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IONOSPHERIC DATA IN JAPAN

FOR AUGUST 1956

Vol. 8 No. 8

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THE RADIO RESEARCH LABORATORIES

KOKUBUNJI, TOKYO, JAPAN

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THE RADIO RESEARCH LABORATORIES

KOKUBUNJI, TOKYO, JAPAN

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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	} ordinary-wave critical frequency for the E , $F1$ and $F2$ layers respectively
f_0F1	
f_0F2	
fE_s	highest frequency on which echoes of the sporadic type are observed from the lower part of the E layer
$h'E$	} minimum virtual height on the ordinary-wave branch for the E , $F1$ and $F2$ layers respectively
$h'F1$	
$h'F2$	
h_pF2	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 h_pF2 and the virtual height at $0.969 f_0F2$)
$(M 3000) F2$	maximum usable frequency factor for a path of 3000 km for transmission by $F2$ layer
$f_{\min}E$	} frequency below which no echoes are observed for the E and F regions respectively
$f_{\min}F$	
()	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) E_1 -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) $h'F_2$ omitted because the F_2 -layer trace is continuous with the F_1 -layer trace and without a point of zero slope
- M characteristic not observed because of some failure or emission on the part of the operator, 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 atmospheric
- T loss or destruction of successful observations
- U h_p or y_p not measurable, for instance, because ordinary-wave trace has horizontal tangent at or above the frequency $0.834 f_oF_2$
- 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

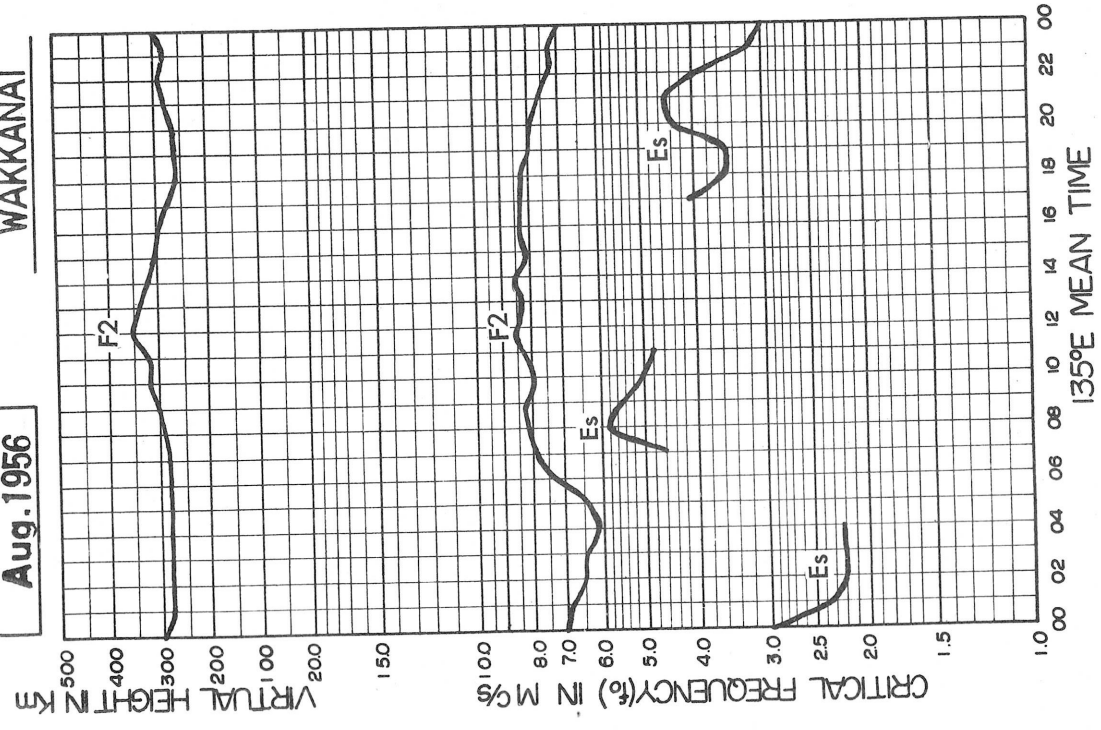
Solar radio emission is observed at Hiraiso Radio Wave Observatory.

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

IONOSPHERIC DATA
MONTHLY MEDIAN CHARACTERISTICS

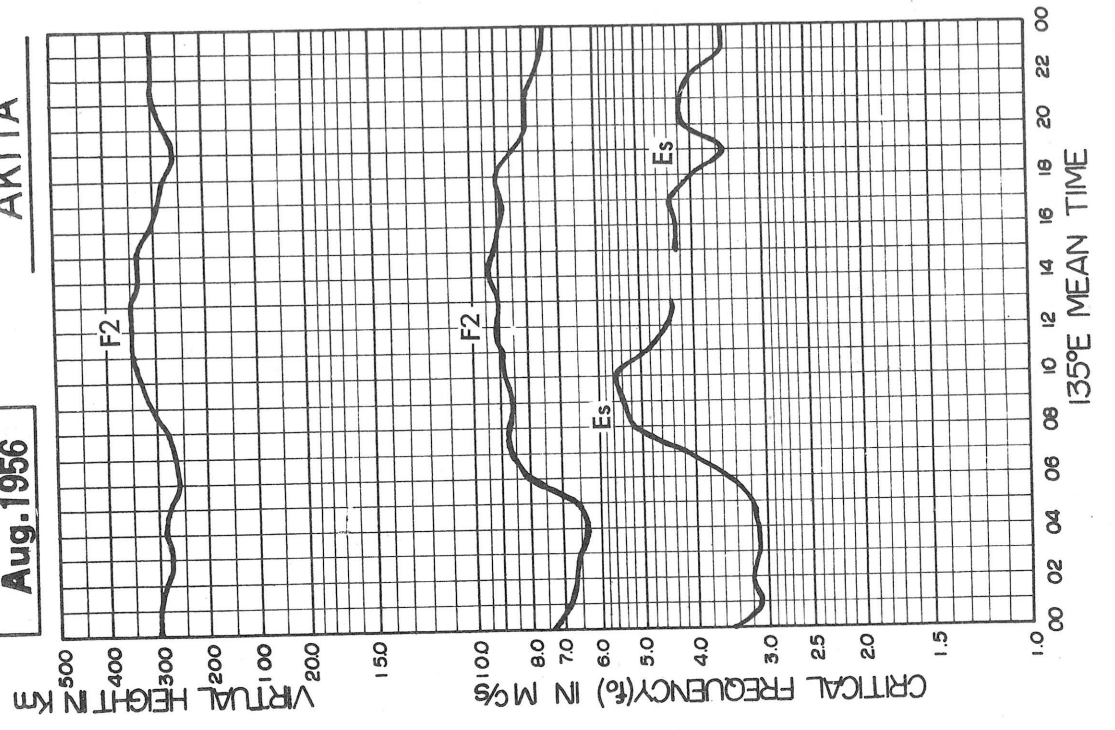
Aug. 1956

WAKKANAI



Aug. 1956

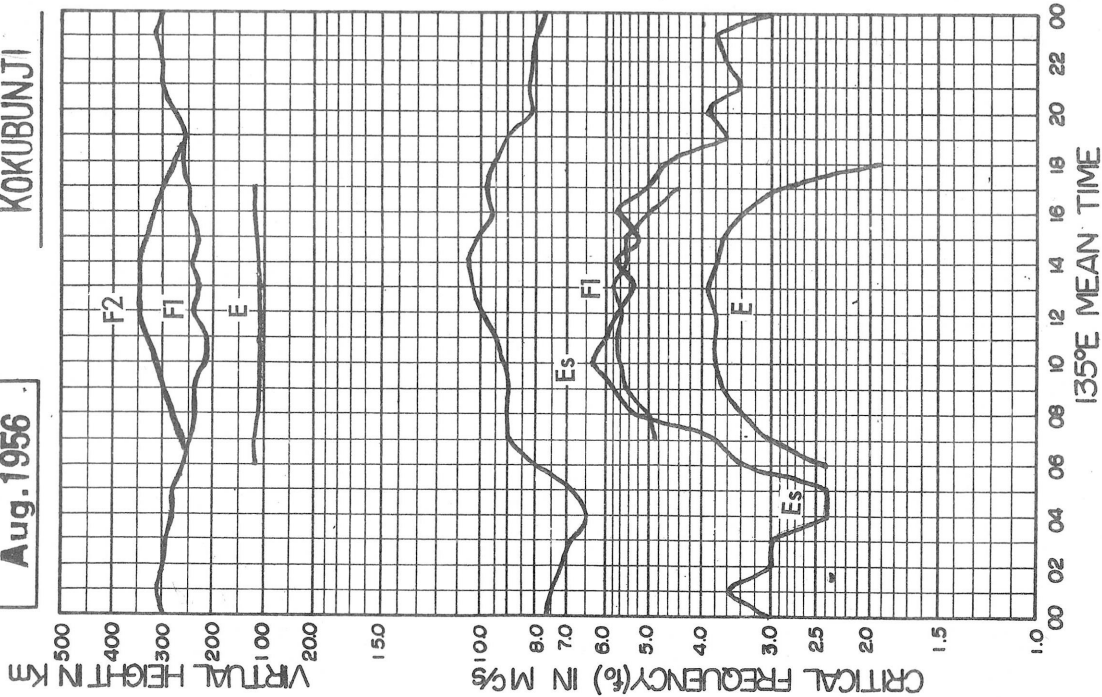
AKITA



IONOSPHERIC DATA
MONTHLY MEDIAN CHARACTERISTICS

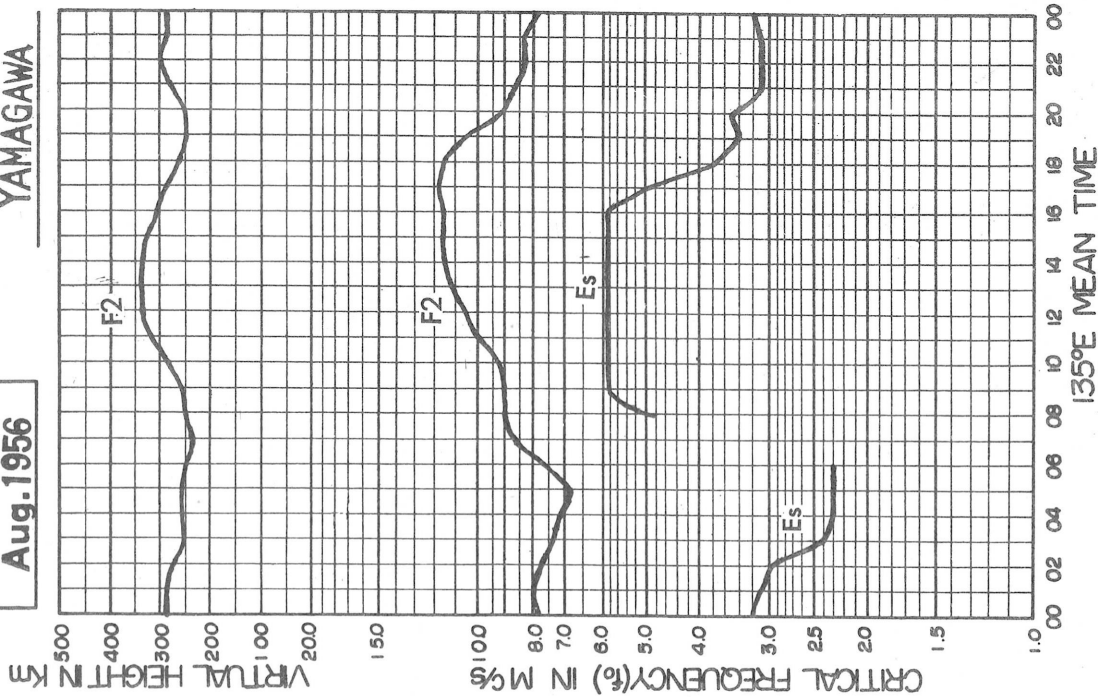
Aug. 1956

KOKUBUNJI



Aug. 1956

YAMAGAWA



Lat. 45° 28.6' N
Long. 141° 41.1' E

Wakkanai

IONOSPHERIC DATA

135° E Mean Time

foF2

Aug. 1956

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	6.5 ^F	6.5 ^F	6.1 ^J	5.5 ^F	6.1	6.8	6.6	6.8	6.4	6.6	6.6	6.8	6.8	6.8	7.2	7.2	7.2	7.3	7.0	7.2	7.4	7.6 ^F	7.5	6.9	
2	6.5	6.4	6.2	5.8	5.5 ^F	6.2	6.7 ^F	7.6	7.8 ^J	7.2 ^F	6.3 ^F	6.5	6.6 ^A	6.7	7.3 ^H	7.8	7.3	7.3	7.5	7.8 ^P	7.8 ^P	7.7 ^F	6.8	6.8	
3	6.5	6.3	6.2	5.6	6.3 ^H	7.3	7.5 ²	7.5 ²	7.5 ^F	7.2 ^F	6.5	7.1	7.5 ^J	6.8 ^P	7.3 ^H	7.5 ^H	7.8	7.3 ^J	7.4	7.5 ^J	8.3 ^J	7.7 ^F	7.3 ^P	6.6	
4	6.5	6.4	6.6	6.5	6.1	6.6	7.8 ^J	7.8	8.3 ^J	8.3 ^J	7.5 ^F	7.6 ^J	7.7 ^F	7.7 ^F	8.1	7.7	7.7	8.0 ^J	7.5 ^J	8.0	8.3 ^J	8.5	7.9 ^J	7.0 ^F	
5	7.0	6.8	6.5	6.5	6.2	6.8	8.0	8.5	8.8 ^J	8.8 ^J	8.3 ^J	8.3 ^J	8.6 ^F	8.8 ^F	7.0 ^J	7.5	A	A	8.3 ^J	8.7 ^J	5.8 ^J	7.5 ^J	7.3 ^F	7.0	
6	6.3	6.2	6.2	5.5 ^F	5.8 ^F	6.8	6.0	9.5	7.8 ^J	7.3 ^J	6.5	6.5	6.4	6.3	6.7	6.7	6.7	6.8	A	A	7.5	7.6 ^F	7.5 ^F	7.5	
7	7.3 ^J	6.8	6.7	6.5 ^F	7.3 ^F	7.5 ^H	8.3 ^J	8.3 ^J	8.6 ^J	A	9.0	8.9 ^J	9.0 ^H	8.3	8.0	8.3	8.0	8.3	8.3 ^P	8.5	8.8 ^J	8.2	7.5 ^A	6.8 ^P	
8	7.0	7.0	6.5	6.3	6.0	6.4	8.3 ^J	8.3 ^J	9.3 ^J	9.0 ^F	9.5 ^F	8.7 ^J	8.0 ^H	8.0 ^H	8.0	8.2	A	A	8.3 ^P	8.8 ^J	8.8 ^J	8.0 ^J	8.0	7.3 ^J	
9	7.2	6.8	6.3	6.3 ^F	6.3	7.0	8.3 ^F	8.2	9.3 ^J	9.0	8.9 ^A	8.8 ^J	8.3 ^F	9.4	9.5	8.8 ^J	8.3	8.1	9.0 ^J	8.8 ^J	8.0	7.5 ^F	8.0 ^J	7.7	
10	7.7	7.5	7.5 ^F	5.5 ^F	5.5 ^F	5.3 ^H	6.5	6.0 ^H	6.0 ^K	5.8 ^K	B ^K	A ^K	A ^K	5.8 ^K	6.1 ^K	6.2 ^K	6.2 ^K	6.1 ^K	6.1 ^K	6.3 ^K	6.1 ^K	6.6 ^F	6.3 ^F	7.0	
11	6.6	6.2 ^F	6.5 ^F	F	F	5.8	6.0	6.3	6.2	6.0	6.3	6.0 ^J	7.7 ^F	7.3 ^J	7.3 ^J	7.7 ^F	7.7 ^F	7.6 ^F	7.5	7.3 ^J	7.0	7.0	6.8 ^P	6.5	
12	F	F	F	F	6.0 ^F	5.8 ^F	6.0	6.5	C	C	C	C	C	C	C	C	C	C	C	C	8.3 ^J	7.5	7.6 ^F	6.8	
13	6.3	6.2 ^F	F	F	F	5.3 ^J	5.7	6.5	6.7	6.4	6.7	6.8	7.8	7.5	7.7	7.9	7.5	7.7	7.7 ^F	7.8 ^F	7.8 ^F	7.8 ^F	7.0 ^F	F	
14	S	7.5	7.5	7.0 ^F	7.1 ^F	7.6 ^P	8.1	7.8	8.5 ^J	8.2 ^J	7.0 ^F	8.2 ^F	8.5 ^J	8.9 ^J	8.9 ^J	8.8 ^J	8.7 ^J	8.3	8.5	8.8 ^J	8.8 ^J	8.5 ^J	7.8 ^F	7.5 ^F	
15	7.3 ^J	7.0 ^F	7.5	7.5	7.1	7.6	7.3 ^J	7.8	7.8	7.8	7.8 ^F	8.0 ^F	8.5 ^J	8.5 ^J	8.5 ^J	8.5	8.9	8.3	8.8 ^J	9.3 ^J	8.7 ^J	8.7 ^J	7.5 ^F	7.6 ^F	
16	7.8	7.3 ^J	7.1	7.0	6.5	7.3	8.0 ^J	8.0	8.7	8.3 ^J	9.0	8.8 ^J	8.6 ^J	9.2	9.2	9.3	9.5	9.5	8.7	9.0 ^J	8.9 ^J	8.3 ^J	7.8 ^F	7.8 ^F	
17	8.0 ^J	7.8 ^J	7.5	7.3	6.8	7.4	8.3	8.3	8.0	8.7	8.3 ^J	8.8 ^J	9.3	9.5	9.9	9.3	9.0 ^H	9.3 ^H	10.2	9.3 ^H	9.1 ^J	9.1 ^J	A	S	
18	7.0	6.8	6.7	6.4	6.5	6.3 ^F	7.3 ^J	8.2	8.0	8.7	B	B	9.0 ^J	9.0 ^J	9.3	9.3	9.3	9.1	8.8	8.8 ^J	8.6 ^J	F	F	F	
19	F	7.2 ^F	7.1	7.0	6.5	6.7	8.0	8.0	9.2 ^J	9.5	9.3	9.5 ^J	9.3 ^J	9.2 ^J	8.9 ^J	8.8 ^J	8.7	8.7	9.2 ^J	9.0 ^J	8.8 ^J	8.8 ^J	8.0 ^F	7.9 ^J	
20	7.8 ^F	8.0 ^F	7.2 ^J	7.0	6.8	7.8	7.0 ^F	8.5 ^F	9.0 ^J	9.4 ^H	9.2	9.3	10.0	10.0	9.3	9.3	8.9 ^J	8.6 ^J	9.3 ^J	9.3 ^J	9.0 ^J	8.5 ^J	8.6 ^J	8.5 ^J	
21	8.3 ^J	8.0 ^J	7.5	6.7	6.8	7.5	8.8 ^J	9.5	9.1 ^J	9.4	9.5	9.3 ^H	9.5 ^H	9.0	8.7 ^H	8.8 ^J	9.2 ^H	8.6 ^J	9.5 ^J	9.8 ^J	S	S	S	S	
22	7.3	7.0 ^J	7.2	6.6	6.3	6.5	7.0	7.7 ^J	7.7	7.8	7.6	7.5	7.3 ^J	7.0	7.0	7.0 ^J	7.1	7.8 ^J	7.7	7.8 ^J	7.5 ^F	7.5 ^F	7.3 ^F	7.3 ^F	
23	7.1	7.0	6.5	6.5	6.5	7.0	8.3 ^J	8.3 ^J	8.8 ^J	8.5 ^F	9.1 ^H	9.8 ^J	9.3 ^J	9.5	9.6 ^J	9.3 ^J	9.3	8.6	8.0	8.0	7.8 ^F	7.8 ^F	7.8 ^F	7.5 ^F	
24	7.0 ^S	7.0 ^S	6.5	6.7	5.8	5.3 ^J	6.0	6.1 ^K	5.8 ^K	5.7 ^K	5.5 ^K	5.5 ^K	5.5 ^K	5.8 ^K	5.2 ^K	5.9 ^K	5.9 ^K	5.8 ^K	6.0 ^K	5.8 ^K	6.3 ^K	6.1 ^K	6.0 ^K	5.8 ^K	
25	5.8 ^K	5.5 ^K	4.8 ^K	5.8 ^K	5.8 ^K	5.1 ^K	6.0 ^K	6.0 ^K	6.5 ^K	5.8 ^K	A ^K	B ^K	B ^K	B ^K	5.7 ^K	5.8 ^K	5.9 ^K	5.9 ^K	6.0 ^K	5.8 ^K	6.7	6.3	6.3	6.1	
26	5.8	5.5 ^J	5.5	5.5	5.2 ^J	5.8	6.8 ^H	C	C	C	C	C	C	C	C	C	C	C	7.5	7.5 ^F	7.3 ^F	7.3 ^F	6.6	6.3	
27	6.2	5.8	5.6	5.1	5.0	5.0 ^F	6.4	7.3	8.1	9.8 ^J	10.0	9.3 ^H	10.0	9.7 ^J	9.5	8.8	9.0 ^J	9.0	8.1	8.0 ^F	7.7	7.3	7.3	7.5	
28	7.5	6.0	5.5	5.3	5.3	5.3 ^J	5.9	6.3	6.3	6.3	6.1	6.2	6.3	6.8	6.8	7.3	7.5	7.4	7.2	6.7	6.6	6.8	6.5	6.3	
29	6.0	6.0	5.6 ^F	5.3 ^F	5.5 ^F	6.0 ^F	7.9	8.8 ^J	9.8 ^J	8.6 ^J	B	B	B	B	8.5 ^F	8.0 ^H	8.3	8.1	8.3	8.0	7.7	7.5	7.2 ^J	7.7 ^P	
30	7.0	7.0	6.6	6.6	6.3	6.3	7.3	7.5	8.7 ^J	9.2	9.8 ^J	9.5 ^J	10.0 ^J	9.3 ^J	8.6 ^J	8.5	8.5	8.1	8.7	7.6 ^S	7.5 ^F	7.3 ^F	7.3 ^F	7.3	
31	7.0 ^F	7.0	6.8	6.3	6.0	6.5	7.8	8.8 ^J	9.3 ^J	9.3	10.0 ^J	10.2	9.6	9.3	9.2	9.2	8.7	8.8 ^J	9.1	8.5	8.0 ^J	8.0	7.5 ^F	7.8 ^F	
Mean Value	6.9	6.8	6.5	6.3	6.1	6.4	7.3	7.8	8.0	7.9	7.9	8.1	8.2	8.2	8.1	8.3	8.0	8.0	8.1	8.1	8.1	7.9	7.7	7.3	7.2
Median Value	7.0	6.8	6.5	6.4	6.1	6.4	7.3	7.8	8.1	8.2	8.0	8.3	8.5	8.4	8.5	8.2	8.3	8.3	8.3	8.0	7.9	7.6	7.3	7.3	7.3
Count	28	30	29	28	29	31	31	30	29	28	24	25	26	28	28	28	27	27	29	30	30	28	28	27	

