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IONOSPHERIC DATA IN JAPAN

FOR APRIL 1956

Vol. 8 No. 4

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Prepared by

THE RADIO RESEARCH LABORATORIES

KOKUBUNJI, TOKYO, JAPAN

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CONTENTS

PREFACE

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

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

The First Division has the following three sections:

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

Tropospheric Propagation Section which shall carry on researches on troposphere and wave propagation; and

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

The Second Division has the following two sections:

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

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

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

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

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

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

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

Aug, 1952

SITES OF THE IONOSPHERIC STATIONS

Ionospheric observation is carried out at the following four stations 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

REMARKS ON SYMBOLS

All symbols in the table are used in accordance with "Production and Reduction of Ionospheric Data Standards. Symbols and Conventions (Recommendation No. 6 of Stockholm) at VIth Plenary Assembly C. C. I. R. Geneva, 1951" except f_{min} E and f_{min} F for E and F regions respectively instead of f_{min}, taken as f_{min} s in the above Resolution, in order to avoid the interruption of preceding form of data.

SOLAR RADIO EMISSION

Data on solar radio emission observed at Hiraiso Radio Wave Observatory has appeared from Vol. 6 No. 8 (F-68).

The location of the Observatory is as follows:

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

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

IONOSPHERIC DATA

Apr. 1956 | foF2 | 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	7.4^{Y}	7.5^{S}	7.0	6.5	6.2	6.3	7.3^{J}	9.3	10.5	11.6	12.7^{P}	12.8^{P}	12.8^{P}	12.5	12.8^{P}	12.5	11.5	11.5	10.0	8.5^{J}	7.0	7.3^{J}	7.6^{J}	7.8^{J}
2	7.3^{J}	7.0	6.1	6.3	(5.6)^{J}	7.5	8.7^{J}	10.4	11.3	11.4	C	C	C	C	C	C	C	C	C	C	C	C	C	C
3	C	C	C	C	C	C	C	C	C	C	9.2^{H}	10.3	10.5	11.2^{H}	11.3	10.8	10.8	9.6	9.0	7.8^{PJ}	7.5	7.0^{P}	(7.3)^{PJS}	SF
4	SF	SF	SF	SF	6.0^{F}	6.7	8.3^{J}	10.1^{P}	11.5	13.0^{P}	12.8^{J}	12.8^{J}	12.6	12.5	12.1	11.4	10.8	10.5	9.8^{J}	9.0	7.8^{J}	6.8^{J}	7.0	6.6
5	6.8	7.0^{J}	6.7	6.5	6.3	(6.6)^{JF}	8.5^{J}	10.0	11.6	12.7^{P}	12.6	12.5	12.0^{H}	12.0^{H}	11.8^{H}	11.6	11.0	10.5	10.3^{J}	9.3	8.0	7.3	6.8^{J}	6.8^{J}
6	S	SF	6.6	7.3^{J}	6.0	6.0	8.2	10.0	11.7	12.0	12.7^{HP}	12.8^{HP}	12.8^{JH}	12.6	12.5	12.0	11.3	10.8^{J}	9.8^{J}	8.8	8.3	7.8	(7.3)^{PJS}	7.3
7	(7.3)^{PJS}	7.4^{P}	6.8^{J}	6.5	6.2	6.0	7.3^{J}	7.8	9.3^{H}	10.5	11.5	11.8	11.8^{JH}	12.6	12.5	12.0	9.3	9.5	9.8^{J}	8.8^{J}	8.3	7.5	7.1	7.0
8	6.5	6.5	6.4	6.3	6.3	6.0	7.3	8.5	10.7	11.5	13.3^{J}	12.6	12.5	12.0	11.7	11.5	11.0	10.8	9.8^{J}	8.5^{J}	S	S	S	(7.5)^{PS}
9	7.1	7.2	7.3	6.5	6.5	6.8	8.0	10.2	11.4	12.0	12.7^{P}	12.7^{P}	13.3^{J}	12.8^{J}	12.6^{P}	12.3	11.6	10.8^{J}	10.8^{J}	10.3^{J}	8.3^{PJ}	(8.0)^{PJ}	[7.5]^{S}	7.0^{S}
10	7.2	7.0	7.1	6.8	5.8	6.0	8.5	10.1	11.5	12.0	12.5	12.6^{P}	12.8^{PJH}	12.8^{PJH}	12.6	12.5	11.3	10.8^{J}	10.8^{J}	10.3^{J}	8.3^{J}	7.2^{P}	7.3^{P}	S
11	S	7.3^{J}	6.8	6.5	6.8^{J}	7.0	8.0	8.2	9.8	10.7	11.5	11.5^{H}	12.0^{H}	11.8	11.0	10.8	11.0	10.3	10.5	9.3	7.4	S	S	7.8
12	7.5^{J}	7.3	7.2	6.8	6.0	6.5	7.8^{H}	9.8^{J}	11.0^{H}	11.3^{H}	12.3	12.3	12.1^{H}	12.1^{H}	11.5^{H}	11.0	10.3	10.2	9.8	9.7	8.5^{J}	(8.5)^{PJ}	7.5	7.5
13	7.5	7.5	7.2	7.0	6.8	7.4^{P}	9.5	10.9	11.6	12.3	12.7^{P}	12.8^{P}	12.3	[11.5]^{C}	10.7	C	C	C	10.8	9.7^{JP}	8.3^{P}	7.3^{P}	7.3^{PJ}	7.6^{PJ}
14	7.5	7.7	7.1	6.9	6.8	7.8	9.5^{J}	11.5	12.5	12.5^{H}	11.5	11.6^{H}	11.5^{H}	11.3^{H}	11.1^{H}	10.6^{H}	10.0^{H}	10.0^{H}	9.8^{J}	9.3^{P}	8.8	9.0	7.3^{P}	8.0^{P}
15	7.7^{P}	7.8^{P}	7.6^{P}	7.1^{P}	7.1^{P}	8.0	10.0	11.5	12.0	12.3	11.8	11.5^{H}	11.9^{H}	11.8^{H}	12.0^{H}	11.5^{H}	11.3^{H}	10.8^{H}	10.3^{J}	10.0^{PJ}	9.3^{J}	8.5	8.5^{PJ}	8.5^{PJ}
16	7.3^{J}	7.8	7.5	7.2	7.0	8.0	10.2	12.5	12.1	12.3	12.3	12.0^{H}	12.0^{H}	12.0^{H}	11.1^{H}	10.5	11.0	11.0	10.3	9.0	8.2	8.3	8.3	8.5^{P}
17	(7.3)^{PJS}	7.2	6.0^{H}	6.0^{F}	6.2	7.3	8.5	9.3^{J}	8.0^{K}	6.0^{K}	6.0^{K}	6.6^{K}	7.7^{K}	8.7^{K}	8.3^{K}	8.0^{K}	8.0^{H}	7.7^{K}	7.5^{K}	7.3^{K}	7.5^{K}	7.0^{K}	6.9^{K}	C^{K}
18	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	9.0^{K}	9.5^{K}	9.7	9.4^{H}	9.3^{H}	9.0	9.0^{J}	8.8	8.4	8.0	7.5^{PJ}	8.0
19	8.2	7.5	7.6	7.5	7.0	8.0	9.5	10.1	10.7^{VP}	11.8^{H}	12.4	12.2	12.3^{H}	11.7^{H}	11.1^{H}	10.4^{HJ}	10.8	10.8^{JH}	10.0	9.5	[9.0]^{S}	8.5	8.1	8.0^{PJ}
20	8.3	7.7	7.5	6.6	6.4	7.2	7.2	7.4^{H}	7.6	8.0	9.0	9.5	10.2	C	C	C	C	C	C	C	C	C	8.0	8.1
21	7.8^{J}	7.3^{J}	7.7	7.0	6.5	7.2^{P}	9.0	9.2	9.3^{J}	9.4^{P}	10.3^{P}	10.0	10.8^{J}	11.0	10.8^{PJH}	10.6	10.2	10.0	9.6	9.5	8.3^{J}	8.0	7.3	7.9^{PJ}
22	8.0^{J}	7.5^{P}	7.0	6.5	5.8	5.3^{J}	5.3^{JF}	6.0	5.8	6.0^{J}	A	B	B	B	(9.2)	9.3	9.5	8.9	8.1	7.3^{P}	6.8^{P}	7.7	7.8^{P}	6.6
23	5.8	6.0^{F}	6.1	6.1	6.2	7.8^{J}	9.5	10.0	10.5	10.7^{J}	10.0^{J}	11.1^{JH}	12.0	11.3	11.5	10.8	10.7	9.7	9.6	9.6	9.3^{PJ}	8.0	7.3^{PJ}	7.0^{P}
24	7.3^{J}	7.0^{PJ}	6.5	[6.4]^{C}	6.2	[7.1]^{C}	8.0	9.3	9.6	(10.0)^{PJ}	10.0	10.5^{JH}	C	C	C	11.0^{H}	11.1	11.5	12.0	11.3^{J}	9.0	8.0^{S}	7.2^{P}	7.8
25	7.5	7.5	7.2	7.3	7.1^{P}	7.8	9.5^{J}	10.0	10.5	10.7	10.5^{JH}	10.6^{H}	11.0^{PJH}	11.2^{H}	11.6^{H}	11.5^{H}	C	C	10.5	10.7^{J}	9.5^{J}	9.0^{J}	7.3^{JP}	7.5^{PJ}
26	7.3^{J}	7.5^{P}	7.5	6.7	7.0	8.0	10.0	11.2	10.7	10.5	12.0^{H}	10.7^{H}	12.0^{H}	12.0^{H}	10.8^{JH}	12.0^{H}	10.0	8.5^{H}	8.5	7.5^{H}	8.0	6.7	6.3^{H}	7.6
27	5.9	6.3	6.0	5.5	4.7^{VH}	5.5	5.7	6.3	8.5^{H}	9.3^{JH}	11.0	10.8^{JH}	11.2^{H}	12.0^{H}	12.0	12.0	11.5^{H}	11.0^{J}	10.6^{J}	10.2	9.3^{J}	8.5	(7.3)^{PJ}	8.0
28	8.7	8.3	7.5	7.2	7.9	8.5	9.8^{J}	11.0^{J}	10.0^{J}	12.1	9.3^{J}	9.5^{H}	10.0^{H}	10.3^{H}	10.0	10.0	10.0	10.4	10.7	10.7	9.1	7.3^{P}	7.7^{P}	7.3^{J}
29	7.6	7.8^{PJ}	7.5	7.0	6.6	6.6	7.3	6.8^{K}	7.5^{K}	6.7^{PK}	8.5^{K}	9.5^{K}	[8.9]^{CK}	8.3^{K}	7.8^{K}	6.4^{K}	6.8^{K}	6.0^{K}	6.5^{K}	6.8^{K}	6.5^{K}	6.5^{K}	6.5^{K}	6.2^{K}
30	5.8^{JF}^{K}	5.6^{FK}	5.6^{JF}^{K}	5.5^{FK}	5.6^{K}	7.0^{K}	8.0^{K}	8.5^{HK}	8.9^{JK}	9.4^{JK}	10.0^{HK}	10.8^{K}	12.0^{K}	12.1^{K}	12.7^{K}	12.5^{K}	12.8^{PK}	12.5^{K}	12.0^{K}	11.5^{K}	7.8^{P}	7.4	8.0	7.3^{J}
31																								
Mean Value	7.3	7.2	6.9	6.6	6.4	7.0	8.4	9.5	10.2	10.7	11.2	11.3	11.5	11.5	11.6	10.9	10.5	10.1	9.8	9.2	8.2	7.7	7.4	7.5
Median Value	7.3	7.4	7.0	6.6	6.3	7.0	8.4	10.0	10.6	11.4	11.5	11.5	12.0	11.9	11.5	11.0	10.8	10.4	9.9	9.3	8.3	7.8	7.3	7.6
Count	25	26	27	27	28	28	28	28	28	28	27	27	27	26	27	27	26	26	28	28	27	26	27	26

foF2

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

W 1

The Radio Research Laboratories

Koganei-machi, Kitatama-gun, Tokyo, Japan

IONOSPHERIC DATA

Apr. 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	310	290	260	250	230	270	230^{L}	250^{L}	250^{L}	250^{L}	290	260	250	250	250	250	230	240	220	230	240	270	290	270
2	260	270	260	260	260	290	230	250^{L}	240	250	C	C	C	C	C	C	C	C	C	C	C	C	C	C
3	C	C	C	C	C	C	C	C	C	C	250^{H}	290^{L}	$(270)^{L}$	250^{H}	L	L	L	240	230	240	260	270	290	300
4	290^{F}	270^{F}	280^{F}	270	270	260	220	220	250^{L}	250^{L}	250^{L}	230	250	L	L	L	250	240	240	220	240	260	250	280
5	290	270	290	260	260	260	220	240	250^{L}	250^{L}	250	250^{L}	240^{LH}	250^{LH}	250^{LH}	250^{L}	250^{L}	240	230	230	230	260	270	300
6	300	310	290	250	210	260	230	230	240^{L}	250^{L}	240^{H}	240^{H}	260^{H}	260^{L}	250^{L}	250^{L}	250^{L}	240	230	240	250	250	270	300
7	310	310	240	240	240	240	240	230	250^{H}	LH	LH	LH	240^{H}	250^{LH}	240^{L}	240^{L}	240	240	230	240	240	240	270	290
8	320	300	280	260	240	240	220	250	250^{L}	250^{L}	250^{H}	250^{L}	240^{L}	240^{LH}	L	L	250	240	220	240	250	250	290	290
9	300	260	260	250	260	270	L	L	250^{L}	L	L	240	L	L	L	250^{L}	240	240	230	230	250	260	270	270
10	280	280	250	220	210	260	240	230	L	L	L	L	LH	LH	L	L	250	240	240	240	230	240	290	300
11	270	270	260	270	290	260	240	260	LH	L	L	LH	LH	L	L	LH	L	240	240	230	230	280	270	290
12	280	300	290	260	290	260	230^{H}	L	LH	LH	L	290^{L}	LH	LH	LH	LH	L	250	260^{A}	240	250	270	270	300
13	310	290	260	280	$(350)^{A}$	260	L	L	250^{L}	L	L	L	L	[L] C	L	C	C	C	250	240	230	250	270	280
14	280	290	290	290	300	270	230	240	240	220^{H}	L	LH	240^{H}	240^{H}	LH	LH	LH	LH	250	240	250	260	270	270
15	290	260	250	270	290	250	240	250	240^{LH}	L	L	L	LH	230^{H}	240^{H}	240^{H}	240^{H}	250^{H}	250	240	250	260	270	280
16	270	260	250	260	290	260	240	250^{L}	240^{L}	240	$[240]^{L}$	240^{LH}	240^{LH}	240^{LH}	260^{LH}	$(260)^{L}$	260	260	240	230	260	270	300	290
17	260	240	220^{H}	300	340	290	280^{L}	290^{L}	300^{LK}	590^{K}	590^{K}	510^{K}	400^{K}	370^{K}	410^{K}	290^{LK}	LH K	L K	260^{K}	280^{K}	280^{K}	280^{K}	300^{K}	C K
18	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	C K	370^{K}	350^{K}	L	LH	LH	250	250	270	300	280	290	290
19	280	290	290	250	260	240	230	$[240]^{L}$	240	240^{LH}	L	L	LH	LH	LH	LH	L	LH	250	260	$[270]^{A}$	280	290	310
20	290	290	290	290	320	280	300	LH	LH	$(240)^{LH}$	LH	LH	LH	C	C	C	C	C	C	C	C	C	290	290
21	310	290	260	240	270	260	L	L	250	LH	LH	LH	LH	LH	LH	L	A	270^{A}	$[270]^{H}$	270^{A}	260	280	350	340
22	270	280	280	290	340	310	260^{H}	L	A	A	A	A	L	LH	LH	L	L	L	270	270	300	350	270	260
23	260	340	300	300	280	250	240	L	L	L	250	$(250)^{LH}$	$(240)^{LH}$	$(240)^{LH}$	LH	LH	L	230	240	250	250	$(300)^{A}$	$(320)^{A}$	350^{A}
24	300	270	270	C	C	C	$(250)^{L}$	250^{L}	250^{L}	$(250)^{L}$	$(240)^{L}$	LH	C	C	C	270^{H}	250^{H}	$[260]^{A}$	260^{A}	250	250^{A}	270^{S}	260	290
25	290	290	280	270	290	240	250^{L}	250^{L}	L	L	LH	250^{H}	250^{H}	260^{H}	250^{H}	250^{LH}	C	C	260	260	230	240	240	270
26	300	290	270	260	290	240	230	240^{L}	240^{L}	240^{L}	250^{H}	250^{H}	260^{LH}	250^{LH}	260^{H}	270^{H}	250	250^{H}	270	260^{H}	280	210	300^{H}	310
27	270	330	290	340	340^{H}	450	360	L	LH	270^{H}	240^{L}	250^{H}	LH	LH	250^{L}	270	$(250)^{LH}$	250	250	250	220	250	310	270
28	290	260	270	270	290	250	250	$(240)^{L}$	250	250	260	250^{H}	260^{LH}	260^{LH}	260^{L}	280^{A}	260	250	260	270^{A}	250	230	300	290
29	310	280	270	260	280	$(270)^{L}$	260^{L}	280^{K}	280^{A}_{K}	$[340]^{A}_{K}$	410^{K}	390^{K}	$[380]^{C}_{K}$	370^{K}	330^{K}	350^{L}_{K}	320^{K}	L K	L K	270^{K}	270^{K}	270^{K}	310^{K}	300^{K}
30	310^{K}	310^{K}	300^{K}	280^{K}	280^{K}	240^{K}	250^{K}	$(250)^{LH}_{K}$	260^{K}	250^{K}	LH K	L K	L K	300^{K}	300^{K}	$[280]^{L}_{K}$	260^{K}	250^{K}	250^{K}	280^{K}	280^{A}	290	270	280
31																								
Mean Value	290	290	270	270	280	270	250	250	250	270	290	280	270	270	270	270	250	250	250	250	250	270	280	290
Median Value	290	290	270	260	280	260	240	250	250	250	250	250	250	250	250	260	250	240	250	240	250	260	290	290
Count	28	28	28	27	27	27	25	20	20	17	14	16	16	17	13	15	16	21	27	28	28	28	29	28

