F — 45

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

IONOSPHERIC DATA IN JAPAN

FOR SEPTEMBER 1952

Vol. 4 No. 9

Issued in October 1952

PREPARED BY THE RADIO RESEARCH LABORATORIES

KOKUBUNJI, TOKYO, JAPAN

F—45

THE RADIO RESEARCH LABORATORIES

KOKUBUNJI, TOKYO, JAPAN

IONOSPHERIC DATA IN JAPAN FOR september, 1952.

CONTENTS

PREFACE

The origin of ionospheric sounding in Japan dates back to 1931 and the results of the work have been published in the form of the monthly "Ionospheric Data in Japan" since 1949. As a result of the reform of administrative structure of the Japanese Government effective on August 1, 1952, the observation, data coordination and publication were handed over to the charge of the Radio Resarch Laboratories newly set up within the Ministry of Postal Services.

The Radio Research Laboratories consists of three Divisions, i.e., First, Second and Administrative Divisions, located in Tokyo and five local radio wave observatories established at Wakkanai, Akita, Hiraiso, Inubo and Yamagawa, respectively.

The First Division has the following three sections:

Ionospheric Propagation Section which shall carry on researches on ionosphere and wave propagation;

Tropospheric Propagation Section which shall carry on researches on troposhere and wave propagation: and

Data Coordination Section which shall conduct the collection and arrangement of observational results, supply of operational data relating to radio propagation, preparation of radio propagation forecasts and radio disturbance warnings broadcast of URSIGRAM and physical basic studies of wave propagation in general.

The Second Division has the following two sections:

Frequency Standard Section which shall carry on researches on the frequency standard and broadcast the standard frequencies and time signals (J. J. Y.); and

Apparatus Section which shall carry on researches on radio apparatus used for radio regulatory purposes and conduct the approval service of types of radio equipments.

The Administrative Division shall conduct the general affairs of the Laboratories.

The ionospheric sounding is, as heretofore, being carried out by the four observatories at Wakkanai, Akita, Kokubunji (Tokyo) and Yamagawa.

This report prevides the results of ionospheric sounding with symbols determined and in the form established on an international basis in the same way as followed by the former Radio Regulatory Commission and it is hoped that it will make any contribution toward the progress in world-wide short wave communications.

This report is intended for distribution on request to the largest possible number of organizations concerned all over the world, and any and every information that the organizations concerned might forward to us in exchange therefor would be highly appreciated.

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

Aug. 1952

SITE OF THE IONOSPHERIC STATIONS

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

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

REMARKS ON SYMBOLS

All symbols in the table are used in accordance with "Production and Reduction of Ionospheric Information" of "RESOLUTION OF THE IX GENERAL ASSEMBLY OF URSI SEPTEMBER 1950" (CRWO-F25) except f_{min} E and f_{min} F for E and F regions respectively instead of f_{min}, taken as f_{min} s in the above Resolution, in order to avoid the interruption of preceding form of data.

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

IONOSPHERIC DATA

Sep. 1952 | f_0F2 | 135° E Mean Time | Wakkanai | Lat. 45° 23.6' N | Long. 141° 41.1' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	4.5	4.4	4.2^{P}	4.1^{P}	4.3^{J}	4.3	(5.8)^{JP}	B	C	C	C	C	C	C	6.3	6.3^{P}	C	C	C	7.4	6.3	6.0	5.3	[5.2]^{C}
2	5.0	5.5	4.1	4.7	4.3^{V}	4.1	4.4^{H}	5.0^{H}	5.4^{H}	5.5^{H}	A^{H}	C^{H}	5.5^{H}	5.0^{H}	4.9^{H}	4.5^{H}	5.0^{H}	5.3	5.2	[5.2]^{C}	5.3	6.0	5.1	3.8
3	3.5	3.2	3.4	3.2	3.2	(3.4)^{PS}	4.3	5.2	5.0	6.0	6.4	5.7	5.3	5.6	6.0	6.0	5.5	5.8	6.6	6.4^{P}	6.5	6.1	5.0	[4.6]^{A}
4	4.3	4.2	3.9	3.6	3.2	3.5	5.3	6.0	6.1	W	6.3	6.0	[6.0]^{A}	5.9	5.8	[5.8]^{B}	5.8	5.8	5.7	6.0	6.0	6.1	5.4	4.3^{P}
5	(4.6)^{P}	4.2^{J}	(4.0)^{PF}	4.4^{JF}	4.3^{JF}	4.3	[5.2]^{A}	6.0	5.8	5.5	5.2	6.1	5.3	5.9^{J}	5.7	5.9	6.0	6.2	6.6	(6.4)^{P}	[5.7]^{A}	5.0	5.2^{J}	4.7
6	4.6	4.2	3.8	[3.7]^{JS}	3.6	3.3	5.0	5.4	5.5	6.0	6.2	7.0	6.4	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	5.0^{V}	5.0	5.5	[5.6]^{A}	5.8	5.3	5.0	5.4	5.3	6.0	5.2	4.4	4.3	4.0	3.6
8	3.2^{F}	3.1	3.1^{F}	2.8	2.6	3.6	(5.0)^{P}	5.3	4.9	5.2^{P}	5.2	4.9^{V}	5.0	5.1	5.5	5.7	6.5	6.4	5.9	(6.5)^{P}	5.0	[4.5]^{A}	4.0	3.1
9	3.1	3.1	3.6^{F}	3.3	3.8^{F}	[4.0]^{A}	4.3^{H}	4.3^{H}	4.4^{H}	W^{H}	5.3^{H}	4.5^{H}	4.5^{H}	4.6^{H}	4.4^{H}	4.3^{H}	4.4^{H}	4.6^{H}	4.6^{H}	5.3^{H}	5.3^{H}	4.0^{H}	4.0^{H}	4.1^{H}
10	4.0^{H}	3.2^{FH}	(3.4)^{PF}	3.3^{FH}	3.2^{H}	3.2^{H}	4.4^{H}	5.1^{H}	[4.7]^{B}	4.3^{H}	[4.4]^{B}	4.6^{H}	B^{H}	B^{H}	5.1^{JH}	5.5^{H}	5.5	5.3	4.8	4.1	4.8^{F}	(3.7)^{P}	3.4	3.0
11	3.0	2.9	3.0	2.8^{F}	2.9	[3.8]^{A}	4.7	5.0	5.4^{Z}	5.7^{Z}	5.9	4.7	5.6	5.4	5.0	[5.2]^{C}	5.5	5.6	C	C	C	C	A	AS
12	3.7	3.5	3.5	3.6	3.3	3.5^{P}	4.9	5.1	5.9	6.2	6.4	6.0	6.5	6.0	6.4	6.1	6.7	5.7	5.5	5.0	(4.9)^{PS}	[4.3]^{A}	3.7	3.9
13	3.8	3.9	3.7	3.3^{JS}	3.6	3.2^{S}	4.8	5.2	8.0	6.2	5.7	6.0	6.0	6.2	6.1	5.8	5.9	(5.8)^{PJ}	6.2	6.1^{S}	5.7	5.2	4.2^{H}	3.4
14	3.8	3.8	4.0	4.0^{PF}	3.6	4.0	4.4	5.3	5.8	6.3	5.6	5.5	6.0	6.0	6.4	6.2	6.7	7.3	7.9	6.7	5.6	4.7	4.0	4.4
15	3.9	4.0	3.9	4.1	3.9	A	A	5.1	5.6	5.7	6.0	6.3	6.1	6.1	6.0	5.4	5.4	6.2	6.4	[6.6]^{C}	6.7	6.1	4.7	[4.2]^{C}
16	(3.6)^{J}	3.7	3.5	3.4	3.3	3.7	4.4	5.0	5.7	6.0	6.1	6.2	5.9	6.8	5.7	5.5	5.4	C	C	C	C	C	C	C
17	C	C	C	C	C	C	C	C	C	BS	(6.0)^{PS}	[6.1]^{C}	6.2	B	6.1	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	5.7	6.0	6.5^{H}	6.6	5.7	5.4	5.5	6.6	7.2	6.1	6.0	5.4	4.8	4.3^{P}
19	4.4	4.1	3.8	3.6	3.7	3.8	5.3	6.7	6.3	7.0	7.8	5.4	6.8	7.7	6.5	6.2	6.8	6.0	6.5^{P}	6.0	5.3^{H}	4.8	4.7	4.2
20	4.0	3.9	3.7	(3.6)^{PS}	3.5	3.8	5.6	6.0^{V}	6.6	6.4	6.4	6.6	5.7	5.8	6.4	6.5	6.0	6.8	5.6	5.5	[5.4]^{SF}	5.2	3.8	3.3
21	3.1	3.1	2.8	3.3	3.6	4.2	5.5	6.2	6.2	7.1	7.3	7.8^{P}	7.5	C	C	B	5.9	5.9	6.0	6.0	6.0	6.0	(5.3)^{P}	4.3
22	4.3	4.8	4.9^{V}	4.8^{F}	4.8^{JF}	4.6	5.7	6.6	6.6	6.8	6.3	6.1	6.4	6.1	6.1	7.5	7.2	[6.6]^{SB}	6.0	[5.8]^{S}	5.5	S	S	4.9
23	4.6^{P}	4.6	(4.4)^{P}	4.3	4.3^{P}	4.3^{P}	5.6	5.6	7.0	7.4	7.6	7.4	[6.8]^{BS}	6.3^{P}	BS	BS	6.4	[6.2]^{C}	6.1	C	C	C	5.3^{J}	5.2^{J}
24	4.8^{J}	4.9^{J}	4.7	5.2	5.1^{JF}	(4.5)^{P}	4.9^{P}	5.5	M	C	BS	BS	BS	BS	(6.5)^{P}	C	BS	6.8^{J}	[6.6]^{C}	6.5^{J}	[6.1]^{C}	5.7	5.8	5.2
25	5.1	4.9	4.6^{J}	4.6^{J}	4.5	(4.5)^{PS}	(6.6)^{P}	(6.0)^{P}	(6.9)^{P}	[6.8]^{S}	6.8^{J}	7.1^{J}	(6.6)^{P}	8.0	7.6	(6.7)^{P}	(6.8)^{PJ}	7.3^{P}	(6.8)^{P}	6.1	S	S	S	S
26	S	4.0	4.5	4.1	(4.5)^{P}	(4.6)^{P}	[5.4]^{S}	6.3^{P}	(6.5)^{P}	B	B	B	8.0	8.5	9.8	8.3	7.3	(6.4)^{P}	(6.4)^{P}	S	S	6.0	5.8	5.4^{FJ}
27	5.3^{JF}	5.4^{FJ}	5.4^{FJ}	5.6^{F}	5.5	5.0	6.0	6.4	6.1	7.3	7.3	7.1	6.8^{J}	7.1	C	C	C	C	(10.5)^{P}	7.5	5.5	5.3	4.8	3.6
28	3.6	3.8	3.3^{H}	3.3	3.3	3.3	4.8	5.4	6.0	7.8	7.8	B	B	B	B	6.3^{P}	6.8^{J}	(6.5)^{P}	(6.6)^{P}	5.5	4.8	[4.2]^{S}	3.6	3.6
29	3.7	3.5	3.4^{J}	3.1	3.0	3.1	5.1^{J}	5.3^{P}	5.7	B	B	5.8^{H}	[6.6]^{B}	7.4	7.4	(6.3)^{P}	5.9	6.0	6.0	5.8	S	S	S	S
30	3.1^{V}	2.9	2.7	3.5^{Z}	2.6	3.3^{P}	4.4	4.7	5.2	7.3^{J}	5.6	5.5	C	C	C	C	6.1	(6.4)^{P}	6.3^{P}	(6.3)^{P}	S	S	3.3^{J}	3.0
31																								
Mean Value	4.0	4.0	3.9	3.8	3.8	3.9	5.1	5.5	5.9	6.3	6.2	6.0	6.1	6.3	6.1	5.9	6.0	6.1	6.3	6.0	5.6	5.2	4.6	4.1
Median Value	4.0	3.9	3.8	3.6	3.6	3.8	5.0	5.4	5.8	6.2	6.1	6.0	6.1	6.0	6.0	5.9	5.9	6.2	6.2	6.0	5.5	5.2	4.7	4.2
Count	26	27	27	27	27	26	26	26	25	22	25	25	25	22	24	23	25	25	25	24	21	21	23	24

Sweep 1.0 Mc to 15.5 Mc in 2 min ☐ Manual ☒ Automatic

W 1

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

IONOSPHERIC DATA

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

Sep. 1952

h_pF2

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	430	390	400^{P}	350^{P}	(390)^{J}	320	(360)^{JP}	B	C	C	C	C	C	C	360	400^{P}	C	C	C	350	330	380	360	[420]^{C}
2	480	430	360	420	390^{V}	420	U^{H}	420^{H}	420^{H}	U^{H}	A^{H}	C^{H}	U^{H}	U^{H}	U^{H}	U^{H}	400^{H}	350	400	[400]^{C}	400	400	370	360
3	430	360	400	350	320	(340)^{PS}	320	U	360	390	330	U	U	U	420	350	380	350	340	350^{P}	360	350	390	[400]^{A}
4	400	370	410	380	420	370	340	370	310	W	A	400	[400]^{A}	400	390	[380]^{B}	360	320	340	390	390	410	400	380^{P}
5	(390)^{P}	[420]^{A}	(450)^{PF}	(420)^{JF}	[390]^{A}	360	[340]^{A}	320	310	370	430	340	400	U	390	A	340	310	330	(370)^{P}	[380]^{A}	400	(430)^{J}	420
6	340	410	300	[350]^{S}	400	A	330	300	330	380	400	330	310	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	U	U	A	A	340	U	400	360	360	400	430	370	400	360	430
8	400^{F}	420	420^{F}	420	420	380	(320)^{P}	U	U	U	U	U	U	U	400	410	310	310	300	(350)^{P}	310	A	A	410
9	450	420	[400]^{A}	380	420^{F}	[400]^{A}	370^{H}	U^{H}	U^{H}	W^{H}	U^{H}	U^{H}	U^{H}	U^{H}	U^{H}	U^{H}	U^{H}	390^{H}	370^{H}	360^{H}	360^{H}	430^{H}	400^{H}	410^{H}
10	370^{H}	390^{FH}	(450)^{FH}	450^{FH}	410^{H}	A^{H}	440^{H}	300^{H}	B^{H}	S^{H}	B^{H}	A^{H}	B^{H}	B^{H}	U^{H}	350^{H}	310	320	350	310	400^{F}	(350)^{P}	360	400
11	440	430	400	410^{F}	440	[400]^{A}	370	350	410^{Z}	390^{Z}	320	U	290	400	360	[360]^{C}	350	330	C	C	C	C	A	AS
12	420	320	450	450	360	360^{P}	320	290	300	330	340	350	330	330	350	330	320	300	310	330	(300)^{PS}	[320]^{A}	330	380
13	410	380	380	[340]^{AS}	310	400^{S}	290	320	310	300	290	350	370	360	310	400	290	(330)^{PJ}	320	360^{S}	320	320	320^{H}	400
14	430	460	440	440^{F}	370	340	300	310	300	290	320	380	290	350	350	300	310	350	320	310	320	340	370	370
15	420	380	430	380	330	A	A	310	250	310	330	330	300	310	350	350	380	330	340	[340]^{C}	340	360	330	[360]^{C}
16	(380)^{J}	360	390	390	350	340	310	400	320	300	310	320	390	360	320	320	390	C	C	C	C	C	C	C
17	C	C	C	C	C	C	C	C	C	BS	(320)^{PS}	(320)^{C}	330	B	320	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	290	320	370^{H}	310	310	260	320	320	340	330	340	350	370	400^{P}
19	350	370	350	370	370	360	310	300	290	300	300	290	340	320	320	320	340	300	320^{P}	320	370^{H}	390	350	330
20	370	410^{S}	390	(390)^{S}	390	360	300	280^{V}	290	300	300	380	U	U	310	340	320	300	330	360	[340]^{FS}	320	330	340
21	330	350	360	410	340	330	290	300	290	300	350	330^{P}	330	C	C	B	300	330	380	370	420	340	(350)^{P}	360
22	380	380	400^{V}	380^{F}	(370)^{JF}	340	310	310	290	280	300	310	300	330	310	330	300	[300]^{BS}	310	[300]^{S}	290	S	S	360
23	350^{P}	340	(360)^{P}	340	340^{P}	340^{P}	300	310	340	300	310	290	[320]^{BS}	350^{P}	BS	BS	300	[320]^{C}	340	C	C	C	(380)^{J}	(390)^{J}
24	(380)^{J}	(400)^{J}	390	380	(390)^{JF}	(340)^{P}	300^{P}	300	M	BS	BS	BS	BS	BS	(330)^{P}	C	BS	(350)^{J}	[340]^{e}	(330)^{J}	[350]^{C}	370	420	380
25	380	390	(380)^{J}	(370)^{J}	350	(360)^{BS}	(300)^{P}	(320)^{P}	(320)^{P}	[340]^{S}	(350)^{J}	(350)^{J}	(350)^{P}	330	310	(330)^{PS}	(310)^{PJ}	320^{P}	(320)^{P}	330	S	S	S	S
26	S	380	400	380	(400)^{P}	(370)^{P}	[340]^{S}	320^{P}	(300)^{P}	B	B	B	380	350	360	330	330	(340)^{P}	(370)^{P}	S	S	420	420	(350)^{FJ}
27	(410)^{JF}	(380)^{JF}	(370)^{J}	380^{F}	400	370	310	300	340	310	330	300	(300)^{J}	370	C	C	C	C	(310)^{P}	290	330	410	430	350
28	370	370	430^{H}	400	390	340	340	320	400	330	300	B	B	B	B	320^{P}	(340)^{J}	(320)^{P}	(320)^{P}	330	350	[360]^{S}	360	360
29	410	420	(410)^{J}	400	420	400	(340)^{J}	340^{P}	350	B	B	390^{H}	[330]^{B}	270	260	(320)^{P}	300	320	350	370	S	S	S	S
30	400^{V}	440	380	350^{Z}	410	350^{P}	290	B	400	(390)^{J}	320	340	C	C	C	C	310	(330)^{P}	320^{P}	(350)^{P}	S	S	(290)^{J}	410
31																								
Mean Value	400	390	400	390	380	360	330	320	330	330	330	340	340	340	340	340	330	330	340	350	350	370	370	380
Median Value	400	390	400	380	390	360	320	310	320	320	320	330	330	340	340	340	320	320	340	350	350	360	360	380
Count	26	27	27	27	27	24	25	22	22	20	20	19	19	16	20	20	24	25	25	24	21	20	22	24

h_pF2

Sweep 1.0 Mc to 15.5 Mc in 2 min ☐ Manual ☒ Automatic

W 2

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

IONOSPHERIC DATA

Sep. 1952 | h'F2 | 135° E Mean Time | Wakkanai | Lat. 45° 23.6' N | Long. 141° 41.1' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	360	300	310	300	310	290	300	290	320	280	380	350	380	360	360	400	330	350	280	300	300	300	300	[320]^{C}
2	340	300	340	350	290	310	430^{H}	420^{H}	420^{H}	400^{H}	A^{H}	C^{H}	470^{H}	460^{H}	420^{H}	570^{H}	400^{H}	300	380	[340]^{C}	300	300	300	300
3	310	300	380	300	300	300	300	400	290	390	330	340	400	410	410	340	350	300	300	300	300	300	320	A
4	A	310	310	300	310	320	320	350	310	W	A	400	[400]^{A}	400	390	[340]^{A}	300	310	310	350	300	300	280	300
5	300	[320]^{A}	330	350	[330]^{A}	310	[300]^{A}	300	300	370	L	340	400	390	390	320^{A}	340	300	300	270	[290]^{A}	310^{A}	A	A
6	270	320	300	250	350^{A}	A	260	300	330	370	390	330	310	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	400	470	A	A	340	400	400	360	330	320	330	300	350	330	380
8	380	350	400	370	400	300	310	460	400	420	460	600	500	450	400	400	300	310	280	290	270	A	A	380
9	360	360	[330]^{A}	300	350	[350]^{A}	350^{H}	400^{H}	560^{H}	W^{H}	430^{H}	500^{H}	560^{H}	500^{H}	430^{H}	420^{H}	400^{H}	380^{H}	320^{H}	300^{H}	300^{H}	[310]^{A,H}	320^{H}	330^{H}
10	300^{H}	300^{H}	350^{H}	390^{H}	A^{H}	A^{H}	330^{A,H}	300^{H}	B^{H}	S^{H}	B^{H}	A^{H}	B^{H}	B^{H}	B^{K}	350^{H}	310	320	290	270	370	300	310	360
11	370	380	A	370^{A}	360^{A}	[320]^{A}	290	350	400	390	320	450	290	400	L	C	340	320	C	C	C	C	A	AS
12	380	380	390	280	300	290	300	280	300	330^{A}	340	350	320	330	350	310	300	280	260	260	260	[330]^{A}	400	330
13	350	350	350	[320]^{S,A}	300	360	280	360	280	280	290	350	370	360	300	390	200	300	270	290	280	260	260^{H}	370
14	380	390	350	360	300	300	290	280	290	290	300	L	280	340	350	300	310	300	280	280	270	270	300	300
15	300	320	330	310	290	A	A	300	240	310	330	330	300	310	340	340	350	310	290	[300]^{C}	300	290	270	[300]^{C}
16	330	300	300	310	300	320	260	400	310	300	310^{S}	320	390	350	310	290	280	C	C	C	C	C	C	C
17	C	C	C	C	C	C	C	C	C	300^{BS}	300^{S}	[310]^{C}	320	310	320	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	290	300	330^{H}	300	310	260	310	300	300	280	300	280	290	300
19	300	280	300	300	300	300	270	290	280	290	290	290	340	310	310	310	310	270	280	260	280^{H}	300	280	270
20	300	310	320	320	300	290	290	280	270	300	300	350	300	340	310	300	280	290	280	300	300^{A}	300	250	300
21	320	300	320	320	300	250	280	300	290	280	320	310	310	C	C	290	250	290	300	300	330	280	270	300
22	300	300	300	300	290	260	260	280	280	280	300	310	300	300	310	310	280	270	300	350	270	S	S	300
23	290	260	270	260	280	280	280	290	280	300	300	280	300	330	300	300	280	[290]^{e}	300	C	C	C	290	310
24	300	300	300	290	280	260	250	280	M	C	300	300	300^{BS}	290	310	[300]^{C}	300	290	[290]^{e}	290	[300]^{e}	300	300	300
25	300	300	300	300	270	270	270	270	290	300	300	320	330	310	300	[320]^{C}	290	280	260	240	S	S	320	[310]^{S}
26	300	300	300	300	300	300	290	300	300	300	300	330	380	350	320	330	300	300	290	280	300	320	300	300^{F}
27	300	300	300	310	320	260	240	280	320	300	290	300	300	L	C	C	C	C	260	240	280	320	360	300
28	300	280	320^{H}	330	320	300	300	300	A	320	300	300	310	310	300	300	320	300	280	280	300	300	300	300
29	310	330	320	320	350	350	300	300	320	300	300	300^{H}	300	260	360	300	300	290	300	310	AS	AS	AS	AS
30	300	290	360	300	380	320	270	300^{B}	400	350	320	330	C	C	C	C	280	280	270	270	290	270	240	370
31																								
Mean Value	320	320	320	320	310	300	290	320	320	320	330	350	350	350	350	340	310	300	290	290	300	300	300	320
Median Value	300	300	320	310	300	300	290	300	300	300	300	330	320	340	330	320	300	300	290	290	300	300	300	300
Count	26	27	26	27	26	24	26	27	24	27	26	26	27	25	24	25	27	26	26	25	23	21	22	23

Sweep 1.0 Mc to 15.5 Mc in 2 min ☐ Manual ☒ Automatic

W 3

6

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

IONOSPHERIC DATA

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

Sep. 1952

foF1

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							Q	4.0	4.1	4.1	4.1	4.3	4.3	4.3	4.1	4.1	L	L						
2							3.7	A	A	A	A	C	4.3	4.1	A	4.2	3.8	Q						
3							Q	4.0	Q	4.2	4.2	4.3	4.2	4.4	4.1	4.0	L	Q						
4							3.5	3.8	4.0	4.0	A	A	A	A	A	A	3.5	A						
5							A	A	3.9	4.2	[4.4]L	4.5	4.3	4.6	4.3	A	A	L						
6							Q	3.8	4.0	4.0	4.2	4.3	4.2	C	C	C	C	C						
7							C	C	C	4.0	4.2	A	A	4.3H	4.2	4.1	3.7	Q						
8							L	3.9	4.0	4.0	4.2	4.6	4.4	4.3	4.2H	4.0	3.8	L						
9							A	3.6	3.8	3.9	4.3	4.1	4.1	4.0	4.0	3.9	3.8	A						
10							Q	A	B	S	4.0	A	B	B	3.9	[3.7]B	3.5	L						
11							Q	3.9	3.9	4.0	4.5	4.1	4.0	4.0	L	C	3.7	L						
12							Q	2.9	L	A	4.1	4.2	4.2	4.1	4.1	L	3.7	L						
13							Q	3.7H	3.8	Q	Q	4.2	4.2	4.2	4.0	3.9	Q	Q						
14							Q	Q	3.8	3.8	Q	L	4.1*	4.0	4.4	3.6	L	L						
15							A	A	Q	3.9	4.1	4.1	4.0	3.8	4.0	3.8	3.7	Q						
16							Q	3.6	4.0	3.8	4.2	4.2	L H	4.3	4.0	Q	Q	C						
17							C	C	C	BS	BS	C	B	3.9	A	C	C	C						
18							C	C	C	C	4.0H	4.0	4.2	4.0	4.0	L	3.2	Q						
19							Q	3.7	3.9	4.0	4.1	4.2	4.5	4.2	4.0	3.9	L	Q						
20							Q	Q	4.0	4.1	4.0	4.5	4.4	4.5	3.9	3.8	Q	Q						
21							Q	3.3	[3.6]A	4.0	4.0	4.2	4.2	C	C	3.7	Q	Q						
22							Q	3.5	3.9	4.0	4.1	4.2	3.9	B	B	4.0	3.8	Q						
23							Q	Q	Q	3.8	4.2	4.1	4.0	L	Q	Q	Q	C						
24							Q	Q	M	C	BS	BS	BS	BS	4.0	[3.6]C	3.1	Q						
25							Q	Q	3.8	Q	3.8	3.9	4.0	4.3	Q	C	Q	Q						
26							Q	Q	Q	B	B	B	B	B	4.0	A	Q	Q						
27							Q	Q	S	3.8	Q	4.0	4.0	L	C	C	C	C						
28							Q	Q	A	SB	SB	SB	SB	4.0	SB	Q	Q	Q						
29							Q	Q	3.7	A	A	A	3.6	B	A	A	B	Q						
30							Q	B	4.0	3.9	3.9	4.0	C	C	C	C	Q	Q						
31																								
Mean Value							3.6	3.7	3.9	4.0	4.1	4.2	4.1	*4.2	4.1	3.9	3.6	—						
Median Value							3.6	3.7	3.9	4.0	4.1	4.2	4.2	4.2	4.0	3.9	3.7	—						
Count							2	13	17	19	20	20	21	19	17	15	12	—						

foF1

Sweep 1.0 Mc to 15.5 Mc in 2 min ☐ Manual ☒ Automatic

W 4

7

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

8

IONOSPHERIC DATA

Sep. 1952 | h'F1 | 135° E Mean Time | Wakkanai | Lat. 45° 23.6' N | Long. 141° 41.1' E

