F — 93

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

IONOSPHERIC DATA IN JAPAN

FOR SEPTEMBER 1956

Vol. 8 No. 9

Issued in October 1956

Prepared by

THE RADIO RESEARCH LABORATORIES

KOKUBUNJI, TOKYO, JAPAN

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THE RADIO RESEARCH LABORATORIES

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CONTENTS

SYMBOLS AND TERMINOLOGY

The following symbols and terminology have been used in accordance with the recommendation of the International Scientific Radio Union (U.R.S.I.), Zürich, 1950 and at the Sixth Meeting of the International Radio Consultative Committee (C.C.I.R.), Geneva, 1951.

f_0E, f_0F1, f_0F2	ordinary-wave critical frequency for the E, $F1$ and $F2$ layers respectively
fE_s	highest frequency on which echoes of the sporadic type are observed from the lower part of the E layer
$h'E$, $h'F1$, $h'F2$	minimum virtual height on the ordinary-wave branch for the E, $F1$ and $F2$ layers respectively
$hpF2$	virtual height of the $F2$ layer measured on the ordinary-wave branch at a frequency equal to 0.834 f_0F2
$ypF2$	semi-thickness of the $F2$ layer deduced from a parabolic fit to the " nose " of the electron density distribution with height and based on the observed $h'f$ trace. (The difference between $hpF2$ and the virtual height at 0.969 f_0F2)
$(M3000)F2$	maximum usable frequency factor for a path of 3000 km for transmission by $F2$ layer
$f_{\min}E$, $f_{\min}F$	frequency below which no echoes are observed for the E and F regions respectively
( )	doubtful value
[ ]	interpolated value
A	characteristic not measurable because of blanking by E_s
B	characteristic not measurable because of absorption either partial or complete, and probably non-deviative in type
C	characteristic not observed because of equipment or power failure
D	before a number (or>): greater than alone: characteristic at a frequency higher than the normal upper frequency limit of the equipment
E	before a number (or<): less than alone: characteristic at a frequency lower than the normal lower frequency limit of the equipment
F	spread echoes present
G	a) $F2$-layer critical frequency equal to or less than $F1$-layer critical frequency b) no E_s (or $E2_s$) echoes observed though regular E (or $E2$) layer echoes are present (i.e., a symbol for daytime usage)
H	stratification observed within the layer

J	ordinary wave characteristic deduced from measured extraordinary-wave characteristic
K	ionospheric disturbance in progress (this is always applied to a series of hourly values, never to an isolated value)
L	a) E1-layer characteristic emitted or doubtful because no definite or abrupt change in slope of the $h'f$ curve is observed either for the first reflection or any of the multiples b) $h'F2$ omitted because the $F2$-layer trace is continuous with the $F1$-layer trace and without a point of zero slope
M	characteristic not observed because of some failure or emission on the part of the operater, rather than owing to any mechanical or electrical fault in the equipment or its power supply
N	nature of the record is such that the characteristic cannot readily be interpreted
P	trace extrapolated to critical frequency (it is unnecessary to use this letter for small extrapolations of one or two percent, but use should be made of symbol of ( ) if the extrapolation leads to a critical frequency which exceeds the last observed point on the trace by more than five percent)
Q	distinct layer not present
S	characteristic observed by interference or by atmospherics
T	loss or destruction of successful observations
U	hp or yp not measurable, for instance, because ordinary-wave trace has horizontal tangent at or above the frequency 0.834 f_0F_2
V	trace forked near critical frequency
W	characteristic at a virtual height greater than the normal upper height limit of the equipment
Y	E_s trace intermittent in frequency range very short pieces of trace at the high frequency and should be ignored since they may be presumed to be due to short-lived echoes
Z	third magnet-ionic component of the $h'f$ trace is observed

SITES OF THE RADIO WAVE OBSERVATORIES

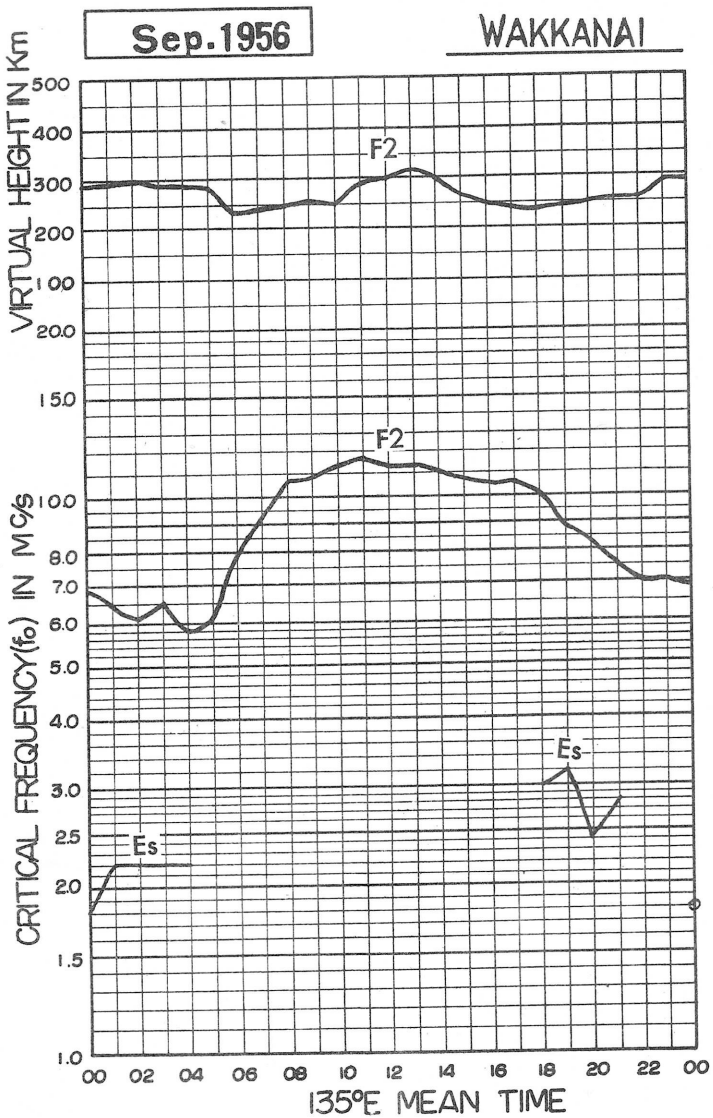
Ionospheric observation is carried out at the following four observatories in Japan.

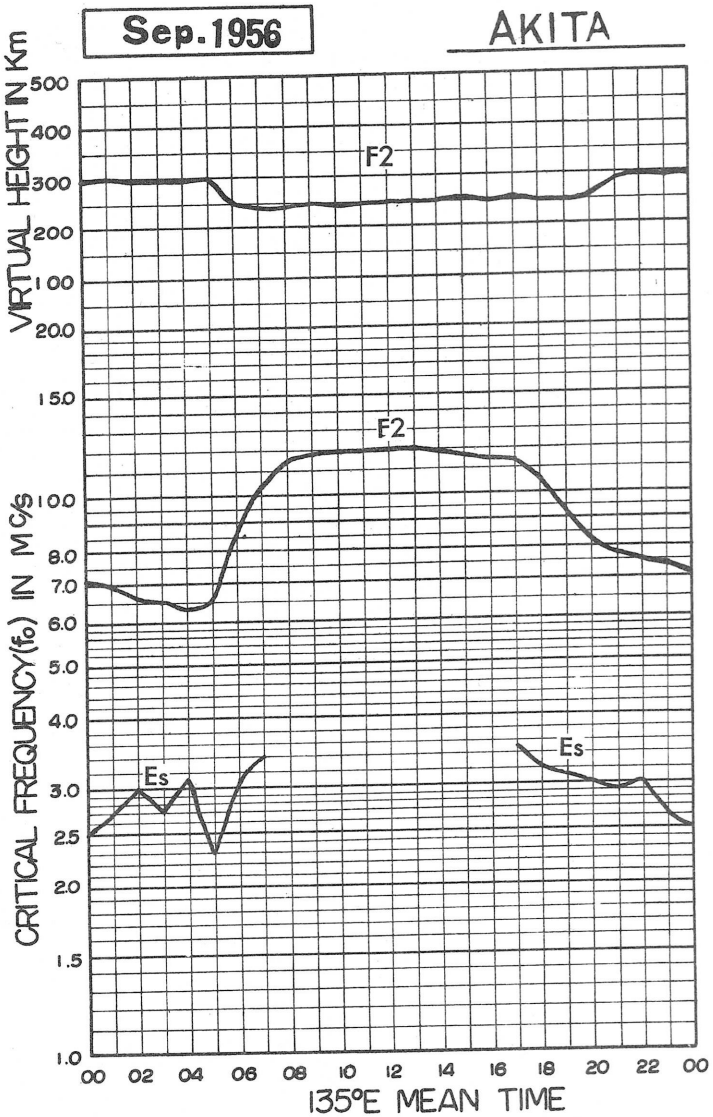
	Latitude	Longitude	Site
Wakkanai	45°23.6′N.	141°41.1′E.	Wakkanai-shi, Hokkaido
Akita	39°43.5′N.	140°03.2′E.	Tegata Nishishin-machi, Akita-shi, Akita-ken
Kokubunji	35°42.4′N.	139°29.3′E.	Koganei-machi, Kitatama-gun, Tokyo-to
Yamagawa	31°12.5′N.	130°37.7′E.	Yamagawa-machi, Ibusuki-gun, Kagoshima-ken

Solar radio emission is observed at Hiraiso Radio Wave Observatory.

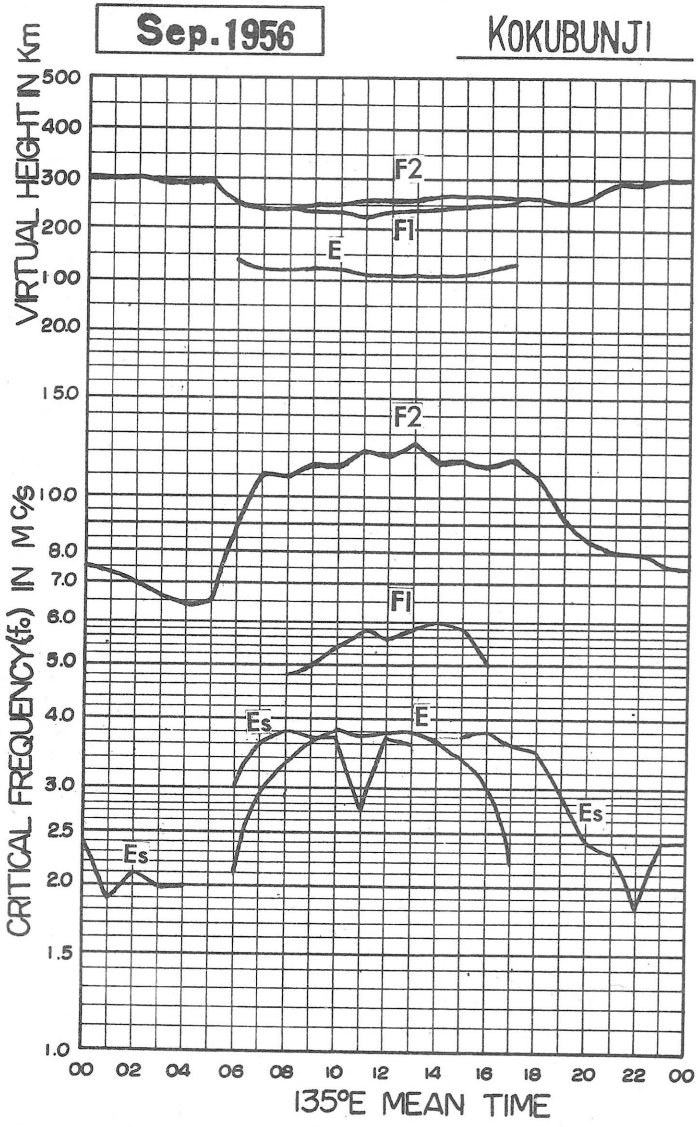
	Latitude	Longitude	Site
Hiraiso	36°22.0′N.	140°37.5′E.	Hiraiso-machi, Nakaminato-shi, Ibaragi-ken