foF2

Sweep 1.0 Mc to 22.0 Mc in 1 min

Manual Automatic

W 1

Lat. 45° 23.6' N
Long. 141° 41.1' E

Wakanai

IONOSPHERIC DATA

135° E Mean Time

κ'F2

Aug. 1956

Day	00	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	260	260	310	350	340	330	380	360	380	370	400	410	370	340 ^L	320 ^L	300	[280 ^h]	260	270	280	270	280	260
2	300	260	260	260	280	320 ^L	400 ^L	360	320	A	A	410	[400 ^h]	390	A	A	320	300	(310 ^A)	260	270	270	260	280	280
3	270	260	260	280	290	290 ^{LH}	300	300 ^L	310	320	330	400	350	350 ^{LH}	300 ^{LH}	300 ^{LH}	340	290 ^L	280	260	250	240	260	280	280
4	310	290	270	260	250	290 ^L	300	350 ^L	290	280	220	320	270	330	320	330	320	290	270	280	270 ^F	260	260	270	270
5	300	280	300 ^A	270	290	250	290 ^L	280 ^L	300 ^L	310	340	350	350	350	320	340	A	A	A	260	260	270	250	310	270
6	260	270	260	240	290	290 ^L	280 ^L	280	300	350	460	400	470	460	410	400	350	320	A	A	310 ^A	[280 ^A]	260	310	310
7	280	280	280	260	290 ^F	240 ^H	240 ^H	270	260	A	A	A	360	300 ^H	[320 ^A]	350	330	300	280	280	A	A	A	A	300 ^A
8	310	290	300 ^A	270	260	270 ^L	260	270 ^L	[280 ^A]	300	310	330 ^L	380	430	380	290 ^{LH}	A	A	310	260	260	260	260	300 ^A	300 ^A
9	260	300	[310 ^A]	320	290	300 ^L	280 ^A	320 ^A	270	A	A	360	[320 ^L]	350	330	310	350	300 ^L	260	[280 ^A]	310	320	310	340	340
10	280	250	230	310	310	300 ^{LH}	260	330 ^{LH}	460 ^K	510 ^K	A ^K	A ^K	A ^K	10 ^K	590 ^K	470 ^K	400 ^K	360 ^K	310 ^K	300 ^K	320 ^K	320	300	310	
11	280	270	260 ^F	230	260 ^F	290	410	370	A	A	460	[270 ^A]	410	370	350	330	340	290 ^L	C	C	280	280	310	290	
12	310	320	320	310 ^F	310	310	(320 ^L)	370	C	C	C	C	C	C	C	C	C	C	C	C	260	260	270	270	
13	290	280	290	280	290	380 ^L	360 ^L	260	340	310	330 ^L	310 ^L	360	340	360 ^L	330	290 ^L	270 ^L	280	260	260	270	260	280	
14	310	270	270	270	270	220	250 ^L	250	270	300 ^L	320	310 ^L	310 ^L	350	340	310	300 ^L	270 ^L	250	260	260	280	260	270	
15	210	290	310	320	270	260	300 ^L	280	280 ^L	250	320	350	350	300 ^L	340	320	L	L	260	250	260	250	260	280	
16	280	280	250	260	250	250	240	250	250 ^L	[270 ^A]	290	310	370	310	310 ^L	270 ^L	270 ^L	250	260	240	260	280	300	280	
17	300	290	280	280	260	270	280	260	260	310	320	A	A	320	310	290	300 ^H	300 ^L	260	230	230	A	A	310 ^A	
18	310	330	280	280	260	290	270	300 ^A	290 ^L	250	310	280	300	310	300 ^L	300	280 ^L	260	250	250	320	300 ^F	300 ^F	250	
19	270	280	280	250	250	240	250 ^L	250	270 ^L	270 ^L	300 ^L	310	340 ^L	320 ^L	[300 ^L]	310	L	L	260	270	270	260	300	300	
20	280	270	270	260	270	240	240	250	300 ^L	250 ^H	300	(300 ^L)	350	280	(320 ^L)	(280 ^L)	(260 ^L)	(250 ^L)	260	260	260	260	260	260	
21	270	260	250	250	280	240	(250 ^L)	250	(250 ^L)	(250 ^L)	250	250	250 ^{LH}	250 ^L	250 ^L	250	250 ^H	250	260	260	260	250	280	260	
22	310	330	280	300	280	280	260	320	330	350	370	390	400	370	400	350	350	310	260	260	270	290	270	280	
23	300	270	300	300	290	260	250 ^L	250	250	[260 ^L]	270 ^H	270 ^H	300 ^L	(320 ^L)	260 ^{LH}	310	250	250	230	260	280	290	290	280	
24	300	280	260	280	280	420	450	400 ^K	410 ^K	460 ^K	570 ^K	660 ^K	660 ^K	650 ^K	510 ^K	370 ^K	410 ^K	310 ^K	300 ^K	320 ^K	310 ^K	290 ^K	290	280	
25	320 ^K	330 ^K	400 ^K	320 ^K	280 ^K	350 ^K	410 ^K	510 ^K	420 ^K	480 ^K	A ^K	B ^K	B ^K	B ^K	B ^K	410 ^K	330 ^K	280 ^K	280 ^K	270 ^K	300	280	320 ^K	330 ^K	
26	300	310	320	280	310	300	280 ^H	C	C	C	C	C	C	C	C	C	C	270	280 ^K	270 ^K	300	280	310	290	
27	320	320	320	320	300	260	240	260	260	310	280	250 ^H	310	280	300	260	260 ^L	C	C	270	260	280	270	320	
28	260	260	220	270	310	290	360	390	420	400	480	510	490	410	(350 ^L)	350	290 ^L	260	250	270	270	290	290	280	
29	300	320	310	310	310	270	260 ^L	250	250 ^B	250	250	270	350	360	350	270 ^{LH}	300 ^L	260	260	280	280	310	310	280	
30	400 ^A	360	280	320	260	270 ^L	260	260	290	300	350	310	340	310	310	260 ^L	260	260	250	[280 ^A]	(310 ^A)	[300 ^A]	300	300	
31	290	290	260	270	270	260	260 ^L	250	250	270 ^L	300 ^L	250	300 ^L	260	270 ^L	(270 ^L)	250	240	250	240	290	290	290	280	
Mean Value	300	290	280	280	280	290	300	300	310	320	340	350	370	350	320	310	280	270	270	270	280	280	280	290	
Median Value	300	280	280	280	280	280	280	280	290	300	320	320	350	340	320	310	300	280	260	260	270	280	280	290	
Count	31	31	31	31	31	31	31	30	28	25	24	25	26	28	28	25	25	25	28	30	29	29	29	31	

κ'F2

Sweep — L.C. Mc to 22.0 Mc in — min

Manual Automatic

Lat. 46° 23.6' N
Long. 141° 41.1' E

Wakkanai

IONOSPHERIC DATA

fEs

Aug. 1956

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	2.8	3.5F	3.0	3.2	4.1	4.2	5.5	8.0	5.5	5.7	4.8	5.5	5.5	5.5	5.5	7.0	5.5	6.4	8.6	6.0	3.5	3.5	E
2	E	2.2	E	E	4.7	4.6	4.9	4.9	6.0	6.0	6.0	5.2	11.7	5.5Y	11.5	11.2	7.0	5.0	9.0	3.5	3.8	4.7	3.5	E
3	2.1	2.1	2.2	2.0Y	2.1	4.7	4.7	4.7	5.8	5.8	4.7	4.7	4.7	4.7	4.7	5.0	5.5	5.5	4.1	3.5	E	E	E	E
4	3.0Y	E	E	2.3	4.7	4.7	4.7	4.8	6.6	5.6	5.0	5.0	4.9	6.5	6.5	7.0	5.5	4.8	5.5	6.1	6.0	4.5	4.2	3.0
5	3.0	3.0	4.3	3.5	4.7	4.7	5.2	5.0	6.0	5.8	4.9	4.8	4.8	4.8	4.8	5.5	8.8	10.0	7.5	7.3	8.0	9.5	6.0	E
6	1.8	3.5	2.1	1.8	4.7	4.7	4.7	6.5	7.0	7.0F	4.7	4.7	4.7	4.7	4.7	4.7	5.0	10.2	11.2	11.2	10.0	10.0	6.0	9.2
7	4.0	6.5F	2.1	2.2Y	4.7	4.7	4.7	5.2	5.6	10.0	8.5	6.5	6.8	6.0	7.2	6.5	6.5	5.7	4.8	5.8	10.7	7.0	7.8	4.5
8	6.0	4.6	5.0	3.0	2.3	4.7	4.7	4.8	8.5	5.3	4.8Y	4.7	5.5	7.0	4.7	5.3	11.6	11.0	6.2	4.7	4.8	4.5	9.5	7.0
9	E	5.0	7.0F	3.5F	3.5F	3.5	6.5	7.5	4.7	8.5	12.2	B	6.0	5.0	5.9	6.5	7.0	4.8	10.0	7.0	7.0	5.8	7.0	4.8
10	3.5Y	2.2	2.2	2.2	E	4.7	4.7	4.6	6.0	5.3	5.3	7.5	6.1	4.7	4.7	5.0	4.7	4.7	5.0	5.0	4.5	6.5	4.0	3.0
11	E	E	2.2	7.0	5.0	4.7	4.7	4.7	6.0	6.4	6.2	6.5	5.2	4.7	4.7	4.7	4.7	4.1	4.7	3.5	3.5	2.8	E	3.2
12	3.5	3.2	2.8	3.2	2.4	4.7	4.7	4.7	4.6	4.7	4.7	4.7	5.2Y	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.6	4.6	4.6	3.5Y
13	4.3	2.5	2.8	E	4.7	4.7	4.7	4.7	5.0	5.8	6.0	6.3	5.0	4.7	4.7	4.7	4.7	8.7Y	3.4	3.1	E	6.0	E	7.5
14	3.8	2.3	E	E	1.9	4.7	4.7	4.7	5.0	5.2	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	3.5	3.0	2.1	3.1
15	5.8	2.3	6.0F	4.3	3.3F	4.7	4.7	4.7	5.0	5.2	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	3.4	3.0	2.1	3.1
16	E	2.3	2.2	2.2	E	4.7	4.7	4.7	6.5	4.8	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	3.4	3.7	5.0	5.7	7.0
17	3.8	3.4	3.5	2.5	2.2F	4.7	4.7	4.7	5.9	6.0	5.6	8.5	7.6	5.8	5.5	5.0	4.7	4.1	4.2	3.5	3.4	12.0	8.6	5.0
18	4.3	4.2	4.1	4.8	3.5	4.7	4.8	6.5	5.8	5.3	6.1	5.5	5.2	4.7	4.7	4.7	4.7	6.0	3.5	2.2	4.5	7.5F	7.5	2.2
19	2.2	2.2	4.3F	3.5F	2.2	2.3	4.1	5.2	5.0	4.7	4.8Y	4.7	4.7	4.7	4.7	4.7	4.7	4.7	3.5	6.5	4.5	2.8	4.1	4.5
20	4.0	2.1	3.7	E	E	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	3.8	7.8	3.1	E	8.0
21	3.0	2.2	4.2	4.2	3.5	3.3	4.7	4.7	5.3	5.5	4.7	4.7	4.7	4.2	4.7	4.7	4.7	4.7	3.5	3.5	5.0	4.5	3.5	2.0
22	2.8	3.5	2.2	4.8	2.5	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	3.5	2.7	4.0	E	E
23	3.5	E	E	2.2	2.2	4.7	4.7	4.7	4.8	4.8Y	4.7	4.7	4.7	6.4	4.7	4.7	4.7	4.7	4.7	E	E	E	E	3.2
24	E	E	3.0	E	2.2	3.1	4.7	4.7	4.8	4.8Y	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.6	4.5	2.3	E	E	5.5Y
25	E	E	E	E	2.4	4.7	4.7	4.6	4.8	5.8	6.5	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	E	E	E	E	2.1
26	3.0	2.1	E	2.1Y	2.2	4.8	3.8	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	E	E	3.5	4.0	5.8
27	6.0	5.2	2.2	4.7	3.5Y	4.7	4.7	4.7	5.3	5.8	6.5	5.2Y	4.8Y	4.7	4.7	4.7	4.7	4.7	3.2	1.8	4.4	4.5	2.5	2.5
28	E	E	E	2.0	E	4.7	4.7	4.7	5.0	5.2Y	5.0Y	4.8Y	4.7	4.7	4.7	4.7	4.7	4.7	3.5	3.3	2.8	3.5	4.2	3.0
29	3.5	E	E	E	3.1	3.2	4.2	4.2	4.7	4.7	4.7	4.7	4.7	6.0	7.1	5.8	4.7	4.2	3.5	7.0	5.0	4.5	6.0	8.5
30	6.0	7.0	7.0	4.1	3.1	4.7	4.7	4.6	4.9	6.4	6.5	B	4.7	4.7	4.7	4.8	4.7	4.7	5.2	8.0	8.0	8.5	4.5	4.0
31	3.5	E	E	E	E	4.7	4.7	4.5	6.0	4.7	4.7	4.7	4.8Y	4.7	4.7	4.7	4.7	4.7	4.7	2.2	1.8	E	E	E
Mean Value	3.7	3.3	3.8	3.3	2.9	3.6	4.7	5.3	5.9	5.9	6.1	6.1	6.1	5.6	6.7	6.4	6.3	5.7	5.2	5.1	4.9	5.4	5.1	4.6
Median Value	3.0	2.3	2.2	2.2	2.2	4.7	4.7	4.6	5.8	5.5	5.0	4.8	4.7	4.7	4.7	4.7	4.7	4.7	4.1	3.5	3.5	4.4	4.0	3.2
Count	3	1	3	1	3	1	3	1	3	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3

