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IONOSPHERIC DATA IN JAPAN

FOR JANUARY 1956

Vol. 8 No. 1

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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

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

Lat. 46°28.6' N
Long. 141°41.1' E

Wakkanai

IONOSPHERIC DATA

Jan. 1956

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	3.7	3.9	2.8	2.9F	3.2F	2.8	3.2	3.9	6.1	7.8	9.3J	19.3J	9.3J	8.0	7.6Z	7.0	5.8	4.5	4.6	4.1	3.0	2.8	2.2	3.5
2	3.6	3.6	3.4	3.3	3.3	3.6	3.7	4.1	6.2	10.0J	9.7J	10.3	9.8J	8.5VH	8.0	9.2	7.3J	5.5F	4.8	2.7	2.7	F	F	F
3	3.6F	3.4	3.1V	3.0	3.3	2.9	3.0F	4.0	7.3	6.6	8.5	19.3J	8.1	8.0	8.5	8.2	6.3	4.5J	4.0F	3.7F	3.3F	3.7	3.0	3.0
4	3.2F	3.6F	4.1	4.0	4.0	3.7	3.0V	4.0	6.1	7.2	7.9	8.6	8.8	7.8	8.8	8.1	6.6	5.3	4.6	3.6	2.7	3.0	3.7F	3.1
5	3.2	3.2	3.1	3.0	3.0	2.7	2.3	4.2	7.3J	6.8	7.8J	7.9	9.3	6.5	9.5	8.0	5.5	5.3	4.2	2.8	2.5	2.0	3.2	3.2
6	3.3	3.5	3.6V	3.6	3.5	3.2	2.7F	4.0	6.7	7.3J	9.0	8.2	18.6H	7.8	9.0J	7.9	5.9	5.3F	A	A	2.9	1.3Z	1.5F	3.3F
7	3.3F	3.2	3.0F	3.2	3.2F	3.0	2.6	3.9	5.7	8.0	10.3J	9.8	8.2	8.0	8.6	6.5	6.5	5.9	3.7	3.4	3.6Z	3.5	3.3	3.2
8	3.3	3.3	3.1	3.0	3.1	3.0	3.1	3.7	6.0	8.2	10.3J	9.7	7.9	7.3	8.2	7.9	6.0	4.6	3.7	3.7	3.6	3.5F	3.7F	3.5F
9	3.8	3.9	3.6	3.3	3.6	3.2	2.7	3.9	6.1	8.3	8.8J	9.0	8.3J	8.1	8.6	8.0	6.5	6.4	3.8	2.5	2.6	2.9	2.8	2.9
10	3.2	3.1	2.8	2.6	2.8	2.7	2.2	4.0	8.3J	9.8J	8.5	8.0	8.5	8.5	8.6	7.3F	6.4	6.5	6.1	4.1	3.4	2.3	F	A
11	3.3F	3.1F	3.3F	3.3	3.0V	3.2	3.3	4.1	7.0J	8.8F	11.4	12.5	9.4	8.0	8.0	8.0	7.0	6.3	6.3J	6.0	4.5	4.3	3.5	2.6
12	3.5	3.5	3.0	F	F	F	A	A	6.8	8.8J	9.8	10.3J	10.0	8.5	8.6	7.0	7.0F	5.3J	3.4	3.2	3.2	3.0	3.1F	3.0
13	3.1	3.1	3.3F	3.5F	F	F	F	A	8.0	7.2F	8.0F	10.3J	9.5J	9.3J	9.3J	8.0	7.2	6.1	5.3J	4.0	3.7	4.3F	4.2	4.3F
14	4.5F	4.3J	4.3J	4.3F	4.4	4.4	4.1F	4.8	6.8	8.0	10.3J	10.3J	8.6F	7.7	8.0	7.5	6.9	5.9	4.8F	3.5F	3.5F	F	F	F
15	F	F	F	F	4.0F	4.1F	F	4.0	6.9J	7.8	9.3J	7.8	8.6F	7.5	7.6	7.2	6.1	6.1	3.3	3.1	2.5	3.0F	3.0	2.2F
16	3.3J	3.3J	3.3V	3.3	3.3F	3.2F	3.2	4.3	7.0J	7.5	8.5	9.3J	7.9	14.4H	8.0	7.3J	6.4	6.2	4.3	2.8	10.6V	2.5	2.8	2.9
17	3.0	3.0F	2.9F	3.2	3.2	2.6	3.0	4.0	6.1	6.4	9.6F	9.5	12.4H	7.3	7.5	7.8	6.2	5.8	4.3	3.5	2.7	2.8	3.3F	3.2F
18	3.0	3.1	3.2	3.4	3.3F	3.0	2.3	4.3	8.2J	8.4J	7.3J	9.1	7.1F	7.3J	7.6	8.0	6.5	5.2	2.8	2.8	3.0	2.9	3.2F	3.5
19	3.5F	3.0F	3.0F	3.2F	3.2F	2.6F	2.6F	4.0	6.0	11.0	10.8	19.3J	8.0	7.5J	7.8	8.4	8.0	6.0	5.0J	3.7	3.2	3.2	3.2F	3.5F
20	3.3	3.3F	3.7F	F	F	F	F	5.0J	5.3	9.8	11.0	11.5	10.8	8.5	7.9	8.0	7.2	5.0	4.3	A	A	3.4	3.0F	3.2F
21	3.2F	3.5F	3.4F	3.5F	3.8	2.8	2.2	4.3	6.7	7.3	9.8J	12.8J	7.7	7.4	7.4	7.0	6.5	5.3	4.3J	3.1	2.4	2.7	2.8	3.0F
22	3.0	3.0F	3.0F	2.8	2.8F	2.8	2.6F	4.2	A	C	C	C	C	C	C	C	8.0	6.7	5.2J	2.8	3.0	3.3F	3.5	3.5
23	3.6	3.7	3.5	3.34c	3.3F	3.1F	3.0	4.5	6.2	7.5	8.4J	8.8J	8.6	8.2	8.4J	8.2J	6.5	5.9	5.1	3.8	3.2	3.3	3.3	3.3
24	3.4	3.4	3.4	3.3	3.2	3.1	3.1	4.8J	9.0	8.2J	8.7	8.1	8.8	8.0	8.5	8.5	7.4J	7.1J	7.3F	4.2	3.6	3.5F	3.7	3.5
25	3.8	3.9F	3.3	2.8	2.8F	3.0F	2.9F	5.1J	6.3J	11.1	10.5	11.5J	10.8	9.8J	8.4F	9.3J	8.3J	6.5	5.3J	4.8J	3.7	3.7	3.9	3.9F
26	3.9	4.0F	4.1F	4.2F	4.0	3.3F	3.2F	5.2	7.6	8.8	10.2	11.2	8.3	10.8J	8.6	7.5	7.2	6.0	5.3F	3.3	2.9	3.0	3.2	3.2F
27	3.3	3.3	3.3F	3.3	3.2F	3.0F	2.7	4.8J	6.6	9.3J	8.6	9.5	10.0	8.7	7.5	7.0	6.6	5.3J	5.6	3.2F	2.7	3.0	2.9F	3.1F
28	3.3F	3.2F	2.9	3.1	3.0	2.6F	4.0	6.3	6.3	7.3J	9.0	9.8J	9.0	9.8J	11.2	8.2	7.4	5.6J	4.2	3.3	A	F	F	F
29	4.0F	4.1	4.6	2.7	2.0F	F	F	5.2J	7.6	9.0J	10.5	8.0	8.2	8.7	8.0	8.4	6.7	5.8F	4.8F	4.3F	4.8F	4.8F	4.8F	4.8F
30	F	F	F	4.7F	F	F	F	5.2J	7.7	9.2	9.8J	11.8	10.5	9.3	9.0	8.2	8.0	6.2	4.8J	3.5	3.5	3.7	3.7F	3.7F
31	3.7F	3.3F	3.5	3.2F	3.3	3.3	3.6	4.8J	7.3	8.8J	12.5	10.3	11.0	8.0	9.0J	7.7	6.2	5.8	4.3	4.3	3.8	3.8	3.8	4.0
Mean Value	3.4	3.4	3.4	3.3	3.3	3.1	2.8	4.4	6.9	8.3	9.4	9.6	8.9	8.2	8.4	7.9	6.8	5.7	4.7	3.5	3.5	3.3	3.3	3.4
Median Value	3.3	3.3	3.3	3.3	3.3	3.0	2.8	4.2	6.8	8.0	9.6	9.4	8.6	8.0	8.4	8.0	6.6	5.8	4.6	3.4	3.2	3.2	3.3	3.3
Count	2.9	2.9	2.9	2.8	2.7	2.6	2.4	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.0	2.9	2.9	2.8	2.8	2.6

foF2

Swamp 1.0 Mc to 2.0 Mc in _____ min

Manual

Automatic

W 1

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

Lat. 46° 23.6' N
Long. 141° 41.1' E

Wakkanai

IONOSPHERIC DATA

135° E Mean Time

Jan. 1956

K'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	310	340	340	320	340	210	280	210	210	240	240	250	250	230	220	220	220	250	250	250	250	220	220	220	320
2	300	310	320	360	340A	350A	210	280	280A	250	220	240	230	220H	220	250	220	220	230	250	280	280	310	330F	330F
3	300	290	310	310	310	240	260	260	220	210	230	220	230	240	220	230	210	210	260	250	280	280	340	310	360
4	310	270	270	270	280	260	270	210	220	230	240	240	230	240	240	250	220	240	220	240	240	240	250	350	310
5	310	300	270	250	240	220	260	250	220	220	250	260B	250	250	250	220	220	240	220	230	230	230	350	300	360
6	300	280	270	260	260	250	260	220	220	220	240	220	220H	240	250	220	210	250	A	A	A	320	310A	300F	350F
7	320	320	310	260	240	250	260	260	220	220	250	220	250B	230	240	220	220	240	240	250	260	260	300	270	300
8	320	310	310	320	300	270	320A	250	240	220	250	220	220	220	240	220	220	240	240	240	250	260	270	310	300
9	330	270	270	270	260	210	230	230	210	220	220	240	240	250	220	220	220	240	240	240	240	250	300	350F	340A
10	310	260	270	320	300	280	250	250	250	240	220	240	220	250	240	220	220	240	240	240	240	250	300	350F	340A
11	320	320	290	320	310	310	300F	A	250A	250	240	240	240	240	230	220	220	260	240	240	240	250	260	270	310
12	300	300	270	330	310	300F	A	A	250A	250	240	250	240	240	230	220	220	240	240	240	240	250	260	270	400A
13	360	350	300	270	270	310F	270F	260A	240	220	260	250	250	240	240	220	220	230	220	220	250	250	280	270	310
14	310	290	270	260	290	220	240	210	210	220	250	230	230	240	240	240	240	210	230	230	260	270	300F	300F	260
15	290	280	280	220	270	220	290F	220A	240	250A	230	250	250	240	240	220	220	220	220	220	230	300	310	300	320
16	300F	300	260	270	270	270	250	220	220	220	220	250	230	220	240	230	220	220	220	220	220	220	220	320	350
17	350	340F	320F	250	220	220	5	250	240	210	260	250	240	250	250	220	220	230	230	220	220	220	350	340	380F
18	310F	320	320	260	250	220	350	250	250	230	230	250	230	220	220	250	240	210	270	270	270	350	350	340	310
19	250	300	360	280	250	260	5	250	250	260	230	230	230	220	220	250	240	210	270	270	270	350	350	340	310
20	310F	320F	280F	220	250	300F	300F	260	260	240	230	230	230	240	250	250	220	220	220	230	260	270	310	350F	350F
21	310F	320F	270	260	260	210	320	250	230	220	260	240	220	230	230	220	220	270	240	A	A	370E	350F	310	350
22	330	320	350	320	260	260	270	240	A	C	C	C	C	C	C	C	230	260	230	220	220	300	350	350	320
23	310	290	270	260	240	270	270	230	210	240	250	250	250	250	250	240	230	240	220	220	220	370	440F	310	320
24	320	320	300	280	280	300	270	250	220	220	220	230	250	240	240	240	240	240	240	220	220	300	300	300	300
25	310	300	260	250	250	350F	300F	270	230	260	230	260	250	240	230	240	220	240	220	230	240	240	290	290	340
26	310	290	260	250	230	230	270	240	220	240	230	250	240	240	230	220	220	220	250	230	240	240	300	300	330
27	320	320	300	250	260	260	250	240	210	240	230	250	240	230	220	220	220	220	220	220	220	260	260	320	320
28	290	340	350	280	270	280	350F	270	210	250	250F	240	250	260	250	220	210	220	240	230	280	300	300	350	350
29	330	260	240	210	270	310F	300F	250	230	240	250	230	230	240	240	240	220	210	230	250	260	260	270	260	290
30	300	320	300F	250	220	250	310	280A	240	240	250	250	230	240	230	240	220	210	240	300	300	350	350	350	320
31	300	310	280	230	270	300	260	220	230	240	220	250	220	230	230	230	230	210	230	250	280	240	270	270	300
Mean Value	310	310	290	270	270	260	280	250	230	230	240	240	240	240	240	230	220	230	230	250	290	290	320	320	330
Median Value	310	310	280	260	270	260	270	250	230	240	240	240	240	240	240	230	220	230	230	250	290	290	310	310	320
Count	31	31	31	31	31	31	28	30	30	30	30	30	30	30	30	30	31	31	30	29	30	31	31	31	31

Sweep 1.0 Mc to 2.2 Mc in 1 min

Manual Automatic

K'F2

Lat. 45° 23.6' N
Long. 141° 41.1' E

Wakkanai

IONOSPHERIC DATA

135° E Mean Time

fEs

Jan. 1956

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	2.3F	2.1	E	E	E	2.5	G	G	G	G	G	4.8Y	G	G	G	2.3	6.0F	7.5F	3.5Y	3.5	3.5	E	E	
2	2.0	3.5Y	2.2	1.8	2.8Y	6.5	3.3	4.5	5.3	6.5Y	G	G	G	G	G	G	3.5Y	E	E	3.2	E	3.5	3.1F	4.0Y	
3	3.5	E	E	E	E	E	3.5Y	G	G	G	G	G	G	G	G	7.0Y	G	E	E	E	E	E	E	E	
4	E	E	E	E	E	E	E	G	G	G	B	B	G	B	G	G	3.5FY	2.3	E	E	E	E	E	E	
5	E	E	E	E	E	E	E	G	G	G	G	G	G	G	G	G	2.3	10.0	6.5	4.5	5.0	5.0	E	E	
6	E	E	E	E	E	E	E	G	G	G	B	B	B	B	B	G	G	E	2.2	2.0	E	E	E	E	
7	2.5	2.5F	E	E	2.3Y	2.3	2.5	4.0	G	G	B	B	B	B	B	G	G	E	E	E	E	E	3.5Y	4.2Y	
8	E	2.2	2.5	2.3Y	2.5	5.0	3.6	3.6	C	G	B	B	B	B	B	G	4.4	3.0Y	E	E	E	4.0	2.3	E	
9	4.0	3.5	2.2Y	E	E	E	E	G	G	G	B	B	B	B	B	G	G	E	E	E	E	E	4.0	2.3	E
10	2.3	2.3	E	2.2Y	2.3Y	2.2	E	G	G	B	G	G	G	G	G	G	G	E	E	E	E	E	E	5.0	E
11	3.5	3.0	E	2.5	4.0Y	E	2.3	4.0	4.3	G	G	G	G	G	G	4.2	G	4.0	3.0Y	3.0	2.3Y	E	E	E	
12	E	2.3Y	2.5Y	6.0	8.5	11.0	11.5Y	10.0	10.5Y	G	G	G	G	G	G	G	3.5Y	3.3Y	E	2.1	E	E	E	4.1	
13	4.6	2.8	E	2.5Y	E	E	2.5	4.8	3.5	G	G	G	G	G	G	G	G	E	E	E	E	3.5Y	E	4.4	
14	3.5F	E	E	E	E	E	E	E	G	G	B	B	B	B	B	G	G	2.5	7.7	7.5	3.5	3.5Y	E	E	
15	E	E	E	E	4.0	E	1.8	3.5	6.0Y	7.2	B	B	B	B	B	G	G	E	E	E	E	E	E	E	
16	E	E	E	E	E	E	E	E	G	G	G	G	G	G	G	G	G	G	E	6.0	4.2	E	E	E	
17	E	E	E	1.8Y	2.5Y	E	E	G	G	G	G	G	G	G	G	G	G	4.0	E	E	E	E	E	E	
18	E	E	E	E	E	E	E	G	G	G	G	G	G	G	G	5.2	G	E	3.0	E	E	2.6	E	E	
19	E	2.3F	E	E	E	E	E	G	G	G	G	G	G	G	G	3.5	G	E	E	E	E	E	E	E	
20	E	E	E	E	E	E	E	G	G	G	B	B	B	B	B	G	G	E	E	E	E	E	E	E	
21	3.5Y	2.5F	2.2Y	E	3.0Y	E	E	G	G	G	4.2	6.0Y	4.5Y	5.3Y	7.8	G	5.8Y	3.5	6.0	7.5Y	5.8	E	3.5	3.0Y	
22	2.3F	2.8Y	3.5	2.5Y	E	2.5Y	E	3.0	8.5	C	C	C	C	C	C	G	G	4.2	4.0	E	2.6Y	3.5F	4.0Y	3.0F	
23	E	E	E	C	E	E	E	G	G	G	G	G	G	G	G	G	G	E	E	E	E	E	E	E	
24	E	E	E	E	E	E	E	G	G	G	G	G	G	G	G	G	G	2.3	E	E	E	E	E	E	
25	E	E	2.3Y	E	2.5Y	3.5	E	3.9	3.5Y	G	7.2	G	G	G	G	G	G	E	3.6	E	E	E	E	E	
26	2.3	3.5	2.3Y	3.5Y	2.1	E	E	G	G	B	B	B	B	B	B	B	B	E	E	4.1F	E	E	E	E	
27	1.8	2.5F	2.5F	E	E	E	E	G	G	B	B	B	B	B	B	G	G	E	E	E	E	E	E	E	
28	2.0	2.1F	2.2Y	E	E	E	E	G	G	G	G	B	B	B	B	G	G	3.5	E	E	E	4.2	E	4.1	
29	3.5	2.8F	2.5Y	2.0Y	2.3Y	E	E	G	G	7.0	G	G	G	G	G	G	G	E	3.5Y	E	E	E	E	E	
30	E	E	E	E	E	E	E	6.5	6.5	4.5	G	G	G	G	G	G	3.5	3.5	6.0	7.5	6.4	5.0	6.0	3.0Y	
31	E	E	E	2.5Y	E	3.5Y	E	4.2	G	G	G	G	G	G	G	G	G	E	E	E	E	E	E	E	
Mean Value	2.9	2.7	2.4	2.7	3.2	4.6	3.7	4.6	6.0	6.3	5.7	6.0	4.6	5.3	7.8	5.0	3.6	4.0	4.8	4.5	3.9	3.8	3.7	3.9	
Median Value	E	2.2	E	E	E	E	E	G	G	G	G	G	G	G	G	G	G	E	E	E	E	E	E	E	
Count	31	31	31	30	31	31	29	31	30	27	22	22	22	23	25	29	30	31	31	31	31	30	31	31	