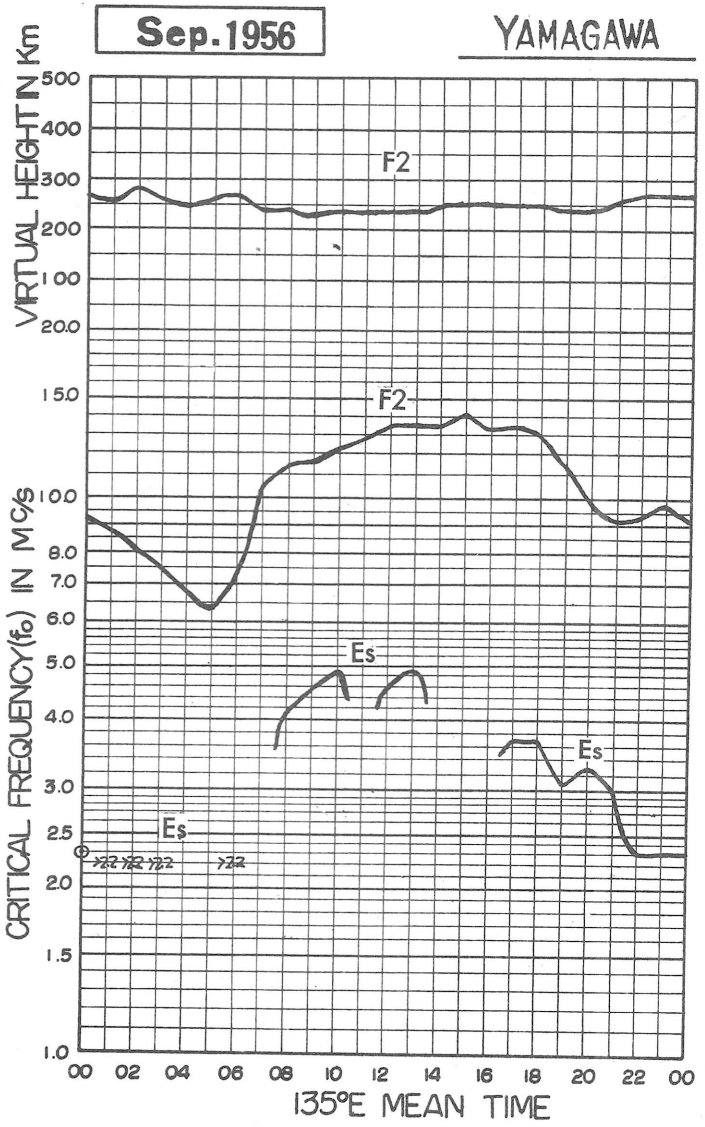
IONOSPHERIC DATA
MONTHLY MEDIAN CHARACTERISTICS





IONOSPHERIC DATA
MONTHLY MEDIAN CHARACTERISTICS





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

IONOSPHERIC DATA

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

Sep. 1956

foF2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	(7.0)P	7.0	6.0	6.5	6.2F	6.0	6.4	(6.3)F	6.3P	(5.8)P	5.5	6.0	6.2	6.3	6.4	6.3	6.5	6.3	6.5	6.5	6.5	6.2	5.6	5.3
2	5.5	5.3	5.2	5.0	4.8	[5.6]C	6.5	7.3	7.6J	7.3J	7.3J	7.3J	7.3J	7.3	7.7	6.8	7.5	9.3J	9.0	8.8	6.3H	6.6	7.0	6.1
3	5.5	4.7	3.3	3.3	3.2	3.5H	5.2	5.8	5.5	5.6	B	B	B	B	6.0	5.8	6.3	6.2	6.3	6.3P	5.5	5.3	5.3J	5.3
4	4.6	3.7	(3.6)F	(3.2)F	2.9F	3.5F	5.1	W	5.5	5.7P	B	B	(6.0)P	[6.0]B	6.0	6.1	6.2	6.5	6.4	6.4	6.8P	6.4	6.2	6.0
5	5.6	5.6	5.7P	5.3J	5.2J	5.8	7.8P	9.3	10.5P	10.3	9.0J	8.8J	8.5P	(7.8)J	8.0J	8.3P	8.0	8.3PJ	8.0	8.0	7.5J	7.5	7.5	6.9
6	6.4	6.3	6.0	5.8	5.7	6.3	7.8	9.1	9.8J	9.3J	10.0	9.8	9.7	10.0	9.5	9.0J	9.0JH	9.2	9.0J	8.8J	8.5J	8.3PJ	7.3	(6.0)F
7	(6.1)F	6.0	(5.3)JF	(5.8)F	(5.8)JF	5.8	6.4	6.5	7.0	7.0	6.5	7.3	(6.8)PJ	7.0	(7.0)P	6.6	6.6	6.6	6.7	6.6	6.8	6.5	6.5	5.8
8	5.8P	5.8	5.5	5.3	5.5	6.2	7.5P	8.2	9.0JH	9.3J	9.0J	[8.9]B	8.8J	8.8J	8.8J	9.0	9.0	9.1P	9.3P	8.0	8.3PJ	7.3PJ	7.3PJ	7.0P
9	6.6	5.0	3.7	F	F	4.5	5.0	6.0	C	C	C	C	C	9.6	9.1J	9.0	8.8J	8.5	9.3J	8.5J	8.3J	[7.6]S	7.0	[6.9]S
10	7.0	6.5	6.0	5.3	5.0	5.3	6.5	6.5	7.7	8.0	9.5J	9.3	10.3	10.0J	10.0	9.5	10.0	10.0	10.2	8.5J	8.3J	8.5	7.5P	7.0
11	(6.8)P	7.0P	7.0	6.7	6.5	7.0	8.5J	9.0	10.0	10.8	10.7	10.5	11.0	11.0	10.6H	10.0	9.8	10.0	11.0J	9.7J	(8.3)PJS	(8.0)PS	7.5	7.0
12	7.3	7.3	6.8	6.0	5.8F	5.7	6.1H	6.6	7.6	8.8J	10.2	10.5	10.8	10.5	10.3	10.0	10.2	9.8	9.8	[9.0]S	7.3	7.0P	6.8	7.0P
13	6.8	6.6	6.5	6.5	6.1	6.1	8.1	8.5	10.7	11.3J	11.0	10.5	10.8H	11.2	11.0	11.0	11.4	10.5	9.8J	8.0PS	7.3PJS	7.0P	6.8	7.0P
14	7.0P	6.8	6.5	6.2	6.1	6.7	9.3	10.8	11.8	C	C	C	C	11.3	11.0	10.8	10.5	10.5	10.0	9.5	8.8J	8.4P	7.6P	7.7
15	7.3J	6.8	7.0	6.7	6.6	7.5	8.5	11.8	12.7	12.7	12.3	12.3	12.5	12.2	12.1	12.0	12.0	11.8	11.2P	9.7P	8.3P	8.3J	(7.8)P	7.5P
16	7.5PJ	7.5	6.9P	6.5	6.3	7.0	9.8	11.5	C	C	12.0	12.3	12.5	12.0	11.8	11.3	11.3	11.0	11.0	9.7	9.0P	8.3J	8.3	8.2
17	7.8	7.7	6.8	6.3	6.5	7.3	10.3	11.3	10.8	11.5	11.6	11.9	12.3	12.1	12.0	11.7	11.3	11.1	11.0	9.8J	8.3J	7.8PJ	7.8P	7.6P
18	7.2	7.0	6.7	6.8	6.7	7.5	9.8	12.0	12.1	12.8P	12.6	12.8	12.5	12.1	12.0	11.9	11.6	11.7	11.0	9.5J	9.2	8.4J	(8.3)PS	7.8PS
19	7.0P	6.7	6.6	6.5	6.2	6.7	10.1	12.0	12.5	12.7	12.5	12.3	12.3	12.0	11.8	11.9	11.5	11.0	10.3J	(9.8)JPS	9.3	8.5J	(8.3)PJS	7.9J
20	7.7	7.3	7.3J	7.0	6.5	7.3	9.8	11.8	12.0	12.5	12.1	12.1	12.0	12.0	11.8	11.6	11.8	11.8	11.0	9.5	8.5	8.3J	7.8J	7.7P
21	7.7	7.3	6.5	6.2	6.3	6.3	7.0	7.3	6.8	7.3	7.3	8.0H	8.5	9.0	9.3	9.3	9.3	8.6	7.5	7.0	6.5	6.3	6.3	5.8
22	5.5	5.1	5.5	4.9	4.9	4.8	6.0	7.3	8.0	9.4	10.6	10.2	10.4	10.5	10.5	10.0	10.2	10.0	9.3S	8.0PS	8.3JS	6.5	6.5	6.5
23	7.5	5.6	5.3	5.5	5.5	6.0	C	C	C	C	C	C	C	C	C	C	C	C	C	C	9.0	7.8P	6.3	6.0
24	6.5	6.4	C	C	C	C	C	C	C	C	C	12.2	12.1	11.8	11.6	11.1	11.3	11.0	11.0S	9.0	8.0P	7.5	7.1	6.7
25	6.5	6.1	6.4	6.0	5.8	6.3	9.0	10.5	12.1	12.8P	12.5	12.5	12.5	12.0	12.0	12.1	11.6	11.5	(10Z)S	9.0	8.5	8.3J	(7.6)PS	7.5PS
26	7.1	7.0	6.5	7.0	6.7	6.0	8.0	10.0	11.5	12.3	12.5	(13.0)P	13.3J	12.6	12.3H	12.6	12.6	12.3	11.0	9.5	8.3J	7.8J	8.3J	7.3J
27	7.0	6.7	C	C	6.2	6.5	10.0	12.3	12.6	13.0	12.8	12.5	11.9	11.7	11.8H	11.8	12.0	11.0	10.5	8.5	7.1	7.3F	6.5	6.0
28	6.0	5.8	5.8	5.8	5.7	5.5	8.0	11.0	12.7	13.0P	11.3	11.6	11.7	12.0	12.3	12.0	11.6	11.6	9.7FS	7.8J	7.3	7.0	(6.8)P	6.5
29	6.2	5.8	5.8	5.8	5.9	6.1	8.3	10.9	11.9	12.6	12.8	12.2	11.9	11.4	11.3	11.1	11.0	10.8J	10.3J	9.0	(8.0)P	7.5P	7.0	6.2
30	6.3	6.5	6.2	5.8	5.8	5.8	7.8	11.5	(13.0)P	12.7	12.3	11.8	11.5	12.2	12.1	11.8	11.7	11.3	10.3	7.5	7.5	7.0	6.8	7.0
31																								
Mean Value	6.6	6.5	6.3	5.8	5.9	6.0	7.7	9.3	9.8	10.2	10.6	10.7	10.5	10.4	10.2	10.0	10.0	9.9	9.5	8.6	7.9	7.4	7.1	6.8
Median Value	6.8	6.5	6.1	6.0	5.8	6.1	7.9	9.2	10.6	10.8	11.2	11.6	11.2	11.2	11.0	10.8	10.5	10.5	10.0	8.8	8.3	7.5	7.0	7.0
Count	30	30	28	27	28	29	28	28	26	25	24	25	26	28	29	29	29	29	29	29	30	30	30	30

foF2

Sweep 1.0 Mc to 32.0 Mc in 1.0 min ☐ Manual ☒ Automatic

W 1

The Radio Research Laboratories

Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Sep. 1956 | 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	260	310	340	340	320	310	360	450	350	510	620	420	420	410	340	300	280	270	260	270	280	260	260	310
2	310	310	300	280	310	[300]^{C}	290	300	300	350^{L}	300	340	360	390	360	470	400	300	260	260	260^{H}	360	250	260
3	250	310	370	350	360	330^{H}	390	370	640	540	B	B	B	B	470	510	380	300^{L}	270	[270]^{A}	270	340	310	310
4	290	450	360	370	460	450	350	W	870	600	B	B	550	[480]^{B}	400	(330)^{L}	340	260	260	270	300	270	280	290
5	290	280	260	270	260	290	240	260	250	260	L	L	L	310	L	L	L	250	240	260	290^{A}	260	250	240
6	260	270	270	300	270	250	220	220	250	280^{L}	[280]^{B}	290^{L}	290	320	300^{L}	260	250^{LH}	240	250	260	300	260	270	350
7	330	310	320^{F}	310^{F}	310	290	320	270	360	350	360	370	350^{L}	350	350^{L}	320	260	250	260	(320)^{A}	290	270	270	270
8	310	300	300	300	270	250	230	220	250^{H}	250	250^{L}	310	(300)^{L}	320	320	270	250	240	230	260	280	270	280	280
9	260	420	510	320^{F}	340^{F}	270	260	250	C	C	C	C	C	300	L	L	L	260	260	260	310	290	270	300
10	280	300^{A}	270	280	280	270	230	240	240	230	240	250	240	250	250	250^{L}	260	240	230	230	260	240	250	270
11	300	280	280	270	270	260	220	220	(250)^{L}	240	240^{L}	L	L	L	LH	L	L	250	240	220	230	240	280	290
12	270	250	260	300	300	290	230^{H}	250	250	250	280^{L}	L	L	L	250^{L}	240^{L}	230	230	230	220	240	240	230	270
13	260	270	270	260	250	260	220	[240]^{L}	250	(250)^{L}	L	L	230^{H}	(290)^{L}	290	300	[270]^{L}	240	230	230	240	280	310	300
14	280	280	260	280	290	280	220	210	L	C	C	C	C	L	L	L	L	240	240	240	240	240	250	260
15	250	290	280	260	250	260	220	220	L	A	(250)^{L}	L	L	L	L	L	L	L	220	230	220	250	270	270
16	260	260	260	260	260	260	210	210	C	C	L	L	L	L	L	L	L	240	230	220	230	250	260	270
17	260	260	310	320	310	260	220	240^{L}	L	L	(250)^{L}	260^{L}	(280)^{L}	L	L	L	L	240	230	220	220	290	270	260
18	260	260	290	270	260	260	220	L	L	L	L	270^{L}	L	L	L	(270)^{L}	220	240	220	220	230	240	240	250
19	230	250	260	260	260	260	220	220	L	L	L	L	L	(290)^{L}	L	L	L	230	220	230	250	230	250	240
20	250	260	260	250	240	260	220	220	L	L	L	(280)^{L}	L	L	(300)^{L}	L	L	230	220	220	240	260	260	290
21	260	300	310	330	330	340	[340]^{L}	(340)^{L}	320	450	460	310^{H}	400	350	L	L	L	220	230	260	270	250	260	280
22	280	300	300	270	310^{A}	320	260	(250)^{L}	250	300	250	L	L	L	L	L	230	230	250^{A}	270	250	250	260	270
23	250	200	310	290	280	260	C	C	C	C	C	C	C	C	C	C	C	C	C	C	210	210	240	260
24	270	260	C	C	C	C	C	C	C	C	C	L	L	L	L	L	L	240	260	250	240	260	250	280
25	310	320	310	260	270	270	240	220	240	220	230	L	L	L	L	L	L	240	[250]^{A}	260^{A}	260	250	250	260
26	300	310	300	270	240	220	220	230	230	[240]^{L}	240	(290)^{L}	260^{L}	240	250^{H}	[250]^{L}	250	240	220	230	240	260	260	240
27	280	280	290	C	C	310	L	L	L	240	L	S	L	L	250^{LH}	[240]^{L}	240	230	230	240	250	260	270	340
28	350	350	360	300	320	320	250	240	L	L	250^{L}	(260)^{L}	L	L	L	L	230	230	210	220	260	260	310	310
29	310	350^{A}	310	290	270	270	220	220	L	L	(260)^{L}	240	L	L	L.	L	L	240	230	240	250	270	280	310
30	280	290	260	270	300	310	230	220	230	(230)^{L}	(250)^{L}	230	220	L	L	240	240	230	220	220	250	260	270	280
31																								
Mean Value	280	300	300	290	290	290	250	250	310	320	290	290	330	330	320	300	270	240	240	240	260	260	270	280
Median Value	280	290	300	280	280	270	230	240	250	260	250	290	300	320	300	270	250	240	230	240	250	260	260	280
Count	30	30	29	28	28	29	27	26	17	18	17	14	12	13	13	14	16	28	29	29	30	30	30	30

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

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

IONOSPHERIC DATA

Wakkanai

Lat. 45° 23.6' N
Long. 141° 41.1' E

Sep. 1956

fEs

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E	2.1	3.7	2.5	3.0	3.5	G	4.2	G	4.7Y	5.0Y	G	G	5.8	5.5	5.6	5.0	5.3	4.7	3.2	5.5	3.0	E	3.0
2	1.7	2.0	2.3	3.5	3.5	C	3.5	G	6.4	5.7	G	G	6.7	G	G	G	G	G	G	E	E	E	E	E
3	2.0	4.2	8.5	2.5	3.2	2.3	3.5	G	G	G	G	G	G	G	G	G	10.5	G	4.8	5.5	6.3	3.5	2.2	3.0Y
4	2.1	5.0	3.5	3.5	5.0	3.2	5.0	G	G	G	G	G	G	G	G	G	G	G	3.5	3.2	3.7	E	E	3.3Y
5	E	E	E	E	E	G	G	G	G	5.2	6.0	5.2Y	7.7	G	5.2	G	G	6.3Y	G	3.2	5.0	3.2	E	E
6	E	E	2.0	2.2	2.2	G	G	G	5.0	5.8	B	G	8.0	5.5	G	G	G	G	G	5.3	7.0	3.1	2.8	3.4
7	3.5	3.5	2.3	3.0	3.0	3.1	5.8	4.8	6.1	5.0	5.5	5.5	5.0	G	5.5	7.0	G	3.5	4.2	5.0	5.2	4.0	3.5	2.8
8	2.5	2.2	2.2	3.5	E	G	4.0	G	G	4.8Y	G	G	G	6.1	4.1	G	G	G	3.0Y	3.5Y	4.0	3.0	3.5	2.8
9	3.5	2.2	E	2.2F	2.2	3.5	G	G	C	C	C	C	C	G	G	G	G	G	4.5	5.2	8.5	3.5	3.5	3.2
10	5.5	4.3	4.1	3.5	2.8	3.5Y	G	G	5.0	6.0	G	G	G	G	G	5.5	3.5	3.5	3.5	3.6	2.5	2.5	E	6.0
11	5.2	2.2	2.2	2.2	2.2	G	G	G	G	5.1	G	G	G	G	G	5.0	G	G	G	E	E	E	E	E
12	E	E	2.0Y	4.2	3.3	G	G	G	G	G	G	4.8Y	G	G	G	G	G	G	G	E	E	E	E	E
13	2.0	E	2.1	E	2.0	G	3.5	G	B	G	5.0Y	G	5.2Y	G	G	G	G	G	4.5Y	2.7Y	E	3.8	4.5	4.5
14	4.2	3.2Y	2.2	E	E	3.3Y	3.5	5.0Y	5.5	C	C	C	C	G	G	G	G	G	5.2	3.5	E	3.0	E	E
15	2.2	3.0	3.5	2.5F	2.2	G	G	G	G	8.0	4.5	G	G	G	G	G	G	G	4.1	3.6	E	E	2.2	2.8Y
16	E	E	E	E	E	G	G	G	C	C	C	G	G	G	G	G	G	7.0	G	E	E	1.8	E	E
17	E	E	2.2	E	3.5	G	G	4.1	4.1Y	G	G	G	G	G	G	G	G	G	G	E	E	E	E	E
18	E	E	E	2.1	E	G	G	G	G	G	G	G	G	G	G	G	G	G	G	E	E	E	E	E
19	E	E	2.1	2.1	2.2	G	G	4.2	4.7	G	G	G	G	G	G	G	G	G	G	E	E	E	2.2	2.2
20	E	E	E	E	E	G	3.5	G	G	G	G	G	G	G	G	G	G	3.3	2.3	E	2.2	E	2.1	E
21	E	E	E	E	E	G	G	G	G	G	G	G	G	G	G	G	G	G	3.5	E	4.1	3.5	E	E
22	E	3.4	3.0Y	2.5	4.3	G	6.0Y	G	4.7	G	G	G	4.8	5.5	G	G	G	G	5.5	6.8Y	E	E	E	E
23	E	E	E	E	E	G	C	C	C	C	C	C	C	C	C	C	C	C	C	C	3.5	E	E	E
24	E	E	C	C	C	C	C	C	C	C	C	G	G	G	G	G	G	G	6.1	5.7Y	3.5	4.5	4.0	3.5
25	3.5	3.7	3.5	3.0	4.2	3.0	G	G	5.5	4.8	4.9	4.5	G	G	4.1	G	G	G	9.0	6.0	3.5	4.5	E	E
26	E	2.3	3.0	3.5	3.5	2.3	G	G	G	G	G	G	G	G	G	G	G	G	E	E	E	3.1	2.2	E
27	3.5	4.0	2.5	C	C	G	G	G	G	8.0	G	S	G	7.2	5.0	G	4.0	4.0	4.0	4.2	3.5	2.2	2.6	3.0
28	4.2	4.0	5.5	4.0	5.0	4.0	3.5S	G	G	4.8Y	6.2	G	G	G	G	G	G	G	E	E	E	4.5	4.5	4.5
29	7.0	5.0	3.0	1.8	2.2Y	3.5	4.0	G	G	G	G	G	4.5	6.0	5.3Y	4.0	G	G	E	4.0	5.8	7.5	5.0	5.0
30	2.2	E	E	E	E	E	G	G	G	G	6.2	4.6	G	G	G	G	G	G	2.2	4.2	E	E	E	E
31																								
Mean Value	3.3	3.3	3.1	2.9	3.1	3.2	4.2	4.5	5.2	5.7	5.4	5.0	6.0	6.0	5.0	5.4	5.8	4.7	4.4	4.4	4.6	3.6	3.2	3.5
Median Value	1.8	2.2	2.2	2.2	2.2	G	G	G	G	G	G	G	G	G	G	G	G	G	3.0	3.2	2.4	2.8	E	E
Count	30	30	29	28	28	28	28	28	26	25	24	26	27	29	29	29	29	29	29	29	30	30	30	30

