

Kodaikanal Observatory

Bulletin No. CXLVI

PART I

Summary of Prominence and calcium Flocculus Observations for the Second Half of 1955

The results of observations of prominences and calcium flocculi made at Kodaikanal Observatory during the second half of 1955 supplemented by data computed from photographs supplied by Mount Wilson and Meudon Observatories for those days on which Kodaikanal had imperfect or no observations are summarised in Part I of this bulletin.

Calcium Prominences at the lmb —During the half-year under review, photographs of Calcium prominences at the lmb were obtained at Kodaikanal on 116 days which were counted as 115 effective days after giving due weightage to the photographs according to their quality. Spectroheliograms for 62 days were obtained from the Mount Wilson Observatory and for 35 days from the Meudon Observatory. In all, complete observations were available for 175½ effective days.

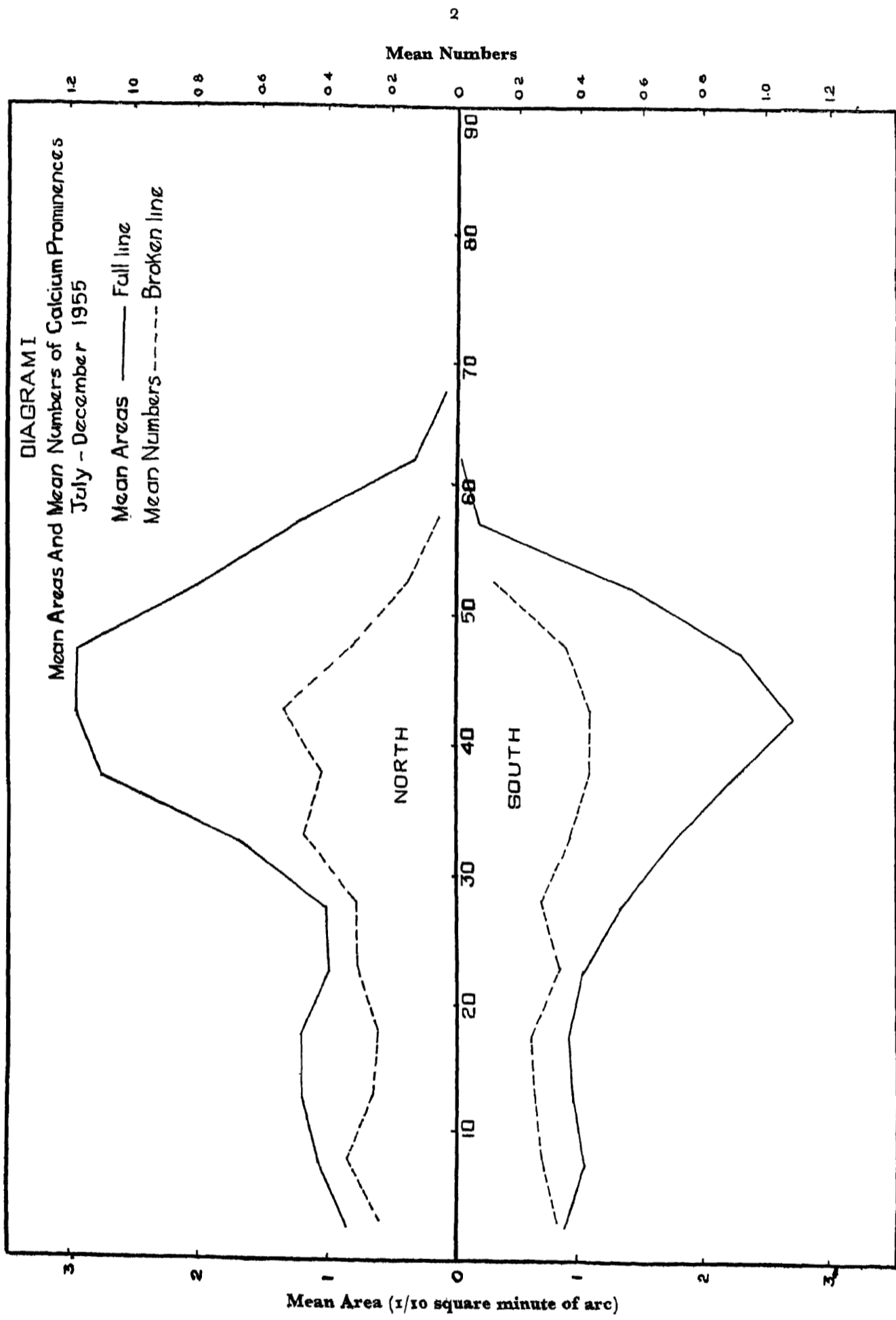
The mean daily areas (in sq. minutes of arc) and the mean daily numbers of prominences derived from all the above records are given below :—

		Combined data	
		Mean daily areas (sq. minutes)	Mean daily numbers
North	. . . . .	2.03	4.02
South	. . . . .	1.65	3.42
TOTAL		3.68	7.44

These figures when compared with the corresponding values of the previous half-year indicate a very slight increase of activity, the increase being 1.8% in areas and 1.5% in numbers. The values based on Kodaikanal observations alone are also given below for comparison with similar data published in bulletins prior to 1923 i.e. before the cooperation of other observatories came into force.

		Kodaikanal data only	
		Mean daily areas (sq. minutes)	Mean daily numbers
North	. . . . .	2.47	4.60
South	. . . . .	1.96	3.77
TOTAL		4.43	8.37

The distribution of areas and numbers in five-degree ranges of latitude as obtained from the combined data is represented in diagram I. In the curves for area, the peak of activity in the northern hemisphere lies in the latitude belt 40°-50° and in the southern hemisphere in the belt 40°-50°.



The monthly, quarterly and half-yearly areas, numbers, heights and extents of prominences derived from all the photographs are given in the following table —

Months 1955	Number of effective days	Areas (sq minu- tes)	Numbers	Daily means		Mean height	Mean extent
				Areas (sq minutes)	Numbers		
July	31	103.10	198	3.32	6.39	55.6	7.18
August	28½	84.35	156	2.93	5.42	55.7	4.07
September	30	114.20	222	3.81	7.40	48.2	3.63
October	30½	114.35	233	3.78	7.71	48.9	3.79
November	28	95.05	236	3.39	8.43	47.4	4.11
December	27½	136.30	263	4.94	9.47	51.3	4.55
3rd quarter	89½	301.65	576	3.36	6.41	52.7	4.97
4th quarter	86	345.70	732	4.02	8.51	49.3	4.16
and half year	175½	647.35	1,308	3.67	7.44	50.8	4.51

The distribution of prominences about the sun's axis of rotation is given below .—

1955 July-December	East.	West.	Percentage East
Areas (sq minutes)	286.45	360.70	41.4
Numbers	620	688	47.4

Observations with the Prominence Spectroscope—Only one metallic prominence was observed during the half-year under review 3 bright reversals of the H-alpha line and 1 dark reversal of the D₃ line on the disc near sunspots were observed.

The mean heights in H-alpha, D₃ and H-beta lines of 9 prominences observed with the spectroscope and the mean height in the K-line of the same prominences as measured from the calcium spectroheliograms were as follows —

	Mean height
K	86.1
H-alpha	79.8
D ₃	75.5
H-beta	68.6

Observations with the Hale Spectrohelioscope.—Details of Doppler displacements in prominences and dark markings observed with the H-alpha line are tabulated below .—

	North	South	East	West	Displacements			Total
					To red	To violet	Both ways	
Displacements in prominences	44	34	41	37	3	..	75	78
Displacements in dark markings	6	1	4	3	2	2	3	7

Solar Flares

Details of solar flares observed during the period are summarised in the following table :—

Date	Time in I S T.			Mean latitude	Mean longitude from Central meridian	Intensity	Maximum width of H-alpha line observed	Remarks
	Beginning h m	Maximum h m.	End h m.					
1955 September 20	07 45	..	08 00	27°S	67°W	1	2 Å	Observed in spectrohelioscope
October 23	07 30	.	08 30	26°S	73°E	1	1.4	-do-

Sudden disappearance of Prominences and H-alpha Dark Markings.—Only two instances of disappearance of prominences were observed during the half-year under review. The particulars of these occurrences are as follows —

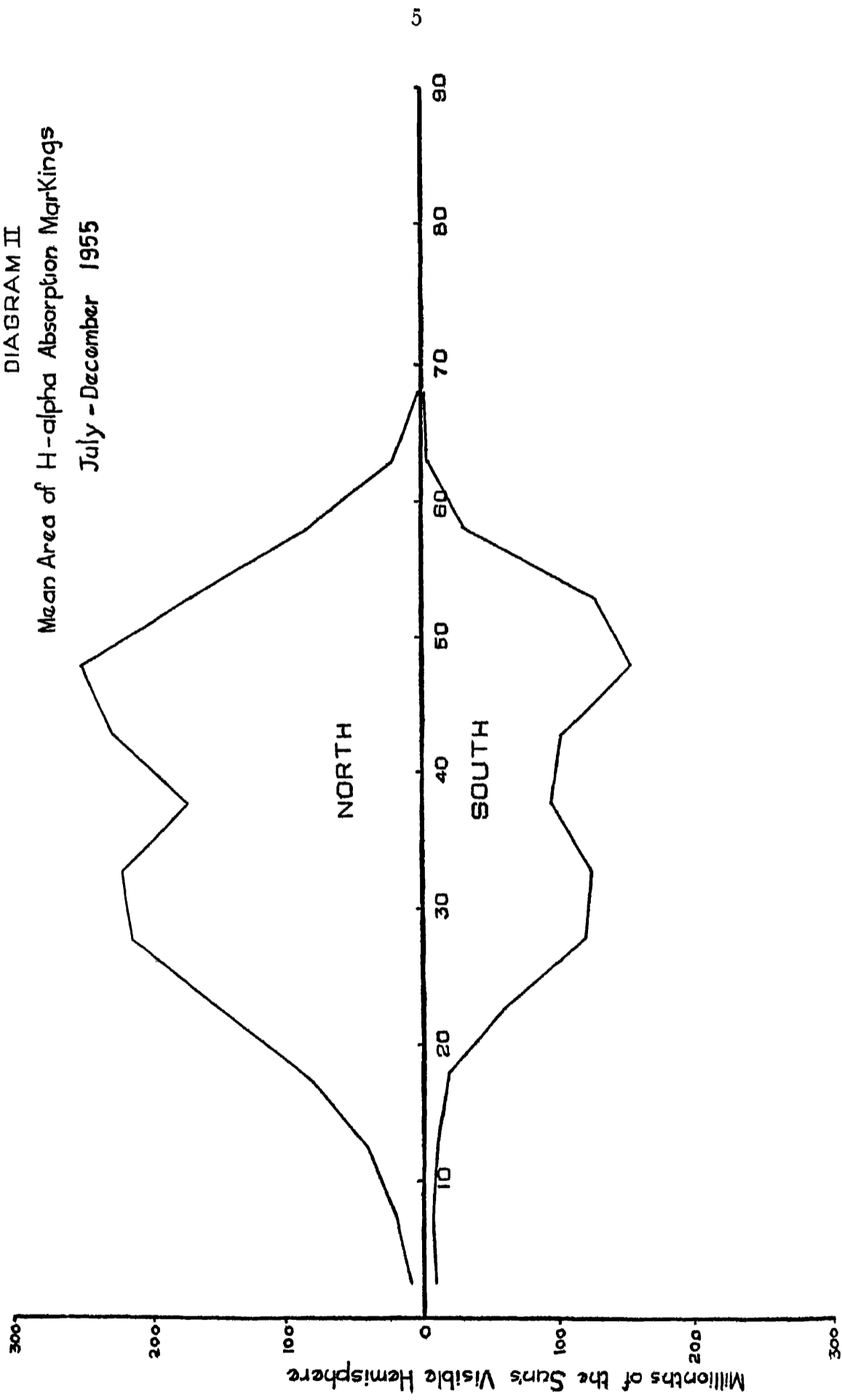
Nature of phenomenon	Date and time of phenomenon when last seen			Co-ordinates of Phenomenon		Remarks
	Month	Date	I.S.T h m	Mean latitude	Mean longitude	
Prominence	November	8	11 00	35°S	90°E	Disappeared at 11.20 I.S.T.
Prominence.	November	26	08 35	40°N	90°E	Disappeared at 08.50 I.S.T.

Prominences projected on the disc as absorption markings.—During the period under review photographs of the sun's disc in H-alpha line were obtained at Kodaikanal on 127 days. Spectroheliograms were also received for 49 days from the Mt. Wilson Observatory and for 36 days from the Meudon Observatory. On the whole records were available for 174 effective days after giving due weightage to the quality of the photographs.

The mean daily areas in millionths of the sun's visible hemisphere (uncorrected for foreshortening) and the mean daily numbers of the H-alpha dark markings as derived from the combined data are given below: —

	Combined data	
	Mean daily areas (Millionths of the sun's visible hemisphere)	Mean daily numbers
North	1654	10.80
South	862	5.62
Total	2516	16.42

DIAGRAM II
 Mean Area of H-alpha Absorption Markings
 July - December 1955



On comparing with the previous half-year's values, these figures show an increase in activity in both areas and numbers. The areas show an increase of 72.7% and the numbers 61.9%. The figures based solely on Kodaikanal photographs are also given for purposes of comparison.

Kodaikanal data only		
	Mean daily area (Millionths of the sun's visible hemisphere)	Mean daily numbers
North	1623	10.01
South	831	4.90
TOTAL	2454	14.91

The distribution of the areas of the markings in 5° ranges of latitude as obtained from the combined data is shown in diagram II. The noteworthy features of the distribution are the well-marked peaks of activity in the latitude belts 30°-35° and 45°-50° in both the hemispheres.

The distribution of total areas and numbers of the dark markings east and west of the sun's axis is as follows :—

Combined data			
	East	West	Percentage East
Total area (millionths of the sun's visible hemisphere uncorrected for foreshortening)	199,568	237,929	45.6
Total numbers	1,336	1,522	46.7

In contrast to the previous half-year, both areas and numbers show a western excess during the second half of 1955.

Calcium Flocculus

During the period under review Calcium Flocculus spectroheliograms were taken on 124 days at Kodaikanal. Calcium spectroheliograms for 30 days were received from the Meudon Observatory. In all observations were available for 154 effective days.

The mean daily areas (in millionths of the sun's visible hemisphere—uncorrected for foreshortening) computed from the combined data are given in the following table :—

Combined data		
	Mean daily area (millionths of the sun's visible hemisphere)	
North	6,964	
South	4,337	
TOTAL	11,301	

Compared to the previous half-year's value the area shows an increase of 222%.

The distribution of flocculi East and West of the sun's axis is as follows :—

	East	West	Percentage East
Total area in millionths of the sun's visible hemisphere	916,077	825,806	52

The Western excess in area seen in the last half-year has now changed into an eastern excess.

Our thanks are due to the cooperating observatories for the photographs supplied by them.

PART II

MAGNETIC OBSERVATIONS FOR THE SECOND HALF OF 1955

Brief descriptions of the absolute instruments, the variometers and the system of observations are available in Bulletins No. CXXXII and No CXXXVI of this observatory. The data given in this bulletin are derived mainly from the records of the La Cour instruments, but in case of failure of La Cour records Watson magnetograms have been used.

The adopted values of the scale coefficients of the horizontal force, vertical force and declination magnetographs for the first two months of the second half of 1955 are $80 \text{ } \gamma/\text{cm}$, $115 \text{ } \gamma/\text{cm}$, and $16' \text{ } \circ/\text{cm}$, respectively. For the remaining four months these values are $85 \text{ } \gamma/\text{cm}$, $115 \text{ } \gamma/\text{cm}$ and $14' \text{ } \circ/\text{cm}$ respectively.

Trends in Magnetic variations

The mean value of and range in horizontal force for the second half of 1955 were 39482γ and 106γ respectively showing an increase over the corresponding values 39469γ and 99γ respectively for the first half of 1955. In the case of vertical force the mean value as well as the range showed a decrease from the corresponding values for the previous half-year, the mean value decreasing from 2394γ to 2382γ and the range from 36γ to 35γ . The mean westerly declination increased from $2^{\circ}33' .9$ to $2^{\circ}34' .6$ and the mean range from $3' .4$ to $3' .6$.

PART III

IONOSPHERIC OBSERVATIONS FOR THE SECOND HALF OF 1955

Introduction

In January 1952 systematic ionospheric observations were begun at Kodakanal using an Automatic Multi-frequency Ionospheric Recorder (Type C-3) designed by the National Bureau of Standards, U. S. A. Until August 31, 1955 these observations were confined to day-light hours only, but from 1st September 1955 they were extended to 24 hours.

Beginning from this Bulletin, the values of ionospheric parameters will be included in the half-yearly Bulletins of the observatory, along with solar and geomagnetic data. The characteristics of the ionospheric equipment used and the method of observation are given below :—

The observations consist of measuring and recording at vertical incidence the virtual heights and critical frequencies of the ionised regions of the upper atmosphere. Pulses of radiofrequency energy are alternately transmitted and received automatically over the range of frequencies 1-25 Mc/s. The time interval between the transmitted pulse and the received pulse reflected by the ionosphere is plotted against frequency and displayed on two sets of oscilloscopes providing different types of presentations. The pattern presented on the recording oscilloscope is of "A" scan type and is photographed by a 35 mm camera. The transmitted and received pulses appear on a linearsweep-time base, the separation between the two pulses representing the virtual height. The frequency sweep is provided by the motion of the film itself. The other pattern in which the virtual height is plotted as the ordinate and frequency as abscissa is nominally used for monitoring. A 16 mm. camera can be used for photographing the entire pattern in one frame. Single-sweep recordings at desired intervals are made with the help of a master clock system. The antenna system used with the equipment is of the multiple wire delta type ; two separate antennae at right angles being used, one for transmitting and the other for receiving.

The general electrical characteristics of the instrument are given below.—

- (a) Supply voltage—90 to 260 volts A. C. single phase.
- (b) Supply frequency—50 to 60 cps.
- (c) Power load—approximately 30 amps. at 115 volts.
- (d) Pulse recurrence frequency ; from 10 to 90 pps.
- (e) Frequency sweep time—7½, 15 or 30 secs. and 30, 60 or 120 secs.
- (f) Frequency sweep range—1 to 25 megacycles.
- (g) Frequency sweep interval—5, 15, 30 or 60 mts.
- (h) Height ranges—0-500, 0-1,000, 0-4,000 km.
- (i) Peak pulse power—Approximately 10 kw.
- (j) Pulse width—50 or 100 micro secs.

Routine soundings of the ionosphere are made every half-hour of 75°E meridian time. The frequency sweep time normally used is 30 secs. During special phenomena the soundings are made at shorter intervals. Hourly h'f records are scaled and values of parameters fEs, foE, foF1, foF2, h'E, h'F1, h'F2 and (M3000) F2 tabulated. Estimated accuracy of scaling is :—

±2% in critical frequency
±5 km. in equivalent height

Symbols and terminology used in tabulation, and the procedure adopted for computing means and medians are in accordance with the recommendations of the International Scientific Radio Union (IXth General Assembly of the URSI, 1950). The symbols and their meanings are given below .—

foE	.	.	} Ordinary wave critical frequency for the E, F1 and F2 layers respectively.
foF1	.	.	
foF2	.	.	
fEs	.	.	Heighest frequency on which echoes of the sporadic type are received from the E region.
h'E	.	.	} Minimum virtual height on the ordinary wave branch for the E, F1 and F2 layers, respectively.
h'F1	.	.	
h'F2	.	.	
h'Es	.	.	Minimum virtual height of Es echoes.

- (M3000) F2 Maximum usable frequency factor for a path of 300° km. for transmission by F2 layers,
 () Doubtful value.
- A . . . Characteristic not measurable because of banketting by Es.
- B . . . Characteristic not measurable because of non-deviative absorption either partial or complete.
- C . . . Characteristic not observed because of equipment or Power failure.
- D . . . Before a number : greater than.
 Alone : Characteristic at a frequency higher than the normal upper frequency limit of the equipment.
- E . . . Before a number : less than.
 Alone . Characteristic at a frequency lower than the normal lower frequency limit of the equipment.
- F . . . Spread echoes present.
- G . . . (a) F2-layer critical frequency equal to or less than the F1-layer critical frequency.
 (b) Used on Es tabulation sheets when no Es echoes are observed though regular E (or Es) echoes are present.
- H . . . Stratification observed within the layer.
- J . . . Ordinary wave characteristic deduced from measured extraordinary-wave characteristic.
- K . . . Ionospheric storm in progress (this is always applied to a series of hourly values, never to an isolated value).
- L . . . (a) F1 layer characteristic omitted or doubtful because no definite or abrupt change in slope of the h'f curve is observed either for the first reflection or any of the multiples.
 (b) h'F2 omitted because the F2 layer trace is continuous with the F1 layer trace and without a point of zero slope at a frequency greater than foF1.
- M . . . Characteristic not observed because of some failure or omission on the part of the operator rather than owing to any mechanical or electrical fault in the equipment or its power supply.
- N . . . Nature of the observation is such that the characteristic cannot readily be interpreted.
- P . . . Trace extrapolated to critical frequency by more than 1 per cent but less than 5 per cent.
- Q . . . Distinct layer not present (this symbol is intended to apply to day time layers only and is used in the hour columns at the beginning and end of the daylight period to fill empty spaces in these columns where one or more numerical values exist. It is not used in hour columns where no numerical values exist because of darkness.
- R . . . Preceded by a value indicates that the characteristic was not traceable beyond the value indicated due to interference or atmospherics.
- S . . . Characteristic obscured by interference or by atmospherics.
- T . . . Loss or destruction of successful observations.
- V . . . Trace forked near critical frequencies. Does not include Z component.
- W . . . Characteristic at a height greater than the normal upper height limit of equipment.
- Y. - . Es (E2s) trace intermittent in frequency range very short pieces of trace at the high frequency end are ignored since they may be presumed to be due to short-lived echoes.
- Z - . Third magneto-ionic component of the h'f trace is observed.

KODAIKANAL OBSERVATORY,
 FEBRUARY, 1957

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A. K. DAS,
Deputy Director-General of observatories,

TABLE I

Hourly values of Declination (Westerly), 1955

[Averages for sixty minutes centred at the full hours of Greenwich mean time]

July

2° plus tabular quantities

Date	Hours G M T.														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	33.7	33.4	32.7	32.4	33.4	34.0	34.8	35.4	35.4	34.8	34.0	33.8	33.8	34.2	34.8
2††	33.7	33.2	32.4	32.2	33.2	34.0	35.0	35.4	35.4	34.5	33.8	33.8	34.3	35.4	35.6
3	33.4	31.8	31.9	32.4	33.7	34.3	34.8	35.3	35.4	35.1	34.2	34.0	34.0	33.8	34.0
4†	33.2	32.6	32.2	32.2	33.1	34.6	35.4	35.6	35.4	35.1	34.6	34.0	33.8	34.0	34.0
5†	33.4	32.4	31.6	31.9	34.0	35.9	36.6	36.9	36.6	35.9	35.3	34.8	34.8	34.8	34.6
6	33.4	32.6	32.2	32.4	33.8	35.0	35.9	36.9	37.0	36.4	35.0	33.8	33.8	34.0	34.6
7	33.7	32.9	32.2	32.2	33.7	34.6	34.8	35.3	35.0	34.2	34.0	33.8	33.7	33.8	34.0
8	33.7	33.0	32.4	32.2	32.7	33.5	34.5	35.4	35.6	35.3	34.3	34.0	33.5	33.2	33.8
9	33.8	33.8	34.0	34.2	35.0	35.0	34.8	35.4	35.6	35.0	34.0	33.7	33.7	33.8	34.0
10	33.8	33.5	33.2	33.7	34.6	36.4	37.2	37.0	36.9	35.9	34.8	34.0	33.8	33.7	34.0
11††	33.5	32.7	31.9	31.9	33.2	34.6	36.1	36.9	36.4	35.6	34.5	33.7	33.8	33.2	33.5
12††	33.5	32.7	32.2	32.2	33.2	34.6	35.9	36.7	35.3	34.2	33.8	33.0	32.2	32.2	32.4
13	33.5	33.0	32.9	33.5	34.6	35.4	35.6	35.6	35.1	34.6	33.8	33.0	32.9	33.5	34.0
14	33.7	33.0	32.2	32.2	33.8	35.6	36.4	36.9	36.6	35.4	34.0	33.8	33.8	33.8	34.0
15††	33.8	33.2	32.4	32.7	33.8	34.6	35.8	36.4	36.2	36.2	35.3	35.0	35.0	34.0	34.0
16	33.5	32.7	32.2	32.2	33.5	34.0	35.0	35.3	35.4	35.3	34.5	33.8	33.8	33.8	34.0
17	33.7	33.2	32.4	32.4	33.2	34.0	35.0	35.3	35.0	34.6	33.8	33.7	33.7	33.7	34.0
18	33.4	32.9	32.4	32.6	33.8	34.8	36.1	35.8	34.8	33.8	33.2	33.7	33.7	33.8	33.8
19†	33.8	33.0	32.4	32.9	34.5	35.8	36.7	36.7	36.4	35.9	35.3	34.5	33.8	33.8	34.2
20	33.7	32.9	32.2	32.7	34.0	35.1	36.2	36.2	35.6	35.4	35.0	34.2	33.7	33.7	34.0
21†	33.8	33.4	32.4	32.6	33.5	34.6	35.9	37.0	37.2	36.2	34.8	33.5	33.4	33.7	34.0
22	33.5	32.7	32.4	32.9	34.5	35.3	36.6	37.0	36.7	36.2	35.1	34.6	34.5	34.3	34.3
23	33.8	33.5	33.2	33.5	34.0	35.4	36.6	37.0	36.7	36.7	35.9	35.3	35.1	34.6	34.6
24	33.8	33.5	33.0	33.4	34.6	35.4	37.0	38.0	37.5	37.2	36.4	35.3	34.5	34.3	34.3
25	33.7	33.0	32.2	32.2	33.2	35.1	36.9	36.9	36.9	36.2	35.3	35.3	35.1	35.1	34.8
26††	33.8	33.4	32.5	32.2	32.6	33.5	34.5	35.6	36.7	37.0	36.6	35.9	35.7	35.6	35.6
27	33.7	33.2	32.5	32.2	32.7	33.7	34.6	35.4	35.4	35.4	35.4	35.6	35.6	35.4	35.3
28†	33.7	33.7	33.2	32.7	33.8	35.1	36.2	37.2	36.9	36.2	35.4	34.6	34.3	34.6	34.8
29	33.8	33.5	33.0	33.0	33.8	34.6	35.4	35.6	35.9	35.6	35.3	35.3	35.3	35.3	35.3
30	34.0	33.7	33.5	33.7	34.0	35.0	36.1	36.9	36.7	36.4	36.6	35.3	34.3	34.8	34.8
31	33.7	33.2	32.6	32.6	34.4	34.5	35.3	35.3	35.3	35.4	35.0	34.2	34.0	34.3	34.3
Mean	33.6	33.1	32.5	32.6	33.7	34.8	35.7	36.2	36.0	35.5	34.8	34.3	34.1	34.1	34.3
Mean†	33.6	33.0	32.4	32.5	33.8	35.2	36.2	36.7	36.5	35.9	35.1	34.3	34.1	34.2	34.3
Mean††	33.7	33.0	32.3	32.2	33.2	34.3	35.5	36.2	36.0	35.5	34.8	34.3	34.2	34.1	34.2

†Five International quiet days.

††Five International disturbed days

*Loss of record ; (day omitted for mean),

TABLE I

Hourly Values of Declination (Westerly), 1955

[Averages for sixty minutes centred at the full hours of Greenwich mean time]

July

2° plus tabular quantities

Hours G.M.T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
									H.	M.	H.	M.			
34.8	34.6	34.5	34.0	34.0	33.8	33.8	33.8	33.8	34.1	07 30	35.9	03 02	32.4	3.5	1
35.4	35.4	35.0	34.9	33.8	32.7	33.2	32.9	32.9	34.1	07 30	35.6	03 10	32.2	3.4	2††
34.0	33.8	33.8	33.8	33.7	33.7	33.5	33.2	33.4	33.8	07 30	35.4	01 30	31.6	3.8	3
34.0	34.0	34.0	33.8	33.8	33.8	33.7	33.7	33.7	33.9	06 50	35.8	02 10	32.2	3.6	4†
34.6	34.6	34.0	34.0	34.0	34.0	33.7	33.7	33.7	34.4	06 50	37.0	02 30	31.6	5.4	5†
35.1	35.1	34.6	34.5	34.0	33.8	33.8	33.7	33.5	34.4	07 30	37.2	02 20	32.2	5.0	6
34.0	34.0	34.0	34.0	34.2	34.0	33.8	33.8	33.8	33.9	07 30	35.3	02 30	32.2	3.1	7
34.0	34.9	34.0	34.0	34.2	34.0	33.8	33.8	33.7	33.8	08 00	35.9	03 02	32.2	3.7	8
34.0	34.0	34.0	34.0	33.8	33.8	33.8	33.8	34.0	34.2	07 50	35.9	01 00	33.7	2.2	9
33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	34.4	05 36	37.2	02 30	33.2	4.0	10
33.8	34.0	34.2	34.0	34.0	33.8	33.8	33.8	33.8	34.0	07 14	37.0	02 30	31.9	5.1	11††
32.4	32.9	32.9	33.2	33.5	33.7	33.5	33.7	33.8	33.5	06 36	36.9	12 50	32.1	4.8	12††
34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	33.8	34.0	06 02	35.8	11 30	32.7	3.1	13
34.2	34.6	34.6	34.0	34.0	33.8	34.0	34.0	34.0	34.3	07 10	36.9	02 50	32.2	4.7	14
34.2	34.2	34.3	34.2	34.0	34.0	33.8	33.8	33.8	34.4	06 50	36.7	02 00	32.4	4.3	15††
34.2	34.2	34.0	34.0	33.8	33.8	33.8	33.8	33.8	33.9	08 30	35.4	01 58	32.1	3.3	16
34.0	34.0	34.0	34.0	33.8	33.8	33.8	33.8	33.8	33.9	06 50	35.4	02 30	32.4	3.0	17
34.0	34.0	34.0	34.0	34.2	34.0	34.0	34.0	33.8	33.9	07 10	36.1	02 10	32.2	3.9	18
34.6	34.2	34.0	34.0	34.0	33.8	33.8	34.0	33.8	33.8	07 50	36.9	02 30	32.4	4.5	19†
34.2	34.3	34.5	34.3	34.0	33.8	33.8	33.8	33.8	34.2	07 10	36.2	01 58	32.2	4.0	20
34.0	34.0	34.0	34.0	34.0	33.8	33.8	33.8	33.7	34.2	08 10	37.2	02 00	32.4	4.8	21†
34.5	34.5	34.2	34.3	34.0	34.0	34.0	34.0	34.0	34.5	06 50	37.2	01 50	32.4	4.8	22
34.5	34.3	34.2	34.0	34.0	33.8	33.8	33.8	33.8	34.7	07 10	37.0	02 00	32.2	3.8	23
34.5	34.3	34.0	34.0	34.0	34.0	33.8	33.8	33.8	34.8	07 30	38.0	02 10	33.0	5.0	24
34.8	34.6	34.3	34.0	34.0	34.0	33.8	33.8	33.8	34.5	07 30	36.9	02 30	32.2	4.7	25
35.3	35.0	34.8	34.5	34.0	33.8	33.8	33.8	33.8	34.6	08 30	37.5	02 52	32.2	5.3	26††
35.1	34.8	34.6	34.0	33.8	33.8	33.8	33.8	33.8	34.3	11 30	35.6	03 10	32.1	3.5	27
34.5	34.2	34.0	34.0	34.0	34.0	33.8	33.8	33.8	34.5	07 10	37.2	03 02	32.6	4.6	28†
35.3	35.1	34.8	34.0	34.0	34.0	33.8	33.7	33.7	34.5	07 36	36.1	02 10	32.9	3.2	29
35.1	35.0	34.8	34.3	34.0	34.0	33.8	33.8	33.8	34.8	07 30	37.0	02 30	33.5	3.5	30
34.5	34.5	34.5	34.3	34.2	34.0	34.0	34.0	34.0	34.3	09 30	35.4	03 30	32.4	3.0	31
34.4	34.3	34.2	34.0	34.0	33.8	33.8	33.8	33.8	34.2					4.0	Mean
34.3	34.2	34.0	34.0	34.0	33.9	33.8	33.8	33.7							Mean †
34.2	34.3	34.2	33.9	34.0	33.6	33.6	33.6	33.6							Mean ††

†Five International quiet days.

††Five International disturbed days.

*Loss of record ; (day omitted for means).

TABLE 2

Hourly values of Declination (Westerly), 1955
 [Averages for sixty minutes centred at the full hours of Greenwich mean time]
 2° plus tabular quantities

August	Date	Hours G.M.T.														
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	1†	33.7	33.4	33.4	33.8	34.5	35.8	36.7	37.0	37.0	36.7	35.9	34.8	34.0	34.6	35.6
	2	33.5	32.7	32.2	32.7	34.2	36.2	37.4	37.2	36.2	35.4	34.6	33.7	33.8	34.0	34.6
	3	33.7	32.9	32.4	33.0	34.4	34.8	36.2	36.7	36.2	35.4	35.0	34.0	33.7	33.8	34.6
	4††	33.7	32.7	32.4	33.0	34.0	35.0	35.4	35.6	35.6	34.6	34.0	33.5	33.8	34.0	33.8
	5††	33.4	32.4	32.2	33.2	34.6	35.9	36.6	36.1	34.8	35.1	34.3	34.0	33.8	34.0	34.2
	6††	33.4	32.7	32.7	33.4	34.5	35.6	36.4	35.6	34.6	33.8	32.4	32.1	32.2	32.6	33.2
	7††	32.7	31.1	30.6	31.4	33.2	35.1	35.8	35.8	35.6	35.9	35.6	34.6	34.0	33.7	33.8
	8	33.5	32.4	31.8	31.9	33.5	35.8	37.2	37.2	37.0	35.6	34.3	33.4	33.4	33.7	33.8
	9	34.0	33.5	32.7	33.2	34.8	36.6	37.7	38.2	36.4	35.1	34.0	33.5	33.4	33.5	34.0
	10	33.8	33.4	32.4	32.4	33.4	35.1	36.6	36.9	36.6	35.4	34.3	33.7	33.5	33.8	33.8
	11†	34.3	33.4	32.6	33.2	34.0	35.4	36.9	37.0	36.9	36.1	35.0	34.2	34.0	34.0	34.0
	12	34.0	33.7	33.4	33.7	35.0	36.2	38.2	38.2	37.0	35.6	34.6	33.5	33.7	34.0	34.5
	13	33.8	32.9	32.9	33.7	35.0	36.4	37.5	37.5	36.7	36.1	35.3	34.6	34.2	34.0	34.8
	14	33.8	33.0	32.4	32.4	33.4	34.6	36.1	36.7	35.6	34.6	33.5	32.6	33.0	33.7	34.2
	15	32.4	32.2	32.2	33.4	35.1	36.2	36.9	37.2	36.7	35.6	34.6	34.0	33.8	33.8	34.0
	16	33.8	33.2	32.7	33.5	34.6	35.6	36.4	35.9	35.8	34.5	33.5	32.7	32.2	33.4	34.0
	17	33.8	33.5	33.2	34.2	36.1	36.9	37.7	36.9	36.7	36.6	35.6	35.0	34.2	34.0	34.6
	18	33.8	33.4	33.2	33.7	34.6	36.4	37.4	37.2	36.7	36.2	35.6	34.0	33.2	33.7	33.8
	19	33.7	33.0	32.2	32.2	33.8	34.0	34.1	34.2	34.1	34.0	33.4	33.3	33.3	33.5	34.1
	20	33.4	32.8	32.3	32.3	32.9	34.8	35.5	36.0	35.7	35.3	34.7	34.2	34.1	34.2	34.3
	21	34.2	33.7	33.1	33.0	32.8	34.9	35.4	35.6	35.5	35.2	34.7	34.3	34.2	34.3	34.3
	22†	34.1	33.4	33.2	33.7	34.1	34.3	34.3	35.0	35.0	34.7	34.3	34.2	34.2	34.3	34.4
	23†	34.1	33.6	33.2	33.7	34.8	35.8	36.2	35.9	35.8	35.5	35.1	35.0	35.1	35.2	35.3
	24	34.8	34.3	34.0	34.2	35.4	36.6	37.1	37.1	36.5	36.5	36.1	35.5	35.5	36.0	36.5
	25†	35.4	34.9	34.6	34.3	35.1	36.1	36.7	36.7	36.1	35.5	35.1	34.5	34.4	35.0	35.5
	26	34.7	34.0	33.7	33.9	34.5	35.6	36.3	36.6	36.3	35.9	35.5	35.0	34.8	35.0	35.0
	27	34.7	33.9	33.4	33.6	33.9	34.2	35.0	35.6	35.6	35.5	35.0	34.5	34.5	34.5	34.5
	28††	34.5	34.2	34.0	34.4	34.7	35.4	35.6	35.6	35.3	34.8	34.5	34.1	34.4	34.7	35.3
	29	34.6	34.1	33.6	33.5	33.9	34.7	35.2	35.8	35.3	35.1	35.0	34.8	34.6	35.0	35.1
	30	34.9	34.5	34.0	34.0	34.7	35.5	36.3	37.0	37.5	37.1	36.0	35.3	35.1	35.1	35.1
	31	34.8	34.0	33.9	34.0	34.2	34.9	35.5	35.1	35.1	34.6	34.1	33.6	33.4	33.9	34.0
	Mean	34.0	33.3	33.0	33.3	34.3	35.5	36.3	36.4	36.0	35.4	34.7	34.0	33.9	34.2	34.5
	Mean†	34.3	33.8	33.4	33.7	34.5	35.5	36.2	36.3	36.2	35.7	35.1	34.5	34.3	34.6	34.9
	Mean††	33.5	32.6	32.4	33.1	34.2	35.4	36.0	35.7	35.2	34.8	34.2	33.7	33.6	33.8	34.1

†Five International quiet days.
 ††Five international disturbed days.
 *Loss of record ; (day omitted for means).