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

Apr. 1956 | fEs | 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	E	E	E	E	E	E	G	G	G	G	G	G	G	G	G	G	5.0	G	G	E	E	E	E	E
2	E	E	2.5	E	E	G	G	G	4.2Y	G	C	C	C	C	C	C	C	C	C	C	C	C	C	C
3	C	C	C	C	C	C	C	C	C	C	G	G	G	G	G	G	G	G	G	E	E	E	E	E
4	E	2.3	2.3F	2.5	2.0	2.3	G	G	G	G	G	4.5	G	G	G	G	4.2Y	G	G	E	E	E	E	2.3
5	2.3	5.0Y	2.8	2.5	2.3Y	G	G	G	G	G	5.0Y	5.0Y	5.5	5.3	4.5	G	G	G	G	E	E	E	E	E
6	2.6	2.5	2.3	2.5	2.3	G	G	G	G	G	G	G	G	G	G	5.0	5.0	4.1Y	3.4F	E	E	E	E	E
7	E	2.5	E	E	E	G	G	G	G	G	G	G	G	G	G	G	2.6Y	G	G	E	E	E	E	E
8	E	E	E	E	E	G	G	G	G	G	G	G	G	G	G	7.0Y	G	G	G	E	E	E	E	E
9	E	E	E	E	E	G	G	G	G	G	G	4.5	G	G	G	G	G	G	G	E	E	E	E	E
10	E	E	E	E	E	G	G	G	7.0Y	G	G	G	4.8Y	4.5Y	5.5	G	G	G	G	E	E	E	E	E
11	E	E	E	E	E	G	G	G	G	G	G	G	6.0	G	G	G	G	G	G	E	E	2.5	2.5	2.5
12	2.5	E	2.3	E	2.1	G	G	G	G	G	G	5.0Y	G	G	5.0	G	G	G	5.5	E	3.0	3.5	3.1	6.0
13	E	E	2.5	3.5	5.5	G	G	G	G	G	G	5.5	5.8	C	4.7	C	C	C	G	E	E	E	F	2.5
14	E	E	E	E	E	G	3.5Y	G	G	G	G	G	G	G	G	G	G	G	G	E	E	E	E	E
15	E	E	E	E	E	G	G	G	G	G	G	G	G	G	G	G	G	G	3.5	E	E	E	E	E
16	E	E	E	E	E	G	G	G	4.1	G	G	G	G	G	4.2Y	5.5	5.9	4.5	3.5	E	E	E	E	E
17	E	E	E	E	E	2.2	G	4.5	5.3	6.0	8.0	6.1Y	6.5	5.3	G	G	G	4.5	4.0	3.5	6.0	3.0F	E	C
18	C	C	C	C	C	C	C	C	C	C	C	C	G	G	G	G	5.0	G	4.0	4.2	5.0	3.0	E	4.0
19	5.2	3.5	3.0	2.3	E	G	G	G	G	G	G	G	G	G	G	G	G	4.2	5.2	4.5	6.5	5.0	6.5	2.5
20	E	E	E	2.3	2.3	G	G	G	4.8Y	G	G	G	G	C	C	C	C	C	C	C	C	C	E	E
21	2.2Y	1.8	F	E	G	G	G	5.0	4.8Y	G	G	G	G	G	G	7.1Y	9.2	6.5	7.0	5.0	2.5	3.0	E	2.1
22	2.1	E	E	2.2Y	E	2.3	G	G	5.5	6.2	8.0	6.0Y	G	G	G	G	G	4.2Y	3.5Y	E	E	E	E	E
23	E	3.5	3.5	E	G	G	4.0	4.5Y	6.0	G	G	G	G	G	G	G	5.7	4.2	4.5	3.1	6.0	7.5	11.5	6.0
24	E	3.1	2.5	C	C	C	G	G	G	G	G	5.3	C	C	C	G	G	6.0	6.6	9.0Y	7.0	6.0	E	E
25	E	E	3.0	E	E	G	G	G	5.3	G	B	G	G	G	G	4.1Y	C	C	5.3	6.0	3.0	2.8Y	3.0	E
26	E	E	2.2Y	2.7	2.2	G	G	G	G	G	5.3Y	G	G	G	G	G	3.5	G	3.5	2.0	E	E	3.5	E
27	E	E	E	2.3	2.2Y	G	G	G	G	5.3	G	G	5.2	G	G	G	G	G	G	E	E	E	E	E
28	E	E	E	E	E	G	G	G	G	G	G	G	G	5.5	G	6.5	5.3	4.3	4.2	6.0	4.5	2.5Y	2.7	E
29	E	E	E	E	G	3.5	6.5	5.3	6.0	6.2	G	G	C	G	G	G	G	G	G	3.5	3.0Y	3.0Y	3.9	4.5
30	7.5	4.5	2.5	2.3Y	2.1Y	G	G	5.0	5.2Y	4.9Y	G	G	G	G	5.2	5.0	G	7.5	5.4	3.5	7.5	4.5	F	3.5
31																								
Mean Value	3.5	3.2	2.6	2.5	2.6	2.6	4.7	4.8	5.3	5.7	6.6	5.2	5.6	5.2	4.9	5.7	5.2	5.0	4.5	4.6	4.9	3.9	4.6	3.6
Median Value	E	E	E	E	E	G	G	G	G	G	G	G	G	G	G	G	G	G	5.4	E	E	E	E	E
Count	28	28	28	27	27	27	28	28	28	28	27	28	27	26	26	27	26	26	28	28	28	28	29	28

fEs

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

W 3

9

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

IONOSPHERIC DATA

Akita

Lat. 39° 43.5' N
Long. 140° 08.2' E

Apr. 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	(8.0)^{S}	8.0	7.2	6.6	6.7^{V}	6.6^{V}	8.1	10.4	11.3	12.5^{HJ}	12.4^{J}	(12.5)^{PJH}	(12.0)^{HP}	12.9^{JH}	(12.0)^{S}	12.4^{J}	11.7	11.6	11.1	8.4	7.5	7.7	7.4	8.1
2	8.0	7.1	7.1	6.6	6.6	6.8	8.6	10.6	11.6	(12.0)^{P}	(11.9)^{P}	(12.0)^{P}	13.4^{H}	13.5	12.8	(12.1)^{PH}	11.6	11.2	10.7	8.8^{J}	(7.8)^{P}	(8.0)^{P}	[8.0]^{B}	(8.0)^{PJ}
3	8.1^{P}	7.3	6.8	6.0	5.8^{P}	5.6	6.4	7.7	8.0	9.6	10.1	10.6	11.2	11.7	11.6	11.5	11.0	10.4	9.6	7.6	7.4	7.3^{P}	7.2^{PF}	7.2
4	7.2^{F}	7.3^{P}	6.6	6.5	6.4	6.6^{F}	8.1^{P}	9.6	10.6	12.0^{J}	12.7	12.6	12.5	12.5	(12.0)^{S}	11.7	11.2^{H}	10.8	10.4	8.9^{J}	8.1^{P}	(7.9)^{P}	(7.8)^{P}	(7.7)^{P}
5	7.7	7.8^{P}	7.4^{F}	7.2^{F}	6.5^{F}	6.5	(8.7)^{P}	10.3	11.8	12.4	12.4	11.9^{J}	12.2	12.4	12.3^{J}	12.3	11.7	10.8^{P}	10.6	9.0	7.1	7.1	7.0	(7.0)^{P}
6	7.2	6.8	6.9	6.9	5.9^{P}	5.9^{P}	7.6	10.2	12.3^{J}	12.4	12.5^{J}	13.5	13.0	13.4^{H}	12.9^{H}	12.5	12.1	11.2	10.4	8.6^{P}	8.3^{P}	8.2^{P}	8.0	8.0
7	8.0^{P}	7.5	7.7	6.6	5.8	6.0^{J}	7.6	9.3	11.2	12.4	13.4	13.4^{H}	13.5^{H}	(14.8)^{P}	14.6	12.1	10.5^{H}	(9.8)^{S}	10.7	9.1	8.2	7.8	7.7^{P}	(7.5)^{S}
8	7.2^{P}	7.2^{P}	7.0	6.6	6.4	6.5	7.8	9.5	11.5^{H}	12.6	13.5^{H}	13.6	13.4^{H}	13.3^{H}	12.8^{H}	12.7^{H}	11.8^{P}	11.2	10.5	(8.6)^{S}	8.5	8.5	8.2	B
9	7.8	8.5	7.5	7.0	6.9	7.1	5.8^{J}	11.1	12.0^{J}	12.7	13.4	13.7	13.9^{P}	13.6	13.4	13.3	12.1^{J}	11.2	10.9^{P}	9.2	8.3	8.5^{P}	8.5^{P}	(8.3)^{S}
10	8.2^{P}	7.6	7.8	7.0	5.8	5.8	8.1	10.3	11.7	12.4	12.8	13.4	13.4	13.6	13.5	12.9^{P}	12.0^{J}	11.6	11.1	9.7	8.5	8.0^{P}	(8.5)^{P}	8.4^{P}
11	8.9^{J}	8.7^{J}	7.7	7.5	7.5	8.2	9.7	10.5	11.8^{P}	13.0	13.4^{H}	13.6	13.7	13.5	12.8	11.7	11.6	11.5	11.3	9.3	7.6	(8.1)^{P}	8.5^{J}	8.6
12	8.0	7.9	7.6	7.1	6.4	6.5	7.5	10.9	11.6	11.6	13.0	13.7	13.8	13.1^{H}	12.8	12.4	11.4	11.0	10.7	9.6	8.7	8.4	(8.2)^{P}	8.3
13	7.8	7.9^{P}	7.7	6.9	6.9	7.8	9.7	11.1	12.8^{J}	12.7	(12.7)^{P}	13.4	13.4	12.5	12.3	11.5	10.8	11.3	11.2	9.6	8.1	7.7	(8.0)^{P}	8.2
14	8.2^{P}	8.1	7.5	6.9	7.0	7.6	10.4	11.5	(12.0)^{P}	11.9^{P}	11.6^{H}	12.7	12.8	12.7	(12.0)^{P}	11.5	10.8^{P}	10.5	10.6	9.7	8.7	8.8	8.4	8.4
15	8.4	8.6	8.5	7.6	7.4	8.0	10.5	11.7	11.7	11.6	11.7^{H}	11.9	11.9^{P}	(12.0)^{HP}	12.5	12.3^{H}	11.8^{H}	11.5	11.4	10.5	8.7	8.4^{J}	B	8.6^{P}
16	8.4	8.2	7.9	7.3	7.0	7.7	10.6	(12.0)^{P}	(12.0)^{P}	(12.0)^{P}	(12.0)^{HP}	11.9^{HP}	(12.2)^{HP}	(12.0)^{HP}	(12.0)^{HP}	11.7	11.5	11.5	11.1	9.5	8.1	8.4	8.4^{J}	8.6^{P}
17	8.0	7.6	6.3	6.4	6.6	7.6	8.4	8.0^{K}	7.0$^{Z}_{K}$	6.5^{K}	6.4^{K}	7.5^{K}	8.1^{K}	8.8$^{J}_{K}$	8.5^{K}	8.0^{K}	8.0^{K}	8.0^{K}	8.2^{K}	(7.8)$^{P}_{K}$	7.6^{K}	7.5^{K}	7.5^{K}	7.4^{K}
18	7.1^{K}	6.8$^{F}_{K}$	6.3$^{V}_{K}$	6.3$^{F}_{K}$	6.2$^{F}_{K}$	6.9$^{F}_{K}$	7.7$_{K}$	7.5$^{H}_{K}$	7.5$^{H}_{K}$	(8.0)$^{P}_{K}$	8.2$^{JH}_{K}$	9.7$^{H}_{K}$	10.7^{K}	11.1	11.2	[10.8]^{M}	10.5	10.0^{P}	M	M	M	M	M	(8.2)^{J}
19	8.9	[8.6]^{M}	8.2^{P}	M	M	M	M	M	11.1	(12.3)^{HP}	(12.0)^{HP}	12.7	13.0^{H}	12.7^{H}	12.4^{HJ}	11.6^{H}	11.5	11.5	11.2	9.8	8.7	9.1	8.5^{PJ}	(8.2)^{P}
20	8.6	(8.0)^{P}	7.7	7.2	6.9	7.6	8.5	9.2	10.4^{H}	11.4	11.6^{H}	12.4^{J}	12.2^{H}	12.4	12.3	11.6^{H}	11.5	10.7	9.9	9.5	[9.1]^{A}	8.7	(8.9)^{PJ}	9.0
21	8.8^{J}	8.7^{J}	8.1	7.4	6.7	7.7	9.5	11.0	11.4	11.5	11.5	C	C	C	C	C	C	C	C	C	C	C	9.0^{P}	8.8
22	10.0	9.0	8.1	7.2	6.5	5.9^{PH}	6.6^{H}	6.9^{H}	7.1^{H}	7.5^{H}	8.1^{H}	10.6^{H}	10.6^{H}	8.6	10.2^{H}	10.6^{H}	10.5^{H}	10.5	9.7	8.6^{P}	7.5	7.6	8.1^{P}	7.3
23	6.5	6.1	6.8	6.5	6.5	7.5	10.4	10.2	11.5	10.8	11.1^{H}	12.9^{H}	12.5^{H}	(12.0)^{HP}	(12.0)^{HP}	11.6	11.2	11.0	11.0	10.5	8.8	7.5	7.6	8.0^{P}
24	8.1	8.4^{J}	8.1	7.3	6.6	7.2	9.5	10.8	11.8^{P}	11.0^{H}	11.4	11.8^{P}	(12.8)^{PH}	(12.8)^{PH}	(12.8)^{PH}	(12.0)^{P}	12.4^{J}	A	A	11.5	8.4^{PF}	8.4	8.4^{F}	8.5^{P}
25	8.4^{J}	8.5	8.0	7.5^{P}	7.4	8.1	10.5	11.1^{H}	11.0^{H}	11.1^{H}	11.0^{H}	11.5^{H}	11.8^{PH}	(12.0)^{PH}	(12.0)^{PH}	11.6^{H}	11.5^{H}	11.5^{H}	11.6	11.7^{P}	10.0^{P}	7.6^{F}	8.4	8.4^{J}
26	8.4^{J}	[8.4]^{P}	8.4	7.6	7.4	8.4^{J}	11.2	11.2	11.0	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
27	M	M	M	M	M	M	10.5	11.0	10.5	(11.8)^{HP}	11.8^{HP}	(12.0)^{P}	12.0^{J}	12.7^{H}	(12.0)^{HP}	(12.0)^{P}	11.7	8.6	9.5	9.5	8.7	8.4	7.4	7.8
28	7.4	7.5	7.5	6.9	6.9	7.5^{H}	9.4	9.1	11.8^{HP}	11.4	10.7	11.4	10.1	10.5^{H}	11.0	11.0	11.3	11.6	11.6	11.0	8.2	7.0	7.5	7.7
29	7.3	6.3	7.5	(7.5)^{P}	6.5	6.8	8.1	7.7$^{HP}_{K}$	7.4$^{VP}_{K}$	7.5^{K}	8.2^{K}	9.7^{K}	8.8$^{J}_{K}$	9.3^{K}	9.0^{K}	8.7$^{J}_{K}$	8.1^{K}	7.5^{K}	7.9^{K}	7.8$^{P}_{K}$	6.5^{K}	6.4^{K}	6.6^{K}	6.5^{K}
30	6.5^{K}	6.0$^{J}_{K}$	5.9$^{JF}_{K}$	6.2$^{F}_{K}$	6.3$^{F}_{K}$	7.5$^{F}_{K}$	7.8^{K}	8.6$^{J}_{K}$	9.7^{K}	10.6^{K}	11.5^{K}	(12.0)$^{P}_{K}$	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	C^{K}	11.8$^{P}_{K}$	9.9	8.7	9.0	8.6
31																								
Mean Value	8.0	7.7	7.4	6.9	6.6	7.1	8.7	10.0	10.8	11.2	11.5	12.1	12.1	12.2	12.0	11.6	11.2	10.7	10.5	9.5	7.9	8.0	8.0	8.0
Median Value	8.0	7.9	7.5	7.0	6.6	7.2	8.5	10.3	11.4	11.8	11.8	12.2	12.2	12.5	12.0	11.7	11.5	11.1	10.7	9.5	8.3	8.0	8.1	8.2
Count	29	29	29	28	28	28	29	29	30	29	29	28	27	27	27	27	27	26	25	27	27	27	27	28

