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# IONOSPHERIC DATA IN JAPAN

## FOR OCTOBER 1952

Vol. 4 No. 1 0

Issued in Novenber 1952

PREPARED BY THE RADIO RESEARCH LABORATORIES

KOKUBUNJI, TOKYO, JAPAN

F—46

# THE RADIO RESEARCH LABORATORIES

KOKUBUNJI, TOKYO, JAPAN

# IONOSPHERIC DATA IN JAPAN FOR OCTOBER, 1952.

## CONTENTS

# PREFACE

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

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

The First Division has the following three sections:

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

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

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

The Second Division has the following two sections:

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

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

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

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

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

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

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

Aug. 1952

## SITE OF THE IONOSPHERIC STATIONS

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

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

## REMARKS ON SYMBOLS

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

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

# IONOSPHERIC DATA

**Wakkanai**

Lat. 45° 23.6' N
Long. 141° 41.1' E

Oct. 1952

foF2

135° E Mean Time

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.8 | 2.7 | 3.0 | 2.8 | 3.0 | S | S | 5.3 | 6.1 | 6.1 | (6.7)$^{P}$ | 7.2 | 7.4 | 7.3 | 7.1$^{J}$ | 7.8 | (6.5)$^{P}$ | 6.2$^{S}_{H}$ | 6.1$^{P}_{S}$ | 5.9 | 5.6 | (4.5)$^{P}$ | (3.3)$^{P}$ | 3.4$^{J}$ |
| 2 | 2.7 | 3.8 | [3.5]$^{S}$ | 3.2 | (3.4)$^{P}$ | 3.3 | 5.0 | 6.3 | [7.0]$^{C}$ | 7.6 | 7.2 | 6.0 | 6.4$^{r}$ | [6.3]$^{B}$ | 6.2 | 6.4 | [6.8]$^{B}$ | 7.1$^{J}$ | 7.1 | 6.0 | 5.5$^{H}$ | [4.3]$^{C}$ | 3.1 | 3.0 |
| 3 | (3.2)$^{PS}$ | (3.4)$^{PS}$ | 3.5 | 3.6 | 3.2 | 3.2 | 5.5 | 7.5 | 7.4 | 8.3 | 7.4 | 6.3 | 6.5$^{J}$ | (7.2)$^{P}$ | [7.2]$^{P}_{H}$ | 7.2 | [6.6]$^{B}$ | 6.0 | 5.5 | 4.8 | 4.8 | (3.3)$^{P}$ | 4.6 | 3.4 |
| 4 | 3.0 | (3.3)$^{P}$ | 3.3 | 3.8 | 3.8$^{J}$ | 4.3 | 5.3 | 6.7 | [7.2]$^{C}$ | 7.6$^{J}$ | 7.8 | [7.7]$^{B}$ | 7.6 | 7.8 | 6.3 | 7.3$^{J}$ | 7.2 | [7.6]$^{S}$ | 8.1 | [5.3]$^{S}$ | 2.5 | 3.2 | 3.2 | 3.3 |
| 5 | 3.5$^{FJ}$ | 3.2 | 3.2 | 4.1 | 3.2 | 3.5 | 5.1 | 5.5 | [5.6]$^{C}$ | 5.8 | 5.8 | 5.6 | (5.4)$^{P}$ | 5.8 | (5.9)$^{J}_{P}$ | 6.0 | [6.2]$^{S}$ | (6.4)$^{PS}$ | 6.1 | 5.4 | 5.7 | 4.5 | (3.7)$^{PS}$ | 3.0 |
| 6 | 3.1 | 3.2$^{S}$ | (3.0)$^{P}$ | 3.0 | 2.5 | 2.5 | C | C | C | (6.3)$^{P}$ | S | 6.2 | 8.7 | 8.7 | 8.8 | (7.5)$^{P}$ | 6.6 | A | A | S | S A | (3.4)$^{P}_{S}$ | (3.3)$^{P}_{S}$ | S |
| 7 | S | (3.4)$^{PS}$ | (3.4)$^{PS}$ | 2.9 | 3.2 | 3.0$^{F}$ | (4.3)$^{PS}$ | [5.2]$^{A}$ | 6.1 | 7.5$^{J}$ | 7.6 | 8.2 | 8.0 | 7.6 | 7.0 | C | C | 6.0 | 4.3$^{P}$ | 4.2 | 4.1 | 3.7 | 3.2$^{S}$ | (3.2)$^{P}$ |
| 8 | (4.0)$^{VP}$ | 4.1 | (3.4)$^{PS}$ | 3.3 | 3.4$^{V}$ | 2.9 | 4.0 | 4.4 | 5.5 | C | S | S | S | S | 6.2$^{S}$ | 6.2$^{S}$ | [6.2]$^{S}$ | 6.2 | [5.4]$^{A}$ | 4.5 | 3.9 | 3.3 | 3.4$^{J}$ | 3.7 |
| 9 | 3.3 | [3.6]$^{S}$ | 3.8 | [4.6]$^{S}$ | 5.5$^{H}$ | C | C | C | 6.2 | B | B | S | B | B | B | B | 6.0 | 5.0$^{H}$ | 4.7 | [4.8]$^{S}$ | (4.9)$^{P}$ | (4.9)$^{P}$ | [4.6]$^{S}$ | 4.2 |
| 10 | 4.1 | [4.0]$^{A}$ | 3.9 | [3.6]$^{A}$ | (3.4)$^{P}$ | 3.8 | 4.8 | B | B | C | C | C | C | C | 6.2 | 6.2 | S | S | 4.4 | 5.4 | 5.1 | 4.8 | 4.6 | 4.3 |
| 11 | 4.0$^{F}$ | 4.4 | 3.9 | 4.0 | 3.8 | 4.3 | 4.7 | 6.0 | 8.2 | 8.1 | C | C | 7.6 | 7.8$^{J}_{P}$ | 7.3 | 5.5 | 5.6 | (4.8)$^{P}$ | [4.8]$^{S}$ | 4.8 | 4.7 | 5.1$^{J}_{P}$ | A | S |
| 12 | (3.8)$^{PJ}$ | [3.6]$^{A}$ | 3.5 | 3.7 | 4.8 | 5.1 | 5.6 | 6.6 | 8.4$^{J}$ | 9.6 | 7.2 | 7.5 | 8.6 | 8.7 | 8.6 | 7.4 | 6.6 | 8.6 | C | C | C | C | C | C |
| 13 | C | C | C | C | C | C | C | C | 8.1 | 8.3$^{P}$ | 8.5$^{J}$ | 8.6 | 7.7$^{J}$ | 7.2 | 6.3$^{P}$ | 7.1$^{J}$ | 8.1 | [6.4]$^{B}$ | 4.7 | [3.9]$^{S}$ | 3.1 | 3.0 | 3.0 | (2.9)$^{P}$ |
| 14 | 3.1$^{F}$ | 2.9 | 3.1 | [3.1]$^{S}$ | (3.1)$^{P}$ | 3.1$^{P}$ | (4.6)$^{P}$ | 5.4 | 5.7 | 8.3 | 8.6 | 8.6 | 7.6 | 6.8$^{J}$ | 6.6 | 6.8 | 7.9 | 6.9$^{J}$ | 5.5$^{J}$ | (3.9)$^{PJ}$ | [3.5]$^{S}$ | 3.1 | 3.5 | 3.8 |
| 15 | 3.5 | 3.3 | (3.1)$^{P}_{S}$ | S | S | S | S B | 5.9 | 7.3 | 8.0 | 7.1 | 8.3 | 8.5 | 7.0 | 6.3 | 6.9$^{J}$ | 6.6 | 5.7 | (3.4)$^{P}_{S}$ | [3.2]$^{S}$ | 3.0 | S | S | S |
| 16 | 3.4$^{P}$ | (3.3)$^{P}$ | [3.3]$^{S}$ | (3.3)$^{P}$ | (4.1)$^{P}_{S}$ | 4.3$^{P}$ | 5.6 | 5.4 | 6.2$^{J}$ | 7.1 | 7.3 | 7.6 | 7.4 | 6.8 | 6.2 | 7.2 | 6.5 | 6.1$^{F}$ | S | S | 3.6$^{J}$ | 2.9 | 3.0 | 2.9 |
| 17 | 3.2 | 3.4 | (3.1)$^{P}$ | 3.2 | (3.3)$^{P}$ | 3.6 | 5.0$^{J}$ | 5.6 | 7.3 | 8.0 | 8.0 | 7.5 | 7.6 | 6.3 | 6.5 | (6.5)$^{P}$ | 7.8 | 6.5$^{P}$ | 3.7 | 3.9 | 3.7 | 3.3 | 3.0 | 3.2$^{S}$ |
| 18 | 3.3 | S | 3.0 | 3.1 | 2.9 | 3.2 | 4.5 | 6.5 | 8.7 | 8.7 | 8.0 | 7.8 | 8.5 | 8.5 | C | C | C | C | C | C | S | C | C | C |
| 19 | (5.0)$^{P}$ | 5.2$^{J}$ | 4.8$^{J}$ | (5.3)$^{PF}$ | 4.8$^{JF}$ | (5.5)$^{PF}$ | 4.7 | 7.3$^{P}$ | 7.3 | (10.2)$^{P}$ | 8.9 | 8.7 | 9.5 | 8.0 | 6.9$^{J}$ | 7.6 | 8.1 | 6.8$^{P}$ | [5.4]$^{S}$ | (4.0)$^{P}$ | 4.0 | S | S | S |
| 20 | 3.8$^{J}$ | [3.3]$^{S}$ | 2.8 | 4.0 | (4.4)$^{P}$ | 4.6 | (5.5)$^{P}$ | (6.6)$^{P}$ | 6.5$^{J}$ | 7.6 | 7.6 | 8.1 | 9.4 | 7.5$^{J}$ | (6.4)$^{P}$ | 6.4 | 6.2 | [6.1]$^{A}$ | (6.0)$^{P}_{S}$ | 5.0 | 3.8 | 4.2 | 4.1 | [4.4]$^{B}$ |
| 21 | 4.8$^{JF}$ | 4.5$^{F}$ | 3.7$^{F}$ | 4.5$^{FP}$ | 4.3 | 4.2 | 4.7 | 5.6 | 6.2 | 6.7 | 7.8 | 9.0 | 9.3 | 7.8 | 7.3 | 6.3$^{P}$ | [6.0]$^{A}$ | 5.8 | 3.4 | 3.9 | 3.6$^{P}$ | [3.3]$^{S}$ | 3.0$^{F}$ | S F |
| 22 | S | 3.3 | 4.0 | 3.0 | 4.0 | 2.4 | S | C | C | A | C | C | C | C | C | C | C | 6.0 | 5.0 | 5.1 | 4.8$^{F}$ | 4.9$^{F}$ | C | C |
| 23 | C | C | C | C | 4.3$^{J}$ | 4.0 | 4.6 | 5.8 | 6.1 | 6.4 | 8.5 | 8.3 | 7.2 | 6.8$^{J}$ | 7.1 | (6.9)$^{P}$ | 6.2 | [5.2]$^{S}$ | 4.1 | 4.1$^{J}$ | 3.9 | 4.0 | 4.0 | 3.2 |
| 24 | 3.4$^{FJ}$ | 3.6$^{JF}_{H}$ | 3.9 | 4.0 | 4.1 | 4.0 | 4.5 | 5.8 | 7.1 | 7.0 | 8.0 | 7.8 | 8.1 | 6.6 | 7.7 | 7.8 | 6.8 | 5.5 | (4.8)$^{P}$ | 4.2 | [3.8]$^{A}$ | 3.5 | (3.5)$^{P}$ | 3.8 |
| 25 | 3.6 | 3.8 | 3.7 | 3.8$^{F}$ | 3.8 | 3.7$^{P}$ | 4.0 | 5.9 | 6.4$^{P}$ | 6.8 | 8.5 | 8.6 | 6.7$^{J}$ | 6.3 | 6.7 | 7.1 | 7.4 | 4.7 | (5.9)$^{P}$ | 4.2 | 3.9 | 3.9 | 4.0 | 4.0 |
| 26 | 4.0 | 3.9$^{F}$ | 4.1$^{F}$ | 4.7$^{FJ}$ | 4.6$^{FJ}$ | 3.9$^{F}$ | 4.7 | 6.6 | 7.6 | 8.0 | 8.5 | 9.0$^{P}$ | 9.5$^{P}$ | 7.2 | 8.5 | 8.4 | 7.2 | 5.4 | 3.4 | 3.9 | 4.2 | 3.7 | 3.9 | 3.6 |
| 27 | 3.9 | 3.7 | 3.7 | 3.4 | 2.0 | 2.7 | 4.0 | 6.3 | 7.9 | B | B | B | (8.8)$^{P}$ | 6.6 | 6.3$^{J}$ | (6.6)$^{P}$ | 7.1 | C | C | C | A | C | C | C |
| 28 | C | C | C | C | C | C | C | C | C | C | 10.3 | 10.2 | 10.0 | 7.6 | 7.1$^{J}$ | 7.1 | 7.7 | 4.7 | 3.7$^{P}$ | 3.4 | 3.5$^{P}$ | 3.7 | (3.2)$^{P}$ | 3.4 |
| 29 | C | C | C | C | C | C | C | C | C | 8.0 | C | C | C | 8.2 | [7.5]$^{B}$ | 6.8 | 7.8 | 4.1 | 3.3 | 3.0 | 3.0 | (3.0)$^{P}$ | 3.0 | 2.9 |
| 30 | A | C | C | C | C | 3.0 | 4.1 | 5.5 | 6.1 | 9.6 | (9.9)$^{P}$ | B | 8.9 | 8.6 | 7.5 | 8.5 | 5.7 | 3.9 | 3.9$^{P}$ | 3.1 | 3.5 | (3.4)$^{P}$ | (3.4)$^{P}$ | [3.2]$^{S}$ |
| 31 | 3.0 | 3.7 | A | S | (3.1)$^{P}$ | 4.0 | 4.7 | B | B | 5.7 | 9.1 | 8.4 | 7.9 | 6.5 | 7.1 | 8.7 | 6.7 | 5.2 | 3.9 | 5.0 | S | 3.0 | S | S |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Mean Value | 3.6 | 3.6 | 3.5 | 3.7 | 3.7 | 3.7 | 4.8 | 5.8 | 6.9 | 7.7 | 8.0 | 7.9 | 8.0 | 7.2 | 6.8 | 7.1 | 6.8 | 5.9 | 4.9 | 4.4 | 4.1 | 3.8 | 3.5 | 3.5 |
| Median Value | 3.4 | 3.6 | 3.5 | 3.6 | 3.6 | 3.7 | 4.7 | 5.9 | 7.0 | 7.6 | 8.0 | 8.1 | 8.0 | 7.2 | 7.0 | 7.1 | 6.6 | 6.0 | 4.0 | 4.2 | 3.9 | 3.6 | 3.4 | 3.4 |
| Count | 24 | 25 | 25 | 24 | 26 | 25 | 23 | 23 | 25 | 25 | 23 | 23 | 26 | 27 | 28 | 27 | 27 | 27 | 26 | 26 | 26 | 26 | 23 | 21 |

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

W 1

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

# IONOSPHERIC DATA

**Oct. 1952** | **$f_0F2$** | 135° E Mean Time | **Wakkanai** | Lat. 45° 23.6' N, Long. 141° 41.1' E

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 440 | 430 | 360 | 390 | 330 | S | S | 320 | 290 | 310 | (290)$^{P}$ | 330 | 310 | 300 | (300)$^{J}$ | 310$^{B}$ | (320)$^{P}$ | 290$^{JSH}$ | 300$^{PS}$ | 320 | 320 | (340)$^{P}$ | (300)$^{P}$ | (370)$^{J}$ |
| 2 | 340 | 370 | [360]$^{S}$ | 360 | (330)$^{P}$ | 320 | 300 | 310 | [300]$^{C}$ | 300 | 280 | 300 | 320$^{P}$ | [320]$^{B}$ | 320 | 310 | [310]$^{B}$ | (310)$^{J}$ | 290 | 300 | 300$^{H}$ | [320]$^{C}$ | 340 | 360 |
| 3 | (380)$^{PS}$ | (380)$^{PS}$ | 370 | 370 | 360 | 330 | 310 | 310 | 300 | 280 | 300 | 310 | (330)$^{J}$ | (340)$^{P}$ | BH | 310 | [300]$^{B}$ | 280 | 330 | 330 | 350 | (370)$^{P}$ | 410 | 350 |
| 4 | 370 | (360)$^{P}$ | 390 | 330 | (390)$^{J}$ | 320 | 330 | 340 | [350]$^{C}$ | (360)$^{J}$ | 330 | [320]$^{B}$ | 310 | 320 | 320 | (350)$^{J}$ | 370 | [340]$^{S}$ | 300 | [380]S | 460 | 420 | 380 | 430 |
| 5 | (460)$^{JF}$ | 490 | 410 | 340 | 390 | 310 | 320 | 350 | [360]$^{C}$ | 360 | 370 | 400 | (350)$^{P}$ | (300)$^{JP}$ | [310]$^{B}$ | 320 | [320]$^{S}$ | (320)$^{PS}$ | 290 | 410 | 300 | 320 | (430)$^{PS}$ | 370 |
| 6 | 390 | 380$^{S}$ | (360)$^{P}$ | 370 | 430 | 440 | C | C | C | (330)$^{P}$ | S | 320 | (340)$^{B}$ | 330 | 310 | (310)$^{P}$ | 300 | A | A | S | SA | (370)$^{PS}$ | (370)$^{PS}$ | S |
| 7 | S | (370)$^{PS}$ | (330)$^{PS}$ | 310 | 340 | 370$^{F}$ | (320)$^{PS}$ | [300]$^{A}$ | 290 | (310)$^{J}$ | 310 | [310]$^{A}$ | (310)$^{B}$ | 290 | 270 | C | C | 300 | 310$^{P}$ | 340 | 310 | 360 | 360$^{S}$ | (350)$^{P}$ |
| 8 | (400)$^{FP}$ | 410 | (350)$^{PS}$ | 320 | 310$^{V}$ | 350 | 280 | 300 | 280 | C | S | S | S | S | 290 S | 320$^{S}$ | [300]$^{S}$ | 290 | [320]$^{A}$ | 360 | 400 | 340 | (310)$^{J}$ | 350 |
| 9 | 390 | [390]$^{S}$ | 390 | [360]$^{S}$ | 320$^{H}$ | C | C | C | 380 | B | B | S | B | B | B | B | 290 | 330$^{H}$ | 320 | [350]$^{S}$ | (380)$^{P}$ | (320)$^{P}$ | [320]$^{S}$ | 310 |
| 10 | 430 | [420]$^{A}$ | 400 | [380]$^{A}$ | (360)$^{P}$ | 370 | 300 | B | B | C | C | C | C | C | 330 | 340 | S | S | 360 | 350 | 390 | 400 | 400 | 440 |
| 11 | 440$^{F}$ | 400 | 420 | 410 | 450 | 370 | 330 | 350 | 320 | 300 | C | C | 300 | (300)$^{PJ}$ | 310 | 350 | 370 | (360)$^{P}$ | [380]$^{S}$ | 410 | 420 | A | A | S |
| 12 | (340)$^{PJ}$ | [380]$^{A}$ | 420 | 410 | 320 | 290 | 280 | 290 | (290)$^{J}$ | 290 | 320 | 320 | 310 | 310 | 310 | 300 | 310 | 320 | C | C | C | C | C | C |
| 13 | C | C | C | C | C | C | C | C | 310 | 300$^{F}$ | (290)$^{J}$ | 310 | (300)$^{J}$ | 310 | 290$^{P}$ | (320)$^{J}$ | 300 | B | 360 | [340]$^{S}$ | 310 | 360 | 350 | (360)$^{P}$ |
| 14 | 350$^{F}$ | 350 | 370 | [340]$^{S}$ | (320)$^{P}$ | 330$^{P}$ | (300)$^{P}$ | 290 | 290 | 320 | 300 | 300 | 290 | (310)$^{J}$ | 300 | 310 | 300 | (270)$^{J}$ | (310)$^{J}$ | (300)$^{JP}$ | (320)$^{S}$ | 380 | 370 | (420)$^{S}$ |
| 15 | 360 | 380 | (360)$^{PS}$ | S | S | S | SB | 300 | 320 | 310 | 290 | 310 | 320 | 310 | 320 | (300)$^{J}$ | 300 | 280 | (280)$^{PS}$ | S | 320 | S | S | S |
| 16 | 370$^{P}$ | (360)$^{P}$ | [350]$^{S}$ | (340)$^{P}$ | (340)$^{PS}$ | 330$^{PS}$ | 300 | 280 | (270)$^{J}$ | 280 | 270 | 290 | 290 | 290 | 310 | 310 | 290 | 280$^{F}$ | S | S | (290)$^{J}$ | 420 | 400 | 380 |
| 17 | [390]$^{S}$ | 400 | (350)$^{P}$ | 360 | (350)$^{P}$ | 360 | (280)$^{J}$ | 300 | 320 | 300 | 300 | 290 | 280 | 310 | 290 | (310)$^{P}$ | 300 | 280$^{P}$ | 320 | 350 | 310 | 360 | 330 | 350$^{S}$ |
| 18 | 380 | S | 340 | 360 | 430 | 410 | 310 | 300 | 300 | 300 | 300 | 310 | 320 | 310 | C | C | C | C | C | C | S | C | C | C |
| 19 | (360)$^{P}$ | (410)$^{J}$ | (410)$^{J}$ | (420)$^{PF}$ | (390)$^{JF}$ | (340)$^{PF}$ | 290 | 290$^{P}$ | 290 | (290)$^{P}$ | 320 | 320 | 290 | 300 | (280)$^{J}$ | 300 | 290 | 310$^{P}$ | [340]$^{S}$ | (360)$^{P}$ | 310 | S | S | S |
| 20 | (330)$^{J}$ | [350]$^{S}$ | 370 | 370 | (370)$^{P}$ | 280 | (320)$^{P}$ | (320)$^{P}$ | (300)$^{J}$ | 350 | 330 | 320 | 300 | (310)$^{J}$ | (310)$^{P}$ | 330 | 300 | [310]$^{A}$ | (320)$^{PS}$ | 320 | 320$^{S}$ | 350 | 300 | [350]$^{B}$ |
| 21 | (400)$^{JF}$ | 380$^{F}$ | 360$^{F}$ | 420$^{FP}$ | 390 | 360 | 310 | 310 | 300 | 320 | 350 | 330 | 300 | 320 | 280 | 320$^{P}$ | [300]$^{A}$ | 290 | 360 | 330 | 350$^{P}$ | [410]$^{S}$ | 470$^{F}$ | SF |
| 22 | S | 450 | 440 | 390 | 440 | 400 | S | C | C | A | C | C | C | C | C | C | C | 330 | 340 | 390 | 440$^{F}$ | 420$^{F}$ | C | C |
| 23 | C | C | C | C | (360)$^{J}$ | 360 | 300 | 300 | 270 | 350 | 340 | 290 | 290 | (360)$^{J}$ | 310 | (290)$^{P}$ | 300 | [320]$^{S}$ | 340 | [340]$^{SA}$ | 350 | 340 | 330 | 360 |
| 24 | (330)$^{JF}$ | (340)$^{JFH}$ | 390 | 420 | 310 | 390 | 290 | 330 | 320 | 300 | 300 | 300 | 300 | 320 | 320 | 290 | 290 | 290 | (330)$^{P}$ | 330 | [340]$^{A}$ | 350 | (340)$^{P}$ | 360 |
| 25 | 350$^{S}$ | 370$^{S}$ | 370 | (360)$^{F}$ | 350 | 330$^{P}$ | 300 | 290 | 270$^{P}$ | 320 | 290 | 280 | (270)$^{J}$ | 300 | 300 | 300 | 290 | 350 | (320)$^{P}$ | 340 | 350 | 350 | 370 | 360 |
| 26 | 400 | 380$^{F}$ | 350$^{F}$ | (400)$^{FJ}$ | (420)$^{FJ}$ | 390$^{F}$ | 320 | 280 | 280 | 310 | 320 | 310$^{P}$ | 300$^{P}$ | 330 | 320 | 320 | 280 | 290 | 410 | 340 | 340 | 410 | 390 | 440 |
| 27 | 310 | 300 | 360 | 340 | 340 | 370 | 310 | 310 | 310 | B | B | B | (310)$^{P}$ | 270 | (300)$^{J}$ | (300)$^{P}$ | 300 | C | C | C | A | C | C | C |
| 28 | C | C | C | C | C | C | C | C | C | C | 320 | 310 | 310 | 290 | (290)$^{J}$ | 300 | 270 | 300 | 360$^{P}$ | 340 | 340$^{P}$ | 360 | (330)$^{P}$ | 370 |
| 29 | C | C | C | C | C | C | C | C | C | 310 | C | C | C | 280 | [280]$^{B}$ | 280 | 290 | 290 | 310 | 340 | 390 | (340)$^{P}$ | 340 | A |
| 30 | A | C | C | C | C | 310 | 320 | 290 | 300 | 310 | (310)$^{P}$ | B | 310 | 300 | 310 | 310 | 260 | 370 | 310$^{P}$ | 380 | 390 | (340)$^{P}$ | (370)$^{P}$ | [340]$^{S}$ |
| 31 | 330 | 360 | A | S | (410)$^{P}$ | 350 | 360 | B | B | 310 | 340 | 330 | 310 | 310 | 340 | 300 | 290 | 330 | 400 | 350 | S | 370 | S | S |
| Mean Value | 380 | 380 | 380 | 370 | 370 | 350 | 310 | 310 | 310 | 310 | 310 | 320 | 310 | 310 | 300 | 310 | 300 | 310 | 330 | 350 | 350 | 360 | 360 | 370 |
| Median Value | 380 | 380 | 370 | 360 | 360 | 350 | 310 | 300 | 300 | 310 | 310 | 310 | 310 | 310 | 310 | 310 | 300 | 300 | 320 | 340 | 340 | 360 | 360 | 360 |
| Count | 24 | 25 | 25 | 24 | 26 | 25 | 23 | 23 | 25 | 25 | 23 | 23 | 26 | 27 | 27 | 27 | 27 | 26 | 26 | 25 | 26 | 25 | 23 | 20 |

$f_0F2$ | Sweep 1.0 Mc to 15.5 Mc in 2 min | ☐ Manual ☒ Automatic | **W 2**

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

# IONOSPHERIC DATA

**Wakkanai**

Lat. 45° 23.6' N
Long. 141° 41.1' E

**Oct. 1952** | **h'F2** | 135° E Mean Time

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

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

W 3

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

# IONOSPHERIC DATA

**Wakkanai**

Lat. 45° 23.6' N
Long. 141° 41.1' E

**Oct. 1952** | **foF1** | 135° E Mean Time

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

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

W 4

The Radio Research Laboratories

Koganei-machi, Kitatama-gun, Tokyo, Japan

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# IONOSPHERIC DATA

**Wakkanai**

Lat. 45° 23.6' N
Long. 141° 41.1' E

**Oct. 1952** | **h'F1** | 135° E Mean Time

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

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

W 5

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

# IONOSPHERIC DATA

**Wakkanai**

Lat. 45° 23.6' N
Long. 141° 41.1' E

Oct. 1952 | foE | 135° E Mean Time

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | A | C | 2.6 | B | B | A | A | B | 2.5 | A | | | | | | | |
| 2 | | | | | | | | 2.2 | (2.3)C | 2.4 | A | A | A | A | 2.8 | A | B | | | | | | | |
| 3 | | | | | | | | 2.2 | 2.6 | 2.7 | 2.9 | 3.1 | 2.9 | 2.8 | 2.9 | 2.5 | 2.3 | | | | | | | |
| 4 | | | | | | | | S | 2.4 | 2.7 | B | B | 3.0 | (2.8)A | 2.6 | 2.2 | A | | | | | | | |
| 5 | | | | | | | | 2.4 | [2.6]C | 2.7 | 2.7 | 3.0 | 2.8 | 3.0 | 3.0 | 3.0 | B | | | | | | | |
| 6 | | | | | | | | C | C | 1.8 | 2.8 | B | 2.5 | 2.9 | 2.2 | (2.1)A | 2.0 | | | | | | | |
| 7 | | | | | | | | 2.1 | 2.4 | 2.6 | 2.6 | 3.1 | A | A | A | 2.6 | B | | | | | | | |
| 8 | | | | | | | | 2.0 | 2.5 | C | S | S | 2.8 | (2.7)S | 2.6 | S | S | | | | | | | |
| 9 | | | | | | | | C | 2.5 | 2.7 | B | S | B | S | A | B | B | | | | | | | |
| 10 | | | | | | | | A | 2.6 | C | C | C | C | C | 2.8 | A | A | | | | | | | |
| 11 | | | | | | | | 2.4H | 2.6 | A | B | 3.2F | [2.8]A | 2.5 | A | B | A | | | | | | | |
| 12 | | | | | | | | B | B | (2.4)B | A | B | B | 2.5 | 2.6 | A | A | | | | | | | |
| 13 | | | | | | | | C | 2.4 | 2.4 | 2.6 | B | B | B | 2.6 | B | A | | | | | | | |
| 14 | | | | | | | | A | 2.4 | 2.5 | B | A | B | 2.9 | 2.7 | 2.4 | 2.1 | | | | | | | |
| 15 | | | | | | | | A | 2.4 | 2.6 | [2.7]A | 2.8 | 3.0 | 2.8 | 2.6 | S | A | | | | | | | |
| 16 | | | | | | | | 1.9 | 2.5 | 2.5 | 2.5 | 2.8 | 2.9 | 2.9 | 2.7 | A | A | | | | | | | |
| 17 | | | | | | | | 2.1 | 2.1 | 2.5 | 2.7 | 2.9 | 3.0 | 2.9 | 2.8 | 2.4 | 1.5A | | | | | | | |
| 18 | | | | | | | | B | 2.4 | 2.7 | 2.8 | 2.9 | 3.1 | B | C | C | C | | | | | | | |
| 19 | | | | | | | | 2.2 | 2.6 | 2.7 | 2.7 | 2.7 | A | A | 2.5 | [2.3]A | 2.1 | | | | | | | |
| 20 | | | | | | | | 1.9P | 2.3H | 2.6 | 2.6 | A | A | A | A | A | A | | | | | | | |
| 21 | | | | | | | | A | 2.4 | S | S | S | A | 2.6 | A | A | A | | | | | | | |
| 22 | | | | | | | | C | C | A | C | C | C | C | C | C | C | | | | | | | |
| 23 | | | | | | | | 1.8 | 2.3 | 2.9 | A | A | 3.0 | A | A | A | B | | | | | | | |
| 24 | | | | | | | | 2.3 | 2.4 | 2.3 | 2.6 | 2.5 | 2.2 | 2.2 | 2.2 | 1.9 | B | | | | | | | |
| 25 | | | | | | | | 1.8 | 2.5F | A | B | B | 2.8 | 2.7 | (2.5)B | 2.3 | B | | | | | | | |
| 26 | | | | | | | | 2.2 | 2.3 | 2.3 | A | A | B | B | A | A | A | | | | | | | |
| 27 | | | | | | | | A | A | 2.4 | 2.6 | 2.8 | A | A | 2.5 | A | A | | | | | | | |
| 28 | | | | | | | | C | C | C | A | A | B | 2.7 | 2.5 | A | A | | | | | | | |
| 29 | | | | | | | | C | C | 2.7 | C | C | C | 2.6 | A | A | B | | | | | | | |
| 30 | | | | | | | | A | 1.8 | 2.3 | 2.6 | 2.8 | 2.8 | 2.6 | 2.4 | 2.1 | A | | | | | | | |
| 31 | | | | | | | | B | 2.0 | (2.2)B | 2.3 | 2.5 | 2.8 | 2.7 | 2.4 | 2.1 | 1.8 | | | | | | | |
| Mean Value | | | | | | | | 2.1 | 2.4 | 2.6 | 2.6 | 2.9 | 2.8 | 2.7 | 2.6 | 2.3 | 2.0 | | | | | | | |
| Median Value | | | | | | | | 2.2 | 2.4 | 2.6 | 2.6 | 2.8 | 2.8 | 2.7 | 2.6 | 2.3 | 2.0 | | | | | | | |
| Count | | | | | | | | 14 | 24 | 24 | 15 | 13 | 15 | 18 | 20 | 13 | 6 | | | | | | | |