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

Sweep 1.0 Mc to 15.5 Mc in 2 min ☐ Manual ☒ Automatic

W 5

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

IONOSPHERIC DATA

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

Sep. 1952

foE

135° E Mean Time

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

foE

Sweep 1.0 Mc to 15.5 Mc in 2 min ☐ Manual ☒ Automatic

W 6

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

IONOSPHERIC DATA

Sep. 1952 | R'E | 135° E Mean Time | Wakkanai | Lat. 45° 23.6' N | Long. 141° 41.1' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							130	120	120	120	120	120	[120]A	130	150	120	A	A						
2							A	150	140	130	A	C	A	A	A	A	A	A						
3							A	120	120	120	120	120	120	130	120	110	120	A						
4							130	[120]A	120	120	120	120	120	120	120	A	A	A						
5							A	100	130	A	A	120	120	120	120	120	130	120						
6							120	[120]A	120	110	[110]A	110	120	C	C	C	C	C						
7							C	C	C	120	120	120	120	120	120	120	120	A						
8							B	110	A	A	130	130	120	120	130	[120]A	120	130						
9							A	A	120	120H	120	120	120	130	120	120	120	120						
10							120	120	[120]B	120	120	A	B	B	110	[120]B	130	B						
11							A	A	130	A	A	120	120	120	120	C	A	120						
12							B	140	[130]A	120	120	120	110	A	A	A	120	120						
13							140	120	120	A	A	120	A	A	150	[140]A	140	B						
14							A	130	120	A	A	A	A	A	120	120	A	A						
15							A	A	120	130	130	120	120	120	120	120	130	B						
16							120	[120]C	120	120	120	[120]A	120	120	110	110	120	C						
17							C	C	C	BS	BS	C	B	B	A	C	C	C						
18							C	C	C	C	110	110	110	120	110	110	120	140						
19							A	110	110	110	110	110	120	110	120	120	[120]A	120						
20							120	120	120	120	[120]A	120	120	A	A	A	A	A						
21							A	A	120	110	110	110	110	C	C	120	120	A						
22							130	[120]A	110	110	110	120	120	120	120	120	120	A						
23							110	110	110	120	120	120	120	120	120	[120]A	120	C						
24							B	130	M	C	120	BS	BS	120	110	[120]C	120	130						
25							170	120	110	110	120	120	130	120	120	120	120	120						
26							120	120	120	120	120	120	[120]B	130	120	[120]A	130	110						
27							120	A	A	120	120	120	110	120	C	C	C	C						
28							E	120	120	120	120	120	120	120	A	A	A	A						
29							120	120	120	[120]A	110	[120]A	120	A	A	A	A	A						
30							S	A	120	120	120	A	C	C	C	C	A	120						
31																								
Mean Value							130	120	120	120	120	120	120	120	120	120	120	120						
Median Value							120	120	120	120	120	120	120	120	120	120	120	120						
Count							14	21	24	22	24	24	23	19	20	19	18	11						

Sweep 1.0 Mc to 15.5 Mc in 2 min ☐ Manual ☒ Automatic

W 7

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

IONOSPHERIC DATA

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

Sep. 1952

fEs

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	4.6	E	E	1.2	E	2.0	G	3.9	G	G	G	G	4.0Y	G	G	G	3.4	3.0	3.0	5.0	3.6	2.2	2.6	C
2	3.0	3.0	3.0	E	E	3.6	3.6	4.5	5.0	5.0	6.0	C	5.0	4.8	5.0	5.2	3.8	3.0	2.8	C	E	2.9	E	2.9
3	E	E	E	2.6	3.7F	3.2	3.2	4.0	G	3.9	3.9	G	G	G	G	G	G	3.5	5.2	5.0	3.3	3.2	4.3	5.8
4	3.3	3.2	3.0	E	2.6	3.0	G	3.5	G	5.0	5.7	6.0	9.0	6.0	5.0	5.0	3.8	9.8Y	5.9	5.9	3.1	2.0	E	E
5	E	6.0	7.0	1.5	4.3	3.2	5.0	4.7	4.4	3.4	4.5	G	G	G	G	5.8	5.0	3.3	2.8	E	6.0	6.0	4.5	3.4
6	2.8	E	E	2.8	3.0	4.0	4.0	3.0	3.8	4.0	4.0	G	G	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	4.6	5.3	5.8	8.0	G	G	3.7	3.4	6.0	3.3	E	2.5	3.0	5.8	5.6
8	6.0	4.0	5.0	3.0	E	2.2	B	G	3.2	3.0	G	G	G	G	G	3.6	G	3.0	2.8Y	E	3.0	6.0	5.0	3.0
9	3.8	3.0	5.4	5.0	3.5	5.0	5.6	5.0	6.0	G	G	G	G	G	G	G	3.3	4.0	4.0	3.6	3.0	4.0	3.0	2.8
10	3.0	E	E	2.4	3.4	4.0	4.0	5.0	B	3.9	G	8.0	B	B	G	B	G	G	2.1	2.6	6.0	4.5	2.6	E
11	4.3	2.6	3.9	3.9	3.0	4.2	6.0	3.0	3.0	4.0	5.0	G	G	G	G	C	2.9	G	C	C	C	C	5.5	3.9
12	2.6	E	E	2.6	E	E	B	G	5.0	6.0	4.5	4.7	4.2	3.7	3.9	3.8	G	G	3.0	3.7	3.2	6.0	3.7	2.3
13	3.0	3.9	3.0	2.7	3.0	3.0	G	G	3.6Y	5.0	5.0	5.5	4.0	4.5	G	3.4	G	2.3	3.2	E	E	E	E	5.8
14	6.0	5.5	4.0	3.8	2.8	2.1	3.0	3.2	3.0	3.2	5.0	5.5	4.5	3.0	G	G	3.8	3.0	3.0	3.0	2.0	E	E	E
15	E	E	E	3.0	3.0	6.0	8.0	6.0	4.0	4.0	6.8	5.1	4.1	G	G	G	G	3.9	1.8	C	2.3	2.8	1.4	C
16	E	3.0	1.4	2.4	E	3.2	G	C	3.9	4.0	G	3.3	4.2	4.7	4.0	G	G	C	C	C	C	C	C	C
17	C	C	C	C	C	C	C	C	C	BS	5.7	C	B	B	5.0	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	G	G	3.3	G	G	G	G	3.7	6.0F	6.0	6.6	E	E	2.1Y
19	E	1.6	2.1	2.7	3.0	1.2	3.7	G	G	G	5.0	G	G	G	G	G	3.1	C	5.2	3.1	2.0	E	E	E
20	1.5	E	2.1	E	E	3.0	3.0	G	G	G	3.3	G	G	6.0	5.5	4.0	3.8	4.0	3.6	3.0	6.0	6.0	3.0	3.4
21	3.0	2.6	2.1	E	E	3.0	3.0	2.6	4.0	4.0	G	G	G	C	C	G	3.9	3.0	3.7	4.0	6.0	E	2.3Y	1.6
22	1.6	E	1.4	2.3Y	E	1.6	G	3.9	G	G	G	G	G	G	G	G	G	3.0	2.6	3.0	3.0	2.6	E	E
23	E	E	E	E	E	1.6	G	G	G	G	3.8	4.2	G	G	G	3.0	3.8	C	3.8	C	C	C	2.4Y	3.0Y
24	1.6	2.0	2.0	2.4	1.6	1.6	G	G	M	C	G	BS	BS	G	G	C	2.9	2.4	C	1.6	C	2.9	2.6	E
25	E	E	E	E	2.3	2.2	G	G	G	3.8	3.7	G	G	G	G	G	G	G	E	E	S	S	E	S
26	E	E	E	E	E	E	G	G	G	G	G	G	B	G	6.0	6.0	G	G	2.6	2.2	E	E	E	E
27	E	3.0	2.2	2.6	3.0	3.0	G	3.0	3.2	G	G	G	G	G	C	C	C	C	2.1	E	E	E	S	E
28	E	E	E	E	1.4	3.0	E	G	5.2Y	G	3.8	G	4.0	G	4.0	3.8	3.2	3.0	2.3	E	E	E	2.7	E
29	2.3	1.6	2.4	E	2.4	E	G	G	G	5.0	5.0	4.0	G	3.8	4.0	4.0	3.0	4.0	3.6	3.0	3.4	3.0	3.0	3.0
30	E	E	2.6	2.8	1.6	E	S	2.6	3.6	4.2	G	3.9	C	C	C	C	3.2	G	2.2	2.3	E	2.5	2.1Y	2.9
31																								
Mean Value	3.3	3.2	3.1	2.8	2.8	3.0	4.3	3.9	4.1	4.2	4.8	5.1	4.9	4.6	4.7	4.3	3.5	3.8	3.4	3.6	3.8	3.7	3.3	3.4
Median Value	1.6	1.6	2.1	2.4	2.3	3.0	G	2.8	3.2	3.9	3.8	G	G	G	G	3.0	3.0	3.0	3.0	3.0	3.0	2.7	2.5	2.6
Count	27	27	27	27	27	27	24	26	25	27	30	27	25	25	26	23	27	24	25	23	23	24	26	24

fEs

Sweep 1.0 Mc to 15.5 Mc in 2 min ☐ Manual ☒ Automatic

W 8

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

IONOSPHERIC DATA

Sep. 1952 | **(M3000)F2** | 135° E Mean Time | **Wakkanai** | Lat. 45° 23.6' N, Long. 141° 41.1' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.5	2.6	2.6^{P}	2.8^{P}	(2.7)^{J}	2.9	(2.9)^{P_S}	B	C	C	C	C	C	C	2.8	2.8^{P}	C	C	C	2.9	2.7	2.7	2.7	[2.6]^{C}
2	2.4	2.5	2.7	2.5	2.7^{V}	2.5	2.7^{K}	2.6^{K}	2.7^{K}	2.9^{K}	A^{K}	C^{K}	2.6^{K}	2.6^{K}	2.8^{K}	2.3^{K}	2.7^{K}	2.8	2.7	[2.6]^{C}	2.6	2.6	2.7	2.8
3	2.5	2.8	2.7	2.9	3.0	(2.9)^{P_S}	3.0	2.7	2.8	2.7	3.0	3.0	2.8	2.7	2.5	2.9	2.6	2.8	2.8	2.8^{P}	2.8	2.9	2.7	[2.7]^{A}
4	2.7	2.6	2.5	2.6	2.6	2.7	2.9	2.7	3.0	W	2.6	2.7	[2.7]^{A}	2.7	2.7	[2.8]^{B}	2.8	2.9	2.8	2.7	2.7	2.6	2.5	2.7^{P}
5	(2.6)^{P}	(2.5)^{J}	(2.5)^{P_F}	(2.6)^{J_F}	(2.5)^{J_F}	2.7	[2.8]^{A}	2.9	2.9	3.0	2.5	3.1	2.9	(2.8)^{J}	2.7	3.0	2.8	3.1	2.9	(2.7)^{P}	[2.6]^{A}	2.6	(2.5)^{J}	2.6
6	2.8	2.6	3.2	[2.9]^{S}	2.6	2.8	2.8	3.2	3.0	2.7	2.7	3.0	3.1	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	2.7^{V}	2.5	2.6	[2.8]^{A}	2.9	2.8	2.8	2.8	2.9	2.6	2.5	2.7	2.6	2.7	2.6
8	2.5^{F}	2.5	2.5	2.5	2.6	2.6	(3.0)^{P}	2.6	2.7	2.6^{P}	2.6	2.3^{V}	2.6	2.6	2.8	2.6	3.0	3.1	3.0	(2.8)^{P}	3.0	[2.8]^{A}	2.7	2.6
9	2.5	2.5	2.6^{F}	2.7	2.6^{F}	[2.6]^{A}	2.7^{K}	2.8^{K}	2.3^{K}	W^{K}	2.7^{K}	2.6^{K}	2.4^{K}	2.4^{K}	2.7^{K}	2.7^{K}	2.7^{K}	2.7^{K}	2.7^{K}	2.8^{K}	2.7^{K}	2.5^{K}	2.5^{K}	2.6^{K}
10	2.8^{K}	2.5^{F_K}	(2.5)^{P_F}	2.5^{F_K}	2.5^{K}	2.6^{K}	2.4^{K}	3.1^{K}	[2.8]^{B_K}	(2.4)^{S_K}	[2.5]^{B_K}	(2.6)^{A_K}	B^{K}	B^{K}	(2.6)^{K}	2.9^{K}	3.0	3.0	2.8	3.0	2.6^{F}	(2.7)^{P}	2.7	2.7
11	2.5	2.5	2.8	2.6^{F}	2.5	[2.7]^{A}	2.9	2.8	2.5^{Z}	2.8^{Z}	3.2	2.5	3.4	2.7	2.8	[2.9]^{C}	3.0	3.0	C	C	C	A	AS	
12	2.5	2.5	2.5	2.9	2.8	2.8^{P}	2.9	3.1	3.2	2.9	3.0	2.9	2.9	3.0	2.8	2.9	3.0	3.1	3.0	2.9	(3.0)^{P_S}	[2.8]^{A}	2.6	2.7
13	2.6	2.7	2.7	(2.8)^{J_S}	3.0	2.7^{S}	3.2	2.8	3.1	3.3	3.2	3.0	2.8	2.9	3.1	2.6	3.1	(2.9)^{P_S}	3.0	2.8^{S}	3.0	3.0	3.0^{H}	2.7
14	2.5	2.4	2.4	2.5^{P_F}	2.7	2.8	3.1	3.2	3.1	3.3	3.0	2.8	3.5	2.9	3.0	3.2	3.0	2.8	3.0	3.1	3.0	2.9	2.7	2.7
15	2.6	2.7	2.5	2.6	2.9	A	A	3.1	3.4	3.0	3.0	3.0	3.2	3.1	2.9	2.9	2.7	3.0	2.8	[2.8]^{C}	2.8	2.7	2.9	[2.8]C
16	(2.7)^{J}	2.8	2.6	2.7	2.8	2.9	3.0	2.8	3.0	3.2	3.1	3.0	2.7	2.8	3.0	3.0	2.8	C	C	C	C	C	C	C
17	C	C	C	C	C	C	C	C	C	BS	(3.0)^{P_S}	[3.0]^{C}	2.9	B	3.0	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	3.2	3.0	2.9^{H}	3.0	3.1	3.5	3.1	2.9	2.8	2.9	2.9	2.8	2.7	2.6^{P}
19	2.8	2.7	2.8	2.7	2.8	2.8	3.0	3.2	3.2	3.2	3.3	3.3	3.0	3.0	2.9	2.9	2.9	3.1	3.0^{P}	3.0	2.7^{H}	2.7	2.8	2.9
20	2.7	2.6	2.7	(2.6)^{P_S}	2.7	2.7	2.7	3.4^{V}	3.3	3.3	3.2	2.7	3.3	3.1	3.0	3.0	3.0	3.2	2.9	2.7	[2.8]^{F_S}	3.0	2.9	3.0
21	3.0	2.9	2.8	2.6	2.9	2.9	3.3	3.2	3.2	3.0	3.0	3.0^{P}	3.0	C	C	B	3.1	2.9	2.7	2.9	2.5	2.9	(2.8)^{P}	2.7
22	2.6	2.8	2.6^{V}	2.7^{F}	(2.7)^{J_F}	2.9	3.0	3.3	3.3	3.2	3.2	3.1	3.2	2.9	3.2	2.9	3.3	[3.2]^{B_S}	3.1	[3.2]^{S}	3.2	S	S	2.8
23	2.8^{P}	2.8	(2.8)^{P}	2.8	2.9^{P}	2.9^{P}	3.2	3.1	3.0	3.2	3.0	3.2	[3.0]^{BS}	2.9^{P}	BS	BS	3.2	[3.0]^{C}	2.9	C	C	C	(2.7)^{J}	(2.7)^{J}
24	(2.7)^{J}	(2.6)^{J}	2.7	2.7	(2.9)^{J_F}	(2.8)^{P}	3.0^{P}	3.1	M	C	BS	BS	BS	BS	(3.0)^{P}	C	BS	(2.8)^{J}	[2.8]^{C}	(2.8)^{J}	[2.8]^{C}	2.8	2.5	2.6
25	2.7	2.7	(2.7)^{J}	(2.8)^{J}	2.8	(2.7)^{P_S}	(3.1)^{P}	(3.0)^{P}	(3.0)^{P}	[2.9]^{S}	(2.8)^{J}	(2.7)^{J}	(2.8)^{P}	3.0	3.0	(2.9)^{P_S}	(3.0)^{P_J}	3.0^{P}	(3.0)^{P}	2.9	S	S	S	S
26	S	2.7	2.5	2.6	(2.6)^{P}	(2.7)^{P}	[2.8]^{S}	3.0^{P}	(3.1)^{P}	B	B	B	2.8	2.9	2.8	3.0	3.0	(2.9)^{P}	(2.7)^{P}	S	S	2.5	2.5	(2.8)^{J}
27	(2.5)^{J}	(2.7)^{J_F}	(2.7)^{J_F}	2.7^{F}	2.6	2.8	3.0	3.0	3.0	3.1	3.0	3.1	(3.2)^{J}	2.7	C	C	C	C	(3.0)^{P}	3.2	3.0	2.6	2.6	2.8
28	2.8	2.8	2.5^{H}	2.6	2.6	2.9	2.8	3.0	2.6	3.0	2.9	B	B	B	B	3.0^{P}	(2.9)^{J}	(3.0)^{P}	(3.0)^{P}	3.0	2.8	[2.8]^{J}	2.8	2.8
29	2.5	2.5	(2.5)^{J}	2.6	2.5	2.6	(2.8)^{J}	2.8^{P}	2.8	B	B	2.6^{H}	[3.0]^{B}	3.4	2.8	(3.0)^{P}	3.1	3.0	2.8	2.7	S	S	S	S
30	2.6^{V}	2.5	2.8	2.8^{Z}	2.7	2.8^{P}	3.1	3.1	2.7	(2.9)^{J}	3.1	2.9	C	C	C	C	3.0	(3.0)^{P}	3.0^{P}	(2.8)^{P}	S	S	(3.1)^{J}	2.6
31																								
Mean Value	2.6	2.6	2.6	2.7	2.7	2.8	2.9	3.0	2.9	3.0	2.9	2.9	2.9	2.9	2.9	2.9	2.9	3.0	2.9	2.8	2.8	2.8	2.7	2.7
Median Value	2.6	2.6	2.6	2.7	2.7	2.8	3.0	3.0	3.0	3.0	3.0	3.0	2.9	2.9	2.8	2.9	3.0	3.0	2.9	2.8	2.8	2.7	2.7	2.7
Count	26	27	27	27	27	26	26	26	25	24	25	25	25	22	24	23	25	25	25	24	21	21	23	24

Sweep 1.0 Mc to 15.5 Mc in 2 min ☐ Manual ☒ Automatic

W 9

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

IONOSPHERIC DATA

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

Sep. 1952 | **fminF** | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.2	E	E	E	E	2.0	2.8	2.8	3.0	3.6	3.2	3.6	3.5	3.3	3.0	3.1	2.8	1.8	2.3A	3.6A	2.0A	1.6	1.4	[1.5]C
2	1.6	E	1.8	E	E	1.7	2.0	3.8A	4.0A	4.0A	A	C	3.6	3.6	4.1A	3.8A	3.0	2.6	3.0A	[2.5]C	2.0	2.0A	2.0	2.0A
3	1.4	1.7	2.0	1.7	1.8	1.8	2.6	2.6	3.0	3.6	3.7	3.8	3.4	3.8	3.1	3.0	2.7	2.6	3.0A	3.0A	2.0A	2.0A	2.6A	[3.1]A
4	3.6	2.0A	1.4	E	E	2.0A	2.0	2.6	2.9	3.6A	5.9A	4.7A	[4.6]A	4.4A	4.2A	[3.8]A	3.4A	4.0A	3.6A	1.5	1.8	1.4	1.7	1.7
5	1.3	3.8A	E	1.5	3.8AF	2.6A	[3.1]A	3.6A	3.3	3.7	4.0A	3.8	3.6	3.7	3.6	5.0A	3.7	3.0A	2.7A	1.6	[2.1]A	2.6A	4.0A	3.6A
6	1.8	E	2.0	1.8	2.0A	2.6A	1.8	2.7	3.0	3.2	3.6	3.6	3.6	C	C	C	C	C	C	C	C	C	C	C
7	C	C	C	C	C	C	C	C	C	3.6	4.0A	5.0A	[4.2]A	3.3	3.3	3.2	2.5	2.6	2.0A	1.8	1.8	1.8	2.0A	1.8
8	2.0A	1.8	1.6	1.5	1.9	2.0A	2.0	2.8	3.0	3.6	3.2	3.4	3.6	3.2	3.3	3.0	2.6	2.0	1.8	2.0	1.4	[2.5]A	3.6A	1.9
9	1.6	E	3.0A	E	2.0A	[2.5]A	3.0A	3.0	2.9	3.1	3.8	3.2	3.8	3.2	3.5	2.8	2.8	3.3A	3.0A	2.0A	2.0A	3.0A	2.0A	1.8
10	1.8	1.8	E	1.3	2.6A	2.8A	2.7	3.8A	[4.0]B	4.2S	3.8	4.5A	B	B	3.6	3.9A	2.4	2.0	1.8	1.5	2.8A	1.8	1.8	1.8
11	1.6	1.2	2.4A	1.8	1.8A	[2.3]A	2.8A	2.4	2.8	3.6	4.0A	3.5	3.2	3.7	3.0	[2.9]C	2.8	2.0	C	C	C	C	A	As
12	1.8	E	1.8	1.8	1.6	1.8	2.0	2.7	2.6	5.0A	3.9	3.8	3.6	3.7	3.6	3.0	2.8	2.2	1.8	1.8	2.5	[2.4]A	2.4A	1.7
13	1.8	1.9	2.2A	3.6S	1.8	1.9	2.0	2.6	3.6A	3.7A	3.8A	3.2	3.0	3.7	3.2	2.8	2.4	2.1	2.0A	1.6	1.6	1.4	1.6	1.7
14	1.9	1.7	1.6	1.8	1.2	1.9	1.8	2.3	2.4	2.8	3.9	4.0A	3.6	3.1	3.0	2.8	2.8	2.0	1.8	1.8	1.6	1.6	1.8	1.7
15	1.6	1.6	E	E	E	A	A	3.6A	2.5	3.2	3.3	3.8A	3.4	2.9	3.0	2.7	2.9	3.0A	2.0	[2.0]C	2.0A	1.8	1.7	[1.8]C
16	1.8	1.6	1.2	E	1.7	2.0A	1.8	3.0	3.0	2.5	3.2	3.6	3.7	3.1	2.8	2.6	2.7	C	C	C	C	C	C	C
17	C	C	C	C	C	C	C	C	C	4.0S	4.0S	[4.0]C	4.0	3.7	4.0	C	C	C	C	C	C	C	C	C
18	C	C	C	C	C	C	C	C	C	C	3.1	3.6	3.3	3.2	3.4	3.0	2.6	2.7A	3.0A	2.2A	3.6A	1.3	1.3	1.3
19	E	E	1.3	1.4	1.4	1.3	2.0	2.4	3.0	3.2	3.0	3.2	3.2	3.1	3.3	3.2	2.6	3.2	2.1A	1.5	1.4	E	1.4	1.7
20	1.2	E	E	1.3	E	1.2	2.3	2.4	2.8	3.0	3.7	3.7	3.6	3.6	3.0	3.0	3.2	2.0	2.0A	2.8A	2.8A	3.0A	3.0A	1.4
21	2.0A	1.4	E	E	E	E	2.2	2.6	4.0A	3.2	3.2	3.3	3.6	C	C	3.1	2.4	2.1	1.4	1.9	1.9	1.4	1.4	1.4
22	1.3	E	E	E	E	E	1.9	2.5	2.8	3.2	3.2	3.8	3.1	3.8	3.6	3.4	2.5	2.3	4.5S	3.6S	4.0S	S	S	1.4
23	1.4	E	E	E	E	E	2.2	3.0	3.0	3.6	3.6	3.3	3.6	3.0	3.6	3.0	2.6	[2.0]C	1.4	C	C	C	1.6	1.6
24	1.6	1.2	E	E	E	E	2.1	2.9	M	C	4.5S	4.8S	5.1S	4.8S	3.0	[2.8]C	2.7	2.0	[2.0]C	2.0	[2.0]C	1.9	1.8	1.5
25	E	E	E	1.2	E	1.4	2.0	2.5	3.3	3.7	3.1	3.7	3.6	3.2	4.0	2.8	2.5	1.9	1.3	1.4	S	S	1.8	[1.7]S
26	1.6	E	E	E	E	E	1.9	2.5	3.8	4.5	4.6	4.8	6.0	6.9	3.6	6.8	2.6	1.6	1.8	2.0A	2.0	E	2.0	1.4F
27	E	E	E	1.8	1.8	1.7	1.9	2.0	4.0S	3.6	3.8	3.7	3.7	3.6	C	C	C	C	2.2	E	1.8	1.4	1.4	E
28	E	E	E	E	E	2.0A	E	2.2	5.0A	4.5	5.0	4.7	4.5	3.7	4.7	3.0	3.6	2.0	1.8	1.8	2.0	2.0	1.2	E
29	1.2	E	E	E	1.3	E	1.9	2.8	2.9	4.8A	4.0A	4.0A	3.0	4.5	4.5	4.0A	4.0	2.0	2.0A	1.8	As	As	As	As
30	E	1.6	1.8	2.0A	1.8	2.0	2.0	4.0	3.6	3.6	3.8	3.3	C	C	C	C	3.2	1.8	1.3	1.3	1.4	1.3	1.4	1.8
31																								
Mean Value	1.7	1.8	1.9	1.8	1.9	2.0	2.2	2.8	3.2	3.6	3.8	3.9	3.7	3.7	3.5	3.3	2.8	2.3	2.2	2.0	2.1	1.9	2.0	1.8
Median Value	1.6	E	E	1.2	1.3	1.8	2.0	2.7	3.0	3.6	3.8	3.7	3.6	3.6	3.4	3.0	2.7	2.0	2.0	1.8	2.0	1.8	1.8	1.7
Count	27	27	27	27	27	26	26	27	26	28	29	29	28	26	26	26	27	26	26	25	23	22	24	25