fEs

Group 1.0 Mc to 2.2.0 Mc in 1 min

Manual Automatic

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

Lat. 39° 43.5' N
Long. 140° 08.3' E

Akita

IONOSPHERIC DATA

Jan. 1956

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	2.8	3.0	3.1	3.0	3.0	3.3	2.5	4.8	5.8P	6.3	9.5	10.2	8.5	9.1	7.7	8.1	7.1	4.5	4.6	3.7	3.5	2.7	3.0	3.3
2	3.5	3.2	3.2	3.2	3.5	3.2	A	A	6.8	7.5H	12.0J	10.0	10.5P	9.1Z	7.6	8.3	8.2	5.4	4.0P	3.2	2.7	2.7	3.0	3.2F
3	3.5F	3.6F	3.5	3.5F	3.5	3.6	2.8	5.3	6.6	7.4	9.3	10.5	8.3	8.7	8.0M	9.0	6.7	4.6	3.7	3.5	2.8	2.7	2.8	3.1
4	3.1	3.5	3.2	3.0	3.0	3.1	2.9	4.6	6.3	7.2	8.1	8.7	7.8	8.8	6.6H	8.1	7.5	5.5	5.3	3.7	2.6	2.7	3.0	3.1
5	3.2	3.4	3.2	3.0	3.1	2.7	2.6	4.5	7.5	8.3	9.0	9.5	10.5M	9.0	7.8	10.3	6.8	5.4	4.7	3.1	2.6	2.5	2.7	2.7
6	3.1	3.2	3.2	3.1	3.2F	3.0	2.7	4.6	6.5	7.7	8.5P	11.0	8.7	8.1H	8.2	9.5	6.5	5.4	5.3	3.4	2.7	2.8F	3.0F	3.0F
7	3.4F	3.4F	3.3	3.3V	3.0F	3.1	3.1	4.4	7.5	8.4	9.0H	(11.6)	8.8	7.6	8.0	7.9	6.2	5.5	4.8	3.2	3.0	3.4	3.2	3.4
8	3.3	3.4	3.1	3.1	3.2	3.2	2.8	5.2	5.8P	9.7	9.0	10.1	8.7	7.2H	7.5	8.1	6.5	4.5	4.2	3.9	3.0	3.5F	3.1F	3.2
9	3.0	3.2	3.2	3.5V	3.5	3.1	2.8	4.7	6.3	7.7	8.0	9.7	8.0	8.5	8.3	8.5J	6.7	6.0	4.9	3.2	2.8	3.0	3.0	3.1F
10	(3.3)	3.5	2.8	2.6	2.8	2.8	2.8	5.1	7.4	9.0	11.8P	9.2	8.1	8.4P	7.6	7.7	6.4	5.9	6.0	5.8	3.6F	3.4F	3.0	3.1F
11	3.0F	3.0	3.1	3.0	3.0	3.1	3.1	4.4	8.3	11.5	13.0P	10.1J	9.8	9.5	8.5	8.3	6.6	7.5	8.3	7.2	5.2	4.5	3.7	3.6
12	3.7	3.8	3.7	2.8	2.8V	2.9	3.5F	5.9P	8.9P	9.5H	10.5	10.5	10.0	10.2	8.6	8.5	6.7	5.9	4.6	(4.1)	3.6	3.3	3.2	2.9
13	3.0	3.1	3.2	3.0	2.8	3.5Z	(4.5)	5.5	7.8	9.7	9.5	9.2	10.4	10.1	10.2	8.5	7.0	6.7	6.5	4.4	3.3F	3.3V	3.5F	3.6F
14	3.7F	3.7	3.7	3.6	3.5	3.5	2.7H	4.8	6.5	8.4	10.5	(11.7)	8.7	8.5	8.2	7.3	7.2	6.6	5.5P	3.7	3.5	3.4	3.5V	3.6H
15	3.6V	3.8	3.6F	3.2V	3.5	3.1V	2.7	(5.0)	6.6	7.3	9.6	9.2	8.0	7.9	7.1	7.0	7.6	5.7	6.8	2.7F	2.7	(2.8)	2.9	2.7
16	3.0	3.1	3.2	2.9	2.8	2.8	2.8	5.3	6.8	7.7	8.6	8.6	8.6	8.0	7.0	8.0	6.5	5.3	6.0	3.4	2.4V	2.4V	2.7	2.7
17	2.9	3.0	3.0F	3.5F	3.2	2.5F	2.2	4.5	5.8	7.0	7.7	11.5	8.9	8.6	7.8	7.0	6.6	5.5	5.4	3.2	2.7	2.7	2.9	3.1F
18	3.1F	3.1F	3.5F	3.4F	3.4F	2.7	2.5	4.5	7.9	8.6	9.9	10.1	9.9	8.3	6.8J	7.5	8.0	5.6	3.7	3.0	3.0	3.2	3.6	3.4F
19	3.5	3.3	3.0F	3.0F	3.1	2.5	2.5	4.5	7.0	10.0	12.9J	9.0	9.4	9.3	8.5	7.9	8.5	6.1	5.1	3.5	2.5	3.1	3.2	3.4
20	3.2	3.2	3.3	3.2	2.6	2.5	2.5	5.6	8.5	10.4	10.5	11.9P	9.9	9.0	8.1	8.0	7.4	5.0	4.1	3.5	2.5	2.8	3.0F	3.0
21	3.6	3.3F	3.2F	3.4	3.5	2.5F	2.5	4.9	6.7	7.1	7.8	10.2	8.6	(8.1)	7.6	7.5	7.0	5.9P	4.6	3.7P	3.0	2.7	2.9	3.0
22	3.1	3.2	3.1	3.0	3.0	2.7	2.7	4.8	7.0	8.6	10.3	9.5	9.6	9.5	8.1H	8.0	7.4	8.6P	5.6	3.6	3.2	3.6	3.6	3.6
23	3.7	4.1	4.3	3.6	3.2	2.9	2.8	5.6	6.8	7.5	8.4	9.6	9.7	8.0	7.7	8.6P	8.5	5.5	5.7	4.8	3.3	3.2	3.3	3.3
24	3.4	3.5	3.6	3.5	3.3	3.2	3.2	5.0	(8.8)	9.0	8.6	8.5	8.5	10.2H	8.4	9.5	8.3	7.4	7.7	5.0	3.5	(3.4)	3.3	(3.4)
25	3.5	(3.6)	3.6	3.1	3.0	2.6J	3.0F	5.5	9.2	10.7P	11.8	11.0	10.8H	11.2	(9.0)	8.4	8.1	7.2	6.0	5.0	4.3	3.5	3.6	3.6F
26	3.7F	3.7	3.7	3.4	3.0F	3.4F	3.2F	5.1	7.6	C	C	C	C	C	C	C	7.0	7.0	5.5	4.5	3.0	2.7	3.0	3.0
27	3.2	3.2	3.3	3.5	3.2	2.9F	2.6	5.4P	8.1	7.6	10.1	11.0	9.5	9.4	8.1	7.1	6.4	6.5	5.2	4.9	3.4	2.8	3.2	3.0
28	3.2	3.1	3.0	3.2	3.1	2.6	3.0	5.6	7.9P	10.1	9.5	10.5	10.6	10.2	11.2	9.8	8.2	6.3	4.7	4.5P	3.6	3.8	4.1	3.9F
29	4.1	5.4	(5.5)	2.5F	2.3F	2.4F	2.3F	5.2	7.6	8.9	9.7	9.7	8.3	8.2	8.0	7.8	7.1	5.9	4.5	4.6	4.6	4.5	4.2	3.9
30	3.9	3.8	3.8	3.8	3.8F	3.7F	2.6F	5.7	8.1	10.3	11.6	(12.0)	10.5	(8.6)	9.5	8.4P	7.6	6.4	4.5	4.1	3.6	3.9F	3.9F	4.2
31	4.1	3.7	3.5	3.3	2.9F	2.9	2.8	5.6	7.4	9.5	12.6	11.7	9.0	9.0	7.6	8.1	6.5	6.0	4.7	3.9	4.0	4.0	3.9	3.9
Mean Value	3.4	3.5	3.4	3.2	3.1	3.0	2.8	5.1	7.3	8.6	10.0	10.2	9.2	8.9	8.1	8.2	7.2	6.0	5.2	4.0	3.2	3.2	3.3	3.3
Median Value	3.3	3.4	3.2	3.2	3.1	2.9	2.8	5.0	7.4	8.5	9.6	10.1	9.0	8.8	8.0	8.1	7.0	5.9	5.1	3.7	3.0	3.2	3.2	3.2
Count	31	31	31	31	31	31	30	30	31	30	30	30	30	30	30	30	31	31	31	31	31	31	31	31

Sweep 0.85 Mc to 22.0 Mc in 2 min

Manual Automatic

foF₂

A 1

Lat. 39° 43.5' N
Long. 140° 08.2' E

Akita

IONOSPHERIC DATA

135° E Mean Time

f'F2

Jan. 1956

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	300	320	350	300	250	240	240	240	270 ^L	280	280 ^L	270	250	270 ^L	250	230 ^A	260	270	260	300	350	350
2	270	280	330	390	320	310	280 ^A	260	240	250 ^H	260	250	260	250 ^L	250	270	240	230	250	240	270	310	310	350 ^F
3	310 ^F	300 ^F	290	310	320 ^F	260	290	250	240	240	270	270	260 ^L	260 ^L	250 ^H	270	220	220	260	260	260	310	360	340
4	350	310	270	310	310	310	260	260	240	240	250	260	270	260 ^H	270	240	230	230	270	240	300	340	350	350
5	320	330	270	270	260	280	260	260	220	260	250	270 ^L	250	250	270	270	230	250	240	250	250	330	360	350
6	340	300	290	270	280	310	250	250	240	240	260	270	260	250 ^H	260	260	230	280	270	250	250	330	350 ^F	370
7	390	350	310	300	260	300	290	240	280	250	240 ^H	280	250	250	250	250	240	250	240	250	270	290	310	320
8	350	330	330	330	300	300	250	260	230	250	250	260	260	250 ^H	260	260	240	230	240	250	260	290 ^F	300 ^F	310
9	380	300	290	300	270	270	250	240	230	250	250	250	250	300 ^L	270	260	230	250	240	250	260	330	340 ^A	370
10	[340] ^A	290	290	300	340	310	300	250	240	250	270	250	280	280	260	250	240	270	250	240	280	300	330	350 ^F
11	300	350	300	340	320	360	300	250	290	270	270	270	260	290 ^L	260 ^L	250	240	300	250	270	250	240	260	330
12	290	310	270	300	300	340	270	260	240	280 ^H	270	270	270	260	260	250	250	250	240	240	[300] ^A	310	280	340
13	340	370	320	300	300	300	280 ^F	250	260	260	260 ^L	270	270	280 ^L	260	250	240	250	240	240	260	340	340 ^F	320
14	360	350	290	270	290	250	230 ^H	260	240	250	270	270	260	270	260	250	250	250	240	250	250	350	320	330 ^H
15	300	290	280 ^F	270	290	260	270	260	240	240	300 ^L	260	270	270	250	260	250	280	240	280 ^F	A	A	350	360
16	300	300	300	270	280	300	270	250	250	240	260	250	280	270	260	290 ^L	240	230	250	250	270	340	340	350
17	350	390	350 ^F	260	240	230	300 ^A	250	240	250	260	300	250	250	300	250	250	250	250	250	280	320	310	360 ^F
18	340 ^F	350 ^F	300 ^F	290 ^F	260	250	350	280	260	290 ^L	250	270	270	260	240	260	250	230	260	330	310	340	300	320
19	300	290	300	350	240	310	350	340	240	300	280	260	280	270	290	290	250	250	240	250	300	380	380	380
20	320	390	300	260	350	280	330	300	260	270 ^L	270	260	250	260	260	260	250	220	250	260	290 ^L	350	380	390 ^A
21	330	330 ^F	350 ^F	280	240	230	300	250	240	250	260 ^L	280	260	[260] ^H	260 ^L	260	250	250	260	270	[300] ^A	330	340	350
22	390	340	320	320	310	270	290	270	250	260	270 ^L	270	290	270	250 ^H	270	260	250	240	250	270	320	320	390
23	350	320	290	280	270	310	300	260	240	250	280 ^L	270	260	260 ^L	260	270	250	250	250 ^A	280 ^A	270	310	320	340
24	360	350	310	270	290	340	270	260	260	240	250	L	L	270 ^H	260	270	250	260	260	240	A	A	350	[340] ^A
25	320	[300] ^L	280	280	330	400	350	290	240	260	300 ^L	260	260 ^H	270	260	260	250 ^A	250	250	270	250	280	310	380 ^F
26	380	320	270	260	250	290	300	270	240	C	C	C	C	C	C	C	250	250	250	240	280	300	350	360
27	350	360	330	260	260	250	240	260	250	240	260 ^L	280	260	260	250	250	240	250	250	250	260	320	300	400
28	340	340	360	300	290	330	360	260	240	270 ^L	260	280	300	260	270	250	240	250	240	280 ^A	360	320	350	400
29	310	270	240	250	370	330	380	250	250	250	270 ^L	270	260	280	260	250	250	250	240	300	300	300	300	300
30	340	340	310	290	250 ^F	250 ^F	350 ^F	270	260	260	270	280	260	270	260	250	250	240	240	230	260	320	360	340
31	300	300	300	260	300	350	300	250	250	290 ^L	270	270	260	260	260	260	240	240	250	250	290	300	300	340
Mean Value	330	330	300	270	290	300	260	250	250	270	270	270	270	260	260	260	240	250	250	260	260	280	320	330
Median Value	340	330	300	290	290	300	290	240	250	260	270	260	260	260	260	260	250	250	250	250	250	280	320	340
Count	31	31	31	31	31	31	31	31	31	30	29	29	30	30	30	30	31	31	31	31	29	29	31	31