foE

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

W 6

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

# IONOSPHERIC DATA

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

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

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

W 7

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

# IONOSPHERIC DATA

**Wakkanai**

Lat. 45° 23.6' N
Long. 141° 41.1' E

**Oct. 1952** | **fEs** | 135° E Mean Time

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.6 | E | 3.0 | 2.3 | 1.2 | 3.0 | S | 2.3 | C | G | G | G | 3.8 | 3.8 | G | G | 3.0 | G | 3.0 | E | E | E | E | E |
| 2 | E | 2.6 | S | E | E | E | G | G | G | 4.0 | 4.0 | 4.1 | 6.0 | 5.0Y | G | 3.0 | G | 2.9 | 3.0 | 2.6 | E | E | E | E |
| 3 | E | E | E | 1.6 | E | E | G | G | 2.6 | G | G | G | G | G | G | G | G | G | E | E | 2.3 | E | E | E |
| 4 | E | E | E | E | E | E | G | S | G | G | G | G | G | 3.8 | 3.8 | 3.0 | 2.6 | 3.2 | 5.5 | 3.0 | E | 6.0 | 3.8 | 2.6 |
| 5 | E | E | E | 2.4 | E | E | G | 3.3 | C | 4.2 | 3.8 | G | G | G | G | 4.0 | B | B | E | E | E | E | E | E |
| 6 | E | E | 2.6 | 2.3 | 2.4 | E | C | C | C | 3.8 | 5.3 | 6.0 | 5.4 | G | 5.1 | 4.7 | 3.2 | 6.0 | 6.0 | 4.5 | 5.5 | 2.9 | 4.0 | 3.0 |
| 7 | 3.0 | 1.2 | E | E | E | E | 2.8 | 6.0 | 5.0 | G | 5.0 | 8.0 | 4.0 | 3.8 | 3.5 | 5.0 | G | G | 1.6 | 2.3 | 2.4Y | E | E | 2.8 |
| 8 | 2.9 | 2.6 | 2.5 | 2.9 | 2.9Y | 1.6 | G | 2.9 | 5.0Y | C | 6.0 | 6.0 | 6.0 | 6.0 | G | S | S | S | 6.0 | 3.0 | 3.9 | 3.0 | 3.0 | 3.0 |
| 9 | 1.6 | E | E | E | 3.8 | C | C | C | 6.0 | G | B | 6.0Y | G | 4.0 | 3.8 | G | G | 2.8 | E | E | E | 3.0 | 2.4 | 2.8 |
| 10 | 3.0 | 4.5 | 3.8 | 4.1 | 2.8 | 5.0 | 1.6 | 2.4 | G | C | C | C | C | C | G | 3.0 | 4.0 | 3.0 | 2.8 | 1.6 | E | E | E | 3.9 |
| 11 | 3.8 | 4.6 | 3.0 | 3.9 | 3.4 | 3.0 | 2.9 | G | G | 6.0 | 6.0 | 5.5 | 4.0 | 2.7 | 5.0 | G | 2.9 | 1.6 | E | 3.9 | 3.1 | 5.8 | 4.5 | 3.0 |
| 12 | 3.6 | 3.9 | 2.4 | 1.6 | 3.8 | 3.9 | 3.0 | G | 2.8 | 3.3 | 3.9Y | G | G | G | G | 3.6 | 7.0F | 7.5F | C | C | C | C | C | C |
| 13 | C | C | C | C | C | C | C | C | G | G | G | G | G | G | G | G | 6.0F | 2.8 | 2.6 | 2.8 | 3.0 | 2.5 | E | 2.1 |
| 14 | 2.5 | E | E | E | E | E | B | 2.6 | G | 3.1 | G | 6.0 | G | G | G | G | G | E | E | E | S | E | 1.6 | E |
| 15 | 1.6 | 1.6 | 1.2 | 3.0 | 1.6 | 2.0 | 3.9 | 2.5 | 3.1 | G | 3.0 | G | G | G | G | G | 3.4 | E | 2.6 | E | E | E | E | E |
| 16 | E | E | E | E | 1.4 | E | E | G | G | G | G | G | G | G | 2.4 | 2.7 | 2.8 | 3.4 | 2.9 | S | E | 1.6 | 1.6 | E |
| 17 | E | E | E | 2.2 | E | E | E | G | G | G | G | G | G | G | G | G | 1.6 | 3.0 | 2.6 | E | E | E | 2.7 | 2.4 |
| 18 | E | 2.4 | 1.6 | 2.0 | E | E | E | G | 3.8 | 4.0 | 4.0 | G | 4.0 | G | C | C | C | C | C | C | E | C | C | C |
| 19 | 6.0 | 3.0 | 3.9 | 3.6 | 1.6 | E | G | 4.0 | 4.8 | 4.5 | 5.5Y | 3.9 | 4.0 | 3.9 | G | 4.0 | 3.4 | 3.8 | 3.9 | 3.0 | 2.2 | E | E | 2.6 |
| 20 | 3.2 | 2.6 | 2.6 | 2.4 | E | E | E | G | G | 3.8 | 3.9 | 5.7 | 6.0 | 5.5 | 3.9 | 6.0 | 6.0 | 6.0 | 2.6 | 2.7 | 3.7 | 3.0 | 3.0 | 4.0 |
| 21 | 6.0 | 6.0 | 2.4 | 3.0 | 5.0 | 3.0 | 2.9 | 2.6 | 4.0 | 6.0 | 3.8 | G | 3.8Y | 3.9Y | 3.8Y | 2.1 | 6.0 | 3.6 | 2.6 | 3.1 | 3.1 | 3.0 | 2.4 | 2.8 |
| 22 | 5.0 | 2.4 | 2.4 | E | 2.4 | S | 3.0 | C | C | 9.0 | C | C | C | C | C | C | C | 2.9 | 2.6 | 2.5 | 3.9 | 5.0 | C | C |
| 23 | C | C | C | C | C | E | E | G | 8.2 | G | 3.9 | 4.2 | G | 3.9 | 5.0 | 3.9 | G | 2.9Y | 2.0 | 4.0Y | 3.8 | 3.0 | 3.0Y | 2.2 |
| 24 | E | 2.4 | 2.2 | E | 1.6 | 2.2 | 2.2 | G | G | 4.0 | 2.2 | 5.5 | G | 3.8 | 3.9 | 5.6 | G | E | 3.0 | 3.0 | 5.8 | 2.9 | 3.1 | 3.0 |
| 25 | 3.0 | 3.0 | 3.0 | 2.6 | 2.3 | 1.6 | E | G | G | 1.3 | G | G | G | G | G | G | G | E | E | E | E | E | E | E |
| 26 | 1.9 | 3.8 | 3.8 | 3.8 | 2.2 | E | E | G | 3.7 | 4.0 | 2.8 | 4.5 | G | G | 3.9 | 4.0Y | 6.0Y | 3.9F | 2.4Y | 2.6 | 2.8 | 2.8 | E | E |
| 27 | 3.0 | E | E | E | E | 3.0 | 2.4 | 3.0 | 4.6 | G | G | G | 3.9 | 3.8 | 2.8 | 5.5 | 5.8 | C | C | C | 8.3 | C | C | C |
| 28 | C | C | C | C | C | C | C | C | C | C | 3.0 | 3.8 | 4.0 | G | G | 2.6 | 3.6 | 4.0 | 1.6 | E | E | E | E | 2.8 |
| 29 | C | C | C | C | C | C | C | C | C | 3.8 | C | C | C | G | 2.8 | 3.9 | G | 2.2 | 2.6 | 1.6 | 1.6 | E | E | 3.9 |
| 30 | 3.0 | C | C | C | C | 2.8 | 2.2 | 2.2 | 5.0 | 3.8 | 3.8 | G | G | G | G | 3.0 | 2.6 | 2.9 | 3.0 | 2.6 | 2.4 | E | 2.2 | 2.5 |
| 31 | 2.6 | 1.6 | 6.0 | 2.8 | 2.7 | 2.6 | E | G | G | 3.8 | 3.7 | G | G | 6.0 | G | 2.4 | G | E | E | 2.4 | E | 3.0 | S | 3.7 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Mean Value | 3.2 | 3.0 | 2.9 | 2.7 | 2.6 | 2.8 | 2.7 | 3.1 | 4.5 | 4.3 | 4.1 | 5.3 | 4.6 | 4.3 | 3.8 | 3.8 | 4.1 | 3.6 | 3.1 | 2.8 | 3.6 | 3.4 | 2.9 | 3.0 |
| Median Value | 2.6 | 2.0 | 2.4 | 2.2 | 1.6 | E | E | G | 2.6 | 3.6 | 3.7 | G | G | G | G | 3.0 | 2.8 | 2.9 | 2.6 | 2.5 | 2.2 | E | E | 2.6 |
| Count | 27 | 26 | 25 | 26 | 26 | 26 | 24 | 24 | 25 | 28 | 27 | 28 | 28 | 29 | 29 | 28 | 27 | 27 | 28 | 27 | 29 | 28 | 26 | 27 |

**fEs**

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

**W 8**

11

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

# IONOSPHERIC DATA

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

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | 2.6 | 2.8 | 2.7 | 3.0 | S | S | 3.1 | 3.3 | 3.1 | (3.1)P | (2.9)B | 3.1 | 3.2 | (3.1)J | 3.2 | (2.9)P | 3.2VHS | 3.2PS | 3.0 | 3.0 | (2.8)P | (3.2)P | (2.8)J |
| 2 | 2.9 | 2.7 | (2.8)S | 2.9 | (3.0)P | 3.0 | 3.1 | 3.0 | (3.0)C | 3.3 | 3.2 | 3.2 | 3.0P | (3.1)B | 3.2 | 3.1 | (3.1)B | 3.1J | 3.1 | 3.2 | 3.1H | (3.0)C | 3.0 | 2.8 |
| 3 | (2.8)PS | (2.7)PS | 2.8 | 2.7 | 2.7 | 3.0 | 3.0 | 3.1 | 3.2 | 3.3 | 3.1 | 3.0 | (2.9)J | (2.9)P | (2.7)HB | 3.0 | (3.1)B | 3.2 | 3.0 | 3.0 | 2.9 | (2.8)P | 2.6 | 3.0 |
| 4 | 2.8 | (2.9)P | 2.7 | 2.9 | (2.6)J | 2.9 | 2.9 | 2.9 | (2.8)C | (2.7)J | 3.0 | (3.0)B | 3.0 | 3.0 | 3.0 | (2.8)J | 2.7 | (2.9)S | 3.1 | [2.8]S | 2.4 | 2.5 | 2.8 | 2.5 |
| 5 | (2.4)JF | 2.6 | 2.6 | 2.9 | 2.6 | 3.0 | 3.0 | 2.9 | (2.8)C | 2.8 | 2.8 | 2.6 | (3.0)P | 3.4 | (3.2)JP | 3.1 | (3.0)S | (3.0)PS | 3.2 | 2.7 | 3.1 | 3.0 | (2.5)PS | 2.9 |
| 6 | 2.7 | 2.7S | (2.8)P | 2.7 | 2.6 | 2.5 | C | C | C | (3.0)P | S | 3.0 | 3.0 | 2.9 | 3.0 | (3.2)P | 3.2 | A | A | S | AS | (2.7)PS | (2.8)PS | S |
| 7 | S | (2.8)PS | (3.0)PS | 3.1 | 3.0 | 2.7F | (3.0)PS | (3.1)A | 3.2 | (3.2)J | 3.0 | 3.1 | 3.1 | 3.2 | 3.3 | C | C | 3.1 | 3.0P | 2.9 | 3.1 | 2.8 | 2.8S | (2.8)P |
| 8 | (2.6)VP | 2.5 | (2.8)PS | 3.0 | 3.0V | 2.8 | 3.1 | 3.1 | 3.2 | C | S | S | S | S | 3.2S | 3.0S | [3.1]S | 3.2 | (3.0)A | 2.8 | 2.7 | 3.0 | (3.2)J | 3.0 |
| 9 | 2.7 | (2.7)S | 2.7 | (2.8)S | 2.9H | C | C | C | 2.8 | B | B | S | B | B | B | B | 3.2 | 2.9H | 3.0 | (2.8)S | (2.7)P | (3.0)P | (3.0)S | 3.1 |
| 10 | 2.6 | (2.6)A | 2.6 | (2.6)A | (2.7)P | 2.8 | 3.1 | B | B | C | C | C | C | C | 2.9 | 2.9 | S | S | 2.7 | 2.9 | 2.7 | 2.6 | 2.6 | 2.4 |
| 11 | 2.5F | 2.6 | 2.5 | 2.6 | 2.4 | 2.7 | 3.0 | 2.9 | 3.0 | 3.1 | C | C | 3.4 | (3.1)PJ | 3.1 | 3.0 | 2.7 | (2.8)P | (2.7)S | 2.6 | 2.5 | A | A | S |
| 12 | (2.8)PJ | (2.6)A | 2.5 | 2.6 | 2.9 | 3.1 | 3.2 | 3.3 | (3.3)J | 3.3 | 3.0 | 3.1 | 3.1 | 3.1 | 3.1 | 3.2 | 3.1 | 2.9 | C | C | C | C | C | C |
| 13 | C | C | C | C | C | C | C | C | 3.2 | 3.2P | (3.2)J | 3.1 | (3.1)J | 3.0J | 3.3P | (3.1)J | 3.2 | [3.0]B | 2.7 | (2.9)S | 3.1 | 2.8 | 2.8 | (2.8)P |
| 14 | 3.0F | 3.0 | 2.8 | [2.9]S | (3.0)P | 3.0P | (3.1)P | 3.3 | 3.2 | 3.0 | 3.2 | 3.1 | 3.3 | (3.0)J | 3.1 | 3.0J | 3.1 | (3.3)J | (3.0)J | (3.1)PJ | [3.0]S | 2.8 | 2.8 | (2.6)S |
| 15 | 2.8 | 2.7 | (2.7)PS | S | S | S | BS | 3.3 | 3.0 | 3.0 | 3.2 | 3.1 | 3.0 | 3.0 | 3.1 | (3.1)J | 3.2 | 3.2 | (3.2)PS | [3.2]S | 3.1 | S | S | S |
| 16 | 2.9P | (2.8)P | (2.8)S | (2.9)P | (3.0)PS | 3.0PS | 3.2 | 3.3 | (3.2)J | 3.2 | 3.3 | 3.1 | 3.1 | 3.2 | 3.1 | 3.0 | 3.2 | 3.2F | S | S | (3.2)J | 2.5 | 2.7 | 2.7 |
| 17 | 2.7 | 2.5 | (2.9)P | 2.8 | (2.9)P | 2.8 | (3.2)J | 3.1 | 3.0 | 3.1 | 3.2 | 3.1 | 3.3 | 3.1 | 3.2 | (3.0)P | 3.1 | 3.3P | 3.0 | 2.8 | 3.1 | 2.8 | 3.1 | 3.0S |
| 18 | 2.7 | S | 2.9 | 2.9 | 2.6 | 2.6 | 3.0 | 3.2 | 3.1 | 3.2 | 3.2 | 3.0 | 2.9 | 3.1 | C | C | C | C | C | C | S | C | C | C |
| 19 | (2.8)P | (2.6)J | (2.7)J | (2.6)PF | (2.7)JF | (2.9)PF | 3.1 | 3.2P | 3.2 | (3.2)P | 2.9 | 3.0 | 3.1 | 3.1J | (3.2)J | 3.2 | 3.3 | 3.1P | (3.0)S | (2.8)P | 3.1 | S | S | S |
| 20 | (3.0)J | (3.0)S | 2.9 | 2.8 | (2.7)P | 3.2 | (2.9)P | (3.0)P | (3.0)J | 2.8 | 2.9 | 2.8 | 3.1 | (3.1)J | (3.1)P | 3.0 | 3.0 | [3.0]A | (3.0)PS | 3.0 | 3.0 | 2.9 | 3.1 | [2.8]B |
| 21 | (2.5)JF | 2.7F | 2.7F | 2.5FP | 2.6 | 2.9 | 3.0 | 3.1 | 3.1 | 3.0 | 2.8 | 3.0 | 3.1 | 2.9 | 3.3 | 3.0P | (3.0)A | 3.1 | 2.7 | 2.9 | 2.9P | (2.6)S | 2.4F | F5 |
| 22 | S | 2.6 | 2.5 | 2.6 | 2.5 | 2.8 | S | C | C | A | C | C | C | C | C | C | C | 3.0 | 2.9 | 2.6 | 2.5F | 2.5F | C | C |
| 23 | C | C | C | C | (2.7)J | 2.8 | 2.9 | 3.2 | 3.2 | 2.8 | 2.9 | 3.3 | 3.1 | (2.7)J | 3.1 | (3.2)P | 3.1 | (3.0)S | 2.9 | (2.8)AS | 2.8 | 3.0 | 3.0 | 2.7 |
| 24 | (2.9)JF | (3.0)JF | 2.6 | 2.5 | 3.1 | 2.6 | 3.1 | 2.9 | 2.9 | 3.1 | 3.2 | 3.2 | 3.1 | 3.0 | 3.0 | 3.2 | 3.2 | 3.2 | (2.9)P | 3.0 | (2.9)A | 2.8 | (2.9)P | 2.8 |
| 25 | 2.8 | 2.7 | 2.8 | 2.8F | 2.8 | 2.9P | 3.1 | 3.2 | 3.4P | 3.0 | 3.2 | 3.3 | (3.3)J | 3.1 | 3.1 | 3.2 | 3.3 | 2.8 | (3.0)P | 2.9 | 2.8 | 2.8 | 2.8 | 2.8 |
| 26 | 2.7 | 2.8F | 2.9F | (2.6)FJ | (2.6)FJ | 2.6F | 2.9 | 3.1 | 3.2 | 3.0 | 3.0 | 3.1P | 3.0P | 3.0 | 2.9 | 2.9 | 3.1 | 3.2 | 2.5 | 2.9 | 2.9 | 2.5 | 2.7 | 2.5 |
| 27 | 3.1 | 3.1 | 2.8 | 2.9 | 2.8 | 2.8 | 3.0 | 3.0 | 3.1 | B | B | B | (3.1)P | 3.3 | (3.1)J | (3.1)P | 3.2 | C | C | C | A | C | C | C |
| 28 | C | C | C | C | C | C | C | C | C | C | 3.0 | 3.1 | 3.0 | 3.2 | (3.2)J | 3.2 | 3.3 | 3.1 | 2.8P | 2.9 | 3.0P | 2.9 | (3.0)P | 2.7 |
| 29 | C | C | C | C | C | C | C | C | C | 3.0 | C | C | C | 3.2 | [3.1]B | 3.0 | 3.2 | 3.1 | 3.0 | 2.9 | 2.7 | (2.9)P | 3.0 | 2.8 |
| 30 | A | C | C | C | C | 3.1 | 2.9 | 3.2 | 3.1 | 3.1 | (3.1)P | B | 3.1 | 3.1 | 3.1 | 3.1 | 3.4 | 2.7 | 3.0P | 2.7 | 2.7 | (2.9)P | (2.7)P | (2.8)S |
| 31 | 3.0 | 2.8 | A | S | (2.7)P | 2.9 | 2.7 | B | B | 3.0 | 2.9 | 2.9 | 3.0 | 3.0 | 2.9 | 3.2 | 3.2 | 2.9 | 2.6 | 2.8 | S | 2.7 | S | S |
| Mean Value | 2.8 | 2.7 | 2.7 | 2.8 | 2.8 | 2.9 | 3.0 | 3.1 | 3.1 | 3.1 | 3.1 | 3.0 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 2.9 | 2.9 | 2.9 | 2.8 | 2.8 | 2.8 |
| Median Value | 2.8 | 2.7 | 2.8 | 2.8 | 2.7 | 2.9 | 3.0 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.0 | 2.9 | 2.9 | 2.8 | 2.8 | 2.8 |
| Count | 24 | 25 | 25 | 24 | 26 | 25 | 23 | 23 | 25 | 25 | 23 | 23 | 26 | 27 | 28 | 27 | 27 | 27 | 26 | 26 | 26 | 25 | 23 | 21 |

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

W 9

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

# IONOSPHERIC DATA

**Wakkanai**

Lat. 45° 23.6' N
Long. 141° 41.1' E

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

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.8 | E | 2.0 A | 1.8 | 1.2 | 2.2 A | (2.3) S | 2.4 | 4.5 | 3.3 | 3.6 | 4.2 | 3.4 | 3.2 | 3.2 | 3.6 | 2.3 | 1.8 | 2.6 A | 1.4 | 1.5 | 1.4 | 2.0 | 1.5 |
| 2 | 1.3 | 2.0 A | 1.5 | E | E | E | 2.0 | 2.3 | (2.8) C | 3.4 | 3.2 | 3.6 | 4.0 A | 5.0 A | 3.0 | 2.8 | 2.4 | 2.0 | 2.0 A | 2.0 A | 1.4 | 2.0 | 1.8 | E |
| 3 | 1.4 | E | E | E | E | E | 1.8 | 2.7 | 2.8 | 3.7 | 3.8 | 3.3 | 3.4 | 3.6 | 3.5 | 4.0 | 2.3 | 1.8 | E | E | 1.8 | 1.7 | E | 1.8 |
| 4 | E | E | E | E | E | E | 1.9 | 4.0 | 3.6 | 3.6 | 3.2 | 3.3 | 3.5 | 3.0 | 3.0 | 2.4 | 1.6 | 1.4 | 1.1 | (1.2) A | 1.2 | 2.5 A | 2.7 A | 2.0 A |
| 5 | E | E | E | 1.3 | E | 1.7 | 2.5 | 2.6 | (3.1) C | 3.6 | 3.6 | 3.6 | 4.3 | 3.0 | 3.6 | 3.6 | 2.0 | 1.6 | 2.0 | 2.0 | 1.4 | 2.0 | 1.5 | 1.8 |
| 6 | 2.0 | E | 1.8 | 2.0 A | 1.7 | E | C | C | C | 4.5 | 5.2 A | 4.6 A | 4.4 A | 3.5 | 3.9 A | 3.9 A | 2.5 | A | A | A S | 2.5 A | 2.3 A | 2.5 A | (2.2) A |
| 7 | 2.2 A | 1.2 | 2.0 | E | E | E | 2.0 | 2.4 | 4.0 A | 3.4 | 4.0 A | 7.2 A | 3.0 | 3.1 | 3.4 | 2.6 | 2.2 | 1.8 | 1.4 | 1.9 | 1.9 | 1.4 | 1.5 | 1.6 |
| 8 | 1.9 | 1.1 | 2.0 A | 1.7 | 2.0 A | 1.2 | 1.7 | 2.3 | 2.9 | C | S | S | A | S | 4.9 S | 2.9 S | 2.3 S | 2.3 | (2.2) A | 2.0 A | 1.8 A | 1.8 | 2.8 A | 1.7 |
| 9 | 1.4 | 1.2 | E | 1.8 | 2.6 A | C | C | C | 5.0 A | (4.8) B | 4.5 | S | 3.6 | 4.0 A | 3.9 A | 3.6 | 3.0 | 1.7 | 1.1 | E | 1.8 | 2.0 A | 2.0 A | 1.5 |
| 10 | 2.0 A | (2.4) | 2.8 A | (2.1) A | 1.4 | 1.4 | 2.2 | 2.8 | 3.8 | C | C | C | C | C | 3.0 | 3.0 | 4.7 | 2.6 A | 2.0 A | 1.4 | 1.3 | 1.6 | 1.4 | 1.4 |
| 11 | 2.0 A | 1.9 | 1.8 | 2.0 A | 2.0 A | 2.4 A | 1.6 | 2.4 | 2.8 | 3.8 A | (3.6) A | 3.4 | 3.6 A | 2.5 | 4.5 A | 3.6 | 2.0 | 1.9 | 2.0 | 1.4 | 1.4 | 5.0 A | A | A |
| 12 | 2.2 A | A | 1.4 | 1.8 | 3.6 A | 3.2 A | 3.2 | 3.8 | 3.9 | 3.6 | 3.4 | 4.6 | 3.6 | 3.6 | 2.6 | 3.4 A | 4.5 A | 3.6 A | C | C | C | C | C | C |
| 13 | C | C | C | C | C | C | C | 2.3 | 2.9 | 3.8 | 4.5 | 4.5 | 3.6 | 3.2 | 3.8 | 2.8 | 3.8 A | 1.3 | 2.0 A | 1.3 | 2.4 A | 1.5 | 1.4 | 1.3 |
| 14 | 1.5 | E | E | E | E | E | 1.7 | 2.6 | 2.6 | 3.8 | 4.6 | 3.8 A | 4.5 | 3.8 | 3.8 | 3.8 | 3.7 | 1.5 | 1.5 | 1.5 | (1.4) S | 1.3 | 2.0 | 2.0 |
| 15 | 1.5 | 1.4 | 1.4 | 1.8 | 1.8 | 2.0 A | (2.3) A | 2.6 | 3.7 | 4.5 | 2.0 | 3.8 | 4.8 | 3.0 | 2.8 | 5.0 | 2.1 | 1.8 | 1.2 | 1.2 | 1.2 | 1.2 | 2.0 S | 1.2 |
| 16 | E | E | E | E | E | E | 1.8 | 2.4 | 2.6 | 3.2 | 3.7 | 3.6 | 3.8 | 3.6 | 3.2 | 3.2 | 2.0 | 2.0 A | 2.5 A | (2.0) S | 1.4 | 1.4 | 1.3 | 1.4 |
| 17 | 2.8 | E | E | 1.4 | E | E | 1.4 | 2.3 | 2.1 | 3.3 | 3.4 | 2.9 | 3.1 | 3.3 | 2.9 | 2.6 | 2.1 | 3.6 | 2.0 A | 1.4 | 1.4 | 2.0 | 1.4 | 2.2 A |
| 18 | 1.4 | E | 1.6 | 1.3 | E | E | 1.6 | 2.1 | 2.6 | 2.7 | 3.2 | 3.3 | 3.6 | 5.0 | C | C | C | C | C | C | 1.4 | C | C | C |
| 19 | 4.0 A | 3.6 | 3.3 A | 1.4 | E | E | 1.9 | 2.2 | 4.0 A | 4.0 A | 3.3 | 3.3 | 3.1 | 3.1 | 3.1 | 2.5 | 2.1 | 3.1 A | (2.4) A | 1.8 | 2.0 A | 1.9 | 1.3 | (1.4) S |
| 20 | 1.4 | (1.7) | 2.0 A | E | 1.2 | 1.3 | 1.5 | 2.2 | 2.7 | 3.6 A | 4.0 | 4.5 A | 4.5 A | 3.6 A | 4.5 | 4.5 A | 4.0 A | (3.0) A | 1.9 | 1.9 | 2.0 A | 2.8 A | 2.0 A | (1.7) A |
| 21 | 1.4 | 2.2 A | 1.2 | 2.0 A | 2.0 A | 3.6 | 3.6 | 2.2 | 3.8 A | 5.0 A | 3.5 | 5.0 | 5.0 | 3.1 | 3.0 | 2.1 | (2.0) A | 1.8 | 2.0 A | 2.0 A | 2.0 A | (1.6) S | 1.2 | 2.0 A |
| 22 | S | 2.0 A | E | E | E | 2.0 FS | AS | C | C | A | C | C | C | C | C | C | C | 1.4 | 1.4 | 1.4 | 2.0 A | 2.5 A | C | C |
| 23 | C | C | C | C | 2.0 | E | 1.6 | 3.2 | 2.8 | 3.0 | 4.5 | 3.0 | 3.4 | 3.6 A | 3.0 A | 3.0 | 2.0 | 2.1 | 1.8 | 4.0 A | 2.6 A | 2.0 A | 1.4 | 1.8 |
| 24 | E | E | E | E | 1.8 | 1.8 | 1.4 | 2.4 | 2.2 | 2.4 | 3.3 | 4.3 A | 3.2 | 3.0 | 3.0 | 4.0 A | 2.0 | 1.4 | 2.0 A | 2.1 A | (2.0) A | 2.0 A | 2.4 A | 1.4 |
| 25 | 1.4 | 1.4 | E | 1.3 | 1.4 | E | 1.4 | 2.1 | 2.5 | 3.0 | 3.1 | 3.2 | 3.0 | 2.9 | 3.2 | 2.4 | 2.0 | 1.6 | 1.5 | 1.4 | 1.4 | 1.2 | 1.4 | 1.4 |
| 26 | 1.5 | 3.3 A | 2.0 A | 2.3 A | 1.3 | 1.4 | 1.3 | 2.2 | 2.7 | 2.4 | 3.0 | 3.6 | 3.0 | 3.0 | 3.0 | 2.6 | 2.7 | 2.4 A | 1.6 | 1.8 | 2.0 A | 2.0 A | 1.6 | 1.4 |
| 27 | 2.0 A | E | E | E | E | 1.8 | 1.8 | 3.0 A | 4.0 A | 2.7 | 3.0 | 3.0 | 3.2 | 4.5 | 2.7 | 4.7 A | 5.0 A | C | C | C | A | C | C | C |
| 28 | C | C | C | C | C | C | C | C | C | C | 3.0 | 3.1 | 3.2 | 3.1 | 2.5 | 2.5 | 2.4 | 1.6 | 1.5 | 1.8 | 1.4 | 1.4 | 1.4 | 1.4 |
| 29 | C | C | C | C | C | C | C | C | C | 3.0 | C | C | C | 3.0 | 3.2 | 2.4 | 1.9 | 1.8 | 2.0 A | 1.8 | 1.5 | 1.8 | 1.8 | 2.6 A |
| 30 | A | C | C | C | C | 2.2 A | 1.8 | 2.0 | 2.0 | 3.6 A | 3.1 | 3.0 | 3.0 | 2.7 | 2.5 | 3.0 | 1.9 | 2.0 A | 2.2 A | 1.8 | 2.0 A | 1.5 | 1.3 | 1.9 |
| 31 | 2.0 A | 1.4 | (1.7) A | 2.0 A | 2.0 A | 1.8 | 1.3 | 2.0 | 3.2 | 4.3 | 3.6 A | 3.1 | 3.3 | 3.0 | 2.7 | 2.3 | 2.0 | 1.3 | 1.4 | 1.4 | 1.5 | 2.1 A | (2.0) S | 2.2 A |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Mean Value | 1.9 | 1.9 | 1.9 | 1.8 | 1.9 | 2.0 | 1.9 | 2.5 | 3.2 | 3.6 | 3.6 | 3.8 | 3.6 | 3.4 | 3.3 | 3.2 | 2.6 | 2.0 | 1.8 | 1.8 | 1.7 | 1.9 | 1.8 | 1.7 |
| Median Value | 1.5 | 1.2 | 1.4 | 1.4 | 1.2 | 1.3 | 1.8 | 2.4 | 2.9 | 3.6 | 3.5 | 3.6 | 3.5 | 3.2 | 3.1 | 3.0 | 2.2 | 1.8 | 2.0 | 1.8 | 1.5 | 1.8 | 1.6 | 1.6 |
| Count | 25 | 25 | 26 | 26 | 27 | 27 | 25 | 25 | 27 | 27 | 27 | 26 | 27 | 28 | 29 | 29 | 29 | 28 | 27 | 27 | 29 | 28 | 26 | 26 |

fminF

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

W 10

13

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

# IONOSPHERIC DATA

Oct. 1952 | fminE | 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 | S | 1.4 | [1.5]C | 1.6 | 2.0 | 2.2 | 2.0 | 2.0 | 2.0 | 1.4 | E | 1.4 | 1.3 | E | E | E | E | E |
| 2 | E | E | S | E | E | E | 1.3 | 1.1 | [1.2]C | 1.4 | 1.4 | 1.5 | E | 1.4 | 1.4 | E | 1.4 | E | E | 1.8 | E | E | E | E |
| 3 | E | E | E | E | E | E | 1.4 | 1.4 | E | E | 1.2 | 2.0 | 1.4 | 2.0 | 2.2 | 1.3 | 1.2 | 1.2 | E | E | 1.8 | E | E | E |
| 4 | E | E | E | E | E | E | E | S | E | 1.4 | 2.0 | 2.0 | 2.0 | E | E | 1.4 | E | 1.4 | E | E | E | E | 1.4 | E |
| 5 | E | E | E | E | E | E | 1.4 | 1.4 | [1.4]C | 1.4 | 1.8 | 2.0 | 2.0 | 1.4 | E | 1.2 | B | B | E | E | E | E | E | E |
| 6 | E | E | E | E | E | E | C | C | C | 1.5 | 1.6 | 1.5 | 1.5 | 1.3 | 1.4 | 1.3 | 1.1 | 1.4 | 1.5 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 |
| 7 | E | E | E | E | E | E | 1.6 | 1.3 | 1.5 | 2.0 | 1.2 | 1.4 | 1.8 | 1.5 | 1.8 | 1.2 | 1.3 | E | 1.4 | 1.8 | 1.5 | E | E | 1.2 |
| 8 | E | E | E | E | E | E | 1.4 | 1.5 | 1.3 | [3.2]f | 5.0 | 4.9 | 2.0 | 4.5S | 2.0 | S | S | S | 1.4 | E | 1.2 | 1.5 | 1.4 | 1.4 |
| 9 | E | E | E | E | 1.2 | C | C | C | E | B | B | 3.2 | 1.2 | 3.6S | 1.8 | 1.2 | 1.2 | 1.1 | E | E | E | 1.1 | 1.4 | 1.2 |
| 10 | E | 1.8 | E | E | E | E | 1.2 | 1.2 | 1.2 | C | C | C | C | C | 1.4 | 1.4 | 1.1 | E | E | 1.4 | E | E | E | 1.2 |
| 11 | E | E | E | E | E | E | E | 1.4 | 1.4 | 1.4 | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.3 | 1.4 | E | 1.4 | E | E | E | E |
| 12 | E | E | E | E | E | 1.2 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 1.3 | 1.6 | 1.4 | 1.4 | 1.4 | 1.4 | C | C | C | C | C | C |
| 13 | C | C | C | C | C | C | C | C | 1.3 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.5 | 1.4 | 1.3F | 1.3 | 1.5 | 1.3 | 1.3 | 1.5 | E | 1.9 |
| 14 | E | E | E | E | E | E | B | 1.3 | 1.3 | 1.3 | 1.4 | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 | 1.3 | E | E | E | S | E | 1.4 | E |
| 15 | 1.4 | E | E | E | E | E | E | E | E | E | E | 1.8 | E | E | 1.4 | 1.4 | 1.2 | E | E | E | E | E | E | E |
| 16 | E | E | E | E | E | E | E | 1.2 | E | 1.2 | 1.3 | 1.4 | 1.4 | 1.4 | E | 1.1 | 1.2 | 1.1 | 1.4 | S | E | 1.4 | 1.4 | E |
| 17 | E | E | E | E | E | E | E | E | 1.1 | 1.1 | 1.3 | E | 1.2 | 1.4 | 1.2 | 1.2 | 1.4 | 1.4 | 1.4 | E | E | E | 1.4 | 1.3 |
| 18 | E | E | E | 1.7 | E | E | E | 1.4 | 1.4 | E | 1.3 | 1.2 | 1.2 | 1.1 | C | C | C | C | C | C | E | C | C | C |
| 19 | E | E | E | E | 1.5 | E | 1.4 | 1.4 | 1.4 | E | 1.3 | 1.4 | 1.4 | 1.4 | 1.1 | E | 1.4 | 1.3 | 1.2 | 1.2 | 1.3 | E | E | 1.4 |
| 20 | E | E | E | E | E | E | E | 1.4 | 1.3 | E | 1.4 | 1.3 | 1.4 | 1.4 | 1.4 | E | 1.4 | 1.4 | E | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| 21 | E | E | E | E | E | E | 1.4 | 1.4 | 1.4 | 1.2 | 1.2 | 1.2 | 1.1 | E | 1.2 | E | 1.2 | 1.3 | 1.2 | E | 1.2 | 1.2 | 1.2 | 1.2 |
| 22 | 1.2 | E | E | E | E | S | 1.2 | C | C | 2.0 | C | C | C | C | C | C | C | 1.1 | 1.4 | 1.4 | 1.3 | 1.4 | C | C |
| 23 | C | C | C | C | C | E | E | 1.4 | 1.4 | 1.3 | 1.4 | 1.4 | 1.3 | 1.4 | 1.3 | 1.4 | 1.3 | 1.4 | 1.5 | 1.4 | 1.4 | 1.4 | 1.4 | 1.8 |
| 24 | E | E | E | E | E | E | 1.4 | 1.4 | 1.4 | 1.1 | 1.1 | E | E | E | 1.1 | 1.4 | 1.4 | E | 1.3 | 1.3 | 1.4 | 1.3 | 1.3 | 1.3 |
| 25 | E | E | E | E | E | 1.4 | E | 1.3 | E | 1.3 | 1.5 | 1.1 | 1.1 | 1.1 | 1.4 | 1.5 | 1.4 | E | E | E | E | E | E | E |
| 26 | E | E | E | E | E | E | E | 1.4 | 1.1 | E | 1.3 | 1.4 | 1.3 | 1.4 | 1.3 | 1.4 | 1.4 | 1.3 | 1.4 | 1.4 | 1.3 | 1.4 | E | E |
| 27 | E | E | E | E | E | E | 1.4 | 1.3 | E | 1.8 | 1.6 | 1.2 | 1.2 | 1.2 | 1.2 | E | E | C | C | C | 1.6 | C | C | C |
| 28 | C | C | C | C | C | C | C | C | C | C | 1.4 | 1.4 | 1.3 | 1.4 | 1.4 | 1.4 | E | E | 1.4 | E | E | E | E | E |
| 29 | C | C | C | C | C | C | C | C | C | 1.4 | C | C | C | 1.8 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | E | E | E |
| 30 | E | C | C | C | C | E | 1.4 | E | 1.8 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.3 | 1.4 | 1.5 | E | 1.3 | 1.3 |
| 31 | E | E | E | E | E | E | E | 1.3 | 1.4 | 1.4 | 1.2 | 1.4 | 1.3 | 1.3 | 1.3 | 1.4 | 1.3 | E | E | 1.4 | E | 1.2 | [1.2]S | 1.3 |
| Mean Value | 1.3 | 1.8 | | 1.7 | 1.4 | 1.3 | 1.4 | 1.3 | 1.4 | 1.5 | 1.5 | 1.7 | 1.4 | 1.6 | 1.5 | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| Median Value | E | E | E | E | E | E | 1.2 | 1.4 | 1.3 | 1.4 | 1.4 | 1.4 | 1.3 | 1.4 | 1.4 | 1.4 | 1.3 | 1.3 | 1.3 | 1.3 | 1.2 | E | E | 1.2 |
| Count | 27 | 26 | 25 | 26 | 26 | 26 | 24 | 24 | 27 | 28 | 27 | 28 | 28 | 29 | 29 | 28 | 27 | 27 | 28 | 27 | 29 | 28 | 26 | 27 |