fminF

Sweep 1.0 Mc to 15.5 Mc in 2 min ☐ Manual ☒ Automatic

W 10

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

IONOSPHERIC DATA

Sep. 1952 | **fminE** | **Wakkanai** | Lat. 45° 23.6' N, Long. 141° 41.1' E

135° E Mean Time

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

Sweep 1.0 Mc to 15.5 Mc in 2 min ☐ Manual ☒ Automatic

W 11

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

IONOSPHERIC DATA

Akita

Lat. 39° 43.5' N
Long. 140° 08.2' E

Sep. 1952 | **foF2** | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20.	21	22	23
1	4.5	4.6	4.4	4.4	4.2	4.3	6.7	8.1	7.7	7.0	7.5[J]	7.7	7.9[XF]	8.0[F]	7.1	7.6[F]	9.2[H]	8.9	[8.0][A]	7.0	[6.0][A]	5.0	5.6	5.5
2	[5.4][A]	5.3	5.2	5.0	4.7	5.0	4.7	5.5	6.9	7.4	6.2	[5.9][A]	5.6	5.3	[5.2][A]	5.0	[5.4][A]	5.9	6.0	5.3	6.5	6.3	5.3	4.5
3	3.8	3.5	3.6	3.2	3.0	3.4	5.2	6.3	6.9	6.6	7.0	6.6	6.2	6.4	5.8	6.5	6.0	6.4[J]	6.8	[6.4][C]	5.9[VF]	[5.6][B]	(5.2)[P]	5.1[F]
4	4.9	4.8	4.4	4.1	4.1	4.0	5.5	6.8	6.2	5.6	5.9	7.0	6.2	6.2[J]	6.2	6.3	[6.4][A]	6.5	6.0	6.0	5.9	5.4	5.5	4.8
5	5.1	5.0	4.6[H]	4.6	4.3	4.1	5.8	7.1	6.4	6.6	5.8	6.4	6.3	6.1	7.2	6.6	6.5	6.9	6.3	7.1	5.4	5.1	4.9	5.3
6	5.1	5.1	5.3	4.3	3.1	3.5[H]	5.3	6.2	[6.3][A]	6.4	6.4	7.9	(7.2)[P]	[6.9][C]	6.6	6.1	6.4	[7.4][B]	8.3	7.0[J]	6.7	5.5	5.5	5.0
7	4.7	4.3	4.1	4.1	4.0	3.6	4.6	5.3	5.3	5.4	5.7	5.7	5.5	6.1	6.2	5.9	5.4	6.2	6.0	6.1	4.8	4.5	4.4[F]	(4.8)[JF F]
8	4.6[F]	3.6[F]	3.6[F]	3.8[F]	3.6	4.0	5.3	5.7	6.7	6.4	6.4	6.6	6.6	6.2	5.8	6.4	7.4	7.4	6.7	6.7	5.5[PS]	3.8	[3.7][A]	3.6
9	4.0	(3.8)[P]	4.3	4.0	3.3	3.5	[4.4][A]	5.2[H]	C	C	C	C	C	C	4.9	5.2	5.1	5.3	5.9	5.3	5.4	A	A	A
10	A	A	3.4	3.5	3.6[F]	3.7	6.0	6.0	[5.9][A]	5.8	6.0	6.6	6.7	7.2	6.8	7.3	7.2	6.2[H]	5.4	5.3	5.0	4.7	4.3	4.0
11	3.7	3.6	3.0	3.0	2.9	3.2	4.7	6.0	5.7	5.7[P]	5.9	5.3	[5.8][A]	6.2	5.6	5.6	5.8	6.4	6.8	7.1	5.6	4.1	3.6	3.3
12	3.7	3.2	3.6	3.6	3.7	3.6	5.0	5.7	6.0	6.1	6.4	6.0	6.9	7.0	6.6	6.4	6.8	6.6	6.7	6.0	5.0	4.1	3.7	3.9
13	3.9	3.8	3.7[H]	3.7[H]	3.2	3.0	5.5	6.3	8.1	6.3	6.3	6.3	6.5	6.1	6.5	6.0[H]	5.7[H]	6.5	5.6	6.7[H]	(6.7)[PPJ]	5.3[H]	4.1	3.8
14	3.9	3.7	3.8	4.0	4.4	4.7	5.5	6.0	6.2	6.3	6.0	[6.3][A]	6.6[PH]	6.7	7.0	7.9	6.8	8.0[J]	8.6	6.8	5.2[Z]	4.6	4.5	4.4
15	3.8	4.0	3.7	3.3	4.1	3.7[F]	5.4	7.0	6.9	(6.7)[P]	7.2[J]	6.9	7.1[J]	6.7[JP]	5.9	6.2	6.2	(5.6)[P]	7.0	[6.9][B]	6.8	5.8	5.3	4.0
16	3.7	4.0	3.8	3.6	3.6	3.9	5.2	6.3	6.3	7.3	6.4	5.8	6.1	6.2	6.5	6.2	6.0	(7.6)[PB]	7.6	(5.9)[S]	5.4	4.8	4.7	4.4
17	4.1[J]	4.0	3.8	3.5	3.4	3.5	6.2	6.7	6.1	6.9	6.8	6.7	6.4	6.5	6.4	7.2	6.9	6.9	7.0	6.0	5.5	4.2	3.7	4.0
18	3.6	3.7	3.9	3.7	3.8[H]	3.9	5.8	5.9	7.2	7.2	6.1	6.2	6.4	6.8	6.2	6.0	5.8	6.2	6.5	7.1[J]	5.4	4.3	4.5	4.3
19	4.0	4.1	3.9	3.8	3.6	3.5	5.4	8.1	7.0	C	C	6.6	6.3	7.3	7.3	6.6	7.9	B	6.8	5.6	4.0[H]	3.6[F]	3.7	4.1[HJF]
20	4.0	3.9	3.6	3.7	3.9	4.6	5.7	6.7	7.0	7.3	7.2	6.2	6.6	6.3	6.6	7.7	7.0	7.3	6.9	5.9	5.5	4.9	4.5	4.5
21	3.7[H]	3.5	3.6	3.4[H]	3.4[H]	3.7	5.7	6.6	8.1[F2H]	8.0	7.1	7.5	7.2	7.6	8.3	8.4	7.7[J]	6.1	5.3	5.7	5.2	5.7	5.8	5.7
22	4.7	4.5	4.4	4.2	4.1	4.3	5.7	8.2	7.3	6.7	7.0	6.6	7.7	7.0	7.0	7.8	8.4	7.3[J]	5.9	5.4	5.1	4.8	4.9	5.2
23	4.8	4.6	4.1	4.2	4.1	4.0	6.1	6.4	7.1	8.1	8.0	7.6	7.5[P]	6.5	6.9	7.2	7.3	7.8	6.3	5.0	4.8	4.8	4.7	4.8
24	4.7	4.5	4.3	4.6	4.3	3.8	5.1	6.6	7.1	8.3	7.6	7.3	8.0	7.2	7.0	6.7	6.6	7.4	7.6	7.0	5.9	4.8	4.7	4.7[JF]
25	4.6[JF]	4.5[JF]	4.4[F]	4.3[F]	4.2[F]	4.1[H]	5.4	6.8	7.8	6.6	6.9	7.2	7.9	7.5	8.0	6.8	7.3	7.7	6.7	5.7[H]	4.8	4.2	4.6	4.8
26	4.6	4.5	4.3	4.1	4.4	4.9[H]	6.0	6.7	7.0	7.4	7.7	C	C	C	C	C	7.5	7.6	7.2	6.8[H]	5.6[H]	4.6	4.9	4.8[H]
27	5.1[Z]	5.6[Z]	(5.1)[P]	5.4	5.5	5.8	7.6	7.2	6.7	7.2	8.2	8.5	8.1	8.7	8.3	8.5	8.3	8.6	8.0	6.9	5.0	4.7	4.3	3.9
28	4.4	4.2	3.8	3.9	3.8	3.4	6.7	7.6	7.0	8.6	8.9	9.2	8.1	8.6	6.6	7.0	7.3	7.7	7.8	7.5	5.0	4.7	4.2	4.0
29	3.9	4.5	3.8	3.8	3.6	3.4	5.0	7.0	6.9[H]	8.8	8.2	5.8	7.7	10.0	9.5	7.3	5.8	6.7	6.2	5.8	6.2	6.0	A	A
30	A	2.7[F]	3.0	3.2	3.0	3.2	5.4	7.3	7.2	8.8	7.7	7.1	8.2	8.1	8.3	7.9	6.1	6.3	6.4	(6.2)[P]	5.4	5.6[H]	4.7	3.4
31																								
Mean Value	4.3	4.2	4.0	3.9	3.8	3.9	5.6	6.6	6.8	7.0	6.9	6.8	6.9	7.0	6.8	6.8	6.7	6.9	6.7	6.3	5.5	4.9	4.6	4.5
Median Value	4.2	4.1	3.8	3.8	3.8	3.8	5.4	6.6	6.9	6.8	6.8	6.6	6.6	6.8	6.6	6.6	6.7	6.9	6.7	6.2	5.4	4.8	4.6	4.4
Count	28	29	30	30	30	30	30	30	29	28	28	28	28	28	29	29	30	29	30	30	30	29	28	28

foF2

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

A 1

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

IONOSPHERIC DATA

Sep. 1952 | h_pF2 | 135° E Mean Time | Akita | Lat. 39° 43.5' N | Long. 140° 08.2' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	350	350	320	310	320	300	300	260	310	300	(280)^{J}	310	330^{VF}	300^{F}	270	360^{F}	300^{H}	280	(280)^{A}	270	(300)^{A}	320	310	330
2	(340)^{A}	340	310	330	340	350	330	280	350	290	300	A	A	A	A	U	A	300	290	340	340	320	280	320
3	340	300	340	290	250	300	300	270	280	290	290	300	310	310	340	310	300	(290)^{J}	290	(320)^{C}	340^{VF}	(360)^{B}	(370)^{P}	340^{F}
4	300	310	300	300	340	330	290	280	290	U	370	300	300	(300)^{J}	(300)^{A}	300	(280)^{A}	270	280	290	300	320	330	320
5	320	330	350^{H}	340	320	300	290	290	280	290	280	310	310	U	290	290	290	280	290	320	300	290	290	340
6	340	340	300	280	370	310^{H}	250	270	(280)^{A}	300	310	300	(280)^{P}	(280)^{C}	290	310	310	(300)^{B}	300	(290)^{J}	310	280	300	A
7	A	320	340	330	350	360	300	300	U	U	U	U	U	U	300	290	S	300	280	310	300	360	360^{F}	(360)^{VPF}
8	390^{F}	350^{F}	350^{F}	330^{F}	410	350	250	270	320	330	370	290	380	330	U	310	310	280	290	270	260^{PS}	320	(320)^{A}	330
9	330	(380)^{P}	320	320	360	320	(280)^{A}	240^{H}	C	C	C	C	C	C	U	390	320	350	290	290	320	A	A	A
10	A	A	350	390	360^{F}	350	280	280	A	U	U	280	310	290	300	290	270	280^{H}	250	300	280	340	330	300
11	350	370	330	320	300	300	280	300	280	U	300	U	A	390	U	310	310	300	280	270	280	280	310	300
12	300	320	350	330	290	300	240	250	260	290	300	U	320	300	310	300	300	290	230	280	260	340	350	350
13	370	330	320^{H}	310^{H}	290	380	290	270	280	280	290	U	290	300	310	330^{H}	280^{H}	290	250	280^{H}	(290)^{QP}	260^{H}	310	330
14	390	340	340	340	310	330	290	260	260	270	300	(310)^{A}	320^{PH}	310	290	300	340	(320)^{J}	270	240	280	310	340	320
15	330	380	360	330	300	300^{F}	270	270	290	(320)^{P}	A	A	(290)^{J}	(300)^{JP}	300	290	300	(270)^{P}	300	(300)^{B}	290	280	310	310
16	350	330	370	310	310	290	260	270	260	280	280	290	310	300	300	290	290	(300)^{PB}	250	(270)^{PS}	310	310	350	320
17	(320)^{A}	320	310	300	310	320	260	260	250	280	280	300	300	300	320	290	320	280	270	260	270	290	300	340
18	330	320	320	320	320^{H}	310	230	240	270	250	260	300	290	330	280	310	270	290	280	(260)^{J}	260	290	340	320
19	320	350	350	310	340	320	260	250	230	C	C	290	330	300	290	310	300	B	260	260	300^{H}	390^{F}	340	FH (320)
20	330	340	330	350	320	320	250	250	280	240	280	280	300	310	310	300	290	280	290	300	290	290	340	300
21	310^{H}	300	300	300^{H}	300^{H}	280	260	260	(270)^{HJP}	270	290	310	290	300	300	290	(250)^{J}	290	290	300	340	320	310	290
22	310	330	330	330	290	280	250	230	240	250	270	270	300	300	310	300	280	(250)^{J}	250	320	330	330	320	310
23	300	320	310	320	320	320	270	270	280	270	280	290	300^{P}	300	300	290	270	280	270	290	320	320	310	320
24	320	320	350	310	290	300	240	240	270	260	280	280	280	300	280	280	300	290	280	270	260	300	320	(320)^{FJ}
25	(320)^{FJ}	(280)^{FJ}	330^{F}	320^{F}	310^{F}	320^{H}	250	240	250	250	280	280	310	280	280	270	270	250	250	270^{H}	290	320	330	320
26	320	320	320	350	300	310^{H}	310	280	280	270	280	C	C	C	C	C	290	280	290	300^{H}	300^{H}	350	340	340^{H}
27	350^{Z}	350^{Z}	(340)^{P}	350	300	320	260	270	260	320	300	320	280	300	300	300	280	300	260	240	290	390	360	300
28	360	320	340	370	330	290	280	260	270	300	300	290	290	300	260	290	280	280	280	260	270	290	340	340
29	320	360	370	320	350	340	300	270	320^{H}	280	250	A	320	310	260	250	260	270	280	280	270	290	A	A
30	A	AF	370	A	A	340	280	280	300	290	260	300	330	280	310	300	300	300	290	(320)^{P}	290	310^{H}	310	270
31																								
Mean Value	330	340	330	320	320	320	270	270	280	280	290	300	310	300	300	300	290	290	280	290	290	320	330	320
Median Value	330	330	330	320	320	320	280	270	280	280	280	300	300	300	300	300	290	290	280	280	290	320	320	320
Count	27	28	30	29	29	30	30	30	27	24	25	21	25	25	25	28	28	29	30	30	30	29	28	27

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

A 2

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

IONOSPHERIC DATA

Sep. 1952 | h'F2 | 135° E Mean Time | Akita | Lat. 39° 43.5' N | Long. 140° 08.2' E

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

h'F2 | Sweep 1.0 Mc to 17.0 Mc in 15 min | ☒ Manual ☐ Automatic | A 3

17

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

IONOSPHERIC DATA

Sep. 1952 | foF1 | 135° E Mean Time | Akita | Lat. 39° 43.5' N | Long. 140° 08.2' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							3.7^{L}	4.2^{L}	4.4	4.9	5.2	5.0	4.5	4.9	4.5	4.6	4.4^{L}	A						
2							Q	Q	4.6	A	A	A	A	A	A	(4.2)^{L}	[4.0]^{A}	3.8						
3							2.8^{L}	4.0	(4.2)^{A}	4.5^{H}	4.6	4.7	4.7	4.6	(4.6)^{L}	4.5^{H}	4.1	3.7						
4							3.0	Q	4.4	4.7^{L}	4.6	4.5	4.6	A	A	A	A	A						
5							Q	3.8	(4.0)^{A}	4.1	Q	4.6	4.6	4.8	4.5	4.2	4.2	4.0						
6							Q	A	A	4.6^{L}	4.6^{LH}	4.9	4.8	(4.6)^{L}	4.5	4.4	4.0	A						
7							3.5^{L}	3.9	4.3	4.4	4.6	4.6	4.8	4.6	4.4	4.3	4.0	3.8^{L}	3.6^{L}					
8							Q	L	4.4^{L}	4.4	4.6	4.8	4.7	4.5	4.8	4.3	4.0	Q						
9							A	A	C	C	C	C	C	C	(4.3)^{L}	4.1^{H}	3.9	3.6						
10							A	A	A	4.4	4.5	4.4	4.5^{E}	4.4	4.6	(4.2)^{B}	3.9	Q						
11							A	3.9^{L}	4.0	4.5	4.4^{B}	4.5	4.7	4.5^{V}	4.3	4.0^{L}	3.5	3.0						
12							Q	Q	3.9	4.3	B	4.7	4.4	4.6	4.2	4.0	A	A						
13							Q	Q	4.0	Q	4.5	4.5	4.4	4.5	4.3	4.0	A	Q						
14							Q	Q	Q	4.6	4.5	(4.4)^{A}	4.2	4.2	4.3	3.9	3.9^{L}	3.1						
15							Q	Q	Q	A	A	A	4.0	(4.2)^{A}	4.4^{L}	4.2	A	Q						
16							Q	3.7	3.9	4.0	4.5	4.4	4.6^{L}	4.5	4.1	4.1	3.7^{L}	Q						
17							3.0	3.8^{L}	3.8	4.4	4.6	4.7	4.7	(4.4)^{A}	4.2	4.1	3.7	Q						
18							Q	3.7	4.4^{L}	4.4	4.6	4.6	4.5	4.5	Q	L	Q	Q						
19							Q	4.3	4.3	C	C	4.5	4.7	4.6^{H}	4.3	(4.3)^{L}	4.1	3.3^{J}						
20							Q	L	4.5^{L}	Q	4.6	4.5	4.6	4.5	4.1	4.1	3.9	3.4						
21							Q	Q	4.0	(4.2)^{L}	(4.2)^{A}	4.2	{4.4}^{A}	4.6^{L}	(4.3)^{A}	4.0^{L}	4.0	Q						
22							Q	A	A	4.3	4.3	4.6	4.5	4.6	4.6	4.1	A	Q						
23							Q	Q	4.0	4.2	4.5	4.3	4.6	4.6	4.2	4.3	Q	Q						
24							Q	Q	Q	A	4.2	{4.4}^{B}	4.6	4.5	4.5^{H}	(4.0)^{A}	3.6^{L}	Q						
25							Q	Q	Q	A	4.7	A	A	4.7	[4.4]^{A}	4.0^{L}	4.0	Q						
26							Q	Q	4.0^{L}	4.2	4.4	C	C	C	C	C	Q	Q						
27							Q	3.7	4.6	Q	4.5	4.7^{L}	4.7	[4.8]^{L}	(4.8)^{L}	3.8	3.5	Q						
28							Q	Q	Q	Q	4.5	4.5	4.5	(5.0)^{L}	(4.5)^{L}	Q	Q	Q						
29							Q	Q	3.8	Q	4.4	A	Q	(4.7)^{L}	4.3	Q	Q	Q						
30							Q	Q	4.1	4.2	4.3	4.2	4.6^{H}	4.2^{H}	4.0	4.0	Q	L						
31																								
Mean Value							3.2	3.9	4.2	4.4	4.5	4.6	4.6	4.6	4.4	4.1	3.9	3.5	3.6					
Median Value							3.0	3.8	4.1	4.4	4.5	4.5	4.6	4.6	4.4	4.1	4.0	3.6	3.6					
Count							5	10	21	19	24	24	25	26	26	25	19	9	1					

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

A 4

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

IONOSPHERIC DATA

Sep. 1952 | h'F1 | 135° E Mean Time | Akita | Lat. 39° 43.5' N | Long. 140° 08.2' E

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

h'F1

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

A 5

19

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

IONOSPHERIC DATA

Sep. 1952 | foE | 135° E Mean Time | Akita | Lat. 39° 43.5' N | Long. 140° 08.2' E

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

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

A 6

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

IONOSPHERIC DATA

Akita

Lat. 39° 43.5' N
Long. 140° 08.2' E

Sep. 1952

h'E

135° E Mean Time

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

h'E

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

A 7

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

IONOSPHERIC DATA

Sep. 1952 | fEs | Akita | Lat. 39° 43.5' N | Long. 140° 08.2' E

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.4	2.4	2.7	2.3	3.0	2.0	3.5	3.4	4.0	6.3Y	6.8Y	5.9Y	5.7Y	5.8Y	3.8	4.5	3.5	5.8	7.8	6.3	7.8	4.4	4.0	5.2
2	5.6	4.6	3.4	4.0	3.8	4.2	4.0	4.4	5.8	6.2	5.2	6.4	5.8	5.6	6.8	4.2	7.2	3.8	4.3	2.9	2.2	2.2	E	2.2
3	2.2	2.4	2.3Y	1.4	E	1.4	3.4	4.4	5.2	4.5	3.8	G	4.7	4.8	4.6	4.6	G	3.7	4.8	C	5.0	5.2	4.8	3.0
4	4.3	4.1	3.4	1.6	2.6	2.6	2.8	3.8	4.2	3.6	G	4.2	4.2	6.4	6.8	6.7	6.8	6.0	5.6	4.4	5.6	4.4	4.2	3.0
5	3.2	2.8	1.1	2.2Y	2.2Y	2.3Y	2.4	3.6	5.4	4.1	G	3.5	G	G	G	G	2.7	3.8	3.6	2.6	3.0	2.4	2.8	3.8
6	3.4	2.8	2.2	2.1	2.5	2.6	3.6	4.7	8.0	4.8	5.7	5.0	4.8	C	4.4	4.3	3.8	4.1	3.1	3.4	3.8	3.4	3.4	5.2
7	4.4	4.3	2.8	2.0	3.0	2.3	3.5	4.0	4.2	4.8	4.7	4.5	4.6	4.6	3.8	3.8	3.6	3.8	3.4	3.7	4.2	3.0	3.8	5.4
8	5.0	4.8	3.6	3.0	2.6	3.4	3.0	3.4	4.1	4.8	4.8	4.6	3.4	3.8Y	3.8	4.0	4.0	3.2	2.5	2.3	2.5	2.2	4.7	3.4
9	2.6	4.4	3.4	3.6	2.8	2.0	5.6	4.2	C	C	C	C	C	C	4.2	G	G	G	3.9	4.0	5.4	5.9	7.2	6.6
10	7.4	7.2	2.6	2.4	2.4	2.2	4.8	4.8	7.2	7.0	4.4	3.8	3.9	3.9	4.0	3.4	G	5.2	4.4	4.0	4.2	3.6	3.6	3.0
11	2.2	2.4	2.4	3.0	2.2Y	4.0	3.6	3.4	3.9	3.5	3.7	4.8	6.2	4.8	5.0	G	3.9	2.4	3.8	4.6	3.8	5.8	3.4	3.0
12	3.2	2.4	1.4	2.6	2.6	2.5	G	G	3.9	4.3	G	3.8Y	5.2	4.0	3.7	4.6	4.4	4.0	4.2	2.8	3.4	3.0	2.6	2.5
13	2.4	2.4	2.2	E	E	2.5	G	G	3.4	3.4	3.8	3.5	3.7	G	G	G	4.2	3.6	3.4	2.8	2.8	2.6	2.2	2.2
14	2.3	1.9	2.0	2.4	2.4	3.2	3.4	G	3.8	4.6	4.7	7.7	4.1	4.8	4.6	3.3	3.8	2.7	4.6	3.8	2.7	2.5	3.4	2.6
15	2.2	2.6	2.1Y	1.8	3.6	3.4	4.2	3.4	4.4	6.5	7.1	8.4	5.1	4.4	3.4	3.6	5.2	4.8	4.0	3.6	3.2	4.3	E	2.8
16	2.2	2.6	3.4	2.8	2.6	2.4	2.6	3.2	3.5	3.6	3.8	3.8	3.8	3.6	3.7	3.6	3.4	G	2.6	3.0	3.2	2.9	3.1	3.2
17	3.7	3.8	2.7	2.0	1.3	1.9	G	G	4.2	G	G	4.7	4.5	7.2	3.4	3.4	3.6	5.2	3.8	3.6	3.8	3.2	2.4	E
18	E	E	E	E	E	1.4	2.2	G	G	4.6	G	G	G	G	G	G	G	3.0	3.4	2.6	2.6	2.8	3.4	4.2
19	2.8	2.6	3.2	3.4	E	2.3	3.2	3.6	G	C	C	G	4.2	G	4.0	G	2.7	3.9	4.0	2.8	E	2.2	2.4	E
20	E	E	1.8	1.6	2.2	2.6	3.2	3.4	3.4	G	3.6	4.0	4.4	G	G	4.3	G	4.3	2.3	3.8	2.6	2.6	3.0	3.8
21	2.1	2.2	2.7	2.2	2.7	2.5	3.0	G	5.0	4.2	4.6	4.0	5.2	4.8	6.8	5.2	3.5	3.8	3.6	4.5	4.5	3.0	3.0	2.9
22	E	E	E	E	2.2	1.4	2.0	5.6	4.6	3.7	3.7	G	G	3.8	4.1	3.8	3.5	3.4	2.6	3.0	3.4	3.0	3.6	3.0
23	2.4	2.2	E	2.1	E	E	2.1	G	4.4Y	4.2	4.8	4.2	4.6	G	G	G	5.4	3.4	1.8	2.8	3.4	2.4	2.4	2.8
24	2.6	E	E	E	E	E	2.6	G	4.4	4.6	G	G	4.2	G	G	6.2	3.3	G	E	3.2	2.2	E	E	E
25	4.7	3.8	2.5	1.6	E	E	G	3.2	4.0	4.8	4.7	4.6	5.4	5.0	5.8	4.0	4.0	2.6	3.4	3.6	2.2	1.8	2.1	E
26	3.2	E	1.6	2.0	2.4	2.8	2.8	3.2	3.4	4.2	G	C	C	C	C	C	G	G	E	E	E	E	2.0	2.1
27	2.0	E	E	2.4	E	E	G	G	3.4	3.5	4.3	4.6	4.2	4.0	4.8	3.8	G	3.8	2.8	3.5	E	E	E	E
28	2.0	1.3	E	E	2.4	2.4	2.8	G	4.4	4.3	G	4.3	4.8	5.2	5.8	5.8	4.8	3.4	4.7	4.8	3.4	2.8	3.4	2.8
29	3.4	3.6	4.3	4.3	4.2	3.6	G	G	G	6.2	4.8	6.0	5.5	4.5	6.2	4.2	3.6	3.4	4.4	3.6	4.2	3.4	5.6	5.2
30	4.6	3.4	2.8	3.4	3.6	2.6	2.4	3.5	3.5	G	3.8	G	G	G	3.8	4.2	3.6	3.2	2.4	2.3	3.6	3.7	3.6	2.8
31																								
Mean Value	3.3	3.2	2.6	2.5	2.7	2.6	3.2	3.9	4.5	4.7	4.6	4.8	4.7	4.8	4.7	4.3	4.1	3.9	3.8	3.5	3.7	3.3	3.5	3.5
Median Value	2.6	2.5	2.4	2.2	2.4	2.4	2.8	3.4	4.1	4.3	3.8	4.2	4.4	4.0	4.0	3.8	3.6	3.6	3.6	3.5	3.4	3.0	3.2	3.0
Count	30	30	30	30	30	30	30	30	29	28	28	28	28	27	29	29	30	30	30	29	30	30	30	30

