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IONOSPHERIC DATA IN JAPAN

FOR OCTOBER 1950

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PREPARED BY THE CONTRAL RADIO WAVE OBSERVATORY
THE RADIO REGULATORY COMMISSION

KOKUBUNJI, TOKYO, JAPAN

CRWO—F 22

THE CENTRAL RADIO WAVE OBSERVATORY
THE RADIO REGULATORY COMMISSION

KOKUBUNJI, TOKYO, JAPAN

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CONTENTS

	Page
Foreword	2
Site of the Ionospheric Stations	3
Remarks on Symbols	3
Ionospheric Data for Every Day and Hour at Wakkanai	4
Ionospheric Data for Every Day and Hour at Akita	15
Ionospheric Data for Every Day and Hour at Kokubunji	26
Ionospheric Data for Every Day and Hour at Yamagawa	38

P R E F A C E

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 observatories 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

November, 1950

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, Soya-gun, 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, Kago- shima-ken

REMARKS ON SYMBOLS

Except Z_d , $f_{\min} E$ and $f_{\min} F$, other symbols are used in accordance with recommendation of C.C.I.R. Z_d , $f_{\min} E$ and $f_{\min} F$ in the table are defined as follows:

- Z_d Half breadth of the layer, calculated by the method of Booker.
- $f_{\min} E$ Minimum frequency, on which echo reflected from E-layer begins to appear by use of the observation equipment on routine work.
- $f_{\min} F$ Minimum frequency, on which echo reflected from F-layer begins to appear by use of the observation equipment on routine work.

IONOSPHERIC DATA

Lat. 46° 23.8' N
Long. 141° 41.1' E

Wakkanai

136° E Mean Time

f_oF₂

Oct. 1950

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	5.5	5.6 ^z	5.0 ^F	5.2 ^F	5.0 ^F	4.3 ^F	5.9 ^F	6.8 ^F	9.0 ^F	7.9	6.5 ^F	7.5	7.7	8.9	9.3	8.5	6.8 ^F	(7.5) ^F	C	C	(7.2) ^F	5.2	5.0	4.7	
2	4.8 ^H	4.9 ^H	4.9 ^H	5.0 ^J	5.2	3.3	5.9 ^z	8.6	8.5	7.7	(7.7) ^F	(7.9) ^F	8.3	8.3	7.6	7.8	7.0	6.6	5.9	5.3	5.0	4.1	3.8	4.5	
3	3.5	2.8	B	A	2.7	3.2	4.9	4.9	6.2	7.5	8.6	7.9	7.5	7.7	6.9	7.3	8.1	6.2	5.1	5.1	4.9	4.4	4.2	3.6 ^J	
4	3.6 ^z	3.8	3.8 ^z	(3.6) ^F	3.9 ^F	3.4 ^F	4.6	4.6	7.0	7.4	B	7.9	7.6	8.0	7.2	7.9	7.1	7.3	6.5	5.4	4.9	4.1	4.5 ^F	4.4 ^F	
5	4.0 ^F	3.8 ^F	4.7 ^F	4.2 ^F	3.8 ^F	2.9 ^F	3.9	5.7 ^F	6.3 ^F	7.4	7.4	7.4	7.7	7.4	7.0	6.9	7.0	6.6	5.7	5.1	5.0	4.6 ^H	4.6	3.6	
6	4.0	3.6	3.5	3.4	3.1	3.0	4.5	6.7	6.6	7.1	8.6	7.7	7.4	6.9	6.5	6.9	7.7	6.8	5.7	6.1 ^F	5.4	4.8	4.8	3.7 ^F	
7	3.7 ^F	3.6	3.6 ^v	3.8 ^v	3.7 ^z	3.4	5.2	6.6	6.8	(7.4) ^F	7.0	(7.6) ^F	8.3 ^J	7.5	(7.7) ^F	7.8	7.4	6.9	5.6	5.8	4.6	4.7	(4.6)	4.6	
8	4.0	3.8	3.8 ^F	4.0 ^F	3.9 ^F	4.5 ^F	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
9	C	4.3	4.1 ^H	3.6	4.0	4.4	5.0	B	7.9	7.7	(7.6) ^F	7.5	9.2	7.4	8.5 ^J	(8.0) ^F	7.5	7.4 ^H	6.2	5.5	5.1	4.4	4.9	4.9	
10	4.3	3.8	3.8	4.0	4.7	4.2	5.6	7.2	9.0	9.2	8.4 ^J	8.4	9.3	9.0	9.1	8.6	B	B	(5.9) ^F	(6.0) ^F	5.9	5.2 ^J	5.1	4.5	
11	5.2	4.6	4.7	4.6	4.4	4.4	5.7	7.4	8.8	9.1	9.0	9.5	9.9	9.8	9.0	B	B	7.5	6.9	5.9	5.7	5.8 ^F	5.4	4.8 ^F	
12	4.6 ^F	4.8 ^v	4.3 ^v	5.1 ^F	4.7 ^F	4.4 ^F	5.7 ^F	6.3	7.2	7.8 ^F	9.3	8.9	9.2	9.2	9.2	8.5 ^F	B	B	8.7	6.6	5.4	5.2	5.2	5.4	5.3
13	5.3 ^F	5.2	5.9 ^H	5.3 ^F	5.4 ^F	5.6 ^F	6.5	8.4	(9.5) ^F	9.9	9.0	9.2	C	8.0 ^F	8.6	9.6	9.2	7.6	5.7	3.8	4.4 ^H	(4.2) ^H	4.2 ^H	4.4 ^H	
14	4.4 ^H	4.8	4.4	4.4	4.1	4.8	5.9	(6.8) ^F	7.6 ^F	8.7 ^F	(9.0) ^F	9.4	9.0	8.8	8.0	8.0	8.2	7.3	6.4	(5.8) ^J	5.2	5.2	5.2	5.1 ^F	
15	5.1	C	C	C	C	C	C	C	C	C	C	C	8.5 ^F	8.8 ^J	(8.5) ^F	8.5 ^J	8.1 ^J	6.6	5.5	6.2	6.2	5.5	5.4	5.1	
16	4.9	(4.3) ^F	5.1	5.1	5.5	4.7	6.5 ^F	(8.0) ^F	8.2	8.9	10.5	10.7	(11.5) ^F	(11.3) ^F	10.4	9.5 ^F	8.6	7.3 ^J	5.6	6.1	5.2	5.4	5.1	4.8	
17	4.9	3.8	3.1	2.9	2.7	2.8	A	6.3	7.6	A	9.9 ^F	(10.0) ^F	10.2	9.6	9.3 ^J	9.0	8.2	7.5	5.5	5.0	4.8	3.8	3.9	3.7	
18	3.7	3.5	3.0	3.6	3.2	3.0	5.1	5.8	7.4	9.0 ^J	7.3	9.9	9.1	8.2	7.4	8.9	7.4	6.4	5.9	5.9	5.2	4.1	4.4	4.3	
19	4.5	4.4 ^F	(4.3) ^F	4.4 ^F	4.3 ^F	4.9 ^F	6.3	7.7	8.2 ^F	8.3	(8.8) ^H	9.2	8.5	8.0	9.0	9.1	9.0 ^J	7.6	6.0 ^H	5.2	4.8	3.7	A	3.6	
20	3.7	3.7	3.7	3.9	3.7	3.8	5.3	7.4	7.6	8.0	8.5 ^H	8.5	9.1	8.6	8.7	8.2	8.2 ^J	7.3	5.2	5.2	5.0 ^z	4.7 ^F	3.8 ^F	3.7	
21	3.4 ^F	3.4	3.7 ^F	4.5 ^F	4.3 ^z	3.9 ^F	5.7 ^H	7.0	8.4	8.3	8.5 ^F	9.1	9.4	9.2	9.2	9.2	9.1	7.6	6.0	3.8	3.8	3.4	2.5	2.5	
22	2.0	4.0 ^z	C	C	C	C	C	C	8.4	8.3	9.7	10.1	9.4	9.3	8.8	8.4	7.7	6.0	5.0	4.4	4.5	4.5	4.5	4.2	
23	(3.8) ^F	4.3	4.2	(4.3) ^H	3.9 ^H	4.4 ^H	4.8	6.8	7.4	8.5 ^F	8.8 ^F	11.0	10.3	10.8	9.7 ^J	(8.2) ^F	8.7 ^F	7.7	6.3	4.4	4.4	4.1	A	4.2	
24	4.2	4.3	4.5	4.4	4.4 ^F	3.5 ^F	5.2	7.0	8.6	9.4	(9.3) ^H	10.5	10.8 ^z	10.8	10.5	8.6	8.4 ^F	7.2 ^S	5.3	4.6	3.7	3.9	3.8	3.7	
25	3.7	3.9 ^F	3.8 ^F	3.8 ^F	3.5	3.6	C	C	C	C	C	C	C	C	C	C	C	C	4.0	4.5	3.9	3.3	3.5	3.5	
26	3.4	3.8	3.2	3.0	3.9	4.4	5.6	8.7	8.9	(8.5) ^F	8.7	7.8	8.5	6.4	6.9	7.1	6.7	5.5 ^F	4.1	4.3	4.0	4.0	3.6	3.6	
27	3.9	3.9	4.0 ^F	4.2 ^F	C	C	C	C	C	C	C	8.0 ^v	8.2 ^J	8.0	(7.6) ^F	7.3	7.4	6.2	5.0	4.4	4.0	3.6	(4.1)	4.4	
28	5.2	4.8	5.0	4.7	5.4	5.3	5.2	7.3	7.7	7.8	8.4	8.3 ^F	8.1	8.2	8.6	7.7	8.7	7.0	3.9 ^K	3.4 ^F	3.8	(4.0) ^F	3.2 ^K		
29	2.7 ^F	2.7 ^F	2.6 ^F	2.0 ^F	2.1	2.2 ^F	2.9 ^K	B ^K	(6.7) ^F	4 ^K	4.5 ^K	5.3 ^K	C ^K	C ^K	C ^K	6.3 ^K	A ^K	A ^K	B ^K	4.6 ^F	3.5 ^K	3.4 ^K	(3.4) ^F	2.7 ^K	
30	2.7 ^F	2.3 ^F	(2.8) ^F	3.5 ^F	3.6	5.1 ^F	4.1	6.2	5.8	(7.0) ^F	8.1	8.5 ^F	8.1	6.9	7.2	7.7	6.2	5.9	5.1	4.4 ^H	4.3	3.8	3.4 ^F	3.5 ^F	
31	4.0 ^F	3.5 ^F	3.4 ^F	3.9 ^F	3.8 ^F	4.0	6.5	7.9	7.9	8.3 ^J	6.4 ^J	BS	4.2 ^H	4.4	(9.2) ^F	9.0	6.0	4.9	4.7	4.9 ^H	4.3	3.7	3.8	3.8	
Median Value	4.0	3.8	3.9	4.1	3.9	4.0	5.2	6.8	7.7	8.2	8.6	8.5	9.0	8.3	8.6	8.2	7.7	7.0	5.6	5.1	4.8	4.2	4.3	4.2	
Count	30	30	28	28	28	28	25	24	27	26	26	27	27	27	28	28	25	27	28	29	30	30	28	30	

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

IONOSPHERIC DATA

Lat. 45° 23.6' N
Long. 141° 41.1' E

Wakanai

135° E Mean Time

fpF2

Oct. 1950

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	360	360 ^z	420 ^F	350 ^F	340 ^F	350 ^F	330 ^F	330 ^F	320 ^F	280	240 ^F	300	360	350	320	320	310 ^F	(340 ^F)	C	C	(300) ^F	350	390	390	(440) ^F
2	410 ^H	360 ^H	310 ^H	[300 ^F]	300	260	310 ^z	330	290	300	(310) ^F	(310) ^F	330	320	340	320	300	320	320	340	420	420	420	420	(440)
3	340	(340) ^B	A	A	400	400	240	310	400	320	240	320	300	320	330	320	320	290	320	360	330	(320) ^B	390	(390) ^F	
4	340 ^z	400	400 ^z	(330) ^F	(360) ^F	(400) ^F	300	300	310	280	B	300	300	350	300	310	250	310	240	340	360	380	410 ^F	(420) ^B	
5	440 ^F	400 ^H	440 ^F	380 ^F	430 ^F	340 ^F	360	300 ^F	320 ^F	300	300	330	310	320	290	300	240	280	300	320	350	370	350	310	
6	260	350	340	340	310	300	300	310	300	330	320	320	300	300	320	300	310	310	310	360 ^F	310	350	360	420	
7	360 ^F	420	380 ^Y	340 ^Y	340 ^z	310	310	280	240	(310) ^F	330	(370) ^F	(310) ^F	310	(300) ^F	300	240	320	370	340	310	360	(360) ^F	370	
8	380	430	430 ^F	430 ^F	340 ^F	310 ^F	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
9	C	320	(350) ^H	330	310	360	300	B	240	240	(320) ^F	(330) ^B	310	300	(300) ^F	280 ^F	270	300 ^H	310	370	350	370	380	340	
10	410	360	380	340	380	360	280	260	310	300	(260) ^F	310	310	310	310	320	B	(330) ^F	(330) ^F	350	(310) ^F	340	340	A	
11	390	370	420	360	360	360	240	240	280	310	240	330	320	320	310	B	B	300	300	240	380	340 ^F	330	350 ^F	
12	420 ^F	400 ^Y	360 ^F	410 ^F	340 ^F	360 ^F	240 ^F	320	300	(320) ^F	300	330	240	320	340	350 ^H	B	(310) ^B	310	310	370	400	410	360	
13	350 ^F	350	420 ^H	350 ^F	(370) ^F	450 ^F	340	240	(330) ^F	310	280	240	C	(310) ^F	310	350	310	310	320	240	370	(350) ^H	330	400 ^H	
14	430 ^H	440	410	440	410	420	320	(320) ^F	(310) ^F	(280) ^F	(280) ^F	240	300	240	310	280	240	300	320	360	(340) ^F	420	390	440	
15	340	C	C	C	C	C	C	C	C	C	C	C	320 ^F	(320) ^F	(280) ^F	(300) ^F	300	300	400	420	350	360	390	350	
16	340	(340) ^B	380	400	330	360	340 ^F	(280) ^F	280	240	340	330	(300) ^F	(310) ^F	310	300 ^F	280	(240) ^F	320	340	340	400	400	390	
17	340	360	340	350	340	420	A	350	300	A	360 ^F	(300) ^F	330	240	(300) ^F	240	240	270	310	340	340	300	330	390	
18	450	440	430	430	400	440	330	240	310	(300) ^F	240	350	300	320	240	310	300	300	310	320	310	370	340	370	
19	400	420 ^F	(340) ^F	410 ^F	360 ^F	410 ^F	240	280	240 ^F	240	B	280	280	320	310	310	240 ^F	300	240 ^H	280	350	310	A	390	
20	390	430	380	340	330	340	320	210	310	240	300	300	320	320	300	300	(310) ^F	260	320	300	320 ^F	310 ^F	330	350 ^F	
21	400 ^F	450	420 ^F	420 ^F	370 ^z	350 ^F	300 ^H	280	260	240	240 ^F	300	240	310	310	320	300	240	280	340	240	320	260	290	
22	350	340 ^F	C	C	C	C	C	C	300	280	310	240	300	240	240	310	280	270	320	350	360	350	350	350	
23	(400) ^F	410	380	(410) ^H	430 ^H	400 ^H	330	320	300	240 ^F	(330) ^F	240	320	240	(320) ^F	(260) ^F	300 ^F	280	310	330	360	350	A	370	
24	340	360	340	370	370	300 ^F	240	280	280	260	(320) ^F	300	330 ^F	BS	(240) ^F	280 ^F	250 ^F	260	310	360	400	350	350	420	
25	360	420 ^F	340 ^F	410 ^F	330	330	C	C	C	C	C	C	C	C	C	C	C	C	C	310	360	400	350	350	
26	310	470	330	330	330	330	240	270	320	(300) ^F	280	300	280	330	310	300	280	300 ^F	330	320	330	330	360	320	
27	350	380	360 ^F	360 ^F	C	C	C	C	C	C	(280) ^F	280	(280) ^F	280	(280) ^F	280	270	270	310	320	300 ^H	330	330	390	
28	400	360	320	360	340	320	240	270	240	230	260 ^F	240	220	230	270	270	270	270	420	320	300 ^H	360	(380) ^F	410	
29	(410) ^F	A	A	A	A	A	A	B	(300) ^F	G	G	G	C	C	C	C	A	A	B	K	K	K	K	K	
30	350 ^F	360 ^F	(420) ^F	460 ^F	400	(410) ^F	370	310	330	(340) ^F	360	310 ^F	240	300	300	310	300	300	320	370	320	350	400 ^F	420	
31	400 ^F	420 ^F	340 ^F	380 ^F	360 ^F	350 ^F	310	300	270	(280) ^F	220 ^F	BS	300	300	C	270	220 ^A	320	320	380 ^H	310	(370)	450	420	
Median Values	340	340	340	380	360	360	300	300	300	300	300	300	310	310	310	300	290	300	320	340	350	350	380	370	
Count	30	29	27	27	27	28	25	27	27	26	25	27	27	27	27	28	25	27	28	24	29	30	28	29	

fpF2

Sweep 1.0-Mc to 14.0 Mc in 1.5 min

Manual

W 2

Oct. 1950

f'F2

135° E Mean Time

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	240	240	300	270	260	270	280	270	260	260	240	240	320	310	280	260	250	290	C	C	260	250	310	350	
2	320 ^H	250 ^H	270 ^H	[260 ^F]	260	250	250	310	270	280	300	310	300	320	330	290	300	280	280	310	340	330	370	350	
3	240	300	300	A	300	350	250	260	400	310	260	300	280	280	250	300	280	260	250	260	290	260	310	370	
4	360	300	330	240	300	300	260	280	310	280	310	240	300	350	280	280	250	260	230	270	250	270	300	320	
5	350 ^H	310 ^H	330	240	300	280	320	300	260	240	280	310	240	240	280	280	280	230	280	300	300	250 ^H	330	300	
6	250	300	300	300	280	350	240	280	240	240	310	310	270	280	280	260	240	250	280	300	270	240	290	300	
7	320	360	300	240	240	300 ^F	280	280	240	300 ^F	300	310	300	300	240	240	240	240	300	280	260	280	[280 ^G]	240	
8	310	320	330	320	300	260	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
9	C	300	310 ^H	240	270	250	270	250	260	[270 ^G]	280	280	270	240	300	270	250	250 ^H	250	300	270	240	290	330	240
10	300	280	310	310	300	250	250	240	270	250	260	250	270	270	270	270	260	230	270	280	280	260	240	A	
11	320	310	350	300	300	270	270	220	260	280	270	240	260	280	250	250	280	250	230	280	310	270	300	300	
12	350	320	310	310	300	310	240	260	240	310	260	240	260	280	280	270	250	250	250	250	260	260	310	320	310
13	300	300	(300 ^H)	300	300	300	300	280	280	250	260	270	300	300	300	280	260	220	220	250	300 ^H	250	220	230	
14	220 ^H	350	310	310	350	310	280	(280 ^F)	270	260	240	270	270	260	250	250	250	250	270	[340 ^G]	(400 ^G)	350	330	380	
15	270	C	C	C	C	C	C	C	C	C	C	C	270	320	280	260	280	230	300	300	240	280	320	280	
16	300	330	310	310	280	250	250	250	270	270	240	240	260	280	270	240	230	230	260	240	320	310	310	310	
17	280	240	310	300	240	340	A	300	300	A	230	250	280	250	270	250	240	240	240	260	240	260	270	(300 ^G)	
18	370	380	400	370	340	360	280	250	250	270	270	320	280	280	270	270	260	230	240	270	270	300	300	310	
19	320	300	300	340	280	240	230	240	270	270	240	250	260	240	260	260	250	250	220	230	250	230	A	380	
20	350	350	300	240	300	240	240	220	230	230	240 ^H	280	250	250	280	280	260	220	250	260	250	260	280	280	
21	320	340	320	300	300	240	250 ^H	220	230	270	280	230	240	280	280	260	230	260	250	300	270	310	230	270	
22	310	310	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
23	300	300	300	300 ^H	320	330	300	270	250	270	300	260	240	270	250	250	240	220	230	270	280	270	280	280	
24	340	330	320	300	280	240	230	250	240	220 ^A	260 ^H	280	270	260	250	220	250	230	280	280	280	320	A	280	
25	310	330	320	320	260	250	C	C	C	C	C	C	C	C	C	C	C	C	C	C	280	240	280	280	
26	300	310	300	310	240	270	250	250	250	300	280	240	250	240	250	280	240	250	280	250	250	240	280	300	
27	280	240	240	300	C	C	C	C	C	C	C	240	250	[250 ^G]	250	230	230	270	270	250	250 ^H	280	[240 ^F]	300	
28	300	300	300	280	280	230	210	210	210	200 ^A	200 ^A	220 ^A	240	200 ^A	220 ^A	250	240	230	300	400	370 ^K	390 ^K	400 ^F	300	
29	400 ^H	A	A	A	A	420	A	(300 ^F)	280	G	520	460	C	C	C	300	A	A	A	A	A	A	A	K	
30	300 ^K	330 ^K	330 ^K	400 ^K	340	370	320	280	240	(300 ^F)	300	300	260	280	260	280	230 ^F	250	270	280 ^H	280	280	300	310	
31	300	320	300	300	320	270	270	240	260	230	220 ^A	300	240	240	240	230	220 ^A	300	300	300 ^H	250	280	370	320	
Median Value	300	310	310	300	300	240	260	260	270	270	270	240	270	280	270	260	250	250	260	280	280	280	300	300	
Count	30	24	28	27	27	28	24	26	27	26	27	28	28	28	28	24	28	28	28	24	30	30	28	24	

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

IONOSPHERIC DATA

Oct. 1950

foF1

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						Q	3.2	Q	L	Q	L	L	L	L	L	Q	Q	Q						
2						Q	L	4.2	L	4.2	L	4.6	L	L	L	Q	L	Q						
3						Q	Q	4.6	4.2	4.5	4.5	4.4	Q	Q	Q	L	Q	Q						
4						Q	L	4.4	4.4	4.6	L	L	L	L	L	L	L	Q						
5						Q	L	Q	A	L	L	L	L	L	L	L	L	Q						
6						Q	L	L	L	L	L	L	L	L	L	L	Q	Q						
7						Q	L	L	L	4.4	L	A	L	L	4.4	Q	Q	L						
8						C	C	C	C	C	C	C	C	C	C	C	C	C						
9						L	Q	Q	L	C	L	L	L	L	L	Q	Q	Q						
10						Q	Q	Q	Q	L	L	L	L	L	L	L	Q	Q						
11						Q	Q	Q	L	L	L	L	L	L	L	Q	L	Q						
12						Q	Q	L	L	L	L	L	L	L	L	Q	Q	Q						
13						L	Q	Q	Q	L	L	A	L	A	L	L	L	L						
14						Q	C	Q	Q	Q	L	L	Q	Q	Q	Q	Q	Q						
15						C	C	C	C	C	C	L	A	L	L	L	L	L						
16						Q	Q	L	L	L	L	L	L	L	L	L	Q	Q						
17						A	A	Q	A	A	A	A	A	A	A	A	A	Q						
18						Q	Q	Q	Q	Q	L	Q	Q	L	Q	Q	Q	Q						
19						Q	Q	Q	L	L	L	L	L	L	L	Q	Q	Q						
20						Q	Q	Q	Q	Q	L	L	Q	Q	L	L	L	Q						
21						Q	Q	Q	L	L	L	Q	Q	L	L	L	Q	L						
22						C	C	Q	Q	Q	L	L	L	L	L	Q	Q	Q						
23						Q	Q	Q	Q	Q	L	L	L	L	L	L	L	L						
24						Q	Q	Q	A	L	4.0	Q	Q	Q	Q	Q	Q	Q						
25						C	C	C	C	C	C	C	C	C	C	C	C	C						
26						Q	Q	Q	L	L	L	L	L	L	L	L	Q	Q						
27						C	C	C	C	C	Q	Q	Q	Q	C	Q	Q	Q						
28						Q	Q	Q	Q	A	Q	L	A	Q	Q	Q	Q	Q						
29						A	A	Q	3.8	3.9	4.0	4.0	C	A	A	A	A	A						
30						Q	Q	Q	C	L	L	L	L	L	L	L	L	Q						
31						Q	Q	Q	Q	Q	L	A	Q	L	L	L	L	L						
Median Value						-	-	-	-	4.4	-	-	-	-	-	-	-	-						
Count						1	3	3	3	5	3	4	4	4	4	4	4	4						

foF1

Recep. 1.0—Mc to 14.0—Mc in 1.5 min Manual

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

Lat. 46° 23.6' N
Long. 141° 41.1' E

Wakkanai

IONOSPHERIC DATA

f'F1

Oct. 1950

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	220	Q	220	Q	230	230	220	250	Q	Q	Q						
2							Q	260	250	240	220	240	260	300	280	Q	270	Q						
3							Q	Q	240	250	250	250	Q	Q	Q	280	Q	Q						
4							Q	Q	300	250	250	270	260	260	Q	260	Q	Q						
5							Q	250	Q	A	210	220	230	210	220	230	260	Q						
6							Q	270	240	230	230	250	210	230	230	Q	Q	Q						
7							Q	250	250	230	220	240	A	250	260	Q	Q	250						
8							C	C	C	C	C	C	C	C	C	C	C	C						
9							200	Q	Q	240	{230}	220	230	270	270	Q	Q	Q						
10							Q	Q	Q	Q	250	210	220	Q	230	Q	Q	Q						
11							Q	Q	Q	250	240	250	230	250	Q	Q	260	Q						
12							Q	Q	250	240	230	230	210	240	Q	Q	Q	Q						
13							280	Q	Q	Q	Q	210	A	240	A	220	220	Q						
14							Q	C	Q	Q	Q	220	Q	Q	Q	Q	Q	Q						
15							C	C	C	C	C	C	250	A	260	Q	250	Q						
16							Q	Q	240	240	260	260	210	230	250	Q	Q	Q						
17							A	A	Q	A	A	A	A	A	A	A	A	Q						
18							Q	Q	Q	Q	Q	310	Q	230	Q	Q	Q	Q						
19							Q	Q	Q	240	250	210	230	Q	Q	Q	Q	Q						
20							Q	Q	Q	Q	Q	250	Q	Q	260	260	Q	Q						
21							Q	Q	Q	230	230	Q	Q	240	250	Q	220	220						
22							C	C	Q	Q	240	230	240	240	Q	Q	Q	Q						
23							Q	Q	Q	Q	240	230	250	210	240	Q	220	Q						
24							Q	Q	Q	A	220	230	Q	Q	Q	Q	Q	Q						
25							C	C	C	C	C	C	C	C	C	C	C	C						
26							Q	Q	Q	230	260	250	200	250	Q	Q	Q	Q						
27							C	C	C	C	C	Q	Q	Q	C	Q	Q	Q						
28							Q	Q	Q	Q	A	Q	220	A	Q	Q	Q	Q						
29							A	A	Q	350	380	A	A	C	A	A	A	A						
30							Q	Q	Q	C	250	250	260	260	Q	230	Q	Q						
31							Q	Q	Q	Q	Q	A	Q	250	Q	Q	A	220						
Median Value							-	-	250	240	240	240	230	240	250	240	250	-						
Count							2	4	7	14	19	22	18	18	12	6	7	3						

