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IONOSPHERIC DATA IN JAPAN

FOR NOVEMBER 1955

Vol. 7 No. 11

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Prepared by

THE RADIO RESEARCH LABORATORIES

KOKUBUNJI, TOKYO, JAPAN

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KOKUBUNJI, TOKYO, JAPAN

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CONTENTS

	Page
Preface	2
Site of the Ionospheric Stations.	3
Remarks on Symbols.	3
Solar Radio Emission.	3
Ionospheric Data for Every Day and Hour at Wakkanai.	4
Ionospheric Data for Every Day and Hour at Akita	7
Ionospheric Data for Every Day and Hour at Kokubunji.	10
Ionospheric Data for Every Day and Hour at Yamagawa	22
Data on Solar Radio Emission	25

PREFACE

The origin of ionospheric sounding in Japan dates back to 1931 and the results of the work have been published in the form of the monthly "Ionospheric Data in Japan" since 1949. As a result of the reform of administrative structure of the Japanese Government effective on August 1, 1952, the observation, data coordination and publication were handed over to the charge of the Radio Research Laboratories newly set up within the Ministry of Postal Services.

The Radio Research Laboratories consists of three Divisions, i. e., First, Second and Administrative Divisions, located in Tokyo and five local radio wave observatories established at Wakkanai, Akita, Hiraiso, Inubo and Yamagawa, respectively.

The First Division has the following three sections:

Ionospheric Propagation Section which shall carry on researches on ionosphere and wave propagation;

Tropospheric Propagation Section which shall carry on researches on troposphere and wave propagation; and

Data Coordination Section which shall conduct the collection and arrangement of observational results, supply of operational data relating to radio propagation, preparation of radio propagation forecasts and radio disturbance warnings broadcast of URSIGRAM and physical basic studies of wave propagation in general.

The Second Division has the following two sections:

Frequency Standard Section which shall carry on researches on the frequency standard and broadcast the standard frequencies and time signals (J. J. Y.); and

Apparatus Section which shall carry on researches on radio apparatus used for radio regulatory purpose and conduct the approval service of types of radio equipments.

The Administrative Division shall conduct the general affairs of the Laboratories.

The ionospheric sounding is, as heretofore, being carried out by the four observatories at Wakkanai, Akita, Kokubunji (Tokyo) and Yamagawa.

This report provides the results of ionospheric sounding with symbols determined and in the form established on an international basis in the same way as followed by the former Radio Regulatory Commission and it is hoped that it will make any contribution toward the progress in world-wide short wave communications.

This report is intended for distribution on request to the largest possible number of organizations concerned all over the world, and any and every information that the organizations concerned might forward to us in exchange therefor would be highly appreciated.

Shogo Amari
Chief, Radio Research Laboratories,
Ministry of Postal Services

Aug, 1952

SITES OF THE IONOSPHERIC STATIONS

Ionospheric observation is carried out at the following four stations in Japan.

	Latitude	Longitude	Site
Wakkanai	45° 23.6' N.	141° 41.1' E.	Wakkanai-shi, Hokkaido
Akita	39° 43.5' N.	140° 03.2' E.	Tegata Nishishin-machi, Akita-shi, Akita-ken
Kokubunji	35° 42.4' N.	139° 29.3' E.	Koganei-machi, Kitatama-gun, Tokyo-to
Yamagawa	31° 12.5' N.	130° 37.7' E.	Yamagawa-machi, Ibusuki-gun, Kagoshima-ken

REMARKS ON SYMBOLS

All symbols in the table are used in accordance with "Production and Reduction of Ionospheric Data Standards. Symbols and Conventions (Recommendation No. 6 of Stockholm) at VIth Plenary Assembly C. C. I. R. Geneva, 1951" except f_{\min} E and f_{\min} F for E and F regions respectively instead of f_{\min} , taken as f_{\min} s in the above Resolution, in order to avoid the interruption of preceding form of data.

SOLAR RADIO EMISSION

Data on solar radio emission observed at Hiraiso Radio Wave Observatory has appeared from Vol. 6 No. 8 (F-68).

The location of the Observatory is as follows:

	Latitude	Longitude	Site
Hiraiso	36° 22.0' N.	140° 37.5' E.	Hiraiso-machi, Nakaminato-shi, Ibaragi-ken

Lat. 45° 28.6' N
Long. 141° 41.1' E

Wakkanai

IONOSPHERIC DATA

135° E Mean Time

foF2

Nov. 1955

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	4.7	4.5	4.5 F	5.0 F	5.0 F	4.3	4.0	4.8	(8.8) F	10.3 F	11.3	10.4	10.0	10.5	10.3 F	10.4	9.4 F	(7.8) F	5.8	4.5	3.4	4.3 F	4.5 F	4.5 F	
2	5 F	3.9	4.0	4.5 F	4.5 F	4.8	(4.5) F	4.8	9.0	8.7 F	10.4	10.4	10.1	11.0 F	9.9 F	9.2	7.3 F	5.8 F	(5.0) F	4.7	4.3 F	4.3 F	4.0	4.2	
3	(4.0) F	3.9	4.0	4.3 F	4.5 F	4.1 F	4.5 F	4.1	(8.8) F	9.1	10.4	11.2	11.0	9.3	8.5	8.4 F	8.7	6.0	4.3	3.5	3.6	3.6 F	3.7	3.8	
4	3.7	3.8	3.8 F	3.8 F	4.0	(4.0) F	6.6	(8.3) F	(8.3) F	9.4	11.3	11.3	9.9	9.0	8.5	10.3 F	8.3 F	(7.6) F	4.8 F	4.3	3.8 F	3.6 F	3.5 F	3.5 F	
5	3.9	3.9	3.7	3.6	3.7 F	4.7	7.4 F	4.8 F	4.8 F	9.3 F	10.8 F	10.8 F	10.0	9.5	9.3 F	9.0	7.5	5.6 F	4.9	3.9	(4.0) F	4.1	3.9 F	3.8 F	
6	3.8	4.0	4.0	3.7	3.8	3.6	4.5	6.6	8.6	9.9 F	12.0	11.7	10.3	8.6	(9.0) F	9.3	7.3	4.1	4.3	3.4	(3.6) F	3.7	3.5	3.7 F	
7	3.6	(3.7) F	3.8	3.9	4.0	4.1	3.8	6.6	7.0	7.6 F	9.9 F	10.6 F	1.0	C	C	8.3 F	S	C	4.2	3.8 F	3.2	3.6	(3.6) F	(3.6) F	
8	3.6 F	3.9	3.8 F	3.8	(4.0) F	4.1	4.0	(7.8) F	(7.9) F	7.1 F	11.1	11.4	9.8	8.6	8.8	8.3 F	9.0	4.9 F	4.1	3.7	3.3	3.1 F	(3.4) F	3.7 F	
9	3.7	3.6	3.5 F	3.6	3.6	3.9	4.0	7.1	7.4 F	8.5	10.2	(12.0) F	11.5	(11.0) F	8.5	8.7	8.0 F	(6.4) F	4.8	4.6	3.8 F	3.6	A	C	
10	C	C	3.8	3.6	3.7	4.0	4.1	6.5	7.8	7.9 F	10.1	10.2	11.0	9.6	(9.3) F	(8.3) F	7.3	5.3	4.6	3.8	3.6	3.4	3.3	3.7	
11	3.6	3.6	3.7	3.6	3.7	3.8	(7.3) F	7.3	(8.8) F	8.5	9.0	9.3	10.0	9.8	8.6	8.3 F	7.0	5.0	4.7	3.8	3.6	3.4	(3.4) F	3.5	
12	3.5	3.6	(3.8) F	3.9	4.2	4.1	3.5	(7.3) F	7.5	8.0	9.3	9.6	10.8	8.5	7.1 F	8.2 F	6.8	4.4	4.4	3.2	3.4	3.4	3.6	4.0	
13	3.5	3.6	3.3	3.2	3.0	2.9	3.7	6.8 F	C	C	C	C	C	C	C	C	C	7.3 F	5.2	3.6 F	2.5 F	2.6	4.2 F	4.2 F	
14	(4.4) F	(4.5) F	(4.3) F	F	F	F	F	6.5	7.5	8.0	9.3	9.6	10.8	8.5	7.1 F	8.2 F	6.8	4.3	3.8 F	4.2	3.4	(3.5) F	3.8 F	3.7 F	
15	4.2 F	4.2 F	3.3 F	(4.5) F	(4.5) F	4.7 F	4.0 F	6.2	7.9 F	8.2	8.3 F	9.5	(9.2) F	8.8 F	(8.0) F	7.3 F	7.8 F	5.5	4.6	4.3 F	4.0 F	3.8 F	(3.8) F	3.9 F	
16	4.0 F	4.0	4.0 F	3.7	3.7	3.7	(5.5) F	7.3 F	8.8 F	10.3 F	10.0	C	C	C	C	9.8 F	7.2	(6.0) F	4.1	C	C	C	C	C	
17	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	9.8	8.8 F	5.5	5.2	A	A	3.3	3.2 F	3.5 F	
18	3.5 F	3.5 F	3.7 F	3.9	3.8	3.9 F	4.0	6.0	8.3 F	9.0	9.5	(9.4) F	9.3 F	9.3	8.5	7.5	7.8 F	6.2	4.8	3.2	2.7	2.8	2.9	3.0	
19	3.1	3.2	3.4	2.5 F	2.2 F	2.2 F	3.0 F	7.0	6.6	7.8	11.7	11.3	11.5	(11.1) F	10.7	9.9 F	8.0	(5.8) F	F	F	F	(4.9) F	(5.0) F	(5.3) F	
20	(4.5) F	F	F	(3.0) F	3.0	2.4	2.6	4.2	6.4	(7.2) F	7.9	7.7	(7.1) F	6.5	7.8	6.3	5.5	5.0 F	4.2	3.3 F	4.3	4.2	(4.5) F	3.4	
21	(3.3) F	3.2	(3.0) F	2.9	3.3	3.0	(4.5) F	6.2	7.6 F	9.8 F	12.1 F	9.6	8.7	8.5 F	7.1	7.1	6.6	5.2	4.2	3.4	3.1	A	A	F	
22	F	F	F	F	F	F	(4.3) F	7.1 F	7.1 F	6.8 F	9.0	9.5 F	9.5	9.3	(8.5) F	8.0	6.3	4.3	4.2	3.5 F	3.3	2.7	3.1	3.1 F	
23	3.3 F	3.5 F	3.5 F	3.6 F	3.3 F	3.2 F	3.4 F	C	C	(9.1) F	(8.7) F	8.3 F	8.5 F	7.8	7.0	7.1 F	5.5	5.0	3.5	3.5 F	3.2	2.5	2.7	2.8 F	
24	(3.0) F	3.2	3.2	3.3	3.4	3.5	3.0	6.0	7.1 F	8.0	(8.1) F	8.2	7.6	(7.4) F	7.3	7.7	5.7	4.5	4.2	3.6	3.3	3.1	3.2	3.3	
25	3.4	3.5	3.4	3.5	3.5	3.7	3.8 F	5.8	6.8 F	7.8	8.3	8.8 F	8.3 F	8.1	7.6	7.8 F	5.7	4.3	3.3	(3.2) F	3.0	(2.9) F	2.8 F	3.1	
26	3.2	(3.2) F	3.3	3.3	3.4	3.4	3.8	6.0	6.8 F	(7.5) F	8.3	10.0	8.8 F	8.6	8.1	7.3	C	C	C	C	C	C	C	C	
27	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
28	3.2	3.4	3.4 F	(3.5) F	3.6	3.5	3.5	6.0	7.5	(8.0) F	8.8 F	9.0 F	B	C	C	C	5.6	4.6	3.2	2.6	2.8	2.8	2.8 F	3.1	
29	3.3	(3.2) F	3.0	2.9	(2.9) F	2.9	3.5	6.2	8.5 F	8.8 F	9.8 F	9.8 F	(8.8) F	8.2	8.2	8.2	6.3	5.0	3.8 F	3.3	3.0	2.7	2.8	3.0	
30	3.3 F	(3.3) F	3.3 F	3.3 F	3.3	3.4	3.5	6.0 F	(7.6) F	7.9 F	(8.1) F	8.3 F	8.2	(8.0) F	7.8 F	7.0	5.8	4.7	4.0	3.0	2.6	2.7	3.0 F	3.1	
31																									
Mean Value	3.7	3.7	3.6	3.6	3.6	3.6	3.9	6.6	7.9	8.5	9.5	10.0	9.6	8.9	8.7	8.3	7.2	5.5	4.4	3.7	3.4	3.4	3.4	3.6	
Median Value	3.6	3.6	3.7	3.6	3.7	3.7	3.8	6.6	7.8	8.5	9.3	9.9	9.6	8.8	8.5	8.3	7.2	5.3	4.2	3.6	3.4	3.4	3.4	3.5	
Count	2.5	2.4	2.5	2.5	2.5	2.6	2.7	2.7	2.6	2.7	2.7	2.6	2.5	2.4	2.5	2.7	2.6	2.7	2.7	2.5	2.6	2.7	2.6	2.5	

foF2

Nov. 1955

Group: 1.1 Mc to 2.2 Mc in _____ min

Manual

Automatic

W 1

The Radio Research Laboratories
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Lat. 45° 2.8' N
Long. 141° 41.1' E