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

A 8

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

IONOSPHERIC DATA

Akita

Lat. 39° 43.5' N
Long. 140° 08.2' E

Sep. 1952 | (M3000)F2 | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.8	2.9	2.9	3.0	3.0	3.1	3.1	3.4	3.5	3.3	(3.2)^{J}	3.1	2.9^{VF}	3.1^{F}	3.4	2.9^{F}	3.3^{H}	3.2	[3.3]^{A}	3.4	[3.2]^{A}	2.9	3.1	3.0
2	[2.9]^{A}	2.8	3.1	2.9	2.8	2.8	2.6	3.1	2.8	3.2	3.2^{S}	[2.9]^{A}	2.6	3.0	[3.0]^{A}	3.1	[3.1]^{A}	3.1	3.2	2.9	2.9	3.0	3.2	3.0
3	2.8	2.6	2.9	3.2	3.5	3.0	3.2	3.3	3.3	(3.1)^{S}	(3.2)^{S}	3.3	3.2	3.1	2.9	3.1	3.1	(3.2)^{J}	3.2	[3.0]^{C}	2.8^{VF}	[2.8]^{B}	(2.8)^{P}	2.8^{F}
4	3.1	3.1	3.0	3.1	2.8	2.8	3.2	3.4	3.3	3.0	2.8	3.3	3.2	(3.1)^{J}	3.0	3.3	[3.3]^{A}	3.3	3.3	3.2	3.0	3.0	2.9	3.1
5	3.0	2.8	2.8^{H}	2.8	3.0	3.1	3.2	3.2	3.2	3.3	3.1	3.2	3.0	3.0	3.3	3.3	3.3	3.2	3.2	3.1	3.1	3.1	3.2	2.9
6	2.9	2.9	3.1	3.2	2.7	3.0^{H}	3.4	3.4	[3.4]^{A}	3.4	3.1	3.1	(3.3)^{P}	[3.2]^{C}	3.2	3.2	3.1	[3.1]^{B}	3.1	(3.1)^{J}	3.0	3.2	3.1	3.1
7	2.9	2.9	2.9	2.9	2.8	2.8	3.1	3.2	3.3	3.0	3.0	3.0	2.9	3.1	3.2	3.3	3.2	3.1	3.2	3.1	3.2	2.8	2.9^{F}	(2.8)^{PSF}
8	2.6^{F}	2.9^{F}	3.0^{F}	2.9^{F}	2.5	2.7	3.3	3.3	3.0	3.0	2.9	3.4	2.9	3.0	3.1	3.0	3.1	3.2	3.1	3.2	3.2^{PS}	3.0	[3.0]^{A}	3.0
9	2.9	(2.7)^{P}	3.0	3.0	2.8	3.0	[3.2]^{A}	3.3^{H}	C	C	C	C	C	C	2.9	2.9	3.1	2.9	3.2	3.2	3.1	A	A	A
10	A	A	3.0	2.7	2.7^{F}	2.7	3.3	3.3	[3.2]^{A}	3.1	3.2	3.3	3.1	3.2	3.2	3.3	3.3	3.2^{H}	3.5	3.0	3.1	2.9	2.9	3.1
11	2.8	2.7	2.9	2.9	3.1	3.0	3.3	3.2	3.3	3.1^{P}	3.2	3.2	[3.0]^{A}	2.7	3.0	3.1	3.1	3.3	3.3	3.3	3.1	3.3	3.1	3.1
12	3.1	3.0	2.9	2.9	3.2	3.0	3.5	3.6	3.5	3.3	3.3	3.0	3.0	3.2	3.0	3.1	3.1	3.1	3.1	3.2	3.3	2.9	2.8	2.8
13	2.8	3.0	3.0^{H}	3.1^{H}	3.1	2.7	3.2	3.3	3.4	3.4	3.4	3.3	3.2	3.2	3.1	3.0^{H}	3.0^{H}	3.2	3.4	3.3^{H}	(3.2)^{BPJ}	3.4^{H}	3.1	2.9
14	2.6	2.9	2.8	2.9	3.0	2.9	3.1	3.4	3.3	3.3	3.2	[3.1]^{A}	3.0^{PH}	3.2	3.4	3.3	2.8	(3.0)^{J}	3.4	3.5	3.2^{H}	3.0	2.8	3.0
15	2.8	2.7	2.7	2.9	3.1	3.2^{F}	3.3	3.2	3.2	(3.0)^{P}	(3.1)^{J}	3.1	(3.3)^{J}	(3.3)^{FP}	3.2	3.2	3.2	(3.4)^{P}	3.1	[3.2]^{B}	3.2	3.1	3.0	3.0
16	2.8	3.0	2.7	3.1	3.0	3.1	3.4	3.2	3.3	3.1	3.3	3.3	3.1	3.2	3.2	3.2	3.3	(3.1)^{PB}	3.5	(3.4)^{S}	3.1	3.1	2.9	3.0
17	(3.1)^{J}	3.0	3.2	3.2	3.0	3.0	3.4	3.4	3.5	3.3	3.3	3.2	3.1	3.2	3.0	3.2	3.0	3.3	3.4	3.3	3.3	3.1	3.1	2.8
18	3.0	3.1	2.9	3.0	3.0^{H}	3.0	3.7	3.4	3.4	3.6	3.5	3.2	3.3	2.9	3.1	3.1	3.2	3.1	3.2	(3.3)^{J}	3.3	3.2	2.9	3.0
19	3.0	2.9	3.0	3.1	2.9	3.0	3.5	3.5	3.6	C	C	3.2	2.9	3.3	3.3	3.0	3.2	B	3.3	3.3	3.2^{H}	2.8^{F}	2.9	(3.0)^{HJF}
20	3.0	2.9	2.9	2.8	2.9	2.9	3.3	3.3	3.1	3.5	3.3	3.2	3.3	3.2	3.2	3.3	3.3	3.3	3.2	3.2	3.2	3.2	2.8	3.1
21	3.1^{H}	3.1	3.0	3.2^{H}	3.2^{H}	3.2	3.4	3.4	(3.3)^{F3H}	3.2	3.2	3.0	3.1	3.1	3.1	3.2	(3.6)^{J}	3.3	3.4	3.1	3.0	3.0	3.1	3.2
22	3.2	2.8	2.8	2.9	3.1	3.3	3.4	3.6	3.5	3.3	3.4	3.3	3.2	3.3	3.1	3.3	3.3	(3.5)^{J}	3.4	3.0	2.9	2.9	2.9	3.0
23	3.1	2.9	3.0	3.0	3.0	3.0	3.4	3.3	3.3	3.4	3.2	3.3	3.3^{P}	3.2	3.2	3.2	3.4	3.3	3.4	3.1	3.0	3.0	3.1	3.0
24	2.9	3.0	2.9	3.0	3.2	3.1	3.5	3.5	3.3	3.4	3.3	3.3	3.3	3.3	3.4	3.4	3.3	3.2	3.4	3.4	3.3	3.1	3.0	(3.0)^{3F}
25	(3.0)^{2F}	(3.1)^{2F}	3.0^{F}	3.0^{F}	3.1^{F}	3.0^{H}	3.5	3.5	3.6	3.4	3.4	3.3	3.2	3.3	3.3	3.3	3.4	3.4	3.4	3.3^{H}	3.1	3.1	2.9	2.9
26	2.9	3.0	3.0	2.8	3.0	3.0^{H}	3.2	3.2	3.2	3.3	3.3	C	C	C	C	C	3.2	3.2	3.2	3.3^{H}	3.2^{H}	2.8	2.9	2.9^{H}
27	2.9^{Z}	2.9^{Z}	(2.9)^{P}	2.8	3.1	3.0	3.3	3.4	3.4	3.0	3.1	3.1	3.3	3.2	3.2	3.1	3.2	3.1	3.5	3.5	3.2	2.6	2.8	3.2
28	2.8	2.9	3.0	2.7	2.9	3.2	3.3	3.5	3.3	3.2	3.2	3.3	3.2	3.2	3.4	3.3	3.3	3.3	3.2	3.1	3.2	3.1	2.8	2.8
29	3.0	2.7	2.8	2.9	2.9	2.9	3.2	3.4	3.0^{H}	3.4	3.5	3.4	3.0	3.2	3.4	3.4	3.3	3.4	3.2	3.2	3.2	3.1	A	A
30	A	3.1^{F}	2.8	3.0	2.8	2.8	3.3	3.4	3.2	3.1	3.4	3.1	3.0	3.3	3.1	3.1	3.1	3.1	3.2	(3.1)^{P}	3.3	3.1^{H}	3.0	3.4
31																								
Mean Value	2.9	2.9	2.9	3.0	3.0	3.0	3.3	3.4	3.3	3.2	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.2	3.3	3.2	3.1	3.0	3.0	3.0
Median Value	2.9	2.9	2.9	3.0	3.0	3.0	3.3	3.4	3.3	3.3	3.2	3.2	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.0	2.9	3.0
Count	28	29	30	30	30	30	30	30	29	28	28	28	28	28	29	29	30	29	30	30	30	29	28	28

(M3000)F2

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

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

IONOSPHERIC DATA

Sep. 1952 | **fminF** | 135° E Mean Time | **Akita** | Lat. 39° 43.5' N | Long. 140° 08.2' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1.6	[2.0]A	2.5A	1.7	1.4	1.3	2.2	2.9	3.3	3.9	4.2	4.3	4.0	4.6	3.8	3.4	3.0	4.6A	[4.4]A	4.2A	[3.8]A	3.3A	2.8A	4.4A
2	A	A	1.6	1.4	1.6	1.6	2.4	2.2	4.6A	5.2A	5.0A	[5.2]A	5.4A	5.0A	[4.2]A	3.4	3.2A	3.0	2.6A	2.2A	1.6	1.6	1.5	1.5
3	E	E	E	E	E	1.2	1.8	[3.1]A	4.4A	3.4	4.0	4.1	4.0	3.8	[3.4]A	3.1	3.0	2.6	3.8A	1.7	2.2A	1.5	1.8	1.6
4	4.0A	[3.2]A	2.4A	1.6	E	1.6	1.8	3.4A	4.2A	4.1	3.8	4.2	4.0	5.2A	5.8A	5.3A	[4.4]A	3.4	4.2A	3.2A	3.2A	2.8A	2.4A	2.0A
5	1.8	1.4	1.1	1.3	1.3	1.4	1.6	2.6	4.1A	A	4.0	4.0	4.0	3.8	3.5	3.2	3.0	2.0	1.5	1.6	1.5	1.4	2.2A	A
6	A	E	E	1.1	1.5	E	1.8	3.8A	A	A	A	4.4A	4.2	[4.0]C	3.8	3.6	2.9	3.4A	2.1A	1.8	2.4A	3.0A	1.8	4.4A
7	4.3A	3.2A	2.5A	1.8	1.8	1.8	1.9	2.6	3.0	4.1A	3.8	A	A	3.9	3.6	3.8	3.2	3.1	3.2A	2.7A	1.8	2.6A	3.4A	1.8
8	1.6	[1.5]A	1.4	1.2	1.2	1.3	2.2	2.8	2.8	4.2A	4.0	4.0	4.0	[3.7]A	3.4	3.4	3.0	2.3	2.3A	1.8A	1.5	1.5	A	A
9	1.6	3.4A	1.5	E	1.8	1.4	[2.6]A	3.8A	C	C	C	C	C	C	3.4	3.1	3.2	2.6	2.8A	2.6A	2.2A	2.2A	3.0A	A
10	A	A	2.2A	1.8	1.4	1.4	4.6A	4.0A	[4.2]A	4.4	3.6	4.0	3.6	3.9	4.0	3.2	2.9	1.9	2.2A	1.6	2.0A	1.6	1.6	1.6
11	1.4	1.2	1.2	1.8	1.6	1.5	3.0A	2.8	3.0	4.5	3.4	[3.7]A	4.0A	4.4A	4.0	3.2	3.3	2.1	2.4A	3.2A	2.6A	2.6A	1.8	1.4
12	1.2	E	E	1.2	1.5	1.8	2.1	2.5	3.0	3.7	4.4	4.1	4.4A	3.9	3.5	3.5	2.9	3.0	2.6A	1.9	2.1A	1.6	1.6	1.6
13	1.8	1.8	1.4	E	E	1.3	2.2	2.9	3.2	3.1	4.2	4.2	3.9	3.6	3.4	3.6	4.1A	2.6	A	A	2.5A	1.6	1.8	1.6
14	1.6	1.5	1.4	1.4	1.6	1.8	2.0	3.2	3.6	4.0	3.8	[3.6]A	3.5	A	4.0	3.1	2.9	2.2	3.2A	A	A	1.8	1.9	1.5
15	1.8	1.3	1.3	E	2.4AF	1.8	2.6	2.5	3.6	4.6A	6.7A	6.4A	3.7	4.4	3.2	3.4	4.6A	2.4	3.2A	3.4A	2.8A	4.1A	1.9	1.8
16	1.6	1.3	1.8	1.6	1.5	1.5	2.1	2.7	3.0	3.4	3.7	3.9	3.9	3.4	3.3	3.1	3.0	2.2	1.6	2.6A	2.1A	2.2A	1.3	1.3
17	3.7A	3.0A	2.2A	2.0A	1.5	1.8	2.1	3.0	3.1	3.6	3.5	4.1	4.3	5.2A	3.2	3.2	2.8	2.4	2.8A	[2.3]A	1.8	2.4A	1.6	1.4
18	1.6	1.8	1.2	1.3	E	1.5	1.8	2.5	2.9	3.2	3.3	4.0	4.0	3.8	3.2	3.4	3.2	2.4	2.4A	[2.8]A	3.2A	2.4A	2.1A	2.6A
19	1.6	1.2	2.1A	2.9A	1.6	1.9	1.8	2.9	3.1	C	C	3.6	3.4	3.5	3.0	3.0	2.9	3.5A	[2.6]A	1.6	1.7	1.7	1.8	1.8
20	1.5	1.8	1.4	1.4	1.6	1.6	2.8	3.2	3.2	4.0	3.8	3.8	4.0	3.8	3.6	3.3	3.0	1.9	1.6	1.8	1.8	1.9	1.7	2.0A
21	1.2	1.6	1.6	E	1.4	1.4	1.7	2.9	3.2	3.4	4.6A	4.0	4.6A	4.2	6.6A	3.6	3.0	2.5	2.6A	4.3A	3.0A	1.8	1.8	1.6
22	1.5	1.4	E	E	1.6	1.5	2.0	5.6A	3.7A	3.4	[3.6]A	3.8	4.0	4.0	4.1	3.1	2.2	2.2	1.7	1.8	2.0A	1.6	1.6	1.4
23	1.4	1.4	1.4	1.3	1.3	1.4	2.0	2.9	3.2	3.9	3.9	3.9	4.0A	3.9	3.2	3.4	2.7	2.0	1.4	2.4A	1.8	1.6	1.6	1.8
24	1.8	E	E	E	E	E	2.1	2.9	3.2	4.2A	3.4	4.5	4.2A	4.2	3.4	4.4A	2.6	2.2	1.6	2.2A	1.8	1.6	1.6	1.6
25	2.2A	1.8	1.8	1.6	1.4	1.1	2.3	2.8	3.4	4.3A	4.2A	4.6A	5.2A	4.1	5.0A	3.3	2.9	2.2	A	A	1.7	1.6	1.6	1.8
26	2.5A	1.3	1.2	1.2	1.4	1.8	3.0	2.6	3.1	3.8	3.8	C	C	C	C	C	2.5	2.1	1.4	1.4	1.2	1.2	1.2	1.3
27	1.2	1.2	E	E	1.2	1.2	1.8	2.5	3.1	3.4	3.2	3.7	4.2A	3.8	4.2A	3.3	2.8	2.4	1.8	1.8	1.6	1.7	1.6	1.5
28	1.5	1.1	1.2	1.2	1.4	1.2	2.1	2.6	3.8	4.2A	3.6	3.8	3.2	A	A	3.2	3.3	1.8	2.8A	4.3A	2.6A	2.2A	2.0A	1.6
29	1.4	1.2	2.2A	1.9	2.0A	1.3	2.0	2.5	2.8	3.9A	4.1A	4.9A	4.4A	4.0A	4.0A	3.8	3.4	3.0A	3.8A	2.4A	2.4A	1.8	1.4	[1.5]A
30	1.6	2.4AF	2.0A	2.8A	2.6A	1.7	1.9	2.3	2.8	3.0	3.4	3.2	3.2	3.2	3.0	3.6	2.0	1.6	1.8	1.8	2.4A	2.4A	2.3A	1.8
31																								
Mean Value	1.9	1.8	1.7	1.6	1.6	1.5	2.2	3.0	3.4	4.1	4.0	4.1	4.0	4.1	3.8	3.4	3.1	2.5	2.5	2.4	2.2	2.0	1.9	1.9
Median Value	1.6	1.4	1.4	1.3	1.4	1.4	2.1	2.8	3.2	3.9	3.8	4.0	4.0	3.9	3.6	3.4	3.0	2.4	2.5	2.2	2.1	1.8	1.8	1.6
Count	27	28	30	30	30	30	30	30	28	26	27	27	27	26	28	29	30	30	28	27	29	30	29	27

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

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

IONOSPHERIC DATA

Akita

Lat. 39° 43.5' N
Long. 140° 08.2' E

Sep. 1952 | fminE | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	1.7	E	E	E	E	1.2	1.6	1.6	1.7	1.6	1.7	1.8	1.6	1.8	1.7	1.5	1.5	1.8	1.5	1.6	1.6	1.6	1.6	1.6
2	1.3	E	1.2	1.2	1.4	1.4	1.6	1.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.5	1.6	1.6	E	1.8
3	1.8	1.9	E	E	E	1.2	1.5	1.6	1.6	1.7	1.8	2.9	1.6	1.7	1.8	1.7	1.8	1.7	1.6	1.4	1.3	1.3	1.3	1.3
4	E	E	E	E	E	E	1.6	1.6	1.7	1.6	1.8	1.8	2.0	1.8	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4
5	1.2	1.2	E	E	E	E	1.6	1.6	1.8	1.6	1.5	1.7	1.7	1.5	1.5	1.4	1.4	1.4	1.4	1.5	1.5	1.4	1.4	1.4
6	1.4	E	E	E	E	E	1.5	1.5	1.5	1.6	1.7	1.7	1.7	(1.8)F	1.8	1.6	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.8
7	1.2	E	E	E	E	E	1.4	1.6	1.6	1.5	1.5	1.6	1.7	1.8	1.6	1.6	1.6	1.6	1.6	1.4	1.3	1.2	1.3	1.3
8	1.2	1.2	1.1	E	1.2	1.2	1.4	1.6	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5
9	E	E	E	E	E	E	1.6	1.6	C	C	C	C	C	C	1.7	1.7	1.6	1.6	1.6	1.4	1.4	1.4	1.6	1.6
10	E	E	E	E	E	E	1.6	1.6	1.6	1.6	1.5	1.5	1.6	1.6	1.5	1.6	1.6	1.5	1.4	1.4	1.4	1.4	1.4	1.4
11	1.2	1.2	1.2	E	E	E	1.6	1.7	1.8	1.8	1.6	1.8	1.6	1.6	1.7	1.6	1.7	1.6	1.6	1.6	1.6	1.5	1.5	1.3
12	E	E	E	E	E	E	1.5	1.7	1.8	1.9	1.9	2.0	2.0	2.0	2.2	2.2	2.0	2.2	1.8	1.7	1.6	1.6	1.6	1.6
13	1.6	E	E	E	E	1.6	1.3	1.5	1.5	1.6	1.7	2.2	1.8	1.8	1.8	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.9
14	1.9	1.7	1.4	1.4	1.4	1.6	1.6	1.8	1.8	1.8	1.8	1.6	1.6	1.8	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.5
15	1.8	E	E	E	E	1.4	1.6	1.6	2.0	1.8	1.6	1.6	1.7	1.7	1.6	1.6	1.6	1.5	1.5	1.5	1.6	1.6	E	1.6
16	1.8	1.9	E	E	E	E	1.6	1.6	1.6	1.8	1.8	1.8	1.8	1.8	1.6	1.6	1.7	1.6	1.5	1.7	1.7	1.4	1.3	1.3
17	1.4	1.3	1.2	E	E	E	1.4	1.8	1.7	1.7	1.8	1.8	1.8	1.8	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.4	E
18	E	E	E	E	E	E	1.6	1.5	1.6	1.8	2.0	2.0	2.0	2.0	2.0	2.2	2.0	1.8	1.8	1.6	1.6	1.6	1.6	1.6
19	1.6	E	E	E	E	1.1	1.5	1.6	1.6	C	C	1.6	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.6	E	1.8	2.0	E
20	E	E	1.4	1.2	1.6	1.4	1.6	2.0	2.0	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.6
21	1.8	E	E	2.0	E	E	1.7	1.6	1.5	2.0	2.2	2.6	2.0	2.0	1.7	1.7	1.8	1.7	1.7	1.6	1.6	1.6	1.6	1.6
22	E	E	E	E	E	E	1.6	1.6	1.6	1.6	1.6	1.6	1.9	1.7	1.5	1.7	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4
23	1.4	1.2	E	1.9	E	E	1.6	1.8	1.7	1.6	1.7	1.8	1.8	1.8	1.8	1.6	1.5	1.6	1.4	1.4	1.6	1.8	1.8	1.6
24	1.6	E	E	E	E	E	1.6	1.5	1.6	1.8	1.8	1.7	1.8	1.6	1.8	1.6	1.5	1.8	E	1.6	2.0	E	E	E
25	1.6	E	E	E	E	E	1.5	1.6	1.6	1.6	1.8	1.6	1.8	1.8	1.8	1.8	1.6	1.6	1.5	1.5	1.7	1.6	1.7	E
26	1.5	E	1.2	1.2	1.4	1.4	1.4	1.4	1.6	1.6	1.6	C	C	C	C	C	1.7	1.7	E	E	E	E	1.6	1.3
27	1.2	E	E	E	E	E	1.3	1.4	1.6	2.0	1.8	2.0	2.0	1.7	1.7	1.6	1.7	1.7	1.6	1.6	E	E	E	E
28	1.7	1.1	E	E	1.1	1.6	1.6	1.6	1.6	1.5	1.7	1.7	1.7	1.6	1.5	1.6	1.4	1.7	1.3	1.2	1.2	1.2	1.3	1.3
29	1.2	1.2	E	E	E	1.3	1.3	1.5	1.6	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.4	1.4
30	1.2	E	E	E	E	E	1.5	1.5	1.5	1.7	1.8	1.7	1.8	1.8	1.8	1.8	1.6	1.4	1.4	1.3	1.3	1.3	1.3	1.3
31																								
Mean Value	1.5	1.4	1.2	1.5	1.4	1.4	1.5	1.6	1.7	1.7	1.7	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.5	1.5	1.5
Median Value	1.4	E	E	E	E	E	1.6	1.6	1.6	1.7	1.8	1.8	1.8	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.4	1.4
Count	30	30	30	30	30	30	30	30	29	28	28	28	28	28	29	29	30	30	30	30	30	30	30	30

fminE

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

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

IONOSPHERIC DATA

Sep. 1952 | 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	4.6	4.4	C	C	C	C	C	C	C	7.0	8.0	7.8	8.1	8.6	7.6	7.0	9.1	8.6	7.5	7.3 P	6.4	6.0 F	5.7	5.5
2	4.9	5.2	4.9	4.9	[4.8] AF	4.7 F	5.4	5.8	7.4	8.0	6.5	[6.4] A	6.3	6.4	5.8	5.6	6.0	6.1	6.2	7.0	6.7	6.7	5.4	4.9
3	4.2	3.7	3.8	4.0	3.4	2.9	5.0	6.5	6.5	6.3	6.5	6.7	6.8	6.6	6.0	6.4	6.6	6.8	7.0	7.3 P	4.9	5.3	4.9	4.8
4	4.9 JF	4.5	4.2 F	4.0	3.9	3.9 F	5.5	6.7	6.3	5.8	6.5	7.1	6.7	6.4	6.5	6.6	6.9	6.8	6.4	6.0	5.6	5.5	5.8	5.6
5	5.5	5.2 F	4.8	4.8	4.5	4.6	5.9	7.2	7.0	6.7	6.1	6.2	6.8	6.3	6.8	6.7	6.5	6.5	6.3	6.7	6.2 P	6.2 P	6.2	5.9
6	5.5	5.3	5.2	4.3	4.3 P	3.6	5.5	6.3	6.9	A	A	7.5	(9.2) P	(7.6) P	6.6	5.7	6.5	7.7 P	B	BS	6.1	5.4	5.3	[4.8] A
7	4.4	4.4	4.2	4.1	4.1	3.6	5.1	5.7	5.5	5.6	6.0	5.8	6.0	6.5	6.6	6.1	5.6	6.5	6.5	M	M	M	M	M
8	M	M	M	M	M	M	M	M	M	6.2	6.8	[6.8] B	6.9	6.2	6.5	6.6	7.5 P	8.2	B	6.6	4.8	3.9	3.8	3.9
9	4.0	3.7	4.1	4.1	[3.9] C	3.7	5.5 H	5.7	5.7	7.0	6.5 H	6.5	5.7	5.6	5.6	5.3	5.6	5.6	6.5	5.6	4.5	(3.8) A	3.2	3.6
10	(3.5) AF	3.4	3.1 F	3.1 F	3.3 F	3.4	6.1	5.8	6.8	8.1	7.3	6.2	6.9	[7.4] C	8.0 P	(7.2) S	7.0	6.7	6.2	[5.0] AF	(3.8) AF	3.8	[3.8] F	3.9 F
11	3.4 JF	3.4	3.5	3.2	2.9	3.1	4.7	6.1	5.7	5.5	5.8	5.5	[5.5] A	5.5	5.8	6.0	6.1	6.8	7.3	[5.6] SF	4.0	3.4 F	3.7 F	3.7 F
12	3.6	3.2	3.6	3.5	3.7	3.6 F	5.4	5.6	5.8	6.2	6.1	6.0	7.0	8.0 P	7.0	6.7	6.2	7.7 P	6.4	5.6	4.0 P	3.9	3.8	3.8
13	3.8	4.0	4.1	4.0	2.7	2.8	5.5	7.6 P	6.7	6.1 2.	6.8	6.5	6.7	6.8	6.3	C	C	C	C	C	C	C	3.7	3.8
14	3.7	3.8	3.8	3.6	3.7	3.7	6.3	7.0	6.2	5.7	6.2	6.3	6.7	7.2	7.0	7.9 P	6.7	8.8	9.5 P	7.5	4.8	4.7	4.5	4.6
15	4.1	4.0	3.7	4.0	[3.6] FD	3.2	6.0	6.7	6.5	6.0	7.1	7.6	6.3	6.8	6.0	6.6	7.0	7.0	[6.8] A	6.7 F	6.4	4.3	[4.6] A	5.0
16	4.2	4.0	4.0 F	4.1 F	3.5 F	4.0 V	5.5	6.7	6.3	6.7	5.9	6.0	6.2	6.7	7.4	7.1	6.9	7.2	8.5	7.5 P	4.7	4.3	4.0	4.3
17	4.0	4.3 F	3.6	3.5	3.3	3.6	5.8	7.0	6.2 H	6.1	6.5	7.6	7.0	6.2	[6.8] C	7.5	7.5	7.2	7.2	6.0	4.5	4.2	4.1	4.2
18	3.7	3.8	3.8	3.7	3.8	3.8	7.0	7.0	6.8	6.3	6.2	C	C	C	7.0	7.1	6.9	7.7	8.9	[6.6] C	4.2	3.6	3.6	3.6
19	3.6	3.6	3.5	3.3	3.2	3.4	5.7	8.3	7.7	6.7	5.8	7.0	6.7	7.6	8.3	8.0	8.3	9.5	7.7	4.9	3.9	4.0 ZF	3.8 F	4.0
20	3.9	4.0	3.7	3.7	3.6	3.5	5.2	7.0	8.2	6.7	6.8 P	6.4	6.2	7.3	7.4	8.0	8.2	7.9	7.7	6.8	5.3	4.4	4.1 V	4.1
21	3.7	3.7	3.7	3.7	3.4	3.5	5.6	6.5	7.2	7.6	6.8	6.9	7.8	7.7	9.2	9.4	7.5	6.5	5.8	6.3	5.7	5.7	6.0	5.9
22	4.9	4.3	4.3	4.2	3.9	4.1	7.0	7.9 P	6.8	6.5	6.6	7.2	6.9	[7.2] C	7.5	7.5	8.2	8.3	6.9	5.4	(5.0) P	5.2 J	5.4 P	5.0 P
23	4.9 P	4.3	4.2	4.3	3.8	3.7	5.5	7.0	7.2	8.1	[7.7] A	7.3	8.1	8.3	6.9	7.5	7.4	7.7	6.6	4.4	4.3	4.4 PF	4.5	4.7
24	4.6	4.0	3.9	3.8	3.8	3.3	5.5	6.6	7.5	8.0	6.7	7.5	C	C	C	C	7.5	8.2	8.6	7.5 P	5.8	4.7	4.5 F	4.6 P
25	4.7	C	C	C	C	C	C	C	C	C	C	7.6	8.0	8.7	8.1	7.6	8.0	7.6 F	6.6	[5.6] C	4.5	4.4	4.5	4.5
26	4.6 P	C	C	C	C	3.5	6.0	7.0	8.5	7.2	7.6 J	7.1	7.5	B	B	8.7	8.0	8.5	7.6 P	(7.0) P	4.8 P	4.9	4.7	4.7 P
27	[4.7] C	4.7	[5.0] F	5.3 PF	4.8	[5.3] C	5.8	6.6	7.2	6.7	7.4	8.6	9.5	9.6	9.0	8.7	8.5	7.9	8.8 P	8.1	4.4	4.2	4.4 P	4.5
28	C	C	C	C	C	4.0	5.6	8.6	7.9 J	8.1	8.1	(10.5) P	(9.9) P	(10.3) P	7.2	6.9	C	C	8.5 P	A	A	A	4.0	4.0
29	3.8	3.7	3.8	[3.8] C	3.7	3.7	5.2	8.2	6.7 V	8.9	8.6	8.1	A	B	(9.9) P	8.1	6.3	7.3	[7.4] C	7.5 P	5.8	A	A	A
30	A	2.9	S	C	C	AF	5.7	7.9	8.5	8.5	8.7	8.2	8.1	9.3	M	M	7.0	8.0	8.0 P	7.0	6.0	5.7	4.8	4.5
31																								
Mean Value	4.3	4.1	4.0	4.0	3.7	3.7	5.7	6.9	6.9	6.9	6.9	7.1	7.2	7.3	7.1	7.1	7.1	7.5	7.3	6.4	5.1	4.7	4.5	4.5
Median Value	4.2	4.0	3.8	4.0	3.7	3.6	5.5	6.7	6.8	6.7	6.6	7.0	6.9	7.2	7.0	7.1	7.0	7.6	7.2	6.6	4.8	4.4	4.5	4.5
Count	27	26	24	24	24	26	27	27	27	28	28	29	27	26	27	27	28	28	27	26	27	26	28	28

