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IONOSPHERIC DATA IN JAPAN

FOR AUGUST 1954

Vol. 6 No. 8

Issued in September 1954

PREPARED BY THE RADIO RESEARCH LABORATORIES

KOKUBUNJI, TOKYO, JAPAN

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THE RADIO RESEARCH LABORATORIES

KOKUBUNJI, TOKYO, JAPAN

IONOSPHERIC DATA IN JAPAN FOR AUGUST, 1954

CONTENTS

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 Resarch 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 prevides 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 will appear from the current issue.

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

IONOSPHERIC DATA

Aug. 1954 | **foF2** | **Wakkanai** | Lat. 45° 23.6' N | Long. 141° 41.1' 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	(3.5)F	[3.8]F	(4.0)F	(3.5)F	(3.6)F	4.2Z	5.3	A	A	A	5.0	A	C	C	4.6	4.7	A	A	A	4.8	5.3	(5.4)FS	(5.1)SF	(4.6)JF
2	4.3	3.6PF	3.4F	(3.2)JF	(3.2)F	3.5	4.1	4.8	4.7	5.1	A	A	4.6	5.2	4.4	4.3	4.3	A	4.7	A	A	5.3	S	A
3	F	F	F	F	3.3F	3.6	4.7	5.0	5.2F	5.1	5.2	(4.4)P	4.5	4.7	5.0	5.5	A	A	A	5.4	A	S	S	SF
4	(3.8)JF	A	SF	F	F	4.6F	A	A	A	A	4.5J	A	A	A	4.5	4.7	5.0	A	A	6.5	5.7	[5.6]A	5.5	A
5	F	4.8F	F	F	F	(4.0)F	4.0	4.8F	5.6F	5.6F	A	A	A	4.7	A	A	4.3	4.5	4.6	5.3	5.0	A	SF	3.9F
6	[4.0]F	(4.0)F	F	F	F	(4.0)F	A	A	A	5.5	A	A	B	4.7	4.7	4.8	5.0	[5.0]A	5.0	5.7	5.9	(5.8)S	[5.0]JF	4.2
7	4.1	4.3F	4.5V	4.1F	4.0F	4.2	4.9	[4.8]A	4.7	A	A	A	A	B	A	A	4.5	4.5	4.6	[5.1]A	5.6	[5.4]JF	5.1	(4.6)S
8	3.8JF	4.1F	(4.1)F	3.8F	(3.5)F	3.2F	3.5	C	C	C	C	C	C	C	C	C	C	C	4.2	4.7	5.3JS	5.0F	(4.5)F	4.1F
9	(4.0)F	(4.0)F	(4.0)F	F	F	F	A	A	5.0	4.9	4.6	A	A	A	4.5	4.5F	4.5P	4.2	4.6	5.7	5.3J	FS	FS	FS
10	A	A	A	A	(3.1)F	3.5	A	A	5.1	4.9	A	B	A	4.9	4.9	4.8	4.6	5.1	4.8	4.9	4.9	4.5	4.1	F
11	F	F	3.8JF	3.3F	(3.1)F	3.5F	4.1	4.9	[5.0]A	5.2	5.0F	A	A	5.1V	5.0	5.0	5.3	5.1	5.4	6.0	(5.0)S	[4.6]A	(4.3)JS	FS
12	FS	(3.9)F	F	F	F	(4.0)F	(4.9)JF	M	M	M	5.0	4.8F	4.7	W	4.6	5.0	5.2	4.7	5.1	5.6	5.6V	5.3	4.6	3.5
13	(3.5)F	[3.4]A	3.3	(3.5)F	(3.5)F	4.2	4.1	4.7P	4.9	5.9	5.2	4.9F	4.7	4.7	5.0	4.6	4.4	A	C	C	C	C	3.7F	3.3
14	3.3F	[3.4]C	3.6F	C	C	C	5.0JF	5.0F	c	c	5.0P	[4.8]A	4.7	5.2	A	A	4.6	4.9	4.8	5.0	5.5J	5.5	5.3	3.8
15	3.2F	3.0F	(3.3)F	(3.5)F	3.5F	3.9	C	C	C	C	C	C	4.6	5.3	4.7	5.0	5.3	5.2	5.3	6.3J	F	FS	FS	3.2
16	3.2	3.3	3.1	3.5F	3.5F	3.5F	[3.7]A	3.9	[4.2]A	4.4	5.4	4.9VF	4.8	4.7	5.3	4.8	4.7	5.1	5.1	5.5H	5.7	5.5	5.5F	FS
17	FS	FS	FS	FS	A	2.5	A	A	A	A	4.4	A	A	A	A	A	4.4	4.4	4.0	4.5	A	FS	4.0	F
18	F	(2.9)F	(3.5)F	(3.5)F	(3.5)F	(4.2)PF	4.6	4.3	4.4	A	B	B	B	B	4.9	4.4	4.7	4.7	C	A	4.6	4.6	4.5P	4.2
19	3.7	3.2	(3.3)JF	(3.3)JF	(2.8)F	A	A	A	4.7	5.4	4.4	B	A	4.3	[4.4]B	4.5	A	A	A	4.8	5.0	5.1	3.8F	3.8ZF
20	3.1F	3.0F	3.1F	(2.9)F	3.0F	3.7	4.6	4.5	4.9	4.9	4.5	[4.8]A	5.2	4.8	4.7	4.5	4.5	4.5	4.9	5.4	(5.1)SF	(5.5)JS	5.8J	4.0
21	3.5	3.7F	3.6F	(3.6)JF	3.6JF	4.2ZF	4.5	4.5	[4.6]A	4.7	A	A	A	5.2	[4.8]A	4.4	4.5	[4.8]A	5.0	A	A	5.7F	FS	3.4
22	F	A	FS	(2.7)S	(2.9)F	3.5F	3.7	C	C	C	C	C	C	C	C	C	C	C	4.6	6.1	A	A	3.5	3.6F
23	3.3F	3.3F	2.8F	A	FS	3.5F	3.9	4.2	A	A	4.7	A	A	B	4.8	5.1	5.5	5.1	4.3	4.4	4.8	(4.9)S	4.6P	(3.8)S
24	3.1	3.4	[3.3]S	3.2F	[3.3]F	(3.4)FH	4.0	[4.2]A	4.5	4.5	A	A	A	4.0	4.8	4.9	4.5H	A	A	5.6	SF	SF	FS	3.5F
25	3.3	3.5F	3.5F	3.3VF	3.5F	[3.8]A	4.0	4.0	4.7	5.2	5.1	4.9P	5.0	4.7	4.5	4.5	4.5	A	A	5.5	6.5	4.7	2.9	2.8F
26	[2.8]A	2.9	3.0	3.2V	(3.2)JF	3.5F	4.3	4.5	4.5	5.1	4.9	4.6	4.7	4.5	4.8	4.4	4.3	5.3	6.2	6.5	5.9	4.5	2.9	3.2PF
27	3.0F	3.0	3.3	3.0F	(3.3)JF	3.5F	A	A	A	6.0	4.4	4.7	5.0	5.0	5.5	4.9	[4.8]A	4.8	5.0	5.9	5.6	5.0	4.8J	3.5
28	[3.3]C	3.1	3.2F	3.3	3.1	3.6	5.2	5.3	5.1F	5.0	5.0	4.9	5.2	5.3	5.5	5.0	5.0	4.0	(4.2)S	4.3	4.2	3.7	3.2	3.5
29	3.5	3.6V	C	C	C	C	C	4.5	5.2F	5.7	5.2	5.0	4.9H	5.2	5.0	4.7	5.0	4.5	5.0	5.6	6.0	6.0	(4.3)FJ	AS
30	A	(3.2)F	F	F	F	F	4.9	4.4	4.5	5.5	5.4	4.5	4.6	[4.8]A	5.0	4.7	4.7	4.5	4.7P	5.7V	5.1	F	F	F
31	(3.5)F	(3.3)F	(3.3)JF	F	F	FS	4.0	4.2	[4.7]A	5.2	5.2F	[5.0]A	4.7	4.6	4.6	[4.6]A	4.5	4.7	5.0	5.5	5.5	SF	SF	3.4F
Mean Value	3.5	3.5	3.5	3.4	3.3	3.7	4.4	4.6	4.8	5.2	4.9	4.8	4.8	4.9	4.8	4.8	4.7	4.7	4.9	5.4	5.4	5.1	4.4	3.7
Median Value	3.5	3.4	3.3	3.3	3.3	3.6	4.2	4.5	4.7	5.2	5.0	4.8	4.7	4.8	4.8	4.7	4.6	4.7	4.8	5.5	5.3	5.3	4.5	3.6
Count	22	25	21	18	20	25	22	19	20	20	20	13	15	22	25	25	26	21	23	27	23	21	22	21

foF2

Sweep 1.0 Mc to 23.0 Mc in 1 min ☐ Manual ☒ Automatic

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The Radio Research Laboratories

Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Aug. 1954 | **h'F2** | 135° E Mean Time | **Wakkanai** | Lat. 45° 23.6' N, Long. 141° 41.1' E

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	[290]A	270	260	250	260	260	A	A	A	300	A	C	C	A	370	A	A	A	270A	290	270	260F	280
2	290A	280A	250	310	320	420	420	340A	[300]A	270	A	A	A	330	490	570	420	A	300A	A	A	260	250	[260]A
3	260	290	250	260	280	370	340	320F	350	310	310	(310)F	560	460	360	420	A	A	A	290A	[280]A	280F	280F	270
4	290	A	A	300F	300A	250A	A	A	A	A	A	A	A	A	A	380	A	A	A	270	A	A	A	A
5	300	260F	300AF	270	290F	260	380F	340	330	300F	A	A	A	410	A	A	350	350	310	270A	A	A	250F	260
6	[300]A	(350)A	280F	F	F	310A	A	A	A	300	A	A	B	420	550	400	360	[320]A	280	270	A	A	250	250
7	280	260	260	240	280	340	350	[380]A	400	A	A	A	A	B	A	A	410	370	310	A	A	300	260	270
8	260	290	280	250	290	250	580	C	C	C	C	C	C	C	C	C	C	C	350	270	250	270	250F	280A
9	280	300	300	260	240F	250	A	A	320	340	350	A	A	A	460	400F	360	400	320	250	260	300SF	320	300A
10	A	A	A	A	290	250	A	A	300	320	A	B	A	380	380	380	380	300	310A	[300]A	290	290	270	310F
11	320F	290F	240	260	260	250	340	330	[320]A	300	350	A	A	430	400	370	320	320	280	270A	290A	[300]A	300	260Fs
12	260	260F	270	270	290	350F	380	M	M	M	340	390	420	W	600	390	350	310	300	250	290	250	240	260A
13	250	[280]A	310	280	250	260	240	400	380	300	300	370	430	490	350	350	330	A	C	C	C	C	220	280
14	C	C	270	C	C	C	250	350F	C	C	370	[440]A	510	410	A	A	390	300A	290	240	290	260	240	220
15	250	270	290	280	250	260	C	C	C	C	C	C	470	360	400	390	320	300	310	300A	290FA	260	260	270
16	290	290	270	270	260F	350	[300]A	240	[320]A	410	310	390	370	420	340	370	350	320	270	270H	270	280	270	290
17	320	310	250	SF	A	290	A	A	A	A	390	A	A	A	A	A	380	330	340	290	[280]A	280F	230	250
18	280F	270F	270F	280F	300F	330	300	360	350	A	B	B	B	B	360	420	350	350	C	A	300	290	260	250
19	260	330	310	240	260	A	A	A	340	300	420	B	A	520	[480]B	440	A	A	A	270	280	240	230	290
20	260	290	280	270	290	290	280	330	270	310	340	[350]A	360	340	370	400	340	330	260	260	300	260	250	230
21	300	290	250F	340A	300F	350F	330	330	[340]A	350	A	A	A	300	[340]A	390	350A	[350]A	350A	A	A	250	260F	270
22	280	[290]A	300F	300F	290F	280	300L	C	C	C	C	C	C	C	C	C	C	C	300	250	A	A	370	340
23	300	320A	330A	[320]A	320A	280	370	390	A	A	380	A	A	B	360	350	300	270	270	300	300	300A	250	280
24	370A	340	[320]S	300F	280	260H	300	[320]A	330	340	A	A	A	490	350	340	260H	A	A	270	280	250	250	270
25	290	300	300	250	280	[260]A	240	240	380	340	300	350	350	360	350	350	300	A	A	300	240	230	250	290
26	[280]A	270	280	290	300	240	240	330	360	330	320	470	380	400	330	420	460	320	280	250A	230	220	270A	360A
27	350	350A	360	330F	270	250	A	A	A	270	330	450	360	450	380	320	[310]A	300	350A	310A	280	270	250	290
28	[300]C	310	290	250	270	290	250	260	310F	300	340	400	370	300	300	260	260A	310	330	280	270	230	260	250
29	220	270	C	C	C	C	C	320	320	280	320	320	370H	310	330	310	280	300A	270	290	260	240	240	A
30	A	290F	260F	260	260F	250	240	340F	420	290	280	450	400	[360]A	320	370	310	260	260	260	260	310	260	230F
31	270	270	270F	250F	270F	240	360	400	[360]A	310	300	[360]A	420	400	320	[340]A	350	310	270	270	260	290	260	280
Mean Value	290	290	280	280	280	290	320	330	340	310	350	390	410	380	390	380	340	320	300	270	280	270	260	270
Median Value	280	290	280	270	280	260	300	330	330	300	340	390	390	400	360	380	350	310	300	270	280	260	260	270
Count	28	28	28	26	27	28	22	19	20	20	18	13	14	22	23	25	25	21	23	26	23	26	30	29

h'F2 | Sweep 1.0 Mc to 22.0 Mc in 1 min | ☐ Manual ☒ Automatic | **W 2**

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

IONOSPHERIC DATA

Aug. 1954 | fEs | 135° E Mean Time | Wakkanai | Lat. 45° 23.6' N | Long. 141° 41.1' E