fEs

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

W 3

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

IONOSPHERIC DATA

Sep. 1956 | foF2 | 135° E Mean Time | Akita | Lat. 39° 43.5' N | Long. 140° 08.2' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	8.7	7.7	7.0	7.0	6.8	7.2	7.0^{F}	6.6^{HF}	6.7	6.7	6.8	7.4	7.9	7.8	7.5	7.4	7.2	7.0	7.6	7.0	[6.8]^{B}	6.6	6.1	5.7
2	5.8	5.9	5.4	5.1	5.0	5.3	7.0	9.0^{PJ}	9.0^{P}	8.9^{H}	8.5^{PH}	8.9	9.0	8.1	8.6	7.6^{H}	8.7	10.2	11.0	7.0	6.7	6.6	8.1	6.6
3	6.5	5.6	A	A	3.7	[4.6]^{A}	5.5	6.0^{H}	5.9	5.7	5.6	5.6	G	G	5.9	6.1	6.2	6.5	6.5	6.4	5.8^{P}	5.6	5.6	6.0
4	5.3	4.5	4.3	4.3	3.8	3.3^{F}	4.8	5.3	6.0	6.1	6.3	6.3	6.3	6.5	6.5	6.6	6.9	7.0	7.1	6.7	6.8	6.7	6.5	6.2
5	6.2	6.0	5.7	5.5	5.5	5.6	8.1	10.4	10.8	10.8	9.6	9.0	9.5^{H}	9.3^{H}	9.2	9.0	8.8	9.0	8.7	8.0	8.0	7.5^{P}	7.3	7.0
6	6.6	6.5	6.3	6.1	6.0	6.4	8.1	9.8	10.6	10.5	10.1	10.5	10.9	10.6^{H}	10.1^{H}	10.0	9.7	9.7	9.1	9.3^{P}	8.4^{P}	7.7	6.8	6.2^{J}
7	6.5	6.0^{F}	6.4	6.5	6.4	6.5	7.2	8.0	7.5	8.0	7.6	8.0	7.7	8.0	7.6	7.5	7.3^{H}	7.4	7.5	7.3	7.4^{F}	6.8	6.6^{V}	6.2
8	6.0	6.0^{F}	5.9^{F}	5.9^{F}	6.0	6.4	8.1	8.8^{P}	8.6^{H}	9.6	9.6	9.3	9.7	9.5^{H}	9.4^{H}	9.5^{H}	10.0^{H}	10.0	9.0	8.1	(8.5)^{P}	8.5^{F}	B	8.4^{J}
9	7.7	(5.6)^{P}	(4.5)^{P}	5.5	4.3^{ZF}	4.6^{ZF}	5.4	6.7	7.6	8.8	9.2	9.5	9.7	10.5	10.1	9.6	9.6	9.3	9.4	9.2	8.5	8.0^{P}	8.9^{P}	8.0
10	8.0	7.3	6.7	6.0	6.4	6.5	8.5	9.0	[9.8]^{C}	10.7	10.6	11.0	11.5^{H}	11.8^{H}	11.6^{H}	11.0	10.6	10.9	11.6	10.2	7.9	7.6	7.5	7.5
11	7.6	7.5	6.6	6.5	6.0	5.8	6.9	9.0	10.1	11.0	10.6	10.5	10.8^{PH}	11.0^{H}	10.7^{H}	10.8^{H}	10.6	10.9	10.6	9.5	8.[illegible]	8.4^{P}	8.0	7.0
12	7.1	7.0	7.0	7.0	6.8	7.1	9.2	10.1	10.6	[11.0]^{M}	11.4^{H}	12.0^{H}	12.0^{H}	11.5^{H}	11.1	10.7	11.0	11.1	10.1	9.1	8.3	8.0	7.9	7.4
13	7.1	6.9	6.6	6.6	6.1	6.3	8.0	9.6	11.4	11.7	11.4^{H}	(11.6)^{PH}	11.4^{H}	12.0^{H}	12.0^{PH}	12.0^{PH}	12.1^{P}	11.6	10.5	8.2^{P}	7.6	7.7	7.7	7.7
14	7.6	7.6	6.9	6.8	6.5	6.8	9.6	11.5	12.0^{P}	12.0^{PH}	12.0^{H}	11.8^{H}	11.6^{H}	11.9^{H}	11.7^{H}	11.0^{H}	11.0	10.6	10.2	9.5	8.7	(8.2)^{P}	8.2^{F}	7.9
15	7.6	7.5	7.5	7.0	6.9	7.1	9.7	12.0^{P}	12.7	12.6	(12.4)^{PH}	12.5^{H}	12.7^{H}	12.9^{H}	13.0^{H}	12.6^{H}	12.6	12.2	11.9	9.6	9.1	8.8	9.1	9.0
16	8.9	8.6	8.0	7.6	6.9	7.4	10.5	11.9	12.5^{H}	12.5	12.5^{H}	12.6	12.6	12.5^{H}	12.3^{H}	(12.1)^{P}	11.5	(11.9)^{P}	11.5	9.7	9.0	9.3	9.1	9.0
17	9.0	8.6	7.4	7.0	7.2	8.1	11.1	12.6	11.9^{P}	12.0^{P}	12.0^{PH}	12.5^{H}	13.0^{H}	13.0	13.0^{H}	12.5	12.0	11.9	11.6	10.0	C	8.3	8.2	8.3^{P}
18	7.6^{P}	C	C	7.0	C	C	9.8	11.2	12.4	12.9	12.9	13.4^{H}	13.5^{H}	12.7^{H}	12.5^{H}	12.4^{H}	(12.3)^{P}	12.1	(12.0)^{P}	9.7	8.9	9.1	9.2	8.1
19	7.5	7.1	6.9	6.7	6.5	6.9	9.9^{P}	12.0^{J}	12.6	12.5	11.9	12.0^{P}	12.5^{H}	12.5	12.0^{H}	11.9^{PH}	11.6	11.1	10.5	10.0^{P}	9.0	8.7	8.9	8.8
20	8.3	7.8	7.7	7.4	7.0	7.4	10.5	12.3	12.0	11.9	(12.1)^{P}	(12.0)^{PH}	12.1	12.0^{PH}	11.7^{H}	12.0^{P}	12.0	12.5	11.5	11.5	8.8	8.1	8.2	8.0
21	(8.0)^{P}	7.5	6.7	6.6	6.5	7.0	7.8	8.4^{PH}	(8.4)^{P}	9.1^{H}	10.4^{H}	10.8^{H}	11.6^{H}	12.3^{H}	12.1	11.6^{H}	11.0	9.9^{H}	9.1	7.1	7.0	7.0	6.8	6.6
22	5.9	5.9	6.0	5.5	5.5	5.6	7.6	9.6	11.0	11.0	12.0	12.0^{PH}	(12.4)^{PH}	12.0^{PH}	12.0^{H}	11.5^{H}	11.3	11.3	9.8^{P}	8.5	8.4	7.3	7.3	7.2
23	8.1	7.5	6.0	6.2	6.3	6.6	9.4	11.6	13.0	12.6	12.5	12.6^{H}	13.6^{H}	13.5^{H}	12.6^{H}	12.5^{H}	12.0	11.8	11.8	10.0	9.5^{P}	7.6	6.8	6.7
24	6.9	6.8	6.5	6.5	6.6	6.9	10.2	12.1	12.4	12.1^{H}	12.2^{H}	12.6	12.0	12.5	12.1	12.0^{P}	12.0	11.9	11.6	9.8	8.0	7.3	7.5	7.3
25	7.0	6.6	6.9	6.5	6.3	6.5	10.0^{P}	12.0^{P}	12.1	13.0	12.1^{H}	12.5	12.5^{H}	12.4^{H}	12.5^{H}	12.7^{H}	12.5^{P}	11.8	10.9	9.8	8.8	8.5^{P}	8.1	8.1
26	7.5	7.5	7.4	7.1	6.6	5.9	8.1	10.6	11.7	12.5	12.5	12.7	13.6	13.5	12.7^{H}	13.4	13.0	13.1	11.6	9.5	8.9	8.9	8.7^{P}	(8.2)^{P}
27	7.1	7.0	6.7	6.7	6.2	6.5	10.1	12.1	12.6	13.0	12.6	12.5	12.6^{H}	12.4^{J}	12.0^{J}	12.5	12.5	12.1^{J}	10.4	8.5	7.5	6.9	6.6	6.3
28	6.1	6.0	6.0	6.0	5.9	6.0	8.8	11.9^{P}	13.4	12.8	(12.0)^{P}	(12.0)^{P}	12.5	13.0	12.9	13.0	13.1	12.8	10.5	8.1	7.5	7.3	7.0	7.0
29	6.6	6.2	6.1	6.4	6.3	6.5	8.6	10.1	11.7	12.5	12.5	12.5	12.5	12.3	11.8	11.5	11.7	11.7	10.7	9.7^{P}	8.2	7.1	6.7	6.4
30	6.5	6.5	6.2	5.7	5.8	5.8	9.0	12.4	13.0	12.5	11.9^{P}	11.9^{PH}	11.9^{P}	11.9^{PH}	12.1	12.2	11.9^{P}	11.9^{P}	10.5	8.2	7.5	7.6	7.1	7.1
31																								
Mean Value	7.2	6.8	6.5	6.4	6.1	6.3	8.5	10.1	10.7	10.9	10.8	11.0	11.4	11.4	11.0	10.8	10.8	10.7	10.2	8.8	8.1	7.7	7.6	7.3
Median Value	7.1	6.9	6.6	6.5	6.3	6.5	8.6	10.2	11.6	11.8	11.9	12.0	12.0	12.0	11.9	11.6	11.4	11.2	10.5	9.2	8.2	7.6	7.5	7.2
Count	30	29	28	29	29	29	30	30	30	30	30	30	30	30	30	30	30	30	30	30	29	30	29	30

foF2

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

A 1

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.1956 | h'F2 | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	300	310	320	350	350	300	290	250^{H}	340	350	510	420	360	340	[340]^{A}	330^{L}	300	260	280	280	300	300	300	350
2	330	300	290	290	290	310	280	280	250^{H}	280^{H}	270^{H}	290^{H}	350	L	370	LH	280	340	250	280	380	400	280	260
3	280	290	A	A	390^{A}	[360]^{A}	340	LH	430	530	510	560	G	G	550	460	450	340^{L}	290	320^{A}	270^{F}	320	340	300^{F}
4	270	320	320	330	350	360	L	L	390^{L}	380	380^{L}	480	400^{L}	440	450^{L}	[380]^{L}	300	260	280	300^{A}	310	290	290	310
5	300	290^{F}	280^{F}	290^{F}	290^{F}	310	260	270^{L}	(290)^{L}	270	280	L	LH	LH	(320)^{L}	310^{L}	250	260	250	270	270	260	290	270
6	280^{L}	300^{F}	280^{F}	290^{F}	290^{F}	270	240	240	250^{L}	270	L	300^{L}	280	280^{LH}	250^{LH}	280	280^{L}	260	250	270	250	250	290^{A}	A
7	370	390	350^{A}	340	330	320	280	L	350	330	380	A	390	380	360	[300]^{L}	250^{H}	280	260	290	280	A	A	290
8	330	340	330	340	300	290	250	250	250^{H}	290^{L}	270	380	350	260^{H}	LH	LH	270^{LH}	260	250	260	320	300	350	310
9	280	450	550	360^{F}	290^{F}	310^{F}	260	300	250	L	250	[310]^{L}	370	300	320^{L}	290^{L}	270^{L}	260	280	260	290	300	340	340
10	310	280	260	300	300	300	240	250	250^{H}	250	250	250	260^{H}	250^{H}	280^{H}	[280]^{L}	280	280	260	240	250	280	300	310
11	290	250	280	280	280	280	250	250	250	280^{L}	L	300	LH	LH	LH	LH	L	260	250	250	260	270	280	290
12	290	300	340	300	310	290	240	240	240	[240]^{M}	240^{H}	250^{H}	250^{H}	260^{H}	[260]^{H}	270	250	260	250	260	250	260	270	270
13	280	290	280	270	250	280	240	250	250	250	250^{H}	250^{H}	250^{H}	250^{H}	250^{H}	260^{H}	260	250	250	240	260	320	300	300
14	300	290	280	320	320	320	240	240	240	240^{H}	250^{H}	250^{H}	270^{H}	250^{H}	290^{H}	250^{H}	[280]^{A}	300^{A}	280^{A}	270	310^{A}	310^{A}	310^{A}	290
15	290	300	290	270	290	290	240	240	240	250	240^{H}	250^{H}	250^{H}	260^{H}	240^{H}	250^{H}	250	260	250	250	270	270	290	290
16	290	280	270	270	250	290	250	220	230^{H}	240	240^{H}	260^{L}	260^{L}	230^{H}	250^{H}	260^{L}	250	270	250	250	260	290	290	300
17	300	280	340	340	340	300	250	240	240	240	240^{H}	250^{H}	250^{H}	280^{L}	250^{H}	250	250	260	260	240	230	300	300	280
18	270	280	310	300	280	280	230	230	240	240	240	240^{H}	240^{H}	240^{H}	240^{H}	260^{H}	280^{L}	260	250	240	250	270	280	250
19	250	260	280	280	270	290	250	240	240	250	240	240^{L}	240^{H}	250	250^{H}	240^{H}	250	250	250	260	250	260	270	270
20	260	260	270	260	250	280	250	240	240	240	240	240^{H}	250^{L}	250^{H}	240^{H}	250^{L}	250	260	240	240	250	270	300	300
21	290	310	340	380	380	370	320^{L}	[300]^{LH}	270^{L}	250^{H}	230^{H}	250^{H}	250^{H}	230^{H}	250	240^{H}	250	230^{H}	260	240	290	300	290	290
22	300	300	300	290	310	340	260	250	240	250	260	240^{H}	250^{H}	240^{H}	250^{H}	250^{H}	250	250	240	280	310	290	290	310
23	290	250	300	310	280	300	250	230	250^{L}	240	240	240^{H}	250^{H}	250^{H}	250^{H}	250^{H}	250	250	250	240	240	230	270	300
24	300	290	320	320	290	290	250	240	240	230^{H}	240^{H}	240^{L}	240	250	L	L	240	250	240	230	240	270	280	290
25	300	300	270	240	270	280	240	240	230	240	240^{H}	240^{L}	240^{H}	250^{H}	240^{H}	240^{H}	250	250	240	240	250	280	270	290
26	300	310	290	250	200	240	240	240	240	240	240	250	270	250	250^{H}	L	250	250	240	240	260	280	270	250
27	280	290	280	250	300	300	250	240	240	250	250	A	240^{H}	250	250	270	250	250	280	240	240	250	290	320
28	340	310	340^{A}	290	300^{A}	320	250	240	240	240	240	250	250	250	250	L	250	250	220	240	250	260	290	290
29	280	300	300	290	290	340^{A}	230	240	240	250	C	C	C	C	C	C	C	C	C	C	C	240	260	290
30	300	290	280	300	300	340	250	240	240	240	240	240^{H}	250	250^{H}	250	250	250	250	230	230	250	270	290	290
31																								
Mean Value	300	300	310	300	300	310	260	250	260	270	280	290	280	270	290	280	270	260	250	260	270	280	290	290
Median Value	290	300	290	290	290	300	250	240	240	250	240	250	250	250	250	260	250	260	250	250	260	280	290	290
Count	30	30	29	29	30	30	29	27	30	29	27	26	27	26	26	23	28	29	29	29	29	29	29	29

