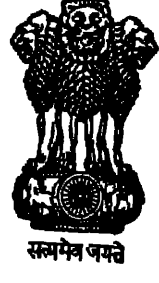


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KODAIKANAL OBSERVATORY

Bulletin No: CLXIX

Published on 19th September, 1968 (Bhadra 28th, 1890)

KODAIKANAL OBSERVATORY

Bulletin No CLXIX

PART I

Summary of Prominence Observations for the second half of 1962

This bulletin gives the results of Observations of prominences and calcium flocculi made at Kodaikanal Observatory during the second half of 1962 supplemented by data computed from photographs supplied by the Meudon Observatory for those days on which Kodaikanal had imperfect or no observations due to cloudy sky conditions.

Calcium prominences at the limb — During the half year, photographs of calcium prominences at the limb were obtained at Kodaikanal on 99 days which were counted as 86½ effective days after giving due weightage to the photographs. Spectroheliograms for 15 days were obtained from Meudon Observatory. In all, complete observations were available for 127½ effective days.

The mean daily areas (Square minutes of arc) and the mean daily numbers of prominences derived from the above records are given below —

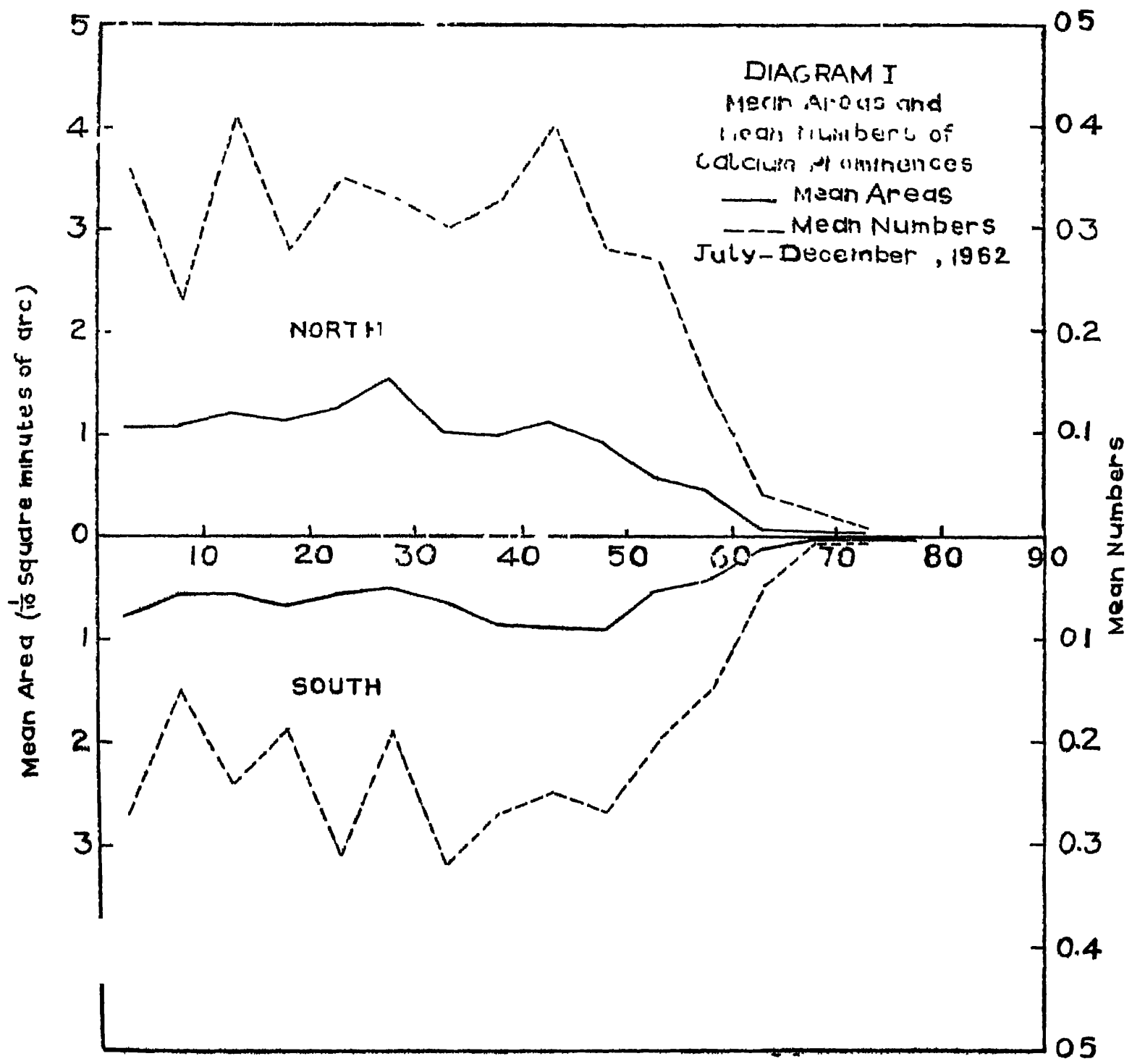
	Combined data	
	Mean daily areas (Square minutes)	Mean daily numbers
North	1.25	3.73
South	0.78	2.87
TOTAL	2.03	6.60

These figures when compared with the corresponding values of the previous half year, show a decrease of activity the decrease being 31.61% in areas and 23.2% in numbers.

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 case of areas the peak of activity in the northern hemisphere is in the latitude belt 25°-30°. In the case of numbers, the peak of activity lies in the latitude belts 10°-15° and 10°-15°.

The monthly, quarterly, and half-yearly areas, numbers, heights and extents of prominences as derived from all the available photographs are tabulated below.

1962 Months	No of effective days	Area (Square minutes)	Numbers	Daily Means		Mean Height	Mean Extent
				Area (%)	Numbers		
July	21½	17.7	120	2.2	5.6	39.1	3.0
August	18½	35.1	118	1.9	7.9	32.8	2.1
September	20	40.2	190	2.0	9.5	31.8	2.3
October	18	34.5	90	1.9	5.0	39.1	3.3
November	24½	51.9	154	2.1	6.3	35.3	2.9
December	25	50.1	111	2.0	5.6	37.7	2.4
3rd Quarter	60½	123.0	458	2.04	7.60	33.8	2.4
4th Quarter	67½	136.5	385	2.02	5.71	37.1	2.8
2nd Half-Year	127½	259.5	843	2.03	6.60	35.3	2.6



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

1962 July—December		East	West	Percentage East
Total areas (Square minutes)		111 0	145 5	43 77
Total numbers		406	437	48 20

Prominences Projected on the disc as absorption markings —During the half-year under review photographs of the sun's disc in the H-alpha line were obtained at Kodaikanal on 81 days. H-alpha Spectroheliograms for 70 days were received from the Meudon Observatory. In all observations were available for 118½ effective days.

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 photographs are given below —

	Combined data	
	Mean daily area (Millionths of the sun's visible hemisphere)	Mean daily number
North	1793	11 18
South	753	6 97
TOTAL	2546	21 45

On comparing with the previous half-year, there is a slight increase of activity of the dark markings, the increase being 7 54% in areas and 11 14% in numbers.

The distribution of the areas of the absorption markings in 5 degree ranges of latitude as obtained from the combined data is shown in diagram II. The peak of activity in the northern hemisphere is in the latitude belts 10°-15° and 20°-30°.

The distribution of total areas and numbers of the dark markings east and west of the sun's axis of rotation is given below —

July—December 1962	Combined data		
	East	West	Percentage East
Total area (Millionths of the sun's visible hemisphere)	1,54,187	1,46,068	51 94
Total number	1,300	1,236	51 26

Calcium flocculi —Calcium Flocculus photographs were obtained at Kodaikanal on 125 days and spectroheliograms for 40 days were obtained from Meudon Observatory. On the whole records were available for 138½ effective days.

The distribution of areas of calcium flocculus, east and west of the sun's axis of rotation is given below —

July—December, 1962	Combined data		
	East	West	Percentage East
Total area (in millionths of the Sun's visible hemisphere)	4,39,875	4,23,375	50 97

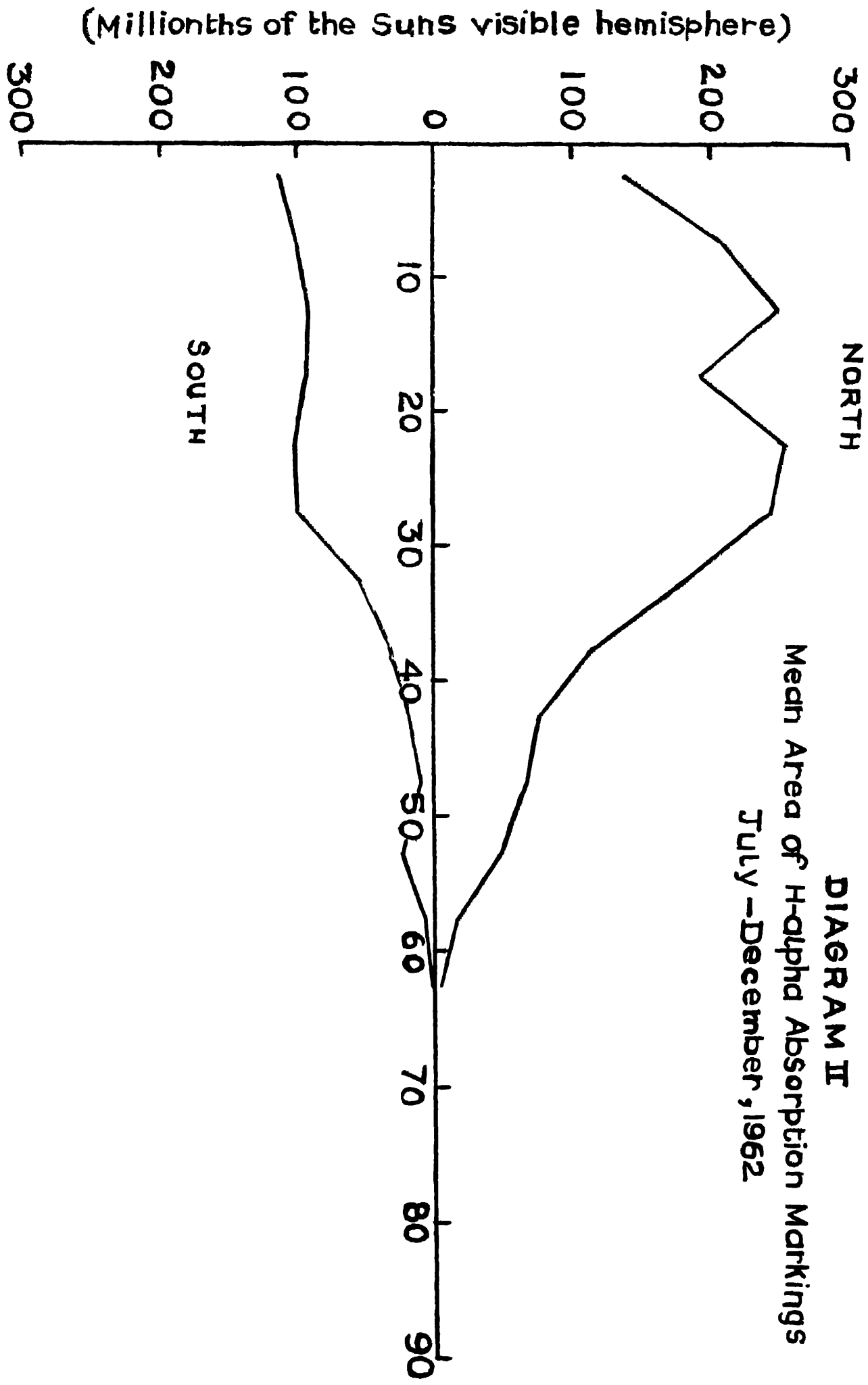


DIAGRAM II
Mean Area of H-alpha Absorption Markings
July - December, 1962

The mean daily areas in millionths of the sun's visible hemisphere (uncorrected for foreshortening) of the calcium flocculi as derived from the combined photographs are given below

	North	South	Total
Mean daily area (in millionths of the sun's visible hemisphere)	4381	1831	6215

Compared to the previous half year there is a slight decrease of activity, the decrease being 10.51%

Particulars of sudden disappearances, surges and active prominences are given in Tables I and II

Solar Flare Patrol

Observations with the Hale Spectroheliograph—Details of Doppler displacements in the H-alpha line observed in Prominences and dark markings are given below —

	North	South	East	West	Total	Displacement to red and violet
Displacements in Prominences	12	16	8	20	28	28
Displacements in Darkmarkings	5	3	3	5	8	8

The times of patrol of the Sun with the spectroheliograph and the Lyot monochromatic heliograph are shown in the accompanying charts

Details of Solar flares are given in Table III

Solar Radio Emission—A description of the system of solar radio emission observations at Kodaikanal with a brief description of the radiometer has been given in Bulletin No 167 of this observatory. The present Bulletin contains all outstanding occurrences observed at Kodaikanal

PART II

Magnetic Observations for the Second Half of 1962

Brief descriptions of the absolute instruments, the variometers and the system of observations have been given in Bulletins Nos CXXXXII and CXXXXVI of this observatory. The data presented in this bulletin are derived mainly from the records of La Cour instruments but in case of failure of La Cour records, Weston magnetograms have been used

The adopted values of the scale coefficients for the Horizontal Force were 28 γ/cm for the months of July and August 1962 and 29 γ/cm for the remaining four months of the second half of 1962. The adopted values of the scale coefficients for Vertical Force were 115 γ/cm for the period July through September and 120 γ/cm for the other three months of October through December 1962. The adopted value of scale coefficient for Declination magnetograph for the entire half year period was 14' /cm.

PART III

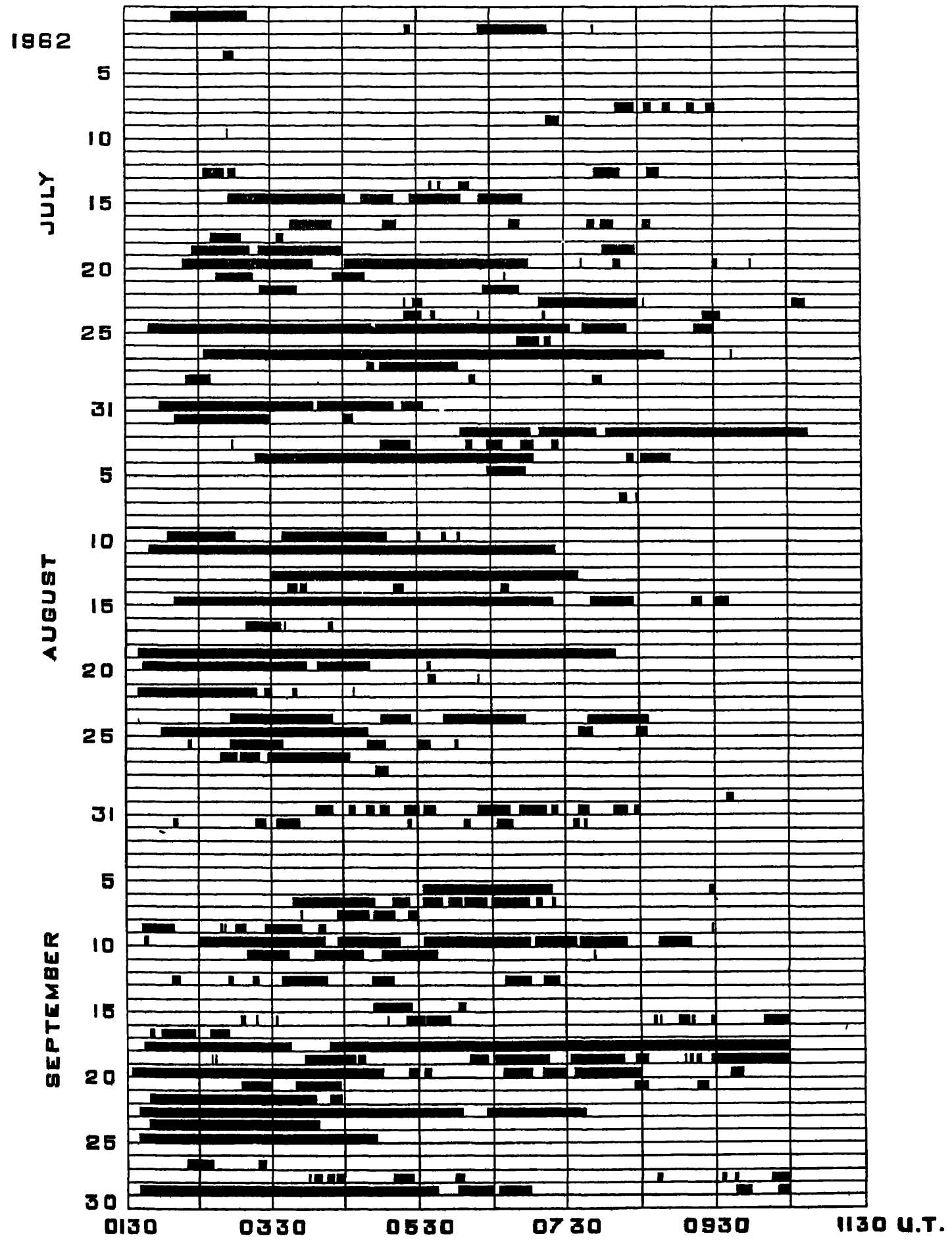
Ionospheric observations for the second half of 1962

A description of the system of ionospheric observations at Kodaikanal with a brief description of the Ionosphere Recorder has been given in the Bulletin No 146 of this Observatory. The present Bulletin contains half-hourly values of eleven ionospheric parameters viz, foF2, foF1, foE, foEs, fbEs, h-min, h'F2, h'F, h'E, h'Es and (M3000)F2 with symbols and terminology as recommended by the special committee on worldwide Ionospheric Soundings to the URSI/AGI in its First Report (Brussels, September, 2, 1956)

KODAIKANAL OBSERVATORY, }
8th December, 1965.

(M. K. VAINU BAPPU),
Director

EFFECTIVE HOURS OF SOLAR PATROL WITH SPECTROHELIOSCOPE AND LYOT FILTER



EFFECTIVE HOURS OF SOLAR PATROL WITH
SPECTROHELIOSCOPE AND LYOT FILTER

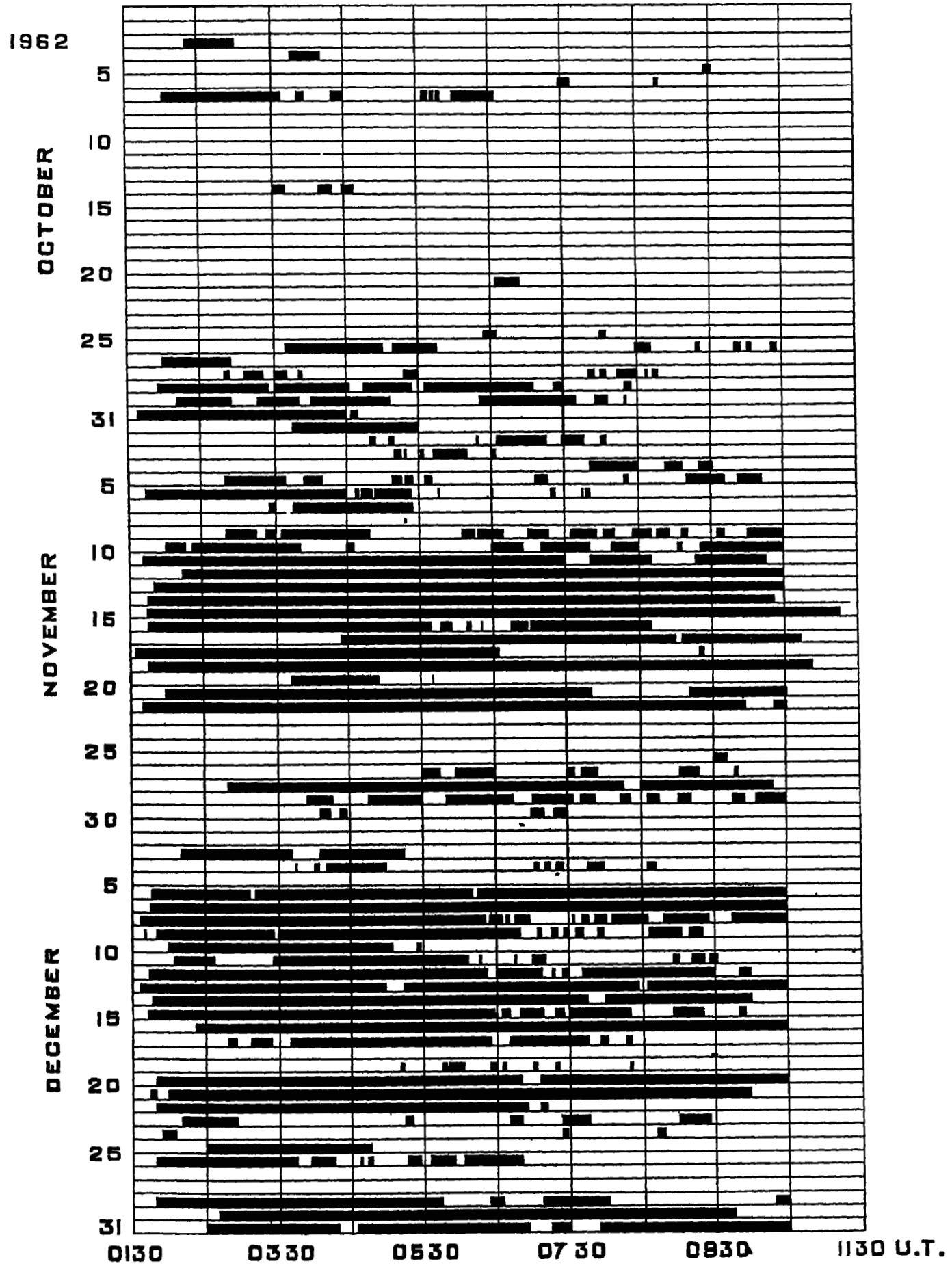


TABLE I
OBSERVATIONS OF SUDDEN DISAPPEARANCES

Date	Phenomenon	Time when object last observed before activation U T		Time when disintegration observed U T		Time when object has disappeared U T		Approximate position of centre		Greatest Extension of filament before activation	Importance	Remarks
		Hrs	Mts	Hrs	Mins	Hrs	Mts	Lat	Mean Longitude			
1	2	3	4	5	6	7	8	9	10	11	12	13
19-8-1962	Darkmarking	08	10					25°N	25°W	15°	1	Actual disintegration not observed. Darkmarking was not seen on 20th Aug 1962.
9-9-1962	Darkmarking	09	28					25°N	75°E	30°	2	Actual disintegration not observed. Darkmarking was not seen on 10th Sept 1962.