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	6.1	7.3F	3.7	3.4	2.3Y	2.7F	4.1	7.2	6.2	6.1	5.2YF	5.8F	C	C	5.3F	4.0	13.5	14.7	6.1	7.5F	4.4	7.0FY	6.2	4.4
2	6.0F	4.7	3.5	2.5	2.8	3.5	4.5	5.9	5.9	6.2	6.2	6.8	7.9F	4.8Y	7.0Y	5.3Y	4.0Y	10.7	7.2Y	6.0	4.6	4.3	4.1F	6.5
3	4.5	3.4	2.3	2.2S	E.	2.9	6.0YF	4.2F	4.0YF	3.8Y	4.3Y	3.5	G	G	3.9	9.5	13.0	10.3Y	8.5	5.6	7.1Y	8.0	6.6Y	8.0Y
4	6.5Y	6.5F	5.7	5.9F	4.3	5.8Y	5.4F	5.5	6.5	12.0	6.5	7.8	6.1	6.1F	5.8	4.8	3.9	6.5	7.9	5.6Y	7.7Y	7.2Y	6.0	6.7
5	4.4	6.2	6.2YF	6.0	4.2	3.5	3.9	6.1	6.2	8.0F	8.0	7.8	4.7Y	5.2Y	7.3	4.9	G	5.5	4.0	8.0Y	5.9Y	7.0	7.1Y	5.7Y
6	12.0	5.7	6.6Y	6.3F	7.5YF	4.3	5.1	6.4	6.3	6.4	7.2	7.1	4.3Y	4.9	5.5	4.2	5.3	6.4	5.3	3.5	9.2Y	6.5Y	4.5	2.5
7	3.5Y	2.1	2.2	(2.3)S	1.6	2.1	3.5	7.0	7.6F	7.5	6.0Y	6.0Y	6.0Y	4.1Y	5.3	4.2	4.9	4.8	2.4	7.7Y	4.9Y	5.9Y	4.5	4.5
8	3.5	2.3	2.6	E	2.6	3.0Y	3.2	C	C	C	C	C	C	C	C	C	C	C	6.2	2.6	3.4	4.3	4.5F	4.0
9	3.9	3.9F	5.3	3.9F	3.5YF	3.5	5.0	6.2	4.9	6.4Y	5.6Y	4.6Y	4.8	4.9	5.2	4.4	4.2Y	G	3.4Y	3.5	5.8Y	4.5	4.5	6.0Y
10	6.1	7.1	4.6	5.9Y	2.7	3.0	4.6	8.0	4.2	4.6	7.2	4.2Y	7.2	5.7Y	6.0Y	4.4	5.7Y	7.2	7.8	6.0	4.0	2.5	7.1Y	6.9Y
11	4.5F	4.0F	3.5Y	3.5F	4.7Y	3.5	3.9	4.1	9.5F	6.0	7.7Y	11.9F	8.7	7.2Y	7.8Y	3.9	6.0Y	6.4	4.1	5.9	5.3Y	6.0	6.2	4.5
12	7.9Y	5.0Y	6.2Y	4.2F	3.5	5.0Y	7.5	M	M	M	8.0	7.8Y	3.9Y	4.5Y	G	G	6.4	4.1	5.3Y	4.4	3.9	4.3Y	6.5Y	6.0
13	6.5Y	5.6Y	6.0	3.8	3.5Y	2.7Y	5.6Y	4.9	4.7	4.0	5.9Y	10.2	5.2	4.7	G	G	4.5	5.8	C	C	C	3.5	3.8	
14	C	C	2.6	C	C	C	3.5	4.0FY	C	C	7.0Y	7.1	5.0	6.0	9.0	6.0	4.5	5.4	3.9	2.4	4.0	3.0	3.2Y	2.5F
15	2.5	2.3	2.9Y	3.5	3.0FY	3.9Y	C	C	C	C	C	C	4.1Y	G	3.5	4.0Y	G	4.1	4.8Y	6.5	5.7Y	6.0	4.2	2.3
16	2.5	2.4	2.2	4.4	3.5F	3.5Y	7.5	3.9	7.2	4.7	6.2Y	6.3Y	4.4Y	5.2Y	7.4Y	3.5	G	3.4Y	3.5	3.6	3.0	3.9	6.0	4.7
17	4.5	4.0F	3.5	4.0	4.1	4.8Y	6.0	5.3	5.9	7.6	5.3	5.0	5.2	7.2Y	7.9	5.6F	4.2	4.2	3.4	4.2	6.4	4.5	2.5	4.8
18	2.5	2.4	3.5	3.0F	5.7Y	2.4	3.8	4.6	4.4	6.1Y	4.2Y	4.0Y	G	G	G	4.0Y	6.0	4.9	C	5.7	3.5	2.1	1.9	2.4
19	3.5F	4.7Y	3.5	3.9	2.6	4.7	4.7	6.0	9.0	4.4	4.9	4.5Y	4.9	4.0Y	4.1Y	5.0	5.4	8.0	9.5	3.7	6.0	3.5Y	2.7	3.5
20	2.4	2.7	3.4Y	2.3	2.2	3.3Y	3.5	4.6	4.6	5.2	5.3	5.7F	7.4F	3.9	4.1Y	3.5Y	3.2Y	4.0	3.5	3.1	4.1Y	5.7Y	5.5Y	5.8Y
21	8.0	6.7F	3.2Y	4.2	10.0Y	2.6	3.8Y	5.0	6.0	7.7F	7.5	6.0	4.4	4.9	5.3	5.3F	6.0	9.1	6.2	10.9	6.4	9.5Y	6.0	6.0
22	3.3	7.4F	5.0F	4.7	4.0	3.4	4.0Y	C	C	C	C	C	C	C	C	C	C	C	6.0	4.0	7.0	5.6Y	4.9	4.5
23	3.5	3.5	3.4	5.3	4.0	3.5	3.5	4.8	7.6	7.6	5.0	6.1	7.7	4.5Y	4.5	4.6	3.5	3.2	3.8	3.9	3.5	4.4	4.5	7.2
24	7.0	6.5	4.2	3.5Y	3.1Y	2.4	3.4	6.6	6.0	9.5Y	7.0	7.7	7.0	3.8Y	4.0Y	G	G	6.5	8.2	8.0Y	4.9	4.3	2.7	2.2
25	2.4	3.5	2.5	2.3	4.0	6.6Y	6.7	5.8	4.1	4.8	4.4	4.5	4.5	4.0Y	3.6Y	4.4	5.5Y	6.5	8.7	6.5Y	3.5	2.4	3.2	3.5
26	5.2	3.2	3.2Y	4.2Y	2.6	2.3	3.5	3.5Y	3.5	4.3	3.9Y	G	G	3.8	G	6.1F	3.8	6.2	6.0	5.5Y	2.4	E	3.5	6.5
27	5.6	5.6	5.5	3.3Y	4.2	7.9Y	6.3F	6.7	7.0	4.7	4.0Y	7.0Y	4.3Y	4.2Y	G	5.2	4.2	3.3	6.5	5.6	4.2	4.4	4.2	5.2
28	C	3.5	3.5	2.6	2.4	3.5	4.0	4.1	5.6	5.8	7.0	4.1Y	4.3	G	6.0Y	4.7	6.5	3.5	3.7	2.6	2.6	2.4	2.5	2.4
29	3.5Y	3.4	C	C	C	C	C	3.9	3.5F	5.2F	6.0F	4.9F	G	3.5	4.3	4.5	4.2	4.7	3.5F	4.5F	3.2F	E	2.4	4.5
30	8.8F	5.2	3.5	3.9	2.6	E	3.2Y	4.1	4.0Y	4.0Y	6.2	4.6	5.5	6.0	G	4.0	G	3.5Y	2.6Y	3.2	3.9	6.5Y	9.0	5.0F
31	3.9	4.5Y	2.5F	E	2.5	2.7	3.5	4.0	6.0	5.5	7.9	5.5	G	6.0Y	5.8	5.9	4.2	5.1	3.9	5.9	3.6	4.1	4.3	3.7
Mean Value	5.0	4.5	3.9	3.9	3.7	3.5	4.6	5.3	5.8	6.1	6.1	6.2	5.5	5.0	5.5	4.8	5.3	6.0	5.4	5.2	4.8	5.0	4.8	4.7
Median Value	4.5	4.2	3.5	3.8	3.5	3.4	4.0	4.9	6.0	5.9	6.1	5.9	4.8	4.6	5.2	4.4	4.2	5.4	5.3	5.6	4.2	4.4	4.5	4.5
Count	29	30	30	29	29	29	29	27	26	26	28	28	28	28	29	29	29	29	29	30	30	30	31	31

fEs

Sweep 1.0 Mc to 22.0 Mc in 1 min ☐ Manual ☒ Automatic

W3

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

IONOSPHERIC DATA

Akita

Lat. 39° 43.5' N
Long. 140° 08.2' E

Aug 1954

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	C	3.7	[3.6]^{A}	3.4^{F}	3.0^{F}	3.8	A	A	A	5.4	4.8	A	A	4.9	4.9	[4.9]^{A}	4.9	4.8	5.4	5.8	5.5	5.4^{P}	5.4^{PF}	4.9^{F}
2	4.2^{F}	3.6^{F}	3.8^{F}	3.2^{F}	3.2^{F}	3.4^{F}	4.1	A	A	A	A	A	5.5	A	A	A	A	A	A	6.0^{P}	[5.4]^{A}	4.9^{F}	4.5^{F}	3.6^{F}
3	3.5^{F}	3.3^{F}	3.4^{F}	3.2^{F}	3.2^{F}	3.3^{F}	4.6^{P}	4.5	6.0	5.2	4.7	A	A	4.9	A	A	4.7	5.1	[5.5]^{A}	5.9^{P}	5.3	5.0	4.5	4.1^{F}
4	4.2	3.6^{F}	3.5^{F}	[3.2]^{A}	3.0^{F}	3.9	A	A	A	A	5.5	A	A	A	A	5.4	5.0	5.0	A	A	6.0	5.5	5.7	4.3
5	[4.2]^{A}	4.1^{F}	A	A	3.5	3.7	A	A	A	5.4	4.8	[4.9]^{A}	5.0	5.2	4.9	4.4	4.5	5.1	4.8	5.3	A	AF	F	A
6	3.5^{F}	3.0^{F}	3.0^{F}	[3.2]^{A}	3.5^{F}	3.5	4.4^{J}	4.7	A	A	A	A	A	A	A	5.3	A	A	A	5.9^{P}	6.5$^{\frac{1}{2}F}$	6.3$^{\frac{1}{2}F}$	5.6^{K}	4.0^{K}
7	3.8^{FK}	3.8^{FK}	4.0$^{\frac{1}{2}F}$	3.5^{K}	3.5^{K}	3.5$^{\frac{1}{2}H}$	5.1^{K}	5.0$^{\frac{1}{2}P}$	4.1^{K}	5.0$^{\frac{1}{2}E}$	5.0$^{\frac{1}{2}P}$	A^{K}	A^{K}	4.6^{K}	4.2^{K}	4.1^{K}	4.6^{K}	4.9^{K}	4.9^{K}	5.2^{K}	5.3^{K}	5.0$^{P\frac{1}{2}K}$	4.9$^{PF}_{K}$	4.9$^{P\frac{1}{2}}_{K}$
8	4.0^{FK}	3.6^{FK}	3.6^{FK}	4.0^{KF}	3.3^{FK}	3.3$^{\frac{1}{2}VF}$	3.5^{K}	4.2^{K}	4.8^{K}	4.3^{K}	4.2^{K}	4.4^{K}	4.0^{K}	4.0^{K}	4.5^{K}	4.6^{K}	A^{K}	A^{K}	A^{K}	5.2	5.8^{J}	5.1	4.1	3.6^{V}
9	3.4^{F}	3.0^{F}	2.9^{F}	3.0^{F}	2.9^{F}	C	C	C	C	6.1	5.1	A	A	5.0	5.1	4.9	4.4	4.7	5.3	5.9	4.2	3.5^{F}	[3.4]^{A}	3.2^{F}
10	[3.1]^{AF}	3.0^{F}	3.0^{F}	2.9^{F}	2.8^{F}	3.5	4.1^{H}	[5.0]^{A}	5.9	[5.2]^{A}	4.6	4.8	5.0	[5.2]^{A}	5.4	5.0	5.1	5.3	5.1	5.9	5.0	C	C	C
11	C	C	C	C	C	C	C	C	C	5.0	5.2	A	A	5.0	5.7	5.5	5.9	5.6	5.2	[5.0]	4.7^{P}	4.0	3.8^{F}	[3.8]^{F}
12	3.8^{F}	3.6^{F}	3.3^{F}	[3.2]^{AF}	3.2^{F}	3.5^{F}	4.5^{J}	6.4	5.2	A	A	A	A	A	4.8	5.0	5.7	A	A	5.6	5.6	5.4	4.5^{P}	(3.9)^{P}
13	3.2	3.1	3.0^{F}	3.1^{F}	3.1^{F}	(3.9)^{P}	4.3^{P}	A	A	5.3	5.8	5.4	G	5.0	4.9^{P}	4.8	5.0	4.6	4.9^{P}	5.6	6.4^{J}	5.1^{J}	3.0^{F}	2.8
14	3.1^{F}	3.5	3.4	3.4	3.6	4.1	4.4$^{\frac{1}{2}H}$	5.5	6.7	6.1	5.5	5.1	[5.0]^{A}	5.0	5.9	5.6	5.5	5.1	4.9	5.0	5.5	5.5	5.0	3.7
15	3.1	2.9	3.0	3.0	3.1	3.2	4.1	6.1	(5.8)^{P}	4.7	[5.0]^{A}	5.3	5.1	5.3	A	A	A	5.3	5.9	6.7	6.5	[5.6]^{F}	4.7	3.3^{F}
16	3.5	3.2	3.0^{F}	3.0^{F}	3.0^{F}	3.6	B	5.5	B	A	5.4	5.0	4.8^{P}	5.1	5.0	5.2	5.5	5.8	A	A	5.8	5.9^{F}	5.4	4.2
17	4.1^{F}	4.5^{PF}	4.1^{F}	3.5^{F}	3.3	A	A	A	A	A	A	A	B	A	4.7	[4.8]^{A}	4.8	[4.6]^{A}	4.3	5.2	A	A	AF	3.3^{PF}
18	2.6^{F}	3.0^{F}	3.1^{F}	3.0^{F}	3.3^{F}	3.1	4.3	A	A	A	A	A	A	5.2	5.2	4.7	4.6^{P}	[4.6]^{A}	4.5	A	C	5.4^{V}	4.7	4.0^{F}
19	3.5^{F}	3.6^{F}	3.5^{F}	3.4^{F}	3.0^{F}	3.1	A	A	A	6.5	A	A	A	A	5.3	5.2	A	A	A	A	A	A	4.5	3.5^{FF}
20	3.5^{F}	3.2^{F}	3.0^{F}	3.3^{FF}	2.9^{F}	3.1	4.5	[4.8]^{B}	5.0^{P}	A	A	4.8	[5.2]^{A}	5.5	[5.2]^{A}	5.0	4.8	4.8	4.9	5.8^{P}	5.5	5.3^{PF}	[4.6]^{A}	4.0^{F}
21	3.6^{F}	3.5^{F}	3.6	3.5^{F}	3.6^{F}	3.6^{F}	5.3^{2H}	A	B	A	5.2	6.0^{P}	5.3	5.4	5.1	A	A	A	A	5.7	A	A	AF	A
22	A	A	2.9^{F}	3.0^{F}	3.0^{F}	3.4	4.0	4.5	5.9^{J}	5.4	A	A	4.7	5.1	5.0	5.7	5.5	5.4	(4.7)^{P}	6.1	4.5	3.5	3.5^{F}	3.6^{F}
23	3.6^{F}	3.6^{F}	3.5^{F}	3.5^{F}	3.2^{F}	3.0	4.0	5.4	(5.5)^{P}	5.3	[5.0]^{A}	4.8	4.8	5.0	4.3	5.4	[5.2]^{C}	4.9	[5.0]^{A}	5.0	5.5	5.0	(4.7)^{P}	(4.6)^{P}
24	A	A	3.0	2.9^{F}	3.0^{F}	3.2^{F}	4.5^{P}	4.3	[4.3]^{B}	4.3	5.0	4.9	4.8	5.2	5.0	5.0	4.7	4.5	5.0	6.3	5.9	[5.4]^{A}	4.8	3.8^{F}
25	3.2^{F}	3.5^{F}	3.3^{F}	3.5^{F}	2.9^{F}	A	A	A	5.1	6.5	4.8	4.8^{P}	4.8	4.7	5.3	5.1	5.2	[4.9]^{A}	4.6	5.7	5.5^{P}	[4.6]^{B}	3.6^{F}	2.9
26	2.8	3.0	3.0	3.2	3.2	3.2	4.7	B	C	C	C	C	C	C	C	C	C	5.9	7.5	7.5	5.7^{P}	3.5	[3.4]^{A}	3.2^{F}
27	3.0^{F}	3.1^{F}	3.1^{F}	3.2^{F}	3.2^{F}	3.2^{F}	4.3	[5.1]^{A}	5.9^{P}	5.5	5.7	[5.6]^{A}	5.4	[5.6]^{B}	5.7	5.6	5.4	5.2	5.4	6.2^{P}	6.0	4.9^{JF}	4.6^{F}	4.6^{F}
28	3.5^{F}	3.7^{F}	3.4^{F}	3.5	3.0^{F}	3.6	B	A	6.4	(5.8)^{C}	5.1	B	A	A	5.7	6.6	5.9	5.5	5.2	4.9	4.5^{2}	4.2^{F}	4.2^{JF}	4.2^{JF}
29	4.6	3.2^{F}	2.9	[3.2]^{A}	3.5^{F}	3.6^{F}	4.2	6.0	6.0	5.4	5.5	4.8	4.8	5.9	5.4	5.5	4.8	4.7	5.2	6.0	6.5	5.9	4.8	3.0
30	2.8	2.9	3.0	3.0	3.0	3.4	4.2	5.1	5.7	5.8	5.2	4.7	4.8	5.0	5.3	5.4	5.3	4.5	4.6	5.6	5.1	5.4	5.0	4.2^{2}
31	3.4^{J}	3.1^{F}	[3.1]^{A}	3.1^{F}	3.0^{F}	2.9^{F}	4.3	C	C	5.6	4.8	5.2	5.5	5.4	5.2	4.8	[4.8]^{A}	4.8	6.0^{P}	6.3^{J}	5.2	AF	AF	3.6^{F}
Mean Value	3.5	3.4	3.3	3.2	3.2	3.4	4.4	5.1	5.5	5.4	5.1	5.0	5.0	5.1	5.1	5.1	5.1	5.0	5.2	5.8	5.5	5.0	4.5	3.8
Median Value	3.5	3.4	3.1	3.2	3.2	3.4	4.3	5.0	5.8	5.4	5.0	4.9	4.9	5.1	5.1	5.0	5.0	4.9	5.0	5.8	5.5	5.1	4.6	3.8
Count	27	28	29	29	30	27	21	16	16	21	22	16	18	23	25	26	24	25	23	27	26	25	26	28

foF2

Sweep 0.85 Mc to 22.0 Mc in 2 min ☐ Manual ☒ Automatic

A 1

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

IONOSPHERIC DATA

Aug. 1954 | h'F2 | 135° E Mean Time | Akita | Lat. 39° 43.5' N | Long. 140° 08.2' E