fEs

Sweep 1.0 Mc to 22.0 Mc in ___ min

Manual

Automatic

IONOSPHERIC DATA

A k i t a

135° E Mean Time

Aug. 1956

f_oF₂

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	6.5	6.7	6.3	6.6	(6.0)	6.5	7.5P	7.2	8.6	7.7P	7.1	8.1	8.0	7.8	8.0	8.6P	8.0	7.8	7.8P	(7.7)	6.8P	6.5M	7.5P	7.2P
2	6.9F	6.6F	6.5	6.7	6.0	5.6F	7.7	9.1	8.5	7.5	6.2P	7.1	7.6P	8.3	8.2	8.1	8.0	8.2	8.4P	8.5P	8.2P	7.1F	7.1P	7.0P
3	6.9	6.6	6.6	6.0	5.9P	6.3	7.9	8.4	7.7	8.2	7.7	(7.1)P	(7.6)P	8.0	7.6	7.7	7.8	(8.1)P	8.4P	B	(8.5)P	(7.2)P	7.2	7.2P
4	6.7P	6.6	6.7	6.8	6.0	6.6	(7.6)P	8.6	9.1	8.6P	(8.6)P	8.7	8.6	9.0	9.6	9.5	9.0	8.9	9.0	8.7	8.0F	8.6M	8.2P	7.5
5	7.6	6.9	6.7	6.4	6.4	6.7	8.1M	9.0	9.1	9.6	8.7P	9.0	9.6	9.5	9.3	(9.0)P	8.7	(8.8)P	9.0	9.0	8.2	8.0P	7.5F	(7.1)P
6	6.7F	6.9	6.6	6.2	5.8	6.4	8.5P	10.6	8.3P	7.9	8.8P	9.0	9.1	(8.6)P	8.0	7.7	7.5	7.5	7.7	7.7P	8.1	7.7	(7.6)P	7.5
7	7.4F	F	F	7.5F	7.0F	7.0P	8.0	8.2	8.7	8.9	9.5	9.0	9.5	9.7	9.6	9.3	9.0	9.1	9.3	8.9	8.1	B	B	8.0P
8	B	(7.5)P	7.2F	6.6	5.7	6.5	8.5	(9.6)P	(8.2)P	(8.7)P	9.2	9.1	8.1	(8.3)P	(8.5)P	9.2	9.5	9.5	9.6	(9.4)P	8.5	7.7	8.5P	8.1
9	7.8P	7.1	6.9	6.7	6.6	7.5	8.9	9.4	(8.9)P	B	8.6P	A	B	B	B	A	8.8	8.8P	(8.6)P	8.5	7.7	8.2P	8.5	(7.8)P
10	(7.6)P	7.5	6.5	5.7F	5.7	5.5	7.5	7.5	6.6K	6.8K	A K	A K	A K	5.7K	5.7K	(6.0)K	6.4K	6.2K	6.1K	6.1K	6.2K	(6.5)P	(6.4)P	6.3P
11	6.7	(6.2)P	6.5	(6.0)P	5.4F	5.7F	7.5	8.4P	7.5P	7.4	8.1	8.4	8.5P	9.0	8.9	8.9	8.5	8.5	8.2	8.0	7.9	7.6	7.2	7.2
12	6.9	6.5	6.6	6.5	6.5M	6.0	6.7	7.3	8.1	7.8	8.2	8.1	8.9	8.5	8.2	9.0	8.0	8.3	8.3	8.2	8.0	8.0	7.3	7.1
13	6.9	6.7	6.9	6.4	5.5F	5.3	6.3	7.1	6.6	7.0	6.8	7.3	7.6	8.1	8.0	8.2	8.9	8.3	8.3	8.2	7.8	8.0	8.0	7.7
14	7.4	7.5	7.7	7.2F	7.0F	8.0	8.6	9.0	9.4	9.1	9.0	9.4	9.0	9.0	9.6	10.1	10.5	9.7	9.4F	9.4M	8.9M	8.1	7.9	8.0
15	7.6	7.5F	7.5	7.5	7.5	7.7	(7.6)P	8.6	8.1	7.8	8.2	8.9	9.2	9.6	10.0	10.5	9.8	9.2	9.6	9.0	8.4	9.4	8.0P	8.0
16	8.3	8.0	8.1	7.5	7.2	7.6	8.7	9.1	9.0	9.6	9.4	9.3	9.1	10.1	10.2	10.6	10.4	10.5	10.0	9.1	8.5	7.8P	7.8P	7.7
17	7.7	7.8	7.9	7.0	7.5	8.0F	9.3	8.6	(8.4)P	8.7	9.1	9.7	10.7	10.7	11.5	10.9	9.9	10.2	11.1	10.4	8.9	8.5	7.7	7.6F
18	7.5F	7.6	7.2	7.1	7.0	6.6	(8.9)P	10.0	9.8	9.1	(9.4)P	10.1	10.1	10.4	10.2	10.1	9.9	10.0	9.6	9.1	8.4P	8.8	8.4P	8.4P
19	8.3P	7.9P	7.5	7.0	6.1	6.5F	8.5	9.6	9.0	8.6	9.0	9.9	10.1	10.1	9.5	9.9	9.8	9.7	10.0P	9.5	A	M	M	(8.9)P
20	8.3P	7.7	7.4	7.6P	7.5	(8.2)P	9.1	9.6	9.1	(9.6)P	10.0	10.4	10.3	10.6	10.5	10.0	9.7	10.0	9.9	9.8P	(9.8)P	(9.4)P	9.1	9.2
21	(8.9)P	8.2	7.3	6.8	6.6	7.5	9.5	10.0	9.5	9.0	9.7M	9.6M	10.2M	10.0	9.2M	9.5	9.5	9.7	9.8	10.1	10.0	9.6	(9.0)P	9.1
22	8.2	7.5	7.6	7.5	6.6	6.6	7.5	8.1	7.6	7.6	8.0	7.5	7.8	7.6	(8.0)P	8.3	8.0P	8.5	9.0	9.0	7.8	B	B	8.0
23	7.6	7.5	7.3	7.0	7.0	7.2	8.1	8.6	9.2	9.0	9.0	9.6	10.6	10.6	10.7	10.5	10.0	9.5	8.6	8.0	7.6	(7.9)P	(8.2)P	8.2
24	8.1P	6.9	6.7V	6.6	6.3F	5.8	6.9	6.6K	6.0K	6.1K	(6.4)P	6.8K	6.8	6.0K	6.2K	6.0K	6.0K	6.2K	6.2K	5.6K	5.9K	6.4K	6.0K	6.0K
25	5.9K	5.8F	4.8F	5.8F	5.5F	5.5F	5.9K	6.4F	7.2K	6.4F	6.5K	(6.4)P	6.5K	6.5K	6.6K	6.6K	6.7K	6.7K	6.5K	7.0K	7.0	6.8	6.6	6.5
26	6.0	5.8	5.8	6.0	5.5	5.7	7.4	10.0	10.1	10.1	10.0	9.5	9.5	9.7	9.5	8.5	8.5	7.8	7.8	8.0	7.7	7.4	7.4	6.6
27	6.4	6.1	6.0	6.0	5.8	6.1F	7.6	8.6	9.5	10.2	10.5	10.6	10.9	11.1	11.0	10.2	9.7	9.6	9.6	8.1	7.7	7.9F	7.7F	7.5F
28	7.5	6.5	5.9	5.8	5.7	5.7	6.5	7.0	7.0	7.2	7.3	8.5	8.8	9.0	9.2	9.0	9.0	8.8	8.0	7.0	7.0	7.1	7.0P	7.0
29	6.4	6.0	5.7	5.7	5.2	5.8	8.1	9.5	8.8P	9.0	9.4	9.4	8.8M	9.0	9.4	9.4	9.4	9.1	9.0	8.2	7.9	7.6	7.7	7.4
30	7.1	7.0	6.8	6.6	6.8	7.0	8.1	8.5	9.2M	10.0	10.3	11.0	10.5	(10.6)P	9.9	(9.9)P	9.7	(9.5)P	9.2	8.2	(7.8)P	7.5	(7.4)P	7.4
31	7.4	8	8	6.7	6.7P	7.0	9.2	10.7	10.4M	11.1	(11.2)P	11.2	10.8	10.5	10.1P	9.6M	9.7	10.0	9.7P	8.4P	8.0	(8.4)P	8.4	8.3P
Mean Value	7.3	7.0	6.8	6.6	6.3	6.6	7.9	8.7	8.5	8.5	8.7	8.9	9.0	9.1	9.1	9.0	8.9	8.8	8.8	8.5	8.0	7.9	7.7	7.6
Mean Value	7.4	6.9	6.7	6.6	6.3	6.5	8.0	8.6	8.7	8.6	8.9	9.0	9.1	9.0	9.4	9.2	9.0	8.9	9.0	8.5	8.0	8.0	8.0	7.7
Count	30	29	29	31	31	31	31	31	31	30	30	29	27	30	30	30	31	31	31	30	30	28	29	31

f_oF₂

Sweep 0.85 Mc to 22.0 Mc in 2 min

Manual

Automatic

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

Lat. 35° 43.5' N
Long. 140° 08.2' E

Akita

IONOSPHERIC DATA

135° E Mean Time

Aug. 1956

f_oF₂

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	360 ^A	350 ^A	290	280	280	340	280	320	300	360	380	370	340	350	350	340	310	290	310 ^A	270	[280] ^A	300 ^F	310	290 ^F	
2	280 ^F	280 ^F	260	280	260	350 ^L	300	300	290	[310] ^A	330	420	390	360	330	350	340	310	270 ^L	300 ^A	280	310	280	340 ^A	
3	280	290	270	280	290	270	270 ^L	280 ^L	270	B	350	390	[360] ^B	320	360	350	310	310	270	260	270	250	280	300	
4	300	290	270	250	250	270	250 ^H	250	280	B	300 ^L	370	370	360	330	330	330	280 ^L	280	270	310 ^F	310 ^F	240	280	
5	330	290	300	300	290	270	250 ^H	250	280	B	300 ^L	370	350	340	340	[360] ^A	370	A	A	250	[260] ^A	280	300	300 ^F	
6	[300] ^A	300	280	280	290	320 ^L	280 ^L	250	260	A	350	A	A	A	A	350	360	340	290 ^L	280	270	260	[280] ^A	290	
7	300 ^F	310 ^F	[300] ^F	290 ^F	300 ^F	250	290 ^L	300 ^L	330	320	350	390	370	360	370	370	350	300	290	[290] ^A	290 ^A	300 ^A	300 ^A	290	
8	280	290	280	250	300 ^A	280	250	250	260 ^H	310	330	320	A	A	360	370	320	300	290	290	270	270	250	250	
9	280	290	310	[300] ^A	300	270	250	290	250	290	A	A	A	370	340	[340] ^A	340	300	[280] ^A	250	300 ^A	350 ^A	300	350 ^A	
10	[310] ^A	270	230	280	330	400	370	350	A	A	A	A	A	550 ^K	550 ^K	[480] ^K	420 ^K	360 ^K	300 ^{LK}	280 ^K	290 ^K	A	340	350	
11	310	290	300	A	A	250	[300] ^L	340	340	350	[360] ^A	380	350	340	350	350	340	310 ^L	270 ^L	260	270	270	320	280	
12	300	A	370 ^A	360 ^A	300 ^A	A	300 ^L	290 ^L	300 ^L	340	(340)	350	360	370	370	370	(340) ^L	340 ^L	310 ^A	280	290	300 ^A	270	310	
13	310	340	300	270	270	300	370	310	270	370	400	360	400	350	340	330	310	280	280	250	260	270	280	300	
14	300	360 ^F	A	290 ^F	270 ^F	240	240	270	290 ^A	280 ^A	330 ^L	300	370	330	360	350	310	290 ^L	270 ^L	270	250	250	250	280	290
15	300	300	290	280	280	240	250	260	250	270	310 ^L	350	360	(300) ^L	340	320	290 ^L	270 ^L	270	270	250	260	270	320	
16	290	280	250	250	260	250	240	240	260	280	310	340	300 ^L	340	330 ^L	300	290	260	250	250	250	250	290	300 ^A	
17	310	300	270	280	340 ^A	270	250	260	260	A	A	370	350	350	340	300	310	330	280	250	250	280	330	320 ^F	
18	310	300	310	280	250	250	260 ^L	240	250	270 ^L	270 ^H	270	330	350	340	300 ^L	260	280	240	250	250	270	300	300	
19	310	300	290	260	260 ^F	290 ^F	260	250	260 ^A	A	260	270	280	300	L	(300) ^L	310 ^A	300 ^L	260	250	250	A	M	M	280
20	270	280	290	290	290	250	240	240	250	250	310 ^L	330	340	(300) ^L	[350] ^L	340	280 ^L	290 ^L	270	270	250	[300] ^A	300	270	
21	280	270	250	270	290	270	250	250	250	250	290 ^H	250 ^H	250 ^H	300	L	330	310	290	270 ^A	300	270	260	270 ^F	290	
22	300	360	300	260	270	300	270	310	C	460	370	400	400	430	(360) ^L	340	320	310	280	260	300 ^A	310	290	300	
23	300	290	290	320	300	270	250	250	280 ^L	270	300 ^A	350	350	340 ^L	340	(300) ^A	310	270	250	280	290	320	330	290	
24	300	270	A	A	280 ^F	400 ^A	390	420 ^K	390 ^K	470 ^K	[450] ^K	430 ^K	600 ^K	580 ^K	520 ^K	[500] ^K	490 ^K	330 ^{AK}	270 ^K	280 ^K	370 ^K	340 ^F	350 ^K	360 ^K	
25	340 ^K	380 ^K	370 ^K	340 ^K	290 ^K	290 ^K	370 ^K	500 ^K	410 ^K	410 ^K	490 ^K	510 ^K	490 ^K	400 ^K	420 ^K	350 ^K	[320] ^L	280 ^K	280 ^K	290 ^K	300	310	330	360 ^F	
26	320 ^F	340	340	300 ^F	280 ^F	310	L	290 ^L	280	300	350	360	340	370	340	[320] ^L	290 ^L	270 ^L	270	250	280	270	280	290	
27	300	[340] ^A	370 ^H	300 ^F	300 ^F	[280] ^A	250	270 ^L	[280] ^L	300	360	310	300	340	310	L	290	260	260	230	A	330	340 ^A	310 ^F	
28	290	280	250	310 ^A	310	320	[340] ^L	350	400	400	410	380	380	340	350	280	280	260	250	240	290	310	310	300	
29	300	340	320	300	290	310	250	260	B	340	300	350	290 ^H	350	L	L	300 ^L	270 ^L	250	240	290	310	310	300	
30	330	330	330	300	290	280	250	250	250 ^H	280	[300] ^L	350	310 ^L	B	300	290 ^L	300 ^L	260	250	250	250	300	270	340	
31	A	A	A	300 ^A	330	300	250	270	250 ^H	280 ^L	270	300	340	290	340	280 ^H	260	270	250	250	250	330	350	A	
Mean Value	300	310	300	290	290	290	280	270	290	320	340	350	360	360	360	340	320	290	270	260	280	270	300	300	
Median Value	300	300	290	280	270	280	260	270	280	310	330	350	350	340	340	340	310	290	280	260	280	300	300	300	
Count	30	29	28	29	30	30	31	31	28	26	27	28	28	28	29	29	31	30	30	260	260	29	30	30	

f_oF₂

Sweep 0.85 Mc to 22.0 Mc in 2 min

Manual

Automatic

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

Lat. 39° 43.5' N
Long. 140° 08.3' E

IONOSPHERIC DATA

Akita

Aug. 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	5.2	6.5	3.5F	2.6F	2.1F	3.5F	4.2	G	5.1	G	6.1	5.9	6.5	6.4	4.7Y	4.1Y	G	5.4	6.6	4.8	7.0	5.6F	5.6F	5.0F	
2	2.7F	3.1Y	2.1F	2.0F	2.2Y	G	G	5.8	6.5	7.1	5.4	6.1	5.0	7.5	6.6	6.7Y	G	G	3.5	6.5F	5.5F	6.6F	3.5	4.6F	
3	2.3	2.3	2.0Y	2.2F	2.2Y	2.2F	G	4.7	4.7	7.0	6.4Y	4.5Y	4.2	G	G	G	G	5.2	3.5	3.5F	4.5	2.7Y	E	E	
4	E	E	3.5Y	2.2Y	2.1Y	2.2F	G	G	5.4	5.4	6.4	6.6	9.0	7.5Y	6.2	G	5.1	5.2	4.8	6.5Y	6.5F	6.5F	2.7Y	2.3	
5	4.5F	2.3Y	2.4	3.5F	3.7F	G	G	4.7	5.9	4.9	G	10.1Y	6.5	5.0	5.1	13.5Y	8.0	11.7	10.2Y	6.7Y	9.3	6.5F	5.5F	7.6	
6	6.6F	2.4	4.7	2.5	3.0F	3.5Y	3.7	5.6	6.5	10.8	10.5	10.1Y	10.5	9.2	6.7	5.7	5.0	4.0Y	3.1Y	2.4Y	4.8Y	5.4Y	8.8Y	5.3	
7	5.2F	4.0F	5.5F	3.5F	6.5Y	3.5	3.5	5.3	5.3	6.4Y	5.0	G	G	B	G	5.3	5.2	6.6	6.3	6.5	5.1	6.5	5.3	2.1	
8	2.1	2.2	3.2Y	3.1Y	3.5	3.5Y	4.2	4.6Y	4.8	5.0	6.7	6.6	8.0	9.5	G	4.8	5.0	4.7Y	2.1	E	2.1	E	2.1	E	
9	2.7F	3.3F	3.0	5.0	4.1F	3.5Y	4.1Y	4.6	5.4	5.2	7.5	7.6	7.8	5.4	6.5	8.0	8.0	7.0	7.7	4.7F	5.5	4.5	5.5	6.5	
10	6.8	2.0Y	1.0	2.2	2.2	2.2	3.5	4.6	5.9	7.2	7.2	11.0Y	5.5	G	G	10.0	6.0	4.0Y	G	2.4Y	3.1Y	3.0	3.0	4.0	
11	4.4	3.0	6.5	6.5	5.5	3.2Y	G	4.8	5.3	5.8	8.0	6.2	5.4	5.2Y	4.2Y	G	4.5	3.5	6.0Y	3.1	3.1	2.5	3.1	3.1	
12	3.5F	6.5	5.6F	5.2F	4.2F	6.5Y	6.7	G	4.5	5.3	6.2	7.1	6.4	4.4	G	4.8	5.4	4.4	6.6	5.6	5.1	4.1	4.1	7.6F	
13	4.5F	3.5	3.0F	3.0F	3.2F	3.5F	4.5	G	5.2	5.9Y	4.2	4.4	4.2	G	G	3.8Y	G	G	4.4	3.5F	2.5F	1.9	3.1	2.4	
14	2.5Y	6.8	8.6	6.6F	4.1Y	5.7F	4.5	6.2	7.5	7.5	6.1	7.5	7.1	4.7	5.2	4.2	4.1	4.4	2.7Y	1.8	E	E	2.2	2.7	
15	3.5	2.6F	3.0Y	3.4F	4.1F	3.5F	3.5F	G	6.5	6.0	6.5	5.1Y	G	5.0	4.5	6.0	6.8	4.2	4.7	4.2	3.1	2.6	4.5	4.2	
16	3.8F	3.5F	3.5Y	2.2F	3.0F	3.5F	G	G	G	G	G	G	G	4.0	G	4.2	G	G	3.4Y	2.5	2.7Y	4.5Y	3.5	3.5	
17	3.5Y	3.1Y	3.4	3.5	4.2F	3.5F	G	5.5	6.6	7.0	7.5Y	4.3	G	4.3	G	4.0Y	5.5	6.5	7.5	4.6	3.5	4.8	4.1	3.5	
18	3.5	6.5Y	3.5	3.3	3.2Y	2.7	3.5	4.8	5.1	5.0Y	5.2	4.5	5.0	4.5	5.3	4.6	G	4.6	4.0	3.5	1.9	2.9Y	5.5	4.3	
19	3.8	5.8	3.1F	2.5F	3.1F	3.0	3.5F	5.5	5.9	8.0	5.2	6.1	6.3	4.3	4.5	4.3	1.3	4.5	4.8	5.1	1.33Y	5.5	2.59M	7.1	
20	3.2	3.0Y	4.0Y	3.2	3.0	M	G	G	4.6Y	G	G	G	G	G	G	G	3.5	3.5	4.4Y	4.1	4.6	3.5	4.0	3.1	
21	3.0	2.7	2.6	2.1Y	2.2	G	3.5	4.1	4.2	4.2	4.1Y	G	G	3.5	G	3.4	7.0	5.5	6.5	5.7	4.2F	3.5F	4.5F	3.5F	
22	3.5F	2.8F	2.2F	2.4F	2.2F	2.4	4.2	4.1	G	5.3	4.2	4.9Y	4.3	4.1	4.3	3.5	4.3	4.1Y	3.5	3.2	9.0F	4.2	1.9	2.6	
23	3.1	E	1.8Y	3.1Y	3.1F	3.2F	G	G	4.9	5.6	6.7	4.3	4.2	4.2	4.5	6.5	7.4	4.5	3.1	3.4F	2.4Y	2.2	3.2	3.0	
24	2.2F	3.5F	7.0F	8.9Y	4.2F	4.5F	4.7	G	4.8	5.4	5.9	G	G	4.7	G	4.1Y	4.1	6.0	3.4	2.9	4.1	4.8F	3.5F	2.4	
25	2.2F	3.5F	3.5Y	2.2F	3.0Y	2.9F	G	G	5.0	5.2	5.6	G	G	G	G	4.6	4.7	4.5F	3.5	3.2	2.2F	4.2	2.7	3.2F	
26	2.7F	2.7F	3.2F	2.6F	2.2F	2.7F	3.8	G	5.2	G	G	G	G	G	G	G	G	G	3.0	2.2Y	2.1Y	1.9Y	E	4.0	
27	8.9Y	6.7F	6.7F	3.2F	4.7F	9.0Y	5.7Y	G	5.0	6.7	6.5	6.9	5.7	7.5	6.0	3.9	4.1	4.0Y	3.5	3.5	7.2	4.5	7.0Y	3.5	
28	3.5	3.5	2.2Y	2.9Y	2.1Y	2.1Y	3.5Y	G	G	5.4	5.3	5.7	4.3	4.2	4.2	4.3	4.0	3.2	2.1Y	E	3.5	4.2	5.7Y	3.5	
29	2.6	2.5	2.0Y	3.3	2.0Y	2.1Y	3.2Y	4.9	B	6.5	G	G	G	6.0	G	G	G	G	4.1	4.5Y	3.5	4.5	3.1	4.4	
30	3.5	3.0	3.0	2.9	3.5	3.2	6.4Y	4.5	5.2	7.0	5.1	G	4.5	5.2Y	4.2	4.5	G	3.4	3.5	3.5	4.2	3.5	7.2	6.5	
31	8.9F	6.5Y	5.4F	4.5F	3.1F	3.0	2.7Y	G	G	4.5	4.4	4.4	6.5	3.5	G	4.9	4.2	4.5	4.1	3.5	4.9	4.4	4.1	6.8Y	
Mean Value	3.9	3.8	3.7	3.4	3.3	3.5	4.1	5.0	5.4	6.3	6.1	6.4	6.0	5.5	5.2	5.3	5.6	5.0	4.6	4.1	4.7	4.2	4.3	4.1	
Median Value	3.5	3.1	3.2	3.1	3.1	3.2	3.5	4.1	5.2	5.4	5.6	4.9	4.5	4.4	G	4.3	4.3	4.4	4.0	3.5	4.2	4.2	4.0	3.5	
Count	31	31	31	31	31	30	31	31	30	31	31	31	31	30	31	31	31	31	31	31	31	31	31	31	30