foF2

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

A 1

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

IONOSPHERIC DATA

Apr. 1956 | h'F2 | 135° E Mean Time | Akita | Lat. 39° 43.5' N | Long. 140° 08.2' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	350	310	290	280	300	300	250	250	260	260^{H}	260	260^{H}	270^{H}	240^{H}	270	270	260	270	260	250	270	320	330	310
2	290	300	300	300	330	340	260	260	260	280^{L}	260	290^{L}	260^{H}	L	290	260^{H}	260	270	260	250	300	340	330	320
3	300	300	290	350	390	350	280	290	L	L	270^{L}	290^{L}	[300]^{L}	300	L	L	260	260	250	260	300	320	340	340^{F}
4	320^{F}	300^{F}	300^{F}	310^{F}	330^{F}	330^{F}	250	260	260	300^{L}	300	290	290	310	290^{L}	280	250^{H}	280	260	250	280	300	290	310
5	330	300	300	300	300	340	270	[280]^{L}	290^{L}	290^{L}	300	L^{H}	L^{H}	290^{H}	280^{H}	L	L	260	270	250	240	300	310	330
6	340	350	300	290	250	330	260	L	L^{H}	L^{H}	L^{H}	300^{L}	290^{L}	270^{H}	280^{H}	290	260	260	250	260	290	300	320	340
7	360	360	290	250	270	310	250	250	260	300^{L}	290	280^{LH}	260^{LH}	300^{L}	[280]^{L}	260	260^{H}	280	270	250	270	280	300	330
8	360	350	310	310	290	310	250	250	260^{H}	290	280^{H}	L	L^{H}	290^{H}	290^{H}	[280]^{LH}	270	280	260	250	290	290	340	310
9	340	300	290	280	310	350	260	260	260	L	L	L	310^{L}	300^{L}	300	290^{L}	[280]^{L}	270	270	260	270	310	300	300
10	310	340	300	240	260	330	260	260	260	280^{L}	L	L	L	330^{L}	290^{L}	290^{L}	280	270	260	280	300	290^{F}	340^{F}	350
11	300	290	310	310	340	300	250	260	290^{L}	280^{L}	L^{H}	L	300^{L}	330^{L}	[310]^{L}	290	290^{L}	270	270	250	270	340	320	310
12	300	330	320	290	340	340	260	280^{L}	260	260	280^{L}	310	300	[320]^{LH}	340	[300]^{L}	270	280	280	[290]^{A}	300	300	300	340
13	360	330	300	290	350	330	260	260	290^{L}	290	(300)^{L}	340	L	L	L	290	310	300	280	260	290^{A}	310	330	310
14	310	310	310	330	360	340	260	270	280^{L}	260	260^{LH}	360	330^{L}	340^{L}	L	L	290^{L}	290^{L}	290	280	280	300	300	300
15	320	290	290	290	340	310	250	270	280^{L}	L	L^{H}	L	380	L^{H}	380	L^{H}	L^{H}	300^{L}	290	260	280	310	340	320
16	320	300	290	290	340	310	(290)^{L}	270	260^{L}	L	L^{H}	L^{H}	250^{H}	270^{H}	280^{H}	A	A	290	280^{A}	270^{A}	290	340	340	320
17	300	290	290	340	390	330	300	370^{K}	590^{K}	530^{K}	A^{K}	550^{K}	490^{K}	450^{K}	450^{K}	410^{LK}	350^{K}	300^{AK}	300^{K}	[320]^{AK}	350^{K}	340^{K}	360^{K}	330^{K}
18	310^{K}	340^{K}	330^{K}	340^{FK}	340^{FK}	320^{K}	290^{K}	290^{HK}	270^{HK}	280^{K}	L^{HK}	L^{HK}	300^{LK}	[300]^{M}	300^{L}	M	L	M	M	M	M	M	M	M
19	M	M	M	M	290	M	M	M	L	260^{H}	280^{H}	[270]^{L}	260^{H}	260^{H}	280^{H}	280^{H}	300^{L}	280	300^{A}	[310]^{A}	320	340	300	340
20	350	340	350	340	350	320	290	270	290^{H}	280^{H}	260^{H}	L	280^{H}	A	A	290^{H}	290^{H}	290	290	A	A	A	340	340
21	340	310	290	280	300	300	260	270	290	[280]^{AH}	280^{H}	C	C	C	C	C	C	C	C	C	C	C	310	400
22	320	280	350^{A}	310	360	350^{H}	290^{H}	280^{H}	250^{H}	260^{H}	250^{H}	250^{H}	260^{H}	A	300^{H}	280^{H}	270^{H}	290	300	270	340	400	340	270
23	260	350	350	310	310	280	270	250	A	260	270^{H}	270^{H}	240^{H}	240^{H}	250^{H}	280	290	260^{A}	270	270	260	260	290	390^{A}
24	370	350^{A}	340^{A}	290	280	270	280	280^{A}	280^{A}	270^{H}	A^{H}	A^{H}	270^{H}	290^{H}	280^{H}	[300]^{A}	320	A	A	270	280	[320]^{A}	350^{F}	350
25	330	340^{A}	300	300	300	290	270	250^{H}	250^{H}	250^{H}	240^{H}	240^{H}	280^{H}	290^{H}	280^{H}	250^{H}	250^{H}	260^{H}	290	270	250	300^{A}	330	330
26	340	320	300	300	300	300	260	250	270	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
27	M	M	M	M	M	M	270	260	280^{L}	L^{H}	240^{H}	290	390	280^{H}	290^{H}	290^{L}	290	280	330	280	310	290	380	400
28	300	390	350	370	360	350^{H}	280	260	250^{H}	290^{L}	290^{L}	300	280	270^{H}	300	290	290	290	300	280	250	250	350	340
29	340	350	300	300	300^{F}	270	260	260^{HK}	280^{K}	[390]^{AK}	500^{K}	470^{K}	390^{K}	400^{K}	370^{K}	330^{K}	[310]^{LK}	290^{LK}	300^{K}	290^{K}	280^{K}	350^{K}	340^{K}	340^{K}
30	300^{K}	310^{K}	380^{K}	350^{FK}	310^{K}	280^{K}	260^{K}	280^{LK}	260^{K}	300^{AK}	290^{K}	310^{K}	[300]^{LHK}	290^{HK}	290^{HK}	290^{HK}	290^{LK}	280^{K}	260^{K}	250^{K}	250	330^{A}	350	350
31																								
Mean Value	320	320	310	300	320	320	270	270	280	290	290	320	300	300	300	290	280	280	280	270	290	310	330	330
Median Value	320	320	300	300	310	320	260	260	260	280	280	290	290	290	290	290	280	280	280	260	280	310	330	330
Count	28	28	28	28	29	28	29	28	26	23	20	18	24	23	24	22	24	26	26	26	26	26	28	28

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

Apr. 1956 | fEs | Akita | Lat. 39° 43.5' N | Long. 140° 08.2' E

135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	2.5	E	E	E	E	E	G	G	G	G	G	G	G	3.7	G	G	2.8	2.5	2.5	2.5Y	E	E	E	E
2	2.5Y	2.5F	E	2.4F	2.3	E	G	G	G	G	G	G	G	G	G	G	G	G	G	2.3	2.1Y	3.1	E	E
3	2.0	2.7	2.5	2.7	2.4YF	2.7	G	G	G	G	G	G	G	G	G	G	G	G	2.8	E	2.2	2.1	2.1	E
4	E	E	2.0F	E	2.6	2.2F	G	3.3	G	G	G	G	G	G	G	G	3.5	G	G	E	E	E	2.4	2.4
5	2.1	E	E	2.4F	E	E	3.1Y	G	G	G	G	4.7	G	5.1	4.2	3.5	G	G	3.5	2.5	2.1Y	2.0	E	E
6	E	2.2Y	2.5	2.4	2.5	2.8F	G	3.5F	G	G	G	5.2	G	G	G	G	G	3.2	2.4Y	3.8	2.3	2.0	E	E
7	2.1Y	2.0	2.4	E	2.5	2.1	3.1	G	G	G	G	G	G	4.3	G	4.1	G	G	2.6Y	2.4Y	E	2.4Y	2.4	E
8	E	2.1Y	2.6Y	E	E	E	G	G	G	G	G	G	B	G	G	G	G	3.2Y	3.0	2.6	E	E	E	E
9	E	2.5Y	E	2.1Y	2.4Y	2.4	3.1Y	G	G	G	G	G	5.3Y	G	G	G	G	G	3.5	3.1	2.3	2.4	E	E
10	E	2.0	2.2Y	2.4Y	2.4	E	3.0Y	G	G	G	G	G	G	5.3	5.1	G	3.8	3.1	3.5	3.0	2.7Y	2.6Y	E	E
11	E	E	E	E	E	2.4Y	G	G	G	G	G	B	G	G	G	G	4.8	5.5	3.5	3.0	2.4	2.4	2.3	E
12	E	2.4Y	2.3Y	2.4Y	2.7Y	2.5Y	3.0Y	G	G	G	G	G	G	G	G	G	G	G	4.8	9.0	6.7	3.5F	2.5F	4.5F
13	3.4F	2.5F	2.9F	2.5	2.6	2.6Y	3.1Y	G	G	5.7	G	G	5.5	5.9	G	G	5.1	5.5	3.1	3.2	4.6	2.6	2.6	2.5F
14	3.5F	3.1F	3.1F	2.9	2.4	2.4	4.5	G	G	G	G	G	G	G	G	G	6.0Y	G	3.5	4.5	3.1	2.4	E	E
15	E	2.0	2.1	2.5	2.4	2.5Y	G	G	G	G	5.7	G	G	G	G	G	G	G	3.4	2.0	3.0	4.5	3.9	3.0
16	2.7F	3.0Y	2.4Y	3.1Y	E	2.5Y	G	G	G	5.5	G	G	G	G	5.8	6.7	7.3	5.1	5.5	3.8	2.5	E	2.6Y	2.0Y
17	2.4Y	E	E	2.4Y	E	2.6	2.9Y	G	5.1	5.8	6.5	G	G	G	G	G	5.0	4.5	3.5	7.0	3.8	2.5	3.7	E
18	E	E	E	E	E	2.5F	G	G	G	G	G	M	5.4	M	G	M	G	M	M	M	M	M	M	M
19	M	M	M	M	M	M	M	M	M	5.6	G	G	G	5.0	G	G	G	4.4	6.0	9.0	8.5Y	4.5Y	2.5	2.6
20	3.4	4.4	3.9	3.8	2.5	2.5	3.2	4.5	5.5	5.5	5.5	G	6.5Y	6.1Y	5.5	4.8	5.1	4.7	4.4	5.9	13.5Y	13.0Y	7.2	2.4
21	2.4Y	2.4Y	3.0Y	2.5	2.9	2.5F	3.0Y	5.0	6.3	7.0	5.3	C	C	C	C	C	C	C	C	C	C	C	3.2	3.2
22	3.2	3.3	4.2	3.2	3.0	2.5	3.5Y	G	G	G	G	G	G	6.1	5.3	5.5	G	G	2.9Y	2.5	2.5	E	2.1F	E
23	E	2.5F	2.5F	3.2F	2.6F	2.5F	G	G	7.5	5.1	G	7.5	G	G	G	5.1	7.5	7.1	2.5F	E	E	E	E	7.0
24	4.5F	5.5F	6.5	3.2	2.4F	3.5	6.5Y	6.8	6.2	6.0	9.6	6.7	5.6	7.1	6.2Y	6.7	6.6	13.0	11.5	10.5	9.0	7.4	6.7F	5.0F
25	3.0F	4.0	2.7F	2.7F	3.1Y	2.5F	3.0	G	5.1	6.6	6.3Y	6.5	4.2	4.2	4.5	G	G	G	G	2.5	3.5	8.7	4.5	4.4
26	4.5F	3.0F	3.2	3.2F	3.0F	3.0F	G	G	G	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
27	M	M	M	M	M	M	G	G	G	G	G	G	G	G	G	G	G	4.5	3.5	3.0	4.0	3.0	2.6	2.4Y
28	2.5Y	2.4	3.0Y	2.4	E	2.4Y	G	4.6	G	G	G	G	G	G	G	G	4.7	4.7	5.5	3.5	2.2Y	2.5	E	2.4Y
29	E	E	2.5Y	2.4Y	2.4Y	2.5F	G	G	4.7Y	6.4	5.3	G	G	G	G	5.0	G	G	G	3.5	3.1	3.0	2.4Y	2.5
30	3.4	3.0	5.0F	3.5	3.0	2.5	G	G	5.0	9.1	G	5.3	5.0Y	5.0	G	G	G	G	4.2	3.1	4.2	4.3	5.0	4.2
31																								
Mean Value	3.0	2.8	3.0	2.7	2.6	2.5	3.5	4.6	5.7	6.2	6.3	6.0	5.4	5.3	5.2	5.2	5.2	5.2	4.0	4.1	4.1	3.9	3.4	3.4
Median Value	2.2	2.4	2.5	2.4	2.4	2.5	G	G	G	G	G	G	G	G	G	G	G	2.5	3.5	3.0	2.5	2.5	2.4	2.2
Count	28	28	28	28	28	28	29	29	29	29	29	27	27	27	28	28	28	27	27	27	27	27	28	28

fEs

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

A 3

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

IONOSPHERIC DATA

Apr. 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	8.1	8.5	7.5	6.6	6.4	6.5	8.2	9.8	10.2	12.3	12.5	13.2^{H}	13.6	13.3	13.2^{H}	12.2^{H}	12.4	11.5	10.9^{P}	8.5	[8.2]^{C}	7.8	8.0	8.4
2	8.0^{J}	6.8	6.7	6.0	6.2	C	8.2	10.0	11.5	12.8	12.9	13.0^{H}	13.5	13.5	13.1	13.1	12.6	12.1	(10.8)^{P}	9.2	8.3	8.4	8.0^{P}	8.4
3	8.7	7.5	7.6	6.4	6.2	6.2	7.4	9.0	9.9	10.8	10.6^{P}	11.9^{P}	11.9	12.7	12.4	12.5	12.1	11.0^{P}	10.0	7.7	7.1	7.1	(7.6)^{J}	8.0
4	7.8^{J}	8.0	6.6	6.5	6.3	6.5	8.5	9.2	10.6	11.5	12.6	13.0	13.4	13.0	12.3	12.5^{H}	11.5	11.5^{J}	10.6^{P}	8.6	7.6	7.8	7.9	7.2^{P}
5	7.6	7.6	7.1	6.5	6.2	6.4	8.4	9.7	11.3^{J}	12.1	12.5	12.3	12.9^{H}	13.5^{H}	13.3	13.1	12.5	11.9^{J}	10.9^{P}	8.9	7.8	7.6	8.0	7.5
6	7.9	7.0	7.5^{P}	6.8	6.1^{H}	5.9	7.4	9.8	11.9	12.3	12.6^{H}	13.5	12.9	12.5^{H}	[12.8]^{T}	13.1^{H}	12.5	11.7	10.9	8.6	8.0	8.3	8.3	8.2
7	7.9	7.4	8.5	6.5	5.6	5.7	7.4	9.2	11.2	11.9	13.3	13.9	14.0	14.9^{P}	15.5	12.9	10.9	10.9	11.2^{J}	9.3	7.9	8.0	7.9	7.8
8	7.3	7.4	7.3	6.6	6.3	6.5	8.1	9.3	11.6	13.1	12.7	13.9	14.2^{H}	14.0	13.3	13.4	13.0	12.0	10.9^{P}	9.0	8.5	8.8	8.4	8.7
9	8.3	8.4	7.6	7.0	6.7	6.8	8.5	11.0	11.8	12.3	13.7^{H}	13.7	14.4^{H}	14.0	13.5	13.1	12.5	11.9	11.4	10.8^{P}	7.9	8.0	8.0	7.9
10	7.9	7.5^{P}	7.4	6.8	5.2	5.4	7.9	10.8	11.7^{J}	12.4	12.8	14.2^{H}	14.0^{H}	13.8^{H}	14.0^{H}	13.8^{H}	12.6	12.2	11.4^{J}	8.8	8.4	8.4	8.5	8.8
11	8.8	9.5	7.9	7.2	7.1^{P}	7.7	9.5	11.5	12.1	13.0	13.4^{H}	14.4^{H}	14.9^{P}	13.8^{H}	13.8^{H}	12.0^{H}	12.1	12.3	(11.0)^{P}	8.5	8.0	8.5	8.5	8.7
12	8.5	8.4	7.4^{P}	6.8	6.4	6.5	8.6	C	C	12.1^{H}	12.6^{H}	14.7^{H}	14.5^{H}	(13.8)^{HB}	13.4^{HP}	13.5^{H}	12.2	11.4^{P}	11.7^{P}	10.2	9.0	8.0	8.5	8.6
13	8.0	8.0	8.3	6.9	6.8	7.1	9.7	11.8	12.3^{H}	13.0	13.0	13.5^{H}	13.7	13.7^{H}	13.5^{H}	12.3^{H}	12.0	12.0	11.7^{J}	9.0	7.4^{P}	8.2	8.5	8.2
14	8.2	8.2	7.3^{P}	6.6	6.9	7.2	9.8^{P}	11.4	11.6	12.0	12.5^{H}	13.1^{H}	13.7	14.4^{HP}	13.2^{H}	12.5	11.5^{H}	10.7^{P}	(11.3)^{P}	10.6	8.4	9.0	9.0	9.0
15	9.0	9.1	8.0	7.5^{P}	7.1	(7.4)^{J}	10.7	11.9	11.4	10.2	12.0^{H}	12.0^{H}	12.3^{H}	13.2^{H}	13.0^{H}	12.5^{H}	12.5^{H}	12.0	11.9	10.6	8.9	8.8	9.0	9.0
16	8.6	8.5	8.4	7.0	6.8	7.5	10.0	12.3	13.0	12.6^{H}	11.8^{H}	12.1^{H}	13.3^{H}	13.5^{H}	12.5^{H}	12.3	11.9	11.6	10.6^{P}	9.4	8.5	8.7	9.0	8.7
17	8.2	8.0	6.7	6.3	6.8	8.0	8.0	7.1^{K}	6.8^{K}	6.9^{K}	6.8^{K}	7.9^{K}	9.0^{K}	9.4^{K}	8.8^{K}	8.5^{K}	8.8^{K}	8.7^{K}	8.7^{K}	8.0^{K}	7.9^{K}	7.5^{K}	7.4^{K}	7.5^{K}
18	7.4^{K}	6.9^{K}	6.4^{K}	6.2^{K}	6.2^{K}	6.7^{K}	8.5^{K}	8.5^{K}	8.0^{K}	8.7^{HK}	9.7^{HK}	11.4^{HK}	12.0	12.4	12.1^{H}	12.0	12.0	10.2	10.5^{P}	9.2	8.4	8.7	8.8^{J}	8.5
19	9.0	9.0	7.9	7.8	7.6	8.0	10.0	10.2	11.2^{P}	12.4^{H}	12.3^{H}	13.0^{H}	13.0^{H}	13.2^{H}	13.3	12.5^{H}	12.2	12.0	11.7	9.6	8.7	9.2	9.5	8.7
20	8.8	8.9	8.2^{P}	7.4	7.1	8.0	9.3	10.6^{H}	12.0^{H}	13.2	13.5	13.2	13.4	13.4	13.3	12.4^{H}	11.6^{H}	[10.8]^{A}	10.0	9.1	8.8	9.2	9.2	9.4
21	9.8	9.7	9.1	8.2	7.0	7.7	9.2	10.3	11.8	12.3	11.9^{H}	13.0^{H}	13.4^{H}	13.3^{H}	12.5	12.7	12.1	12.5	11.0^{P}	9.7	9.4	9.6	[9.6]^{B}	9.5
22	(10.1)^{P}	10.4	8.3	7.5	6.7	6.3	7.7^{P}	8.4	7.9	7.6^{H}	9.7^{H}	11.9^{H}	12.3^{H}	10.5^{H}	10.0^{H}	11.9^{JH}	11.0^{HP}	11.2^{P}	10.5^{P}	8.6	8.0	8.0	8.5	8.0
23	7.1	6.3	7.0	6.9	6.6	7.8	9.6	10.1^{P}	10.8	10.7	11.9^{H}	13.0^{H}	13.1^{H}	13.0^{H}	12.4^{H}	12.0	11.9	12.0	11.4^{P}	11.2^{P}	8.6	7.9	8.1	8.3
24	8.5	8.7	8.6	7.6	6.9	7.2	10.1	11.2^{P}	11.5	10.0	11.5^{H}	12.5^{H}	13.5	12.8	13.4^{H}	12.9^{HJ}	13.0^{J}	13.2	[11.6]^{A}	10.0	8.9	9.1	9.6	9.6
25	9.6	9.3	9.2	8.6	7.8	8.2	10.0	10.0	10.2	11.0^{P}	12.2^{H}	12.6^{H}	13.4	13.0	13.7^{H}	12.8^{H}	12.5^{H}	12.6	M	M	M	M	M	9.1
26	8.8	9.0	9.2	8.0	7.9	8.8	11.5^{J}	11.8	11.3^{P}	10.9^{H}	12.3	13.0^{H}	13.7	13.9	13.4^{H}	12.6^{H}	12.4	12.7	11.5^{P}	10.8^{P}	10.8^{P}	9.2	8.7	8.9
27	8.9	9.6	8.2	7.6	7.7	8.8	10.7	10.2	10.0^{H}	10.8	10.2^{H}	12.3^{H}	12.4^{H}	13.3^{H}	13.5	12.5^{H}	13.0	9.2	9.0	10.7	8.0	8.0	[7.8]^{M}	7.5
28	8.0	7.3	7.5	7.3	7.6	7.9	10.0	10.2	12.1	12.3	12.0	12.2	11.5^{H}	10.3^{P}	12.1	12.3	12.7	13.0	12.6	10.8	8.0	7.5	7.3	7.6
29	7.5^{P}	7.8	7.8	7.0	6.3	6.6	7.5	7.6^{K}	9.1^{HK}	9.5^{K}	8.9^{K}	(9.9)^{PK}	(11.4)^{P}	10.5^{PK}	11.6^{K}	11.6^{HK}	10.7^{PK}	9.2^{K}	9.2^{K}	8.6^{K}	6.5^{K}	6.3^{K}	6.5^{K}	6.8^{K}
30	6.8^{K}	6.3^{K}	5.9^{EK}	6.2^{EK}	6.2^{EK}	6.8^{K}	7.9^{K}	8.7^{K}	9.1^{K}	10.4^{JK}	12.4^{K}	13.2^{K}	14.3^{K}	15.2^{K}	15.5^{PK}	15.6^{PK}	15.7^{PK}	15.5^{K}	13.6^{K}	12.0^{K}	10.8^{K}	9.5	9.7	9.4^{P}
31																								
Mean Value	8.3	8.2	7.7	7.0	6.7	7.1	8.9	10.0	10.8	11.4	11.9	12.7	13.1	13.0	12.9	12.9	12.1	11.7	11.0	9.5	8.4	8.3	8.4	8.4
Median Value	8.2	8.1	7.6	6.9	6.7	7.1	8.6	10.1	11.3	12.0	12.4	13.0	13.4	13.3	13.2	12.5	12.2	11.9	11.0	9.2	8.3	8.3	8.5	8.4
Count	30	30	30	30	30	29	30	29	29	30	30	30	30	30	30	30	30	30	29	29	29	29	29	30