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

W 11

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

# IONOSPHERIC DATA

**Akita**

Lat. 39° 43.5' N
Long. 140° 08.2' E

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

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.3 | [3.4]A | 3.5 | 3.4 | 3.6 | 3.4 | 6.6P | 6.4 | 6.6 | 6.3 | 7.2 | 7.1 | 7.4 | 7.9 | 7.9 | 7.3 | 7.4 | 7.0 | 7.0 | 7.2 | 5.1 | 3.4 | 3.6 | 3.5 |
| 2 | 3.5 | 3.7 | 3.4 | 3.7 | 3.8 | 3.3 | 4.3 | 4.5 | 5.5 | 7.5PJ | 7.7 | 6.9H | 6.5 | 7.1 | 6.9 | 6.9 | 7.9 | 8.5 | 8.4 | 5.3J | 4.0 | 3.3 | 3.2 | 3.2 |
| 3 | 3.3 | 3.1 | 3.3 | 3.7 | 3.3 | 3.2 | 4.7 | 7.3 | 8.6 | 6.9 | 6.8 | 6.5 | 5.7 | 6.9 | 7.4 | 7.3 | 7.6 | 6.5 | 5.7 | 5.6 | 4.7 | 3.8 | 4.4 | 4.3 |
| 4 | 4.3 | 4.2 | 3.8 | 4.2 | 4.1H | 4.1 | [6.0]C | 7.9 | 9.3 | 8.2 | 8.6 | 7.6 | 8.1 | 7.9 | 7.9 | 7.1 | 7.6 | 8.9 | 9.0 | 8.6 | 5.0 | 3.2 | 3.2 | 3.4 |
| 5 | 3.2 | 3.3 | 3.6 | 3.8 | 4.1 | 5.0 | 5.5 | 7.0 | 7.5H | 8.0 | [7.4]A | 6.7A | 8.2 | 8.4 | 7.2 | 7.1 | 7.4 | 7.6 | 7.1 | [6.6]A | (6.1)PH | 4.3 | 3.7 | 3.6 |
| 6 | 3.4 | 3.4 | 3.0 | 3.2 | 3.1 | 3.0 | 4.6 | 6.1 | 7.6 | (8.0)PJ | 7.1 | 8.1 | 8.0 | 9.5 | 9.8 | 9.1 | 8.8H | 8.2 | 6.4 | 5.0 | 4.3 | 4.2 | 3.9 | 3.8 |
| 7 | 3.8H | 3.6 | 3.5 | 3.5 | 3.3H | 3.2 | 4.4 | 6.6P | 8.3 | 8.2 | 9.5 | (9.4)P | 7.8 | 8.1 | 7.4 | 6.8 | 6.6 | 7.0P | 5.0 | 4.8 | 4.4 | 3.6 | 3.7 | 4.2 |
| 8 | 3.4 | A | A | A | 2.7 | 2.9 | 4.3 | 6.2 | 7.4 | 7.5 | 7.4P | 7.7 | 7.5 | 6.4 | 7.2 | 6.8 | 7.2 | 5.8 | A | A | 4.5 | (3.8)PF | F | 3.3JF |
| 9 | 3.4F | 3.6 | 3.2F | 3.6F | 3.7JF | 2.7F | 4.7 | 6.8 | 7.1 | 8.2 | 7.6 | 7.0 | 7.0 | 6.9 | 7.6 | 8.7 | (6.7)PJ | 5.9 | 5.2 | 4.9F | 5.4FH | (5.3)PFZH | 4.4F | 3.7F |
| 10 | 3.7PF2 | 3.8F | 4.0VF | 3.7 | 3.8 | 4.1 | 4.8 | 7.4 | 7.2 | 7.0 | 8.5 | 7.3 | 7.6 | 7.0 | 6.9 | 7.6 | 7.3 | 6.8 | 5.1 | 4.1 | 3.9 | 3.9 | 3.8H | 3.7 |
| 11 | 3.8 | 4.0H | 4.2 | 4.1 | 3.9 | 3.8 | 4.9 | 6.3 | 7.8 | 8.1 | 7.3 | 7.5 | 8.6 | 8.7 | 9.5 | 9.3 | 7.6 | [6.4]B | 5.1P | 4.8 | 4.8 | 4.6 | 4.5 | 4.6 |
| 12 | 4.4 | 4.6 | 4.6 | 4.4 | 4.1 | 3.6 | 5.1 | 6.0 | 6.7 | 7.4 | 7.4 | 9.0 | 9.4 | 10.4 | 8.5 | 7.5P | 7.3 | 7.6 | (6.6)PJ | 3.9 | 3.8 | 4.1 | 4.7 | 4.0 |
| 13 | 3.9PF | 4.0F | 4.0F | 4.1F | 3.4 | 3.0F | 5.0F | 6.6 | 7.2 | 7.8 | 8.3 | 8.7 | 9.4 | 8.0 | 7.9 | 7.4 | 7.7 | 7.5 | 7.0 | 4.6H | 4.1J | 3.1 | 3.3 | 3.4 |
| 14 | 3.4 | 3.4 | 3.3 | 3.3 | 3.5 | 3.9 | 5.5 | 7.1 | C | C | C | 9.8 | 7.8 | 7.0 | 7.0 | 6.9 | [7.2]C | 7.6 | 7.2 | 4.6 | 3.0 | 2.7 | 3.1 | 3.2 |
| 15 | 3.3 | 3.4 | 3.0 | 3.1 | 3.4 | 3.3 | 4.9 | 6.8 | 6.7 | 7.5 | 8.0 | 8.2 | 8.8H | 8.6 | 7.2 | 6.2 | 8.0 | 6.9 | 4.6 | 3.2 | 3.0 | 3.2 | 3.4 | 3.4 |
| 16 | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | 3.7 | 3.2 | 3.2 | 3.5 |
| 17 | 3.7 | 3.5 | 3.4 | 3.3 | 3.2 | 3.3 | 4.9 | 6.9 | 6.8 | 7.6 | C | C | C | C | 8.5 | 7.0 | 7.3 | 7.7 | 5.4 | 3.3 | 4.1 | 3.7 | 3.4 | 3.5 |
| 18 | 3.7 | 3.5 | 3.2 | 3.2 | 3.1H | 3.3 | 5.0 | 8.0 | 8.8 | 7.3H | 7.6 | 9.0 | 8.0 | 8.3 | 8.0 | 7.7 | 6.6 | 5.8 | 4.6 | 4.9 | 4.8 | 4.4 | 4.3H | 4.8H |
| 19 | 3.9 | A | A | 4.2F | 4.2JF | 3.6F | 5.5 | 6.4 | 7.8 | 9.2 | 8.5 | 7.9 | 9.3 | 9.3 | 7.9 | 8.2 | 8.4 | (7.6)P | 5.6 | 4.5 | A | A | A | 3.1 |
| 20 | 3.4 | 3.1JF | 3.5JF | 3.4F | 3.7 | 4.0 | 4.6 | 6.5 | 7.9 | 7.7 | 8.4 | [9.6]C | 10.7 | 9.7 | 8.3 | 7.1 | 6.5 | 5.2 | 5.0 | 5.0 | A | A | 3.9 | 3.4JF |
| 21 | 3.3F | 3.2F | 3.3 | 3.5 | 3.2 | 3.8 | 5.0 | 6.2 | 7.4 | 6.9H | 8.2H | 9.4 | 10.0 | 8.5 | 8.0 | 7.1 | 6.6H | 6.0 | 3.9J | 3.4 | A | A | A | 3.1 |
| 22 | 3.2F | 3.2 | 2.9 | [3.0]A | 3.0F | 4.5F | 4.0 | 6.9 | 7.1 | 7.7 | 7.8 | 9.0 | 9.0 | 8.7 | 8.5 | 8.5 | 7.0 | 6.6 | 5.8 | 5.1 | 5.0 | 4.6 | [4.6]A | 4.5F |
| 23 | 4.5FH | 4.3JF | 3.8JF | 3.4 | 3.4 | 3.1 | 4.4 | 6.2 | 7.2 | 6.4 | 7.7 | 9.2 | 8.3 | 8.4 | 7.3 | 7.3 | 6.4 | 5.2 | 5.0 | 4.8 | 4.5 | 4.1 | 3.6 | [3.6]A |
| 24 | 3.7 | 3.6 | 3.4H | 3.4 | 3.7 | 3.3 | 4.2 | 5.8H | 6.7 | 7.3 | 7.5JH | 8.0 | 8.0 | 7.5 | 7.7 | 8.2 | 7.5 | 6.3 | 4.7 | 3.9 | 3.9 | 3.3 | 3.3 | 3.4 |
| 25 | 3.3 | 3.6 | 3.7 | 3.7 | 3.5 | 3.4 | 4.4 | 6.6 | 7.6 | 6.6 | 7.6 | 8.4 | 7.0 | 6.9 | 6.9 | 7.2 | 6.7 | 6.1 | 4.6 | 4.6 | 3.8 | 3.6 | 3.8 | 4.4 |
| 26 | 4.3 | 4.4 | 4.1 | 4.2 | 4.0 | 3.8 | 4.4 | 6.2 | 7.2 | 7.9 | B | B | 10.3 | 8.2 | 8.4 | 8.4 | 8.1 | 6.3 | 3.1 | 3.5 | 3.8 | 3.2 | 3.5 | 3.5 |
| 27 | 3.6 | 3.6 | 3.7 | 3.0 | 3.0 | 3.0 | 4.6V | 6.7 | 8.4 | [9.2]B | 9.9 | 12.2 | 9.2 | 8.7 | [7.8]A | 7.0 | 7.5 | A | A | 4.6F | 4.7F | 4.6F | 5.1F | 5.0JF |
| 28 | 4.2F | 3.0F | 3.1 | 3.1 | 3.2 | 3.3 | 4.6 | 7.5 | 8.3 | C | C | C | C | C | C | C | C | 4.9 | 3.5 | 3.7 | 4.1 | 4.0 | 3.2 | 3.3 |
| 29 | 3.4 | 4.1 | 3.3 | 3.1F | 3.3JF | 3.2 | 4.6 | 7.3 | 7.9 | 9.3 | 8.6 | 9.2 | 8.2 | [8.0]B | 7.8 | 7.3 | 6.5 | 5.5 | 4.1J | 3.3 | 3.3 | 3.4 | 3.3V | 3.4 |
| 30 | 3.5 | 3.4 | 3.2J | 3.1F | 3.1F | 3.1 | 3.7 | 5.6 | 7.4 | (8.0)P | B | B | 9.3J | [9.0]B | (8.8)P | 7.6 | 6.5 | 4.0J | 3.5 | 3.5 | 3.6 | 3.3 | 4.7F | 4.0 |
| 31 | 3.5 | 3.6 | 3.4F | 4.0JF | 3.4JF | 3.7 | 3.7 | 6.4 | 6.6 | 8.3 | 9.5 | [9.7]B | 9.9 | 8.5 | 7.5 | 7.7J | B | C | 4.0 | 4.2 | 5.0 | 3.2 | 3.0 | 4.1JF |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Mean Value | 3.6 | 3.6 | 3.5 | 3.6 | 3.5 | 3.5 | 4.8 | 6.6 | 7.5 | 7.7 | 8.0 | 8.4 | 8.4 | 8.2 | 7.9 | 7.5 | 7.3 | 6.6 | 5.4 | 4.7 | 4.3 | 3.8 | 3.8 | 3.7 |
| Median Value | 3.5 | 3.6 | 3.4 | 3.5 | 3.4 | 3.3 | 4.6 | 6.6 | 7.4 | 7.7 | 7.7 | 8.3 | 8.2 | 8.2 | 7.8 | 7.3 | 7.3 | 6.6 | 5.1 | 4.6 | 4.2 | 3.6 | 3.6 | 3.5 |
| Count | 30 | 28 | 28 | 29 | 30 | 30 | 30 | 30 | 29 | 28 | 25 | 26 | 28 | 28 | 29 | 29 | 28 | 28 | 28 | 29 | 28 | 28 | 28 | 31 |

foF2

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

A 1

15

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

# IONOSPHERIC DATA

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

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 340 | [360]A | 370 | 360 | 310 | 310 | 260P | 260 | 250 | 250 | 280 | 280 | 300 | 280 | 290 | 290 | 290 | 290 | 270 | 250 | 260 | 330 | 350 | 340 |
| 2 | 350 | 380 | 320 | 310 | 300 | 280 | 280 | 260 | 260 | (230)PJ | 270 | 300H | 280 | 310 | 290 | 300 | 290 | 290 | 240 | (210)J | 270 | 320 | 330 | 320 |
| 3 | 340 | 350 | 330 | 310 | 310 | 310 | 270 | 260 | 230 | 250 | 260 | 250 | 260 | 310 | 300 | 300 | 260 | 280 | 280 | 230 | 290 | 320 | 360 | 320 |
| 4 | 330 | 330 | 330 | 310 | 320H | 280 | [280]C | 270 | 280 | 270 | 260 | 280 | 280 | 290 | 290 | 280 | 280 | 300 | 300 | 240 | 250 | 280 | 390 | 360 |
| 5 | 380 | 400 | 410 | 380 | 360 | 370 | 260 | 280 | 290H | 250 | [280]A | 300 | 310 | 280 | 260 | 270 | 290 | 270 | 260 | [270]A | (280)PH | 350 | 310 | 290 |
| 6 | 340 | 350 | 330 | 400 | 370 | 350 | 220 | 240 | 240 | (280)PJ | 300 | 290 | 280 | 290 | 260 | 280 | 250H | 280 | 320 | 300 | 300 | 310 | 340 | 340 |
| 7 | 370H | 320 | 320 | 310 | 330H | 320 | 240 | 240P | 250 | 290 | 260 | (250)F | 260 | 280 | 280 | 250 | 260 | 260P | 260 | 320 | 290 | 310 | 330 | 350 |
| 8 | 310 | A | A | A | 320 | 300 | 250 | 260 | 260 | 280 | 280P | 260 | 250 | 260 | 250 | 250 | 250 | 230 | A | A | A | (320)PF | F | (320)JF |
| 9 | 340F | 330 | 300F | 330F | (350)JF | (330)F | 270 | 250 | 250 | 250 | 270 | 280 | 280 | 280 | 270 | A | A | 260 | 280 | 300F | 340FH | (280)PFH | 280F | 310F |
| 10 | 380PF | 360F | 320VF | 320 | 310 | 290 | 230 | 240 | 230 | 250 | 270 | 260 | 270 | 260 | 270 | 270 | 250 | 250 | 220 | 290 | 290 | 300 | 310H | 320 |
| 11 | 290 | 320H | 340 | 320 | 310 | 290 | 220 | 240 | 270 | 230 | 230 | 280 | 280 | 300 | 280 | 260 | 230 | [260]B | 290P | 280 | 300 | 320 | 320 | 340 |
| 12 | 310 | 310 | 300 | 280 | 240 | 330 | 250 | 230 | 220 | 270 | 270 | 300 | 270 | 280 | 290 | 280P | 260 | 260 | (250)PJ | 270 | 320 | 320 | 340 | 340 |
| 13 | 360PF | 360F | 320F | 300F | 250 | 320F | 290F | 250 | 260 | 250 | 270 | 280 | 260 | 280 | 270 | 260 | 250 | 250 | 250 | 300H | (250)J | [290]A | 330 | 320 |
| 14 | 300 | 330 | 300 | 370 | 320 | 310 | 280 | 270 | C | C | C | 280 | 260 | 250 | 280 | 250 | [260]C | 280 | 210 | 250 | 240 | 310 | 320 | 300 |
| 15 | 330 | 340 | 310 | 320 | 290 | 250 | 240 | 250 | 260 | 250 | 260 | 240 | 290H | 290 | 270 | 240 | 250 | 230 | 230 | 260 | 350 | 340 | 320 | 310 |
| 16 | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | 300 | 320 | 320 | 360 |
| 17 | 320 | 350 | 310 | 290 | 310 | 280 | 260 | 260 | 260 | 250 | C | C | C | C | 270 | 260 | 240 | 250 | 220 | 240 | 320 | 300 | 310 | 300 |
| 18 | 290 | 300 | 300 | 320 | 370H | 330 | 260 | 230 | 220 | 270H | 270 | 260 | 270 | 300 | 270 | 300 | 260 | 290 | 310 | 290 | 300 | 270 | 290H | 300H |
| 19 | 250 | A | A | 340F | (300)JF | 330F | 210 | 240 | 250 | 240 | 240 | 260 | 280 | 260 | 270 | 270 | 240 | (250)P | 250 | 270 | A | A | A | 290 |
| 20 | 310 | (320)JF | (340)JF | 330F | 300 | 310 | 300 | 300 | 240 | 260 | 260 | [270]C | 280 | 270 | 290 | 270 | 240 | 240 | 280 | 270 | A | A | 310 | (300)JF |
| 21 | 310F | 310F | 310 | 310 | 300 | 310 | 270 | 230 | 260 | 270H | 270H | 340 | 270 | 280 | 270 | 260 | 250H | 230 | (260)J | 290 | A | A | A | 380 |
| 22 | 350F | 360 | 360 | [360]A | 360F | 230F | 240 | 260 | 220 | 260 | 280 | 280 | 260 | 260 | 280 | 280 | 270 | 270 | 280 | 300 | 280 | 270 | A | A |
| 23 | (360)JFH | (370)JF | (330)JF | 300 | 280 | 300 | 230 | 240 | 260 | 260 | 290 | 270 | 270 | 270 | 270 | 240 | 260 | 250 | 260 | 280 | 290 | 310 | 300 | [320]A |
| 24 | 330 | 370 | 360H | 350 | 300 | 290 | 250 | 220H | 240 | 240 | (300)JH | 260 | 280 | 280 | 270 | 250 | 240 | 250 | 220 | 300 | 260 | 280 | 290 | 290 |
| 25 | 300 | 320 | 330 | 320 | 290 | 270 | 250 | 220 | 240 | 240 | 280 | 280 | 250 | 300 | 260 | 250 | 220 | 250 | 250 | 280 | 290 | 290 | 320 | 270 |
| 26 | 310 | 320 | 310 | 350 | 330 | 300 | 280 | 280 | 270 | 250 | B | B | 280 | 280 | 280 | 270 | 240 | 210 | 260 | 340 | 310 | 340 | 360 | 380 |
| 27 | 360 | 380 | 270 | 370 | 330 | 300 | 290V | 250 | 280 | B | 280 | 280 | 280 | 260 | [260]A | 250 | 250 | A | A | 310F | 310F | 300F | 280F | (240)JF |
| 28 | 270F | 300F | 300 | 280 | 290 | 280 | 250 | 260 | 230 | C | C | C | C | C | C | C | C | 210 | 290 | 290 | 320 | 290 | 290 | 330 |
| 29 | 320 | 320 | 280 | 310F | (320)JF | 280 | 250 | 220 | 230 | 240 | 230 | 250 | 270 | [260]B | 240 | 230 | 230 | 240 | (220)J | 230 | 320 | 290 | 320V | 320 |
| 30 | 280 | A | A | 290F | 290F | 210 | 290 | 210 | 220 | (300)P | B | B | (260)J | [260]B | (260)P | 240 | 210 | (220)J | 310 | 290 | A | A | 330F | 230 |
| 31 | 290 | 300 | 370F | (320)JF | (310)JF | 290 | 280 | 260 | 260 | 250 | 290 | [270]B | 250 | 270 | 280 | (270)J | B | C | 280 | 280 | 240 | 270 | 310 | (360)JF |
| Mean Value | 320 | 340 | 320 | 330 | 310 | 300 | 260 | 250 | 250 | 260 | 270 | 280 | 270 | 280 | 270 | 260 | 250 | 260 | 260 | 280 | 290 | 300 | 320 | 320 |
| Median Value | 320 | 330 | 320 | 320 | 310 | 300 | 260 | 250 | 250 | 250 | 270 | 280 | 270 | 280 | 270 | 260 | 250 | 250 | 260 | 280 | 290 | 310 | 320 | 320 |
| Count | 30 | 27 | 27 | 29 | 30 | 30 | 30 | 30 | 29 | 27 | 25 | 26 | 28 | 28 | 29 | 28 | 27 | 28 | 28 | 29 | 26 | 27 | 27 | 30 |

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

A 2

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

# IONOSPHERIC DATA

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

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

h'F2

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

A 3

17

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

# IONOSPHERIC DATA

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

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

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

A 4

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

# IONOSPHERIC DATA

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

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

h'F1

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

A 5

19

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

# IONOSPHERIC DATA

Akita

Lat. 39° 43.5' N
Long. 140° 08.2' E

Oct. 1952

foE

135° E Mean Time

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

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

A 6

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

# IONOSPHERIC DATA

Oct. 1952 | R'E | 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 | | | | | | | A | A | 110 | 110 | 110 | 110 | 110 | A | A | A | A | A | | | | | | |
| 2 | | | | | | | A | A | A | 110 | 110 | 110 | 100 | 100 | 100 | 100 | 100 | A | | | | | | |
| 3 | | | | | | | 130 | 120 | 110 | 100 | 110 | 110 | 110 | 110 | [110]$^{B}$ | 110 | 110 | A | | | | | | |
| 4 | | | | | | | B | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 100 | 110 | 110 | B | | | | | | |
| 5 | | | | | | | A | 110 | 110 | 110 | 110 | 110 | 110 | 110 | A | A | 110 | B | | | | | | |
| 6 | | | | | | | B | 110 | 110 | [110]$^{A}$ | 110 | 110 | 110 | 110 | 110 | A | A | A | | | | | | |
| 7 | | | | | | | 130 | 110 | 110 | 110 | 110 | 110 | A | A | A | A | A | A | | | | | | |
| 8 | | | | | | | B | 120 | 110 | 110 | 110 | 110 | 100 | 100 | 110 | 110 | A | A | | | | | | |
| 9 | | | | | | | A | 110 | 110 | A | A | A | 110 | 110 | A | A | A | A | | | | | | |
| 10 | | | | | | | A | A | 110 | 110 | 110 | 110 | A | A | A | A | 110 | A | | | | | | |
| 11 | | | | | | | B | 110 | 110 | 100 | 100 | 100 | A | A | 100 | A | A | A | | | | | | |
| 12 | | | | | | | B | 120 | 110 | 110 | 100 | 100 | 110 | 100 | 100 | 110 | 110 | A | | | | | | |
| 13 | | | | | | | A | 110 | 110 | 110 | 100 | 100 | 100 | 100 | 110 | 110 | A | A | | | | | | |
| 14 | | | | | | | A | A | C | C | C | 110 | 110 | 110 | 110 | 110 | C | A | | | | | | |
| 15 | | | | | | | B | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | A | | | | | | |
| 16 | | | | | | | C | C | C | C | C | C | C | C | C | C | C | C | | | | | | |
| 17 | | | | | | | B | 120 | 110 | 110 | C | C | C | C | A | A | A | A | | | | | | |
| 18 | | | | | | | 120$^{B}$ | 110 | 110 | 110 | 110 | A | A | A | A | A | A | A | | | | | | |
| 19 | | | | | | | B | 120 | 110 | 110 | 110 | 110 | 110 | 110 | A | A | 110 | A | | | | | | |
| 20 | | | | | | | A | 110 | 110 | 110 | A | C | A | A | A | A | A | A | | | | | | |
| 21 | | | | | | | A | A | 110 | 110 | 110 | 110 | 110 | 110 | A | A | A | A | | | | | | |
| 22 | | | | | | | A | A | 110 | 110 | 110 | A | A | A | A | A | A | A | | | | | | |
| 23 | | | | | | | B | 130$^{B}$ | 110 | A | A | A | 110 | 110 | 110 | 110 | A | A | | | | | | |
| 24 | | | | | | | B | 130$^{B}$ | 110$^{H}$ | 110 | 110 | 110 | 110 | A | A | A | A | A | | | | | | |
| 25 | | | | | | | B | 110 | A | A | A | A | 110 | 110 | 100 | 110 | 110 | A | | | | | | |
| 26 | | | | | | | A | A | A | A | 110 | 110 | A | A | A | A | A | A | | | | | | |
| 27 | | | | | | | B | B | B | B | A | A | A | A | A | 110 | A | A | | | | | | |
| 28 | | | | | | | B | 110 | A | C | C | C | C | C | C | C | C | B | | | | | | |
| 29 | | | | | | | A | A | A | A | A | A | A | A | A | A | A | A | | | | | | |
| 30 | | | | | | | B | A | A | 110 | A | A | A | A | A | A | A | A | | | | | | |
| 31 | | | | | | | B | 110 | 110 | A | A | A | 100 | [100]$^{A}$ | 110 | A | A | B | | | | | | |
| Mean Value | | | | | | | 130 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | | | | | | | |
| Median Value | | | | | | | 130 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | | | | | | | |
| Count | | | | | | | 3 | 20 | 22 | 21 | 19 | 18 | 18 | 16 | 13 | 11 | 9 | | | | | | | |

R'E

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

A 7

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

# IONOSPHERIC DATA

Akita

Lat. 39° 43.5' N
Long. 140° 08.2' E

Oct. 1952

fEs

135° E Mean Time

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.5 | 3.7 | 2.0 | E | 2.4 | 2.5 | 3.1 | 3.7 | 5.2 | 3.7 | G | G | G | 4.7 | 5.2[F] | 5.4 | 3.4 | 3.2 | 4.8 | 4.0 | E | 2.3 | E | E |
| 2 | E | E | 1.6 | 1.9 | E | E | 2.0 | 2.6 | 4.0 | 3.5 | G | G | G | G | 3.6 | 3.4 | 2.4 | 3.4 | 3.0 | E | E | E | E | E |
| 3 | E | E | E | E | 1.4 | 1.8 | G | 3.4 | G | G | G | G | G | G | B | G | 3.8 | 2.8 | 3.3 | 4.2 | E | E | E | E |
| 4 | E | E | E | E | E | E | 1.9 | G | 3.6 | 3.8 | G | 3.6 | 5.0 | G | G | 3.4 | 3.4 | 3.1 | 2.2 | 2.7 | 4.0 | E | 2.0 | 2.8 |
| 5 | 2.3 | 2.3 | 2.0 | 2.6 | 2.7 | 2.4 | 2.4 | 3.8 | 3.7 | 5.0 | 11.3 | 5.2 | G | G | 4.4 | 5.6 | 5.9 | 5.2 | E | 9.8 | 2.4 | 2.6 | E | 2.9 |
| 6 | 2.5 | 2.4 | E | 2.6 | 2.4 | 2.5 | 2.9 | 3.8 | 4.4 | 4.4 | 4.7 | 4.2 | 4.6 | 3.9 | 3.6 | 4.0 | 4.4 | 4.8 | 4.0 | 3.3 | 4.5 | 3.4 | 2.8 | 2.4 |
| 7 | 2.1 | 2.4 | 4.3 | 3.3 | 2.0 | E | 2.0 | 3.8 | 5.4 | 5.3 | 7.9 | 4.7 | 5.9 | 3.9 | 4.0 | 4.5 | 4.1 | 3.5 | 3.8 | 3.6 | 3.0 | 2.8 | 3.1 | 2.6 |
| 8 | 2.4 | 5.8 | 6.3 | 5.2 | 4.0 | 3.2 | G | G | 3.7 | 4.3 | G | 4.6 | 4.1 | 4.4 | 3.5 | G | 4.4 | 1.9 | 7.8 | 5.9 | 4.6 | 4.1 | 3.2 | 3.7 |
| 9 | 2.7 | 2.5 | 3.5 | 2.6 | 3.0 | 2.4 | 2.2 | G | 3.6 | 4.6 | 5.2 | 4.4 | 4.4 | 4.4 | 4.5 | 8.2 | 5.6 | 3.8 | 7.0 | 5.1 | 4.3 | 2.0 | E | 2.6 |
| 10 | 2.4 | 3.2 | 3.0 | 2.8 | 2.2 | 2.6 | 2.2 | 4.6 | 3.8 | G | G | G | 3.6 | 4.2 | 3.7 | 3.4 | G | 2.4 | 2.1 | 2.4 | 2.0 | 1.8 | 1.8 | 2.2 |
| 11 | 2.2 | 3.2 | 3.2 | 2.2 | 2.5 | 1.2 | G | G | 4.2 | 6.6 | 7.0 | 6.8 | 4.4 | 4.3 | 3.5 | 5.0 | 4.2 | 4.5 | 4.7 | 3.8 | 2.6 | 2.2 | 2.0 | 1.8 |
| 12 | E | E | E | E | E | E | 2.0 | 3.0[Y] | G | G | G | G | G | G | G | G | 3.3 | 2.3 | 3.2 | 4.0 | 2.8 | 4.4 | 4.9 | 2.8 |
| 13 | 3.2 | E | E | 2.4 | 2.0 | 2.6 | 2.9 | G | 3.4 | G | 4.0[Y] | 3.6 | G | 4.0 | G | 4.2 | 2.8 | 3.0 | 4.4 | 3.3 | 3.2 | 3.6 | 2.6 | 2.3 |
| 14 | 2.3 | 1.8 | 2.0 | 2.2 | 2.0 | 2.4 | 2.6 | 4.0 | C | C | C | G | G | G | G | G | C | 2.1 | E | E | E | E | 3.2 | E |
| 15 | E | E | E | E | E | E | 1.9 | 3.0 | 3.2 | 3.7 | 4.0 | 4.4 | G | 4.0 | G | G | G | 2.2 | E | 3.2 | E | E | E | 1.9 |
| 16 | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | 1.8 | 1.8 | 2.2 | E |
| 17 | E | E | E | E | E | E | 2.0 | 3.4 | 4.4 | 3.9 | C | C | C | C | 3.6 | 3.6 | 3.4 | 3.4 | 3.0 | 2.4 | 2.0 | 2.4 | E | E |
| 18 | E | E | 1.6 | 2.2 | E | E | G | G | 3.4 | G | 4.8 | 4.1 | 3.5 | 4.2 | 4.8 | 4.4 | 4.4 | 3.2 | 3.0 | 3.6 | 2.8 | E | E | 2.4 |
| 19 | E | 5.8 | 4.8 | 3.2 | 2.2 | E | B | G | 4.3 | 4.0 | 4.6 | 4.2 | G | G | 4.2 | G | 3.6 | 5.4 | 4.8 | 4.3 | 5.3 | 6.5 | 5.0 | 2.7 |
| 20 | E | 2.4 | E | E | 2.0 | 2.2 | 3.7 | 3.6 | 3.9 | 4.5 | 4.3 | C | 4.3 | 4.4 | 4.5 | 3.9 | 4.0 | 2.9 | 3.7 | 3.7 | 4.7 | 4.8 | 2.2 | 3.3[F] |
| 21 | 2.1 | 3.2 | 2.8 | 2.2 | 2.4 | 1.8 | 1.6 | 3.6 | 4.2 | 5.0 | 6.6 | 5.0 | 8.1 | 4.0 | 5.0 | 4.5 | 4.7 | 3.4 | 4.6 | 3.4 | 4.5 | 4.4 | 4.0 | 2.3 |
| 22 | 1.3 | 2.7[Y] | 3.6 | 3.6 | 2.8 | 3.0 | 2.2 | 2.8 | G | 3.8 | G | 4.4 | 4.0 | 4.2 | 4.0 | 4.2 | 3.4 | 4.0 | 3.2 | 4.9 | 5.4 | 3.2 | 4.5 | 4.5 |
| 23 | 4.3 | 3.5 | 2.5 | 2.8 | 2.1 | 2.0 | 2.1 | 2.7 | 3.4 | 4.1 | 4.4 | 3.8 | G | G | G | G | 3.2 | 3.0 | 3.2 | 2.6 | 2.4 | 2.2 | 2.6 | 5.4 |
| 24 | 3.4 | 2.7 | 2.3 | 2.2 | 2.3 | 2.1 | B | G | 3.4 | G | G | G | G | 3.4 | 3.6 | 3.0 | 3.0 | 3.4 | 3.9 | 3.9 | 3.4 | 2.8 | 2.8 | 3.5 |
| 25 | 2.9 | 2.6 | 2.9 | 3.7 | 2.7 | E | 2.0 | 4.4 | 3.4 | 3.2 | 3.5 | 3.4 | 3.8 | G | 3.5 | G | G | 5.4 | 3.0 | E | E | 3.4 | 2.2 | E |
| 26 | 2.4 | E | 1.8 | 1.4 | E | E | 2.0 | 3.0 | 3.6 | 4.0 | 4.2 | 4.4 | 4.4 | 4.8 | 4.9 | 4.4 | 2.5 | 2.0 | E | E | E | 2.5 | 2.6 | 3.2 |
| 27 | 3.1 | 2.2 | 3.0 | 2.6 | 2.4 | 2.0 | B | B | 4.0 | 8.0 | 6.4 | 4.0 | 3.2 | 4.6 | 15.9 | 5.6 | 6.8 | 7.8 | 9.0 | 7.3 | 7.0 | 7.4 | 6.4 | 6.5 |
| 28 | 5.2 | 3.8 | 3.2 | 2.4 | 3.1 | 2.8 | 2.8 | 3.0 | 3.4 | C | C | C | C | C | C | C | C | B | E | 2.4 | 1.8 | E | 2.0 | 2.4 |
| 29 | 3.4 | 3.2 | 2.8[Y] | 3.5 | 3.4 | 2.4 | 2.9 | 3.5 | 3.8 | 5.3 | 4.7 | 4.8 | 3.6 | 3.4 | 3.2 | 3.3 | 2.8 | 4.5 | 5.7 | 5.4 | 3.0 | 3.2 | 2.4 | 2.4 |
| 30 | 2.2 | 3.7 | 4.8 | 3.5 | 3.0 | 2.6 | 2.1 | 3.0 | 7.3 | 6.4 | 5.9 | 4.2 | 4.1 | 3.3 | 4.0 | 4.3 | 4.2 | 4.2 | 4.2 | 3.2 | 4.8 | 4.6 | 4.8 | 3.8 |
| 31 | 2.8 | E | 3.2 | 3.5 | 2.4 | E | B | 2.5 | 3.3 | 3.6 | 5.3 | 5.2 | 3.4 | 3.6 | 3.2 | 2.8 | 2.6 | 3.0 | E | 3.8 | 3.2 | 3.4 | 2.3 | E |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Mean Value | 2.8 | 3.2 | 3.1 | 2.8 | 2.5 | 2.3 | 2.3 | 3.4 | 4.0 | 4.6 | 5.5 | 4.5 | 4.4 | 4.1 | 4.6 | 4.3 | 3.9 | 3.6 | 4.2 | 4.1 | 3.6 | 3.4 | 3.0 | 3.1 |
| Median Value | 2.3 | 2.4 | 2.4 | 2.4 | 2.2 | 2.0 | 2.0 | 3.0 | 3.7 | 4.0 | 4.3 | 4.2 | 3.6 | 3.9 | 3.6 | 3.6 | 3.4 | 3.4 | 3.2 | 3.6 | 2.8 | 2.6 | 2.3 | 2.4 |
| Count | 30 | 30 | 30 | 30 | 30 | 30 | 26 | 29 | 29 | 28 | 27 | 27 | 28 | 28 | 28 | 29 | 28 | 29 | 30 | 30 | 31 | 31 | 31 | 31 |