TABLE 2

Hourly Values of Declination (Westerly), 1955

[Averages for sixty minutes centred at the full hours of Greenwich mean time]

August

2° plus tabular quantities

Hours G.M.T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
										H. M.		H. M.			
35.1	35.0	34.6	34.0	34.2	34.2	34.0	34.0	33.8	34.8	06 50	37.0	01 30	33.0	4.0	1†
34.6	34.6	34.5	34.2	34.2	34.2	34.0	34.0	33.8	34.5	06 30	37.4	02 30	32.2	5.2	2
34.6	34.6	34.6	34.5	34.0	34.0	33.8	33.8	33.7	34.4	06 30	36.9	02 10	32.4	4.5	3
33.7	33.8	33.7	33.5	33.7	33.8	33.7	33.7	33.7	33.9	06 58	35.8	01 50	32.2	3.6	4††
34.0	34.3	34.0	34.0	34.0	34.0	34.3	34.0	33.8	34.2	05 30	36.7	02 10	32.2	4.5	5††
33.2	33.5	33.7	33.7	33.2	32.7	32.9	32.9	33.2	33.5	05 54	36.4	11 10	32.1	4.3	6††
34.0	34.0	34.0	33.8	33.8	33.7	33.5	33.7	33.7	33.9	09 22	36.4	02 10	30.6	5.8	7††
34.0	34.0	34.0	34.0	34.2	34.3	34.3	34.0	34.0	34.2	06 30	37.4	02 30	31.4	6.0	8
34.0	34.2	34.8	34.5	34.5	34.6	34.0	34.3	34.2	34.6	06 30	38.5	02 30	32.4	6.1	9
34.0	34.0	34.6	34.6	34.6	34.6	34.6	34.5	34.5	34.4	06 50	36.9	02 30	32.2	4.7	10
34.2	34.6	34.8	34.8	35.1	34.6	34.3	34.5	34.2	34.7	06 30	37.0	02 50	32.2	4.8	11†
34.6	34.6	34.6	34.5	34.3	34.2	34.2	34.0	34.0	34.8	06 30	38.5	02 10	33.0	5.5	12
35.3	35.3	35.3	35.3	34.8	34.5	34.3	34.0	34.0	34.9	06 30	37.7	02 10	32.4	5.3	13
34.2	34.0	33.8	33.8	34.0	33.7	33.5	33.2	32.9	33.9	06 50	36.7	02 54	32.2	4.5	14
34.3	34.3	34.2	34.0	34.0	34.0	34.0	34.0	34.0	34.4	06 50	37.2	01 20	31.8	5.4	15
34.3	34.2	34.0	34.0	34.0	34.0	33.8	33.8	34.0	34.1	05 50	36.4	01 30	32.4	4.0	16
34.8	34.6	34.5	34.2	34.0	34.0	34.0	34.0	34.0	34.9	05 30	37.7	01 50	32.9	4.8	17
34.0	34.0	34.2	34.3	34.2	34.0	34.0	34.0	34.0	34.6	06 06	37.4	02 30	32.9	4.5	18
34.2	34.2	34.2	34.1	33.9	34.1	34.0	33.8	33.7	33.7	07 30	34.3	02 30	32.2	2.1	19
34.3	34.3	34.3	34.3	34.5	34.3	34.3	34.3	34.3	34.2	07 30	36.1	02 30	32.1	4.0	20
34.4	34.3	34.5	34.5	34.5	34.3	34.3	34.3	34.3	34.4	06 30	35.8	02 30	32.8	3.0	21
34.7	34.7	34.6	34.5	34.3	34.3	34.3	34.3	34.3	34.3	07 30	35.2	02 30	32.2	3.0	22†
35.3	35.3	35.3	35.3	35.2	35.2	35.2	35.2	35.1	35.1	05 50	36.2	02 30	32.2	4.0	23†
36.5	36.5	36.4	36.3	36.0	35.9	35.7	35.5	35.5	35.9	06 00	37.2	02 58	32.5	4.7	24
35.5	35.5	35.5	35.4	35.3	35.0	34.9	35.0	35.0	35.3	06 30	37.0	02 10	34.2	2.8	25†
34.9	34.8	34.9	35.0	35.0	34.9	35.0	35.0	34.9	35.1	06 50	36.7	02 10	33.5	3.2	26
34.9	35.1	35.0	35.0	34.8	34.5	34.5	34.5	34.5	34.6	06 50	35.7	02 10	33.3	2.4	27
35.4	35.3	35.2	35.0	35.0	34.7	34.5	34.6	34.7	34.8	07 02	35.9	02 10	33.8	2.1	28††
35.2	35.3	35.3	35.2	35.1	35.1	35.0	35.0	35.0	34.9	07 02	36.1	02 30	33.3	2.8	29
35.1	35.1	35.1	35.1	35.1	35.1	35.1	34.9	34.9	35.3	08 06	37.8	02 50	34.0	3.8	30
34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.1	34.3	07 30	35.6	02 30	33.3	2.3	31
34.6	34.6	34.6	34.5	34.4	34.3	34.3	34.2	34.2	34.5					4.1	Mean
35.0	35.0	35.0	34.8	34.8	34.7	34.5	34.6	34.5							Mean†
34.1	34.2	34.1	34.0	33.9	33.8	33.8	33.8	33.8							Mean††

†Five International quiet days.

††Five International disturbed days

*Loss of record ; (day omitted for means).

TABLE 3

Hourly Values of Declination (Westerly), 1955

[Averages for sixty minutes centred at the full hours of Greenwich mean time]

September

2° plus tabular quantities

Date	Hours G.M.T.														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	33.7	33.0	32.4	33.0	33.7	34.8	35.5	36.8	36.3	35.6	34.6	33.9	33.3	33.5	33.6
2	32.9	31.8	31.2	32.7	33.8	34.6	35.7	36.4	36.1	35.6	35.1	33.2	32.1	32.5	32.8
3	32.9	31.8	31.2	33.0	34.0	34.6	35.7	37.7	37.1	36.5	35.0	32.6	31.6	32.8	33.5
4	33.3	32.2	31.8	32.6	34.3	35.7	37.4	37.8	37.7	36.4	34.3	33.2	32.2	33.2	33.6
5†	33.6	32.2	31.5	32.3	34.3	35.6	36.8	37.5	37.1	35.7	35.1	32.6	32.3	32.9	33.3
6	33.3	32.9	32.2	32.5	34.2	35.7	35.7	36.0	35.8	35.0	33.9	33.0	33.2	33.7	33.9
7	34.0	33.3	33.0	33.0	35.0	35.8	36.4	36.5	36.4	35.7	34.3	33.6	33.5	33.6	33.9
8	33.6	33.0	32.9	33.5	35.0	36.0	37.0	37.5	36.8	35.7	34.7	34.0	33.6	33.6	33.5
9	33.9	33.6	33.5	33.6	34.2	35.0	36.0	36.4	36.1	35.0	34.3	33.6	33.6	34.2	34.3
10	33.7	33.0	32.3	32.5	34.3	35.1	35.7	35.8	35.7	35.7	34.9	34.2	34.3	34.2	34.2
11†	34.3	33.6	33.0	32.9	33.6	34.9	35.0	35.1	35.0	35.0	34.6	34.3	34.0	33.6	33.6
12	34.3	34.2	34.0	33.0	33.6	34.4	35.1	35.4	35.6	35.0	34.3	33.7	33.6	33.2	32.9
13††	34.2	33.2	32.9	33.6	34.3	35.0	35.7	35.7	35.7	35.6	35.1	34.0	34.0	34.3	34.3
14	34.3	33.6	33.5	*	34.6	36.4	37.1	37.1	36.5	36.0	35.0	33.9	33.6	33.6	33.6
15†	33.9	33.3	33.2	33.2	35.0	36.0	36.5	37.0	36.5	35.6	34.9	34.3	34.4	34.3	34.2
16	33.9	33.3	33.0	33.6	35.0	35.8	36.8	36.8	36.3	35.6	34.6	33.5	33.6	33.7	33.6
17	34.2	33.7	33.6	33.5	34.3	34.9	35.6	35.3	34.6	34.0	33.9	34.0	33.7	33.7	34.2
18	34.4	33.7	32.8	32.5	34.3	35.3	36.3	36.3	36.1	35.4	34.7	34.3	34.3	34.3	34.3
19	34.6	33.6	32.9	32.7	35.4	36.5	37.7	37.7	37.7	37.1	35.7	34.9	34.4	34.4	34.6
20	35.1	34.2	32.9	32.5	32.9	34.0	35.7	36.7	37.0	35.6	35.0	34.6	34.3	34.3	34.3
21†	34.3	33.6	32.1	32.6	32.8	34.0	35.4	36.4	36.4	35.8	34.6	34.3	34.3	34.3	34.3
22	34.9	34.0	32.9	32.9	33.6	34.3	35.1	36.7	37.0	36.5	35.6	34.9	34.9	34.6	34.3
23	34.2	33.6	32.8	32.6	33.6	35.3	36.4	37.1	36.4	35.4	34.3	33.9	33.7	34.0	34.0
24	34.6	34.3	33.7	34.2	34.3	35.7	36.8	37.4	37.2	36.7	36.0	35.3	34.6	34.3	34.3
25†	34.3	33.6	33.0	33.6	34.0	34.6	35.7	35.8	35.7	35.0	34.0	33.7	33.5	33.6	33.7
26†	34.4	34.3	34.0	33.7	34.2	34.9	35.0	35.7	35.6	34.9	34.3	34.2	34.2	34.3	34.3
27††	34.9	34.8	34.1	34.0	35.0	36.3	38.5	39.4	39.4	38.8	37.4	36.7	36.1	36.0	36.0
28	35.0	34.3	34.0	35.0	35.4	35.4	35.3	35.9	35.9	35.9	35.3	35.3	35.4	35.3	35.3
29††	35.2	34.3	33.9	33.9	34.2	35.2	36.0	36.7	36.0	34.6	34.2	34.6	35.2	35.3	35.3
30††	34.5	34.3	34.0	34.0	35.0	36.0	36.0	36.0	35.3	35.0	34.3	33.6	32.8	33.6	33.9
Mean	34.1	33.4	32.9	33.2	34.2	35.2	36.1	36.5	36.4	36.0	34.8	34.1	33.8	34.0	34.1
Mean†	34.2	33.7	33.1	33.2	33.9	34.9	35.5	36.0	35.8	35.3	34.5	34.2	34.1	34.0	34.0
Mean††	34.5	33.8	33.3	33.6	34.6	35.6	36.6	37.1	36.7	35.9	35.2	34.3	34.1	34.4	34.6

†Five International quiet days.

††Five International disturbed days.

*Loss of record ; (day omitted for means).

TABLE 3

Hourly Values of Declination (Westerly), 1955

[Averages for sixty minutes centred at the full hours of Greenwich mean time]

September

2° plus tabular quantities

Hours G M T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
									H. M.	'	H. M.	'			
33.3	33.2	33.3	33.6	33.6	33.9	33.6	33.2	33.2	33.9	07 02	37.1	02 05	32.3	4.8	1
32.8	32.8	32.9	33.2	33.2	33.2	33.3	33.5	33.3	33.5	07 08	37.0	01 36	31.1	5.9	2
33.6	33.6	33.7	33.7	33.7	33.9	33.9	33.7	33.6	33.9	07 10	38.0	12 02	31.2	6.8	3
33.7	33.7	33.9	34.2	34.2	34.0	34.3	34.3	34.2	34.3	06 30	37.9	02 08	31.5	6.4	4
33.5	33.5	33.7	33.9	33.6	33.6	33.6	33.6	33.5	34.0	06 32	37.7	01 32	31.2	6.5	5††
34.0	34.3	34.3	34.3	34.4	34.6	34.3	34.3	34.3	34.2	07 42	36.1	02 34	32.1	4.0	6
34.0	34.2	34.2	34.2	34.2	34.2	34.3	34.3	34.2	34.0	07 08	36.8	01 30	32.6	4.2	7
33.6	33.6	33.6	33.9	34.3	34.3	34.3	34.3	34.0	34.4	06 55	37.7	02 20	32.5	5.2	8
34.3	34.3	34.4	34.4	34.6	34.7	34.9	34.4	34.0	34.5	07 04	36.4	11 30	33.0	3.4	9
34.2	34.3	34.3	34.3	34.4	34.4	34.4	34.4	34.3	34.4	06 56	36.1	02 04	32.2	3.9	10
33.6	33.6	33.7	34.0	34.3	34.3	34.3	34.3	34.4	34.1	07 15	35.7	03 10	32.6	3.1	11†
32.9	33.3	33.6	33.9	34.0	34.2	34.2	34.3	34.2	34.0	06 14	35.8	14 08	32.6	3.2	12
33.6	34.0	34.2	34.2	34.2	34.3	34.3	34.3	34.4	34.4	06 12	35.7	01 26	32.8	2.9	13††
33.6	33.7	33.9	33.9	33.9	33.9	33.7	33.7	33.9	33.9	*	*	*	*	*	14
34.0	34.2	34.0	33.9	33.9	33.7	33.7	33.7	33.9	34.5	07 04	37.1	01 13	32.9	4.2	15†
33.6	34.2	34.3	34.0	34.0	33.7	33.7	33.9	34.2	34.4	06 30	37.4	01 38	32.9	4.5	16
34.3	34.3	34.3	34.2	34.2	34.2	34.2	34.3	34.3	34.2	06 13	35.7	13 05	33.5	2.2	17
34.4	34.3	34.3	34.3	34.3	34.4	34.4	34.6	34.6	34.5	06 30	36.4	02 04	32.3	4.1	18
34.4	34.3	34.7	34.9	35.0	35.0	35.0	35.0	35.1	35.1	06 12	37.8	02 14	32.2	5.6	19
34.3	34.3	34.2	34.0	34.0	34.2	34.2	34.2	34.3	34.5	08 00	37.1	02 42	31.8	5.3	20
34.3	34.3	34.3	34.3	34.4	34.4	34.7	34.6	34.9	34.4	07 40	36.5	03 10	32.1	4.4	21†
34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	34.3	07 30	37.8	02 10	32.6	5.2	22
34.0	34.3	34.2	34.2	34.3	34.3	34.3	34.3	34.3	34.6	07 00	37.5	02 36	32.1	5.4	23
34.4	34.3	34.2	34.3	34.2	34.0	34.0	34.3	34.4	34.9	07 12	37.7	01 30	33.6	4.1	24
33.7	34.0	34.2	34.3	34.3	34.3	34.3	34.3	34.3	34.2	06 48	36.4	03 10	32.8	3.6	25†
34.3	34.3	34.3	34.3	34.3	34.3	34.4	34.9	35.0	34.5	07 25	35.8	02 05	33.5	2.3	26†
36.0	35.9	36.0	36.0	36.0	35.3	35.7	35.3	35.3	36.2	07 46	39.5	03 34	32.9	6.6	27††
35.3	35.3	35.3	35.2	35.3	35.0	34.7	34.9	35.0	35.2	07 18	36.0	02 00	33.9	2.1	28
35.0	34.6	34.3	34.0	33.9	34.3	34.0	34.1	34.6	34.7	06 56	36.8	03 10	33.1	3.7	29††
34.0	34.3	34.2	34.5	34.5	34.6	33.9	33.9	33.9	34.4	07 06	36.1	11 25	32.7	3.4	30††
34.0	34.1	34.2	34.2	34.3	34.3	34.2	34.3	34.3	34.4					4.4	Mean
34.0	34.1	34.1	34.2	34.2	34.2	34.3	34.4	34.5							Mean†
34.4	34.5	34.5	34.5	34.4	34.4	34.3	34.2	34.3							Mean††

† Five International quiet days.

†† Five International disturbed days.

* Loss of record ; (day omitted for means).

TABLE 4

Hourly Values of Declination (Westerly), 1955

[Averages for sixty minutes centred at the full hours of Greenwich mean time]

October

2° plus tabular quantities

Date	Hours G. M. T.														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	33.9	32.8	32.8	33.9	34.9	36.0	36.8	36.7	35.9	35.0	33.9	33.2	33.9	34.3	34.2
2	34.0	33.3	33.5	34.3	35.4	36.7	37.7	37.7	36.4	34.6	33.9	33.5	33.8	34.0	33.9
3	34.2	33.9	33.6	33.8	34.9	36.1	36.0	36.7	35.9	34.2	33.9	33.8	33.6	34.0	34.0
4	34.0	33.8	33.9	34.3	35.6	37.3	38.0	37.4	36.6	35.2	33.8	33.8	33.8	33.9	33.9
5††	34.0	33.1	32.9	33.1	34.0	35.7	37.0	37.7	36.4	34.9	33.9	33.8	33.8	33.8	33.6
6††	34.2	33.9	33.8	33.3	33.6	34.2	35.2	35.4	35.2	33.9	33.2	33.2	33.8	33.9	33.9
7	34.0	33.8	32.9	33.2	34.0	35.2	36.4	36.8	36.8	36.7	35.3	34.3	34.0	33.9	33.9
8	35.4	35.6	34.9	34.0	33.8	34.6	35.9	35.7	35.3	35.0	34.2	33.9	34.0	33.9	33.9
9	34.6	34.6	34.0	34.0	34.6	35.7	36.7	37.4	36.8	36.0	35.2	34.5	34.2	34.2	34.0
10	35.2	35.0	34.0	32.9	33.2	34.0	35.9	36.6	35.6	34.9	33.9	33.8	33.9	33.2	33.1
11	33.9	33.6	33.5	33.9	34.2	34.7	36.1	36.4	35.6	34.2	33.2	32.5	32.5	32.5	32.6
12†	33.9	33.3	32.8	32.9	34.0	35.0	35.4	36.0	35.2	33.9	32.9	32.5	33.2	33.8	33.8
13†	34.7	34.5	34.0	33.7	34.7	35.3	35.6	35.6	35.0	34.0	33.7	33.9	34.0	34.2	34.0
14	35.2	34.9	34.3	34.2	34.6	35.3	35.7	35.6	35.0	34.5	34.2	34.0	34.6	34.7	34.7
15	35.2	35.2	34.9	35.2	35.3	35.7	36.4	36.3	35.6	35.3	35.0	34.3	34.7	35.0	35.0
16	35.2	35.2	35.0	34.3	34.2	35.0	35.3	35.3	35.2	34.3	33.9	33.9	34.2	34.5	34.7
17	35.2	34.7	34.2	34.9	36.0	37.0	37.5	37.3	36.7	36.3	35.4	35.3	35.2	35.3	35.2
18†	35.2	34.5	34.4	33.9	34.3	35.4	36.6	36.8	35.9	34.9	33.9	34.0	34.9	35.2	35.0
19†	35.2	35.3	34.6	34.2	35.0	36.0	37.0	36.8	36.3	35.3	34.6	34.0	34.6	34.5	34.3
20	35.2	35.2	34.5	34.7	35.4	37.0	37.4	37.5	36.6	35.3	34.3	34.0	34.3	34.0	33.9
21	34.6	34.9	35.3	35.7	36.4	36.3	36.7	36.7	35.9	34.6	33.9	33.9	33.9	33.9	34.0
22	34.3	34.0	33.9	33.9	34.6	34.5	34.8	36.4	35.6	35.0	34.2	33.9	34.0	33.8	33.6
23	34.7	34.3	34.0	34.2	35.2	36.3	37.0	36.8	36.6	35.9	35.7	35.4	34.7	33.9	34.0
24†	34.9	35.0	34.3	35.0	35.3	36.3	36.7	36.1	35.0	34.2	33.9	33.8	34.3	34.7	34.6
25††	35.4	35.6	35.2	34.0	34.3	35.3	36.7	36.6	35.0	32.6	32.4	31.1	31.8	30.8	31.8
26††	34.2	34.6	35.0	35.9	35.2	35.9	36.7	35.6	35.2	34.6	34.3	33.9	34.0	33.9	33.9
27	34.6	34.6	34.5	34.6	34.7	34.4	35.3	34.6	33.9	33.8	33.6	33.8	33.8	33.9	33.8
28	34.6	34.6	35.0	35.7	35.6	36.3	36.1	35.0	33.8	33.2	32.3	32.5	32.6	32.8	32.8
29	34.0	34.0	34.7	34.5	34.7	35.0	35.3	35.0	34.6	33.8	32.9	33.5	33.9	33.8	33.8
30	34.0	33.8	34.2	35.7	35.7	36.1	36.8	36.6	35.6	34.6	33.8	33.8	34.0	34.8	34.6
31††	34.6	34.2	34.0	33.9	34.0	34.7	35.9	35.4	35.3	35.2	35.2	34.9	34.2	34.0	33.9
Mean . . .	34.6	34.4	34.1	34.2	34.7	35.6	36.3	36.3	35.6	34.7	34.0	33.8	33.9	34.0	33.9
Mean† . . .	34.8	34.5	34.0	33.9	34.7	35.6	36.3	36.3	35.5	34.5	33.8	33.6	34.2	34.5	34.3
Mean†† . . .	34.5	34.3	34.2	33.9	34.2	35.2	36.3	36.1	35.4	34.2	33.8	33.4	33.5	33.3	33.4

† Five International quiet days.

†† Five International Disturbed days.

* Loss of record ; (day omitted for means).

TABLE 4

Hourly Values of Declination (Westerly), 1955

[Averages for sixty minutes centred at the full hours of Greenwich mean time]

October

2° plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
									H M		H. M				
34.2	34.2	34.2	34.2	34.0	34.0	33.9	33.9	34.0	34.4	06 37	37.3	01 38	32.6	4.7	1
33.9	34.2	34.2	34.2	33.9	34.2	33.9	34.0	34.0	34.5	06 54	38.1	01 14	33.2	4.9	2
34.2	33.9	34.2	33.9	33.9	33.8	33.9	33.9	34.0	34.3	07 30	37.0	01 45	33.6	3.4	3
33.9	34.0	34.2	34.2	34.0	34.0	34.0	34.0	34.2	34.7	06 00	38.1	01 24	33.8	4.3	4
33.8	34.3	33.9	33.8	33.5	33.8	33.9	34.7	34.3	34.3	06 51	38.1	02 22	32.9	5.2	5††
33.8	33.6	34.0	33.8	33.8	33.9	33.9	33.9	34.0	34.0	07 00	36.1	10 43	33.1	3.0	6††
33.9	33.9	33.9	33.9	33.9	33.9	33.9	34.0	34.6	34.4	07 35	37.3	02 17	32.9	4.4	7
33.9	34.0	34.2	34.0	34.2	34.2	34.2	34.2	34.3	34.5	06 31	36.7	04 27	33.3	3.4	8
34.0	34.0	34.2	34.0	34.0	34.2	34.6	35.2	35.2	34.8	07 15	38.0	14 05	34.0	4.0	9
33.1	33.2	33.3	33.9	33.6	33.8	33.9	33.9	33.9	34.1	06 40	37.4	03 00	32.8	4.6	10
33.1	33.2	33.6	33.8	33.9	33.9	33.9	33.9	33.9	33.9	06 46	36.7	11 13	32.5	4.2	11
33.8	33.8	33.9	33.9	33.9	33.9	34.0	34.3	34.5	33.9	06 45	36.4	10 39	32.5	3.9	12†
34.0	34.0	34.2	34.2	34.3	34.3	34.6	34.6	35.0	34.4	06 40	36.0	10 15	33.7	2.3	13†
34.9	34.9	34.7	34.7	34.6	34.6	34.9	35.0	35.2	34.8	06 30	35.9	10 47	34.0	1.9	14
35.0	35.2	35.0	34.9	35.0	35.2	35.2	35.2	35.2	35.2	06 46	36.7	11 00	34.3	2.4	15
35.0	34.6	34.6	34.6	34.7	35.0	35.2	35.2	35.3	34.8	05 50	35.4	10 30	33.9	1.5	16
35.2	35.2	35.3	35.3	34.9	34.7	35.0	35.2	35.3	35.5	06 28	38.1	02 20	34.2	3.9	17
35.0	35.0	35.2	35.0	35.0	34.7	35.0	35.0	35.0	35.0	06 38	37.1	02 40	33.9	3.2	18†
34.2	34.3	34.5	34.6	34.5	34.5	34.5	34.7	35.0	34.9	06 15	37.4	11 12	34.0	3.4	19†
33.9	33.9	33.9	33.9	33.9	34.2	34.3	34.5	34.6	34.9	05 15	37.8	02 15	33.9	3.9	20
34.0	34.0	34.0	34.0	34.0	34.0	34.2	34.3	34.2	34.7	06 50	36.9	10 34	33.8	3.1	21
33.8	33.8	33.9	33.8	33.9	34.2	34.3	34.3	34.7	34.3	06 05	36.7	15 36	33.3	3.4	22
34.0	34.2	34.0	34.0	34.0	34.2	34.3	34.5	34.6	34.9	06 05	37.1	13 06	33.9	3.2	23
34.6	34.7	35.0	34.9	34.9	34.9	35.2	35.3	35.3	35.0	05 42	36.7	10 45	33.3	3.4	24†
31.7	32.4	32.5	32.5	32.9	34.0	33.9	34.3	34.0	33.6	06 30	37.3	12 45	30.1	7.2	25††
33.9	34.0	34.3	34.2	34.0	34.0	34.2	34.2	34.5	34.6	06 00	36.7	11 10	33.8	2.9	26††
33.6	33.9	34.0	33.9	34.0	34.3	34.6	34.5	34.6	34.2	05 30	35.6	09 30	33.1	2.5	27
33.2	33.9	34.0	33.9	34.0	34.3	34.3	34.5	34.6	34.2	05 26	36.4	10 00	31.9	4.5	28
33.6	33.5	33.9	33.8	34.0	34.0	34.0	34.2	34.0	34.1	05 30	35.3	09 55	32.8	2.5	29
34.6	34.7	34.6	34.7	34.5	34.2	34.3	34.6	34.6	34.8	05 34	37.0	10 10	33.3	3.7	30
33.9	33.9	33.9	34.0	33.9	33.9	33.6	34.0	34.5	34.4	06 15	35.9	15 25	33.6	2.3	31††
34.0	34.1	34.2	34.1	34.1	34.2	34.3	34.5	34.6	34.5					3.6	Mean
34.3	34.4	34.6	34.5	34.5	34.5	34.7	34.8	35.0							Mean†
33.4	33.6	33.7	33.7	33.6	33.9	33.9	34.2	34.3							Mean††

† Five international quiet days.

†† Five international disturbed days.

* Loss of record ; (day omitted for means)‡

TABLE 5

Hourly Values of Declination (Westerly), 1955
 [Averages for sixty minutes centred at the full hours of Greenwich mean time]

November

2° plus tabular quantities

Date	Hours G M T.														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	34.3	34.2	34.0	34.8	34.7	34.8	35.3	34.7	34.6	34.5	34.7	35.2	35.3	35.0	35.2
2	35.3	35.3	34.8	35.0	34.9	35.4	36.0	35.8	35.4	34.8	34.5	34.4	34.4	34.0	33.7
3†	35.1	35.2	35.1	34.7	35.4	36.2	36.4	35.9	35.4	34.7	34.4	34.4	34.4	34.4	34.4
4††	35.4	35.7	35.1	34.8	34.4	34.7	35.2	35.2	35.0	34.4	33.8	33.0	33.1	33.4	33.4
5	34.3	34.0	33.4	34.2	33.0	33.8	34.5	34.8	34.7	34.1	33.4	33.3	33.4	33.6	33.7
6†	34.8	34.8	34.5	34.7	35.4	35.8	36.1	35.9	35.8	35.4	34.8	34.4	34.3	34.3	34.4
7†	35.2	35.7	35.7	35.2	35.1	35.1	35.8	35.5	35.0	34.7	34.4	34.0	34.1	34.4	34.3
8	35.2	35.7	36.1	36.4	36.1	36.1	36.2	35.2	34.7	34.3	33.8	34.1	34.4	34.5	34.4
9	35.8	35.7	35.7	35.5	36.1	35.9	36.2	35.8	35.2	35.0	34.7	34.8	34.7	34.4	34.3
10	35.2	35.5	35.2	35.0	34.7	35.4	35.8	35.4	34.7	34.4	34.4	34.5	35.1	34.8	34.5
11	35.2	35.7	35.8	35.2	34.4	35.0	35.8	35.7	35.8	35.8	35.2	35.0	35.1	35.0	34.7
12	35.7	36.2	36.6	36.4	35.9	35.6	37.1	36.8	35.7	34.7	34.3	34.5	34.5	34.4	34.4
13	35.0	35.7	35.8	35.9	35.0	34.1	34.3	34.4	34.4	34.4	34.5	34.4	34.4	34.3	34.1
14	35.2	35.8	35.8	35.7	34.5	34.5	34.5	34.4	34.0	34.1	34.1	34.3	34.7	34.5	34.4
15	35.4	35.9	36.9	36.6	36.8	35.8	35.8	34.4	34.4	34.3	33.6	33.0	32.9	33.0	33.4
16††	35.7	35.8	36.2	35.8	34.8	34.7	34.8	34.7*	34.0	33.4	33.6	34.0	33.6	33.3	33.1
17	34.8	35.1	34.7	34.4	34.5	34.4	34.8	35.4	35.4	35.1	34.8	34.5	34.4	34.4	34.3
18††	35.2	35.2	35.3	35.1	34.4	34.3	33.1	34.3	34.1	34.3	34.5	34.4	34.3	34.5	34.5
19††	34.0	34.5	35.7	36.4	35.9	35.7	35.0	34.8	34.3	33.7	33.3	32.3	31.7	31.7	31.2
20††	35.2	35.8	35.9	34.8	34.5	34.5	34.5	34.0	33.3	33.3	33.0	32.3	32.4	33.0	32.6
21	35.7	35.8	35.7	34.8	34.4	34.1	34.3	34.4	34.0	34.0	34.1	34.1	33.7	33.4	33.4
22†	34.5	34.8	34.8	34.8	35.4	35.9	36.5	36.6	35.7	35.1	34.3	34.1	33.6	33.1	33.1
23†	34.8	35.2	35.1	34.5	34.5	34.5	35.0	35.2	35.1	34.7	34.5	34.4	34.4	34.3	34.3
24	35.5	35.8	35.9	35.8	35.1	34.7	35.2	35.0	34.7	34.5	34.4	34.4	34.4	34.4	34.2
25	35.8	35.9	35.9	35.2	34.5	34.7	34.5	34.5	34.4	34.1	34.4	35.2	34.8	34.4	34.4
26	35.8	36.1	36.1	35.1	34.4	34.7	35.7	35.5	35.5	35.7	35.5	35.4	35.4	35.0	34.5
27	35.8	36.2	36.5	36.1	35.1	35.2	35.4	35.0	34.5	34.5	34.5	34.3	34.3	34.4	34.4
28	35.8	36.1	36.6	36.5	35.7	34.7	34.7	35.1	34.7	34.4	34.5	34.0	33.7	34.1	34.3
29	35.5	35.9	36.8	36.5	35.9	35.8	35.5	35.0	34.3	34.0	34.3	34.3	34.4	34.4	34.4
30	35.5	35.8	36.1	36.1	34.7	34.7	35.0	35.5	34.8	34.5	34.7	34.8	34.7	34.4	34.4
Mean . . .	35.2	35.5	35.6	35.2	35.0	35.0	35.3	35.2	34.8	34.5	34.3	34.2	34.2	34.1	34.0
Mean† . . .	34.9	35.1	35.0	34.8	35.1	35.5	36.0	35.8	35.4	34.9	34.5	34.3	34.2	34.1	34.1
Mean†† . . .	35.1	35.4	35.6	35.4	34.8	34.8	34.5	34.6	34.1	33.8	33.6	33.2	33.0	33.2	33.0

† Five international quiet days.

†† Five international disturbed days.

* Loss of record ; (day omitted for means).

TABLE 5

Hourly Values of Declination (Westerly), 1955

[Averages for sixty minutes centred at the full hours of Greenwich mean time]

November

2° plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag	Time	Mag		
										H. M.		H. M.			
35.2	35.2	35.2	35.0	35.2	35.2	35.0	35.3	35.3	34.9	06 42	35.5	02 26	33.9	1.6	1
34.0	33.8	34.0	34.1	34.0	34.3	34.4	34.4	34.8	34.6	05 50	36.2	13 30	33.7	2.5	2
34.4	34.5	34.8	34.7	34.7	35.2	35.4	35.4	35.4	35.0	05 40	36.8	11 35	34.1	2.7	3†
33.8	34.0	34.3	34.3	34.4	34.4	34.4	34.3	34.4	34.4	01 15	35.7	11 27	32.9	2.8	4††
34.0	34.3	34.3	34.3	34.4	34.7	34.8	34.8	34.8	34.1	06 36	35.0	03 40	33.0	2.0	5
34.4	34.4	34.4	34.4	34.4	34.7	34.7	34.7	35.0	34.9	06 20	36.1	11 40	34.3	1.8	6†
34.4	34.4	34.4	34.4	34.4	34.4	34.7	35.0	35.0	34.8	05 55	35.8	11 07	33.7	2.1	7†
34.3	34.1	34.3	34.4	34.5	35.0	34.8	34.7	35.2	34.9	02 55	36.5	09 50	33.6	2.9	8
34.4	34.4	34.3	34.1	34.1	34.3	34.4	34.5	34.7	35.0	04 16	36.8	18 31	34.1	2.7	9
34.4	34.5	34.4	34.4	34.4	34.7	34.7	34.7	35.0	34.8	05 52	35.8	09 35	34.3	1.5	10
34.4	34.5	34.8	34.7	34.7	35.0	35.0	35.5	35.1	35.1	01 35	35.9	04 16	34.3	1.6	11
34.3	34.3	33.8	33.6	33.1	33.3	33.8	34.4	34.5	34.9	06 00	37.1	18 40	33.0	4.1	12
34.3	34.3	34.3	34.1	34.1	34.3	34.4	34.7	35.0	34.6	01 29	35.9	04 52	34.0	1.9	13
34.4	34.4	34.4	34.3	34.3	34.4	34.5	34.8	35.1	34.6	00 59	35.9	08 15	33.6	2.3	14
33.1	33.6	33.7	34.3	34.3	34.1	34.5	35.0	35.4	34.6	01 45	36.9	11 58	32.9	4.0	15
33.6	33.8	33.3	33.1	33.4	33.7	34.2	34.7	34.5	34.2	02 22	36.4	13 30	33.0	3.4	16††
34.7	34.7	34.8	34.8	34.8	34.9	35.0	35.1	35.1	34.8	04 12	35.1	04 38	33.7	1.4	17
34.4	34.4	34.3	33.1	33.1	32.9	33.1	33.3	33.4	34.1	04 38	35.4	05 35	32.4	3.0	18††
30.5	31.5	31.6	32.6	33.0	33.6	35.2	35.2	35.2	33.7	02 50	36.9	15 02	29.5	7.4	19††
32.2	31.7	32.9	32.9	33.6	34.3	34.4	34.4	35.2	33.8	01 25	36.9	15 37	31.6	5.3	20††
33.6	34.0	34.1	34.1	34.3	34.4	34.4	34.5	34.5	34.3	00 00	35.8	14 02	33.4	2.4	21
33.6	33.8	34.1	34.3	34.4	34.5	34.5	34.8	35.0	34.6	06 45	37.1	13 37	33.1	4.0	22†
34.3	34.4	34.4	34.4	34.5	34.8	35.1	35.5	35.5	34.7	23 35	35.7	13 40	34.3	1.4	23†
34.1	34.1	34.2	34.2	34.2	34.4	34.5	35.1	35.5	34.8	02 00	35.9	17 55	34.1	1.8	24
34.4	34.4	34.4	34.4	34.5	34.8	35.4	35.5	35.7	34.8	01 20	35.9	08 58	33.8	2.1	25
34.5	34.7	34.5	34.5	34.7	34.8	35.1	35.2	35.5	35.2	01 20	36.1	04 18	34.3	1.8	26
34.4	34.4	34.5	34.7	34.7	35.1	35.2	35.5	35.7	35.0	01 40	36.5	11 40	34.3	2.2	27
34.3	34.4	34.5	34.7	34.8	35.0	34.8	35.0	35.0	34.9	01 45	36.8	12 05	33.4	3.4	28
34.4	34.4	34.5	34.5	34.5	34.7	35.1	35.4	35.5	35.0	03 10	36.8	08 45	33.7	3.1	29
34.4	34.5	34.8	34.8	35.1	35.2	35.5	35.8	35.8	35.1	01 40	36.1	14 30	34.4	1.7	30
34.0	34.2	34.2	34.2	34.3	34.5	34.7	34.9	35.1	34.7					2.7	Mean
34.2	34.3	34.4	34.4	34.5	34.7	34.9	35.1	35.2							Mean†
32.9	33.1	33.3	33.2	33.5	33.8	34.3	34.4	34.7							Mean†

† Five international quiet days.

†† Five international disturbed days.

* Loss of record; (day omitted for means).

TABLE 6

Hourly values of Declination (Westerly), 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time)

December

2° plus tabular quantities

Date	Hours G M T														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1††	35.6	36.5	35.9	36.1	35.5	35.1	35.4	35.7	36.2	35.8	34.7	34.1	34.4	34.5	34.0
2	35.2	35.8	36.9	36.9	36.6	36.5	35.9	35.9	35.2	34.5	34.4	34.3	34.4	34.3	34.4
3	35.8	35.9	36.1	36.1	35.8	35.2	36.9	36.6	35.9	34.7	34.7	35.1	34.7	34.4	34.3
4	36.1	36.8	37.3	36.9	36.1	35.8	35.2	35.4	34.7	34.8	35.2	35.4	34.8	34.7	34.5
5	35.8	35.9	36.8	36.5	35.8	35.7	35.8	35.8	35.7	35.5	34.8	35.0	35.0	34.7	34.7
6††	35.9	35.8	35.8	35.2	34.5	35.4	35.9	36.1	35.8	35.8	35.7	35.7	35.5	34.7	34.5
7	35.0	35.1	35.5	35.2	35.0	35.1	34.5	34.7	35.0	35.1	34.8	34.8	35.0	34.8	34.7
8	35.8	36.1	36.4	35.8	35.5	35.5	35.8	35.9	35.7	35.1	35.5	35.0	35.1	35.4	35.1
9	35.4	35.8	35.7	35.7	35.8	35.4	34.5	33.9	33.6	33.8	34.4	34.5	34.5	34.8	34.5
10	35.7	36.1	36.6	36.8	36.4	36.1	35.9	36.8	36.4	36.1	35.8	35.6	35.7	34.7	34.7
11	35.4	35.7	35.8	35.9	36.2	36.2	36.4	36.4	35.8	35.2	35.5	35.5	35.1	35.1	34.7
12	35.8	35.9	36.8	36.4	35.8	35.7	35.9	35.2	35.4	34.4	34.8	35.4	35.4	35.1	35.0
13†	35.7	35.8	36.1	35.8	35.2	34.8	35.2	35.5	35.1	34.7	34.5	34.5	34.7	35.0	35.1
14†	36.4	36.9	37.2	37.8	37.2	37.2	36.9	36.8	36.1	35.8	35.5	35.4	35.5	35.7	35.8
15	36.2	36.4	36.9	36.5	35.9	35.7	35.8	36.2	35.8	35.7	35.8	35.5	35.5	35.7	35.7
16	36.5	36.6	37.2	36.8	36.5	36.2	35.8	35.8	35.4	34.7	34.5	34.5	34.8	35.1	35.0
17	36.5	36.9	37.5	37.5	37.2	37.2	37.2	36.5	36.1	36.2	36.0	35.8	35.5	35.7	35.5
18†	36.6	36.6	37.1	37.2	37.3	37.2	37.1	36.5	36.2	35.7	35.0	34.8	35.2	35.5	35.2
19	36.8	36.9	37.2	37.2	35.9	35.9	37.2	37.5	37.5	35.9	34.7	34.5	35.2	35.4	35.2
20	36.6	36.4	36.8	36.4	35.8	35.8	35.4	35.1	35.0	34.5	34.3	34.3	34.5	34.5	34.4
21	36.6	36.9	37.5	37.2	36.8	36.4	36.8	36.1	35.8	35.7	35.5	34.8	35.2	35.0	34.3
22	36.5	36.8	36.9	36.4	35.7	35.5	35.7	35.2	34.5	34.5	35.0	35.2	35.5	35.7	35.4
23†	36.4	36.9	37.2	36.9	36.2	35.5	35.8	35.8	35.5	35.7	35.8	35.7	35.4	35.5	35.2
24	36.5	36.6	36.9	36.8	36.2	36.4	36.8	36.9	36.9	36.4	35.7	35.0	35.2	35.0	34.7
25††	35.9	37.1	37.3	36.9	36.6	35.7	35.2	35.7	35.0	34.5	34.7	34.5	35.0	35.1	34.3
26††	35.8	36.1	36.6	36.6	36.5	36.4	36.1	35.8	35.8	35.7	35.4	35.0	34.7	34.7	34.4
27††	36.6	36.4	36.2	36.2	36.5	36.1	35.8	35.7	35.7	35.5	35.0	34.4	34.4	34.5	34.4
28	36.1	36.2	36.2	35.8	35.8	35.4	35.8	35.6	37.1	37.1	35.7	34.7	34.8	35.1	34.7
29†	36.6	36.8	36.9	36.6	36.1	35.2	34.4	33.8	34.1	35.4	35.7	35.1	35.1	35.0	34.7
30	35.9	36.2	36.6	36.9	36.9	36.8	36.5	35.9	35.9	35.8	35.2	34.8	35.0	35.0	34.8
31	36.6	36.9	36.9	37.1	36.9	36.8	36.1	35.7	36.1	35.4	34.7	34.7	35.0	35.4	35.1
Mean . . .	36.1	36.3	36.7	36.5	36.1	35.9	35.9	35.8	35.6	35.5	35.1	35.0	35.0	35.0	34.8
Mean†	36.3	36.6	36.9	36.8	36.4	36.0	35.9	35.7	35.4	35.5	35.3	35.1	35.2	35.3	35.2
Mean††	36.0	36.4	36.4	36.2	35.9	35.7	35.7	35.8	35.7	35.5	35.1	34.7	34.8	34.7	34.3

† Five international quiet days.