foF2

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

K 1

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

IONOSPHERIC DATA

Apr. 1956 | fpF2 | 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	400	370	330	400	400	370	330	280	320	310	340	340H	350	350	360H	360H	350	340	320P	320	[360]C	410	390	360
2	(320)J	340	360	370	410	C	320	290	310	340	340	340H	350	350	350	350	350	330	(310)P	310	390	400	400P	390
3	350	390	370	450	460	460	350	320	300	330	320P	360P	370	360	370	370	350	330P	310	350	410	410	(420)J	420
4	(390)J	330	320	420	420	420	330	300	330	330	340	330	350	360	350	340H	330	(320)J	310P	320	370	400	370	380P
5	370	340	330	370	410	410	350	290	(320)J	320	320	350	360H	360H	360	360	330	(320)J	320P	340	370	400	410	390
6	380	420	370P	380	310H	410	360	330	330	330	360H	360	340	370H	[360]T	350H	350	320	350	340	400	400	400	410
7	430	430	340	280	400	390	300	320	330	370	370	360	360	350P	350	340	360	360	(320)J	310	400	390	390	410
8	430	400	380	390	420	410	310	320	340	340	360	350	360H	360	350	360	330	360	320P	330	380	380	400	390
9	400	340	360	340	410	430	320	350	300	340	350H	350	360H	350	360	340	340	340	330	350P	370	400	390	390
10	400	390P	330	320	370	400	320	320	(330)J	330	350	360H	360H	360H	360H	360H	340	330	(310)J	340	360	380	440	420
11	370	330	380	400	420P	390	320	320	330	350	360H	370H	360P	360H	360H	360H	360	340	(310)P	330	430	430	380	400
12	380	380	360P	410	440	460	310	C	C	390H	370H	370H	380H	(390)HS	380HP	370H	360	360P	360P	330	360	400	400	410
13	430	400	350	420	440	420	310	340	350H	350	370	370H	390	400H	390H	380H	370	340	(310)J	330	400P	420	420	370
14	340	370	350P	430	450	440	310P	310	320	380	390H	380H	380	390HP	380H	400	380H	340P	(360)P	350	340	400	390	380
15	400	360	340	350P	420	(390)J	310	310	320	320	410H	380H	400H	410H	380H	400H	380H	380	350	350	390	430	420	410
16	370	380	370	380	420	450	330	340	320	340H	400H	390H	400H	400H	400H	400	400	360	330P	350	430	430	410	390
17	390	370	400	450	490	450	380	460K	490K	470K	AK	510K	440K	410K	410K	400K	390K	360K	360K	400K	450K	420K	430K	400K
18	390K	400K	420K	440K	450K	400K	330K	320K	370K	370HK	360HK	380HK	380	370	390H	390	390	360	350P	350	400	390	(390)J	400
19	380	330	400	420	400	360	300	290	340P	360H	410H	380H	390H	390H	410	390H	380	370	340	350	430	450	390	430
20	420	400	420P	420	450	460	300	340H	370H	370	360	370	390	370	370	350H	360H	[340]A	320	350	410	420	410	400
21	380	350	350	360	360	360	300	320	340	360	450H	380H	400H	400H	390	380	360	380	350P	380	420	440	[460]S	480
22	(370)S	340	390	380	450	470	300P	300	320	380H	340H	360H	360H	370H	390H	(410)JH	380HP	360P	340P	340	480	500	440	370
23	360	460	430	390	370	340	260	290P	340	330	390H	370H	380H	360H	380H	370	360	340	350P	310P	330	420	420	410
24	410	380	340	340	370	320	290	290P	320	310	370H	360H	380	370	390H	(350)HJ	(330)J	350	[320]A	280	380	420	400	400
25	380	380	360	350	360	350	280	300	310	320P	400H	390H	370	370	380H	370H	370H	360	M	M	M	M	M	410
26	400	390	360	360	370	360	(310)J	290	340P	360H	390	390H	360	370	380H	370H	370	350	350P	360P	340P	370	430	410
27	410	350	350	380	390	350	300	300	330H	440	350H	370H	450H	430H	380	380H	350	370	400	340	400	430	[470]M	510
28	370	470	430	480	440	490	320	350	320	330	350	350	360	360P	390	370	360	340	320	320	370	440	440	410
29	400P	430	390	340	370	320	310	300K	410HK	390K	530K	(390)PK	(380)PK	380PK	370K	340HK	330PK	330K	330K	320K	340K	460K	410K	410K
30	370K	400K	420EK	420EK	380EK	300K	290K	310K	310K	(340)KJ	330K	340K	350K	350K	370PK	340PK	350PK	340K	320K	350K	360K	390	410	370P
31																								
Mean Value	390	380	370	390	410	400	320	320	340	350	370	370	380	370	380	370	360	350	330	340	390	410	410	400
Median Value	380	380	360	380	410	400	310	310	330	340	360	370	370	370	380	370	360	340	330	340	390	410	410	400
Count	30	30	30	30	30	29	30	29	29	30	29	30	30	30	30	30	30	30	29	29	29	29	29	30

fpF2

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

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

IONOSPHERIC DATA

Apr. 1956 | h'F2 | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	310	280	240	220	250	280	240	230	230	260	250	260H	280	260	250H	250H	230	230	240	230	[270]C	310	300	290
2	250	260	260	240	320	C	250	240	250	260	270	260H	280	300	[280]L	270	280	250	250	230	260	300	310	300
3	270	280	260	290	340	350	260	260	250	250	260	280	270L	270	260	270	260	250	240	230	280	330	320	310
4	280	260	240	260	300	310	250	240	260	260	270	280	260	270	270	260H	260	250	250	220	260	280	270	290
5	290	280	240	250	270	330	250	240	260	280	280	270	260H	270H	300	[290]L	270	260	240	240	230	280	300	300
6	290	320	280	230	190H	300	250	240	260	260	280H	310	290	270H	T	LH	260	250	240	230	280	310	300	330
7	340	320	260	210	230	300	250	240	260	270	270L	300	290	300	260	250	240	260	260	250A	230	280	290	300
8	320	310	270	260	250	310	240	250	250	260	260	270	260H	280	280	260	250	250	260	250	270	300	310	310
9	310	270	240	240	280	330	250	250	250	250	[260]LH	270	270H	270	270	270	250	250	260	230	230	300	300	280
10	300	300	240	210	210	300	250	240	250	250	260	260H	[270]HL	LH	240H	260H	270	250	240	240	260	280	330	320
11	290	260	250	270	300	280	250	240	250	250	250H	250H	270	260H	230H	[260]H	290	260	240	230A	280	310	300	300
12	280	290	280	230	280	330	240	C	C	230H	270H	240H	266LH	250H	240H	240H	240	250	270	260	270A	280A	290A	310
13	310	300	260	240	320	320	250	250	240H	250	260	260LH	290	230H	250H	260H	270	270	250	240	280	330	330	310
14	270	270	270	260	330	310	250	240	250	250	250LH	260LH	330	260H	280H	L	260H	260	270	270	260	300	300	290
15	290	270	250	240	300	310	240	240	250	250	250H	LH	230H	230H	240H	260H	250H	270	260	290A	280A	300	300	290
16	280	280	240	250	310	310	250	250	250	250H	260H	266LH	260H	260H	270H	290	300	280A	270A	280A	270	320	310	290
17	290	260	240	300	340	310	280	400KL	490K	470K	520K	510K	430K	390K	400K	380K	340K	300KA	300KA	270K	330KA	340KA	350KA	300K
18	300K	300K	280K	280K	300K	270K	280K	250K	240K	330KH	270KH	260KH	260H	330	260H	330	300	290A	A	310A	300A	350A	340A	320A
19	300A	250	280	270	270	270	250	240	270	270H	250H	260H	280H	280H	[270]L	310H	290	270	260	250A	290	380A	300	310
20	310	300A	320A	280	300	300	240	270H	240H	280A	270A	260L	330A	320	300	260H	260H	[260]A	270A	280A	300A	340A	360A	320A
21	320A	300A	260	260A	270A	280	240	230A	250	270	250H	320H	LH	270H	310	320	280	300	260	270A	320A	350	360	370
22	310	240	250	260	310	320	250	250	240	240H	260H	256H	260H	266H	266LH	250H	260H	270	280A	240	320	370	320	260
23	260	260	320	280	270	260	240	250	260	270A	250H	270LH	260H	260H	270H	270	260	260	260A	250	230	250	310	300
24	300	310A	280	230	250A	260	250	250	250	240	250H	270H	330A	290	240H	300H	310A	A	270A	240A	260A	300A	330A	340A
25	300	320A	260	270A	250	270	230	230	260	260	260H	260H	330A	340A	270H	240H	250H	280	M	M	M	M	M	310
26	310	290	270	250	270	280	250	240	240	250H	[250]L	250H	320	320	270H	270H	290	260	260	260	250	240	300	330
27	300	260	250	280	280	260	250	250	230H	L	250H	250H	250H	280H	330	270H	280	260	320A	300A	250	320	[360]M	400
28	300	340	330	330	340	300	260	240	270	260	260	270	260H	L	340	L	280	280	260	260A	260A	270	350	330
29	310	310	310	250	260	250	240	270K	270KH	340K	530KA	430K	310K	340K	290K	270KH	280K	270K	280K	290K	250K	330K	330K	300K
30	280K	280K	310K	300K	270K	260K	250K	240K	250K	300K	270K	310K	290K	310K	330K	280K	280K	260K	240K	230K	230K	290	310	290
31																								
Mean Value	300	290	270	260	280	290	250	250	260	270	280	280	290	280	280	280	270	260	260	250	270	310	320	310
Median Value	300	280	260	260	280	300	250	240	250	260	260	260	270	270	270	270	270	260	260	250	270	300	310	300
Count	30	30	30	30	30	29	30	29	29	29	30	29	29	28	29	27	30	29	28	29	29	29	29	30

h'F2

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

Apr. 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							Q	Q	Q	4.9	4.8	L	5.1	5.0	L	L	Q	L	Q					
2							C	Q	L	L	L	5.0L	5.8	6.2	L	L	L	Q	Q					
3							Q	L	L	L	4.9L	L	4.9L	L	L	L	L	Q	Q					
4							Q	Q	L	4.6	5.1L	5.6	4.9L	5.0	4.8L	L	L	Q						
5							Q	Q	L	L	L	5.0L	5.0L	4.8	L	L	L	Q	Q					
6							Q	Q	L	4.8L	L	6.1L	5.7L	A	A	L	L	Q	Q					
7							Q	Q	L	L	L	L	L	6.0L	L	L	Q	L	A					
8							Q	L	L	4.9L	4.9L	(4.8)L	4.8L	5.3L	L	L	Q	A						
9							Q	Q	4.6L	4.8L	(5.0)L	5.3L	L	L	L	L	L	Q	Q					
10							Q	L	L	L	L	L	L	L	Q	L	L	Q						
11							Q	Q	L	4.8L	4.8L	4.8L	4.8L	L	Q	L	A	L	Q					
12							Q	C	C	Q	L	A	L	L	Q	Q	Q	Q						
13							Q	Q	L	4.5L	A	L	A	Q	Q	L	L	L	Q					
14							Q	Q	L	4.7	4.8L	4.8L	5.7	5.1	L	L	Q	Q						
15						Q	Q	Q	L	5.0L	5.0L	L	Q	Q	Q	4.8L	Q	Q						
16							Q	Q	L	Q	5.5L	L	L	A	Q	A	A	A						
17							Q	4.7L	4.8	A	A	5.5	5.6	5.6	5.6	5.8L	5.3L	L	A					
18						Q	L	L	Q	L	A	L	L	A	Q	A	A	A						
19						Q	Q	Q	A	A	A	A	A	5.4L	L	A	A	L						
20						Q	Q	A	Q	A	A	L	A	A	5.0	A	A	A						
21						Q	Q	A	L	A	A	A	L	L	A	A	A	A						
22						Q	3.5	4.1L	Q	4.7L	Q	Q	Q	A	A	Q	L	A						
23							Q	L	L	A	4.8L	L	L	5.0L	L	4.8L	A	A	A					
24						Q	L	L	A	4.7	4.8L	A	A	A	Q	A	A	A	A					
25							Q	Q	L	4.5L	L	A	A	A	L	Q	Q	L	M					
26							Q	L	L	L	L	4.8L	5.5	5.5	5.0	L	L	Q	Q					
27						Q	Q	L	Q	L	4.9	L	L	L	5.2	4.8	4.8	A						
28							Q	Q	4.8	4.6L	A	5.0L	4.8	L	5.6	L	L	A	A					
29							Q	4.8L	L	A	A	5.5	5.4	5.4	5.0	L	4.4	L						
30							Q	L	L	L	L	5.8	L	5.7L	5.6L	L	4.7L	L	Q					
31																								
Mean Value							3.5	4.5	4.7	4.7	4.9	5.2	5.2	5.4	5.2	5.1	4.8							
Median Value							3.5	4.7	4.8	4.7	4.9	5.0	5.1	5.4	5.1	4.8	4.8							
Count							1	3	3	13	12	13	13	13	8	4	4							