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	C	260	[260]A	260	250	240	A	A	A	A	370	A	A	330	370	[360]A	340	320	270	240	270	240	240	260
2	220	280F	250	250	260	390F	380	A	A	A	A	A	A	320	A	A	A	A	A	240	[250]A	260	210F	220F
3	250F	280	290	280	280	240	220	290	290	260	360	A	A	380	A	A	330	320	[270]A	220	240	220	230	300A
4	250	270	250	[250]A	250	220	A	A	A	A	290	A	A	A	A	300	310	300	A	A	260	260	A	250
5	[260]A	280A	A	A	250A	270	A	A	A	340	370	[360]A	360	320	350	410	430	300A	280	280	A	AF	220	[240]A
6	250	230	290	[280]A	260	300A	250	370	A	A	A	A	A	A	A	360	A	A	A	280A	300KAF	240K	210AK	260AK
7	270KA	320KA	270K	230K	260K	250HK	290K	280K	440K	360K	310K	AK	AK	450K	560K	590K	320K	300K	260K	250K	230K	270K	260K	300KA
8	250AK	300K	250K	240K	270K	340K	620K	370K	320K	400K	450K	460K	300K	430K	[420]AK	400K	AK	AK	AK	280	250	220	240	280
9	260	260	250	260	270	C	C	C	C	250	300	A	A	400	350	330	420	300	260	210	220	260F	[260]A	250
10	300	[300]A	290	290	280F	[260]A	230H	A	A	A	380	400	330	[320]A	320	320	320	260	270	250A	A	C	C	C
11	C	C	C	C	C	C	C	C	C	310	320	A	A	450	320	340	300	250	240	[220]A	210	250	280	270F
12	240F	250	260	[270]A	280	280A	320	250	280	A	A	A	A	A	370	380	A	A	A	240	250	240	210A	210A
13	260	280A	280	A	A	230	250	A	A	A	300	280	G	350	340	340	300	310	300	A	A	200A	250A	[250]A
14	250	250	260	250	250	240	240H	280	250	250	280	350	[380]A	410	320	[300]A	270	290	240	250	250	240	220	240
15	240	270	260	270	240	240	230	250	230	300	[320]A	340	320	320	A	A	A	300	280	240	A	A	A	A
16	250	240	280	250	260	230	220	280	B	A	260	290	430	380	360	340	300	300A	A	A	310A	300A	240	250
17	280	320F	290F	280F	260	A	A	A	A	A	A	A	B	A	370	[340]A	320	[320]A	310	270	A	A	A	250
18	270	290	250	290F	290	A	300	A	A	A	A	A	A	350	300	320	350	[320]A	290	[280]A	260	250	240	230
19	250F	290	270	240	220	250	A	A	A	260A	A	A	A	A	330	A	A	A	A	260	A	A	250	230
20	250	A	A	290F	270	250	290	240	A	A	A	350	[320]A	300	[310]A	320	310	300	260	240	230	300F	[260]A	230
21	260A	230	220	250	250	270AF	280H	A	B	A	350	250	300	330	320	A	A	A	A	A	A	A	250AF	A
22	A	A	240	240	210	210	220	300	260	250	A	A	400	350	450	300	300	270	270	250	220A	300	300	250F
23	300F	300	250	220	200	230	300L	250	270	270	[320]A	360	320	310	A	A	C	250A	[270]A	290A	290	250	250	250
24	A	A	(330)A	290	280A	270A	260	280	[280]B	290	340	400	380	320	330	330	310	350	270	240	270A	[260]A	260	260
25	240	280	300F	300	290	A	A	A	340	250	280	380	380	380	310	320	270	A	A	A	280	240	240	250
26	290	290	270	260	240	250	260	290	C	C	C	C.	C	C	C	C	C	300	250	210	200	A	A	270
27	280	290	290	260	250	250A	280	[270]A	260	280	260	[290]A	320	[310]B	300	280	270	320L	260	240	230	290F	290	270
28	220F	260	260	220	240	250	230	[240]A	240	[240]C	250	B	A	A	300A	280	260	250	230	240F	310A	300F	270F	250F
29	240	[260]A	290	[270]A	250	220	320L	250	270	250	270	510	350	290	280	290	290	280A	300	250	250	220	200	270
30	250	280	250	260A	260	240	260	310	270	280	280	310	380	350	320	300	260	280L	250	240	240	230	200AF	270
31	A	A	A	A	290	250	230	C	C	280	330L	340	320	290	300	290	[300]A	300	250	250	270	300	290	290
Mean Value	260	280	270	260	260	260	280	280	290	280	320	350	350	350	350	340	310	300	270	250	250	260	250	260
Median Value	250	280	260	260	260	250	260	280	270	280	320	350	350	340	320	320	300	300	270	240	250	250	240	250
Count	26	26	27	27	29	26	23	17	14	18	22	16	17	24	24	24	22	24	22	26	24	24	26	28

h'F2

Sweep 0.85 Mc to 22.0 Mc in 2 min ☐ Manual ☒ Automatic

A 2

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

IONOSPHERIC DATA

Akita

Lat. 39° 43.5' N
Long. 140° 08.2' E

Aug. 1954 | 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	C	4.0	4.0	2.9	2.9	2.9	7.0	4.7	6.7	7.1	7.2	8.0	7.2	5.2	G	9.2	7.0	6.7	4.2	6.5	6.3	3.5	3.5	4.0
2	6.5	3.1	2.3	2.8	2.7	3.5	4.1	6.6	7.9	8.0	6.1^{Y}	8.2	7.8	5.6	6.8	7.0	6.5^{Y}	8.0	6.5	7.2	6.8	4.0	4.3	4.7
3	3.3	4.3	3.5	3.5	2.9	2.8	3.2	5.5^{Y}	4.1	9.0^{Y}	4.3	5.1	4.7	5.1	6.7	9.0	7.1	9.7	11.5	4.5	3.5	3.1	3.0	4.3
4	4.2	5.2	2.3	5.0	3.5	4.1	5.1	4.5	7.2	15.7	7.5	10.1	6.9	10.9	7.1	4.9	3.5	6.1	5.6	6.8	4.3	4.2	5.4	6.8
5	4.4	4.2	4.2	4.6	4.0	4.2	6.1	7.8^{Y}	6.7	10.3	6.5	7.0	4.9	6.0	6.5	4.5	4.5	6.5	3.5	4.2	7.1	7.0	6.6^{Y}	8.0^{Y}
6	4.7	4.2^{Y}	10.5^{Y}	6.4	4.0	4.0	G	4.0	6.8	10.3^{Y}	9.5	11.2	12.1	8.9	6.4	4.5	9.5	8.3	8.0	5.3	6.5	4.4	4.3	4.4
7	4.0	3.5	3.5	2.8	3.0	3.0	3.5	3.5	3.5	4.6	4.3	5.2	6.5	6.9	7.0	4.0	4.5	4.0	2.9	2.7	2.2	3.1	3.0	6.5
8	6.5	6.6	4.3	3.1	3.0	2.7	4.1	4.5	5.5	4.5	4.5	3.9	5.5	G	6.7	4.3	5.2	7.0	6.8	4.4	4.2	2.2	2.4	3.5
9	2.8	2.3	2.3	2.8	2.8^{Y}	C	C	C	C	4.0	4.1	5.0^{Y}	9.4	4.5	G	G	3.5	3.1	2.6^{Y}	2.4^{Y}	3.5^{Y}	4.0	4.2	10.6
10	4.4	4.5	3.0	3.1	3.2	4.1	6.6	6.4	7.0	7.4	4.5	5.3	5.3	10.4	5.9	4.5	4.9	8.0	7.1	7.0	5.4	C	C	C
11	C	C	C	C	C	C	C	C	C	4.5	4.9	9.1	7.0	5.7	4.4	5.7	6.9	4.0^{Y}	5.4	5.7	4.2	4.2	2.9	3.2
12	3.1	4.1	4.2	4.2	2.8	3.5	4.1	3.2	4.7	12.2	7.8	10.5^{Y}	6.5	5.0	4.8	3.7	7.0	10.5	9.0^{Y}	6.5^{Y}	7.5	7.0	4.0	3.5
13	3.5	4.0	4.0	4.0	3.8	2.4	G	7.0	6.5	6.6	6.4	4.6	4.6	4.0	5.2	4.3	5.5	4.5	3.0	6.8^{Y}	8.0	4.5	6.5^{Y}	4.4
14	3.1	2.9	2.2	2.3^{Y}	2.4	2.3	G	G	3.2	4.2	4.5	4.9	5.3	4.3	4.5	6.4	7.0	4.4	3.6	3.5	3.0	3.0	3.1	3.1
15	2.3	2.0^{Y}	2.4	3.5	3.0	3.0	3.4	3.5	4.1	4.3	6.5	4.9	4.0	3.6	8.5	7.1	7.2	5.4	4.1	3.5	10.2^{Y}	4.3	5.5	4.2
16	2.4	2.2	2.4	2.5	3.5	2.4	3.5	5.5	4.1	8.5	8.2	4.5	4.1	4.6	4.6	3.7	6.3	13.5	13.5^{Y}	10.5	7.1	5.6	2.9	4.1
17	4.2	4.2	4.2	4.1	3.5	4.0	4.0	7.1	11.3	6.4	5.6	6.2	4.5	6.4	5.4	6.5	4.2	5.2	4.2	4.2	7.1	5.4	4.7	4.7
18	2.9	2.9	3.9	3.1	4.0	5.5^{Y}	4.2	6.1	5.7	5.6	6.5	8.2	6.0	4.4	4.5	6.6	5.5	5.2	5.3	7.6^{Y}	4.3	3.5	3.2	3.0
19	3.2^{Y}	3.5	3.0	2.9	1.9	2.4	5.6	6.7	8.0	7.4	6.4	5.9	5.3	9.5	4.9	5.3	13.0	12.5	13.6	12.1	6.5^{Y}	6.6	4.4	2.2
20	3.1	3.5	3.5	3.0	2.4	3.5	3.5	3.8	5.0^{Y}	6.5	5.4	5.0	5.7	7.0	5.6	6.1^{Y}	7.0	G	3.6	4.0	3.0	4.4	5.5	3.0
21	4.3	2.2	3.0	4.0	3.1	4.1	3.5	7.8	4.3	7.2	7.1	4.3	3.1	4.4	4.2	8.5	10.5	11.9	10.1^{Y}	8.5	9.2^{Y}	8.2	11.4	11.7
22	7.0^{F}	6.7^{F}	6.5	2.4	3.4	4.2	3.1	4.5	5.2	5.2	5.5	6.5	6.5	5.5	3.6	G	G	4.3	4.0	6.0	7.0	3.5	4.2	2.9
23	4.0	4.2	2.2	2.0	1.9	B	3.0	4.0	3.5	5.8	9.7	6.8	5.2	4.3	4.3	5.6	C	5.5^{Y}	5.8	6.6	4.4	4.2	4.9	5.5
24	5.7	4.3	4.4	4.1	5.5^{Y}	4.5	3.3	4.2	4.1	4.0^{Y}	3.5	3.6	3.6	3.6	4.1	3.8	3.5	3.6	4.0	4.0^{Y}	6.5	7.0	5.2	3.0^{Y}
25	3.5	3.4	4.3	6.9	4.6	8.0	5.5	7.8	4.2	7.9	4.9	4.2	5.7	5.0	G	4.5	5.1	5.7	5.2	6.5	7.1	4.4	3.1	3.5
26	2.6	2.9	2.4	2.5	2.0	2.4	4.0	G	C	C	C	C	C	C	C	C	C	4.8	4.1	3.0^{Y}	4.5	6.6	7.0	3.2
27	3.2	3.2	3.0	2.8^{Y}	1.8	3.5	3.1	9.6^{Y}	4.3	12.5	17.7	10.0	5.2	3.6	5.5	6.5	5.4	4.2	4.2	3.5	3.5	4.1	4.3	4.5^{F}
28	3.0^{F}	2.9^{F}	2.7	3.5	2.5	3.1	5.0	6.3	4.2	C	4.3	4.0	7.0	7.5	5.8	4.6	3.5	3.6	4.4	4.1^{F}	4.3	3.5	3.7	3.2
29	3.5	3.6	3.2	5.7	3.5^{F}	4.2	4.5	4.2	6.5	4.1	3.8	4.1	4.0	4.0	G	4.4	4.1	4.5	7.1^{Y}	3.1	4.1^{F}	4.0	3.1	2.3
30	2.1	2.1^{Y}	2.3	3.1	3.0	3.0	4.2	3.5	3.5	3.6	3.5	3.4^{Y}	4.1	G	4.0^{Y}	G	4.5	4.1	3.0	3.0^{Y}	2.9	3.1^{Y}	4.1	4.4
31	4.1	4.1	4.5	3.9	3.0	3.0	G	>3.6^{C}	>3.6^{C}	5.2	4.4	5.7	6.7	6.5	4.6	4.4	6.4	3.7	3.4	5.3	5.7	5.1	6.2^{Y}	6.4
Mean Value	3.8	3.7	3.6	3.6	3.1	3.6	4.3	5.5	5.5	7.0	5.8	6.2	5.8	5.8	5.4	5.5	6.0	6.3	5.8	5.5	5.5	4.6	4.6	4.6
Median Value	3.5	3.6	3.4	3.1	3.0	3.5	4.0	4.6	5.0	6.5	5.6	5.2	5.4	5.0	4.8	4.6	5.5	5.2	4.4	5.3	5.4	4.2	4.2	4.2
Count	29	30	30	30	30	28	29	28	27	29	30	30	30	30	30	30	29	31	31	31	31	30	30	30

