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IONOSPHERIC DATA IN JAPAN

FOR MAY 1952

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PREPARED BY THE CENTRAL RADIO WAVE OBSERVATORY
THE RADIO REGULATORY COMMISSION

KOKUBUNJI, TOKYO, JAPAN

CRWO—F 41

THE CENTRAL RADIO WAVE OBSERVATORY
THE RADIO REGULATORY COMMISSION

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CONTENTS

PREFACE

The radio administration in Japan has hitherto been carried out by the Radio Regulatory Agency. With the reorganization of part of the government offices effective on June 1, 1950, the Radio Regulatory Commission was established and the work of researches on radio propagation has become to fall under the charge of the radio wave observatories, auxiliary organs of the Radio Regulatory Commission.

The radio wave observatories are composed of the Central Radio Wave Observatory located at Kokubunji, Tokyo, and five local radio wave observateries established at Wakkanai, Akita, Hiraiso, Inubo and Yamagawa respectively.

The Central Radio Wave Observatory has the following four 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;

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, and physical basic studies of wave propagation in general; and

Administrative Section which shall conduct the general affairs of the observatory.

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 Radio Regulatory Agency 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.

Uyeda Hiroyuki
Chief, Central Radio Wave Observatory,
Radio Regulatory Commission

June, 1952.

SITE OF THE IONOSPHERIC STATIONS

Ionospheric observation is carried out at four stations in Japan.
The stations are situated as follows:

	longitude	latitude	site
Wakkanai	141° 41.1′ E	45° 23.6′ N	Wakkanai-shi, Hokkaido
Akita	140° 08.2′ E	39° 43.5′ N	Tegata Nishishin-machi, Akita-shi, Akita-ken
Kokubunji	139° 29.3′ E	35° 42.4′ N	Koganei-machi, Kitatama-gun, Tokyo-to
Yamagawa	130° 37.7′ E	31° 12.5′ N	Yamagawa-machi, Ibusuki-gun, Kagoshima-ken

REMARKS ON SYMBOLS

All symbols in the table are used in accordance with "Production and Reduction of Ionospheric Information" of "RESOLUTION OF THE IX GENERAL ASSEMBLY OF URSI SEPTEMBER 1950" (CRWO-F25) 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.

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

May. 1952 | **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	S K	3.8 K J F	2.8 K	2.9 K	(4.0) P K	3.4 K	4.6 K	B K	B K	A K	A K	B K	5.5 K	6.5 K	6.2 K	6.3 K	6.5	5.8	5.5	5.5	5.8	(5.0) P	3.5	4.1
2	4.4	4.3	3.8	4.4	(4.4) P	(4.4) P	5.8	5.9	5.3	6.1	6.1	B	B	(6.8) P	6.3 P	B	6.3 J	B	5.8	5.3 J	3.5	(4.5) S	5.5 J	5.1 J
3	4.0	S	S	S	3.5 K	A K	3.8 K	A K	A K	A K	B K	5.8 K	5.4 K	6.0 K	6.2 K	6.6 K	(6.7) K P	6.6 K J P	6.0 K	S K	S K	S K	S K	5.3 K J
4	4.8 K J	S K	S K	4.3 K	4.4 K	4.7 K	4.9 K	WK	GK	CK	CK	BK	CK	CK	CK	CK	5.8 K	5.6 K	[5.5] C	5.4	5.8	C	C	C
5	C	C	4.0	4.0	3.2 K	A K	4.4 K	B K	BK	5.2 K	5.3 K	5.6 K	5.8 K	6.0 K	6.3 K	B K	6.0 K	6.3 K	6.3 K	6.0 K	6.0 K	5.3 K	6.0 K	S K
6	S K	S K	S K	4.3 K	[4.6] S K	5.0 K J	4.0 K	A K	4.9 K	6.1 K	5.0 K	WK	B K	B K	6.3 K	6.3 K P	6.4	6.2	S	S	S	6.0	S	S
7	S	S	S	S	S	S	B	B	A	6.1	B	C	B	6.5	6.3	6.4	6.4	C	C	(3.8) P	S	S	(4.3) P	C
8	C	C	C	C	C	C	C	C	C	C	C	C	B	A	A	B	C	C	S	S	5.0	C	C	C
9	C	C	C	C	C	C	C	C	C	5.8	[5.4] C	5.1	C	C	C	6.2	6.4	S	6.3 S	5.2 P S	S	S	S	S
10	S	S	5.1	S	S	4.2	4.6	A	5.7	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	4.4	5.0	4.9	5.6	C	C	C	C	C	C	C	C	6.2	6.2	6.3 P J	5.8 P J	S	S	S
12	C	C	C	C	C	C	C	C	A	C	C	B	C	C	C	C	C	C	5.5	4.0	4.0	S	S	C
13	4.5	S	S	S	S	S	B	B	B	6.1	B	B	5.0	5.8	[5.7] C	5.6	5.0	5.0	(5.7) P J	5.9	S	S	S	S
14	S	5.0	4.8 P J	4.6 P J	(4.5) S	(4.4) P	C	C	B	A	B	B	C	A	B	A	C	A	A	A	A	A	A	A
15	A	4.5 H	3.4	3.8	4.2	5.0	4.2	A	A	A	A	A	C	B	6.0	[5.9] C	5.8	5.8	S	S	5.3	5.3	(5.2) S	5.2 P
16	(4.1) P S	4.5	4.8	4.5	4.5	4.3	5.3	5.0	A	B	5.4	5.8	5.5	6.0	5.9	6.2	6.1	5.8	5.5	(5.4) P J	5.2	S	S	6.5
17	5.4 P J	5.0	5.0	4.8	4.6	5.5 J	5.1	5.0	5.3	5.6	5.2	5.7	5.4	A	5.4	A	5.6	B	A	A	A	A	5.6	A
18	S	4.8	4.5	4.0	S	B F	5.1	4.8	4.8	A	A	5.7	6.0	A	6.0	6.3 J	6.0	5.0	5.5	S	S F	S	S	S
19	5.1	A	4.3 H	3.9	4.5	5.1	4.8	A	A	A	B	6.4	A	5.6	5.6	A	A	A	A	A	A	A	S K	4.7 K
20	4.3 J K	4.2 J K	A K	4.2 K	4.7 K	4.6 K	[4.9] C K	5.2 K	A K	A K	A K	A K	A K	A K	B K	5.4 K	6.0 K	5.2 K	[5.2] C K	5.2 K	A K	S K	S K	5.1 K J
21	4.6 K	4.7 K	[4.2] S K	3.6 K	4.4 K	5.5 K	B K	B K	5.6 K P J	A K	A K	5.0 K	5.0 K	B K	B K	4.2 K	A K	A K	A K	5.8 J K	S K	S K	S K	S K
22	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	B K	4.4 K	C	C	C	6.8 J F	A	A	5.5	4.8 F
23	5.0 F	4.7 F	4.2 F	4.9 F	5.0	4.8	5.3	A	5.3	5.9	A	A	A	B	A	5.0	5.9	5.8	5.9	(6.4) C	6.8 J	6.1	A	5.9
24	5.2	4.9	5.2	5.0	4.4	6.0	6.1	6.1	A	C	5.4	5.6	5.8	C	A	B	5.9	6.0	6.0	6.1	5.9	5.9	A	A
25	A	S	5.0 J	4.7	C	C	5.7	5.5	A	C	C	C	C	C	C	C	C	C	C	C	C	S	(5.9) P J	5.9
26	5.3 J	S	4.0	S	C	C	C	5.7	5.1	C	C	C	C	C	C	C	6.3	6.3	6.2 P	S	A	C	C	C
27	C	C	C	C	C	C	C	C	C	A	C	C	C	C	5.9	A	A	A	A	4.6	S	S	S	S
28	S	C	C	(3.4) P S	S	4.2	A	A	A	5.0	5.7 J	5.6	B	B	6.8	T	A	5.8	6.3	(5.8) P J	C	S	S	5.7 S
29	5.1 J	S	(3.0) P	S	(4.6) P	S	A	C	C	A	A	A	5.1	A	A	5.6	6.0	5.1	S	S	(4.4) P S	S	S	S
30	C	C	C	C	C	C	C	C	C	A	B	5.4	A	B	6.0	B	5.9 P	6.0	5.7	S	S	S	S	S
31	S	S	S	S	S	5.0	C	C	C	6.4	(6.2) C	6.1	6.0	6.3	6.6 P	(6.7) P	6.4 P	(6.3) P J	S	S	(5.9) P J	S	5.7 J	5.5
Mean Value	4.8	4.6	4.3	4.2	4.3	4.7	4.9	5.3	5.3	5.8	5.5	5.7	5.5	6.2	6.1	5.8	6.0	5.8	5.8	5.5	5.3	5.4	5.1	5.2
Median Value	4.8	4.7	4.2	4.3	4.4	4.7	4.9	5.2	5.3	6.0	5.4	5.6	5.5	6.0	6.1	6.2	6.0	5.8	5.8	5.5	5.8	5.3	5.5	5.2
Count	13	11	16	17	16	17	17	9	10	10	9	12	11	9	16	15	20	18	17	17	13	7	9	12

Sweep 1.0 Mc to 17.0 Mc in 2 min ☐ Manual ☒ Automatic

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The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | h_pF2 | 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	S K	(440) KJ F	420 K	420 K	(450) K P	390 K	390 K	B K	B K	A K	A K	B K	500 K	U K	370 K	370 K	320	330	370	350	370	(370) P	330	360
2	420	350	370	420 S	(360) P	(370) P	370	300	A	370	320	B	B	U	350 P	B	(410) J	B	320	(296) J	S	S	(370) J	(320) J
3	A	S	S	S	420 K	A K	320 K	A K	A K	A K	B K	U K	U K	U K	400 K	380 K	(360) KJ P	(330) KJ P	370 K	S K	S K	S K	S K	(350) KJ
4	(370) KJ S	S K	S K	S K	330 K	340 K	320 K	WK	GK	CK	CK	BK	C K	C K	C K	C K	400K	390K	[360] C	340	410	C	C	C
5	C	C	360	360	400 K	A K	UK	BK	BK	UK	U K	BK	UK	410K	400K	BK	390K	320K	330 K	330K	370 K	340 K	380 K	S K
6	S K	S K	S K	360 K	[350] K S	(340) KJ	300K	AK	UK	390K	BK	WK	BK	BK	UK	380 P	380	330	S	S	S	320	S	S
7	S	S	S	S	S	S	B	B	A	A	B	C	B	340	410	380	340	C	C	(330) P	S	S	(370) P	C
8	C	C	C	C	C	C	C	C	C	C	C	C	B	A	A	B	C	C	S	S	440	C	C	C
9	C	C	C	C	C	C	C	C	C	U	C	U	C	C	C	350	330	S	340 S	340 Ps	S	S	S	S
10	S	S	410	S	S	320	310	A	360	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	370	380	U	350	C	C	C	C	C	C	C	C	310	320	(320) P J	(320) P J	S	S	S
12	C	C	C	C	C	C	C	C	A	C	C	B	C	C	C	C	C	C	350	350	370	S	S	C
13	400	S	S	S	S	S	B	B	B	(410) B	B	B	U	U	C	380	360	(360) S	(360) P J	360	S	S	S	S
14	S	S	(320) P J	(310) P J	[300] S	(280) P	C	C	B	A	B	B	C	A	B	A	C	A	A	A	A	A	A	A
15	A	390H	410	360	320	310	B	A	A	A	A	A	C	B	390	[390] C	390	360	S	S	310	340	(340) S	350 P
16	(370) KJ S	360	330	360	330	290	300	340	A	B	U	U	U	U	430	380	390	330	330	A	340	S	S	330
17	(370) KJ P	380	410	350	370	(310) J	330	A	U	U	U	U	U	A	U	A	A	B	A	A	A	A	380	A
18	S	370	340	360	S	BF	270	300	320	A	A	A	500	A	390	350	390	380	380	S	SF	S	S	S
19	350	A	410 H	410	430	360	330	A	A	A	B	A	A	400	U	A	A	A	A	A	A	A	S K	350 K
20	(350) KJ	(360) KJ	A K	340 K	400 K	A K	C K	320 K	A K	A K	A K	A K	A K	A K	B K	400 K	390 K	U K	C K	320 K	A K	S K	S K	(350) KJ
21	350 K	340 F	[340] KS	340 K	310 K	300 K	B K	B K	(500) KP J	A K	A K	U K	A K	B K	B K	U K	A K	A K	A K	(370) KJ	S K	S K	S K	S K
22	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	B K	B K	C	C	C	(460) J F	A	A	360	AF
23	420F	390F	370F	360F	320	330	350	A	A	410	A	A	A	B	A	U	390	360	340	(340) C	(350) J	320	A	350
24	360	400	400	400	330	320	300	320	A	C	A	U	U	C	A	B	350	320	310	310	310	S	A	A
25	A	S	(400) J	320	C	C	320	A	A	C	C	C	C	C	C	C	C	C	C	C	C	S	S	350
26	S	S	400	S	C	C	C	320	A	C	C	C	C	C	C	C	370	350	350 P	S	A	C	C	C
27	C	C	C	C	C	C	C	C	C	A	C	C	C	C	380	A	A	A	A	(330) S	S	S	S	S
28	S	C	C	(380) P S	S	400	A	A	A	A	A	B	B	B	290	T	A	350	350	(360) P J	C	S	S	350 S
29	(320) J	S	(380) F	S	(330) F	S	A	C	C	A	A	A	U	A	A	U	500	410	S	S	(370) P S	S	S	S
30	C	C	C	C	C	C	C	C	C	A	B	U	A	B	U	B	350 P	390	350	S	S	S	S	S
31	S	S	S	S	S	420	C	C	C	350	C	U	U	370	360P	(370) P	350P	(350) P J	S	S	S	S	S	370
Mean Value	370	380	380	370	360	340	330	320	380	390	320	—	500	380	380	380	380	350	350	340	360	340	360	350
Median Value	370	380	400	360	340	340	320	320	360	390	320	—	500	380	390	380	380	350	350	340	370	340	370	350
Count	11	10	16	16	16	16	14	6	5	5	1	—	2	4	11	11	19	17	16	16	11	5	7	11

h_pF2 | Sweep 1.0 Mc to 17.0 Mc in 2 min | ☐ Manual ☒ Automatic | W2

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Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

May. 1952 | **h'F2** | 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	S K	360 K	4 K	A K	400 K	380 K	380 KA	B K	B K	A K	A K	B K	500 K	400 K	370 K	370 K	320	280	300	300	300	320	300	310
2	330	300	380 A	370	300	290	350	300	A	370	320	B	B	400	340	B	410	300	300	290	S	300 A	350	300
3	A	A	A	360	390 K	A K	300 K	A K	A K	A K	B K	450 K	400 K	420 K	400 K	370 K	350 K	310 K	300 K	300 K	S K	300 K	300 K	300 K
4	310 K	S K	S K	360 K	300 K	300 K	280 K	W K	G K	C K	C K	B K	C K	C K	C K	C K	400 K	350 K	A	300	400	C	C	C
5	C	C	300	300	330 K	A K	400 K	B K	B K	470 K	490 K	480 K	460 K	410 K	400 K	320 K	380 K	310 K	300 K	300 K	310 K	300 K	310 K	S K
6	S K	S K	S K	320 K	[320] K	310 K	280 K	A K	450 K	390 K	400 BK	W K	380 K	450 K	310 K	380 K	L	330	320	280	300	300	S	S
7	S	S	S	S	S	S	B	B	A	A	B	C	360	340	380	380	300	C	C	300	290	S	330	C
8	C	C	C	C	C	C	C	C	C	C	C	C	B	A	A	B	C	C	420 A	330	360	C	C	C
9	C	C	C	C	C	C	C	C	C	380	[400] C	420	C	C	C	350	330	300	300	300	300	300	300	330
10	310	S	S	S	300	320	310	A	360	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	320	380	350	350 B	C	C	C	C	C	C	C	C	300	300	306	300	A	S	S
12	C	C	C	C	C	C	C	C	A	C	C	B	C	C	C	C	C	C	290	300	300	300	300	C
13	340	S	S	S	S	S	B	B	A	400	B	B	520	410	[400] C	380	A	320	320	310	310	S	S	S
14	S	A	320 S	300	[280] S	250	C	C	A	A	B	B	C	A	B	A	C	A	A	A	A	A	A	A
15	A	AH	400	350	300	300	B	A	A	A	A	A	C	B	390	[380] C	380	350 A	310 A	A	290	300	[300] S	300
16	320	300	300	300	300	280	300	340	A	B	400	390	490	440	430	380	330	320	300	A	290	A	290	300
17	320	320	330	300 S	320	300	300	A	370	350	400	350	380	A	410	A	A	B	A	A	A	A	A	A
18	300	300	300	320	320	290 F	270	300	A	A	A	420 A	500	A	390	340 A	390	300 A	340	310	300 F	300	300 F	330
19	290	A	320 H	380	400	330	320	A	A	A	B	A	A	400	410	A	A	A	A	A	A	A	S K	280 K
20	320 K	320 K	A K	300 K	360 AK	A K	C K	300 K	A K	A K	A K	A K	A K	A K	A K	400 K	390 K	380 K	[350] Kc	320 K	A K	A K	320 K	330 K
21	320 K	320 K	[310] SK	300 K	300 K	300 K	B K	A K	500 K	A K	A K	520 K	A K	B K	B K	500 K	A K	A K	A K	300 K	S K	S K	S K	S K
22	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	B K	B K	C	C	C	320 F	A	A	330 A	AF
23	AF	310 F	300	320	300	300	350	A	A	400	A	A	A	A	A	330	380	360	320	[320] C	320 A	300	A	350 S
24	300	320	320	320	300	280	300	300	A	C	A	400	400	C	A	B	350	320	300	280	300	300 S	A	A
25	A	320	320	300	C	320 C	320	A	A	C	C	C	C	C	C	C	C	C	C	C	S	C	C	C
26	S	S	320	S	C	C	C	320	A	C	C	C	C	C	C	C	370	330	330	S	A	C	C	C
27	C	C	C	C	C	C	C	C	C	A	C	C	C	C	380	A	A	A	300	S	S	S	S	S
28	S	C	C	320	S	400	A	A	A	A	A	B	B	300	280	T	A	330	320	350	C	S	420	320
29	300	A	340	320	320	S	A	C	C	A	A	A	370	A	A	430	500	410	310	320	310	S	310	300
30	C	C	C	C	C	C	C	C	C	A	B	350	A	B	420	B	350	380	320	A	A	S	S	S
31	S	S	290	290	A	A	C	C	C	350	C	420	440	370	360	370	340	310	300	300	[300] S	300	S	320
Mean Value	310	320	320	320	320	310	320	320	410	390	400	420	430	390	380	380	370	330	320	310	310	300	320	310
Median Value	320	320	320	320	310	300	310	310	410	380	400	420	420	400	390	380	370	320	310	300	300	300	300	320
Count	12	10	15	19	18	17	16	8	6	8	6	11	12	11	16	15	17	20	21	22	17	12	15	14

Sweep 1.0 Mc to 17.0 Mc in 2 min ☐ Manual ☒ Automatic

W 3

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

May. 1952

f_0F1

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	44	A	B	B	45	47	46	45	40	Q						
2							3.9	40	A	43	47	B	B	B	Q	B	3.9	Q						
3							Q	A	A	A	4.2	45	47	B	44	45	A	A						
4							Q	41	42	C	C	B	C	C	C	C	40	3.7						
5							3.8	B	B	44	B	4.4P	45	B	B	43	3.9	3.8						
6							Q	A	43	B	A	40	45B	B	45	4.2	L	B						
7							B	B	A	A	5.1	C	48	47	L	45	Q	C						
8							C	C	C	C	C	C	B	A	A	B	C	C						
9							C	C	C	A	C	45	C	C	C	43	3.8	Q						
10							B	A	40	C	C	C	C	C	C	C	C	C						
11							3.2	3.8	B	C	C	C	C	C	C	C	C	L						
12							C	C	A	C	C	4.3P	C	C	C	C	C	C						
13							B	A	A	43	4.3	4.4	B	43	[41]C	3.9	A	Q						
14							C	C	A	A	B	43	C	A	B	A	C	A						
15							B	A	A	A	A	A	C	B	42	[41]C	40	A						
16							3.8	A	A	A	43	45	48	45	42	B	40	(3.6)P						
17							Q	A	A	A	44	43	A	A	44P	A	A	A						
18							Q	Q	Q	A	B	A	A	A	A	A	A	A						
19							Q	A	A	A	B	A	A	A	A	A	A	A						
20							C	Q	A	A	A	A	A	A	A	B	40	3.9						
21							B	A	B	A	A	A	A	A	B	B	A	A						
22							C	C	C	C	C	C	C	C	B	B	C	C						
23							A	A	A	A	A	A	A	A	A	A	3.6	B						
24							L	3.8	A	C	A	A	45	C	A	B	A	3.8						
25							A	A	A	C	C	C	C	C	C	C	C	C						
26							C	40	A	C	C	C	C	C	C	C	B	A						
27							C	C	C	A	C	C	C	C	A	A	A	A						
28							A	A	A	A	A	B	44	Q	46	43	A	Q						
29							A	C	C	A	A	A	47	A	A	41	40	3.8						
30							C	C	C	A	B	A	A	B	A	B	A	3.9						
31							C	C	C	45	C	A	B	45	45	41P	B	Q						
Mean Value							3.5	3.9	4.2	4.4	4.5	4.4	4.6	4.5	4.4	4.3	3.9	3.8						
Median Value							3.5	4.0	4.2	4.4	4.4	4.4	4.5	4.5	4.4	4.3	4.0	3.8						
Count							4	5	4	4	6	9	9	5	9	11	10	7						

f_0F1

Sweep 1.0 Mc to 17.0 Mc in 2 min ☐ Manual ☒ Automatic

W 4

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

May. 1952

h'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							A	A	300	A	B	B	260	300	300	330	270	Q						
2							290	A	A	B	250	B	B	B	Q	B	280	Q						
3							Q	A	A	A	280	B	B	B	B	B	A	A						
4							Q	B	B	C	C	B	C	C	C	C	270	310						
5							300	280	270	270	B	250	A	B	B	280	260	270[B]						
6							Q	A	A	B	A	A	B	B	300	A	270	B						
7							B	B	A	A	B	C	300	280	B	300	Q	C						
8							C	C	C	C	C	C	B	A	A	B	C	C						
9							C	C	C	A	C	200	C	C	C	B	B	Q						
10							B	A	A	C	C	C	C	C	C	C	C	C						
11							B	B	B	C	C	C	C	C	C	C	C	250						
12							C	C	A	C	C	200	C	C	C	C	C	C						
13							A	A	A	A	B	B	B	B	C	280	A	Q						
14							C	C	A	A	B	200	C	A	B	A	C	A						
15							B	A	A	A	A	A	C	B	220	C	B	A						
16							B	A	A	A	220	290	280[B]	300	260	B	260	290						
17							Q	A	A	A	270[A]	230[A]	A	A	250	A	A	A						
18							Q	Q	Q	A	B	A	A	A	A	A	A	A						
19							Q	A	A	A	B	A	A	A	A	A	A	A						
20							C	Q	A	A	A	A	A	A	A	B	A	280						
21							B	A	B	A	A	A	A	A	B	B	A	A						
22							C	C	C	C	C	C	C	C	B	B	C	C						
23							300	A	A	A	A	A	A	B	A	A	300	B						
24							270	280	A	C	A	A	A	C	A	B	A	290[A]						
25							A	A	A	C	C	C	C	C	C	C	C	C						
26							C	A	A	C	C	C	C	C	C	C	B	A						
27							C	C	C	A	C	C	C	C	A	A	A	A						
28							A	A	A	A	A	B	260	Q	A	A	A	Q						
29							A	C	C	A	A	A	A	A	A	280	300	300						
30							C	C	C	A	A	A	A	A	A	B	A	280[B]						
31							C	C	C	230	C	A	B	B	A	300	B	Q						
Mean Value							290	280	290	250	260	230	280	290	270	300	280	280						
Median Value							300	280	280	250	260	220	270	300	260	290	270	280						
Count							4	2	2	2	4	6	4	3	5	6	8	8						

Sweep 1.0 Mc to 17.0 Mc in 2 min ☐ Manual ☒ Automatic

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The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | foE | 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							2.2	2.8	3.0	A	B	B	A	3.1	3.3	3.0	2.8	1.9						
2							2.4	2.9	3.0	B	A	B	B	B	B	B	B	B						
3							B	3.1	A	3.3	3.3	B	B	B	B	B	B	B						
4							2.4	2.8	3.1	3.3	C	B	C	C	C	C	B	B						
5							2.6	2.8B	3.0B	3.2	3.3	3.4	A	B	B	3.3	B	B						
6							B	A	A	B	3.0	A	B	B	3.2J	A	B	B						
7							B	B	A	B	B	C	A	3.0	ν	2.8	B	C						
8							C	C	C	C	C	C	B	A	A	2.8B	C	C						
9							C	C	C	3.0	C	B	C	C	C	B	B	B						
10							B	A	A	C	C	C	C	C	C	C	C	C						
11							B	B	B	C	C	C	C	C	C	C	C	2.4						
12							C	C	3.1	C	C	3.4	C	C	C	C	C	C						
13							2.2	2.6	2.8	3.0	B	B	B	B	C	3.0	2.7	2.1J						
14							C	C	3.1	A	B	B	C	A	B	A	C	A						
15							B	2.5	A	3.1	A	A	C	A	3.0	C	2.9	2.8						
16							2.7	2.8	3.0	3.0	3.2	B	3.0	3.2	3.3	3.2	2.7	B						
17							2.6	2.7	3.1	3.2	3.1	3.1	3.1	3.0	A	A	A	A						
18							2.5	2.8	2.9	3.0	B	A	A	A	A	A	A	A						
19							B	3.0	2.9	3.2	3.3	3.3	3.2	A	3.5	3.2	2.9B	2.4						
20							C	2.9	3.1	3.2	3.2	3.2	A	3.0	A	A	A	A						
21							B	2.7B	3.0	B	B	3.3	A	A	B	3.0	2.7	2.5						
22							C	C	C	C	C	C	C	C	2.8P	B	C	C						
23							2.6	2.9	3.1	B	B	A	A	B	A	A	A	B						
24							2.4	2.9	B	C	B	B	B	C	A	B	A	A						
25							A	2.8	B	C	C	C	C	C	C	C	C	C						
26							C	2.6	A	C	C	C	C	C	C	C	2.8	A						
27							C	C	C	B	C	C	C	C	B	3.1	2.5	2.2						
28							2.2	2.7	3.0	A	A	3.3	B	B	A	A	A	8						
29							B	C	C	A	A	A	B	A	3.0	3.0*	2.8	2.3						
30							C	C	C	A	A	A	A	A	A	B	A	B						
31							C	C	C	2.8	C	B	B	B	3.0	B	B	2.1						
Mean Value							2.4	2.8	3.0	3.1	3.2	3.3	3.1	3.1	3.1	3.0	2.8	2.3						
Median Value							2.4	2.8	3.0	3.2	3.2	3.3	3.1	3.0	3.1	3.0	2.8	2.3						
Count							11	18	15	12	7	7	3	5	8	10	9	9						

foE

Sweep 1.0 Mc to 17.0 Mc in 2 min ☐ Manual ☒ Automatic

W 6

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

May. 1952

h'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							110	110	120	A	B	120	A	B	140	130	140 B	130						
2							120	110	120	B	A	B	B	B	B	B	B	B						
3							B	120	A	130	120	B	B	B	B	B	B	B						
4							B	120	130	120	C	B	C	C	C	C	B	B						
5							130	B	B	130	130	120	A	120	120	120	120	B						
6							B	A	A	B	120	A	B	B	120	A	B	B						
7							B	B	A	B	130	C	A	130	B	130	130	C						
8							C	C	C	C	C	C	B	A	A	B	C	C						
9							C	C	C	B	C	120	C	C	C	B	B	B						
10							B	A	A	C	C	C	C	C	C	C	C	C						
11							B	B	B	C	C	C	C	C	C	C	C	120						
12							C	C	120	C	C	120	C	C	C	C	C	C						
13							130	120	120	110	B	B	B	120	C	120	110	110						
14							C	C	120	A	B	B	C	A	120	A	C	A						
15							B	120	A	120	A	A	C	A	120	C	130	130						
16							130	130	130	110	130	B	120	B	130	130	130	130						
17							110	100	110	120	130	120	110	110	A	A	A	A						
18							120	110	130	B	B	A	A	A	A	A	A	A						
19							B	130	140	120	130	120	120	A	120	120	120	130						
20							C	120	120	120	120	120	B	120	A	A	A	A						
21							B	B	120	B	B	120	A	A	120	120	130	130						
22							C	C	C	C	C	C	C	C	120	130	C	C						
23							130	120	B	120	B	A	A	B	A	A	A	A						
24							120	120	120	C	B	B	B	C	A	B	A	A						
25							A	130	B	C	C	C	C	C	C	C	C	C						
26							C	120	A	C	C	C	C	C	C	C	100	A						
27							C	C	C	B	C	C	C	C	130	110	110	120						
28							110	120	110	A	A	120	B	B	A	A	A	A						
29							B	C	C	A	A	A	B	A	130	130	130	130						
30							C	C	C	A	A	A	A	A	A	B	A	B						
31							C	C	C	130	C	B	B	120	120	120	120	130						
Mean Value							120	120	120	120	130	120	120	120	120	120	120	130						
Median Value							120	120	120	120	130	120	120	120	120	120	120	130						
Count							10	16	14	11	8	9	3	6	12	11	12	10						