TABLE II
SURGES AND ACTIVE PROMINENCE REGIONS

Date	Phenomenon*	Importance	Time in U T		Position (Heliographic)		Direction of outflow	Remarks†
			Begin	End	Latitude	Long diff from C M		
1	2	3	4	5	6	7	8	9
13th Aug	BSL	1	0100		17°S	90°E	r	A-End not observed due to cloudy sky
19th Aug	BSL	1	0228	0238	06°N	90°W	rs	G
20th Aug	APR	1	0210	0222	05°N	90°W	rs	G
24th Aug	BSD	1	0338	0344	14°S	73°W		
24th Aug	DSD	1	0338		16°S	73°W		Observed along with the above BSD
25th Aug	BSL	1	0251	0308	18°S	90°W	r	A
11th Sept	BSL	1	0312	0321	13°N	90°E	r	A
24th Spt	BSL	1	0250	0302	21°N	90°W	r	G
7th Oct	APR	2	0602	0610	48°N	90°W	rs	P
31st Oct	BSL	1	0139	0148	12°N	90°W	rs	A
9th Nov	DSD	1	0241	0247	12°S	38°E		G
14th Nov	EPL	1	0505	0610	25°S	90°W	r	S

TABLE II—Contd

1	2	3	4	5	6	7	8	9
21st Nov	D&D	1	0316	0335	17°S	56°W		G
30th Nov	BSL	1	0718	∫0728	12°N	90°W	r	Associated with a brightening in the nearby Region
8th Dec	BSL	1	0151	0203	06°S	90°W	r _n	A
11th Dec	DSD	1	0550	∫0619	17°S	21°W		A
16th Dec	BSL	1	0607	0625	17°S	90°W	r _n	A
16th Dec	BSL	1	0930	1015	17°S	90°W		A
17th Dec	EPL	1	0455	0550	13°S	90°W	r _n	S
21st Dec	D&D	1	0845	0910	15°N	25°W		G

* Code DSD=dark surge on disk, BSL = bright surge at limb, APR = active prominence region, BSD=light surge on disk, AFR=active filament region

** The codes are the same as used in the I G Y Instruction Manual

‡ First observation of the phenomenon and not the beginning of phenomenon

∫ End of Observation and not the end of phenomenon

TABLE III
SOLAR FLARES

Date 1962	Time in UT						Coordinates		Maximum width of H-alpha line Observed	Importance
	Beginning		Maximum		End		Mean Latitude	Mean Longitude		
	HI	M	HI	M	HI	M	°	°	Å	✓
16th Sep	06	36	06	37	06	42	23 N	23 E	1 32	1—
16th Sep	10	15 *			10	17	23 N	23 E	1 40	1—
20th Sep	05	20 *			05	30 **	23 N	44 W	1 40	1—
15th Nov	09	41	09	42	09	52	18 N	25 W	1 40	1—
16th Nov	01	43 *			01	47 **	11 N	14 E		1—
17th Nov	07	20	07	20	07	22	11 N	02 W	1 40	1—
30th Nov	04	07			04	12	12 N	77 W	1 28	1—
14th Dec	02	42	02	45	02	55	11 S	12 E	1 20	1—
16th Dec	08	29	08	29	08	50	13 S	20 W	1 52	1—
20th Dec	06	12	06	12	06	22	06 N	21 W	1 36	1—
20th Dec	08	20	08	20	08	26	07 N	15 W	1 68	1—
21st Dec	09	02	09	04	09	15	10 N	27 W	1 84	1
26th Dec	03	00	03	00	03	10	06 N	30 E	1 36	1—

* First observation of the flare and not the beginning of flare

** End of observation and not the end of flare

TABLE IV

SOLAR RADIO EMISSION OUTSTANDING OCCURRENCES JULY—DECEMBER, 1962

Frequency 100 Mc/Sec

Station Astrophysical Observatory, Kodikanal

Normal Observing Period } 0300 hrs to 1000 hrs U T

(Latitude 10 2° N Longitude 77 5° E)

Date	Starting time in U T	Duration in minutes	Type	Maximum flux density ($\times 10^{-22}$ W M $^{-2}$ (C/S) $^{-1}$)		Remarks
				Instantaneous	Smooth	
1	2	3	4	5	6	7
	H M					
July 5	04 00	1 5	ESD	> 39		
August 2	05 39	9	SD	177		
August 15	04 40	3	SD	45		
August 15	05 21	2	SD	21		
August 15	06 10	0 5	SD	24		
August 15	06 59	2 0	SF	> 10		
August 15	07 38	1 0	SD	15		
August 15	08 54	1 0	SD	46		
September 4	03 14	180D	CA	> 450		
September 5	05 55E	80D	CA	29		
September 7	03 27E	918	CA	368		
September 17	06 16	56D	CA	31		
September 27	04 06E	23	SF	96		
September 27	05 09	1	SD	20		
September 27	06 18	1 5	SD	> 12		
September 27	06 58	1 5	SD	> 14		
October 16	04 58	2	SD	62		
October 23	06 02	64D	CA	> 7		
November 8	03 20	430D	CA	155		
November 11	03 00	300	CA	> 121		
November 14	08 38	1 0	SD	40		
November 29	03 35	13	ESD	> 22		
December 9	07 13	17	ESD			
December 9	07 52	16	SD			

T A B L E S

TABLE 5

Hourly values of Declination (Westerly), 1962

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

July

2° plus tabular quantities

Date	Hours GMT														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
1	36 1	36 0	35 6	35 6	36 1	37 8	38 5	39 9	39 9	39 8	38 5	37 8	37 1	37 1	37 7
2	Δ	Δ	Δ	Δ	36 1	37 8	38 5	10 2	39 9	39 8	38 0	38 2	37 7	37 8	38 1
3	36 5	35 7	35 1	35 0	35 7	37 0	38 1	39 3	39 9	39 3	39 2	38 5	37 8	37 9	37 9
††1	35 7	37 0	36 1	37 2	37 2	10 0	10 1	39 6	39 3	38 6	37 9	37 8	36 6	37 1	37 2
††5	36 8	36 2	35 9	36 5	37 9	38 6	39 6	39 9	39 3	38 6	37 8	37 1	37 2	37 2	37 3
6	37 2	36 5	36 1	36 1	37 2	38 3	39 3	10 1	38 6	38 6	37 5	36 9	36 6	37 2	38 0
7	37 2	36 5	35 8	35 8	37 8	38 9	10 7	11 1	12 1	11 4	39 6	37 9	37 9	37 8	38 7
8	37 6	37 2	37 2	37 2	37 3	38 6	39 3	39 7	39 1	39 9	39 6	38 6	38 6	38 7	38 5
†9	37 5	37 2	36 6	36 6	38 7	39 3	39 7	10 0	10 1	39 5	39 1	38 7	38 0	38 1	38 7
10	37 3	37 2	36 6	36 8	37 3	38 6	39 1	10 1	10 1	39 7	39 1	38 7	38 3	38 0	38 7
11	37 3	37 2	36 0	36 6	37 3	38 7	38 7	10 8	10 8	10 1	39 1	38 7	38 7	38 7	38 7
12	37 9	37 3	37 3	37 3	38 3	10 1	10 9	10 8	10 1	39 1	38 7	38 0	37 9	38 0	38 7
13	38 0	37 1	37 1	37 6	38 0	39 3	39 5	39 1	39 4	39 1	38 7	38 0	37 1	37 3	38 0
14	37 3	36 6	35 9	36 7	38 0	38 1	39 5	39 8	39 9	39 6	39 5	38 1	37 1	37 7	38 1
15	37 1	36 7	36 7	37 3	38 1	38 8	10 2	10 8	10 9	10 2	39 5	38 8	38 1	38 5	38 7
†16	37 4	36 7	36 0	36 7	38 1	38 8	39 5	39 5	39 5	38 9	38 8	38 1	38 0	38 1	38 1
†17	38 0	37 3	36 7	36 6	38 2	38 8	39 5	39 6	39 5	38 8	37 1	37 3	37 3	38 1	38 7
†18	38 2	37 7	37 3	37 1	38 0	38 1	39 5	10 2	10 3	10 2	39 8	39 1	38 8	38 8	38 8
19	38 1	37 1	37 1	38 2	38 9	39 6	11 0	10 9	10 9	10 3	39 9	39 9	38 8	38 9	39 6
20	37 5	36 8	36 8	37 6	38 9	10 3	11 1	11 0	10 0	39 6	38 9	38 9	38 9	38 9	38 9
21	37 5	36 8	36 1	36 1	36 8	38 2	39 6	39 7	10 2	38 9	38 3	38 9	38 9	38 9	38 9
22	37 5	37 5	36 8	37 1	38 2	38 8	39 6	11 0	11 7	11 6	10 3	38 9	38 9	38 3	38 9
23	38 1	36 8	36 7	36 7	37 5	38 9	10 0	11 0	10 3	39 6	38 9	38 9	38 9	38 9	38 9
24	38 6	37 5	37 5	37 5	38 2	39 0	39 6	10 3	11 0	11 0	10 3	39 6	39 3	39 6	39 3
25	38 9	38 2	37 5	37 5	37 5	38 2	38 2	38 9	38 8	38 2	38 1	38 2	37 5	38 2	38 9
††26	38 3	38 2	38 2	38 9	39 1	11 1	39 7	39 9	39 0	38 1	39 0	37 6	38 3	39 0	39 0
††27	37 3	37 2	37 2	36 9	38 9	38 3	39 0	39 7	39 6	39 7	39 7	39 7	39 1	39 0	38 3
††28	37 6	37 5	36 8	37 3	37 6	38 3	39 0	39 7	39 7	39 6	38 7	37 6	37 5	37 7	38 3
29	37 6	37 3	36 9	37 5	39 0	39 7	11 1	11 1	10 3	39 7	39 7	39 7	39 0	39 0	39 0
†30	38 2	37 6	37 5	37 6	39 0	39 7	11 1	11 2	10 1	10 1	39 7	39 7	39 0	39 0	39 0
31	37 6	37 6	37 5	37 6	38 3	39 7	11 1	11 5	11 2	11 0	10 1	39 7	39 1	38 9	39 0
Mean	37 6	37 1	36 8	37 1	38 0	39 0	39 8	10 2	10 1	39 7	39 1	38 5	38 2	38 3	38 6
Mean†	37 9	37 3	36 8	37 0	38 1	39 0	39 9	10 1	40 0	39 6	39 0	38 6	38 2	38 5	38 7
Mean††	37 1	37 2	36 9	37 1	38 1	39 3	39 3	39 6	39 1	39 0	38 6	38 0	37 7	38 0	38 0

† Five International quiet days
 †† Five International disturbed days
 Δ Loss of record, day omitted for means

TABLE 5
 Hourly values of Declination (Westerly), 1962
 (Averages for sixty minutes centred at the full hours of Greenwich Mean Time)
 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			
37 8	37 9	37 9	37 1	36 7	36 8	36 5	37 0	37 1	37 1	37 5	08 00	09 0	02 20	31 3	5 6	1
37 5	37 9	37 8	37 1	36 7	36 8	36 5	37 0	37 1	37 1	37 5	08 00	09 0	02 20	31 3	5 6	2
37 9	37 2	37 5	37 7	37 7	37 1	37 1	37 1	37 3	37 1	37 8	06 00	10 1	02 00	36 4	3 7	3
37 9	37 9	37 9	37 6	37 9	37 0	37 6	37 3	37 1	37 8	06 00	10 1	02 00	36 4	3 7	4††	
37 6	37 9	37 8	37 8	37 2	37 5	37 8	37 2	37 2	37 7	05 55	10 0	01 20	35 8	1 2	5††	
37 9	38 5	38 2	38 2	37 5	37 9	37 2	37 2	37 2	37 7	07 00	10 0	01 10	35 8	1 2	6	
38 6	38 3	38 0	37 9	37 9	37 9	37 9	37 5	37 5	38 1	08 09	12 1	02 30	35 5	6 6	7	
38 6	38 6	37 9	38 0	38 6	37 9	37 9	37 8	37 8	38 1	09 30	10 0	02 30	36 9	3 1	8	
38 7	38 7	38 7	38 1	38 1	37 9	37 9	38 1	37 9	38 1	08 00	10 1	02 15	36 5	3 6	9†	
38 7	38 7	38 7	38 7	38 1	38 0	38 0	38 0	38 0	38 1	07 30	10 1	02 00	36 6	3 5	10	
38 8	38 7	38 7	38 7	38 7	38 1	38 7	38 1	38 0	38 5	06 10	10 8	01 45	35 9	1 9	11	
38 7	38 8	38 8	38 8	38 8	38 7	38 7	38 5	38 1	38 7	06 15	11 1	01 28	37 2	1 2	12	
38 1	38 7	38 0	38 1	38 7	37 9	37 9	38 0	37 9	38 3	06 00	09 5	03 10	36 9	2 6	13	
38 1	38 1	38 0	38 1	38 2	38 2	38 2	38 1	38 0	38 1	07 15	10 2	02 00	36 0	1 2	14	
38 8	38 7	38 8	38 2	38 1	38 1	38 2	38 1	38 1	38 6	08 00	1 09	01 35	36 6	1 3	15	
38 2	38 7	38 8	38 8	3 81	38 5	38 1	38 1	38 1	38 2	07 05	09 9	02 00	36 0	3 9	16†	
38 8	38 8	38 8	38 8	3 83	38 8	38 8	38 8	38 8	38 4	06 15	10 2	01 25	36 1	3 8	17†	
38 8	38 8	38 8	38 8	3 88	38 8	38 8	38 8	38 8	38 7	07 35	10 9	02 35	37 1	3 8	18†	
39 5	39 6	39 5	39 5	3 89	38 2	38 1	38 2	38 2	39 1	06 15	11 1	01 00	37 1	3 7	19	
38 9	38 9	38 9	38 8	3 92	38 2	38 2	37 5	37 5	38 7	07 30	11 7	01 05	36 3	5 2	20	
38 9	38 9	38 9	38 9	3 89	38 9	38 2	38 2	38 2	38 1	06 02	10 2	02 00	36 1	1 1	21	
38 9	38 9	38 8	38 3	3 82	38 2	39 2	38 2	38 2	38 8	09 00	11 7	01 38	36 8	1 9	22	
38 9	38 9	38 9	39 0	38 9	38 5	38 8	38 2	38 1	38 7	07 22	11 1	02 03	36 5	1 6	23	
38 9	38 9	38 3	37 5	37 9	37 9	37 9	37 3	38 3	38 8	08 50	11 1	02 05	37 1	3 7	24	
38 9	38 9	38 9	38 9	38 9	38 3	38 3	38 3	38 8	38 1	07 00	08 9	02 00	37 5	1 4	25	
39 0	39 0	39 0	38 7	38 6	37 6	37 6	37 6	37 6	38 7	05 00	11 1	11 00	37 6	3 5	26††	
38 3	39 0	38 3	38 3	38 3	38 3	37 7	37 6	37 6	38 1	08 00	09 8	03 00	36 9	2 9	27††	
39 0	39 0	38 9	38 3	38 4	38 3	38 2	37 6	37 7	38 3	07 00	09 9	02 00	36 8	3 1	28††	
39 0	39 0	39 0	39 0	39 0	38 1	38 3	38 3	38 3	39 0	06 00	11 1	02 00	36 9	1 2	29	
39 0	39 0	39 0	39 0	38 1	38 6	38 3	38 3	38 3	39 0	07 00	11 2	01 10	37 0	1 2	30†	
39 0	39 6	39 1	39 0	39 0	38 9	38 3	38 3	38 3	39 2	06 25	11 8	02 00	37 5	4 3	31	
38 6	38 7	38 6	38 5	38 4	38 2	38 1	38 0	38 0	38 5					1 0	Mean	
38 7	38 8	38 8	38 7	38 5	38 5	38 1	38 1	38 1	38 1						Mean†	
38 4	38 6	38 1	38 1	38 1	37 9	37 8	37 5	37 4							Mean††	

† Five International quiet days
 †† Five International disturbed days
 Δ Loss of record, day omitted for means

TABLE 6

Hourly values of Declination (Westerly), 1962

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

August

2 plus tabular quantities

Date	Hours G M T														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
††1	38 3	37 9	36 9	38 0	37 6	37 0	37 6	38 3	38 3	38 2	37 5	37 0	37 5	38 3	38 3
2	38 2	37 6	37 2	38 2	38 3	39 0	41 0	11 2	41 1	40 3	39 7	39 0	38 9	38 9	39 0
3	38 1	37 6	37 5	38 0	38 3	39 8	40 8	41 5	41 1	41 1	40 5	39 7	39 0	38 3	38 7
4	38 3	37 6	36 9	37 0	37 9	39 7	41 1	41 1	41 1	41 2	40 4	39 7	39 0	39 0	39 0
5	38 3	37 6	36 9	37 0	38 3	39 0	40 0	10 4	40 4	40 1	39 7	39 0	37 6	38 3	39 0
6	38 3	37 6	36 5	36 9	37 6	39 0	39 7	39 7	39 7	39 7	39 0	38 4	38 3	38 3	38 3
7	38 3	37 6	36 9	37 1	37 7	39 8	41 2	11 9	42 5	41 9	41 2	40 8	39 0	38 7	38 4
††8	38 4	37 7	37 0	36 9	37 7	39 1	39 7	40 5	41 2	39 8	39 1	38 5	38 4	38 4	38 4
9	38 4	37 7	36 9	37 0	38 4	39 8	11 2	41 3	41 2	40 5	39 1	38 4	38 3	38 4	38 4
10	38 4	37 0	36 9	36 9	37 7	39 1	40 4	41 2	40 5	39 8	39 1	38 4	38 0	38 4	39 1
††11	38 4	37 6	36 4	36 7	37 8	39 2	40 6	40 9	40 7	40 5	39 9	39 1	38 8	38 5	39 2
††12	38 3	37 8	37 7	37 8	38 8	40 3	41 0	41 3	41 3	40 6	39 9	38 8	38 5	37 9	38 4
††13	38 5	37 1	36 5	37 4	38 5	39 8	40 6	41 9	41 7	41 3	40 6	39 9	39 2	39 2	39 2
14	38 5	37 8	37 0	37 0	37 8	39 9	41 2	41 9	11 3	41 0	40 0	39 2	38 9	39 1	39 8
15	38 5	37 8	37 1	37 5	39 2	41 3	41 3	41 2	41 0	39 9	39 8	39 1	38 9	39 2	39 2
16	37 0	36 5	36 1	37 2	37 3	40 4	40 9	41 4	42 1	41 7	40 7	39 2	39 3	39 2	39 3
††17	37 2	36 6	36 5	36 4	37 9	40 0	41 4	41 4	40 7	40 6	39 9	39 0	37 9	38 6	39 2
18	37 9	37 3	37 2	37 9	39 0	39 4	40 0	40 3	40 8	40 8	39 9	39 2	38 6	38 6	39 0
19	38 0	37 9	37 6	37 5	39 3	38 7	40 7	41 4	40 4	40 0	38 6	38 6	38 6	38 6	38 6
†20	38 6	36 9	37 9	37 2	38 6	40 0	40 7	41 3	41 4	41 4	40 6	40 0	39 9	39 3	38 7
21	39 3	38 6	37 3	37 9	37 9	38 6	39 3	40 0	10 0	40 7	40 0	39 4	39 3	39 3	39 3
†22	38 5	37 8	37 3	36 4	39 9	40 0	40 0	39 9	38 6	37 9	39 0	37 2	37 2	37 2	37 9
23	37 2	37 1	36 4	36 3	37 3	38 6	39 4	40 2	40 2	40 8	40 7	40 2	39 4	39 4	39 4
24	37 0	37 3	37 4	37 3	39 0	40 8	41 4	41 5	40 7	39 1	39 3	38 0	38 0	38 0	38 3
25	38 0	36 7	36 6	37 4	38 1	39 3	10 1	40 7	40 2	39 7	39 1	38 6	38 0	38 7	39 3
26	37 9	37 3	37 3	37 9	38 7	39 7	40 2	40 1	39 4	38 7	38 0	37 7	37 6	38 4	39 3
27	38 7	38 0	37 7	37 9	38 7	40 1	40 8	41 6	41 4	41 2	39 5	39 1	39 0	39 1	39 4
†28	38 6	38 0	37 3	37 2	38 0	39 7	40 8	41 9	41 6	41 1	40 4	39 3	39 3	39 4	39 4
29	38 7	38 3	38 0	38 6	40 2	41 2	41 8	41 6	41 4	40 9	39 7	39 1	39 4	39 7	39 8
30	38 3	38 3	37 3	37 7	39 4	41 5	42 6	42 2	41 8	41 5	40 5	39 5	39 3	39 1	38 7
††31	39 1	38 0	37 4	38 0	39 3	40 1	40 1	40 0	39 1	38 0	37 4	37 2	37 3	37 7	38 0
Mean	38 3	37 5	37 1	37 4	38 4	39 7	40 5	40 9	40 7	40 3	39 6	38 9	38 6	38 7	38 9
Mean†	38 6	37 5	37 2	37 3	38 3	39 8	40 7	41 5	41 3	41 0	40 3	39 4	39 1	38 9	39 0
Mean††	38 3	37 6	37 0	37 1	38 5	39 2	39 8	40 0	39 6	38 9	38 6	37 8	37 7	38 1	38 4