fEs

Sweep 0.85 Mc to 22.0 Mc in 2 min ☐ Manual ☒ Automatic

A 3

6

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

IONOSPHERIC DATA

Aug. 1954 | foF2 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

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	A	A	3.5	3.9^{JF}	4.2^{F}	3.6	3.5^{P}	[4.6]^{A}	5.6	5.4	A	A	4.8	5.5	A	A	A	5.7	6.1	6.5	5.4^{P}	5.3^{J}	5.2^{J}	5.1
2	3.2	[3.2]^{A}	3.3	3.4^{P}	2.9	2.9	A	A	5.4^{J}	A	A	A	A	5.3	5.3	4.4	4.6	5.5	6.5	6.2	(6.5)^{JF}	6.6^{JF}	A	A
3	3.3^{F}	3.0^{J}	3.0^{F}	[3.0]^{AF}	2.9^{F}	3.1	A	A	5.5^{J}	A	A	A	A	A	A	4.7	4.8	5.7	6.6	6.5	5.4^{P}	5.0	[4.5]^{A}	4.0
4	3.7^{F}	3.5^{JF}	3.6^{JF}	3.6^{F}	3.1	3.6	3.9	4.0	5.4	A	A	5.0	[4.9]^{A}	4.8	5.7	6.1	5.2	A	A	5.6	6.0	4.8^{P}	[4.5]^{F}	4.2^{F}
5	F	A	4.0^{F}	4.1^{JF}	3.5^{JF}	3.5	4.3	5.0	5.5	5.7	[5.6]^{A}	5.5	5.8	5.3	5.5	4.7	4.6	5.3	5.8	6.0	[5.0]^{A}	4.1	A	A
6	3.0^{JF}	3.3^{F}	A	A	3.4^{F}	3.8	4.4	5.1	5.8	A	A	A	5.1^{J}	5.1	5.3	5.5	6.0	6.4	5.9^{J}	A	A	(6.0)^{P}	5.2	4.2
7	3.1	3.1	3.1^{F}	3.5	3.4	3.3	4.9^{J}	5.7	[5.3]^{A}	4.9	5.0	A	A	4.6	[4.6]^{A}	4.7	4.8	5.0	4.9	4.3^{P}	5.2	5.0	4.8	4.5^{F}
8	4.5^{F}	4.1	4.0^{F}	3.8	3.2^{F}	3.6	[3.8]^{C}	4.0	4.9^{P}	[5.0]^{A}	5.0	A	B	B	A	4.7	A	A	5.5	5.9	6.4^{P}	5.5	4.1	[3.8]^{C}
9	3.5	3.5^{F}	3.2^{F}	3.1^{F}	2.9	3.2	A	A	5.5	5.8	A	T	A	C	C	C	C	C	C	C	C	C	3.4	3.2
10	3.3^{F}	[3.2]^{A}	3.1^{F}	3.2^{F}	[3.1]^{AF}	3.0	4.1	5.3	5.4	4.7	A	A	4.8	5.2	5.5	5.3	6.0	5.5	5.9	[5.7]^{A}	5.5	[4.6]^{A}	3.8	3.2
11	C	C	3.3^{F}	3.4^{FP}	3.2^{F}	3.0^{F}	5.0	5.1	5.0	5.5	A	A	A	5.3	6.1	6.8	6.5	5.9	5.3	4.8	4.2^{F}	4.3^{F}	4.0^{F}	4.1^{F}
12	4.4^{JF}	4.0^{F}	3.5^{F}	3.5^{P}	3.1^{F}	3.1^{F}	4.9	5.4	6.0	5.4^{P}	5.2	5.0	(4.8)^{A}	4.8	A	A	5.6	5.2	5.4	6.0	6.0	5.2	4.3^{F}	3.8^{F}
13	3.0^{F}	3.2^{F}	3.1	3.1^{F}	3.2^{F}	3.3	5.0	4.9	5.4	5.7	6.2	5.0	5.2	5.0	5.1	5.5	5.6	6.3	[6.4]^{A}	6.5	[5.6]^{A}	4.7	3.0^{F}	2.6
14	2.5	3.2	3.2	3.9^{F}	4.2^{F}	4.1^{F}	4.5	5.7	6.5	5.3	4.9	4.7	5.1	5.1	6.2	6.5	[5.8]^{A}	5.0	5.3^{P}	5.6	5.9^{J}	6.0	5.4	3.6
15	2.7	2.7	2.8	2.9	3.0	[3.7]^{A}	4.4	6.0	5.6	4.6	4.3	5.6	6.0	[5.8]^{A}	5.5	5.6	[5.8]^{A}	6.0	6.5	(6.6)^{J}	6.7	4.0	[4.5]^{A}	(5.0)^{JF}
16	4.2	3.4^{F}	3.5^{F}	3.5^{F}	3.4^{F}	3.3^{F}	3.8	4.7	5.6	A	A	A	A	A	A	A	6.0^{J}	6.0	6.1	6.0^{J}	6.5	5.7	(4.4)^{F}	[4.2]^{A}
17	4.1	A	AF	AF	AF	A	A	4.9	A	A	A	A	A	A	A	4.9	5.1	5.0	5.1^{J}	6.0	6.0	A	A	A
18	A	2.5	A	AF	3.3^{F}	A	4.6	5.2^{P}	A	A	B	(4.6)^{B}	4.7	6.1	[5.6]^{A}	5.1^{P}	4.9	A	A	5.8^{P}	6.7	5.7	4.3	4.1
19	AF	F	4.1^{F}	AF	3.0	A	A	A	A	A	A	A	A	A	A	A	5.1	4.6	4.9	5.7	5.7	4.9	[4.6]^{A}	4.2^{F}
20	3.4^{F}	AF	A	2.5	2.8^{F}	3.1^{F}	A	A	A	A	A	5.2	[5.2]^{A}	5.1^{J}	5.0	5.2^{J}	5.1^{J}	5.0	4.9	(6.2)^{JB}	5.8	4.2	3.7	4.4^{F}
21	3.2^{P}	A	AF	3.4^{F}	3.2^{F}	3.6	4.2	5.1	5.4^{J}	5.5	5.5	6.8	5.4	5.4	6.0	4.9	A	A	A	A	6.0	A	A	A
22	4.1^{F}	3.3^{F}	A	A	3.0^{F}	3.3^{F}	3.9^{H}	(5.8)^{A}	6.5	6.4	5.1	B	B	5.4	5.5	6.2	6.2	5.7	5.9	6.0	5.2^{P}	3.5	3.6	4.0
23	3.5	3.2^{F}	3.4^{F}	3.1^{F}	3.1	3.0	4.0	6.1	5.5	G	4.7^{P}	5.3	A	A	A	A	6.5	5.0	4.8	5.6	5.5	AF	A	(4.5)^{F}
24	3.8^{F}	3.2^{F}	3.2^{F}	3.2^{F}	2.9^{F}	A	A	4.9	4.6	4.5	4.5	5.1^{J}	5.2	5.7	5.1	5.5	5.5	[5.6]^{A}	5.7^{P}	6.0^{J}	5.3^{P}	4.3^{F}	[4.4]^{A}	4.5^{F}
25	3.2^{F}	3.3	3.4	3.5^{F}	3.4^{JF}	3.0	A	A	5.4	5.8	[5.2]^{A}	4.7	4.8	4.7	5.5	5.7	5.7	4.7	5.3^{P}	5.7	5.3	A	A	3.8
26	2.7	3.0^{F}	3.0^{F}	2.9	3.0	3.2	4.2	[5.1]^{A}	6.0	5.1	4.7	4.8	4.9^{J}	4.7	5.1	5.1	[5.6]^{A}	(6.2)^{A}	7.9	7.5	6.2	A	A	2.7^{F}
27	2.7^{F}	3.1^{F}	3.0^{F}	3.0^{F}	3.0^{F}	3.3	4.1	5.0	6.1	5.1	5.6	5.2^{J}	5.4^{J}	5.4^{P}	6.3	5.9	5.4	5.5	5.7	6.1	5.5	4.7	4.2^{JF}	4.4^{F}
28	4.4^{F}	3.8	3.3^{F}	3.3^{F}	(3.0)^{F}	3.2	4.0	5.6	(6.6)^{A}	6.5	5.1	4.6	5.5	5.3^{P}	6.4	7.2	5.7	5.5	5.6	5.5	A	F	AF	F
29	4.1^{F}	3.0^{JF}	(3.0)^{F}	A	A	A	A	5.7	A	A	5.1	5.1	5.0	6.1	5.8	4.9	5.1	4.6	5.4	7.0	6.9	4.8	3.8	3.4
30	3.2	3.0	3.2	3.0	3.4	3.0	4.2^{H}	5.4	6.8	6.0^{J}	4.9	5.1^{J}	4.9	5.2	6.0	5.7	5.6	4.9	4.9^{J}	5.4	5.1	5.9	3.6	3.5
31	3.1^{F}	3.1^{F}	3.0	2.7^{F}	2.9^{F}	2.7^{F}	3.6	5.9	5.6	5.0	5.0	5.5	6.1	6.0	5.5	[5.1]^{A}	4.7	5.1	6.7	7.1	A	A	3.3^{F}	3.5^{F}
Mean Value	3.5	3.2	3.3	3.3	3.2	3.3	4.2	5.2	5.7	5.4	5.1	5.2	5.2	5.3	5.6	5.4	5.5	5.4	5.7	6.0	5.8	5.0	4.2	3.9
Median Value	3.3	3.2	3.2	3.3	3.1	3.2	4.2	5.1	5.5	5.4	5.0	5.1	5.1	5.3	5.5	5.3	5.5	5.5	5.7	6.0	5.7	4.9	4.3	4.0
Count	26	24	25	25	29	26	22	25	26	21	18	18	20	24	22	25	27	26	27	28	27	23	23	26

foF2

Sweep 1.0 Mc to 17.2 Mc in 2 min ☐ Manual ☒ Automatic

K 1

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Aug. 1954 | **hpF2** | 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	A	A	310	(310)$^{J}_{F}$	290^{F}	250	A	A	300	A	A	A	A	U	A	A	A	310	280	290	310^{P}	(290)^{J}	(300)^{J}	250
2	330	[330]^{A}	330	330^{P}	280	350	A	A	A	A	A	A	A	U	A	U	U	330	310	290	(320)$^{J}_{F}$	(270)$^{J}_{F}$	A	A
3	300^{F}	(300)^{J}	330^{F}	[330]$^{A}_{F}$	330^{F}	290	A	A	(270)^{J}	A	A	A	A	A	A	U	U	300	270	280	280^{P}	300	[320]^{A}	340
4	310^{F}	(310)^{F}	(330)$^{J}_{F}$	330^{F}	320	240	230	220	320	A	A	A	A	A	340	300	330	A	A	340	300	290^{P}	(300)^{F}	300^{F}
5	F	A	350^{F}	(320)$^{J}_{F}$	(340)$^{J}_{F}$	330	350	U	310	290	A	U	330	U	U	U	U	320	290	290	[300]^{A}	320	A	A
6	(290)$^{J}_{F}$	330^{F}	A	A	300^{F}	290	A	330	340	A	A	A	A	A	U	350	320	A	A	A	A	(300)^{P}	270	300
7	320	360	370^{F}	300	330	350	(280)^{J}	250	A	U	U	A	A	U	A	U	U	310	290	270^{P}	310	320	350	380^{F}
8	300^{F}	360	350^{F}	340	300^{F}	260	C	U	U	A	U	A	B	B	A	U	A	A	300	320	300^{P}	280	290	[320]^{C}
9	350	320^{F}	340^{F}	330^{F}	320	290	A	A	320	320	A	T	A	C	C	C	C	C	C	C	C	C	340	350
10	380^{F}	[380]^{A}	380^{F}	370^{F}	AF	300	U	290	260	A	A	A	U	U	340	U	300	310	300	[280]^{A}	260	(280)^{A}	290	310
11	C	C	320^{F}	330^{F}	310^{F}	320^{F}	280	A	U	280	A	A	A	U	350	290	290	290	280	280	340^{F}	320^{F}	340^{F}	340^{F}
12	(340)^{J}	330^{F}	350^{F}	330^{F}	360^{F}	350^{F}	290	280	270	290^{P}	U	U	U	U	A	A	290	280	290	340	280	290	340^{F}	330^{F}
13	[320]^{A}	320^{F}	[320]^{A}	330^{F}	310^{F}	300	250	300	280	320	300	U	U	U	U	U	A	290	A	A	A	250	320^{F}	300
14	300	330	310	340^{F}	340^{F}	380^{F}	340	300	250	320	U	U	A	A	330	290	(280)^{A}	280	290^{P}	310	(330)^{J}	280	260	260
15	320	320	320	320	330	(320)^{A}	300	250	230	U	U	U	A	A	A	A	A	A	A	(260)^{J}	250	320	[320]^{A}	(310)^{F}
16	270	320^{F}	350^{F}	310^{F}	310^{F}	300^{F}	U	U	300	A	A	A	A	A	A	A	A	A	300	(280)^{J}	310	310	(330)^{F}	(340)^{A}
17	340	A	AF	AF	A	A	A	270	A	A	A	A	A	A	A	A	340	320	(320)^{J}	310	270	A	A	A
18	A	310	A	AF	330^{F}	A	290	290^{P}	A	A	B	U	U	300	[300]^{A}	300^{P}	350	A	A	330^{P}	270	250	300	340
19	AF	F	320^{F}	AF	300	A	A	A	A	A	A	A	A	A	A	A	300	310	300	320	300	340	[320]^{A}	300^{F}
20	260^{F}	AF	A	420	320^{F}	310^{F}	A	A	A	A	A	U	A	A	U	U	(320)^{J}	310	300	(290)^{J}	[300]^{A}	300	320	300^{F}
21	300^{P}	A	AF	340^{F}	330^{F}	320	330	300	(280)^{J}	A	A	300	300	U	280	U	A	A	A	A	290	A	A	A
22	330^{F}	300^{F}	A	A	310^{F}	350^{F}	310^{H}	[280]^{A}	260	A	U	B	B	U	A	300	300	270	270	290	270^{P}	340	320	360
23	320	330^{F}	310^{F}	300^{F}	310	300	380	250	240	U	U	U	A	A	A	A	260	270	300	310	310	AF	A	(280)^{F}
24	370^{F}	350^{F}	350^{F}	350^{F}	350^{F}	A	A	270	A	A	U	U	U	U	U	350	290	(300)^{A}	310^{P}	A	270^{P}	310^{F}	[300]^{A}	300^{F}
25	330^{F}	360	380	320^{F}	(280)$^{J}_{F}$	250	A	A	A	A	A	U	U	U	U	290	270	A	300^{P}	280	300	A	A	320
26	320	350^{F}	350^{F}	320	270	300	290	(280)^{A}	260	U	U	U	U	U	.U	.U	A	A	280	310	250	A	A	350^{F}
27	(340)$^{J}_{F}$	350^{F}	310^{F}	340^{F}	290^{F}	280	270	300	250	290	U	U	U	U	340	310	260	300	290	280	290	290	(330)$^{J}_{F}$	320^{F}
28	380^{F}	300	320^{F}	280^{F}	(330)^{F}	300	290	290	A	250	U	U	U	U	350	280	290	260	[260]^{A}	260	A	F	AF	F
29	230^{F}	(300)$^{J}_{F}$	(300)^{F}	A	A	A	A	270	A	A	U	U	U	340	290	300	300	A	330	290	300	260	320	320
30	300	330	300	300	270	300	320^{H}	280	300	(270)^{J}	U	U	U	U	320	300	300	280	(300)^{J}	300	320	270	250	290
31	330^{F}	340^{F}	330	350^{F}	340^{F}	310^{F}	250	250	250	330	A	U	320	300	330	A	A	310	300	260	A	A	350^{F}	320^{F}
Mean Value	320	330	330	330	310	310	300	280	280	300	300	300	320	310	320	310	300	300	290	290	290	290	310	310
Median Value	320	330	330	330	320	300	290	280	270	290	300	300	320	300	330	300	300	300	300	290	300	290	320	320
Count	26	24	25	25	28	26	17	20	19	10	1	1	3	3	11	12	18	20	24	26	26	23	23	26

hpF2

Sweep 1.0 Mc to 17.2 Mc in 2 min ☐ Manual ☒ Automatic

K 2

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

IONOSPHERIC DATA

Aug. 1954 | h'F2 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

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	A	A	310A	270F	240	220	300	[300]A	300	270A	A	A	450	320	A	A	A	300	250A	240A	270A	250	260	210
2	300A	[300]A	300A	300A	250	350	A	A	300	A	A	A	A	350	350A	L	430	320	270A	260A	280A	210A	A	A
3	250	250	300A	[280]AF	270	250	A	A	270	A	A	A	A	A	A	390	400	300	250	240	220A	250	[270]A	290
4	250F	270F	300AF	260F	260	220	220	220	320	A	A	420	[440]A	470	340	300	330	A	A	290A	250A	220	280A	280A
5	300AF	[300]A	300	270	260F	270	350	310	310	290	[320]A	350	330	370	300	410	470	320	270	230	[240]A	250	A	A
6	270	270	A	A	250F	270	320A	330	330	A	A	A	460	450	400	350	320	290A	290A	A	A	280A	210A	270A
7	320	350A	320	250	270	350	280	250	[320]A	400	400	A	A	550	[500]A	440	370	310	280	260	250	270	280	310F
8	250F	310	290	250	260	250	[380]C	500	310	[320]A	330	400	A	B	A	430	A	A	280	250	240	220	240	[260]C
9	270	260F	290F	280F	260	260	A	A	320	320	A	T	A	C	C	C	C	C	C	C	C	C	310	330AF
10	290F	[300]A	310F	300F	290F	260	L	290	260	330	[380]A	420	500	400	340	350	300	300	290	[270]A	250A	[280]A	300A	260
11	C	C	280	280F	250F	280F	280	320	300	280	A	A	A	420	350	290	280	260	250	230	280F	280F	300F	290F
12	280F	250	250	260	260	280	290	270	270	290	270	420	460	420	A	A	290	270A	290	260	280A	220	280	280
13	[300]A	310AF	310AF	300	260	250	250	280	280	320	300	360	350	400	350	330	330	280	A	A	A	220	290A	270
14	260	280	300A	270	280	260	330	300	250	320	300	L	400	430	330	290	[280]A	270	280	270	260	230	230	210
15	320	270	270	260	250	[280]A	300	250	230	L	L	350	340A	[340]A	340	A	A	A	330	270A	220A	250	[280]A	300A
16	250	270	280	260	260	250	250	300	300	A	A	A	A	A	A	A	A	A	280A	250A	280	250	330	[320]A
17	320A	A	AF	AF	AF	A	A	270	A	A	A	A	A	A	A	380	340	320	310A	260	250A	A	A	A
18	A	300	A	AF	300A	[300]A	290	290	A	A	390	560	460	300	[300]A	300	350	A	A	270	240A	220	270	320A
19	320F	270F	250F	250	270F	A	A	A	A	A	A	A	A	A	A	A	300	300	270A	250	250A	A	A	250F
20	230F	250	[320]A	400	290F	250	A	A	A	A	A	350	A	A	400	340	320	310	300A	250A	[240]A	240	270	270F
21	250	A	AF	270F	270F	270	330	300	280	360	370A	300	300	350	280	330	A	A	A	A	250	A	A	A
22	250F	290A	A	A	240	250	240H	[250]A	260	260	260	A	A	340	A	300	290	270	250	250	210	250	280	320AF
23	260	270	250	260	260	260	380	250	240	G	350	350	A	A	A	A	260	260	270A	280A	250	AF	A	250F
24	290F	300F	290	290	310F	A	A	250	280	280	L	360	350	350	370	350	290	[280]A	280	A	210	230	[250]A	270F
25	310	360	310	270F	240F	230	A	A	A	330A	[340]A	350	400	L	350	280	270	300A	280A	240	270A	A	A	230
26	310	300	300	250	250	260	240	[250]A	260	270	470	300	450	470	380	360	A	A	260	220A	200	A	A	330A
27	320AF	300F	290	270F	250	240	220	300	250	290	300	300	350	360	340	310	260	280	270	230	230	230	310F	280F
28	280F	240	300AF	270AF	260F	250F	230	290	A	250	280	330	350	420	330	270	290	260	[240]A	220	[280]A	330F	[300]AF	280F
29	300F	270F	270F	A	A	A	A	270	A	A	270	320	380	340	290	300	300	380A	310A	240	240	230	250	260
30	250	290	250	250	220	250	230H	280	250	270	280	350	350	360	320	300	300	270	280	240	250	230	200	230
31	290F	290	280	300	300AF	270	220	250	250	330	380	330	320	300	330	[320]A	310	300	270	250A	A	A	330F	270F
Mean Value	290	290	290	280	260	260	280	290	280	300	330	360	390	390	350	340	320	290	280	250	250	250	270	280
Median Value	280	290	300	270	260	260	280	280	280	300	320	350	380	360	340	330	300	300	280	250	250	240	280	270
Count	28	27	26	26	29	27	21	25	24	20	18	19	19	22	21	23	24	23	26	26	27	23	23	27