Wakkanai

Nov. 1955

RF2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	280	340	400	330 ^F	280	250	260	240	250	250	230	240	260	260 ^A	260	250	240	250	250	250	250	310	330	330	320 ^F
2	(310) ^F	<340 ^C	290	260	300	280	<340 ^C	240	220	230	260	250	240	250	250	230	220	230	260	<300 ^C	260	300	300	300	320
3	330	320	320	310	270	220	260	240 ^L	240	230	260	260	250	240	250	240	230	220	240	240	310	310	210	310	320
4	310	340	320	310	280	260	250	(240) ^C	230	230	260	250	240	(250) ^C	(250) ^C	250	230	230	240	250	300	(360) ^F	350	310	
5	300	270	270	310	340	260	240	(240) ^C	250	220	250	(240) ^C	230	240	240	240	230	250	230	230	290	300	300	350	340
6	300	290	270	310	310	270	270	220	230	240	260	240	240	240	260	240	220	220	220	230	(270) ^C	290	290	300	
7	310	(3200) ^C	290	300	280	230	230	220	220	220	240	250 ^L	220	250	250	250	220	(240) ^C	260	(270) ^C	260	300	(310) ^F	320	
8	(320) ^F	310	300	310	270	230	<360 ^C	220	220	220	260	260	250	240	240	230	220	210	290	260	260	350	(340) ^F	330	
9	290	310	340	340	320	250	250	220	230	240	260	260	250	250	230	230	220	250	240	240	260	290	290	A	C
10	A	310	290	310	310	260	260	220	220	250 ^L	240	240 ^L	260	240	240	230	220	250	250	250	260	290	290	320	330
11	310	310	300	300	310	250	250	230	220	240	240	240	<260 ^C	240	240	230	220	220	230	230	280	310	(320) ^C	330	
12	340	340	(340) ^C	330	270	230	220	230	230	240	240	250 ^L	230	250	250	230	210	210	<250 ^C	290	290	310	(320) ^C	330	270
13	280	280	260	310	340	330	260	220	220	230	240	240	240	240	240	240	220	240	220	240	250	290	290	330 ^F	330 ^F
14	300 ^F	290 ^F	270	300 ^F	270 ^F	240	250	220	220	230	240	244	250	240	240	230	220	220	240	220	240	250	290	300	310
15	310	330	310	260	260	240	230	220	230	220	220	230	260	250	230	240	220	230	250	250	250	290	290	300	310
16	310	310	270	300	310	320	(280) ^C	240	260	260	230	C	C	C	C	230	230	220	260	260	260	300	300	350 ^F	
17	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	250	250	220	260	C	C	C	C	C	
18	290 ^F	360 ^F	310	280	250	220	270	220	230	220	230	(240) ^C	250 ^L	250	240	230	230	340 ^A	(250) ^A	A	A	360	310	340 ^F	
19	350	320	280	220	400	340	300 ^H	230	220	250	260	250	260	240	240	230	220	220	230	280	310	300	350	370	
20	350	450 ^F	420 ^F	450	320	320	(340) ^A	350 ^A	330	(320) ^A	310	270	260	260	260	<350 ^C	220	240	260	290	350 ^F	320	360	250	
21	(340) ^A	370	(380) ^A	400	(380) ^A	350	310	220	260	230	250	250	230	250	240	220	240	260	260	310	300	390	300 ^F	<320 ^C	
22	310 ^F	290 ^F	310 ^F	320 ^F	310	260	260	230	280 ^L	220	250	220	260	240	240	220	230	220	260	250	300	A	A	300 ^F	
23	330	310	270	260	300	290	<310 ^C	C	C	230	(230) ^C	230	240	230	230	220	220	230	240	(240) ^C	250	300	320	320 ^F	
24	310	300	310	280	280	250	270	240	230	230	(230) ^C	230	230	240	240	260	220	250	240	250	300	270	350	350	
25	350	320	300	320	280	260	260	240	230	230	250	250	220	230	230	230	210	220	260	260	(280) ^C	260	360	360	
26	310	310	310	310	<290 ^C	260	(240) ^C	220	220	<240 ^C	230	260	240	250	250	220	C	C	C	C	C	C	C	C	
27	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	260	280	350	330	
28	310	320	310	310	270	260	280	230	230	220	260	230	250	240	230	220	220	250	<260 ^C	300	300	300	350	350	
29	320	(280) ^C	250	260	(280) ^C	300	270	230	230	230	250	230	260	240	250	230	220	220	(260) ^A	300	260	260	340	350	
30	350	320	(320) ^C	310	290	260	260	240	210	220	(240) ^C	260	250	(240) ^C	220	210	210	230	230	270	270	300	360	330	
31																									
Mean Value	320	320	310	310	300	270	260	230	230	230	250	240	250	240	240	230	220	240	250	270	290	310	330	330	
Median Value	310	310	300	310	290	260	260	230	230	230	240	240	250	240	240	230	220	230	250	260	280	300	330	330	
Count	27	27	28	28	27	28	25	27	26	26	27	26	25	26	26	28	27	28	26	25	27	27	26	26	

SwEEP Manual Automatic

RF2

W 2

Lat. 45° 23.6' N
Long. 141° 41.1' E

Wakanai

IONOSPHERIC DATA

135° E Mean Time

fEs

Nov. 1955

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E	3.5	4.3	4.6	3.3	3.3	G	G	5.2	5.8	6.1	5.0Y	4.5Y	8.0Y	8.0Y	6.2	4.8	5.5Y	>3.5°	4.2Y	3.4	3.3	E	E
2	E	C	E	2.3	E	C	C	G	G	G	5.2Y	G	G	G	G	G	G	G	3.5Y	E	E	E	E	E
3	E	E	E	E	E	E	E	E	3.5	G	4.5	4.6	4.2	G	4.5	6.3	6.0	G	E	E	3.0Y	E	E	E
4	E	5.0	3.5	2.5	E	E	E	C	G	G	G	4.1Y	G	G	C	G	G	G	E	E	E	E	E	E
5	2.3	E	E	E	C	E	E	G	G	G	5.2Y	C	G	G	G	G	G	3.5	E	E	E	E	3.5	3.6
6	4.2Y	2.3	3.0	2.3	2.3	E	3.9	G	G	4.8Y	1.7	5.0Y	5.0Y	5.0Y	6.2	6.5	3.5F	4.5F	E	E	C	E	E	E
7	E	C	E	>2.3°	2.5	E	E	G	G	G	6.0	G	G	G	G	G	G	C	C	E	E	E	C	E
8	>2.3°	4.2	3.0Y	E	E	E	C	G	G	G	G	C	G	G	G	G	G	E	E	E	E	E	E	E
9	E	E	2.8	3.0	E	E	E	G	G	G	G	G	5.2	G	G	G	G	C	E	E	E	E	E	E
10	>2.3°	2.2	E	E	2.3	E	E	G	G	G	4.2	G	G	G	G	G	G	G	E	E	E	E	E	E
11	E	E	E	E	E	E	E	G	G	G	G	G	C	G	G	G	G	E	E	E	E	E	E	E
12	E	E	>2.3°	2.8	3.5	2.2	E	G	G	G	G	G	G	G	3.5	G	2.7	2.6	2.8	E	E	E	E	2.8
13	2.8	E	2.5	E	3.0	3.0	E	G	C	C	C	C	C	C	C	C	C	E	3.0	2.3	E	E	E	E
14	2.3	3.0	2.5	2.9	E	3.0	E	G	G	G	G	G	G	G	3.5	G	2.5	E	E	E	E	E	2.5	2.3
15	2.5	3.6	3.0	3.0	3.0	2.2	E	G	G	G	4.0Y	G	G	G	G	5.0	3.5	3.5	4.1	2.5	2.3	E	E	E
16	E	2.3	2.3	2.3Y	2.3Y	E	C	3.5Y	G	G	4.2	C	C	C	5.5	4.2F	3.1	3.0	3.2	C	C	C	C	C
17	C	C	C	C	C	C	C	C	C	C	4.2	C	C	C	C	4.0Y	5.5	6.5	4.0	4.0	7.0	5.2	2.5	5.0Y
18	2.7F	>3.5F	3.5F	2.8F	2.3F	2.3F	2.3	G	C	>3.5°	6.6Y	>2.5°	G	G	4.0	3.5	3.0F	3.0	3.3	3.1	E	E	E	E
19	E	2.3	2.5	3.0F	3.5F	2.3	E	G	G	3.5Y	G	G	G	4.2Y	3.5Y	G	4.1	2.5	E	3.2Y	E	E	E	C
20	2.0	E	E	E	2.0	E	3.0	4.0	4.0Y	7.5Y	5.5	7.0	G	G	G	G	G	4.1	2.5	3.6	>2.7°	4.7	E	C
21	5.2	4.6	6.0	2.5	4.0	E	2.2	G	G	G	4.2Y	G	G	4.2Y	G	G	G	6.0	3.5	E	3.4	5.8	4.5	3.0
22	3.5Y	2.3F	2.3F	2.5F	2.4Y	E	E	G	G	G	G	G	5.5Y	4.2Y	4.5Y	4.0	4.0	3.5	2.1	E	E	E	E	3.5
23	E	2.3	E	2.3	2.2	2.0	C	C	C	G	C	4.0Y	G	G	G	G	2.1	E	2.3	C	E	E	E	E
24	E	E	E	E	E	E	E	G	G	G	G	G	G	G	G	G	G	2.1	2.3	E	3.0	E	E	E
25	E	E	2.3	2.5	E	E	E	G	G	G	G	G	G	G	G	G	G	2.5Y	C	C	E	E	E	E
26	E	E	2.2	2.3	C	2.0°	C	G	G	C	G	G	G	G	G	G	C	C	C	C	C	C	C	C
27	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
28	E	E	E	E	E	E	E	G	G	G	3.9Y	G	G	G	G	G	G	E	E	E	E	E	E	E
29	E	C	E	E	C	1.9	2.0	G	G	G	G	G	G	G	G	3.5	G	E	E	4.8	E	E	2.5Y	E
30	2.7	>2.3°	>1.5°	1.2	E	E	E	G	G	G	>3.5°	4.0	6.0	C	G	G	G	E	E	3.5Y	E	E	E	2.3
31																								
Mean Value	3.0	3.1	3.0	2.6	2.8	2.4	2.6	3.8	4.2	5.5	4.9	4.8	4.9	5.1	4.5	4.7	3.7	3.7	3.3	3.5	3.7	2.9	3.5	3.0
Value	E	2.2	2.3	2.3	2.2	2.7	2.3	2.6	2.5	2.6	2.5	2.3	2.5	2.5	2.5	2.8	2.7	2.0	2.3	2.5	2.7	2.6	2.5	2.6
Count	2.8	2.5	2.8	2.9	2.5	2.7	2.3	2.6	2.5	2.6	2.5	2.3	2.5	2.5	2.5	2.8	2.7	2.6	2.5	2.5	2.7	2.6	2.5	2.6

Lat. 39° 43.5' N
Long. 140° 08.2' E

IONOSPHERIC DATA

Akita

Nov. 1955

foF2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	4.0	4.2	4.1	4.5	4.6	3.9	4.5	7.1	8.9	9.5	10.5	9.3	8.7	10.1	11.0	10.2	8.6	(8.0) ^F	4.8	4.5	4.7	4.8	5.0 ^F	4.8 ^F	
2	4.9	4.9 ^F	5.5 ^F	4.9 ^F	4.4 ^F	4.7 ^F	5.8 ^P	8.7	8.6	8.6	8.5	10.6	9.8	9.5	9.9 ^J	8.6	8.5 ^P	6.0 ^P	4.7	4.5	4.5	4.0	3.9	3.8	3.7
3	3.7	3.7	3.8	3.8	4.3	3.4	4.2	7.8 ^P	8.4	(9.3) ^F	8.5	9.8	10.5	10.0	9.3	8.8	8.7 ^P	6.4	4.6	3.7	3.7	3.7	3.7	3.7	
4	3.7	3.8	3.9	3.7	3.8 ^P	3.7	4.5	6.9	8.7	9.5	9.5	10.6	(9.5) ^F	8.6	9.1 ^P	9.5 ^P	C	7.3 ^P	5.9 ^P	4.8	3.6	3.5	(3.9) ^F	4.1	
5	(3.9) ^F	3.7	3.6	3.5	3.6	3.7	4.7	7.3	(8.6) ^F	9.5	8.6	9.5	9.6	9.7	9.4 ^P	9.3	8.5 ^P	5.8 ^P	4.6	3.4	4.1	4.1	3.9	4.0 ^P	
6	3.8	3.9	3.7	3.7	3.6	3.7	4.6	7.3 ^P	8.5 ^P	(9.1) ^F	9.7	10.9 ^P	9.8	9.0 ^P	(8.0) ^F	8.9 ^P	8.2	5.8	4.3	4.1	3.2	3.4	3.7	3.5	
7	3.5	3.6	3.7	3.5	3.6	3.6	3.9	6.6	8.0	8.4	(8.5) ^F	8.6	9.1	8.5	8.9 ^P	(8.2) ^F	7.4	5.5	3.5	3.9	3.4	3.3	3.5	3.5	
8	3.5	3.6	3.7	3.6	3.9	3.5	3.8	6.5	C	C	8.8 ^P	8.8 ^P	8.5	8.4	8.4	8.4	8.3	6.9	3.4 ^H	3.5	3.6	3.5	3.5	3.7	
9	3.7	3.7	3.6	3.6	3.7	3.9 ^P	7.2 ^P	7.2 ^P	8.6	8.8 ^P	8.6	(10.9) ^F	10.1	9.4	8.6	(8.1) ^F	7.8	6.6	4.5	4.4	3.9	3.5	3.7	3.7	
10	3.7	3.7	3.7	3.7	4.0	3.9	4.5	6.8	8.0 ^J	9.0	8.7	8.4	8.9 ^J	9.1 ^P	8.6	C	7.0	4.9	4.6	4.4	4.0	3.5	3.5	3.5	
11	3.5	3.5	3.7	3.8	3.6	3.5	4.0	7.0	8.5	8.3	(8.7) ^F	8.5	8.7	9.2	8.5	(9.0) ^F	7.1	4.7	3.8	4.4	4.2	3.6	3.6	3.6	
12	3.6	3.6	3.6	3.6	4.4	3.5	3.7	6.7	8.5	(8.5) ^F	8.8 ^J	8.0	8.7 ^P	9.2 ^J	(8.7) ^F	8.6	(7.8) ^F	4.8	3.4	3.5	3.5	3.5	3.7	4.1	
13	3.5	3.6	3.7	3.0	3.1	3.1	4.3	7.7	(8.0) ^F	8.2	9.0 ^J	9.2 ^H	10.2 ^H	10.1	10.5	9.2	(8.6) ^F	7.1	6.0	3.6	3.5	3.7	4.0	4.1	
14	4.5 ^V	4.6	4.3	4.7 ^F	4.7 ^F	4.2	4.3	7.2 ^P	8.2 ^J	8.7 ^F	(9.0) ^F	9.2	8.3	9.2	8.6	8.2 ^P	(8.1) ^F	5.5	3.8	3.7	3.7	3.3	3.2	3.4	
15	3.6	3.7	3.6	3.9	3.9	3.6	3.7	6.5	7.7	8.6	8.4	8.2	7.8 ^J	9.0	8.5	7.6 ^P	7.3 ^P	(5.9) ^F	4.2	4.2	3.8	3.4	3.5	3.5	
16	3.6	3.6	3.7	3.6	3.7	3.6	4.0	C	9.3	9.8 ^J	C	10.6	10.5	10.7	10.0	C	C	7.1	4.6	4.9	4.9	3.5	3.4	3.6	
17	3.7 ^P	3.9	4.0	4.0	4.1	2.9	4.0	(8.4) ^F	C	C	10.4	10.0	10.0	9.3	9.2	8.5	C	6.3	5.0 ^P	3.9	A	A	3.3	3.2	
18	3.5 ^F	3.5 ^F	3.5 ^F	3.7 ^F	4.2	3.1	2.9	6.0 ^P	8.5	8.1	9.4 ^P	C	8.6	8.5	8.8 ^P	8.5	7.4	7.4	4.1	3.5	3.7	3.0	(3.0) ^F	3.0	
19	3.1	3.2	C	C	C	C	C	C	C	C	C	C	C	10.5	9.5	8.5	(7.9) ^F	7.3	5.6	5.1 ^F	4.8	4.8	4.4 ^F	5.4	
20	3.6	3.4	2.9	2.7	2.9	2.5	2.8	5.4 ^H	8.0	10.0	9.4	8.7	A	7.5	C	7.3	6.4	4.9	5.1	3.9	3.9	3.9	3.6	3.6	
21	(3.4) ^A	3.2	3.2	3.1	3.3	3.2	3.9	7.7 ^P	7.7	10.8 ^P	10.5	10.8	11.0 ^P	8.8	9.0	8.1	6.8	5.7	5.0	4.6	3.7	4.5	3.6	3.6 ^P	
22	4.4 ^F	4.1 ^F	4.5 ^F	4.5 ^F	4.4 ^F	4.2 ^F	4.5 ^F	7.2	(8.6) ^F	C	(8.5) ^F	9.5 ^H	9.9	8.5	9.4 ^P	7.4	7.4 ^P	4.8	4.1	4.4	3.2	2.7	3.0 ^F	2.9 ^V	
23	3.0	3.1	3.3	3.2	3.0	2.8	3.0	6.6	8.2 ^P	C	C	8.5	(8.5) ^F	(8.5) ^F	7.5	7.0	6.3	4.7	4.6	3.6	3.5	3.1	2.6 ^J	2.9	
24	3.0	3.3	3.2	3.3	3.5	3.2	3.3	6.2	C	C	C	C	C	C	C	C	6.6	4.4	4.2	3.6	3.5	3.0	2.9	3.0	
25	3.3 ^V	3.4	3.5	3.5	3.5	3.4	3.6	6.2 ^P	8.1	8.1	8.0 ^J	8.5	(8.5) ^F	(8.3) ^F	(8.5) ^F	8.0 ^P	6.2	3.8 ^P	3.9 ^P	3.6	3.2	2.8	2.9	2.9	
26	3.3	3.3	3.5	3.5	3.6	3.4	3.6	6.0 ^J	7.0	8.0	8.3 ^J	7.8	(8.5) ^F	(7.9) ^F	(8.5) ^F	7.4	6.2	5.0	3.2	3.6	3.0	3.2	3.1	3.0	
27	3.2	3.7	3.6	3.7	3.8	3.5	3.0	5.8 ^P	8.0	8.1 ^H	C	8.0	8.5 ^H	8.9	C	C	6.5	5.0	3.8	3.4	3.0	3.0	2.8	3.0	
28	3.2	3.4	3.6	3.7	3.6	3.5	3.5	6.1	8.0	8.8	8.7	8.6	9.0 ^P	7.1	C	6.9	5.8	4.8 ^P	4.1	3.4	2.7	3.0	3.2		
29	3.4	3.7	3.2	3.1	3.4	3.1	3.7	6.5	7.5	(8.0) ^F	8.5	C	C	C	8.2	(7.8) ^F	7.4	4.5	4.8	3.6	3.3	3.0	2.7	3.1	
30	3.1	3.4 ^F	3.5 ^F	3.5	3.5	3.5	3.5	6.6	C	C	C	C	8.2	8.1	(7.6) ^F	7.2	6.5	4.5	4.5	3.8	2.8	2.6	2.8	3.1	
31																									
Mean Value	3.6	3.7	3.7	3.7	3.8	3.5	3.9	6.9	8.2	8.9	9.2	9.2	9.2	9.0	8.9	8.3	7.4	5.7	4.4	4.0	3.7	3.5	3.4	3.5	
Median Value	3.6	3.6	3.6	3.6	3.7	3.5	3.9	6.8	8.2	8.7	9.2	9.2	9.0	9.0	8.8	8.3	7.4	5.6	4.5	3.8	3.6	3.4	3.5	3.5	
Count	30	30	29	29	29	29	29	28	25	23	22	25	26	28	26	26	27	30	30	30	29	29	30	30	