Sweep 1.0 Mc to 17.0 Mc in 2 min ☐ Manual ☒ Automatic

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The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **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	S	E	4.3	3.0	3.4	3.4	4.2	4.6	4.6	6.2	6.0	G	3.6	G	G	G	G	G	E	E	E	E	E	E
2	E	2.8	3.4	4.4	E	3.6	G	4.8	5.0	B	4.0	B	B	B	B	B	B	B	S	S	S	E	E	E
3	5.0	3.0	3.0 F	E	3.0	4.4	3.0	6.0	6.0	6.0	G	B	B	B	B	B	5.0	4.7	3.6	5.0	S	3.4	S	E
4	E	S	S	E	E	E	G	G	G	C	C	B	C	C	C	C	B	B	C	4.0	3.9	C	C	C
5	C	C	E	E	E	4.2	3.2	G	3.5	G	G	G	5.5	G	G	G	G	B	S	2.3	E	E	E	S
6	S	S	S	E	C	S	B	5.3	4.8 Y	B	4.0	4.0	B	P	G	3.4	B	B	S	E	E	E	3.0	S
7	S	S	S	S	S	S	B	B	6.0	6.0	G	C	3.8	G	B	G	G	C	C	E	S	S	E	C
8	C	C	C	C	C	C	C	C	C	C	C	C	B	5.4	9.2	3.8	C	C	2.9	2.6	E	C	C	C
9	C	C	C	C	C	C	C	C	C	4.2	C	G	C	C	C	B	B	3.0	2.8	S	E	E	2.4	E
10	E	S	S	S	E	E	B	4.8	5.1	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	E	B	B	B	C	C	C	C	C	C	C	C	G	4.0	3.5	3.3	3.0	S	S
12	C	C	C	C	C	C	C	C	5.8	C	C	G	C	C	C	C	C	C	E	E	E	E	E	C
13	E	S	S	S	S	S	3.8	4.2 Y	4.6 Y	4.0	B	B	B	G	C	G	3.7	G	2.8	3.0	3.0	S	S	S
14	S	3.6	S	3.0	C	G	C	C	4.9	6.0	B	B	C	6.0	G	6.0	C	6.0	6.5	9.0	9.2	6.0	6.0	5.0
15	4.5	3.0	6.0	3.0	6.0	3.0	B	6.0	7.0	6.0	6.0	6.1 F	C	3.8	G	C	G	5.0	5.6	3.8	3.0	E	C	E
16	3.0	E	E	E	E	S	G	4.6	6.0	4.7	3.8	3.7	G	G	G	G	G	G	3.2	5.0	3.0	3.4	E	2.6
17	3.2	E	E	S	S	E	3.5	5.0	5.0	7.5	4.0	3.9	5.4	5.7	5.0	6.1	5.5	4.7	7.5	8.5	8.2	7.0	4.6	5.5
18	3.8	E	E	3.2	1.6	4.5 F	4.1	5.0	4.4 Y	8.2	8.0	6.0	5.0	6.5	6.0	6.0	7.0	6.0	5.0	3.0	E	E	E	S
19	3.0	5.0	7.0	3.0	3.0	4.0	4.2	5.0	6.0	6.2	G	5.8	6.6	6.2	5.2	7.8	7.0	6.2	6.7	5.0	5.0	6.2	S	E
20	E	E	5.2	2.8	3.0	4.5	C	5.2	6.4	8.5	5.7	6.0	6.0	5.8	4.8	3.4	4.4	3.3	C	3.2	5.0	3.2	3.1	3.1
21	2.8	E	C	E	E	B	B	4.7	3.8	8.5	6.0	5.0	5.0	4.0	G	G	6.0	6.5	5.0	3.0	S	S	S	S
22	C	C	C	C	C	C	C	C	C	C	C	C	C	C	G	G	C	C	C	6.0	6.2	9.0	5.5 F	5.9 F
23	4.6	2.6	3.3	2.7	2.5	3.9	5.1	6.1	5.6	6.2	9.6	8.7	6.8	5.7	6.2	5.8	3.6	B	4.8	C	5.6	4.8	6.0	2.6 S
24	E	E	E	E	E	3.0	3.1	G	6.1	C	6.1	5.5	5.0	C	9.0	B	5.0	5.0	5.0 F	2.0	3.8	3.0	9.0	7.5
25	5.0	3.0	3.0	E	C	C	5.0	6.0	6.0	C	C	C	C	C	C	C	C	C	C	C	C	S	1.9	2.0 S
26	S	S	E	S	C	C	C	4.6 Y	5.4	C	C	C	C	C	C	C	G	5.0	5.8	2.5 S	5.9	C	C	C
27	C	C	C	C	C	C	C	C	C	6.9	C	C	C	C	5.3	12.4	9.0	9.9	6.0	3.0	S	S	S	S
28	S	C	C	1.4	S	1.8	6.0	9.9	8.5	5.0	6.2	G	B	B	4.3	5.0	7.2	5.3	3.5	3.0	C	3.0	2.8	1.6
29	2.7	3.0	E	E	2.7	S	6.0	C	C	6.8	7.1	9.5	8.7	7.4	8.8	4.0	G	G	1.8	E	E	S	S	S
30	C	C	C	C	C	C	C	C	C	5.5	4.0	6.8	6.0	4.5	6.0	B	5.6	B	4.0	4.0	4.0	S	S	S
31	S	S	E	E	3.0	3.0	C	C	C	G	C	5.8	B	G	3.8	G	G	3.9	3.0	3.0	S	E	S	S
Mean Value	3.8	3.3	4.4	3.0	3.1	3.6	4.3	5.4	5.5	6.2	5.8	5.9	5.6	5.5	6.1	5.8	5.8	5.0	4.5	4.0	4.9	4.7	4.4	4.0
Median Value	2.9	2.6	E	E	2.0	3.0	3.8	4.9	5.4	6.0	4.8	5.2	5.4	4.5	4.6	3.4	4.0	4.7	4.0	3.0	3.2	3.0	2.4	2.0
Count	16	15	16	19	16	17	15	20	23	20	18	18	13	17	20	19	20	19	22	26	22	20	17	15

fEs

Sweep 1.0 Mc to 17.0 Mc in 2 min ☐ Manual ☒ Automatic

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The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

May. 1952 | (M3000)F2 | 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	S K	(2.7) YF K	2.6 K	2.6 K	(2.5) P K	2.7 K	2.7 K	B K	B K	A K	A K	B K	2.4 K	2.8 K	2.9 K	2.8 K	3.0	2.9	2.7	2.9	2.7	(2.8) P	2.9	2.8
2	2.6	2.8	2.7	2.6	(2.8) P	(2.7) P	2.7	3.2	2.6	2.9	3.0	B	B	(2.7) P	2.9 P	B	(2.5) T	B	3.0	(3.1) T	2.8	[2.8] S	(2.8) T	(3.0) T
3	2.9	S	S	S	2.6 K	A K	2.9 K	A K	A K	A K	B K	2.6 K	2.8 K	2.6 K	2.8 K	2.9 K	(2.8) P K	(2.9) TP K	2.7 K	S K	S K	S K	S K	(2.8) T K
4	(2.8) T K	S K	S K	2.9 K	2.9 K	2.8 K	2.9 K	W K	G K	C K	C K	B K	C K	C K	C K	C K	2.7 K	2.6 K	[2.7] C	2.8	2.6	C	C	C
5	C	C	2.7	2.8	2.7 K	A K	2.8 K	B K	B K	2.5 K	2.5 K	2.5 K	2.5 K	2.7 K	2.7 K	B K	2.7 K	3.0 K	2.9 K	3.0 K	2.7 K	2.8 K	2.6 K	S K
6	S K	S K	S K	2.8 K	[2.8] S K	(2.8) T K	3.0 K	A K	2.6 K	2.8 K	2.8 K	W K	B K	B K	3.2 K	2.8 P K	2.9	3.0	S	S	S	3.0	S	S
7	S	S	S	S	S	S	B	B	4	3.1	B	C	B	2.9	2.6	2.8	2.9	C	C	(2.9) P	S	S	(2.7) P	S
8	C	C	C	C	C	C	C	C	C	C	C	C	B	A	A	B	C	C	S	S	2.5	C	C	C
9	C	C	C	C	C	C	C	C	C	2.9	[2.8] C	2.8	C	C	C	3.0	3.0	S	2.9 S	2.9 PS	S	S	S	S
10	S	S	2.6	S	S	3.0	3.2	A	2.9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	2.8	2.8	3.1	2.9	C	C	C	C	C	C	C	C	3.1	2.9	(3.0) PJ	(2.9) PJ	S	S	S
12	C	C	C	C	C	C	C	C	A	C	C	B	C	C	C	C	C	C	2.8	2.9	2.7	S	S	C
13	2.6	S	S	S	S	S	B	B	B	2.6	B	B	2.4	2.7	[2.8] C	2.8	2.8	2.8	(2.8) PJ	2.8	S	S	S	S
14	S	S	(3.0) PJ	(3.0) PJ	[3.0] S	(3.1) P	C	C	B	A	B	B	C	A	B	A	C	A	A	A	A	A	A	A
15	A	2.8 H	2.6	2.8	3.0	3.1	(3.1) B	A	A	A	A	A	C	B	2.8	[2.8] C	2.7	2.8	S	S	3.1	2.9	[2.9] S	2.9 P
16	(2.7) PS	2.8	3.0	2.8	3.0	3.1	3.3	3.0	A	B	2.9	2.8	2.5	2.5	2.7	2.8	2.9	2.9	2.9	(2.9) PJ	3.0	S	S	2.9
17	(2.7) PJ	2.7	2.6	2.9	2.8	(3.1) J	2.9	2.9	2.9	3.0	2.8	3.0	3.0	A	2.8	A	2.7	B	A	A	A	A	2.7	A
18	S	2.7	2.9	2.8	S	B F	3.3	3.1	3.0	A	A	2.7	2.4	A	2.9	(2.9) J	2.8	2.6	2.7	S	S F	S	S	S
19	2.8	A	2.6 H	2.6	2.5	2.8	2.4	A	A	A	B	2.8	A	2.7	2.8	A	A	A	A	A	A	A	S K	2.8 K
20	(2.8) J K	(2.7) J K	A K	2.9 K	2.7 K	3.0 K	[3.0] S K	3.0 K	A K	A K	A K	A K	A K	A K	A K	2.7 K	2.7 K	2.8 K	[2.8] C K	2.9 K	A K	S K	S K	(2.8) J K
21	2.8 K	2.9 K	[2.9] S K	2.9 K	3.0 K	3.2 K	B K	B K	(2.5) PJ K	A K	A K	2.5 K	2.7 K	B K	B K	2.5 K	A K	A K	A K	(2.6) J K	S K	S K	S K	S K
22	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	B K	2.7 K	C	C	C	(2.8) JF	A	A	2.7	2.7 F
23	2.7 F	2.7 F	2.6 F	2.8 F	2.8	2.9	2.9	A	2.9	2.7	A	A	A	B	A	3.1	2.7	2.8	2.9	[2.8] C	(2.8) J	3.0	A	3.0
24	2.7	2.6	2.6	2.6	2.9	3.0	3.1	3.0	A	C	(2.8) A	2.7	2.7	C	A	B	3.0	3.1	3.1	3.0	3.1	3.2	A	A
25	A	S	(2.6) J	3.0	C	C	3.1	2.9	A	C	C	C	C	C	C	C	C	C	C	C	C	S	(2.9) PJ	2.8
26	S	S	2.7	S	C	C	C	3.1	2.8	C	C	C	C	C	C	C	2.9	2.9	2.9 P	S	A	C	C	C
27	C	C	C	C	C	C	C	C	C	A	C	C	C	C	2.7	A	A	A	A	3.0	S	S	S	S
28	S	C	C	(2.7) PS	S	2.7	A	A	A	(2.6) A	A	2.9	B	B	3.2	T	A	2.9	3.0	(2.8) PJ	C	S	S	2.9 S
29	(3.0) J	S	(2.7) P	S	(2.9) P	S	A	C	C	A	A	A	3.1	A	A	2.7	2.4	2.8	S	S	(2.8) PS	S	S	S
30	C	C	C	C	C	C	C	C	C	A	B	3.1	A	B	2.6	B	2.9 P	2.7	2.9	S	S	S	S	S
31	S	S	S	S	S	2.5	C	C	C	3.0	[2.8] C	2.7	2.7	2.9	2.9	(2.8) P	2.9 P	(2.8) PJ	S	S	(3.0) PJ	S	(2.7) J	2.7
Mean Value	2.8	2.7	2.7	2.7	2.8	2.9	2.9	3.0	2.8	2.8	2.8	2.8	2.7	2.7	2.8	2.8	2.8	2.9	2.9	2.9	2.8	2.9	2.8	2.8
Median Value	2.8	2.7	2.6	2.8	2.8	2.9	2.9	3.0	2.8	2.8	2.8	2.8	2.7	2.7	2.8	2.8	2.8	2.8	2.9	2.9	2.8	2.9	2.7	2.8
Count	12	10	16	17	16	17	17	9	10	10	8	12	11	9	16	15	20	18	17	17	13	7	9	12

Sweep 1.0 Mc to 17.0 Mc in 2 min ☐ Manual ☒ Automatic

W 9

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **fminF** | 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	S	1.4	2.2A	2.2A	2.3 A	2.6	3.6A	A	3.7	A	A	B	3.7	3.7	3.6	3.7	2.8	2.6	2.2	2.2	2.0	2.0	2.0	2.0
2	1.4	2.0 A	3.0A	2.6 A	2.0	2.0 A	3.0	3.5	4.8A	4.0	4.0	B	B	5.0	3.8	B	2.4	3.0	4.0 S	2.8 S	3.0S	2.0	2.0	2.0
3	3.8A	A	A	2.0	2.0 A	A	2.0	A	A	A	3.7	4.0	4.2	4.8	4.1	4.0	3.8 A	4.0 A	2.4 A	3.0 A	S	2.8 A	2.2S	2.0
4	2.0	S	S	2.2	2.0	2.2	2.6	3.8	4.0	C	C	B	C	C	C	C	3.0	3.0	A	2.2 A	4.0 A	C	C	C
5	C	C	1.6	1.4	1.4	A	3.0	2.8	3.3	3.4	4.5	3.6	3.8	4.7	4.7	3.8	2.8	2.7	3.6	3.8	2.2	2.0	2.0	S
6	S	S	S	2.0	[2.5]S	3.0	2.6	A	3.8	4.6	4.5	3.4	4.5	4.4	3.6	3.4	3.0	3.8	3.0	2.0	2.2	2.2	S	S
7	S	S	S	S	S	S	B	B	A	5.3A	4.7	C	4.3	3.6	3.6	3.4	3.0	C	C	2.0	2.4	B	2.0	C
8	C	C	C	C	C	C	C	C	C	C	C	C	B	A	A	B	C	C	3.5 A	2.2 A	2.2	C	C	C
9	C	C	C	C	C	C	C	C	C	4.3 A	[4.0]C	3.6	C	C	C	3.9	3.6	2.5	3.3	2.6	2.4	2.2	2.2	2.2
10	1.6	S	4.0S	S	2.2	2.8	3.3	A	3.8A	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	1.5	3.0	3.5	4.5	C	C	C	C	C	C	C	C	2.4	3.4A	2.8	3.0 A	A	S	S
12	C	C	C	C	C	C	C	C	A	C	C	3.6	C	C	C	C	C	C	2.2	2.2	1.3	1.8	1.4	C
13	E	S	S	S	S	S	A	A	A	4.0	4.0	3.9	4.5	3.8	[3.5]C	3.2	3.7	3.2	3.0	3.5	3.8	S	S	S
14	S	4.8 S	3.8 S	3.6	[3.0]S	2.3	C	C	A	A	B	3.8	C	A	B	A	C	A	A	A	A	A	A	A
15	A	2.0 A	2.2 A	2.0 A	2.2 A	2.2 A	3.6	A	A	A	A	A	C	A	3.6	[3.7]C	3.8	4.0A	4.3A	A	3.6	2.2	[2.2]S	2.2
16	2.1	1.7	2.0	2.0	2.0	3.1 S	2.8	4.0 A	A	A	3.6	3.7	3.8	3.8	3.4	4.5	2.8	2.9	2.1	4.7A	2.2 A	A	2.2	2.4 A
17	2.2 A	2.0	2.2	2.8 S	3.0 S	2.5	3.6	4.3 A	4.5A	4.5A	3.9	3.8	4.5A	A	2.9	A	5.0A	A	A	A	A	A	4.5A	A
18	2.2 A	1.9	2.1	2.0	2.2	2.4	2.8	2.8	4.0A	A	B	5.0A	5.0A	A	4.5A	5.0A	4.5A	3.2A	3.0 A	2.0 A	2.0F	2.2	2.2F	3.0
19	2.2 A	A	E	2.2 A	2.4 A	2.6 A	3.2	A	A	A	B	6.0A	A	4.3A	4.7A	A	A	A	A	A	A	A	S	1.6
20	2.0	1.2	A	2.0	3.0A	4.0A	[3.8]C	3.6	A	A	A	A	A	A	A	4.4	4.0A	2.8	[2.8]C	2.9	A	A	2.7 A	2.2 A
21	2.3 A	2.2	[2.2]S	2.2	2.2	2.7	B	A	4.6	A	A	4.7A	4.8A	A	B	3.6	A	A	A	2.6 A	S	S	S	S
22	C	C	C	C	C	C	C	C	C	C	C	C	C	C	B	3.9	C	C	C	4.5A	A	A	4.1FA	4.4AF
23	3.8	1.9	1.6	3.0	2.0	1.4	2.9	A	4.7A	4.4 A	A	A	A	B	A	4.3 A	2.8	3.6	3.5A	A	4.4A	4.5	A	4.8 S
24	2.0	2.0	2.0	2.0	2.2	2.4	3.3	2.9	A	C	4.7A	4.6A	4.1	C	A	B	4.5A	3.2	2.7A	3.0	3.0 A	5.0S	A	A
25	A	2.0	2.0	2.0	C	3.0C	4.3A	5.0A	A	C	C	C	C	C	C	C	C	C	C	C	C	S	1.7	4.0S
26	5.5 S	S	1.2	S	C	C	C	3.6	4.6A	C	C	C	C	C	C	C	4.6	4.5A	4.0 A	S	A	C	C	C
27	C	C	C	C	C	C	C	C	C	A	C	C	C	C	4.2A	A	A	A	A	2.7A	S	S	S	S
28	S	C	C	E	S	2.2	A	A	A	4.8A	5.7A	5.0	3.5	3.5	4.1A	4.3	A	E	3.2 A	3.2	C	A	2.7 A	2.3
29	1.4	A	E	1.4	3.4	S	A	C	C	A	A	A	4.5A	A	A	3.6	3.0	2.8	2.7	2.6	1.7	S	1.8	1.5
30	C	C	C	C	C	C	C	C	C	A	A	4.7A	A	A	4.5	B	A	3.2	2.2	A	A	S	S	S
31	S	S	E	E	A	4.0	C	C	C	3.6	[4.1]C	4.6 A	5.0	4.4	4.0	3.6	4.0	2.2	2.8A	2.2	5.0 S	2.2	5.0 S	2.8 S
Mean Value	2.5	2.1	2.2	2.2	2.3	2.6	3.1	3.6	4.2	4.4	4.3	4.3	4.3	4.2	3.9	4.0	3.5	3.1	3.0	2.8	2.8	2.6	2.5	2.6
Median Value	2.1	2.0	2.0	2.0	2.2	2.5	3.0	3.6	4.2	4.4	4.0	4.0	4.4	4.3	3.9	3.8	3.6	3.0	3.6	2.6	2.4	2.2	2.2	2.2
Count	15	12	17	20	18	19	17	11	12	10	12	16	14	11	16	17	19	20	21	22	18	12	17	15

fminF

Sweep 1.0 Mc to 17.0 Mc in 2 min ☐ Manual ☒ Automatic

W 10

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

May. 1952 | fminE | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	S	E	1.2	1.2	1.2	E	1.4	1.4	1.4	2.7	4.6	2.2	1.4	2.8	2.4	2.4	2.4	1.4	E	E	E	E	E	E
2	E	E	E	E	E	1.4	2.0	1.4	1.8	B	3.0	B	B	B	B	B	B	B	S	S	S	E	E	E
3	2.0	1.6	E	E	E	E	2.1	E	E	2.6	2.9	B	B	B	B	B	2.8	2.6	2.2	1.4	S	2.0	S	E
4	E	S	S	E	E	E	2.3	2.2	2.2	2.6	C	B	C	C	C	C	B	B	1.8	1.8	1.7	C	C	C
5	C	C	E	E	E	2.0	2.0	2.8	3.0	2.6	2.7	2.7	2.6	2.6	2.5	2.2	2.2	B	S	2.0	E	E	E	S
6	S	S	S	E	C	S	B	2.8	2.2	B	2.6	2.7	B	B	2.6	2.2	B	B	S	E	E	E	2.2	S
7	S	S	S	S	S	S	B	B	E	3.6	2.0	C	2.8	2.6	B	2.1	2.0	C	C	E	S	S	E	C
8	C	C	C	C	C	C	C	C	C	C	C	C	B	2.2	2.2	2.8	C	C	2.0	1.2	E	C	C	C
9	C	C	C	C	C	C	C	C	C	2.7	C	2.6	C	C	C	B	B	2.3	2.2	S	E	E	2.2	E
10	E	S	S	S	E	E	B	E	E	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	E	B	B	B	C	C	C	C	C	C	C	C	1.9	2.1	2.4	2.2	1.5	S	S
12	C	C	C	C	C	C	C	C	2.8	C	C	2.6	C	C	C	C	C	C	E	E	E	E	E	C
13	E	S	S	S	S	S	E	2.1	2.1	2.1	B	B	B	2.7	[2.4]C	2.0	1.8	2.2	1.8	1.8	1.9	S	S	S
14	S	E	S	E	C	E	C	C	1.3	2.0	B	B	C	2.8	2.6	2.2	[2.1]C	2.0	1.4	1.6	1.4	E	2.0	E
15	E	E	E	E	E	E	B	E	2.0	1.7	1.7	1.8F	[2.2]C	2.7	2.2	[2.2]C	2.1	2.0	2.0	1.7	1.9	E	S	E
16	1.7	E	E	E	E	S	1.7	2.2	2.0	2.5	2.8	3.2	2.6	3.0	2.8	2.2	2.2	1.4	1.4	1.1	1.8	1.4	E	2.2
17	1.4	E	E	S	S	E	1.6	2.0	1.7	2.2	2.7	2.4	2.1	2.1	2.1	2.2	2.0	1.9	1.5	1.8	1.8	2.0	1.4	2.0
18	1.4	E	E	1.2	1.4	E	1.4	1.5	2.4	2.8	5.0	3.0	3.0	2.8	2.2	2.2	2.0	E	E	E	E	E	E	S
19	E	E	2.0	E	E	2.0	2.6	2.2	2.2	2.2	2.8	2.8	2.8	2.8	2.4	2.4	1.4	2.2	1.4	1.3	1.4	2.0	S	E
20	E	E	2.2	2.2	2.2	2.0	[2.2]C	2.5	2.4	2.4	2.7	2.6	3.3	2.4	2.8	2.4	2.4	2.2	[1.9]C	1.6	2.0	2.2	2.1	2.1
21	2.2	E	C	E	E	B	B	2.9	2.3	3.2	3.3	2.2	2.2	2.2	2.3	2.2	2.2	2.2	2.0	1.8	S	S	S	S
22	C	C	C	C	C	C	C	C	C	C	C	C	C	C	2.5	2.8	C	C	C	1.5	1.5	1.5	1.4	1.4F
23	1.2	1.2	1.5	1.2	E	1.4	1.4	1.4	3.0	1.3	3.6	2.6	2.6	4.6	2.6	2.6	2.0	B	1.6	2.0	1.6	1.6	1.6	1.6
24	E	E	E	E	E	1.5	1.7	2.3	1.6	C	3.8	3.6	3.6	C	2.0	B	1.7	2.0	1.6F	1.6	E	2.0	E	E
25	E	2.0	2.0	E	C	C	E	2.2	3.0	C	C	C	C	C	C	C	C	C	C	C	C	S	1.4	1.3
26	S	S	E	S	C	C	C	2.1	2.2	C	C	C	C	C	C	C	1.4	2.2	2.1	2.2	3.8	C	C	C
27	C	C	C	C	C	C	C	C	C	3.8	C	C	C	C	2.4	1.6	1.4	1.3	E	E	S	S	S	S
28	S	C	C	E	S	E	E	1.3	1.4	3.0	2.6	2.4	B	B	2.6	2.6	1.8	3.6S	2.2	2.3	C	1.5	1.5	1.4
29	1.4	E	E	E	1.4	S	3.2	C	C	2.3	2.8	2.8	3.4	3.0	2.7	1.8	1.6	1.5	1.5	E	E	S	S	S
30	C	C	C	C	C	C	C	C	C	3.0	2.0	2.4	2.0	2.0	1.8	B	E	B	2.2	E	E	S	S	S
31	S	S	E	E	E	E	C	C	C	2.6	[3.0]C	3.4	B	1.4	1.4	1.4	1.4	E	1.4	1.4	S	E	S	S
Mean Value	1.6	1.6	1.8	1.5	1.6	1.7	2.0	2.0	2.1	2.0	3.0	2.7	2.6	2.6	2.4	2.2	1.9	2.0	1.8	1.7	1.9	1.8	1.8	1.7
Median Value	E	E	E	E	E	E	1.7	2.1	2.1	2.6	2.8	2.6	2.6	2.7	2.4	2.2	2.0	2.0	1.7	1.5	1.4	E	1.4	E
Count	16	15	16	19	16	17	16	20	23	21	19	18	14	17	21	20	21	19	24	27	22	20	17	15

Sweep 1.0 Mc to 17.0 Mc in 2 min ☐ Manual ☒ Automatic

W 11

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **foF2** | 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	3.9K	4.3K	3.7K	3.4K	3.2K	4.6K	4.7K	GK	GK	5.1K	AK	BK	6.6	6.9	8.0	6.7	7.0	6.1	6.1	6.5	6.1	(5.4)BS	5.5	5.2
2	4.6	4.8	4.3	4.3	4.3	5.4	6.5	6.2	5.9H	6.5J	6.4J	6.4	6.8	8.4H	9.4	8.3	7.4	7.2	5.6	6.5P	6.7	(7.2)P	6.3	(6.1)S
3	(5.4)P	5.7	4.8	4.9	4.4	4.7	5.0	4.8VK	4.8K	AK	AK	AK	6.1K	AK	7.2K	8.2K	7.2K	6.9K	AK	6.4K	6.4K	5.5K	5.2K	5.2K
4	5.0K	4.5K	4.7K	4.6K	4.8K	4.8K	4.8K	4.6K	GK	GK	5.8K	5.7K	AK	5.8K	6.6K	6.4K	5.9K	5.7K	5.8	6.0	5.4	5.1	6.0	5.8
5	4.5	5.2	5.0	4.2	3.6	4.5	5.3	5.3FK	5.5K	5.6K	5.6K	5.4K	6.9K	7.9	7.8	8.2	6.6	6.7	6.4	6.4	5.7	4.6	4.3	4.1
6	4.9	4.5	4.8	4.8	4.3	4.6	4.6	5.5	6.2	5.8	6.2	6.3	7.0	8.5	9.3	8.2	8.4	7.5	8.0	8.8	6.5	6.3	5.0	5.0
7	4.8	4.6	4.5	(4.2)C	3.9	5.4	6.7	6.6	5.9	6.9	6.3	7.5	8.4	8.9	8.2	7.8	7.8	7.6	8.9	9.3	7.9J	9.2	(7.2)P	7.1
8	5.0J	A	A	3.6K	3.7K	3.9HK	3.4K	4.2K	AK	AK	AK	AK	AK	AK	AK	5.1K	AK	3.9K	4.2K	ASK	ASK	4.8K	4.7K	4.4K
9	4.6	4.5	4.5	4.5	4.5	5.2	5.0	4.9	5.3	5.3	6.3	5.3	6.4	6.8	6.8	8.0	7.6TH	7.0	6.5	6.2	6.2	6.0	4.6	5.1
10	4.6TF	5.0	4.7	4.5	4.3	4.5	5.0	6.0	5.7	5.7	5.1	5.1	6.8J	7.5	7.5	7.9	7.3J	7.0	(7.0)P	7.5	7.1	7.3	6.2	5.6
11	4.7	4.7	4.6	4.3	4.2	5.4	5.5	6.4	6.0	5.9	5.5	5.8	6.2	6.8	7.8	8.4	8.3	7.2	6.1	6.4J	6.6	6.3H	5.9	5.4
12	5.1	4.5	4.7	(4.5)BS	4.2	4.8	6.0	6.1	6.7	5.8	5.8	5.3	B	8.0	9.1	9.1	BS	5.8	5.6	6.1	5.8	5.4	5.2	5.4
13	5.3	4.9	4.6	4.4	4.5	5.0	4.9	5.2	5.1	5.3K	5.2K	5.4TK	5.3K	5.6K	6.6K	7.2K	6.9K	6.8K	7.0K	6.8SK	7.0PSK	5.6K	5.0FK	4.7FK
14	4.7FK	4.7FK	4.9VK	5.5FK	4.0TFK	4.1TFK	4.5K	(5.3)PK	AK	5.7TK	BK	5.0K	AK	AK	AK	6.0K	6.2K	5.4K	5.4K	5.4K	AK	AK	4.5K	AK
15	AK	(4.0)PK	4.1FK	4.6F	4.1F	4.9	5.0	5.1	6.0	A	A	A	A	A	6.4	6.7	6.9	A	A	A	A	A	5.4	5.4
16	5.1	5.0	4.9	4.6V	4.4	4.9	5.5	6.0	5.2	4.8	5.3	6.1	5.7	5.7	6.4	7.0	6.8J	7.3	5.4	A	6.4	6.5	6.2	6.0F
17	5.8	5.5	5.2	F	FS	5.4	5.4	5.2	5.7	6.6	6.0	6.0	A	A	A	6.8	7.0	7.2	7.8	A	F	A	A	A
18	A	A	A	3.8TF	4.8TF	4.8F	5.1	A	A	A	6.2	6.0	A	8.1	7.5	A	7.9	5.9	6.0	6.9	6.5	6.6	6.6	6.2H
19	4.5	5.0	A	3.9F	F	5.3	4.3	A	A	A	A	C	C	6.3	6.1	5.3	5.8	5.9	6.0	6.6	5.8	7.5	4.5VK	4.4K
20	4.0ZK	3.9K	4.0K	4.1K	4.3K	5.1K	6.4K	AK	AK	AK	AK	AK	BK	5.2K	AK	6.0K	6.2K	6.0K	6.1K	5.9K	AK	4.8K	5.0FK	5.0FK
21	4.2K	4.4K	4.5K	4.5K	4.3K	4.1HK	5.9K	5.1K	5.1K	5.3K	5.2K	5.5K	5.3K	5.4K	5.7TK	6.0K	6.0K	AK	AK	AK	6.5K	ASK	ASK	ASK
22	ASFK	AFK	4.4TFK	3.8FK	3.9K	4.4ZK	AK	AK	AK	AK	'AK	5.0K	5.2K	5.3K	5.3K	AK	AK	AK	AK	7.6	(7.6)PF	A	A	4.7TF
23	4.2TF	A	4.5ZF	4.1	4.0	4.7	5.6	5.9	6.5	A	A	A	6.2T	6.2	(6.1)B	A	A	BS	6.4	(7.2)C	7.9	A	AF	F
24	5.4TF	4.8TF	4.9TF	4.8TF	4.6F	5.6	6.2J	5.8	B	A	A	A	6.1	6.7T	6.2	6.4	6.9	7.4	7.2	(6.7)PF	6.2TF	5.5TF	A	A
25	A	FS	5.0	4.7	4.7V	5.1	6.0	B	5.6	A	5.1	5.7	6.3	7.0	7.8	7.5	6.9	5.6	5.8	6.6	7.1	6.7	6.7J	6.0P
26	5.6	5.1	4.8	4.7	4.7	5.7	6.2	A	6.3J	A	A	6.2J	6.4J	6.4T	5.8	A	A	A	A	A	A	A	A	A
27	A	A	5.1F	5.1PSF	4.5F	4.6	6.5	A	C	5.7	A	6.2J	6.8	A	8.5	7.1	C	C	5.8	6.9	5.3	5.0	5.3Z	4.8
28	5.1Z	4.8TF	4.9TF	A	A	A	5.8TF	A	A	A	6.6	6.4	5.6	A	7.1	7.8	A	A	6.4	6.8	AS	AS	AS	A
29	A	6.5F	5.4TF	4.6F	5.3BF	4.8TF	A	A	A	5.9	A	A	A	A	A	A	A	5.0	6.0	6.3P	6.6	BS	6.0	5.9
30	B	4.7	4.6	3.8	3.8	4.8	6.0	6.5	A	A	A	A	A	6.4	A	7.6	7.3	7.2	6.5	6.6	6.2S	7.1TF	7.1TF	7.6F
31	6.6F	6.0F	4.7	5.5	4.0	4.5	6.3	7.5	7.1	6.2	6.3J	6.1J	6.4	6.7	8.0	8.7	8.1	8.4	A	A	A	6.2	5.3	5.5S
Mean Value	4.9	4.9	4.7	4.6	4.4	4.9	5.5	5.6	5.8	5.8	5.8	5.8	6.3	6.8	7.2	7.2	7.1	6.5	6.3	6.8	6.5	6.1	5.3	5.4
Median Value	4.8	4.8	4.7	4.5	4.3	4.8	5.5	5.4	5.7	5.7	5.8	5.8	6.4	6.7	7.2	7.4	7.0	6.8	6.1	6.6	6.5	6.1	5.4	5.4
Count	24	25	28	29	28	30	29	22	20	18	17	21	20	23	25	26	23	24	25	24	23	22	24	24