h'F2

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

A 2

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

IONOSPHERIC DATA

Sep. 1956 | fEs | 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	3.4	3.0	3.2F	2.2F	3.1F	3.2	4.2	4.2	4.6	5.9	G	G	5.5	5.4	7.4	G	4.0	3.8	3.5	3.5F	4.7	4.8	3.2	3.4
2	3.0	2.2F	2.1F	E	2.5F	2.8F	5.0	3.9	4.4	4.3	G	G	G	5.6	G	G	G	G	2.1F	E	E	E	2.1	2.8
3	2.2	4.2	6.5	8.0F	6.2F	5.6F	3.2	3.5	G	G	G	G	G	G	G	G	G	3.3	4.0	7.0F	3.5F	E	3.2F	3.5F
4	2.2F	3.8	2.4F	3.9F	3.5F	3.0	4.2	4.5	7.2	G	G	G	G	G	G	G	5.2	4.3	4.2	4.4	3.1	2.2F	E	2.2F
5	E	2.2F	2.2F	3.2F	3.1YF	2.5	3.4	3.1Y	G	G	4.6	G	G	4.6	G	G	G	G	3.1	3.5F	2.0F	E	3.4	3.1F
6	2.4	3.5F	2.2F	2.9YF	2.2F	3.4F	G	G	4.4	4.3	B	G	G	4.2	G	G	G	3.3	2.9Y	3.0Y	2.1Y	3.5	4.3	7.0
7	4.1F	4.2F	4.1F	3.5	4.3	4.0	3.7	4.4	4.1	6.5	6.0	7.6	9.5	G	G	4.3	G	4.1	3.1	3.1Y	2.1Y	6.0	5.5	4.5
8	3.5	3.5	3.5	3.0	2.9Y	2.3	2.1Y	5.0	6.0	4.8	4.9	5.8	G	G	G	G	G	3.5	3.5	3.1	4.4	4.2	4.0	2.5
9	2.5Y	3.1	E	2.3	2.4	2.5	3.1	5.0	4.4	6.1	4.5	5.9	4.5	6.5	G	4.3Y	G	B	3.2	3.2	3.6	3.1	7.0Y	6.5
10	4.6	3.5	3.1	3.0	3.3	3.4	3.4Y	3.4Y	G	4.8	4.3	5.7	5.7	4.5	5.5	4.4	G	G	3.5	3.6	3.7	3.0	E	E
11	E	3.0Y	2.7	2.7	2.5Y	2.5	3.5	4.5	4.5	4.2	4.4	8.0	4.0	5.2	3.5	G	G	3.7	2.7	4.4	3.2F	3.1	3.5F	2.7
12	2.4F	3.1F	3.5F	3.5F	3.5F	3.1F	2.1Y	G	G	M	4.4	G	G	G	5.0Y	5.5	4.1Y	3.5	4.2F	4.1F	3.1	E	E	E
13	2.2Y	E	3.5F	E	3.1	E	3.5Y	G	B	G	G	G	G	4.2	G	4.2	G	G	2.5F	1.9	1.8	2.8	2.2	2.4
14	2.2Y	2.9Y	2.4	3.3	2.2	2.2Y	3.5	5.1	7.8	G	4.1	G	6.9	G	3.5	4.3	10.0	7.6	6.1	4.2F	7.1	6.5	7.0F	3.5F
15	3.2F	2.5F	2.9F	3.0YF	2.3F	2.2F	3.1YF	4.0	5.0	4.4	4.7	4.2	3.8	3.6	4.1Y	4.6	4.2	5.1	4.2	5.0	4.7	2.7	E	E
16	3.1F	E	2.2F	2.2F	2.0YF	3.2F	2.1F	G	G	G	G	G	G	G	G	3.5	5.7	6.1Y	4.4Y	4.0Y	E	3.1	3.0Y	2.0Y
17	3.5	3.4	3.4Y	2.1Y	2.0Y	3.0Y	3.0Y	G	4.2Y	G	G	G	G	G	G	G	3.5Y	G	3.0	2.3	3.1	3.1	2.3	2.4Y
18	3.0Y	2.5Y	3.0	3.0Y	4.0Y	E	G	G	G	G	G	G	G	G	G	G	G	4.1	E	E	E	E	2.1Y	2.3Y
19	2.0Y	E	3.0Y	2.7Y	2.4Y	3.5Y	G	G	G	G	G	G	G	G	G	G	4.2	3.1Y	2.2	1.9	2.0	2.5Y	3.5	3.5Y
20	2.5Y	E	2.0Y	2.2Y	2.5Y	2.3Y	2.9Y	G	G	G	G	G	G	G	G	G	G	3.5	3.5	2.3	2.3	3.0	E	E
21	2.0Y	E	E	2.6	2.4Y	E	G	3.5	G	G	5.3	G	G	G	G	G	G	3.7	3.8	2.8	3.5	3.0	3.0Y	E
22	E	E	2.2	2.2	3.2	3.1	3.1	G	G	G	G	G	G	G	G	G	G	4.9	4.6	7.0F	4.7	3.2F	2.8	3.0Y
23	3.2Y	E	E	2.4Y	3.3Y	E	3.5Y	G	G	G	G	G	G	G	G	G	G	3.5	2.7	2.2F	E	E	3.0	2.6Y
24	3.5	3.1	2.9Y	E	2.2Y	1.8YF	4.7	4.7	G	G	G	G	G	G	G	G	G	G	3.2	E	3.1Y	2.5	1.8	2.0
25	2.0	E	3.1Y	E	3.2	E	1.9	G	G	G	G	G	G	G	3.5	3.5	G	3.5	3.0	2.1	E	4.2F	3.1	2.7
26	2.6	3.1	3.0Y	E	3.1YF	E	G	G	3.5	G	G	G	G	G	G	G	G	G	3.5Y	2.5Y	2.3	3.0	3.1	3.5
27	3.0	3.0Y	2.1	2.1	2.1Y	E	G	3.5Y	G	G	G	7.0	5.3	4.4	G	5.7	G	G	1.9	3.5	1.9Y	2.3	2.1	1.9
28	2.0	2.0	4.2	3.5F	5.1F	3.1	3.0	3.5	G	4.6	5.0	5.0	5.3	5.0	4.5	G	G	3.1	2.5	3.0	3.0Y	1.8Y	E	E
29	3.0Y	2.5	4.5Y	4.0	3.5	6.5	4.0	G	G	G	C	C	C	C	C	C	C	C	C	C	C	E	3.0	4.1
30	2.5	2.5F	3.0F	3.1	3.2	2.2YF	4.0Y	3.5	G	5.0	G	G	G	G	G	G	3.5	G	E	1.9	E	E	E	E
31																								
Mean Value	2.8	3.0	3.1	3.1	3.0	3.1	3.3	4.1	5.0	5.0	4.7	6.2	5.6	4.8	4.6	4.4	4.9	4.1	3.4	3.4	3.3	3.3	3.4	3.2
Median Value	2.5	2.7	3.0	2.7	3.1	2.5	3.1	3.4	G	G	G	G	G	G	G	G	G	3.5	3.2	3.1	3.0	2.9	3.0	2.6
Count	30	30	30	30	30	30	30	30	29	29	28	29	29	29	29	29	29	28	29	29	29	30	30	30

fEs

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

A·3

11

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

IONOSPHERIC DATA

Sep.1956 | 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	9.0	7.9	7.4	7.0	7.0	6.9$^{J}_{F}$	8.5	7.5	6.8^{H}	7.6^{J}	7.8^{J}	8.2	8.6^{H}	8.9	8.4^{H}	8.3	7.5	7.7	8.2	7.4	7.0	6.9	6.5	6.4
2	6.3	6.5	5.7	5.4	5.0	5.2^{P}	7.3	9.0	9.8^{H}	9.7	9.6	10.4	10.4	9.3	9.4^{P}	8.8^{P}	9.3	10.4	(11.5)^{P}	5.9^{H}	7.1	7.0	7.9	7.0
3	7.0	6.5	4.5	4.0	4.0^{V}	3.8	A	8.0^{P}	6.6^{Z}	6.3	6.2	6.1	5.8	[6.0]^{A}	6.3	[6.4]^{A}	6.4	7.0^{H}	[6.8]^{A}	6.6	6.2	5.8	5.9	6.5
4	6.6	4.9	4.7	4.5	4.0	3.4	5.4	6.5	6.7	7.0	7.0^{J}	6.8	6.8^{H}	7.0	7.0^{H}	7.2^{H}	7.6	7.6	7.6	7.1	6.9	6.9	6.8	6.7
5	6.6	6.2	6.0	5.6	5.5	5.7	7.6	9.9	9.8	[9.6]^{C}	9.5	9.5	10.2	10.8	10.2	9.9^{H}	10.1	9.2	9.3	7.9^{P}	7.5	7.2	7.3	7.1
6	6.7	6.4	6.6	6.2	6.0	6.5	8.3	9.1	(10.8)^{J}	10.3	10.5	[10.6]$^{B}_{H}$	10.8	10.8^{H}	10.5^{H}	10.5	10.1	9.9	9.4	9.5	8.5	7.7^{P}	7.1	6.5
7	6.4	6.0	6.5	6.7	6.4	6.5	8.0	8.0	8.4	8.3^{H}	8.4	8.6	8.9	9.4	8.5	8.4^{H}	8.1	8.4	8.6	8.0	7.1	6.7	6.5	6.4
8	6.0	5.9	6.0	5.6	5.5	6.0	7.9	9.1	8.8	9.0	10.0	9.8^{H}	10.3	10.2	9.8	10.1	10.5	10.6	10.0	8.5	9.0	9.0	BF	BF
9	8.9^{J}	6.0	4.3	5.8	5.5	6.0	6.9	8.0	8.7	9.0	(9.8)^{A}	[10.0]^{A}	10.1	[10.4]^{B}	10.7	10.1	10.4	10.2	9.5^{P}	9.3	8.5	8.2	8.0	7.6
10	8.0	7.5	7.0	6.5	6.5	7.0	9.7	10.2	9.6	10.6	[10.8]^{C}	11.0	11.3^{P}	11.4^{P}	11.4^{P}	11.5^{P}	11.0	12.0^{P}	11.9^{P}	10.0	8.5	8.8	8.5	8.0^{J}
11	7.5^{P}	7.3	7.2	6.8	6.8	7.2	9.6	11.3	10.8	10.8	10.7^{H}	11.3$^{H}_{P}$	11.9$^{J}_{H}$	12.0^{H}	(11.5)$^{H}_{P}$	(11.3)$^{H}_{P}$	11.3	11.5^{P}	[10.8]^{B}	10.2	8.1^{P}	8.1	8.3	8.4
12	8.6	8.1	7.5	7.0	6.5	5.7	7.9	11.1	11.1^{P}	11.8	(11.8)^{P}	(12.3)^{H}	>11.0^{B}	>11.0^{B}	(10.8)^{P}	11.3^{P}	10.7^{J}	11.4	10.9	9.2	8.5	8.6	8.6	7.9
13	7.5	7.5	7.3	6.9	6.2	6.0	8.4	10.8	10.9	11.8	10.5	(11.4)$^{P}_{H}$	(10.2)^{B}	B	>11.0^{B}	12.4^{J}	(13.0)$^{H}_{B}$	[11.8]^{B}	10.5	8.5	7.9	8.0	8.1	8.1
14	8.0	7.8	7.5	6.7	6.7	6.9	9.7	12.2	12.5	11.5^{P}	12.3^{H}	B	BH	BH	11.5$^{H}_{P}$	11.3	11.3	11.0	10.7	A	A	8.6	8.0	8.0
15	7.9	7.6	7.8	7.2	6.6	7.0	10.5	11.6^{P}	(10.8)^{B}	12.6	>11.0^{B}	12.5^{H}	[13.0]$^{B}_{H}$	13.5^{H}	13.4^{H}	>10.6^{B}	>10.5^{B}	12.7	11.9	10.1	9.3	9.8	10.2	10.2
16	9.6	9.7	9.0	8.1	7.1	7.5	10.1	11.3	>9.5^{B}	>10.0^{B}	12.5^{J}	12.9	12.8	BH	B	>10.3^{B}	(11.0)^{B}	12.0	11.9	9.6	9.0	9.7	9.5	9.3
17	9.7	9.3	7.9	7.4	7.5	8.5	11.0	12.2	11.0^{P}	12.4	>10.5$^{B}_{H}$	>10.0$^{B}_{H}$	BH	BH	>10.5$^{B}_{H}$	>10.0^{B}	BH	11.6	(11.5)^{P}	9.4	8.6	8.7	9.0	8.6
18	8.4	7.7	7.0	7.0	6.9	7.2	9.8	11.2^{P}	11.0	12.8	(11.5)^{P}	13.2	C	C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	11.3^{P}	10.7^{H}	>10.5$^{B}_{H}$	>10.5$^{B}_{H}$	12.9^{H}	(11.5)$^{H}_{P}$	11.8^{P}	11.1	10.9	>7.0^{B}	>7.0^{B}	8.6	9.2	9.2	9.5
20	8.7	8.0	7.7	7.5	7.1	7.2	10.7	>11.0^{B}	>11.0^{B}	10.7	(10.1)^{P}	(11.6)$^{H}_{P}$	11.8$^{H}_{P}$	12.5^{H}	>11.3$^{B}_{H}$	11.8^{H}	12.6	>10.1^{B}	>4.5^{C}	>7.0^{B}	>7.0^{B}	8.0	8.2	8.0
21	8.3	7.4	7.0	6.7	6.7	7.1	8.2	9.1	9.7	10.6	11.3^{P}	12.0	13.0^{H}	13.4^{H}	13.2	12.3^{H}	11.4	10.5	9.9	7.6	7.2	7.5	7.4	6.9
22	6.3	6.5	6.4	6.1	6.0	6.0	8.4	11.0	11.8	12.1^{P}	13.3^{H}	13.5	13.6^{H}	13.3	13.0^{H}	12.3^{H}	12.0	11.6	11.3	8.5	8.4	8.0	7.7	7.5
23	8.3	8.6	6.3	6.8	6.8	6.7	9.2	12.0	12.7	12.3	13.2^{H}	13.8^{H}	14.0^{H}	14.0^{H}	13.5	13.3	12.9	12.5	12.4	10.9	9.1	7.7	7.2	7.2
24	7.2	7.3	6.8	6.7	7.0	7.2	10.6	12.2	11.8	12.2	12.5	12.9	13.0	13.0^{H}	12.9	13.0	[12.8]^{C}	12.7	11.9	9.9	7.7	7.9	8.0	7.7
25	7.3	7.2	7.2	6.8	6.4	6.6	10.6	12.0^{P}	12.2	12.5	12.0	12.8	12.7	12.8^{H}	13.1^{H}	13.3	13.5	12.4	11.5	9.6	8.8	8.6	8.8	8.6
26	8.0	8.1	7.8	7.2	6.3^{H}	5.9	8.4	10.9	12.0	12.9	12.9	13.2^{H}	C	C	13.7^{H}	13.9$^{H}_{P}$	13.8	13.2	12.2	10.3	9.5	9.4	9.3	9.1
27	7.3	7.2	7.0	6.9	5.9	6.2	9.4	12.6	C	C	13.3	12.7	13.3^{H}	13.5	13.5^{H}	13.6	13.4	12.7	10.8^{P}	9.0	8.1	7.2	7.0	6.7
28	6.4	6.5	6.4	6.3	6.2	6.0	8.9	11.9	13.2	12.3	12.1	12.6^{H}	13.5	13.8^{P}	13.8^{P}	13.8	13.7^{P}	13.5	11.8^{P}	9.1	8.4	7.9	7.7	7.8
29	7.1	6.3	6.3	6.4	6.1	6.4	9.3	10.2	11.9	12.0	12.0	13.0	13.3	13.2	12.4^{H}	12.0	12.4	12.4	11.4	9.8	8.8	8.0	7.4	6.9
30	6.8	6.7	6.4	5.8	5.8	6.0	9.1	13.0	12.6	12.1	11.6	12.3	12.4^{H}	12.6^{H}	12.6^{H}	13.0	13.1	12.1	10.5	8.9	7.9	7.8	7.5	7.4
31																								
Mean Value	7.6	7.2	6.7	6.5	6.2	6.4	8.9	10.4	10.4	10.8	10.9	11.3	11.3	11.5	11.3	11.2	11.1	11.0	10.6	8.9	8.2	8.0	7.9	7.7
Median Value	7.5	7.3	7.0	6.7	6.4	6.5	9.0	11.0	10.9	11.4	11.3	12.0	11.8	12.5	11.5	11.6	11.3	11.6	10.8	9.2	8.4	8.0	8.0	7.6
Count	29	29	29	29	29	29	28	29	27	28	29	27	24	23	25	26	27	28	27	26	27	29	28	28

foF2

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

K1

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

IONOSPHERIC DATA

Sep. 1956 | h_pF2 | 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	380	410	450	490	460	(370)^{F}	340	310	410^{H}	(380)^{J}	(360)^{J}	380	410^{H}	350	360^{H}	330	320	320	320	330	390	400	410	430
2	430	390	370	400	440	390^{P}	320	330	310^{H}	330	380	370	340	390	380^{P}	380^{P}	400	390	(280)^{P}	600^{H}	480	520	380	350
3	380	350	260	470	450^{V}	470	A	350^{P}	380^{Z}	U	U	U	A	A	U	A	420	380^{H}	[380]^{A}	380	420	450	470	380
4	360	440	420	410	400	440	400	370	360	350	(380)^{J}	U	400^{H}	390	380^{H}	340^{H}	320	320	320	350	400	400	410	430
5	410	420	400	410	400	380	320	300	310	[330]^{C}	350	360	390	380	360	350^{H}	330	330	330	350^{P}	350	350	380	360
6	400	400	400	390	410	360	270	310	(310)^{P}	320	310	[390]^{BH}	370	380^{H}	370^{H}	370	360	350	330	350	330	350^{P}	380	430
7	480	510	480	400	400	350	350	350	350	360^{H}	360	370	370	380	340	350^{H}	350	340	320	330	350	320	370	390
8	400	430	400	400	400	360	290	290	330	360	340	370^{H}	380	360	380	380	360	350	330	370	450	420	BF	BF
9	(330)^{J}	570	690	530	460	460	330	300	300	330	A	A	360	[360]^{B}	360	360	350	350	350^{P}	350	380	410	420	400
10	410	400	420	460	430	400	280	290	290	360	[360]^{C}	350	360^{P}	360^{P}	370^{P}	350^{P}	360	350^{P}	320^{P}	330	360	360	370	(370)^{J}
11	370P	400	410	400	400	380	310	280	280	310	350^{H}	360^{HP}	(350)^{H}	370^{H}	(360)^{PH}	(360)^{PH}	340	350^{P}	[340]^{B}	320	360	410	420	410
12	380	310	360	390	340	410	320	310	300^{P}	310	(320)^{P}	(360)^{H}	BH	B	A	360^{P}	(340)^{J}	310	320	330	360	390	380	370
13	380	390	380	360	370	390	330	290	280	330	350	(370)^{HP}	(350)^{B}	BH	BH	(380)^{J}	(370)^{HB}	[360]^{B}	340	380	420	430	400	400
14	390	390	370	410	450	440	320	300	330	320^{P}	370^{HV}	B	BH	BH	390^{HP}	390	370	350	330	A	A	380	390	410
15	410	410	390	370	360	380	310	290^{P}	(290)^{B}	350	HB	400^{H}	[400]^{BH}	410^{H}	400^{H}	B	B	360	320	360	380	410	390	390
16	360	370	350	350	380	370	310	280	B	B	(390)^{V}	380	390	BH	B	B	(350)^{B}	360	340	360	410	400	370	370
17	370	360	450	510	460	380	300	290	280	330	BH	BH	BH	BH	BH	B	BH	340	(320)^{P}	330	400	400	390	360
18	360	380	430	410	380	360	280	300^{P}	280	330	(330)^{P}	380	C	C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	290^{P}	320^{H}	BH	BH	380^{H}	(370)^{HP}	360^{P}	350	320	B	B	380	400	360	350
20	360	360	360	360	350	370	300	B	B	300	(300)^{P}	340^{HP}	(360)^{HP}	390^{H}	BH	380^{H}	370	B	C	B	B	400	400	420
21	390	410	470	550	540	440	380	340^{H}	380	360	370^{P}	400	410^{H}	410^{H}	380	390^{H}	370	330	360	330	410	420	410	410
22	460	430	420	420	410	450	320	320	320	320^{P}	370^{H}	370	370^{H}	400	400^{H}	390^{H}	360	370	360	400	430	420	440	450
23	400	330	500	440	380	410	330	290	330	360	400^{H}	400^{H}	390^{H}	400^{H}	400	400	380	340	350	320	340	360	430	430
24	440	410	440	440	410	390	310	290	290	340	340	370	390	390^{H}	380	360	[360]^{C}	350	320	320	410	410	380	380
25	410	430	410	370	380	390	310	290^{P}	300	320	350	380	390	410^{H}	400^{H}	390	350	350	350	340	390	380	380	370
26	380	400	400	340	380^{H}	370	300	310	330	340	370	390^{H}	C	C	400	380^{HP}	350	350	350	370	400	380	360	350
27	360	410	410	360	440	410	340	300	C	C	360	360	400^{H}	370	370^{H}	370	340	330	320^{P}	340	350	370	390	440
28	480	430	440	390	400	400	320	320	310	320	370	370^{H}	370	370^{P}	370^{P}	380	340^{P}	330	310^{P}	360	370	380	380	390
29	360	410	420	400	390	370	300	290	290	320	350	360	360	360	380^{H}	370	360	320	320	330	320	380	360	360
30	380	380	380	410	430	410	320	280	290	320	350	370	380^{H}	380^{H}	380^{H}	370	340	320	330	320	370	380	380	380
31																								
Mean Value	390	400	420	420	410	400	320	310	320	330	350	370	380	380	380	370	360	340	330	360	390	400	390	390
Median Value	380	400	410	400	400	390	320	300	310	330	360	370	380	380	380	370	350	350	330	340	380	400	380	390
Count	29	29	29	29	29	29	28	28	26	27	26	24	23	22	23	25	27	28	27	26	27	29	28	28