† Five international quiet days
 †† Five international disturbed days
 Δ Loss of record, day omitted for means

TABLE 6

Hourly values of Declination (Westerly), 1962

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

August										2' plus tabular quantities				Range	Dist
Hours G M T										Maximum		Minimum			
15	16	17	18	19	20	21	22	23	24	Time	Mag	Time	Mag		
										H	M	H	M		
98 3	98 3	98 3	98 3	98 3	98 3	98 3	98 3	98 3	98 3	07 00	38 7	02 00	36 9	1 4	1†
99 0	99 0	99 0	99 0	99 0	98 3	98 7	98 4	98 3	99 0	07 00	41 2	02 00	37 2	4 0	2
99 0	99 0	99 0	99 0	99 0	98 6	98 9	99 0	98 7	99 1	07 00	41 5	02 00	37 5	4 0	3
99 0	99 0	98 4	98 3	98 4	98 1	98 4	98 6	98 4	99 0	09 00	41 2	02 00	36 9	4 9	4
99 0	99 1	99 0	99 0	99 0	98 3	98 6	98 7	98 5	98 8	07 00	40 4	02 00	36 9	9 5	5
99 0	99 0	98 9	99 0	99 0	99 0	98 7	98 7	98 7	98 6	06 00	39 7	02 00	36 5	9 2	6
99 0	98 4	98 4	97 7	97 8	98 0	98 7	99 1	98 4	99 1	08 05	42 6	02 05	36 9	5 7	7
98 4	98 3	98 1	99 0	99 1	99 1	99 1	99 1	99 1	98 8	08 00	41 2	02 15	36 9	1 9	8††
98 5	99 0	99 0	99 0	98 7	98 1	98 4	99 0	99 0	98 9	07 00	41 3	02 00	36 9	1 1	9
99 1	99 0	99 0	98 8	99 1	99 1	99 1	99 0	99 0	98 8	07 00	41 2	02 00	36 9	1 9	10
99 2	99 2	99 2	98 8	98 8	98 9	99 2	99 2	99 2	99 0	07 00	40 9	02 00	36 1	1 5	11†
99 2	99 1	98 8	98 9	99 1	99 2	98 9	99 1	98 8	99 2	06 50	41 6	01 55	37 7	3 9	12†
99 2	99 2	99 1	99 2	98 9	98 6	98 5	98 5	98 5	99 2	07 30	42 0	02 00	36 5	5 5	13†
99 8	99 6	99 2	99 2	98 8	98 4	98 2	98 4	98 5	99 2	07 20	41 3	02 00	37 0	4 9	14
99 2	99 2	99 2	98 8	99 1	98 5	98 5	98 4	98 1	99 2	05 00	41 3	02 05	37 0	1 9	15
99 9	99 9	99 3	99 3	99 0	98 7	97 9	97 2	97 8	99 0	08 00	42 1	01 40	35 9	6 2	16
99 9	99 0	99 0	99 2	99 0	98 6	98 3	97 9	97 9	98 8	06 15	42 1	09 00	36 1	5 7	17††
99 2	99 3	99 3	99 3	98 7	98 7	98 6	98 2	98 2	99 0	08 00	40 8	02 00	37 2	3 6	18
98 6	98 6	98 6	98 9	99 2	99 3	99 3	98 6	98 6	98 9	07 00	41 1	01 00	37 5	9 9	19
98 7	99 4	99 3	99 1	99 2	99 3	99 3	99 3	98 7	99 1	07 00	41 6	03 00	37 2	1 1	20
99 3	99 3	99 3	99 3	99 3	99 3	98 6	99 0	98 7	99 1	09 00	40 7	02 05	37 3	9 1	21
98 3	98 2	98 0	97 9	97 4	97 9	97 9	97 9	97 5	98 2	05 08	40 0	02 55	36 2	9 8	22††
99 4	99 4	99 3	99 1	98 8	98 7	99 1	98 1	98 3	98 9	08 50	40 8	02 50	36 3	1 5	23
98 7	98 8	99 0	98 7	98 7	98 8	98 7	98 6	98 4	98 8	07 00	41 5	01 30	37 3	1 2	24
99 1	98 8	98 7	99 1	98 7	98 6	98 7	98 7	98 3	98 7	06 50	40 8	01 10	36 5	1 3	25
99 1	99 4	99 4	99 1	99 3	99 3	98 8	98 7	98 7	98 8	06 00	40 2	01 05	37 2	3 0	26
99 4	99 3	99 3	99 0	98 8	98 6	98 6	98 4	98 6	99 3	07 00	41 6	02 00	37 7	3 9	27
99 4	99 4	99 4	99 7	99 1	99 1	99 1	99 1	99 3	99 4	07 15	42 1	02 55	37 2	1 9	28†
99 4	99 7	99 8	99 4	99 4	99 4	99 1	98 6	98 0	99 6	06 00	41 8	02 00	38 0	9 8	29
99 1	99 3	99 1	99 1	99 4	99 4	99 1	99 1	99 3	99 6	05 58	42 6	01 00	36 9	5 7	30
98 0	98 1	98 1	98 0	98 0	98 0	98 0	98 0	98 0	98 3	05 00	40 1	11 00	37 2	2 9	31††
99 0	99 0	99 0	98 9	98 9	98 7	98 7	98 6	98 5	99 0					4 2	Mean
99 1	99 2	99 2	99 2	99 1	99 1	99 1	99 1	99 1	98 9						Mean†
98 5	98 4	98 4	98 5	98 5	98 1	98 3	98 2	98 2							Mean††

† Five International quiet days
 †† Five International disturbed days
 Δ Loss of record, day omitted for means

TABLE 7

Hourly values of Declination (Westerly), 1962

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

September

2' plus tabular quantities

Date	Hours G M T.														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
1	37 6	37 2	36 6	36 5	38 6	40 7	41 8	40 7	40 0	39 3	38 7	38 3	37 9	37 9	37 9
2††	37 5	37 3	36 8	38 2	40 0	41 8	42 1	42 1	41 8	41 4	40 1	39 3	38 9	38 0	38 6
3††	38 7	37 9	37 3	37 9	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
4††	Δ	Δ	Δ	Δ	Δ	38 9	39 9	40 3	40 6	39 4	38 0	37 2	37 6	37 9	38 6
5	37 9	37 6	36 8	37 2	37 9	39 3	40 7	40 8	41 3	40 6	39 3	38 6	37 9	37 9	37 9
6	38 2	37 8	37 9	38 5	39 6	40 7	40 7	40 3	39 3	37 9	37 2	37 6	37 9	38 0	38 0
7	38 0	37 6	37 2	37 8	39 3	40 3	41 3	41 0	39 9	38 7	37 6	37 2	37 9	37 9	38 2
8	38 0	37 8	37 2	37 7	37 8	38 8	39 8	39 9	39 2	37 8	37 5	37 0	37 1	37 7	37 8
9	37 8	37 8	37 8	38 5	39 9	41 0	41 4	41 3	41 0	40 2	39 1	38 4	37 8	37 9	38 1
10	37 8	37 4	36 1	37 7	39 9	41 2	42 0	42 0	41 9	41 3	39 8	39 1	38 6	38 9	39 2
11	37 8	37 1	36 7	37 5	39 1	40 3	41 7	42 1	42 3	41 6	39 2	38 9	39 2	39 2	39 2
12††	38 1	37 8	36 4	37 1	39 2	40 6	41 2	41 4	40 2	39 2	37 8	37 4	37 8	38 6	38 5
13	37 1	36 4	36 1	37 4	38 5	39 9	40 6	41 3	40 6	40 0	39 2	38 5	38 5	38 5	38 5
14	37 8	36 8	36 5	37 8	38 5	40 2	40 6	40 6	40 5	39 2	38 5	37 8	38 1	38 6	38 6
15	37 8	37 7	37 1	37 6	37 8	39 2	40 5	39 9	39 6	39 3	38 1	37 8	37 9	38 6	39 2
16	38 5	37 8	37 5	37 8	38 5	39 9	40 9	41 6	40 6	40 2	39 2	38 9	38 5	38 8	38 8
17†	38 6	37 2	36 9	37 9	38 7	40 0	40 7	41 5	40 8	40 1	39 4	39 3	39 0	38 6	39 2
18†	38 7	38 2	37 9	38 0	39 3	39 9	40 7	41 0	40 7	39 3	38 9	38 6	38 6	39 0	39 3
19††	39 3	39 3	38 6	38 7	38 7	39 6	39 9	39 9	39 6	39 0	39 2	39 2	39 3	39 3	39 0
20	38 0	37 2	36 6	35 8	37 2	37 9	39 3	40 0	40 3	39 3	38 6	37 9	38 6	39 2	38 6
21	38 6	38 5	37 8	37 2	38 6	39 3	40 0	40 7	40 6	40 1	39 6	38 9	38 6	38 6	38 9
22	38 6	37 9	37 3	37 2	38 7	40 0	40 4	40 4	39 4	38 6	38 6	38 3	38 6	38 7	38 9
23	38 7	38 5	37 9	38 5	39 3	40 3	40 6	40 7	40 0	39 6	38 3	38 0	38 0	38 3	38 9
24†	38 7	38 4	38 0	38 7	39 4	40 1	40 8	40 8	40 7	39 7	39 1	38 7	38 4	38 7	38 8
25†	38 4	38 3	38 0	38 6	39 4	40 2	41 1	41 8	41 8	40 8	39 8	39 4	39 4	39 4	39 4
26	40 1	38 4	37 8	38 1	36 7	38 1	38 9	40 3	40 9	40 5	39 5	38 8	38 1	38 2	38 5
27	38 4	38 1	38 0	38 1	39 1	39 5	40 2	40 5	40 2	39 2	38 2	37 8	37 8	38 2	38 2
28†	38 8	38 2	37 5	38 2	38 9	40 7	41 0	41 0	41 0	40 3	39 2	38 2	38 2	38 3	38 3
29	38 9	37 9	37 1	37 5	38 3	39 6	40 9	41 0	40 3	40 8	38 2	36 8	37 6	38 2	38 2
30	37 9	36 8	36 7	37 6	39 7	39 8	40 4	40 4	39 7	38 4	37 9	37 6	37 2	37 5	38 3
Mean	38 3	37 8	37 3	37 8	38 8	40 0	40 7	40 9	40 5	39 8	38 8	38 3	38 3	38 5	38 6
Mean†	38 6	38 1	37 7	38 3	39 1	40 2	40 9	41 2	41 0	40 0	39 3	38 8	38 7	38 8	39 0
Mean††	38 4	38 1	37 3	38 0	39 3	40 7	40 9	41 1	40 5	39 9	39 0	38 6	38 7	38 6	38 7

† Five International quiet days

†† Five International disturbed days

Δ Loss of record, day omitted for means

TABLE 7

Hourly values of Declination (Westerly), 1962

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

September

2° plus tabular quantities

Hours G M T										Maximum		Minimum		Range	Date	
15	16	17	18	19	20	21	22	23	Mean	Time	Mag	Time	Mag			
										H	M	H	M			
38 2	38 2	38 0	38 6	38 6	38 6	38 6	38 3	37 9	38 5	06	10	01	15	36 5	5 6	1
39 0	39 3	39 3	39 3	39 3	39 3	39 9	40 1	39 3	39 3	06	00	02	00	36 8	5 3	2††
Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	3††
38 6	38 6	39 3	39 3	39 3	38 9	39 2	38 7	38 3	38 3	07	50	01	00	36 6	4 8	4††
37 9	37 9	37 9	37 9	37 9	38 6	38 6	38 2	38 2	38 5	07	50	01	00	36 6	4 8	5
37 9	37 9	37 9	37 9	38 0	38 6	39 3	38 6	38 3	38 6	06	05	10	07	37 1	3 6	6
38 3	38 9	38 5	38 5	38 3	38 3	38 3	38 7	38 6	38 2	06	45	12	00	36 6	5 4	7
37 8	38 2	38 6	38 5	38 4	38 5	38 6	38 5	38 5	38 2	07	05	10	03	37 0	3 3	8
38 1	38 1	38 5	38 5	38 9	39 1	38 5	38 5	38 4	38 9	06	00	11	00	37 8	3 6	9
39 2	39 2	39 1	39 1	38 9	38 5	38 4	38 1	37 9	39 2	05	55	12	00	36 5	6 1	10
39 2	39 1	38 6	38 8	38 9	39 2	38 9	39 2	38 8	39 3	07	55	12	07	36 5	6 2	11
38 4	38 6	38 5	38 4	38 4	37 8	37 8	37 5	37 1	38 5	05	55	12	00	36 6	5 5	12††
38 4	38 4	38 5	38 5	37 8	38 0	37 8	37 8	37 8	38 5	07	00	11	02	36 1	5 2	13
39 2	39 1	38 9	38 6	38 5	38 5	37 9	37 8	37 9	38 6	06	17	10	06	36 5	1 1	14
39 2	39 2	38 9	38 8	38 5	38 5	37 9	37 9	38 1	38 5	06	15	10	07	37 0	3 7	15
39 2	39 2	39 2	39 2	39 1	39 2	39 2	38 5	37 8	39 1	07	00	12	00	37 1	4 9	16
39 3	39 3	39 3	39 3	39 3	38 9	38 9	38 6	38 6	39 1	07	00	11	00	36 8	4 7	17†
39 3	39 3	39 3	39 3	39 3	39 3	39 3	39 3	39 3	39 2	07	00	11	00	37 9	3 5	18†
39 2	39 3	38 6	38 3	38 2	38 2	38 2	37 9	38 0	38 9	05	55	12	00	37 9	2 8	19††
38 6	38 6	38 6	38 7	38 9	39 2	39 2	39 2	39 0	38 5	07	15	10	06	35 8	1 8	20
39 0	39 3	37 9	38 2	38 2	38 6	38 6	38 7	38 6	38 9	06	15	10	07	37 2	3 5	21
39 3	39 0	39 2	38 6	38 6	38 6	38 6	38 6	38 9	38 8	06	00	10	07	37 2	3 5	22
39 0	38 5	38 5	38 5	38 5	38 5	38 5	38 5	38 5	38 9	06	45	10	08	37 9	2 9	23
39 0	38 7	38 7	38 7	38 9	38 4	38 3	38 3	38 6	39 0	06	40	11	01	38 0	3 4	24†
39 1	38 8	39 3	39 0	39 0	39 3	39 3	39 4	39 7	39 5	07	30	12	02	37 9	4 3	25†
38 7	38 8	38 8	38 4	38 4	38 7	38 4	38 4	38 4	38 7	08	00	10	09	36 8	4 1	26
38 4	38 7	38 7	38 7	38 8	38 8	38 8	38 7	38 8	38 7	07	55	10	06	38 0	2 6	27
38 5	38 8	38 5	39 2	39 2	38 9	38 9	38 9	38 9	39 1	07	00	11	00	37 5	3 9	28†
38 2	38 3	38 3	38 3	38 6	38 7	38 2	38 6	38 3	38 6	06	45	11	00	36 9	4 1	29
38 3	38 7	39 0	39 1	39 4	39 4	39 4	39 3	39 3	38 7	06	30	10	05	36 7	3 8	30
38 7	38 8	38 7	38 7	38 6	38 7	38 7	38 6	38 5	38 8					4 3	Mean	
39 0	39 0	39 0	39 1	39 0	39 0	38 9	38 9	39 0							Mean†	
38 9	39 1	38 8	38 7	38 6	38 6	38 7	38 2	38 1							Mean††	

† Five International quiet days

†† Five International disturbed days

Δ Low of record, day omitted for means

TABLE 8

Hourly values of Declination (Westerly), 1962

(Averages for 15 min. intervals centred at the full hours of Greenwich Mean Time)

October

2° plus tabular quantities

Date	Hours G M T														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
1†	39 4	38 7	38 9	39 0	39 1	39 8	40 5	39 8	39 7	38 3	37 7	37 3	37 7	38 3	38 3
2	38 4	38 3	38 3	39 0	39 0	40 1	39 7	40 4	40 3	39 7	38 4	38 3	38 2	37 9	38 2
3	38 3	37 7	37 7	38 3	39 1	40 4	41 2	40 7	41 1	39 0	37 9	37 7	38 3	38 6	38 2
4†	38 6	38 3	38 2	38 3	39 6	40 4	41 2	41 1	40 8	39 7	38 3	38 3	38 2	38 3	38 4
5	38 6	38 3	38 0	38 3	39 3	40 6	41 8	41 7	41 4	40 8	39 7	39 4	39 7	39 7	39 7
6	39 1	38 1	38 9	38 3	38 4	39 3	39 7	39 8	39 7	39 7	39 6	39 4	39 4	38 6	38 3
7	38 9	38 4	38 3	38 6	39 4	39 7	40 3	40 1	40 0	39 1	38 4	38 4	39 1	39 1	39 0
8†	40 4	39 1	38 2	37 3	38 3	39 7	40 5	40 7	41 2	40 8	39 8	38 3	38 4	38 6	39 0
9†	38 3	37 2	37 9	38 0	39 0	40 4	41 1	41 1	40 4	39 0	38 4	38 3	38 6	38 3	38 3
10	38 1	38 3	37 9	38 2	38 2	39 3	40 7	41 2	41 2	40 0	39 0	38 3	37 7	37 9	38 3
11	38 4	37 9	38 0	38 6	39 0	39 7	40 5	41 1	41 0	40 0	39 3	38 9	38 4	38 3	38 4
12†	38 3	38 3	37 7	38 0	38 3	39 7	40 8	41 1	40 3	39 3	38 3	38 3	38 3	38 9	39 1
13	39 7	39 8	39 8	39 7	40 3	41 1	41 2	41 4	41 1	40 4	39 0	38 2	38 3	38 3	38 4
14	38 3	38 3	38 3	38 9	39 7	39 7	40 5	40 5	39 7	39 3	38 3	38 0	38 3	38 4	39 0
15†	38 6	38 4	38 4	39 0	39 7	40 0	41 0	41 1	40 4	39 7	39 0	38 3	38 9	38 6	38 4
16	38 6	38 6	38 3	38 3	38 7	39 7	40 5	40 7	40 0	39 1	38 3	37 6	37 5	38 3	38 3
17†	38 4	38 3	38 3	38 3	39 0	39 7	40 4	41 0	40 1	39 0	38 3	38 3	38 4	38 4	38 4
18	38 6	38 5	38 4	38 5	38 3	39 3	40 4	41 1	41 0	39 8	39 1	38 4	38 4	38 6	38 4
19	39 1	39 1	39 0	39 0	39 4	39 7	40 4	40 4	39 8	38 3	38 0	38 9	39 0	38 3	38 3
20	38 9	39 2	39 3	39 4	39 6	40 5	40 7	40 4	39 8	39 8	39 7	39 3	39 0	38 7	38 4
21	39 1	39 0	39 0	39 4	39 7	40 7	40 7	40 1	39 7	39 0	38 7	38 3	38 3	38 2	38 3
22	39 5	39 4	39 2	39 4	39 6	39 7	39 0	38 6	38 6	38 4	37 5	37 2	37 9	37 7	37 7
23	38 9	39 1	38 7	38 7	38 9	39 6	39 7	39 4	39 1	39 0	38 6	38 4	38 3	38 3	38 3
24	39 7	39 7	39 7	39 1	39 4	40 4	41 0	39 8	39 4	38 7	38 6	39 0	39 0	38 9	38 9
25†	39 4	39 7	39 7	40 4	40 0	40 0	40 3	40 0	39 7	38 3	38 2	38 3	37 6	37 0	38 3
26†	39 4	39 7	38 9	39 0	39 0	39 7	40 5	40 0	38 7	37 9	37 9	37 9	38 2	36 9	37 0
27	39 1	39 1	39 3	39 7	39 7	40 3	40 5	39 8	38 9	38 7	38 7	38 3	38 3	38 3	38 4
28	39 1	39 0	38 9	39 0	39 6	40 4	40 8	40 0	39 1	38 4	38 3	38 3	39 0	38 7	39 0
29	39 7	39 7	39 7	39 8	41 0	41 1	41 9	41 8	39 5	39 7	38 3	38 4	38 4	38 5	38 9
30	39 7	39 7	39 7	40 4	40 5	41 1	40 8	39 7	39 0	38 3	38 3	38 3	38 3	38 3	38 4
31†	38 7	38 7	38 7	39 4	39 8	40 1	40 3	40 0	39 3	38 6	38 3	38 3	38 3	38 4	38 3
Mean	39 0	38 8	38 6	38 9	39 3	40 1	40 6	40 5	40 0	39 2	38 6	38 3	38 4	38 4	38 5
Mean†	38 5	38 4	38 3	38 6	39 3	40 0	40 7	40 9	40 2	39 3	38 4	38 3	38 4	38 5	38 5
Mean††	39 4	38 9	38 6	38 7	39 1	39 9	40 6	40 3	39 9	38 7	38 4	38 0	38 1	37 8	38 2