Sweep 0.85 Mc to 22.0 Mc in 2 min

Manual

Automatic

A 3

fEs

Lat. 35° 42.4' N
Long. 139° 28.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

foF2

Aug. 1956

Day	00	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	6.8	6.7	6.5	6.5	6.6	7.6	7.6	8.4	7.3	7.8	8.5	8.9	8.9	9.2	9.7	9.3	8.3	8.2	8.0	7.5	7.4	8.0	8.0
2	7.0	6.7	6.7	6.9	6.1	5.8	7.8	10.0	8.1	6.8	6.7	7.2	8.1	9.5	9.9	9.0	8.8	8.9	9.1	8.9	8.4	8.4	7.9	7.5
3	7.5	7.5	7.2	6.7	6.2	6.5	8.0	9.5	8.9	8.1	8.7	8.3 ^H	8.8	9.0	8.6	8.6	8.6	9.0	9.9	9.8	8.5	7.7	7.4	7.8
4	7.5	7.5	7.4	7.3	6.0	6.4	7.9	C	C	9.0	8.9 ^H	10.0	9.9	[10.2] ^B	10.4 ^P	[10.0] ^B	9.6	9.6 ^P	9.6	9.0	8.1	(8.4) ^B	8.6	8.0
5	7.4	7.5 ^F	7.1	6.9	6.5	6.8	8.0	8.8	9.4	9.6	9.0 ^T	9.3	10.2	10.5	10.5	10.1	9.5	9.4	9.4	9.2	8.5	8.5	8.6	8.3
6	7.7	8.0 ^Z	7.1	6.8	6.5	7.0	9.3	10.0	8.8 ^H	8.6	9.1	8.8 ^H	10.0	[9.6] ^B	9.1	8.5	8.0	8.0	8.4	8.5	8.0	7.9 ^P	7.9	7.8
7	7.4	7.0	7.0 ^F	7.4 ^Z	7.0	6.8	7.7	8.0	8.5	8.9	8.5 ^H	9.4	9.4	[9.2] ^T	10.1	9.8 ^P	9.5	9.9	9.6 ^P	8.8	7.6	8.4	8.5	8.2
8	7.9	8.1	7.5	6.5	6.2	6.4	8.1	8.8	10.1	9.8 ^H	9.7 ^H	(8.7) ^P	8.7	8.7	9.5	10.0	10.6	10.5	10.5	10.4	9.0	9.1	9.0	8.7
9	8.1	7.2	7.0	6.9	6.9	7.4	9.0	9.5	10.0	10.2	9.5	9.5 ^H	10.4 ^H	10.6	10.6	10.1 ^H	9.8	9.7	9.9	9.0	8.2	8.5	8.7	8.5
10	8.5	8.8	7.5	6.0	6.3	6.1	7.5	8.4	8.0	(7.7) ^P	7.0 ^K	6.3 ^K	6.2 ^K	6.8 ^K	6.5 ^K	6.6 ^K	6.8 ^K	6.6 ^K	6.6 ^K	6.0 ^K	6.3 ^K	6.5	6.9	6.6
11	6.6	6.6	6.4	5.2	5.1	5.9	8.0	9.6	9.0	9.0 ^H	9.5	10.5	10.6	10.3	9.7	10.0	9.3	9.0	9.3	8.6	8.8	8.4	7.4	7.7
12	7.0	6.8	7.2 ^Z	6.9	6.5	6.3	6.9 ^Z	8.0 ^H	8.5 ^V	9.0	9.6	9.9	9.6	9.7	8.9 ^T	10.1 ^P	9.0	[9.1] ^A	9.5	10.1 ^P	9.5	8.0 ^P	7.8 ^P	7.6 ^P
13	8.2	7.0	7.4	7.2 ^F	6.0	5.6	7.0	8.0	7.0	7.0	7.2 ^T	7.9	8.1	8.1	8.4	9.1	9.4	10.0	9.5	9.1	8.5	8.3	8.1	8.0
14	7.5	7.6	8.2 ^T	8.0 ^F	7.5 ^F	7.7	8.8	9.4	9.6	9.0	9.1	9.9	9.5	9.6 ^H	10.4	11.0	11.3	11.3	10.8	10.6	9.3	8.8	9.0	8.5
15	(7.7) ^T	8.4	7.6	7.9	7.6	7.8	8.7	9.0	8.6	8.3	8.8 ^H	9.1	10.0	10.5	11.3	(12.5) ^P	11.3	10.6	10.2	9.5	8.3	7.8 ^P	8.0	7.9 ^P
16	9.0	8.8	8.6	7.8	7.8	7.5	8.8	9.3	9.0 ^H	9.4	9.4 ^H	9.5 ^H	10.3	10.5	11.2	11.8	11.7	11.5	10.9	9.5	8.3	7.8 ^P	8.0	7.9 ^P
17	8.0	8.3	8.0 ^F	7.5	7.5	8.1	9.5	9.7	8.8 ^H	8.7	10.0	[10.6] ^B	11.5	(10.9) ^T	>11.3 ^B	(10.4) ^P	10.4 ^P	11.2	12.4	>10.8	8.6	9.4	8.7	8.6 ^T
18	8.0	7.9	7.5	6.5	6.8	8.5	9.6	9.6	8.6	9.4	9.5 ^H	10.6	10.7	10.6 ^H	10.8	10.4	10.5	10.6	10.4	9.2	8.5	8.8	8.7	9.1
19	9.0	8.5	8.1	7.2	6.6	6.8	8.7	10.3	9.3	[8.4] ^C	9.2 ^H	9.9	10.4	10.7	10.3 ^H	10.6	10.6	10.8	10.0	9.4	8.8	8.7	8.7	8.2
20	8.2	7.5	7.9 ^F	7.4	7.6	7.6	8.8	9.0	9.2	9.3 ^H	10.2 ^H	10.7 ^H	10.2 ^H	10.5 ^H	10.7 ^H	10.7 ^H	10.5	10.4	10.3	9.6	9.0	9.5	9.4	9.5
21	9.0	8.5	7.5	7.0	6.9	7.5	10.3	9.6	9.2	9.1	9.6 ^H	10.0 ^H	10.4	10.5	10.3	9.9	10.0	10.0	10.2	10.3	9.6	9.6	9.1	9.1
22	8.9	7.6	7.7	8.0	7.2	7.0	8.0	8.6	8.1	7.3	8.4	8.5	8.3	8.6	8.9	8.9 ^H	8.7	9.2	10.0	9.5	8.2	8.0	8.7	8.6
23	8.5	8.0	7.9	7.3	7.9	7.5	8.4	9.2	9.5	8.8 ^H	9.2	9.1	10.8 ^H	12.0	11.3	10.9	10.5 ^H	10.3	9.5	8.4	7.7	8.0	8.2	8.4
24	8.0 ^F	7.2	7.2	6.9	7.3	6.1	7.8	8.0	8.4	7.0 ^K	6.9 ^K	7.5 ^K	6.9 ^K	6.5 ^K	6.9 ^K	7.0 ^K	6.2 ^K	6.9 ^K	6.5 ^K	5.2 ^J	6.0 ^K	6.3 ^K	6.5 ^K	5.8 ^K
25	6.2 ^K	6.0 ^K	5.2 ^K	5.8 ^F	5.8 ^F	6.5 ^K	6.8 ^K	6.8 ^K	7.2 ^K	7.8 ^K	7.9 ^K	7.0 ^K	8.0 ^K	8.0 ^K	8.0 ^K	7.5 ^K	7.5 ^K	7.5 ^K	7.3 ^K	7.7	6.9	7.6	7.1	6.9
26	6.2	6.0	6.0	6.1	5.9	5.7	7.2	8.2	10.3	9.7	10.3	9.5	10.0	9.9	10.5	9.6	9.4	8.8	8.7	7.9	7.0	7.0	7.5	7.2
27	6.2	6.1	6.1	6.0	5.6	5.7	8.1	8.8	10.0	10.5	[11.0] ^M	11.4	11.9	12.0	11.5 ^P	10.8	10.1	9.9	9.5	8.7	8.1	8.5	8.1	7.6
28	7.6	6.8	6.4	6.0	6.0	5.9	7.3	8.2	8.0	9.2	10.0	10.5	10.8	10.7	10.9	10.7	9.6	8.8 ^H	9.0	7.2	7.2	7.7	7.5 ^P	7.3
29	6.6	6.4	6.1	6.0	5.7	6.1	8.0	9.0	9.5	9.3	10.3	10.2 ^H	10.3	10.0	10.1	10.8	10.2	10.0	9.3	8.5	7.9	8.1	8.1	7.7
30	7.8	7.4	7.0	7.5	7.0	7.4	8.0	8.9	9.9	10.0	10.5	11.4	10.7 ^H	11.3	11.3	10.5	10.4	9.9	9.8	8.3	7.5	7.5	7.9	B
31	7.6	7.2	7.5	6.9	6.9	7.3	9.4	10.1	10.8	10.6	11.9 ^H	(11.5) ^B	10.5	(10.3) ^B	10.7	(10.8) ^C	10.9	10.0	8.6	7.7	8.2 ^B	8.6	8.6	8.6
Mean Value	7.7	7.4	7.2	6.9	6.6	6.7	8.2	9.6	8.9	8.5	9.1	9.4	9.7	9.8	9.9	9.9	9.6	9.6	9.5	8.8	8.1	8.2	8.2	8.0
Median Value	7.7	7.5	7.2	6.9	6.5	6.8	8.0	7.0	9.0	9.0	9.2	9.6	10.0	10.2	10.3	10.1	9.6	9.9	9.6	7.0	8.2	8.3	8.1	8.0
Count	31	31	31	31	31	31	31	30	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	30

Note: Observation was carried out every 30 minutes during 10H, 09H00-22nd, 05H30.

Sweep / L. E. Mc to / Z. Z. Mc in / 2. min Manual Automatic

foF2

K 1

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

Lat. 35° 42.4' N
Long. 139° 29.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

h_pF₂

Aug. 1956

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	4.10	4.10	4.00	3.90	3.80	3.60	3.30	3.90	3.50	3.10	3.70	3.80	3.70	3.80	3.70	3.50	3.60	3.30	3.40 ^M	3.50	3.70	4.10	3.80	3.80
2	3.60	4.00	4.00	3.60	3.50	4.10	3.60	3.10	2.70	3.10	U	4.60	4.20	3.70	3.50	3.70	3.60	3.60	3.20	3.30	3.80	4.00	3.90	4.20
3	4.10	4.10	3.80	3.80	4.10	4.00	3.60	3.00	3.20	3.60	3.50	3.90 ^M	3.90	3.60	3.70	3.70	3.60	3.40	3.50	3.40	3.40	3.80	4.10	4.10
4	4.10	3.90	3.80	3.40	4.10	3.60	3.60	C	C	3.70	4.10 ^M	3.70	3.70	3.60 ^B	3.60 ^P	3.60 ^B	3.50	3.40 ^M	3.30 ^M	3.20	3.30	4.70 ^B	3.70	3.10
5	4.10	4.10 ^F	3.80	4.10	3.60	3.70	3.70	3.30	3.60	3.70	3.70 ^M	4.20	4.00	3.90	3.70	3.60	3.60	3.50	3.40	3.20	3.90	4.10	4.10	3.90
6	3.90	3.80 ^F	3.80	3.70	4.00	3.80	3.20	2.90	3.00 ^M	3.70	3.90	3.80 ^M	3.60	3.60 ^B	3.70	3.60	3.50	3.80	3.40	3.70	3.60	4.00 ^F	3.90	3.90
7	3.60	3.90	4.10 ^F	3.90 ^F	3.60	3.40	3.10	3.70	3.30	3.60	4.20 ^M	4.00	4.30	3.90 ^M	4.10	3.80 ^F	3.80	3.60	3.20 ^F	3.10	4.10	4.10	4.00	3.90
8	4.00	3.80	3.50	3.90	4.00	3.50	3.30	3.40	3.10	3.50 ^M	3.70 ^M	3.30 ^F	4.10	4.00	4.20	4.00	3.70	3.50	3.50	3.30	4.00	3.70	3.70	3.50
9	3.70	3.70	4.00	4.10	4.20	3.90	3.30	3.20	3.30	3.40	3.80	4.20 ^M	4.10 ^F	3.90	3.90	3.80 ^M	3.60	3.60	3.50	A	4.10	4.30	4.30	4.40
10	4.10	3.60	3.80	4.30	4.30	4.80	4.30	3.20	4.10	4.40 ^M	4.10 ^K	U ^K	U ^K	U ^K	U ^K	4.60 ^K	4.10 ^K	3.80 ^K	3.60 ^K	3.80 ^K	4.40	4.40	4.40	4.30
11	4.10	3.80	3.50	4.00	3.90	3.80	3.30	3.30	3.90	4.10 ^F	3.80	3.70	3.70	3.90	4.00	3.80	3.80	3.70	3.60	3.70	4.00	4.50	4.50	3.90
12	4.30	4.40	4.50 ^F	4.40	4.10	3.70	3.80 ^F	3.50 ^M	3.50 ^M	3.10	3.60	3.70	4.10	3.90	A	3.20 ^F	3.70	3.60	3.60	3.50 ^F	3.20	4.10 ^F	4.30 ^F	4.10 ^F
13	4.70	4.30	4.20	3.60 ^F	4.10	4.10	3.80	3.00	3.10	2.90	U	3.60	3.60	3.70	3.90	3.60	3.70	3.40	3.40	3.30	3.70	4.00	4.00	3.80
14	4.30	4.30	3.80 ^F	3.80 ^F	3.70 ^F	3.00	3.10	3.10	3.20	3.20	3.70	3.90	3.90	4.30	4.10	3.80	3.70	3.70	3.60	3.60	3.40	3.70	4.00	3.80
15	4.00 ^F	4.50	3.90	3.70	3.70	3.00	2.90	2.80	2.80	3.10	3.70 ^M	3.50	3.90	3.90	3.80	3.70 ^F	3.50	3.20	3.30	3.20	3.70	4.00	4.00	4.10
16	3.80	3.80	3.50	3.60	3.60	3.30	3.20	3.00	3.20 ^F	3.30	3.50 ^F	3.80 ^M	3.70	3.70	3.70	3.80	3.60	3.20	3.30	3.30	3.50	3.80	4.10	4.10
17	4.10	3.90	4.10 ^F	3.90	3.90	3.40	2.90	3.00	3.30 ^F	3.60	3.80	3.80 ^B	3.90	3.80 ^B	B	4.00 ^P	3.80 ^F	4.00	3.20	3.40 ^B	3.60	4.10	4.00	4.10 ^F
18	4.10	4.10	4.00	3.50	3.30	3.50	3.20	2.80	2.20	3.20	3.80 ^F	3.60	3.50	3.70 ^M	3.50	3.50	3.30	3.20	3.20	3.20	3.80	3.70	3.90	4.20
19	3.70	3.70	3.50	3.40	3.90	3.70	2.90	2.70	2.70	3.00 ^C	3.30 ^M	3.70	3.60	3.60	3.90 ^M	3.50	3.60	3.20	3.30	3.50	3.70	3.70	3.60	3.80
20	3.70	3.80	3.80 ^F	3.60	3.40	3.10	3.10	3.00	3.20	3.40 ^M	3.80 ^M	3.70 ^M	3.90 ^M	3.60 ^M	3.80 ^M	3.80 ^M	3.50	3.50	3.50	3.30	3.40	3.80	3.70	3.50
21	3.50	3.40	3.60	3.80	3.80	3.30	2.70	2.60	2.90	3.20	3.50 ^M	3.80 ^M	3.80	3.80	3.70	3.80	3.60	3.60	3.40	3.60	3.60	3.80	3.70	3.80
22	3.60	4.70	4.10	3.80	3.60	4.10	3.50	3.20	3.60	3.80	3.70	4.10	4.00	4.00	3.60 ^M	3.40	3.40	3.60	3.30	3.30	3.60	4.00	4.10	4.10
23	4.10	4.00	4.00	4.10	3.80	3.60	3.20	2.70	2.90	3.50 ^M	3.70	3.90	4.00 ^M	4.00	3.90	3.80	3.70 ^M	3.50	3.20	3.70	4.20	4.20	4.10	4.00
24	3.70 ^F	4.10	4.00	4.20	3.40	5.00	4.00	3.90	3.80	3.60 ^K	4.60 ^K	4.20 ^K	U ^K	U ^K	U ^K	4.00 ^K	4.10 ^K	3.60 ^K	3.50 ^K	A ^K	5.00 ^K	4.50 ^K	4.90 ^K	4.80 ^K
25	4.80 ^K	5.10 ^K	5.10 ^M	4.80 ^M	4.20 ^F	5.10 ^K	4.00 ^K	5.10 ^K	4.00 ^K	4.10 ^K	3.80 ^K	3.60 ^K	4.10 ^K	3.60 ^K	3.40 ^K	3.50 ^K	3.50 ^K	3.40 ^K	3.50 ^K	3.70	3.80	3.90	4.20	3.80
26	4.50	4.40	4.40	4.10	4.00	4.40	3.80	3.10	3.50	3.70	3.50	3.40	3.90	4.20	3.60	3.60	3.60	3.40	3.50	3.70	3.80	4.10	3.90	3.50
27	4.10	4.30	4.60	4.10	4.20	4.20	3.20	3.20	3.20	3.60	3.60 ^M	3.70	3.70	3.80	3.70 ^P	3.50	3.50	3.60	3.40	3.60	4.20	4.10	3.90	3.50
28	3.80	3.70	4.30	4.40	4.40	4.40	3.70	3.40	3.40	3.40	3.50	3.60	3.60	3.60	3.70	3.60	3.50	3.60	3.40	3.60	4.20	3.90	3.90	3.90
29	4.20	4.40	4.30	4.20	4.30	4.20	3.30	3.10	3.30	3.30	3.60	3.80 ^M	3.80	3.90	3.90	3.60	3.60	3.70	3.00	3.40	4.10	3.90	3.90	3.70
30	4.20	4.30	4.20	3.90	3.70	3.10	2.90	2.80	3.10	3.30	3.70	3.50	3.90 ^M	3.90	3.70	3.70	3.50	3.50	3.30	3.20	3.30	4.00	4.10	B
31	4.10	4.20	3.90	4.00	4.20	3.70	3.10	2.90	3.20	3.40	3.60 ^M	3.50 ^M	3.60	3.60	3.90 ^B	3.60	3.40 ^F	3.30	3.00	3.30	4.10	4.40	4.40	4.60
Mean Value	4.00	4.10	4.00	3.90	3.80	3.40	3.20	3.30	3.30	3.50	3.70	3.80	3.90	3.80	3.70	3.70	3.60	3.50	3.40	3.40	3.90	4.00	4.20	4.00
Median Value	4.10	4.00	4.00	3.90	3.70	3.30	3.10	3.20	3.20	3.40	3.70	3.70	3.80	3.70	3.70	3.70	3.60	3.50	3.40	3.40	3.80	4.00	4.00	3.90
Count	31	31	31	31	31	31	31	30	30	31	29	30	29	29	31	31	31	31	31	29	31	31	31	30