Sweep 1.0— Mc to 14.0— Mc in 1.5 min

Manual

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

IONOSPHERIC DATA

Lat. 45° 23.6' N
Long. 141° 41.1' E

Oct. 1950

foE

135° E Mean Time

Wakkanai

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							B 1.9	2.0 ^A	2.0	2.0 ^A	3.1	3.1	3.1	3.1	3.0	2.0	2.1	1.5						
2							A 2.6	2.5 ^A	2.5 ^A	3.0	3.1	3.0 ^A	2.0	3.0	3.0	A	A	A						
3							2.0	2.4	2.5	3.0	2.0	3.0	3.1	3.0	3.0	2.6	B	B						
4							1.5	2.3	2.0	3.0	A	3.1 ^A	A	A	A	2.2	A	2.5						
5							1.6	2.0 ^B	2.4 ^B	A	3.0	2.9	3.2	3.0 ^B	2.8 ^B	B	B	1.5						
6							2.0	2.3	2.9	2.9	2.9	3.2	3.1	2.8	2.0	2.6	2.3	1.4						
7							1.0	2.1 ^T	2.6 ^B	A	3.2 ^F	B	A	A	2.8	2.5	2.3 ^B	1.0						
8							C	C	C	C	C	C	C	C	C	C	C	C						
9							1.5	2.1 ^T	B	(2.8 ^B)	C	A	3.4	3.2	2.9 ^H	2.9	2.3	A						
10							1.5	2.3	2.0	2.9 ^B	3.0	3.1	3.1	2.9	3.0	2.6	2.2	B						
11							1.6 ^B	2.1	2.5	3.1	2.0	3.1	3.1	3.1	2.9	2.0	2.0	1.2						
12							B	2.0 ^B	A	3.1	(3.0)	2.9	3.1	B	2.9	A	B	B						
13							B	A	2.6 ^B	3.1 ^B	3.3 ^B	A	A	A	A	A	A	A						
14							1.8	(2.2)	2.5	2.6	2.8	B	B	3.0	2.5	2.5	2.2 ^B	1.5 ^B						
15							C	C	C	C	C	C	A	A	A	A	2.0 ^B	A						
16							B	2.3 ^B	2.8	3.0	3.0	3.2	3.2 ^B	3.1	2.9	A	A	1.3						
17							A	A	2.9	3.0	3.1	3.1	A	A	A	A	A							
18							1.5	2.0	2.6	2.9	A	3.0	3.0	3.0 ^B	2.9	2.6	2.0	A						
19							1.5	B	A	2.0	2.8	2.0	2.6	2.0	2.8	A	A	A						
20							A	2.1 ^B	2.6	2.9	3.1	(3.2 ^B)	3.0	3.0	3.0	2.9	A	A						
21							A	B	2.9	3.0	3.3	3.0	3.0	3.0	3.0	2.0	2.1	A						
22							C	C	2.5	2.8	2.9	3.0	A	3.0	3.0 ^A	B	2.1	1.1						
23							1.2 ^B	2.1	2.0	2.6 ^A	3.0	A	A	B	3.0	B	2.0 ^B	1.4						
24							1.4 ^B	2.0	A	A	2.8	A	3.5 ^A	3.0	3.0 ^A	2.0	2.2	1.3						
25							C	C	C	C	C	C	C	C	C	C	C	C						
26							B	B	2.6	2.0	(2.9)	B	B	B	2.6	2.4	(2.1)	A						
27							C	C	C	C	C	3.1 ^A	(3.4)	3.1 ^B	(2.8)	2.4	2.1 ^B	B						
28							1.3 ^B	2.2	2.5	2.6	A	A	A	A	A	2.4 ^B	B	B						
29							B	A	A	2.9	3.0	A	A	C	A	A	A	A						
30							1.8	2.3	2.5	(2.6)	2.8	2.9 ^B	(2.9)	A	A	2.4	A	1.5 ^A						
31							1.4 ^B	2.4	3.0	A	A	A	A	A	A	A	A	1.5 ^B						
Median Value							1.5	2.2	2.6	2.9	3.0	3.0	3.1	3.0	2.9	2.6	2.1	1.5						
Count							16	20	22	23	22	10	18	10	21	10	15	13						

foE

Sweep 1.0 — Mc to 1.5 — Mc in 1.5 min Manual

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

Lat. 46° 23.6' N
Long. 141° 41.1' E

Wakkanai

IONOSPHERIC DATA

f_oF₂

Oct. 1950

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							100	100	100	110	120	100	110	110	110	110	B	130						
2							A	120	110	120	130	130	110	130	120	A	A							
3							120	100	110	100	100	100	100	120	100	120	100	170						
4							120	130	120	120	A	A	100	110	190	100	A	110						
5							110	120	120	A	110	100	100 ^B	120	110	100	100	100						
6							130	100	110	120	110	110	110	100	120	100	110	110						
7							100	100 ^B	100 ^B	A	120	B	A	A	120	140	120 ^B	110						
8							C	C	C	C	C	C	C	C	C	C	C	C						
9							110	130	B	100	C	A	120	120	130 ^H	100	100	A						
10							100	100	100	110	110	110	110	120	120	120	110	110						
11							120	140 ^B	100	100	110	110	120	110	100	100	120	100						
12							110	B	A	120	110	110	110	100	100	A	B	B						
13							B	A	B	120	B	A	A	A	A	A	A	A						
14							110	1110 ^f	110	120	110	120	B	110	120	110	100	100						
15							C	C	C	C	C	C	A	A	A	A	B	A						
16							140	150	110	110	110	110	100	100	100	100	A	120						
17							A	A	120	100	110	110	A	A	A	A	A	A						
18							100	120	110	110	110	110	110	110	120	110	110	A						
19							B	110	A	110	110	110	110	110	110	A	A	A						
20							A	110	110	110	110	110	100	110	100	110	A	A						
21							A	100	110	100	100	100	100	100	100	110	110	A						
22							C	C	110	100	120	120	120	120	120	120	B	120						
23							B	120	130	120	100	A	A	100	110	100	B	100						
24							B	B	A	110	110	A	110	100	100	100	110	130 ^B						
25							C	C	C	C	C	C	C	C	C	C	C	C						
26							B	B	110	120	130	130	100	110	110	120	110	A						
27							C	C	C	C	C	C	110	120	140 ^f	150 ^f	B	B						
28							B	110	110	110	A	A	A	A	A	100	B	B						
29							120	A	A	100	100	A	A	C	A	A	A	A						
30							110	110	110 ^f	110	100	100	110	A	A	100	A	100						
31							110	130	120	100	A	A	A	A	A	A	A	100						
Mean Value							110	110	110	110	110	110	110	110	110	110	110	110						
Const.							16	20	21	25	22	19	20	21	22	21	12	15						

Beesep 1.0 Mc to 15.0 Mc in 1.5 min

Manual

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

IONOSPHERIC DATA

Lat. 46° 23.6' N
Long. 141° 41.1' E

Oct. 1950

fEs

135° E Mean Time

Wakkanai

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	G	G	G	G	G	G	G	G	3.2	5.0	G	4.0 ^Y	G	G	G	G	2.6 ^Y	G	C	C	G	G	G	G
2	G	2.2	2.3	C	3.3	2.9	2.4	3.8	G	G	G	G	3.8	4.1 ^Y	G	3.6	2.4	2.8	G	G	G	G	G	G
3	2.2 ^Y	3.0	4.4	4.8	G	G	3.6	4.6	4.0	4.8	G	G	G	G	G	G	G	G	G	G	G	1.2	1.2	4.8 ^B
4	4.4	1.3	1.5 ^B	G	G	G	2.6	3.0	G	3.4	4.4	3.8	3.7	3.4	G	3.2	3.6	G	1.2	G	2.4	G	1.3	1.8
5	1.1	G	1.3	2.4	G	G	G	3.6 ^Y	3.4 ^Y	π.1 ^Y	G	G	4.2 ^Y	3.4 ^Y	G	2.4 ^B	G	3.7	3.3	G	2.3	3.5	2.8	G
6	2.6	1.4	G	G	G	G	G	G	G	3.4	G	4.2 ^Y	G	G	G	G	G	G	3.3	4.0	3.2	3.2	G	G
7	1.5	2.4	G	G	G	G	G	3.2 ^Y	G	G	G	B	4.8	4.7	3.4	G	B	G	3.0 ^Y	2.4	2.4	1.7	G	2.4
8	G	G	G	G	G	2.4	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	G	G	1.2	G	1.2	G	G	B	G	C	4.0	3.8	G	3.7	3.4	G	4.7	3.4	G	G	G	1.5	G
10	G	G	G	2.0	G	G	G	G	4.4	4.7 ^Y	4.9	4.4	G	G	G	G	G	G	G	3.0	2.0	2.2	1.6	4.8
11	3.2	4.6	4.0	2.8	2.4	1.4	G	G	5.2 ^Y	G	4.4	G	G	G	G	G	G	3.6 ^Y	2.4	2.8	4.5 ^B	5.1	4.4	6.6
12	5.2	2.7	2.3	G	G	G	G	G	3.8	G	G	G	G	G	3.6 ^Y	3.4	B	B	4.4	4.4	4.4	3.4	3.0	2.7
13	3.4	3.3	1.6	4.3	4.2	1.4	B	3.0	3.0	B	G	4.4	6.3	5.4	6.1	4.4	5.3	2.9	4.2	3.2	2.1	2.3	2.4	
14	3.2	2.2	G	G	1.8	G	G	C	G	4.4 ^Y	G	G	B	G	G	G	G	G	G	C	3.5	G	G	G
15	G	C	C	C	C	C	C	C	C	C	C	C	6.6	9.4	π.4	3.6 ^B	3.2 ^B	(2.0 ^Y)	2.6 ^Y	3.0 ^B	2.5	2.3	4.4	1.7
16	2.1	1.8	2.0	1.3	G	1.4	G	G	G	4.2	4.5 ^Y	G	G	G	G	G	3.8	3.4	1.3	G	G	G	1.6	G
17	1.6	1.8	2.8	3.3	3.9	1.4	5.6	5.6	6.4	8.5	π.3	π.2	π.2	π.1	6.6	4.7	4.8	4.6	3.9	3.2	2.5	2.3	1.4	3.1
18	2.6	2.4	2.4	2.8	2.4	2.3	2.5	2.9	3.4	5.4	5.4	G	4.8	G	3.6 ^Y	G	G	1.9	2.2	G	G	G	1.4	G
19	G	1.3	1.3	4.4	4.4	3.3	2.9	G	4.5	(5.8 ^Y)	5.1 ^F	4.2 ^Y	B	3.7	4.4 ^F	4.4	4.2	2.5	2.3	1.3	6.3 ^Y	3.4	5.0	3.0
20	2.9	4.4	2.4	1.6	3.6	2.6	2.5	G	G	3.7 ^Y	G	G	G	G	G	G	3.2	4.2	3.8	G	G	G	G	G
21	G	1.2	G	1.5	G	1.4	2.8 ^B	G	G	G	G	G	G	G	G	G	G	G	4.4	3.2	2.5	2.4	G	G
22	G	2.3	C	C	C	C	C	C	G	4.4	3.5	G	G	G	G	G	2.5	G	1.9	G	G	G	G	G
23	G	G	G	G	G	2.4 ^Y	G	G	G	π.6	6.7 ^Y	4.4	4.7	G	G	G	B	2.3	4.4	2.0	2.9	4.4	5.5	2.0
24	2.9	4.0	3.5	1.3	1.4	G	G	G	5.0	π.5	4.4	4.6	4.4	G	4.8	4.6 ^Y	G	2.9 ^Y	2.4	3.3	2.4	2.2	2.2	1.6
25	2.8	1.9	G	G	G	G	C	C	C	C	G	C	C	C	C	C	C	C	G	B	G	G	G	G
26	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	2.1	2.5	2.3	G	G	G	G
27	3.1	G	G	2.4	C	C	C	C	C	C	C	C	G	G	C	G	G	3.2 ^B	G	G	G	G	C	G
28	G	2.8	3.2	2.2	G	1.4	G	G	G	3.9	4.5	4.4	5.3	4.4	3.5	G	B	G	G	G	G	G	B	1.3
29	B	2.0 ^B	2.5 ^B	3.3 ^B	2.8 ^B	3.8	3.6	4.2	6.1	4.9	4.7	4.5 ^Y	4.4	C	4.8	4.6	6.7	6.2	5.7	π.2	5.6	4.6	G	G
30	G	G	G	G	G	5.2	G	G	G	C	G	G	G	4.2	4.7	G	3.4	2.0	1.6	G	G	G	G	G
31	G	2.0	3.7	2.9	3.0	2.0	G	G	G	5.4	4.8	6.9	4.4	4.3	4.4	4.4	4.4	G	G	G	2.4	4.5	3.0	1.9
Median Value	1.5	1.8	1.3	1.4	G	1.3	G	G	G	4.4	3.8	G	3.7	G	G	G	2.4	2.0	2.4	2.0	2.2	1.4	1.4	1.4
Count	24	30	29	28	28	28	25	25	26	25	26	2π	2π	28	28	29	25	28	29	20	30	30	2π	30

fEs

Swamp 1.0 Mc to 1.4.0 Mc in 1.5 min Manual

W 8

Oct. 1950

(M3000)F2

135° E Mean Time

Lat. 45° 23.6' N
Long. 141° 41.1' E

Wakkanai

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	2.7	2.8 ^z	2.7 ^F	2.9 ^F	2.9 ^F	2.9 ^F	2.8 ^F	2.9 ^F	2.9 ^F	3.3	3.2 ^F	3.1	2.9	2.9	3.1	3.0	3.1 ^F	(2.9) ^F	C	C	(3.1) ^F	2.7	2.7	2.7	2.4
2	(2.5) ^H	2.8 ^M	3.1 ^H	(3.1) ^C	3.1	3.4	3.0	3.1	3.2	3.2	(3.1) ^F	3.0	3.0	3.0	2.9	3.0	3.2	3.0	3.0	2.7	2.6	2.6	2.6	2.6	2.5
3	2.9	2.8	B ^z	A	2.7	2.6	3.2	3.0	3.0	3.0	3.1	3.0	3.1	3.1	3.0	3.0	2.9	3.2	3.1	2.7	2.9	(3.0) ^F	2.6	(2.7) ^F	
4	2.8 ^z	2.6	(2.9) ^F	(2.9) ^F	(2.5) ^F	(2.5) ^F	3.0	3.0	3.3	3.4	B	3.2	3.0	3.0	3.3	3.1	3.4	3.1	3.2	2.8	2.7	2.6	2.6 ^F	2.5 ^F	
5	2.5 ^F	2.7 ^F	2.5 ^F	2.8 ^F	2.4 ^F	2.6 ^F	2.8	3.1 ^F	3.0 ^F	3.2	3.1	3.0	3.2	3.1	3.2	3.2	3.2	3.2	3.1	3.0	2.7	2.8 ^H	2.8	3.1	
6	3.5	2.9	3.0	3.0	3.2	2.6	3.1	3.1	3.2	2.9	3.0	3.1	3.1	3.2	3.0	3.2	3.1	3.0	2.9	2.7	3.0	2.9	2.9	2.6 ^v	
7	2.9 ^F	2.7	2.7	2.7	2.7	2.6	3.2	3.2	3.3	(3.1) ^F	3.0	(2.9) ^F	(3.1) ^F	3.2	(3.1) ^F	3.2	3.2	3.0	2.8	2.8	3.0	2.7	(2.7) ^F	2.7	
8	2.8	2.5	2.5 ^F	2.4 ^F	2.6 ^F	3.1 ^F	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	
9	C	3.1	(2.8) ^H	3.0	3.1	2.8	3.2	B	3.1	3.2	(3.0) ^F	(2.9) ^F	3.1	3.3	(3.0) ^F	(3.3) ^F	3.6	3.3 ^H	3.1	2.7	2.9	2.8	2.8	3.0	
10	2.5	2.8	2.7	2.7	2.7	2.8	3.2	3.3	3.0	3.1	(3.3) ^F	3.0	3.0	3.1	2.9	3.0	B	B	(2.9) ^F	(3.0) ^F	2.8	(3.0) ^F	2.9	2.7	
11	2.7	2.7	2.7	2.8	2.7	2.7	3.2	3.2	3.2	3.1	3.2	2.9	3.0	3.0	3.1	B	B	3.1	3.1	2.9	2.7	2.8 ^F	2.9	2.9 ^F	
12	2.6 ^F	2.4	2.8 ^F	3.4 ^F	2.8 ^F	2.8 ^F	3.1 ^F	3.0	3.2	(3.1) ^F	3.1	3.0	3.2	3.0	2.9	3.0 ^H	B	B	(3.0) ^F	3.0	2.7	2.7	2.6	2.8	
13	2.8 ^F	2.8	2.5 ^F	2.8 ^F	2.7 ^F	2.5 ^F	2.9	3.4	(2.9) ^F	3.0	3.2	3.0	C	(3.1) ^F	3.1	2.9	3.1	3.1	3.0	3.1	2.7 ^H	(2.8) ^H	3.0	2.7 ^H	
14	2.7 ^H	2.5	2.5	2.5	2.7	2.7	3.0	(3.0) ^F	(3.0) ^F	(3.3) ^F	(3.2) ^F	3.2	3.3	3.1	3.1	3.3	3.2	3.0	2.8	(2.7) ^F	2.6	2.7	2.7	2.5 ^F	
15	2.9	C	C	C	C	C	C	C	C	C	C	C	C	3.0 ^F	(2.9) ^F	(3.1) ^F	(3.1) ^F	3.1	2.6	2.5	2.9	2.7	2.7	2.8	
16	2.6	(2.7) ^F	2.7	2.7	2.7	2.7	2.9 ^F	(3.3) ^F	3.2	3.1	2.9	3.0	(3.1) ^F	(3.0) ^F	3.0	3.2 ^F	3.2	(3.1) ^F	3.0	2.9	2.7	2.6	2.6	2.7	
17	2.8	2.8	2.9	3.0	2.9	2.7	A	2.8	3.2	A	3.3 ^F	(3.1) ^F	3.0	3.2	(3.2) ^F	3.2	3.1	3.3	3.0	2.9	2.9	3.1	3.0	2.7	
18	2.5	2.4	2.5	2.5	2.8	2.5	2.9	3.0	3.0	(3.1) ^F	3.2	2.9	3.1	3.0	3.1	3.0	3.1	3.1	3.1	3.1	3.1	2.8	2.7	2.7	
19	2.7	2.5 ^F	(2.7) ^F	2.6 ^F	2.7 ^F	2.7 ^F	3.3	3.3	3.3	3.2	(3.2) ^F	3.3	3.2	3.0	3.1	3.1	3.1 ^F	3.2	3.2 ^H	3.2	3.2	2.9	3.0	2.7	
20	2.6	2.5	2.6	2.6	2.9	2.9	3.0	3.4	3.4	3.3	3.2 ^H	3.2	2.9	3.1	3.2	3.2	(3.0) ^F	3.3	2.9	3.2	3.2	3.0 ^F	3.0 ^F	2.8 ^F	
21	2.7 ^F	2.5	2.6 ^F	2.6 ^F	2.7 ^F	2.9 ^F	3.2 ^H	3.2	3.4	3.2	3.1 ^F	3.1	3.1	3.0	3.0	3.0	3.1	3.2	3.3	2.9	3.4	3.0	3.2	3.2	
22	3.0	2.7 ^F	C	C	C	C	C	C	3.2	3.2	3.1	3.3	3.1	3.2	3.1	3.1	3.2	3.2	3.0	2.9	2.8	2.9	2.8	2.8	
23	(2.6) ^F	2.6	2.7	(2.5) ^H	2.5 ^H	2.7 ^H	2.9	2.9	3.1	3.1 ^F	(2.9) ^F	3.3	3.0	3.3	(2.9) ^F	(3.4) ^F	3.2 ^F	3.1	3.0	2.9	2.9	2.8	2.8	A	2.7
24	2.8	2.7	2.7	2.8	2.8 ^F	3.1 ^F	3.2	3.3	3.2	3.3	(2.9) ^F	3.3	3.0	3.3	(2.9) ^F	(3.4) ^F	3.2 ^F	3.1	3.0	2.9	2.8	2.8	A	2.7	
25	2.8	2.5 ^F	2.8 ^F	2.6 ^F	2.9	2.9	C	C	C	C	C	C	3.0	BS	(3.2) ^F	3.4 ^F	3.4 ^F	3.2	3.1	3.0	2.8	2.6	2.8	2.9	
26	3.0	2.3	2.9	3.0	3.0	3.1	3.2	3.3	2.9	(3.1) ^F	3.3	3.1	3.3	3.0	C	C	C	C	3.0	2.9	2.9	3.0	2.7	3.0	
27	3.0	2.8	2.9 ^F	2.8 ^F	C	C	C	C	C	C	C	(3.3) ^F	(3.0) ^F	3.2	(3.2) ^F	3.3	3.4	3.2	3.1	3.1	3.1 ^H	2.8	(2.8) ^F	2.7	
28	2.6	2.7	3.0	2.7	2.9	3.0	3.1	3.2	3.1	3.5	3.4	3.3 ^F	3.5	3.9	3.8	3.3	3.4	3.2	3.1	3.1	2.8	(2.8) ^F	2.7		
29	(2.6) ^F	A ^K	A ^K	A ^K	A ^K	(2.4) ^F	A ^K	B ^K	(3.2) ^F	G ^K	2.4 ^K	C ^K	C ^K	C ^K	C ^K	3.0	A ^K	A ^K	2.5 ^K	(2.6) ^F	(2.5) ^F	(2.5) ^F	2.4		
30	2.9 ^F	2.8 ^F	(2.5) ^F	2.4 ^F	2.7	(2.6) ^F	2.8	3.1	3.0	(2.9) ^F	2.8	3.0 ^F	3.2	3.0	3.0	3.1	3.1	3.0	3.0	2.7 ^H	3.0	2.9	2.5 ^F	2.9	
31	2.5 ^F	2.5 ^F	2.6 ^F	2.7 ^F	2.8 ^F	2.8 ^F	3.0	3.1	3.2	(3.3) ^F	3.7 ^F	BS	3.2 ^H	3.2	(3.2) ^F	3.3	3.7	3.0	3.0	2.8 ^H	3.1	2.9	2.5	2.6	
Median Value	2.7	2.7	2.7	2.7	2.7	2.7	3.0	3.1	3.1	3.2	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.1	3.0	2.9	2.9	2.8	2.7	2.7	
Count	30	29	27	27	28	28	24	24	27	26	26	27	27	27	28	28	25	27	28	29	30	30	28	30	

Sheep 1.0—Mc to 1.4.0. Mc in 1.5 min

Manual

W 9

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

IONOSPHERIC DATA

Oct. 1950

fminF

Lat. 45° 23.6' N
Long. 141° 41.1' E

Wakkanai

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

fminF

Sweep 1.0 Mc to 1.4.0 Mc in 1.5 min Manual

W 10

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

Oct. 1950

fminE

IONOSPHERIC DATA

Lat. 45° 23.6' N
Long. 141° 41.1' E

Wakkanai

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E	E	E	E	E	E	E	E	E	2.0	1.8	2.0	2.0	2.0	2.1	1.9	2.0	E	C	E	E	E	E	B
2	E	E	E	C	E	E	1.4	1.3	1.3	1.7	1.8	1.7	1.8	1.8	1.6	1.7	1.7	1.3	E	E	E	E	E	E
3	E	E	E	E	E	1.1	1.1	1.1	1.1	1.5	1.8	1.8	1.6	2.0	2.0	2.0	1.5	1.2	E	E	E	E	E	E
4	E	E	E	E	E	E	1.2	1.4	1.7	1.7	1.8	1.8	1.6	1.7	1.3	1.3	1.3	1.2	B	B	1.2	B	1.2	1.2
5	B	E	E	E	E	E	E	E	E	1.2	2.2	1.2	(1.2) ^B	2.6	(1.2) ^B	1.2	1.2	E	1.2	B	1.1	1.3 ^B	E	E
6	1.2	E	E	E	E	E	1.2	1.3	1.6	2.1	2.3	2.1	1.8	1.4	2.2	1.5	1.2	E	E	1.6	1.5	1.4	E	B
7	E	E	E	E	E	E	1.2	(1.2) ^B	(1.5) ^B	2.0	2.0	B	2.0	2.6	2.1	2.0	1.4	1.1	1.1	E	1.1	(1.2) ^f	1.2	1.2
8	E	E	E	E	E	1.4	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	E	E	E	E	E	1.1	1.3	B	2.0	{2.3} ^f	2.6	(2.2) ^B	2.4	2.1	1.2 ^B	E	1.4	1.5	E	E	B	1.3	B
10	E	E	E	E	E	E	E	E	E	2.0	2.1	2.1	2.0	2.2	2.1	1.8	1.7	1.3	E	E	E	E	E	E
11	E	1.1	E	E	E	E	E	1.1	1.9	2.0	2.0	2.0	2.1	2.0	2.0	1.8	1.9 ^f	1.1	E	E	E	E	E	E
12	E	E	E	E	E	E	E	E	1.7	2.1	2.2	2.1	2.1	2.0	2.1	2.1	B	B	1.6	1.5	1.4	1.5	1.4	1.4
13	1.1	1.5	E	E	E	E	E	B	2.4	2.6	3.2 ^B	2.5	2.0	2.0	2.0	2.0	1.2	1.4	1.1 ^B	1.1	1.2	1.1	E	E
14	E	E	E	E	E	E	E	E	1.2	2.1	2.1	2.1	B	2.1	2.2	1.5	1.2	1.1	E	C	1.1	E	E	E
15	E	C	C	C	C	C	C	C	C	C	C	C	2.2	2.3	2.0	2.0	2.0	E	E	E	E	E	E	E
16	E	E	E	E	E	1.2	1.2	1.4	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.3	E	1.1	E	E	E	E	E
17	E	E	E	E	E	E	E	E	1.1	2.1	2.1	2.2	2.1	2.2	1.9	1.8	1.2	1.4	1.5	1.2	1.2	E	E	1.5
18	E	E	E	E	E	E	E	E	1.2	1.3	2.0	2.1	2.1	2.1	2.1	2.1	1.5	1.1	1.2	B	E	E	E	E
19	E	E	E	E	E	E	1.4	E	1.5	1.5	2.2	2.2	1.5	2.2	2.2	1.2	1.3	1.1	1.2	E	1.1	1.3	1.2	1.5
20	E	E	E	E	E	E	E	E	1.8	2.0	2.0	2.0	2.0	2.0	2.0	1.6	1.3	1.2	1.2	B	E	E	E	E
21	E	E	E	1.3	E	E	1.1	1.4	1.9	1.6	1.8	2.0	2.0	2.0	1.6	1.5	1.4	1.2	1.4	1.3	1.5	1.3	B	B
22	E	E	C	C	C	C	C	C	1.2	1.6	2.1	2.1	2.1	2.1	2.3	2.2	2.1	E	E	E	E	E	E	E
23	F	E	E	E	E	E	1.1 ^B	E	2.0	1.9	1.8	1.9	2.4	2.0	2.0	2.0	B	E	E	E	E	E	E	E
24	E	E	E	1.1	1.1	E	B	2.0	2.0	2.1	2.2	2.2	2.0	2.2	1.8	1.9	2.1	1.2	1.2	1.1	1.2	1.2	1.1	1.1
25	1.1	E	E	E	E	E	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
26	E	E	E	E	E	E	E	B	2.1	2.0	2.1	2.1	2.0	2.1	2.1	2.0	2.0	1.3	B	B	B	B	B	B
27	E	E	E	E	E	C	C	C	C	C	C	C	2.1	2.2	[2.1] ^f	2.0	2.0	1.3	E	E	E	E	E	E
28	E	E	E	E	1.1	E	1.1	B	1.8	1.5	1.5	1.7	1.4	1.8	1.7	1.4	B	B	B	B	B	B	C	1.3
29	B	1.2	1.2	1.2	1.3	1.2 ^B	2.0	2.0	2.0	2.0	2.3	2.4	2.0	[2.0] ^f	2.0	1.7	1.5	1.4	1.5	1.4	1.5	1.3	B	1.2
30	E	E	E	E	E	E	E	2.0	1.3	1.8	[2.0] ^f	2.1	2.1	2.1	2.2	1.8	1.3	1.2	E	E	E	E	E	E
31	E	E	E	E	E	E	1.1	1.2	1.2	1.5	1.5	1.3	1.2	1.2	1.2	E	E	E	E	1.5	1.2	1.6	1.1	1.1
Mean Value	E	E	E	E	E	E	1.1	1.3	1.6	2.0	2.1	2.1	2.0	2.0	2.0	1.8	1.4	1.2	1.1	E	E	E	E	E
Count	29	30	29	28	28	28	22	24	26	27	27	27	28	29	29	29	25	27	25	23	27	26	26	24