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

K 1

The Radio Research Laboratories

Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

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

Sep. 1952 | h_pF2 | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	350	370	C	C	C	C	C	C	C	320	310	360	310	330	310	360	320	290	300	330P	350	350F	360	370
2	380	370	390	390	[350]AF	310F	300	400	380	310	330	A	U	320	U	380	340	320	320	370	360	350	380	380
3	350	420	400	320	250	360	330	280	300	310	330	330	320	330	370	340	310	310	300	270P	340	400	380	380
4	(370)TF	350	340F	360	370	350F	280	270	300	U	350	330	310	320	340	340	300	280	280	360	420	400	370	360
5	390	370F	390	360	330	330	300	270	310	280	280	360	330	340	330	310	280	280	310	330	330P	330P	350	350
6	370	370	350	310	360P	350	270	270	270	A	A	350	(320)P	(270)P	320	[320]B	330	330P	B	BS	300	350	340	[340]A
7	350	350	350	370	370	360	280	290	300	U	330	U	340	330	300	300	310	300	310	M	M	M	M	M
8	M	M	M	M	M	M	M	M	M	370	380	[320]E	270	320	310	340	370P	320	B	290	320	400	400	400
9	370	410	390	300	[340]C	370	280H	300	400	370	350H	330	U	360	U	U	310	340	300	270	300	A	A	340
10	[320]AF	300	400F	420F	400F	320	270	250	310	310	290	340	350	[330]C	320P	(290)S	300	260	310	[310]AF	(310)AF	360	[330]F	310F
11	(310)TF	370	360	340	350	340	310	270	290	310	310	320	A	U	U	310	310	300	290	SF	A	350F	370F	340F
12	360	370	400	340	310	300F	250	260	250	270	330	310	300	300P	320	280	290	270P	270	270	310P	360	360	360
13	350	370	320	250	360	350	280	240P	260	310H	300	280	310	280	350	C	C	C	C	C	C	C	380	350
14	370	370	390	350	320	330	250	240	250	260	310	320	310	300	310	300P	310	300	270P	240	300	350	360	340
15	350	370	370	320	FB	A	260	260	270	[280]A	310	280	290	300	300	330	300	280	[300]A	320F	AF	AF	A	330
16	380	330	380F	340F	320F	300V	260	260	260	250	270	300	350	300	300	300	300	300	300	250P	310	320	370	350
17	[350]A	350F	320	320	330	310	260	230	230H	280	300	290	280	280	[300]C	310	300	270	270	290	300	350	330	340
18	360	350	320	340	370	350	240	280	250	310	270	C	C	C	330	300	300	280	270	[260]C	250	370	360	350
19	350	350	360	320	340	350	270	250	240	240	260	310	300	320	310	310	300	270	250	260	350	400 RF	390F	350
20	350	340	330	340	310	300	260	270	250	250	270P	280	330	310	330	310	280	300	260	300	280	350	400V	320
21	330	330	330	290	310	320	260	260	260	250	270	310	310	340	300	290	270	260	300	330	350	350	340	300
22	300	350	350	320	340	320	250	240P	230	250	280	280	310	[300]C	300	310	300	270	260	300	(360)F	(360)T	350P	320P
23	350P	330	350	300	310	350	300	250	270	270	[280]A	300	330	290	300	290	270	240	260	270	350	350F	350	310
24	320	340	340	320	290	320	250	260	250	270	270	290	C	C	C	C	300	300	270	290P	290	370	370F	350P
25	350	C	C	C	C	C	C	C	C	C	C	300	300	280	B	B	290	300	290P	(320)P	300P	410	380	380P
26	340P	C	C	C	C	370	270	260	260	240	(290)T	300	480	B	B	290	290	300	290P	280	270	390	330P	350
27	[380]C	380	[380]F	390F	330	[300]C	260	250	260	260	300	290	310	290	280	270	260	310	290P	280	270	390	330P	350
28	C	C	C	C	C	310	300	260	(260)T	270	290	(320)P	(290)P	(260)V	260	280	C	C	280P	A	A	A	350	340
29	350	350	350	[360]C	370	380	290	250	310V	270	300	300	A	B	(280)P	260	250	300	[300]C	290P	330	A	A	A
30	A	A	S	C	C	AF	270	270	270	310	290	310	330	300	M	M	290	280	280P	300	360	330	330	310
31																								
Mean Value	350	360	360	340	340	330	270	270	280	290	300	310	320	310	310	310	300	290	290	300	320	360	360	350
Median Value	350	350	360	340	340	330	270	260	260	280	300	310	310	300	310	300	300	300	290	290	320	360	360	350
Count	27	25	24	24	23	25	27	27	27	26	28	27	24	25	24	26	28	28	27	25	25	24	26	28

h_pF2

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

K 2

27

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

IONOSPHERIC DATA

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	[290]A	300	C	C	C	C	C	C	C	300	300	300	310	320	300	350A	290	270	[260]A	250F	250	290F	280	310A
2	350	310A	310	A	A	240F	260	L	350	300	320	[340]A	350	310	340	370	320	300	280F	270F	[280]AF	280	260	280
3	270	330	300	250	210	290	260	260	290	310	330	330	320	330	370	340	300	290	260	230AF	240	310	310	300
4	320A	280F	270	280	300	280	270	260	280	400	350	330	310	320	340	330	290	260	250	260	300AF	300	290	280
5	310	260	270	260	250	270	280	250	300	280	280	360	330	340	320	300	270	260	270	250	260	250	280	280
6	300	300F	280	250	260	290	230	260	270	A	A	350	300	270	320	300	300	290	250	250	230A	270	270F	[280]A
7	280	280	300	320A	300	320	280	290	300	300	330	320	340	330	300	300	300	270	260	M	M	M	M	M
8	M	M	M	M	M	M	M	M	M	370	380	280	270	320	310	320	320	290A	260	240	220	310	300	320
9	300	[300]A	300	250F	[280]C	300	240	290	380	340	350	330	310	360	360	370	310	320	260	230A	A	A	A	270
10	AF	A	350A	400A	310	270	260	250A	310	280	290	320	350	300	270	270	270	250	220A	[240]AF	260AF	300	370	260
11	250	280	260	250	250	270	250	270	290	310	310	320	[320]A	330	350	310	300	280A	250	[240]A	230A	290	340	[320]A
12	300	340	320	270	230	250	250	240	250	260	330	310	300	280	300	280	280	250	240	240F	270A	300	290	300
13	310A	300	250	220	280	300	250	230	250	310	300	280	310	270	300	C	C	C	C	C	C	C	300	280
14	300	300	300	280	250	250	240	230	240	260	310	320	310	290	300	280	320	270F	240	210	210	270	280	260
15	280	320	310	270	240	[240]AF	230	260	250	[280]A	300	270	280	290	300	330	280	250A	[280]A	320A	A·F	A·F	A	270F
16	280	310A	300AF	270AF	250	250	240	250	250	250	270	300	350	300	300	300	270	260	240	210	230	250	[240]A	230
17	[250]A	270	260	260	260	250	250	220	230H	280	290	290	280	280	[290]C	300	280	250	240	230	230	290	280	270
18	260	300	250	260	270	270	240	240	240	250	270	C	C	C	300	280	280	260	240	[220]C	200	300	300	290
19	300	280	270	250	300	270	240	240	230	240	260	310	290	310	290	290	270	250	220A	210A	250	310F	320F	290
20	300	280	260	270	250	260	220	260	250	240	270	280	330	310	310	290	260	260	230A	230	220A	250	300	250
21	270	260	260	230	240	250	230	250	250	250	260	310	280	330	280	260	250	250F	240F	260	270	300	270	240
22	240	260	270	260	250	260	230	230	220	250	270	280	300	[290]C	280	260	270	240	250F	260F	330F	300A	290	260
23	250	260	260	240	250	260	210	230	250	260	[280]A	290	300A	280	290	290A	260A	240	240A	210	300	320	300	260
24	270	280	290	260	230	250	230	240	240A	250	260	280	C	C	C	C	280	250	230	220	220	250	300F	270
25	270	C	C	C	C	C	C	C	C	C	C	270	300	270	270	260	260	230A	240	[280]C	310A	300	310	290
26	270	C	C	C	C	290	240	240	250	240	280	270	450	320	260	260	250	260	230	250	210	260	270	270
27	[260]C	260	280	270	250	[250]C	250	230	240	260	290	280	280	270	270	260	250	250A	250A	230	[270]A	310	290	280
28	C	C	C	C	C	250	250	250	250	260	280	290	270	260	260	250	C	C	250AF	A	A	A	320A	290
29	280	240	280	[280]C	270	300	240	250	230	260	270	280	[280]A	280	260	250	250	260A	[260]C	260A	A	A	A	A
30	A	A	S	C	C	A	260	260	260	250	260	270	300	280	M	M	250	250	240	250	260	230	250	260
31																								
Mean Value	280	290	280	270	260	270	250	250	260	280	300	300	310	300	300	300	280	260	250	240	250	290	290	280
Median Value	280	280	280	260	250	260	240	250	250	260	290	300	300	300	300	290	280	260	250	240	250	300	290	280
Count	26	24	24	23	23	26	27	26	27	28	28	29	28	28	28	27	28	28	29	27	24	24	26	28

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

K 3

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Sep. 1952

foF1

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							C	C	C	4.6	4.8	L	4.8	4.8	A	A	4.3 L	A	A					
2							A	L	4.5	A	A	A	A	4.6	4.5	4.4	A	A	Q					
3							Q	4.0 L	4.3	4.6	4.7	4.9	4.7	4.9	4.9	4.5	3.8	L	Q					
4							L	4.0	4.2	5.0 H	4.6	4.6	4.8	4.6	4.5	4.5	4.0 L	L	Q					
5							L	3.8 L	L	4.5 L	4.6	4.9	4.8	4.8 H	4.7	4.5	4.0 L	L	A					
6							Q	L	A	A	A	5.0 B	4.6	[4.6] A	4.5 L	L	L	L	Q					
7							L	3.8	4.2	4.4	4.4	4.6	4.7	4.5	4.4	4.3	L	L	Q					
8							M	M	M	5.1	4.9	4.7	4.6	4.4	4.3	4.2	A	A	A					
9						Q	Q	3.7	(4.0) A	4.3	4.4	4.3	4.4	4.4	4.4	4.2	3.8 L	3.5 L	Q					
10						Q	Q	A	A	A	4.5	4.6	4.7	4.8	4.4	4.2	3.2 L	A	A					
11							Q	3.7	4.1	4.4	4.3	4.3	(4.3) A	4.3	4.4	4.3	4.0	A	Q					
12							Q	L	4.0	4.3	4.5	4.4	4.4	4.5	4.5	4.4	3.7	L	Q					
13							Q	3.1	4.0	4.9	4.6	4.5	4.5	4.4	4.3	C	C	C	C					
14							Q	L	4.0 L	4.2	4.4	4.5	4.5	4.5	4.5 L	A	A	Q	Q					
15							Q	A	A	A	A	A	4.4	4.4	4.2	4.5	3.7 L	Q	A					
16							Q	3.6 L	4.0 L	4.2	4.4	4.5 L	4.7	4.5	4.3	4.3 L	3.9 L	L	Q					
17							Q	A	L	4.4 L	4.3 L	A	A	4.5 A	(4.4) A	4.3 L	A	Q	Q					
18							Q	3.8 L	4.1 L	4.3	4.4	C	C	C	4.5	4.4	3.7 L	L	Q					
19							Q	3.7 L	4.2	4.4	4.5	4.7	4.6	4.4	4.5	4.2	4.0	A	A					
20							Q	3.8 L	4.1 L	4.2	4.4	4.5	4.8	4.6	4.5 H	4.1	3.8 L	A	A					
21							Q	L	L	4.4 L	4.5	4.6 L	4.7	4.7	4.4	4.3	L	Q	Q					
22							Q	L	4.0	(4.2) L	4.3	4.5	4.5	(4.4) C	4.4	4.0	3.7 L	Q	Q					
23							Q	Q	Q	A	A	4.7 L	A	A	4.3	A	A	A	A					
24							Q	3.2 L	A	L	4.6	4.7 H	C	C	C	C	4.0 L	Q	Q					
25							C	C	C	C	C	4.7 L	5.0	4.4	4.3	3.9 L	L	A	Q					
26							Q	Q	4.1 L	4.3	4.6	4.5 L	5.2 H	4.9 H	4.3	L	L	Q	Q					
27							Q	Q	L	L	4.5	4.5 L	4.6 L	4.7	4.4	4.2 L	A	A	Q					
28							Q	L	L	L	4.5 L	4.7	4.7 H	4.7	4.1	3.8 L	C	C	AF					
29							Q	Q	Q	4.2	L	L	A	L	4.3 L	4.0 L	A	A	C					
30							A	L	4.3 L	3.8 L	4.6 HL	4.3	LH	4.6 HL	M	M	Q	Q	Q					
31																								
Mean Value								3.7	4.1	4.4	4.5	4.6	4.7	4.6	4.4	4.3	3.8	3.5						
Median Value								3.8	4.1	4.4	4.5	4.6	4.7	4.6	4.4	4.3	3.8	3.5						
Count								12	16	21	24	24	23	26	27	22	15	1						

foF1

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

K4

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

IONOSPHERIC DATA

Sep. 1952 | h'F1 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							C	C	C	220	220	210	220	210	A	A	260[A]	A	A					
2							A	250	250	A	A	A	A	210	230	250	A	A	Q					
3							Q	230	240	[240][A]	240	210	210	260	250	220	230	270	Q					
4							250	230	220	210[H]	200	230	[220][A]	210	270[A]	240	240	250	Q					
5							250	220	210	280	230	220	200	200[H]	250	230	230	240	A					
6							Q	250	A	A	A	A	220	[220][A]	220	250	260	270[A]	Q					
7							260	[260][A]	250	220	220	210	230	220	220	230	240	250	Q					
8							M	M	M	250[A]	220	230	210	210	220	250	A	A	A					
9						Q	Q	250	[240][A]	230	240	200	250	200	250	250	250	250[A]	Q					
10						Q	Q	A	A	A	240	220	220	210	220	250[A]	240	A	A					
11							Q	250	220	220	210	190	[200][A]	200	250	[260][A]	270	A	Q					
12							Q	230	210	200	200	210	200	230	240	240	230	240[AF]	Q					
13							Q	230	230	220	260	270	220	250[A]	220	C	C	C	C					
14							Q	210	210	200	210	[220][A]	220	240	A	A	A	Q	Q					
15							Q	A	A	A	A	A	230	230	220	270[A]	230	Q	A					
16							Q	240	240[A]	210	210	210	210	200	[220][A]	250[A]	240	250	Q					
17							Q	A	A	220	260[A]	A	A	A	A	270	A	Q	Q					
18							Q	230	220	200	190	C	C	C	250	260	230	A	Q					
19							Q	230	220	210	200	200	200	200	240	230	250	A	A					
20							Q	240	230	200	190	210	210	230	220[H]	250	A	A	A					
21							Q	240	230	200	240	220	200	210[C]	[220][A]	230	A	Q	Q					
22							Q	240	220	210	210	220	200	[220]	230	230	230	Q	Q					
23							Q	Q	Q	A	A	220	A	A	230	A	A	A	A					
24							Q	230	[240][A]	240[A]	210	200[H]	C	C	C	C	240	Q	Q					
25							C	C	C	C	C	A	250	250	250	230	A	A	Q					
26							Q	Q	230	220	210	210	210[H]	230[H]	250	240	250	Q	Q					
27							Q	Q	220	210	200	240[A]	250[A]	260[A]	250	240	A	A	Q					
28							Q	250	230	250[A]	210	200	200[H]	230	210	230	C	C	AF					
29							Q	Q	Q	220	250	A	A	A	240	230	A	A	C					
30							A	A	230	210	200[H]	200	190[H]	210[H]	M	M	Q	Q	Q					
31																								
Mean Value							250	240	230	220	220	220	220	220	230	240	240	250						
Median Value							250	240	230	220	210	210	210	220	230	240	240	250						
Count							3	19	21	24	25	23	24	25	25	24	17	8						

Sweep 1.0 Mc to 17.2 Mc in 2 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. 1952 | foE | 135° E Mean Time

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

foE

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

K 6

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

IONOSPHERIC DATA

Sep. 1952 | 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							C	C	C	A	A	A	A	A	110	110	110	120	A					
2							A	110	120	110	110	110	110	110	110	110	120	120	A					
3							B	120	110	110	110	110	A	A	A	100	(100)A	110F	A					
4							130	120	110	110	110	110	110	110	A	A	A	A	A					
5							A	120	110	A	A	A	110	110	110	110	110	120	A					
6							130	120	110	110	110	110	110	A	A	A	110	110	A					
7							140	120	110	110	110	(100)A	100	100	110	A	A	A	A					
8							M	M	110	110	110	110	110	A	A	A	A	A	A					
9						130	120	110	110	110	110	100	(100)A	110	110	110	120	120	A					
10						120	120	120	110	110A	110	(110)A	110	(110)A	110	110	110	110	A					
11							130	120	A	A	A	A	A	A	100	120	100F	A	A					
12							140	120	110	100	110	110	100	110	110	110	110	120	A					
13							140	110	A	A	A	100	100	(100)A	110	C	C	C	C					
14							130	110	110	110	100	A	A	A	A	A	A	A	B					
15							130	120	120	110	110	A	A	A	110	(120)A	120	A	A					
16							A	110	110	110	110	110	(110)A	110	100	(110)A	120	A	A					
17							130A	120A	110	120	120	110	110	100	A	A	A	A	A					
18							A	120	110	110	110	C	C	C	110	110	110	130	A					
19							120	120	110	120A	120A	100	120A	120A	(120)A	110	A	A	A					
20							A	110	110	110	100	100	110	110	110F	110	110	110	A					
21							100	110	110	110	100	100	100	100	110	AF	AF	A	A					
22							150	120	110	110	110	110	110	(110)C	110	110H	110	A	A					
23							B	120	110	110	100	100	110	110	100	110	110	140	A					
24							A	120	110	110	110	110	C	C	C	C	110	A	A					
25							C	C	C	C	C	100	100	100	100	110	120	A	A					
26							B	120	110	110	110	110	110	110	110	110	110	120	B					
27							150	110	110A	A	A	A	110	110	130	100	100	A	A					
28							B	120	110	100	100	110	100	(100)A	110	110	C	C	A					
29							B	120	110	110	110	110	110	A	A	120	120	A	C					
30							A	AF	AF	110	110	100	100	100	M	M	120	A	B					
31																								
Mean Value						130	130	120	110	110	110	110	110	110	110	110	110	120						
Median Value						120	130	120	110	110	110	110	110	110	110	110	110	120						
Count						2	15	26	25	24	24	23	23	20	21	20	21	12						

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

K 7

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Sep. 1952

fEs

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.9	2.5F	C	C	C	C	C	C	C	4.2	4.1	4.1	4.9	4.5	5.7	7.2	4.7	4.6	7.3	4.7Y	3.2	5.5YF	5.5Y	6.5Y
2	4.2	4.2	3.5	5.8	4.5	4.5	4.2	4.0	4.7	5.9	5.7	7.4	5.6	4.2	G	G	4.8	5.2	3.1	3.9	7.0F	4.0F	2.9	2.4
3	2.5F	3.5YF	E	2.5Y	2.5	2.5F	G	3.9	4.4	5.0	4.7	3.9	4.0	5.0	5.6	4.2	4.0	4.1F	3.2	5.5YF	4.2	4.5	5.0	3.2
4	4.0	3.6	4.5	4.1	3.1	2.5YF	3.7	3.5	3.7	4.1Y	G	G	5.5	4.5	5.6	3.9	4.0	4.1YF	2.8	3.7	3.9F	3.0F	3.1F	2.9F
5	4.5	2.9Y	2.9Y	2.4Y	2.5YF	2.5Y	2.9	3.5	3.6Y	5.0	3.4	3.9	G	G	G	3.9	3.6	G	3.3	2.5	3.5	3.9	2.5	2.5F
6	4.2Y	4.0	3.0F	2.5F	2.5YF	2.5Y	2.5	4.0	6.5	7.4	6.5	5.7	4.0	5.3	5.5	4.5	4.2	4.7	3.2	2.9	2.8	4.5	3.9Y	5.5Y
7	2.9	2.9	3.2	2.6	2.1	2.4Y	3.5	4.3	4.4	4.4	4.7	4.1	G	4.0F	G	4.3	4.3	3.7	3.5	M	M	M	M	M
8	M	M	M	M	M	M	M	M	M	4.6	4.6	4.5	4.2	4.2	4.0	4.5	6.0Y	6.5	6.0Y	2.5	2.5	2.5	E	2.5
9	3.0	3.7	3.8	2.9	C	2.3	3.7	3.9	4.8	4.7	4.6	4.5	5.0	4.2	4.5	4.0	3.8	3.4	3.2	3.2	4.0	5.3	3.9	5.0
10	8.0	6.0F	5.5	4.0	2.8	2.5	3.7	5.7	5.3	5.8	6.8	6.0Y	4.6	4.1	4.2	5.0	4.5	5.0	6.0Y	8.5	7.3	6.3Y	6.5	6.0Y
11	2.9Y	4.2Y	2.5Y	2.5Y	1.8Y	2.5Y	2.3	3.6	3.0	3.7Y	4.5	5.0	9.5	4.2	5.5	4.5	4.3	4.6	3.5	4.5	3.9	4.2	3.9	4.7
12	3.9	3.0F	2.6	2.5F	2.5YF	2.8FY	2.8	3.4	3.7Y	4.1	3.7	G	G	4.1	4.0	3.7	3.5	3.7	3.8	5.8YF	3.5	2.5F	2.6F	2.8F
13	3.0	2.9	2.5Y	2.5Y	2.5YF	2.5Y	2.9Y	3.9	3.9	4.1	4.0	4.0	G	5.0	4.5	C	C	C	C	C	C	C	2.6F	2.9
14	2.5Y	2.8Y	2.5Y	2.8	2.5YF	2.5	2.6	3.6	3.6	3.9Y	4.3	4.7Y	4.0	4.7	4.7	4.5	6.5F	4.7F	4.0F	3.0F	3.0F	3.0F	2.9F	2.9F
15	4.0F	3.9	3.2F	3.9FY	4.0F	3.8YF	3.9F	6.0	5.7	6.5	6.0	6.0	4.2	4.5	G	4.0	3.0	4.0Y	8.5	6.5F	4.5	6.5F	5.8F	5.5F
16	6.5F	4.3F	5.5F	4.5F	2.9F	3.1F	3.9F	3.9FY	4.4	4.3	4.6	4.4	4.5	4.1	4.8	4.7	3.5	4.5	4.5	2.5	2.5	5.5	3.9Y	4.5
17	4.7	3.7	2.8	2.3	2.5	2.5	3.8	4.4	3.9	4.2	5.2	5.3	6.5	6.5	7.7YS	9.0	9.2YF	4.3YF	4.2YF	3.2	4.0F	3.5F	2.6Y	E
18	2.3Y	2.6Y	2.6Y	E	2.7Y	2.6Y	2.9	3.5	G	G	3.9	C	C	C	G	4.1	3.5	3.8	2.8	C	2.5	3.0	3.0	2.5
19	E	2.5Y	1.4	2.5	3.0	2.5Y	4.0	3.9	3.8	4.0	3.5	4.5Y	3.1	3.1	3.7	G	4.0	5.4	3.9F	3.9F	3.0	3.1F	2.5F	3.0F
20	2.5	2.3Y	2.6Y	2.5Y	2.5Y	4.5F	3.8	3.2	3.7	G	G	G	G	G	G	4.2	4.1	4.2	3.9	3.9	3.9	3.8	3.0F	2.9
21	3.1FY	2.5Y	E	E	E	2.5YF	2.9	3.0	4.3	4.0	3.7	4.2	4.0	5.0	4.8	4.5	4.2	4.7	4.2F	2.8	3.0	4.0	3.2F	2.7
22	2.7	2.2Y	E	E	E	2.3Y	G	3.4	3.9	4.0	3.6	4.5	3.9	C	3.6	G	3.1	4.0	4.0	3.5Y	3.5	3.0	2.5	2.5F
23	2.5	2.3Y	1.4	E	2.5Y	2.5Y	2.9	3.7	4.3	6.0	9.2	4.7	7.0	6.0	G	6.0	5.0	3.5	5.0	E	3.1F	3.6F	4.2	2.6
24	3.1	2.5	1.7Y	E	2.5Y	2.5	2.8	3.6	5.5	4.8	3.6	4.5	C	C	C	C	4.5	4.0	2.8	2.9	E	E	E	2.5
25	2.3	C	C	C	C	C	C	C	C	C	C	5.0	4.6	4.6	4.5	5.0	4.1	4.7F	5.6F	C	4.3	3.0F	3.0F	2.6F
26	2.5F	C	C	C	C	2.5F	2.7	3.8	4.2	3.8	3.9	3.9	G	G	3.6	3.3	3.0	2.8	3.0	2.5F	2.5	2.5	E	2.5
27	C	2.5F	2.3	E	E	C	2.6	3.9	3.5Y	4.0	3.9	4.6	4.6	5.0	3.1	3.5	4.4	5.0	4.2	3.0	3.8	2.5	2.4	2.7
28	C	C	C	C	C	E	2.9	3.7	G	5.0	4.4	4.2	3.8	4.1	3.7	G	C	C	4.9F	6.7F	4.5F	5.4F	4.0F	2.6F
29	2.8Y	2.2Y	2.5Y	C	2.2Y	E	2.3F	3.0	4.0	4.2	4.6	6.6	18.3	5.5	6.5	G	4.5	4.5	C	4.5	5.8	5.8	6.5	5.9
30	5.6	4.0	S	C	C	4.5	4.8	4.6F	3.5	3.1	3.7	3.6	G	4.2	M	M	3.2	2.5F	2.5	2.5	2.3	2.3	2.3	2.5
31																								
Mean Value	3.6	3.2	3.0	3.1	2.7	2.8	3.2	3.9	4.3	4.6	4.6	4.8	5.0	4.2	4.7	4.7	4.3	4.3	4.2	4.0	3.8	4.0	3.6	3.5
Median Value	3.0	2.9	2.6	2.5	2.5	2.5	2.9	3.8	3.9	4.2	4.3	4.5	4.1	4.2	4.1	4.2	4.2	4.2	3.9	3.4	3.5	3.7	3.0	2.8
Count	27	26	24	23	23	26	27	27	27	29	29	29	28	27	28	27	28	28	28	26	28	28	29	29