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

A 8

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

# IONOSPHERIC DATA

**Akita**

Lat. 39° 43.5' N
Long. 140° 08.2' E

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

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 3.0 | (2.8)A | 2.7 | 2.9 | 3.1 | 3.0 | 3.3P | 3.4 | 3.4 | 3.5 | 3.4 | 3.4 | 3.1 | 3.2 | 3.2 | 3.2 | 3.2 | 3.2 | 3.4 | 3.5 | 3.4 | 2.9 | 2.8 | 3.0 |
| 2 | 2.9 | 2.7 | 3.0 | 3.0 | 3.1 | 3.3 | 3.2 | 3.3 | 3.2 | (3.5)PJ | 3.3 | 3.2H | 3.2 | 3.1 | 3.3 | 3.2 | 3.4 | 3.2 | 3.6 | (3.7)J | 3.3 | 3.0 | 3.0 | 3.0 |
| 3 | 2.9 | 2.9 | 2.9 | 3.1 | 3.0 | 3.2 | 3.4 | 3.4 | 3.5 | 3.5 | 3.4 | 3.5 | 3.4 | 3.1 | 3.3 | 3.3 | 3.4 | 3.2 | 3.3 | 3.5 | 3.2 | 3.1 | 2.8 | 3.0 |
| 4 | 3.0 | 3.0 | 2.9 | 3.0 | 3.0H | 3.2 | (3.3)F | 3.4 | 3.3 | 3.4 | 3.5 | 3.3 | 3.3 | 3.2 | 3.1 | 3.3 | 3.2 | 3.1 | 3.2 | 3.6 | 3.4 | 3.2 | 2.7 | 2.9 |
| 5 | 2.8 | 2.7 | 2.6 | 2.7 | 2.8 | 2.7 | 3.2 | 3.3 | 3.3H | 3.6 | (3.4)A | 3.2 | 3.1 | 3.3 | 3.4 | 3.4 | 3.2 | 3.3 | 3.3 | (3.3)A | (3.3)PH | 2.8 | 3.0 | 3.1 |
| 6 | 2.9 | 2.9 | 3.0 | 2.6 | 2.8 | 2.8 | 3.5 | 3.5 | 3.5 | (3.3)PJ | 3.2 | 3.2 | 3.3 | 3.2 | 3.4 | 3.2 | 3.6H | 3.2 | 3.0 | 3.0 | 3.3 | 3.1 | 3.0 | 2.9 |
| 7 | 2.7H | 3.1 | 2.9 | 3.0 | 2.9H | 3.0 | 3.5 | 3.6P | 3.5 | 3.3 | 3.4 | (3.5)P | 3.4 | 3.5 | 3.4 | 3.5 | 3.4 | 3.4P | 3.4 | 2.9 | 3.2 | 3.0 | 2.9 | 2.8 |
| 8 | 3.1 | A | A | A | 3.0 | 3.1 | 3.3 | 3.2 | 3.5 | 3.4 | 3.4P | 3.5 | 3.5 | 3.4 | 3.6 | 3.5 | 3.6 | 3.7 | A | A | 3.0 | (3.0)PF | F | (3.0)JF |
| 9 | 2.9F | 3.0 | 3.1F | 3.0F | (2.8)DF | 2.9F | 3.3 | 3.4 | 3.5 | 3.5 | 3.2 | 3.4 | 3.2 | 3.2 | 3.3 | 3.6 | (3.6)FJ | 3.4 | 3.2 | 3.1F | 2.9FH | (3.3)PF2H | 3.3F | 3.1F |
| 10 | 2.7PF2F | 2.8F | 3.1VF | 2.9 | 3.0 | 3.1 | 3.5 | 3.5 | 3.6 | 3.5 | 3.5 | 3.4 | 3.4 | 3.3 | 3.4 | 3.4 | 3.5 | 3.5 | 3.7 | 3.1 | 3.3 | 3.1 | 2.9H | 2.9 |
| 11 | 3.3 | 3.0H | 2.9 | 3.0 | 3.0 | 3.1 | 3.7 | 3.6 | 3.4 | 3.7 | 3.5 | 3.3 | 3.4 | 3.2 | 3.3 | 3.3 | 3.7 | (3.4)B | 3.2P | 3.3 | 3.2 | 3.0 | 3.1 | 2.9 |
| 12 | 3.0 | 3.2 | 3.2 | 3.2 | 3.5 | 3.0 | 3.4 | 3.6 | 3.5 | 3.3 | 3.4 | 3.3 | 3.0 | 3.3 | 3.2 | 3.2P | 3.4 | 3.4 | (3.5)PJ | 3.3 | 2.9 | 3.0 | 2.8 | 2.9 |
| 13 | 2.7PF | 2.8F | 3.0F | 3.0F | 3.5 | 2.9F | 3.2F | 3.6 | 3.4 | 3.3 | 3.2 | 3.3 | 3.4 | 3.4 | 3.4 | 3.3 | 3.5 | 3.5 | 3.5 | 3.0H | (3.3)J | (3.1)A | 2.9 | 3.0 |
| 14 | 3.2 | 2.9 | 3.0 | 2.6 | 3.0 | 3.0 | 3.2 | 3.2 | C | C | C | 3.3 | 3.5 | 3.5 | 3.4 | 3.6 | (3.4)F | 3.2 | 3.8 | 3.4 | 3.5 | 3.0 | 3.0 | 3.1 |
| 15 | 3.0 | 2.9 | 3.2 | 3.1 | 3.2 | 3.3 | 3.5 | 3.5 | 3.4 | 3.5 | 3.3 | 3.5 | 3.2H | 3.2 | 3.4 | 3.6 | 3.6 | 3.6 | 3.6 | 3.2 | 2.9 | 2.9 | 3.0 | 3.1 |
| 16 | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | 3.1 | 3.0 | 3.0 | 2.7 |
| 17 | 2.9 | 2.8 | 3.1 | 3.2 | 3.0 | 3.2 | 3.4 | 3.5 | 3.5 | 3.6 | C | C | C | C | 3.4 | 3.3 | 3.5 | 3.4 | 3.7 | 3.5 | 3.0 | 3.1 | 3.1 | 3.1 |
| 18 | 3.2 | 3.1 | 3.0 | 2.9 | 2.7H | 2.9 | 3.4 | 3.5 | 3.6 | 3.4H | 3.3 | 3.5 | 3.2 | 3.2 | 3.2 | 3.0 | 3.3 | 3.1 | 3.0 | 3.2 | 3.1 | 3.3 | 3.2H | 3.2H |
| 19 | 3.3 | A | A | 2.9F | (3.1)JF | 3.0F | 3.8 | 3.5 | 3.4 | 3.5 | 3.6 | 3.4 | 3.3 | 3.4 | 3.2 | 3.3 | 3.6 | (3.4)P | 3.3 | 3.4 | A | A | A | 3.1 |
| 20 | 3.1 | (3.0)JF | (2.9)JF | 2.9F | 3.0 | 3.1 | 3.1 | 3.2 | 3.5 | 3.4 | 3.3 | (3.3)F | 3.3 | 3.2 | 3.2 | 3.3 | 3.5 | 3.5 | 3.3 | 3.3 | A | A | 3.1 | (3.3)JF |
| 21 | 3.1F | 3.1F | 3.1 | 3.1 | 3.1 | 3.0 | 3.2 | 3.6 | 3.3 | 3.3H | 3.4H | 3.2 | 3.4 | 3.3 | 3.3 | 3.4 | 3.4H | 3.7 | (3.6)D | 3.2 | A | A | A | 2.7 |
| 22 | 2.8F | 2.8 | 2.7 | (2.7)A | 2.7F | 3.6F | 3.4 | 3.4 | 3.7 | 3.3 | 3.2 | 3.2 | 3.4 | 3.3 | 3.1 | 3.0 | 3.2 | 3.3 | 3.2 | 3.1 | 3.2 | 3.2 | (3.2)A | 3.1F |
| 23 | (2.7)JFH | (2.6)JF | (3.0)JF | 3.1 | 3.2 | 3.1 | 3.6 | 3.6 | 3.4 | 3.3 | 3.2 | 3.3 | 3.5 | 3.3 | 3.3 | 3.5 | 3.3 | 3.3 | 3.3 | 3.2 | 3.1 | 2.9 | 3.1 | (3.0)A |
| 24 | 2.9 | 2.7 | 2.9H | 2.9 | 3.1 | 3.2 | 3.3 | 3.8H | 3.5 | 3.5 | (3.2)JH | 3.5 | 3.4 | 3.4 | 3.3 | 3.5 | 3.6 | 3.4 | 3.7 | 3.0 | 3.3 | 3.1 | 3.1 | 3.2 |
| 25 | 3.2 | 3.0 | 3.0 | 3.0 | 3.2 | 3.3 | 3.4 | 3.7 | 3.5 | 3.3 | 3.3 | 3.4 | 3.4 | 3.3 | 3.4 | 3.6 | 3.7 | 3.4 | 3.3 | 3.2 | 3.1 | 3.2 | 3.0 | 3.3 |
| 26 | 3.0 | 3.0 | 3.1 | 2.9 | 2.9 | 3.1 | 3.1 | 3.1 | 3.3 | 3.4 | B | B | 3.3 | 3.4 | 3.3 | 3.6 | 3.7 | 3.8 | 3.2 | 2.9 | 3.1 | 3.0 | 2.8 | 2.8 |
| 27 | 2.8 | 2.7 | 3.3 | 2.8 | 2.9 | 3.0 | 3.2V | 3.5 | 3.3 | (3.3)B | 3.3 | 3.2 | 3.2 | 3.3 | (3.4)A | 3.5 | 3.5 | A | A | 3.1F | 3.1F | 3.0F | 3.2F | (3.6)JF |
| 28 | 3.4F | 3.0F | 3.1 | 3.2 | 3.2 | 3.3 | 3.4 | 3.4 | 3.6 | C | C | C | C | C | C | C | C | 3.6 | 3.2 | 3.1 | 3.1 | 3.1 | 3.0 | 2.9 |
| 29 | 3.1 | 3.0 | 3.1 | 3.1F | (3.0)DF | 3.3 | 3.4 | 3.6 | 3.7 | 3.6 | 3.7 | 3.5 | 3.3 | (3.4)B | 3.6 | 3.8 | 3.6 | 3.4 | (3.7)J | 3.6 | 3.1 | 3.3 | 3.0V | 3.0 |
| 30 | 3.2 | 3.4 | (3.4)A | 3.3F | 3.3F | 3.6 | 3.1 | 3.7 | 3.7 | (3.1)P | B | B | (3.4)J | (3.4)B | (3.4)P | 3.5 | 4.0 | (3.7)J | 3.1 | 3.2 | 3.2 | 3.3 | 2.9F | 3.8 |
| 31 | 3.1 | 3.1 | 2.7F | (3.0)JF | (3.0)JF | 3.3 | 3.2 | 3.4 | 3.3 | 3.4 | 3.2 | (3.4)B | 3.5 | 3.3 | 3.2 | (3.4)J | B | C | 3.1 | 3.3 | 3.7 | 3.3 | 3.1 | (2.8)JF |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Mean Value | 3.0 | 2.9 | 3.0 | 3.0 | 3.0 | 3.1 | 3.4 | 3.5 | 3.5 | 3.4 | 3.3 | 3.4 | 3.3 | 3.3 | 3.3 | 3.4 | 3.5 | 3.4 | 3.4 | 3.2 | 3.2 | 3.1 | 3.0 | 3.0 |
| Median Value | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.1 | 3.4 | 3.5 | 3.5 | 3.4 | 3.3 | 3.4 | 3.4 | 3.3 | 3.3 | 3.4 | 3.5 | 3.4 | 3.3 | 3.2 | 3.2 | 3.1 | 3.0 | 3.0 |
| Count | 30 | 28 | 28 | 29 | 30 | 30 | 30 | 30 | 29 | 28 | 25 | 26 | 28 | 28 | 29 | 29 | 28 | 28 | 28 | 29 | 28 | 28 | 28 | 31 |

(M3000)F2

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

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

# IONOSPHERIC DATA

Akita

Lat. 39° 43.5' N
Long. 140° 08.2' E

Oct. 1952

fminF

135° E Mean Time

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.7 | [1.4]A | 1.2 | 1.2 | 1.1 | 1.9 | A | A | 4.5A | 3.1 | 3.8 | 3.2 | 3.2 | 4.0 | 4.0 | 4.2A | 2.4 | 2.8 | 3.2A | 2.0A | 1.7 | 1.7 | 1.7 | 1.6 |
| 2 | 1.4 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 2.1 | [2.6]A | 3.0 | 3.2 | 3.6 | 4.1 | 3.9 | 3.1 | 3.0 | 2.7 | 2.6 | [2.0]A | 1.5 | 1.5 | 1.5 | 1.7 | 1.4 |
| 3 | 1.2 | E | E | E | 1.2 | 1.4 | 1.6 | 3.2 | 2.9 | 3.0 | 3.3 | 3.3 | 3.2 | 3.3 | 4.2 | 3.0 | 2.9 | 2.2 | A | A | 1.5 | 1.5 | 1.5 | 1.5 |
| 4 | 1.1 | 1.1 | 1.1 | 1.1 | E | E | 1.8 | 2.7 | 3.2 | 3.3 | 3.2 | 3.4 | 4.2A | 3.3 | 3.2 | 2.9 | 2.8 | 2.0 | 1.6 | 1.8 | 1.8 | 1.7 | 1.8 | 1.7 |
| 5 | 1.7 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 2.2 | 2.6 | 3.4 | 4.1A | [4.3]A | 4.5A | 3.8 | 4.0 | 3.8 | 4.0A | 2.3 | 4.2A | 1.6 | 1.9 | 1.7 | 1.3 | 1.2 | 1.9 |
| 6 | [1.4]A | 1.2 | 1.2 | 2.1AF | 1.8 | 2.2A | 2.2 | 2.7 | 2.8 | 4.4A | 3.8 | 4.0A | 3.9A | 3.6 | 3.1 | 3.4 | 3.4A | 3.8A | 2.2A | 2.9A | [2.6]A | 2.4A | 2.1A | 1.7 |
| 7 | 1.7 | 1.5 | 2.2A | 1.7 | 1.3 | 1.2 | 1.7 | 2.3 | [2.7]A | 3.1 | 4.1A | 4.1A | 3.9 | A | A | A | 2.5 | 1.8 | 1.8 | 1.8 | 1.8 | 1.4 | 1.2 | 1.2 |
| 8 | 1.2 | A | A | A | 1.8 | 2.1A | 1.9 | 2.4 | 2.9 | 3.3 | 3.2 | 4.1A | 3.2 | 3.6 | 3.5 | 2.9 | 3.4A | 1.9 | A | A | 4.1A | A | 1.9 | A |
| 9 | A | A | 1.8 | A | A | A | 2.3 | 2.6 | 3.4 | 4.0A | 3.4 | 3.8 | 4.0A | 3.3 | 3.7 | 7.5A | 5.6A | 2.3 | 3.3A | 2.9A | 1.7 | 1.3 | 1.5 | 1.3 |
| 10 | A | A | 1.7 | 1.7 | 1.6 | 1.2 | 1.6 | 2.6 | 4.0A | 3.6 | 3.3 | 3.2 | 3.4 | 3.7 | 3.0 | 2.8 | 2.4 | 1.7 | [1.6]A | 1.4 | 1.2 | 1.4 | 1.4 | 1.2 |
| 11 | 1.2 | 1.2 | 1.7 | 1.3 | 1.3 | 1.2 | 2.0 | 2.5 | 3.3 | A | A | 4.5A | 3.9 | 3.7 | 3.0 | 3.7 | 3.0 | 2.7 | 2.1A | 2.2A | 1.6 | 1.8 | 1.6 | 1.4 |
| 12 | 1.5 | 1.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.8 | 3.5 | 2.9 | 3.2 | 3.8 | 3.9 | 3.3 | 3.1 | 3.0 | 2.8 | 2.3 | 1.9 | [2.2]A | 2.6A | 1.6 | 1.6 | 1.6 | 1.6 |
| 13 | 1.6 | 1.2 | 1.1 | 2.0A | E | 1.5 | 1.8 | 2.3 | 2.8 | 3.0 | 3.3 | 3.2 | 3.3 | 3.2 | 3.3 | 2.8 | 2.5 | A | 4.1A | 1.7 | 2.2A | 2.9A | [2.3]A | 1.7 |
| 14 | 1.7 | 1.6 | 1.4 | 1.2 | 1.2 | 1.4 | 1.4 | 2.0 | C | C | C | 3.6 | 3.2 | 3.1 | 2.9 | 2.9 | [2.4]C | 2.0 | 1.5 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 |
| 15 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 1.6 | 2.2 | 3.0 | 3.5 | 3.4 | 4.4A | 3.7 | 3.6 | 3.1 | 3.0 | 2.5 | 2.0 | 1.7 | 1.5 | 1.4 | 1.5 | 1.5 | 1.5 |
| 16 | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | 1.4 | 1.2 | 1.2 | 1.2 |
| 17 | 1.3 | 1.2 | 1.2 | E | E | 1.2 | 1.6 | 2.6 | 3.1 | 3.0 | C | C | C | C | 3.0 | 3.0 | 2.8 | [2.3]A | 1.8 | 1.8 | 1.6 | 1.5 | 1.4 | 1.4 |
| 18 | 1.4 | 1.3 | 1.4 | 1.3 | 1.1 | 1.1 | 1.8 | 2.4 | 2.8 | 3.1 | 3.9A | 3.8 | 3.3 | 3.5 | 4.2A | 3.7 | 4.0A | 2.4 | 1.8 | 2.6A | 1.8 | 1.6 | 1.3 | 2.0A |
| 19 | 1.3 | A | A | 1.8 | 1.5 | 1.1 | 1.5 | 2.2 | 3.5 | 3.1 | 3.3 | 3.8 | 3.3 | 3.1 | 3.8 | 3.0 | 3.0 | 2.8A | 4.0A | 2.9A | A | A | A | 1.7 |
| 20 | 1.7 | 1.3 | 1.2 | 1.2 | 1.4 | 1.3 | 1.4 | 3.2 | 3.4 | 3.6 | 3.8 | [3.8]C | 3.8 | 3.3 | 3.6 | 3.3 | 2.3 | 2.4 | 2.2A | 2.5A | A | A | 1.5 | 2.2AF |
| 21 | E | A | E | E | 1.2 | 1.3 | 1.4 | 2.8 | 2.7 | 3.0 | 6.1A | 4.4A | 5.8A | 4.0A | 4.5A | A | A | A | 2.8A | 2.7A | A | A | A | 1.4 |
| 22 | 1.2 | E | E | A | 2.2A | 2.7A | 1.8 | 2.3 | 2.8 | 3.4 | 3.4 | 3.4 | 3.6 | 3.4 | 3.2 | 3.5 | 2.8 | 3.2A | 2.8A | 3.8A | 1.7 | 1.9 | 1.9 | 3.8A |
| 23 | 2.8A | 2.9AF | 1.2 | 1.9 | 1.4 | 1.3 | 1.7 | 2.3 | 2.8 | [3.0]A | 3.8 | 3.8 | 3.2 | 3.0 | 3.1 | 3.0 | 2.4 | 2.8A | 1.8 | 1.8 | 1.6 | 1.4 | 1.4 | [1.4]A |
| 24 | 1.4 | 1.3 | 1.3 | E | 1.2 | 1.2 | 1.3 | 2.8 | 2.9 | 3.0 | 3.2 | 3.9 | 3.8 | 3.2 | 3.0 | 2.6 | 2.3 | 2.1 | [2.5]A | 2.9A | 1.9 | 2.0A | 1.8 | 2.2A |
| 25 | 1.8 | 1.6 | 1.4 | 1.5 | 1.1 | 1.1 | 1.5 | 2.2 | 2.4 | 2.9 | 3.2 | 3.6 | 4.5 | 3.0 | 2.7 | 2.7 | 2.6 | 4.2A | [3.0]A | 1.7 | 1.8 | 2.3A | 1.7 | 1.7 |
| 26 | 2.0A | E | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 1.4 | [1.8]A | 2.2 | 3.8 | 4.0 | 4.0 | 3.8 | 3.3 | 2.9 | 1.9 | 2.5 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| 27 | 1.4 | E | E | 1.6 | E | E | 2.0 | 2.4 | 3.6A | 4.6A | 4.0A | 3.9 | 3.4 | 4.0 | [3.6]A | 3.3 | 3.2 | A | A | 3.0A | 3.0A | 2.9A | 2.5A | 2.7A |
| 28 | 3.0A | 2.0A | 1.7 | 1.8 | 1.3 | 1.6 | 1.6 | 2.1 | 2.6 | C | C | C | C | C | C | C | C | 1.8 | 1.6 | 1.4 | 1.4 | 1.4 | 1.4 | 1.5 |
| 29 | 1.3 | 1.4 | E | 2.4A | 2.6A | 2.0A | 1.7 | A | A | A | A | A | 3.8 | 3.4 | 2.9 | 2.5 | 2.3 | A | A | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| 30 | E | 2.9A | 3.7A | 2.3A | 2.1A | [1.8]A | 1.6 | 2.4 | 6.2A | 5.3A | 4.3A | 4.2A | 3.0 | 3.0 | 4.0 | 3.2 | A | A | A | 1.4 | 3.1A | 3.0A | 2.6A | 1.8 |
| 31 | 1.2 | E | 1.1 | 1.3 | E | 1.3 | 1.5 | 2.1 | 2.4 | 3.8 | 4.3 | A | 3.8 | 3.1 | 2.8 | 2.5 | 2.2 | 2.6 | 1.6 | 2.4A | 1.7 | 2.0A | 1.7 | 1.7 |
| Mean Value | 1.6 | 1.5 | 1.5 | 1.5 | 1.4 | 1.4 | 1.7 | 2.5 | 3.1 | 3.4 | 3.7 | 3.8 | 3.7 | 3.5 | 3.4 | 3.3 | 2.8 | 2.5 | 2.2 | 2.1 | 1.9 | 1.8 | 1.7 | 1.7 |
| Median Value | 1.4 | 1.3 | 1.2 | 1.3 | 1.2 | 1.2 | 1.6 | 2.4 | 2.9 | 3.2 | 3.8 | 3.8 | 3.8 | 3.4 | 3.2 | 3.0 | 2.5 | 2.4 | 2.0 | 1.8 | 1.7 | 1.6 | 1.6 | 1.6 |
| Count | 28 | 25 | 28 | 27 | 29 | 29 | 29 | 28 | 28 | 26 | 25 | 26 | 28 | 27 | 28 | 27 | 27 | 25 | 25 | 28 | 28 | 27 | 29 | 30 |

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

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

# IONOSPHERIC DATA

Oct. 1952 | fminE | 135° E Mean Time | Akita | Lat. 39° 43.6' N | Long. 140° 08.2' E

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.2 | 1.2 | 1.2 | E | 1.1 | 1.2 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.8 | 1.7 | 1.6 | 1.6 | 1.6 | 1.6 | 1.7 | E | 1.7 | E | E |
| 2 | E | E | 1.2 | 1.2 | E | E | 1.2 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 1.4 | 1.4 | 1.3 | 1.2 | 1.3 | 1.5 | 1.3 | E | E | E | E | E |
| 3 | E | E | E | E | 1.2 | 1.4 | 1.4 | 1.6 | 1.6 | 1.4 | 1.5 | 1.8 | 1.7 | 1.8 | [1.8]B | 1.8 | 1.4 | 1.2 | 1.3 | 1.5 | E | E | E | E |
| 4 | E | E | E | E | E | E | 1.7 | 1.6 | 1.6 | 1.6 | 1.8 | 2.0 | 1.8 | 1.8 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.7 | 1.6 | E | 1.7 | 1.8 |
| 5 | 1.2 | E | E | E | 1.2 | E | 1.4 | 1.2 | 1.4 | 1.8 | 1.7 | 1.8 | 1.8 | 1.7 | 1.6 | 1.6 | 1.6 | 1.6 | E | 1.4 | 1.4 | 1.7 | E | 1.3 |
| 6 | 1.2 | 1.2 | E | E | E | E | 1.6 | 1.5 | 1.6 | 1.7 | 1.7 | 2.0 | 1.9 | 2.0 | 2.2 | 2.0 | 1.8 | 1.4 | 1.2 | 1.7 | 1.7 | 1.7 | 1.7 | 1.6 |
| 7 | E | E | 1.1 | 1.1 | 1.7 | E | 1.4 | 1.3 | 1.6 | 1.3 | 1.8 | 1.8 | 1.5 | 1.8 | 1.7 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | E |
| 8 | E | E | 1.4 | E | E | E | 1.4 | 1.5 | 1.7 | 1.5 | 1.5 | 1.8 | 1.7 | 1.5 | 1.7 | 1.5 | 1.3 | 1.4 | 1.4 | 1.4 | 1.5 | 1.3 | 1.5 | 1.3 |
| 9 | 1.1 | E | 1.1 | E | E | 1.2 | 1.4 | 1.4 | 1.6 | 1.4 | 1.4 | 1.8 | 1.9 | 1.8 | 1.7 | 1.8 | 1.6 | 1.7 | 1.7 | 1.3 | 1.3 | 1.7 | E | 1.2 |
| 10 | 1.2 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.5 | 1.6 | 1.4 | 1.4 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 11 | 1.2 | 1.2 | E | 1.2 | E | E | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.7 | 1.5 | 1.6 | 1.3 | 1.4 | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 | 1.4 | 1.6 | 1.4 |
| 12 | E | E | E | E | E | E | 1.8 | 1.5 | 1.6 | 1.6 | 1.5 | 1.7 | 1.7 | 1.4 | 1.6 | 1.3 | 1.4 | 1.3 | 1.2 | 1.2 | 1.6 | 1.5 | 1.6 | 1.6 |
| 13 | 1.6 | E | E | E | E | E. | 1.4 | 1.4 | 1.5 | 1.5 | 1.6 | 1.8 | 1.8 | 1.8 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.4 | 1.4 |
| 14 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.4 | C | C | C | 1.8 | 1.6 | 1.6 | 1.6 | 1.5 | [1.4]C | 1.4 | E | E | E | E | 1.5 | E |
| 15 | E | E | E | E | E | E | 1.6 | 1.6 | 1.6 | 1.6 | 2.4 | 2.6 | 2.2 | 2.2 | 1.8 | 1.8 | 1.8 | 1.7 | E | 1.5 | E | E | E | 1.7 |
| 16 | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | C | 1.2 | 1.2 | 1.2 | E |
| 17 | E | E | E | E | E | E | 1.6 | 1.7 | 1.7 | 1.6 | C | C | C | C | 1.3 | 1.3 | 1.3 | 1.6 | 1.6 | 1.6 | 1.6 | 1.5 | E | E |
| 18 | E | E | E | E | E | E | 1.5 | 1.5 | 1.5 | 1.7 | 1.7 | 2.1 | 1.8 | 1.7 | 1.8 | 2.0 | 1.8 | 1.6 | 1.4 | 1.3 | 1.5 | E | E | 1.5 |
| 19 | E | E | 1.2 | 1.1 | 1.1 | E | B | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.7 | 1.8 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 |
| 20 | E | 1.8 | E | E | 1.3 | 1.3 | 1.4 | 1.4 | 1.6 | 1.8 | 1.6 | [1.6]C | 1.7 | 1.5 | 1.5 | 1.5 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 1.5 | 1.8 | 1.3 |
| 21 | 1.8 | E | E | E | 1.2 | 1.3 | 1.4 | 1.5 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 | 1.7 | 1.7 | 1.7 | 1.5 | 1.4 | 1.4 | 1.4 | 1.4 |
| 22 | E | E | E | E | 1.2 | 1.2 | 1.6 | 1.6 | 1.6 | 2.0 | 2.2 | 2.8 | 2.0 | 1.8 | 2.4 | 2.2 | 2.0 | 1.8 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| 23 | 1.2 | 1.2 | 1.2 | E | E | 1.7 | 1.7 | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.4 | 1.4 | 1.3 | 1.4 | 1.3 |
| 24 | 1.3 | 1.3 | 1.7 | 1.7 | 1.2 | 1.9 | [1.8]B | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 1.5 | 1.5 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.5 | 1.4 |
| 25 | 1.2 | E | E | E | 1.1 | E | 1.8 | 1.4 | 1.4 | 1.6 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.6 | 1.7 | 1.6 | 1.7 | E | E | 1.7 | 1.9 | E |
| 26 | E | E | 1.2 | 1.2 | E | E | 1.3 | 1.4 | 1.4 | 1.8 | 2.4 | 2.3 | 2.3 | 1.6 | 1.3 | 1.4 | 1.3 | 1.4 | E | E | E | 1.4 | 1.9 | 1.4 |
| 27 | E | E | E | E | E | E | B | B | 2.6 | 2.5 | 2.0 | 2.4 | 2.0 | 2.2 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.4 | 1.5 | 1.3 | 1.3 | 1.3 |
| 28 | 1.1 | 1.1 | E | E | E | E | 1.6 | 1.6 | 1.6 | C | C | C | C | C | C | C | C | B | E | 1.3 | 1.3 | E | 1.3 | 1.4 |
| 29 | 1.2 | 1.2 | E | E | E | E | 1.5 | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 1.5 | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | 1.4 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| 30 | E | E | E | E | 1.1 | 1.1 | 1.6 | 1.5 | 1.4 | 1.6 | 1.6 | 1.7 | 1.8 | 2.1 | 1.7 | 1.6 | 1.6 | 1.5 | 1.5 | 1.4 | 1.4 | 1.5 | 1.5 | 1.4 |
| 31 | 1.2 | E | E | E | E | E | B | 1.5 | 1.3 | 1.5 | 1.5 | 1.6 | 1.6 | 1.5 | 1.6 | 1.6 | 1.6 | 1.8 | E | 1.7 | 1.7 | 1.7 | 1.7 | E |
| Mean Value | 1.3 | 1.3 | 1.2 | 1.2 | 1.2 | 1.3 | 1.5 | 1.5 | 1.6 | 1.6 | 1.7 | 1.8 | 1.7 | 1.7 | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.4 |
| Median Value | E | E | E | E | E | E | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.8 | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 1.5 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.3 |
| Count | 30 | 30 | 30 | 30 | 30 | 30 | 27 | 29 | 29 | 28 | 27 | 28 | 28 | 28 | 29 | 29 | 29 | 29 | 30 | 30 | 31 | 31 | 31 | 31 |