f'F2

Sweep 0.85 Mc to 22.0 Mc in min
 Manual Automatic

A 2

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

Lat. 39° 43.5' N
Long. 140° 08.2' E

IONOSPHERIC DATA

Akita

Jan. 1956

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	2.5	2.4	2.5	2.6 ^F	2.5 ^F	2.5 ^Y	2.6	4.3	3.9	G	4.8	5.2	4.5	4.6	G	4.2	3.5	3.0	2.5	3.1 ^F	3.2 ^F	3.0 ^Y	2.2	2.3 ^F
2	2.5 ^Y	2.5	2.5 ^F	2.5 ^F	2.5 ^F	4.1 ^Y	4.0	4.5	3.5	G	4.2	G	4.0	G	G	3.5	3.0	E	2.4	E	E	2.2	E	E
3	4.5	2.5	2.6	3.0	2.5	2.5	2.1	2.7	G	G	G	G	G	G	6.5	3.8	2.1	2.5 ^Y	2.5 ^Y	2.5 ^Y	2.5	2.5 ^Y	3.0	2.6 ^Y
4	2.5	2.5 ^F	2.5 ^F	3.0 ^F	2.5 ^F	2.5 ^Y	2.7	3.7	3.0	G	3.0	G	G	4.7	3.6	3.0	3.5 ^F	2.9 ^F	3.1	2.5	2.5 ^Y	2.5 ^Y	2.6 ^Y	2.8
5	2.4 ^Y	2.5 ^F	2.5 ^F	2.8	3.5 ^F	2.7	E	2.8	G	G	G	G	G	G	G	G	2.5	2.5	3.0 ^Y	E	3.0	2.5 ^Y	2.6 ^Y	2.5 ^F
6	2.6 ^F	3.0 ^F	2.5 ^F	2.7	2.5 ^F	2.5	2.7	2.5 ^F	4.5	G	G	G	G	G	G	3.5	4.1	4.6	3.5	3.0 ^F	3.0 ^F	5.0	2.7	4.2
7	3.0	2.5	2.8	E	2.0 ^Y	2.5	4.3	3.0	3.5 ^Y	4.1	G	3.2	G	G	G	3.2	2.1	2.5 ^F	E	2.8	2.9	E	E	2.3
8	2.6	2.5	2.5	3.0	E	E	3.0	2.5	4.5	4.6	G	G	G	3.8	4.5	3.0	2.5	2.5	E	E	2.5 ^Y	3.1 ^F	3.2	2.5
9	3.0	2.5	3.1	2.7	2.5	E	E	3.0 ^Y	G	3.0	3.3	G	G	G	G	3.6	3.0	3.5	2.6	2.4	E	E	3.5	4.8
10	4.7	3.5	2.5	E	E	2.5 ^Y	3.0	4.5	4.0	G	3.0 ^Y	G	G	G	G	4.0	2.4 ^Y	E	E	E	E	E	3.0	2.6 ^F
11	2.5	3.0	2.5 ^Y	E	E	E	E	2.7	G	G	4.5	3.7	G	G	G	3.6 ^Y	G	2.8	3.0	3.0	2.1	2.7	3.2	E
12	E	2.5 ^F	2.5	2.5	3.0	E	E	G	3.0 ^Y	4.7	G	4.5	4.4	3.7 ^Y	3.7	3.6	4.5	4.5	4.7	7.3	4.1	4.7	2.5	2.5 ^F
13	3.2	2.7	2.5 ^F	2.5	2.4 ^Y	E	3.1 ^F	G	4.4	G	3.4	3.1	3.6 ^Y	3.3	3.2	G	2.5	3.0 ^F	2.5 ^F	E	2.7 ^F	3.1 ^F	2.9 ^F	3.1
14	3.2 ^F	E	2.8	3.0	2.5 ^F	2.5 ^Y	E	G	G	G	3.2	3.7	4.3	G	B	B	B	E	2.5 ^F	6.0	2.7 ^F	2.7 ^F	3.0 ^F	4.5
15	3.1 ^F	3.0 ^F	2.5 ^F	2.9 ^F	2.5	2.5 ^Y	2.6 ^F	2.6	G	G	G	G	G	G	G	G	2.8	4.1	3.1 ^F	3.2 ^F	3.7	4.0 ^F	3.2	3.0 ^F
16	2.6 ^F	E	E	E	E	E	E	G	G	3.1	3.1	3.1 ^Y	G	G	G	G	3.0 ^Y	3.5	3.0 ^Y	3.0 ^Y	2.1	2.1	3.1	E
17	E	2.4	2.1 ^Y	2.2	E	2.7	2.5 ^Y	2.5	G	G	G	G	G	G	G	4.7	4.1	3.5	3.1	3.1	2.5	2.5 ^Y	2.6	2.6
18	2.4	2.5	2.3 ^F	E	E	E	E	2.5 ^Y	G	G	G	G	G	G	4.3	4.0	G	2.5 ^Y	E	2.5 ^F	2.6 ^F	2.6	2.5	2.5 ^F
19	2.5	2.5	2.0 ^Y	2.5 ^Y	E	E	E	2.6	3.1	4.5	7.0	5.2	4.0	C	G	4.2	C	E	3.4	3.0	2.5	2.5	2.3 ^Y	E
20	2.5	2.5 ^C	2.5	2.5 ^C	2.5 ^Y	2.5 ^Y	2.6	3.0	G	4.3	4.5	G	4.2	4.5	3.3	3.8	3.1	4.1	3.5	6.4	4.0	4.5 ^F	4.0 ^F	4.5 ^F
21	3.0 ^F	2.6 ^F	3.1 ^F	3.0 ^F	2.5 ^F	2.5 ^Y	E	2.4	3.1	3.5	G	G	G	M	G	G	G	E	3.1	4.5	7.0	4.5	3.0 ^F	3.1 ^F
22	5.0	2.7	3.2	2.5 ^F	2.8 ^F	2.7	2.1	G	7.5 ^Y	3.2	4.4	G	5.1	4.9	4.6	4.5	3.3 ^Y	E	2.5 ^Y	2.5	2.4	2.8 ^Y	5.1	4.5
23	3.5 ^F	3.6	3.6 ^Y	3.0	2.5	3.1	2.5	G	3.0	G	G	3.4	3.6	3.2	3.1	G	2.2	4.5	4.7	4.7	3.2	3.1	2.8	2.3
24	2.5	2.5	2.5	2.5 ^Y	2.5	2.7	2.5	2.1	G	G	G	G	G	G	G	3.2	2.5	E	4.5	6.7	4.1	6.6 ^Y	4.4	5.7
25	3.5	C	2.0	E	2.2 ^Y	E	2.6	6.5 ^Y	4.2	3.5	4.2	G	3.2	G	3.5	G	6.5	4.4	4.5	2.7	2.5	2.5	2.5	4.1
26	3.7 ^F	3.0 ^F	3.1	3.0	3.0 ^F	2.7 ^F	E	E	G	C	C	C	C	C	C	C	3.1	3.0	3.1	3.4	2.7 ^Y	3.0 ^F	3.1	2.8
27	4.5	3.5	3.6 ^F	2.5	2.5	E	2.7	E	G	G	G	G	G	G	G	G	G	2.5 ^Y	2.4 ^Y	3.0 ^Y	2.8 ^Y	2.1	2.3 ^Y	3.0
28	2.2	2.5	2.5	2.5 ^Y	2.5	E	E	2.5	G	G	G	4.5	G	G	G	3.3	3.4	4.0	4.6	4.7	4.6	2.5	2.4 ^Y	4.2
29	3.1	3.0 ^Y	3.0 ^Y	3.0 ^Y	2.9 ^Y	2.6	2.7	2.9 ^Y	G	2.8	G	G	G	G	G	3.0 ^Y	3.0	2.6 ^Y	4.2	4.6	4.6	3.0 ^F	3.1	E
30	E	2.6 ^Y	E	2.2 ^Y	2.7	2.5 ^F	2.5 ^Y	3.0	G	G	G	G	G	G	G	G	G	3.3	4.0	4.7	6.5	2.5 ^Y	3.5	3.0
31	2.1 ^Y	2.0 ^Y	E	2.5	E	2.6	4.0 ^Y	G	4.0	4.5	G	G	G	G	G	G	G	2.9	3.0	E	2.1	2.6	E	3.0
Mean Value	3.1	2.7	2.7	2.7	2.6	2.7	2.8	3.1	3.9	3.7	4.0	4.0	4.1	3.9	3.8	4.0	3.3	3.2	3.3	3.8	3.2	3.1	3.0	3.3
Median Value	2.6	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	3.0	3.0	3.0	3.0	2.7	2.7	3.0	2.8
Count	31	30	31	31	31	31	31	31	31	30	30	30	30	28	29	29	29	29	31	31	31	31	31	31

fEs

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

Lat. 35° 42.4' N
Long. 139° 29.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

Jan. 1956

foF2

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	3.1	3.2	2.9	2.9	3.0	2.5 ^H	5.5	6.4	6.4	8.4	10.3 ^P	9.1	9.2	8.3	8.0	8.2	6.5	4.1 ^H	4.1	3.4 ^H	2.7	2.7	2.3
2	3.5	3.0	2.9	2.9	3.0	3.0	2.7	4.4 ^P	8.2	8.0	10.9	10.8	10.1	10.2 ^P	9.8 ^H	8.6	8.8	5.7	3.8	3.4	3.4	2.9	2.8	3.1
3	3.3	3.3	3.3	3.5	3.2	3.4	3.0	6.3	7.3	8.0	7.5	9.0	11.1	8.5	8.2	9.0	8.2	5.7	3.6	4.0	3.6 ^P	3.1	2.7	3.1
4	3.3	3.3	3.5	3.0	3.0	3.1	3.2	5.6	7.1	7.1	8.0	9.1 ^H	9.7	9.3	7.4	8.1 ^H	8.9	6.4	4.2	5.0 ^V	3.9	2.9	2.9	3.2
5	3.3	3.7	3.4	3.3	2.6	2.6	2.9 ^P	5.4	6.8	8.1	9.6	9.7	10.5 ^P	10.3	7.5	8.8	9.7	5.9	4.8	4.0	3.2	2.9	2.9	2.8
6	2.9	3.0	3.2	2.9	2.9	2.9	3.0	5.9	6.9	8.1	8.5	(11.0) ^B	11.0 ^P	8.6	8.8	8.3	6.8	5.5	5.4	5.0	3.1	2.7	3.0	3.0
7	3.1	3.3	3.8	3.2	2.9	2.8	3.0	5.6	6.6	11.0	8.8	9.6	10.2	7.4	8.2	8.0	6.6	5.2	6.2	4.3	3.8	3.4	3.6	3.7
8	3.5	3.6	3.8	3.2	3.2	3.2	3.0	5.5	9.0	8.3	(11.0) ^P	9.4	9.8	7.9	7.3	8.8	6.8	5.4	5.3	4.3 ^S	3.1	(3.0) ^S	3.6	2.9
9	2.9	3.5 ^P	3.3	3.0	2.9	3.0	2.9	5.9	6.9	8.0	9.5	9.5	9.8	8.8	9.7	8.6	8.3	5.9	6.5	6.5	6.5	6.2	3.2	(3.5) ^A
10	3.8	4.3 ^P	(3.4) ^A	2.6	2.7	2.9	4.2	5.5	7.2	9.1	12.0	11.2	8.9	8.4	8.5	8.3	6.6	5.8	6.2	6.0	4.5	(3.0) ^P	3.6 ^P	3.1 ^F
11	3.0 ^F	3.0	3.0	2.9	2.9	2.9	2.9	5.3	7.3 ^P	(13.3) ^V	13.6	11.8	9.9	8.4	8.5	7.9	6.8	6.7	8.5	8.4 ^H	5.6	5.3	4.3	4.3
12	5.2	C	C	C	C	C	C	C	C	C	C	9.5	9.5	10.4	8.7	8.4	5.9	7.1	5.5	4.4	3.8	3.2	3.4	3.2
13	3.2	3.2	3.3	3.2	3.0	2.8	3.3 ^F	5.4	8.3	11.7 ^P	12.1	9.5	10.4	10.0	10.5	9.0	7.1	7.5	7.5 ^V	5.5	2.6 ^H	3.1	3.2	3.4
14	3.7	4.0	4.2	3.4	3.6	2.7	2.8	5.2	8.0	8.5	10.6	10.8	9.5	9.3	7.9	8.2	6.9	7.0	5.5	4.3	3.3	2.9	3.3	3.0
15	3.4	3.7	3.5	3.2	3.2	2.8	3.1	5.4	8.1	8.7	9.2	11.3	8.5	8.6	8.0 ^H	6.8	7.5	6.0	5.9	4.3	2.7	2.6	3.0	2.9
16	3.0	3.2	3.3	2.9	2.6	2.5	2.8	5.9	7.1	8.0	9.6	9.4	9.4	10.4 ^P	7.9	8.4 ^H	8.3	5.9	5.8	4.6	2.9	(2.8) ^H	2.6	2.8
17	3.0	3.2	3.2	3.9	3.9	2.1	2.3	4.7	6.9	6.8	8.8	9.6	12.0	8.8	7.9	8.1	6.8	6.4	6.2	3.5	3.1	2.7	2.9	3.0
18	3.3 ^F	3.3 ^F	3.9 ^F	3.2 ^V	3.4	2.7 ^V	2.5	5.5	8.0	8.2	11.1	9.7	10.3	10.3	7.5	6.4	8.5	6.3	3.9 ^V	3.7	3.5	3.4	3.8	3.7
19	3.7	3.4	3.5	3.2	C	C	C	C	C	8.4	13.0	10.0	9.8	12.0	8.4	8.1	8.8	7.9	4.7	3.7	3.0	3.4	3.9	4.1
20	4.3	3.1 ^F	3.3	3.2	2.3 ^H	2.7	2.2	5.6	9.3	(10.5) ^P	12.3	12.3	10.9	9.3 ^H	9.6	8.7	7.0	5.7	4.5	(3.8) ^A	3.0	2.7	(2.9) ^F	A
21	3.1	3.2 ^F	3.4	3.3	C	C	C	C	C	7.3 ^P	(7.8) ^C	(8.2) ^P	(8.3) ^C	8.4	8.4	8.0	7.1	6.3	3.9	4.7	3.6	2.7	2.8	2.9
22	2.9	3.2	3.3	3.2	3.1	3.0	3.0	5.3	7.7	8.9	10.5	10.8 ^P	9.9	10.0	8.6	7.8	8.2	8.3	6.6	4.3	3.3	3.8	3.8	3.6 ^P
23	3.9	(3.3) ^C	(3.7) ^P	3.0	3.0	2.7	2.7	5.8	7.1	7.4	8.5	9.3	10.7	8.4	8.3	8.3	8.1	6.9	(6.3) ^A	5.7	(4.5) ^C	3.3	3.3	3.3
24	3.3	3.3	(3.4) ^P	(3.4) ^P	3.1 ^H	3.2	3.2	5.8	7.4 ^P	10.2	9.0	8.4	8.8	8.2	9.1	9.6	9.4	7.9	7.3	6.5	3.9	3.5	3.3	3.3
25	3.4	3.7	3.8	2.9	2.8	2.7	2.9	6.0	10.5 ^P	12.5 ^P	11.6 ^P	12.3	11.4	11.5	9.2	8.3	8.3	7.8	6.0	5.3	4.0	3.3	3.5	3.7 ^P
26	3.6 ^F	3.9	3.8	2.9	2.7	2.8	2.8	5.7	8.6	8.1	9.5	12.6	12.8	11.1	9.1	11.1 ^P	7.5	6.6	5.9	4.5	3.0	2.7	2.9	3.0
27	3.2	3.2	3.3	3.7	3.1	2.6	2.6	6.0	7.6	8.3 ^P	(11.6) ^P	11.0	11.1	9.7	9.2	7.9	6.5	6.5	5.8	5.4	A	3.1	3.3	3.2
28	3.3	3.3	3.3	3.3	3.3	2.5	2.6	6.8	8.6	9.2	(12.0) ^P	11.0	11.5	11.4	11.2	10.7	7.9	6.5	5.0 ^P	3.9	(3.6) ^A	3.8	4.0	4.2 ^V
29	5.3 ^P	6.0	4.7	1.8 ^H	2.1	2.2	2.1	6.1	8.0	8.9	9.6	11.0	9.0	9.3	9.3	8.1	7.7	6.0	5.6	4.6	5.1	4.9	4.0	3.3
30	3.9	C	C	C	C	C	2.8	5.8	8.9	11.2 ^P	13.0	11.0	9.3	8.8	9.1	9.0	6.8	6.8	4.9	4.3	3.8	3.8 ^F	4.2	4.3
31	4.3	4.1	3.8	3.7	2.9	2.9	3.0	5.8	6.9	7.8	12.6	13.6	(11.0) ^P	8.9	8.1	7.8	(7.2) ^A	6.6	4.8	4.1	3.9	4.3	3.7	3.8
Mean Value	3.5	3.5	3.5	3.2	3.0	2.8	2.9	5.6	7.6	8.9	10.0	10.0	10.0	9.3	8.7	8.4	7.5	6.4	5.5	4.7	3.6	3.3	3.3	3.4
Median Value	3.3	3.3	3.4	3.2	3.0	2.8	2.9	5.6	7.5	8.4	10.0	10.3	9.9	9.2	8.5	8.3	7.5	6.4	5.5	4.3	3.4	3.1	3.3	3.2
Count	31	29	28	29	27	27	28	28	28	30	30	31	31	31	31	31	31	31	31	31	30	31	30	29