fEs

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

K 8

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

IONOSPHERIC DATA

Sep. 1952 | (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	2.7	C	C	C	C	C	C	C	3.1	3.1	2.7	3.1	3.0	3.1	2.8	3.0	3.2	3.1	3.0 P	2.8	2.9 F	2.9	2.9
2	2.8	2.8	2.7	2.6	[2.8] AF	2.9 F	3.1	2.7	2.6	3.0	2.9	[2.9] A	2.9	3.1	3.1	2.9	2.9	3.0	2.9	2.7	2.8	2.9	2.7	2.7
3	2.8	2.5	2.8	2.9	3.4	2.7	3.0	3.3	3.2	3.1	3.1	3.0	3.2	3.1	2.8	3.0	3.1	3.0	3.1	3.4 P	2.9	2.6	2.9	2.8
4	(2.8) JF	2.9	2.9 F	2.8	2.8	2.8 F	3.3	3.3	3.2	3.1	2.9	3.0	3.1	3.2	3.0	3.0	3.2	3.2	3.2	2.7	2.5	2.7	2.8	2.8
5	2.7	2.9 F	2.8	2.9	2.9	3.0	3.2	3.3	3.2	3.4	3.3	3.0	3.0	3.0	3.0	3.1	3.3	3.3	3.1	2.9	3.0 P	3.0 P	2.9	2.9
6	2.8	2.8	2.9	3.0	2.7 P	3.0	3.3	3.4	3.4	A	A	2.9	(3.0) P	(3.2) P	3.1	3.0	3.0	2.9 P	B	BS	3.1	2.9	3.0	[3.0] A
7	2.9	2.7	2.8	2.7	2.7	2.7	3.3	3.4	3.4	3.3	3.0	3.2	3.0	3.0	3.2	3.1	3.1	3.2	3.1	M	M	M	M	M
8	M	M	M	M	M	M	M	M	M	2.8	2.7	[3.0] B	3.3	3.0	3.0	2.9	2.8 P	3.0	B	3.3	3.0	2.6	2.6	2.6
9	2.8	2.6	2.6	3.1	[3.0] C	2.8	3.2 H	3.3	2.6	2.7	2.9 H	3.0	3.3	2.9	3.0	2.9	3.1	2.9	3.1	3.2	3.1	A	A	3.1
10	[3.1] AF	3.1	2.8 F	2.8 F	2.7 F	3.0	3.3	3.4	2.9	3.1	3.2	3.0	2.9	[3.0] C	3.0 P	(3.3) S	3.2	3.4	3.2	[3.1] AF	(3.0) AFH	2.8	[2.9] F	3.0 F
11	(2.9) JF	2.9	2.9	2.9	2.9	2.9	3.1	3.4	3.4	3.3	3.2	3.2	[3.2] A	3.2	3.1	3.1	3.2	3.3	3.3	[3.4] SF	3.4	2.9 F	2.8 F	2.9 F
12	2.8	2.8	2.8	2.9	3.0	3.2 F	3.6	3.4	3.6	3.4	3.1	3.0	3.1	3.1 P	3.1	3.2	3.2	3.2 P	3.3	3.3	3.0 P	2.8	2.8	2.7
13	2.8	2.7	2.9	3.4	2.7	2.9	3.2	3.5 P	3.2	3.1 Z	3.2	3.3	3.2	3.3	2.9	C	C	C	C	C	C	C	2.8	2.8
14	2.8	2.8	2.8	2.9	3.0	3.0	3.4	3.5	3.4	3.5	3.2	3.0	3.1	3.1	3.1	3.1 P	2.9	3.1	3.3 P	3.5	3.0	2.8	2.9	2.9
15	2.8	2.7	2.7	3.0	[2.9] FB	2.8	3.3	3.4	3.4	[3.2] A	3.1	3.3	3.2	3.2	3.3	3.0	3.2	3.2	[3.1] A	3.0 F	3.2	3.0	[3.0] A	2.9
16	2.7	3.0	2.8 F	2.8 F	3.0 F	3.1 V	3.4	3.4	3.5	3.5	3.4	3.2	3.0	3.2	3.1	3.2	3.1	3.1	3.2	3.4 P	3.1	3.0	2.8	3.2
17	2.9	2.8 F	3.0	3.1	3.0	3.0	3.4	3.7	3.5 H	3.3	3.1	3.2	3.3	3.3	[3.2] C	3.1	3.2	3.2	3.2	3.2	3.1	2.9	2.9	2.8
18	2.8	2.8	2.9	2.9	2.7	2.9	3.5	3.5	3.4	3.5	3.5	C	C	C	3.0	3.1	3.1	3.2	3.3	[3.4] C	3.4	2.8	2.8	2.9
19	2.8	2.9	2.8	3.0	2.9	2.8	3.3	3.5	3.5	3.5	3.4	3.2	3.1	3.0	3.1	3.1	3.2	3.3	3.5	3.3	3.2	2.6 2F	2.7 F	2.8
20	2.8	3.0	2.9	2.9	3.0	3.0	3.4	3.4	3.5	3.4	3.3 P	3.3	3.3	3.1	3.0	3.0	3.2	3.1	3.2	3.1	3.2	2.8	2.7 V	3.0
21	2.9	2.9	2.9	3.2	3.0	3.0	3.5	3.4	3.3	3.5	3.2	3.0	3.0	2.9	3.2	3.1	3.3	3.3	3.1	2.9	2.8	2.8	3.0	3.1
22	2.9	2.9	2.9	2.9	2.8	2.9	3.5	3.6 P	3.6	3.4	3.2	3.3	3.1	[3.1] C	3.1	3.0	3.2	3.3	3.3	3.0	(2.8) P	(2.8) J	2.8 P	3.0 P
23	2.8 P	2.9	2.9	3.2	3.0	2.8	3.0	3.4	3.3	3.3	[3.2] A	3.1	2.9	3.3	3.0	3.2	3.2	3.5	3.4	3.1	2.7	2.8 FP	2.9	3.0
24	3.0	2.9	2.8	2.9	3.1	2.9	3.5	3.4	3.6	3.4	3.3	3.2	C	C	C	C	3.1	3.1	3.3	3.1 P	3.2	2.7	2.7 F	2.9 P
25	2.9	C	C	C	C	C	C	C	C	C	C	3.1	3.1	3.3	3.2	3.2	3.2	3.4 F	3.3	[3.0] C	2.7	2.7	2.7	2.8
26	2.9 P	C	C	C	C	2.8	3.3	3.4	3.4	3.5	(3.3) J	3.0	2.4	B	B	3.1	3.1	3.0	3.1 P	(2.9) P	3.6 P	3.6	2.7	2.7 P
27	[2.8] C	2.9	[2.8] F	2.6 PF	3.0	[3.2] C	3.4	3.4	3.4	3.4	3.1	3.3	3.2	3.3	3.4	3.3	3.4	3.2	3.1 P	3.3	3.3	2.7	2.9	2.9
28	C	C	C	C	C	3.0	3.2	3.6	(3.5) J	3.3	3.2	(3.1) P	(3.1) P	(3.4) P	3.3	3.1	C	C	3.2 P	A	A	A	2.7	2.9
29	2.9	2.9	2.9	[2.8] C	2.8	2.7	3.2	3.5	3.0 V	3.2	3.2	3.2	A	B	(3.2) P	3.2	3.4	3.2	[3.2] C	3.2 P	3.1	A	A	A
30	A	3.0	S	C	C	AF	3.3	3.4	3.4	3.1	3.2	3.1	2.9	3.2	M	M	3.2	3.1	3.3 P	3.0	2.9	2.8	2.9	3.1
31																								
Mean Value	2.8	2.8	2.8	2.9	2.9	2.9	3.3	3.4	3.3	3.3	3.2	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.1	3.0	2.8	2.8	2.9
Median Value	2.8	2.9	2.8	2.9	2.9	2.9	3.3	3.4	3.4	3.3	3.2	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.1	3.0	2.8	2.8	2.9
Count	27	26	24	24	24	26	27	27	27	28	28	29	27	26	27	27	28	28	27	26	27	25	27	28

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

K 9

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. 1952 | fminF | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	[1.5]A	1.3	C	C	C	C	C	C	C	3.4	3.5	3.7	4.2	3.8	5.0A	5.5A	3.5	4.2A	5.5A	1.8	1.9	2.5AF	1.9	3.6A
2	2.8A	[2.2]A	1.7	4.0A	[2.9]A	1.8	3.4A	2.6	4.0A	5.0A	5.0A	[5.0]A	5.0A	3.6	3.5	3.3	4.1A	4.5A	2.0AF	2.7AF	5.5AF	3.3F	2.0	1.7
3	1.1	1.3	E	E	E	1.2	2.0	3.1	3.7A	4.3	4.0	3.5	3.8	4.1	3.6	3.3	3.5	3.2	1.8	[1.9]AF	2.0A	1.8	1.8	1.6
4	[1.8]A	1.9	1.8	2.0AF	E	E	2.2	2.5	3.3	3.5	3.5	4.0	4.3A	3.8	4.0A	3.2	3.3	2.3F	1.8	2.3AF	[2.0]AF	1.8	1.7	1.6
5	2.7A	1.1	1.0	E	1.1	1.3	2.2	2.7	3.4	4.0A	3.8	3.7	3.6	3.6	3.5	3.2	2.8	2.3	2.7A	1.6	2.1A	1.8	1.7	1.6
6	1.6	1.8	1.7	1.3	1.0	E	2.1	2.5	5.5A	A	A	4.5A	3.6	5.0A	3.5	3.7	3.5	3.0	2.3	2.0A	1.7	2.2A	2.2AF	[2.0]A
7	1.9	1.7	1.8	2.2A	1.2	1.3	2.0	3.5	3.5	3.5	4.0	3.7	3.5	3.7	3.6	3.2	2.8	2.3	2.5	M	M	M	M	M
8	M	M	M	M	M	M	M	M	M	A	3.8	3.5	3.3	3.5	3.5	3.5	5.0A	5.5A	5.4A	1.6	1.6	1.6	1.6	1.7
9	1.7	3.0A	1.7	1.7	[1.6]C	1.5	1.7	2.4	4.0A	3.8	4.0	3.5	4.0	3.5	3.7	3.1	3.1	[2.7]A	2.4	[3.1]A	3.8A	A	A	2.0A
10	[2.4]AF	2.7A	1.8	2.2A	E	1.5	2.7	4.7	4.5	4.6A	4.0A	3.3	3.5	3.1	3.3	3.7	2.7	3.8A	A	AF	2.3AF	1.8	1.7	1.4
11	1.2	1.0	E	E	E	1.2	2.0	2.3	2.8	3.3	3.6	3.5	[3.5]A	3.5	3.5	3.8	3.5	4.5A	2.8A	A	A	1.7	2.0A	3.0A
12	1.7	1.9	1.6	1.0	1.0	1.0	2.0	2.7	3.0	3.4	3.6	3.5	3.6	3.5	3.3	3.0	2.7	2.5	2.3	3.5AF	2.7A	1.6	1.6	1.5
13	2.0A	1.7	1.2	1.0	1.5	1.0	2.0	2.8	3.3	3.6	4.0	3.8	3.5	4.0	3.5	C	C	C	C	C	C	C	1.6	1.7
14	1.7	E	E	E	E	1.0	2.0	2.8	2.7	3.3	3.7	4.3A	3.7	3.9	4.2A	4.3A	4.6A	2.3F	1.8	1.7	1.7	1.6	1.8	1.8
15	1.5	[1.6]A	1.7	1.3	1.3	2.8AF	1.8	5.2A	4.4A	[4.7]A	5.0A	5.0A	3.5	3.8	3.5	3.9	2.8	A	A	5.2A	5.0AF	3.5AF	[2.6]A	1.8F
16	2.0AF	A	AF	2.3AF	1.0	1.7	1.8	2.8	A	3.5	3.5	3.5	3.7	3.3	4.0A	3.5	2.7	2.2	1.9	1.6	1.6	1.7	3.3A	1.7
17	3.5A	1.7	1.7	1.2	1.2	1.0	2.2	3.5A	3.7	3.6	4.1A	4.5A	5.8A	4.5	4.7A	3.5	5.0A	2.8F	2.5F	2.3AF	2.1AF	1.7	1.6	1.6
18	1.3	1.7	1.2	E	E	1.0	1.9	2.5	3.0	3.3	3.3	C	C	C	3.5	3.5	2.6	3.0A	1.6	[1.6]C	1.6	1.7	1.7	1.7
19	1.7	1.3	E	1.0	1.8	E	2.0	2.7	3.1	3.3	3.5	3.8	3.4	3.5	3.5	3.0	3.3	3.5AF	A	A	1.6	1.8F	1.7F	1.7
20	1.6	1.3F	1.1	E	1.0	2.0	1.4	2.8	3.5	3.3	3.6	3.7	3.7	3.6	3.5	3.5	3.4A	3.3A	[2.4]A	1.6	[1.7]A	1.8	1.7	1.7
21	1.4	1.2	E	E	E	E	1.8	2.4	3.0	3.4	3.7	3.6	3.5	3.6	3.7	3.3	3.2	2.2AF	2.0F	1.7	1.8	1.8	1.9	1.6
22	1.2	1.0	E	E	E	1.0	2.0	2.6	3.2	3.4	3.4	3.5	3.3	[3.3]C	3.3	3.1	2.7	2.6	2.0F	2.0FA	2.3FA	[2.0]A	1.7	1.7
23	1.4	E	E	E	1.3	E	1.8	2.4	3.4	4.8A	[4.4]A	3.9	5.3A	5.0A	3.5	A	A	2.8A	[2.2]A	1.6	1.7	1.7	1.8	1.6
24	1.7	1.5	E	1.2	E	E	2.0	2.6	A	A	3.3	3.9	C	C	C	C	2.6	2.0	1.6	1.7	1.6	1.6	1.6	1.6
25	1.6	C	C	C	C	C	C	C	C	C	C	4.3A	3.8	4.0	3.4	3.0	3.5A	[2.7]A	1.9	C	A	1.8	1.7	1.6
26	1.3	C	C	C	C	E	1.9	2.8	3.0	3.3	3.4	3.5	3.5	3.4	3.3	3.3	2.4	[1.8]A	1.3	1.2	1.6	1.6	1.6	1.4
27	C	E	E	E	E	C	1.8	2.6	2.9	3.3	3.3	3.8	4.0A	4.0A	3.5	3.3	3.8A	[2.8]A	1.7	1.7	3.3A	1.7	1.6	1.6
28	C	C	C	C	C	E	2.2	2.4	3.0	4.1A	3.6	3.5	3.6	3.5	3.3	3.0	C	C	AF	A	A	A	2.7A	1.6
29	1.7	E	E	C	E	E	1.7	2.5	3.0	3.3	3.8	4.5A	[4.5]A	4.5A	3.3	3.1	3.3A	A	C	3.5A	4.5A	A	A	A
30	A	2.5A	S	C	C	AF	3.3A	3.3AF	2.7	3.0	3.3	3.3	3.3	3.2	M	M	3.3	1.8	1.6	1.7	1.6	1.6	1.7	1.8
31																								
Mean Value	1.8	1.7	1.5	1.7	1.4	1.4	2.1	2.9	3.4	3.7	3.8	3.9	3.9	3.8	3.6	3.5	3.3	2.9	2.3	2.2	2.4	1.9	1.9	1.8
Median Value	1.7	1.5	1.1	1.0	1.0	1.0	2.0	2.7	3.3	3.4	3.6	3.7	3.6	3.6	3.5	3.3	3.3	2.8	2.0	1.7	1.9	1.8	1.7	1.7
Count	26	25	23	23	24	25	27	27	25	26	28	29	28	28	28	26	27	26	24	23	25	25	27	28

fminF

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

K 10

35

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

IONOSPHERIC DATA

Sep. 1952 | 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	1.2	E	C	C	C	C	C	C	C	1.7	1.7	1.8	1.8	1.9	1.9	1.7	1.6	1.6	1.3	1.2	17	1.6	1.3	1.6
2	1.1	E	E	E	E	E	1.6	1.7	1.8	1.8	1.9	1.8	1.7	1.8	1.7	1.7	1.7	1.6	1.1	1.6	1.6F	1.1	1.6	1.6
3	1.5	E	E	E	E	E	1.7	1.7	1.6	1.8	1.8	1.8	1.9	1.8	1.7	1.7	1.7	1.6	1.6	1.7	1.7	1.6	1.6	1.7
4	1.6	E	E	E	E	E	1.6	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.6	1.6	1.7	1.6	1.4	1.6	1.5	1.6	1.5
5	1.8	E	E	E	E	E	1.6	1.7	1.7	1.8	1.8	1.7	1.8	1.7	1.8	1.6	1.6	1.6	1.6	1.6	1.6	1.8	1.9	1.9
6	E	E	E	E	E	E	1.3	1.7	1.8	1.8	1.9	1.9	1.9	1.9	1.8	1.8	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.5
7	1.2	E	E	E	E	E	1.6	1.8	1.7	1.6	1.7	1.8	1.7	1.7	1.7	1.6	1.3	1.6	1.5	M	M	M	M	M
8	M	M	M	M	M	M	M	M	1.7	1.2	1.7	1.7	1.8	1.8	1.6	1.6	1.2	1.2	1.2	1.4	1.2	2.0	E	1.8
9	1.6	E	E	E	C	E	1.2	1.3	1.3	1.7	1.7	1.8	1.7	1.8	1.6	1.7	1.6	1.3	1.6	1.6	1.5	1.6	1.6	1.6
10	1.6	E	E	E	E	E	1.3	1.6	1.7	1.3	1.4	1.3	1.8	1.7	1.6	1.7	1.3	1.1	1.2	1.6	1.6	1.5	1.6	1.6
11	1.0	E	1.0	E	E	E	1.4	1.4	1.4	1.7	1.8	1.7	1.8	1.7	1.8	1.7	1.6	1.6	1.6	1.6	1.5	1.6	1.5	1.6
12	1.6	E	1.6	E	E	E	1.6	1.7	1.7	1.6	1.8	1.8	1.8	1.8	1.8	1.7	1.6	1.3	1.6	1.6	1.5	1.5	1.7	1.6
13	1.2	E	E	E	E	E	1.6	1.6	1.7	1.7	1.7	1.6	1.6	1.3	1.4	C	C	C	C	C	C	C	1.6	1.6
14	1.0	E	1.8	E	E	E	1.0	1.2	1.3	1.8	1.7	1.9	1.9	1.9	1.9	1.8	1.7	1.3	1.7	1.6	1.6	1.6	1.8	1.8
15	1.7	E	E	E	E	E	1.7	1.7	1.7	1.6	1.7	1.8	1.7	1.6	1.6	1.6	1.7	1.6	1.5	1.5	1.6	1.5	1.6	1.4
16	1.2	E	E	E	E	E	1.2	1.2	1.7	1.7	1.7	1.7	1.7	1.8	1.6	1.7	1.6	1.6	1.2	1.8	1.9	1.5	1.6	1.5
17	1.3	E	E	E	E	E	1.7	1.4	1.6	1.8	1.8	1.6	1.6	1.6	1.8	1.6	1.4	1.6	1.2	1.5	1.6	1.5	1.3	E
18	1.2	E	E	E	E	E	1.7	1.6	1.6	1.7	1.7	C	C	C	1.7	1.7	1.6	1.6	1.2	[1.4]C	1.7	1.7	1.9	1.9
19	E	E	E	E	E	E	1.2	1.6	1.7	1.8	1.8	1.8	1.8	1.6	1.7	1.8	1.6	1.8	1.6	1.2	1.6	1.6	1.8	1.7
20	1.7	E	E	E	E	1.7	1.6	1.6	1.6	1.4	1.3	1.7	1.7	1.7	1.7	1.6	1.2	1.3	1.2	1.4	1.6	1.7	1.6	1.2
21	1.2	E	E	E	E	E	1.2	1.2	1.7	1.6	1.7	1.6	1.7	1.7	1.7	1.6	1.6	1.3	1.4	1.6	1.6	1.6	1.6	1.7
22	1.7	E	E	E	E	1.0	1.6	1.6	1.6	1.7	1.8	1.7	1.7	[1.6]C	1.6	1.6	1.2	1.6	1.6	1.4	1.4	1.6	1.6	1.6
23	1.3	E	1.2	E	E	E	1.7	1.7	1.4	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.2	E	1.6	1.5	1.5	1.6
24	1.6	E	E	E	1.3	1.9	1.6	1.7	1.7	1.7	1.7	1.8	C	C	C	C	1.2	1.2	1.2	1.6	E	E	E	1.6
25	1.9	C	C	C	C	C	C	C	C	C	C	1.6	1.6	1.7	1.8	1.8	1.7	1.6	1.5	[1.6]C	1.6	1.6	1.7	1.8
26	1.9	C	C	C	C	1.9	1.6	1.7	1.6	1.6	1.8	1.6	1.9	1.9	1.9	1.7	1.4	1.6	1.9	1.7	1.7	1.9	E	1.9
27	[2.0]C	2.0	1.8	E	E	C	1.2	1.6	1.2	1.7	1.7	1.7	1.8	1.7	1.6	1.5	1.4	1.5	1.6	1.7	1.6	1.6	1.8	1.6
28	C	C	C	C	C	E	1.6	1.7	1.7	1.7	1.8	1.8	1.6	1.7	1.7	1.6	C	C	1.2	1.6	1.5	1.3	1.5	1.8
29	1.2	E	E	C	E	E	1.7	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	[1.6]C	1.6	1.6	1.6	1.6	1.2
30	1.2	E	S	C	C	E	1.6	1.6	1.6	1.7	1.6	1.6	1.8	1.7	M	M	1.8	1.7	1.8	1.8	1.8	1.9	1.6	1.9
31																								
Mean Value	1.4	2.0	1.5	—	1.3	1.6	1.5	1.6	1.6	1.7	1.7	1.7	1.8	1.7	1.7	1.7	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Median Value	1.3	E	E	E	E	E	1.6	1.6	1.7	1.7	1.7	1.7	1.8	1.7	1.7	1.7	1.6	1.6	1.5	1.6	1.6	1.6	1.6	1.6
Count	28	26	24	23	23	26	27	27	28	29	29	29	28	28	28	27	28	28	29	28	28	28	29	29