Sweep 1.0 - Mc to 4.0 Mc in 1.5 min Manual

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

IONOSPHERIC DATA

Lat. 36° 43.5' N
Long. 140° 08.2' E

Akita

135° E Mean Time

f_oF₂

Oct. 1950

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	5.0	5.0	4.7	4.8	4.4 ^H	4.6	7.0	(8.4) ^C	9.9	(8.4) ^B	(6.6) ^P	7.2	8.1	8.5	9.4	8.6	7.6	7.0	8.4	6.7	7.5 ^H	5.3	5.2	5.3	
2	5.1	5.1	5.2	2.9 ^V	2.8	3.0	6.8	9.4	9.6	9.4	9.1	8.6	(9.2) ^C	7.8	7.6	8.2	8.3	7.1	5.4	4.8	5.1	5.0	4.8	4.5	
3	4.5	2.7	2.8 ^T	A	3.0	2.9	4.7	7.0	7.2	7.1 ^Z	8.9	9.4	7.7	8.1	7.6	7.5	7.9	7.6	5.5	4.7	4.5	4.9	5.0	4.6 ^P	
4	4.5	4.0	3.6	3.6	3.4	3.0	4.7	6.6	8.2	9.3	8.9	8.1	8.3	7.7	7.3	7.7	8.0	7.1	7.8	5.6	4.7 ^F	4.7 ^F	(4.4) ^C	4.2	
5	4.4 ^F	4.4 ^F	4.2	(4.8) ^F	2.8	3.2	B	6.9	6.2	7.7	8.4	8.8	8.0	8.1	7.3	7.6	6.8	6.8	6.0	6.4	5.3	5.4	4.1	4.5	
6	4.0	4.2	4.8	3.8	3.0	3.0	5.2	7.1	8.1	(8.5) ^C	8.9	9.4	8.0	7.6	7.3	7.2	7.5	8.2	B	(4.9) ^B	5.2 ^V	4.8	5.0	4.1	
7	3.8	4.0	3.7	3.6	3.7	3.9	5.2	6.5	8.9	7.6	8.2	7.9	8.1	8.0	8.8	8.6	6.8	5.6 ^H	5.6 ^H	5.7	4.6	4.5	4.5	4.3	
8	3.7	4.0	3.7	4.5	4.0	3.8	5.6	7.6	9.2	8.2	9.4	9.8 ^T	8.8	10.0	10.3	10.0	7.8	8.2	7.2	5.4 ^P	4.6	4.7	4.3	4.3	
9	4.2	4.1	4.4	4.0	3.8	3.5	5.0	6.4	9.9	8.4	8.1	9.0	8.8	10.0	9.5	9.4	8.9	8.0	7.8	5.4	4.9	4.8	4.8	4.7	
10	3.9	3.8	3.9	4.0	4.2	3.9	5.4	7.0	8.9	8.7	8.6	8.9	9.0	9.0	9.2	9.5	9.1 ^P	7.9	5.5 ^P	5.6 ^H	5.5	5.3	4.9	5.0 ^H	
11	4.7	4.5	4.4	4.4	4.4	4.8	6.9	7.8	8.5	8.7	9.0	(9.8) ^B	10.7	10.1	9.9	9.6	9.8	9.8	9.2	9.2	5.1	A	4.9	A	
12	4.0	4.0 ^F	3.9 ^F	4.0	4.8	4.9	7.0	7.8	7.8	8.8	11.4	10.9	9.9	9.2	10.0	9.6	9.7	9.4	6.8	5.3	5.2	5.1	5.3	5.1	
13	5.3	5.0	5.0 ^F	4.8 ^F	4.5	(4.5) ^F	7.3	9.5	9.3	9.4	9.8	9.5	10.2	9.1	8.9	9.5 ^T	9.1	8.2	6.6 ^H	6.0	5.2	5.0	4.7	4.8	
14	4.9	4.6	4.7	4.4	4.5	4.6	6.5	8.4	9.7	9.0	10.5	10.2	9.8	10.1	8.6	9.4	(10.5) ^F	8.1	5.9	5.7	5.7	5.6 ^F	5.5	5.4	
15	5.8	4.1	3.9	3.8	3.5	3.3 ^F	6.5 ^S	8.1	9.1 ^S	C	C	C	C	C	C	C	C	8.0	7.0	6.0	5.7	5.8	5.8	5.7 ^Z	
16	4.3	5.0	4.8	4.8	4.8	4.3	5.8	7.8	8.0	9.6 ^T	10.8	(11.0) ^C	11.2	11.6	11.9	10.7	8.2	7.3	6.6	5.9	4.5 ^P	4.2	5.0	4.6	
17	5.0 ^H	(4.2) ^P	5.0 ^F	5.0 ^F	3.1 ^F	(3.2) ^F	5.0	8.5	9.6	9.2	10.6	11.8	10.9	11.0	10.2	9.2	8.7	7.8	5.3	5.2	AF	4.5 ^F	(4.8) ^P	3.4	
18	3.5	3.5	3.6	3.4	3.3	3.0	4.8	7.1	9.3	10.7	11.6	8.8 ^H	8.9 ^T	9.8	8.2	10.1	10.0	7.7	6.3	6.8 ^S	6.1 ^S	4.7	4.5	4.3	
19	4.4	4.4 ^V	4.6	4.7	4.1	3.9	5.5	7.3	8.6	9.8	10.1	10.4	9.9	8.0	8.9	9.7 ^B	10.1	7.5	5.4	5.0 ^P	4.1	3.5	3.2	A	
20	3.5 ^F	AF	4.4 ^F	4.9 ^F	5.2 ^H	4.3 ^F	5	8.4 ^T	8.5 ^T	7.8 ^B	8.2	7.6	8.5	8.5	8.6	8.9	8.9	7.5	5.4	4.6	4.6	3.4	3.5 ^Z	3.6	
21	3.7 ^F	3.8 ^F	4.2 ^E	4.0 ^F	5.0 ^V	4.0 ^V	5.3	8.5	8.0	8.6	7.9	8.3	9.9	9.8	9.2 ^T	9.3	8.6	7.3	4.2	3.3	3.7	3.5	3.4	3.5	
22	3.5	3.7	3.9	3.6	3.4	3.3	4.3	(7.1) ^F	7.6 ^H	8.1	8.4	10.3	9.9	8.3	8.3	(10.4) ^S	9.0	7.4	3.9	3.9	4.0	4.0	4.2	3.8	
23	3.7	3.8	3.9	3.8	3.5	3.8	5.7	8.3	(9.1) ^P	8.7	8.6	12.7	11.9	10.8	9.0	(9.1) ^P	9.1	8.5	(6.8) ^F	A	A	A	5.3	4.0	
24	4.1	3.9	4.2 ^F	3.9 ^F	3.8	3.4 ^F	4.7	7.0 ^F	8.5	10.4	10.4	10.8	11.3	10.5	9.5	8.5	7.7	6.5	5.2	4.5	3.3	3.6	3.5	3.5	
25	3.6	3.6	3.6	3.7	3.7	3.1	5.3	7.3 ^S	7.8	8.2	8.4	9.8	9.1	7.8	7.9	7.6	7.6	6.1	4.8	4.8	4.0	3.4	3.1	3.2	
26	3.2	3.2	3.5	3.5	3.4	3.6	4.7	7.1	8.0	(7.8) ^C	7.7	8.6	7.8	7.6	8.4	6.9	6.5	6.0	4.4	4.6	3.7	3.2	3.2	3.4	
27	3.3	(3.4) ^Z	3.4	3.5	4.1	3.8	3.9	7.0	7.6	7.8	7.9	7.9	7.8	7.8	8.4	8.2	6.8	6.1 ^H	4.2	4.7 ^S	A	3.1 ^P	3.0	A	
28	3.1	3.5 ^H	3.7	3.9	4.5	3.7	5.1	6.3	8.0	8.1	8.1	10.2 ^T	10.4	10.4	9.0	9.4	9.8	7.0	3.0 ^K	3.3 ^K	(3.5) ^F	3.2 ^F	(6.2) ^F		
29	5.3 ^H	4.0 ^F	(4.9) ^F	3.0 ^K	3.2 ^K	3.3 ^K	5.4 ^Z	6.4	6.4	6.1	7.5	7.6	8.8	7.7	7.6	8.0	6.9	5.8	4.4	4.4	4.4	3.5 ^S	4.3	(4.3) ^S	
30	4.9	4.6	4.7	4.0	3.2	3.2	3.4	6.8 ^T	6.6	7.4	9.1	10.5	9.4	7.2	8.3	(9.3) ^F	7.0	6.0	5.9	4.4	3.5	3.5	3.5	3.2	
31	3.4	3.2	3.1	2.9	3.0 ^F	2.9 ^F	4.0	6.5	7.2	9.3	9.7	9.2	10.9	9.6	9.7	8.8	6.8	4.8	4.6	4.9	4.9	4.1	3.7	4.2	
Warden Value	4.1	4.0	4.2	3.9	3.7	3.6	5.2	7.1	8.5	8.6	8.9	9.4	9.1	8.8	8.8	9.2	8.4	7.4	5.5	5.0	4.8	4.6	4.5	4.3	
Count	3	1	3	0	3	1	2	9	3	1	3	0	3	0	3	0	3	0	3	1	2	9	3	1	2

f_oF₂

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

IONOSPHERIC DATA

Lat. 39° 43.5' N
Long. 140° 08.2' E

Akita

135° E Mean Time

f_pF₂

Oct. 1950

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	320	330	330	330	310 ^H	320	290	(280) ^C	260	(230) ^P	(260) ^P	300	320	290	300	290	260	350	320	330	320	300	340	340	
2	360	300	280 ^H	320 ^V	390	340	300	270	270	250	260	280	(280) ^C	290	300	290	270	250	270	390	410	390	400	310	
3	300	340	A	A	300	370	310	270	280	320 ^Z	290	290	300	280	270	300	290	260	270	310	330	320	340	400 ^F	
4	360	320	330	330	320	320	270	270	290	280	270	290	290	270	280	280	280	280	270	240	390 ^F	310 ^F	(340) ^C	360	
5	420 ^F	370 ^F	360	(290) ^F	420	320	B	260	230	270	270	280	260	260	300	260	270	260	300	300	300	340	330	330	
6	340	340	340	300	300	350	270	260	280	(280) ^C	290	290	260	250	260	280	280	270	B	(320) ^P	(290) ^P	310	320	330	
7	390	340	350	320	370	360	240	250	270	280	290	290	290	280	290	280	250	260	290 ^H	320 ^H	370	350	350	350	
8	300	360	390	410	340	340	250	290	260	290	280	(260) ^Z	310	290	270	290 ^H	260	260 ¹	260	270 ^P	340	350	350	350	
9	340	360	330	320	310	230	220	230	280	250	300	290	B ^H	300	300	270	280	270	260	280	330	340	320	330	
10	290	380	370	370	320	290	220	250	250	240	260	260	300	300	280	300	300 ^P	270	310 ^P	320 ^H	300	300	340	340 ^H	
11	360	360	340	360	310	290	310	230	270	240	270	(320) ^P	300	290	290	290	(280) ^S	(260) ^B	B	340	330	A	300	A	
12	350	350 ^Z	340 ^F	400	350	350	280	220	270	260	290	270	280	310	270	280 ²	300	260	270	310	290	370	370	330	
13	320	300	340 ^F	370 ^F	340	(380) ^F	290	240	250	250	270	260	300	280	290	(290)	260	260	270 ^H	320	300	310	370	360	
14	400	380	370	370	370	330	290	260	250	250	300	290	290	300	280	300	(270) ^F	260	290	350	390	410 ^F	400	390	
15	350	380	430	440	450	380 ^F	230 ^S	260	250 ^S	C	C	C	C	C	C	C	C	C	280	300	320	350	340	390 ^Z	
16	330	390	380	370	330	280	270	250	260	(280) ^J	300	(300) ^C	310	290	270	260	230	280	270	370	340 ^P	310	340	330	
17	360 ^H	(370) ^P	(370) ^P	5F	330 ^F	(380) ^F	310	280	270	A	290	280	280	280	270	250	260	260	260	330	AF	270 ^F	(330) ^F	380	
18	410	420	450	400	340	410	320	270	280	290	270	280 ^H	(280) ^J	280	280	310	260	270	290	290 ^S	280 ^S	300	320	370 ^F	
19	350	400 ^V	400	350	390	330	270	270	270	250	260	270	280	260	290	280 ^B	270	250	290	300 ^P	280	290	300	A	
20	310 ^F	AE	360 ^F	330 ^F	(310) ^H	(290) ^H	S	(220) ^S	(250) ^S	240 ^B	280	270	290	270	290	250	270	250	240	300	280	300	350 ^Z	350	
21	420 ^F	410 ^F	390 ^Z	420 ^F	320 ^V	310 ^V	290	240	270	240	240	270	300	290	(300) ^V	280	270	250	230	250	410	320	310	340	330
22	390	380	310	340	300	280	230	(240) ^J	260 ^H	260	280	280	270	290	310	(290) ^V	270	260	250	330	370	330	320	290	
23	350	350	330	320	360	350	250	240	(250) ^F	260	280	300	300	290	280	(260) ^V	260	270	(270) ^F	A	A	A	370	370	
24	340	340	340 ^F	330 ^F	270	330 ^F	280	250 ^F	260	280	260	290	300	290	270	240	240	260	280	310	300	330	300	340	
25	330	320	350	320	300	330	270	250 ^S	250	260	300	280	260	260	270	250	270	260	270	300	270	260	310	310	
26	350	330	370	360	330	290	270	260	240	(260) ^S	280	260	280	290	280	260	260	270	240	310	290	290	320	340	
27	340	(370) ^K	350	360	330	290	260	240	240	240	250	260	260	280	260	260	260	260	260 ^H	310 ^S	290	290	320	340	
28	240	330 ^K	320	320	310	270	260	240	250	250	260	260	270	270	270	300	240	230	220 ^K	430 ^K	410 ^K	(340) ^K	(350) ^K	(350) ^K	
29	(370) ^K	(410) ^K	(390) ^K	350 ^K	430 ^K	380 ^K	320 ^K	340 ^Z	260	270	280	300	300	300	290	280	250	260	260	310	320	300	(370) ^K	(370) ^K	
30	360 ^F	400	400	370	350	320	A	(250) ^J	A	280	310	280	330	260	290	(260) ^F	240	270	320	310	260	350	330	290	
31	410	370	440	310	300 ^F	320 ^F	310	300	250	270	270	250	270	260	240	220	280	280	350	350	300	340	350	350	
Median Value	350	360	360	330	330	330	270	250	260	260	280	280	290	280	280	280	260	260	270	320	320	310	340	340	
Count	31	30	30	29	31	28	31	30	29	30	30	30	29	30	30	30	30	31	29	30	28	29	31	27	

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

IONOSPHERIC DATA

Oct. 1950

f'F2

Akita

Lat. 36° 43.5' N
Long. 140° 08.2' 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	260	250	270	270	280 ^H	280	260	(260) ^C	250	220	210	210	210	280	270	270	240	270	270	240	230 ^H	230	270	280
2	300	250	200 ^H	200	310	290	250	240	240	250	250	270	(260) ^C	250	270	280	250	210	220	280	340	310	310	280
3	240	230	A	A	250	320	260	270	270	240	280	260	280	270	260	280	240	220	230	240	280	270	300 ^A	280
4	290	280	290 ^A	270	260	240	230	230	250	250	260	290	270	260	250	280	260	230	220	220 ^A	280	250	(260) ^C	280
5	320	310	280	220	340	290	230	230	210 ^A	220	210 ^A	260	250	250	260	250	230	240	230	230	270	270	310	310
6	300	310	270	230	250	280	250	240	(260) ^C	270	280	280	250	250	240	200	240	240	230	260	270	290	290	290 ^A
7	310	300	340 ^A	300 ^A	290	290	220	230	250	230	220	250	270	270	270	240	250	250	220 ^H	250	230	280	280	290
8	250	300	290	310	270	240	220	250	250	250	260	260	300	280	220	230 ^H	220	220	210 ^A	240	240	270	270	280
9	260	290	280	270	260	200	210	210	220	220	200	250	280 ^H	250	250	250	230	230	220	250	260	280	270	240
10	230	270	280	290	260	320	210	220	220	230	200	240	220	260	270	250	250	220	210	250 ^H	250	240	240	260 ^H
11	270	270	280	280	270	240	290	220	220	230	210	240	270	270	250	230	250	220 ^A	A	320 ^A	(320) ^A	A	280	260
12	320 ^A	310	340	290	250	290	210	210	250	240	250	250	250	250	250	250	250	220	210	230	300 ^A	310	300	290
13	260	260	260	250	270	300	240	230	220	220	220	240	250	260	270	250	250	210	200 ^H	240	240	250	250	280
14	300	290	280	260	260	260	220	240	240	220	260	240	210	270	250	260	230	220	220	280	300 ^A	310	320	300
15	270	210	320	360	370	330	210	220	240	C	C	C	C	C	C	C	C	220	220	270	270	270	250	260
16	260	290	300	320	250	250	220	210	210	220	260	(260) ^C	260	280	250	220	210	220	220	280	310	290	270	300
17	260 ^H	310	280	260 ^F	290	290	280	240	250	A	270	260	250	260	250	230	240	250	250	(300 ^A)	280	230	280	270
18	350 ^A	A	370	310	260	350	270 ^A	240	260	250	240	230 ^H	280	260	240	260	220	220	280	270	230 ^F	240	240	310
19	290	340	300	280	280	280	220	240	240	230	250	250	240	220	270	250	250	220 ^A	A	220	210	A	260	A
20	280	A	310 ^A	280	220 ^H	280	210	210	210 ^A	200	220	250	250	240	260	240	230	220	210	280	240	250	290	260
21	330	300	300	300	270	260	230	220	220	230	240	250	260	260	240	250	240	230	240	310 ^A	300	260	280	290
22	300	280	260	280	270	220	210	220 ^H	240	250	270	240	250	260	260	260	240	230	220 ^A	280	310	290	270	250
23	300	290	290	270	300	300	230	220	230	240	250	260	240	250	270	240	240	240	240	(260 ^A)	A	A	(310 ^A)	300
24	290	300	290	290	220	240	230	230	230	250	230	250	260	270	240	230	220	210 ^A	220	260 ^A	260	310 ^A	280	290
25	290	280	280	260	230	260	240	220	220	240	210 ^A	210	250	220	250	240	220	200	210 ^A	240	230	230	260	260
26	280	300	280	270	270	240	210	250	230	260	240	260	240	280	270	220 ^A	210	210	240	240	230	260	260	260
27	270	280	280	280	260	220	230	230	210	230	230	240	250	270	240	240	200	210 ^H	230	260	A	270 ^A	330	A
28	240 ^A	270 ^H	(300 ^A)	270	260	230	220	200	240	220	260	270	260	250	260	260	220	200	200 ^K	380 ^A	A	380 ^K	350 ^K	290 ^K
29	250 ^K	340 ^K	260 ^K	270 ^K	370 ^K	320 ^K	280 ^K	250	230	260	280	270	280	300	270	250	240	230 ^A	260	270	260	260	320	(310) ^F
30	360 ^F	310 ^F	330	290	330	280	A	230	A	250	290	260	230	260	260	230	220	200	220	250	220	290	260	250
31	270	330	310	250	260	290	260	220	230	210	260	200	240	260	250	220	210	210	240	260	240	280	320	320 ^A
Median Value	280	290	290	280	270	280	230	230	230	230	250	260	250	260	250	250	240	220	220	260	260	270	280	280
Count	31	29	30	30	31	31	30	31	30	29	30	30	30	30	30	30	30	31	29	30	29	28	31	29

f'F2

Sweep 1.0 — Mc to 17.0 — Mc in 1.5 min

Manual

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

Lat. 38° 43.5' N
Long. 140° 08.2' E

Oct. 1950

f_oF₁

135° E Mean Time

Akita

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							L	C	L	Q	E	B	B	B	L	L	L	Q						
2							Q	L	L	Q	Q	L	C	Q	L	L	L	Q						
3							Q	L	L	Q	L	L	L	A	L	L	L	Q						
4							Q	Q	L	L	L	L	L	L	L	L	L	Q						
5							Q	Q	Q	Q	L	L	L	L	L	L	L	Q						
6							3.0	Q	4.0	C	L	L	L	L	L	L	L	Q						
7							Q	Q	L	Q	L	L	L	L	L	L	L	Q						
8							Q	Q	Q	L	L	B	B	L	Q	4.5 ^B	Q	Q						
9							Q	Q	Q	Q	L	L	L	L	L	L	L	Q						
10							Q	Q	Q	L	L	L	L	L	L	L	L	Q						
11							L	Q	Q	L	L	L	L	A	B	L	L	L	A					
12							Q	Q	L	L	L	L	L	L	L	L	L	L	Q					
13							Q	Q	L	L	L	L	L	L	L	L	L	L	Q					
14							Q	L	L	L	L	L	L	L	L	L	L	L	Q					
15							Q	Q	L	C	C	C	C	C	C	C	C	C	Q					
16							Q	Q	Q	L	L	L	L	L	L	L	L	L	Q					
17							Q	Q	L	A	A	A	L	L	L	L	L	L	L					
18							A	Q	L	L	4.4 ^T	A	A	L	L	L	L	L	Q					
19							Q	L	L	L	L	L	L	L	L	L	L	L	Q					
20							Q	Q	Q	Q	Q	L	L	L	L	L	L	L	Q					
21							Q	Q	Q	L	L	L	L	L	L	L	L	L	Q					
22							Q	Q	Q	L	L	L	L	L	L	L	L	L	Q					
23							Q	Q	L	L	L	L	L	L	L	L	L	L	Q					
24							Q	Q	Q	L	L	L	L	L	L	L	L	L	Q					
25							Q	Q	Q	L	L	L	L	L	L	L	L	L	Q					
26							Q	L	4.2	L	Q	L	L	L	L	L	L	L	Q					
27							Q	L	Q	4.0	L	L	L	L	L	L	L	L	Q					
28							Q	Q	Q	L	L	L	L	L	L	L	L	L	Q					
29							Q	Q	Q	A	L	L	L	L	L	L	L	L	Q					
30							A	Q	A	L	L	L	L	L	L	L	L	L	Q					
31							Q	Q	Q	Q	L	L	L	L	L	L	L	L	Q					
Median Value							-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Count							1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1

Every 1.0 Mc to 17.0 Mc in 1.5 min

Manual

A 4

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

IONOSPHERIC DATA

Oct. 1950

R'F1

135° E Mean Time

Lat. 39° 43.5' N
Long. 140° 08.2' E

Akita

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							Z10	C	Z20	Q	Q	B	Z40 ^B	Z20	Z10	Z30	Z30	Q						
2							Q	Z10	Z20	Q	Q	Z30	C	Q	Z20	Z30	Q	Q						
3							Q	Z50	Z30	Q	Z30	Z30	A	A	Z20	Z40	Q	Q						
4							Q	Q	Z30	Z30	Z10	A	Z20	Z30	Z20	Z20	Z30	Q						
5							Q	Q	Q	Q	Q	Z30	Z20	Z40	Z20	Z30	Q	Q						
6							Z10	Q	Z20	{Z20 ^C	Z10	Z00 ^A	Z10	Z10	Z00	Q	Q	Q						
7							Q	Q	Z20	Q	Q	Z10	Z10	Z10	Z20	Q	Z40	Z30						
8							Q	Q	Q	Z10	Z10	B	B	Z40	Q	Z30	Q	Q						
9							Q	Q	Q	Q	Q	Z20	Z00	Z30	Q	Q	Q	Q						
10							Q	Q	Q	Z10	Q	Q	Z30	Z40	Z20	Z40	Z40	Q						
11							Z40	Q	Q	Q	Z10 ^A	Z10 ^A	A	A	Z40	Q	Z20	A						
12							Q	Q	Z00 ^A	Z20	Z30	Z30	Z10	Z00	Z10	Q	Q	Q						
13							Q	Q	Q	Q	Q	Z10	Z20	Z10	Z20	Z20	Z20	Q						
14							Q	Z20	Z10	Z10	Z10	Z10	Q	Z20	Z10	Z30	Q	Q						
15							Q	Q	Z20	C	C	C	C	C	C	C	C	Q						
16							Q	Q	Q	Q	Z20	{Z20 ^C	Z30	Z30	Z20	Q	Q	Q						
17							Q	Q	Q	Z50	A	A	Z30	Z10	A	Q	Z30	Z30						
18							A	Q	Z40	Z40	Z10	A	A	Z40	Z20	Z20	Q	Q						
19							Q	Z20	Z20	Z20	Z10	Z00	Z30	Q	Z50	Q	Q	A						
20							Q	Q	Q	Q	Q	Q	Z10 ^A	Q	Q	Q	Q	Q						
21							Q	Q	Q	Z10	Z10 ^A	Z20	Z40	Z30	Q	Q	Q	A						
22							Q	Q	Q	Z20	Z20	Z50	Z30	Z30	Q	Z40	Q	Z00						
23							Q	Q	Z30	Z10	Z20	Z20	Z20	Z20	Z10	Z10	Z20	Z10						
24							Q	Q	Q	Z20	Q	A	Z40	Z40	Z20	Q	Q	Q						
25							Q	Q	Q	Z20 ^A	Q	Q	Z10	Q	Z20	Q	Q	Q						
26							Q	Z30	Z10	Z20	Q	Z50	Q	Z40	Z50	Q	Q	Q						
27							Q	Z10	Q	Z20	Z20	Z10	Z30	Q	Z30	Q	Q	Q						
28							Q	Q	Q	Q	Z20	Z30	Z10	Z40	Z40	Z40	Q	Q						
29							Q	Q	Q	A	A	Q	Q	A	Q	Q	Q	Q						
30							A	Q	A	Z10	Z40	Z40	Z30	A	Z10 ^A	Z10 ^A	Z10 ^A	Q						
31							Q	Q	Q	Q	Q	Z00	Q	Q	Z20	Z20	Q	Q						
Median Value							—	Z20	Z20	Z20	Z10	Z20	Z20	Z30	Z20	Z30	Z30	—						
Count							3	6	14	16	17	21	20	22	22	15	9	4						

R'F1

Sweep 1.0 — Mc to 17.0 Mc in 1.5 min

Manual

A 5

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

Lat. 39° 43.5' N
Long. 140° 08.2' E

foE

Oct. 1950

Akita

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

Sweep 1.0 — Mc to 17.0. Mc in 1.5 min Manual

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

IONOSPHERIC DATA

Lat. 38° 43.5' N
Long. 140° 08.2' E

Oct. 1950

f'E

Akita

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							B	C	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	12.0	B						
2							A	A	A	10.0	11.0	A	C	A	A	11.0	11.0	B						
3							A	12.0	11.0	11.0	11.0	11.0	11.0	A	11.0	11.0	A	A						
4							B	11.0	11.0	11.0	A	A	A	A	11.0	11.0	A	10.0	A					
5							11.0	11.0	A	11.0	A	11.0	10.0	10.0	11.0	11.0	11.0	A						
6							A	10.0	10.0	10.0	11.0	A	10.0	10.0	10.0	11.0	A	A						
7							B	11.0	11.0	A	11.0	11.0	11.0	11.0	11.0	10.0	10.0	B						
8							A	12.0 ^H	12.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	10.0	10.0						
9							A	11.0	11.0	11.0	11.0	10.0	11.0	11.0	A	11.0	11.0	B						
10							14.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0						
11							11.0	11.0	11.0	11.0	11.0	A	A	A	11.0	11.0	11.0	A						
12							A	A	A	10.0	10.0	10.0	10.0 ^H	11.0	10.0	11.0	11.0	B						
13							B	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	B						
14							A	11.0 ^H	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	A						
15							B	11.0 ^H	11.0 ^H	C	C	C	C	C	C	C	C	A						
16							11.0	11.0	10.0	11.0	10.0	10.0	10.0	11.0	10.0	A	A	A						
17							A	12.0	11.0	11.0	11.0	11.0	11.0	11.0	A	10.0	11.0	13.0						
18							B	13.0	11.0	A	11.0	A	A	A	A	A	A	B						
19							11.0	11.0	A	11.0	A	11.0	10.0	10.0	A	A	A	A						
20							A	11.0	A	A	11.0	10.0	10.0	A	11.0	11.0	11.0	B						
21							A	12.0	11.0	11.0 ^H	A	A	A	A	A	A	A	11.0						
22							B	11.0	11.0	11.0	10.0	10.0	10.0 ^H	10.0	11.0	11.0	11.0	B						
23							B	13.0	11.0	11.0	10.0 ^H	11.0 ^H	11.0 ^H	10.0	10.0	10.0	11.0	A						
24							B	10.0	A	A	11.0	A	11.0	A	11.0	11.0	A	A						
25							B	AF	11.0	A	A	11.0	11.0	11.0	11.0	A	A	B						
26							B	10.0	11.0	11.0	11.0	11.0	11.0	11.0	A	A	10.0	B						
27							B	12.0	11.0	A	11.0	A	A	11.0	10.0	10.0	11.0	B						
28							B	14.0	12.0	11.0	11.0	11.0	B	A	11.0	11.0	B	B						
29							B	A	A	11.0	11.0	11.0	11.0	A	11.0	12.0	A	B						
30							B	A	11.0	A	A	11.0	11.0	A	A	A	A	B						
31							B	B	12.0	11.0	A	11.0	A	11.0	11.0	12.0	12.0	12.0						
Median Value							11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0						
Count							5	24	24	22	23	22	22	19	22	22	19	5						

f'E

See p. 1, 2 - Mc to 177.0 Mc in 1.5 min Manual

A 7

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

Lat. 38° 43.5' N
Long. 140° 08.2' E

Akita

IONOSPHERIC DATA

fEs

Oct. 1950

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	2.2	1.8	2.1	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
2	2.4	2.0	2.9	3.4	2.7	2.0 ^Y	2.7	4.1	3.8	3.8	3.8	3.8	4.2 ^Y	5.6	4.0	4.0	4.0	3.4	3.6	3.0 ^Y	2.4	1.8	2.2	2.2 ^B
3	2.8	3.2	3.0	2.8	2.8	2.8	2.8	2.8	3.8	3.8	4.4	4.2	3.7	3.6 ^Y	3.6	3.6	3.5	3.0	2.3 ^Y	3.6	2.3	1.8	2.2	2.2
4	2.4	2.1	2.3	2.2	1.9	2.2	2.3 ^Y	3.2	3.7	3.7	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.0	2.8	2.2	3.6	3.0	2.6	2.4
5	3.0	2.0	3.2	3.0	3.0	2.2	3.2	3.8	3.6	3.8	3.6	3.6	3.6	3.6	3.6	3.4 ^Y	3.6	3.6	3.2	2.8	4.6	4.0	3.5	3.0
6	2.0	2.0	2.0	2.1	2.7	2.5	2.9	2.9	2.9	2.9	2.9	2.9	4.0 ^Y	2.9	2.9	2.9	2.9	2.9	2.2	2.6	1.9	1.9	1.6	1.6
7	3.1	2.3	2.6	2.2	1.9	1.7	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
8	4.2	4.0	4.0	2.3	2.6	2.2	3.4 ^Y	2.2	3.8	3.6	3.7	5.3	5.6	4.0	3.6	3.6	3.6 ^Y	4.0	6.4	5.4	5.4	5.8	3.8	6.0
9	2.7	2.2	2.2	2.2	2.6	2.0 ^Y	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.9	1.9	1.9	3.8	3.7	2.7	2.3
10	2.4	1.9	4.6	5.9	3.7	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.4	3.2	3.7	3.4	3.4	2.3	2.3
11	2.4	1.4	1.4	2.0 ^B	2.8	2.4	2.8	2.8	4.0	3.2	6.8	4.8	4.6	5.5	4.6	4.6	3.2	2.6	2.8	3.0	7.2	7.0	5.5	2.3
12	3.9 ^Y	3.5	2.3	2.2	2.5 ^Y	2.5	3.7	3.1 ^Y	4.5	4.0	4.0	5.8	4.8	5.0	4.0	3.4	3.0	4.0	6.4	4.2 ^F	3.8 ^F	3.5 ^F	3.5 ^F	3.6 ^F
13	10.0	6.5	4.8	2.8	3.2	3.2	3.6	3.6	3.4	3.6	3.5	3.5	4.2	4.0	3.8	3.8	4.8	3.0	5.0	2.4	2.6	4.6	4.7 ^F	6.4
14	2.8	2.4	3.1	2.4	2.5	2.8	2.8	2.8	3.2	4.2	4.4	4.9	4.0	3.6	3.9	7.4 ^B	6.6 ^B	6.4	4.0	3.3	3.0	3.3	2.4 ^Y	2.4
15	2.8	2.8	3.0	1.6	2.0	2.0	2.0	2.0	3.4	3.5	4.2 ^Y	4.9	4.6	5.4	4.4	4.4	4.4	4.4	5.0	8.2	7.8	7.6	7.0	4.8
16	2.6	2.0	2.0	2.0	2.8	2.9	2.2	2.8 ^F	3.4	3.4	3.8	3.6 ^B	4.0	3.2	3.3	3.1 ^Y	2.8 ^Y	2.8	2.9	3.8	3.1	3.4	3.0	2.7
17	2.6	2.0	2.0	2.0	2.8	2.9	2.2	2.8 ^F	3.4	3.4	3.8	3.6 ^B	4.0	3.2	3.4	4.8	3.8	3.2	2.2	2.2	1.8	1.8	1.8	1.8
18	2.6	2.0	2.0	2.0	2.8	2.9	2.2	2.8 ^F	3.4	3.4	3.8	3.6 ^B	4.0	3.2	3.4	4.8	3.8	3.2	2.2	2.2	1.8	1.8	1.8	1.8
19	2.6	2.0	2.0	2.0	2.8	2.9	2.2	2.8 ^F	3.4	3.4	3.8	3.6 ^B	4.0	3.2	3.4	4.8	3.8	3.2	2.2	2.2	1.8	1.8	1.8	1.8
20	2.6	2.0	2.0	2.0	2.8	2.9	2.2	2.8 ^F	3.4	3.4	3.8	3.6 ^B	4.0	3.2	3.4	4.8	3.8	3.2	2.2	2.2	1.8	1.8	1.8	1.8
21	2.6	2.0	2.0	2.0	2.8	2.9	2.2	2.8 ^F	3.4	3.4	3.8	3.6 ^B	4.0	3.2	3.4	4.8	3.8	3.2	2.2	2.2	1.8	1.8	1.8	1.8
22	2.6	2.0	2.0	2.0	2.8	2.9	2.2	2.8 ^F	3.4	3.4	3.8	3.6 ^B	4.0	3.2	3.4	4.8	3.8	3.2	2.2	2.2	1.8	1.8	1.8	1.8
23	2.6	2.0	2.0	2.0	2.8	2.9	2.2	2.8 ^F	3.4	3.4	3.8	3.6 ^B	4.0	3.2	3.4	4.8	3.8	3.2	2.2	2.2	1.8	1.8	1.8	1.8
24	2.6	2.0	2.0	2.0	2.8	2.9	2.2	2.8 ^F	3.4	3.4	3.8	3.6 ^B	4.0	3.2	3.4	4.8	3.8	3.2	2.2	2.2	1.8	1.8	1.8	1.8
25	2.6	2.0	2.0	2.0	2.8	2.9	2.2	2.8 ^F	3.4	3.4	3.8	3.6 ^B	4.0	3.2	3.4	4.8	3.8	3.2	2.2	2.2	1.8	1.8	1.8	1.8
26	2.6	2.0	2.0	2.0	2.8	2.9	2.2	2.8 ^F	3.4	3.4	3.8	3.6 ^B	4.0	3.2	3.4	4.8	3.8	3.2	2.2	2.2	1.8	1.8	1.8	1.8
27	2.6	2.0	2.0	2.0	2.8	2.9	2.2	2.8 ^F	3.4	3.4	3.8	3.6 ^B	4.0	3.2	3.4	4.8	3.8	3.2	2.2	2.2	1.8	1.8	1.8	1.8
28	4.5	2.4	3.2	2.3	2.2	2.2	2.2	2.2	5.8	5.4	4.7	1.0 ⁷	7.7	4.0	3.1 ^Y	3.6	3.6	3.6	3.6	3.4	4.1	3.2	5.8	4.6
29	3.6	2.2 ^F	1.8	2.1	2.8	2.4	3.6	2.8	6.2	3.7	4.6	4.3	4.9	4.9	3.4	4.0	4.0	2.6	2.0	3.0	2.4	2.3	2.1	1.8
30	2.4	2.0	2.1	2.2	1.9	2.0	2.3	2.3	3.4	3.6	3.4	3.6	2.9	3.0	2.9	3.0	3.0	2.9	3.2	3.0	3.0	2.9	2.6	2.3
31	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
Median Value	2.4	2.0	2.1	2.2	1.9	2.0	2.3	2.3	3.4	3.6	3.4	3.6	2.9	3.0	2.9	3.0	3.0	2.9	3.2	3.0	3.0	2.9	2.6	2.3
Count	31	31	31	31	31	31	31	30	31	28	28	26	29	30	29	30	30	31	31	31	31	31	29	31