h_pF2

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

K2

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Sep. 1956

h'F2

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	310^{A}	360^{A}	400^{A}	390^{A}	350^{A}	300^{F}	300	300	AH	380	360	380	290^{H}	330	280^{H}	280^{A}	300^{A}	280^{A}	280^{A}	250	260	270	310^{A}	310
2	330	300	280	280	280	310	260	230	260^{LH}	300	280	330	310	350	340	350	360	320	250	230^{H}	380	400	290	230
3	260	250	230	330	350	410^{A}	A	310	380	450	430	530	510	[540]^{A}	580	[500]^{A}	410	LH	A	A	260	320	350	300
4	260	300	310	330	270	350	290	330^{L}	350	350	380	440	310^{H}	390	250^{H}	270^{H}	280	260	260	260	290	310^{A}	300	310
5	300	290	280	300	300	300	250	260	250	C	C	300	350	330	330	250^{H}	300	250	250	250	300	260	260	280
6	300	300	300	290	280	260	230	230	260	270	270	260^{H}	310	260^{H}	270^{H}	310	280	260	260	270	250	240	280	320
7	360	420^{A}	310	300	310^{A}	260	250	250^{A}	290	300^{H}	330	360	360	360	290	250^{H}	320	260	270	260	270^{A}	260	300	280
8	300	320	300	290	300	280	240	250	240	A	320	260^{H}	330	330	340	340	290	260	260	260	330	310	320^{F}	310^{F}
9	270^{F}	440	510	400	300^{A}	320	260	270	280	260	340^{A}	[320]^{A}	310	360	320	300	280	280	290	300^{A}	280^{A}	320^{A}	310	300
10	300	280	260	330^{A}	330	280	250	240	230	230	270	260	320	290^{A}	300	300	260	280	260^{A}	250^{A}	250	280^{A}	270^{A}	300^{A}
11	290	310	310	280	280	300	240	230	230	260	240^{H}	250^{H}	260^{H}	260^{H}	270^{H}	310	290	270	270^{A}	250^{A}	240	360^{A}	330^{A}	340^{A}
12	300^{A}	250	260	270	260	250	250	260	240	250	270	260^{H}	260^{H}	280	360^{A}	310	280	270^{A}	260^{A}	260	260	280^{A}	280	270
13	280	290	280	280	250	260	250	250	250	240	250	260^{H}	280	260^{H}	250^{H}	310	260^{H}	260	250	250	280	310	300	300
14	300	290	260	270	320	330	250	240	240	250	240^{H}	260	250^{H}	260^{H}	270^{H}	360^{A}	290^{A}	280	280^{A}	A	A	350^{A}	350^{A}	310
15	320^{A}	370^{A}	300^{A}	270^{A}	260	300^{A}	260	230	230	240^{A}	250^{H}	230^{H}	260^{H}	270^{H}	290^{LH}	270	250	260	260^{A}	270^{A}	280^{A}	310^{A}	300	290
16	280	270	260	250	250	270	240	230	240	250	250	280	260^{H}	260^{H}	320	300	260	260	250	310^{A}	280	290	280	300
17	290	270	310	330	340	280	240	230	240	230	230^{H}	240^{H}	260	250^{H}	280^{H}	270	250^{H}	260	260	250	230	290	300	300^{A}
18	260	250	310	290	270	250	240	260	230	250	240	250^{H}	C	C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	230	240^{H}	260^{H}	250^{H}	260^{H}	260^{H}	280	270	260	250	260	260	280	270	260
20	260	260	260	250	260	270	240	230	230	230	250	250^{H}	250^{H}	250^{H}	260^{H}	250^{H}	290	260	230	250	300^{A}	290^{A}	300	300
21	290	290	330	380	390	320	270	240^{H}	230	300	270	290	260^{H}	260^{H}	260	260^{H}	250	250	260	270^{A}	280	290	290	280
22	330	320	300	280	280	320	260	250	260	240	240^{H}	250	260^{H}	270	270^{H}	250^{H}	250	260	250	310^{A}	300	300	300	290
23	290	260	260	320	270	280	270	240	250	240	240^{H}	260^{H}	250^{H}	240^{H}	240	240	260	260	260	240	250	240	280	310
24	310	300	310	310	300	290	250	230	230	230	250	260	250	250^{H}	260	250	[260]^{C}	260	250	240	230	300	290	290
25	310	320	280	240	280	280	250	230	230	240	240	260	260	230^{H}	230^{H}	270	260	250	250	250^{A}	260	270	300^{A}	270
26	300^{A}	300	300	240	200^{H}	250	240	240	240	250	250	220^{H}	C	C	270^{H}	260^{H}	260	260	240	240	280	270	270	250
27	240	300	290	260	260	300	250	240	C	C	240	250	250^{H}	270	260^{H}	270	250	250	230	230	240	250	280	310
28	360	320	300	280	290	310^{A}	250	240	240	230	250^{L}	250^{H}	260	250	270	250	270	250	240^{A}	250	260	280	290^{A}	280
29	270	280	300	290	270	270	240	230	240	230	240	280^{L}	260	260	250^{H}	260	250	260	250^{A}	230	240	240	270	280
30	310^{A}	300	280	270	310	310	260	240	230	230	250	250	250^{H}	250^{H}	250^{H}	270	260	240	230	240	250	270	280	300
31																								
Mean Value	300	300	300	300	290	290	250	250	250	270	270	290	290	290	290	290	280	260	260	260	270	290	290	290
Median Value	300	300	300	290	280	290	250	240	240	250	250	260	260	260	270	270	270	260	260	250	260	290	290	300
Count	29	29	29	29	29	29	28	29	27	27	29	30	28	28	29	29	29	28	28	27	28	29	29	29

h'F2

Sweep 1.5 Mc to 17.2 Mc in 2 min ☐ Manual ☒ Automatic

K 3

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

IONOSPHERIC DATA

Sep. 1956 | foF1 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1							L	A	A	5.0	5.6	5.9	5.1^{L}	L	A	A	A	A						
2							Q	Q	L	5.7	5.5	5.5	5.5^{L}	6.0	5.9^{L}	5.5^{L}	5.0	L						
3							A	A	4.6	5.0	B	B	A	A	A	A	5.1	L						
4							Q	L	4.9	5.0	5.5	5.7	[5.8]^{L}	5.8^{L}	Q	Q	L	Q						
5							Q	L	L	C	C	5.5	5.7	6.3	6.0	Q	5.0	Q						
6							Q	Q	A	L	B	B	L	Q	L	L	L	Q						
7							Q	A	L	A	5.6	5.8	5.7	5.8	5.0	Q	L	Q						
8							Q	Q	Q	A	L	Q	A	L	6.1^{L}	6.0^{L}	L	Q						
9							Q	Q	L	A	A	A	A	A	L	L	L	B						
10							Q	Q	Q	5.0	A	Q	6.2^{L}	A	L	L	Q	Q						
11							Q	L	Q	L	L	Q	Q	Q	Q	L	A	A						
12							3.4^{L}	Q	A	L	L	Q	Q	L	A	A	A	A						
13							Q	Q	Q	Q	5.0^{L}	Q	L	Q	Q	L	Q	Q						
14							Q	Q	Q	B	Q	Q	Q	Q	Q	A	A	A						
15							Q	Q	Q	A	5.3^{L}	Q	Q	L	L	L	Q	Q						
16							Q	Q	4.7^{L}	L	L	5.8^{L}	Q	Q	6.1^{L}	L	Q	Q						
17							Q	Q	L	L	B	Q	Q	Q	L	L	Q	Q						
18							Q	5.5^{L}	Q	L	L	L	C	C	C	C	C	C						
19							C	C	C	L	5.4^{L}	L	Q	Q	Q	L	L	Q						
20							Q	Q	L	L	L	Q	Q	Q	Q	Q	L	Q						
21							Q	Q	Q	5.5	5.2	5.7^{L}	L	L	L	L	Q	Q						
22							Q	Q	5.0^{L}	4.2	L	L	L	L	L	Q	Q	Q						
23							Q	Q	L	L	Q	L	4.8^{L}	Q	Q	Q	Q	Q						
24							Q	Q	Q	Q	5.1^{L}	L	5.0^{L}	L	L	Q	C	Q						
25							Q	Q	L	Q	5.0	5.1^{L}	L	Q	Q	L	Q	Q						
26							Q	Q	Q	L	L	Q	C	C	L	L	Q	Q						
27							Q	Q	C	C	Q	L	L	L	L	L	Q	Q						
28							Q	Q	Q	Q	L	L	4.9^{L}	4.5^{L}	L	Q	Q	A						
29							Q	Q	Q	Q	Q	L	L	L	L	L	Q	Q						
30							Q	L	Q	Q	L	L	L	L	L	L	Q	Q						
31																								
Mean Value							3.4	5.5	4.8	5.1	5.3	5.6	5.4	5.7	5.8	5.8	5.0							
Median Value							3.4	5.5	4.8	5.0	5.4	5.7	5.5	5.8	6.0	5.8	5.0							
Count							1	1	4	7	10	8	9	5	5	2	3							

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. 1956 | 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							260	A	A	260[A]	A	250	250	280[A]	A	A	A	A						
2							Q	Q	220	210	250	210	210	260	220	230	250	270						
3							A	A	250	230	B	B	A	A	A	A	300	260						
4							Q	230	240	240	250	240	230	220	Q	Q	250	Q						
5							Q	240	240	C	C	210	A	270[B]	240	Q	240	Q						
6							Q	Q	A	260	B	B	270	Q	230	260	250	Q						
7							Q	A	260	A	B	B	A	280[B]	230	Q	260	Q						
8							Q	Q	Q	A	260[A]	Q	A	310[A]	270[B]	250	240	Q						
9							Q	Q	250[A]	A	A	A	A	A	280[A]	260	260	B						
10							Q	Q	Q	230	A	Q	250	A	250	260	Q	Q						
11							Q	240	Q	230	230	Q	Q	Q	Q	A	A	A						
12							240	Q	A	A	250[B]	Q	Q	260[A]	A	A	A	A						
13							Q	Q	Q	Q	220	Q	270	Q	Q	250	Q	Q						
14							Q	Q	Q	B	Q	Q	Q	Q	Q	A	A	A						
15							Q	Q	Q	A	210	Q	Q	270[A]	260[A]	250	Q	Q						
16							Q	Q	230	230	240	210	Q	Q	260	250	Q	Q						
17							Q	Q	240	220	B	Q	Q	Q	230	240	Q	Q						
18							Q	230	Q	220	220	220	C	C	C	C	C	C						
19							C	C	C	210	210	210	Q	Q	Q	260	250	Q						
20							Q	Q	230	230	210	Q	Q	Q	Q	Q	260	Q						
21							Q	Q	Q	230	230	230	230	240	240	250	Q	Q						
22							Q	Q	230	230	230	220	230	230	240	Q	Q	Q						
23							Q	Q	230	230	Q	210	220	Q	Q	Q	Q	Q						
24							Q	Q	Q	Q	210	210	230	240	230	Q	C	Q						
25							Q	Q	240	Q	230	220	230	Q	Q	250	Q	Q						
26							Q	Q	Q	230	230	Q	C	C	240	240	Q	Q						
27							Q	Q	C	C	Q	230	230	220	250	240	Q	Q						
28							Q	Q	Q	Q	230	220	220	230	240	Q	Q	A						
29							Q	Q	Q	Q	Q	240	240	240	240	250	Q	Q						
30							Q	240	Q	Q	230	230	230	230	230	250	Q	Q						
31																								
Mean Value							250	240	240	230	230	220	240	250	240	250	260	270						
Median Value							250	240	240	230	230	220	230	240	240	250	250	260						
Count							2	5	12	16	18	16	15	15	18	16	10	2						

h'F1

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

K 5

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

IONOSPHERIC DATA

Sep. 1956 | foE | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

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

foE

Sweep 1.0 Mc to 17.1 Mc in 2 min ☐ Manual ☒ Automatic

K6

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Sep.1956

R'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	110	B	120^{A}	100	100	110	110	110	110	110	A						
2							B	110	A	110	110	110	[110]^{A}	110	110	[110]^{A}	110	A						
3							A	A	A	A	B	B	110	110	110	110	120	A						
4							120	[120]^{A}	130	110	130^{B}	130^{B}	120^{B}	110	110	110	120	130						
5							130	110	120^{B}	C	C	110	110	110	110	110	110	A						
6							120	110	[110]^{B}	110	[110]^{B}	110	120	[120]^{A}	120	110	110	B						
7							120	110	110	110	110	110	110	[110]^{B}	110	110	110	120^{H}						
8							B	110	110	110	A	A	A	A	A	120	110	A						
9							B	B	130^{B}	120	110	110	110	120^{B}	A	A	A	B						
10							B	120	110	120	A	A	B	A	A	110	A	A						
11							B	120	110	110	110	A	A	B	B	110	A	A						
12							B	B	110	120	[120]^{B}	120^{B}	120	[120]^{A}	110	A	A	130^{A}						
13							B	130^{B}	B	120	120	110	B	A	A	130^{A}	120^{A}	130						
14							B	110	110	110	130^{B}	B	B	110	120	110	120	120						
15							120^{B}	A	A	A	120	110	A	A	A	110	120^{A}	A						
16							B	130	120	120	[120]^{A}	130^{B}	[120]^{A}	100	130^{A}	120	120	A						
17							B	120	130^{B}	120	110	120	120^{B}	130^{B}	110	110	120	130						
18							B	120	B	110	110	110	C	C	C	C	C	C						
19							C	C	C	120^{B}	110	110	110	110	110	110	110	B						
20							130	A	A	120	110	120	110	110	110	110	A	A						
21							B	B	A	A	A	A	A	110	[110]^{A}	110	110	110						
22							A	120	A	120	120	120	120	120	120	110	140^{A}	A						
23							130	120	120	120	A	110	110	110	120	120	110	130						
24							130^{A}	110	110	A	120	120	120	120	120	120	[120]^{C}	130						
25							A	120	120	110	120	110	120	120	120	110	120	A						
26							B H	120^{H}	120	120	120	110	C	C	110	110	110	A						
27							150^{B}	120	C	C	120	A	110	A	B	130	120	130						
28							160^{A}	110	120	110	120	110	120	A	A	A	A	A						
29							160	110	A	110	110	120	120	B	110	130	120	130						
30							150	110^{H}	120	A	A	A	110	110	120	110	120	150						
31																								
Mean Value							140	120	120	120	120	110	110	110	110	110	120	130						
Median Value							130	120	120	120	120	110	110	110	110	110	120	130						
Count							12	23	18	23	23	22	21	20	21	26	23	12						