Sweep 1.0 Mc to 7.2 Mc in 2 min

Manual Automatic

foF2

K 1

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

IONOSPHERIC DATA

Lat. 35° 42.4' N
Long. 139° 28.3' E

Kokubunji Tokyo

h_pF₂

Jan. 1956

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	350	360	310	320	400	350	420 ^H	250	250	300	270 ^F	260	310	260	270	260	300 ^H	280	300 ^H	280	(250) ^F	260	B	B	
2	310	320	360	430	340	340	240	250 ^P	260	280	290	280	310	280 ^P	300 ^H	300	270	260	300	310	290	300	360	370	
3	350	340	340	350	340	320	270	270	250	270	260	280	260	270	260	260	260	260	300	290	300 ^P	300	340	360	
4	320	350	300	330	350	350	240	250	260	240	260	300 ^H	290	250	250	330 ^H	270	270	370	(260) ^F	260	380	350	370	
5	380	360	320	280	270	320	310 ^P	260	240	240	270	300	250	290	250	300	250	270	280	300	330	320	380	380	
6	370	320	320	310	310	350	310	250	240	250	300	(280) ^B	270 ^F	260	280	260	250	320	290	260	290	350	340	370	
7	430	390	320	340	340	360	330	270	250	270	240	280	230	280	280	260	250	270	280	270	310	310	330	360	
8	340	380	330	330	390	330	310	300	260	240	(260) ^H	260	260	270	270	280	240	300	280	270 ^S	300	(320) ^S	350	330	
9	380	360 ^F	290	290	330	320	320	250	240	250	270	300	260	300	280	270	260	310	270	C	300	350	(380) ^S	(360) ^A	
10	330	280 ^F	(310) ^H	340	360	310	310	270	260	280	300	250	270	260	280	270	260	310	300	270	270	(340) ^B	300 ^F	380 ^F	
11	360 ^F	380	380	360	380	400	350	290	330 ^F	(300) ^F	280	260	240	270	280	280	290	330	290	(270) ^F	240	330	340	350	
12	370	C	C	C	C	C	C	C	C	C	270	280	280	280	280	280	250	270	270	A	280	300	340	360	
13	370	380	340	340	370	340	280 ^F	280	300	280 ^F	270	280	290	290	290	260	260	280	(290) ^H	230	330 ^H	360	360	350	
14	390	360	320	310	300	330	260	290	260	290	280	280	270	280	260	270	290	280	260	230	310	A	340	340	
15	360	310	250	330	290	350	290	240	240	280	280	280	260	290	300 ^H	270	240	280	280	280	290	390	390	360	
16	390	360	300	280	330	330	310	260	240	270	280	290	300	280 ^F	270	330 ^H	260	290	280	240	310	(330) ^H	350	370	
17	360	400	350	270	230	330	310	260	240	280	300	300	270	260	250	280	240	280	260	280	270	350	390	430	
18	(360) ^H	(360) ^H	340 ^F	320 ^F	290	320 ^V	370	280	280	C	300	290	300	300	260	280	280	260	310 ^V	370	340	360	300	300	
19	310	340	290	370	C	C	C	C	C	C	330	290	260	280	300	290	300	300	260	300	280	330	410	380	360
20	310	410 ^F	310	310	420 ^H	290	370	310	260	(260) ^F	280	300	280	300 ^H	290	280	260	270	290	(290) ^H	290	370	(440) ^H	A	
21	360	350 ^F	300	300	C	C	C	C	C	250 ^F	(250) ^F	(270) ^C	290	270	270	270	260	250	300	280	260	320	350	330	
22	370	380	330	340	340	310	310	280	280	260	290	300 ^F	290	280	280	320	300	290	280	240	400	360	360	340 ^F	
23	380	C	C	(290) ^F	300	350	310	260	250	270	250	290	280	260	320	290	260	260	(280) ^H	290	(300) ^C	310	330	360	
24	370	370	(320) ^F	(280) ^F	390 ^H	360	300	240	260 ^F	260	260	270	280	300	290	290	280	280	280	310	250	340	330	360	
25	370	350	290	310	390	430	380	320	280 ^F	290 ^F	290 ^F	290	300	310	270	290	270	290	300	280	260	320	370	360 ^F	
26	380 ^F	330	260	290	270	330	350	280	240	250	300	300	290	280	290	270 ^F	240	280	260	250	290	300	360	370	
27	350	350	340	280	260	330	330	270	260	270 ^F	(280) ^F	280	260	280	270	300	260	280	270	260	A	350	320	370	
28	360	380	390	340	340	370	390	260	250	290	(300) ^F	310	300	300	300	270	280	260	300 ^F	320	A	A	370	(370) ^H	
29	350 ^F	300	200	420 ^H	380	360	330	270	240	300	270	250	300	270	270	270	250	270	290	330	320	290	300	320	
30	360	C	C	C	C	C	390	270	280	290 ^F	280	260	270	280	280	260	250	260	300	310	310	390 ^F	350	340	
31	300	320	280	310	360	340	320	290	260	320	290	260	(270) ^F	290	260	280	(270) ^H	260	290	320	310	310	330	390	
Mean Value	360	350	310	320	340	340	320	260	260	270	280	280	280	280	280	280	260	280	290	280	300	330	350	360	
Median Value	360	360	320	320	340	340	320	270	260	270	280	280	270	280	280	280	260	270	290	280	300	330	350	360	
Count	31	28	28	29	27	27	28	28	28	29	30	31	31	31	31	31	31	31	31	29	29	29	30	29	

h_pF₂

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

Lat. 35° 42.4' N
Long. 139° 29.3' E

IONOSPHERIC DATA

135° E Mean Time

f'F2

Jan. 1956

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	300	300	270	270	290	290	200H	230	230	230	280	240	240	240	240	240	250	210	200H	250	240	250	B	B
2	250	270	280	250	260	260	200	240	240	260	250	240	270	240	250H	230	230	220	210	240	250	230	270	310
3	300	300	280	280	250	250	240	240	220	240	230	240	240	240	230	240	220	230A	250	240	260	250	340	300
4	290	290	250	250	270	290	220	230	230	220	240	260H	260	230	230	230H	250	210	320	230	230	310	300	300
5	310	280	260	230	200	260	280	210	220	220	260	[240]L	230	260	230	240	230	210	220	250	290	290	310	330
6	340	260	260	240	250	290	260	220	210	230	240	270	240	240	250	230	220	220	230	230	260	300	300	300
7	350	340	260	230	250	300	280	230	220	240	210	260	220	240	240	230	210	210	240	220	250	260	280	290
8	270	310	280	270	A	250	270S	240	240	210	240	230	240	240	230	250	220	220	250S	230S	230	250	290	[300]B
9	300	290	240	230	260	260	260	230	220	240	250	230	240	230	260	240	230	220	220	[240]C	220	320	350	[310]A
10	270	240	[260]A	270	290	290	250	220	230	240	260	240	240	240	260	250	230	250	250	230	250A	310	250	330
11	290	290	290	290	310	340	310	230	230	240	240	230	240	240	260	230	240	230	250	240	210	250	250	270
12	250	C	C	C	C	C	C	C	C	C	C	C	240	240	240	230	210	230	260A	A	240	250	280	280
13	320	300	260	260	270	280	240	230	260	240	240	260	260	240	240	220	230	230	240	210	220H	290	290	300
14	330	300	280	210	220	250	230	230	230	250L	250	250	240	260	230	230	250	220	210	230A	260	A	310	300
15	310	270	210	260	230	250	250	210	240	260	230	270	230	260	[240]H	230	230	250	240	240	260	300	330	300
16	380	300	260	240	240	290	260	240	220	240	250	230	260	270	250	230H	240	220	240	210	260	[270]B	280	340
17	310	330	280	230	200	310	260	230	230	230	250	280	240	240	240	260	220	230	230	200	250	280	360	370
18	340	310F	250F	250	240	250	300	250	230	3300C	260	260	270	230	240	240	240	220	250	270	260	300	260	250
19	260	280	240	280	170	C	C	C	C	L	270	250	240	260	230	250	240	220	200	220	280	340	310	300
20	270	340	260	240	240H	260	360	260	240	230	260	260	240	230H	250	230	230	220	[240]A	260	300	400	A	
21	350	280	260	240	C	C	C	C	C	230	[240]L	240	250	260	240	240	230	220	220	240A	210	260	310	280
22	310	330	260	280	240	250	260	240	230	240	260	260	250	260	250	260	250	230	230	230	350	290	280	300
23	320	300	240	240	240	300	310	230	220	240	230	260	260	230	280	250	240	220	[240]A	250	[260]A	280	270	300
24	310	300	260	230	210H	290	230	220	230	230	230	240	260	240	250	260	240	220	230	210	210	260	280	290
25	290	280	240	240	310	350	300	260	240	260	240	270	260	260	240	240	240	220	210	210A	210	260	290	300
26	310	290	230	220	230	260	280	250	220	230	250L	260	260	240	230	240	220	210	220	210	230	250	300	330
27	320	320	310	280	230	250	280S	240	230	230	260	240	240	240	240	230	220	230	220	220	A	280	280	300
28	310	300	310	280	240	290	350	240	210	230	260	250L	250	260	230	220	220	210	260	310A	A	370A	300	300
29	260	260	200	350H	330	320	300	230	230	[240]L	240	240	L	240	240	250	230	220	230	250	260	230	260	260
30	310	C	C	C	C	C	C	320	240	250	260	240	240	260	260	230	210	220	210	250	250	330	310	280
31	250	250	230	240	240	260	260	230	220	270	250	250	230	240	240	240	240	230	220	260	250	250	250	310
Mean Value	300	290	260	250	280	270	230	230	240	250	250	250	240	240	240	240	230	220	230	230	250	280	300	300
Median Value	310	300	260	240	240	270	260	230	230	240	250	250	240	240	240	240	230	220	230	240	250	280	290	300
Count	31	29	29	29	27	27	28	28	28	28	30	31	30	31	31	31	31	31	31	30	29	30	30	29

f'F2

Sweep 1.0 Mc to 17.2 Mc in 2 min

Manual Automatic

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35°42.4' N
Long. 139°29.8' E

Jan. 1956 f_oF₁

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	Q	Q	5.1L	4.8	5.0 ⁷	Q	L	A	L							
2								Q	Q	L	A	B	4.6	L	L	Q	Q							
3								Q	Q	L	4.0	4.0	4.7L	4.6	4.0	3.3	Q							
4								Q	Q	L	L	B	4.8L	4.9L	4.0L	Q	Q							
5								Q	Q	L	L	L	4.9L	5.0L	3.9L	3.1	Q							
6								Q	Q	L	4.0	4.9L	4.8L	4.2	L	Q	Q							
7								Q	Q	L	4.0	4.8L	4.8	L	B	L	Q							
8								Q	Q	L	4.2	B	B	B	Q	A	Q							
9								Q	Q	L	L	B	4.8	L	L	B	Q							
10								Q	Q	L	L	L	L	L	L	L	L							
11								Q	Q	L	L	4.8	[4.6]B	4.5L	L	Q	Q							
12								C	C	L	C	L	4.5	A	L	3.4L	Q							
13								Q	L	L	4.7L	4.8L	4.8L	4.5L	4.0L	[3.3]L	2.6							
14								Q	Q	L	L	4.8L	L	L	L	Q	L							
15								2.2	4.1L	L	Q	4.6	4.7L	L	L	L	Q							
16								Q	Q	L	L	Q	L	4.8	4.2L	Q	Q							
17								2.2	Q	Q	L	4.9L	4.9L	L	L	4.0	Q							
18								Q	Q	C	L	L	4.7	(4.7)L	4.0L	3.3	L							
19								C	C	L	L	4.5L	4.5L	4.6L	L	Q	Q							
20								Q	L	4.0L	4.2L	4.8L	4.8L	4.5L	4.2L	L	Q							
21								C	C	Q	Q	4.6L	[4.6]L	4.6L	L	L	Q							
22								Q	Q	L	4.7	4.8L	L	B	L	4.4	Q							
23								Q	Q	L	C	C	L	L	L	L	C							
24								Q	Q	C	C	C	C	C	L	L	Q							
25								2.9	L	4.8L	[4.9]A	5.0L	L	L	4.5	3.8L	Q							
26								Q	L	L	L	5.0L	4.9L	4.8L	4.1L	L	Q							
27								Q	L	L	4.8L	4.9L	4.9L	4.6L	4.1L	3.5L	Q							
28								Q	L	L	4.9L	L	4.9L	[4.8]A	4.7L	L	Q							
29								Q	3.4L	L	4.7L	4.8L	L	4.1	LH	L	Q							
30								Q	L	L	4.8L	4.8L	4.9	5.1	4.9L	3.9L	Q							
31								Q	Q	L	4.7L	4.5L	4.3L	4.4L	4.4L	Q	A							
Mean								2.4	3.8	4.4	4.6	4.7	4.7	4.6	4.2	3.6	2.6							
Median								2.2	3.8	4.4	4.7	4.8	4.8	4.6	4.1	3.4	2.6							
Value								3	2	2	14	19	22	17	13	10	1							
Count																								

f_oF₁

Sweep 1.0 Mc to 17.2 Mc in ___ min

Manual

Automatic

K 4

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

Lat. 35° 42.4' N
Long. 139° 28.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

Jan. 1956

R'F1

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	Q	Q	250	250	240	Q	240	A	240							
2								Q	Q	230	A	B	240	240	Q	Q	Q							
3								Q	Q	230	200	210	240	230	230	240	Q							
4								Q	220	Q	210	[220] ^P	230	240	210	Q	Q							
5								Q	Q	Q	260	230	220	260	220	210	Q							
6								Q	Q	230	210	260	210	230	230	Q	Q							
7								Q	Q	Q	200	220	[220] ^P	210	[220] ^P	230	Q							
8								Q	Q	Q	220	B	B	B	Q	A	Q							
9								Q	Q	230	240	[220] ^P	210	220	240	B	Q							
10								Q	Q	220	250	250	240	220	230	220	220							
11								Q	Q	240	240	B	B	200	230	Q	Q							
12								C	C	C	C	240	220	[220] ^H	230	230	Q							
13								Q	240	250 ^A	250	220	220	210	220	230	230							
14								Q	Q	230	240	250	230	230	240	Q	230							
15								230	230	230	Q	240	230	230	230	210	Q							
16								Q	Q	220	240	Q	200	230	240	Q	Q							
17								230	Q	Q	230	240	260	240	250	230	Q							
18								Q	Q	C	230	240	240	240	210	200	240							
19								C	C	240	280 ^A	230	240	220	230	Q	Q							
20								Q	250	240	230	240	230	230	240	230	Q							
21								C	C	Q	C	220	230	220	220	230	Q							
22								Q	Q	240	230	230	230	[230] ^P	230	230	Q							
23								Q	Q	230	C	C	240	230	<240 ^C	240	C							
24								Q	Q	C	C	C	C	C	240	250	Q							
25								250	240	240	[230] ^H	220	230	240	220	230	Q							
26								Q	230	220	230	230	230	230	210	230	Q							
27								Q	230	230	270 ^A	220	240	220	210	210	Q							
28								Q	220	220	250	230	230	[230] ^H	230	230	Q							
29								Q	240	220	230	250	220	210	210 ^H	220	Q							
30								Q	240	240	230	220	210	210	230	230	Q							
31								Q	Q	230	250	240	220	220	230	Q	A							
Mean Value								240	230	230	240	230	230	230	230	230	230							
Median Value								230	240	230	230	230	230	230	230	230	230							
Count								3	10	21	25	25	28	28	28	20	5							

