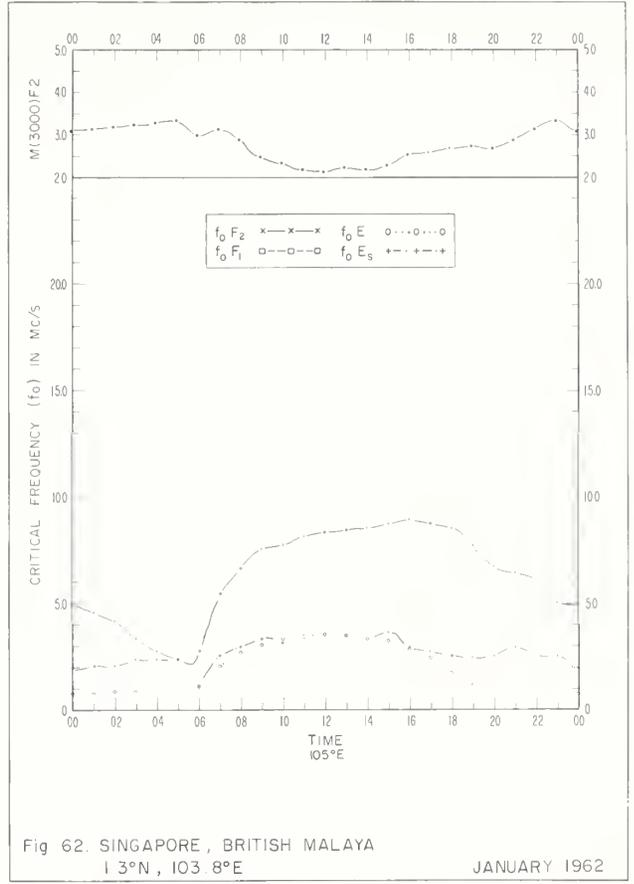
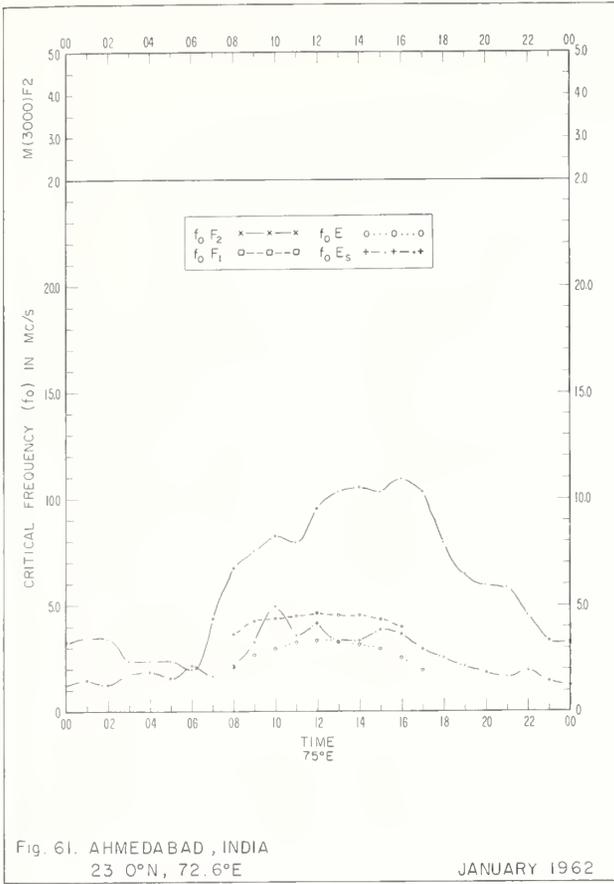
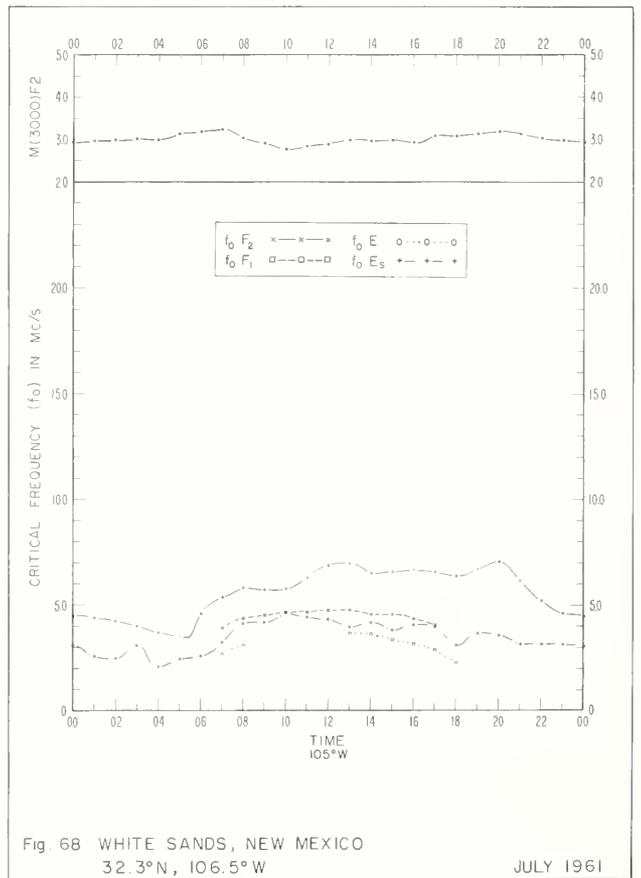
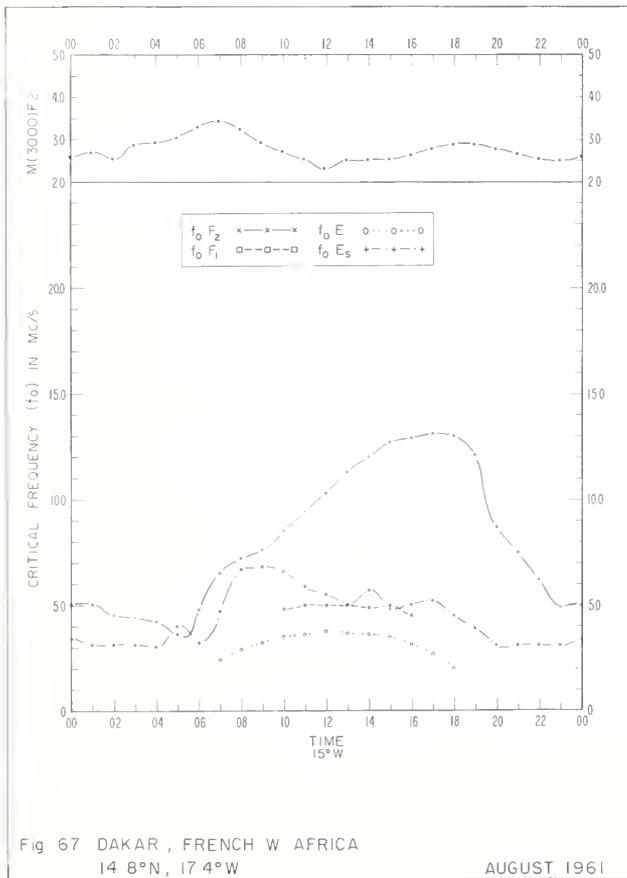
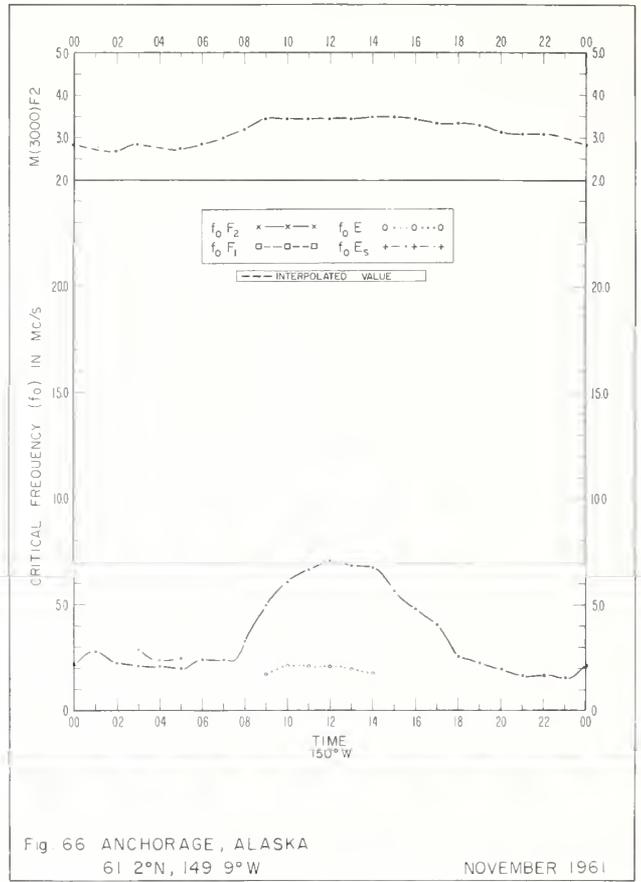
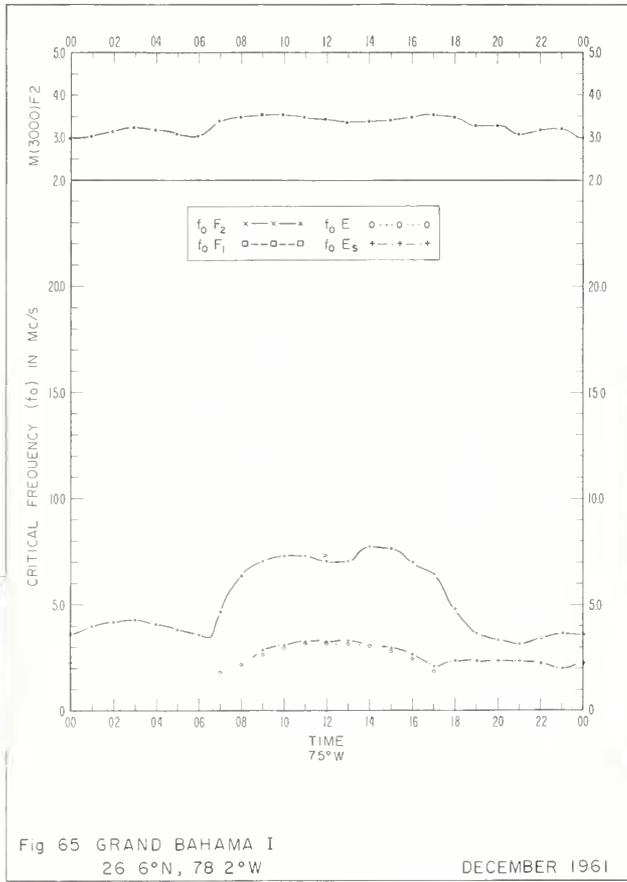
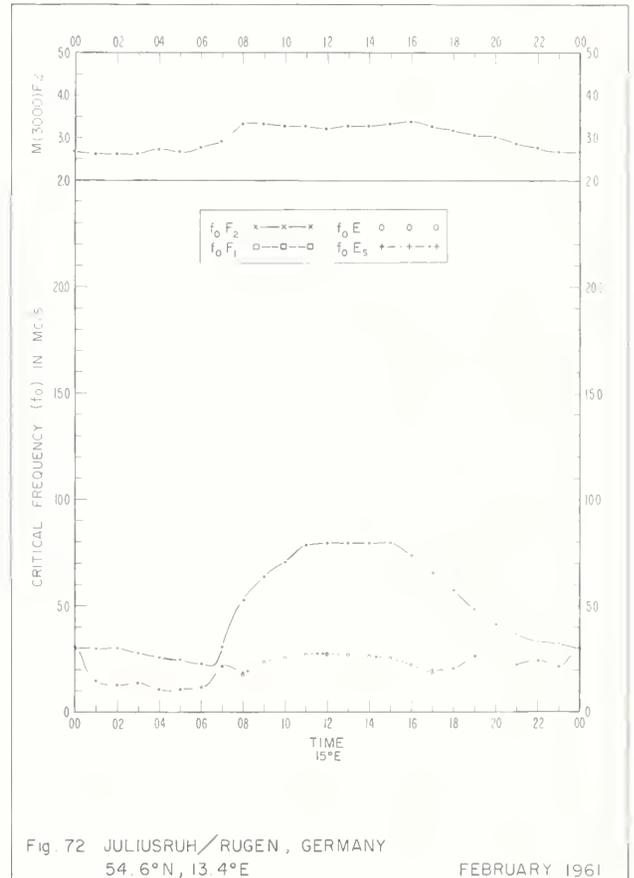
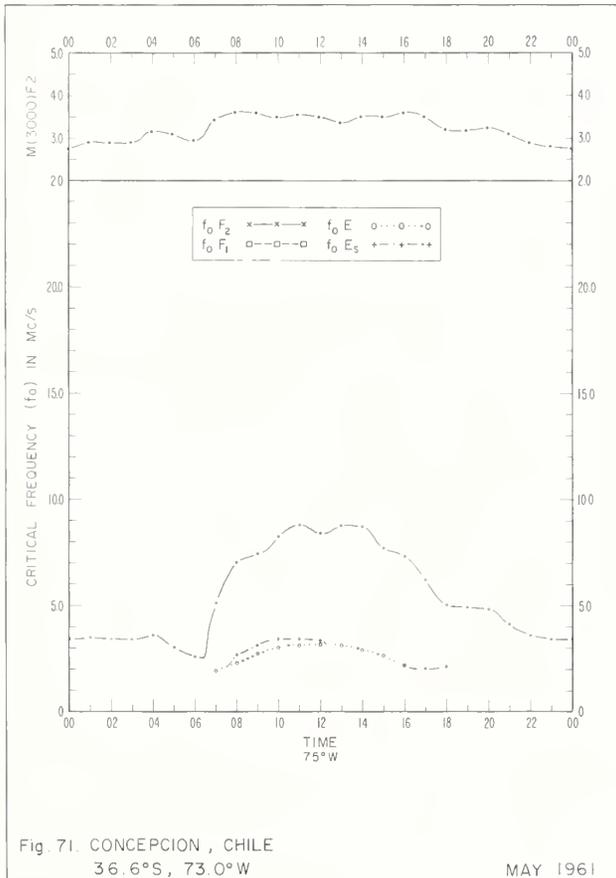
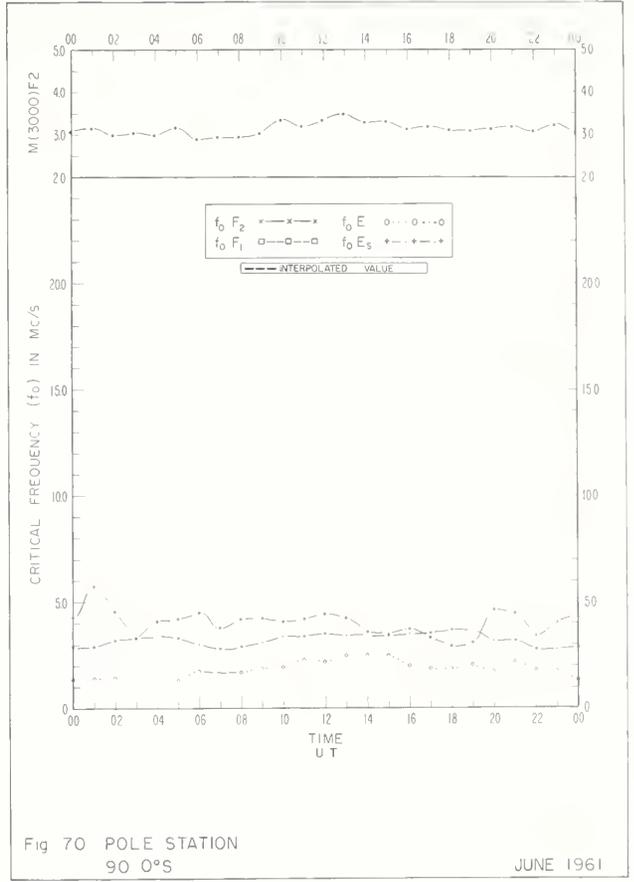
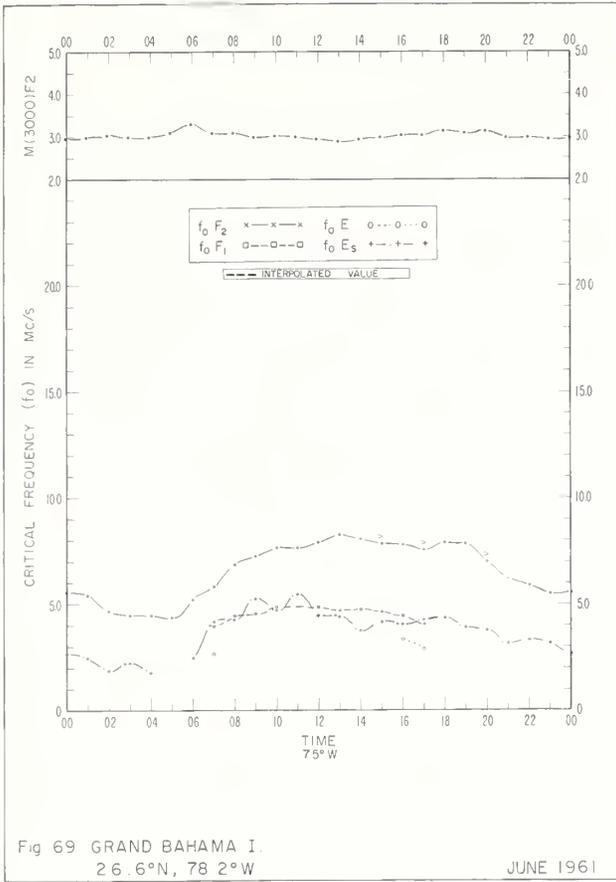