† Five international quiet days
 †† Five international disturbed days
 Δ Loss of record, day omitted for means

TABLE 8

Hourly values of Declination (Westerly), 1962

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

October 2 plus tabular quantities

Hours G M T										Maximum		Minimum		Range		Date	
15	16	17	18	19	20	21	22	23	Mean	Time	Mag	Time	Mag	H	M		
38 1	38 9	38 6	38 6	38 1	39 1	38 9	38 9	39 1	38 8	05	30	10 7	10	52	37 0	3 7	1††
38 9	38 4	39 0	38 6	38 4	38 1	38 6	38 1	38 1	38 8	06	25	40 7	13	00	37 6	3 1	2
38 4	38 7	39 0	39 0	38 9	39 0	38 9	38 6	38 6	38 9	07	35	11 8	11	00	37 6	1 2	3
38 6	38 7	38 6	38 9	38 6	38 1	38 1	38 1	38 7	39 0	06	32	11 1	12	02	38 0	3 4	4†
39 7	39 6	39 6	39 9	38 1	38 6	38 9	38 6	39 0	39 5	06	00	11 8	02	00	38 0	9 8	5
38 3	38 1	38 6	38 9	38 7	38 7	39 0	39 0	39 0	38 9	06	26	40 3	01	10	38 2	2 1	6
39 0	39 1	39 0	39 0	39 0	39 0	39 6	39 7	39 7	39 2	07	00	10 1	02	00	38 3	2 1	7
39 1	39 0	38 9	39 1	38 7	38 9	38 1	39 0	38 6	39 1	09	00	11 2	02	15	37 0	1 2	8††
38 3	38 7	38 7	38 7	38 7	39 0	38 7	38 1	38 7	38 8	06	55	11 5	02	00	37 2	1 3	9††
38 4	38 6	39 0	38 6	39 0	38 9	38 1	38 1	38 1	38 8	06	10	11 5	12	00	37 6	3 9	10
38 9	39 0	39 0	38 9	38 7	39 0	39 0	38 6	38 9	39 0	07	00	11 1	01	55	17 9	3 2	11
39 1	39 0	39 1	39 0	38 6	38 6	39 0	39 0	39 1	39 0	06	35	11 1	01	30	37 7	3 4	12†
38 4	39 0	39 0	38 9	38 7	38 6	38 1	38 1	38 3	39 1	06	50	11 7	11	00	37 9	3 8	13
38 6	38 9	38 7	38 1	38 1	38 4	38 6	38 1	38 6	38 5	05	38	10 8	10	50	38 0	2 8	14
39 0	39 0	39 1	39 0	38 1	38 1	38 1	38 1	38 6	39 1	05	23	11 2	10	52	38 3	2 9	15†
38 1	38 6	38 6	38 1	38 6	38 7	38 4	38 1	38 6	38 8	06	30	11 2	11	45	37 0	1 2	16
38 7	39 0	38 9	38 9	38 9	39 0	38 7	38 6	38 5	38 9	06	00	10 1	02	00	38 3	2 1	17†
38 1	38 6	38 6	38 6	38 6	38 6	38 7	38 7	39 0	38 9	07	00	11 1	03	20	37 0	1 1	18
38 9	38 4	38 5	38 6	38 5	38 1	38 4	38 5	38 6	38 9	06	15	10 5	09	33	37 0	3 5	19
39 0	39 0	38 7	38 4	38 7	39 0	39 0	39 0	39 0	39 9	06	00	11 1	11	00	38 1	2 7	20
38 3	38 9	38 1	38 1	38 6	38 3	38 6	38 6	39 0	38 9	05	12	11 1	11	00	38 3	2 8	21
38 9	38 3	38 1	38 4	38 3	38 9	38 1	38 9	38 6	38 6	05	00	39 7	10	35	37 2	2 5	22
38 3	38 2	38 9	38 1	38 4	38 1	38 9	39 0	39 1	38 8	06	45	10 1	11	15	38 2	2 2	23
39 0	39 0	38 9	39 0	38 1	38 6	39 9	39 1	39 9	39 2	05	30	11 1	11	15	38 9	3 1	24
39 9	39 1	38 3	38 1	38 7	38 6	39 1	39 7	39 1	39 0	06	00	11 1	19	02	36 9	1 2	25††
37 6	37 6	37 9	38 9	38 9	38 9	38 1	38 6	39 1	38 5	06	30	11 1	13	00	36 9	4 2	26†
38 3	38 1	38 4	38 6	38 4	39 6	38 7	38 9	39 3	38 9	06	15	10 8	12	10	34 2	2 6	27
39 1	39 0	39 0	39 0	38 7	39 0	38 7	38 9	39 1	39 1	05	15	11 1	10	15	39 3	2 8	28
39 0	39 0	39 0	39 9	39 0	39 0	39 4	39 6	39 6	39 6	06	00	11 9	10	25	39 3	3 6	29
38 4	38 1	38 1	38 1	38 4	38 1	38 0	38 6	38 6	39 0	05	15	11 1	10	35	38 9	2 8	30
38 9	38 9	38 3	39 0	39 0	39 1	39 6	39 7	39 7	39 0	07	00	10 3	10	00	38 3	2 0	31†
38 0	38 7	38 7	38 7	38 6	38 7	38 8	38 8	38 9	39 0							3 2	Mean
38 7	38 8	38 8	39 0	38 7	38 7	38 8	38 8	38 9									Mean†
38 3	38 5	38 5	38 6	38 6	38 7	38 7	38 9	38 9									Mean††

† Five international quiet days
 †† Five international disturbed days
 Δ Loss of record day omitted for means

TABIT 9

Hourly values of Declination (Westerly), 1962

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

November

2 plus tabular quantities

Date	Hours G. M. T.														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
1	39 7	39 8	39 7	39 7	39 7	39 8	39 7	39 7	38 3	38 3	38 3	38 3	38 3	38 3	38 3
2	39 1	39 7	39 7	39 1	39 0	39 1	39 7	39 7	39 7	39 8	39 7	39 6	38 3	38 3	38 3
3	39 0	39 6	39 3	39 0	39 0	39 1	39 1	39 0	38 3	38 3	38 3	37 6	37 6	37 6	37 6
4	39 7	39 6	39 1	39 0	39 0	39 7	10 0	39 7	38 1	38 3	38 3	38 2	38 3	38 2	38 2
5	39 0	39 0	10 3	39 8	39 3	10 3	10 7	39 7	38 1	38 3	38 3	38 3	38 3	38 3	38 3
6††	39 8	10 0	10 8	11 5	39 8	10 0	10 5	10 5	39 8	39 7	39 7	39 7	39 1	38 9	38 6
7	39 7	39 7	39 7	39 6	39 7	39 8	38 9	39 1	38 1	38 1	38 1	38 3	38 1	38 3	38 3
8	39 7	39 7	39 7	38 8	10 0	10 2	10 3	10 2	39 3	38 9	38 9	38 9	38 8	38 5	38 5
9	39 6	39 6	39 6	39 5	39 3	38 9	39 0	38 3	38 2	38 1	38 2	38 5	39 2	39 2	39 3
10†	39 6	39 9	10 3	10 0	10 2	10 3	39 7	39 7	39 0	38 6	38 6	38 5	38 6	39 0	39 0
11	39 6	10 2	10 6	11 0	11 0	10 1	10 0	39 7	38 9	38 2	38 2	38 3	39 0	38 8	38 6
12†	38 5	38 9	39 3	39 8	39 6	10 1	11 0	10 3	39 5	38 2	38 2	38 3	38 9	38 9	38 9
13†	39 2	39 6	39 7	39 6	39 6	10 3	10 3	39 6	39 2	38 3	38 3	38 5	39 3	39 5	38 5
14	38 9	38 8	39 6	39 6	10 3	11 0	11 1	11 0	10 3	39 3	39 5	39 6	39 6	39 6	39 5
15††	39 6	39 6	39 6	39 6	39 6	39 7	10 3	39 6	39 5	37 2	37 2	38 6	37 6	36 5	37 4
16††	38 2	38 9	39 2	38 9	39 5	10 3	10 9	10 7	10 0	39 0	38 2	38 2	37 9	38 2	38 2
17	39 0	39 6	39 6	39 5	39 3	10 6	10 9	10 3	39 6	39 0	38 8	38 5	38 5	38 9	38 9
18†	39 5	39 6	39 6	40 3	39 6	10 2	10 7	10 7	10 3	39 6	39 6	39 6	39 5	39 3	38 9
19	39 6	39 6	39 6	39 5	38 3	38 3	38 3	38 1	38 3	38 3	38 5	38 6	38 6	38 6	38 8
20†	10 3	10 3	10 3	10 2	40 3	10 3	39 6	39 3	39 3	39 3	39 3	39 3	39 3	38 9	38 9
21	39 9	10 9	11 0	11 0	10 3	39 7	38 9	37 9	37 5	36 9	36 8	37 1	37 6	37 5	38 1
22††	39 7	10 3	10 3	11 1	39 7	39 2	38 3	37 1	36 7	36 8	37 1	37 5	38 2	36 9	37 1
23	39 5	10 3	10 7	10 3	39 9	39 6	38 9	38 9	38 2	38 1	38 2	37 6	37 6	38 2	38 2
24	39 5	39 6	39 7	10 3	40 3	39 7	39 6	39 6	38 2	37 5	38 2	38 2	37 9	38 2	38 2
25	39 6	39 7	10 9	10 3	39 9	39 9	39 6	38 9	38 2	38 2	37 6	37 6	37 9	38 1	38 2
26	39 6	10 0	10 1	10 9	10 2	39 9	39 6	38 9	38 2	38 2	37 6	38 2	38 3	38 6	38 9
27	39 6	10 0	10 7	10 8	10 9	10 5	10 6	10 1	39 2	38 8	38 2	39 2	38 8	38 8	38 9
28	39 5	39 5	39 5	10 1	40 8	10 2	39 6	39 5	38 9	38 2	38 8	38 8	38 1	38 8	38 8
29	39 6	40 3	10 8	40 2	40 1	10 1	39 6	39 4	38 1	38 1	37 5	37 0	38 0	38 1	38 1
30††	39 5	10 1	10 5	40 5	10 2	39 9	38 8	37 5	37 3	37 1	36 7	37 7	37 8	37 3	37 1
Mean	39 1	39 7	10 0	10 0	39 8	39 9	39 8	39 5	38 8	38 1	38 3	38 1	38 5	38 1	38 1
Mean†	39 1	39 7	39 8	10 0	39 9	10 3	10 3	39 9	39 5	38 8	38 8	38 8	39 0	39 1	38 8
Mean††	39 1	39 8	10 1	10 2	39 8	39 8	39 8	39 1	38 7	38 0	37 8	38 3	38 2	37 6	37 7

† Five International quiet days
 †† Five International disturbed days
 Δ Loss of record, day omitted for means

TABLE 9

Hourly values of Declination (Westch), 1962

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

November										2° plus tabular quantities				Date		
Hours G. M. T.										Maximum		Minimum			Range	
15	16	17	18	19	20	21	22	23	24	Time	Mag.	Time	Mag.			
98 4	98 3	98 1	98 1	98 6	98 1	98 6	99 1	99 1	98 9	01	15	10 0	10 00	98 2	1 8	1
98 4	98 6	98 1	98 3	98 3	98 1	98 7	98 3	98 6	99 0	09	00	99 7	13 00	98 2	1 5	2
98 0	97 9	98 1	98 1	98 7	98 7	98 9	99 1	99 7	98 6	23	12	99 7	11 00	97 2	2 5	3
98 2	98 9	98 3	98 3	98 3	98 3	98 6	98 1	98 6	98 7	06	00	10 3	11 10	97 7	2 6	4
98 3	98 1	98 1	98 1	98 4	98 6	99 1	99 7	99 7	99 0	06	00	10 8	08 30	98 2	2 6	5
98 1	98 6	98 6	99 0	99 1	99 3	99 7	99 7	99 7	99 6	06	10	11 1	15 12	98 3	2 8	6†
98 3	98 3	98 9	98 6	98 3	99 0	99 0	99 1	99 7	98 9	06	00	99 8	11 10	98 2	1 6	7
98 5	98 9	99 0	98 9	98 3	98 5	98 5	98 9	99 0	99 1	05	15	10 3	19 09	98 3	2 0	8
98 9	98 9	99 3	99 3	99 6	99 6	99 6	99 6	99 6	99 1	03	15	99 6	09 15	98 1	1 5	9
99 0	99 0	99 0	99 0	99 3	99 5	99 6	99 6	99 6	99 1	01	15	11 0	11 00	98 5	2 5	10†
98 9	99 0	98 5	98 1	98 5	98 1	98 5	98 1	98 1	99 1	01	53	11 1	09 07	98 2	2 9	11
98 9	98 9	98 9	98 9	98 9	98 9	98 9	98 9	99 0	99 1	06	00	11 0	09 01	98 2	2 8	12†
98 5	98 9	98 9	99 2	98 5	98 3	98 5	98 5	98 9	99 1	05	18	10 3	09 30	98 2	2 1	13†
99 6	99 6	99 6	99 5	98 9	99 6	99 6	99 6	99 6	99 7	06	00	11 1	01 00	98 8	2 3	14
97 8	97 2	97 2	97 2	97 2	97 2	97 1	98 1	97 2	98 3	05	30	11 0	12 37	96 2	1 8	15††
98 9	98 9	99 6	99 0	98 9	99 2	98 6	98 6	98 6	99 0	06	05	11 0	11 15	97 5	3 5	16††
98 2	99 3	99 3	99 5	99 5	99 5	99 3	99 3	99 3	99 1	06	00	10 9	10 00	98 2	2 7	17
98 9	98 9	98 9	99 3	99 2	99 3	99 6	99 6	99 6	99 6	06	15	10 9	11 30	98 8	2 1	18†
98 9	99 3	99 3	99 3	99 3	99 6	99 6	10 0	10 0	99 0	22	30	10 0	08 18	98 2	1 8	19
99 2	99 5	99 6	99 6	99 6	99 6	99 6	99 6	99 6	99 6	06	00	10 1	11 15	98 9	1 5	20†
98 1	98 2	98 9	98 9	99 0	98 8	98 9	99 0	99 5	98 8	03	15	11 0	10 00	96 8	1 2	21
97 9	98 2	98 3	98 5	98 2	98 2	99 0	99 3	99 3	98 1	01	30	10 9	07 36	96 0	1 9	22††
98 2	98 3	98 6	98 3	98 2	98 2	98 3	98 5	98 9	98 7	02	00	10 9	10 45	97 5	3 1	23
98 5	98 9	98 9	98 9	98 0	98 9	99 3	99 6	99 6	99 0	03	25	10 7	08 10	97 1	3 6	24
98 2	98 3	99 2	99 2	99 2	99 2	99 6	99 6	99 6	99 0	02	00	10 9	10 10	96 8	1 1	25
99 3	99 6	99 3	99 3	98 9	98 9	99 0	99 3	99 6	99 2	02	00	10 9	08 00	98 2	2 7	26
98 9	98 8	98 8	98 8	98 8	98 8	98 8	99 1	99 5	99 1	05	00	10 9	09 00	98 1	2 8	27
98 5	98 8	98 8	98 8	98 8	98 9	99 2	99 5	99 5	99 2	01	25	10 9	12 00	98 1	2 8	28
98 5	98 8	98 8	98 1	98 1	98 2	98 8	99 2	99 5	98 9	02	00	10 8	10 12	96 7	1 1	29
98 1	98 1	98 2	98 8	98 8	98 9	99 5	99 1	99 2	98 6	02	05	10 5	10 00	96 7	3 8	30††
98 6	98 7	98 8	98 8	98 8	98 8	99 0	99 2	99 3	99 0						2 8	Mean
98 9	99 0	99 1	99 2	99 1	99 1	99 2	99 2	99 3								Mean†
98 2	98 2	98 1	98 5	98 5	98 6	98 8	99 0	98 8								Mean††

† Live International quiet days
 †† Live International disturbed days
 †† Loss of record, day omitted for means

TABLE 10

Hourly values of Declination (Westerly), 1962

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

December

2' plus tabular quantities

Date	Hours G.M.T.														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
1	39 2	39 5	39 5	39 5	39 5	39 5	39 5	40 2	39 6	39 1	38 1	38 4	38 1	38 1	38 4
2†	39 5	39 8	10 2	10 1	99 5	39 5	39 5	39 5	39 5	38 2	38 1	38 1	38 1	38 1	38 1
3	39 5	39 5	39 5	39 5	39 5	39 5	40 1	10 6	39 6	39 4	39 2	38 9	38 2	38 1	38 8
4	39 6	39 8	10 2	10 6	40 9	10 3	39 6	10 3	38 9	38 1	38 0	37 1	36 6	37 1	37 2
5	38 9	39 5	10 2	10 6	40 2	39 6	39 5	39 6	38 1	38 1	38 1	38 0	38 1	38 1	38 2
6†	39 1	39 5	10 2	39 8	39 5	39 1	39 4	39 4	39 1	38 8	39 1	38 8	38 1	38 4	38 1
7†	39 5	39 5	39 5	39 4	39 1	39 1	39 1	38 7	38 3	38 7	38 7	38 7	38 1	38 1	38 7
8	39 1	10 1	10 8	40 7	40 5	10 4	39 1	39 0	39 1	38 7	38 7	38 1	38 0	38 0	38 0
9	39 3	39 3	10 0	39 3	39 3	39 3	39 1	39 3	39 0	38 0	38 0	38 2	38 3	38 6	38 9
10	40 0	40 7	10 7	10 8	10 1	10 0	39 6	39 2	39 3	39 0	38 7	38 7	38 9	38 9	39 2
11††	39 6	40 0	40 7	40 8	10 7	40 1	39 6	38 6	37 9	37 6	37 9	38 2	38 5	38 6	37 9
12	39 0	39 6	40 7	10 7	10 8	39 9	39 9	39 3	39 2	38 8	38 1	37 9	37 8	37 9	37 9
13	40 2	39 2	39 8	38 6	40 7	40 6	39 9	39 2	38 6	38 6	37 9	37 8	37 8	38 1	38 1
14	39 3	39 3	39 9	40 6	10 7	41 4	41 7	11 0	40 0	39 6	38 9	37 9	37 9	38 5	38 0
15	39 3	39 2	39 5	39 4	39 2	39 2	39 1	39 1	39 1	38 8	38 4	38 5	38 8	39 0	39 1
16	39 8	39 8	40 5	40 4	10 5	10 5	10 5	10 5	40 5	39 2	39 0	38 1	38 4	38 1	38 1
17††	39 1	39 1	39 2	39 4	39 8	39 7	39 9	10 2	39 8	39 1	38 7	38 5	38 8	39 0	39 0
18††	41 2	41 5	41 2	40 4	38 1	37 7	38 0	37 8	38 1	37 7	37 7	36 6	36 1	37 4	37 7
19††	39 8	40 9	41 2	40 8	39 8	39 2	39 0	39 1	37 6	38 1	37 8	37 6	37 7	37 7	37 7
20††	39 1	39 7	10 1	40 5	39 8	39 8	39 1	39 1	38 8	38 3	38 0	37 7	37 7	37 8	38 3
21	39 1	39 1	10 5	10 5	39 2	39 1	39 0	39 0	38 7	37 7	37 7	38 0	38 0	38 0	37 8
22	39 1	39 2	10 4	10 4	39 0	39 0	39 1	39 8	39 7	37 9	39 0	37 7	38 0	38 2	38 2
23†	39 0	39 3	40 1	39 7	38 9	38 0	37 9	39 0	39 0	38 4	38 0	38 3	38 3	38 3	38 4
24†	39 0	39 0	39 1	39 0	38 7	38 1	38 9	38 7	39 1	39 3	39 1	38 6	37 9	38 0	38 0
25†	39 0	39 1	39 3	39 0	39 0	38 9	39 1	39 1	39 1	39 1	39 6	38 3	38 3	38 7	38 9
26	39 0	39 7	10 1	40 3	40 3	10 0	10 3	10 3	40 3	40 2	39 0	38 5	38 3	37 9	37 1
27	38 9	38 9	39 0	39 6	38 9	38 8	38 9	38 9	38 2	37 6	37 5	38 1	38 8	38 8	38 3
28	38 9	39 2	10 0	39 6	39 5	39 9	10 2	39 6	38 6	38 3	38 6	38 2	38 2	38 2	37 8
29	39 2	39 6	40 2	39 6	38 9	38 8	38 1	37 8	37 6	37 5	37 5	37 5	37 5	38 2	38 2
30	39 0	39 2	40 0	40 3	39 6	10 0	10 6	40 6	10 3	10 2	39 0	38 6	38 2	38 3	38 3
31	38 9	39 6	40 0	39 9	39 6	40 2	40 2	10 1	39 8	38 9	38 1	37 1	37 4	37 7	38 2
Mean	39 1	39 6	40 1	40 0	39 7	39 5	39 5	39 1	39 1	38 7	38 1	38 1	38 1	38 2	38 3
Mean†	39 3	39 4	39 9	39 6	39 3	39 0	39 1	39 1	38 8	38 8	38 8	38 3	38 2	38 1	38 5
Mean††	39 8	40 2	40 5	10 4	39 7	39 3	39 1	39 0	38 1	38 2	38 0	37 7	37 8	38 1	38 1