foF2 Sweep 1.0 Mc to 17.0 Mc in 15 min ☒ Manual ☐ Automatic

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The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **hpF2** | 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	320K	320K	350K	340K	310K	310K	290K	GK	GK	AK	AK	BK	360	350	270	260	270	260	300	300	310	(350)Ps	350	310
2	360	340	340	350	310	310	310	290	280H	(300)3	(310)3	320	370	350H	310	290	280	280	290	340P	350	(330)P	370	(340)P
3	(370)P	370	350	350	330K	330K	300K	UK	UK	AK	AK	AK	UK	AK	350K	300K	300K	290K	AK	310K	320K	350K	310K	300K
4	330K	340K	370K	370K	320K	240K	290K	240K	GK	GK	UK	UK	AK	AK	340K	320	300	310	330	310	300	310	330	360
5	350	330	310	340	320	290	280	380FK	300K	UK	UK	UK	390K	330	300	280	300	280	A	280	290	300	270	310
6	340	330	350	340	340	290	280	290	A	A	300	330	360	320	310	310	300	280	310	300	300	290	350	320
7	340	330	290	(310)S	330	260	240	250	270	U	300	320	310	300	300	300	310	300	350	320	(300)3	290	(350)P	320
8	A	A	A	410K	410K	350KH	(330)KA	AK	AK	AK	AK	AK	AK	AK	AK	UK	AK	270K	UK	ASK	ASK	310K	350K	370K
9	380	370	350	320	300	240	220	U	290	U	U	U	U	340	310	300	(290)3H	300	260	310	310	290	310	340
10	(310)3F	350	340	320	310	260	280	260	300	U	U	U	(330)3	300	A	310	(270)3	290	(310)P	310	290	280	300	300
11	340	370	340	340	330	270	270	270	260	260	U	U	U	340	310	300	290	290	250	(300)3	310	310H	290	290
12	320	340	310	(330)PS	340	290	270	280	260	290	310	U	B	360	320	290	BS	270	290	290	280	320	330	340
13	320	350	360	310	310	320	300	330	290	UK	UK	UK	UK	UK	320K	300K	300K	330K	280K	300KS	280KPS	300K	310KF	AK
14	360FK	340FK	310VK	270FK	(250)K3F	(270)K3F	270K	UK	AK	AK	BK	UK	AK	AK	AK	310K	300K	300K	290K	280K	AK	AK	310K	AK
15	AK	(350)KP	380KF	310F	290F	280	270	270	U	A	A	A	A	A	310	400	A	A	A	A	A	A	320	330
16	310	320	290	310V	330	260	290	260	270	U	U	U	U	U	320	310	(270)3	280	270	A	330	310	300	300F
17	310	340	320	F	FS	280	270	250	280	300	U	U	A	A	A	340	320	320	320	A	F	A	A	A
18	A	A	A	(300)3F	(310)3F	230F	330	A	A	A	A	A	A	350	330	A	280	A	340	320	310	300	360	350H
19	300	310	A	370F	F	220	U	A	A	A	A	C	C	320	310	A	A	300	330	320	330	290	300K	320K
20	310FK	320K	340K	320K	320K	300K	240K	AK	AK	AK	AK	AK	BK	UK	AK	330K	290K	290K	260K	300K	AK	320K	330KF	310PFK
21	320K	320K	340K	270K	240K	340KH	AK	300K	UK	UK	UK	UK	UK	UK	BK	320K	AK	AK	AK	AK	AK	ASK	ASK	ASK
22	ASFK	AFK	(280)K3F	280KF	290K	310KZ	AK	AK	AK	AK	AK	UK	UK	UK	UK	AK	AK	AK	AK	290	A	A	A	(310)3F
23	(320)3F	A	320EF	330	300	280	280	300	290	A	A	A	A	U	(340)B	A	A	SB	300	C	S	A	FA	F
24	(320)PJF	(340)3F	(340)3F	(320)3F	320F	230	(290)3	250	B	A	A	A	U	(330)3	340	330	300	300	280	(250)PF	(310)3F	(300)3F	A	A
25	A	FS	350	310	280V	300	280	B	260	A	U	U	U	370	320	300	290	310	320	320	350	350	(300)3	340P
26	330	320	310	320	320	290	280	A	(240)3	A	A	U	A	(320)3	U	A	A	A	A	A	A	A	A	A
27	A	A	320F	(320)PJF	320F	A	280	A	C	U	A	(480)3	450	A	320	290	C	C	340	300	280	320	350E	340
28	360E	(340)3F	(370)3F	A	A	A	A	A	A	A	U	320	U	A	350	290	A	A	300	A	AS	AS	AS	A
29	A	360F	(340)3F	350F	(350)PJF	(350)EF	A	A	A	370	A	A	A	A	A	A	A	340	320	310P	310	BS	320	310
30	B	340	340	350	360	320	300	290	A	A	A	A	A	A	A	310	300	300	290	320	310S	(340)3F	(340)3F	350F
31	310F	290F	300	310	330	320	330	280	280	300	U	U	380	380	360	310	320	290	A	A	A	300	320	310S
Mean Value	330	340	330	330	320	290	280	280	280	300	310	350	370	340	320	310	290	290	300	300	310	310	320	320
Median Value	320	340	340	320	320	290	280	280	280	300	300	320	360	340	320	300	300	300	300	300	310	310	320	320
Count	23	25	28	29	28	29	26	18	16	7	4	5	8	15	21	24	20	23	23	22	20	22	24	23

Sweep 1.0 Mc to 17.0 Mc in 15 min ☒ Manual ☐ Automatic

A 2

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **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	280K	280K	300K	AK	260KA	280K	260K	GK	GK	390K	360A	400K	360	350	270	260	260	250	260	240	230	280	270	260
2	290	290	290	310A	280	250	270	230	260H	300	310	320	370	320H	300	280	270	280	280	290	260	270	250	270
3	260	300	320	280	290	290	300	400K	500K	AK	AK	AK	400K	AK	340K	280K	300K	270K	AK	300KA	320KA	350KA	310K	280K
4	280K	290K	290K	280K	260K	220K	230K	240K	GK	GK	400K	330K	AK	AK	330K	320	300	300	250	270	260	300	270	280
5	300	270	240	240	270	260	270	360K	300K	360K	350K	380K	360K	320	300	270	290	230	320A	230	240	260	250	280
6	300	300	250	270	280	240	230	290	300A	300A	300A	330	360	290	290	290	280	270	250	240	250	250	280	270
7	300	300A	250	(260)C	260	230	230	240	240	290	300	320	300	300	300	290	300	280	260	260	250	250	290	260
8	A	A	A	340K	350K	250KH	260K	AK	AK	AK	AK	AK	AK	AK	AK	380K	AK	270K	400K	AK	350K	270K	350K	320K
9	300	290	270	230	240	230	220	220	290	290	300	340	370	340	310	300	240H	270	240	230	240	240	270	300
10	300	290	300	260	270	240	250	260	300	300	340	300	330	300	300	280	250	240	260A	300A	240	240	240	240
11	240	280	270	280	270	240	260	270	260	260	250	360	320	340	300	280	270	270	230	300A	300A	270H	260	250
12	270	300	250	270	280	230	250	280	260	290	310	320	B	330	310	280	260	260	270	260	230	300A	280	280
13	260	280	280	270	250	250	230	230	290	320K	310K	BK	TK	390K	300K	300K	280K	300KA	250K	280KA	240K	250K	300KA	AK
14	300K	280K	270K	220K	220K	220K	260K	290K	AK	AK	BK	400K	AK	AK	AK	310K	300K	290KA	280KA	280KA	AK	AK	300KA	AK
15	AK	AK	370FK	290	260	250	230	260	300	A	A	A	A	A	310A	400	A	A	A	A	A	A	300A	260
16	270	280	240	230	270	230	230	250	270	300	400	310	340	360	320	300	270	270A	260	A	270	260	250	260
17	260	280	270	240	220	220	270	240	280	280	290	320	350	A	A	330	300	300	280	A	240A	A	A	A
18	A	A	A	280	240	200	320	A	A	A	360A	A	A	350A	330A	A	280A	310A	310A	290	250	240	310A	240H
19	270	260	A	290	270	220	410	A	A	A	A	C	C	320	310	A	350A	300	300	270	300A	260	250K	250K
20	250K	310AK	300K	290K	270K	260K	240K	AK	AK	AK	AK	AK	390KB	500K	AK	330K	290K	280K	250K	270K	AK	300KA	290K	260K
21	310AK	280K	270K	240K	210K	240KH	AK	300K	360K	370K	430K	380K	470K	430K	BK	320K	AK	AK	AK	AK	AK	AK	360KA	AK
22	300AK	300AK	220K	280AK	260KA	290KA	AK	AK	AK	AK	AK	400K	420K	380K	340K	AK	AK	AK	AK	290A	260	A	A	250
23	290	A	250	260	240	220	240	290A	290	A	A	A	A	320	340	A	A	310B	270	C	A	A	250	270
24	260	300F	300A	270	240	210	280	230	210	A	A	A	380	330	340	330	290	290	260	240	280A	300A	A	A
25	A	A	300A	270	230	220	260	210	260	A	410	420	360	370A	300A	300A	280	300	310	270	300A	270	260	320A
26	250	290	310	290	310A	280	250	A	240	A	A	330	320	320	380	A	A	A	A	A	A	A	A	A
27	A	A	290	280	290	A	280	A	C	400	A	(480)J	450A	A	310	280	C	C	300	250	240	250	320A	320A
28	320A	320A	310A	A	A	A	A	A	A	A	400	320	390	A	340	290	A	A	300A	A	260	A	A	A
29	A	260	270	290F	290	350	A	A	A	370	A	A	A	A	A	A	A	340	300	280	280	A	270	260
30	250	290	260	260	300	270	300	290	A	A	A	A	A	A	A	290	290	290	290A	250	300A	300A	300	280
31	270	220	250	230	230	260	300	280	280	300	300	370	380	380	360	300	320	270	A	A	A	290	290	300
Mean Value	280	290	280	270	260	250	260	270	290	320	340	360	370	350	320	300	290	280	280	270	270	270	280	270
Median Value	280	290	270	270	260	240	260	260	290	300	320	340	360	340	310	300	280	280	270	270	260	270	280	270
Count	25	25	28	29	30	29	27	22	21	17	18	20	20	21	24	25	22	25	25	22	24	22	26	24

h'F2

Sweep 1.0 Mc to 17.0 Mc in 15 min ☒ Mantual ☐ Automatic

A 3

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The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Akita

Lat. 39° 43.5' N
Long. 140° 08.2' E

May. 1952 | 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	4.1	4.2	4.6	A	4.6	4.5	4.5	4.4	4.4	3.8	3.3	Q					
2						Q	L	Q	3.9	A	4.5	A	5.2	A	A	4.4	A	A	(3.7)^L					
3						Q	3.5	4.2	4.5	A	A	A	4.8	A	4.5	4.4	4.1	Q	A					
4						Q	Q	Q	4.3	4.3	4.5	4.5	A	A	4.4	4.2	4.2	4.0	Q					
5						Q	L	4.0	4.2	4.4	4.4	4.7	4.6	4.6	4.7^H	4.1	4.2	Q	A					
6						Q	Q	4.2	A	A	A	4.5	4.6	4.7	A	A	Q	Q	3.4^J					
7						Q	Q	Q	4.1	A	A	L	4.8	4.7	4.6	4.5	4.4	(3.7)^L	Q					
8						Q	Q	A	A	A	A	A	A	A	A	4.2	A	Q	A					
9						Q	Q	3.7	4.1	L	4.5	4.6	4.7	4.6	4.4	4.1	Q	Q	Q					
10						Q	3.2	3.9	4.2	4.5	4.5	4.6	A	4.6	A	4.5	Q	Q	A					
11						Q	3.6	3.9	4.1	4.4	4.6	4.5	4.7	4.7	4.5	4.4	3.9	3.7	Q					
12						Q	Q	A	A	A	4.5	4.5	4.6	4.6	4.5	4.0	3.9	3.6	3.0					
13						Q	Q	Q	3.9	4.2	4.5	4.6	4.5	4.5	3.9	4.2	4.0	A	Q					
14						Q	Q	4.0	A	A	B	4.5	A	A	A	A	4.0	A	A					
15						Q	Q	Q	4.4	A	A	A	A	A	A	4.3	A	A	A					
16						Q	Q	Q	A	A	A	4.4	4.6	4.6	4.4	3.6	3.5^J	A	A					
17						Q	4.1	Q	4.7	4.7	A	4.5	4.5^J	A	A	4.2^A	A	A	A					
18						Q	Q	A	A	A	A	A	A	A	A	A	A	A	A					
19						Q	4.1	A	A	A	A	4.5^A	C	A	4.4	A	A	A	A					
20						Q	Q	A	A	A	A	A	4.4	4.4	A	A	4.0	A	3.4					
21						Q	A	3.9	4.4	4.4	4.4	4.6	4.4	4.5	4.7^J	4.4	A	A	A					
22						A	A	A	A	A	A	4.5	4.5	4.5	4.2	A	A	A	A					
23						Q	Q	A	A	A	A	A	A	4.8^A	A	A	A	B	Q					
24						Q	3.4	Q	Q	A	A	A	4.7	A	4.7	4.4	A	3.8	Q					
25						Q	3.6	Q	4.3^A	A	4.6	4.6	4.6	A	A	A	4.1^L	3.9	L					
26						L	A	A	A	A	A	A	A	4.5^A	4.7	A	A	A	A					
27						A	A	A	C	4.4^A	A	4.5^A	A	A	4.4	4.4^A	C	C	(3.0)^L					
28						A	A	A	A	A	5.0^J	A	A	A	A	4.4	A	A	A					
29						2.9	A	A	A	4.4^A	A	A	A	A	A	A	A	3.7	3.3					
30						Q	A	A	A	A	A	A	A	A	A	A	A	A	A					
31						Q	L	A	4.5	A	A	4.8	4.7	4.7	A	A	A	A	A					
Mean Value						2.9	3.6	4.0	4.3	4.4	4.5	4.6	4.6	4.6	4.5	4.3	4.0	3.7	3.3					
Median Value						2.9	3.6	4.0	4.2	4.4	4.5	4.5	4.6	4.6	4.4	4.4	4.0	3.7	3.4					
Count						1	7	9	15	10	11	18	18	16	16	19	12	8	6					

Sweep 1.0 Mc to 17.0 Mc in 15 min ☒ Manual ☐ Automatic

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The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Akita

Lat. 39° 43.5' N
Long. 140° 08.2' E

May. 1952 | **h'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	260	A	A	A	360^{A}	B	240	210	220	210	210	Q					
2						Q	240	Q	220	A	220^{A}	A	A	A	A	250^{A}	A	A	250^{A}					
3						Q	270	240	A	A	A	A	210	A	A	B	270	Q	A					
4						Q	Q	Q	230	220	A	B	A	A	A	250	240	230	Q					
5						Q	230	230	220	240	220	270^{A}	210	230	220^{H}	230	240	Q	A					
6						Q	Q	250	A	A	A	210	220	A	A	A	Q	Q	250					
7						Q	Q	Q	210	A	A	A	A	210	210	220	220	220	Q					
8						Q	Q	A	A	A	A	A	A	A	A	A	A	Q	A					
9						Q	Q	210	220	200	A	B	250^{B}	280^{B}	260^{B}	240	Q	Q	Q					
10						Q	220	230	210	210	190	190	A	230	A	240	Q	Q	A					
11						Q	230	230	230	220	200	200	200	200	230	230	230	240	Q					
12						Q	Q	A	A	A	A	260^{A}	230^{A}	240	210	230	210^{A}	230	250					
13						Q	Q	Q	230	220	210	230	A	240^{A}	220	A	230	A	Q					
14						Q	Q	260	A	A	A	250	A	A	A	A	250	A	A					
15						Q	Q	Q	230	A	A	A	A	A	A	270	A	A	A					
16						Q	Q	Q	A	A	A	200	230	A	A	A	A	A	A					
17						Q	230	Q	230	240	A	A	A	A	A	A	A	A	A					
18						Q	Q	A	A	A	A	A	A	A	A	A	A	A	A					
19						Q	230	A	A	A	A	A	C	A	240	A	A	A	A					
20						Q	Q	A	A	A	A	A	230^{B}	210	A	A	A	A	250^{A}					
21						Q	A	240	240	240	230	B	A	A	B	A	A	A	A					
22						A.	A	A	A	A	A	A	210	220	A	A	A	A	A					
23						Q	Q	A	A	A	A	A	A	A	A	A	A	B	Q					
24						Q	250	Q	Q	A	A	A	A	A	A	A	A	A	Q					
25						Q	A	Q	A	A	230	A	A	A	A	A	240	220	240					
26						240	A	A	A	A	A	A	A	A	A	A	A	A	A					
27						A	A	A	C	A	A	A	A	A	260	A	C	C	260					
28						A	A	A	A	A	A	A	A	A	A	A	A	A	A					
29						240	A	A	A	A	A	A	A	A	A	A	A	280	240					
30						Q	A	A	A	A	A	A	A	A	A	A	A	A	A					
31						Q	240	A	270	A	A	A	210	220	A	A	A	A	A					
Mean Value						240	240	240	230	220	210	240	220	230	230	240	230	230	250					
Median Value						240	230	240	230	220	220	230	220	230	220	240	240	230	250					
Count						2	9	9	12	8	7	9	10	11	9	10	10	7	7					

h'F1

Sweep 1.0 Mc to 17.0 Mc in 15 min ☒ Manual ☐ Automatic

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The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | foE | 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						1.7	2.3	2.6	3.0	3.2	3.3	3.4	B	3.4	3.2	3.1	2.7	2.4	1.8[J]					
2						A	2.2[F]	2.5	B	3.0	3.1	3.1	3.1	A	A	A	A	A	A					
3						1.6[J]	2.5	2.5	3.0	3.3	B	A	A	A	A	3.0	2.8	2.4	1.8					
4						1.9	2.2	2.6	2.9	3.0[J]	3.3	3.4	3.4	3.3	3.2	A	A	2.4	2.2					
5						A	2.3	2.7	3.0	3.1	3.2	3.2	3.1	3.3	3.4	3.1	2.6	2.4	A					
6						1.7	2.3	2.8	3.0[H]	3.2	3.4	3.6	3.6	A	3.1	3.0	3.0	2.6	2.1					
7						1.8	2.2	2.8	3.0	3.3	3.3	3.3	A	A	A	A	A	2.5	2.0					
8						A	2.1	2.0	2.5	3.1	3.2	3.3	3.3	B	3.3	3.0	2.7	2.5	1.8					
9						1.9	2.4	2.6	2.9	2.8	3.2	3.0	B	A	A	3.0	2.8	2.4	A					
10						1.5	2.3	2.7	2.9	3.1	3.4	3.4	A	A	A	3.2	2.9	2.4	A					
11						A	2.2	2.6	3.0	3.2	3.5	3.7	3.8	3.6	3.2	3.2	2.9	2.5	A					
12						A	2.5	2.7	3.0	3.0	3.2	3.1	3.0	3.1	3.1	A	A	A	A					
13						1.8	2.2	2.6	2.8	3.0	3.3	3.4	3.3	3.4	3.0	A	2.8	2.5	A					
14						2.0	2.4	2.9	3.0	3.1	3.2	A	A	A	A	3.0	2.8	2.6	1.8					
15						A	2.2	2.7	3.0	A	A	A	A	A	A	A	A	2.6	A					
16						1.9	2.4	2.7	2.9	3.2	3.2	3.2	A	A	A	A	3.0	A	A					
17						1.8	2.4	2.8	2.9	3.0	3.0	A	A	A	A	A	3.0	2.4	1.9					
18						1.5	2.4	2.8	3.1	3.2[H]	3.3[H]	3.4	3.2[B]	3.3	3.3	3.0	2.7	A	A					
19						A	2.5	2.6	2.8	3.0	3.1	3.2	C	A	3.3	3.0	A	2.4	A					
20						A	A	A	A	3.2	3.3	3.2	B	3.4	3.0	A	A	A	A					
21						A	2.1	2.7	2.9	3.0	3.1	A	3.4	3.3	A	A	A	2.5	A					
22						A	2.2	2.8	2.9	3.0	3.1	3.1	3.2	A	A	3.1	2.8	2.5	B					
23						1.8	2.4	2.7	3.1	3.2	3.3	3.3	3.4	3.3	3.4	A	A	A	B					
24						A	2.3	2.5	2.9	A	A	A	A	A	A	2.9	A	A	B					
25						1.8	A	2.8	3.0	3.2	A	3.3	3.3	3.3	3.3	2.9	2.9	2.6	2.0					
26						A	A	2.7	3.0	3.0	3.1	3.2	A	A	A	A	A	A	A					
27						1.8	A	A	C	A	3.2	A	A	3.2	3.4	3.3	C	C	A					
28						A	A	A	3.0	3.5	A	3.4	A	A	A	3.0	2.9	A	A					
29						1.8	2.4	2.8	3.0	3.1	A	3.2	3.2	3.3	3.1	3.1	2.8	2.7	2.5					
30					1.2	1.8	2.5	2.8	3.1	A	A	A	A	A	B	A	A	A	A					
31						1.9	2.5	2.9	3.0	3.2	3.3	3.3	3.3	3.2	2.8	3.1	3.0	2.6	2.0					
Mean Value					1.2	1.8	2.3	2.7	3.0	3.1	3.2	3.3	3.3	3.3	3.2	3.1	2.8	2.5	2.0					
Median Value					1.2	1.8	2.3	2.7	3.0	3.1	3.2	3.3	3.3	3.3	3.2	3.0	2.8	2.5	2.0					
Count					1	18	26	28	28	27	24	23	15	14	16	18	18	20	11					

Sweep 1.0 Mc to 17.0 Mc in 15 min ☒ Manual ☐ Automatic

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The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **h'E** | 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						110	110	110	110	110	110	110	110	110	110	110	110	110	110					
2						A	110	110	110	110	110	110	110	A	A	A	A	A	A					
3						B	110	110	110	110	110	A	A	A	A	110	110	110	120^{B}					
4						130	120	110	110	110	110	110	110	110	100	A	A	100	130					
5						A	110	110	110	110	110	110	110	110	110	110	110	110	A					
6						A	A	110	110^{H}	110	110	110	110	A	110	110	110	110	130					
7						130	110	110	100	110	110	110	A	A	A	A	A	110	110					
8						A	110	110	110	110	110	110	110	110	110	110	110	110	120^{B}					
9						110	110	110	110	110	120	110	110	A	A	110	110	110	A					
10						110	110	110	110	110	110	110	A	A	A	110	110	110	A					
11						A	110	110	110	110	110	110	110	110	110	110	110	110	A					
12						A	110	110	100	110	110	110	110	110	110	A	A	A	A					
13						120	110	110	110	110	110	110	110	110	110	A	110	110	A					
14						120	120	120	110	110	100	A	A	A	A	110	110	120	130^{B}					
15						A	110	110	110	A	A	A	A	A	A	A	A	110	A					
16						140	110	110	110	110	110	110	A	A	A	A	110	A	A					
17						130	110	110	110	110	110	A	A	A	A	A	110	110	110					
18						110	110	110	110	110^{H}	110^{H}	110	110	110	100	110	110	A	A					
19						A	110	110	110	110	110	110	C	A	110	110	A	110	A					
20						A	A	A	A	110	100	110	B	110	110	A	A	A	A					
21						A	120	110	110	110	110	A	110	110	A	A	A	110	A					
22						A	120	110	110	110	110	110	110	A	A	110	110	110	B					
23						120^{B}	110	110	110	100	110	100	110	110	110	A	A	A	B					
24						A	110	110	110	A	A	A	A	A	A	110	A	A	B					
25						110	A	110	110	110	A	110	110	110	110	110	110	110	110					
26						A	A	110	110	110	110	110	A	A	A	A	A	A	A					
27						110	A	A	C	A	110	A	A	110	110	110	C	C	A					
28						A	A	A	110	110	A	110	A	A	A	110	110	A	A					
29						120	110	110	110	110	110	110	110	110	110	110	110	110	110					
30					B	130	110	110	110	A	A	A	A	A	110	A	A	A	A					
31						110	110	110	110	110	110	110	110	110	110	110	110	110	120					
Mean Value						120	110	110	110	110	110	110	110	110	110	110	110	110	120					
Median Value						120	110	110	110	110	110	110	110	110	110	110	110	110	120					
Count						16	25	28	29	27	26	23	17	15	17	18	18	20	11					

h'E

Sweep 1.0 Mc to 17.0 Mc in 15 min ☒ Manual ☐ Automatic

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The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Akita

Lat. 39° 43.5' N
Long. 140° 08.2' E

May. 1952

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	2.9	2.4	3.0	4.7^{Y}	3.7	4.2	4.4	5.6	4.4	5.0	G	G	G	G	G	G	3.4^{Y}	2.4	E	E	E
2	3.4	3.4	3.8	2.8	-3.0	2.8	3.0	G	G	5.4	4.4	5.5	5.5^{Y}	6.4	4.8	4.2	5.5	5.3	3.6	3.9	E	2.0	E	E
3	2.0	2.4	3.6	E	1.6	2.9^{Y}	3.2	3.3	5.7	7.7	8.6	14.3	6.5^{Y}	8.2	5.3	G	4.7	4.2	7.4	6.6	5.2	4.6	3.6	3.4
4	E	1.8	E	E	E	G	3.4	5.0	4.2	G	5.0	4.0	6.2	5.8	5.3	3.4	2.9	4.5	G	3.4	E	4.4	3.4	E
5	E	1.4	2.4^{Y}	2.3^{Y}	G	2.2	G	5.2	4.6	4.6	3.7	4.2	G	4.0	G	G	4.2	4.6	6.0	3.0	2.4	E	E	E
6	E	E	2.1	2.1	E	1.7	2.4	3.5	6.4	6.2	5.2	G	G	5.2	6.2	5.8	G	G	3.6	4.2	3.0	3.2	2.8	2.8
7	2.4	2.8	3.0	C	2.6	2.8	6.2	4.8	4.2	6.1	5.4	5.2	4.8	3.8	3.9	4.6	3.5	G	G	E	E	E	E	E
8	5.8	6.8	6.2	E	E	2.2	3.4	4.4	6.2	4.6	4.6	8.1	8.4	5.6	5.2	4.8	5.8	6.8	3.8	5.0	6.4	3.8	2.8	E
9	E	E	1.3	1.4	1.4	2.4	G	3.3^{Y}	3.0	G	4.4	3.6	4.7^{Y}	3.4	3.4	G	5.8	3.0	2.2	2.2	2.4	2.0	3.0	3.0
10	E	E	1.4	1.8	1.4	G	G	G	3.4	3.8	G	G	5.6	3.8	6.6	G	G	6.7	4.8	5.4	4.4	3.0	2.8	2.8
11	E	1.4	2.3	2.3^{Y}	2.1^{Y}	1.4	3.6	4.6	4.4	G	G	G	G	G	G	3.8	3.4	G	4.0	5.1	5.2	4.8	5.0	4.0
12	2.3	2.2	2.4	2.4	2.4	4.0	3.8	5.0	5.0	5.7	5.4	5.0	4.4	3.7	3.4	3.8	3.8	3.6	3.0	2.6	E	3.6	2.2	E
13	2.6	1.4	E	1.6	2.0	G	G	3.0	3.4	G	G	G	4.6	4.1	G	3.8	G	4.4	4.6	4.2	5.0	4.1	3.8	5.0
14	2.3	1.4	3.8	2.6	2.8	G	3.8	4.0	6.2	5.9	3.8	5.2	8.2	7.0	8.8	4.4	G	4.9	3.7	5.0	6.4	6.4	3.6	5.2
15	7.2	5.0	4.4	3.7	2.6	3.4	G	4.6	5.2	7.7	13.5	14.2	12.0	10.0	6.8	4.4	6.7	13.5	15.0	13.8	9.4	7.4	4.2	3.0
16	E	2.4	1.4	2.4	2.4	G	G	G	6.0	5.1	5.1	4.6	4.7	5.2	4.2	4.4	4.8	5.6	5.4	6.8	4.0	E	E	2.4
17	3.2	E	3.2	2.8	E	G	3.8	5.0	5.7	5.0	6.6	5.1^{Y}	9.4	11.8	7.8	6.8^{Y}	4.8	5.0	8.2	8.3	5.6	9.2	8.5	7.4
18	6.1	6.0	5.4	2.3	1.6	G	3.3	5.8	7.5	7.0	6.6	6.4	13.5	8.0	7.8	8.2	8.8	6.4	5.2	3.4	E	3.2	4.6	3.0
19	2.6	2.2	7.4	2.2	1.4	2.8	G	6.5	5.6	6.4	6.2	C	C	5.7	G	5.3	6.4	4.8	4.4	4.4	5.6	4.5	4.0	2.8
20	3.2	3.0	2.8	2.6	2.4	2.4	3.4	7.2	8.6	6.8	5.4	5.1	3.5	G	6.2	5.7	4.6	5.8	4.6	4.2	5.2	4.0	3.4	3.8
21	4.0	2.2	2.4	2.2	1.4	2.6	5.5	4.2	5.4	4.4	G	3.8	5.0	5.8	3.8	4.4	5.4	6.8	9.8	7.6	7.0	6.2	5.2	6.4
22	4.8	5.4	3.6	4.2	3.0	3.2	5.6	6.6	8.8	9.2	7.4	4.4	3.8	5.2	4.7	6.0	8.8	11.6	8.2	6.6	6.7	12.7	12.3	7.4
23	3.8	8.8	5.0	3.0	2.2	G	4.0	5.0	6.0	7.2	6.6	6.4	6.9	6.2	5.6	6.4	5.8	3.8	3.0	C	4.8	6.4	6.5	4.6
24	3.8	3.5	2.3	1.4	2.3	2.0^{F}	3.6	5.4	5.8	8.6	7.4	7.4	5.6	5.8	4.4	3.0	4.4	5.0	3.4	5.0	5.4	5.0	6.6	6.8
25	6.2	4.6	5.3^{F}	3.6	2.8	3.2	5.1	6.0	6.2	7.0^{Y}	7.0	6.5	5.6	6.2	6.4	9.1^{Y}	3.7	G	4.0	4.0	5.2	3.0	4.6	7.2
26	2.6	3.6	5.0	3.9	3.8	4.0	4.5	7.0	5.5	9.4	7.0	7.0	8.4	5.0	6.7	8.2	8.4	12.7	12.5	8.8	10.5	11.0	9.6	8.8
27	9.1	7.6	3.2	2.6	2.6	4.4	5.8	8.4	C	12.5	7.4	4.7	6.8	10.8	G	5.3	C	C	5.1	E	3.0	3.4	3.4	4.6
28	3.0	3.6	5.0	8.8	8.0	8.2	5.2	8.8	13.4	17.2	11.2	5.8	7.4	9.6	5.2	4.8	11.0	7.4	5.2	6.8	4.8	4.8	5.0	6.4
29	5.4	3.8	3.2	2.6	G	G	7.2	7.0	8.0	6.0	7.4	7.0	7.2	6.8	7.2	6.8	6.7	G	G	2.0	2.0	3.8	E	E
30	E	E	E	2.4	1.2	3.4^{Y}	5.0	5.7	8.5	9.6	7.8	10.0	14.5	6.8	7.2	5.4	5.4	6.4	6.2	3.7	4.3	3.7	3.0	2.3
31	3.4	3.0	2.6	3.0	3.0	3.2	4.2	5.4	4.0	5.7	7.2	6.2	4.0	4.8	7.0	5.8	7.2	6.4	8.6	9.0	7.8	5.6	4.0	2.8
Mean Value	4.1	3.6	3.5	2.8	2.5	3.1	4.3	5.3	5.9	7.0	6.6	6.3	6.1	6.2	5.7	5.4	5.7	6.0	5.8	5.3	5.2	5.0	4.7	4.6
Median Value	2.6	2.4	3.0	2.4	2.2	2.4	3.6	5.0	5.6	6.0	5.6	5.2	5.6	5.7	5.2	4.8	4.8	5.0	4.6	4.3	4.8	4.0	3.6	3.0
Count	31	31	31	30	31	31	31	31	30	31	31	30	30	31	31	31	30	30	31	30	31	31	31	31