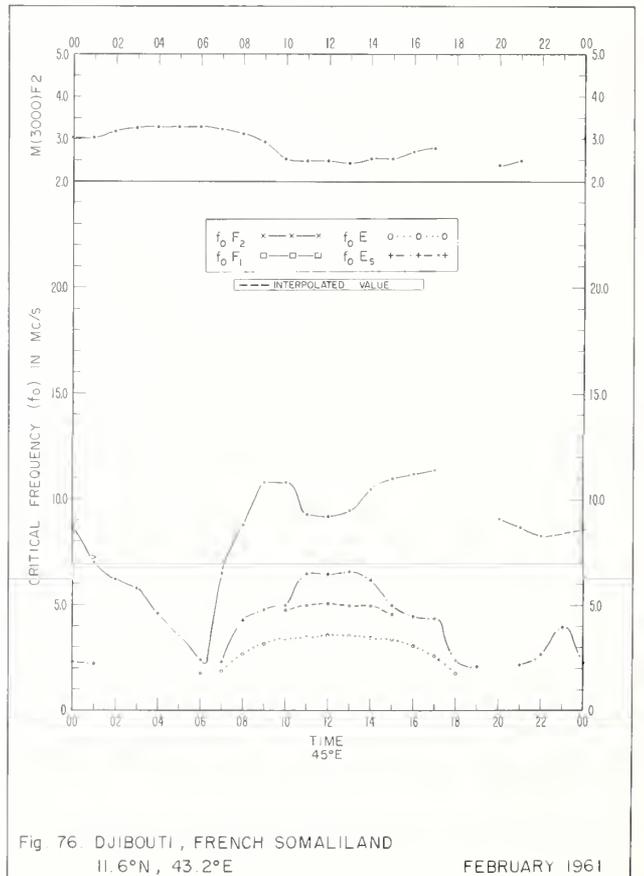
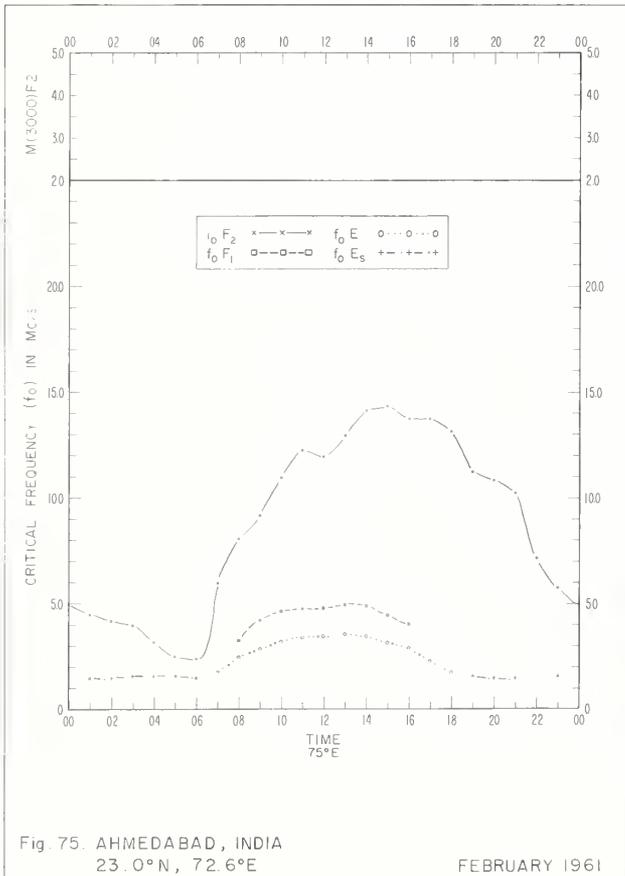
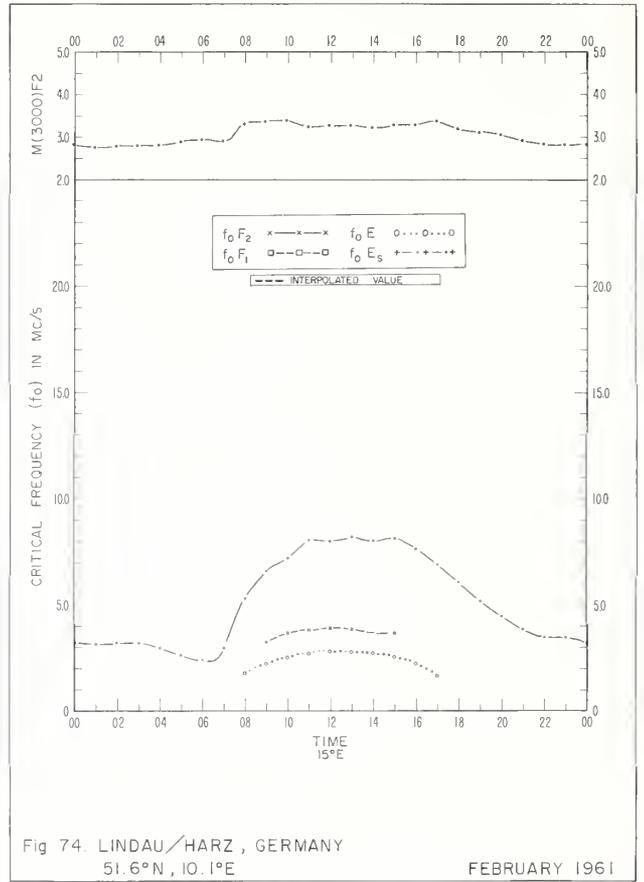
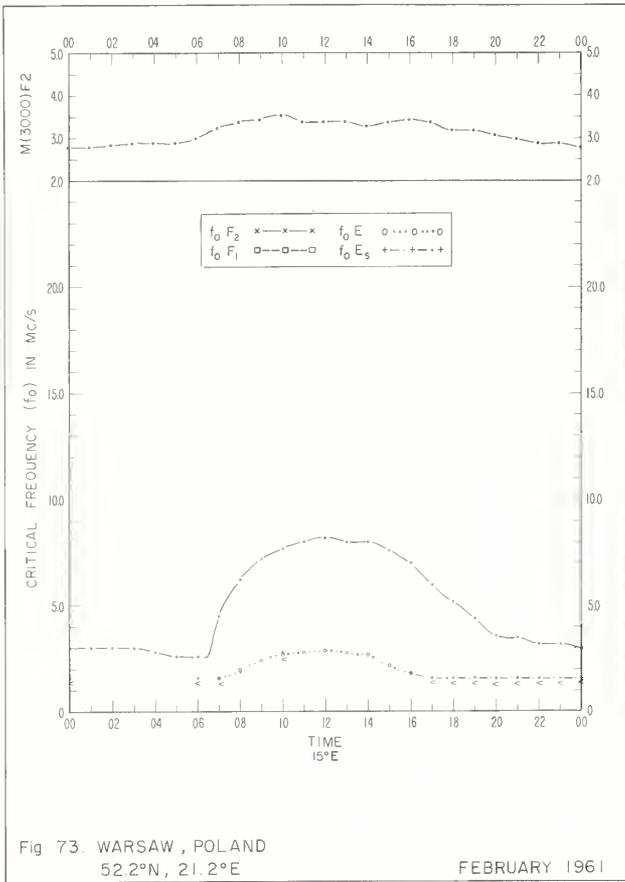
Fig. 56. ROME, ITALY
41 8°N, 12 5°E
JANUARY 1962