K 5

Every 1.0 Mc to 17.2 Mc in 2 min Manual Automatic

R'F1

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

Lat. 35° 42.4' N
Long. 139° 28.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

f_oE

Jan. 1956

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								1.7	A	A	A	B	B	B	3.0	2.6	B							
2								1.6	B	A	3.2	[3.1] ^A	3.0	3.1	[2.8] ^A	2.6	A							
3								B	A	2.8	3.0	3.2	3.3	3.3	2.8	2.4	B							
4								A	2.4	2.9	3.1	3.3	[3.2] ^A	3.2	3.1	2.4	1.9							
5								B	2.4	A	B	3.3	A	B	A	2.5	A							
6								B	2.4	[2.8] ^A	3.1	[3.1] ^B	3.1	[3.0] ^A	3.0	A	A							
7								A	2.4	A	A	A	B	B	B	2.8	A							
8								A	B	2.6	2.6	B	B	B	B	A	B							
9								B	A	3.0	B	B	A	B	3.1	A	A							
10								B	B	2.9	[3.0] ^A	3.1	B	B	3.0	B	B							
11								B	2.2	C	A	A	A	3.3	3.2	B	B							
12								C	C	C	C	A	A	A	A	A	A							
13								1.8	2.5	C	A	A	A	3.0	3.1	2.7	A							
14								B	A	3.0	B	B	B	B	B	2.9	B							
15								1.6	2.6	B	B	A	B	3.3 ^B	3.1	2.6	A							
16								B	A	3.0	3.3	[3.4] ^B	3.5	[3.3] ^B	3.1	2.9	B							
17								1.9	2.5	2.9	[3.2] ^A	3.5	3.4	3.4	3.3	2.9	2.3							
18								B	2.6	[2.8] ^C	3.1	[3.2] ^A	3.2	3.2	3.0	[2.7] ^A	2.4							
19								C	C	3.0	3.3	3.4	3.6	3.1 ^B	A	A	(2.3) ^A							
20								B	2.6	2.9	3.2	3.2 ^B	A	A	A	3.0	A							
21								C	C	2.9	[3.1] ^C	3.3	3.2	[3.2] ^A	3.2	[2.8] ^A	2.4							
22								1.7	2.5	3.0	3.3	3.0	A	A	3.3	2.9	2.1							
23								B	2.2	A	A	3.3	[3.4] ^F	3.5	3.4	2.9	A							
24								1.6	2.6	3.0	3.3	[3.4] ^C	3.4	3.2 ^C	3.0 ^A	2.7	A							
25								B	2.4	A	A	A	A	A	3.0	2.8	2.2							
26								A	2.4	2.7	3.0	[3.2] ^A	3.3	3.2	3.2	2.9	B							
27								1.6 ^A	2.4	2.9 ^B	3.3	A	B	B	A	2.9	B							
28								B	2.6	3.0	3.2	3.3	3.2 ^F	[3.2] ^A	3.1	2.7	2.1 ^F							
29								1.6	2.6	3.0	[3.2] ^B	[3.3] ^A	[3.2] ^A	[3.2] ^A	3.2	2.9	2.5							
30								B	2.3	3.0	3.1	3.3	3.3	3.3	3.2	2.7	2.3							
31								1.8 ^S	2.7	[3.0] ^A	[3.2] ^A	[3.3] ^A	3.4	[3.3] ^A	3.4	2.8	A							
Mean Value								1.7	2.5	2.9	3.1	3.3	3.3	3.2	3.1	2.8	2.3							
Median Value								1.6	2.4	3.0	3.2	3.3	3.3	3.2	3.1	2.8	2.3							
Count								1.0	2.0	2.0	2.0	2.0	1.6	1.8	2.3	2.4	1.0							

f_oE

Sweep 1.0 Me to 1.72 Me 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

f_oF₂

Jan. 1959

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								140	A	A	B	B	B	B	110	A	B							
2								150	B	A	130 (120) ^M	120	120	120	(120) ^M	120	A							
3								B	A	120	110	110	120	110	120	120	B							
4								A	120	110	120	120	(120) ^M	110	110	120	150							
5								B	130	A	B	120	A	B	A	120	A							
6								B	110	(110) ^M	110	(110) ^B	110	(110) ^M	110	A	A							
7								A	130	A	A	A	B	B	B	120	A							
8								A	B	110	110	B	B	B	B	A	B							
9								B	A	120	B	B	A	B	120	A	A							
10								B	120	120	(120) ^M	120	B	B	110	B	B							
11								B	120	C	A	A	A	110	120	B	B							
12								C	C	C	C	A	A	A	A	A	A							
13								120	110	C	A	A	A	110	120	130 ^M	A							
14								B	A	110	B	B	B	B	B	120	B							
15								120	140	B	B	A	B	B	120	110	A							
16								B	A	110	120	(120) ^B	120	(120) ^B	110	120	B							
17								160	120	130	(120) ^M	120	110	110	110	120	120							
18								B	120	(120) ^C	110	(110) ^M	110	110	110	(120) ^M	120							
19								C	C	120	120	110	110	110	A	A	120							
20								B	130	110	110	110	A	A	A	120	A							
21								C	C	120	(120) ^C	110	110	(110) ^A	110	(120) ^M	130							
22								160	110	110	110	110	A	A	110	110	120							
23								B	110	A	A	110	120	110	110	120	A							
24								150	120	110	110	(110) ^C	110	110	110	110	A							
25								B	120	A	A	A	A	A	110	120	120							
26								A	110	110	110	(110) ^M	110	110	110	120	B							
27								A	130	120	120	A	B	B	A	110	B							
28								B	120	110	110	110	110	(110) ^M	110	120	130							
29								130	130	110	110	110	A	A	110	120	120							
30								B	120	110	110	110	110	110	110	120	120							
31								120	120	(120) ^M	120	120	120	120	120	110	A							
Mean Value								140	120	120	120	110	110	110	110	120	130							
Median Value								140	120	110	110	110	110	110	110	120	120							
Count								9	2	1	2	20	20	15	17	23	23	10						

f_oF₂

Sweep 1.0... Mc to 1.7.2 Mc in 2... min Manual Automatic

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 28.8' E

Jan. 1956

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	E	E	E	E	E	E	E	2.7	3.8	3.5	5.8	B	6.4	B	3.9	6.1	B	3.7	2.8	E	E	E	B	B
2	E	E	E	E	E	E	E	5.4 ^Y	B	5.4 ^Y	5.6	3.8 ^S	3.8	5	3.7	3.2	B	3.2	E	E	E	E	E	E
3	2.3	E	E	E	E	E	E	1.7	5	5	3.7	3.3	3.4	5	5	2.7	B	3.2	E	E	E	E	E	E
4	1.7	E	E	2.1	2.2	2.3	2.4	2.4	2.5	3.3	B	3.3	3.2 ^Y	3.7	5	3.4	2.4 ^Y	2.9	E	E	E	E	E	E
5	E	E	2.2	2.3	2.3	2.4	2.4	B	5	3.3	B	3.3	3.1 ^Y	B	3.3	5	2.9	E	E	E	E	E	E	2.9
6	3.0 ^S	E	2.2 ^Y	2.4 ^Y	2.1	2.4	2.5	B	5	3.3	B	5	5	3.5	5	3.0	2.4	4.0	3.1	3.8	2.7	2.2	E	E
7	3.9	2.8	2.5	2.1	2.5	1.2	2.4	3.7 ^Y	2.5	3.4	3.5	3.7	B	B	B	3.0	3.0	E	E	E	E	E	E	E
8	E	E	3.1	3.2	3.6	E	E	2.3	B	5	5	B	B	B	B	5.9	B	E	E	E	E	E	E	E
9	E	E	E	E	E	E	E	B	3.0 ^S	5	B	B	3.2	B	5	3.1	2.6	E	E	E	E	E	E	E
10	3.3	3.1	>2.4 ^C	E	E	E	E	E	B	5	3.3	5	B	B	3.3	5	B	E	E	E	3.7	2.9	E	E
11	E	2.0 ^Y	2.0 ^Y	2.4	E	E	E	B	2.7	C	3.6 ^Y	3.7	3.3	5	5	2.4	1.8	E	3.8	E	E	E	E	E
12	E	C	C	C	C	C	C	C	C	C	3.7	3.7	4.4	6.5	4.3	4.1	3.5	3.0	8.8	7.9	6.4	6.7	E	3.0
13	3.6	2.8 ^Y	2.1	2.2 ^Y	2.0 ^Y	E	2.6	3.5	3.7	4.4	4.5	3.6	3.8	5	3.0	3.2	3.0 ^{S^Y}	2.9 ^S	2.8 ^S	2.5 ^Y	2.5	2.5	E	2.5
14	2.4 ^Y	2.5	3.8	2.7	2.8	2.5	E	B	2.5	5	B	B	B	B	B	5	B	2.9	4.3	4.6	3.9 ^Y	3.7	3.0	4.1
15	3.0	2.4	2.7	2.5	2.4	2.5	E	5	3.8	B	B	3.7	B	3.6	3.8	2.8	5.6	2.1 ^Y	2.2	3.8	2.6	E	E	2.6
16	2.4	E	2.4	E	E	E	E	B	2.5 ^Y	5	5	B	3.3	B	5	3.0	B	2.0	3.8	E	E	B	E	E
17	2.5	E	2.1 ^Y	2.3	1.7	E	E	5	5	3.6	3.5	5	3.7	4.7	4.8	4.5	3.5	4.6	5.9	3.1 ^F	2.6 ^Y	E	E	3.0
18	3.5	2.5	2.3 ^F	E	E	E	E	5	5	C	4.5	4.3	4.5	4.6	3.7	3.8	2.7	E	3.0 ^Y	E	3.5 ^Y	2.9 ^Y	E	E
19	E	E	E	E	>1.6 ^C	C	C	C	C	5	6.5	4.4 ^Y	5	5	3.9	5.8	2.5	E	E	E	2.7	E	E	E
20	E	E	2.7 ^Y	1.6 ^Y	1.8 ^Y	3.3 ^Y	E	B	5	5	3.9	5	3.9	4.5	5.5	3.2	3.6	2.7	3.1	6.8	3.0	4.3	6.1	6.2
21	6.3	E	2.7 ^F	2.5	C	C	C	C	C	3.8	5	5	4.2	3.7	3.7	2.7	2.9	E	E	5.9	2.6	2.4 ^Y	3.0	E
22	4.6	4.7	3.8	2.8	2.5	2.5	2.3 ^Y	2.6	5	4.1	3.9	4.3	3.8	3.8 ^Y	5	5	5	E	2.7	3.8	3.3	E	E	2.8
23	3.8	2.9	3.0 ^F	2.7 ^F	2.1	2.8 ^Y	E	5	3.3	3.0	>3.3 ^C	5	3.3 ^Y	5	5	5	3.2	2.1	7.0	5.5	>3.3 ^C	3.7	3.0 ^Y	3.0
24	E	E	2.9	2.9 ^Y	2.4 ^Y	E	E	5	3.3	3.2	5	C	5	5	3.5	3.8	3.8	2.9	E	E	E	2.7	E	E
25	E	2.5	2.2 ^Y	2.5 ^Y	2.4 ^Y	2.0 ^Y	2.3 ^Y	3.0 ^Y	4.6	5.5	6.7	6.1	4.3	4.0	3.2	3.9	3.8	3.8	3.1	6.5	2.8	E	E	2.3
26	E	2.9	2.9	2.4	2.4 ^Y	E	E	2.3 ^Y	5	5	5	3.5	5	5	5	2.9	1.9	3.0	3.2	3.0	E	2.7	2.8	3.8
27	4.5	3.1	3.9	2.4	2.8	2.0 ^Y	E	2.3 ^Y	3.0	5	5.2	3.5 ^Y	B	B	3.0	3.3	B	2.8 ^Y	E	E	6.7	3.3	2.9	2.5
28	E	E	2.5	2.6 ^Y	2.4 ^Y	E	E	B	3.2 ^Y	5	3.7	3.6	3.9	5.7	5	2.8	2.6	2.8	3.9	4.0	4.4	5.9	E	E
29	2.6 ^Y	3.1	2.9	4.9	2.0	2.1	E	2.0	5	5	5	5	3.0	3.3	3.8	5	5	E	E	E	E	E	3.0 ^Y	E
30	2.5	C	C	C	C	C	E	5	3.2	5	3.7	3.6	5	5	5	5	5	5	E	E	E	2.6	2.3	2.4
31	E	E	E	2.2 ^Y	2.1 ^Y	E	E	2.9	2.4	6.4	5.5	5.2 ^Y	3.9	3.6	3.3	3.1	10.5	1.9	E	E	E	E	E	E
Mean Value	3.3	2.5	2.6	2.4	2.3	2.3	2.4	2.6	2.9	4.0	4.4	3.9	3.8	4.2	3.5	3.6	3.2	3.0	4.0	4.3	3.3	3.5	3.1	3.2
Median Value	2.3	E	2.4	2.4	2.1	E	E	1.8	2.5	3.2	3.6	3.6	3.7	3.6	3.3	3.0	2.9	2.1	2.2	2.4	2.6	E	E	E
Count	31	29	29	29	27	27	28	18	25	27	2.4	2.4	2.5	2.2	2.8	3.0	2.5	3.1	3.1	3.0	3.1	3.0	3.0	3.0

fEs

Sweep 1.0 Mc to 17.2 Mc in 2 min

Manual Automatic

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

Lat. 35° 42.4' N
Long. 139° 28.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