Group I.D.—Mc to 17.0. Mc in 15 min Manual

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

IONOSPHERIC DATA

Lat. 38° 43.5' N
Long. 140° 08.2' E

Akita

(M3000)F2

Oct. 1950

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	3.0	3.0	3.0	3.0 ^H	3.1	3.1	(3.3) ^C	3.5	(3.5) ^B	(3.3) ^P	3.1	3.0	3.1	3.1	3.1	3.4	2.7	3.0	2.9 ^H	3.0	2.9	2.9	2.9	
2	2.7	3.0	3.4 ^H	2.7 ^V	2.9	2.9	3.2	3.3	3.4	3.5	3.3	3.3	(3.2) ^C	3.2	3.2	3.1	3.3	3.4	3.2	2.7	2.6	2.8	2.7	3.0	
3	3.1	2.8	(2.5) ^V	A	3.3 ^B	2.8	3.1	3.3	3.4	2.9 ^Z	3.2	3.2	3.2	3.2	3.5	3.3	3.2	3.5	3.3	3.1	3.0	3.1	2.9	2.6 ^P	
4	2.8	3.0	2.9	3.0	2.9	3.0	3.3	3.3	3.2	3.2	3.4	3.3	3.3	3.2	3.2	3.2	3.3	3.2	3.2	3.5	2.7 ^F	3.0 ^F	(2.8) ^C	2.7	
5	2.5 ^F	2.8 ^F	2.9	(3.1) ^B	2.5	2.9	3.0	3.6	3.5	3.2	3.3	3.1	3.3	3.3	3.1	3.4	3.2	3.3	3.3	3.1	3.2	3.0	3.0	2.9	
6	2.9	2.9	2.9	3.1	3.0	2.9	3.2	3.4	3.2	(3.2) ^C	3.2	3.3	3.4	3.5	3.5	3.4	3.3	3.4	3.3	(2.9) ^B	(3.0) ^V	3.1	3.0	2.9	
7	2.7	2.8	2.9	3.0	3.0	2.8	3.5	3.5	3.3	3.3	3.2	3.2	3.2	3.2	3.2	3.4	3.4	3.4	3.1 ^H	2.9 ^H	3.3	2.8	2.8	2.8	
8	3.0	2.8	2.6	2.5	2.9	2.9	3.4	3.3	3.4	3.1	3.3	(3.1) ^V	3.1	3.2	3.4	3.3 ^H	3.4	3.3	3.4	3.2 ^P	2.9	2.8	2.9	2.8	
9	2.9	2.8	2.9	3.0	3.0	3.0	3.7	3.5	3.2	3.4	3.1	3.3	3.0 ^H	3.2	3.2	3.4	3.4	3.3	3.4	3.3	2.9	2.9	2.9	3.0	
10	3.0	2.7	2.7	2.7	3.0	3.2	3.7	3.5	2.6	2.6	2.6	3.3	3.4	3.1	3.2	3.0	3.1 ^P	3.3	3.3	3.0 ^F	3.0 ^H	3.0	3.1	2.9	
11	2.7	2.7	2.9	2.8	3.0	3.1	3.0	3.7	3.4	3.6	3.3	(3.1) ^B	3.1	3.3	3.2	3.2	(3.3) ^S	(3.3) ^K	B	3.0	3.0	A	3.1	A	
12	2.8	2.6 ^F	3.0 ^F	2.7	2.8	2.8	3.1	3.7	3.4	3.3	3.5	3.2	3.2	3.0	3.2	3.3	3.1	3.4	3.2	3.0	2.7	2.8	2.8	3.0	
13	3.0	3.0	3.0 ^F	3.0 ^F	2.9	(2.7) ^F	3.2	3.5	3.3	3.4	3.2	3.5	3.2	3.3	3.2	(3.3) ^V	3.3	3.5	3.3 ^H	2.9	3.1	3.1	3.1	2.9	
14	2.7	2.7	2.8	2.8	2.7	2.9	3.1	3.3	3.5	3.5	3.2	3.3	3.1	3.2	3.2	3.1	(3.2) ^P	3.3	3.1	2.8	2.7	2.7 ^F	2.7	2.7	
15	2.9	2.7	2.4	2.4	2.5	2.7 ^F	3.5 ^S	3.5	3.5 ^S	C	C	C	C	C	C	C	C	3.1	3.1	3.0	3.1	2.8	2.9	2.6 ^Z	
16	2.9	2.6	2.7	2.9	2.9	3.2	3.3	3.6	3.2	(3.3) ^V	3.1	(3.0) ^C	3.0	3.1	3.5	3.5	3.5	3.2	3.3	2.7	2.8 ^P	3.2	2.8	3.0	
17	2.8 ^H	(2.7) ^P	(2.7) ^F	5 ^F	2.9 ^F	(2.7) ^F	3.0	3.1	3.3	3.1	3.2	3.3	3.3	3.2	3.3	3.5	3.3	3.3	3.4	3.0	AF	3.3 ^F	(3.0) ^P	2.7	
18	2.6	2.5	2.5	2.5	2.8	2.6	3.0	3.3	3.2	3.1	3.3	3.3 ^H	(3.3) ^V	3.1	3.2	3.1	3.5	3.3	3.1	3.1 ^S	3.1 ^S	3.0	2.9	2.8	
19	2.7 ^F	2.5 ^V	2.6	2.7	2.7	2.9	3.2	3.4	3.3	3.4	3.3	3.3	3.2	3.3	3.2	3.2	3.4	3.4	3.3	3.1 ^P	3.2	3.2	3.2	A	
20	3.0 ^F	AF	2.7 ^F	2.7 ^F	3.0 ^F	(3.1) ^H	5	(3.8) ^V	(3.4) ^V	(3.7) ^B	3.2	3.3	3.1	3.2	3.2	3.4	3.3	3.4	3.5	3.0	3.3	3.1	2.8 ^Z	2.9	
21	2.6 ^F	2.6 ^F	2.6 ^Z	2.5 ^F	3.0 ^K	3.0 ^V	3.1	3.6	3.3	3.6	3.5	3.2	3.1	3.2	(3.2) ^V	3.3	3.4	3.7	3.4	2.5	2.9	3.0	2.8	2.9	
22	2.6	2.7	3.0	2.8	3.3	3.1	3.7	(3.5) ^F	3.5 ^H	3.4	3.2	3.2	3.4	3.2	3.0	(3.2) ^P	3.3	3.3	3.3	2.8	2.7	2.9	3.0	3.1	
23	2.9	2.8	2.9	2.9	2.9	2.7	3.5	3.5	(3.3) ^P	3.3	3.1	3.2	3.2	3.1	3.3	(3.5) ^F	3.5	3.3	(3.3) ^P	A	A	A	2.9	2.7	
24	2.8	2.9	2.8 ^F	2.9 ^F	3.3	2.9 ^F	3.2	3.5 ^F	3.4	3.3	3.4	3.2	3.2	3.2	3.3	3.6	3.4	3.3	3.2	3.1	3.0	2.9	3.1	2.9	
25	2.9	2.9	2.9	2.9	3.2	2.9	3.4	3.5 ^S	3.5	3.4	3.1	3.3	3.3	3.5	3.4	3.4	3.4	3.3	3.3	3.1	3.3	3.4	3.0	3.0	
26	2.8	2.9	2.8	2.7	3.0	3.1	3.5	3.5	3.6	(3.4) ^C	3.3	3.5	3.3	3.3	3.4	3.4	3.8	3.5	3.0	3.1	3.1	3.0	2.9	2.8	
27	2.8	(2.9) ^Z	2.8	3.0	3.0	3.6	3.5	3.5	3.6	3.4	3.4	3.4	3.3	3.2	3.3	3.5	3.3	3.4 ^H	3.3	3.0 ^S	A	3.2 ^P	2.9	A	
28	3.5	2.9 ^H	2.9	3.0	3.1	3.2	3.3	3.6	3.6	3.5	3.5	(3.3) ^V	3.4	3.2	3.2	3.1	3.4	3.6	3.6 ^K	2.5 ^K	(2.6) ^F	(2.8) ^F	(2.9) ^F		
29	(2.7) ^H	(2.6) ^F	(2.6) ^F	2.9 ^K	2.6 ^K	2.9 ^K	2.9 ^K	2.9 ^K	3.3	3.4	3.2	3.2	3.2	3.2	3.2	3.3	3.4	3.3	3.4	3.0	2.9	3.1 ^S	3.1	(2.7) ^S	
30	2.8	2.6	2.6	3.0	2.9	3.0	2.9	(3.5) ^V	3.0	3.3	3.1	3.3	3.7	3.4	3.1	(3.3) ^P	3.4	3.3	3.1	3.0	3.4	2.9	2.9	3.1	
31	2.5	2.8	3.0	3.0	3.1 ^F	3.0 ^F	3.1	3.5	3.3	3.5	3.2	3.3	3.4	3.5	3.5	3.7	3.2	3.2	2.8	2.9	3.0	2.8	2.8	2.9	
Median Value	2.8	2.8	2.8	2.9	3.0	2.9	3.2	3.5	3.4	3.4	3.3	3.3	3.2	3.2	3.2	3.3	3.4	3.3	3.4	3.3	3.2	3.0	3.0	2.9	2.9
Count	31	30	31	29	31	30	30	31	31	30	30	30	29	30	30	30	30	31	29	30	28	29	31	27	

(M3000)F2

Sweep 1.0 Mc to 1.75.0 Mc in 1.5 min

Manual

A 9

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

IONOSPHERIC DATA

Lat. 39° 43.5' N
Long. 140° 08.2' E

Akita

135° E Mean Time

fminF

Oct. 1950

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	1.1	1.2	1.2	1.2	1.4	1.4	C	3.3	3.2	3.3	5.5	4.0	3.6	3.3	2.8	2.7	1.8	1.6	1.4	1.4	1.4	1.4	1.4
2	1.4	1.4	1.6	1.1	E	1.3	1.7	A	2.7	3.7	3.6	3.8	(3.8) ^C	3.8	3.1	2.7	2.4	1.9	1.4	1.5	1.7	1.6	1.6	1.4
3	1.2	1.1	A	A	1.8	1.4	2.3	2.5	2.8	3.4	3.4	3.6	A	A	3.0	3.2	2.4	2.3	A	1.6	1.6	1.4	A	1.4
4	1.2	1.2	A	1.6	E	1.1	1.7	2.6	3.1	3.4	3.2	4.4	3.2	3.2	3.2	2.9	2.6	1.7	1.5	A	1.8	1.5	(0.4) ^C	1.2
5	1.3	1.1	1.3	1.1	1.1	E	2.2	2.4	A	2.8	A	3.4	3.8	4.1	3.6	3.5	2.6	2.2	1.5	1.7	A	1.8	1.8	1.7
6	1.8	1.8	E	E	1.8	1.3	1.5	2.6	2.7	(3.0) ^C	3.3	A	3.2	3.2	3.2	2.7	2.4	2.0	AF	1.9	A	A	A	A
7	1.7	1.5	A	A	A	1.6	2.6	2.7	A	3.4	3.6	3.3	3.2	3.2	2.9	3.0	2.3	1.8	1.7	1.6	1.5	1.6	1.5	1.6
8	1.5	1.5	E	1.2	1.3	1.2	1.9	2.5	2.8	3.2	4.0	6.0	6.2	4.0	3.4	3.2	2.7	2.1	A	A	1.5	1.5	1.5	1.5
9	1.1	1.1	1.2	1.2	1.3	1.2	1.8	2.7	3.0	3.3	3.8	4.0	2.6	3.6	3.6	3.2	2.4	1.7	1.4	A	1.8	1.5	1.5	1.5
10	1.2	E	E	1.1	1.2	E	2.0	2.5	2.9	3.2	3.4	3.6	3.8	4.5	4.2	3.4	3.0	2.0	1.8	A	1.5	1.4	1.4	1.4
11	1.1	1.1	1.1	1.2	E	1.3	2.6	2.7	3.0	3.1	A	A	A	4.6	3.2	3.0	2.7	A	A	A	A	A	A	A
12	A	A	A	1.6	E	A	2.0	2.8	A	3.8	3.8	3.9	3.7	3.3	3.1	2.9	2.6	A	A	1.7	A	A	A	1.7
13	1.2	1.4	1.1	E	1.1	E	1.5	2.5	2.8	3.0	3.1	3.2	3.3	3.3	3.4	3.0	2.4	1.6	1.8	1.6	1.6	1.6	1.6	1.6
14	1.6	1.2	1.1	E	1.2	1.1	1.6	2.4	2.9	3.2	3.5	3.4	3.5	3.2	3.1	2.8	2.3	1.7	1.5	A	1.7	1.5	1.7	1.7
15	1.1	E	E	E	E	E	1.8	2.4	3.0	C	C	C	C	C	C	C	C	1.6	1.6	1.7	1.6	1.4	1.5	1.7
16	1.6	1.4	1.5	A	1.4	1.4	1.5	2.5	2.8	3.1	3.2	(3.4) ^C	3.6	3.2	2.9	2.7	2.1	1.7	1.7	1.5	1.4	1.5	1.4	1.4
17	1.2	E	E	E	1.6	E	A	2.9	2.8	A	A	A	3.4	3.2	A	2.8	2.4	2.0	A	A	1.5	A	A	1.5
18	A	A	1.7	1.4	1.1	1.5	A	2.2	2.7	A	3.8	A	A	A	3.3	2.4	2.0	2.0	A	1.8	1.7	1.8	1.7	1.5
19	1.5	1.1	E	E	1.2	1.2	1.6	2.8	A	3.6	3.1	3.1	3.5	3.2	3.0	3.3	A	A	A	1.5	1.5	A	1.8	A
20	A	A	A	1.2	1.8	1.6	A	A	A	3.2	3.8	3.1	A	3.2	3.2	2.8	A	1.5	1.6	A	1.4	1.4	1.9	1.5
21	1.4	1.3	1.3	1.2	1.3	1.4	2.2	2.3	2.6	3.0	A	3.9	3.7	3.3	3.0	3.5	F	A	A	A	A	A	1.7	1.4
22	E	E	1.7	1.3	1.5	1.6	1.6	2.3	2.8	3.4	3.5	3.8	3.8	A	A	2.6	2.4	1.6	A	1.7	1.7	1.6	1.5	1.4
23	1.9	E	E	E	E	E	1.5	2.2	2.7	3.4	3.2	3.2	3.3	3.4	3.0	3.0	2.8	A	A	A	A	A	A	A
24	1.6	1.4	1.3	1.4	1.3	E	1.5	2.3	2.6	3.0	A	A	3.3	3.5	2.8	2.7	2.2	A	A	A	A	A	A	1.4
25	1.2	E	E	E	E	E	1.5	2.0	2.6	A	3.8	2.8	3.0	3.0	2.9	A	AF	1.5	A	1.5	1.4	1.2	1.4	1.3
26	1.3	1.3	1.1	E	E	E	1.4	2.0	3.2	2.8	3.0	3.5	3.8	3.5	3.1	A	2.3	1.5	1.7	1.8	1.8	1.4	1.4	1.4
27	1.4	E	E	E	E	E	1.4	2.4	2.8	2.8	3.6	3.4	3.4	3.2	3.2	2.4	2.3	2.0	1.8	1.8	1.8	1.4	1.4	1.4
28	A	1.2	A	1.3	1.6	1.2	1.5	2.3	3.2	4.0	4.0	4.0	3.1	4.0	3.1	2.9	2.1	1.6	1.6	1.5	1.7	1.5	1.5	1.4
29	1.1	1.1	1.2	E	E	1.2	1.4	A	A	A	A	3.6	3.8	A	3.6	2.5	2.1	A	A	A	A	1.9	1.5	AF
30	4.0	AF	1.4	1.3	A	A	A	2.2	A	3.0	3.8	3.8	3.4	4.8	2.7	A	A	1.6	1.8	1.5	1.4	1.4	1.4	1.3
31	1.1	1.1	E	E	E	E	1.3	2.4	2.8	N	2.8	3.0	3.8	3.2	2.8	2.5	2.2	2.2	1.5	1.6	1.6	1.6	1.6	A
Median Value	1.3	1.1	1.1	1.2	1.2	1.2	1.6	2.4	2.8	3.2	3.4	3.6	3.6	3.3	3.1	2.9	2.4	1.8	1.6	1.6	1.6	1.5	1.5	1.5
Count	27	27	25	28	29	28	27	27	25	24	23	25	26	26	28	27	25	24	17	20	22	23	24	23

Sweep 1.0—Mc to 17.0. Mc in 15 min Manual

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

IONOSPHERIC DATA

Lat. 38° 43.5' N
Long. 140° 08.2' E

Akita

135° E Mean Time

Oct. 1950

fminE

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	1.4	1.5	1.5	E	1.7	B	C	1.7	1.7	1.6	1.8	1.8	1.8	1.7	1.6	1.6	1.6	B	B	1.4	B	B	B
2	B	B	1.8	1.8	E	1.7	1.4	1.8	1.7	1.5	1.7	1.8	(1.8) ^C	1.8	1.6	1.6	1.7	1.6	2.0	1.8	B	1.7	1.6	1.6
3	1.6	1.2	E	E	E	E	1.5	1.5	1.6	1.7	1.8	1.8	1.8	1.8	2.0	2.0	1.8	1.6	1.4	1.4	1.4	1.4	1.4	1.3
4	1.2	1.2	E	E	E	E	1.3	1.5	1.5	1.7	1.8	2.0	2.1	2.1	1.7	1.6	1.6	1.5	1.5	1.5	B	B	C	1.2
5	B	1.9	E	E	E	E	1.4	1.5	1.7	1.6	1.6	1.6	1.8	1.7	1.7	1.6	1.5	1.5	1.8	1.9	1.9	1.8	1.8	1.9
6	1.8	B	E	E	E	E	1.4	1.4	1.5	(1.6) ^C	1.7	1.7	1.7	1.8	2.1	1.6	1.5	1.5	1.7	1.6	1.7	1.7	1.8	1.7
7	1.7	B	E	E	E	E	2.3	1.6	1.6	1.8	2.3	1.7	1.8	2.7	1.7	1.7	1.6	1.5	1.5	1.6	1.6	B	B	1.5
8	1.7	B	E	E	E	E	1.5	1.6	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.7	1.6	1.5	B	B	B	B
9	E	E	E	E	E	E	1.4	1.4	1.4	1.8	1.8	1.7	2.3	2.3	2.0	1.7	1.7	B	B	1.4	1.5	1.5	1.5	1.4
10	1.1	E	E	E	E	E	1.6	1.6	1.6	1.7	1.7	1.6	1.7	1.7	1.6	1.6	1.7	1.6	1.5	1.6	1.6	1.7	B	B
11	E	E	E	E	E	E	1.3	1.6	1.7	1.6	1.8	1.8	1.9	1.8	1.7	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.7
12	E	E	E	E	E	E	1.2	1.5	1.7	1.6	1.7	1.8	1.8	1.7	1.7	1.6	1.6	1.6	1.5 ^B	1.4	1.4	1.5	1.5	B
13	E	B	2.0	E	E	E	1.5	1.5	1.5	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.6	B	B	B	1.6	1.6	1.4
14	1.2	1.2	E	E	E	E	1.4	1.5	1.5	1.7	1.7	2.0	2.1	2.0	1.9	1.8	1.6	1.5	B	B	1.5	1.5	B	1.7
15	E	E	E	E	E	E	1.8	1.6	1.7	C	C	C	C	C	C	C	C	1.4	1.5	1.4	1.4	1.3	B	B
16	1.3	1.1	E	E	E	E	1.3	1.5	1.6	1.6	1.7	(1.8) ^C	2.0	1.7	1.6	1.7	1.6	1.5	1.5	1.5	B	B	B	B
17	E	E	E	E	E	E	1.6	1.6	1.6	1.6	1.6	1.8	2.2	1.8	1.7	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5
18	1.3	E	E	E	E	E	1.4	1.5	1.6	1.8	1.8	1.9	1.8	2.7	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.6	1.5	1.5F
19	E	E	E	E	E	E	1.2	1.4	1.4	1.5	1.6	1.7	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.4
20	1.3	1.1	E	E	E	E	1.4	1.4	1.7	1.6	1.6	1.6	1.5	1.7	1.8	1.8	1.6	1.5	1.5	1.4	1.4	1.4	1.4	1.3
21	1.1	E	E	E	E	1.2	1.2	1.4	1.3	1.6	1.5	1.5	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
22	E	E	E	E	E	B	1.8	B	1.7	1.8	1.5	1.7	1.6	1.7	1.8	1.8	1.6	B	1.5	1.5	1.5	1.5	1.5	1.7
23	1.2	1.8	1.4	E	E	1.8	(1.5) ^B	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.6	1.5	1.3	1.4	1.4	1.4	1.4	1.3	1.3
24	1.2	E	E	E	E	E	B	B	1.5	1.5	1.7	1.9	1.7	1.7	1.8	1.7	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4
25	1.7	1.6	E	E	E	1.7	1.7	1.5	1.5	1.6	1.6	1.6	1.7	1.7	1.7	1.5	1.5	1.5	1.5	B	B	E	B	B
26	B	B	E	E	E	E	B	1.4	1.5	1.6	1.7	1.7	1.7	1.6	1.5	1.5	1.5	1.5	1.5	1.3	1.4	B	B	B
27	B	E	E	E	E	E	B	1.6	1.6	1.6	1.7	2.2	1.8	1.8	1.8	1.9	1.5	1.4	1.5	1.5	1.5	1.5	1.5	1.5
28	1.1	1.1	1.2	1.1	1.1	E	B	1.5	1.5	1.8	1.8	1.8	2.7	1.6	1.6	1.6	1.6	1.6	B	B	B	B	B	B
29	E	E	E	E	E	1.4	1.6	1.6	1.6	1.8	1.7	1.7	1.8	2.1	2.0	1.7	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5
30	1.1	E	E	E	E	E	1.5	1.5	1.5	1.5	1.6	1.7	2.3	1.7	1.8	1.7	1.6	1.4	1.4	1.4	1.4	1.4	1.4	1.2
31	E	E	E	E	E	E	B	1.9	1.9	1.5	1.7	1.7	1.7	1.8	1.7	1.7	1.6	1.6	B	B	B	B	1.6	1.6
Median Value	1.1	E	E	E	E	E	1.5	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.7	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Count	27	25	30	31	29	30	24	30	31	30	30	30	30	30	30	30	30	29	26	26	24	23	19	21

fminE

Swamp 1.0—Mc to 11.0 Mc in J 5 min Manual

A 11

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

Lat. 35° 42.4' N
Long. 139° 29.3E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

for 2

Oct. 1950

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	4.9	4.9	(4.5) ^P	3.9	(3.8) ^P	3.7	6.9 ^S	S	8.3 ^J	7.5 ^P	7.3	7.4	7.5	9.6	9.6	9.0 ^P	(8.4) ^P	6.8	8.1	(8.4) ^P	7.1	5.9	5.3	5.7	
2	5.2	5.6	4.9 ^Z	(4.8) ^P	2.6	3.1 ^J	7.0	9.8	(9.7) ^P	9.6	9.6	8.8	8.7	7.3	7.4	8.7	9.3	7.5	6.0	5.1	5.2	5.4	(5.6) ^S	5.2	
3	3.9	A	3.6 ^J	A	3.5	3.0	5.9	7.5	8.0 ^P	8.3	8.5	7.4	8.4	8.2	8.8	8.7	8.0 ^S	8.5 ^J	6.3	5.1	4.3 ^F	5.0	4.6	4.3	
4	4.1	3.9	3.8	3.7	3.3	(3.6) ^S	5.2	8.1	8.0	B	B	8.8	B	9.3 ^P	7.5	7.4	8.4	8.3	7.4	5.9	3.8	4.4	4.5	4.2	
5	4.1	4.2	4.4	4.2	2.8 ^M	3.0	5.3	(7.7) ^S	8.2	7.1	S	(8.9) ^S	9.5 ^S	8.1	8.0	8.1	7.2	7.0 ^F	6.6	6.7	6.0	5.6	5.7 ^H	5.3	
6	4.8 ^S	4.9	3.7 ^S	4.0	3.7	2.8	5.7	7.3 ^P	8.4	(9.0) ^P	C	(8.6) ^P	(8.7) ^P	8.1	(8.3) ^P	7.3	7.3	8.4	7.7	5.6	5.6 ^Z	4.7 ^P	(4.4) ^C	4.0	
7	3.6	3.8	3.7	3.5	(3.2) ^S	3.5 ^F	5.7	7.1	7.6	8.3	9.0 ^S	8.6	8.8	8.8	8.5	9.5	9.0	8.4	6.3	5.5 ^H	5.9 ^F	4.9	4.7	4.7	
8	4.5	4.1	4.0	4.0	4.2	4.0	5.7	6.6	10.0 ^S	8.4	10.4 ^P	10.2 ^J	(9.0) ^P	9.7	(10.0) ^S	(10.2) ^S	(8.3) ^F	(8.0) ^F	8.0 ^H	7.0	4.3 ^H	4.3	4.7	4.3	
9	4.5	4.0	3.1 ^F	3.6	3.8	3.2	4.8	7.3 ^S	(8.6) ^F	B	10.1 ^J	10.5	10.8 ^S	10.7	10.3	8.5 ^F	7.4	7.4	7.9	6.0	4.5	4.4	5.0	4.7	
10	3.7	3.6	3.8	3.9	4.0	3.7	5.4	7.4	8.4	9.4 ^J	(8.3) ^P	10.0	10.1	9.3 ^P	(9.8) ^C	10.2 ^S	9.0	B	5.7	5.0	5.3	5.2	4.9	4.8	
11	4.6	4.3	4.3 ^P	4.2 ^P	4.3	4.0	6.6	7.7 ^S	S	8.4	8.7	C	11.4	(10.7) ^C	C	C	C	C	6.3	5.2	5.3	5.6	(4.8) ^P	4.0 ^F	
12	4.4 ^F	4.2	4.2 ^F	4.3	(4.4) ^F	4.3 ^F	7.6 ^F	8.4 ^F	8.5	9.2 ^F	11.6	(11.5) ^C	11.4	C	C	C	(9.5) ^F	S	6.6	5.2	5.2	5.3	5.3	5.4	
13	(5.6) ^S	5.2	5.0	4.8	4.7	5.3	(7.0) ^S	(8.3) ^S	(8.8) ^S	9.4	(10.0) ^S	10.5 ^F	11.3	10.1	9.9	9.8	10.2	B	(8.5) ^S	5.1	5.5	5.3	5.1	5.0	
14	4.8	4.7	4.7	4.7 ^M	4.2	4.2	6.4	8.6	10.8 ^J	9.3	11.3	10.7	10.5	(9.6) ^P	10.0	10.3	9.0	6.7	5.6	(5.7) ^S	5.8	5.7	5.5	5.5	
15	5.7	5.0	3.7 ^M	3.8 ^M	3.5	3.4	6.1	7.9	(9.3) ^F	9.5	11.3	12.2	11.2	10.9	11.4	12.0	4.7	7.5	6.8	5.9	6.8	5.7 ^F	4.8	4.9 ^S	
16	4.7	4.4	5.0	4.5	4.5	4.3	6.4	8.7 ^P	(9.4) ^C	10.1	10.5	11.8	11.5	11.9	12.6	11.7	(8.6) ^P	7.5	7.4	6.0	5.4	7.8	7.8	F	
17	6.0 ^S	5.4	4.5	4.4	5.5 ^F	4.4	6.0	10.0 ^J	11.2	9.2	11.5	12.4	12.4	12.1	11.0	9.9	9.0	8.0	6.7	5.6	5.2	A	(4.4) ^S	F	
18	F	(3.9) ^F	3.6 ^F	3.5 ^F	(3.4) ^P	3.1 ^P	5.1	8.1 ^P	10.1	11.5	S	10.3 ^P	(10.3) ^P	11.5	10.9	9.2 ^S	A	8.0	(7.4) ^C	6.9	6.6	5.8	5.8	4.7	4.3
19	4.8 ^M	4.7	4.4	4.5	3.9	4.0	5.3	7.5	9.7	10.5	11.3 ^J	11.1	10.1	9.8	(9.2) ^P	(10.4) ^P	10.8	6.6	5.0	4.5	4.5	3.7	3.4	3.0	
20	(3.4) ^P	3.8 ^F	4.3 ^F	4.1 ^V	4.7	4.2	5.6	7.8	8.4	8.7	8.1	9.6	8.9	9.5 ^J	9.7	9.8 ^J	9.1 ^J	7.2	6.0	4.1	4.3 ^M	3.6	3.5	3.4 ^J	
21	A	3.5 ^H	3.3 ^J	4.0 ^F	3.8	3.5	5.9	8.4 ^F	8.4	8.4	8.1	9.4	10.1	10.8	9.9	9.4	9.4 ^J	(9.3) ^S	4.9 ^F	3.0 ^F	3.2	3.7	3.6	3.6	
22	3.5 ^F	3.6	4.0	3.5 ^H	3.5	3.4	4.8	6.5	7.7	8.1	8.8	10.0	9.8 ^V	9.6 ^F	9.1	10.1	10.6	7.8	4.2	3.9 ^H	4.1	4.3	4.6	3.7 ^H	
23	3.9	3.9	3.9	3.7	3.9	3.9	5.6	7.4	7.8	9.6	11.9	12.4	11.1	11.8	10.7	9.6 ^S	9.6 ^S	9.1	7.2	S	4.2	(4.2) ^S	4.1	3.6	
24	4.1	4.1	4.0	4.2	3.6	3.0	4.8	7.2	9.2 ^J	11.1	12.3	11.6	11.8	11.9	11.5	10.7 ^J	8.4 ^J	7.1	5.3	4.8	3.7	3.6	3.8	3.5	
25	3.6	3.7	3.6	3.8	3.4	(3.9) ^C	4.4	8.4	7.9	8.9 ^F	7.8	8.3 ^J	10.0 ^J	8.7	(8.8) ^S	(8.0) ^P	7.2	7.0	6.1	4.8	4.7	4.0	3.2	3.1	
26	3.2	3.0	3.1	3.2	3.3	3.0	S	7.5 ^S	7.8	8.3	7.5	10.2	8.5	7.7	9.3	8.8	7.3	6.7 ^J	4.6	4.4	3.4	3.5 ^J	3.1	2.9	
27	2.9	2.9	3.1	3.1	3.7	3.3	4.4	7.0	7.4	7.7	7.9	(8.5) ^S	8.0	9.2 ^S	9.5 ^S	9.3 ^S	7.2	5.8	4.8	4.5	4.2	3.5	3.1	3.6	
28	3.4	3.4	3.4	3.7	4.2	3.0	4.7	7.1	7.6	7.7	10.3 ^S	10.4	10.8	11.0	11.1	10.3	(9.6) ^S	6.7 ^K	3.0 ^K	3.6 ^K	3.4 ^K	3.4 ^K	BF ^K	F ^K	
29	(4.2) ^F	(4.7) ^F	5.7 ^{KF}	4.1	3.4 ^K	3.5 ^K	5.3 ^J	7.4 ^F	6.5	9.1 ^J	11.3	A	10.7	10.2	4.6	4.1 ^S	8.1	6.7	4.9	4.4	4.3	4.4	3.1	3.8	
30	3.5 ^V	4.3 ^F	3.8 ^F	4.4 ^Z	2.5	3.0	4.2 ^F	6.8	8.1 ^S	8.8	9.5	12.1	11.0	8.1	8.7	10.0	7.0	6.3	5.5	4.8	3.9	3.2	3.5	3.5	
31	2.7	2.9	3.1	3.5 ^S	2.0	3.0	5.3 ^P	7.1	8.3 ^F	9.8	10.7	10.2	10.7	(11.1) ^F	9.9	9.5	7.5	5.2 ^F	4.4 ^H	(4.5) ^K	4.7	3.7	4.3 ^F	4.3 ^F	
Median Value	4.1	4.1	3.9	4.0	3.7	3.5	5.6	7.5	8.4	9.0	9.6	10.2	10.2	9.8	9.6	9.8	8.6	7.5	6.3	5.1	4.7	4.6	4.6	4.2	
Count	29	30	31	30	31	31	30	30	30	30	26	29	30	30	29	29	29	27	31	30	31	30	30	28	