R'E

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

K 7

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

IONOSPHERIC DATA

Sep. 1956 | fEs | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	4.7	6.4	5.7	4.5	3.2	2.8	3.8	5.2	6.2	5.5	5.8	4.5	G	5.4	5.9	6.3	6.4	5.1	5.4	2.4^{Y}	E	E	3.2	E
2	3.5	2.5	2.1	2.4	2.1	2.5	B	4.2	4.5	G	G	3.7	3.8	5.4	G	3.9	3.8	2.5	E	E	E	2.4	3.0	E
3	2.1^{Y}	E	3.9^{Y}	2.4^{Y}	2.9	3.4	8.0	5.0	3.6	3.6	3.6	3.9	5.6	7.0	6.0	10.0	6.4	3.9	8.0	6.0	2.8	E	3.0	E
4	2.4	1.8	(2.1)^{Y}	2.2^{Y}	2.0^{Y}	2.9	3.0	4.4	3.6	4.5	G	G	G	G	G	4.0	3.8	3.9	3.9	2.4	E	5.8	E	E
5	E	E	3.5	2.2	2.3	E	3.4	3.4	3.7	C	C	G	5.1	G	G	G	3.5	2.9^{Y}	E	E	3.8	2.7	E	3.8
6	2.4	E	2.4	2.3	E	E	3.5	3.6	5.2	G	B	G	G	4.2	G	G	3.5	6.0	3.5	2.9	2.8	E	3.2	7.5
7	4.2	5.6	3.2	3.0	4.7	2.9	3.5	5.5	5.9	5.7	G	G	6.0	B	G	G	4.4	3.6	3.0	2.9	3.5	2.3	5.9	E
8	E	E	2.1	2.9^{Y}	2.3	E	B	G	4.9	7.3	5.9	5.4	6.5	6.3	4.4	3.6	3.7	3.6	3.8	3.5^{Y}	E	2.2^{Y}	3.8	4.4
9	3.8	2.9	2.1^{Y}	E	3.0	2.9	3.4	3.7	4.5	6.4	11.8	12.6	7.0	8.5	6.5	5.6	4.5	4.2	4.4	8.5	3.7	3.2	5.7	3.5
10	2.6	2.6	2.4	3.1	3.0	2.0	2.5	4.9	3.9	3.9	6.7	3.9	3.8	5.8	4.2	3.5	4.8	6.1	5.8	3.8	2.0	3.0	3.5	3.0
11	2.3	2.4^{Y}	2.2	2.1^{Y}	2.2^{Y}	E	B	3.7	3.7	4.0	4.4	4.5^{Y}	4.5^{Y}	B	3.8	5.4^{Y}	6.1	4.9	6.4	4.3	3.6	5.8	3.7	4.4
12	3.4	2.4^{Y}	2.3	1.9^{Y}	E	E	2.4	4.7	6.2	5.9	B	4.2	6.3	5.7^{Y}	10.3	7.0	4.9	6.3	5.0	2.8	3.5	E	E	E
13	E	E	E	E	2.4^{Y}	E	B	G	B	G	G	G	B	3.5	3.5	3.7	3.6	3.6	2.9	3.0	E	E	E	3.7
14	2.5	1.9	1.9	1.8^{Y}	2.0	E	B	3.8	5.5	3.8	3.7	B	B	G	5.7	8.3	5.8	4.9	6.6	10.1	11.0	8.9	7.0	4.4
15	4.5	5.5	4.3	3.9	3.6	3.0	2.9	3.6^{Y}	4.4^{Y}	5.6	3.7	4.2	5.8	6.3	5.8	3.8	3.6	6.5^{Y}	5.7	5.6	5.8	5.7	3.5	E
16	2.5	2.1	2.2	2.3	E	E	2.4	3.6	G	G	3.9	2.7	3.8	3.6	3.8	3.9	4.9	6.1	3.7	8.5	3.0	E	2.8	E
17	E	E	E	E	E	E	B	4.1	G	G	G	G	G	G	G	3.5	3.6	G	E	3.5	E	2.5	E	2.9
18	E	E	E	E	E	1.9	B	3.5	B	G	G	G	C	C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	G	G	G	G	G	G	5.7	4.2	3.9	2.8^{Y}	E	E	E	E	E
20	E	E	2.4^{Y}	E	2.5	E	G	3.7	3.5	G	G	G	G	G	G	3.7	3.9	3.4	2.8	2.5	4.4	4.1	E	E
21	E	E	E	E	E	2.5	B	B	3.7	3.7	3.8	3.2	3.6	4.8	3.7	G	4.1	3.0	2.1	3.0^{Y}	2.8	E	E	3.0
22	3.0	2.2^{Y}	2.0^{Y}	2.0^{Y}	E	2.4	3.0	2.9	3.2	G	G	G	G	G	G	3.2	3.2	3.0	4.2	5.6	3.0	2.4	E	2.0
23	2.9^{Y}	1.9	E	E	E	E	2.8	2.9	G	G	3.7	G	G	G	G	G	3.5	3.5	2.8	2.5	2.4	E	E	2.9
24	2.4^{Y}	E	2.4	E	E	2.4	3.1	3.2	G	6.0	G	G	G	G	G	G	C	2.8	E	E	3.0	3.2	E	2.4
25	2.4	2.2^{Y}	2.1^{Y}	E	E	E	3.5	3.9	G	3.7	3.9	G	G	4.5	G	G	G	4.8^{Y}	2.1	2.8	E	2.4	5.7	2.4
26	3.2	2.1	2.0^{Y}	E	E	E	3.0	3.0	4.2	G	G	G	C	C	G	G	G	2.4	2.4	E	E	1.8	1.8	3.0
27	E	2.4	E	E	2.0^{Y}	2.4^{Y}	3.2	3.9	C	C	4.8	3.7^{Y}	3.7	3.0	B	G	G	G	2.0	E	E	E	E	E
28	2.1	E	2.1^{Y}	2.2	3.2	3.0	3.0	3.0	4.2	4.8	4.8	4.7^{Y}	3.7	3.5	3.3	3.7	6.4	6.5	5.7	3.5	E	3.8^{Y}	3.8	E
29	2.4^{Y}	E	E	3.2^{Y}	2.0	E	G	G	3.9	4.9	5.4	5.2	4.9	4.2	5.5	4.6	G	3.5	4.1	E	2.4	E	E	2.4
30	3.7	3.8	2.4^{Y}	E	1.1	E	G	2.9	3.5	3.5	3.6	3.4	G	G	G	G	G	3.0	2.9	E	E	E	E	E
31																								
Mean Value	3.0	3.0	2.6	2.6	2.6	2.6	3.4	3.9	4.4	4.9	5.0	4.7	4.9	5.1	5.2	4.9	4.5	4.2	4.1	4.3	3.7	3.7	4.0	3.5
Median Value	2.4	1.9	2.1	2.0	2.0	E	3.0	3.6	3.8	3.7	3.7	2.7	3.7	3.6	G	3.7	3.8	3.6	3.5	2.9	2.4	2.3	1.8	2.4
Count	29	29	29	29	29	29	21	28	26	28	27	29	26	26	28	29	28	29	29	29	29	29	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

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Sep.1956

(M3000)F2

135° E Mean Time

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

(M3000)F2

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

K9

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

IONOSPHERIC DATA

Sep. 1956 | fminF | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.7^{A}	5.0^{A}	A	2.8^{A}	2.6^{A}	1.4	2.7	5.0^{A}	5.5^{A}	4.9^{A}	5.0^{A}	4.5	4.6	4.9^{A}	5.0^{A}	5.0^{A}	5.0^{A}	4.5^{A}	5.0^{A}	1.7	1.6	1.7	2.4^{A}	1.5
2	1.5	1.7	1.1	1.4	E	1.4	2.5	3.2	3.5	4.1	4.3	4.2	4.2	5.0	4.2	3.7	3.5	2.7	2.1	1.7	1.8	2.0	1.8	1.8
3	1.5	1.7	1.0	1.0	1.4	2.6^{A}	[3.4]^{A}	4.2^{A}	3.4	4.4	5.0	5.0	5.0^{A}	[5.2]^{A}	5.4^{A}	[4.7]^{A}	4.0	2.8	[3.6]^{A}	4.5^{A}	1.6	1.8	2.1	1.5
4	1.4	1.4	E	E	E	1.7	2.7	3.0	3.7	4.4	4.3	4.4	4.4	4.2	4.0	4.3	3.6	3.3	2.8	2.0	1.8	2.6^{A}	1.8	1.7
5	1.5	1.5	1.4	1.4	1.3	1.5	2.6	3.3	4.0	C	C	4.3	5.0^{A}	5.0	4.3	4.3	3.4	2.8	2.1	1.7	4.5	1.7	1.7	2.1
6	1.6	1.6	1.3	1.6	1.0	1.5	2.8	3.4	5.0^{A}	5.0	5.2	5.0	5.0	4.9	4.4	4.4	3.2	4.0	2.1	2.0	1.7	1.7	2.1	2.1
7	1.5	3.3^{A}	1.4	1.3	3.4^{A}	1.4	2.7	[3.2]^{A}	3.6	4.8^{A}	5.0	5.0	5.0^{A}	5.0	4.1	4.2	3.3	3.0	2.6	2.0	2.6^{A}	1.5	1.9	1.7
8	1.5	1.6	1.4	1.3	1.2	1.5	2.4	3.3	4.4^{A}	7.0^{A}	5.0^{A}	5.0^{A}	6.1^{A}	5.1^{A}	5.0	4.2	3.5	2.8	3.2	2.8^{A}	2.1	2.1	2.1^{F}	2.5
9	2.6	1.8	E	1.0	2.1^{A}	1.4	2.6	3.7	4.3^{A}	5.4^{A}	8.5^{A}	A	6.3^{A}	6.5^{A}	5.0^{A}	4.1	4.0	5.0	3.6	5.1^{A}	3.3^{A}	2.7^{A}	2.1	1.8
10	1.9	2.1	1.7	2.1^{A}	1.8	1.6	2.7	3.1	4.0	4.1	5.7^{A}	4.9	4.9	5.5^{A}	4.0	4.0	4.1	3.4	4.3^{A}	2.9^{A}	2.1	2.7^{A}	2.6^{A}	2.7^{A}
11	2.0	2.0	1.5	1.2	1.3	1.5	2.8	3.4	3.6	4.1	4.4	5.0	5.0	5.0	5.0	5.2^{A}	5.2^{A}	4.2^{A}	5.8^{A}	4.0^{A}	2.1	4.9^{A}	2.7^{A}	4.0^{A}
12	2.7^{A}	1.5	1.7	1.2	1.2	1.8	2.6	4.1	5.4^{A}	4.9^{A}	4.9	4.9	4.9^{A}	4.9^{A}	9.1^{A}	6.5^{A}	5.0	4.7^{A}	4.5^{A}	2.3	2.5	2.9^{A}	1.6	1.7
13	1.6	1.7	E	1.0	1.3	1.4	2.7	3.2	4.9	4.9	4.3	4.7	4.9	4.9	4.3	4.2	3.4	2.8	2.1	2.1	2.2	1.7	1.7	2.1
14	1.7	1.5	1.2	E	1.2	1.4	2.2	3.2	5.0^{A}	5.0	5.0	5.0	5.0	5.0	5.0^{A}	7.9^{A}	5.0^{A}	4.5	5.3^{A}	A	A	6.1^{A}	5.5^{A}	2.1
15	2.9^{A}	4.8^{A}	A	2.2^{A}	1.6	A	2.6	3.2	4.0	5.0^{A}	4.1	4.1	5.0^{A}	5.0^{A}	5.0^{A}	4.0	3.2	3.4	4.1^{A}	4.1^{A}	2.5^{A}	2.6^{A}	2.1	1.8
16	2.1	1.5	1.7	1.3	1.0	1.4	2.6	3.3	3.4	4.0	5.0	4.0	5.0	4.9	5.0	4.4	4.3	3.1	2.8	6.0^{A}	2.1	1.8	1.8	2.7
17	2.1	1.8	E	E	E	1.4	2.5	3.3	4.5	4.1	5.0	5.0	5.0	5.0	4.1	3.8	3.3	2.7	2.1	2.0	1.6	1.7	1.5	2.6^{A}
18	1.6	1.6	1.3	E	E	1.4	2.6	3.2	4.0	4.0	4.1	4.4	C	C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	4.2	4.1	4.2	4.9	5.0	5.0	4.5	4.0	3.3	1.9	1.8	1.4	1.7	1.7	1.5
20	1.6	1.5	E	E	1.0	1.5	2.1	3.1	3.5	4.0	4.0	5.0	5.0	5.0	5.0	4.1	3.2	2.6	2.1	2.0	4.0^{A}	2.5^{A}	1.8	1.5
21	1.7	1.6	E	E	E	1.5	2.5	3.0	3.4	4.0	4.2	4.2	4.2	4.2	4.0	3.5	3.1	2.5	1.7	2.1^{A}	1.5	1.5	1.5	1.7
22	1.8	1.4	E	E	E	1.4	2.4	3.1	3.4	4.0	4.2	4.2	4.2	4.1	4.0	4.1	3.1	2.6	2.6	4.0^{A}	1.9	1.7	1.7	1.7
23	1.5	1.4	E	1.0	E	1.3	2.1	2.9	3.5	4.3	4.2	4.2	4.1	4.1	4.1	3.5	3.5	2.7	2.0	1.9	1.6	1.5	1.6	1.6
24	1.3	1.5	1.3	1.2	E	1.4	2.3	3.1	3.4	4.6^{A}	4.0	4.2	4.2	4.1	3.8	3.5	[2.8]^{C}	2.2	1.7	1.6	1.5	1.9	1.6	1.6
25	2.0	1.6	E	1.0	E	1.3	2.7	3.0	3.4	3.9	4.1	4.5	4.1	4.0	4.0	3.5	3.1	2.5	1.6	2.5^{A}	1.6	1.6	[1.5]^{A}	1.4
26	2.3^{A}	1.6	E	1.0	E	1.4	2.3	3.0	3.5	4.1	4.1	4.0	C	C	4.1	3.4	2.8	2.2	1.6	1.6	1.5	1.6	1.6	1.5
27	1.5	1.8	1.7	1.3	1.3	1.4	2.5	3.1	C	C	4.2	4.2	4.1	4.1	4.2	3.4	2.9	2.2	1.6	1.6	1.7	1.8	1.7	1.6
28	1.7	1.4	E	1.3	1.7	2.3^{A}	2.2	3.1	3.5	4.1	4.1	4.1	4.1	4.0	4.1	3.5	3.4	4.1^{A}	4.0^{A}	2.7	1.6	2.0	3.2^{A}	1.6
29	1.7	1.5	1.3	1.2	1.0	1.4	2.2	3.1	3.7	4.0	4.6	4.4	4.2	4.2	4.0	4.0	3.0	2.9	3.2^{A}	1.6	1.8	1.8	1.6	1.8
30	[1.8]^{A}	1.7	1.2	1.0	1.1	1.4	2.1	2.9	3.5	4.0	4.0	4.1	4.1	4.0	4.0	3.5	2.9	2.2	1.5	1.6	1.6	1.6	1.5	1.6
31																								
Mean Value	1.8	1.9	1.4	1.4	1.5	1.5	2.5	3.3	4.0	4.5	4.7	4.5	4.7	4.7	4.6	4.3	3.6	3.2	2.9	2.6	2.1	2.5	2.0	1.9
Median Value	1.7	1.6	1.2	1.2	1.1	1.4	2.6	3.2	3.6	4.2	4.3	4.4	4.9	4.9	4.2	4.1	3.4	2.8	2.6	2.0	1.8	1.8	1.8	1.7
Count	29	29	27	29	29	28	29	29	28	28	29	29	28	28	29	29	29	29	29	28	28	29	29	29