Jan. 1956

(M3000)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	2.9	2.9	3.1	3.1	2.7	3.0	2.7 ^H	3.5	3.5	3.4	3.2	3.3 ^P	3.3	3.1	3.3	3.3	3.4	3.5	3.1 ^H	3.4	(3.6) ^P	3.5	B	B
2	3.0	3.0	2.9	2.5	3.0	3.0	3.5	3.5 ^P	3.5	3.4	3.2	3.2	3.1	3.2 ^P	3.2 ^H	3.2	3.3	3.4	3.3	3.1	3.2	3.0	2.8	2.8
3	2.8	2.9	2.9	2.8	2.9	3.0	3.0	3.3	3.4	3.4	3.4	3.1	3.5	3.3	3.4	3.4	3.4	3.3	3.2	3.2	3.0 ^P	3.1	2.9	2.9
4	3.0	2.8	3.1	3.0	2.9	2.9	3.4	3.5	3.5	3.8	3.5	3.2 ^H	3.2	3.4	3.4	3.1 ^H	3.4	3.4	3.4	(3.4) ^T	3.5	2.8	2.9	2.8
5	2.7	2.7	3.0	3.2	3.3	3.1	3.2 ^P	3.2	3.6	3.5	3.4	3.1	3.5 ^P	3.2	3.4	3.1	3.5	3.4	3.3	3.2	3.0	3.1	2.7	2.8
6	2.8	3.0	3.0	3.1	3.1	2.9	3.0	3.5	3.5	3.3	3.1	(3.4) ^B	3.3 ^P	3.4	3.3	3.4	3.5	3.0	3.3	3.5	3.0	2.9	3.0	2.9
7	2.8	2.7	3.1	2.9	2.9	2.9	3.0	3.3	3.4	3.4	3.6	3.3	3.8	3.3	3.3	3.4	3.4	3.2	3.4	3.3	3.1	3.1	2.9	2.9
8	2.9	2.8	3.1	3.0	2.6	3.0	3.1	3.2	3.5	3.4	(3.4) ^T	3.3	3.4	3.3	3.2	3.2	3.5	3.1	3.1	3.4 ^S	3.1	(3.0) ^S	3.0	3.1
9	2.8	2.8 ^P	3.2	3.2	3.0	3.1	3.0	3.5	3.5	3.6	3.3	3.1	3.4	3.0	3.3	3.3	3.4	3.1	3.4	C	3.1	2.9	(2.8) ^S	(2.9) ^A
10	3.0	3.3 ^P	(3.2) ^A	3.0	2.8	3.1	3.0	3.2	3.5	3.3	3.1	3.4	3.3	3.5	3.3	3.4	3.4	3.1	3.1	3.5	3.3	(3.0) ^B	3.0	2.9 ^F
11	2.9 ^F	2.7	2.7	2.8	2.7	2.7	2.8	3.2	2.9 ^P	(3.1) ^T	3.3	3.3	3.5	3.5	3.3	3.5	3.2	3.0	3.2	(3.4) ^T	3.6	3.0	2.9	2.9
12	2.7	C	C	C	C	C	C	C	C	C	C	3.4	3.3	3.3	3.3	3.3	3.4	3.3	3.3	3.5	3.3	3.0	2.9	2.8
13	2.8	2.7	2.9	2.9	2.8	3.0	3.5 ^F	3.2	3.3	3.2 ^P	3.4	3.2	3.2	3.2	3.2	3.4	3.2	3.3	(3.3) ^T	3.8	3.0 ^H	2.8	2.9	2.9
14	2.7	2.9	3.1	3.0	3.0	3.1	3.5	3.2	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.4	3.2	3.3	3.4	3.6	3.2	2.9	2.9	2.9
15	2.8	3.1	3.5	3.0	3.2	2.9	3.2	3.5	3.7	3.3	3.3	3.3	3.5	3.3	3.3 ^H	3.3	3.5	3.3	3.3	3.3	3.2	2.6	2.7	2.8
16	2.8	2.9	3.2	3.2	3.0	3.1	3.1	3.5	3.5	3.5	3.3	3.2	3.2	3.5 ^P	3.3	3.0 ^H	3.5	3.2	3.3	3.6	3.1	(3.0) ^B	2.9	2.7
17	2.9	2.6	2.9	3.4	3.7	2.9	3.0	3.3	3.6	3.2	3.2	3.2	3.4	3.4	3.5	3.4	3.6	3.2	3.4	3.2	3.3	2.9	2.6	2.6
18	(2.8) ^F	(2.8) ^F	2.9 ^F	3.0 ^F	3.2	3.1 ^V	2.9	3.4	3.4	3.0	3.2	3.2	3.2	3.5	3.4	3.2	3.3	3.4	3.2 ^V	2.7	2.8	2.9	2.6	2.6
19	3.1	2.9	3.2	2.8	C	C	C	C	C	C	3.1	3.5	3.2	3.2	3.2	3.3	3.2	3.5	3.1	3.2	3.0	2.6	2.8	2.8
20	2.9	2.9 ^F	3.0	3.1	2.5 ^H	3.2	2.9	3.2	3.5	(3.5) ^T	3.3	3.1	3.3 ^H	3.1 ^H	3.2	3.3	3.4	3.4	3.3	(3.2) ^A	3.2	2.8	(2.5) ^F	A
21	2.9	2.9 ^F	3.2	3.1	C	C	C	C	C	3.5 ^P	(3.5) ^T	(3.5) ^T	(3.4) ^C	3.2	3.3	3.4	3.4	3.4	3.1	3.2	3.4	3.0	2.9	3.1
22	2.9	2.7	3.0	2.9	2.9	3.0	3.0	3.3	3.2	3.3	3.3	3.2 ^P	3.2	3.4	3.3	3.1	3.2	3.2	3.3	3.6	2.6	2.8	3.0	3.0
23	2.7	C	C	(3.3) ^P	3.1	2.9	3.1	3.5	3.5	3.4	3.5	3.2	3.3	3.4	3.1	3.2	3.4	3.4	(3.3) ^A	3.2	[3.2] ^C	3.1	3.0	2.8
24	2.8	2.8	(3.1) ^P	(3.3) ^P	2.7 ^H	2.8	3.1	3.5	3.4 ^P	3.5	3.4	3.3	3.3	3.1	3.2	3.1	3.2	3.3	3.1	3.5	2.8	3.0	2.8	2.7
25	2.7	2.8	3.2	3.1	2.7	2.5	2.7	3.0	3.4 ^P	3.2 ^P	3.2 ^P	3.2	3.2	3.2	3.4	3.2	3.3	3.3	3.1	3.3	3.4	3.0	2.8	2.9 ^P
26	2.9 ^F	3.0	3.5	3.1	3.3	3.0	3.0	3.2	3.5	3.4	3.1	3.2	3.2	3.3	3.2	3.4 ^P	3.4	3.3	3.3	3.4	3.2	3.1	2.9	2.8
27	2.8	2.9	3.0	3.3	3.3	3.0	3.0	3.4	3.4	3.3 ^P	(3.3) ^P	3.4	3.4	3.4	3.4	3.4	3.4	3.2	3.3	3.5	A	2.8	3.0	2.8
28	2.8	2.7	2.7	2.9	2.9	2.8	2.8	3.5	3.4	3.1	(3.2) ^P	3.2	3.2	3.2	3.2	3.3	3.3	3.3	3.2 ^P	3.0	A	2.8	2.9	(2.8) ^T
29	2.8 ^P	3.3	3.9	2.6 ^H	2.7	2.7	2.9	3.3	3.6	3.2	3.4	3.5	3.1	3.3	3.4	3.4	3.4	3.4	3.3	3.0	3.0	3.1	3.1	3.0
30	2.8	C	C	C	C	C	2.8	3.4	3.2	3.3 ^P	3.4	3.4	3.3	3.3	3.3	3.4	3.5	3.5	3.1	3.2	3.1	2.8 ^F	3.0	3.0
31	3.2	3.1	3.2	3.1	2.7	2.9	3.0	3.2	3.3	3.1	3.2	3.5	(3.6) ^F	3.3	3.4	3.2	(3.3) ^A	3.4	3.1	3.0	3.1	3.2	3.0	2.7
Mean Value	2.8	2.9	3.1	3.0	2.9	2.9	3.0	3.3	3.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.3	3.2	3.3	3.1	3.0	2.9	2.9
Median Value	2.8	2.8	3.1	3.0	2.9	3.0	3.0	3.3	3.5	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.4	3.3	3.2	3.3	3.1	3.0	2.9	2.9
Count	31	2.8	2.8	2.9	2.7	2.8	2.8	2.8	2.8	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	2.9	3.1	2.9

(M3000)F2

Sweep 1.0 Mc to 7.2 Mc in 2 min

Manual

Automatic

Lat. 35° 42.4' N
Long. 139° 28.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

Jan. 1958

fminF

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	1.6	1.4	1.3	1.3	1.1	1.5	2.0	3.0	3.3	4.3	4.0	4.8	3.9	3.9	4.9A	2.4	2.5	1.5	2.1	2.0	1.5	2.0	B	B
2	1.4	1.6	1.0	E	E	1.0	1.3	2.0	2.7	3.5	5.0A	4.9	3.9	3.7	3.7	3.0	2.3	1.5	1.3	1.5	2.1	1.3	1.5	1.0	1.0
3	1.5	2.2	1.2	1.2	1.0	1.0	1.4	1.9	2.7	3.5	3.4	3.4	3.7	3.8	2.9	3.0	2.3	3.2A	2.2	1.5	2.0	1.9	2.1	1.3	1.3
4	2.1	1.3	E	1.0	1.0	1.3	1.9	2.0	2.6	3.8	3.5	4.7	3.8	3.8	3.2	2.8	3.2	2.1	3.0	2.1	1.5	1.5	1.5	1.3	1.3
5	1.3	1.3	1.0	E	E	1.4	1.8	1.9	2.7	3.4	4.0	3.5	3.4	4.3	3.4	2.8	2.3	1.5	1.5	2.2	2.1	2.1	1.2	1.5	1.5
6	1.2	1.2	1.2	1.2	1.1	1.4	1.6	2.0	2.5	3.5	3.4	4.0	3.4	3.3	3.6	3.3	2.3	2.1	1.5	2.2	1.5	1.7	1.2	1.4	1.4
7	1.3	1.3	1.1	1.1	1.1	1.0	1.5	2.0	2.5	4.0	3.5	4.0	4.8	3.4	4.1	2.9	2.2	1.5	1.3	1.3	2.0S	1.6	2.1	1.8	1.8
8	1.4	1.3	1.3	1.3	2.5A	1.0	2.2S	1.9	2.6	2.9	4.0	4.9	4.9	4.7	3.5	5.0A	2.3	1.6	2.5S	2.1S	1.3	1.4	1.4	(2.0)B	(2.0)B
9	1.4	1.3	E	1.0	1.0	1.3	1.3	2.1	2.6	3.3	4.1	4.5	3.9	3.9	3.5	4.9	2.3	2.0	1.5	(1.6)C	1.6	2.0	2.0	(1.7)A	(1.7)A
10	1.4	1.9	(1.5)A	1.1	1.1	1.3S	1.6	2.0S	2.8	3.4	3.5	4.0	4.2	4.0	3.7	2.8	3.4	2.2	1.5	2.0	3.5A	1.9	2.0	2.0	1.9
11	1.3	1.3	E	E	E	1.4	1.9	2.1	2.5	(4.0)C	4.0	4.7	4.8B	3.5	3.5	3.5	2.7	1.9	2.4	2.5	1.4	1.7	1.4	1.4	1.4
12	1.3	C	C	C	C	C	C	C	C	C	C	3.9	3.3	4.7A	3.3	3.1	2.5	1.6	4.5A	3.9A	1.7	1.8	1.6	1.6	1.6
13	1.8	1.0	E	E	E	1.3	1.8	2.3	2.9	4.0	3.7	3.3	3.3	3.2	3.3	3.1	2.2	2.1S	2.1	1.5	1.7	1.6	1.3	1.5	1.5
14	1.4	1.3	1.7	1.2	E	1.3	1.4	2.1	2.3	3.2	3.5	4.0	3.9	3.6	3.2	3.2	2.6	2.0	1.9	3.3A	2.0	2.5A	1.9	2.0	2.0
15	1.5	1.3	1.3	1.0	E	1.4	1.3	1.8	2.7	3.3	3.0	4.0	3.5	3.7	3.5	2.8	2.7	2.0	(3.3)C	3.1	1.7	1.5	1.6	1.5	1.5
16	1.9	1.3	1.3	1.3	E	1.3	1.3	1.7	2.4	3.3	3.6	3.4	3.5	3.4	3.4	3.0	3.5	1.9	2.1S	2.0	1.5	(1.4)B	1.4	1.9	1.9
17	1.5	1.3	1.0	E	E	1.3	1.4	2.0	2.8	3.3	3.5	3.7	4.0	4.0	3.7	3.4	2.8	1.9	2.0	1.3	1.7	1.4	2.0	1.5	1.5
18	1.4	1.3	E	E	1.0	1.2	1.3	1.9	2.6	(7.3)C	3.5	3.5	3.8	4.0	3.2	2.9	2.4	1.5	2.0	1.4	1.3	1.5	1.5	1.5	1.5
19	1.3	1.3	E	E	E	C	C	C	C	3.0	4.5A	3.5	3.8	3.7	3.5	3.3	2.5	2.1	1.3	1.6	1.8	1.4	1.2	1.5	1.5
20	1.3	1.3	E	E	E	1.1	1.5	2.0	2.6	3.0	3.5	3.6	3.8	3.4	3.6	3.0	2.8	1.9	1.9	A	1.4	1.3	2.0	A	A
21	2.1	1.3	1.0	E	E	C	C	C	C	3.0	(3.2)C	3.3	3.3	3.4	3.3	2.8	2.4	1.9	1.3	2.5A	1.4	1.4	1.5	1.3	1.3
22	1.3	1.9	1.0	1.3	E	1.3	1.3	2.0	2.6	3.3	3.5	3.7	3.5	4.9B	3.4	2.9	2.4	1.6	1.9	3.0	2.0	1.4	1.4	2.1	2.1
23	2.0	2.5	1.1	1.6	1.1	1.4	1.7	1.9	2.2	3.4	(4.8)C	(4.9)C	3.4	3.5	(3.9)C	3.4	(4.9)C	2.1	(2.0)A	2.0	(2.0)A	2.1	1.5	1.6	1.6
24	1.4	1.0	E	E	E	1.0	1.5S	2.0	2.6	(4.9)C	(4.8)C	(4.9)C	(4.9)C	(4.9)C	3.2	3.1	2.5	2.0	1.4	1.1	1.3	1.2	1.5	1.4	1.4
25	1.3	1.3	E	E	E	1.3	1.6	2.2	2.5	3.3	5.1A	3.4	3.6	3.4	3.3	3.2	3.0	2.0	1.5	(1.5)A	1.3	1.5	1.5	1.5	1.5
26	1.3	2.0	E	E	E	1.0	1.3	1.9	2.5	2.8	3.4	3.4	4.0	3.5	3.3	2.9	2.0	1.8	2.1	2.0	1.4	1.4	1.3	1.9	1.9
27	2.2	2.0	1.4	2.5	1.2	1.3	1.5S	1.9	2.6	3.1	4.3A	3.5	4.0	3.6	3.1	3.0	2.8	2.1	2.0	1.5	(1.4)A	1.4	1.6	1.4	1.4
28	1.3	1.3	E	1.0	E	1.3	1.7S	2.2S	2.7	3.2	3.5	3.5	3.3	5.0A	3.3	2.8	2.7	2.0	3.2A	A	A	3.3A	1.4	1.4	1.4
29	1.3	2.1	1.3	1.1	1.2	1.1	1.3	1.9	2.6	3.0	3.3	3.6	3.5	3.4	3.3	2.9	2.5	1.9	1.5	1.5	1.3	1.5	2.1	1.3	1.3
30	1.3	C	C	C	C	C	1.7	2.1	2.6	3.0	3.3	3.4	3.4	3.3	3.4	2.7	2.4	2.0	1.5	1.5	1.9	1.5	1.4	1.5	1.5
31	1.3	1.0	E	E	E	1.0	1.2	2.0	2.7	3.4	4.0A	3.4	3.5	3.5	3.5	3.4	4.9A	1.9	1.5	1.5	1.5	1.2	1.3	1.4	1.4
Mean Value	1.5	1.5	1.2	1.3	1.4	1.2	1.5	2.0	2.6	3.3	3.8	3.8	3.8	3.8	3.4	3.2	2.7	2.0	1.9	2.0	1.7	1.7	1.6	1.6	1.6
Median Value	1.4	1.3	1.0	1.0	E	1.3	1.5	2.0	2.6	3.3	3.5	3.6	3.7	3.6	3.4	3.0	2.5	2.0	1.9	2.0	1.6	1.5	1.5	1.5	1.5
Count	31	29	29	29	28	27	28	28	28	27	28	29	30	30	30	31	30	31	30	29	30	31	30	29	29