† Five International quiet days
 †† Five International disturbed days
 Δ Loss of record, day omitted for means

TABLE 10

Hourly values of Declination (Westerly), 1962

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

December										2 nd plus tabular quantities				Date		
Hours G M T										Maximum		Minimum			Range	
15	16	17	18	19	20	21	22	23	Mean	Time	Mag	Time	Mag			
										H	M	H	M			
38 8	38 8	38 8	38 8	38 8	39 1	39 1	39 5	39 5	39 2	06	00	10 2	10 00	38 1	1 8	1
38 1	38 7	38 8	39 1	38 8	39 2	39 1	39 1	39 1	39 0	02	00	10 2	09 55	38 0	2 2	2†
38 8	38 8	39 4	39 1	39 4	39 5	39 5	39 5	39 5	39 3	06	50	10 9	12 00	38 2	2 7	3
36 7	37 1	36 8	37 7	38 1	38 1	38 1	38 8	38 8	38 5	09	10	11 6	12 00	36 1	5 5	1
38 2	38 8	38 1	38 8	38 8	38 8	39 2	39 2	39 2	39 0	03	00	10 6	10 25	36 8	3 8	5
38 1	38 8	38 8	38 8	38 8	39 2	39 5	39 5	39 5	39 1	02	00	10 2	11 20	38 2	2 0	6†
38 7	39 0	39 0	38 8	38 7	38 7	38 7	38 7	39 1	38 9	00	01	39 1	11 25	38 0	1 4	7†
38 6	38 7	38 7	38 7	38 6	38 6	39 1	39 1	39 1	39 1	02	00	10 8	12 00	38 0	2 8	8
39 3	39 3	39 3	39 3	39 3	39 3	39 3	39 3	39 3	39 2	23	00	10 1	09 00	38 0	2 4	9
39 2	39 3	39 0	38 6	38 6	38 6	38 6	39 0	39 3	39 3	01	00	10 7	18 00	38 6	2 1	10
37 9	37 9	37 9	37 9	38 0	38 0	38 0	38 7	39 1	38 8	03	00	10 8	09 00	37 6	3 2	11††
38 5	38 5	38 5	38 1	38 5	37 9	37 9	38 1	38 5	38 8	03	00	10 7	12 00	37 8	2 9	12
38 5	38 8	38 9	39 2	39 1	39 2	39 2	39 2	39 1	39 0	01	00	10 7	11 00	37 8	2 9	13
39 2	39 2	39 2	39 2	39 2	39 2	39 2	39 2	39 3	39 5	06	00	11 7	11 20	37 8	3 9	14
39 1	39 1	39 1	39 1	39 1	39 1	39 1	39 4	39 8	39 1	23	00	39 8	11 00	38 4	1 4	15
38 8	39 1	39 1	39 1	39 1	39 1	39 1	39 1	39 1	39 1	01	00	10 5	11 00	38 4	2 1	16
38 8	38 8	39 1	38 1	38 8	39 1	39 8	39 1	39 1	39 2	22	03	10 1	18 05	38 0	2 1	17††
37 7	39 0	37 7	38 0	39 0	39 2	38 3	39 1	39 1	38 5	01	00	11 5	11 11	36 9	5 2	18††
37 7	39 0	38 5	39 0	39 1	39 1	39 0	39 1	39 1	38 9	03	00	11 2	09 03	37 1	3 8	19††
38 3	38 5	38 7	39 1	38 8	38 1	39 1	39 1	39 1	38 9	03	00	10 5	11 00	37 7	2 8	20††
38 0	38 5	39 1	39 1	39 0	39 1	39 0	39 1	39 1	38 8	02	15	10 5	09 00	37 7	2 8	21
38 2	38 3	38 1	39 0	39 0	39 0	39 0	39 0	39 0	38 9	03	00	10 4	11 00	37 6	2 8	22
38 4	38 6	38 6	39 0	39 0	39 0	39 0	39 0	39 0	38 8	02	00	10 1	10 50	37 7	2 4	23†
38 2	38 0	38 4	38 1	38 6	38 7	38 9	38 9	39 0	38 7	09	00	39 3	12 00	37 9	1 4	24
38 9	39 0	39 0	39 0	39 0	39 0	39 0	39 0	39 0	39 0	09	25	39 7	11 30	38 2	1 5	25†
37 2	37 6	37 5	38 2	38 9	38 9	38 9	38 9	39 0	39 0	02	00	40 1	11 10	36 8	3 6	26
38 2	38 8	38 8	38 6	38 6	38 8	38 8	38 9	38 9	38 7	02	00	39 6	10 00	37 5	2 1	27
38 3	38 3	38 8	38 6	38 6	38 8	38 8	38 9	38 9	38 9	05	15	39 6	12 38	37 5	2 1	28
38 2	38 6	38 9	38 9	38 9	38 9	38 9	38 9	38 9	38 6	02	00	40 3	09 00	37 5	2 8	29
38 8	38 9	38 9	38 9	38 9	38 9	38 9	39 0	38 9	39 3	06	30	40 6	12 00	38 2	2 4	30
37 5	38 2	38 2	38 7	38 8	38 8	38 8	38 8	38 8	39 1	05	10	40 2	10 30	37 1	3 1	31
38 4	38 6	38 7	38 8	38 8	38 9	39 0	39 1	39 2	39 0						2 7	Mean
38 6	38 8	38 8	39 0	38 9	39 0	39 1	39 2	39 3								Mean†
38 1	38 6	38 1	38 5	38 7	38 8	38 8	39 0	39 2								Mean††

† Five International quiet days
 †† Five International disturbed days
 Δ Loss of record, day omitted for means

TABLE 11

Hourly values of Horizontal Force, 1962

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

July 39 000 γ plus tabular quantities

Date	Hours G.M.T.														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
1	551	562	573	587	603	621	631	627	613	585	568	546	517	551	554
2	563	567	581	597	607	610	622	620	615	608	581	568	563	561	565
3	550	552	556	577	592	610	618	606	597	592	586	577	569	566	564
4††	570	572	580	592	622	639	605	592	596	581	567	554	549	549	545
5††	555	560	569	593	609	615	617	600	590	566	559	551	517	552	559
6	571	578	585	596	615	608	605	598	580	570	554	538	510	550	551
7	561	567	571	589	617	648	663	669	651	615	579	564	563	568	571
8	574	576	588	591	612	631	629	618	598	591	588	570	556	560	564
9†	568	563	564	581	625	639	640	632	611	593	570	559	560	563	566
10	566	569	582	601	628	638	613	635	625	606	593	582	573	567	570
11	579	581	587	598	621	635	632	628	600	583	577	573	570	560	557
12	569	573	580	602	621	610	618	610	601	582	575	576	569	566	566
13	572	574	582	590	611	631	615	646	632	606	578	556	544	519	553
14	558	560	561	582	602	616	606	599	592	583	556	534	536	515	544
15	555	557	562	578	611	639	649	647	632	612	590	573	564	564	566
16†	556	561	571	589	610	628	637	635	623	605	587	567	558	557	555
17†	566	569	576	497	626	650	638	619	629	602	582	569	561	567	571
18†	576	575	575	588	617	611	639	656	649	640	618	601	589	574	567
19	583	585	597	617	612	633	651	638	636	601	579	554	553	560	565
20	572	574	578	587	608	619	630	633	613	582	565	544	542	558	560
21	560	566	568	583	609	626	652	662	647	622	589	568	563	570	570
22	556	562	570	586	609	632	645	649	640	615	591	569	556	563	569
23	561	565	572	593	624	638	659	610	612	574	549	550	559	562	561
24	561	563	561	576	597	618	639	650	648	638	614	589	577	575	568
25	531	534	538	510	552	565	563	562	555	549	548	542	542	546	547
26††	593	606	626	633	651	661	601	583	524	199	514	487	517	530	513
27††	539	533	546	511	552	557	549	566	574	580	580	575	567	548	528
28††	545	550	558	576	588	596	615	615	608	601	584	563	542	534	536
29	551	551	553	566	587	612	629	626	625	616	597	571	559	558	561
30†	557	562	573	585	601	612	605	591	581	576	568	561	559	558	556
31	560	563	571	586	613	615	665	659	650	627	602	581	569	569	572
Mean	563	566	573	588	609	626	628	621	611	594	577	562	557	558	558
Mean †	565	566	572	589	616	631	610	633	620	603	585	571	565	561	563
Mean ††	560	564	576	592	603	613	597	591	578	565	561	546	541	543	536

† Five International quiet days

†† Five International disturbed days

Δ Loss of record, day omitted for means

TABLE 11

Hourly values of Horizontal Force, 1962

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

July

99,000 γ plus tabular quantities

Hours G.M.T.		Mean								Maximum		Minimum		Range		Date	
										Time	Mag.	Time	Mag.				
15	16	17	18	19	20	21	22	23	24								
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H.M.	γ	H.M.	γ	γ			
553	551	562	561	563	565	565	565	565	571	05	53	636	11	25	599	97	1
561	563	561	565	551	559	561	557	556	578	06	16	631	19	15	549	85	2
568	561	569	568	568	566	568	568	571	576	05	53	629	00	08	518	75	3
519	550	560	567	568	569	581	577	562	571	05	13	612	13	51	512	100	1††
563	562	560	561	560	566	570	569	570	572	05	34	630	11	20	511	86	5††
558	557	559	557	561	561	565	562	562	570	01	25	626	11	15	533	93	6
571	569	566	567	561	561	563	560	571	587	06	52	671	22	18	558	116	7
568	569	566	566	565	561	561	568	570	581	01	55	611	12	15	551	90	8
567	567	569	569	570	567	565	567	566	581	01	30	616	11	25	556	90	9†
570	566	562	556	563	567	572	571	571	587	05	15	617	17	15	552	95	10
567	571	569	569	567	568	578	569	570	581	05	30	617	13	52	551	93	11
562	563	571	571	573	573	578	576	571	583	04	57	651	16	05	560	91	12
561	562	570	571	579	578	552	560	561	578	05	11	652	12	35	598	111	13
538	537	536	518	553	553	553	560	538	565	01	36	621	16	50	531	93	14
566	566	561	563	563	568	569	568	561	583	05	16	652	00	01	555	97	15
551	556	559	562	565	566	568	568	568	579	05	56	610	15	07	533	87	16†
568	569	571	572	571	575	575	571	575	589	05	16	659	12	05	560	99	17†
566	566	571	579	573	577	577	581	582	595	06	03	664	11	15	566	98	18†
571	571	575	573	570	572	582	577	571	591	05	00	661	11	25	516	118	19
556	556	561	557	555	560	561	566	563	575	05	13	612	11	13	536	106	20
566	568	565	571	567	562	561	560	550	585	07	01	672	23	27	555	117	21
568	563	566	566	562	563	562	561	562	583	06	20	657	12	20	553	101	22
562	561	569	571	567	561	558	558	558	580	05	33	664	10	22	514	120	23
557	514	533	523	521	530	531	532	532	571	07	21	652	18	16	513	139	24
517	547	550	551	551	557	562	569	579	551	23	59	595	01	25	528	67	25
513	517	529	529	538	531	531	510	510	555	01	12	685	10	15	177	203	26††
525	511	531	515	517	516	515	556	553	551	09	05	585	11	50	512	73	27††
538	551	517	511	516	518	551	550	551	564	06	26	628	12	32	529	99	28††
556	551	551	552	556	556	558	560	558	571	06	10	631	01	30	514	90	29
555	555	551	555	555	557	557	557	557	569	05	30	621	17	00	551	67	30†
576	581	582	583	576	561	570	584	581	593	06	30	669	20	16	548	121	31
558	559	559	560	560	560	563	561	561	577						101	Mean	
562	563	565	566	567	568	568	569	570								Mean†	
538	514	515	519	552	551	557	558	556								Mean††	

† Five International quiet days
 †† Five International disturbed days
 ‡ Loss of record, thus omitted for means

TABL 12

Hourly values of Horizontal Force, 1962

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

August 39,000 $\sigma\sigma$ plus tidal quantities

Date	Hours G M T														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
1††	578	564	576	563	580	577	562	585	574	560	528	518	517	523	520
2	555	535	532	555	564	571	596	602	596	587	579	568	558	556	553
3	558	564	572	581	592	612	625	634	631	613	591	571	557	553	550
4	563	563	565	579	603	617	622	617	609	588	570	559	561	563	562
5	563	566	571	583	605	628	611	611	621	601	571	545	539	541	549
6	565	566	571	585	616	637	643	619	600	571	549	535	530	530	532
7	554	560	569	587	603	633	636	628	598	575	556	542	541	541	541
8††	560	557	565	575	596	607	608	620	602	565	559	552	541	543	528
9	556	557	561	561	587	609	617	615	599	588	557	552	550	547	548
10	555	559	565	580	589	601	613	610	591	583	578	567	559	557	551
11†	552	554	561	580	605	618	627	625	623	613	600	581	571	567	561
12†	565	570	583	604	631	653	661	663	650	630	615	593	573	563	556
13†	566	570	578	596	621	644	651	651	646	629	608	582	572	571	570
14	591	587	595	608	619	649	667	661	651	633	610	593	579	580	583
15	577	581	589	610	644	657	612	588	578	570	577	577	571	561	558
16	541	543	544	554	581	613	603	587	597	591	579	571	566	565	563
17††	555	563	570	585	616	647	645	618	581	571	563	562	547	557	563
18	556	553	559	581	593	612	596	577	583	572	570	565	561	557	548
19	552	564	578	588	597	606	619	616	594	578	561	557	562	561	555
20†	559	555	546	552	576	592	610	621	632	627	610	590	572	563	563
21	563	559	551	557	576	598	608	615	620	620	606	587	579	576	573
22††	557	546	531	530	539	584	603	624	602	613	610	592	576	560	555
23	562	561	559	566	574	592	587	590	578	572	572	561	561	549	543
24	559	561	569	574	591	595	601	591	568	558	560	561	558	551	561
25	551	546	560	578	588	598	610	603	593	586	578	566	563	565	561
26	552	554	564	579	595	607	604	602	592	566	548	543	548	553	551
27	557	557	571	594	619	647	650	640	616	593	572	561	568	568	568
28†	564	564	571	592	627	657	666	659	644	621	607	589	581	578	570
29	576	575	581	599	612	622	601	580	584	591	580	568	577	573	559
30	554	551	563	587	621	626	617	607	583	570	560	551	546	537	539
31††	564	560	562	572	578	599	609	601	583	558	541	526	514	507	511
Mean	561	560	566	579	598	616	620	616	605	591	577	565	558	556	551
Mean†	561	563	568	585	613	631	644	645	638	625	608	588	571	568	565
Mean††	563	556	561	565	582	597	605	610	589	573	560	550	539	538	535

† Five International quiet days
 †† Five International disturbed days
 Δ Loss of record, day omitted for means.

TABLE 12

Hourly values of Horizontal Force, 1962

(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	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	γ	H M	γ	H M	γ	γ	
521	522	527	532	541	548	550	544	543	547	07 13	599	12 00	509	90	1††	
554	560	554	551	556	560	560	560	548	565	06 53	606	18 23	548	58	2	
550	550	556	563	559	554	565	564	562	576	06 46	636	14 07	547	89	3	
558	556	555	557	558	559	559	560	564	573	05 17	629	16 25	555	74	4	
553	553	555	560	563	564	564	564	566	576	06 30	657	12 00	537	120	5	
549	541	544	552	556	553	560	561	556	569	05 12	672	12 43	522	150	6	
550	537	529	526	530	536	543	555	557	568	05 26	639	17 30	523	116	7	
526	529	542	545	548	550	555	550	555	562	06 37	631	15 05	522	109	8††	
548	556	562	558	556	558	557	561	561	567	05 36	629	01 55	538	91	9	
555	558	558	550	552	555	556	556	555	569	06 36	622	17 58	548	74	10	
562	562	563	562	564	565	565	566	566	580	06 17	628	00 15	551	77	11†	
554	554	556	560	562	564	566	568	567	590	06 07	668	15 45	553	115	12†	
570	574	579	580	580	584	584	584	581	594	06 25	656	00 13	566	90	13†	
579	580	579	575	568	564	565	570	575	598	06 20	673	19 47	563	110	14	
556	553	556	556	556	559	565	568	556	578	04 20	672	16 52	551	121	15	
564	563	563	561	559	564	559	550	555	568	05 20	623	00 13	534	89	16	
563	558	552	550	564	570	559	566	564	574	05 40	670	12 12	542	128	17††	
540	544	548	543	546	549	552	557	557	563	05 26	621	14 50	537	84	18	
546	554	553	556	563	564	562	559	557	571	06 18	629	13 55	542	87	19	
562	562	561	565	565	566	568	567	565	577	07 58	633	02 20	541	92	20†	
572	573	576	578	579	580	575	576	563	582	08 40	624	02 00	549	75	21	
554	560	559	557	557	557	574	556	561	569	06 38	647	03 45	521	126	22††	
551	561	551	560	567	561	559	559	558	565	07 00	614	13 22	539	75	23	
548	546	551	547	550	552	554	560	557	563	06 45	623	12 53	537	86	24	
555	555	557	562	555	552	554	561	556	569	06 12	623	00 45	541	82	25	
554	555	561	561	562	562	562	561	559	566	04 55	613	10 40	540	73	26	
567	567	566	566	565	566	567	568	567	583	06 00	659	00 35	553	106	27	
565	566	566	570	571	571	575	575	577	593	06 05	668	00 30	563	105	28†	
549	552	555	559	556	566	565	570	551	574	05 12	635	15 00	546	89	29	
542	535	535	537	556	552	552	554	557	564	04 38	638	13 30	530	108	30	
523	528	532	539	530	540	548	544	542	551	06 02	619	13 25	504	115	31††	
553	554	555	556	558	560	561	561	560	572					97	Mean	
563	564	565	567	568	570	572	571	571							Mean†	
537	539	542	545	550	553	557	552	553							Mean††	

† Five International quiet days
 †† Five International disturbed days
 Δ Loss of record, day omitted for means

TABLE 13

Hourly values of Horizontal Force, 1962

(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														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
1	544	542	550	576	619	652	640	605	575	554	542	536	546	544	542
2††	551	555	565	588	586	601	595	561	549	550	560	555	544	535	533
3††	551	549	550	557	580	578	582	586	573	565	553	542	550	552	542
4††	552	547	550	563	581	585	614	576	569	554	529	516	511	527	538
5	543	541	552	580	612	635	636	617	601	570	544	543	550	548	540
6	551	555	564	583	610	638	652	619	608	593	569	559	527	531	533
7	545	552	568	589	621	643	646	645	599	572	545	535	545	545	546
8	552	554	565	571	582	603	611	618	593	559	544	536	540	543	542
9	559	565	573	583	619	635	628	617	602	585	579	566	556	538	536
10	557	557	566	583	607	596	609	590	575	560	546	558	564	565	561
11	567	562	567	590	617	646	669	664	636	588	535	536	557	569	566
12††	576	585	596	623	652	673	695	640	512	523	491	481	513	525	516
13	549	545	553	576	597	617	608	592	562	542	527	529	544	548	545
14	543	544	554	577	603	626	631	608	582	578	568	565	563	563	559
15	557	560	581	611	630	641	649	625	603	579	556	547	561	567	561
16	556	559	580	605	642	668	674	658	628	601	578	567	559	554	552
17†	558	558	565	592	618	639	646	642	624	604	600	578	572	565	563
18†	567	565	571	595	628	662	679	670	641	608	580	569	573	575	573
19††	572	579	588	592	603	632	599	548	512	513	537	534	525	518	510
20	507	492	494	517	553	587	603	594	583	572	562	546	547	548	543
21	550	546	547	562	589	619	614	612	608	599	586	573	562	554	542
22	556	550	557	566	592	623	638	635	608	578	559	550	558	556	560
23	559	555	567	586	616	627	623	616	599	586	570	554	553	553	555
24†	558	561	573	597	630	655	660	648	633	604	585	576	570	566	563
25†	557	554	563	593	625	650	655	648	623	610	605	594	582	572	567
26	577	538	529	520	534	576	593	606	595	582	564	553	544	546	542
27	538	534	546	579	612	637	652	632	604	576	549	544	550	550	545
28†	548	547	553	583	625	654	660	635	603	582	573	565	562	562	551
29	553	550	558	587	634	666	666	635	604	571	545	532	533	538	538
30	526	513	521	559	583	594	587	564	533	520	519	522	525	526	530
Mean	553	550	559	579	607	629	634	617	592	573	556	548	556	549	547
Mean†	558	557	565	592	625	652	660	647	625	602	587	576	572	568	563
Mean††	560	563	570	585	600	614	617	582	549	541	534	526	529	531	528

† Five International quiet days

†† Five International disturbed days

Δ Loss of record, day omitted for means

TABLE 13
Hourly values of Horizontal Force, 1962

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

September 39,000 Y plus tabular quantities

Hours G M T										Maximum		Minimum		Range		Date	
15	16	17	18	19	20	21	22	23	24	Time	Mag	Time	Mag	Y	I		
538	540	529	556	511	557	550	553	545	562	05	40	660	16	38	522	138	1
515	518	530	537	559	548	557	550	548	553	01	17	612	15	20	513	99	2††
555	544	541	529	547	541	543	519	546	551	07	10	590	18	27	522	68	3††
540	540	557	516	546	559	553	552	545	552	05	40	627	11	28	510	117	4††
533	523	520	526	528	512	546	546	546	559	06	00	641	16	45	515	126	5
538	535	533	531	513	512	532	519	516	564	06	15	666	12	10	521	145	6
548	549	549	519	533	551	532	532	551	569	06	45	652	10	56	533	119	7
538	541	547	548	547	551	555	561	559	561	06	35	619	11	05	535	84	8
533	527	527	536	546	555	551	552	561	568	03	17	611	17	00	525	116	9
563	562	559	560	560	563	566	568	568	569	05	54	639	09	56	540	99	10
562	562	562	564	567	575	575	571	576	583	06	26	672	10	25	521	151	11
511	515	522	524	537	531	524	525	540	557	06	06	750	10	58	172	278	12††
541	540	537	533	537	544	546	515	545	555	07	20	630	10	40	524	106	13
557	554	551	555	550	552	551	556	558	569	06	03	614	00	30	542	102	14
562	559	560	556	548	548	541	553	558	576	06	15	677	10	52	542	135	15
555	558	556	556	556	563	571	565	558	584	05	20	682	14	30	552	130	16
567	566	562	561	562	567	566	564	566	583	05	54	658	01	08	556	102	17†
570	567	564	564	566	567	572	581	575	591	05	42	682	17	10	563	119	18†
507	522	512	512	523	518	511	516	515	542	05	36	688	18	34	470	218	19††
544	547	547	544	547	547	550	552	551	549	06	00	611	11	36	538	73	20
539	547	533	536	542	550	555	556	555	565	05	00	623	16	32	530	93	21
543	542	543	544	547	555	562	559	561	569	05	54	644	16	45	533	111	22
553	550	550	556	553	553	557	556	557	571	05	23	613	16	58	547	96	23
561	561	556	556	556	553	551	551	556	582	05	28	668	21	36	548	120	24†
569	567	562	560	564	573	567	576	583	588	05	49	662	01	20	553	109	25†
529	538	543	528	532	541	542	537	536	551	06	58	611	03	15	503	108	26
544	537	537	542	544	545	544	548	551	564	05	38	651	01	15	531	123	27
545	547	549	559	563	563	564	575	578	575	06	03	662	15	22	544	118	28†
530	525	522	517	516	525	527	527	539	560	05	28	673	18	58	513	160	29
528	533	541	546	551	555	555	551	557	543	04	43	600	00	51	510	90	30
544	544	543	545	547	551	552	553	554	566						122		Mean
562	562	559	560	562	565	564	565	568									Mean†
526	528	532	530	537	539	538	538	539									Mean††

† Five International quiet days.