Sweep 1.0 Mc to 17.0 Mc in 15 min ☒ Manual ☐ Automatic

A 8

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **(M3000)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	3.0 K	3.0 K	2.8 K	2.8 K	3.0 K	3.1 K	3.2 K	G K	G K	3.2 K	A K	B K	3.0	2.9	3.5	3.4	3.3	3.3	3.2	3.1	3.0	(2.8) PS	2.7	3.1
2	2.8	2.9	2.8	2.8	3.1	3.1	3.1	3.2	3.0 H	(3.3) J	(3.2) J	3.0	2.8	2.9 H	3.1	3.2	3.3	3.4	3.2	2.8 P	2.8	(2.9) P	2.7	(2.8) P
3	(2.8) P	2.8	2.8	2.7	3.0	3.0	3.1	2.8 V K	2.6 K	A K	A K	A K	2.8 K	A K	2.9 K	3.3 K	3.2 K	3.2 K	A K	3.0 K	3.1 K	2.9 K	3.2 K	3.0 K
4	2.9 K	2.9 K	2.8 K	2.8 K	3.0 K	3.5 K	3.2 K	3.6 K	G K	G K	2.8 K	3.1 K	A K	2.8 K	3.0 K	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.0	2.8
5	2.9	2.9	3.1	2.8	3.0	3.0	3.4	2.6 F K	3.1 K	2.9 K	3.0 K	2.9 K	2.7 K	3.0	3.2	3.1	3.1	3.2	3.1	3.3	3.2	3.1	3.3	3.1
6	3.0	3.0	2.9	2.9	2.8	3.1	3.2	3.1	3.3	3.2	3.1	3.0	2.9	3.0	3.0	3.1	3.2	3.2	3.0	3.0	3.0	3.1	2.9	3.0
7	2.9	2.9	3.1	(3.0) C	2.9	3.5	3.5	3.5	3.2	3.3	3.1	3.1	3.1	3.1	3.2	3.3	3.1	3.1	2.8	2.9	(3.2) J	3.1	(2.9) P	3.0
8	(2.8) J	A	A	2.6 K	2.5 K	2.8 H K	2.9 K	3.3 K	A K	A K	A K	A K	A K	A K	A K	2.9 K	A K	3.4 K	2.8 K	AS K	AS K	3.0 K	3.0 K	2.8 K
9	2.7	2.7	2.7	3.0	3.0	3.6	3.8	3.8	3.4	3.2	3.3	3.0	2.8	3.0	3.0	3.1	(3.3) JH	3.2	3.3	3.0	3.1	3.1	3.0	2.9
10	(3.2) JF	2.8	2.9	2.9	3.1	3.4	3.3	3.5	3.3	3.2	3.0	3.3	(3.0) J	3.2	3.2	3.0	(3.3) J	3.2	(3.1) P	3.0	3.2	3.1	3.0	3.0
11	2.9	2.7	2.9	2.9	2.9	3.2	3.4	3.4	3.6	3.5	3.7	3.0	3.1	3.0	3.1	3.2	3.2	3.2	3.5	(3.2) J	3.2	3.1 H	3.2	3.2
12	2.9	2.9	3.0	(2.9) PS	2.8	3.1	3.3	3.4	3.5	3.2	3.1	3.3	B	2.9	3.0	3.1	B S	3.3	3.2	3.1	3.2	2.9	3.0	2.9
13	3.0	2.9	2.8	3.0	3.0	3.0	3.1	2.9	3.2	3.3 K	3.2 K	(3.4) KJ	3.0 K	2.9 K	3.0 K	3.1 K	3.2 K	2.9 K	3.2 K	3.2 KS	3.3 KPS	3.2 K	3.0 KF	A F K
14	2.8 F K	2.9 F K	3.0 V K	3.2 F K	(3.4) KJF	(3.2) KJF	3.3 K	(3.1) P K	A K	A K	B K	2.9 K	A K	A K	A K	3.1 K	3.2 K	3.2 K	3.2 K	3.3 K	A K	A K	3.0 K	A K
15	A K	(2.9) F K	2.8 F K	2.8 F	3.1 F	3.1	3.3	3.2	3.4	A	A	A	A	A	3.1	2.7	3.2	A	A	A	A	A	3.0	3.1
16	3.1	3.0	3.1	3.0 V	3.0	3.4	3.2	3.5	3.4	3.4	2.8	3.1	3.2	2.9	3.2	3.2	(3.2) J	3.4	3.5	A	2.9	3.0	3.1	3.1 F
17	3.0	2.9	3.0	F	FS	3.3	3.4	3.3	3.5	3.2	3.3	3.1	A	A	A	2.9	3.0	3.1	3.1	A	F	A	A	A
18	A	A	A	(3.1) JF	3.1 JF	3.5 F	3.1	A	A	A	2.9	2.9	A	2.9	2.9	A	3.3	3.2	2.8	3.0	3.0	3.1	2.9	2.9 H
19	3.1	3.1	A	2.6 F	F	3.7	2.9	A	A	A	A	C	C	3.0	3.1	2.8	2.9	3.1	2.9	2.9	2.9	3.1	3.0 V K	2.9 K
20	3.0 Z K	3.0 K	2.8 K	3.0 K	2.9 K	3.2 K	3.5 K	A K	A K	A K	A K	A K	B K	2.6 K	A K	3.0 K	3.3 K	3.3 K	3.4 K	3.1 K	A K	2.9 K	2.9 F K	3.0 K PF
21	3.0 K	3.0 K	2.8 K	3.2 K	3.6 K	2.9 H K	2.9 K	3.2 K	3.0 K	3.0 K	2.7 K	3.0 K	2.6 K	2.7 K	B K	3.1 K	3.2 K	A K	A K	A K	A K	AS K	AS K	AS K
22	A F K	A F K	(3.1) JF K	3.3 F K	3.2 K	3.1 Z K	A K	A K	A K	A K	A K	3.0 K	2.8 K	3.0 K	3.2 K	A K	A K	A K	A K	3.2	(3.3) PF	A	A	(2.9) JF
23	(2.7) JF	A	3.0 JF	3.0	3.0	3.2	3.2	3.2	3.3	A	A	A	A	3.1	(3.1) B	A	A	B S	3.0	(3.2) C	3.2	A	AF	F
24	(2.9) PJF	(2.8) JF	(2.9) JF	(3.0) JF	3.3 F	3.6	(3.3) J	3.6	B	A	A	A	2.8	(3.1) J	2.9	3.0	3.3	3.2	3.2	(3.4) PF	(3.1) JF	(3.1) JF	A	A
25	A	FS	2.9	3.0	3.1 V	3.1	3.2	B	3.5	A	3.2	2.8	2.9	2.8	3.1	3.2	3.3	3.0	3.1	3.0	2.8	2.8	(3.1) J	3.0 P
26	3.0	2.9	3.0	2.9	3.0	3.2	3.2	A	(3.6) J	A	A	(3.2) J	(3.2) J	(3.1) J	2.8	A	A	A	A	A	A	A	A	A
27	A	A	2.9 F	(2.9) PF	2.9 F	3.0	3.4	A	C	2.6	A	(2.4) J	2.5	A	3.0	3.2	C	C	2.9	3.1	3.2	2.9	2.8 Z	2.8
28	2.8 Z	(2.7) JF	(2.6) JF	A	A	A	(3.2) JF	A	A	A	2.8	3.0	2.8	A	2.9	3.2	A	A	3.1	3.1	AS	AS	AS	A
29	A	2.8 F	(2.8) JF	2.8 F	(2.8) PF	(2.9) JF	A	A	A	A	A	A	A	A	A	A	A	2.9	3.0	3.1 P	3.0	BS	3.1	3.0
30	B	2.9	2.9	2.8	2.7	3.0	3.2	3.3	A	A	A	A	A	2.8	A	3.2	3.1	3.2	3.2	3.0	3.0 S	(2.7) JF	(2.7) JF	2.6 F
31	2.9 F	3.1 F	3.1	3.0	2.9	3.0	2.9	3.2	3.3	3.2	(3.3) J	(2.8) J	2.8	2.8	2.8	3.1	3.0	3.1	A	A	A	3.2	3.1	3.1 S
Mean Value	2.9	2.9	2.9	2.9	3.0	3.2	3.2	3.3	3.3	3.2	3.1	3.0	2.9	2.9	3.1	3.1	3.2	3.2	3.1	3.1	3.1	3.0	3.0	3.0
Median Value	2.9	2.9	2.9	2.9	3.0	3.1	3.2	3.2	3.3	3.2	3.1	3.0	2.8	2.9	3.0	3.1	3.2	3.2	3.1	3.1	3.1	3.1	3.0	3.0
Count	24	25	28	29	28	30	29	22	20	16	17	21	19	23	24	26	23	24	25	24	22	22	24	23

(M3000)F2 Sweep 1.0 Mc to 17.0 Mc in 15 min ☒ Manual ☐ Automatic

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Akita

Lat. 39° 43.5' N
Long. 140° 08.2' E

May. 1952 | **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	1.4	1.2	E	2.5[A]	A	1.8	2.6	3.0	3.8	4.1	4.7[A]	4.1	4.5	3.6	3.3	3.2	2.8	2.6	2.8	2.5[A]	1.9	1.5	1.5	1.5
2	1.5	1.2	1.1	A	2.0[A]	1.7	2.2	2.8	3.3	4.6[A]	3.8	4.7[A]	4.2[A]	5.6[A]	4.6[A]	3.6	4.8[A]	4.2[A]	3.0[A]	2.3[A]	1.5	1.5	1.5	1.5
3	1.5	1.5	2.6[A]	E	E	2.3	2.4	3.1	4.2[A]	A	A	A	4.0	A	4.2[A]	4.2	3.0	3.0	A	5.0[A]	5.0[A]	4.4[A]	3.6[A]	2.6[A]
4	1.6	1.5	E	E	E	2.0	2.6	2.8	3.2	3.6	4.5[A]	4.2	A	5.4[A]	4.4[A]	3.3	2.8	2.9	2.2	1.6	1.6	3.2[A]	2.4[A]	1.6
5	1.4	E	E	1.1	1.2	1.8	2.4	2.8	3.6	4.0	3.5	4.2	3.4	3.7	3.4	3.6	3.1	2.5	5.4[A]	1.8	1.6	1.4	1.4	1.4
6	1.4	1.2	E	1.2	E	1.7	2.5	3.0	5.6[A]	5.0[A]	5.0[A]	4.2	4.0	4.6[A]	4.2[A]	4.4[A]	4.2	3.8	2.9	3.0[A]	2.6[A]	3.2[A]	1.6	2.4[A]
7	1.8	A	2.0[A]	(1.8)[C]	1.6	1.9	2.5	2.9	3.5	5.5[A]	4.9[A]	4.4[A]	4.2	3.8	3.7	3.5	3.2	2.6	2.0	1.5	1.5	1.6	1.5	1.5
8	4.8[A]	A	A	1.4	1.4	1.8	N	2.8	A	A	A	A	A	A	A	4.2[A]	A	3.2	3.8	5.0	2.8[A]	2.6[A]	2.4[A]	1.6
9	1.6	E	E	E	1.3	1.9	2.6	3.0	3.1	3.6	4.2	4.2	4.2	4.1	3.9	3.3	3.2	3.6	2.0	1.6	1.6	1.6	1.5	1.4
10	1.4	E	E	1.1	E	1.9	2.4	3.0	3.1	3.8	3.4	3.6	4.8[A]	4.0	6.2[A]	4.0	3.8	3.0	A	5.0[A]	1.6	1.8	1.6	1.6
11	E	E	1.4	1.2	1.2	1.8	2.4	2.8	3.1	3.2	3.5	3.8	3.8	3.6	3.2	3.2	3.0	2.7	2.7	4.6[A]	4.1[A]	1.7	1.8	2.4[A]
12	1.4	1.3	1.3	1.2	1.3	1.9	2.5	3.8[A]	4.6[A]	4.6[A]	4.3[A]	4.2[A]	4.2[A]	4.2	3.4	3.2	A	2.6	2.2	1.7	1.6	3.4[A]	1.6	1.6
13	1.5	1.4	1.2	1.2	2.0[A]	2.1	2.3	N	3.4	3.6	3.4	3.9	4.1	3.9	3.4	3.8	3.0	4.1[A]	2.4	3.7[A]	3.0[A]	2.8[A]	3.5[A]	4.6[A]
14	1.5	E	E	E	1.4	2.0	2.4	3.0	A	5.4[A]	A	4.1	A	A	A	4.2[A]	3.2	3.8[A]	3.5[A]	4.4[A]	A	A	A	A
15	A	3.4[A]	2.6[AF]	2.2[A]	1.9	1.8	2.6	3.0	3.6	4.8[A]	A	A	A	A	5.2[A]	3.7	6.4[A]	A	A	A	A	A	A	1.4
16	1.4	1.4	1.4	E	E	1.9	2.5	2.8	4.2[A]	4.4[A]	4.4[A]	3.6	3.9	4.4[A]	3.9	3.4	3.8	5.2[A]	3.8[A]	A	1.7	1.7	1.7	1.6
17	2.2[A]	1.6	1.8	1.5	E	1.9	2.6	2.9	3.2	3.4	4.8[A]	4.2	4.5[A]	A	A	4.2[A]	4.4[A]	4.6[A]	4.6[A]	A	1.7	A	A	A
18	A	A	A	E	1.2	1.9	2.8	A	A	A	5.2[A]	5.4[A]	A	6.6[A]	A	A	6.1[A]	A	3.8[A]	1.6	1.6	2.6[A]	A	2.2[A]
19	1.4	E	A	1.3	E	1.7	2.8	A	A	A	A	4.5[A]	(4.6)[C]	4.8[A]	3.6	5.0[A]	5.0[A]	4.6[A]	3.5[A]	3.0[A]	4.3[A]	4.6[A]	1.8	1.5
20	1.5	A	1.2	1.2	1.2	1.4	2.4	A	A	A	A	A	3.6	3.6	A	4.4[A]	3.8[A]	4.0[A]	2.8	3.6[A]	A	3.7[A]	1.8	1.7
21	A	1.4	1.4	1.4	1.4	2.0	5.3[A]	2.8	3.3	3.9	3.7	4.6	4.3	4.3[A]	4.8	4.4[A]	5.1[A]	A	A	A	6.4[A]	A	2.2[A]	A
22	2.4[A]	A	2.0[A]	3.0[A]	A	3.0[A]	A	A	A	A	A	4.3[A]	3.8	3.8	4.2[A]	A	A	A	A	6.2[A]	6.6[A]	5.6[A]	A	1.7
23	1.9	A	1.6	E	E	1.8	2.5	4.6[A]	4.6[A]	A	A	A	6.6[A]	4.8[A]	4.8[A]	A	A	4.6	3.0	C	A	A	1.8	2.6[A]
24	1.9	1.9[F]	A	1.3	1.3	2.0	2.3	2.9	2.9	A	A	A	4.4[A]	5.5[A]	4.0[A]	4.2[A]	4.2[A]	3.6[A]	2.8[A]	3.4[A]	3.4[A]	A	A	A
25	A	A	A	1.7	1.5	1.8	3.6[A]	2.9	4.3[A]	A	4.3	4.4[A]	4.4[A]	5.6[A]	5.4[A]	5.5[A]	3.1	2.6	2.0	2.8[A]	3.8[A]	2.0[A]	2.4[A]	3.4[A]
26	1.5	2.0[A]	3.4[A]	2.3[A]	3.0[A]	2.4	3.7[A]	A	5.0[A]	A	A	5.0[A]	5.8[A]	4.5[A]	4.4	A	A	A	A	A	A	A	A	A
27	A	A	3.0[A]	1.6	2.6[A]	4.4[A]	4.8[A]	A	C	4.4[A]	A	4.5[A]	5.4[A]	A	3.7	4.4[A]	C	C	2.2	1.8	2.0[A]	1.6	A	A
28	A	A	A	A	A	A	A	A	A	A	5.4[A]	5.3[A]	4.8[A]	A	4.3[A]	3.8	A	A	5.3[A]	5.8	3.2[A]	A	A	A
29	A	1.6	1.8	1.7[F]	1.4	1.9	A	A	A	4.4	A	A	A	A	A	A	A	2.8	2.6	1.6	1.5	A	1.5	1.4
30	1.2	1.3	E	E	1.2	1.9	3.8[A]	5.0[A]	A	A	A	A	A	5.8[A]	A	4.6[A]	5.2[A]	4.4[A]	5.4[A]	2.4[A]	4.1[A]	2.9[A]	2.2[A]	1.5
31	2.1[A]	1.8	1.4	1.4	1.8	2.1	3.0	4.4[A]	3.6	4.8[A]	5.0[A]	4.4[A]	3.8	3.8	6.4[A]	5.1[A]	6.4[A]	5.0[A]	A	A	A	2.6[A]	2.2[A]	2.6[A]
Mean Value	1.8	1.6	1.8	1.6	1.6	2.0	2.8	3.2	3.8	4.3	4.3	4.3	4.4	4.5	4.3	4.0	4.1	3.6	3.2	3.2	2.8	2.6	2.0	2.0
Median Value	1.5	1.4	1.4	1.2	1.3	1.9	2.5	3.0	3.6	4.4	4.4	4.2	4.2	4.3	4.2	4.1	3.8	3.6	2.8	2.9	2.0	2.6	1.8	1.6
Count	24	22	25	29	28	3.0	27	22	21	19	18	23	24	23	24	26	23	24	24	24	25	22	22	24

Sweep 1.0 Mc to 17.0 Mc in 15 min ☒ Manual ☐ Automatic

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **fminE** | 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	E	E	E	E	E	E	1.6	1.5	1.6	1.5	1.8	1.8	1.9	1.9	1.8	1.8	1.9	1.8	1.6	1.5	1.6	E	E	E
2	1.1	E	E	E	E	E	1.5	1.5	1.6	1.6	1.7	2.8	1.8	1.9	1.8	1.6	1.6	1.6	1.6	1.5	E	1.5	E	E
3	1.8	2.0	1.6	E	E	1.5	1.6	1.6	2.0	2.2	2.0	1.9	2.0	2.0	1.8	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6
4	E	E	E	E	E	1.6	1.6	1.7	1.7	1.9	2.1	2.0	1.9	2.0	2.0	1.9	1.8	1.7	1.6	1.5	E	1.6	1.6	E
5	E	E	E	E	E	1.2	1.6	1.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.6	1.6	E	E	E
6	E	E	E	E	E	1.2	1.6	1.6	1.8	2.6	1.8	1.8	1.9	2.0	2.0	2.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
7	E	E	E	C	E	1.4	1.5	1.6	1.8	1.9	2.0	2.0	2.0	1.8	1.9	1.7	1.7	1.6	1.5	E	E	E	E	E
8	1.1	1.1	1.2	E	E	1.4	1.4	1.6	1.6	2.3	1.8	1.9	2.4	2.1	1.8	1.8	1.8	1.8	1.7	1.6	1.6	1.6	1.6	E
9	E	E	E	E	E	E	1.5	1.6	1.7	1.6	1.9	1.9	2.2	1.9	2.0	2.0	2.0	1.8	1.6	1.6	1.6	1.6	1.5	1.4
10	E	E	E	E	E	1.2	1.5	1.5	1.6	1.8	1.9	1.8	1.9	2.0	1.7	1.9	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6
11	E	E	E	E	E	E	1.5	1.5	1.5	1.6	1.8	2.0	2.4	2.0	1.9	2.0	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5
12	1.9	1.1	E	E	E	1.2	1.5	1.5	1.6	1.7	1.7	1.7	1.8	1.7	2.0	1.9	1.6	1.6	1.5	1.9	E	1.7	1.6	E
13	1.3	E	E	1.2	1.4	1.4	1.4	1.4	1.4	1.8	1.8	2.0	1.9	2.0	1.9	2.0	2.1	1.6	1.4	1.6	1.5	1.5	1.5	1.5
14	1.5	E	E	E	1.4	1.8	1.8	2.1	2.3	2.3	1.9	1.8	1.9	1.9	2.2	1.8	1.6	1.7	1.6	1.5	1.5	1.5	1.5	1.5
15	1.2	E	E	E	E	E	1.6	1.6	1.6	1.6	1.9	1.9	1.8	1.9	1.8	1.8	1.6	1.7	1.6	1.4	1.4	1.4	1.4	1.4
16	E	1.4	E	E	E	1.4	1.6	1.8	1.6	1.6	1.6	1.8	1.9	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.7	E	E	2.0
17	1.2	E	1.2	1.1	E	1.4	1.6	1.6	1.6	2.0	2.2	2.0	2.0	2.2	1.8	1.8	1.8	1.8	1.7	1.6	1.6	1.6	1.5	1.5
18	1.5	E	E	E	1.1	E	1.5	1.5	1.6	1.7	2.0	2.2	2.2	1.9	1.6	1.6	1.5	1.5	1.5	1.6	E	1.6	1.6	1.6
19	1.6	E	E	E	E	E	1.5	1.5	1.6	1.7	1.8	2.0	(2.0)[C]	2.0	1.7	1.9	1.6	1.5	1.5	1.6	1.6	1.6	1.6	1.5
20	1.5	1.2	1.2	1.2	1.2	1.4	1.4	1.4	1.4	1.7	2.2	1.9	3.4	2.0	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5
21	1.5	E	E	E	E	E	1.4	1.6	1.6	1.7	1.7	1.7	1.7	1.7	2.2	1.8	1.6	1.6	1.4	1.5	1.4	1.5	1.4	1.4
22	1.2	E	E	E	1.4	1.4	1.5	1.6	1.7	1.6	1.8	1.9	1.8	1.8	2.1	1.9	1.8	1.7	1.6	1.5	1.5	1.5	1.5	1.5
23	1.1	E	E	E	E	1.4	1.6	1.6	1.7	1.8	1.9	1.9	1.9	2.0	2.2	2.0	1.9	2.0	2.0	1.5	1.5	1.5	1.5	1.5
24	E	E	E	E	E	1.3	1.5	1.6	1.6	1.6	1.8	1.9	1.7	1.9	1.8	1.8	1.8	1.7	1.8	1.4	1.4	1.4	1.4	1.4
25	1.4	1.2	E	E	E	E	1.5	1.5	1.6	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.6	1.6	1.6	1.6	1.4	1.5	1.5	1.5
26	1.6	E	E	E	E	E	1.5	1.5	1.5	1.8	2.0	2.0	2.0	2.0	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.4
27	1.4	E	3.0[A]	E	E	E	1.6	1.6	(1.6)[C]	1.7	1.8	1.9	1.9	1.9	1.6	1.6	C	C	1.5	E	1.6	1.6	1.4	1.4
28	E	E	E	E	E	1.2	1.2	1.4	1.6	1.7	1.8	2.0	2.2	1.9	1.9	1.9	1.7	1.6	1.6	1.5	1.5	1.5	1.5	1.5
29	E	E	E	E	E	E	1.6	1.5	1.6	1.7	1.7	1.7	1.8	1.7	1.8	2.2	1.8	1.8	1.6	1.6	1.6	1.6	E	E
30	E	E	E	E	1.1	1.2	1.5	1.5	1.5	1.8	1.8	2.0	2.0	1.9	2.0	2.0	1.8	1.8	1.6	1.5	1.5	1.5	1.5	1.7
31	1.2	E	E	E	1.6	1.6	1.8	1.6	1.6	1.8	1.9	1.9	2.0	1.8	1.9	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.4	1.4
Mean Value	1.4	1.3	1.6	1.2	1.3	1.4	1.5	1.6	1.6	1.8	1.9	1.9	2.0	1.9	1.9	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.5	1.5
Median Value	1.1	E	E	E	E	1.2	1.5	1.6	1.6	1.7	1.8	1.9	1.9	1.9	1.8	1.8	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5
Count	31	31	31	30	31	31	31	31	31	31	31	31	31	31	31	31	30	30	31	31	31	31	31	31

fminE

Sweep 1.0 Mc to 17.0 Mc in 15 min ☒ Manual ☐ Automatic

A 11

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

May. 1952

foF2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	4.8 P K	3.6 P K	3.7 P K	3.3 K	3.3 K	3.6 K	4.7 K	A K	4.9 K	5.5 K	6.1 K	6.6	7.5	c	c	c	A	A	6.8	7.0	6.2	5.9 P	5.9	5.9
2	5.2	5.2	4.9	4.4 V	4.8	5.4	6.3	6.7	6.6	6.6	6.7	6.8	8.2	9.0 JP	(10.4) P	10.5 P	8.8 P	7.1	7.3	6.9	7.3	7.5	6.3	6.5
3	6.5	6.0	5.8	5.6	5.3	5.8	5.4	5.2	5.2 P	6.2	6.9	A	A	7.7	8.5	9.3	7.6	6.8	6.3	6.7 Z	6.6 ZP	A	5.6	5.8
4	5.7	5.8 V	4.6	4.7	4.9 F	4.9	5.0	5.5	A	5.5	c	c	c	7.3	(7.1) P	6.8	(7.3) P	5.7	6.3	6.3	7.0	6.4 P	6.2 P	c
5	c	(6.0) P	(5.5) P	c	c	c	c	5.8	5.9	5.6	c	c	c	10.0 P	c	c	c	c	6.9	8.0	7.7	6.3	(6.5) P	[6.8] F
6	5.9	5.8	5.5	5.4	4.4	5.8	5.3	5.9	6.8	6.3	5.7	(6.7) A	7.7	(9.7) P	10.2	(10.5) P	10.3 P	8.7	8.4	8.8	7.1	7.0	5.4	5.8
7	5.0	5.1	4.9	4.0	4.7	6.3	6.1	6.7	6.3	6.4	7.1	8.0	(10.2) P	10.0	9.7	9.4	8.6 P	c	c	c	c	c	c	c
8	A	c	(4.7) P	4.8	4.2	F K	c K	c K	M K	c K	c K	c K	c K	A K	5.2 K	6.0 K	(5.4) A K	4.7 K	4.8 K	A K	A K	4.8 KP	4.5 K	4.8 K
9	4.5 K	4.6 K	4.9 F K	5.2 K	4.8 K	4.7 K	B K	5.0 K	5.1 K	6.1 P	6.5 P	c	c	c	c	c	c	7.3	c	c	c	c	c	4.3 P
10	4.0	c	c	4.3 P	4.3	c	c	c	c	5.5	c	c	c	c	c	c	c	c	c	c	c	c	c	c
11	c	c	4.9	(4.8) JP	4.8	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
12	c	(4.4) P	(4.5) P	(4.2) P	(4.3) P	c	c	c	c	c	c	6.2	6.4	9.1	9.9 J	BS	8.6	6.6	6.1	6.5	6.3 P	5.5	5.2	5.3
13	5.7	4.9	4.9	4.5	4.3	5.0	5.9	5.8	A	5.5 K	6.0 K	6.0 K	5.6 K	6.2 K	7.2 K	8.4 K	(7.8) C K	7.1 K	6.7 K	7.3 K	7.6 P K	4.7 K	A K	AF K
14	AF K	4.7 K	4.9 F K	4.9 Z K	2.5 F K	3.5 K	6.8 P K	A K	5.3 K	6.2 K	6.1 K	5.9 K	5.7 K	6.2 K	7.6 K	8.0 K	7.0 K	5.7 K	6.0 K	5.5 K	(5.0) P K	4.5 K	4.3 F K	4.6 K
15	c	c	c	c	c	c	c	6.4	5.9	6.2	6.5	5.5	6.0	7.0	7.6	7.7	8.6	7.6	6.9	6.9	A	5.7 F	F	A
16	AF	4.6 VF	5.1 Z	4.3	4.0	4.8	5.5	5.9	6.1	A	5.5	6.2	6.3	6.4	7.3	A	M	M	M	M	6.5	6.0 F	A	A
17	A	F	F	F	4.4 F	4.8 JF	A	A	5.7	5.8	5.5	5.7	6.1	6.3	6.8	7.5	8.2 P	8.5 P	8.7 P	(8.0) P	A	A	4.3 P	A
18	A	A	A	F	4.3 F	4.1 F	5.1	4.9	A	A	6.0	6.4	6.7	8.5	8.9	9.0	A	7.6	6.8	7.5	8.5 P	7.1	6.1	6.1 P
19	4.9	4.2	3.8	3.8	4.0 F	4.9	4.8	5.2	A	A	A	5.7	A	7.8	7.3	6.4	6.4	6.7	7.1	7.4	7.0 P	6.6 F	5.6	4.1 KP
20	3.8 K	3.8 F K	3.9 F K	3.9 F K	3.8 K	5.2 P K	5.2 K	A K	A K	A K	A K	A K	5.5 K	5.2 K	6.4 K	6.5 K	7.5 K	6.6 K	(6.5) P K	5.8 K	(6.2) P K	C K	C K	5.0 ZP K
21	4.4 K	4.5 FP K	4.4 F K	(4.7) FP K	F K	3.8 K	5.8 K	5.3 K	5.7 K	5.2 K	5.5 K	A K	6.0 K	6.1 K	6.8 K	7.2 K	A K	A K	5.6 K	6.3 K	A K	F K	A K	F K
22	4.8 P K	A K	4.7 F K	4.1 F K	F K	A K	5.9 K P	A K	A K	A K	5.5 K	5.6 K	5.7 K	6.4 K P	6.4 K	6.3 K	6.5 K	6.4 K	A	8.5	7.0	A	F	A
23	F	4.1 F	4.2 F	4.3 F	3.7 F	4.7	5.4	5.8	6.3	A	5.1	A	6.6	7.2	7.7	7.5	6.5	6.4	6.9	8.1 P	7.4	A	A	F
24	F	F	F	F	4.9 F	5.2	5.7	6.0	A	5.2 J	5.4	A	A	7.5	7.5	7.5	8.5	8.5	A	8.0 P	7.0	5.8 F	A	AF
25	AF	5.7 F	5.5 F	5.1 Z	4.7	5.0	6.0	7.0	A	A	A	A	A	A	9.1	8.7	8.0	6.1	6.2	7.1	6.8	6.4 F	6.0	6.0 F
26	AF	5.7 JF	A	F	F	5.6 F	7.1	6.6	5.9 H	A	A	A	7.3	A	C	6.8	7.9	7.5	7.5	8.7	(7.5) S	C	SF	7.5
27	7.2 F	7.5 F	6.2	(6.2) P	5.8 F	5.3	6.0	B	A	A	A	6.8	7.4	8.4	10.5 P	(9.4) P	6.5	A	6.5	(7.5) P	6.5	B	5.7	5.4
28	5.1	5.0	4.9	(4.9) P	4.6	A	5.4	4.5	A	A	6.5	A	C	C	8.0	9.0 P	8.9	7.0	7.1	7.6	8.0 P	7.7	7.2 P	AS
29	AF	(7.2) PZ	SF	5.4 JS	4.9 JF	5.4	4.9	A	A	6.5	5.8	A	5.7	A	6.9	5.9	6.4	6.5	6.5	7.6	7.5	7.2	F	7.2
30	6.0	5.7	5.2	A	4.0 F	4.9	6.7	7.5	6.6	A	5.4	5.8	6.4	7.4	8.7	9.1	8.4	8.5	7.6	7.8	7.7	7.7 Z	7.6 FP	F
31	(7.0) F	(7.0) F	6.1 FZ	3.8	3.9 VF	(4.5) P	6.0	7.8	7.0	7.5 P	5.6	6.0	A	A	9.0	9.0	8.9	9.0	9.0	A	6.9 BS	(6.5) P	(6.5) P	6.9 F
Mean Value	5.3	5.3	4.9	4.7	4.4	4.9	5.7	6.0	6.0	6.0	6.0	6.2	6.4	7.6	8.0	8.0	7.8	7.1	6.9	7.3	7.1	6.3	5.8	5.8
Median Value	5.1	5.1	4.9	4.6	4.4	4.9	5.7	5.8	5.9	6.1	5.9	6.1	6.4	7.4	7.6	7.8	7.9	7.0	6.8	7.4	7.0	6.4	5.9	5.8
Count	17	23	24	24	26	23	23	20	16	17	20	16	19	21	25	24	23	23	24	24	23	19	17	17