foF2

Group 085 Mc to 22.0 Mc in 2 min

Manual

Automatic

A 1

Lat. 39° 43.5' N
Long. 140° 08.2' E

Akita

IONOSPHERIC DATA

135° E Mean Time

Nov. 1955

R'F2

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	350	350	340	300	270	250	250	250	260	240	260	260	310 ^A	280	280	260	240	220	220	290	290	300	310 ^F	230
2	310	310	270	260	280	280 ^F	270	240	240	250	260	280	260	260	280	250	240	240	260	250	270	310 ^A	320	330
3	300	320	310	300	270	230	270	250	260 ^L	260	250	270	270	270	260	250	240	220	270	280	320	300	330	360
4	320	310	290	300	A	270	260	250	260	260	270 ^L	260 ^L	270 ^A	270	270 ^L	260	250	260	240	240	260	340	330	320
5	280	270	290	330	310	300	250	250	260 ^H	250	250	260	270 ^L	280 ^L	260	260	250	220	260	260	280	280	310	300
6	310	300	290	310	320	320	250	240	240	250	260 ^L	260	270	260	250	250	240	230	280	270	250	300	300	300
7	310	300	290	270	290	250	250	240	240	240	260 ^L	260	270	260	250	240	240	230	240	260	270	300	300	310
8	330	330	310	300	290	230	240	240	250	250	260	290	260	260	280 ^L	250	250	240	230 ^H	300	280	300	330	330
9	320	310	340	340	330	290	220	260	250	260	270	240	250	260	260	[260] ^C	250	240	260	280	250	300	350	350
10	350	360 ^A	350	350	350 ^A	270	250	240	250	260	260	250	260	260	260	250	230	250	270	290	270	280	300	330
11	320	310	310	290	250	260	260	240	250	250	260	270	260 ^L	270	250	250	230	220	260	270	260	270	320	320
12	300	320	310	310	270	220	260	240	250	250	250	250	280 ^L	270	270	250	240	250 ^A	270	310	320	320	320	290
13	260	310	270	270	360	350	260	240	240	250	270	260 ^H	250 ^H	A	260	260	230	240	240	220	290	310	320	340 ^A
14	320	270	280	260	270 ^F	240	240	240	260	250	260 ^L	260 ^L	270 ^L	270 ^L	270 ^L	240	240	240	240	220	290	310	320	340 ^A
15	320	320	320	290	260	240	250	230	240	250	250	250	260 ^L	270 ^L	260	240	250	220	260	300	250	270	310	320
16	350	340	310	330	360	410 ^A	310	260	250	250	270	270	260	280 ^L	250	250	250	230	250	280	250	270	310	320
17	350	340	300	300	260	250	290	250	250	250	270 ^L	280	270	260	260	260	250	230	250	280	250	270	330	260
18	AF	A	350 ^F	300	280	240	280	240	250	240	260	240	270	270	270	250	250	230	250	A	A	A	360 ^A	270
19	350	310	C	C	C	C	C	C	C	C	270 ^L	C	C	290	250	250	240	230	250	290	250	300	[340] ^F	380
20	430	460	480	440	400	A	400	280 ^H	350 ^L	280	280 ^L	270	250	270	260	240	230	280	260	260	300	310	370	280
21	[380] ^A	440	[460] ^A	390	350	350	300	250	250	270	280	270	250	270	260	240	230	280	260	260	300	310	300	350 ^A
22	310 ^F	270	300	300	290 ^F	250	260	240	230	250	240	230 ^H	260	240	240	240	230	240	230	270	250	220	270	310
23	380	360	300	270	300	310	310	250	240	260	250	250	260	250	260	240 ^L	240 ^L	230	270	250	220	270	340	380
24	330	310	320	310	290	250	290	240	C	C	C	C	C	C	C	C	240	240	260	260	260	260	350	350
25	350	310	300	300	290	300	270	240	250	250	260	270	260	260	260	250	230	220	270	250	250	270	340	390
26	350	320	320	300	280	280	260	240	250	250	260	270	260	260	260	250	240	240	300 ^A	260	280	280	310	350
27	340	320	310	290	250	240	250	250	240 ^H	240 ^H	260 ^L	260 ^H	260 ^H	290	240	260	240	220	240	240	260	260	300	370
28	350	320	300	310	290	260	300	250	250	250	250	250	260	240	250	240	230	240	250	250	290	280	330	350
29	320	270	300	300	280	300	260	240	240	250	260	250	270	250	250	250	230	230	240	260	[260] ^A	280	300	350
30	350 ^A	350	340	300	260	270	270	240	240	250	260	260	270	260	260	230	240	230	250	250	250	290	350	350
31																								
Mean Value	330	320	320	310	300	280	270	250	240	250	260	260	260	270	260	250	240	230	250	270	270	290	320	340
Median Value	330	320	310	300	290	260	260	260	250	250	260	260	260	270	260	250	240	230	260	260	270	300	320	340
Count	29	29	29	29	28	28	29	29	28	28	28	28	28	28	29	29	30	30	30	29	29	29	30	30

R'F2

Sweep 0.85 Mc to 22.0 Mc in 2 min

Manual

Automatic

A 2

The Radio Research Laboratories
Koganei-machi, Kitakama-gua, Tokyo, Japan

Lat. 38° 43.5' N
Long. 140° 08.9' E

A k i t a

IONOSPHERIC DATA

Nov. 1955

fEs

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	30	25	30 ^Y	26	30	25 ^Y	25 ^Y	G	G	4.3	5.5	4.5	6.7	4.0	3.5	4.0	4.0	3.2	E	3.0	2.4	2.4	2.5	2.6
2	25 ^F	35	2.6	2.7	2.5	2.5 ^Y	E	G	G	G	3.6	G	G	G	4.2	4.0	3.5	2.7	2.5	E	2.5	3.2	2.6	2.2
3	23 ^Y	23	2.3	2.5	2.5	2.0	E	G	G	4.5	4.5	4.2	4.0	4.7	4.3	G	3.3	4.2	4.5	5.0	4.7	2.6 ^F	4.0	3.5
4	2.6	2.5	2.5	3.2	4.7	3.5	3.4	G	G	G	4.6	3.4	5.5	3.3	3.2	3.2	3.7	3.5	E	2.5	2.5	2.2	2.4	3.6
5	3.7	2.5 ^Y	2.5 ^F	2.5	2.5	2.4	2.5	G	3.8	3.8	4.0	4.2	4.4	G	G	2.7	4.4	3.5	3.0	2.5	2.6	2.5	3.0	3.3
6	3.2	3.1	3.0	3.4	2.9	3.4	3.2	G	G	3.9	4.5	5.0	5.0	5.1	6.5	3.9	4.0	3.5	4.0	3.5	2.5	2.5	E	E
7	E	2.5 ^Y	2.5	2.5	2.6	3.6 ^Y	2.5	3.0 ^Y	G	G	4.5	4.3	4.5	3.7	3.7	3.5	2.5 ^F	3.1	2.2	2.5	2.6	2.1	E	2.3 ^Y
8	2.5	3.5	4.6	3.0	3.0	2.6	2.5	G	G	G	4.1	3.6	G	G	3.1	4.0	3.5	2.5	2.5	2.5	E	2.4	2.4 ^Y	2.3 ^Y
9	2.3 ^Y	2.5	2.5	2.7	2.5	E	2.5	2.5 ^Y	4.0	4.5	3.5	G	G	G	3.2	3.5	3.1	3.2	2.5	3.0	E	2.5	2.6	3.1
10	3.7	4.9	4.5	4.1	3.8	2.6	2.6	G	G	G	4.2	5.2	3.7	3.2	3.5	3.1	3.4	3.0	3.0	2.7	2.7	2.5	2.5	2.2
11	2.5	3.0	2.5	2.5	2.7	2.5	2.5	G	G	4.2	G	G	4.0	3.7	4.0	3.5	4.2	4.0	3.0	E	E	E	E	E
12	2.5 ^Y	2.6	E	2.5	2.5	2.4	2.5	2.5	G	G	4.0	4.6	4.6	4.7	3.6	4.0	3.4	3.4	3.0	2.5	E	E	E	E
13	2.3	3.2	2.9	2.5	2.5 ^Y	2.4	E	2.2	G	4.0	4.7	6.5	4.2	8.0	3.4	4.2	4.2	3.7	2.8	2.0	2.1	3.4 ^Y	E	2.5 ^Y
14	E	E	2.5	2.5 ^Y	2.5	3.0	E	3.4 ^Y	G	G	G	G	G	3.6	G	3.0	2.4	2.5	2.5	2.6	2.6	E	E	2.1
15	2.7	2.5	3.0	2.5	3.5	2.5	E	2.6	G	G	G	G	G	G	3.1	3.2	3.2	2.2	2.3	2.3	2.2	2.5	2.3	2.5
16	2.7	3.0	2.5	3.5	3.0	3.2	3.1	G	G	4.6	4.6	4.4	5.4	4.0	5.5	5.5	2.9	2.5	2.5	2.1 ^Y	2.3 ^Y	2.0	E	E
17	3.0 ^F	3.3	4.5	3.0	3.0 ^F	2.5	E	G	G	3.5	4.2	5.5	6.5	5.4	8.0	6.4	3.0	3.4	2.6	6.0	7.0	6.5	4.5	3.1
18	3.5	5.0	2.9	3.1	3.5	2.5	2.6	G	G	4.0	4.3	6.1	6.8	5.2	4.0	3.3	4.6	3.1	3.0	3.0	2.2	2.3	C	2.0
19	2.5	2.0 ^Y	C	C	C	C	C	C	C	C	4.0	C	C	4.2	G	G	3.0	3.0	2.5	3.0 ^Y	2.4	3.0 ^Y	2.6	2.5 ^F
20	3.0	E	E	2.5	2.5	3.1	3.1 ^Y	3.2	G	3.5	G	4.5	8.5	4.2	3.5	G	3.4	3.0	2.5	2.7	2.6	2.6	2.5	4.5
21	6.5	4.6	3.5	2.6	2.7	E	2.5 ^Y	G	G	G	4.7	4.4	4.1	3.7	G	3.2	4.5	3.5	3.0	3.1	3.1	3.2	6.7	6.7
22	4.8	4.0	3.2	3.2	3.2	2.5 ^Y	2.1	G	G	3.2	G	3.2	G	3.5	3.1	3.5	3.5	3.2	2.5	2.0	2.7	3.5	2.5	2.7
23	2.5 ^F	2.5	2.5	3.0	2.5	2.5	3.0 ^Y	2.5 ^F	G	3.5	F	G	G	G	G	4.0	4.0	3.2	3.2	3.2	2.5	3.1	2.3	2.6
24	2.5	2.5 ^Y	2.5	2.8	2.5 ^F	2.5	3.0 ^Y	2.5 ^Y	C	C	C	C	C	C	C	C	G	G	2.5 ^Y	2.2	2.2	2.3	2.5	2.5
25	2.4 ^Y	2.5 ^F	2.4 ^Y	2.3	3.0	2.5	2.4	2.9	3.5	C	4.0	4.5	4.0	G	G	G	3.1	2.4 ^Y	2.5	2.3	E	2.5	2.6 ^Y	2.8 ^Y
26	2.5	2.5	2.5 ^Y	2.5	2.5	2.2	2.2	G	G	G	3.7	3.7	3.6	3.4	3.5	3.4	2.1	3.0	3.0	E	2.8 ^Y	E	2.5	2.2
27	E	2.5	E	1.5	2.2 ^Y	E	E	2.7	3.1	G	G	4.1	4.0 ^Y	G	3.7	3.1	3.0	2.8	2.5	E	E	E	E	E
28	3.5	E	E	E	2.5	E	2.5	G	G	G	4.4	6.0	G	G	G	3.5	G	E	E	E	E	2.3	2.2	E
29	2.5 ^Y	2.4 ^Y	2.1 ^Y	2.5	3.0	E	E	G	G	G	G	G	G	G	G	G	3.0	2.5	2.7	2.8	7.0	3.0	2.7	3.6
30	3.5	2.5	2.5 ^Y	2.5	2.5	2.5	2.7	2.5	G	G	G	G	G	G	G	G	2.7	2.7	3.1 ^Y	E	E	2.5	2.5	E
31																								
Mean Value	2.9	3.0	2.9	2.7	2.8	2.7	2.7	2.7	3.6	4.0	4.3	4.6	5.0	4.3	4.1	3.7	3.4	3.1	2.8	2.9	3.0	2.8	2.9	3.1
Median Value	2.5	2.5	2.5	2.5	2.6	2.5	2.5	G	G	G	4.0	4.2	4.0	3.5	3.4	3.4	3.4	3.0	2.6	2.5	2.4	2.5	2.5	2.5
Count	30	30	29	29	29	29	29	29	28	28	29	28	28	29	29	28	30	30	30	30	30	30	29	30

fEs

Sweep 0.65 Mc to 2.20 Mc in min
 Manual Automatic

Lat. 35° 42.4' N
Long. 139° 28.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