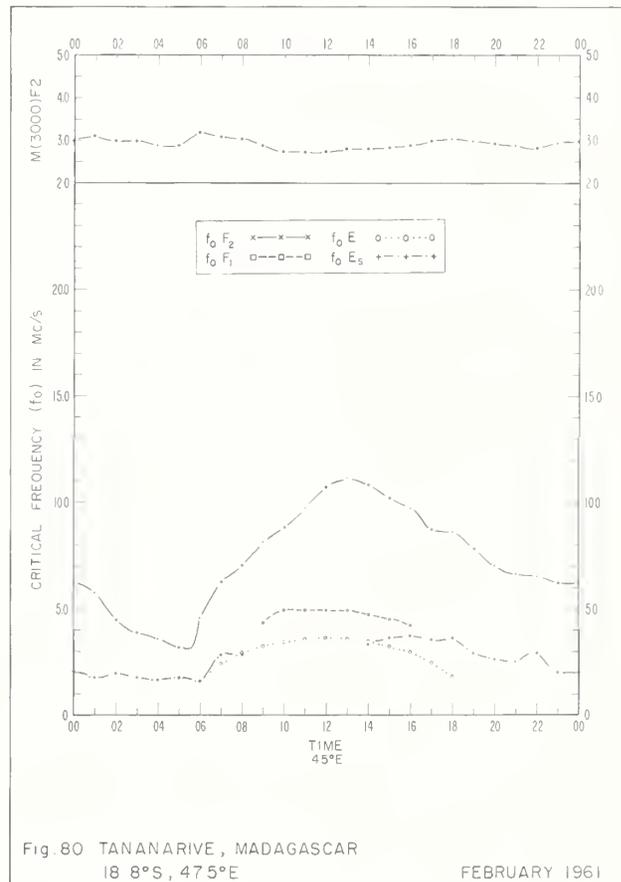
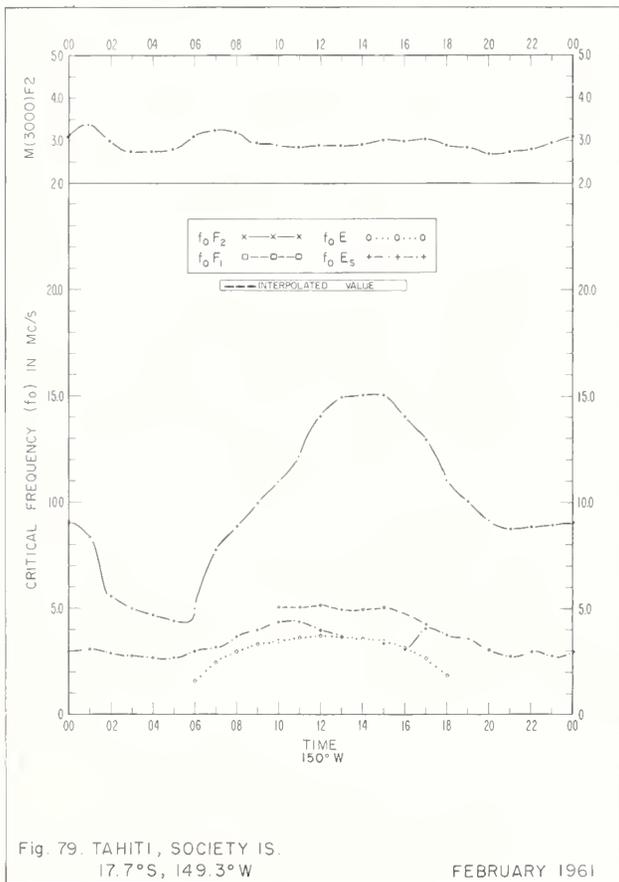
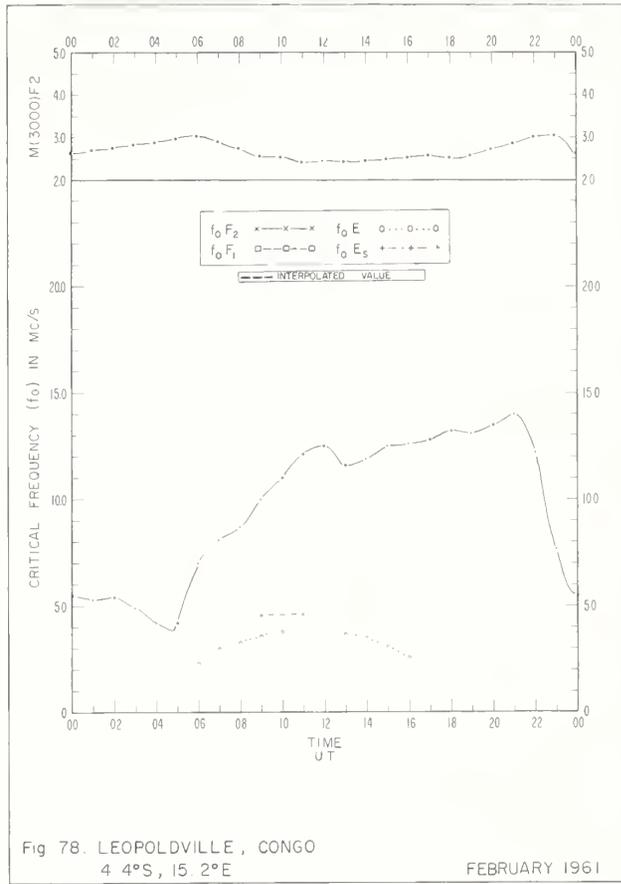
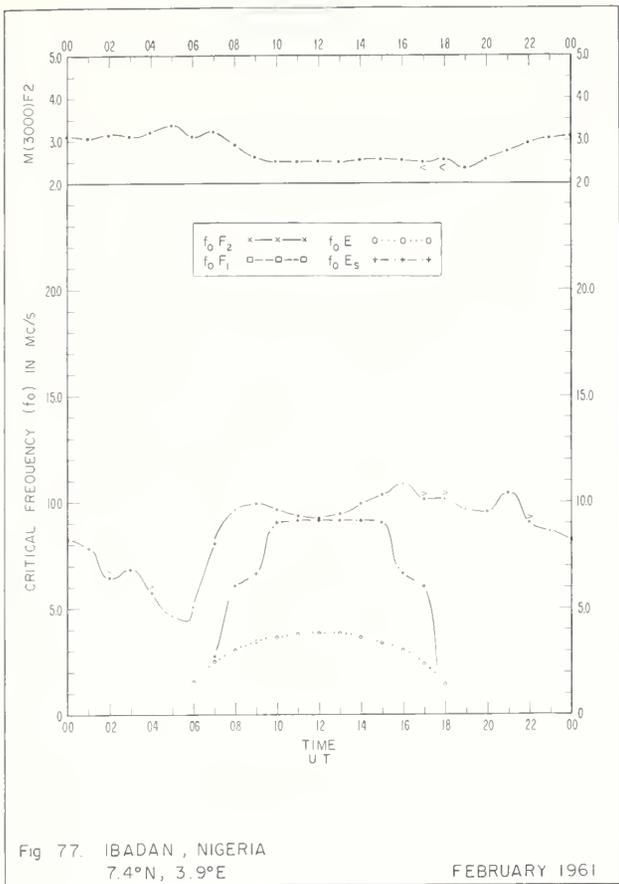