Sweep 1.0 Me to 7.2 Me in 2 min

Manual Automatic

fminF

K 10

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

Lat. 35° 42.4' N
Long. 139° 28.8' E

IONOSPHERIC DATA

Jan. 1956

f_{min}E

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	E	E	E	E	E	E	E	1.3	1.9	2.2	2.4	B	3.6	B	2.5	1.9	[1.6] ^B	1.4	1.4	E	E	E	B	B
2	E	E	E	E	E	E	E	1.3	[1.4] ^B	1.5	1.5	1.8	2.2	2.0	1.8	1.4	1.5	E	E	E	E	E	E	E
3	1.4	E	E	E	E	E	E	B	<1.5 ^C	1.7	2.1	2.1	2.3	2.1	2.2	1.9	[1.6] ^B	1.3	E	1.9	E	E	1.6	E
4	1.5	E	1.0	1.0	1.0	E	E	1.3	2.1	2.1	1.6	1.5	1.4	1.5	1.4	1.5	1.5	1.2	E	E	E	E	E	E
5	E	E	1.0	1.1	1.0	1.0	1.3	[1.6] ^B	2.0	1.9	[1.9] ^B	1.9	1.6	[1.7] ^B	1.8	1.3	1.5	E	E	E	E	E	E	1.4
6	1.4	E	1.0	1.0	1.0	1.0	1.4	[1.4] ^B	1.3	1.6	1.7	[1.6] ^B	1.6	1.5	1.5	1.5	1.1	1.2	1.0	1.1	1.1	1.5	E	E
7	1.3	1.0	1.0	1.0	1.0	1.0	1.5	1.4	1.2	2.2	1.7	1.4	B	B	B	1.8	1.4	E	E	E	E	E	E	E
8	E	E	1.1	1.0	1.0	E	E	1.4	[1.4] ^B	1.5	1.4	B	B	B	B	1.5	B	E	E	E	E	E	E	E
9	E	E	E	E	E	E	E	B	1.4	1.8	B	B	2.3	[1.8] ^B	1.4	2.0	1.5	E	E	C	E	E	1.5	1.4
10	1.3	1.3	1.0	E	E	E	E	B	1.5	<2.1 ^C	2.2	2.2	B	B	1.4	B	B	E	E	1.4	1.3	E	E	E
11	E	1.5	1.0	1.5	E	E	E	B	1.4	[1.8] ^C	2.3	2.2	2.2	1.6	2.1	2.2	1.4	E	1.5	E	E	E	E	E
12	E	C	C	C	C	C	C	C	1.6	1.6	2.1	1.5	2.2	2.1	1.5	1.3	1.3	1.4	1.1	1.2	1.5	1.3	E	1.4
13	1.0	1.4	1.5	1.1	1.0	E	1.3	1.2	1.2	<3.0 ^C	2.1	1.4	1.5	1.5	1.6	1.4	1.5	1.3	1.3	1.4	1.4	1.4	E	2.1
14	1.3	1.3	1.0	1.0	E	E	E	B	1.4	1.5	B	B	B	B	B	1.7	[1.6] ^B	1.5	1.3	1.3	1.3	1.3	1.3	1.4
15	1.3	1.3	1.3	E	1.3	1.0	E	1.3	1.5	B	B	1.9	[2.6] ^B	3.3	2.4	2.1	1.6	1.6	1.4	1.4	1.3	E	E	1.7
16	1.4	E	1.3	E	E	E	E	B	1.4	1.4	2.3	[2.4] ^B	2.4	[1.9] ^B	1.4	1.4	[1.6] ^B	1.7	1.2	E	E	B	E	E
17	1.3	E	E	1.4	1.3	E	E	1.3	1.4	1.5	1.6	2.3	1.6	1.5	1.6	1.4	1.4	1.4	1.6	1.5	1.4	E	E	1.2
18	1.3	1.3	1.0	E	E	E	E	1.5	1.3	[1.4] ^C	1.6	1.5	1.3	1.3	1.5	1.4	1.4	E	1.4	1.5	1.5	1.5	E	E
19	E	E	E	E	1.4	C	C	C	C	2.1	2.1	1.7	1.5	1.4	1.5	1.5	1.5	E	E	1.2	1.2	E	E	E
20	E	E	1.0	1.0	E	1.0	E	B	2.0	1.6	1.6	1.9	1.5	1.5	1.5	1.4	1.3	1.3	1.1	1.1	1.1	1.2	1.3	1.3
21	E	E	E	C	C	C	C	C	C	1.5	[1.4] ^C	1.4	1.4	1.7	1.6	1.5	1.4	E	E	1.4	1.1	1.3	1.3	E
22	1.3	1.1	E	E	E	1.0	1.5	1.4	1.3	1.4	1.4	1.7	1.6	1.3	1.4	1.4	1.5	E	1.1	1.6	1.1	E	E	1.3
23	1.0	1.3	E	E	E	1.0	E	1.5	1.4	1.4	1.4	1.5	1.5	1.6	1.6	2.2	2.0	1.4	1.5	1.1	1.5	1.3	1.0	2.0
24	E	E	E	E	1.1	E	E	[1.5] ^S	1.4	1.4	1.5	[1.5] ^C	1.5	1.4	1.5	1.7	1.7	1.2	E	E	E	1.7	E	E
25	E	1.0	E	1.0	1.0	1.0	1.4	1.9	1.3	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.4	1.3	1.4	1.2	1.3	E	E	1.4
26	E	1.0	E	E	1.0	E	E	1.4	1.4	1.5	1.5	1.4	1.5	1.5	1.6	1.4	1.3	1.4	1.0	1.2	E	1.0	1.3	1.4
27	1.3	1.1	E	E	E	1.0	E	1.3	1.5	1.6	1.7	1.6	B	B	1.6	1.6	[1.3] ^B	1.3	E	E	1.3	1.5	1.5	1.5
28	E	E	E	E	1.0	E	E	B	2.2	1.5	1.7	2.4	1.7	1.5	1.5	1.6	1.9	1.5	1.5	1.6	1.3	1.5	1.5	E
29	1.4	1.1	1.0	E	E	1.0	E	1.4	1.9	1.7	1.5	1.8	1.5	1.6	1.7	2.2	1.5	E	E	E	E	1.3	E	E
30	1.1	C	C	C	C	C	C	1.4	1.3	1.5	1.6	1.4	1.5	1.6	1.4	1.5	1.4	1.3	E	E	E	1.3	1.2	1.4
31	E	E	E	E	1.0	E	E	1.4	1.3	1.6	1.5	1.2	1.4	2.0	1.5	1.6	1.5	1.5	E	E	E	E	E	E
Mean Value	1.3	1.2	1.1	1.1	1.1	1.0	1.4	1.4	1.5	1.6	1.7	1.7	1.8	1.7	1.6	1.6	1.5	1.4	1.3	1.4	1.3	1.4	1.3	1.5
Median Value	1.0	E	1.0	E	1.0	E	E	1.4	1.4	1.5	1.6	1.6	1.5	1.6	1.5	1.5	1.5	1.3	1.0	1.1	1.1	E	E	E
Count	31	29	29	28	28	27	28	20	27	27	27	27	25	25	28	30	29	31	31	30	31	30	30	30

f_{min}E

Sweep 1.0 Mc to 1.7.2 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

Jan. 1956

YPF2

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	70	70	50	70	100	60	70 ^H	50	40	70	60	50 ^P	50	50	60	40	30	50	50 ^H	40	(60) ^J	50	B	B	
2	70	80	80	120	70	70	60	50 ^P	40	40	70	70	60	80 ^P	50 ^H	70	80	90	50	70	80	90	100	60	
3	70	70	70	100	70	60	80	80	80	50	60	50	50	60	40	60	50	90	60	60	80 ^P	70	100	70	
4	80	60	60	80	60	80	60	40	40	40	50	50 ^H	60	70	70	40 ^H	70	80	80	(60) ^J	50	50	60	80	
5	70	80	60	70	140	80	50 ^P	110	70	60	70	70	60	80	80	100	60	100	90	80	70	80	80	70	
6	80	80	70	100	90	100	90	40	80	100	70	(40) ^B	90 ^P	60	60	80	50	60	60	60	80	100	90	70	
7	40	70	50	110	80	50	70	80	60	50	70	50	40	70	70	70	80	100	70	70	90	60	70	60	
8	60	60	50	70	100	70	70	60	40	80	(80) ^F	90	50	100	90	70	70	70	90	90 ^S	80	[60] ^S	50	60	
9	60	70 ^P	70	70	60	60	70	60	60	40	50	80	70	100	50	60	90	90	100	C	70	60	(60) ^S	[60] ^A	
10	70	70 ^P	[60] ^A	60	70	60	70	90	50	90 ^P	(70) ^J	60	70	80	40	50	70	60	90	50	80	(30) ^B	100 ^P	30 ^F	
11	40 ^F	100	80	90	100	60	60	60	90 ^P	(70) ^J	C	60	70	40	70	40	70	70	70	(50) ^J	60	70	70	80	
12	80	C	C	C	C	C	C	C	C	C	C	50	60	70	70	60	70	80	80	A	70	60	60	60	
13	50	70	100	60	60	70	70 ^F	70	50	70 ^P	50	70	70	70	70	60	80	70	(70) ^J	30	120 ^H	130	50	50	
14	50	50	50	90	100	60	90	80	70	60	80	80	50	60	60	60	70	50	50	70	90	A	60	70	
15	60	60	50	80	60	100	100	80	40	40	50	40	90	40	50 ^H	80	70	70	70	70	90	70	100	70	
16	80	50	60	90	100	70	80	80	40	40	50	70	60	40 ^P	90	80 ^H	60	80	70	60	90	[100] ^B	100	80	
17	80	60	60	50	40	110	90	90	50	110	80	70	50	70	50	40	30	80	60	80	80	70	90	70	
18	(60) ^F	(60) ^F	60 ^F	60 ^F	60	80 ^V	50	50	40	C	70	60	50	40	70	90	70	90	90 ^V	100	70	50	60	90	
19	60	60	100	80	C	C	C	C	C	C	C	C	70	60	70	50	60	60	90	100	70	70	70	70	
20	110	90 ^F	60	50	90 ^H	90	60	60	50	(40) ^P	50	50	80	100 ^H	70	70	60	110	70	[60] ^A	60	100	(80) ^H	A	
21	50	60 ^F	50	50	C	C	C	C	C	60 ^P	[60] ^C	(60) ^F	[60] ^C	70	80	50	60	60	80	90	80	80	50	70	
22	70	70	70	80	110	90	90	80	70	90	90	60 ^P	70	60	50	80	60	70	70	70	100	60	60	50 ^P	
23	40	C	C	(60) ^P	100	100	90	60	50	70	60	60	60	90	80	70	50	50	[60] ^A	70	[60] ^C	50	50	60	
24	60	40	(40) ^P	(50) ^P	90 ^H	90	90	90	80 ^P	60	60	60	50	100	70	90	90	90	60	70	120	60	70	60	
25	40	90	60	90	70	120	70	90	50 ^P	40 ^P	70 ^P	50	50	50	60	70	90	70	60	70	60	80	80	50 ^P	
26	70 ^F	80	40	100	80	80	70	80	70	60	70	60	50	50	70	70 ^P	70	70	60	70	120	110	60	90	
27	90	60	50	80	90	60	60	60	70	80 ^P	(50) ^P	50	60	40	50	30	60	70	80	50	A	90	60	80	
28	50	90	90	50	60	70	70	60	60	70	(60) ^P	60	70	70	70	60	70	70	50 ^P	80	A	A	50	(70) ^J	
29	100 ^P	50	50	80 ^H	80	100	60	90	40	60	60	60	80	80	80	40	70	80	60	70	80	80	90	60	
30	70	C	C	C	C	C	80	80	70	50 ^F	60	60	80	70	50	60	70	50	80	50	50	60 ^F	60	50	
31	70	50	80	60	100	100	80	80	100	70	60	50	(50) ^F	40	40	80	[60] ^A	50	70	70	70	100	80	70	
Mean Value	70	70	60	80	80	80	70	70	60	60	60	60	60	70	60	60	70	70	70	70	80	70	80	70	70
Median Value	70	70	60	80	80	80	70	80	60	60	60	60	60	70	70	60	70	70	70	70	80	70	70	70	70
Count	31	28	28	29	28	28	28	28	28	29	30	31	31	31	31	31	31	31	31	31	29	29	29	30	29

YPF2

Lat. 31° 12.5' N
Long. 130° 37.7 E

Yamagawa

IONOSPHERIC DATA

135° E Mean Time

foF2

Jan. 1956

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	3.0	3.1	3.1	3.0	2.9	3.1	3.3	4.0	7.0	6.4	8.0	9.4	9.5	10.0	11.1	9.7	9.0	9.0	6.4	4.9P	5.4	5.2	4.0	3.5
2	3.5	3.0	2.8	2.8	3.0	2.8	2.5	3.8	7.3	8.4	10.4	9.4	10.0	12.5	13.1	13.6	12.7	10.8	6.7	5.2	6.2	5.4	3.5	2.7
3	2.8	2.9	3.0	3.1	3.4	2.7	2.8	4.0	7.7	9.5 ^S	7.8	9.2	12.0	12.5	11.5	10.8	9.4 ^J	9.2	5.3 ^H	5.4	6.1	5.9	4.6	4.1P
4	3.9	3.2	3.2	3.2	2.9F	2.9	3.1	4.0 ^H	7.2	8.8	7.8	8.5	10.0	11.0	9.6	7.6	8.2	8.7	5.9 ^H	5.2	5.1	5.9	3.8 ^H	3.1
5	3.0	3.1	3.1	3.2	2.8	2.5	2.8	4.1	6.9	8.4	9.1	9.5	12.3	11.7	11.0	11.0	12.7	13.0	8.6	6.5	7.0	6.5P	4.6	3.5 ^J
6	3.5	3.1	3.1	2.9	2.8	2.6	2.5	4.2	7.0	7.5	8.5	10.1	12.0	11.5	9.3P	8.5	9.0	7.5	6.5	6.4	6.5	5.1	4.0	3.7
7	3.3	3.2	3.5	3.4	2.7	2.9	2.8	3.8	8.3 ^S	10.0	8.9	8.8	10.6	8.9	8.3 ^H	8.7	9.2	7.4	7.1	7.9	6.5	6.2	5.3	4.5
8	3.9	3.7	3.6	3.4	3.5	3.4	2.9	3.8	9.2	11.7	11.2	8.9	11.3	9.0	8.5	9.3	8.5	8.3	5.5	7.4	5.7	4.1	3.8	3.5
9	2.9	3.1F	3.1	3.5F	2.6	M	M	M	M	7.0	9.0	10.6	11.5	11.5	8.9	9.6	9.5	7.4	7.4	6.0	5.7	5.3	5.3	4.6P
10	4.2	3.5F	3.5	3.1	2.7	2.8	2.7	3.9	6.5	7.9	9.3	10.3	[9.8] ^S	9.2	8.0	8.9	7.9	7.0	6.5	6.2	5.8	3.8F	3.5	F
11	FS	3.7 ^F	3.2	2.7	2.9	3.0	2.9	4.2	6.0	[10.0] ^S	14.0	11.6	11.5	9.8	8.0	8.2	8.5	7.9J	7.9	9.0	6.9	6.5	4.7	4.5
12	5.0	5.1	4.6 ^S	4.0 ^J	2.9	3.1	3.1	4.1	8.1	10.6	11.0	11.3	10.5	10.8	9.5	9.1	8.4	7.7	7.5	A	A	A	A	4.2
13	3.5	3.7	3.5	3.1	3.0	2.9	3.0	3.7	5.9	9.6	13.0	10.4	11.6	10.9	10.7	11.0	10.0	8.4	7.9	S	4.5 ^J	4.0	3.4 ^V	3.7
14	3.9	3.7F	4.0	4.0P	2.8	F	2.5F	4.0	6.4	8.0	9.0	10.8	11.0	11.1 ^H	12.4 ^P	11.2 ^J	9.0	7.6	8.0	8.9	5.4	5.0	3.4	3.3
15	3.1	3.0	3.3	3.4	2.8	2.3	2.4	3.6	7.8	7.4	10.0	11.2	11.5	11.1	9.8 ^J	9.8	7.9	7.3	6.5	6.2	5.3	3.5 ^H	3.0	3.4
16	4.0	3.7	4.4	3.6	2.9	2.4	2.5 ^J	4.0	S	8.2	8.1	10.5	10.4 ^J	12.2	13.6	11.8 ^J	9.0	8.7	6.3	5.8 ^H	4.9P	3.1	2.9	2.9 ^J
17	2.9	3.0	3.2	4.1	3.7	2.3	2.4	3.7	6.0	8.5	7.3	[9.6] ^S	12.0	11.7	10.0	S	7.9	8.4P	8.0 ^J	4.6 ^J	3.6	3.0	3.1 ^J	
18	3.1	[3.2] ^S	3.4	3.5	3.2	2.7P	2.6P	3.4	7.4	7.9	10.0	10.0	9.7 ^J	11.4	8.8	7.6	7.5 ^H	S	6.1 ^V	5.0	5.0	3.5	4.3	3.3
19	S	3.1	S	3.5	2.8	2.1	2.4	3.2	10.8	7.3	11.5	11.1	13.2	13.1	12.0	SH	10.0	9.2	7.3	[5.8] ^A	4.3	5.3	4.8	4.8 ^J
20	4.6	(4.6) ^H	4.1P	3.9	3.3	3.2	2.8	(4.3) ^P	(9.9) ^P	[11.0] ^S	12.2 ^H	12.6	14.5P	13.4	13.1	12.1	9.0	7.0	5.9	4.6 ^H	5.0	3.9	3.3	3.5
21	3.4	4.4	6.0	4.5 ^J	2.0F	1.9	2.0	3.6	7.8 ^S	8.1	7.9	10.7	8.4 ^H	11.7	12.4 ^S	[11.0] ^S	9.5	7.9	(7.7) ^P	5.6	7.0P	4.1	2.9 ^J	2.7
22	3.0	2.9 ^J	3.1	3.1	2.4	2.5	2.5	3.4	7.5 ^J	10.0	11.2	10.0	9.7 ^J	10.9	10.8 ^S	7.9	9.0	9.6	9.0	7.5	5.6	5.0	4.4	4.2
23	3.9	3.6	3.8	4.0	3.5	2.9	2.9	4.1	7.3	7.8	8.4	8.4	10.3	10.2	8.6	8.1	8.1	8.6	6.7	5.5	6.4	4.9	3.3	3.3
24	3.4	3.4	3.6	3.7	3.6	3.3	3.4	4.1	6.5	8.6	9.7	10.3	9.3	10.1	10.1	10.8	10.0	(10.0) ^S	8.1	8.5	6.6	7.0	6.0	4.4
25	3.7	4.0	4.3	3.7	2.6	2.9	2.6	4.1	8.5	12.0	11.0	11.5	12.2	12.6	11.5	8.9	10.0	8.6	8.7	7.3	4.6 ^H	4.0	3.9	3.9
26	3.9	3.9	4.7	3.0	2.5	2.5	2.7	3.5	7.9 ^J	7.9	[9.8] ^S	11.7	13.6	13.3	11.7	10.8	11.6	8.1	6.4	4.8	4.8	4.1	3.2	3.2 ^H
27	3.2	3.5	3.6	3.6	4.0	2.4	2.5	3.5	7.3	9.5	9.3	11.5 ^S	10.9	11.0	11.4	10.0	8.4	7.7	7.0	6.5	6.8	5.4	4.4	4.6 ^J
28	4.6	4.0	3.7	4.0	3.5	2.5	2.4	3.8	7.3	7.0	8.7 ^H	12.1 ^H	14.3	11.6	10.8	10.5	8.1	8.1	7.8	5.5	4.5	4.5 ^J	4.7	5.0 ^F
29	5.0	6.7	4.9	2.4	2.5	2.6 ^J	2.6	3.7	7.9	8.8	9.8	10.9	10.1 ^H	10.9	11.0	9.8	8.0	7.4	7.2	6.4	5.9	6.8	5.4	4.5 ^J
30	4.4 ^J	4.6	4.8	3.3	2.6 ^H	2.5	2.7	3.8	8.5	8.8	10.6	11.0	9.1 ^H	10.0	10.0 ^S	9.0	8.4 ^H	7.7	7.3	4.8	4.1	4.3 ^J	4.2	4.6
31	5.0 ^F	5.5F	4.6	3.7	3.2	2.7P	3.0F	4.3 ^J	7.0	8.5	12.1	14.3P	12.7	10.0	8.5	7.6 ^H	8.3	7.9	6.3	4.0	5.1	S	S	3.7 ^S
Mean Value	3.7	3.7	3.8	3.4	3.0	2.7	2.7	3.9	7.5	8.7	9.8	10.5	11.1	11.1	10.5	9.7	9.1	8.4	7.1	6.2	5.6	4.9	4.1	3.8
Minimum Value	3.5	3.5	3.6	3.4	2.9	2.7	2.7	3.8	7.3	8.5	9.7	10.5	11.0	11.1	10.8	9.6	9.0	8.1	7.0	6.2	5.5	5.0	4.0	3.7
Count	29	31	30	31	31	29	30	30	29	31	31	31	31	31	31	29	31	30	31	30	30	29	29	30