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

IONOSPHERIC DATA

Lat. 35° 42.4' N
Long. 139° 29.3E

Kokubunji Tokyo

135° E Mean Time

10pF2

Oct. 1950

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	340	340	(280) ^P	260	(280) ^P	280	270 ^S	S	(250) ^S	250 ^P	250	280	310	320	290	300 ^P	(280) ^P	320	340	(280) ^P	330	310	340	350
2	340	340	280 ^E	(260) ^E	380	(400) ^S	310	280	B	260	260	250	270	280	290	280	250	240	240	310	410	340	(350) ^B	260
3	340	A	A	A	320	350	280	240	260	260	250	320	280	340	290	270 ^S	270 ^S	(260) ^J	260	290	350 ^F	340	330	320
4	320	330	350	320	330	(290) ^S	280	270	B	B	B	260	B	260 ^P	260	290	290	240	230	220	A	310	310	340
5	400	350	300	270	360 ^F	360	250	(2800) ^S	250	250	S	(2800) ^S	280 ^S	280	280	(270) ^J	230	280 ^F	260	300	300	310	360 ^H	300
6	320	350	270 ^S	230	310	310	250	250 ^P	260	(260) ^J	C	(270) ^F	(260) ^J	270	(280) ^P	250	270	280	270	310	340 ^Z	350 ^P	(320) ^F	300
7	370	370	350	340	(330) ^S	(400) ^S	260	240	270	260	290 ^S	280	280	290	280	270	260	270	260	310 ^H	(290) ^F	340	330	340
8	310	360	370	380	330	300	260	250	(270) ^S	250	290 ^P	(270) ^F	(280) ^J	(280) ^J	(240) ^S	(271) ^F	(260) ^P	270 ^F	270 ^F	250	310	360	370	380
9	340	370	360 ^F	320	260	310	240	260 ^S	(270) ^F	(260) ^F	B	(290) ^F	300	300 ^B	280	270	260 ^P	240	240	220	280	330	290	260
10	310	340	340	340	310	290	230	230	270	(270) ^F	(270) ^F	C	300	(320) ^F	C	C	C	C	280	260	320	310	320	340
11	340	350	320 ^P	310 ^F	300	290	210 ^S	S	250	290	C	300	300	(320) ^F	C	C	C	C	280	260	340	320	(300) ^F	350 ^F
12	350 ^F	360	360 ^F	330	(330) ^F	310 ^F	250 ^F	230 ^F	250	290 ^F	(300) ^B	(300) ^C	300	C	C	C	C	S	250	230	380	370	350	340
13	(320) ^S	300	310	280	320	310	(250) ^S	(230) ^S	(240) ^S	250	B	290 ^F	300	300	300	(300) ^B	(290) ^F	B	(290) ^F	340	340	330	310	360
14	380	390 ^B	390	310 ^H	340	(350) ^S	270	240	(250) ^S	270	270	300	280	300	(280) ^F	290	270	240	230	280	(350) ^B	350	370	340
15	350	230	400 ^H	430 ^H	470	410	280	240	(260) ^F	280	300	300	280	320	270	280	260	310	320	300	350	300 ^F	320	(330) ^S
16	350	350	330	310	290	250	240	230 ^C	(250) ^C	270	290	300	300	300	290	260	(260) ^F	250	270	260	350	360	320	F
17	330 ^S	430	370	300	(320) ^F	330	310	(270) ^F	250	250	290	250	280	300	260	250	250	250	260	290 ^F	310	290	310	A
18	F	(250) ^F	220 ^F	350 ^F	400 ^F	400 ^F	310	310 ^P	270	310	S	240 ^P	(330) ^F	300	270	(270) ^S	A	270	(280) ^D	280	270	290	320	400
19	360 ^H	340	310	320	330	290	270	260	280	260	(270) ^J	280	280	290	(300) ^F	280	280	210	240	(280) ^B	260	270	290	350
20	(340) ^F	(310) ^F	AF	310 ^V	280 ^F	290	240	230	260	270	270	280	280	290	(300) ^F	(290) ^F	280	220	230	260	(260) ^J	(300) ^S	280	(300) ^S
21	A	(240) ^H	(320) ^J	260 ^F	300	280 ^B	240	(220) ^F	240	250	280	310	300	290	260	(270) ^F	260	(270) ^F	(270) ^F	(240) ^S	260	(350) ^B	280	(350) ^B
22	(370) ^B	350	320	300	280	270	260	220	240	240	250	260	250 ^V	260	260	260	260	230	270	330	340	360	330	260
23	340	340	350	330 ^H	400	340	260	220	230	270	260 ^S	320	280	290	270	260	250	250	250	250	340	(340) ^B	340	260
24	370	360	330	260	250	310	260	260	(270) ^J	300	270	280	290	310	(271) ^F	(250) ^J	(250) ^J	280	280	280	300	350	330	330
25	350	330	320	300	270	(280) ^C	300	240	230	250 ^P	240	(260) ^J	(260) ^J	260	(260) ^S	(240) ^B	250	240	260	300	260	250	260	320
26	310	360	320	300	280	290	S	220 ^S	210	220	260	290	270	270	270	230	(260) ^J	280	(260) ^J	280	260	260	(300) ^S	310
27	340	340	310	280	240	240	240	230	230	240	230	(270) ^S	260	(290) ^S	(280) ^S	(250) ^S	210	260	250	310	260	300	350	370
28	340	320	320	330	240	290	260	240	240	240	(270) ^S	260	290	300	260	290	(230) ^F	230	290	430 ^K	360	F	F	F
29	(290) ^H	(270) ^F	360 ^F	360 ^F	420 ^F	350 ^F	320 ^F	(290) ^F	300	(350) ^S	250	A	310	280	270	(250) ^S	260	250	290	280	280	290	430	320
30	320	370	370	320	250	350	(260) ^F	320	(260) ^F	270	270	270	250	270	280	250	220	260	300	300	290	330	340	270
31	310	410	370	270	290	320	310 ^P	220	240 ^F	280	270	270	330	(250) ^F	280	270	230	260 ^F	290	(350) ^H	280	240	400 ^F	360 ^F
Median Value	340	340	330	310	310	310	260	240	250	260	270	280	280	290	280	270	260	260	270	270	300	310	330	340
Count	29	30	29	30	31	31	30	30	29	30	25	29	30	30	29	29	29	27	31	30	30	29	30	26

10pF2

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

Lat. 35° 42.4' N
Long. 139° 29.3E

Kokubunji Tokyo

135° E Mean Time

h'F2

Oct. 1950

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	270	260	240	220	210	260	250	220	250	220	250	260	300	300	260	250	270	270	270	230	260	230	280	240
2	310	280	230	220	350	330	300	250	230	250	250	240	260	240 ^F	230	220	220	210	210	230	330	310	280	220
3	250	A	A	A	300 ^A	310	250 ^F	280	230 ^F	250	240	220	260	310	260	250	250	230	230	AF	A	310	A	280
4	A	280	290	270	260	220	240	250	230	230	240 ^F	250	240	250	270	270	230	220	210 ^F	AF	250	240	260	
5	290	300	260	230	210	310	240	250	230	240	280	270	260	280	270	260	230	230	230	240	240	230	250 ^A	230
6	250	240	250 ^F	210 ^F	250	290	220	210	240	260	260	260	260	240	270	230	250	250	220	240	240	270	250 ^A	270
7	A	310	300 ^F	300 ^A	290	310	230	230	250	260	270	270	260	280	280	240	230	210	210	200 ^A	210	240	260	240
8	210 ^A	300 ^F	300	310	260	260	230	220	240	220	250	250	250	260	250	210	210	230	230 ^M	220 ^H	280	280	270	300
9	280	290	260	270	240	220	230	250	230	230	240	280	270	270	270	250	230	200	220 ^A	210 ^F	250	270	250	230
10	300	330	290	290	240	220	200	210	220	220	220	250	240	220	230	240	220	210	210 ^A	270	270	260	250	260
11	260	260	270	280	240	250	200	200	220	230	230	260	250	250	250	250	230	240 ^F	250 ^A	240	280	220	210	320
12	290	300	330	300 ^A	290	280	210	220	220	250	270	260	260	250	250	250	230	210	210	230	310	320	290	270
13	250	240	250	250	260	250	220	220	230	210	260	260	210	270	270	260	250	240	210	210	270	250	250	270
14	290	290	270	250 ^A	250	260	230	220	240	210	240	270	250	260	260	260	230	220	210	250	300 ^A	290 ^F	290	270
15	260	210	300 ^H	350 ^H	360	330	220	210	220	230	230	240	250	280	240	240	220	210	230	230	250	240	290	310
16	300	290	270	270	250	210	210	210	220 ^C	230	250	250	240	270	260	230	220	210	220	240	320	280	240	280
17	250	300	290	220 ^F	250	280	260	250	230	220	220	240	250	250	220	220	210	220	250	230	240	A	210 ^F	210
18	200 ^A	240 ^F	200 ^F	300	280	310	270	250	250	250	250	220	230	240	240	250	250	230	250	270	260	290	300	400
19	300 ^H	280	270	270	230	220	220	220	220	240	250	250	250	240	260	260	240	200	200	260 ^F	240	220 ^F	280	300
20	AF	AF	AF	300 ^F	250 ^F	230	210 ^F	220	210 ^F	200	230	250	240	260	240	250	230	210	200	200	250	250	250	260
21	A	300 ^A	300	250	250	240	220	200	210	250	210	270	270	270	260	240	240	220	200	200	260	270	290	290
22	290	300	260	230	230	230	220	210	230	210	230	250	240	230	240	220	240	220	200	260 ^H	280	290	270	200 ^H
23	260	260	280	270 ^H	300	280 ^F	230	210	210	250	240	270	250	250	240	220	230	230	240	S	300 ^A	300	290	A
24	A	300 ^A	270	230	210	240	230	220	240	200	240	240	250	250	240	220	210	220	220	250	300	350	270	270
25	280	280	260	250	220	220	260	230	220	240	200	250	250	250	240	230	230	230	220	230	220	230	250	250
26	250	290	310	280	260	250	210	200	200	210	230	250	250	250	230	250	230	220	230	260	210	250	300	300
27	320	340	290	290	250	220	220	210	210	220	230	240	270	270	250	230	210	200 ^A	200	250	240	250	270	300 ^A
28	300 ^A	300 ^A	270	280	220	240	230	230	240	220	250	250	250	270	250	240	200	200	240 ^K	340 ^K	340	340	280	280
29	210	220	270	290 ^{KF}	300 ^{KF}	260 ^F	290 ^F	280	280	300	240	A	280	250	260	240	220	230	230	230	240	230	A	290
30	290	310 ^F	350 ^F	290 ^F	250	300	230	230 ^A	250	240	240	250	230	230	200 ^A	230	200	220	220	220	210	(300) ^A	270	230
31	240	360	320	240	220	290	220	220	210	260	250	250	260	250	250	250	220	220	240 ^H	(290) ^A	230	270	300	290
Median Value	280	290	270	270	250	260	230	220	230	230	240	250	250	250	240	240	230	220	220	230	250	260	270	270
Count	26	29	29	30	31	31	31	31	31	31	31	30	31	31	31	31	31	31	31	29	29	30	29	30

Swamp 1.0 Mc to 17.0 Mc in 1.5 min Manual

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

IONOSPHERIC DATA

Oct. 1950

foF1

Kokubunji Tokyo

Lat. 35° 42.4'N
Long. 139° 29.3E

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	L	L	L	5.0	4.8	4.7	L	L	L	L						
2							L	Q	L	L	L	L	L	Q	L	L	L	L	L					
3							Q	Q	Q	4.5	L	L	4.5	L	L	L	L	L	L					
4							Q	Q	Q	L	Q	Q	L	L	L	L	L	L	L					
5							Q	L	Q	L	4.7	L	4.8	L	L	L	L	L	L					
6							Q	Q	L	L	L	4.7	L	4.6	L	L	L	L	L					
7							Q	Q	L	L	L	L	4.7	L	L	L	L	L	L					
8							Q	Q	L	L	L	L	L	L	L	L	L	L	L					
9							Q	Q	L	L	L	5.2	L	L	L	L	L	L	L					
10							Q	Q	L	L	L	4.6	L	Q	L	L	L	L	L					
11							Q	Q	L	L	4.5	B	L	L	L	L	L	L	L					
12							Q	L	L	L	L	L	L	L	L	L	L	L	L					
13							Q	Q	L	L	L	L	L	L	L	L	L	L	L					
14							Q	Q	L	L	4.6	L	4.9	L	L	L	L	L	L					
15							Q	Q	L	L	Q	Q	Q	4.8	L	L	L	L	L					
16							Q	Q	L	L	L	L	L	L	L	L	L	L	L					
17							Q	Q	Q	Q	Q	A	A	A	Q	L	L	L	L					
18							Q	Q	Q	A	A	Q	A	A	L	L	L	L	L					
19							Q	Q	Q	Q	L	L	L	Q	L	L	L	L	L					
20							Q	Q	AF	Q	L	L	L	L	L	L	L	L	L					
21							Q	Q	Q	L	L	L	L	L	L	L	L	L	L					
22							Q	Q	Q	Q	L	L	L	L	L	L	L	L	L					
23							Q	Q	Q	L	Q	L	Q	Q	Q	Q	Q	Q	Q					
24							Q	Q	Q	L	A	L	L	L	L	L	L	L	L					
25							Q	Q	Q	L	Q	A	Q	Q	L	L	L	L	L					
26							Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q					
27							Q	Q	Q	L	L	L	L	L	L	L	L	L	L					
28							Q	Q	Q	L	L	L	L	L	L	L	L	L	L					
29							L	L	4.3	L	A	A	A	L	L	L	L	L	L					
30							Q	Q	L	L	Q	L	L	Q	Q	Q	Q	Q	Q					
31							Q	Q	L	L	Q	Q	L	L	L	L	L	L	L					
Mean Value													4.8											
Count									1	2	3	4	5	4										

foF1

Sweep 1.0 Mc to 11.0 Mc in 1.5 min

Manual

K 4

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

IONOSPHERIC DATA

Oct. 1950

f'F1

135° E Mean Time

Lat. 35° 42.4' N
Long. 139° 29.8E

Kokubunji Tokyo

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	210	240	Q	220	200	240	240	230	210	200	260						
2							250	Q	Q	230	200	220	220	Q	Q	Q	Q	Q						
3							Q	Q	Q	230	240 ^A	Q	210	240 ^A	240	A	240	Q						
4							Q	Q	Q	210	Q	Q	230	230	220	220	Q	Q						
5							Q	240	Q	210	210 ^A	220	210 ^A	200	200 ^A	200 ^A	Q	Q						
6							Q	Q	220	200	230	210	200	210	210	Q	230	Q						
7							Q	Q	210	250	210	230	230	240	210	220	Q	Q						
8							Q	Q	Q	210	210 ^B	210	(220) ^B	220	230	210	Q	Q						
9							Q	Q	210	220	210	140	230	230	230	(230) ^B	Q	Q						
10							Q	Q	Q	210	210 ^A	140	200	Q	C	Q	Q	Q						
11							Q	Q	Q	210	200	210	230	Q	240 ^A	240 ^A	Q	C						
12							Q	A	Q	210	200	200	220	230	210	230	Q	Q						
13							Q	Q	210	Q	210	180	200	Q	220	230	240	Q						
14							Q	Q	220	Q	200	230	240	240	220	230	Q	Q						
15							Q	Q	Q	220	Q	Q	Q	230	230	Q	Q	Q						
16							Q	Q	C	210	210	200	210	220	240	230	Q	Q						
17							Q	Q	Q	Q	Q	A	A	A	Q	Q	Q	Q						
18							Q	Q	Q	A	A	Q	A	A	A	Q	A	Q						
19							Q	Q	Q	Q	220	200	220	Q	230	230	Q	Q						
20							Q	Q	AF	Q	200 ^A	210	220	240	Q	210	Q	Q						
21							Q	Q	Q	210	Q	200	210	250	230	230	Q	Q						
22							Q	Q	Q	Q	190	210	200	210	200	Q	Q	210						
23							Q	Q	Q	230	Q	250	Q	Q	Q	Q	Q	Q						
24							Q	Q	Q	230	A	220	220	220	220	Q	Q	Q						
25							Q	Q	Q	230	Q	A	Q	Q	220	Q	Q	210						
26							Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	A						
27							Q	Q	Q	200	220	200	200	250	Q	250	Q	Q						
28							Q	Q	Q	Q	240	220	200	240	230	Q	Q	Q						
29							250 ^F	250	260	A	230	A	A	220	230	Q	Q	Q						
30							Q	Q	230 ^A	210 ^A	Q	200	220	Q	Q	Q	Q	Q						
31							Q	Q	Q	220	Q	Q	230	220	230	A	Q	Q						
Median Value							—	—	220	210	210	210	220	230	230	230	—	—						
Count							2	3	8	20	20	22	24	20	22	15	4	3						

Survey 1.0—Me to 17.0. Me in 15 min Manual

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

IONOSPHERIC DATA

Lat. 35°42.4'N
Long. 139°29.3'E

Kokubunji Tokyo

135°E Mean Time

foE

Oct. 1950

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 ^J	2.4 ^A	2.9 ^S	2.9 ^B	B	B	B	B	B	B	A	AF						
2							1.6 ^J	2.0	2.8	2.9 ^A	A	3.3	B	A	3.2	2.8	2.5	2.0 ^J						
3							A	2.4	(3.0) ^A	3.1 ^J	A	A	A	A	A	A	2.5	A						
4							B	2.3	2.7	3.0	A	A	B	A	A	A	2.5 ^A	2.3						
5							1.4 ^A	2.3	2.5	A	A	A	A	A	A	A	2.4	1.7 ^A						
6							1.4 ^A	A	2.7	3.3 ^J	3.3 ^J	3.6	3.5 ^B	3.3 ^B	3.2 ^B	A	2.6 ^A	2.0 ^A						
7							B	2.4	B	3.0	3.4	3.1	3.0	3.0	2.3	2.9 ^A	2.5	A						
8							B	B	2.9	B	B	B	B	B	3.1	3.0 ^A	A	AF						
9							A	2.8 ^F	3.2	2.9 ^A	A	B	B	B	3.2 ^B	B	2.5	1.5						
10							1.8 ^A	2.4	2.7	3.1	3.2 ^A	B	B	B	B	C	3.1 ^B	2.6	1.4 ^B					
11							1.3 ^B	2.6 ^B	2.9 ^B	3.3 ^H	3.3 ^B	A	B	B	3.3 ^J	3.2 ^B	A	C						
12							2.0 ^A	A	2.2 ^A	B	B	B	3.4	B	3.4	A	2.3	2.0 ^A						
13							A	A	B	3.2 ^A	A	A	3.5	3.5	B	A	2.3	(1.6) ^F						
14							B	2.4	2.8	3.3 ^B	B	B	B	B	(3.3)	2.7	2.2 ^B	A						
15							1.5 ^A	2.6	2.7	A	A	B	B	B	B	3.2	A	1.7						
16							A	2.5	C	A	A	A	A	A	B	A	3.0	2.6	1.6 ^A					
17							S	2.3	2.9	3.1	3.5	3.5	A	A	A	3.2	2.5	2.2	2.0 ^A					
18							1.3	2.2 ^H	2.6	A	A	B	A	A	A	A	A	A	1.6 ^B					
19							1.6	2.4 ^J	2.8	3.0 ^B	A	A	3.5	A	A	B	2.7	A	1.6 ^B					
20							1.4 ^F	1.5	2.3	A	3.0 ^J	A	3.5	3.2	B	2.7	2.3	B						
21							A	2.6	2.8	A	A	3.2 ^B	A	2.9	A	A	A	B						
22							1.6	2.2	2.7	3.3	3.3	3.2 ^H	A	3.0 ^B	A	2.8	2.4	B						
23							A	2.2 ^H	2.8	A	A	A	A	A	A	2.7 ^J	A	A						
24							1.4	2.0	A	A	A	A	A	A	A	3.0	A	2.1	B					
25							1.2 ^B	2.3	2.7	A	A	A	A	A	B	A	A	A	A					
26							B	2.4 ^F	(3.0) ^A	B	3.0	3.3 ^J	3.6	3.4	A	A	B	A						
27							(1.2) ^B	2.6	2.6	3.0	3.2	3.2 ^B	3.8	B	B	A	2.0	A						
28							1.8	2.2	2.6	A	B	B	3.0 ^B	A	A	2.7	2.0 ^F	B						
29							A	2.4	2.6 ^F	A	A	A	3.0	A	A	2.3	A	1.9						
30							B	A	A	2.6	A	A	3.4	A	2.6	A	2.2	A						
31							1.4 ^B	2.6 ^B	2.7	AF	3.1 ^J	3.1 ^A	2.8 ^B	3.0 ^B	B	2.6 ^A	2.6	A						
Median Value							1.4	2.4	2.7	3.0	3.2	3.2	3.5	3.1	3.2	2.7	2.4	1.7						
Count							17	24	25	16	10	10	10	10	12	15	20	13						

foE

Sweep 1.0-Mc to 17.0-Mc in 1.5 min

Manual

K 6

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

IONOSPHERIC DATA

Oct. 1950

R'E

Lat. 35° 42.4' N
Long. 139° 29.3E

Kokubunji Tokyo

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	100	100	100	100	100	100	100	100	100	A	AF						
2							120	110	110	110	A	110	100	A	100	100	100	120						
3							A	110	A	100	100	A	A	A	A	100	110	B						
4							120	110	110	110	A	A	100	A	A	A	A	110						
5							120	110	110	100	A	A	A	A	A	A	100	110						
6							110	A	A	100	A	100	100	100	100	A	100	110						
7							110	100	110	100	100	100	110	100	100	100	100	A						
8							B	110	110	100	100	100*	100	100	100	100	A	AF						
9							100	110	100	100	100	100	100	100	100	100	100	110						
10							A	100	100	100	100	100	100	100	100 ^c	100	110	B						
11							B	100	100	100 ^H	100	100	100	100	100	100	100	A	100					
12							100	A	100	100	100	100	100	100	100	A	110	100						
13							A	A	100	A	A	A	100	100	100	A	100	110						
14							B	110	100	100	100	100	100	100	100	A	100	110						
15							A	120	110	100	A	100	B	120	110	100	A	110						
16							100	100	100 ^c	100	100	110	A	100	110	110	110	110						
17							S	130	110	100	100	100	A	A	100	100	100	A						
18							150 ^B	110 ^H	100	A	100	100	A	A	A	A	A	A						
19							B	100	100	100	100	100	100	A	100	100	110	B						
20							120	120	100	100	100	A	100	100	100	110	100	B						
21							A	110	100	A	A	100	100	100	100	A	A	B						
22							B	100	100	100	100	100 ^H	100	100	100	100	100 ^F	B						
23							A	100 ^H	100	A	100	A	A	A	A	A	A	A						
24							B	110	110	100	110	100	100	100	100	A	120	B						
25							B	120	110	100	A	A	A	100	A	A	A	A						
26							B	100 ^F	100	100	100	100	110	100	A	A	100	A						
27							B	B	100 ^A	110	110	100	100	100	100	A	110	A						
28							110	110	110	A	100	100	100	100	A	A	A	120						
29							A	AF	110	110	A	110	A	110	A	A	A	100						
30							110	A	A	100	100	100	100	100	100	A	100	A						
31							B	100	100	A	110	110	110	100	100	110	110	A						
Median Value							110	110	100	100	100	100	100	100	100	100	100	110						
Count							13	25	28	25	22	24	22	22	22	19	20	11						