fminE

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

A 11

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



# IONOSPHERIC DATA

Oct. 1952 | foF2 | 135° E Mean Time

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

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.0 | [3.8]S | 3.7 | 3.5 | 3.8 | 3.4 | 5.9 | 7.2 | [7.0]S | 6.7 | 6.7 | 6.9 | 7.8 | 8.2 | 8.5P | 7.7 | 7.0 | (7.9)P | 7.6 | 7.2 | 4.0 | 3.2 | 3.4 | 3.5 |
| 2 | 3.3 | 3.3 | 3.3 | 3.4P | 3.3 | 3.0 | 5.3 | 6.5 | 8.5 | 6.5 | 6.7 | 8.0 | 7.1 | [7.5]C | 7.9 | 7.3 | 8.6 | 9.2 | [8.1]C | 7.0 | 3.0H | 3.1 | 3.3 | 3.3 |
| 3 | 3.3 | 3.4 | 3.3 | 3.3 | 3.3 | 3.2 | 5.9 | B | 9.4P | 6.5 | 6.4 | [6.2]C | 6.0 | 6.2 | 7.9P | 7.5 | 7.1 | 6.9 | 5.7 | 4.9 | 4.5 | 4.1 | [4.2]BS | 4.3 |
| 4 | 4.2 | 4.2 | 3.8 | 3.9 | 4.0 | 4.1 | 5.6 | 8.0 | 8.8 | 7.9 | 8.6 | 7.9 | 8.8 | [8.5]C | 8.2 | 8.2 | 7.7 | C | B | (8.2)P | 4.0H | 3.2 | 2.7 | 3.3 |
| 5 | 3.3 | 3.2 | 3.2 | 3.5 | 2.9P | 2.9 | 5.6 | (7.7)P | 8.3 | 7.2 | 6.6 | 7.4H | 8.7 | 9.2P | 7.2 | 7.3 | 8.5 | 9.1 | (7.9)JP | 5.9FP | 5.7 | A | A | 4.2 |
| 6 | 3.5 | [3.4]A | 3.3 | C | C | C | C | C | 7.3 | 6.6 | 8.7 | 7.6 | 9.1 | 9.7 | 9.8 | 8.8 | 7.3 | C | C | C | (5.1)P | 4.7J | 4.6 | 4.3 |
| 7 | 4.2 | 4.2 | 3.6 | 3.7 | 3.0 | 3.3 | 4.8 | 7.5 | 7.7 | 7.5 | C | C | (8.9)JP | 7.9J | [7.6]C | 7.3 | 6.7 | 7.1 | [6.2]C | (5.4)JP | 4.3 | 4.0 | 2.9P | 3.6 |
| 8 | 3.4 | 3.5 | 3.5 | 3.3 | A | A | 4.4 | (6.5)P | (9.1)P | 7.2 | 8.0 | 8.7 | 7.4 | 7.2 | 7.2 | 7.3 | 7.3 | 7.5 | [5.5]C | 3.5 | 3.8 | 3.6 | [3.5]AH | 3.4FP |
| 9 | 3.0F | 3.3F | 3.3 | 3.2FE | 3.0VF | 2.5F | 4.6 | 6.7 | (9.4)JP | 7.2 | [7.0]L | 6.9 | C | C | 9.0 | 8.9 | 7.2 | 5.7 | [5.4]C | 5.0 | 5.1F | 4.8 | 4.3 | 3.8 |
| 10 | 3.6 | 3.7 | 3.8 | 3.6 | 3.6 | 3.6 | (5.4)P | 8.0 | 7.7 | 7.5 | 7.5 | 7.8 | 6.7 | 6.7 | 8.0 | 8.5P | 7.8 | 6.9 | 7.0 | 4.3 | 3.8 | (3.9)P | 4.1 | 3.7 |
| 11 | 3.6 | 3.7 | 3.7 | 3.9F | 3.6F | 3.5 | 5.0 | 6.3 | 7.9P | 7.7 | 7.5 | C | C | C | C | (9.9)P | 8.0J | C | C | 5.2 | 4.8P | 4.5 | 4.5 | 4.4 |
| 12 | 4.4 | 4.5 | 4.4 | 4.2 | 4.0 | 3.2 | 5.5 | 6.7 | 7.4 | 6.7 | 9.0 | 10.0 | C | B | (10.1)P | 7.5 | 7.6 | 7.6 | 6.4 | 4.0 | 4.1 | 4.2 | 4.1 | 3.9F |
| 13 | 3.9FP | 4.2F | 4.0JF | 4.6 | 2.9 | 2.9 | 4.7P | 7.0 | 8.1 | 7.6 | 9.0 | 9.2 | 9.5P | 9.3 | 9.0P | 8.9P | 8.1 | 8.0P | [5.8]C | 3.7 | 3.8P | A | A | (3.5)P |
| 14 | 3.5 | 3.4 | 3.3 | 3.3 | 3.9 | 2.5 | (4.8)F | 6.3 | 7.8P | 7.2 | 8.2 | C | C | C | (7.4)P | C | C | (7.4)P | [5.5]C | 3.6 | 3.5 | 3.0 | 2.9 | 3.1 |
| 15 | 3.2 | 3.3 | 3.2 | 3.4 | 3.2 | 3.5 | (4.9)P | 7.8J | 7.3P | 8.5 | (8.0)P | (9.7)P | 8.0 | C | C | C | C | C | C | C | C | 3.3 | 3.4 | 3.5P |
| 16 | 3.7 | C | C | C | C | C | C | 6.5 | 7.2 | 6.5 | 6.9 | 8.5 | 8.7 | 8.5 | 8.1 | 7.2 | 8.1 | 7.0 | 4.9 | 3.0 | [3.2]BF | 3.5P | 3.2F | 3.3P |
| 17 | 3.5 | 3.4 | 3.7 | 3.0 | 3.0 | 3.1 | 4.5 | 7.1 | 7.3 | 7.3 | 7.4 | 9.5 | 7.4 | 7.3 | 8.5 | 7.5 | 6.7 | 7.1 | 6.1 | [5.0]A | 3.9 | 3.6 | 3.7 | 3.7 |
| 18 | 3.8 | 3.2 | 3.2 | 3.1 | 3.0 | 3.2 | 5.0 | 8.0 | 7.5 | 7.6 | 8.3 | 9.8P | 9.0 | 8.1 | 8.5 | 7.5 | 7.8 | 7.5 | 6.5P | 4.4 | 4.3 | 4.7 | 3.6 | 3.6F |
| 19 | 3.6 | 4.2E | [4.2]IE | 4.1F | 4.2F | 3.7 | 6.3 | 6.3 | 7.7 | 8.7 | 8.5 | 8.4 | 9.0 | 9.3P | 9.2 | 8.7 | 8.3P | 7.0 | 5.6 | 4.7FP | 4.0 | 3.1F | 3.8 | 3.3FP |
| 20 | 3.4 | 3.3 | 3.2F | 3.2F | 3.3FP | 3.7 | 4.8P | 6.5 | 8.0 | 6.7 | 8.0 | 9.0 | B | B | 9.5 | 8.0P | 7.5P | 6.0 | 4.7 | BF | A | 3.9F | 3.7F | 3.4 |
| 21 | 3.2F | C | C | 3.3JF | [3.4]C | 3.4 | 4.7 | 5.7 | (7.4)P | 7.5 | 8.8 | 9.9JP | 9.5P | B | B | C | C | A | B | AF | C | 3.3 | 3.2 | 3.3 |
| 22 | 3.3 | C | C | C | C | 4.2 | 4.3 | 6.5 | 7.9P | C | C | C | (9.6)P | C | C | C | 7.3 | 6.4 | 5.0 | 5.8 | [5.0]BS | 4.2 | 4.3 | 4.2F |
| 23 | C | C | C | C | C | C | 4.4 | 6.0 | 6.5H | [6.6]C | 6.7H | 8.8 | 8.9 | 8.9 | (8.0)P | 7.5 | 6.5 | 6.0P | B | B | (4.3)P | 3.0F | 3.0F | 3.0 |
| 24 | 2.8F | [3.0]C | 3.1 | C | C | C | 4.8P | 6.5 | 6.7 | 7.1JP | [6.7]B | 6.3P | 7.1P | B | B | B | 8.1J | 7.1P | 5.0J | 4.2F | [4.0]BS | 3.7JP | 2.9 | 3.1F |
| 25 | 3.3 | [3.3]A | 3.3 | 3.4F | 3.4F | 3.0 | 4.8P | 6.4P | 7.0 | 6.7 | 6.2 | 6.5 | 8.4P | 7.4 | C | C | 6.7 | 7.0 | (4.7)P | (4.1)P | 4.2 | 3.7 | 3.5 | 4.0 |
| 26 | C | C | 4.1 | [4.0]C | 3.9 | 4.2 | 5.5P | 7.0 | 7.3 | 8.5J | B | B | C | C | C | C | C | C | C | C | C | C | C | C |
| 27 | C | 3.5 | C | C | 2.6 | C | C | 7.1 | S | C | C | C | C | C | A | C | 6.5 | [7.0]B | 7.5 | 5.0J | 4.5P | [4.6]B | 4.8 | 4.5 |
| 28 | 3.2 | [3.1]A | 3.0 | 3.3 | C | C | 6.6 | 7.3 | C | B | 8.0 | B | T | C | C | C | 6.7 | 6.0 | 3.9 | 4.0 | C | C | (3.7)P | 3.3 |
| 29 | 3.5 | 3.5F | 3.5 | 3.3 | 3.3F | 3.6P | 4.0 | 7.3 | 9.0 | C | C | C | 8.3 | [8.9]A | 9.5 | 7.6 | 6.7 | 5.2 | 4.9 | 3.5 | 3.1 | 3.5 | 3.3P | 3.2 |
| 30 | 3.2 | 3.0F | 3.2 | (3.1)P | 3.0 | 3.3 | 3.6P | 6.2 | 7.8 | 8.0 | B | B | 8.7 | B | B | BS | 6.9 | 4.9 | 3.4 | [3.6]A | 3.7 | 4.0 | 4.2 | 3.5 |
| 31 | 3.2F | 3.5 | 3.7 | 3.8P | 3.2F | 3.3F | 3.6 | 5.7 | 8.0F | B | 8.2P | B | 10.0P | 9.0 | B | B | B | B | C | M | M | 3.2 | 3.1H | 2.9 |
| Mean Value | 3.5 | 3.5 | 3.5 | 3.5 | 3.4 | 3.3 | 5.0 | 6.8 | 7.8 | 7.3 | 7.7 | 8.2 | 8.4 | 8.2 | 8.5 | 8.0 | 7.4 | 7.0 | 5.8 | 4.8 | 4.1 | 3.8 | 3.7 | 3.6 |
| Median Value | 3.4 | 3.4 | 3.4 | 3.4 | 3.3 | 3.3 | 4.8 | 6.7 | 7.7 | 7.2 | 8.0 | 8.4 | 8.7 | 8.4 | 8.4 | 7.6 | 7.3 | 7.0 | 5.6 | 4.6 | 4.0 | 3.7 | 3.6 | 3.5 |
| Count | 28 | 26 | 26 | 25 | 24 | 24 | 28 | 29 | 29 | 26 | 25 | 21 | 23 | 18 | 20 | 20 | 26 | 24 | 23 | 24 | 25 | 27 | 28 | 30 |

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

**Oct. 1952** — **$f_0F_2$** — 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 | 330 | (310)S | 320 | 280 | 300 | 310 | 250 | 240 | (240)S | 250 | 250 | 280 | 300 | 300 | 300P | 280 | 270 | (260)P | 270 | 250 | 280 | 360 | 390 | 340 |
| 2 | 350 | 350 | 350 | 290P | 270 | 250 | 250 | 250 | 230 | 240 | 260 | 290 | 290 | [290]C | 290 | 290 | 280 | 280 | [260]C | 250 | 390H | 360 | 350 | 360 |
| 3 | 360 | 350 | 350 | 350 | 330 | 340 | 280 | B | 240P | 230 | 250 | [260]C | 280 | 350 | 310P | 280 | 270 | 260 | 270 | 300 | 330 | 320 | (330)BS | 340 |
| 4 | 340 | 330 | 350 | 350 | 350 | 320 | 250 | 260 | 250 | 270 | 290 | 360 | 310 | [320]C | 320 | 300 | 300 | C | B | (370)P | 350H | 280 | 410 | 370 |
| 5 | 360 | 440 | 420 | 350 | 370P | 360 | 270 | (300)P | 270 | 250 | 280 | 330H | 300 | 270P | 290 | 300 | 300 | 290 | (260)JP | 330FP | 340 | A | A | 320 |
| 6 | 400 | [360]A | 330 | C | C | C | C | C | 290 | 300 | 280 | 280 | 310 | 290 | 300 | 260 | 250 | C | C | C | (320)P | (350)J | 380 | 320 |
| 7 | 360 | 310 | 370 | 310 | 340 | 300 | 260 | 270 | 250 | 250 | C | C | (270)JP | (300)J | [280]C | 270 | 260 | 270 | [260]C | (260)JP | 300 | 290 | 350P | 350 |
| 8 | 370 | 340 | 320 | 300 | A | A | 250 | (300)P | (250)P | 270 | 300 | 280 | 270 | 280 | 300 | 270 | 270 | 250 | [280]C | 310 | 360 | A | AF | 310FP |
| 9 | 350F | 430F | 310 | 360Fz | 260TF | 350F | 260 | 290 | (260)JP | 250 | C | A | C | C | 290 | 270 | 250 | A | C | 310 | 320F | 340 | 320 | 320 |
| 10 | 380 | 380 | 370 | 330 | 320 | 320 | (270)P | 250 | 250 | 250 | 260 | 240 | 300 | 300 | 310 | 300P | 260 | 270 | 260 | 280 | 320 | (310)P | 300 | 380 |
| 11 | 330 | 330 | 320 | 320F | 320F | 290 | 270 | 270 | 290P | 250 | 260 | C | C | C | C | (260)P | (250)J | C | C | 300 | 350P | 330 | 350 | 370 |
| 12 | 340 | 340 | 300 | 270 | 250 | 350 | 250 | 230 | 250 | 260 | 310 | 290 | C | B | (270)P | 280 | 280 | 270 | 260 | 300 | 370 | 360 | 320 | 350F |
| 13 | 370PF | 310F | (330)JF | 280 | 250 | 330 | 280P | 250 | 260 | 250 | 300 | 300 | 310P | 290 | 300P | 280P | 260 | 260P | (260)C | 270 | 300P | A | A | (350)P |
| 14 | 330 | 350 | 350 | 330 | 250 | 280 | (270)P | 270 | 270P | 250 | 290 | C | C | C | (270)P | C | C | (270)P | [300]C | 320 | 310 | 330 | 370 | 350 |
| 15 | 360 | 400 | 350 | 330 | 340 | 300 | (290)P | (250)J | 260P | 270 | (270)P | (270)P | 290 | C | C | C | C | C | C | C | C | 360 | 360 | 350P |
| 16 | 350 | C | C | C | C | C | C | 240 | 240 | 240 | 300 | 310 | 290 | 290 | 280 | 280 | 260 | 240 | 230 | 370 | [360]BF | 350P | 360F | 350P |
| 17 | 340 | 330 | 280 | 320 | 320 | 320 | 280 | 250 | 250 | 290 | 290 | 270 | 280 | 300 | 300 | 260 | 280 | 270 | 260 | [300]A | 330 | 320 | 340 | 330 |
| 18 | 300 | 290 | 310 | 350 | 400 | 380 | 250 | 250 | 270 | 280 | 320 | 280P | 270 | 310 | 280 | 260 | 290 | 260 | 270P | 290 | 340 | 300 | 330 | 340F |
| 19 | 350 | 400Z | [380]B | 370F | 350F | 340 | 250 | 250 | 270 | 270 | 270 | 320 | 320 | 300P | 270 | 270 | 260P | 250 | 240 | 320FP | 280 | 410F | 290 | 310FP |
| 20 | 320 | 340 | 420F | 390F | 320FP | 260 | 260P | 270 | 250 | 240 | 310 | 320 | B | B | 270 | 270P | 260P | 250 | 300 | BF | A | 300F | 310F | 330 |
| 21 | 360F | C | C | C | C | 310 | 250 | 230 | (250)P | 280 | 300 | (270)JP | 310P | B | B | C | C | A | B | AF | C | 300 | 390 | 370 |
| 22 | 400 | C | C | C | C | 300 | 250 | 250 | 300P | C | C | C | (300)P | C | C | C | 250 | 260 | 300 | 280 | [300]BS | 320 | 350 | 400F |
| 23 | C | C | C | C | C | C | 260 | 240 | 270H | [280]C | 280H | 300 | 300 | 300 | (270)P | 260 | 250 | 250P | B | B | (270)P | 320F | 370F | 320 |
| 24 | 350F | [350]C | 350 | C | C | C | 290P | 250 | 270 | (260)JP | [260]B | 260P | 290P | B | B | B | (210)J | 260P | (240)J | 300F | [340]BS | (390)JP | 320 | 350F |
| 25 | 340 | [340]A | 340 | 310F | 300F | 330 | 250P | 250P | 240 | 240 | 260 | 280 | 290P | 270 | C | C | 260 | 260 | (250)P | (290)P | 300 | 330 | 350 | 270 |
| 26 | C | C | 300 | [320]C | 340 | 350 | 270P | 270 | 250 | (270)J | B | B | C | C | C | C | C | C | C | C | C | C | C | C |
| 27 | C | 310 | C | C | 300 | C | C | 290 | S | C | C | C | C | C | A | C | 260 | [280]B | 300 | [300]A | 300P | [300]B | 290 | 310 |
| 28 | 310 | (320)A | 320 | 310 | C | C | 300 | 270 | C | B | 280 | B | T | C | C | C | 270 | 260 | 290 | 320 | C | C | (350)P | 350 |
| 29 | 310 | 370F | 320 | 350 | 300F | 290P | 270 | 260 | 280 | C | C | C | 270 | (260)A | 260 | 240 | 240 | 270 | 260 | 290 | 280 | 370 | 340P | 350 |
| 30 | 310 | 330F | 340 | (350)P | 330 | 290 | 280P | 270 | 290 | 290 | B | B | 300 | B | B | BS | 270 | 250 | 320 | [340]A | 350 | 350 | 310 | 300 |
| 31 | 350F | 340 | 370 | 400P | 400F | 310F | 300 | 290 | 300P | B | 260P | B | 300P | 260 | B | B | B | B | C | M | M | 280 | 390H | 410 |
| Mean Value | 350 | 350 | 340 | 330 | 320 | 320 | 270 | 260 | 260 | 260 | 280 | 290 | 290 | 290 | 290 | 270 | 270 | 260 | 270 | 300 | 320 | 330 | 350 | 340 |
| Median Value | 350 | 340 | 340 | 330 | 320 | 320 | 260 | 250 | 260 | 260 | 280 | 280 | 300 | 300 | 290 | 270 | 260 | 260 | 260 | 300 | 320 | 330 | 350 | 350 |
| Count | 28 | 26 | 26 | 24 | 23 | 24 | 28 | 29 | 29 | 26 | 24 | 20 | 23 | 18 | 20 | 20 | 26 | 23 | 22 | 24 | 25 | 26 | 27 | 30 |

**$f_0F_2$** — Sweep 1.0 Mc to 17.2 Mc in 2 min — ☐ Manual ☒ Automatic

K 2

27

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

# IONOSPHERIC DATA

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

Oct. 1952 | h'F2 | 135° E Mean Time

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

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

K 3

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

# IONOSPHERIC DATA

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

Oct. 1952 | foF1 | 135° E Mean Time

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | Q | L | S | L | 43L | L | +6L | 45H L | 45L | C | L | Q | | | | | | |
| 2 | | | | | | | Q | Q | 4.0 | L | 43 | L | L | C | L | L | A | A | | | | | | |
| 3 | | | | | | | Q | L | 44L | 43 | 43 | - | L | 47L | L | L | L | Q | | | | | | |
| 4 | | | | | | | Q | Q | 3.9L | 43 | 46 | [46]L | 46 | 43 | C | L | L | Q | | | | | | |
| 5 | | | | | | | Q | Q | 40 | L | L | A | 46 | 45 | L | Q | L | A | | | | | | |
| 6 | | | | | | | C | C | L | A | A | A | A | 46 | 42 | 40L | Q | C | | | | | | |
| 7 | | | | | | | Q | Q | A | L | C | C | A | A | C | A | A | A | | | | | | |
| 8 | | | | | | | Q | Q | L | 42L | 45 | 42 | 42L | 42L | 46 | 40L | Q | Q | | | | | | |
| 9 | | | | | | | A | L | 40 | A | 45L | A | C | C | 3.8 | A | A | A | | | | | | |
| 10 | | | | | | | Q | Q | 3.8L | 43 | 43 | 45 | 42 | L | L | 40L | Q | Q | | | | | | |
| 11 | | | | | | | Q | L | L | Q | 43L | C | C | C | C | 3.8 | AF | C | | | | | | |
| 12 | | | | | | | Q | Q | L | 4.0L | [4.1]L | 42L | 45L | 45L | L | L | Q | Q | | | | | | |
| 13 | | | | | | | Q | Q | 3.7L | 4.0 | 44L | 41L | L | 45 | L | L | Q | Q | | | | | | |
| 14 | | | | | | | Q | Q | L | 4.1L | 42 | C | C | C | 41L | C | C | Q | | | | | | |
| 15 | | | | | | | Q | Q | L | 43 | [42]L | 42 | 42L | C | C | C | C | Q | | | | | | |
| 16 | | | | | | | C | Q | Q | L | L | L | 45 | L | Q | L | Q | Q | | | | | | |
| 17 | | | | | | | Q | Q | Q | A | L | +5L | 44 | [44]L | 43L | 3.8L | Q | Q | | | | | | |
| 18 | | | | | | | Q | Q | L | 40L | 50 | 45 | 45 | 47 | L | L | Q | Q | | | | | | |
| 19 | | | | | | | Q | Q | L | 45L | 43L | 44L | 45L | A | 41L | 3.2 | Q | Q | | | | | | |
| 20 | | | | | | | Q | Q | 3.9 | 40 | 43L | 45L | 45 | 45L | 42L | A | Q | Q | | | | | | |
| 21 | | | | | | | Q | Q | A | A | A | 45L | A | A | A | A | C | A | | | | | | |
| 22 | | | | | | | Q | Q | 43L | C | C | C | 40 | C | C | C | Q | L | | | | | | |
| 23 | | | | | | | Q | Q | 3.6 | [38]C | 41 | 44L | 46H | 44 | 43L | 3.5 | Q | Q | | | | | | |
| 24 | | | | | | | Q | Q | L | L | B | Q | 42L H | L | L | L | Q | Q | | | | | | |
| 25 | | | | | | | Q | Q | L | 42L | 45L | 46L | 49H L | 42 | 41 | L | Q | Q | | | | | | |
| 26 | | | | | | | Q | Q | L | A | A | 45 | 47L | L | C | C | C | C | | | | | | |
| 27 | | | | | | | C | L | S | Q | 43 | 44 | Q | 45L | A | A | C | A | | | | | | |
| 28 | | | | | | | A | Q | C | C | 4.4 | [4.4]A | 45L | C | C | C | Q | Q | | | | | | |
| 29 | | | | | | | Q | Q | (40)L | C | C | C | A | A | A | A | Q | Q | | | | | | |
| 30 | | | | | | | Q | Q | 40L | A | A | A | A | A | L | A | A | Q | | | | | | |
| 31 | | | | | | | Q | Q | L | L | 43L | 45L | Q | 45L | L | L | Q | Q | | | | | | |
| Mean Value | | | | | | | | | 4.0 | 4.2 | 4.4 | 4.4 | 4.5 | 4.5 | 4.2 | 3.8 | | | | | | | | |
| Median Value | | | | | | | | | 4.0 | 4.2 | 4.3 | 4.5 | 4.5 | 4.5 | 4.2 | 3.8 | | | | | | | | |
| Count | | | | | | | | | 12 | 13 | 20 | 17 | 18 | 15 | 10 | 7 | | | | | | | | |

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

K 4

29

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

# IONOSPHERIC DATA

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

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

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

K 5

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

# IONOSPHERIC DATA

**Kokubunji Tokyo**

Lat. 35° 42.4' N
Long. 139° 29.3' E

Oct. 1952

foE

135° E Mean Time

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | B | 1.8 | S | A | A | 3.2 | 3.1 | [3.0]B | 3.0 | [2.6]C | 2.2 | A | | | | | | |
| 2 | | | | | | | B | 2.2 | 2.6 | 2.9 | 3.2B | 3.3 | 3.3 | [3.2]C | 3.0 | 2.7 | 2.3 | A | | | | | | |
| 3 | | | | | | | B | A | 2.5 | 2.6 | 2.8 | [3.0]C | 3.2B | A | B | 2.8 | 2.4 | B | | | | | | |
| 4 | | | | | | | A | 2.4 | 2.7F | 2.8F | 2.8 | 3.1 | 3.2 | 3.2 | 2.8 | 2.7F | 2.3F | 2.4B | | | | | | |
| 5 | | | | | | 1.0 | 1.5T | 2.1 | 2.7 | 2.9 | 3.0 | [3.0]A | 13.0 | [3.0]A | 3.0 | 3.0 | 2.4F | A | | | | | | |
| 6 | | | | | | | C | C | 2.7 | 3.0 | 3.1 | 3.2 | 3.1 | 3.0 | A | A | 2.4 | C | | | | | | |
| 7 | | | | | | | A | 2.3 | 2.7 | 3.0 | C | C | 3.2 | 3.0 | C | A | A | B | | | | | | |
| 8 | | | | | | | B | 2.3 | 2.7 | 3.0 | 3.0 | 3.1 | 3.2 | 3.0 | 2.7 | 2.7 | 2.3 | A | | | | | | |
| 9 | | | | | | | A | 2.3F | 2.7 | 3.0 | 3.1 | 3.2 | C | C | 2.7F | 2.3 | A | B | | | | | | |
| 10 | | | | | | | 1.4B | 2.2F | 2.7 | A | A | B | A | 3.0 | 2.8 | 2.8 | 2.3 | A | | | | | | |
| 11 | | | | | | | B | 1.9 | 2.6 | 2.8 | 3.0 | ⌣ | C | C | C | A | A | C | | | | | | |
| 12 | | | | | | | B | 2.3F | 2.6 | 2.9 | A | A | 3.0 | 3.1 | [2.8]A | 2.6 | 2.3 | B | | | | | | |
| 13 | | | | | | | B | 2.3 | 2.7 | 2.9 | 3.0 | 3.1 | 3.2 | 3.2 | 3.0 | [2.5]A | 2.0 | B | | | | | | |
| 14 | | | | | | | A | 2.4F | 2.7 | 2.7 | 3.0 | C | C | C | 2.9 | C | C | 2.0 | | | | | | |
| 15 | | | | | | | B | 2.3F | 2.6A | 2.8 | 3.0 | 3.2 | 3.3 | C | C | C | C | A | | | | | | |
| 16 | | | | | | | C | 2.0A | 2.5F | 2.9 | 3.2 | 3.2 | 3.2 | 3.2 | 3.0 | 2.7 | 2.3 | A | | | | | | |
| 17 | | | | | | | B | 2.3 | 2.7 | 3.0 | 3.0 | 3.0 | 2.8 | 2.7 | 2.6T | AF | A | AF | | | | | | |
| 18 | | | | | | | B | 2.3F | 2.7 | 2.7A | 3.2 | [3.2]A | 3.2S | A | A | A | 2.1 | 1.7T | | | | | | |
| 19 | | | | | | | 1.6T | 2.0 | 2.6 | 2.8 | 2.9 | 3.0 | A | A | 3.0 | 2.7 | 2.1 | B | | | | | | |
| 20 | | | | | | | B | 1.7 | 2.6 | 2.9 | 3.0 | 3.0 | A | A | 3.0A | 2.6A | A | A | | | | | | |
| 21 | | | | | | | B | 2.3F | 2.6 | 2.3F | 3.0 | 3.0 | 3.0 | 2.7 | 2.4A | A | C | A | | | | | | |
| 22 | | | | | | | B | 2.3F | 2.3F | C | C | C | 3.0 | C | C | C | 2.1 | A | | | | | | |
| 23 | | | | | | | 1.5B | 2.1 | 2.6F | C | A | A | A | 3.0B | 2.9 | 2.6F | 2.3 | A | | | | | | |
| 24 | | | | | | | B | 2.0 | 2.5 | 2.7 | 2.8 | A | B | 3.0 | 2.9 | 2.5 | A | B | | | | | | |
| 25 | | | | | | | B | 2.0 | 2.3F | 2.7 | [2.8]A | 3.0 | 3.2 | 3.0 | 2.8 | [2.6]A | 2.4F | A | | | | | | |
| 26 | | | | | | | B | 2.3F | 2.5 | 2.8 | 2.7 | A | A | A | C | C | C | C | | | | | | |
| 27 | | | | | | | C | 1.9 | 2.5 | 2.5T | 2.9 | 3.0 | [3.2]A | 3.3A | 2.9 | C | A | A | | | | | | |
| 28 | | | | | | | A | C | C | C | A | A | A | C | C | C | A·F | B | | | | | | |
| 29 | | | | | | | B | A | 2.4A | C | C | C | A | A | A | A | A | A | | | | | | |
| 30 | | | | | | | B | 2.0 | 2.3A | 2.5 | A | A | A | A | A | A | A | A | | | | | | |
| 31 | | | | | | | B | 2.0 | 2.4A | 2.5 | 2.6 | A | A | A | A | A | A | A | | | | | | |
| Mean Value | | | | | | 1.0 | 1.5 | 2.1 | 2.6 | 2.8 | 3.0 | 3.1 | 3.1 | 3.0 | 2.9 | 2.6 | 2.3 | 2.0 | | | | | | |
| Median Value | | | | | | 1.0 | 1.5 | 2.2 | 2.6 | 2.8 | 3.0 | 3.1 | 3.2 | 3.0 | 2.9 | 2.6 | 2.3 | 2.0 | | | | | | |
| Count | | | | | | 1 | 4 | 27 | 29 | 25 | 22 | 18 | 18 | 17 | 19 | 16 | 16 | 3 | | | | | | |

foE

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

K 6

31

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

# IONOSPHERIC DATA

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

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | B | 120 | S | A | A | 110 | 110 | 110 | 110 | [120]C | 120 | A | | | | | | |
| 2 | | | | | | | B | 120 | 110 | 110 | 110 | 110 | 120 | [120]C | 120 | 110 | 120 | A | | | | | | |
| 3 | | | | | | | B | A | 110 | 110 | 110 | [110]C | 110 | [120]A | 120 | 120 | 120 | B | | | | | | |
| 4 | | | | | | | A | 120 | 110 | 110 | 100 | 110 | 110 | 110 | 110 | 110 | 110F | B | | | | | | |
| 5 | | | | | | 150 | 160 | 110 | 110 | 110 | 110 | [100]A | 100 | [100]A | 110 | 110 | 120 | A | | | | | | |
| 6 | | | | | | | C | C | 110 | 110 | 100 | 100 | 100 | 110 | A | A | 120 | C | | | | | | |
| 7 | | | | | | | A | 130 | 120 | 120 | C | C | 120 | 110 | C | A | A | B | | | | | | |
| 8 | | | | | | | 100 | 120 | 110 | 110 | 110 | 110 | 110 | 100 | 100 | 100 | 100 | A | | | | | | |
| 9 | | | | | | | A | 130 | 120 | 120 | 100 | 100 | C | C | 110 | 100 | [100]A | 100 | | | | | | |
| 10 | | | | | | | 140 | 110 | 110 | A | A | 110 | [100]A | 100 | 110 | 100 | 130 | A | | | | | | |
| 11 | | | | | | | 100 | 130 | 120 | 110 | 110 | C | C | C | C | A | A | C | | | | | | |
| 12 | | | | | | | B | 120 | 110 | 100 | A | A | 110 | 100 | [110]A | 120 | 130 | 100 | | | | | | |
| 13 | | | | | | | B | 140 | 120 | 110 | 110 | 120 | 110 | 120 | 120 | [120]A | 120 | B | | | | | | |
| 14 | | | | | | | A | 110 | 110 | 110 | 110 | C | C | C | 110 | C | C | 150 | | | | | | |
| 15 | | | | | | | B | 120 | 110 | 110 | 110 | 110 | 110 | C | C | C | C | A | | | | | | |
| 16 | | | | | | | C | 110 | 110 | 100 | 110 | 110 | 110 | 110 | 110 | 110 | 120 | A | | | | | | |
| 17 | | | | | | | B | 120 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | A | A | A | | | | | | |
| 18 | | | | | | | B | 110 | 110 | 110 | 110 | [110]A | 110 | A | A | A | 130A | A | | | | | | |
| 19 | | | | | | | B | 120 | 110 | 110 | 110 | 110 | A | A | 120 | 120 | 120 | B | | | | | | |
| 20 | | | | | | | B | 120 | [120]A | 110 | 110 | 100 | AF | A | 100 | 100 | A | A | | | | | | |
| 21 | | | | | | | B | 120 | 110 | 110 | 110 | 110 | 110 | 110 | 100 | A | C | A | | | | | | |
| 22 | | | | | | | B | 130 | 110 | C | C | C | 110 | C | C | C | 120 | A | | | | | | |
| 23 | | | | | | | 150 | 120 | 110 | C | A | A | A | 110 | 100 | 110 | 130 | A | | | | | | |
| 24 | | | | | | | B | 140 | 120 | 120 | 110 | [110]A | 110 | 100 | 100 | 110 | A | B | | | | | | |
| 25 | | | | | | | B | 130 | 110 | 110 | [110]A | 110 | 110 | 110 | 110 | [110]A | 110 | A | | | | | | |
| 26 | | | | | | | B | 140 | 120 | 110 | 100 | A | A | A | C | C | C | C | | | | | | |
| 27 | | | | | | | C | 130 | 110 | 120 | 120 | 110 | [110]A | 110 | 120 | C | A | A | | | | | | |
| 28 | | | | | | | A | C | C | C | A | A | A | C | C | C | A | B | | | | | | |
| 29 | | | | | | | B | A | 110 | C | C | C | A | A | A | A | A | A | | | | | | |
| 30 | | | | | | | B | 130 | 120 | 110 | A | A | A | A | A | A | A | A | | | | | | |
| 31 | | | | | | | B | 130 | 120 | 110 | 110 | 110 | A | A | A | A | A | A | | | | | | |
| Mean Value | | | | | | 150 | 130 | 120 | 110 | 110 | 100 | 110 | 100 | 110 | 110 | 110 | 120 | 120 | | | | | | |
| Median Value | | | | | | 150 | 140 | 120 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 110 | 120 | 100 | | | | | | |
| Count | | | | | | 1 | 5 | 27 | 29 | 25 | 22 | 21 | 20 | 18 | 20 | 16 | 17 | 3 | | | | | | |

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

Oct. 1952 | fEs | 135° E Mean Time | Kokubunji Tokyo | Lat. 35° 42.4' N | Long. 139° 29.3' E

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.3 | E | E | E | E | E | B | 3.5 | S | 4.0 | 3.9Y | G | G | G | G | C | G | 5.5 | 4.2F | 4.0F | 3.0F | 2.8F | 2.9F | 2.6F |
| 2 | 2.5 | 2.5 | 2.5 | E | 2.5 | 2.0Y | 2.5 | 3.7Y | 3.0 | G | G | G | G | C | 3.2 | 3.9 | 4.5 | 4.5 | C | 2.7F | 2.5 | E | E | E |
| 3 | 2.4 | 2.5 | E | 1.4 | 2.5F | 2.4Y | 2.6 | 3.0 | G | G | 4.0 | C | G | 3.8 | G | G | 3.0 | 2.8 | 2.5 | 2.5 | 2.3F | 2.6Y | 3.2 | 2.6 |
| 4 | 2.0 | E | E | E | E | E | 2.5 | 2.5 | 3.9 | 4.0 | 3.7 | G | G | G | >3.8 | 3.9 | 4.0 | 3.0 | 3.0 | 2.9Y | E | E | 2.3 | E |
| 5 | 2.5F | 2.8Y | 2.6Y | 2.5YF | 2.1Y | 2.5F | 2.9 | G | 4.1 | 4.1 | 4.7 | 6.8 | 5.1 | 4.5 | 4.1 | 4.0 | 4.3 | 4.6 | 3.0 | 5.9 | 4.7F | 6.5 | 5.5 | 3.2 |
| 6 | 2.5Y | 2.5 | 4.0 | C | C | C | C | C | 4.9 | 7.1 | 5.7 | 7.5 | 6.9 | 4.7 | 4.6 | 3.5 | 3.7 | C | C | C | 4.4 | 3.9 | 2.7 | 3.5 |
| 7 | 2.6Y | 3.2Y | 3.8 | 2.9Y | 3.1 | 2.9 | 4.0 | 4.3 | 6.0 | 4.7 | C | C | 5.9 | 4.2 | C | 5.4 | 4.0 | 6.0F | C | 4.0 | 3.5 | 4.2 | 4.5 | 2.9 |
| 8 | 2.6Y | 1.4Y | 3.8 | 4.0 | 5.0 | 4.4 | 2.6 | 3.8 | 3.8 | 4.1 | 4.1 | 3.7 | 3.6 | 4.3 | 4.3 | 3.6 | 3.2 | 3.2 | C | 3.7 | 4.4 | 5.5Y | 4.0 | 3.9 |
| 9 | 2.9 | 2.8 | 2.5YF | 2.5Y | 2.5Y | 2.5F | 3.8 | 3.7 | 4.3 | 4.8 | 4.8 | 8.0 | C | C | 4.0 | 4.3 | 4.3 | 7.2 | [7]]C | 7.0F | 3.2F | 4.0 | 4.8 | 2.9 |
| 10 | 2.5Y | 2.5Y | 2.9 | 2.5 | 2.5Y | 2.6Y | 2.5 | 3.0 | 3.8 | 5.6 | 4.5Y | G | 4.0F | 3.9 | 3.6Y | 3.5 | 4.0F | 2.8 | 2.7 | 2.9 | 2.9 | 2.5 | E | 2.5 |
| 11 | E | E | 3.0 | 2.5Y | 2.5Y | 2.6Y | 2.6 | 3.3 | 4.0 | 6.8 | 4.5 | C | C | C | C | 4.6 | 5.5 | C | C | 4.0F | 3.7 | 2.9 | 2.5F | 2.4F |
| 12 | 2.5F | 2.5 | 2.5YF | 2.4Y | 2.5Y | 2.5F | 2.5 | G | 3.7 | 3.9 | 3.9 | 4.0 | G | G | 3.7 | 3.8 | 3.9 | 3.4 | 2.5 | 2.6 | 2.4 | 2.6 | 2.5 | 2.6 |
| 13 | 2.7 | 3.5 | 2.5 | 2.5F | 2.8 | 2.3Y | 2.5 | G | 3.5 | G | G | 4.2 | 4.2 | 4.2 | 4.1 | 4.0 | 4.0 | 2.5 | C | 3.8F | 3.7F | 4.6 | 3.9F | 3.0 |
| 14 | 3.2Y | 3.1 | 3.5 | 2.4 | 2.5Y | 2.5Y | 3.5 | 3.0 | 3.7 | 4.0 | G | C | C | C | 3.2 | C | C | 2.6 | C | 2.5 | 2.5Y | 2.4 | 2.5 | 2.4 |
| 15 | 2.9 | E | E | 2.6 | 2.5 | 2.5 | 2.3 | 3.5 | 3.7 | 3.6 | G | G | G | C | C | C | C | 3.0 | C | C | C | 2.4 | E | E |
| 16 | E | C | C | C | C | C | C | 3.3Y | 3.7F | 4.0 | G | G | G | G | 4.9 | 5.6 | 4.7Y | 5.6F | 3.7 | 3.2 | 2.8 | 2.4 | 3.8 | 2.3 |
| 17 | 2.6Y | 1.9Y | E | 2.9 | E | 2.4 | 2.4 | 3.3 | 4.5 | 4.6 | 6.0 | 4.5 | 4.3 | 4.0 | 3.7 | 4.2 | 4.5F | 3.9F | 4.0 | 5.3 | 2.9 | 3.2 | 3.2 | 1.8 |
| 18 | E | E | 2.4Y | 2.4Y | 2.5Y | 2.0Y | 2.4 | 2.9 | G | 4.0 | 4.0 | 5.0 | 4.6 | 3.7 | 6.0 | 4.7 | 3.9 | 3.0 | 2.7F | 2.4 | 2.2 | 2.4 | E | E |
| 19 | E | 2.4Y | E | 2.9F | 2.6 | E | G | 3.2 | 3.6 | 4.0 | 4.0 | 3.8 | 4.5 | 5.4 | G | 3.5 | G | 2.5 | 4.3 | 4.5 | 3.1 | 5.1 | 5.5Y | 2.8 |
| 20 | 3.6 | E | E | 2.4 | 2.5F | E | 2.6 | 3.2 | 4.0 | 4.5 | 4.5 | 4.2 | 4.8 | 4.2 | 4.0 | 4.2 | 4.2 | 3.0 | 3.1 | 3.6 | 6.7 | 3.0 | 4.3 | 3.8 |
| 21 | 3.4 | C | C | C | C | 3.7 | 2.6 | 3.2 | 4.3 | 6.5 | 6.0 | 5.0 | 5.4 | 6.2 | 6.5 | 4.5 | C | 6.7 | 3.8 | 6.5F | C | 3.0 | 5.0 | 2.5F |
| 22 | 2.5 | C | C | C | C | 2.5 | G | G | 4.0 | C | C | C | 5.0 | C | C | C | 3.0 | 3.0 | 3.0 | 3.0F | 2.6 | 3.0 | 3.8 | 2.9 |
| 23 | C | C | C | C | C | C | 3.0 | 3.0 | 4.2 | C | 4.1 | 5.0 | 4.5 | 3.0 | 3.6 | 3.6 | 2.9 | 2.8 | 2.6 | 3.1F | 3.2F | 3.1 | 2.9 | 2.9 |
| 24 | 3.6Y | C | 3.1YF | C | C | C | 2.5 | 2.9 | 2.7 | 3.1 | G | 3.0 | G | G | G | 3.8 | 3.2 | B | E | 2.7 | 3.1 | 6.0 | 3.2 | 2.8 |
| 25 | 3.1 | 4.0 | 3.0 | 2.8 | 2.5F | E | 2.5 | 3.0 | 3.5 | 4.0 | 3.6 | G | G | G | G | 3.9 | 3.7 | 4.7F | 6.5 | 6.3 | 4.1 | 3.2F | 2.5F | 2.5 |
| 26 | C | C | 2.5Y | 2.3 | 2.9 | E | B | 3.0 | 4.0 | 5.1 | 5.0 | 6.7 | 4.0 | 4.5 | C | C | C | C | C | C | C | C | C | C |
| 27 | C | 2.6 | C | C | E | C | C | 3.3 | G | G | G | 4.0 | 4.5 | 4.2 | 6.3 | C | 4.0 | 4.0 | 4.7 | 5.0 | 4.0YF | 3.1 | 3.1 | 3.4 |
| 28 | 3.1Y | 6.5 | 3.5F | 2.7 | 3.3 | C | 6.1 | C | C | 4.3 | 5.5 | 6.5 | 4.5 | C | C | C | 3.7 | 4.0F | 3.3F | 3.2 | C | C | 3.0 | 3.0 |
| 29 | 3.0 | 6.5Y | 3.0 | 3.0 | 2.5 | 2.5Y | 2.5 | 3.0 | 4.0 | C | C | C | 7.0 | 9.0 | 6.2 | 5.5 | 3.5F | 3.2F | 4.3 | 2.9F | 2.9F | 3.9 | 2.6 | 2.6 |
| 30 | 2.5 | 2.5Y | 2.7Y | 4.2YF | 2.9 | 2.5 | 2.5 | G | 4.5 | 6.0 | 7.4 | 5.6 | 6.8 | 6.5 | 5.0 | 4.5 | 5.0Y | 2.5SF | 3.2 | 3.8 | 2.6 | 2.5 | 2.9F | 2.9F |
| 31 | 2.8F | 4.4 | 2.5Y | 2.5YF | 2.7FY | 2.5 | 2.5 | 2.6 | 3.0 | G | 4.2 | 3.9 | 4.1 | 3.6 | 3.8 | 3.4 | 3.0 | 3.0 | 4.8 | M | M | 2.9 | 2.5F | 2.5 |
| Mean Value | 2.8 | 3.4 | 3.0 | 2.7 | 2.7 | 2.6 | 2.8 | 3.2 | 3.9 | 4.6 | 4.7 | 5.1 | 4.9 | 4.7 | 4.5 | 4.2 | 3.9 | 3.8 | 3.6 | 3.9 | 3.3 | 3.5 | 3.4 | 2.8 |
| Median Value | 2.6 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 3.0 | 3.8 | 4.0 | 4.0 | 4.0 | 4.2 | 4.1 | 3.8 | 4.0 | 3.9 | 3.2 | 3.2 | 3.6 | 3.0 | 3.0 | 3.0 | 2.6 |
| Count | 28 | 25 | 26 | 24 | 25 | 25 | 26 | 29 | 29 | 28 | 28 | 25 | 28 | 24 | 25 | 24 | 27 | 27 | 22 | 27 | 26 | 29 | 30 | 30 |

