551. 510. 535. 05(52) (047.3)

IONOSPHERIC DATA IN JAPAN

FOR 1946

Issued in February 1954

PREPARED BY THE RADIO RESEARCH LABORATORIES

KOKUBUNJI, TOKYO, JAPAN

THE RADIO RESEARCH LABORATORIES

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PREFACE

Our monthly publication the "Ionospheric Data in Japan" was first published in January 1949.

Although the observation has, of course, been conducted long before the publication, we had not been given a chance to have the result thereof be published.

We are very delighted to have a chance to-day to arrange, print and issue the fruits of observation acquired in 1946.

We hope and are confident that the data contained herein will make some contribution to the researches concerned to the Ionospheric Layer.

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

Feb. 1954

SITE OF THE IONOSPHERIC STATIONS

Ionospheric observation is carried out at 3 stations in Japan for 1946.

The stations are situated as follows:

	longitude	latitude	site
Shibata	139° 15.8′ E	37° 57.0′ N	Sciro-mura, Kitakanbara-gun, Niigata-ken
Kokubunji	139° 29.3′ E	35° 42.4′ N	Koganei-machi, Kitatama-gun, Tokyo-to
Yamagawa	130° 37.7′ E	31° 12.5′ N	Yamagawa-machi, Ibusuki-gun, Kagoshima-ken

REMARKS ON SYMBOLS

CHARACTERISTICS MOST COMMONLY OBSERVED OR DERIVED FROM H'F OBSERVATIONS

1.	foE	Ordinary-wave critical frequency for the E, F1 and F2 layers respectively.
2.	foF1	
3.	foF2	
4.	fxE	Extraordinary-wave critical frequency for the E, F1 and F2 layers respectively.
5.	fxF1	
6.	fxF2	
7.	fzE	Critical frequency for the lowest frequency branch in the event of triple splitting for the E, F1 and F2 layers respectively.
8.	fzF1	
9.	fzF2	
10.	fEs	Highest frequency on which echoes of the sporadic type are observed from the lower part of the E layer.
11.	fminE	Minimum frequency, on which echo reflected from E-layer begins to appear by use of the observation equipment on routine work.
12.	fminF	Minimum frequency, on which echo reflected from F-layer begins to appear by use of the observation equipment on routine work.
13.	h'E	Minimum virtual height on the ordinary-wave branch for the E, F1 and F2 layers respectively.
14.	h'F1	
15.	h'F2	
16.	h'Es	Minimum virtual height of Es echos.
17.	Zm	Virtual height of the F2 layer measured on the ordinary-wave branch at a frequency equal to 0.834 foF2.
18.	Zd	Half breadth of the layer, calculated by the method of Booker.
19.	E-d-MUF	Maximum usable frequency for a path of some specified standard length d for transmission by the E, F1 and F2 layers respectively.
20.	F1-d-MUF	
21.	F2-d-MUF	
22.	(Md) E	Maximum usable frequency factor for a path of some specified standard length d for transmission by the E, F1 and F2 layers respectively.
23.	(Md) F1	
24.	(Md) F2	

QUALIFYING SYMBOLS

1. ( ) Individual observed values thus enclosed are considered doubtful.
2. [ ] Individual numerical values thus enclosed represent interpolations rather than observations.
3. > or D This symbol when it stands before a number means greater than.
4. < or E This symbol when it stands before a number means less than.

DESCRIPTIVE SYMBOLS

1. A Characteristic not measurable because of blanketing by Es.
2. B Characteristic not measurable because of non- deviative absorption either partial or complate and probably non- deviative in type.
3. C Characteristic not observed because of equipment or power failure.
4. D Characteristic at a frequency higher than the normal upper frequency limit of equipment.
5. E Characteristic at a frequency lower than the normal lower frequency limit of equipment.
6. F Spread echoes present.
7. G F2-layer critical frequency equal to or less than F1-layer critical frequency.
8. H Stratification observed within the layer.
9. J Ordinary-wave characteristic deduced from measured extraordinary-wave characteristic.
10. K Ionospheric storm in progress (this is always applied to a series of hourly values, never to an isolated value).
11. L (a) Critical frequency, MUF, or MUF facter for F1 layer omitted or doubtful because no definite or abrupt change in slope of the h'f curve is observed either for the first reflection or any of the multiples.

    (b) Minimum virtual height for F2 layer omitted because the F2-layer trace is continuous with the F1-layer trace, and without a point of zero slope.

12. P Trace extrapolated to critical frequency (it is unnecessary to use this letter for small extrapolations of one or two percent, but no numerical value should be recorded if the extrapolation leads to a critical frequency which exceeds the last observed point on the trace by more than five percent).

13. Q Distinct layer not present (this symbol is intended to apply to daytime layers only and should be used in the hour columns at the beginning and end of the daylight period to fill empty spaces in those columns where one or more numerical values exist—it should not be used in hour columns where no numerical values exist because of darkness—these columns may be left blank).

14. S Characteristic obscured by interference or by atmospherics.

15. V Trace forked near critical frequency.

16. W Characteristic at a height greater than the normal upper height limit of equipment.

17. Z Third component of h'f trace for layer is observed.

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

IONOSPHERIC DATA

Shibata

Lat. 37° 57.0′ N
Long. 139° 15.8 E

Nov. 1946

foF2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.9	(4.5)S	4.6	4.5	4.0	3.7	6.6	10.8	13.3	13.8	14.6	15.2	14.0	13.7	13.7	13.0	12.5	10.4	8.2	7.2	7.5	6.4	5.2	5.0
2	C	C	C	C	C	C	C	C	12.4	14.3	15.2	14.7	12.9	12.3	13.1	12.8	9.9	8.4	7.3H	7.1	5.5	3.8J	[3.7]C	3.6
3	3.6	3.7	3.7	4.0	3.9	3.5	4.9	9.2	11.7	12.3	13.0	12.2	11.9	12.0	11.7	11.4	10.0	8.0	[7.3]C	6.5	5.9	4.5	3.8	3.4
4	3.6	3.7	3.7	4.2	4.0	3.8	3.9	7.8	10.4	10.7	10.8	12.8	12.0	12.5	12.3	12.0	10.9	8.3J	6.4	(6.2)A	5.5	(3.8)S	3.9J	4.3
5	4.0	4.5	4.3	4.5	4.1	4.4	5.0	9.0	10.6	(11.9)	11.6	12.1	12.6	12.8	12.5	12.4	[10.7]C	8.5	7.1	7.1	6.3H	4.3H	4.6H	4.4J
6	4.5	4.2	4.2	4.3	3.9	4.2	5.7	[9.1]C	12.4	12.4	13.1	13.1	12.8	13.0	12.9	12.1	10.7	8.4J	8.3	7.5	7.1	6.3	6.0	6.1
7	6.0	3.2S	5.7	5.8	6.3	6.2F	6.4F	9.9F	C	C	C	C	C	C	C	C	11.7	10.7	9.0	6.8	5.4	4.9J	4.8	4.8J
8	4.6	4.5	4.7	4.5	4.3	4.3	5.0	(9.8)S	10.7	12.5	13.1	13.2	12.7	12.4	12.3	12.1	10.6	8.8	7.7	5.7F	4.8	3.9	3.7F	3.8F
9	3.7F	3.7F	3.8F	3.9FH	4.3	4.2	4.1	8.7	10.4	11.0	11.3	(11.7)	12.1	11.5	11.2	11.3	[9.9]f	8.5	7.4	5.8	5.2J	5.0J	4.4	4.4
10	4.5	4.4	4.7	4.4	3.7	3.5	4.7	9.5	11.5	C	C	12.1	12.0	11.5	12.3	[10.9]C	9.5	8.1	6.5	5.5	5.6	4.8	4.3	4.2
11	3.3	2.7	2.2S	4.0	4.8	3.5	4.6	7.8	10.2	12.0	11.2	12.3	13.0	13.2	12.9	12.4	10.2	8.3	6.2F	6.7	6.1	5.2	4.3	4.5
12	4.6	4.3	4.3	4.5	4.1	3.9	4.7J	8.0	9.8	11.0	13.2	13.2	12.3	12.8	12.5	11.2	11.2	9.6	7.2	6.3	5.6	4.8	4.7	(4.8)
13	4.7	4.6	5.1	4.7	4.6	4.1	5.1	10.1	12.0F	13.2	12.8	13.5	12.8	12.6	13.2	11.5	9.5	8.7	7.4	7.1	4.8	4.5	4.5H	4.1H
14	4.6	4.7J	4.7	4.2	4.5	4.2J	4.7	10.5	11.0	12.4	13.9J	13.0H	13.0	13.5H	13.1	13.2	12.1	9.4	7.9J	6.5	6.4	4.7	4.0	3.5
15	3.5	3.7	3.9	3.4	3.9	3.3	4.0	10.5	11.5	11.7	12.5	13.1	12.8	12.6	11.7	11.5	10.7	9.6	7.6	5.6	5.2	4.3J	4.4	4.7J
16	4.5	4.1	4.7	4.7	4.9	5.0	5.7	9.0	12.3	13.9	13.4	13.6	14.0JH	14.0J	12.8	12.7	11.3	10.0	8.5	7.4	7.5	6.8	6.5	5.6
17	5.5	5.0	5.0	5.1	4.9J	3.9	4.0	9.5	11.3	12.1	13.6	13.7	13.6	14.0	13.1	12.6	9.7	8.7	7.2	6.3	4.7	4.3	3.7	3.6
18	4.0	3.9	4.2	4.3	4.2	3.7	4.3	9.4	11.1	12.7	13.1	12.8	12.0	12.0	12.0	11.1	10.1	8.5	7.0	6.8	4.9	4.2	4.2	3.9
19	4.4	4.4	4.5	5.3	4.8	5.3	5.3	8.4	11.0	12.0	11.9	11.2	12.1	11.9	11.2	10.3	9.9	8.4	[7.2]C	5.9	4.8	3.9	4.6	4.6
20	3.4	3.4	3.1	3.9	4.0	3.5	4.3	8.4	10.0	12.8	12.9	11.7	11.5	11.0	10.4	10.1	10.2	8.6	7.5	6.0	4.6	4.6	4.5	(4.5)
21	4.4	(5.7)S	4.4	(4.4)S	(3.4)S	(3.4)JS	S	10.2	10.5	12.2	12.7	12.9	12.0	11.3	10.8	10.6	10.5	8.3	7.9	5.9	4.6	5.0	3.4S	(5.2)
22	5.3J	5.2J	4.6J	(4.7)	4.2	3.8	5.2	8.8	10.2	13.0	13.5	13.3	12.8	12.4	12.4	11.4	11.2	10.0	8.3	6.5F	4.1	3.8	3.6	(3.3)FS
23	(2.8)S	3.4	4.0	3.7	3.7	3.8	4.8	8.8	10.7	11.9	13.7	12.5	13.0	12.6	12.8	11.8	9.8	8.4	7.0	5.4J	4.5	3.8	3.6	3.9
24	3.9	3.7	3.8	3.8	3.4	2.8	3.7	9.2	11.6	11.1	10.6H	11.6	12.4	12.5	11.2	11.0	9.4	8.5	8.2	5.9	3.9J	3.3	3.4	(2.8)SJ
25	3.4	3.3	4.1	2.5	1.8J	1.9	3.3	8.5	12.4	11.7	11.5	12.7	12.7	12.5	12.0	11.8	11.1	10.2	7.2	5.7F	4.7J	3.6	3.6	2.7J
26	2.2J	A	3.3	3.7	3.1	3.2	3.4	8.2	10.5	12.0	12.5	12.1	11.9	11.4	10.7	10.7	10.4	9.2	6.6	5.7	5.1	3.7	3.5	3.4
27	3.1	3.2	3.4	3.2	3.4	3.7	3.5	7.0	10.1	11.3	10.8	11.5	11.0	11.4	10.3	10.1	9.0	7.1	4.8	4.8J	4.6J	3.9	3.2	3.0
28	2.9	(2.9)S	2.8	3.0	2.9	3.0	4.1	8.4	10.5	10.0	10.6	10.0	10.4	9.8	9.9	9.9	8.5	6.2	5.4	3.2	3.3	(3.4)S	3.0	2.9
29	3.0	2.9	3.1F	3.2	3.3	3.2	3.9J	7.6	9.3	9.8	10.8	10.8	11.8	11.7	11.0	10.9	9.5	8.0	6.5	4.2J	3.7J	3.9J	(2.9)SJ	3.5
30	(2.9)S	[3.2]C	(3.4)S	3.5J	3.8	3.7	3.4J	7.1	9.0	9.7	11.4	10.2	10.8	12.0	11.8	9.9	8.6	7.0	5.1J	4.5	3.4	3.9	3.3	3.5
31																								
Mean Value																								
Median Value	3.9	3.8	4.2	4.2	4.0	3.7	4.7	9.0	10.7	12.0	12.8	12.7	12.4	12.4	12.3	11.4	10.2	8.5	7.3	6.1	5.0	4.3	4.0	4.0
Count	29	28	29	29	29	29	29	29	29	28	28	29	29	29	29	29	30	30	30	30	30	30	30	30

foF2

Sweep 1.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

S 1

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

IONOSPHERIC DATA

Nov. 1946 | f_oF1 | 135° E Mean Time | Shibata | Lat. 37° 57.0′ N | Long. 139° 18.5′ 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									L	L	B	L	A	A	A	A								
2												5.6	A	L										
3								L	L	L	L	L	L	L	L	L								
4									L	L	L	L	L	L	L									
5											5.0	L	L	L										
6										L	L	L	5.2	L	L	L	L	2.7						
7									C	C	C	C	C	C	C	C								
8												L	L	L	L	L								
9									L	5.5	B	L	L	L	L	B								
10													L	L	L	L	L	L						
11									L	L	4.2	5.4	L	L	L	L	L	L						
12											L	B	B	L	L	L	L							
13											5.5	L	L	L	L	L								
14								L	L	L	A	L	L	L	L	L	L							
15													4.1											
16												L	L	L	L	L	L							
17										L	L	L	L	L	L	L	L							
18													L	L	L	L	L	3.0						
19													L	L	L	L								
20										L	L	L	L	L	L									
21										L	L	L	L	L	L	L	L	L						
22										L	L	L	L	L	L	L	L	L						
23								L	L F	4.8	L	L	L	L	5.5									
24								L	4.8	L	L	L	L	L	L	L	L	L	L					
25								L	L	L	L	L	L	L	L	B	L							
26											L	L	L	L	L	L	L							
27									L	L	L	L	L	L	L	L	L	L	L					
28								3.0	L	L	L	B	5.2	L	L	L	L							
29								L	L	L	L	L	L	5.3	L	L	L	L	L					
30													5.2	L	4.6	L								
31																								
Mean Value																								
Median Value								—	—	—	5.0	—	5.2	—	—	—	—	—	—					
Count								1	1	2	3	2	4	1	2	2	0	2	0					

f_oF1

Sweep 1.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

S 2

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

IONOSPHERIC DATA

Nov. 1946 | foE | 135° E Mean Time | Shibata | Lat. 37° 57.0′ N | Long. 139° 15.8′ 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	2.4	3.0	A	A	B	A	A	A	A	A	1.7						
2							C	C	2.9	A	A	A	A	3.7	3.3	A	A	A						
3							E	2.5	2.7	3.2	3.5	3.8	A	A	A	A	B	A						
4							E	2.5	3.0	3.3	3.4	3.4	3.5	A	A	A	A	A						
5							E	2.4	3.0	3.4	(3.7)[B]	3.7	A	S	3.2	3.0	2.4	1.8						
6							E	C	3.0	B	B	A	B	B	A	3.0	A	1.9						
7							E	F	C	C	C	C	C	C	C	C	A	A						
8							E	A	(3.0)[A]	A	A	A	A	A	A	3.9	2.2	1.9						
9							E	F	A	B	B	B	B	3.3[J]	3.2[J]	2.9[J]	C	A						
10							E	B	2.4	B	C	B	B	B	3.4	[2.8][C]	2.2	E						
11							E	2.4	3.0	3.4	3.5	B	B	B	3.6	B	B	1.7						
12							E	2.3	3.0	3.2	3.5	B	B	B	3.3	B	2.8	A						
13							E	2.5	A	A	3.7	A	A	A	B	B	A	A						
14							E	1.9[H]	3.1	A	A	A	A	A	A	3.0	(2.8)[B]	A						
15							E	2.2	2.7	(3.3)[B]	B	B	3.7	B	B	B	B	E						
16							E	2.1	A	3.2	3.4	B	B	3.6	B	B	A	1.5						
17							E	2.1	(3.0)[B]	B	A	3.8	B	3.6	A	A	A	A						
18							E	A	2.9	A	3.4	B	B	3.4	B	B	2.4	1.5						
19							E	2.1	3.0	A	3.5	A	3.5	A	A	A	2.5	E						
20							E	2.1	B	B	B	B	B	B	3.4	3.0	2.0	A						
21							A	B	B	B	A	A	A	(3.8)[B]	3.4	B	2.1	1.5	E					
22							E	1.9	2.6	3.2	A	B	B	B	B	2.9	2.2	1.4	E					
23							E	B	2.6	(3.1)[B]	A	A	A	A	A	A	A	A	E					
24							E	A H	(3.0)[A]	A	A	B	B	3.5	A	A	2.7	1.5	E					
25							E	1.9	2.5	3.2	3.5	A	A	3.1[J]	B	B	B	A	(1.2)					
26							E	(1.5)	2.5	3.1	A	B	B	B	A	(3.0)	2.6	1.4	E					
27							E	B	2.3	(3.0)[B]	B	B	3.5	3.3	3.2	B	A	A	E					
28							E	1.4	1.9	2.6	3.2	3.5	B	3.4	B	3.0	2.5	E	E					
29							E	2.1	2.5	3.1	A	B	B	3.5[J]	B	2.5	1.7	E	E					
30							E	1.6[H]	2.7	3.2	A	(3.4)	3.3	3.2	3.0	3.0	2.1	1.4	E					
31																								
Mean Value																								
Median Value							E	2.1	2.9	3.2	3.5	3.6	3.5	3.5	3.3	3.0	2.4	1.5	E					
Count							28	19	24	15	11	6	5	12	10	12	15	17	10					

foE

Sweep 1.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

S 3

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

IONOSPHERIC DATA

Shibata

Lat. 37° 57.0′ N
Long. 139° 15.8′ E

Nov. 1946

fEs

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1.9	2.8	2.0	E	E	E	E	<fE	<fE	3.1	3.6	<fE	5.8	6.2	6.5	7.0	3.6	<fE	1.8	6.5F	7.3	4.8	4.6	4.2
2	C	C	C	C	C	C	C	C	<fE	3.2	2.9	5.1	5.0	<fE	<fE	2.9	3.0	2.1	2.8	3.2	5.9	4.0	3.9	2.8
3	2.0	2.2	2.2	2.4	2.0	2.5	2.3	<fE	2.2	3.0	<fE	3.4	4.4	4.0	3.4	3.5	3.4	6.8	C	2.0	2.0	E	2.9	2.6
4	3.0	2.0	2.0	1.9	E	E	E	<fE	<fE	<fE	<fE	<fE	<fE	3.8	3.5	3.3	3.4	3.4	3.6	2.2	1.9	E	E	2.1
5	2.8	2.0	E	2.0	1.9	E	2.9	3.0	<fE	4.0	<fE	<fE	2.8	<fE	<fE	4.6	C	<fE	E	2.1	E	E	E	E
6	E	E	E	E	2.0	2.1	2.2	C	<fE	2.7	2.7	3.6	3.2	B	3.8	3.5	2.7	1.8	2.3	E	E	4.6F	2.6F	2.1
7	2.2	2.0	2.0	E	E	1.7	2.0	1.6	C	C	C	C	C	C	C	C	3.6	3.0	2.2	5.7	5.9	2.7	2.9	2.8
8	2.9	2.0	1.9	E	1.8	E	1.8	2.0	3.5	3.8	6.2	3.8	3.6	4.0	3.2	3.0	<fE	1.9	E	2.0	E	2.1	E	E
9	1.4	1.9	1.9	1.8	E	E	E	2.0	3.2	B	B	B	B	<fE	<fE	<fE	C	1.8	2.1	2.8	6.4	2.4	1.8	1.6
10	E	2.0	2.0	2.1	E	2.0	1.9	E	<fE	C	C	B	B	3.0	3.4	C	2.2	1.6	E	E	1.8	E	E	E
11	2.1	1.7	E	E	E	2.4	1.9	<fE	<fE	3.6	3.9	B	B	B	B	B	B	E	E	2.4	E	E	1.9	E
12	E	2.1	2.0	E	E	E	E	<fE	<fE	<fE	<fE	B	B	B	<fE	B	<fE	2.4	3.0	E	E	1.8	2.0	2.8
13	E	4.7	2.8	2.2	2.2	3.0	E	<fE	2.6	4.0	3.6	3.6	3.6	3.5	B	B	3.5	2.8	2.4	1.3	3.6	1.9	4.6	1.9
14	1.9	3.2	1.9	2.8	2.8	1.9	E	1.9	3.6	6.0	6.6	4.2	5.6	5.3	3.4	3.6	<fE	2.0	2.0	2.2	E	2.1	E	E
15	E	E	E	E	E	E	E	2.9	<fE	<fE	B	B	B	B	B	B	B	1.4	E	E	E	E	E	E
16	E	E	E	E	E	E	E	3.1	3.4	3.4	<fE	B	B	<fE	B	B	2.9	1.8	2.0	E	E	E	E	E
17	E	2.0	4.0	2.3	1.9	2.8	E	2.6	<fE	B	3.4	3.6	3.1	<fE	5.2	3.0	3.6	2.8	1.9	4.5	2.9	2.1	1.9	1.9
18	1.9F	2.0	E	1.9	2.0	1.9	2.0	5.9	3.5	3.2	4.4	3.0	B	<fE	B	<fE	<fE	3.0	2.1	3.0	1.9	2.0	E	E
19	1.8	1.9	1.9	2.1	1.9	E	E	<fE	3.2	3.7	<fE	3.1	<fE	3.7	3.0	<fE	<fE	1.8	C	2.3	E	2.6	1.8	1.9
20	E	1.8	1.8	1.8	E	E	E	1.8	2.5	B	B	B	B	B	<fE	<fE	3.4	2.3	2.0	E	E	2.1	1.9	E
21	E	E	E	E	E	1.4	E	B	2.4	B	3.4	6.2	5.8	3.5	B	4.6	3.3	1.9	3.4	2.8	E	E	2.0	E
22	E	E	1.7	2.0	1.9	E	E	<fE	<fE	<fE	4.2	B	B	B	B	3.3	<fE	E	1.8	1.7	E	E	E	2.8
23	2.2	1.9	2.1	2.1	1.8	E	1.8	1.9	<fE	<fE	3.4	5.0	4.0	3.8	3.0	3.4	2.2	2.0	2.2	E	2.0	1.7	2.0	2.2
24	E	2.0	E	E	E	E	E	2.0	4.3	3.8	3.4	B	B	B	4.4	4.9	<fE	E	2.4	2.9	4.4	3.2	2.0	1.9
25	E	1.8	E	1.9	1.9	2.1	1.9	E	<fE	<fE	<fE	3.7	4.5	3.8	B	B	B	1.8	2.2	2.7	2.0	1.8	E	E
26	2.7	2.8	2.1	1.8	E	E	E	<fE	<fE	<fE	3.6	B	3.6	B	3.8	B	2.0	E	E	E	E	E	E	E
27	E	E	E	E	E	E	2.0	2.7	<fE	3.4	B	3.4	<fE	<fE	<fE	B	3.2	2.7	3.6	E	E	E	E	E
28	E	E	E	2.4	E	E	E	E	1.8	<fE	<fE	<fE	B	<fE	<fE	<fE	<fE	1.8	1.8	1.9	E	E	1.7	E
29	E	E	E	1.9	E	E	E	<fE	<fE	3.7	3.6	B	B	<fE	B	<fE	<fE	E	E	E	E	E	E	E
30	E	C	E	1.8	E	1.8	E	E	3.4	3.2	3.3	<fE	<fE	<fE	<fE	<fE	<fE	<fE	1.9	1.9	E	2.0	E	1.9
31																								
Mean Value																								
Median Value	E	2.0	1.8	1.8	E	E	E	<fE	<fE	3.2	3.4	3.5	3.6	3.0	3.1	3.2	2.2	1.8	2.0	2.0	E	1.8	1.8	E
Count	29	28	29	29	29	29	29	27	29	24	24	18	17	21	20	20	25	30	28	30	30	30	30	30

fEs

Sweep 1.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

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

IONOSPHERIC DATA

Nov. 1946 | fminF | 135° E Mean Time | Shibata | Lat. 37° 57.0′ N, Long. 139° 15.8′ 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	1.2	1.2	1.5	1.1	1.1	1.1	1.2	2.4	3.2	3.4	4.5	3.9	6.2	4.8	5.0	6.0	3.2	2.3	1.5	5.3	2.4	2.3	2.2	2.6
2	C	C	C	C	C	C	C	C	3.0	3.7	3.8	4.5	4.3	3.7	3.3	3.0	2.6	1.7	1.7	3.2	4.2	2.6	2.9	1.7
3	E	1.2	1.5	1.4	1.3	1.6	1.5	2.5	2.8	3.2	3.8	3.8	3.8	4.0	3.6	2.9	2.7	1.7	C	1.5	1.4	1.6	1.5	1.6
4	1.5	1.2	1.3	1.2	1.2	E	1.2	2.6	3.0	3.4	3.4	3.4	4.3	3.8	3.2	3.3	2.8	2.8	1.7	1.9	1.3	1.2	1.4	1.7
5	2.2	1.1	1.1	A	1.4	1.2	1.9	2.4	3.0	3.6	4.0	3.7	3.0	3.6	4.0	3.6	C	1.8	1.5	1.6	1.4	1.6	1.5	1.3
6	1.2	1.2	1.3	1.2	1.3	1.2	1.8	C	3.1	3.5	2.9	3.6	3.7	3.5	3.4	3.0	3.1	1.9	1.7	1.3	1.3	3.2	1.1	1.6
7	1.5	1.5	1.3	3.6	1.4	1.2	1.7	C	C	C	C	C	C	C	C	C	2.8	1.8	1.5	3.9	2.8	3.3	3.2	2.8
8	1.3	1.2	1.2	1.2	1.2	1.2	1.7	3.0	3.0	2.8	3.0	3.0	3.8	3.4	3.5	3.2	2.6	1.7	1.4	2.6	1.3	1.4	1.5	1.2
9	1.3	1.2	1.2	1.3	1.2	C	3.5	3.5	3.2	3.8	5.5	3.8	4.9	2.9	3.3	3.5	C	1.6	2.3	1.5	3.1	1.8	1.4	1.2
10	1.2	1.8	1.2	E	E	E	1.2	2.6	3.0	C	C	4.3	3.7	2.8	3.4	C	2.2	1.5	1.2	1.4	1.9	1.4	1.4	1.1
11	E	1.4	1.3	1.3	1.5	1.2	1.2	2.4	3.1	3.4	3.5	4.2	4.0	3.7	3.6	3.6	3.7	1.7	1.3	1.3	1.2	1.2	1.2	1.3
12	1.2	1.4	1.4	1.3	1.2	1.2	1.2	2.3	3.0	3.3	3.8	4.3	4.3	3.8	3.8	3.4	2.8	1.5	1.3	1.2	1.4	1.4	1.6	1.5
13	1.2	3.3	2.2	1.5	1.4	E	1.2	2.9	2.8	2.8	3.7	2.6	3.8	3.8	3.5	3.6	3.0	2.8	1.7	1.4	1.5	1.5	2.7	1.4
14	1.4	1.6	1.4	1.1	1.5	1.4	1.3	2.4	3.1	3.8	3.6	3.8	3.8	4.9	3.7	3.0	3.0	1.7	1.7	A	1.5	1.4	1.6	1.4
15	1.4	1.4	1.4	1.4	1.3	1.4	1.4	2.2	2.7	3.5	3.8	4.3	3.7	3.8	3.5	3.4	3.3	1.6	1.5	1.2	1.3	1.2	1.4	1.2
16	1.4	1.4	1.3	1.2	1.2	1.2	1.3	2.4	3.0	3.4	3.2	4.1	3.7	3.6	3.6	2.9	3.0	1.5	1.3	1.3	1.4	1.3	1.2	1.2
17	1.2	1.2	3.4	2.1	1.2	E	1.2	2.1	3.0	3.5	3.8	3.8	3.8	3.6	3.3	3.5	1.6	1.2	1.5	1.5	1.4	1.8	1.3	1.6
18	1.4	1.4	1.3	1.4	1.3	1.3	1.4	A	2.9	3.2	3.4	3.8	3.8	3.6	3.7	3.2	2.4	1.7	1.4	1.5	1.5	A	1.2	E
19	1.3	1.3	E	1.3	1.5	1.3	1.2	2.1	3.1	3.4	3.5	3.3	3.8	3.8	3.4	3.0	2.5	1.3	C	1.3	1.5	1.5	1.6	1.5
20	1.4	1.4	1.3	1.3	1.2	1.4	1.3	2.1	2.5	3.7	3.8	3.8	3.8	3.8	3.4	3.4	3.4	1.5	1.3	1.4	1.4	1.4	1.3	1.3
21	1.3	1.4	1.4	1.4	1.8	1.8	1.5	2.7	2.3	4.0	3.7	3.8	3.1	3.8	3.4	3.6	2.4	1.5	1.4	1.2	1.4	1.3	1.3	1.3
22	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.9	2.6	3.3	3.8	4.0	3.9	3.7	4.0	3.0	2.3	1.4	1.4	1.4	1.6	1.3	1.2	1.5
23	1.2	1.5	1.3	1.3	1.2	1.2	1.3	1.8	2.8	3.5	3.6	3.3	3.8	3.6	3.5	3.4	2.8	1.8	1.5	1.4	1.4	1.3	1.4	1.3
24	1.3	1.3	1.4	1.3	1.2	1.3	1.2	2.1	3.0	3.7	3.7	3.7	3.9	3.5	3.7	3.2	3.0	1.5	1.4	1.3	2.2	2.5	1.4	1.3
25	1.2	1.2	1.2	1.2	1.5	1.5	1.4	1.9	2.7	3.2	3.5	3.7	4.2	3.6	3.6	3.8	2.8	1.7	1.5	1.5	1.6	1.6	1.5	1.5
26	2.1	A	1.5	1.2	1.2	1.5	1.2	1.7	2.9	3.5	3.6	3.8	3.5	4.2	3.6	3.0	2.6	1.4	1.3	1.4	1.2	1.2	1.2	1.2
27	1.2	1.2	1.2	1.2	1.4	1.2	1.2	2.2	2.7	3.2	3.8	3.8	3.7	3.8	3.2	3.4	1.5	1.5	1.5	1.4	1.5	1.3	1.4	1.2
28	1.2	1.2	1.2	1.2	1.2	1.2	1.2	2.1	3.1	3.2	3.6	3.5	3.3	3.6	3.3	3.0	2.5	1.4	1.4	1.5	1.4	1.5	1.6	1.4
29	1.2	1.2	1.3	1.4	1.2	1.2	1.2	2.2	2.7	3.1	3.3	3.0	3.8	3.9	3.6	3.4	3.2	1.4	1.4	1.4	1.5	1.3	1.4	1.2
30	1.3	C	1.3	1.2	1.3	1.2	1.4	2.1	3.1	3.2	3.1	3.6	3.5	3.4	3.3	3.1	2.2	1.4	1.5	1.4	1.5	1.5	1.5	1.4
31																								
Mean Value																								
Median Value	1.3	1.2	1.3	1.3	1.2	1.2	1.3	2.3	3.0	3.4	3.7	3.8	3.8	3.7	3.5	3.4	2.8	1.6	1.4	1.5	1.4	1.4	1.4	1.4
Count	29	27	29	28	29	28	29	27	29	28	28	29	29	29	29	28	28	30	28	29	30	29	30	30

fminF

Sweep 1.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

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

IONOSPHERIC DATA

Nov. 1946 | fminE | 135° E Mean Time | Shibata | Lat. 37° 57.0 N | Long. 139° 15.8′ 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	1.1	1.1	1.7	E	E	E	1.2	1.4	1.5	1.6	1.6	2.3	1.5	1.5	1.3	1.3	1.4	1.5	1.2	1.3	1.2	1.4	E
2	C	C	C	C	C	C	C	C	1.5	1.5	1.7	1.6	1.6	1.5	1.4	1.7	1.5	1.3	1.4	1.4	E	1.2	1.2	E
3	1.8	E	E	E	E	E	1.1	1.2	1.2	1.3	1.4	1.7	1.7	1.3	1.4	1.6	2.7	1.2	C	1.2	1.8	E	1.4	1.4
4	1.5	1.6	1.3	1.5	1.8	E	E	1.3	1.6	1.5	1.4	1.6	2.3	2.2	1.6	1.4	1.5	1.5	1.3	1.4	1.8	E	E	1.5
5	1.2	1.6	E	1.1	1.7	E	1.8	1.4	1.4	1.5	1.5	1.5	1.4	1.3	1.6	1.3	C	1.5	E	1.7	E	E	E	E
6	E	E	E	E	1.7	1.2	1.1	C	1.7	1.7	1.7	1.7	1.5	1.7	1.7	1.4	1.4	1.3	1.3	E	1.8	1.3	1.1	1.2
7	1.5	1.1	1.7	E	E	1.6	1.7	1.2	C	C	C	C	C	C	C	C	1.4	1.2	1.4	1.5	1.4	1.5	1.4	1.7
8	1.1	1.7	1.5	E	1.6	E	E	1.6	1.2	1.3	1.5	1.7	1.7	1.7	1.4	1.5	1.3	1.2	E	1.2	E	1.4	E	E
9	1.2	1.2	1.2	1.6	E	C	E	1.4	1.3	1.5	B	B	B	2.4	2.6	2.4	C	1.2	1.2	1.3	1.4	1.2	1.6	1.2
10	E	E	1.7	1.8	E	1.7	1.8	1.7	1.4	C	C	1.7	B	1.7	1.6	C	1.7	1.4	E	E	1.4	E	E	E
11	1.7	1.5	E	E	E	1.8	E	1.5	1.4	1.5	1.6	1.7	1.5	1.7	1.7	1.6	1.4	E	E	1.2	E	E	1.6	E
12	E	1.4	1.2	E	E	E	E	1.3	1.4	1.5	1.4	B	1.7	2.9	1.6	1.4	1.6	1.3	1.2	E	E	1.2	1.3	1.2
13	E	1.2	1.1	E	E	E	E	1.4	1.4	1.7	1.8	1.8	1.7	1.5	1.7	1.5	1.5	1.2	1.2	1.2	1.4	1.5	1.5	1.4
14	1.1	1.1	E	1.1	1.2	1.5	E	1.5	1.5	1.5	1.5	1.7	1.5	1.5	1.6	1.5	1.4	1.2	1.5	1.4	E	1.4	1.4	1.4
15	E	E	E	2.1	E	E	2.0	1.4	1.1	1.4	1.4	1.6	1.5	1.6	1.5	1.5	1.5	1.3	E	E	E	E	E	E
16	E	E	E	E	E	E	E	1.2	1.4	1.4	1.4	2.4	1.5	1.8	1.5	1.5	1.4	1.6	1.8	E	E	E	E	E
17	E	1.8	1.2	1.2	E	E	E	1.7	1.5	1.5	1.5	1.6	1.5	1.5	1.4	1.5	1.4	1.2	1.4	1.5	1.4	1.4	1.8	1.4
18	1.4	1.4	E	1.4	1.3	1.7	1.6	1.3	1.4	1.4	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.3	1.4	1.3	1.6	E	E
19	E	1.7	1.6	1.3	1.8	E	E	1.2	1.5	1.5	1.6	1.6	1.4	1.6	1.5	1.3	1.4	E	C	1.6	E	1.5	1.6	1.7
20	E	1.5	1.5	1.7	E	E	E	1.2	1.3	1.5	1.5	1.5	B	B	1.5	1.3	1.3	1.2	1.4	E	E	1.3	1.8	E
21	E	E	E	E	E	1.3	E	B	1.5	1.5	1.5	1.5	2.1	1.5	1.5	1.5	1.3	1.3	1.2	1.2	E	E	1.7	E
22	1.8	E	1.6	E	E	E	E	1.5	1.7	2.4	B	B	1.5	1.5	E	1.6	1.6	E	1.6	1.6	E	E	E	1.2
23	1.2	1.5	1.2	1.4	1.5	E	1.7	1.8	1.5	1.5	1.6	1.6	1.6	1.6	1.5	1.5	1.2	1.3	1.3	E	1.7	1.3	1.5	1.3
24	E	1.8	E	E	E	E	E	1.2	1.3	1.5	1.6	1.6	1.6	1.5	2.6	1.6	1.5	E	2.0	1.3	1.3	1.3	1.4	1.6
25	E	1.7	E	1.2	1.2	1.2	1.2	1.2	1.2	1.6	1.5	1.5	1.6	1.5	1.5	1.5	1.4	1.3	1.5	1.5	1.4	1.7	E	E
26	1.4	E	1.2	1.3	E	E	E	1.2	1.5	1.5	1.7	B	3.5	B	1.4	1.3	1.2	E	E	E	E	E	E	E
27	E	E	E	E	E	E	1.8	1.4	1.2	1.4	B	1.6	3.2	1.6	1.5	1.3	1.3	1.3	1.3	1.8	E	E	E	E
28	1.7	E	E	2.0	E	E	E	1.3	1.2	1.4	1.3	1.5	1.3	1.6	1.3	1.2	1.2	1.2	1.5	1.8	E	E	1.6	E
29	E	E	E	1.6	E	E	E	1.2	1.4	1.4	1.5	B	1.5	1.5	1.4	1.2	1.3	E	E	E	E	E	E	E
30	E	C	E	1.4	E	1.4	E	1.3	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.2	1.5	1.5	1.7	1.7	E	1.5	E	1.1
31																								
Mean Value																								
Median Value	E	1.2	E	1.2	E	E	E	1.3	1.4	1.5	1.5	1.6	1.6	1.5	1.5	1.5	1.4	1.3	1.3	1.3	E	1.2	1.3	E
Count	29	28	29	29	29	28	29	27	29	28	25	24	26	27	29	28	28	30	28	30	30	30	30	30

fminE

Sweep 1.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

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

IONOSPHERIC DATA

Dec. 1946 | foF2 | 135° E Mean Time | Shibata | Lat. 37° 57.0′ N | Long. 139° 15.8 E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.2	3.6	3.2	3.7	3.7	3.9	4.0	7.4	9.9	9.1	10.6	11.4	11.0	11.5	10.2	9.5	7.7	6.3	4.4 J	3.8	3.3	3.6 J	3.6	2.8
2	A	3.6	3.6	3.0 J F	3.4	(3.7)	3.8	7.3	8.5	9.7	12.4	12.5	[12.5] C	12.5	11.6	10.8	8.6	8.1	6.4	A	3.4 J	3.2	3.0	3.2
3	3.2	3.3	3.6	3.7	3.5	3.6	4.1	C	C	C	12.5	13.1	12.2	12.4	11.6	10.7	9.2	7.5	6.9	5.7	4.0	3.3	3.1	3.4
4	3.5	3.7	3.4	3.4 S	3.4	3.3	3.6	6.8	9.4	11.8	12.2	12.3	10.1	9.9	10.0	8.8	8.2	7.3	5.6	4.9 J	3.8	3.2	2.8	3.1
5	3.2	3.2	3.3	3.6	3.2	(3.1) B	3.4	8.1	10.0	11.0	10.4	11.3	10.3	10.6	10.9	9.7	8.0	6.9	5.7	5.9	4.1	3.6	3.3	3.5
6	3.3	3.7	3.8	3.5	3.6	3.6	5.1 J	8.2	C	C	C	C	C	C	C	C	9.2	8.5	5.8	3.8	3.5	3.2	3.1	3.3
7	3.5	3.7	3.7	4.0	4.0	3.2	3.4	7.3	8.9	(10.7)	10.8	11.8	11.5	11.8 H	11.0	11.4	9.7	7.5	6.5	5.7	3.6	3.3	3.1	3.3
8	3.5	3.5	3.3	3.0	3.1	3.0	3.5	7.0	9.2	10.5	11.2	11.8	12.1	10.6	10.3	9.5	8.1	6.7	5.3	3.5	3.4	3.3	3.3	3.3 F
9	3.3	3.4	3.3	3.2	3.2	3.3	3.6	7.0	9.6	10.1	10.7	10.7	9.9	11.5	10.8	9.7	9.3	7.5	6.4	4.3	3.7	3.4	2.8	3.0
10	3.2	3.2	3.1	3.1	3.1	3.1	3.0	6.5	8.8	10.4	11.3 H	11.1	11.4	10.8	10.8	9.9	8.7 J	(5.5) C	4.2	4.4	3.4 S	2.4 S	(2.3) J S	(2.4) J S
11	3.2 S	2.4	3.3	(3.0) S	3.5	3.1 J	(2.6)	6.8	8.2	10.2	12.5	11.4	11.0	11.0	10.6	9.7	8.8	7.5	6.1	4.2 J	2.7	3.2	3.3	3.1
12	3.2	3.2	3.4	3.4	3.3	C	C	7.2	11.4	10.5	12.0	11.7	11.8	11.6	11.3	9.7	8.5	6.6	6.2	4.9 J	5.0	3.0	2.9	3.0
13	(2.9) J S	3.7	2.9	3.1	3.2	3.3	3.9	6.9	8.8	C	C	C	C	C	C	C	8.2	6.1	4.9 H	4.2	3.1	3.1	3.3	
14	3.2	3.0	3.4	3.5	3.3	C	C	C	C	C	B	10.9	11.0	10.3	10.2	9.1	8.4	6.6	6.5	5.0 J	3.4	2.4 S	2.9	(2.7) S
15	3.1	3.1	3.3	3.3	3.4	3.2	(3.8) S	6.2	8.5	9.7	11.4 H	11.0	11.2	10.6	9.8	8.9	8.0	6.8 H	6.5	(5.9)	(3.2)	3.1	2.7 J	3.5
16	3.9	3.5	[3.5] C	3.5	3.5	3.3	3.5	7.7	8.2	9.1	10.1	9.8	10.6	11.3	10.5	(9.4) B	8.3	7.2	6.6	4.8	4.6	3.7	3.1	3.0
17	3.3	3.3	3.5	3.4	3.4	3.2	3.6	7.7	9.0	9.6	9.9	11.9	10.5	10.1	10.5	10.5	9.0	7.5	6.8	6.1	5.1 S	3.5	3.1	3.2
18	3.4	3.3	C	C	C	C	C	C	C	C	11.6	11.8	11.9	10.9 J	10.0	11.0	9.7	7.4	6.4	4.7 J H	3.9	(2.7)	3.0	2.9
19	3.1	2.9	3.3	3.5	3.3	3.2	3.0	6.4	9.9	(10.0) S	10.3	12.4	C	C	C	C	9.0	8.4	8.1	7.7	5.0 J	B	2.2 S	(1.5) J S
20	S	(2.6) S	3.0 S	2.9 J	2.6 J	(2.2) H	3.1	6.9	9.2	C	C	C	C	C	C	C	(9.4) S	6.6	6.4	5.0	3.8	3.5	3.4	3.2
21	3.3	3.1	2.8	3.4	3.6	2.5 S	2.9 H	5.9	8.5	9.9	10.6	12.1	11.1	11.4 H	9.5	9.2	8.4	7.1	6.6	4.2	(4.5)	3.0	3.4	3.4
22	2.7	2.9	2.9	3.4	3.3	3.0	2.7	6.1	9.6	11.3	11.6	11.7	11.4	9.6	10.6	8.9	9.0	7.9	6.8	5.7	3.9	3.4	3.2 J	3.0
23	3.0	3.2	3.1	3.3	3.1	3.1	3.4	7.3	9.9	11.6	11.0	11.2	10.9	9.6	9.0	10.0	9.0 H	6.8	5.6	5.4	5.4 J	4.7	3.4	3.3
24	3.2	3.5	3.6	3.4	2.4	2.8	3.1	6.0	9.5	11.2	11.7	11.4	11.2	10.3	9.5 H	9.9	9.3	(7.7) B	6.6	5.4	5.1	4.4	3.5	2.4
25	3.2 H	2.9	3.2	3.3	3.4	2.4 H	2.9	6.0	9.3	10.9	11.5	(10.8) S	(10.3) S	10.6	10.0	8.7	8.3	7.3	[6.7] C	5.4	4.4	3.2	2.6	2.6
26	2.6	3.1	3.3	3.3	3.6	3.2	[4.1] C	6.4	8.3	9.9	11.1 H	13.3	10.6	(11.4) S	9.4	10.1	9.6	8.2	6.2	5.9	3.8	3.8	2.4	2.8
27	3.1	3.2	3.4 S	3.4	3.5	4.1	4.7	5.7	8.0	C	C	C	C	C	C	C	C	7.9	7.6	7.3	S	A F	(3.0)	3.0
28	3.4	3.5	3.5	3.5	3.7	3.1	3.5	8.2	10.4 J	C	C	11.5	(10.6) J S	(11.3) B	10.1	10.4	8.7	7.7	8.0	6.8	3.9	3.2	2.4	2.7
29	2.8	2.6	2.9	3.0	3.0	3.2	3.5	6.7	9.6	10.5	10.9	11.3	11.9	11.0	11.1	(10.0) S	11.2	C	4.8	5.3	3.9 F	3.6 S	A S	A S
30	A S	A	2.8	2.9	2.9	2.6 J	3.0	5.9	8.3	9.6	10.5	11.1	10.5	11.5	10.4	10.1	9.0	A	5.9 J	5.3	5.1 J	A	2.9	2.9
31	3.0	2.8	3.1	3.0	2.8	3.1	3.3	5.0	7.5	8.9	10.3	(13.4) S	11.6	11.4	(10.8) B	10.7	10.2	7.1	6.0	(5.9) C J	4.0	2.9	2.5	(3.0) S J
Mean Value																								
Median Value	3.2	3.2	3.3	3.4	3.3	3.2	3.5	6.9	9.2	10.2	11.1	11.5	11.0	11.0	10.5	9.7	9.0	7.5	6.4	5.3	3.9	3.3	3.1	3.0
Count	28	30	30	30	30	28	28	28	27	23	25	27	26	26	26	26	29	30	31	31	30	28	30	30

foF2

Sweep 1.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

S 1

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

IONOSPHERIC DATA

Shibata

Lat. 37° 57.0 N
Long. 139° 15.8′ E

Dec. 1946

h′F2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	310	300	290	280	270	250	250	240	220	220	230	240	230	230	230	220	210	220	220	A	200	(240)A	A	A
2	A	300	300	210	300	290	290	210	200	220	200	200	210	210	200	200	220	240	A	230	A	230	270	300
3	310	300	330	290	270	300	270	250	C	C	220	220	230	230	230	200	220	220	200	200	200	220	280	270
4	250	240	240	260	250	250	230	210	200	240	200	200	240	230	220	180	180	220	A	240	240	250	250	200
5	310	300	300	270	280	240	250	210	210	200	200	210	200	200	210	200	180	170	170	200	180	190	210	280
6	270	250	210	250	250	220	210	210	200	C	C	C	C	C	C	C	190	200	180	190	210	220	300	280
7	250	250	250	220	200	250	230	190	170	190	180	190	200	190H	200	210	180	180	200	210	230	240	290	270
8	250	230	240	290	290	300	220	210	200	200	220	220	220	200	210	210	210	170	180	180	200	230	260	250
9	260	240	270	290	270	250	220	220	210	220	230	230	220	240	220	220	220	210	220	220	240	240	230	250
10	270	200	240	230	220	200	200	200	200	180	220H	220	230	210	230	220	220	(190)C	200	240	(270)S	300	330	320
11	290	300	340	330	270	200	230	200	210	210	220	230	240	240	240	230	230	200	220	230	A	270	270	270
12	290	300	320	320	310	270	250	240	220	210	220	250	250	250	250	230	240	220	230	240	240	250	300	340
13	300	270	300	310	330	330	260	220	200	C	C	C	C	C	C	C	C	190	200	200	200	200	250	270
14	260	280	270	270	240	C	C	C	C	C	200	200	210	200	210	200	190	180	190	170	180	200	260	270
15	250	230	250	240	240	250	240	190	190	200	200H	190	200	190	190	190	190	170	190	170	200	240	300	320
16	270	250	260	260	230	280	240	210	200	200	230	220	220	220	240	230	200	190	210	200	210	230	250	300
17	300	290	250	240	240	230	240	230	210	210	210	240	220	200	210	210	200	190	190	190	190	220	220	290
18	250	240	C	C	C	C	C	C	C	C	200	200	200	200	200	200	190	180	190	180H	210	190	270	300
19	300	300	300	250	220	250	250	220	180	190	180	210	C	C	C	C	190	220	230	230	230	260	270	240
20	S	300	260	220	230	280H	300	230	210	C	C	C	C	C	C	C	200	180	220	190	190	240	330	330
21	330	320	350	330	270	220	280	C	C	C	C	C	C	C	C	C	230	(230)C	220	190	240	300	300	260
22	290	340	360	320	230	260	260	230	200	210	220	210	220	240	240	200	210	200	210	210	190	240	260	260
23	310	270	270	320	270	270	240	260	200	210	200	210	210	190	200	210	210H	180	230	190	210	190	200	290
24	280	240	220	230	220	300	250	220	210	200	200	210	220	210	200H	210	220	220	200	200	210	210	200	310
25	290	270	A	250	230	220	270	240	210	220	220	230	230	220	220	220	210	180	(230)C	210	220	210	200	290
26	330	320	280	280	270	210	240	260	200	220	200H	230	210	220	210	220	220	200	190	220	210	230	230	300
27	330	320	290	300	290	300	240	200	200	C	C	C	C	C	C	C	C	220	240	220	S	AF	(250)A	(300)
28	350	340	350	290	260	270	260	200	230	C	C	210	200	220	220	200	210	190	220	210	210	230	240	300
29	270	280	290	260	270	280	230	220	200	210	200	200	220	230	230	230	220	(210)C	200	F	310F	290	AS	AS
30	AS	A	270	260	250	270	250	200	190	190	210	210	210	220	200	200	220	A	A	A	A	A	290	300
31	290	310	310	290	250	270	210	220	220	220	220	250	230	220	210	220	200	190	210	210	200	200	260	280
Mean Value																								
Median Value	290	290	280	270	260	250	240	220	200	210	210	220	220	220	210	210	210	200	210	210	210	230	260	290
Count	28	30	29	30	30	29	29	28	27	22	25	26	25	25	25	25	29	30	28	28	27	29	29	29

h′F2

Sweep 1.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

S 2

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

IONOSPHERIC DATA

Dec. 1946 | f_oF1 | 135° E Mean Time | Shibata | Lat. 37° 57.0′ N | Long. 139° 15.8′ 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								L	L	L	L	L	L	L	L	L	A							
2										L	L	L	L	A	A	L	L	A						
3								L	C	C	L	L	L	L	L	L	L	L						
4										L	L	L	L	L										
5												L	L											
6							L	L	L	C	C	C	C	C	C	C								
7												L	L	L	L	L								
8											L	L												
9										L	L	L	L	L										
10													L	5.1	L									
11												B	L	L	L									
12												5.1	L	L	L									
13										C	C	C	C	C	C	C	C							
14											5.2	L	L											
15										L	B	L	L											
16											L													
17												L	L	L										
18													L	L										
19												L	C	C	C	C								
20										C	C	C	C	C	C	C								
21												L												
22											L	L	L											
23												L	L											
24												L	L											
25											L	L	L	L	L									
26												L	L	L										
27										C	C	C	C	C	C	C	C							
28																								
29											L	L	L	L	L	L								
30																								
31												BK	BK	BK	LK									
Mean Value																								
Median Value							—	—	—	—	—	—	—	—	—	—	—	—						
Count							—	—	—	—	1	1	—	1	—	—	—	—						

f_oF1 | Sweep 1.0 Mc to 15.0 Mc in 15 min | ☒ Manual ☐ Automatic | S 3

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

IONOSPHERIC DATA

Shibata

Lat. 37° 57.0′ N
Long. 139° 15.8′ E

Dec. 1946

h'F1

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								230	210	210	220	220	200	230	230	220	A							
2										200	210	200	200	A	A	190	200	A						
3								230	C	C	210	220	200	220	230	190	200	200						
4										200	200	190	220	220										
5												200	190											
6							200	190	190	C	C	C	C	C	C	C								
7												170	180	180	180	200								
8											210	200	200											
9										210	210	210	210	220										
10													210	210	210									
11												B	220	230	230									
12												240	240	240	240									
13										C	C	C	C	C	C	C	C							
14											200	190	190											
15										190	B	190	190											
16											220													
17												210	210	190										
18													180	190										
19												200	C	C	C	C								
20										C	C	C	C	C	C	C								
21												C												
22											200	210	200											
23												200	200											
24												190	210											
25											210	230	220	210	210									
26												220	210	210										
27										C	C	C	C	C	C	C	C							
28																								
29											200	200	210	220	220	220								
30												BK	BK	BK	200K									
31																								
Mean Value																								
Median Value							—	230	—	200	210	200	200	220	220	200	—	—						
Count							1	3	2	5	11	19	21	13	9	5	2	1						

h'F1

Sweep 1.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

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

IONOSPHERIC DATA

Dec. 1946 | foE | 135° E Mean Time | Shibata | Lat. 37° 57.0 N | Long. 139° 15.8′ 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								1.8	A	A	3.4	3.5 H	A	B	3.0	2.6	A	1.4 H						
2								1.8	A	3.0	A	A	A	A	A	A	A	A						
3								1.8	C	C	3.6	3.5	3.4	3.2	3.0	B	2.2	E						
4								E	2.4	A	3.0	B	3.3 H	3.3 H	A	2.5	2.2	A						
5								1.7	2.5	B	A	A	A	B	3.1	(2.9) B	(1.9) A	A						
6								1.6	2.6	C	C	C	C	C	C	C	A	A						
7								1.8	A	3.2	A	A	A	A	A	A	B	A						
8								1.3 H	2.6	B	B	B	B	B	B	B	B	A						
9								(1.8) A	2.4	2.7	3.4	3.3	B	A	3.3	2.9	B	A						
10								1.7	2.3	A	3.2	A	3.5	(3.6) B	(3.0) B	A	A	C						
11								E	2.5	3.1	3.3	(3.6) S	S	3.5	3.1	2.9	2.3	E						
12								E H	2.6	3.2	A	(3.6) B	3.4 J	3.3	3.0	2.5	1.9 H	A						
13								E	2.4	C	C	C	C	C	C	C	C	E						
14								C	C	C	3.2 J	3.4	3.5	3.4	A	2.6 J	1.7 H	E						
15								E	2.4	A	3.2	A	A	2.9 J	A	2.6	2.2	E						
16								E H	2.4	2.6	3.4	A	3.7	3.4	A	2.6	A	E						
17								E H	2.5	A	A	3.3 J	3.7	A	3.2	3.0	B	E						
18								C	C	C	3.5	A	A	B	A	B	B	E						
19								E H	2.5	B	3.2	3.6	C	C	C	C	A	E						
20								E	(2.3) B	C	C	C	C	C	C	C	2.2	E						
21								E H	1.4 H	(2.9) B	3.1	3.4	3.4	3.5	A	A	A	E						
22								1.8	A	3.2	3.4	3.3	3.7	A	B	A	A	E						
23								E	2.0	2.4	3.4	3.4	(3.5) A	3.5	3.2	A	(2.5) B	1.4						
24								E	2.5	3.0	3.4	3.3	3.7	3.5	3.3	3.1	S	E						
25								E	1.6	3.0	3.4	3.5	3.4	3.3	3.1	A	1.9	E						
26								E	2.3	2.8	3.2	3.4	3.5	3.4	3.2	2.9	A	E						
27								1.8 J	2.6	C	C	C	C	C	C	C	C	A						
28								E	2.2	C	C	3.3	3.3	B	B	A	2.1	A						
29								A	2.4	S	B	3.5	B	B	B	2.3	2.1	C						
30								E	A	2.9	3.2 J	A	B	B A	A	B	B	A						
31								E	B K	B K	B K	B K	B K	B K	B K	B K	B K	A						
Mean Value																								
Median Value								E	2.4	3.0	3.4	3.5	3.5	3.4	3.1	2.6	2.2	E						
Count								22	22	13	18	16	14	13	12	13	12	17						

foE

Sweep 1.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

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

IONOSPHERIC DATA

Shibata

Lat. 37° 57.0′ N
Long. 139° 15.8′ E

Dec. 1946

h′E

135° E Mean Time

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

h′E

Sweep 1.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

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

IONOSPHERIC DATA

Shibata

Lat. 37° 57.0′ N
Long. 139° 15.8′ E

Dec. 1946

fEs

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1.8	1.3	2.0	2.0	2.1	1.8	E	E	3.2	<fE	<fE	3.7	4.0	<fE	<fE	2.9	4.2	E	1.9	4.2	2.1	4.2	4.0	3.4
2	4.2	2.0	2.8	1.3	1.9	3.1	2.8	3.0	5.9	4.0	3.5	3.5	4.8	6.3	3.9	3.6	3.2	3.5	3.4	3.6	3.4	2.2	2.0	1.9
3	1.9	E	2.0	2.3	1.2	E	2.0	<fE	C	C	4.0	<fE	<fE	3.8	<fE	2.2	2.0	1.7	2.2	2.0	1.9	2.0	E	E
4	E	2.0	2.1	E	E	2.0	2.0	E	<fE	3.1	3.3	<fE	3.7	<fE	3.2	<fE	<fE	4.8	3.1	2.6	2.1	E	E	E
5	1.7	E	2.1	1.8	1.7	E	E	E	<fE	2.7	3.4	3.1	3.4	<fE	3.0	2.0	1.8	1.8	1.9	E	E	E	1.9	E
6	E	E	E	E	2.0	E	E	E	2.9	C	C	C	C	C	C	C	3.0	2.1	3.2	1.9	1.5	1.9	2.2	E
7	E	E	1.5	E	E	E	2.0	1.8	2.5	3.7	3.8	3.5	3.5	3.4	3.1	2.6	B	4.0	1.9	2.8	E	3.6	1.9	1.9
8	1.9	E	E	2.0	2.0	2.2	E	<fE	<fE	B	B	B	B	B	3.1	B	B	1.9	2.0	2.0	2.0	1.9	E	E
9	E	1.3	1.3	1.9	E	1.9	E	2.9	<fE	<fE	3.4	<fE	3.4	5.8	<fE	2.8	2.6	3.4	2.1	1.9	2.7	2.7	1.9	E
10	1.9	E	2.0	2.0	2.1	1.4	1.8	E	<fE	2.9	3.2	4.0	<fE	B	<fE	2.6	1.9	C	2.2	E	E	1.9	E	E
11	E	E	E	E	E	1.2	E	2.8	<fE	<fE	<fE	<fE	3.1	<fE	<fE	<fE	<fE	2.6	2.4	2.8	3.0	2.2	E	E
12	E	E	E	E	E	E	C	E	<fE	<fE	3.8	<fE	<fE	<fE	<fE	<fE	1.7	1.3	2.4	2.6	2.1	1.9	1.7	E
13	E	E	E	E	E	1.9	E	3.4	2.9	C	C	C	C	C	C	C	C	E	E	E	E	E	E	2.1
14	1.6	1.7	1.4	1.7	1.9	C	C	C	C	C	<fE	3.3	4.9	<fE	3.4	<fE	<fE	E	E	E	E	2.2	1.8	E
15	E	E	E	E	1.5	E	E	1.5	3.2	3.4	<fE	4.0	4.2	3.3	3.7	3.6	<fE	1.6	E	2.2	E	E	E	E
16	E	E	C	E	E	E	E	E	<fE	<fE	4.3	4.8	4.7	3.9	3.2	<fE	<fE	E	E	E	E	E	E	E
17	E	E	E	E	2.2	1.2	E	E	<fE	3.4	4.5	4.8	4.5	4.4	<fE	3.3	B	1.2	E	2.5	1.7	E	E	E
18	E	E	C	C	C	C	C	C	C	C	5.2	5.3	5.4	3.9	6.2	B	B	E	E	E	E	E	E	E
19	E	E	E	E	E	E	2.3	E	2.2	2.4	<fE	4.0	<fE	C	C	C	1.8	3.4	E	E	E	E	2.1	2.1
20	E	E	E	2.0	E	E	E	E	<fE	C	C	C	C	C	C	C	<fE	E	E	E	2.9	2.9	2.6	2.2
21	2.0	2.0	2.2	1.8	E	E	E	E	<fE	<fE	<fE	<fE	5.2	<fE	4.6	4.0	3.8	3.6	2.4	E	2.0	E	E	E
22	2.3	2.1	1.9	E	E	E	2.1	E	2.4	<fE	<fE	<fE	<fE	3.8	B	3.6	2.5	E	E	E	1.6	2.0	E	E
23	E	E	E	2.9	1.9	E	E	<fE	<fE	<fE	6.2	<fE	3.9	<fE	3.6	3.0	2.1	1.7	E	E	E	E	E	E
24	2.2	1.5	2.0	E	E	E	E	E	2.8	3.1	4.0	4.0	<fE	3.8	3.9	<fE	<fE	E	E	E	E	E	E	E
25	3.6	3.3	3.2	2.2	1.7	E	E	2.4	<fE	3.2	<fE	<fE	<fE	3.8	3.1	<fE	1.9	2.2	C	2.0	2.1	2.7	1.8	2.1
26	2.1	E	E	E	E	E	C	<fE	2.3	6.4	<fE	<fE	3.6	<fE	3.5	3.6	3.5	1.6	E	E	E	E	E	2.1
27	E	E	E	E	E	2.0	E	1.9	<fE	C	C	C	C	C	C	C	C	2.8	2.1	5.2	3.2	8.7 F	3.3	2.4
28	2.1	2.1	2.4	2.1	E	E	E	E	<fE	C	C	<fE	<fE	B	B	2.4	<fE	3.1	3.0	4.3	2.3	2.3	2.1	1.8
29	E	E	E	E	E	E	E	1.9	<fE	<fE	3.5	<fE	3.8	3.5	3.4	2.4	2.1	C	E	3.8 F	2.5 F	3.7	2.4	4.7
30	2.2 F	2.2	1.6	1.1	1.9	1.3	2.0	2.3	2.3	<fE	<fE	4.0	5.9	5.5	4.3	B	6.0	6.2	6.7	6.4	3.8	2.6	2.2	2.3
31	1.9	1.6	E	E	E	E	E	E	BK	BK	B	B	B	B	B	B	B	1.8	2.1	2.2	1.7	2.0	2.3	2.0
Mean Value																								
Median Value	E	E	1.3	E	E	E	E	E	<fE	2.4	3.4	3.1	3.6	3.5	3.2	2.5	1.9	1.8	2.0	2.0	1.7	1.9	1.7	E
Count	31	31	29	30	30	29	28	29	27	21	24	25	25	22	23	22	24	29	30	31	31	31	31	31

fEs

Sweep 1.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

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

IONOSPHERIC DATA

Shibata

Lat. 37° 57.0′ N
Long. 139° 15.8′ E

Dec. 1946

(M3000)F2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.0	3.3	3.1	3.0	2.9	3.1	3.3	3.5	(3.6)	3.5	3.3	3.4	3.3	3.3	3.4	3.4	3.8	3.4	3.4	J	(3.0)	J	J	J
2	A	2.8	2.9	J	2.9	2.7	3.1	3.7	3.6	3.4	3.4	3.6	3.5	3.4	3.5	2.7	2.8	2.8	3.2	A	J	3.1	3.2	2.8
3	2.9	2.8	2.8	2.8	2.8	3.0	2.9	C	C	C	3.5	3.3	3.4	3.2	3.4	3.5	3.6	3.7	3.5	3.9	3.2	3.5	2.9	3.1
4	3.0	3.2	2.9	S	3.0	3.1	3.5	3.7	3.6	3.6	3.9	3.5	3.4	3.2	3.3	3.8	3.7	3.7	3.2	J	3.4	3.4	3.1	2.7
5	2.8	2.8	2.9	3.2	2.3	(2.9)^{B}	3.0	3.6	3.9	3.7	3.5	3.8	3.7	3.4	3.5	3.6	4.1	3.7	3.5	3.5	3.7	3.4	3.3	3.0
6	3.2	3.2	3.2	2.9	2.9	3.2	J	3.8	C	C	C	C	C	C	C	C	3.8	3.6	3.6	3.4	3.4	3.2	3.0	3.1
7	3.1	2.9	3.3	3.5	3.6	3.1	3.4	4.0	4.1	[3.9]$^{S}_{J}$	3.7	3.5	3.6	3.6	3.6	3.7	3.7	3.4	3.7	3.6	3.3	3.3	2.9	3.0
8	3.1	3.2	2.9	2.9	2.8	2.9	3.5	3.6	3.8	3.6	3.6	3.4	3.4	3.3	3.6	3.9	3.8	3.8	J	3.7	3.6	3.5	3.0	3.0
9	3.3	3.1	2.8	3.1^{F}	2.9	3.1	3.0	3.6	3.7	3.9	3.7	3.5	3.3	3.4	3.7	3.7	3.3	3.3	3.7	3.4	3.4	3.2	3.1	3.1
10	3.2	3.4	3.5	3.1	3.4	3.5	3.5	3.6	3.7	3.9	3.3^{H}	3.3	3.5	3.4	3.3	3.3	3.3	J	3.3	3.3	3.3	C	C	C
11	S	S	2.9	2.8	S	J	3.5	3.4	3.5	3.4	3.6	3.3	3.2	3.4	3.4	3.4	3.3	3.5	3.8	J	J	3.1	3.2	3.1
12	2.9	2.9	2.7	2.6	2.9	C	C	3.4	3.8	3.4	3.3	3.3	3.3	3.1	3.1	3.2	3.6	3.2	3.3	J	J	3.0	2.8	2.7
13	J	3.1	2.8	2.7	2.7	2.7	3.1	3.3	3.8	C	C	C	C	C	C	C	C	3.4	3.5	3.3	3.3	3.3	2.8	3.3
14	3.0	3.0	2.9	3.0	3.2	C	C	C	C	C	B	3.3	3.9	3.5	3.6^{Y}	3.5	3.7	3.6	3.6	J	3.6	S	2.9	S
15	3.4	3.2	3.2	3.2	3.3	(3.0)^{S}	(3.5)^{S}	3.7	4.0	3.7	3.7^{H}	3.6	3.7	3.7	3.7	3.6	3.5	3.3^{H}	3.5	3.7	J	3.2	J	2.9
16	3.1	3.1	[3.1]^{C}	3.2	2.7	2.8	3.2	3.7	3.7	3.7	3.4	3.5	3.2	3.5	3.2	(3.2)^{B}	3.4	3.5	3.4	3.3	J	3.5	3.0	2.9
17	2.8	2.8	3.2	2.9	2.9	3.1	3.2	3.5	3.7	3.6	3.4	3.5	3.4	3.4	3.3	3.7	3.3	3.5	3.0	3.5	S	3.4	3.2	2.9
18	3.4	3.3	C	C	C	C	C	C	C	C	3.7	3.6	3.6	J	(3.4)	3.6	3.7	3.7	3.8	J	3.7	3.7	J	J
19	2.9	3.0	2.8	2.9	3.6	3.1	3.0	3.3	3.7	(3.7)^{S}	3.8	3.7	C	C	C	C	3.6	3.1	3.2	3.2	J	S	J	J
20	S	S	S	J	J	(3.2)^{H}	2.8	3.4	3.5	C	C	C	C	C	C	C	(3.7)^{S}	3.6	3.4	3.6	3.7	3.0	2.6	2.8
21	2.7	2.8	2.6	2.6	3.0	S	2.8	C	C	C	C	C	C	C	C	C	C	C	C	3.2	3.2	2.7	3.0	3.1
22	2.9	2.8	2.7	(2.7)^{S}	3.1	3.1	3.1	3.1	(3.4)^{B}	3.5	3.5	3.5	3.3	3.1	3.3	3.4	3.4	3.5	3.3	3.5	3.6	3.2	J	3.0
23	(2.9)^{B}	(3.0)^{S}	2.9	2.9	2.8	2.9	3.4	3.3	3.5	3.6	3.3	3.6	3.5	3.2	3.4	3.5	3.5	4.0	J	(3.2)^{S}	J	3.6	3.3	2.8
24	3.1	3.1	3.0	3.2	3.6	2.9	3.1	3.3	(3.7)^{S}	3.5	3.4	3.4	3.2	3.4	3.4^{H}	J S	3.4	(3.3)^{B}	3.3	3.5	3.3	3.6	3.4	3.0
25	2.8	2.9	2.9	3.2	3.4	3.5	3.1	3.2	3.5	3.6	3.5	(3.4)^{S}	(3.1)^{S}	3.3	3.6	3.5	3.6	3.1	[3.1]^{C}	3.2	3.4	3.5	2.8	J
26	J	2.8	3.1	3.1	3.1	2.8	2.9	3.1	3.2	3.1	3.1^{H}	3.5	3.3	(3.3)^{S}	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.2	3.5	J
27	2.8	2.8	S	2.8	2.8	2.5	3.1	3.9	3.6	C	C	C	C	C	C	C	C	3.2	3.2	3.7	S	A F	3.0	2.7
28	2.8	2.8	2.8	2.7	3.0	2.8	2.9	3.3	J	C	C	3.6	J	(3.5)^{S}	3.4	3.7	3.6	3.4	3.5	3.6	3.7	3.2	3.3	3.0
29	2.9	3.1	3.0	3.0	2.8	2.8	3.1	3.4	3.7	3.7	3.5	3.3	3.3	3.2	3.1	(3.1)^{S}	3.6	3.4	3.3	2.8^{F}	3.0	S	A S	A S
30	A S	A	3.2	3.0	2.9	J	3.0	3.6	3.9	3.6	3.7	4.0	3.4	3.6	3.3	3.7	3.6	A	J	J	J	A	2.9	2.8
31	2.8	2.8	2.7	2.9	3.0	2.9	3.4	3.3	3.7	3.6	3.5	(3.5)^{S}	3.2	3.4	3.4	3.6	3.7	3.7	3.3	J	3.5	3.3	3.3	J
Mean Value																								
Median Value	2.9	3.0	2.9	2.9	3.0	3.0	3.1	3.5	3.7	3.6	3.5	3.5	3.4	3.4	3.4	3.5	3.6	3.5	3.4	3.4	3.4	3.3	3.0	3.0
Count	25	28	28	27	28	25	27	27	25	22	24	26	24	24	25	24	27	29	27	22	20	24	24	22