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

K 1

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

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

May. 1952 | 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	330 PK	350 PK	340 PK	360 K	310 K	300 K	270 K	A K	u K	u K	u K	u	330	C	C	C	A	A	330	330	340	410 P	350	370
2	370	400	340	380 V	320	260	290	270	310	340	350	A	400	(350) JP	(350) P	300 P	300 P	330	310	380	380 ZP	380	320	390
3	380	400	370	380	420	290	300	340	u	u	330	A	A	320	330 P	300	300 P	310	350	350 Z	360 ZP	A P	390	A
4	390	380 V	370 P	400	340 F	270	270	290	A	u	C	C	C	370 P	(360) P	310	(310) P	330	340	340	330	330 P	310 P	C
5	C	(390) P	(390) P	C	C	C	C	300	310	u	C	C	C	350 P	C	C	C	C	370	A	270	360	(370) P	(370) C
6	370	400	350	330	400	290	300	310	300	290	A	A	380 P	(340) P	310	(290) P	310 P	300	340	370	350	380	A	400
7	380	390	310	400	350	260	240	280	280	320	A	380	(330) P	310	320	310	340 P	C	C	C	C	C	C	C
8	A	C	(420) P	400	420	F K	C K	C K	M K	C K	C K	C K	C K	A K	u K	350 K	(340) AK	320 K	400 K	A K	A K	410 PK	410 K	440 K
9	400 K	450 K	400 FK	360 K	290 K	260 K	B K	280 K	A K	350 P	320 P	C	C	C	C	C	C	C	C	C	C	C	C	360 P
10	C	C	C	310 P	350	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	370	(380) JP	390	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
12	C	(320) P	(370) P	(330) P	(370) P	C	C	C	C	C	C	u	480	400	(320) J	BS	310	290	310	320	320 P	330	380	370
13	380	350	370	370	390	340	290	340	A	u K	u K	u K	u K	u K	360 K	320 K	(310) CK	310 K	310 K	310 K	300 KP	330 K	A K	AF K
14	AF K	350 K	350 FK	270 ZK	250 FK	260 K	260 PK	A K	u K	350 K	A K	u K	u K	u K	350 K	360 K	300 K	290 K	290 K	300 K	(340) KP	360 K	A K	360 K
15	C	C	C	C	C	C	C	310	310	A	300	u	u	350	340	320	310	270	A	300	A	350 F	F	A
16	AF	400 VF	350 Z	350	350	270	280	250	270	A	u	u	u	u	340	A	M P	M P	M P	M P	320	350 F	A	A
17	A	F	F	F	350 F	(310) JF	A	A	270	u	u	u	u	u	370	370	330 P	330 P	370 P	(430) P	A	A	450 P	A
18	A	A	A	F	390 F	260 F	270	A	A	A	370	420	A	410	350	350	A	300	350	370	380 P	350	380	330 P
19	320	310	S	390	360 F	300	280	300	A	A	A	u	A	350	320	350	350	350	320	310	330 P	370 F	290	350 PK
20	400 K	380 FK	350 FK	350 FK	320 K	260 PK	270 K	A K	A K	A K	A K	A K	u K	u K	350 K	350 K	320 PK	310 K	(330) KP	340 K	(350) KP	C K	C K	370 ZK
21	400 K	350 FPK	320 FK	(300) FPK	F K	330 K	300 K	330 K	u K	u K	u K	A K	A K	390 K	340 K	300 K	A K	A K	320 K	350 K	A K	F K	A K	F K
22	450 PK	A K	320 FK	350 FK	F K	A K	290 PK	A K	A K	A K	u K	u K	u K	u K	350 K	350 K	350 K	330 K	A	290	270	A	F	A
23	F	340	350 F	320 F	310 F	280	310	u	290	A	u	A	A	350	320	300	310	320	310	310 P	300	A	A	F
24	F	F	F	F	300 F	250	250	250	A	A	u	A	A	350	320	350	330	320	A	A	A	350 F	A	AF
25	AF	400 F	350 F	320 Z	310	320	290	270	A	A	A	A	A	A	320	300	290	320	330	350	330	350 F	350	AF
26	AF	(300) JF	A	F	F	310 F	260	260	300 H	A	A	A	350	A	C	350	330	300	330	330	(320) S	C	SF	340
27	400 F	320 F	390	(320) P	380 F	A	330	B	A	A	A	u	520	440	300 P	(300) P	300	A	350	(330) P	310	B	420	420
28	420	410	410	(390) J	350	A	270	260	A	A	370	A	C	C	A	370 P	320	A	330	350	350 P	A	370 P	AS
29	AF	AF	SF	SF	(390) JF	330	330	A	A	370	380	A	480	A	330	370	350	390	320	350	370	380	F	350
30	A	350	340 F2	A	390 F	320	310	280	300	A	u	u	390	400	350	330	350	330	320	330	350	370 Z	380 FP	F
31	(350) F	(320) F	320	350	400 VF	A	330	290	300	270 P	A	u	A	A	360	350	350	330	310	A	400 BS	(360) P	(400) P	370 F
Mean Value	380	370	360	350	350	290	290	290	290	330	350	400	410	360	340	330	320	320	330	330	330	360	370	370
Median Value	380	360	350	350	350	290	290	280	300	340	350	400	390	350	340	330	320	320	330	340	340	360	380	370
Count	15	22	23	23	26	21	23	18	11	7	7	2	9	15	23	24	23	21	23	22	22	18	15	15

hpF2

Sweep 1.0 Mc to 17.2 Mc in 2.0 min ☐ Manual ☒ Automatic

K 2

27

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | 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	280K	280K	290K	300K	250K	260K	260K	AK	500K	350K	390K	330	320	C	C	C	A	A	280A	270	270	300	300	300
2	200	300	240	270	260	230	240	260	300	330	350	A	370	330	300	270	270	270A	300A	300A	300A	310	250	300
3	300	310	290	290	300	260	270	250	330	350	330	A	A	320	310	280	280	280	270	310	340	A	340	A
4	320	310	290	350A	270	240	270	280	A	470	C	C	C	350	320	310	290	250	290	310	260	270	260A	C
5	340A	300	230	C	C	C	C	300	310	470	C	C	C	310	C	C	C	C	290A	A	A	230	270	(290)C
6	310	290	270	250	250	250	250	300	270	280	A	A	A	330	300	290	280	250	270	250	240	260	A	320A
7	260	300	250	300	260F	230	230	250	260	270	A	360	320	300	300	300	300	300	250	270	240	260	310	260
8	A	340	340	340	350	AK	AK	CK	MK	AK	AK	CK	CK	AK	480K	340K	(330)KA	320K	350KA	AK	AK	310K	330K	350K
9	320K	350K	310K	250K	230KA	240K	220K	260K	AK	350	320	360	350	B	320	290	290	260	A	A	A	310	A	300
10	330	A	A	270	280	250	250	270	C	B	C	C	310	320	320	300S	C	C	A	A	A	C	250	260
11	310	290	290	290	290	250	270	260	C	C	C	C	C	C	C	(300)S	270	270	260	A	260	260	260	260
12	320	310	300	300	290	260	C	C	C	C	C	340	480	370	300	280	270	260	260	250	250	260	250	290
13	270	260	260	270	290	250	270	330	A	360K	340K	310K	340K	350K	350K	300K	(300)KC	290K	300K	260K	250K	230KA	AK	AF K
14	AFK	AFK	AK	240K	200KE	230K	240K	AK	440K	340K	AK	350K	430K	410K	320K	290K	270K	270K	270K	240K	AK	280K	AK	310K
15	C	C	C	C	C	C	C	290	290	290	300	430	380	350	320	310	300	260	A	250A	A	AF	AF	A
16	A	290F	260	250	260	260	270	250	270	A	380	340	340	370	330	A	M	M	M	M	M	320	A	A
17	A	A	260	AF	320F	250	A	A	270	310	310	350	370	360	360	320	300	280	310F	A	A	A	300	A
18	A	A	A	F	300	220	240	A	A	A	360	400A	A	330	310	320A	A	300A	A	350A	270	250	270	270
19	250	250	330A	A	290	220	280	280	A	A	A	420	A	320	320	350	340	310	300	250	270A	320F	240	310KA
20	330KA	340KA	300K	290K	260K	240K	250K	AK	AK	AK	AK	AK	410K	490K	350K	350K	300K	290K	280K	240KF	250K	CK	CK	250K
21	330KA	300K	250K	220KA	250KF	220K	280K	320K	310K	470K	470K	AK	400KA	390K	340K	300K	AK	AK	290K	280K	AK	AK	AK	AK
22	390K	340KA	270K	290K	250K	AK	290K	AK	AK	AK	400K	420K	400K	370K	350K	340K	330K	320K	A	250A	240AF	A	A	A
23	270F	260	320A	280	240	250	290	310	290	A	A	A	A	350	310	300	300	320	290	250	230	A	A	300F
24	A	320A	300F	300A	230F	240F	250	240A	A	A	350	A	A	340	320	340	310	310A	A	A	A	AF	A	AF
25	AF	AF	280	250	250	290	270	260	A	A	A	A	A	A	310	290	280	310	A	260	260	300A	280A	AF
26	350AF	250	A	F	270F	240F	250	250	260H	A	A	A	340	A	C	340	320	290	310	270	AF	C	350A	300A
27	350A	310	A	A	330	A	320	B	A	A	A	490	500	400	270	280	290	A	270	250A	250A	AF	AF	370
28	360	350	350	A	AF	A	250	250	A	A	360	A	C	C	A	310	A	A	300	A	270	A	290	280
29	AF	AF	SF	SF	310	270	300	A	A	350	370	A	450	A	330	370	340	330	300	280	300	A	A	280
30	A	280F	260	A	320	260	310	280	300	A	280	460	390	390	320	320	320	290	270	280	250	290	300F	300F
31	250	270F	230	310A	350	A	330	280	300	270	320	430	A	A	330	320	320	300	280	A	A	A	330A	300F
Mean Value	310	310	280	280	270	250	270	280	310	350	350	380	380	360	330	310	290	280	290	270	260	280	290	300
Median Value	320	300	280	290	270	250	270	270	300	350	350	380	380	350	320	300	300	290	290	260	260	280	280	300
Count	21	24	24	21	28	24	26	21	15	15	16	15	18	22	26	28	24	24	23	21	19	17	18	21

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

K 3

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **foF1** | 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						Q	Q	A	A	4.4	4.7	4.3	4.5	C	C	C	A	A	A					
2						Q	Q	L	4.4	4.6	A	A	5.0	A	A	A	A	A						
3						Q	L	3.7	4.3	4.5	A	A	A	4.5	4.4	4.4	3.9	A						
4						Q	Q	A	4.5	4.4	C	C	C	C	C	A	4.0	Q	L					
5						C	C	4.0	A	4.7	C	C	C	4.5	C	C	C	C						
6						Q	L	L	4.4	4.4	A	A	A	4.7	A	4.0	4.2	L						
7						Q	Q	Q	A	L	A	4.8[L]	A	4.7	4.8	L	4.6	3.6	Q					
8							A	A	M	A	A	A	A	A	A	4.2	[3.8][A]	3.5						
9						Q	Q	L	A	4.6	4.5	4.7	4.6	B	4.7	4.4	4.2	L						
10						Q	Q	3.8	4.1	4.3	A	4.7	4.6	4.5	4.6	A	A	A	A					
11						Q	L	A	A	A	4.8	4.4	4.5	4.3	(4.4)[C]	4.4	4.1	L	A					
12						Q	A	A	A	A	A	4.6	4.6	4.4	4.4	4.3	3.9	L	Q					
13						Q	L	4.0	4.5[J]	4.4	4.5	4.5	4.4[H]	4.3	4.5	4.1	C	L	L					
14							Q	A	4.2	A	A	A	4.6	4.3	4.2	4.1	3.8	L	Q					
15						C	C	4.2	L	A	4.5	4.9	4.5	4.5	4.4	4.1	4.0	A						
16						Q	L	L	A	A	A	A	A	4.4	A	A	M	M	M					
17						Q	A	A	A	4.5	4.4	4.5	4.5	A	4.4	4.3	4.1	A	A					
18						Q	Q	A	A	A	A	A	A	A	A	A	A	A	A					
19						Q	3.6	L	A	A	A	A	A	4.5	A	A	A	A	A					
20						Q	L	A	A	A	A	A	4.4	4.4	4.2	A	4.0	3.7	A					
21						Q	L	L	A	4.5	4.4	A	A	4.5	4.3	4.2	A	A	L					
22						A	L	A	A	A	A	4.7	5.0	4.5	4.5	4.3	A	A	A					
23						Q	L	A	A	A	4.3[J]	A	A	A	4.4	4.3	4.2	A	L					
24						Q	L	A	A	4.4[J]	4.5	A	A	4.3	A	4.2	A	A	A					
25						L	L	A	A	A	A	A	A	A	A	4.5	4.2	3.7	A					
26							L	A	A	A	A	A	A	A	C	4.5	A	A	A					
27							A	A	A	A	A	4.5	4.3	4.4	4.4	4.3	4.2	A	Q					
28							A	Q	A	A	A	A	C	C	A	4.4	A	A	A					
29							A	A	A	A	A	4.5	4.6[H]	A	4.5	4.3	4.1	3.9	L					
30						Q	A	4.0	4.3	A	4.3	5.0[H]	4.7	4.5	4.5[H]	A	4.3	3.7	Q					
31							(4.0)[L]	4.1	4.4	A	A	A	A	A	4.5	4.3	4.2	A	A					
Mean Value							3.8	4.0	4.3	4.5	4.5	4.6	4.6	4.5	4.4	4.3	4.1	3.7						
Median Value							3.8	4.0	4.4	4.4	4.5	4.6	4.6	4.5	4.4	4.3	4.1	3.7						
Count							2	7	9	12	10	13	15	13	18	20	13	6						

foF1

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

K 4

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **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						Q	Q	A	A	250	A	A	A	C	C	C	A	A	A					
2						Q	Q	240	250[A]	230	A	A	A	A	A	A	A	A						
3						Q	250	250	A	220	A	A	A	210	230	240	250	A						
4						Q	Q	A	A	240	C	C	C	C	C	A	300[A]	Q	250					
5						C	C	260	A	A	C	C	C	250	C	C	C	C						
6						Q	250	250	260	250	A	A	A	270[A]	A	200	270	240						
7						Q	Q	Q	A	240	A	A	A	A	A	240	240	230	Q					
8							A	A[B]	M	A	A	A	A	A	A	A	A	A						
9						Q	Q	240[B]	A	220	210	200	230	A	200	240	240	250[A]						
10						Q	Q	250	290	210	A	B	240	240	250	A	A	A	A					
11						Q	250	A	A	A	200[B]	200	200	190	230	230	240	260	A					
12						Q	A	A	A	A	A	200	200[H]	210	210	230	240	240[A]	Q					
13						Q	250	A	A	A	210	210	200[H]	200	230	230	C	A	260					
14							Q	A	220	A	A	A[A]	220	210	230	250	240	260	Q					
15						C	C	250	250	A	200	250[A]	200	200	210	240	250	A						
16						Q	250	A	A	A	A	A	A	250	A	A	M	M	M					
17						Q	A	A	A	250	220	200	210	A	250	290	250	A	A					
18						Q	Q	A[A]	A	A	A	A	A	A	A	A	A	A	A					
19						Q	210	250[A]	A	A	A	A	230	A	A	A	A	A	A					
20						Q	240	A	A	A	A	A	240	230	220	A	240	250	A[A]					
21						Q	250	A	A	350[A]	250	A	A	270	220	250	A	A	250					
22						A	260	A	A	A	A	230	200	250	220	240	A	A	A					
23						Q	250[A]	A	A	A	220	A	A	A	A	A	260	A	250F					
24						Q	240	A	A	270	240	A	A	A	A	A	A	A	A					
25						250[F]	240	A	A	A	A	A	A	A	A	250	240	240	A					
26							240	A	A	A	A	A	A	A	C	240	A	A	A					
27							A	A	A	A	A	240	230	A	250	230	A	A	Q					
28							A	Q	A	A	A	A	C	C	A	220	200	A	A					
29							A	A	A	A	A	190	200[H]	A	A	B	270	A	260					
30						Q	A	260	260	A	230	AH	260	220	240[H]	A	230	A	Q					
31							250	A	270	A	A	A	A	A	250	B	A	A	A					
Mean Value						250	240	250	260	250	220	210	220	230	230	240	250	250	250					
Median Value						250	250	250	260	240	220	200	220	220	230	240	240	240	250					
Count						1	14	9	7	11	9	9	14	14	15	16	16	8	5					

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

K 5

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

May. 1952

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						1.2	2.2	2.5	2.9	3.1	3.3	B	3.4	C	C	B	A	2.5	1.7					
2						1.3	2.1	2.8	2.8	3.1	3.3	3.3	B	3.1	A	A	A	A						
3						1.3 J	2.0	2.6 F	3.0	3.2 F	3.3	3.3	3.2	3.4	A	3.1	2.8	2.4						
4						1.5	2.0	2.6	3.0	3.2	C	C	3.3	(3.2) C	3.1	A	2.6	2.5	B					
5						C	C	2.7	2.9	3.2	C	C	C	C	C	C	C	C						
6						1.6	A	2.6 F	3.0	A	3.2	A	A	3.3	B	B	3.2	2.5						
7						1.4	2.2	2.6	A	A	3.4	3.3	A	A	3.0	2.6	2.9	2.4	B					
8							2.2	2.5	(2.8) M	3.0	3.2	3.2	3.2	3.0	3.3	3.1	2.8	2.4						
9						1.5	2.3	2.7	2.9	3.1	B	3.2	A	A	A	3.2	3.0	2.3						
10						1.4	2.2	2.7	3.0	B	A	B	B	3.4 B	B	3.0	A	A	A					
11						A	2.1	2.6 S	3.0	3.1	B	B	B	B	A	3.1	2.9	2.4	A					
12						1.7 J	2.0	2.6	B	A	3.2	A	A	3.2	A	A	A	A	A					
13						1.6	2.3	2.7	A	A	A	A	3.3	3.2	A	3.0	C	A	A					
14							2.0	2.7 F	A	A	A	A	A	3.0	3.1	3.0	2.7 F	A	A					
15						C	C	A	3.1	3.4	A	A	A	3.3 A	3.2	3.0	2.8	2.4 F						
16						1.5	2.3 F	2.7	3.0	3.1	(3.2) A	3.3	3.2	3.2	A	A	M	M	M					
17						1.5	2.2 F	2.5 F	3.0 F	A	3.3	3.3	A	A	A	3.1	2.8 A	2.4 F	1.6 A					
18						A	2.3	2.6 F	A	3.3	A	3.5	3.3	3.3	3.0	3.0	2.7	A	A					
19						1.7	2.3	2.6	A	3.2	3.0	A	A	3.2	3.3	3.2	2.8	2.4	1.7					
20						1.6	2.1	2.4	2.8	3.0	3.2	3.1	3.2	3.2	A	2.7	A	A	A					
21						1.6	2.3	2.6	2.8	3.0	3.2	3.3	A	A	A	A	2.8 A	2.3	1.7					
22						1.7	2.2	2.6	3.0	3.0	3.0	A	3.0	A	A	3.2	2.8	2.4	A					
23						1.4	2.3 F	2.7	3.1	3.2	3.2	3.4	3.4	3.4	A	A	2.8	A	A					
24						A	2.3	(2.6) T	3.0	A	A	A	A	A	A	A	A	A	A					
25						A	A	A	3.1	3.2	(3.3) A	(3.2) A	3.3	3.2	A	3.1	2.9	2.5	A					
26							2.3 F	2.6	3.0	3.2	3.2	3.3	3.3	A	C	C	2.9	2.5	1.8					
27							A	A	2.8 A	3.0	3.0	A	A	3.5	3.3	3.2	2.9	2.5 F	1.9					
28							A	2.8 HA	3.0	3.2	3.3 F	3.3	C	C	3.3	3.2 F	3.1 F	2.3	A					
29							2.3	2.8	3.0	A	A	A	3.3	3.2	A	3.3	3.0	2.3	A					
30						A	2.2	2.7	3.0 F	3.2	A	3.5	3.5	3.4	3.0	3.2	2.9	2.5	A					
31							2.3	2.7 F	3.0	3.2	3.2	3.2	3.3 B	3.2	3.3	3.3 F	2.8	2.3	1.8					
Mean Value						1.5	2.2	2.6	3.0	3.1	3.2	3.3	3.3	3.2	3.1	3.0	2.7	2.4	1.7					
Median Value						1.5	2.2	2.6	3.0	3.2	3.2	3.3	3.3	3.2	3.2	3.1	2.8	2.4	1.7					
Count						17	25	28	25	22	19	16	15	20	11	20	22	20	7					

foE

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

K 6

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | K'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						120	110	120	110	110	110	110	110	C	C	120	A	110	130					
2						110	120	120	110	110	110	110	110	110	A	A	A	A						
3						150	130	110	110	110	110	110	110	110	A	110	120	110						
4						150	130	120	120	120	C	C	110	(110)C	110	A	110	120	B					
5						C	C	120	110	110	C	C	C	C	C	C	C	C						
6						160	A	120	110	A	110	A	A	120	B	B	110	110						
7						110	130	110	A	A	120	120	A	A	120	110	120	120	B					
8							140	120	(120)M	110	110	110	110	110	110	110	110	120						
9						110	120	110	110	110	110	110	A	A	A	110	120	120						
10						110	110	110	120	110	A	110	110	110	110	110	120	120	A					
11						A	130	110	110	110	110	110	110	110	A	110	110	120	A					
12						140	130	120	120	A	110	A	A	110	A	A	A	A	A					
13						140	120	110	A	A	A	A	110	110	A	110	C	A	A					
14							110F	120	A	A	A	A	A	A	110	A	AF	A	A					
15						C	C	A	110	110	A	A	A	110F	AF	100	100	110						
16						140	120	110	110	110	110	110	110	A	A	A	M	M	M					
17						150	120	120	110	A	110	110	A	A	A	110	110	110	120					
18						A	150	110	A	110	A	110	110	110	110F	110	120	A	A					
19						140	120	110	A	110	100	A	A	100F	110	110	110	110	110					
20						150	110	110	110	100	110	100	100	100	A	110	A	A	A					
21						150	110	110	100	100	100	100	A	A	A	A	110	110	130					
22						120	120	110	100	100	100	A	110	A	A	100	110	110	A					
23						140	110	110	110	100	100	100	100	100	A	A	A	A	A					
24						A	120	(110)T	100	110	A	A	A	A	A	A	A	A	A					
25						A	A	A	110	110	110	110	110	110	A	110	110	120	A					
26							120	110	110	110	110	110	110	A	C	110	110	120	120					
27							A	A	110	100	100	A	A	110	110	110	110	110	120					
28							A	110H	110	110	110	110	C	C	110	100	110	110	A					
29							120	110	110	A	A	A	110	110	A	110	110	110	A					
30						A	110	110	110	110	A	110	110	110	110	110	110	120	A					
31							120	110	110	110	110	110	110	110	110	110	110	110	110					
Mean Value						130	120	110	110	110	110	110	110	110	110	110	110	110	120					
Median Value						140	120	110	110	110	110	110	110	110	110	110	110	110	120					
Count						17	25	28	26	24	21	19	18	19	11	21	22	21	7					

Sweep 1.0 Mc to 19.2 Mc in 2 min ☐ Manual ☒ Automatic

K 7

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **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	2.0	2.1Y	2.4	2.3	E	G	3.3	5.8	5.2	4.7	4.7	4.7	4.3	C	C	C	10.1	9.0	6.7	3.7	3.0	2.6	E	M
2	E	E	E	2.1Y	3.1F	3.2	3.2	3.9	4.5	4.5	7.0	7.6	5.8	7.6	7.0	5.9	5.8	6.0F	6.0F	4.6F	4.5	4.8	2.4	E
3	5.5	3.0	2.5	2.6F	2.9F	2.5	3.5	4.0	5.3	6.7	8.0	10.2	9.5	G	4.4	3.7	3.6	6.0	7.0	7.7	4.7	6.8	4.3	6.8
4	4.0	3.5	3.3	4.0	3.7	2.9	4.8	4.9	5.5	3.2	C	5.8	5.8	C	5.8	6.5	4.5	G	4.9	5.5	3.2	3.0	4.7	4.9
5	4.3	4.7	4.0	C	C	C	C	3.9	6.0	5.4	C	C	C	C	C	C	C	C	5.5	8.0	5.9	3.3	E	C
6	E	E	E	E	2.4Y	G	2.9	3.3	4.9	6.0	6.5	7.5	8.8	4.8	6.8	B	G	4.5	3.9	2.9	2.9	3.8	6.0	3.9
7	2.9	3.9	2.4F	2.4	2.6	G	3.8	4.9	5.8	4.6	6.7	5.4	6.4	5.4	5.4	4.9	G	G	2.5	E	2.0	1.9	E	2.4
8	6.8	4.4	2.9	2.5	2.3	4.2	4.0	4.0	M	5.5	6.9	5.0	5.3	8.0	5.0	8.5Y	8.0Y	5.5	5.0	5.9	4.3	5.7	4.0	4.0
9	2.9	2.4	2.6	2.4FY	2.4Y	G	G	G	4.9	G	G	G	4.3	4.3	3.3	G	G	G	4.3	4.0	3.3	2.9	4.5	2.9
10	E	3.0	3.0	2.7	2.9	G	G	G	4.5	4.3	4.5	G	G	G	G	5.5	5.5	7.5Y	6.5	5.5	5.7	4.3	3.9	2.4
11	2.8F	2.4Y	1.5	E	2.4	2.5	G	4.7	5.5Y	5.8	G	4.5	G	G	4.0	G	G	4.1	3.8	4.5	3.9	4.7S	3.0	3.8
12	3.8	3.0	2.5	2.5Y	2.6	2.8	3.7	4.2	4.9	5.5	5.5	4.3	3.9	G	3.8	3.6	3.9	4.0	3.3	2.9	2.9	2.4	4.0	3.1
13	2.3	E	2.4Y	2.5	2.9S	2.6	3.6	5.8	6.0	5.0	4.2	3.9	G	G	4.0	4.3	C	3.7	2.9	3.0	5.5Y	4.3	7.0	5.8F
14	5.5F	4.7	6.0	3.3	3.0F	3.0	3.9	5.5	4.0	8.8	10.2	9.0	5.7	4.0	4.4	4.5	4.7	3.5	3.3	2.7	4.5	3.0	6.0F	3.2
15	C	C	C	C	C	C	C	4.5	5.1	5.9	4.6	6.0	5.5F	5.6	4.3F	4.9	G	5.4	6.7	8.5	8.0	3.5	6.0	6.7
16	6.0	3.7	2.9	2.4FY	2.0Y	2.9	3.3	4.9	5.7	6.5	5.8	6.0	5.7	4.9	5.0	10.0	M	M	M	M	7.0	5.5	6.7Y	8.5Y
17	7.0	4.5F	3.2F	4.8F	3.8F	2.5F	5.9	7.0	7.6Y	7.0	5.0	5.2	5.0	7.5	5.7	4.6	4.3	6.5	8.3	8.5	9.4	9.8	9.0	7.5
18	6.8	5.5Y	5.2	4.5	2.5F	2.5	3.2	5.5	5.8	7.8	6.5	6.6	7.6	5.5	6.5	7.0	9.9	7.2	10.0	7.0	4.4	3.2	4.2	3.0
19	3.8	3.8Y	2.5	3.8	2.5	2.6	G	4.0	6.0	6.1	5.6	6.6	8.3	4.5	5.5	5.1	5.3	4.2	4.2	3.5	4.4	5.5	2.4F	3.6F
20	3.6	2.7	2.4	2.4	2.6	2.9	4.0	5.4	6.7	6.0	8.0	7.6	4.8	4.6	4.5	5.0	4.2	4.2	4.9	2.9	2.7	C	C	6.4
21	3.0	3.8	2.5	2.8	2.7F	2.6	3.4	4.7	5.3	4.9	4.9	6.5	6.7	6.4	5.4	4.5	7.1	7.4	3.1	3.9	8.7	5.7	9.0	5.5
22	7.0	6.7	3.5	3.2	3.0	4.7	4.0	6.5	6.2	6.8F	7.3	6.6	4.3	7.5	9.0	G	5.5	4.9	10.0	8.8	9.3	9.0	8.0	7.4
23	3.8	7.0	3.8	5.8	2.5YF	3.0	4.9	5.7	6.1	7.0	7.0	8.3	7.4	7.5	5.5	6.5	5.4	6.9	5.8F	3.7F	3.4	7.0	6.8	5.7
24	5.1	4.3	3.8	3.8	4.4	4.3	4.0	5.9	8.7	6.0	8.5	10.1	7.5	4.9	5.8	5.3	6.6F	7.0F	8.3	7.2	7.8	6.5F	8.5	6.4F
25	4.5F	5.5F	3.5F	2.4	3.2	4.7F	3.8F	5.6	8.0	7.9	8.0	10.0	9.8	10.1	8.4	5.8	G	G	3.8	3.0	3.2	7.2	3.9	7.2
26	7.0F	7.2	6.5	4.5	3.3	3.0	G	4.8	4.8	7.0	8.5	9.5	7.2	12.5	C	5.0	6.7	6.5	6.0	4.8	4.6F	C	4.5	7.1
27	7.0	6.5	7.5	6.7	5.2	5.5	6.0	5.2	10.5	10.5	10.0	6.0S	5.5	5.1	5.2	4.6	4.8	7.0	3.7	3.9	3.1F	4.3F	4.6F	3.9
28	4.5	3.5	3.5	3.8	4.3F	6.6	4.9	6.0	7.6	10.5	10.8	11.5	C	C	8.0	9.3	9.0	8.5	4.2	8.5Y	6.5S	6.8	4.2	7.2
29	6.7	7.3	4.3	4.5	2.3	4.0	G	5.5	8.0	8.5	6.7F	8.0	5.8	7.5	4.1	G	G	3.6	3.1F	2.9	4.8	6.7	4.7F	3.5
30	5.5	3.9F	4.5Y	7.5	3.1F	3.8	6.7	4.2	5.0	9.5	4.1	6.5	5.4	6.5	4.9	5.2	4.2	4.8	4.9	4.3	3.2F	5.8	5.6F	4.2
31	3.0	2.9	3.5F	4.0	4.5F	6.9	3.9	4.5	5.0	6.3	6.3	5.5	10.7	10.0	G	G	G	5.8	5.8	9.0	6.7S	9.0YS	3.5	3.1
Mean Value	4.7	4.3	3.5	3.6	3.0	3.6	4.1	5.0	6.0	6.5	6.7	6.9	6.4	6.6	5.5	5.7	6.0	5.7	5.3	5.2	4.9	5.1	5.2	5.0
Median Value	4.2	3.8	3.1	2.8	2.9	2.9	3.7	4.9	5.6	6.0	6.5	6.5	5.7	5.4	5.1	5.0	4.6	5.4	4.9	4.4	4.5	4.8	4.5	4.2
Count	30	30	30	29	29	29	29	31	30	31	29	30	29	27	28	28	28	29	30	30	31	29	30	29