Note: Observation was carried out every 30 minutes during 10th, 09h00-22nd, 08h50.

h_pF₂

Swamp 1.0... Mc to 172... Mc in 2... min

Manual Automatic

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

Lat. 35° 42.4' N
Long. 139° 28.8' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

RF2

Aug. 1956

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	340 ^A	310 ^A	320 ^A	300 ^A	290	270	280	260 ^A	310	310	370	370	360	370	360	330	310	320	A	A	360 ^A	360 ^A	300	310 ^A	
2	260	310 ^A	300	270	260	300	310	280	260	310	410	460	410	360	330	350	330	320	290	280 ^A	310 ^A	310 ^A	280 ^A	310 ^A	
3	330 ^A	320	300	280	300	280	310 ^L	270	300	310 ^L	340	320 ^H	370	340	350	360	350	330 ^A	300	260	280 ^A	270	310	310	
4	310	300	280	240	230	270	280	300	320 ^C	350	310 ^H	350	340	350	340	320	310	320	320 ^A	260	260 ^A	300 ^A	320 ^A	310 ^A	
5	300	310	290	290	270	280	230	260 ^L	280	330	360	400	370 ^A	360	340	340	330	310	310	260	270	310	310	310	
6	320 ^A	310 ^A	300 ^A	310 ^A	300	300 ^A	280	260	270 ^H	350	370	320 ^H	350	340	360	330	330	330 ^L	280	270	270	280	280	330 ^A	
7	300 ^A	310 ^A	330 ^A	340 ^A	290	300	270	L	310	330	300 ^H	380	410	380	370	350	350 ^A	320	280 ^A	260 ^A	290 ^A	310 ^A	310	300 ^A	
8	300 ^A	300	260	260	290	280	260	260	280	260 ^H	270 ^H	330	390	400	400	370	330	310	300	270	250	290	260	260	
9	270	270	300	280	300	280	260	260	260	290	280	260 ^H	350 ^H	350	350	280 ^H	330	310	270	A	350 ^A	330 ^A	360 ^A	330 ^A	
10	300	280 ^A	250	290	300	330	380	310	400	440	410 ^K	540 ^K	550 ^K	520 ^K	460 ^K	410 ^K	410 ^K	310 ^K	300 ^K	300 ^K	310 ^K	330	350 ^A	330 ^A	
11	340 ^A	300 ^A	340 ^A	240	280	260	250	250 ^H	310	290	350	350	380 ^A	340	400 ^A	350	320 ^L	310	A	350 ^A	270 ^A	330 ^A	350 ^A	330 ^A	
12	300	320	330	320	280	310	350 ^L	290	280 ^A	280	430	360	350	350	390	340	320	290	270	260	270	290	300 ^A	310	
13	320	360 ^A	350 ^A	270	280	270	240	240	290	280	360 ^A	320 ^L	350	290 ^H	380	350	330	310	280	270	240	260	290	280	
14	310	320	270	290	270	240	250	260	250	260	280 ^H	300	360	330	350	330	290	280	270	260	250	290	310 ^A	330 ^A	
15	300	330	310	290	270	250	260	260	260	260	260 ^H	270 ^H	350	340	340	320	310	280	260	250	250	270	300	330	
16	290	310 ^A	280 ^A	250	260	260	240	240	250	260 ^H	270 ^H	320	320	350	340	340	310	280	260	260	250	270	300	330	
17	340 ^A	310	300 ^A	300	320	270	240	260	250 ^H	280	320	330	320	350	340	310	370 ^A	370 ^A	280	260	260	250	300 ^A	290	310
18	300	300	300	260	240	260	260	240	290	310	260 ^H	310	320	300	320	300	300	290	260	250	270 ^A	290	290	330 ^A	
19	310	300 ^A	280 ^A	250	280	300	250	250	260 ^C	260 ^H	350	320	320	320	280 ^H	320 ^A	320	280	260	250 ^A	300 ^A	310 ^A	310 ^A	290	
20	270	270	270	270	270	260	230	230	250	260 ^H	280 ^H	270 ^H	270 ^H	320 ^H	300 ^{LH}	270 ^H	320	280	260	250 ^A	300 ^A	310 ^A	310 ^A	290	
21	260	250	250	260	280	270	250	230	250	270	260 ^H	260 ^H	350	360	320	330 ^A	330	300 ^A	280	260	260	280	280	280	
22	270	360	290	260	260	310	280	300	310	380	370	360	400	380	380 ^A	300 ^H	300	310	280	260	320 ^A	340 ^A	300	310	
23	300	300	280	310	280	280	250	250	260	270 ^H	300	310 ^L	320 ^H	350	320	330	260 ^H	270	260	260	280	330	300	300	
24	300	270	270	300	270	350	270	370	360	360 ^K	460 ^K	420 ^K	480 ^K	490 ^K	480 ^K	400 ^K	410 ^K	310 ^K	290 ^K	A	3170 ^A	350 ^A	390 ^K	360 ^K	
25	350 ^K	390 ^K	390 ^K	370 ^K	310 ^K	300 ^K	260 ^H	510 ^K	390 ^K	410 ^K	380 ^K	340 ^K	400 ^K	340 ^K	340 ^K	330 ^K	330 ^K	270 ^K	300 ^K	320 ^K	280	300	330 ^A	270	
26	310	330	330	290	280	310	260	280	310	330	310	320	340	330	320	310	3300 ^L	280	300 ^A	260	330 ^A	300	300	260	
27	280	340 ^A	360 ^A	320 ^A	290	300	250	250	260	250	300 ^A	340	310	340	330	310	300	300	290 ^A	260	310 ^A	340 ^A	330 ^A	320 ^A	
28	290	250	260	320	310	330	250	310	300	300	320	320	310	320	310	270	250 ^H	260	230	300	300	290	280	280	
29	310	340	330	310	310	320	260	260	260	310	320	300 ^H	340	360	360	330	290	260	260	280 ^A	270	280	300	300	
30	310	300	310	290	280	260	230	240	270	270	290	310	250 ^H	350	330	340	320	260	270 ^A	250	280	300	310 ^A	340 ^A	
31	350 ^A	340 ^A	320	300 ^A	340 ^A	290	250	230	290	260	260 ^H	290	290	300	370 ^A	320 ^A	290 ^C	260	250	250 ^A	300	340 ^A	370 ^A	350 ^A	
Mean Value	300	310	300	290	290	290	270	280	290	310	330	340	360	360	360	330	320	300	280	270	290	310	310	310	310
Median Value	300	310	300	290	280	280	260	260	280	300	310	330	350	350	350	330	320	300	280	260	280	280	300	310	310
Count	31	31	31	31	31	31	31	30	31	31	31	31	31	31	31	31	31	31	30	28	31	31	31	31	31

Note: Observation was carried out every 30 minutes during 10th, 09h00-22nd, 08h30.

Sweep 1.0 Mc to 17.2 Mc in 2 min

Manual Automatic

RF2

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

Lat. 35° 42.4' N
Long. 139° 29.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

foF1

Aug. 1956

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1						Q	L	Q	5.0	5.5	5.6 ^H	5.7	5.5	5.7	5.4	5.4	A	A	A					
2							L	4.6 ^L	A	A	(6.0) ^L	5.9	5.5	5.4	5.5	A	A	A	A					
3							L	4.6 ^L	5.0	L	5.5	[5.4] ^L	5.4	5.3	5.2	5.4	5.0	A	L					
4							L	4.9	[5.2] ^C	5.5	5.0 ^L	5.7	5.6	5.4	5.5	A	A	A	A					
5							Q	L	L	5.5	[5.8] ^A	6.1	[6.0] ^A	5.9	5.6	5.6	5.0	L	A					
6							A	A	A	6.0 ^L	6.1 ^H	5.2	5.5	5.7 ^H	5.5	5.0 ^L	5.1	L	L					
7						L	L	L	A	5.6	A	5.7	5.7	[5.6] ^A	5.5 ^H	5.5	[5.2] ^A	4.7 ^L	A					
8							L	L	5.5	5.0	A	A	A	5.6	5.7	5.5	5.0	4.7	A					
9							L	L	5.0 ^L	5.4	5.7	[5.6] ^B	5.5	A	A	A	5.5 ^L	A	A					
10							L	4.4	A	5.0	A	5.7	B	A	A	5.0	5.0	L	L					
11							Q	5.5 ^L	A	A	5.9	[5.9] ^A	5.9	5.9	5.5	5.4	L	L	Q					
12							Q	L	L	A	A	L	A	A	A	5.7	5.0 ^L	A	A					
13						Q	4.4 ^L	A	A	5.0 ^L	6.2	L	5.8	L	6.0	5.5 ^L	L	L	Q					
14						Q	Q	Q	A	A	A	L	L	5.2 ^L	6.0	5.7	L	L	L					
15							Q	L	L	L	L	L	6.1	L	5.8	5.5	A	A	3.2 ^L					
16							Q	L	L	L	5.0	5.0 ^L	LH	6.0 ^L	5.7	5.2	5.0 ^L	L	Q					
17							Q	L	A	A	A	A	A	6.0	5.5	L	A	A	A					
18							Q	L	L	5.7 ^L	5.5 ^L	L	5.7	L	5.5	5.5 ^L	5.5 ^L	L	Q					
19							Q	L	A	C	A	A	5.9	6.0 ^L	A	A	5.7 ^L	A	A					
20							Q	Q	L	L	5.5	Q	5.5	5.9 ^H	L	L	5.2 ^H	4.1 ^L	Q					
21						Q	L	L	L	L	L	Q	6.0 ^H	6.5 ^H	L	A	A	A	Q					
22							3.5	5.0	5.0	5.8	5.8	5.8	6.0	6.0	A	L	A	A	A					
23							Q	L	L	L	5.9	L	A	6.2	L	5.8	Q	Q	Q					
24							Q	5.5	5.0	A	5.2	[5.2] ^A	5.3	5.2	5.2	5.0	5.0 ^L	4.1	Q					
25							Q	4.9	4.9	A	5.6	N	5.5	5.1	5.9 ^L	[5.5] ^L	5.1	L	A					
26							Q	4.9 ^L	A	5.9 ^H	5.5	5.4	5.5	5.5	[5.4] ^L	5.2 ^L	L	A	A					
27							Q	Q	A	A	A	6.0	A	6.5	6.4 ^L	L	L	A	A					
28							Q	5.1	L	L	L	L	L	5.8	L	L	L	Q	A					
29							Q	L	B	5.7	L	L	6.2 ^L	5.9	L	5.6 ^L	L	Q						
30							Q	L	L	5.4	5.5 ^L	L	Q	6.0	L	6.0	A	Q						
31							Q	Q	L	Q	Q	L	L	L	A	A	C	Q						
Mean Value							4.0	4.9	5.1	5.5	5.6	5.6	5.7	5.8	5.6	5.5	5.2	4.4	3.2					
Median Value							4.0	4.9	5.0	5.5	5.6	5.7	5.6	5.8	5.5	5.5	5.0	4.4	3.2					
Count							2	10	9	14	18	15	20	24	19	20	14	4	1					

Note: Observation was carried out every 30 minutes during 10th, 09h00-22nd, 08h30.

foF1

Sweep 1.0 Mc to 7.2 Mc in 2 min

Manual

Automatic

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

Lat. 35° 42.4' N
Long. 139° 29.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

RFI

Aug. 1956

Day	00	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	250	Q	230	[220] ^A	200 ^H	280 ^A	230	[230] ^A	230	260	A	A	A					
2							250	230	A	A	A	A	A	A	A	A	A	A	A	A				
3							240	260 ^A	250	220	A	B	B	210	210	260	260	[260] ^A	260					
4							240	230	[220] ^C	210	220	A	A	A	B	240	A	A	A					
5							Q	230	230	A	A	A	A	A	230	[240] ^A	260	280	A					
6							A	A	A	280 ^A	200 ^H	190	230	210 ^H	A	220	260	250	260					
7						260	240	250	240	A	A	270 ^A	B	A	210 ^H	A	A	A	A					
8							240	220	250	230	A	A	A	A	B	A	A	240	240	A				
9							250	240	250	[260] ^A	260 ^A	B	B	A	A	A	A	A	A					
10							270	A	A	220	A	A	B	A	A	280	250 ^A	250	270					
11							Q	230	A	A	A	A	A	A	220	[240] ^A	260 ^A	290 ^A	Q					
12							Q	240	A	A	A	A	A	A	A	260	240	A	A					
13						Q	260	A	A	230 ^A	A	A	A	A	A	250	266	250	Q					
14						Q	Q	Q	A	A	A	A	A	B	A	A	270	250	270					
15							Q	240	240	220	A	A	A	A	A	A	A	A	260					
16							Q	240	230	230	220	200	210 ^H	B	240	[240] ^A	240	A	Q					
17							Q	230	A	A	A	A	A	A	A	240	A	A	A					
18							Q	230	250 ^A	230 ^A	220	A	A	A	270 ^A	250	260	Q						
19							Q	230	A	C	A	A	A	A	A	A	250	A	A					
20							Q	Q	230	A	230	Q	220	250 ^H	230	250	240 ^H	250	Q					
21						Q	250	230	230	210	200	Q	210 ^H	240 ^H	A	A	A	A	Q					
22							270	250	260	260	240	A	2170 ^B	2170	A	250	A	A	A					
23							Q	240	250	260 ^A	270 ^A	270 ^A	[270] ^A	270	280	250	Q	Q	Q					
24							Q	280	250	A	A	A	A	B	240	250	250	260	Q					
25							Q	250	250	A	A	B	B	A	A	A	A	240	260	A				
26							Q	280 ^A	A	210 ^H	230	210	[220] ^B	220	220	230	240	A	A					
27							Q	Q	A	A	A	A	A	A	A	A	A	A	A					
28							Q	250	240	A	A	B	A	B	B	B	260	Q	A					
29							Q	250	[260] ^B	260 ^A	A	B	260 ^B	260 ^A	B	B	240	Q						
30							Q	230	230	220	210	B	Q	220	230	A	A	Q						
31							Q	Q	220	Q	A	Q	A	230	A	A	C	Q						
Mean Value						260	250	240	240	230	220	240	240	240	230	250	251	260	260					
Median Value						260	250	240	260	220	220	240	230	240	230	250	250	260	260					
Count						1	11	23	20	18	12	6	10	12	15	16	18	12	5					

Note: Observation was carried out every 30 minutes during 10th, 09h00-22nd, 08h30.

RFI

Sweep 1.0 Mc to 17.2 Mc in 2 min

Manual Automatic

K 5

IONOSPHERIC DATA

f_oE

Aug. 1956

135° E Mean Time

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

Note: Observation was carried out every 30 minutes during 10th, 0900-22nd, 08h30.

Sweep 1.0 Mc to 17.2 Mc in 2 min

Manual

Automatic

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

Lat. 35°42.4' N
Long. 139°38.8' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

RE

Aug. 1956

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

Note: Observation was carried out every 30 minutes during 10th, 09:00-22nd, 08:30.