(M3000)F2

Sweep 1.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

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Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Dec. 1946 | fminF | 135° E Mean Time | Shibata | Lat. 37° 57.0 N, Long. 139° 15.8′ E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1.3	1.4	1.2	1.2	1.2	1.2	1.2	1.9	A	3.1	3.4	3.5	3.5	3.5	3.2	3.1	A	2.0	1.3	1.8	1.5	1.7	3.4	3.1
2	A	1.6	1.6	E	E	1.3	1.6	1.8	A	3.0	3.4	3.5	3.6	4.0	3.2	2.2	1.7	2.8	1.8	1.8	3.2	1.3	1.3	1.3
3	1.2	1.1	E	1.2	E	E	1.4	1.9	C	C	3.6	3.8	3.5	3.4	3.1	3.2	2.3	1.5	1.5	1.3	1.2	1.4	1.2	1.2
4	1.1	1.2	1.3	1.2	1.2	1.2	1.4	1.4	1.5	3.6	3.0	3.4	3.6	3.4	3.1	2.6	2.6	3.4	2.0	1.6	1.7	1.5	1.4	1.3
5	1.3	1.2	1.2	1.2	1.1	1.4	1.2	2.1	2.9	3.2	3.5	3.4	3.6	3.6	3.2	2.9	1.9	1.7	1.5	1.4	1.4	1.3	1.3	1.2
6	1.2	1.3	1.2	1.2	1.2	1.2	1.2	1.7	2.6	C	C	C	C	C	C	C	3.0	1.5	1.5	1.4	1.5	1.2	1.4	1.2
7	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.9	2.7	3.1	3.3	3.6	3.6	3.8	3.0	2.7	3.4	1.3	1.2	1.9	1.2	1.6	1.5	1.1
8	1.2	1.2	1.2	E	E	E	1.3	2.0	2.6	3.4	3.6	3.6	3.6	3.6	3.2	3.0	2.6	1.7	1.4	1.6	1.5	1.6	1.5	1.5
9	1.5	1.2	1.2	1.2	1.1	1.2	1.2	2.8	2.4	3.3	3.4	3.4	4.4	3.4	3.3	2.9	4.0	1.8	1.5	1.5	1.5	1.5	1.6	E
10	1.2	1.2	1.2	1.2	1.2	1.3	1.2	2.7	2.5	3.2	3.6	3.8	3.7	3.6	3.4	3.4	2.5	1.2	1.5	1.7	1.6	1.7	1.4	1.2
11	1.2	1.2	1.2	1.2	1.2	E	1.2	1.4	2.9	3.2	3.8	3.8	3.8	3.5	3.2	3.0	2.6	1.2	1.7	1.9	2.7	1.6	1.5	1.3
12	1.4	1.4	1.2	1.2	1.3	1.2	C	2.4	3.2	3.2	3.6	3.6	3.6	3.5	3.1	2.8	2.4	1.6	1.6	1.9	1.6	1.4	1.5	1.5
13	1.2	1.2	1.1	1.2	1.2	1.4	1.3	2.0	C	C	C	C	C	C	C	C	C	1.6	1.5	1.4	1.2	1.1	1.1	1.1
14	1.1	1.1	1.1	1.1	1.1	C	C	C	C	C	3.4	3.4	3.5	3.6	3.1	3.0	2.4	1.5	1.5	1.5	1.5	1.5	1.3	1.5
15	1.3	1.2	1.4	1.2	1.2	1.2	1.2	1.4	2.4	3.0	3.7	3.7	3.7	3.1	3.2	3.1	2.5	1.7	1.3	1.7	1.4	1.4	1.4	1.4
16	1.2	1.2	C	1.1	1.2	1.2	1.2	1.7	3.0	3.1	3.7	4.0	3.9	3.5	3.2	3.0	2.1	1.3	1.4	1.3	1.4	1.4	1.5	1.4
17	1.4	1.4	1.1	E	E	E	1.2	1.8	3.0	3.5	3.7	3.7	3.8	3.8	3.3	3.0	1.9	1.2	1.1	1.2	1.2	1.4	1.2	1.4
18	1.2	E	C	C	C	C	C	C	C	C	3.5	3.8	4.1	3.7	4.9	3.2	3.1	1.3	1.4	1.2	1.3	1.2	1.5	1.3
19	1.3	1.2	1.2	1.3	1.3	1.3	1.3	1.7	2.6	3.0	3.5	3.8	C	C	C	C	2.8	1.7	1.6	1.5	1.6	1.9	1.6	1.6
20	1.2	1.5	1.2	1.2	1.2	1.6	1.5	1.6	2.9	C	C	C	C	C	C	C	2.4	1.2	1.5	1.2	1.3	1.7	1.8	1.6
21	1.8	1.4	1.3	1.3	1.2	1.2	1.2	1.8	2.8	3.0	3.5	3.7	4.2	3.7	3.5	2.8	2.8	2.8	1.9	1.5	1.5	1.3	1.5	1.4
22	1.5	1.2	1.3	1.3	1.2	1.2	1.3	1.9	2.8	3.2	3.4	3.7	3.6	3.5	4.6	2.9	2.8	1.7	1.4	1.5	1.3	1.3	1.5	1.4
23	1.5	1.5	1.2	1.2	1.3	1.3	1.2	1.9	2.9	3.0	3.6	3.5	3.5	3.6	3.6	3.0	2.9	1.5	1.5	1.2	1.2	1.2	1.2	1.2
24	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.5	2.5	3.0	3.0	3.5	3.7	3.5	3.4	3.2	2.8	1.4	1.4	1.2	1.3	1.3	1.2	1.5
25	1.4	1.4	2.2	1.2	1.2	1.2	1.2	1.7	2.7	3.0	3.4	3.5	3.6	3.4	3.1	3.2	2.9	1.2	C	1.4	1.3	1.7	1.3	1.2
26	1.2	1.2	1.2	1.1	1.4	1.1	1.4	1.5	2.8	3.0	3.2	3.7	3.5	3.7	3.9	2.9	3.0	1.6	1.5	1.3	1.5	1.4	1.6	1.5
27	1.4	1.4	1.2	1.3	1.3	1.4	1.3	1.9	2.8	C	C	C	C	C	C	C	C	1.6	1.7	1.8	1.5	F	2.0	1.5
28	1.5	1.3	1.1	1.4	1.2	1.5	1.3	1.4	2.8	C	C	3.6	3.8	3.8	3.5	3.1	2.9	1.3	2.1	3.6	1.5	1.5	1.5	1.5
29	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.6	2.9	3.0	3.6	4.3	4.3	3.8	3.7	3.2	2.8	1.3	1.2	F	1.5	A	A	A
30	A	A	1.3	1.1	E	E	1.2	1.6	2.9	3.2	3.8	3.8	2.8	4.4	3.8	4.3	5.6	A	4.5	3.8	3.4	A	1.8	1.2
31	1.2	1.2	1.2	1.2	1.1	1.1	1.2	1.4	3.6	3.8	4.1	4.7	4.8	4.0	4.1	3.8	3.4	1.5	1.5	1.7	1.5	1.2	1.5	1.4
Mean Value																								
Median Value	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.8	2.8	3.1	3.5	3.7	3.6	3.6	3.3	3.0	2.8	1.5	1.5	1.5	1.5	1.4	1.5	1.4
Count	29	30	29	30	30	29	28	29	25	23	26	27	26	26	26	26	28	30	30	30	31	28	30	30

fminF

Sweep 1.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

S 9

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

IONOSPHERIC DATA

Shibata

Lat. 37° 57.0 N
Long. 139° 15.8′ E

Dec. 1946

foE

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1.7	1.2	1.8	1.2	1.2	1.2	E	1.4	1.2	1.4	1.4	1.3	1.3	1.3	1.5	1.3	1.2	1.1	1.7	1.5	1.6	1.5	1.5	1.4
2	1.3	E	1.2	E	E	E	1.3	1.5	1.5	1.5	1.5	1.5	1.1	1.8	1.7	1.4	1.4	1.2	1.2	1.2	1.4	1.6	1.9	1.3
3	1.7	E	1.1	1.6	E	E	1.2	1.3	C	C	1.4	1.6	1.5	1.7	1.5	1.5	1.4	1.4	1.2	1.7	1.7	1.8	E	E
4	E	1.2	1.7	E	E	1.8	1.8	E	1.3	1.3	1.4	1.5	1.5	1.5	1.4	1.5	1.4	1.4	1.5	1.6	1.4	E	E	E
5	1.6	E	1.5	1.6	1.2	E	E	1.4	1.1	1.2	1.3	1.2	1.4	1.3	1.2	1.2	1.3	1.4	1.6	E	E	E	1.8	E
6	E	E	E	E	1.7	E	E	1.5	1.5	C	C	C	C	C	C	C	1.2	E	E	1.2	1.2	1.7	1.4	E
7	E	E	E	E	E	E	1.8	1.3	1.5	1.7	1.7	1.7	1.7	2.7	1.7	1.4	1.6	1.3	1.2	1.3	E	1.2	1.5	1.5
8	1.8	E	E	E	E	E	E	1.2	1.5	2.1	B	B	B	B	3.0	B	1.9	1.3	1.3	1.3	1.5	1.4	E	E
9	E	1.2	1.2	1.7	E	E	E	1.2	1.2	1.5	1.5	1.4	1.4	1.5	1.5	1.3	1.5	E	1.2	1.2	1.3	1.5	1.8	E
10	1.8	E	1.2	1.2	1.2	1.2	1.2	1.5	1.6	1.8	1.5	2.1	1.8	2.0	1.7	1.5	1.4	1.2	1.2	E	E	1.5	E	E
11	1.2	E	E	E	E	E	E	1.4	1.2	1.5	2.9	2.5	B	1.8	1.4	1.2	1.3	1.2	1.3	1.3	1.5	1.2	E	E
12	E	E	E	E	E	E	C	1.4	1.3	1.4	1.6	1.7	1.6	2.4	1.4	1.5	1.3	1.1	1.5	1.3	1.4	1.4	1.5	E
13	1.8	E	E	E	E	E	E	1.5	C	C	C	C	C	C	C	C	C	1.4	E	E	E	E	E	1.1
14	1.1	1.1	1.1	1.1	1.1	C	C	C	C	C	1.4	1.4	1.5	3.0	1.5	1.5	1.8	E	E	E	E	1.6	1.5	E
15	E	E	E	E	1.2	1.2	E	1.4	1.4	1.2	2.9	1.4	1.7	1.6	1.5	1.5	1.2	1.2	E	1.3	E	E	E	E
16	E	E	C	E	E	E	E	1.5	1.4	1.3	1.5	1.3	1.4	3.1	1.6	1.4	1.5	E	E	E	E	E	E	E
17	E	E	E	E	E	1.1	E	1.4	1.6	2.9	2.0	1.4	1.5	2.2	1.8	1.6	1.3	E	E	1.2	1.6	E	E	E
18	E	E	C	C	C	C	C	C	C	C	2.9	1.4	3.0	3.2	2.8	B	1.4	E	E	E	E	E	E	E
19	E	E	E	E	E	E	E	1.2	1.2	1.6	1.6	1.7	C	C	C	C	1.3	1.5	E	E	1.6	1.6	1.7	1.6
20	E	E	E	1.2	E	1.9	E	E	1.5	C	C	C	C	C	C	C	1.4	E	E	E	1.2	1.4	E	1.2
21	1.2	E	1.9	1.5	E	E	E	1.2	1.2	1.5	1.6	2.9	2.3	3.0	2.1	1.5	1.5	1.5	1.2	E	1.7	E	E	E
22	1.2	1.2	1.5	E	E	E	1.2	1.2	1.5	1.5	1.7	2.8	2.4	1.6	B	1.5	1.3	1.2	E	E	1.5	E	E	E
23	E	E	E	1.2	1.8	E	E	1.2	1.4	1.5	2.9	3.0	2.8	2.0	1.8	1.5	1.5	1.4	E	E	E	E	E	E
24	1.6	1.2	1.2	E	E	E	E	E	1.5	1.8	1.5	2.1	2.9	2.3	1.5	3.0	1.6	E	E	E	E	E	E	E
25	1.2	1.3	1.2	1.2	1.2	E	E	1.4	1.3	1.4	1.5	2.0	3.0	2.8	1.3	1.5	1.4	1.1	C	1.7	1.7	2.1	1.6	1.9
26	1.6	E	E	E	E	E	1.7	1.7	1.3	1.2	1.7	1.5	1.6	1.5	1.6	1.3	1.3	1.4	E	E	E	E	E	E
27	E	E	E	E	E	E	E	1.5	1.3	C	C	C	C	C	C	C	C	1.2	1.3	1.5	1.5	1.5	1.5	1.5
28	1.5	1.2	1.1	1.4	E	E	E	1.2	1.5	C	C	2.9	2.9	1.6	1.4	1.2	1.2	1.2	1.2	1.2	1.2	1.5	1.5	1.6
29	E	E	E	E	E	E	E	1.2	1.5	1.5	3.4	3.3	3.3	3.0	3.0	1.4	1.5	E	E	1.2	1.2	1.2	1.2	1.4
30	1.3	1.3	E	E	E	E	1.7	1.5	1.5	1.4	1.7	1.7	2.0	3.3	3.0	2.9	1.8	1.4	1.5	1.3	1.3	1.2	1.5	1.2
31	1.8	1.2	E	E	E	E	E	E	B	B	B	B	B	B	B	B	B	1.2	1.1	1.5	1.4	1.7	1.5	1.5
Mean Value																								
Median Value	1.2	E	E	E	E	E	E	1.4	1.4	1.5	1.6	1.7	1.7	2.0	1.6	1.5	1.4	1.2	1.2	1.2	1.2	1.2	E	E
Count	31	31	29	30	30	29	28	29	26	22	24	25	23	24	24	23	28	31	30	31	31	31	31	31

foE

Sweep 1.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

S 10

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Jan. 1946

foF2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1																								
2										6.8	8.1	A	9.0	8.2	6.4	5.8	5.8	4.3	(3.7)C	3.1	3.2	2.3	2.7	3.0
3	3.2J	3.7JF	(4.3)JF	3.1JF	3.3JF	3.1	2.5	4.9	6.1	7.0	6.8	6.4	7.1	7.9	6.7	7.8	6.3							
4										4.0	3.9	5.5J	A	C	5.4	4.8	4.8	4.1	3.6	3.1F	(3.3)F	3.0F	A	A
5	A	3.1	2.6JF	2.6JF	2.8JF	1.8JF	1.9J	4.5	6.5	(6.3)	8.0	8.3	(7.1)C	5.9	5.6	6.7	5.5							
6																								
7										7.0	7.8	7.4	7.8	7.0	5.8	6.8	5.3	4.2	2.9	2.5	3.1	3.3	(3.2)JF	3.3
8	2.9F	3.0F	3.1F	3.1F	2.8JF	2.4JF	2.5	4.4	4.9	6.9	7.0	8.5	8.3	(7.2)	(8.3)	5.8	5.4	3.4J	4.7	4.6	2.5	2.5	2.2	3.5F
9	3.0JF	CF	CF	CF	CF	CF	CF	3.5F	4.8	6.2J	6.7	7.0	7.4	6.6	7.1	6.3	5.7	4.2J	3.5	3.0	2.7	3.0	2.6	2.6
10	2.6J	2.8	2.8	2.8	2.6	2.4	2.5	3.7	5.1	5.7	10.0K	6.7K	6.3K	6.0	7.5	7.8	5.9	4.4	3.4	4.4	4.1	2.4	2.3	2.4
11	2.7	2.9	2.9	2.8	3.0	2.9	3.6	5.0	6.5	6.0	7.8	7.7	7.5	6.8	6.2	6.5	6.0	5.0	4.6J	4.2	3.7	2.8	3.0	3.2
12	2.8	3.5	3.3	3.0	2.6	2.8	2.7	4.9	6.9	7.1	9.7	7.4	8.1	6.7	6.4	6.8	5.9	5.0	5.8	4.2F	3.2J	2.4J	2.4JF	A
13	2.6JF	A	A	A	A	3.0	2.2	4.7	5.6	6.5	7.5	7.3	6.4	6.7	6.6	5.9	5.6	4.2	4.4	3.8	3.5	F	F	F
14	3.5F	3.5F	3.5F	2.8F	2.4F	2.7F	2.5	5.0	5.8	6.7	8.1	7.9	6.8	6.2J	6.6	6.8	5.6	4.7	4.2	3.4	2.5J	2.9	3.4F	3.2
15	3.3	3.4	3.1F	3.4F	3.4	3.4J	(3.6)F	4.7	6.1	6.7	8.5	8.2	6.6	6.0	(7.4)	6.4	5.3	4.2	(5.0)	3.3	2.7	2.6	2.9	2.8
16	3.5	3.9	3.8	3.0	2.6	2.5JF	2.4	4.0	5.0	7.3	(9.2)	(7.4)	7.0	7.2	7.3	6.3	5.8	5.6	3.5	3.2	3.5J	4.1	3.8	3.4
17	3.3	3.6	3.8	3.6	2.8	2.9	2.3	(4.6)C	6.9	8.8	8.7	6.7	5.9	6.8	6.6	6.1	6.0	5.1	(5.2)	4.6J	3.8	5.1F	(4.0)JF	3.7JF
18	(4.4)JF	3.8	3.3JF	3.1JF	(3.5)JF	3.3JF	3.3JF	4.8	4.9	8.2	8.1	(8.5)	6.9	7.8	7.6	7.5	6.3	5.2	3.8	(3.9)	3.6	3.2	2.9	3.2
19	2.7F	3.3	3.2F	3.0	3.2	3.5	3.1	4.3	6.8	10.5	10.5	9.3	8.1	7.5	8.0	7.1	6.2	5.4	5.1	4.7	4.3F	3.6	4.3	4.1F
20	(4.2)JF	(3.9)JF	3.7	3.9	3.8	3.8	3.8	5.6	6.4	8.2	8.6	8.5	7.9	8.0	7.6	7.3	6.8	5.8	5.6	4.3	3.0	3.1JF	3.4JF	3.5
21	3.5JF	3.9F	3.8	3.2J	3.0	3.0	3.1	(6.0)	6.2	7.2	7.3	9.3	(10.3)	9.9	9.0	8.6	6.1	4.4	3.5J	(3.8)	3.7	2.8JF	2.5	2.6
22	2.9	3.0	3.0F	3.0	2.8F	3.3	2.7	4.5	7.6	9.9	8.1	9.8	7.8	7.2	7.7	8.7	8.1	5.9	5.2	4.0	2.6	2.6	3.1	3.3
23	3.5	4.0	3.9	3.2	2.6	2.7	2.4	5.8	8.1	9.7	9.6	(10.5)	9.3	9.2	7.6	7.2	5.6	5.2	5.0	3.8	2.9	3.0	2.9	2.7F
24	2.9F	2.9F	2.9JF	2.8	3.0	3.8	3.1	5.1	5.9	8.0	(10.8)	(10.2)	8.2	7.5	7.3	7.6	7.8	6.4	4.6	3.8	3.9	2.5	3.1JF	2.9F
25	2.6JF	3.5	3.5	3.7	3.8	2.6	2.2	3.4	8.8	11.0D	(10.2)	7.5	8.3	8.3	8.1	6.5	5.7	4.1	3.7	3.9	3.4	2.5	2.6	2.9
26	(3.2)JF	3.1JF	3.0F	2.7	3.0	3.1	2.4	4.9F	6.1	7.6	9.2	9.1	8.5	6.8	7.0	6.5	5.0	4.8	3.9	3.6	3.0	2.7	C	(4.1)JF
27	(4.0)JF	(3.6)JF	3.5	3.1	3.1	3.1	2.8	5.1	8.7	8.7	9.0	(10.3)	9.4	7.5	6.7	6.5	5.3	5.3	4.4	3.3	3.5	3.6	3.2	3.1
28	2.8	2.7	2.8	2.8	3.0	3.1	3.0	5.4J	5.7	5.2	(7.4)	8.0	7.8	7.0	7.0	6.6	7.0	4.8	4.2	3.0	2.4	2.4	2.4J	2.8
29	2.7	3.0	3.1	3.4	3.7	2.3	2.5	5.0	5.6	6.2	7.2	6.5	6.6	6.7	7.1	5.9	4.7	4.9JF	(5.0)JF	4.1J	3.4	3.1	3.0	3.5
30	3.1	3.5	3.6	3.9	3.1	3.1	3.0	(5.4)J	6.1	6.1	7.6	9.5	8.2	7.6	7.2	7.1	6.2	5.2	(4.3)	4.3	3.8	3.3	3.2	3.0JF
31	3.2	3.5J	3.8	4.2	4.0	(42)C	4.4	6.4	6.3	6.9	7.5	7.6	8.2	8.5	6.7	7.2	7.2	5.7	4.5	(4.2)C	3.7	2.8	2.9	3.1
Mean Value																								
Median Value	3.1	3.5	3.5	3.3	3.0	3.0	2.7	4.9	6.1	7.0	8.1	7.8	7.8	7.2	7.1	6.7	5.9	5.0	4.3	3.8	3.4	2.9	3.0	3.2
Count	25	24	24	24	24	25	25	26	26	29	29	28	28	28	29	29	29	27	27	27	27	26	24	24

foF2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 1

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

IONOSPHERIC DATA

Jan. 1946 | fEs | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1																								
2										<fE	3.8	10.0	6.7	4.9	4.3	4.3	3.5	3.1	3.9	2.6	2.2	2.2	2.4	2.0
3	E	E	E	E	E	E	E	2.8	2.5	2.9	2.9	2.9	2.8	2.7	3.2	4.0	2.7							
4										4.1	3.9	4.1	8.8	6.4	5.6	4.5	4.9	2.4	3.7	2.2	E	2.5	4.5	4.5
5	3.7	2.4	2.3	2.9	E	E	2.6	2.4	2.5	2.9	3.7	3.7	3.9	4.4	3.3	2.9	3.1							
6																								
7										2.9	3.4	3.0	3.9	3.7	3.1	3.5	3.0	E	3.0	2.5	E	E	2.0	E
8	E	E	E	E	2.3	2.9	2.3	2.8	2.9	<fE	<fE	3.9	3.4	3.2	3.7	4.0	2.9	E	E	2.4	E	E	E	E
9	E	E	E	E	E	E	E	E	2.5	3.2	<fE	4.2	3.7	3.8	3.9	2.9	<fE	E	2.9	3.0	4.3	E	E	2.5
10	E	E	2.0	E	E	E	2.1	2.0	E	3.7	5.1	3.1	<fE	3.1	2.8	2.9	2.9	3.1	2.3	2.6	2.3	2.4	2.1	E
11	E	E	2.1	E	2.2	2.1	2.2	2.5	2.8	5.8	3.8	3.4	3.4	4.1	3.9	2.5	<fE	4.2	6.0	6.5	5.0	2.6	2.1	3.7
12	2.8	2.7	2.5	2.3	2.4	2.9	2.8	2.3	2.5	4.6	4.0	3.9	2.7	2.9	2.9	<fE	<fE	2.3	3.6	3.2	2.8	2.3	2.8	5.3
13	4.6	4.4	3.1	2.8	2.5	4.3	4.6	4.4	3.2	3.1	3.9	4.0	4.0	3.2	3.4	3.1	2.9	2.5	2.6	2.5	2.3	2.3	E	E
14	E	E	E	E	2.1	2.3	E	E	2.4	4.8	8.6	4.8	3.0	3.1	3.7	<fE	2.9	3.3	2.9	3.0	2.7	2.7	3.1	3.5
15	3.9	2.9	4.0	2.3	2.7	2.2	2.3	2.4	<fE	3.0	3.7	3.9	4.0	2.9	4.0	3.6	3.0	3.5	2.7	2.2	2.9	3.0	3.0	2.6
16	2.3	2.7	2.6	2.9	2.8	2.7	E	E	<fE	<fE	3.1	2.9	2.9	3.1	3.0	2.8	2.5	2.6	E	E	E	2.1	E	2.4
17	2.8	2.1	2.6	E	2.4	2.1	2.1	E	2.7	2.8	<fE	<fE	<fE	2.9	<fE	3.9	3.1	4.0	3.4	2.3	3.0	2.7	2.4	2.3
18	2.4	2.3	2.7	2.3	2.9	2.0	E	<fE	2.5	3.9	4.0	4.3	3.9	3.8	4.1	<fE	3.0	3.5	3.3	3.1	3.0	E	E	2.4
19	2.6	2.9	2.2	2.2	2.5	E	E	3.2	2.4	<fE	3.6	3.0	3.5	3.7	3.6	3.4	3.1	3.1	3.8	4.2	3.7	2.9	2.9	E
20	E	E	E	E	E	E	E	2.9	E	3.2	4.2	4.6	4.1	4.1	3.6	3.1	3.0	2.0	2.1	E	E	E	E	E
21	E	E	2.9	2.5	2.2	2.3	2.0	2.6	3.5	3.4	3.5	3.3	3.2	2.9	2.9	4.0	3.5	5.8	8.8	3.2	E	2.9	3.3	2.7
22	2.4	2.5	E	E	2.3	E	E	E	3.9	4.2	7.0	7.4	<fE	3.8	3.5	4.0	5.5	E	2.5	3.0	3.1	3.3	2.7	2.5
23	2.9	2.9	3.1	3.4	3.0	2.0	E	2.6	5.6	4.4	5.4	6.2	4.2	4.6	4.6	4.4	3.4	3.2	3.0	2.8	2.7	2.2	2.6	2.4
24	3.1	2.7	2.2	E	E	E	E	E	2.6	4.4	3.6	4.4	3.8	4.8	6.1	5.3	2.1	E	2.3	2.5	4.2	2.7	4.1	4.8
25	3.3	2.5	2.2	E	E	2.1	2.2	2.4	2.6	4.4	6.9	4.3	4.4	6.0	4.1	4.4	3.0	2.9	2.5	2.9	2.9	2.0	2.1	2.2
26	3.3	3.6	3.2	2.5	3.1	2.5	2.4	2.4	3.7	3.3	3.9	3.5	5.0	5.0	4.8	4.8	3.5	3.5	3.4	3.2	2.6	2.9	[3.8]C	4.5
27	3.9	3.7	3.0	E	E	E	2.9	2.9	3.5	3.9	4.0	3.6	3.7	4.8	4.3	4.5	3.2	3.0	2.9	2.6	2.3	E	E	E
28	E	2.5	3.1	2.9	2.9	3.1	E	2.4	2.1	3.2	4.1	3.5	<fE	<fE	<fE	3.5	2.0	E	E	E	E	E	E	2.6
29	2.3	2.2	E	E	E	E	E	<fE	2.7	<fE	3.0	3.4	4.3	4.2	4.0	3.5	4.2	4.3	4.1	2.9	E	E	E	E
30	E	E	E	E	E	E	2.2	<fE	2.5	<fE	3.7	3.9	3.8	3.9	4.1	3.5	4.5	3.4	3.1	2.6	3.0	E	E	E
31	E	E	E	E	E	E	E	E	3.4	3.1	<fE	3.6	3.7	4.3	5.5	3.1	<fE	2.6	2.6	[2.8]C	2.5	E	E	E
Mean Value																								
Median Value	2.4	2.4	2.2	E	2.2	2.0	2.0	2.4	2.4	3.4	3.9	3.9	3.8	3.8	3.9	3.6	3.0	3.0	2.9	2.6	2.6	2.3	2.1	2.4
Count	26	26	26	26	26	26	26	23	24	23	25	28	25	28	27	26	25	27	27	27	27	27	27	27

fEs

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K2

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

IONOSPHERIC DATA

Jan. 1946 | (M3000)F2 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1																								
2										3.3	3.6	(3.6]C	3.5	3.9	4.1	3.6	3.8	4.2	(3.9)C	3.6	3.9	3.3	3.3	2.5
3	C	C	C	C	C	3.2	3.6	3.6	3.8	3.9	3.4	3.8	3.9	3.9	3.2	3.8	3.8							
4										3.4	3.6	C	A	C	3.5	3.8	3.3	3.5	3.3	3.2	(2.5)	3.0	A	A
5	A	3.2	C	C	C	C	C	3.6	3.8	(3.7)	3.8	3.7	(3.8)C	3.9	3.8	4.2	4.2							
6																								
7										3.9	3.8	3.8	3.8	4.2	3.6	3.1	4.3	4.0	3.8	3.6	3.5	3.4	(3.1]C	2.8
8	3.0	2.8	3.7	3.1	C	C	3.6	4.3	4.3	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	3.0	3.0	3.8]	2.9	3.3	3.1	3.1	2.7	2.6
10	(2.6]C	2.6	3.1	3.1	3.3	3.0	3.7	3.6	3.8	3.2	3.3	3.7	3.7	3.2	3.2	3.3	3.2	3.8	2.8	3.0	3.7	3.2	2.9	2.5
11	2.5	2.7	2.9	2.6	2.6	2.6	3.0	3.2	3.7	4.1	3.4	3.9	3.9	3.7	3.9	3.9	3.5	4.2	(4.0]C	3.7	3.5	3.2	2.9	3.1
12	2.8	2.9	2.7	3.3	3.0	3.4	3.4	4.1	3.6	3.6	4.1	4.1	4.3	4.2	3.6	3.8	4.1	3.4	4.0	4.0	C	C	C	C
13	C	C	C	C	C	C	C	3.7	3.4	3.3	4.1	3.8	3.7	3.4	3.6	3.9	3.7	3.6	3.3	3.3	3.3	C	C	C
14	3.1	3.0	3.3	3.1	2.9	2.6	3.0	3.5	4.2	3.6	4.1	4.0	4.0	(3.3]C	3.5	3.8	4.0	3.4	3.7	4.0	(3.5]C	2.9	2.9	2.8
15	3.4	2.9	3.1	3.4	2.7	(2.8]C	(3.0)	3.8	4.2	3.8	4.1	4.0	4.1	3.6	(2.8)	3.9	4.3	3.8	(3.8)	3.3	3.2	3.6	2.9	2.9
16	3.0	2.9	3.1	3.5	3.3	(3.3]C	3.4	3.6	4.0	3.6	(3.8)	(3.5)	3.4	3.7	3.9	3.8	3.7	3.9	3.2	3.8	(3.1]C	2.7	3.1	2.7
17	2.8	2.9	3.1	3.7	2.6	2.9	3.0	(3.1]C	3.2	3.4	4.0	4.2	3.7	3.5	3.6	3.5	3.7	3.7	(3.7)	(3.3]C	2.9	2.6	C	C
18	C	3.2	C	C	C	C	C	4.0	4.2	3.8	3.8	3.3	3.9	3.1	3.7	3.7	4.3	3.2	3.6	(2.9)	3.3	3.0	3.0	3.0
19	3.1	2.9	2.9	3.1	3.2	3.3	3.3	3.3	3.5	3.6	3.7	(4.0)	3.7	3.9	3.3	3.8	3.9	3.6	3.5	3.6	3.1	3.5	3.1	2.8
20	C	C	3.2	3.2	3.2	3.2	3.5	3.9	3.5	3.4	3.6	3.7	3.8	3.6	3.1	3.8	3.9	3.7	3.9	(3.5]C	3.1	C	C	3.0
21	(2.9]F	2.8	3.3	(3.2]C	3.0	3.3	3.6	(3.9)	3.9	3.8	3.5	3.6	(3.4)	3.9	3.8	3.8	4.0	3.9	(3.9]	(3.9)	3.8	(3.9]C	4.0	3.1
22	2.9	3.0	3.0	3.3	3.2	3.0	3.2	3.5	3.8	4.3	3.8	3.7	3.6	3.5	3.7	3.4	3.7	3.6	3.4	3.8	3.2	2.8	2.7	3.0
23	2.9	3.4	3.2	3.4	2.9	2.8	2.9	3.6	3.7	3.6	3.5	(3.2)	3.7	3.6	3.6	3.6	3.6	3.7	3.6	3.7	3.5	2.9	2.6	2.7
24	3.3	2.7	(2.9]C	3.0	2.8	3.1	3.4	3.5	3.6	3.0	(3.7)	(3.8)	4.0	3.9	3.5	3.1	3.5	3.4	3.7	2.9	3.5	3.2	(2.9]C	2.8
25	(2.9]F	3.1	3.0	2.9	3.2	3.5	3.0	3.2	3.7	(3.7]D	(3.6)	3.9	3.4	3.8	3.8	3.7	3.7	3.6	3.2	3.5	3.9	3.2	3.1	3.2
26	C	C	3.0	3.0	3.3	3.2	3.3	3.9	3.8	3.6	3.8	4.1	3.6	3.6	3.6	3.7	3.4	4.1	3.1	3.5	3.3	3.0	C	C
27	C	C	3.0	2.9	3.6	2.8	2.8	4.0	3.4	3.5	3.4	(3.7)	3.6	3.7	3.4	3.5	3.5	3.6	3.6	3.2	3.1	3.4	3.1	3.5
28	3.2	3.1	3.0	3.0	3.2	3.2	3.7	(4.0]C	4.1	4.3	(3.4)	3.9	4.2	3.7	3.4	3.8	3.9	4.0	3.6	3.8	3.7	3.5	(3.3]C	3.2
29	3.0	2.8	3.1	3.2	3.7	2.8	3.2	4.0	3.8	3.9	3.7	4.0	3.8	3.5	3.8	4.0	4.3	(3.3]C	(3.4]C	(3.5]C	3.2	2.9	C	C
30	2.8	2.9	2.9	2.8	3.2	2.9	3.0	(3.5]C	3.9	3.5	3.3	3.5	3.5	3.4	3.3	3.8	3.6	3.4	C	C	C	C	C	C
31	C	C	C	C	C	C	C	C	C	3.7	3.5	3.4	3.6	3.5	3.7	3.3	3.9	3.4	3.3	(3.5]C	3.5	3.2	3.0	3.2
Mean Value																								
Median Value	2.9	2.9	3.0	3.1	3.2	3.1	3.2	3.6	3.8	3.6	3.7	3.8	3.7	3.7	3.6	3.8	3.8	3.7	3.6	3.5	3.5	3.2	3.0	2.9
Count	17	19	20	20	19	20	21	24	24	27	27	26	26	26	28	28	28	26	25	25	24	22	18	19

(M3000)F2 | Sweep 2.0 Mc to 15.0 Mc in 15 min | ☒ Manual ☐ Automatic

K 3

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Feb. 1946

foF2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.0	3.2	3.4	3.1	2.9	2.7	3.0	6.5	6.2	6.8	9.0	9.1	10.0	8.5	7.9	7.7	6.9	(5.2]C	3.9	3.9	3.8	3.0	3.0	2.9
2	3.1	3.2	3.5	3.7	2.6	2.6	2.9	6.1	6.4	7.5	(8.6]C	9.0	8.5	8.1	8.3	7.2	8.1	5.6	4.3	4.6	4.3	3.9	(3.9)C	3.9
3	(3.9]C	4.0	4.0	3.6	3.1	3.4	3.7	6.5	7.2	7.6	8.3	9.9 J	8.6	B	B	7.5	17.5	6.4	5.0	5.3	4.5	3.4	3.5	3.5
4	3.4	3.6	3.5	3.4	3.5	3.0	2.8	5.9	8.3	9.2	11.0 D	(10.4)	(10.4)	8.9	9.1	8.4	7.7	7.0	5.5	4.5 F	3.4	3.0	3.1	3.1
5	3.3	3.3	4.0	3.8 F	2.8 F	2.8 J F	4.4 F	7.2 F	7.5	8.3	9.3	(10.3] B	10.5	9.3	8.9	8.7	8.2	7.8	5.6	4.2	4.5	3.9	4.0	3.8
6	3.6	3.7	3.6	3.8	3.2	3.1	(5.0)	7.8	7.1	8.2	9.4	11.0	11.0	9.8	9.0 B	9.4 B	8.3	7.5	5.9	(5.5)	3.7	2.5	2.7	2.8
7	2.6	3.1	3.4	4.1 F K	3.4	2.4	2.7	7.4	8.2	9.2	9.1	B	B	(11.6)	9.4	9.4	8.9	8.1	6.9	5.4	(7.2) J F K	F K	F K	F K
8	F K	(4.8) J F K	(3.3) J F K	F K	F K	4.2	2.9	5.0	7.3	6.8	10.5 D	7.3 B	9.6	8.3	9.2	8.2 B	8.7	8.5	5.4	(6.0) C K	6.2 K	5.3 K	(4.6)	3.5
9	4.4	3.9	3.8	4.0	3.6	3.9	3.8	7.0	9.0	(9.8)	10.0 K	(12.6) K	10.5 DC KB	10.5 B	9.2	9.1	9.6	8.8	5.2	4.2 J	5.0 J F K	(4.6) J F K	4.1	3.5
10	3.5	3.3	3.3	3.3 F	3.2	3.0	3.0	6.2	8.1	9.6	(11.2) D	9.8	9.2	9.5	9.7	8.9	(9.5)	7.5	6.1	6.0	4.4 F	2.7 F	3.2 J F	3.3
11	3.4	3.1	3.4	3.1	2.9	2.7	2.7	8.1	9.8	(10.6)	(11.0)	11.7	11.5 B	9.9	9.5	8.9	8.5	7.8	7.2	5.6	4.8	4.3	4.3	3.9
12	3.4	3.0	3.1	3.2	3.2	3.4	3.3	6.2	9.4	(10.1)	9.0 H	9.7	11.1 H	10.5 H	9.8 H	9.6 H	8.9	7.8	5.9	5.1	4.4	3.8	4.2	4.1
13	3.9	3.7	3.6	3.5	4.0	4.1	4.4	7.1	8.9	(11.8)	11.4 H	11.0 H	9.6	9.7	9.7	10.6	9.1	7.8	6.0	6.2	5.0 F	3.8	3.6	4.1
14	3.8	(3.4] C	3.0	2.9	2.3	2.7	3.1	8.0	8.6	10.0	9.5 H	10.5	9.8 H	9.0	9.3	(9.7)	8.6	7.1	4.7	4.6	4.3	4.6 K	4.6 K	3.1 K
15	3.8 J A K	A K	A K	A K	3.7	3.6	3.6	7.5	8.5	13.7 H	11.1 H	(11.3)	11.5 H	(10.8)	9.5	10.3	9.0	7.8	6.8	4.4	A F	A F	A	3.4 F
16	3.8 F	3.9 F	3.8 F	4.0	3.6	3.4	4.0	7.6	9.2	11.0	9.6	11.0	12.7	10.3 H	9.9 H	9.1	8.8	7.2	6.8	4.5	4.2	3.9	3.8	3.8
17	4.3	4.1	3.9	4.2	4.1	(4.8) J F K	5.3 J F K	7.7	10.1	10.2	10.0	11.6	12.5 H	B	B	(10.0)	8.4	6.6	6.3 H	6.4	4.4	3.6	3.9	3.8
18	3.8	3.9 H	4.7 K H	4.5 J K H	5.1 J K	3.8	3.9	6.5	7.6	8.2	8.6	9.2 H	C	C	11.3	10.6	C	7.9 J	6.0	3.9	3.3	3.4	3.4	3.2
19	3.4	3.5	3.7	4.1	3.8	4.1	3.9	6.1	7.2	9.1	9.7	10.5	11.7	10.1	9.0	8.8	17.5	6.8	5.5	5.0	5.0	4.8	4.4	4.4
20	4.2	4.4	4.3	4.0	3.9	4.1	4.0	7.0	9.5	11.6	13.3	11.1 H	(13.2)	11.5	10.7	(10.6) H	8.9	7.5	5.6	4.7	4.2	4.3	4.1	4.3
21	4.5	4.4	2.9	4.3	4.0	3.1	3.0	6.8	6.5	10.1 H	11.2	10.0	10.4	8.6	9.2	9.2	9.4	(9.7)	7.0	5.6	5.8	5.2	5.2	5.6
22	6.2	4.5	4.4	3.9	4.1	4.3	5.2	7.6	9.3	(9.9] C	(10.5) H	13.1	10.2	9.5	8.0	8.1	8.5	C	C	3.4	4.2	4.0	A	3.8
23	(3.8]C	3.8	3.5	3.7	3.3	3.3	(4.2)	(6.2] C	8.1	10.5	10.1	10.5	11.1	9.3	9.8	9.2	8.8	8.1	6.8	5.7	4.6	4.2	4.1 F	4.2 J F
24	4.2 F	3.7	3.6 F	3.7	3.7	3.7	(4.5)	8.7	8.7	8.5	10.1	11.3	12.3	10.6	10.8	8.5	8.4	8.9	7.0	5.2	4.6	4.5	3.9	3.7
25	4.0	4.3	3.8	3.7	3.7	3.2	3.3	8.3	9.3	9.5	8.9	10.7 H	10.9	10.2	10.3	(9.1)	(9.2)	8.9	6.5	4.5	4.2	4.4	3.5	3.8
26	4.5	4.4	3.5	3.7	3.4	3.3	3.6	7.7	10.1	10.4 H	11.1	11.1	10.9	9.8	9.5	8.9 J	8.8	8.2	6.6	5.1	5.1	4.9	4.5	4.3
27	4.1	4.1	4.1	4.0	3.7	3.9	5.2	7.8	9.6	9.9	9.1 H	10.3 H	10.5	10.0	9.6	8.9	7.6	7.7	7.3	6.5	5.0	(4.8)	4.7	(4.7)
28	4.4	4.4	4.6	4.7 H	4.2 H	(3.7)	4.6	8.3 J	8.3	8.0 B	9.1 B	10.0 B	11.1 H	11.1 BH	10.4 BH	9.6 B	8.6	8.1	7.9	6.8	5.3	4.6 J	4.8	4.8 K
29																								
30																								
31																								
Mean Value									8.4	9.7	9.9	10.5	10.8	9.8	9.5	9.1	8.6	7.8	6.0	5.1	4.5	4.1	4.0	3.8
Median Value	3.8	3.8	3.6	3.8	3.6	3.4	3.8	7.2	8.4	9.7	9.9	10.5	10.8	9.8	9.5	9.1	8.6	7.8	6.0	5.1	4.5	4.1	4.0	3.8
Count	27	27	27	26	27	28	28	28	28	28	28	27	26	25	26	28	27	27	27	28	27	26	25	27

foF2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 1

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

IONOSPHERIC DATA

Feb. 1946 | **fEs** | 135° E Mean Time | **Kokubunji Tokyo** | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	Ē	Ē	Ē	Ē	Ē	Ē	Ē	2.8	3.3	3.4	3.7	4.3	3.9	Ē	3.1	3.1	3.2	C	2.0	Ē	Ē	Ē	Ē	Ē
2	2.1	Ē	2.0	2.5	Ē	2.8	Ē	2.8	2.9	3.9	[3.1]	4.4	4.2	4.1	4.1	3.6	3.1	2.9	2.4	2.4	Ē	Ē	[Ē]C	Ē
3	[Ē]C	Ē	Ē	Ē	Ē	Ē	2.7	2.5	2.8	3.1	3.2	Ē	3.3	B	B	5.4	4.5	2.5	3.2	Ē	Ē	Ē	Ē	Ē
4	Ē	Ē	Ē	Ē	Ē	2.6	2.9	3.2	3.3	4.0	4.3	3.4	4.2	4.2	⌐fĒ	3.1	⌐fĒ	2.6	3.4	3.6	3.0	3.0	2.6	3.2
5	2.4	3.0	2.2	2.5	2.9	2.5	3.0	3.0	3.3	3.0	⌐fĒ	B	2.7	Ē	⌐fĒ	3.3	3.1	Ē	Ē	2.2	Ē	Ē	2.4	Ē
6	Ē	Ē	Ē	Ē	Ē	Ē	Ē	2.4	2.7	3.7	4.0	⌐fĒ	⌐fĒ	3.2	B	B	⌐fĒ	2.5	2.9	Ē	Ē	Ē	Ē	Ē
7	Ē	Ē	Ē	3.3	Ē	Ē	Ē	3.1	3.5	⌐fĒ	4.3	B	B	⌐fĒ	4.0	⌐fĒ	3.1	2.7	2.9	2.3	Ē	Ē	Ē	Ē
8	Ē	Ē	Ē	Ē	Ē	Ē	Ē	2.6	⌐fĒ	⌐fĒ	2.6	4.3B	⌐fĒ	B	7.8	6.1B	⌐fĒ	⌐fĒ	Ē	Ē	Ē	Ē	Ē	Ē
9	Ē	2.4	2.7	Ē	Ē	Ē	Ē	2.3	⌐fĒ	4.3	4.1	3.5	B	B	4.3	3.7	3.7	3.1	3.2	4.8	5.2	6.3	2.2	2.7
10	Ē	3.1	2.3	2.7	2.9	3.6	2.9	2.1	2.7	4.0	3.9	3.9	⌐fĒ	4.4	⌐fĒ	3.2	2.7	3.0	2.9	Ē	2.5	Ē	3.7	2.5
11	2.5	2.6	2.2	Ē	Ē	2.5	2.2	3.1	⌐fĒ	⌐fĒ	3.3	3.3	3.4B	5.6	3.5	⌐fĒ	3.4	2.5	Ē	Ē	Ē	Ē	2.2	3.1
12	2.7	2.6	2.6	2.9	2.0	2.6	Ē	2.6	2.8	3.9	4.2	4.3	4.5	4.2	4.0	3.8	3.9	3.4	3.3	3.1	Ē	2.7	Ē	Ē
13	Ē	Ē	Ē	Ē	3.3	2.7	Ē	Ē	2.7	3.3	⌐fĒ	⌐fĒ	⌐fĒ	⌐fĒ	B	4.1	3.6	4.0	2.9	2.7	3.5	2.8	3.5	2.7
14	3.0	3.5	3.1	2.4	2.7	2.4	Ē	Ē	3.3	3.8	4.3	4.3	4.4	3.9	4.2	5.6	4.1	4.1	4.1	3.4	Ē	4.7	4.5	5.3
15	6.0	8.4	7.6	5.1	2.9	2.0	2.4	2.4	3.2	2.9	3.5	3.8	3.1	4.1	⌐fĒ	3.7	⌐fĒ	3.3	2.5	2.9	5.6	4.4	6.0	2.9
16	3.4	3.1	3.0	2.5	2.7	2.3	2.8	⌐fĒ	⌐fĒ	3.1	⌐fĒ	4.3	4.3	4.2	3.9	3.6	3.4	3.1	3.4	2.3	Ē	3.0	Ē	Ē
17	Ē	Ē	Ē	Ē	Ē	Ē	2.2	Ē	3.9	⌐fĒ	⌐fĒ	4.0	3.0	B	B	3.0B	3.1	2.9	Ē	Ē	Ē	Ē	Ē	Ē
18	Ē	2.7	2.4	2.8	2.9	2.4	2.4	2.2	2.8	3.3	3.8	3.7B	4.3	2.5	⌐fĒ	3.7	3.2	Ē	Ē	Ē	2.3	2.7	2.5	2.4
19	2.4	Ē	Ē	Ē	Ē	Ē	Ē	Ē	⌐fĒ	⌐fĒ	4.5	2.7	3.5	3.9	4.1	4.0	3.2	2.9	3.5	2.5	3.3	3.3	3.1	2.4
20	2.3	2.2	Ē	Ē	Ē	2.5	Ē	⌐fĒ	⌐fĒ	⌐fĒ	2.8	3.9	4.3	4.4	5.5	5.2	3.7	2.9	Ē	2.5	2.4	Ē	Ē	3.0
21	Ē	Ē	Ē	Ē	Ē	Ē	Ē	⌐fĒ	3.4	3.5	4.3	⌐fĒ	⌐fĒ	⌐fĒ	⌐fĒ	⌐fĒ	3.3	2.6	2.2	Ē	Ē	Ē	Ē	3.1
22	2.5	Ē	Ē	Ē	Ē	Ē	Ē	2.4	2.9	(3.4)C	3.9	4.1	4.8	5.0	5.1	5.0	4.7	C	C	Ē	3.2	4.2	5.5	3.2
23	[3.1]C	3.0	2.3	3.1	2.9	Ē	Ē	[3.3]C	3.4	3.8	5.8	6.2	4.5	5.8	5.2	5.8	3.9	3.3	Ē	2.5	3.1	2.8	6.0	5.5
24	3.1	3.1	2.6	Ē	2.3	Ē	Ē	Ē	3.2	3.2	3.7	⌐fĒ	4.3	4.3	4.0	3.7	3.0	2.7	Ē	2.3	2.4	2.6	2.7	2.2
25	2.9	Ē	Ē	2.8	Ē	2.5	Ē	2.7	⌐fĒ	4.1	4.2	4.4	4.6	4.8	4.1	5.2	4.0	3.0	2.5	2.2	2.4	2.0	2.0	Ē
26	4.7	4.5	2.9	2.9	2.9	2.6	2.2	2.3	3.4	3.9	3.9	4.2	4.4	3.9	4.1	4.1	3.7	2.8	Ē	Ē	Ē	Ē	2.4	Ē
27	Ē	Ē	Ē	Ē	Ē	Ē	Ē	Ē	4.4	⌐fĒ	4.1	4.4	3.6	4.2	4.3	4.0	4.3	2.8	2.5	Ē	Ē	2.3	2.4	2.2
28	Ē	Ē	Ē	Ē	Ē	Ē	Ē	Ē	3.5	3.5	3.2B	4.0	4.7	3.2	3.28	B	3.0	3.1	2.9	4.0	3.3	2.6	Ē	5.3
29																								
30																								
31																								
Mean Value																								
Median Value	2.0	Ē	Ē	Ē	Ē	Ē	Ē	2.4	2.9	3.4	3.9	4.0	4.1	4.1	4.0	3.7	3.3	2.9	2.5	2.3	Ē	2.2	2.2	2.3
Count	28	28	28	28	28	28	28	28	28	28	28	26	26	24	24	26	28	26	27	28	28	28	28	28

fEs

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 2

27

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

IONOSPHERIC DATA

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

Feb. 1946 | (M3000)F2 | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.2	3.2	3.5	3.6	2.9	3.1	3.1	3.5	4.0	3.7	3.6	3.4	3.7	3.9	3.5	3.9	3.7	[3.7]C	3.5	3.1	3.3	3.0	2.8	3.0
2	3.0	2.8	3.1	3.4	3.5	2.9	3.4	3.9	4.0	3.3	[3.6]C	3.7	3.5	3.5	3.6	3.9	3.5	3.7	3.5	3.4	3.4	3.1	[2.9]C	2.7
3	[2.8]C	2.9	3.1	3.1	2.8	2.9	3.2	3.7	3.9	3.5	3.4	3.3J	3.6	B	B	3.2	3.7	4.0	3.4	3.2	3.5	2.9	2.9	2.7
4	2.8	2.9	2.9	2.9	3.4	3.1	3.0	3.4	3.6	3.6	[3.7]C	(3.7)	(3.5)	3.5	3.5	3.8	3.6	3.4	3.5	3.3	3.3	2.8	2.7	2.6
5	2.7	2.9	2.8	3.3	2.8	[2.9]C	3.5	4.0	3.7	3.4	3.4	[3.5]B	3.5	3.4	3.4	3.7	3.4	3.6	3.3	3.4	2.9	2.9	2.8	2.8
6	2.8	2.9	2.7	2.8	2.7	2.6	2.9	4.0	4.0	3.5	3.4	3.4	3.4	3.2	3.1	3.3	3.1	3.4	3.4	3.0	3.4	2.8	2.7	2.6
7	2.7	2.6	2.9	3.4K	3.4	2.9	3.0	3.9	3.8	3.5	3.2	B	B	3.0	3.0	3.0	3.0	3.1	3.3	3.0	K	K	K	K
8	K	K	K	K	K	2.2	3.5	3.2	3.3	3.0	D	2.7B	3.1	3.1	3.3	3.1B	2.7	3.2	3.2	[2.8]C	2.8	3.0	2.5	2.8
9	2.8	2.5	2.6	2.8	2.6	2.6	2.5	2.9	3.7	3.4	K	K	K	3.4	3.5	3.4	3.6	3.4	3.5	C	K	K	2.9	2.9
10	2.7	2.5	2.3	2.5	3.0	2.8	2.9	3.5	3.3	3.3	3.0	3.4	3.2	3.0	3.2	2.9	3.3	3.4	3.4	3.4	3.3	2.6	[2.8]C	2.9
11	2.8	2.6	2.8	2.7	2.7	2.7	2.7	3.2	3.1	[3.3]C	3.3	3.3	3.1	3.2	3.2	3.4	3.3	3.2	3.3	3.0	3.1	3.0	3.1	3.1
12	3.0	2.7	2.6	2.8	2.8	2.6	3.0	3.5	3.5	3.2	4.0	3.8	3.3	3.6	3.5	3.8	3.1	3.1	2.9	3.0	3.1	2.6	2.5	2.6
13	2.5	2.4	2.3	2.3	2.4	2.3	2.8	3.2	3.1	2.9	3.1	3.0	3.0	[3.0]C	3.1	3.1	3.8	3.5	3.2	2.9	3.3	3.0	2.6	3.0
14	3.8	3.2	2.6	3.3	2.8	2.6	2.8	3.6	3.4	3.6	3.1	3.4	3.6	3.4	3.2	3.4	3.6	3.6	3.5	3.2	2.7	2.7	3.3	2.5
15	A	A	A	A	2.7	2.8	2.8	3.4	3.4	3.6	3.5	3.2	3.3	3.5	3.2	3.3	3.9	3.2	3.3	3.3	A	A	A	2.7
16	2.8	2.7	2.8	2.9	2.9	3.0	3.0	3.6	3.5	3.4	3.3	3.7	3.4	3.4	3.1	3.5	3.5	3.6	3.4	3.1	2.8	3.0	2.8	2.9
17	2.9	2.9	2.9	3.1	3.1	C	C	3.2	3.2	3.5	3.3	3.4	3.3	B	B	3.6	3.8	3.7	3.3	3.4	3.5	2.7	2.6	27
18	2.9	2.8	2.5	C	C	3.1	2.8	3.3	3.4	3.7	3.6	3.3	C	C	3.3	3.4	C	C	3.6	3.3	3.1	2.9	3.0	2.8
19	2.7	2.9	3.0	3.1	2.9	3.1	3.6	3.8	3.5	3.6	3.5	3.3	3.4	3.6	3.6	3.6	3.8	3.4	3.5	3.0	3.2	3.0	2.7	2.8
20	2.6	3.1	2.7	2.6	2.5	2.9	2.8	3.0	2.8	3.0	3.4	3.2	(3.3)	32	3.3	(3.3)	3.6	3.5	3.5	3.7	3.1	2.8	2.7	2.8
21	2.7	3.0	2.8	2.9	3.3	2.6	2.7	3.7	3.4	2.9	3.3	3.4	3.2	3.8	3.2	3.6	3.5	(3.1)	3.3	3.4	3.3	3.0	3.0	4.5
22	3.2	3.1	2.7	3.1	2.8	3.0	3.5	3.8	3.5	[3.5]C	(3.5)	3.4	3.8	3.5	3.8	3.3	3.4	C	C	2.9	2.8	3.0	A	3.0
23	[3.1]C	3.0	2.8	2.9	3.1	3.1	(3.0)	[3.5]C	3.5	3.6	3.6	3.4	3.4	3.5	3.3	3.9	3.5	3.6	3.4	3.2	3.1	2.9	2.8	[2.9]C
24	2.8	2.8	2.4	2.6	2.7	2.8	(3.1)	3.5	3.8	3.6	3.5	3.0	3.3	3.3	3.4	3.4	3.5	3.6	3.9	3.3	3.3	3.2	3.2	2.9
25	2.8	2.9	2.8	3.0	3.2	2.8	3.9	3.7	3.6	3.7	2.9	3.3	3.3	3.1	2.9	(3.3)	(3.0)	3.3	3.5	3.3	2.9	2.7	2.6	2.8
26	2.6	2.9	3.4	2.9	3.0	2.9	3.1	3.1	3.4	3.3	3.3	3.4	3.8	3.4	3.5	[3.5]	3.4	3.5	3.3	3.0	3.0	3.2	3.0	3.0
27	2.8	2.8	3.0	3.2	2.9	2.6	3.3	3.6	3.9	3.6	3.3	3.1	3.1	3.5	3.3	3.2	3.4	(3.6)	(3.8)	5	3.2	(2.9)	3.2	(2.8)
28	2.8	2.8	2.8	3.2	3.0	2.8	2.5	3.7	3.7	3.5	3.5	3.5	3.3	3.3	3.2	3.2	3.4	3.3	3.2	3.5	3.2	[3.1]	3.0	3.0
29																								
30																								
31																								
Mean Value																								
Median Value	28	2.9	2.8	2.9	2.9	2.8	3.0	3.5	3.5	3.5	3.4	3.4	3.3	3.4	3.3	3.4	3.5	3.4	3.4	3.2	3.2	3.0	2.8	2.8
Count	26	26	26	25	26	27	27	28	28	28	27	26	25	25	26	28	27	26	27	26	25	25	25	27