fEs | Sweep 1.0 Mc to 17.2 Mc in 2 min | ☐ Manual ☒ Automatic | K 8

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

May. 1952

(M3000)F2

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	3.0 P K	2.8 P K	2.9 P K	2.8 K	3.0 K	3.1 K	3.5 K	A K	2.5 K	3.0 K	2.8 K	3.0	3.0	c	c	c	A	A	2.9	3.0	2.9	2.6 P	2.7	2.7
2	2.8	2.6	2.8	2.7 V	3.0	3.5	3.2	3.5	3.3	3.0	2.9	2.9	2.6	(2.9) JP	(2.9) P	2.9 P	3.1 P	3.0	3.0	2.7	2.7	2.7	3.0	2.6
3	2.6	2.5	2.7	2.7	2.7	3.1	3.1	3.0	3.0 P	3.1	2.9	A	A	3.1	2.9	3.2	3.2	3.0	2.8	2.8 Z	3.0 ZP	A	2.6	2.8
4	2.7	2.7 V	2.8	2.6	2.9 F	3.2	3.3	3.3	A	2.5	c	c	c	2.9	(2.9) P	3.1	(3.0) P	2.9	2.9	2.9	3.0	2.7 P	3.0 P	c
5	c	(2.6) P	(2.6) P	c	c	c	c	3.1	3.1	2.5	c	c	c	2.9 P	c	c	c	c	3.0	3.1	3.3	2.7	(2.6) P	(2.6) C
6	2.7	2.6	2.8	3.0	2.6	3.1	3.1	3.1	3.3	3.3	3.0	(2.8) A	2.7	(2.9) P	3.1	(3.2) P	3.0 P	3.1	2.9	2.9	2.8	2.8	2.5	2.7
7	2.7	2.7	3.0	2.7	2.8	3.3	3.5	3.3	3.3	3.0	3.1	2.7	(3.0) P	3.0	3.1	3.1	2.8 P	c	c	c	c	c	c	c
8	A	c	(2.6) P	2.6	2.5	F K	c K	c K	M K	c K	c K	c K	c K	A K	2.9 K	2.9 K	(3.0) AK	3.0 K	2.6 K	A K	A K	2.6 KP	2.6 K	2.5 K
9	2.6 K	2.4 K	2.7 FK	2.7 K	3.1 K	3.2 K	B K	3.3 K	A K	2.9 P	3.0 P	c	c	c	c	c	c	2.9	c	c	c	c	c	2.8 P
10	2.7	c	c	3.0 P	2.9	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
11	c	c	2.7	(2.6) JP	2.6	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
12	c	(2.8) P	(2.8) P	(2.9) P	(2.8) P	c	c	c	c	c	c	3.0	2.4	2.6	(2.8) J	BS	3.1	3.2	3.1	3.1	2.5 P	2.8	2.8	2.8
13	2.8	2.9	2.7	3.0	2.7	3.0	3.4	3.0	A	2.9 K	3.0 K	3.2 K	2.6 K	2.9 K	3.1 K	2.9 K	(3.0) SC	3.0 K	3.0 K	3.1 K	3.1 PK	2.8 K	A K	AF K
14	AF K	2.9 K	2.9 F K	3.3 Z K	3.4 FK	3.4 K	3.5 PK	A K	2.6 K	2.9 K	2.9 K	2.9 K	2.6 K	2.6 K	3.0 K	3.2 K	3.3 K	3.5 K	3.1 K	3.1 K	(2.9) PK	2.8 K	3.2 FK	2.8 K
15	c	c	c	c	c	c	C	3.2	3.2	3.2	3.2	2.7	2.8	2.8	3.0	3.1	3.1	3.3	3.1	3.1	A	3.0 F	F	A
16	AF	2.6 VF	2.9 Z	2.8	2.8	3.2	3.4	3.4	3.5	A	2.9	3.1	3.0	2.9	3.0	A	M	M	M	M	2.9	2.9 F	A	A
17	A	F	F	F	2.8 F	(3.1) JF	A	A	3.4	3.2	3.3	2.8	2.8	2.8	2.7	2.8	2.9 P	2.9 P	3.1 P	(2.5) P	A	A	2.4 P	A
18	A	A	A	F	2.8 F	3.4 F	3.3	3.2	A	A	2.8	2.7	2.4	2.7	2.9	2.9	A	3.2	2.8	2.7	2.8 P	2.9	2.7	3.0 P
19	3.0	3.0	2.7	2.8	2.8 F	3.2	3.2	3.0	A	A	A	2.7	A	2.9	3.1	2.8	2.8	2.8	2.9	3.0	2.8 P	2.7 F	2.9	2.8 PK
20	2.6 K	2.6 FK	2.8 FK	2.8 FK	2.9 K	3.2 PK	3.3 K	A K	A K	A K	A K	A K	2.7 K	2.6 K	2.8 K	2.8 K	2.8 PK	3.0 K	(2.9) PK	2.9 K	(2.8) PK	C K	C K	2.7 ZP K
21	2.5 K	2.6 FP K	2.9 FK	(3.0) FP K	F K	2.9 K	3.1 K	3.0 K	3.1 K	2.5 K	2.5 K	A K	2.7 K	2.7 K	2.9 K	3.1 K	A K	A K	3.0 K	2.8 K	A K	F K	A K	F K
22	2.5 PK	A K	3.0 FK	2.8 FK	F K	A K	3.2 PK	A K	A K	A K	2.8 K	2.6 K	2.7 K	2.7 PK	2.9 K	2.9 K	2.8 K	3.0 K	A	3.2	3.3	A	F	A
23	F	2.6 F	2.7 F	2.9 F	3.0 F	3.2	3.1	3.0	3.2	A	2.4	A	A	2.9	3.0	3.1	3.0	3.0	3.0	3.0 P	3.1	A	A	F
24	F	F	F	F	3.0 F	3.4	3.3	3.5	A	A	3.2	A	A	3.0	3.1	2.9	3.0	2.9	A	3.0 P	3.3	2.9 F	A	AF
25	AF	2.6 F	2.8 F	3.0 Z	3.1	3.2	3.3	3.4	A	A	A	A	A	A	3.0	3.1	3.2	3.0	2.9	2.8	2.9	2.8 F	2.9	2.8 F
26	AF	(3.0) JF	A	F	F	3.0 F	3.3	3.5	3.0 H	A	A	A	2.9	A	c	2.9	3.0	3.2	2.9	2.9	(3.0) S	C	SF	2.9
27	2.6 F	2.9 F	2.7	(2.9) P	2.7 F	2.7	2.9	B	A	A	A	2.3	2.3	2.4	3.0 P	(3.1) P	3.2	A	2.7	(2.7) P	3.0	B	2.6	2.5
28	2.6	2.8	2.5	(2.7) P	2.8	A	3.4	3.2	A	A	2.9	A	c	c	2.8	2.8 P	3.1	3.0	2.9	2.9	2.8 P	2.9	2.8 P	AS
29	AF	(2.7) PZ	SF	SF	(2.6) JF	2.9	2.9	A	A	2.8	2.8	A	2.6	A	3.3	2.9	2.8	2.9	2.9	2.8	2.7	2.7	F	2.8
30	2.9	2.7	3.0	A	2.7 F	2.9	3.1	3.3	3.3	A	3.3	2.6	2.7	2.6	2.8	2.9	2.9	2.9	2.9	3.0	2.8	2.7 Z	2.7 FP	F
31	(2.9) F	(3.0) F	3.1 FZ	2.8	2.8 VF	(3.0) P	2.9	3.3	3.2	3.3 P	3.2	2.7	A	A	2.9	2.9	2.8	3.0	3.1	A	2.6 BS	(2.7) P	(2.6) P	2.6 F
Mean Value	2.7	2.7	2.8	2.8	2.8	3.1	3.2	3.2	3.1	2.9	2.9	2.9	2.7	2.8	3.0	3.0	3.0	3.1	2.9	2.9	2.9	2.8	2.7	2.7
Median Value	2.7	2.7	2.8	2.8	2.8	3.2	3.3	3.2	3.2	3.0	2.9	2.8	2.7	2.9	2.9	2.9	3.0	3.0	2.9	2.9	2.9	2.8	2.7	2.8
Count	17	23	24	23	26	23	23	20	15	15	20	16	18	21	25	24	23	23	24	24	23	19	17	17

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

K 9

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **fminF** | 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	1.6	E	1.1	1.2	E	1.8	2.2	A	4.2[A]	3.5	4.0	4.2	4.1	C	C	C	A	A	4.3[A]	3.1	2.2[A]	1.7	1.3	1.5
2	1.2	E	E	E	E	1.7	2.1	2.8	3.9[A]	3.4	5.0[A]	6.2[A]	4.6[A]	5.3[A]	4.6[A]	4.7[A]	5.0[A]	4.1[A]	5.1[A]	A	A	3.3A	1.6	1.5
3	1.7	E	1.7	1.2	1.5	1.7	2.1	2.7	4.2	3.5	5.7	A	A	3.5	3.5	3.4	3.2	4.1[A]	3.1[A]	2.3A	4.0[A]	A	3.2[A]	5.0[A]
4	2.3	2.1	1.1	3.3[A]	1.1	2.0	2.3	3.9[A]	4.2[A]	3.3	C	C	C	C	4.5[A]	5.2[A]	3.6[A]	2.5	2.2	4.0[A]	1.5	1.7	2.7[A]	C
5	A	A	E	C	C	C	C	3.6	4.4[A]	4.1	C	C	C	3.5	C	C	C	C	3.7[A]	7.2[A]	A	1.9	1.6	(1.4)[C]
6	1.3	E	E	E	1.0	1.6	1.9	3.0	3.5	3.8	5.0[A]	A	5.6[A]	4.2	5.0[A]	3.3	3.4	2.7	3.4[A]	1.7	2.0	1.8[F]	4.6[A]	A
7	1.4	1.7	1.6	1.4	1.1	1.6	3.0	2.8	4.7[A]	3.3	6.3[A]	4.4[A]	5.1[A]	4.5[A]	4.2[A]	3.3	2.9	2.5	1.9	1.4	1.4	1.4	1.5	1.5
8	A	1.2	1.8	1.7	1.5	A	A	A	M	A	A	A	A	A	4.3	4.1	A	3.2	A	A	A	1.8	1.9	2.0[A]
9	1.8	1.4	1.7	1.0	A	1.8	2.4	3.5	4.8[A]	3.5	3.6	3.8	3.7	A	3.4	3.3	3.3	A	A	A	A	2.2[A]	A	1.9
10	1.4	A	A	1.8	2.0	1.9	2.5	3.3	3.6	3.6	A	4.2	3.8	3.8	3.8	A	A	A	A	A	A	A	1.8	1.6
11	1.5	1.2	1.3	E	1.1	1.8	2.4	4.0[A]	A	A	4.0	3.8	3.6	3.6	3.5	3.5	3.3	2.5	3.3[A]	A	1.5	1.5	1.5	1.8
12	1.9	1.9	1.8	1.8	1.2	2.1	A	A	A	A	A	3.5	3.5	3.5	3.4	3.2	3.3	2.9	2.3	1.8	1.9	1.7	1.7	1.4
13	1.2	E	E	E	E	1.7	3.0	3.5	4.3[A]	4.0	3.5	3.5	3.5	3.5	3.5	3.2	(3.1)[C]	3.0	2.2	1.8	1.9	A	A	AF
14	AF	AF	A	1.9	1.3	1.7	2.3	A	3.5	5.0[A]	5.5[A]	4.7[A]	3.5	3.5	3.6	3.5[A]	3.3	3.1	2.5[A]	1.7	A	1.8	A	2.2[AF]
15	C	C	C	C	C	C	C	3.6[A]	3.7[A]	5.3[A]	3.5	4.3	3.5	3.6	3.3	3.3	3.2	4.1[A]	6.0[A]	A	A	3.5[AF]	A	A
16	A	1.7	1.6	1.1	E	1.7	2.3	2.8	4.7[A]	A	4.7[A]	4.7[A]	4.5[A]	4.0	4.3[A]	A	M	M	M	M	M	1.8	A	A
17	A	A	1.4	AF	1.8[F]	2.0	A	A	4.2[A]	4.0	3.5	3.5	3.6	4.6	3.6	3.5	2.8	3.7[A]	3.6[A]	6.1[A]	A	A	1.8	A
18	A	A	A	A	1.8	1.7	2.5	4.0[A]	A	A	4.3	5.3[A]	5.9[A]	4.6[A]	4.5[A]	5.6[A]	A	5.8[A]	A	A	1.9	1.8	1.9	1.8
19	1.8[F]	1.5	2.2[A]	2.8[A]	1.4	1.7	2.3	3.4[A]	A	A	A	4.6[A]	A	3.5	4.5	4.4	4.1	3.5	3.5[A]	2.1[A]	2.5[A]	3.5[A]	1.5	2.6[A]
20	A	A	1.2	2.4	1.8	1.8	2.9	A	A	A	A	A	3.5	3.5	3.0	4.3	3.3	2.7	3.9[AF]	1.9[F]	1.8	C	C	1.7
21	A	1.6[A]	1.0	A	E	1.8	2.3	3.8[A]	4.5[A]	3.9	4.0	A	5.4[A]	4.2	3.4	3.9	A	A	A	2.5[A]	A	A	A	A
22	2.3[A]	2.7[A]	2.1[A]	1.8	1.4	A	3.3[A]	A	A	A	4.5	3.5	3.5	4.0	3.5	3.4	4.9[A]	3.8	A	A	A	A	A	A
23	1.4	E	2.2[A]	1.1	E	1.8	A	4.7[A]	4.8[A]	A	4.0	A	A	5.5[A]	4.0	3.9	3.4	3.9[A]	2.0	1.5	1.7	A	A	3.0[A]
24	A	A	1.7[F]	A	E	1.7	2.3	A	A	3.1	4.1[A]	A	A	3.9	4.6[A]	3.8	4.2[A]	6.3[A]	A	6.7[A]	A	3.5[AF]	A	AF
25	AF	3.6[AF]	1.2	E	1.6	2.0[F]	2.2	4.3[A]	A	A	A	A	A	A	4.8	3.3	3.1	2.6	3.1	1.8	2.0[A]	3.5[A]	3.5[A]	5.0[A]
26	AF	1.1	A	A	2.0[A]	2.0	3.3	4.1[A]	4.2	A	A	A	5.2[A]	A	C	3.5	6.1[A]	6.0[A]	4.8[A]	4.5[A]	AF	A	A	3.6[A]
27	5.0[A]	5.0[A]	5.0[A]	5.0[A]	3.2[A]	A	4.1[A]	A	A	A	A	3.6	3.5	4.2[A]	3.7	3.4	3.9	A	2.2[F]	A	AF	AF	AF	2.8[AF]
28	3.0[AF]	2.3[AF]	2.2[AF]	A	AF	A	3.5[A]	3.0	A	A	5.0[A]	A	C	C	7.2[A]	3.2	3.5	5.8[A]	3.8	5.2[A]	1.8	6.3[A]	2.1	1.9
29	AF	A	AF	SF	1.1	1.9	3.5[A]	A	A	4.5[A]	4.6[A]	3.6	3.7	A	4.2	3.5	3.6	3.6[A]	2.2	1.6	3.5[A]	A	A	2.9[AF]
30	A	2.0[FA]	1.7	A	E	1.9	5.3[A]	3.4	3.5	A	4.0	4.2[A]	4.0	3.3	3.9	4.4	3.2	3.2[A]	2.0	1.7	1.6	1.9	1.7	1.8
31	1.6	1.7	1.3	2.3A	1.9	3.4[A]	2.8	3.5[A]	4.0	5.0[A]	4.8[A]	4.5[A]	A	A	3.5	3.8	3.9[A]	5.0[A]	4.9[A]	A	5.0[A]	5.2[A]	A	1.7
Mean Value	1.9	2.0	1.8	2.0	1.6	1.9	2.7	3.5	4.2	3.9	4.5	4.2	4.2	4.0	4.1	3.8	3.7	3.8	3.3	3.1	2.2	2.7	2.1	2.3
Median Value	1.6	1.6	1.6	1.4	1.2	1.8	2.4	3.5	4.2	3.8	4.3	4.2	3.7	3.8	3.8	3.5	3.4	3.6	3.3	2.1	1.9	1.8	1.8	1.8
Count	17	22	25	21	27	25	25	21	19	17	21	19	21	22	28	27	24	24	23	21	17	20	17	22

fminF

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

K 10

35

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

May. 1952

fminE

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1.6	E	E	E	E	E	1.3	1.3	1.3	1.7	1.7	2.0	1.6	C	C	2.2	1.6	1.3	1.3	1.3	E	1.4	E	1.8
2	E	E	E	E	E	E	1.2	1.2	1.2	1.6	1.6	1.6	1.7	1.8	1.6	1.7	1.3	1.6	1.5	1.2	1.5	1.5	1.7	E
3	E	E	E	E	E	1.0	1.6	1.6	1.7	1.6	1.7	1.7	1.8	1.7	1.8	1.6	1.6	1.6	1.7	E	1.3	1.5	E	1.6
4	E	E	1.0	E	E	1.0	1.6	1.7	1.7	1.7	C	C	1.9	C	C	2.1	1.6	1.6	1.6	1.4	1.2	1.4	1.2	1.4
5	1.0	E	E	C	C	C	C	1.7	1.8	1.7	C	C	C	C	C	C	C	C	1.6	1.0	1.5	1.5	E	C
6	E	E	E	E	E	E	1.6	1.6	1.7	1.7	1.7	3.1	3.0	2.8	3.3	B	1.6	1.6	1.6	1.3	1.4	1.4	1.6	1.4
7	1.6	E	E	E	E	E	1.7	1.7	1.7	1.6	2.8	2.2	2.6	2.2	2.5	1.5	1.7	1.7	2.1	E	1.8	1.7	E	1.8
8	1.7	E	E	E	E	E	1.8	2.0	[2.0]M	1.9	2.1	2.0	2.0	1.9	1.7	1.7	1.5	1.5	1.3	1.4	1.4	1.5	1.4	1.4
9	1.2	E	E	E	E	1.0	1.3	1.8	1.7	1.8	1.9	1.9	1.9	2.0	1.9	1.7	1.7	1.7	1.6	1.5	1.4	1.5	1.7	1.5
10	E	E	E	E	E	E	1.7	1.7	2.6	1.7	1.7	1.9	1.9	1.9	1.8	1.4	1.7	1.4	1.4	1.5	1.4	1.5	1.7	1.4
11	1.5	E	E	E	E	E	1.8	1.7	1.8	1.8	1.9	1.9	1.9	1.9	1.9	1.8	1.8	1.7	1.7	1.2	1.5	1.5	1.6	1.5
12	1.5	E	E	E	E	1.2	1.8	1.8	1.9	1.8	1.9	1.8	1.7	1.8	1.7	1.6	1.3C	1.3	1.3	1.1	E	1.3S	1.2S	1.4S
13	1.6	E	1.1	E	1.3	E	1.4	1.6	1.6	1.7	1.8	1.8	1.8	1.8	1.8	1.8	(1.5)C	1.2	1.2	1.3	1.6S	1.6	1.1S	1.6
14	1.5	E	E	E	E	E	1.6	1.7	1.7	1.4	1.7	1.8	1.7	1.7	1.7	1.6	1.4	1.2	1.2	1.3	1.2	1.3	1.2	1.3
15	C	C	C	C	C	C	C	1.6	1.4	1.3	1.7	1.7	1.8	1.7	1.6	1.6	1.6	1.6	1.5	1.4	1.7	1.1S	1.6	1.6
16	1.2S	E	E	E	E	E	1.1	1.2	1.8	1.7	1.7	1.7	1.7	1.7	1.6	1.7	M	M	M	M	M	E	1.6	1.3
17	1.1	E	E	E	E	E	1.2	1.2	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.6	1.3	1.3	1.6	1.5	1.5	1.5	1.5
18	1.5	E	E	E	E	E	1.2	1.4	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.5	1.6	1.4	1.3	1.3	1.7	1.5	1.5	1.4
19	1.1	E	E	E	E	E	1.2	1.3	1.3	1.0	1.6	1.7	1.8	1.7	1.6	1.6	1.3	1.6	1.2	1.1	1.6	1.5	1.7	1.6
20	1.0	E	E	E	E	E	1.1	1.1	1.7	1.7	1.7	1.7	1.7	1.7	1.4	1.7	1.6	1.3	1.2	1.3	1.2	C	C	1.5
21	1.0	E	E	E	E	E	1.2	1.1	1.4	1.3	1.6	1.6	1.7	1.6	1.8	1.7	1.6	1.2	1.2	1.2	1.6	1.5	1.7	1.5
22	1.3	E	E	E	E	E	1.3	1.2	1.3	1.6	1.7	1.8	1.9	1.7	1.8	1.4	1.4	1.6	1.5F	1.5	1.5	1.6	1.5	1.2
23	1.2	E	E	E	E	E	1.1	1.2	1.7	1.7	1.7	1.7	1.7	1.8	1.7	1.6	1.6	1.3	1.1	1.1	1.1	1.4	1.5	1.6
24	E	E	E	E	E	E	1.4	1.3	1.6	1.3	1.7	1.8	1.8	1.8	1.7	1.4	1.3	1.2	1.2S	1.6	1.6	1.7	1.2	1.6
25	E	E	E	E	E	E	1.1	1.3	1.7	1.7	1.8	2.0	1.8	1.7	1.7	1.6	1.3	1.4	1.2S	E	1.5	1.2	1.5S	1.6
26	1.6	E	E	E	E	E	1.2S	1.2	1.4	1.7	1.7	1.8	1.7	1.8	[1.8]C	1.7	1.6	1.7	1.4	1.1S	[1.2]T	1.4	1.5	1.6
27	1.5	E	E	E	E	E	1.2S	1.7	1.7	1.6	1.6	1.8	1.7	1.7	1.7	1.6	1.6	1.4	1.2S	1.5S	1.5	1.5	1.4S	1.2S
28	1.2S	E	E	E	E	E	1.6	1.7	1.8	1.7	1.7	1.7	C	C	1.7	1.7	1.6	1.3	1.3	1.3	1.6S	1.6	1.5	1.6
29	1.2S	E	E	E	E	E	1.6	1.7	1.4	1.6	1.7	1.8	1.8	1.7	1.7	1.7	1.7	1.6	1.2	1.9	1.2	E	1.4	1.7
30	1.2	E	E	E	E	E	1.6	1.7	1.7	1.7	1.7	1.9	1.7	1.7	1.7	1.7	1.7	1.7	1.3	1.2	1.3	1.1	1.6	1.3S
31	1.1	E	E	E	E	E	1.2	1.4	1.6	1.3	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.3	1.2	1.3	1.1S	1.6	1.4	1.2
Mean Value	1.3	E	1.1	E	1.3	1.4	1.4	1.5	1.7	1.6	1.8	1.8	1.9	1.8	1.8	1.7	1.6	1.4	1.4	1.2	1.3	1.4	1.3	1.4
Median Value	1.2	E	E	E	E	E	1.3	1.6	1.7	1.7	1.7	1.8	1.8	1.7	1.7	1.7	1.6	1.4	1.3	1.3	1.5	1.5	1.5	1.5
Count	30	30	30	29	29	29	29	31	31	31	29	29	29	27	28	29	29	29	30	30	30	30	30	30

Sweep 1.0 Mc to 17.2 Mc in 2.0 min ☐ Manual ☒ Automatic

K 11

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **ypF2** | 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	90 P K	100 K P	70 K P	80 K	90 K	100 K	80 K	A· K	u K	u K	u K	u	90	C	C	C	A	A	80	100	80	110 P	70	80
2	80	100	120	100 V	50	120	60	30	50	80	80	A	80	(70) JP	(70) P	70 P	100 P	70	100	70	80	70	80	70
3	90	100	80	100	90	70	80	90	u	u	70	A	A	60	90	100	60	90	110	90 Z	90 ZP	A	90	A
4	80	70 V	70	90	90 F	130	80	60	A	u	C	C	C	60	(80) P	60	(100) P	80	70	70	70	70 P	90 P	C
5	C	(110) P	(80) P	C	C	C	C	100	60	u	C	C	C	90 P	C	C	C	C	80	A	70	60	(80) P	(80) C
6	90	100	120	70	120	110	100	70	60	40	A	A	70	(120) P	100	(90) P	110 P	100	60	80	100	100	A	100
7	110	70	90	70	100	100	80	90	60	70	A	80	(110) P	100	70	80	90 F	C	C	C	C	C	C	C
8	A	C	(80) P	100	90	F K	C K	C K	M K	C K	C K	C K	C K	A K	u K	150 K	[120] KA	100 K	130 K	A K	A K	90 P K	90 K	140 K
9	100 K	130 K	160 F K	150 K	120 K	110 K	B K	70 K	A K	100 P	80 P	C	C	C	C	C	C	C	C	C	C	C	C	80 P
10	C	C	C	90 P	80	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
11	C	C	110	(110) JP	110	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
12	C	(150) P	(60) P	(100) P	(100) P	C	C	C	C	C	C	u	170	70	(80) J	85	60	80	80	60	70 P	70	50	80
13	80	60	100	80	110	70	60	60	A	u K	u K	u K	u K	u K	90 K)	80 K	(80) KC	90 K	70 K	70 K	100 KP	120 K	A K	AF K
14	AF K	60 K	80 F K	80 Z K	50 F K	110 K	40 P K	A K	u K	70 K	A K	u K	u K	u K	40 K	60 K	50 K	60 K	100 K	100 K	(100) KP	60 K	A K	80 K
15	C	C	C	C	C	C	C	50	50	A	50	u	u	100	60	60	70	60	A	50	A	60 F	F	A
16	AF	100 VF	60 Z	70	80	100	70	80	70	A	u	u	u	u	60	A	M	M	M	M	90	60 F	A	A
17	A	F	F	F	70 F	(60) JF	A	A	70	u	u	u	u	u	100	160	120 P	150 P	140 P	(140) P	A	A	150 P	A
18	A	A	A	F	110 F	140 F	80	A	A	A	90	60	A	130	70	80	A	60	120	80	120 P	70	90	70 P
19	80	90	u	80	70 F	70	80	100	A	A	A	u	A	150	90	70	60	90	100	70	110 P	80 F	110	100 KP
20	120 K	120 KF	100 F K	80 F K	90 K	70 P K	80 K	A K	A K	A K	A K	A K	u K	u K	170 K	100 K	130 KP	140 K	(170) KP	110 K	(150) KP	C K	C K	140 KZP
21	120 K	140 FP K	120 F K	(140) FP K	F K	120 K	110 K	100 K	u K	u K	u K	A K	A K	90 K	100 K	70 K	A K	A K	110 K	70 K	A K	F K	A K	F K
22	100 P K	A K	80 F K	100 F K	F K	A K	100 P K	A K	A K	A K	u K	u K	u K	u K	80 K	120 K	100 K	70 K	A	120	80	A	F	A
23	F	90 F	100 F	80 F	110 F	120	90	u	90	A	u	A	A	90	80	90	70	70	90	120 P	90	A	A	F
24	F	F	F	F	130 F	50	60	60	A	A	u	A	A	50	60	70	70	90	A	A	A	80 F	A	AF
25	AF	100 F	60 F	90 Z	100	90	110	70	A	A	A	A	A	A	80	80	60	80	70	90	70	60 F	100	AF
26	AF	(100) JF	A	F	F	90 P	90	50	140 H	A	A	A	70	A	C	60	70	50	100	100	(90) S	C	SF	90
27	70 F	90 F	80	(100) P	90 F	A	110	B	A	A	A	u	90	130	120 P	(80) P	100	A	70	(130) P	90	B	90	120
28	80	140	110	(130) P	100	A	120	140	A	A	80	A	C	C	A	90 P	70	A	110	100	100 P	A	80 P	AS
29	AF	AF	SF	SF	(110) JF	70	110	A	A	50	U	A	U	A	100	50	130	70	100	100	90	60	F	150
30	A	150	70	A	60 F	100	100	70	70	A	u	u	70	100	90	90	100	120	90	70	60	80 Z	70 FP	F
31	(100) F	(80) F	80 FZ	100	70 VF	A	70	60	50	90 P	A	u	A	A	70	70	60	70	60	A	70 BS	(120) P	(90) P	160 F
Mean Value	90	100	90	100	90	100	90	80	70	70	80	70	90	90	80	80	90	90	100	90	90	80	80	100
Median Value	90	100	80	90	90	100	80	70	60	70	80	70	80	90	80	80	80	80	100	90	90	70	90	90
Count	15	22	23	23	26	21	23	18	11	7	6	2	8	15	23	24	23	21	23	22	22	18	15	15