foF2

Nov. 1955

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	3.5	3.7	3.6	3.9	4.0	3.4	4.9	7.4P	9.4	10.0	9.7	9.7	9.6	10.4	12.5	12.2	10.1	7.7	4.6	4.3	4.5	4.5	4.7	4.9	
2	4.9	4.8	4.8	4.9	4.1	4.0	5.3	9.4	8.9	9.9	10.5	10.6	11.9	12.1	11.2	10.5	8.9	7.0	4.2	4.5	4.3	4.1	4.0	3.7	
3	3.8	3.6	3.8	3.8	4.1	3.1	4.2	7.0	8.2	9.9	10.0	11.1	11.6	12.6	12.1	11.9	8.4	6.6	4.4	4.2	3.9	3.9	3.8	3.5	
4	3.7	3.7	3.9	3.9	4.1	3.2	4.4	7.2	8.5	10.4	10.4P	9.9	9.9	10.8H	11.2	10.0	9.5	7.1	5.7	4.9	3.6P	3.6	4.0	4.1	
5	4.5	3.3	3.2	3.2	3.4	3.5	4.9	7.4	8.7	10.9	10.0	9.5	10.4	11.0	12.3	10.1	8.5	5.6	4.8	4.5	4.3	4.2	3.8	4.0	
6	3.9	3.8	3.8	3.8	3.7	3.8	5.1	7.2	8.1	9.8	10.5	12.5	11.5	10.7P	10.0	9.7	8.6	6.1	4.2	4.2	3.8	3.4	3.7	3.5	
7	3.5	3.7	3.7	3.9	3.6	3.3	4.2	7.3	8.2	9.1	9.0	9.0	9.7	10.3	12.5	10.1	7.7	6.5	4.4	3.9	3.9	3.3	3.3	3.4	
8	3.5	3.5	3.7	3.8	3.9	3.5	4.0	6.2	7.5	9.2	9.3	8.5	9.1	9.5	9.5	9.5	7.5	6.8	3.6	3.5	3.7	3.4	3.4	3.6	
9	3.7	3.6	3.7	3.8	3.8	3.8	4.5	6.7	9.7	10.5P	11.0	10.7	10.8	10.8	9.5	8.5	8.0	6.2	4.2	4.1	4.0	3.3	3.6	3.6	
10	3.9	3.9	3.9	4.1	4.6	3.6	4.7	6.7	7.8	9.5	10.0	10.7	10.5	9.9	10.9	9.5	6.9	5.2	4.2	4.6	4.3	3.6	3.4	3.3	
11	3.5	3.5	3.5	4.1	4.1	3.1	3.9	6.9	8.5	8.6	9.9	9.4	9.7	10.5	9.9	8.2	7.3	5.6	3.7	4.2	4.6	3.5	3.5	3.5	
12	3.6	3.5	3.6	3.8	4.4	2.5	3.9	7.2	7.4P	10.4	9.2	9.2	8.4H	10.6	10.2	9.5	6.9	5.7	3.5	4.0	3.9	4.0	4.0	4.1	
13	3.7	3.6	4.0	3.0	2.9	2.9	4.6	7.5	7.9	9.0	10.3	10.0	11.9	11.5P	9.5	8.5	7.1	5.4	4.6	4.6	3.3	3.8	3.7	3.9	
14	4.0V	4.3	4.5	4.6	4.7	3.9	4.3	7.0	8.7	8.7	9.0	9.9	9.2	10.6	10.0	8.5	8.5	7.1	5.4	4.6	3.3	3.8	3.7	3.9	
15	C	C	C	C	C	C	C	C	C	9.8	10.1P	9.4	9.3	9.9	9.5	8.0	7.0	6.5	3.9	4.1	4.0	3.6	3.2	3.4	
16	3.5	3.6	3.8	3.6	3.7	3.8	4.3	9.4	10.4	10.4	10.5	11.0	11.6	11.1	12.0	9.4	8.8	7.4	5.4	5.1	4.8	3.3	3.3	3.4	
17	3.5	3.5	3.9	3.8	3.9	2.7	4.2	8.7	9.6	10.0	9.4	12.0P	11.7	11.5P	10.9	9.6	9.1	8.5	4.9P	4.2	2.2	A	A	3.7	
18	3.5	3.5	3.5	3.7	4.4	3.1	3.3	5.8	8.5	9.8	9.8	10.0H	8.5	9.5	11.0	10.5	7.8	6.2	4.5	3.8	4.5	3.0	2.8	3.1	
19	3.2	3.6	3.2	2.7	1.9	1.9	3.6	5.0	7.9	9.0	12.0	14.4	12.0	11.9	11.0	9.5	8.8	7.7	6.0	4.3	4.4	4.8	5.0	4.9	
20	3.5F	3.0	2.8	2.6	2.9	2.4	3.3	6.3P	9.0	14.0	11.1	10.7	11.7P	8.9	8.0	9.1	6.5	5.1	5.5	4.5	3.9	3.8	3.5	3.3	
21	3.4	3.2	3.3	3.3	3.5	3.5	4.2	8.4	9.4	13.6	13.7	12.5	11.7	10.9	9.1	C	C	5.3	5.2	5.2	3.7	3.7	3.5	3.5	
22	3.5	[4.0]A	4.4F	4.4F	4.2	3.9F	3.8	7.2	7.8]C	8.5	9.2	8.5	11.4	11.3P	9.0	7.9	6.8	6.9	4.5	4.5	3.0	2.7	2.7	2.8	
23	2.9	3.0	3.3	3.3	3.1	2.7	3.0	7.9	9.0	10.3	8.9	8.9	9.2	8.5	8.1	7.3P	6.6	5.4	4.8	3.8	3.4	3.2	2.6	2.8	
24	3.0	3.1	3.2	3.2	3.3	3.2	3.5	6.6	9.1	8.0	8.3	8.1	8.0	8.7	8.4	7.6	7.6	5.4	4.3	4.3	3.9	3.2	3.0	2.9	
25	3.3	3.4	3.5	3.6	3.5	3.3	3.6	6.6	8.8	9.8	9.8	8.5	8.6	8.0	9.0	8.1	6.6	4.5	3.3	4.3	3.3	3.2	2.9	2.9	
26	3.3	3.3	3.4	3.4	3.4	3.2	3.5	6.8	7.8	8.2	10.7	8.7	8.7	9.7	8.0	8.0	6.6	4.5	2.9	3.8	3.2	3.2	3.2	2.9	
27	2.9	3.1	3.5	3.6	3.8	3.0	3.2	6.7	6.7	8.2	10.0	10.0	7.2	9.7	7.7	7.5	7.1	4.7	4.2	3.3	3.0	3.2	2.8	3.1	
28	3.1	3.2	3.4	3.5	3.3	3.3	3.3	6.4	8.2	9.5	9.1	8.6	9.5	9.3	8.3	7.5]T	6.7	4.8H	4.1	4.2	2.7	3.0	3.0	3.2	
29	3.4J	3.2	3.2	3.1	3.2	3.1	3.7	6.8	7.8	9.2	10.5P	9.0	8.1	8.7	9.9	9.4	8.5	4.7	4.8	4.1	3.3	3.4	3.0	2.7	
30	3.0	3.1	3.2	3.3	3.3	3.2	3.5	6.5	8.0	8.5	8.5	8.6	9.3	9.1	8.2	8.2	6.6	6.2	4.7	4.4	3.4	2.8	[2.8]A	2.9	
31																									
Mean Value	3.5	3.5	3.6	3.6	3.7	3.2	4.0	7.1	8.5	9.7	10.0	10.0	10.0	10.0	10.0	4.2	7.8	6.1	4.5	4.3	3.8	3.5	3.4	3.5	
Median Value	3.5	3.5	3.6	3.7	3.7	3.2	4.0	7.0	8.5	9.5	10.0	9.9	9.7	10.4	10.0	9.4	7.6	6.2	4.4	4.2	3.9	3.4	3.4	3.4	
Count	29	29	29	29	29	29	29	29	29	30	30	30	30	30	30	28	28	29	29	29	29	28	28	29	

foF2

Sweep 1.0 Mc to 17.2 Mc in 2 min

Manual Automatic

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

h_pF₂

Nov. 1955

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	350	390	380	350	310	260	280	250 ^f	280	270	270	300	320	320	300	280	260	260	390	360	330	340	360	330
2	350	330	320	300	280	380	300	270	260	260	310	300	300	310	300	280	250	260	270	310	310	310	330	380
3	360	350	370	320	280	320	260	270	260	260	270	310	310	300	300	270	250	260	300	300	310	310	330	360
4	350	350	330	330	280	320	280	260	270	260	250 ^f	310	300	320 ^H	290	270	260	270	300	270	(330) ^f	360	360	350
5	260	300	360	380	330	330	270	250	260	280	270	290	320	310	290	270	250	290	290	310	290	310	350	330
6	330	330	340	320	330	340	260	230	260	270	280	280	290	290 ^f	270	280	250	250	290	310	280	370	340	310
7	340	330	330	310	300	320	290	250	260	270	250	290	300	290	280	270	240	260	270	310	270	300	340	340
8	350	350	340	300	270	300	290	240	260	280	260	270	300	280	290	270	260	250	250	330	340	330	400	380
9	360	400	410	410	380	380	280	300	270	270 ^f	280	310	300	310	280	280	280	270	310	350	300	340	390	400
10	390	380	380	360	300	330	290	270	270	280	260	270	290	300	280	240	250	280	340	300	290	340	340	340
11	360	340	350	300	270	340	280	250	240	260	260	300	280	280	270	250	240	270	310	330	300	300	350	400
12	350	350	350	310	270	310	300	240	(260) ^f	260	260	260	330 ^H	300	270	260	220	250	300	330	360	330	340	300
13	280	320	300	260	420	400	270	230	230	250	270	C	320	280	(280) ^N	250	260	250	270	270	320	350	360	370
14	390 ^f	360	340	310	270	300	300	240	250	250	260	260	280	290	260	C	C	C	C	C	C	C	C	C
15	C	C	C	C	C	C	C	C	C	250	(260) ^N	280	280	280	260	250	260	260	310	310	300	350	390	
16	380	350	360	340	390	400	330	280	250	280	280	290	270	320	280	280	280	250	280	300	280	330	360	430
17	410	370	310	280	250	350	320	240	270	270	270	370 ^f	280	(270) ^N	290	270	280	260	280 ^f	220	270	A	A	390
18	330	390	390	350	260	270	320	240	280	260	260	280 ^f	260	280	280	260	260	270	270	310	280	280	380	410
19	390	320	250	260	460	360	280	230	260	300	300	270	250	310	290	290	270	270	280	330	400	360	390	330
20	490	480	520	470	450	A	370	340 ^f	390	300	280	270	(280) ^f	240	260	260	250	300	290	290	330	330	320	330
21	390	380	400	410	400	380	330	290	280	300	270	290	300	260	260	C	C	270	300	270	280	320	330	340
22	310	(320) ^N	330 ^f	320 ^f	300	320 ^f	300	250	(240) ^f	240	280	280	310	280 ^f	280	240	250	250	280	270	280	280	380	380
23	390	390	330	280	310	370	340	270	230	260	240	260	260	280	280	250 ^f	240	290	280	260	280	260	360	380
24	360	360	350	340	320	330	310	260	260	240	250	270	260	270	260	270	250	260	320	310	310	290	350	420
25	380	350	350	340	330	340	320	270	260	260	270	260	290	280	270	240	240	250	330	290	340	310	320	380
26	380	360	340	340	330	340	320	260	240	260	250	260	270	270	240	240	230	240	270	280	280	310	330	310
27	320	330	350	300	250	270	310	250	240	270	250	250	300	260	240	270	260	230	300	270	280	280	350	370
28	370	370	350	360	310	330	330	260	260	260	260	270	270	270	250	(260) ^f	270	290 ^H	300	250	350	350	340	350
29	(320) ^N	320	330	340	330	310	300	250	270	280	270 ^f	260	240	280	270	270	230	240	300	270	280	300	330	380
30	430	360	350	320	300	310	300	250	240	250	250	230	300	260	260	280	250	270	310	270	250	280	(330) ^N	380
31																								
Mean Value	370	360	350	330	320	330	300	260	260	270	270	280	290	290	270	260	250	260	300	310	310	320	350	370
Median Value	360	350	350	320	310	330	300	250	260	260	280	280	290	280	280	270	250	260	300	300	300	310	350	370
Count	29	29	29	29	29	28	29	29	29	30	30	29	30	30	30	28	28	29	29	29	29	28	28	29

h_pF₂

Sweep 1.0 Mc to 17.2 Mc in 2 min

Manual Automatic

The Radio Research Laboratories
Koganei-machi, Khatama-gun, Tokyo, Japan

Lat. 35° 42.4' N
Long. 139° 29.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

RF2

Nov. 1955

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	280	310	320	280	240	230	240	230	240	230	240	250	250 ^L	270	240	230	210	220	250	250	270	220	280	280
2	280	260	250	250	230	290	240	230	220	240	260 ^L	240	250	250	250	230	220	220	230 ^A	250	250	270	320	320
3	280	280	280	250	230	240	220	210	230	230	250	250	260	240	230	210	250 ^A	250 ^A	250 ^A	250	280 ^A	250	270	300
4	300	300	260	260	230	230	240	240	230	240	230	260	270	250 ^H	250	240	230	220	220	230	240 ^S	300	310	320 ^A
5	230	280 ^A	280	300	270	270	230	230	230	240	230	250	260 ^L	250	250	230	220	200	230	250	240	260	280	290
6	260	260	300 ^A	270	260	280	230	210	220	240	230	250	240	240	240	240	220	210	230	260	250	290	280	260
7	260	280	250	240	230	230	240	220	230	240	230	240	270	250	250	240	210	220	230 ^A	260	230	240	280	290
8	280	300	270	260	230	230	230	210	230	240	230	240	240	250	240	230	220	220	220	280 ^A	280	260	320	320
9	300	300	320	320	320	300	240	240	230	240	260	260	250	270	240	250	250	220	230	270	250	280	320	340
10	330	330 ^A	340 ^A	310 ^A	270	300 ^A	250	230	240	250	230	250	260	260	240	230	210	210	250	260	230	230	280	290
11	290	280	280	240	220	260	230	220	230	230	240	240 ^L	240	240	240	230	220	200	250	260	250	240 ^S	290	320
12	300	300	290	250	230	220	240	220	220	240	230	240	230 ^H	250	240	230	210	200	260 ^A	260	300	270	260	250
13	240	260	250	240 ^A	360	350	230	(220) ^H	220	220	250	230	230 ^L	260	250	220	210	210	220	210	250	270	290	300 ^A
14	290	290	250	240	230	210	240	210	250	240	230	240	240	250	230	C	C	C	C	C	C	C	C	C
15	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
16	300	280	300	270	310	320	290	240	210	250	250	250	250	240	230	230	210	220	220	230	230	250	300	350
17	330	300	250	240	230	270	260	230	220	240	240	280	240	250	240	230	220	220	210	210	230	A	A	300 ^A
18	270	300	320	300 ^A	230	220	220	200	220	230	230	230 ^H	230	240	260	230	230 ^A	230 ^A	200	250	230	250	310	350
19	320	270	190	220	450	350	200	210	230	270 ^A	260	250	240	240	240	230	220	210	210	240	320	300	310	270
20	460 ^F	460 ^A	430	390	380	A	300	250	L	260	230	240	240	230	210	230	210	230	240	230	270	250	260	290
21	270	(300 ^A)	330	320	310	290	250	230	230	260	230	240	230 ^L	230	230	C	C	240 ^A	230	230 ^A	230	260	270	290
22	260	(260 ^A)	250	250	240	240	230	220	220	220	240	230	270	240	230	220	210	210	210	230	250	250	350	330
23	330	330	290	230	270	300	290	240	220	230	230	230	230	230	220	230	210	230	230 ^A	220	240	230	320	320
24	300	300	270	270	240	260	250	230	230	230	230	240	230	260	230	230	220	200	250	240	240	280	340	340
25	320	290	270	260	240	270	270	230	240	240	240	240	250	230	240	220	220	210	280	230	210	260	260	310
26	310	290	280	270	250	260	250	240	220	230	250	240	240	250	230	230	210	200	230	230	230	240	270	250
27	270	300 ^H	280	250	210	220	240	210	210	230	230	240	230	240	220	230	220	200	240	210	250	240	280	320
28	310	300	290	280	240	260	270	230	230	230	230	240	230	260	230	230	210	200 ^H	230	210	250	(270 ^A)	290	290
29	250	230	240	270	250	240	240	230	230	230	240	230	230	240	250	240	210	200	250	210	240	240	270	320
30	330	300	280	260	240	290	240	220	220	230	230	230	260	230	230	280	210	220	250	220	230 ^A	240	(280 ^A)	330
31																								
Mean Value	290	290	280	270	260	270	250	230	230	240	240	240	240	250	240	230	220	210	230	240	250	260	290	310
Median Value	290	300	280	260	240	260	240	230	230	240	230	240	240	250	240	230	220	210	230	240	240	250	280	310
Count	29	29	29	29	29	28	29	29	28	30	30	30	30	30	30	28	28	29	29	29	29	28	28	29