†† Five International disturbed days

Δ Loss of record, day omitted for means

TABLE 14

Hourly values of Horizontal Force, 1962

(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														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
1††	550	550	573	606	636	652	654	606	547	506	505	496	515	513	518
2	543	538	541	566	589	619	606	607	580	564	546	539	532	524	518
3	534	534	549	582	614	638	648	637	595	553	526	521	535	537	530
4†	546	541	549	568	603	625	657	643	615	582	547	535	530	538	541
5	544	542	554	587	627	663	666	646	630	608	589	579	580	582	571
6	546	545	545	570	582	591	581	557	561	566	565	559	555	543	528
7	557	552	562	592	616	632	636	617	591	566	557	558	563	560	560
8††	585	553	537	543	596	618	633	633	625	605	564	529	532	528	519
9††	534	526	527	551	582	610	626	599	569	543	545	558	549	545	526
10	541	537	536	558	580	627	662	652	623	591	570	545	522	537	543
11	546	543	554	571	596	623	627	633	618	599	580	565	552	540	548
12†	549	545	555	592	632	664	665	644	614	582	558	562	566	565	560
13	565	572	592	625	664	684	677	648	618	590	556	526	528	541	528
14	552	554	568	589	618	635	627	597	566	558	536	526	532	540	543
15†	545	549	555	579	596	623	622	622	600	579	568	561	564	557	552
16	554	549	560	592	631	670	685	667	634	602	578	528	520	516	534
17†	544	538	546	569	601	630	654	659	641	596	569	557	559	560	558
18	Δ	Δ	Δ	Δ	583	613	634	639	634	619	599	581	569	561	559
19	566	568	578	599	624	642	649	645	624	566	550	552	533	531	512
20	550	Δ	Δ	Δ	598	611	616	607	595	587	581	577	570	565	566
21	562	561	561	579	601	625	618	606	584	577	583	581	569	562	559
22	554	553	Δ	Δ	601	604	587	563	559	563	550	541	531	534	513
23	567	565	555	578	592	603	612	609	598	585	569	547	540	536	540
24	559	567	578	585	608	627	629	617	608	594	578	561	542	549	546
25††	553	552	563	589	619	613	614	609	576	555	553	563	551	520	524
26††	551	553	565	586	599	617	620	616	576	537	524	521	523	503	509
27	534	540	553	571	587	583	575	538	530	532	543	549	530	543	533
28	544	546	562	586	594	608	599	579	557	536	528	539	548	546	548
29	549	554	570	599	626	643	647	628	599	577	556	552	549	550	547
30	557	562	575	603	623	633	631	606	578	556	545	542	543	543	538
31†	552	560	580	607	630	643	631	620	587	564	549	546	552	547	538
Mean	551	550	559	583	610	630	633	618	598	569	554	546	543	541	540
Mean †	548	549	560	586	615	639	644	632	604	577	556	551	553	552	548
Mean ††	555	547	553	575	606	622	629	613	579	549	538	533	534	522	524

† Five International quiet days
 †† Five International disturbed days
 Δ Loss of record, day omitted for means

TABLE 14
 Hourly values of Horizontal Force, 1962
 (Averages for sixty minutes centred at the full hours of Greenwich Mean Time)
 99,000 γ plus tabular quantities

October										Mean		Maximum		Minimum		Range	Date
Hourly G M T										Time	Mag.	Time	Mag.				
15	16	17	18	19	20	21	22	23	24	II	M	II	M				
519	518	546	532	527	550	517	536	547	532	05	32	669	11	25	188	181	1††
518	527	542	530	528	533	536	536	536	550	05	19	635	14	18	512	123	2
538	540	537	542	548	548	517	517	550	560	05	50	651	10	50	519	132	3
542	545	541	540	532	538	541	539	511	562	06	09	664	12	08	529	135	4†
565	564	562	548	548	537	548	545	518	561	01	58	671	19	50	516	158	5
523	538	543	541	548	551	553	554	556	554	04	52	598	14	15	518	80	6
558	554	555	555	556	562	583	573	583	575	05	17	639	01	25	549	90	7
543	538	535	558	546	537	552	555	552	564	05	57	652	01	45	520	132	8††
527	546	550	543	552	555	555	551	546	555	05	44	636	00	42	517	119	9††
540	548	545	541	551	561	557	554	555	566	06	40	676	12	00	513	163	10
549	547	541	551	556	557	557	557	549	569	06	53	640	13	02	538	102	11
555	551	551	558	559	560	561	561	564	578	05	48	674	01	15	541	133	12†
531	539	544	547	556	556	552	547	553	577	05	18	691	11	25	520	171	13
540	547	541	534	547	546	537	540	540	559	05	40	650	10	33	520	190	14
517	552	558	558	555	555	553	554	558	569	05	22	645	15	09	540	105	15†
529	537	543	540	551	557	554	556	552	572	06	23	690	12	50	507	183	16
566	556	558	560	561	561	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	17†
556	550	553	566	565	558	562	562	564	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	18
527	549	541	545	543	545	557	551	548	571	06	45	655	15	02	515	140	19
573	560	555	559	565	566	575	575	566	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	20
544	544	552	556	546	548	552	555	557	570	05	40	641	15	03	540	101	21
520	534	549	554	547	548	544	564	568	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	22
526	524	538	550	517	548	554	552	554	562	06	36	632	16	05	516	116	23
552	552	589	569	548	543	556	567	562	572	05	24	651	12	25	534	117	24
540	559	538	541	560	555	560	569	555	564	04	10	628	13	10	514	114	25††
488	498	515	526	540	535	539	532	533	546	06	41	631	15	20	480	151	26††
540	527	537	541	541	543	549	548	541	546	04	11	597	07	16	517	80	27
546	540	548	548	552	559	555	552	551	557	04	48	614	09	43	526	88	28
549	545	554	562	556	555	561	562	556	573	06	30	652	16	25	543	109	29
534	533	553	555	560	554	551	553	554	566	05	39	639	15	30	530	109	30
536	538	544	549	561	556	553	561	560	569	04	48	654	15	05	534	120	31†
537	541	545	547	549	550	553	552	552	564						125		Mean
545	546	550	551	552	552	552	554	556									Mean†
523	532	537	540	545	546	551	549	547									Mean††

† Five International quiet days
 †† Five International disturbed days
 Δ Loss of record, day omitted for means.

TABLE 15
 Hourly values of Horizontal Force, 1962
 (Averages for sixty minutes centred at the full hours of Greenwich Mean Time)
 39,000γ plus tabular quantities

November	Date	Hours G M T														
		00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
	1	560	562	571	588	613	627	629	617	605	592	571	566	562	561	558
	2	557	558	564	574	598	621	628	629	626	615	596	575	562	556	558
	3	554	544	544	564	593	616	627	624	602	581	562	547	538	533	527
	4	558	564	573	586	605	616	623	616	592	568	550	544	541	537	521
	5	559	568	581	600	620	631	617	580	551	535	554	555	554	550	554
	6†	572	579	603	611	646	621	633	624	605	597	582	578	575	570	564
	7	561	561	557	582	597	596	599	603	598	590	572	555	548	549	540
	8	563	568	583	604	622	629	625	612	594	577	568	565	556	548	553
	9	559	562	570	582	593	603	613	612	605	591	579	573	571	568	567
	10†	568	577	591	617	641	651	647	633	616	597	585	582	578	575	573
	11	574	581	596	612	634	648	641	614	585	570	557	553	558	553	551
	12†	578	579	572	589	608	618	609	587	570	562	565	568	570	568	567
	13†	563	566	579	600	619	633	635	621	602	585	578	578	577	577	577
	14	565	562	567	593	626	651	655	648	629	605	585	573	574	578	579
	15††	573	576	582	604	626	632	639	623	618	581	576	579	528	468	477
	16††	536	533	512	551	586	620	607	601	586	565	552	536	534	537	536
	17	511	546	561	563	582	600	609	610	605	585	568	553	550	546	549
	18†	554	559	573	591	615	630	628	616	606	594	581	571	565	564	563
	19	562	566	577	594	608	620	627	630	629	617	597	583	571	568	566
	20†	569	577	595	611	636	645	654	628	618	609	599	595	588	580	580
	21	582	598	608	622	625	640	649	619	595	563	547	534	526	531	529
	22††	562	572	570	570	577	573	510	530	505	518	527	518	508	479	482
	23	547	553	571	583	584	588	569	570	561	556	548	547	537	535	543
	24	550	556	574	594	605	609	598	587	565	544	547	548	535	532	532
	25	552	562	575	586	592	606	611	594	576	563	550	551	539	541	538
	26	553	560	580	606	624	631	627	615	598	587	577	567	553	557	553
	27	558	565	585	605	619	615	602	592	582	581	569	555	550	556	561
	28	559	567	573	586	600	601	586	584	579	572	566	555	550	554	552
	29	557	568	584	610	619	627	629	636	621	604	584	562	550	549	552
	30††	573	572	566	584	579	586	569	529	527	529	516	517	502	488	495
	Mean	560	565	576	593	610	620	618	606	592	578	567	559	552	547	547
	Mean†	562	568	582	602	624	635	635	617	602	589	582	579	576	573	572
	Mean††	563	566	573	590	603	611	598	581	568	558	551	546	529	508	511

† Five International quiet days.
 †† Five International disturbed days.
 Δ Loss of record, day omitted for means

TABLE 13
 Hourly values of Horizontal Force, 1962
 (Averages for sixty minutes centered at the full hours of Greenwich Mean Time)
 November 39,000 γ plus tabular quantities

Hours GMT										Mean	Minimum		Minimum		Range	Date	
15	16	17	18	19	20	21	22	23	Time		Mag	Time	Mag				
557	559	547	548	565	569	560	558	560	575	05	15	631	17	15	545	85	1
557	566	560	553	547	553	564	564	553	576	07	12	632	18	59	544	88	2
525	536	547	548	547	556	555	557	555	562	06	05	631	14	15	524	107	3
516	524	521	536	537	535	552	551	555	559	06	00	628	15	00	506	122	4
553	552	553	558	550	558	563	563	566	569	05	23	639	13	15	549	90	5
551	554	549	568	565	571	574	579	568	587	04	10	675	17	20	543	139	6†
549	550	551	556	558	558	561	561	560	567	01	37	613	13	55	536	77	7
559	558	567	563	561	561	566	564	559	576	05	10	636	13	20	546	90	8
567	565	565	566	567	567	564	565	567	577	05	11	620	21	10	561	59	9
570	567	566	564	564	570	574	574	575	590	05	32	654	17	32	562	92	10†
552	555	545	548	554	556	563	563	560	576	04	17	656	16	12	543	113	11
564	563	563	562	567	567	567	565	563	573	05	21	623	18	25	559	64	12†
576	574	577	574	571	571	570	571	566	585	05	15	637	23	27	564	73	13†
574	563	563	564	564	578	575	571	571	580	06	02	656	18	25	558	98	14
495	511	518	525	534	530	545	563	541	561	05	22	664	13	11	453	213	15††
549	540	552	541	534	540	546	543	540	554	05	07	631	11	20	527	104	16††
546	550	557	557	559	560	559	558	556	565	07	09	614	00	01	538	76	17
561	561	560	560	563	564	563	565	563	578	05	23	633	00	20	553	80	18†
561	560	564	565	562	566	577	570	567	584	07	19	632	15	31	557	75	19
578	577	582	585	582	581	582	577	577	596	06	10	662	00	01	568	94	20†
520	529	519	542	546	546	552	556	556	569	05	10	637	15	10	515	142	21
501	534	529	542	542	540	553	550	547	536	04	00	589	12	10	474	115	22††
541	537	549	552	549	557	561	552	552	556	03	27	598	12	25	531	67	23
589	543	547	549	556	556	554	559	556	560	05	13	618	13	28	523	95	24
544	547	560	555	551	553	556	556	553	563	06	11	627	11	32	532	95	25
551	557	556	556	555	558	557	556	556	575	04	25	639	14	15	550	89	26
550	550	555	550	555	561	564	559	559	571	01	25	626	16	22	546	80	27
550	550	553	554	555	559	559	558	556	566	03	18	602	15	10	548	34	28
553	553	560	550	537	549	553	562	568	577	06	22	645	19	02	532	113	29
515	523	535	538	540	542	543	549	547	540	03	32	596	13	20	486	110	30††
548	550	553	554	555	558	561	561	559	570						96		Mean
570	568	570	569	569	571	571	570	569									Mean†
522	532	537	543	547	545	552	557	549									Mean ††

† Five International quiet days
 †† Five International disturbed days.
 Δ Loss of record, day omitted for means.

TABLE 16
 Hourly values of Horizontal Force, 1962
 Averages for sixty minutes centred at the full hours of Greenwich Mean Time
 39,000' plus tabular quantities

Date	Hours G M T														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
1	546	540	516	530	560	571	579	584	583	569	552	548	546	548	570
2†	551	555	566	583	596	603	607	606	603	592	580	568	556	551	550
3	563	564	564	571	580	590	603	611	615	613	604	589	575	569	569
4	581	579	580	589	644	659	661	657	643	611	572	544	522	521	519
5	543	550	560	572	582	589	584	582	591	592	576	563	554	550	540
6†	555	565	577	587	595	599	589	589	592	594	591	582	574	566	562
7†	568	579	576	582	592	598	604	602	603	601	594	591	583	575	571
8	576	581	592	602	610	617	619	611	619	596	575	561	553	552	552
9	556	563	569	576	578	585	584	578	586	586	570	572	574	573	573
10	585	591	603	617	629	627	627	619	600	596	587	583	581	576	574
11††	556	566	581	592	605	613	594	574	550	541	542	542	542	538	521
12	539	547	565	572	588	595	596	589	587	579	567	561	552	550	531
13	533	544	555	581	596	598	591	588	586	574	558	552	541	531	532
14	548	546	546	552	573	592	608	606	610	594	574	545	528	528	537
15	548	549	543	550	538	563	551	539	551	560	564	563	561	562	563
16	561	561	574	590	599	607	613	611	617	609	596	583	571	568	569
17††	575	568	592	600	611	615	615	618	619	607	596	586	575	570	560
18††	536	534	531	556	539	552	564	556	562	564	543	524	507	510	516
19††	527	554	565	567	565	572	560	564	545	540	537	529	523	526	524
20††	544	544	549	560	562	560	561	575	577	566	547	533	531	533	541
21	539	540	530	572	578	574	576	568	561	551	540	537	537	539	532
22	543	545	549	554	558	571	582	588	587	576	561	547	515	517	511
23†	547	553	567	578	592	605	602	600	593	583	572	559	556	553	544
24	551	553	558	564	576	594	609	620	615	595	576	562	554	547	543
25†	558	562	562	563	578	597	614	623	629	619	598	576	565	563	563
26	564	570	586	599	627	645	645	640	620	611	593	569	552	541	492
27	544	546	545	547	560	583	597	593	579	560	540	518	512	512	510
28	558	561	566	576	598	624	631	613	587	567	556	551	556	558	545
29	562	568	580	591	612	624	624	610	600	581	564	559	562	558	551
30	561	564	568	582	601	618	638	649	643	620	591	574	566	567	567
31	569	573	583	602	627	647	652	655	644	621	569	526	527	540	529
Mean	555	559	566	577	589	600	603	601	597	586	571	559	553	541	517
Mean†	556	562	570	569	591	601	603	604	604	598	587	575	567	562	560
Mean ††	548	553	564	575	576	582	579	577	571	564	553	543	539	535	535

† Five International quiet days.
 †† Five International disturbed days.
 Δ Loss of record, days omitted for means

TABLE 10
 Hourly values of Horizontal Force, 1962
 (Averages for sixty minutes centred at the full hours of Greenwich Mean Time)
 99,000 γ plus tabular quantities

Hours G M T										Minimum		Minimum		Range	Date		
15	16	17	18	19	20	21	22	23	Mean	Time	Mag	Time	Mag				
		γ	γ	γ	γ	γ	γ	γ	γ	II	M	γ	II	M			
545	547	546	546	551	554	550	551	551	555	07	38	587	02	20	542	15	
554	554	557	557	551	558	558	556	560	570	05	39	611	13	51	548	63	
562	557	562	564	572	579	575	578	580	579	07	51	616	15	36	556	60	
484	489	495	509	521	528	534	540	545	564	06	35	685	15	30	186	199	
539	545	548	559	553	553	551	552	559	562	08	50	598	14	25	530	68	
562	562	560	561	566	565	561	561	565	571	04	20	604	00	08	551	50	
571	569	571	569	561	562	567	567	573	580	05	28	608	19	50	557	51	
552	552	547	547	546	549	542	547	549	578	08	07	621	21	05	540	84	
574	575	574	571	574	579	578	575	576	575	05	11	591	00	01	538	84	
570	569	562	549	551	552	553	561	558	585	05	00	651	20	46	517	104	
526	507	498	500	525	529	520	526	541	517	01	16	616	17	95	496	120	
552	555	553	546	562	549	556	547	540	562	05	30	602	23	59	524	73	
530	537	545	549	553	563	553	558	552	558	04	10	607	13	14	527	80	
544	545	547	549	556	567	566	563	560	562	06	25	615	12	00	525	90	
563	561	560	559	551	552	555	562	562	556	05	17	577	04	05	524	59	
572	567	562	561	563	569	579	573	572	581	07	50	620	00	30	560	60	
549	539	533	520	506	501	510	511	541	569	04	03	625	19	36	491	134	
505	525	510	510	521	539	524	514	518	531	05	25	579	15	19	492	87	
524	551	536	515	506	510	532	513	543	546	03	46	585	12	45	513	72	
540	538	530	542	532	519	539	511	512	516	07	37	590	20	20	516	71	
531	530	548	540	513	511	541	541	542	548	05	23	587	14	35	523	64	
541	544	545	541	550	550	548	548	547	547	07	33	593	15	22	535	58	
553	551	549	549	550	550	550	550	551	565	04	58	609	00	05	547	62	
547	547	550	550	555	550	559	559	559	567	07	05	624	05	46	545	79	
561	562	560	559	560	557	559	560	561	575	07	12	633	00	22	557	76	
492	509	516	521	529	511	512	538	543	566	05	07	649	14	07	471	178	
545	549	549	548	514	513	530	554	556	556	06	20	602	00	05	542	60	
559	554	556	558	558	564	568	566	564	571	03	41	635	10	12	552	83	
548	559	557	551	551	539	553	555	559	573	05	37	632	15	20	545	87	
569	569	569	568	560	568	568	561	560	584	07	02	649	00	01	560	89	
515	521	524	535	539	546	551	552	556	571	06	45	657	15	09	511	146	
545	546	546	546	550	550	551	553	554	565							83	
560	560	559	559	558	558	560	559	562									Mean†
529	532	521	523	530	524	525	533	537									Mean††

† Five International quiet days.
 †† Five International disturbed days
 Δ Loss of record, day omitted for means.