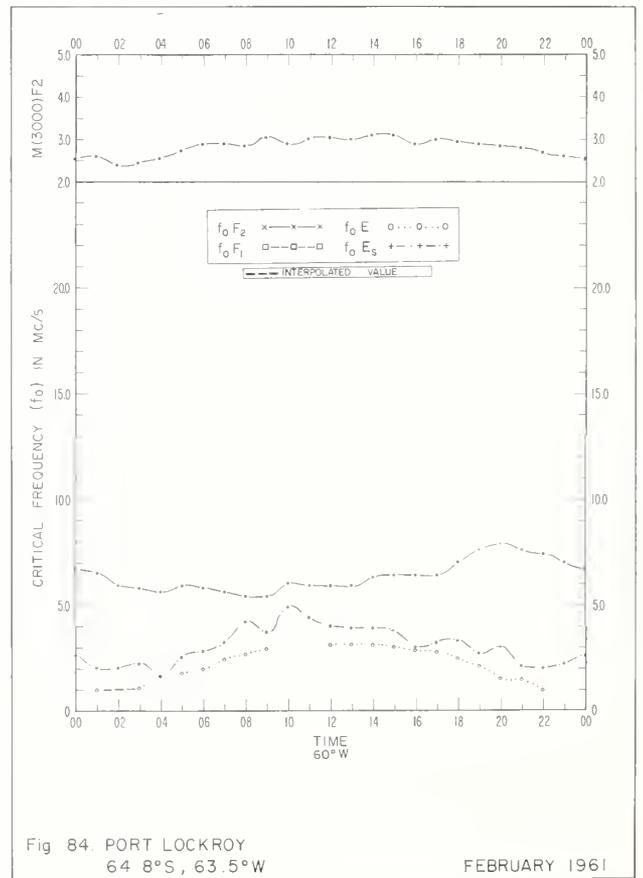
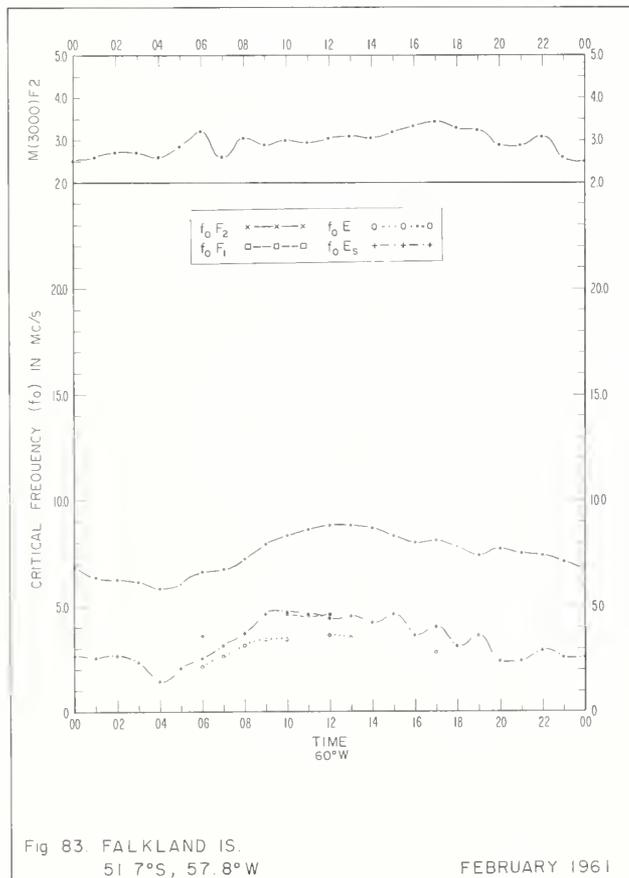
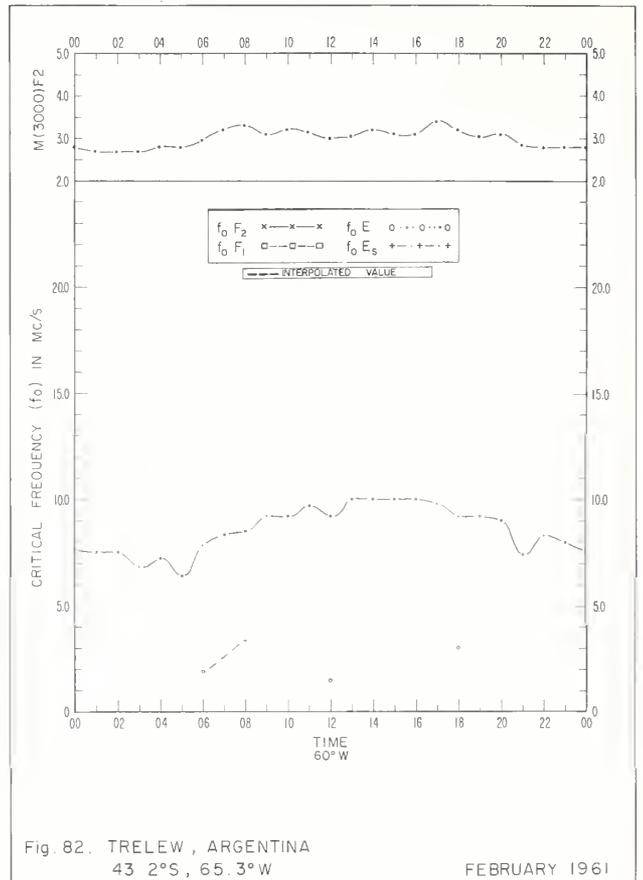
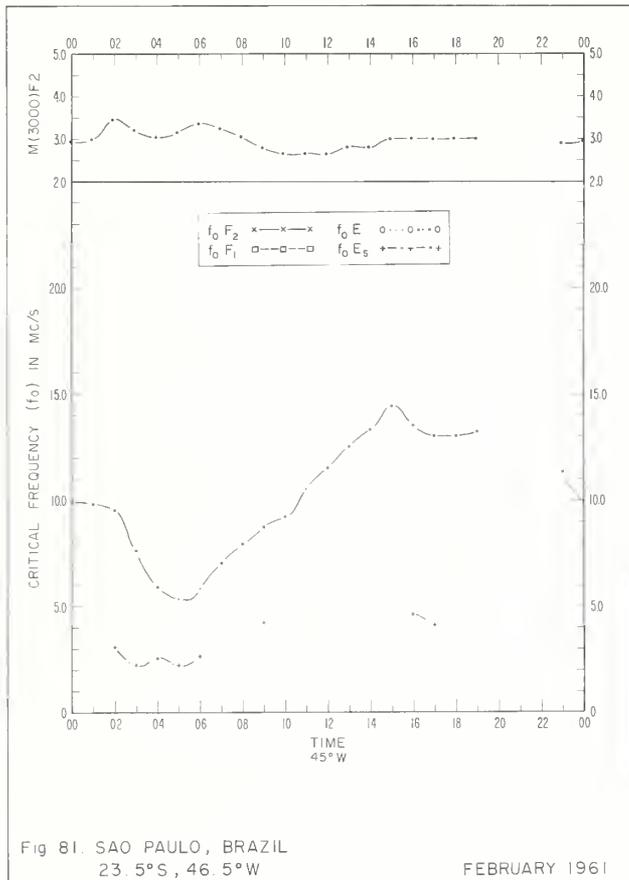