RF2

Sweep 1.0 Mc to 17.2 Mc in 2 min
 Manual Automatic

The Radio Research Laboratories
Koganei-machi, Kitatama-gun, Tokyo, Japan

Lat. 35° 42.4' N
Long. 139° 29.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

Nov. 1955

foF1

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								Q	L	4.5L	4.9	4.8	4.3	L	4.6L	L	Q							
2								L	L	4.2	4.7	4.8	LH	4.5	L	3.7L	Q							
3								Q	L	4.6L	4.7	4.6	4.6	4.8	4.7	4.0	Q	A						
4								L	L	4.5	4.8	4.7	5.1L	L	4.2L	L	Q	B						
5								Q	Q	L	4.6	4.2	L	4.2L	L	Q	Q	Q						
6								Q	L	4.4L	L	L	4.5L	[4.3]L	4.2L	L	Q	Q						
7								Q	Q	L	4.5	4.8L	5.0L	5.0L	L	L	Q							
8								Q	3.3	4.0	4.6L	4.5	4.2L	L	L	L	Q							
9								Q	L	4.5	4.6	4.5	4.6	4.7	L	L	Q							
10								Q	Q	3.8	4.6L	4.8L	[4.8]L	4.9L	4.5L	L	L							
11								Q	Q	L	4.8L	L	4.5L	4.3L	A	L	Q							
12								Q	Q	4.7L	4.5L	4.9L	4.0	[4.0]A	4.0	L	A							
13								L	Q	Q	4.4	4.9	[4.8]L	4.8	A	A	Q							
14								Q	L	L	L	4.3	4.4	4.2	4.0	C	C							
15								C	C	LH	4.8	4.4	4.5L	4.6	L	Q	Q							
16								Q	Q	L	L	A	A	A	L	3.3	Q							
17								Q	Q	3.9	4.1L	5.1J	4.7	[4.4]A	4.0L	L	Q							
18								Q	Q	L	4.7L	4.2L	[4.7]L	4.0	L	L	A							
19								Q	Q	A	5.0	5.0L	4.9L	4.8L	4.1L	Q	Q							
20								Q	Q	L	4.6L	4.9L	4.3L	4.0	L	Q	Q							
21								Q	L	4.7L	4.8L	4.2	L	L	3.9L	C	C							
22								Q	L	4.0L	4.7L	4.6L	4.8L	4.0L	L	Q	Q							
23								Q	L	4.5	4.4L	4.2	4.5L	L	L	Q	Q							
24								Q	L	L	Q	L	4.5L	L	L	L	2.5							
25								Q	L	3.9L	4.8L	4.8L	4.5L	4.2	L	L	Q							
26								Q	Q	3.7L	4.4	4.2	4.5L	4.5H	L	Q	Q							
27								L	3.1L	L	4.5	[4.4]A	4.3	4.8	L	Q	Q							
28								Q	Q	4.3	4.5	4.5	4.8L	4.0	L	Q	Q							
29								Q	L	3.8L	4.5	4.4L	[4.4]L	4.5	3.8L	3.5	Q							
30								Q	L	4.1L	4.5L	4.6L	4.8	L	Q	5.0L	Q							
31																								
Mean Value									3.2	4.2	4.6	4.6	4.6	4.4	4.2	3.9								
Median Value								3.2	4.3	4.6	4.6	4.6	4.5	4.4	4.1	3.7								
Count								2	19	26	27	25	22	11	5									

foF1

Sweep 1.0 Mc to 17.2 Mc in 2 min

Manual

Automatic

K 4

The Radio Research Laboratories
Koganei-machi, Kitakama-gun, Tokyo, Japan

Lat. 35° 42.4' N
Long. 139° 28.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

R'F1

Nov. 1955

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1								Q	230	230	230	230	210	230	230	240	Q								
2								250	230	230	230	200 ^H	230	240	240	220	Q								
3								Q	220	230	210	230	230	230	240	230	Q	A							
4								230	230	230	220	200	240	230	240	230	Q	B							
5								Q	Q	230	220	190	200	230	240	230	Q	Q							
6								Q	230	220	210	220	230 ^A	220	230	230	Q	Q							
7								Q	Q	220	210	210	230	240	A	230	Q								
8								Q	230	230	240	210	210	240	240	250	Q								
9								Q	220	240	230	220	230	260	240	250	Q								
10								Q	Q	230	220	240	240	220	230	240	240								
11								Q	Q	220	230	230	220	220	A	220	Q								
12								Q	Q	230	210	220 ^A	200	210 ^A	220	230	A								
13								(210) ^T	Q	Q	210	230	220	210	A	A	Q								
14								Q	220	230	230	200	200	210	230	C	C								
15								C	C	200 ^H	220	210	230	220	230	Q	Q								
16								Q	Q	230	250	A	A	A	240	220	Q								
17								Q	Q	210	210	240	230	220 ^A	220	230	Q								
18								Q	Q	200	210	210	210	220	250	240	A								
19								Q	Q	A	230	240	210	230	230	Q	Q								
20								Q	Q	230	230	240	230	210	230	Q	Q								
21								Q	Q	230	240	210	200	230	230 ^A	230	C								
22								Q	Q	230	220	190 ^H	210	200	220	230	Q								
23								Q	Q	230	220	210	220	210	220	Q	Q								
24								Q	Q	210	Q	230	200	230	220	230	210	170							
25								Q	Q	230	230	220	200	220	240	230	Q								
26								Q	Q	220	230	230	230	220 ^H	230	Q	Q								
27								220	210	220	240	240 ^A	230	230	230	Q	Q								
28								Q	Q	230	230	210	220	230	220	Q	Q								
29								Q	Q	220	210	230	210	210	220	230	220	Q							
30								Q	Q	210	230	230	200	240	Q	210	Q								
31																									
Mean Value								230	220	220	220	220	220	220	230	230	210								
Median Value								220	230	230	230	220	220	220	230	230	200								
Count								4	17	27	30	29	29	29	26	18	2								

R'F1

Speed 1.0 Mc to 17.2 Mc in 2 min Manual Automatic

The Radio Research Laboratories
Koganei-machi, Kitatama-gun, Tokyo, Japan

Lat. 35° 42.4' N
Long. 139° 29.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

Nov. 1955

f_oE

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1								2.2	2.9	3.0	3.1	3.2	3.3	3.3	3.1	2.6	A								
2								2.1	2.4	2.9	3.3 ^A	3.3	3.3	3.2	3.0	2.6	2.2								
3								1.7	2.9	3.1	3.3	3.3	3.2	(3.2) ^A	A	A	A	A							
4								2.0	A	A	B	B	A	A	A	(2.8) ^B	A	B							
5								A	2.5	A	A	A	3.3	3.3	3.0	2.8	A	B							
6								1.9	2.6	3.0	3.0	A	A	A	A	A	A	B							
7								2.1	2.7	2.9	3.1	3.0	(3.1) ^A	3.2	A	A	A	A							
8								2.0	2.8	3.0	3.1	(3.2) ^A	3.3	3.2	3.0	2.6	A	A							
9								A	A	A	A	3.1	3.1	3.0	3.0	2.5	2.0								
10									2.7	2.9	3.0	3.2	3.0	3.2	3.0	2.7	2.1								
11								1.9	2.5	3.0	3.1	3.2	(3.2) ^A	3.2	(2.9) ^A	2.6	2.0								
12								2.0	2.7	3.0	A	A	A	A	A	2.5 ^A	A								
13								2.0	2.6	2.8	A	A	A	A	A	A	A								
14								2.2 ^A	2.6	2.7 ^H	3.1	3.0	3.2	3.2	3.0	C	C								
15								C	C	3.1	3.0	A	A	A	A	2.6	A								
16								A	2.6	2.9	3.3	3.2	3.1	2.9	2.8 ^F	A	A								
17								1.9	2.4	2.7	2.9	2.7	3.2	A	A	2.5	B								
18								1.9	2.6 ^A	2.8	(3.0) ^B	3.2	3.2	A	A	A	A								
19								1.9	2.6	3.0	3.0	(3.1) ^A	3.2	3.3	3.0	2.6	A								
20								1.6	1.9	2.4	2.6	A	(3.0) ^A	3.1	3.1	2.9	A	A							
21								2.0	2.6	2.8	2.9	A	A	A	2.9	C	C								
22								1.6	2.5	2.7	3.0	3.2	3.1	3.0	3.0	A	A								
23								1.7	A	2.8	3.2	3.3	(3.2) ^A	3.2	3.0	2.5	A								
24								1.9	2.3	2.7	A	3.3	3.2 ^B	3.1	B	B	B								
25								B	2.5	2.7	(3.0) ^A	(3.1) ^A	A	A	A	B	(2.0) ^B								
26								B	2.4	2.8	3.0	(2.9) ^A	(3.0) ^A	3.1	2.8	2.6	A								
27								A	A	A	3.2	3.2	3.2	A	2.9	2.4	A								
28								1.8	(2.2) ^A	2.7	(2.9) ^A	3.2	(3.1) ^A	(2.8) ^A	2.5	(2.2) ^A	1.9								
29								1.6	A	3.0	3.2	3.2	(3.2) ^A	3.2	2.9	(2.5) ^A	2.1								
30								2.0	2.5	2.8	3.1	3.2	3.2	(3.1) ^A	3.0	2.5	A								
31																									
Mean Value								1.6	1.9	2.6	2.9	3.1	3.2	3.1	2.9	2.6	2.0								
Median Value								1.6	1.9	2.6	2.8	3.1	3.2	3.2	3.0	2.6	2.0								
Count								1	22	24	26	23	23	23	20	18	7								

f_oE

Manual Automatic

Sweep /- /- /- Mc to /- /- /- Mc in /- /- min

K 6

The Radio Research Laboratories
Koganei-machi, Kitakama-gun, Tokyo, Japan

Lat. 35° 42.4' N
Long. 139° 29.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

Nov. 1955

f_oE

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								110	110	110	110	120 ^A	110	120	110	120	A							
2								120	110	110	[110] ^A	120	110	110	120	110	120	A	A					
3								110	110	110	110	100	100	100	A	A	A	A	B					
4								120	A	A	B	B	A	A	A	110	A	B						
5								A	B	A	A	A	110	110	110	120	A	A						
6								120	110	110	110	A	A	A	A	A	A	A						
7								120	110	110	110	[110] ^A	110	A	A	A	A	A						
8								130	120	110	110	[110] ^A	110	110	120	130	A							
9								A	A	A	A	110	110	110	120	140								
10								130	130	120	120	120	120	120	120 ^A	120	120							
11								130	120	110	110	110	[120] ^A	130	[130] ^A	130	130							
12								130	110	110	A	A	A	A	A	A	A							
13								140	110	110	A	A	A	A	A	A	A							
14								A	120	110 ^H	110	110	110	110	110	C	C							
15								C	C	110	110	A	A	A	A	120	130 ^A	A						
16								A	110	110	110	110	110	110	120	A	A							
17								120	110	110	110	110	A	A	A	120	130							
18								120	[110] ^A	110	110	120 ^A	120 ^A	A	A	A	A							
19								120	110	110	110	[110] ^A	110	110	110	130	A							
20								130	120	110	A	110	110	110	110	A	A							
21								130	110	110	110	A	A	A	130	C	C							
22								130	110	110	120 ^A	110	120 ^A	130 ^A	130	A	A							
23								130	A	110	110	110	[110] ^A	120	110	120 ^F	A							
24								130	120	120	A	120	120	110	B	B	B							
25								B	120	120	110	110	A	A	A	B	160							
26								170	120	110	110	110	[120] ^A	120 ^A	120	120	A							
27								A	A	A	110	110	110	A	110	A	A							
28								150	[130] ^A	110	110	110	110	[110] ^A	110	[120] ^A	120							
29								140	A	110	110	110	[110] ^A	110	120 ^A	A	150 ^A							
30								130	110	110	130 ^A	110	110	[110] ^A	120	110	A							
31																								
Mean Value								130	130	110	110	110	110	110	120	120	130							
Median Value								130	130	110	110	110	110	110	110	120	130							
Count								1	22	23	26	23	23	22	20	20	15							