foF1

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

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

IONOSPHERIC DATA

Apr. 1956 | k'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							Q	Q	Q	230	240	230	230	220	230	230	Q	240	Q					
2							C	Q	240	230	220	210	220	220	230	250	240	Q	Q					
3							Q	250	230	240	230	230	230	230	230	240	260	Q	Q					
4							Q	Q	240	230	230	220	220	230	230	230	240	Q						
5							Q	Q	240	240	230	210	230	230	[240]^{A}	250	250	Q	Q					
6							Q	Q	240	240	240	240	230	A	A	240	250	Q	Q					
7							Q	Q	240	230	260	250	250	260	260	240	Q	260	A					
8							Q	240	230	230	210	210	230	230	230	240	Q	A						
9							Q	Q	240	230	240	240	230	240	230	250	250	Q	Q					
10							Q	240	240	230	240	240	230	230	Q	240	250	Q						
11							Q	Q	240	220	220	230	230	240	Q	240	[250]^{A}	260	Q					
12							Q	C	C	Q	220	[220]^{A}	230	230	Q	Q	Q	Q						
13							Q	Q	230	230	[220]^{A}	220	A	Q	Q	250	260	260	Q					
14							Q	Q	240	210	210	200	240	230	250	250	Q	Q						
15						Q	Q	Q	240	230	220	210	Q	Q	Q	230	Q	Q						
16							Q	Q	240	Q	220	200	250	A	Q	A	A	A						
17							Q	310^{A}	A	A	A	230	230	250	240	250	260	290	A					
18						Q	260	240	Q	260^{A}	A	230	230	A	Q	A	A	A						
19						Q	Q	Q	A	A	A	A	A	240	250	A	A	250						
20						Q	Q	A	Q	A	A	230	A	A	240	A	A	A						
21						Q	Q	A	230	A	A	A	220^{A}	220	A	A	A	A						
22						Q	260	240	Q	230	Q	Q	Q	A	A	Q	250	A						
23							Q	240	240	[240]^{A}	230	230	230	240	250	250	A	A	A					
24						Q	250	240	A	200	200	A	A	A	Q	A	A	A	A					
25							Q	Q	230	210	250^{A}	A	A	A	230	Q	Q	260	M					
26							Q	230	230	230	230	230	260	230	230	250	260	Q	Q					
27						Q	Q	240	Q	230	220	220	230	250	240	250	250	A						
28							Q	Q	250	230	A	230	210	260	250	250	260	A	A					
29							Q	230	250	A	A	230	230	230	230	230	250	250						
30							Q	230	230	260^{A}	260	A	250	250	230	250	250	250	Q					
31																								
Mean Value							260	240	240	230	230	220	230	240	240	240	250	260						
Median Value							260	240	240	230	230	230	230	230	230	240	250	260						
Count							3	12	21	23	22	24	23	21	19	21	16	9						

k'F1

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

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

IONOSPHERIC DATA

Apr. 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							1.6	2.4	3.2	[3.4]^{A}	3.6	3.7	3.6^{B}	A	B	3.1	3.1	2.5	1.7					
2							C	2.6	B	A	3.8	A	B	B	3.7	3.5	3.1	2.3^{B}	B					
3							2.2	[2.7]^{A}	3.2	3.5	3.8	3.8	3.8	3.5	A	A	A	2.4	A					
4							B	(2.2)^{A}	3.1	3.2	3.4^{B}	3.7	3.7	3.6	3.6	[3.4]^{A}	3.1	2.2						
5							B	2.9	3.3	3.5	3.8	A	A	A	A	A	3.2	2.5	A					
6							2.2	2.9	3.3^{A}	3.6	3.9	3.8	3.9	3.5	[3.3]^{A}	3.1	2.8^{J}	(2.2)^{A}	B					
7							2.2^{H}	2.9	3.3	3.5	3.6	[3.7]^{B}	3.8	3.9	3.7	3.5	3.3	2.5	1.5^{B}					
8							B	(2.9)^{B}	3.4	3.7	3.8	3.8	[3.8]^{A}	3.9	3.8^{A}	3.5	3.0	2.6						
9							2.5	3.0^{S}	3.4	3.2	[3.6]^{B}	3.9	3.8	3.9	3.8	3.5^{P}	3.2	2.6	A					
10							2.2	3.0	3.3^{A}	3.7	A	A	A	A	3.7	A	A	A						
11							2.2	3.0	3.4	3.8	3.9	[3.9]^{B}	3.9^{B}	[3.8]^{A}	3.7	3.6	3.2	2.5	1.5^{A}					
12							2.6	C	C	A	3.5	A	A	A	B	2.7	3.1	2.5						
13							2.6	3.0	3.5	3.8	3.7	3.6	3.9	3.9	3.8	3.3^{A}	3.3	2.6	A					
14							2.3	3.0	3.3^{B}	3.5	3.7	3.7	[3.8]^{A}	3.8	A	A	A	2.7						
15						1.5	2.3	3.0	3.5	3.8	B	B	4.0	3.9	4.0	3.7	3.3	2.5						
16							2.1^{B}	3.1	3.4	3.9	3.9	>3.8^{B}	4.2	4.2	3.9	3.7	3.3	2.7	1.5^{B}					
17							2.5^{H}	3.0	3.5	3.6	3.9	4.0	3.9	3.9	3.9	3.6	3.2	2.7	1.4^{B}					
18						1.6	2.6	3.2	3.4	3.7	3.8	[3.8]^{B}	3.7	[3.8]^{A}	3.9	3.6	3.5	2.8						
19						1.3	2.6	3.2	3.4	3.8	B	A	A	4.0^{B}	4.0^{A}	3.8	3.4	2.7						
20						1.7	2.6	3.1	3.5	3.7	3.7	3.5	3.8	3.8	3.8	3.7	3.4	2.8	1.4^{B}					
21						1.5	2.5	3.2	3.5	3.8	(4.0)^{A}	4.0^{B}	B	3.5^{B}	A	3.7	3.4	2.9						
22						1.4	2.5	3.3	3.5	3.8	4.0	[4.1]^{B}	4.2	4.1	3.9	>3.4^{B}	3.3	2.7						
23							2.5	3.0	3.5	3.6	3.7	3.7	3.7	3.5^{B}	3.8	3.6	3.4	2.6	1.5					
24						1.3^{B}	(2.3)^{A}	3.0	3.3	3.6	(3.5)^{A}	(3.5)^{A}	A	A	A	3.7	3.3	2.7	A					
25							2.0	3.0	A	A	A	A	A	A	A	3.2	3.2	2.7						
26							2.4	A	A	3.4^{B}	3.6	[3.8]^{B}	3.9	A	A	A	3.3	2.7^{A}	A					
27						1.7	2.4	3.0	3.4	3.6	3.5	3.6	3.8	[3.7]^{B}	3.6	3.4	3.2	2.7						
28							2.6^{B}	3.0	3.3	3.5	[3.8]^{A}	4.0	[4.0]^{A}	4.0	(3.8)^{B}	3.5	3.2	2.6	A					
29							2.4	2.8	3.4	[3.5]^{A}	3.5	3.5	B	A	A	3.3	3.0	A						
30							2.5	3.1	3.4	3.6	[3.8]^{A}	4.0^{A}	B	B	B	B	3.3	2.7	B					
31																								
Mean Value						1.5	2.4	2.9	3.4	3.6	3.7	3.8	3.9	3.8	3.8	3.5	3.2	2.6	1.5					
Median Value						1.5	2.4	3.0	3.4	3.6	3.8	3.8	3.8	3.8	3.8	3.5	3.2	2.6	1.5					
Count						8	26	28	26	27	26	23	20	20	19	23	27	28	7					

foE

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

K 6

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

IONOSPHERIC DATA

Kokubunji Tokyo

Lat. 35° 42.4' N
Long. 139° 29.3' E

Apr. 1956

K'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							140	110	110	[110]^{A}	110	110	110	[110]^{A}	110	110	110	130	150					
2							C	110	110	[110]^{A}	110	[110]^{A}	110	110	110	120	120	B	B					
3							130	[120]^{A}	110	110	120	110	110	110	A	A	A	120	A					
4							B	110	110	110	110	110	110	110	110	[110]^{A}	110	120						
5							B	120	110	120	110	A	A	A	A	A	110	130	A					
6							130	120	[120]^{A}	110	110	110	110	110	[110]^{A}	110	110	120	B					
7							130^{H}	120	110	110	110	110	110	110	120	110	110	120	B					
8							B	110	110	110	110	110	[110]^{A}	110	110	110	110	110						
9							140	110	110	110	[110]^{B}	110	110	110	110	110	110	120	A					
10							140	110	A	110	A	A	A	A	110	A	A	A						
11							130	110	110	110	110	[110]^{B}	110	[110]^{A}	110	110	110	120	B					
12							120	C	C	A	110	A	A	A	110	110	110	120						
13							140	120	110	110	110	110	110	110	120	120	110	110	A					
14							120	120	120	110	110	110	[110]^{A}	110	A	A	A	110						
15						160	120	120	120	110	110	110	110	110	110	110	120	120						
16							120	110	110	110	110	110	110	110	110	110	120	120	B					
17							120^{H}	110	110	110	110	120	110	110	110	110	120	120	B					
18						170	120	110	110	110	110	110	110	[120]^{A}	120	110	110	110						
19						150	120	110	110	110	110	A	A	110	110	110	120	110						
20						200	130	120	110	110	110	110	110	110	110	110	110	120	B					
21						160	130	120	110	110	110	B	B	B	A	110	120	130						
22						140	130	120	110	110	110	[110]^{B}	110	120	120	110	110	110						
23							130	110	110	110	110	110	110^{B}	B	130^{B}	120	120	120	120					
24						B	120	110	110	110	110	110	A	A	A	A	110	120	A					
25							130	110	A	A	A	A	A	A	A	110	110	130						
26							110	A	A	110	110	[110]^{B}	110	A	A	A	110	A	A					
27						160	120	110	110	120	120	120	120	110	110	110	110	110						
28							B	120	110	110	[110]^{A}	110	[110]^{A}	110	110	110	110	120	A					
29							140	120	110	[110]^{A}	110	110	B	A	A	110	120	A						
30							110	110	110	110	[120]^{A}	120^{B}	B	B	B	110	110	120	B					
31																								
Mean Value						160	130	110	110	110	110	110	110	110	110	110	110	120	140					
Median Value						160	130	110	110	110	110	110	110	110	110	110	110	120	140					
Count						7	25	28	26	28	28	24	21	20	21	24	27	26	2					

K'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

Apr. 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	E	E	E	2.1	2.9^{Y}	E	G	3.1	G	3.2	5.3	4.5	G	3.4	3.3	G	G	G	2.7	E	C	E	E	E
2	E	E	E	2.4	E	C	C	3.0	3.5	3.9	3.8	4.0^{Y}	G	G	G	G	G	2.4	G	E	2.3	E	E	2.5
3	E	E	E	E	E	E	G	3.5	G	G	G	G	G	3.9	3.7	3.7	4.3	G	3.0^{Y}	E	2.3^{Y}	E	E	E
4	E	E	E	E	E	E	G	2.9	G	G	3.9	G	G	G	3.7	3.4	G	2.8	E	E	E	E	E	E
5	E	E	E	E	E	E	G	G	G	3.6	4.8^{Y}	3.8^{Y}	4.0^{Y}	4.5^{Y}	5.6^{Y}	4.4	4.5	4.6	3.8	4.0	E	E	E	E
6	E	E	2.0	2.4^{Y}	E	E	G	3.3	4.1	4.9	5.3	5.0^{Y}	4.7^{Y}	5.4	>4.8^{T}	G	3.6	3.2	B	E	3.1	3.7	3.2	E
7	E	E	E	1.7	E	E	3.0	3.8	4.4	4.6	5.2	5.2	5.0	G	G	G	G	4.4	3.6	3.0	E	E	E	E
8	E	E	E	E	2.0^{Y}	2.9^{Y}	B	G	G	G	G	4.3^{Y}	4.0^{Y}	G	4.4^{Y}	4.0	G	5.0	5.4	3.8	2.4	E	E	E
9	E	E	E	E	E	E	G	G	4.4^{Y}	3.7	B	5.1	4.5	5.5^{Y}	G	G	3.6	G	2.7	2.5	E	E	E	E
10	E	E	E	E	2.1^{Y}	E	3.1	G	3.7	4.7^{Y}	4.5^{Y}	4.6^{Y}	4.7^{Y}	4.6^{Y}	5.0	4.8^{Y}	4.4	3.9	3.9	2.9	E	2.4^{Y}	E	E
11	2.4	E	E	E	E	E	2.4	G	G	G	G	B	G	3.8	G	6.0	6.4	4.4	3.6	3.2	2.3^{Y}	E	E	E
12	E	E	E	E	E	E	G	C	C	3.3	3.9	5.6	5.0	4.5	G	G	3.7	3.9	5.5	3.9	7.0	4.6	3.5	3.2
13	E	2.2	2.9	2.5	1.8^{Y}	E	G	G	4.9	4.7	5.8	5.0	6.0	4.4	4.4^{Y}	4.7	G	3.7	3.2	2.9	3.2	3.1	3.2	3.7
14	2.8	2.2	2.1	E	E	2.2^{Y}	3.5^{Y}	G	G	G	G	G	4.5^{Y}	4.5^{Y}	5.5	5.9^{Y}	4.5	5.5	4.5	3.8	5.6	5.5	E	3.2
15	E	E	E	E	E	G	2.4	3.3	G	3.9	G	G	G	G	4.4	G	3.5	4.7	4.7	5.5	3.8	2.8	E	2.1
16	2.9	E	1.6^{Y}	3.4	2.9	E	3.6	4.2	4.5	5.5	6.4	G	4.6	5.5	5.5	5.8	6.4	6.3	5.7	5.6	2.6	2.4	E	E
17	E	E	1.8^{Y}	E	E	2.5	3.7	4.8	5.4	6.2	6.2	6.5	5.5	5.4	4.0	G	5.0	4.8	4.9	3.8	4.8	3.6	3.9	2.8
18	3.0	E	E	E	2.9	2.5	3.5	4.5	5.0	5.7	6.1	G	G	7.2	6.1	7.4	8.6	6.4	8.5	6.0	7.0	6.2	5.7	3.9
19	5.2	3.0	2.8	3.9	3.6	G	3.0	5.5	6.5	6.2	9.2	5.9^{Y}	8.9^{Y}	4.4	5.1^{Y}	6.7	5.6	4.4	4.8	5.9	4.0	8.9	6.9	3.9
20	E	3.6	4.2	3.8	2.1^{Y}	G	3.2^{Y}	6.2	6.2	7.3	7.5	6.2	9.2	7.3	G	5.2	6.0	11.5	5.8	6.2	6.5	6.8	8.7	8.0
21	6.4	5.5	4.8	4.8	4.6	2.5	4.5	5.8	5.8	7.4	5.9	6.7	6.7	5.9	8.4	7.0	6.9	7.2	4.3	5.0	3.6	6.4	3.9	E
22	3.3	3.3	3.0	2.9	3.0	2.5	G	G	G	4.9	5.0	B	4.7	5.6	5.9	G	5.0	5.0	3.9	2.4^{Y}	2.5^{Y}	E	E	E
23	E	E	2.1^{Y}	2.1	E	E	G	3.7	4.9	8.1	4.5	6.1	6.0	6.2	4.5	G	6.5	5.4	6.4	3.4	2.5^{Y}	E	E	E
24	E	4.8	3.4	2.1	4.5	1.6	2.5	4.5	5.8	4.9	5.5	6.1	13.2	8.6	5.7	5.7	8.5	10.8	14.0	8.6	9.5	6.8	7.0	6.5
25	5.4	6.0	6.0	4.0	2.9	2.3	G	4.4	5.5	4.5	5.5^{Y}	6.9^{Y}	9.6	9.8	6.0	G	3.6	G	M	M	M	M	M	5.7
26	5.6	3.2	1.6	2.1	2.1^{Y}	3.0^{Y}	2.9	3.6	3.8	G	G	B	G	3.7	4.5^{Y}	3.8	5.3	4.8	4.5	3.0	E	2.4	E	3.0
27	2.3	E	2.4^{Y}	2.1	E	2.5	G	3.3	3.6	4.5	G	G	G	4.5	4.4	5.2	4.5	5.7	6.5	6.0	3.7	3.8	>4.2^{M}	3.0
28	3.9^{Y}	E	1.3	2.0	2.4^{Y}	1.6	2.9	4.5	4.4	G	5.8	5.6^{Y}	4.0^{Y}	5.2	G	G	4.8	6.4	5.5	4.1	6.0	2.5	2.5	E
29	E	E	E	E	2.3^{Y}	E	G	3.0	4.7	6.1	9.4	5.5^{Y}	B	3.6^{Y}	3.9	G	G	2.9	E	2.8	3.2	2.5	3.0	E
30	2.1	E	2.5	4.4	3.2^{F}	2.5	G	3.6	4.7^{Y}	5.2	5.3^{Y}	6.1	B	B	B	G	G	G	B	2.4	2.5	4.7	3.0	6.7
31																								
Mean Value	3.8	3.8	2.8	2.9	2.8	2.4	3.2	4.0	4.8	5.1	5.7	5.4	6.0	5.3	5.0	5.2	5.2	5.2	5.1	4.2	4.1	4.4	4.5	4.2
Median Value	E	E	1.4	2.0	1.8	G	G	3.3	4.5	4.6	5.2	5.0	4.6	4.5	4.4	3.6	4.4	4.5	4.3	3.4	2.8	2.4	E	E
Count	30	30	30	30	30	29	28	29	29	30	29	27	28	29	29	30	30	30	27	29	28	29	29	30