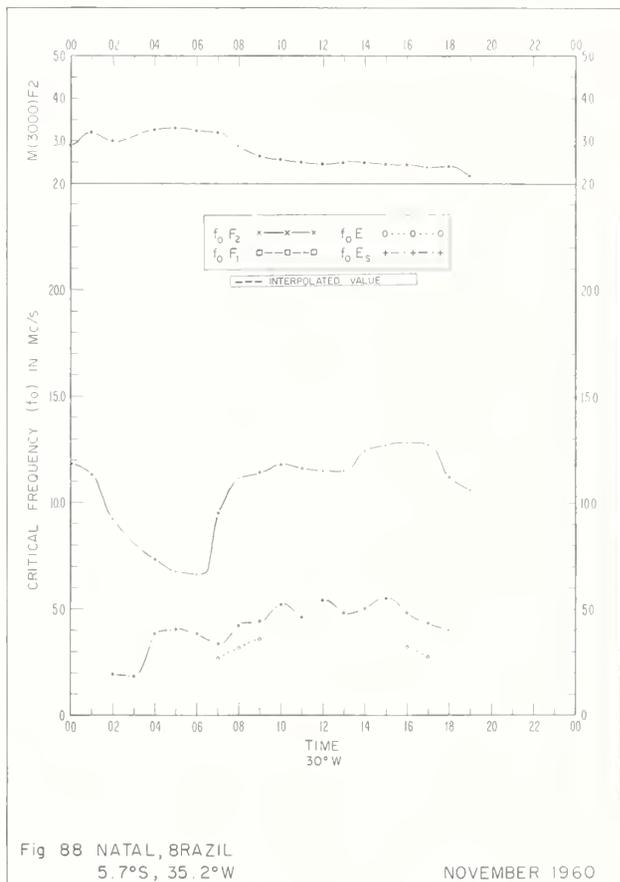
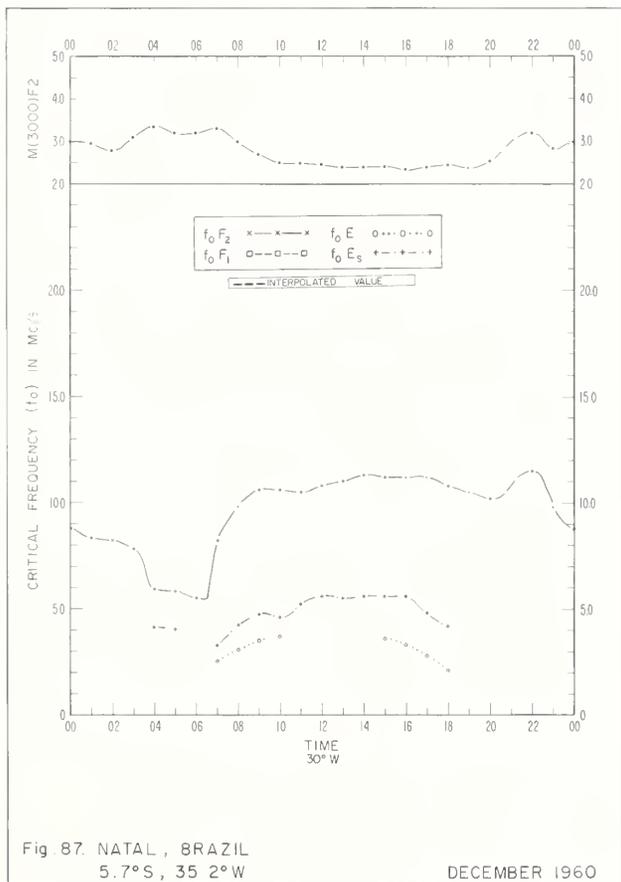
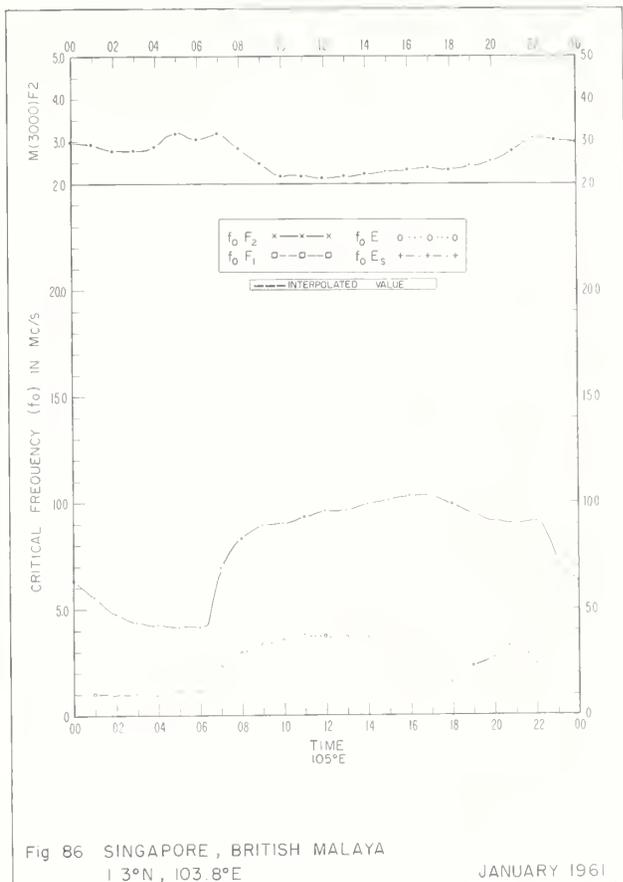
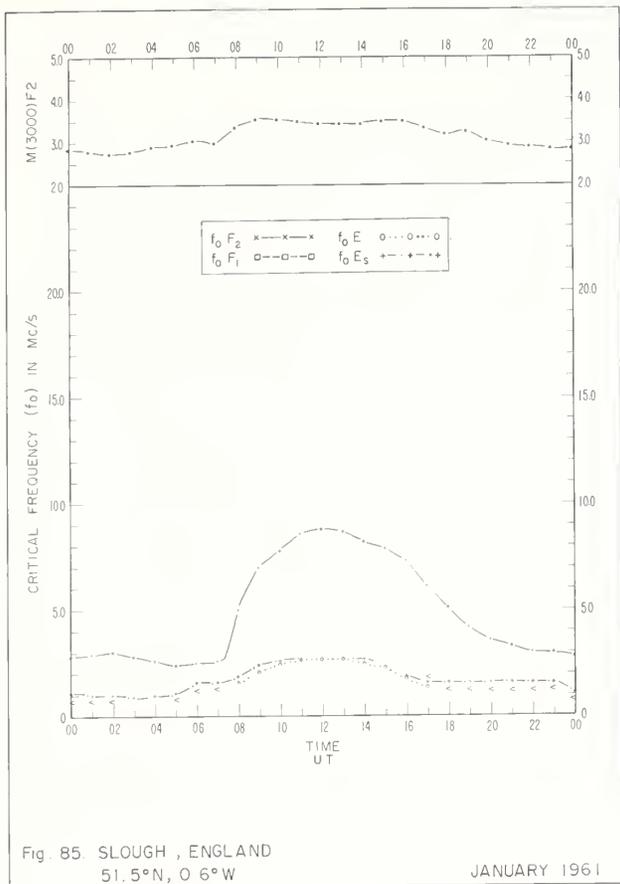