f_oE

Sweep 1.0 Mc to 17.2 Mc in 2 min
 Manual Automatic

K 7

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

fEs

Nov. 1955

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	1.9	2.5	3.1	3.5	3.1	2.0	1.7	3.0	2.8	5.2	6.0	3.7	3.6	4.5	4.3	4.1	2.1	3.1Y	2.9Y	1.9	E	E	3.2Y	2.8	
2	3.2	4.6	3.1	3.2	3.0	2.4Y	2.0	2.8	3.0	4.1Y	3.8	4.5	4.2	4.3	4.3	3.8	2.7	2.5Y	3.7	2.8	E	E	E	3.4	
3	E	2.0	E	2.1	2.2	E	1.9S	2.5Y	4.0	4.4	8.0	4.5	4.6	4.8	5.6	4.0	3.7	6.4	4.9	3.2	3.5	E	E	E	
4	3.5	5.0	E	2.1Y	2.1Y	E	E	2.8	3.5Y	3.2	B	4.2	4.4	3.5Y	4.5	3.4	2.1	B	2.0	E	E	E	2.0	3.1	
5	2.2Y	4.1	2.2	2.6	2.0	1.9	2.2Y	3.5S	3.7	4.2	3.8	3.6	3.3	3.3	G	3.2	3.2	B	2.4Y	E	E	2.0	E	2.4	
6	E	E	3.6	3.4	3.8Y	2.4	E	G	3.6	3.7	3.6	4.9	4.6	4.2	5.8	5.0	3.8	3.2S	3.5	3.2	2.8	2.2	E	E	
7	E	E	E	E	2.6	E	2.0	2.7	2.9	3.5	4.2	3.5	3.4	3.7	5.3	5.0	3.3	3.5	3.9	3.0S	3.0S	E	E	3.2S	
8	E	E	3.0	2.9	2.2	E	E	3.0	G	4.5	4.3	4.4	3.3	3.9	3.5	3.4	3.5	4.5	3.5	3.0S	E	E	E	E	
9	E	E	2.9	4.8	3.0S	E	E	3.0	3.8	3.7	4.8	G	3.0	3.9	3.3	3.2	2.9	E	E	E	E	E	E	E	
10	E	3.2	3.5	4.8	4.4	3.6	3.7	G	G	3.5	4.3	4.5	3.4	3.7	3.5	3.3	3.2	E	E	E	2.0	2.9	2.7	2.9	
11	2.2	E	2.4	E	2.0	E	E	3.2	3.3	3.5	4.2	4.2	3.9	3.8	5.1	G	G	E	E	E	E	2.8S	E	E	
12	E	E	E	E	E	E	E	2.7	3.4	G	4.0	5.8	6.0	6.8	5.6	3.7	4.5	4.5	3.5	3.0	3.0	2.3	E	E	
13	E	E	E	3.0	3.6	2.7	E	G	3.0	4.0	4.8	5.0	4.3	4.5	7.0	5.4	5.0	4.5	3.0	1.8	E	E	E	E	
14	E	E	2.1Y	2.2	2.3Y	E	E	G	3.5	4.2	4.3	3.3	3.1	2.7	3.2	C	C	C	C	C	C	C	C	C	
15	C	C	C	C	C	C	C	C	C	G	4.3	4.5	4.5	3.8	3.5	3.2	2.8Y	3.2Y	E	2.5Y	3.1	E	E	2.5	
16	3.2	3.2	3.3	3.1	2.7	2.0	E	2.6	4.2	4.1	5.3	6.0	8.0	10.0	6.3	3.6	4.0	3.8	E	E	E	3.0Y	E	E	
17	1.6	E	2.2	3.0	3.9	E	E	G	3.9	3.7	3.2	5.0	5.0	6.7	4.7	3.5	G	E	E	E	E	6.0	5.0	4.0	
18	2.2	4.3	4.0	4.9	3.5	3.5	E	G	3.0	G	3.5	3.5	3.5	4.4	5.6	4.5	7.0	4.5	E	2.5	2.6	E	E	E	
19	E	E	2.1	3.2F	3.2	E	E	3.2	3.5	6.6	4.8	5.0	3.7	G	3.6	3.5	3.3	2.0	E	E	E	3.2	2.1	E	
20	1.9	3.0	E	2.1	1.8	2.8	2.6	2.9	3.5	3.8	6.5	3.7	5.0	5.9	4.6	3.8	2.9	4.6	3.7	4.0	3.0	E	E	3.9	
21	3.2	4.8	3.1	3.3F	9.7	2.9	E	2.7	G	3.6	3.6	4.5	6.7	6.0	3.3	C	C	4.7	4.2	3.2	2.2	2.2	3.8Y	4.8	
22	3.4	6.8	3.2	2.9	2.8	2.1	2.1Y	G	3.0	3.3	3.5	3.3	3.3	3.3	3.3	3.5	3.1	E	1.7	1.8	1.7	E	3.0	E	
23	2.9	E	2.8	3.6Y	2.0	2.1	E	G	3.0	3.5	3.4	G	3.3	G	3.5	2.9	3.5	3.8	3.5	2.1	1.8	E	E	E	
24	E	E	2.1	2.1	2.1	1.9	2.1	G	3.5	3.9	3.0Y	G	3.3	G	B	B	B	E	E	E	E	E	E	E	
25	E	2.2	2.0	2.0	2.6Y	E	E	B	2.8Y	3.6	3.8	3.5	3.4	4.2	3.7	B	G	E	E	E	E	E	E	E	
26	E	E	2.1Y	2.2F	2.0	E	E	G	2.9	3.3	4.1	4.0	4.3	3.3	G	2.7	3.0	1.8	2.9Y	1.7	1.9	E	E	E	
27	E	E	E	E	E	E	E	4.8Y	3.7	3.6	4.2	7.8	5.6	4.2	3.2	4.2	4.1	E	E	1.8	E	E	E	E	
28	E	2.6Y	E	1.9	2.1	3.2	3.0Y	2.7Y	3.0	3.4	3.5	4.2	4.0	4.5	6.0	3.5Y	G	E	E	E	E	3.5	2.7	E	
29	2.2Y	E	E	2.1	2.1F	E	E	1.8	3.3	3.5	3.8	4.5	5.0	3.7	3.3	3.5	2.0	2.1	E	E	E	E	1.9Y	3.0Y	
30	1.9	3.0	1.9	2.0S	2.1	2.4Y	E	2.7	3.6	3.5	3.5	3.7	3.8	4.1	4.1	3.5	2.4	E	E	E	3.0	1.9	3.5	2.2	
31																									
Mean Value	2.5	2.7	2.7	2.9	2.9	2.5	2.3	3.0	3.4	3.9	4.2	4.4	4.3	4.6	4.4	3.7	3.4	3.7	3.3	2.6	2.6	2.9	2.9	3.2	
Median Value	E	E	2.2	2.6	2.3	1.9	E	2.7	3.3	3.6	4.1	4.2	4.0	4.0	4.1	3.5	3.1	2.5	1.7	1.8	E	E	E	E	
Count	29	29	28	29	29	29	29	28	29	30	29	30	30	30	29	26	27	27	29	29	29	29	29	29	29

fEs

Nov. 1955

Sweep 1.0 Mc to 17.2 Mc in 2 min
 Manual Automatic

The Radio Research Laboratories
Koganei-machi, Kitatama-gun, Tokyo, Japan

Lat. 35° 42.4' N
Long. 139° 28.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

(M3000)F2

Nov. 1955

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	28	27	27	28	31	35	32	35 ^P	32	34	35	31	30	30	32	32	34	34	31	27	29	28	27	30	
2	28	30	31	32	32	27	32	34	34	34	32	31	31	31	33	34	34	34	32	31	31	31	30	27	
3	28	28	28	30	31	30	34	32	34	35	34	31	32	31	32	32	34	34	30	30	30	30	28	28	
4	28	28	30	29	33	29	31	34	32	34	35 ^P	31	31	31 ^H	32	33	34	32	32	34	(28)	27	28	29	
5	34	31	28	27	30	30	33	35	34	34	33	32	30	30	32	34	35	32	32	31	32	30	29	30	
6	30	28	28	32	29	28	35	35	35	34	34	33	32	32 ^F	34	34	35	35	32	31	33	27	29	32	
7	29	28	29	31	32	29	32	35	35	34	35	32	32	33	33	35	35	34	33	30	33	30	29	29	
8	28	28	29	31	33	31	32	36	35	33	35	33	32	33	33	34	34	35	35	30	29	29	27	27	
9	28	27	26	26	27	27	32	31	34	35 ^F	33	31	31	31	33	31	33	32	30	29	31	29	27	27	
10	27	28	27	29	31	29	31	34	33	32	35	32	32	31	33	35	35	32	29	32	32	30	29	29	
11	29	29	29	31	34	29	32	34	35	34	35	31	33	34	34	34	36	34	30	30	31	32	29	28	
12	29	28	29	31	34	31	31	36	(34) ^F	36	34	34	30 ^H	32	34	34	36	35	30	28	30	28	30	28	30
13	33	29	31	33	25	26	34	36	36	33	33	C	30	33	(33) ^F	33	32	35	33	31	30	28	28	28	
14	27 ^F	29	28	30	35	30	32	36	35	34	34	34	32	33	34	C	C	C	C	C	C	C	C	C	
15	C	C	C	C	C	C	C	C	C	35	(38) ^F	33	32	32	33	35	34	33	30	30	31	31	28	27	
16	28	28	28	29	27	26	29	32	35	33	33	32	32	30	34	33	32	35	31	31	33	28	27	24	
17	26	28	31	33	35	28	30	35	34	33	34	30 ^F	32	(33) ^F	33	33	33	34	32 ^F	36	33	A	A	27	
18	29	26	27	28	34	32	30	35	33	35	34	33 ^H	32	32	33	34	35	33	32	30	32	32	27	25	
19	26	30	34	33	24	30	32	36	34	31	31	34	34	31	33	32	34	34	31	29	27	28	28	30	
20	24 ^F	24	22	23	25	23	27	29 ^P	27	31	32	33	(33) ^F	36	33	36	35	35	31	32	32	30	29	29	
21	26	26	26	26	26	27	29	32	32	32	34	32	32	33	35	C	C	33	32	33	32	30	30	29	
22	31	(30) ^F	28 ^F	29 ^F	31	30 ^F	31	35	(36) ^F	36	33	33	32	33 ^P	32	35	35	35	32	34	33	33	29	28	
23	28	27	30	33	30	31	29	35	37	35	36	33	34	32	32	34 ^P	35	31	31	33	32	34	29	28	
24	28	29	28	29	30	29	31	34	36	36	35	33	33	34	34	34	34	34	30	32	31	31	28	26	
25	27	29	28	29	29	29	30	34	35	35	34	34	33	32	34	36	36	33	30	33	28	30	30	28	
26	27	28	29	29	29	29	31	35	35	35	36	35	33	34	35	36	36	34	34	32	31	30	29	31	
27	29	29	28	31	35	32	30	35	35	33	36	36	34	34	35	33	34	35	32	33	32	31	28	27	
28	27	28	28	28	30	30	30	34	34	34	34	32	32	34	34	[3.4] ^F	33	32 ^H	31	35	29	29	28	28	
29	(30) ^F	30	29	29	29	30	31	35	34	32	35 ^P	34	34	32	33	33	36	35	32	34	31	31	30	29	
30	25	29	29	30	31	31	31	34	36	35	35	36	31	34	34	34	34	34	33	31	33	35	32	[30] ^F	
31																									
Mean Value	28	28	28	28	30	29	31	35	34	34	34	33	32	32	33	34	34	34	32	32	32	31	30	29	28
Median Value	28	28	28	29	31	29	31	35	34	34	34	33	32	32	33	34	34	34	32	31	31	31	30	29	28
Count	29	29	29	29	29	29	29	29	29	30	30	29	30	30	30	28	28	28	29	29	29	29	28	28	29

(M3000)F2

IONOSPHERIC DATA

fminF

Nov. 1955

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1.3	1.5	1.5	1.2	1.0	1.3	1.5	2.5	2.9	3.3	4.2	4.0	3.5	3.9	3.4	3.3	2.5	1.7	1.6	1.5	1.5	1.7	1.5	1.7
2	1.6	1.6	1.6	1.6	1.1	1.4	1.5	2.5	3.0	3.3	3.5	4.0	3.8	3.4	3.3	3.0	2.4	1.5	2.4A	1.6	1.5	1.4	1.4	2.0
3	1.3	1.3	E	E	E	1.3	1.5	2.5	3.2	3.4	3.7	3.4	3.3	3.5	4.0	2.6	3.2	4.0A	2.5A	1.9	2.5A	1.5	1.5	1.6
4	1.6	1.6	1.2	1.0	E	1.4	1.5	2.3	3.3	3.2	3.4	3.5	4.0	3.5	3.3	3.2	2.4	3.3	1.6	1.6	1.5S	1.6	1.6	2.1A
5	1.3	2.5A	1.3	1.1	1.0	1.3	1.4	2.5	3.3	3.4	3.4	3.3	3.3	3.4	3.5	2.8	2.3	1.6	1.7	1.4	1.6	1.5	1.7	1.7
6	1.4	1.3	[1.6A]	1.8	<1.6<	1.5<	1.5	2.3	2.7	3.2	3.4	3.5	4.0A	2.6	3.3	2.5	2.3	1.7	1.7	1.8	2.1	1.5	1.5	1.5
7	1.3	1.3	1.2	E	E	1.3	1.5	2.5	2.9	3.3	3.5	3.5	3.3	3.4	4.5A	2.7	2.3	2.3	2.1A	1.5	1.6S	1.5	1.5	1.5
8	1.3	1.5	E	1.5	E	1.7	1.5	2.3	2.8	3.5	3.8	3.5	3.4	3.5	3.3	2.6	2.5	2.1	2.0	2.2A	1.7	1.3	1.4	1.5
9	1.4	1.3	E	E	E	1.4	1.5	2.3	3.3	3.3	3.3	3.4	3.5	3.4	3.1	2.6	2.2	1.5	1.5	1.5	1.7	1.5	1.7	1.8
10	1.4	2.5A	2.4A	[2.0M]	1.5	2.2A	1.6	2.4	2.8	3.3	3.6	4.0	4.0	3.3	3.0	2.7	2.1	1.5	1.5	2.1	1.3	1.3	1.5	1.5
11	1.5	1.3	1.2	E	E	1.3	1.4	2.4	2.7	3.4	3.4	3.4	3.3	3.4	4.7A	2.6	2.1	1.5	1.9S	1.5	1.5	1.7S	1.5	1.4
12	1.5	1.3	<1.5<	E	E	1.3	1.5	2.2	2.6	3.1	3.3	4.2A	3.5	4.4A	3.3	2.9	3.5A	2.4	2.4A	2.1	2.0	1.6	1.5	1.6
13	1.5	1.3	<1.5<	2.0A	1.6	1.8	1.6	2.5	2.8	4.0	3.0	4.0	3.5	3.2	6.0A	4.8A	2.4	2.6	2.0	1.6	1.5	1.9	1.5	2.0A
14	1.3	1.4	E	E	E	1.4	1.5	2.5	3.1	3.5	3.7	3.4	3.3	3.3	3.1	C	C	C	C	C	C	C	C	C
15	C	C	C	C	C	C	C	C	C	3.2	3.4	3.3	3.7	2.9	3.0	2.8	2.2	1.4	1.5	1.5	1.7	1.2	1.5	1.1
16	1.1	1.4	1.0	1.0	1.4	1.4	1.5	2.3	3.3	3.4	4.0	5.2A	4.4A	4.2A	3.5	2.6	2.2	1.4	1.3	1.3	1.5	1.4	2.0	1.4
17	1.2	1.3	1.0	1.0	1.0	1.3	1.5	2.2	3.1	3.0	3.3	3.4	3.3	6.0A	3.5	2.8	2.4	1.5	1.5	1.3	1.2	A	A	1.9
18	1.5	1.4	1.6	[1.5A]	1.4	1.5	1.4	2.5	3.2	3.0	3.5	3.5	3.7	3.3	4.0	2.6	5.0A	3.5A	1.5	1.5	1.5	1.5	1.4	1.6
19	1.3	1.3	E	E	E	1.3	1.4	2.4	2.9	6.0A	3.5	3.3	3.3	3.4	3.1	2.6	2.3	1.5	1.4	1.5	1.5	1.8	1.4	1.4
20	1.5	2.3A	1.0	1.2	E	2.2A	1.6	2.3	2.6	3.4	3.3	3.5	3.3	3.3	2.9	3.0	2.3	2.4S	2.3	1.5	1.6	1.4	1.7	1.7
21	1.5	2.5A	1.5	1.1	E	1.4	1.5	2.3	2.6	3.0	3.2	3.3	3.8	4.3A	3.3	C	C	3.6A	1.5	2.3A	1.3	1.7	1.5	1.8
22	1.5	[1.6A]	1.7	1.4	1.4	1.3	1.5	2.2	2.7	3.1	3.3	3.4	3.4	3.4	3.3	2.7	2.3	1.5	1.6	1.8	1.9	1.5	1.9	1.5
23	1.4	1.3	1.9	1.4	1.7	1.4	1.6	2.1	2.7	3.3	3.4	3.3	3.5	3.1	3.1	2.8	2.3	2.1	2.2A	1.7	1.9	1.5	1.6	1.4
24	1.3	1.4	E	E	E	1.0	1.4	2.2	2.6	3.4	3.5	3.3	3.3	3.4	3.2	2.4	1.8	1.5	1.5	1.3	1.5	1.4	1.3	1.4
25	1.4	1.3	1.0	E	E	1.4	1.3	2.5	2.5	3.0	3.3	3.3	3.3	3.3	3.3	2.6	2.5	1.4	1.4	1.2	1.2	1.3	1.5	1.4
26	1.3	1.4	1.0	E	E	1.3	1.4	2.3	2.7	3.3	3.5	3.6	4.0	3.4	3.3	3.1	2.3	1.6	1.6	1.5	1.4	1.3	1.5	1.4
27	1.3	1.4	1.2	E	E	1.3	1.4	2.0	2.6	3.2	3.6	4.9A	3.3	3.5	3.3	2.8	2.5	1.5	1.3	1.4	1.5	1.3	1.9	1.9
28	1.4	1.2	1.4	E	E	1.3	1.4	2.5	2.7	3.3	3.3	3.4	3.3	3.3	3.2	2.3	2.5	1.4	1.4	1.3	1.3	2.5A	1.6	1.3
29	1.3	1.3	1.2	1.0	E	1.3	1.3	2.3	2.5	3.1	3.5	3.5	3.4	3.3	3.3	2.7	2.5	1.5	1.4	1.4	1.5	1.4	1.5	1.4
30	1.3	1.4	1.3	E	E	1.4	1.4	2.5	2.6	3.4	3.5	3.7	3.3	3.5	3.3	3.3	2.5	1.5	1.5	1.5	2.1A	1.3	[1.4A]	1.5
31																								
Mean Value	1.4	1.5	1.4	1.4	1.3	1.4	1.5	2.4	2.9	3.4	3.5	3.6	3.5	3.5	3.5	2.8	2.5	1.9	1.7	1.6	1.6	1.5	1.5	1.6
Median Value	1.4	1.4	1.2	1.0	E	1.4	1.5	2.4	2.8	3.3	3.4	3.5	3.4	3.4	3.3	2.7	2.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Count	29	29	27	29	28	28	29	29	29	30	30	30	30	30	30	28	28	29	29	29	29	29	29	29