RE

Sweep 1.0 Mc to 19.2 Mc in 2 min

Manual Automatic

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

Lat. 35° 42.4' N
Long. 139° 28.3' E

IONOSPHERIC DATA

Kokubunji Tokyo

Aug. 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	4.8	5.0	6.4	5.5	2.4	2.5	3.5	6.1	4.7	6.4	4.2	5.7	5.5	8.4	6.0	5.8	4.7	7.0	9.0	8.9	8.6	8.5	4.3	6.7	
2	2.4	3.9	3.0	3.0	2.9	2.5	2.5	3.6	6.2	6.6	6.5	6.9	5.7	5.5	4.5	6.0	7.1	5.9	4.2	6.0	5.7	5.0	4.5	4.5	
3	4.5	3.2	4.4	3.5	3.3	2.0	3.8	4.6	5.2	5.7	7.0	3.7	3.8	G	G	G	5.5	7.4	3.4	3.9	6.8	3.4	3.0	E	
4	E	E	2.2	2.5	2.4	E	3.8	G	C	6.9	3.7	5.6	6.8	4.5	4.2	6.0	7.8	7.2	9.8	5.7	3.8	5.7	6.4	6.9	
5	2.8	3.6	2.8	3.6	2.3	2.3	4.3	4.3	5.0	6.0	7.7	7.1	10.2	6.0	6.5	6.0	6.4	5.7	6.6	3.3	5.7	8.0	6.7	5.7	
6	5.8	5.0	5.0	5.7	3.8	3.5	5.8	6.5	6.4	6.1	6.3	5.5	7.1	5.0	8.0	4.8	4.4	4.3	3.0	2.2	E	3.4	E	6.9	
7	5.7	3.8	4.2	5.1	4.1	2.9	3.4	5.1	4.1	6.4	6.3	5.4	4.4	7.3	G	5.2	9.0	5.0	6.0	4.5	3.9	5.5	6.5	5.8	
8	5.7	3.0	E	2.5	2.3	3.8	3.5	3.8	3.9	5.0	5.5	6.2	6.8	4.5	5.7	6.0	G	4.5	5.0	6.0	3.9	E	E	E	
9	E	E	3.0	3.0	2.9	2.9	3.0	5.0	6.1	8.6	5.6	B	G	5.7	7.5	5.5	8.0	5.9	7.3	10.5	9.5	6.8	6.1	6.0	
10	5.8	9.5	3.6	4.0	4.1	3.5	3.7	4.5	6.1	4.2	10.5	5.7	G	6.4	7.5	6.9	5.0	G	3.0	6.5	3.0	2.5	6.0	3.7	
11	4.5	4.7	5.0	3.0	2.3	2.4	3.1	3.8	6.2	6.4	6.3	8.0	6.4	4.4	4.6	6.4	6.0	5.5	4.3	3.0	4.6	2.8	2.5	E	
12	E	E	2.4	3.0	5.0	3.9	G	3.8	6.5	5.9	6.8	6.1	6.9	8.3	10.0	10.8	5.9	9.6	10.0	6.9	5.9	6.0	5.5	3.8	
13	3.9	9.0	8.5	4.0	3.6	3.1	3.6	6.1	6.8	6.4	6.5	6.1	7.0	6.4	6.0	4.1	4.5	G	2.9	2.9	1.9	2.0	5.6	2.4	
14	2.1	2.5	1.9	9.0	5.9	2.6	4.0	5.9	6.5	7.2	13.0	7.0	6.6	4.4	6.5	5.0	5.6	3.8	2.5	2.7	E	2.3	3.0	3.1	
15	6.0	4.9	4.6	3.0	3.0	3.5	3.5	3.7	4.5	4.9	6.3	5.6	5.7	6.0	5.9	4.7	5.8	5.1	B	2.4	4.3	3.9	3.4	3.9	
16	2.1	4.5	3.1	3.0	2.3	2.4	G	3.6	4.5	G	5.6	G	G	G	5.8	4.6	3.9	4.9	2.9	E	3.0	1.9	4.5	3.8	
17	3.0	3.9	6.0	3.6	4.0	3.8	3.4	4.6	6.9	6.6	9.0	6.8	9.2	6.4	4.5	4.4	8.0	9.0	8.5	7.5	3.8	3.0	2.2	2.6	
18	2.2	2.1	2.3	E	2.1	2.1	3.0	3.7	5.5	5.6	5.0	6.0	6.9	6.1	4.4	3.6	6.0	5.8	3.9	3.1	4.4	3.0	2.1	4.5	
19	4.4	4.5	4.3	3.9	2.4	2.8	3.6	4.0	5.8	C	6.5	8.5	7.0	6.6	7.2	7.6	6.0	5.0	5.8	3.7	6.8	6.7	7.1	3.9	
20	5.8	3.9	2.7	2.5	2.9	2.2	G	3.7	6.2	4.1	G	B	B	G	G	G	G	G	3.0	E	2.6	2.0	2.0	5.6	
21	3.7	3.5	2.3	2.5	2.4	2.2	G	3.7	3.8	3.9	3.8	B	G	4.1	5.8	7.8	6.7	8.6	4.3	3.0	8.9	5.9	2.3	E	
22	E	E	1.8	2.4	3.1	2.2	G	3.8	5.3	4.2	4.5	6.4	3.8	4.4	7.1	4.8	6.9	5.8	5.0	3.4	7.4	7.0	4.1	5.8	
23	6.4	2.8	4.5	2.3	2.2	2.9	3.9	3.5	4.2	5.5	6.0	6.0	6.7	5.5	3.9	3.6	4.3	4.7	5.7	3.5	2.5	E	E	2.2	
24	E	2.4	2.2	2.2	2.2	E	2.5	5.9	4.5	5.6	5.0	6.0	5.7	4.5	4.4	G	G	3.5	3.5	5.8	3.9	4.5	9.0	6.9	
25	E	3.4	2.2	2.1	E	2.4	3.4	3.9	4.0	6.1	8.5	G	G	5.3	5.6	6.0	3.9	3.4	5.8	5.9	3.0	6.5	3.1	2.8	
26	2.3	2.4	2.3	3.5	2.9	2.3	3.3	4.5	8.5	5.7	4.3	3.7	3.8	G	3.8	G	3.6	6.4	6.1	3.0	5.9	3.0	3.6	2.5	
27	3.0	4.8	4.0	3.6	2.1	E	G	3.7	5.1	6.2	14.0	7.3	8.3	5.2	5.9	5.9	9.5	8.5	6.5	3.8	6.6	5.7	7.9	5.5	
28	3.0	E	2.9	3.4	2.2	2.1	2.7	3.5	3.8	5.2	6.4	4.3	5.6	G	3.8	3.6	3.7	3.4	4.4	E	3.6	E	3.4	E	
29	3.3	3.7	3.0	E	E	E	3.5	4.5	B	6.0	6.1	G	G	5.4	G	G	3.6	3.6	3.4	4.2	E	E	2.8	2.4	
30	2.9	E	2.4	2.4	2.4	3.0	2.6	3.8	6.3	5.6	B	B	B	3.8	G	6.0	6.3	3.5	5.4	E	2.7	3.0	3.2	3.7	
31	4.2	4.2	3.9	3.9	3.9	2.4	3.7	G	3.5	3.9	3.8	5.5	3.8	5.5	8.4	6.7	C	3.9	3.3	3.6	2.5	4.5	6.6	3.7	
Mean Value	4.2	4.1	3.6	3.5	3.0	2.8	3.5	4.4	5.4	5.8	6.6	6.0	6.3	5.6	5.9	5.7	5.9	5.6	5.2	4.7	4.8	4.5	4.6	4.4	
Median Value	3.0	3.6	3.0	3.0	2.4	2.4	3.4	3.8	5.3	5.8	6.3	6.0	5.7	5.3	5.7	5.2	5.7	5.0	4.7	3.6	3.9	3.4	3.6	3.8	
Count	31	31	31	31	31	31	31	31	29	30	30	27	29	31	31	31	30	31	31	30	31	31	31	31	31

Note: Observation was carried out every 30 minutes during 10th, 09h00-22nd, 06h30.

Sweep 1.0 Mc to 1.2 Mc in 2 min

Manual Automatic

K 8

Lat. 35° 42.4' N
Long. 139° 28.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

(M3000)F2

Aug. 1956

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

Note: Observation was carried out every 30 minutes during 10th, 09h00-22nd, 06h50.

Sweep 1.0 Mc to 17.2 Mc in 2 min Manual Automatic

K 9

(M3000)F2

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

IONOSPHERIC DATA

Lat. 35° 42.4' N
Long. 139° 28.3' E

Kokubunji Tokyo

fminF

Aug. 1956

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	3.3 ^A	3.0 ^A	2.7 ^A	2.7 ^A	1.2	1.7	2.7	4.3 ^A	4.0	5.0 ^A	4.1	5.0 ^A	4.6	5.0 ^A	4.2	4.1	5.0	6.4 ^A	6.6 ^A	6.7 ^A	6.2 ^A	4.8 ^A	1.8	[1.7] ^A
2	1.6	2.6 ^A	1.9	1.4	1.8	1.9	2.7	3.2	5.0 ^A	5.0 ^A	5.0 ^A	5.0 ^A	5.0 ^A	5.0 ^A	4.1	5.0 ^A	6.0 ^A	5.4 ^A	4.1 ^A	4.1 ^A	[3.8] ^A	3.6 ^A	2.7 ^A	[2.8] ^A
3	3.0 ^A	2.0	2.7	1.3	1.2	1.9	3.2	4.1 ^A	4.5	4.1	5.0 ^A	5.0	5.0	4.1	4.0	4.4	4.2	[3.8] ^A	2.7	1.7	5.0 ^A	2.1	1.6	1.8
4	1.6	1.5	1.0	E	1.0	1.8	2.9	3.3	[3.8] ^A	4.3	4.3	5.0 ^A	5.0 ^A	5.0 ^A	4.3	5.2 ^A	5.2 ^A	5.5 ^A	8.3 ^A	3.5 ^A	2.7 ^A	2.5 ^A	5.3 ^A	A
5	1.8	2.0	1.4	1.7	1.3	1.8	2.7	3.5	3.5	5.3 ^A	6.4 ^A	5.0 ^A	7.5 ^A	5.0 ^A	4.3	5.0 ^A	4.1	4.0	5.5 ^A	2.7	2.7	1.8	2.1	2.7
6	2.7 ^A	2.1 ^A	2.8 ^A	3.1 ^A	1.9	2.8 ^A	4.2 ^A	4.1	5.0 ^A	5.0 ^A	4.0	4.2	4.4	4.4	5.0 ^A	4.1	4.1	6.4 ^A	4.3 ^A	2.0	1.7	1.7	1.5	[2.1] ^A
7	2.7 ^A	2.8 ^A	2.6 ^A	3.7 ^A	2.1	1.9	2.8	4.0	4.2	5.0 ^A	5.0 ^A	5.0 ^A	5.0	4.7 ^A	4.1	4.7 ^A	6.4 ^A	4.3 ^A	5.0 ^A	3.3 ^A	2.9 ^A	A	1.7	2.5 ^A
8	2.6 ^A	1.6	1.7	1.1	E	1.8	2.9	3.3	4.0	4.3	5.0 ^A	5.5 ^A	6.5 ^A	5.0	5.0 ^A	5.0 ^A	3.6	3.3	4.5 ^A	1.9	1.7	1.7	1.6	1.6
9	1.6	1.5	E	E	E	1.6	2.6	3.3	4.5	5.0 ^A	4.9 ^A	5.0	5.0	5.1 ^A	5.5 ^A	5.0 ^A	5.0 ^A	4.5 ^A	2.5	8.0 ^A	5.0 ^A	2.7 ^A	3.3 ^A	2.4 ^A
10	1.6	2.8 ^A	1.6	1.5	1.0	2.0	2.9	4.0 ^A	5.0 ^A	4.1	5.3 ^A	5.0 ^A	5.4	5.3 ^A	5.5 ^A	4.4	[3.8] ^A	3.1	2.2	5.0 ^A	1.8	1.8	2.5 ^A	2.2 ^A
11	2.9 ^A	A	A	1.5	1.1	1.7	2.7	3.5	5.0 ^A	5.5 ^A	5.5 ^A	7.2 ^A	6.5 ^A	4.4	4.3	5.0 ^A	4.2 ^A	4.1 ^A	2.6	1.7	3.5 ^A	1.8	1.6	1.5
12	1.4	1.7	1.3	1.2	1.3	1.8	2.6	3.4	5.1 ^A	5.0 ^A	6.3 ^A	5.4 ^A	6.8 ^A	5.9 ^A	7.5 ^A	4.1	3.3	A	7.5 ^A	7.5	3.3 ^A	3.7 ^A	3.9 ^A	2.5 ^A
13	2.3	2.9 ^A	3.5 ^A	1.4	1.4	1.9	2.6	5.3 ^A	5.0 ^A	5.0 ^A	5.0 ^A	4.4 ^A	4.4 ^A	5.1 ^A	5.0 ^A	4.6	4.5	4.1	3.2	2.2	1.9	1.5	1.7	2.5 ^A
14	1.5	1.7	1.2	E	1.0	1.8	2.6	3.4	5.8 ^A	6.4 ^A	7.5 ^A	5.0 ^A	5.5 ^A	5.0	5.0 ^A	4.5	4.2	3.2	2.2	2.1	1.6	1.7	1.8	2.0
15	1.5	2.1	2.1	1.4	1.5	2.7	2.9	3.2	4.1	4.1	5.5 ^A	5.0 ^A	5.0 ^A	5.0 ^A	5.0 ^A	4.4	5.0 ^A	4.6 ^A	2.1	1.7	3.5 ^A	2.5	2.6 ^A	3.2 ^A
16	2.1	3.2 ^A	2.6 ^A	2.1	1.3	1.6	2.6	3.3	4.1	4.4	4.2	4.3	4.4	5.0	4.5	4.4	3.5	4.2 ^A	2.1	1.8	1.9	1.7	1.6	2.0
17	2.6 ^A	2.1	[2.0] ^A	1.9	1.8	1.9	2.6	3.2	5.0 ^A	5.6 ^A	5.4 ^A	6.1 ^A	5.8 ^A	5.0 ^A	4.3	4.1	7.5 ^A	7.5 ^A	5.0 ^A	7.5 ^A	3.1 ^A	2.9 ^A	2.1	1.7
18	1.9	1.8	1.2	1.0	1.0	1.6	2.8	3.4	5.0 ^A	4.8 ^A	4.2	5.0 ^A	5.0 ^A	5.0 ^A	4.4	4.0	4.2	3.5	2.7	2.0	2.7 ^A	1.8	1.5	2.4 ^A
19	2.1	A	2.9 ^A	2.0	1.4	1.5	2.7	3.1	5.0 ^A	[4.9] ^A	4.8 ^A	7.0 ^A	5.0 ^A	5.0 ^A	5.0 ^A	7.5 ^A	3.4	5.0 ^A	2.7	2.6 ^A	4.1 ^A	3.1 ^A	3.5 ^A	2.1
20	2.0	1.5	1.2	E	1.0	1.7	2.8	3.4	3.9	4.2	4.7	5.0	4.4	4.4	4.3	4.1	3.5	3.0	2.3	1.5	1.6	1.5	1.6	2.7 ^A
21	2.0	1.6	1.4	E	1.0	1.5	2.6	3.3	3.7	4.3	4.1	5.0	4.5	4.6	5.0 ^A	5.9 ^A	5.5 ^A	5.0 ^A	2.8	1.8	4.5 ^A	5.0 ^A	2.0	2.1
22	1.6	2.0	E	1.6	2.0	1.7	2.7	3.2	4.1	4.0	4.4	5.0 ^A	5.0	4.9	6.7 ^A	4.3	5.5 ^A	5.2 ^A	4.0 ^A	2.1	5.1 ^A	5.0 ^A	1.5	2.0
23	1.4	1.5	1.8	E	E	1.8	2.6	3.2	3.9	5.0 ^A	5.0 ^A	5.0 ^A	5.5 ^A	5.0 ^A	4.4	4.0	4.0	3.6	2.6	2.3	1.6	1.6	1.5	1.7
24	1.5	1.9	E	1.0	E	1.7	2.6	4.0	4.1	5.0 ^A	5.0 ^A	5.2 ^A	5.0 ^A	5.0	4.0	4.1	3.5	3.0	3.0	5.0 ^A	2.9 ^A	3.0 ^A	2.1	1.6
25	1.5	2.0	1.0	E	1.1	1.7	2.6	3.1	4.3	5.1 ^A	5.2 ^A	5.3	5.0	5.0 ^A	5.0 ^A	5.0 ^A	3.5	2.7	4.0 ^A	5.3 ^A	1.7	2.2	2.6 ^A	1.6
26	1.6	1.5	1.2	1.0	1.0	1.5	2.6	4.2 ^A	5.1 ^A	4.0	4.2	4.3	5.0	4.2	4.2	3.8	3.3	3.3	5.0 ^A	2.5	3.5 ^A	2.1	2.1	1.6
27	1.5	2.7 ^A	2.5 ^A	2.4 ^A	1.0	1.5	2.7	3.2	4.5 ^A	5.1 ^A	[5.3] ^A	5.5 ^A	6.2 ^A	5.0 ^A	5.1 ^A	5.0 ^A	5.0 ^A	6.4 ^A	6.0 ^A	2.7	2.8 ^A	5.0 ^A	5.1 ^A	3.2 ^A
28	2.1 ^A	1.6	1.4	1.9	1.0	1.5	2.3	3.3	3.5	5.0 ^A	5.5 ^A	4.9	5.0 ^A	5.0	5.0	5.0	4.2	2.8	3.7	1.6	1.7	1.7	1.5	1.6
29	2.1	2.1	1.7	E	1.0	1.7	2.7	3.3	5.5	4.9 ^A	4.9 ^A	4.9	4.8	4.9 ^A	4.9	4.9	3.5	3.1	2.7	4.0 ^A	1.8	1.5	2.4	1.6
30	1.6	1.8	1.4	1.5	1.3	1.6	2.6	4.0	4.1	4.2	4.2	5.0	5.0	4.3	4.3	5.0 ^A	5.6 ^A	3.2	5.0 ^A	1.8	2.1	2.1	2.8 ^A	3.0 ^A
31	3.5 ^A	3.1 ^A	2.6 ^A	A	3.1 ^A	1.5	2.5	3.3	3.5	5.0	5.0	5.0 ^A	4.2	5.0 ^A	8.0 ^A	6.1 ^A	[4.5] ^A	2.9	2.6	2.9 ^A	2.1	3.2 ^A	5.0 ^A	2.7 ^A
Mean Value	2.0	2.1	1.9	1.6	1.4	1.8	2.7	3.6	4.4	4.8	5.0	5.1	5.2	4.9	4.9	4.7	4.5	4.1	3.8	3.3	2.9	2.6	2.4	2.1
Median Value	1.9	2.0	1.6	1.4	1.1	1.7	2.7	3.3	4.3	5.0	5.0	5.0	5.0	5.0	4.6	4.5	4.2	3.7	2.8	2.5	2.7	2.1	2.1	2.0
Count	31	29	30	30	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	31	30	31	30

Note: Observation was carried out every 30 minutes during 10th, 09h00-22nd, 08h30.