foF2

Swamp 1.0 Mc to 2.2.0 Mc in _____ min
 Manual Automatic

YI

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

Jan. 1956

K'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	340	280	280	300	320	340	250	250	240	220	220	240	270	250	250	240	240	230	210	230	240	220	240	310
2	290	270	300	340	300	220	300	280	250	240	250	250	250	270	260	250	220	230	210	230	250	220	240	370
3	340	320	300	300	240	290	290	270	240	240	240	250	280	250	260	250	240	220	190 ^H	230	240	220	240	280
4	270	300	290	270	270	300	250	250 ^H	240	220	220	250	270	270	240	250	240	240	200 ^H	250	250	220	230 ^H	290
5	340	300	300	250	230	270	300	250	220	240	250	250	250	270	250	240	260	220	200 ^A	230	210	230	240	320
6	300	300	270	290	250	290	310	240	230	240	250	310	250	250	240	260	250	230	220	220	200	210	250	300
7	340	350	300	270	220	330	310	290	240	230	230	240	250	250	240 ^H	250	250	240	210	230	200	240	230	280
8	250	310	290	300	270	240	310	[280] ^H	250	240	220	240	250	240	250	250	240	220	220	230	220	240	250	250
9	270	340 ^F	290	260	250	M	M	M	M	M	230	250	250	250	250	250	240	220	220	230	220	210	250	290
10	250	240	280	250	250	280	340	300	250	230	240	270	240	250	280	240	240	220	210 ^A	240	200	240	250	290
11	270	280	340	300	340	300	330	240	230	290	250	230	260	240	240	240	240	240	240	240	210 ^A	240	340	340
12	290	250	290	240	290	310	300	230	240	240	240	260	260	240	240	240	240	240	240	240	210 ^A	240	250 ^A	290
13	290	300	260	270	290	290	240	240	210	240 ^A	240	250	260	240	260	250	240	240	240	210	230	270	350 ^A	290
14	290	290	290	220	200	350 ^F	290	240	220	240	270	260	250	250 ^H	250	250	220	230	240	210	270	240	270	300
15	310	300	290	250	250	250	320	270	240	230	240	250	260	240	250	240	240	240	230	200	240	200 ^H	250	300
16	300	290	250	240	200	340	340	250	230	240	240	280	250	280	250	230	240	240	240	200	230 ^H	200	230	300
17	320	330	310	250	200	320	310	270	220	240	220	270	290	250	260	250	240	240	230	220	210	240	270	350
18	350	340	300	250	250	240	310	290	240	240	250	260	280	240	240	240	240 ^H	240	200	230	230	260	240	260
19	270	340	280	220	190	420	400	320	240	230	270	280	270	270	240	240 ^H	250	250	[290] ^A	200	340	300 ^A	290	280
20	290	240 ^H	260	230	280	250	300	280	250	240	250 ^H	240	250	240	240	260	230	220	210	220 ^H	240	250	[300] ^A	290
21	340	300 ^A	240	220	240	400	340	250	220	240	240	240	240 ^H	270	250	250	240	240	220	240	230	210	250	300
22	350	350	300	290	280	240	320	290	250	240	240	250	280	250	240	230	280	250	210	230	230	270	A	280
23	270	260	300 ^A	290 ^A	250	290	290	250	230	240	240	240	290	250	240	240	240	240	200	250	250	240	A	A
24	300	330	290	240	250	310	270	220	220	240	240	240	250	250	250	250	260	240	210	220	230	210	220	240
25	320	290	260	230	250	320	370	290	250	250	250	250	250	270	250	240	250	230	200	230 ^H	200	290	280	300
26	300	290	240	200	240	320	320	290	230	230	250	270	250	240	250	240	240	220	210	210	210	230	270	300 ^H
27	290	290	260	240	220	350	340	270	230	240	230	260	250	260	250	240	230	220	230	220	210	240	300	300 ^A
28	270	260	330	290	200	300	400	290	210	220	240 ^H	250 ^H	260	240	250	240	220	230	210	200 ^A	210	260	280	340
29	290	240	200	370	310	320	320	280	230	220	240	240	240 ^H	270	240	240	230	240	240	210	250	220	240	250
30	300	260	250	200	230 ^H	320	280	270	240	240	240	250	240 ^H	250	250	240	230 ^H	230	210	220	240	270	290	290 ^F
31	270	250	240	220	230	260	300	250	230	260	250	250	240	240	240	240 ^H	240	240	200	240	290	240	270	250
Mean Value	300	290	280	260	250	310	310	260	230	240	240	250	260	250	250	240	240	230	210	230	230	240	270	300
Median Value	290	290	290	250	250	310	310	270	230	240	240	250	250	250	250	240	240	230	210	230	230	240	260	290
Count	31	31	31	31	31	30	30	30	30	31	31	31	31	31	31	31	31	31	31	31	31	30	28	30

K'F2

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

Lat. 35° 12.6' N
Long. 139° 37.7' E

Yamagawa

IONOSPHERIC DATA

135° E Mean Time

fEs

Jan. 1956

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	E	E	E	2.1	E	E	E	G	3.8	5.9Y	G	5.9Y	5.9	4.9	4.4	5.8	G	2.1	E	3.0	2.1	2.9Y	E
2	E	E	E	E	E	E	E	2.3	G	G	5.9Y	8.8	4.9	5.9Y	5.7	5.6	3.6	3.4F	3.3F	E	E	E	E	2.3
3	2.1	E	1.9	E	2.3	E	E	E	G	G	G	G	G	G	G	5.9Y	G	E	E	E	E	E	E	E
4	2.3	E	E	E	E	E	2.3	E	G	5.8Y	5.9Y	5.9	5.9	5.9	9.5	5.9Y	5.9Y	5.9	2.4	1.9	2.3	2.3	2.1	E
5	E	E	E	E	2.2	1.9	E	E	G	G	5.5	G	4.9	5.9Y	G	G	G	3.5	3.3	2.3	2.3	2.3	E	2.3
6	2.1	2.2	3.0	2.3	E	E	2.3	E	G	3.9	G	4.6	7.0	G	G	G	5.9	3.8F	3.4	3.4	3.0	2.4	E	2.3
7	2.2	E	E	3.4	3.0	2.6	E	2.3	G	G	G	G	5.8	5.3	G	5.9	3.8	3.4	3.2	3.5	2.4	3.6	E	3.5F
8	2.3F	3.0	E	E	E	E	2.1	M	G	G	G	G	5.9Y	G	G	G	3.8	5.9	2.3	E	E	E	E	E
9	E	2.1	2.1	3.5	2.3	M	M	M	M	G	6.5	G	G	G	G	G	4.8	3.4	2.4	3.6	2.4	3.1	2.3	2.2
10	2.3F	2.3	3.8	2.3F	E	E	E	E	G	G	6.5	4.7	5.9	4.9	G	G	G	3.3	5.9	5.9	E	2.3	2.3	2.3
11	2.4	2.3	3.5	2.3	2.3	2.2	2.2	2.3	2.3	3.3	4.3	4.8	5.0Y	4.2	G	3.8	3.8	4.6	3.0	2.4	3.2	3.2	3.4	2.3
12	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	3.3	3.8	G	G	6.6	5.9	4.7	3.6	5.9	3.2	2.4	8.5	5.8	8.9	8.8	2.4
13	3.5	3.0	2.4	2.3	2.4	2.3	2.3	2.4	G	5.0	1.23Y	5.5	5.9	8.9	8.9	6.6	5.9	3.4	3.2	3.2	2.4	2.4	2.4	2.3
14	2.3	2.3	2.3	2.3	2.3F	2.3F	2.3	2.3	2.3	G	G	G	G	G	G	G	G	G	2.3	2.4	2.2	3.2	3.2	3.2
15	3.0	2.3	2.4	2.3	2.3F	2.2	2.3	2.3	G	G	G	G	G	G	G	G	B	B	3.1	2.3	2.3	2.4	2.3	2.3
16	3.0	2.3F	2.3F	2.3	3.1	2.1Y	2.3	E	2.3	G	G	G	G	G	G	G	3.4	G	2.3	2.3	2.3	2.0	E	E
17	E	E	E	E	2.2	E	2.3	2.2	3.0	G	G	G	G	4.9	G	G	G	3.5	2.4	2.3	2.3	2.3	3.0	3.0
18	2.3	2.2	3.1	2.3	2.3	E	E	E	G	G	G	G	G	5.0	G	G	G	3.3	3.4	2.4	3.0	2.3	1.9	2.2
19	2.3	2.3	2.3	2.3	E	E	E	2.1	G	G	G	G	3.9	4.8	4.5	4.3	8.9	8.5	6.0	7.5	5.9	3.5	2.3F	2.3
20	2.3	2.3	E	2.3	2.1	E	2.1	2.3	3.2	3.5	G	G	G	G	6.5Y	G	G	E	E	E	2.9	3.2	5.0F	3.2F
21	3.5	3.2F	2.9F	3.2	2.3	2.3	E	2.3	G	G	G	G	5.0	G	G	G	3.5	3.0	3.1	3.1	2.3	2.3	E	2.3
22	3.1	3.1F	2.3	2.3F	3.0	2.3F	2.1	2.3	G	G	G	5.3	4.8	G	G	3.7	G	G	2.3F	2.3	2.1	3.7	3.6	2.3
23	E	2.1	3.5	3.6	2.4F	3.5	2.3	2.3	G	G	G	G	G	G	G	G	G	G	2.3	2.4	3.2	3.7	3.6	5.7
24	3.0	2.3	2.3	2.3	2.3	2.3	E	2.2	G	G	5.9Y	4.9	4.8	G	G	G	3.5	G	2.3	2.2	E	E	E	E
25	2.2	2.1	E	2.2	2.3	E	2.1	2.4	G	G	5.9	5.9	5.9	G	G	G	3.6	3.0	E	E	2.3	5.9	3.2	3.4
26	2.3	2.3	E	E	2.4	2.3	2.3	2.1	G	G	G	G	G	G	G	G	G	G	E	2.3	2.3	E	E	E
27	E	E	2.1	2.1	2.3	2.3F	2.3	2.1	G	G	G	G	3.8	G	G	G	G	3.4	3.0	2.3F	2.3F	2.3	2.3	3.8
28	3.7	5.0	2.9	2.9	2.3F	2.3F	2.2	2.2	G	G	5.9	G	G	G	G	G	G	G	2.2	2.9	2.3	2.3	2.4	3.8
29	2.3	2.3	2.3	2.3	2.2	2.2	2.3	2.4	G	G	G	G	G	G	G	G	G	G	2.3	2.3	2.3	E	E	E
30	E	E	E	2.3	2.1	E	2.0	2.3	3.1	G	G	G	G	5.8Y	G	G	G	E	E	2.3	E	E	2.3	2.3
31	E	2.4	2.3	E	2.3	2.3	2.2	2.0	G	3.5	G	G	5.4	G	4.8	3.7	4.8	G	2.3	2.3	2.3	2.3	3.7	2.3
Mean Value	2.6	2.5	2.6	2.5	2.4	2.3	2.2	2.3	2.8	4.2	6.4	5.6	5.4	5.6	6.2	4.8	4.8	3.8	2.9	3.1	2.8	3.1	3.2	2.8
Median Value	2.3	2.3	2.3	2.3	2.3	2.2	2.1	2.2	G	G	G	G	4.8	G	G	G	3.4	3.1	2.4	2.3	2.3	2.3	2.3	2.3
Count	31	31	31	31	31	30	30	29	30	31	31	31	31	31	31	31	30	30	31	31	23	31	31	31

fEs

Sweep J... Mc to Zz... Mc in ... min
 Manual Automatic

SOLAR RADIO EMISSION

JAN. 1956

Observing Station: HIRAISO

Frequency: 200 Mc/s

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

Time in U.T.

Daily Data

Date	Steady Flux		Daily Averages
	00-03	03-06	
1	6	8	7
2	6	5	6
3	5	5	5
4	6	7	6
5	6	6	6
6	6	7	6
7	6	5	6
8	7	6	7
9	6	7	6
10	6	6	6
11	7	7	7
12	(10)
13	7	8	8
14	8	7	7
15	8	6	6
16	9	9	9
17	6	6	6
18	7	9	7
19	18	21	20
20	13	12	12
21	20	9	13
22	20	15	17
23	12	8	10
24	16	55	45
25	13	24	19
26	13	10	12
27	7	7	7
28	9	7	8
29	6	6	6
30	7	7	7
31	6	6	6

Outstanding Occurrences

Date	Starting Time	Duration	Type	Peak Flux	Time
11	0502-40s	50s	SD	370	0503-20s
15	0428-20s	1m00s	SD	530	0429-00s
16	0515-10s	1m00s	CD	500	0515-30s...1st peak
18	0409-20s	1m	CD	250	0409-50s...3rd peak
	0527-20s	30s	SD	280	0410-10s...4th peak
				1000	-
19	# 0024-30s	5m	CD	1500	0026.....max. peak
	0139	9m	CD	440	0142..max. of 1st group
				1500	0144..max. of 2nd group
	# 0306	2m	CD	1000	0307.....max. peak
	0325 to 0415: a series of bursts of about 400 (mean value).				
	2237-30s	6m	CA	550	2237-30s..1st group
				300	2241-30s..2nd group
	2315	2m	SA	500	2316-30s
20	0459-00s	2m30s	CA	550	0500-00s
	2200	1h30m	SA	280	2300...enhanced rad.
22	0116-20s	5m	CA	470	0117-30s...1st peak
				1000	0118-00s...2nd peak
	0244-00s	6m	CA	900	0244-30s...1st peak
				840	0248-20s...2nd peak
	0300-40s	1m	SA	560	-
	0546-50s	40s	SA	440	-
24	0031	ca. 24m	CA(M)	380	0036.....1st group
				200	0041.....2nd group
				90	0050.....3rd group
	0411-30s	20s	SA	1000	-
25	0215-50s	30s	SA	300	-
26	0108	24m	CA	250	0109.....1st peak
				240	0110.....2nd peak
				260	0117.....3rd peak
				230	0117-30s...4th peak

... accompanied with SID's

.

IONOSPHERIC DATA IN JAPAN FOR JANUARY 1956

電 波 観 測 報 告 第 8 卷 第 1 号

1956年2月25日 印 刷

1956年2月29日 発 行

(不許複製非売品)

編 集 兼
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