(M3000)F2 Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 3

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

IONOSPHERIC DATA

Mar. 1946 | foF2 | 135° E Mean Time | **Kokubunji Tokyo** | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.8	3.4	4.4	4.6	4.3	3.8	4.8	7.9	(9.4)	(10.2)	10.9	11.3B	11.6B	10.2H	9.7	11.1TH	10.7TH	10.2	7.1	(4.8)	5.8	5.9	6.0	6.1
2	5.2	4.9	4.8	4.7	4.7	4.4	6.7	10.1	(11.3)	(11.5)	10.6T	11.3H	11.3	(11.6)	11.5	10.2H	9.2	10.2	10.1	8.6	6.6T	5.3	5.9	5.8
3	5.8	5.2	4.7	4.6	4.7	(4.6)	(5.7)	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
4	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
5	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	8.0	7.6	6.8	6.2	6.3	5.6
6	5.6	5.6	5.2	5.2	5.2	4.6	5.7	9.0	12.4	12.9	13.4H	13.3H	13.6H	12.9H	12.4H	10.5	11.6	(10.9]S	9.5	7.6	7.4	6.0	6.2	6.3
7	6.3H	6.2	6.1	6.4	4.9	4.8	5.3	8.5	11.8	(12.0)	(13.2)H	12.0H	(13.8)H	(12.0)H	12.7	(12.4]S	12.0	11.6	9.0	7.5	7.0	6.0	6.6	6.1
8	5.9	6.2	5.6	5.5	4.8	4.6	6.2	8.6	9.9	10.8	12.5	(13.9)	(13.5)	(13.8)	13.0TH	12.0	10.9	11.2H	10.4H	7.9	6.5	6.3	6.5	5.8
9	5.5	4.4	5.4	5.4	4.5	4.4	(6.6]C	9.0	10.9	10.6	12.0H	12.8H	12.5H	(12.2)H	(12.3]S	(12.4)H	12.0H	11.0	9.0	7.7H	7.6	6.8H	5.4	5.5
10	5.7	4.8	5.0	4.4	5.2	5.3	5.4	8.5	9.7	11.0	11.8	12.5	12.8	12.0	11.2	12.0	11.9H	10.6	9.3	8.5	6.7	6.7	7.2	6.3
11	6.0	5.7	5.5	6.0	5.4	4.9	5.8	8.6	11.1	11.8	13.1	(14.9)	12.7	12.5H	11.3	10.1	10.7	10.6	9.6	7.4	6.7	5.8	4.8	4.8
12	4.8	5.1	5.3	4.9	4.1	4.1	7.2	9.4	9.7	10.6	11.5H	12.4	12.6H	11.7H	11.0	12.0	11.6H	11.9	10.5	7.9	6.6	6.4	6.0	6.1
13	5.5	5.7	5.2	5.0	4.9	4.7	6.1	8.2	9.2	9.5	10.1	12.0	11.6	12.3	12.5	11.4	11.2	11.7	9.5	8.0	7.3	6.7	5.9	5.8
14	5.6	5.8	6.1	6.0	4.4	4.7	6.5	9.3	9.6	10.1	11.5	12.5	13.1	12.9	12.7	12.0B	11.7	11.6	(9.6)	6.7	6.1	6.0	5.8	5.5
15	5.0	5.4	5.0	5.7	4.9	4.4	6.0	8.1	9.3	8.9	10.1	11.5	12.0	11.4	11.7	12.0	11.5	10.8	11.1	9.2	8.1	7.7	6.9	6.6
16	6.7	7.0	7.4	6.6	6.2	4.9	6.0	8.3	9.1	10.4	11.6	12.0	12.4BH	11.6B	11.3	11.3H	11.0	10.4H	9.7	7.5	5.9	5.6	5.6	(5.7)
17	5.3	5.3	5.2	5.1	4.4	4.2	5.1	7.8	9.2	10.0	10.1	11.5	12.0	12.8H	11.2H	11.8H	11.5	11.5	10.7	6.8	6.3	5.5	5.3	4.9
18	4.9	4.9	5.6	4.9	4.1H	4.3	6.9	8.7	9.5	11.2	11.6	11.1	10.8	11.7	11.6	11.0	10.6	10.4	8.9	7.1	6.5	6.2	5.1	4.5
19	4.6	4.9	5.2	4.2	4.0	4.0	7.3	10.1	9.7	10.0	10.8B	10.6B	12.4HB	11.1HB	10.8	10.8H	9.7	9.4H	8.8	6.5	6.5	7.0	6.9	6.2H
20	5.6H	5.6	5.6	4.8	4.4	4.4	5.4	(7.6]S	9.7	10.0	10.7	11.2	11.9	11.3	10.7	10.4	10.2	9.8	9.9	7.8	7.3	7.2	6.8	6.5
21	6.5	5.8	5.4	4.9	4.9	4.9	7.6	10.0	11.0	11.1	11.4	11.3H	13.1	12.6	12.1	12.0	10.7	9.8	8.3	7.2	6.7	6.5	6.7	6.5
22	6.6	6.4	6.1	4.8	4.7	4.7	(6.7]C	8.7	8.6	9.6	12.8H	12.2HB	(12.2)HB	(12.9)H	11.6	10.7	11.0	9.4	8.5	7.7	7.9	7.7	6.7	6.3
23	6.2	6.4	6.1	5.8	4.8	5.3	8.1	10.6	9.8	10.3	11.5	12.4	12.8	12.7	12.3H	11.6H	10.0	(10.8)	10.1	8.2	7.5	7.2	6.7	6.3
24	6.5H	6.5	6.4	6.3	5.7	5.7	8.3	9.5	10.7	10.7B	11.5H	11.9HB	12.2B	11.8B	12.1B	11.8B	10.9	9.5	9.4	8.4	8.6	9.0	9.0	7.7
25	7.7	6.7	6.8	6.5	6.0H	6.3	9.0	11.6	13.0	13.0	12.3	14.0	14.2	13.3H	13.2	11.7H	11.4H	10.8H	9.2	9.2	10.8K	9.2K	6.4HK	(6.2]C
26	6.0	6.5	(5.6)	5.3	4.1	4.3	6.6	7.3K	11.8K	7.6HK	7.6HK$^{B}_{S}$	7.9HK	8.3HK	8.0H$^{B}_{K}$	8.8K	8.6K	8.2K	8.5K	5K	8.6K	7.8K	6.5H	6.3H	6.7B
27	6.4	6.0	5.6	4.6	3.3H	3.6	5.7	7.7	(8.6)JS	K5K	KBK	KBK	(11.1)BS^{K}	12.5$^{K}_{B}$	10.3$^{K}_{B}$	(9.0)$^{K}_{B}$	9.3K	9.3K	8.9	6.8	5.6H	5.5	5.6	5.7
28	5.5	5.8	(5.6)	(5.9)	4.9	4.0H	5.9	7.1	8.6	10.3B	10.2H	10.8	10.2K	9.4K	9.2K	11.1	11.6	10.9	9.5	(6.8)^{K}	(7.5K)^{K}	(8.1K)$^{K}_{G}$	A	A
29	A	A	A	A	A	2.8KH	2.8HK	2.8JK	G	G	G	B	B	B	G	(6.2)$^{H}_{K}$	7.2HK	(5.9)K	5.9K	6.5	(4.7)	5.4	4.9	4.8
30	4.8	4.4	4.8H	4.0	3.2	3.2	4.9	6.5	7.9	8.2K	9.2K	(9.5]$^{K}_{C}$	9.7K	9.3BK	8.4JK	8.1K	8.2K	8.3K	7.4K	6.7	6.5	6.5	6.3	6.4H
31	6.4B	6.3	6.0	5.8	4.8	4.7	6.8	7.3	8.7B	9.0B	10.7B	10.9B	11.5B	11.2B	11.4B	10.6B	9.4B	(9.3)B	(9.4)	7.7	6.7	6.8	6.7	6.6
Mean Value																								
Median Value	5.7	5.7	5.6	5.1	4.7	4.6	6.1	8.6	9.7	10.3	11.4	12.0	12.2	12.0	11.5	11.2	10.9	10.5	9.4	7.6	6.7	6.5	6.3	6.1
Count	28	28	28	28	28	29	29	28	28	27	27	26	27	27	28	28	28	28	28	29	28	28	28	28

foF2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 1

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Mar. 1946

fEs

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.1	E	3.0	3.2	3.4	E	3.1	3.3	2.8	4.1	4.1	3.4B	3.1B	4.2	3.9	4.0	∠fE	∠fE	∠fE	E	E	E	2.2	E
2	E	E	E	E	E	E	E	3.5	4.4	4.4	4.7	3.9	4.3	3.9	4.3	4.4	3.8	3.2	3.0	2.6	2.5	E	E	E
3	3.2	2.8	E	E	2.5	E	E	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
4	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	E	E	E	E	E	2.8
5	C	C	C	C	C	C	C	C.	C	C	C	C	C	C	C	C	C	C	E	E	E	E	E	E
6	E	E	E	E	E	E	E	3.3	∠fE	∠fE	3.0	3.1	4.3	4.4	3.8	3.1	3.0	3.0	E	E	E	E	E	E
7	E	E	E	E	E	E	E	2.8	2.8	3.1	3.5	E	∠fE	3.2	4.3	4.9	5 6	4.1	E	3.2	3.3	E	3.2	2.3
8	3.0	2.8	2.8	E	E	E	E	∠fE	3.0	4.3	∠fE	5.5	B	B	B	4.5	5.2	8.5	4.9	5.8	5.1	E	E	E
9	2.4	3.5	2.8	E	E	E	C	∠fE	3.9	4.1	4.4	3.8	4.2	3.9	4.2	4.3	3.7	3.8	3.3	2.4	5.1	E	E	E
10	E	E	E	E	E	E	E	2.9	3.4	4.2	4.0	∠fE	3.9	4.1	4.1	4.2	4.6	5.8	2.9	4.0	3.5	3.1	2.1	E
11	E	E	E	E	5.6	2.8	E	3.1	∠fE	∠fE	4.1	3.8	5.4	5.2	4.3	4.2	3.5	2.8	E	2.8	E	E	E	2.9
12	2.5	2.7	2.8	2.5	2.3	E	E	∠fE	3.7	3.5	4.0	4.1	4.4	4.3	4.3	4.4	4.0	3.2	3.5	3.8	E	E	2.1	3.2
13	E	E	E	E	E	E	E	3.4	3.3	3.4	3.6	4.7	4.1	4.9	3.8	3.7	3.7	3.1	3.2	2.3	E	E	E	2.9
14	E	E	E	E	E	E	E	3.1	3.7	3.7	4.3	3.6	4.4	3.6	3.1	4.1	3.9	3.2	E	2.4	2.5	3.0	2.4	E
15	E	E	E	E	E	E	E	2.7	2.9	3.9	4.6	3.2	3.9	4.3	3.1	3.9	3.0	3.0	2.9	2.8	5.0	4.0	4.1	4.1
16	E	E	E	E	E	E	2.7	∠fE	3.0	3.5	4.3	3.9	3.9	4.1	3.6	6.3	5.5	4.3	3.8	3.1	2.4	3.9	3.4	E
17	2.7	2.5	E	E	E	E	E	2.6	3.4	3.9	∠fE	4.6	3.8	4.4	4.2	4.2	3.8	3.9	3.5	2.5	2.9	2.6	E	E
18	2.8	2.3	E	E	2.8	E	2.7	3.2	3.6	3.5	4.4	3.1	3.6	4.1	4.3	3.9	2.7	∠fE	2.5	2.2	E	E	E	E
19	E	E	E	E	E	E	2.6	2.9	3.1	3.6	4.3	2.8	3.9	B	3.9	4.2	3.7	3.2	E	E	E	E	2.5	E
20	E	E	2.0	E	E	E	E	2.7	3.7	3.7	3.9	3.9	4.1	4.2	4.2	4.2	2.7	3.0	2.6	2.0	E	E	E	E
21	E	E	E	2.9	2.8	E	2.0	∠fE	3.2	∠fE	4.2	3.6	3.9	3.4	3.5	3.3	3.3	2.9	2.9	2.8	2.8	2.6	3.6	2.9
22	2.5	2.7	4.0F	3.5F	2.7	E	C	2.7	3.1	3.9	3.3	∠fE	S	∠fE	∠fE	3.9	3.9	∠fE	2.8	2.0	2.9	E	E	2.5
23	2.7	2.6	E	E	E	E	E	3.1	3.4	3.5	3.6	3.2	3.3	3.2	3.1	3.3	3.4	3.4	3.5	3.5	3.3	3.3	3.0	3.1
24	2.8	2.8	2.8	3.2	3.0	2.8	3.5	3.4	3.4	3.3	2.8	2.8	2.9	2.8	2.9	2.9	3.0	3.0	3.1	2.8	E	E	E	E
25	E	E	E	E	E	2.9	2.7	3.1	4.5	4.5	6.0	4.9	5.0	6.7	3.8	3.1	3.4	3.1	2.3	E	E	E	2.5	C
26	2.9F	2.6F	2.4F	3.2F	2.7	2.8	2.7	2.5	3.1	4.8	4.7	4.1	4.4	3.2	3.3	3.3	4.2	3.4	2.4	2.9	2.3	2.8	2.5	E
27	E	E	E	E	E	E	2.3	3.1	2.8	4.0B	4.0B	3.0	4.1B	3.0	B	B	∠fE	2.8	3.0	3.5	2.5	3.0	2.5	2.9
28	3.0F	3.0	2.9	2.5	E	E	3.0	3.2	3.6	3.0	4.2	4.0	4.1	3.5	3.8	4.0	3.3	4.0	2.4	K	2.8	2.2	3.1	3.0
29	3.0	4.1	4.3	4.4	5.0	3.0	3.0	2.9	3.5	3.1	2.9	3.6	2.6	B	4.0	∠fE	∠fE	E	2.9	E	2.4	E	2.8	E
30	E	F	2.1	E	2.3	2.4	2.6	3.2	2.9	4.7	4.2	3.6B	4.1B	3.5B	5.0	3.8	3.3	∠fE	2.9	2.3	E	E	2.2	E
31	E	E	F	E	E	4.7	E	2.5	2.9	4.1B	4.3B	B	4.1B	2.9	4.8	2.4	2.9	2.9	2.8	E	E	E	E	E
Mean Value																								
Median Value	E	E	E	E	E	E	E	2.9	3.3	3.7	4.1	3.6	4.1	3.9	3.9	4.0	3.5	3.1	2.9	2.5	2.4	E	2.1	E
Count	29	29	29	29	29	29	27	28	28	28	28	27	26	25	26	27	28	28	29	28	29	29	29	28

fEs

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K2

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

IONOSPHERIC DATA

Mar. 1946 | **(M3000)F2** | 135° E Mean Time | **Kokubunji Tokyo** | Lat. 35° 42.4' N, Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.0	3.1	2.8	2.9	2.9	2.8	2.9	3.5	(3.5)	(3.4)	3.4	3.3	3.2	3.5	3.2	3.3	3.1	3.4	3.6	(2.5)	2.8	2.7	2.8	3.0
2	2.9	2.9	2.8	2.6	2.7	2.8	3.0	3.5	(3.3)	(3.2)	3.2	3.2	3.1	(2.8)	3.0	3.0	3.0	2.8	3.1	3.1	3.3	2.7	2.8	2.8
3	3.1	3.0	2.7	2.7	2.7	(2.8)	(3.0)	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
4	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C
5	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	3.6	3.2	3.2	2.8	3.0	2.7
6	2.7	2.7	2.6	2.7	2.7	3.3	3.0	3.3	3.3	3.3	3.1	3.1	2.9	3.0	3.0	3.2	3.2	3.2	3.2	3.1	3.1	2.9	2.7	2.6
7	2.9	2.7	2.8	3.1	3.1	2.8	2.9	3.3	3.1	(3.1)	(3.1)	3.3	(3.1)	(2.8)	3.2	[3.3]S	3.3	3.1	3.2	3.1	3.1	3.1	2.9	3.0
8	2.5	2.8	3.1	3.1	2.9	2.7	3.2	3.4	3.3	3.2	3.2	(3.1)	(2.9)	3.0	[3.1]S	3.0	3.0	3.2	3.4	3.2	3.1	2.9	3.1	3.3
9	2.7	2.8	2.9	3.0	2.7	2.8	[3.0]C	3.2	3.6	3.2	3.1	3.0	3.1	(3.0)	[3.1]S	[3.1]	3.0	3.1	3.0	3.2	3.1	3.2	2.7	2.8
10	2.7	3.1	2.5	2.6	2.6	3.0	3.1	3.0	3.2	3.2	2.9	3.1	3.0	3.1	2.9	3.0	3.1	3.2	3.2	3.1	3.0	2.8	3.0	2.8
11	3.0	2.7	2.6	2.8	2.9	3.3	3.4	3.4	3.2	3.1	3.2	(3.1)	3.3	3.2	3.3	3.1	3.3	3.1	3.2	3.0	3.0	3.0	2.9	2.7
12	2.8	2.7	3.0	2.9	2.7	2.9	3.3	3.6	3.7	3.1	3.2	3.2	3.2	3.1	3.2	3.0	3.2	3.1	3.1	3.3	3.0	2.8	2.8	2.7
13	2.7	2.8	2.7	2.6	2.6	2.9	3.2	3.4	3.2	3.5	3.5	3.1	3.4	3.1	3.1	3.2	3.5	3.0	3.4	3.1	3.3	3.4	3.0	2.9
14	2.8	3.0	3.1	3.2	3.1	2.9	3.4	3.5	3.3	3.4	3.3	3.2	3.3	3.1	3.2	3.3	3.4	3.4	(3.4)	3.7	3.0	2.9	2.7	3.0
15	2.8	2.9	3.0	2.9	3.3	3.2	3.3	3.5	3.5	3.5	3.2	3.2	3.1	3.1	3.2	3.3	3.2	3.2	3.2	3.4	3.1	3.1	2.7	2.5
16	2.8	2.8	2.8	2.9	2.8	2.7	3.0	3.4	3.2	3.7	3.4	3.6	3.5	3.2	3.3	3.1	3.5	3.3	3.5	3.2	3.0	2.9	2.7	(2.5)
17	2.6	2.6	2.7	3.0	2.7	2.7	3.1	3.1	3.0	3.1	3.1	3.1	3.1	3.3	2.9	3.0	3.0	3.0	3.3	3.3	2.9	2.8	2.7	3.1
18	2.7	2.7	2.9	2.9	2.4	2.6	3.2	3.3	3.1	3.1	3.0	3.1	3.0	2.8	3.1	3.0	2.9	3.7	3.7	3.1	3.1	3.0	3.0	2.8
19	2.8	2.7	3.1	3.3	2.6	2.7	3.4	3.5	3.4	3.3	3.4	3.2	2.9	3.1	3.2	3.3	3.5	3.3	3.4	3.4	3.1	3.1	3.2	3.1
20	3.0	3.0	3.0	3.1	3.0	2.9	3.1	[3.4]S	3.6	3.5	3.4	3.4	3.4	3.3	3.4	3.2	3.3	3.5	3.5	3.3	3.1	2.8	2.8	2.6
21	2.7	3.0	3.2	3.1	3.0	3.1	3.1	3.2	3.3	3.2	3.2	3.0	3.1	3.1	3.3	3.4	3.4	3.5	3.4	3.3	3.0	3.1	3.0	2.9
22	3.0	3.2	3.2	3.2	3.0	3.0	[3.4]C	3.8	3.8	3.6	3.3	3.2	3.1	2.9	3.1	3.2	3.2	3.3	3.3	3.0	2.9	3.0	3.1	2.6
23	2.6	2.5	2.8	2.8	2.6	2.6	3.1	3.2	3.4	3.5	3.6	3.2	3.3	3.2	3.1	3.3	3.4	3.4	3.5	3.5	3.3	3.3	3.0	3.1
24	2.8	2.8	2.8	3.2	3.0	2.8	3.5	3.4	3.4	3.3	2.8	2.8	2.9	2.8	2.8	3.1	3.1	3.3	3.3	3.2	2.9	3.0	3.1	2.6
25	3.0	2.7	2.6	2.8	2.8	3.0	3.2	3.6	3.6	3.4	3.3	3.6	3.2	3.2	3.3	3.1	3.1	3.4	3.3	3.2	3.0	2.9	2.7	[3.1]C
26	3.4	3.7	(2.9)	2.8	3.0	2.8	3.6	3.0	3.1	3.0	3.1	3.2	3.3	3.0	3.2	3.5	3.5	3.6	[3.8]S	3.6	3.3	2.8	2.5	2.8
27	2.8	3.0	3.2	3.0	3.2	3.0	3.7	3.6	[3.3]S	S	B	B	(3.2)	3.3	3.3	(3.4)	3.3	3.4	3.5	3.7	3.0	3.0	2.8	2.7
28	2.7	2.9	(3.0)	(3.1)	3.2	3.0	3.5	3.5	3.4	3.5	3.4	3.7	(3.2	3.5	3.3	3.4	3.4	3.4	3.7	2.2	S	S	A	A
29	A	A	A	A	A	2.9	2.9	S	G	G	G	B	B	B	G	B	3.1	(2.7)	3.0	2.8	(2.8)	3.1	3.1	2.9
30	3.1	3.1	3.0	3.0	3.1	3.1	3.7	3.4	3.7	3.5	3.4	(3.4)	3.4	3.6	[3.5]S	3.4	3.4	3.5	3.7	3.3	3.0	3.0	3.0	3.1
31	3.0	3.0	3.1	3.1	3.3	3.2	3.6	3.6	33	3.4	3.3	3.2	3.3	3.1	3.1	3.3	3.4	(3.4)	(3.2)	3.6	2.9	2.9	2.8	2.8
Mean Value																								
Median Value	2.8	2.8	2.9	2.9	2.9	2.9	3.2	3.4	3.3	3.3	3.2	3.2	3.2	3.1	3.2	3.2	3.2	3.3	3.4	3.2	3.0	2.9	2.8	2.8
Count	28	28	28	28	28	29	29	27	28	27	27	26	27	27	28	27	28	28	29	29	28	28	28	28

(M3000)F2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 3

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Apr. 1946

foF2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	6.5	6.8	6.8	5.3	4.7	4.7	7.0	8.3	8.8	10.0B	11.2B	12.1B	12.6B	11.9B	11.7B	11.6B	11.5	10.7	10.2	9.1	7.7	6.8	6.4	5.8
2	6.3	6.3	6.3	6.1	4.8	4.5	6.6	7.7	9.8	11.0B	12.1	12.5B	13.0B	12.8B	12.6B	12.1B	11.8	11.4	11.0	(9.6)	8.7	6.6	6.5H	6.4
3	6.7	6.4	6.7	6.3	6.0	5.2	6.8	8.3	10.5	10.8	12.0	(12.7)	12.0	11.5	11.0	12.1	11.1	9.5	10.2	8.3	6.2	6.2	5.7	6.2H
4	6.3	6.4	6.2	5.4	5.2	5.1	7.5	9.5	11.3B	11.3B	11.6 $^{H}_{B}$	12.6B	12.4	11.5B	(11.2) $^{B}_{C}$	10.9	11.0	10.5	10.0	8.3H	7.1	(7.4)C	7.6	(7.6)C
5	7.6	7.5	7.2	6.2	5.5	5.6	7.2	8.5	10.0	10.7	11.5B	(13.3)B	13.0B	(12.5)B	12.2B	11.7B	(11.5)B	10.4	9.0	8.0	7.6	7.5	7.4	7.1
6	7.2	6.7	6.5	5.9	5.5	5.5	8.0	8.9	9.0 $^{H}_{B}$	10.5B	11.8	13.3B	(13.5)B	13.4B	12.7B	11.8B	10.6	9.8	9.2	9.1	8.3	7.7	7.8	8.0
7	7.9	7.2H	7.0	6.8	6.5H	6.6	8.0H	9.4	10.8	11.5	12.6	13.3	(13.9)	12.9	12.1B	12.0	11.3	11.2	11.4	9.6	7.7	7.2	6.7	7.6
8	7.1	7.2	7.8	7.8	5.6	5.0	5.8	8.0	9.7	12.0	12.1	12.0B	11.9	12.3B	12.8B	11.9B	11.6B	10.7	10.3	9.8	8.1	7.8	7.6	7.5
9	7.1	7.2	7.0	6.4	5.5	5.3	7.9	9.8	11.1	11.3H	12.2	13.4H	12.4	(13.2)	(13.0)	11.1	11.5	11.5	10.0	9.0	8.0	8.2	8.1	8.0
10	7.9	7.2H	(6.5)	6.9	7.4	(7.8)H	9.7	9.5	10.7H	(11.0)H	12.0B	13.0B	10.5 $^{K}_{B}$	10.0K	8.7K	8.1K	8.8K	9.1K	9.6	8.9	7.6	6.1	6.4	6.4
11	6.7	6.7	6.8	6.3	6.2	6.5	7.8	8.2	8.7	9.1	9.4	11.2	12.1	11.6	11.7	10.9	10.8	10.8	9.8	9.5	7.7	6.8	6.8	7.0
12	7.0	6.9	C	C	C	C	C	C	C	C	C	10.3	(12.3)	12.0	11.2	10.2	10.3	(10.0)C	9.1	6.5H	6.3H	6.3H	6.8H	7.3
13	6.6	8.3	7.0	6.5	6.1	6.1	7.3	8.7	(9.3)	10.9	12.6H	(14.0)	13.8H	12.7	12.4	(12.3)H	9.8J	(9.5)	8.8	8.9	(8.1)C	7.3	7.7	7.8
14	7.3	7.2	6.7	5.8	5.5	6.2	7.6	10.3	11.6	12.2H	11.3H	12.4H	13.2BH	11.9	(11.0)C	9.1H	9.6H	10.3H	9.7	8.2	7.4	7.5	7.8	7.0
15	6.6	6.2	6.2	5.9K	4.3HK	5.1K	8.0	8.9	10.0	10.9	11.5H	13.0H	(12.5)	11.2B	10.4	10.2	8.8	8.5	8.1	8.0	8.1	7.2	7.2	7.1
16	6.3B	6.3	7.0	5.6	4.3H	4.6	(7.8)C	10.9H	12.0	13.2	(13.5)H	14.0	(13.3)	12.4B	11.8	11.8	10.3	10.2H	10.1H	9.6H	8.4	7.5H	7.5	7.3
17	7.9HF	7.8	7.0	6.3JF	6.0JF	6.6F	8.1	8.2	8.1	9.4B	9.5J	10.4H	10.9H	11.3H	10.8H	10.2H	9.5H	10.0	9.7	9.8	6.8	6.7	6.9	7.2
18	7.1	7.4K	7.1K	(4.1)K	4.2	4.3	(7.4)	7.3	8.0H	9.6H	10.2H	10.0	10.2	(10.4)	10.1H	10.3H	10.0	9.8	(9.3)	8.6	7.8	7.3	7.5	7.4
19	7.4	6.6	6.5	5.9	5.8	6.2	8.5	7.7	8.4	9.5J	10.0	10.8	10.9	10.7	9.8	10.2	10.5	10.2	10.3K	9.6K	7.0	6.2	6.7	6.8
20	6.5	6.4	6.5	(5.6)	5.0	5.2	7.5	8.3	9.2K	8.9KH	(9.3) $^{K}_{HB}$	10.5	10.8	11.1B	11.0B	10.6	10.2	9.2	(9.5)	(8.8)	7.4H	7.3	7.3	7.4
21	7.2	7.2	7.3	6.4	6.3	6.8	8.2	8.8	(10.3)K	11.5K	11.4K	11.4K	11.2K	12.7	12.5B	12.0	9.8	9.4	8.8	7.6	7.3	7.2	7.3	6.9
22	6.8	6.8	6.5	6.4	6.1	6.8	7.5	7.9H	9.8H	10.3	10.0 $^{H}_{K}$	10.7H	(12.0)	11.2	11.5	10.7K	9.0 $^{K}_{H}$	7.8K	9.4	8.8	7.7	7.6	7.4J	7.6
23	7.4	6.9	6.5H	6.3H	5.8 $^{KF}_{H}$	7.0K	7.4KH	7.0KH	7.7KH	8.2KH	8.7KH	(8.8) $^{K}_{H}$	9.3K	9.7K	9.7H	9.6K	8.7 $^{K}_{H}$	8.8 $^{H}_{K}$	(9.1)K	8.1K	(7.7R) $^{S}_{K}$	(8.8R) $^{S}_{K}$	(8.0R) $^{KSF}_{K}$	(9.0K) $^{KSF}_{K}$
24	8.5 $^{F}_{K}$	7.9KH	7.9KH	(5.9] $^{K}_{S}$	(6.0)J $^{KF}_{H}$	6.0HK	8.1KH	6.0KH	5.0KH	G	G	(9)	G	(9)	G	5.1K	5.4K	5.2K	5K	4.9K	(4.6)K	(4.9) $^{K}_{H}$	5.2 $^{K}_{H}$	(5.4) $^{K}_{B}$
25	6.3HK	5.5K	5.3K	3.5K	2.9 $^{F}_{K}$	3.3K	4.0KH	4.4K	5K	5K	6.8K	6.5K	6.7K	7.7K	8.5BK	7.8 $^{K}_{B}$	7.7K	7.3K	7.5K	7.4 $^{K}_{H}$	(6.2] $^{K}_{C}$	6.0K	6.2K	5.9K
26	6.4FK	5.9FK	5.4 $^{K}_{F}$	5.0K	5.0K	5.0K	6.8	8.4	8.8	8.3	8.8	10.1J	10.6	10.9	11.2	10.9	(10.5)C	(10.0)H	(9.8)	9.4	8.0J	7.1	7.1	6.8
27	6.8	6.6H	7.0H	6.2	4.3HK	4.3K	4.9K	6.2KH	6.8K	7.1K	6.4K	6.9 $^{J}_{K}$	7.6K	8.0K	7.5K	6.9 $^{K}_{H}$	6.4	6.4K	6.2 $^{K}_{H}$	6.4K	6.3K	5.8	5.6	5.8
28	5.9JF	5.5F	5.6	5.7	5.2	6.2	7.0	6.8	7.3	8.2F	8.1	(8.3]C	(9.6)	10.2	10.9	11.2	10.8	10.3	9.5	7.7	6.8	7.3F	7.4	7.4
29	7.2	7.1F	7.2	6.2	5.8	6.1	6.8	6.8	7.2	8.5	8.8B	10.1 $^{J}_{B}$	10.4	10.5B	10.0H	10.7H	9.7	(10.2)H	(10.1)	8.3	7.1	7.0	7.4	7.2
30	7.4	7.4	6.9	6.6	6.6	7.2	8.6	7.8	8.1	8.7	8.8	9.1	9.8J	10.6	10.7	(11.2)	10.1J	9.7J	9.7	9.7	9.3	7.8	8.0	7.8
31																								
Mean Value																								
Median Value	7.1	6.9	6.8	6.2	5.5	5.6	7.5	8.3	9.3	10.4	11.2	11.3	12.0	11.5	11.1	10.9	10.3	10.0	9.7	8.8	7.6	7.2	7.3	7.2
Count	30	30	29	29	29	29	29	29	28	28	29	30	30	30	30	30	30	30	29	30	29	29	29	29

foF2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 1

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

IONOSPHERIC DATA

Apr. 1946 | foF1 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							L	L	L	L	5.2	L	5.6	5.1	L	L	L	L	L					
2							L	L	L	L	(5.4)	L	L	4.8	4.7J	L	L	L	L					
3							L	L	L	L	L	4.7	L	L	L	L	L	L	L					
4							L	L	L	L	L	L	L	L	L	L	L	L	L					
5							L	L	L	L	L	L	(5.4)	L	L	L	B	L	L					
6							L	L	L	(4.0)J	L	L	L	(4.9)J	L	L	L	3.0	L	L				
7							L	L	L	L	L	L	L	L	L	L	L	L	L	L				
8							L	L	L	L	L	L	L	L	(5.3)	(4.5)	B	3.0	L					
9							L	L	L	L	L	L	L	L	L	L	L	L	L					
10							L	L	L	L	L	5.1	L	L	L	L	A	L	L					
11							L	L	L	L	4.1J	L	L	L	L	L	A	L	L	L				
12							C	C	C	C	C	L	6.0	L	L	L	L	L	L					
13						L	L	L	L	L	4.0	L	L	5.2	5.1J	4.6J	L	3.1J	L					
14						L	L	L	L	(3.8)	L	L	L	L	C	L	L	3.0	L					
15						L	L	L	L	L	L	L	L	L	L	L	L	L	L					
16						L	L	L	L	L	L	5.6	L	L	L	L	L	L	L					
17						L	L	L	L	L	L	L	L	L	L	L	L	L	2.3					
18						L	L	2.6	L	5.0	6.1	L	5.5	L	5.2	4.8	3.9	A	A					
19						L	L	L	L	L	L	L	L	B	4.9	L	L	2.7	L					
20						L	L	L	L	L	L	L	(5.5]	L	L	L	L	2.8	L					
21						L	L	A	A	L	L	L	5.3	(5.4)J	B	L	B	2.8	A					
22						L	L	L	L	A	4.9	L	L	4.9	4.8	L	L	(2.6)	2.1					
23						L	L	L	4.2	5.2	4.8	L	5.1	5.7	5.2	4.6	L	A	L					
24						L	A	L	4.0K	4.3K	4.4K	BK	(4.5)K	AK	4.5K	A	4.4	A	A	A				
25						L	AK	AK	AK	AK	5.2K	5.2K	5.2K	5.2K	5.1K	(4.9)	4.3	L	L					
26						L	L	L	L	5.0	L	5.6	5.2	L	L	L	C	L	L					
27						L	L	L	4.6J	(4.8)A	5.2JK	AK	5.0K	(5.1)K	5.0K	4.8J	4.7	3.9	L					
28						L	L	L	L	L	L	C	5.6	5.5	5.4	5.5	4.0	L	L					
29						L	L	L	A	A	L	L	L	L	L	L	A	A	A					
30						L	L	L	L	L	L	5.2	5.8	5.5	5.6	5.2	L	L	L					
31																								
Mean Value																								
Median Value						L	L	L	4.2	4.8	5.1	5.2	5.4	5.2	5.1	4.8	4.3	3.0	L	L				
Count								1	3	7	10	6	13	11	12	8	5	9	2					

foF1

Sweep 2.0 Mc to 15.0 Mc in 15 min ☐ Manual ☐ Automatic

K2

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Apr. 1946

fEs

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E	E	E	E	E	E	E	⌐fE	⌐fE	3.9B	3.0	4.1B	3.7B	2.7	4.0B	2.9	3.0	3.6F	3.6	2.4	E	E	3.0	E
2	E	E	E	E	E	E	2.9	⌐fE	⌐fE	2.8	4.0B	3.5B	2.9B	3.2B	3.1B	3.1	3.5	3.7	E	E	E	E	E	E
3	E	E	K	E	E	E	2.9	3.4	3.8	3.9	3.8B	B	3.6	3.7	4.7	4.1	4.5	4.8	3.0	3.0	E	E	E	E
4	E	E	E	E	E	E	2.9	2.9	3.1B	2.9	3.0	3.1B	B	B	3.5B	3.5	3.5	2.7	2.9	3.2	E	C	2.6	C
5	E	E	E	E	E	E	3.0	3.1	3.3	3.6	3.2	3.0	3.2	2.8	B	2.9	2.2	3.2	2.7	E	E	E	E	E
6	E	E	E	E	E	E	⌐fE	⌐fE	4.3B	4.3B	3.9	3.2	4.2B	4.4B	4.1B	B	3.9	3.0	2.8	E	6.8	2.8	E	E
7	E	E	E	E	E	E	E	E	3.5	4.2	3.7	4.3	4.4	4.2	3.4	4.2	3.7	3.6	4.6	2.9	2.9	E	2.9	2.9
8	E	E	E	E	E	E	E	2.9	3.6	4.1	4.0	4.0	5.6B	5.4B	2.9	3.4	3.6	3.3	2.8	3.8	3.1	E	E	E
9	E	E	E	E	E	E	2.9	3.4	⌐fE	3.9	4.1	3.9B	4.1B	4.0	7.2	6.3	4.7	4.9	4.7	4.3	2.6	2.5	E	E
10	E	E	E	E	E	E	3.2	3.2	4.1	4.1	4.1B	4.2B	4.3B	5.3	4.9	4.1	7.4	4.8	5.0	4.6	6.4	4.9	3.1	2.4
11	2.8	2.2	E	E	E	2.3	⌐fE	⌐fE	4.1	3.8	4.5	4.2	4.1	6.0	4.6	5.1	5.8	4.6	4.1	3.4	4.1	2.8	4.1	E
12	E	2.8	C	C	C	C	C	C	C	C	C	B	4.8	4.0	4.1	4.1	3.1	3.7	3.5	5.7	7.6	6.5	6.0	4.4
13	5.4	3.0	E	2.5	E	E	⌐fE	3.5	3.9	3.7	4.4	4.4	3.4	3.0	3.9	3.1	3.0	3.1	2.9	2.3	3.1	2.5	3.4	2.9
14	2.7	3.3	2.9	2.4	E	2.4	4.2	3.1	3.8	4.1	4.1	3.9B	3.9B	3.9B	3.4B	3.2	4.0	3.6	2.9	3.0	3.0	3.0	E	E
15	E	E	E	2.8	E	2.1	3.2	3.9	3.7	3.2	3.5	4.5	3.9	4.0B	4.1	4.2	3.8	3.4	2.5	3.0	2.8	2.5	E	E
16	4.3F	4.2	3.2	2.4	2.7	2.5	C	3.2	4.2	4.3	3.9	3.8	5.2	⌐fE	⌐fE	4.4	4.2	6.9	3.1B	3.1	3.8	5.2	4.2	3.8
17	3.0B	B	4.0B	4.0B	3.2	3.1	2.4	3.3	4.3	5.2B	4.7	3.8	3.8	3.9	3.3B	3.3	3.9	3.1	3.0	2.9	2.9	2.9	2.8	E
18	E	E	E	E	E	E	2.5	3.0	3.1	4.2	⌐fE	4.2	⌐fE	3.8	4.3	4.6	⌐fE	4.4	4.1	2.6	E	E	E	E
19	E	E	E	E	E	E	2.8	4.3	3.2	3.1	6.7	5.1	4.1	4.1	3.8	C	4.0	3.1	4.5	5.7	5.0	5.3	5.2	3.3
20	3.3	2.9	E	E	E	2.3F	3.3	4.0	4.6	4.9	7.8	5.5	4.6	4.1	⌐fE	4.3	4.1	4.4	4.2	3.9	6.0	2.5	2.8	E
21	E	4.0	4.0	4.0	E	2.8	3.2	4.8	4.8	5.2	4.9	4.2	4.4	5.6	3.3	4.2	3.3	4.0	4.8	3.1	2.7	2.6	E	E
22	E	2.3	3.1	4.6	2.7	E	2.7	3.5	3.9	3.7	5.2	4.9	4.1	4.1	4.0	3.1	3.8	3.1	2.9	5.4	2.7	3.5	2.4	2.7
23	2.6	2.9F	2.5F	3.1F	2.5F	2.5	3.6	4.0	4.4	4.6	4.8	4.1	⌐fE	5.5	4.2	4.5	4.6	5.6	2.8	E	E	E	E	2.8
24	E	2.8	2.6	2.6	3.1	2.4	3.6	3.9	4.4	4.5	4.3	3.2	4.2	5.0	4.0	5.1	4.7	5.0	5.3	3.7	3.3	4.0	3.1	E
25	E	2.6	E	2.4	2.5	2.5	2.5	3.6	4.5	3.8	4.2	4.4	5.0	5.2	4.0	3.6	4.1	3.9	4.2	3.2	3.7	2.4	4.6	5.6
26	5.2F	4.2F	5.0F	4.2F	4.2F	2.5	2.6	3.3	4.4	4.5	4.8	4.8	5.0	4.0	4.0	4.8	C	4.0	3.8	2.2	8.6F	5.0F	E	E
27	E	3.3	4.2	3.0	2.3	2.3	⌐fE	4.2	5.0	4.6	6.6	6.8	5.5	4.1	⌐fE	4.3	3.6	4.5	4.8	3.2	2.6	2.0	2.8	2.8
28	3.2	2.8	E	E	E	E	3.1	3.2	3.5	4.6	4.8	C	7.1	4.8	4.3	5.8	7.8F	6.8	4.0	4.5	3.5	7.5	6.1	E
29	2.2	5.0F	3.2F	5.0	4.0	2.1	3.2	4.0	4.4	8.0	3.9	5.1	4.8	3.2B	5.2B	5.2	6.4	4.3	8.1	3.5	5.3	4.4	3.2	3.0
30	E	E	E	E	E	2.5F	2.2F	3.3	4.3	4.7	4.9	4.0	4.3	4.2	4.3	4.1	6.3	6.8	6.5	5.6	8.1	7.4	5.2	4.6
31																								
Mean Value																								
Median Value	E	2.2	E	E	E	E	2.9	3.3	3.9	4.1	4.1	4.2	4.2	4.1	4.0	4.2	3.9	4.0	3.7	3.2	3.1	2.6	2.8	E
Count																								

fEs

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 3

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Apr. 1946

(M3000)F2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.8	3.0	3.4	3.1	3.0	3.1	3.4	3.6	3.5	3.2	3.2	3.0	3.1	3.2	2.7	3.1	3.3	3.3	3.3	3.4	3.1	3.1	3.0	2.9
2	2.9	2.9	3.0	3.3	3.4	3.0	3.5	3.6	3.2	3.1	3.2	3.1	3.2	3.2	3.4	3.2	3.4	3.3	3.3	(3.2)	3.2	2.9	3.1	3.1
3	3.0	3.2	3.1	3.5	3.3	3.3	3.5	3.4	3.4	3.3	3.1	(3.2)	3.1	3.2	3.2	3.4	(3.5]C	3.5	3.4	3.5	2.8	3.1	3.1	2.9
4	2.9	3.0	3.1	3.0	3.1	3.1	3.6	3.6	3.6	3.6	3.4	3.3	3.4	3.2	(3.1]C	3.1	3.2	3.8	3.7	3.5	3.0	(3.0]C	3.0	(3.0]C
5	3.0	3.4	3.4	3.3	3.2	3.2	3.6	3.6	3.4	3.4	3.2	(3.5)	3.3	(3.4)	3.5	3.4	(3.4)	3.4	3.4	3.3	3.2	3.1	3.2	3.1
6	2.9	3.1	3.2	3.4	3.0	2.8	3.5	3.7	3.6	3.3	3.4	3.3	(3.3)	3.3	3.2	3.3	3.4	3.5	3.5	3.3	3.3	3.1	2.9	2.9
7	3.0	3.1	2.9	2.9	3.0	3.1	3.4	3.4	3.4	3.3	3.5	3.5	3.5	3.3	3.2	3.1	3.2	3.3	3.3	3.6	3.1	3.1	3.0	2.8
8	2.8	2.8	3.1	3.3	3.2	3.0	3.3	3.5	3.4	3.3	3.3	3.3	3.2	3.2	3.2	3.4	3.4	3.3	3.2	3.5	3.3	3.0	3.0	3.0
9	2.7	2.7	3.0	3.1	3.0	2.8	3.4	3.4	3.3	3.3	3.2	3.3	3.1	(3.2)	(3.2)	3.4	3.2	3.3	3.3	3.3	2.9	3.0	2.7	2.8
10	2.9	2.8	(2.6)	2.9	2.6	(2.6)	3.1	3.1	2.9	3.3	3.1	3.2	3.3	3.2	3.2	3.4	3.4	3.4	3.4	3.4	3.4	2.9	2.9	2.9
11	3.0	3.0	3.2	3.2	3.1	3.2	3.5	3.5	3.8	3.6	3.6	3.2	3.3	3.4	3.4	3.5	3.3	3.4	3.4	3.4	3.4	2.9	3.0	2.9
12	3.0	2.9	C	C	C	C	C	C	C	C	C	3.5	(3.2)	3.3	3.4	3.4	3.3	{3.4]C	3.7	3.8	3.0	3.1	3.1	2.9
13	3.1	3.1	3.2	3.1	3.1	3.1	3.4	3.2	(3.3)	3.2	3.3	(3.4)	3.5	3.5	3.2	(3.2)	3.5	(3.1)	3.2	3.2	{3.0]C	2.8	2.9	3.0
14	3.1	2.9	3.0	2.9	2.8	2.8	3.1	3.1	3.4	3.2	3.1	3.3	3.3	3.2	(3.3]C	3.5	3.3	3.4	3.6	3.4	3.3	3.0	3.0	2.9
15	2.9	2.9	2.9	3.7	3.1	3.2	3.3	3.6	3.3	3.4	3.2	3.5	(3.5)	3.4	3.4	3.4	3.5	3.5	3.2	3.1	3.2	2.9	2.9	3.1
16	2.8	2.9	3.2	3.4	2.8	3.1	(3.2]C	3.3	3.3	3.2	(3.3)	3.4	(3.2)	3.4	3.6	3.3	3.4	3.2	3.2	3.4	3.3	3.1	3.0	3.0
17	2.7	3.2	3.2	(3.1]F	3.0	3.1	3.6	3.6	3.6	3.4	3.4	3.4	3.4	3.4	3.6	3.6	3.4	3.2	3.4	3.6	3.5	3.0	3.2	3.1
18	3.2	3.5	3.8	(3.4)	3.1	3.1	(3.6)	3.7	3.7	3.2	3.4	3.4	3.0	3.1	3.1	3.1	3.3	3.3	(3.3)	3.4	3.2	2.9	2.8	2.9
19	3.0	3.0	2.8	2.9	2.9	2.9	3.3	3.5	3.3	3.2	3.0	3.1	3.0	3.2	3.5	3.5	3.5	3.5	3.5	4.0	3.5	3.0	3.1	3.1
20	3.2	3.2	3.1	(2.9)	3.1	3.1	3.6	3.5	3.7	3.3	(3.7)	3.4	3.2	3.3	3.3	3.3	3.5	3.5	(3.5)	(3.6)	3.3	3.0	3.0	3.0
21	3.1	3.1	3.4	3.2	3.1	3.1	3.4	3.3	3.1	2.9	3.4	3.2	3.2	3.2	3.2	3.4	3.7	3.6	3.6	3.4	3.2	3.1	3.1	3.0
22	3.0	2.9	3.1	3.1	3.1	3.2	3.9	3.5	3.4	3.5	3.7	3.2	3.1	3.1	3.4	3.3	3.4	3.2	3.6	3.4	3.1	2.8	2.8	2.8
23	2.8	3.0	2.8	2.9	2.9	2.9	3.4	3.1	3.1	3.3	3.2	(3.0)	2.9	2.9	2.9	3.3	3.0	3.0	(3.7)	2.9	S	S	S	S
24	2.9	2.8	3.2	(3.1]S	(2.7]F	2.6	2.5	2.5	2.6	G	G	B	G	A	G	2.8	2.4	3.1	S	3.4	(2.7)	(2.6)	2.9	(2.5)
25	2.9	3.1	3.0	3.2	2.7	3.0	3.4	3.2	S	S	3.2	3.7	3.2	3.3	3.6	3.6	3.3	3.4	3.2	3.3	(3.1]C	2.7	2.7	2.9
26	3.0	3.1	(2.9]J	3.0	2.8	3.0	3.4	3.4	3.4	3.5	3.2	3.2	3.0	3.0	3.3	3.2	(3.2]C	(3.2)	(3.1)	3.4	(3.2]J	3.1	3.0	2.9
27	2.9	2.9	2.9	3.5	2.8	2.9	3.3	2.8	2.9	3.0	3.2	(2.4)J	2.4	2.7	2.9	3.1	3.3	3.1	3.0	3.3	3.2	3.0	2.9	2.9
28	(2.8]J	2.7	2.8	3.0	3.1	3.2	3.7	3.8	3.6	3.5	3.5	(3.3]C	(2.9)	2.9	3.0	3.1	3.3	3.5	3.4	3.3	3.0	2.8	2.8	2.8
29	2.8	2.9	3.0	3.0	2.9	3.2	3.2	3.5	3.3	3.3	3.2	3.3	3.2	3.2	3.2	3.2	3.4	(3.3)	(3.6)	3.4	3.0	3.0	3.0	2.9
30	3.0	3.1	3.2	3.0	3.3	3.4	3.9	3.7	3.2	3.6	3.3	3.1	2.9	3.0	3.1	(3.2)	3.3	3.0	3.0	3.1	3.2	2.5	2.5	2.5
31																								
Mean Value																								
Median Value	2.9	3.0	3.1	3.1	3.0	3.1	3.4	3.5	3.4	3.3	3.2	3.3	3.2	3.2	3.2	3.3	3.3	3.3	3.4	3.4	3.2	3.0	3.0	2.9
Count	30	30	29	29	29	29	29	29	28	28	29	30	30	30	30	30	30	30	29	30	29	29	29	29

(M3000)F2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K4

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

IONOSPHERIC DATA

May. 1946 | **foF2** | 135° E Mean Time | **Kokubunji Tokyo** | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	7.7	8.5	8.7	7.1	6.2	7.0J	8.5	8.4	(9.8)H	8.5	8.8H	10.7	11.2	11.3	11.0 K B	10.7K	10.4 K J	10.7 K H	12.1K	11.0K	8.1K	.6.5K	6.7K	7.1K
2	6.9K	7.4K	7.3K	7.0	7.0	7.5	(9.6)	8.9	8.0	8.2	8.5	9.2	9.9J	(10.6)H	12.4	12.3	12.0	10.0H	10.4	9.7	7.7 K F	(8.1) K F	(8.8R) K S F	(8.8R) K S F
3	8.0 K J	7.8	8.0	7.4	7.0	7.5	9.0	8.3	8.0	9.4	9.5H	11.3	11.8	11.8	12.3	12.4	12.0B	(10.9)C	9.8H	9.5	8.7	(9.5)	(9.5)	(9.5)
4	9.0	8.6	8.3	7.8	7.4	8.1	9.5	9.4	8.1B	8.5B	9.2	(9.9)	10.8H	(11.5) H C	12.1H	12.6	11.0H	(10.6)H	10.8	(9.6)	A	F S (8.8R)	F S (9.1R)	8.4F
5	7.9F	7.8	7.3	7.3	7.2	8.2	9.5	9.7J	8.7	9.3B	9.4H	10.9 B H	11.5 B H	11.1	11.2	10.1 B J	10.4	10.0	10.8	(10.5)	7.8	7.4J	7.5	7.3
6	7.5	7.5	7.1	6.7	(7.0)	7.8	9.1	9.3	10.0	10.4	9.7J	10.6J	11.0	10.4J	10.8	(11.2)	10.0	(10.1)C	10.5	11.2H	7.2	6.5H	(6.5)H	6.7H
7	6.9H	6.7H	5.8H	5.1	4.9	6.2	7.3	6.5K	5.5K	8.6S	KB(G)	KB(G)	KB(G)	5.8K	5.8K	6.1K	G	7.1K	6.6K	5.3K	4.7K	7.5K	A	(6.5)K
8	(6.1) F K J	(5.7)K	5.6 K F J	5.0K	(4.7) F K J	5.2	7.0	7.9	9.1	9.3B	9.4B	10.7B	10.9B	10.7B	11.3B	12.2H	A	A	A	8.8	7.2	7.0	(7.0)FH	6.6FH
9	7.1HF	6.4F	5.7F	4.7F	4.9F	6.1	8.3	9.1H	9.3	9.0	A	10.4	11.2	10.7B	10.3	9.1	9.0H	9.0H	9.0	10.5	7.3H	7.7H	7.5	7.3H
10	6.7H	6.1H	7.0H	(5.0) F K J	(4.4) F K J	4.3K	5.1HK	5.3HK	5.3JK	6.4K	6.2K	6.9 K J	7.6K	7.5K	8.3K	8.1K	7.1K	6.9 K H	8.6 K H	8.8K	7.9 K B	6.9 K F	7.1 K F	(7.3) K F J
11	7.4 K F J	7.0 K F J	(6.5) K	5.8K	(6.7)K	6.8	7.0	7.3H	8.6	A	9.9H	9.9	11.6	11.2	10.5	10.7	11.0H	10.6	10.6	8.8	8.8	8.7	8.7	7.9
12	8.4	7.3	7.4	7.0	6.0	6.4	7.3	7.5H	8.3H	9.3	10.2	9.5	10.0	10.5	10.8	9.9	(9.8)	9.3J	9.0	8.5	7.1	(8.1) F K J	(9.0) F K J	8.5 F K J
13	(8.2) K F J	7.6 F K J	6.9 F K J	6.6	5.7	5.8	7.2	8.5	(8.6)	8.6H	8.7	9.0	(9.1)	10.3	10.5	10.0	9.0	8.1	8.1	8.0	7.3	7.3	7.5	7.4
14	7.1	6.5	6.2	6.0	6.0	6.3	7.1	8.0	8.2	8.5H	(9.4)	10.7	10.9	11.2	(11.3)C	11.4	10.4H	10.2H	9.1H	8.3	7.4	7.8H	8.4	8.3
15	7.9	7.7H	7.0	6.6	6.3	6.5	8.3	8.9	9.0	7.9H	8.6	9.3	10.2	(10.3)	10.5	10.2	10.0	9.8J	9.5	8.8	7.9	7.1	(7.6)	(7.3)
16	7.1	(7.2)	(7.2)	6.5	5.9	6.3	7.4H	8.0H	7.5	7.2	8.3	9.3	9.3H	9.7	8.6	8.3H	8.6	8.6	8.9	(9.5)	7.1	6.0K	AK	9.3 K F J
17	5 F K 6.6J	(7.6) K F J	6.9 K S F J	(6.3) F K J	(6.0) K F J	(6.3) K J	7.7	7.0H	8.3H	A	A	A	A	9.0	9.1H	8.8	9.6	9.0H	9.3	9.5	(9.0) 4 K	8.4K	6.6 F K J	(5.0)K
18	6.0 K S	7.1 K H	6.2K	6.1K	(5.3)K	5.4 K H	6.4 K H	6.5	9.3H	AK	AK	6.9K	7.8K	7.7K	6.8K	7.1K	7.3K	7.3 K H	6.9K	6.9 K H	(6.8) K F	7.5 F K J	7.4 F K J	6.5K
19	F K 7.0J	7.3 K F J	6.6 F K J	(6.0) F K J	5.4 F K J	6.2F	7.9	7.5	7.5	7.4	7.9	9.5	9.8	9.5	9.5	9.2	8.6	A	A	8.4	7.2	8.0F	(7.7)H	7.7H
20	7.3	7.0H	5.9H	6.5H	6.3	7.2	7.5	7.5	7.4	7.1	7.0	7.8	8.7	9.2	10.4	11.3	10.4	9.0	(8.6) F	8.1	7.9 F J	7.3 F J	7.9 F J	8.0 F J
21	7.8 F K J	(7.8) F K J	7.7 F K J	7.2 F K J	6.5K	6.2	7.0	8.8	9.5	8.7K	9.3	10.3	10.3	10.3	11.2	11.0	9.6	8.8 K S	7.4K	AK	8.4K	8.2 H F K J	(8.8) F K J	8.5 F K J
22	(8.5) F K J	7.2 F K J	(7.6) F K J	6.8 K F	5.9 F K J	6.0K	5.6K	8.2 K S	(8.4) F K J	(8.0) F K J	6.7 K J	8.1	9.1	9.2	9.0	8.5H	8.2	10.0H	9.5	8.9H	7.0	7.4	(7.2)K	6.2 F K J
23	(8.4)K	8.4 F K	7.1 F K	4.3K	5.3K	7.9K	6.8K	8.3K	10.5K	AK	AK	AK	AK	AK	C	C	6.1K	6.0K	6.1K	7.1K	7.8H	7.5H	7.7F	7.7
24	7.5	7.1	6.5F	6.0F	6.1F	6.0F	6.4	6.9	7.3	7.0H	7.1H	9.4	9.5H	9.1H	9.1	9.2	9.8	9.6J	9.2	9.0	8.9	8.9	9.3	(8.8) F J
25	9.1 S F	8.5	8.5	6.9	7.3	6.8	6.6	6.8	7.1	8.0	9.1S	9.7	10.8	11.3	12.0	10.7	10.8	9.8	9.9	9.8H	8.5	8.2	8.9H	8.5H
26	8.7	9.1	8.5	8.2	7.8	6.6H	8.5	8.0	7.4	7.9	A	8.4	9.3	9.3	9.3H	10.2	(9.9)C	9.5	8.3	8.2	8.8	8.4H	8.3	8.1
27	7.8	8.4	7.2	6.8	6.7	7.9	9.0	9.2	8.2	8.5	9.1	9.4	10.7	10.1	11.1	11.2	10.4	9.3	9.3	8.9	9.4	8.8	9.0	C
28	C	C	C	C	C	C	C	C	8.4	(8.7)A	(9.1)C	9.5	(10.2)C	10.8	12.0	11.7	11.1	11.2	9.2S	11.1	(9.8)J	9.1	8.9	8.9 F J
29	9.6 F K J	(8.6) F K J	7.2F	6.7F	6.4	7.8	7.7	7.5	8.0	8.9	8.7	9.3	11.2	11.1	11.9	(12.0)	11.4	11.8 J	11.0	9.7S	9.0J	9.3 F K	8.9K	(8.9)K
30	8.6 F K J	8.3 F K J	8.4 F K J	(8.3)J	6.9	6.8	(8.1)A	(9.3)	7.3J	8.2H	8.4	9.5	8.8	9.2	9.1	9.0	9.8	(9.7)A	(9.6)A	(9.5)F	(8.7)A	8.0	7.9	8.4F
31	8.6F	8.5F	8.2	8.1 F K J	8.6FK	9.2	8.3	8.3	9.1	8.4	8.3	8.6	9.7	10.1	9.5	9.3	9.5	9.6	(10.9)	(9.8)A	8.9S	8.1	8.8	8.8
Mean Value																								
Median Value	7.8	7.6	7.2	6.7	6.3	6.6	7.6	8.1	8.3	8.5	8.8	9.5	10.2	10.3	10.5	10.2	9.9	9.6	9.3	9.0	7.9	7.9	7.9	7.9
Count	30	30	30	30	30	30	30	30	31	27	26	29	29	30	30	30	30	29	29	30	30	30	27	29

foF2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☐ Manual ☐ Automatic

K 1

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

May. 1946 | **h'F2** | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	380	320	300	260	255	280	220	230	280	250	270	300	300	290	280	290	280	290	(270)	A	230	240	250	300
2	300	320	290	270	(260)	280	220	220	230	250	270	340	320	330	270	280	250	250	210	(230)A	A	(300)A	A	280
3	270	220	230	250	240	240	200	220	230	230	290	300	290	290	270	270	(280)	(250)	230	320	300	300	290	260
4	250	260	275	250	(240)	250	210	220	210	280	310	280	A	350	320	310	300	A	250	250	A	A	A	290
5	(250)	290	300	300	280	270	260	255	240	300	270	260	290	280	270	(270)	A	270	250	230	200	230	280	300
6	320	300	290	(250)	300	280	230	220	260	250	270	230	270	290	290	250	240	C	270	240	A	(220)A	A	(310)A
7	280	230	200	(240)	270	270	220	340	(400)	170	B(G)	A(G)	A(G)	530	530	480	G	310	300	210	300	(280)A	A	A
8	(310)F	(250)	A	270	(290)A	270	240	260	250	260	(340)A	260	280	290	280	(210)A	AF	AF	AF	(210)A	(290)A	(300)A	280	(290)A
9	300	270	230	240	300	A	A	240	270	A	A	320	270	280	260	250	250	(220)A	230	300	A	300	300	280
10	290	280	A	A	A	320	410	450	600	360	440	A	210	260	240	(220)A	A	A	260	250	190	F	F	(330)F
11	300	280	(230)	250	240	200	220	220	240	A	250	270	290	280	270	330	(270)A	260	270	(240)	290	310	(250)	F
12	F	(300)F	(280)F	(260)	320	(300)A	230	230	230	A	300	300	330	320	290	290	300	260	260	250	250	(390)A	(360)A	300
13	300	(290)	280	260	300	310	290	290	320	310	270	300	370	310	300	300	250	250	260	280	290	310	310	280
14	260	300	(360)	320	280	290	270	A	340	300	340	350	310	310	C	310	290	280	280	(280)	A	A	(360)A	320
15	310	310	280	(270)	(270)	290	280	280	(280)A	270	(300)A	330	310	(330)A	310	300	280	290	280	250	250	240	350	340
16	320	330	310	280	280	280	280	280	270	260	(300)A	300	290	270	310	260	290	290	290	250	230	(230)F	A	A
17	320	300	300	250	320	250	210	250	250	A	A	A	A	(320)A	340	310	290	240	290	270	(270)	300	340	(290)
18	310	(320)A	(300)A	A	(330)	A	260	A	270	A	A	A	A	340	A	350	350	300	(260)A	270	250	A	330	340
19	330	360	260	A	(350)	300	260	230	A	A	A	300	290	290	300	280	250	A	A	A	260	280	(330)	A
20	340	320	310	300	310	300	310	260	260	250	410	390	370	(350)A	330	A	A	240	F	F	(300)F	F	F	(340)F
21	290	(300)	290	250	250	260	230	280	260	A	380	330	330	310	320	270	270	A	A	A	370	410	320	340
22	310	(350)	380	330	310	320	380	260	250	240	A	360	340	350	310	250	350	330	300	250	(250)	280	A	A
23	A	250	200	(240)	A	250	300	(300)A	210	A	A	A	A	A	C	C	(350)	360	380	320	320	350	340	370
24	340	(320)	(320)	(340)	360	280	340	290	320	330	390	370	310	330	360	320	320	300	A	280	(290)	(300)F	(320)F	330
25	270	250	280	290	280	280	260	210	(240)A	280	A	310	280	260	(280)A	(280)A	260	220	A	220	A	290	(320)F	290
26	300	280	290	300	270	220	230	230	A	280	A	310	310	280	A	300	C	(250)A	A	240	250	230	240	280
27	(280)	260	230	280	300	250	260	250	240	A	290	A	290	280	260	250	260	240	240	230	230	220	280	C
28	C	C	C	C	C	C	C	C	C	A	C	360	(340] C	320	320	330	350	(270)A	(230)A	220	230	(210)	260	(320)A
29	(340)A	230	280	260	270	230	220	220	(220]A	230	230	280	280	290	300	(250)A	280	270	260	(240)F	(280)A	(280]A	(280]A	(280)A
30	300	280	270	250	200	250	(240]A	(220)A	190	(240]A	280	270	260	270	(280)A	270	A	A	A	A	A	290	270	280
31	280	270	250	250	(230)F	(230)A	(230)A	240	280	230	(270)A	(290]A	300	300	(270)A	(320)A	300	(300)A	A	A	A	A	(300)A	260
Mean Value																								
Median Value	300	290	260	280	280	280	250	250	260	260	300	300	290	290	290	280	280	270	260	250	260	290	300	300
Count	28	28	27	28	28	28	29	28	28	21	22	26	27	30	27	29	25	24	22	25	23	25	23	25

h'F2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K2

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

IONOSPHERIC DATA

May. 1946 | foF1 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						L	L	L	L	4.8	L	5.2	5.5	5.6	5.4	5.5	A	L	A					
2						1.7J	L	L	L	5.0	L	A	A	LB	L	5.8B	LB	A	2.6J					
3						L	L	L	A	5.0	6.5K	5.8K	5.9K	6.2K	A	A	B	A	L					
4						L	L	L	B	L	6.1	A	A	C	5.7	5.5	5.4	A	A					
5						L	L	L	L	L	L	L	L	5.5	5.8	B	L	3.5	L					
6						L	(2.9)	4.0	L	A	L	5.3	L	L	5.3	5.1	5.1	C	A					
7						L	L	4.4K	4.5K	A	B	A	A	4.8 B K	4.9	4.6K	4.2 B K	L	L					
8						L	L	4.2	L	L	A	A	A	5.6B	L	A	A	A	A					
9						A	A	A	A	A	A	A	A	B	(5.3)J	B	L	A	A					
10						L	4.0K	4.0K	4.8 K J	5.0K	5.0K	A	5.8K	(5.3)	5.3J	A	A	A	A					
11						L	L	L	(4.5)	A	A	5.4	5.5	5.3	A	L	L	A	L					
12						L	L	L	L	A	5.1	L	5.4		L	A	A	A	A					
13						L	L	4.6	5.1	L	5.0J	5.2	5.6	(5.1)B	5.0	4.9B	A	A	A					
14						L	A	A	5.0	A	L	L	5.2	L	C	5.3B	L	A	A					
15						L	A	A	A	A	A	5.5	A	A	5.0	5.2	5.0H	A	A					
16						L	L	A	5.0	5.2	A	A	5.4H	5.2	5.2	LB	L	A	F					
17						A	A	A	A	A	A	A	A	A	5.2B	4.8	A	A	A					
18						A	A	A	A	A	A	A	A	5.2H	A	4.9H	5.1H	A	A					
19						L	L	L	A	A	A	5.4	5.6	L	5.2	5.2	L	A	A					
20						L	L	A	L	5.6	5.6	5.5	5.3B	A	A	A	A	A	A					
21						L	L	A	5.0	A	6.3K	5.6	5.6	5.4	5.4	5.4	L	A	L					
22						A	4.2	L	L	A	A	5.4	5.4B	5.5	5.2	L	4.8	L	3.4					
23						A	A	A	A	A	A	A	A	A	C	C	C	A	L					
24						L	4.4	A	5.0	L	L	(5.8)B	5.5	5.4	B	5.1B	5.0B	4.5B	L					
25						L	L	A	A	A	A	6.2	5.7	A	A	A	A	A	A					
26						L	L	A	A	5.5	A	5.4	5.9	A	A	5.4	C	A	A					
27						L	L	A	A	A	6.2	A	6.0	5.8B	5.7	5.4	A	A	A					
28						C	C	C	A	A	C	6.2	C	B	5.6B	B	A	A	A					
29						L	L	L	A	5.1	5.5	6.2	5.7JB	A	A	A	A	A	A					
30						L	A	A	A	A	L	5.6	L	A	A	A	A	A	A					
31						L	L	A	L	A	A	A	(5.7)	5.6	A	A	A	A	A					
Mean Value																								
Median Value						*	4.1	4.2	5.0	5.1	5.6	5.5	5.6	5.4	5.3	5.2	5.0	*	*	*				
Count						1	4	5	8	8	9	16	18	16	16	15	7	2	2	1				

foF1

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 3

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

IONOSPHERIC DATA

May. 1946 | h'F1 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						270	220	(220)A	A	210	210	200	220	200	(220)A	250	A	A	A					
2						280	220	220	210	(210)A	A	A	A	A	A	210	200	A	A					
3						230	F	200	A	160	200	200	A	200	A	A	B	A	A					
4						240	A	A	B	(230)A	(230)A	A	A	240	(290)A	(250)	260	A	A					
5						250	230	(230)A	220	220	190	B	(200)	210	A	B	A	230	A					
6						270	230	A	A	A	200	(180)	(180)	250	170	210	220	A	A					
7						260	200	210	A	A	A	A	B	220	(230)B	260	370	260	A					
8						260	230	220	210	A	A	A	A	A	A	A	A	A	A					
9						A	A	A	A	A	A	A	A	B	210	A	180	A	A					
10						E	270	A	A	(210)A	A	A	210	A	A	A	A	A	A					
11						A	220	220	A	A	A	A	A	A	A	A	A	A	A					
12						A	230	230	220	A	200	200	210	A	A	A	A	250	A					
13						280	250	250	(200)	200	180	200	A	220	210	(210)	A	A	A					
14						A	260	A	260	A	A	A	A	230	A	250	A	A	A					
15						270	250	240	A	A	A	A	A	A	(220)A	160	220	A	270					
16						260	250	A	210	210	A	A	210	220	200	B	210	200	A					
17						A	A	A	A	A	A	A	A	A	B	200	A	A	A					
18						A	A	A	A	A	A	A	A	260	A	210	230	A	A					
19						260	250	A	A	A	A	A	A	A	A	A	A	A	A					
20						280	230	A	240	250	A	A	B	A	A	A	A	A	A					
21						240	230	A	A	A	200	A	200	210	A	A	A	A	A					
22						A	270	A	A	A	A	A	(240)A	240	230	A	250	250	280					
23						A	A	A	A	A	A	C	C	C	C	C	C	A	A					
24						280	230	A	240	A	A	A	A	(210)A	A	A	A	240	A					
25						260	220	A	A	A	A	190	A	A	A	A	A	A	A					
26						220	230	A	A	200	A	A	A	A	A	A	C	A	A					
27						230	230	A	A	A	170	A	A	B	A	A	A	A	A					
28						C	C	C	C	A	C	(210)A	C	A	A	A	A	A	A					
29						230	A	210	(180)A	150	180	200	A	A	A	A	A	A	A					
30						220	A	A	A	A	170	(190)A	A	A	A	A	A	A	A					
31						A	A	A	A	A	A	A	A	A	A	A	A	A	A					
Mean Value																								
Median Value						260	230	220	220	210	200	200	210	220	220	210	220	240	*					
Count						20	21	12	10	11	11	9	8	13	9	10	9	5	2					