Sweep 1.0 Mc to 17.0 Mc in 15 min Manual

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

IONOSPHERIC DATA

Oct. 1950

fEs

135° E Mean Time

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.9	2.0	2.4	2.2	2.2 ^F	2.6	3.6	3.8 ^Y	G	G	B	B	B	B	G	G	2.8	2.8 ^F	2.8	G	G	G	G	B
2	G	G	G	G	2.0 ^F	1.8	3.3	4.0 ^Y	4.4 ^Y	4.8	4.8	G	G	5.8	G	G	3.4 ^Y	2.8	4.5	2.8	B	(2.8) ^Y	G	2.6
3	2.8	4.4	3.6	6.0	4.0	2.7	3.0	G	5.7	5.2	4.3	4.9	4.5	6.3	5.5	4.8	5.4	3.4	4.5	5.8	4.7	5.3	8.3	4.7
4	4.5	2.8	3.0	3.3 ^Y	2.5	G	2.7	G	G	4.3	6.0	4.8	G	4.0	4.0	4.2	3.6 ^Y	G	4.4	5.0	3.5	3.6	(2.6) ^F	G
5	2.0	1.6	1.7	2.1	1.6	2.4	2.3 ^Y	3.8 ^B	3.7	4.1	4.1	4.8	3.7	5.2	4.5	4.1	3.2 ^B	3.5	4.1	2.4	4.5	4.8	3.2	2.7
6	2.8	2.7	3.4	3.2	2.0	2.6	G	4.8	4.2	3.7 ^Y	(4.2) ^Y	G	G	(4.1) ^Y	G	5.6	(3.6) ^Y	2.4	2.8	(3.2) ^Y	2.4	2.7	C	2.5
7	4.5	2.5	2.8	3.0	2.6	2.6	G	3.4	3.6 ^Y	4.0 ^Y	G	G	G	G	3.5	G	3.2	4.1	4.7	2.8	3.3	2.0	2.0	2.9
8	2.0	2.5 ^F	2.0	2.2	B	G	2.6	G	G	G	B	B	B	G	G	G	3.6	4.0	4.0	2.2	2.0	2.0	2.0	2.0
9	2.0	2.3	2.6	2.1	2.0	2.0	G	4.0	4.2	4.4	G	G	G	B	G	G	G	3.7	3.6	2.8	3.0	2.8	2.6	2.8
10	4.1	4.3	2.8 ^F	2.5	2.4	2.7	2.5	G	G	4.2	4.4	G	G	G	C	4.6	4.4	11.6 ^Y	5.6	3.7	3.4	3.4	2.8	2.2
11	2.2	2.3	3.0 ^Y	2.0	2.4	B	G	G	4.2	B	4.0	6.2 ^Y	(4.4) ^Y	B	G	4.1 ^Y	6.8	C	7.6	5.8	3.7	2.2	6.0	3.6
12	4.6	3.6	4.0	3.3 ^F	3.4	3.6	2.8 ^F	3.8	4.0	4.1 ^Y	4.0 ^Y	G	G	G	G	3.4	G	4.0	4.6	3.7	3.6	4.2	2.8	2.4
13	2.8	2.8	2.8	2.8	2.3	2.8	2.8	2.8	G	4.2	4.2	4.0	G	G	G	3.5 ^F	2.7 ^F	G	G	1.7	G	G	2.8	2.4
14	G	G	G	G	G	2.4	G	2.4	G	3.6	G	B	B	G	G	G	2.9	2.2	2.2	1.6	2.9	3.4	2.0	2.8
15	G	G	2.7 ^F	(2.8) ^F	2.4 ^Y	2.6 ^Y	3.8 ^Y	3.1	4.3 ^Y	4.1	4.1	B	B	B	G	G	2.8	G	2.8	2.7	2.9	4.4 ^F	3.3	4.8
16	2.7	2.9	3.0	2.4	2.0	2.4 ^F	G	G	C	4.0	4.2	G	3.6	B	(4.1) ^Y	G	G	G	3.7	3.6	3.1	3.5	G	2.2
17	3.5	3.5	2.5 ^F	2.9	2.5	3.4	2.8	G	B	5.0	5.1	8.3	9.5 ^B	7.6	G	G	2.8	2.7	3.8	2.4	4.7	7.6	(4.4) ^Y	4.0
18	3.8	2.0 ^F	4.1	2.2	2.2	G	G	4.4	4.2	5.2	5.2	G	5.4	5.0	4.6	5.8	10.8	6.2	4.4	6.4	6.4	5.4	3.8	4.3
19	3.4	1.9	3.4	2.6	2.8	2.4 ^F	2.8 ^Y	4.0 ^Y	4.4	4.0 ^Y	3.9	3.8	4.1 ^Y	4.5	4.2	3.7	3.3	G	G	(4.7) ^Y	3.4	3.6	3.5	2.0
20	5.4	5.2	4.1	3.4	3.4	3.4	3.4	3.6	5.8	4.2	4.2	4.4 ^Y	4.8	(4.2) ^Y	B	B	3.5	2.0	2.6	2.8	3.8	2.8	2.6	B
21	4.4	3.4	2.3	2.8	4.4	2.4 ^F	2.8 ^Y	G	G	4.3	4.2	4.0 ^Y	4.6	4.6 ^Y	G	5.8	4.6	2.6	2.8 ^F	2.7	2.0	2.4	1.7	2.4 ^F
22	3.8 ^F	3.3 ^Y	2.3	2.4	2.8	2.9	2.3 ^Y	G	G	G	4.4	4.9	4.6	4.6 ^Y	(3.7) ^Y	G	G	2.2	2.2	3.5 ^Y	B	2.4	B	1.5
23	2.2	2.5	2.6	2.8	3.0	2.6	2.8	B	G	5.8	6.0	6.3	6.1	7.4	3.7	G	4.6	7.1	7.8	5.6	5.0	2.5	2.9	3.0
24	2.9	2.7	2.0	1.6	G	1.6	G	3.4	4.3	5.4	6.0	4.6	4.2	4.2	(3.7) ^Y	2.8	G	3.6	3.4	3.2	3.8	3.7	2.4	2.3 ^Y
25	2.7 ^F	2.5	2.5	2.4	2.3	C	G	G	3.5 ^Y	4.2	4.8	4.8	4.1	B	3.3	G	2.7	2.8	G	3.3	2.8	2.8	2.7	2.5
26	2.3	2.3	2.8	2.2	2.2	2.5	G	3.0	G	G	G	G	G	G	3.6	5.0	4.8 ^Y	3.2	3.0	3.2	2.3	3.3 ^Y	3.8	2.8
27	2.0	2.8 ^F	2.0	1.7	2.8	G	G	B	3.8	3.5	G	G	4.4	G	G	3.5 ^Y	G	2.7	2.8	2.0	2.0	1.6	2.0	1.6
28	2.8	2.4	2.4	2.5	1.6	2.4	2.2	G	3.0	3.5	G	B	4.2 ^Y	4.8	4.3	G	G	2.7 ^Y	2.0	G	G	G	G	G
29	2.2	2.5	2.8	3.4 ^F	3.3 ^F	2.7	2.6 ^F	3.2 ^Y	3.6	5.2	4.8	12.8	13.2	3.0	3.6	3.4	3.2	3.1	2.8	2.4	G	B	3.3	4.7
30	2.8	2.8	4.2	3.6	2.3	3.0 ^Y	G	3.3	3.5	4.0	4.0	5.6	4.2	4.2	4.2	4.6	3.8	5.0	3.2	1.4	3.6	3.0	2.3	2.4
31	2.5	2.0	2.0	1.8	2.2	(2.0) ^Y	G	G	G	4.3	G	G	3.7	(4.1) ^Y	B	5.2	4.0	2.8	2.9	5.5	2.5 ^F	2.5	2.5	2.2 ^Y
Median Value	2.8	2.5	2.7	2.5	2.4	2.4	2.4	3.0	3.6	4.2	4.2	3.9	4.1	4.1	3.5	3.4	3.2	2.8	3.0	2.8	3.1	2.8	2.6	2.5
Count	31	31	31	31	29	29	31	29	29	30	28	28	27	25	27	31	31	31	31	31	29	30	29	29

fEs

Sweep 1.0 Mc to 17.0 Mc in 15 min

Manual

K 8

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

Lat. 35° 42.4' N
Long. 139° 59.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

M3000F2

Oct. 1950

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.7	3.0	(3.2) ^P	3.4	(3.1) ^P	3.2	3.6 ^S	S	3.6 ^J	3.4 ^P	3.7	3.3	3.1	3.1	3.1	3.2 ^P	(3.3) ^F	2.9	2.9	(3.3) ^F	3.0	3.0	2.7	2.8
2	2.6	2.8	3.2 ^X	(3.5) ^P	2.8	(3.1) ^J	3.0	3.3	(3.3) ^B	3.3	3.6	3.4	3.4	3.3	3.1	3.2	3.6	3.6	3.2	3.1	2.6	2.7	(2.8) ^B	3.4
3	2.8	A	(3.2) ^J	A	3.1	2.7	3.2	3.2	3.3 ^P	3.4	3.4	2.9	3.3	2.9	3.2	3.3	3.2 ^S	(3.5) ^J	3.3	3.1	2.9 ^F	3.0	3.1	3.0
4	2.9	2.9	2.8	3.0	3.0	(3.1) ^S	3.2	3.4	3.4	B	B	3.5	B	3.4 ^F	3.5	3.2	3.2	3.5	3.6	3.6	A	3.0	3.0	2.8
5	2.6	2.8	3.1	3.3	2.7	2.8	3.4	(3.2) ^B	3.5	3.6	S	(3.3) ^S	3.3 ^S	3.3	3.2	(3.4) ^J	3.6	3.2 ^F	3.4	2.9	3.1	2.7	2.8 ^H	3.1
6	2.9	2.8	3.2 ^S	3.6	3.0	3.2	3.5	3.4 ^P	3.4	(3.5) ^J	C	(3.5) ^P	3.4	(3.6) ^F	3.4	3.5	3.2	3.3	3.2	3.0	2.9 ^Z	2.7	2.8 ^P	3.2
7	2.7	2.7	2.9	2.9	(2.9) ^X	2.6 ^F	3.4	3.5	3.3	3.3	3.3	3.3	3.2	3.2	3.2	3.3	3.2	3.2	3.4	3.0 ^H	(3.2) ^F	2.9	2.9	2.9
8	3.0	2.9	2.7	2.8	2.9	3.0	3.4	3.3	(3.5) ^B	3.4	(3.1) ^S	(3.4) ^B	(3.4) ^J	(3.3) ^J	(3.4) ^J	(3.5) ^S	(3.2) ^B	(3.3) ^P	3.3 ^H	3.4	2.9 ^H	2.8	2.7	2.7
9	2.9	2.8	3.0 ^F	2.9	3.4	3.0	3.5	3.5	(3.1) ^F	B	(3.2) ^J	3.3	3.1	3.1	3.1	3.3	3.4 ^P	3.5	3.6	3.8	3.3	2.9	3.1	3.4
10	3.1	3.0	2.9	2.9	3.0	3.2	3.5	3.6	3.4	(3.6) ^S	(3.1) ^F	(3.3) ^B	3.2	3.1 ^F	(3.2) ^C	3.4 ^B	3.5	B	3.3	3.0	3.0	3.0	3.0	2.9
11	3.0	3.0	3.0 ^P	3.0	3.0	3.3	3.7	3.7 ^S	S	3.4	3.1	C	3.1	(2.9) ^F	C	C	C	C	C	(3.1) ^B	2.9	3.0	(3.1) ^F	2.9 ^F
12	2.8 ^F	2.8	2.8 ^F	3.0	(3.0) ^F	3.0 ^F	3.4 ^F	3.6 ^F	3.5	3.3 ^P	3.1	(3.1) ^C	3.1	C	C	C	(3.4) ^P	S	3.5	2.9	2.7	2.7	2.9	2.9
13	(3.0) ^S	3.0	3.0	3.1	3.0	3.0	(3.5) ^B	(3.8) ^S	(3.6) ^B	3.5	(3.4) ^B	3.2 ^F	3.2	3.2	3.2	3.2	3.2	(3.3) ^J	B	(3.0) ^S	2.8	2.9	3.1	2.8
14	2.7	2.7	2.7	3.1	2.8	2.9	3.2	3.4	(3.5) ^J	3.5	3.2	3.3	3.2	3.1	(3.2) ^F	3.3	3.3	3.6	3.6	2.8	(2.8) ^B	2.8	2.7	2.8
15	2.8	3.6	2.5 ^H	2.9	2.3	2.5	3.1	3.5	(3.3) ^B	3.2	3.1	3.2	3.0	3.0	3.2	3.1	3.3	3.1	3.0	3.1	3.1	3.2 ^F	3.0	(3.0) ^S
16	2.9	2.9	3.0	3.0	3.2	3.4	3.7	3.5 ^P	(3.4) ^C	3.2	3.3	3.2	3.1	3.1	3.2	3.4	(3.2) ^F	3.3	3.3	2.7	2.8	2.8	3.0 ^S	F
17	3.1 ^S	2.5	2.8	3.0	(2.9) ^F	2.9	3.1	(3.4) ^F	3.4	3.4	3.2	3.5	3.5	3.1	3.4	3.5	3.3	3.3	3.3	3.1 ^F	3.1	A	(3.4) ^F	F
18	F	(3.4) ^F	3.6	2.9 ^F	(2.9)	2.5	3.1	3.0 ^P	(3.3) ^J	3.2	S	3.6	(2.9) ^F	3.3	3.4	(3.4) ^S	A	3.3	(3.2) ^C	3.1	3.4	3.3	3.0	2.6
19	2.8 ^H	2.9	3.1	3.0	2.9	3.0	3.2	3.4	3.5	3.5	(3.3) ^J	3.4	3.3	(3.1) ^P	(3.3) ^P	(3.4) ^P	3.3	3.4	3.4	3.2 ^F	3.3	3.3	3.2	2.9
20	(2.6) ^F	3.0 ^F	2.6 ^F	3.0 ^F	3.3 ^F	3.2	3.5	3.7	3.4	3.3	3.3	(3.3) ^B	3.3	(3.3) ^J	3.4	(3.3) ^J	(3.5) ^T	3.7	3.6 ^V	(3.5) ^H	(3.1) ^B	3.2	(3.4) ^S	
21	A	(2.9) ^H	(3.1) ^J	3.2 ^F	3.1	3.2	3.5	(3.8) ^J	3.5	3.5	3.3	3.0	3.2	3.3	3.4	3.5	(3.5) ^J	(3.3) ^S	(3.5) ^F	3.3 ^F	3.1	2.8	2.9	2.6 ^H
22	2.8	2.8	3.0	3.1	3.2	3.2	3.3	3.6	3.6	3.5	3.4	3.3	3.6	(3.4) ^F	3.4	3.5	3.5	3.7	3.2	2.9 ^H	2.9	2.8	3.0	3.4
23	2.8	2.8	2.8	2.9 ^H	2.6	2.8	3.3	3.4	3.7	3.3	3.3 ^S	3.1	3.2	3.1	3.3	3.4	3.5 ^S	3.5	3.5	S	2.8	(2.8) ^B	2.9	3.3
24	2.7	2.8	3.0	3.3	3.3	3.0	3.1	3.4	(3.4) ^J	3.2	3.4	3.3	3.2	3.6	(3.3) ^J	(3.4) ^J	(3.4) ^J	3.3	3.2	3.3	3.0	2.8	2.9	2.9
25	2.8	2.9	2.8	3.2	3.2	(3.2) ^C	3.2	3.6	3.7	3.8 ^P	3.6	(3.3) ^J	(3.4) ^J	3.4	(3.3) ^S	(3.5) ^F	3.5	3.5	3.4	3.1	3.4	3.4	3.2	3.0
26	3.0	2.8	2.9	3.2	3.3	3.2	S	3.8 ^S	3.8	3.7	3.8	3.4	3.5	3.3	3.5	3.5	3.6	(3.2) ^J	3.2	3.2	(3.0) ^J	3.1	3.2	
27	3.0	3.0	3.0	3.1	3.3	3.5	3.4	3.8	3.6	3.6	3.8	(3.4) ^S	3.3	(3.3) ^S	(3.0) ^S	(3.6) ^S	3.8	3.3	3.3	2.9	3.3	3.0	2.8	2.7
28	2.8	3.0	2.9	3.0	3.5	3.2	3.4	3.6	3.7	3.5	(3.4) ^S	3.4	3.3	3.1	3.3	3.1	(3.6) ^S	3.6	3.1	2.8 ^{KH}	2.9	3.0	BF ^K	F ^K
29	(3.2) ^F	(3.2) ^F	2.7	2.9	2.6 ^F	2.8 ^F	(3.2) ^F	(3.3) ^J	3.0	(2.9) ^J	3.6	A	3.1	3.1	3.3	(3.5) ^S	3.4	3.3	3.1	3.1	3.1	3.2	2.6	3.0
30	3.1 ^V	2.7	2.9	3.0	3.6	2.7	(3.3) ^F	3.0	(3.4) ^J	3.3	3.3	3.3	3.4	3.2	3.2	3.6	3.7	3.4	3.0	3.2	3.1	2.9	2.9	3.2
31	2.9	2.6	2.8	3.4 ^S	3.0	3.0	3.3	3.6 ^P	3.4	3.4	3.4	3.4	3.1	(3.4) ^P	3.4	3.4	3.4	3.2 ^F	3.1 ^H	(2.8) ^F	3.3	2.9	2.7	2.7 ^F
Median Value	2.8	2.9	2.9	3.0	3.0	3.0	3.4	3.5	3.4	3.4	3.3	3.2	3.2	3.3	3.3	3.4	3.4	3.3	3.3	3.1	3.0	3.0	3.0	2.9
Count	2.9	3.0	3.1	3.0	3.1	3.1	3.0	3.0	3.0	3.0	2.6	2.9	3.0	3.0	2.9	2.9	2.9	2.7	3.1	3.0	3.0	3.0	3.0	2.8

Sweep 1.0—Mc to 11.0 Mc in 15 min Manual

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

IONOSPHERIC DATA

Lat. 35° 42.4'N
Long. 139° 29.3'E

Kokubunji Tokyo

135° E Mean Time

fmin F

Oct. 1950

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	1.6	A	1.5	A	1.6	1.4	2.4	3.7	3.5	4.1	4.1	4.0	4.1	3.5	3.0	2.8	1.9	A	1.3	1.3	1.3	1.3	1.3
2	1.3	1.3	1.2	1.5	E	1.4	1.6	2.3	3.2	3.6	3.7	4.2	3.9	3.3	3.5	3.0	2.7	2.0	1.6	1.6	1.3	1.3	1.6	A
3	A	A	A	A	A	1.2	1.7 ^F	2.4	3.2	3.7	4.0	4.0	4.0	4.1 ^A	4.0	2.8	2.1	1.2	A	A	A	A	A	1.6
4	A	1.9	A	1.3	1.3	1.2	2.5	2.5	2.8	3.6	4.2 ^F	4.1	4.1	4.0	4.0	3.2	2.5	2.3	1.6	A	AF	1.2	A	E
5	E	E	E	E	E	E	1.9	A	2.6	3.3	3.5	A	3.7	A	2.6	A	AF	1.7	1.3	1.3	A	A	1.5	1.4
6	1.3	1.3	AF	AF	1.3	1.6	2.0	3.2	2.4	3.2	4.1	3.6	3.5	3.3	3.2	A	2.6	2.0	A	1.8	1.6	1.8	C	A
7	A	A	A	A	1.3	1.3	(1.6) ^B	2.2	3.2	A	3.6	4.0	3.8	4.0	3.3	3.0	2.7	2.0	A	A	1.3	1.6	1.6	1.5
8	1.1	A	1.3	1.6	1.4	1.4	2.0	2.6	3.2	3.3	(4.0) ^B	4.0	(4.4) ^B	3.6	3.6	3.4	2.8	A	AF	A	1.9	1.6	1.2	1.3
9	1.6	1.5	1.1	1.1	1.1	E	2.0	A	3.2	A	3.9	4.2	4.0	3.5	(3.3) ^C	2.6	2.4	A	A	A	1.3	1.3	1.4	1.4 ^S
10	A	A	E	1.2	E	E	1.9	2.5	3.2	3.6	4.0 ^A	3.6	3.7	3.2	(3.3) ^C	3.4	2.6	1.8	A	A	A	A	1.5 ^S	1.4 ^S
11	1.1	1.1	1.4	1.4	1.4	1.4	1.6	2.7	3.6	3.8	3.7	4.1	3.9	4.1	3.9	A	A	C	A	A	A	1.2	1.3	A
12	A	1.4	A	A	2.2	A	2.0	A	2.5	3.5	3.6	3.7	3.7	3.4	3.5	3.2	3.1	A	1.8	A	A	1.8	A	1.8
13	1.4	1.8	1.1	1.1	E	1.3	A	A	3.2	3.2	3.3	3.5	3.5	3.4	3.2	2.6	2.0	1.3	1.2	1.2	1.4	1.4	1.4	1.4
14	1.1	1.4	1.2	1.2	1.4	1.3	1.6	2.6	3.2	3.3	3.9	4.2	4.6	4.1	3.3	2.7	2.6	2.0	1.5	1.4	A	1.9	1.3	1.8
15	E	E	E	E	E	E	1.5	2.6	3.6	3.5	4.1	4.0	4.1	4.0	3.2	3.2	2.5	2.1	A	1.6	A	A	A	A
16	A	1.1	1.4	A	1.2	1.2	A	2.6	(3.1) ^C	3.6	3.6	3.9	3.6	4.1	4.1	3.2	2.6	1.7	A	1.6	A	1.4	1.2	1.3
17	E	1.2	1.7	A	1.5	1.9	2.1	2.7	3.9	3.4	3.8	A	A	A	3.2	3.4	2.3	2.0	2.3	1.4	A	A	2.0 ^F	A
18	A	AF	AF	1.4	1.1	1.4	1.6	2.4	3.2	A	A	4.0	A	A	A	A	A	A	A	A	A	A	A	A
19	A	1.3	1.6	1.4	1.5	1.3	1.7	2.5	3.0	3.4	3.2	3.3	3.8	A	3.2	3.2	2.5	1.9	1.4	AF	AF	AF	AF	1.5
20	AF	AF	AF	1.8	AF	A	2.0 ^F	2.5	AF	A	A	3.4	4.0	4.2	4.2	3.9	2.9	1.7	A	1.6	A	A	1.6	2.0
21	A	A	1.4	1.6	A	1.7	2.0	2.7	3.2	3.2	3.5	3.6	3.6	3.6	3.2	A	A	2.0	A	1.6	A	A	1.6	2.0
22	1.3	1.2	1.1	1.2	1.6	1.5	1.6	2.3	3.1	3.3	3.7	3.6	3.6	3.4	3.2	3.1	2.5	2.0	A	1.8	1.4	1.4	1.3	1.3
23	1.4	1.4	1.3	1.1	1.1	1.4 ^F	1.5	2.4	3.3	3.2	A	4.4	A	A	2.8	3.2	A	A	A	S	A	A	A	A
24	A	A	1.4	1.1	1.1	1.1	1.4	2.0	3.2	3.2	3.7	3.5	3.3	3.6	3.2	2.7	2.3	1.6	1.3	A	A	A	1.4	1.4
25	1.2	1.2	E	E	E	E	1.2	2.3	2.7	2.8	A	A	3.8	3.8	3.3	3.5	2.7	2.0	1.2	1.3	1.2	1.2 ^S	1.4	1.2 ^S
26	1.1	1.1	A	1.1	1.1	1.2	1.5	2.4	3.0	3.1	3.8	3.8	3.6	3.6	A	3.4	3.7	A	1.6	A	1.4	1.5	A	1.4
27	1.9 ^A	A	1.2	1.4	1.1	1.1	1.2	2.4	3.2	3.2	3.6	3.6	3.8	3.7	4.1	3.2	2.3	A	1.6	A	1.6	1.3	1.3	1.2
28	A	A	1.3	1.3	1.3	1.3	1.8	2.2	3.5	3.3	4.0	4.0	3.6	3.8	3.8	2.7	2.1	2.0	1.5	1.4	1.4	1.8	1.6	1.5
29	A	1.1	1.1	A	A	1.9	1.6	2.4	3.3	A	A	A	3.2	2.6	A	AF	2.0	1.6	1.6	1.4	1.6	1.6	A	1.4 ^F
30	1.9	E	AF	E	1.8	E	A	A	A	A	3.4	3.4	3.8	4.0	A	3.4	2.8	A	1.2	1.1	A	1.3	1.2 ^S	1.2 ^S
31	1.1	E	1.1	1.2	1.2	1.4	2.0	2.6	2.8	4.2	3.8	3.7	3.5	3.6	4.1	A	A	2.0	1.7	A	1.4	1.2	1.2	1.2
Median Value	1.2	1.2	1.2	1.2	1.2	1.3	1.6	2.4	3.2	3.3	3.7	3.8	3.8	3.8	3.4	3.2	2.6	2.0	1.5	1.4	1.4	1.4	1.4	1.4
Count	18	21	21	24	26	29	28	26	29	25	27	26	28	26	28	23	24	23	17	16	15	20	21	24

fmin F

Sweep 1.0—Mc to 17.0 Mc in 15 min

Manual

K 10

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

Lat. 35°42.4'N
Long. 139°29.3'E

Kokubunji Tokyo

IONOSPHERIC DATA

fminE

Oct. 1950

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	1.1	E	E	1.2	1.2	1.2	E	1.4	1.2	1.3	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.4	1.3	B	B	B	B	B
2	B	B	E	B	1.3	1.3	1.3	1.5	1.6	1.6	1.4	1.5	1.4	1.4	1.2	1.4	1.6	1.3	1.4	B	1.3	B	B	1.6
3	1.4	1.6	1.2	1.1	1.2	1.2	1.2	1.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.2	1.4	1.4	1.3	1.4	1.3	1.4	1.4
4	1.6	1.5	1.3	1.1	1.1	E	E	1.4	1.3	1.4	1.4	1.4	1.4	1.4	1.2	1.1	1.2	1.2	1.3	1.3	1.3	1.8	1.3	E
5	E	E	E	E	E	E	E	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.5	1.5	1.3	1.3	1.2	1.2	1.2	1.3	1.3	1.1
6	1.1	E	E	E	E	E	E	1.2	1.6	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.2	1.4	1.4	1.3	1.3	1.3	1.3
7	1.2	1.3	1.3	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.4	1.2	1.2	1.3	1.2	1.3	1.6	1.6	1.6	1.5
8	1.1	1.3	1.3	1.4	B	B	B	1.8	1.4	1.4	1.8	1.8	1.4	1.4	1.8	1.4	1.6	1.2	1.5	1.3	1.3	1.5	1.3	1.2
9	1.5	1.4	1.5	1.5	1.1	1.1	1.5	1.8	1.8	1.7	1.4	1.6	1.4	1.4	1.4	1.6	1.5	1.2	1.2	1.2	1.2	1.2	1.3	1.2
10	1.1	E	E	E	E	E	E	1.2	1.2	1.2	1.4	2.0	1.6	1.6	(1.5) ^c	1.4	1.6	1.4	1.2	1.1	1.1	1.3	1.3	1.2
11	1.2	1.7	1.2	1.4	1.2	B	1.3	1.2	1.6	1.9	1.9	1.9	2.0	1.9	2.0	1.2	1.4	1.4	1.4	1.5	1.6	1.7	1.7	1.2
12	1.1	E	1.2	E	1.1	1.1	1.3	1.3	1.3	1.2	1.6	1.9	1.5	1.6	1.5	1.6	1.6	1.6	1.3	1.6	1.2	1.6	1.6	1.6
13	1.4	1.2	1.1	1.2	E	E	1.3	1.2	1.3	1.2	1.2	1.2	1.3	1.2	1.5	1.6	1.3	1.5	B	B	B	B	B	B
14	E	B	E	E	1.4	B	1.4	1.4	1.4	1.3	1.4	1.4	1.4	1.2	1.3	1.4	1.3	1.3	1.5	1.4	1.5	1.3	1.3	E
15	E	E	E	(1.6) ^b	E	E	E	1.2	1.2	1.2	1.6	1.6	B	1.8	2.0	1.8	1.4	1.4	1.3	1.3	1.3	1.4	1.6	1.1
16	1.2	1.6	1.3	1.2	1.2	1.2	1.3	1.4	(1.5) ^c	1.6	1.4	1.4	1.6	1.4	1.6	1.4	1.4	1.2	1.2	1.2	1.2	1.2	1.4	1.1
17	E	E	1.1	1.1	1.1	1.3	2.3	2.0	2.0	1.2	1.3	1.5	1.4	1.4	1.5	1.5	2.2	1.4	1.6	1.6	1.4	2.6	2.0	1.8
18	1.3	1.2	1.3	1.2	1.6	B	1.1	1.4	1.4	1.3	1.6	1.6	1.6	1.8	1.8	1.4	1.4	1.2	1.2	1.3	1.6	1.2	1.5	1.6
19	1.2	1.3	1.1	1.4	1.3	1.3	1.3	1.3	1.3	1.4	1.5	1.4	1.5	1.6	1.6	1.3	1.5	1.6	1.3	1.2	1.3	1.4	1.2	1.2
20	1.1	E	E	E	E	E	E	1.2	1.2	1.2	1.4	1.4	1.4	1.2	1.3	1.3	1.2	1.4	1.3	1.4	1.6	1.4	1.6	B
21	1.4	1.2	E	1.2	E	E	E	1.2	1.4	1.2	1.2	1.2	1.2	1.4	1.4	1.4	1.3	1.4	1.2	1.6	1.8	2.0	1.5	1.7
22	1.5	1.8	F	1.1	1.1	1.1	1.3	1.4	1.2	1.3	1.2	1.2	1.3	1.2	1.3	1.2	1.2	1.6	2.0	1.5	B	2.0	B	E
23	1.4	1.4	1.3	1.3	1.1	1.3	1.2	1.3	1.4	1.2	1.2	1.2	1.2	1.3	1.2	1.2	1.2	1.9	1.6	2.0	1.6	1.6	1.6	1.8
24	1.3	1.2	1.4	1.4	E	1.4	B	1.4	1.2	1.3	1.3	1.2	1.2	1.4	1.3	1.3	1.3	1.6	1.4	1.2	1.2	1.2	2.1	1.2
25	1.2	1.2	E	E	E	E	E	B	1.3	1.2	1.4	1.4	1.4	1.5	1.6	1.4	1.6	1.2	E	1.6	1.2	1.4	1.2	1.2
26	1.1	1.1	E	1.1	1.1	1.1	B	1.5	1.6	1.6	1.6	1.7	1.6	1.3	1.4	1.5	1.6	1.2	1.4	1.6	2.0	2.0	1.2	1.4
27	1.1	1.1	1.4	1.4	1.3	E	B	1.4	1.4	1.4	1.5	1.4	1.4	1.4	1.4	1.4	1.6	1.3	1.8	1.4	1.6	1.4	1.3	1.1
28	1.3	1.2	1.2	1.3	1.4	1.5	1.6	1.3	1.6	1.2	1.3	1.6	1.6	1.6	1.6	1.6	1.2	1.3	1.8	B	B	B	B	B
29	1.8	1.1	E	1.1	1.1	1.1	1.1	1.6	1.7	1.6	1.4	1.4	1.4	1.4	1.4	1.3	1.4	1.6	1.6	1.6	B	B	B	B
30	E	E	E	E	E	E	E	1.4	1.3	1.5	1.4	1.4	2.2	2.0	1.6	1.6	2.0	1.6	1.2	1.2	1.2	E	1.1	1.2
31	E	1.1	1.8	1.2	2.0	1.4	1.4	1.6	1.4	1.7	1.9	2.0	2.0	2.0	1.6	1.8	1.7	1.5	1.2	1.3	1.3	2.0	2.0	1.2
Median Value	1.2	1.2	1.1	1.2	1.1	1.1	1.3	1.4	1.4	1.3	1.4	1.4	1.4	1.4	1.4	1.5	1.4	1.4	1.3	1.3	1.3	1.4	1.3	1.2
Count	30	29	31	30	30	27	27	30	31	31	31	31	30	31	31	31	31	31	28	29	25	27	26	27