TABLE 17
 Hourly values of Vertical Force, 1962
 (Averages for 45 min. minutes centred at the full hours of Greenwich Mean Time)
 2,000 γ plus tabular quantities.

Date	Hours G M T														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
1	214	216	213	210	206	205	202	201	203	206	216	215	214	211	210
2	216	217	218	216	202	201	195	185	193	194	194	205	211	211	209
3	210	214	214	214	211	207	200	197	200	200	203	206	209	209	209
4††	214	216	217	217	225	223	228	239	239	223	223	224	224	216	208
5††	212	212	212	214	195	193	194	206	215	212	211	211	209	211	212
6	217	220	222	215	211	210	217	217	218	220	217	219	220	217	212
7	218	220	223	219	216	216	205	201	204	209	213	221	218	216	216
8	218	219	215	207	204	200	197	195	202	205	205	205	207	209	212
9†	216	219	219	208	207	203	201	201	204	205	212	215	212	212	213
10	218	217	215	210	206	205	202	202	200	195	200	207	213	209	210
11	218	218	217	214	208	203	196	201	202	203	205	204	204	208	209
12	217	215	219	219	214	216	218	214	221	226	230	224	217	212	210
13	214	216	211	209	204	203	203	204	201	205	212	217	212	213	213
14	218	217	213	211	207	207	200	194	205	208	210	220	218	210	209
15	219	219	221	218	215	206	195	194	191	192	192	195	201	207	206
16†	215	216	214	206	200	192	182	185	187	188	197	204	206	206	206
17†	214	214	211	201	192	188	185	187	193	208	222	219	216	216	205
18†	209	209	205	200	202	196	191	187	184	186	191	193	193	198	200
19	216	214	213	215	216	216	213	214	208	201	207	209	214	208	210
20	210	214	212	204	192	186	198	198	198	207	215	214	216	209	206
21	212	215	209	205	199	199	187	187	185	191	186	193	199	202	202
22	209	215	210	210	204	195	187	179	176	187	197	204	208	212	210
23	210	217	217	212	204	192	184	180	183	192	197	204	202	202	202
24	210	215	216	210	205	201	200	187	180	184	197	204	204	204	202
25	208	210	212	210	204	206	208	204	206	210	210	206	206	204	204
26††	217	217	214	208	197	189	170	175	178	198	191	185	203	207	201
27††	209	211	207	199	201	201	200	198	192	197	198	198	198	198	198
28††	203	203	196	192	179	176	185	176	180	183	183	192	193	196	198
29	208	206	200	191	185	190	186	179	182	179	182	186	193	198	203
30†	206	209	197	191	186	183	185	192	197	197	201	203	201	199	203
31	207	209	203	201	191	191	186	180	176	169	179	191	199	203	203
Mean	213	214	212	208	203	200	197	195	197	199	203	206	208	208	207
Mean†	212	214	209	201	197	192	189	190	193	197	205	207	206	206	205
Mean††	211	212	209	206	199	196	195	195	201	203	201	202	205	206	203

† Five International quiet days
 †† Five International disturbed days
 Δ Loss of record, day omitted for means

TABLE 17
 Hourly values of Vertical Force, 1962
 (Averages for sixty minutes centred at the full hours of Greenwich Mean Time)
 2,000 γ plus tabular quantities

Hours G M T										Maximum		Minimum		Range		Data	
15	16	17	18	19	20	21	22	23	Mean	Time	Mag	Time	Mag	Time	Mag		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H	M	H	M	H	M		
213	213	216	217	216	216	215	216	216	212	00	58	219	06	40	209	10	1
206	208	209	211	206	210	213	209	210	206	21	15	219	07	04	187	32	2
211	217	212	215	217	215	214	212	212	209	07	37	219	06	35	196	23	3
211	214	211	211	211	217	228	217	212	219	07	45	213	13	11	207	96	4††
212	214	214	215	214	219	220	217	217	211	20	42	222	05	18	188	40	5††
216	215	215	217	217	218	217	216	216	217	11	30	227	04	17	206	21	6
215	215	213	213	210	213	215	213	221	211	01	47	225	07	18	200	25	7
216	216	215	215	215	213	215	215	217	209	00	18	220	05	02	194	26	8
213	215	217	213	213	215	215	216	216	212	01	15	220	06	38	200	20	9†
210	208	211	211	213	215	217	216	217	209	00	35	218	09	27	193	25	10
213	212	211	211	216	216	216	211	214	210	00	45	219	05	53	194	25	11
210	213	216	217	217	217	216	216	214	217	09	30	230	05	30	202	28	12
215	215	212	213	216	216	217	218	220	212	23	12	223	08	04	200	23	13
209	211	212	218	218	215	215	218	217	212	21	48	223	06	38	190	33	14
210	212	211	212	212	215	212	212	212	208	02	30	225	08	00	188	37	15
208	211	212	214	214	214	212	214	212	205	01	25	217	06	00	182	35	16†
206	206	207	210	210	209	210	207	208	206	10	35	223	06	10	182	41	17†
205	207	208	211	213	210	213	213	215	202	23	20	216	07	02	181	35	18†
210	210	212	212	210	212	216	212	210	212	11	50	221	08	15	195	26	19
207	208	214	209	209	212	212	210	210	207	02	21	220	04	30	184	36	20
204	206	207	208	204	205	207	206	210	201	01	00	215	07	19	183	32	21
212	210	212	212	210	210	212	210	215	204	22	35	216	07	09	175	41	22
204	204	206	210	205	204	204	204	205	202	01	15	220	07	03	179	41	23
201	199	200	198	204	205	206	206	204	202	01	30	217	09	00	180	37	24
207	207	207	208	209	209	210	212	213	209	23	57	215	01	26	200	15	25
205	207	209	213	214	209	212	211	209	202	03	00	221	05	48	151	70	26††
199	203	204	207	208	207	205	209	207	202	22	44	214	13	30	194	20	27††
203	206	203	205	205	204	207	207	207	195	21	15	211	04	53	173	38	28††
203	203	204	205	204	205	205	206	206	196	21	18	211	07	03	177	34	29
203	203	203	203	203	203	204	201	205	199	00	40	208	04	40	179	29	30†
203	204	205	205	203	199	205	208	206	197	21	44	211	09	05	169	45	31
208	209	210	211	211	212	212	212	207							32	Mean	
207	208	209	210	211	210	211	211	211								Mean†	
206	208	208	210	210	211	214	213	210								Mean††	

† Five International quiet days
 †† Five International disturbed days
 ‡ Low of record, day omitted for means

TABLE 18
 Hourly values of Vertical Force, 1962
 (Averages for sixty minutes centred at the full hours of Greenwich Mean Time)
 August 2,000 γ plus tabular quantities

Date	Hours G M T														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
1†	205	207	207	202	199	190	192	198	198	189	185	197	199	199	200
2	213	210	216	220	222	221	215	209	204	202	200	204	202	202	204
3	207	208	204	202	197	192	187	184	184	179	186	191	195	202	202
4	207	210	210	211	203	196	193	188	187	192	199	206	206	202	202
5	208	209	205	200	191	186	179	175	183	192	192	196	202	202	205
6	207	213	210	209	195	188	177	178	181	185	192	202	198	196	207
7	205	209	206	202	191	186	182	178	179	186	185	195	196	197	206
8††	209	210	211	200	189	189	192	195	189	192	208	210	202	202	196
9	206	209	208	206	203	200	188	182	185	194	196	207	204	202	200
10	207	209	204	194	181	177	177	178	180	194	197	194	193	197	201
11†	206	208	204	201	194	190	193	192	188	182	183	190	194	196	200
12†	207	209	205	195	190	177	171	170	173	179	187	192	193	196	196
13†	208	210	201	193	187	178	172	172	171	179	180	184	193	196	200
14	207	208	207	198	189	183	183	182	186	188	192	196	195	196	202
15	208	207	204	196	192	177	164	181	181	190	194	196	196	200	198
16	207	208	205	202	195	196	188	188	195	196	197	197	197	199	201
17††	208	211	206	196	189	183	175	171	173	180	187	196	193	202	204
18	203	203	203	196	187	185	178	176	187	185	197	203	205	204	199
19	208	209	202	194	189	184	181	189	193	199	197	203	203	203	199
20†	208	208	209	208	204	203	204	199	195	195	195	195	196	202	202
21	204	205	205	204	202	203	204	201	203	185	183	188	191	197	198
22††	201	203	208	210	211	213	213	196	197	206	199	202	203	199	198
23	205	209	211	211	215	214	215	220	218	214	211	216	203	197	197
24	206	204	199	199	199	200	199	192	200	208	210	206	199	196	204
25	210	211	198	192	187	192	201	210	211	211	208	205	207	203	203
26	210	210	205	199	194	196	196	207	211	212	216	216	208	200	200
27	207	207	207	205	203	182	176	175	187	191	196	197	198	199	201
28†	207	211	212	212	201	188	177	172	172	174	179	186	188	188	193
29	205	206	207	204	201	200	191	194	212	216	218	200	199	198	195
30	202	206	198	187	184	180	178	179	187	193	199	200	195	195	204
31††	213	211	209	202	199	194	186	181	181	188	194	196	201	202	201
Mean	207	208	206	201	196	192	188	188	190	193	196	199	199	199	201
Mean†	207	204	206	202	195	187	183	181	180	182	185	199	194	196	19
Mean††	207	208	208	202	196	191	192	188	188	191	195	201	200	201	200

† Five International quiet days
 †† Five International disturbed days
 Δ Loss of record, day omitted for means

TABLE 18

Hourly values of Vertical Force, 1962

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

August 2,000 γ plus tabular quantities

Date	Hours G M T										Maximum		Minimum		Range
	15	16	17	18	19	20	21	22	23	Mean	Time	Mag	Time	Mag	
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H M	γ	H M	γ	
200	200	206	207	209	210	209	206	205	201	23 38	215	09 30	179	36	1††
204	205	201	205	207	208	206	205	206	208	02 30	221	09 08	199	25	2
204	201	207	209	205	201	209	206	206	199	01 00	210	08 56	177	33	3
201	201	205	205	205	205	206	207	209	202	00 58	212	08 25	185	27	4
205	206	206	205	207	207	206	205	206	199	00 45	211	06 37	171	40	5
205	205	206	208	208	205	208	207	205	200	01 37	214	06 00	173	41	6
203	201	199	199	203	206	207	210	208	197	22 00	212	08 41	169	51	7
197	203	207	207	207	206	207	206	207	202	02 08	212	08 32	181	31	8††
203	207	207	206	206	204	206	206	202	01	06 45	212	06 45	182	30	9
202	206	202	201	202	206	206	202	206	197	00 53	211	03 02	174	37	10
202	203	205	205	207	205	205	207	207	199	00 58	209	09 44	175	34	11†
197	201	205	201	207	207	205	207	207	195	01 00	209	06 28	167	42	12†
201	205	207	207	207	207	207	205	207	195	01 05	213	06 14	171	42	13†
201	202	203	203	202	202	201	201	205	197	00 45	212	06 22	177	35	14
200	201	204	201	207	207	208	209	201	197	21 35	213	05 58	159	54	15
203	203	206	206	208	208	205	201	208	201	19 30	213	06 58	185	28	16
204	205	203	205	210	211	206	210	206	197	22 14	216	06 32	164	52	17††
201	205	208	208	208	208	208	209	209	199	16 34	212	06 18	171	41	18
201	204	205	205	209	208	208	205	208	200	20 18	210	05 52	179	31	19
201	203	204	204	203	201	201	201	201	202	06 00	204	08 15	194	10	20†
201	202	201	205	206	205	203	202	201	200	05 25	206	09 00	179	27	21
202	206	206	203	201	204	210	202	201	201	22 00	219	07 58	190	29	22††
205	206	203	207	209	206	206	206	205	209	07 20	225	13 24	194	31	23
199	199	208	205	206	206	208	211	210	203	22 00	211	07 00	192	19	24
201	204	205	206	203	201	205	210	208	203	08 25	216	04 34	185	31	25
206	206	209	208	207	208	208	207	207	206	11 10	217	06 03	191	26	26
202	204	207	206	206	206	206	206	207	199	02 40	211	06 42	174	37	27
191	197	200	201	200	200	202	202	200	194	01 49	215	08 53	170	45	28†
195	200	203	205	203	209	206	200	199	203	08 27	220	05 58	188	32	29
201	199	205	202	211	207	208	208	208	197	19 22	213	05 58	177	36	30
213	213	213	213	213	213	213	216	211	204	00 33	214	06 58	178	36	31††
202	203	205	205	206	206	206	206	206	200					34	Mean
198	202	204	204	205	205	205	205	206							Mean†
203	205	207	207	209	209	209	207	208							Mean

† Five International quiet days
 †† Five International disturbed days
 Δ Loss of record, day omitted for means

TABLE 19

Hourly values of Vertical Force, 1962

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

September

2,000γ plus tabular quantities

Date	Hours G M T														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
1	215	218	216	207	194	186	166	161	175	189	204	209	217	207	207
2††	217	217	206	188	172	172	171	172	184	195	201	199	194	195	195
3††	206	207	192	178	170	168	171	175	178	186	188	191	199	198	194
4††	207	207	199	191	176	169	162	155	169	173	178	184	181	185	200
5	201	201	199	187	172	158	149	150	155	163	175	190	196	195	196
6	207	208	200	186	177	170	160	157	173	180	185	187	195	195	195
7	201	207	203	195	185	176	172	171	169	181	185	196	196	193	195
8	201	206	204	195	195	195	194	194	186	185	193	195	196	195	195
9	204	206	203	196	195	188	185	189	195	198	204	201	195	188	193
10	207	206	201	193	193	187	185	199	203	207	208	208	200	195	195
11	201	204	195	191	178	163	161	162	163	170	178	194	200	195	194
12††	201	207	194	177	161	162	157	133	129	158	166	183	195	195	194
13	207	200	188	180	176	171	162	158	164	181	194	196	195	194	193
14	201	202	193	183	173	166	168	162	173	186	196	194	191	192	194
15	202	206	198	186	170	163	160	153	178	191	195	196	194	193	194
16	200	203	195	184	172	161	160	162	170	180	181	186	185	187	193
17†	198	201	187	175	170	162	161	164	173	177	184	186	188	189	191
18†	196	198	195	186	179	171	160	157	166	180	191	194	191	189	189
19††	196	200	196	187	178	166	161	161	168	185	195	187	186	193	195
20	196	195	196	196	185	183	173	172	172	179	186	186	188	194	193
21	199	204	196	186	175	170	164	170	173	176	183	186	191	194	189
22	198	200	194	185	179	183	178	172	173	183	187	191	194	193	195
23	196	198	194	183	175	169	164	176	184	196	194	187	189	193	195
24†	199	200	191	185	178	172	166	172	174	184	191	192	192	193	194
25†	199	202	199	196	196	192	186	186	185	190	189	186	187	189	189
26	202	193	195	195	192	188	181	176	172	176	183	187	192	194	193
27	196	199	200	201	195	187	179	173	173	175	180	187	194	193	195
28†	201	202	193	185	172	169	161	162	171	177	183	185	191	192	187
29	195	197	193	183	172	164	160	161	171	174	183	185	190	192	193
30	195	194	192	182	170	168	170	174	185	194	197	194	191	192	192
Mean	201	203	197	188	179	173	168	168	173	182	189	191	193	193	194
Mean †	199	201	193	185	179	173	167	168	174	182	187	189	190	190	190
Mean ††	205	208	197	184	171	167	164	139	166	179	185	189	191	193	196

† Five International quiet days
 †† Five International disturbed days
 Δ Loss of record, day omitted for means

TABLE 19
Hourly values of Vertical Force, 1962

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

September

2,000γ plus tabular quantities

Hours G M T										Maximum		Minimum		Range	Date		
15	16	17	18	19	20	21	22	23	Mean	Time	Mag	Time	Mag				
206	208	206	217	207	217	211	212	208	203	17	40	221	06	25	162	59	1
189	195	200	202	200	207	207	201	203	195	00	50	218	06	15	166	52	2††
200	195	196	195	206	200	201	203	203	192	19	20	212	05	05	166	46	3††
200	202	207	198	199	204	206	202	198	190	16	35	208	06	35	149	59	4††
194	192	194	196	198	206	202	201	207	186	19	30	207	05	10	148	59	5
196	195	195	195	200	198	202	198	199	190	00	30	210	06	30	148	62	6
196	196	199	199	200	198	201	201	200	192	01	25	208	06	30	168	40	7
196	198	199	201	199	201	201	201	202	197	01	30	208	08	30	183	25	8
195	194	196	201	204	207	203	201	206	198	19	40	208	05	30	183	25	9
196	196	196	198	199	199	200	201	201	199	10	30	209	05	15	181	28	10
195	196	199	198	199	201	202	199	200	189	00	55	206	06	15	160	46	11
195	198	201	199	206	203	199	201	203	181	18	45	209	07	30	115	9†	12††
195	19†	196	206	195	200	201	196	198	189	00	15	208	07	15	154	54	13
196	195	196	199	196	199	199	200	201	190	00	35	204	06	40	161	43	14
194	195	196	196	195	195	196	199	199	189	01	15	207	06	15	149	58	15
195	196	196	198	198	201	206	199	196	188	21	10	207	05	20	158	49	16
194	193	194	195	196	198	198	196	196	186	00	40	203	05	35	160	43	17†
194	194	195	196	196	195	198	201	196	188	22	25	202	06	50	154	48	18†
196	199	196	199	201	196	195	195	196	189	19	15	206	06	20	160	46	19††
195	195	196	196	196	195	196	198	196	190	22	10	199	07	45	170	29	20
189	195	193	196	199	201	200	199	196	188	00	45	206	05	45	162	44	21
194	191	193	195	195	198	200	198	196	190	20	30	203	06	55	171	32	22
196	196	195	198	196	196	196	196	198	190	00	40	199	05	40	162	37	23
194	196	196	197	197	197	197	195	196	189	00	45	204	05	50	163	41	24†
196	196	195	196	197	202	197	200	205	194	23	30	209	06	30	185	24	25†
191	198	196	192	196	201	199	196	196	191	16	25	207	07	35	171	36	26
195	194	195	196	198	198	196	199	199	192	03	15	202	07	10	172	30	27
189	193	194	195	197	195	195	193	195	186	00	40	202	06	15	160	42	28†
190	192	193	191	190	194	194	199	199	186	22	15	205	05	50	159	46	29
190	193	194	194	196	194	194	193	194	189	09	50	198	05	05	166	32	30
195	196	197	198	198	200	200	199	199	191							44	Mean
193	194	195	196	197	198	197	197	198									Mean †
196	198	200	199	202	202	202	200	201									Mean ††

† Five International quiet days
 †† Five International disturbed days
 Δ Low of record, day omitted for means

TABLE 20

Hourly values of Vertical Force, 1962

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

October

2,000 γ plus tabular quantities

Date	Hours G M T														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
1††	215	220	219	206	198	191	189	179	182	196	203	201	209	207	211
2	214	215	208	202	201	201	191	185	189	191	202	205	203	203	205
3	217	218	209	200	192	182	177	176	177	188	195	201	211	211	210
4†	214	217	212	201	191	182	181	175	177	187	193	199	203	209	209
5	212	213	211	205	198	191	190	194	196	198	199	204	208	209	204
6	211	215	210	209	199	198	199	206	210	210	202	199	204	203	202
7	211	212	215	210	203	201	198	196	191	197	198	201	202	203	207
8††	210	204	201	213	210	198	193	191	196	193	186	186	187	190	203
9††	208	211	219	210	201	197	192	191	192	197	209	205	199	203	198
10	210	211	210	209	208	197	184	180	184	194	197	195	196	204	210
11	209	214	209	207	196	184	180	185	178	183	194	196	202	208	208
12†	208	209	208	208	200	185	176	177	183	192	195	203	207	204	206
13	208	208	208	208	201	193	187	195	195	191	184	183	190	203	200
14	209	212	209	207	197	187	172	178	201	206	195	195	200	207	207
15†	208	208	206	206	201	199	191	193	195	196	197	201	206	205	206
16	208	208	207	210	200	187	171	171	180	181	189	177	185	190	202
17†	206	206	206	205	205	201	196	184	176	181	189	199	200	204	205
18	Δ	Δ	Δ	Δ	212	202	200	198	194	192	188	192	195	199	204
19	Δ	Δ	Δ	Δ	203	203	199	200	197	187	177	181	189	200	198
20	Δ	Δ	Δ	Δ	197	194	199	199	199	199	198	198	199	200	203
21	201	205	206	209	204	198	198	204	205	201	204	201	199	203	201
22	207	206	206	201	197	195	204	206	209	205	195	195	201	200	197
23	206	207	205	205	199	193	193	192	194	192	191	189	192	197	204
24	205	206	205	203	199	182	181	182	182	181	180	181	183	195	195
25††	200	203	198	203	203	195	193	191	186	186	187	195	193	189	194
26††	195	199	203	204	206	206	205	197	187	180	187	189	192	193	201
27	204	203	203	207	206	204	205	206	218	213	207	201	191	205	201
28	204	203	195	194	187	189	194	193	195	192	192	195	199	204	204
29	204	205	199	199	200	195	192	182	188	193	195	201	194	197	198
30	204	204	201	198	189	181	179	181	182	189	193	195	194	199	199
31†	203	204	203	198	194	186	183	183	187	191	191	192	193	195	195
Mean	208	209	207	205	199	192	189	188	191	194	195	196	198	201	203
Mean †	208	210	207	203	196	188	184	182	186	192	192	199	202	203	204
Mean ††	206	207	208	207	204	197	194	190	189	190	194	195	194	196	202