fminF

Sweep 1.0 Mc to 17.2 Mc in 2 min

Manual Automatic

IONOSPHERIC DATA

Nov. 1955

fminE

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1.5	1.2	E	E	E	1.4	1.5	1.5	1.5	1.4	1.5	1.9	1.5	1.3	1.5	1.5	1.5	1.5	1.5	1.5	E	E	1.5	1.4
2	1.3	1.2	E	E	E	1.5	1.5	1.5	1.4	1.5	1.5	1.5	1.6	1.6	1.4	1.4	1.5	1.5	1.4	1.4	E	E	E	1.4
3	E	1.5	E	1.0	1.1	E	E	1.4	1.5	1.3	2.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.5	E	E	1.4
4	1.4	1.4	E	E	E	E	E	1.5	1.5	1.5	B	3.3	2.5	1.6	1.5	1.4	1.4	B	1.5	E	E	E	1.5	1.4
5	1.4	1.4	1.1	E	E	1.5	1.6	1.5	2.5	1.3	1.4	1.5	1.4	1.5	1.4	1.3	1.3	B	1.5	E	E	1.5	E	1.4
6	E	E	E	E	1.0	<1.5	E	1.4	1.4	1.4	1.4	1.4	1.5	1.4	1.6	1.5	1.3	1.4	1.3	1.4	1.5	1.6	E	E
7	E	E	E	E	1.0	E	1.5	1.4	1.4	1.4	1.5	1.5	1.5	1.4	1.4	1.3	1.4	1.4	1.4	1.5	1.3	E	E	1.6
8	E	E	E	E	1.0	E	E	1.3	1.5	1.5	1.5	2.4	2.4	1.6	1.5	1.4	1.3	1.2	1.4	1.5	E	E	E	E
9	E	E	E	1.0	1.6	E	E	1.5	1.5	1.5	2.4	2.4	1.7	1.5	2.1	1.5	1.5	E	E	E	1.0	1.0	1.3	1.3
10	E	1.3	E	E	E	1.3	1.5	1.4	1.4	1.5	2.3	2.4	2.0	1.4	2.0	1.5	1.4	E	E	E	E	E	E	E
11	1.2	E	1.0	E	1.5	E	E	1.5	1.5	1.4	1.5	1.5	1.4	1.5	1.5	1.7	1.5	E	E	E	E	1.4	E	E
12	E	E	E	E	E	E	E	1.4	1.3	1.5	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.5	1.5	1.5	1.4	E	E
13	E	E	E	E	E	E	E	1.5	1.5	1.5	1.7	1.5	1.5	1.5	1.4	1.5	1.4	1.3	1.5	1.6	1.6	1.4	E	E
14	E	E	1.5	1.0	E	E	E	1.9	1.5	1.5	1.3	1.5	1.6	1.5	1.5	C	C	C	C	C	C	C	C	C
15	C	C	C	C	C	C	C	C	C	1.5	1.5	1.5	1.5	1.5	2.4	1.5	1.4	1.4	E	1.8	1.3	E	E	1.4
16	1.1	1.4	E	E	E	1.4	E	1.4	1.1	1.3	1.4	1.6	1.5	1.4	1.5	1.4	1.4	2.5	E	E	E	1.5	E	E
17	1.3	E	E	E	E	E	E	1.4	1.4	1.5	2.3	1.6	1.4	2.1	1.4	1.6	1.4	E	E	E	E	1.4	1.4	1.4
18	1.1	1.0	E	E	E	1.0	E	1.2	1.4	1.5	1.5	1.4	1.6	1.4	1.3	1.5	1.4	1.4	E	1.5	1.5	E	E	E
19	E	E	1.3	1.0	E	E	E	1.4	1.4	1.5	1.5	1.5	1.6	1.5	1.4	1.4	1.4	1.3	E	E	E	1.5	1.0	E
20	1.3	1.2	E	E	E	1.2	1.4	1.3	1.4	1.4	1.5	1.4	1.5	1.4	1.5	1.5	1.4	1.0	1.4	1.3	1.5	E	E	1.5
21	1.4	1.3	1.2	E	E	1.3	E	1.4	1.2	1.4	1.5	1.5	1.5	2.2	2.2	C	C	1.5	1.2	1.2	1.7	1.4	1.5	1.4
22	1.3	1.4	1.2	1.1	1.0	1.4	1.6	1.5	1.4	1.5	1.6	1.4	1.5	1.5	1.4	1.5	1.4	E	1.3	1.2	1.3	E	1.5	E
23	1.3	E	1.0	1.0	1.0	1.4	E	1.4	1.4	1.5	1.6	2.2	2.3	1.6	1.5	1.4	1.4	1.4	1.4	1.4	1.4	E	E	E
24	E	E	1.4	1.0	1.1	1.4	1.4	1.5	1.5	2.5	1.4	2.5	2.5	2.0	B	B	B	E	E	E	E	E	E	E
25	E	1.4	1.3	1.2	1.2	E	E	B	1.5	1.6	1.4	1.6	1.3	1.5	1.5	(1.6) ^g	1.7	E	E	E	E	E	E	E
26	E	E	1.4	1.2	1.5	E	E	1.6	1.5	1.5	1.5	1.6	1.6	2.0	2.5	1.6	1.3	1.4	1.4	1.5	1.6	E	E	E
27	E	E	E	E	E	E	E	1.4	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.5	1.5	E	E	1.5	E	E	E	E
28	E	1.4	E	1.2	1.4	1.9	1.9	1.5	1.4	1.5	1.5	1.6	1.5	1.5	1.6	1.8	1.4	E	E	E	E	1.4	1.4	E
29	1.0	E	E	1.5	1.0	E	E	1.4	1.5	1.5	1.4	1.4	1.4	1.5	1.5	1.4	1.3	1.5	E	E	E	E	1.3	1.3
30	1.5	1.2	1.4	1.5	E	1.5	E	1.5	1.5	1.5	1.4	1.4	1.4	2.3	2.3	1.5	1.5	E	E	E	1.4	1.5	1.5	1.4
31																								
Mean Value	1.3	1.3	1.3	1.1	1.2	1.4	1.5	1.5	1.5	1.5	1.6	1.7	1.6	1.5	1.6	1.5	1.4	1.4	1.4	1.5	1.4	1.4	1.4	1.4
Median Value	E	E	E	E	1.0	E	E	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.1	1.2	E	E	E	E
Count	29	29	28	29	29	27	29	28	29	30	29	30	30	30	29	27	27	27	29	29	29	29	29	29

fminE

Group 1.0 Mc to 17.2 Mc in 2 min

Manual Automatic

The Radio Research Laboratories
Koganei-machi, Kitatama-gun, Tokyo, Japan

Lat. 35° 42.4' N
Long. 139° 29.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

YPF2

Nov. 1955

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	70	70	70	70	80	80	50	50 ^P	80	50	40	60	60	60	60	60	40	40	80	90	70	21	22	23
2	70	60	50	60	70	80	60	40	60	60	40	90	60	50	40	50	60	60	90	50	60	60	70	90
3	80	60	80	80	80	80	50	80	50	40	50	60	40	60	50	50	70	40	90	100	90	70	70	60
4	80	100	70	70	60	90	70	50	70	50 ^P	90	70	50 ^H	50	60	50	60	80	60	50	(80) ^T	90	70	60
5	60	50	50	70	70	60	50	50	50	60	70	60	80	80	70	50	60	70	70	60	70	50	60	70
6	70	90	90	50	70	70	40	70	40	50	70	40	70 ^P	50	50	50	60	80	70	70	60	70	70	60
7	80	80	80	60	70	90	50	60	50	50	50	60	50	50	70	50	70	60	70	90	90	40	60	60
8	60	50	70	50	80	50	60	60	40	40	40	90	60	50	60	50	50	50	50	70	80	90	50	80
9	70	80	90	90	80	70	80	60	50	40 ^P	50	60	70	60	70	90	40	80	80	80	80	60	90	80
10	90	80	80	70	50	70	60	50	80	30	40	60	70	60	70	60	60	70	90	60	80	50	60	50
11	60	80	70	50	40	80	60	70	60	60	60	60	50	40	50	60	50	60	90	80	80	70	80	50
12	60	60	50	60	50	90	50	80	(60) ^P	50	40	40	70 ^H	40	40	40	60	60	100	70	70	70	70	60
13	60	80	70	90	100	60	60	30	40	60	30	C	60	60	(50) ^T	60	60	50	60	80	80	60	90	80
14	70 ^V	50	70	80	40	100	50	40	30	40	50	50	50	40	50	C	C	C	C	C	C	C	C	C
15	C	C	C	C	C	C	C	C	C	30	(40) ^T	70	80	60	60	60	70	60	80	80	60	60	70	60
16	50	60	80	60	70	60	40	50	40	60	60	70	60	90	40	60	70	60	90	70	50	90	60	80
17	90	80	80	40	60	90	60	70	50	60	50	40 ^P	60	(70) ^T	70	60	60	60	70 ^P	80	70	A	A	80
18	70	90	70	80	60	80	60	80	70	40	50	60 ^H	80	70	50	50	50	70	50	80	70	80	70	90
19	70	80	70	100	110	50	80	70	60	70	50	50	60	60	70	70	70	70	110	90	80	60	60	50
20	60 ^F	100	80	100	40	A	80	60 ^P	70	70	80	60	(90) ^T	60	110	40	60	100	60	70	70	80	60	70
21	70	90	100	90	50	90	120	70	80	60	70	70	60	90	60	C	C	80	60	90	70	80	80	70
22	90	(90) ^A	90 ^F	80 ^F	60	60 ^F	60	50	(60) ^C	60	60	70	60	50 ^P	70	80	60	50	70	50	50	80	70	70
23	50	50	60	70	100	80	90	50	70	40	50	100	50	80	80	70 ^P	80	90	100	70	70	50	50	80
24	70	70	90	70	70	90	80	60	30	50	60	60	100	50	60	50	60	80	70	50	90	100	90	80
25	60	60	90	100	70	50	70	60	50	60	40	60	100	100	40	40	50	60	70	60	70	50	90	70
26	80	50	60	60	60	70	40	50	70	40	30	30	40	40	60	40	50	90	90	70	80	70	80	90
27	80	70	70	80	40	90	70	50	50	70	50	40	60	50	70	40	60	70	90	60	70	80	80	80
28	90	60	50	70	50	60	50	40	40	50	50	90	40	80	[80] ^T	80	60 ^H	80	80	70	100	70	70	60
29	(60) ^T	60	80	70	80	90	70	60	60	70	40 ^P	60	80	90	50	40	70	70	60	60	70	70	70	80
30	80	60	60	70	60	50	80	70	30	40	50	50	60	60	50	40	70	70	70	60	50	70	(60) ^A	60
31																								
Mean	70	70	70	70	70	70	50	60	50	50	50	60	60	60	60	60	60	70	70	70	70	70	70	70
Median	70	70	70	70	70	80	50	60	50	50	50	60	60	60	60	50	60	70	70	70	70	70	70	70
Value	29	29	29	29	28	29	29	29	29	30	30	30	30	30	30	28	28	29	29	29	29	28	28	29
Count																								