Manual

Sweep 1.0—Mc to 11.0, Mc in 1.5—min

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

IONOSPHERIC DATA

Lat. 35°42.4'N
Long. 139°29.3'E

Kokubunji Tokyo

135° E Mean Time

Oct. 1950

Z d

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	100	80	(110) ^P	70	(180) ^F	80	20 ^S	S	(40) ^J	90	40	70	60	60	80	60 ^P	(70) ^P	120	80	(80) ^P	90	120	100	80
2	100	80	90 ^Z	(100) ^P	100	(80)	110	60	B	50	40	120	70	90	100	110	50	40	90	110	100	70	(80) ^F	60
3	110	A	A	A	80	150	100	70	100 ^F	80	130	140	60	70	80	80	80 ^S	(40) ^J	70	100	80 ^F	110	40	70
4	100	120	130	90	70	(80) ^S	100	40	70	B	B	50	B	60 ^P	50	70	70	60	80	120	A	90	60	160
5	90	90	80	90	140 ^H	70	80	(60) ^B	60	60	S	(50) ^S	60 ^F	50	110	(70) ^J	60	80 ^F	60	120	60	130	90 ^H	90
6	100 ^S	90	40 ^F	60	80	40	70	70 ^P	80	(50) ^F	C	(30) ^P	(20) ^J	50	(40) ^P	50	90	60	80	140	110 ^Z	100 ^P	(80) ^C	70
7	90	120	70	80	(70) ^S	(80) ^F	70	90	60	70	50 ^S	70	70	50	120	110	90	140	70	120	(60) ^F	110	110	70
8	100	60	110	70	110	180	90	100	(40) ^B	80	90 ^F	(50) ^J	(60) ^P	(100) ^S	(100) ^S	(90) ^S	(110) ^P	(120) ^F	80 ^H	90	180 ^H	100	40	80
9	90	80	90 ^F	130	60	130	80	40 ^S	(110) ^F	(60) ^F	B	(80) ^J	30	60 ^B	80	80	80	80	40	50	50	50	90	90
10	70	40	80	100	90	70	90	50	50	(40) ^J	(120) ^P	80	60	120 ^P	C	60 ^B	60	B	90	100	70	110	90	80
11	60	60	90 ^F	90 ^P	100	60	60	70 ^S	S	70	100	C	120	(120) ^P	C	C	C	C	130	100	80	80	(80) ^F	90 ^F
12	110 ^F	90	90 ^F	80	(80) ^F	80 ^F	90 ^F	70 ^F	80	40 ^P	(90) ^B	(80) ^C	70	C	C	C	(80) ^P	S	50	130	110	100	60	70
13	(60) ^S	110	120	140	80	120	(50) ^B	(20) ^B	(40) ^B	70	B	50 ^F	50	80	70	(60) ^B	(50) ^J	B	(140) ^S	140	100	110	80	110
14	90	70	90	120	90	(80)	130	120	(70) ^J	50	80	50	70	80	(80) ^F	60	60	90	60	150	(140) ^B	120	130	180
15	120	70	100 ^H	100 ^H	110	120	100	80	(70) ^F	70	80	90	100	100	120	140	100	70	100	60	70	50	80	(70) ^S
16	70	60	100	90	50	80	40	90 ^F	100 ^F	100	60	80	90	70	100	70	(110) ^P	100	60	110	100	90	90 ^S	F
17	60 ^S	90	60	100	(100) ^F	100	80	(60) ^J	70	90	90	70	40	60	80	60	90	80	110	80 ^F	110	A	(80) ^F	F
18	F	(70) ^F	70 ^F	40 ^F	(140) ^F	120 ^F	70	80 ^P	100	70	S	40 ^F	(90) ^P	50	70	(40) ^S	A	120	(100) ^C	80	60	60	90	80
19	80 ^H	90	60	90	90	100	110	80	40	50	(80) ^J	40	50	70	(120) ^P	(80) ^P	50	50	140	(80) ^B	70	70	70	100
20	(90) ^P	(80) ^F	AF	100 ^V	60 ^F	130	70	70	60	60	80	70	80	(50) ^J	60	(80) ^J	(60) ^J	80	70	80	(50) ^H	100 ^B	120	(90) ^S
21	A	(70) ^F	(60) ^J	90 ^F	60	60	80	(50) ^F	50	50	80	90	70	70	50	90	(60) ^J	(80) ^S	(90) ^F	120 ^F	50	(80) ^B	(80) ^B	(110) ^B
22	(120) ^F	100	130	80	160	90 ^B	80 ^B	110	50	100	80	80	60 ^V	(80) ^J	80	50	40	50	170	80 ^H	90	110	100	40 ^H
23	90	130	110	90 ^H	140	120	90	30	60	50	90 ^S	60	70	100	70	70	40 ^S	70	60	S	130	(120) ^B	100	90
24	110	90	100	80	130	100	110	60	(50) ^J	60	60	60	60	60	(80) ^J	(70) ^J	(90) ^J	40	100	60	80	80	110	80
25	100	120	100	50	80	(70) ^C	60	60	60	30 ^F	50	(60) ^J	(30) ^J	60	(60) ^S	(100) ^P	60	60	60	80	60	80	90	70
26	110	80	100	60	70	60	S	60 ^S	50	80	30	40	50	80	40	60	100	(30) ^J	80	50	100	(80) ^S	50	50
27	30	40	60	80	40	80	80	50	50	40	40	(70) ^S	100	(30) ^S	(20) ^S	(30) ^S	50	100	100	130	100	110	170	110
28	90	80	180	70	90	70	60	40	30	60	(50) ^S	80	50	80	50	90	(60) ^S	50	160	50 ^H	80	80	BF	F
29	(60) ^F	(60) ^F	90 ^F	90 ^F	60	100	(60) ^F	(40) ^F	120	(60) ^J	50	A	80	50	70	(70) ^J	60	110	130	80	70 ^S	70	70	60
30	70 ^V	90 ^F	50 ^F	60 ^F	80	110	(70) ^S	80	(50) ^F	90	90	50	80	80	90	50	100	60	120	60	90	100	80	80
31	150	80	70	50	190	100	110 ^F	90	40 ^P	40	70	50	40	(90) ^P	40	50	40	120 ^F	70 ^H	(80) ^A	60	70	70	110 ^F
Median Value	90	80	90	90	90	80	80	60	60	60	80	70	60	70	80	70	60	60	80	100	80	100	80	80
Count	29	30	29	30	31	31	30	30	29	30	25	29	30	30	28	29	29	27	31	30	30	29	30	28

Sheep 1.0 Mc to 1.10 Mc in 1/2 min Manual

Z d

Lat. 31° 12.5' N
Long. 130° 37.7' E

Yamagawa

135° E Mean Time

foF2

Oct. 1950

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	4.8	3.9	3.9	3.6	4.0	3.9	7.9	8.1	8.0	7.3	7.2	10.1	11.7	11.0	10.4	10.4	7.8	9.0	10.9 ^H	6.4	5.4	5.3	5.2	
2	4.7	5.0	4.1	4.0	3.1	3.1	4.2	7.9	11.4	9.0	8.5	9.9	9.7	8.5	7.7	8.4	11.4	10.2	7.4	6.2	5.1	5.5 ^Z	5.6	6.2	
3	5.4	3.1	3.1	3.2	2.9	2.7	3.9	5.3	5.5	10.1	8.1	8.1	9.1	8.9	11.2	9.2	9.2	8.9	8.5	7.2	6.4	5.5	5.7	5.5	
4	4.7	4.5	4.0	3.9	3.7	3.9	4.8	7.3	8.7	9.0	8.6	9.9	11.4	10.2 ^Z	9.1	8.5	10.0	10.0	10.0	6.9	3.5	4.6	4.5	4.3	
5	4.0	4.0	4.1 ^P	4.7	2.8	3.1	4.0	8.0 ^H	C	C	C	C	C	C	C	C	C	C	C	8.0	6.5	5.4	4.1	5.5	
6	4.8	4.7	5.0	4.5	3.1	3.0	3.8	5.6	8.0	C	11.0	10.5	10.4	10.3	9.9	8.1	7.3	8.6	8.9	(3.0) ^S	5.4	4.7	4.9	4.9	
7	4.2	3.8	4.4	3.5	3.1	2.9	4.0	5.3	6.9	8.8	9.1	10.6	8.8	9.7	10.4	9.3	9.3	9.8	9.7	6.9	6.1	5.3	4.8	4.5	
8	4.7	4.5	4.5	4.5	4.0	3.4	3.6	6.1	9.4	9.0	9.0	9.2	8.6	8.6	9.7	9.9	9.7	10.1	10.6	(9.3) ^P	5.7	4.5	5.1 ^M	4.6 ^S	
9	4.5	4.4	4.8	4.6	3.0	3.1	2.7	7.3	8.5	9.7	7.8	9.3	11.5	12.0	13.1	12.0	11.0	10.1	9.7	8.1	8.1	A	A	A	
10	7.8	6.0	4.3	4.5	4.0	3.6	4.2	6.8	7.9	9.8	9.3	9.6	11.0	10.9	11.5	12.0 ^H	11.1	9.2	8.7	5.9	5.7	6.5	6.6	5.7	
11	5.3	5.2	5.1	4.7	4.5	4.3	4.5	7.5	7.9 ^H	8.7	10.2 ^J	10.4	11.9	12.3	13.5	13.8	11.5	9.9	8.5	6.7	6.0	5.9	5.8	4.2	
12	4.1	4.0	4.0	4.4	4.3	4.0	4.3	7.1	8.1	8.3	9.0	9.6	10.7	11.6	11.9	13.3	13.3	12.8	8.8	6.0	5.5	5.7	5.3	5.3	
13	5.3	5.8 ^S	4.9	4.4	4.0	3.8 ^H	4.5 ^F	9.3	9.4	9.9	9.8	10.9 ^H	13.5	13.1	12.6	11.5	10.9	10.5	10.1	6.8	5.8	6.2	6.6	4.4	
14	4.7	4.9	5.4	4.6	3.7	3.9	4.7	7.2	7.7	10.2	9.4	10.8 ^H	13.0	13.3	13.2	11.5	11.2	9.8	8.2	7.2	5.6	6.0	6.1	5.7	
15	5.5	5.8	3.7	3.8	3.5	3.5	4.7	7.0	9.4	10.0	11.4	11.5	12.2	12.0	13.4	13.2	9.1	8.9	8.3	8.3 ^J	7.5	6.4	5.1	4.5	
16	4.5	4.3	4.9	4.5	4.6	4.5	3.8	6.4	8.2	10.7	11.1	11.7	12.3	13.0	13.1	12.4	10.8	9.0	8.5	7.7	7.1	6.8	6.8	6.2	
17	5.9	5.1	4.0	5.1	4.9	6.2	5.5	8.0	8.6	10.9	12.6	1.2	12.2	C	3.5	12.6	11.6	9.1	9.8	7.7	5.8	5.8	5.6	3.4	
18	3.1	3.2	3.3	3.5	3.5	2.7	3.7	8.0	10.8	10.9	11.2	11.4	10.6	(11.2) ^F	11.9	12.0	12.5	11.9	12.1 ^J	S	(8.0) ^P	(7.5) ^S	4.3	4.1	
19	4.0	4.2	4.1	4.1	4.0	4.1	3.5	6.7	8.1	10.1	12.5	12.9	12.1	11.3	11.0	11.2	11.0	9.2	8.6	5.7	5.2	5.0	4.6	3.0	
20	A	A	3.6	3.8	4.4	3.6	3.5	6.0	C	C	C	C	C	C	C	C	C	C	C	C	C	4.4	4.8	4.2	3.7
21	4.4 ^Z	3.9	3.8	3.7	3.9	3.2	3.4	6.8	8.5	8.6	8.2	10.3	10.6	11.0	11.5	11.8 ^S	11.2	9.4	7.2	5.9	3.9	4.4	4.6	4.0	
22	3.0	3.4 ^Z	2.8	2.9	3.0	2.9	3.2	4.9	8.2	8.1	9.2	10.2	9.7	10.0	(11.0) ^S	11.0	11.7	10.0	7.1	4.9	5.0	5.1	5.5	4.3	
23	3.8 ^J	3.9	3.6	4.1	3.7	3.8	4.9	6.9	7.7	9.8	(10.0) ^C	10.2	10.3 ^J	10.9	14.0	13.4	12.3	11.4	(8.8) ^J	S	3.9	3.8	3.7	3.4	
24	3.8	(4.0) ^P	3.8 ^V	4.9	4.1	3.8	3.1	7.2	8.4	8.3	9.4	9.8	9.5	9.6	10.2	10.9	11.4	11.4	9.9	7.9	5.5	4.8	4.7	5.1	
25	5.6	5.2	5.5	5.9	4.6	3.0	3.4	7.3	7.9	7.4	8.3	C	C	9.4 ^Z	9.4	9.4	7.4	7.7	7.6	7.5	7.2	6.2	5.2	4.3	
26	3.7	2.7	2.8	3.1	2.9	3.0	3.3	7.5	7.5	6.9	7.4	9.0	(9.3) ^P	C	C	C	8.9	8.1	7.2	5.4	4.8	4.3	3.9	3.0	
27	3.1	3.1	3.2	3.7	4.1	3.2	2.7	6.8	C	C	C	C	C	C	C	C	C	C	C	7.4	4.5 ^H	3.5	3.4 ^Z	3.2	
28	3.4	3.5	2.7	2.8	3.8	2.8	3.1	5.9	6.4	7.1	9.0	11.3 ^S	11.7	11.6	13.1	13.6	12.7	11.4	9.2	7.7	2.6	2.8	3.4	3.4	
29	4.1	3.5 ^H	(3.8) ^K	FK	FK	FK	4.5 ^V	6.9	6.3	9.4	13.3	11.0 ^H	9.6	13.0	11.8	12.6	11.8 ^L	8.3	8.5	6.1 ^H	6.0	5.7	4.8	5	
30	3.8	3.4	3.3	2.6	3.7	2.5 ^Z	3.3	6.3	7.9	10.4	11.6	13.5	11.8	11.7	11.4	12.7	11.5	9.3	8.4 ^H	5.6	5.0	4.0	4.1	4.0	
31	3.3	3.1	3.5	3.7	(3.9) ^Z	2.2	2.5	6.2	7.5	6.8	10.3	11.1	11.7	11.0	10.3	10.6	9.5	7.5	6.2	4.7	5.1	4.9	3.5	3.6	
Median Value	4.4	4.1	4.0	4.0	3.8	3.3	3.8	6.9	8.1	9.0	9.4	10.4	10.7	11.2	11.5	11.5	11.0	9.6	8.6	7.0	5.6	5.4	4.8	4.3	
Count	3.0	3.0	3.1	3.0	3.0	3.0	3.1	3.1	2.8	2.7	2.8	2.7	2.7	2.6	2.7	2.7	2.8	2.8	2.8	2.8	3.1	3.0	3.0	2.9	

Sweep 1.2 Mc to 18.5 Mc in 1.5 min Manual

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

IONOSPHERIC DATA

Lat. 31° 12.5' N
Long. 130° 37.7' E

Yamagawa

136° E Mean Time

Oct. 1950

f_oF₂

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

f_oF₂

Steep 1.2 Mc to 18.5 Mc in 1.5 min

Manual

Y 2

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

IONOSPHERIC DATA

Lat. 31° 13.5' N
Long. 130° 37.7' E

Yamagawa

135° E Mean Time

4 F2

Oct. 1950

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	290	270	270	300	270	300	330	250	240	270	270	330	340	300	300	280	280	280	280	210 ^A	210	270	270	340	
2	280	260	240	250	210	320	280	240	220	230	230	270	270	270	280	310	270	260	230	250	260	290	310	230	
3	300 ^A	290	320	310	250	260	300	260	250	250	250	240	280	300	300	290	250	260	240	250 ^H	210	320 ^A	270	280	
4	260	250	240	250	260	260	230	240	260	260	260	290	300	280	300	280	280	300	240	200 ^A	250	280	300 ^A	300 ^A	
5	300 ^A	350	290 ^A	300	240	300	290	260 ^H	C	C	C	C	C	C	C	C	C	C	C	240	230	310	270	270	
6	300 ^A	290	260	270	240	290	280	230	230	240	260	260	260	240	260	250	250	240	240	210	240	250	250	260	
7	220	280	270	280	260	250	270	210	220	240	260	270	250	260	270	260	240	250	230	250	260	260	270	300	
8	280	300	300 ^A	250	240	220	220	220	250	250	260	270	320	340	270	270	260	260	250	220	230	310	280 ^H	300	
9	290	280	270	300	330	380	340	230	250	250	260	270	280	300	300	270	260	240	240	240	240	230	A	270	
10	300	340	280	250	220	250	230	230	250	270	260	270	290	290	300 ^H	290	270	260	230	240	300	290	260	270	
11	300 ^A	290	260	270	290	280	270	230	240	240	250	260	280	280	270	270	240	230	230	270	300	250	250	240	
12	260	310	300	290	240	240	230	220	250	280	270	300	300	290	280	270	280	260	230	220	270	280	280	280	
13	290	240	230	230	240	280 ^H	290	240	230	200	250	250	300	290	290	250	250	230	220	210	270	250	320	350	
14	330	320	260	270	250	280	250	240	220	220	260	250	300	300	300	280	250	250	240	240	300	310	290	280	
15	290	270	250	400	350	330	240	210	230	240	260	260	250	290	300	280	250	250	240	250	240	230	250	270	
16	300 ^A	290	280	280	260	220	270	200	220	260	260	270	280	290	280	270	250	250	240	260	290	300 ^F	250	260	
17	270	270	290	270	280	340	300 ^A	240	240	240	280	270	280	290	290	270	270	240	260	230 ^A	260	260	250	370	
18	A	A	350	300	270	260	300	250	230	270	280	280	300	[280]	250	220	250	230	230	210	260	230	290	300	
19	310	300	270	300 ^A	260	230	250	230	240	260	260	270	260	280	280	290	260	240	250	210	240	220	(250) ^A	350 ^A	
20	A	A	300 ^A	320	340	350	300	220	C	C	C	C	C	C	C	C	C	C	C	C	C	250	240	260	
21	280	270	260	260	240	230	240	210	220	250	260	300	260	290	300	270	250	230 ^A	220 ^A	220 ^A	220 ^A	290	270	260	
22	280	290	290	270	250	220	280	220	220	260	290	260	260	270	270	260	270	230	200	200	260	300	260	240	
23	280	300 ^A	280	280	280	300	230	210	240	250	220	240	300	280	280	250	240	220	250	250	A	300 ^A	280	A	
24	300 ^A	300 ^A	300 ^A	280	330	300 ^A	340	230	250 ^A	240	250	280	290	290	290	310	250	250	200 ^A	210 ^A	210 ^A	240	250	270	
25	240	280	250	240	200 ^A	200	270	260	250 ^A	250	260	280	260	250	290	260	240	260	250	230	260	250	220	250	
26	260	270	280	290	240	230	260	250	230	220	270	260	280	C	C	C	230	230	200	210	240	210	220	240	
27	300	300 ^A	350	270	250	200 ^A	220	240	C	C	C	C	C	C	C	C	C	C	C	C	260	240 ^H	250	280	
28	300	290	270	290	250	220	250	220	220	240	280	290	270	280	300	270	250	240	250	260	260	280	260	270	
29	280	250	270	340 ^F	400 ^K	380 ^K	300	230	250	260	240	230	250	230	250	250	240	240	250	220 ^H	300	280	260	270	
30	250	A	300 ^A	310	210	340	280	240	270	260	250	250	260	260	290	270	260	250	220 ^H	200 ^A	240	260	270	260	
31	270	300	320	270	216	260	270	240	230	250	250	260	280	260	260	240	230	230	230	250	280	290	310	300	
Median Value	290	290	280	280	250	280	270	230	240	250	260	270	280	280	290	250	250	250	240	240	230	260	280	270	270
Count	29	28	31	31	31	31	31	31	28	28	28	28	27	27	27	27	28	28	28	28	30	30	30	30	

Survey 1.2 - Mc to 18.5 Mc in 1.5 min

Manual

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

IONOSPHERIC DATA

Lat. 35° 12.5' N
Long. 139° 37.7' E

Yamagawa

135° E Mean Time

foF1

Oct. 1950

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							Q	Q	Q	L	L	L	L	L	L	L	L	L	Q					
2							Q	Q	L	Q	L	L	L	L	L	L	L	L	Q					
3							Q	Q	Q	L	L	L	L	4.9	L	L	L	L	Q					
4							Q	Q	L	L	L	L	L	L	L	L	L	L	Q					
5							Q	Q	C	C	C	C	C	C	C	C	C	C	C					
6							Q	Q	Q	B	Q	4.6	L	L	L	L	L	L	Q					
7							Q	Q	Q	Q	L	L	L	L	L	L	L	L	Q					
8							Q	Q	L	L	4.5	4.6	4.7	4.7	4.5	4.6	4.5	4.5	Q					
9							Q	Q	Q	L	L	L	L	L	L	L	L	L	Q					
10							Q	L	L	L	L	L	L	L	L	L	L	L	Q					
11							Q	Q	L	L	L	L	L	L	L	L	L	L	Q					
12							Q	Q	L	L	L	L	L	L	L	L	L	L	A					
13							Q	L	L	Q	L	L	L	L	L	L	L	L	Q					
14							Q	L	L	L	L	L	L	L	L	L	L	L	Q					
15							Q	Q	Q	Q	L	L	L	L	L	L	L	L	Q					
16							Q	Q	Q	L	L	L	L	L	L	L	L	L	Q					
17							Q	Q	Q	L	L	L	A	L	L	L	L	L	Q					
18							Q	Q	Q	L	L	L	L	L	L	L	L	L	Q					
19							Q	Q	L	L	L	L	L	L	L	L	L	L	Q					
20							Q	Q	C	C	C	C	C	C	C	C	C	C	C					
21							Q	Q	Q	L	Q	L	L	L	L	L	L	L	Q					
22							Q	Q	Q	L	L	L	L	L	L	L	L	L	Q					
23							Q	Q	L	L	Q	Q	L	L	L	L	L	L	Q					
24							Q	Q	Q	Q	L	5.4	4.7	4.5	5.0	5.1	L	L	Q					
25							Q	L	Q	L	L	L	4.4	4.4	L	L	L	L	Q					
26							Q	L	L	Q	L	L	L	L	L	L	L	L	Q					
27							Q	Q	C	C	C	C	C	C	C	C	C	C	C					
28							Q	Q	Q	Q	L	L	L	L	L	L	L	L	Q					
29							Q	Q	Q	Q	Q	Q	A	Q	L	L	L	L	Q					
30							Q	Q	L	L	L	L	L	L	L	L	L	L	Q					
31							Q	Q	Q	Q	L	L	L	L	L	L	L	L	Q					
Median Value											—	—	—	4.7	—	—	—	—	—					
Count										1	3	3	5	2	2	2	1	—	—					

foF1

See p. 1.2. Mc to 18.5. Mc in ... 1.5. min Manual

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

Lat. 31° 12.5' N
Long. 130° 37.7' E

Yamagawa

IONOSPHERIC DATA

f'F1

Oct. 1950

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							Q	Q	Q	2.30	2.10	2.30	2.40	2.20	2.10	2.50	2.30	2.70	Q					
2							Q	Q	2.30	Q	2.20	2.60	2.20	2.30	2.40	2.40	2.10	2.50	Q					
3							Q	Q	2.20	2.10	2.10	2.00	2.00	2.00	2.60	2.30	2.40	2.40	Q					
4							Q	Q	2.40	2.50 ^A	2.30	2.30	2.50	2.50	2.20	2.40	2.50	2.70	Q					
5							Q	Q	Q	C	C	C	C	C	C	C	C	C	Q					
6							Q	Q	Q	2.00	Q	2.30	2.30	2.00	2.30	2.20	2.30	2.10	Q					
7							Q	Q	Q	2.30 ^A	2.10	2.10	2.10	2.10	2.50	2.30	Q	Q						
8							Q	Q	2.30	2.40	2.10	2.20	2.20	2.10	1.90	2.00	2.10	2.50	Q					
9							Q	Q	Q	2.20	2.10	2.10	2.10	2.10	2.10	2.60	Q	2.30	2.20					
10							Q	2.20	2.30	2.50	2.40	2.30	2.20	2.60	2.40	2.60	Q	2.60	Q					
11							Q	Q	2.20	2.20	2.00	2.20	2.30	2.30	2.30	2.30	2.20	Q	Q					
12							Q	Q	2.50	2.40	2.40	2.20	2.40	2.60 ^A	2.20	2.20	2.50	A	A					
13							Q	2.30	2.10	Q	2.10	2.00	2.10	2.40	2.10	2.40	2.30	Q	Q					
14							Q	2.20	2.10	2.20	2.10	2.10	2.00	2.70	2.50	2.00	Q	2.40	Q					
15							Q	Q	Q	2.40	2.30	2.30	2.30	2.50	2.40	2.60	Q	Q	Q					
16							Q	Q	Q	2.30	2.20	2.20	2.10	2.10	2.10	2.40	2.40	2.30	Q					
17							Q	Q	Q	2.40	2.40	2.40	A	2.40	A	2.60	2.50	Q	Q					
18							Q	Q	Q	2.50	2.40	2.30	2.50	2.30	2.10	Q	2.20	2.10	A					
19							Q	Q	2.20	2.20	2.10	2.00	2.00	2.00	2.30	2.50	2.50	Q	2.10					
20							Q	Q	Q	C	C	C	C	C	C	C	C	C	C					
21							Q	Q	Q	2.20 ^A	Q	2.40	Q	A	2.40	2.50	Q	Q	Q					
22							Q	Q	Q	2.50	2.20	2.50	2.30	2.30	Q	2.30	2.50	2.50	Q					
23							Q	Q	2.20	2.30	Q	Q	2.40	2.20	2.50	Q	Q	Q	A					
24							Q	Q	Q	2.20	2.30	2.30	2.30	2.00	2.70	2.70	2.40	2.20 ^A	Q					
25							Q	2.40	Q	2.10	2.20	2.10	2.10	2.00	2.60	2.50	Q	Q	2.30					
26							Q	2.40	2.30	Q	2.10	2.20	A	C	C	C	Q	Q	Q					
27							Q	Q	Q	C	C	C	C	C	C	C	C	C	C					
28							Q	Q	Q	Q	2.50	A	A	2.20	2.00	2.40	2.40	Q	Q					
29							Q	Q	Q	Q	Q	Q	A	Q	2.30	2.30 ^A	2.30	Q	Q					
30							Q	Q	2.30	2.00	2.30	Q	2.30	2.30	2.50 ^A	2.50 ^A	2.30	Q	Q					
31							Q	Q	Q	Q	2.30	2.40	A	2.20	2.40	Q	Q	Q	Q					
Median Value							2.30	2.30	2.30	2.20	2.20	2.20	2.20	2.20	2.40	2.40	2.40	2.40	2.40					
Count							5	12	19	24	24	24	22	25	25	23	18	13	3					

Sweep 1.2 Mc to 18.5 Mc in 1.5 min

Manu:

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

IONOSPHERIC DATA

Lat. 31° 12.5' N
Long. 130° 37.7' E

Oct. 1950

f_oE

Yamagawa

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	2.0	A	2.9	3.2	A	A	3.6	3.4 ^J	3.2 ^J	2.8 ^J	2.3	1.5 ^B					
2							A	2.2 ^F	2.9	(2.9) ^J	A	A	A	A	A	A	A	B	A					
3							A	2.4	A	(3.1) ^A	A	3.1	3.3	3.3	3.0	2.6	2.5 ^A	1.9 ^A						
4							1.4	2.1 ^J	2.6	A	A	A	A	A	A	2.8 ^A	A	A						
5							B	A ^F	C	C	C	C	C	C	C	C	C	C	C					
6							E	2.1 ^J	3.0	3.0	3.0	3.5	A	3.6 ^J	A	A	A	2.2 ^A	A					
7							B	B	A	3.0	A	A	A	3.6	3.6	3.1	2.9	2.1	A					
8							A	2.1	2.8 ^A	3.2	A	A	A	A	A	A	A	A	1.6 ^A					
9							E	(2.4) ^B	(2.2) ^B	3.0	A	3.4	3.6	3.6	3.5	3.2	3.0	A	A					
10							B	A	A	A	3.0	3.3 ^A	3.0	3.4	3.3	3.3 ^H	2.8 ^H	2.3	A					
11							1.4 ^J	2.0	2.5	3.0 ^A	B	B	A	A	3.0	A	A	A	B					
12							A	A	A	A	A	A	A	A	A	A	A	A	A					
13							E	1.8	A	3.0	B	3.3 ^A	A	3.4	3.3	3.2	3.0	2.3	B					
14							E	A	A	3.0	3.3	3.4	B	3.2	3.2	3.2	3.3	2.8	A					
15							E	2.0	2.9	A	A	A	A	A	A	A	3.0 ^A	A	A					
16							A	2.0 ^A	2.6 ^A	A	A	A	A	A	A	A	A	2.2	A					
17							A	(2.2) ^J	3.0 ^J	3.0	3.4 ^H	A	A	A	A	3.2	B	2.5	A					
18							B	2.0	(2.6) ^A	A	A	A	A	C	A	A	A	A	A					
19							A	2.2 ^A	2.5	2.8 ^A	3.4	3.4	A	A	3.5 ^A	3.2 ^A	2.8	2.1	(1.6) ^J					
20							A	A	C	C	C	C	C	C	C	C	C	C	C					
21							A	1.9 ^A	A	A	A	B	A	A	A	A	A	A	A					
22							A	2.3 ^B	3.3	3.0	3.4	3.0	3.4	3.4 ^A	3.0	3.2	(2.8) ^A	2.0	1.5 ^S					
23							E	1.7 ^A	2.4	3.0 ^A	A	A	B	B	A	A	A	A	A					
24							E	2.0 ^A	A	A	A	A	A	A	A	A	A	B	B					
25							E	2.2	2.6	3.0	3.0	A	B	A	A	3.2 ^A	A	2.0 ^J	A					
26							B	A	A	2.8 ^A	3.2	3.4 ^A	A	C	C	C	2.8	A	A					
27							E	2.0 ^A	C	C	C	C	C	C	C	C	C	C	C					
28							E	1.9	2.8 ^F	3.0 ^A	3.0 ^A	3.2	A	A	3.2 ^A	2.8	2.6 ^A	A	A					
29							E	A	A	A	A	A	A	B	A	A	A	A	A					
30							A	A	A	2.6 ^A	A	A	A	A	A	A	A	A	B					
31							E	1.8	2.7	2.7	3.2 ^A	3.4 ^A	A	A	A	3.4	2.8	A	A					
Median Value							E	2.0	2.6	3.0	3.2	3.4	—	3.4	3.3	3.2	2.8	2.2	1.6					
Count							15	21	17	18	12	10	4	9	11	13	14	12	5					

f_oE

Sweep 1.2 Mc to 18.5 Mc in 1.5 min

Manual

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

IONOSPHERIC DATA

Oct. 1950

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							E 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	11.0	11.0	11.0	12.0	12.0	B						
2							A 11.0	10.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0					
3							A 11.0	10.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0					
4							E 12.0	11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0	A 11.0					
5							B AF	C	C	C	C	C	C	C	C	C	C	C	C	C					
6							E 10.0	11.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0					
7							B	B	11.0	10.0	A	A	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0					
8							A	10.0	10.0	11.0	A	A	10.0	A	13.0	A	A	A	A	A					
9							E	A	A	11.0	11.0	11.0	12.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0					
10							12.0	A	A	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0					
11							11.0	13.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0					
12							A	12.0	11.0	11.0	13.0	12.0	12.0	A	10.0	10.0	10.0	10.0	10.0	A					
13							E	10.0	10.0	10.0	11.0	11.0	A	11.0	11.0	10.0	10.0	10.0	10.0	10.0					
14							E	A	A	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0					
15							E	12.0	11.0	A	A	10.0	10.0	A	A	A	A	12.0	10.0	11.0					
16							A	A	12.0	A	A	A	11.0	A	A	A	A	A	A	A					
17							A	B	14.0	12.0	11.0	11.0	11.0	A	A	A	11.0	11.0	12.0	A					
18							B	13.0	11.0	11.0	12.0	A	A	C	A	A	A	A	A	A					
19							A	11.0	10.0	10.0	10.0	10.0	A	A	A	A	A	11.0	11.0	10.0					
20							A	A	C	C	C	C	C	C	C	C	C	C	C	C					
21							A	A	A	11.0	10.0	A	A	A	A	A	A	A	A	A					
22							A	10.0	10.0	11.0	11.0	10.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0					
23							E	11.0	11.0	11.0	A	A	B	11.0	11.0	11.0	A	A	A	A					
24							E	A	A	11.0	A	A	A	A	A	A	A	A	A	B	B				
25							E	A	12.0	11.0	A	A	11.0	A	A	A	A	A	12.0	11.0					
26							B	A	A	11.0	11.0	11.0	A	C	C	C	C	11.0	A	A					
27							E	A	C	C	C	C	C	C	C	C	C	C	C	C					
28							E	14.0	11.0	11.0	11.0	11.0	12.0	A	A	11.0	A	A	A	A					
29							E	A	A	A	A	A	A	11.0	11.0	A	A	A	A	A					
30							A	A	11.0	10.0	A	A	A	A	A	A	A	A	A	B	B				
31							E	12.0	11.0	11.0	A	11.0	A	A	A	A	10.0	12.0	A	A					
Median Value							-	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0					
Count							16	15	20	22	15	16	12	12	13	13	14	11	5						