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

Apr. 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	2.7	2.9	2.6	2.6	2.7	3.0	3.1	3.0	3.0	2.9	2.9^{H}	2.9	2.9	2.8^{H}	2.8^{H}	2.9	2.9	3.0^{P}	2.9	[2.8]^{C}	2.7	2.7	2.8
2	(3.0)^{J}	2.9	2.8	2.7	2.6	C	3.0	3.2	3.0	2.9	3.0	3.0^{H}	2.9	2.9	2.9	2.9	2.9	3.0	(3.1)^{P}	3.0	2.6	2.7	2.7^{P}	2.7
3	2.9	2.7	2.7	2.4	2.4	2.5	2.7	3.0	3.0	2.9	3.1^{P}	2.8^{P}	2.8	2.8	2.7	2.8	2.8	3.0^{P}	3.1	2.8	2.6	2.6	(2.7)^{J}	2.6
4	(2.8)^{J}	3.0	3.0	2.5	2.5	2.6	2.9	3.0	2.9	3.0	3.0	3.0	2.9	2.9	2.8	2.9^{H}	2.9	(2.9)^{J}	3.1^{P}	2.9	2.8	2.7	2.8	2.7^{P}
5	2.7	2.8	2.9	2.7	2.6	2.8	2.8	3.1	(3.0)^{J}	3.0	2.9	2.8	2.8^{H}	2.8^{H}	2.9	2.9	2.9	(3.0)^{J}	3.0^{P}	2.9	2.8	2.6	2.7	2.8
6	2.8	2.6	2.7^{P}	2.7	3.1^{H}	2.6	2.7	2.8	2.9	3.0	2.8^{H}	2.8	2.9	2.8^{H}	[2.8]^{T}	2.9^{H}	2.9	3.0	2.8	2.8	2.7	2.7	2.6	2.6
7	2.5	2.6	2.9	3.1	2.6	2.7	3.0	3.0	2.9	2.8	2.8	2.8	2.8	2.9^{P}	2.9	2.9	2.7	2.7	(3.0)^{J}	3.0	2.6	2.7	2.7	2.7
8	2.5	2.7	2.7	2.6	2.5	2.6	3.0	3.0	2.9	2.9	2.8	2.8	2.9^{H}	2.8	2.9	2.9	2.9	2.9	3.0^{P}	2.9	2.6	2.7	2.6	2.7
9	2.6	2.8	2.8	2.8	2.5	2.5	2.9	2.8	3.0	2.8	2.9^{H}	2.9	2.9^{H}	2.9	2.8	2.8	2.8	2.8	3.0	2.8^{P}	2.7	2.7	2.7	2.6
10	2.7	2.8^{P}	3.0	2.9	2.7	2.6	3.0	3.0	(2.9)^{J}	2.9	2.9	2.8^{H}	2.9^{H}	2.8^{H}	2.8^{H}	2.8^{H}	2.9	2.9	(3.0)^{J}	2.9	2.7	2.6	2.5	2.5
11	2.8	2.9	2.7	2.6	2.6^{P}	2.7	3.0	3.0	2.9	2.9	2.8^{H}	2.9^{H}	2.8^{P}	2.9^{H}	2.8^{H}	2.9^{H}	2.7	2.9	(3.1)^{P}	2.9	2.5	2.5	2.7	2.7
12	2.7	2.7	2.8^{P}	2.6	2.5	2.4	3.0	C	C	2.7^{H}	2.7^{H}	2.8^{H}	2.8^{H}	(2.8)$^{H}_{B}$	(2.8)$^{H}_{P}$	2.8^{H}	2.7	2.8^{P}	2.9^{P}	3.0	2.8	2.7	2.6	2.6
13	2.6	2.7	2.8	2.5	2.5	2.6	3.0	2.9	2.9^{H}	2.9	2.7	2.8^{H}	2.7	2.7^{H}	2.8^{H}	2.7^{H}	2.8	2.9	(3.1)^{J}	2.9	2.7^{P}	2.6	2.5	2.7
14	2.8	2.7	2.9^{P}	2.5	2.6	2.5	3.0^{P}	3.1	3.1	2.7	2.7^{H}	2.8^{H}	2.7	2.7$^{H}_{P}$	2.8^{H}	2.7	2.7^{H}	2.8^{P}	(2.8)^{P}	2.8	2.9	2.7	2.7	2.8
15	2.6	2.8	2.9	2.8^{P}	2.6	(2.7)^{J}	3.0	3.1	3.0	2.9	2.5^{H}	2.7^{H}	2.7^{H}	2.7^{H}	2.7^{H}	2.8^{H}	2.7^{H}	2.7	2.9	2.8	2.6	2.5	2.6	2.6
16	2.7	2.7	2.8	2.7	2.6	2.4	2.9	2.9	2.9	2.8^{H}	2.6^{H}	2.7^{H}	2.7^{H}	2.7^{H}	2.8^{H}	2.7	2.6	2.9	2.9^{P}	2.8	2.5	2.5	2.6^{K}	2.7^{K}
17	2.6	2.8	2.6	2.4	2.4	2.5	2.7	2.4^{K}	2.4^{K}	2.5^{K}	2.5^{K}	2.4^{K}	2.5^{K}	2.6^{K}	2.7^{K}	2.6^{K}	2.7^{K}	2.8^{K}	2.8^{K}	2.7^{K}	2.5^{K}	2.5^{K}	2.6^{K}	2.7^{K}
18	2.7^{K}	2.6^{K}	2.5^{K}	2.5^{K}	2.5^{K}	2.6^{K}	2.9^{K}	2.8^{K}	2.7^{K}	2.7$^{H}_{K}$	2.8$^{H}_{K}$	2.7$^{H}_{K}$	2.7	2.8	2.7^{H}	2.7	2.7	2.8	2.9^{P}	2.8	2.6	2.6	(2.7)^{J}	2.6
19	2.8	3.0	2.7	2.6	2.6	2.8	3.1	3.2	2.9^{P}	2.8^{H}	2.6^{H}	2.8^{H}	2.8^{H}	2.7^{H}	2.7	2.7^{H}	2.7	2.8	2.8	2.8	2.5	2.5	2.7	2.5
20	2.5	2.6	2.6^{P}	2.5	2.4	2.5	3.0	2.9^{H}	2.8^{H}	2.8	2.8	2.8	2.7	2.8	2.8	2.9^{H}	2.8^{H}	[2.9]^{A}	3.0	2.9	2.5	2.8	2.7	2.6
21	2.7	2.9	2.9	2.8	2.7	2.8	3.1	3.0	2.8	2.7	2.5^{H}	2.7^{H}	2.7^{H}	2.7^{H}	2.7	2.7	2.8	2.7	2.8^{P}	2.7	2.6	2.6	[2.5]^{B}	2.4
22	(2.9)^{P}	2.8	2.7	2.7	2.5	2.4	2.9^{P}	3.0	2.8	2.8^{H}	3.0^{H}	2.8^{H}	2.8^{H}	2.7^{H}	2.7^{H}	(2.6)$^{J}_{H}$	2.8$^{H}_{P}$	2.9^{P}	2.9^{P}	2.8	2.4	2.4	2.5	2.8
23	2.7	2.4	2.5	2.6	2.8	2.8	3.4	3.3^{P}	2.8	2.9	2.7^{H}	2.9^{H}	2.8^{H}	2.8^{H}	2.7^{H}	2.9	2.7	2.8	2.9^{P}	3.1^{P}	2.9	2.5	2.6	2.7
24	2.6	2.8	2.9	2.9	2.7	2.9	3.1	3.1^{P}	3.0	3.0	2.7^{H}	2.8^{H}	2.8	2.8	2.8^{H}	(3.0)$^{H}_{J}$	(3.0)^{J}	2.9	[3.0]^{A}	3.2	2.6	2.5	2.7	2.7
25	2.7	2.7	2.9	2.9	2.8	2.8	3.2	3.0	3.1	3.0^{P}	2.7^{H}	2.6^{H}	2.8	2.8	2.7^{H}	2.8^{H}	2.8^{H}	2.8	M	M	M	M	M	2.7
26	2.6	2.7	2.9	2.8	2.8	2.8	(3.1)^{J}	3.1	2.9^{P}	2.8^{H}	2.7	2.7^{H}	2.8	2.8	2.8^{H}	2.7^{H}	2.8	2.9	2.9^{P}	2.7^{P}	2.9^{P}	2.7	2.5	2.6
27	2.6	2.9	2.9	2.8	2.8	2.8	3.0	3.1	2.9^{H}	2.5	2.8^{H}	2.7^{H}	2.4^{H}	2.6^{H}	2.8	2.7^{H}	2.8	2.8	2.7	2.8	2.6	2.6	[2.6]^{M}	2.5
28	2.8	2.4	2.6	2.3	2.6	2.4	3.0	2.9	3.0	2.9	2.9	2.8	2.8	2.8^{P}	2.7	2.7	2.8	2.9	3.0	3.0	2.7	2.5	2.6	2.7
29	2.7^{P}	2.6	2.8	2.9	2.8	2.9	2.9	2.9^{K}	2.5$^{H}_{K}$	2.7^{K}	2.4^{K}	(2.8)$^{P}_{K}$	(2.8)$^{P}_{K}$	2.7$^{P}_{K}$	2.8^{K}	2.9$^{H}_{K}$	2.8$^{P}_{K}$	2.9^{K}	2.9^{K}	3.0^{K}	2.8^{K}	2.4^{K}	2.6^{K}	2.6^{K}
30	2.7^{K}	2.6^{K}	2.6$^{F}_{K}$	2.6$^{F}_{K}$	2.8$^{F}_{K}$	3.0^{K}	3.2^{K}	3.0^{K}	3.0^{K}	(2.9)$^{J}_{K}$	2.9^{K}	2.9^{K}	2.9^{K}	2.9^{K}	2.8$^{P}_{K}$	2.9$^{P}_{K}$	2.8$^{P}_{K}$	2.9^{K}	3.0^{K}	2.9^{K}	2.7^{K}	2.7	2.6	2.8^{P}
31																								
Mean Value	2.7	2.7	2.8	2.7	2.6	2.6	3.0	3.0	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.9	2.9	2.9	2.7	2.6	2.6	2.7
Median Value	2.7	2.7	2.8	2.7	2.6	2.6	3.0	3.0	2.9	2.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.9	3.0	2.9	2.6	2.6	2.6	2.7
Count	30	30	30	30	30	29	30	29	29	30	30	30	30	30	30	30	30	30	29	29	29	29	29	30

(M3000)F2

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

K 9

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

IONOSPHERIC DATA

Apr. 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	1.4	1.3	1.1	E	E	1.3	2.3	3.0	3.4	4.0	4.5	4.4	4.0	3.9	3.6	3.4	3.3	2.6	2.0	1.5	[1.7]^{C}	1.9	1.5	1.4
2	1.3	1.3	1.3	1.2	1.3	C	<3.3^{C}	2.7	3.3	4.1	3.8	4.0	3.9	4.0	4.1	4.2	3.5	2.8	2.0	1.5	1.5	1.5	1.3	1.5
3	1.3	1.3	E	E	E	1.3	2.3	3.2	3.5	4.1	4.1	4.0	4.0	4.2	4.0	3.4	4.0	2.5	2.0	1.4	1.5	1.3	1.4	1.4
4	1.3	1.3	E	E	E	1.3	2.2	2.9	3.3	4.0	4.0	4.0	4.0	4.1	3.9	3.4	3.2	2.5	1.9	1.4	1.4	1.3	1.4	1.5
5	1.4	1.2	E	1.0	E	1.4	2.4	2.9	3.5	3.9	4.5	4.0	4.2	4.0	4.8^{A}	4.0	3.6	4.0	1.5	1.5	1.5	1.4	1.5	1.5
6	1.3	1.3	2.2	E	E	1.3	2.3	2.9	3.7	4.2	4.1	4.2	4.1	4.8^{A}	[4.2]^{A}	3.5	3.4	2.6	2.0	1.4	2.5	2.2	2.1	1.4
7	1.3	1.3	E	E	E	1.3	2.6	3.2	3.6	4.0	4.6	4.5	4.4	4.4	4.2	3.5	3.5	2.8	3.2^{A}	3.5^{A}	1.5	1.5	1.5	1.5
8	1.3	1.3	1.1	E	E	1.4	2.2	3.3	3.5	3.8	4.1	3.8	4.2	4.2	4.0	3.7	3.8	4.4^{A}	4.6^{A}	3.2^{A}	1.5	1.6	2.0	2.0
9	1.3	1.2	E	E	E	1.4	2.6	3.3	4.2	4.2	4.6	4.5	4.3	4.4	4.2	4.0	3.6	2.7	2.0	1.6	1.5	1.9	1.5	1.5
10	1.3	1.3	E	E	1.1	1.3	2.6	3.3	3.7	4.2	4.5	4.5	4.4	4.5	4.4	4.1	4.0	3.3	3.0	1.8	1.4	1.6	1.3	1.3
11	1.3	1.2	1.0	E	E	1.3	2.5	3.3	3.5	3.8	4.0	4.4	4.3	4.3	4.0	4.0	6.0^{A}	3.7^{A}	3.0^{A}	A	1.0	1.2	2.0	2.0
12	1.3	1.3	1.2	1.2	E	1.3	2.7	C	C	3.8	4.3	4.8^{A}	4.3	4.1	4.4	2.8	3.3	3.3	2.3	2.1	3.2^{A}	3.1^{A}	2.3^{A}	1.6
13	1.4	1.3	1.4	1.3	1.0	1.4	2.7	3.3	4.1	4.0	5.1^{A}	4.4	5.5^{A}	4.4	4.5	4.2	3.4	3.3	2.6	2.0	2.1	2.5	2.2	2.9
14	1.7	1.4	1.2	1.0	E	1.5	2.6	3.3	4.0	4.0	4.2	4.4	4.4	4.2	4.4	4.0	4.2	3.5	4.0^{A}	3.3	2.5	2.1	2.1	1.4
15	1.5	1.3	1.3	E	1.2	1.5	2.7	3.4	4.0	4.1	4.1	4.2	4.4	4.4	4.4	4.1	3.5	3.3	2.1	4.8^{A}	3.3^{A}	1.7	1.5	1.5
16	1.8	1.2	E	1.7	1.5	1.7	2.7	3.5	4.0	4.5	4.3	4.5	4.7	4.8	4.5	5.2^{A}	5.6^{A}	4.8^{A}	5.0^{A}	4.9^{A}	1.7	1.5	1.5	1.5
17	1.3	1.2	E	E	1.2	1.7	2.8	4.0^{A}	4.6^{A}	5.5^{A}	5.9^{A}	4.5	4.1	4.6	4.1	3.8	3.5	4.0	4.2^{A}	2.1^{A}	[2.4]^{A}	2.8^{A}	3.2^{A}	2.0
18	2.1	1.4	1.0	1.0	1.0	1.6	2.9	3.6	4.4	5.0^{A}	5.2^{A}	4.0	4.3	7.2^{A}	4.4	6.7^{A}	5.0	6.0^{A}	8.0^{A}	5.2^{A}	4.0^{A}	4.8^{A}	4.1^{A}	A
19	2.9^{A}	1.4	1.4	1.0	1.3	1.6	2.7	4.0	5.4^{A}	5.5^{A}	4.8^{A}	5.0^{A}	5.5^{A}	4.3	4.6	6.3^{A}	4.8^{A}	3.3	4.2^{A}	3.5^{A}	2.1	5.4^{A}	2.0	2.0
20	1.4	2.5^{A}	[2.2]^{A}	1.8	E	1.7	2.9	5.5^{A}	4.4	6.5^{A}	6.5^{A}	4.3	7.3^{A}	6.1^{A}	4.3	4.6^{A}	4.0	[4.0]^{A}	4.1^{A}	3.4^{A}	3.0^{A}	4.0^{A}	4.8^{A}	A
21	A	3.3^{A}	1.4	3.0^{A}	3.0^{A}	1.7	3.3	A	4.0	6.0^{A}	5.3^{A}	6.2^{A}	4.2	4.4	6.1^{A}	6.1^{A}	5.8^{A}	6.8^{A}	3.0	3.0^{A}	2.8^{A}	3.0	2.1	1.9
22	2.3	2.0	1.3	1.3	1.3	1.9	2.6	3.3	3.9	4.2	4.8^{A}	4.5	4.6	5.2^{A}	4.9	4.4	3.6	4.4^{A}	3.5^{A}	1.6	1.6	1.5	1.3	1.3
23	1.2	1.3	E	1.0	1.1	1.4	2.8	3.3	4.2	7.0^{A}	4.1	4.4	4.2	4.4	4.5	4.1	4.2^{A}	4.0^{A}	2.7^{A}	1.5	1.4	1.4	1.4	1.4
24	1.3	[1.5]^{A}	1.7	1.2	2.4^{A}	1.8	2.7	3.4	5.0^{A}	4.4	4.4	5.3^{A}	7.2^{A}	5.5^{A}	4.3	5.0^{A}	8.0^{A}	11.5^{A}	4.8^{A}	3.5^{A}	4.0^{A}	2.8^{A}	4.0^{A}	4.7^{A}
25	2.2	[2.0]^{A}	1.8	2.9^{A}	1.8	1.9	2.6	3.4	4.0	4.1	4.8^{A}	5.0^{A}	7.1^{A}	9.0^{A}	4.3	4.1	3.2	2.8	M	M	M	M	M	1.9
26	2.6	1.9	1.2	1.2	1.2	1.9	2.6	3.3	3.7	4.0	4.3	4.3	4.8	4.3	4.0	4.2	4.0	3.3	3.5	1.9	1.9	2.0	1.6	2.1
27	1.7	1.4	1.2	1.1	E	1.7	2.8	3.3	3.5	4.0	4.0	4.1	4.2	4.3	4.0	4.0	3.8	4.5^{A}	3.5^{A}	4.8^{A}	2.6	2.7	M	M
28	1.5	1.3	1.1	1.1	1.3	1.7	3.3	3.5	4.0	4.1	4.6^{A}	4.1	4.0	4.3	4.1	3.8	4.1	5.1^{A}	3.5^{A}	4.1^{A}	4.0^{A}	1.9	2.0	1.9
29	1.3	1.3	1.2	E	E	1.9	2.6	3.5	4.2	5.9^{A}	7.2^{A}	4.1	4.1	4.0	4.0	3.6	3.2	2.8	2.1	2.0	2.4	1.5	2.0	1.6
30	1.2	1.3	E	1.2	1.3	1.7	2.6	3.5	4.2	5.0^{A}	4.5	5.4^{A}	4.5	4.5	4.0	4.0	3.5	2.9	2.5	1.5	1.3	3.2	1.8	1.9
31																								
Mean Value	1.6	1.5	1.4	1.3	1.4	1.5	2.6	3.4	4.0	4.5	4.6	4.5	4.6	4.7	4.3	4.2	4.1	3.9	3.2	2.6	2.2	2.3	2.1	1.8
Median Value	1.3	1.3	1.2	1.0	1.0	1.5	2.6	3.3	4.0	4.1	4.5	4.4	4.3	4.4	4.2	4.0	3.7	3.3	3.0	2.0	1.9	1.9	1.8	1.5
Count	29	30	30	30	30	29	29	28	29	30	30	30	30	30	30	30	30	30	29	28	29	29	28	27