Swamp 1.0 Mc to 17.2 Mc in 2 min

Manual Automatic

K 10

Lat. 35° 42.4' N
Long. 139° 28.3' E

Kokubunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

fminE

Aug. 1956

Koganei-machi, Kitatama-gun, Tokyo, Japan

Day	00	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	1.3	1.6	1.8	2.0	2.1	2.3	2.1	2.1	3.2	2.9	1.8	2.1	1.8	1.8	1.7	1.6	1.5	1.6	1.6
2	1.6	1.5	E	E	E	1.5	1.7	1.8	2.2	2.1	2.9	3.2	1.6	2.1	2.1	2.1	2.1	1.6	1.7	1.5	1.7	1.5	1.6	1.3
3	1.5	1.6	E	E	E	1.5	1.7	1.6	2.0	2.1	2.3	3.2	2.6	2.7	2.1	2.1	1.7	1.8	1.7	1.5	1.7	1.5	1.7	E
4	E	E	E	E	E	E	2.1	2.2	[2.2] ^c	2.3	2.4	2.8	2.8	2.8	2.1	2.1	2.1	2.1	1.6	1.5	1.7	1.6	1.6	1.5
5	1.6	1.5	E	E	E	1.5	2.1	2.1	2.1	2.0	2.1	2.7	3.4	2.1	2.7	2.1	2.1	2.0	1.8	1.5	1.7	1.6	1.7	1.7
6	1.6	1.6	E	E	E	1.5	2.1	2.6	2.7	2.1	2.8	2.3	2.7	2.4	2.4	2.1	1.9	1.7	2.1	1.8	E	1.8	E	1.6
7	1.5	1.6	1.0	E	E	1.2	1.6	1.6	2.6	1.9	2.1	2.5	2.1	2.3	2.8	2.3	2.0	2.0	1.8	1.7	1.6	1.5	1.6	1.6
8	1.7	1.5	E	E	E	1.5	1.8	1.7	1.9	2.0	2.1	2.1	2.8	2.1	2.7	1.9	1.9	1.9	1.8	1.6	2.5	E	E	E
9	E	1.8	E	E	E	1.2	1.8	1.5	1.9	2.1	1.7	[2.4] ^B	3.1	3.3	2.6	3.5	1.8	1.8	1.6	1.5	1.6	1.5	1.5	1.5
10	1.5	1.4	E	E	E	1.5	1.7	1.5	2.5	2.1	2.7	2.4	2.7	1.9	2.5	2.1	1.8	1.7	1.8	1.6	1.6	1.5	1.5	1.5
11	1.5	1.5	E	E	E	1.5	1.7	2.0	2.3	2.1	2.1	2.1	2.1	2.2	2.2	2.1	2.1	1.9	1.5	1.6	1.5	1.5	1.4	E
12	E	E	E	E	E	1.6	1.7	1.9	2.2	1.7	2.1	2.5	3.0	2.2	2.3	2.4	2.1	2.0	1.7	1.5	1.6	1.5	1.4	1.4
13	1.3	1.5	1.0	E	E	1.4	1.5	1.5	2.1	2.3	2.1	2.5	2.3	2.3	2.1	2.1	2.1	1.9	1.4	1.5	1.5	1.7	1.5	1.6
14	1.6	1.5	1.3	E	E	1.0	1.5	1.7	2.1	2.1	2.0	2.2	2.4	2.2	2.4	2.1	2.1	1.8	1.5	1.5	1.6	1.5	1.7	1.6
15	1.8	1.4	1.2	1.3	1.2	1.2	1.5	1.6	2.1	2.1	2.1	2.1	2.6	2.6	3.2	2.8	2.1	2.1	1.8 ^B	1.4	1.4	1.4	1.5	1.4
16	1.6	1.5	E	E	E	1.5	1.3	1.7	1.9	2.1	2.8	3.2	3.3	3.2	2.8	2.8	2.5	2.1	1.5	E	1.5	1.6	2.0	1.6
17	1.4	1.5	1.2	1.2	E	1.4	1.8	1.9	1.7	2.1	2.6	2.6	2.8	2.8	2.8	2.6	1.7	1.6	1.5	1.4	1.6	1.6	1.6	1.7
18	1.8	1.6	E	E	E	1.8	1.5	2.1	2.1	2.7	2.7	2.6	2.8	2.6	2.1	2.1	1.8	2.0	1.7	1.7	1.6	1.5	1.7	1.6
19	1.6	1.5	E	E	E	1.0	1.5	1.7	1.7	[1.8] ⁰	2.0	3.1	2.7	3.3	2.8	2.1	1.9	1.6	1.5	1.5	1.6	1.6	1.5	1.5
20	1.5	3.0	E	E	E	1.5	1.8	1.8	3.3	2.1	3.3	B	B	3.6	2.9	2.7	2.8	1.7	1.6	E	1.5	1.5	1.7	1.5
21	1.5	1.6	E	E	E	1.3	1.4	1.8	1.7	2.0	2.1	2.1	3.3	3.2	2.8	2.8	2.1	1.7	1.6	1.5	1.5	1.6	1.6	E
22	E	E	1.4	E	E	1.0	1.7	1.7	2.1	2.1	2.1	2.0	2.1	2.8	2.0	2.1	2.0	1.8	1.6	1.4	1.5	1.6	1.6	1.5
23	1.5	1.4	E	E	E	1.4	1.7	2.0	1.8	2.1	2.1	2.2	2.4	2.1	2.7	2.1	2.0	1.8	1.6	1.5	1.5	E	E	1.7
24	E	1.7	E	E	E	E	1.6	1.8	2.0	2.2	2.6	2.3	2.1	2.9	2.0	1.8	2.1	2.0	1.6	1.5	1.5	1.5	1.6	1.8
25	E	1.4	E	E	E	1.5	1.7	1.4	2.5	2.1	3.3	3.3	2.5	2.5	2.6	2.1	2.1	1.6	1.9	1.6	1.6	1.5	1.4	1.6
26	1.7	1.7	1.0	E	E	1.3	1.7	2.1	1.8	2.1	2.5	2.7	3.2	2.8	2.7	2.1	2.1	1.6	1.5	1.5	1.6	1.6	1.5	1.7
27	1.4	1.4	E	E	E	E	2.1	2.6	2.5	2.8	3.1	3.3	2.0	2.1	2.6	1.9	2.1	1.9	1.6	1.5	1.6	1.5	1.6	1.6
28	1.6	E	E	E	E	1.6	1.6	1.7	2.1	2.1	2.8	3.3	3.2	3.2	2.3	2.5	2.1	1.8	2.1	E	2.1	E	1.6	E
29	1.6	1.5	E	E	E	E	1.8	2.1	[2.4] ^B	2.8	2.5	3.3	3.4	2.4	2.9	2.1	2.4	2.1	1.7	1.6	E	E	1.8	1.9
30	2.0	E	E	E	E	1.6	1.9	2.1	2.9	2.1	B	B	B	2.1	2.1	2.1	2.2	2.1	2.1	E	1.6	1.6	1.7	1.6
31	1.7	1.6	E	E	E	1.5	1.7	2.1	2.2	2.1	2.6	3.3	2.9	2.1	2.5	2.1	(2.0) ^c	1.8	1.8	1.8	1.7	1.7	1.7	1.6
Mean Value	1.6	1.6	1.2	1.2	1.2	1.4	1.7	1.9	2.2	2.2	2.4	2.6	2.7	2.6	2.5	2.2	2.0	1.8	1.7	1.5	1.6	1.6	1.6	1.6
Median Value	1.5	1.5	E	E	E	1.5	1.7	1.8	2.1	2.1	2.4	2.6	2.7	2.6	2.6	2.1	2.1	1.8	1.7	1.5	1.6	1.5	1.6	1.6
Count	31	31	31	31	31	31	31	31	31	31	30	28	29	31	31	31	31	31	31	31	31	31	31	31

Note: Observation was carried out every 30 minutes during 10th, 0700-22nd, 0830.

Group 1.0 Mc to 7.2 Mc in 2 min
 Manual Automatic

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

Lat. 35° 42.4' N
Long. 139° 29.3' E

Kokunbunji Tokyo

IONOSPHERIC DATA

135° E Mean Time

APF2

Aug. 1956

Day	00	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	90	90	90	80	80	100	120	70	80	70	80	90	80	80	70	80	90	90	90	80	90	80	70	
2	1.00	90	80	90	100	90	90	60	140	70	U	40	90	80	80	90	90	90	80	80	90	90	80	80	
3	80	90	60	80	70	110	60	70	80	70	70	60 ^H	90	70	80	80	90	70	70	70	90	70	60	80	
4	70	70	110	110	90	100	90	C	C	110	100 ^H	90	90	80	80	80 ^P	100	50 ^P	60 ^A	70	120	110 ^B	60	80	
5	50	40 ^F	80	60	100	130	90	130	150	100	160 ^F	130	70	80	80	80	60	100	110	80	120	90	60	100	
6	70	70 ^Z	70	80	90	110	90	110	100	90	70	150 ^F	60	160 ^S	60	110	90	70	110	100	90	90 ^P	70	100	
7	90	90	40 ^F	80 ^F	90	90	80	130	130	130	90	90 ^H	110	120	160 ^F	90	70 ^P	80	90	60 ^P	100	70	90	80	
8	70	70	100	110	90	110	100	110	60	90 ^H	80 ^H	40 ^P	80	40	90	90	70	70	70	70	90	60	80	70	
9	70	60	70	70	80	80	130	120	80	100	120	110 ^H	70 ^H	80	70	80 ^H	90	70	100	A	90	110	80	70	
10	80	90	80	110	90	110	50	100	100	20 ^F	50 ^K	U ^K	U ^K	U ^K	U ^K	60 ^K	70 ^K	80 ^K	90 ^K	70 ^K	100 ^K	70	110	70	
11	60	60	70	70	50	80	110	80	130	70 ^H	90	90	80	70	80	90	110	90	90	90	110	100	70	70	
12	80	110	90 ^Z	80	100	100	70 ^Z	110 ^H	70 ^V	100	70	110	110	90	A	80 ^P	100	180 ^A	70	60 ^P	80	110	100	70	70 ^P
13	80	70	130	70 ^F	100	110	90	60	90	110	U	60	70	70	70	70	90	80	110	90	100	90	80	90	
14	50	60	60 ^F	70 ^F	70 ^F	80	100	100	80	80	100	120	110	80 ^H	90	80	90	70	90	80	90	100	80	100	
15	150 ^F	100	60	60	80	50	60	100	80	140	80 ^H	100	90	80	100	70 ^P	100	110	80	80	100	100	80	100	
16	120	120	80	50	70	80	70	80	90 ^H	110	100 ^H	90 ^H	90	90	100	80	70	70	80	80	110	60 ^P	120	80 ^P	
17	70	80	70 ^F	60	70	100	90	60	120 ^H	110	90	80 ^S	80	160 ^P	B	140 ^P	70 ^P	90	90	100 ^B	100	100	90	100 ^P	
18	70	80	60	70	100	100	110	90	130	90	70 ^H	70	70	80 ^H	70	90	80	80	70	80	110	100	70	80	
19	110	90	80	80	80	90	80	50	80	80 ^C	80 ^H	60	60	80	90 ^H	70	80	70	120	90	80	50	60	50	
20	70	60	70 ^F	60	60	80	80	70	70	90 ^H	80 ^H	70 ^H	100 ^H	90 ^H	50 ^H	80 ^H	70	70	70	70	80	80	60	80	
21	70	70	80	80	80	50	50	60	80	80	90 ^H	80 ^H	100	80	80	110	110	90	70	70	70	60	60	80	
22	90	60	80	70	90	80	70	70	90	70	80	100	90	60	80 ^H	90	70	70	110	80	70	70	80	70	
23	110	90	50	60	50	70	90	70	70	100 ^H	90	80	100	60	80 ^H	90	90	70	70	80	70	70	80	60	
24	60 ^F	80	70	80	70	100	100	100	80	80	60 ^K	80 ^K	80	60	U ^K	60 ^K	90 ^H	80	90	70 ^K	70	80	80	100	
25	80 ^K	130 ^K	90 ^K	80 ^K	90 ^F	100 ^K	100 ^K	80 ^K	100 ^K	90 ^K	70 ^K	170 ^K	90 ^K	70 ^K	60 ^K	100 ^K	70 ^K	110 ^K	100 ^K	A ^K	110 ^K	60 ^K	110 ^K	80 ^K	
26	100	100	100	80	150	60	120	80	90	90	90	80	120	140	90	90	120	110	70	70	90	90	90	80	
27	80	70	90	70	110	70	80	130	90	100	90	100	100	90	60 ^P	70	100	110	90	90	50	70	70	60	
28	70	80	120	110	120	130	90	100	130	100	110	70	60	70	70	70	80	110 ^H	80	100	100	60	80 ^P	90	
29	80	90	100	110	130	90	80	90	90	120	60	70 ^H	80	80	90	80	80	50	70	90	90	80	40	70	
30	80	90	90	100	110	90	110	120	100	120	90	80	70 ^H	120	80	90	70	120	80	80	80	50	90	B	
31	70	70	60	110	100	100	70	90	80	100	90 ^H	160 ^P	100 ^H	90	70 ^B	80	80	80	80	80	70	180 ^B	90	90	
Mean Value	80	80	80	80	90	90	90	90	90	90	80	80	90	80	80	80	90	90	90	90	90	90	80	80	
Median Value	80	80	80	80	90	90	90	90	90	90	80	80	90	80	80	80	90	90	90	90	90	90	80	80	
Count	31	31	31	31	31	31	31	30	29	29	29	29	29	27	31	31	31	31	31	29	31	31	31	30	

Note: Observation was carried out every 30 minutes during 10th, 09:00-22nd, 06:30.

APF2

Breep 1.0 Mc to 7.2 Mc in 2 min

Manual Automatic

Lat. 31° 12.6' N
Long. 130° 37.7' E

Yamagawa

IONOSPHERIC DATA

Aug. 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	7.9J	7.9	7.9P	6.8J	6.4	6.0	6.6	8.0	[7.6]C	7.2	7.4H	8.0	8.6	10.0J	10.3	11.0	10.9	A	A	S	8.5P	8.0	[7.8]S	7.6F
2	7.8	7.4	8.5	6.8	(6.5)P	6.0	6.9	9.7	7.9	6.7	6.6	6.9	8.5	[9.2]C	9.8	9.6	9.2	9.9	S	S	8.3	[8.4]S	8.4	7.7S
3	7.0	7.7	7.7J	6.9	6.2	6.2F	6.7	9.2	8.9	8.2	8.5	9.1	9.7	10.5	10.3	10.6	11.1	11.2	12.5J	11.3	9.0	[8.6]S	8.2S	8.4
4	8.2	8.0	8.0	7.9	6.3P	6.1	7.1	8.3	9.3P	8.4H	8.2H	9.8	9.5	9.9	11.1J	11.4	11.4	12.6	11.3	[10.4]S	9.5	8.7	8.7	5
5	S	F	8.6	8.2	7.9J	7.0	7.0	8.7H	9.3	9.0	8.8	9.0	10.3	10.5	11.6	11.6	10.8	10.5	9.7	10.0	8.5	7.8	8.3	9.4
6	9.5S	8.7	7.8J	7.1J	6.3F	7.1J	8.3	8.5	8.7	8.8	8.6H	10.0	11.7	11.8	11.5	11.0	10.5H	S	S	11.9	S	8.5	8.5	8.4
7	7.8H	8.4	7.4	7.4	7.3	6.7	6.8	8.1J	8.5	9.0	6.9H	8.7	9.3	9.9	[10.8]S	11.6	11.1	[10.4]S	9.8S	9.2	(7.5)P	7.9	[8.2]S	8.5
8	S	S	7.5	7.0	7.0	6.8	7.6J	9.0	[9.7]S	10.4	9.2H	9.2H	9.5H	[10.2]H	11.0	11.6	11.5	11.8	11.9	S	S	(9.5)S	S	S
9	9.0	8.4	7.4	7.2	7.0	6.9	8.2J	5	9.0	8.5H	8.6	(9.5)P	10.4	10.6	10.6	11.5	10.9	S	S	S	(9.0)P	S	S	S
10	S	S	8.5	(7.0)P	[7.4]F	7.7J	6.5	S	8.9	S	A	9.0	8.5K	9.3R	9.8K	10.0K	9.8K	9.5K	8.2K	8.2K	7.8	S	S	8.3
11	7.9	7.9	6.4	5.9	5.5	5.3	6.9	8.4	8.9H	8.9H	9.2F	10.0	[10.0]S	9.9	[10.0]S	10.1	10.7	11.0	[11.0]H	11.0	[10.3]S	(9.6)S	8.3	8.4
12	7.9J	7.0	6.4	6.3	6.2	6.2	6.8	8.5	8.1	8.6	9.1	9.1	9.5	10.4S	10.0	[10.9]S	11.8	S	S	S	S	S	8.6	(8.2)S
13	7.9J	[7.4]S	6.9	6.8	6.2	6.2	[7.6]S	8.9	8.5	7.5	8.5H	9.4	[10.0]S	10.6	9.8	S	[12.5]S	12.5	13.0	S	S	S	S	10.0
14	S	S	S	8.5	8.2	7.8	8.3	8.9	8.7	8.5	[8.8]A	9.2	9.7	10.2	11.7	12.5	[12.5]S	12.5	13.0	[10.7]S	9.9	[9.7]S	9.5P	S
15	S	S	9.5	9.2	8.2	7.1H	8.9	9.2	8.6H	8.5H	9.0	9.9	9.9	S	S	12.2	12.5	12.6	11.5	[10.7]S	9.9	[9.7]S	9.5P	S
16	10.6S	9.8	9.1	8.3	7.4	6.8	7.8	8.5	9.3P	10.1	9.0	9.5H	11.3	11.8	12.4	[13.0]C	13.6	13.7	13.3	S	C	C	C	C
17	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	(14.5)P	S	S	14.8P	12.5	(12.5)P	[12.1]S	11.7	S
18	S	S	9.3P	8.0	7.7J	6.3	7.6P	8.6	9.7	(9.5)P	10.4	12.5	12.8	13.0	13.5	14.0	13.5	13.5	13.1	S	S	S	S	S
19	S	10.8S	S	S	7.9	7.8	8.4	S	9.0	9.9J	10.1	10.2	[11.2]S	12.2	12.4	12.9	13.0	10.2	[10.8]S	11.5	S	S	S	10.2S
20	S	S	9.5	9.0	9.0	8.0	8.4	8.5	9.9H	9.5	9.7	11.3H	[11.9]S	12.5	13.1	13.5	13.4	13.2	12.7	11.3	S	S	S	10.5
21	10.5S	S	S	8.3	8.2	[8.8]S	9.5S	S	8.7	9.5H	9.2H	10.0H	[11.2]S	12.3	12.5	11.7J	11.6	[11.7]S	11.8J	S	S	S	S	S
22	S	8.0	8.1	8.3	8.0	7.2P	S	S	9.8	9.2	[10.6]H	12.0H	SH	S	11.3	11.7	11.1	S	S	10.5	S	S	S	S
23	S	10.3	[9.8]S	9.2S	8.5	7.0	8.5	S	9.3P	8.5	9.3	10.0	11.9	12.6	12.6	12.5	12.5	12.7	12.0	11.2	8.2	9.5	S	S
24	8.0	8.3	[8.0]S	7.8	8.3	6.5H	[7.8]S	9.1	9.6	[9.3]S	9.0	8.2	7.8K	7.4K	8.6K	9.1K	8.2K	8.3K	7.9K	6.9K	6.4K	6.7K	6.4K	6.4K
25	6.5K	6.3P	6.2K	6.2K	5.6K	5.8K	7.0S	9.0K	9.5H	11.5K	11.4K	11.0K	11.9K	11.9K	11.7K	10.7K	[9.9]K	9.1K	S	S	S	7.8	7.8	7.4
26	6.7	6.4	6.4	6.4	6.3	5.6	6.3	9.0	[9.2]S	9.5	10.4	10.0J	[10.8]S	11.6	12.5	13.4	13.5	14.0	S	S	9.5	8.5	7.9	[7.4]S
27	6.9	[6.7]S	6.5	6.4	(6.4)H	6.0H	[7.2]S	8.5	S	SH	SH	11.5H	12.5H	13.5H	S	S	14.3P	12.4	S	S	S	S	S	S
28	S	S	7.6	7.5P	7.0	7.0	C	C	S	S	12.2	13.1	13.5	14.0	14.4	14.5	13.2	12.8	S	S	8.9J	9.4	8.7	[7.7]C
29	6.7P	S	S	6.3H	6.3	6.2	6.7	9.0	9.6	9.5	10.2	11.6	12.2	12.4	13.1	14.0	13.6	13.4	[11.4]S	9.4	9.8	S	S	9.8
30	8.7J	S	S	8.1	7.9J	S	S	8.2	8.9	10.0	11.6	12.0	13.5	13.5	13.4	13.3	13.0	S	S	S	8.4	S	S	S
31	8.9	S	S	9.3	8.0J	8.3J	8.6	9.9S	10.5J	9.9	11.6	13.2	13.0	11.8	12.0	12.7	12.8	S	S	9.8S	S	S	S	S
Mean Value	8.1	8.1	7.9	7.5	7.2	6.8	7.6	8.8	9.0	9.0	9.4	10.1	10.7	11.2	11.5	12.0	11.8	11.6	11.5	10.3	9.0	8.8	8.4	8.5
Median Value	7.9	8.0	7.8	7.4	7.2	6.8	7.6	8.7	9.0	9.0	9.2	10.0	10.6	11.1	11.6	11.7	11.6	11.8	11.6	10.4	9.0	8.6	8.3	8.4
Count	19	18	24	29	30	29	27	23	28	27	28	30	28	28	29	29	27	22	18	15	18	16	14	17