Sweep 1.2 Mc to 16.5 Mc in 1.5 min Manual

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

IONOSPHERIC DATA

Lat. 31° 12.5' N
Long. 130° 37.7' E

Yamagawa

Oct. 1950

135° E Mean Time

fEs

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.2	2.0	G	G	G	G	G	3.4	3.8	4.4	6.0	4.4	4.2	4.0	G	G	G	G	2.8	3.2	2.4	4.4	G	2.1
2	2.2	G	G	G	1.8	G	2.0	3.0	4.0	G	4.0	7.2	4.2	4.0	4.2	4.2	3.0	2.6	3.4	4.4	3.8	3.4	4.6	3.2
3	2.2	2.0	2.2	2.6	2.4	2.6	2.1	2.8	3.2	4.9	3.9	7.2	4.2	G	G	G	G	G	3.0	(3.5)	5.0	5.2	3.4	5.4
4	3.1	2.2	2.4	2.5	(2.8)	2.1	2.9	3.2	4.0	4.6	5.4	4.7	4.8	3.8	3.8	3.8	4.8	2.8	2.8	2.6	G	G	3.4	3.6
5	3.2	2.8	3.0	3.8	2.7	(3.7)	3.0	3.0	C	C	C	C	C	C	C	C	C	C	C	5.2	4.4	4.0	2.9	3.2
6	3.4	2.6	G	2.6	G	G	G	G	G	3.6	G	G	3.8	G	3.8	4.8	4.0	3.2	3.2	3.4	3.4	3.3	2.4	G
7	G	G	G	G	G	G	G	B	G	G	4.0	4.4	4.8	G	G	G	G	G	3.3	4.2	3.2	3.2	3.4	3.0
8	2.6	2.8	3.2	3.0	3.0	3.0	2.4	G	3.6	G	4.3	4.8	4.6	4.9	4.3	4.0	4.3	3.9	2.8	2.2	4.0	3.2	G	3.0
9	G	G	G	G	2.2	1.8	2.4	3.6	3.4	4.2	5.6	4.8	4.2	5.0	5.2	4.8	5.2	5.8	6.2	6.6	7.4	7.9	7.4	7.7
10	5.8	5.2	(3.4)	1.8	1.6	1.4	G	2.8	4.2	4.6	5.0	5.0	5.1	4.9	4.3	4.2	4.3	4.0	4.2	3.2	4.4	2.6	4.0	3.8
11	(3.0)	(3.0)	G	G	G	3.2	2.5	3.0	3.9	G	G	G	3.8	4.2	G	3.8	4.4	2.7	5.2	5.4	4.6	2.8	3.8	3.7
12	(3.2)	(3.6)	2.8	2.4	1.5	2.6	2.5	4.4	5.0	4.2	4.5	5.3	5.0	5.7	4.2	4.8	5.1	5.2	4.2	3.2	2.4	3.4	2.4	2.6
13	3.0	1.8	2.2	2.2	G	G	G	3.0	3.4	4.8	G	4.8	6.4	5.0	4.0	G	G	3.4	2.6	2.8	(3.0)	G	G	G
14	G	G	G	G	G	G	G	G	4.3	G	G	G	G	G	G	G	G	4.2	3.4	4.2	3.8	2.2	2.0	3.0
15	2.0	(1.8)	G	2.4	G	G	G	3.5	4.0	3.8	4.2	3.6	4.4	4.4	3.8	3.8	4.8	3.8	G	2.8	G	G	2.2	2.4
16	2.6	1.8	3.8	2.4	3.0	2.6	3.2	3.0	4.0	5.6	4.0	4.8	5.0	5.0	5.2	5.4	5.0	3.8	3.1	3.2	2.4	G	G	G
17	G	G	G	(3.0)	4.4	5.2	2.6	G	G	4.4	5.8	5.0	11.0	8.0	8.0	4.6	G	G	3.8	4.6	4.2	3.2	4.2	3.6
18	7.2	5.2	2.6	2.4	2.8	2.8	3.2	3.4	5.2	5.3	4.9	6.4	6.5	C	4.6	4.9	6.8	5.3	5.8	4.0	5.0	7.2	3.6	2.9
19	2.4	1.5	2.4	2.2	3.0	2.4	2.4	3.2	G	3.9	G	4.3	4.6	4.1	4.1	4.0	3.7	3.8	G	G	G	2.2	4.6	3.8
20	5.7	4.8	3.2	3.2	3.6	3.0	2.2	2.8	C	C	C	C	C	C	C	C	C	C	C	C	2.8	3.8	4.0	3.0
21	2.8	2.8	3.4	3.0	2.8	3.1	2.9	4.1	3.9	3.8	3.8	G	4.4	4.6	4.4	4.6	3.8	3.8	4.0	2.4	2.2	2.4	2.2	2.2
22	2.8	2.8	2.3	2.1	2.3	2.4	1.9	G	G	3.8	4.5	4.4	4.8	4.4	4.0	5.4	G	G	3.0	G	3.0	3.4	(4.4)	3.2
23	8.6	4.0	3.3	2.4	G	G	G	3.2	4.4	4.2	6.2	4.8	B	G	G	3.8	3.0	3.5	14.9	2.8	3.8	3.2	3.0	4.6
24	3.2	2.8	3.2	3.8	2.8	2.8	2.2	2.4	3.2	4.1	5.7	5.6	5.6	4.9	5.9	5.6	3.9	4.0	4.2	3.2	3.0	2.2	2.6	3.0
25	3.6	2.8	2.8	3.0	2.2	1.4	2.4	2.8	(3.8)	4.8	4.0	4.0	4.0	3.8	4.6	4.0	4.0	G	3.5	2.9	2.9	2.3	1.9	1.7
26	2.1	2.5	2.1	2.2	2.1	2.5	3.0	3.6	3.0	3.8	4.4	4.2	5.0	C	C	C	G	3.4	2.8	3.6	3.5	2.4	2.0	2.6
27	2.2	2.4	3.1	2.0	2.6	2.4	G	2.9	C	C	C	C	C	C	C	C	C	C	C	C	6.2	4.6	2.2	2.2
28	2.4	2.8	2.2	2.4	2.2	G	G	G	G	4.0	4.7	6.4	5.4	4.8	4.7	5.0	3.6	3.0	3.0	2.6	1.6	G	G	G
29	G	G	G	2.8	2.4	2.8	F	G	5.0	3.0	4.4	3.8	5.0	G	4.0	3.6	3.4	3.2	4.6	4.4	5.4	3.8	3.4	6.4
30	3.8	3.6	2.2	2.4	2.1	2.3	2.4	2.3	2.7	G	3.8	8.8	6.4	5.8	6.0	4.8	3.6	3.4	3.2	3.0	2.8	2.4	2.4	3.8
31	3.0	2.0	G	G	G	G	G	G	G	G	4.0	4.0	5.0	4.7	4.0	5.4	4.8	4.4	3.8	3.4	3.2	3.4	G	2.6
Median Value	2.8	2.5	2.2	2.4	2.2	2.4	2.2	3.0	3.7	4.0	4.2	4.8	4.8	4.3	4.1	4.2	3.8	3.4	3.4	3.2	3.2	3.2	2.4	3.0
Count	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.0	2.8	2.8	2.8	2.7	2.6	2.7	2.7	2.7	2.8	2.8	2.8	3.0	3.1	3.1	3.1	3.1

fEs

Sweep 1.2 Mc to 18.5 Mc in 15 min Manual

Y 8

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

IONOSPHERIC DATA

Oct. 1950

(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	2.8	3.1	3.2	2.7	3.1	2.9	3.1	3.6	3.5	3.5	3.4	3.0	2.8	3.0	2.9	2.9	3.0	2.8	3.0	3.3 ^H	3.4	2.7	2.8	2.6
2	2.8	2.9	2.9	3.2	3.0	2.6	2.7	3.2	3.5	(3.4) ^B	3.4	3.3	3.3	3.0	3.3	3.0	3.4	3.4	3.4	3.0	3.0	2.9 ²	3.0	3.4
3	2.8	2.9	2.9	3.2	3.2	3.2	3.1	3.4	3.4	3.5	3.5	3.3	3.1	2.8	2.9	3.3	3.2	3.3	3.4	3.0 ^H	3.2	2.9	2.9	2.9
4	2.9	2.9	3.1	3.0	2.8	3.2	3.2	3.4	3.4	3.3	3.2	3.2	3.0	2.8	3.1 ²	3.3	3.1	3.2	3.5	3.5	3.2	2.8	2.9	3.0
5	2.7	2.6	3.0 ^P	2.7	3.3	2.7	3.0	3.1 ^H	C	C	C	C	C	C	C	C	C	C	C	3.2	3.1	2.9	2.7	3.0
6	2.9	2.9	3.2	3.2	3.1	2.9	2.9	3.2	3.4	C	3.2	3.1	3.1	3.3	3.2	3.5	3.3	3.2	3.3	(3.5) ^P	3.0	3.1	3.1	3.1
7	3.1	2.7	3.0	3.2	3.1	3.4	2.9	3.7	3.7	3.5	3.4	3.3	3.2	3.1	3.1	3.2	3.1	3.3	3.4	3.2	3.0	2.8	2.9	2.8
8	3.0	2.6	2.8	2.9	3.0	3.2	3.0	3.3	3.4	3.2	3.4	3.4	3.1	2.9	3.2	3.4	3.4	3.2	3.3	(3.4) ^P	3.1	2.7	2.8	2.8 ^S
9	2.9	2.7	3.1	3.0	2.6	2.6	2.6	3.3	3.3	3.3	3.2	3.2	3.1	3.0	3.1	3.1	3.1	3.2	3.2	3.5	3.8	A	A	A
10	2.9	2.9	2.9	3.2	3.1	3.0	3.2	3.8	3.4	3.3	3.0	3.1	2.9	2.9	3.0 ^H	3.1 ^H	3.2	3.3	3.3	3.2	2.6	2.8	3.0	3.0
11	2.8	2.8	2.9	3.0	3.1	3.1	3.1	3.6	3.4	3.4	(3.2) ^J	3.1	2.7	3.0	3.1	3.4	3.4	3.3	3.4	3.3	3.1	3.0	3.1	3.0
12	3.0	2.7	2.7	2.9	3.1	3.2	3.1	3.4	3.4	3.3	3.3	3.0	3.1	3.2	3.1	3.0	3.3	3.4	3.2	3.0	2.8 ^H	2.7	2.7	3.0
13	3.0	3.2 ^S	3.3	3.2	2.8	2.8	2.8	3.4	3.6	3.3	3.2	2.7 ^H	3.0	3.1	2.9	3.1	3.2	3.1	3.1	3.2	3.0	3.3	2.7	2.8
14	2.9	2.8	3.1	3.2	3.2	3.0	3.0	3.7	3.7	3.4	3.1	2.9 ^H	3.0	3.3	3.0	2.6	3.2	3.4	3.1	3.1	2.7	2.8	3.1	2.8
15	2.7	3.2	2.4	2.3	2.6	2.6	3.0	3.3	3.3	3.3	3.0	3.0	3.0	3.0	2.9	3.3	3.2	3.2	3.2	(3.3) ^J	3.2	3.1	3.1	3.0
16	2.6	2.9	2.8	2.8	3.2	3.3	3.0	3.4	3.4	3.2	3.1	3.2	3.2	3.0	3.1	3.0	3.2	3.2	3.4	3.3	3.3	2.9	3.4	3.3
17	3.2	3.1	3.0	3.1	3.0	2.8	3.0	3.3	3.3	3.0	3.1	3.0	3.0	3.0	3.1	3.1	3.1	3.2	3.2	3.4	3.4	3.0	3.3	2.7
18	2.5	2.5	2.5	2.8	3.1	3.3	2.8	3.2	3.3	3.2	3.3	3.2	3.0	(3.2) ^C	3.4	3.5	3.4	3.6	(3.4) ^J	S	(3.1) ^S	(3.3) ^S	2.7	2.8
19	2.7	2.8	2.9	2.9	3.1	3.1	2.9	3.4	3.5	3.4	3.2	3.3	3.0	3.3	3.1	3.2	3.3	3.4	3.2	3.3	3.1	3.4	3.1	2.8
20	A	A	3.0	2.7	2.9	2.5	2.8	3.6	C	C	C	C	C	C	C	C	C	C	C	C	2.9	3.1	3.2	2.9
21	2.5 ^Z	3.0	3.1	3.0	3.1	3.4	2.8	3.5	3.8	3.2	3.2	3.2	3.3	3.1	3.1	3.2 ^S	3.3	3.4	3.3	3.3	2.8	2.9	3.1	3.1
22	2.8	2.5 ^Z	2.8	3.2	3.3	3.6	3.0	3.5	3.6	3.3	3.2	3.3	3.2	3.1	(3.2) ^S	3.0	3.3	3.4	3.5	2.9	2.9	2.8	3.1	3.0
23	(3.1) ^J	2.8	2.9 ^V	3.1	2.9	2.7	3.4	3.6	3.5	3.3	(3.2) ^C	3.0	(3.1) ^J	3.1	3.3	3.2	3.2	(3.2) ^J	(3.4) ^P	S	2.9	2.9	3.0	2.7
24	2.6	(2.7) ^P	3.0 ^V	3.2	2.7	3.1	2.6	3.3	3.3	3.2	3.4	3.3	3.2	3.2	3.3	3.2	3.4	3.4	3.5	3.4	3.1	2.9	2.9	2.9
25	2.8	2.8	2.8	3.3	3.6	2.6	2.9	3.2	3.4	3.5	3.2	C	C	3.3 ^Z	3.1	3.3	3.3	3.2	3.5	3.3	3.3	3.5	3.7	3.0
26	3.3	3.0	2.9	3.0	3.1	3.2	3.0	3.3	3.6	3.7	3.3	3.3	(3.1) ^P	C	C	C	3.4	3.5	3.5	3.2	3.1	3.2	3.4	3.1
27	2.7	2.9	2.9	2.8	3.5	3.8	2.8	3.5	C	C	C	C	C	C	C	C	C	C	C	C	3.1 ^H	3.0	2.8 ^Z	2.7
28	2.6	3.0	3.0	2.8	3.0	3.3	3.0	3.7	3.6	3.2	3.2	3.1 ^S	3.2	3.0	3.1	3.4	3.2	3.2	3.5	3.3	3.1	3.0	3.2	3.2
29	3.1	3.4 ^H	(2.6) ^K	FK	FK	FK	2.8 ^V	3.4	3.1	3.3	3.4	3.1 ^H	3.0	3.2	3.1	3.2	3.2	3.2	3.2	3.3	3.2	3.1	(3.2) ^B	S
30	3.1	2.6	2.6	2.8	2.6	2.6 ^Z	3.0	3.5	3.2	3.0	3.2	3.2	3.1	3.2	3.0	3.2	3.2	3.4	3.4 ^H	3.3	3.0	3.0	3.0	3.3
31	3.0	2.9	2.6	3.2	(3.4) ^J	2.7	2.8	3.3	3.4	3.5	3.2	3.3	3.3	3.0	3.1	3.1	3.4	3.4	3.4	3.2	3.1	3.2	2.8	3.1
Median Value	2.8	2.9	2.9	3.0	3.1	3.0	3.0	3.4	3.4	3.3	3.2	3.1	3.1	3.1	3.2	3.2	3.2	3.3	3.4	3.3	3.1	3.0	3.0	3.0
Count	30	30	31	30	30	30	31	31	28	27	28	27	26	27	27	27	28	28	28	28	31	30	30	29

Sweep 1.2 - Mc to 18.5 Mc in 1.5 min Manual

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

IONOSPHERIC DATA

Oct. 1950

fminF

135° E Mean Time Yamagawa

Lat. 31° 18.5' 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	1.6	E	E	E	E	E	E	2.0	3.4	3.4	3.6	3.2	3.6	3.8	3.5	3.2	3.0	2.3	2.0	A	1.5	A	1.5	1.5
2	E	E	E	E	E	E	1.6	2.5	2.9	3.5	4.1	A	4.0	4.0	4.2	3.8	3.0	2.0	1.8	A	A	A	1.6	1.4
3	A	E	E	E	1.4	E	1.7	A	2.6	3.1	3.1	3.4	3.8	3.5	3.7	3.4	3.0	2.5	1.9	1.6	E	A	1.6	1.6
4	A	E	E	E	E	E	1.4	2.2	2.6	A	3.8 ^A	3.4	3.8 ^A	3.6	A	3.4	3.4	2.6	2.0	A	E	1.3	A	A
5	A	1.8	A	A	E	E	E	A	C	C	C	C	C	C	C	C	C	C	C	A	A	A	1.8	A
6	A	1.7 ^A	E	1.4	E	E	E	2.2	3.2	3.0	4.4	4.2	3.8	3.6	3.8 ^A	3.0	3.2	2.6	2.4	1.7	A	A	1.8	1.5
7	1.7	E	1.4	1.4	E	E	1.5	2.6	2.7	3.2	3.8 ^A	3.8	3.8	3.8	3.8	3.3	2.9	2.5	2.0	A	1.8	A	A	1.4
8	1.4	1.8	A	E	E	E	1.4	2.1	2.8	3.1	4.0	4.1	4.4	4.3	4.0	3.9	4.0	3.2	1.8	1.6	A	A	1.6	1.4
9	E	E	E	E	E	E	E	2.4	2.2	3.2	3.6	3.8	3.7	3.6	3.8	3.4	3.1	2.2	2.3	A	A	A	A	A
10	A	A	1.7	E	E	E	E	2.0	2.8	3.4	3.6	3.6	3.7	4.3	3.8	3.6	3.2	2.6	2.2	A	A	1.6	1.4	1.6
11	E	E	E	E	E	E	1.9	2.0	2.7	3.5	3.7	3.8	3.8	4.0	3.6	3.2	4.8	2.7	2.0	A	A	1.6	1.6	1.5
12	1.6	1.7	E	E	1.4	1.6	2.3	2.9	3.2	4.1	4.2	4.2	4.2	A	4.1	3.7	2.7	A	A	1.8	A	1.6	1.6	1.6
13	A	1.4	E	E	E	E	E	A	2.6	3.1	3.5	3.5	3.6	3.8	3.5	3.4	3.0	2.4	2.2	1.4	1.6	E	E	E
14	E	E	1.3	E	E	E	1.3	2.7	A	3.4	3.4	3.8	3.6	3.8	3.9	3.2	3.6	2.8	A	A	A	1.8	E	1.4
15	E	E	E	E	E	E	1.3	2.1	2.7	2.6	3.6	3.2	3.2	3.6	3.2	3.2	3.0	2.4	1.4	1.4	E	E	1.6	1.6
16	A	E	A	1.4	1.8	1.6	2.2	2.2	2.7	3.4	3.4	3.8	3.6	A	A	3.6	3.0	2.8	2.3	1.3	E	E	E	E
17	1.3	E	E	A	A	A	A	2.8	3.0	3.8	3.4	4.0	A	A	4.4	3.6	2.5	2.7	2.2	A	A	A	A	2.3
18	A	A	E	1.4	1.4	1.8	1.5	2.0	2.6	3.9	3.9	4.4	A	C	3.5	A	3.4	2.9	A	1.6	A	A	1.6	1.7
19	1.3	1.4	1.4	A	1.8	1.4	1.4	2.2	2.8	2.8	3.4	3.4	A	A	3.5	3.5	2.9	2.2	2.0	1.4	1.3	1.6	A	A
20	A	A	A	1.4	A	1.4	E	A	C	C	C	C	C	C	C	C	C	C	C	C	1.7	1.6	A	1.6
21	1.3	E	E	1.7	1.4	E	1.5	1.9	3.4	A	3.6	3.6	A	A	3.2	3.4	A	A	A	A	A	1.6	E	E
22	E	E	E	E	E	E	E	2.6	3.3	3.2	3.8	4.2	4.2	3.6	4.9	3.4	2.8	2.2	1.5	E	1.5	A	1.4	1.6
23	A	A	E	E	E	E	E	1.7	2.4	3.0	3.0	3.8	4.6	4.1	3.8	3.8	2.6	2.6	A	A	A	A	1.8	A
24	A	A	A	E	E	E	A	2.0	A	3.2	4.2	4.1	4.1	3.5	A	A	A	A	A	A	A	1.6	1.8	A
25	1.8	1.5	1.6	1.6	A	1.4	E	2.2	A	3.0	3.0	A	3.6	3.6	3.6	3.6	3.2	3.2	2.8	2.9	A	1.5	1.3	1.7
26	E	E	E	E	1.3	1.3	1.4	2.0	2.8	2.8	3.4	3.4	A	C	C	C	2.8	2.6	1.9	A	1.9	1.5	1.5	1.4
27	1.4	A	A	E	E	E	A	2.0	C	C	C	C	C	C	C	C	C	C	C	1.8	A	1.8	A	E
28	1.4	1.6	E	E	E	E	E	2.2	2.8	3.4	3.5	A	A	3.0	3.2	3.3	2.6	2.2	1.8	1.4	E	E	E	E
29	E	E	E	1.6	1.6 ^F	E	1.6 ^F	2.2	2.4	A	3.1	3.6	A	3.4	3.8	A	2.5	2.6	A	A	A	E	A	A
30	1.6	A	A	1.4	1.7	E	E	2.2	2.2	2.6	3.4	4.4	3.8	A	A	A	2.2	2.2	A	1.6	1.6	1.6	1.4	A
31	1.8	E	E	E	E	E	E	1.9	2.7	3.2	3.2	3.4	A	3.6	3.4	3.8	2.9	2.0	2.0	A	1.4	1.4	F	E
Median Value	1.3	E	E	E	E	E	E	2.2	2.7	3.2	3.6	3.8	3.8	3.6	3.8	3.4	3.0	2.6	2.0	1.6	1.4	1.6	1.5	1.5
Count	20	24	24	28	28	27	29	27	25	24	28	25	20	21	24	23	25	25	21	13	14	18	24	23

fminF

Sweep 1.2 Mc to 18.5 Mc in 1.5 min

Manual

Y 10

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

IONOSPHERIC DATA

Lat. 31° 12.5' N
Long. 130° 37.7' E

Yamagawa

135° E Mean Time

fminE

Oct. 1950

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E	E	E	E	E	E	E	1.6	1.4	1.6	2.2	2.0	2.0	1.8	1.8	1.8	1.8	1.7	1.5	E	E	E	B	1.5
2	E	E	E	E	E	E	E	E	E	1.9	2.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	E	1.6	1.6	E	E	E
3	E	E	E	E	E	E	E	E	1.5	1.6	1.5	1.7	1.6	1.7	1.7	1.7	E	E	E	E	E	E	E	E
4	E	E	E	E	E	E	E	E	E	1.8	2.2	2.2	2.6	2.4	2.4	2.2	2.0	1.8	E	E	E	E	E	E
5	E	E	E	E	E	E	E	E	C	C	C	C	C	C	C	C	C	C	C	1.5	1.6	1.7	1.6	1.6
6	1.5	1.5	E	E	E	E	E	E	1.3	1.4	1.8	1.8	1.8	1.8	2.0	1.8	1.8	1.6	E	E	E	E	E	B
7	B	E	E	E	E	E	B	E	1.8	1.6	1.8	1.8	1.7	E	1.7	1.6	1.7	E	E	E	E	E	E	E
8	E	E	E	E	E	E	E	E	1.3	1.6	1.9	1.9	1.9	1.8	1.8	1.6	1.5	1.4	E	E	E	E	E	B
9	E	E	E	E	E	E	E	1.3	1.4	1.6	1.8	1.8	2.0	1.8	1.8	1.7	1.7	1.8	1.4	E	E	E	E	E
10	E	E	E	E	1.3	E	E	E	1.5	1.3	1.5	1.5	1.7	1.8	1.7	1.6	1.5	1.4	1.4	E	E	E	E	E
11	1.6	1.8	E	E	E	2.1	1.4	1.4	1.5	1.8	2.0	1.8	2.0	1.8	1.8	1.8	1.8	1.8	1.7	1.6	1.6	1.6	2.4	2.6 ^B
12	2.2	2.0	E	E	E	E	E	E	E	1.3	1.9	1.8	2.0	2.1	1.8	1.7	1.7	1.6	E	E	E	E	E	E
13	E	E	E	E	E	E	E	E	E	1.3	1.5	1.6	1.5	1.7	1.5	1.6	1.3	1.5	1.6	2.0	2.6 ^B	E	E	E
14	E	E	E	E	E	E	E	E	E	1.3	1.3	1.6	1.8	1.7	1.5	1.3	E	1.4	E	E	E	E	E	E
15	E	E	E	E	E	E	E	E	1.5	1.8	1.8	2.2	2.2	2.6	2.4	2.2	2.2	1.8	E	E	E	E	1.6	1.6
16	E	E	E	E	E	E	E	E	1.3	1.6	2.1	2.0	2.0	1.8	1.7	1.7	1.7	E	E	E	E	E	E	E
17	E	E	E	E	E	E	E	1.6	1.6	1.8	1.8	1.6	1.6	1.8	2.0	1.8	1.8	1.8	1.6	1.6	1.6	1.6	1.6	1.6
18	1.6	1.5	E	E	E	E	2.2	1.5	1.5	1.7	1.9	1.9	2.1	2.1	2.1	2.0	1.8	1.7	E	E	1.4	E	E	1.3
19	E	E	E	E	E	E	E	1.6	E	1.4	1.7	1.8	1.8	1.8	1.5	1.5	1.4	1.3	E	E	E	E	E	E
20	E	E	E	E	E	E	E	1.4	C	C	C	C	C	C	C	C	C	C	C	C	1.4	1.6	E	E
21	E	E	E	E	E	E	E	E	2.2	2.2	2.2	2.4	2.4	2.4	2.4	1.3	1.6	1.4	E	E	E	E	1.6	1.8
22	1.8	E	E	E	E	E	E	E	1.5	1.3	1.6	1.3	1.4	1.4	1.4	1.8	1.4	1.5	2.0	E	E	E	E	E
23	E	E	E	1.5	E	E	E	E	E	1.4	1.8	1.8	2.0	1.8	1.8	1.8	2.0	1.8	E	E	E	E	E	E
24	E	E	E	E	E	E	E	E	1.4	1.5	2.4	2.6	2.4	2.5	2.4	2.3	1.9	2.2	1.8	1.8	1.8	1.8	E	E
25	1.7	1.6	E	E	E	E	2.2	1.4	1.4	E	E	E	2.2	2.6	1.8	1.7	1.7	1.6	1.5	E	E	E	E	E
26	E	E	E	E	1.3	1.3	2.0	1.4	1.5	1.6	1.6	1.8	1.8	C	C	C	1.7	1.6	E	1.5	1.5	2.0	1.5	E
27	E	E	E	E	E	E	E	E	C	C	C	C	C	C	C	C	C	C	C	E	E	E	E	E
28	E	E	E	E	E	E	E	E	1.4	1.5	1.5	1.8	1.7	1.9	1.8	1.5	1.4	1.6	E	E	E	E	E	E
29	E	E	E	E	E	E	E	E	1.4	1.6	1.8	1.8	1.8	2.0	1.8	1.8	1.8	1.6	1.6	1.5	E	E	E	E
30	E	E	E	E	E	E	E	E	1.3	1.6	2.0	2.4	2.6	2.4	2.4	2.2	2.2	1.8	1.6	1.5	1.5	1.6	E	E
31	E	E	E	E	E	E	E	E	E	1.6	1.8	1.7	1.7	1.7	1.8	1.7	1.6	1.5	1.4	E	E	E	E	E
Median Value	E	E	E	E	E	E	E	E	1.4	1.6	1.8	1.8	2.0	1.8	1.8	1.7	1.7	1.6	E	E	E	E	E	E
Count	30	31	31	31	31	31	30	30	28	28	28	28	27	27	27	27	28	28	28	30	31	31	29	30

Sweep 1.2 Mc to 18.5 Mc in 1.5 min Manual

IONOSPHERIC DATE IN JAPAN FOR OCTOBER 1950.

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1950年11月30日 發行

(不許複製非売品)

編集兼
發行 人

菅野 菊雄
東京都北多摩郡小金井町小金井新田一之久保573

發行所

電波監理委員会 中央電波觀測所
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電話 国分寺 138, 139, 151

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