fminF

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

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

IONOSPHERIC DATA

Sep.1956 | 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	1.5	1.5	E	E	E	1.7	3.4	1.9	3.5	2.1	2.1	2.1	2.2	2.1	2.2	2.0	2.1	1.8	1.7	1.6	E	E	1.5	E
2	1.6	1.5	E	1.7	1.4	1.3	[1.6]B	2.0	2.1	2.1	2.1	2.1	2.1	2.8	2.1	2.1	1.8	1.8	E	E	E	2.0	1.6	E
3	1.8	E	E	E	E	1.3	2.0	2.0	1.9	2.1	3.3	3.0	2.8	2.0	2.1	2.1	2.1	2.0	1.6	1.7	1.7	E	1.5	E
4	1.6	1.6	E	E	1.3	1.3	1.9	1.8	2.6	2.3	3.2	3.3	3.3	2.7	2.4	2.6	2.5	2.0	1.8	1.7	E	1.7	E	E
5	E	E	E	E	E	E	1.7	2.1	2.8	C	C	2.5	2.9	2.5	2.3	2.0	2.1	1.8	E	E	1.8	1.9	E	1.7
6	1.6	E	E	1.7	E	E	1.7	2.1	3.3	2.1	[2.6]B	3.1	3.3	2.5	3.4	2.6	2.1	2.1	1.8	1.5	1.6	E	1.6	1.6
7	2.0	1.5	E	E	E	1.4	1.8	1.8	2.1	2.3	2.8	2.8	3.3	[2.8]B	2.3	2.1	2.1	2.1	1.7	1.6	1.5	1.9	1.5	E
8	E	E	E	E	1.4	E	B	2.3	2.5	2.4	2.8	3.2	2.8	2.8	2.3	2.1	1.8	1.8	1.8	2.1	E	1.7	1.8	1.5
9	1.4	1.4	1.4	E	E	1.2	2.0	3.3	3.3	2.7	2.3	2.8	2.8	3.2	2.5	2.1	2.1	3.4	1.7	1.5	1.6	1.6	1.8	1.5
10	1.5	1.7	1.3	1.0	1.0	1.8	2.1	2.1	1.8	2.8	2.8	2.7	3.4	2.8	2.1	2.1	1.8	1.7	1.6	1.7	1.7	1.6	1.6	1.7
11	1.6	1.5	1.0	E	E	E	B	2.1	2.1	2.1	2.8	3.3	3.3	[3.3]B	3.3	2.1	2.1	2.1	2.1	1.5	1.6	1.7	1.7	1.7
12	1.5	1.5	E	E	E	E	2.0	2.9	2.1	2.8	[3.0]B	3.3	3.3	2.9	2.1	2.0	1.8	1.5	1.6	1.8	1.6	E	E	E
13	E	E	E	E	1.0	E	B	2.5	B	3.3	3.4	2.9	B	2.4	2.1	2.1	2.1	2.1	1.7	1.7	E	E	E	1.6
14	1.6	1.7	1.5	E	E	E	B	1.7	2.1	2.1	3.4	B	B	2.7	2.8	2.1	2.1	1.8	1.6	1.7	1.7	1.7	1.6	1.5
15	1.4	1.5	E	E	E	1.4	2.0	2.1	2.1	2.2	2.8	2.7	3.2	3.1	2.4	2.1	1.7	2.1	1.6	1.5	1.7	1.6	1.7	E
16	1.8	1.7	E	1.8	E	E	1.9	2.7	2.7	2.7	2.2	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.1	1.6	1.6	E	1.6	E
17	E	E	E	E	E	E	B	2.1	3.3	2.8	2.1	3.2	3.2	3.3	2.1	2.1	2.1	1.9	E	1.5	E	1.8	E	1.5
18	E	E	E	E	E	1.7	B	2.0	[2.2]B	2.5	2.5	2.8	C	C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	2.7	2.5	2.8	2.7	2.8	2.0	2.0	1.8	2.0	1.7	E	E	E	E	E
20	E	E	1.5	E	E	E	1.7	2.0	2.5	3.3	2.1	3.3	2.7	2.1	2.0	2.0	2.0	1.6	1.6	1.7	2.0	1.6	E	E
21	E	E	E	E	E	2.0	B	B	2.2	2.2	2.2	2.4	2.3	2.1	2.0	1.7	1.4	1.5	1.4	1.4	1.4	E	E	1.6
22	1.5	1.5	1.5	1.4	E	1.4	1.6	1.8	2.0	2.3	2.2	2.9	2.5	2.5	2.2	2.1	1.6	1.4	1.4	1.7	1.5	1.5	E	1.7
23	1.7	1.6	E	E	E	E	1.6	1.7	1.8	2.0	2.2	2.1	1.7	1.6	2.2	2.2	1.5	1.4	1.4	1.6	1.8	E	E	1.6
24	1.7	E	1.0	E	E	1.7	1.5	1.5	1.4	1.6	2.3	2.5	2.5	2.5	2.3	1.8	[1.7]C	1.6	E	E	1.6	1.6	E	1.5
25	1.8	1.5	E	E	E	E	1.8	1.6	1.5	1.8	2.3	1.8	2.2	2.3	2.2	1.5	1.8	1.8	1.7	1.5	E	1.5	1.6	2.0
26	1.5	1.7	1.3	E	E	E	1.7	1.4	1.4	2.1	2.1	2.3	C	C	1.7	1.5	1.4	1.4	1.8	E	E	1.6	1.6	1.7
27	E	1.4	E	E	1.4	1.9	1.6	1.7	C	C	2.3	2.2	2.3	2.1	[2.0]B	2.0	1.8	1.7	1.7	E	E	E	E	E
28	1.6	E	E	E	E	1.4	1.6	1.6	2.2	1.8	2.0	2.3	2.7	2.5	2.3	2.2	1.7	1.5	1.6	1.5	E	1.5	1.6	E
29	1.7	E	E	E	1.4	E	1.6	1.7	1.8	2.1	2.3	2.8	2.4	3.5	1.5	2.2	1.7	1.6	1.7	E	1.8	E	E	1.6
30	1.4	1.4	1.7	E	E	E	1.6	1.8	2.0	2.2	2.5	2.3	2.3	2.3	2.4	1.8	1.5	1.6	1.6	E	E	E	E	E
31																								
Mean Value	1.6	1.5	1.4	1.5	1.3	1.5	1.8	2.0	2.3	2.3	2.5	2.7	2.7	2.6	2.3	2.0	1.9	1.8	1.7	1.6	1.7	1.7	1.6	1.6
Median Value	1.5	1.4	E	E	E	E	1.7	2.0	2.1	2.2	2.3	2.8	2.7	2.5	2.2	2.1	1.8	1.8	1.7	1.5	1.5	1.5	1.5	1.5
Count	29	29	29	29	29	29	22	28	27	28	29	29	26	28	29	29	29	29	29	29	29	29	29	29

fminE

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

Sep. 1956 | **ypF2** | 135° E Mean Time | **Kokubunji Tokyo** | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	80	90	100	110	120	(80)^{F}	70	100	140^{H}	(50)^{J}	(50)^{J}	50	50^{H}	70	70^{H}	80	70	70	70	70	110	110	110	80
2	70	70	100	100	80	60^{P}	70	70	80^{H}	80	80	80	70	60	70^{P}	80^{P}	100	80	(60)^{P}	90^{H}	80	90	80	100
3	80	70	60	130	80^{V}	120	A	70^{P}	150^{Z}	U	U	U	A	A	U	A	80	90^{H}	[80]^{A}	80	130	100	130	70
4	180	90	120	90	110	70	100	60	90	70	(50)^{J}	U	80^{H}	70	70^{H}	90^{H}	70	70	60	70	100	100	100	80
5	80	80	90	100	60	80	60	70	120	[100]^{C}	80	70	60	70	80	70^{H}	70	60	70	60^{P}	60	90	70	90
6	90	70	100	100	90	100	80	70	(50)^{P}	80	100	[80]^{BH}	60	70^{H}	90^{H}	70	100	60	80	70	90	80^{P}	70	100
7	90	100	140	110	110	80	70	110	130	60^{H}	90	80	80	60	100	60^{H}	70	70	70	60	80	130	110	100
8	100	80	110	100	90	90	60	60	120	90	80	80^{H}	70	80	80	80	80	70	80	90	100	80	BF	BF
9	(50)^{J}	140	100	130	70	70	90	40	50	80	A	A	110	[90]^{B}	70	80	90	70	80^{P}	100	110	70	80	80
10	70	100	120	90	80	90	70	60	120	90	[100]^{C}	100	60^{P}	90^{P}	70^{P}	70^{P}	100	80^{P}	70^{P}	90	90	90	110	(50)^{J}
11	70^{P}	100	90	80	100	90	70	70	60	80	70^{H}	60^{HP}	(90)^{J}	70^{H}	(60)^{PH}	(60)^{PH}	70	60^{P}	[60]^{B}	70	80	70	80	100
12	80	70	110	130	80	110	110	80	60^{P}	80	(80)^{F}	70^{H}	BH	B	A	70^{P}	(70)^{J}	80	70	80	100	90	80	80
13	80	100	120	70	80	110	80	70	70	70	100	(60)^{HP}	(60)^{B}	BH	BH	(90)^{J}	(80)^{HB}	[80]^{B}	90	120	80	80	80	50
14	70	70	100	100	90	110	80	80	100	70^{P}	60^{H}	B	BH	BH	70^{HP}	90	80	110	90	A	A	80	70	80
15	110	70	60	70	70	100	80	60^{P}	(60)^{B}	80	HB	80^{H}	[80]^{BH}	80^{H}	50^{H}	B	B	90	100	100	90	80	90	80
16	70	70	80	70	90	110	110	70	B	B	(100)^{J}	90	90	HB	B	B	(70)^{B}	100	90	90	90	90	90	70
17	70	90	80	110	90	90	60	90	80	80	BH	BH	BH	BH	BH	B	BH	60	(70)^{P}	80	110	70	70	70
18	80	60	110	100	90	80	40	50^{P}	70	50	(50)^{F}	60	C	C	C	C	C	C	C	C	C	C	C	C
19	C	C	C	C	C	C	C	C	C	60^{P}	60^{H}	BH	BH	80^{H}	(40)^{HP}	60^{P}	60	60	B	B	80	60	50	60
20	70	80	60	100	70	80	60	B	B	60	(70)^{P}	50^{HP}	(50)^{HP}	70^{H}	BH	50^{H}	70	B	C	B	B	60	80	70
21	80	70	90	100	110	90	110	90^{H}	120	90	80^{P}	60	110^{H}	90^{H}	40	70^{H}	70	90	80	80	80	70	100	90
22	90	100	130	120	150	160	100	80	60	80^{P}	100^{H}	110	70^{H}	80	100^{H}	100^{H}	80	80	90	140	120	140	90	100
23	90	80	150	130	120	140	110	70	90	100	90^{H}	70^{H}	80^{H}	90^{H}	90	90	90	110	90	100	110	90	120	100
24	110	100	120	120	100	120	80	80	80	90	90	70	80	90^{H}	100	100	[90]^{C}	80	90	80	100	80	90	90
25	90	120	90	70	110	110	100	60^{P}	70	60	90	80	90	80^{H}	70^{H}	90	110	100	70	90	100	80	90	90
26	80	110	90	110	140^{H}	130	100	80	70	80	80	100^{H}	C	C	100^{H}	70^{HP}	90	80	90	100	100	80	80	110
27	100	90	110	80	120	110	120	60	C	C	100	90	90^{H}	90	80^{H}	70	90	80	70^{P}	110	90	90	100	130
28	100	110	130	110	130	90	110	80	80	80	80	80^{H}	80	60^{P}	60^{P}	60	60^{P}	100	50^{P}	110	100	80	90	100
29	110	120	110	110	100	100	90	70	60	90	90	80	70	90	80^{H}	80	80	70	80	100	90	60	80	90
30	70	90	80	100	100	130	100	60	50	70	70	80	80^{H}	80^{H}	70^{H}	90	80	80	70	90	80	70	70	60
31																								
Mean Value	90	90	100	100	100	100	90	70	90	80	80	80	80	80	70	80	80	80	80	90	90	80	90	80
Median Value	80	90	100	100	90	100	80	70	80	80	80	80	80	80	70	80	80	80	80	90	90	80	80	80
Count	29	29	29	29	29	29	28	28	26	27	26	24	23	22	23	25	27	28	27	26	27	29	28	28

ypF2 | Sweep 1.0 Mc to 17.2 Mc in 2 min | ☐ Manual ☒ Automatic | **K 12**

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

IONOSPHERIC DATA

Sep. 1956 | 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	7.7	7.4 P	[7.3]S	7.2	7.3 J	8.5 H	9.0 H	10.0	10.0	10.1 H	11.3	11.6 H	11.6 H	11.0	9.1 H	S	S	S	S	S	8.1	7.8
2	8.5	8.1	8.0	6.5	6.5 H	6.3	6.5	8.9	10.2	[10.4]S H	10.6 H	11.4 H	12.0 H	12.5 H	13.1 H	13.0	11.8 H	12.5	[9.7]S	6.9	S	S	8.5 S	9.5
3	8.6 H	7.3	6.0	3.8	(3.6)P	[4.6]S	5.5	10.5	[10.0]S	9.6 H	[10.8]S H	12.0 H	SH	SH	8.9 H	9.9 H	8.9 S H	8.8	S	S	8.2 J	7.9	S	S
4	7.5 P	6.3	5.3	5.6	5.2	4.4 H	5.4	7.8 H	7.9	7.8	8.3	9.0 H	[9.0]S	9.1 H	9.1 H	9.3 P H	10.0 H	10.0 H	[9.6]S	9.2	8.4	[7.9]S	7.4	S
5	S	6.7 P	6.6	6.3	6.2	5.8	6.7	9.7	9.5 S	9.9	9.5 H	[11.0]S H	12.4 H	13.1 H	13.5 H	12.7 H	12.4 H	11.2	[10.2]S	9.1	8.6	8.8	8.6	8.2
6	7.4 P	7.2	7.3	6.7	6.4	6.4	7.2	9.0	C	C	C	C	C	C	C	C	C	12.7	11.2 J S	11.2	9.5	[8.5]S	7.5	S
7	S	6.6	6.8	6.4	6.9	6.5 P	7.2	SH	S	10.5	11.4 H	11.9 H	13.3 H	13.5 H	12.6 H	11.7 H	11.6 H	10.8 H	S	S	S	8.4	6.9	6.8
8	6.6	6.5	6.2	6.7	6.5	6.5 P	7.5 J	9.0 S	[9.5]S	10.0 H	11.1 H	11.3 H	12.0 H	12.2 H	11.7 H	12.2 H	[12.3]S H	12.4	12.1	S	S	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	10.5	C	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	10.7 H	11.5	12.8	12.4 H	13.0	13.1	13.5 H	13.4	13.5	14.0 P	12.9	S	S	S	9.7
11	[9.4]S	9.0	8.1 J	7.9 J	7.3	7.0	8.5	11.9	11.0 H	10.5	10.9 H	12.5 H	13.0 H	13.5 H	14.5 P H	(14.6)P H	SH	SH	S	12.6	S	S	S	S
12	10.6	[10.3]S	10.0	8.4	6.7	5.4 H	6.3	S	11.8	12.1 H	12.3 H	13.0 H	12.8 H	[12.9]S H	13.0 H	12.8 H	12.8 P H	13.2	S	S	S	S	S	S
13	S	S	7.7 J	7.3 P	6.3	6.3	7.0	S	C	11.8 H	11.0 H	12.0 H	SH	SH	SH	(14.5)P H	[14.2]S H	13.8	S	S	S	S	S	S
14	S	9.7 S	9.5	6.7	(7.0)P	6.9	8.5	[10.5]S	12.5	[12.4]C	12.4 H	13.0 H	13.5 H	13.5 H	13.2	13.2 H	[13.1]S H	13.0	13.0	[11.4]S	9.7	[9.5]S	9.3	8.5
15	[8.6]S	8.7	9.0	8.6	(6.8)P	6.4 P	S	S	C	SH	12.3 H	12.9 H	C	SH	13.8 H	14.0 P H	14.5 P H	14.3 P H	S	S	S	S	S	11.6 J
16	12.4 J	S	S	9.5	8.0 J	7.0 P	8.0	[10.2]S	12.3	12.2 H	12.5 H	12.6 H	13.0 H	13.7 H	13.0 H	13.0 H	13.1 H	13.0 H	S	S	10.0	10.6 J S	S	S
17	S	S	9.5	8.5	8.0	8.7	9.5	11.6	12.3	12.4	13.0 H	SH	SH	SH	SH	C	SH	SH	13.1	12.9 J S	S	S	S	S
18	S	S	8.8	[8.4]S	8.1	7.2	8.5	11.1	11.5	12.5 H	13.3	13.8 H	[14.1]S H	14.4 H	14.5 H	14.5 H	14.2 H	14.3 H	13.5	12.3	(13.0)J P	S	(14.2)J P	(12.8)J P
19	[11.4]S	10.0	8.8	7.7	6.4	6.4	7.9	12.2	12.2	11.5	11.5 H	C	C	C	C	C	C	12.3	11.5	(10.2)P	S	S	11.2 P	[10.8]S
20	10.4 S	9.5	8.8	8.0	6.8	7.0	8.1	12.0 J	11.6	10.7 H	11.8 H	12.6 H	13.5 H	13.8 H	14.2 H	14.2 H	14.0 H	13.8 H	13.7	9.7	9.9 S	9.1	9.5	9.6
21	9.8	9.0	7.9 J	7.2	7.0	7.6	M	M	M	13.0 H	13.0 H	SH	14.5 H	SH	SH	14.5 H	13.3 H	12.4 H	12.2	11.4	9.5	8.2	8.4	8.2
22	7.3	7.3	7.0	6.8	6.4	6.0	6.3	9.8 J	12.3 J H	12.3 H	14.5 P H	15.2 H	SH	SH	14.5 P H	14.4 H	14.5 H	13.5 H	13.0	[11.8]S	10.5 S	10.6	9.8 S	9.9 S
23	10.1 J H	[9.2]S	8.3	S	8.3	6.5	7.4	10.7	11.8	11.7 H	14.0 H	14.5 H	15.0 J H	SH	SH	14.2 H	14.5 H	14.5 H	13.7	13.0	9.8	9.2	9.4	9.3
24	9.2	9.2	8.5	7.9	7.2 H	7.4	8.6	11.1	12.0	12.0	12.5 H	13.5 H	14.9 H	15.5 H	[14.6]S H	13.7 H	14.5 H	14.5	13.0	[11.4]S	9.8	9.1	9.8	(10.0) P S
25	9.1	7.9	7.9 J	7.8 J	7.6 J	6.3	7.7	12.0 J S	12.7	11.8	12.0 H	13.3	14.0 H	SH	SH	15.3 H	SH	S	(15.0)P	13.6	[13.0]S	12.3	12.4	11.5
26	10.5 J	9.8	8.5 H	8.2 H	6.5 H	5.6	6.1	9.0	11.5	12.5 H	13.0 H	13.5 H	14.2 H	14.5 H	14.6 H	14.3 H	[14.4]S H	14.5 H	14.0	13.0	11.9	10.9 S	[10.4]S	10.0 S
27	9.2	7.3	7.2	7.1	6.1	5.5	6.3	10.0	11.6 H	12.3 H	12.5 H	13.2 H	13.6 H	14.6 H	14.5 J H	14.9 J H	14.5 H	14.6 P	14.5 P	11.8	11.4	11.3	[10.8]S	10.2
28	8.9	8.5	7.8	7.7	7.1	6.7	7.4	11.0	14.7	12.5	12.2 H	13.1 H	14.9 J H	15.2 H	15.5 H	15.0 H	15.0 S H	15.0	B	B	S	S	S	12.8
29	12.1 J S	9.5 S	8.5	7.7	7.0	6.6	7.2	9.8 J	11.1	12.3	12.1 H	C	C	C	C	C	C	13.8	14.7	13.4	[14.0]S	(14.5)J P	S	12.0 S
30	9.8	10.4	8.1	6.7	6.2 H	6.3	7.2	11.4	12.5	12.0 H	12.3 H	12.9 H	14.0 H	13.6 H	13.8 H	14.0 H	14.5 H	13.5	12.4	10.8	10.0 S	10.0	10.4	9.5
31																								
Mean Value	9.4	8.4	7.9	7.3	6.8	6.4	7.3	10.3	11.4	11.4	11.9	12.5	13.2	13.3	13.2	13.4	13.1	12.9	12.7	11.4	10.4	9.8	9.6	9.9
Median Value	9.2	8.7	8.0	7.4	6.8	6.4	7.2	10.5	11.6	11.8	12.2	12.8	13.5	13.5	13.5	14.0	13.4	13.4	13.0	11.6	9.9	9.2	9.4	9.8
Count	21	23	27	27	28	28	26	23	23	27	28	24	21	18	21	25	23	26	20	20	17	17	18	20