h'F2

Sweep 4.0 Mc to 22.2 Mc in 2 min ☐ Manual ☒ Automatic

K 3

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Aug. 1954 | **foF1** | 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							A	A	4.1	A	A	A	4.3	A	A	A	A	3.5	A					
2							A	A	A	A	A	A	A	A	A	L	4.0	A						
3							A	A	A	A	A	A	A	A	A	A	4.0	3.6	3.2					
4							Q	Q	A	A	A	A	A	A	A	4.1	A	A						
5							3.4	A	A	A	A	A	4.4	4.3	[4.2]A	4.2	4.0	3.6	3.0					
6						L	A	3.8	A	A	A	A	A	A	A	4.0	3.9	A						
7						2.4L	3.3	3.8	[3.9]A	4.0	4.1	A	A	4.4	[4.2]A	4.0	[3.8]A	3.5	3.0L					
8							C	3.5	A	A	4.0	[4.2]A	4.3	4.2	A	A	A	A	A					
9							A	A	3.9	4.1	A	T	A	C	C	C	C	C	C					
10							L	3.7	4.0	A	A	4.2	4.3H	4.3	4.2	[4.1]A	4.0	A						
11							3.4	[3.7]A	4.0	4.1	A	A	A	A	4.1	4.0	3.9	3.7L	L					
12							3.3	3.7	4.0	4.2	4.3	4.3	4.4	4.2	A	A	3.8	A						
13							3.2L	3.6	A	A	A	4.3	4.3	4.2	4.1	4.0	A	A						
14							3.4L	3.7	4.0	4.2	4.3	4.2L	[4.2]A	4.2	A	A	A	3.5H	2.9L					
15							3.4	3.7	3.9	L	L	4.3	A	A	A	A	A	A	A					
16							3.2	3.5L	4.0	A	A	A	A	A	A	A	A	A	A					
17							A	A	A	A	A	A	A	A	A	A	A	3.5	A					
18							A	A	A	A	4.2	4.3	4.2	4.0	[4.0]A	4.0	3.9	A	A					
19							A	A	A	A	A	A	A	A	A	A	A	A						
20							A	A	A	A	A	A	A	A	4.3	4.0	3.9	3.6						
21							3.5L	3.8	3.8	A	A	A	4.3	4.2	A	A	A	A	A					
22							Q	A	3.9	[4.1]A	4.3	4.3	4.3	4.2	[4.1]A	4.0	3.7	3.5	A					
23							3.4	3.5	3.9	4.4	4.2	4.3	A	A	A	A	A	A						
24							A	A	A	A	4.1L	4.2	4.2	4.1	4.2	4.0	A	A	A					
25							A	A	A	A	A	4.3	4.3	L	A	4.0	3.8	A						
26							Q	A	A	4.1	4.4	4.3	4.3	4.2	[4.1]B	4.0	A	A	A					
27							Q	3.6	3.7	4.0L	4.1	4.4	4.2	4.3	[4.2]A	4.0	A	A	A					
28							Q	3.7	A	4.1	4.3	4.3	4.2	4.4H	4.0	4.1	3.9	A						
29							A	3.2	A	A	4.0	4.3	4.3	4.3	4.1	4.0	A	A						
30							Q	3.2	4.0H	4.3	4.3	4.4	4.2	4.1	4.2	4.0	[3.6]A	3.2L						
31							Q	3.5	A	A	A	4.2	4.2	4.2	4.2	A	A	A	A					
Mean Value						2.4	3.4	3.6	3.9	4.1	4.2	4.3	4.3	4.2	4.1	4.0	3.9	3.5	3.0					
Median Value						2.4	3.4	3.7	4.0	4.1	4.2	4.3	4.3	4.2	4.2	4.0	3.9	3.5	3.0					
Count						1	10	17	14	11	13	17	18	17	15	17	14	10	4					

foF1

Sweep 1.0 Mc to 12.2 Mc in 2 min ☐ Manual ☒ Automatic

K 4

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

IONOSPHERIC DATA

Aug. 1954 | h'F1 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

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							A	A	A	A	A	A	200	A	A	A	A	270[A]	A					
2							A	A	A	A	A	A	A	A	A	200	210	A						
3							A	A	A	A	A	A	A	A	A	A	230	240	250					
4							Q	Q	A	A	A	A	A	A	A	250	A	A						
5							220	A	A	A	A	A	210	190	[200][A]	210	250	220	270					
6						250	[240][A]	220	A	A	A	A	A	A	A	220	240	A						
7						230	240	250	[230][A]	210	A	A	A	260	[240][A]	230	[240][A]	250	260[A]					
8							C	220	A	A	220[A]	[220][A]	230	A	A	A	A	A	A					
9							A	A	210	220	A	T	A	C	C	C	C	C	C					
10							240	220	220	A	A	A	200[H]	240	260	A	A	A						
11							240	[240][A]	240	210	A	A	A	A	230	240[A]	[240][A]	240	240					
12							240	220	210	200	250[A]	200	230	200[A]	A	A	230	A						
13							240	220	A	A	A	210	170	210	210	240	A	A						
14							240	230	210	200	210	200	A	A	A	A	A	210[H]	250					
15							220	220	[220][A]	210	200	230	A	A	A	A	A	A	A					
16							200	220	270	A	A	A	A	A	A	A	A	A	A					
17							A	A	A	A	A	A	A	A	A	A	A	260	A					
18							A	A	A	A	190	200	260[A]	230	[230][A]	230	250	A	A					
19							A	A	A	A	A	A	A	A	A	A	A	A	A					
20							A	A	A	A	A	A	A	A	270	300	250	A						
21							220	240	200	A	A	A	A	200	A	A	A	A	A					
22							Q	A	210	[220][A]	230[A]	[220][A]	200	210	[230][A]	250	220	250[A]						
23							220	220	250	200	200	220	A	A	A	A	A	A						
24							A	A	A	A	230	200	190	250	230	250	A	A	A					
25							A	A	A	A	A	230	[230][A]	230	[220][A]	220	A	A						
26							Q	A	A	A	180	240	210	230	[240][B]	260	A	A	A					
27							Q	210	[210][A]	210	200	220	230	210	[210][A]	210	A	A	A					
28							Q	270	A	240	230	210	210	220[H]	250	270	230	A						
29							A	220	A	A	200	210	200	220	230	220	A	A						
30							Q	240	230[H]	250	200	200	230	230	270	230	[240][A]	240						
31							Q	250	A	A	A	A	A	A	260	A	A	A	A					
Mean Value						240	230	230	220	220	210	210	210	220	240	240	240	240	250					
Median Value						240	240	220	220	210	200	210	210	220	230	230	240	240	250					
Count						2	12	17	13	11	13	15	15	15	16	17	12	9	5					

h'F1 | Sweep 1.0 Mc to 17.2 Mc in 2 min | ☐ Manual[A] ☒ Automatic | K 5

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

IONOSPHERIC DATA

Kokubunji Tokyo Lat. 35° 42.4' N Long. 139° 29.3' E

Aug. 1954 | foE | 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							A	2.3	2.5	A	A	A	A	A	3.2	3.0	2.7	2.3	1.6					
2							2.0	2.5	2.8	3.0	3.2	3.1	3.0	3.0	A	A	2.7	2.3						
3							1.7	A	A	A	A	A	A	3.3	3.2	3.0	2.9F	A	A					
4							2.0A	2.5	2.9	3.0	3.2	3.2	3.0	A	A	A	A	A						
5							A	A	A	A	A	A	A	A	3.1	A	A	2.3A	A					
6						1.2J	2.0	2.5	(2.9)F	3.0	A	A	3.0	A	A	A	2.7	2.3						
7						A	A	A	A	A	A	3.2	A	A	A	A	2.8	2.4	1.8					
8							C	2.5	2.8	2.9	A	A	3.3	3.2	3.2	3.0	2.7	2.3	A					
9							A	A	A	A	A	T	A	C	C	C	C	C						
10							2.3	(2.4)A	2.5	2.8	2.9	3.0	3.3	3.3	3.3	3.0	2.8	2.3						
11							2.0	2.3	2.5	2.9	3.1	3.2	3.3	3.3	3.1	3.0	(2.6)A	2.3A	A					
12							2.2	2.4	A	A	A	A	A	A	A	A	2.8	2.2A						
13							A	A	2.5	A	3.0	A	A	A	A	A	2.7	2.3						
14							A	2.2	2.5	3.0	3.2	A	A	A	A	A	A	2.3	A					
15							A	A	A	A	A	A	A	A	A	A	M	A	A					
16							A	A	A	A	(3.0)A	A	A	A	A	A	2.7	A	A					
17							(2.0)F	2.5	2.7	[2.8]A	3.0	3.0	A	A	A	A	A	A	A					
18							1.8	2.3	2.7	3.0	A	A	A	A	3.0	2.9	2.7	2.3	A					
19							A	2.4	2.6	2.9	[3.0]A	3.1	3.3	3.2	3.2	2.8	2.7	2.1A						
20							1.9	2.3	[2.5]A	2.7	3.0	3.0	3.0	[3.0]A	3.0	[2.8]A	2.6A	A						
21							A	A	A	2.9	A	A	A	A	3.1	2.9	2.7	2.2	A					
22							1.7	2.3	2.5	A	A	A	A	A	A	A	2.7	2.3						
23							1.9	2.4	2.8	A	A	3.0	A	A	A	A	A	A						
24							A	A	2.5	A	A	3.2	3.1	[3.2]A	3.2	[2.9]A	2.6	2.1	A					
25							A	A	2.5	A	A	A	3.0	A	A	A	2.5	2.1						
26							A	A	A	A	3.0	A	A	A	B	3.0	2.7	A	A					
27							A	2.4F	A	2.9	3.2	A	A	3.3	A	A	A	A	A					
28							A	2.3	2.4	2.9	[3.0]A	3.2	A	A	3.1	3.0	2.5	2.0A						
29							A	A	A	A	A	3.2	3.2	3.2	3.2	3.1	2.5	(2.1)A						
30							AF	2.5F	A	A	A	3.2	3.1	3.1	3.0	2.7	2.6	2.2						
31							1.7	2.3	2.5	A	A	A	3.1	3.2	3.0	2.9	2.5	1.5	A					
Mean Value						1.2	1.9	2.4	2.6	2.9	3.0	3.1	3.1	3.2	3.1	2.9	2.7	2.2	1.7					
Median Value						1.2	2.0	2.4	2.5	2.9	3.0	3.1	3.1	3.2	3.1	3.0	2.7	2.3	1.7					
Count						1	13	19	19	14	13	13	13	12	15	15	23	21	2					

foE

Sweep 1.0 Mc to 17.2 Mc in 2 min ☐ Manual ☒ Automatic

K 6

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

IONOSPHERIC DATA

Aug. 1954 | h'E | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

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

h'E

Sweep 1.0 Mc to 17.2 Mc in 2 min ☐ Manual ☒ Automatic

K 7

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

IONOSPHERIC DATA

Aug. 1954 | **fEs** | 135° E Mean Time | **Kokubunji Tokyo** | Lat. 35° 42.4' N | Long. 139° 29.3' E