†† Five international disturbed days.

* Loss of record ; (day omitted for means)

TABLE 6

Hourly values of Declination (Westerly), 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time)

December

2° plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
34.4	34.3	34.4	34.1	33.4	33.8	34.1	34.1	34.7	34.9	01 25	36.5	19 30	33.0	3.5	1††
34.4	34.5	34.7	34.8	35.1	35.1	35.2	35.4	35.7	35.3	02 10	37.1	11 01	34.1	3.0	2
34.3	34.5	34.8	35.2	34.8	34.7	35.4	35.7	35.9	35.3	06 32	37.1	14 35	34.0	3.1	3
34.7	34.9	35.2	35.4	35.4	35.5	35.7	35.7	35.7	35.5	01 55	37.8	13 32	34.4	3.4	4
34.7	34.7	35.0	35.2	35.1	35.0	35.2	35.7	36.5	35.4	02 30	37.1	13 12	34.5	2.6	5
34.5	34.5	34.5	34.5	34.5	34.5	34.5	34.4	34.5	35.1	06 30	37.2	03 35	34.4	2.8	6††
34.5	34.5	34.7	34.8	35.0	35.2	35.5	35.7	35.7	35.0	23 58	35.8	06 22	34.4	1.4	7
35.2	34.8	34.8	34.7	35.1	35.1	35.2	34.7	35.0	35.3	01 35	36.5	17 37	34.5	2.0	8
34.5	34.5	34.5	34.5	34.5	34.7	35.0	35.2	35.4	34.8	01 32	35.9	08 30	33.0	2.9	9
34.8	34.8	34.7	34.5	34.5	34.7	34.8	34.7	35.0	35.5	02 34	37.1	13 02	34.4	2.7	10
35.1	35.1	35.1	34.8	35.0	35.2	35.2	35.4	35.4	35.5	09 55	36.4	11 50	34.5	1.9	11
34.8	35.0	34.7	34.5	34.5	34.7	34.5	34.8	35.5	35.3	02 30	37.1	09 10	34.3	2.8	12
35.4	35.5	35.7	35.5	35.5	35.7	35.8	35.8	35.9	35.4	02 00	36.1	09 32	34.4	1.7	13†
35.8	35.8	35.7	35.7	35.7	35.8	35.8	35.8	35.9	36.1	03 06	37.3	11 25	35.1	2.2	14†
35.7	35.8	35.7	35.7	35.8	35.8	35.8	35.9	36.4	35.9	01 41	36.9	11 07	35.2	1.7	15
34.8	35.2	35.2	35.5	35.7	35.8	36.1	36.1	36.4	35.7	01 50	37.2	10 45	34.3	2.9	16
35.7	35.7	35.8	35.7	35.7	35.8	36.1	36.2	36.4	36.3	02 40	37.5	11 50	35.2	2.3	17
35.4	35.5	35.7	35.7	35.7	35.8	35.9	36.4	36.6	36.1	02 45	37.2	10 35	34.4	2.8	18†
35.1	34.7	34.5	34.8	35.0	35.2	35.5	35.8	36.2	36.1	07 10	37.5	11 15	34.4	3.1	19
34.7	35.1	35.2	35.5	35.8	35.8	36.1	36.2	36.5	35.4	02 26	37.1	11 15	33.7	3.4	20
34.3	34.4	34.4	34.8	35.4	35.8	35.9	36.1	36.4	35.8	02 35	37.2	14 30	34.1	3.1	21
34.8	34.8	35.4	35.4	35.5	35.8	35.9	35.9	36.1	35.7	01 35	36.9	09 15	34.4	2.5	22
35.1	35.2	35.5	35.8	35.8	36.1	36.2	36.4	36.4	35.9	01 50	37.2	14 52	34.8	2.4	23†
34.8	34.8	35.0	35.1	35.2	35.4	35.5	35.7	35.8	35.8	02 35	37.1	11 20	34.7	2.4	24
34.0	34.3	34.4	34.4	34.4	34.8	35.0	35.5	35.7	35.3	01 50	37.3	14 50	33.6	3.7	25††
34.1	34.0	34.4	34.5	35.0	34.5	34.8	35.7	35.4	35.3	02 22	36.6	15 37	33.7	2.9	26††
34.4	34.5	35.0	35.1	35.2	35.3	35.4	35.6	35.7	35.4	04 54	36.9	10 05	33.7	3.2	27††
34.5	35.0	35.0	35.0	35.5	35.7	35.8	36.1	36.4	35.6	08 00	37.1	11 05	34.4	2.7	28
34.8	35.0	35.1	35.1	35.2	35.5	35.7	35.7	35.8	35.4	02 00	37.2	07 25	33.4	3.8	29†
35.0	35.2	35.5	35.4	35.5	35.7	35.8	35.9	36.4	35.8	03 10	37.1	11 00	34.5	2.6	30
35.1	35.2	35.1	34.8	35.1	35.2	35.4	35.5	35.7	35.6	03 05	37.3	10 00	34.5	2.8	31
34.8	34.9	35.0	35.0	35.1	35.3	35.4	35.6	35.8	35.5					2.7	Mean
35.3	35.4	35.5	35.6	35.6	35.8	35.9	36.0	36.2							Mean†
34.3	34.3	34.5	34.5	34.5	34.6	34.8	35.1	35.2							Mean††

† Five international quiet days.

†† Five international disturbed days.

* Loss of record ; (day omitted for means).

TABLE 7

Hourly values of Horizontal Force, 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time)

July

39,000 γ plus tabular quantities

Date	Hours G.M.T														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	471	473	473	484	510	517	529	537	536	502	476	452	455	466	472
2††	473	476	485	498	525	537	532	519	501	485	470	471	477	485	482
3	430	445	462	485	497	505	482	457	445	446	446	441	441	441	441
4†	451	457	469	482	498	510	513	505	465	478	470	458	455	452	453
5†	454	460	468	484	501	503	506	505	497	481	474	468	462	465	460
6	463	469	476	491	511	528	533	545	525	497	478	469	465	465	468
7	473	462	460	466	468	471	477	482	486	478	470	457	449	452	452
8	463	465	473	485	495	516	533	529	540	529	501	477	458	445	453
9	470	469	474	482	489	505	518	526	521	504	481	466	457	457	460
10	460	463	467	485	513	540	553	540	516	493	470	461	449	449	453
11††	449	449	453	484	503	524	529	511	501	482	457	445	444	433	433
12††	452	450	446	462	472	493	510	516	497	469	438	415	405	406	407
13	438	440	453	477	497	502	510	502	495	481	465	452	451	448	449
14	453	455	468	484	505	513	506	487	469	453	436	431	444	453	449
15††	465	469	479	491	499	506	521	531	526	516	498	485	478	473	470
16	465	462	466	471	478	485	490	481	476	470	457	447	446	454	461
17	469	473	484	500	513	511	509	497	485	474	471	468	468	466	462
18	469	479	486	503	524	529	518	498	466	449	453	463	461	457	455
19†	461	469	482	497	516	535	537	526	503	482	457	446	449	461	465
20	471	476	489	503	533	553	555	545	521	506	491	481	470	469	468
21†	468	472	481	500	521	533	535	533	527	503	477	457	455	465	468
22	473	481	485	500	512	510	509	510	507	498	489	481	479	477	473
23	475	478	482	502	513	532	537	536	524	514	497	485	477	471	469
24	478	478	493	509	522	529	547	553	525	506	495	473	465	469	475
25	478	482	482	493	513	539	537	540	531	508	489	481	481	479	477
26††	473	473	474	476	495	501	524	556	557	557	527	505	497	489	484
27	480	480	477	482	487	506	508	517	513	501	499	492	494	489	485
28†	484	485	493	503	518	543	542	529	514	505	492	481	481	478	475
29	478	474	478	489	497	513	521	532	537	527	513	497	489	489	489
30	481	485	500	521	541	554	556	541	528	516	501	481	476	477	479
31	477	473	476	493	509	519	519	511	505	495	483	477	478	469	465
Mean	466	468	475	490	506	518	522	519	508	494	478	467	463	463	463
Mean†	464	469	479	493	511	525	527	520	505	490	474	462	460	464	464
Mean††	462	463	467	482	499	512	523	527	516	502	478	464	460	457	455

† Five International quiet days.

†† Five International disturbed days.

* Loss of record ; (day omitted for means)

TABLE 7

Hourly values of Horizontal Force, 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time)

July

39,000 γ plus tabular quantities

Hours G.M.T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
471	469	470	471	471	471	471	470	473	483	07 20	541	11 26	448	93	1
478	485	474	465	433	415	433	425	426	477	05 22	538	19 54	413	125	2††
445	444	445	445	447	447	449	449	448	454	04 22	514	00 17	426	88	3
455	455	453	457	454	454	455	454	453	468	05 58	519	12 46	450	69	4†
457	458	457	457	457	460	462	461	462	472	05 56	512	00 06	452	60	5†
474	473	470	477	476	479	485	478	477	486	07 03	549	11 32	461	88	6
451	455	455	455	457	458	458	458	463	463	06 22	493	12 26	447	46	7
457	461	457	462	461	466	470	470	473	481	08 02	546	13 12	441	105	8
460	461	462	462	460	463	463	463	461	476	07 04	529	11 54	455	74	9
443	438	440	445	450	453	453	449	449	472	05 38	567	16 22	431	136	10
445	453	457	455	457	457	457	460	461	467	05 40	539	13 38	423	116	11††
407	407	409	413	417	420	425	429	438	442	06 34	523	12 26	399	124	12††
446	443	450	433	454	453	457	456	455	464	05 54	513	00 30	436	77	13
450	455	453	455	457	460	461	463	463	463	04 20	517	10 54	427	90	14
457	449	462	465	465	463	469	471	469	482	06 58	533	15 54	445	88	15††
460	459	462	462	463	462	468	470	470	466	06 02	495	12 18	441	54	16
462	462	462	464	466	471	468	471	473	477	05 38	519	15 24	458	61	17
453	453	453	455	465	463	463	461	462	472	05 18	535	09 22	443	92	18
460	459	462	465	467	469	467	469	471	478	05 18	540	11 10	445	95	19†
465	465	468	473	471	468	471	468	468	490	03 46	559	15 42	462	97	20
465	468	469	465	462	461	462	469	472	483	06 10	539	11 31	453	86	21†
476	475	473	476	475	476	477	478	478	486	06 20	516	14 20	470	46	22
470	471	475	476	478	473	477	476	473	490	05 08	543	14 18	467	76	23
473	472	472	473	476	477	479	478	476	491	06 26	564	11 38	463	101	24
477	474	473	476	478	478	477	475	474	491	05 14	545	16 20	471	74	25
477	474	479	481	477	476	481	480	479	496	08 10	564	15 38	471	93	26††
478	477	476	477	476	480	484	485	484	489	07 46	519	19 32	474	45	27
473	473	473	471	473	474	473	473	475	491	05 02	545	17 18	469	76	28†
494	495	494	487	481	478	481	474	479	495	07 42	539	01 42	473	66	29
481	482	481	482	481	483	480	478	479	499	05 54	561	11 20	473	88	30
462	465	465	469	473	473	473	471	471	482	05 36	527	14 54	459	68	31
462	462	463	464	464	464	466	466	466	478					84	Mean
462	463	463	463	463	464	464	465	467							Mean†
453	454	456	456	450	446	453	453	455							Mean††

† Five International quiet days.

†† Five International disturbed days.

* Loss of record ; (day omitted for means).

TABLE 8

Hourly values of Horizontal Force, 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time)

August

39,000 γ plus tabular quantities.

Date	Hours G.M.T.														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1†	475	478	488	508	528	551	553	551	523	493	463	452	466	483	486
2	480	482	489	512	535	546	548	539	522	494	469	460	466	476	479
3	468	474	472	499	535	562	559	551	525	500	482	471	461	472	471
4††	470	475	496	524	546	528	530	517	499	485	455	411	404	419	411
5††	445	452	463	481	499	523	524	516	491	457	447	452	443	449	456
6††	456	468	480	496	517	541	527	508	468	439	402	392	403	408	407
7††	447	451	445	456	480	456	500	495	489	483	469	444	436	434	439
8	448	448	457	486	513	530	536	522	517	496	466	447	440	449	454
9	454	464	474	494	511	533	536	524	503	479	452	447	452	454	456
10	458	456	452	466	499	522	537	536	515	490	476	468	468	464	457
11†	468	472	480	504	522	545	548	532	508	492	476	465	465	468	468
12	476	480	489	504	514	517	515	497	492	477	477	476	480	483	477
13	476	484	496	520	532	543	540	533	514	500	482	480	483	480	484
14	480	480	483	509	535	564	572	556	541	513	484	460	464	469	468
15	480	484	500	529	562	556	541	527	506	477	460	454	466	475	465
16	466	471	480	496	512	544	551	513	496	487	481	472	469	472	470
17	474	478	492	516	533	543	540	524	511	492	476	473	476	476	476
18	474	476	484	502	512	529	540	522	512	492	486	468	460	473	472
19	470	473	477	489	518	524	540	540	539	524	501	476	464	467	472
20	476	478	482	503	521	541	548	538	512	478	460	452	457	467	466
21	473	474	478	498	516	524	533	541	533	516	504	492	481	478	478
22†	482	487	502	519	529	547	543	532	525	511	495	484	484	489	486
23†	484	483	487	503	516	527	540	533	525	506	501	490	484	484	484
24	482	484	493	508	524	536	546	543	531	521	497	481	480	487	486
25†	483	487	510	532	543	542	537	534	516	492	480	485	496	496	490
26	485	495	512	530	540	550	550	541	529	509	486	476	476	484	480
27	491	496	503	519	539	563	575	568	542	514	493	482	485	494	492
28††	495	503	517	*	*	*	*	*	*	*	*	*	*	*	*
29	*	*	*	*	489	501	514	510	490	467	449	438	438	449	452
30	458	457	461	473	495	510	519	519	509	492	471	457	456	458	459
31	468	471	478	494	519	535	542	539	523	504	487	474	469	472	469
Mean	471	474	483	502	522	536	540	531	514	494	475	463	463	468	467
Mean†	478	481	493	513	528	542	544	536	519	499	483	475	479	484	483
Mean††	455	462	471	489	511	512	520	509	487	466	443	425	422	428	428

† Five International quiet days.

†† Five International disturbed days.

* Loss of record; (day omitted for means)

TABLE 8

Hourly values of Horizontal Force, 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time)

August

39,000 γ plus tabular quantities

Hours G M T.									Mean	Maximum		Minimum		Range	Date		
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.				
γ	γ	γ	γ	γ	γ	γ	γ	γ	H	M	H	M	γ	γ			
480	479	474	469	466	465	468	474	476	490	05	16	562	10	42	447	115	1†
475	476	480	484	485	482	480	478	467	492	05	42	554	10	52	457	97	2
464	464	471	469	469	470	472	474	472	489	05	38	565	12	02	460	105	3
404	418	415	423	434	435	436	446	451	460	03	48	568	11	42	394	174	4††
444	447	448	448	454	455	467	456	455	466	06	06	536	17	14	442	94	5††
404	410	431	433	432	434	433	455	453	450	05	15	566	10	40	386	180	6††
441	443	442	438	450	441	452	446	448	455	05	26	504	11	16	426	78	7††
453	456	456	453	456	457	458	460	452	471	05	38	541	11	48	434	107	8
456	456	457	461	461	460	461	464	464	474	06	24	538	10	58	439	99	9
458	460	464	460	466	461	461	465	469	476	06	32	553	02	08	440	104	10
468	468	468	469	474	480	481	480	480	487	05	24	557	11	14	459	98	11†
476	476	476	476	476	480	480	480	477	485	04	45	524	19	24	471	53	12
484	486	488	483	481	484	480	476	482	496	05	12	548	17	52	472	76	13
464	457	452	445	448	447	464	466	473	487	05	50	578	18	06	442	136	14
460	463	461	462	464	465	465	464	464	485	05	20	580	11	02	448	132	15
468	468	470	472	475	476	474	473	476	485	05	34	567	14	38	465	102	16
474	479	474	471	472	471	468	473	472	489	04	54	546	21	06	466	80	17
465	463	465	467	467	465	463	472	469	483	04	50	548	16	16	458	90	18
473	476	473	473	474	476	483	480	476	490	06	22	546	12	28	458	88	19
465	463	471	476	474	473	473	474	474	484	06	22	554	10	26	448	106	20
478	477	479	478	480	476	476	479	482	493	07	02	548	20	10	472	76	21
486	484	484	483	484	481	484	484	484	499	05	22	552	11	42	480	72	22†
490	490	490	489	484	481	480	484	484	497	06	20	544	21	22	478	66	23†
481	480	481	485	487	489	489	484	483	498	06	14	552	10	53	474	78	24
488	486	485	481	472	471	479	480	483	498	04	16	547	19	34	468	79	25†
474	473	477	481	482	483	484	483	489	499	05	50	557	11	32	471	86	26
493	498	499	498	496	498	504	501	497	510	06	22	578	11	02	480	98	27
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	28††
453	452	456	458	459	456	456	463	459	*	*	*	*	*	*	*	*	29
462	465	465	465	465	466	468	467	466	474	06	38	523	11	28	455	68	30
463	461	462	465	465	466	465	470	471	485	06	24	544	15	34	460	84	31
465	466	468	467	469	469	471	472	472	484						97		Mean
482	481	480	478	476	476	478	480	481									Mean†
423	430	439	436	443	441	447	451	452									Mean††

† Five International quiet days.

†† Five International disturbed days.

* Loss of record, (day omitted for means).

TABLE 9

Hourly values of Horizontal Force, 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time)

September

39,000 γ plus tabular quantities

Date	Hours G.M.T.														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	466	465	472	496	519	537	546	549	529	506	493	485	480	472	458
2	456	458	466	489	508	511	504	497	483	484	460	426	420	429	434
3	459	460	467	497	539	*	*	532	518	511	494	434	412	425	439
4	451	457	467	503	528	553	563	563	547	521	465	437	421	433	443
5†	451	450	460	507	545	572	555	538	496	464	432	418	423	449	444
6	449	454	462	488	523	552	541	529	503	485	462	445	450	456	454
7	456	461	474	498	542	563	571	567	554	511	481	465	470	473	471
8	471	471	482	511	549	580	586	561	533	507	490	478	476	464	454
9	463	462	467	490	512	541	558	551	536	524	517	507	495	481	473
10	468	474	495	525	551	559	539	517	494	491	490	484	475	467	466
11†	468	468	477	490	526	534	529	517	508	502	491	484	481	473	473
12	471	480	488	507	510	545	552	505	474	471	472	468	460	439	415
13††	471	467	474	481	502	507	512	490	461	459	462	457	455	448	444
14	457	460	475	505	515	537	528	517	484	470	460	456	458	456	454
15†	464	467	488	521	557	579	585	566	530	502	487	483	483	480	473
16	470	464	473	496	534	565	564	542	517	491	461	442	445	455	446
17	473	473	477	503	527	533	533	501	476	455	456	464	461	451	452
18	457	456	467	495	528	546	549	530	504	470	452	447	447	448	448
19	462	461	476	496	534	570	586	563	532	503	481	467	470	471	462
20	468	463	466	479	530	566	588	581	558	514	495	489	490	494	490
21†	479	472	472	493	544	563	569	562	536	507	490	488	490	488	482
22	491	488	487	507	524	545	563	567	559	545	529	512	498	491	490
23	481	478	487	519	560	598	598	580	535	485	454	449	459	461	456
24	461	463	470	494	523	552	559	553	533	513	499	492	487	484	479
25†	473	473	480	515	546	565	574	564	546	524	495	483	486	484	481
26†	487	481	493	520	551	576	573	557	537	518	507	499	495	494	490
27††	490	488	500	529	561	590	604	593	569	524	492	474	450	454	460
28	463	464	477	501	502	534	527	501	485	465	466	470	472	467	463
29††	461	458	472	495	528	552	568	552	514	484	480	484	493	489	483
30††	463	463	480	503	553	552	532	498	475	453	447	433	410	426	427
Mean	467	467	477	502	532	554	557	542	518	495	478	468	466	465	461
Mean†	474	472	482	508	545	563	566	553	531	511	494	487	487	484	480
Mean††	467	465	477	503	538	555	554	534	503	477	463	453	446	453	452

† Five International quiet days.

†† Five International disturbed days.

* Loss of record ; (day omitted for means)

TABLE 9

Hourly values of Horizontal Force, 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time)

September

39,000 γ plus tabular quantities

Hours G.M.T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag	Time	Mag		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H.M.	γ	γ	
449	441	439	443	446	466	460	458	458	481	06 44	555	16 28	437	118	1
433	431	432	436	443	445	452	453	456	459	05 20	532	11 30	419	113	2
444	445	447	450	451	460	463	462	457	*	*	*	*	*	*	3
436	427	432	439	448	448	450	460	456	473	06 08	575	12 02	417	158	4
434	438	439	439	449	456	456	457	455	468	05 20	564	11 04	415	169	5††
448	448	453	451	455	460	456	456	456	472	05 18	568	10 52	440	128	6
467	468	468	471	471	469	468	468	471	491	06 07	576	00 08	455	121	7
456	449	447	452	461	464	465	464	464	489	06 02	595	16 06	445	150	8
477	468	473	473	473	469	469	468	467	492	06 19	560	01 50	461	99	9
462	464	464	465	464	465	466	467	468	487	05 03	566	18 02	461	105	10
473	471	473	474	476	473	473	473	472	487	04 58	541	01 12	466	75	11†
414	432	442	443	449	457	464	466	462	470	05 32	564	14 36	410	154	12
430	424	434	439	443	444	451	455	456	461	06 18	528	15 36	416	112	13††
455	451	456	457	457	458	462	464	463	473	05 18	543	15 32	450	93	14
468	471	469	466	473	473	473	473	473	496	05 40	588	18 28	463	125	15†
439	452	457	460	464	464	467	472	473	480	05 52	574	15 02	437	137	16
457	457	460	458	456	460	457	456	457	473	05 40	543	13 28	447	96	17
449	446	446	440	446	456	460	462	464	471	05 25	558	17 46	439	119	18
449	453	456	457	463	465	468	472	470	487	05 52	592	15 02	448	144	19
469	487	481	481	478	481	477	480	481	500	05 58	597	01 42	462	135	20
481	480	478	477	477	476	481	485	489	498	04 26	574	01 26	467	107	21†
487	480	478	478	480	481	476	475	478	505	06 46	569	21 40	473	96	22
456	456	452	448	451	465	462	461	462	488	05 36	620	18 34	439	181	23
473	473	466	474	473	473	473	476	474	492	05 48	568	01 20	460	108	24
479	478	479	478	481	482	483	485	488	501	06 14	575	00 50	471	104	25†
490	489	487	485	483	483	488	487	487	507	05 12	581	01 10	479	102	26†
455	449	469	450	456	449	471	469	465	496	05 44	618	18 04	440	178	27††
465	470	473	462	476	467	462	462	464	477	05 10	547	08 56	454	93	28
467	449	413	410	422	436	448	448	456	478	05 38	569	17 34	393	176	29††
433	442	444	453	456	467	464	452	447	466	04 12	572	12 06	405	167	30††
458	457	457	457	461	464	466	466	467	483					126	Mean
478	478	477	476	477	477	480	481	482							Mean†
444	440	440	438	445	450	458	456	456							Mean††

† Five International quiet days.

†† Five International disturbed days.

* Loss of record, (day omitted for means).

TABLE 10

Hourly values of Horizontal Force, 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time)

October

39,000 γ plus tabular quantities

Date	Hours G.M.T														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	444	441	457	482	521	552	559	537	503	472	457	455	459	463	458
2	458	454	472	501	549	589	600	581	532	479	464	459	462	455	447
3	455	458	477	492	537	577	570	549	520	479	468	459	452	464	460
4	455	455	464	493	550	583	588	557	519	496	469	452	462	460	455
5††	459	454	467	486	526	564	589	587	559	533	508	492	473	448	437
6††	447	447	464	475	524	535	526	525	505	472	448	446	454	455	448
7	451	450	457	481	526	569	587	579	557	525	499	478	464	458	458
8	498	504	506	521	571	599	623	617	560	537	510	492	492	486	476
9	473	468	475	508	536	570	577	571	544	526	510	505	496	485	481
10	504	493	503	509	559	605	600	581	556	515	486	490	495	481	475
11	475	479	493	516	539	559	574	549	511	474	449	442	441	435	452
12†	462	464	477	499	537	567	579	566	538	503	489	487	485	480	475
13†	465	464	474	503	541	572	584	577	543	507	481	473	476	473	469
14	464	463	465	481	503	530	547	531	513	503	493	487	481	475	472
15	480	476	484	503	535	554	564	554	532	506	502	493	493	489	485
16	473	476	481	505	552	584	600	581	554	526	515	502	502	503	503
17	487	472	475	499	529	580	607	600	580	550	524	511	505	498	494
18†	487	475	479	501	550	591	610	590	547	503	482	482	491	498	496
19†	488	487	495	526	567	598	597	577	549	527	510	502	501	501	498
20	497	492	493	513	534	564	567	555	527	498	486	481	481	481	469
21	478	476	485	502	528	549	552	535	518	503	498	492	481	476	479
22	480	476	481	508	548	565	566	547	530	504	486	476	470	459	456
23	480	479	482	499	526	537	540	529	513	506	506	504	485	475	481
24†	486	482	490	525	544	569	582	571	548	545	536	511	504	494	491
25††	486	473	478	480	515	542	569	582	535	491	434	373	359	321	322
26††	430	435	440	458	460	465	472	464	457	447	458	449	446	435	442
27	440	447	448	464	484	489	493	479	460	458	463	461	454	445	440
28	445	447	459	474	486	488	485	467	454	449	445	443	430	412	407
29	438	440	462	482	516	533	524	509	496	474	463	467	459	448	443
30	445	445	459	482	523	532	530	523	503	481	467	464	462	461	455
31††	437	437	456	476	504	506	504	479	465	463	465	463	461	455	441
Mean .	467	465	474	495	529	555	563	550	523	498	483	474	470	464	460
Mean† .	478	474	483	511	548	579	590	576	545	517	500	491	491	489	486
Mean††	452	449	461	475	506	522	532	527	504	481	463	445	439	423	418

† Five International quiet days.

†† Five International disturbed days.

* Loss of record, (day omitted for means).

TABLE 10

Hourly values of Horizontal Force, 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time)

October

39,000 γ plus tabular quantities

Hours G.M.T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
460	459	459	458	453	459	457	458	464	474	05 38	571	00 50	440	131	1
451	440	452	450	443	464	461	458	458	482	05 36	608	16 28	429	179	2
458	447	451	446	450	455	454	453	455	479	05 34	598	17 38	443	155	3
451	455	458	459	458	458	459	455	458	482	05 46	594	11 10	447	147	4
435	458	434	432	429	433	437	462	458	482	05 58	599	18 38	415	184	5††
447	433	456	441	442	446	451	452	452	466	05 22	545	16 20	428	117	6††
456	456	462	464	464	462	460	465	479	488	06 08	592	01 22	445	147	7
476	475	473	473	481	475	477	472	473	511	05 40	638	17 22	464	174	8
481	476	479	475	476	475	481	494	499	502	06 06	580	01 24	464	116	9
470	464	464	479	472	475	476	479	478	503	05 44	632	17 22	455	177	10
451	453	456	455	463	463	464	464	464	480	05 58	580	13 20	432	148	11
472	472	472	470	471	471	470	471	471	494	06 10	581	06 38	460	191	12†
466	464	459	459	458	456	464	466	466	490	06 16	587	20 14	455	132	13†
471	472	472	473	472	472	473	476	481	486	05 56	556	00 56	462	94	14
481	481	481	481	481	484	485	482	475	499	06 06	566	22 58	471	95	15
504	493	492	493	492	494	493	490	495	513	05 58	606	01 52	472	134	16
491	490	489	489	484	483	488	492	495	513	05 56	609	01 22	464	145	17
492	491	490	489	486	485	488	488	489	508	06 12	611	01 36	469	142	18†
496	494	492	492	489	489	490	492	497	515	05 16	604	01 26	482	122	19†
457	447	456	463	464	473	473	476	476	493	05 28	574	15 52	446	128	20
476	471	464	464	468	472	473	481	481	492	05 40	557	17 56	463	94	21
455	454	452	451	464	471	476	480	481	489	05 34	570	17 54	450	120	22
481	487	482	481	481	485	485	489	489	496	05 02	541	12 30	472	69	23
489	489	489	490	490	490	493	490	489	490	05 58	583	01 38	481	102	24†
336	393	400	386	390	421	430	424	425	440	06 32	615	14 02	310	305	25††
436	438	463	454	449	449	440	439	439	449	06 08	483	02 26	429	54	26††
433	437	448	442	442	447	449	451	447	455	05 32	501	14 50	430	71	27
410	424	429	430	434	439	444	445	445	445	05 02	489	14 42	403	86	28
432	422	432	438	442	444	443	448	445	463	04 54	539	15 38	420	119	29
460	458	451	455	443	441	440	445	442	469	05 18	539	20 54	438	101	30
418	413	432	439	437	444	433	419	424	453	04 48	513	15 50	411	102	31††
458	458	461	460	460	464	465	468	467	485					129	Mean
483	482	480	480	479	478	481	481	482							Mean†
414	427	437	430	429	443	438	439	440							Mean††

† Five International quiet days.

†† Five International disturbed days.

* Loss of record ; (day omitted for means).

TABLE 11

Hourly values of Horizontal Force, 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time)

November

39,000 γ plus tabular quantities

Date	Hours GMT														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	416	423	442	468	489	486	452	434	426	435	446	451	449	448	448
2	442	443	458	490	520	525	524	506	507	498	486	476	473	456	448
3†	475	480	488	509	542	560	560	548	530	504	486	477	473	470	470
4††	459	454	454	475	503	518	510	481	499	492	479	446	446	449	449
5	446	441	441	461	471	482	486	509	492	476	460	456	450	445	445
6†	448	449	455	469	487	504	517	513	504	494	481	471	463	458	458
7†	459	461	466	480	503	515	522	517	509	508	502	488	478	474	473
8	471	480	501	520	530	543	548	556	544	520	508	499	491	483	469
9	469	466	459	473	516	517	527	520	512	500	501	498	486	475	473
10	466	470	480	494	514	531	536	526	524	515	502	487	482	479	476
11	476	480	488	502	524	554	565	566	548	531	509	495	487	482	475
12	483	491	509	520	536	551	558	565	537	495	470	475	475	472	472
13	463	470	486	495	509	489	489	495	506	506	498	491	483	475	468
14	476	486	505	526	548	560	560	549	537	521	503	492	492	492	484
15	484	499	524	537	555	570	572	560	535	527	500	453	424	412	429
16††	450	457	460	463	472	486	497	482	466	451	448	441	427	408	405
17	448	452	463	485	496	482	510	527	528	514	500	479	466	458	449
18††	460	464	460	500	500	517	492	502	503	500	511	500	486	471	468
19††	414	433	467	492	493	493	486	493	500	482	433	384	363	354	305
20††	401	413	405	400	406	412	434	429	430	424	401	377	373	401	379
21	414	418	428	442	463	480	485	483	475	466	457	448	441	438	439
22†	438	446	457	472	497	508	516	523	517	511	494	466	444	430	429
23†	457	466	480	495	515	526	526	536	538	530	514	495	487	475	473
24	475	490	508	512	509	517	531	518	505	500	500	487	476	466	459
25	471	479	491	492	503	514	504	509	514	501	506	503	484	471	475
26	476	486	494	499	502	503	520	524	526	523	512	502	490	483	480
27	476	491	510	529	541	549	551	543	546	536	521	504	486	476	475
28	480	491	509	529	537	544	547	548	553	546	523	492	477	471	475
29	475	480	494	515	519	520	519	523	519	516	503	492	483	482	481
30	481	492	512	524	533	535	531	526	518	510	500	492	485	482	480
Mean . . .	458	465	476	492	508	516	519	517	512	501	488	474	464	458	454
Mean†	455	460	469	485	509	523	528	527	520	509	495	479	469	461	461
Mean††	437	444	449	466	475	485	484	477	480	470	454	430	419	417	401

† Five International quiet days

†† Five International disturbed days.

* Loss of record ; (day omitted for means).

TABLE 11

Hourly values of Horizontal Force, 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time)

November

39,000 γ plus tabular quantities

Hours G.M.T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
445	446	440	441	446	446	440	441	445	446	03 26	525	00 18	414	111	1
447	445	449	456	458	469	474	474	475	475	05 58	527	16 12	434	93	2
471	470	467	467	466	465	466	463	463	490	05 10	562	20 12	459	103	3†
449	446	449	448	451	453	450	447	449	465	05 38	560	10 56	437	123	4††
445	442	443	445	448	450	452	450	448	458	06 34	510	01 32	436	74	5
458	457	458	458	456	458	460	458	458	471	06 06	518	00 36	447	71	6†
474	470	474	473	475	474	474	471	471	484	05 48	524	00 26	458	66	7†
464	459	467	463	463	474	470	463	456	493	07 02	560	22 24	449	111	8
470	466	462	461	463	465	466	466	465	482	04 14	543	17 42	458	85	9
475	475	469	474	475	480	480	475	475	490	05 32	543	00 26	465	78	10
466	469	475	473	473	479	483	489	486	499	06 34	573	16 08	463	110	11
471	462	441	457	445	446	448	453	457	487	07 14	580	17 36	428	152	12
466	465	467	466	466	468	469	470	473	481	04 26	524	16 26	462	62	13
483	486	483	483	480	488	489	485	483	504	05 34	564	19 18	474	90	14
424	430	440	439	435	433	441	451	448	480	04 42	619	12 50	404	215	15
413	422	418	412	423	425	430	446	451	444	05 50	505	13 40	398	107	16††
448	455	457	458	459	459	455	457	459	474	07 30	529	15 12	446	83	17
466	466	466	432	374	365	388	403	407	463	04 36	526	20 01	349	177	18††
294	271	305	345	365	391	431	407	408	409	07 28	520	15 32	222	298	19††
373	368	382	384	413	407	415	407	414	402	05 38	444	16 20	362	82	20††
439	439	439	439	441	444	444	444	443	448	05 44	493	00 16	410	83	21
433	441	446	446	449	452	452	454	455	466	06 44	525	13 24	427	98	22†
473	471	469	469	467	469	472	482	481	490	07 30	543	00 24	456	87	23†
453	447	446	448	457	458	461	468	474	482	06 14	537	17 32	443	94	24
467	466	466	466	469	474	474	475	475	485	07 52	522	15 44	455	67	25
478	477	476	478	480	479	479	481	476	493	06 20	529	21 20	475	54	26
473	475	475	474	476	480	476	479	477	501	05 38	553	14 58	470	83	27
475	480	481	481	483	484	475	467	482	501	07 26	560	22 12	460	100	28
480	476	477	482	479	481	479	477	479	493	03 42	528	21 06	474	54	29
475	475	475	480	484	484	486	486	485	497	04 10	541	16 12	474	67	30
452	451	452	453	454	457	459	460	461	475					103	Mean
462	462	463	463	463	464	465	466	466							Mean †
399	395	404	404	405	408	423	422	426							Mean ††

† Five International quiet days.

†† Five International disturbed days.

* Loss of record ; (day omitted for means).