h'F1

Sweep 2.4 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 4

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

May. 1946

foE

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						1.7J	2.0J	3.0	A	A	(3.6)	A	(3.6)	(3.5)	(3.5)	(3.2)	A	(2.3)J	(1.5)J					
2						E	A	A	A	A	A	A	A	A	A	B	B	(2.4)J	(1.8)J					
3						E	(2.3)	3.1	3.2	3.8	3.8	3.9	A	A	A	A	B	A	A					
4						1.4J	2.4	A	B	A	(3.9)	A	A	A	A	A	3.6	A	A					
5						1.5J	1.9J	A	A	A	A	B	B	A	3.9	B	(3.7)	A	A					
6						E	1.7J	A	A	A	A	A	A	A	3.5	A	A	A	A					
7						1.7J	2.1	3.0	3.5	A	A	A	A	B	B	2.9J	B	1.9J	1.9J					
8						1.7J	A	2.9	3.3	(3.6)B	A	B	B	B	B	3.8K	A	A	A					
9						A	A	3.2	3.8K	A	A	A	A	B	3.8	3.0J	AH	A	A					
10						A	A	3.0	A	(3.6)	3.8	(3.9)	(3.9)H	B	A	A	A	2.9	2.6					
11						A	2.4JH	2.8H	A	A	A	A	3.9	A	A	A	2.8J	A	2.4					
12						A	2.5	3.1	3.5	3.7	3.8	3.7	(3.9)	A	(3.4)	(3.2)	B	2.4J	2.4					
13						1.6J	2.4	2.9	3.2	A	3.9	A	A	A	A	A	2.6J	2.2J	1.6J					
14						(1.6)J	2.2	A	3.2	A	A	A	A	3.4	C	3.4	A	A	A					
15						1.7J	2.2	2.8	3.2	A	A	3.7	A	A	A	3.4	3.4	2.2	A					
16						1.7J	2.2J	2.9	3.1	3.7	A	A	3.4	3.4	3.6	A	2.6	A	A					
17						A	A	A	3.0	A	3.6	3.5	A	3.4	B	3.2J	A	A	A					
18						A	A	2.8	3.3	3.6	A	A	3.9	3.8	3.7	3.0		2.4J	1.8J					
19						1.4J	2.2J	A	3.3	3.6	3.8	(3.8)	3.9	3.6	A	3.2J	A	A	1.7J					
20						(1.8)J	2.5	A	3.0	3.2	3.6J	3.7	(3.8)	(3.5)	3.8	3.4	A	A	A					
21						1.9J	2.5	A	3.1	A	3.9	3.9J	4.0	3.8	A	A	A	2.3J	A					
22						A	2.5	3.0	3.4	3.5	A	A	B	3.4B	3.6B	A	3.1J	2.5	1.6J					
23						A	A	3.0J	3.1	3.5	A	C	C	C	C	C	C	1.9J	A					
24						2.0	2.6	2.8	3.0	3.3	AB	AB	AB	AB	B	B	B	2.3J	A					
25						1.9J	2.3J	A	3.5	3.7	3.8	A	A	A	(3.5)	2.9	A	2.7J	A					
26						2.2J	2.6	3.1	3.2	3.4	A	AB	B	A	AB	A	A	2.2J	A					
27						2.0J	2.4	3.0	3.4	A	AB	AB	B	B	AB	A	A	A	A					
28						C	C	C	3.5	B	C	3.9B	C	A	3.6B	A	2.5J	2.3J	A					
29						1.9J	A	3.2	3.5	3.9	4.3J	3.9J	B	B	B	A	A	A	A					
30						A	2.6	A	3.4	A	3.9B J	3.5B	3.9B	3.9B	3.5	A	A	2.4J	1.7J					
31						A	2.6	2.8	3.3	AB	(3.7)B	AB	AB	3.6B	AB	A	A	2.9	2.3					
Mean Value																								
Median Value						1.7	2.4	3.0	3.3	3.6	3.8	3.8	3.9	3.6	3.6	3.2	2.8	2.3	1.8					
Count						17	22	19	24	14	14	11	10	11	12	12	9	17	12					

foE

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 5

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

IONOSPHERIC DATA

May. 1946 | **h'E** | 135° E Mean Time | **Kokubunji Tokyo** | Lat. 35° 42.4' N, Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						E	120	120	110	110	110	110	110	120	110	120	110	120	E					
2						E	130	110	100	110	110	120	110	110	100	100	100	110	E					
3						E	100	110	110	100	110	110	100	100	100	100	B	(110)	E					
4						E	(100)	110	100	100	110	100	110	100	100	100	100	120	E					
5						E	(110)	110	110	110	110	110	110	110	110	110	110	120	E					
6						E	E	110	110	(100)	100	100	100	100	100	100	110	C	E					
7						E	(90)	100	100	90	100	110	120	B	B	110	120	120	E					
8						E	100	120	110	110	100	(100)B	100	(100)B	110	100	100	100	E					
9						E	100	110	110	100	100	100	100	B	110	110	110	110	E					
10						E	E	(100)	110	100	100	100	100	(100)B	90	100	100	110	E					
11						E	E	110	(100)B	100	100	100	100	100	100	120	110	110	E					
12						E	110	110	110	110	110	110	100	110	110	120	B	130	E					
13						E	(130)	120	120	110	110	110	110	B	110	100	110	(110)	E					
14						E	(130)	(130)	130	120	120	110	120	100	120	130	130	120	E					
15						E	(140)	110	110	110	120	110	(110)B	120	110	100	100	120	E					
16						E	(140)	120	110	110	100	100	110	100	100	(120)B	100	110	E					
17						E	E	120	110	110	110	110	100	110	120	110	110	110	E					
18						E	120	110	120	100	100	100	100	110	100	100	100	100	E					
19						E	120	120	120	110	100	100	100	100	100	110	110	120	E					
20						E	110	110	90	100	100	100	100	100	100	100	100	110	E					
21						E	(110)	110	110	110	100	100	100	100	110	90	100	110	E					
22						E	E	120	120	130	120	120	120	130	120	120	120	120	E					
23						E	120	120	120	100	110	C	C	C	C	C	C	120	E					
24						E	120	120	120	120	(110)B	(120)B	(110)B	B	B	B	B	110	E					
25						E	E	110	110	100	100	100	100	100	100	100	110	110	E					
26						E	120	110	100	100	110	100	B	100	100	100	C	100	E					
27						E	110	100	110	90	100	100	B	B	100	90	100	90	E					
28						E	C	C	C	110	[110]C	110	[110]C	100	110	100	110	120	E					
29						E	120	110	110	110	100	100	[100]B	[100]B	[100]B	100	100	100	E					
30						E	100	110	100	110	100	100	100	100	100	100	100	110	E					
31						E	(110)	110	100	110	100	100	100	110	110	100	100	120	E					
Mean Value																								
Median Value						*	110	110	110	110	100	100	100	100	100	100	110	110	*					
Count						0	30	30	30	31	31	30	28	25	28	29	26	30	0					

h'E

Sweep 2.0 Mc to 16.0 Mc in 15 min ☒ Manual ☐ Automatic

K 6

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

May. 1946

fEs

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	4.0	3.6	2.8	3.1	2.3	2.4	2.9	4.3	3.6	5.0	4.2F	4.3	4.0	4.5	⌐fE	4.7B	5.3	5.2	6.5	11.3	4.2	3.6	2.4	2.4
2	E	E	E	2.9	E	2.5	2.6	3.3	3.5	5.4	7.4	6.9	7.6	4.2B	3.7	3.3	3.1	5.0	5.0	8.2	9.1	9.1F	8.2F	3.2F
3	E	E	E	E	E	3.2	3.3	5.0	5.6	5.6	5.0	5.4	7.2	6.9	5.8	7.8	6.2B	C	3.8	4.6	6.0	4.6	E	2.2
4	2.8	E	3.0	3.1	2.9	2.7	3.1	3.1	6.2B	5.4B	6.0	8.2	9.1	C	4.9	5.0	4.9	6.4	7.8	7.8	9.2F	6.5F	5.0	2.9
5	E	E	E	E	2.8	2.3	3.1	4.1	5.2	4.2B	4.2	3.2	3.8B	4.1	4.0	3.0	5.5B	3.4	4.8	2.6	5.3	2.4	E	2.4
6	2.8	2.6	E	E	2.9	2.6	4.2	4.2	4.5	8.3	4.7	4.0	4.4	4.3	4.4	4.1	3.6	C	6.3	5.2	5.0	3.8	3.9	3.3
7	3.2	3.3	3.1	2.7	E	2.7	4.4	3.8	4.4	7.3	4.0	6.2	6.3	B	B	⌐fE	⌐fE	3.5	3.2	2.7	2.8	7.1	6.4	7.7
8	2.5	4.2	5.2	3.2	4.6	2.8	3.8	4.2	5.4	5.8	6.9	8.4B	6.2B	4.2B	4.8B	8.8	12.9	13.3	12.7	7.3F	6.0F	5.8F	4.7F	4.6F
9	5.2F	6.5F	3.3F	3.3F	2.8	4.8	5.2	5.5	6.9	8.8	12.1	9.2	11.2	5.5B	4.2	6.2	6.2	8.4	9.4	9.5	5.0	5.1	7.2	6.9
10	6.0	4.2	5.0	5.0	6.4	4.0	4.2	4.2	5.8	4.2B	6.9B	7.3B	4.0	6.7B	7.0B	5.9	8.8	5.0B	4.3	3.5	2.8B	6.0	5.4	6.9
11	4.4	5.8	4.8	2.8	4.8B	4.3	6.4B	5.0	6.0B	9.2	9.8	7.7	6.7B	10.4	5.2	5.7B	6.6B	4.4	3.2	3.8	3.0	3.0	E	5.4
12	5.0	3.4	2.7	E	4.2	3.2	3.5	4.0	5.0	4.8	4.4B	⌐fE	4.6	7.3	5.2	5.6	6.0B	4.4	3.4	2.8	4.8	5.0	5.8	3.8
13	E	E	E	E	E	E	3.3	4.7	4.8	4.8	4.3	4.6	4.8B	4.1B	4.0B	3.1	4.6	6.4	5.6	6.4	5.5F	3.2F	2.4	2.2
14	E	E	E	2.4	E	2.8	3.4	5.2	5.2	6.6	4.2	4.5	5.5	⌐fE	C	5.3B	7.0	4.0	8.5	3.4	5.2	3.2	5.0	2.4
15	2.2	2.1	E	E	2.6	2.8	3.8	4.7	5.8	6.0	6.0B	5.2B	6.2B	6.4B	5.2B	5.4	5.6	5.6	5.2	3.4	5.2	2.7	4.8	5.3
16	2.6	3.2	3.0	2.5	E	2.8	4.2	4.2	4.2	4.8	7.0	4.0B	6.7	4.6	3.9	3.3B	3.7	3.2	2.9	3.0	3.0	5.2	8.8F	8.2F
17	3.2F	E	E	5.2F	3.4F	4.2	5.2	5.4	7.8	11.7	12.4	12.1	12.1	9.1	6.7B	7.6	6.2	7.6	8.7	7.3	8.2	7.2	4.7	4.1
18	4.8	4.3	4.2	4.0	2.5	3.8	5.0	5.5	8.4	9.3	9.1	5.5	9.1F	5.4	5.1	3.8	⌐fE	5.0	4.4	5.0	7.3	5.0	6.4	8.8
19	6.2	4.6	2.5	4.6	4.0	2.5	3.8	5.5	6.5	5.8	7.7	5.4	7.3	7.8	6.2	⌐fE	6.5	11.0	10.2	8.7	6.7	7.1	7.8	6.9
20	3.0	2.1	2.6	3.0	3.1	3.0	2.8	4.2	4.6	6.0	6.2	4.4	⌐fE	6.7B	7.6	7.9	7.8	7.8	9.0	7.3	7.0	7.3	7.3	5.9
21	4.2	E	4.0	3.2	4.2	2.2	4.0	6.0	6.2	7.8	4.4	⌐fE	⌐fE	4.9	3.9	3.6	5.3	8.3	7.2	6.6	6.8	8.0F	4.6F	2.6
22	E	E	2.8	2.8	2.8	3.1F	5.2F	7.5	7.6	8.3	8.4	5.8	⌐fE	4.1	3.8	10.1	4.2	3.3	3.2	2.8	2.3	2.7	7.8	5.9
23	5.4	4.2	3.8	3.1	4.2	8.3	5.6	6.4	9.3	13.7	12.7	8.2	6.9	7.6	C	C	C	7.6	3.5	4.2	4.2	6.3	5.9	4.4
24	4.0	C	C	E	3.0	2.4	3.8	4.8	5.2	5.4	7.3	5.4	5.8	4.2	B	3.5	3.0	3.8	5.6	4.0	3.2	4.6	5.8	5.4
25	2.9	3.0	4.2	3.7	E	E	3.0	4.2	5.4	5.4	8.3	6.4	6.4	6.4	8.3	7.6	5.2	8.6	9.3	3.3	3.5	7.6	7.8	3.6K
26	7.4	7.1	6.6	5.3	3.0	3.0	4.0	4.6	6.7	5.3	12.3	8.1	8.0B	7.4	7.1B	5.8	C	5.6	6.1	3.8	2.8	4.2	3.0	2.8
27	2.2	4.6	2.8	2.2	2.0	E	3.8	5.6	6.5	8.4	7.8	8.8	7.0B	4.6B	5.2	8.1	6.3	7.1	8.6	4.2	4.6	4.0	5.0	C
28	C	C	C	C	C	C	C	C	9.1	8.0B	C	5.6	C	4.6	5.4B	5.0	5.6	7.7	5.7	4.0	7.5	3.3	5.4	6.7
29	6.8	3.1	5.6	3.1	2.8	2.8	4.0	5.0	6.4	5.2	4.3	5.6	4.4B	6.9B	9.2B	6.7	5.8	5.4	5.4	7.3	9.3	8.9F	8.0	7.8
30	8.0	7.0	4.2	3.6	4.2	3.0	9.0	6.4	7.3	9.3	8.3B	11.6B	5.5B	11.7B	9.0	5.3	9.5	12.2	11.1	8.3	8.7	6.9	4.2	3.5
31	4.4	3.5	3.2	4.0	3.6	3.3	4.8	5.0	7.6	7.8B	6.7B	10.4B	7.3B	7.6B	7.7B	8.1	5.5	7.8	10.4	14.6	10.2	8.0	6.3	3.6
Mean Value																								
Median Value	3.2	3.2	3.0	3.1	2.9	2.8	4.0	4.8	5.8	6.0	6.9	5.6	6.3	5.5	5.2	5.4	5.6	5.6	5.7	4.6	5.2	5.1	5.4	4.3
Count	30	29	29	30	30	30	30	30	31	31	30	31	30	29	27	30	29	29	31	31	31	31	31	30

fEs

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 7

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

IONOSPHERIC DATA

May. 1946 | (M3000)F2 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

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

(M3000)F2 | Sweep 2.0 Mc to 15.0 Mc in 15 min | ☒ Manual ☐ Automatic | K8

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

IONOSPHERIC DATA

Jun. 1946 | **foF2** | 135° E Mean Time | **Kokubunji Tokyo** | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	8.6	8.4	7.6	(7.9)	8.0F	9.0	9.7	9.0	7.8HF	8.6	8.6H	9.6	9.8	10.7	10.0	A	A	11.6SF	12.0SF	A	8.5S	8.2	8.0KSF	8.7KSF
2	8.5KSF	(8.3)K	7.9JF	8.1KJF	7.7	8.3H	10.3H	9.1	9.1SF	7.0	8.0	8.8	9.1B	9.6	10.1	9.8	10.2J	8.9	{8.2}A	{8.1}A	8.5	8.7SK	7.9JFK	7.3FK
3	8.7SJK	8.2JFK	8.4SFK	8.7SFK	8.2JFK	6.8JFK	(8.3)FHK	8.3F	7.7	7.4	7.2	7.8	8.0	8.1J	9.0	(9.1)	9.2	8.8	8.8	8.6	7.6JH	7.5SKF	7.9SFK	7.7
4	(7.8)JFK	8.4SFK	(8.0)JFK	6.8SFK	6.5SFK	6.4	7.4	7.5	8.4	7.6K	6.7K	7.5K	7.2B	C	C	(9.3)	9.1H	(9.5)	9.1	9.3H	8.7	7.1H	7.7JFK	7.3JFK
5	(7.6)JFK	7.0JFK	6.7JFK	6.7JFK	6.8FK	7.1K	8.1K	8.0	7.0	7.5H	8.4	8.6	{9.0}A	{8.7}A	8.6	8.3	8.0	{8.1}A	{8.3}A	8.4	(9.0)J	{8.8}A	8.6JFK	(8.8)JFK
6	8.6JFK	(8.4)JFK	8.3JFK	(8.0)JFK	7.8FK	6.9	6.8	7.5H	(8.0)	7.3	8.8	9.7	(9.4)	9.7	9.9B	9.3	C	C	(7.5)S	8.2	(8.9)H	8.5K	6.4SK	8.5FKS
7	8.6SFK	(8.4)JFK	7.8SFK	7.8SFK	7.4JFK	7.7	8.5	8.3	7.0	6.2JK	7.6K	6.6K	6.5K	6.4K	A	A	C	C	C	C	C	7.7H	8.5FK	7.6SF
8	6.7J	7.2	6.7J	(7.0)C	7.3	7.0	7.3H	6.8	5.8	A	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	8.1	7.5	8.7	(7.6)JH	8.5H	8.0J	6.4	6.4H	6.6	6.9F	6.5H
10	6.2	(6.3)H	5.3	5.4	6.0	5.1	(7.5)FH	(8.0)F	8.4B	A	A	A	C	A	5.7K	5.8K	{5.9}AK	{6.0}AK	6.1JK	{6.2}AK	6.2HK	6.7HK	(6.7)HK	(7.5)JF
11	(7.8)JF	(6.9)F	5.6F	5.6F	5.6F	6.1	6.9	7.6	6.2JH	6.2J	6.4	{6.9}A	7.5	7.1	7.3	7.0	7.3	7.8	8.1	8.6	7.4	7.0J	(8.1)JF	(7.9)JF
12	(7.7)JF	(8.9)JF	6.4	5.3	4.6	5.1	6.7H	6.7	6.4	(7.9)	6.5	6.3	6.3	7.9	{8.3}C	8.7	8.3	9.2K	8.4	7.4	{8.3}A	7.2H	7.0	7.3J
13	7.2H	7.2H	6.7	6.4	6.7	7.2	6.9JF	6.1J	A	A	A	A	A	A	5.4JK	5.9JK	A	A	A	A	A	A	(6.5)	6.4H
14	6.3H	6.4H	6.0H	4.9J	4.6	4.4	4.3H	5.8	5.8	A	A	(5.7)K	5.6K	5.9K	6.4K	6.6	6.6	6.8	6.5H	6.3H	6.1	6.6	7.0	6.6H
15	6.4	6.5F	(7.2)JF	(6.2)F	6.1JF	5.4JF	6.2	6.1	6.0JFH	5.8J	6.3	6.5	5.8K	6.5	6.4	6.6H	6.6	6.6	6.4	6.9	6.8	AF	AF	(6.8)JF
16	6.9SF	(6.5)JF	5.5	(5.5)JF	(5.5)JF	6.5	6.9	7.8	8.2	8.1	7.1	6.9H	7.2	6.9	7.2	7.4	7.8	7.5	7.8H	7.3	7.2	(7.5)J	(7.6)JF	(7.8)JF
17	8.2F	(7.7)F	(7.1)J	6.4	6.2F	6.6F	6.8H	7.0H	6.5H	5.8J	7.2K	7.9K	8.6K	9.2K	9.2H	7.9	7.6	7.7	8.3	8.0	7.1	7.0H	5.5FH	6.9
18	6.7	6.7	6.5	6.3	6.2	7.4	7.4	7.9	8.1J	7.8	{7.9}A	7.9	8.4	(8.9)AF	(9.4)	8.2	8.2	8.1	8.2	8.6	(8.4)C	8.1	(7.8)JF	7.9JFK
19	(8.6)JFK	9.1SFK	7.0JFS	(7.7)H	7.2SFH	7.0H	7.6	7.3	8.1	7.2	7.4	7.8	7.9	8.4	9.0	9.6J	8.8	9.3	(9.7)	10.0	(9.4)HS	8.6	8.3	7.5JH
20	(8.8)JKFH	9.0SFK	(8.2)JFK	(9.3)KFH	8.7	7.6	7.6	7.9	7.3	A	A	A	7.7	8.0	8.7	8.0H	8.0H	7.7	6.9	8.0	8.2H	7.6	7.6	7.4JFK
21	(7.5)JFK	8.1JFK	(7.7)JFK	7.4JFK	6.4FK	6.8	7.7	(9.2)H	8.7	7.2	8.1	8.4	8.4	8.7	10.5	10.5	(9.5)J	8.7S	8.9S	9.2H	(8.1)H	7.5J	7.5H	(7.8)JK
22	8.5SFK	9.2SFHK	8.3SFHK	8.2SFHK	(8.3)JHFK	7.0	7.9	7.9	7.0	7.2	7.3	7.4	8.3	9.2	9.1	8.2	7.7	7.5	7.3	7.0	7.1	7.2	7.5JF	(7.5)JF
23	6.9JF	6.7J	(6.9)F	6.6J	(6.4)	6.6H	7.5H	8.6	8.9	8.6	8.2	8.5	8.8	9.7	10.9	10.6	(10.2	(9.6)	8.1	7.8	8.1	8.3	8.0	7.7
24	7.8	8.2	7.0	{7.1}S	7.1	(7.8)F	8.9	9.1	8.1	(8.4)	8.6	8.1	AF	A	A	8.6	8.5	8.2	8.0	7.4	7.7	7.9	(9.0)JF	(8.5)JF
25	(8.4)J	(8.9)JF	(7.4)JF	6.8JF	6.8JF	6.8	8.2	9.7	8.2	7.8	7.6	8.5	9.7	10.4	(9.5)	9.7	9.7	9.2	8.7	8.7	8.5	9.0	(9.1)	(8.3)JF
26	8.8J	8.8	7.3	7.1	6.6	7.4	10.3H	11.0	8.0H	8.1	8.8	9.2H	9.8	9.7	10.2	9.7	8.8	9.0	9.1	8.7	(8.6)JF	8.9SF	8.8SF	8.7SF
27	9.1FS	8.9JF	(8.3)JF	(8.5)JF	(8.3)JF	9.1SF	(11.3)JF	9.3	6.4	{6.3}A	6.2	6.3	6.4	6.5	6.5	6.0	5.9	6.7	7.3	8.1	7.6	7.6	7.3	7.5
28	7.3	7.4	7.1	6.7	6.3	7.2	7.3H	8.6	(8.7)	(8.3)	7.5	7.2	7.5	7.5	7.4	7.0	C	C	C	C	6.4	6.9	6.8	6.7
29	(7.1)JF	7.1JF	(7.2)JF	7.4SF	6.2F	6.7	8.5	8.6	7.2	{6.4}A	5.5	6.9	6.4	6.7	6.4	6.5	6.7	6.9	7.3	7.6	7.7	7.7F	(8.3)F	(8.9)
30	8.2	7.6	6.9	5.7	5.4	(6.4)	5.6	5.3J	6.7	6.7	7.4	7.1	7.2J	8.6	(7.9)B	7.5	7.7	7.6	8.2	8.3	(7.6)	(7.5)JF	(8.1)F	(8.6)F
31																								
Mean Value																								
Median Value	7.8	8.1	7.1	6.8	6.6	6.9	7.5	7.9	7.8	7.4	7.5	7.8	7.9	8.4	8.7	8.2	8.0	8.1	8.2	8.1	7.7	7.6	7.8	7.6
Count	29	29	29	29	29	29	29	29	28	24	24	25	25	25	26	27	24	25	26	25	27	27	28	29

foF2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 1

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

IONOSPHERIC DATA

Jun. 1946 | **h'F2** | **Kokubunji Tokyo** | Lat. 35° 42.4' N | Long. 139° 29.3' 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	280	260	280	(260)	250	(210)A	220	190	220	260	[280]A	290	290	260	250	A	A	A	A	A	A	250	[250]A	240
2	(240)	270	(270)A	270	250	240	220	A	A	A	(300)A	(300)A	(300)A	300	310	290	250	240	A	A	A	A	220	290
3	(270)	(280)	(300)F	300	(280)F	(200)F	[230]A	260	270	270	310	350	[340]A	(320)A	300	C	A	270	300	(270]A	(230)A	[240]A	(240)F	230
4	250	[310]A	260	190	230	210	220	220	250	(240)A	270	300	250	C	C	280	280	290	280	240	260	230	[250]F	(260)F
5	270	(310)F	280	280	260	230	240	(240)A	230	300	310	300	250	[250]A	250	250	250	A	A	(360)A	270	[290]A	(300)F	(270)F
6	250	240	210	230	230	230	210	(220)A	(230)A	290	290	(320)A	(310]A	300	270	250	C	C	270	250	260	250	330	310
7	260	250	260	250	240	300	250	300	230	[250]A	270	(300)A	330	A	A	A	C	C	C	C	C	(310)	270	(290)F
8	(330)	300	(260)	(320)	290	310	370	310	380	A	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	310	340	280	290	230	250	240	310	300	(320)A	290
10	(270)F	250	230	240	230	270	260	210F	200	A	A	A	C	A	370	360	A	A	310	[300]A	(280)A	(300)F	300	280
11	320	(280)F	250	250	(250)	220	190	240	260	350	350	A	A	A	270	290	290	270	270	230	(230)F	350	(310)F	(300)F
12	(280)F	(250)F	210	(260)F	260	340	260	290	260	A	A	(340)A	(440)A	(250)A	[250]C	250	250	240	230	230	A	C	C	C
13	250	230	230	220	270	260	300	A	A	A	A	A	A	A	A	(310)A	A	A	A	A	A	A	350	(310)A
14	(300)F	280	250	220	260	230	(250)A	340	(350)A	A	A	(440)A	440	410	350	340	300	300	280	280	270	280	290	310
15	310	300	(290)F	(250)F	(280)F	280	300	310	330	A	360	300	430	350	400	350	290	310	300	280	290	310	300	370
16	280	250	250	280	270	230	230	280	260	240	290	300	350	350	320	320	290	290	260	270	300	300	260	300
17	280	250	280	230	250	220	250	300	240	A	300	310	340	290	290	320	330	(300)A	260	230	280	340	330	330
18	(300)	(290)	(280)	(310)A	(300)	240	(200)A	[260]A	(310)A	(320)A	A	A	A	A F	(290)A	300	(300)A	(330)A	280	250	[260]C	(270)A	(300)A	(310)A
19	(310)A	A F	A	(290)A	(300)A	230	(230)A	(310)A	(280)A	(360)A	(390)A	(320)A	(380)A	(360)A	(360)A	(330)A	(330)A	330	(230)A	(270)A	240	(230)F	(240)A	(280)A
20	(330)A	(310)A	(300)A F	(290)F	(260)F	300	(300)A	(310)A	(320)A	A	A	A	(400)A	(350)A	280	310	340	270	200	290	260	(270)A	310	(330)A F
21	(300)F	(360)F	(300)F	(290)F	(290)A	(230)A	230	280	230	250	290	380	370	(330)A	310	300	(320)A	280	250	(210)A	(260)A	(260)A	(260)A	(360)A
22	(290)A	(290)F	(240)F	(230)F	(270)F	260	250		(200)A	340	360	[360]A	(340)A	320	290	300	290	290	250	240	(240)A	290	(250)A	290
23	280	270	(260)A	270	260	(220)A	220	240	(200)A	240	(300)A	330	(230)A	330	300	[280]A	260	250	(230)A	(230)A	260	280	260	260
24	250	(210)A	230	260	(250)A	220	220	230	220	320	270	(330)A	A	A	A	(290)A	300	(240)A	(240)A	(230)A	(280)A	(280)A	280	(290)A
25	(280)A	270	220	(290)A	270	230	260	240	220	A	A	350	300	290	300	270	300	(250)A	240	(250)A	250	250	260	260
26	250	(200)F	200	280	280	240	210	210	210	290	280	330	320	300	290	270	250	250	240	280	300	280	280	(230)F
27	(250)F	230	250	260	260	270	260	230	230	[330]A	430	420	(400)A	(370)A	330	380	440	350	280	250	220	240	(230)	(250)
28	270	270	220	220	230	210	210	(300)A	300	(300)A	250	(300)A	330	(330)A	330	330	C	C	C	C	250	(270)A	(280)A	280
29	(280)A	270	(290)F	280	270	220	200	240	A	A	A	360	[360]A	360	450	400	380	390	320	270	[280]A	280	(260)A	(320)A
30	(340)A	290	280	270	280	260	(310)A	[350]A	390	320	340	360	350	280	(320)A	310	320	260	250	230	(240)F	(250)	(310)A	(300)
31																								
Mean Value																								
Median Value	280	270	260	260	260	230	230	260	250	300	300	330	340	320	300	300	300	280	260	250	260	280	280	290
Count	29	28	28	29	29	29	29	27	26	18	20	23	23	22	25	26	22	22	23	24	24	26	28	28

h'F2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K2

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Jun. 1946

foF1

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						A	A	L	4.6	5.0	A	5.0	5.6	5.3	5.3	A	A	A	A	A				
2						L	A	A	A	A	A	A	B	5.2	A	A	5.1	A	A	A				
3						F	A	A	A	5.1	5.2	A	A	A	5.0	C	A	A	A	A				
4						L	L	A	L	A	5.3J	L	B	C	C	4.9	4.4	4.4	L	A				
5						L	L	A	4.5	5.0J	5.5	A	A	A	A	A	A	A	A	A				
6						2.2J	3.2J	L	A	5.0J	L	A	A	5.3	(5.1)B	(5.0)J	(4.3)J	C	A	A				
7						A	A	A	A	A	5.8	A	5.4A	A	A	A	C	C	C	C				
8						A	A	A	(4.5)AK	4.7K	C	C	C	C	C	C	C	C	C	C				
9						C	C	C	C	C	C	C	C	A	A	A	A	A	A	A				
10						L	A	A	A	A	A	A	C	A	A	A	A	A	A	A				
11						L	A	4.4	A	A	A	A	A	A	5.0	4.8	L	L	A	A				
12						3.4K	3.8K	4.6JK	A	A	A	A	4.8JK	A	C	5.0J	5.0J	A	A	L				
13						A	A	A	A	A	A	A	A	A	A	A	A	A	A	A				
14						2.0	A	A	A	A	A	A	5.1	5.0	4.9	4.8	4.8	4.4	3.9	L				
15						2.8	A	3.9J	AK	4.8J	5.2	5.2	5.2	5.2	(5.2)J	(5.2)J	4.5	4.5	3.8	L				
16						2.2	L	4.4J	5.0	5.2	A	5.5	5.3	L	5.3	5.1	4.8	AF	AF	A				
17						L	L	L	4.4J	A	A	5.1	A	A	A	5.4J	5.0	A	L	L				
18						2.0	L	A	A	A	A	6.4J	A	A	A	5.4J	L	A	L	2.4				
19						L	A	A	A	A	A	5.4J	6.0J	A	A	A	A	4.8	A	A				
20						A	A	A	A	A	A	A	A	A	5.7	4.8	(4.4)L	4.0J	A	2.6J				
21						A	L	5.0	4.8	5.4	L	A	5.8	(5.9)A	6.0J	A	A	A	A	A				
22						L	L	A	A	5.4	5.7	A	A	5.4	5.4	5.1	5.1	A	L	A				
23						A	L	4.1J	A	5.2	(5.4)A	5.6	(5.6)A	5.6	5.8J	(5.5)A	5.2	4.6	A	A				
24						2.0	L	A	L	(5.4)B	5.4	A	A	A	A	A	A	4.0J	L	A				
25						L	L	L	A	A	A	A	A	A	5.7	5.6	5.0	A	L	A				
26						L	L	L	L	L	L	5.0	5.5	5.7	5.5	5.0	A	A	A	A				
27						A	A	A	A	A	5.0	(5.4)	5.6J	5.4J	4.9	5.0	5.0	(4.5)A	4.0	A				
28						L	L	L	5.0	(5.1)A	5.1	(5.3)A	5.5	(5.4)A	5.2	5.0	C	C	C	C				
29						E	A	A	A	A	A	4.7	(4.9)A	5.0	5.0	4.8	4.6	4.4	4.0	A				
30						L	A	A	4.7J	(5.2)A	5.2	5.5	5.5	A	B	5.2	5.2	A	L	L				
31																								
Mean Value																								
Median Value						2.1	*	4.4	4.7	5.1	5.3	5.4	5.5	5.4	5.3	5.0	5.0	4.4	4.0	*				
Count						8	2	6	8	13	11	12	14	12	16	18	15	9	4	2				

foF1

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 3

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Jun. 1946

R'F1

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						A	A	180	200	(200)A	(200)A	190	A	A	A	A	A	A	A	A				
2						250	220	A	A	A	A	A	A	A	A	A	220	230	A	A				
3						F	A	(250)A	[210]A	160	A	A	A	A	A	C	A	A	A	A				
4						200	(200)A	(250)A	200	[190]A	180	A	A	C	C	(190)A	210	(230)A	A	A				
5						210	(220)A	[210]A	200	A	A	A	A	A	A	A	A	A	A	A				
6						210	210	A	A	200	200	A	A	200	[170]A	A	C	C	A	A				
7						(240)A	A	A	A	A	(170)A	A	A	A	A	A	C	C	C	C				
8						A	A	A	A	A	C	C	C	C	C	C	C	C	C	C				
9						C	C	C	C	C	C	C	C	A	A	A	A	A	A	A				
10						A	A	A	A	A	A	A	C	A	A	A	A	A	A	A				
11						A	A	200	A	A	A	A	A	A	160	160	B	A	A	A				
12						230	210	(230)F	A	A	A	A	A	A	C	A	210	A	A	A				
13						A	A	A	A	A	A	A	A	A	A	A	A	A	A	A				
14						E	A	A	A	A	A	170	160	180	190	190	200	220	200	A				
15						230	A	(240)A	A	200	180	180	230	190	A	A	(200)	200	200	E				
16						E	210	200	210	250	A	A	(200)	180	170	190	210	A	A	A				
17						A	190	180	210	A	A	220	A	A	A	A	A	A	220	A				
18						230	190	A	A	A	A	A	A	A	A	A	A	A	250	A				
19						A	A	A	A	A	A	A	A	A	A	A	A	(230)A	A	A				
20						(200)F	A	A	A	A	A	A	A	A	A	(280)A	(190)A	A	A	A				
21						A	200	(150)A	(200)A	(180)A	(230)A	(240)A	(250)A	A	A	A	A	A	A	A				
22						200	200	(150)A	A	A	A	A	A	A	A	A	A	A	A	A				
23						A	A	210	A	(180)A	A	A	A	A	A	A	190	A	A	A				
24						A	A	A	A	A	A	A	A	A	A	A	A	A	A	A				
25						A	(180)A	210	A	A	A	A	A	A	A	(180)A	190	A	A	A				
26						A	210	200	(200)A	(190)A	280	(150)A	A	A	A	A	A	A	A	A				
27						A	A	A	A	A	A	A	A	(190)A	180	(200)A	230	A	A	A				
28						230	190	(280)A	(230)A	A	A	A	A	A	(290)A	(180)A	C	C	C	C				
29						E	A	A	A	A	A	A	A	A	A	200	A	A	A	A				
30						A	A	A	250	[220]A	(180)A	A	A	A	A	A	A	A	A	A				
31																								
Mean Value																								
Median Value						230	200	210	210	200	190	190	220	190	180	190	210	230	210	*				
Count						11	13	15	10	10	8	6	4	5	6	9	10	5	4	1				

R'F1

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K4

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

IONOSPHERIC DATA

Jun. 1946 | foE | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						A	A	3.1	3.5	3.6	3.7	4.0	B	3.9B	B	AB	B	2.9	2.4	E				
2						1.6J	2.6	3.0	3.6	A	AB	B	B	B	B	A	3.3	2.4J	A	E				
3						E	A	A	3.3	3.7	C	4.1	B	B	B	C	AB	3.0	A	E				
4						1.6J	2.5	3.0	3.5	3.8	4.1	AB	4.2B	C	C	A	A	3.0	A	E				
5						1.9J	A	A	3.4	3.5	3.6	A	AB	AB	B	A	A	3.0	A	E				
6						A	2.6	(2.9]A	3.2	3.6	3.7B	3.7	(4.0]AB	4.2B	4.0B	A	B	A	A	E				
7						E	A	A	3.4J	A	AB	B	B	3.9	3.8	3.7	C	C	C	C				
8						E	A	3.1	A	A	C	C	C	C	C	C	C	C	C	C				
9						C	C	C	C	C	C	C	C	4.0	A	3.6	A	A	A	E				
10						A	2.4	2.8	3.2	A	A	AB	AB	A	3.6	(3.4]A	3.2	2.8	2.2	E				
11						E	2.4	3.0J	3.2	A	A	A	A	A	B	3.4	2.7	3.0	2.4	E				
12						E	2.6	3.0	3.4	A	A	A	A	A	C	A	3.4	3.2	A	E				
13						E	A	A	A	A	A	A	A	3.9B	3.9B	A	A	5.0	A	E				
14						E	2.5	3.0	3.4	A	A	A	A	A	4.1B	3.7B	3.4	3.1	2.5	E				
15						E	2.5	3.4J	3.4	3.6	3.8	4.1	4.3	4.1	3.9	3.8	3.2	3.0	2.2	E				
16						E	2.6	3.0	3.2J	3.8	4.0	3.9	4.0	B	(3.7)	B	3.5J	3.1	2.5	E				
17						E	A	A	3.6	3.7	4.0	3.8	3.9	3.9	A	A	A	A	A	A				
18						E	2.2J	3.4	3.4	3.4	3.4B	AB	AB	AB	AB	AB	AB	3.2	A	E				
19						E	E	3.4B	3.8	3.8B	3.9	3.9B	AB	AB	AB	AB	A	A	A	A				
20						A	A	A	A	A	A	AB	3.9B	3.9B	3.9B	3.8	3.6	(2.9]A	2.2	E				
21						E	2.6	3.1	3.6	3.8	3.9	4.1B	4.1B	AB	A	AB	A	3.1B	A	1.7J				
22						E	2.3	A	AB	3.8	A	AB	3.6B	3.6B	3.9B	3.7B	3.4	3.0	2.4	E				
23						E	E	A	A	A	AB	4.0B	4.4B	(4.1]B	(3.8)B	AB	B	AB	A	A				
24						E	2.7	3.2	(3.6]B	4.0B	4.0B	4.1B	3.9	3.8	AB	AB	AB	A	A	A				
25						E	A	A	A	3.8	(3.9]AB	4.0B	4.1B	3.8B	3.8B	3.3	A	A	A	A				
26						2.0	2.5	A	A	3.5	3.7	3.9	(4.0]AB	4.1	4.0	3.6	A	A	A	A				
27						A	2.6	2.8	3.0	3.6	4.0	4.0B	(4.0)B	4.1B	4.0	3.8	3.7	3.3	2.5	A				
28						1.9J	2.3	3.1	3.6	3.5B	AB	AB	3.9B	(3.9]AB	3.9	A	C	C	C	C				
29						2.0J	(2.2]A	2.4	AB	3.7B	3.9B	3.8B	3.9B	3.6B	AB	A	3.6	3.1	2.4	A				
30						E	2.2	2.6	3.0	3.6	3.8	3.8	3.9	AB	B	AB	A	3.1	2.6	E				
31																								
Mean Value																								
Median Value						E	2.5	3.0	3.4	3.7	3.9	4.0	4.0	3.9	3.9	3.7	3.4	3.0	2.4	E				
Count						24	20	19	21	19	16	15	16	16	14	11	11	19	11	19				

foE

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 5

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

IONOSPHERIC DATA

Jun. 1946 | h'E | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						E	100	100	110	100	100	100	B	B	B	100	[110]B	110	130	E				
2						E	120	100	(110)	110	110	B	B	B	B	110	110	110	A.	E				
3						E	110	110	120	120	110	B	B	B	B	C	100	110	A	E				
4						E	100	100	100	100	100	110	100	C	C	100	110	110	100	E				
5						E	110	100	102	90	100	100	100	90	90	100	100	100	100	E				
6						E	100	110	90	100	100	100	100	100	100	100	C	C	A	E				
7						E	100	100	90	90	100	B	B	100	100	100	C	C	C	C				
8						E	110	100	120	120	C	C	C	C	C	C	C	C	C	C				
9						C	C	C	C	C	C	C	C	100	100	100	100	110	120	E				
10						120	120	100	100	90	100	100	110B	100	100	100	100	100	(130)E	E				
11						E	90	100	100	90	100	100	100	100	100	100	100	100	110	E				
12						E	100	100	90	90	100	100	100	100	C	100	100	100	100	E				
13						E	100	100	100	[100]C	100	100	100	100	100	100	100	90	90	E				
14						E	100	90	100	90	100	100	90	100	100	100	100	100	90	E				
15						E	100	100	90	100	90	90	100	100	100	100	100	110	110	E				
16						E	100	100	90	100	100	90	100	110	90	90	90	110	100	E				
17						E	90	100	100	90	100	100	90	90	90	100	100	80	90	90				
18						E	90	100	110	100	80	100	100	90	90	100	90	90	90	E				
19						E	E	100	100	90	100	90	100	100	100	100	100	100	90	100				
20						120	100	100	100	90	90	80	90	100	100	100	100	90	100	E				
21						E	(90)A	110	110	100	100	100	100	100	100	100	100	90	100	(120)A				
22						E	100	80	80	100	100	100	100	100	100	100	100	100	(100)A	E				
23						E	E	100	100	100	100	100	100	100	100	(100)A	100	100	100	100				
24						E	100	100	110	100	100	110	100	100	100	100	100	100	100	90				
25						E	100	100	100	100	100	(100)A	110	100	100	100	100	100	100	100				
26						E	110	100	100	100	100	100	100	100	100	100	100	110	100	100				
27						(100)A	100	90	90	90	100	100	110	110	100	100	100	100	100	100				
28						(120)	100	100	100	100	100	100	100	100	100	100	C	C	C	C				
29						100	100	100	120	100	100	100	100	100	110	100	100	100	100	100				
30						E	(120)A	110	110	110	110	100	100	(100)A	B	110	110	110	120	E				
31																								
Mean Value																								
Median Value						120	100	100	100	100	100	100	100	100	100	100	100	100	100	100				
Count						5	27	29	29	29	28	25	24	25	23	28	26	26	24	9				

h'E

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K6

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

IONOSPHERIC DATA

Jun. 1946 | **fEs** | 135° E Mean Time | **Kokubunji Tokyo** | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.8	3.0	4.2	3.2	2.8	3.6	4.3	5.4	4.6	5.2	6.7B	4.8B	5.1B	7.1B	5.4B	10.2B	10.2B	10.6	11.6	10.7	8.7F	8.3	7.0	8.7
2	2.7	4.2	2.5	4.6F	2.8F	3.0F	5.0	7.6	8.6	7.2	7.4	7.4	6.5B	5.2B	6.8B	8.3	6.0	5.2	8.9	8.0	6.3	7.3	3.2	5.0
3	7.0	6.6	6.7	7.6	7.7	4.9F	6.2	6.7	5.6	5.7	4.8	6.5	9.0B	12.9B	5.5B	C	7.2B	7.8	7.4	7.5	7.9	8.2	8.0	3.0F
4	5.2F	7.8	7.8F	4.0	E	E	3.0	5.2	5.2	6.6	6.2	6.4B	4.9B	C	C	4.3	3.8	3.6	4.8	3.9	3.2	3.0	6.1	3.2F
5	3.0	3.5	2.6	2.8F	2.8	2.6	4.0	5.4	5.2	6.4	8.8	12.6	12.2B	10.2B	8.1B	7.3	4.9	10.7B	11.6B	9.1	9.1	10.0	9.4F	8.0F
6	5.0F	4.1F	3.8	E	E	2.4	4.0	4.2	7.2	8.3	6.8	5.6	7.6B	4.9B	4.7B	5.0	3.9B	C	8.7	4.0	8.4	5.0	7.1F	5.4
7	2.8	2.7	6.5	4.6	3.0	2.8F	6.1	6.5	6.2	7.7	5.0B	7.7B	6.6B	7.8B	9.5	9.7	C	C	C	C	C	2.8	8.6	4.6
8	2.8	3.0	2.8	3.2	2.9	5.6	4.8F	7.9	4.9	6.3	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	4.9	6.5B	6.5	8.7	9.5	6.5	4.3	7.1	5.1	6.4	6.3
10	5.1	4.0	2.2	2.8	3.6	4.6	4.4	7.8	7.8	8.6	11.0	8.9B	6.2B	8.0	7.1	7.9	8.2	8.2	8.4	8.0	8.7	9.1	9.3	7.6
11	6.8	5.1	4.0	3.5	3.1	E	4.0	4.4	5.5	7.0B	7.5	9.3B	9.0B	6.0B	3.3B	3.4B	∠fE	5.1	5.9	4.7	4.9	8.4	4.9	5.3
12	4.7	3.9	4.7	5.4B	3.2	3.4	4.0	5.1	7.5	8.3	6.6B	7.7B	8.1B	8.8B	(6.3)C	4.3	3.8	5.9	4.7	2.8	8.7	7.8	4.9	4.4
13	4.0	2.4	2.9	2.6	E	3.8	4.9	7.8	7.5	8.5	8.5	8.7B	9.2B	7.0B	7.0B	7.3B	7.6B	13.7	12.9	13.3	12.3	9.3	7.4	7.3
14	4.9	4.6	3.0	2.2	2.8	2.6B	4.2B	5.3	6.6	7.6	5.9	5.9B	4.1B	5.3B	4.5B	4.0B	4.0	3.1	3.9	3.2	2.5	E	4.0	4.4
15	6.5	8.2	4.9	5.4	4.0	3.0	4.3	4.0	6.4	6.5	4.9	5.6	5.1B	5.2B	5.6B	5.9B	4.3B	4.7	3.8	2.2	4.1	8.2	8.0	7.0
16	8.5	4.0	2.8	2.8	3.0	2.8	3.0	4.5	5.4	6.2	7.6B	5.8B	∠fE	4.3B	4.2B	∠fE	5.3B	5.3	4.8	7.7	6.0	8.2	5.9	5.4
17	5.4	E	E	E	3.8	4.6	6.4	5.0	5.0	7.9	9.1B	7.7B	7.4B	7.6B	9.8B	7.3B	7.0B	5.8	4.9	3.8	7.7	7.9	7.8	4.8
18	5.9	3.2	3.2	4.2	4.2B	2.8B	4.7	7.0B	6.8	8.9B	9.3	7.6B	12.1BF	13.7BF	8.3B	5.3B	7.8B	8.9	5.7	4.3	C	4.0	5.1	6.8
19	7.1	9.1	7.4	7.8	5.9	4.0	5.5	7.1B	7.4	7.7B	7.6	10.8B	8.7B	6.9BF	9.1BF	9.9B	7.3	6.4	5.2	5.4	4.8	2.6	6.7	6.7
20	6.0	6.4	5.4	4.7	2.3	3.5	5.0	6.3	9.2B	10.2	12.1	8.2B	7.0B	6.6B	4.7B	4.8	5.2B	4.5	3.6	3.0	3.0	3.0	5.1	5.4F
21	8.5F	8.5F	6.8F	5.1F	4.5	4.6	3.4	4.9	5.4	7.0	10.5	10.0B	7.0B	6.8B	6.4B	5.7B	10.7	7.6B	6.4	4.7	4.5	2.0	2.9	6.4
22	7.2	9.0	3.6	2.8	2.2	3.4	4.2	4.8	5.5	5.3	5.2	8.4B	7.8B	5.2B	4.9B	4.9B	6.2	5.9	3.4	3.3	6.3	5.9	6.9	5.3
23	5.9F	4.2	4.0	3.6	E	3.0	3.2	4.6	4.9	4.9	5.1B	5.0B	∠fE	5.1B	6.5B	8.3B	6.8BK	4.4B	4.0	4.6	4.6	4.0	2.8	2.2
24	2.8	4.2	3.8	3.2	2.6	2.5	3.2	5.2	5.1B	5.3B	6.8B	7.8B	14.1B	14.2B	14.0B	7.3B	5.9B	5.4	4.4	5.3	4.8	3.8	8.2	6.3
25	5.1	5.3	3.2	5.5	3.5	3.2	4.4	4.4	7.8	7.5	8.0B	6.4B	6.6B	7.5B	11.5B	7.3B	4.4B	5.2	8.8	8.9	6.4	6.5	5.9	8.3
26	3.6	2.8	2.6	2.8	3.0	2.7	3.2	4.0	5.9	5.1	5.7	5.4	5.6B	∠fE	6.3	5.8B	6.1B	5.2	5.4F	3.2	8.5	7.6F	8.9	8.7
27	8.2F	5.4	4.2	4.0	E	3.8	5.3	8.2	6.5	7.6	4.8	5.4B	9.2B	∠fE	∠fE	4.3	5.8	6.1	8.9	3.7	3.2	2.5	2.3	2.2
28	2.1	2.1	2.5	2.4	2.9	2.9	4.4	8.2	6.8	8.0B	5.9B	7.9B	7.5B	8.9B	5.3	4.3	C	C	C	C	2.8	3.2	5.0	3.0
29	3.2	7.6	5.2	6.4	4.8	3.5	7.2	5.4	8.6B	11.8B	11.4B	10.8B	13.0B	9.3B	7.2B	4.8	∠fE	4.7	4.2	3.8	9.3	5.0	5.4	7.0
30	6.6	3.4	4.3	3.2	2.6	3.2	5.0	4.2	4.2	5.2	5.0	5.5	5.0	5.4B	(4.8)B	4.2B	4.2	4.8	5.2	6.4	4.0	5.8	5.4	7.1
31																								
Mean Value																								
Median Value	5.1	4.2	3.8	3.5	2.9	3.2	4.4	5.3	6.2	7.2	6.8	7.7	7.2	6.9	6.4	5.8	5.9	5.6	5.4	4.6	6.3	5.9	6.1	5.4
Count	29	29	29	29	29	29	29	29	29	29	28	28	28	28	28	28	27	26	27	27	27	28	29	29

fEs Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 7

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

IONOSPHERIC DATA

Jun. 1946 | (M3000)F2 | 135° E Mean Time | **Kokubunji Tokyo** | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.8	3.0	2.8	(2.7)	2.9	3.1	3.3	3.3	3.3	3.3	2.9	3.0	3.1	3.2	3.3	A	A	S	S	A	S	3.1	[3.0]S	[2.9]S
2	[2.8]S	(2.7)	F	F	3.0	3.3	3.2	3.5	[3.1]S	2.9	3.0	3.1	2.9	3.0	3.0	3.1	3.2	3.4	[3.3]A	[3.2]A	2.8	[2.8]S	[3.0]F	2.7
3	F	F	F	F	F	F	(3.0)	3.2	3.2	3.1	3.0	2.8	3.0	[2.9]J	3.0	C	3.3	3.2	3.2	3.0	[2.9]J	[2.9]F	[2.9]F	3.1
4	F	F	F	F	F	3.4	3.4	3.2	3.6	3.5	3.3	3.0	3.0	C	C	(3.0)	3.1	(3.0)	3.2	3.1	3.4	3.0	F	F
5	F	F	F	F	F	3.4	3.5	3.2	3.3	3.0	3.1	3.3	[3.3]A	[3.2]A	3.2	3.3	3.4	[3.4]A	[3.4]A	3.5	J	A	F	F
6	F	F	F	F	2.9	3.3	3.8	3.0	(2.9)	3.3	2.9	3.0	(2.7)	3.1	3.2	3.5	C	C	(3.2)	3.1	(3.1)	3.4	S	F
7	F	F	F	F	F	2.8	3.1	3.1	3.5	[3.2]A	3.4	2.9	3.2	[3.2]A	A	A	C	C	C	C	C	3.0	[2.9]F	[2.8]F
8	[3.0]J	3.2	[3.0]J	[2.8]J	2.7	2.8	2.7	3.2	2.8	A	C	C	C	C	C	C	C	C	C	C	C	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	2.9	3.0	3.3	[3.3]J	3.4	[3.3]J	3.3	2.9	2.9	2.9	3.0
10	2.9	(2.8)	3.1	3.0	3.2	2.9	(2.5)	F	B	A	A	A	C	A	3.0	3.0	A	A	J	A	3.2	2.9	(2.8)	[2.8]J
11	J	(2.8)	2.9	2.9	2.8	3.4	4.0	3.4	J	J	2.9	[3.0]A	3.1	3.1	3.3	3.3	3.1	3.3	3.2	3.4	3.3	J	J	J
12	J	J	3.4	3.1	2.8	2.9	3.3	3.3	3.3	(3.7)	2.7	2.9	2.8	3.2	[3.3]C	3.5	3.6	3.5	3.7	3.3	A	C	C	C
13	3.1	3.2	3.1	3.2	3.0	3.1	J	J	A	A	A	A	A	A	J	J	A	A	A	A	A	A	2.8	3.0
14	2.9	3.2	3.1	3.0	3.2	3.3	3.4	3.0	3.1	A	A	2.8	2.9	2.9	3.0	3.1	3.3	3.1	3.2	3.1	3.0	2.8	3.0	2.8
15	2.8	2.8	[2.9]J	3.1	J	J	3.1	3.2	J	A	2.6	3.4	2.8	3.1	3.1	3.2	3.1	3.1	3.1	3.1	3.0	A	A	J
16	J	J	2.9	J	J	3.3	3.3	3.3	3.3	3.6	3.4	3.1	3.1	3.1	3.2	3.2	3.2	3.3	3.2	3.2	3.0	J	J	J
17	2.9	2.8	[2.9]J	3.0	2.9	3.2	3.6	3.2	3.5	[3.4]J	3.3	3.2	3.0	3.3	3.1	2.9	3.1	2.9	3.2	3.1	2.9	2.8	2.8	2.6
18	2.8	2.7	2.9	2.8	2.8	3.2	3.2	3.1	[3.0]J	3.0	[3.0]A	3.0	2.8	[2.9]A	(3.1)	3.1	3.2	3.1	3.1	3.0	(2.9)C	2.8	J	J
19	J	J	J	2.5	2.5	2.9	3.3	3.2	3.1	2.9	2.8	3.1	2.8	2.8	2.7	[2.7]S	2.8	2.8	(2.9)	3.1	(2.9)	2.9	3.0	J
20	F	F	F	F	2.9	2.8	2.9	3.0	3.1	A	A	A	2.7	2.9	3.2	3.1	2.9	3.2	3.1	2.8	2.9	2.8	2.8	J
21	J	J	J	J	2.7	3.1	3.3	3.3	3.4	3.3	2.9	2.9	2.8	2.8	3.1	3.1	J	S	S	3.4	3.1	(3.0)J	2.9	J
22	F	F	F	F	F	3.0	3.2	3.5	3.3	3.0	3.0	2.9	3.0	3.0	3.2	3.1	3.4	3.3	3.2	3.1	2.9	2.9	F	F
23	F	F	(2.9)	[2.9]F	(3.0)	3.3	3.1	3.3	3.1	3.2	2.8	2.9	3.3	2.9	3.0	3.1	3.3	(3.3)	3.1	3.0	2.9	3.0	3.0	3.0
24	3.0	3.2	2.9	[2.9]S	3.0	3.2	3.3	3.4	3.1	3.0	2.9	3.0	A	A	A	3.3	3.3	3.2	3.2	3.2	2.8	2.9	F	F
25	J	F	F	F	F	3.0	3.1	3.4	3.8	3.1	2.8	3.0	2.9	3.0	(3.1)	3.0	2.9	3.0	3.2	3.0	2.8	2.9	2.7	F
26	J	3.3	3.1	2.9	2.9	2.8	3.2	3.5	3.7	2.9	2.8	3.0	3.0	3.2	3.1	3.4	3.2	3.1	3.1	3.0	F	F	F	F
27	F	F	F	F	F	F	F	3.0	3.1	[2.9]A	2.8	2.8	2.8	2.9	3.1	3.0	2.8	2.9	3.0	3.1	3.0	2.9	3.0	2.9
28	2.9	3.0	3.1	3.2	3.2	3.6	2.9	2.9	(2.8)	(3.0)	3.0	2.9	3.0	3.1	3.1	3.1	C	C	C	C	2.9	2.9	2.9	2.8
29	F	F	F	F	2.9	3.0	3.3	3.1	2.7	[2.6]A	2.6	2.9	2.7	3.1	2.7	2.7	2.9	2.9	3.0	3.0	2.7	2.7	2.6	2.6
30	2.8	2.8	3.0	2.9	2.9	(2.9)	2.9	(2.8)J	2.7	3.1	3.0	3.0	(3.0)J	3.1	(3.1)	3.1	3.0	3.2	3.2	3.2	3.0	F	2.9	2.9
31																								
Mean Value																								
Median Value	2.9	2.9	2.9	2.9	2.9	3.1	3.2	3.2	3.1	3.1	2.9	3.0	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.1	2.9	2.9	2.9	2.8
Count	12	14	16	16	20	26	27	27	25	22	24	25	25	25	25	26	22	22	23	24	23	21	18	14

(M3000)F2

Sweep _____ Mc to _____ Mc in _____ min ☐ Manual ☐ Automatic

K8

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

IONOSPHERIC DATA

Jul 1946 | foF2 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(8.4) F J	7.3 F	7.4 F	7.6	6.6	8.1	8.7	9.4	8.9 J	A	C	8.9	(8.9)	10.1	10.1	9.4	8.3	[8.0] C	7.7	7.4	7.3	7.3	C	C
2	7.5	7.8 F J	7.6 F	7.0	6.7 F	7.2	8.6	8.6	7.7	7.2	7.1	7.3	7.1	7.1	8.1	7.9	7.6	8.1 J	(7.7) J	7.3 J	(7.0) S	6.7	7.3	6.1
3	C	C	C	C	C	6.4	7.9	7.0	7.1	7.3	6.4	7.2	7.4	[8.1] C	8.8	8.5	7.9	9.3	8.2	8.5	8.1	8.0	7.6	7.3
4	7.5	6.8 J	7.4	7.5 F J	7.5 F	8.4	8.1	6.3	C	C	C	C	C	C	C	C	7.7 J	7.5	7.5	6.9 J	6.7	6.9	6.9	(7.5) F
5	(7.9) F J	(8.3) F J	6.7 F	6.0 J	5.6	5.8	7.9 H	5.8	8.0	6.8	6.5	7.4	7.7	8.7	9.6	8.2	7.2	7.2	7.5	[7.6] A	7.7	8.0	7.8	7.5
6	7.2	7.3	7.2	7.1	7.1	7.5	7.7	(6.8) C	C	C	C	C	C	C	C	C	8.2 H	9.1	[8.6] C	7.9	7.6	7.9	8.1	8.0
7	7.9	7.5	7.1	6.7	6.6	7.4	8.6	C	C	C	C	C	C	C	C	8.3	8.7	9.5	[8.9] A	8.3	6.5 H	7.5	7.2	7.4
8	7.2	7.3	7.0	6.2 J F	5.6	6.0 H	4.8	6.9	6.8 B	6.8	7.4	7.4	7.8	8.1	7.3	6.5	[6.7] A	6.7	7.1	7.0	6.9	6.8 J	6.8	6.5
9	6.1 F	5.8	6.4	5.7 F J	5.4 F	5.2	6.3	6.9	7.1	7.3	7.9	9.1	9.5	[9.4] C	9.2	9.2	8.5	[7.5] C	6.7	6.4	7.2	7.5	7.6	7.6
10	7.5	6.8	6.3	(6.3)	6.2	6.1	7.0	6.1	7.2	A	A	7.4	8.2	8.6	8.2	7.7	7.4	[7.9] C	8.4	[8.4] C	8.5	8.0	7.8	7.9
11	7.9	7.7	7.1	6.9	6.3	6.6	7.8	8.3	8.4	7.8	7.7	9.0	C	C	C	C	C	C	9.3	7.5	7.2	7.6	7.9	(7.5)
12	(7.6) F J	7.6	7.2	6.6	6.5	7.0	8.5	7.3	6.5 J	7.3	7.2	7.7 K	6.2 K	7.0 K	(7.0)	C	C	7.0	6.5	6.5	5.8 J	6.3	6.4	(6.5)
13	(6.2) FK J	6.0 FK J	5.8	5.6	5.5	5.3	7.0	9.4 S	7.8	7.1	7.9	7.8	8.3	8.7	9.1	8.6	8.0	8.4	7.7	7.3	6.8	(7.9) FK J	8.1 K J	8.1
14	7.3	6.9	7.2	6.2	6.2	6.5	7.4	7.0	7.3 K	6.7 H K	7.4	7.3	C	C	C	C	C	7.8	8.3	8.6	7.7	8.3	8.3	7.5
15	7.7	7.4	7.6	6.2	6.9	7.1	6.9	7.0	7.1	C	C	C	C	C	5.9 K	5.2 K J	5.7 K	[6.1] C	6.5	6.2	(6.5)	6.7	6.8	7.4 F
16	7.0	6.7	6.4	6.2	5.6	5.8	8.3 H	8.2	8.0	8.3	9.1	9.4	[9.2] C	8.9	C	C	C	C	C	C	(9.0) J	(9.3) J	(9.2) J	(9.0) J
17	8.3 F J	(8.3) J	7.2	6.6 F J	(6.7) F J	6.4	7.0	7.4	C	C	C	6.9	7.5	8.5	8.8	8.8	8.4 J	8.0	8.7	8.8	7.6	7.5	7.4	7.6
18	8.2	7.9 H	8.3 F H	7.4 F	6.6	6.0	6.9 H	7.6	8.3 J	(9.0)	9.1	8.7	8.5	8.2	7.5	7.6	8.3	8.9	9.3	9.2 H	8.7 H	8.6	8.7	8.3
19	7.7 F	8.5	7.5 H	(6.4)	6.0 F	5.5	5.7 J	6.7 H K J	7.7 J	7.6 H	7.4	8.2	8.9 J	9.0	9.4	10.3	9.6	8.2	8.2	7.5	8.0	8.2	7.9 FK J	7.9 FK S
20	(9.2) FK J	(8.8) FK J S	(7.9) FK J	(8.2) F J	C	C	8.6	8.0	(6.9) C	5.9 K J	A	C	C	C	C	C	6.3	6.1	5.6	5.6	6.5	6.5 F S	6.5 H F	6.3 S
21	6.6	6.5	5.8	5.4	5.3	5.6	7.0	8.1	7.2	7.6	8.1 K	8.1 K	8.1 K	8.5 K H	8.5	7.8	7.1	5.0 S	7.1 H	7.6	8.0	7.8	7.6	7.6
22	7.6 H	7.7	7.3	(6.9)	6.8 F	7.4	8.5 H	8.9 H	9.0	8.7	8.5	8.9	9.3	11.0	9.3	8.5	8.1	[8.7] C	9.3	9.3	8.6 F	C	C	C
23	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	8.6	8.4	7.7	6.7 H	7.1	7.2	7.4
24	7.4	7.4	6.3	6.1	6.2	6.0 H	6.8	7.3 H	7.3 H	7.9 B	7.4	7.9	8.4	9.3	9.3	9.0	7.5 H	8.2	8.9	8.5 A B	8.4	8.4	8.3	7.4 B
25	7.3 B	F K	7.2 J F	(7.8) F J	6.2 F J	6.9	7.6 B J	9.2 B	8.7 J	8.1	8.9	(9.1) K B	(9.4)	9.0 B	8.1	8.8	8.7	9.2	8.7	8.5	8.4	9.1	8.6	8.2 H
26	7.5 B	7.5	6.8	6.3	6.2	6.8 H	8.2	8.6	8.6 B	8.8 BK J	8.0 K B	(9.3) K B	C	C	(9.5)	9.0 H	8.5 B	8.5 B	8.7	8.6	7.6	(7.6) F	7.8 F J	7.6
27	7.5	6.8	(6.9)	6.4	6.3	6.2 H	6.9 K H	6.3	A K	8.9	8.1	A B K	8.7 K A B	9.6 K	9.1	8.3	8.6	7.8 H	6.8 H	6.3 H	6.3	5.9	5.8 J	6.0
28	6.4	6.6	6.3	6.4 B	6.3	6.5	8.4	9.3 B	9.6	9.4	8.6	8.3	A	8.5	7.9	A	7.9	B	8.8	8.6	8.5 FK J	8.3 K F	7.6	8.1
29	(8.1) FK	8.8 S K F	8.6 FK J	(8.3) FK J	7.0	6.7	6.7	8.0	7.8	7.7	7.4	9.0 J	9.6	8.9	9.5	9.9	8.7	8.9	9.5	(9.5)	8.4	(7.9) FK J	8.2	8.3
30	7.8	7.8	7.6	6.6	5.6	6.2	8.6	9.6	9.0	9.2	[9.2] C	9.3	9.6 K B	10.1	9.9	9.6	8.3	8.2	7.6	7.2	6.8	7.4	6.4 S	7.6
31	7.4	6.8 F	(6.6)	6.0	5.7	(5.2)	6.4	7.8	8.4	7.8	8.7	8.9	9.7	9.6	8.7	8.3	A	A	(7.9)	7.9	7.9	8.2	8.0	7.7
Mean Value																								
Median Value	7.5	7.4	7.2	6.4	6.3	6.4	7.7	7.6	7.8	7.7	7.9	8.3	8.5	8.8	8.8	8.5	8.1	8.0	8.2	7.8	7.6	7.7	7.6	7.6
Count	29	28	29	29	28	29	30	29	25	23	22	24	21	22	23	22	25	27	30	30	31	30	29	29

foF2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 1

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Jul. 1946

F'F2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(250)F	280	290	290	270	260	[270]A	280	A	A	C	300	300	300	270	260	300	[270]C	230	230	240	260	C	C
2	270	(270)	260	250	270	210	240	240	260	300	(320)	320	360	360	330	300	340	A	A	A	S	A	320	A
3	C	C	C	C	C	(270)A	320	330	340	(280)	280	340	350	(330]C	310	300	340	360	280	250	290	A	A	310
4	280	260	300	(300)A	250	250	(270)A	280	C	C	C	C	C	C	C	C	A	270	270	[260]A	250	(300)A	300	270
5	280	270	220	[260]A	280	(240)A	230	270	240	(240)A	(280)	350	320	310	280	270	(290)A	260	A	A	A	(270)A	(270)A	250
6	240	240	[260]A	290	250	230	230	210	C	C	C	C	C	C	C	C	300	290	[250]C	230	260	300	280	270
7	260	240	240	240	260	260	220	240	C	C	C	C	C	C	C	340	330	310	[280]A	220	220	300	[300]A	[310]A
8	280	280	[260]A	270	(340)A	290	330	[340]A	240	400	330	330	310	320	320	310	[320]A	320	290	260	250	[280]A	270	250
9	280	310	A	A	290	250	330	340	310	320	340	300	300	[300]C	300	280	270	[270]C	250	260	280	(300)A	310	300
10	280	280	290	290	270	250	270	210	A	A	A	330	320	300	290	300	290	[270]C	260	240	230	250	270	250
11	260	260	250	270	280	260	250	[250]A	270	[300]A	400	330	C	C	C	C	C	C	240	240	250	280	280	260
12	290	[260]A	230	240	[270]A	[240]A	270	290	[310]A	300	290	290	450	350	360	C	C	280	250	230	210	250	260	240
13	[240]A	250	260	240	240	250	240	220	230	260	[330]A	280	280	280	280	290	290	280	220	220	210	290	270	260
14	220	240	240	210	230	240	240	(260)A	250	300	300	A	C	C	C	C	C	270	240	220	240	260	230	250
15	[270]A	260	200	260	280	240	[280]A	320	290	C	C	C	C	C	380	410	400	[310]C	260	240	(230)	[260]A	260	[270]A
16	(280)A	240	[240]A	240	240	240	(230)A	230	(230)B	(310)A	270	[270]C	(270)A	270	280	C	C	C	C	C	230	190	210	230
17	240	230	220	270	280	250	230	270	C	C	C	370	370	300	280	300	260	280	260	220	210	240	250	290
18	270	260	250	230	220	230	260	280	280	260	280	300	320	(290)A	320	320	310	265	240	220	220	230	250	(270)
19	(270)	230	220	280	280	240	220	A	280	(280)A	370	335	A	310	310	280	250	260	270	230	(280)	280	(300)	280
20	260	240	240	260	C	C	290	290	C	(400)K	A	C	C	C	C	C	300	260	250	310	310	310	270	310
21	300	300	250	(280)	300	260	220	290	260	380	320	320	320	330	(310)A	300	290	230	320	270	240	270	270	300
22	300	300	280	(260)A	330	260	230	240	250	290	300	350	320	310	290	300	330	C	270	260	280	C	C	C
23	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	280	260	230	230	290	290	290
24	280	250	240	300	270	240	230	230	210	280	250	310	320	310	290	280	230H	260	(260)A	A	250	A	(290)A	(270)A
25	A	300K	300	260	240	240	(220)B	250	220	350	290	BK	300	B	310	300	300	260	250	230	250	280	250	240
26	250	250	240	260	300	260	280	280	(320)B	BK	BK	BK	C	C	270	(270)B	(240)B	250	250	230	(230)A	300	(300)A	280
27	250	250	270	260	250	190	A	A	ABK	340	440	ABK	390K	(250)$^{K}_{A}$	(300)A	390	320	350	310	300	240	250	A	(300)
28	340	260	290	320	250	220	220	B	260	(250)A	260	(310)A	A	(370)A	(380)A	A	320	B	(270)A	230	AK	AK	(250)A	(300)A
29	290K	280K	250K	250K	250	220	220	250	280	350	240	360	320	310	310	270	260	290	250	230	210	AFK	300	A
30	290	260	250	250	330	350	290	(270)A	A	A	C	400	(420)$^{K}_{B}$	390	320	300	290	280	260	250	300	300	300	A
31	(300)A	300	280	(270)A	270	280	220	300	280	A	(350)A	300	340	310	310	320	A	A	A	260	240	260	240	240
Mean Value																								
Median Value	280	260	250	260	270	250	240	270	260	300	300	320	320	310	310	300	300	270	260	230	240	280	270	270
Count	28	29	28	28	28	29	29	27	21	20	20	21	20	21	24	22	24	25	27	27	28	25	27	26