foF2

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

Y 1

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

IONOSPHERIC DATA

Sep. 1956 | 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	290	350	360	340	300^{A}	220	220^{H}	240^{H}	250	290	240^{H}	300	260^{H}	260^{H}	280	250^{H}	290	250	260	290^{A}	310^{A}	300^{A}	300^{A}
2	340^{A}	290	270^{A}	340^{B}	300^{H}	270	280	270	250	240^{H}	220^{H}	280^{H}	250^{H}	260^{H}	260^{H}	310	270^{H}	290	240	[320]^{A}	400^{A}	310	300	250
3	240^{H}	240	240	[320]^{A}	390	360	330^{A}	240	[240]^{A}	240^{H}	250^{H}	260^{H}	280^{H}	250^{H}	300^{H}	300^{H}	290^{H}	280	250	(350)^{A}	290^{A}	260	300	290
4	240	250	290	290	300	320^{H}	300	250^{H}	290	290	290	240^{H}	[250]^{A}	260^{H}	280^{H}	270^{H}	260^{H}	250^{H}	250	250	270	290	290	290
5	290	290	270	250	270	250	270	240	240	240	240^{H}	250^{H}	250^{H}	280^{H}	280^{H}	250^{H}	250^{H}	250	250	240^{A}	250	250	260	250
6	260	290	290	250	280	240	240	240	C	C	C	C	C	C	C	C	C	270	250	250	240	230	250	280
7	380^{A}	350^{A}	390	270	260	260^{A}	250	250^{H}	240	240	240^{H}	300$^{A}_{H}$	250^{H}	250^{H}	240^{H}	250^{H}	250^{H}	240^{H}	260	250	250	240	240	270
8	280	310	300	260	250	240	250	230	240	240^{H}	240^{H}	250^{H}	250^{H}	260^{H}	250^{H}	250^{H}	260^{H}	290	260	260	270	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	300	C	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	240^{H}	A	320^{A}	260^{H}	330	310	270^{H}	290^{A}	260	250	240	230	240	260	270
11	290	280	290	280	250	260	250	240	220^{H}	230	240^{H}	240^{H}	240^{H}	250^{H}	250^{H}	250^{H}	260^{H}	250^{H}	250	240	240	240	290	290
12	280	240	230	240	210	240^{H}	290	240	230	240^{H}	250^{H}	250^{H}	250^{H}	270^{H}	250^{H}	270^{H}	270^{H}	270	250	240	240	300	290	270
13	270	260	250	260	240	280	290	250	[240]^{C}	240^{H}	240^{H}	240^{H}	250^{H}	240^{H}	260^{H}	250^{H}	280^{H}	270	240^{A}	280^{A}	A	A	290	270
14	260	250	250	240	290	320	290	240	240	[240]^{C}	240^{H}	240^{H}	240^{H}	240^{H}	350^{A}	250^{H}	260^{H}	260	250	300^{A}	290^{A}	A	A	320
15	290	340^{A}	290	240	230	250	280	240	[230]^{C}	220^{H}	240^{H}	240^{H}	[240]^{C}	250^{H}	240^{H}	250^{H}	240^{H}	250^{H}	240	290^{A}	280	300^{A}	270	280
16	260	240	240	220	230	250	270	230	230	230^{H}	240^{H}	250^{H}	240^{H}	240^{H}	240^{H}	250^{H}	240^{H}	270^{H}	260	290^{A}	(290)^{A}	290	280	280
17	260	250	250	320	340	250	240	240	230	230	210^{H}	240^{H}	250^{H}	240^{H}	250^{H}	[250]^{C}	250^{H}	250^{H}	240	240	240	260	290	290
18	250	240	260	270	250	240	250	240	240	220^{H}	240	240^{H}	220^{H}	240^{H}	230^{H}	240^{H}	260^{H}	250^{H}	250	250	260	270	250	240
19	240	240	240	240	240	270	270	240	230	230	220^{H}	C	C	C	C	C	C	300	260	240	290	280	250	240
20	240	240	250	240	230	260	260	240	240	220^{H}	230^{H}	240^{H}	240^{H}	250^{H}	250^{H}	250^{H}	250^{H}	270^{H}	250	300^{A}	300$^{A}_{H}$	290	300^{A}	300
21	280	240	300	390	360	290	250	M	M	220^{H}	220^{H}	240^{H}	250^{H}	240^{H}	240^{H}	240^{H}	240^{H}	240^{H}	250	250	240	(290)^{A}	290^{A}	280^{A}
22	300	310	290	260	260	260	300	240	230^{H}	220^{H}	230^{H}	240^{H}	240^{H}	240^{H}	240^{H}	240^{H}	240^{H}	250^{H}	240	220^{A}	250	300	270	250
23	270^{H}	240	250	300	240	240	290	240	230	220^{H}	240^{H}	240^{H}	240^{H}	240^{H}	240^{H}	240^{H}	250^{H}	240^{H}	250	240	210	230	250	290
24	270	260	250	250	260^{H}	260	240	240	220	230	220^{H}	230^{H}	240^{H}	240^{H}	240^{H}	240^{H}	240^{H}	250	250	240	220	280	270	250
25	280	290	290	240	240	250	280	240	240	220	240^{H}	250	240^{H}	240^{H}	240^{H}	240^{H}	250^{H}	250	250	240	240	250	250	250
26	250	270	290^{H}	240^{H}	190^{H}	240	240	220	240	230^{H}	230^{H}	250^{H}	240^{H}	240^{H}	240^{H}	250^{H}	240^{H}	250^{H}	240	240	240	250	250	240
27	240	240	300	250	240	260	290	240	220^{H}	240^{H}	230^{H}	240^{H}	240^{H}	250^{H}	250^{H}	250^{H}	240^{H}	250	240	230	240	240	250	250
28	300	290	290	260	250	250	290	240	240	220	230^{H}	240^{H}	240^{H}	240^{H}	250^{H}	240^{H}	240^{H}	240	240	220	220^{A}	240	240	240
29	250	240	280	270	240	240	250	220	220	220	230^{H}	C	C	C	C	C	C	250	240	240	230	240	240	240
30	240	250	250	270	290^{H}	290	290	240	220	220^{H}	230^{H}	240^{H}	240^{H}	240^{H}	230^{H}	250^{H}	240^{H}	240	240	240	240	240	250	260
31																								
Mean Value	270	270	280	270	270	270	270	240	240	230	240	250	250	250	260	260	250	260	250	260	260	270	270	270
Median Value	270	260	280	260	250	260	270	240	240	230	240	240	240	240	250	250	250	250	250	240	240	260	270	270
Count	28	28	28	28	28	28	28	27	26	28	27	26	26	26	26	26	26	30	29	29	28	26	27	28

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

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

IONOSPHERIC DATA

Sep. 1956 | fEs | 135° E Mean Time | Yamagawa | Lat. 31° 12.5' N | Long. 130° 37.7' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.5	3.3	5.1	3.2	3.3	3.3	3.0	3.6	5.9	G	4.8	G	6.0	6.3	G	6.2	5.9	5.7	5.0	5.9	5.9	5.9	3.2F	3.6F
2	3.7F	3.0	3.2	3.1	2.4	2.3	2.3	3.0	B	3.8	5.9	G	G	5.6Y	G	G	5.2	5.0	3.6	8.5	5.9	3.5	2.4	2.9
3	2.1	E	3.0	3.5	2.4	2.4	3.1	G	5.9	8.9	G	B	G	5.9	5.9	G	6.1	5.9	4.9	8.0	5.9	2.3	2.3	2.3
4	E	2.1	E	2.3	2.8	2.3	2.3	G	G	G	G	G	8.9	5.7	5.9	3.8	G	3.7	3.6	3.1	3.5	3.3	2.4	2.3
5	2.3	2.3	2.3	2.3F	2.3	2.2	E	G	G	G	G	G	B	G	G	G	G	G	3.4	2.3	2.3	3.0	E	2.3
6	E	2.3	2.1	2.3	E	E	E	G	C	C	C	C	C	C	C	C	C	G	G	2.2	2.3	2.3	2.3	2.1
7	3.6	5.0Y	3.1	3.4	3.0	3.8	3.8	4.4	5.0Y	5.0	5.4	7.0	5.7	5.8	G	G	4.2	3.7	3.6	4.3	3.0	2.3	2.3	3.1
8	2.3	2.4	2.3	2.3	E	E	2.3	G	G	G	4.4	G	5.7	8.9	5.0	3.7	5.8	5.9	6.5	5.9	3.0	C	C	C
9	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	5.9	C	C	C	C	C	C
10	C	C	C	C	C	C	C	C	C	6.5	9.5	8.9	5.5	7.1	7.4	5.9	6.7	5.9	4.0	2.3	4.8	3.2	3.8	3.8
11	3.3	2.6	2.4	2.3	2.3	2.1	2.4	G	G	5.1	5.9	G	G	G	G	5.9	G	3.8	3.4	3.8	3.5	2.3	2.3	2.3
12	3.0	3.0	E	E	E	2.3	2.3	3.7	5.9	4.8	C	C	5.9	C	3.8	C	G	G	6.7	2.3	2.4	3.6	2.3	2.2
13	E	3.5	2.3	E	E	E	2.3	G	C	C	C	C	C	C	5.9	G	5.6	6.8	5.7	4.9	7.0	8.9	2.3	2.3
14	2.4	2.4	2.4	2.3	2.3F	2.3	G	G	C	C	C	C	5.6Y	5.5Y	7.8	5.9	C	5.8	3.8	9.0	5.9	8.9	5.9	3.8
15	2.4	5.9	>2.2	2.2F	E	>2.2	>2.2	>2.2	C	5.5	C	5.0	C	5.9	5.9	C	C	5.9	5.1	6.0	5.9	2.8	2.4	2.6
16	>2.2	>2.2	>2.2	>2.2	>2.2F	>2.2	>2.2	C	C	C	C	5.9	C	C	C	5.1	5.0	5.8	5.1	5.9	5.9	>2.2	>2.2	>2.2
17	>2.2	>2.2	>2.2	>2.2	>2.2F	E	>2.2F	2.8	C	C	C	C	C	C	C	C	C	G	3.5	>2.2	E	>2.2	>2.2	>2.2
18	>2.2	>2.2	E	>2.2	E	E	G	G	5.9	C	C	C	C	C	C	C	C	G	4.2	3.8	3.1	>2.2	>2.2	>2.2
19	>2.2	>2.2	>2.2	>2.2	E	E	E	G	C	C	C	C	C	C	C	C	C	8.7	5.9	3.3	3.3	2.4	E	2.3
20	2.3	E	E	2.3	2.3	2.3	2.4	3.5	G	G	G	5.9	5.5Y	4.9	8.9	5.7	5.9	6.5	5.9	5.9	8.0	3.5	5.7F	2.4
21	2.3	2.4	E	E	2.3	E	G	M	M	G	7.0Y	G	G	G	G	G	4.7	G	2.0	2.3	3.5	3.5	4.6	3.6
22	2.4	1.9	1.9	E	2.0	E	E	4.0	5.9	4.9	4.5	G	G	G	G	G	G	G	3.0	3.0	5.9	5.9F	2.1	2.0
23	2.4	1.9	E	E	E	E	E	3.2	4.8	8.9Y	5.0	4.2	4.5	G	G	4.7	G	3.6	4.1	3.1	1.9	1.9	1.8	E
24	E	E	1.9	E	E	E	E	G	G	G	5.9Y	4.4	G	G	G	G	G	G	3.2	2.0	E	2.0	1.9	E
25	E	1.9	E	E	E	E	E	3.8	4.4	G	G	G	G	G	4.6	G	G	G	B	E	2.1	E	E	E
26	3.0Y	2.1	3.0	E	E	E	E	G	G	4.7	G	G	G	G	G	G	G	G	3.2	2.0	1.9	E	E	E
27	E	E	3.0	1.9	E	E	E	3.8	4.5	5.9	5.1	6.6	G	G	G	G	G	G	B	E	E	E	E	E
28	E	E	E	2.0	2.0	2.0	3.7	G	4.1	4.8	5.1	5.0	4.9	5.1	5.5	4.8	G	G	B	E	3.3	3.4	3.1	2.0
29	1.9	1.9	E	E	E	E	E	G	G	4.6	8.6	C	C	C	C	C	C	B	2.3	1.9	E	3.7	2.4	E
30	E	E	E	E	E	E	E	G	G	3.8	4.7	4.7	4.7	G	G	G	G	G	E	E	E	E	E	E
31																								
Mean Value	2.7	2.8	2.7	2.6	2.5	2.5	2.7	3.6	5.2	5.5	5.8	5.8	5.7	6.1	6.1	5.2	5.5	5.5	4.2	4.2	4.2	3.7	2.9	2.7
Median Value	2.3	>2.2	>2.2	>2.2	E	E	>2.2	G	4.1	4.6	4.9	G	4.6	4.9	G	G	G	3.7	3.7	3.1	3.3	3.0	2.3	2.3
Count	24	28	28	28	28	28	28	26	19	22	20	20	20	21	23	22	22	29	26	28	29	25	25	25

fEs

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

Y 3

SOLAR RADIO EMISSION

SEPT. 1956

Observing Station: HIRAISO

Frequency: 200 Mc/s

Flux in 10^{-22} w.m.$^{-2}$(c/s)$^{-1}$, 2 polarizations

Time in U.T.

Daily Data

Date	Steady Flux		
	00-03	03-06	Daily Averages
1	38	38	38
2	14	15	14
3	8	9	9
4	9	12	11
5	10	10	10
6	18	10	14
7	15	13	14
8	10	10	10
9	18	18	18
10	8	8	8
11	9	8	8
12	14	9	12
13	-	-	(6)
14	5	8	6
15	13	11	12
16	12	10	11
17	14	14	14
18	-	-	-
19	10	12	11
20	9	-	(9)
21	13	6	9
22	10	12	11
23	9	6	8
24	8	8	8
25	7	8	8
26	9	12	11
27	8	11	9
28	6	6	6
29	8	7	8
30	9	8	8

Outstanding Occurrences

Date	Starting Time	Duration	Type	Peak Flux	Time
1	2239-?	ca 7m	CD	620	2240.....1st peak
				800	2243.....2nd peak
				400	2245.....3rd peak
2	0202	2m30s	CD	790	0203
4	0128-30s	ca 4m	CD	580	0129
5	2020	4m	CD	>1000	
	2040	3m	CD	800	
7	2345-?	40s	CD	>1000	-
8	2258-?	2m	SD	500	
	2343	1m50s	CD	650	
	2358	2m	SD	>1000	
9	0118-30s	4m	CD	>1000	
10	0132	4m	CD	800	0134
	0511	3m	CD	> 800	0511.....1st peak
				> 800	0513-30s...2nd peak
11	0230	1m	CD	440	-
	0354	ca 6m	CD	> 800	0356
	0404	ca 3m	CD	200	0405
	0547	1m	CD	610	-
12	2342	1m	SD	320	-
26	0522	1m	CD	100	-
	0524	1m	CD	280	-
	2213	1m30s	CD	430	-
30	0435	30s	CD	310	-

IONOSPHERIC DATA IN JAPAN FOR SEPTEMBER 1956
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編集兼発行人　藤木　栄
東京都北多摩郡小金井町小金井新田一之久保573

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東京都北多摩郡小金井町小金井新田一之久保573
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印刷所　今井印刷所
東京都新宿区筑土八幡町8番地
電話 九段 (33) 2304