TABLE 12

Hourly values of Horizontal Force, 1955

(Averages for sixty minutes centred at the full hours of Greenwich Mean time)

December

39,000 γ plus tabular quantities

Date	Hours G. M. T.														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1††	466	475	490	496	502	512	526	541	558	546	511	486	479	464	440
2	405	410	426	430	428	431	437	450	442	427	414	417	421	420	426
3	439	450	469	490	504	518	535	540	530	510	489	479	457	441	431
4	467	478	479	487	494	502	493	510	521	513	494	476	465	462	457
5	459	469	495	516	524	537	543	541	529	520	507	495	488	481	481
6††	478	462	459	469	488	491	508	495	464	465	462	456	456	456	457
7	451	450	464	470	467	492	484	482	483	482	477	471	465	462	461
8	463	471	483	500	512	523	527	523	518	505	489	476	475	472	471
9	458	466	475	494	508	528	529	511	495	474	480	475	461	448	447
10	456	465	482	496	507	515	516	513	511	506	501	491	473	460	461
11	461	469	480	486	491	499	507	513	516	517	506	493	486	481	476
12	474	482	497	508	520	524	523	523	523	522	512	499	491	487	481
13†	466	473	487	502	518	530	534	532	530	524	516	498	488	483	483
14†	488	495	509	528	543	556	564	557	544	542	537	515	500	490	492
15	488	495	507	524	537	550	558	554	541	528	514	505	500	499	499
16	480	483	497	513	533	559	564	563	538	518	504	492	482	478	479
17	480	488	503	515	529	551	563	567	559	537	528	517	508	501	496
18†	489	489	499	518	538	553	562	566	565	547	533	518	507	499	496
19	499	499	510	524	547	583	603	596	563	529	498	488	486	480	481
20	475	473	480	490	505	522	501	505	508	509	499	490	474	456	439
21	476	482	502	525	551	563	566	549	529	512	505	499	485	460	429
22	472	479	493	517	540	549	558	544	514	495	488	487	487	490	484
23†	486	490	506	518	533	535	535	528	516	507	507	499	490	487	484
24	490	490	490	496	518	551	580	592	582	556	536	524	512	499	499
25††	488	495	512	532	542	532	518	532	516	507	502	497	492	475	439
26††	466	473	489	506	526	537	533	526	524	516	503	478	453	439	427
27††	456	457	466	492	512	505	496	503	500	493	486	471	469	469	459
28	477	482	492	504	519	538	546	552	550	537	508	491	486	490	484
29†	482	491	508	534	550	550	550	548	547	541	520	507	499	490	489
30	486	486	496	513	533	545	542	539	534	524	512	504	495	489	484
31	503	504	506	524	546	565	561	552	546	537	517	505	505	506	501
Mean .	472	476	489	504	518	531	534	534	526	514	502	490	482	475	469
Mean†	482	488	502	520	536	545	549	546	540	532	523	507	497	490	489
Mean††	471	472	483	499	514	515	516	519	512	505	493	478	470	461	444

† Five International quiet days

†† Five International disturbed days

* Loss of record, (day omitted for means).

TABLE 12

Hourly values of Horizontal Force, 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time).

December

39,000 γ plus tabular quantities

Hours G M T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag	Time	Mag		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H M.	γ	H M.	γ	γ	
450	439	411	400	373	368	393	399	406	464	07 54	564	19 46	361	203	1††
429	433	436	437	437	439	439	439	439	430	07 02	457	00 34	403	54	2
430	438	448	455	453	440	456	461	470	472	06 30	550	14 58	427	123	3
456	456	455	456	457	458	458	461	460	476	08 10	524	17 14	453	71	4
471	464	465	472	471	468	467	478	505	494	06 22	545	00 10	457	88	5
456	457	456	456	458	456	457	452	448	465	06 30	565	23 42	445	120	6††
461	460	457	461	462	463	464	464	462	467	05 16	501	00 48	446	55	7
464	457	463	462	462	464	472	463	459	482	05 26	532	16 10	456	76	8
433	442	448	449	452	454	459	457	456	471	05 24	539	14 32	425	114	9
465	456	452	453	452	457	457	457	456	477	05 36	522	18 24	449	73	10
473	469	469	470	467	471	471	471	472	484	08 30	524	00 06	459	65	11
481	478	468	464	468	471	464	462	463	491	04 46	531	22 04	461	70	12
481	480	481	479	481	484	484	487	485	496	06 06	535	00 10	464	71	13†
493	491	490	490	490	490	489	488	488	511	06 40	566	23 26	485	81	14†
497	492	487	480	484	477	473	473	479	506	06 30	559	21 52	471	88	15
479	475	472	474	482	484	485	479	481	500	06 14	566	17 20	467	99	16
491	489	482	480	480	482	481	483	487	508	06 52	569	18 34	478	91	17
495	493	497	497	497	498	497	496	498	514	07 48	571	00 48	484	87	18
468	449	448	453	455	457	462	465	471	501	06 32	609	16 26	442	167	19†
446	458	463	467	473	477	474	477	474	481	05 08	523	14 08	437	86	20
416	435	439	450	457	463	464	467	468	487	05 08	568	15 24	415	153	21
472	471	473	473	475	479	481	481	482	495	06 40	559	15 24	467	92	22
482	480	481	481	485	487	489	489	489	499	04 36	537	16 40	479	58	23†
496	485	476	482	489	493	496	494	490	513	07 22	594	17 08	474	120	24
426	430	434	439	439	461	457	462	463	483	04 24	561	15 16	428	138	25††
411	410	435	452	461	455	467	469	458	476	05 30	541	15 36	400	141	26††
456	457	465	467	467	465	468	474	476	476	05 02	524	00 28	455	69	27††
482	475	467	465	480	475	474	477	481	497	07 20	559	17 24	463	96	28
488	489	489	487	484	488	490	488	487	508	04 04	558	19 32	481	77	29†
482	489	489	491	491	492	495	501	504	505	05 10	547	14 52	480	67	30
494	479	467	464	475	481	488	482	478	508	05 24	576	17 38	462	114	31
465	464	463	465	466	468	470	471	472	488					97	Mean
488	487	488	487	487	489	490	490	489							Mean†
440	439	440	443	440	441	448	451	450							Mean††

† Five International quiet days.
 †† Five International disturbed days.
 * Loss of record; (day omitted for means).

TABLE 13

Hourly values of Vertical Force, 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time)

July

2000 γ plus tabular quantities

Date	Hours G M T.														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	398	404	406	408	400	392	386	379	379	379	391	394	397	394	393
2††	398	401	403	407	398	386	389	392	392	393	394	396	394	393	393
3	399	403	398	392	386	388	390	396	400	407	405	403	394	394	394
4†	399	400	398	392	391	388	386	389	392	391	386	386	391	390	391
5†	396	400	399	391	383	379	384	385	385	385	386	385	385	385	385
6	397	396	389	383	385	384	383	385	388	391	394	397	396	389	391
7	396	398	405	408	405	408	392	391	396	406	406	404	400	394	392
8	396	399	399	393	391	388	388	384	386	376	368	379	385	383	390
9	394	396	403	407	414	415	411	409	403	399	391	383	384	385	386
10	396	397	397	398	389	377	377	379	378	385	388	391	392	394	392
11††	398	405	405	405	396	389	378	373	379	383	388	393	394	388	384
12††	397	401	394	389	384	377	369	369	368	363	371	376	383	385	386
13	398	398	398	397	392	390	389	388	388	384	389	394	396	390	389
14	398	399	399	399	388	381	379	385	400	409	409	407	400	390	389
15††	397	401	399	393	389	383	376	376	371	371	377	386	388	389	388
16	394	394	397	398	400	404	400	399	397	394	394	394	391	392	391
17	396	397	397	393	397	397	399	403	405	408	406	400	394	389	390
18	397	397	396	397	389	377	374	377	393	398	394	386	382	383	385
19†	397	397	394	389	383	376	374	382	384	385	393	401	403	391	391
20	394	397	391	389	376	363	360	362	370	378	381	388	385	385	386
21†	394	397	394	391	376	373	374	370	368	376	389	398	397	394	391
22	394	394	386	379	381	384	386	391	396	393	391	394	394	391	392
23	396	396	392	393	391	386	385	385	384	382	381	386	391	392	392
24	397	399	405	404	388	379	377	375	374	375	384	392	396	392	391
25	396	397	394	391	388	384	370	369	368	375	383	384	385	384	385
26††	390	391	393	393	391	388	392	383	377	381	379	388	391	385	388
27	391	391	392	391	392	393	386	388	382	377	384	385	386	385	386
28†	393	394	396	394	386	376	381	385	388	386	389	389	385	385	385
29	392	394	399	399	398	397	394	384	379	383	385	382	382	385	385
30	390	393	393	391	393	386	385	385	384	375	376	385	389	388	386
31	393	396	401	400	391	383	376	377	379	378	384	385	385	384	385
Mean	396	397	397	395	391	386	384	384	385	386	388	391	391	389	389
Mean†	396	398	396	391	384	378	380	382	383	385	389	392	392	391	389
Mean††	396	400	399	397	392	385	381	379	377	378	382	388	390	388	388

† Five International quiet days

†† Five International disturbed days.

* Loss of record; (day omitted for means).

TABLE 13

Hourly values of Vertical Force, 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time)

July

2000 plus tabular quantities.

Hours, G M.T.									Mean.	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag	Time	Mag		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H M.	γ	H M	γ	γ	
393	394	396	398	399	397	397	397	397	395	05 00	409	07 25	370	39	1
393	399	394	392	385	385	396	392	393	394	03 00	408	24 35	379	29	2††
397	398	397	398	398	399	397	397	396	397	07 55	411	03 52	383	28	3
392	394	393	394	394	394	393	392	393	392	00 53	401	10 12	385	16	4†
388	391	391	391	391	392	393	392	393	389	01 00	401	05 06	378	23	5†
394	392	392	397	397	399	400	397	398	392	22 30	409	06 30	377	32	6
392	396	394	397	397	397	394	394	396	398	04 45	412	06 36	386	26	7
391	392	391	394	394	398	397	396	396	390	20 15	405	09 45	368	37	8
388	391	391	392	392	392	393	393	393	396	04 48	417	11 29	383	34	9
389	390	392	394	397	397	396	396	397	391	03 05	403	07 53	377	26	10
390	393	393	394	396	394	393	392	393	391	03 10	405	07 00	371	34	11††
389	391	392	393	394	396	397	397	398	386	01 10	405	08 47	362	43	12††
389	390	393	393	394	396	397	396	397	393	01 30	398	08 47	383	15	13
389	390	390	391	392	396	394	394	393	394	09 32	416	06 00	379	27	14
385	385	393	394	393	391	397	396	393	388	21 16	405	08 45	370	35	15††
390	391	394	394	396	396	397	394	393	395	04 58	406	14 30	389	17	16
391	391	391	392	396	397	396	396	397	397	08 34	412	13 41	388	24	17
388	391	392	392	394	394	392	392	393	390	09 03	404	06 55	371	33	18
392	392	393	394	394	393	392	391	393	391	11 32	408	05 45	372	36	19†
386	390	393	393	391	391	392	391	391	384	20 22	398	06 08	359	39	20
392	392	392	392	392	392	391	394	393	388	10 58	406	07 55	368	38	21†
392	394	397	396	396	394	394	394	396	392	07 40	398	08 00	378	20	22
393	394	397	397	397	396	397	394	396	391	20 56	398	08 43	377	21	23
391	391	392	392	394	393	393	392	392	390	02 25	405	09 25	373	32	24
386	386	389	391	391	389	389	389	389	386	00 56	399	07 35	368	31	25
386	389	392	391	391	391	392	391	389	388	08 07	399	08 30	376	23	26††
386	390	391	392	392	392	392	392	391	389	04 40	398	08 33	376	22	27
386	389	389	388	388	388	388	388	388	388	08 15	396	05 25	375	21	28†
389	390	391	389	388	388	388	385	389	389	03 17	403	07 30	376	27	29
392	392	391	392	391	392	390	390	391	388	03 20	398	09 35	375	23	30
385	388	388	390	391	390	391	391	393	388	03 25	401	06 25	375	26	31
390	391	393	393	393	393	394	393	394	391					28	Mean
390	392	392	392	392	392	391	391	392							Mean†
389	391	393	393	392	391	395	393	393							Mean††

† Five International quiet days.
 †† Five International disturbed days.
 * Loss of record; (day omitted for means).

TABLE 14

Hourly values of Vertical Force 1955

(Averages for sixty minutes centred at the full hours of Greenwich Mean Time)

August

2000 γ plus tabular quantities

Date	Hours G.M.T.														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1†	400	400	396	377	376	371	368	363	366	373	386	394	389	387	384
2	388	392	387	393	380	374	372	380	382	387	402	409	399	388	382
3	389	388	383	394	*	*	*	382	385	388	389	391	391	386	384
4††	389	395	395	394	379	371	378	378	376	386	365	361	364	376	379
5††	393	395	394	387	376	372	372	376	372	377	389	394	382	385	386
6††	393	395	394	394	388	378	374	366	376	371	388	395	394	386	382
7††	391	394	392	393	386	373	365	374	371	374	385	388	388	384	385
8	393	396	395	393	381	392	387	377	376	384	384	387	391	388	386
9	388	393	393	393	388	387	379	376	380	385	385	397	393	387	386
10	389	396	401	402	394	388	382	379	387	388	386	381	380	380	381
11†	388	393	394	393	377	361	364	362	365	371	376	381	384	385	384
12	393	394	402	404	394	392	387	388	399	401	401	396	386	382	380
13	387	389	381	382	365	361	370	363	370	377	387	393	392	386	384
14	395	397	395	396	382	371	359	364	372	378	384	386	387	382	381
15	389	387	384	380	381	381	377	371	372	384	392	394	393	388	381
16	385	387	380	376	363	353	350	347	348	370	378	387	380	376	376
17	382	385	386	378	369	370	372	379	374	374	387	388	386	377	378
18	385	382	381	379	374	370	366	371	371	372	372	379	381	382	381
19	386	388	389	389	371	371	372	365	358	358	363	366	372	377	377
20	386	388	391	391	388	382	376	371	373	382	391	391	385	381	378
21	384	392	394	392	382	374	371	370	366	369	371	371	372	373	374
22†	386	389	387	387	374	363	361	365	366	364	371	374	380	376	374
23†	382	385	391	391	386	385	377	369	370	372	377	380	382	382	382
24	386	387	393	393	381	377	382	387	387	388	396	402	394	391	386
25†	393	393	387	377	376	371	372	378	388	*	*	*	*	*	*
26	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
27	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
28††	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
29	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
30	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
31	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Mean .	389	391	391	389	380	375	372	371	372	378	383	387	385	382	381
Mean† .	389	392	392	387	378	370	368	365	367	370	378	382	384	383	381
Mean†† .	392	395	394	392	382	374	372	374	374	377	382	385	382	389	381

† Five International quiet days.

†† Five International disturbed days.

* Loss of record; (day omitted for means).

TABLE 14

Hourly values of Vertical Force, 1955

(Averages for sixty minutes centred at the full hours of Greenwich mean time.)

August

2000 γ plus tabular quantities

Hours G.M.T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag	Time	Mag		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
384	385	385	383	383	384	387	388	387	383	00 24	404	06 46	361	43	1†
384	392	392	393	393	389	387	386	385	392	10 48	412	06 06	372	40	2
382	384	388	388	387	387	388	387	387	*	*	*	*	*	3	3
382	389	388	392	394	392	391	393	394	383	01 32	402	10 34	359	43	4††
385	387	388	389	391	388	393	387	387	385	01 00	397	08 00	369	28	5††
384	387	397	393	392	393	388	399	393	388	21 44	406	07 11	362	44	6††
388	391	387	386	391	388	391	391	392	385	01 22	402	05 49	361	41	7††
386	386	387	393	391	389	389	391	389	388	01 00	406	08 12	372	34	8
387	385	386	386	385	385	386	386	386	387	10 48	400	07 21	371	29	9
382	382	384	382	382	384	385	385	387	386	02 24	406	06 52	373	33	10
384	382	384	387	389	392	393	392	393	382	01 16	395	05 06	359	36	11†
380	381	382	384	384	385	385	387	387	390	03 00	406	13 07	377	29	12
384	385	385	384	384	385	385	387	392	382	11 10	402	05 33	358	44	13
380	380	381	379	382	386	393	388	387	383	00 45	401	06 32	357	44	14
378	381	382	382	382	384	384	381	381	383	10 45	395	06 44	370	25	15
378	380	381	381	382	381	382	381	382	374	11 04	393	06 42	346	47	16
378	370	376	382	382	382	381	385	384	379	11 00	393	04 02	362	31	17
380	382	384	384	385	384	384	386	384	379	22 07	391	06 52	361	30	18
378	379	381	382	382	380	382	382	382	376	02 12	393	07 41	354	39	19
379	380	384	385	382	374	376	378	380	382	10 41	394	07 00	371	23	20
374	372	376	377	380	379	380	382	385	378	11 18	395	08 04	359	36	21
377	378	380	381	381	380	381	381	381	377	10 46	393	05 30	358	35	22†
382	382	384	382	382	382	382	385	385	382	02 27	394	07 19	363	31	23†
384	386	388	394	393	394	393	392	391	389	11 12	406	05 07	373	33	24
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	25†
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	26
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	27
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	28††
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	29
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	30
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	31
381	383	384	385	386	385	386	387	387	383					36	Mean
382	382	383	383	384	385	386	387	387							Mean†
385	389	390	390	392	390	391	393	392							Mean††

† Five International quiet days.

†† Five International disturbed days.

* Loss of record; (day omitted for means).

TABLE 15

Hourly values of Vertical Force, 1955

(Averages for sixty minutes centered at the full hours of Greenwich mean time)

September

2,000 γ plus tabular quantities

Date	Hours G. M. T.														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	*	*	*	*	*	*	*	379	381	385	394	400	389	386	385
2	400	402	397	388	385	375	375	384	386	388	384	381	384	388	394
3	398	401	388	378	*	*	*	355	365	377	381	369	378	386	389
4	390	402	395	375	364	364	357	365	367	366	367	378	381	389	388
5††	388	400	390	381	359	344	334	347	355	365	377	378	382	389	388
6	390	395	398	396	394	381	372	366	364	366	373	375	382	385	387
7	395	401	397	395	378	366	366	364	367	367	374	385	389	386	385
8	393	394	388	380	370	350	342	344	363	382	377	379	379	380	384
9	394	389	388	384	375	384	378	381	388	397	396	393	386	386	389
10	397	401	396	390	377	366	364	369	377	378	378	377	378	387	387
11†	393	395	396	395	386	379	380	380	380	375	375	380	386	389	392
12	396	398	402	401	400	387	366	359	379	385	389	386	382	379	379
13††	403	395	389	382	378	372	371	371	378	393	386	384	382	385	388
14	397	398	389	380	366	359	355	354	364	377	385	388	389	390	390
15†	397	401	389	384	377	369	364	359	367	374	381	385	385	387	389
16	397	400	388	379	373	367	358	371	379	385	382	384	388	389	389
17	401	396	390	379	377	374	375	373	377	378	385	384	383	384	387
18	395	401	400	387	365	357	352	351	355	366	378	384	384	383	384
19	392	392	384	371	352	343	342	349	352	358	365	378	381	382	376
20	389	389	384	372	367	355	344	349	355	362	365	386	389	392	393
21†	387	392	400	372	378	372	360	354	358	370	372	374	381	384	384
22	394	395	394	387	386	377	372	371	372	377	382	384	381	382	384
23	395	396	396	389	378	366	350	347	347	350	363	377	384	385	385
24	384	386	388	384	384	373	363	359	362	366	375	382	384	384	484
25†	385	387	385	382	378	365	355	350	355	364	373	382	384	384	384
26†	385	385	390	394	387	381	373	372	377	382	384	384	384	384	384
27††	*	*	*	*	387	385	380	366	359	359	369	372	377	387	394
28	406	409	405	395	379	378	372	371	373	377	388	392	394	395	395
29††	395	395	401	393	395	395	389	381	386	389	394	395	394	394	394
30††	*	*	*	*	388	374	366	367	364	384	387	392	388	408	405
Mean	394	396	393	385	377	368	362	362	368	374	378	382	384	386	387
Mean†	389	392	392	385	381	373	366	363	367	368	377	381	384	386	387
Mean††	396	398	390	382	369	358	353	359	367	379	382	381	382	387	388

†Five International quiet days.

††Five International disturbed days.

*Loss of record ; (day omitted for means).

TABLE 15

Hourly values of Vertical Force, 1955

[Average for sixty minutes centered at the full hours of Greenwich mean time]

September

2000 γ plus tabular quantities

Hours G. M. T									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
385	386	389	392	394	400	396	395	396	*	*	*	*	*	*	1
395	395	395	395	396	396	396	395	396	390	00 44	408	06 08	373	35	2
390	392	393	393	389	393	392	389	388	*	*	*	*	*	*	3
386	387	393	395	402	400	395	396	390	383	21 32	406	05 44	349	57	4
388	392	393	392	394	397	392	390	390	379	19 36	406	05 51	332	74	5††
387	388	389	389	392	392	389	392	393	385	03 25	406	07 45	360	46	6
386	389	390	392	393	392	393	392	392	385	00 56	405	06 56	360	45	7
386	385	387	392	395	395	395	393	394	380	20 54	398	06 13	335	63	8
392	390	393	393	393	394	394	395	395	389	08 53	408	06 23	372	36	9
390	394	396	392	388	392	393	392	392	385	00 45	406	05 48	351	55	10
394	395	395	397	397	396	395	395	394	389	22 35	404	09 30	374	30	11 †
381	393	394	393	395	397	397	398	395	389	01 22	405	06 48	350	55	12
385	388	389	393	395	395	400	397	396	387	00 18	404	08 17	362	42	13††
392	394	393	394	395	394	395	396	395	385	01 12	404	07 01	350	54	14
389	393	393	393	394	395	394	394	396	385	00 36	404	07 00	357	47	15†
390	401	402	403	402	402	401	401	401	389	19 15	406	06 07	356	50	16
390	394	395	395	394	395	394	393	393	387	00 41	403	06 40	371	32	17
385	384	387	385	388	392	394	393	392	381	01 00	405	07 35	349	56	18
378	384	384	385	387	389	387	388	386	374	00 42	395	06 18	337	58	19
393	392	392	393	390	393	388	389	389	380	20 12	397	06 09	337	60	20
385	385	386	387	387	389	392	393	385	380	02 15	413	07 09	349	64	21†
384	384	384	386	389	389	386	389	393	384	00 42	397	07 18	366	31	22
387	389	387	386	387	393	386	385	385	379	01 33	398	07 15	339	59	23
382	384	384	386	384	384	385	385	386	380	00 59	395	06 53	358	37	24
384	385	388	388	392	393	388	390	387	380	18 41	395	07 00	349	46	25†
386	389	388	386	385	386	386	385	385	384	02 35	396	06 52	371	25	26†
394	403	409	398	404	404	412	406	406	*	*	*	*	*	*	27††
398	401	397	395	402	395	394	394	395	392	01 15	415	06 53	360	55	28
392	385	375	384	390	395	395	395	395	*	*	*	*	*	*	29††
406	411	409	408	408	410	408	405	405	*	*	*	*	*	*	30††
388	390	391	391	393	393	392	393	392	384					48	Mean ..
388	389	390	390	393	392	391	391	389							Mean†
387	390	381	393	395	396	396	394	393							Mean††

†Five International quiet days.

††Five International disturbed days.

*Loss of record ; (day omitted for means).

TABLE 16

Hourly values of Vertical Force, 1955

(Averages for sixty minutes centered at the full hours of Greenwich mean time)

October

2,000 γ plus tabular quantities

Date	Hours G. M. T.														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	408	405	400	395	400	387	378	377	381	387	395	403	403	405	406
2	408	413	405	396	389	378	372	372	375	387	404	406	405	404	404
3	406	406	402	395	382	379	364	367	374	377	390	395	398	405	405
4	408	413	406	396	387	382	382	378	382	386	388	390	397	404	400
5††	406	413	415	405	394	388	378	376	380	383	384	389	384	377	382
6††	384	393	391	393	390	377	372	372	372	368	375	388	394	394	394
7	394	401	403	394	391	384	376	367	366	369	372	376	384	386	393
8	398	406	414	415	411	398	381	361	354	366	372	372	376	383	383
9	391	394	397	394	394	393	389	384	389	394	396	396	394	394	394
10	394	394	400	406	400	384	373	382	385	383	384	384	384	388	391
11	392	393	392	394	388	383	373	370	372	374	382	383	383	392	398
12†	394	396	394	394	394	391	376	373	374	383	392	392	384	393	394
13†	394	394	394	392	389	372	372	360	361	372	377	384	388	386	394
14	391	393	394	393	393	385	380	374	369	370	372	377	388	394	394
15	396	397	400	396	399	394	384	383	382	383	383	382	385	394	394
16	394	396	399	403	406	401	392	385	383	390	394	394	394	394	394
17	393	393	398	398	392	383	372	370	370	370	373	382	382	383	383
18†	388	392	394	394	383	373	372	360	365	373	382	384	384	392	393
19†	394	394	398	394	385	377	372	372	372	372	377	383	384	393	393
20	394	394	399	403	397	389	384	382	382	381	381	382	388	392	384
21	394	393	394	403	404	*	*	395	399	400	395	389	389	389	389
22	395	395	390	377	377	*	*	366	373	377	377	374	375	380	383
23	384	384	383	384	382	371	371	379	383	382	381	381	381	383	383
24†	384	389	391	390	395	389	386	391	395	395	385	383	383	383	383
25††	383	384	392	396	395	382	377	374	367	361	350	343	354	354	365
26††	392	390	388	386	384	380	385	388	391	385	382	376	382	385	391
27	384	386	390	388	386	384	386	383	384	383	383	383	378	383	388
28	388	390	386	378	386	386	393	400	403	400	389	383	381	382	383
29	392	393	390	389	383	371	374	377	378	383	384	384	383	386	388
30	389	389	383	386	386	376	374	375	378	380	383	383	382	386	390
31††	392	393	393	389	386	371	376	368	375	377	381	384	388	390	388
Mean	394	396	396	394	391	383	378	376	377	380	382	384	386	389	391
Mean†	391	393	394	393	389	380	376	371	373	379	383	385	385	389	391
Mean††	391	395	396	394	390	380	378	376	377	375	374	376	380	380	384

† Five International quiet days.

†† Five International disturbed days.

* Loss of record, (day omitted for means).

TABLE 16

Hourly Values of Vertical Force, 1955

(Averages for sixty minutes centered at the full hours of Greenwich mean time)

October

2,000 γ plus tabular quantity

15	16	17	18	19	20	21	22	23	Mean γ	Maximum		Minimum		Range γ	Date		
										Time	Mag	Time	Mag.				
γ	γ	γ	γ	γ	γ	γ	γ	γ		H	M.	γ	H	M	γ		
406	406	406	406	406	408	406	406	406	399	03	31	410	07	30	372	38	1
406	404	416	406	408	417	408	406	406	400	19	42	426	07	15	371	55	2
406	405	406	406	408	409	409	409	408	396	19	25	412	07	10	363	49	3
405	406	406	406	406	406	406	406	406	398	00	45	415	08	10	372	43	4
385	393	385	391	386	393	393	399	392	390	22	25	416	08	33	375	41	5††
394	385	403	394	394	394	394	394	394	388	16	43	406	08	45	368	38	6††
394	394	394	396	396	394	394	394	399	388	02	00	404	08	25	366	38	7
383	383	386	391	394	394	394	393	393	388	02	57	426	08	27	350	76	8
394	394	396	394	394	394	392	396	396	393	02	38	404	07	22	383	21	9
391	391	392	394	394	394	394	394	394	390	03	35	407	06	20	367	40	10
394	394	394	394	394	394	394	394	394	388	14	00	404	08	39	369	35	11
394	394	394	394	394	397	396	394	394	391	19	58	397	07	00	372	25	12 †
394	393	394	394	394	394	394	394	391	386	00	45	396	06	45	359	37	13 †
394	394	396	396	396	396	396	396	394	389	02	08	397	08	14	369	28	14
394	394	394	396	398	394	396	394	394	392	02	09	404	08	35	382	22	15
394	393	394	394	394	394	392	393	394	394	03	44	411	07	44	376	35	16
384	385	385	391	392	393	393	394	393	386	02	42	404	08	58	369	35	17
393	393	393	394	393	394	394	393	394	386	02	30	396	06	37	358	38	18 †
394	394	394	394	394	394	393	394	394	388	02	37	400	05	52	366	34	19 †
383	383	388	393	394	394	394	394	394	390	03	25	406	09	07	378	28	20
389	389	389	390	395	391	390	399	395	*	*	*	*	*	*	*	*	21
383	383	383	383	384	389	388	386	384	*	*	*	*	*	*	*	*	22
383	389	384	384	385	389	386	386	384	383	15	42	393	05	45	371	22	23
384	384	383	385	388	384	384	384	384	387	08	00	395	11	42	377	18	24 †
383	401	398	388	386	398	395	389	389	379	16	08	416	10	42	328	88	25 ††
385	388	396	389	386	389	381	381	381	386	16	33	405	11	12	375	30	26 ††
388	392	395	395	393	393	391	391	390	387	16	35	396	11	00	374	22	27
386	393	395	392	393	393	392	393	389	390	07	15	404	12	37	381	23	28
390	388	395	393	395	393	390	393	391	387	19	22	396	05	35	369	27	29
391	392	386	395	388	389	389	390	392	386	17	40	404	05	37	371	33	30
383	386	398	400	399	399	391	385	388	387	19	42	406	06	29	360	46	31 ††
392	393	395	395	395	396	394	394	394	389							37	Mean
392	392	392	392	393	393	392	392	391									Mean †
386	391	396	392	390	395	391	390	389									Mean ††

† Five International quiet days.
 †† Five International disturbed days.
 * Loss of record ; (day omitted for means).

TABLE 17

Hourly values of Vertical Force, 1955

(Averages for sixty minutes centered at the full hours of Greenwich mean time)

November

2,000 γ plus tabular quantities

Date	Hours G. M. T.														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	383	391	398	*	*	*	*	*	*	*	395	388	388	389	390
2	389	389	384	*	*	*	*	*	380	380	378	375	375	369	375
3†	380	380	382	*	382	375	369	370	369	361	358	363	369	375	375
4††	375	375	376	385	380	367	363	376	375	375	377	374	375	380	380
5	382	380	380	380	374	369	373	369	359	359	364	374	375	377	379
6†	382	384	385	375	370	362	362	362	358	356	358	361	363	369	369
7†	367	368	374	375	376	368	368	369	369	369	369	369	369	369	369
8	370	371	375	375	375	371	369	360	351	346	353	362	363	367	369
9	372	370	365	378	380	374	375	375	369	362	375	376	376	380	380
10	375	375	375	376	374	369	369	374	368	362	369	369	371	378	380
11	375	377	375	380	377	368	362	353	349	349	349	357	358	362	362
12	365	361	367	375	375	375	374	369	350	345	359	365	367	372	373
13	373	368	374	374	393	393	401	400	395	387	386	386	386	387	387
14	386	381	381	381	381	386	386	387	385	382	382	381	387	387	387
15	387	386	387	387	387	381	375	365	362	365	366	358	363	363	385
16††	386	386	382	387	393	388	386	380	375	377	381	381	375	375	383
17	387	387	382	389	385	386	381	371	361	358	365	371	373	375	375
18††	*	*	*	*	388	387	388	393	384	386	378	375	377	375	377
19††	375	373	377	381	385	386	387	385	380	370	353	347	353	363	347
20††	370	379	382	387	394	393	380	370	364	363	359	362	370	380	375
21	382	381	384	387	392	393	388	386	379	370	370	375	377	384	387
22†	381	379	381	375	370	370	369	366	367	364	358	364	365	370	375
23†	381	379	382	387	392	388	385	375	371	367	370	377	385	386	387
24	382	386	381	390	395	398	395	398	385	380	384	385	386	386	386
25	387	388	392	392	397	398	398	398	392	380	375	375	375	378	387
26	387	386	386	386	389	387	388	385	377	366	370	370	375	382	386
27	385	387	387	389	392	388	393	386	371	365	371	374	374	377	381
28	386	382	381	387	398	398	396	390	381	372	365	364	372	375	380
29	377	375	378	385	387	389	397	387	381	377	377	380	377	384	385
30	381	381	380	378	375	377	381	381	378	375	375	375	377	384	385
Mean	379	378	379	382	384	382	381	378	372	367	369	370	373	377	379
Mean†	378	378	381	378	377	373	371	368	366	364	364	368	371	374	375
Mean††	377	378	379	385	388	384	379	378	374	371	368	366	368	375	371

†Five International quiet days.

††Five International disturbed days.

*Loss of record; (day omitted for means).

TABLE 17

Hourly values of Vertical Force, 1955

(Averages for sixty minutes centered at the full hours of Greenwich mean time.)

November

2000 γ plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
389	388	388	389	392	386	386	389	389	*	*	*	*	*	*	1
378	378	380	386	382	386	384	380	380	*	*	*	*	*	*	2
375	375	375	375	376	375	376	375	375	*	*	*	*	*	*	3†
382	380	383	383	386	385	384	382	382	378	03 15	389	05 55	361	28	4††
380	380	382	383	385	385	385	385	380	377	21 03	385	08 16	355	30	5
369	369	369	369	369	369	367	368	367	368	02 33	390	08 46	352	38	6†
372	374	375	374	375	372	369	369	369	371	03 22	377	10 58	367	10	7†
370	369	375	372	370	375	375	372	369	368	17 16	378	09 15	345	33	8
380	380	379	375	380	380	380	375	375	375	03 54	382	08 08	352	30	9
380	380	380	380	380	380	375	374	376	375	17 57	382	09 16	350	32	10
364	366	368	368	368	368	368	368	368	365	03 19	383	09 47	346	37	11
374	372	365	382	388	373	373	373	373	369	17 58	395	08 59	341	54	12
387	387	388	388	388	387	387	387	386	386	06 29	403	12 16	386	17	13
388	388	390	393	387	393	389	387	387	386	20 12	396	09 20	380	16	14
386	387	387	386	386	381	386	387	382	379	21 50	388	11 08	354	34	15
387	387	388	387	388	387	387	392	389	384	03 18	395	11 42	375	20	16††
378	378	385	364	347	354	374	377	376	*	*	*	*	*	*	17
350	355	375	380	387	388	392	370	371	372	20 30	409	15 29	328	81	18††
375	375	385	384	390	385	382	380	381	378	04 16	408	10 20	358	50	19††
387	387	386	386	386	385	384	381	381	383	03 26	394	10 04	366	28	21
379	382	377	380	380	381	381	380	379	374	19 34	384	10 04	358	26	22†
387	387	387	387	387	386	387	388	387	383	03 22	396	09 10	365	31	23†
386	386	386	387	388	388	387	388	387	388	04 47	398	08 22	379	19	24
386	386	387	386	386	386	386	386	385	387	03 27	400	11 30	375	25	25
386	386	386	386	386	386	385	387	386	383	03 38	392	09 45	365	27	26
381	387	387	387	387	387	386	386	386	383	03 32	394	08 54	364	20	27
387	387	387	386	387	384	380	377	387	383	04 30	400	10 04	364	36	28
387	387	387	387	386	385	381	381	381	383	06 05	398	09 10	375	23	29
385	381	381	385	381	381	381	381	381	380	05 50	387	05 26	375	12	30
380	380	382	382	382	382	381	380	380	378					31	Mean
377	378	377	378	378	377	376	376	376							Mean†
374	374	383	384	388	386	386	381	381							Mean††

† Five International quiet days.

†† Five International disturbed days.

* Loss of record ; (day omitted for means).

TABLE 18

Hourly values of Vertical Force, 1955

(Averages for sixty minutes centered at the full hours of Greenwich mean time)

December

2,000 γ plus tabular quantities

Date	Hours G. M. T														
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1††	382	381	385	393	393	392	388	381	372	364	364	369	375	374	372
2	381	379	375	391	393	397	389	386	380	375	375	372	388	389	394
3	387	387	386	387	393	387	387	375	370	365	365	364	367	375	375
4	386	381	375	380	381	386	387	386	370	364	364	366	375	379	381
5	381	381	385	386	381	381	375	371	364	358	364	367	375	379	384
6††	372	374	375	381	373	359	358	357	367	373	374	377	385	387	387
7	384	380	377	375	380	378	374	373	367	366	373	377	377	386	386
8	381	381	384	379	386	386	379	375	370	364	364	374	373	375	377
9	377	375	386	377	375	375	370	364	362	356	363	358	362	365	370
10	373	366	364	370	370	370	365	364	362	356	356	356	361	364	364
11	375	374	373	375	375	374	373	372	367	358	355	364	369	372	373
12	370	365	363	370	370	372	373	363	362	353	357	354	359	364	365
13†	365	364	364	364	365	365	364	363	357	353	360	355	358	370	370
14†	367	365	366	365	367	365	364	364	362	359	354	353	359	363	365
15	370	370	364	370	370	367	361	356	344	341	347	355	359	366	370
16	366	365	359	364	366	365	358	354	343	344	351	351	353	359	364
17	370	369	364	364	364	363	364	364	353	348	357	363	362	362	364
18†	364	362	364	367	365	365	364	363	357	356	358	357	353	354	362
19	365	365	363	370	370	353	341	329	332	353	354	357	354	354	357
20	365	365	364	367	367	369	375	378	371	370	364	361	353	353	355
21	363	359	357	358	355	347	339	340	339	344	351	357	353	348	342
22	359	358	358	358	357	350	344	335	340	344	355	358	358	363	363
23†	363	358	357	375	375	364	364	364	369	365	364	358	364	370	370
24	370	370	367	372	372	364	353	348	347	349	356	362	364	364	370
25††	370	370	375	366	358	367	366	369	370	371	373	375	375	373	365
26††	373	372	373	370	367	364	363	358	350	347	355	353	355	354	358
27††	363	364	364	370	358	350	355	356	350	347	353	357	366	370	370
28	*	*	*	*	386	380	368	368	368	369	369	372	374	375	375
29†	375	380	378	375	375	379	384	385	362	352	354	363	369	370	377
31	380	378	371	363	357	357	363	375	372	369	366	369	369	370	369
	375	377	375	363	359	352	349	351	348	349	352	352	357	357	359
Mean	373	371	371	372	372	369	367	364	360	357	360	362	365	368	369
Mean†	368	367	366	370	371	368	369	369	363	357	358	357	363	368	371
Mean††	374	374	375	378	373	371	369	366	365	364	367	369	373	372	371

†Five International quiet days.

††Five International disturbed days

*Loss of record ; (day omitted for means)

TABLE 18

Hourly values of Vertical Force, 1955

(Averages for sixty minutes centered at the full hours of Greenwich mean time.)