fEs

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

K 8

33

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

# IONOSPHERIC DATA

**Oct. 1952** | **(M3000)F2** | 135° E Mean Time | **Kokubunji Tokyo** | Lat. 35° 42.4' N | Long. 139° 29.3' E

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.9 | [2.9]S | 2.9 | 3.2 | 3.1 | 3.1 | 3.5 | 3.6 | [3.6]S | 3.5 | 3.4 | 3.3 | 3.1 | 3.2 | 3.2P | 3.2 | 3.3 | (3.2)P | 3.2 | 3.5 | 3.2 | 2.8 | 2.7 | 2.9 |
| 2 | 2.9 | 2.8 | 2.9 | 3.0P | 3.3 | 3.5 | 3.6 | 3.5 | 3.6 | 3.6 | 3.2 | 3.3 | 3.2 | [3.2]C | 3.1 | 3.0 | 3.2 | 3.3 | [3.4]C | 3.5 | 2.6H | 2.8 | 2.7 | 2.8 |
| 3 | 3.0 | 2.9 | 3.0 | 2.9 | 3.0 | 2.9 | 3.3 | B | 3.6P | 3.6 | 3.6 | [3.4]C | 3.3 | 3.0 | 3.1P | 3.3 | 3.2 | 3.3 | 3.4 | 3.1 | 2.9 | 2.9 | [2.9]BS | 2.9 |
| 4 | 2.9 | 2.9 | 2.8 | 2.9 | 2.8 | 3.0 | 3.5 | 3.5 | 3.6 | 3.3 | 3.2 | 2.9 | 3.1 | [3.1]C | 3.1 | 3.0 | 3.2 | C | B | (3.2)P | 2.8H | 3.3 | 2.5 | 2.8 |
| 5 | 2.8 | 2.5 | 2.5 | 2.9 | 2.7P | 2.9 | 3.4 | (3.0)P | 3.4 | 3.4 | 3.2 | 2.9H | 3.1 | 3.3P | 3.2 | 3.2 | 3.1 | 3.3 | (3.2)JP | 2.9FP | 2.9 | A | A | 3.0 |
| 6 | 2.6 | [2.8]A | 3.0 | C | C | C | C | C | 3.2 | 3.1 | 3.3 | 3.2 | 3.1 | 3.2 | 3.2 | 3.4 | 3.5 | C | C | C | (3.0)P | (2.9)J | 2.8 | 2.9 |
| 7 | 2.8 | 3.0 | 2.7 | 3.0 | 2.9 | 3.0 | 3.4 | 3.3 | 3.4 | 3.4 | C | C | (3.3)JP | (3.1)J | [3.2]C | 3.4 | 3.3 | 3.3 | [3.3]C | (3.3)JP | 3.1 | 3.2 | 2.8P | 2.8 |
| 8 | 2.7 | 2.9 | 3.0 | 3.1 | A | A | 3.4 | (3.1)P | (3.6)P | 3.4 | 3.1 | 3.3 | 3.3 | 3.2 | 3.1 | 3.3 | 3.3 | 3.4 | [3.2]C | 3.0 | 2.8 | 2.9 | [2.9]AF | 2.9FP |
| 9 | 2.8F | '2.5F | 3.0 | 2.8FZ | 3.4VF | 2.3F | 3.4 | 3.2 | (3.3)JP | 3.5 | C | A | C | C | 3.2 | 3.4 | 3.4 | 3.2 | [3.1]C | 3.0 | 3.0F | 3.0 | 3.0 | 2.9 |
| 10 | 2.7 | 2.7 | 2.8 | 2.9 | 3.0 | 3.0 | (3.3)P | 3.5 | 3.5 | 3.5 | 3.4 | 3.6 | 3.2 | 3.1 | 3.1 | 3.1P | 3.5 | 3.3 | 3.3 | 3.2 | 3.0 | (2.9)P | 3.1 | 2.7 |
| 11 | 2.9 | 2.9 | 2.9 | 2.9F | 3.0F | 3.2 | 3.3 | 3.3 | 3.2P | 3.6 | 3.4 | C | C | C | C | (3.5)P | (3.6)J | C | C | 3.1 | 2.9P | 2.9 | 2.9 | 2.8 |
| 12 | 3.0 | 3.0 | 3.1 | 3.3 | 3.2 | 2.8 | 3.5 | 3.6 | 3.5 | 3.5 | 3.1 | 3.2 | C | C | (3.4)P | 3.2 | 3.2 | 3.3 | 3.4 | 3.0 | 2.8 | 2.8 | 2.9 | 2.9F |
| 13 | 2.0FP | 3.1F | (2.9)JF | 3.2 | 3.6 | 2.9 | 3.2P | 3.3 | 3.4 | 3.5 | 3.2 | 3.2 | 3.1P | 3.2 | 3.2P | 3.2P | 3.4 | 3.4P | [3.3]C | 3.2 | 3.0P | A | A | (2.8)P |
| 14 | 2.9 | 2.9 | 3.2 | 2.8 | 3.5 | 3.2 | (3.3)P | 3.2 | 3.3P | 3.4 | 3.3 | C | C | C | (3.3)P | C | C | (3.2)P | [3.1]C | 3.0 | 3.1 | 2.9 | 2.8 | 2.8 |
| 15 | 2.8 | 2.7 | 2.9 | 2.9 | 2.9 | 3.1 | (3.1)P | (3.4)J | 3.4P | 3.3 | (3.3)P | (3.4)P | 3.1 | C | C | C | C | C | C | C | C | 2.8 | 2.9 | 2.8P |
| 16 | 2.8 | C | C | C | C | C | C | 3.4 | 3.4 | 3.4 | 3.1 | 3.0 | 3.2 | 3.2 | 3.2 | 3.3 | 3.3 | 3.4 | 3.6 | 2.7 | [2.8]BF | 2.9P | 2.9F | 2.8P |
| 17 | 3.0 | 3.0 | 3.2 | 3.0 | 2.9 | 2.9 | 3.2 | 3.4 | 3.4 | 3.2 | 3.2 | 3.3 | 3.2 | 3.2 | 3.1 | 3.3 | 3.2 | 3.2 | 3.4 | [3.2]A | 3.0 | 3.0 | 2.9 | 2.9 |
| 18 | 2.8 | 3.2 | 3.1 | 2.9 | 2.7 | 2.8 | 3.6 | 3.6 | 3.3 | 3.2 | 3.0 | 3.3P | 3.3 | 3.1 | 3.2 | 3.3 | 3.2 | 3.4 | 3.3P | 3.2 | 2.9 | 3.2 | 2.9 | 2.8F |
| 19 | 2.9 | 2.7Z | [2.6]B | 2.6F | 2.8F | 2.9 | 3.3 | 3.4 | 3.2 | 3.3 | 3.2 | 3.1 | 3.1 | 3.1P | 3.3 | 3.3 | 3.3P | 3.2 | 3.4 | 2.9FP | 3.2 | 2.6F | 3.1 | 3.0FP |
| 20 | 2.9 | 2.8 | 2.6F | 2.8F | 3.0FP | 3.3 | 3.5P | 3.2 | 3.5 | 3.3 | 3.3 | 3.0 | B | B | 3.2 | 3.3P | 3.3P | 3.5 | 3.1 | BF | A | 3.0F | 2.9F | 2.9 |
| 21 | 2.7F | C | C | C | C | 3.0 | 3.5 | 3.6 | (3.3)P | 3.3 | 3.1 | (3.3)JP | 3.0P | B | B | C | C | A | B | AF | C | 3.0 | 2.8 | 2.9 |
| 22 | 2.7 | C | C | C | C | 3.0 | 3.4 | 3.5 | 3.2P | C | C | C | (3.2)P | C | C | C | 3.4 | 3.3 | 3.1 | 3.3 | [3.1]BS | 2.9 | 2.9 | 2.8F |
| 23 | C | C | C | C | C | C | 3.3 | 3.5 | 3.2H | [3.2]C | 3.2H | 3.1 | 3.2 | 3.1 | (3.3)P | 3.4 | 3.4 | 3.3P | B | B | (3.2)P | 3.0F | 2.8F | 3.1 |
| 24 | 2.9F | [3.0]C | 3.0 | C | C | C | 3.1P | 3.5 | 3.4 | (3.4)JP | [3.4]B | 3.4P | 3.2P | B | B | B | (3.2)J | 3.2P | (3.6)J | 3.1F | [2.9]BS | (2.7)JP | 2.9 | 2.9F |
| 25 | 2.9 | [2.9]A | 2.9 | 3.1F | 3.1F | 2.8 | 3.4P | 3.4P | 3.5 | 3.5 | 3.4 | 3.3 | 3.2P | 3.2 | C | C | 3.2 | 3.3 | (3.5)P | (3.1)P | 3.1 | 2.9 | 2.8 | 3.3 |
| 26 | C | C | 2.7 | [2.8]C | 2.8 | 2.8 | 3.2P | 3.3 | 3.3 | (3.3)J | B | B | C | C | C | C | C | C | C | C | C | C | C | C |
| 27 | C | 3.0 | C | C | 3.0 | C | C | 3.2 | S | C | C | C | C | C | A | C | 3.4 | [3.2]B | 3.1 | [3.1]A | 3.1P | [3.2]B | 3.2 | 3.1 |
| 28 | 3.0 | [3.0]A | 3.1 | 3.0 | C | C | 3.1 | 3.2 | C | B | 3.2 | B | T | C | C | C | 3.4 | 3.5 | 3.2 | 3.1 | C | C | (2.9)P | 3.0 |
| 29 | 3.1 | 2.8F | 3.0 | 2.7 | 3.0F | 3.2P | 3.3 | 3.4 | 3.3 | C | C | C | 3.2 | [3.3]A | 3.4 | 3.5 | 3.5 | 3.4 | 3.4 | 3.2 | 3.2 | 2.8 | 3.0P | 3.0 |
| 30 | 3.0 | 2.9F | 2.9 | (2.8)P | 2.9 | 3.3 | 3.2P | 3.2 | 3.2 | 3.1 | B | B | 3.2 | B | B | BS | 3.3 | 3.5 | 3.0 | [3.0]A | 2.9 | 2.8 | 3.0 | 3.0 |
| 31 | 2.8F | 3.0 | 2.7 | 2.6P | 2.7F | 3.0F | 3.0 | 3.3 | 3.1P | B | 3.4P | B- | 3.2P | 3.4 | B | B | B | B | C | M | M | 3.2 | 2.6H | 2.6 |
| Mean Value | 2.9 | 2.9 | 2.9 | 2.7 | 2.9 | 3.0 | 3.3 | 3.4 | 3.4 | 3.4 | 3.3 | 3.2 | 3.2 | 3.2 | 3.2 | 3.3 | 3.3 | 3.3 | 3.3 | 3.1 | 3.0 | 2.9 | 2.9 | 2.9 |
| Median Value | 2.9 | 2.9 | 2.9 | 2.9 | 3.0 | 3.0 | 3.3 | 3.4 | 3.4 | 3.4 | 3.2 | 3.3 | 3.2 | 3.2 | 3.2 | 3.3 | 3.3 | 3.3 | 3.3 | 3.1 | 3.0 | 2.9 | 2.9 | 2.9 |
| Count | 28 | 26 | 26 | 24 | 23 | 24 | 28 | 29 | 29 | 26 | 24 | 20 | 23 | 18 | 20 | 20 | 26 | 24 | 23 | 24 | 25 | 27 | 28 | 30 |

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

**Oct. 1952** | **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 | 1.2 | E | 1.7 | 1.7 | E | E | 1.7 | 2.7 | [3.0]$^{S}$ | 3.3 | 3.3 | 3.4 | 3.3 | 3.3 | 3.2 | [2.8]$^{C}$ | 2.4 | 1.9 | 2.0$^{A}$ | [1.9]$^{A}$ | 1.8 | 1.7 | 1.7 | 1.7 |
| 2 | 1.6 | 1.7 | 1.3 | 1.4 | E | 1.2 | 1.7 | 2.2 | 2.8 | 3.5 | 3.3 | 4.0 | 4.0 | [3.8]$^{C}$ | 3.5 | 3.3 | 3.8$^{A}$ | 3.0$^{AF}$ | [2.3]$^{C}$ | 1.6 | 1.6 | 1.7 | 1.6 | 1.7 |
| 3 | 1.2 | E | E | E | E | E | 1.8 | 2.5 | 2.9 | 3.2 | 3.4 | [3.4]$^{C}$ | 3.4 | 3.5 | 3.7 | 3.0 | 2.4 | 1.8 | 1.6 | 1.7 | 1.6 | 1.6 | 1.8 | 1.7 |
| 4 | 1.2 | E | E | E | E | E | 2.2 | 2.8 | 3.1 | 2.9 | 3.4 | 3.3 | 3.3 | 3.5 | 3.2 | 3.3 | 3.3$^{A}$ | 2.4 | [2.1]$^{A}$ | 1.8 | 1.6 | 1.2 | 1.7 | 1.7 |
| 5 | 1.2 | 1.6 | 1.8 | 1.2 | 1.6 | 1.0 | 1.8 | 2.5 | 2.8 | 3.4 | 4.0$^{A}$ | 5.0$^{A}$ | 3.8 | 4.0$^{A}$ | 3.5 | 3.3 | 2.7 | 3.2$^{A}$ | [2.6]$^{A}$ | 2.0$^{A}$ | 1.7 | A | A | 1.7 |
| 6 | 1.6 | [1.9]$^{A}$ | 2.2$^{A}$ | G | C | C | C | C | A | 4.4$^{A}$ | 4.5$^{A}$ | 6.3$^{A}$ | 6.4$^{A}$ | 3.5 | 3.6 | 3.3 | 2.5 | C | C | C | 2.5$^{A}$ | 2.6$^{A}$ | 1.8 | 1.9 |
| 7 | 1.7 | 2.3$^{A}$ | 2.8$^{A}$ | 2.0$^{A}$ | 1.8 | 1.7 | 2.5 | 2.3 | [3.1]$^{A}$ | 3.9 | C | C | 5.5$^{A}$ | 4.3$^{A}$ | [4.2]$^{C}$ | 4.1$^{A}$ | 2.9 | 3.3$^{A}$ | [3.4]$^{C}$ | 3.5$^{A}$ | 2.1$^{A}$ | 1.8 | 2.2$^{A}$ | 1.8 |
| 8 | 1.6 | 1.3 | 1.7 | 1.9 | A | A | 1.9 | 2.8 | 3.1 | 3.5 | 3.5 | 3.3 | 3.5 | 3.5 | 3.3 | 2.7 | 2.3 | 2.2 | C | A | 1.9 | 3.3$^{A}$ | [2.6]$^{AF}$ | 1.9 |
| 9 | 1.7 | 1.2 | E | E | 1.0 | 1.0 | [1.6]$^{A}$ | 2.3 | 2.7 | 4.1$^{A}$ | 3.8 | 6.4$^{A}$ | C | C | 3.4 | 3.5$^{A}$ | 2.9$^{A}$ | 4.8$^{A}$ | [3.5]$^{C}$ | 2.2$^{A}$ | 1.7 | 1.7 | 2.0$^{A}$ | 1.7 |
| 10 | 1.5 | 1.3 | 1.6 | 1.4 | 1.2 | 1.7 | 1.6 | 2.5 | 3.3 | 3.6 | 3.3 | 3.7 | 3.3 | 3.3 | 3.0 | 2.8 | 2.3 | 1.8 | 1.7 | 1.5 | 1.7 | 1.2 | 1.4 | 1.7 |
| 11 | E | E | 1.7 | 1.3 | 1.1 | 1.1 | 1.8 | 2.4 | 2.8 | 3.3 | 3.5 | C | C | C | C | 3.5$^{A}$ | 3.2$^{AF}$ | C | C | 2.6$^{A}$ | 2.2$^{A}$ | 1.8 | 1.6 | 1.6 |
| 12 | 1.2 | 1.5 | E | E | E | E | 1.6 | 2.4 | 2.6 | 3.0 | 3.3 | 3.6 | 3.3 | 3.3 | 3.2 | 3.2 | 2.7 | [2.1]$^{A}$ | 1.5 | 1.7 | 1.6 | 1.7 | 1.7 | 1.7 |
| 13 | 1.7 | 1.8 | 1.7 | E | A | E | 1.7 | 2.4 | 2.8 | 3.0 | 3.4 | 3.5 | 3.5 | 3.6 | 3.3 | 2.8 | 2.3 | 1.7 | [1.6]$^{C}$ | 1.6 | 1.7 | A | A | 1.8 |
| 14 | 1.7 | 2.7$^{A}$ | 2.4$^{A}$ | 1.2 | E | 1.0 | 1.8 | 2.4 | 2.8 | 3.1 | 3.4 | C | C | C | 3.2 | C | C | 1.9 | [1.8]$^{C}$ | 1.7 | 1.6 | 1.6 | 1.6 | 1.6 |
| 15 | 1.3 | E | E | E | E | E | 1.6 | 2.3 | [2.6]$^{A}$ | 3.0 | 3.4 | 3.4 | 3.3 | C | C | C | C | 2.2 | C | C | C | 1.6 | 1.6 | 1.7 |
| 16 | E | C | C | C | C | C | C | 2.5 | 2.7 | 3.3 | 3.3 | 3.3 | 3.6 | 3.5 | 3.2 | 3.3 | 2.3 | 1.8 | 1.8 | 2.0$^{A}$ | [1.8]$^{AF}$ | 1.7 | 1.6 | 1.6 |
| 17 | 1.4 | 1.2 | E | E | E | E | 1.6 | 2.3 | 2.6 | 4.0$^{A}$ | 4.0$^{A}$ | 3.8 | 3.3 | 3.3 | 3.2 | 2.6 | 2.2$^{A}$ | 2.0$^{AF}$ | 3.2$^{A}$ | [2.4]$^{A}$ | 1.7 | 2.0$^{A}$ | 1.9 | 1.7 |
| 18 | E | E | E | 1.0 | E | E | 1.6 | 2.6 | 2.7 | 3.0 | 3.5 | 3.5 | 3.4 | 3.2 | 3.8 | 3.0$^{AF}$ | 2.8$^{A}$ | 2.0 | 1.8 | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 |
| 19 | 1.2 | E | E | E | 1.6$^{A}$ | E | 1.7 | 2.3 | 2.8 | 3.5 | 3.4 | 3.3 | 3.3 | 4.8$^{A}$ | 3.1 | 2.7 | 2.4 | 1.6 | [1.8]$^{A}$ | 2.0$^{A}$ | 2.2$^{A}$ | 2.2$^{A}$ | 1.8 | 1.7 |
| 20 | 1.7 | E | E | E | E | E | 1.7 | 2.4 | [3.0]$^{A}$ | 3.7$^{A}$ | 3.7 | 3.5 | 3.7 | A | A | A | 2.2 | 1.7 | A | AF | A | 1.9 | 2.5$^{AF}$ | 2.7$^{AF}$ |
| 21 | 1.9 | C | C | C | C | 2.0$^{A}$ | 1.6 | 2.3 | 3.6$^{A}$ | 6.6$^{A}$ | 5.2$^{A}$ | 4.2$^{A}$ | 4.7$^{A}$ | 5.5$^{A}$ | 5.5$^{A}$ | 3.8$^{A}$ | C | A | A | AF | C | 1.5 | [1.6]$^{A}$ | 1.7 |
| 22 | 1.6 | C | C | C | C | E | 1.6 | 2.7 | 2.7 | C | C | C | 3.4 | C | C | C | 2.2 | 1.6$^{A}$ | 1.7 | 1.5 | 1.7 | 2.0$^{A}$ | 2.6$^{A}$ | 1.6 |
| 23 | C | C | C | C | C | C | 1.6 | 2.4 | 2.8$^{A}$ | [3.0]$^{C}$ | 3.3 | 3.7 | 3.5 | 3.3$^{B}$ | 3.0 | 2.8 | 2.8 | 1.8 | 1.5 | AF | AF | 1.7 | 1.7 | 1.6 |
| 24 | 1.7 | [1.8]$^{C}$ | 1.9 | C | C | C | 1.7 | 2.3 | 3.0 | 3.3 | 3.6 | 4.0$^{B}$ | 3.3 | 3.5 | 3.3 | 2.8 | 2.3 | 1.5 | 1.6 | 1.6 | 1.7 | 2.0$^{A}$ | 1.7 | 1.7 |
| 25 | 2.0$^{A}$ | [1.9]$^{A}$ | 1.8 | 1.7 | 1.7 | E | 1.6 | 2.3 | 2.8 | 2.8 | 3.3 | 3.3 | 3.5 | 3.3 | 3.0 | 2.9 | 2.5 | 2.0 | [1.8]$^{A}$ | 1.5$^{A}$ | 1.9 | 1.8 | 1.7 | 1.7 |
| 26 | C | C | 1.1 | E | E | E | 1.7 | 2.2 | 2.5 | 4.5$^{A}$ | 4.5$^{A}$ | 4.0$^{A}$ | 3.5 | 3.4 | C | C | C | C | C | C | C | C | C | C |
| 27 | C | 1.6 | C | C | 1.1 | C | C | 2.4 | 2.8 | 3.1 | 3.3 | 3.5 | 3.9$^{A}$ | 3.5 | A | C | 2.4$^{A}$ | [2.8]$^{A}$ | 3.3$^{A}$ | 5.0$^{A}$ | 2.2$^{A}$ | 1.8 | 1.7 | 1.9 |
| 28 | 2.2 | [2.0]$^{A}$ | 1.9 | 1.7 | 1.8 | C | A | 2.0 | C | C | 3.2 | 5.2 | 3.2 | C | C | C | 2.8 | [2.4]$^{A}$ | 2.0$^{AF}$ | 1.8 | C | C | 2.7$^{A}$ | 1.9 |
| 29 | 2.2$^{A}$ | 1.6 | 1.9 | 1.7 | E | 1.1 | 1.7 | 2.3 | 3.5$^{A}$ | C | C | C | 5.0$^{A}$ | [5.0]$^{A}$ | 5.0$^{A}$ | 3.5$^{A}$ | 2.0 | A | A | 1.7 | 1.6 | [1.7]$^{A}$ | 1.8 | 1.7 |
| 30 | 1.7 | 1.1 | 1.0 | 2.5$^{AS}$ | 1.7 | 1.7 | 1.7 | 2.2 | 3.5$^{A}$ | 4.4$^{A}$ | 6.6$^{A}$ | 4.9$^{A}$ | 4.6 | 3.5 | 3.8 | 3.5 | [2.6]$^{A}$ | 1.6 | 1.6 | [1.6]$^{A}$ | 1.7 | 1.6 | 1.7 | 1.6 |
| 31 | 1.8$^{F}$ | 1.7 | E | E | E | E | 1.6 | 2.2 | 2.8 | 3.0 | 3.5 | 3.0 | 3.5$^{A}$ | 3.3 | 3.0 | 2.5 | 2.2 | 2.4 | A | M | M | 1.6 | 1.9 | 1.5 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Mean Value | 1.6 | 1.7 | 1.8 | 1.6 | 1.5 | 1.4 | 1.7 | 2.4 | 2.9 | 3.6 | 3.7 | 3.9 | 3.8 | 3.7 | 3.5 | 3.1 | 2.6 | 2.2 | 2.1 | 2.0 | 1.8 | 1.8 | 1.9 | 1.8 |
| Median Value | 1.6 | 1.4 | 1.4 | 1.1 | E | E | 1.7 | 2.4 | 2.8 | 3.3 | 3.4 | 3.6 | 3.5 | 3.5 | 3.3 | 3.1 | 2.4 | 2.0 | 1.8 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Count | 28 | 26 | 26 | 24 | 23 | 24 | 27 | 30 | 29 | 28 | 28 | 26 | 28 | 24 | 24 | 24 | 27 | 26 | 22 | 23 | 24 | 27 | 28 | 30 |

**fminF**

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

K 10

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

# IONOSPHERIC DATA

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

Oct. 1952 | fminE | 135° E Mean Time

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.9 | E | E | E | E | E | 1.7 | 1.2 | (1.4)S | 1.7S | 1.8 | 1.8 | 1.8 | 1.9 | 1.7 | (1.6) | 1.6 | 1.6 | 1.6 | 1.7 | 1.6 | 1.6 | 1.9 | 1.8 |
| 2 | 1.9 | 1.8 | 1.9 | E | 1.9 | E | 2.0 | 1.7 | 1.7 | 1.7 | 1.6 | 1.8 | 1.8 | (1.7)C | 1.6 | 1.6 | 1.7 | 1.6 | (1.8)C | 1.9 | 1.9 | E | E | E |
| 3 | 1.9 | 1.6 | E | 1.3 | 2.0 | 1.2 | 1.7 | 1.7 | 1.2 | 1.8 | 1.8 | (1.8)C | 1.8 | 1.8 | 2.3 | 1.8 | 1.7 | 1.9 | 1.9 | 2.0 | 1.9 | 2.0 | 1.7 | 1.7 |
| 4 | 1.6 | E | E | E | E | E | 1.6 | 1.6 | 1.8 | 1.7 | 1.7 | 1.7 | 1.8 | 1.8 | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 1.2 | E | E | 1.7 | E |
| 5 | 1.6 | E | E | E | E | E | 1.7 | 1.7 | 1.8 | 1.7 | 1.8 | 1.9 | 1.7 | 1.9 | 1.9 | 1.8 | 1.6 | 1.4 | 1.6 | 1.5 | 1.2 | 1.6 | 1.5 | 1.2 |
| 6 | 1.2 | E | E | C | C | C | C | C | 1.7 | 1.8 | 1.7 | 1.6 | 1.2 | 1.8 | 1.7 | 1.6 | 1.7 | C | C | C | 1.6 | 1.6 | 1.6 | 1.6 |
| 7 | E | E | 1.0 | E | E | E | 1.7 | 1.8 | 1.7 | 1.8 | C | C | 1.9 | 1.9 | (1.8)C | 1.7 | 1.6 | 1.7 | (1.6)C | 1.7 | 1.7 | 1.7 | 1.7 | 1.6 |
| 8 | 1.0 | 1.0 | E | 1.0 | E | E | 1.1 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 | 1.7 | 1.7 | 1.6 | 1.2 | 1.6 | (1.6)C | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 |
| 9 | 1.2 | E | E | E | E | 1.0 | 1.1 | 1.3 | 1.7 | 1.7 | 1.7 | 1.7 | C | C | 1.7 | 1.1 | 1.7 | 1.2 | (1.4)C | 1.6 | 1.7 | 1.7 | 1.6 | 1.8 |
| 10 | 1.2 | E | E | E | E | E | 1.2 | 1.6 | 1.7 | 1.2 | 1.0 | 1.7 | 1.7 | 1.7 | 1.6 | 1.2 | 1.2 | 1.2 | 1.2 | 1.7 | 1.8 | 1.9 | E | 22 |
| 11 | E | E | E | E | E | E | 1.2 | 1.7 | 1.7 | 1.6 | 1.8 | C | C | C | C | 1.6 | 1.6 | C | C | 1.6 | 1.6 | 1.7 | 1.8 | 1.9 |
| 12 | 1.7 | 1.7 | E | E | E | E | 1.9 | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 1.6 | 1.2 | 1.8 | 1.7 | 1.8 | 2.0 | 1.8 | 1.7 |
| 13 | 1.9 | E | E | E | E | E | 1.9 | 1.6 | 1.7 | 1.7 | 1.8 | 1.8 | 1.9 | 1.8 | 1.7 | 1.7 | 1.7 | 1.9 | (1.8)C | 1.6 | 1.6 | 1.6 | 1.7 | 1.3 |
| 14 | E | E | E | E | E | E | 1.4 | 1.7 | 1.7 | 1.7 | 1.7 | C | C | C | 1.6 | C | C | 1.6 | (1.8)C | 1.9 | 1.8 | 1.9 | 1.9 | 1.8 |
| 15 | 1.7 | E | E | 1.8 | 2.0 | 1.8 | 1.7 | 1.1 | 1.3 | 1.6 | 1.7 | 1.7 | 1.7 | C | C | C | C | 1.3 | C | C | C | 1.7 | E | E |
| 16 | E | C | C | C | C | C | C | 1.2 | 1.7 | 1.2 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.6 | 1.3 | 1.5 | 1.6 | 1.6 | 1.2 | 1.7 | 1.6 | 1.8 |
| 17 | E | E | E | E | E | 1.8 | 1.8 | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.1 | 1.2 | 1.2 | 1.6 | 1.6 | 1.6 | 1.7 | 1.5 | 1.6 |
| 18 | E | E | E | E | E | E | 1.8 | 1.2S | 1.5 | 1.6 | 1.6 | 1.7 | 1.7 | 1.6 | 1.6 | 1.1 | 1.0 | 1.2 | 1.6 | 1.9 | 1.7 | 1.8 | E | E |
| 19 | E | E | E | E | E | E | 1.8 | 1.4 | 1.2 | 1.6 | 1.6 | 1.7 | 1.9 | 1.7 | 1.7 | 1.7 | 1.6 | 1.7 | 1.6 | 1.6 | 1.2 | 1.6 | 1.6 | 1.6 |
| 20 | E | E | E | E | E | E | 1.5 | 1.5 | 1.2 | 1.2 | 1.6 | 1.7 | 1.6 | 1.6 | 1.6 | 1.2 | 1.2 | 1.2 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| 21 | E | C | C | C | C | E | 1.8 | 1.6 | 1.7 | 1.6 | 1.6 | 1.7 | 1.6 | 1.7 | 1.4 | 1.7 | (1.6)C | 1.6 | 1.5 | 1.5 | (1.6)C | 1.6 | 1.6 | 1.6 |
| 22 | 1.6 | C | C | C | C | 1.9 | B | 1.4 | 1.3 | C | C | C | 1.7 | C | C | C | 1.6 | 1.2 | 1.6 | 1.7 | 1.5 | 1.6 | 1.7 | 1.7 |
| 23 | C | C | C | C | C | C | 1.1 | 1.6 | 1.6 | (1.6)C | 1.6 | 1.7 | 1.7 | 1.6 | 1.2 | 1.2 | 1.7 | 1.6 | 1.9 | 1.6 | 1.4 | 1.6 | 1.6 | 1.7 |
| 24 | 1.2 | C | E | C | C | C | 1.9 | 1.8 | 1.7 | 1.8 | 2.0 | 1.8 | 1.9 | 1.7 | 1.7 | 1.7 | 1.1 | B | E | 1.7 | 1.7 | 1.7 | 1.6 | 1.7 |
| 25 | 1.6 | E | E | E | 1.7 | E | 1.8 | 1.7 | 1.1 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.6 | 1.7 | 1.6 | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.6 | 1.6 |
| 26 | C | C | E | 1.8 | 1.9 | E | B | 1.7 | 1.2 | 1.8 | 1.7 | 1.7 | 1.8 | 1.8 | C | C | C | C | C | C | C | C | C | C |
| 27 | C | E | C | C | E | C | C | 1.6 | 1.7 | 1.7 | 1.7 | 1.8 | 1.7 | 1.9 | 1.7 | (1.7)C | 1.7 | 1.7 | 2.2 | 1.9 | 1.6 | 1.6 | 1.7 | 1.7 |
| 28 | E | E | E | E | E | C | C | C | C | C | 1.7 | 1.8 | 1.8 | C | C | C | 1.6 | 1.7 | 1.7 | 1.6 | C | C | 1.8 | 1.7 |
| 29 | 1.3 | E | E | E | E | E | 1.8 | 1.7 | 1.7 | C | C | C | 1.6 | 1.6 | 1.8 | 1.6 | 1.6 | 1.6 | 1.6 | 1.9 | 1.8 | 1.6 | 1.6 | 1.8 |
| 30 | 1.7 | E | E | E | E | E | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.7 | 1.6 | 1.8 | 1.5 | 1.6 |
| 31 | 1.4 | E | E | E | E | 1.9 | 2.0 | 1.6 | 1.7 | 1.7 | 1.6 | 1.7 | 1.6 | 1.6 | 1.7 | 1.6 | 1.4 | 1.6 | 1.6 | M | M | 1.7 | 1.9 | 1.7 |
| Mean Value | 1.5 | 1.5 | 1.5 | 1.5 | 1.9 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.5 | 1.5 | 1.5 | 1.7 | 1.7 | 1.6 | 1.7 | 1.7 | 1.7 |
| Median Value | 1.2 | E | E | E | E | E | 1.7 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 1.6 | 1.7 | 1.6 | 1.7 | 1.6 | 1.6 |
| Count | 28 | 25 | 26 | 24 | 25 | 25 | 25 | 29 | 30 | 28 | 28 | 26 | 28 | 25 | 26 | 26 | 28 | 27 | 27 | 27 | 27 | 29 | 30 | 30 |