YPF2

Sweep 1.0 Mc to 17.2 Mc in 2 min

Manual Automatic

K 12

The Radio Research Laboratories
Koganei-machi, Kitatama-gun, Tokyo, Japan

Lat. 31° 12.5' N
Long. 130° 37.7' E

Yamagawa

IONOSPHERIC DATA

135° E Mean Time

foF2

Nov. 1955

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	4.5	4.1	4.0	4.2P	4.3	2.6	3.0	6.1	8.7	12.2	8.5	8.6	9.4	12.3	13.1	13.1	12.4	9.0	6.2	5.4	5.6	5.0	4.5	4.6V	
2	5.0	5.2	4.8	3.8	3.4	2.9	2.9	7.0	9.0	8.5	10.5	12.0	12.9	13.5	13.7	13.3	12.9	11.7	8.3	5.9	6.8	7.2	5.3	4.5J	
3	4.8	4.6	3.9	4.2	4.6	2.5	3.0	6.2	8.0	8.9	11.0	12.0	11.5	12.9	14.6	13.5	10.7	9.6	8.7	6.5	6.7	6.0	5.2	4.5	
4	5.7	3.9	3.9	4.0	4.1P	2.4H	2.8	6.0	8.0	9.6	9.8	9.5	9.6	11.7	14.5	14.0	11.7	10.5	8.4	6.4	6.0	5.7	5.0	5.4	
5	5.6	4.7	2.9	3.2	3.5	3.2	3.1	6.3	8.9	10.0	11.0	8.5	10.3	12.6	13.6	12.6	10.8	8.4	7.0	5.9	5.9	4.5	4.0	4.0	
6	4.1	3.8	3.5	4.0	4.2	3.5	3.5	6.2	7.8	9.6	11.0	10.2	11.2	12.2	12.8	12.1	9.6	8.5	6.6	4.9	5.0	4.7	4.0	3.7	
7	3.6	3.5	3.4	3.5	3.9	2.5	2.8	6.0	8.4	9.5	10.6	8.9	8.6H	11.5	13.0	13.2	10.2	9.0	7.1H	6.2H	5.9	5.7	4.2	3.7	
8	3.7	3.6	3.8	3.9	4.2J	3.3	2.9	5.9	7.1	9.7P	10.4	10.9	9.4	9.6	11.5	10.6	9.0	7.1	6.6	5.3	5.2	4.9	3.9	3.9	
9	3.9	3.8	3.6	3.8	4.1	3.8	3.6	5.7	9.0	11.4	10.2	11.0	11.3	10.3H	11.6	9.8	8.8	8.3	5.5	4.5	5.0	4.4	3.8	3.7	
10	3.8	3.9	3.9	4.5	5.1	3.7	3.5	6.2	8.1	8.5	9.6	12.6	10.9	10.9	13.2	12.0	10.0	7.0	6.5	5.1H	5.9	5.9	4.2H	3.6	
11	3.4	3.5	3.5	3.6	3.8	3.1	2.7	5.7	8.1	8.9	9.6	10.0	10.5	9.6	11.2	10.4	7.7	7.7	5.7	5.0	5.3	4.7	3.9	3.7	
12	3.8	3.7	3.6	3.8	4.2	3.3	2.8	5.9	8.3	9.4J	10.0	9.8	8.9	11.5	11.8	11.8	10.0	7.9	6.2	5.7	5.7	6.5	5.6	3.8	
13	3.5	3.6	3.8	3.9	3.2	3.0	3.7	5.9	6.5	8.9	10.1	11.9	10.1	12.2	11.1	10.5	10.5	7.9	6.2	4.9H	4.6H	4.4	3.8	3.4	
14	3.6	3.7	3.9	4.0	4.4	3.5H	3.1	6.0	7.2	9.2	10.3	10.6	10.1	10.0	11.3	12.0	9.5	7.4	6.0	4.8	4.8	4.1	2.8	2.9	
15	3.0	3.0	3.1	3.7	4.1J	2.1	2.4	5.8	7.6	8.2	11.0	11.0	10.1	10.2	10.5	11.5	8.9	8.0	6.5	5.2H	5.9	5.9	3.9	3.8V	
16	4.0V	4.0	4.0	4.1	3.8	3.5	3.8	6.6	10.9	9.6	10.2	12.0	12.3	12.0	12.9	10.5	10.5	9.7	9.0	6.3P	6.3J	4.6	3.4	3.4	
17	3.6	3.6	4.2	3.8	3.8	2.8	2.9	6.4	C	C	C	C	C	C	C	C	C	C	6.9	4.9	4.5	4.3	3.6	3.3	
18	3.1	3.1	3.3	3.5	4.0	F	2.4	5.5	7.1	9.3J	9.4	9.4J	10.2	10.3H	12.7	12.1	12.0	9.8	6.7	5.0	6.3	5.1	3.1	3.0	
19	3.1	3.7	4.6J	B	2.0	2.2	2.8	4.5	6.5	10.6	12.4	(14.5)P	10.9	10.2	10.7	10.2	10.3	9.0	7.3	5.2	5.9	6.5	6.6	5.8	
20	F	3.6F	3.5F	3.4F	3.1	3.9F	F	5.9F	8.9	14.5	14.2	13.5H	14.0	12.8V	9.6H	9.2	[8.1]A	7.0	7.0	8.0	5.7	5.9	5.6	[4.7]A	
21	3.8	3.0	3.2	3.2	3.2	3.2	3.0	5.8	9.7	13.7	14.6	12.5	11.9	11.7	10.9	10.2	8.6	7.9	7.0	5.6	5.2	5.0	4.2	3.2	
22	3.1	3.2	3.2	3.2	3.0	2.7	2.8	5.6	7.6	9.2J	8.2	10.4	9.6	11.0	11.8	9.0	8.6	8.7	6.1	5.6	5.6	3.7H	2.8	2.8	
23	2.8	2.9	3.2	3.3	3.7	2.9	2.8	5.5	9.5	10.4	9.6	10.0	8.6	8.9	9.6	8.8	7.9	7.2	5.7H	6.4	5.3	4.5	3.9	3.1	
24	2.9	2.9	3.1	3.1	3.0	2.9	3.0	5.5	8.1	8.3	8.0	8.7	7.7	8.9	9.0	9.6J	10.0	8.7	5.7	5.4	5.3	4.3P	3.7	3.5	
25	3.5	3.8	3.7	3.8	3.5	3.3H	3.3	5.1	8.4	9.3	9.4	8.9	8.7	10.4	10.0	9.2	8.4	6.6	5.0	5.3	5.7	5.2	3.3	2.8	
26	2.8	3.2	3.1	3.2	3.4	2.8H	2.7	5.3	7.8	8.9	9.1	9.9	8.4	10.5	10.8	9.0	8.9	7.4	6.1	5.5	5.7	4.5	3.8	3.3	
27	2.9	3.0	3.1	3.6	4.0	2.8V	2.6	4.9	7.0	8.5	9.6	9.0	9.8	8.3H	10.0	9.8	10.2	8.1	5.9	5.0	5.1	5.0	4.5	3.5	
28	3.2	3.2	3.3	3.5	3.6	3.3	3.1	4.8	7.6	10.0	9.1	10.5	9.0	10.7	11.2	8.5	9.1	6.5	5.6	5.5	(5.9)P	4.1	4.1	3.7E	
29	3.6	3.1	2.9	2.9	2.9	2.9	2.5	4.9	8.0	9.0	10.3J	9.9	9.3	8.6H	11.0	10.3	11.2	8.4	5.5	5.8	6.1	6.0	4.2	2.6	
30	2.6	2.8	3.1	3.3	3.3	3.1	2.9	4.9	7.9	9.0	9.0H	9.8	(9.0)H	10.0	10.5	8.6	9.3	7.7	5.8	6.2	5.6	4.5	4.0	3.1	
31																									
Mean Value	3.6	3.6	3.6	3.7	3.7	3.0	3.0	5.7	8.1	9.8	10.2	10.6	10.1	10.9	11.7	10.9	9.9	8.3	6.6	5.6	5.6	5.1	4.2	3.7	
Median Value	3.6	3.6	3.5	3.7	3.8	3.1	2.9	5.8	8.0	9.3	10.1	10.2	10.1	10.7	11.3	10.5	10.0	8.1	6.4	5.4	5.7	5.0	4.0	3.6	
Count	30	30	30	29	30	29	29	30	29	29	29	29	29	29	29	29	29	29	29	30	30	30	30	30	

Sweep 1.0 - Mc to 22.0 Mc in 1 min

Manual Automatic

foF2

Y 1

The Radio Research Laboratories
Koganei-machi, Kitatama-gun, Tokyo, Japan

Lat. 31° 12.6' N
Long. 130° 37.7' E

Yamagawa

IONOSPHERIC DATA

135° E Mean Time

Nov. 1955

R'F2

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	280	310	300	250	240	260	310	230	240	250	240	250	290	270	270	250	220	250 ^A	270 ^A	270 ^A	270	260	280	310
2	280	260	230	250	260	340 ^A	300	240	230	240	260	250	260	270	260	250	240	220 ^A	200	230	260	240	280 ^A	300
3	310	290	320	270	230	240	250	240	240	250	260	260	260	260	270	240	230	220 ^A	220 ^A	230	240	250	280 ^A	290
4	300	290	280	280	240	260 ^H	290	240	240	240	240	250	270	260	290	250	240	230	210	210	230	250	300	290
5	250	240	290 ^A	310	280	240	250	240	240	250	250	250	290	280	260	240	230	220	220	230	250	250	250	290
6	300 ^A	260	260	300 ^A	280	290 ^A	270	240	240	260	250	240	250	250	260	250	220	220	200 ^A	250 ^A	280 ^A	270	300 ^A	300
7	300	290	280	290	250	270	290	240	240	250	230	250	240 ^H	300	260	240	220	220	210 ^H	250	230	250	230	300
8	310	300	270	250	240	230	260	230	220	250	250	240	250	250	280	250	230	210	210	210	250	230	270	300
9	300	300	340	330	300	290	280	240	250	250	250	250	250	250 ^H	250	240	230	240	200 ^A	270	280 ^A	240	250	300
10	340	300	300	290	250	230	280	240	240	250	250	260	240	250	270	240 ^A	250	210	240	250 ^H	280	240	240 ^H	290
11	310	300	300	270	260	240	250	240	230	240	260	250	260	240	250	240	230	220	200 ^A	240	250	240	250	300
12	280	300	320	280	250	210	300	240	240	250	240	260	240	290	240	250	220	220	200 ^A	240	300	250	230	250
13	280	280	250	240	280	400	250	220	230	270	270	260	250	290	250	250	240	240	240	220	250 ^H	250	260	300
14	330	300	280	250	240	220 ^H	260	240	220	260	250	240	240	280	280	240	230	230	220	210	250	240	270	320
15	340	330	320	270	210 ^A	400	310	240	230	240	250	250	250	270	250	260	240	240	200	230 ^H	240	230	250	340
16	340	290	300	280	270	300	340	260	230	240	270	280	250	290	250	240	260 ^A	250	220	250	210	250	290	350
17	320	290	250	250	260	250	280	260	230	240	270	280	250	290	250	240	260 ^A	250	200	200	250	270	250	280
18	300	320	300	280	260	230 ^A	320	240	230	240	240	240	260	240 ^H	270	240	220	230	240	260	240	230	300	350
19	350	290	220	210	450	450	250	230	260	260	260	270	250	250	250	250	250	230	220 ^A	250	320	290	260	280
20	240	410	440	420	410	290 ^F	340 ^F	280	280 ^L	250	240	240 ^H	250	230	240 ^H	250	[240 ^A]	220 ^A	230	230	260	320 ^A	250	[270 ^A]
21	290	340	450 ^A	350	340	300	(450 ^H)	290	250	260	240	240	260	260	240	240	240	220	210 ^A	240	230	250	220	270
22	300	300	250	240	290	300	280	230	220	230	230	240	250	250	260	230	230	220	200	240	230	250	220	340
23	340	350	300	280	240	290	340	260	230	240	240	240	240	250	240	240	240	210	230 ^H	240	200	240	270	310
24	300	290	280	250	260	250	280	240	230	240	240	240	240	250	250	250	240	240	200	200	240	240	270	300
25	330	290	260	270	250	260 ^H	290	250	240	250	240	240	250	270	250	240	230	210	210	270	240	230	240	290
26	360	310	270	300	270	200 ^H	300	250	240	240	260	260	240	270	250	240	240	210	220	240	230	230	240	270
27	310	320	300	260	220	250	270	230	230	240	250	240	240 ^H	240	240	250	240 ^A	200 ^A	200	240	230	250	250	300
28	330	300	290	290	270	240	290	260	240	250	240	250	240	270	260	240	230	200	210 ^A	240	200	300	260	250
29	250	250	270	290	290	250	300	250	240	240	250	240	240	240 ^H	270	250	240	200	210	250	230	220	220	260
30	350	350	300	270	260	240	260	250	220	250	230 ^H	250	240 ^H	250	260	230	240	200 ^A	220	240	240	220	250	320
31																								
Mean Value	310	300	290	280	270	270	290	240	240	250	250	250	260	260	260	240	240	220	220	220	240	250	260	300
Median Value	300	300	290	280	260	260	280	240	240	250	240	250	260	260	260	240	240	220	210	210	240	240	250	300
Count	30	30	30	30	30	30	30	30	29	29	29	29	29	29	29	29	29	29	29	30	30	30	30	30

R'F2

Sweep 1.0 Mc to 2.2 Mc in 1 min

Manual

Automatic

Y 2

The Radio Research Laboratories
Koganei-machi, Kitakama-gun, Tokyo, Japan

Lat. 31° 12.6' N
Long. 130° 37.7' E

Yamagawa

IONOSPHERIC DATA

135° E Mean Time

Nov. 1955

fEs

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	2.7	2.5	2.9	2.0	E	E	2.3	2.9	3.8	4.9	5.7	5.7	7.3	7.9	7.2	5.9	7.2	7.9	7.2	5.9	5.9	3.3	2.3	2.1	
2	2.3	2.8	2.3	2.3	3.4	3.0	3.1	3.0	5.7	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	3.8	3.8	3.4	
3	2.9	2.9	3.1	2.8	E	E	E	E	3.6	6.3	5.9	5.9	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	3.1	2.9	3.2	3.0	
4	2.3	2.4	2.4	3.0	2.0	4.8	2.3	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	2.4	3.1	2.9	2.1	
5	6.5	3.7	3.6	2.9	3.1	E	E	E	3.4	4.4	8.7	5.9	5.9	5.9	4.3	3.7	3.6	3.0	3.1	3.1	2.3	2.1	2.3	2.4	
6	3.8	2.3	3.1	3.8	5.7	3.8	2.3	3.1	3.3	5.7	5.8	5.8	5.7	5.8	3.8	5.7	3.8	3.8	3.8	3.8	3.7	3.4	3.2	2.3	
7	E	2.0	2.1	E	2.1	2.3	E	2.3	4.3	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	E	E	E	E	
8	2.3	2.1	2.3	2.2	3.0	2.3	2.3	2.1	3.5	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	
9	E	E	E	E	E	E	E	E	3.5	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	
10	3.0	2.3	2.3	3.8	3.1	2.3	3.2	B	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	
11	2.3	2.3	2.3	2.2	3.5	3.1	E	E	3.4	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	
12	E	E	E	E	E	E	E	E	3.5	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	
13	2.3	E	E	E	E	E	E	E	3.4	3.8	3.8	5.9	6.2	1.3	1.3	6.3	6.5	6.2	3.7	3.1	2.2	E	2.4	5.7	
14	2.2	2.3	E	E	E	E	E	E	3.4	3.8	5.2	5.2	5.2	3.8	5.2	3.6	3.6	3.1	3.1	E	3.7	3.5	2.0	2.4	
15	E	E	2.1	2.3	2.4	3.1	3.6	2.4	3.4	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	E	E	E	E	E	
16	2.3	3.0	2.3	2.4	2.3	2.3	E	B	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	
17	E	2.3	E	3.8	3.8	3.2	2.3	2.4	C	3.8	C	C	5.9	5.9	6.4	5.9	8.9	3.8	5.9	3.1	3.6	4.4	3.8	E	
18	2.3	E	2.3	3.0	5.0	4.5	3.8	3.5	3.1	7.8	7.8	7.8	7.8	8.9	6.3	8.9	4.0	3.6	3.4	2.3	2.3	2.8	2.9	3.2	
19	E	2.3	2.3	2.2	E	E	E	E	3.9	4.3	6.6	6.3	5.9	5.9	8.9	6.9	11.3	6.4	E	3.4	8.9	5.9	3.2	8.0	
20	3.7	2.3	2.2	2.4	E	E	E	E	3.3	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	
21	3.2	8.9	4.2	6.7	3.7	5.9	5.2	3.5	3.5	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	
22	3.0	2.3	2.3	6.5	3.2	3.8	3.2	3.2	3.5	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	
23	E	E	E	E	E	E	E	E	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	
24	E	E	E	E	E	E	E	E	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	
25	2.2	E	E	E	E	E	E	E	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	
26	3.1	E	E	E	E	E	E	E	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	
27	2.3	E	E	E	E	2.1	2.3	B	5.7	5.9	4.6	5.9	6.3	5.8	5.9	3.8	5.9	3.2	3.3	2.9	2.2	2.3	E	E	
28	E	E	E	E	E	E	E	E	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	
29	E	2.5	2.3	3.7	2.3	2.3	3.6	3.4	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	
30	E	E	E	2.0	E	2.9	E	B	5.7	5.9	6.2	5.9	5.9	5.9	5.9	6.5	7.5	4.4	2.3	3.5	2.4	E	E	E	
31																									
Mean Value	2.9	2.8	2.6	3.2	3.1	3.3	2.9	2.9	3.7	4.6	5.7	5.5	5.7	6.1	6.3	5.3	5.7	4.4	3.7	3.3	3.3	3.2	2.7	3.2	
Median Value	2.3	2.3	2.2	2.2	2.2	2.3	2.2	2.4	3.3	5.7	4.7	4.7	4.6	4.2	4.8	4.2	3.8	3.6	3.4	3.1	2.3	2.2	2.2	E	
Count	30	30	30	30	30	30	30	18	29	29	29	29	29	29	29	29	29	28	30	30	30	30	30	30	

Y 3

Manual Automatic

Sweep 1.0 Mc to 22.0 Mc in ___ min

fEs

SOLAR RADIO EMISSION

NOV., 1955

Observing Station: HIRAISO

Frequency: 200 Mc/s.

Flux in 10^{-22} w.m. $^{-2}$ (c/s) $^{-1}$, 2 polarizations

Time in U.T.

Daily Data

Date	Steady Flux		
	00-03	03-06	Daily Averages
1	8	9	9
2	8	9	9
3	7	13	10
4	6	6	6
5	6	6	6
6	5	6	6
7	10	10	10
8	23	26	26
9	36	41	35
10	29	29	29
11	26	-	-
12	-	-	-
13	-	-	-
14	-	10	-
15	12	21	18
16	26	25	26
17	8	9	8
18	18	15	16
19	8	7	8
20	5	5	5
21	4	5	5
22	4	4	4
23	6	5	6
24	4	5	5
25	5	4	5
26	5	6	6
27	6	6	6
28	7	6	7
29	12	9	10
30	9	17	13

11th to 14th ...unreliable because of external interference

Outstanding Occurrences

Date	Starting Time	Duration	Type	Peak Flux	Time
15	0439-20s	2m	SD	ca. 1600	0440
	0442	1m	SD	280	-
	0444	1m	SD	140	-
18	0237-50s	1m50s	CA	810	0238
	0241-00s	9m30s	SA	390	0242-20s
Both day accompanied with SID.					

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IONOSPHERIC DATA IN JAPAN FOR NOVEMBER 1955

電波観測報告 才7卷 才11号

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