December

2000 γ plus tabular quantities

Hours G. M. T									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H M	γ	H. M	γ	γ	
381	378	370	375	367	369	382	387	385	378	22 02	398	09 44	357	41	1††
393	392	392	388	387	387	387	387	387	386	05 02	398	10 02	375	23	2
376	381	386	387	385	378	386	386	386	380	03 46	396	11 10	364	32	3
381	381	381	381	381	382	381	381	381	379	06 14	387	08 50	363	24	4
377	375	381	384	381	381	381	385	392	378	22 43	397	08 43	356	41	5
387	376	386	386	386	386	387	385	381	377	21 10	387	07 06	342	45	6††
387	387	385	386	386	382	381	381	381	380	04 22	387	09 10	365	22	7
375	375	375	377	378	379	385	377	375	377	03 52	387	09 14	363	24	8
364	374	374	375	375	374	373	373	374	370	04 48	386	11 24	354	32	9
356	358	364	365	372	374	373	373	372	365	19 10	386	11 02	353	38	10
374	374	374	374	373	372	371	370	373	371	03 14	377	09 26	347	30	11
370	370	365	364	367	366	363	364	365	365	05 53	374	09 26	342	32	12
371	372	373	371	370	370	370	370	367	365	13 26	374	09 28	348	26	13†
366	365	365	365	367	366	370	370	369	364	14 28	370	11 30	353	17	14†
370	370	370	370	371	371	370	365	366	364	02 52	373	08 54	338	35	15
364	364	364	366	370	370	370	366	369	361	04 08	374	07 50	336	38	16
364	364	364	364	364	364	365	364	364	363	00 16	370	08 50	346	24	17
362	362	364	364	364	364	365	364	364	362	02 54	370	12 26	353	17	18†
354	353	356	363	363	363	363	364	365	357	03 14	371	07 42	324	47	19
359	369	366	367	367	366	364	364	362	365	06 22	381	13 46	353	28	20
348	357	358	364	364	364	363	364	363	354	18 22	369	08 02	339	30	21
359	363	361	364	362	363	364	361	364	357	17 06	370	07 44	334	36	22
370	369	367	370	370	367	370	370	370	367	03 26	384	11 04	357	27	23†
371	367	364	369	369	369	366	370	370	364	03 20	378	08 04	343	35	24
358	365	369	370	370	380	370	371	372	370	19 50	387	14 02	353	34	25††
358	364	375	378	377	369	375	371	363	364	18 23	386	08 34	341	45	26††
370	371	375	375	*	*	*	*	*	*	*	*	*	*	*	27††
380	375	375	376	382	376	375	377	380	*	*	*	*	*	*	28
380	382	382	380	380	382	382	380	380	375	06 18	390	09 12	351	39	29†
372	375	376	379	380	380	379	380	378	372	22 30	382	05 22	356	26	30
359	352	352	356	357	363	363	363	362	358	00 48	383	07 57	346	37	31
369	370	371	372	373	373	373	373	372	369					32	Mean
372	372	372	372	372	372	372	373	372							Mean†
371	371	375	375	375	376	379	379	375							Mean††

† Five International quiet days.

†† Five International disturbed days.

* Loss of record ; (day omitted for means).

TABLE 19
List of Magnetic Storms
JULY—DECEMBER 1955

Greenwich date 1955	G.M.T. of beginning h m.		G.M.T. of ending (1) d. h		Sudden commencement			Degree of activity (4)	Maximal activity Greenwich Day	Ranges			
					Type (2)	Amplitude (3)				D /	H γ	Z γ	
						D /	H γ						Z γ
August 28	03	03	29	04	..	.	..	..	m	28	*	*	*
September 30	03	32	30	18	.	.	.	.	m	30	3	158	58
October 7	22	54	8	22	s.c.	+1	+18	+11	m	8	4	162	80
October 10	00	50	10	13	..	.	.	.	m	10	5	145	40
October 25	00	40	26	20	..	..	..	..	ms	25	8	285	85
November 15	00	50	17	05	..	..	.	..	m	15	5	205	42
November 18	01	30	19	09	..	..	..	..	m	18	6	170	43
November 19	13	18	21	03	s.c.	+1	+45	+28	m	19	7	215	93
December 5	22	11	6	12	s.c.	+1	+24	+12	m	6	3	110	50

Crochet :
0440 to
0500 hrs.
G. M. T.

The following symbols and conventions have been used according to recognised practice :—

- (1) Approximate time of ending of storm construed as the time of cessation of reasonably marked disturbance movements in the traces.
- (2) s.c.—sudden commencement ; (..) = gradual commencement.
- (3) Signs of amplitudes of 'D' and 'Z' taken algebraically ; (D = reckoned negative being westerly)
(Z = reckoned positive being vertically downwards)
- (4) Storm described by three degrees of activity : (m) = for moderate (when range is less than 250 γ) ;
(ms) = for moderately severe (when range is between 251 γ and 400 γ) ;
(s) = for severe (when range is above 400 γ).

* Loss of record.

IONOSPHERIC DATA

Characteristic : hF2
 Unit · Km
 Month · September 1955

TABLE 20
 Ionospheric Data
 75 0° Mean Time

Latitude 10° 2N
 Longitude : 77° 5E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	260F	230F	215	220	A	B	240	260	290	360	365H	365
2	300F	300F	280V	300	300V	225V	250	265	285	325H	330H	350
3	250	230	240	275	260	B	245	L	LH	340	350	L
4	270	290	260	240	230	B	240	L	LH	390H	350	365
5	240F	240F	220F	220F	230	250	245	L	L	L	L	C
6	240	205	230	230	220	220	240	L	L	L	L	360
7	265	240	230	240	220	B	240	L	225	L	355	L
8	240	215	210	220	B	B	240	L	300	305H	370	375
9	240F	220F	215F	220	220F	220	240	275	300	320H	355	330
10	220	200	225	250	260	N	240	M	L	320	350	350
11	225	210	210	210	235	255	240	L	270	300	L	360
12	220	205	210	220	220	235	245	L	295	305H	335H	320
13	C	C	C	C	C	C	C	C	C	C	C	C
14	220	220	220	220	220	220	240	L	280H	300	320	335
15	220	210	B	B	B	B	235	L	L	L	340	370
16	240F	220	205	235	230	220	230	260	290H	300H	L	365
17	240	240	250	245	220	B	235	L	290	L	340	340
18	225	215	220	250	B	B	235	255	C	C	C	C
19	260	260	260	250	220	220	235	L	L	L	L	380
20	245	245	240	240	235	B	230	240H	315	325H	345	360
21	240	220	210	220	240	225	230	255	L	325H	345H	C
22	230	220	215	235	250	230	240	260	300	320	320	350
23	215	215	215	220	240	240	235	260	300H	320H	C	360
24	220	215	220	230	235	225	240	245	295	300H	320	320
25	200	220	225	245	B	B	240	270	300	300H	340	345
26	220	210	210	220	230	230	240	265	300	330H	370	360
27	215	215	225	225	230	230	235	260	295	315	320	350
28	240	245	260	270	270	250	240	270	290	L	320	340
29	230	215	220	230	220	200	235	250	L	300	300	320
30	300	280	260	240	240	240	240	L	L	300	300	340
Mean	240	230	230	235	235	230	240	260	290	320	340	350
Median	240	220	220	230	230	230	240	260	295	320	340	350
Count	29	29	28	28	24	18	29	15	18	21	22	24

Sweep 1Mc to 25 Mc in 1/4 min.

Characteristic : h'F2

TABLE 20

Latitude 10°.2N

Unit : Km.

Ionospheric Data

Longitude 77°.5E

Month : September 1955

75 0° E., Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
380	365	360	330	320	265	260H	290F	280F	240F	240F	280F	1
350	360	360H	L	310	L	260H	300F	260F	235	240	240	2
370	380	370	L	310	240	260	270	240	225	245	250	3
370	355	350	L	L	270	250	300	320	310	275	230	4
C	L	330	L	310	L	275H	M	280	260	240	255	5
L	360	340	320	L	L	260	300	295	260	240	260	6
360	355	L	300	300	280	260	320	280F	240F	220F	260F	7
400	L	345	L	L	L	270H	325H	360F	290F	280F	250F	8
355	L	320	320	L	L	260H	355	320F	295 ¹	280F	220F	9
365	340	340	L	M	L	265	300	300	260	250	240	10
345	345	350	300	L	230	260	320	300	295	270	240	11
320	L	320	L	L	225	260H	C	C	C	C	C	12
C	C	C	C	C	C	C	300	240	250	235	220	13
320H	335	315	300	285	L	260	300	300 ¹	240	230	230	14
L	340	320	L	305	L	260	320	260	260	235	230	15
350	340	300	280	280	260	245	270	240	240	225	240	16
320	L	320	290	290	240H	260H	300	240	220	215	220	17
C	L	310	290	280	255	260	240	225	220	220	225	18
350	320	330	300	L	L	250	240	220	210	215	230	19
340	L	315	300	A	A	265	325	320	220	240	225	20
345	340	310	300	280	L	250	280	230	215	220	240	21
345	355	320	320	C	C	C	310	300	240	230	235	22
360	340	340	300	280	250	260	400	360	320	280	220	23
345	325	330	300	L	230	260	310	(300)F	280	235	215	24
360	345	L	305	290	C	260	320	300	300	240	220	25
350	340	330	300	L	L	265	320	260	240	240	220	26
350	L	315	300	L	225	260	340	290	270	220	215	27
325	320	320	300	L	240	275	260	240	235	240	240	28
325	315	305	295	280	240	265H	260H	240	240	240	185	29
320	315	300	290	L	240H	260	225	205	225	235	235	30
350	340	330	300	295	245	260	300	275	255	240	235	Mean
350	340	320	300	290	240	260	300	280	240	240	235	Median
25	21	27	21	14	15	28	28	29	29	29	29	Count

Sweep 1Mc to 25 Mc in 1/2 min.

Characteristic : fo F2

TABLE 21

Latitude · 10°.2N

Unit : Mc

Ionospheric Data

Longitude 77°.5E

Month : September 1955

75 ° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	F	F	(5.1) ^F	3.4	A	B	5.2	7.3	8.3	8.5	9.0 ^{OH}	8.2
2	F	5.4 ^F	4.6 ^V	3.8	3.3 ^V	2.9 ^V	5.3	7.6	9.0	9.3 ^H	8.8 ^{II}	8.9
3	5.4	4.0	2.5	1.9 ^S	1.1	B	5.2	7.6	8.5 ^H	7.8	7.7	7.6
4	6.5	6.5	6.0	5.6	3.6	B	5.3	7.8	9.1 ^H	8.9 ^H	7.8	8.0
5	10.1 ^J	F	F	F	2.6	1.8	5.6	8.2	8.9	8.3	7.5	C
6	9.0	6.7	5.1	4.3	3.4	2.1	5.3	8.0	9.2	8.5	8.0	8.1
7	8.7	7.5	6.4	5.3	3.8	B	5.1	7.7	9.2	8.4	7.7	7.9
8	9.5	8.1	4.6	2.7	B	B	5.2	7.8	9.1	8.9	7.8	7.3
9	F	F	F	5.0	F	3.1	6.2	7.7	9.3	9.5	9.2	9.4
10	F	F	4.0 ^F	F	1.9	N	5.3	M	8.1	7.4	7.5	8.0
11	F	8.8	6.2	4.0	2.8	1.6	5.5	8.0	9.3	9.4	8.6	8.5
12	9.8	8.4	F	4.4	3.5	2.9	5.4	7.9	9.4	9.4	8.9	8.6
13	C	C	C	C	C	C	C	C	C	C	C	C
14	10.2	9.5	F	5.4	3.2	2.8 ^F	5.2	8.0	8.8	8.4	8.5	8.3
15	8.0	5.1	B	B	B	B	5.2	7.5	8.0	7.2	7.1	7.3
16	9.0	F	F	F	3.3	2.3	5.2	7.5	8.6	8.6	7.5	7.5
17	5.3	3.9	2.5	2.3	2.1	B	5.1	7.6	8.6	7.6	7.4	8.0
18	6.2	5.3	2.8	2.0	B	B	5.2	8.0	C	C	C	C
19	5.2	5.6	4.2	3.7	2.9	1.8	5.1	7.5	8.6	7.6	6.9	7.0
20	5.2	4.9	4.1	3.5	2.7	B	5.0	7.2	8.3	8.2	7.0	7.0
21	F	8.3	F	4.1 ^F	3.0 ^F	2.3	5.0	6.9	8.0	8.6	8.1	C
22	F	F	5.5	4.8	4.4	3.8	5.5	7.3	8.4	9.4	8.8	8.0
23	8.9	7.2 ^F	5.8 ^F	4.8 ^F	F	4.2 ^F	6.0	7.7	8.9	9.2	C	7.0
24	F	7.0	F	4.6	F	3.5	5.5	7.7	8.9	9.8	8.9	8.0
25	F	F	F	3.2	B	B	5.1	7.9	8.7	8.6	7.7	7.4
26	F	7.5	5.0	2.9	2.4	1.7	5.1	7.7	8.9	8.5	7.0	7.2
27	F	F	F	F	(2.6) ^F	2.1 ^F	5.3	7.6	8.8	8.5	7.8	7.7
28	F	F	F	F	F	F	F	(8.5) ^F	9.2	8.4	8.3	8.6
29	(9.5) ^S	(9.0) ^S	(6.3) ^S	5.8	5.4	3.8	5.8	8.5	9.5	9.5	8.9	9.0
30	F	F	F	F	F	F	(6.3) ^F	8.5	9.5	9.2	8.1	8.5
Mean	7.9	6.8	4.7	3.9	3.1	2.7	5.4	7.7	8.8	8.6	8.0	8.0
Median	8.8	7.0	5.0	4.0	3.0	2.6	5.2	7.7	8.9	8.6	7.8	8.0
Count	16	19	17	22	19	16	28	28	28	28	27	26

Sweep 1 Mc to 25 Mc in 1/2 min.

Characteristic : foF2

TABLE 21

Latitude . 10°.2N

Unit : MC

Ionospheric Data

Longitude . 77°.5E

Month : September 1955

75 0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
8.4	8.4	8.8	9.3	10.1	11.4	10.5 ^H	9.7 ^F	F	F	F	F	1
9.7	9.8	10.1 ^H	10.5	11.2	10.9	11.3 ^H	F	F	10.2	8.4	7.1	2
7.8	8.1	8.3	8.6	8.7	9.1	9.8	10.1	10.4	7.8	6.8	6.7	3
8.4	8.6	8.3	8.7	9.1	10.5	11.1	9.1	8.6	7.9	8.8	≥9.6 ^S	4
C	8.1	8.9	9.6	10.5	11.3	10.4	M	9.6	10.6	9.6	8.8	5
8.5	8.7	9.3	10.1	10.5	10.3	10.6	9.9	9.5	10.1	9.8	9.2	6
8.1	8.4	8.6	9.1	10.0	10.5	10.6	9.5	F	F	F	F	7
7.5	8.3	9.4	9.8	9.7	10.8	10.2 ^H	9.0	F	F	F	F	8
8.9	8.9	9.5	10.0	10.3	10.2	9.1	8.0	F	F	F	F	9
8.7	9.5	10.0	10.2	M	10.0	9.0	8.1	8.5 ^F	9.1	F	F	10
8.8	9.0	9.6	10.0	10.0	10.2	(10.3) ^F	(9.0) ^F	F	F	F	(9.9) ^F	11
8.2	9.0	10.1	10.9	11.2	12.2	10.4	C	C	C	C	C	12
C	C	C	C	C	C	C	10.6	F	10.4 ^F	10.8	F	13
8.6	9.1	9.8	10.5	11.1	11.4	11.1	10.5	10.1 ^F	10.9	9.6	8.5	14
7.4	8.2	9.0	9.1	10.1	11.0	10.6	F	F	F	F	F	15
7.7	8.6	9.4	10.4	11.4	11.5	11.5	10.0 ^F	9.4 ^F	8.5 ^F	7.3	5.9	16
8.4	9.0	10.6	11.6	11.4	11.3	10.3	9.8	10.4 ^F	10.8	7.4	6.9	17
C	8.9	9.5	10.1	11.0	11.4	11.3	10.5	9.7	7.8	6.5	5.4	18
7.4	8.0	8.6	9.7	10.4	10.1	9.8	9.5	10.0	8.2	6.6	5.7	19
7.3	7.6	8.2	9.1	9.9	10.1	10.2	9.2	F	F	F	F	20
7.6	7.9	9.1	9.8	10.6	10.4	9.8	9.4	F	F	F	F	21
7.6	7.6	8.1	9.0	C	C	C	7.8	F	F	F	9.1	22
6.9	7.2	7.8	8.6	9.2	9.2	9.2	6.9 ^F	F	F	F	9.5	23
7.9	8.6	9.4	9.9	10.0	9.5	9.2	8.9	9.2 ^F	F	F	11.5	24
7.4	7.7	8.4	8.9	9.5	C	10.2	9.0	F	F	F	F	25
7.5	8.0	8.9	9.6	9.6	9.6	9.3	8.8 ^F	F	F	F	F	26
8.0	8.4	8.5	8.8	9.2	9.2	9.1	7.8 ^F	F	F	F	F	27
8.7	8.9	10.1	10.6	10.5	10.4	9.0	8.5	8.5	8.4	8.6	8.9	28
9.2	9.9	11.1	12.0	12.2	11.7	11.4	11.0	10.2	9.7	9.2	8.8 ^F	29
8.2	9.0	10.0	10.6	10.4	9.7	9.9	11.1	11.2	9.4	7.8	7.2	30
8.1	8.5	9.2	9.8	10.3	10.5	10.2	9.3	9.7	9.3	8.4	8.2	Mean
8.1	8.6	9.3	9.8	10.3	10.4	10.2	9.3	9.6	9.4	8.6	8.5	Median
27	29	29	29	27	27	28	26	14	15	15	17	Count

Sweep 1Mc to 25 Mc in 1/4 min.

Characteristic . h'F₁
Unit : Km
Month : September 1955

TABLE 22
Ionospheric Data
75°0' E Mean Time

Latitude : 10° . 2'N
Longitude 77° . 5'E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								220	200	180H	A	170H
2								210	210	195	180H	180H
3								220	200H	180	180	180
4								220	200H	180H	180	180
5								220	200	180	180	C
6								220	200	190	185	175H
7								220	200	180H	180	180
8								220	205	200	190	180
9								220	200	200	190	180
10								M	200	180H	195	175
11								220	200	185H	180H	175H
12								220	200H	200	195	180
13								C	C	C	C	C
14								220	205	200	180H	200
15								200H	195	190	180H	180H
16								215	200	180H	180H	175H
17								215	200	180	180	180
18								210	C	C	C	C
19								220	200	185H	175H	180H
20								220	200	200	180	180
21								200H	200	190H	195	C
22								220	200	200	180	180
23								215	200	200	C	180
24								220	185H	200	180	190
25								215	185H	180H	195	180
26								205H	200	200	180	180
27								220	205	195	180H	180
28								220	200	200	185	180
29								210	200	190	170H	175H
30								225	200	200	185	185
Mean								215	200	190	185	180
Median								220	200	190	180	180
Count								28	28	28	26	26

Sweep 1Mc to 25 Mc in $\frac{1}{4}$ min.

Characteristic : h'F₁

TABLE 22

Latitude : 10°.2N

Unit . Km

Ionospheric Data

Longitude : 77°.5E

Month: September 1955

75.0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
180H	180	A	A	210	220							1
180	180H	185	210	200	230							2
180H	185	175H	200	205	230							3
190	190	180H	180H	A	A							4
C	200	200	200	A	230							5
180	195	190	195	200	240							6
180	180H	180	190H	220	220							7
180	200	200H	195	200H	225							8
180	185	180	180H	200	220							9
180H	180	190H	180H	M	225							10
200	200	190	195	200	Q							11
180	200	205H	210	220	Q							12
C	C	C	C	C	C							13
200	190	A	200	215	225							14
180	180H	185	200	200	230							15
180H	200	200	200	215	230							16
180H	180H	200	A	220	Q							17
C	A	A	200	220	240							18
190	180	A	180H	210	225							19
180	175H	180	200	A	A							20
180	180H	195	200	220	220							21
200	180	180	195	C	C							22
180	180H	180H	190H	220	230							23
180	180	195	A	215	Q							24
180	180	185	A	A	C							25
180	180H	180H	200	205	225							26
180	180	180	200	205	Q							27
200	190	200	200	220	230							28
200	190H	200	A	A	Q							29
200	200	200	200	225	Q							30
185	185	190	195	210	225							Mean
180	180	190	200	215	230							Median
27	28	25	24	22	18							Count

Sweep 1Mc to 25 Mc in 1/4 min.

Characteristic : fo F 1

TABLE 23

Latitude : 10°.2N

Unit : Mc

Ionospheric Data

Longitude : 77°.5E

Month: September 1955

75 Q° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								L	L	LH	4.7	4.7 ^H
2								L	L	L	LH	LH
3								L	L ^H	L	L	4.9
4								L	L ^H	L ^H	L	5.0
5								L	L	L	L	C
6								L	L	L	L	L
7								L	L	L	L	4.9
8								L	L	L	L	5.0
9								L	L	L	L	5.0
10								M	L	L	L	5.0
11								L	L	L	L	L
12								L	L	L	L	5.0
13								L	L	L	L	C
14								L	L	L	L	L
15								L	L	L	L	L
16								L	L	L	L	L
17								L	L	L	L	L
18								L	L	L	L	4.8
19								L	L	L	L	C
20								L	L	L	L	L
21								L	L	L	L	4.8
22								L	L	L	L	C
23								L	L	L	L	4.7
24								L	L	L	L	L
25								L	L	L	L	4.6
26								L	L	L	L	L
27								L	L	L	L	4.7
28								L	L	L	L	L
29								L	L	L	L	L
30								L	L	L	L	L
Mean								.	.	.	4.8	4.8
Median								.	.	.	4.7	4.9
Count								.	.	1	6	13

Sweep 1 Mc to 25 Mc in 1/4 min.

Characteristic . fo F1

TABLE 23

Latitude : 10° . 2N

Unit . Mc

Ionospheric Data

Longitude : 77° . 5E

Month . September 1955

75 0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23		Date
4.8 ^H	L	L	L	L	L								1
L	L ^H	L	L	L	L								2
5.0 ^H	L	L ^H	L	L	L								3
5.0	L	L ^H	L ^H	L	L								4
C	L	L	L	A	L								5
L	L	L	L	L	L								6
5.0	L	L	L	L	L								7
5.1	L ^{5.0}	L	L	L	L								8
L	L ^{5.0}	L	L	M	L								9
L	L ^{5.0}	L	L	L	L								10
5.0	L	L	L	L	Q								11
5.0	L	L	L	L	Q								12
C	L	L	L	L	Q								13
4.9	L	L	L	L	L								14
L	L ^{4.9}	L	L	L	L								15
5.0	L	L	L	L	L								16
L	L	L	L	L	L								17
C	L	L	L	L	L								18
4.8	L	L	L	L	L								19
4.8	L	L	L	L	A								20
4.7	L ^{4.6}	L ^{4.4}	L	L	L								21
4.7	L	L	L	L	L								22
4.7	L ^{4.6}	L	L	L	L								23
L	L	L	L	L	L								24
4.7	L	L	L	L	L								25
L ^{4.7}	L	L	L	L	L								26
L	L	L	L	L	L								27
L	L	L	L	L	L								28
L	L	L	L	L	L								29
L	L	L	L	L	L								30
4.9	4.8	..	..	..	..								Mean
4.8	4.9	..	..	..	..								Median
16	5	1	..	..	..								Count

Sweep 1 Mc to 25 Mc in 1/2 min.

Characteristic : h'E
 Unit : Km
 Month : September 1955

TABLE 24
 Ionospheric Data
 75 0° E Mean Time

Latitude : 10° .2N
 Longitude : 77° 5E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								110	A	A	A	A
2							120	A	A	A	A	A
3							140H	105	A	A	A	A
4								105	A	A	A	A
5								A	A	A	A	C
6								110H	A	A	A	A
7								100	A	A	A	A
8							120	A	A	A	A	A
9								110	A	A	A	A
10								M	A	A	A	A
11								100H	A	A	A	A
12								100	A	A	A	A
13							C	C	C	C	C	C
14								A	A	A	A	A
15								A	A	A	A	A
16								105	A	A	A	A
17								A	A	A	A	A
18							115	105	C	C	C	C
19								Q	A	A	A	A
20								105	A	A	A	A
21								105	A	A	A	C
22								105	105	A	A	A
23								115	A	A	A	A
24								115H	A	A	A	A
25								105	A	A	A	A
26								105	A	A	A	A
27								105	A	A	A	A
28								A	A	A	A	A
29								105	A	A	A	A
30								A	A	A	A	A
Mean							..	105			..	
Median							.	105			.	..
Count							4	20	1	..	..	..

Sweep 1 Mc to 25 Mc in 1/2 min.

Characteristic h'E

TABLE 24

Latitude : 10°.2N

Unit : Km

Ionospheric Data

Longitude : 77°.5E

Month September 1955

75 0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
A	A	105	A	110	115	140						1
A	A	A	A	A	A							2
A	A	A	A	A	A							3
A	A	A	A	A	A	A						4
C	A	A	A	A	A							5
A	A	A	A	A	105	A						6
A	A	A	A	105	A							7
A	A	A	A	A	A							8
A	A	A	A	A	A							9
A	A	A	A	M	A							10
A	A	A	A	A	A							11
A	105	105	105	105	Q							12
C	C	C	C	C	C	C						13
A	A	A	A	A	105H							14
A	A	A	A	105	105H							15
A	A	105	105	110	120							16
A	105	105	A	A	A							17
C	A	A	105	110	Q							18
A	A	A	A	A	105							19
A	A	A	A	A	A							20
A	A	A	105	105	Q							21
A	A	A	A	C	C	C						22
A	A	A	A	105	Q							23
A	A	A	A	A	Q							24
A	A	A	A	A	A							25
A	A	A	100	110H	120H							26
A	A	A	A	A	Q							27
A	A	A	105	A	A							28
A	A	A	105	A	Q							29
A	A	A	A	A	Q							30
..		105	105	105	110	.						Mean
..	..	105	105	105	105	.						Median
..	1	5	7	9	7	1						Count

Sweep 1Mc to 25 Mc in 1/4 min.

Characteristic : foE

TABLE 25

Latitude : 10°.2N

Unit : Mc

Ionospheric Data

Longitude : 77°.5N

Month : September 1955

75.0° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								2.6	A	A	A	A
2							1.9	2.6	A	A	A	A
3							1.9H	N	A	A	A	A
4								2.7	A	A	A	A
5								A	A	A	A	C
6								2.8	A	A	A	A
7								N	A	A	A	A
8							1.7	A	A	A	A	A
9								2.6	A	A	A	A
10								M	A	A	A	A
11								N	A	A	A	A
12								2.7H	A	A	A	A
13							C	C	A	A	A	A
14								A	A	A	A	A
15								A	A	A	A	A
16								2.6	A	A	A	A
17								A	A	A	A	A
18							1.8	N	A	A	A	A
19								Q	A	A	A	A
20								2.5	A	A	A	A
21								2.5	A	A	A	C
22								2.6	L	A	A	A
23								2.5	A	A	A	A
24								2.6	A	A	A	A
25								2.6	A	A	A	A
26								2.5	A	A	A	A
27								2.5	A	A	A	A
28								A	A	A	A	A
29								2.6	A	A	A	A
30								A	A	A	A	A
Mean								2.6			.	..
Median								2.6	.	o		.
Count							4	16			..	..

Sweep 1 Mc to 25 Mc in 1/2 min.

Characteristic : fo E
 Unit : Mc
 Month : September 1955

TABLE 25
 Ionospheric Data
 75 0° E Mean Time

Latitude : 10° .2N
 Longitude : 77° 5E

12	13	14	15	16	17	18	19	20	21	22	23	Date
A	A	N	A	3.1	N	N						1
A	A	A	A	A	A							2
A	A	A	A	A	A	A						3
A	A	A	A	A	A							4
C	A	A	A	A	A							5
A	A	A	A	A	N	A						6
A	A	A	A	3.2	A							7
A	A	A	A	A	A							8
A	A	A	A	A	A							9
A	A	A	A	M	A							10
A	A	A	A	A	A							11
A	N	3.5	N	A	Q							12
C	C	A	C	N	C	C						13
A	A	A	A	A	A							14
A	A	A	A	N	2.5							15
A	A	N	3.2	2.8	2.3							16
A	A	N	A	A	A							17
A	A	A	A	2.8	Q							18
A	A	A	A	A	2.2							19
A	A	A	A	A	A							20
A	A	A	3.2	3.0	Q							21
A	A	A	A	C	Q	C						22
A	A	A	A	3.0	Q							23
A	A	A	A	A	Q							24
A	A	A	A	A	C							25
A	A	A	N	2.9	2.3							26
A	A	A	A	A	Q							27
A	A	A	N	A	Q							28
A	A	A	3.2	A	Q							29
A	A	3.4	A	A	Q							30
.	.	.	.	3.0	2.3	..						Mean
..	..	.	.	3.0	2.3	..						Median
..	..	2	3	7	5	..						Count

Sweep 1Mc to 25 Mc in 1/4 min.

Characteristic : fEs

TABLE 26

Latitude : 10° 2'N

Unit : Mc

Ionospheric Data

Longitude : 77° 5'E

Month : September 1955

75 0° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	4.0			6.0H 4.0	10.6	S		G	9.0	11.2	11.6	11.6
2								7.0	9.0	12.0	12.0	11.4
3								7.0	10.6	12.0	12.0	12.4
4								G	10.0	12.2	12.8	13.2
5								7.8	11.2	11.4	12.2	C
6								G	11.0	11.4	11.8	12.2
7		3.0		1.6				7.0	10.4	11.8	12.2	12.0
8							4.4	S	11.0	12.0	12.6	12.8
9								8.0	11.0	11.0	12.4	12.4
10								M	10.2	10.4	11.0	11.8
11								6.0	8.4	10.6	12.2	12.4
12								G	10.0	10.2	12.0	12.0
13	C	C	C	C	C	C	C	C	C	C	C	C
14								8.0	9.0	10.0	10.4	11.4
15								7.0	8.0	11.0	11.0	12.0
16								7.0	8.8	10.6	11.0	12.0
17	7.0	7.0	5.0	5.4	S			7.0	10.0	10.4	12.2	12.2
18								6.0	C	C	C	C
19	6.0	4.0						2.7	10.0	11.0	11.4	12.0
20								G	9.0	9.0	10.0	11.0
21								G	7.0	12.0	11.2	C
22								G	7.0	10.4	12.0	12.0
23								S	9.0	11.0	C	12.0
24								G	7.0	9.0	10.0	12.0
25		3.4	4.0					6.0	10.0	12.0	12.0	12.0
26								6.0	10.0	12.0	12.0	12.0
27								6.0	9.4	11.8	12.0	12.0
28		4.6	5.0		5.0			8.0	11.0	11.0	12.0	11.6
29								G	8.0	9.0	11.0	11.0
30		S	S	8.0	7.0			7.0	10.0	10.6	12.0	12.0
Mean	..	4.4	.	5.0	..		.	6.7	9.5	11.0	11.6	12.0
Median	.	4.0		5.4	.	.	.	6.0	10.0	11.0	12.0	12.0
Count	3	5	3	5	3		1	26	28	28	27	26

Sweep 1 Mc to 25 Mc in 1/4 min.

Characteristic : fEs

TABLE 26

Latitude : 10° 2' N

Unit : Mc

Ionospheric Data

Longitude : 77° 5' E

Month : September 1955

75 0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
11.4	11.8	11.0	9.2	5.0H	G		3.2					1
11.4	12.0	11.8	12.0	10.0	S							2
13.0	13.0	12.2	12.0	10.0	6.0	9.4H	11.0	7.0				3
13.2	13.0	13.0	12.0	11.4	9.0	6.0	6.0					4
C	13.0	12.2	11.8	11.4	7.0	7.0	M		S	S	2.2	5
12.4	13.0	12.2	S	10.6	S	S						6
13.0	13.0	12.4	S	6.0	7.0	4.2			3.2	5.0	4.8	7
13.2	13.0	12.0	10.2	10.0	9.0					3.6		8
12.0	12.0	12.4	11.0	S	8.0							9
12.0	11.0	12.0	11.2	M	7.0							10
12.0	11.2	12.0	11.4	S	S	S						11
12.0	8.0	6.6	10.6	7.2	S	C	C	C	C	C	C	12
C	C	C	C	C	C	C						13
12.0	12.0	11.0	9.8	8.0	S							14
12.0	12.6	12.0	12.0	S	S							15
12.0	12.0	8.0	6.6	7.0	G			4.4				16
12.4	12.0	10.4	10.0	8.2	6.4			S				17
C	12.0	14.0	4.0	G	9.0	6.0			4.6			18
12.0	12.2	12.0	10.0	7.0	G							19
11.0	12.2	12.2	11.0	12.0	10.0	7.0					3.2	20
11.4	10.8	8.0	G	G	G				5.2			21
12.0	11.6	12.2	11.0	C	C	C						22
12.0	12.2	11.6	10.0	6.8	4.4				2.4	4.4		23
12.0	12.0	10.8	12.0	9.6	S	2.2			3.2		2.8	24
12.4	12.0	12.0	12.0	8.4	C						3.0	25
12.0	11.4	10.8	9.0	6.6	6.0							26
12.0	12.0	11.4	10.0	8.4	S							27
11.0	11.0	11.0	11.0	8.4	S							28
12.0	9.0	6.0	4.4	9.0	S							29
11.6	12.0	11.4	10.0	8.0	G					3.0	5.0	30
12.0	11.8	11.2	9.8	7.9	7.4	6.0	..	..	3.7	..	3.5	Mean
12.0	12.0	12.0	10.6	8.3	6.4	6.0	..	.	3.2	..	3.1	Median
27	29	29	27	24	17	7	3	2	5	4	6	Count

Sweep 1 Mc to 25 Mc in 1/4 min.

Characteristic : (M3000)F2

TABLE 27

Latitude : 10° 2'N

Unit : —

Ionospheric Data

Longitude : 77° 5'E

Month : September 1955

75 0° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	F	F	(3.3) ^F	3.5	A	B	3.4	3.4	3.1	2.7	(2.4) ^H	2.6
2	F	(2.9) ^F	3.0	2.8	3.0	3.6	3.3	3.2	2.8	2.5	2.6 ^H	2.6
3	3.3	3.5	3.5	3.2	3.5	B	2.9	3.1	2.5 ^H	2.6	2.5	2.5
4	3.1	3.1	3.1	3.3	3.3	B	3.5	3.3	2.7 ^H	2.3 ^H	2.6	2.5
5	(3.1) ^F	F	F	F ³	3.4	3.5	3.2	3.0	2.5	2.4	2.5	C
6	(3.3) ^S	(3.3) ^N	(3.3) ^N	(3.2)	3.5	3.5	3.3	3.1	2.8	2.5	2.5	2.5
7	3.1	N	(3.3)	3.1	3.5	B	3.4	3.0	2.7	2.5	2.5	2.5
8	3.2	(3.5)	3.6	3.5	B	B	3.3	(3.2)	2.7	(2.4) ^H	(2.4)	2.5
9	F	F	F	(3.3) ^F	F	3.5	(3.4) ^F	(3.2)	2.9	(2.5) ^H	2.6	2.5
10	F	(2.9) ^F	(3.3) ^F	F	N	N	3.1	M	2.7	2.6	2.6	2.5
11	F	3.4	3.5	3.5	3.4	3.3	3.2	3.1	2.9	2.6	2.4	2.5
12	3.3	3.6	F	3.4	3.5	3.3	3.2	3.1	2.9	(2.4) ^H	2.5 ^H	2.4
13	C	C	C	C	C	C	C	C	C	C	C	C
14	(3.4) ^F	(3.4) ^F	F	3.5	3.5	3.3	3.3	3.0	2.6 ^H	2.6	2.4	2.6
15	3.4	3.5	B	B	B	B	3.3	3.0	2.7	2.6	2.7	2.6
16	3.3	F	F	F	3.5	3.7	3.5	3.4	2.9	(2.4) ^H	2.6	2.5
17	3.4	3.5	(3.5)	3.5	(3.6) ^F	B	3.3	3.2	2.7	2.5	2.6	2.6
18	3.5	3.6	3.7	(3.6) ^F	B	B	3.4	(3.3)	C	C	C	C
19	3.2	3.4	3.3	3.4	3.6	3.6	3.5	3.2	(2.7)	2.5	2.5	2.5
20	3.3	3.4	3.5	3.5	3.4	B	3.6	(3.3) ^H	2.9	(2.4) ^H	2.6	2.6
21	F	3.5	F	(3.4) ^F	(3.5) ^F	(3.6)	3.5	3.5	(3.2)	(2.7) ^H	(2.5) ^H	C
22	F	F	(3.6) ^F	3.3	3.3	3.4	3.5	3.3	3.1	2.7	2.5	2.6
23	3.5	(3.6) ^F	(3.5) ^F	(3.5) ^F	F	F	3.5	3.4	(3.1) ^H	(2.6) ^H	C	2.5
24	F	3.4	F	3.3	(3.3) ^F	(3.4) ^F	(3.4)	3.5	3.1	(2.8) ^H	2.5	2.5
25	F	F	F	3.5	B	B	3.4	3.3	2.9	(2.5) ^H	2.6	2.6
26	F	(3.6) ^F	3.6	3.6	3.5	3.6	3.4	3.3	2.9	(2.4) ^H	2.5	2.6
27	F	F	F	F	(3.5) ^F	(3.6) ^F	3.5	3.3	2.8	2.6	2.6	2.5
28	F	F	F	F	F	F	F	3.0	2.7	2.5	2.7	2.5
29	(3.3) ^S	3.4	(3.5) ^S	3.3	3.5	3.6	3.4	3.3	2.9	2.6	2.5	2.5
30	F	F	F	F	F	F	(3.5) ^F	3.1	2.6	2.5	2.6	(2.5)
Mean	3.3	3.4	3.4	3.4	3.4	3.5	3.4	3.2	2.8	2.5	2.5	2.5
Median	3.3	3.4	3.5	3.4	3.5	3.5	3.4	3.2	2.8	2.5	2.5	2.5
Count	16	19	17	22	19	15	28	28	28	28	27	26

Sweep 1Mc to 25 Mc in ½ min.