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

K 11

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Sep. 1952

yp 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	100	80	C	C	C	C	C	C	C	70	90	60	80	60	60	80	80	60	60	60^{P}	100	60^{F}	80	70
2	70	80	70	70	[80]^{AF}	90^{F}	60	70	100	90	90	A	U	50	U	40	120	80	80	130	80	100	120	110
3	100	80	50	70	70	140	120	110	100	50	60	70	40	70	120	60	50	70	60	40^{P}	110	100	90	70
4	(60)^{JF}	60	70^{F}	90	80	100^{F}	70	60	50	U	90	70	110	80	90	110	40	70	70	180	80	(70)	70	90
5	60	50^{F}	60	80	80	90	100	100	60	60	50	40	70	60	70	50	70	70	50	60	70^{P}	70^{P}	60	60
6	90	90	80	80	70^{P}	100	90	90	50	A	A	50	(80)^{P}	(80)^{P}	60	[60]^{B}	70	70^{P}	B	BS	70	70	70	[60]A
7	60	110	60	80	80	90	60	40	30	U	70	U	60	70	60	100	70	100	70	M	M	M	M	M
8	M	M	M	M	M	M	M	M	M	80	80	[80]B	70	100	100	110	90^{P}	80	B	80	90	100	80	80
9	90	90	70	100	[100]C	110	120^{H}	100	180	110	150^{H}	70	U	80	U	U	90	100	60	90	100	A	A	110
10	[90]^{AF}	80	60^{F}	80^{F}	60^{F}	80	60	70	60	90	60	80	80	[100]C	120^{P}	(90)^{S}	100	90	100	[100]^{AF}	(110)^{AFF}	60	[80]^{F}	100^{F}
11	(90)^{JF}	60	100	110	100	130	90	70	60	40	60	30	A	U	U	50	40	50	60	SF	A	100^{F}	80^{F}	50^{F}
12	80	50	50	100	90	80^{F}	50	40	50	80	70	130	70	80^{P}	90	80	60	100^{P}	90	110	90^{P}	90	90	90
13	100	130	80	50	140	90	80	60^{P}	90	80^{Z}	100	120	60	70	100	C	C	C	C	C	C	C	90	110
14	80	80	80	60	90	100	70	60	80	60	50	90	60	70	70	70^{P}	100	100	50^{P}	30	110	90	80	110
15	90	100	110	90	FB	A	90	70	60	[60]A	70	70	60	50	50	80	60	70	[70]A	70^{F}	AF	AF	A	90
16	100	70	70^{F}	100^{F}	80^{F}	110V	90	40	50	50	90	90	50	50	50	50	60	50	50	50^{P}	90	60	70	60
17	[60]A	50^{F}	80	80	70	80	60	60	70^{H}	90	70	70	50	60	[80]C	90	50	120	80	100	100	60	80	110
18	90	60	80	90	80	70	40	30	70	60	50	C	C	C	90	70	80	80	60	[80]C	110	80	80	90
19	100	100	110	100	80	70	80	60	60	90	80	60	90	70	60	60	60	110	50	90	100	90^{ZF}	70^{F}	100
20	90	90	90	80	70	100	80	60	90	70	100^{P}	60	70	60	100	100	70	90	130	100	120	150	80^{V}	110
21	70	90	100	100	90	110	70	80	110	60	80	90	140	80	70	70	70	80	100	80	100	100	100	100
22	100	90	70	80	110	80	70	60^{P}	70	70	110	90	90	[100]C	100	100	60	130	110	100	(100)^{P}	(80)^{J}	70^{P}	130^{P}
23	110^{P}	100	100	70	80	120	120	70	120	70	[80]A	90	70	60	120	60	70	60	90	130	90	100^{F}	80	90
24	70	100	110	80	80	80	60	50	50	90	80	60	C	C	C	C	100	90	80	100^{P}	110	120	100^{F}	80^{P}
25	100	C	C	C	C	C	C	C	C	C	C	70	70	50	60	70	80	70^{F}	80	[80]C	90	90	80	80
26	80^{P}	C	C	C	C	80	80	70	70	120	(90)^{J}	120	120	B	B	80	100	70	110^{P}	(90)^{P}	100^{P}	130	100	120^{P}
27	[110]C	100	[100]^{F}	100^{PF}	70	[80]C	80	100	50	60	60	70	70	60	50	60	60	80	80^{P}	60	130	60	100^{P}	90
28	C	C	C	C	C	90	50	40	(60)^{J}	80	60	(80)^{P}	(70)^{P}	(80)^{P}	70	90	C	C	60^{P}	A	A	A	120	90
29	90	60	90	[80]C	60	60	70	50	90^{V}	80	50	60	A	B	(70)^{P}	40	60	50	[60]C	60^{P}	60	A	A	A
30	A	A	S	C	C	AF	80	70	50	90	70	70	100	60	M	M	60	110	80^{P}	100	80	120	90	60
31																								
Mean Value	90	80	80	80	80	90	80	70	70	80	80	80	80	70	80	70	70	80	80	90	100	90	90	90
Median Value	90	80	80	80	80	90	80	60	60	80	80	70	70	70	70	70	70	80	70	90	100	90	80	90
Count	27	25	24	24	23	25	27	27	27	26	28	27	24	25	24	26	28	28	27	25	25	24	26	28

yp F2

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

K.12

37

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

IONOSPHERIC DATA

Sep. 1952 | foF2 | 135° E Mean Time | Yamagawa | Lat. 31° 12.5' N | Long. 130° 37.7' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	S	S	S	4.9$^{J}_{H}$	4.4	S	S	S	S	6.9	6.9	7.0	[7.8]^{T}	8.7	7.9^{P}	S	C	S	S	S	S	S	S	S
2	S	4.7^{J}	S	S	(4.5)$^{J}_{S}$	3.7^{H}	4.2	S	S	10.0	8.4^{J}	8.3^{J}	9.3	9.0	8.4^{J}	S	S	S	S	S	S	S	4.0^{H}	S
3	S	3.9	[3.8]^{A}	3.8	2.5	1.9	3.5	6.5^{P}	6.2	[6.4]^{T}	6.5	[7.5]^{S}	8.5	6.9	[7.0]^{T}	7.0	7.7	[8.3]^{S}	8.9	7.7^{J}	[5.8]^{S}	4.0	4.5	4.2
4	S	S	S	4.3^{J}	3.8	3.9	4.7	T	T	5.8$^{P}_{H}$	5.7	6.6^{J}	7.9^{J}	7.6	[7.8]^{C}	7.9	8.0	7.8$^{P}_{S}$	[6.3]^{S}	4.8	S	S	S	S
5	4.7^{J}	5.1	4.6	4.8	4.8	4.3	5.8	7.2	6.5	[6.4]^{C}	6.2	6.6^{P}	7.3	7.6^{J}	[7.4]^{S}	7.2	6.5	6.4	7.3	7.9	7.2	S	S	S
6	S	C	C	C	C	C	C	S	6.5	6.0	6.6	7.2	C	A	A	6.9	7.3	8.4^{J}	10.2	[8.6]^{S}	(7.0)$^{J}_{P}$	[5.8]^{S}	4.6	4.5
7	C	A	T	C	T	3.8	4.8	5.9	6.4^{P}	5.6	6.0	6.4^{P}	7.2	[7.8]^{T}	8.5^{J}	8.7	7.3	7.3	8.5	(7.9)^{P}	[5.9]^{T}	3.9	3.7	3.9
8	3.5	3.7	3.8	3.7	3.0	2.8	4.2	(5.3)$^{J}_{P}$	5.5	5.8	6.6	8.5	8.4	6.9	6.1	7.0	8.4	9.1^{S}	S	S	4.2	3.7^{H}	3.8	4.0
9	4.0	3.9	4.0	4.3^{P}	3.4	2.9	3.8	5.2	[6.3]^{T}	7.4	7.3	7.7	7.3	6.1	7.1^{J}	7.0	7.4	7.8	8.3^{J}	S	A	A	2.7	3.2
10	[2.8]^{A}	2.4	2.8	[2.8]^{C}	2.9^{J}	3.3	3.6	[4.5]^{A}	5.4	6.8^{J}	6.4	5.9	5.9	7.5	[7.2]^{C}	6.8^{P}	7.1	7.9	8.2^{J}	A	A	A	A	A
11	A	A	A	3.0	2.9	3.0	3.8	C	C	6.6^{J}	6.3	A	A	6.0	6.8	7.0	7.6	C	S	7.7$^{J}_{S}$	[5.4]^{S}	3.2^{P}	3.2	C
12	C	C	C	C	C	C	C	C	C	C	6.3^{P}	6.8^{P}	8.2^{P}	8.4	7.1	7.4	7.9^{P}	7.4	7.1	[5.8]^{T}	4.6	4.0^{H}	4.0	4.0
13	4.1	3.9	4.2	3.9	2.3	2.6	3.6	5.8	5.9^{P}	6.5	6.8	7.4	7.3	8.5	7.7	7.9^{J}	7.9^{P}	8.5	9.2	S	S	3.2	3.3	3.5
14	3.6	[3.6]^{C}	3.5	3.8	3.0	3.1	C	C	5.8	5.7	6.0	T	S	8.5	8.4^{J}	8.2^{J}	[9.0]^{S}	9.7^{P}	[9.0]^{A}	8.4	T	C	C	C
15	C	C	C	C	C	C	C	C	C	T	7.3	8.0	8.0	[7.6]^{S}	7.1^{J}	7.0	7.0	8.0^{P}	8.7	6.9^{J}	A	T	A	T
16	FS	A	3.5^{S}	3.5	3.4	2.9$^{J}_{S}$	4.1^{J}	5.4	8.0^{J}	6.7	5.5	6.2^{P}	6.5	7.4	8.7^{J}	8.6	[8.6]^{A}	8.7	9.4^{P}	10.1^{J}	S	AS	4.3^{P}	4.2
17	4.4	3.5	3.0	2.9	2.9	3.1	4.6	6.1	[6.2]^{C}	6.2	6.3	7.8	7.8	6.6	6.7	7.9	8.7	9.5	8.5	4.9	4.8	[4.4]^{T}	4.1	4.2
18	3.9	4.0	4.3	4.0	3.5^{H}	3.4	4.7	T	6.8	6.0	6.0	6.3	6.8	8.1	9.3	8.5	8.9	9.5	8.4	(7.8)$^{J}_{S}$	(5.5)$^{J}_{P}$	2.9	3.1	3.2
19	3.4	3.4	3.3	3.2	3.1	3.1	3.5	C	C	8.2	5.9	7.6	10.1^{J}	11.0	12.1	12.8^{P}	11.8$^{J}_{P}$	11.2^{P}	S	S	3.8	3.4	3.4	3.6
20	3.9	3.7	3.7	3.5	3.4	2.9	3.5	6.5	9.8	7.8^{P}	6.0	6.6	8.7^{P}	9.4^{J}	11.0	10.6	9.7^{P}	9.0	9.2^{J}	6.9^{J}	4.2	C	C	C
21	C	C	C	C	C	C	C	C	C	7.0	6.5	6.2	7.6	7.9	9.7	10.6	9.4	7.4	6.4	6.5^{J}	S	S	S	5.1^{J}
22	M	M	M	M	M	M	M	M	M	C	6.4	6.9	6.3^{J}	8.0	7.9	[8.2]^{C}	8.4	9.0^{J}	C	S	4.2^{J}	S	S	4.1^{J}
23	S	S	S	S	S	3.5	S	S	S	S	(7.7)$^{J}_{P}$	[8.1]^{S}	8.5	(10.1)$^{J}_{E}$	10.2	(8.7)^{J}	S	S	S	S	(3.7)$^{J}_{P}$	S	S	4.3
24	4.3	[4.0]^{S}	3.7	3.7	[3.4]^{C}	3.0	3.8	5.5^{J}	[6.4]^{T}	(7.3)$^{J}_{P}$	6.0	6.8^{J}	8.3	[8.8]^{S}	9.3	[9.0]^{S}	8.6	9.3	10.0^{P}	6.2	[5.2]$^{J}_{S}$	4.3	3.9^{H}	4.2
25	(4.4)$^{J}_{P}$	4.1^{J}	3.9	3.7	3.6	3.6	4.0	[6.2]^{S}	8.3^{P}	7.1^{P}	6.9	6.5^{P}	8.2^{J}	9.8	9.9	9.2	8.6^{J}	8.6	8.4^{J}	[6.6]^{S}	4.9	4.5	4.5	(4.4)$^{J}_{P}$
26	4.9	4.5	3.9	3.8	3.3^{H}	3.3	3.7	6.6	[6.4]^{C}	6.3	6.4	6.8	(7.5)^{P}	12.0	[10.5]^{C}	9.0	9.0	[9.6]^{C}	10.2	[7.6]^{T}	5.1	3.8	4.1^{P}	4.0
27	4.4	4.0	3.8	4.2	4.1	3.5	3.4	5.5^{J}	7.4^{J}	7.1	6.9	8.4	10.8	11.0	10.2	9.5	8.6^{P}	7.4	10.2	9.2	(4.5)$^{P}_{S}$	4.4^{H}	S	S
28	4.3	4.3	3.7^{H}	3.6	3.5	3.7	[5.6]^{C}	7.6	8.9^{P}	[8.8]^{C}	8.7	8.5	11.5	[10.0]^{C}	8.4	7.4	7.6^{J}	9.4	C	S	4.2	C	C	C
29	C	3.2	3.3^{H}	3.6^{H}	3.2	3.2	4.1^{P}	7.2	6.7	8.0	7.9^{P}	9.9^{P}	10.9	11.7	11.4	9.7	8.0^{J}	8.0	9.6	[7.0]^{T}	4.3	4.4^{J}	C	C
30	C	C	C	C	C	C	C	C	C	C	T	7.8	8.3	10.7	11.5	9.0	7.8^{P}	8.8	8.8	7.0	SH	SH	C	5.0
31																								
Mean Value	4.0	3.9	3.8	3.8	3.4	3.2	4.1	6.1	6.8	6.9	6.6	7.3	8.2	8.6	8.7	8.4	8.3	8.5	8.7	7.3	5.0	4.0	3.8	4.1
Median Value	4.1	3.9	3.8	3.7	3.4	3.2	4.0	6.0	6.4	6.7	6.4	7.1	8.0	8.4	8.4	8.2	8.0	8.6	8.8	7.3	4.8	4.0	4.0	4.2
Count	15	18	18	21	22	23	21	16	19	25	29	28	27	29	29	28	27	26	22	20	19	15	16	18

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

Y 1

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

IONOSPHERIC DATA

Yamagawa

Lat. 31° 12.5' N
Long. 130° 37.7' E

Sep. 1952

h_pF2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	S	S	S	(300)$^{J}_{H}$	S	S	S	S	S	290	[300]^{S}	300	[300]^{T}	300	350^{P}	S	S	S	S	S	S	S	S	S
2	S	(360)^{J}	S	S	(260)$^{J}_{S}$	230^{H}	300	S	S	280	[290]^{S}	(300)^{J}	340	290	(290)^{J}	S	S	S	S	S	S	S	240^{H}	S
3	S	350	A	250	250	S	300	250^{P}	240	[300]^{T}	350	[320]^{S}	290	290	[300]^{T}	300	300	[280]^{S}	270	(250)^{J}	[260]^{S}	280	330	300
4	S	S	S	(280)^{J}	300	270	260	T	T	300$^{P}_{H}$	300	(300)^{J}	(300)^{J}	(300)^{B}	[300]^{C}	300	270	250$^{P}_{S}$	[250]^{S}	250	S	S	S	S
5	(290)^{J}	300	330	270	250	290	270	240	250	[280]^{C}	300	300^{P}	300	(300)^{J}	S	300	290	270	290	280	300	S	S	S
6	S	C	C	C	C	C	C	S	230	260	300	A	C	A	A	310	310	(300)^{J}	280	[260]^{S}	(250)$^{J}_{P}$	[290]^{S}	330	310
7	C	A	T	C	T	300	250	250	250^{P}	270	300	B	300	[310]^{T}	(320)^{J}	300	300	300	270	(250)^{P}	[280]^{T}	300	400	340
8	400	280	320	260	330	370	250	(210)$^{J}_{P}$	250	280	320	300	270	300	320	350	320	280^{S}	S	S	300	400^{H}	390	370
9	350	350	300	290^{P}	300	320	250	250	T	290	300	290	290	U	(310)^{J}	340	300	290	(250)^{J}	S	A	A	400	310
10	[350]^{A}	390	350	C	C	300	290	A	A	(300)^{J}	250	260	U	310	[300]^{C}	300^{P}	300	280	(260)^{J}	A	A	A	A	A
11	A	A	A	250	A	300	260	C	C	(250)^{J}	A	A	A	A	320	300	A	C	S	(250)$^{J}_{S}$	[300]^{S}	340^{P}	350	C
12	C	C	C	C	C	C	C	C	C	C	300^{P}	340^{P}	300^{P}	280	300	320	280^{P}	260	250	[280]^{T}	300	330^{H}	350	350
13	350	330	280	250	250	340	270	220	230^{P}	290	270	300	340	310	300	(300)^{J}	310^{P}	290	250	S	S	360	380	350
14	370	[350]^{C}	330	300	270	290	C	C	230	260	280	T	S	(300)^{B}	(310)^{J}	(300)$^{J}_{B}$	[300]^{S}	300^{P}	[280]^{A}	250	T	C	C	C
15	C	C	C	C	C	C	C	C	C	T	290	290	290	[280]^{S}	(270)^{J}	300	290	290^{P}	260	(250)^{J}	A	T	A	T
16	FS	A	300^{S}	270	250	(250)$^{J}_{S}$	(250)^{J}	250	(230)^{J}	220	250	300^{P}	310	320	(300)^{J}	300	A	260	[260]^{A}	(250)^{J}	S	AS	320^{P}	320
17	340	260	310	300	340	320	250	220	[240]^{C}	250	270	290	280	300	330	330	280	250	250	250	330	[300]^{T}	280	340
18	350	330	300	290	300^{H}	290	250	T	230	250	300	300	340	330	300	300	290	250	250	(250)$^{J}_{S}$	(300)$^{J}_{P}$	360	360	350
19	340	310	320	300	320	310	270	C	C	240	250	310	(300)^{J}	300	300	290^{P}	(270)$^{J}_{P}$	270^{P}	S	S	250	350	350	350
20	320	320	300	300	290	300	260	270	250	240^{P}	250	350	320^{P}	(320)^{J}	300	300	300^{P}	290	(250)^{J}	(230)^{J}	260	C	C	C
21	C	C	C	C	C	C	C	C	C	250	270	320	320	350	320	280	250	260	260	(300)^{J}	S	S	S	(300)^{J}
22	M	M	M	M	M	M	M	M	M	C	260	270	(310)^{J}	300	300	[290]^{C}	280	(250)^{J}	C	S	(260)^{J}	S	S	(310)^{J}
23	S	S	S	S	S	300	S	S	S	S	(300)$^{J}_{P}$	[300]^{S}	300	(310)$^{J}_{S}$	270	B	S	S	S	S	(300)$^{J}_{P}$	S	S	300
24	300	[320]^{S}	340	320	[310]^{C}	300	270	(240)^{J}	[240]^{T}	(250)$^{J}_{P}$	250	(290)^{J}	320	[310]^{S}	300	[300]^{S}	300	300	250^{P}	230	[260]^{S}	290	300^{H}	350
25	(300)$^{J}_{P}$	(260)^{J}	300	350	360	320	300	[280]^{S}	250^{P}	250^{P}	250	300^{P}	(310)^{J}	300	300	280	(270)^{J}	250	(250)^{J}	[260]^{S}	270	320	330	(310)$^{J}_{P}$
26	300	270	300	260	350^{H}	360	300	240	[240]^{C}	250	270	310	(350)^{P}	300	[300]^{C}	300	290	[280]^{C}	270	[250]^{T}	230	370	340^{P}	320
27	290	330	310	300	250	250	300	(250)^{J}	(250)^{J}	260	250	330	300	280	270	270	270^{P}	300	270	250	(250)$^{P}_{S}$	400^{H}	S	S
28	340	290	300^{H}	310	370	290	[280]^{C}	270	250^{P}	[270]^{C}	290	340	280	[280]^{C}	280	280	(300)^{J}	270	C	S	260	C	C	C
29	C	380	360^{H}	300^{H}	300	390	270^{P}	250	250	270	300^{P}	300^{P}	310	300	270	260	(280)^{J}	300	250	[280]^{T}	300	(340)^{J}	C	C
30	C	C	C	C	C	C	C	C	C	C	T	300	300	310	270	290	270^{P}	280	250	270	SH	SH	C	300
31																								
Mean Value	330	320	310	290	300	300	270	250	240	270	280	300	310	300	300	300	290	280	260	260	280	340	340	330
Median Value	340	320	310	300	300	300	270	250	240	260	290	300	300	300	300	300	290	280	260	250	270	340	340	320
Count	15	18	17	20	19	22	21	15	17	25	28	26	26	27	28	27	25	26	22	20	19	15	16	18

h_pF2

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

Y 2

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

IONOSPHERIC DATA

Sep. 1952 | h'F2 | 135° E Mean Time | Yamagawa | Lat. 31° 12.5' N | Long. 130° 37.7' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	300	300	250^{S}	250^{H}	250	250	240	220	240	280	[290]^{S}	300	[300]^{T}	290	330	300	290	250	250^{A}	250	[240]^{A}	220	A	A
2	260	330	[320]^{A}	300^{A}	200^{A}	200$^{A}_{H}$	270	260	300	260	[280]^{S}	300	320	280	280	[300]^{S}	330	270	240	250	230	230	200$^{A}_{H}$	A
3	A	300	330	220	200	300	280	250	230	[290]^{T}	350	300	280	290	[280]^{T}	280	300	270	250	230	200^{A}	240	300	280
4	280	270	240	240	250	240	240	260	230	240^{H}	300	300	300	300	[290]^{C}	280	260	250^{A}	220	240	250	280	280	270
5	250	260	270	230	210	210	260	230	250	[270]^{C}	290	300	300	280	330	290	270	250	250	230	220	[240]^{A}	260	290
6	290	C	C	C	C	C	C	230	230	250	290	390^{A}	290	A	A	310^{A}	300	280	250	230	220	200	260	260
7	290	[280]^{A}	280	270	280	270	250	250	240	270	300	330	300^{A}	310	300	280	280	280	270	210^{A}	200^{A}	240	330	300^{A}
8	300^{A}	250	250	240	250	350	240	210	250	270	320	300	250	300	320	350	310	250	220	200^{A}	250^{A}	320^{H}	300	300
9	310	300^{A}	270	240	250	280	230^{A}	250	270	280	290	280	280	440	310	330	290	280	220^{A}	A	A	A	360	300
10	[320]^{A}	350^{A}	350^{A}	A	C	250	250	[280]^{A}	300^{A}	300	250	260	390	310	[300]^{A}	290	290	250	250	A	A	A	A	A
11	A	A	A	240	270^{A}	250	260	C	C	250	250	A	A	A	320	300	300	[260]^{C}	220^{A}	240	200^{A}	300^{A}	290	C
12	C	C	C	C	C	C	C	C	C	C	300	330	300	280	300	310	260	250	220	200^{A}	250	250^{H}	290	300
13	300	300	250	220	200	290	270	210	220	260	270	290	320	300	290	290	300	260	240	220^{A}	[280]^{A}	340^{A}	340^{A}	300^{A}
14	350	[320]^{C}	290	250	200	240	230	220	220	250	280	290	320	280	300	300	[280]^{S}	270	[240]^{A}	200	A	C	C	C
15	C	C	C	C	C	C	C	C	C	250	280	280	280	[280]^{A}	270	300	270	250	220^{A}	200	A	A	A	250^{A}
16	250	[260]^{A}	270	250	240	250^{A}	230	220	230	220	250	280	300	300	300	270	290	250	220^{A}	200^{A}	200^{A}	200^{A}	260	290
17	300	240	250	250	300	270	230	210	[230]^{C}	250	270	260	260	300	330	300	270	250	200^{A}	200^{A}	280^{A}	300^{A}	240	260
18	300	300	250	240	250^{H}	250	240	210	220	240	250	300	320	300	280	280	270	250	220	230^{A}	200^{A}	250	310	290
19	290	260	260	250	260	250	250	220^{A}	240	230	250	300	300	290	290	260	250	250	220	[210]^{A}	200	290	300^{A}	300
20	290	260	260	250	240	230	240	250	230	230	250	330	300	300	270	260	270	250	220^{A}	200	200	C	C	C
21	C	C	C	C	C	C	C	C	C	240	250	310	300	300	300	260	250	250	240^{A}	250	210	270^{A}	250	250
22	M	M	M	M	M	M	M	M	M	C	250	270	300	280	290	[270]^{C}	250	250	[240]^{A}	220	230	250	270	290
23	260	260	250	250	230	250	250	220	250	250	250	[280]^{S}	300	300	260	300	250	250	210^{A}	200^{A}	250	300	290	280
24	250	250	260	250	[260]^{C}	260	250	210	230	250	250	290	300	300	270	300	270	260	220^{A}	200	200^{A}	250	250^{H}	300
25	270	240	250	270	300	250	260	240	230	240	250	300	300	290	280	260	250	250	230	200^{A}	240	280	300^{A}	290
26	250	240	250	240	250^{H}	300	260	220	[230]^{C}	240	260	280	300	290	250	250	250	250	240	200	200	[240]^{C}	290	290
27	250	250	260	260	240	210	280	230	250	250	250	290	290	250	250	250	250	250	240	220	200^{A}	320^{H}	290	300
28	270	240	250^{H}	260	300	250	[240]^{C}	240	250	[260]^{C}	270	280	270	[260]^{C}	250	270	290	250	[220]^{C}	200^{A}	200^{A}	C	C	C
29	C	340	300^{H}	250^{H}	270	310	250	240	230	250	280	260	300	290	250	250	250	250	230^{A}	220	210	250^{A}	C	C
30	C	C	C	C	C	C	C	C	C	C	250	250	300	300	260	250	250	260	220	210	250^{H}	240^{H}	[240]^{C}	250
31																								
Mean Value	280	280	270	250	250	260	250	230	240	250	270	290	300	300	290	280	270	260	230	220	220	260	280	280
Median Value	290	260	260	250	250	250	250	230	230	250	270	290	300	300	290	280	270	250	220	210	220	250	290	290
Count	22	23	23	23	23	24	24	24	24	27	30	29	29	28	29	30	30	30	30	28	26	24	23	22

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

Y 3

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

IONOSPHERIC DATA

Yamagawa

Lat. 31° 12.5' N
Long. 130° 37.7' E

Sep. 1952

foF1

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							Q	L	L	B	A	A	A	4.5	[4.8]^{S}	5.0	4.5$^{}$	L	A					
2							L	3.7	4.3	A	A	A	5.0	4.6	[4.8]^{A}	5.0^{H}	4.7	3.7	Q					
3							L	L	4.0	4.7	4.6^{H}	4.7	[4.8]^{A}	5.0	[4.8]^{A}	4.7	4.0	3.7	3.0					
4							Q	Q	L	4.0	4.5	4.7	B	B	C	4.4	4.0	A	Q					
5							3.5	4.0	4.5^{H}	[4.6]^{C}	4.6	4.8	4.7	4.7	4.8	4.6	4.3^{H}	4.0	L					
6							C	L	Q	L	A	A	A	A	A	A	4.5	4.0	3.0					
7							L	L	4.0	4.3	4.5	B	A	4.8	4.7	4.3	4.0	3.8	A					
8							Q	Q	L	4.4	4.7	4.7	4.5	4.7	4.8	4.6	4.2	4.0	A					
9							Q	L	4.0	4.5	4.4	4.5	4.6	4.9	4.5	4.5	A	A	L					
10							A	A	A	A	4.4	4.4	4.9	A	A	4.5	4.1	3.9	A					
11							L	C	C	A	A	A	A	A	4.5	4.4	A	C	A					
12							C	C	C	C	4.5^{H}	4.7	4.5	4.5	4.5	4.5	4.0	A	L					
13							3.0	3.0	3.3	4.0	4.4	4.5^{H}	4.9	5.0	4.5	[4.5]^{A}	4.5	3.7	L					
14							Q	Q	L	4.5	4.6	4.5	4.7	B	S	4.5	S	L	A					
15							C	C	C	A	A	A	A	A	A	4.5	4.1	L	A					
16							Q	3.1	[3.8]^{L}	4.4	4.2	A	A	A	A	A	A	L	A					
17							Q	Q	C	4.3	4.5	4.5	4.5	4.6	4.6	4.7	4.0	L	Q					
18							Q	Q	3.8	4.1	L	L	L	4.5	4.3	4.5	4.2	3.8	Q					
19							Q	A	L	4.5	4.5	4.7	4.5	4.8	4.6	4.5	4.0	3.7	Q					
20							Q	L	4.0	4.2	[4.6]^{B}	4.9	4.7	4.7	4.5	4.4	4.0	3.5	Q					
21							C	C	C	4.3	4.3	5.0^{H}	4.7	4.8	4.5	4.5^{H}	4.0	A	A					
22							M	M	M	C	4.5	4.5	4.7	4.5	4.4	[4.2]^{C}	4.1	3.5	C					
23							Q	Q	L	4.5	B	B	4.8	[4.6]^{B}	4.5	4.2	SH	L	A					
24							Q	Q	L	L	4.5	4.5	5.0	4.6	A	A	4.3	3.5	A					
25							Q	Q	L	L	B	4.7	4.7	B	A	B	4.2	L	Q					
26							Q	Q	C	4.3	4.5	4.6	4.5	[4.6]^{B}	4.6	4.3	3.7	L	Q					
27							L	Q	L	L	4.5	4.5	4.5	4.5	4.7	4.3	3.7	A	Q					
28							C	Q	L	C	4.6	4.5	4.6	[4.6]^{C}	4.5	4.4	4.2	L	C					
29							Q	Q	L	4.0	4.7^{H}	4.6	4.6	5.0	4.6	4.2	3.5	Q	A					
30							C	C	C	C	B	4.5	4.5	5.0	4.7	4.4	4.0	C	Q					
31																								
Mean Value							3.3	3.5	4.0	4.3	4.5	4.6	4.7	4.7	4.6	4.5	4.1	3.8	3.0					
Median Value							3.2	3.4	4.0	4.3	4.5	4.6	4.7	4.6	4.6	4.5	4.1	3.7	3.0					
Count							2	4	9	17	21	21	22	22	22	26	25	13	2					

foF1

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

Y 4

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

IONOSPHERIC DATA

Sep. 1952 | h'F1 | 135° E Mean Time | Yamagawa | Lat. 31° 12.5' N | Long. 130° 37.7' E