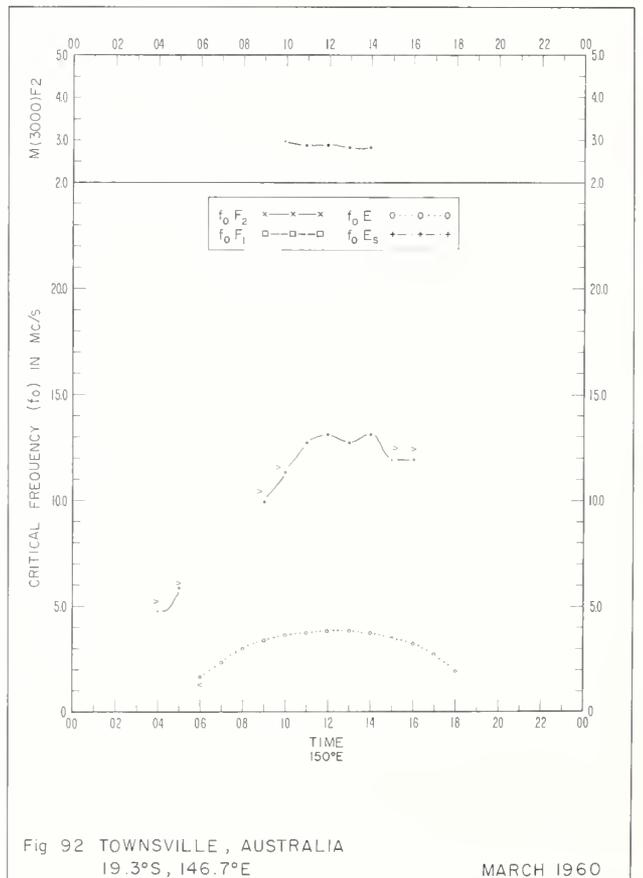
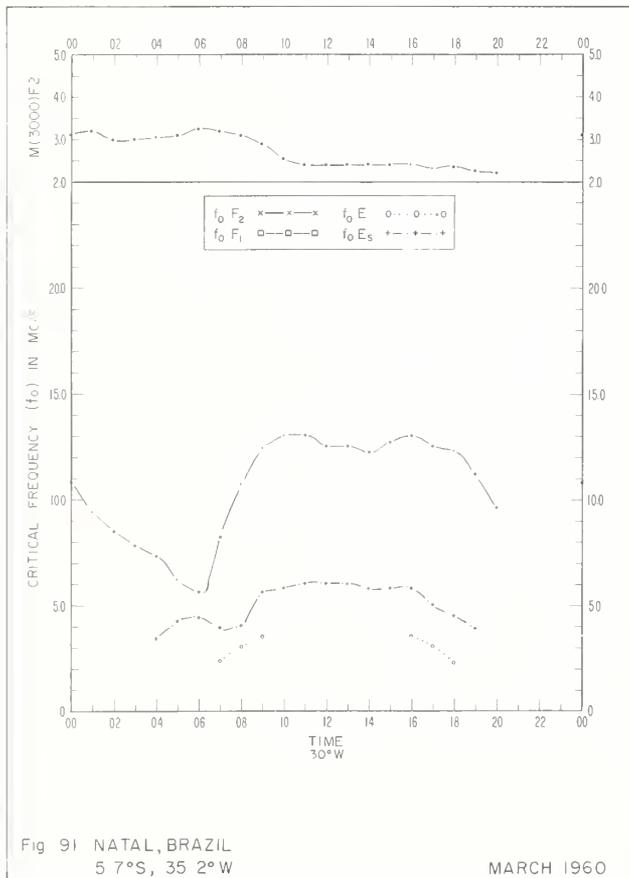
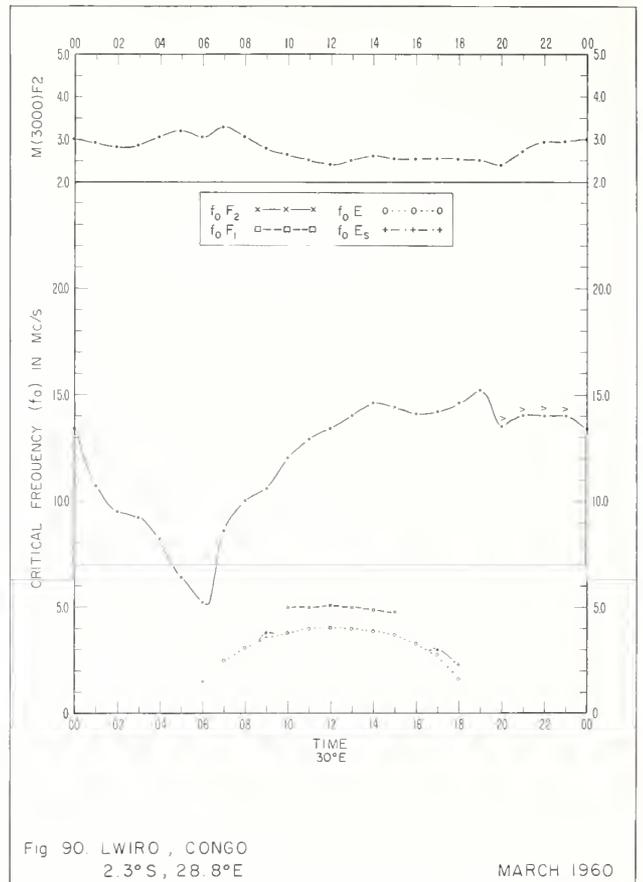
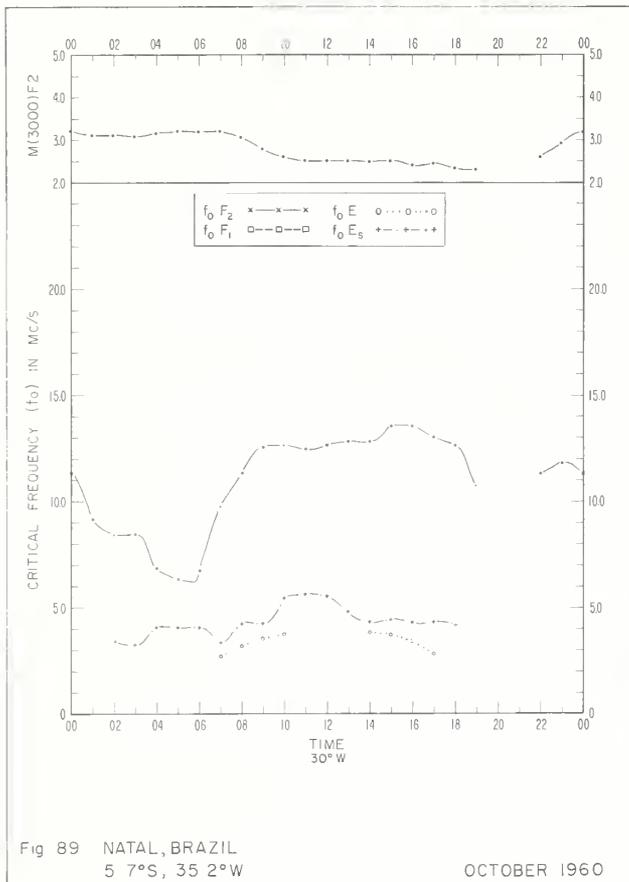