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

K 11

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

# IONOSPHERIC DATA

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

**Oct. 1952** **yp F2** 135° E Mean Time

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 100 | [100]S | 90 | 70 | 70 | 60 | 70 | 50 | [50]S | 50 | 50 | 80 | 60 | 90 | 60P | 60 | 80 | (70)P | 70 | 50 | 170 | 100 | 60 | 70 |
| 2 | 50 | 50 | 60 | 110P | 50 | 50 | 50 | 50 | 40 | 60 | 80 | 60 | 60 | [60]C | 70 | 150 | 100 | 70 | [80]C | 100 | 110H | 120 | 150 | 100 |
| 3 | 90 | 80 | 50 | 100 | 90 | 110 | 50 | B | 60P | 70 | 50 | [60]C | 70 | 50 | 80P | 60 | 80 | 60 | 60 | 100 | 70 | 80 | [70]BS | 60 |
| 4 | 60 | 80 | 100 | 70 | 150 | 80 | 50 | 50 | 50 | 100 | 90 | 100 | 100 | [90]C | 80 | 110 | 40 | C | B | (90)P | 80H | 70 | 100 | 80 |
| 5 | 90 | 110 | 100 | 80 | 130P | 60 | 100 | (120)P | 90 | 80 | 80 | 90H | 70 | 70P | 60 | 60 | 70 | 60 | (100)JP | 120FP | 80 | A | A | 90 |
| 6 | 90 | [80]A | 80 | C | C | C | C | C | 80 | 100 | 70 | 70 | 60 | 80 | 60 | 90 | 70 | C | C | C | (80)P | (60)J | 70 | 80 |
| 7 | 90 | 90 | 90 | 90 | 110 | 100 | 70 | 80 | 90 | 70 | C | C | (100)JP | (100)J | [90]C | 80 | 80 | 70 | [80]C | (90)JP | 70 | 100 | 120P | 100 |
| 8 | 100 | 80 | 120 | 100 | A | A | 90 | (70)P | (70)P | 80 | 80 | 70 | 120 | 110 | 90 | 110 | 70 | 70 | [60]C | 60 | 70 | A | AF | 90FP |
| 9 | 60F | 120F | 90 | 90FE | 120VF | 100F | 110 | 70 | (140)JP | 60 | C | A | C | C | 80 | 80 | 70 | A | C | 100 | 80F | 100 | 100 | 80 |
| 10 | 70 | 70 | 90 | 70 | 80 | 80 | (80)P | 90 | 50 | 70 | 140 | 60 | 50 | 100 | 100 | 100P | 100 | 90 | 80 | 110 | 90 | (110)P | 100 | 60 |
| 11 | 70 | 100 | 80 | 120F | 80F | 60 | 130 | 90 | 110P | 50 | 40 | C | C | C | C | (60)F | (50)J | C | C | 80 | 90P | 70 | 50 | 80 |
| 12 | 60 | 60 | 60 | 80 | 60 | 100 | 50 | 40 | 50 | 60 | 60 | 50 | C | B | (80)P | 70 | 50 | 60 | 60 | 100 | 50 | 90 | 80 | 70F |
| 13 | 80F | 80F | (90)JP | 70 | 90 | 70 | 80P | 80 | 60 | 70 | 70 | 70 | 70P | 80 | 100P | 90P | 70 | 70P | [80]C | 80 | 120P | A | A | (70)P |
| 14 | 70 | 90 | 100 | 80 | 100 | 80 | (80)P | 100 | 90P | 110 | 60 | C | C | C | (50)P | C | C | (90)P | [80]C | 80 | 80 | 120 | 80 | 100 |
| 15 | 90 | 100 | 60 | 120 | 90 | 70 | (110)P | (50)J | 90P | 80 | (80)P | (70)P | 80 | C | C | C | C | C | C | C | C | 90 | 50 | 70P |
| 16 | 90 | C | C | C | C | C | C | 110 | 60 | 80 | 100 | 110 | 70 | 70 | 100 | 70 | 70 | 110 | 70 | 130 | [100]BF | 70P | 70F | 90P |
| 17 | 90 | 80 | 100 | 80 | 100 | 120 | 70 | 80 | 100 | 100 | 70 | 80 | 70 | 50 | 90 | 70 | 60 | 90 | 50 | [60]A | 80 | 80 | 90 | 120 |
| 18 | 60 | 60 | 60 | 100 | 100 | 70 | 60 | 50 | 50 | 80 | 100 | 70P | 100 | 100 | 70 | 110 | 70 | 60 | 120P | 70 | 90 | 100 | 100 | 70F |
| 19 | 70 | 100Z | [100]B | 100F | 100F | 80 | 120 | 100 | 100 | 60 | 80 | 80 | 80 | 80P | 80 | 70 | 80P | 70 | 100 | 80FP | 90 | 90F | 90 | 130FP |
| 20 | 90 | 110 | 80F | 80F | 80FP | 80 | 80P | 80 | 90 | 50 | 60 | 60 | B | B | 100 | 100P | 80P | 70 | 100 | BF | A | 100F | 90F | 100 |
| 21 | 100F | C | C | C | C | 90 | 60 | 70 | (80)P | 70 | 90 | (100)JP | 90P | B | B | C | C | A | B | AF | C | 110 | 100 | 80 |
| 22 | 100 | C | C | C | C | 100 | 100 | 70 | 50P | C | C | C | (60)P | C | C | C | 70 | 90 | 100 | 70 | [80]BS | 80 | 70 | 90F |
| 23 | C | C | C | C | C | C | 110 | 50 | 120H | [120]C | 120H | 100 | 70 | 110 | (80)P | 90 | 80 | 80P | B | B | (130)P | 130F | 90F | 130 |
| 24 | 100F | [80]C | 70 | C | C | C | 120P | 100 | 60 | (70)JP | [60]B | 60P | 60P | B | B | B | (80)J | 100P | (50)J | 100E | [80]BS | (60)JP | 100 | 90F |
| 25 | 100 | [90]A | 80 | 70F | 90F | 110 | 90P | 70P | 60 | 60 | 60 | 60 | 70P | 80 | C | C | 50 | 70 | (70)P | (70)P | 70 | 100 | 60 | 70 |
| 26 | C | C | 100 | [90]C | 80 | 100 | 80P | 110 | 50 | (60)J | B | B | C | C | C | C | C | C | C | C | C | C | C | C |
| 27 | C | 90 | C | C | 100 | C | C | 60 | S | C | C | C | C | C | A | C | 90 | [80]B | 80 | [80]A | 90P | [80]B | 80 | 90 |
| 28 | 80 | [80]A | 70 | 90 | C | C | 80 | 100 | C | B | 70 | B | T | C | C | C | 50 | 60 | 60 | 50 | C | C | (60)P | 50 |
| 29 | 70 | 70F | 80 | 100 | 90F | 70P | 80 | 50 | 70 | C | C | C | 80 | [80]A | 70 | 60 | 60 | 70 | 90 | 50 | 70 | 50 | 80P | 50 |
| 30 | 90 | 140F | 60 | (80)P | 80 | 60 | 70P | 90 | 70 | 70 | B | B | 50 | B | B | BS | 80 | 60 | 80 | [70]A | 60 | 100 | 90 | 110 |
| 31 | 70F | 100 | 80 | 60P | 60F | 90F | 100 | 60 | 90P | B | 80P | B | 60P | 70 | B | B | B | B | C | M | M | 90 | 150H | 80 |
| Mean Value | 80 | 90 | 80 | 90 | 90 | 80 | 80 | 80 | 70 | 80 | 80 | 80 | 70 | 80 | 80 | 80 | 70 | 70 | 80 | 80 | 90 | 90 | 90 | 90 |
| Median Value | 90 | 80 | 80 | 80 | 90 | 80 | 80 | 70 | 70 | 70 | 80 | 70 | 70 | 80 | 80 | 80 | 70 | 70 | 80 | 80 | 80 | 90 | 90 | 80 |
| Count | 28 | 26 | 26 | 24 | 23 | 24 | 28 | 29 | 29 | 26 | 24 | 20 | 23 | 18 | 20 | 20 | 26 | 23 | 22 | 24 | 25 | 26 | 27 | 30 |

yp F2

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

K 12

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

# IONOSPHERIC DATA

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

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.3P | C | C | C | C | 4.6 | C | T | 7.0 | 8.1P | 7.2 | 7.1 | 7.8P | 9.7P | 10.4 | 9.2 | 8.5 | 8.7 | 9.1 | 6.7J | 3.3 | 3.1 | 3.1V | 3.5 |
| 2 | 3.5 | 3.4 | 3.3 | 3.3 | 3.4 | 2.7 | 3.2 | 6.1P | 7.4 | 7.7P | 6.7 | 7.1 | C | C | 9.9P | 9.0 | 8.4 | 9.8 | 9.7 | 6.8 | 3.1 | 3.0 | 3.5 | 3.5 |
| 3 | 3.7 | 3.8 | 3.4 | 3.4 | 3.2 | 3.0 | 3.5V | 7.9P | [7.3]C | 6.7 | 6.7J | 6.2 | 7.0 | 6.6J | [7.5]C | 8.4 | 7.2 | (7.8)P | 6.6P | 5.7P | 4.7 | 4.2 | 4.0H | 4.2 |
| 4 | 4.1 | 4.2P | 4.1 | 3.8 | 3.6 | 3.8 | 4.2 | (6.7)JP | 8.5J | 9.3 | 8.4 | 9.0 | 9.3PS | 9.4P | 10.1J | 10.7 | 9.2 | 10.4 | 11.6 | 8.1 | 3.9 | 3.5 | 2.9 | 3.0 |
| 5 | 3.4 | 3.0 | 3.0 | 3.3 | 2.8 | 2.8 | 3.7 | 7.0 | 8.8P | 7.8 | 6.4 | 8.4 | 10.6P | 12.4P | 10.4 | (10.1)JP | 10.9 | 11.5J | (10.4)JE | C | C | C | 4.5 | 3.8 |
| 6 | 4.0 | 3.7 | 3.3 | 3.2 | 3.5 | 3.4 | 4.0P | 5.2 | (7.3)JP | [8.5]T | 9.7P | 8.9 | 10.5 | 11.0J | C | C | C | 6.9 | [7.0]S | 7.2 | [6.3]S | 5.4 | 5.1 | 4.2 |
| 7 | 3.9 | 3.9P | C | C | C | C | 3.1 | C | C | 7.4P | 8.5 | 10.4 | T | 9.1 | 8.7 | 8.5 | 8.4 | 6.4J | C | A | 5.3 | 4.7 | (3.0)P | 2.9 |
| 8 | 3.2 | 3.2 | 3.2 | 3.0 | 2.6 | 2.7 | 3.1 | (7.1)JP | [7.4]T | 7.8P | 8.5 | 9.4P | 10.0P | 8.5 | 6.7 | (7.7)JP | 8.0 | 8.5P | [6.6]S | 4.7 | 4.3P | 4.1 | 4.0 | A |
| 9 | C | C | C | C | C | 3.0 | 3.4 | C | C | A | 7.4P | 6.5P | 7.0 | 7.9 | 10.9 | 9.7P | [8.4]C | 7.1P | [6.8]S | 6.5J | 4.8P | 4.2P | 3.7X | [3.4]C |
| 10 | 3.1 | C | C | C | C | C | 4.3 | C | C | 8.0 | (8.9)JP | 6.4P | 6.6P | 8.2 | 10.0P | C | C | 8.5 | 8.1 | (7.3)JP | 3.1 | 3.3 | 3.4 | 3.4 |
| 11 | 3.2 | 3.2 | 3.2 | 3.4 | 2.7 | 2.8 | 3.3 | 5.0 | (6.7)JP | (9.3)JP | T | T | 7.7J | 10.1 | 11.0 | 11.6 | 9.6J | 7.1 | 7.6 | 5.2 | 4.0 | 4.3 | 4.4P | 4.2 |
| 12 | 4.0 | [4.2]C | (4.3)JP | 3.4H | 3.1H | 2.8 | 3.3 | [4.8]C | 6.4 | [7.2]C | 7.9 | 9.7 | 12.6 | 13.2 | 12.1 | 10.2 | 9.4 | 8.8 | 7.9P | 5.2 | 3.7H | 4.0 | 4.0 | 3.9 |
| 13 | M | M | M | M | M | M | M | M | M | (7.4)JP | 8.9 | C | C | C | C | C | 9.4 | 7.9 | 7.4 | 3.5 | 3.5 | 3.9 | 3.7 | 3.4 |
| 14 | 3.6 | 3.8 | 3.5 | 3.3 | 3.5 | 2.5 | 2.7 | 5.1 | [6.8]T | 8.4 | 8.4 | [9.8]C | 11.1J | 10.3J | 10.3 | T | 8.4 | [7.4]C | 6.3 | 4.6 | 3.6H | 3.9 | 3.2 | 3.3 |
| 15 | 3.5 | [3.4]C | 3.2 | C | C | C | C | C | C | 8.3 | [9.7]C | 11.1 | 11.9 | 11.7 | 12.5 | 12.8 | 9.1 | 7.8 | 7.0 | 3.9 | 3.6 | 3.7 | 3.5 | 3.7 |
| 16 | 3.7 | 3.8 | 3.7 | 3.2 | 3.2 | 3.0 | 2.9P | 6.5 | 6.3 | [6.8]T | 7.2 | 8.6 | 10.1 | 10.4 | (10.6)JP | (10.1)P | S | S | (6.4)P | 3.1 | A | A | 3.5 | 3.3 |
| 17 | [3.6]A | 4.0 | 3.3 | 3.2 | 3.6 | 2.5 | 2.9 | (6.3)JP | 9.0 | 7.1 | 7.2 | 8.5P | 8.4P | 10.0P | 10.7P | T | 7.7P | 7.4P | S | S | 4.1P | [4.3]S | 4.5 | 3.8H |
| 18 | 3.8H | 3.9 | 2.8 | 2.8 | [2.8]C | 2.8 | 3.5 | 5.6 | 6.5 | (6.7)P | 8.5 | 9.5J | 10.0 | 7.9H | 9.2 | 9.5 | 7.7 | (7.7)P | 7.8 | 5.1 | 3.4P | 4.1 | 2.9 | 2.9 |
| 19 | 3.0 | 3.3 | 3.2 | 3.6 | 4.0H | (3.6)JPH | 3.8 | [4.8]S | 6.0 | 9.0 | T | T | 10.5 | 11.4 | 11.2 | [9.8]T | 8.4J | 8.2 | S | A | A | A | A | 3.2 |
| 20 | A | A | 2.9 | 3.0 | 3.2 | 3.7J | 2.8 | [4.4]T | 5.9J | [6.3]C | 6.7P | [8.8]C | (10.8)JP | 11.2JP | 11.4JP | 10.3JP | 8.8P | 7.6P | (6.8)JE | 3.8 | 3.6 | 4.0 | 3.0 | [3.0]A |
| 21 | 2.9 | 2.8 | C | A | 3.1 | 2.8P | 2.8 | 5.5 | 5.4 | 7.7J | 9.0 | 9.5 | 10.4 | 10.0P | 12.1 | 11.8 | [9.0]C | 6.3 | 5.0 | 3.7 | 3.4 | 3.4 | 3.4 | 3.3 |
| 22 | 3.3 | 3.3 | 3.3 | 3.4 | 3.5 | 3.7 | 3.3 | 5.3J | 9.9J | [9.0]T | 8.1 | 9.5 | 11.3 | 12.3 | 11.2J | 9.9 | 8.2 | 7.3 | [5.8]T | 4.4 | 3.6 | 3.9 | 3.8 | 3.5 |
| 23 | 3.4 | 3.5 | 3.7 | 4.0H | 4.3 | 3.0 | 2.7 | 6.1 | T | 6.2 | 7.2 | (8.3)JP | [10.4]C | 12.4P | [10.8]T | 9.3 | (7.9)JP | 6.9 | [5.8]S | 4.8 | 3.6 | [3.2]A | 2.9 | 2.4 |
| 24 | 2.6 | 2.4 | C | C | C | C | C | C | C | C | (8.1)JP | 7.2 | [8.4]C | 9.5P | 10.9J | 10.9P | 10.0J | [7.8]S | 5.6 | 3.9 | 3.3 | 3.5 | 3.0 | 2.6 |
| 25 | 2.7 | [2.9]AS | 3.1S | C | C | C | C | C | C | 6.0 | (6.9)JP | 7.8J | 9.0 | 9.1 | [9.0]C | (9.0)JP | (7.9)JP | 5.7 | A | A | 3.9P | 3.5 | 2.9 | [3.0]C |
| 26 | 3.2 | 3.5 | 3.4H | 3.7H | 3.4J | 3.4 | 3.6 | 7.0P | 5.9P | [7.9]C | 9.9J | 11.7 | 10.4 | 10.0 | 10.1 | 12.0 | 10.2 | 6.9 | 5.0 | 3.3 | 3.8P | 3.8 | [3.8]A | 3.7 |
| 27 | 3.7 | 4.3 | 4.5 | 4.4P | 2.8 | 3.0 | 3.4 | 6.9 | (6.8)JP | 10.9J | C | C | 8.5P | (9.0)JP | 9.3J | 9.2 | [8.4]T | 7.5 | 6.4J | 4.5 | 4.3 | 4.1 | 4.7J | 3.5 |
| 28 | 2.7 | 2.6 | 3.1 | 3.2 | 3.2 | 3.0V | 3.0 | [5.3]T | (7.6)JP | S | C | 9.6 | 10.4J | 10.0P | 11.6 | 10.9 | (7.4)P | 7.6J | 6.2P | 4.5 | 4.5 | 3.1 | 3.3 | 3.0 |
| 29 | 3.2 | 3.3 | 3.4 | 3.1 | 2.9 | 3.0 | 2.9 | 6.1 | 7.9J | 7.4J | 8.6 | 9.6 | 9.7P | 9.5 | [10.3]C | 11.1P | 6.3P | [6.0]C | (5.8)P | [4.4]C | 3.0 | 2.8 | 3.0 | 3.0 |
| 30 | 3.2 | C | C | C | C | C | C | C | (6.0)JP | 8.2 | 10.3 | 10.6 | 8.6 | 11.1J | 11.5 | 9.1 | 6.5P | 5.9P | M | M | M | M | M | M |
| 31 | M | M | M | M | M | M | M | M | M | M | 8.0 | 8.5 | 10.9J | 11.5 | 10.2 | 12.5 | 10.7 | T | S | A | 5.0 | [3.7]A | 2.4 | 2.4P |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Mean Value | 3.4 | 3.5 | 3.4 | 3.4 | 3.3 | 3.1 | 3.3 | 5.9 | 7.1 | 7.8 | 8.1 | 8.8 | 9.6 | 10.1 | 10.4 | 10.1 | 8.6 | 7.7 | 7.1 | 5.0 | 4.0 | 3.8 | 3.6 | 3.3 |
| Median Value | 3.4 | 3.4 | 3.3 | 3.3 | 3.2 | 3.0 | 3.3 | 6.1 | 6.9 | 7.8 | 8.1 | 8.9 | 10.0 | 10.0 | 10.4 | 10.0 | 8.4 | 7.6 | 6.8 | 4.6 | 3.7 | 3.9 | 3.5 | 3.4 |
| Count | 27 | 24 | 22 | 20 | 21 | 23 | 24 | 21 | 22 | 27 | 27 | 27 | 28 | 29 | 29 | 26 | 28 | 29 | 25 | 24 | 21 | 27 | 29 | 29 |

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

Y 1

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

# IONOSPHERIC DATA

Yamagawa

Lat. 31° 12.5' N
Long. 130° 37.7' E

Oct. 1952

hpF2

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 | 300P | C | C | C | C | 230 | C | T | 240 | 250P | 270 | 270 | 340P | 300P | 300 | 280 | 280 | 260 | 250 | (250)J | 300 | 350 | 400V | 350 |
| 2 | 330 | 330 | 320 | 300 | 270 | 220 | 270 | 240P | 250 | 240P | 260 | 300 | C | C | 300P | 280 | 280 | 250 | 250 | 230 | 280 | 400 | 390 | 350 |
| 3 | 310 | 310 | 320 | 270 | 300 | 320 | 300V | 250P | [240]C | 230 | (260)J | 260 | 300 | (310)J | [300]C | 300 | 280 | (250)P | 250P | 250P | 270 | 320 | 350H | 350 |
| 4 | 300 | 300P | 340 | 310 | 320 | 270 | 290 | (260)JP | (250)J | 250 | 290 | 300 | 290S | 320P | (330)J | 300 | 290 | 300 | 250 | 230 | 330 | [330]A | 330 | 380 |
| 5 | 320 | 390 | 400 | 320 | 220 | 300 | 260 | 270 | 230P | 250 | 260 | 340 | 300P | 280P | 290 | (300)JP | 300 | (280)J | (250)JS | C | C | C | 320 | 360 |
| 6 | 350 | 350 | 320 | 390 | 320 | 360 | 260P | 260 | (250)JP | [260]J | 260P | 280 | 300 | (260)J | C | C | C | 260 | [270]S | 280 | [300]S | 310 | 270 | 300 |
| 7 | 330 | 300P | C | C | C | C | 290 | C | C | 280P | 290 | 300 | T | 250 | 290 | 280 | 260 | A | C | A | 260 | 260 | A | 350 |
| 8 | 340 | 310 | 320 | 290 | 300 | 340 | 290 | (250)JP | [260]J | 260P | 290 | 270P | 270P | 250 | 310 | (300)JP | 290 | 250P | [260]S | 260 | 300P | 300 | 300 | A |
| 9 | C | C | C | C | C | 280 | 250 | C | C | A | A | 250P | 290 | 330 | 280 | 280P | [260]C | 250P | [250]S | (250)JP | 250P | 300P | 350H | [340]C |
| 10 | 320 | C | C | C | C | C | 270 | C | C | 290 | (250)JP | 240P | 270P | 340 | 300P | C | C | 290 | 250 | (240)JP | 240 | 350 | 300 | 300 |
| 11 | 330 | 300 | 310 | 270 | 210 | 280 | 250 | 240 | (250)JP | (250)JP | T | T | (320)J | 300 | 300 | 250 | (250)J | 260 | 250 | 240 | 340 | 340 | 320P | 370 |
| 12 | 340 | [300]C | (250)JP | 250H | 230H | 330 | 280 | [260]C | 240 | [260]C | 280 | 340 | 300 | 280 | 270 | 260 | 270 | 250 | 250P | 230 | 350H | 350 | 300 | 320 |
| 13 | M | M | M | M | M | M | M | M | M | (260)JP | 280 | C | C | C | C | C | 250 | 250 | 250 | 220 | 350 | 340 | 320 | 330 |
| 14 | 330 | 300 | 290 | 310 | 240 | 270 | 290 | 300 | [280]T | 250 | 270 | [280]C | (290)J | (280)J | 270 | T | 250 | [240]C | 240 | 210 | 320H | 300 | 310 | 350 |
| 15 | 350 | [340]C | 340 | C | C | C | C | C | C | 280 | [290]C | 300 | 290 | 300 | 290 | 270 | 250 | 250 | 230 | 260 | 320 | 330 | 350 | 340 |
| 16 | 330 | 300 | 290 | 310 | 270 | 280 | 270P | 250 | 230 | T | 260 | 280 | 300 | 300 | (300)JP | (280)P | S | S | (240)P | 210 | A | A | 300 | A |
| 17 | A | 270 | 280 | 290 | 260 | 280 | 320 | (260)JP | 250 | 250 | 270 | 290P | 290P | 300P | 300P | T | 250P | 250P | S | S | 370P | [340]S | 300 | 310H |
| 18 | 300H | 290 | 270 | 320 | [340]C | 360 | 290 | 260 | 260 | (290)P | 290 | (300)J | 280 | 330H | 310 | 260 | 270 | (250)P | 270 | 250 | 290P | 270 | 260 | 360 |
| 19 | 350 | 350 | 370 | 320 | 290H | (280)JP | 290 | [270]S | 250 | 280 | T | T | 320 | 300 | 280 | [280]T | (270)J | 260 | S | A | A | A | A | A |
| 20 | A | A | 350 | 330 | 260 | (270)J | C | T | (220)J | [260]C | 310P | [300]C | (300)JP | (300)JP | (300)JP | (290)JP | 260P | 250P | [250]S | 250 | 340 | 270 | 250 | [300]A |
| 21 | 340 | 370 | C | A | 270 | 270P | 280 | 250 | 250 | (270)J | 270 | 280 | 290 | 310P | 290 | 250 | [240]C | 230 | 250 | 250 | 330 | 330 | 330 | 370 |
| 22 | 360 | 340 | 380 | 320 | 300 | 300 | 220 | (230)J | (250)J | [280]T | 300 | 310 | 310 | 290 | (300)J | 270 | 250 | 260 | [260]T | 250 | 330 | 320 | 330 | 340 |
| 23 | 350 | 350 | 300 | 310H | 260 | 230 | 270 | 250 | T | 250 | 300 | (280)JP | [290]C | 300P | [280]T | 260 | (250)JP | 260 | [260]S | 250 | 260 | [280]A | 290 | 300 |
| 24 | A | 310 | C | C | C | C | C | C | C | C | (260)JP | 250 | [280]C | 320P | (290)J | 270P | (250)J | [250]S | 250 | 240 | 320 | 290 | 270 | 310 |
| 25 | C | AS | 310S | C | C | C | C | C | C | 250 | (280)JP | (300)J | 300 | 300 | [280]C | (250)JP | (250)JP | 250 | A | A | 300P | 270 | 300 | [320]C |
| 26 | 330 | 310 | 290H | 300H | (270)J | 390 | 310 | 250P | 250P | [280]C | (300)J | 290 | 300 | (300 | 310 | 270 | 250 | 260 | 250 | 330 | 330P | 320 | [340]A | 360 |
| 27 | 360 | 320 | 270 | 250P | 350 | 350 | 320 | 250 | (270)JP | (280)J | C | C | 280P | (300)JP | (270)J | 270 | [260]T | 250 | (260)J | 270 | 330 | 330 | (260)J | 250 |
| 28 | 270 | 310 | 330 | 280 | 260 | 350V | 300 | [280]T | (250)JP | S | C | 260 | (300)J | 290P | 290 | 250 | (250)P | (270)J | 260P | 270 | 260 | 290 | 300 | 300 |
| 29 | 320 | 300 | 280 | 280 | 320 | 290 | 300 | 250 | (250)J | (260)J | 260 | 270 | 270P | 300 | [280]C | 250 | 230P | [240]C | (250)P | [240]C | 230 | 340 | 300 | 330 |
| 30 | 330 | C | C | C | C | C | C | C | (270)JP | 280 | 280 | 270 | 300 | (300)J | 260 | 250P | 250P | 240P | M | M | M | M | M | M |
| 31 | M | M | M | M | M | M | M | M | M | M | 280 | 310 | (290)J | 290 | 300 | 290 | 240 | T | S | A | 300 | [300]A | 300 | 410P |
| Mean Value | 330 | 320 | 320 | 300 | 280 | 300 | 280 | 260 | 250 | 260 | 280 | 290 | 300 | 300 | 290 | 270 | 260 | 260 | 250 | 250 | 300 | 320 | 310 | 340 |
| Median Value | 330 | 310 | 320 | 300 | 270 | 280 | 290 | 250 | 250 | 260 | 280 | 280 | 300 | 300 | 290 | 270 | 250 | 250 | 250 | 250 | 300 | 320 | 300 | 340 |
| Count | 24 | 23 | 22 | 20 | 21 | 23 | 23 | 20 | 22 | 26 | 26 | 27 | 28 | 29 | 29 | 26 | 28 | 28 | 25 | 24 | 27 | 27 | 28 | 27 |

hpF2

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

Y 2

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

# IONOSPHERIC DATA

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

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

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

Y 3

40

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

# IONOSPHERIC DATA

Oct. 1952 | foF1 | 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 | | | | | | | C | Q | L | 4.2 | 4.3 | 4.5 | 4.5 | 4.7 | 4.5 | 4.5 | 4.0 | L | Q | | | | | |
| 2 | | | | | | | Q | Q | L | 4.1 | 4.6 | 5.0 | C | C | 4.5 | 4.3 | 4.0 | L | Q | | | | | |
| 3 | | | | | | | Q | L | C | 4.3 | 4.4 | 4.5 | B | B | C | 4.2 | 4.0 | L | Q | | | | | |
| 4 | | | | | | | Q | Q | L | 4.0 | 4.1 | 4.5 | 4.5 | 4.7 | 4.7 | 4.3 | 4.0 | A | A | | | | | |
| 5 | | | | | | | Q | Q | L | 4.2 | 4.5 | [4.5]$^{A}$ | 4.5 | A | A | A | A | A | A | | | | | |
| 6 | | | | | | | Q | L | A | A | 5.0 | A | A | A | C | C | C | Q | Q | | | | | |
| 7 | | | | | | | Q | A | C | A | A | 5.0 | A | A | A | A | A | A | A | | | | | |
| 8 | | | | | | | Q | Q | L | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | [4.4]$^{A}$ | 4.4 | L | Q | Q | | | | | |
| 9 | | | | | | | Q | C | C | A | A | A | 4.5 | [4.4]$^{B}$ | 4.4 | 4.3 | C | Q | Q | | | | | |
| 10 | | | | | | | Q | C | C | L | 4.5 | 4.4 | 4.5$^{H}$ | 4.9$^{J}$ | 4.5 | C | C | Q | Q | | | | | |
| 11 | | | | | | | Q | Q | L | L | B | 4.8$^{J}$ | A | B | 4.5 | 4.3 | [3.5]$^{L}$ | 2.7 | Q | | | | | |
| 12 | | | | | | | Q | C | Q | C | 4.5$^{H}$ | 5.0$^{H}$ | 4.9 | 4.8$^{H}$ | 4.5 | 4.5 | 3.5 | Q | Q | | | | | |
| 13 | | | | | | | M | M | M | 4.0 | 4.5 | C | C | C | 4.6 | 4.5 | L | Q | Q | | | | | |
| 14 | | | | | | | Q | Q | L | L | 4.0 | C | A | A | 4.2 | 4.3 | L | C | Q | | | | | |
| 15 | | | | | | | C | C | C | 4.4 | [4.6]$^{C}$ | 4.8 | 4.5 | 4.7 | 4.7 | 4.5 | L | Q | Q | | | | | |
| 16 | | | | | | | Q | Q | Q | 4.0 | 4.5 | 4.5 | 4.8 | 4.6$^{H}$ | 4.5 | 4.2 | A | A | Q | | | | | |
| 17 | | | | | | | Q | Q | L | A | A | 4.5 | 4.5 | 4.7 | 4.5 | 4.3 | 3.5 | A | A | | | | | |
| 18 | | | | | | | Q | Q | 3.7 | 4.1 | 4.6 | 4.4 | 4.6 | 4.5 | 4.5 | 4.2 | L | Q | Q | | | | | |
| 19 | | | | | | | Q | Q | L | 4.0 | 4.7 | [4.8]$^{A}$ | 5.0 | [4.8]$^{C}$ | 4.7 | 4.5 | 3.8 | Q | Q | | | | | |
| 20 | | | | | | | Q | Q | Q | C | 4.3 | [4.4]$^{C}$ | 4.6 | 4.7 | 4.5 | 4.5 | 3.5 | Q | Q | | | | | |
| 21 | | | | | | | Q | Q | 3.8 | [4.2]$^{A}$ | 4.5 | [4.5]$^{A}$ | 4.5 | 5.0 | 4.5 | 4.2 | 3.6 | Q | A | | | | | |
| 22 | | | | | | | Q | Q | Q | 4.0 | 5.0 | 4.8 | 4.6 | 5.0$^{H}$ | 4.5 | 4.2 | Q | Q | Q | | | | | |
| 23 | | | | | | | Q | Q | Q | 4.0 | 4.5 | 4.5 | [4.5]$^{A}$ | 4.5 | 4.5 | 4.2 | L | Q | Q | | | | | |
| 24 | | | | | | | C | C | C | C | 4.5 | 4.5 | 4.5$^{H}$ | 4.8 | 4.5 | 4.1 | 3.8 | Q | Q | | | | | |
| 25 | | | | | | | C | C | C | 4.4$^{J}$ | 4.5 | 4.5 | 4.8$^{H}$ | 4.6 | 4.4 | 4.0 | 3.5 | Q | A | | | | | |
| 26 | | | | | | | Q | Q | 3.2 | C | C | 4.7 | 4.4 | 4.5 | [4.4]$^{A}$ | 4.3 | 3.5 | A | A | | | | | |
| 27 | | | | | | | Q | Q | Q | 4.0 | 4.5 | [4.5]$^{C}$ | 4.5 | 4.6 | C | C | 3.7 | [3.4]$^{A}$ | 3.0 | | | | | |
| 28 | | | | | | | Q | L | L | S | 4.5 | 4.5 | 4.1 | 4.8 | 4.8 | 4.3 | 3.5 | Q | Q | | | | | |
| 29 | | | | | | | Q | Q | L | 4.0 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.0 | 3.2 | C | Q | | | | | |
| 30 | | | | | | | C | C | 3.7 | 4.3 | 4.5 | 4.5 | [4.5]$^{A}$ | 4.5 | 4.5 | 4.2 | A | A | M | | | | | |
| 31 | | | | | | | M | M | M | M | 4.4 | 5.0 | 4.5$^{H}$ | A | A | A | A | A | A | | | | | |
| Mean Value | | | | | | | | | 3.6 | 4.2 | 4.5 | 4.6 | 4.6 | 4.7 | 4.5 | 4.3 | 3.7 | 3.1 | 3.0 | | | | | |
| Median Value | | | | | | | | | 3.7 | 4.1 | 4.5 | 4.5 | 4.5 | 4.7 | 4.5 | 4.3 | 3.6 | 3.0 | 3.0 | | | | | |
| Count | | | | | | | | | 4 | 18 | 26 | 27 | 24 | 22 | 25 | 25 | 16 | 2 | 1 | | | | | |

foF1

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

Y 4

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



# IONOSPHERIC DATA

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

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

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

Y 5

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

# IONOSPHERIC DATA

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

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

foE

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

Y 6

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

# IONOSPHERIC DATA

Oct. 1952 | R'E | 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 | | | | | | | C | 120 | A | A | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | A | | | | | |
| 2 | | | | | | | B | 140 | 110 | 100 | 100 | 100 | C | C | 100 | 100 | 100 | 110 | A | | | | | |
| 3 | | | | | | | B | 140 | [120]$^{C}$ | 100 | 100 | 100 | 100 | 100 | [100]$^{C}$ | 100 | 100 | 110 | B | | | | | |
| 4 | | | | | | | B | 130 | 100 | [100]$^{A}$ | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | A | | | | | |
| 5 | | | | | | | B | 120 | 110 | 110 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | A | A | | | | | |
| 6 | | | | | | | B | 140 | 110 | 100 | 100 | 100 | 100 | 100 | C | C | C | A | A | | | | | |
| 7 | | | | | | | B | A | C | 110 | 100 | 100 | 110 | 100 | 100 | 100 | A | A | A | | | | | |
| 8 | | | | | | | B | 110 | 110 | 100 | 100 | 100 | 100 | A | A | A | A | A | A | | | | | |
| 9 | | | | | | | B | C | C | 100 | 100 | 100 | 100 | 100 | 100 | 100 | [100]$^{C}$ | 100 | A | | | | | |
| 10 | | | | | | | B | C | C | 100 | 100 | 100 | 100 | A | A | A | C | C | A | | | | | |
| 11 | | | | | | | B | 140 | 100$^{H}$ | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 120 | B | | | | | |
| 12 | | | | | | | B | C | 100 | [100]$^{C}$ | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 120 | B | | | | | |
| 13 | | | | | | | M | M | M | 100 | 100 | C | C | C | 100 | 100 | 100 | 100 | B | | | | | |
| 14 | | | | | | | B | 140 | 110 | 100 | 100 | [100]$^{C}$ | 100 | 100 | 100 | 100 | 100 | C | A | | | | | |
| 15 | | | | | | | C | C | C | 100 | [100]$^{C}$ | 100 | 100 | 100 | 100 | 100 | 100 | 120 | A | | | | | |
| 16 | | | | | | | B | 130 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | [100]$^{A}$ | 100$^{F}$ | B | | | | | |
| 17 | | | | | | | B | A | 100 | 100 | 100 | 100 | 100 | 100 | 100 | A | A | A | A | | | | | |
| 18 | | | | | | | B | 130 | 110 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | A | AF | B | | | | | |
| 19 | | | | | | | B | 140 | 110 | 100 | 100 | [100]$^{A}$ | 100 | 100 | 110 | 110 | 110 | A | A | | | | | |
| 20 | | | | | | | C | C | C | C | 100 | [100]$^{C}$ | 100 | 100 | 100 | 110 | 110 | A | B | | | | | |
| 21 | | | | | | | B | 130 | 110 | 100 | 100 | 100 | 100 | [100]$^{A}$ | 100 | 100 | 120 | 130$^{H}$ | A | | | | | |
| 22 | | | | | | | B | 130$^{F}$ | 110$^{F}$ | 100 | 100 | 100 | 100 | 100$^{F}$ | 100 | 110 | 100 | 110 | B | | | | | |
| 23 | | | | | | | B | 110 | 110 | 100 | 100 | A | A | A | 100 | 100 | 100$^{F}$ | 130 | B | | | | | |
| 24 | | | | | | | C | C | C | C | 100 | 100 | 100 | A | A | 100 | 100 | 100 | A | | | | | |
| 25 | | | | | | | C | C | C | 100 | 100 | 100 | [100]$^{A}$ | 100$^{F}$ | [100]$^{C}$ | 100 | AF | A | A | | | | | |
| 26 | | | | | | | B | 140 | 110 | C | C | 100 | A | A | A | A | A | A | A | | | | | |
| 27 | | | | | | | B | 150 | 120 | 100 | 100 | [100]$^{C}$ | 100 | 100 | 100 | 110 | A | A | B | | | | | |
| 28 | | | | | | | B | 130 | 110 | 110 | 100 | 100 | 100 | 100 | 100$^{A}$ | AF | A | A | B | | | | | |
| 29 | | | | | | | B | A | 100 | 100 | 100 | 100 | 100 | 100 | 110 | 110 | 100 | C | B | | | | | |
| 30 | | | | | | | C | C | 100$^{F}$ | 100 | 100 | 100 | A | A | A | A | 100 | A | M | | | | | |
| 31 | | | | | | | M | M | M | M | 100 | [100]$^{A}$ | 100 | A | A | A | A | A | A | | | | | |
| Mean Value | | | | | | | | 130 | 110 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 110 | | | | | | |
| Median Value | | | | | | | | 130 | 110 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 110 | | | | | | |
| Count | | | | | | | | 18 | 21 | 26 | 30 | 29 | 26 | 22 | 24 | 23 | 20 | 14 | | | | | | |