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	5.5	4.7	4.3	2.5	3.2	2.5	5.0	9.0	7.0	7.0	7.0	8.5	4.0	5.5	8.5	8.5^{Y}	9.0	4.5	7.0	4.5	4.5	6.0^{Y}	4.5	2.5
2	4.5	5.3	3.4	4.5	3.2	3.5	6.0	5.8	5.8	7.0	7.5	9.5	7.0	5.6	5.5	3.5	4.5	5.2	6.5	8.9	5.9	7.0	7.5	6.5
3	3.2	3.0	4.9^{F}	6.8	4.5	3.5	6.8	7.0	9.5	10.0	10.0	10.2	7.4	9.0	10.1	10.0	8.5^{Y}	7.1	5.7	2.9	7.0	4.5	5.5^{Y}	4.5
4	6.5	7.0	4.0	3.2	6.5	5.0	3.5	4.2	7.0	8.4	8.7^{Y}	6.5	8.5	5.5	6.5	4.3	5.5	7.0	7.0	10.0	10.0	8.5	5.0	6.0
5	4.5	6.5	5.0	3.2	3.2	3.5	3.7	5.5	6.5	7.0	7.4	5.6	5.0	5.3	5.6	4.5	5.4	4.3	3.4	4.3	7.0	7.0	5.5	5.0
6	5.4	4.5	5.5	6.8	4.5	2.8	5.5	4.2	7.0	8.2	9.0	6.8	5.7	5.5	4.5	4.5	G	6.0	9.0	9.5	8.5	7.0	6.9	4.7
7	3.4	3.5	3.2	4.5	4.5	4.2	4.5	5.2	7.0	4.3	6.5	5.9	4.3	4.3	7.0	4.5	4.4	3.5	3.2	3.9	2.3	3.8	2.5	4.5
8	4.9	4.5	4.5	5.0	4.8	3.0	C	3.5	7.4	6.5	6.5	7.0	4.7	4.1	6.5	4.7	6.8	6.9	5.7	5.0	5.0^{F}	3.5	3.2	C
9	3.2	3.2^{F}	2.5	3.0	2.6	3.2	7.1	7.0	6.5	4.5	10.0	T	7.0	C	C	C	C	C	C	C	C	C	6.0	6.0^{F}
10	7.0	4.0	5.0	3.2	3.2	3.1	3.1	3.6	4.4	5.0	7.3	5.2	G	4.5	4.3	4.7	6.0	7.1	5.3	6.5	4.5^{F}	7.0	3.9	4.5
11	C	C	7.0	3.5	3.0	3.0	3.5	5.3	4.9	4.3	5.5	6.9	7.0	6.5	4.7	4.5	5.5	4.3	5.5	3.5	4.5^{F}	3.5	3.7	5.0
12	5.6	3.0	3.2	3.0	3.2	3.9^{F}	3.0	5.6	4.4	4.5	6.5	7.0	6.5	4.5	5.9	5.7	3.5	6.5	5.0	6.5	4.5	4.3	5.6	3.2
13	4.5	3.9	5.0	3.4	3.2	3.2^{F}	3.0	3.2	5.3	7.0	6.5	6.4	5.0	4.3	4.3	3.2	6.0	4.9	9.0^{Y}	7.0	5.5	7.0	4.8^{F}	3.0
14	3.2	3.0	3.9	3.5	3.2	2.5	2.7	3.2	3.2	7.1^{Y}	5.0	4.8	4.7	5.0	5.5	6.5	7.0	G	3.5	2.7	2.5	3.0	2.2	3.5
15	3.0^{F}	2.4	2.5^{Y}	3.2	2.4	5.0	3.1	4.5	4.5	4.0	4.6	5.0	5.9	7.0	5.4	7.0	7.0	7.0	7.5	7.0	4.9	5.5	5.8	5.0
16	7.0	7.0	5.0	5.0	5.0	3.5	3.5	3.5	6.0	10.0	10.0	9.8	7.5	9.0	7.0	7.0	6.5	10.0	7.2	4.5	6.0	6.0	5.5	7.0
17	3.7	7.1	4.7^{F}	4.8^{F}	7.5	4.8	5.0	7.5	7.0	10.0	11.9	9.2	10.1	7.0	6.9	6.5	4.7	4.5	5.0	4.5	4.5	7.0	6.5	6.5
18	5.0	3.3	4.5	4.2	3.2	5.0	4.7	5.2	7.2	5.7	4.2	3.1	5.7	5.3	7.4	5.9	4.8	10.0	10.0^{Y}	5.8	4.5	3.7	3.5	4.5
19	4.2	3.0	5.0	5.0	5.0	5.0	5.5	7.2	7.4	7.0	7.0	7.1	10.1	7.5	10.3	10.1	4.6	4.5	3.7	3.6	5.5	5.7	4.5	4.5
20	3.0	4.5	5.6	4.5	3.2	3.2	5.4	6.0	7.0	6.9	5.2	5.7	6.9	6.5	3.5	4.2	3.5	4.6	4.8	4.5	4.5	3.2	5.5	4.7
21	7.0	6.5	7.0	5.0	4.7^{F}	5.5	5.6	4.5	4.5	8.5	6.8	5.2	4.4	4.1	4.5	6.8	8.7	9.1	6.8	6.0	7.5	8.5	6.9	7.0
22	4.5	6.8	5.0	5.0	2.3	2.1	3.2	6.5	4.2	7.0	6.5	4.7	5.1	4.5	5.0	3.8	3.1	4.0	3.8	2.9	7.0^{F}	5.0^{F}	4.3^{F}	5.0^{F}
23	3.2	3.0	3.0	5.0^{F}	2.5	2.0	3.0	3.0	3.5	4.3	4.5	4.2	10.0	10.5	8.5	6.5	5.7	4.5	3.9	3.7	7.0	4.5	4.5	7.0
24	7.2	3.2^{F}	3.2^{F}	4.8	3.2	4.3	7.3	5.0	5.6	6.3	5.0	4.5	4.5	4.2	G	3.9	5.0	5.3	4.4	5.7	4.5	6.5	6.9	4.0
25	4.5	4.4	5.0	3.5	3.0	3.2	7.0	7.2	7.5	5.5	7.2	5.7	4.7	5.1	5.8	3.9	4.5	5.7	4.0	3.2	6.7	6.9	5.6	4.3
26	5.0	3.2^{F}	3.2	2.2	3.0	2.0	8.5	7.0	10.0	5.0	G	4.5	4.4	5.5	B	G	6.7	5.8	7.5	7.0	3.2	3.2	3.2	4.5
27	3.5	5.0	2.5	3.2	2.2	2.4	3.0	3.2	5.0	6.5	3.2	5.0	5.0	G	5.5	7.1	6.0	4.5	4.6	2.8	3.2	3.2	3.2	4.5
28	3.1	3.9	3.9	4.5^{F}	3.2	3.0	3.2	4.7	7.1	5.0	4.5	G	4.7^{Y}	3.8	G	G	3.2	4.5	6.0	3.2	6.5	3.2	5.7	4.5
29	2.5	2.2	4.5	6.5	4.1	5.0	5.3	4.8	7.0	9.0	5.0	4.5	3.2	3.2	4.5	4.5	5.0	5.0	3.7	4.5	3.5	4.5	4.1	3.2
30	3.0	2.0	3.2^{Y}	2.7	2.5	2.6	3.2	3.2	3.2	3.8	3.5	3.2	4.5	4.9	3.7	3.5	5.0	5.5	4.5	3.2	2.1	2.2	2.4	E
31	3.0	3.2	2.2	2.6	3.2	3.3	3.2	3.0	5.5	5.8	5.5	8.5	5.0	7.0	4.8	7.5	7.0	5.0	5.6	9.0	7.2	8.5	7.0	7.0
Mean Value	4.6	4.3	4.2	4.1	3.7	3.5	4.6	5.0	6.1	6.5	6.6	6.2	6.0	5.7	6.0	5.5	5.6	5.7	5.6	5.2	5.3	5.3	4.9	4.9
Median Value	4.5	3.9	4.5	4.2	3.2	3.2	4.1	5.0	6.5	6.5	6.5	5.7	5.0	5.3	5.5	4.6	5.4	5.1	5.4	4.5	5.0	5.2	5.0	4.5
Count	30	30	31	31	31	31	30	31	31	31	31	30	31	30	29	30	30	30	30	30	30	30	31	30

fEs

Sweep 1.0 Mc to 17.2 Mc in 2 min ☐ Manual ☒ Automatic

K 8

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

IONOSPHERIC DATA

Aug. 1954 | (M3000)F2 | 135° E Mean Time

Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

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

(M3000)F2 Sweep 1.0 Mc to 17.2 Mc in 2 min ☐ Manual ☒ Automatic

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Aug. 1954

fminF

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	A	A	2.8[A]	1.4	1.7	1.4	2.9[A]	(3.4)[A]	3.8[A]	4.9[A]	A	A	3.5	4.2[A]	A	A	A	3.3[A]	2.9[A]	2.5[A]	3.5[A]	1.5	2.0	1.4
2	A	A	A	A	1.5	1.9	A	A	4.7[A]	A	A	A	A	4.5[A]	4.8[A]	3.0	3.0	4.5[A]	4.0[A]	3.5[A]	3.2[A]	A	A	A
3	1.7	1.3	A	AF	1.3	1.9	A	A	4.0[A]	A	A	A	A	A	A	4.0[A]	3.3	3.2	2.0	1.5	(1.8)[A]	2.0	(2.0)[A]	1.9
4	1.5	1.4	A	E	1.4	1.7	2.7	3.2	4.3[A]	A	A	4.5[A]	(4.4)[A]	4.3[A]	4.2[A]	3.5	4.2[A]	A	A	3.4[A]	2.7[A]	2.0	2.8[A]	2.3[A]
5	A	A	1.7	1.4	1.3	1.7	2.3	4.0[A]	4.0[A]	4.0	(4.4)[A]	4.8[A]	3.8	3.9	4.3[A]	3.3	3.3	2.9	2.4	2.0	(1.8)[A]	1.6	A	A
6	1.5	1.5	A	A	1.4	1.5	4.0[A]	3.4	4.5[A]	A	A	A	5.0[A]	4.5[A]	4.3[A]	3.0	3.3	5.3[A]	5.1[A]	A	A	3.8[A]	(3.4)[A]	2.8[A]
7	2.3[A]	2.1[A]	1.5	1.5	1.4	1.8	2.1	3.0	(3.2)[A]	3.4	3.9[A]	A	A	3.5	(3.5)[A]	3.5	4.0[A]	2.8	2.7[A]	1.6	1.5	1.5	1.4	1.5
8	1.4	2.0	1.6	1.2	1.4	1.5	(2.2)[C]	2.8	4.0[A]	(3.9)[A]	3.8[A]	4.1[A]	3.8	4.0[A]	(4.0)[A]	4.0[A]	A	A	4.0[A]	1.5	2.0	1.5	1.7	(1.6)[C]
9	1.5	1.3	1.2	1.3	1.2	1.4	A	A	3.0	3.5[A]	A	T	A	C	C	C	C	C	C	C	C	C	1.5	(1.5)[A]
10	1.5	(1.5)[A]	1.5	1.4	1.3	1.7	2.3	2.7	3.5[A]	4.3[A]	(4.2)[A]	4.1[A]	3.5	3.8	3.8	4.0[A]	3.8[A]	3.5[A]	3.7[A]	(3.8)[A]	4.0[A]	(3.2)[A]	2.3[A]	1.8
11	C	C	1.5	C	E	1.5	2.6	4.3[A]	3.5	3.5	A	A	A	4.5[A]	3.7[A]	3.5[A]	3.8[A]	2.8	2.2	2.0	1.5	1.5	1.6	1.5
12	1.9	1.3	1.2	1.1	1.2	1.9	2.2	3.0	3.0	3.4	4.0[A]	3.6	3.8[A]	A	A	A	3.0	4.0[A]	3.8[A]	1.5	5.0[A]	1.5	1.9	1.9
13	2.8[A]	AF	AF	1.8	1.4	1.5	2.1	2.9	4.4[A]	4.4[A]	4.9[A]	4.0	3.4	3.9	3.4	3.5	4.9[A]	4.1[A]	(4.8)[A]	5.5[A]	(3.8)[A]	2.0	2.2[A]	1.5
14	1.4	1.4	(1.4)[A]	1.3	1.4	1.4	2.2	2.5	3.1	3.5	3.8	4.0	4.5[A]	4.1[A]	4.8[A]	5.3[A]	(3.8)[A]	2.4	2.0	1.8	1.5	1.7	1.5	1.7
15	1.5	1.2	1.2	1.0	E	A	2.3	3.0	3.8[A]	3.5	3.7	3.8	5.5[A]	(5.2)[A]	4.9[A]	5.3[A]	(5.4)[A]	5.5[A]	5.5[A]	5.0[A]	3.5[A]	2.1	(2.5)[A]	2.9[A]
16	2.7[A]	1.7	1.4	1.4	1.0	1.5	2.3	3.0	3.5	A	A	A	A	A	A	A	6.0[A]	5.5[A]	4.0[A]	2.8[A]	1.9	1.5	1.9	[2.2][A]
17	2.6[A]	A	AF	AF	AF	A	A	3.8[A]	A	A	A	A	A	A	A	4.4[A]	3.9[A]	3.0	(2.6)[A]	2.2	3.5[A]	A	A	A
18	A	1.8	A	AF	A	A	3.4[A]	4.0[A]	A	A	3.5	3.5	4.0[A]	3.7	(3.5)[A]	3.3	3.4	A	A	2.0	2.8[A]	2.1[A]	2.0	2.2[A]
19	2.1[A]	1.5	1.4	1.3	1.5	A	A	A	A	A	A	A	A	A	A	A	4.0[A]	3.7[A]	3.0[A]	2.0	2.3[A]	4.0[A]	(2.8)[A]	1.6
20	1.4	1.4	(1.6)[A]	1.9	1.2	1.5	A	A	A	A	A	4.2[A]	(4.8)[A]	5.4[A]	3.7	3.5	3.0	3.2[A]	(2.8)[A]	2.3[A]	5.2[A]	1.7	2.0	2.0
21	2.0	A	AF	1.0	1.0	1.5	2.2	2.9	3.0	5.0[A]	5.3[A]	4.5[A]	4.0[A]	3.6	4.0[A]	4.0[A]	A	A	A	A	2.6[A]	A	A	A
22	2.0	2.5[A]	A	A	1.0	1.3	2.1	5.1[A]	3.0	5.4[A]	4.0[A]	4.1[A]	3.5[A]	3.5[A]	5.2[A]	3.5	2.8	3.0[A]	2.0	2.0	1.5	1.5	1.5	(1.6)[A]
23	1.6	1.2	1.2	1.0	1.2	1.3	2.1	2.7	3.4	3.5[A]	3.5[A]	3.7	A	A	A	A	5.0[A]	3.8[A]	2.7[A]	2.7[A]	2.0	AF	A	1.5
24	1.4	1.4	E	1.5	1.5	A	A	3.5[A]	4.0[A]	4.0[A]	3.7	3.6	3.6	3.6	3.5	3.4	4.5[A]	(4.2)[A]	4.0[A]	6.2[A]	1.8	1.5	(1.8)[A]	2.0
25	2.0	2.7[A]	1.5	1.8	1.5	1.7	A	A	5.0[A]	5.0[A]	(4.4)[A]	3.7	4.0[A]	3.6	4.2[A]	3.0	3.7[A]	4.0[A]	3.2[A]	2.0	2.7[A]	A	A	1.5
26	2.0	1.5	1.5	1.1	1.7	1.5	2.2	(3.6)[A]	5.0[A]	4.0[A]	3.3	3.8	3.8	3.4	4.3	3.1	(4.0)[A]	(5.0)[A]	4.0[A]	(3.8)[A]	1.5	A	A	A
27	AF	1.4	1.4	1.5	1.0	1.4	2.1	2.6	3.6[A]	3.5	3.5	3.6	3.5	3.5	4.9[A]	3.4	4.4[A]	3.0[A]	2.5	1.5	1.3	1.5	2.0	2.0
28	1.4	1.4	(2.0)[E]	2.5[A]	1.5	1.5	2.1	3.5	6.0[A]	3.7	3.7	3.5	3.5	3.5	3.5	3.5	3.3	3.6[A]	5.0[A]	2.0	(1.8)[A]	1.5	(1.8)[E]	2.0
29	1.8	1.4	1.5	A	A	A	A	3.0	A	A	3.6	3.4	3.2	3.5	3.2	3.4	3.5[A]	4.0[A]	2.6[A]	1.9	2.0	2.0	1.5	1.5
30	1.5	1.4	1.2	1.3	1.0	1.7	2.2	2.5	2.0	3.4	3.4	3.3	4.0	3.8	3.1	3.1	3.8[A]	2.3	3.2[A]	1.4	1.3	1.4	1.5	1.4
31	1.5	1.4	1.0	A	A	1.4	2.0	2.7	4.0[A]	4.0[A]	4.5[A]	4.0[A]	4.0[A]	4.0[A]	3.8	(4.0)[A]	4.1[A]	3.8[A]	4.0[A]	5.5[A]	A	A	1.8	1.5
Mean Value	1.8	1.6	1.5	1.4	1.3	1.6	2.4	3.2	3.8	4.0	4.0	3.9	4.0	3.8	4.0	3.7	3.9	3.7	3.4	2.7	2.5	1.9	2.0	1.8
Median Value	1.6	1.4	1.4	1.4	1.3	1.5	2.2	3.0	3.8	3.9	3.8	3.8	3.8	3.8	4.0	3.5	3.8	3.6	3.2	2.0	2.0	1.6	1.8	1.6
Count	25	24	22	22	27	25	22	25	26	21	20	21	22	24	23	25	27	26	27	28	28	23	24	26