F'F2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K2

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

IONOSPHERIC DATA

Jul. 1946 | foF1 | 135° E Mean Time

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

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						A	C	A	A	A	C	5.9	5.4	(5.5)A	5.5B	5.2	5.3	C	A	L				
2						2.3	3.4	4.6	(4.8)A	4.9	L	5.2	5.6	5.5	5.2	L	A	A	A	L				
3						A	A	A	A	A	4.4	5.5	L	C	A	5.1	5.0	4.8	L	L				
4						A	A	4.5	C	C	C	C	C	C	C	C	A	A	L	L				
5						A	L	4.4	4.7	A	L	5.7J	A	5.2	5.3	5.1B	(4.8)A	4.5	A	L				
6						A	A	A	C	C	C	C	C	C	C	C	A	4.5	C	L				
7						2.2J	L	L	C	C	C	C	C	C	C	(5.0)A	L	4.9J	A	L				
8						A	A	A	A	5.3	5.5	5.6	5.2	5.4	5.1B	5.0J	A	L	4.2	L				
9						E	4.0	4.6	L	A	L	4.9	5.2	(5.2)C	(5.1)C	5.1	(4.8)	C	L	A				
10						L	L	A	A	A	A	5.2	5.2	5.5	5.4	A	4.9	C	L	C				
11						L	A	A	A	L	5.7	5.1	C	C	C	C	C	C	L	L				
12						L	L	A	(5.0)A	5.0	(5.1)	5.5	B	(5.4)B	5.6	C	C	(4.4)	L	L				
13						L	L	A	B	B	A	L	5.2	5.2	5.2	5.5	5.0	LH	L	2.4				
14						L	L	(4.6)J	5.1	L	5.2	A	C	C	C	C	C	4.6	A	L				
15						L	A	(4.6)A	A	C	C	C	C	C	5.0	L	4.5B	(4.2)C	3.8	A				
16						E	A	A	B	A	(5.1)	C	A	A	5.2	C	C	C	C	C				
17						L	L	4.8	C	C	C	5.3	5.1	5.3	(5.2)	5.3	(4.6)	4.5	(4.1)					
18						E	A	(4.6)	4.8	(5.1)A	5.4	5.9	(5.4)J	(5.4)A	5.4	A	4.8	4.7	A					
19								A	5.0	(4.9)A	4.8	5.5	(5.6)A	5.6	5.5	5.2	(4.7)	A	A					
20							A	A	A	5.0J	A	C	C	C	C	C	4.7	4.8	A	A				
21								(3.9)J	(4.9)J	5.7	4.3B	6.0B	B	B	A	5.5	(4.7)	L	L	2.6				
22						2.0	3.7	4.2	(4.8)A	5.4	5.4	5.6J	5.5	5.3	(5.4)	5.0	4.9	C	A					
23						C	C	C	C	C	C	C	C	C	C	C	C	4.6	L	L				
24						E	A	3.7	L	B	5.5B	B	6.0 K B	5.5 K B	5.5B	5.4	L	A	A	A				
25								4.8J	B	6.1	5.2	BK	5.6	B	4.8 K B	(5.4)B	5.4	4.5	A	A				
26							A	B	B	BK	BK	BK	C	C	BK	B	4.4	L	3.6					
27							A	A	A	6.2J	5.7	AB	ABK	AK	A	A	5.0	L	A					
28							A	B	A	A	5.5	A	A	A	A	A	(5.0)	5.0J	A					
29							A	L	5.5	5.9	5.2	6.1B	6.0B	5.6	5.6	A	5.2	(4.6)	AE	E				
30						L	L	A	A	A	C	5.9	BK	6.0 K B	5.7 K B	5.5 K B	5.0 K B	4.9	3.7	A				
31							3.1	4.5	5.2	A	A	5.6	6.0	5.6B	5.4	5.7	A	A	A	A				
Mean Value																								
Median Value						E	3.6	4.6	5.0	5.3	5.2	5.6	5.5	5.5	5.4	5.2	4.9	4.6	3.8	2.4				
Count						7	4	13	10	11	15	17	14	16	19	15	19	15	5	3				

foF1

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 3

The Radio Research Laboratories

Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

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

Jul. 1946 | h'F1 | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						A	A	A	A	A	C	A	A	A	B	220	210	{210}C	210	220				
2						190	(210)A	200	A	A	A	(200)	(280)A	A	(200)A	A	A	A	A	A				
3						A	A	A	A	A	A	180	A	C	A	A	(190)A	220	A	A				
4							A	220	C	C	C	C	C	C	C	C	A	A	240	A				
5						A	230	210	190	A	(200)B	A	A	(250)A	(200)A	200	A	A	A	A				
6						A	A	A	C	C	C	C	C	C	C	C	A	A	C	A				
7							190	230	C	C	C	C	C	C	C	240	{210}A	A	A	A				
8						A	A	A	{200}A	190	220	200	(270)A	250	A	A	A	A	A	240				
9						E	210	210	(200)A	(180)A	(190)A	{220}A	210	C	C	190	{200}A	C	220	A				
10						240	230	A	A	A	A	190	180	{190}A	240	{220}A	(200)A	{210}C	(210)A	C				
11						250	A	A	A	200	{180}A	(180)A	C	C	C	C	C	C	200	230				
12						A	230	{220}A	{210}A	200	180	A	B	A	A	C	C	A	(210)A	220				
13						230	190	A	B	B	A	A	A	(200)A	180	190	190	200	210	230				
14						210	{200}A	{190}A	170	180	A	A	C	C	C	C	C	(180)A	{210}A	240				
15						240	A	A	A	C	C	C	C	C	180	170	(160)B	{180}C	210	A				
16						E	A	A	B	A	A	C	A	A	A	C	C	C	C	C				
17						250	210	(190)B	C	C	C	A	A	A	A	A	190	208	200					
18						E	A	200	A	A	200	(200)A	A	A	(220)	A	(250)	205	A					
19								A	A	A	200	(200)A	A	A	A	210	200	A	A					
20							A	A	A	A	A	C	C	C	C	C	220	A						
21								250	210	230	(180)B	B	B	B	A	B	220	230	230	250				
22							230	200	A	190	200	A	A	A	(210)A	230	210	C	A					
23						C	C	C	C	C	C	C	C	C	C	C	C	220	230	240				
24						E	220	200	A	180	240	BK	(250)$^{K}_{B}$	BK	250	210	(220)A	A	A	A				
25								230	B	210	200	B	B	B	BK	(220)B	A	(220)A	A	A				
26							A	B	B	BK	BK	BK	C	C	BK	B	200	(200)A	220					
27							A	A	A	A	A	AB	ABK	AK	A	A	A	A	A					
28							A	B	A	A	(220)A	A	A	A	A	A	230	A	A					
29							A	(210)A	190	180	220	B	B	B	240	A	(180)A	240	AF	E				
30						260	210	A	A	A	C	230	BK	BK	BK	250K	220K	240	240	A				
31							200	(200)A	200	A	A	220	A	(220)B	250	(220)A	A	A	A	A				
Mean Value																								
Median Value						240	210	210	200	190	200	200	250	220	220	220	210	210	210	240				
Count						8	13	15	8	10	13	10	5	5	10	13	18	14	14	8				

h'F1

Sweep 3.8 Mc to 15.4 Mc in 15 min ☒ Manual ☐ Automatic

K4

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Jul. 1946

foE

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						E	2.4	(2.9)A	3.4	3.6	C	AB	B	AB	B	A	A	C	A	E				
2						E	A	A	AB	AB	AB	AB	AB	3.9B	3.7B	AB	AB	A	A	E				
3						E	A	A	A	3.5	(3.8)$^{A}_{B}$	4.0J	AB	C	AB	AB	AB	3.0B	2.5	E				
4						1.6J	2.5	3.0	C	C	C	C	C	C	C	C	AB	A	A	E				
5						E	2.5	3.0	3.3	3.6	(3.8)$^{A}_{B}$	3.9	AB	AB	AB	3.5	A	A	A	E				
6						E	A	A	C	C	C	C	C	C	C	C	A	A	C	E				
7						E	2.4	A	C	C	C	C	C	C	C	A	A	A	2.6	E				
8						E	A	3.0J	(3.2)A	3.3	3.7	3.7B	3.8B	3.9B	(3.6)B	3.4	(3.2)A	2.9	(2.4)A	1.8J				
9						E	2.5	3.4	(3.6)A	(3.8)A	A	A	3.8	C	C	B	AB	C	A	E				
10						1.8J	2.7	(3.2)A	3.6	3.6B	3.6B	3.8B	3.9B	3.9B	3.8B	3.7B	A	C	A	C				
11						1.8J	2.4	A	A	(3.6)A	(3.8)$^{A}_{B}$	4.2B	C	C	C	C	C	C	A	(2.0)				
12						E	(2.4)	(3.0)A	3.8	3.8J	(3.9)	3.8B	B	3.6	3.8B	C	C	3.0	2.2	E				
13						1.9J	2.6	A	B	B	AB	AB	AB	AB	3.5B	3.8B	3.3B	2.9	2.6	E				
14						1.8J	2.6	(3.1)A	3.6	(3.7)A	A	B	C	C	C	C	C	A	A	E				
15						E	2.3	3.9	3.2	C	C	C	C	C	(3.7)B	A	A	(3.1)C	2.6	E				
16						E	A	2.6	3.2	3.4	3.7B	(3.5)B	(3.3)B	A	C	C	C	C	C	C				
17						(1.9)	2.6	B	C	C	C	B	B	4.0	B	AB	AB	3.1	A	E				
18						E	A	3.0	A	AB	AB	AB	AB	(3.5)B	4.1	3.8	3.3	3.1	A	A				
19						E	2.5	3.0	AB	AB	4.0B	4.0	B	AB	(3.7)B	3.8B	A	A	B	E				
20						C	A	(3.1)	(3.6)	AB	AB	C	C	C	C	C	3.5	A	A	A				
21						A	A	(3.1)	(3.6)	3.8	B	B	B	B	AB	AB	3.3B	3.2B	A	E				
22						A	A	AB	A	(3.6)	A	A	4.2B	(3.8)B	(3.7)B	3.7	3.7	3.5	A	E				
23						C	C	C	C	C	C	C	C	C	C	C	C	B	A	E				
24						E	A	3.1	A	4.2	B	BK	B	B	BK	3.9	3.5	3.2	2.4	E				
25						E	A	3.0	B	B	B	B	B	B	BK	B	B	3.2	2.4	E				
26						1.7J	AB	B	B	BK	BK	BK	C	C	BK	B	3.7B	3.3B	2.7	E				
27						E	A	2.9	3.3	3.8B	4.0B	B	BK	BK	B	B	AB	2.6	A	E				
28						E	B	A	A	A	3.8B	AB	B	AB	3.5B	4.0B	3.5	3.2	2.5	E				
29						2.0J	A	A	A	AB	AB	B	B	B	B	3.8B	3.8B	AB	B	E				
30						E	A	A	A	B	C	BK	BK	BK	BK	AB	B	A	2.7	E				
31						E	2.7	3.4B	3.4J	3.9B	AB	AB	B	AB	4.2B	3.8B	B	3.2	A	E				
Mean Value																								
Median Value						E	2.5	3.0	3.4	3.6	3.8	3.9	3.8	3.9	3.7	3.8	3.5	3.1	2.5	E				
Count						27	14	18	13	15	10	8	5	7	11	11	10	15	11	27				

foE

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 5

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

IONOSPHERIC DATA

Jul. 1946 | h'E | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						E	110	A	100	100	C	B	B	A	B	A	A	C	A	E				
2						E	A	A	A	A	A	A	A	100	100	A	A	A	A	E				
3						E	A	A	A	100	A	100	A	C	A	A	A	110	100	E				
4						E	(110)	100	C	C	C	C	C	C	C	C	A	A	A	E				
5						E	110	100	110	100	B	100	100	100	100	100	100	A	A	E				
6						E	A	A	C	C	C	C	C	C	C	C	A	100	[100]C	E				
7						E	(100)A	100	C	C	C	C	C	C	C	A	A	A	100	E				
8						E	A	100	A	100	100	100	100	100	[100]A	100	[100]A	100	A	E				
9						E	(100)	110	A	A	A	A	100	C	C	B	A	C	A	E				
10						E	100	[100]A	100	100	110	110	110	(110)B	100	100	A	C	A	E				
11						E	110	[100]A	[100]A	[100]A	[100]A	100	C	C	C	C	C	C	A	E				
12						E	110	[110]A	100	[100]A	100	100	B	100	B	C	C	100	100	E				
13						E	100	A	B	B	A	A	A	A	100	100	100	100	100	E				
14						E	100	[100]A	100	A	A	B	C	C	C	C	C	A	A	E				
15						E	(100)	100	100	C	C	C	C	C	90	A	A	[100]C	100	E				
16						E	100	100	100	100	100	[100]C	100	100	A	C	C	C	C	C				
17						E	110	100	C	C	C	B	B	(100)B	(100)B	A	A	104	A	E				
18						E	A	110	A	90	A	A	A	100	100	100	100	100	A	A				
19						E	100	100	A	A	100	100	B	100	100	100	110	100	110	E				
20						C	120	110	110	A	AB	C	C	C	C	C	100	A	A	A				
21						E	A	A	120	110	110	B	B	B	AB	A	100	110	A	E				
22						A	A	A	A	100	A	A	100	110	100	110	100	C	A	E				
23						C	C	C	C	C	C	C	C	C	C	C	C	B	A	E				
24						E	A	100	A	A	B	BK	B	B	BK	100	100	A	100	E				
25						E	A	100	B	B	B	B	B	B	BK	B	B	110	120	E				
26						E	A	B	B	BK	BK	BK	C	C	BK	B	B	90	100	E				
27						E	A	100	100	B	100	B	BK	BK	B	B	A	100	A	E				
28						E	B	A	A	A	110	A	B	B	100	100	110	90	100	E				
29						E	A	A	A	A	A	B	B	B	B	B	100	A	B	E				
30						E	A	A	A	B	C	BK	BK	BK	BK	AB	B	A	110	E				
31						E	110	100	100	100	AB	AB	B	AB	90	100	B	100	A	E				
Mean Value																								
Median Value						1※	110	100	100	100	100	100	100	100	100	100	100	100	100	※				
Count						0	16	19	12	12	9	8	6	10	12	10	11	15	12	0				

h'E

Sweep 2.0 Mc to 15.0 Mc in 15 min ☐ Manual ☐ Automatic

K6

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Jul. 1946

fEs

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	6.0	8.9F	4.5	4.3	3.8F	8.4F	10.1F	8.2F	14.0D	9.2 B F	C	8.2B	8.1B	7.3B	5.8B	5.6B	6.7	C	3.6	E	3.2	5.0	C	C
2	3.8	3.8	E	2.4	2.2	2.2	6.9F	5.2	4.2B	5.1B	5.1B	6.4B	5.3B	4fE	7.0B	5.7B	6.0B	8.6	5.4	7.9	3.6	6.6	5.2	6.4
3	C	C	C	C	C	4.8	8.4	8.4	9.0	4.4	4.8B	4fE	9.4B	C	7.4B	5.0B	4.1B	4.1	6.4	5.1	8.8	8.6	8.0	6.0
4	3.0	4.8	6.0	5.6F	4.2	5.0F	5.8	6.2	C	C	C	C	C	C	C	C	9.3 F B	6.2F	6.6	7.2	6.7	3.6F	3.0	8.0
5	4.0	4.2	2.4	10.1	7.5F	4.0	3.8	3.2	4fE	7.2	7.5B	7.0	9.0B	4.8B	4.4	4.3	6.4	5.7	6.0	10.2	9.2	4.6	4.5	4.0
6	3.4	2.6	5.4	3.4	3.2	5.6	4.8	3.2	C	C	C	C	C	C	C	C	7.3	5.2	C	8.3	6.0	4.2	4.2	3.0
7	2.2	3.2	2.4	2.7	2.2	2.8	3.2	2.8	C	C	C	C	C	C	C	4.4	7.0	5.6	10.1	5.4	3.0	9.0	4.0	4.2
8	4.0	5.4	5.4	2.8	4.4	2.8	3.4	5.0	4.2	4.2	7.2	6.6B	5.4B	4.7B	5.3B	6.0B	8.0	7.2	4.2	3.8	8.0	5.2	2.2	2.4
9	5.8	5.2	7.0	7.6	3.4	3.4	3.4	4.2	5.2	5.0	4.4	5.2	9.8	C	8.5	4.3B	3.8	C	9.3	5.2F	5.2	4.6	6.0	5.4
10	4.2	4.0	4.0	2.2	3.0	E	3.8	4.2	9.4	10.3B	9.6B	4.9B	4fE	5.3B	5.0B	8.5B	7.0	C	4.2	C	4.0	3.6	3.5	2.7
11	2.8	E	2.8	3.2	E	3.2	7.8	6.8	4.8	6.3	4.8	5.3	C	C	C	C	C	C	3.8	3.4	2.8	2.4	E	2.2
12	4.8	6.4	3.4	7.4	4.2	4.2	3.2	6.8	8.5	7.2	4.1	4.4B	B	B	5.1B	C	C	4.0	3.2	3.4	2.6	3.2	4.6	6.7
13	6.2	6.0	4.9	3.8	2.8	2.6	3.3	5.4	4.0B	5.1B	7.5B	5.1B	5.4B	5.0B	5.0B	5.7B	4.1B	3.5	3.4	3.2	7.8	5.2	7.4	6.0
14	3.0	2.6	4.4	2.7	2.3	2.4	3.7	5.4	4.0	4.0	5.2	8.4B	C	C	C	C	C	5.4	7.0	7.0F	7.8F	7.0	4.6	4.2
15	3.6	3.2F	2.6	2.9	2.1	3.0	5.2	5.4	5.6	C	C	C	C	C	C	C	C	C	C	C	3.2	5.6	2.3	3.5
16	4.0	4.0F	3.8	2.6	E	2.8	4.8	4.6	4.2B	8.0	4.7B	C	7.9	7.4	C	C	C	C	C	C	7.2	6.8	E	8.0
17	5.0	E	3.2	2.6	2.6	2.2	3.8	4.0B	C	C	C	4.9B	5.1B	6.8B	6.4B	5.3B	8.9B	6.4	5.2	E	2.2	2.8	4.0	6.4
18	4.0	3.2	4.2	4.2	4.2	3.6	5.4	4.0	4.2	5.2B	4.9B	6.0B	6.4B	7.1B	4.9B	6.5	5.0	4.0	6.0	4.2	4.4	2.6	4.2	8.6
19	8.6	3.4	2.6	2.9	3.0	3.2	4.3	7.2	5.4B	6.1B	8.2B	7.2	9.0B	6.7B	5.2B	4.8B	5.2	5.4	6.6B	4.2	9.0	4.2	5.8	6.2
20	4.4	4.2	4.2	3.2	C	C	4.2	5.6	6.8	6.4B	6.7B	C	C	C	C	C	5.2	6.3	6.3	4.0	E	E	E	E
21	3.2B	4.2	4.0	2.9	2.5	2.6	3.6	3.4	5.2	4.4	3.3B	B K	B K	B K	6.7B	4.6B	3.9	3.2.B	4.0	2.7	4.0	3.2	2.6	2.8
22	2.1	4.2	3.2	4.0	3.2	4.0	4.6	7.4B	6.0	4.0	4.6	6.2	6.7B	7.8B	6.5B	7.4	6.8	C	7.2	8.2	8.7	C	C	C
23	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	B	2.9	3.0	6.0	4.8	2.2	3.4
24	2.2	2.2	2.8	3.2	E	2.7	3.5	3.8	4.7	4.0B	B	B	B	5.1B	B	4.2	4fE	6.4	6.0	8.0	6.0	6.5	5.2	3.4B
25	4.0	3.5	2.4	2.2	2.2	2.6	5.2	3.2	4.2B	5.8B	6.4B	B	B	B	B	B	4.8B	4.4	5.4	6.6	3.2	3.0	4.2	3.0
26	B	A	2.2	2.4	3.2	2.3	5.0B	4.3B	B	8.0B	B	6.4B	C	C	B	4.7B	B	4.0B	2.8B	2.7	6.3	8.0	5.8	2.8
27	2.8	E	E	2.4	2.8	3.6	4.8F	6.8	5.6B	8.7B	6.4B	8.2B	7.9B	7.0B	7.0B	5.6B	4.5B	5.4	4.0	3.0B	5.2	3.8	5.6	3.0
28	5.6	3.2	4.2	4.2	2.4	3.0	4.0	4.2	7.0	6.8	6.2B	7.0B	10.0B	8.8B	8.6B	13.5B	5.4B	7.1	8.4	8.0	7.4	8.6	5.0	3.4
29	2.8	3.0	2.2	2.8	2.0	2.8	4.2	7.4	6.7	5.7	4.5B	3.2B	B	7.0B	9.3B	10.0B	5.5B	6.5 F B	5.6 F B	2.9	3.2	7.9F	4.8F	7.0F
30	5.4	3.3	4.4	3.2	2.4	3.6	4.4	5.6	7.2B	9.6B	C	6.4B	4.9B	B	4.2B	4.1B	3.0B	4.6	4fE	3.6	3.0	4.4	6.4	6.6
31	4.2	2.8	4.2	4.0	4.0	E	2.5	4.4B	5.2	8.4B	4.2B	7.8B	10.2B	5.3B	5.0B	9.3B	13.3B	14.5	13.5	8.3	8.7	5.5	2.8	E
Mean Value																								
Median Value	4.0	3.5	3.8	3.2	2.8	3.0	4.3	5.1	5.2	6.1	5.2	6.4	7.9	6.8	5.6	5.6	6.0	5.4	5.4	4.2	5.2	4.9	4.2	4.0
Count	28	28	29	29	28	29	30	30	25	25	21	21	17	16	20	22	25	23	29	29	31	30	29	29

fEs

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K7

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

IONOSPHERIC DATA

Jul. 1946

(M3000)F2

135° E Mean Time

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(3.0]F	3.1	2.8	2.6	3.1	3.2	3.3	3.3	J	A	C	3.2	3.1	3.2	3.3	3.2	3.1	(3.2]C	3.4	3.2	3.0	C	C	C
2	3.1	(3.0]F	3.0	3.0	2.8	3.0	3.4	3.4	3.3	3.1	3.1	3.1	3.0	3.0	3.0	3.1	3.0	J	J	J	S	2.7	2.7	3.0
3	C	C	C	C	C	2.9	2.8	2.6	3.0	3.0	3.1	3.0	2.9	(3.0]C	3.1	3.1	3.0	3.0	3.1	2.9	3.0	2.8	2.8	2.8
4	2.9	(2.8]J	2.8	(2.9]J	3.1	3.0	3.0	3.0	C	C	C	C	C	C	C	C	J	3.3	3.4	(3.2]J	3.0	2.9	2.9	2.7
5	J	J	3.1	(3.0]J	3.0	2.8	3.2H	3.2	3.5	3.2	3.1	2.9	3.0	3.1	3.2	3.2	3.2	3.3	3.1	(3.0]A	2.9	2.9	2.9	3.1
6	3.1	2.9	2.9	3.0	3.0	3.3	3.2	3.4	C	C	C	C	C	C	C	C	3.1H	2.9	(3.0]C	3.2	2.9	2.9	2.9	2.9
7	3.1	3.1	3.0	3.0	2.9	3.0	3.1	C	C	C	C	C	C	C	C	2.9	2.8	3.0	(3.2]A	3.3	2.7H	2.8	2.8	2.7
8	2.8	3.1	F	F	2.6	3.0H	3.1	2.9	3.2	2.8	3.1	3.1	3.1	3.2	3.2	3.3	(3.1]A	3.0	3.1	3.0	2.9	2.9	2.9	3.0
9	2.9	2.8	2.9	(2.8]J	2.8	3.0	2.7	2.9	3.1	3.1	2.9	3.0	3.2	(3.2]C	3.2	3.2	3.2	(3.2]C	3.3	3.0	3.0	2.8	2.8	2.8
10	2.9	3.0	2.8	(2.9)	2.9	3.1	3.4	3.2	3.3	A	A	3.0	3.0	3.2	3.2	3.1	3.1	(3.1]C	3.2	(3.1]C	3.0	3.0	3.0	2.8
11	3.0	3.1	3.0	2.8	2.9	2.9	3.2	3.0	3.3	3.1	2.7	3.0	C	C	C	C	C	C	3.3	3.2	2.8	2.8	2.8	(2.9)
12	(2.8]F	3.0	3.1	2.9	2.7	2.9	3.1	(3.2)	(3.1]J	3.3	3.3	3.4	2.7	3.0	(2.9)	C	C	3.3	3.4	3.3	(3.2]J	3.1	3.1	(3.1)
13	(2.9]F	(2.9]F	3.1	3.0	3.1	3.1	3.1	(3.0]S	3.5	3.4	3.2	3.3	3.3	3.3	3.2	3.2	3.1	3.2	3.3	3.4	3.1	F	F	3.2
14	3.2	3.0	3.1	3.1	3.1	3.5	3.5	3.6	3.4	3.3	3.2	3.2	C	C	C	C	C	3.3	3.1	3.4	3.0	3.1	3.1	3.0
15	2.9	2.9	2.9	2.9	2.9	3.1	2.8	3.0	3.3	C	C	C	C	C	3.1	(3.0]J	2.9	(3.0]C	3.2	3.3	3.0	3.0	3.0	2.7
16	3.1	3.2	3.1	3.0	3.0	3.0	3.1H	3.2	3.1	2.9	3.1	3.3	(3.3]C	3.4	C	C	C	C	C	C	J	J	J	J
17	F	J	(3.2)	F	F	3.0	3.4	3.3	C	C	C	2.9	2.9	3.1	3.1	3.2	(3.1]J	3.1	3.2	3.0	3.3	3.0	3.0	2.9
18	4.0	3.0H	3.4H	3.4	3.1	3.1	3.1H	3.3	(3.3]J	3.4	3.3	3.2	3.1	3.1	3.1	2.9	3.1	3.2	3.3	3.3H	3.2H	3.0	3.0	3.0
19	3.3	3.2	3.1H	(2.8)	3.0	3.1	3.1J	(3.2]K	3.3J	3.1H	2.9	3.0	(3.0]J	3.0	3.1	3.0	3.4	3.3	3.1	3.1	2.8	(2.8)F	(2.8)F	S
20	FK	FK	FK	(3.2)	C	C	2.8	3.0	C	K	A	C	C	C	C	C	3.1	2.8	2.9	2.9	2.8	2.8	2.8	3.2
21	2.9	2.9	3.2	2.9	2.8	3.0	3.1	3.3	3.5	2.9	3.1	3.2	3.1	3.0H	3.0	3.1	3.2	(3.0]S	2.9H	2.9	3.0	2.8	2.8	2.8
22	2.8H	2.9	2.9	3.0	2.8	2.8	3.1H	3.3H	3.1	3.2	2.8	2.9	3.1	3.0	3.2	3.3	3.4	(3.2]C	3.1	3.1	2.9	C	C	C
23	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	2.9	3.4	3.0	2.8	2.8	2.8	2.8
24	2.7	2.9	3.0	2.8	2.8	3.3H	3.2	3.3H	3.1	3.1	3.5	(3.0)	3.2	3.1	3.1	3.3	3.4	3.2	3.2	3.3	3.1	2.8	2.8	3.0
25	2.9	FK	F	F	F	2.8	B	3.3	J	3.0	3.2	BK	(3.1)	2.9	2.9	3.2	3.2	3.2	3.1	3.1	2.9	3.0	3.0	3.0H
26	2.9	3.1	2.9	2.9	3.0	2.8H	2.9	3.2	3.0	JK	2.9K	BK	C	C	(3.3)	3.2H	3.2	3.2	3.2	3.3	3.0	F	F	3.0
27	3.0	3.0	(2.9)	3.1	3.0	3.4H	2.4K	J	BK	3.0	2.5	BK	2.5K	3.0K	2.7	2.6	2.8	2.7H	2.5H	2.8H	2.7	J	J	2.5
28	2.6	2.9	2.7	3.1	3.0	3.3	3.5	3.2	3.5	3.1	3.3	3.1	A	2.9	2.9	A	3.0	A	2.9	3.2	2.8K	2.9	2.9	2.7
29	(2.8)K	JFK	JFK	JFK	3.0	3.1	3.3	3.5	3.4	3.0	3.4	2.9	3.0	3.1	3.1	3.3	3.3	3.1	3.3	(3.3)	3.1	2.7	2.7	2.7
30	2.9	2.8	2.7	3.0	2.5	2.6	2.7	3.2	3.0	(2.8)	(2.8]C	2.7	2.6K	2.6	2.9	3.1	3.0	3.2	3.0	3.0	2.8	S	S	2.8
31	2.7	2.7	(3.0)	2.6	2.8	(2.9)	3.1	3.0	3.2	3.0	2.9	2.9	2.9	3.0	2.9	3.1	A	A	(3.2)	3.0	2.9	3.0	3.0	2.9
Mean Value																								
Median Value	2.9	3.0	3.0	3.0	2.9	3.0	3.1	3.2	3.3	3.1	3.1	3.0	3.0	3.0	3.1	3.2	3.1	3.2	3.2	3.1	3.0	2.9	2.9	2.9
Count	26	24	25	25	26	29	29	28	22	21	22	22	21	22	23	23	24	26	29	29	29	24	24	27

(M3000)F2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K8

63

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Aug. 1946

foF2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	7.8	7.1J	7.0	6.6	6.3	6.0	C	C	C	C	9.5	10.0	10.6	11.2	11.1	(9.5)	8.9	8.8	(8.2]C	7.8	7.6	7.8	(7.7)	8.4
2	7.8	7.9	7.0	6.9	6.8 FK J	7.6	9.0	8.8	7.7	9.1	9.4	9.5	9.7	9.9	9.6	9.5	9.3	9.4	(9.9)	(9.4)	9-7	9.6	(9.9)S	9.7
3	9.1	9.1	8.6	8.0	7.5	7.1	7.1	8.2	7.9	9.4	9.2	9.0	8.0	A	A	A	7.5	7.8	7.2	7.2	7.7	8.3	8.7	9.0
4	8.7	8.7	8.4	7.8	6.8	6.9	7.6	8.3	8.5	8.3	8.3	8.6	9.0	10.0	10.0	9.2	9.0	8.3J	8.0J	8.9J	8.8	9.3	9.0	8.8F
5	9.0	9.4	8.3	7.8	7.2	7.4	8.5	(9.0]C	9.5	9.4	9.4	9.6	10.0	10.6	10.8	9.5	8.4	8.4	8.6	8.8	8.0	7.7	7.6	6.3
6	6.5S	7.0	7.3	7.3	6.5	6.0	7.6	8.9	8.6	9.0	9.4H	8.6	8.8	9.2	8.7	8.4	8.6	8.8	8.2	8.1	8.0	7.2S	7.9	8.1
7	7.5	7.4	7.4	(7.4)	6.6	6.4	7.6	9.4	9.5	10.0	9.5H	(9.7)	9.4	9.1	8.6	8.9	9.4	9.6	8.8	8.4	8.1	7.8	7.6	(8.5)
8	7.6	8.0F	6.8	6.3	6.5	6.1	5.1K	7.9H	B	9.3	9.2	8.9	8.1	8.2	8.3	7.6	7.5	7.9	8.2	8.4	8.4H	8.3	(7.3)F	7.4
9	7.4	7.2	7.0	6.4	5.7	5.7	6.8	8.6	9.8	8.6	8.5H	8.5	8.3	7.9	7.6	8.1	8.7H	9.9	(9.0)	8.5	7.8	6.6	6.9	7.1
10	7.1	6.7	6.4	6.1	5.7	5.6H	7.8	9.2	9.0	8.6	7.9	8.4	8.4H	8.5	8.3	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	C	7.4	8.9	8.8	8.8	9.0	9.8	10.1	8.9H	9.2	8.8	8.8	9.2	9.2	9.5	(7.2) A T	7.0	6.4	6.4
12	6.3	5.8	5.9	6.2	5.7H	5.5F	8.1	9.2	9.0H	(9.2]C	9.6	10.2J	10.8H	10.6	10.8	9.9H	9.3	AK	(7.3) K F	8.3J	8.0	8.0	8.0 F T	(7.9) F T
13	8.3	7.1H	6.4	6.3	6.1	6.3	6.8H	(9.6)S	8.6	8.2	8.3	7.4	8.6	9.0	8.8	8.5	8.9	9.1	10.1	(9.6)	7.5	6.7F	7.4 F T	7.5
14	7.5	6.5F	7.2	6.7	4.9K	5.2	6.5	7.7	9.0	(8.9]C	8.7H	9.2	9.5	10.0	9.5	8.9	8.2	8.4	7.7	9.2	9.0	9.0	8.7	8.1
15	8.4	8.0	7.4	(6.5)	5.8	5.0	6.0	6.3K	5.9K	6.9K	6.5K	6.4K	6.3K	6.3K	6.7K	7.4K	7.3	6.1	A	A	6.3	A	A	F
16	6.7F	6.0	5.8	5.7	5.5 F T	5.5	7.1	7.4	8.2	8.6	9.5	9.4	10.1	10.2	9.6	9.3	9.4	8.4	8.0	7.6	7.3 F T	(7.5)F	(7.6)F	(7.1)
17	7.0	6.6	6.2	5.6	5.6	5.5	7.2	9.1	9.7	8.4	8.2	8.8	10.5	10.3	9.4	8.7	8.6	7.9	7.5	8.1	A	8.0	8.5	7.8
18	8.0	6.7	6.7	7.0	6.6	6.0	6.7	8.7	10.0	9.2	9.7H	10.0	9.2	8.6	9.3	9.4	9.1	8.7J	9.2	8.5	7.4	7.5	7.6	7.6
19	7.3	(7.1)J	7.1	6.6	6.2	6.0	7.9	9.2	8.4	7.5H K	8.2	8.5H	8.4	9.5	10.0	8.6	7.8	7.1	7.1	7.8	8.4	7.9	7.4	7.3
20	6.6	6.2	(7.1) F T	7.0	6.3	6.4	9.3	8.9	7.3	7.7	8.2	8.3H	9.3	9.3	9.8	9.1H	9.3	9.1	9.1	9.3	7.4	7.3	7.7	7.4
21	7.4H	7.4	7.3	7.2	6.7	(7.3)S	9.8	10.1	8.2	7.9	8.4	8.4	8.5	8.5	9.9	10.6	10.4	10.2	9.3	9.7J	8.1	7.7	(7.8)	7.8
22	8.0	8.7	8.3	7.0	6.0	5.8	7.5	8.5	8.2	8.4	9.0	10.1	10.9	11.5	11.3	11.0	10.3	11.1	10.8	10.1	9.3	8.9	8.7	8.5
23	8.5	8.4	7.9	7.4	6.2	6.2	8.6	8.9	8.3	8.5	8.6	9.3	9.4	9.9	10.2J	10.8	10.2	(9.6)S	9.2	9.1H	8.7H	9.1H	9.1H	8.2H
24	7.7	7.5H	7.2	7.2	6.5	7.2	8.1	8.5	8.4	8.8	8.1	7.9	8.3	9.4	9.9	(10.0]C	10.3	9.8	9.2	9.0	9.0	(8.8]C	8.5	8.0
25	7.8	7.5	7.5	7.4	7.3	7.5	8.4	8.7	8.5	9.2	8.5H	9.1	9.2H	8.9H	9.0	9.3	9.3	9.3	(9.6)	9.2	8.6	8.6	8.1	7.6
26	7.1	7.0	6.8	6.7	6.7	6.5	7.5	7.6	7.4	7.4	7.2	8.0	8.4	8.9	9.3	9.6H	9.2	9.0	(9.4)S	(9.4)S	8.9	8.1	7.3H	7.4
27	6.8	6.8	6.5	6.3	6.2	6.9	9.2	10.0	9.0	8.4	9.2	9.4	9.1	9.2	9.6	10.0	10.0	(9.5)S	9.5	10.5J	(9.3)	8.5	8.2	8.0
28	8.0	7.5	6.6	6.0	5.8	6.0	9.1	10.4	9.7	9.2H	9.2	10.5	10.6	10.3	10.1	10.3	10.0	9.7	(9.8)S	9.2	8.1	8.1JF	7.9	7.5
29	7.0	6.5	6.9	6.5	5.4	5.5	8.4	10.8	10.5	10.7	10.5	11.2	10.5	11.0	10.5	9.8	9.5	9.2	8.9	8.5	8.2	A	8.7	8.1
30	F	6.7F	6.7F	6.2	5.6F	5.9	8.3	10.7	10.6	10.4	11.2	10.6	10.2	9.9	9.9	9.5H	9.4	9.2	9.0	9.3	9.2	8.8	8.4	7.7
31	7.6	7.5	6.5	6.4	6.6	6.6	8.7	10.5	10.4	9.9	10.1	10.2	10.4	11.3	(11.3)B	10.6H	11.9	13.0	9.4	7.7	7.0	7.1	(7.1)	7.7
Mean Value																								
Median Value	7.6	7.2	7.0	6.7	6.3	6.1	7.7	8.9	8.6	8.8	9.0	9.2	9.3	9.5	9.6	9.4	9.3	9.1	9.0	8.9	8.1	8.0	7.9	7.8
Count	29	30	30	30	30	30	30	30	29	30	31	31	31	30	30	29	30	29	29	29	29	28	29	29

foF2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 1

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

IONOSPHERIC DATA

Aug. 1946 | h'F2 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	240	270	250	240	260	290	C	C	C	C	350	350	340	330	320	300	300	280	250	260	190	(300)A	280	(300)A
2	(250)A	280	250	250	250FK	250	230	230	(220)A	300	290	260	300	310	310	310	280	290	260	250	250	A	A	240
3	260	260	240	240	220	210	200	220	(250)B	320	310	340	330	A	A	A	320	280	260	240	(280)A	300	300	260
4	250	260	(240)A	240	250	280	230	240	220	280	350	(350)A	(360)A	A	320	330	310	A	A	A	A	250	(230)	260
5	260	250	(220)A	230	220	250	220	(240]C	250	280	320	300	300	310	280	260	260	260	230	240	220	230	240	260
6	280	(310)A	260	240	230	230	240	270	300	320	320	300	330	300	300	290	280	280	240	240	240	270	280	270
7	290	290	260	260	250	290	240	300	280	300	260	280	290	(310)B	320	310	320	(280)A	250	250	280	280	310	320
8	290	(320)A	320	310	(310)	280	240K	280H	B	320	310	320	320	310	300	300	290	280	270	250	260H	290	(290)A	360
9	300	290	270	260	250	(260)	240	300	290	250	280H	320	300	340	(350)A	330	300H	290	260	240	220	220	290	300
10	290	280	300	270	320	300H	290	240	250	280	B	280	340H	290	290	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	C	210	230	240	300	340	280	280	270H	300	300	300	(280)A	260	340	A	A	270	350
12	250	280	(280)	280	290H	280	(280)A	(240)A	240H	(280]C	270	340	320H	300	290	260	270	AK	AK	AF	AF	AF	AF	AF
13	A	A	250	(300)A	300	250	210H	250	230	240	290	230	290	300	300	290	250	250	250	220	(280)A	(270)A	A	240
14	250	260	260	240	220H	260	210	240	260	(280]C	300H	280	290	300	A	290	A	270	A	A	(270)A	300	270	280
15	260	290	220	260	A	A	A	280K	230K	470K	360K	390K	410K	(440)K	390K	AK	280	A	A	A	A	A	A	A
16	330	290	290	270	310	280	210	230	250	(280)A	320	270	B	310	A	300	260	260	250	230	240	(320)A	290	270
17	260	250	240	230	260	230	240	240	220	210	220	310	280	270	280	260	260	260	270	A	A	280	280	270
18	260	230	300	260	260	230	220	240	240	220	240H	240	250	270	290	270	260	A	(240)F	(220)F	AF	260	270	260
19	300	(290)A	250	270	270	300	220	230	240	230K	A	260H	(320)B	340	220	(240)A	250	A	230	260	A	A	(240)A	260
20	250	300	A	270	270	250	230	230	230	290	270	270H	300	340	310	300H	300	280	280	260	220	260	270	270
21	280H	280	260	260	270	260	240	250	220	230	240	280	300	310	310	270	260	270	230	(250)A	A	280	310	A
22	320	290	250	230	240	250	240	250	270	290	280	320	340	310	290	260	250	290	260	260	250	240	270	300
23	290	280	260	240	240	240	240	240	230	260	310	330	320	(340)A	A	A	(290)A	280	260	250H	250H	300H	290H	270H
24	280	300H	290	280	280	270	240	250	250	250	250	270	310	350	340	(310]C	270	250	250	260	250	(250]C	250	220
25	260	250	250	250	220	210	180	180	A	(230)A	250H	300	310H	310H	320	320	260	250	250	250	A	A	260	260
26	260	260	300	300	250	230	220	230	240	250	260	290	340	340	320	320H	280	270	270	(270)A	240	240	280H	260
27	280	300	270	270	250	250	240	230	220	230	300	270	270	320	320	290	280	270	250	240	230	260	A	A
28	280	250	240	250	300	290	250	220	220	230H	240	280	280	310	300	260	250	260	250	220	250	260	A	(300)A
29	290	310	300	260	270	320	240	230	220	250	250	290	270	280	290	270	260	240	260	250	A	A	A	240
30	280	290	280	280	290	280	240	250	230	230	270	260	280	320	310	280H	260	260	250	240	240	250	250	A
31	240	260	260	280	270	260	220	230	(250)A	250	240	290	310	350	340	320H	320	A	A	(240)A	290	320	350	320
Mean Value																								
Median Value	280	280	260	260	260	260	240	240	240	270	280	290	310	310	310	290	280	270	250	250	250	270	280	270
Count	29	29	29	30	29	29	29	30	28	30	29	31	30	29	27	27	29	24	25	25	20	23	23	25

h'F2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☐ Manual ☐ Automatic

K2

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Aug. 1946

foF1

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						L	C	C	C	C	L	6.2	6.5	5.7J	(5.5)A	5.4	L	L	L					
2							L	L	L	5.5	A	(5.6)A	5.8	5.9	(5.5)	5.7	L	5.0	A	A				
3								L	A	5.4	5.2	A	5.4	A	A	B	5.2	A	A	A				
4						L	4.0	(4.5)	4.7	L	5.7	A	A	A	A	5.4J	(5.4)A	A	A	A				
5							3.4	C	A	4.8	5.9	5.5H	5.7	5.6	5.4H	5.3	5.0	L	A					
6							A	L	L	A	A	A	5.6	5.6	5.5	5.3	5.1	L	L					
7								L	5.1	L	A	5.0J	5.5	B	5.6	5.3	A	A	A					
8						3.5K	3.5K	4.0K	5.9	L	L	5.2	5.6	5.2	5.2	L	A	L	L					
9							L	B	A	5.2	L	5.5	5.2	L	5.3J	5.0J	L	4.7	A	L				
10							L	L	L	L	B	5.2	(5.3)HA	B	5.0	C	C	C	C	C				
11						C	A	A	A	5.5	5.6J	5.7	5.7	4.9K	5.2	5.2	4.7	A	3.2J	A				
12							A	A	4.8	(5.1)C	5.4	6.2	5.5	5.1	5.3	5.2HJ	5.0H	A	A	A				
13							L	L	L	A	5.6	L	L	L	5.8	4.9J	5.0	L	L					
14							2.8J	L	4.8	C	L	5.6	5.3	A	A	5.2	A	A	A					
15							A	4.5	4.2J	4.8	5.0	5.2	5.2	5.2	5.3	A	4.7	A	A					
16							L	L	A	A	5.6	5.2	B	5.5	A	5.1	4.8J	L	A					
17							L	L	A	A	A	5.7	5.4	6.0	5.5H	5.1	A	3.9	A					
18							A	L	L	L	L	5.2	5.4	5.4	5.3	A	A	A	AF					
19							A	A	A	A	A	5.5	B	5.4	A	L	L	A	A					
20							L	LH	4.5	LH	LH	5.2	5.5	5.6H	5.5	L	L	L	3.6	A				
21							L	LH	L	L	L	5.7	5.7	5.7	5.6	5.2H	5.0H	L	L	A				
22							A	L	L	5.3	5.5	L	5.7	5.4	5.3	5.1H	LH	L	A	L				
23							L	LH	LH	LH	LH	5.8	5.9	A	A	A	A	L						
24							B	L	4.5	5.0H	5.2	LH	5.7H	5.5H	5.5H	(5.2)C	4.9	4.4H	LH	A				
25							A	A	A	A	L	5.5	5.6	5.7H	L	L	A	A	A	A				
26							L	4.4	4.6	5.2	5.2	5.6H	6.0H	5.4	5.5	5.3H	A	L	L	A				
27							L	L	A	5.0	5.8	4.9	LH	5.6	5.5H	5.2	4.7	L	L	L				
28							L	A	4.8J	4.9	5.2	L	5.7	5.5	5.5	5.0	4.6	L						
29							L	A	L	L	5.2	5.6	5.4	5.5	5.8	5.2	4.8	4.1	L	3.6J				
30							L	4.7	4.5H	5.0	5.5	LH	L	5.3	5.5H	5.2	5.6	L	2.3					
31							L	L	A	4.8	B	5.5	5.5	5.8	5.6	A	5.0	A	A	A				
Mean Value																								
Median Value						※	3.5	4.5	4.7	5.1	5.5	5.5	5.6	5.5	5.5	5.2	5.0	4.4	3.2	※				
Count						1	4	5	11	14	15	23	25	23	24	21	16	5	3	1				

foF1

Sweep 2.0 Mc to 15.9 Mc in 15 min ☒ Manual ☐ Automatic

K 3

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

IONOSPHERIC DATA

Aug. 1946 | h'F1 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						250	C	C	C	C	A	B	B	B	A	A	210	220	220					
2							230	210	(180)A	A	A	A	A	(240)A	B	(230)A	A	A	A	A				
3								210	B	(220)A	(210)A	A	A	A	A	B	A	A	A	A				
4						260	A	230	180	200	A	A	A	A	A	A	A	A	A	A				
5							200	C	A	190	(200)A	HB	B	B	230H	220	200	(220)A	A					
6							AK	200K	(210)A	A	A	A	A	190	190	190	200	220	220					
7								240	210	A	A	A	B	B	B	B	A	A	A					
8						A	A	220	240	A	240	B	B	B	B	B	A	250	250					
9						1	220	B	A	A	190	200	170	210	A	A	A	240	A	240				
10							(220)A	230	(220)A	210	B	B	200H	B	A	C	C	C	C	C				
11						C	A	A	A	A	(250)A	A	A	200 K H	210	250	A	A	A	A				
12							A	A	210	C	A	310	A	210	A	200H	(200) H A	A	A	A				
13							A	A	A	A	(230)A	A	A	B	B	(190)A	220	210	220					
14							A	230	A	C	A	210	A	A	A	A	A	A	A					
15							A	210	210	200	190	180	210	A	A	A	210	A	A					
16							A	A	A	A	220	A	B	A	A	(250)A	250	(250)A	A					
17							A	A	A	A	A	A	200	(190)	180H	A	A	A	A					
18							A	A	A	A	190	170	(190)A	(200)A	210	A	A	A	A					
19							A	A	A	A	A	230	B	A	A	A	(220)A	A	A					
20							220	A	220	180H	200H	A	(200)B	B	B	240	240	260	250	A				
21							230	240H	200	190	190	A	A	A	170	200H	A	210	240	A				
22							A	230	230	200	220	A	A	A	(220)A	A	200H	A	A	240				
23							220	220H	200H	190H	A	(210)A	(250)A	A	A	A	A	(230)A						
24							240	240	220	190H	180	(180) H A	190H	(200) H A	240H	(230)C	220	230H	230H	A				
25							A	A	A	A	220	180	A	200H	210	A	A	A	A	A				
26							210	A	180	A	A	(170)H	170H	A	200	220H	A	A	260	A				
27							240	220	A	180	200	180	A	(210)A	190H	210	200	(210)A	(230)A	A				
28							220	A	A	180	A	A	(190)A	(200)A	A	210	210	240						
29							210	A	200	(190)A	A	180	B	A	210	210	210	200	250	220				
30							230	210	A	190	A	190H	(200)A	210	210H	220	210	200	E					
31							230	210	A	210	190	B	240	A	230	A	250	A	A	A				
Mean Value																								
Median Value						※	220	220	210	190	200	180	200	200	210	220	210	220	240	240				
Count						2	14	16	15	15	16	13	12	12	14	15	16	15	10	3				

h'F1

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K4

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Aug. 1946

foE

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						1.8 J	C	C	C	C	A	B	B	B	A	A	A	A	2.4	E				
2						E	A	A	3.6	3.6	4.0	A	A	A	B	B	A	A	A	E				
3						1.9 J	2.3	3.1	3.2	B	3.4	3.5	3.9	B	B	B	A	A	A	E				
4						1.8 J	2.4	3.2	3.5	A	A	A	A	A	A	A	A	2.6 J	2.4	E				
5						E	A	C	A	3.4	A	3.8	B	B	B	B	(3.4)	A	A	E				
6						1.8 J	A	3.0	A	A	A	A	A	4.1	3.8 J	3.7	3.5	3.1	2.3	1.9 J				
7						E	2.4	2.9	3.5	3.8	A	A	A	3.4	A	B	A	3.0	A	E				
8						E	A	3.0	A	3.4	A	B	B	B	B	A	3.5	A	A	E				
9						1.8 J	A	A	A	A	A	A	4.0	B	4.0	3.8	A	3.1	A	1.4 J				
10						E	A	3.0	3.1	3.4	B	A	(3.9) A	B	3.6	C	C	C	C	C				
11						C	A	2.7	2.9	A	A	A	A	A	A	(3.7)	A	A	A	E				
12						E	A	A	A	C	3.7	A	3.5	A	A	B	3.3	3.0	A	E				
13						E	2.0	A	A	3.2	A	A	A	3.8	B	3.5	3.5	3.0	2.4	E				
14						E	A	2.9	B	C	A	3.9	A	A	A	A	A	3.0	A	E				
15						E	A	A	3.1	A	A	A	A	3.9	3.8	3.6	3.2	A	A	E				
16						E	A	2.8	3.2	3.4	3.8	3.8	B	A	A	3.5	A	A	A	E				
17						E	A	2.8	3.2	3.4	A	A	A	A	A	A	3.5	3.0	2.2	E				
18						E	2.2 J	2.9 J	3.2	3.3	3.6	(4.0)	3.8	A	3.9	3.7	3.3	2.9	A	E				
19						E	A	A	A	A	A	B	A	A	A	A	A	A	A F	E				
20						E	A	2.8	3.0	3.6	A	A	4.1	B	B	3.9	3.5	A	2.2	E				
21						E	2.2	3.0	B	3.8	3.8	A	3.8	3.7	3.6	A	3.4	2.6	2.4	E				
22						E	A	2.8	3.3	A	3.9	3.8	A	A	3.6	A	A	A	A	E				
23						E	2.2	2.9	3.4	3.6	3.8	3.9	3.9	A	A	A	A	A	A	E				
24						E	B	B	3.2	3.8	A	A	A	A	A	C	3.3	A	A	E				
25						E	A	A	A	A	A	4.0	A	4.0	3.9	3.7	A	2.4	A	E				
26						E	A	2.8	3.0	A	A	A	4.0	3.9	3.8	A	3.4	2.8	2.6	E				
27						E	A	A	A	(3.8) A	A	4.1	A	A	3.4	3.3	3.2	A	A	E				
28						E	2.2	2.7	3.0	A	A	A	A	A	A	A	A	A	E	E				
29						E	A	A	(2.9) A	A	A	4.0	A	A	(4.0) A	(3.6) A	A	A	A	E				
30						E	A	A	3.1	(3.6) A	A	(3.8) A	A	(4.2) A	A	3.5	(3.4) A	A	E	E				
31						E	E	(2.6) A	A	A	3.5	B	4.1	A	3.8	A	A	A	A	E				
Mean Value																								
Median Value						E	2.2	2.9	3.2	3.6	3.8	3.9	3.9	3.9	3.8	3.7	3.4	3.0	2.4	E				
Count						30	9	18	18	15	9	11	10	8	12	12	14	12	10	30				

foE

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 5

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Aug. 1946

h'E

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						Ē	C	C	C	C	A	B	B	B	A	A	A	A	90	Ē				
2						Ē	A	A	100	100	90	A	A	A	B	B	B	A	A	Ē				
3						Ē	(100)	100	B	B	100	100	100	B	A	B	A	A	A	Ē				
4						Ē	A	A	100	A	A	A	A	A	A	A	A	100	100	Ē				
5						Ē	A	C	A	100	A	90	B	A	B	B	100	A	A	Ē				
6						Ē	A	100	A	A	A	A	A	100	100	100	100	100	100	Ē				
7						Ē	110	110	110	100	A	A	A	100	A	B	A	110	A	Ē				
8						Ē	A	100	A	100	A	B	B	B	B	A	100	A	A	Ē				
9						Ē	A	A	A	A	A	A	110	B	110	110	A	110	A	Ē				
10						Ē	A	A	100	100	A	A	A	A	100	C	C	C	C	C				
11						C	A	100	100	A	A	A	A	A	A	A	A	A	A	Ē				
12						Ē	A	A	A	C	100	A	100	A	A	B	110	110	A	Ē				
13						Ē	Ē	A	A	100	A	A	A	100	B	100	100	100	(100)	Ē				
14						Ē	A	110	B	C	A	100	A	A	A	A	A	100	A	Ē				
15						Ē	A	A	100	A	A	A	A	100	100	100	100	A	A	Ē				
16						Ē	A	100	100	100	100	100	B	A	A	100	A	A	A	Ē				
17						Ē	A	100	100	100	A	A	A	A	A	A	A	100	A	Ē				
18						Ē	120	110	100	90	100	100	100	A	100	100	100	100	A	Ē				
19						Ē	A	A	A	A	A	B	A	A	A	A	A	A	A	Ē				
20						Ē	A	100	100	A	A	A	A	B	B	100	100	A	Ē	Ē				
21						Ē	Ē	120	B	A	A	A	100	100	100	A	100	A	A	Ē				
22						Ē	A	120	110	A	A	100	A	A	110	A	A	A	A	Ē				
23						Ē	(130)	110	100	100	110	110	100	A	A	A	A	A	A	Ē				
24						Ē	B	B	110	A	A	A	A	A	A	C	100	A	A	Ē				
25						Ē	A	A	A	A	A	100	A	100	(110)	110	A	100	A	Ē				
26						Ē	A	100	100	A	A	A	100	A	A	A	100	110	110	Ē				
27						Ē	A	A	A	A	A	A	A	A	100	100	100	A	A	Ē				
28						Ē	A	100	100	A	A	A	A	A	A	A	A	A	Ē	Ē				
29						Ē	A	A	A	A	A	90	A	A	A	A	A	A	A	Ē				
30						Ē	A	A	100	A	A	A	A	A	A	110	A	A	Ē	Ē				
31						Ē	Ē	A	A	A	100	B	110	A	A	A	A	A	A	Ē				
Mean Value																								
Median Value						※	120	100	100	100	100	100	100	100	100	100	100	100	100	※				
Count						0	4	15	16	10	7	9	8	6	9	10	12	11	5	0				

h'E

Sweep 2.0 Mc to 15.0 Mc in 15 min ☐ Manual ☐ Automatic

K6

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

IONOSPHERIC DATA

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

Aug. 1946 | fEs | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E	3.4	4.2	4.2	3.4	3.6	C	C	C	C	5.4	4.6	7.2	4.0	7.0	6.0	5.1	4.8	4.2	3.4	3.0	3.0	2.6	4.4
2	3.0	3.0	5.0	3.4	4.0	5.8F	5.0	4.8	4.2	6.0	6.9	7.6	8.0	7.4	4.4	5.6	8.0	7.8	5.6F	8.0	7.6	9.4	6.6	3.2
3	5.0	5.6	3.0	4.0	3.0	2.8	2.6	4.2	5.0	5.8	5.6	11.5	5.4	10.2	10.6	12.0	5.0	9.0	8.8F	4.8	5.6	5.0	5.8	4.4
4	E	3.2	4.4	4.2	3.2	2.8	4.2	4.1	4.2	4.8	5.4	7.8	9.4	9.0	9.4	7.4	8.6	9.4	9.4	11.0	10.6	6.6	8.2	6.7
5	5.2	4.6	5.0	4.0	3.4	3.0	3.2	C	4.2	5.2	6.6	4.2	B	B	6.2	3.5	4.2	3.7	3.2	2.2	2.1	E	2.4	2.9
6	4.3	5.0	2.4	E	3.4	2.6	4.3	4.0	4.2	11.0	8.2	7.0	5.2	⌐E	⌐E	⌐E	⌐E	3.2	3.4	2.8	E	E	2.8	3.2
7	4.2	4.4	4.2	2.4	2.6	2.7	2.8	4.2	5.6	4.8	5.2	5.2	4.2	6.0	3.3	3.3	7.0	8.0	4.4	E	5.4	3.4	3.2	9.0
8	4.4	2.6	3.2	6.3	3.8	3.8	3.3	4.1	6.3	4.6	4.2	B	4.2	B	B	3.8	4.4	5.0	5.0	4.0	6.4	6.2	6.0F	5.2
9	2.6	2.8	2.5	2.7	E	2.2	3.2	4.0	5.0	4.2	4.6	4.8	4.2	⌐E	4.2	6.8	11.6	4.0	5.6	5.8	4.2	E	E	E
10	E	※E	E	3.0	E	2.6	3.8	4.2	5.2	5.2	B	4.2	4.2	4.2	4.0	C	C	C	C	C	C	C	C	C
11	C	C	C	C	C	C	4.3	6.0	8.5	5.5	6.0	3.3	4.2	5.2	3.3	5.0	7.0	8.0	5.9	4.7	9.2F	4.7F	2.8	3.8
12	5.0	3.2	3.2	2.2	3.0	3.4	5.6	6.0	6.0	C	9.8	6.4	6.8	6.8	4.6	B	4.7	6.3	6.5	8.6	6.0F	7.0F	6.3F	5.5F
13	5.0	4.4	3.2	3.5	3.4	E	4.5	5.2	5.6	7.6	4.9	4.9	6.0	B	B	3.9	3.5	4.0	2.8	2.4	6.2	8.6	6.8F	6.6
14	3.0	3.2	4.0	2.8	3.2	2.8	3.4	4.2	5.3	C	6.2	7.0	6.0	10.5	9.2	4.8	7.0	6.2	8.8	8.4	5.4	4.8	3.4	2.8
15	4.0	2.0	2.4	2.2	3.5	4.0	3.6	3.7	4.2	5.1	5.4	4.5	4.2	6.4	7.0	8.8	8.5	5.0	9.5	9.5	6.5	9.0	6.2F	5.0
16	4.4	E	E	2.8	E	2.0	3.4F	4.2	6.2	7.0	5.2	4.2	6.4	12.0F	7.8	5.5	5.6	6.2	4.0	2.9	2.8	5.2	9.2	5.2
17	3.4	3.2	E	3.0	E	E	3.2	4.4	5.2	5.8	4.6	7.1	4.2	8.3	6.3F	4.8	5.5	5.5	4.8	5.5	9.2	5.2	4.2	3.2
18	2.9	2.4	2.2	2.7	4.2	E	3.4	4.2	4.6	4.8	5.0	B	4.8	4.3	⌐E	7.0	6.2	10.1	7.7	8.5	8.1	6.7F	7.5F	2.6
19	7.5F	7.6	2.6	E	E	E	4.4	7.0	8.7	7.2	8.2	B	4.2	5.4	10.0	8.5	4.7	8.2	4.6F	6.2	6.2	4.6	6.0F	5.8
20	3.8	E	8.3	4.2	2.4	E	3.2	3.7	4.1	4.0	4.0	4.9	4.2	5.1	4.8	⌐E	4.0	4.8	3.4	4.6	3.2	3.8	3.0	2.1
21	4.0	4.0	3.2	3.0	2.8	3.2	3.1	⌐E	3.5	4.0	4.2	4.3	6.0	4.9	4.6	⌐E	5.8	6.6	9.8	7.8	7.2	5.4	6.2	8.0
22	5.4	4.6	4.4	3.4	6.4	5.6	5.2F	3.1	⌐E	4.7	5.0	6.1	6.4	5.8	7.0	5.1	5.0	4.6	4.8	4.6	4.2	3.8	3.2	3.2
23	3.0	5.4	3.2	2.8	3.2	3.0	2.7	3.2	4.8	3.7	4.7	4.9	5.5	6.2	12.4	12.4F	8.4F	6.0F	4.3F	4.2	3.8	4.0	3.3	4.0
24	3.2	3.1	3.2	2.6	2.9	3.0	B	4.3	4.1	4.5	4.9	4.8	4.9	5.2	4.7	C	3.8	3.4	2.4	4.2	2.2	C	3.2	E
25	E	E	E	E	E	2.6	4.2	5.4	9.2	7.0	4.8	⌐E	5.3	5.1	5.1	4.8	5.0	5.4	5.6	7.2	5.8	5.6	5.4	4.2
26	2.8	3.2	3.0	E	E	E	4.2	5.2	4.1	4.2	4.3	4.3	5.0	5.6	4.2	4.2	5.8	4.8	3.3	8.1	3.9	5.8	3.2	4.1F
27	3.3	3.0	3.2	2.4	E	2.3	3.2	4.7	4.7	4.4	4.1	4.1	4.3	4.7	4.1	4.7	3.3	8.2	4.2	3.8	4.8	4.0	7.2	5.6
28	3.4	3.6	3.2F	E	E	E	2.7	5.2	6.0	4.7	7.3	8.0	5.8	5.1	6.0	4.0	4.2	4.2	3.6	5.2	8.3	7.4	6.2	4.6
29	3.2	3.2	2.6	2.8	3.0	2.6	5.0	7.4	4.8	4.2	4.2	⌐E	4.0	4.2	5.4	4.0	5.4	4.4	3.2	4.0	8.0	7.7	5.4	5.0
30	3.4	2.9	3.3	2.4	2.4	E	3.2	4.0	4.9	4.6	4.7	5.3	6.0	5.4	4.7	5.4	4.4	4.2	3.0	3.2	2.2	E	6.2	5.4F
31	2.8	E	2.2	2.4	E	2.0	3.6	5.4	6.4	4.2	4.1	3.7	4.1	4.6	4.2	4.2	4.4	7.2	8.6	7.6	4.8F	4.4	3.2	5.0F
Mean Value																								
Median Value	3.4	3.2	3.2	2.8	3.0	2.6	3.4	4.2	5.0	4.8	5.0	4.9	5.1	5.3	4.8	4.8	5.1	5.5	4.7	4.8	5.6	5.0	5.4	4.4
Count	30	30	30	30	30	30	29	29	30	28	30	28	30	28	29	28	30	30	30	30	30	29	30	30

fEs

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 7

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

IONOSPHERIC DATA

Aug. 1946 | **(M3000)F2** | 135° E Mean Time | **Kokubunji Tokyo** | Lat. 35° 42.4' N | Long. 139° 29.3' E