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

Y 7

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

# IONOSPHERIC DATA

**Yamagawa**

Lat. 31° 12.5' N
Long. 130° 37.7' E

**Oct. 1952** | **fEs** | 135° E Mean Time

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2.5 | C | C | C | C | 2.0 | C | 2.8 | 3.8 | 5.4 | G | G | G | G | G | G | 3.5 | 3.2 | 2.6 | 2.5 | E | 2.2 | 3.0 | 2.8 |
| 2 | 3.0 | 3.0 | 2.7 | 2.7 | 2.5 | 2.4 | 2.2 | 3.1 | G | G | G | 3.5 | c | c | 3.8 | 3.8 | 4.5 | 4.5 | 3.5 | 3.4 | 3.0 | E | 2.2 | E |
| 3 | E | E | E | 2.2 | 2.5 | 2.3 | 2.4 | 3.0 | C | 3.8 | 3.8 | G | 3.6 | G | C | 3.8 | 3.6 | 3.1 | 2.5 | 2.3 | 2.4 | 2.7 | 2.5 | E |
| 4 | E | 2.1 | 2.5 | E | 2.0 | 2.3 | 2.3 | 3.4 | 3.5 | 3.5 | G | G | G | G | 3.5 | 3.8 | 3.8 | 4.8 | 4.8 | 3.1 | 3.0 | 3.9 | 2.7 | 2.0 |
| 5 | 2.0 | 2.2 | 2.5 | 2.2 | 2.0 | 2.3 | 2.1 | 3.5 | 3.9 | 4.4 | 5.0 | 5.5 | 5.0 | 6.0 | 7.4 | 7.2 | 6.1 | 11.8$^{Y}$ | 3.5 | C | C | C | 3.2 | 3.0 |
| 6 | 5.0 | 2.5 | 2.9 | 2.8 | 2.5 | 2.2 | 2.2 | 3.2 | 4.6 | 6.0 | 6.0 | 6.0$^{Y}$ | 6.0 | 8.5 | C | C | C | 3.8 | 3.8 | 3.8 | 3.5 | 3.5 | 4.0 | 2.7 |
| 7 | 2.5 | C | C | C | C | C | 3.5 | C | C | 6.0 | 5.0 | 5.0 | 5.8 | 5.7 | 5.2 | 6.6 | 5.5 | 7.7 | 5.5 | 9.4$^{Y}$ | 6.2 | 4.0 | 3.5 | 3.3 |
| 8 | 3.5 | 2.7 | 2.7 | 2.5 | 2.4 | 2.5 | 2.5 | 3.4 | 3.8 | 3.8 | 3.8 | 4.5$^{Y}$ | 3.7 | 6.0 | 6.0 | 6.0 | 5.0 | 3.8 | 3.8 | 4.0 | 4.5 | 3.5 | 2.5 | 5.4 |
| 9 | C | C | C | C | C | 2.5 | 2.2 | C | C | 10.0 | 7.0 | 5.0 | 3.6 | G | 3.8 | 3.8 | C | 3.3 | 3.3 | 3.0 | 3.5 | 3.8 | 4.0 | C |
| 10 | 2.5 | C | C | C | C | C | 2.5 | C | C | 3.8 | G | 3.8 | 3.8 | 3.9 | 5.2 | 4.0 | C | C | 2.9 | 3.0$^{F}$ | 2.9 | 2.4 | E | E |
| 11 | E | 2.5 | 2.5 | E | E | 3.8$^{Y}$ | 2.7 | 2.9 | 3.4 | 3.8 | 3.8 | 3.8 | 4.9 | 3.6 | G | G | 3.4 | 3.1 | 2.5 | 2.6 | 3.0 | 2.5 | 2.5 | 2.8 |
| 12 | 3.1 | C | 2.5 | 2.4 | 2.7 | 2.5 | 2.4 | C | G | C | G | 3.8 | G | G | G | 3.6 | 3.5 | 3.2 | 3.0 | 3.1 | 3.0 | 3.2 | 2.4 | E |
| 13 | M | M | M | M | M | M | M | M | 4.2 | 3.8 | C | C | G | G | G | 3.5 | 2.7 | 2.3 | 2.4 | 2.6 | 2.3 | E | 3.0 | 3.0 |
| 14 | 3.0 | 2.8 | 2.6 | 2.3 | 2.5 | 2.0 | 2.2 | 2.7 | 3.5 | 3.8 | 3.7 | C | 5.0 | 5.2$^{Y}$ | 3.8 | 3.5 | 4.0 | C | 3.0 | 2.2 | 3.1 | 2.3 | 3.0 | E |
| 15 | 2.2 | C | 2.0 | C | C | C | C | C | C | 3.7 | C | G | G | G | G | 3.6 | 3.6 | 3.7 | 3.7 | 2.9 | 1.8 | E | E | E |
| 16 | E | E | E | E | 2.3 | E | B | G | 3.7 | 3.8 | G | G | G | G | 3.8 | 5.4 | 5.2 | 4.0$^{F}$ | 2.9$^{Y}$ | 3.1 | 5.0 | 5.3 | 3.3 | 3.8 |
| 17 | 6.0 | 2.3 | E | 2.5$^{Y}$ | 2.4 | 2.2 | 2.0 | 2.8 | 4.2 | 5.1 | 5.3 | 4.6 | 4.9 | 3.8 | 3.8 | 4.8$^{Y}$ | 3.6 | 4.5 | 4.7 | 3.0 | 2.8 | 3.5 | 3.5 | 2.5 |
| 18 | 2.3 | 2.3 | 2.2 | 2.3 | C | 2.1 | B | 2.9 | 3.4 | 3.5 | G | G | G | 3.7 | 4.5 | G | 3.4 | 4.5$^{F}$ | 3.5 | 4.1 | 3.0 | E | 2.5 | E |
| 19 | 1.8 | 2.0 | 2.2 | E | 1.9 | 2.8 | B | 3.0 | 3.5 | 4.2 | 3.8 | 6.0 | 3.7 | 3.7 | 3.8 | 4.5 | 3.8 | 3.8 | 3.6 | 3.8 | 4.4 | 3.9 | 4.0 | 3.6 |
| 20 | 4.0 | 3.8 | 2.9 | 3.0 | 2.3 | C | C | 3.0 | 3.6 | C | 3.8 | C | G | G | 3.7 | C | 3.6 | 3.5 | 2.5 | 3.5 | 2.9 | 3.0 | 3.8 | 4.0 |
| 21 | 3.6 | 3.5 | 3.8 | 3.8 | C | E | B | 2.9 | 3.7 | 5.2 | 4.8$^{Y}$ | 5.1 | 4.0 | 3.8 | 3.8 | 3.8 | 3.8 | G | 3.5 | 2.8 | 3.4 | 2.4 | 3.3 | 3.1 |
| 22 | 2.9$^{F}$ | 3.1 | 2.3 | 2.4 | 1.8 | E | B | 2.9$^{F}$ | 3.5$^{F}$ | 4.5 | 3.7 | 5.3 | 4.4 | 3.8$^{F}$ | G | G | 3.6 | 2.9 | 2.5 | 2.6 | 2.8$^{F}$ | 3.3 | 3.5 | 2.0 |
| 23 | 3.0 | 2.5 | 2.9 | 3.5 | 3.0 | 3.2 | 2.5 | 3.3 | 3.5 | 3.7 | 3.8 | 5.5 | 6.0 | 3.5 | G | 3.5 | 3.8 | G | B | 2.8 | 3.8 | 5.3 | 2.1 | 3.8 |
| 24 | 4.8 | C | C | C | C | C | C | C | C | C | 4.3 | 3.8 | 3.8 | 4.7 | 3.8 | G | 3.6 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 5.2 | 3.8 |
| 25 | 3.5 | 3.8 | 3.2 | C | C | C | C | C | C | 4.2 | 4.3 | 3.8 | 3.8 | G | C | G | 3.8$^{F}$ | 4.2 | 7.5 | 4.7 | 4.5 | 2.5 | 2.3 | C |
| 26 | 2.5 | 2.0 | 3.0 | 2.5 | C | 2.5 | 2.5 | G | 3.4 | C | 5.0 | 3.8 | 4.5 | 4.4 | 6.0 | 3.8 | 3.5 | 3.6 | 3.8 | 3.4 | 2.8 | 3.3 | 6.0 | 3.7 |
| 27 | 5.0 | 3.4 | 4.8 | 2.5 | 2.4 | E | B | 2.9 | 3.0 | 3.8 | 5.0 | C | 6.0 | 5.0 | C | 3.8 | 3.8 | 5.0 | 3.5$^{F}$ | 2.9$^{F}$ | 3.1 | 3.5 | 3.8 | 2.9 |
| 28 | 2.9$^{F}$ | 3.0$^{F}$ | 3.0 | 1.8 | 2.2 | 2.5 | 2.0 | 2.5 | 3.4 | G | G | G | 3.8 | 3.8 | 3.8 | 3.7$^{F}$ | 3.8 | 2.3 | 3.9 | 3.8 | 3.0 | E | 2.0 | E |
| 29 | E | E | E | 3.5 | 2.5 | 2.0 | 2.1 | 3.4 | G | G | G | 3.5 | G | G | G | G | G | C | 2.5 | E | E | 3.0 | 2.9 | 2.8 |
| 30 | 3.5 | C | C | C | C | C | C | C | 3.7 | 4.0 | 4.8 | 5.2 | 5.4 | 4.8 | 5.0 | 4.5 | 4.7 | 4.1 | M | M | M | M | M | M |
| 31 | M | M | M | M | M | M | M | M | M | M | G | 4.6 | 3.8 | 5.3 | 6.0 | 6.0 | 6.6 | 5.5 | 4.4 | 5.0 | 4.0 | 4.0 | 2.5 | 2.3 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Mean Value | 3.3 | 2.8 | 2.8 | 2.6 | 2.3 | 2.4 | 2.4 | 3.0 | 3.7 | 4.5 | 4.6 | 4.6 | 4.5 | 4.7 | 4.6 | 4.4 | 4.1 | 4.2 | 3.5 | 3.4 | 3.4 | 3.3 | 3.2 | 3.2 |
| Median Value | 2.9 | 2.5 | 2.5 | 2.4 | 2.4 | 2.3 | 2.3 | 2.9 | 3.5 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.8 | 3.5 | 3.0 | 3.0 | 3.0 | 3.0 | 2.8 |
| Count | 28 | 21 | 23 | 21 | 18 | 22 | 17 | 21 | 23 | 26 | 29 | 27 | 30 | 30 | 27 | 29 | 28 | 28 | 29 | 29 | 29 | 29 | 30 | 28 |

**fEs**

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

Y 8

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

# IONOSPHERIC DATA

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

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

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

Y 9

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

# IONOSPHERIC DATA

**Yamagawa**

Lat. 31° 12.5' N
Long. 130° 37.7' E

Oct. 1952

fminF

135° E Mean Time

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.6 | C | C | C | C | 1.6 | [1.9]$^{C}$ | 2.2 | 2.7 | [3.0]$^{A}$ | 3.2 | 3.3 | 3.3 | 3.5 | 3.5 | 3.2 | 2.8 | 2.5 | 1.9 | 1.7 | 1.5 | 1.6 | 1.5 | 1.6 |
| 2 | 1.6 | 1.6 | 1.5 | 1.6 | 1.5 | 1.3 | 1.5 | 2.4 | 2.7 | 3.2 | 3.4 | 3.4 | C | C | 4.0 | 3.5 | A | A | A | 2.5$^{A}$ | [2.0]$^{A}$ | 1.5 | 1.6 | 1.6 |
| 3 | 1.6 | 1.4 | 1.4 | 1.5 | 1.6 | 1.4 | 1.6 | 2.3 | [2.8]$^{C}$ | 3.2 | 3.3 | 3.3 | 3.5 | 3.6 | [3.5]$^{C}$ | 3.4 | 3.0 | 2.3 | 1.6 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 |
| 4 | 1.5 | 1.4 | E | 1.4 | 1.4 | 1.4 | 1.5 | 2.2 | 2.8 | 3.0 | 3.2 | 3.3 | 3.3 | 3.5 | 3.3 | 3.2 | 2.9 | 4.1$^{A}$ | [3.0]$^{A}$ | 2.0$^{A}$ | 2.0$^{A}$ | [1.8]$^{A}$ | 1.5 | 1.5 |
| 5 | 1.6 | 1.4 | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 2.3 | [3.0]$^{A}$ | 3.7$^{A}$ | 3.2 | 4.9$^{A}$ | 4.3$^{A}$ | 4.7$^{A}$ | 6.8$^{A}$ | 6.7$^{A}$ | 4.7$^{A}$ | 6.8$^{A}$ | A | C | C | C | 1.7 | 1.5 |
| 6 | [1.7]$^{A}$ | 1.7 | 1.7 | 1.8 | 1.6 | 1.6 | 1.5 | 2.4 | A | A | 3.3 | 5.6$^{A}$ | 5.5$^{A}$ | 8.2$^{A}$ | C | C | C | 2.8 | 1.6 | 2.3$^{A}$ | 1.9 | 1.8 | 2.4$^{A}$ | 1.5 |
| 7 | 1.6 | 1.6 | C | C | C | C | 1.9 | A | C | 4.9$^{A}$ | 4.4$^{A}$ | 4.4$^{A}$ | 4.9$^{A}$ | 5.0$^{A}$ | 4.5$^{A}$ | 5.9$^{A}$ | 5.0$^{A}$ | 6.5$^{A}$ | A | A | 2.7$^{A}$ | 2.5$^{A}$ | 2.7$^{A}$ | 2.4$^{A}$ |
| 8 | 1.7 | 1.7 | 1.5 | 1.6 | 1.7 | 1.6 | 1.6 | 2.3 | 3.1 | 3.0 | 3.1 | 4.0 | 3.5 | 4.0$^{A}$ | 5.2$^{A}$ | 3.5 | 3.3 | 2.7 | 2.1 | 2.9$^{A}$ | 2.5$^{A}$ | 1.9 | 1.7 | A |
| 9 | C | C | C | C | C | 1.6 | 1.6 | C | C | A | 6.5$^{A}$ | 4.5$^{A}$ | 3.5 | 4.4 | 3.8 | 3.7 | [3.1]$^{C}$ | 2.5 | 2.0 | 1.9 | 2.1$^{A}$ | 1.6 | 2.0$^{A}$ | [1.8]$^{C}$ |
| 10 | 1.6 | C | C | C | C | C | 1.5 | C | C | A | 3.2 | 3.4 | 3.4 | 3.4 | 3.4 | 3.3 | [2.8]$^{C}$ | 2.3 | 2.5 | A | A | 1.6 | 1.5 | 1.5 |
| 11 | 1.6 | 1.4 | 1.4 | 1.4 | 1.3 | 1.6 | 1.6 | 2.2 | 3.0 | 3.4 | 3.6 | 3.5 | 5.0 | 3.5 | 3.4 | 3.0 | 2.6 | 2.2 | 1.5 | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 |
| 12 | A | C | 1.6 | 1.7 | 1.7 | 1.6 | 1.5 | [2.1]$^{C}$ | 2.7 | [3.0]$^{C}$ | 3.2 | 3.2 | 3.7 | 3.7 | 3.3 | 2.9 | 2.5 | 2.5 | A | A | 1.5 | 1.6 | 1.6 | 1.6 |
| 13 | M | M | M | M | M | M | M | M | M | A | 3.2 | C | C | 3.2 | 3.1 | 3.5 | 2.8 | 2.4 | 1.6 | 1.5 | 1.5 | 1.6 | 1.5 | 1.6 |
| 14 | 1.6 | 1.6 | 1.7 | 1.4 | [1.4]$^{A}$ | 1.4 | 1.6 | 2.2 | 2.8 | 3.3 | 3.7 | [4.1]$^{C}$ | 4.5$^{A}$ | 4.7$^{A}$ | 3.3 | 3.5 | 3.2 | [2.4]$^{C}$ | 1.6 | 1.5 | 1.6 | 1.5 | 1.6 | 1.6 |
| 15 | A | C | 1.4 | C | C | C | C | C | C | 3.0 | [3.1]$^{C}$ | 3.2 | 3.2 | 3.2 | 3.3 | 3.2 | 2.8 | [2.8]$^{C}$ | 2.7$^{A}$ | 1.7 | 1.6 | 1.5 | 1.6 | 1.6 |
| 16 | 1.6 | 1.4 | 1.4 | 1.4 | 1.6 | 1.4 | 1.6 | 2.2 | 2.8 | 3.2 | 3.1 | 3.5 | 3.5 | 3.3 | 4.0 | 3.5 | 4.3 | 3.4$^{A}$ | 1.6 | 1.6 | A | A | 1.6 | [1.6]$^{A}$ |
| 17 | 1.6 | 1.6 | 1.4 | 1.4 | 1.4 | 1.4 | 1.6 | 2.1 | [3.1]$^{A}$ | 4.1$^{A}$ | 4.5$^{A}$ | 4.1$^{A}$ | 4.1$^{A}$ | 4.0 | [3.8]$^{A}$ | 3.7$^{A}$ | 2.7 | A | A | A | 1.6 | [1.8]$^{A}$ | 2.0$^{A}$ | 1.7 |
| 18 | 1.6 | 1.6 | 1.4 | 1.4 | [1.4]$^{C}$ | 1.4 | 1.6 | 2.2 | 2.7 | 3.0 | 3.2 | 3.2 | 3.2 | 3.2 | 3.1 | 3.3 | 3.1 | 2.6 | 1.5 | [1.6]$^{A}$ | 1.6 | 1.6 | 1.5 | 1.6 |
| 19 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.5 | 1.7 | 2.3 | 2.7 | 3.3 | 3.2 | [3.3]$^{A}$ | 3.4 | 5.0 | 3.7 | 4.0$^{A}$ | 2.8 | 2.5 | A | A | A | A | A | A |
| 20 | A | C | C | C | C | C | C | C | 2.4 | [3.0]$^{C}$ | 3.1 | [3.3]$^{C}$ | 3.5 | 3.3 | 3.1 | [3.0]$^{C}$ | 2.9 | [2.3]$^{A}$ | 1.7 | [2.0]$^{A}$ | 2.3$^{A}$ | 1.7 | A | A |
| 21 | C | C | C | A | C | 1.6 | 1.6 | 2.1 | 2.5 | 4.0$^{A}$ | 4.0$^{A}$ | 4.5$^{A}$ | 4.1 | 4.0 | [3.4]$^{A}$ | 2.9 | 2.4 | 2.5 | [2.0]$^{A}$ | 1.6 | 2.5$^{A}$ | 1.7 | 1.7 | A |
| 22 | A | A | 1.3 | 1.6 | 1.6 | 1.6 | 1.6 | 2.0 | 2.7 | 3.0 | 3.4 | 4.2$^{A}$ | 3.2 | 3.2 | 3.6 | 2.9 | 2.6 | 2.4 | [2.0]$^{A}$ | 1.5 | 1.9 | 1.7 | [1.6]$^{A}$ | 1.6 |
| 23 | [1.6]$^{A}$ | 1.6 | 1.6 | 1.4 | 2.2$^{A}$ | [1.9]$^{A}$ | 1.6 | 2.2 | 2.9 | 2.8 | 3.3 | 4.2$^{A}$ | 4.7$^{A}$ | 3.5 | 3.4 | 3.1 | 2.5 | 2.1 | 1.5 | 2.0$^{A}$ | 3.0$^{A}$ | [2.3]$^{A}$ | 1.6 | 1.6 |
| 24 | [1.6]$^{A}$ | 1.6 | C | C | C | C | C | C | C | C | 3.1 | 3.5 | 3.2 | 3.4 | 3.5 | 3.1 | 2.7 | 2.4 | [2.0]$^{A}$ | 1.6 | 2.0$^{A}$ | 1.6 | 1.7 | 1.6 |
| 25 | C | A | 1.8 | C | C | C | C | C | C | 3.5$^{A}$ | 3.7 | 3.9 | 3.2 | 3.2 | [3.0]$^{C}$ | 2.9 | 2.7 | A | A | A | 2.8$^{A}$ | 1.5 | 1.5 | [1.6]$^{C}$ |
| 26 | 1.6 | 1.7 | 1.6 | 1.6 | 1.6 | 1.4 | 1.6 | 2.0 | 2.7 | [3.6]$^{C}$ | 4.5 | 3.2 | 3.9 | [4.4]$^{A}$ | 5.0$^{A}$ | [3.8]$^{A}$ | 2.7 | A | A | 1.6 | 1.7 | 1.5 | A | A |
| 27 | 3.0$^{A}$ | 1.8 | 3.4$^{A}$ | 1.5 | 1.4 | 1.6 | 1.5 | 2.2 | 2.8 | 3.0 | 3.5 | [3.4]$^{C}$ | 3.3 | 3.4 | [3.1]$^{C}$ | 2.8 | [3.4]$^{A}$ | 4.0$^{A}$ | 1.5 | 1.5 | 1.6 | 1.6 | 1.8 | [1.7]$^{A}$ |
| 28 | 1.6 | 1.3 | [1.4]$^{A}$ | 1.6 | 1.6 | [1.6]$^{A}$ | 1.6 | 1.8 | 2.5 | 2.9 | 3.2 | 3.3 | 3.3 | 3.5 | 3.0 | 3.0 | [2.5]$^{A}$ | 2.0 | [2.5]$^{A}$ | 3.0$^{A}$ | 1.5 | 1.5 | 1.5 | 1.6 |
| 29 | 1.6 | 1.4 | 1.6 | 1.5 | 1.6 | 1.6 | 1.5 | 2.0 | 2.7 | 2.9 | 3.1 | 3.5 | 3.3 | 3.2 | 3.4 | 2.9 | 2.5 | [2.5]$^{C}$ | 1.6 | 1.5 | 1.5 | 1.6 | 1.6 | 1.5 |
| 30 | 1.6 | C | C | C | C | C | C | C | 2.3 | [3.2]$^{A}$ | 4.1$^{A}$ | 4.0$^{A}$ | 4.6$^{A}$ | A | A | 3.5 | A | A | M | M | M | M | M | M |
| 31 | M | M | M | M | M | M | M | M | M | M | 3.2 | 4.0$^{A}$ | 3.7 | 4.5$^{A}$ | 4.8$^{A}$ | 6.7 | A | A | 3.3$^{A}$ | [3.6]$^{A}$ | 3.8$^{A}$ | [2.7]$^{A}$ | 1.6 | 1.6 |
| Mean Value | 1.7 | 1.5 | 1.6 | 1.5 | 1.6 | 1.5 | 1.6 | 2.2 | 2.7 | 3.2 | 3.5 | 3.8 | 3.8 | 3.9 | 3.7 | 3.6 | 3.0 | 2.9 | 2.0 | 1.9 | 2.0 | 1.7 | 1.7 | 1.6 |
| Median Value | 1.6 | 1.6 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 2.2 | 2.7 | 3.2 | 3.2 | 3.5 | 3.5 | 3.5 | 3.4 | 3.3 | 2.8 | 2.5 | 1.8 | 1.6 | 1.8 | 1.6 | 1.6 | 1.6 |
| Count | 22 | 19 | 21 | 19 | 19 | 22 | 24 | 21 | 22 | 25 | 31 | 30 | 29 | 29 | 29 | 30 | 27 | 25 | 22 | 23 | 26 | 27 | 27 | 25 |

fminF

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

Y 10

47

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



# IONOSPHERIC DATA

Oct. 1952 | fminE | 135° E Mean Time | Yamagawa | Lat. 31° 12.5' N, Long. 130° 37.7' E

| Day | 00 | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 | 09 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1.5 | C | C | C | C | 1.6 | [1.6]C | 1.6 | 1.5 | 1.5 | 1.5 | 1.6 | 1.5 | 1.6 | 1.5 | 1.5 | 1.4 | 1.5 | 1.5 | 1.5 | E | 1.7 | 1.6 | 1.6 |
| 2 | 1.5 | 1.5 | 1.5 | 1.6 | 1.7 | 1.6 | 1.7 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | C | C | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | E | 1.6 | E |
| 3 | E | E | E | 1.7 | 1.4 | 1.6 | 1.7 | 1.5 | [1.5]C | 1.5 | 1.5 | 1.5 | 1.5 | 1.7 | [1.6]C | 1.6 | 1.6 | 1.5 | 1.6 | 1.7 | 1.6 | 1.6 | 1.6 | E |
| 4 | E | 1.7 | 1.6 | E | 1.7 | 1.7 | 1.7 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.8 | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 |
| 5 | 1.6 | 1.6 | 1.7 | 2.0 | 1.7 | 1.7 | 1.7 | 1.5 | 1.6 | 1.6 | 1.5 | 1.9 | 1.5 | 1.5 | 1.6 | 1.7 | 1.5 | 1.5 | 1.6 | C | C | C | 1.5 | 1.5 |
| 6 | 1.5 | 1.3 | 1.4 | 1.4 | 1.6 | 1.6 | 1.7 | 1.5 | 1.6 | 1.6 | 1.6 | 2.8 | 1.6 | 1.5 | C | C | C | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 |
| 7 | 1.6 | C | C | C | C | C | 1.5 | 1.5 | [1.5]C | 1.5 | 1.8 | 1.6 | 1.8 | 2.0 | 1.6 | 1.6 | 1.4 | 1.5 | 1.5 | 1.5 | [1.5]C | 1.5 | 1.6 | 1.5 |
| 8 | 1.6 | 1.4 | 1.4 | 1.4 | 1.6 | 1.7 | 1.6 | 1.5 | 1.6 | 1.6 | 1.5 | 1.6 | 1.6 | 1.6 | 1.5 | 1.4 | 1.4 | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 |
| 9 | C | C | C | C | C | 1.6 | 1.6 | C | C | 1.5 | 1.6 | 1.6 | 1.5 | 1.6 | 1.5 | 1.5 | [1.5]C | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | [1.6]C |
| 10 | 1.7 | C | C | C | C | C | 1.7 | C | C | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.4 | 1.4 | C | C | 1.5 | 1.6F | 1.6 | 1.6 | E | E |
| 11 | E | 1.4 | 1.6 | E | E | 1.6 | 1.6 | 1.5 | 1.4 | 1.6 | 1.6 | 1.8 | 1.7 | 1.7 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.5 | 1.6 | 1.6 | 1.6 |
| 12 | 1.4 | [1.5]C | 1.6 | 1.4 | 1.6 | 1.6 | 1.5 | [1.5]C | 1.5 | [1.5]C | 1.5 | 1.5 | 1.5 | 1.5 | 1.4 | 1.4 | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | E |
| 13 | M | M | M | M | M | M | M | M | M | 1.4 | 1.5 | C | C | C | 1.6 | 1.6 | 1.4 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | E | 1.7 |
| 14 | 1.5 | 1.4 | 1.6 | 1.6 | E | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | 1.6 | [1.6]C | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 | [1.6]C | 1.6 | 1.7 | 1.6 | 1.6 | 1.6 | E |
| 15 | 1.5 | [1.6]C | 1.7 | C | C | C | C | C | C | 1.5 | [1.5]C | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.4 | 1.5 | 1.5 | 1.5 | 1.6 | E | E | E |
| 16 | E | E | E | E | 1.7 | E | B | 1.5 | 1.5 | 1.5 | 1.5 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.5 | 1.6 | 1.5 | 1.5 | 1.6 | 1.6 | 1.5 |
| 17 | 1.5 | 1.6 | E | E | 1.6 | 1.6 | 1.7 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 |
| 18 | 1.7 | 1.7 | 1.7 | 1.8 | [1.8]C | 1.9 | [1.7]B | 1.5 | 1.5 | <1.6 | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.5 | 1.6 | 1.6 | E | 1.8 | E |
| 19 | 1.6 | 1.6 | 1.8 | E | 1.7 | 1.5 | [1.5]B | 1.5 | 1.5 | 1.6 | 1.5 | 1.6 | 1.6 | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.6 |
| 20 | 1.5 | C | C | C | C | C | C | C | C | C | 1.5 | [1.5]C | 1.5 | 1.6 | 1.5 | 1.6 | 1.5 | 1.6 | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | C |
| 21 | C | C | C | C | C | E | B | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | [1.6]C | 1.7 | 1.5 | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 |
| 22 | 1.6F | 1.4 | 1.6 | 1.6 | 1.6 | E | B | 1.5F | 1.5F | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | 1.6 |
| 23 | 1.5 | 1.6 | 1.4 | 1.5 | 1.4 | 1.4 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | [1.5]B | 1.5 | 1.6 | 1.5 | 1.6 | 1.5 |
| 24 | 1.5 | 1.4 | C | C | C | C | C | C | C | C | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 | 1.6 | 1.6 | 1.5 | 1.5 | 1.6 |
| 25 | 1.5 | 1.4 | 1.6 | C | C | C | C | C | C | 1.5 | 1.5 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | [1.6]C |
| 26 | 1.6 | 1.6 | 1.4 | 1.5 | 1.6 | 1.6 | 1.6 | 1.5 | 1.6 | C | C | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| 27 | 1.5 | 1.4 | 1.4 | 1.4 | 1.6 | E | B | 1.5 | 1.5 | 1.5 | 1.4 | [1.4]C | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5F | 1.5F | 1.5 | 1.5 | 1.4 | 1.6 |
| 28 | 1.5F | 1.6F | 1.4 | 1.6 | 1.4 | 1.4 | 1.6 | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6P | 1.5 | 1.5 | 1.5 | 1.6 | 1.5 | E | 1.7 | E |
| 29 | E | E | E | 1.6 | 1.6 | 1.6 | 1.6 | 1.4 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.7 | 1.6 | 1.6 | 1.5 | [1.6]C | 1.6 | E | E | 1.6 | 1.5 | 1.5 |
| 30 | 1.5 | C | C | C | C | C | C | C | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | M | M | M | M | M | M |
| 31 | M | M | M | M | M | M | M | M | M | M | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 |
| Mean Value | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.5 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 |
| Median Value | 1.5 | 1.4 | 1.5 | 1.5 | 1.6 | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.6 | 1.5 |
| Count | 27 | 22 | 21 | 19 | 19 | 22 | 20 | 22 | 23 | 26 | 30 | 30 | 29 | 29 | 30 | 30 | 29 | 30 | 30 | 29 | 29 | 29 | 30 | 29 |

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

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IONOSPHERIC DATA IN JAPAN FOR OCTOBER 1952

# 電波觀測報告　第4巻　第10号

1952年11月25日　印　刷
1952年11月30日　発　行
（不許複製非売品）

編集兼発行人　好川得太郎
東京都北多摩郡小金井町小金井新田一之久保573

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

印刷所　今井印刷所
東京都新宿区筑土八幡町8番地