fminF

Sweep 1.0 Mc to 17.2 Mc in 2 min ☐ Manual ☒ Automatic

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

IONOSPHERIC DATA

Aug. 1954 | foE | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

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	1.3	1.3	E	E	1.0	1.3	1.4	1.4	1.5	1.5	1.5	1.5	2.1	1.5	1.5	1.5	1.5	1.3	1.5	1.5	1.4	1.5	1.7
2	1.4	1.3	E	E	E	1.3	1.4	1.5	1.5	1.5	1.4	2.1	2.1	1.5	1.5	1.5	1.4	1.3	1.5	1.5	1.5	1.5	1.5	1.5
3	1.3	1.3	E	E	E	1.3	1.3	1.4	1.5	1.4	1.4	1.5	1.5	1.7	1.5	1.4	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.5
4	1.4	E	E	E	E	1.4	1.4	1.5	1.4	1.5	1.7	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.5	1.5	1.3	1.5	1.5
5	1.2	1.4	E	E	E	1.3	1.5	1.5	1.5	1.5	1.5	1.5	2.1	1.7	2.1	1.3	1.4	1.4	1.4	1.5	1.0	1.3	1.5	1.4
6	1.3	1.3	E	E	E	1.3	1.4	1.4	1.5	1.4	1.5	1.5	1.5	2.1	2.1	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5
7	1.5	1.3	E	E	1.0	1.5	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.3	1.5	1.3	1.5	1.5	1.7	1.5
8	1.4	1.4	E	E	E	1.4	[1.4]C	1.4	1.4	1.5	1.7	1.5	1.4	1.5	1.5	1.5	1.5	1.4	1.3	1.3	1.4	1.4	1.2	[1.3]C
9	1.4	1.4	E	E	E	1.4	1.4	1.5	1.5	1.5	1.5	1.5	2.2	C	C	C	C	C	C	C	C	C	1.4	1.4
10	1.4	1.0	E	E	E	E	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.3	1.5	1.5	1.3
11	C	C	E	E	E	1.7	1.5	1.5	1.5	1.4	1.5	1.5	1.3	1.5	1.5	1.5	1.5	1.4	1.3	1.5	1.5	1.5	1.2	1.5
12	1.2	1.3	E	E	E	1.3	1.3	1.5	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.3	1.3	1.5	1.5	1.5	1.2	1.5	1.5
13	1.3	1.4	E	E	1.0	1.3	1.4	1.4	1.5	1.4	1.5	1.4	1.5	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.4	1.4	1.5	1.6
14	1.3	1.0	E	E	E	1.2	1.4	1.4	1.5	1.5	1.5	1.5	1.6	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.6	1.5	1.5
15	1.4	1.4	E	E	E	1.3	1.4	1.5	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	[1.4]M	1.4	1.5	1.5	1.4	1.4	1.5	1.4
16	1.3	1.4	E	E	E	1.4	1.4	1.5	1.4	1.5	2.1	2.1	1.5	1.5	1.5	1.4	1.5	1.5	1.4	1.5	1.4	1.5	1.4	1.5
17	1.3	1.3	E	E	E	1.4	1.4	1.5	1.5	1.5	1.5	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.4	1.3
18	1.3	1.3	1.2	1.0	E	1.3	1.4	1.5	1.5	1.5	1.5	1.5	2.1	2.3	2.1	1.5	1.5	1.5	1.5	1.3	1.4	1.5	1.5	1.5
19	1.4	1.3	E	E	E	E	1.3	1.5	1.4	1.4	1.5	1.5	2.1	2.1	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.4	1.3	1.5
20	1.4	1.3	E	E	E	1.2	1.4	1.3	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.5	1.3	1.5	1.5	1.5	1.5
21	1.4	1.4	E	E	E	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.5	1.5	1.4	1.5	1.5
22	1.4	1.3	E	E	E	1.5	1.4	1.4	1.4	1.5	1.5	1.5	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.3	1.3	1.2	1.5	1.4
23	1.3	1.3	E	E	E	1.5	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.5	1.3	1.4	1.5	1.5	1.4	1.4	1.4
24	1.4	1.4	E	E	E	1.5	1.4	1.6	1.4	1.5	1.5	1.5	1.5	1.6	1.5	1.5	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5
25	1.4	1.4	E	E	E	1.3	1.4	1.5	1.4	1.4	1.5	1.4	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.5	1.5	1.5	1.2	1.4
26	1.4	1.0	E	E	E	1.5	1.1	1.5	1.5	1.5	1.5	1.5	1.5	1.5	[1.6]B	1.6	1.4	1.4	1.4	1.4	1.5	1.3	1.5	1.5
27	1.4	1.0	E	E	E	1.5	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.5	1.4	1.5	1.4	1.5	1.5	1.5
28	1.4	1.5	E	E	E	1.4	1.5	1.5	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.3	1.4	1.4	1.4	1.4	1.4	1.2
29	1.4	1.4	E	E	E	1.5	1.4	1.3	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.5	1.4	1.4	1.2	1.5
30	1.4	1.5	E	E	E	1.3	1.4	1.4	1.4	1.5	1.4	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.6	1.6	E
31	1.4	1.4	E	E	E	1.4	1.3	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.5	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.4	1.5
Mean Value	1.4	1.3	1.3	1.0	1.0	1.4	1.4	1.5	1.4	1.5	1.5	1.5	1.6	1.6	1.6	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Median Value	1.4	1.3	E	E	E	1.4	1.4	1.5	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5
Count	30	30	31	31	31	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	30	30	31	31

foE

Sweep 1.0 Mc to 17.2 Mc in 2 min ☐ Manual ☒ Automatic

K 11

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

IONOSPHERIC DATA

Kokubunji Tokyo Lat. 35° 42.4' N Long. 139° 29.3' E

Aug. 1954 **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	A	A	90	(90)^{JF}	70^{F}	70	A	A	40	A	A	A	A	U	A	A	A	90	80	70	90^{P}	(60)^{J}	(60)^{J}	40
2	80	[60]^{A}	50	70^{P}	30	70	A	A	A	A	A	A	A	U	A	U	U	60	90	70	(80)^{JF}	(80)^{JF}	A	A
3	80^{F}	(60)^{J}	70^{F}	[70]^{AF}	70^{F}	60	A	A	(70)^{J}	A	A	A	A	A	A	U	U	100	50	70	70^{P}	50	[60]^{A}	60
4	90^{F}	(90)^{JF}	(70)^{JF}	70^{F}	90	50	110	40	70	A	A	A	A	A	60	60	70	A	A	70	80	70^{P}	[80]^{F}	90^{F}
5	F	A	60^{F}	(80)^{JF}	(70)^{JF}	80	60	U	60	70	A	U	70	U	U	U	U	70	80	70	[80]^{A}	80	A	A
6	(70)^{JF}	80^{F}	A	A	80^{F}	60	A	60	60	A	A	A	A	A	U	50	80	A	A	A	A	(80)^{P}	70	100
7	80	60	70^{F}	50	70	60	(50)^{J}	60	A	U	U	A	A	U	A	U	U	40	70	50^{P}	40	60	60	80^{F}
8	70^{F}	90	50^{F}	60	90^{F}	70	C	U	U	A	U	A	B	B	A	U	A	A	80	80	70^{P}	90	70	[80]^{C}
9	100	70^{F}	70^{F}	70^{F}	60	60	A	A	30	50	A	T	A	C	C	C	C	C	C	C	C	C	60	60
10	50^{F}	[60]^{A}	80^{F}	60^{F}	[70]^{AF}	80	U	40	60	A	A	A	U	U	40	U	60	70	70	[60]^{A}	60	[70]^{A}	80	80
11	C	C	70^{F}	60^{FP}	60^{F}	60^{F}	50	A	U	40	A	A	A	U	30	60	80	60	70	80	50^{F}	70^{F}	90^{F}	50^{F}
12	(60)^{JF}	50^{F}	90^{F}	80^{P}	80^{F}	50^{F}	80	70	50	70^{P}	U	U	U	U	A	A	60	80	90	70	50	70	70^{F}	80^{F}
13	[80]^{AF}	70^{F}	[60]^{A}	60^{F}	80^{F}	60	80	90	30	80	40	U	U	U	U	U	A	80	A	A	A	80	60^{F}	80
14	60	50	60	60^{F}	50^{F}	70^{F}	70	50	50	30	U	U	A	A	70	70	[60]^{A}	60	60^{P}	80	(80)^{J}	70	80	60
15	130	80	80	80	70	[60]^{A}	50	50	30	U	U	U	A	A	A	A	A	A	A	(60)^{J}	80	80	[70]^{A}	(60)^{JF}
16	70	80^{F}	60^{F}	60^{F}	80^{F}	60^{F}	U	U	30	A	A	A	A	A	A	A	A	A	60	(70)^{J}	90	90	(90)^{F}	[80]^{A}
17	60	A	AF	AF	A	A	A	50	A	A	A	A	A	A	A	A	50	50	(80)^{J}	90	80	A	A	A
18	A	50	A	AF	80^{F}	A	60	60^{P}	A	A	B	U	U	40	[50]^{A}	60^{P}	40	A	A	70^{P}	60	60	60	60
19	AF	F	80^{F}	AF	70	A	A	A	A	A	A	A	A	A	A	A	40	60	60	90	60	80	[70]^{A}	60^{F}
20	90^{F}	AF	A	80	80^{F}	90^{F}	A	A	A	A	A	U	A	A	U	U	(60)^{J}	70	60	(60)^{JB}	[80]^{A}	100	80	100^{F}
21	70^{P}	A	AF	70^{F}	80^{F}	50	80	50	(60)^{J}	A	A	60	30	U	50	U	A	A	A	A	80	A	A	A
22	60^{F}	50^{F}	A	A	80^{F}	60^{F}	110^{H}	[80]^{A}	60	A	U	B	B	U	A	70	60	80	80	70	60^{P}	60	50	50
23	70	60^{F}	80^{F}	50^{F}	80	60	100	50	40	U	U	U	A	A	A	A	60	60	70	60	60	AF	A	(60)^{F}
24	80^{F}	50^{F}	50^{F}	70^{F}	60^{F}	A	A	80	A	A	U	U	U	U	U	80	70	[70]^{A}	70^{P}	A	70^{P}	80^{F}	[80]^{A}	80^{F}
25	60^{F}	60	70	40^{F}	(60)^{JF}	60	A	A	A	A	A	U	U	U	U	50	40	A	60^{P}	90	80	A	A	50
26	60	50^{F}	50^{F}	70	100	70	60	[40]^{A}	20	U	U	U	U	U	U	U	A	A	50	60	50	A	A	50^{F}
27	(50)^{JF}	50^{F}	50^{F}	50^{F}	90^{F}	60	60	20	50	30	U	U	U	U	60	40	60	50	60	60	60	60	(60)^{JF}	70^{F}
28	50^{F}	50	70^{F}	70^{F}	(50)^{F}	70	70	60	A	70	U	U	U	U	90	50	60	80	[70]^{A}	60	A	F	AF	F
29	60^{F}	(60)^{JF}	(60)^{F}	A	A	A	A	50	A	A	U	U	U	60	50	20	50	A	70	70	60	60	90	80
30	100	70	90	100	70	60	60^{H}	70	50	(40)^{J}	U	U	U	U	80	60	30	40	(50)^{J}	80	90	70	70	60
31	70^{F}	80^{F}	70	60^{F}	90^{F}	60^{F}	50	60	40	40	A	U	40	50	40	A	A	60	50	70	A	A	70^{F}	80^{F}
Mean Value	70	60	70	70	70	60	70	60	50	50	40	60	50	50	60	60	60	70	70	70	70	70	70	70
Median Value	70	60	70	70	70	60	60	60	50	40	40	60	40	50	50	60	60	60	70	70	70	70	70	60
Count	26	24	25	25	29	26	17	20	19	10	1	1	3	3	11	12	18	20	24	26	26	23	23	26

ypF2

Sweep 1.0 Mc to 17.2 Mc in 2 min ☐ Manual ☒ Automatic

K 12

21

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

IONOSPHERIC DATA

Aug. 1954 | foF2 | 135° E Mean Time | Yamagawa | Lat. 31° 12.5' N | Long. 130° 37.7' E

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	C	C	C	C	C	2.4	3.1	4.6	5.9	5.2	A	A	A	A	A	C	6.5	7.4^{J}	7.4^{J}	6.2^{P}	5.7	FS	FS	A
2	F	F	F	F	3.3^{F}	3.1^{F_2}	3.5	4.9	5.7	A	A	5.5	A	A	6.1	6.0	6.0	7.1	7.1^{S}	7.4	6.4^{J}	5.2	[5.2]^{A}	5.1
3	A	A	A	A	A	2.5	3.5	5.8	5.9	A	A	A	5.6	5.3	4.9	A	A	6.3	6.8	7.5	6.1	4.4	3.6	3.7^{J}
4	3.6	3.5	3.2	3.0^{F}	3.2^{F_2}	2.5	3.9	4.7	5.9	5.0	4.9	A	A	A	6.4	[6.2]^{A}	6.0	5.8	[6.0]^{A}	6.3	6.5	5.7^{X}	4.0	3.2
5	A	A	3.4^{F}	3.5	3.2F	3.0^{F}	4.1^{J}	4.4	C	C	C	C	C	C	C	C	C	C	6.5	6.4	5.9	3.7	[3.7]^{A}	3.7
6	[3.4]^{A}	3.1	[2.8]^{F}	2.4^{F}	2.6	3.0	3.6	4.7	5.2	5.2	[5.0]^{A}	4.7	5.0	5.3	5.9	6.3	7.6	8.0	6.0	5.0	5.7	5.7	4.5	5.6
7	A	A	4.0^{J}	3.4	2.3	2.8	[4.2]^{A}	5.5	5.1	6.1	5.3	5.1	4.9	4.8	5.4	5.5	5.5	5.4	5.5	5.7	6.5	5.3	5.0^{J}	4.8^{S}
8	[4.6]^{F_2}	4.4	4.0^{F}	3.8	3.3^{F}	3.1	4.1	4.5	5.0	5.4	5.4	[5.1]^{A}	4.8	[4.8]^{A}	4.9	5.3	5.6	5.6	5.5	6.9	5.5	5.4	A	A
9	A	A	A	2.6	3.2^{X}	2.9	3.7	4.6	4.7	5.5	5.0	4.5	4.9	5.6	5.4	5.9	7.1	7.6	5.6	4.9	AS	A	3.4	3.2
10	[3.1]^{A}	3.0	A	A	2.7	2.6	3.8	5.6	4.8	4.4	5.4	4.9	5.0	5.2	5.9	6.5	6.9	6.0	5.2	6.1	5.4	A	A	A
11	A	A	3.2^{J_F}	2.9	3.0	2.8^{S}	4.6	5.0^{J}	[5.0]^{M}	4.9	4.7	4.9	5.2	5.5	6.7	8.0	7.3	6.7	5.1^{H}	4.7	4.8	4.9	3.6	F
12	AS	A	3.5	3.1^{F}	3.2^{H}	3.2^{F}	4.0	5.4	5.4	4.7	5.3	[5.0]^{A}	4.7	5.2	5.3^{J}	5.8	6.3	6.3	A	A	7.8	A	S	FS
13	3.2^{F}	3.3^{F}	3.2^{J}	2.7	2.8	F	4.0	5.3	5.9	6.2	5.1	5.5	5.7	5.3	5.7	6.8	7.3	8.5	7.9	6.5	7.9	5.9	[4.6]$^{A}_{S}$	3.4
14	3.3	A	A	F	AF	2.7^{J_F}	3.5	5.9	5.8	5.4	4.6^{V}	5.5	4.9	5.6	6.0	7.3	6.6	6.6	6.0	5.9	6.1	6.7	4.4	2.9
15	2.9	2.8	2.8	2.8	2.9	3.0	4.0	6.0	4.7	4.9	4.8	6.1	6.3	5.6	5.3^{H}	5.5	6.0	7.3	8.1	7.6	5.8	4.4^{J}	3.7	[3.7]^{A}
16	3.7	F	3.8	3.5	3.2	2.6	3.2	4.7	7.8	5.3	A	A	A	4.9	5.8	6.0	6.9	7.5	A	AS	7.4	6.2	5.1^{S}	FS
17	FS	FS	AS	FS	FS	3.8	C	A	A	A	A	A	A	A	C	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	6.1	6.1	7.8^{J_S}	C	C	C
19	A	C	3.0	2.8^{F}	2.5	[2.8]^{A}	3.0	5.1	6.3	4.9	4.6	5.6	A	A	6.6	6.7	5.7	C	C	C	C	4.7^{J}	A	A
20	A	A	A	2.8	F	2.4^{J}	3.9	4.9	A	M	A	A	4.8	5.2	5.5	5.8	5.7	5.4	5.7	6.5	5.9	4.0	3.2^{J}	[3.1]^{A}
21	3.0^{H}	[3.1]^{F}	3.2	[3.2]^{A}	3.1	2.6	3.6	4.5	4.9	5.3	6.8	6.2	5.6	5.3	5.4	5.3	5.1	5.5	5.1	6.7	6.6	4.3^{J}	4.0	[4.4]^{A}
22	4.7	[3.8]^{A}	3.0	3.5	2.3	FS	3.5	5.8	5.9	5.3	5.1	4.8	4.9	5.3	6.1	7.6	6.7	6.5	5.4	5.4	5.9	3.3	3.3	[3.2]^{A}
23	3.0	3.0	3.0^{F}	A	A	A	3.5	5.9	4.9	4.7	4.9	6.2	5.9	5.0	5.6	6.0	5.7	5.2	5.1	6.1	6.3	5.6	3.9$^{X}_{S}$	3.9$^{J}_{S}$
24	A	A	3.7^{F_2}	3.1^{F_2}	3.4^{F_2}	3.5^{S}	4.2	4.8	4.4	4.7	4.9	5.7	5.5	6.0	6.8	7.2	7.4	6.4	6.0	A	6.3	3.4	[3.2]^{A}	2.9
25	A	A	A	3.1	3.5	FS	3.7	5.1	6.0	5.2^{H}	5.2	A	A	5.4	5.9	7.2	5.5	4.6^{H}	5.5	6.4	6.0	5.0^{H}	3.3	[3.4]^{A}
26	3.4^{S}	3.2^{J}	3.1^{F}	3.0^{F}	2.8	2.8	3.6	5.4	5.9	4.8	4.9	5.3	5.2	5.0	5.6	5.7	6.4	6.5	8.9	7.7^{J}	6.0^{S}	A	AS	2.8^{X}
27	3.0	3.1	[2.9]^{F}	2.7^{F}	2.8	2.5	3.2	5.4^{V}	5.2	4.8	5.2	5.4	5.1	5.4	5.9	7.5	5.9	5.9	5.8	6.6	5.3	3.5	3.3	3.4
28	3.3	3.2	3.3	3.4	2.7	AS	3.2	5.5	6.4	6.3	[5.6]^{A}	4.9	5.5	6.5	7.2	7.4	6.7	7.5^{J_S}	6.1^{V}	5.2	4.8	3.9	4.0^{F}	4.6^{S}
29	4.1^{F}	4.0	3.9^{J}	3.3	2.8	2.9	A	5.5	7.0^{S}	A	A	5.4	5.4	6.4	7.5	6.1	5.4	5.3	6.4	8.7	7.3	4.3^{V}	A	A
30	3.4	3.4^{J_P}	3.2	3.4	2.4	2.3	3.3	6.0	6.2	5.8	4.9	5.2	4.7	5.8	6.6	6.0	6.3	6.2	6.0	5.9	6.2^{S}	6.2	5.0	3.7
31	3.5^{H}	3.4	3.2	2.9	2.9	3.3	3.8	5.9	5.3	4.4	5.1	6.6	6.8	7.2	8.3	6.7	5.7	6.2	8.0	8.5	A	A	3.9	3.6
Mean Value	3.5	3.4	3.3	3.1	2.9	2.8	3.7	5.2	5.6	5.2	5.1	5.4	5.3	5.5	6.0	6.4	6.3	6.4	6.3	6.4	6.2	4.9	4.0	3.7
Median Value	3.4	3.2	3.2	3.1	2.9	2.8	3.6	5.3	5.7	5.2	5.0	5.4	5.2	5.3	5.9	6.2	6.3	6.3	6.0	6.4	6.1	4.9	3.9	3.6
Count	17	15	21	23	24	25	28	29	27	24	22	22	22	24	27	26	27	27	27	26	27	23	22	21

foF2

Sweep 1.0 Mc to 22.0 Mc in 1 min ☐ Manual ☒ Automatic

Y 1

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

IONOSPHERIC DATA

Aug. 1954 | h'F2 | 135° E Mean Time | Yamagawa | Lat. 31° 12.5' N | Long. 130° 37.7' E