Characteristic : (M3000)F2

TABLE 27

Latitude : 10° 2N

Unit : —

Ionospheric Data

Longitude . 77° 5E

Month September 1955

75 0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
2.5	2.5	2.6	2.7	2.7	2.9	3.0	2.8	F	F	F	F	1
2.7	2.5	2.6H	2.5	2.6	2.6	(2.6)H	F	F	2.9	3.1	3.3	2
2.5	2.6	2.4	2.4	2.6	2.7	3.0	3.0	3.2	3.3	3.2	3.1	3
2.6	2.5	2.4	2.5	2.6	2.8	2.9	2.8	2.7	2.7	2.9	(3.2)	4
C	2.6	2.6	2.6	(2.8)	2.8	(2.8)H	M	(2.8)	(3.1)	(3.2)S	(3.1)S	5
2.5	2.4	2.5	2.6	(2.7)	(2.7)S	2.8	S	2.8	3.0	3.1	(3.1)S	6
2.5	2.4	2.4	2.5	2.8	(2.9)	2.8	2.6	F	F	F	F	7
2.5	2.4	2.6	2.7	(2.7)	2.7	(2.6)H	(2.5)H	F	F	F	F	8
2.5	2.5	2.5	2.5	2.6	2.8	2.8	2.1	F	F	F	F	9
2.6	2.6	2.6	2.6	M	(2.4)S	(2.2)	(2.4)	(2.5)F	2.7	F	F	10
2.5	2.5	2.5	2.5	(2.6)	2.7	(2.6)F	(2.4)F	F	F	F	(2.7)F	11
2.6	2.6	2.7	2.8	2.8	2.7	(2.6)H	C	C	C	C	C	12
C	C	C	C	C	C	C	2.6	F	2.7	(3.0)F	F	13
2.5H	2.6	2.6	2.7	2.8	2.8	2.7	2.7	(2.8)F	3.2	3.3	3.3	14
2.5	2.6	2.7	2.7	2.8	2.8	2.7	F	F	F	F	F	15
2.6	2.6	2.7	2.8	3.1	3.2	3.1	(2.9)F	(3.0)F	3.2	(3.4)F	3.2	16
2.6	2.7	2.8	2.9	2.9	(2.8)H	(2.7)H	2.7	2.9F	3.4	3.5	3.4	17
C	2.5	2.7	2.9	3.1	3.3	3.2	3.2	3.4	3.4	3.3	3.3	18
2.6	2.6	2.7	2.7	2.8	2.9	2.9	(3.0)	3.3	3.5	3.4	3.2	19
2.6	2.5	2.6	2.8	(2.8)A	(2.9)A	2.9	2.9	F	F	F	F	20
2.5	2.6	2.8	2.8	2.9	(2.9)	2.8	(2.8)F	F	F	F	F	21
2.5	2.5	2.6	2.7	C	C	C	(2.6)F	F	F	3.3	3.3	22
2.6	2.5	2.6	2.7	2.9	3.0	2.8	(2.4)F	F	F	F	(3.4)F	23
2.6	2.6	2.6	2.6	(2.8)	2.9	2.7	2.6	2.8	F	F	3.6	24
2.5	2.6	2.5	2.7	2.9	C	2.9	2.7	F	F	F	F	25
2.6	2.6	2.7	2.7	2.7	2.8	2.7	F	F	F	F	F	26
2.6	2.5	2.5	2.6	2.6	2.7	2.7	(2.4)F	F	F	F	F	27
2.6	2.6	2.6	2.7	2.6	2.5	2.3	2.5	2.7	2.8	3.0	3.1	28
2.6	2.6	2.7	2.9	2.9	2.9	2.7	2.7	2.9	3.0	3.0	(2.9)F	29
2.6	2.5	2.6	2.7	2.6	(2.4)H	2.6	2.8	3.2	3.3	3.3	3.4	30
2.6	2.5	2.6	2.7	2.8	2.8	2.7	2.7	2.9	3.1	3.2	3.2	Mean
2.6	2.6	2.6	2.7	2.8	2.8	2.7	2.7	2.8	3.1	3.2	3.2	Median
27	29	29	29	27	27	28	24	14	15	15	17	Count

Sweep 1Mc to 25Mc in 1/2 min.

Characteristic : h'F2
 Unit : Km
 Month : October 1955

TABLE 28
 Ionospheric Data
 75-0° E Mean Time

Latitude : 10° 2N
 Longitude : 77° 5E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	225	220	205	230	250	B.	240	L	260	300	300	300H
2	260	225	205	205	220	B	235	L	280H	LH	L	C
3	240	220	225	220	220	220	240	260	280H	300	305	L
4	225	220	205	220	B	B	230	L	L	300H	L	L
5	240	220	200	210	235	B	235	L	270	285H	295	L
6	245	200F	230F	220	230	320	440F	275	L	285	295	310
7	255	235	240	240	220	215	245	250	270	(285)H	L	325
8	220	220	225	225	230	220	240	245	260H	285	320H	L
9	220	220	225	230	240	225	240	240	L	280	295H	300
10	220	220	220	220	240	(260)B	240	250	280	LH	300H	300
11	230	215	220	225	225	220	245	L	280	300	300	L
12	225	225	220	220	220	215	235	L	L	L	300	L
13	260	230	220	220	225	220	240	260	290H	M	M	M
14	M	M	M	M	M	M	M	M	M	M	300H	320
15	225	220	215	220	230	220	235	255	270	L	300	C
16	225	220	220	220V	215	B	230	240	L	300	LH	320
17	220	220	220	225	230	B	230	240	275	290H	305H	315
18	210	220	220	220	230	B	225	240	280	310H	300	L
19	225	215	220	220	230	230	230	255	260	LH	310	L
20	215	215	220	230	250	230	235	255	260	285H	300H	320H
21	230	220	225	225	240	B	240	245	275	290	C	C
22	240	240	225	220	235	250	240	L	300	320H	310	M
23	240	255	240	220	240	240	240	L	275	300	310	325
24	235	225	230	225	220	230	235	240	295	280	320H	310
25	240	225	220	220	225	225	240	L	275	L	LH	330H
26	235	250	260	310	280	B	250	L	280	L	L	300
27	235	240	245	255	230	215	240	240	L	280	L	320
28	225	220	215	220	225	220	245	250	L	280	280	300
29	220	220	220H	220	230	230	245	250	270	L	L	300
30	235	220	220	220	230	225	240	245	L	285H	280	300
31	250	265	310	320	280	220	240	L	L	L	L	300
Mean	230	225	225	230	235	230	245	250	275	290	300	310
Median	230	220	220	220	230	225	240	250	275	290	300	310
Count	30	30	30	30	29	21	30	19	21	20	20	18

Sweep 1Mc to 25Mc in 1/4 min.

Characteristic : h'F2

TABLE 28

Latitude : 10° 2N

Unit : Km

Ionospheric Data

Longitude : 77° 5E

Month : October 1955

75 0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
300	C	C	290	L	240	275	310F	F	240	260	280	1
C	C	300	280	270	240	275	315	320F	280F	240	255	2
L	L	L	L	L	240	280	300	260	230	230	240	3
315	300	300	280	L	240	270	340	280	225	235	240	4
320	310	L	L	L	245	275	315F	270F	245	225	240	5
320	320	L	L	L	245	290	340	375	320F	220	240	6
L	300	L	L	L	A	305	415F	330	305	260	225	7
L	L	L	L	L	250	320	360	360	270	240	220	8
315	300	L	L	L	240	300	300	335	280	250	220	9
L	300	300	L	L	245	320H	320N	320	250	240	245	10
L	L	L	L	L	240	280	320	305	265	240	230	11
320	305	L	L	L	245	300H	380	280	360	260	260	12
M	M	M	M	M	M	M	M	M	M	M	M	13
310	300	300	L	220	250	305	420	360	340	245	240H	14
300	300	300	L	220	240	295	360	240	260	240	240	15
300	300	300	L	L	245	305	300	260	240	220	220	16
L	315	290	L	L	240	275	320	330F	260	260	215	17
340	305	280	290	260	240	275	305	300	265	220	220	18
335	305	M	290	L	240	280	330	320	285	220H	220	19
335	320	L	L	L	255	270	340	270	300	220	225	20
C	C	C	305	L	245	285	300	320	280	240	235	21
350	320	300	290	280	240	270	300	335	320	220	215	22
320	330	300	300	L	245	300	380	340	340	235	240	23
320	320	L	L	220	250	300	340	300	325F	255	240	24
325	L	L	L	220H	260	270	310	230	220	225	235	25
305	300	290H	L	220H	255H	260H	275H	260H	260H	260	240	26
300	300	300	L	225	250H	280	300	280	275	260	240	27
300	305	280	L	LH	255H	300H	325H	320H	320H	250H	220	28
L	L	L	L	L	255	300	380H	340	310	280	260	29
330	300	L	L	220	260	310	405	420	380	315	265	30
320	L	L	L	230	255	320	410	435	240	280	240	31
320	305	295	290	235	245	290	335	315	285	245	235	Mean
320	305	300	290	220	245	290	320	320	280	240	240	Median
21	21	13	8	11	29	30	30	29	30	30	30	Count

Sweep 1Mc to 25Mc $\frac{1}{2}$ in min.

Characteristic : foF2
 Unit : Mc
 Month : October 1955

TABLE 29
 Ionospheric Data
 75 0° E Mean Time

Latitude : 10° 2N
 Longitude : 77° 5E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	7.0	7.2	4.3	2.9	2.5	B	5.7	8.4	10.4	9.5	9.0	8.8
2	9.3	8.4	6.8	4.4	2.8	B	5.8	8.7	9.9	9.7	8.7	C
3	F	8.9	F	F	4.9	4.0	6.1	9.3	9.7	9.1	8.8	8.5
4	10.8	9.3	5.4	3.0	B	B	5.8	8.9	10.2	10.1	8.5	8.7
5	9.2	8.8	5.5	3.5	2.6	B	5.8	8.4	10.4	11.4	10.9	9.7
6	10.6	F	F	6.6	5.5	F	F	8.8	10.2	10.2	9.6	9.6
7	10.9	9.8	F	F	F	(4.9) ^F	6.4	9.1	10.6	10.9	10.1	8.7
8	F	F	(6.1) ^F	5.1	4.6	3.6	6.0	8.8	10.1	11.6	11.4	9.3
9	F	F	F	5.2	4.8	4.6	6.6	9.1	10.6	11.5	10.9	9.6
10	F	8.7	6.6	4.5	2.6	(1.9) ^B	6.3	8.9	10.1	11.3	11.0	9.6
11	F	F	7.4	(5.4) ^F	4.9	3.8	6.1	9.1	10.4	10.0	9.8	9.6
12	10.0	8.8	8.1	7.2	5.8	3.8	6.1	8.7	10.2	9.8	9.4	8.9
13	F	F	(8.0) ^F	(6.8) ^F	F	(4.5) ^F	6.6	9.2	9.9	M	M	M
14	M	M	M	M	M	M	M	M	M	M	10.7	9.8
15	8.5	(8.7)	6.9	5.5	4.0	3.4	5.9	8.4	9.8	10.5	10.8	C
16	F	F	F	5.4 ^V	3.5	B	5.6	7.6	9.9	10.8	10.4	8.7
17	7.4	6.7	4.5 ^F	(3.7) ^F	2.5	B	5.5	7.9	9.3	10.8	10.5	8.6
18	8.8	8.6	6.0	3.9	2.5	B	5.3	7.9	9.1	10.2	8.2	7.4
19	F	F	(5.3) ^F	F	F	2.5	5.4	8.0	9.0	9.5	8.1	7.6
20	7.5	6.7	5.0	3.7	2.8	2.4	5.4	7.5	9.3	10.5	10.1	9.2
21	F	F	5.4	(4.3) ^F	3.1 ^F	B	5.3	7.4	9.0	10.3	C	C
22	8.0	7.6	6.8	4.6	3.0	2.4	5.5	8.0	9.2	9.8	8.6	M
23	8.5	8.2	7.7	5.7	3.8	2.7	5.8	8.0	9.5	10.1	9.5	9.0
24	8.8 ^F	(8.7) ^F	8.3 ^F	7.2	4.9	2.7	5.6	7.9	9.2	10.6	10.6	9.2
25	(9.1) ^F	F	8.8	6.4	5.0	3.1	5.6	8.0	9.5	10.8	10.8	10.9
26	6.4	5.1	3.1	2.8	3.1	B	5.9	8.8	11.0	11.1	11.3	12.2
27	11.8	11.9	10.3	8.8	7.7	4.7	6.8	9.5	11.0	11.6	11.5	11.0
28	11.0	10.9	9.4	7.3	5.8	4.3	6.5	9.1	10.5	11.1	10.6	10.9
29	8.6	6.8	5.4	4.4	3.7	3.1	6.2	9.1	10.4	9.9	9.6	9.6
30	(10.4) ^F	10.4	9.4	6.8	4.9	3.5	6.3	9.4	10.8	11.4	10.5	10.2
31	8.0	8.9	8.0	F	(7.2) ^F	6.5	6.3	9.3	10.9	10.8	10.0	10.2
Mean	8.8	8.6	6.7	5.2	4.2	3.6	5.9	8.6	10.0	10.5	10.0	9.4
Median	8.8	8.7	6.8	5.2	3.9	3.6	5.9	8.8	10.1	10.5	10.1	9.4
Count	21	21	25	26	26	20	29	30	30	29	29	26

Sweep 1Mc to 25Mc $\frac{1}{2}$ in min.

Characteristic : foF²

TABLE 29

Latitude : 10° 2'N

Unit : Mc

Ionospheric Data

Longitude : 77° 5'E

Month : October 1955

75 0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
8.9	C	C	11.2	11.9	12.1	11.6	10.2 ^F	9.9 ^F	10.2	9.4	9.1	1
C	C	10.4	11.0	11.7	12.2	11.1	9.6	F	F	F	F	2
8.9	9.5	10.1	10.3	10.7	10.7	10.5	10.0	10.2	10.6	10.5	10.4	3
9.4	10.1	11.1	11.5	11.5	11.5	11.7	11.2	10.6	11.0	10.9	9.6	4
9.5	9.8	10.6	10.7	11.0	11.3	11.1	10.3	11.0	11.4	11.5	10.8	5
9.8	10.6	10.5	10.7	10.9	10.9	10.5	9.5	(8.9) ^F	F	F	F	6
8.8	9.1	9.6	9.7	9.8	10.3	10.2	F	F	F	F	10.0	7
8.8	8.8	9.8	10.8	11.5	11.7	10.4	F	F	F	F	9.7	8
9.6	10.0	10.5	11.0	11.6	11.5	10.5	F	F	F	F	F	9
9.7	10.7	11.3	12.6	12.4	12.0	10.6	F	F	F	(10.0) ^F	F	10
9.4	9.8	10.6	11.6	12.4	11.7	11.0	(9.5) ^S	9.5	9.5	10.4	10.7	11
8.9	9.6	10.4	11.2	11.4	11.0	10.0	F	F	F	F	F	12
M	M	M	M	M	M	M	M	M	M	M	M	13
9.5	10.0	10.6	10.6	10.9	10.9	9.6	F	F	F	F	7.6	14
9.4	9.9	10.5	10.9	11.1	11.4	(9.9) ^S	(8.1) ^F	F	F	F	F	15
8.6	9.2	10.1	10.8	10.1	11.3	10.8	F	F	F	F	F	16
8.3	8.9	9.6	10.0	10.9	11.4	11.4	10.6 ^F	F	F	F	(9.1) ^F	17
7.8	8.7	9.8	10.7	9.5	10.6	10.8	9.9 ^F	9.9 ^F	F	F	F	18
7.9	9.0	M	10.4	10.9	10.8	10.4	9.4	F	F	F	F	19
8.8	9.4	9.8	10.5	10.6	10.8	10.9	9.3	F	F	F	F	20
C	C	C	10.4	10.5	10.1	9.5	F	F	F	F	8.5	21
8.4	9.0	9.7	10.4	10.8	11.5	11.0	10.5	F	F	F	F	22
9.3	10.1	10.5	11.2	11.4	10.5	9.5	F	F	F	F	F	23
9.1	9.6	10.2	10.3	10.6	10.5	9.5	(8.0) ^F	F	F	F	(8.3) ^F	24
9.0	8.6	9.0	9.8	9.6	9.2	9.7	9.0	10.0	10.5	7.8	6.5	25
12.7	13.3	13.6	13.3	12.9	11.8	(11.2) ^S	10.5 ^S	(10.0) ^S	10.4	10.4	11.7	26
10.6	10.9	11.5	11.5	11.6	10.4	8.9	(8.2) ^F	(7.7) ^F	8.5	8.9	10.4	27
11.7	12.1	13.0	12.9	13.1	12.3	11.1	9.9	8.9	F	F	(9.4) ^F	28
10.1	10.7	11.1	11.4	11.7	11.1	9.8	8.2 ^J	(8.0) ^F	F	F	F	29
10.5	10.8	11.6	12.4	12.7	12.6	11.2	9.0	F	F	F	F	30
10.8	11.4	12.1	12.1	12.3	11.8 ^J	10.8	8.7 ^F	F	F	F	F	31
9.4	10.0	10.6	11.0	11.2	11.2	10.5	9.5	9.6	10.3	10.0	9.4	Mean
9.4	9.8	10.5	10.8	11.2	11.3	10.6	9.5	9.9	10.4	10.4	9.6	Median
28	27	27	30	30	30	30	21	12	8	9	15	Count

Sweep 1Mc to 25Mc $\frac{1}{2}$ in min.

Characteristic : h' F1

TABLE 30

Latitude : 10° 2N

Unit : Km

Ionospheric Data

Longitude : 77° 5E

Month : October 1955

75 0° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								220	200	200	180	175H
2								220	200H	200	185	C
3								220	220	190H	180H	180
4								215	200	195	180	180H
5								220	200H	170H	180H	180
6								225	200H	215	190H	200
7								225	200	180	200	180H
8								220	205	200	195H	200
9								220	205	200	200	180H
10								220	205	200	200	180H
11								220	215	200	195	180H
12								220	200	200	200	195
13								220	200H	M	M	M
14								M	M	M	180H	180H
15								215	200	190H	190H	C
16								220	205H	200	185H	180H
17								225	200	190H	190H	180H
18								225	200	200H	180H	180
19								220	205	200	190	180
20								225	200H	190H	180H	175H
21								220	200	190H	C	C
22								220	205	200	190	M
23								200H	200H	195H	180H	200
24								220	200H	180H	180H	200H
25								225	200H	205H	205	200
26								235	225	220	215	210
27								220	200	200	200	200
28								225	220	210	200	200H
29								225	220	210	195	210
30								230	205	200	200	200
31								225	220	220	205	200
Mean								220	205	200	190	190
Median								220	200	200	190	180
Count								30	30	29	29	26

Sweep 1 Mc to 25 Mc in $\frac{1}{2}$ min.

Characteristic : h'F1
 Unit : Km
 Month : October 1955

TABLE 30
 Ionospheric Data
 75°0' E Mean Time

Latitude : 10°·2N
 Longitude : 77°·5E

12	13	14	15	16	17	18	19	20	21	22	23	Date
180	C	C	205	220								1
C	C	195	200	220								2
180	185	200	200	215								3
180H	190	200	210	220								4
180	180H	190	205	205								5
200	200	200	210	205								6
200	195H	190	200	210	A							7
200	195	200	A	205								8
190	200	185H	200H	200								9
200	200H	200	200	A								10
180H	180H	200H	A	A								11
190H	200	200	200H	220								12
M	M	M	M	M	M							13
180H	200	200	200H	Q								14
190	200	200	200	Q								15
200	190H	190	200	205H								16
180H	200	180H	200H	225								17
180	180H	195	200	220								18
180	190H	M	200	220								19
175H	200	200	200	215								20
C	C	C	205	220								21
180H	205	200	200	A								22
200H	B	205H	200	210								23
195	200	200H	200	Q								24
200	200	200	205	Q								25
210	210	210	215	Q								26
200	200	200	200H	Q								27
A	220	220	215	220								28
200H	205H	200	200	220								29
200	210	205	220	Q								30
200	210	215	220	Q								31
190	200	200	205	215	..							Mean
190	200	200	200	220	.							Median
27	26	27	28	19	.							Count

Sweep 1 Mc to 25 Mc in 1/4 min.

Characteristic : fo F1
 Unit : Mc
 Month : October 1955

TABLE 31
 Ionospheric Data
 75° 0' E Mean Time.

Latitude : 10° 2' N
 Longitude : 77° 5' E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								L	L	L	L	L
2								L	L	L	L	L
3								L	L	L	L	L
4								L	L	L	L	L
5								L	L	L	L	L
6								L	L	L	L	L
7								L	L	L	L	L
8								L	L	L	L	L
9								L	L	L	L	L
10								L	L	L	L	L
11								L	L	L	L	L
12								L	L	L	L	L
13								L	L	M	M	L
14								L	L	M	L	L
15								L	L	L	L	L
16								L	L	L	L	L
17								L	L	L	L	L
18								L	L	L	L	L
19								L	L	L	L	L
20								L	L	L	L	L
21								L	L	L	C	C
22								L	L	L	L	L
23								L	L	L	L	L
24								L	L	L	L	L
25								L	L	L	L	L
26								L	L	L	L	L
27								L	L	L	L	L
28								L	L	L	L	L
29								L	L	L	L	L
30								L	L	L	L	L
31								L	L	L	L	L
Mean							
Median							
Count							

Sweep 1 Mc to 25 Mc in 1/4 min.

Characteristic : fo F1
 Unit : Mc
 Month : October 1955

TABLE 31
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10° 2N
 Longitude : 77° 5E

12	13	14	15	16	17	18	19	20	21	22	23	Date
L	C	C	L	L								1
G	L	L	L	L								2
L	L	L	L	L								3
L	L	L	L	L								4
L	L	L	L	L								5
L	L	L	L	L								6
L	L	L	L	L	A							7
L	L	L	L	L								8
L	L	L	L	L								9
L	L	L	L	L								10
L	L	L	L	L								11
M	M	M	M	M	M							12
L	L	L	L	L								13
L	L	L	L	L								14
L	L	L	L	L								15
L	L	L	L	L								16
L	L	L	L	L								17
L	L	L	L	L								18
L	L	L	L	L								19
L	L	L	L	L								20
G	C	C	L	L								21
L	L	L	L	L								22
L	L	L	L	L								23
L	L	L	L	L								24
L	L	L	L	L								25
L	L	L	L	L								26
L	L	L	L	L								27
L	L	L	L	L								28
L	L	L	L	L								29
L	L	L	L	L								30
L	L	L	L	L								31
..	..	.	..	..	..							Mean
..	.	..	..	..	..							Median
..	..	..	..	..	..							Count

Sweep 1 Mc to 25 Mc in 1/2 min.

Characteristic : h'E

TABLE 32

Latitude : 10°·2N'

Unit : Km

Ionospheric Data

Longitude : 77°·5E

Month : October 1955

75·0° E Mean Time.

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								A	A	A	A	A
2								105H	A	A	A	A
3								A	A	A	A	A
4								105	A	A	A	A
5								110	105	A	A	A
6								A	A	A	A	A
7								115	A	A	A	A
8								105M	105	A	A	A
9								110	A	A	A	A
10								105	A	A	A	A
11								105	105	A	A	A
12								Q	A	A	A	A
13								110	105	M	M	M
14								M	M	M	105	A
15								110	A	A	A	C
16								Q	105	A	A	A
17								Q	105	A	A	A
18								110	110	A	A	A
19								115	A	A	A	A
20								105	A	A	A	A
21								110	105	A	C	C
22								115	105	A	A	M
23								Q	A	A	A	A
24								110	115H	A	A	A
25								115	110	A	A	A
26								120	A	A	110	105
27								Q	A	A	A	A
28								115	105	A	A	A
29								A	A	105	A	A
30								110	105	A	A	A
31								120	105	105	A	A
Mean								110	105		.	.
Median								110	105	..	.	..
Count								21	14	2	2	1

Sweep : 1 Mc to 25 Mc in 1/2 min.

Characteristic : h'E
 Unit : Km
 Month : October 1955

TABLE 32
 Ionospheric Data
 75° 0' E Mean Time

Latitude : 10° 2' N
 Longitude : 77° 5' E

12	13	14	15	16	17	18	19	20	21	22	23	Date
A	C	C	105	110	Q							1
C	C	A	A	A	Q							2
A	A	A	A	105	Q							3
A	A	A	105	A	Q							4
A	A	A	A	A	Q							5
A	A	A	A	110	Q							6
A	A	A	A	A	Q							7
A	A	A	A	105	Q							8
A	A	105	A	A	Q							9
A	A	A	A	A	Q							10
A	A	A	105	105	Q							11
A	A	105	105	A	Q							12
M	M	M	M	M	Q							13
A	A	A	A	A	Q							14
A	A	A	A	A	Q							15
A	A	A	110	N	Q							16
A	A	A	A	110	115							17
A	A	105	105	A	A							18
A	A	M	105	110	Q							19
A	A	105	110	115	Q							20
C	C	C	105	110	Q							21
A	A	105	105	A	A							22
A	B	105	105	A	120							23
A	A	A	105	110	Q							24
A	A	105	105	A	Q							25
110	105	105	105	A	Q							26
105	105	105	105	115	Q							27
A	A	A	A	A	Q							28
A	105	105	110	110	Q							29
A	110	A	A	Q	Q							30
A	105	105	110	110	Q							31
.	105	105	105	110	..							Mean
..	105	105	105	110	.							Median
2	5	11	17	13	2							Count

Sweep 1 Mc to 25 Mc in 1/4 min

Characteristic : fo E

TABLE 33

Latitude : 10°.2N

Unit : Mc

Ionospheric Data

Longitude : 77°.5E

Month : October 1955

75 0° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								A	A	A	A	A
2								2.8	A	A	A	C
3								A	A	A	A	A
4								2.6	A	A	A	A
5								N	N	A	A	A
6								A	A	A	A	A
7								2.6	A	A	A	A
8								2.8	N	A	A	A
9								2.6	A	A	A	A
10								N	A	A	A	A
11								2.6	N	A	A	A
12								Q	A	A	A	A
13								2.6	3.1	M	M	M
14								M	M	M	N	A
15								2.6	A	A	A	C
16								Q	2.9	A	A	A
17								Q	3.0	A	A	A
18								3.0	N	A	A	A
19								2.5	A	A	A	A
20								2.6	A	A	A	A
21								2.5	2.9	A	C	C
22								2.6	N	A	A	M
23								Q	A	A	A	A
24								2.6	3.1	A	A	A
25								2.6	3.2	A	A	A
26								2.7	A	A	N	N
27								Q	N	A	A	A
28								2.7	N	A	A	A
29								A	A	N	A	A
30								2.6	N	A	A	A
31								N	3.3	3.7	A	A
Mean								2.6	3.1			.
Median								2.6	3.1			..
Count								18	7	1	.	.

Sweep 1Mc to 25 Mc in 1/4 min.

Characteristic : fo E
 Unit : Mc
 Month : October 1955

TABLE 33
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10°.2N
 Longitude : 77°.5E

12	13	14	15	16	17	18	19	20	21	22	23	Date
A	C	C	3 3	3 0								1
C	C	A	A	A								2
A	A	A	A	A								3
A	A	A	A	A								4
A	A	A	A	A								5
A	A	A	A	N								6
A	A	A	A	A	A							7
A	A	A	A	A	A							8
A	A	A	A	A	A							9
A	A	3 4	A	A								10
A	A	A	3 2	N								11
M	M	N	N	M	M							12
A	A	M	M	A								13
A	A	A	A	A								14
A	A	A	A	A								15
A	A	A	N	N								16
A	A	A	A	A	2 7							17
A	A	A	3.1	A	N							18
A	A	A	N	A	A							19
A	A	A	3 0	2.8								20
C	C	C	3 0	N								21
A	A	N	N	A	A							22
A	A	N	N	A								23
A	A	A	N	A	A							24
A	A	3.5	N	A								25
N	N	N	N	A								26
N	3 9	N	N	A								27
N	A	N	N	A								28
N	N	N	N	A								29
N	N	A	A	A								30
A	N	N	N	N								31
			3 1		.							Mean
..		.	3.1	..	..							Median
..	1	2	5	3	.							Count

Sweep 1 Mc to 25 Mc in 1/4 min.

Characteristic · fEs
Unit · Mc
Month : October 1955

TABLE 34
Ionospheric Data
75°0' E Mean Time

Latitude : 10°.2N
Longitude : 77° .5E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								8 0	9 0	11 0	9 0	11.6
2								G	10.0	11.6	11 6	C
3	6 0							7 4	8 4	11 2	10.6	11.0
4								G	8 0	10 0	11 0	10 8
5								G	7 0	10 0	11.0	11 0
6								7 0	9 0	11 0	10 0	12 0
7								G	9 0	9 0	10 0	11 0
8								G	7 8	10 2	11 8	12 0
9								7 0	9 0	9 6	10 6	11 0
10	6 0							G	8 0	10 0	11 0	11 0
11								G	10 0	12 0	12 2	12 0
12								.	10 0	11 0	11 2	11.0
13	8 0							6 6	9 0	M	M	M
14	M	M	M	M	M	M	M	M	M	M	9 8	11.0
15								6.0	8 0	10 0	11 0	C
16								.	G	9 0	10 6	10 2
17								7.0	7 0	10.0	11 0	11 0
18								G	8 8	11 0	10 4	11 0
19								G	9 0	10 0	10.0	10 0
20								4 0	8 4	10.0	11.0	11.0
21								4 0	5.0	10 0	C	C
22								G	10 0	10 8	11 0	M
23								.	7 0	9 0	11 0	10 4
24								G	7 0	10 6	10 0	11.0
25	6 0							G	5 0	10 0	11.0	12 0
26								G	8 8	8.0	9 0	11 0
27								.	9 0	10.0	11 0	12.0
28								G	7 0	9 0	9 0	9.0
29		5.0						7 0	8 0	9.0	11 0	11.4
30								5.4	9.0	10 0	11.0	11 0
31								6 6	9.0	10.0	11.0	11 0
Mean		.	.	..	.	.	.	6 3	8.3	10.1	10.6	11 1
Median	..	..	.	..	.	.	.	G	8 6	10 0	11 0	11 0
Count	4	1	..	..	.	..	.	26	30	29	29	26

Sweep 1 Mc to 25 Mc in $\frac{1}{2}$ min.

Characteristic : fE_s
 Unit : Mc
 Month : October 1955

TABLE 34
 Ionospheric Data
 75°0' E Mean Time

Latitude : 10° .2N
 Longitude : 77° .5E

12	13	14	15	16	17	18	19	20	21	22	23	Date
12.0	C	C	8.0	7.0	..					4.0		1
C	C	11.4	8.6	7.0	8.0						7.0	2
11.8	11.8	11.6	10.8	7.8	6.6							3
11.0	11.0	11.0	9.4	8.4	6.0							4
11.4	10.4	11.0	9.0	8.4	..							5
11.6	11.2	10.0	10.0	8.0	12.0							6
11.6	10.0	11.0	10.6	8.0	8.0							7
11.6	11.0	9.8	10.0	7.0	7.0							8
11.2	11.0	9.0	9.0	7.0	S				3.8			9
11.0	10.8	7.4	7.8	7.0	..							10
12.0	11.0	11.0	8.0	8.0	S							11
11.0	11.4	9.0	7.0	8.0	S						9.0	12
M	M	M	M	M	M	M	M	M	M	M	M	13
11.6	12.0	11.0	9.0	8.4	S							14
10.4	10.0	9.0	8.0	7.0	.							15
11.0	10.6	9.0	9.0	8.0	S							16
11.4	11.0	10.0	9.0	7.0	3.0							17
11.4	11.0	9.0	G	8.0	3.6					7.0		18
11.0	11.0	M	8.0	7.4	..							19
11.0	10.0	8.0	6.0	G	5.4						6.0	20
C	C	C	8.0	S	S					S	6.4	21
11.6	11.0	9.0	G	9.0	5.0							22
10.0	9.0	10.0	10.0	8.6	S							23
11.6	11.0	10.0	9.0	8.0	..						4.0	24
12.0	11.0	9.0	10.0	7.0	..							25
10.0	8.0	8.0	9.0	8.0	..				8.0			26
10.0	8.0	7.0	7.0	8.4	S					7.0		27
9.4	10.0	9.0	10.4	8.0	..				6.2			28
12.0	11.4	10.2	8.0	7.0	..			3.6				29
11.0	10.0	7.0	7.0	..	..						7.0	30
11.0	10.0	11.0	9.2	S	..							31
11.2	10.5	9.6	8.7	7.7	6.5	.	.		..	..	6.6	Mean
11.3	11.0	9.8	9.9	8.0	6.3	.	..	.	..	.	6.7	Median
28	27	27	30	27	10	..	..	1	3	3	6	Count

Sweep 1 Mc to 25 Mc in 1/4 min.

Characteristic : (M3000)F2

TABLE 35

Latitude : 10° .2N

Unit : —

Ionospheric Data

Longitude : 77° .5E

Month : October 1955

75°0' E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	3.3	(3.6) ^F	3.6	3.5	(3.4) ^F	B	3.3	3.2	2.7	2.6	2.5	2.5
2	3.1	3.4	3.3	3.5	3.7	B	3.5	3.3	(2.8) ^H	(2.4) ^H	2.5	C
3	F	3.4	F	F	3.4	3.5	3.4	3.1	(2.6) ^H	2.6	2.5	2.5
4	3.3	3.4	3.5	(3.6) ^N	B	B	3.4	3.3	2.8	(2.5) ^H	2.5	2.5
5	3.3	(3.7) ^H	3.5	3.5	(3.5) ^N	B	3.4	3.2	3.0	(2.7) ^H	2.3	2.4
6	3.3	F	F	3.3	3.5	(2.8) ^F	F	2.9	2.7	2.5	2.5	2.5
7	3.2	(3.4) ^F	F	F	F	(3.6) ^F	3.4	3.2	2.9	2.4	2.4	2.5
8	F	F	(3.4) ^F	3.3	3.3	3.6	3.4	3.4	3.1 ^H	2.9	2.4 ^H	2.4
9	F	F	F	3.3	3.3	3.5	3.4	3.3	3.0	2.7	2.4	2.4
10	F	3.4	3.5	3.6	3.5	(3.5) ^B	3.4	3.4	3.2	2.6 ^H	2.4 ^H	2.3
11	F	F	3.4	(3.5) ^F	3.5	3.5	3.3	3.1	2.8	2.5	2.5	2.4
12	3.4	3.3	3.3	3.4	3.3	3.5	3.3	3.1	2.7	2.5	2.5	2.5
13	F	F	F	(3.4) ^F	F	(3.4) ^F	3.3	3.2	2.8 ^H	M	M	M
14	M	M	M	M	M	M	M	M	M	M	2.3	2.3
15	3.1	3.3	3.5	3.5	3.4	(3.7)	3.5	3.4	3.2	2.8	2.5	C
16	(3.2) ^F	(3.4) ^F	(3.4) ^F	(3.4) ^F	(3.7)	B	3.4	3.5	3.2	2.9	(2.4) ^H	2.5
17	(3.5) ^F	(3.5)	(3.5) ^F	(3.6) ^F	(3.5)	B	3.4	(3.5)	3.3	3.0	(2.4) ^H	2.5
18	(3.5) ^F	(3.5) ^F	(3.6) ^F	(3.6)	(3.7)	B	3.5	3.5	3.2	(2.7) ^H	2.7	2.6
19	F	F	(3.4) ^F	F	F	3.5	3.5	3.4	3.0	(2.6) ^H	2.6	2.6
20	(3.7)	3.6	3.5	3.5	3.5	(3.6)	3.6	3.5	3.3	(2.9) ^H	(2.6) ^F	(2.3) ^H
21	F	F	3.4	(3.5) ^F	3.6 ^F	B	3.5	3.5	3.3	3.1	C	C
22	3.3	(3.4)	3.6	3.5	3.5	3.5	(3.4)	3.2	3.1	(2.7) ^H	2.5	M
23	3.3	3.2	(3.4) ^F	3.4	3.5	3.5	3.3	3.3	3.1	2.7	2.6	2.6
24	(3.2) ^F	(3.4) ^F	3.5 ^F	3.5	3.6	3.7	3.5	3.5	3.2	2.9	2.6 ^H	2.5
25	(3.3) ^F	F	3.4	3.4	3.5	3.7	3.4	3.3	3.3	3.1	(2.7) ^H	(2.4) ^H
26	3.3	3.4	(3.4)	(3.2)	3.3	B	3.4	3.3	2.9	2.7	2.6	2.6
27	3.2	3.3	3.2	3.1	3.4	3.5	3.3	3.2	3.0	2.7	2.5	2.5
28	3.1	3.3	3.5	3.3	3.4	3.5	3.3	3.2	2.8	2.6	2.6	2.6
29	3.4	3.5	3.4	3.4	3.1	3.4	3.3	3.2	2.7	2.5	2.4	2.6
30	(3.0) ^F	3.2	3.4	3.5	3.4	3.4	3.4	3.2	2.8	(2.5) ^H	2.5	2.5
31	3.2	3.0	3.0	F	(3.1) ^F	3.6	3.4	3.1	2.8	2.5	2.4	2.4
Mean	3.3	3.4	3.4	3.4	3.5	3.5	3.4	3.3	3.0	2.7	2.5	2.5
Median	3.3	3.4	3.4	3.5	3.5	3.5	3.4	3.3	3.0	2.7	2.5	2.5
Count	22	22	25	26	26	21	29	30	30	29	29	26

Sweep 1 Mc to 25 Mc in 1/2 min.

Characteristic : (M3000)F2

TABLE 35

Latitude : 10°.2N

Unit : —

Ionospheric Data

Longitude : 77°.5E

Month : October 1955

75 0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
2.5	C	C	2.7	2.9	2.9	2.7	2.5	2.7	2.9	3.0	2.9	1
C	C	2.6	2.8	2.8	2.8	2.7	2.6	F	F	F	F	2
2.6	2.4	2.5	2.6	2.6	2.6	2.5	2.5	2.7	2.9	3.1	3.2	3
2.4	2.5	2.6	2.6	2.6	2.6	2.6	2.5	2.7	3.1	3.1	3.2	4
2.4	2.5	2.5	2.5	2.6	2.6	2.6	(2.5)F	(2.8)F	3.0	3.1	3.2	5
2.4	2.5	2.5	2.5	2.5	2.5	2.5	2.4	(2.6)F	F	F	F	6
2.4	2.4	2.4	2.5	2.5	2.5	2.5	F	F	F	F	(3.2)F	7
2.3	2.5	2.5	2.6	2.7	2.7	2.4	F	F	F	F	3.3	8
2.4	2.5	2.5	2.5	2.6	2.5	2.3	F	F	F	F	F	9
2.5	2.6	2.5	2.7	2.7	2.7	2.3H	F	F	F	F	F	10
2.4	2.4	2.5	2.6	2.7	2.6	2.4	(2.5)S	2.5	2.7	3.0	3.2	11
2.5	2.6	2.6	2.7	2.7	2.6	(2.3)H	F	F	F	F	F	12
M	M	M	M	M	M	M	M	M	M	M	M	13
2.6	2.6	2.5	2.5	2.5	2.5	2.4	F	F	F	F	2.9	14
2.5	2.6	(2.7)	2.7	2.7	2.6	(2.6)	(2.8)F	F	F	F	F	15
2.5	2.5	2.7	2.7	2.8	2.7	(2.5)	F	F	F	F	F	16
2.6	2.6	2.7	2.8	2.8	2.9	2.8	2.7	F	F	F	(3.4)F	17
2.5	2.7	2.8	2.9	3.1	3.2	3.0	2.8F	(2.9)F	F	F	F	18
2.6	2.7	M	2.7	2.9	2.9	2.7	2.6	F	F	F	F	19
2.6	2.6	2.6	2.7	2.7	2.8	2.8	2.8	F	F	F	F	20
C	C	C	2.7	2.7	2.7	2.5	F	F	F	F	3.3	21
2.5	2.6	2.6	2.7	2.8	2.9	2.9	2.7	F	F	F	F	22
2.6	2.7	2.7	2.7	2.6	2.5	2.3	F	F	F	F	F	23
2.6	2.6	2.6	2.6	2.6	2.5	2.4	(2.5)F	F	F	F	(3.0)F	24
2.3	2.6	2.5	2.6	(2.4)H	2.5	2.6	2.8	2.9	3.2	3.4	3.2	25
2.6	2.6	2.6	2.6	(2.5)H	(2.6)H	(2.4)H	(2.5)H	(2.4)H	(2.6)H	2.8	3.1	26
2.4	2.6	2.6	2.6	2.5	2.3	2.5	(2.5)F	(2.5)F	2.6	2.7	3.0	27
2.7	2.7	2.8	2.7	(2.7)H	(2.5)H	(2.6)H	(2.6)H	(2.6)H	F	F	(3.1)F	28
2.5	2.5	2.5	2.5	2.6	2.5	2.3	2.5	(2.3)F	F	F	F	29
2.4	2.5	2.5	2.7	2.8	2.7	2.5	2.3	F	F	F	F	30
2.5	2.5	2.5	2.6	2.5	2.4	2.3	(2.1)	F	F	F	F	31
2.5	2.6	2.6	2.6	2.6	2.6	2.5	2.6	2.6	2.9	3.0	3.1	Mean
2.5	2.6	2.6	2.6	2.7	2.6	2.5	2.5	2.6	2.9	3.0	3.2	Median
28	27	27	30	30	30	30	21	12	8	8	15	Count

Sweep 1Mc to 25 Mc in 1/4 min.