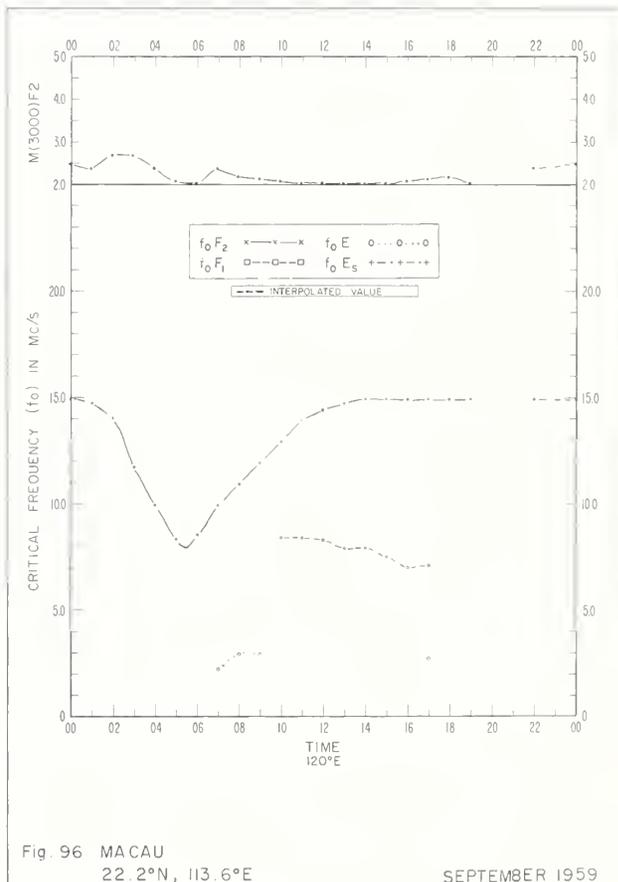
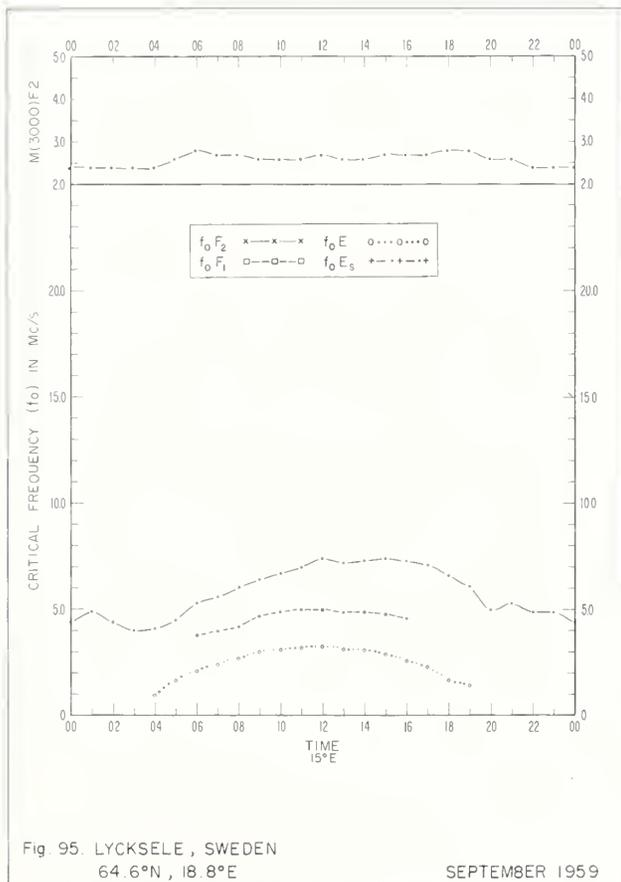
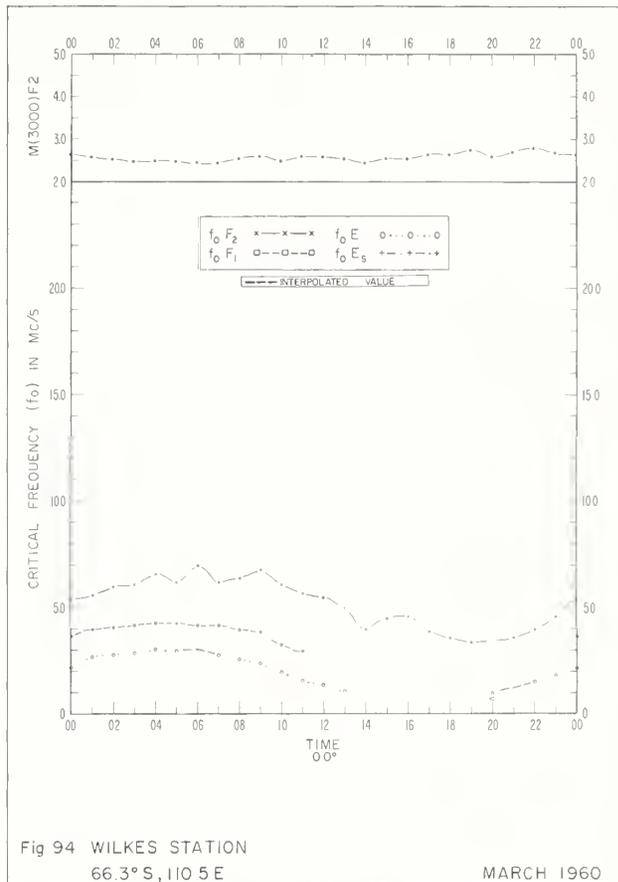
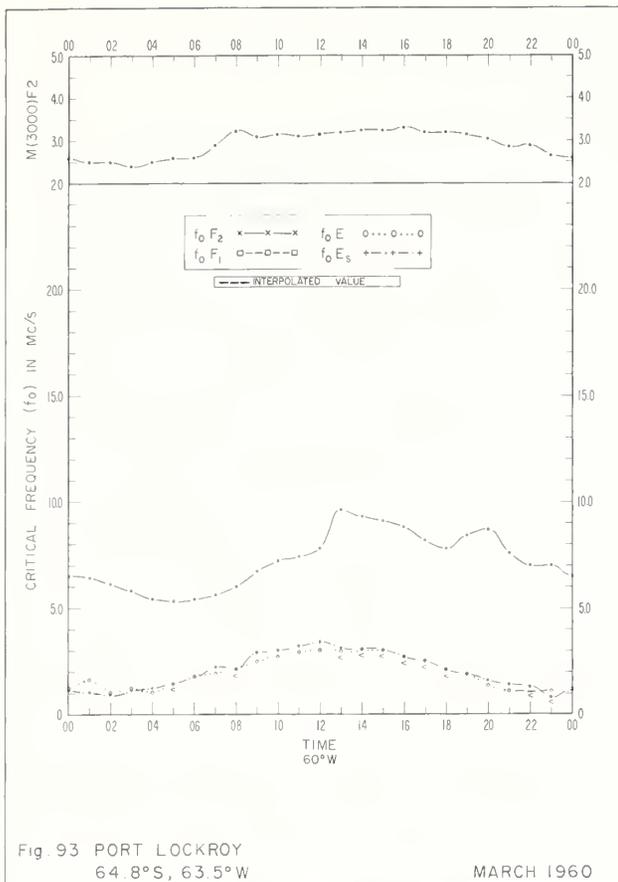