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

(M3000)F2 | Sweep 2.0 Mc to 15.0 Mc in 15 min | ☒ Manual ☐ Automatic | K8

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

IONOSPHERIC DATA

Sep. 1946 | foF2 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	7.4	6.9	6.0	6.2	6.2	6.6	8.3	7.1	10.6	11.4	11.1	12.1	12.0	11.6	4.7	8.4	8.1	7.9	7.9	7.6	7.6	7.7	7.8	8.1
2	7.8	(6.5)	6.1	5.8	5.6	5.7	7.2	9.0	10.0	10.8	10.8	11.1H	11.0	11.3	10.8	10.0	8.9	8.3	8.0	8.4	7.5	7.0	7.0	7.0
3	6.6	6.5	6.3	6.3	5.7	5.6	6.8	7.9	9.6	10.2	9.6	10.6	11.8	11.3	11.8	11.3	10.0	(9.4)	(9.5)	8.7	6.4	6.4	6.5	6.3
4	6.5H	6.4	6.2	5.9	5.8	6.3	8.3	8.3	9.2	10.2	10.5	10.8	10.6H	10.2H	10.0	10.2	9.3	9.0	8.8	9.2	8.4	7.2	A	(7.0)
5	7.0	6.7H	5.8H	5.6	5.3	5.3	6.3	6.0K	AK	6.1K	6.1K	6.4	7.1	7.6	7.6	7.2	7.2	7.0	6.3	5.6	5.5	5.4	5.6	5.6
6	5.6	5.4	5.4	5.1	(5.0)	4.9	7.1	7.9	8.7	8.5	9.0	8.5	8.4	9.3	9.2	8.9	8.4	8.3	8.0	7.1	5.5	6.1	5.9	6.0
7	6.1	6.1	5.8	5.7	5.3	5.4	7.3	7.4	7.5	8.1	8.1	8.9	9.6	9.1	9.4	9.5	9.1	9.0	8.8	8.5	6.4	5.3	6.6	6.4
8	5.8	6.1	6.4	6.5	4.1	4.3	6.3	8.5	10.5	10.1	9.2	8.3	9.0	9.1	9.2	9.1	9.2	(9.3)	8.6	7.2	6.5	(5.4)	5.6	5.5
9	5.4	5.5	5.8	5.3	4.3	(4.2)	6.5	(9.3)S	9.3	8.2	8.1	3.8	9.2	8.7	8.4	8.9	8.6	8.7	8.5	8.0	6.3	6.1	6.5	5.9
10	5.8	5.8	5.3	5.2	5.1	5.1	7.7	8.2	6.6	6.4	7.1	8.2	8.5	8.6	8.7	8.2	8.4	8.2	8.3	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	C	C	8.9	9.2	9.2H	8.9H	9.0H	8.9	9.1	(9.5)S	8.2	6.3	6.5	5.9	6.1
12	6.5	5.9	5.6	5.3	5.5	6.0	(7.2]C	8.3	8.6	8.6	8.9	9.1	10.1	10.2	10.0	10.0	9.7	8.8	9.2	8.5	6.8	6.3H	5.5	5.5
13	5.2	5.3	5.5	5.7	4.9	4.8	6.7	9.5	9.2	9.1	8.5	10.0	10.7H	10.1H	9.9	10.3H	10.0	9.3	10.2	8.7	5.9	5.6	5.9	6.0
14	5.9	5.7	5.6	5.6	5.5	5.3	7.6	10.0J	(9.9)	9.1	9.2	9.7	10.4	10.9	11.6	10.2	10.4	10.7	9.8J	7.7	6.3	6.5	6.4	6.0
15	6.1	6.1	5.8	5.4	5.2	5.2	8.0	10.3	9.3	9.4	9.3	9.3	11.1	10.8	BK	11.7	12.0	10.8	10.3	7.3	A	6.3	6.3	6.2
16	6.1	6.1	5.9	5.6	5.2	5.4	7.3	9.5	10.6	9.5	9.3	10.3H	10.6	10.5	10.9	10.6	10.8	11.3	11.0	8.8	6.7	6.6	6.7	7.1
17	6.6	6.7	6.2	5.6	5.2	5.4	9.0	(9.8)	8.9	7.7	10.8	11.9	10.6	11.9	12.2	10.8	10.2	(9.5)	10.3	8.4	7.3	7.3	7.4	7.8
18	7.6	7.5	7.4	7.3	7.2	6.6	8.3	9.4	9.6	10.2	10.7	10.9	11.9	11.5	13.1	11.8	12.7	11.5	10.2	8.0	7.5	7.3	8.5H	7.1
19	6.1	7.2	7.7	5.5	5.8	6.1	10.3	10.0H	11.5H	12.2	12.7	13.0	12.0	13.0	12.0	11.8	9.7F	8.9	8.6F	8.4	7.5	7.7	7.6	6.6K
20	7.2K	6.0 F K	6.2 F K	(6.5) F K	5.6K	5.3	6.5	8.2	8.9	11.9	12.1	10.6	10.2	10.3	9.7	9.6	9.3	9.3	9.6	7.7	7.3	6.6	6.8	6.8
21	6.5	6.3	5.8	5.3	4.9	4.9	7.0	7.6	8.9	10.2	11.0	12.2	12.2	11.9H	11.5	11.0	9.9	9.0	8.8	6.7	7.5	7.3	6.7	6.7
22	6.5	6.0	5.9	5.6	5.4	5.0	6.5	8.8	9.1	9.2	10.3	11.6	10.5	10.1	10.5	10.8	11.3	11.8	11.2	9.4	7.3	7.6K	3.8 S K	5.6K
23	5.0 J K	2.7K	AK	AK	4.7 SF K	4.3 SF K	4.2 SF K	(4.1) F K	GK	GK	GK	GK	5.9K	7.1K	8.6K	8.8K	7.6K	9.2	9.3	7.7	7.1	7.8	7.8	7.2
24	6.2	6.3	5.9	6.6F	5.8F	6.1F	8.5H	12.0F	10.3F	13.6	11.5	13.4H	12.4	10.9	10.5	11.4	10.8	10.4	(10.1)	7.8	7.7	7.8	8.3	8.1
25	7.0	6.8	6.1	5.7	5.2	5.1	7.2	8.9	9.0	10.9	10.4	10.6	12.0	11.5	11.5	(11.2]C	10.8	9.6	9.0	7.3	6.7	7.0	7.2	7.5
26	6.6	5.6	5.5	5.6	5.3	4.8	6.8	9.2	10.7	10.4	10.3	10.2	11.3	11.4	11.1	11.1	11.1	10.8	9.3	7.0F	6.9	6.7	6.5	6.3
27	6.2	6.0	5.8	5.9	5.8	5.2	7.2	10.0	9.8	10.8	11.6	11.3H	11.6H	11.9	11.9	11.5	11.0	10.5	9.0	7.9	7.5	6.7	6.5	5.9
28	5.7	5.4	5.4	5.1	4.6	4.5	5.4	6.5	6.7	6.7	8.2	9.1	9.4	9.2	9.2	9.2	9.3	8.4	7.1	6.4	6.5	6.3	6.3	6.0
29	5.8	5.3	4.9	4.0	4.1	3.8	6.0H	6.8	6.2	7.9	8.2	8.7H	9.2H	9.6	10.3	9.0	8.1	8.4	7.9	6.4	6.0	5.8	5.7	5.8
30	5.5	5.4	5.5	4.6	4.6	4.6	7.1H	7.6	9.0	9.9	10.3	10.1H	12.7	11.5	10.8	10.8	10.2	10.2	8.8	6.8	5.9	5.9	5.9	6.3
31																								
Mean Value																								
Median Value	6.2	6.1	5.8	5.6	5.3	5.2	7.2	8.8	9.0	9.5	10.3	10.3	10.6	10.4	10.3	10.2	9.7	9.3	9.0	7.8	6.8	6.6	6.5	6.3
Count	29	29	28	28	29	29	29	29	28	29	29	30	30	30	29	30	30	30	30	29	28	29	28	29

foF2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K

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

IONOSPHERIC DATA

Sep. 1946 | **h'F2** | 135° E Mean Time | **Kokubunji Tokyo** | Lat. 35° 42.4' N, Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	280	280	250	300	310	300	250	240	310	290	250	310	270	300	270	250	250	260	250	260	290	310	280	260
2	260	260	270	280	300	280	270	240	240	(250)A	280	(270)H	280	290	300	(240)A	240	230	260	250	250	240	310	300
3	280	290	270	260	250	280	220	210	A	250	250	310	320	300	250	270	240	250	250	240	(230)A	300	300	320
4	340H	310	270	290	300	260	220	220	250	250	250	280	280H	290H	280	280	230	260	260	250	(230)A	280	A	310
5	340	300H	300H	A	A	A	300	AK	AK	280K	300K	390	370	310	280	310	270	250	270	280	310	320	330	320
6	320	310	310	320	330	340	260	290	230	260	290	310	350	310	290	250	260	260	250	210	220	(300)A	300	300
7	290	260	250	270	260	260	240	250	250	270	280	290	300	260	280	280	260	260	250	250	250	280	320	(280)A
8	330	340	280	230	250	310	240	260	250	250	250	260	280	270	280	280	260	270	240	230	240	250	(280)A	300
9	330	310	260	220	220	310	230	230	230	250	230	260	290	300	260	260	240	260	250	230	240	250	260	310
10	300	280	300	270	280	330	200	200	210	220	270	290	270	250	260	240	230	230	(220)A	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	C	C	300	270	260H	300H	260H	250	250	240	230	230	260	280	340
12	270	300	300	310	280	260	(250)C	220	230	230	230	240	280	250	260	260	250	250	250	240	230	240H	290	330
13	330	340	300	260	250	290	250	230	240	220	220	250	250H	260H	290	250H	250	240	230	230	200	280	300	290
14	290	280	300	280	270	260	230	240	230	210	240	250	280	300	270	250	270	260	230	230	240	290	280	300
15	310	320	280	260	270	290	220	220	220	230	220	260	300	250	BK	300	270	230	240	230	A	290	300	300
16	320	290	260	270	250	250	220	220	240	220	220	210	280	330	300	280	260	250	230	210	200	250	270	290
17	270	260	280	270	350	380	230	230	210	230	260	300	290	310	270	200	240	250	250	200	230	260	280	280
18	280	270	260	250	230	250	200	200	210	220	250	260	320	350	300	250	260	240	230	220	230	280	270H	260
19	350	320	290	A	360	330	250	220H	260H	A	250	270	300	310	260	240	(240)A	(240)A	(250)F	A	(260)A	A	A	280K
20	350K	400	320F	330F	300K	270	230	230	210	260	250	240	250	260	230	230	220	220	230	(200)A	(240)A	250	(300)A	270
21	260	260	260	260	270	260	210	200	200	240	250	250	250	210	250	260	240	240	220	220	270	250	270	300
22	290	320	320	280	290	340	260	250	220	250	260	210	260	300	290	250	300	280	260	240	240	370K	500K	490K
23	320K	580K	AK	AK	240F	400F	AFK	330F	GK	GK	GK	GK	440K	410K	290K	260K	240K	290	250	250	A	320	300	310
24	330	350	300	270F	240F	250	220F	230F	F	250	240	250H	260	280	280	260	250	250	250	(250)F	A	A	280	250
25	250	270	260	260	260	280	220H	220	220	250	240	250	260	260	260	(260)C	250	220	210	210	230	270	270	260
26	240	260	310	280	250	290	220	200	200	200	220	260	280	260	240	270	210	210	200	(210)F	240	260	250	250
27	280	280	290	260	210	230	200	200	200	220	240	210	220H	290	230	220	210	240	230	(250)A	A	250	230	A
28	(340)A	A	370	320	A	380	310	340	260	390	320	280	260	250	230	230	220	210	210	300	350	270	(300)A	350
29	280	290	280	230	370	(380)E	300H	240	200	280	260	240H	260H	260	240	230	220	220	210	210	250	260	300	280
30	300	330	300	260	320	300	340H	210	230	210	230	210H	260	210	210	240	200	210	200	200	(300)A	280	290	280
31																								
Mean Value																								
Median Value	300	290	290	270	270	290	230	230	230	250	250	260	280	290	270	260	250	250	240	230	240	270	290	300
Count	29	28	28	26	27	28	28	28	26	28	29	30	30	30	29	30	30	30	30	28	25	27	27	28

h'F2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K2

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Sep. 1946 | **foF1** | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								L	L	5.4	L	5.8	A	6.4	5.3	L	L	L						
2							L	L	L	A	A	A	A	A	A	A	A	A						
3									A	A	A	A	A	5.4	A	5.2	A	L	L					
4								L	L	L	5.0	5.4	(4.5)B	L	L	L	L	L	A					
5							A	A	A	5.0	A	5.1	5.1	5.4	5.0	5.1	A	A	L					
6							L	L	4.1J	S	5.4	5.7	5.7	5.4	5.6	4.2	4.3	L						
7							L	L	L	L	L	5.2	5.6	5.0	5.0	4.9	4.4	L						
8								L	4.5	(3.6)B	5.2	B	4.9	4.9	5.0	(4.6)S	3.8	L						
9								L	L	4.7	A	5.0	5.7	5.8	4.3	B	4.2	A						
10								L	A	4.5	5.1	5.4	5.1	5.1	5.0	4.5	4.5	A	A					
11								C	C	C	C	5.6	4.8	4.5	B	4.2	3.0J	3.4	A					
12								B	4.4	4.8	A	4.9	5.7	L	5.0	4.8	4.5	L						
13								4.4	L	4.7	4.8	5.0	4.9	5.4	L	5.0	4.5	3.8						
14								L	L	L	5.0	5.0	5.7	6.0	5.8	L	L	L						
15									B	L	4.4	5.2	A	BK	BK	BK	BK							
16								B	4.8	LH	L	4.2	L	L	L	L	A	A						
17								1-	A	L	5.0	L	5.7	L	A	L								
18									4.7	L	5.2	5.0	LH	LH	5.5H	L	L	A	A					
19									A	A	5.0	5.7	LH	L	L	5.0	A	A	A					
20									A	5.4J	A	5.9	L	5.4	(4.4)A	A	A	A	A					
21									L	4.8	L	5.5	L	L	6.0	L	LH	L						
22								3.9	A	L	L	L	L	L	5.4H	4.8	L	4.8						
23							A	3.4	4.0	4.2	4.4H	4.7	L	L	5.2	L	A	L	A					
24								F	F	A	A	L	5.8H	L	5.7	4.6	A	A	A					
25								L	4.8	L	4.9	5.2	LH	LH	5.3	C	L	L						
26							L	L	A	L	4.4	L	5.8		B	5.5	A	L	A					
27									C	L	4.9	B	5.4	L	B	L	3.5							
28								4.7	A	L	5.3	5.4	5.5	L	L	L	L	3.2	2.4					
29										5.2	L	A	L		L	4.6	4.4							
30									L	L	5.0	L	6.4	LH	L	L								
31																								
Mean Value																								
Median Value								4.2	4.5	4.8	5.0	5.2	5.6	5.4	5.3	4.8	4.4	3.6	※					
Count								4	7	11	16	20	16	14	16	14	10	4	1					

foF1

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 3

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Sep. 1946

h'F1

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1								230	210	A	A	A	A	A	A	200	A	A						
2							210	210	180	200	A	A	A	A	A	A	A	A						
3									A	A	A	A	A	230	A	A	A	220	250					
4								200	190	A	190	180	B	230	A	(200)A	240	240	A					
5							A	A	A	A	A	(200)A	200	210	200	220	A	A	250					
6							200	230	A	180	190	B	B	B	B	190	210	240						
7							230	210	210	200	190	190	180	B	190	210	220	240						
8								230	210	(190)A	B	B	200	230	200	200	200	240						
9									200	200	210	A	210	B	190	A	210	A						
10								200	A	180	170	A	190	180	200	200	210	A	A					
11							C	C	C	C	C	220	190	190	(210)A	200	220	220	A					
12								210	210	210	A	B	180	B	200	210	240	230						
13								230	220	200	B	B	190	(220)B	210	A	A	240						
14								230	220	200	200	180	(190)B	200	B	230	240	240						
15									B	B	200	210	A	BK	BK	BK								
16								B	220	B	180	170	B	B	220	A	A	230						
17								210	A	210	200	B	(220)B	220	210	A	210							
18									200	200	210	210	190	(190)H	240	230H	200	230	A					
19									A	A	200	A	220H	A	A	230	A	A	F					
20									A	220	A	220	220	A	210	A	A	210	A					
21									180	190	190	B	190	B	A	210	A	250						
22								(210)A	A	220	(210)A	210	200	200	200H	230	240	(250)A						
23							A	200	240	A	210H	220	220	230	230	220	A	260	A					
24								220F	220F	A	A	(200)B	(200)$^{B}_{H}$	(200)A	200	210	A	A	A					
25								210	210	190	190	190	190	B	200H	210	210	220	220					
26							230	210	A	180	180	200	B	B	B	210	A	220	A					
27									C	180	190	190	190	200	B	190	210							
28								250	A	A	190	A	180	200	190	210	210	A	A					
29										190	190	A	190	210	200	220	230							
30									210	190	180	200	180	170H	200	200								
31																								
Mean Value																								
Median Value							220	210	210	200	190	200	190	200	200	210	210	240	250					
Count							4	18	16	19	20	16	22	17	19	22	16	17	3					

h'F1

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K4

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

IONOSPHERIC DATA

Sep. 1946 | foE | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							1.6 J	A	2.9	3.4	A	A	3.7	A	A	A	A	A	A					
2							2.2	2.9	A	3.4	3.7	3.7	3.7	3.7	A	3.2	3.1	2.4	E					
3							E	2.7 H	3.3	3.6	3.8	A	B	(4.1) B	3.9	A	A	A	A					
4							B	2.9	3.4	3.3	3.8	B	(3.8) B	B	3.7 H	3.5 H	2.9 H	A	A					
5							A	2.4	3.0	3.3	B	3.7	B	3.8	3.7	3.4	(3.1) A	A	A					
6							E	3.1	3.2	3.5	3.5	B	B	B	B	3.3	3.1	A	A					
7							2.2	(2.6) A	A	3.3	3.3	A	A	B	A	3.2	2.9	2.3	2.0					
8							E	2.6	3.0	3.3	(3.5) B	4.0	3.8	3.5	3.5	3.5	3.0	2.6 J	E					
9							E	A	A	3.3	3.3	3.5	3.5	3.7	3.4	A	3.0	A	2.8					
10							2.1	2.8	2.9	3.1 J	A	3.6	3.6	3.7	3.7	3.3	3.0	A	A					
11							C	C	C	C	C	A	3.7	3.6	(3.6) B	3.4	2.6 J	2.4	E					
12							C	2.3	3.0	3.4	A	B	3.8	B	3.8	3.6	3.2	3.5	A					
13							E	A	3.0	3.1	B	B	3.8	3.5	B	3.5	3.1	2.4	A					
14							E	3.8 H	(3.3) A	(2.5) B	(3.8) B	B	B	B	B	(3.5) B	3.1	2.6	A					
15							A	2.7	B	B	3.6	B	A	B K	B K	B K	B K	(2.8) A	(2.4) A					
16							(2.0)	2.7	3.0	B	3.7	(3.8) B	B	B	(3.8) B	(3.7) B	3.2	2.5	E					
17							2.1	2.7	3.0	3.4	3.8	B	B	3.8	B	A	3.0	A H	E					
18							E	2.6	A	3.2	B	B	3.8	(3.8) B	3.5	3.4	3.0	2.4	E					
19							E	2.7	3.2	3.4	3.7	B	3.9	(4.0) B	3.8	3.3	3.0	2.5	E					
20							E	2.8	3.2	3.7	3.6 H	(3.9) H B	(3.9) H B	(3.8) H B	(3.7) H B	3.4	3.1	2.5	E					
21							E	2.4	(3.3) A	3.2	(3.8) B	B	A	B	A	A	A	2.5	E					
22							E	(2.6) A	3.0	A	3.5	3.5	A	B	3.4	3.2	3.0	A	E					
23							E	2.4	A	3.4	3.5	3.8	3.8	3.7 H	3.5 H	3.3	2.9 H	2.1	E					
24							E	A	A	3.1	3.4	B	3.4	A	3.8	A	A	A	E					
25							E	A	3.0	(3.6) A	3.8	(4.0) B	B	(4.0) B	3.7	3.5	3.0	2.6	E					
26							E	2.7 H	A H	3.4	3.4 J	4.0	B	B	B	3.4	A	2.3	E					
27							E	2.7	(3.2 J C	(3.6) A	3.7	B	3.9	3.6 J	B	3.4	3.0 F	2.5	E					
28							E	A	A	A	3.5	A	4.0	4.0	3.6	3.5	2.9	2.6	E					
29							E	2.4	(2.8) B	3.3	3.5	A	A	3.5 H	3.7	A	2.9	A	E					
30							E	2.5	3.1	3.4	3.5	B	3.8	3.8	(3.5) B	3.2	A	2.1	E					
31																								
Mean Value																								
Median Value							E	2.7	3.0	3.4	3.6	3.8	3.8	3.8	3.7	3.4	3.0	2.5	E					
Count							22	23	20	25	23	11	17	18	19	22	23	19	21					

foE

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 5

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Sep. 1946

h'E

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							E	A	110	100	A	A	100	A	A	A	A	A	A					
2							E	100	A	100	A	100	100	100	A	100	110	100	E					
3							E	100H	100	100	100	A	B	B	100	A	A	A	A					
4							B	100	100	(100)B	100	100	100	100	100H	100H	100H	A	A					
5							A	120	110	110	B	110	110	110	100	110	A	A	A					
6							E	110	100	110	100	B	B	B	B	100	100	A	A					
7							E	A	A	100	110	A	A	A	A	100	100	100	E					
8							E	120	110	110	100	100	100	100	100	100	110	100	E					
9							E	A	A	100	100	100	100	100	110	100	A	A	100					
10							E	100	100	100	90	90	90	90	90	90	90	A	A					
11							C	C	C	C	C	A	100	100	100	100	110	110	E					
12							C	110	100	100	A	B	100	B	110	110	110	110	A					
13							E	A	110	110	B	B	100	100	B	110	110	110	A					
14							E	110H	110	110	B	B	B	100	B	100	A	120	A					
15							A	110	B	B	110	B	A	BK	BK	BK	BK	A	A					
16							E	100	100	B	100	A	B	B	100	110	110	110	E					
17							E	100	100	110	110	B	100	110	100	A	100	A	E					
18							E	110	A	100	110	100	110	110	100	110	100	110	E					
19							E	120	110	100	100	B	100	B	100	100	100	(110)A	E					
20							E	110	100	110	110H	100H	100	110H	100H	100	100	100	E					
21							E	100	100	100	B	B	A	B	A	A	A	(120)A	E					
22							E	A	110	A	110	100	A	B	100	100	100	A	E					
23							E	120	A	100	110	110	100	110H	100H	100	110H	A	E					
24							E	A	A	110	110	100	100	A	110	A	A	A	E					
25							E	A	100	110	110	100	100	110	100	110	110	110	E					
26							E	100H	AH	100	100	100	100	100	100	100	A	110	E					
27							E	100H	AH	C	100	B	90	100	90	90	100	F	E					
28							E	A	A	A	100	A	90	90	90	100	100	110	E					
29							E	100	100	100	100	A	A	100H	A	A	110	A	E					
30							E	100	110	100	90	100	90	90	90	110	A	110	E					
31																								
Mean Value																								
Median Value							※	100	100	100	100	100	100	100	100	100	100	110	※					
Count							0	21	19	24	22	14	21	19	21	23	20	16	1					

h'E

Sweep 2.0 Mc to 15.0 Mc in 15 min ☐ Manual ☐ Automatic

K6

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

IONOSPHERIC DATA

Sep. 1946 | fEs | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.3	2.6	3.2	2.6	2.8	2.1	3.4	4.2	4.0	4.2	4.2	5.2	5.6	5.4	4.2	4.2	3.0	4.3	5.0	4.4	4.2	2.6	2.7	2.4
2	3.4	2.6	2.4	E	E	2.2	3.1	4.0	4.0	7.4	6.1	9.2	6.2	7.0	8.5	7.6	5.4	4.2	2.8	2.0	7.7	8.5	4.6	2.8
3	E	3.6	E	E	E	E	E	⌐fE	8.0	5.8	7.4	10.2	8.6	B	7.3	5.2	3.8	3.2	3.2	3.2	3.2	2.6	2.2	E
4	E	2.2	2.6	2.6	2.0	E	E	3.2	⌐fE	3.8	4.0	4.0	⌐fE	⌐fE	⌐fE	⌐fE	⌐fE	4.2	3.4	5.8	5.8	5.0	9.3	8.0
5	3.4	4.0	4.2	4.2	3.2	5.8	8.0	5.4	6.4	5.9	5.0	4.1	⌐fE	4.7	4.1	4.8	6.2	5.2	4.0	3.2	3.5	3.2	3.0	2.6
6	2.3	2.6	E	E	E	E	E	⌐fE	3.7	3.4	3.6	4.1	B	B	B	4.0	⌐fE	3.2	2.6	E	E	3.0	2.8	2.6
7	2.4	E	E	E	2.6	2.8	3.0	3.4	3.8	4.2	4.1	4.3	4.3	4.3	4.1	⌐fE	⌐fE	2.7	E	2.4	2.1	2.5	2.3	2.9
8	2.5	2.8	2.2	E	E	2.8	2.8	3.4	3.8	5.0	4.2	4.8	4.0	⌐fE	⌐fE	⌐fE	3.3	3.6	3.0	E	3.6F	3.2	3.4	2.6
9	E	E	E	E	E	E	2.8	3.8	4.6	5.0	7.2	5.4	4.7	5.5	3.1	3.3	4.2	6.6	3.4	3.2	4.0	2.6	2.2	2.8
10	2.5	E	E	E	E	E	E	3.0	4.7	4.2	5.0	5.2	4.1	3.9	4.7	4.0	4.6	4.8	7.6	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	C	C	4.5	5.0	4.2	4.2	⌐fE	3.4	3.6	E	5.8F	4.2	2.8F	4.2	4.2
12	3.0	E	2.6	2.4	2.2	E	C	3.9F	4.0	4.8	5.0	B	3.9	B	⌐fE	3.4	3.4	3.5	4.2	3.2	2.6	2.2	3.2	2.8
13	2.2	E	E	4.4	E	4.0	E	3.4	4.2	4.8	3.2	B	4.3	3.8	B	4.1	⌐fE	3.6	2.5	4.2	E	2.4	E	E
14	E	E	E	E	E	E	E	2.7	4.0	⌐fE	B	B	B	4.2	B	3.8	3.4	4.4	3.8	4.0	E	2.6	2.0	3.0
15	2.6	2.8	E	E	E	E	3.2	4.0	3.6	4.8	4.0	4.2	4.8	B	B	B	8.3	4.0	4.0	9.4	7.4	2.8	3.2	E
16	E	E	E	E	E	E	E	2.8	3.9	B	⌐fE	4.1	3.3	B	⌐fE	4.2	5.4	7.0	3.2	2.8	2.8	2.0	3.2	E
17	E	E	E	E	E	2.2	2.8	3.5	5.4	4.3	4.2	B	⌐fE	⌐fE	⌐fE	3.2	3.3	3.0	2.4	2.0	E	2.4	3.4	3.2
18	2.2	E	E	E	E	E	2.1	3.9	4.0	4.2	⌐fE	⌐fE	⌐fE	⌐fE	3.6	4.3	3.8	4.5	4.8	8.0	4.0	4.6	2.2	E
19	E	3.2	2.1	4.0	2.4	4.0	2.6	2.7	4.9	11.3	5.2	B	4.3	6.2	5.8	5.0	9.2	5.0	5.8F	13.0F	5.0	5.4	3.0	2.2
20	E	2.2	E	E	2.0	E	3.2	4.0	4.4	4.1	4.7	⌐fE	5.1	10.0	3.9	5.4	8.2	4.7	4.2	5.2	6.6	3.2	4.1	3.2
21	2.2	E	E	E	E	2.8	2.8	3.4	3.4	4.2	4.1	3.5	3.6	B	5.2	4.0	4.0	2.6	2.2	3.5	E	4.7	E	4.0
22	E	E	E	E	E	4.7K	2.6	3.4	4.7	4.8	5.0	5.0	4.2	4.0	⌐fE	3.5	3.2	2.8	3.0	3.4	2.6	2.2	2.8	3.2
23	E	2.2	2.7	4.2	3.2	4.2	4.7	3.4	4.0	5.1	4.9	5.1	⌐fE	⌐fE	⌐fE	4.0	3.4	2.1	3.2	3.4	5.4	3.0	2.0	3.4
24	2.4	E	E	2.6	3.2	2.8	3.2	4.2F	6-7	6.2	5.2	⌐fE	3.8	4.8	4.3	4.0	5.4	8.2	5.0	5.0	4.0	4.6	4.2	2.6
25	3.2	3.2	2.2	2.0	E	2.0	3.1	3.8	4.8	5.0	⌐fE	⌐fE	⌐fE	3.9	⌐fE	C	⌐fE	⌐fE	E	E	E	E	2.0	E
26	E	2.3	E	E	E	E	E	3.4	3.0	4.7	4.3	⌐fE	⌐fE	5.2	⌐fE	⌐fE	4.8	3.3	3.2	4.8	4.0	4.2	4.0	2.8
27	2.8	2.2	2.6	E	E	E	3.0	3.4	C	4.3	4.5	3.3	⌐fE	5.1	4.2	5.4	4.3F	3.0F	4.2F	6.6F	7.2F	4.4F	4.2F	4.7F
28	5.4	5.8F	5.3F	4.2F	3.2	E	E	4.8	5.4	7.3	4.2	6.3	5.7	5.0	4.3	⌐fE	⌐fE	⌐fE	3.8	3.4	4.2	4.2F	4.2	2.6
29	3.0	2.6	2.2	2.1	E	2.4	3.3	2.6	3.2	6.2F	7.1	5.1F	5.3	4.8	4.8	5.2	4.2	4.6	4.0	3.2	5.3	2.2	2.0	2.0
30	E	2.0	2.2	E	2.4	3.0	3.2	3.0	4.2	5.4	4.8	4.2	⌐fE	5.1	4.0	4.3	3.0	3.2	2.2	3.0	4.2	E	2.2	E
31																								
Mean Value																								
Median Value	2.2	2.2	F	E	E	2.0	2.8	3.4	4.0	4.8	4.4	4.2	4.1	4.5	4.1	4.0	3.6	3.6	3.3	3.4	4.0	2.8	3.0	2.6
Count	29	29	29	29	29	29	28	29	28	28	28	25	28	24	26	28	30	30	30	29	29	29	29	29

fEs

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K

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

IONOSPHERIC DATA

Sep. 1946 | (M3000)F2 | 135° E Mean Time

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

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.9	2.8	2.6	2.7	2.5	2.8	3.1	2.9	3.0	3.1	2.9	2.9	3.0	3.1	3.4	3.2	3.3	3.2	3.0	2.8	2.8	2.6	2.8	3.0
2	3.0	(2.8)	2.6	2.7	2.7	2.8	2.9	3.2	3.2	3.0	3.1	3.0H	3.0	3.0	3.1	3.2	3.3	3.2	2.9	2.9	2.8	2.6	2.6	2.7
3	2.7	2.8	2.8	2.9	2.9	2.8	3.5	3.4	3.3	3.2	2.9	3.1	3.0	3.0	3.0	3.1	3.1	(3.2)	3.1	3.3	2.9	2.6	2.6	2.6
4	2.5H	2.6	2.9	2.8	2.8	2.9	3.5	3.5	3.3	3.1	3.1	3.0	3.1H	3.0H	3.0	3.1	3.1	3.1	2.9	3.0	3.0	2.9	A	(2.4)
5	2.6	2.8H	2.6H	2.5	2.6	2.6	2.9	3.0K	AK	2.8K	2.8K	2.8	2.8	3.0	3.2	3.1	3.2	3.2	3.2	2.8	2.5	2.5	2.5	2.6
6	2.5	2.7	2.6	2.6	(2.6)	2.5	3.1	3.1	3.2	3.2	3.2	3.2	2.9	3.0	3.2	3.2	3.3	3.2	3.1	3.2	2.7	(2.5)	2.7	2.8
7	2.8	3.0	2.9	2.9	2.9	3.1	3.4	3.3	3.2	3.2	3.3	3.1	3.0	3.1	3.2	3.2	3.2	3.2	3.0	3.1	2.7	2.6	2.5	2.6
8	2.4	2.5	2.7	3.1	2.9	2.8	2.9	3.1	3.2	3.4	3.4	3.0	3.0	3.2	3.2	3.1	3.1	(3.2)	3.2	3.1	3.1	(3.0)	2.7	2.7
9	2.6	2.8	3.0	3.4	3.1	2.7	3.1	(3.3)S	3.6	3.4	3.2	3.2	3.2	3.1	3.1	3.1	3.3	3.2	3.2	3.1	2.9	2.8	2.8	2.7
10	2.8	2.8	2.8	2.7	2.7	2.6	3.7	4.0	3.6	3.4	3.1	3.1	3.2	3.3	3.4	3.4	3.4	3.5	3.4	C	C	C	C	C
11	C	C	C	C	C	C	C	C	C	C	C	3.1	3.1	3.2H	3.1H	3.2H	3.2	3.3	(3.3)S	3.5	3.0	2.8	2.7	2.7
12	2.7	2.7	2.7	2.6	2.8	2.9	(3.1)C	3.4	3.6	3.4	3.4	3.1	3.1	3.2	3.2	3.3	3.5	3.4	3.2	3.2	2.8	2.9H	2.7	2.7
13	2.5	2.5	2.7	3.0	3.0	2.8	3.2	3.6	3.6	3.4	3.3	3.2	3.2H	3.2H	3.1	3.1H	3.3	3.4	3.3	3.4	3.1	2.7	2.7	2.8
14	2.8	2.8	2.7	2.8	2.9	2.9	3.3	J	(3.7)	3.5	3.3	3.0	3.0	2.9	3.1	3.1	3.1	3.2	J	3.0	2.9	2.8	2.8	2.7
15	2.7	2.7	2.8	2.8	2.8	2.9	3.5	3.6	3.6	3.5	3.2	3.2	3.0	2.9	BK	3.0	3.0	3.2	3.2	3.3	A	2.7	2.6	2.7
16	2.7	2.8	2.8	2.7	2.8	2.8	3.2	3.5	3.4	3.6	3.2	3.0	3.0	2.8	3.0	3.0	3.1	3.2	3.3	3.3	2.8	2.9	2.8	2.8
17	2.8	2.9	2.7	2.8	2.3	2.3	3.6	(3.5)	3.4	3.2	2.9	2.9	3.2	2.8	2.9	3.1	3.1	(3.2)	3.1	3.3	2.7	2.8	2.7	2.8
18	2.8	2.8	2.8	3.0	3.1	2.9	3.6	3.2	3.0	3.1	3.1	3.0	2.8	2.6	2.8	3.2	3.1	3.1	2.9	3.0	2.9	2.7	3.0H	2.8
19	2.3	2.6	2.9	A	2.5	2.6	2.8	3.5H	2.9H	3.0	3.0	3.1	2.8	2.8	3.0	3.2	3.2	3.1	3.1	2.8	2.7	2.6	2.8	2.7K
20	2.5K	2.3K	2.5K	(2.5)K	2.7K	2.9	3.1	3.4	3.0	3.0	3.2	3.6	3.1	3.1	3.2	3.6	3.6	3.3	3.3	3.2	3.0	2.8	2.7	2.9
21	2.9	2.8	2.9	2.8	2.9	2.8	3.6	3.8	3.5	3.4	3.4	3.4	3.5	3.4H	3.5	3.3	3.3	3.1	3.3	3.0	2.9	2.7	2.9	2.8
22	2.7	2.7	2.6	2.7	2.6	2.5	2.8	3.0	3.3	3.2	3.0	3.0	3.2	3.0	2.8	2.8	2.8	2.8	2.9	2.9	2.5	2.3K	5K	2.1K
23	JK	2.0K	AK	AK	FK	FK	FK	3.1K	GK	GK	GK	GK	2.6K	2.6K	3.0	3.0	3.2	2.9	3.0	2.7	2.6	25	2.5	2.6
24	2.5	2.4	2.6	2.7F	2.6F	3.0F	3.2H	3.4	3.3	3.3	3.1	3.1H	3.0	2.9	3.3	3.4	3.1	3.1	(3.2)	3.1	2.8	2.9	2.7	3.0
25	2.9	2.7	2.8	2.9	2.9	2.8	3.5	3.6	3.3	3.4	3.2	3.1	3.2	3.3	3.1	(3.2)C	3.3	3.3	3.4	3.3	2.8	2.8	2.8	3.1
26	3.2	2.8	2.7	2.9	2.9	2.7	3.2	3.7	3.3	3.5	3.5	3.1	3.0	3.1	3.0	3.1	3.2	3.4	3.5	3.1	2.9	3.1	2.9	2.9
27	2.9	2.7	2.8	2.9	3.3	3.1	3.3	3.5	3.4	3.2	3.4	3.1H	3.1H	3.0	3.1	3.2	3.2	3.3	3.3	2.9	2.7	3.2	3.0	2.7
28	2.7	2.5	2.7	2.7	2.5	2.4	2.6	2.9	3.3	2.7	2.9	3.0	3.2	3.1	3.2	3.3	3.4	3.2	3.2	2.7	2.6	2.7	2.6	2.4
29	2.6	2.6	2.8	2.5	2.4	2.3	2.8H	2.9	3.1	3.2	3.3	3.0H	3.3H	3.0	3.3	3.4	3.2	3.2	3.3	3.1	2.8	2.8	2.8	2.9
30	2.7	2.7	2.7	2.9	2.6	2.8	3.1H	3.3	3.3	3.5	3.6	3.3H	3.3	3.2	3.2	3.2	3.3	3.2	3.4	3.1	2.7	2.7	2.7	2.9
31																								
Mean Value																								
Median Value	2.7	2.7	2.7	2.8	2.8	2.8	3.2	3.3	3.3	3.2	3.2	3.1	3.0	3.0	3.1	3.2	3.2	3.2	3.2	3.1	2.8	2.8	2.7	2.7
Count	28	29	28	27	28	28	28	28	28	29	29	30	30	30	29	30	30	30	29	29	28	29	27	29

(M3000)F2 Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K8

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

IONOSPHERIC DATA

Oct. 1946 | foF2 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4′ N | Long. 139° 29.3′ E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	6.2	5.5	5.0	4.9	4.6	4.6H	6.0	8.1H	8.6 S H	8.7	8.7H	8.9	9.1	9.8H	10.2H	9.3	8.8	9.1	8.6H	6.3F	5.3	5.4	5.4	5.5
2	5.2	5.1	5.0	5.0	4.4	3.7	6.0	9.2	9.3	9.8H	11.1	11.0	11.8	11.7	11.2H	10.9	10.3	9.4	7.5F	5.6	6.5	6.0	5.6	5.6
3	5.1	5.0	(5.1)	5.0	4.7	4.9	7.2	9.9	11.4	11.3	11.9	11.9H	12.0H	12.8H	C	C	10.7	11.1	(9.7)S	7.4	6.7	6.4	6.3	6.3
4	6.0	5.5	5.5	5.3	5.4	5.2	6.9	9.1	9.4	11.1	13.4	13.4	13.4H	12.9H	12.1	11.3	12.0	12.5F	10.5	7.9F	7.1	5.7	5.6	5.7
5	5.5	5.5	5.1	4.6	4.8	5.1	7.7	9.7	10.6H	10.9	12.0	13.1	11.9H	10.9	11.1H	11.0	10.7	11.0	9.6J	7.2	6.4	6.0	5.6	5.1
6	5.3	4.7	4.6	4.8J	4.7	4.9	7.0	8.8	10.9	11.3	12.6	13.3H	12.5	13.0	13.0	12.7	12.0	11.2	8.8F	5.4	(5.0)J	5.2	5.2	5.5
7	5.0	4.6	4.6	4.6	(4.7)	4.6	6.6	9.0	10.7	10.6	10.7	12.0	12.2	12.2	11.9H	11.4	10.1F	9.5	7.8F	6.7F	6.8	6.4	5.5	5.1F
8	4.7	4.9	4.7	4.7	4.8	4.9	7.4	9.3	12.7	12.2	12.5	12.8	12.1	12.0	11.6	10.6	8.8	9.1	8.9	6.5	5.7	6.0	5.7	5.8
9	5.9	5.4	5.3	5.4	4.9	4.9	6.7	9.2	10.5	11.0	10.5	11.8	12.7	11.4	11.3	12.3H	11.0	10.6	10.7	9.4	7.1	6.5	6.4	6.3
10	6.0	5.5	5.8	5.7	5.5	5.6	7.4	11.6	12.5	12.3	C	C	C	C	12.1	11.9	11.0	10.9J	7.3	7.1	6.7	5.4	5.2	5.2
11	5.3	5.5	5.7	5.4	4.7	4.3	6.9	9.3F	9.7	11.1	13.0	(12.0)C	C	C	11.9	12.5	10.8	8.9	7.8	6.7	6.2	5.5	5.1	4.9
12	5.0	5.0	5.2	5.3	4.8	3.4	5.9	8.8	10.5	10.5	11.2	13.2	12.9	11.1	12.2	12.3	11.6	10.4	7.6	5.7	5.4	4.7	5.2	5.4
13	5.6	5.5	5.3	5.2	4.6	4.4	6.1	8.0	10.4	10.3	11.5	13.6	13.2	12.1	12.8	11.8	10.6	10.7	8.6	5.9	5.7	5.2	5.4	5.2
14	5.3	5.4	5.5	5.7	4.6	4.3	6.6	8.7	10.0	10.7	C	C	C	C	C	C	10.7	10.0J	8.1	6.0	6.3	6.4	6.4	6.0
15	5.5	5.3	5.5	5.6	4.8	4.3	6.6	9.2	(10.8)C	12.4	13.0	12.9H	13.0H	12.6H	12.7H	12.2	11.2	9.1F	7.6	7.5	6.9	6.3	5.9H	5.9
16	5.6	5.4	5.5	5.6	5.6	5.5	7.3	10.9	12.7	11.7	13.5	13.5	12.4	(12.6)C	12.8	12.0	11.1	10.1	8.7	8.4	7.4	7.3	6.4	5.6
17	5.8	6.3	5.8	4.5	4.7H	4.9H	7.2	11.2	12.7	13.0	13.2	13.0F	13.1F	12.6 F H	12.5	12.8	11.7	A	8.6	7.6	7.5	7.4	6.9	6.3
18	5.9	5.9	5.9	4.9	4.2F	3.9F	6.0	9.2	10.6	12.7	12.7	12.7	12.5H	12.6	12.7H	12.1	11.3	10.0J	8.3	7.7	7.4	7.1	6.2	5.5
19	(5.3)	4.9	4.8F	4.8	4.3	4.1	8.6	9.8	9.9	11.2	12.3	13.0	12.7H	12.8H	12.6	11.7	12.0	11.2	9.6	7.5	6.4	5.6	5.8	5.2
20	4.9	5.0	4.7	4.8	4.3	4.2	6.5	(9.7)	11.3H	11.8H	12.9H	13.7H	12.8	12.8	12.3	11.2	11.6	11.1	(9.7)	8.8	7.7	7.1	6.1	6.4
21	5.7	5.4	5.4	5.4	5.2	5.3	8.6	10.5	12.5	13.6	14.1	14.0H	14.2H	14.3	13.6H	12.7	11.2	10.7	9.2	8.6	7.1	5.6	5.7F	5.3F
22	5.5	5.2	4.7	4.9	4.5	4.9	7.1	10.6	11.6	12.0	13.1	12.5	12.4	13.1H	12.6	12.0	11.8F	9.8	8.3	7.8	7.8	5.7	4.2	4.1
23	4.0	4.2F	4.2	4.4	4.1	4.0	5.8	11.0	11.4	10.9	11.9	12.1H	12.5H	12.5H	12.7	12.4	11.5	(9.7) F H	7.8	7.6	7.2	6.0	5.1	4.3
24	4.0	4.2	4.2	4.3	4.0	3.9	6.6	(9.8)	12.1	12.0	12.6	13.2H	13.6	13.2	13.4H	13.2	13.1	11.0	8.6	7.5	7.3	6.5	5.8	5.3
25	5.0J	4.5	4.4	4.2	3.7F	3.8	5.7	9.8	11.8	12.7	13.3	13.4H	13.5H	13.1	12.5	12.5F	10.8F	(9.4)S	7.8	7.3	6.3	6.4	5.8	A
26	5.3J	4.9	4.7	4.3	4.2	4.3F	6.6	10.6	11.8	12.1	13.1	14.1	14.0	13.3H	13.4H	13.1	11.7	(9.6)	9.1	8.4	7.6	6.4	6.2	5.7
27	5.3	5.8	5.6	4.8	4.3	4.4	7.2	10.0	(12.8)	(12.4)	14.3	14.2	13.5	B H	(12.8)B	(13.0)H	13.2	12.7	10.2	8.7	7.1	8.2	6.2	7.1F
28	5.9	5.9	6.2	4.9	5.0	4.3	6.0	11.2	14.2	(15.5)D	(15.6) F D	(16.8)	13.7H	13.1	12.9	12.7	12.0F	(9.6)	7.9	7.0	6.3	6.3	(5.0)	4.2
29	4.2	4.2	4.3	4.1	3.9	4.0	7.1	10.8	11.4	13.4	(14.4)B	12.9	13.1H	13.5	13.3H	12.1	11.1	10.3	7.6	7.4	6.4	5.6	4.8	4.8
30	(4.8)	4.7	4.8	4.7	4.3	3.6	4.9	8.5	12.4	13.1	12.8	12.8H	12.6	13.0	13.1	12.6	11.2	9.9	8.2	7.3	6.8	6.3	4.9	4.8
31	4.5	4.5	4.5	4.4	4.2	4.2	5.6	10.1	11.0	12.6	12.6	12.5H	12.5	12.3	12.2	12.0	10.8	9.1F	6.8	6.3	6.0	6.2	6.2	4.2
Mean Value																								
Median Value	5.3	5.2	5.1	4.9	4.6	4.3	6.6	9.7	11.3	11.8	12.7	13.0	12.8	12.6	12.6	12.1	11.2	10.1	8.6	7.4	6.7	6.2	5.7	5.5
Count	31	31	31	31	31	31	31	31	31	31	29	29	28	27	29	29	31	30	31	31	31	31	31	30

foF2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K

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

IONOSPHERIC DATA

Oct. 1946 | **h'F2** | 135° E Mean Time

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

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	240	220	250	260	270	300H	200	210H	240H	260	250H	250	260	240H	240H	220	200	220	200H	210F	270	270	320	300
2	300	310	290	290	230	200	250	230	210	200	200H	250	220	270	240	240H	220	220	200F	220	270	250	320	(290)A
3	350	370	290	250	260	300	210	200	220	210	210	210H	210H	200H	C	C	210	220	190	200	230	250	250	250
4	290	330	300	220	260	220	210	200	200	200	210	210	220H	250H	230	210	230	(200)F	200	200F	220	240	270	270
5	250	250	270	320	330	290	200	200	200H	220	220	210	220H	220	220H	240	220	210	200	190	230	210	250	270
6	280	300	320	300	240	270	200	190	220	220	220	250H	220	250	240H	230	210	240	220F	210	A	310	290	260
7	270	280	300	300	270	250	230	260	210	210	200	230	240	230	240H	230	(240)F	220	F	250	250	250	250	300
8	270	290	280	300	310	270	230	220	230	220	250	230	230	240	250	220	220	220	210	210	210	240	240	260
9	270	250	250	260	250	280	240	210	210	220	220	230	250	240	270	250H	230	240	240	180	210	250	260	(290)H
10	A	250	260	250	270	290	240	210	210	210	C	C	C	C	250	230	220	A	210	230	230	240	270	280
11	320	300	280	230	240	240	230	210F	200	200	220	220	C	C	230	230	210	200	200	230	220	230	250	300
12	300	290	280	250	210	(210)E	210	200	220	210	240	250	240	240	240	240	210	220	200	220	240	300	300	280
13	290	230	230	200	210	240	200	170	190	190	190	210	220	240	240	230	210	220	200	200	230	(240)A	300	300
14	310	270	250	220	(250)A	250	220	210	210	210	C	C	C	C	C	C	210	200	210	(240)A	260	260	250	250
15	260	300	280	260	210	240	230	200	(210)C	210	220	210H	220	240H	210H	230	220	(200)AF	230	240	230	240	260	260
16	260	300	270	250	210	240	220	190	190	200	230	230	210	(220]C	230	220	210	210	210	250	240	250	240	270
17	320	(280)A	250	(300)A	280H	270H	250	210	220	210	210	220F	A F	(220)EH	210	220	230F	A	230	230	230	(260)F	240	270
18	270	270	260	220	(310)F	300F	240	200	200	220	220	220	220H	260	240H	220	210	200	220	(230)A	210	230	220	240
19	250	260	260	260	240	250	200	200	200	210	220	210	230H	250H	240	210	220	200	190	220	210	250	260	260
20	260	280	280	250	220	300	210	200	200H	200H	210H	220H	240	250	230	210	240	210	220	200	200	210	230	250
21	260	290	300	270	280	260	220	200	210	200	200	210H	210H	220	200H	210	210	210	220	240	240	210	260F	270
22	270	260	260	280	260	290	220	200	200	200	230	210	220	220H	220	220	220F	210	210	240	200	230	270	320
23	330	330	300	270	260	290	250	200	190	200	200	200H	210H	220H	240	240	230	FAH (220)	250	250	230	230	250	280
24	A	(240)A	300	270	240	A	230	210	210	200	210	220H	220	220	240H	230	220	210	230	240	220	240	250	260
25	340	A	A	280	270F	330	230	190	210	200	210	220H	220H	230	210	240F	210F	(230)AF	240	240	240	250	220	A
26	A	250	270	310	290	330F	230	200	200	210	210	210	220	220H	230H	230	210	200	240	230	230	230	250	260
27	270	290	A	320	260	300	250	200	210	210	210	230	230	240	240	230H	210	220	190	230	230	250	210	AF
28	290	A	300	280	280	280	300	240	220	210	230F	220	220H	240	220	220	220F	210	200	240	240	240	230	280
29	330	310	270	270	270	300	230	200	200	200	220	210	210H	220	230H	200	200	200	200	210	210	250	270	280
30	290	300	300	250	200	230	230	200	200	210	210	240H	230	230	230	210	200	210	210	220	220	220	210	240
31	260	260	250	230	240	250	200	180	180	220	210	220H	220	220	220	210	210	210F	200	280	280	270	240	240
Mean Value																								
Median Value	280	280	260	260	260	270	230	200	210	210	220	220	220	240	230	230	210	210	210	230	230	240	250	270
Count	29	29	29	31	31	30	31	31	31	31	29	29	27	28	29	29	31	29	30	30	30	31	31	29

h'F2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K2

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

IONOSPHERIC DATA

Oct. 1946 | foF1 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1									L	5.2	L	5.2	5.4	L	L	L	3.8							
2										L	L	A	L	4.7	5.0	A	L	2.6						
3								3.4 J	L	L	L	L	4.5	4.7	C	C	L	A						
4										4.5	L	B	L	B	4.5	L	3.7	F						
5										L	L	4.7	4.3	4.7	L	L	A	A						
6									L	L	L	L	5.0	A	4.6	L	A	3.6						
7									L	4.5	4.6	5.0	A	L	A	A	A							
8								L	L	4.7	A	5.6	5.7 H	5.7	L	L	4.0	A						
9								L	L	L	L	L	5.3	4.8	L	L	3.6	L						
10									L	A	C	C	C	C	L	L	L	A						
11								A	4.8	L	L	L	C	C	4.7	L	L							
12									L	4.7	5.5 H	L H	5.5 H	5.2	4.7	5.0	4.0							
13									B	4.7 H	4.5 H	B	L	L	L	L								
14									L	4.2	C	C	C	C	C	C								
15										L	L	A	4.9	4.9	4.8	L								
16								L	L	A	A	L	4.6	C	L	4.6	A							
17									L	L	A	L	A	A	A	A	A							
18										L	L	L	L	5.2	L	L	3.1							
19										4.7	L	L	5.0	L	L	L	L							
20										L	L	4.2	L	L	L	A	A							
21								4.4	L	A	L	L	L	A	L	L								
22								A	A	L	L	L	L	L	L	L	A							
23								3.5	4.5	4.6	L	L	L	L	L	A								
24									L	L	4.6	5.0	L	L	L	4.8								
25										3.9	L	A	L	L	(4.6) A	4.6	3.6							
26								L	L	L	L	L	A	L	A	L								
27										L	L	L	L	B	B		A							
28										L	L	L	5.0	5.0	5.1	L	A	A						
29										L	L	4.7	L	L	4.7	L								
30									L	5.0	5.0	L	5.5	L	4.8	L								
31									L	L	C	5.0	L	4.6 J	L	L								
Mean Value																								
Median Value								3.5	※	4.7	4.6	5.0	5.0	4.9	4.7	4.7	3.7	※						
Count								3	2	11	5	8	12	10	10	4	7	2						

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 3

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

IONOSPHERIC DATA

Oct. 1946 | h'F1 | 135° E Mean Time

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

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1									200	170	190	180	190	190	200	190								
2										170	170	A	190	190	200	A	A	200						
3								A	200	180	160	180	170	170	C	C	200	A						
4										170	170	170	200	B	200	190	A	F						
5										190	180	190	170	190	200	200	220	A						
6									210	210	200	200	200	A	200	220	A	230						
7									200	200	190	210	A	200	A	A	A	A						
8								210	200	190	A	200	190H	240	220	220	A	A						
9								200	190	210	170	180	190	200	220	210	220	210						
10									200	A	C	C	C	C	200	220	210	A						
11								A	210	170	160	200	C	C	190	200	210							
12									200	200	180H	170H	180H	190	200	210	220							
13									180	170H	160H	B	200	200	210	220	210							
14									200	190	C	C	C	C	C	C								
15										190	190	A	190	190	190	210								
16								190	190	A	A	(190)A	200	(210)C	210	210								
17									210	190	A	210	A	230	A	A	A							
18										210	210	200	200	200	200	200	A							
19										190	190	190	190	190	200	210	210							
20										190	180	190	200	200	200	A	220							
21								200	200	A	190	180	190	A	190	200	A							
22								A	A	190	190	200	200	200	200	200								
23								190	190	190	200	190	200	210	220	A	A							
24									200	180	190	180	210	190	200	200								
25										190	190	A	200	210	(180)A	230								
26								190	200	200	200	200	A	210	A	210	210							
27									~~170~~	200	190	220	210	B	B									
28										200	200	210	210	200	210	210	A	A						
29										180	190	180	180	210	210	200	A							
30									200	200	180	190	190	200	210	200								
31									170	210	200	180	190	210	210	200								
Mean Value																								
Median Value								200	200	190	190	190	190	200	200	210	210	210						
Count								6	19	28	26	25	25	24	25	23	10	3						

h'F1

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K4

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

IONOSPHERIC DATA

Oct. 1946 | foE | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							E	2.4	3.0	3.3	3.4	3.6	3.5	3.7	B	3.4	2.9	A	E					
2							E	2.6	2.8	3.2	3.4	A	3.7	3.8	3.7	A	A	E	E					
3							E	E	3.2 J	3.5	(3.7)A	3.8	(3.7)B	(3.7)	3.5	C	A	A	E					
4							E	2.2 H	A	A	(3.5)A	A	(3.8)A	B	(3.5)B	(3.3)A	A	A	E					
5							E	2.3	2.8	3.1	3.5	3.7	3.8	3.4	3.3	3.2	2.8	A	E					
6							E	2.5	2.8	3.2	A	(3.8)A	A	A	3.3	A	2.6	(2 0)	E					
7							E	2.4	2.9	3.2	3.2	3.2	A	A	A	A	A	A	E					
8							E	2.2	A	(2.9)A	A	3.6	3.5	A	3.2 H	(3.2)A	A	A	E					
9							E	2.4	2.8	2.9	3.6	3.5	(3.7)A	(3.6)A	3.4	3.2	2.7	E	E					
10							E	2.2	A	3.0	C	C	C	C	3.3	(3.0)A	A	A	E					
11							E	A	2.9	3.3	3.4	(3.8)A	C	C	3.5	3.2	2.8	A	E					
12							E	A	A	3.2	3.6	3.7	3.7	3.7	3.3	3.1	2.8	(2.1)	E					
13							E	E	(2.4)A	A	A	B	(3.8)B	(3.8)B	A	A	2.6	E	E					
14							E	2.2 H	(3.0)A	3.3	C	C	C	C	C	C	A	A	E					
15							E	(2.5)A	A	3.4	A	3.5	3.7	3.7	3.6	3.0	2.8	A	E					
16							E	A	A	2.9	3.1	A	3.3	C	A	2.9	A	2.1	E					
17							E	A	3.2	3.3	A	A	3.2	3.5	3.3	A	2.7	A	E					
18							E	2.4	2.9	3.2	3.5	3.4	3.5	A	3.4	A	A	A	E					
19							E	2.5	3.1	3.3	3.5	3.6	3.8	3.6	3.5	3.2	(2.6) A H	2.2	E					
20							E	2.5	2.8	(3.3)A	3.6	(3.8)A	(3.8)A	A	A	A	(2.8)A	(2.4)A	E					
21							E	2.5	A	A	3.4	A	A	A	(3.6)A	A	A	(2.2)A	E					
22							E	A	A	A	A	A	A	(3.8)A	(3.5)H	3.2 H	(2.6)A	A	E					
23							E	2.4 H	2.7	3.2	3.4	3.5	3.6	3.7	3.5	3.2	A	A	E					
24							E	2.2	2.8	3.4	3.6	3.7	3.7	3.7	3.5	3.1 H	2.6	A	E					
25							E	2.4	2.9	3.3	A	3.5	(3.7)A	A	A	(3.4) A F	2.6 F	A	E					
26							E	(2.3)A	2.6	2.9	A	3.7	A	3.6	A	3.2	2.6 H	E	E					
27							E	2.2	3.2	A	A	A	A	B	(3.3)B	A	2.7	2.0	E					
28							E	2.3	2.4 H	3.1 F 1	3.5	3.8	A	3.3	3.2	A	A	A	E					
29							E	2.1	2.6	3.1	3.4	3.4	3.5	3.6	3.5	3.0	A	A	E					
30							E	2.3	2.8	3.2	(3.4)	3.6	3.7	3.7	3.4	3.0	2.5	E	E					
31							E	2.3	2.9	(3.1) A H	3.3 H	3.5 H	3.5 H	3.4	3.2	3.0	(2.8)A	E	E					
Mean Value																								
Median Value							E	2.3	2.8	3.2	3.5	3.6	3.7	3.7	3.4	3.2	2.7	2.0	E					
Count							31	26	23	26	20	21	21	18	23	19	18	13	31					

foE

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K5

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Oct. 1946

h'E

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							E	110	100	90	100	100	100	100	100	100	100	A	E					
2							E	110	100	100	100	A	90	100	100	A	A	E	E					
3							E	E	100	100	A	90	80	90	90	C	A	A	E					
4							E	100H	A	A	A	A	A	110	90	C	A	A	E					
5							E	100	100	100	90	90	90	90	100	100	100	A	E					
6							E	100	100	100	A	A	A	A	100	A	110	E	E					
7							E	110	100	100	100	100	A	A	A	A	A	A	E					
8							E	A	A	A	A	100	100	A	100H	A	A	A	E					
9							E	110	110	110	110	100	A	A	100	110	110	E	E					
10							E	E	A	100	C	C	C	C	100	A	A	A	E					
11							E	A	110	A	A	90	C	C	A	(100)A	100	A	E					
12							E	A	A	100	100	100	100	100	100	110	100	E	E					
13							E	E	A	A	A	B	B	(100)B	A	A	110	E	E					
14							E	100H	A	100	C	C	C	C	C	C	A	A	E					
15							E	A	A	90	A	100	90	100	100	100	110	A	E					
16							E	A	A	100	100	A	100	C	A	100	A	E	E					
17							E	A	100	110	A	A	90	100	100	A	110	A	E					
18							E	120	110	110	100	100	100	A	100	A	A	A	E					
19							E	100	100	100	100	90	100	100	100	100	A	E	E					
20							E	110	100	100	100	A	A	A	A	A	A	A	E					
21							E	F	A	A	100	A	A	A	A	A	A	A	E					
22							E	A	A	A	A	A	A	A	100H	100H	A	A	E					
23							E	100	100	100	110	100	110	A	100	90	A	A	E					
24							E	110	100	A	100	100	100	100	100	AH	100	A	E					
25							E	90	A	100	A	100	A	A	A	A	100	A	E					
26							E	A	100	100	A	A	A	100	A	110	AH	E	E					
27							E	E	100	A	A	A	A	B	100	A	110	E	E					
28							E	E	100	90	110	100	A	100	110	A	A	A	E					
29							E	E	110	100	90	100	100	100	100	110	A	A	E					
30							E	E	100	100	100	A	100	100	100	110	100	E	E					
31							E	E	A	AH	90H	100H	100H	100	100	100	A	E	E					
Mean Value																								
Median Value							-※-	110	100	100	100	100	100	100	100	100	100	-※-	-※-					
Count							0	14	19	22	17	17	16	16	22	14	13	0	0					