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	C	C	C	C	C	290	250	340	250	280	A	A	A	A	A	C	350	300	(300)^{A}	(300)^{A}	250	300	300	[350]^{A}
2	400^{F}	350^{F}	290	250	290	260	370	310	290	A	A	420	A	A	350	370	380	310	300	250	250	A	A	A
3	A	A	A	A	A	360^{A}	(280)^{A}	270	250	A	A	A	370	370^{A}	A	A	A	320	290	250	230^{A}	[260]^{A}	280	320
4	310	290	280	250	250	230	250	260	270	(320)^{A}	380	A	A	A	360^{A}	[340]^{A}	330^{A}	A	A	A	290	250	250	350
5	A	A	310	360^{A}	290^{A}	250	A	A	C	C	C	C	C	C	C	C	C	C	280	260	250	300^{A}	[280]^{A}	260
6	[290]^{A}	320	290^{F}	310^{F}	290^{A}	300	250^{A}	350	260	330	[420]^{A}	500	500	450	400	350	310	290	280	260	260	250	350	A
7	A	A	330^{A}	280^{A}	A	A	300	250	310	300	330	400	460	510	380	360	340	330	330	270	250^{A}	240^{A}	290	310^{F}
8	340^{A}	300	300	290	310	290	250	280	410	290	310	A	A	A	460	390	[360]^{A}	320^{A}	310^{A}	260	270	250	A	A
9	A	A	A	400^{A}	250	230	220	300	370	320	310	590	440	360	390	390	300	260	250	240	330^{A}	[330]^{A}	330^{A}	A
10	A	330^{A}	A	A	270	250	260	260	250	350	320	410	450	390	360	340	290	320	280	250	250	A	A	A
11	A	A	280^{F}	270	250	270	270	240^{A}	[300]^{M}	370	[400]^{A}	420	450	420	360	300	290	270	250^{H}	240	280^{A}	240	300	300
12	280	[260]^{A}	250	310^{A}	300^{H}	290	200^{A}	250	260	240	330	[420]^{A}	510	400	370	350	310	310	A	A	240^{A}	[260]^{A}	290	300^{F}
13	300	320	270	270	260	300^{F}	230	260	290	290	380	400	350	360	430^{A}	340	330	290	270	300^{A}	260	250	300^{A}	300
14	300	A	A	250	370	300	240	250	250	250	250	350	500	400	360	300	300	290	310^{A}	280	[260]^{A}	240	210^{A}	250
15	290	300	310	300	280	250	240	240	240	300	450	330	290	340	390^{H}	(400)^{A}	350	310^{A}	270	240	230	250	290	350
16	350^{A}	270	310	280	240	250	250	[250]^{A}	250	250	A	A	A	550	350	370	340	300	A	A	270	220^{A}	320	300^{F}
17	350^{A}	350^{A}	[320]^{A}	300^{F}	240^{F}	250^{A}	C	A	A	A	A	A	A	A	C	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	310^{A}	280^{A}	250	C	C	C
19	A	C	280	290	340^{A}	[310]^{A}	280	300	250^{A}	260	480	340	A	A	350^{A}	310	340	C	C	C	220	A	A	A
20	A	A	300	330	300	280	240	250	A	M	A	A	A	380	370	350	320	350	300	250	230^{A}	240^{A}	310	[280]^{A}
21	260^{H}	320^{F}	290	[320]^{A}	340	310^{F}	250	290	300	400	290	280	300	390	350	330	350	300	360	250	270^{A}	220^{A}	300	[300]^{A}
22	310	350	310	250	200^{A}	300	300^{A}	290^{A}	290^{A}	310^{A}	300	300	250	440	390	320	300	290	270	290	220^{A}	250	350^{F}	[300]^{A}
23	260	300	260	A	A	A	250	250	250	250	470	300	290	460	350	330	300	320	320^{A}	270	240	200^{A}	250	350^{A}
24	A	A	310	280	320	250	250^{A}	230	250	360	340	320	370^{A}	370	350	340	300	290^{A}	300^{A}	[260]^{A}	230	220	[260]^{A}	300
25	A	A	A	300	240	200	240	270	250	290^{H}	300	A	A	400	350	280	300	250$^{A}_{H}$	310	250	250	230^{H}	240^{A}	[260]^{A}
26	280	300	300^{F}	300	300^{A}	270	250	250	240	300^{A}	330	380	350	450	380	350	310	320	260	230^{A}	210	A	A	400
27	320	300	290	310^{A}	260	(280)^{A}	300	270	250	300	360	340	350	400	370	300	280	300	290	250	250^{A}	250^{A}	340	300
28	280	280	270	240	210	[240]$^{A}_{S}$	260	270	240	260	[400]^{A}	530	400	360	330	310	320	290	250	240	240	300	340^{F}	300
29	290	310^{A}	270	260	300	290	[280]^{A}	280	240	A	A	350	400	350	300	310	340	350	310	250	220^{A}	250^{A}	A	A
30	290	300	300	230^{A}	290	[280]^{A}	260	250	250	240	310	350	640	360	300	300	310	300	260	260	260	240^{A}	240	300
31	260^{H}	300	290	300	290	320^{A}	250	250	240	[320]^{L}	400	320	320	320	300	300	300	310	270	220^{A}	A	A	290	290
Mean Value	300	310	290	290	280	280	260	270	270	300	360	380	400	400	360	340	320	300	290	260	250	250	290	310
Median Value	290	300	290	290	290	280	250	260	250	300	340	350	380	390	360	340	310	300	290	250	250	250	290	300
Count	19	19	24	26	26	28	28	28	27	24	22	21	20	23	26	26	27	26	26	26	28	25	23	22

h'F2 | Sweep 1.0 Mc to 23.0 Mc in 1 min | ☐ Manual ☒ Automatic | Y 2

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

IONOSPHERIC DATA

Aug. 1954 | fEs | 135° E Mean Time | Yamagawa | Lat. 31° 12.5' N | Long. 130° 37.7' E

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	C	C	C	C	C	2.4	2.4	3.1	G	4.7Y	8.5	9.7	8.7	9.0	11.0	C	6.6	5.9	6.8	8.6	6.6	6.7	6.6	8.3
2	8.7	5.9	2.4	2.4F	3.7	2.4	G	3.4	5.9	12.2	11.8	6.2	8.9	13.0	G	5.7	5.2	5.2	3.6	4.9	5.8	5.8	6.8	8.9
3	9.0	5.8	5.9	6.7	8.1	4.8	3.5	3.7	4.8	7.7	8.9	5.8	5.7	5.7	5.8	8.9	9.3	8.9	11.5	12.8Y	5.8	5.2	3.0	3.2
4	2.4	2.4F	2.4F	2.4	2.4	2.3	3.2	5.7F	4.9	6.5	8.7Y	8.3Y	12.2	13.2	9.2	12.1	6.2	6.3	10.5	13.1	5.9	5.9	2.1	5.6
5	5.9	8.6	5.6	4.9	3.5	3.1	5.7	5.1	C	C	C	C	C	C	C	C	C	C	3.6	3.3	5.6	3.1	11.5	5.8
6	8.7Y	3.6	5.7	3.4	2.4	3.6	3.4	4.4	3.5	3.6	6.0	6.3	4.5	3.8	G	G	G	G	3.3	2.4	2.9	2.4	5.7	5.9
7	5.9	6.4	4.1	3.5	3.6	5.9	5.9	3.5	5.8	9.0	5.9	5.7	5.6	5.9	6.1	5.1	5.9	4.0	5.4	3.6	4.1	3.5	5.8	3.2
8	5.9	5.8	3.6	2.8	3.6	5.5	3.0	3.4	5.7	6.0	6.2	8.9	6.2	5.7	5.7	5.9	6.2	6.0	5.7	5.9	5.5S	5.9	5.9	5.9
9	5.6	5.5F	5.9	5.7	3.7	2.4F	2.4	5.7Y	5.8	6.6	8.4Y	6.2	6.2	5.8	5.8	5.7	4.8	4.1	3.3	5.5S	8.9	9.5	5.9	4.2
10	5.8	5.9	6.3	9.5Y	3.1	3.5	3.2	G	G	5.9	4.8	3.8	4.7	4.9	4.7	4.7	4.9	5.1	3.6	3.8	5.9	5.9	3.7	5.9
11	8.4	5.9	2.4	5.9	5.8	3.5	3.0	4.4	M	6.2	6.3	6.1	5.7	6.6	G	G	4.8	3.5	3.8	3.5	3.5	2.4	6.7	3.2
12	5.8	6.1	3.2	5.2	3.6	4.6S	3.5S	3.4	8.8Y	3.8	6.2	6.6	4.8	4.7	7.1	G	G	7.2	12.4	12.5	5.9	8.8Y	3.0	2.4
13	3.4F	3.5	2.4	3.2	3.4	3.5	3.6	4.7	3.5	3.6	5.8	G	6.1	G	8.9	5.8	6.4	4.9	5.5	5.9	9.5	9.5	5.9	3.5
14	3.3	5.9	5.9	3.3	3.5	2.5	2.9F	3.7F	3.8	3.7	4.7	5.3	5.5	5.1	5.5	5.7	5.7	4.7	8.6	3.5	3.4	2.4	2.4	2.4
15	2.4F	2.4	3.0	2.4Y	2.4	5.6Y	3.4	3.0	3.5	4.9	5.8	5.9	5.1	4.4Y	4.2Y	5.7	5.0	6.0	3.8	2.3	2.4	2.4	2.9	5.9
16	3.6	3.4	3.2	3.5	2.4	3.0	2.4	5.8	5.9	5.8	8.2Y	9.3	10.5	5.8	G	G	5.1	6.6	12.7	7.0S	5.6	5.9	3.2	3.0
17	5.5	5.6	5.8	3.2	2.4	3.6	C	7.0	10.7	11.8	8.8Y	9.3	7.1	11.5	C	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	4.5	4.2	5.9	C	C	C
19	4.9	C	2.6	2.3	2.8	5.2	G	5.8	5.6	3.8	5.9	6.1	11.9	6.1	7.0	4.0	4.1	C	C	C	C	3.7	5.9	4.2
20	5.8	5.9	3.9	2.7	3.8	8.8Y	3.7	5.8	8.6	M	7.0	11.5	6.5	4.5	6.1	6.5	4.3	4.4	G	3.0	3.6	4.2	2.8	4.4Y
21	2.9	2.4	2.9	5.8	3.1	2.8	2.4	4.3	5.7	5.7	4.2	4.4	3.9	G	5.1	4.8	5.0	4.4	4.0	2.7	4.3	2.8	5.8	5.9
22	5.9	9.0	5.9	3.8	9.0	4.3	3.4	7.0	6.5	5.9	5.9	4.3	4.3	5.0	G	4.2	3.6	3.5	3.8	3.9	3.3Y	3.0	3.8	3.8
23	2.4F	3.0	3.6F	3.8	3.7	3.4	2.7	3.8F	3.8	3.7	3.8	5.8	4.6	4.7Y	G	G	G	G	5.7	4.8S	3.2	2.9F	4.5S	3.8
24	5.8	6.1	5.9	2.4	3.2	2.4	4.2	3.0F	4.8	4.8	5.0Y	G	7.0	5.5	6.0	5.6	5.0	8.1	4.2	6.0	2.9	5.6	5.8	5.6
25	4.9	5.9	8.4	4.0	1.6Y	2.3S	2.1	3.5	3.8	5.0	5.5	10.7	8.5Y	6.2	5.7	5.9	3.8	3.8	2.4	3.4	3.8	2.6	5.9	5.9F
26	5.9	3.8	3.8	4.7	4.4	3.5	2.4	3.1	3.8	8.1	5.8	3.8	5.5	6.0	6.0	4.5	G	4.2	4.8	5.5	6.1	8.6	5.8	5.8
27	2.9	5.9	3.7	3.0	2.6	3.0	4.1	G	3.5	5.2	4.7	3.8	G	G	G	4.2	4.4	3.8	3.0	3.1	3.6	3.4	2.8	2.4
28	2.4	E	1.3	2.4F	3.8Es	3.1	2.6	3.6	5.6	4.9	6.7	6.4	5.9	G	4.4	G	G	4.9Y	3.8	2.6Y	2.3	2.4	3.7	3.6
29	2.8	5.0	2.4	2.4F	3.8	3.0	3.7	3.8	6.0	13.5	12.1	5.3	G	4.2	G	G	G	4.4	3.8	3.7	4.1	4.5	5.9	5.9
30	5.8	3.6	2.8Y	2.3	2.4	3.2	2.7	G	3.7	5.1	5.8	4.3	5.0	8.6Y	4.7	4.9	5.4S	5.7	3.5	3.3	3.0S	3.0	2.4F	2.3
31	2.3	2.7	2.8	2.4Y	2.9Y	2.8	2.4	3.1	5.8Y	4.1	4.4	5.0	8.7	G	5.0	G	4.1	4.9	5.7	4.2	5.5	5.7	2.9	2.9
Mean Value	5.0	5.0	4.1	3.8	3.6	3.7	3.3	4.3	5.4	6.1	6.6	6.5	6.6	6.5	6.2	5.8	5.3	5.2	5.5	5.1	4.8	4.7	4.8	4.6
Median Value	5.6	5.7	3.6	3.3	3.5	3.3	3.0	3.7	5.2	5.4	5.9	5.9	5.7	5.5	5.3	4.8	4.8	4.9	4.0	3.9	4.3	4.2	5.7	4.2
Count	29	28	29	29	29	30	29	30	28	28	29	29	29	29	28	27	28	27	29	29	29	29	29	29

fEs

Sweep 1.0 Mc to 22.0 Mc in 1 min ☐ Manual ☒ Automatic

Y 3

SOLAR RADIO EMISSION

AUG. 1954

Observing Station: HIRAISO

Frequency: 200Mc/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	4	4	4
2	4	5	4
3	4	5	5
4	4	4	4
5	4	4	4
6	3	4	3
7	3	4	4
8	4	4	4
9	4	4	4
10	4	4	4
11	4	4	4
12	4	4	4
13	4	4	4
14	4	-	4
15	5	-	5
16	5	5	5
17	-	-	-
18	-	4	4
19	4	4	4
20	4	4	4
21	5	3	4
22	4	4	4
23	4	4	4
24	7	5	7
25	4	5	5
26	4	4	4
27	4	4	4
28	4	-	4
29	4	-	4
30	-	3	3
31	-	-	-

Outstanding Occurrences

Date	Starting Time	Duration	Peak Flux	Time
26	$04^h 34^m$	30m	94.4	$04^h 52^m$
26	$06^h 11^m$	2m	41.4	$06^h 11^m$

IONOSPHERIC DATA IN JAPAN FOR AUGUST 1954

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編集兼発行人　好川得太郎
東京都北多摩郡小金井町小金井新田一之久保573

発行所　郵政省電波研究所
東京都北多摩郡小金井町小金井新田一之久保573
電話　国分寺　138，139，151

印刷所　今井印刷所
東京都新宿区筑土八幡町8番地