foF2

Sweep 1.0 Mc to 22.0 Mc in 1 min

Manual Automatic

Y I

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

Lat. 31° 12.6' N
Long. 130° 37.7' E

Yamagawa

IONOSPHERIC DATA

R'F2

Aug. 1956

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	320 ^A	320	260	250	240	250	250	260	C	M	300 ^H	380	390	370	350	330 ^A	310	A	A	250 ^A	300 ^A	(350) ^A	[340] ^A	340 ^F
2	310 ^A	300 ^A	290	230	250 ^A	290	280	240	230	270	260	350	400	[370] ^C	340	340	350	310	290	290 ^A	270 ^A	290 ^A	300 ^A	290
3	340 ^A	(350) ^A	280	240	300 ^A	290 ^H	300	250	230	260	300 ^A	360	360	320	340	350	320	320	290	260	300 ^A	250 ^H	330	310
4	300	300	270	240	200 ^H	290	250	250 ^H	250 ^H	240 ^H	240 ^H	330	340 ^A	340	340	310	330	290	270	250	(310) ^A	280 ^A	320 ^A	270 ^A
5	[300] ^A	330 ^F	280	250	260	240	240	270 ^H	260	300 ^A	[330] ^A	(360) ^A	360	360	340	320	310	300	290	250	250	260	(350) ^A	310 ^A
6	290 ^A	270	300 ^A	340	300	260	250	240	240	270	250 ^H	390	340	350	340	310	260 ^H	320	290	260	250	250	260	310 ^A
7	290 ^H	290	(340) ^A	300 ^A	250	250	250	250	250	300	230 ^H	390	410	400	390 ^A	340	340	320	270	240	(310) ^A	310	320	310 ^A
8	310	270	270	290	290	260	240	250	260	270	250 ^H	250 ^H	300 ^H	290 ^H	380	360	340	310	290	270	260	(340) ^A	340	270
9	270	260	300	310	290	280	250	230	270 ^H	270 ^H	260	(400) ^A	360	360	360	340	340	300	290	250	260	260	310	320
10	340 ^A	280	(260) ^A	(350) ^A	370 ^F	300 ^A	260	290	290	320	[330] ^A	340	390 ^K	380 ^K	370 ^K	340 ^K	330 ^K	290 ^K	250 ^K	240	250	(350) ^A	340 ^A	300 ^A
11	290	290	(330) ^A	(350) ^A	320 ^A	290	250	250	270 ^H	240 ^H	300 ^H	340	340	350	390	360 ^A	330	330	280 ^H	260	250	230	340	340
12	280	290	340	330	290	300	250	240	240	310	290	350	360	350	370 ^A	350	330	340	290	290	240	(340) ^A	300 ^A	300
13	280	340 ^A	290	240	270	290	270	240	250	[260] ^A	260 ^H	320	310	300	340	360	300	(280) ^A	290	250	240	250	270	260
14	300	300	270	240	250	240	240	240	240	260	A	A	390 ^A	370	350	340	310	300	280	250	250	240	270	290
15	300 ^A	290	270	240	240	240 ^H	240	230	230 ^H	240 ^H	290	310	390	350	340	340	290	290	280	250	240	240	280	290
16	280	270	240	240	240	240	240	220	240	240	250	250 ^H	340	340	340	[320] ^C	310	290	250	240	C	C	C	C
17	C	C	C	C	C	C	C	C	C	C	C	C	C	C	340	310	320	310	270	230	240	250	250	280 ^A
18	280	280	290	240	240	240	240	240	240	240	300	320	320	340	340	310	300 ^A	290	250	240	230	250	280	280
19	270	260	250	240	240	240	240	230	220	240 ^H	250	290	[300] ^A	320	340	330	310	270	250	250	250	280	300 ^A	290 ^A
20	290 ^A	290	260	250	240	230	240	240	240 ^H	240 ^A	300 ^H	300 ^H	340	350	340	330	310	280	260	240	240	250	250	260
21	240	240	240	250	250	240	240	220	230	240 ^H	240 ^H	250 ^H	310	350	330	340	320	290	290	300	290 ^A	240	250	260
22	250	310	320	240	240	250	260	240	250	250	240 ^H	250 ^H	250 ^H	340	340	330	320	290	270	240	250	240	240	280
23	270	290	250	260	240	250	250	240	230	240	340	300	340	340	340	340	320	290	270	240	250	260	260	260
24	280	290	260	250	240 ^H	290	240	240	270	320	330	390	390 ^K	520 ^K	420 ^K	340 ^K	370 ^K	320 ^K	270 ^K	280 ^A	270 ^A	340	290	270
25	420 ^A	340 ^K	340 ^K	350 ^K	260 ^K	330 ^K	280 ^K	240 ^K	250 ^K	280 ^K	290 ^K	320 ^K	350 ^K	310 ^K	300 ^K	260 ^K	300 ^K	280 ^K	270 ^K	250	260	290 ^K	320 ^K	340 ^K
26	290	300	320	290	250	290	280	260	250	300	300	[320] ^H	340	350	320	310	300	290	280	250	250	240	270	270
27	290	320	330	300	290 ^H	300 ^H	250	240	250	240 ^H	240 ^H	270 ^H	270 ^H	290 ^H	330	300	300	260	260	250	240	310 ^A	300 ^A	270
28	350 ^A	[320] ^A	300 ^A	290	290	290	C	C	C	250	300	290	340	330	330	290	290	250	240	240	240	270	260	250
29	290	300	310	320 ^H	290	290	270	240	290 ^B	240	340	[320] ^L	300	340	340	320	310	260	240	240	290	350	340 ^A	300
30	300 ^A	290	290	270	270	240	230	240	(260) ^A	270	290	300	320	320	330	310	300	260	250	240	240	240	260	270
31	300 ^A	290	280 ^A	240	260	250	240	240	230	260	310	290	290	300	350	330	290	250	250	240	270	290	330	350 ^A
Mean Value	300	300	290	270	270	250	240	240	250	260	280	320	340	350	330	330	310	290	270	250	260	280	300	290
Min Value	290	290	280	250	260	250	240	240	250	260	290	320	340	340	340	330	310	290	270	250	250	280	300	290
Count	30	30	30	30	30	30	29	29	28	29	29	29	30	30	31	31	31	30	30	31	30	30	30	30

R'F2

IONOSPHERIC DATA

135° E Mean Time

Aug. 1956

fEs

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
1	5.1	5.0	3.4	2.4	2.4F	2.4	2.3	G	C	7.0	5.9	5.9	5.9	9.5	7.3	6.5	8.9	11.5	13.0	5.9	11.7	5.4	7.0	6.8	
2	8.5Y	3.5	3.0	2.3F	3.2	2.3F	G	G	5.9	6.7	6.2	4.7Y	G	C	5.9	5.6	5.2	11.0	6.3	7.1	5.7	6.7	3.3	4.9	
3	5.0F	7.2	5.9	3.7	3.7	3.2	5.9Y	4.8	5.9	4.8	7.0	4.9	5.9	G	5.9	5.9	5.9	6.1	5.9	6.1	8.9	5.9Y	4.0	3.1	
4	2.4	2.3	2.3	2.3	E	2.1	2.4	3.2	5.0	6.6	5.9	6.7	6.0	8.8	5.7	5.9	8.9	5.9	G	5.7	8.9	5.9	5.9	5.9	
5	5.9	5.9	3.8	2.4F	2.3	2.4	2.3	3.2	6.5	7.0	8.9	8.9	6.0	5.9	5.9	G	G	G	4.9	3.2	4.2	3.2	7.2	8.9	
6	7.2	2.3	5.5	3.6	3.0	E	G	3.2	4.5	4.6	5.9	7.0	6.5	5.9	5.9	5.9	5.9	5.9	3.0	3.2	3.0	3.0	2.3	2.4F	
7	3.2	3.7	6.2	4.1	2.5	3.0	3.0	G	G	4.8	5.2	5.9	8.5	6.8	8.9	7.1	5.9	G	5.1	3.8	5.9	3.3	2.3	3.0	
8	5.9	2.4	3.7	3.3	2.2	2.3	G	G	G	5.9Y	5.9	5.5	6.1	5.6	G	5.0	5.6	5.0	3.5	2.4	2.3	6.3	5.9	3.5	
9	3.1	2.4	2.3F	2.3F	2.4	2.3	2.3	G	5.9	8.0	5.9	8.2	9.7	G	10.0	6.9	G	6.6	3.8	3.4	3.5	2.4F	3.1	3.1F	
10	8.9	5.9	5.9	5.9	5.9	3.7	2.3	G	5.0	G	10.3	5.9	6.2	5.9	7.1	5.0	4.7	G	G	2.3	3.2	5.9	5.9	3.1	
11	2.4	3.2	6.1	4.7	3.8	3.0	G	G	G	5.9	6.7	6.5	5.9	5.9	6.0	9.5	9.0	5.9	5.9	2.3	2.3	5.0	3.5	2.4	
12	2.3	2.3	2.3	2.3	E	E	2.4	G	5.9	5.9	5.3	5.9	6.5	5.9	8.0	G	G	G	G	E	5.9Y	5.0	3.0	2.4	
13	2.3	3.1	2.3	2.3	2.3F	2.3	3.5	3.5	5.9	8.9	5.9	8.9	5.9	5.9	6.2	6.3	5.9	5.9	5.9	4.2	3.5	3.1	3.2	2.4	
14	3.5	3.3	3.5	3.5	3.3	2.3	2.4	G	G	4.9	8.9	8.9	7.1	5.7	5.7	5.9	6.5	6.5	5.1	3.6	3.5	3.0	3.1	2.3	
15	3.2	2.1	2.4	2.1	2.3	2.3	2.3	G	3.8	5.9	5.9	5.9	5.6	G	5.7	9.0	6.2	3.8	5.8	4.2	3.5	3.1	2.4	2.4	
16	2.3	2.3	2.3F	2.4	2.2	E	2.3	G	3.8	G	G	4.7	G	4.2	G	C	G	G	G	E	C	C	C	C	
17	C	C	C	C	C	C	C	C	C	C	C	C	C	C	8.0	5.9	8.5	6.2	5.9	2.3	3.8	2.4	2.4	3.1	
18	2.3	2.4	2.3	E	2.2Y	2.3F	2.4	G	5.0	G	G	G	G	G	4.6	6.2	8.5	3.8	G	2.3	E	E	E	2.3F	
19	2.3F	5.9Y	2.3F	2.4F	3.3	2.4	3.3	G	G	B	5.9	5.6Y	11.0	9.8	8.2	10.9	G	6.8	8.9	3.4	3.5	5.9	5.9	5.9	
20	5.9	5.9	3.8	3.4	3.2	2.4	3.0	G	5.9	5.9	6.5	G	G	5.9	G	G	5.2	5.3	3.7	3.5	E	2.3	2.3	4.9	
21	3.1	3.4	3.0	2.4	2.3	2.4	2.4	G	G	4.8	5.0	B	G	G	5.9	5.3	5.9	5.9	5.1	6.6	8.5	2.3	2.4	2.4	
22	2.3	E	E	E	2.3	E	3.0	G	4.8	5.1	3.8	5.9	7.0	8.3	6.7	5.9	6.2	5.3	3.8	3.6	5.9	2.3	2.3	2.4	
23	2.3	2.4	2.4	2.3F	2.4	2.3	G	G	4.8	4.8	5.0	5.9	5.6	8.6	5.9	6.0	6.7	6.9	5.9	5.9F	3.4	3.8	2.4	3.1	
24	1.8	E	E	2.4	E	E	G	G	4.8	5.5	5.9	7.0	5.8Y	6.3	5.9	3.7	3.6	3.4	G	2.4	E	2.3	2.4	3.2	
25	5.9F	2.4	3.1	2.4	2.1	2.3	G	G	4.8	7.0	5.7	B	5.8Y	6.3	5.9	5.7	5.9	G	G	3.2	3.7	3.5	3.6	2.4	
26	3.2	3.0	2.4	2.4	E	2.1	G	G	G	5.9	5.9Y	5.6	5.4	5.9	6.8	G	5.9	3.8	3.5	3.4	4.7	2.2	2.4	3.3	
27	3.2	2.3	3.2	3.7	2.3	2.3	2.4	G	G	4.8	4.6	6.8	6.9	5.9	5.9	6.1	G	G	5.6Y	2.4	2.3	7.0	5.9	3.8	
28	6.5	7.3	3.5	2.4	2.4	2.3	C	C	C	5.9	6.6	6.5	5.9	5.0	B	G	G	4.5	3.4	3.6	2.3	2.4	2.3	2.3	
29	5.0	3.1	2.3	2.4	2.3	2.3	G	G	B	G	G	G	G	G	G	3.7	G	G	G	2.4	2.4	5.9	5.9	3.5	
30	3.6	3.5	2.3	2.3	2.3	E	2.3F	3.3	11.5	7.7	5.0	10.0	G	5.9	G	G	G	G	G	E	E	2.4	2.4	3.8	
31	3.8	3.8	3.8	2.4	2.3	3.0	3.6	G	G	G	G	G	G	G	G	G	G	4.8	4.4	3.5	2.3	2.1	3.8	5.9	
Mean Value	4.1	3.7	3.4	2.9	2.7	2.5	2.8	3.5	5.6	6.0	6.2	6.5	6.6	6.6	6.6	6.3	6.4	5.9	5.4	3.8	4.6	3.9	3.7	3.6	
Median Value	3.2	3.1	3.0	2.4	2.3	2.3	2.3	G	4.8	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.0	3.8	3.4	3.5	3.1	3.1	3.1	
Count	30	30	30	30	30	30	29	29	27	29	30	28	30	29	30	30	31	31	31	31	31	30	30	30	30

Y 3

Manual Automatic

Group 1.0 Mc to 2.2.0 Mc in _____ min

fEs

SOLAR RADIO EMISSION

AUG. 1956

Observing Station: HIRAISSO

Frequency: 200 Mc/s

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

Time in U.T.

Daily Data

Date	Steady Flux		
	00-03	03-06	Daily Averages
1	-	-	9 #
2	-	-	10 #
3	-	-	8 #
4	-	-	50 #
5	-	-	34 #
6	23	28	26
7	97	98	98
8	21	18	19
9	19	18	18
10	23	28	27
11	18	19	18
12	12	10	11
13	12	17	14
14	10	12	11
15	8	8	8
16	10	14	12
17	16	35	24
18	33	23	28
19	21	30	26
20	27	30	29
21	31	31	31
22	45	30	38
23	23	23	23
24	78	41	61
25	22	17	20
26	16	15	15
27	19	15	17
28	17	21	19
29	40	31	38
30	46	53	49
31	92	79	85

... Flux at culmination only

Outstanding Occurrences

Date	Starting Time	Duration	Type	Peak Flux	Time
9	0403	3m	SA	470	0405
11	0203-30s	1m	CD	445	0204
12	2357	50s	CD	530	-
13	0001	40s	CD	500	-
17	0251-30s	ca 9m	M	210	0254-30s
	0333	1m	SA	200	-
	0428	1m	CA	235	-
	2327	4m	CA	160	2327-20s...1st peak
18	0816-20s	1m	SA	300	-
20	2128-40s	1m	SA	780	-
	2130-30s	30s	SA	780	-
21	~2230	ca 70m	M	150	mean value
22	0448	2m	CA	700	0448
23	0149	1m30s	CA	940	-
	0233	30s	SA	250	-
	0237	1m	CA	440	-
	0415	1m	SA	> 1000	-
	0422-30s	1m30s	SA	700	-
	0711	3m	CA	> 1000	0711-20s
27	0301-30s	1m	SD	610	-
	0510-30s	1m30s	CD	> 1000	0511
28	2241	ca 30m	CA	> 1000	peaks of major increase of first ten minutes
				400	2256~2257, peak of the other increase
30	0155	ca 2m	SA	490	0156
	0208-30s	1m30s	SA	110	0209
	0216-00s	2m	CA	480	0216-30s
	0327	40s	CA	> 1000	-
	0640	30s	SA	> 1000	-

Data of Enhanced Radiation Occurred on 21st (22nd, JST)

Starting Time: about 20h, Duration: about 2 hrs.

Type: S, small bursts or oscillations superposed.

Time	2030	2040	2050	2100	2110	2120	2130	2140	2150	2200	2230
Flux	167	335	377	510	450	350	335	305	180	57	34

IONOSPHERIC DATA IN JAPAN FOR AUGUST 1956

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