fminF

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

K 10

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

IONOSPHERIC DATA

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

Apr. 1956 | foE | 135° E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	E	E	E	1.3	E	E	1.4	1.4	1.5	2.3	1.9	2.0	2.0	2.0	2.0	1.9	1.4	1.9	1.5	E	C	E	E	E
2	E	E	E	1.3	E	C	C	1.5	2.0	1.4	1.5	1.4	1.4	2.1	1.3	2.1	1.7	2.0	B	E	1.3	E	E	1.2
3	E	E	E	E	E	E	1.5	1.3	1.5	1.5	2.2	1.6	2.4	1.8	1.5	2.1	2.0	1.3	1.4	E	1.3	E	E	E
4	E	E	E	E	E	E	2.0	1.5	1.3	1.8	1.8	1.9	2.0	2.2	2.1	1.8	1.5	1.5	E	E	E	E	E	E
5	E	E	E	E	E	E	1.9	1.6	1.9	1.4	1.0	1.2	1.3	1.8	1.2	2.1	1.3	1.3	1.3	1.4	E	E	E	E
6	E	E	E	E	E	E	1.3	1.3	2.1	2.0	1.7	1.6	1.6	2.1	1.6	1.3	1.9	1.4	B	E	1.2	1.4	1.4	E
7	E	E	E	1.5	E	E	1.4	1.9	1.9	1.5	1.2	1.3	2.0	1.5	1.9	1.3	1.2	1.4	1.5	1.4	E	E	E	E
8	E	E	E	E	1.2	1.6	[1.4]B	1.2	2.0	2.0	1.4	2.1	1.7	2.0	1.8	1.5	1.5	1.6	1.5	1.0	1.2	E	E	E
9	E	E	E	E	E	E	1.9	1.3	1.4	1.9	[1.7]B	1.5	2.4	1.6	1.5	1.5	1.2	1.3	1.5	1.3	E	E	E	E
10	E	E	E	E	E	E	1.9	1.5	1.7	1.4	2.2	1.8	1.7	1.7	1.7	1.6	1.7	1.3	1.2	1.2	E	1.3	E	E
11	1.3	E	E	E	E	E	1.5	1.5	2.1	1.4	1.6	[1.9]B	2.2	2.0	1.5	2.1	1.3	1.4	1.4	1.4	1.2	E	E	E
12	E	E	E	E	E	E	1.5	C	C	1.5	1.7	1.3	1.6	1.5	1.4	1.4	1.3	1.3	1.2	1.2	1.1	1.3	1.3	1.2
13	E	1.2	E	E	E	E	2.0	2.0	1.7	2.1	2.3	2.4	2.2	2.1	2.3	2.2	1.7	1.6	1.5	1.2	1.2	1.5	1.4	1.4
14	1.3	1.3	E	E	E	1.3	1.4	1.9	2.2	1.6	2.1	1.6	1.5	2.1	1.4	1.3	1.6	1.3	1.3	1.2	1.5	1.4	E	1.4
15	E	E	E	E	E	1.3	1.5	2.0	2.0	2.0	2.0	2.2	1.5	1.9	1.9	2.1	2.0	1.5	2.2	1.2	1.1	1.5	E	1.5
16	1.3	E	E	E	E	E	1.4	1.3	2.0	1.9	2.3	2.0	2.0	2.3	1.4	1.6	2.6	1.4	1.5	1.3	1.2	1.3	E	E
17	E	E	E	E	E	1.3	1.5	1.5	1.4	2.1	2.2	2.1	2.4	1.9	2.1	2.0	1.9	1.5	1.4	1.3	1.3	1.5	1.4	1.2
18	1.3	E	E	E	1.0	1.2	1.8	1.7	2.0	1.6	2.0	2.3	2.0	2.6	3.0	1.9	2.0	1.5	1.6	1.5	1.5	1.4	1.4	1.2
19	1.3	1.2	E	E	E	1.2	1.5	2.0	2.0	1.5	2.1	2.0	1.6	1.6	1.3	1.4	2.1	1.3	1.5	1.5	1.4	1.4	1.4	1.3
20	E	1.3	E	E	E	1.3	1.6	2.1	1.5	2.1	2.4	2.2	2.3	2.2	2.1	1.7	2.0	1.9	1.4	1.5	1.4	1.5	1.4	1.4
21	1.4	1.3	E	E	E	1.4	2.0	2.0	2.0	1.4	2.1	4.0	4.0	3.5	1.8	2.0	2.2	2.1	1.5	1.4	1.2	1.3	1.3	E
22	1.3	1.3	1.1	E	E	1.3	2.0	1.8	2.1	2.0	2.0	[2.5]B	3.0	3.1	2.3	2.0	1.5	1.3	1.6	1.3	1.4	E	E	E
23	E	E	E	E	E	E	2.1	1.9	1.9	2.1	2.1	2.4	3.1	3.5	3.3	2.5	2.0	1.8	1.3	1.4	2.1	E	E	E
24	E	1.3	E	E	E	1.3	1.7	1.8	1.5	2.2	1.9	2.0	2.3	2.0	2.0	2.0	2.0	2.0	1.9	1.5	1.4	1.4	1.4	1.3
25	1.3	1.2	E	E	E	1.4	1.9	1.4	2.0	1.5	1.6	1.8	1.5	2.1	2.1	1.6	1.7	2.0	M	M	M	M	M	1.3
26	1.3	1.3	1.0	E	E	1.3	1.3	1.4	1.6	2.0	2.2	[2.3]B	2.4	2.0	2.0	1.9	1.8	1.5	1.5	1.4	E	1.5	E	1.5
27	1.4	E	E	E	E	1.4	1.5	1.5	2.0	[2.0]M	2.0	2.2	2.2	2.0	2.0	2.0	2.0	1.5	1.5	1.3	1.5	1.4	1.5	[1.6]M
28	1.8	E	E	E	1.3	1.3	2.6	2.0	2.0	1.6	1.9	1.5	1.5	2.1	1.5	1.3	1.4	1.2	1.5	1.2	1.5	1.1	1.4	E
29	E	E	E	E	1.2	E	2.0	1.8	1.4	1.4	1.6	1.5	B	1.4	1.4	2.1	2.1	1.9	E	1.5	1.5	1.2	1.4	E
30	1.6	E	E	E	E	1.2	1.5	1.5	1.4	1.6	2.1	3.4	B	B	B	1.3	1.4	2.0	B	1.3	1.4	1.3	1.4	1.4
31																								
Mean Value	1.4	1.3	1.0	1.4	1.2	1.3	1.7	1.6	1.8	1.8	1.9	2.0	2.1	2.1	1.8	1.8	1.7	1.6	1.5	1.3	1.4	1.5	1.4	1.3
Median Value	E	E	E	E	E	1.2	1.6	1.5	1.9	1.7	2.0	2.0	2.0	2.0	1.8	1.9	1.7	1.5	1.5	1.3	1.2	1.3	E	E
Count	30	30	30	30	30	29	29	29	29	30	30	30	28	29	29	30	30	30	26	29	28	29	29	30

foE

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

Apr. 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	60	90	80	90	70	70	60	80	90	60	60	60^{H}	60	60	60^{H}	60^{H}	60	70	50^{P}	90	[80]^{C}	60	70	80
2	(70)^{J}	70	50	110	90	C	80	70	60	70	50	70^{H}	70	60	70	80	70	80	(50)^{P}	90	120	70	40^{P}	70
3	70	110	110	150	100	90	120	80	120	80	60^{P}	70^{P}	80	90	60	60	70	40^{P}	60	70	80	70	(80)^{J}	100
4	(70)^{J}	70	80	130	120	100	100	70	80	60	50	70	70	60	70	70^{H}	70	(70)^{J}	60^{P}	90	70	80	50	60^{P}
5	60	70	80	90	80	90	110	70	(60)^{J}	70	90	90	90^{H}	90^{H}	50	60	80	(90)^{J}	80^{P}	80	110	80	60	80
6	90	100	100^{P}	130	90^{H}	120	140	120	90	70	70^{H}	60	70	80^{H}	[80]^{T}	70^{H}	60	80	60	110	80	70	100	80
7	100	90	90	120	100	90	70	80	70	80	60	60	90	70^{P}	80	80	70	60	(60)^{J}	90	90	80	70	60
8	100	80	100	110	110	80	90	100	90	70	70	70	70^{H}	80	60	60	90	90	80^{P}	90	90	90	80	70
9	70	80	80	120	120	100	90	70	70	80	70^{H}	70	80^{H}	70	90	80	80	80	80	80^{P}	100	100	70	110
10	80	70^{P}	50	70	130	110	90	50	(70)^{J}	70	70	70^{H}	70^{H}	70^{H}	60^{H}	70^{H}	80	70	(90)^{J}	90	90	120	80	110
11	80	80	120	90	70^{P}	100	80	60	80	70	60^{H}	60^{H}	80^{P}	50^{H}	60^{H}	50^{H}	90	70	(70)^{P}	130	120	90	80	60
12	110	80	70^{P}	140	110	130	70	C	C	80^{H}	90^{H}	50^{H}	80^{H}	(80)^{HB}	60^{HP}	80^{H}	90	70^{P}	60^{P}	70	80	60	110	80
13	60	90	100	130	110	80	80	90	60^{H}	80	90	80^{H}	80	70^{H}	70^{H}	60^{H}	80	70	(70)^{J}	100	60^{P}	80	110	80
14	90	70	60^{P}	100	110	110	70^{P}	100	80	80	80^{H}	40^{H}	90	60^{HP}	70^{H}	70	110^{H}	70^{P}	(60)^{P}	80	70	90	60	70
15	80	80	50	100^{P}	70	(90)^{J}	90	90	80	80	80^{H}	90^{H}	70^{H}	60^{H}	90^{H}	60^{H}	110^{H}	80	70	70	120	90	100	90
16	90	80	80	140	100	110	90	80	100	80^{H}	70^{H}	80^{H}	80^{H}	100^{H}	60^{H}	90	100	70	80^{P}	100	130	70	80	90
17	70	90	100	120	120	120	120	130^{K}	110^{K}	90^{K}	A^{K}	100^{K}	90^{K}	90^{K}	60^{K}	100^{K}	110^{K}	80^{K}	90^{K}	110^{K}	120^{K}	90^{K}	70^{K}	100^{K}
18	80^{K}	100^{K}	110^{K}	110^{K}	80^{K}	100^{K}	120^{K}	130^{K}	140^{K}	90^{HK}	60^{HK}	60^{HK}	70	60	50^{H}	60	60	70	60^{P}	70	100	80	(80)^{J}	70
19	70	70	100	90	90	110	60	60	60^{P}	90^{H}	70^{H}	70^{H}	70^{H}	70^{H}	90	60^{H}	60	80	70	100	80	80	80	80
20	90	100	80^{P}	140	120	120	100	70^{H}	80^{H}	60	80	60	70	60	50	70^{H}	70^{H}	[70]^{A}	70	60	120	70	50	70
21	70	50	60	80	120	100	90	60	70	90	60^{H}	90^{H}	80^{H}	70^{H}	70	80	100	110	60^{P}	90	90	80	[100]^{B}	120
22	(60)^{P}	90	110	100	100	130	110^{P}	160	150	80^{H}	80^{H}	70^{H}	80^{H}	100^{H}	40^{H}	(70)^{JH}	40^{HP}	40^{P}	90^{P}	90	110	100	110	90
23	110	140	100	110	80	110	50	50^{P}	70	70	70^{H}	50^{H}	70^{H}	70^{H}	60^{H}	50	90	70	70^{P}	50^{P}	80	90	80	90
24	90	60	60	80	130	70	80	60^{P}	70	70	80^{H}	70^{H}	60	60	50^{H}	(50)^{H}	(50)^{J}	60	[60]^{A}	70	120	90	80	50
25	70	70	60	60	90	90	70	80	60	60^{P}	70^{H}	70^{H}	50	50	80^{H}	60^{H}	90^{H}	70	M	M	M	M	M	60
26	90	90	70	100	100	100	(50)^{J}	60	60^{P}	50^{H}	80	70^{H}	60	50	70^{H}	60^{H}	60	60	50^{P}	60^{P}	40^{P}	90	70	90
27	90	70	60	70	60	70	90	70	80^{H}	60	70^{H}	80^{H}	80^{H}	50^{H}	70	70^{H}	80	70	60	50	110	70	[80]^{M}	90
28	70	90	80	110	80	70	70	70	60	80	70	70	60^{H}	80^{P}	80	70	70	90	50	60	110	110	70	80
29	90^{P}	90	90	140	90	110	100	100^{K}	110^{HK}	80^{K}	100^{K}	(70)^{PK}	(80)^{PK}	80^{PK}	50^{K}	70^{H}	70^{PK}	80^{K}	70^{K}	80^{K}	110^{K}	90^{K}	90^{K}	80^{K}
30	80^{K}	70^{K}	80^{FK}	90^{FK}	70^{FK}	100^{K}	90^{K}	80^{K}	90^{K}	(60)^{JK}	70^{K}	50^{K}	70^{K}	60^{K}	80^{PK}	80^{PK}	80^{PK}	80^{K}	80^{K}	60^{K}	60^{K}	80	70	80^{P}
31																								
Mean Value	80	80	80	110	100	100	90	80	80	70	70	70	70	70	70	70	80	70	70	80	90	80	80	80
Median Value	80	80	80	110	100	100	90	80	80	80	70	70	70	70	60	70	80	70	70	80	90	80	80	80
Count	30	30	30	30	30	29	30	29	29	30	29	30	30	30	30	30	30	30	29	29	29	29	29	30