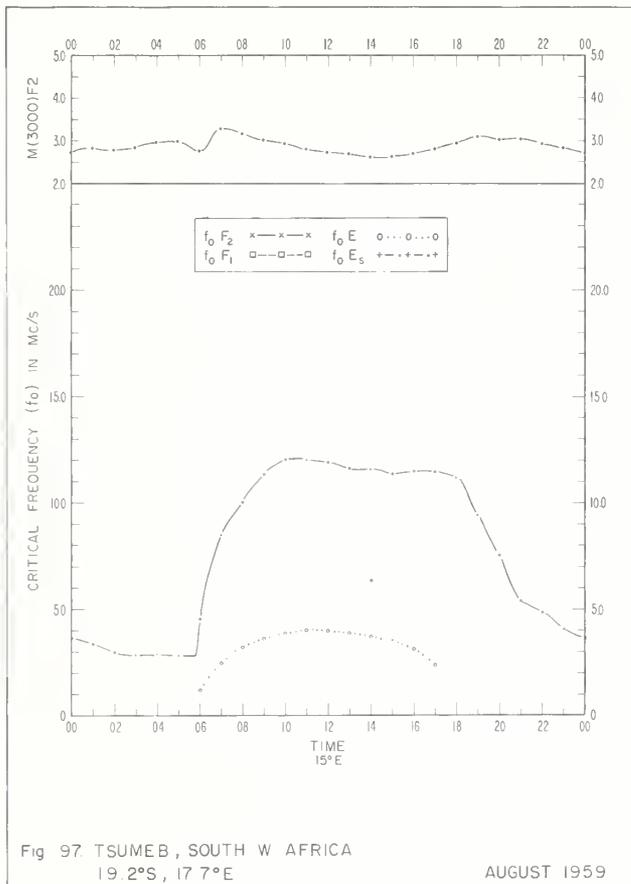


Fig 97. TSUMEB, SOUTH W AFRICA
19.2°S, 17.7°E

AUGUST 1959

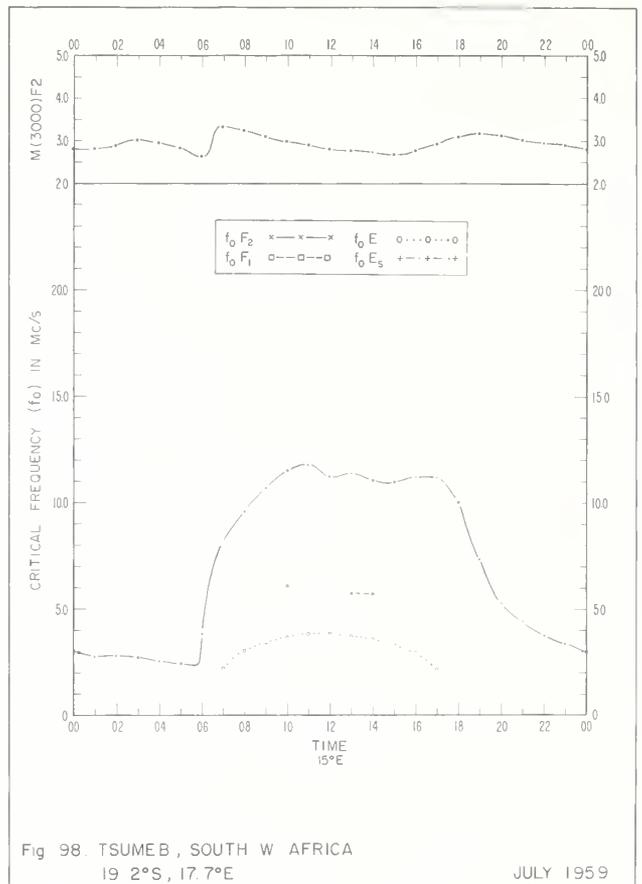


Fig 98. TSUMEB, SOUTH W AFRICA
19.2°S, 17.7°E

JULY 1959

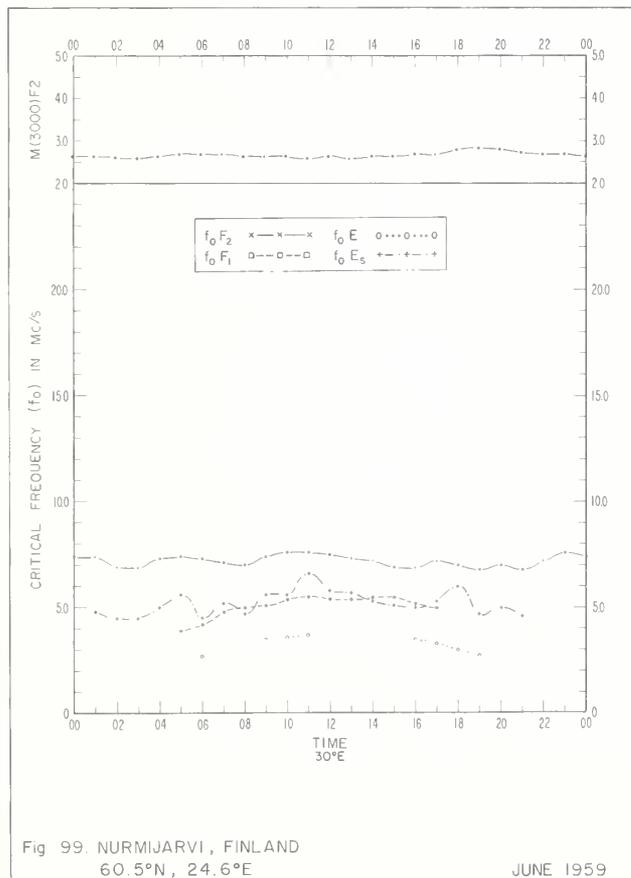


Fig 99. NURMIJARVI, FINLAND
60.5°N, 24.6°E

JUNE 1959

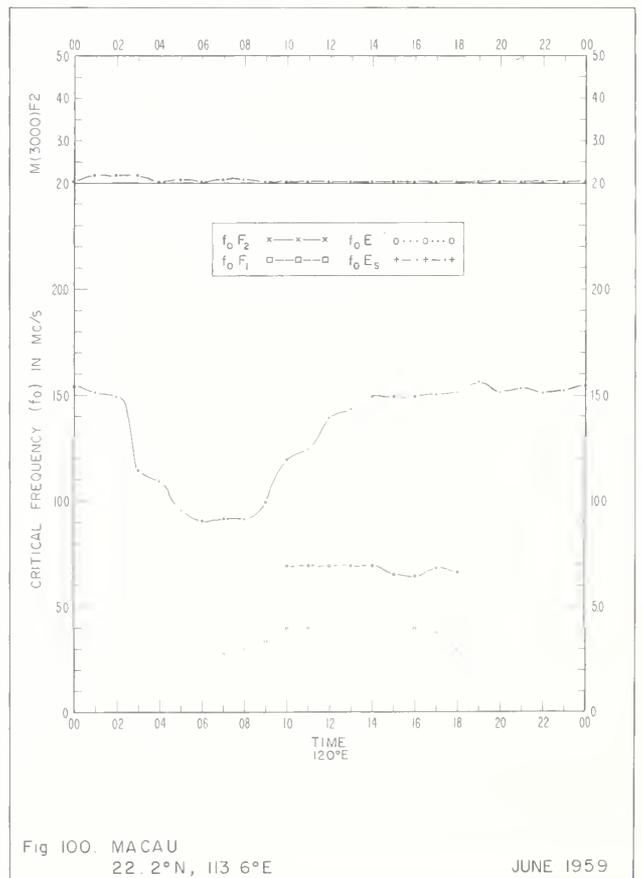


Fig 100. MACAU
22.2°N, 113.6°E

JUNE 1959

INDEX OF IONOSPHERIC DATA IN CRPL F221

			PAGE	
			TABLE	FIGURE
ADAK, ALASKA	1962	MAR.	2	27
AHMEDABAD, INDIA	1961	FEB.	19	44
	1962	JAN.	16	41
AKITA, JAPAN	1962	JAN.	15	40
	1962	FEB.	9	34
	1962	MAR.	3	28
ANCHORAGE, ALASKA	1961	NOV.	17	42
BRISBANE, AUSTRALIA	1962	FEB.	10	35
	1962	MAR.	4	29
CANBERRA, AUSTRALIA	1962	FEB.	11	36
	1962	MAR.	5	30
CHURCHILL, CANADA	1962	MAR.	2	27
CONCEPCION, CHILE	1961	MAY	18	43
DAKAR, FRENCH W. AFRICA	1961	AUG.	17	42
DJIBOUTI, FRENCH SOMALILAND	1961	FEB.	19	44
DOORBES, BELGIUM	1962	JAN.	14	39
	1962	FEB.	7	32
	1962	MAR.	2	27
FALKLAND IS.	1962	JAN.	16	41
	1962	FEB.	11	36
	1961	FEB.	21	46
FORMOSA, CHINA	1962	JAN.	15	40
	1962	FEB.	10	35
	1962	MAR.	4	29

	INDEX OF IONOSPHERIC DATA	IN	CRPL	F221	
				PAGE TABLE	FIGURE
FT. MONMOUTH, NEW JERSEY	1962	FEB.	9	34	
GRAND BAHAMA I.	1961	JUNE	18	43	
	1961	DEC.	17	42	
	1962	FEB.	10	35	
GRAZ, AUSTRIA	1962	FEB.	8	33	
	1962	MAR.	3	28	
HOBART, TASMANIA	1962	FEB.	11	36	
	1962	MAR.	5	30	
IBADAN, NIGERIA	1961	FEB.	20	45	
INVERNESS, SCOTLAND	1962	JAN.	13	38	
	1962	FEB.	7	32	
	1962	MAR.	2	27	
JULIUSRUH/RUGEN, GERMANY	1961	FEB.	18	43	
KIRUNA, SWEDEN	1962	JAN.	12	37	
	1962	FEB.	5	30	
	1962	MAR.	1	26	
LEOPOLDVILLE, CONGO	1961	FEB.	20	45	
LINDAU/HARZ, GERMANY	1961	FEB.	19	44	
LULEA, SWEDEN	1962	FEB.	6	31	
	1962	MAR.	1	26	
LWIRO, CONGO	1960	MAR.	23	48	
LYCKSELE, SWEDEN	1959	SEPT.	24	49	
	1962	JAN.	12	37	
	1962	FEB.	6	31	
	1962	MAR.	1	26	

INDEX OF IONOSPHERIC DATA IN CRPL F221

PAGE
TABLE FIGURE

MACAU	1959	JUNE	25	50
	1959	SEPT.	24	49
MUNDARING, W. AUSTRALIA	1962	JAN.	16	41
	1962	FEB.	11	36
NATAL, BRAZIL	1960	MAR.	23	48
	1960	OCT.	23	48
	1960	NOV.	22	47
	1960	DEC.	22	47
NURMIJARVI, FINLAND	1959	JUNE	25	50
	1962	JAN.	13	38
	1962	FEB.	6	31
	1962	MAR.	1	26
POLE STATION	1961	JUNE,	18	43
PORT LOCKROY	1960	MAR.	24	49
	1961	FEB.	21	46
PRUHONICE, CZECHOSLOVAKIA	1962	MAR.	3	28
ROME, ITALY	1962	JAN.	14	39
	1962	FEB.	8	33
SAO PAULO, BRAZIL	1961	FEB.	21	46
SINGAPORE, BRITISH MALAYA	1961	JAN.	22	47
	1962	JAN.	16	41
	1962	FEB.	10	35
SLOUGH, ENGLAND	1961	JAN.	22	47
	1962	JAN.	13	38
	1962	FEB.	7	32
SODANKYLA, FINLAND	1962	JAN.	12	37
	1962	FEB.	6	31

	INDEX OF IONOSPHERIC DATA IN CRPL F221		PAGE	
			TABLE	FIGURE
SOTTENS, SWITZERLAND	1962	JAN.	14	39
	1962	FEB.	8	33
TAHITI, SOCIETY IS.	1961	FEB.	20	45
TANANARIVE, MADAGASCAR	1961	FEB.	20	45
TOKYO, JAPAN	1962	JAN.	15	40
	1962	FEB.	9	34
	1962	MAR.	4	29
TOWNSVILLE, AUSTRALIA	1960	MAR.	23	48
TRELEW, ARGENTINA	1961	FEB.	21	46
TROMSO, NORWAY	1962	JAN.	12	37
	1962	FEB.	5	30
TSUMEB, SOUTH W. AFRICA	1959	JULY	25	50
	1959	AUG.	25	50
UPPSALA, SWEDEN	1962	JAN.	13	38
	1962	FEB.	7	32
WAKKANAI, JAPAN	1962	JAN.	14	39
	1962	FEB.	8	33
	1962	MAR.	3	28
WARSAW, POLAND	1961	FEB.	19	44
WHITE SANDS, NEW MEXICO	1961	JULY	17	42
WILKES STATION	1960	MAR.	24	49
YAMAGAWA, JAPAN	1962	JAN.	15	40
	1962	FEB.	9	34
	1962	MAR.	4	29

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