Characteristic : h'F2
 Unit : Km
 Month : November

TABLE 36
 Ionospheric Data
 75°0' E Mean Time

Latitude : 10°.2N
 Longitude : 77°.5E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	230	220	215	260	330	325	260	240	L	L	300	285
2	240	235	230	225	220	220	240	245	L	280	280	300
3	220	240	235	220	220	235	250	260	300	L	L	L
4	240	235	220	230	240	240	250	250	275	L	300	300
5	230	240	240	240	240	245	260	255	275	275	285	300
6	235	230	230	235	230	225	245	240	L	295	280	315
7	280	240	220	210	220	230	245	L	275	280	295	300
8	M	M	M	M	M	M	M	245	L	295	295	L
9	240	240	225	220	M	M	240	250	L	M	300H	300
10	235	230	230	235	230	240	250	240	L	L	L	300
11	220	220	225	220	220	230	250	250	265	260	300	305
12	255	240	220	235	230	250	260	230	L	290	295	315
13	255	260	260	260	240	220	260	L	250	300	285	300
14	225	220	220	M	M	M	M	M	280	M	M	310
15	230	235	225	225	225	240	260	230	L	L	300	L
16	240	245	A	265	240	220	260	235	L	280	L	315
17	245	300	320	300	300	230	260	250	L	300	280	L
18	220	225	220	235	240	250	260	250	(260) L	290	300	300
19	220	265	340	400	320	290	260	240	280	L	300	300
20	260	260	260	260	235	225	275	240	260	260	300	LH
21	265	280	250	240	215	220	270	235	L	280	300	280
22	255	245	240	220	220	230	260	250	L	285	L	315
23	235	245	235	235	220	235	260	240	L	295	L	310
24	290	240	220	220	240	240	260H	250	275	280	300	305
25	245	250	240	240	235	235	260	240	280	275	300	L
26	255	250	235	240	225	245	260	255	275	280	315	310
27	235	225	220	225	260	255	265	240	L	L	315	300
28	M	M	M	M	M	M	M	M	M	M	M	M
29	230	220	235	220	250	B	275	260	300	280	L	300
30	290	290	240	255	240	235	270	L	275	L	300	320
Mean	245	245	240	245	240	240	260	245	275	285	295	305
Median	240	240	230	235	235	235	260	245	275	280	300	300
Count	28	28	27	27	26	25	27	25	15	19	21	23

Sweep 1Mc to 25 Mc in 1/4 min.

Characteristic : h'F2

TABLE 36

Latitude : 10°.2N

Unit : Km

Ionospheric Data

Longitude : 77°.5E

Month : November 1955

75.0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
300	315	L	355	235H	250H	300H	325H	340	325	320	285	1
300	L	L	L	A	260	310	340	310	300	275	240	2
300	290	L	L	225	260	310	400	415	400	310	250	3
295	280	L	L	230	260	290	300	295	260	240	235	4
L	L	L	L	240	260	300	330	300	250	230	235	5
300	L	320	260	L	255	300	330	320	300	305	300	6
310	320	L	M	M	M	M	M	M	M	M	M	7
310	300H	300	L	240	M	335	320	380	340	280	M	8
295	L	300	L	235	260	320	340	325	300	270	240	9
295	300	L	L	245	260	300	F	320	290	255	240	10
L	L	315	280	225	260	340	410	400	350	270	240	11
300	310	L	280	245	255	300	315	270	260	240	240	12
A	L	LH	L	240	260	305	320	305	260	250	240	13
305	300	L	A	L	260	310	260	310	280	260	260	14
300	L	L	L	225	260	335	400	400	315	250	245	15
L	L	L	L	250	265	300	300	265	240	240	230	16
310	L	L	L	260	260	285	300	270	245	240	230	17
300	L	300	L	240	260	315	380	300	240	225	220	18
L	L	L	L	240	260	310	360	370	340	240	235	19
300H	300	LH	245	225	260	280	260	240	230	230	245	20
300	280	L	L	220	260	275	280	275	260	260	260	21
320	L	315	L	225	255	300	325	330	280	255	235	22
L	350	L	L	L	250	300	350	340	355	320	320	23
300	L	L	220	240	260	320	380	340	270	295	245	24
305	315	L	(260)L	240	260	320	410	360	315	305	250	25
320	300H	320	L	L	260	315	400	410	370	280	250	26
320	L	L	L	M	M	M	M	M	M	M	M	27
M	L	L	L	220	260	310	375	360	330	300	260	28
300	L	L	C	220	260	280	340	355	330	310	315	29
300	L	L	L	A	265	290	315	300	270	250	265	30
												31
305	305	310	270	235	260	305	340	330	295	270	250	Mean
300	300	315	260	240	260	300	330	320	295	260	245	Median
23	13	7	7	22	27	28	27	28	28	28	27	Count

Sweep 1 Mc to 25 Mc in 1/4 min.

Characteristic : foF2

TABLE 37

Latitude : 10°.2N

Unit : Mc

Ionospheric Data

Longitude : 77°.5E

Month: November

75 0° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	(8.6) ^F	F	5.7 ^F	3.5	F	F	5.6	8.9	10.9	10.5	10.5	11.3
2	(10.0) ^F	10.5 ^F	10.6	8.7	6.6	4.4	6.3	9.7	10.8	10.9	9.9	10.3
3	F	9.4	8.4	5.8	3.8	2.5	6.0	9.3	10.5	10.9	10.3	9.7
4	F	8.4	8.3	6.1	5.3	F	6.7	9.1	10.5	11.3	10.0	9.6
5	10.3	9.8	9.3	7.2	6.1	5.7	7.0	9.4	11.5	11.7	10.8	10.5
6	9.1	8.0	7.4 ^J	6.3	4.8	3.6	6.0	9.2	10.6	11.1	10.8	10.4
7	F	F	8.3	7.2	6.0	4.3	6.2	8.8	10.3	11.0	10.8	10.4
8	M	M	M	M	M	M	M	8.7	10.3	10.7	10.0	9.7
9	9.7	9.0	8.5 ^F	5.3	M	M	6.0	9.4	9.8	M	11.5	10.7
10	F	8.5	8.1	6.4	4.6	3.2	6.1	9.0	10.5	11.4	10.7	10.5
11	(9.6) ^F	8.7	7.4	5.4	3.7	2.7	6.0	9.2	10.6	10.6	10.0	9.6
12	F	F	5.8 ^F	4.2 ^F	F	2.9	5.7	8.8	10.0	10.7	10.4	10.5
13	F	F	9.8 ^F	8.1	F	F	(6.5) ^F	(9.1) ^F	11.3	11.7	11.7	12.0
14	9.1	7.9	6.4	M	M	M	M	M	9.1	M	M	9.6
15	10.7	8.5	7.0	5.5	4.0	2.9	5.5	.6	9.6	9.5	9.5	10.2
16	9.2	8.9	7.9	(7.6) ^s	6.9	4.4	6.2	9.5	11.1	12.0	12.0	11.9
17	7.5	(7.3) ^s	F	F	F	F	F	9.3 ^F	10.5	11.2	11.0	11.0
18	8.6	6.6	5.6	3.7	3.2	3.0	5.6	8.8	10.5	9.4	11.4	10.8
19	6.8	6.5	5.6	(4.5) ^F	(5.4) ^F	F	5.3	7.5	9.4	10.0	10.8	11.0
20	8.5	7.0	5.9	6.5	7.6	5.1	6.0	9.3	10.9	11.7	12.8	13.0
21	10.4	9.1	8.1	7.6	6.0	3.1	5.4	8.6	10.3	10.3	10.8	10.5
22	8.5	9.0	(9.4) ^F	7.5 ^F	5.6	2.8	5.2	8.8	10.6	11.1	10.3	10.5
23	8.5	8.0	7.9	6.5	4.8	3.5	5.5	8.1	9.5	10.1	10.1	10.0
24	F	F	F	F	5.0	4.6	5.7	7.6	9.5	10.6	11.2	11.7
25	(7.7) ^F	(7.4) ^F	6.9	5.8	4.9	3.7	5.7	9.0	10.5	11.1	11.4	11.5
26	F	F	F	(5.5) ^F	4.3	3.2	5.3	8.0	9.6	10.7	11.1	11.6
27	F	F	6.4 ^F	4.6	(3.1) ^F	2.1	5.0	7.8	8.9	9.5	9.7	9.8
28	M	M	M	M	M	M	M	M	M	M	M	M
29	(7.5) ^F	7.1	5.7	4.2	2.5	B	4.7	8.0	9.0	9.4	10.3	11.0
0	F	F	F	5.9	4.5	4.1	5.3	7.8	9.3	9.6	10.1	10.8
Mean	8.4	8.3	7.5	6.0	4.9	3.6	5.8	8.8	10.2	10.7	10.7	10.7
Median	8.8	8.4	7.6	5.9	4.8	3.4	5.7	8.8	10.5	10.7	10.8	10.5
Count	18	20	24	25	22	20	26	28	29	27	28	29

Sweep 1 Mc to 25 Mc in 1/2 min.

Characteristic : fo F2

TABLE 37

Latitude : 10°.2N

Unit : Mc

Ionospheric Data

Longitude : 77°.5E

Month : November 1955

75.0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
12.4	13.3	13.5	13.6	13.6	13.3	12.6	10.8	10.4	(10.0) ^F	F	F	1
10.4	10.9	11.4	11.5	12.2	12.5	11.2	10.6	11.1 ^F	F	F	F	2
9.7	9.9	9.9	9.8	9.8	9.5	9.3	7.9	F	F	F	F	3
10.5	11.3	11.3	11.0	11.5	11.5	11.4	10.7	10.5	10.9	10.8	10.3	4
10.7	10.5	10.2	10.4	10.8	11.0	10.4	9.5	9.5	10.1	10.0	9.8	5
10.0	10.1	9.9	9.7	10.1	10.0	9.3	8.5	8.0 ^F	(7.3) ^F	F	F	6
10.3	10.7	10.5	M	M	M	M	M	M	M	M	M	7
10.0	9.8	9.5	9.8	10.4	10.4	9.4	F	F	F	F	M	8
10.9	11.3	11.6	11.9	12.0	12.2	10.5	9.1	(8.8) ^F	F	F	F	9
10.6	11.0	11.3	11.4	11.5	11.5	10.8	10.2	(9.5) ^F	F	F	F	10
9.4	9.4	9.6	9.9	10.0	9.4	8.6	F	F	F	F	F	11
10.6	10.5	10.0	10.2	10.8	11.8	11.1	11.0	11.4	11.1	F	(10.8) ^F	12
12.5	12.4	12.6	12.5	11.8	11.5	10.9	10.5	10.4	10.6	F	8.0 ^J	13
10.0	9.8	9.9	9.9	10.4	10.8	10.6	F	(10.1) ^F	10.4	10.4	11.2	14
9.6	9.5	9.9	10.5	10.6	10.3	9.7	8.3	(7.9) ^F	F	F	F	15
10.8	11.0	11.4	11.6	12.0 ^J	11.6	11.4	(11.5) ^S	11.5	11.5	10.1	8.7	16
11.5	10.8	9.8	9.9	10.1	10.7	10.7	10.2	10.4	9.7	8.7	8.6	17
11.4	11.8	12.0	11.7	11.0	10.1	9.0	F	8.6	9.7	8.7	7.7	18
11.1	11.2	11.0	10.6	10.3	10.1	10.6	9.6	(8.4) ^F	(8.3) ^F	9.1	9.5	19
13.0	11.8	(11.9) ^S	10.7	10.0	10.2	10.6	10.4	10.3	10.4	10.6	10.3	20
10.5	10.9	10.8	10.7	10.5	10.1	10.4	10.4	10.0 ^J	9.0	8.1	7.9	21
10.0	9.9	9.6	9.6	9.4	9.5	9.0	8.3	8.4	8.5	9.0	9.0	22
9.8	9.5	9.0	9.0	9.3	9.1	8.5	7.6	8.0	6.9	F	F	23
11.1	10.9	11.0	10.8	11.0	10.4	9.2	(9.0) ^F	F	8.6 ^F	F	F	24
11.7	11.8	12.0	12.5	11.6	11.1	(9.2) ^S	F	F	F	F	3.9 ^F	25
11.6	11.7	11.3	10.9	10.1	9.6	9.0	7.7	F	F	F	F	26
9.5	9.8	9.9	10.0	M	M	M	M	M	M	M	M	27
M	10.2	9.8	9.5	9.0	9.1	8.9	8.2	7.9 ^F	6.5 ^F	(6.3) ^F	(6.5) ^F	28
10.9	11.0	11.3	C	11.3	11.1	10.9	9.6	8.9	8.3	F	F	29
11.6	11.6	11.7	11.7	12.7	11.9	11.3	10.2	10.3	9.7	8.4	7.3 ^F	30
												31
10.8	10.8	10.8	10.8	10.8	10.7	10.2	9.6	9.6	9.3	9.2	8.6	Mean
10.6	10.9	10.9	10.6	10.7	10.7	10.4	9.6	9.8	9.7	9.0	8.7	Median
29	30	30	28	28	27	28	23	22	19	12	15	Count

Sweep 1Mc to 25 Mc in 1/4 min.

Characteristic : h'F1
 Unit : Km
 Month : November 1955

TABLE 38
 Ionospheric Data.
 75 0° E Mean Time

Latitude : 10° 2' N
 Longitude : 77° 5' E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								Q	220	215	200	200
2								220	220	210	200	200
3								225	220H	200	200	190H
4								230	220	215	200	200H
5								230	220	210	205	200
6								230	215	200	200H	200H
7								230	220	200H	190H	220
8								230	220	220	210	220
9								230	220	M	205	200
10								230	220	200	200	200
11								235	220	200	200	195H
12								Q	215	215	200	200H
13								235	225	210	200	A
14								M	220	M	M	200
15								Q	220	210	205	200
16								Q	220	205	220	210
17								240	220	215	200	200H
18								235	220	215	210	200
19								Q	230	B	220	220
20								Q	225	220	215	210
21								Q	220	210	205	205H
22								235	220	210	200H	190H
23								Q	220	205	190H	200
24								235	210	190H	215	205
25								235	220	205	205	205
26								240	230	A	A	220
27								235	200H	200	190H	205
28								M	M	M	M	M
29								240	220	210	205	200
30								240	220	205	190H	190H
Mean								235	220	210	205	205
Median								235	220	210	200	200
Count								20	29	25	27	28

Sweep 1 Mc to 25 Mc in 1/4 min.

Characteristic : h'F1

TABLE 38

Latitude : 10°.2N

Unit : Km

Ionospheric Data

Longitude : 77°.5E

Month : November 1955

75.0 E° at Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
200	220	205	220	Q								1
200	200	205	A	A								2
205	205	210	210	Q								3
205	200	205	215	Q								4
200		200	205	230								5
200	200H	200H	200	230								6
220	200	200	M	M								7
200	200H	205	220	Q								8
200	200H	215	215	Q								9
210	200	260H	210	Q								10
200	190H	205	215	Q								11
205	200H	205	215	220								12
A	205	205	210	Q								13
200	200	200	A	225								14
200	200	200H	215	Q								15
210H	200H	215	220	240								16
200H	200H	205	220	235								17
200	200	215	220	220								18
215	205	205	220	220								19
200H	200H	205H	220	Q								20
200	210	200H	215	Q								21
200	190	200H	200H	Q								22
180H	200	200	205	230								23
200	200	200	205	225								24
205	215	210	230	220								25
A	205	200H	205	235								26
210	195H	200	220	M								27
M	200	200H	200	Q								28
200H	200H	205	C	Q								29
200	200	220	220	Q								30
200	200	205	215	230								Mean
200	200	205	215	230								Median
27	30	30	26	12								Count

Sweep 1Mc to 25 Mc in 1/2 min.

Characteristic: foF1
 Unit : Mc
 Month : November 1955

TABLE 39
 Ionospheric Data
 75° 0' E Mean Time

Latitude : 10° .2 N
 Longitude : 77° .5 E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								Q	L	L	L	L
2								L	L	L	L	L
3								L	L	L	L	L
4								L	L	L	L	L
5								L	L	L	L	L
6								L	L	L	L	L
7								L	L	L	L	L
8								L	L	L	L	L
9								L	L	M	L	L
10								L	L	L	L	L
11								L	L	L	L	L
12								Q	L	L	L	L
13								L	L	L	L	L
14								M	L	M	L	L
15								Q	L	L	L	L
16								Q	L	L	L	L
17								L	L	L	L	L
18								L	L	L	L	L
19								Q	L	L	L	L
20								Q	L	L	L	L
21								Q	L	L	L	L
22								L	L	L	L	L
23								L	L	L	L	L
24								L	L	L	L	L
25								L	L	L	L	L
26								L	L	L	A	L
27								M	L	M	L	M
28								L	L	L	L	L
29								L	L	L	L	L
30								L	L	L	L	L
31								L	L	L	L	L
Mean							
Median							
Count								

Sweep 1 Mc to 25 Mc in 1/2 min.

Characteristic: fo.F1
 Unit: Mc
 Month: November 1955

TABLE 39
 Ionospheric Data
 75°0' E Mean Time

Latitude: 80°.2N
 Longitude: 77°.5E

12	13	14	15	16	17	18	19	20	21	22	23	Date
L	L	L	L	Q								1
L	L	L	L	A								2
L	L	L	L	Q								3
L	L	L	L	Q								4
L	L	L	L	Q								5
L	L	L	L	L								6
L	L	L	L	M								7
L	L	L	L	Q								8
L	L	L	L	Q								9
L	L	L	L	Q								10
L	L	L	L	Q								11
L	L	L	L	Q								12
L	L	L	L	Q								13
L	L	L	L	Q								14
L	L	L	L	Q								15
L	L	L	L	L								16
L	L	L	L	L								17
L	L	L	L	L								18
L	L	L	L	Q								19
L	L	L	L	Q								20
L	L	L	L	Q								21
L	L	L	L	Q								22
L	L	L	L	Q								23
L	L	L	L	Q								24
L	L	L	L	Q								25
L	L	L	L	Q								26
L	L	L	L	Q								27
L	L	L	L	Q								28
L	L	L	L	Q								29
L	L	L	L	Q								30
.	.	.	..	..								Mean
.	..	..	..	..								Median
..	.	..	..	..								Count

Sweep: 1 Mc to 25 Mc in 1/2 min.

Characteristic : h'E

TABLE 40

Latitude : 10°.2N

Unit : Km

Ionospheric Data

Longitude : 77°.5E

Month : November 1955

75°0' E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								..	A	A	105	105
2								.	105	A	A	A
3								110	A	A	A	A
4								115	110	105	A	A
5								..	105	105	105	105
6								110	105	105	A	105
7								110	105	105	105	105
8								110	B	A	105	105
9								115	105	M	105	105
10								115	A	105	105	105
11								115	105	A	A	A
12								110	A	A	A	105
13								110	105	105	A	A
14								M	A	M	M	A
15								110	A	A	A	A
16								115	105	105	A	A
17								110	A	A	A	A
18								110	110	A	A	A
19								105	105	B	105	A
20								..	105	110	110	105
21								110	A	A	A	A
22								115	110	A	A	A
23								105	105	A	A	A
24								110	105	105	105	105
25								120	105	A	105	105
26								110	105	A	A	105
27								A	A	A	A	A
28								M	M	M	M	M
29								105	105	A	105	A
30								A	A	A	A	A
Mean								110	105	105	105	105
Median								110	105	105	105	105
Count								22	18	9	11	12

Sweep : Mc to 25 Mc in 1/4 min.

Characteristic : h'E

TABLE 40

Latitude : 10° 2N

Unit : Km

Ionospheric Data

Longitude : 77° 5E

Month . November 1955

75 0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
105	A	105	105 ¹¹	110	A							1
A	A	A	A	A	A							2
A	A	A	A	120	.							3
105	105	105	105		.							4
A	A	105	105	115	.							5
105	A	105	105	110	..							6
105	A	105	M	M	M							7
105	105	105	105	110	M							8
A	A	A	105		..							9
A	105	105	A	A	:							10
A	A	A	105	.	.							11
A	A	A	105	110	.							12
A	105	A	105	.	.							13
A	A	A	A	..	-							14
A	A	A	A	A	A							15
A	A	A	110	110	A							16
A	A	A	A	110	.							17
A	A	A	A	..	..							18
A	A	A	105	.	..							19
A	A	A	105	.	.							20
A	105	105	105	110	.							21
A	A	105	105	110	..							22
A	A	A	A	A	..							23
A	A	105	105	.	.							24
105	105	105	105	110	.							25
105	105	105	A	105	..							26
A	A	A	B	M	M							27
M	105	A	A	110	.							28
A	A	A	C	110	..							29
105	105	105	110	110	..							30
105	105	105	105	110	.							Mean
105	105	105	105	110	..							Median
8	9	13	17	15	..							Count

Sweep 1 Mc to 25 Mc in 1/2 min.

Characteristic : fo E

TABLE 41

Latitude : 10°.2N

Unit : Mc

Ionospheric Data

Longitude : 77°.5E

Month : November 1955

75.0° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								.	A	A	N	N
2								..	N	A	A	A
3								2.7	A	A	A	A
4								N	N	N	A	A
5								..	N	N	N	N
6								2.6	N	N	A	N
7								2.7	N	N	N	N
8								2.6	B	A	N	N
9								M	N	M	N	N
10								2.6	A	3.5	N	N
11								2.7	N	A	A	A
12								2.6	A	A	A	A
13								N	N	M	A	A
14								M	A	M	A	A
15								N	A	A	A	A
16								N	3.0	3.4	A	A
17								2.6	A	A	A	A
18								2.7	3.1	A	A	A
19								N	N	B	A	A
20									3.0	3.4	3.7	N
21								2.6	A	A	A	A
22								2.6	N	A	A	A
23								N	N	A	A	N
24								3.0	N	N	N	N
25								2.5	3.0	A	N	3.6
26								2.5	3.0	A	A	N
27								A	A	A	A	A
28								M	M	M	M	M
29								N	N	A	N	A
30								A	A	A	A	A
Mean								2.6	3.0	..	..	..
Median								2.6	3.0	.	.	..
Count								14	5	3	1	1

Sweep 1 Mc to 25 Mc in 1/4 min.

Characteristic: foE]
 Unit : Mc
 Month : November 1955

TABLE 41
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10°.2N
 Longitude : 77° 5E

12	13	14	15	16	17	18	19	20	21	22	23	Date
3.9	A	N	3.2	N	..							1
A	A	A	A	A	A							2
A	A	A	A	N	..							3
A	A	N	N	N	..							4
N	A	N	N	N	..							5
N	A	N	N	N	M							6
N	A	N ^{3.4}	M	M	M							7
A	A	N	N	2.7	M							8
A	A	N	A	A	.							9
A	A	A	N	A	.							10
A	A	A	N	..	..							11
A	A	A	N ^{3.1}	2.8	..							12
A	A	A	N	..	..							13
A	A	A	A	A	..							14
A	A	A	A	A	..							15
A	A	A	N ^{3.1}	2.7	A							16
A	A	A	A	N	..							17
A	A	A	A	..	..							18
A	A	A	A	..	..							19
A	A	A	N	..	..							20
A	N	N	N	N	..							21
A	A	N	N	N	..							22
A	A	N	N	A	..							23
A	A	N	N	A	..							24
A	A	N	N	..	..							25
3.7	N	N	N ^{2.8}	N	..							26
4.1	N	N	A	N	M							27
A	A	A	B	M	M							28
M	A	A	A	2.7	..							29
A	A	A	C	2.9	..							30
N	N	N	N	N	..							
..	..	..		2.8	..							Mean
..	.	..	..	2.7	..							Median
3	..	1	4	5								Count

Sweep 1 Mc to 25 Mc in 1/2 min.

Characteristic : fEs

TABLE 42

Latitude : 10° 2'N

Unit : Mc

Ionospheric Data

Longitude : 77° 5'E

Month : November 1955

75° 0' E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								..	10 6	11 0	11 0	8 2
2								.	8 0	9 0	10 2	10.0
3								G	8.0	10 0	11 0	11.0
4	6 0	3 2						G	7.0	11.0F	11 0F	11 0F
5								..	7 2	9 2F	10 0F	9 0FH
6								G	9 0F	9 0F	11 0F	11 0F
7				5 6				6 0	7 6	9 0F	10 0F	11.0F
8	M	M	M	M	M	M	M	G	7 0	9 0F	10 0F	11 0F
9	7 0H							G	6 0F	M	10 8F	11 2F
10								G	8 4F	9 4F	10.0F	10 4F
11								6 4	8.6F	9 0F	10 8F	10 0F
12	6 6							G	8 0F	8 4F	10 0F	10.8F
13	4 4	3 2	6 0	5 4	M	M	M	G	8.6F	9 0F	7.8F	11 0F
14				M				M	9 0F	M	M	11 0F
15								7 0	8 4F	10.0F	11 0F	11.0F
16		5 4	7 0	4.4				G	6 6F	8 0F	10.0F	10.0F
17								7 0	8 4	10 0	10 0F	11 0F
18								G	7 0	8.0FH	10 0F	10 0F
19								6.0F	8 8FH	9 0FH	11 0F	12 0F
20		6 0						.	G	G	G	10.0
21								6 0	7 6F	9 0F	12 0F	12.0F
22								G	7.6F	9 0F	10.0F	10.8F
23	5.0							7 0F	8 0F	9 2F	10.6F	9 8F
24		7.0						8 0F	8 4F	9 0F	10 4F	11 0F
25								G	6 0F	10.0	9.4F	6.0F
26								7 0 F	8.0F	12 2F	12.2H	10.0
27						7.2	5 6	7 0	9.0F	9 0F	10 0F	10.0F
28	M	M	M	M	M	M	M	M	M	M	M	M
29								7 6F	9 0F	10 0F	11 0F	10.6F
30	6 6	6 6	5 6	5.7				8 0F	10 0F	11.0F	11.4F	11 0F
Mean	5 9	5 2	.	..	.	..	..	6 9	8 1	9 5	10.5	10.4
Median	6 3	5 7		.	.			G	8 0	9 0	10.3	10 8
Count	6	6	3	4	..	1	1	24	29	27	28	29

Sweep 1 Mc to 25 Mc in 1/2 mm.

Characteristic fEs

TABLE 42

Latitude : 10°.2N

Unit Mc.

Ionospheric Data

Longitude : 77°.5E

Month : November 1955

75.0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
11 0	6 0	G	4 2	9 0	S							1
10 0	10 0	9 0	11 0	12 0	7 0				2.8	4.0		2
11 0	11 0	10 0	8 0	7 4								3
9 0	11 0F	11 0F	9 0F	.								4
11 6F	10 0F	11.0F	8 8F	7.0F		7.0				4 0		5
11 0F	11 0F	11 0F	10 8	7.0F								6
11 0F	10 8F	10.0F	M	M	M	M	M	M	M	M	M	7
10 8F	10 4F	11 0F	10 2F	6.8	M					5 6	M	8
9 0F	9 0F	9 0F	7 8F	7 0F								9
10 6F	10 0F	9 0F	8 0F	7.0H						7.4		10
11 0F	11 8F	11 0F	10 2F	7 4F								11
11 8F	10 4F	10 4F	7 0	7 4F								12
13 0	8 0F	11.4F	7 0F	.	3 8							13
11 0F	11 0F	10 0F	7 0F,II	3 6								14
11.8F	11 8F	11 0F	10.0F	7 6F							4.6	15
11.0F	10.0F	9 0F	7 0F	6 4F	6 0F							16
11 0F	11.8F	11.0F	10 0F	8 0F	5 8F	4 0F						17
10 6F	11 0F	11 0F	10 4F	7 2F								18
9.4F,H	9 2F	10.0F	9.0F	6 4F								19
11 0	11 0F	10.4F	8.0F	7 0F								20
11 0F	10 2F	10 6F	9 2F	8 0F			3.8					21
11.4F	12 0F	11.8F	10.6F	7 6F						6.0	7 0H	22
12 0F	11 8F	11.0F	10 0F	7 0F								23
10.0F	10 0F	9 0F	8 0F	7.0F								24
G	10 0F	8 2F	9 0F	8 0F								25
9.0F,II	11 6F	12.0F	10.4F	8 0F	S							26
11 0F	11 0F	10 0F	9.6F	M	M	M	M	M	M	M	M	27
M	11 0F	10 6F	11 0F	8 0F								28
11 0F	12 0F	11 0F	C	7.0								29
12.0	11.0F	10.0F	10 2F	7.0F,II	6.0F							30
10 9	10 5	10 3	9.0	7 4	5.7	..	..	.	.	5.4	..	Mean
11.0	10 9	10 5	9 1	7.1	6 0		..	.	..	5.6	.	Median
29	30	30	28	26	5	2	..	..	1	5	2	Count

Sweep 1 Mc to 25 Mc in 1/4 min.

Characteristic (M3000)F2

TABLE 43

Latitude : 10°.2N

Unit : —

Ionospheric Data

Longitude : 77°.5E

Month : November 1955.

75 0° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	(3.3)F	F	3.5 F	(3.3)F	F	F	3.1	2.9	2.7	2.4	2.7	2.7
2	(3.1)F	3.3 F	3.4	3.4	3.4	3.5	3.3	3.2	2.8	2.3	2.5	2.5
3	F	3.2	3.4	3.5	3.5	3.5	3.2	3.2	2.8	2.5	2.4	2.5
4	F	3.3	3.4	3.4	3.4	3.3 F	F	3.3 F	3.3	3.0	2.5	2.4
5	3.2	3.3	3.4	3.3	3.3	3.2	3.3	3.2	3.0	2.6	2.5	2.6
6	3.3	3.4	3.5	(3.5)	3.5	3.4	3.3	3.3	3.0	2.7	2.5	2.5
7	F	F	3.3	3.4	3.5	3.3	3.2	3.0	2.9	2.7	2.5	2.4
8	M	M	M	M	M	M	M	3.2	2.8	2.6	2.5	2.5
9	3.1	3.3	3.5 F	3.5	M	M	3.4	3.3	3.0	M	2.4 H	2.6
10	F	3.2	3.3	3.4	3.5	3.6	3.4	3.2	2.9	2.5	2.5	2.5
11	(3.2)F	3.3	3.6	3.4	3.5	3.5	3.2	3.1	2.8	2.5	2.5	2.5
12	F	F	3.5 F	3.5 F	F	3.6	3.1	3.0	2.8	2.6	2.6	2.5
13	F	F	F	3.2	F	F	(3.1)F	3.0	2.8	2.7	2.6	2.8
14	3.3	3.4	3.5	M	M	M	M	2.7	M	M	2.5	2.4
15	3.3	3.3	3.4	3.4	3.4	3.5	3.2	2.9	2.7	2.6	2.7	2.5
16	3.2	3.1	3.1	(3.2)S	3.3	3.5	3.3	3.1	2.9	2.8	2.6	2.3
17	(3.3)	(3.2)S	F	F	F	F	F	(3.2)F	2.8	2.5	2.6	2.6
18	3.2	3.3	3.6	3.4	3.4	3.4	3.2	3.2	3.0	2.7	2.5	2.6
19	3.3	(2.9)S	2.7	(2.6)F	(2.7)F	F	3.0	2.9	2.7	2.7	2.6	2.6
20	3.0	3.0	3.2	(3.2)	3.3	3.3	3.2	3.3	3.2	3.1	3.0	2.8
21	3.1	3.1	3.0	3.2	3.5	3.5	3.0	2.9	2.7	2.6	2.5	2.5
22	2.9	3.0	(3.1)F	(3.3)F	3.5	3.5	3.2	3.2	2.9	2.7	2.5	2.5
23	3.1	3.2	3.3	3.4	3.5	3.4	3.0	3.0	2.7	2.6	2.4	2.5
24	F	F	F	F	3.2	3.3	3.0	3.0	2.9	2.8	2.7	2.6
25	(3.0)F	(3.1)F	3.2	3.3	3.4	3.3	3.2	2.9	2.9	2.8	2.6	2.6
26	F	F	F	(3.2)F	3.5	3.4	3.0	3.1	2.8	2.8	2.7	2.7
27	F	F	(3.6)F	3.4	F	3.4	3.0	2.9	2.7	2.6	2.5	2.5
28	M	M	M	M	M	M	M	M	M	M	M	M
29	(3.2)F	3.4 F	3.3	3.5	(3.5)	B	2.9	2.9	2.7	2.7	2.7	2.6
30	F	F	F	3.2 F	(3.3)F	3.4	3.0	2.9	2.7	2.6	2.6	2.5
Mean	3.2	3.2	3.3	3.3	3.4	3.4	3.2	3.1	2.8	2.6	2.6	2.5
Median	3.2	3.2	3.4	3.4	3.4	3.4	3.2	3.1	2.8	2.6	2.5	2.5
Count	18	20	23	25	21	20	26	29	28	27	29	29

Sweep 1 Mc to 25 Mc in 1/4 min.

Characteristic : (M3000) F2

TABLE 43

Latitude : 10°.2N

Unit : —

Ionospheric Data

Longitude : 77°.5E

Month : November 1955

75 0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
2.8	2.8	2.8	2.8	2.7 ^H	2.6 ^H	2.4 ^H	2.3 ^H	2.4 ^H	(2.5) ^F	F	F	1
2.5	2.5	2.5	2.5	2.7	2.6	2.5	2.4	2.5 ^F	F	F	F	2
2.5	2.4	2.4	2.4	2.5	2.6	2.5	2.2	F	F	F	F	3
2.7	2.6	2.5	2.3	2.4	2.6	2.5	2.5	2.6	2.8	3.0	3.3	4
2.5	2.3	2.5	2.5	2.6	2.6	2.5	2.4	2.5	2.7	3.1	3.1	5
2.4	2.4	2.4	2.5	2.6	2.6	2.5	2.4	2.5 ^F	2.6 ^F	F	F	6
2.5	2.5	2.5	M	M	M	M	M	M	M	M	M	7
2.5	2.3 ^H	2.5	2.5	2.6	M	2.4	F	F	F	F	M	8
2.6	2.6	2.5	2.5	2.6	2.6	2.7	2.8	2.5 ^F	(2.7) ^F	F	F	9
2.5	2.5	2.5	2.5	2.6	2.7	2.5	2.5	(2.6) ^F	F	F	F	10
2.4	2.4	2.5	2.5	2.6	2.6	2.3	F	F	F	F	F	11
2.5	2.4	2.4	2.6	2.7	2.7	2.6	2.6	2.8	3.0	F	(3.1) ^F	12
2.8	2.6	2.5 ^H	2.3	2.4	2.6	2.4	2.4	2.5	2.7	F	3.2 ^J	13
2.5	2.4	2.5	2.7	2.7	2.7	2.6	F	2.5 ^F	(2.9) ^F	(3.0) ^F	3.1	14
2.6	2.5	2.4	2.5	2.5	2.6	2.4	2.3	(2.3) ^F	F	F	F	15
2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.6	2.7	3.1	3.3	3.3	16
2.4	2.2	2.3	2.4	2.6	2.7	2.6	2.7	2.8	3.2	3.1	3.2	17
2.6	2.5	2.5	2.4	2.3	2.5	2.3	F	2.7	2.9	3.0	3.2	18
2.6	2.5	2.3	2.3	2.4	2.6	2.5	(2.5) ^F	(2.7) ^F	(2.7) ^F	3.1	3.3	19
2.7 ^H	2.4	2.3 ^H	2.4	2.6	2.6	2.7	2.8	2.9	3.0	3.1	3.1	20
2.5	2.4	2.4	2.5	2.4	2.5	2.6	2.6	2.7	2.9	2.9	2.9	21
2.5	2.4	2.5	2.4	2.7	2.7	2.6	(2.6) ^F	2.5	2.7	2.9	3.2	22
2.4	2.4	2.4	2.4	2.6	2.7	2.6	2.5	2.6	2.5	F	F	23
2.4	2.4	2.6	2.5	2.4	2.5	2.3	(2.2) ^F	F	2.6 ^F	F	F	24
2.7	2.7	2.6	2.5	2.5	2.4	2.4	F	F	F	F	F	25
2.6	2.5	2.4	2.3	2.4	2.6	2.5	2.3	F	F	F	F	26
2.6	2.4	2.3	2.5	M	M	M	M	M	M	M	M	27
M	2.4	2.3	2.4	2.5	2.6	2.6	2.4	2.4	2.5 ^F	(2.7) ^F	(3.1) ^F	28
2.5	2.4	2.4	C	2.5	2.5	2.5	2.4	2.4	2.4	F	F	29
2.5	2.5	2.5	2.5	2.5	2.6	2.6	2.5	2.5	2.7	2.9	(2.9) ^F	30
2.5	2.4	2.4	2.5	2.5	2.6	2.5	2.5	2.6	2.8	3.0	3.1	Mean
2.5	2.4	2.5	2.5	2.6	2.6	2.5	2.5	2.5	2.7	3.0	3.2	Median
29	30	30	28	28	27	28	23	22	20	12	14	Count

Sweep 1 Mc to 25 Mc in 1/4 min.