ypF2

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

Apr. 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	S	8.6	7.9 JH	[7.8] SH	7.6	8.6	11.0	11.5 H	13.1 H	13.6	14.5 H	14.5	13.8 H	13.7 H	13.7 H	12.6	12.4	S	S	S	9.1	9.0
2	8.6	8.0	6.8	6.4	6.0	6.2 H	6.1	6.1	S	12.6	12.9	13.5 H	13.9 H	13.6 H	13.6 H	14.3 H	14.3 H	13.4 H	13.1	11.0	[10.2] S	9.5	9.2	9.2
3	9.6	8.2	S	6.6	6.6	6.5	6.8	9.0	10.6 JS	11.2	11.5	12.3 H	12.3	13.4 H	13.4 H	13.2 H	13.4	12.6	[11.0] S	9.3	S	7.7	8.0	8.3 J
4	8.7	S	S	5.6	5.7 H	6.3 ZH	6.4	8.3	9.8	11.5 S	12.8	13.2	13.6	13.0 H	14.4 H	14.5 H	13.5 H	12.4 H	12.1	10.2	8.3 H	8.2	9.2	8.7
5	8.8	C	C	C	C	C	6.9	9.5	11.5	12.1 H	12.4	11.6	12.3 H	13.4 H	14.4 H	[14.4] SH	14.3 JH	14.5	12.8	10.5	9.5	9.0	9.4	8.8
6	9.8	8.7	[8.0] S	7.4	6.8	6.0	6.3 H	9.3	10.3 S	11.6	12.5 H	13.0 H	14.2 H	14.5 H	15.2	13.8 H	13.0	12.8 H	12.2	9.6	9.0	9.5	F S	S
7	8.8	[9.3] S	9.8 S	7.8 J	6.0 H	5.3	5.9	8.5	10.0 S	12.0	14.0 H	14.0 H	14.3	14.8 PH	14.8 PH	14.0	12.5	12.3 H	13.0	S	S	8.5	9.6	8.9
8	8.6	8.5	8.7	7.0	7.0	6.8	7.0	9.5	S	13.0	13.6	14.0	14.5 H	(14.7) P	14.1	14.2 H	13.3	13.0	12.3 J	S	S	S	S	9.2
9	9.2	8.7	8.3	8.3	6.2	6.2	6.3	9.4	[10.8] S	12.3	12.9	13.5 H	14.5 H	14.5 H	14.5 H	14.2 H	13.1 H	12.9 H	13.0	11.7 JS	8.8	[8.5] S	8.2	8.5
10	8.5	8.3	8.5	8.5	5.3	4.4	5.3	9.4	11.1	11.6 H	12.9 H	14.4 H	14.6 H	14.5 H	14.5 H	14.5 H	13.6 H	13.6	(12.2) S	S	S	9.3 S	9.5	9.5
11	9.6	9.7	8.7	[8.0] S	7.2	7.4	7.9 J	10.3	11.6	12.2 H	13.0 H	14.5 H	14.6 H	14.4 H	14.4 H	14.4 H	13.6 H	13.2	12.6	[11.2] S	9.7	9.6	9.3	9.6
12	9.8	10.1	9.8	7.7	6.5	6.4	6.7	10.4	[10.8] S	11.1	13.2 H	14.6 JH	S H	S H	15.5 H	15.5 H	14.5 H	14.0 H	13.2	10.0 S	10.0	S	S	9.6 S
13	9.6	9.3	9.5	[8.4] S	7.3	7.3	8.5	[10.2] S	12.0	12.0 H	13.5 H	14.4 JH	15.0 H	[15.0] SH	14.9 H	14.7 H	[14.6] SH	14.5	13.2	S	S	S	9.6	9.8
14	[9.9] S	10.0	9.5	7.7	7.7 J	7.5	8.8	10.6 J	11.9	11.6	12.7 H	14.5 H	[14.5] SH	14.5 H	S H	B H	14.6 H	14.5	14.0	12.4 J	9.7	10.2	S	S
15	S	9.7	[9.2] S	8.8	7.0	7.5	9.0	[9.8] S	10.5 S	9.8	11.5 H	13.0 H	14.0 H	14.6 H	[14.6] SH	14.5 H	14.2 H	14.0 H	13.1	12.3	S	S	10.6	9.8
16	10.3	S	S	C	7.7	7.6	8.4	11.0	12.5	10.6 JH	11.5 H	12.3 H	13.8 H	14.3 H	[14.0] B	13.7 H	13.2 H	12.6	S	S	9.6	[9.6] S	9.5	10.1
17	(9.5) P	(9.6) P	8.6	S	B	B	9.5	8.5 HK	7.6 HK	6.9 HK	[7.0] AK	7.2 HK	[9.2] SHK	11.1 JH K	12.2 HK	10.9 HK	11.5 HK	11.4 HK	10.6 K	[9.7] SK	8.8 K	8.5 K	8.5 K	8.8 K
18	8.2 SK	[7.8] SK	7.4 PK	6.5 K	S K	S K	S K	10.2 K	S K	10.2 HK	11.7	12.5	13.0 H	13.7 H	13.7 H	13.7 H	14.0 H	C	C	C	C	A	S	S
19	S	S	8.6	S H	S	7.8	9.1	10.0	[11.0] SH	11.9	11.8 H	13.0 H	14.2	14.3	S	S H	14.5 H	13.8 H	12.6	[10.3] S	8.0	S	S	S
20	S	S	S	S	S	4.7	8.8	9.6	[11.1] S	12.6 H	14.2 H	[14.2] B	14.2 H	B H	B H	14.6 JH	14.5 H	13.2 H	13.1	S	S	S	S	S
21	S	12.2	[11.0] S	9.7	(7.5) S	S	8.4	10.0	11.9	11.9	12.1 H	13.5	14.6 H	14.5 PH	14.6 H	13.8 H	13.6 H	12.7 H	10.4	S	S	10.6	10.5	S
22	S	13.8	10.6	8.2	6.6	(6.5) P	8.1	S	8.6	10.1 H	12.3 H	13.5 H	13.0 H	11.6 H	10.4 H	12.5 H	12.9 H	12.3 H	11.0	10.6	8.7 S	A	8.9	8.9
23	[8.2] S	7.4	7.0	7.2	(7.0) J	6.3	7.3	8.8	10.0	11.2	13.5 H	14.2 H	13.8 H	13.7 H	13.5 H	13.8 H	14.2 H	[14.2] BH	14.3	A	A	S	S	S
24	S	S	S	S	8.7	6.9 P	8.7	10.5	(10.3) P	9.9 H	11.8 H	13.5 H	13.6	S H	S H	S H	14.6 H	[14.6] SH	(14.6) P	12.9	S	S	S	(14.0) P
25	S	S	S	12.5 J	[10.6] S	8.8	9.0	[10.0] S	11.1	11.8	12.5	13.5 H	14.6 H	[14.7] H	14.8 H	14.2 H	(14.7) PH	B	B	B	S	S	S	S
26	12.5	14.6 P	B	S	(10.0) PS	10.2	[10.9] S	(11.6) P	11.7 H	[12.2] FH	12.6 H	14.0 H	14.5 H	14.6 H	14.5 JH	14.5 H	14.5 H	[14.4] S	(14.3) P	13.4 J	S	S	9.5 S	S
27	S	11.8	12.2	8.8	8.6	8.1 J	9.5 S	9.6	10.0 S	10.0 H	12.4 H	13.1 H	11.9 H	14.1 H	14.3 H	14.5 H	13.1 H	10.5 SH	[11.8] SH	13.1	9.5	(7.5) SP	S	S
28	8.6	[8.6] A	8.5	[8.4] S	8.2 H	7.6	9.7 H	10.1 J	12.5 H	12.7 H	12.6	12.5	12.3 H	12.0 H	13.1 H	14.2 H	14.5 H	14.0	13.7	[11.6] S	9.6	9.2	8.3 J	9.2
29	9.1	8.7	9.2	8.8	7.2	6.9	7.0	8.1	9.5 H	10.0 H	10.2 H	12.8	14.0	12.2 H	13.0 H	13.7 H	13.7 H	13.1 H	12.3	12.0	8.1	[7.8] S	7.6 J	7.0
30	7.4	7.2	6.5	6.6	6.5	5.6	6.8	8.4	9.3 H	10.2 H	11.7 H	14.5 H	14.5 H	S H	S H	14.6 H	S H	S	14.6	S	S	S	S	S
31																								
Mean Value	9.2	9.6	8.9	8.0	7.3	6.9	7.8	9.5	10.7	11.3	12.3	13.3	13.7	13.9	14.0	14.0	13.8	13.2	12.7	11.2	9.2	9.0	9.1	9.3
Median Value	9.1	9.0	8.7	8.0	7.0	6.8	7.9	9.6	10.8	11.6	12.6	13.5	14.2	14.4	14.4	14.2	13.7	13.2	12.8	11.1	9.5	9.1	9.2	9.2
Count	21	22	21	23	25	26	29	29	27	30	30	30	29	26	25	27	29	27	27	18	15	16	18	19

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

Apr. 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	290	270	240	220	200 H	240 H	270	230	240	240 H	250 H	260	250 H	260	250 H	240 H	250 H	250	250	230	250	260	290	280
2	250	240	250	240	280	290 H	290	240	240	240	250	250 H	240 H	240 H	240 H	250 H	250 H	240 H	240	240	240	290	300	300
3	250	250	250	290	340	340	290	250	240	240	240	250 H	250	250 H	240 H	250 H	250	240	240	230	250	300	320	300
4	290	240	210	250	290 H	320 H	290	240	240	250	240	250	250	250 H	240 H	250 H	240 H	230 H	240	230	240 H	290	290	260
5	290	C	C	C	C	C	290	240	240	250 H	250	250	240 H	260 H	240 H	280 H	240 H	240	240	230	230 A	240	290	290
6	270	270	270	230	240	290	290 H	240	240	240	250 H	250 H	270 H	240 H	290	250 H	280	230 H	240	220	250	300	270 F	280
7	310	300	250	200	240 H	240	270	240	240	250	250 H	270 H	290	260 H	250 H	250	240	240 H	260	240	260 A	270	290	290
8	300	300	250	220	250	250	280	240	240	250	250	260	260 H	290	250	250 H	250	240	250	240	240	280	290	300
9	280	250	240	230	240	280	290	240	240	240	250	240 H	210 H	250 H	240 H	250 H	240 H	240 H	250	240	220	250	290	290
10	290	280	250	220	200	280	290	250	240	240 H	240 H	250 H	260 H	270 H	250 H	250 H	260 H	240	240	240	250	280	310	300
11	270	240	240	270	290	270	260	240	240	240 H	240 H	240 H	250 H	250 H	250 H	250 H	250 H	240	240	240	240	290	290	290
12	270	260	260	220	250	340	270	240	230	240	240 H	250 H	250 H	240 H	250 H	250 H	240 H	240 H	250	250	240	300 A	320	300
13	300	300	260	240	260	260	270	240	250	240 H	260 H	250 H	240 H	240 H	250 H	260 H	260 H	270	240	[260] A	270	300	300	290
14	250	240	250	240	290	280	260	240	240	240	240 H	250 H	240 H	240 H	250 H	250 H	250 H	250	260	240	240	270	300	290
15	290	270	240	230	270	300	270	240	240	240	240 H	250 H	250 H	240 H	240 H	250 H	260 H	260 H	270	250 A	280	330	300	290
16	270	260	250	250	260	300	270	240	240	220 H	230 H	250 H	240 H	240 H	[240] B	240 H	260 H	270	260	270	290	330 A	340	290
17	270	270	240	280	340	330	240	270 H K	270 H K	290 H K	[280] A K	270 H K	290 H K	260 H K	240 H K	240 H K	250 H K	290 H K	260 K	250 K	250 K	290 K	340 K	330 K
18	290 K	[300] A K	300 A K	290 K	300 A K	300 K	260 K	240 K	230 K	250 H K	300 A	300 A	[290] A H	(280) A H	250 H	240 H	250 H	C	C	C	C	A	320	300
19	280	240	250	270 H	280	260	240	240	240 A H	250	250 H	230 H	300	350	350	260 H	250 H	280 H	280 A	300 A	250	300	330 A	290
20	300	270	250	250	250	300	250	230	240	250 H	250 H	310	270 H	240 H	270 H	250 H	260 H	250 H	250	250	260	290	300	290
21	260	260	250	220	220	240	240	240	240	240	230 H	340	250 H	250 H	250 H	260 H	280 H	250 H	270	290	310	300	340	370
22	320 A	250	240	290	350 A	340	260	240	230	250 H	250 H	260 H	260 H	240 H	250 H	250 H	250 H	260 H	290 A	270	310	[300] A	300	260
23	270	270	300	290	250	230	230	230	240	240	240 H	250 H	240 H	250 H	270 H	250 H	240 H	250 H	260	A	A	340 A	340 A	300
24	290	280	270	240	240	240	240	240	240	230 H	240 H	240 H	320 A	250 H	250 H	240 H	270 H	260 H	250	240	240	280	290	[280] A
25	270	270	280	240	240	230	240	240 A	240	250 A	[250] A	250 H	270 A H	250 H	250 H	250 H	270 H	300	270	240	220	290 A	330	300
26	300	290	260	240	250	240	240	230	230 H	240 H	260 H	[260] L H	250 H	[260] L H	270 H	250 H	260 H	260	270	270	250	250	330 A	370
27	290	250	240	240	270	250	250	240	220	250 H	250 H	250 H	260 H	300 H	300 H	260 H	250 H	240 H	270 H	270	240	260	250	340
28	320	400 A	350	290	340 H	320	260 H	240	240 H	250 H	250	250	250 H	250 H	250 H	260 H	290 H	270	250	260 A	250	280	320 A	340
29	290	290	280	240	230	250	240	240	240 H	240 H	270 H	390	270	250 H	250 H	290 A H	250 H	240 H	260	240	240	340	340	280
30	290	290	290	290	250	220	240	240	250 H	240 H	250 H	270 H	250 H	230 H	270 H	270 H	250 H	240	240	240	240	240	300	280
31																								
Mean Value	280	270	260	250	270	280	260	240	240	240	250	260	260	260	260	250	250	250	250	250	250	290	310	300
Median Value	290	270	250	240	250	280	260	240	240	240	250	250	250	250	250	250	250	250	250	240	250	290	300	290
Count	30	29	29	29	29	29	30	30	30	30	30	30	30	30	30	30	30	29	29	28	28	29	30	30

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

Apr. 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	E	E	E	E	E	E	E	G	G	G	G	G	5.4 Y	B	B	B	G	B	G	2.8	3.0	2.2	E	E
2	E	E	E	E	E	E	E	G	G	G	G	5.5	G	G	G	G	G	3.2	2.3	2.4	2.4	2.4	E	E
3	E	E	E	2.2	E	2.3	2.3	G	3.5	5.9 Y	4.7	G	G	5.0 Y	G	G	G	3.1	G	2.4	2.2	E	E	E
4	E	E	E	E	E	E	2.3	G	G	G	G	G	G	G	G	G	G	G	G	E	E	E	E	E
5	C	C	C	C	C	C	2.3	G	G	G	G	G	G	G	G	G	G	G	2.3	2.4	2.3	2.3	E	E
6	E	E	E	E	E	E	2.4	G	G	4.6	5.0	5.2	5.7	5.2	6.5	4.8	G	G	G	2.4	3.4	E	E	E
7	E	E	2.3	E	E	2.3	2.4	G	G	G	5.9 Y	G	G	G	G	G	G	4.9	3.7	3.1	5.0	E	E	E
8	E	E	2.3	E	E	2.2	2.3	G	3.7	4.9 Y	G	G	B	G	B	G	4.9 Y	G	5.9	2.4	2.9	2.4	E	2.2
9	E	E	E	E	E	E	2.3 F	G	G	G	G	B	B	6.8	5.7	G	G	G	G	2.3	E	E	E	E
10	E	E	E	E	E	E	G	G	G	4.7 Y	5.0 Y	5.3 Y	5.1 Y	5.2 Y	4.9 Y	4.8	5.9 Y	G	3.1 Y	2.4	2.4	2.3	2.3	2.3
11	2.3	2.2	3.0 F	2.3	E	2.4	2.3	G	G	G	G	G	5.2	4.9	G	G	G	G	3.8	2.6	2.4	2.3	2.2	E
12	E	E	E	E	E	E	E	G	G	G	G	6.7	5.7	5.7 Y	3.8	3.8	G	G	3.4	3.5	2.4	8.9 F	5.8	2.4
13	2.4	2.4	2.4	2.4	2.4 F	2.4 F	G	G	4.9	5.0	G	G	B	5.3	5.6	G	G	G	5.0	5.5	2.9	3.7	3.2	3.1
14	2.4	2.3	2.3	E	2.3 F	2.1	2.3	G	G	5.7	G	G	4.8 Y	B	3.8	5.0 Y	5.0	3.7	G	2.9	2.1	3.6	3.0	2.4
15	2.2	E	E	E	2.2	E	2.4 F	G	3.8	G	5.1	5.5	B	4.9	5.3	5.3	5.0	4.9	5.9	4.7	4.5	5.9	2.4	E
16	2.1	2.1	2.4	3.5	2.4	2.2	G	G	G	5.0 Y	G	G	B	B	B	5.3	5.2	4.8	5.2	4.7	3.8	3.6	5.7	2.3
17	2.1	E	E	E	E	E	E	G	4.7	5.9	8.9	5.9	B	4.7	B	G	3.8	G	3.4	3.6	3.0	2.1	2.4	5.9
18	3.5	3.5	3.5	3.0	3.0	2.1	2.3	3.7	G	5.0 Y	8.0	8.1	6.8	6.8	5.9	G	G	C	C	C	C	9.2	5.9	3.8
19	3.5	3.0	2.4	2.4	2.4	2.4	G	G	5.9	8.9	5.9	B	7.3	7.3	7.3	5.9	G	G	5.9	8.0	2.8	E	7.0	5.9
20	5.9	3.3	E	E	E	E	2.4	G	B	5.9	M	9.3	6.2	M	5.4	M	M	5.2	4.5	2.4	3.0	2.2	3.0 Y	E
21	E	2.3	2.4	E	E	E	G	G	5.9 Y	8.5 Y	5.0 Y	7.0 Y	8.7 Y	B	B	4.5	5.9	4.9	5.9	5.7	5.9	5.4	3.7	3.0
22	5.5	7.0	5.9	5.9	7.9 Y	3.8	B	G	G	G	4.0.	5.9	5.9	5.1	B	3.8	5.4	G	6.2	5.9	3.1	5.9	3.1	2.4
23	E	E	2.3	E	E	E	B	B	3.8	5.8	G	G	G	G	5.9	S	G	B	5.9 Y	13.0	8.9	5.9	5.9	3.6
24	5.3	3.2	3.0	2.4	4.8	3.5	2.3	4.7	5.4	5.9	6.4	6.5	8.9	6.2	B	G	G	5.3	5.2	5.2	3.2	3.6	2.4	8.9
25	2.4	2.3	6.5	5.3	2.4	2.3	2.3	6.6	5.3	6.8	7.5	5.9	5.9	8.9	B	G	4.9	4.1	4.7	5.3	2.4	5.1	3.3	3.0
26	5.7	3.6	3.7	3.5	2.3	3.0	3.0	3.0	5.9	G	G	B	G	5.8	G	G	5.0	5.0	6.7	4.8	5.9	4.7	8.9	2.4
27	3.0	2.3 F	2.3	E	E	E	2.1	G	G	G	G	B	4.8	5.9	5.5	G	G	G	G	2.3	2.4	E	2.3	2.4
28	E	8.8	3.1	2.3	2.3	2.3	G	G	G	5.1	G	G	G	G	G	G	5.9	6.6	6.2	8.0	3.5	2.1	5.9	5.9
29	2.3	2.2	2.4	E	2.2	E	2.3	G	4.7	5.2	5.9	7.0	5.9	5.7 Y	5.1	6.3	5.9	G	6.0	5.9	3.8	3.5	3.1	2.4
30	2.3	2.3	E	3.1	3.0	2.4	G	G	G	G	8.0	5.9	5.9	5.7	5.0 Y	G	G	G	2.3	E	E	2.3	3.2	2.3
31																								
Mean Value	3.3	3.3	3.1	3.2	3.0	2.5	2.4	4.5	4.8	5.8	6.1	6.4	6.1	5.8	5.4	5.0	5.2	4.6	4.7	4.3	3.4	4.0	4.0	3.5
Median Value	2.1	2.2	2.3	E	E	2.1	2.3	G	G	4.8	G	5.2	5.3	5.2	5.0	G	G	G	3.8	3.1	2.9	2.4	2.7	2.4
Count	30	29	29	29	29	29	28	29	29	30	29	26	24	25	22	27	29	27	29	29	29	30	30	30

fEs

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

Y 3

SOLAR RADIO EMISSION

APRIL, 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	6	5	6
2	5	5	5
3	5	5	5
4	7	6	6
5	6	7	6
6	7	6	7
7	7	5	6
8	7	5	6
9	10	8	9
10	8	9	8
11	7	6	6
12	10	9	10
13	17	16	16
14	17	17	17
15	14	11	13
16	30	24	26
17	12	10	11
18	12	10	11
19	13	10	11
20	13	17	15
21	12	8	11
22	8	7	7
23	5	5	5
24	7	10	9
25	9	9	9
26	13	9	11
27	11	16	13
28	9	8	9
29	8	8	8
30	9	9	9

Outstanding Occurrences

Date	Starting Time	Duration	Type	Peak Flux	Time
4	0726-30s	2m	CD	210	0726-30s...1st peak
				140	0727-00s...2nd peak
11	2213-40s	1m40s	SD	99	2214-20s
	2314-30s	2m	CD	92	2315-00s
	2336-00s	2m30s	SD	64	2337-00s
20	0440	ca 70m	M	40 (mean value)	
25	0648-20s	1m	CD	500	0649
	2240-30s	4m	CD	> 1800	2241
26	0037	2m30s	CD	1700	0038
	0044	40s	SD	1100	-
	0153-30s	11m	SCD	1170	0158-30s.....SD
				100	mean flux for CD
27	2053-?	ca 32m	CD	> 2500	2054 ....1st peak
				> 2500	2057 ....2nd peak
				2000	2106-30s...3rd peak

IONOSPHERIC DATA IN JAPAN FOR APRIL 1956
電 波 観 測 報 告　才8巻 才4号

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