h'E

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K6

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Oct. 1946

fEs

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E	2.2	E	E	E	E	2.9	3.2	3.2	5.4	4.2	4.3	4.3	4.2	4.1	3.3	3.6	4.3	3.3	3.6	3.4	3.6F	E	2.3
2	2.4	3.0	2.1	2.1	2.3	E	3.2	2.8	⌐fE	4.1	4.6	6.2	5.4	4.6	5.8	7.2	4.3	3.0	3.0	E	2.4	2.0	3.2	4.2
3	4.0	3.2	2.8	2.8	E	E	2.4	2.8	6.6	5.0	4.9	⌐fE	⌐fE	4.7	4.0	C	4.8	7.2	4.6	3.4	3.3	2.4	E	E
4	E	E	E	E	E	E	E	2.5	3.2	4.2	4.2	4.2	4.2	⌐fE	⌐fE	4.2	4.4	4.7F	2.8	3.2F	3.2	2.8	2.4	2.4
5	E	E	E	E	E	E	2.2	3.6	4.2	4.9	4.3	4.1	4.2	4.3	4.3	⌐fE	4.2	4.0	2.4	3.2	E	E	2.2	2.8
6	2.6	2.0	E	E	2.8	2.6	3.2	2.8	4.0	⌐fE	4.6	4.3	4.6	5.0	4.0	4.1	3.7	3.6	6.1	3.8	5.3	3.0	2.8	5.4
7	4.2	2.2	2.1	2.1	3.2	2.2	3.0	3.2	4.2	5.0	5.0	5.2	7.1	4.8	4.9	5.4	6.2	4.8	7.2	7.0F	7.2	4.8F	4.2F	4.0F
8	2.8F	3.0	2.2	2.2	2.4	2.0	2.8	3.2F	4.2	4.9	6.8	4.3	4.2	4.3	4.1	3.2	3.1	3.2	3.2	3.0	3.2	3.4	3.9	4.2
9	3.2	E	E	E	E	E	⌐fE	2.7	3.6	4.2	3.6	⌐fE	4.2	3.9	⌐fE	4.0	4.5	3.2	3.0	2.8	2.8	E	5.4	6.4
10	6.8	4.5	E	E	E	3.1	2.4	3.8	2.8	5.6	C	C	C	C	9.0F	5.0	4.2	7.4	5.2	4.0	7.2	5.0	4.2	4.2
11	3.2	3.2	2.4	2.4	2.6	4.0	4.8F	5.0F	⌐fE	4.2	4.0	4.3	C	C	4.3	3.9	3.0	2.8	2.4	3.6	2.2	2.8	4.0	3.2
12	2.8	2.3	2.4	2.4	5.3	2.1	2.1	3.0	3.3	4.0	4.1	⌐fE	4.3	4.2	4.3	⌐fE	⌐fE	E	E	E	E	E	E	E
13	2.2	2.0	E	E	E	E	2.0	3.0	3.2	3.9	4.0	⌐fE	⌐fE	⌐fE	3.8	3.6	3.8	2.9	2.7	2.2	4.2	3.0	2.8	2.2
14	2.1	2.1	2.0	2.0	2.0	E	E	3.3	3.9	4.2	C	C	C	C	C	C	3.6	3.9	3.4	4.0	4.3F	4.2	2.2	E
15	E	2.2	E	E	E	E	E	2.8	3.4	6.2	5.0	5.4	4.2	5.0	4.6	5.0	5.4	5.4	5.2	2.2F	2.8	4.2	3.6	3.0
16	E	3.0	E	E	E	E	E	3.2	4.2	4.2	8.6	6.2	5.3	C	4.3	5.2	3.6	3.0	E	E	2.1	2.8	2.4	2.8
17	6.2	9.2	3.6	3.6	2.4	2.7	4.0	3.8	⌐fE	3.8	5.4F	6.0	7.1F	6.2	6.9	9.2	6.8	14.5D	9.0	6.4	6.2	4.4		3.8
18	2.2	E	5.5	5.5	4.7F	2.8F	2.6	3.2	3.2	4.3	4.4	4.0	4.3	4.3	4.8	4.8	4.6	3.4	4.2	4.2	4.2	2.8		2.8
19	2.4	2.6	4.0F	4.0F	2.8	2.8F	E	3.4F	5.8	4.3	⌐fE	⌐fE	⌐fE	4.0	4.1	4.2	4.1	2.6	4.0	3.5	2.8	E		E
20	E	E	E	E	E	E	3.2	3.1	4.2	4.1	3.4	4.2	4.2	5.5	5.0	4.1	4.2	6.8	3.2	3.0	3.2	3.0		E
21	E	E	3.2	3.2	2.8F	2.8F	2.6	3.2F	4.2	8.0	5.6	9.2F	6.7F	6.4	5.2	5.4	4.2	3.0	3.0	5.4F	5.4F	4.2		3.8
22	2.6	2.1	2.5	2.5	2.7	2.7	2.9	4.2	4.2	4.2	4.2	4.1	5.4	5.1	⌐fE	3.1	6.6	8.6	4.4	4.6F	4.7	4.7		3.5
23	4.0	4.7F	2.6	2.6	2.2	E	E	3.0	3.7	4.3	4.1	3.7	4.7	4.1	4.9	5.4	4.8	5.6	7.9F	3.2F	3.8	2.2		2.4
24	6.6F	5.8	2.8	2.8	E	3.6	3.2	2.8	4.2	4.8	4.3	4.7	4.3	4.1	3.9	5.3F	5.0	5.0F	4.7F	4.0	2.8F	2.1		4.8
25	3.4	5.5	3.6	3.6	2.6	E	E	4.2	3.4	4.2F	4.2	5.5	4.3	4.6	6.0	5.8F	7.6F	8.4	8.6	4.2	3.2	E		9.2F
26	7.8F	2.2	E	E	E	E	4.5	3.0	3.8	4.2	5.2	4.3	7.2	4.2	5.8	4.3	3.6	E	4.0	5.4F	E	2.0	E	2.2
27	2.0	9.2F	4.9	4.9	4.4	3.2	4.2	2.8	4.8	3.8	5.6	5.4	6.2	4.2	⌐fE	3.2	⌐fE	2.1	3.3	3.0	2.1	E	E	7.2F
28	5.8F	3.8F	4.2F	4.2F	3.1	2.8	2.6	2.9	⌐fE	4.2F	4.2	4.4	5.3	4.3	4.3	4.9	7.0	5.6	4.0	6.0	3.6	3.8	2.6	E
29	3.2	3.2	2.0	2.0	2.0	E	2.2	2.5	3.2	4.0	4.3	5.1	4.3	4.3	4.1	4.0	4.2	3.4	4.2F	3.4	2.9	E	E	4.2
30	E	3.2	E	E	E	E	E	E	2.9	4.0	4.0	4.2	4.1	5.1	⌐fE	4.3	2.9	2.2	E	4.8	2.2	E	E	E
31	E	E	E	E	2.2	E	E	E	3.2	⌐fE	⌐fE	4.1	4.1	⌐fE	⌐fE	4.0	4.0	3.2	2.8	3.4F	3.0	3.0	2.6	2.8
Mean Value																								
Median Value	2.6	2.3	2.4	2.1	2.2	E	2.4	3.0	3.6	4.2	4.3	4.3	4.3	4.3	4.3	4.2	4.2	3.6	3.4	3.5	3.2	2.8	2.4	2.8
Count	31	31	31	31	31	31	31	31	31	31	29	29	28	27	30	29	31	31	31	31	31	31	31	31

fEs

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K1

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Oct. 1946 | **(M3000)F2** | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.2	3.1	3.0	2.9	2.6	2.7H	3.0	3.2H	5H	3.5	3.1H	3.2	3.2	3.1H	3.4H	3.5	3.4	3.4	3.4	3.2	2.6	2.9	2.6	2.8
2	2.7	2.7	2.8	3.0	3.3	3.3	3.1	3.6	3.7	3.3H	3.3	3.2	3.1	3.0	3.1H	3.2	3.3	3.5	3.3	2.9	2.9'	3.0	2.7	2.9
3	2.7	2.6	(2.8)	2.8	2.8	3.4	3.4	3.5	3.6	3.5	3.6	3.3H	3.1H	3.3H	C	C	3.3	3.4	(3.5)S	3.2	3.0	2.9	2.9	3.0
4	2.7	2.7	2.7	3.1	2.8	3.1	3.3	3.6	3.6	3.2	3.3	3.3	3.3H	3.2H	3.2	3.3	3.2	3.4	3.6	3.3	3.1	2.8	2.9	3.0
5	3.0	3.0	2.8	2.6	2.7	2.7	3.4	3.5	3.4	3.3	3.3	3.2	3.3	3.1	3.2	3.4	3.3	3.4	J	3.5	3.0	3.2	3.0	2.9
6	2.9	2.8	2.8	J	3.1	2.9	3.2	3.5	3.3	3.4	3.3	3.2H	3.1	3.0	3.2H	3.2	3.2	3.3	3.4	2.9	A	2.9	2.8	3.0
7	2.9	2.8	3.0	2.8	3.0	3.0	3.3	3.4	3.5	3.4	3.1	3.2	3.2	3.2	3.2	3.3	3.3	3.4	3.5	3.0	3.1	3.2	3.0	2.8
8	2.8	2.9	2.9	2.8	2.8	3.0	3.3	7.5	3.5	3.4	3.4	3.2	3.2	3.2	3.1	3.3	3.4	3.5	3.4	3.2	3.1	3.0	3.0	3.0
9	3.0	2.9	2.9	3.0	2.9	2.9	3.2	3.5	3.4	3.5	3.1	3.0	3.1	3.2	3.1	3.2H	3.3	3.1	3.0	3.6	3.3	2.9	2.9	3.0
10	3.0	2.9	2.9	2.9	2.8	2.8	3.2	3.4	3.6	3.7	C	C	C	C	3.3	3.3	3.5	J	3.0	3.1	3.3	3.9	2.8	2.8
11	2.6	2.9	3.0	3.3	3.2	3.2	3.3	3.4	3.6	3.5	3.4	(3.5)C	C	C	3.2	3.4	3.5	3.4	3.3	3.0	3.3	3.6	2.8	2.8
12	2.8	2.8	2.9	3.1	3.3	2.9	3.4	3.6	3.5	3.8	3.1	3.3	3.3	3.4	3.2	3.2	3.4	3.4	3.3	3.3	3.0	2.8	2.7	2.8
13	2.8	3.1	3.2	3.2	3.2	3.0	3.5	4.1	3.6	3.7	3.3	3.4	3.6	3.2	3.3	3.2	3.5	2.8	3.0	2.8	3.0	2.8	2.8	2.8
14	2.7	2.2	3.1	3.5	3.1	3.1	3.3	3.7	3.7	3.3	C	C	C	C	C	C	3.2	J	3.6	2.8	2.9	2.9	3.1	3.1
15	3.0	2.8	2.9	3.0	3.2	2.8	2.9	3.5	(3.4)C	3.4	3.4	3.3H	3.2H	3.2H	3.2H	3.1	3.2	3.3	3.2	2.9	3.1	3.3	3.1H	3.1
16	3.0	2.8	2.9	3.1	3.0	2.9	3.4	3.8	3.7	3.3	3.3	3.3	3.0	(3.0)C	3.1	3.2	3.3	3.1	2.9	3.0	3.0	3.1	2.9	2.7
17	2.6	2.9	3.1	2.7	2.8H	2.9H	3.1	3.5	3.4	3.5	3.2	3.2	3.1	3.0H	3.0	3.2	3.2	A	3.2	3.0	2.9	3.2	3.1	3.0
18	2.9	3.0	3.2	3.5	3.1	2.8	3.3	3.6	3.3	3.4	3.2	3.1	3.1H	3.1	3.1H	3.2	3.4	J	3.2	3.1	3.2	3.2	3.3	3.2
19	2.9	3.0	3.0	3.1	3.3	2.9	3.8	3.9	3.4	3.3	3.2	3.3	3.1H	3.0H	3.2	3.1	3.2	3.1	3.4	3.1	3.0	2.0	2.9	3.1
20	2.9	2.8	2.9	3.1	3.0	2.8	3.2	(3.5)	3.4H	3.2	3.1H	3.2H	3.1	3.0	3.0	3.1	3.0	3.2	(3.1)	3.1	3.0	2.9	2.9	2.7
21	2.8	2.8	2.8	2.8	2.7	2.9	3.3	3.5	3.2	3.5	3.3	3.2H	3.2H	3.3H	3.3H	3.2	3.2	3.0	3.1	3.2	3.2	3.2	2.8	2.9
22	2.9	2.9	2.9	2.8	2.9	2.7	3.2	3.3	3.7	3.4	3.4	3.1	3.0	3.0H	3.0	3.1	3.0	3.3	3.1	2.9	3.5	3.3	3.1	2.7
23	2.8	2.7	2.8	3.0	3.0	2.8	3.1	3.8	3.7	3.3	3.2	3.1H	3.0H	3.0H	3.1	3.0	3.1	(3.2)A	3.0	2.9	3.0	3.2	3.0	2.7
24	2.7	2.6	2.9	3.0	3.2	3.0	3.2	(3.5)	3.2	3.5	3.1	3.1H	3.0	3.0	3.1H	3.0	3.3	3.3	3.2	2.9	2.9	2.9	2.8	2.9
25	J	2.7	2.6	2.8	2.8	2.9	2.4	3.5	3.4	3.2	3.4	3.2	3.1H	3.2H	3.2	3.1	3.2	3.3	(3.3)S	3.0	3.0	2.9	3.0	3.3
26	J	3.1	3.0	2.8	2.7	2.6	3.1	3.6	3.7	3.4	3.1	3.2	3.1	3.0H	3.1H	3.2	3.1	(3.1)	3.0	3.2	3.1	2.8	3.0	2.8
27	2.7	2.9	3.1	2.9	3.0	2.7	3.2	3.4	(3.4)	(3.3)	2.9	3.1	3.0	B	(3.4)	(3.1)H	3.1	3.1	3.2	3.1	2.9	3.1	2.6	A
28	2.9	2.7	2.7	3.0	2.6	2.8	2.7	3.0	3.2	(3.3)D	(3.4)D	3.1	3.3H	3.1	3.0	3.2	3.2	(3.4)	3.3	3.2	3.0	3.2	(3.1)	2.8
29	2.7	2.8	3.0	2.9	2.7	2.6	3.0	3.5	3.6	3.3	(3.5)	3.4	3.1H	3.1	3.3H	3.2	3.3	3.4	3.2	3.1	3.0	3.2	2.8	2.8
30	(2.8)	2.8	2.8	3.0	3.6	3.1	3.2	3.5	3.5	3.4	3.3	3.3H	3.1	3.1	3.3	3.3	3.3	3.3	3.2	3.2	3.1	3.4	3.5	3.1
31	3.1	3.1	3.1	3.2	3.0	3.1	3.6	3.8	4.0	3.5	3.3	3.2H	3.2	3.1	3.2	3.4	3.2	3.3	3.0	3.1	2.8	2.9	3.4	3.1
Mean Value																								
Median Value	2.8	2.8	2.9	3.0	3.0	2.9	3.2	3.5	3.5	3.4	3.3	3.2	3.1	3.1	3.2	3.2	3.3	3.3	3.2	3.1	3.0	3.0	2.9	2.9
Count	29	31	31	30	31	31	31	31	30	31	29	29	28	27	29	29	31	27	30	31	30	31	31	30

(M3000)F2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K8

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

IONOSPHERIC DATA

Nov. 1946 | foF2 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	4.2	4.4	4.7	4.4	4.0	3.9	4.8	(9.5)	12.1	13.6	14.5	14.5 D	14.0	13.6 H	13.3	13.5	12.0	10.3	8.3	7.5	7.9	6.7	5.8	5.4
2	5.4	5.1	5.4	4.5	4.3 I/F	4.5	5.6	9.2	12.1	14.0	(14.7)	(14.5)	13.1	12.8	12.6	C	C	8.9	6.8	7.5	5.1 J	4.7	3.5 J	3.7 J
3	3.8	3.8	3.9	4.1	3.6	3.3	4.9	8.6	10.7	B	12.9	12.1	11.1	11.9	12.6	11.2	(9.7) S	8.7	7.8	7.3	6.4	4.9	4.2	3.4
4	3.6	3.7	3.7	4.2	3.8	3.4	4.1	7.2	9.1	11.1	10.9	12.1	12.7	12.5	12.0	(11.0) C	(10.0)	9.3	6.6	6.1	5.8	4.5	3.8	3.9
5	4.0	4.1	4.2	4.4	4.3	3.8	5.4	8.7	9.3	11.0	12.4	11.7	12.3	12.6	12.6	11.3	9.7	8.8	6.8	7.2	6.4	4.3	4.4	4.3
6	4.4	4.3	4.2	4.2	3.9	4.0	5.2	(9.6)	11.1	12.9	12.8	(13.5) S	12.8	13.0	13.0	12.2	10.0	9.1	8.7	7.8	7.5	6.8	5.7	6.1
7	6.0	4.9	5.4	5.8	5.5	5.8	6.2	8.7	11.6	13.2	14.0	14.8	14.2	13.3	12.4	12.3	12.0	10.6	(9.3)	6.5	(5.2)	5.0 J	5.2	(4.8) J
8	4.8	4.8	4.8	4.7	4.2	4.1	4.8	8.7	11.6	12.0	12.8	12.8	12.6 H	12.9	12.3	13.0	11.2	9.0	7.6	5.9	4.8	(4.6)	4.1	4.0
9	3.8	3.8	3.9	4.1	3.7	3.5	4.1	9.0	11.0	(10.3)	11.4	11.5	12.7	12.0 H	12.0	10.5	10.2	(9.8) S	7.9	6.4	5.6	5.5	5.2	4.7
10	4.5	4.4	4.8	4.1 J	3.4	3.5	(4.6)	(9.7)	11.9 J	10.8	12.0	12.0	12.2	12.1	12.4	11.0	12.3	9.5	6.6	6.2	6.0	5.1	4.5	4.4
11	4.0	3.8 J/F	3.8 F	4.2	(3.6] C	3.0	4.4	8.2	10.0	11.0	11.5	11.9	13.0	13.5	13.4	12.6	10.6	8.6	6.7	7.2	6.8	5.4	4.6	(4.5)
12	(4.5)	4.5	4.5	4.6	4.0	3.9	4.9	2.5	9.6	11.4	12.8 H	12.2	12.9	13.4	12.9	11.7 H	11.3	(9.8)	7.4 H	6.4	5.7	4.8	4.8	4.7
13	4.8	(4.6)	4.5 F	4.7	4.7	3.9	4.8	9.4	11.2	12.9	13.2	12.9	13.4	13.0 H	13.4	12.3	C	C	7.8	6.9	(5.1)	4.7	(4.5)	4.2
14	4.3	4.3	4.3	4.3	4.3	3.9	5.5	(9.8)	11.9	13.2	13.2	13.5	13.0 H	13.9	13.0	(12.7)	12.2	10.8	9.0	8.0	(7.0)	6.4	4.9	4.1
15	3.5	3.9	4.1	3.2	3.5	3.1	4.0	10.5	12.4	10.8	11.9	12.9	12.8	12.8	11.9	11.0	10.4	9.3	7.7	6.4	5.1	4.4	(4.4) S	4.5
16	4.7 J	4.4	4.7	4.7	5.0	4.7	5.8	9.2	11.7	(14.0) B	14.0	(13.5) S	14.0	13.7	13.2	12.2	11.4	(11.0) S	9.3	7.6	8.0	7.2	6.1	5.3
17	4.8	(4.9)	4.9	4.9	4.3	4.3	5.0	11.0	11.2	11.2	12.3	13.0	12.7	(14.0) S	(12.2) S	12.3	12.0	9.2	7.9	7.2	5.6	4.5	4.3	3.8
18	3.9	4.0	4.2	4.4	4.0	4.0	4.8	9.9	11.2	12.6	(13.4) B	12.5	12.2	12.5	12.6	11.4	10.6	8.5	6.8 H	7.8	5.5	4.6 J	4.3	4.1
19	4.1	4.1	4.2	4.0	3.8	4.0	4.8	8.8	10.8	11.2	12.0	11.8	12.6 H	12.3	11.4	10.5	9.8	9.0	7.3	6.5	5.1	4.3	4.7	5.0 J
20	4.0	3.6	3.4	4.0	4.0 D	3.7	4.2	8.4	(9.8) S	11.8	12.1	12.0 H	12.1 H	11.0	10.7	9.8 H	(9.6) S/H	9.5	7.5	5.9	4.8	4.4	4.3	4.2
21	4.0	4.0	4.3	3.9	3.2	(3.5) F	3.7 J	10.3	10.9	11.2	12.7	12.3	12.4	11.7	10.9	10.7	10.6	8.6	8.2	6.5	5.7	6.0	5.8	5.9
22	5.9	5.5	5.2	5.3	4.9	4.3	4.7	(11.0)	11.5	12.6	13.7	13.2	12.8	12.3	12.3	11.8 H	11.8	10.8	8.3	7.2	5.1	4.4	4.0	3.9
23	3.8	3.8	4.2	4.1	3.8	4.0	4.3	9.4	11.1	13.0	13.5	12.8	13.2 H	13.0	13.3	12.0	10.5	8.5	7.7	6.4	5.3	C	C	C
24	3.8	3.8	3.8	3.9	3.3	2.9	3.4	(10.0)	11.3	11.1	11.6	12.0	12.8 H	13.5	12.6	11.6 F	10.2	8.6 H	8.9	6.5	4.5	4.3	4.0	3.8
25	3.9	3.8	4.2	2.9	2.5	2.4	3.2	8.7	12.6 J	13.0	11.7	12.3 H	13.6	13.3 H	12.7	12.1	11.3	(9.7) S	(7.4) S	5.7	5.2	4.4	4.1	3.5
26	(3.4) F	(3.4) F	(3.5) A	3.8	3.4	3.1	3.7	8.1	10.8	11.4	13.0	12.1	12.1 H	11.9 H	11.4	10.9	10.4	9.3	6.7	5.5	5.0	4.0	3.7	3.6
27	3.2	3.3	3.5	3.5	3.3	3.1	3.9	8.1	10.9	12.2	11.0	11.5	11.2	11.1	10.9	10.0	8.8	8.2	6.0	4.9	5.0	4.7	3.5	2.9
28	3.1	3.1	3.0	3.0	3.1	3.1	4.0	7.6	10.4	(9.7) S	10.7	10.8	10.8 H	11.2	10.3	10.2	8.7	6.7	5.2	4.3	3.7	4.0	3.3	3.0
29	3.0	3.2	3.2	3.2	3.1	3.3	3.7	7.7	9.2	(10.0) A	11.0	10.8	12.3	12.0	12.2	11.5	(9.7)	8.7	6.4	4.8	3.8	4.2	3.1	3.2
30	3.3	3.3	3.3	3.6	3.8	3.4	3.6	7.9	9.0	9.3	10.5	(10.7) B	10.5	12.0	12.4	10.9	9.0	7.2	5.3	4.7	3.3	3.8	3.5	3.5
31																								
Mean Value																								
Median Value	4.0	4.0	4.2	4.2	3.8	3.8	4.7	8.9	11.1	11.4	12.6	12.3	12.7	12.7	12.4	11.5	10.5	9.0	7.6	6.5	5.3	4.6	4.3	4.1
Count	30	30	30	30	30	30	30	30	30	29	30	30	30	30	30	29	28	29	30	30	30	29	29	29

foF2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 1

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Nov. 1946

h'F2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	380	360	270	250	310	350	260	210	230	220	220	240	220	240H	230	220	210	200	200	230	260	A	250	250
2	250	A	280	270	HF	300	220	220	220	220	220	220	210	230	220	C	C	190	200	220	A	240	A	A
3	320	300	300	260	220	(300)	250	220	190	210	200	220	200	210	220	200	190	200	200	200	200	200	210	260
4	300	290	270	250	210	220	210	190	200	220	200	200	220H	210H	210	(220)C	220	210	210	250	240	210	250	300
5	290	270	260	230	200	(230)E	210	190	180	200	220	210	220	230	220	200	200	200	210	230	220	230	300	310
6	300	260	290	250	250	310	280	220	210	200	200	210	210	230	210	210	190	200	220	250	230	260	310	270
7	250	270	330	260	240	230	210	190	200	220	210	210	210	220	200	200	200	180	190	200	210	A	260	280
8	270	250	250	250	210	270	220	200	180	190	210	200	210H	210	210	210	200	200	200	210	230	230	250	300
9	310	310	300	270	220	260	260	200	210	200	210	210	260	210H	230	220	210	200	210	210	210	250	250	270
10	300	280	250	220	200	300	250	220	220	200	220	220	240	210	210	200	200	190	200	200	240	230	240	260
11	250	350	310	310	(260)C	200	270	210	210	200	200	210	230	220	220	210	190	190	210	240	240	230	240	280
12	290	270	260	250	250	280	210	200	200	210	210H	200	220	240	220	220H	200	200	190H	220	220	250	270	280
13	280	270	310H	280	240	240	250	220	200	190	190	200	200	200H	230	210	C	C	A	(230)	210	250	260	290
14	330	290	250	250	250	300	250	200	210	230	210	200	200H	230	220	220	210	190	200	200	210	220	220	280
15	320	310	250	250	260	300	270	210	200	200	200	190	210	240	200	200	200	200	200	200	210	270	350	320
16	290	320	310	290	260	260	220	210	200	200	200	200	210	220	210	210	220	220	210	200	250	230	210	250
17	260	290	280	230	280	250	290	220	210	210	210	220	230	220	210	230	200	200	210	210	200	230	240	280
18	280	290	270	260	210	290	250	210	200	210	210	200	200	210	210	200	200	190	200H	230	200	240	260	260
19	270	280	260	240	230	280	220	200	200	190	220	210	210H	190	180	180	190	190	200	200	200	250	270	220
20	210	280	320	310	220	250	220	190	190	190	200	180H	190H	200	210	220	210H	200	220	200	210	240	260	270
21	300	220	250	200	210	330	330	200	200	200	210	210	210	210	220	220	210	210	220	200	200	260	340	290
22	240	250	240	280	280	330	310	200	210	210	220	210	220	220	220	210H	220	210	190	200	210	240	280	280
23	(310)A	340	300	270	280	310	250	210	200	200	210	210	210H	230	240	220	200	240H	240	190	220	230	300	360
24	310	300	270	250	220	360	280	210	200	200	210	210	200H	200	210	220F	200	240H	240	190	220	220	240	230
25	370	290	230	210	330	340	310	220	200	190	190	180	190	180H	180	200	(200)A	(180)A	(160)B	190	220	220	250	270
26	320F	330F	330	250	200	300	250	200	200	190	210	200	200H	200H	200	220	200	200	190	210	210	220	250	270
27	270	310	270	250	240	270	220	210	270	220	200	200	200	220	210	220	180	190	210	210	240	210	250	280
28	320	320	290	180	270	250	210	190	200	190	210	200	210H	220	200	210	200	190	200	200	210	220	220	280
29	340	340	320	260	260	250	230	200	200	180	200	190	210	210	210	180	190	190	190	180	220	230	290	250
30	270	290	280	280	250	230	200	200	200	200	200	190	190	200H	200	200	190	180	180	190	260	240	240	260
31																								
Mean Value																								
Median Value	290	290	280	250	250	280	250	210	200	200	210	210	210	220	210	210	200	200	200	210	220	230	250	280
Count	30	29	30	30	29	30	30	30	30	30	30	30	30	30	30	29	28	29	29	30	29	27	28	28

h'F2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K2

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

IONOSPHERIC DATA

Nov. 1946 | foF1 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1									L	L	L	L	L	A	4.7	4.1								
2										L	L	L	4.9	L	L	C	C							
3										L	4.7	L	4.8	L	L									
4										L	4.7	3.9	4.5	4.7	4.5	C								
5								2.9	3.8	4.2	5.4	L	L	L	4.6	A								
6									L	3.5	L	4.8	5.5	L	L	4.8	3.7							
7										L	L	L	L	L										
8										L	L	4.6	L	L	L	4.8								
9										4.6	L	4.7	5.5	4.8	L	L								
10											L	5.4	L	L	L									
11										4.0	4.0	L	4.8	L	B	L	L							
12										L	4.7	L	L	4.5	4.5	4.7								
13									L	L	L	L	L	L	L									
14									A	L	5.2	L	L	L	4.3	L	L							
15										4.5	4.5	4.7	L	5.5	4.2	3.6	4.5							
16										L	3.7	4.5	L	4.6	L	4.5	L							
17									L	(4.2) B	B	4.6	B	L	L	L								
18										L	5.1	L	L	L	L	L								
19											L	L	L	4.7	(4.4) B	B	L							
20										L	L	4.6	4.0	L	5.3	4.6	3.3							
21										L	L	L	L	L	L	L	L	L						
22										L	4.7	L	L	L	L	L	L							
23									L	L	L	L	L	L	4.8	L								
24									L	3.4	L	L	L	L	A	L								
25									L	L	4.9	L	L	L	L	L	A							
26										L	4.2	L	L	L	L	L								
27										L	L	L	L	L	L	L								
28											L	L	L	L	4.0	L								
29										4.6	L	L	L	L	L									
30											4.6	4.3	L	L	L									
31																								
Mean Value																								
Median Value								※	※	4.2	4.7	4.6	4.8	4.7	4.5	4.6	3.7	※						
Count								1	1	8	13	10	7	6	10	7	3	0						

foF1

Sweep 4.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 3

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

IONOSPHERIC DATA

Nov. 1946 | h'F1 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1									220	210	210	190	210	A	210	220								
2										200	200	210	200	200	210	C	C							
3										200	200	190	200	200	210									
4										200	190	170	180	200	180	C								
5									170	180	190	190	200	200	200	A								
6									210	210	190	180	200	200	210	210	200							
7								190		200	200	200	200	200										
8										180	200	190	180	190	200	210								
9										180	200	210	200	210	210	210								
10											200	200	210	200	200									
11										200	200	200	200	200	210	200	190							
12										200	200	200	200	230	220	220								
13									200	190	190	200	180	200	210									
14									A	200	190	190	180	200	200	210	210							
15										190	180	190	180	190	200	190	190							
16										200	210	200	210	190	200	200	200							
17									220	200	210	(180)H	(210)B	220	200	220								
18										200	200	190	200	200	200	200								
19											200	190	200	190	170	180	180							
20										200	190	180	190	200	180	190	210							
21										200	200	190	190	210	210	210	210	200						
22										210	210	200	200	210	210	220	220							
23									200	180	200	190	200	220	210	250								
24									200	200	200	190	190	210	200	210								
25									200	200	170	170	170	190	190	180	A							
26									200	180	220	190	180	190	190	200								
27										210	200	190	190	200	200	200								
28											190	200	170	210	190	200								
29										180	190	180	180	190	190									
30											170	180	180	170	200									
31																								
Mean Value																								
Median Value								X	200	200	200	190	200	200	200	210	200	X						
Count								1	9	26	30	30	30	29	29	21	9	1						

h'F1

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K4

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

IONOSPHERIC DATA

Nov. 1946 | foE | 135° E Mean Time

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

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							E	2.2	(3.0)A	3.3	3.5	3.5	3.7	3.5	3.3	3.2	3.0	(2.0)						
2							E	2.4	2.8	3.1	3.3	3.3	3.4	3.3	3.2	C	C	E						
3							E	2.3	2.8	A	3.2	3.4	A	3.5	(3.2)B	3.0	2.4	E						
4							E	2.4	2.7	3.1	3.3	3.5	3.7	3.4	3.2	(2.7)C	2.2	E						
5							E	2.2	2.8	(3.0)A	3.4	3.6	3.5	3.6	3.4	3.0	2.7	E						
6							E	2.2	2.8	3.0	3.4	3.6	(3.7)A	(3.5)B	3.3	3.1	A	E						
7							E	A	2.8	3.2	(3.6)A	F	(4.0)A	3.8	3.4	2.9	A	E						
8							E	2.3	2.9	A	3.5	3.7	3.7	3.7	3.5	3.5	2.6	E						
9							E	E	2.8	3.2	3.5	3.8	3.7	3.6	3.4	3.0	2.4	E						
10							E	2.3	2.8H	2.9H	3.0	A	3.5	B	3.4	2.5	A	E						
11							E	2.3F	3.0	3.3	3.5	3.7	3.8	3.5	3.2	3.0	2.4	E						
12							E	(2.5)A	3.0	3.2H	3.4	B	3.7	3.7	3.4	3.2	2.5	E						
13							E	2.2	2.9	3.0	A	B	3.9	3.8	B	3.5	C	C						
14							E	2.2	A	(3.5)A	(3.6)A	3.8	3.7	3.7	3.4	3.3	2.5	E						
15							E	2.2	A	3.1	3.5	3.7H	3.7	3.5	3.4	3.1	2.4	E						
16							E	2.2	(3.0)A	3.3	3.4	3.7	(3.7)B	3.7	3.5	(2.8)A	2.4	E						
17							E	2.2	2.8	3.1	3.2	A	B	(3.4)$^{B}_{H}$	(3.4)A	2.9	(2.6)A	E						
18							E	A	A	3.4	A	3.8	3.7	3.5	3.4	3.0	2.5	E						
19							E	2.4	3.0	3.2	3.5	3.7	3.7	3.5	3.4	3.0	2.3	E						
20							E	1.9	3.0	3.1	3.6	3.8	B	3.7	3.5	3.4	2.2	E						
21							E	2.3	2.7	3.3	3.7	3.6	3.6	3.7	3.6	2.8H	2.2H	A						
22							1.9	2.1	2.8H	3.3	3.8	3.8	3.8	B	3.4	3.1	2.5	A						
23							E	2.3	2.8H	(3.4)A	(3.5)$^{B}_{H}$	3.8	3.8	A	3.4	2.9	2.3	1.7						
24							E	2.0	2.4H	(3.0)A	3.8	3.8	3.8	3.7	3.4	3.3	2.3	B						
25							E	1.9	2.8	3.3	3.7	3.7	3.6	3.7	3.4	A	A	A						
26							E	2.1	3.8	3.1	3.2	B	3.6	3.5	3.3	2.9	2.5	(1.7)B						
27							E	2.2	2.7	A	3.6	3.6	3.6	3.5	3.3	2.9	2.4	E						
28							E	2.0	2.8	3.4	3.4	3.7	3.5	3.6	3.3	2.8H	2.8	B						
29							E	2.1	2.5H	3.2	A	3.6	3.4	3.4	3.4	2.9	2.3	E						
30							E	1.8	2.7H	3.4	3.4	3.5	3.4	3.4	3.3	3.0	2.1	E						
31																								
Mean Value																								
Median Value							E	2.2	2.8	3.2	3.5	3.7	3.7	3.5	3.4	3.0	2.4	E						
Count							30	28	27	27	27	24	27	27	29	28	24	26						

foE

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 5

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

IONOSPHERIC DATA

Nov. 1946 | h'E | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							E	E	110	100	A	A	A	100	100	110	110	E						
2							E	120	A	100	100	100	90	100	110	C	C	E						
3							E	E	100	A	100	100	A	100	110	100	110	E						
4							E	E	100	100	100	110	100	110	110H	C	E	E						
5							E	E	A	A	100	110	90	100	100	110	A	E						
6							E	E	110	100	90	100	100	100	A	110	A	E						
7							E	A	A	100	A	F	90	100	100	100	A	E						
8							E	E	110	A	100	100	100	100	100	110	A	E						
9							E	E	110	100	100	100	100	100	110	100	100	E						
10							E	E	100H	100H	100	A	100	90	100	110	100	E						
11							E	E	120	100	100	100	100	100	100	110	100	E						
12							E	A	100	100H	100	B	110	110	100	110	110	E						
13							E	E	120	100	A	B	100	100	B	110	C	C						
14							E	E	A	A	A	100	100	100	100	110	A	E						
15							E	E	A	100	100	100H	100	100	100	100	110	E						
16							E	E	A	A	100	100	100	100	100	100	130	E						
17							E	E	120	100	100	A	100	100H	A	A	A	E						
18							E	A	A	90	A	100	90	90	A	100	100	E						
19							E	A	A	90	A	100	100	90	90	A	110	E						
20							E	120	100	100	90	90	90	90	80	100	110	E						
21							E	120	110	100	90	90	90	90	90	100H	100H	A						
22							E	140	110H	110	110	110	100	B	100	100	100	A						
23							E	130	110H	A	BH	A	100	A	A	110	100	A						
24							E	140	100H	100	A	A	A	100	100	110	100	B						
25							E	B	90	100	90	80	A	80	A	A	A	A						
26							E	110	100	100	110	70	90	90	100	A	A	B						
27							E	A	100	A	100	100	100	90	90	100	110	E						
28							E	130	110	110	100	100	90	90	90	100H	A	B						
29							E	A	100H	100	A	90	90	80	A	100	110	E						
30							E	130	AH	100	A	80	100	90	90	100	90	E						
31																								
Mean Value																								
Median Value							※	130	110	100	100	100	100	100	100	100	110	※						
Count							0	9	21	23	20	22	26	28	23	24	19	0						

h'E

Sweep 2.0 Mc to 15.0 Mc in 15 min ☐ Manual ☐ Automatic

K6

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Nov. 1946

fEs

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E	2.8	2.8	E	E	E	E	E	4.0F	4.1	3.8	4.1	5.3	5.1	⌐fE	⌐fE	3.3	E	2.1	E	4.9F	6.0F	4.2	2.7
2	2.7	4.8	4.6	2.8	5.2F	2.8	2.1	⌐fE	3.0	3.1	3.6	4.0	4.1	4.1	4.0	C	C	2.1	3.0	2.4	5.5F	4.7	4.0F	4.3
3	4.1	2.0	E	2.1	2.9	2.5	2.5	2.2	3.1	4.0	4.0	3.6	3.6	4.2	⌐fE	4.2	4.4	4.2	E	3.8	2.8	E	E	E
4	3.0	2.6	E	2.0	E	E	E	2.0	2.5	⌐fE	4.0	3.0	4.2	4.2	3.0	C	2.1	2.8	E	E	4.2	E	E	E
5	2.8	2.3	2.0	2.0	2.0	E	E	2.9	4.0	4.0	⌐fE	3.7	4.0	⌐fE	⌐fE	4.7	⌐fE	E	E	E	E	E	E	2.4
6	2.0	E	2.0	2.2	2.3	2.0	2.6	2.5	⌐fE	4.1	3.8	⌐fE	5.2	3.3	4.1	3.5	3.2	2.7	2.0	2.2	E	2.6	6.3	2.7
7	2.7	2.5	E	E	E	E	E	2.8	4.2	5.5	4.7	5.8F	4.7	5.4	5.3	4.2	3.5	2.9	2.2	2.5	4.9	5.6F	2.8	6.1
8	2.8	E	E	E	E	E	E	2.7	3.2	4.2	⌐fE	3.4	5.5	3.0	4.3	⌐fE	3.6	E	E	2.2	E	2.2	2.2	E
9	2.2	3.2F	2.8	2.8	2.0	2.6	3.2	2.6	⌐fE	4.2	3.3	⌐fE	4.2	⌐fE	⌐fE	⌐fE	2.4	3.2	2.6	3.2	3.2	2.8	2.6	E
10	E	E	E	E	E	E	E	⌐fE	3.1	4.0	4.2	4.2	⌐fE	3.2	⌐fE	2.2	3.3	2.4	2.6	3.0	E	E	E	E
11	E	2.2	2.0	E	C	E	2.1	E	⌐fE	⌐fE	⌐fE	⌐fE	⌐fE	6.3	4.2	4.2	4.3	E	E	2.7	4.6	2.7	E	E
12	E	E	E	2.0	E	E	E	⌐fE	⌐fE	4.2	5.0	4.0	4.0	⌐fE	3.0	⌐fE	⌐fE	E	3.2	2.6	E	2.4	2.0	2.8
13	E	E	2.6	4.2F	2.8	2.2	E	2.8	3.3	4.4	4.8	B	4.3	4.3	B	⌐fE	C	C	7.2	5.2	2.8	3.4	4.0F	2.8F
14	2.8	2.2	3.2	E	E	E	E	E	4.2	4.2	5.4	4.1	⌐fE	⌐fE	3.3		3.3	3.2	2.6	E	E	E	2.6	2.8
15	E	E	E	E	E	E	E	2.7	4.0	4.0	⌐fE	⌐fE	⌐fE	⌐fE	⌐fE	3.4	3.5	2.8	E	E	E	E	E	E
16	E	E	E	E	E	E	E	2.1	3.6	4.8F	4.4	4.2	⌐fE	⌐fE	⌐fE	3.7	3.0	E	2.6	E	E	E	E	E
17	E	E	E	4.2F	3.0F	2.8	2.2	E	⌐fE	⌐fE	⌐fE	4.0	⌐fE	⌐fE	4.6	3.2	4.0	4.2	5.2	3.8	2.8	3.0	3.0	2.0
18	2.3	E	E	2.2	E	E	2.1	4.9	4.8F	⌐fE	4.2	7.3	⌐fE	4.1	3.9	⌐fE	3.0	2.6	2.6	2.2	2.6	E	E	E
19	E	E	E	E	E	E	2.8F	2.6	3.0F	4.1	4.0	⌐fE	⌐fE	⌐fE	⌐fE	⌐fE	⌐fE	E	E	E	E	2.0	2.1	1.9
20	E	E	E	E	E	1.7	E	1.7	⌐fE	⌐fE	⌐fE	⌐fE	⌐fE	⌐fE	⌐fE	4.0	4.1	2.3	2.4	3.2	2.5	E	E	2.0
21	E	E	E	E	E	E	E	2.6	3.1	⌐fE	4.0	⌐fE	⌐fE	⌐fE	⌐fE	4.6	⌐fE	3.0	2.6	4.0	4.2	E	E	E
22	E	E	E	E	E	1.9	⌐fE	4.2	4.0	4.0	4.3	6.4	⌐fE	⌐fE	⌐fE	⌐fE	3.1	3.0	1.6	E	E	E	E	E
23	2.8	2.4	2.2	2.0	2.2	E	E	⌐fE	⌐fE	4.2	4.3	4.4	4.0	5.0	4.6	3.5	3.2F	3.1	E	E	3.0	C	C	C
24	E	E	E	E	4.3	E	E	⌐fE	3.4	4.2	4.2	5.4	4.2	⌐fE	5.6	3.9	⌐fE	⌐fE	E	E	E	E	E	E
25	E	E	E	E	E	E	E	2.7	⌐fE	⌐fE	⌐fE	⌐fE	5.1	5.1	5.1	5.1	5.6	4.9	3.0	2.2	E	E	E	E
26	E	E	E	E	E	E	2.1	2.5	3.4	3.7	⌐fE	⌐fE	⌐fE	⌐fE	3.0	2.8	3.1	1.8	E	E	E	E	E	E
27	E	E	E	E	1.3	E	E	2.6	4.6F	4.2	3.3	4.2	4.2	4.3	⌐fE	⌐fE	⌐fE	E	2.8	E	E	E	E	E
28	E	E	E	E	E	E	E	2.1	3.5	2.8	⌐fE	4.3	⌐fE	⌐fE	3.2	2.7	2.8	E	E	E	2.2	E	E	E
29	E	E	E	E	E	E	E	2.4	3.1	3.9F	⌐fE	⌐fE	⌐fE	4.1	⌐fE	⌐fE	2.9	3.0	E	2.0	E	2.2	3.0	E
30	E	E	E	E	E	E	2.0	⌐fE	⌐fE	⌐fE	4.2	⌐fE	3.5	⌐fE	⌐fE	⌐fE	4.0	3.0	E	E	E	E	E	E
31																								
Mean Value																								
Median Value	E	E	E	E	E	E	E	2.3	3.1	4.0	3.9	3.7	3.6	⌐fE	3.0	2.8	3.1	2.6	2.0	2.2	E	E	E	E
Count	30	30	30	30	29	30	30	30	30	30	30	29	30	30	29	28	28	29	30	30	30	29	29	29

fEs

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 7

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Nov. 1946

(M3000)F2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.4	2.5	3.0	3.2	2.5	2.5	3.0	(3.5)	3.4	3.3	3.2	D	3.1	3.2H	3.2	3.0	3.1	3.2	3.1	2.9	3.0	3.1	3.0	2.9
2	2.9	2.8	3.2	2.7	J	2.8	3.1	3.3	3.3	3.3	(3.2)	(3.2)	3.3	3.3	3.2	C	C	3.8	3.2	3.4	J	3.2	J	J
3	2.7	2.9	2.7	3.1	3.6	2.8	3.1	3.5	3.6	B	3.3	3.5	3.4	3.1	3.2	3.4	(3.6)S	3.5	3.5	3.4	3.4	3.3	3.4	3.0
4	3.3	2.9	2.9	3.2	3.2	3.5	3.1	3.7	3.5	3.6	3.4	3.3	3.5H	3.4H	3.3	(3.4)C	(3.5)	3.3	3.2	3.0	3.3	3.6	3.0	2.9
5	2.8	3.0	3.1	3.4	3.7	3.0	3.3	4.0	3.7	3.8	3.5	3.3	3.2	3.2	3.5	3.5	3.6	3.3	3.0	3.3	3.5	3.0	2.7	2.7
6	2.9	3.0	2.8	2.9	2.6	2.6	2.9	(3.4)	3.6	3.3	3.3	(3.4)S	3.2	3.3	3.4	3.4	3.5	2.9	3.0	2.9	3.1	2.9	2.7	2.8
7	2.8	2.8	2.6	2.9	2.9	3.2	3.2	3.4	3.6	3.3	3.5	3.3	3.3	3.2	3.4	3.3	3.5	3.5	(3.6)	3.6	3.4	J	3.1	J
8	2.9	3.1	3.1	3.0	3.5	2.7	3.0	3.5	3.5	3.7	3.5	3.4	3.3H	3.2	3.3	3.1	3.5	3.4	3.3	3.3	3.1	(3.0)	2.9	2.8
9	2.8	2.7	2.8	2.9	3.2	3.1	2.9	3.4	3.6	3.5	3.5	3.1	3.1	3.0H	3.2	3.4	3.2	3.3	3.3	3.3	2.9	2.9	2.9	2.9
10	2.8	3.0	3.0	J	3.1	2.8	3.0	(3.5)	J	3.0	3.3	3.4	3.3	3.2	3.0	3.5	3.2	3.4	~~3.7~~	3.1	3.2	3.3	3.1	3.0
11	2.4	F	2.7	2.9	(2.9)C	2.9	3.1	3.5	3.5	3.3	3.5	3.0	3.0	3.1	3.3	3.3	3.4	3.3	3.0	3.0	3.2	3.2	3.0	(2.9)
12	2.4	2.9	3.1	3.0	2.4	2.7	2.9	3.5	3.6	3.4	3.3H	3.3	3.0	3.0	3.0	3.2H	3.2	(3.3)	3.1H	3.0	3.2	2.9	2.8	2.9
13	2.9	3.0	2.7	3.0	3.3	2.8	2.9	3.5	3.6	3.4	3.4	3.4	3.3	3.1H	3.2	3.3	C	C	3.3	3.3	(3.1)	3.0	3.0	2.8
14	2.7	2.9	3.1	3.2	3.2	2.8	3.1	(3.7)	3.6	3.5	3.3	3.4	3.2H	3.1	3.3	(3.4)	3.3	3.3	3.2	3.1	(3.1)	2.9	3.1	2.8
15	2.7	2.9	3.1	3.0	3.4	2.8	3.0	3.6	3.5	3.5	3.4	3.5	3.1	3.2	3.2	3.3	3.4	3.3	3.4	3.5	3.1	2.9	(2.6)S	2.7
16	J	2.7	2.7	2.9	3.0	3.0	3.1	3.5	3.2	(3.4)B	3.3	(3.1)S	3.0	3.2	3.0	3.1	3.1	(3.4)S	3.1	3.1	3.1	3.2	3.2	3.1
17	3.0	(2.7)	3.0	3.0	3.1	3.2	2.9	3.5	3.5	3.3	3.3	3.2	3.2	(3.2)S	(3.1)S	2.9	3.1	3.3	3.2	3.3	3.3	3.2	3.3	2.9
18	2.9	2.9	3.0	3.0	2.9	2.8	2.9	3.3	3.7	3.3	(3.5)B	3.4	3.3	3.1	3.2	3.2	3.4	3.6	3.1H	3.3	3.3	J	3.1	3.0
19	3.0	3.0	3.0	3.0	2.9	2.7	3.1	3.5	3.6	3.6	3.4	3.2	3.2H	3.5	3.6	3.6	3.5	3.5	3.3	3.4	3.4	3.0	2.8	J
20	3.1	2.6	2.6	2.8	3.2	2.7	3.1	3.6	(3.4)S	3.2	3.6	3.3H	3.4H	3.3	3.5	3.2H	(3.2)$^{H}_{S}$	3.3	3.3	3.3	3.2	2.9	3.0	2.8
21	2.8	2.6	3.1	3.2	3.4	(2.5)F	J	3.6	3.6	3.4	3.3	3.2	3.2	3.2	3.0	3.1	3.3	3.3	3.4	3.0	2.7	2.8	2.4	2.8
22	2.7	3.0	2.5	2.6	2.7	2.6	2.9	(3.4)A	3.2	3.4	3.4	3.2	3.5	3.2	3.1	3.1H	3.3	3.4	3.2	3.5	3.0	2.9	2.8	2.8
23	2.7	2.5	2.8	2.7	2.7	2.5	2.9	3.5	3.4	3.4	3.4	3.4	3.1H	3.1	3.0	3.0	3.3	3.2	3.3	3.3	3.0	C	C	C
24	2.7	2.7	2.9	3.1	3.2	2.9	2.9	(3.6)	3.6	3.5	3.5	3.2	3.3	3.2	3.2	3.1F	3.2	3.1H	3.3	3.4	3.0	2.8	2.4	2.4
25	2.5	2.5	2.8	3.4	2.5	2.6	2.7	3.4	J	3.7	3.5	3.3	3.3	3.3H	3.3	3.4	3.5	(3.8)S	(3.8)S	3.5	3.3	3.2	3.2	3.1
26	(2.6)F	(2.6)F	(2.6)A	3.1	3.6	2.7	2.9	3.5	3.6	3.5	3.5	3.4	3.4H	3.3H	3.3	3.3	3.3	3.6	3.5	3.4	3.3	3.2	2.9	2.8
27	3.1	2.7	3.0	3.1	3.1	2.9	3.0	3.6	3.5	3.5	3.3	3.5	3.3	3.3	3.4	3.6	3.6	3.4	3.3	3.4	3.0	3.4	3.1	2.7
28	2.7	2.7	2.9	3.7	2.8	3.0	3.3	3.6	3.7	(3.7)S	3.7	3.6	(3.3)H	3.4	3.4	3.5	3.6	3.7	3.6	3.5	3.0	3.1	3.0	2.8
29	2.5	2.5	2.8	3.2	3.1	3.1	3.1	3.7	3.7	(3.8)F	3.6	3.4	3.4	3.4	3.3	3.6	(3.6)	3.5	3.6	3.5	3.0	3.3	2.7	3.0
30	2.4	2.8	2.9	2.9	3.4	3.4	3.1	3.7	3.1	3.7	3.8	3.7	3.3	3.3H	3.6	3.6	3.8	3.5	3.6	3.4	2.8	3.2	2.9	3.0
31																								
Mean Value																								
Median Value	2.8	2.8	2.9	3.0	3.2	2.8	3.0	3.5	3.6	3.4	3.4	3.3	3.3	3.2	3.2	3.3	3.4	3.4	3.3	3.3	3.1	3.1	3.0	2.8
Count	29	29	30	29	29	30	29	30	28	29	30	29	30	30	30	29	28	29	30	30	29	27	28	26

(M3000)F2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K8

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Nov. 1946

fminF

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E	E	E	E	E	E	E	2.2	3.0	3.3	3.5	3.7	3.8	4.8	3.5	3.2	2.8	E	E	E	3.0	5.2	2.5	E
2	E	3.7	3.4	E	4.7	E	E	2.4	2.8	3.2	3.7	4.1	3.8	3.7	3.3	C	C	E	E	E	E	2.8	2.7	4.0
3	E	E	E	E	E	E	E	2.3	2.8	3.4	3.8	3.8	3.8	3.8	3.8	3.6	2.2	E	E	2.2	E	E	E	E
4	E	E	E	E	E	E	E	2.4	3.0	3.3	3.6	3.5	3.7	3.6	3.6	(2.9]C	2.2	2.1	E	E	E	E	E	E
5	E	E	E	E	E	E	E	2.2	2.8	3.0	3.4	3.7	3.9	3.6	3.4	3.4	2.7	E	E	2.2	E	E	E	E
6	E	E	E	E	E	E	E	2.2	2.8	3.0	3.4	3.6	3.7	3.7	3.3	2.7	2.5	E	2.4	E	E	E	2.6	E
7	E	E	E	E	E	E	E	2.4	2.8	3.2	3.7	3.9	4.0	3.8	3.4	2.8	2.1	E	E	E	2.8	4.7	E	2.6
8	E	E	E	E	E	E	E	2.3	2.9	3.5	3.5	3.7	3.7	3.7	3.5	2.6	2.6	E	E	E	E	E	E	E
9	E	E	E	E	E	E	E	2.4	2.8	3.7	3.8	3.8	3.7	3.6	3.4	3.0	2.4	E	E	E	E	E	E	E
10	E	E	E	E	E	E	E	2.3	3.1	3.2	3.8	3.6	4.0	3.7	3.7	2.5	3.0	E	E	E	E	E	E	E
11	E	E	E	E	E	E	E	2.3	3.0	3.3	3.5	3.8	3.8	3.9	3.5	3.0	2.6	E	E	E	3.2	E	E	E
12	E	E	E	E	C	E	E	2.5	3.0	3.5	3.7	4.1	4.0	3.7	3.5	3.2	2.7	E	E	E	E	E	E	E
13	E	E	E	E	E	E	E	2.2	2.9	3.1	3.8	4.1	3.9	3.9	4.0	3.5	C	C	5.2	2.8	E	E	E	E
14	E	E	E	E	E	E	E	2.2	3.6	3.4	3.6	3.8	3.7	3.7	3.4	3.3	2.5	E	E	E	E	E	E	E
15	E	E	E	E	E	E	E	2.7	3.0	3.1	3.5	3.7	3.7	3.8	3.4	3.1	2.4	E	E	E	E	E	E	E
16	E	E	E	E	E	E	E	2.2	3.0	3.2	3.4	3.7	3.7	3.7	3.5	3.0	2.7	E	E	E	E	E	E	E
17	E	E	E	E	E	E	E	2.2	2.8	3.4	3.2	3.6	3.8	4.0	3.4	2.9	2.6	2.7	2.4	2.4	2.2	E	2.2	E
18	E	E	E	E	E	E	E	2.1	A	3.4	3.7	3.8	3.9	3.8	3.4	3.0	2.5	E	E	E	E	E	E	E
19	E	E	E	E	E	E	E	2.4	3.0	3.2	3.5	3.7	3.7	3.5	3.4	3.0	2.2	E	E	E	E	E	E	E
20	E	E	E	E	E	E	E	1.9	3.0	3.1	3.6	3.8	3.8	3.7	3.5	3.4	2.2	E	E	E	E	E	1.4	1.4
21	1.4	1.4	E	E	E	E	E	2.3	2.7	3.3	3.7	3.7	3.7	3.8	3.7	3.8	2.6	2.0	1.4	1.4	1.7	1.4	1.8	1.5
22	E	E	E	E	E	E	E	2.1	3.0	3.4	3.9	3.8	3.8	4.0	3.4	3.1	2.5	2.2	1.5	E	E	E	E	E
23	E	E	E	E	E	E	E	2.3	2.9	3.4	3.7	3.8	3.8	4.2	3.4	3.0	2.3	1.7	1.4	1.4	1.4	C	C	C
24	1.4	1.4	E	E	E	E	E	2.0	2.8	3.0	3.8	3.8	3.8	3.8	3.4	3.3	2.4	1.8	E	E	1.4	1.4	1.4	E
25	1.4	E	1.4	1.4	E	1.4	1.4	1.9	2.8	3.4	3.7	3.7	3.6	3.7	3.4	3.6	2.1	2.0	1.7	1.7	1.9	1.5	1.4	1.5
26	1.4	E	E	E	E	E	E	2.1	2.7	3.1	3.5	3.8	3.6	3.5	3.3	2.9	2.4	1.7	1.4	1.5	1.4	1.4	1.4	1.4
27	E	E	E	E	E	E	1.4	2.2	2.7	3.0	3.6	3.6	3.6	3.5	3.3	2.9	2.4	1.5	1.5	1.5	1.5	1.5	1.4	1.4
28	1.5	1.5	E	E	E	1.4	1.5	2.0	2.8	3.4	3.4	3.7	3.5	3.6	3.3	3.0	2.8	1.8	1.4	1.4	1.4	1.5	1.5	1.5
29	1.4	E	E	E	E	E	E	2.1	2.9	3.1	3.5	3.6	3.4	3.4	3.9	2.9	2.3	1.6	1.4	1.4	1.5	1.5	1.5	E
30	E	E	E	E	E	E	E	1.8	3.1	3.4	3.4	3.5	3.5	3.4	3.4	3.0	2.2	1.5	1.5	1.5	1.7	1.5	1.4	1.4
31																								
Mean Value																								
Median Value	E	E	E	E	E	E	E	2.2	2.9	3.3	3.6	3.7	3.8	3.7	3.4	3.0	2.5	E	E	E	E	E	E	E
Count	30	30	30	30	29	30	30	30	29	30	30	30	30	30	30	29	28	29	30	30	30	29	29	29

fminF

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K9

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

IONOSPHERIC DATA

Nov. 1946 | fminE | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E	E	E	E	E	E	E	E	E	E	E	E	E	2.1	E	2.1	2.1	E	E	E	E	E	E	E
2	E	E	E	E	E	E	E	E	E	E	E	E	2.2	2.3	E	C	C	E	E	E	E	E	E	E
3	E	E	E	E	E	E	E	E	E	E	E	2.8	E	2.2	2.2	2.2	E	E	E	E	E	E	E	E
4	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	C	E	E	E	E	E	E	E	E
5	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	2.1	E	E	E	E	E	E	E	E
6	E	E	E	E	E	E	2.4	E	E	E	E	E	2.2	2.1	E	E	E	E	E	E	E	E	E	E
7	E	E	E	E	E	E	E	E	2.2	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
8	E	E	E	E	E	E	E	E	E	E	E	E	E	2.1	E	E	E	E	E	E	E	E	E	E
9	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
10	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
11	E	E	E	E	C	E	E	E	E	E	E	E	E	2.2	E	E	E	E	E	E	E	2.2	E	E
12	E	E	E	E	E	E	E	E	E	E	E	3.7	2.4	2.1	E	2.1	E	E	E	E	E	E	E	E
13	E	E	E	E	E	E	E	E	E	E	E	B	2.3	E	B	2.7	C	C	E	E	E	E	E	E
14	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
15	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	2.2	E	E	E	E	E	E
16	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
17	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
18	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
19	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
20	E	E	E	E	E	E	E	E	1.8	E	E	2.4	2.6	E	E	E	1.8	E	1.9	E	E	E	E	E
21	E	E	E	E	E	E	E	1.4	1.5	E	1.9	1.7	1.7	1.7	1.7	1.7	1.6	1.4	1.4	2.2	1.4	E	E	E
22	E	E	E	E	E	E	E	1.4	1.4	1.6	1.8	1.9	1.7	3.3	2.1	1.6	1.6	1.6	1.5	E	E	E	E	E
23	E	E	1.4	E	1.4	E	E	E	1.5	1.5	3.5	2.0	2.5	2.0	2.0	1.9	E	1.4	1.4	1.4	1.9	C	C	C
24	E	E	E	E	2.0	E	E	1.5	1.5	2.0	2.0	2.0	2.0	2.1	1.9	2.0	1.4	E	E	E	E	E	E	E
25	E	E	E	E	E	E	E	1.5	1.6	1.7	1.9	1.9	2.0	1.9	1.6	1.7	1.5	1.4	1.7	1.9	E	E	E	E
26	E	E	E	E	E	E	E	1.4	1.5	2.0	2.0	2.0	1.9	2.0	1.6	1.8	1.7	1.7	E	E	E	E	E	E
27	E	E	E	E	E	E	E	1.5	1.5	1.8	2.3	2.0	1.7	1.8	1.7	1.6	1.6	1.5	1.5	E	E	E	E	E
28	E	E	E	E	E	E	E	1.4	1.4	1.6	1.6	1.7	1.7	1.7	E	E	1.5	E	E	E	1.4	E	E	E
29	E	E	E	E	E	E	E	E	1.4	1.4	1.6	1.7	1.6	1.5	1.4	1.5	1.5	1.4	E	1.4	E	2.0	1.4	E
30	E	E	E	E	E	E	1.8	1.4	E	E	E	1.6	1.5	1.7	1.5	1.5	1.5	1.5	E	E	E	E	E	E
31																								
Mean Value																								
Median Value	E	E	E	E	E	E	E	E	E	E	E	E	E	1.7	E	E	E	E	E	E	E	E	E	E
Count	30	30	30	30	29	30	30	30	30	30	30	30	30	30	29	28	28	29	30	30	30	29	29	29

fminE

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K10

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

IONOSPHERIC DATA

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

Dec. 1946 — foF2 — 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.4	3.6	3.8	3.7	3.8	4.0	4.4	7.8	10.0	9.2	10.2	11.5	11.6	12.1	12.0	10.2	8.0	7.0	5.9	4.3F	3.8	3.8	3.3	3.5
2	3.5	3.5F	3.7F	3.5	3.5	3.6	4.4	8.0	8.2	9.4	12.5H	12.3	13.0	12.7	12.1	11.0	9.8	7.5	7.4	5.1	3.7	3.5	3.4	3.5
3	3.7	3.2	3.7	3.8	3.5	3.9	4.4	8.9	11.0	10.2	13.0	13.3	12.7	12.9	12.1	10.7	9.3	8.6	7.5	6.3	4.1	4.0	3.2	3.4
4	3.6	3.7	3.4	3.4	3.3	3.4	3.8	7.9	9.9J	8.5	13.6	11.5H	11.2	10.5	9.9	10.0	8.4	6.9	5.8	(4.9)	3.9	3.7	3.1	(3.0)
5	3.3	(3.2)	3.2	3.4	3.1	2.9	3.7	9.0	10.3	10.9	10.6	11.4	11.1H	10.7	11.7	10.0	8.8H	7.0	6.1	6.0	5.0	4.3	3.8	3.6
6	3.6	3.9	4.0	3.5	3.7	3.7	4.3	8.0	9.4	10.5	13.0H	12.5H	11.4H	11.9H	11.9	11.4	9.2	8.2	7.4	4.0	3.6	3.4	3.1	3.4
7	3.7	3.7	3.7	4.0	3.6	2.8	3.4	7.8	9.4	10.4	10.3	10.4	11.2	11.6	11.3H	12.2	9.8	8.2	6.3	5.7	4.4	4.2	3.7	3.8H
8	3.9	3.8	3.1	2.9	2.9	2.9	3.7	7.4	9.9	10.9	11.5	12.4	13.0	12.3	11.2	10.6	8.6	7.1	5.6	4.0	4.0	3.9	3.2J	3.4
9	3.3	3.2	3.3F	3.2	3.4	3.2	3.6	7.2	9.2	10.3	11.0	10.9	10.6	12.7	11.4	10.2	8.0	9.2	6.3	5.0	4.5	4.1	3.5	3.3
10	3.4	3.3	3.2	3.0	3.2	3.2	3.0	6.3	9.2	10.8	11.2	11.8	12.0	11.6	11.1	10.8	9.5H	6.9	4.9J	5.5	3.6J	3.1	2.8	3.4
11	3.4	3.4	3.2	3.5	4.2	3.1	3.2	8.0	9.3	10.5	12.5	12.6	11.0	11.1	10.8	10.0	9.2	6.8	6.6	4.3	4.0	4.4H	3.7	3.4
12	3.2	3.3	3.4	(3.4)	(3.4)	3.4	3.5H	7.3	11.0	11.3	11.8	11.8H	12.3	12.4	11.9H	10.5	9.2	7.3	6.8	5.7	5.5	3.4	3.2	3.2
13	3.4	3.1	3.1	3.3	3.0	3.4	3.6	8.0	9.5	10.0	10.2	11.8	12.5	12.3	9.8H	(9.8)	9.2	8.9	5.8	4.5	4.6F	3.8	3.3	3.4
14	3.1	3.1	3.3	3.2	3.2	3.1	3.6	8.4	(9.2)	10.3	12.0	11.5	11.2	10.7	10.4	(9.6)	8.7	7.4	6.6	6.4	4.7J	3.0	3.4	3.4
15	(3.5)	3.3	3.1	3.1	3.3	3.1	3.4	7.0	8.9	(9.7)	10.9H	11.6	11.5H	11.2	9.5	9.2	8.4	7.1	6.6	4.7	4.3	3.8	3.6	(4.4)F
16	(4.2)F	(4.2)	3.7	(3.3)	3.0	3.1	3.5	8.8	9.2	9.1	9.9	10.1	10.6	11.6	11.2	10.5	9.2	7.8	7.1	5.8	5.2	4.4	3.5	3.1
17	3.1	(3.4)J	3.4	3.2	3.1	3.0	3.2	7.8	9.4	(10.0)	10.5	11.0	11.6	10.5	10.5	11.3	9.6	8.1	7.4	6.5	6.0	4.4	4.0	3.1
18	3.5	3.5	3.4	3.4	3.5	2.7	2.8	6.6	8.7	10.1	11.9H	11.9	12.0	11.7	11.1	11.1	9.4	8.2	6.1	4.9	5.1	4.3	3.6	3.5
19	3.6	3.3	3.3	3.7	3.4	2.7	2.9	7.0	9.2	10.5	10.8	12.0	12.0	11.9	12.8	12.0	9.4	9.2	8.7	9.2	7.5	4.4	4.3	4.0
20	4.0	3.9	4.6	3.8	3.1F	2.7	3.1	8.7	9.4	11.2	12.6	12.3	11.4	9.6	10.0	10.3	9.3	7.6	6.3	6.0	4.7	4.3	3.9	3.8
21	3.5	3.4	3.2	(3.4)	3.8	2.5	3.0	7.4	10.0	10.2	12.0	10.8	12.1	10.9H	10.7	9.7	9.3	7.5	7.1	(5.8)	5.4	4.4	4.4	3.8
22	3.1	3.2	3.2	3.4	(3.4)	3.0	2.9	7.2	9.9	11.8	12.0	11.7	11.0	10.5	10.6	10.0	9.3	9.1	6.7	6.3	4.9	4.1	3.7	3.3
23	3.3	3.6	3.2	3.2	(3.2)	3.1	3.5	6.8	9.2	11.0	10.8	11.3	10.8	9.9	10.3	10.3	9.0	8.2	5.7	5.9	5.9	5.4	4.3	3.8
24	4.0F	4.1	3.8	3.4	2.7	2.7	3.2	6.6	10.5	11.8	12.6	11.5	(11.1)C	10.6	9.2	9.3	10.2	8.2	6.7	6.1H	5.4	4.9	3.6	3.0
25	3.1	3.1	3.1	3.1	3.2	2.7	2.9	7.2	9.6	11.8	11.9	10.4	10.7	11.0	10.8	9.4	8.8	7.6	7.6	6.1	4.4	2.8	2.9	2.9
26	3.0F	3.3F	3.2	3.2	3.6	3.0	B	6.4	9.4	9.7	11.3	13.2	10.7	C	C	C	C	C	6.3	5.6	C	C	3.1	3.0
27	3.2	(3.4)	3.1	4.2	3.8	4.6	4.6	(6.9)	8.8	10.5	(12.0)C	12.6	12.0	10.7H	10.7	9.9	9.6	7.8	7.8	7.3	A	A	A	3.2
28	3.1	3.6J	3.5	3.4	3.7	3.2	(4.0)C	6.8	11.2	9.2	11.5	11.4	(9.9)S	12.1	10.5	10.0	8.2	7.9	8.1	6.3	4.6J	3.6	3.1	2.9
29	2.9	2.9	2.9	3.0	2.9	3.0	3.3	7.0	9.3	11.0	C	C	11.7H	11.2	10.8H	10.7	11.8	8.6	5.1	5.4	4.9	3.7	2.9	2.6
30	2.8	2.9	3.1	2.9	2.9	2.8	3.0	6.0	(9.6)S	9.2	10.5	11.0	10.4	12.0	11.4	10.2	9.2	8.0	6.0	5.8	5.8	4.0	(3.2)	3.0
31	3.1	2.9	3.1	2.9	2.9	3.0	3.1	6.1	7.4	9.2	11.5	11.7	12.0	10.7	12.1	11.0	9.6	8.1	6.0	6.2	5.6	(3.6)	(3.2)	3.3
Mean Value																								
Median Value	3.4	3.4	3.3	3.4	3.3	3.1	3.5	7.3	9.4	10.3	11.5	11.7	11.4	11.4	11.0	10.3	9.2	7.9	6.6	5.8	4.7	4.0	3.4	3.4
Count	31	31	31	31	31	31	30	31	31	31	30	30	30	30	30	30	30	30	31	31	29	29	30	31