ypF2

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

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Yamagawa

Lat. 31° 12.5' N
Long. 130° 37.7' E

May. 1952 | f_0F2 | 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	5.8[K]	4.8[K]	4.4[K]	3.8[K]	3.6[K]	3.3[K]	4.1[JK]	5.1[K]	5.4[K]	7.0[P]	7.1	C	C	C	C	C	C	(10.0)[JP]	C	C	5.8[P]	C	C	C
2	C	C	C	C	C	5.2[J]	5.5[J]	6.2	6.3	C	C	8.5	(9.0)[P]	11.4	12.5	C	C	C	8.6	6.4	C	C	(5.3)[JS]	C
3	C	C	C	C	5.4	[5.6][C]	5.8	6.2	5.4	5.8	A	C	C	9.3[P]	C	C	7.6[J]	A	A	A	A	M	4.2	S
4	A	5.2	A	4.5	4.5[H]	4.6	4.7	(6.5)[P]	5.5	[5.8][A]	6.2	C	C	C	C	9.0[P]	8.0	C	A	A	S	S	A	5.8
5	S	5.9	5.8	4.1	4.2	4.0	5.6	6.5	C	C	6.0	C	C	(9.5)[P]	C	C	10.7	8.1[J]	8.3	8.5[J]	9.0[P]	4.5	6.2	5.2
6	6.1	[6.2][S]	6.4[P]	4.4	3.9	4.0	(6.4)[JP]	[6.2][S]	6.1	6.2	C	C	C	C	11.0	C	C	C	8.7	8.8	8.5	6.5	5.2	4.9[J]
7	5.6	5.8	5.7	5.0[V]	5.2	4.8	4.9	6.0	6.1	6.5[P]	6.6	8.7	10.6	(11.4)[C]	12.1	12.1	10.8	11.2	10.9[J]	11.9[J]	12.0	8.8	7.9[J]	7.6
8	6.3[P]	7.5	[7.9][S]	8.3	5.8	4.8	3.9[H]	C[K]	A[K]	C[K]	C[K]	C[K]	C[K]	C[K]	C[K]	6.9[K]	5.7[K]	C[K]	A[K]	A[K]	5.5[K]	A[K]	4.4[K]	A[K]
9	4.7[K]	4.3[EK]	4.0[EK]	4.2[EK]	3.6[EK]	2.7[EK]	4.3[K]	4.9[K]	5.6[H]	6.2[P]	6.5	7.0	7.6	(9.0)[JP]	12.1	[11.6][C]	11.0	9.9[J]	8.6[J]	A	6.5	5.5	5.1	5.4
10	5.0	FS	5.5	5.2[F]	4.5[F]	4.4	5.7	6.2	5.4	5.9	6.5	7.2	8.4	9.2	9.0	9.0[P]	C	C	C	C	8.2[J]	(5.7)[JP]	A	A
11	(5.8)[JP]	5.2	5.3	5.2[H]	F	F	C	C	5.8	5.7	6.2	C	C	C	C	C	C	C	C	C	8.8	A	5.9	5.6[P]
12	S	A	6.0	F	FS	FS	C	C	C	(6.5)[P]	6.1	6.1	7.1	9.2	11.5	12.5	12.5[P]	11.5	C	C	6.8	4.7	4.5	5.4[J]
13	5.4	5.5	5.2	5.2	4.4[H]	4.4[F]	5.8	[5.8][C]	5.7	A	C	7.2	[7.1][C]	7.0	8.5	9.0	(10.4)[JP]	9.1	8.5	C	7.4	4.6	4.2[H]	(5.0)[P]
14	S	A	6.0	4.1	F	2.6[F]	4.5	5.1	6.2	6.7	7.0	7.4	7.7	(8.5)[P]	A	9.2	8.2	7.1	6.8	5.9	C	C	4.8	4.2
15	4.1	4.8	4.8	4.1	3.5[F]	(5.1)[JP]	6.1	6.1	C	A	A	A	6.0	[7.0][C]	8.0	8.5	9.2[P]	8.0	6.5	6.6	6.7	6.0	5.9[J]	A
16	A	F	4.5	4.5[F]	4.0	4.0	5.4[P]	6.2	6.2	5.4	5.4[P]	A	6.8	A	A	8.4[P]	8.2	6.5	5.9	(6.0)[JP]	7.3	5.0[P]	C	C
17	S	A	A	A	A	F	(5.6)[P]	[6.3][C]	7.0	A	A	C	6.2[P]	7.2	A	A	8.4	8.4	A	A	A	A	5.0	4.4[J]
18	A	4.7	A	A	3.3	A	4.8	5.2	6.5	C	A	C	6.2[P]	7.4	9.1	9.0	9.3[P]	(9.8)[P]	8.1	7.1	C	S	7.5	[7.1][S]
19	6.7	4.2	3.7	3.7[F]	3.8[F]	F	4.7	5.2	6.2	6.3[P]	6.3[J]	7.1	8.2	[8.4][C]	(8.5)[JP]	9.7[J]	(9.3)[JP]	9.9[J]	10.3[J]	9.0[P]	A	5.3[PH]	5.6[P]	A
20	A	4.8[PF]	4.5	3.9[J]	(4.7)[P]	5.2[P]	5.4	5.0	(5.5)[P]	C	A	C	C	C	A	A	A	7.2	A	C	6.6	[6.0][S]	(5.3)[P]	S
21	FS	FS	F	4.7[P]	2.8[DK]	3.1[ZK]	C[K]	C[K]	C[K]	C[K]	C[K]	6.7[K]	7.5[K]	8.8[K]	8.6[K]	A[K]	6.5[JK]	[6.4][CK]	6.2[JK]	A	7.2	7.0[H]	S	A
22	A	A	A	4.2	4.0	4.1	4.8	6.2	A	A	A	C	6.9	A	7.9	7.7	8.0	8.2	8.7	8.3	A	A	A	A
23	A	A	A	A	3.6	3.7[Z]	4.9	6.4	C	C	A	A	(7.5)[JP]	9.7	9.6[P]	9.6[P]	(8.0)[P]	7.3	8.5	8.9	9.0	5.4[P]	4.5	A
24	4.2	A	(4.5)[P]	F	F	4.5	5.7[J]	5.8[J]	A	C	A	7.1	A	(9.0)[JP]	9.8	S	C	C	C	S	9.0[P]	A	A	A
25	A	S	(6.6)[JS]	F	FH	4.5	(5.3)[JP]	6.6	5.6[J]	5.8[J]	6.2	6.7	8.1	(8.9)[P]	(9.3)[JP]	(9.4)[P]	8.1	7.2	8.0	8.0	7.8	7.1	6.0	6.2[V]
26	6.1	F	5.6[JF]	4.9	5.0	5.7[J]	5.9	5.8	5.8	[6.2][C]	6.7	7.2	8.0	8.3	9.0	9.0	[8.8][C]	8.7[J]	9.0[P]	8.7	7.5	6.7	6.7[J]	7.5
27	6.7	(7.0)[P]	C	C	C	C	6.7	6.0	C	C	5.6[J]	6.1	6.8	8.5	(9.4)[JP]	[8.7][C]	8.0	6.5	6.8	7.8	7.0	A	A	A
28	AS	4.8	A	4.7[PS]	4.7	4.5	5.0	5.4[P]	6.5	6.5	6.8	A	6.8	8.4	9.0	8.7	7.6	7.4	8.9	8.5	8.7	8.1	7.5	7.3
29	7.2	7.0	7.0	6.2	5.9[J]	6.1	5.2	5.7	A	A	A	A	A	C	C	8.4	7.9	8.4	8.8	9.0	8.7[J]	(8.3)[JP]	7.4[JP]	7.4
30	A	AS	6.6[J]	5.1	A	A	(6.2)[JP]	6.4	6.1	5.2	6.8	[6.5][C]	6.2	8.1	9.2	8.6	9.2	[9.5][C]	9.8[P]	8.4	8.5	7.7	7.8	7.0
31	[7.2][S]	7.3	6.3	3.9[VF]	3.9	4.3	5.7[J]	7.2	7.1	6.5	6.3	A	A	8.0	9.4[P]	9.5	(9.9)[P]	9.6	[9.2][C]	8.9	6.8	(6.8)[S]	[6.9][S]	7.0
Mean Value	5.8	5.6	5.5	4.7	4.3	4.4	5.3	5.9	6.0	6.1	6.4	7.1	7.4	8.7	9.7	9.3	8.8	8.5	8.3	8.2	7.8	6.3	5.8	5.9
Median Value	5.8	5.2	5.6	4.5	4.1	4.4	5.4	6.1	6.1	6.2	6.3	7.1	7.3	8.6	9.2	9.0	8.3	8.4	8.6	8.4	7.5	6.0	5.6	5.8
Count	15	17	21	22	22	24	28	27	21	17	17	14	20	22	20	21	24	23	21	18	23	19	23	17

Sweep 1.0 Mc to 22.0 Mc in 2 min ☐ Manual ☒ Automatic

Y 1

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **h_pF2** | 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	330K	320K	340K	300K	330K	320K	(260)JK	260K	300K	290P	310	C	C	C	C	C	C	(300)JP	C	C	250P	C	C	C
2	C	C	C	C	C	(260)J	(250)J	250	250	C	C	350	(350)P	320	300	C	C	C	300	300	C	C	(350)JS	C
3	C	C	C	C	300	[280]C	250	300	300	360	A	C	C	300P	C	C	(300)J	A	A	A	A	M	390	S
4	A	300	A	370	340H	320	A	(270)P	A	C	300	C	C	C	C	300P	300	C	A	A	S	S	S	340
5	S	350	350	350	310	300	270	250	C	C	C	C	C	(300)P	C	C	300	(300)J	350	(300)J	240P	300	390	350
6	350	[330]S	310P	270	320	380	(250)JH	[250]S	250	290	C	C	C	C	300	C	C	C	350	300	300	300	390	(350)J
7	360	350	300	350V	280	230	220	260	250	300P	330	380	340	C	A	300	350	300	(350)J	(300)J	260	360	(340)J	340
8	390P	370	[360]S	350	390	400	440HK	CK	AK	CK	CK	CK	CK	CK	CK	320K	300K	CK	AK	AK	350K	AK	400K	AK
9	400K	350FK	300FK	300FK	280FK	250FK	240K	240K	300H	320P	340	300	380	(350)JP	300	[300]C	300	(310)J	(300)J	A	260	260	400	390
10	350	FS	320	300F	290F	250	250	220	230	300	340	340	350	310	310	350P	C	C	C	C	(280)J	(290)JP	A	A
11	(330)JH	350	350	350H	F	F	C	C	240	290	350	C	C	C	C	C	C	C	C	C	250	A	400	300P
12	S	A	300	F	FS	FS	C	C	C	(250)P	A	360	450	400	A	310	300P	280	C	C	300	290	310	(310)J
13	330	370	320	320	360H	350F	260	[300]C	330	A	C	A	C	370	370	320	(300)JP	280	300	C	260	250	350H	(360)P
14	S	A	290	250	F	300F	250	300	350	340	320	350	350	(360)P	A	370	270	300	270	300	C	C	350	320
15	370	300	300	270	340F	(250)JP	260	A	C	A	A	A	C	C	340	310	290P	260	290	300	270	300	(310)J	A
16	A	F	290	280F	350	310	260P	250	250	290	A	A	340	A	A	300P	270	290	300	A	320	A	C	C
17	S	A	A	A	A	F	(270)P	C	A	A	A	C	350P	350	A	A	A	A	A	A	A	A	320	(270)J
18	A	370	A	A	280	A	240	250	350	C	A	C	450P	450	320	350	310P	(290)JP	300	A	C	S	350	[330]S
19	310	250	350	390F	350F	F	290	280	350	300P	(370)J	310	370	[360]C	(350)JP	(350)J	(360)JP	(320)J	(300)J	290P	A	250PH	320P	A
20	A	350PF	330	(280)J	(300)JP	340P	250	260	(330)F	C	A	C	C	C	A	A	A	290	A	C	300	[300]S	(310)JF	S
21	FS	FS	F	250P	250KP	310K	CK	CK	CK	CK	CK	400K	400K	350K	310K	AK	(310)KJ	CK	(310)KJ	A	B	360H	S	A
22	A	A	A	300	300	290	300	250	A	A	A	C	320	A	350	330	300	310	290	250	A	A	A	A
23	A	A	A	A	260	300K	280	290	C	C	A	A	(350)JP	320	310P	300P	(300)JP	350	360	270	240	330P	350	A
24	350	A	(380)JF	F	F	270	A	(250)J	A	C	A	350	A	(310)JP	320	S	C	C	C	S	250P	A	A	A
25	A	S	(300)JS	F	FH	250	(270)JP	250	(290)J	(350)J	450	A	400	(400)P	(330)JP	(290)P	290	330	310	320	270	330	S	360V
26	B	F	(310)JF	350	350	(260)J	230	240	280	[300]C	330	310	300	320	330	340	[320]C	(300)J	290P	310	320	370	(370)J	340
27	350	(320)P	C	C	C	C	(270)B	250	C	C	U	(480)B	580	450	(320)JF	[300]C	270	350	330	330	250	A	A	A
28	AS	400	A	360PS	300	270	280	270P	300	300	300	A	400	350	330	300	340	370	340	340	310	300	360	370
29	360	340	300	370	(370)J	300	300	340	A	A	A	A	A	C	C	300	340	340	320	300	(300)J	(340)JP	(300)JP	350
30	A	AS	A	A	A	A	M	310	A	260	300	C	390	360	320	350	350	[320]C	300P	310	300	350	350	360
31	[340]S	310	240	300V	340	340	(280)J	300	260	A	350	A	A	390	370P	320	(340)P	320	C	A	300	(350)S	[380]S	400
Mean Value	350	340	320	320	320	300	270	270	290	300	340	360	380	360	330	310	310	310	310	300	280	310	350	340
Median Value	350	350	310	300	320	300	260	260	300	300	330	350	360	350	320	310	300	300	300	300	280	300	350	350
Count	14	17	20	21	22	24	25	25	18	15	13	11	18	20	18	21	23	21	20	15	22	18	22	17

h_pF2 | Sweep 1.0 Mc to 22.0 Mc in 2 min | ☐ Manual ☒ Automatic | **Y 2**

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **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	270K	250K	270K	260K	270K	250K	240K	230K	240K	290	300	300	320	C	C	C	C	260	240	[230]C	220	250	300	300
2	290	300	260	270	250	220	230	240	220	290	350	350	340	300	260	270	250	240	250	270	250	A	320	350
3	300	300	280	250	240	230	230	250	300	A	A	350	340	290	290	280	260	A	A	A	A	M	340A	320A
4	A	290A	A	350A	300HA	240	250A	250A	300A	A	300A	A	350	290	280	290	290	A	A	A	250	280	A	260
5	270	290A	250	290	290A	250	250	240	C	C	250	390	350	290	290	270	260	260	A	260A	220A	220A	300	300
6	300	290	250	210	250	300	240	240	250	280	320	440	380	[340]C	290	280	280	250	350A	270A	240A	250A	300	300A
7	300A	300A	270A	290	250	210	210	250	250	290	320	350	310	A	A	280A	300A	270A	280	250	210A	300	270	280
8	330	300	290	290	290	300	290KA H	AK	AK	CK	AK	AK	AK	AK	AK	320K	300K	AK	AK	AK	310K	AK	350KA	AK
9	300K	300K	260K	240K	240K	230K	230K	200K	240AH	320	330	300	360	350	300	[280]C	270	260	260	A	220	220	300A	320A
10	300	290	250	250	200F	240	210	220	220	300	340	320	310	300	300	320	300	270	A	C	270A	250	A	A
11	270	300	300	300H	270F	250F	250	240	240	280	350	C	300	300	300	300	280	270	260	240	210A	A	300	290A
12	300F	A	250	250F	300F	270	[250]C	230	290A	250	300A	340A	450	360	350	300	270	250	240	240	250A	250	290	280
13	280	290F	280	250	300H	290	250	250	330A	A	A	310	A	370	350	310	280	250	260	240	200A	230	300H	320
14	300	A	250A	240	240	250	250	300	340	320	310	340	350	350	A	270	260	280	250	200A	C	C	230	300A
15	310	260	250	250	270	240	250	300A	C	A	A	A	C	C	320	300	270	250	250	250A	250A	270	270A	,A
16	A	280	250	230	280	250	240	240	250	290	330A	A	340A	A	A	290	260	290A	290A	A	260	300A	220A	250
17	250	A	A	A	A	280	250	A	290	A	A	A	350	320	A	A	A	320A	A	A	A	A	310A	250A
18	A	300FA	A	A	250	A	230A	250	320	C	A	C	450	450	300	320	300	280A	290	A	A	350A	300A	290
19	230A	220	290	300F	300F	290F	220	240	300	300	350	300	350	330	340	320	340	290	260A	250A	A	360H	300A	A
20	A	300F	250	250	250	250	210	250	330A	A	A	A	A	A	A	A	A	270A	A	A	270A	250	250	270
21	270	300	290	220	200K	250K	250K	240A	AK	CK	CK	400K	390K	330K	300K	AK	310K	350K	300K	A	A	270AH	300F	A
22	A	A	270	250	260	250	250	240	A	A	A	A	350	A	340	320	300	300	260	210A	A	A	A	A
23	A	A	A	A	250A	250	250A	280	A	A	A	A	350	300	300	290	300	330	300	210A	200A	240	300F	A
24	260A	A	330	300F	250	240	250A	240A	A	C	A	350	A	300	300	300	290	260	250A	250A	230A	A	A	A
25	A	250	260A	210A	210HA	220	220	240	290	350	450	420A	380A	380A	310	270	290	300	290A	260	230	250	270A	310A
26	400	300F	300AF	290A	330FA	230	200	210	260	[300]C	330	310	300	310	300	310	300	280	260	240	300A	290	300	290
27	270	260	300A	250	C	C	250	230	[320]C	400	500	470	570	410A	310	270	260	340	300	270	210	A	A	A
28	350A	300A	A	300A	250A	210A	250	250	300A	300A	300	A	400	340	310	290	320	350A	300A	300A	250A	250A	290A	290
29	290	270	250A	280	300	250	270	340	A	A	A	A	A	C	C	300A	320	300	280	250	240	250	250	290A
30	A	A	A	A	A	A	M	240	A	250	300	390	390	350	300	330	320A	300	270	250	290	330	350A	300A
31	300A	270A	200A	240	300	260	250	280	250	260A	350	A	A	370	350	300	300A	300A	270A	A	300	300A	320A	310A
Mean Value	290	280	270	260	260	250	240	250	280	300	340	360	370	340	310	300	290	280	270	250	250	270	290	290
Median Value	300	290	260	250	260	250	250	240	290	290	330	350	350	330	300	300	290	280	260	250	240	250	300	300
Count	23	24	25	27	28	28	30	29	22	17	19	18	24	23	23	27	28	28	24	20	24	22	26	22

Sweep 1.0 Mc to 22.0 Mc in 2 min ☐ Manual ☒ Automatic

Y 3

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Yamagawa

Lat. 31° 12.5' N
Long. 130° 37.7' E

May. 1952 | **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							Q	L	Q	A	A	A	5.0	C	C	C	C	3.8	Q					
2							Q	Q	Q	4.5	B	A	5.0	4.8	A	4.5	4.1	L	3.0					
3							Q	L	B	A	A	A	4.7	5.0	4.5^{H}	4.5	A	A	A					
4							Q	A	A	A	A	A	A	A	4.5^{H}	4.5	4.0	A	A					
5							Q	3.5	C	C	4.0	4.7	A	4.7	4.7	4.5	4.5^{H}	A	A					
6							Q	3.4	4.0	4.5	4.6	5.0	5.0	[4.8]^{C}	4.6	A	4.5	4.0	A					
7							Q	A	A	L	L	5.0	5.0	A	A	A	A	A	A					
8							Q	A	A	4.0	A	A	A	A	A	A	4.2	A	A					
9							Q	Q	Q	4.5	A	4.7	4.9	4.8	4.5	[4.4]^{C}	4.2	L	L					
10							Q	L	Q	4.5	5.0	4.7	A	4.7	4.8	A	A	A	A					
11							Q	Q	A	L	4.7	A	4.7	4.6	A	A	4.4	4.0	A					
12							C	Q	A	A	A	A	A	A	B	4.5	4.2	4.0	L					
13							3.1	Q	A	A	A	A	B	4.8	A	A	4.2	4.0	L					
14							Q	L	4.0	4.2^{H}	4.4	4.6	B	4.8	A	A	4.2	4.0	L					
15							3.5	A	C	A	A	A	C	C	4.4	4.3	[4.0]^{C}	3.8	A					
16							Q	Q	A	4.2	A	A	A	A	A	A	4.2	A	A					
17							Q	A	A	A	A	A	A	A	A	A	A	A	A					
18							A	Q	A	A	A	A	A	A	A	4.6	A	A	A					
19							Q	Q	L	4.4	A	A	B	A	A	A	4.2	A	A					
20							Q	L	A	A	A	A	A	A	A	A	A	A	A					
21							Q	A	A	C	C	4.8	B	4.7	B	A	4.7	L	A					
22							Q	Q	A	A	A	A	A	A	A	4.4	A	A	A					
23							Q	A	A	A	A	A	A	A	A	4.4	A	A	A					
24							A	Q	A	C	A	A	A	A	A	A	A	4.1	A					
25							Q	3.7	A	A	5.0^{H}	A	A	A	4.6	4.4	4.2	4.0	A					
26							Q	Q	L	C	A	A	A	A	B	4.4	4.5	4.2	3.2					
27							L	Q	C	4.5	4.8	(4.8)^{B}	4.5	A	A	4.5	4.4	4.0	L					
28							A	Q	A	A	4.7	A	B	B	4.6	4.5	4.5	A	A					
29							L	A	A	A	A	A	A	C	C	A	A	4.0	L					
30							M	Q	A	4.0	4.5	B	5.0	B	4.5	4.5	A	4.4	Q					
31							Q	4.0	4.2	A	5.0	A	A	4.8	4.9	4.2	A	A	A					
Mean Value							3.3	3.6	4.1	4.3	4.7	4.8	4.9	4.8	4.6	4.5	4.3	4.0	3.1					
Median Value							3.3	3.6	4.0	4.4	4.7	4.8	5.0	4.8	4.6	4.5	4.2	4.0	3.1					
Count							2	4	3	10	10	8	9	10	11	16	18	13	2					

foF1

Sweep 1.0 Mc to 22.0 Mc in 2 min ☐ Manual ☒ Automatic

Y 4

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | h'F1 | 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							Q	230	Q	A	A	A	250	C	C	C	C	240	Q					
2							Q	Q	Q	250	B	A	B	200	A	220	240	210	210					
3							Q	230	250	A	A	A	210	A	220	280	A	A	A					
4							Q	A	A	A	A	A	A	A	240H	240	250	A	A					
5							Q	230	C	C	230	A	A	200	230	230	200AH	A	A					
6							Q	240	230	240	210	220	B	C	200	A	A	240	A					
7							Q	A	A	250	210	210	220A	A	A	A	A	A	A					
8							Q	A	A	250	A	A	A	A	A	A	A	A	A					
9							Q	Q	Q	200	A	200	200	250	220	[230C	240	220	240A					
10							Q	210	Q	A	A	240	A	A	A	A	A	A	A					
11							Q	Q	A	200	240	A	B	220	A	A	240	240	A					
12							C	Q	A	A	A	A	A	A	A	A	A	240	230					
13							250	Q	A	A	A	A	A	B	B	220A	250	220	250A					
14							Q	220	200	200H	210	260	B	250	A	A	220	250A	250					
15							220	A	C	A	A	A	C	C	200	200	230	230	A					
16							Q	Q	A	250	A	A	A	A	A	A	A	A	A					
17							Q	A	A	A	A	A	A	A	A	A	A	A	A					
18							A	Q	A	A	A	A	A	A	A	240	A	A	A					
19							Q	Q	240	A	A	A	A	A	A	A	230	A	A					
20							Q	220	A	A	A	A	A	A	A	A	A	A	A					
21							Q	A	A	C	C	240	250	250	B	A	220	220	A					
22							Q	Q	A	A	A	A	A	A	A	200	A	A	A					
23							Q	A	A	A	A	A	A	A	A	200	A	A	A					
24							A	Q	A	C	A	A	A	A	A	A	A	A	A					
25							Q	220	A	A	240H	A	A	A	250	200	220	210	A					
26							Q	Q	220	C	A	A	A	A	200H	260	250	240	220					
27							250	Q	C	A	230	220	250	A	A	240	240	210	250					
28							A	Q	A	A	250	A	230	B	200	200	250	A	A					
29							250	A	A	A	A	A	A	C	C	A	A	240	250					
30							M	Q	A	210	200	240	240	230	250	190	A	240	Q					
31							Q	250	220	A	260	A	A	250	A	A	A	A	A					
Mean Value							240	230	220	230	230	230	230	230	220	220	230	230	240					
Median Value							250	230	220	240	230	230	240	240	220	220	240	240	240					
Count							4	9	6	9	10	8	8	8	10	15	14	15	8					

Sweep 1.0 Mc to 22.0 Mc in 2 min ☐ Manual ☒ Automatic

Y 5

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Yamagawa

Lat. 31° 12.5' N
Long. 130° 37.7' E

May. 1952 | **f_oE** | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							1.7	2.2	2.8	3.0	3.3	3.5	3.3	C	C	C	C	2.5	A					
2							B	2.4	2.8	2.8	3.0	3.4	3.3	B	A	A	2.7	2.0	2.0					
3							B	2.4	3.0	3.1	3.2	A	3.1	3.1	3.1	A	3.0	2.5	2.1					
4							A	2.5	2.9	3.0	3.2	3.3	3.5	3.3	3.2	3.1	3.0	2.5	2.0					
5							A	2.4	C	C	3.1	3.2	A	3.3	A	A	A	2.6	2.0					
6							B	2.5	2.9	A	3.4	A	A	C	3.4	3.2	3.0	2.5	2.1					
7							B	2.3	2.7	3.3	A	3.3	A	A	A	3.3	3.0	2.6	2.0					
8							A	2.3	2.7	2.8	3.2	3.2	3.3	3.4	3.3	3.2	3.0	2.7	2.0					
9							1.8	A	2.6	3.0	3.0	A	3.2	3.2	3.5	[3.2]^{C}	3.0	2.7	2.0					
10							1.7	2.5	2.7	3.0	3.1	A	3.2	A	3.3	3.2	3.0	2.7^{H}	A					
11							B	2.2	2.7	3.0	3.1	3.2	3.2	3.4	3.0	3.0	2.9	2.8	2.2					
12							C	2.4	2.7	3.1	3.4	3.4	3.4	3.1	A	A	A	A	A					
13							2.0	2.3	2.9	3.1	3.1	3.1	A	A	A	A	A	2.5	2.0					
14							A	2.6	3.0	3.0	3.2	3.3	3.1	A	A	A	A	A	A					
15							1.8^{J}	A	C	3.1	3.1	A	A	C	3.1	3.0	2.8	2.6	A					
16							1.7	2.4	2.8	3.1	3.2	3.2	3.1	3.1	A	A	3.1	2.7	2.2					
17							1.8	2.5	2.8	3.1	3.1	3.3	3.3	A	A	3.0	2.9	2.6	2.2					
18							A	2.5	2.6	3.0	3.1^{J}	3.2	3.3	3.2^{J}	3.2	3.2^{H}	3.0^{H}	2.5	A					
19							1.7	2.3	2.7	3.0	3.0	3.1	3.4	3.3	3.0	3.0	3.0	2.7	2.2					
20							B	2.3	2.8	3.0	3.2	3.4	3.3	3.3	3.0	A	A	A	A					
21							1.9	2.5	2.8	C	C	3.0	3.1	3.3	A	A	A	2.7	2.2					
22							1.8	2.5	2.8	3.0	3.0	2.7	2.7	2.7	A	3.1	3.0	2.6	2.2					
23							A	2.5	A	3.1	3.3	3.4	3.4	3.4	3.4	3.2	2.8	2.5	A					
24							A	2.5	2.8	[3.0]^{C}	3.2	3.2	3.1	3.2	2.9	A	A	A	A					
25							1.8	2.5	2.8	3.0	A	A	A	A	3.2	3.1	3.0	2.6	2.2					
26							A	2.4	2.8	[3.0]^{C}	3.2	3.3	3.3	3.1	3.2	A	A	2.7	2.4					
27							2.1	2.5	[2.8]^{C}	3.0	3.1	3.3	3.2	3.1	A	3.0	A	A	2.1					
28							A	2.5	2.9	3.0	3.3	3.4	3.5	3.4	3.4	3.1	3.0	2.7	A					
29							1.8	2.4	2.9	3.0	3.2	3.2	3.2	C	C	A	A	A	A					
30							M	2.5	A	3.2	3.0	3.3	3.2	3.3	3.2	3.2	A	2.7	A					
31							A	2.5	2.8	3.1	3.3	A	A	A	3.3	3.3	3.0	2.7	2.2^{F}					
Mean Value							1.8	2.4	2.8	3.0	3.2	3.2	3.2	3.2	3.2	3.1	3.0	2.6	2.1					
Median Value							1.8	2.5	2.8	3.0	3.2	3.3	3.3	3.3	3.2	3.2	3.0	2.6	2.1					
Count							13	29	27	28	28	24	24	19	18	18	19	25	19					

f_oE

Sweep 1.0 Mc to 22.0 Mc in 2 min ☐ Manual ☒ Automatic

Y 6

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | F'E | 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							130	110	100	100	100	100	110	C	C	C	C	100	A					
2							B	120	100	100	100	100	100	100	A	A	100	120	120					
3							B	110	100	100	100	A	100	100	100	A	100	110	120[A]					
4							A	110	100	100	100	100	100	100	100	100	100	110	130					
5							A	100	C	C	100	100	A	100	100	A	A	100	120					
6							B	100	100	100	100	A	A	C	100	100	100	110	110					
7							B	110	100	100	A	100	A	A	A	100	100	110	110					
8							A	110	100	100	100	100	100	100	100	100	100	110	120					
9							100	A	100	100	100	A	100	100	100	[100][C]	100	110	120					
10							140	110	110	100	100	A	100	A	100	100	100	100[H]	A					
11							B	130	110	100	100	100	100	100	100	100	100	110	120					
12							C	110	110	100	100	100	100	100	A	A	A	A	A					
13							140	110	100	100	100	100	A	A	A	A	A	100	100					
14							A	110	100	100	100	100	100	A	A	A	A	A	A					
15							110	A	C	100	100	A	A	C	100	100	100	100	A					
16							140	110	100	100	100	100	100	100	A	A	100	100	100					
17							130	110	100	100	100	100	100	A	A	100	100	110	110					
18							A	100	100	100	100	100	100	100	100	100[H]	100[H]	110	A					
19							140	100	100	100	100	100	100	100	100	100	100	110	110					
20							B	100	100	100	100	100	100	100	100	A	A	A	A					
21							140	110	100	C	C	100	100	100	A	A	A	100	110					
22							130	110	100	100	100	100	100	100	A	100	100	100	110					
23							A	100	A	100	100	100	100	100	100	100	100	100	A					
24							A	100	100	[100][C]	100	100	100	100	100	A	A	A	A					
25							110	100	100	100	A	A	A	A	100	100	100	100	110					
26							A	100	110	[100][C]	100	100	100	100	100	A	A	100	100					
27							100	100	[100][C]	100	100	100	100	100	A	100	A	A	100					
28							A	100	100	100	100	100	100	100	100	100	100	100	A					
29							130	110	100	100	100	100	100	C	C	A	A	A	A					
30							130	100	A	100	100	100	100	100	100	100	A	100	A					
31							A	100	100	100	100	A	A	A	100	100	100	100	100[F]					
Mean Value							130	110	100	100	100	100	100	100	100	100	100	100	110					
Median Value							130	110	100	100	100	100	100	100	100	100	100	100	110					
Count							14	29	27	29	28	24	24	20	19	18	19	25	20					