Characteristic : h'F2

TABLE 44

Latitude : 10° 2N

Unit : Km

Ionospheric Data

Longitude 77° 5E

Month : December 1955

75 0° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	250	255	260	240	220	230	275	260	L	290	320	305
2	270	270	270	265	265	230	275	270	L	L	L	300
*3	250	260	230	220	220	215	265	240	L	280	315	C
*4	C	C	C	C	C	C	C	C	C	C	C	C
*5	C	C	C	C	C	C	C	C	C	C	C	C
*6	C	C	C	C	C	C	C	C	C	C	C	C
*7	C	C	C	C	C	C	C	C	C	C	C	C
*8	C	C	C	C	C	C	C	C	C	C	C	C
*9	C	C	C	C	C	C	C	C	C	C	C	C
*10	C	C	C	C	C	C	C	C	C	C	C	C
11	240	240	240	235	220	225	280	260	L	270	305	300
12	260	240	225	220	220	250	290	245	L	310	360	300
13	265	320	270	240	240	235	280	245	280	300	310	300
14	240	245	240	220	230	260	280	270	L	285	L	L
15	245	225	225	220	225	245	275	260	260	280	L	300
16	240	260	240	235	225	225	280	240	290	L	300	290
17	255	245	240	240	240	260	280	240	270	300	L	300
18	280	240	230	220	230	240	275	260	L	300	315H	L
19	260	235	235	240	235	240	270	240	280	325	280	L
20	240	250	260	270	260	225	265	260	280	280	305	340
21	240	235	240	245	240	230	285	250	L	300	L	L
22	260	235	240	235	240	245	300H	245	L	320H	L	320
23	250	225	220	220	260	280	300H	245	260	305	L	320
24	230	220	235	245	250	250	260	260	280	305	310	330H
25	270	230	230	230	240	250	280	260	L	L	300	325
26	220	230	240	260	240	260	295	240	L	L	340	340
27	220	215	220	250	265	310	310	255	L	320	310	L
28	240	220	220	240	240	245	280	260	290	300	L	320
29	220	220	230	240	260	250	280	L	300	C	C	330
30	F	280	240	240	240	250	270	240	300	300	300	360
31	225	225	235	225	230	230	260	240	290	300	L	320
Mean	245	240	240	235	240	245	280	280	280	300	310	315
Median	245	240	240	240	240	245	280	250	280	300	310	320
Count	23	24	24	24	24	24	24	23	12	19	14	18

Sweep 1 Mc to 25 Mc in 1/4 min.

*No observations due to damage of the Antenna System, during severe Cyclone.

Characteristic : h'F2

TABLE 44

Latitude 01°·2N

Unit : Km.

Ionospheric Data

Longitude 77°·5E

Month : December 1955

75 0° E Mean Time.

12	13	14	15	16-	17	18	19	20	21	22	23	Date
L ³⁰⁰	L	LH	L	240	260	270	340	360	380	280	260	1
C	355H	L	L	240	260	300	305	300	270	255	255	2
C	C	C	C	C	C	C	C	C	C	C	C	3
C	C	C	C	C	C	C	C	C	C	C	C	4
C	C	C	C	C	C	C	C	C	C	C	C	5
C	C	C	C	C	C	C	C	C	C	C	C	6
C	C	C	C	C	C	C	C	C	C	C	C	7
C	C	C	C	C	C	C	C	C	C	C	C	8
C	C	C	C	C	C	C	C	C	C	C	C	9
								380	320	280	255	10
A ³¹⁵	L	L	L	235	260	300	360	375	365	340	320	11
L	310	L	LH	230	260	300	380	360	400	280	260	12
L	L	L	LH	235	250	300	345	345	315	260	240	13
400	L	300H	L	225	260	300	330	305	305	270	260	14
315	L	L	L	225	260	280	300	300	295	260	250	15
L	310	300	L	225	260	280	335	320	300	250	230	16
340	L	L	L	220	260	300	360	360	F	360	260	17
340	L	L	L	235	260	305	360	7400	300	F	260	18
360	320	LH	L	A	255	280	310	280	260	240	245	19
300	L	L	L	260	260	290	340	320	320	260	245	20
L	300	350	L	L	260	290	360	F	F	340	320	21
L	L	L	A	L	235	280	340	340	F	260	250	22
325	310	L	L	240H	265	280	310	300	250	240	225	23
L	L	L	L	220	260	300	340	360	400	F	300	24
340	300	L	L	235	260	295	350	400	380	300	245	25
L	320	L	L	240	260	280	320	320	300	250H	220	26
350	300	340	360	240	260	300	360	370	325	305	270	27
380	320	L	L	230	260	280	330	320	270	230	220	28
L	L	350H	L	230	260	295	315	280	280	315	350	29
330	320	L	L	230	250	270	295	300	300	250	230	30
350	310	L	A	A	A	270	310	290	290	260	250	31
340	315	330		235	260	290	335	335	315	275	260	Mean
340	310	340	.	235	260	290	340	320	300	260	250	Median
14	12	5	1	19	22	23	23	23	21	22	24	Count

Sweep 1 Mc to 25 Mc in 1/2 min.

*No observations due to damage of the Antenna System, during severe Cyclone,

Characteristic foF2

TABLE 45

Latitude : 10° 2N

Unit : Mc

Ionospheric Data

Longitude : 77° 5E

Month : December 1955

75 0° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	(7.6) ^F	(7.2) ^F	6.8	6.8 ^F	5.5	4.0	5.6	8.2	9.7	11.2	11.5	12.1
2	F 9.3	(6.9) ^F	(7.0) ^F	6.1 ^F	5.7	5.6	6.8	9.9	10.7	11.6	12.7	12.9
*3	C	9.2	9.0 ^F	8.3	5.0	3.0	5.3	8.8	10.4	10.6	10.8	C
*4	C	C	C	C	C	C	C	C	C	C	C	C
*5	C	C	C	C	C	C	C	C	C	C	C	C
*6	C	C	C	C	C	C	C	C	C	C	C	C
*7	C	C	C	C	C	C	C	C	C	C	C	C
*8	C	C	C	C	C	C	C	C	C	C	C	C
*9	C	C	C	C	C	C	C	C	C	C	C	C
*10	C	C	C	C	C	C	C	C	C	C	C	C
11	F	F	7.7	6.8	5.1	3.4	5.1	8.7	10.0	11.4	11.8	11.9
12	F	(7.9) ^F	7.4	5.4	(4.2) ^F	3.3	5.0	7.5	9.4	10.0	10.1	10.5
13	F	F	F	5.4 ^F	4.8	4.4	5.6	8.7	10.2	10.7	11.0	11.2
14	8.0 ^F	7.7 ^F	6.9	5.3	3.2	2.3	4.6	8.1	9.7	10.5	10.3	10.0
15	7.8 ^F	8.4 ^F	7.3	5.5	4.0	2.9	4.6	8.3	10.2	10.9	10.8	10.4
16	6.5 ^F	6.7	6.8	6.4	5.2	4.0	5.2	8.4	10.0	10.3	10.6	10.1
17	7.6	8.1	7.1	5.7	3.5	2.4	4.5	8.1	10.0	10.5	10.6	10.2
18	F	7.9 ^F	7.3	5.8	4.2	2.8	4.6	8.3	10.2	10.5	9.9 ^H	9.7
19	F	F	6.9 ^F	6.1	5.5	4.6	5.0	8.4	10.5	10.9	10.0	9.4
20	8.2	7.3	6.6	6.3	5.9	4.6	5.0	8.4	10.4	10.9	10.3	11.0
21	9.3	7.9	6.2	5.3	4.6	3.6	4.6	7.5	8.6	8.4	8.2	8.7
22	F	F	(6.9) ^F	5.7	4.3	4.1	4.7 ^H	7.0	8.1	8.5 ^H	8.2	8.5
23	8.3	7.1	5.8	3.5	2.7	2.3	3.8 ^H	6.6	8.4	8.9	8.6	9.0
24	7.1	5.9	4.8	4.5	3.8	3.1	4.6	8.1	10.3	10.5	10.1	8.8
25	F	(6.7) ^F	(6.0) ^F	4.6	3.3	2.5	4.1	7.1	9.0	9.1	8.4	8.6
26	F	6.8	5.8	4.9	5.1	3.9	4.5	7.2	8.5	9.0	8.9	9.1
27	5.8	5.4	4.5	3.4	2.8	3.0	3.9	7.7	9.6	9.5	9.0	9.4
28	F	F	6.3 ^F	4.9	3.8	2.7	4.0	7.5	9.4	10.8	10.0	9.9
29	7.2	6.6	5.1	3.6	2.9	2.3	4.0	7.2	8.6	C	C	9.3
30	F	F	F	5.0 ^F	3.7	2.5	4.1	7.6	9.6	9.6	8.9	9.1
31	6.4	5.9	5.0	4.1	3.4	2.7	4.1	7.7	9.9	10.3	9.5	9.1
Mean	7.6	7.2	6.5	5.4	4.3	3.3	4.7	8.0	9.6	10.2	10.0	10.0
Median	7.6	7.2	6.7	5.4	4.2	3.0	4.6	8.1	9.8	10.5	10.1	9.7
Count	13	18	22	24	24	24	24	24	24	23	23	23

Sweep 1 Mc to 25 Mc in 1/2 min

*No observations due to damage of the Antenna System, during severe Cyclone,

Characteristic : foF2

TABLE 45

Latitude : 10° 2'N

Unit : Mc

Ionospheric Data

Longitude : 77° 5'E

Month . December 1955

75° 0' E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
11.1	10.6	10.0	9.3	9.5	10.2	10.6	9.5	8.6	F	F	F	1
13.1	12.7 ^H	12.4	11.6	11.0	10.8	10.5	10.1	10.0	9.7	(9.8) ^S	(9.3) ^S	2
C	C	C	C	C	C	C	C	C	C	C	C	*3
C	C	C	C	C	C	C	C	C	C	C	C	*4
C	C	C	C	C	C	C	C	C	C	C	C	*5
C	C	C	C	C	C	C	C	C	C	C	C	*6
C	C	C	C	C	C	C	C	C	C	C	C	*7
C	C	C	C	C	C	C	C	C	C	C	C	*8
C	C	C	C	C	C	C	C	C	C	C	C	*9
C	C	C	C	C	C	C	C	8.0	7.7	8.0	7.9	*10
12.0	12.0	12.6	10.8	10.4	10.5	9.6	8.9	8.8	F	F	F	11
11.0	10.9	10.7	10.6 ^H	11.2	10.9	10.0	9.0	(7.8) ^F	F	F	F	12
11.1	12.0	11.8	11.0 ^H	10.5	9.5	8.9	8.4	8.2	8.3	8.2	7.9	13
9.7	9.0	8.4 ^H	8.6	9.5	9.6	9.3	8.9	8.9	8.7	7.8	7.1 ^F	14
10.7	10.8	11.0	11.1	11.0	10.7	9.5	8.9	8.7	8.5	(7.1) ^F	6.6 ^F	15
9.8	10.0	10.4	10.2	9.6	10.3	10.5	9.8	10.0 ^F	9.9	9.5	8.8	16
10.7	10.3	9.9	9.8	9.8	10.4	9.8	8.8 ^F	8.5 ^F	F	F	F	17
9.7	9.9	9.6	9.9	10.2	10.3	9.6	8.7	F	F	F	(6.4) ^F	18
9.1	9.6	9.7 ^H	10.5	10.8 ^A	9.8	10.7	11.0	11.5	10.3	8.8	8.4	19
11.6	12.0	11.7	11.4	11.1	9.8	9.1	8.5	8.0 ^F	8.1 ^F	9.0	9.4	20
8.8	9.4	9.7	10.4	10.8	10.6	10.4	F	F	F	F	F	21
8.5	9.5	10.0	10.5	11.4	11.8	11.4	10.7	(9.7) ^F	F	9.5	9.2	22
9.9	10.5	10.9	11.0	11.6	11.1	10.2	9.1	9.1	9.0	8.9	7.4	23
8.0	8.6	8.6	8.9	9.2	9.0	8.3	7.6	7.6 ^F	F	F	F	24
9.9	10.4	9.9	10.2	10.1	9.8	9.1	8.1	F	F	F	F	25
9.4	9.8	9.1	8.9	8.9	9.0	9.1	8.7	8.9	(8.0) ^F	7.4 ^H	7.1	26
10.4	10.6	9.8	9.7	9.3	9.3	8.8	8.0	7.7 ^F	F	F	F	27
9.8	9.7	9.3	9.5	9.9	10.1	10.4	9.3	8.5	8.2	8.5	8.4	28
9.5	9.8	9.2 ^H	9.1	9.1	9.0	9.3	8.8	8.7	F	F	F	29
9.4	10.0	10.1	10.2	10.3	9.6	9.4	9.2	8.4	7.2	7.2	6.6	30
9.4	10.3	10.2	10.5	10.6	11.2	11.0	10.2 ^F	9.6 ^F	8.9	8.5	8.3	31
10.1	10.4	10.2	10.2	10.3	10.1	9.8	9.1	8.8	8.7	8.4	7.9	Mean
9.8	10.3	10.0	10.2	10.3	10.2	9.6	8.9	8.7	8.5	8.4	7.9	Median
23	23	23	23	23	23	23	22	21	13	14	15	Count

Sweep 1 Mc to 25 Mc in 1/4 min.

*No observations due to damage of the Antenna System, during severe Cyclone.

Characteristic : h'F1

TABLE 46

Latitude 10°·2N

Unit : Km.

Ionospheric Data

Longitude : 77°·5E

Month : December 1955

75·0° E Mean Time.

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								235	220	200H	200H	205
2								240	225	215	215	210
*3								235	220	200	200H	C
*4								C	C	C	C	C
*5								C	C	C	C	C
*6								C	C	C	C	C
*7								C	C	C	C	C
*8								C	C	C	C	C
*9								C	C	C	C	C
*10								C	C	C	C	C
11								P	225	220	220	205
12								P	235	220	215	215
13								P	225	210	200H	200
14								240	220	210	205	205
15								240	225	220	210	200H
16								P	220	A	205	200
17								P	225	205	200	200
18								245	225	220	215	200
19								P	205	200	200H	200
20								250	230	215	210	215
21								P	230	220	200	200H
22								P	225	210H	220	200
23								P	230	220	205	205
24								245	225	210	200	200
25								240	230	250	210	200
26								P	220	215	200H	220
27								P	235	220H	220	210
28								240	225	210	200H	195H
29								240	225	C	C	215
30								P	220	205	205	205
31								P	220	215	200H	220
Mean								240	225	215	205	205
Median								240	225	215	205	205
Count								11	24	22	23	23

Sweep 1 Mc to 25 Mc in 1/4 min.

*No observations due to damage of the Antenna System during severe Cyclone

Characteristic : h'F1

TABLE 46

Latitude : 10°·2 N

Unit : Km.

Ionospheric Data

Longitude : 77°·5 E

Month : December 1955

75 0° E Mean Time.

12	13	14	15	16	17	18	19	20	21	22	23	Date
200	200	200	205	220								1
205	230H	220	230	000								2
C	C	C	C	000								*3
C	C	C	C	000								*4
C	C	C	C	000								*5
C	C	C	C	000								*6
C	C	C	C	000								*7
C	C	C	C	000								*8
C	C	C	C	000								*9
C	C	C	C	000								*10
220H	210	200	200	000								11
A	200	205	200H	000								12
200	200H	210	200	000								13
205	200	205	210	000								14
200	200	200H	200	000								15
180H	200H	205	205	000								16
200	200H	200	200H	000								17
210	200H	200	200H	000								18
200	200	200H	205	A								19
A	A	200	220	220								20
200H	220	A	A	225								21
200	205	A	A	230								22
200	200	200	210	000								23
185	200	190	200	000								24
200	190	200	220	000								25
200H	200	195H	A	000								26
205	205	200H	205H	000								27
210	200	195H	200	000								28
210	200	200H	200	000								29
205	200	200	200H	000								30
215	205	200	A	A								31
200	205	200	205									Mean
200	200	200	200	..								Median
21	22	21	19	4								Count

Sweep 1 Mc to 25 Mc in 1/4 min.

*No Observations due to damage of the Antenna System, during severe Cyclone.

Characteristic : foF1
 Unit : Mc
 Month : December 1955

TABLE 47
 Ionospheric Data
 75 0° E Mean Time.

Latitude : 10°·2N
 Longitude : 77°·5E

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

Sweep 1 Mc to 25 Mc in 1/4 min.

*No observations due to damage of the Antenna System, during severe Cyclone.

Characteristic : foF1
 Unit : Mc
 Month December 1955

TABLE 47
 Ionospheric Data
 75°0' E Mean Time.

Latitude : 10° 2'N
 Longitude : 77° 5'E

12	13	14	15	16	17	18	19	20	21	22	23	Date
L	L	L	L	L								1
L	L	L	L	L								2
C	C	C	C	C								*3
C	C	C	C	C								*4
C	C	C	C	C								*5
C	C	C	C	C								*6
C	C	C	C	C								*7
C	C	C	C	C								*8
C	C	C	C	C								*9
C	C	C	C	C								*10
L	L	L	L	L								11
A	L _{LH}	L	L _{LH}	Q								12
L	L	L	L	Q								13
L	L	L	L	Q								14
L	L	L	L	Q								15
L	L	L	L	Q								16
L	L _{LH}	L	L _{LH}	Q								17
L	L	L _{LH}	L	A								18
L	L	L	L	L								19
L _{LH}	L	L	L	L								20
L	L	L	L	L								21
L	L	L	L	L								22
L _{LH}	L	L	L	L								23
L	L _{LH}	L	L	L								24
L	L	L	L	L								25
L _{LH}	L	L _{LH}	L	L								26
L	L	L	L	L								27
L	L	L	L	L								28
L	L	L	L	L								29
L	L	L	L	L								30
L	L	L	A	A								31
..			.	..								Mean
.	.	.	..	..								Median
.	.	..		..								Count

Sweep 1 Mc to 25 Mc in 1/4 min.

*No Observation due to damage of the Antenna System, during severe Cyclone.

Characteristic : h'E

TABLE 48

Latitude : 10°.2N

Unit : Km.

Ionospheric Data

Longitude : 77°.5E

Month : December 1955

75 0° E Mean Time.

Date	00	01	02	03	04	05	06	07	08	09	10	11
.												
1								110	A	A	105	105
2								110	105	105	105	105
*3								105	105	105	A	C
*4								C	C	C	C	C
*5								C	C	C	C	C
*6								C	C	C	C	C
*7								C	C	C	C	C
*8								C	C	C	C	C
*9								C	C	C	C	C
*10								C	C	C	C	C
11								110	105	105	105	105
12								105	A	A	A	A
13								105	105	A	A	A
14								105	105	A	A	A
15								105	105	105	A	A
16								105	A	A	A	A
17								105	105	A	A	A
18								110	105	105	105	105
19								120	105 ¹	105	A	A
20								110	105	A	A	A
21								105	A	A	A	A
22								110	A	A	A	A
23								110	105	105	A	105
24								110	105	A	A	A
25								105	A	A	A	A
26								110	105	A	105	105
27								120	105	105	105	105
28								110H	105	A	105 ^F	A
29								110	A	C	C	A
30								115H	105	A	105	105
31								110H	105H	A	A	A
Mean	.							110	105	105	105	105
Median	.							110	105	105	105	105
Count	.							24	17	8	8	8

Sweep 1 Mc to 25 Mc in 1/4 min.

*No observations due to damage of the Antenna System, during severe Cyclone.

Characteristic : h'E

TABLE 48

Latitude 10° 2N

Unit Km.

Ionospheric Data

Longitude 77° 5E

Month December 1955

75 0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
105	A	A	A	110	Q							1
A	A	A	A	105	Q							2
C	C	C	C	C	Q							*3
C	C	C	C	C	Q							*4
C	C	C	C	C	Q							*5
C	C	C	C	C	C							*6
C	C	C	C	C	C							*7
C	C	C	C	C	C							*8
C	C	C	C	C	C							*9
C	C	C	C	C	C							*10
B	105	A	105	115	140							11
A	A	A	A	A	135							12
A	A	A	A	110	Q							13
A	A	105	A	110	Q							14
A	A	A	A	110	120H							15
A	105	A	A	110	120							16
A	A	A	A	110	130							17
A	A	A	105	110	Q							18
A	A	A	110	A	Q							19
A	A	A	105	110	120							20
A	A	A	A	105	Q							21
A	A	A	A	110	120							22
105	105	105	A	110	Q							23
A	A	105	110	110	125							24
A	A	A	105	105	120							25
105	A	A	105	105	115							26
105	A	105	A	110	115							27
A	A	A	105A	110	A							28
A	A	A	A	110	120							29
A	105	110B	105	A	120							30
A	A	A	A	A	A							31
.		105	105	110	120							Mean
.		105	105	110	120							Median
4	4	5	9	19	13							Count

Sweep 1 Mc to 25 Mc in 1/4 min.

*No observations due to damage of the Antenna System, during severe Cyclone.

Characteristic · foE
Unit Mc
Month December 1955

TABLE 49
Ionospheric Data
75 0° E Mean Time.

Latitude . 10° 2N
Longitude . 77° .5E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								N	A	A	N	N
2								N	N	N	N	N
*3								N	N	N	A	C
*4								C	C	C	C	C
*5								C	C	C	C	C
*6								C	C	C	C	C
*7								C	C	C	C	C
*8								C	C	C	C	C
*9								C	C	C	C	C
*10								C	C	C	C	C
11								2.5	N	3.5	3.8	N
12								N	A	A	A	A
13								N	N	A	A	A
14								N	N	A	A	A
15								2.5	3.2	3.5	A	A
16								2.5	A	A	A	A
17								2.5	N	A	A	A
18								2.4	N	N	A	A
19								2.4	N	N	A	A
20								2.6	N	A	A	A
21								N	A	A	A	A
22								2.4	A	A	A	A
23								2.4	2.9	N	A	A
24								2.4	3.0	A	A	A
25								2.4	A	A	A	A
26								2.4	A	A	A	A
27								2.4	A	A	A	A
28								2.5 ^H	2.9	A	A	A
29								A	A	C	A	A
30								2.4	A	A	A	A
31								2.5 ^H	2.9 ^H	A	A	A
Mean								2.4	3.0	..		
Median								2.4	2.9			
Count								16	5	2	1	..

Sweep 1 Mc to 25 Mc in 1/4 min

*No observations due to damage of the Antenna System, during severe Cyclone.

Characteristic : foE
 Unit : Mc
 Month : December 1955

TABLE 49
 Ionospheric Data
 75°0' E Mean Time.

Latitude : 10°.2N
 Longitude : 77°.5E

12	13	14	15	16	17	18	19	20	21	22	23	Date
N	A	A	A	N	Q							1
A	A	A	A	N	Q							2
C	C	C	C	C	Q							*3
C	C	C	C	C	Q							*4
C	C	C	C	C	Q							*5
C	C	C	C	C	Q							*6
C	C	C	C	C	Q							*7
C	C	C	C	C	Q							*8
C	C	C	C	C	Q							*9
C	C	C	C	C	Q							*10
B	N	A	N	N	N							11
A	A	A	A	A	2.2							12
A	A	A	A	A	2.2							13
A	A	A	A	A	2.2							14
A	A	A	A	3.0	2.3 ^H							15
N	N	A	A	N	2.3							16
A	A	A	A	N	2.2							17
A	A	A	A	3.2	2.8							18
A	A	A	A	A	2.8							19
A	A	A	N ^{3.3}	N	2.2							20
A	A	A	A	2.8	Q							21
A	A	A	A	2.8	2.2							22
N	N	3.5	A	N	Q							23
A	A	3.4	N	2.8	2.2							24
A	A	A	N	2.8	2.1							25
A	A	A	A	A	2.2							26
A	A	A	A	A	2.3							27
A	A	A	A	A	A							28
A	A	3.8 ^B	A	2.9	N							29
A	A	A	A	A	2.2							30
A	A	A	A	A	A							31
			..	2.8	2.2							Mean
.	..	.		2.8	2.2							Median
..		3	2	7	11							Count

Sweep 1 Mc to 25 Mc in 1/4 min.
 *No observations due to damage of the Antenna System, during severe Cyclone.

Characteristic . fEs

TABLE 50

Latitude : 10°.2N

Unit Mc

Ionospheric Data

Longitude . 77°.5E

Month December 1955

75 0° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1			4.6	7.0	6.0			6.0	7.0 ^F	8.0 ^F	11.0 ^F	9.6 ^F
2								7.8	8.0 ^F	8.0 ^F	8.0 ^F	9.0 ^F
*3	C	C	C	C	C	C	C	6.0 ^F	8.0 ^F	8.4 ^F	9.0 ^F	C
*4	C	C	C	C	C	C	C	C	C	C	C	C
*5	C	C	C	C	C	C	C	C	C	C	C	C
*6	C	C	C	C	C	C	C	C	C	C	C	C
*7	C	C	C	C	C	C	C	C	C	C	C	C
*8	C	C	C	C	C	C	C	C	C	C	C	C
*9	C	C	C	C	C	C	C	C	C	C	C	C
*10	C	C	C	C	C	C	C	C	C	C	C	C
11								6.0	7.0 ^F	7.2	8.8	11.4 ^F
12		4.0						7.0 ^F	10.0 ^F	10.4 ^F	12.0 ^F	11.0 ^F
13								G	7.0 ^F	9.0 ^F	10.4 ^F	10.4 ^F
14								S	8.4 ^F	10.0 ^F	11.4 ^F	11.0 ^F
15	3.4							S	8.4 ^F	9.0 ^F	10.4 ^F	11.8 ^F
16		3.6						6.6 ^F	8.6 ^F	11.4 ^F	11.2 ^F	12.0 ^F
17		5.0						6.0 ^F	8.2 ^F	9.4 ^F	11.0 ^F	11.0 ^F
18					3.4			4.0 ^F	8.0 ^F	8.0 ^F	11.0 ^F	11.0 ^F
19	4.0	6.0 ^H						G	8.0 ^F	9.0 ^F	10.6 ^F	12.4 ^F
20		3.8	3.0	6.0				G	8.0 ^F	10.0 ^F	11.0 ^F	10.0 ^F
21								7.0 ^F	10.0 ^F	10.0 ^F	11.0 ^F	12.0 ^F
22								6.0 ^F	9.0 ^F	10.0 ^F	12.0 ^F	12.0 ^F
23	4.6 ^H							7.0 ^F	8.4 ^F	9.0 ^F	10.4 ^F	11.0 ^F
24								G	7.0 ^F	9.4 ^F	11.0 ^F	12.0 ^F
25								6.0 ^F	8.0 ^F	9.6 ^F	11.0 ^{FH}	11.0 ^F
26								7.0	8.6 ^F	10.6 ^F	11.0 ^F	12.0 ^F
27								G	8.0 ^F	9.0 ^F	10.8 ^F	11.0 ^F
28								G	7.2 ^F	9.0 ^F	10.0 ^F	10.4 ^F
29					3.6			7.0 ^F	8.0 ^F	C	C	11.8
30								G	8.2 ^F	10.4 ^F	11.0 ^F	11.2 ^F
31								G	8.0 ^F	9.0 ^F	11.0 ^F	11.4 ^F
Mean		4.5	.	.		..		6.4	8.1	9.3	10.6	11.1
Median		4.0	.					6.0	8.0	9.0	11.0	11.0
Count	3	5	2	2	3			22	24	23	23	23

Sweep 1 Mc to 25 Mc in 1/4 min
 *No observations due to damage of the Antenna System, during severe Cyclone

Characteristic fEs
Unit · Mc
Month December 1955

TABLE 50
Ionospheric Data
75 0° E Mean Time

Latitude · 10° 2N
Longitude : 77° .5E

12	13	14	15	16	17	18	19	20	21	22	23	Date
10 OF	12 OF	11 OF	11.0F	7.6F	6 0	S						1
11 OF	11 OF	11 OF	10 0	7 8F	G							2
C	C	C	C	C	C	C	C	C	C	C	C	*3
C	C	C	C	C	C	C	C	C	C	C	C	*4
C	C	C	C	C	C	C	C	C	C	C	C	*5
C	C	C	C	C	C	C	C	C	C	C	C	*6
C	C	C	C	C	C	C	C	C	C	C	C	*7
C	C	C	C	C	C	C	C	C	C	C	C	*8
C	C	C	C	C	C	C	C	C	C	C	C	*9
C	C	C	C	C	C	C	C	C	C	C	C	*10
10 OF	13 OF	11.6F	10 6F	8 OF	6 0							11
18.0	11 OF	12 OF	11 OF	9 OF	G							12
11 OF	12 OF	10 OF	10 OF	8 2F	G							13
12 OF	12 OF	11 4F	11 2F	8 OF	G						3.8	14
12 OF	11 2F	10 OF	9 OF	7 6F	G			3.2	4.0			15
11 4F	9 8F	10 4F	9 8F	7 8F	6 OF							16
12.0F	11 8F	10.0F	10 OF	8 8F	6 6F						3.8	17
12 OF	12 OF	9 8F	10 OF	7 2F	G						3.8	18
12.0F	11 8F	11 OF	G	9 0	G	4.0	3.2	5.4	4.6		5.0F	19
13 0	19.0	11.0F	11.0F	8 4F	6 0					3.4		20
12 OF	12 OF	19 OFH	18 0	7.0F	7.4F							21
11.0F	12.0FH	20.0FH	14 OFH	6 OF	G						4.0	22
11 OF	10 OF	8 6F	9 OF	7 4F	3 8F			8.0				23
11 8F	12 OF	12 OF	9 OF	7 6F	G							24
11 OF	10 OF	10 OF	10 OF	7 OF	G							25
12.0F	12.0F	11.0F	10 2FH	9 OF	7.0F							26
11.6FH	11 OF	11 OF	11 OF	7 OF	6.0F							27
12 OF	11.4F	10 4F	8.0F	6 OF	7 OFH	5.0F			2.6			28
11.0F	11 4F	12.0F	10 OF	6 8F	6 OF						2.2	29
11 OF	11 OF	10.0F	9 OF	7 4F	G							30
11 OF	11 OF	11 OF	19 OF	11 OF	10.0F	7.0F	2.0	2.4	7.0			31
11 7	11 8	11 5	10.9	7 8	6 5	..	..	.	..	..	3.8	Mean
11 6	11 8	11.0	10 0	7.6	3 8	.	.		..		3.8	Median
23	23	23	23	23	23	3	2	4	4	1	6	Count

Sweep 1 Mc to 25 Mc in 1/4 min.

*No observations due to damage of the Antenna System, during severe Cyclone.

Characteristic : (M 3000) F2
 Unit . —
 Month : December 1955

TABLE 51
 Ionospheric Data
 75 °E Mean Time

Latitude : 10° .2N
 Longitude : 77° .5E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	(3 1) ^F	(3 2) ^F	(3 2) ^F	3 2	3 3	3.4	3 0	3 0	2 8	2 7	2 7	2 7
2	F	(2 9) ^F	(3 0) ^F	3 2 ^F	3 0	3.2	3 0	2 9	2.7	2 7	2 6	2 5
*3	(3 0) ^S	(3 0)	(3 1) ^F	3 3	3 4	3.4	3 0	3 0	2 8	2 7	2 5	C
*4	C	C	C	C	C	C	C	C	C	C	C	C
*5	C	C	C	C	C	C	C	C	C	C	C	C
*6	C	C	C	C	C	C	C	C	C	C	C	C
*7	C	C	C	C	C	C	C	C	C	C	C	C
*8	C	C	C	C	C	C	C	C	C	C	C	C
*9	C	C	C	C	C	C	C	C	C	C	C	C
*10	C	C	C	C	C	C	C	C	C	C	C	C
11	F	F	3 1	3 3	3 4	3.5	3 0	3.0	2.9	2 7	2 6	2 5
12	F	(3 0) ^F	(3 2)	3 3	(3 3) ^F	3.2	2 8	2 7	2 6	2 6	2 5	2 4
13	F	F	F	3.3 ^F	3 2	3 4	3 0	2 9	2 7	2 6	2 4	2.5
14	3 0 ^F	3 1 ^F	3 2	3 3	3 5	3 4	2 9	2 9	2 7	2 6	2 4	2 4
15	(3 1) ^F	3 2 ^F	3 3	3 3	3 4	3 3	3 0	3.0	2 9	2 6	2 5	2 5
16	3.0 ^F	3 1	3 2	3 2	3 3	3 3	3 1	2 9	2 8	2 7	2 5	2 4
17	(3.2)	3 1	3 2	3 4	3 4	3 3	3 0	3 0	2 8	2 6	2 5	2 5
18	F	3 0 ^F	3 2	3 2	3 4	3 4	3 0	3 1	2 9	2 5	2 5 ^H	2 4
19	F	F	3 2	3 2 ^F	3 2	3 3	3 2	3 0	2 8	2 6	2 2	2 5
20	3 0	3 2	3 1	3 2	3 1	3 3	3 2	3 1	2 8	2 7	2 4	2 5
21	3 1	3 1	3 3	3 2	3 3	3 4	2 9	2 8	2 6	2 6	2 6	2 4
22	F	F	(3.2) ^F	3 3	3 3	3 4	2 9	2 9	2 7	2 6	2 6	2.5
23	3.2	3 4	3 4	3 4	3 1	(3 1)	(2 6) ^H	2 8	2 7	2 7	2 7	2 7
24	3 3	3 3	3 2	3 1	3 1	3 2	3 2	3 2	3 0	2 7	2 3	(2.4) ^H
25	F	(3 1) ^F	(3 2) ^F	(3 2)	(3 4)	3 3	3 0	2 9	2 8	2 4	2 5	2.6
26	F	(3.1)	3 2	3 1	3 2	3.3	3 0	3.0	2 7	2 7	2 5	2.5
27	3 4	3 3	3 3	3 2	3.1	2 9 ^F	2 7	3.0	2 8	2 5	2 5	2 6
28	F	F	(3 2) ^F	3 2	3 3	(3.4)	3 0	3.2	2 9	2 7	2 5	2 4
29	3 3	3 3	3 3	3 3	3 3	3 3	2 9	3 1	2 6	C	C	2.5
30	F	F	F	(3 2) ^F	3.2	3 3	3 1	3 1	2.8	2 5	2 6	2 5
31	3 1	3 1	3 3	3 3	3 3	3 4	3 2	3.3	3 1	2 7	2 6	2.5
Mean	3.1	3 1	3 2	3 2	3 3	3 3	3 0	3 0	2 8	2 6	2 5	2 5
Median	3 1	3 1	3 2	3 2	3 3	3 3	3 0	3 0	2 8	2 6	2 5	2 5
Count	13	18	22	24	24	24	24	24	24	23	23	23

Sweep 1 Mc to 25 Mc in 1/2 min.

*No observations due to damage of the Antenna System, during severe Cyclone

III

Characteristic . (M 3000) F2

TABLE 51

Latitude : 10° 2N

Unit —

Iono-pheric Data

Longitude : 77° 5E

Month December 1955

75 0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
2.5	2.2	2.1 ^{III}	2.4	2.5	2.6	2.7	2.5	2.4	F	F	F	1
2.5	2.3 ^{II}	2.2	2.2	2.4	2.4	2.4	2.4	2.5	2.7	(2.8) ^S	(2.9) ^S	2
C	C	C	C	C	C	C	C	C	C	C	C	*3
C	C	C	C	C	C	C	C	C	C	C	C	*4
C	C	C	C	C	C	C	C	C	C	C	C	*5
C	C	C	C	C	C	C	C	C	C	C	C	*6
C	C	C	C	C	C	C	C	C	C	C	C	*7
C	C	C	C	C	C	C	C	C	C	C	C	*8
C	C	C	C	C	C	C	C	C	C	C	C	*9
C	C	C	C	C	C	C	C	2.3	2.5	2.7	2.8	*10
2.5	2.4	2.2	2.2	2.3	2.4	2.5	2.3	2.2	F	F	F	11
2.4	2.3	2.3	2.3	2.4	2.5	2.5	2.3	(2.3) ^F	F	F	F	12
2.5	2.4	2.4	2.3 ^{II}	2.2	2.5	2.5	2.4	2.5	2.6	2.8	3.0	13
2.3	2.1	2.6	2.5	2.5	2.5	2.5	2.4	2.5	2.6	2.7	(2.9)	14
2.4	2.4	2.5	2.5	2.4	2.4	2.5	2.4	2.5	2.6	(2.8) ^F	(3.0) ^F	15
2.4	2.4	2.4	2.3	2.4	2.4	2.5	2.4	2.4 ^V	(2.6) ^F	2.9	3.0	16
2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.4	(2.5) ^F	F	F	F	17
2.5	2.4	2.4	2.5	2.5	2.5	2.4	2.2	F	F	F	(2.8) ^F	18
2.4	2.5	2.4	2.4	2.7	2.8	2.8	2.8	2.9	3.1	3.0	3.0	19
2.6	2.6	2.5 ^{II}	2.4 ^H	2.1	2.4	2.5	2.3	2.3 ^V	2.5 ^F	2.7	3.0	20
2.3	2.4	2.5	2.5	2.5	2.5	2.4	F	F	F	F	F	21
2.5	2.5	2.6	2.6	2.7	2.8	2.7	2.6	(2.6) ^F	F	3.0	3.1	22
2.4	2.5	2.6	2.6	(2.6) ^{II}	2.4	2.3	2.6	2.7	2.9	3.1	3.2	23
2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.4	(2.4) ^F	F	F	F	24
2.6	2.4	2.4	2.5	2.4	2.5	2.3	2.3	F	F	F	F	25
2.4	2.4	2.4	2.3	2.4	2.5	2.6	2.5	2.6	(2.8) ^F	(3.0) ^H	3.2	26
2.5	2.4	2.3	2.3	2.4	2.5	2.5	2.4	(2.3) ^F	F	F	F	27
2.4	2.4	2.4	2.4	2.5	2.7	2.7	2.6	2.7	2.8	3.2	3.3	28
2.4	2.4	2.3	2.2 ^{II}	2.5	2.5	2.6	2.5	2.5	2.7 ^F	F	F	29
2.5	2.5	2.5	2.4	2.3	2.5	2.6	2.7	2.6	2.7	2.9	3.0	30
2.6	2.6	2.5	2.5	2.6	2.7	2.7	(2.6)	2.7	2.8	3.1	3.2	31
2.5	2.4	2.4	2.4	2.4	2.5	2.5	2.5	2.5	2.7	2.9	3.0	Mean
2.4	2.4	2.4	2.4	2.4	2.5	2.5	2.4	2.5	2.7	2.9	3.0	Median
23	23	23	23	23	23	23	22	21	14	14	15	Count

Sweep 1 Mc to 25 Mc in 1/2 min.

*No observations due to damage of the Antenna System, during severe Cyclone,

COMMISSION OF ENQUIRY.

Kedatangan Obor dan Kapal di Pelabuhan CEMVI.

Page.	Title.	No. of	Instance of
Part II.			
9 (1st line)		200 Km 1000'	200 ⁰ Km 1000ms.
12	2. 10th hr. of the 1st.	25.1	25.0
13	4. 10th hr. of 20th	24.3	24.3
23	12. Date column.	107	107
46	18. Port Column.	Crocket on November 15.	
Part III.			
49	20. 20th hr. of 14th	200 F.	2001
65	22. 10th hr. of 10th	200	200 N
73	35. 10th hr. of 20th	(2.0)H	(2.0)F
80	33		
	11th hr. of 14th	L	250
	12th hr. of 15th	210	L
	10th hr. of 14th	L	::
	10th hr. of 14th	200	::
82	37.		
	03 hr. of 1st	2.5 F	2.5
	01 hr. of 20th	7.2 F	7.1
	07 hr. of 10th	2.0	.3
84	38.		
	09 hr. of 10th	200	200
83	42.		
	10th hr. of 4th	20.0 F	11.0 F
	10th hr. of 1st	L	::
83	44. 07th hr. Mean	200	200
97	47. 10th hr. of 10th	200	200
	20th hr. of 10th	200	200
	20th hr. of 20th	200	200
80	45. 14th hr. of 14th	20.0	20.0
101	43. 10th hr. of 20th	0	::

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