foF2

Sweep 2.0 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 1

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Dec. 1946

h'F2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	290	300	280	280	280	260	230	190	200	180	190	200	210	230	230	200	200	200	200	200F	220	220	260	270
2	270	310F	(290)A/E	280	320	320	210	190	190	190	190H	200	200	200	210	180	200	190	200	190	210	220	270	290
3	310	320	320	250	230	270	240	200	190	200H	210	210	210	200	200	200	200	190	190	200	220	250	270	300
4	280	230	250	260	230	260	210	200	200	190	200	190H	200	200	200	200	210	(200)A	210	200	220	230	250	280
5	310	300	290	260	220	270	260	220	200	200	200	210	200	210	220	200	190H	200	200	220	190	220	250	340
6	320	290	230	300	320	240	230	210	190	200	200H	200H	210H	210H	220	210	200	190	200	190	220	260	320	340
7	320	290	280	250	210	230	260	210	210	210	210	220	210	220	240H	210	200	180	190	200	210	210	300	280H
8	260	240	230	300	310	320	230	210	210	200	200	190	220	210	200	200	190	190	210	180	250	240	250	260
9	270	250	250F	260	250	250	210	190	180	200	190	190	190	210	190	200	200	200	190	190	210	A	270	310
10	310	300	270	260	270	230	210	200	210	200	210	230	230	210	210	210	190H	(180)A	200	230	190	260	280	310
11	270	280	350	310	240	200	230	210	200	190	210	210	210	210	200	200	210	200	200	200	210	250H	260	260
12	260	280	300	310	280	250	230H	200	200	200	200	200H	190	180	190H	190	190	190	210	200	200	200	270	300
13	280	240	260	(300)E	310	300	220	200	190	190	200	210	200	220	200H	200	190	190	190	180	210F	210	250	280
14	260	300	290	290	260	270	230	200	200	220	210	220	220	220	230	200	200	190	190	190	200	200	250	290
15	290	270	270	270	270	280	250	210	200	190	180H	240	210	230	220	200	210	200	200	200	230	230	290	340F
16	290F	250	250	250	290	310	250	220	200	200	200	220	210	220	210	200	200	200	200	190	210	220	220	300
17	310	280	250	250	270	280	260	210	200	200	200	200	200	210	220	230H	210	200	190	200	190	240	250	340
18	330	280	260	290	240	(280)B	280	220	210	200	240H	220	200	210	220	200	200	180	190	180	220	220	250	300
19	300	300	300	250	200	240	260	200	200	190	200	190	200	210	200	180	190	180	190	200	180	210	(300)A	310
20	310	290	240	210	230F	360	300	200	190	180	210	220	210	210	200	210	200	200	190	210	210	210	(240)B	290
21	260	270	290	(300)A	230	190	260	220	200	200	200	250	210	200H	210	210	200	200	200	180	200	200	240	210
22	250	320	320	250	210	240	260	210	190	200	190	190	190	200	200	190	190	200	190	200	200	230	240	250
23	300	260	270	270	290	290	250	200	200	200	200	210	200	200	200	210	190	200	190	220	220	190	210	(320)B
24	310F	250	200	200	220	300	250	200	190	190	210	200	(220)C	230	180	190	210	190	190	190H	200	200	190	310
25	260	240	270	270	230	210	270	220	190	200	200	200	230	200	210	210	200	200	200	200	190	200	(250)B	270
26	310F	310F	270	250	220	220	200	220	200	200	210	230	250	C	C	C	C	C	180	220	C	C	210	(330)B
27	370	320	280	200	300	290	200	180	180	190	(210)C	210	210	210H	200	200	200	200	200	190	A	A	A	330
28	340	330	310	280	250	230	(240)C	240	200	200	230	210	210	230	210	210	220	220	220	A	210	200	210	320
29	330	330	330	290	310	340	260	220	210	230	C	C	210H	230	210H	210	240	190	200	230	200	210	220	320
30	340	360	300	300	310	310	300	210	210	200	210	240	220	240	210	200	200	200	200	220	220	210	260	330
31	330	330	330	290	250	280	240	200	210	230	240	210	230	200	230	200	180	180	200	200	190	200	260	280
Mean Value																								
Median Value	300	290	280	270	250	270	240	210	200	200	200	210	210	210	210	200	200	200	200	200	210	220	250	300
Count	31	31	31	31	31	31	31	31	31	31	30	30	31	30	30	30	30	30	31	30	29	28	30	31

h'F2

Sweep _____ Mc to _____ Mc in _____ min ☐ Manual ☐ Automatic

K2

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

IONOSPHERIC DATA

Dec. 1946 | f_oF1 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1										L	L	L	L	L	3.9	3.7								
2												A	A	L	L									
3										A	L	L	L	L	L	3.2								
4										3.7	L	L	L	L	L									
5											L	5.1	L	4.5	4.6	4.5	3.2							
6												4.3	4.8	L	3.7	3.9	3.0							
7												L	B	L	L									
8										L	L	B	L	L	L									
9												B	B	L	B									
10											L	L	L	L	L									
11											L	L	L	B										
12											5.1	B	L	B	B									
13												L	L	L	L									
14												L	L	4.9	L									
15												L	L	L										
16												L	L	L	L									
17													L	L	L									
18												L	L	L	A									
19										L	L	L	L	L										
20												L	L		L									
21											L	L	L	L	L									
22												L	L	L	B									
23											4.6	L	L											
24											L	L	C	L										
25											L	L	L	L	L									
26											L	L	6.8	C	C									
27											C	L	L	L	L									
28											L	L	L	L										
29											C	C	L	4.6										
30												L	L	5.4										
31									L	L	L	BK	BK	BK	LK									
Mean Value																								
Median Value									—	—	—	—	—	4.8	3.9	3.8	—							
Count									—	1	2	2	2	4	3	4	2							

f_oF1

Sweep 1.3 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 3

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

IONOSPHERIC DATA

Dec. 1946 | **h'F1**

Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' 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										170	170	170	200	210	220	A								
2												A	190	180	170									
3										A	200	200	180	190	200	190								
4										190	190	190	190	190	190									
5											200	200	200	190	210	200	180							
6												200	210	200	200	190	200							
7												200	200	210	200									
8										200	190	180	210	190	200									
9												170	180	200	200									
10											200	210	230	210	190									
11											200	200	200	200										
12											180	190	180	180	180									
13												200	180	200	190									
14												210	200	200	210									
15												A	200	220										
16												210	200	200	200									
17													200	200	200									
18												210	200	210	A									
19										190	190	180	200	200										
20												220	200		190									
21											190	250	210	200	210									
22												180	180	190	B									
23											200	190	200											
24											200	200	[200]C	200										
25											190	200	200	180	190									
26											200	190	200	C	C									
27											C	200	200	190	180									
28											200	200	210	200										
29											C	C	190	210										
30												200	210	210										
31									200	200	BK	BK	BK	BK	BK									
Mean Value																								
Median Value									—	190	200	200	200	200	200	190	—							
Count									1	5	15	26	30	27	19	3	2							

h'F1

Sweep 1.3 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K4

97

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

IONOSPHERIC DATA

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

Dec. 1946 | foE | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							E	1.8	A	A	3.7	3.6	3.5 J	3.4	A	A	2.2	1.4						
2							E	2.0	2.2	2.6	A	A	3.6	A	A	A	A	E						
3							E	2.0	2.7	A	3.4	3.7	3.7	3.6	3.3	2.7	2.4	E						
4							E	1.9	2.4 H	2.8 H	3.8	3.7	3.7	3.5	3.4	3.3	2.1	1.8						
5							E	1.9	2.8 F	A	3.4	3.4	3.4	3.4	3.7	2.8	2.4	E						
6							E	1.9	2.5	2.9	3.4	3.6	3.7	3.7 H	3.4	2.8	2.2	1.5						
7							E	2.0	2.7	3.1	3.4	3.5	3.5	3.5	3.2	2.9	2.4	E						
8							E	2.0	2.8	3.2	3.4	3.6	B	3.8	3.5	3.4 J	2.7	E						
9							E	1.9	2.8	3.2	3.4	3.7	(3.8) B	3.2	3.4	3.0	1.7	A						
10							E	1.8	2.7	3.2	3.4	3.8	3.6	3.6	3.1	3.2	2.7	E						
11							E	2.1	2.7	3.6 J	3.2	3.8	3.7	3.8	3.6	3.0	2.4	1.6						
12							E	2.0	2.8 J	3.4	3.8	3.8	3.7	3.4	3.2	3.0	2.5	1.7 J						
13							E	2.3	2.7 H	3.4	3.4	3.6	3.6	3.6	3.4	A	2.4	1.5						
14							E	1.8	2.9	3.4	A	A	3.8	3.6	3.2	2.8 H	2.2 H	1.8 J						
15							E	1.9	2.6	3.2	3.9	3.4	3.9	3.5	3.6 H	3.0	2.5	1.7						
16							E	2.0 F	2.6	3.4	3.7	3.6 J	3.8	3.5	3.5	3.2	2.0 H	E H						
17							E	1.9	3.0	3.4	3.8	3.7	3.7	3.7	3.5	3.3	2.2 H	1.6						
18							E	1.9	2.6	3.2	3.5	3.8	3.8	3.8	A	(3.4)	2.5	1.8 J						
19							E	E H	2.6	3.1	3.1	3.7	3.9	3.8	3.4	A	2.4	1.8						
20							E	E H	2.4	3.4 J	3.5	3.6	3.8	3.4	A	3.2	2.2 H	1.5						
21							E	2.0	2.7	3.0	3.4	3.4	3.7	3.4	3.2	2.8	2.4	1.7 J						
22							E	E H	2.8	3.2	3.5	3.8	3.7	3.4	B	2.7 H	A	E						
23							E	E H	2.5	2.9	A	3.6	3.6 J	3.6	3.4 J	A	2.3 H	E						
24							E	1.5	2.5	2.8	3.4	(3.6) B	[3.6] C	3.6	B	B	2.7	E						
25							E	1.7	2.7	3.2	3.4	3.5	(3.5) JB	3.4	3.3	2.9	2.4	E						
26							E	E	2.6	2.9	3.4	A	A	C	C	C	C	C						
27							E	B	2.2 H	2.7 H	[3.3] C	B	3.4	(3.4) B	3.3	A	A H	E						
28							E	E	2.3 H	A	A	A	3.4	A	A	2.7	A	A						
29							E	E	2.3 H	A H	C	C	3.2	3.3	3.0	A	2.1 H	1.7 J						
30							E	E	2.3 H	3.2	A	B	A	3.6 J	A	2.9	2.3	E						
31							E	(1.8) B	B K	B K	B K	B K	B K	B K	B K	B K	B K	A						
Mean Value																								
Median Value							E	1.9	2.6	3.2	3.4	3.6	3.7	3.5	3.4	3.0	2.4	1.4						
Count							31	30	29	25	24	23	27	27	21	21	25	27						

foE

Sweep 1.3 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K5

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35 42.4 N
Long. 139° 29.3' E

Dec. 1946

h'E

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							E	E	A	A	90	100	100	100	A	A	100	E						
2							E	140	A	A	A	90	90	A	A	A	A	E						
3							E	130	A	A	A	90	90	90	90	110	100	E						
4							E	110	110H	100H	110	90	80	90	90	110	100	E						
5							E	B	AE	A	A	90	90	90	90	100	110	E						
6							E	150	100	100	A	90	100	100H	100	100	100	E						
7							E	140	110	100	100	100	90	100	100	100	100	E						
8							E	150	100	100	100	100	100	100	100	100	90	E						
9							E	E	110	100	A	90	90	90	90	100	E	A						
10							E	E	100	100	100	100	100	90	90	90	90	E						
11							E	130	100	100	100	100	100	100	100	130	100	E						
12							E	140	110	110	90	90	90	80	90	A	110	E						
13							E	E	90H	90	100	100	90	90	90	100	110	E						
14							E	E	110	120	A	A	110	100	100	100H	100H	E						
15							E	130	E	90	90	110	100	110	100	100	110	E						
16							E	AE	A	100	100	100	100	100	100	100	100H	EH						
17							E	A	110	100	100	90	100	100	100	90	100H	E						
18							E	A	100	100	100F	100	100	100	A	90	100	90						
19							E	EH	100	90	100	90	90	100	100	100	100	E						
20							E	EH	100	90	100	100	100	100	90	100	100H	E						
21							E	B	110	100	100	100	100	100	100	90	100	E						
22							E	EH	100	90	90	90	90	90	B	90H	AH	E						
23							E	EH	100	100	A	100	100	100	100	A	100	E						
24							E	E	100	100	100	100	[100]C	100	B	B	B	E						
25							E	E	100	100	100	100	100	90	90	100	100	E						
26							E	B	100	100	100	A	A	C	C	C	C	C						
27							E	B	90H	90H	[100]C	100	90	100	100	A	AH	E						
28							C	E	100H	A	A	A	100	A	A	100	A	A						
29							E	E	110H	AH	C	C	110	110	110	A	100H	100						
30							E	E	AH	100	A	100	A	100	A	100	100	E						
31							E	B	BK	BK	BK	BK	BK	BK	BK	BK	BK	A						
Mean Value																								
Median Value							—	140	100	100	100	100	100	100	100	100	100	100						
Count							—	9	23	24	20	26	28	27	22	22	23	20						

h'E

Sweep 1.3 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K6

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

IONOSPHERIC DATA

Dec. 1946 | fEs | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E	E	E	E	E	E	E	3.1	4.0	3.7	4.1	3.6	4.3	<fE	4.8	4.3	2.4	E	E	2.8	5.4	3.1	E	3.1[F]
2	2.6	E	4.4[F]	4.0[F]	2.8	2.8	3.6[F]	<fE	4.2[F]	5.2	5.2	5.3	4.6	4.9	4.9	5.2	3.2	3.4	E	4.0	4.1	E	E	E
3	E	2.4	E	E	E	E	E	2.8	3.0	3.5	3.6	<fE	<fE	<fE	<fE	3.0	<fE	4.2	2.9	E	E	E	E	E
4	E	2.3	2.3	E	E	E	E	2.3[F]	<fE	<fE	3.4	3.1	<fE	3.5	3.0	3.1	3.2	5.2	4.2	2.2	E	3.0	2.4	E
5	2.4	2.6	2.8	1.6	1.5	4.2	E	<fE	3.4[F]	3.4	3.6	<fE	4.2	3.9	3.7	<fE	2.6	2.1	2.0	E	E	E	E	E
6	E	E	E	E	E	E	E	<fE	3.0	<fE	4.0	<fE	3.4	3.4	3.6	3.5	4.0	2.9	E	3.0	2.4	2.9	2.1	2.1
7	2.8	2.5	2.2	E	E	E	E	<fE	3.1	<fE	4.2	<fE	4.2	4.1	4.0	4.0	4.0	3.2	2.8	E	E	4.0[F]	3.0	2.4
8	2.6	1.9	E	E	E	E	E	E	2.8	<fE	<fE	<fE	3.2	<fE	<fE	<fE	3.5	2.9	3.1	E	2.8	E	E	E
9	E	2.2	E	E	2.1	E	2.1	2.9	3.7	6.3	3.5	3.1	<fE	3.8	4.9	3.5	2.4	4.3	2.7	3.0	3.0	4.0	2.9	2.1
10	E	E	E	E	2.6	2.8	2.0	<fE	<fE	3.7	<fE	5.0	5.0	4.3	4.0	3.1	4.0	2.8	3.0	2.6	E	E	E	E
11	E	E	E	2.6	E	E	2.6	2.6	3.0	<fE	<fE	<fE	<fE	4.3	4.0	4.2	3.6	E	2.2	3.1	2.4	E	2.4	2.5
12	1.5	E	2.0	E	E	E	E	<fE	<fE	5.0	4.1	<fE	3.5	4.2	3.2	3.1	3.0	2.1	3.1	3.1	3.1	1.9	E	E
13	E	E	E	E	E	E	E	E	2.9	3.5	4.2	4.0	4.0	4.2	3.6	3.2	<fE	1.5	E	E	E	E	E	E
14	2.2	E	E	E	E	2.3	2.3	3.5	3.7	<fE	4.2	4.2	<fE	<fE	3.8	2.9	2.7	E	E	E	E	E	E	E
15	E	E	E	E	E	E	E	2.8	3.4	3.6	4.7	<fE	4.4	<fE	<fE	<fE	<fE	2.4	2.8	3.0	E	E	E	E
16	E	E	E	2.6	2.8	E	2.4	3.0[F]	3.0[F]	3.6	4.4	4.7	4.8	4.2	3.8	3.4	<fE	E	E	E	E	E	E	E
17	E	E	E	E	E	E	E	2.7	3.0	<fE	<fE	4.6	4.6	4.9	4.1	2.8	<fE	E	2.9	1.9	E	E	E	E
18	E	E	2.3	2.2	E	E	3.2	1.9	3.2	4.2	4.1[F]	4.0	5.0	4.8	5.6	5.4[F]	2.0	2.1	2.5	E	2.3	2.2	E	E
19	1.6	E	E	E	E	E	E	<fE	3.7	<fE	<fE	4.1	4.2	<fE	4.0	3.5	<fE	E	E	E	E	3.1[F]	4.3[F]	2.7[F]
20	E	E	E	2.3	E	2.3	E	E	<fE	4.3	4.3	4.2	4.2	4.3	3.8	3.1	2.2	E	E	2.2	E	2.8	2.8	2.8
21	E	E	E	3.6	2.8	E	2.3	E	<fE	<fE	<fE	<fE	4.2	4.2	4.6	4.2	4.4	2.9	E	E	E	E	E	E
22	E	E	E	E	E	E	2.8	2.3	3.2	3.6	<fE	4.4	3.6	4.1	B	3.0	3.3	2.4	E	E	2.6	E	2.4	3.2
23	1.5	E	E	E	2.9	3.6	E	E	2.2	3.0	4.2	<fE	4.2	<fE	4.6	3.8	<fE	E	2.8	E	E	E	E	E
24	E	E	E	E	E	E	E	E	2.1	3.5	<fE	<fE	C	<fE	4.0	3.0	E	3.1	E	E	E	E	E	2.9
25	E	E	2.7	3.6	2.9	2.1	2.9	3.1	2.9	<fE	<fE	<fE	<fE	<fE	3.7	3.0	<fE	2.9	E	3.0	2.0	E	E	E
26	E	E	E	E	E	E	E	E	<fE	<fE	4.1	3.9	4.1	C	C	C	C	C	1.9	2.0	C	C	E	E
27	E	E	E	E	E	E	E	E	2.8	3.3	C	<fE	4.1	<fE	3.5	3.0	2.8	2.6	2.2	1.8	7.1	5.0	5.0	4.1
28	3.2	E	E	2.5	2.5	E	C	E	3.0	3.5	4.0	4.0	<fE	4.0	4.0	2.9	3.2	3.2	5.6	5.2	2.8	2.2	E	E
29	E	E	E	E	E	E	E	E	<fE	<fE	C	C	4.1	4.3	4.2	3.6	<fE	2.8	2.3	E	3.0	2.9	E	2.1
30	3.1[F]	3.0[F]	E	E	E	E	E	E	2.9	<fE	4.5	4.7	4.2	<fE	4.0	3.1	<fE	E	E	2.2	E	E	E	2.1
31	E	E	E	E	E	E	E	E	B	B	B	B	B	B	B	B	B	2.5	2.4	3.0	E	2.2	2.1[F]	E
Mean Value																								
Median Value	E	E	E	E	E	E	E	<fE	3.0	3.4	4.0	3.1	4.1	3.9	3.9	3.1	2.4	2.5	2.2	1.9	E	E	E	E
Count	31	31	31	31	31	31	30	31	30	30	28	29	29	29	28	29	29	30	31	31	30	30	31	31

fEs

Sweep 1.3 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K 7

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Dec. 1946

(M3000)F2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.7	2.8	2.8	2.9	2.8	2.9	3.3	3.8	3.8	3.8	3.7	3.4	3.3	3.4	3.3	3.7	3.7	3.3	3.5	3.7 F	3.4	3.2	2.9	3.1
2	2.9	2.8 F	2.7 F	2.8	2.7	2.7	3.2	3.8	4.0	3.5	3.2 H	3.5	3.5	3.5	3.6	3.4	3.6	3.3	3.4	3.5	2.9	3.1	2.9	2.8
3	2.5	2.9	2.7	2.9	3.0	2.8	2.9	2.7	3.9	3.4 H	3.6	3.5	3.4	3.4	3.4	3.4	3.5	3.4	3.4	3.6	3.2	3.2	2.9	2.8
4	2.8	3.2	2.9	3.1	3.0	2.9	3.2	3.7	J	4.0	3.8	3.5 H	3.6	3.7	3.4	3.2	3.3	3.5	3.5	(3.2)	3.3	3.3	2.8	3.0
5	2.7	2.9	2.9	3.2	3.4	2.9	2.8	3.6	3.5	3.6	3.8	3.4	3.4	3.3	3.5	3.6	3.3 H	3.4	3.4	3.1	3.5	3.2	3.0	2.6
6	2.6	2.8	3.1	2.7	2.6	2.9	3.3	3.6	3.9	3.6	3.4 H	3.3 H	3.2 H	3.2 H	3.2	3.4	3.4	3.1	3.5	3.0	3.3	2.9	2.6	2.6
7	2.8	2.8	2.9	3.1	3.5	2.8	2.9	3.7	3.7	3.6	3.3	3.6	3.2	3.2	3.1 H	3.3	3.4	3.5	3.2	3.5	3.0	2.9	2.7	2.8
8	3.0	3.2	3.2	3.0	2.7	2.8	3.1	3.5	3.7	3.6	3.5	3.3	3.4	3.4	3.4	3.2	3.5	3.4	3.4	3.2	3.1	3.1	J	3.0
9	3.0	2.9	2.9 F	2.9	3.2	3.0	3.4	3.6	3.7	3.6	3.7	3.6	3.4	3.2	3.4	3.4	3.5	3.6	3.4	3.4	3.1	3.1	2.8	2.8
10	2.6	2.8	2.9	3.1	3.3	3.1	3.3	3.5	3.7	3.4	3.2	3.3	3.3	3.4	3.3	3.4	3.6 H	3.3	J	3.3	J	3.0	3.0	2.8
11	3.0	2.8	2.6	2.9	3.1	3.3	2.6	3.6	4.0	3.5	3.2	3.4	3.3	3.3	3.4	3.5	3.6	3.3	3.4	3.3	3.1	2.8 H	2.4	2.5
12	2.9	2.9	2.7	(2.7)	(2.9)	3.0	2.9 H	3.5	3.5	3.6	3.5	3.5	3.4	3.3	3.4 H	3.5	3.6	3.1	3.5	3.5	3.8	3.5	2.8	2.8
13	2.8	3.1	2.8	2.7	2.8	2.9	3.2	3.7	3.8	3.9	3.6	3.4	3.3	3.4	3.4 H	(3.4)	3.2	3.7	3.3	3.3	3.1 F	3.2	2.8	2.9
14	3.2	2.8	2.8	2.8	2.8	3.0	3.1	3.6	3.4	3.6	3.3	3.3	3.3	3.2	3.2	(3.4)	3.6	3.5	3.5	3.8	J	3.6	2.8	2.9
15	(2.9)	2.9	3.2	3.1	3.0	2.8	3.1	3.4	(3.7)	(3.7)	3.6 H	3.5	3.1 H	2.9	3.4	3.2	3.2	3.3	3.5	3.9	3.1	2.8	2.5	(2.3) F
16	(2.8) F	(2.8)	3.0	2.9	2.8	2.7	2.9	3.5	3.8	3.5	4.0	3.4	3.1	3.2	3.2	3.4	3.1	3.3	3.3	3.3	3.5	3.2	3.0	2.6
17	2.8	(2.8)	3.1	3.0	2.7	2.9	2.9	3.5	3.8	(3.6)	3.5	3.1	3.4	3.0	3.0	3.3	3.5	3.1	3.3	3.1	3.3	3.1	3.1	2.8
18	2.7	3.0	2.9	2.9	3.2	2.6	2.9	3.3	3.6	3.4	3.3 H	3.3	3.5	3.2	3.3	3.3	3.7	3.6	3.6	3.3	3.1	3.3	2.9	2.8
19	2.7	2.8	2.8	3.0	3.5	2.8	2.8	3.5	3.6	3.5	3.3	2.9	3.2	3.2	3.3	3.4	3.3	3.4	3.1	3.2	3.7	3.1	2.6	2.6
20	2.8	2.6	3.1	3.2	3.3 F	2.4	2.9	3.7	3.8	3.5	3.1	3.4	3.2	3.7	3.3	3.5	3.3	3.3	3.1	3.5	3.2	3.1	2.8	2.7
21	3.0	2.8	2.8	(2.8)	3.4	3.4	2.6	3.4	3.2	3.5	3.4	3.4	3.3	2.8 H	3.3	3.3	3.7	3.6	3.3	3.1	3.2	2.6	3.0	2.9
22	2.9	2.8	2.7	3.0	(3.4)	3.3	3.1	3.3	3.7	3.6	3.7	3.5	3.4	3.3	3.2	3.5	3.4	3.6	3.2	3.1	3.3	2.9	2.9	2.9
23	2.9	2.8	3.3	3.1	(2.8)	3.0	3.0	3.4	3.8	3.6	3.6	3.6	3.2	3.4	3.2	3.3	3.3	3.6	2.9	3.2	3.0	3.4	3.1	2.5
24	2.6 F	3.1	3.2	3.2	2.7	2.8	3.0	3.6	3.7	3.5	3.6	3.1	(3.1) C	3.2	3.3	3.1	3.3	3.2	3.6	3.3 H	3.4	3.6	2.9	2.7
25	3.2	3.2	3.0	3.1	3.4	3.0	2.9	3.3	3.6	3.6	3.6	3.5	3.3	3.3	3.4	3.6	3.4	3.1	3.5	3.3	3.4	3.2	3.0	3.1
26	2.7 F	2.7	3.1	2.9	3.2	3.6	B	3.4	3.8	3.4	3.4	3.3	3.2	C	C	C	C	C	3.6	3.2	C	C	3.2	2.4
27	2.4	(2.6)	3.0	2.7	2.7	2.8	3.2	3.4	3.6	3.2	(3.4) C	3.3	3.5	3.4	3.4	3.6	3.5	3.4	3.3	3.7	A	A	A	2.7
28	2.9	J	2.9	3.0	3.0	2.7	(3.0) C	3.2	3.8	3.4	3.5	3.3	(3.6) S	3.3	3.5	3.0	3.2	2.9	3.3	3.4	J	3.1	3.0	2.7
29	2.7	2.7	2.7	2.7	2.6	2.5	2.8	3.1	3.3	3.6	C	C	3.4 H	3.3	3.0 H	3.3	3.2	3.7	3.2	3.1	3.6	3.3	3.2	2.8
30	2.6	2.7	2.9	2.8	2.7	2.6	2.8	3.3	(3.7) S	3.6	3.4	3.2	3.2	3.4	3.6	3.0	3.5	3.7	3.1	3.0	3.6	3.2	(2.9)	2.4
31	2.6	2.7	2.6	3.0	2.6	2.8	3.1	3.6	3.3	3.5	3.4	3.0	3.3	2.8	3.0	3.2	3.4	3.6	3.4	3.5	3.6	(3.3)	(2.9)	2.9
Mean Value																								
Median Value	2.8	2.8	2.9	2.9	3.0	2.8	3.0	3.5	3.7	3.6	3.5	3.4	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.3	3.3	3.2	2.9	2.8
Count	31	30	31	31	31	31	30	31	30	31	30	31	31	30	30	30	30	30	30	31	26	29	29	31

(M3000)F2

Sweep 1.3 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K8

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

IONOSPHERIC DATA

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

Dec. 1946 | fminF | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1.5	1.5	1.5	1.8	1.5	1.5	1.5	1.8	2.0	3.7	3.7	3.6	3.5	3.4	3.4	2.9	2.2	1.4	1.4	1.4	1.8	E	1.4	E
2	E	E	A	E	1.8	1.5	1.5	2.0	2.2	2.6	A	3.8	3.6	3.8	3.7	2.6	2.2	2.6	1.4	1.4	1.5	1.5	1.4	1.4
3	1.4	1.5	E	E	E	E	1.4	2.0	2.7	3.1	3.4	3.7	3.7	3.5	3.3	2.7	2.4	1.6	1.7	1.4	1.5	1.4	1.5	1.4
4	1.4	E	E	E	E	E	E	1.9	2.6	2.9	3.8	3.8	3.7	3.5	3.7	3.3	2.1	4.2	2.0	1.5	1.8	1.8	1.4	1.4
5	E	1.7	1.4	1.5	E	E	E	1.9	2.8	3.2	3.4	3.5	3.4	3.4	3.7	2.8	2.7	1.7	1.6	1.5	1.5	1.5	1.6	1.7
6	E	1.4	1.5	E	E	E	1.5	1.9	2.5	2.9	3.4	3.6	3.7	3.7	3.7	2.8	2.2	1.5	1.5	1.6	1.5	1.7	1.7	1.4
7	1.5	1.5	E	E	E	E	E	2.1	2.8	3.1	3.4	3.5	3.5	3.5	3.2	2.9	2.4	1.5	2.3	1.4	1.4	1.4	1.5	1.5
8	1.4	E	E	E	E	E	E	2.0	2.9	3.2	3.4	3.6	3.8	3.8	3.5	3.2	2.7	2.5	2.5	1.5	1.4	1.4	1.5	1.5
9	1.5	1.4	E	E	E	E	E	1.9	2.9	3.2	3.4	3.7	3.8	3.4	3.4	3.0	1.7	2.6	1.5	1.5	1.5	2.6	2.0	1.5
10	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.8	2.7	3.2	3.4	3.8	4.5	3.6	3.5	3.2	2.7	1.8	1.8	1.9	1.8	1.5	1.5	1.8
11	1.7	1.8	1.5	1.8	1.6	1.6	1.5	2.1	2.8	2.6	3.4	3.8	3.7	3.8	3.6	3.0	2.4	1.6	1.8	1.5	1.6	1.5	1.6	1.5
12	1.4	1.4	1.4	1.4	1.5	1.4	1.5	1.8	2.0	2.3	3.7	3.8	3.7	3.4	3.2	3.0	2.5	1.6	1.8	2.0	1.5	1.5	1.5	1.4
13	1.4	1.4	E	1.4	1.4	1.4	1.4	2.3	2.7	3.4	3.8	3.4	3.6	3.6	3.4	2.4	2.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5
14	1.5	1.5	1.5	1.6	1.8	1.4	1.5	1.8	2.9	3.4	2.8	3.0	3.8	3.6	3.2	2.8	2.2	2.0	2.0	1.6	2.0	1.6	1.6	1.5
15	1.8	1.5	1.4	1.4	1.4	1.4	1.5	1.8	2.6	3.2	3.9	3.8	3.9	3.5	3.6	3.4	2.5	1.7	1.5	2.7	1.6	1.5	1.5	1.5
16	1.5	1.4	1.4	1.4	1.5	1.6	2.0	2.6	3.4	3.7	4.2	3.9	3.9	3.5	3.5	3.2	2.5	1.8	1.5	1.5	1.5	1.6	1.5	1.5
17	1.4	1.6	1.4	1.7	1.4	1.5	1.4	3.0	3.4	3.8	3.7	3.7	3.7	3.7	3.5	3.3	2.5	1.7	1.5	1.5	1.6	1.5	1.5	1.5
18	1.5	1.4	1.4	1.4	1.4	1.4	1.9	2.6	3.2	3.5	3.8	3.8	3.8	4.2	4.4	3.4	2.5	1.5	1.9	1.5	1.5	1.5	1.5	1.5
19	1.5	1.5	1.6	1.4	1.4	1.4	1.5	1.9	3.0	3.2	3.6	3.7	3.9	3.8	3.4	3.2	2.4	1.8	1.5	1.5	1.8	1.7	1.6	1.5
20	1.5	1.5	1.5	1.4	1.4	1.4	1.5	1.7	3.5	3.5	3.5	3.7	3.7	3.9	3.3	3.0	2.4	1.5	1.5	1.8	1.5	1.5	1.8	1.8
21	1.4	1.4	1.4	2.0	1.4	1.4	1.4	2.0	2.7	3.0	3.6	3.9	4.3	3.8	3.6	3.5	2.7	1.8	1.8	1.8	1.6	1.7	1.5	1.5
22	1.5	1.4	1.9	1.9	1.9	1.9	1.7	1.8	2.7	3.2	3.5	3.8	3.7	3.6	4.7	3.4	2.6	1.8	1.5	1.4	1.4	1.4	1.4	1.4
23	1.4	1.4	1.8	1.4	1.5	1.5	1.4	2.0	2.5	3.4	3.4	3.8	3.8	3.8	3.8	3.4	2.6	1.7	1.8	1.7	1.6	2.0	1.7	1.8
24	1.5	1.8	1.4	E	E	E	1.5	1.5	2.5	3.1	3.6	3.8	[3.8]^{c}	3.8	3.6	3.5	2.7	2.6	1.5	1.5	1.8	1.7	1.6	1.8
25	1.5	1.5	1.5	1.4	1.7	1.4	1.5	1.7	2.7	3.2	3.5	3.5	3.9	3.4	3.3	3.4	2.6	1.6	1.8	1.8	1.5	1.5	1.7	1.5
26	1.4	1.4	1.4	1.5	1.5	1.7	2.0	2.6	2.6	3.4	3.4	3.9	3.6	C	C	C	C	C	1.8	1.9	C	C	1.8	1.8
27	1.6	1.5	1.5	1.8	1.5	1.5	1.7	1.8	2.7	3.4	[3.6]^{c}	3.5	4.0	3.6	3.5	3.1	2.6	1.8	1.6	1.6	A	A	A	2.0
28	1.8	1.5	1.4	1.4	1.4	1.4	[1.5]	1.5	2.7	2.9	3.4	3.6	3.6	3.6	3.4	2.8	2.9	2.4	3.8	5.2	1.6	1.6	1.6	1.8
29	1.9	1.8	1.8	1.5	1.5	1.5	1.5	1.6	2.7	3.2	C	C	3.5	3.6	3.6	3.4	2.8	1.8	1.6	1.7	1.8	1.8	1.6	1.6
30	1.6	1.6	1.5	1.5	1.6	1.5	1.6	1.8	2.5	3.2	3.6	3.6	3.6	3.5	3.5	3.1	2.5	1.8	1.8	1.6	1.6	1.6	1.6	1.6
31	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.8	2.6	4.0	3.7	6.1	5.3	5.0	4.7	4.7	3.7	1.8	1.8	1.8	2.0	1.6	1.8	1.6
Mean Value																								
Median Value	1.5	1.5	1.4	1.4	1.4	1.4	1.5	1.9	2.7	3.2	3.5	3.7	3.7	3.6	3.5	3.2	2.5	1.8	1.7	1.6	1.6	1.5	1.6	1.5
Count	31	31	30	31	31	31	31	31	31	31	29	30	31	30	30	30	30	30	31	31	30	29	29	31

fminF

Sweep 1.3 Mc to 15.0 Mc in 15 min ☐ Manual ☐ Automatic

K9

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

IONOSPHERIC DATA

Dec. 1946 | **fminE** | 135° E Mean Time | **Kokubunji Tokyo** | Lat. 35° 42.4' N, Long. 139° 29.3' E

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

fminE

Sweep 1.3 Mc to 15.0 Mc in 15 min ☒ Manual ☐ Automatic

K10

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

IONOSPHERIC DATA

Yamagawa

Lat. 31° 12.5' N
Long. 130° 37.7' E

Dec. 1946 | foF2 | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10	4.4	4.1	3.6	3.4	3.6	3.3	2.9	6.8^{D}	8.6^{D}	7.8^{D}	7.8^{D}	7.5^{D}	C	C	7.0^{D}	6.2^{D}	10.3^{H}	S	C	6.8	(5.5)^{S}	5.7	5.9	3.5
11	[3.5]^{C}	3.4^{S}	3.4	3.3^{S}	C	C	4.9	8.0^{D}	6.8	6.9	[9.2]^{E}	11.5^{S}	8.8^{D}	11.1^{D}	11.5^{D}	11.0	11.1^{D}	8.0	7.0	6.9	5.2^{D}	6.4	4.6	4.1
12	3.5	3.3	3.2	3.3	3.5	3.5	3.4	5.7	9.5^{D}	(11.4)	10.8^{D}	C	C	C	C	7.4^{D}	6.6^{D}	6.2^{D}	6.7^{D}	5.1^{D}	7.2^{D}	6.0^{D}	5.9	5.0
13	5.5	5.6	4.3	4.1	4.1	4.3	(4.4)	6.4^{J}	C	7.8^{D}	6.9^{D}	7.4^{D}	9.2^{D}	C	7.5^{D}	7.1^{D}	C	C	C	C	6.9^{D}	6.4	4.6	4.0
14	3.7	3.4	3.4	3.4	3.3	3.1	3.2	C	6.9^{D}	7.1^{D}	6.8^{D}	7.0^{D}	6.8^{D}	6.8^{D}	6.8^{D}	6.9^{D}	6.6^{D}	6.9^{D}	7.8^{D}	6.9^{D}	(6.8)^{D}	6.8	5.6	4.4
15	(4.5)	(4.5)	4.1	3.3	(3.5)	3.1	2.8	6.3	6.9	7.6	6.9	6.9	7.0	C	C	C	C	C	C	C	5.9^{S}	5.1^{S}	5.5^{S}	4.9
16	5.1^{J}	5.1^{J}	5.0	4.1	3.4	3.6	3.5	4.9	C	C	C	C	C	C	C	C	C	C	6.8^{D}	6.6^{D}	C	7.6^{D}	6.7^{D}	5.1
17	4.2	4.1	4.4	4.1	3.6	3.2	2.9	6.1	7.2^{D}	6.7^{D}	7.3^{D}	7.1^{D}	7.2^{D}	7.2^{D}	C	C	7.3^{D}	7.2^{D}	7.2	6.6	5.4	5.7	6.2	4.4
18	4.1	5.1^{D}	4.8	4.3	3.9	2.9	3.1	6.6^{D}	7.1^{D}	7.1^{D}	7.3^{D}	7.2^{D}	7.1^{D}	7.1^{D}	7.2^{D}	6.9^{D}	7.1^{D}	7.7^{D}	6.6	6.9	5.7	6.2	6.7	5.1
19	4.8	(4.5)^{S}	(4.5)^{S}	4.5	4.2	2.7	2.7	6.2	7.2^{D}	7.2^{D}	7.3^{D}	7.3^{D}	7.4^{D}	C	7.3^{D}	7.3^{D}	7.3^{D}	7.1^{D}	7.3	6.6	7.2	6.1	6.2	5.5^{D}
20	5.6^{D}	5.7^{D}	5.7	5.1	4.5	3.2	3.9	6.1^{D}	7.1^{D}	7.2^{D}	7.4^{D}	7.7^{D}	7.1^{D}	7.1^{D}	7.2^{D}	7.2^{D}	6.6^{D}	6.2^{D}	7.1	6.7	6.9	6.6	6.4	5.5^{D}
21	4.8	4.7	4.2	3.9	4.0	3.2	2.7	6.3	7.7^{D}	7.3^{D}	7.5^{D}	7.4^{D}	7.4^{D}	7.5^{D}	7.5^{D}	7.5^{D}	7.5^{D}	7.5^{D}	7.0^{D}	6.9	7.2^{D}	(6.8)	6.8	(5.0)
22	3.1	2.9	3.1	3.4	3.7	2.3	2.5	6.8	6.6^{D}	7.4^{D}	7.4^{D}	7.5^{D}	7.4^{D}	7.5^{D}	7.3^{D}	C	7.5^{D}	7.4^{D}	7.3^{D}	7.3	6.9^{D}	5.8^{S}	5.5	5.0
23	4.7	5.0	4.3	3.6	3.2	3.3	3.1	5.9	7.3^{D}	7.3^{D}	7.5^{D}	7.5^{D}	7.5^{D}	7.5^{D}	7.3^{D}	7.5^{D}	7.5^{D}	C	C	C	(6.8)^{C}	7.1^{D}	5.9	4.4
24	(4.5)^{B}	B	4.8	3.3	3.2	3.7	3.1	7.2^{D}	7.4^{D}	7.5^{D}	7.5^{D}	7.5^{D}	7.5^{D}	7.4^{D}	7.8^{D}	7.8^{D}	6.9^{D}	5.7^{D}	7.4^{D}	6.8^{J}	(6.8)	(7.4)	5.7^{J}	4.6
25	4.4	4.7	4.0	3.6	3.2	2.8	2.6	5.4	7.5^{D}	7.5^{D}	7.5^{D}	7.5^{D}	7.5^{D}	C	12.0^{D}	12.1	10.8	10.2	7.9^{S}	7.3	6.0	6.2	C	C
26	C	3.9	3.8	4.0	3.6	3.1	2.7	5.4	9.6	C	C	11.3	[11.5]^{C}	11.7	12.0	(11.4)	(10.9)	9.5	9.1	7.5	7.2	7.3	6.8	4.6
27	(4.6)	5.3	5.6	5.1	4.9	5.0	6.1	C	C	C	11.5	12.2	12.0	12.0	11.9	(11.8)^{S}	11.1	(10.2)^{J}	9.3	(7.7)^{S}	6.4	4.7^{J}	3.8	3.4
28	3.6	3.5	4.4	3.5	3.4	2.9	3.0	(5.4)	9.7^{S}	10.6	9.5^{S}	9.5^{S}	13.5^{S}	13.5^{J}	13.8	(13.2)	11.0	9.8	10.2^{S}	9.2	7.7	7.7	5.2	3.7
29	3.3	3.3	3.6	C	C	C	C	C	C		C	C	12.4	(12.7)	13.0	14.0	(13.8)	(10.6)	9.0	7.0	7.6	7.3	4.6	3.3
30	3.0	3.4	3.8	3.5	3.6	3.1	3.1	5.2	(10.4)	11.3	11.5^{S}	10.3	[11.8]^{C}	(13.2)	(10.2)^{J}	11.5	(11.2)^{J}	(11.3)	9.2	8.6	10.0^{J}	9.2	6.5	3.6
31	3.4	3.5	3.4	3.4	3.4	3.0	3.0	5.3	8.5	10.2	(11.5)	11.0	B	11.7	12.9	13.4	12.9	(11.1)^{S}	8.7	8.5	7.7	7.4	5.8	3.8
Mean Value																								
Median Value	4.4	3.9	4.2	3.6	3.6	3.2	3.1	6.2	D	D	D	D	D	D	D	D	D	D	D	D	7.7	7.4	5.9	4.4
Count	21	21	22	21	21	20	20	19	18	18	19	19	18	15	18	18	19	17	18	19	21	22	21	21

foF2

Sweep 2.0 Mc to ____ Mc in 15 min ☒ Manual ☐ Automatic

Y 1

Observation began at Dec. 10th 1946.

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

IONOSPHERIC DATA

Dec. 1946 | h'F2 | 135° E Mean Time | Yamagawa | Lat. 31° 12.5' N | Long. 130° 37.7' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10	280	300	310	320	320	280	300	280	280	210	200	220	C	C	260	280	200H	S	C	260	230	260	250	350
11	[380]C	350	380	360	240	C	C	C	260	220	[220]C	220H	220	270	250	260	250	220	200	200	210	260	260	280
12	300	320	380	390	380	300	350	300	230	260	260	C	C	C	C	B	C	240	200	240	210	200	270	290
13	230	270	300	380	320	350	350	280	C	260	230	270	270	[260]C	250	240	C	C	C	C	250	250	240	300
14	350	350	340	300	300	380	370	C	C	260	260	260	250	280	230	280	220	220	[220]C	220	240	220	260	250
15	320	290	310	320	340	330	290	280	230	[240]C	240	240	240	C	C	C	C	C	260	C	210	210	240H	300
16	330	300	280	290	320	340	300	290	C	C	C	C	C	C	C	C	C	C	260	250	240	230	220	270
17	310	370	300	280	300	310	300	300	250	250	260	250	280	260	C	C	280	230	210	220	280	240	240	300
18	350	320	280	280	280	310	380	270	240	240	270	260	280	[280]C	270	240	230	220	220	230	240	280	280	280
19	310	350	320	300	270	360	360	300	250	240	260	240	250	[230]C	200	[220]C	230	220	210H	260	220	200	230	310
20	340	310	250	210	280	400	400	280	280	240	200	280	260	250	230	240	260	230	220	220	210	280	280	C
21	300	280	280	260	250	260	280	250	230	220	260	250	280	240	280	240	240	240	220	210	220	240	240	210
22	320	420	400	250	290	250	400	290	200	200	250	270	240	260	280	[260]C	240	240	180	230	220	240	250	290
23	310	290	260	330	280	330	330	280	250	250	250	220	220	280	240	240	240	C	C	C	280	230	240	300
24	370	290	250	400	280	360	360	280	210	250	[250]	240	240	260	250	250	240	220	220	230	250	260	250	240
25	300	290	290	300	300	400	400	300	240	220	230	230	280	[280]C	280	260	220	200	220	220	210	200	C	C
26	C	320	310	300	280	300	280	300	240	260	[240]C	220	250	280	300	260	240	240	200	230	250	240	240	250
27	270	320	290	290	300	300	300	C	C	C	250	270	270	260	260	250	260	240	240	220	220	230	180	380
28	380	320	280	280	320	280	370	290	230	250	270	250	260	240	250	260	250	210	230	230	210	230	220	240
29	380	370	330	320	C	C	C	C	C	C	C	C	240	250	280	270	280	210	220	210	250	210	220	320
30	400	390	290	290	310	340	380	290	230	220	240	240	240	250	280	230	250	220	200	200	200	210	210	240
31	380	340	360	360	290	290	300	270	240	230	240	250	280	280	260	260	230	220	210	240	230	220	200	210
Mean Value																								
Median Value	330	320	300	300	300	310	350	290	240	240	250	250	250	260	260	260	240	220	220	220	230	230	240	290
Count	21	22	22	22	21	20	20	18	17	19	20	19	19	18	18	18	18	17	18	19	22	22	21	20

h'F2

Sweep 2.0 Mc to ____ Mc in 15 min ☒ Manual ☐ Automatic

Y2

Observation began at Dec. 10th 1946.

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

IONOSPHERIC DATA

Yamagawa

Lat. 31° 12.5' N
Long. 130° 37.7' E

Dec. 1946

foF1

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10								3.3	L	L	L	L	C	C	B									
11								3.2	L	L	L	L	L	A	A									
12									4.6	L	L	C	C	C	C	B	L	3.2						
13								L	C	L	L	L	L	C										
14													B	L	L	L								
15									L	L	L	L	L	C	C	C	C	C						
16								C	C	C	C	C	C	C	C	C	C	C						
17													L	L	L									
18									4.8	L	L	L	L	L										
19												L	L	C										
20											L	L	L	L	L	L	L							
21											L	L	L	L	L									
22												L	L	L	L	C								
23										L	L	L	L	L	L	L	C							
24											L	L	L	L	L	L								
25										L	L	L	L	L	L	L								
26									L	L	C	L	C	L	L	L								
27									C	C	5.0	L	5.1	5.2	C	L	L	L						
28									L	L	L	L	L	L	L	L	L							
29								C	C	C	C	C	4.9	L	L	L								
30												L	A	4.7	4.3	3.4	L							
31											L	5.5	L	L	L	L								
Mean Value								—	—	—	—	—	—	—	—	—	—	—						
Median Value								2	2	—	1	1	2	2	1	1	—	1						
Count																								

foF1

Sweep 2.0 Mc to ____ Mc in 15 min ☒ Manual ☐ Automatic

Y 3

Observation began at Dec. 10th 1946.

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

IONOSPHERIC DATA

Dec. 1946 | **h'F1** | 135° E Mean Time | **Yamagawa** | Lat. 31° 12.5' N | Long. 130° 37.7' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10								C	240	210	160	200	C	C	B									
11								250	240	200	[210]^{c}	210	200	A	A									
12									240	250	250	C	C	C	C	B	C	250						
13								280	[270]^{c}	250	A	220	200	C										
14													220	260	220	220								
15										C	220	240	200	C	C	C	C	C						
16									C	C	C	C	C	C	C	C	C	C						
17													250	240	260									
18									230	240	260	260	A	C										
19												220	220	C										
20											230	240	240	210	220	220	A							
21											240	220	250	220	280									
22												270	220	260	260	C								
23										240	240	220	220	250	210	220	230							
24											C	230	230	240	240	220								
25										200	240	210	200	220	220	230								
26									180	240	[220]^{c}	200	[220]^{c}	240	240	240								
27								C	C	C	260	250	220	240	[240]^{c}	240	240							
28									220	220	200	220	230	230	220	240	240							
29								C	C	C	C	C	210	220	210	200								
30												230	A	220	220	240	250							
31											230	240	270	260	240	250								
Mean Value																								
Median Value								—	240	240	230	220	220	240	230	230	240	—						
Count								2	7	9	13	17	17	14	14	11	4	1						

h'F1

Sweep 2.0 Mc to ____ Mc in 15 min ☒ Manual ☐ Automatic

Y 4

Observation began at Dec. 10th 1946.

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

IONOSPHERIC DATA

Yamagawa

Lat. 31° 12.5' N
Long. 130° 37.7' E

Dec. 1946

foE

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10								E	E	A	A	A	C	C	A	A	2.4 J	S						
11								E	A	A	A	A	A	A	A	A	A	A						
12								E	A	A	A	C	C	C	C	A	C	A						
13								E	A	3.1 J	A	3.6 J	3.5 J	C	A	A	C	C						
14								E	2.5	C	3.1 J	A	3.7	B	A	3.2	A	A						
15								E	E	B	A	A	A	C	C	C	C	C						
16								E	C	A	C	C	C	C	C	C	C	C						
17								E	2.9	A	A	A	A	A	C	C	3.0	E						
18								E	2.6	A	B	3.2 J	A	A	A	A	2.8	A						
19								E	A	A	A	A	3.7	[3.5] C	3.2	C	A	E						
20								E	A	A	A	3.6 J	3.6 J	3.6 J	A	A	A	A						
21								E	2.5	A	3.5	3.6	3.7	3.7	3.0	A	2.9	2.2						
22								E	A	A	A	3.3	A	3.5 J	A	C	3.0	2.4 J						
23								E	2.3	A	A	A	A	A	A	A	2.7	C						
24								E	A	A	A	A	A	C	A	3.4	2.8	E						
25								E	2.5	3.2	3.3 J	3.4 J	A	3.7	3.5	3.1 J	2.6	E						
26								E	E	A	C	3.5 J	C	3.6	A	3.2	3.0	2.2						
27								C	C	C	A	A	A	3.3	C	A	A	2.3						
28								E	A	3.0	A	A	3.8 J	A	A	A	A	E H						
29								C	C	C	C	C	A	A	A	A	A	E H						
30								E	2.5	3.2	A	A	A	3.6 J	A	A	A	2.2 J						
31								E	E	A	A	B K	B K	B K	B K	B K	B K	E						
Mean Value																								
Median Value								E	2.5	3.1	3.3	3.5	3.7	3.6	3.2	3.2	2.8	E						
Count								20	11	5	3	7	6	8	3	4	9	12						

foE

Sweep 2.0 Mc to ____ Mc in 15 min ☒ Manual ☐ Automatic

Y 5

Observation began at Dec. 10th 1946.

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

IONOSPHERIC DATA

Yamagawa

Lat. 31° 12.5' N
Long. 130° 37.7' E

Dec. 1946

fEs

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10	E	E	E	E	E	E	E	E	E	3.9	3.9	4.4	C	C	3.7	3.1	<fE	S	C	E	E	E	E	E
11	C	E	E	E	E	C	C	E	3.4	4.0	4.5	4.4	4.3	4.8	4.0	3.9	3.7	3.4	2.1	2.4	2.1	E	2.1	E
12	2.1	E	E	E	E	E	E	E	2.4	3.2	4.0	C	C	C	C	4.0	C	3.3	3.6	E	2.4	E	E	E
13	E	E	E	E	E	E	E	E	C	<fE	4.8	<fE	<fE	C	3.7	3.6	C	C	C	C	E	E	E	E
14	E	E	E	E	E	E	E	C	<fE	3.7	3.7	<fE	B	B	5.0	5.2	5.8	5.0	3.3	2.4	E	E	E	E
15	E	E	E	E	E	E	E	E	2.2	<fE	4.1	3.8	4.0	C	C	C	C	C	C	C	E	E	E	E
16	E	E	E	E	E	E	E	E	C	C	C	C	C	C	C	C	C	C	2.9	E	C	E	E	E
17	E	E	E	E	E	E	E	E	<fE	3.3	4.2	4.6	5.1	5.1	C	C	<fE	E	E	E	E	E	E	E
18	E	E	E	E	E	E	E	E	<fE	2.8	B	3.9	4.4	6.0	4.4	4.3	3.1	3.4	3.7	3.2	E	E	E	E
19	E	E	E	E	E	E	E	E	2.2	3.5	3.9	3.4	<fE	C	4.1	C	2.9	E	E	E	E	E	E	E
20	E	E	E	E	E	E	E	E	3.3	3.9	3.7	<fE	<fE	<fE	3.9	3.6	4.7	3.3	3.0	2.9	2.5	2.4	E	C
21	E	E	E	E	E	E	E	E	3.4	3.7	3.9	3.9	3.6	3.9	3.9	3.4	<fE	<fE	E	E	E	E	E	E
22	E	E	E	E	E	E	E	E	2.4	3.0	3.9	3.9	3.9	<fE	4.5	C	3.7	3.0	2.5	2.2	E	E	E	E
23	E	E	E	E	E	E	E	E	<fE	3.3	3.4	3.9	3.8	3.7	3.7	3.7	<fE	C	C	C	2.4	E	E	E
24	E	E	E	E	E	E	E	E	2.2	2.8	3.8	4.0	3.9	4.0	3.9	<fE	<fE	2.4	E	E	E	2.2	E	E
25	E	E	E	E	E	E	E	E	3.4	3.7	<fE	<fE	3.7	C	4.9	4.6	4.2	2.4	2.7	3.6	2.6	3.7	C	E
26	C	E	E	E	E	E	3.0	E	E	4.1	C	<fE	C	4.3	4.9	<fE	<fE	<fE	3.0	E	E	E	E	E
27	E	E	E	E	E	E	E	C	C	C	4.1	4.4	4.8	4.9	C	4.3	3.1	2.7	2.5	2.7	5.2	3.3	2.7	2.9F
28	2.6	2.4	E	E	E	E	E	E	2.8	4.1	4.2	4.4	<fE	4.9	4.9	4.6	4.1	E	2.2	2.3	2.9	2.5	2.6	E
29	E	2.7	E	E	C	C	C	C	C	C	C	C	4.7	4.2	4.6	4.0	3.6	E	E	E	E	E	E	E
30	E	E	E	E	E	E	2.5	2.5	<fE	3.7	4.7	5.4	5.5	4.7	5.5	4.8	4.0	<fE	E	E	2.4	E	E	E
31	E	E	E	E	E	2.6	E	E	E	2.9	3.4	B	B	B	B	B	B	E	E	E	E	E	E	E
Mean Value																								
Median Value	E	E	E	E	E	E	E	E	2.2	3.3	3.9	3.9	3.9	4.3	4.3	4.0	3.1	2.4	2.4	E	E	E	E	E
Count	20	22	22	22	21	20	20	19	18	19	18	18	16	13	16	16	17	17	18	19	21	22	21	20

fEs

Sweep 2.0 Mc to ____ Mc in 15 min ☒ Manual ☐ Automatic

Observation began at Dec. 10th 1946.

Y6

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

IONOSPHERIC DATA

Dec. 1946 | fminF | 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																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10	E	E	E	E	E	E	E	E	E	2.8	3.4	3.7	C	C	4.6	4.6	3.8	S	C	2.1	2.1	2.1	2.1	2.1
11	[2.1]^{C}	2.1	2.1	2.1	2.1	C	C	2.1	2.7	3.3	3.7	3.8	4.0	4.6	3.8	3.4	3.0	2.5	E	E	E	E	E	E
12	E	E	E	2.1	2.1	2.1	E	2.1	2.4	3.0	3.7	C	C	C	C	3.3	2.1	2.5	2.1	E	2.1	2.1	2.1	2.1
13	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	[2.7]^{C}	3.4	3.7	3.8	3.8	[3.8]^{C}	3.7	3.4	C	C	C	C	E	2.1	2.1	2.1
14	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.5	3.0	3.7	3.0	4.8	3.7	3.7	3.4	3.1	2.4	2.1	2.1	2.1	2.1	2.1	2.1
15	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	3.3	3.7	4.0	4.0	C	C	C	C	C	C	C	2.1	2.1	2.1	2.1
16	E	E	2.1	2.1	2.1	2.1	2.1	2.1	C	C	C	C	C	C	C	C	C	C	2.1	2.1	2.1	2.1	2.1	2.1
17	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.8	3.6	4.0	4.1	4.1	4.0	C	C	3.2	2.1	2.1	2.1	2.1	2.1	2.1	2.1
18	E	2.1	E	E	2.1	E	E	E	2.7	3.3	4.0	3.9	4.4	4.1	4.1	4.1	3.0	2.8	2.1	2.1	E	E	E	E
19	2.1	2.1	2.1	2.1	2.1	2.1	E	E	2.3	3.1	3.7	3.2	4.1	3.9	3.7	2.4	2.8	2.1	E	E	2.1	E	E	C
20	E	E	2.1	2.1	2.1	2.1	E	2.1	3.1	3.2	3.6	4.2	4.0	3.7	3.8	3.6	A	2.1	E	2.4	2.1	E	E	E
21	2.1	E	E	E	E	E	E	2.1	2.1	3.2	3.7	3.7	4.2	4.2	3.9	3.5	3.1	2.4	E	E	2.1	2.1	2.1	2.1
22	2.1	2.1	2.1	E	E	2.1	E	E	2.6	3.0	3.8	4.0	4.0	3.8	4.4	[4.8]^{C}	3.1	2.8	2.1	2.1	2.1	2.1	E	2.1
23	2.1	E	E	E	E	E	2.1	2.1	2.5	3.4	3.7	3.8	4.3	4.3	3.7	3.6	2.9	C	C	C	2.1	E	2.1	E
24	2.1	E	E	E	2.3	E	E	2.1	2.6	3.1	3.8	4.2	4.0	4.0	3.8	3.5	3.3	2.1	2.1	E	E	2.5	C	C
25	E	E	2.1	E	E	E	2.1	2.1	2.8	3.2	3.7	3.7	4.0	3.9	3.7	4.0	3.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
26	C	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.7	[3.3]^{C}	3.9	[4.0]^{C}	4.0	4.0	3.4	3.1	2.4	2.1	2.1	2.1	2.1	2.1	2.1
27	2.1	E	E	E	2.1	2.1	2.1	C	C	C	3.4	3.7	4.2	4.0	3.9	3.8	3.1	2.4	2.1	2.1	2.1	2.1	2.1	2.1
28	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.3	2.8	3.1	3.2	4.0	4.0	4.0	3.6	3.6	2.5	2.4	2.1	2.1	2.1	2.1	2.1	2.1
29	2.1	2.1	2.1	2.1	C	C	C	C	C	C	C	C	4.3	4.3	4.5	3.6	3.3	2.6	2.1	2.1	2.1	2.1	2.1	2.1
30	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.5	3.2	3.3	3.7	4.5	3.8	3.8	2.8	2.8	2.3	2.1	2.1	2.1	2.1	2.1	2.1
31	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.5	3.1	3.8	4.5	4.7	4.3	4.5	4.5	3.3	2.4	2.1	2.1	2.1	2.1	2.1	2.1
Mean Value																								
Median Value	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.5	3.2	3.8	3.8	4.1	4.0	3.8	3.6	3.1	2.4	2.1	2.1	2.1	2.1	2.1	2.1
Count	21	22	22	22	21	20	20	20	19	19	20	19	19	18	18	19	18	17	18	19	22	22	21	20

fminF

Sweep 2.0 Mc to ____ Mc in 15 min ☒ Manual ☐ Automatic

Y 7

Observation began at Dec. 10th 1946.

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

IONOSPHERIC DATA

Dec. 1946 | fminE | 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																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10	E	E	E	E	E	E	E	E	E	E	E	2.1	C	C	2.8	2.6	2.1	S	C	E	E	E	E	E
11	C	E	E	E	E	C	C	E	2.7	E	2.1	2.1	2.1	E	E	E	E	2.1	E	E	E	E	E	E
12	E	E	E	E	E	E	E	E	2.1	2.1	2.5	C	C	C	C	2.9	[2.5]^{c}	2.1	2.1	E	2.1	E	E	E
13	E	E	E	E	E	E	E	E	C	2.3	2.4	2.5	2.5	[2.5]^{c}	2.4	2.2	C	C	C	C	E	E	E	E
14	E	E	E	E	E	E	E	E	2.1	2.1	2.4	2.5	2.6	B	2.1	2.4	2.1	2.1	2.1	2.1	E	E	E	E
15	E	E	E	E	E	E	E	E	2.1	2.1	2.4	2.4	2.2	C	C	C	C	C	C	C	E	E	E	E
16	E	E	E	E	E	E	E	E	C	C	C	C	C	C	C	C	C	C	2.5	E	C	E	E	E
17	E	E	E	E	E	E	E	2.1	2.1	3.1	2.1	2.2	2.5	2.5	C	C	2.2	E	E	E	E	E	E	E
18	E	E	E	E	E	E	E	E	2.1	2.1	2.3	2.5	2.9	2.5	2.7	3.0	2.6	2.1	2.1	E	E	E	E	E
19	E	E	E	E	E	E	E	E	2.1	2.1	2.5	2.1	2.4	[2.4]^{c}	2.4	[2.3]^{c}	2.1	E	E	E	E	E	E	E
20	E	E	E	E	E	E	E	E	2.1	2.1	2.1	2.1	2.7	2.1	E	2.5	E	2.1	E	E	2.1	E	E	C
21	E	E	E	E	E	E	E	E	E	2.1	2.7	2.7	2.5	2.5	2.5	2.7	2.2	2.1	E	E	E	E	E	E
22	E	E	E	E	E	E	E	E	E	2.1	2.4	2.4	2.3	2.5	2.5	[2.5]^{c}	2.4	2.1	2.1	2.1	E	E	E	E
23	E	E	E	E	E	E	E	E	E	2.4	2.3	2.5	2.5	2.4	2.5	2.5	2.5	C	C	C	E	E	E	E
24	E	E	E	E	E	E	E	E	2.1	E	2.8	2.8	2.1	2.4	2.4	2.1	2.1	2.1	E	E	E	E	E	E
25	E	E	E	E	E	E	2.6	E	2.1	2.1	2.1	2.2	2.2	[2.2]^{c}	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	C	C
26	C	E	E	E	E	E	E	E	E	2.1	[2.1]^{c}	2.1	[2.3]^{c}	2.5	2.1	2.1	2.1	2.1	2.1	E	E	E	E	E
27	E	E	E	E	E	E	E	C	C	C	2.1	2.1	2.1	2.1	2.2	2.3	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
28	2.1	2.1	E	E	E	E	C	E	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.5	2.1	2.1	2.1	2.1	2.1	2.1	2.1	E
29	E	2.1	E	E	C	C	E	C	C	C	C	C	2.5	2.5	2.5	2.5	2.1	2.1	E	E	E	E	E	E
30	E	E	E	E	E	E	2.1	2.1	2.1	E	2.1	2.1	2.3	2.4	2.4	2.8	2.1	2.1	E	E	2.1	E	E	E
31	E	E	E	E	E	E	E	E	E	2.5	2.5	B	B	B	B	B	B	E	E	E	E	E	E	E
Mean Value																								
Median Value	E	E	E	E	E	E	E	E	2.1	2.1	2.5	2.2	2.4	2.4	2.4	2.4	2.1	2.1	E	E	E	E	E	E
Count	20	22	22	20	21	20	20	21	18	19	20	18	18	16	17	18	18	17	18	19	21	22	21	20

fminE

Sweep 2.0 Mc to ____ Mc in 15 min ☒ Manual ☐ Automatic

Y8

IONOSPHERIC DATA IN JAPAN FOR 1946

電波觀測報告

1954年1月25日 印 刷
1954年2月1日 発 行

(不許複製非売品)

編集兼発行人 好川得太郎
東京都北多摩郡小金井町小金井新田一之久保573

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

印刷所 今井印刷所
東京都新宿区筑土八幡町8番地