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

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

Y 5

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

IONOSPHERIC DATA

Sep. 1952 | foE | 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							B	2.2	2.8	3.0	[3.2]^{A}	3.3	A	A	A	A	3.1	2.7	A					
2							B	A	2.6	2.9	3.2	3.2	3.4	3.3	3.4	3.3	2.8	2.5	2.0					
3							A	2.1	2.6	2.9	3.1	[3.2]^{A}	3.3	3.4	A	A	A	A	A					
4							B	2.2^{H}	2.8	3.0	3.4	3.4	[3.4]^{A}	3.5	[3.2]^{C}	2.8	2.6	A	A					
5							2.3	2.7	2.9	[3.0]^{C}	3.2^{H}	3.2	[3.3]^{A}	3.4	3.3	3.2	2.9	2.3	A					
6							C	A	2.7	[3.0]^{A}	3.2	3.4	3.4	A	A	3.0	A	A	A					
7							1.4^{J}	2.1	2.7	3.0	3.1	3.2	3.0	[3.2]^{A}	3.4	3.2	2.9	2.5	A					
8							1.5^{J}	2.2	2.7	2.9	3.2	3.2	3.2	A	A	A	A	A	A					
9							B	A	2.6	2.9	3.0	3.1	3.0	3.5	3.3	[3.1]^{A}	2.9	2.4	A					
10							A	A	2.5	[2.8]^{A}	3.0	[3.1]^{A}	3.2	3.2	3.0	3.0	A	A	A					
11							B	C	C	2.8	2.8	2.8	A	A	3.3	3.2	2.8	C	A					
12							C	C	C	C	3.0	3.1	3.2	3.3	3.2	3.0	2.6	A	A					
13							B	2.0	2.4	A	A	3.2	3.2	3.3	A	A	A	A	A					
14							B	A	2.5	2.9	3.0	3.1	3.0	2.9	A	A	A	2.2	A					
15							C	C	C	2.9	3.0	3.0	3.0	2.8	A	A	2.8	2.4	A					
16							B	1.9	2.6	2.8	3.0	3.1	3.1	2.9	2.7	A	A	A	A					
17							B	2.2	[2.6]^{C}	2.9	3.1	3.2	3.4	3.3	[3.0]^{A}	2.8	A	A	A					
18							B	2.0	2.6	[2.8]^{A}	3.1	3.3	3.3	3.3	3.2	3.0	2.7	2.3	2.1					
19							B	A	2.6	[2.8]^{A}	3.0	3.0	3.5	3.3	3.2	2.9	2.7	2.3	A					
20							B	2.3	2.8	3.0	3.2	3.3	3.4	3.4	3.2	3.0	2.7	2.2	A					
21							C	C	C	3.0	3.2	3.3	3.3	3.2	3.2	[3.0]^{A}	2.7	2.3	A					
22							M	M	M	C	3.0	[3.2]^{A}	3.3	3.4	3.2	[2.9]^{C}	2.6	2.2	C					
23							B	2.2	2.7	3.0	3.1	3.2	3.3	3.3	3.2	2.9	2.7	2.2	A					
24							B	2.0	2.7	2.9	3.1	3.3	3.3	3.2	2.9	[2.8]^{A}	2.7	2.2	A					
25							B	2.0	2.6	2.9	3.1	3.2	3.3	3.3	3.3	3.1	2.8	A	A					
26							B	2.0	[2.4]^{C}	2.9	3.1	3.2	3.2	[3.2]^{A}	3.2	3.0	2.7^{H}	2.3	B					
27							B	2.0	2.6	3.0	3.1	3.1	3.3	[3.2]^{A}	3.0	2.9^{J}	2.5	A	A					
28							C	2.0	2.6	[2.8]^{C}	3.0	3.1	3.1	[3.2]^{C}	3.2	2.9	2.7	2.1	C					
29							B	1.9^{F}	2.7	2.8	3.0	3.1	3.2	3.3	3.0	2.9	2.8	2.2	A					
30							C	C	C	C	A	3.0	3.1	3.0	[3.0]^{A}	2.9	2.7	2.2	A					
31																								
Mean Value							1.7	2.1	2.6	2.9	3.1	3.2	3.2	3.2	3.2	3.0	2.7	2.3	2.1					
Median Value							1.5	2.0	2.6	2.9	3.1	3.2	3.3	3.3	3.2	3.0	2.7	2.3	2.0					
Count							3	18	24	26	28	30	28	26	23	23	22	18	2					

foE

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

Y 6

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

IONOSPHERIC DATA

Sep. 1952 | R'E | Yamagawa | Lat. 31° 12.5' N, Long. 130° 37.7' E

135° E Mean Time

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

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

Y 7

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

IONOSPHERIC DATA

Yamagawa

Lat. 31° 12.5' N
Long. 130° 37.7' E

Sep. 1952

fEs

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.4	3.4	2.9^{S}	3.5	E	E	2.5	3.4	3.8	3.6	5.0^{Y}	4.7^{Y}	4.9^{Y}	3.8	5.0	3.5	4.8^{Y}	3.8	3.8	3.5	3.1	1.8	3.5	3.0
2	3.0	4.8	3.8	2.5	2.5	2.9	2.4	3.3	4.2	5.0	6.0^{Y}	5.0^{Y}	4.2	4.8^{Y}	4.8	3.5	3.8	3.7	2.6	2.0	1.9	2.8^{Y}	2.9	3.8
3	3.8	2.8	3.8	2.5	2.0	2.4	2.5	3.5	3.9	4.6	3.6	4.8^{Y}	4.8	4.9	4.9	3.8	3.8	4.2	3.8	3.0	3.0	2.9	2.3	1.9
4	3.0	2.3	2.4	2.0	2.0	2.0	1.8	3.0	3.4	3.8	G	3.8	3.8	G	C	3.8	5.0	3.8	2.7	3.5	2.4	3.2	2.5	2.0
5	E	E	E	2.0	2.1	2.8	3.0	G	3.6	C	G	G	3.5	G	G	G	3.5	3.4	3.1	3.0	2.0	3.7	E	2.4
6	2.5	C	C	C	C	C	C	3.5	5.0	5.0	7.0^{Y}	7.1^{Y}	6.8	>10.0	10.4	6.2	6.0	3.9	3.5	2.2	2.0	3.5	2.9	2.3
7	2.0	5.3^{Y}	3.0	3.8	3.4	2.0	2.6	3.4	4.7	4.5	4.0	4.2	5.5^{Y}	3.7	G	G	G	3.7	6.0	2.9	3.5	3.9	3.7	3.0
8	3.7	3.4	3.0	2.5	3.0	2.5	2.3	3.4	4.0	4.5	4.5	4.8	4.6^{Y}	6.0^{Y}	3.8	4.6	4.3	3.8	3.8	3.8	3.9	2.4	2.3	E
9	3.5	4.2	3.5	2.5	2.5	2.5	3.2	4.4	3.9	4.8	3.8	4.9	4.5	G	G	3.8	6.0	5.5	4.2	4.7	6.0	6.0	2.7	4.2
10	5.3	3.8	C	C	3.8	3.3	5.0	7.0	5.5	6.0	5.5	4.8^{Y}	3.8	5.0	5.5	4.6^{Y}	5.0	3.8	3.5	7.2	11.5^{Y}	11.0^{Y}	7.2^{Y}	5.5
11	6.0	6.0	4.0	3.1	3.6	3.0	3.0	C	C	5.0	6.0	7.0	7.0^{Y}	5.0	3.8	G	7.3^{Y}	C	5.0	5.9^{Y}	4.0	5.0	3.8^{F}	C
12	C	C	C	C	C	C	C	C	C	C	3.8	3.9	3.8	G	4.4	4.3	3.7	6.0	3.6	3.8	4.3	2.5	E	E
13	2.5	2.2	E	2.7	2.1	E	2.5	3.1	3.2	3.5	3.9	3.6	3.3	5.0	4.4	5.0	4.7	4.0	4.2	4.5	3.7	3.0	2.9	3.6
14	3.5	C	2.3	2.0	1.9	2.0	2.3	3.2	3.9	4.5	5.0	3.6	4.5	3.8	3.8	3.8	3.8	4.0	8.8^{Y}	3.8	4.1	C	C	C
15	C	C	C	C	C	C	C	C	C	5.0	6.0	6.2	6.0	6.0	6.2	4.8	G	4.3	4.3	4.0	7.0^{Y}	3.9	6.0^{Y}	3.8
16	3.8	9.0^{Y}	3.7	2.4	2.8	2.5	2.5	3.4	4.0	4.7	4.7	5.0	5.3	6.0	6.0	5.5	9.0	>9.3	7.1	7.0^{Y}	3.9	5.9	3.0	2.8
17	7.0^{Y}	2.4	E	E	2.0	E	2.5	3.1	C	G	G	3.8	G	3.4	3.8	3.5	3.8	3.9	3.5	4.0	4.0	4.0	2.2	E
18	3.0	2.8	2.3	2.2	2.2	2.2	2.5	3.5	3.8	3.8	G	G	3.5	3.5	3.5	3.7	4.2^{Y}	3.6	3.0	4.7	3.9	2.2	2.8	E
19	2.4	E	2.1	2.2	E	E	2.8^{Y}	3.8	4.3	4.5	3.8	4.4	G	G	G	3.5	G	3.5	3.1	3.4	3.0	2.8	2.8	2.1
20	2.3	2.2	2.9	2.4	E	E	B	G	G	3.5	G	3.5	3.5	3.5	3.8	G	3.8	3.7	3.6	2.3	E	C	C	C
21	C	C	C	C	C	C	C	C	C	3.8	G	3.7	3.7	4.0	G	3.5	3.8	3.8	3.5	3.5	2.1	3.5	2.3	2.0
22	M	M	M	M	M	M	M	M	M	C	G	3.8	G	G	G	C	3.8	3.9	C	E	E	E	2.5	2.2
23	1.8	2.2	1.9	E	E	E	2.2	3.5	3.8	G	G	G	3.8	G	3.5	3.5	G	3.4	3.0	3.1	2.9	2.9	2.7	3.0
24	2.2	2.0	E	E	C	E	B	3.5	3.8	5.0	G	G	3.8	3.5	5.0	5.0	G	3.5	3.5	2.3	2.9	2.8	E	2.5
25	2.3	E	2.0	E	E	E	B	3.4	3.8	3.7	3.8	3.6	G	3.8	5.0^{Y}	G	3.6	4.3	3.8	3.5	2.5	3.0	3.0	2.7
26	2.9	3.0	2.4	2.2	2.5	2.3	2.5	2.7	C	3.8	3.7	3.8	G	3.6	G	G	G	3.5	2.7	2.3	2.5	3.0	2.3	2.2
27	2.1	E	E	E	E	E	2.3	3.2	3.7	G	G	G	G	3.8	3.8	3.7	3.5	4.8	3.8	3.0	3.0^{Y}	2.5	2.3	3.0
28	2.4	2.3	2.2	2.5	E	E	C	3.1	3.8	C	G	G	G	C	G	G	3.8	4.0	C	4.0^{F}	3.3	C	C	C
29	C	E	2.4	2.3	2.1	2.2	2.3	3.3	3.6	3.8	G	3.8	G	G	3.5	G	G	3.3	3.5	3.0	3.8	5.1	C	C
30	C	C	C	C	C	C	C	C	C	C	3.8	G	G	G	3.8	3.6	3.5	C	2.8^{Y}	3.1	2.9	2.4	C	3.1
31																								
Mean Value	3.2	3.6	2.8	2.5	2.5	2.5	2.6	3.5	4.0	4.4	4.7	4.5	4.5	4.4	4.7	4.2	4.5	4.0	3.9	3.7	3.7	3.7	3.1	2.9
Median Value	2.7	2.4	2.4	2.3	2.1	2.0	2.5	3.4	3.8	4.5	3.8	3.8	3.8	3.7	3.8	3.6	3.8	3.8	3.6	3.5	3.0	3.0	2.7	2.5
Count	24	23	23	23	23	24	20	24	22	25	30	30	30	29	29	29	30	28	28	30	30	27	25	25

fEs

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

Y 8

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

IONOSPHERIC DATA

Sep. 1952 | (M3000)F2 | 135° E Mean Time | Yamagawa | Lat. 31° 12.5' N | Long. 130° 37.7' E

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

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

Y 9

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

IONOSPHERIC DATA

Yamagawa

Lat. 31° 12.5' N
Long. 130° 37.7' E

Sep. 1952

fminF

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.3[A]	2.7[A]	2.3[S]	2.2[A]	2.0	2.3[S]	1.6	2.5	3.2	3.5	6.5[S]	5.7	A	4.2	4.3	3.8	4.0	2.8	3.0[A]	2.5[A]	[2.0][A]	1.6	A	A
2	1.6	2.3[A]	A	A	A	A	1.6	2.5	[4.0][A]	5.6	8.5	5.7	4.5	4.2	5.5	3.4	3.3	[2.6][A]	2.0	1.6	1.6	1.6	A	A
3	A	1.6	1.5	1.5	1.5	1.6	1.8	[2.4][A]	3.2	4.0[A]	4.0	4.0	5.7	4.5[A]	4.2	4.2	[3.8][A]	3.5[A]	2.5[A]	1.5	[1.6][A]	1.6	1.6	1.6
4	1.5	1.6	1.6	1.4	1.4	1.6	1.6	2.4	2.8	3.2	3.5	4.0	6.5	6.5	[4.8][C]	3.0	[2.9][A]	2.8[A]	1.5	2.5[A]	1.5	1.7	1.6	1.5
5	1.6	1.6	1.6	1.6	1.4	1.5	2.5	3.2	3.2	[3.4][C]	3.7	3.5	4.0	3.5	3.5	3.3	3.0	2.6	[2.4][A]	2.2[A]	1.5	[1.6][A]	1.6	1.5
6	1.6	C	C	C	C	C	C	A	2.8	3.2	4.5[A]	6.7[A]	6.0[A]	A	A	A	3.5	3.3	[2.4][A]	1.6	1.5	2.2[A]	1.9	1.6
7	1.6	[1.6][A]	1.6	1.6	1.4	1.4	1.6	2.5	[3.0][A]	3.6	4.0	5.5	5.5[A]	4.5	3.7	3.2	2.9	2.7	6.5	A	A	1.8	1.7	A
8	A	1.6	1.6	1.6	1.4	1.6	1.6	2.5	2.8	3.7	4.2[A]	4.3[A]	4.2[A]	4.5[A]	4.1	3.4	3.5	2.7	A	A	2.4[A]	1.6	1.6	1.6
9	1.6	[1.6][A]	1.6	1.4	1.6	1.4	[1.8][A]	2.2	2.7	4.2[A]	3.5	4.2[A]	4.0	3.5	3.4	3.2	5.5[A]	5.0[A]	A	A	A	A	1.6	1.9
10	[1.9][A]	1.9	2.3[A]	A	C	1.6	2.7[A]	[3.7][A]	4.7[A]	4.5[A]	4.0[A]	4.0[A]	3.5	4.5[A]	[4.4][A]	4.4[A]	A	A	2.7	A	A	A	A	A
11	A	A	A	1.8	2.2[A]	1.6	1.8	C	C	4.3[A]	5.3[A]	A	A	5.6	4.0	3.5	6.5[A]	C	A	5.1[A]	[3.6][A]	2.0[A]	1.6	C
12	C	C	C	C	C	C	C	C	C	C	3.5	4.0	4.2	3.6	4.1	3.4	2.7	4.0[A]	A	A	2.5[A]	1.5	1.6	1.5
13	1.6	1.6	1.3	1.3	1.5	1.4	1.6	2.3	2.6	3.0	3.9	3.5	3.5	4.4[A]	3.9	4.5[A]	3.5	2.9	2.5	A	A	2.2[A]	2.5[A]	[2.5][A]
14	2.5[A]	[2.0][C]	1.6	1.6	1.6	1.6	1.6	2.1	3.2	3.6	4.3[A]	3.5	4.0	4.5	4.5[S]	3.1	[2.8][A]	2.5	[2.3][A]	2.1[A]	A	C	C	C
15	C	C	C	C	C	C	C	C	C	4.3[A]	5.2[A]	5.5[A]	5.5[A]	[5.6][A]	5.6[A]	4.4[A]	2.9	2.4	A	A	A	A	A	2.2[A]
16	1.7	[1.5][A]	1.3	1.3	1.7	[1.6][A]	1.5	2.5	2.7	4.0[A]	4.0[A]	4.5[A]	4.8[A]	[4.6][A]	4.5[A]	4.5[A]	4.5[A]	A	A	A	A	A	1.6	1.6
17	1.6	1.6	1.4	1.6	1.6	1.6	1.5	2.3	[2.6][C]	3.0	3.3	3.5	3.4	3.4	4.0	3.0	2.9	2.8	A	A	2.5[A]	[2.0][A]	1.6	1.6
18	1.6	1.6	1.6	1.5	1.6	1.6	1.6	2.3	2.8	3.2	3.3	3.5	4.0	4.0	4.0	3.7	3.4	2.9	2.1	A	A	1.5	1.5	1.6
19	1.6	1.3	1.6	1.6	1.3	1.3	1.5	A	A	3.7	3.5	3.6	4.0	3.4	3.3	3.5	3.0	2.7	2.5	[2.0][A]	1.6	1.6	[1.6][A]	1.6
20	1.6	1.6	1.7	1.6	1.6	1.6	1.6	2.3	2.9	3.3	4.5	4.2	4.2	4.1	3.5	3.3	3.2	3.0	[2.2][A]	1.5	1.5	C	C	C
21	C	C	C	C	C	C	C	C	C	3.2	3.4	3.6	3.7	3.2	3.2	3.0	3.0	3.0	[2.9][A]	2.8[A]	1.6	2.0[A]	1.6	1.6
22	M	M	M	M	M	M	M	M	M	C	3.4	[3.7][A]	4.0	3.5	3.5	[3.4][C]	3.2	A	C	1.6	1.6	1.6	1.6	1.6
23	1.6	1.7	1.5	1.6	1.6	1.6	1.6	2.7	3.2	3.3	3.7	[4.1][S]	4.5	4.7	3.5	3.4	3.0	2.7	A	A	1.6	1.6	1.6	1.6
24	1.7	1.6	1.6	1.4	[1.5][C]	1.6	1.7	2.7	3.0	3.5	3.3	3.4	4.3	4.2	5.5	5.7	3.2	2.8	[2.2][A]	1.6	[1.6][A]	1.6	1.6	1.6
25	1.7	1.4	1.6	1.6	1.7	1.4	1.6	2.7	3.1	3.6	4.5	3.6	4.2	4.5	5.6	3.5	3.0	2.8	A	A	1.5	2.0	[1.8][A]	1.5
26	1.5	1.6	1.6	1.6	1.6	1.4	1.6	2.2	[2.7][C]	3.2	3.3	3.4	3.4	4.7	3.5	3.3	2.8	2.4	1.6	1.6	1.7	[1.6][C]	1.6	1.6
27	1.6	1.6	1.4	1.4	1.6	1.4	1.6	2.4	3.0	3.0	3.3	3.4	3.7	3.7	3.1	3.2	2.7	3.0	2.5	2.1	[1.8][A]	1.5	1.7	1.8
28	1.6	1.4	1.6	1.3	1.6	1.6	[2.0][C]	2.5	2.8	[3.1][C]	3.4	3.2	3.5	[3.5][C]	3.5	3.0	3.2	2.2	C	A	A	C	C	C
29	C	2.3	1.6	1.6	1.6	1.4	1.6	2.3	2.7	3.2	3.2	3.7	3.5	3.3	3.4	3.0	3.2	2.6	[2.3][A]	2.0	1.6	2.0[A]	C	C
30	C	C	C	C	C	C	C	C	C	C	3.2	3.3	3.4	3.3	3.5	3.0	2.7	2.5	1.7	1.6	1.7	1.7	[2.0][C]	2.2[A]
31																								
Mean Value	1.7	1.7	1.6	1.6	1.6	1.6	1.7	2.5	3.0	3.6	4.1	4.1	4.3	4.2	4.1	3.6	3.4	2.9	2.5	2.1	1.8	1.7	1.7	1.7
Median Value	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.4	2.9	3.5	3.7	3.7	4.0	4.2	4.0	3.4	3.2	2.8	2.4	2.0	1.6	1.6	1.6	1.6
Count	21	23	22	22	22	23	24	22	23	27	30	29	28	29	29	29	29	26	19	17	21	23	22	21

fminF

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

Y 10

47

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

IONOSPHERIC DATA

Sep. 1952 | foE | 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	1.6	1.6	1.6^{S}	1.4	E	E	2.0	1.5	1.6	1.6	1.6	1.6	1.6	1.9	1.6	1.6	1.6	1.5	1.5	1.6	1.6	1.6	1.5	1.6
2	1.5	1.4	1.4	1.6	1.4	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.6	1.6
3	1.5	1.6	1.4	1.7	1.6	1.6	1.5	1.6	1.5	1.6	1.6	1.6	1.6	1.7	1.7	1.6	1.6	1.5	1.5	1.6	1.5	1.5	1.6	1.6
4	1.5	1.6	1.4	1.5	1.5	1.5	1.6	1.6	1.5	1.5	1.6	1.6	1.6	1.6	[1.6]^{C}	1.5	1.5	1.5	1.7	1.6	1.6	1.6	1.5	1.6
5	E	E	E	1.7	1.7	1.5	1.5	1.6	1.5	[1.6]^{C}	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.6	1.5	E	1.6
6	1.6	C	C	C	C	C	C	1.5	1.6	1.6	1.9	1.9	1.7	1.7	1.6	1.5	1.5	1.5	1.5	1.6	1.6	1.5	1.5	1.7
7	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.6	1.6	1.7	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
8	1.5	1.4	1.6	1.6	1.4	1.4	1.5	1.5	1.5	1.6	1.6	1.8	1.8	1.7	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.6	E
9	1.6	1.4	1.3	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5
10	1.5	1.4	[1.4]^{C}	1.3	[1.4]^{C}	1.4	1.4	1.5	1.5	1.6	1.6	1.7	1.6	1.6	1.6	1.6	1.5	1.5	1.6	1.5	1.6	1.5	1.5	1.6
11	1.5	1.5	1.6	1.4	1.4	1.6	1.6	C	C	1.5	1.6	1.6	1.7	1.6	1.5	1.6	1.6	[1.6]^{C}	1.6	1.6	1.6	1.5	1.6^{F}	C
12	C	C	C	C	C	C	C	C	C	C	1.6	1.7	1.7	1.6	1.6	1.6	1.4	1.5	1.5	1.5	1.5	1.6	E	E
13	1.6	1.6	E	1.7	1.6	E	1.6	1.5	1.5	1.5	1.5	1.6	1.6	1.7	1.5	1.5	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.6
14	1.5	[1.5]^{C}	1.5	1.6	1.6	1.6	1.6	1.5	1.5	1.4	1.6	1.8	1.6	1.5	1.9	1.5	1.6	1.5	1.5	1.6	1.5	C	C	C
15	C	C	C	C	C	C	C	C	C	C	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6
16	1.5	1.4	1.4	1.6	1.3	1.3	1.5	1.5	1.6	1.5	1.5	1.5	1.6	2.5	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.5	1.6	1.6
17	1.5	1.6	E	E	1.6	E	1.7	1.5	[1.6]^{C}	1.6	1.6	1.6	1.6	1.8	1.7	1.5	1.5	1.5	1.5	1.5	1.6	1.5	1.6	E
18	1.5	1.6	1.6	1.7	1.8	1.6	1.6	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.6	1.5	1.5	1.9	1.6	E
19	1.6	E	1.9	1.9	E	E	1.7	[1.6]^{C}	1.5	1.6	1.6	1.6	1.6	1.8	1.6	1.6	1.5	1.6	1.5	1.5	1.6	1.5	1.5	1.9
20	1.7	1.7	1.4	1.6	E	E	B	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.5	1.5	1.4	1.5	1.5	1.8	E	C	C	C
21	C	C	C	C	C	C	C	C	C	1.7	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.4	1.5	1.5	1.6	1.5	1.6	1.6
22	M	M	M	M	M	M	M	M	M	C	1.6	1.6	1.6	1.7	1.6	[1.6]^{C}	1.5	1.4	C	E	E	E	1.7	1.6
23	1.6	1.7	1.6	E	E	E	1.8	1.5	1.5	1.5	1.6	1.5	1.6	1.5	1.6	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.5	1.6
24	1.6	1.6	E	E	C	E	B	1.5	1.5	1.5	1.6	1.7	1.7	1.6	1.6	1.5	1.6	1.5	1.5	1.6	1.5	1.6	E	1.6
25	1.6	E	1.6	E	E	E	B	1.5	1.5	1.6	1.7	1.7	1.9	1.9	1.6	1.6	1.5	1.5	1.5	1.5	1.7	1.5	1.5	1.6
26	1.5	1.6	1.6	1.7	1.3	1.5	1.6	1.5	[1.5]^{C}	1.5	1.5	1.6	1.6	2.2	2.0	1.6	1.6	1.5	1.6	1.7	1.5	1.5	1.6	1.7
27	1.6	E	E	E	E	E	1.7	1.5	1.5	1.5	1.6	1.6	1.5	1.6	1.5	1.5	1.5	1.4	1.5	1.5	1.6	1.6	1.5	1.5
28	1.6	1.6	1.6	1.6	E	E	C	1.6	1.5	[1.5]^{C}	1.5	1.6	1.4	[1.5]^{C}	1.6	1.5	1.5	1.5	[1.5]^{C}	1.5^{F}	1.5	C	C	C
29	C	E	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	C
30	C	C	C	C	C	C	C	C	C	C	1.8	1.6	1.6	[1.6]^{C}	1.5	1.5	1.5	1.6	1.6	1.6	1.7	1.6	1.6	1.5
31																								
Mean Value	1.6	1.5	1.5	1.6	1.5	1.5	1.6	1.5	1.5	1.6	1.6	1.6	1.6	1.7	1.6	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6
Median Value	1.6	1.6	1.4	1.6	1.4	1.4	1.6	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.6
Count	24	24	24	24	23	24	20	24	24	26	30	30	30	30	30	30	30	30	30	30	30	27	27	25

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

Y 11

IONOSPHERIC DATA IN JAPAN FOR SEPTEMBER 1952

電波觀測報告　第4巻　第9号

1952年10月25日　印　刷
1952年10月30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