Sweep 1.0 Mc to 22.0 Mc in 2 min ☐ Manual ☒ Automatic

Y 7

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Yamagawa

Lat. 31° 12.5' N
Long. 130° 37.7' E

May. 1952 | **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	2.0	2.0	E	E	2.1	2.2	2.5	3.5	G	4.5	6.0	6.2	5.0^{Y}	C	C	C	C	G	3.5	C	E	E	E	E
2	E	E	2.1	E	2.5	E	B	G	G	G	G	5.0	G	G	6.0	3.5	G	G	G	E	E	3.0	2.9	3.0
3	E	E	E	E	E	E	B	G	G	5.5	8.3^{Y}	5.5^{Y}	4.9	5.2	3.7	3.8	5.4	8.0^{Y}	8.4^{Y}	11.7^{Y}	11.8^{Y}	M	6.4	4.1
4	5.0	4.0	5.9	4.2	4.2	1.8	5.3	5.0	5.5	6.0	5.5	5.5	5.3	6.0	G	G	4.7	5.0	8.5^{Y}	6.2^{Y}	3.5^{Y}	6.0	5.5	3.2
5	5.0	3.5	2.6	3.0	3.2	2.5	3.4	3.5	C	C	4.4	5.3	5.5	4.7	3.8	4.2	4.3	4.7	6.0	4.7	4.6	4.7	3.0	2.5
6	2.1	E	2.1	E	3.0	E	2.5	G	3.7	4.8	3.9	4.5^{Y}	3.8	C	G	4.5	5.0	3.8	7.6^{Y}	5.9^{Y}	4.0	4.4^{Y}	2.5	2.5
7	3.3^{F}	5.0	4.2^{F}	3.4	4.8	3.1	2.6	5.3	5.0	4.7^{Y}	4.2	4.8	5.0	6.5	12.0	8.4	7.5	7.0	5.5	4.0	7.0	7.0^{Y}	5.0	3.5
8	2.8	2.5	3.0	2.5	3.0	2.6	3.4	5.0	12.5^{Y}	4.8	6.0	5.0	5.7	5.0	4.6^{Y}	5.0	5.3	7.0	6.3	8.5	5.5^{Y}	5.9	4.7	6.0
9	5.0	3.5	E	2.5^{F}	2.5	E	2.5	3.5	4.4	4.5^{Y}	5.3	4.7	4.6	G	G	C	G	G	5.4	12.5^{Y}	2.2	3.3	4.5^{F}	4.7
10	2.4	2.4	2.8	2.3	E	E	G	G	4.1^{Y}	4.7	5.0	5.0	5.0^{Y}	5.2	5.4	5.7	6.0	7.0^{Y}	7.1^{Y}	C	7.5^{Y}	4.5	4.4	6.0^{Y}
11	2.2	2.4	2.6	3.5	2.5	2.4	2.2	4.2	5.5	5.0	4.8^{Y}	6.0^{Y}	G	G	5.0	5.0	4.8^{Y}	G	4.0	4.0	4.0	8.0^{Y}	5.5	4.5
12	5.0	6.0^{Y}	3.5	2.5	5.5^{Y}	E	C	4.3	5.5	5.5^{Y}	6.0	6.2	9.0	6.8	10.0	6.0	5.0	3.7	3.4	3.5	3.6	2.7	2.3	3.0
13	2.8	3.5	3.0	2.6	E	2.0	3.1	5.0	4.9	6.1	4.6	6.2^{Y}	7.4^{Y}	3.8	3.8	4.5	4.5	3.6	3.7	2.9	2.5	2.9	3.0	3.3
14	3.5	4.2^{F}	4.5	4.0	5.0^{F}	3.6^{F}	3.1	G	3.9	4.2^{Y}	3.6	3.8	3.8	3.8	12.8	7.4	3.7	4.5	3.6	40^{F}	C	C	2.5	3.3
15	3.7	3.5	3.5$^{Y}_{F}$	3.3	E	3.5	3.6	6.1^{Y}	C	7.5^{Y}	7.7^{Y}	8.5^{Y}	4.5^{Y}	C	G	G	G	3.8	4.3	3.3	3.7	4.5	4.2	6.2^{Y}
16	7.0^{Y}	7.5^{Y}	8.2^{Y}	E	E	2.2^{Y}	3.1	4.0	5.0	4.5	6.2^{Y}	6.7^{Y}	7.5^{Y}	9.0^{Y}	12.5^{Y}	5.0	4.5	5.2	5.0	6.0	4.8^{F}	7.3^{Y}	5.0^{F}	3.5
17	4.4	4.2	4.5	4.5	4.4	3.4	5.0	4.5	7.1^{Y}	9.5^{Y}	13.0^{Y}	6.0^{Y}	6.0^{Y}	6.0^{Y}	12.7^{Y}	9.0^{Y}	9.0^{Y}	8.0^{Y}	8.6^{Y}	9.1^{Y}	11.5^{Y}	7.0^{Y}	5.0	4.5
18	6.0$^{Y}_{F}$	4.5	5.0^{F}	4.5	2.5^{F}	3.5	4.3	3.0	5.2	4.8	7.6^{Y}	6.0^{Y}	4.6	4.9	6.8^{Y}	5.0^{Y}	5.0	7.0^{Y}	5.1	6.0	5.0	5.0	4.6	4.0
19	3.4	1.8	2.4	2.5^{F}	2.0	2.4	2.6	3.5	3.5	3.8	4.5	5.0	4.5	6.2^{Y}	6.0^{Y}	6.0^{Y}	G	4.9	5.0	4.5	8.0^{Y}	5.0	6.0^{Y}	4.8
20	4.9	3.0	3.0	3.4	3.5^{F}	2.3	2.4	3.5	5.0	6.0^{Y}	8.7^{Y}	6.0^{Y}	5.0^{Y}	7.0^{Y}	11.0^{Y}	12.2^{Y}	10.0	5.0	12.5^{Y}	5.2	3.8	3.8	2.7	3.3
21	3.1	3.5	3.0	2.4	2.3	2.5	4.0	4.5	4.5^{Y}	C	C	G	4.5	G	4.5	11.3^{Y}	4.0	G	5.0	8.5^{Y}	5.0	5.0	4.5	4.7
22	4.5^{F}	5.0	5.0	4.5	2.9	3.4	3.8	6.0	8.6^{Y}	11.6^{Y}	8.0	6.0^{Y}	6.0^{Y}	10.0^{Y}	4.5	G	5.0	7.0	8.5^{Y}	8.4^{Y}	11.8^{Y}	6.0^{Y}	7.1^{Y}	6.7^{Y}
23	5.0	7.9^{Y}	4.5^{F}	7.0^{F}	4.0	3.4	4.3	5.0	5.0^{F}	6.0^{Y}	7.5^{Y}	11.7^{Y}	6.0^{Y}	5.0^{Y}	5.0	G	4.5	5.0	6.3	4.2^{F}	3.5	2.5^{F}	3.1	4.7
24	7.0$^{Y}_{F}$	6.0$^{Y}_{F}$	4.5$^{Y}_{F}$	2.5$^{Y}_{F}$	2.5^{F}	3.0^{F}	5.0	4.5	8.3^{Y}	C	8.5^{Y}	8.0^{Y}	8.5^{Y}	6.0^{Y}	8.4^{Y}	6.0^{Y}	7.0^{Y}	5.9^{Y}	7.2	7.8	8.2	6.8	6.8	8.0
25	7.4	4.6	4.5	3.5^{F}	2.5^{Y}	2.4	G	G	4.5	5.0	4.5	7.3	7.0	8.4	G	G	G	G	5.2	4.5	3.0	3.2	3.5	4.5^{F}
26	5.9^{Y}	3.4	6.1	4.5	3.7	2.5	3.3	G	G	C	4.5	6.2	6.2^{Y}	5.0^{Y}	G	4.5	3.8	3.3	3.2	2.8	7.0^{Y}	4.4^{Y}	3.1	3.1
27	2.5	2.9	6.2^{Y}	3.8	C	C	3.5	G	C	4.5^{Y}	G	G	G	6.9^{Y}	5.0	4.4^{Y}	3.8	3.8	G	3.7	4.5	8.2^{Y}	5.9^{Y}	7.5^{Y}
28	7.5^{Y}	4.5	8.0^{Y}	7.0^{Y}	3.5	3.0	4.5	4.5	4.6	5.0	4.0	6.8^{Y}	G	4.5	G	G	3.8	6.1^{Y}	6.5	6.0	4.3	3.0	3.5	2.3
29	2.0	3.0	3.5	3.0	E	2.5	3.5	4.5	9.0^{Y}	10.0^{Y}	10.7^{Y}	>9.0	11.5^{Y}	C	C	7.1^{Y}	5.0	4.3	3.7	3.6^{F}	2.4	1.9	2.0	4.4
30	8.3	7.6	7.2	M	7.3^{Y}	M	M	4.3	6.0	4.5	G	4.3	4.3^{Y}	G	G	G	7.0^{Y}	4.0	4.5	4.3	5.0	4.6	7.3^{Y}	5.0
31	5.0	5.0	5.0	3.2	3.7	3.0	3.0	3.9	4.0	6.0^{Y}	4.4	10.5^{Y}	8.5^{Y}	4.4^{Y}	4.4	4.2	7.0	6.8^{Y}	8.0^{Y}	7.2^{Y}	4.5	4.5^{F}	4.5	5.0
Mean Value	4.4	4.2	4.3	3.6	3.5	2.7	3.5	4.4	5.6	5.7	6.2	6.3	5.9	5.9	7.0	6.0	5.4	5.4	5.9	5.8	5.4	4.8	4.3	4.4
Median Value	4.4	3.5	3.5	3.1	2.7	2.5	3.3	4.0	5.0	5.0	5.2	6.0	5.0	5.0	4.6	4.5	4.8	4.7	5.2	4.7	4.5	4.5	4.5	4.4
Count	31	31	31	30	30	29	27	31	28	27	30	31	31	27	29	29	30	31	31	29	30	29	31	31

fEs

Sweep 1.0 Mc to 22.0 Mc in 2 min ☐ Manual ☒ Automatic

Y 8

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **(M3000)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	2.9K	3.0K	3.0K	3.1K	3.0K	3.0K	(3.4)J K	3.4K	3.1K	3.2P	3.6	C	C	C	C	C	C	(3.3)J P	C	C	3.5P	C	C	C
2	C	C	C	C	C	(3.5)J	(3.6)J	3.5	3.4	C	C	2.9	(2.9)P	3.0	3.2	C	C	C	3.2	3.2	C	C	(3.0)J S	C
3	C	C	C	C	3.2	[3.3]C	3.4	3.2	3.1	2.9	A	C	C	3.2P	C	C	(3.3)J	A	A	A	A	M	2.7	S
4	A	2.7	A	2.8	3.0H	3.0	3.5	(3.3)P	3.3	[3.3]A:	3.3	C	C	C	C	3.2P	3.1	C	A	A	S	S	A	2.9
5	S	2.7	2.8	2.9	3.1	3.1	3.4	3.6	C	C	3.3	C	C	(3.1)P	C	C	3.2	(3.2)J	3.0	(3.4)J	3.6P	3.2	2.7	2.9
6	2.8	[3.0]S	3.1P	3.3	3.0	2.7	(3.6)J P	[3.5]S	3.4	3.2	C	C	C	C	3.1	C	C	C	3.0	3.3	3.3	3.1	2.7	(2.8)J
7	2.8	2.9	3.0	2.8V	3.2	3.5	3.6	3.3	3.3	3.2P	3.0	2.8	3.0	[3.0]C	3.1	3.1	3.0	3.2	(3.0)J	(3.1)J	3.4	2.8	(2.9)J	2.9
8	2.7P	2.7	[2.7]S	2.7	2.7	2.7	2.5K H	C K	A K	C K	C K	C K	C K	C K	C K	3.1K	3.2K	C K	A K	A K	3.0K	A K	2.6K	A K
9	2.7K	2.8F K	3.0F K	3.4F K	3.2F K	3.3F K	3.7K	3.7K	3.1H	3.0P	3.0	3.4	2.8	(2.9)J P	3.2	[3.2]C	3.3	(3.3)J	(3.1)J	A	3.3	3.3	2.7	2.7
10	2.9	FS	3.0	3.1F	3.4F	3.3	3.5	3.8	3.7	3.2	3.1	3.0	3.0	3.0	3.1	3.1P	C	C	C	C	(3.3)J	(3.2)J P	A	A
11	(3.0)J P	2.9	2.9	3.0H	F	F	C	C	3.7	3.3	3.0	C	C	C	C	C	C	C	C	C	3.6	A	2.7	3.0P
12	S	A	3.0	F	FS	FS	C	C	C	(3.5)P	3.0	2.9	2.4	2.7	3.0	3.2	3.2P	3.3	C	C	3.2	3.2	3.0	(3.0)J
13	2.9	2.7	2.9	2.9	2.8H	2.9F	3.4	[3.2]C	2.9	A	C	3.3	[3.0]C	2.8	2.7	3.1	(3.2)J P	3.3	3.1	C	3.4	3.2	2.9H	(2.8)P
14	S	A	3.3	3.3	F	3.0F	3.6	3.1	2.9	3.1	3.5	2.9	2.9	(2.8)P	A	3.3	3.3	3.1	3.4	3.2	C	C	2.7	2.4
15	2.6	3.1	3.2	3.2	2.9F	(3.4)J P	3.3	3.6	C	A	A	A	C	C	3.0	3.1	3.2P	3.2	3.3	3.2	3.2	3.0	(3.1)J	A
16	A	F	3.2	3.2	2.8	3.0	3.3P	3.5	3.5	3.3	3.1P	A	3.0	A	A	3.2P	3.3	3.3	3.1	3.3	3.0	3.2P	C	C
17	S	A	A	A	A	F	(3.3)P	[3.4]C	3.4	A	A	C	2.9P	3.0	A	A	2.6	3.1	A	A	A	A	3.0	(3.4)J
18	A	2.7	A	A	3.1	A	3.7	3.5	3.0	C	A	C	2.6P	2.5	3.1	3.0	3.2P	(3.3)P	3.1	3.0	C	S	2.9	(3.0)S
19	3.1	3.5	2.8	2.7F	2.8F	F	3.1	3.2	2.9	3.1P	(2.9)J	3.1	2.8	[2.8]C	(2.9)J P	(3.0)J	(2.7)J P	(3.1)J	(3.2)J	3.2P	A	3.5P H	3.0P	A
20	A	2.9P F	2.9	(3.3)J	(3.1)P	2.8P	3.5	3.3	(3.0)P	C	A	C	C	C	A	A	A	3.3	A	C	3.0	[3.0]S	(3.1)P	S
21	FS	FS	F	3.5P	3.2K P	3.1K	C K	C K	C K	C K	C K	2.6K	2.7K	2.9K	3.1K	A K	(3.3)J K	[3.2]C	(3.1)J K	A	2.9	2.8H	S	A
22	A	A	A	3.2	3.1	3.2	3.2	3.5	A	A	A	C	2.9	A	2.9	3.1	3.1	3.1	3.3	3.5	A	A	A	A
23	A	A	A	A	3.3	3.1K	3.2	3.2	C	C	A	A	(2.9)J P	3.0	3.0P	3.3P	(3.1)P	2.9	3.1	3.2	3.6	2.8P	3.0	A
24	2.9	A	(2.6)P	F	F	3.3	(3.6)J	(3.5)J	A	C	A	2.8	A	(3.1)J P	3.0	S	C	C	C	S	3.6P	A	A	A
25	A	S	(3.1)J S	F	FH	3.3	(3.2)J P	3.7	(3.3)J	(2.9)J	2.6	2.6	2.8	(2.7)P	(3.0)J P	(3.2)P	3.2	3.0	3.0	2.9	3.2	3.1	2.8	2.8V
26	2.8	F	(3.2)J F	2.9	2.8	(3.4)J	3.7	3.6	2.9	[3.0]C	3.1	3.3	3.1	3.0	2.9	2.9	[3.1]C	(3.3)J	3.2P	3.0	3.0	2.8	(2.7)J	3.0
27	2.8	(3.1)P	C	C	C	C	3.3	3.6	C	C	(2.5)J	2.4	2.1	2.5	(3.0)J P	[3.2]C	3.3	3.0	3.0	3.2	3.4	A	A	A
28	AS	2.7	A	2.8P S	3.1	3.2	3.2	3.3P	3.0	3.3	3.2	A	2.7	2.8	3.0	3.2	2.9	2.8	2.9	2.9	3.1	3.0	2.8	2.7
29	2.7	2.9	3.2	2.7	(2.8)J	2.9	3.1	2.9	A	A	A	A	A	C	C	3.0	2.9	2.8	3.0	3.0	(3.1)J	(3.0)J P	(3.1)J P	2.9
30	A	AS	(3.1)J	2.9	A	A	(3.5)J P	3.4	3.2	3.2	3.2	[3.0]C	2.7	2.8	3.0	2.9	2.8	[2.9]C	3.0P	2.9	3.0	2.8	2.8	2.8
31	[3.0]S	3.1	3.6	3.0F V	3.0	3.0	(3.3)J	3.3	3.3	3.6	2.9	A	A	2.7	2.7P	3.1	(2.9)P	3.1	[3.2]C	3.3	3.0	(2.8)S	[2.7]S	2.6
Mean Value	2.8	2.9	3.0	3.0	3.0	3.1	3.4	3.4	3.2	3.2	3.1	2.9	2.8	2.9	3.0	3.1	3.1	3.1	3.1	3.2	3.2	3.0	2.9	2.9
Median Value	2.8	2.9	3.0	3.0	3.0	3.1	3.4	3.4	3.2	3.2	3.1	2.9	2.8	2.9	3.0	3.1	3.2	3.2	3.1	3.2	3.2	3.0	2.8	2.9
Count	15	17	21	22	22	24	28	27	21	17	17	14	19	21	20	21	24	23	21	18	23	19	23	17

Sweep 1.0 Mc to 22.0 Mc in 2 min ☐ Manual ☒ Automatic

Y 9

The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Yamagawa

Lat. 31° 12.5' N
Long. 130° 37.7' E

May. 1952 | **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	1.6	1.6	1.6	1.6	1.6	1.6	1.9	2.4	3.0	4.3[A]	4.9[A]	5.5[A]	4.2	C	C	C	C	3.0	2.5	[2.1][C]	1.7	1.6	1.6	1.6
2	1.6	1.6	1.6	1.6	1.6	1.6	2.0	2.6	3.0	4.0	5.0	5.2[A]	4.2	4.2	5.8[A]	3.1	3.0	2.2	2.1	1.6	1.5	A	4.1	4.9
3	1.6	1.6	1.5	2.0	1.6	1.6	2.0	2.7	3.5	5.2[A]	A	5.1[A]	4.2[A]	5.0[A]	3.6	4.1	4.7[A]	A	A	A	A	M	A	A
4	A	2.9[A]	A	3.3[A]	A	1.2	A	4.5[A]	4.8[A]	A	4.7[A]	A	5.1	4.7	3.9	3.8	3.4	A	A	A	1.9	2.8[A]	A	1.6
5	1.8	2.0[A]	1.9	1.9	2.6[A]	1.5	1.8	2.8	C	C	3.5	4.4[A]	5.0[A]	3.9	3.8	3.8	A	4.0[A]	A	4.0[A]	A	A	1.7	1.7
6	1.6	1.7	1.6	1.6	1.6	1.6	1.9	2.5	3.0	3.3	3.9	4.0	4.7	[4.1][C]	3.5	4.5	4.2	3.0	A	5.0[A]	3.6[A]	2.7[A]	1.7	A
7*	A	2.8[A]	2.0[A]	2.0[A]	2.8[A]	1.7	2.1	5.0[A]	4.2[A]	4.1	4.5	3.8	A	A	A	7.8[A]	7.0[A]	6.3[A]	3.6[A]	3.0[A]	A	2.2[A]	2.5[A]	2.5[A]
8	1.9	2.1[A]	2.0[A]	E	1.7	1.7	2.3	A	A	3.3	A	A	A	A	A	4.8	4.0	A	A	A	A	A	2.9[A]	A
9	1.6	1.8	1.6	1.7	1.6	1.3	2.0	2.6	A	3.7	5.0[A]	3.7	4.0	4.2	3.5	[3.4][C]	3.3	2.8	A	A	1.7	1.6	A	A
10	1.6	1.7	1.7	1.6	1.6	1.6	2.1	2.7	3.3	4.0[A]	4.5[A]	4.2[A]	4.6[A]	4.5[A]	4.8[A]	5.5[A]	6.7	6.7[A]	A	C	6.8[A]	2.8[A]	A	A
11	1.7	1.7	1.8	1.8	1.8	1.8	2.2	4.0	4.7[A]	3.5	4.1[A]	A	4.5	4.2	5.7	5.1	3.5	3.3	3.5	2.5[A]	A	A	2.9[A]	2.8[A]
12	1.9[F]	A	1.7	1.6	2.0[F]	1.7	[2.2][C]	2.6	4.9[A]	5.0[A]	5.5[A]	4.6[A]	5.0[A]	5.5[A]	9.8[A]	5.3	4.1	2.9	2.5	2.7[A]	2.6[A]	1.8	1.7	1.7
13	1.6	1.7[F]	1.6	1.6	1.6	1.6	2.0	4.0[A]	4.5[A]	A	A	6.5	A	5.7	6.5	A	3.5	2.7	3.0[A]	1.7	A	1.7	1.7	1.6
14	1.6	A	2.7[A]	1.6	1.7	1.3	2.4	2.6	3.0	3.5	3.6	4.2	5.5	4.0	A	5.7[A]	3.3	3.3	2.8	A	C	C	1.5	2.2[A]
15	1.4	1.7	1.3	1.6	E	1.6	2.3	A	C	A	A	A	A	C	3.4	3.0	3.0	2.6	3.5[A]	2.4[A]	3.0[A]	4.0[A]	2.9[A]	A
16	A	1.5	1.6	1.0	1.0	1.6	2.3	2.7	5.6	4.0	4.7[A]	A	5.6[A]	A	A	5.6	4.0[A]	4.7[A]	4.3[A]	A	1.5	4.2[A]	A	1.6
17	1.6	A	A	A	A	1.3	2.0	A	6.9[A]	A	A	A	4.7	5.5	A	A	A	7.4[A]	A	A	A	A	A	2.6[A]
18	A	A	A	A	1.3	A	3.2[A]	2.8	4.8[A]	4.8[A]	A	A	4.7	5.0	6.5	4.2	4.7	6.6[A]	5.5	6.5	A	2.8[A]	A	1.8
19	2.2[A]	1.4	1.3	1.4[F]	1.3[F]	E	2.4	2.5	3.0	4.0[A]	4.4[A]	5.5	5.5	5.6[A]	5.7[A]	6.5	3.0	4.9[A]	4.5[A]	3.9[A]	A	3.1[A]	4.3[A]	A
20	A	1.6[F]	1.7	1.7	1.7	1.6	2.2	2.2	4.5[A]	A	A	A	A	A	A	A	A	4.9[A]	A	A	2.8[A]	2.1[A]	1.6	1.7
21	1.7	1.6	1.7	1.3	1.6	1.3	2.0	A	A	C	C	4.0	4.1	4.2	5.7	A	3.4	2.8	4.2[A]	A	A	2.0[A]	1.9[F]	A
22	A	A	1.8	1.6	1.8	1.6	1.9	2.5	A	A	A	A	5.6[A]	A	5.9	3.1	4.3	6.0[A]	4.3[A]	A	A	A	A	A
23	A	A	A	A	2.7[A]	1.6	2.3	5.0	A	A	A	A	6.5	5.6	5.6	3.4	4.2	4.0	6.5	A	A	1.6	1.6[F]	A
24	2.0[A]	A	1.8	1.6[F]	1.3	1.6	A	A	A	C	A	5.6[A]	A	5.6[A]	6.5[A]	5.7[A]	5.5[A]	3.8[A]	6.3[A]	6.4[A]	5.5[A]	A	A	A
25	A	1.9	3.0	A	A	1.3	2.2	2.6	4.5[A]	4.7[A]	4.1[A]	5.9[A]	5.8[A]	5.8[A]	4.2	3.2	3.2	2.8	4.5[A]	2.6[A]	1.6	2.0[A]	2.4[A]	A
26	5.6[A]	1.7	4.2[A]	A	A	1.6	2.2	2.7	3.3	[4.4][C]	5.6	5.5[A]	5.5[A]	5.6	3.5	4.0	3.1	3.1	2.4	1.6	5.7[A]	1.8	1.6	1.9
27	1.6	1.5	2.0[A]	1.3	C	C	2.1	2.8	[3.6][C]	4.3[A]	3.7	3.5	4.0	5.7[A]	5.7	3.7	3.4	2.7	2.6	3.0[A]	2.0[A]	A	A	A
28	3.0[A]	A	A	A	2.2[A]	A	3.4[A]	3.3	4.2[A]	5.0[A]	4.1	A	4.2	5.5	3.5	3.2	3.8	5.5[A]	5.6[A]	5.6[A]	2.7[A]	2.2[A]	2.3[A]	1.6
29	1.6	1.5	2.2[A]	1.5	1.6	1.6	1.9	4.7	A	A	A	A	A	C	C	6.4[A]	4.2[A]	3.1	2.9	2.0	1.6	1.5	1.6	2.7[A]
30	A	A	A	A	A	A	M	2.7	A	3.7	3.5	4.0	4.3	4.1	4.0	3.4	5.6[A]	2.8	3.5[A]	2.5	6.0	5.6	6.5[A]	2.8[A]
31	2.0[A]	2.5[A]	A	1.5	1.6	1.8	2.0	2.7	3.0	5.5[A]	4.3	A	A	4.2	4.4[A]	4.2[A]	6.5[A]	6.3[A]	7.2[A]	A	5.5	2.1[A]	A	A
Mean Value	1.9	1.8	1.9	1.7	1.7	1.6	2.2	3.1	4.1	4.2	4.4	4.7	4.8	4.9	5.0	4.5	4.2	4.1	4.0	3.3	3.2	2.5	2.5	2.2
Median Value	1.6	1.7	1.7	1.6	1.6	1.6	2.1	2.7	4.2	4.0	4.4	4.5	4.7	5.0	4.8	4.2	4.0	3.3	3.6	2.6	2.6	2.1	1.8	1.8
Count	22	22	24	24	25	27	28	26	21	20	19	18	23	23	23	26	27	28	22	18	18	21	20	17

fminF

Sweep 1.0 Mc to 22.0 Mc in 2 min ☐ Manual ☒ Automatic

Y 10

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The Central Radio Wave Observatory
Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

May. 1952 | **fminE** | **Yamagawa** | Lat. 31° 12.5' N, Long. 130° 37.7' 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	1.6	1.7	E	E	1.7	1.7	1.6	1.6	1.7	2.0	2.0	2.0	2.0	C	C	C	C	1.6	1.5	C	E	E	E	E
2	E	E	1.6	E	1.6	E	B	2.2	1.9	2.0	2.2	2.3	2.2	2.6	2.0	2.0	1.6	1.6	1.6	E	E	1.6	1.6	1.5
3	E	E	E	E	E	E	B	1.9	2.0	1.8	2.2	2.2	2.2	2.2	2.0	1.9	1.8	1.8	1.6	1.7	1.6	[1.6]M	1.6	1.6
4	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.8	1.9	2.0	2.2	2.2	1.8	1.9	1.7	2.0	1.7	1.8	1.8	1.6	1.6	1.6
5	1.6	1.6	1.6	1.5	1.5	1.4	1.6	1.7	C	C	1.7	1.8	2.5	2.2	1.9	1.9	1.9	1.7	1.7	1.5	1.5	1.6	1.6	1.7
6	1.7	E	1.7	E	1.6	E	1.8	1.6	1.6	1.8	1.9	2.2	2.2	[2.2]C	2.2	2.0	1.7	1.6	1.6	1.6	1.6	1.6	1.4	1.6
7	1.6F	1.6	1.6F	1.6	1.6	1.6	1.6	1.7	1.8	2.0	1.9	1.8	2.2	2.0	1.9	1.7	1.6	1.6	1.5	1.6	1.6	1.5	1.5	1.6
8	1.6	1.6	1.6	1.7	1.3	1.6	1.5	1.6	1.6	1.9	1.9	2.0	2.0	2.0	2.2	1.9	1.8	1.7	1.6	1.6	1.7	1.6F	1.7	1.6
9	1.6	1.6	E	1.6F	1.6	E	1.6	1.7	1.7	2.0	1.7	2.2	2.3	2.2	1.9	[1.8]C	1.8	1.7	1.7	1.6	2.0	1.7	1.6F	1.6
10	1.6	1.7	1.6	1.7	E	E	1.7	1.7	1.8	1.8	1.8	2.0	2.2	1.8	2.2	2.0	1.8	1.7	1.7	[1.7]C	1.7	1.7	1.6	1.7
11	1.9	1.9	1.8	1.7	1.7	2.2	1.8	2.2	2.2	2.0	1.7	3.0	2.9	2.2	2.5	2.2	2.0	1.8	1.7	1.5	1.6	1.6	1.5	1.6
12	1.6	1.6F	1.7	1.8	1.7	E	C	1.7	1.9	2.0	2.1	2.0	2.0	2.2	2.2	2.0	1.7	1.6	1.6	1.5	1.0	1.4	1.6	1.6
13	1.6	1.6	1.7	1.6	E	1.7	1.6	1.6	1.6	1.7	1.8	1.9	2.2	2.0	2.0	2.0	1.6	1.6	1.6	[1.4]C	1.4	1.5	1.5	1.5
14	1.4	1.4F	E	1.4	1.0F	1.3	1.6	1.5	1.7	1.7	1.7	1.9	1.9	2.0	1.9	1.8	1.7	1.5	1.2	1.5	C	C	1.5	1.5
15	1.6	1.4	E	E	E	1.5	1.5	1.8	[1.8]C	1.9	1.9	1.9	C	C	2.0	2.0	1.8	1.5	1.5	1.5	1.6	1.6	1.5	1.5
16	1.5	1.5	E	E	E	E	1.5	1.6	1.6	1.7	1.9	1.9	1.9	1.9	1.8	1.7	1.8	1.7	1.5	1.5	1.5F	1.5	1.6F	1.6
17	1.4	1.4	1.4	1.0	1.3	1.2	1.4	1.5	1.6	1.8	2.0	2.1	2.0	2.0	2.1	1.8	1.7	1.6	1.5	1.5	1.6	1.5	1.5	1.6
18	1.5F	1.4	1.0	1.1	1.1	E	1.4	1.5	1.6	1.8	1.8	1.9	1.9	1.9	2.2	1.7	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6
19	1.5	1.6	1.6	1.6F	1.7	1.8	1.5	1.5	1.6	1.8	1.8	2.0	1.9	1.9	1.8	1.9	1.8	1.6	1.6	1.5	1.7	1.6	1.6	1.6F
20	1.6	1.6	1.6	1.6	1.4F	1.3	1.6	1.5	1.6	1.7	1.7	1.8	1.8	1.9	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6
21	1.6	1.3	1.6	1.7	1.7	1.3	1.6	1.6	1.7	C	C	2.2	2.0	1.9	1.8	1.7	1.6	1.6	1.5	1.5	1.6	1.6	1.6	1.5
22	1.5F	1.4	1.0	1.3	1.6	1.2	1.5	1.5	1.8	2.2	2.0	2.0	2.0	1.9	1.9	1.6	1.6	1.7	1.5	1.5	1.6	1.6	1.6	1.5
23	1.6	1.4	1.0F	1.6F	1.4	1.0	1.4	1.4	1.6	1.8	1.8	1.8	2.0	1.7	1.8	1.9	1.8	1.6	1.6	1.5F	1.5	1.4	1.5	1.6
24	1.6F	E	1.2	E	1.6F	1.6F	1.6	1.6	1.8	[1.8]C	1.9	1.9	2.0	1.9	1.8	1.8	1.6	1.6	1.4	1.5	1.6	1.6	1.5	1.5
25	1.5	1.2	E	E	E	1.7	1.4	1.5	1.6	1.6	1.9	1.8	2.0	2.0	2.2	1.8	1.6	1.6	1.5	1.5	1.5	1.6	1.5	1.6F
26	1.5	1.3	E	E	E	E	1.6	1.6	1.7	[1.7]C	1.7	1.9	1.9	2.0	2.0	1.8	1.6	1.4	1.4	1.6	1.6	1.6	1.6	1.6
27	1.8	1.6	1.6	1.6	C	C	1.6	1.6	[1.7]C	1.8	1.8	2.0	1.9	2.2	1.9	1.9	1.9	1.6	1.5	1.5	1.5	1.5	1.5	1.6
28	1.6	1.1	E	1.3	1.0	1.0	1.5	1.5	1.6	2.0	1.8	2.2	2.2	1.9	2.0	1.9	2.0	1.6	1.5	1.5	1.5	1.5	1.6	1.7
29	1.6	1.2	1.0	1.1	E	1.2	1.5	1.6	1.6	1.8	1.9	1.9	1.7	C	C	1.7	1.7	1.6	1.5	1.5F	1.5	1.7	1.8	1.6
30	1.5	E	E	1.0	1.0	1.4	1.6	1.6	1.6	1.6	1.8	1.8	1.9	2.0	1.8	1.7	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.6
31	1.5	1.1	1.2	1.0	E	1.0	1.4	1.5	1.6	1.6	1.7	1.7	1.9	1.8	1.9	1.6	1.6	1.5	1.5	1.5	1.6	1.5F	1.5	1.5
Mean Value	1.6	1.5	1.5	1.5	1.5	1.4	1.6	1.6	1.7	1.8	1.9	2.0	2.1	2.0	2.0	1.8	1.7	1.6	1.5	1.5	1.6	1.6	1.6	1.6
Median Value	1.6	1.4	1.2	1.3	1.4	1.2	1.6	1.6	1.7	1.8	1.8	2.0	2.0	2.0	1.9	1.8	1.7	1.6	1.5	1.5	1.6	1.6	1.6	1.6
Count	31	31	31	31	30	30	28	31	30	29	30	31	30	28	29	30	30	31	31	30	30	30	31	31

1.0 Mc to 22.0 Mc in 2 min ☐ Manual ☒ Automatic

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IONOSPHERIC DATA IN JAPAN FOR MAY 1952

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