† Five International quiet days

†† Five International disturbed days

Δ Loss of record, day omitted for means

TABLE 20
Hourly values of Vertical Force, 1962

(Averages for sixty minutes centred at the full hours of Greenwich Mean Time)
2,000 γ plus tabular quantities

October										Hours G M T					Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag	Time	Lag								
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H	M	γ	H	M	γ	γ					
214	213	222	214	213	221	220	213	216	207	20	30	231	07	10	178	53	1††				
208	214	219	213	213	215	214	215	215	206	16	50	224	07	05	181	43	2				
212	213	212	213	214	213	213	213	216	203	00	50	219	06	50	175	44	3				
210	211	211	210	209	211	212	211	212	202	00	55	218	06	55	174	44	4†				
204	208	208	205	202	206	215	210	211	201	20	30	222	05	35	187	35	5				
202	210	211	212	214	214	211	211	211	207	01	10	216	04	30	197	19	6				
208	207	209	208	208	210	215	209	214	206	20	35	221	08	05	190	31	7				
209	208	209	216	209	204	214	211	211	202	17	55	222	09	55	184	38	8††				
204	214	211	209	210	210	210	208	205	205	01	10	221	07	10	190	31	9††				
209	212	215	207	218	209	208	208	210	204	18	10	222	06	45	178	44	10				
208	208	209	209	210	208	209	209	208	201	01	10	215	08	15	173	42	11				
207	207	208	208	209	208	208	209	208	201	01	20	210	06	20	175	97	12†				
202	207	208	212	213	212	208	208	208	201	19	15	217	11	03	183	34	13				
206	211	208	207	213	211	206	208	207	202	18	35	215	05	50	171	14	14				
206	207	208	207	207	208	207	208	209	201	16	40	212	07	20	191	21	15†				
202	206	208	206	212	211	208	207	206	197	19	15	223	06	10	170	53	16				
204	202	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	17†				
204	200	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	18				
195	207	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	19				
206	201	200	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	20				
197	201	205	205	203	205	206	206	207	203	03	10	211	14	55	194	17	21				
205	207	216	206	207	206	216	217	212	205	22	15	218	04	55	194	21	22				
198	197	206	209	206	205	206	205	205	200	17	45	211	10	55	182	29	23				
201	200	195	207	200	195	203	206	205	195	15	20	217	10	25	179	38	24				
205	212	206	201	197	193	200	206	197	197	15	55	219	09	30	182	37	25††				
193	200	206	209	211	205	205	204	204	199	18	20	218	09	25	179	39	26††				
205	200	205	206	205	205	206	205	204	205	07	50	221	12	10	193	28	27				
205	206	207	207	206	207	206	206	205	200	19	15	210	04	00	187	23	28				
203	203	205	205	204	204	205	205	204	199	17	25	209	07	10	180	29	29				
201	203	209	206	206	205	204	204	205	197	17	20	211	06	05	177	34	30				
197	199	203	205	206	205	205	204	205	197	19	05	207	06	30	182	25	31†				
204	207	209	208	208	208	209	208	208	202						3†	Mean					
205	206	208	208	208	208	208	208	208								Mean †					
205	209	211	210	208	207	210	208	207								Mean ††					

† Five International quiet days
†† Five International disturbed days
Δ Loss of record, day omitted for means

TABLE 21

Hourly values Vertical Force, 1962

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

November

2,000γ plus tabular quantities

Date	Hours G M T														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
1	194	192	192	198	210	199	198	198	193	187	187	193	189	193	194
2	198	199	199	207	211	205	199	193	193	187	187	187	187	192	194
3	197	198	197	200	205	197	189	185	176	175	177	187	187	189	193
4	199	200	198	198	197	193	193	188	185	182	185	191	189	193	187
5	200	201	205	203	197	191	181	181	193	199	193	193	193	198	199
6†	199	199	201	204	193	186	193	187	179	174	176	187	191	193	193
7	194	194	202	221	206	203	200	195	193	188	181	181	183	193	193
8	200	200	198	195	193	182	186	187	186	187	191	193	193	189	197
9	194	194	198	199	209	204	205	200	195	187	187	187	192	194	195
10†	199	199	199	197	187	187	187	187	187	187	186	188	188	193	195
11	198	193	198	203	216	209	199	199	198	197	186	186	191	193	194
12†	201	206	206	202	198	192	193	194	204	209	202	196	193	194	196
13†	197	199	197	196	194	194	193	191	190	185	186	187	187	193	198
14	198	198	197	191	186	186	180	181	181	181	182	184	186	192	197
15††	193	192	190	192	187	181	169	182	182	181	185	182	166	158	174
16††	186	185	187	191	197	193	184	186	184	186	185	184	184	186	186
17	197	197	196	195	195	197	195	192	185	185	186	185	185	186	191
18†	192	192	190	190	186	184	177	173	173	171	172	180	186	185	191
19	196	195	195	197	197	191	185	185	185	177	178	174	179	185	185
20†	187	Δ	Δ	Δ	185	184	179	172	172	173	173	179	185	185	190
21	191	195	191	191	192	196	196	179	179	173	179	178	179	185	187
22††	193	191	186	184	183	184	185	190	191	197	193	184	180	173	185
23	189	185	185	186	191	191	197	201	197	190	187	187	185	187	191
24	191	190	190	187	186	189	191	197	189	185	192	190	179	183	185
25	191	190	190	191	193	198	207	199	195	195	189	195	185	185	185
26	191	186	185	185	185	179	179	181	183	179	179	179	184	185	185
27	191	191	190	184	184	184	190	190	190	186	180	180	189	190	190
28	190	194	Δ	Δ	178	183	185	184	190	184	179	182	184	189	189
29	190	190	190	192	191	187	191	191	183	175	176	179	179	185	185
30††	195	191	185	197	191	190	185	186	186	185	183	185	185	185	187
Mean	195	194	194	195	195	192	190	189	188	185	184	186	186	188	190
Mean †	197	199	198	196	191	189	188	186	189	188	187	188	189	191	195
Mean ††	193	192	190	194	190	187	183	186	184	185	184	184	181	179	185

† Five International quiet days
 †† Five International disturbed days.
 Δ Loss of record, day omitted for means

TABLE 21

Hourly values of vertical Force, 1962

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

November
2,000Y 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					
Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	H	M	Y	H	M	Y	Y		
199	197	197	199	204	200	199	199	199	196	04	00	210	09	15	185	25	1	
197	199	199	199	198	199	200	206	200	197	03	15	217	09	45	187	30	2	
199	199	199	199	200	200	199	199	199	194	20	30	205	08	45	169	36	3	
187	194	197	201	199	199	205	199	201	194	21	10	211	08	25	181	30	4	
196	199	199	199	199	199	199	199	199	196	02	00	205	06	30	175	26	5	
189	194	197	205	205	199	198	199	192	193	18	15	213	08	15	173	40	6††	
197	199	198	198	199	199	199	199	198	196	08	00	221	10	55	180	41	7	
199	198	200	199	199	198	199	198	198	194	16	15	209	05	25	181	28	8	
197	197	198	198	199	197	195	199	199	197	03	45	210	09	45	185	25	9	
197	197	195	194	198	199	199	199	199	193	22	30	200	06	45	183	17	10†	
197	197	198	198	206	206	204	201	201	199	03	47	217	10	45	185	32	11	
197	197	197	198	199	198	198	198	198	199	08	55	210	05	00	192	18	12†	
196	197	197	197	198	196	198	198	198	198	22	30	199	09	30	184	15	13†	
196	193	193	193	197	200	197	197	194	191	20	15	201	07	30	180	21	14	
186	194	197	197	197	197	200	203	192	187	21	18	212	13	15	151	61	15††	
192	186	197	190	188	193	196	194	196	189	15	15	200	11	30	179	21	16††	
192	192	193	196	196	195	196	193	193	192	05	00	199	10	05	184	15	17	
192	193	192	195	193	193	196	196	196	187	22	00	197	07	55	169	28	18†	
185	185	189	191	190	191	191	191	191	188	03	10	198	10	00	173	25	19	
190	191	191	191	191	191	191	191	191	Δ	18	00	195	06	45	172	23	20†	
185	189	197	190	191	191	191	191	191	188	16	55	198	07	00	173	25	21	
191	202	195	197	196	192	195	191	190	190	15	56	209	13	00	173	36	22††	
195	189	196	197	197	197	197	191	191	192	07	15	202	10	45	183	19	23	
191	191	196	196	195	191	191	191	190	190	15	10	197	12	00	179	18	24	
191	195	197	195	191	191	190	191	191	189	05	00	198	12	00	179	19	25	
185	191	191	191	191	191	191	191	191	186	19	55	197	05	00	179	18	26	
190	186	191	190	194	196	196	190	190	190	189	20	15	196	10	25	178	18	27
189	189	190	190	192	194	190	190	190	Δ	07	00	195	11	15	178	17	28	
185	186	191	187	185	191	191	195	195	187	06	30	197	11	30	173	24	29	
195	196	197	196	197	197	195	192	191	191	03	00	197	10	00	183	14	30††	
193	194	196	196	196	196	197	196	195	192							26	Mean	
196	196	195	196	197	197	198	198	198										Mean †
191	194	197	197	197	196	197	195	192										Mean ††

† Five International quiet days
 †† Five International disturbed days
 Δ Loss of record, day omitted for means

TABLE 22

Hourly values of vertical Force, 1962

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

December

2,000f plus tabular quantities

Date	Hours G M T															
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	
1	190	186	185	186	184	186	192	186	186	186	184	186	186	190	188	
2†	192	186	182	180	187	190	192	192	191	186	185	186	186	186	186	
3	192	187	186	187	187	191	198	193	193	187	187	187	187	187	188	
4	188	189	187	187	205	204	199	210	181	163	169	175	176	181	181	
5	189	189	186	188	183	186	189	191	199	189	180	177	182	187	188	
6†	192	194	186	190	189	191	194	191	190	182	177	183	188	188	188	
7†	189	188	188	189	195	195	200	197	189	183	183	187	188	189	189	
8	195	193	190	190	189	189	190	190	178	177	181	183	183	187	189	
9	193	195	193	195	207	202	229	201	195	189	188	187	189	190	190	
10	191	190	189	183	183	183	187	189	183	182	183	183	183	187	189	
11††	188	189	188	183	189	189	189	189	189	189	189	189	189	187	183	
12	193	189	188	189	189	195	189	187	183	177	178	181	185	185	189	
13	183	189	188	188	185	187	184	187	189	188	187	185	185	183	187	
14	189	187	181	187	193	194	189	188	184	177	183	177	175	185	185	
15	188	189	187	192	198	200	197	203	200	196	188	186	190	191	188	
16	188	190	188	186	179	179	178	178	179	178	182	185	185	185	180	
17††	190	194	189	190	186	184	185	186	179	174	171	177	181	181	184	
18††	185	190	186	202	195	193	193	185	179	180	178	180	179	186	186	
19††	192	186	187	192	190	190	191	192	180	193	192	188	191	190	191	
20††	191	191	191	189	189	192	195	193	181	176	170	181	188	189	193	
21	192	191	189	189	192	188	188	181	181	185	187	192	193	192	187	
22	194	193	194	192	204	200	188	188	182	178	187	182	186	189	192	
23†	193	192	192	193	189	183	177	170	171	172	176	181	187	189	192	
24	192	192	192	189	189	192	186	180	175	164	166	172	180	182	183	
25†	189	193	194	195	188	191	197	194	188	177	163	164	176	182	187	
26	191	192	188	191	191	182	180	170	170	180	177	177	177	181	169	
27	192	192	192	192	192	187	174	175	178	180	179	175	180	186	186	
28	191	191	190	191	192	181	179	179	180	179	180	187	186	187	187	
29	188	187	188	189	189	186	187	181	173	169	173	174	184	185	185	
30	190	189	186	186	185	179	173	167	162	161	173	178	181	181	181	
31	190	189	187	185	178	174	166	164	156	148	152	172	182	176	172	
Mean	190	190	188	189	190	189	189	187	182	179	179	181	181	186	186	
Mean †	191	191	189	191	189	190	172	188	183	182	177	181	185	189	189	
Mean ††	189	190	188	191	190	190	191	189	182	182	180	183	186	186	187	

† Five International quiet days.
 †† Five International disturbed days
 Δ Loss of record, day omitted for means

TABLE 22
Hourly values of Vertical Force, 1962

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

December
2,000 γ plus the 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	γ	H	M	γ	H	M	γ	γ
186	186	188	186	192	192	192	192	192	188	05	45	192	04	10	184	8
187	186	192	191	196	193	192	192	192	189	18	25	196	03	00	180	16
189	187	189	189	192	194	194	194	194	190	18	25	197	04	00	187	10
174	176	181	188	193	197	193	195	195	187	03	38	211	09	00	163	48
189	189	194	194	194	194	194	194	194	189	07	17	200	10	30	176	24
189	192	189	194	191	192	190	188	190	189	07	30	198	10	00	176	22
189	190	191	190	189	190	189	193	194	190	06	00	200	09	00	183	17
189	189	189	189	189	189	189	189	190	188	07	00	194	09	15	177	17
193	189	194	194	195	195	195	190	191	195	06	08	229	11	00	183	46
188	189	189	187	190	189	189	191	190	187	21	45	195	08	50	177	18
189	189	181	184	195	190	188	189	194	188	19	23	203	13	18	178	25
187	183	189	189	199	189	183	188	187	188	19	15	200	08	55	176	24
184	189	191	194	189	194	189	190	187	188	20	30	201	13	00	183	18
189	187	188	189	194	195	189	189	188	187	20	00	195	09	30	173	22
189	188	189	189	190	189	186	191	191	191	07	15	204	20	45	185	19
189	185	188	189	188	190	191	190	190	185	21	00	191	07	30	177	14
179	185	185	173	177	177	179	196	190	183	22	20	208	09	45	167	41
186	200	186	188	192	191	190	181	190	188	14	55	202	10	00	178	24
185	202	186	192	198	180	185	192	191	190	16	10	204	12	45	182	22
189	192	185	189	187	181	193	192	192	188	17	30	205	10	15	169	36
189	189	203	193	194	192	192	193	194	190	16	55	204	07	15	177	27
189	192	193	193	194	193	192	190	190	191	04	00	204	08	45	178	26
192	190	190	194	193	195	193	193	192	187	20	00	195	07	00	170	25
190	189	189	192	192	192	193	192	192	186	21	00	195	09	00	164	29
191	191	191	191	191	193	189	191	191	187	07	00	194	09	30	161	33
170	187	192	192	193	195	194	192	193	184	20	15	198	14	15	157	41
186	187	191	191	191	190	191	196	192	186	21	45	198	06	00	174	24
190	188	190	191	191	192	193	191	188	187	21	00	198	06	45	176	17
185	187	189	187	187	186	187	189	191	187	23	00	192	09	00	169	23
186	187	186	187	187	186	187	186	186	181	00	00	190	09	00	161	29
179	185	188	188	188	189	190	188	188	178	21	00	190	09	00	148	42
187	188	189	190	191	190	190	191	191	187						25	Mean
189	190	190	191	191	192	191	191	192								Mean†
186	194	187	185	186	184	187	190	191								Mean††

† Five International quiet days.
 †† Five International disturbed days
 Δ Loss of record, day omitted for means

TABLE 23
PRINCIPAL MAGNETIC STORMS
July-December, 1962

Observatory	Greenwich Date 1962	Storm time			Sudden Commencement			C-figure Degree of Ac- tivity (iv)	Max activity on K-scale 0 to 9			Ranges			
		G M T of begin- ning		G M T of ending (i)	Type (ii)	Amplitude (iii)			Green- wich Day	Green- wich index 3 hr period	K- index	D	H	Z	
		hr	mt	d	hr		D								H	Z
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
		hr	mt	d	hr		γ	γ							
	July, 24	17	30	27	18	.		m	26			4	215	69	
	August, 21	22	23	24	17			m	22			3	131	47	
	August, 30	13	45	Sep 4	19			m	3rd Sept			5	145	69	
Astrophysical Observa- tory, Kodaikanal	September 11	19	31	13	19			ms	12			6	280	86	
	September 19	04	02	20	13			m	19			4	167	63	
	September 25	20	12	26	21			m	26			4	108	48	
	October 1	03	28	2	18			m	1			3	176	52	
	October 7	20	24	11	20	S C	<1	22	12	m	8	4	163	52	
	October 22	03	38	24	22	S C	<1	11	6	m	24	4	145	35	
	October 25	02	31	27	16			m	26			4	149	40	
	November 15	05	30	17	03			m	15			5	204	58	
	November 21	03	15	23	23			m	22			4	176	35	
	December 4	03	33	5	15	S C	1	60	17	m	4	5	198	46	
	December 17	03	40	21	19			m	19			4	131	35	

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

- (i) Approximate time of ending of storm construed as the time of cessation of reasonably marked disturbance movements in the trace
- (ii) S C—Sudden Commencement, ()—Gradual Commencement
- (iii) Signs of Amplitudes of 'D' and 'Z' taken Algebraically, (D=reckoned negative being westerly)
(Z=reckoned positive being vertically downward)
- (iv) Storms described by three degrees of activity (m)—for moderate (when range is less than 250r)
(ms)—for moderately severe (when range is between 251r and 400r)
(s)—for severe (when range is above 400r)

IONOSPHERIC DATA

Characteristic foF₂
Unit Mc
Month July 1962

TABLE 24
Ionospheric Data
75°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	4 3 _r	3 7 _r	F	F	F	F	5 1	7 0	8 1	7 2	7 1	7 2
2	F	F	C	C	C	C	C	C	7 1	8 5	8 1	8 0
3	C	C	C	C	C	C	C	C	C	C	C	C
4	4 7 _r	F	F	F	E	E	4 8	8 1	7 9	7 6	C	C
5	A	A	A	C	C	C	5 0	7 2	8 1	8 6	7 4	7 8
6	C	C	C	C	C	C	C	C	C	7 5	7 2	7 1
7	F	FS	F	F	E	E	5 0	7 4	9 4	C	C	C
8	C	F	F	A	E	E	4 8	7 2	7 6	7 2	7 0	7 2
9	FS	FS	F	F	F	F	5 0	7 4	8 4	8 2	6 8	7 0
10	5 3	F	3 2 _{ur}	F	F	F	4 6	7 0	7 6	6 9	6 4	6 6
11	3 2	S	S	S	S	S	4 6	6 6	8 0	8 0	7 1	7 1
12	5 2	4 5	3 8	3 0	2 9	2 6	5 3	7 6	8 4	8 0	7 2	7 6
13	2 8	2 3 _r	2 0 _r	F	A	E	5 0	6 6	7 2	7 0	7 0	7 0
14	2 5	2 5 _r	2 2	2 3 _r	1 7	E	4 5	7 0	8 0	7 8	7 1	7 8
15	2 4	2 0	2 0	2 0	E	1 4	5 2	7 2	7 6	8 4	8 0	7 6
16	4 1 _{us}	3 4 _r	3 0	2 8	2 8	1 7	4 9	6 8	8 1	7 7	6 8	7 1
17	2 6	1 7 _{ur}	F	F	A	E	4 6	6 8	7 5	7 7	6 8	6 4
18	E	E	E	E	E	E	4 7	7 3	7 5	C	C	6 3
19	5 3	F	F	F	F	2 3	4 6	6 6	7 4	7 9	6 8	7 4
20	F	F	F	F	F	2 0 _r	4 7	7 0	8 1	7 7	7 7	6 8
21	2 3 _r	A	A	A	A	E	4 5	6 0	7 4	C	6 9	6 6
22	F	F	F	F	1 7	E	4 6	C	7 2	8 0	7 0	6 5
23	F	F	A	A	A	A	5 0	6 7	7 6	7 4	C	5 9
24	5 4	4 0	2 9 _r	F	C	F	4 5	6 0	7 2	8 0	8 0	7 0
25	F	F	FS	FS	FS	E	4 5	6 8	8 0	8 3	7 8	8 0
26	6 6	6 0	4 3	3 5	3 3	A	4 4	6 4	7 2	C	6 8	6 3
27	3 8	2 9	F	F	E	2 3	4 9	6 5	7 5	8 1	8 9	8 8
28	6 9	F	4 1	2 9	2 5	E	4 5	6 5	7 0	C	6 8	6 4
29	4 0	3 0	2 5	A	1 8	E	4 4	6 6	8 0	8 2	7 8	6 8
30	4 3	3 1	2 4	2 5	1 7 _{pr}	E	4 4	6 8	7 2	C	6 4	6 5
31	F	F	F	F	E	E	4 4	6 1	6 5	6 2	6 3	6 4
Count	19	13	12	8	15	20	28	28	29	24	26	28
Median	4 1	3 0	2 7	2 6	1 7	E	4 6	6 8	7 6	7 8	7 0	7 0
Mean	4 2	3 3	2 9	2 7	2 3	2 0	4 7	6 9	7 7	7 7	7 2	7 1

Sweep 1 Mc to 25 Mc in 27 seconds

Characteristic foF₂
Unit Mc
Month July 1962

TABLE 24
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
7.2	7.1	7.1	8.0	7.9	8.4	9.3	10.7	6.8	4.6	F	F	1
7.8	7.6	7.1	7.6	7.9	8.1	9.1	9.5	6.1	4.5	C	C	2
C	7.6	C	7.6	7.9	8.1	9.7	8.2	5.9	5.6	5.8	5.4	3
7.9	8.8	9.1	9.0	10.3	11.7	8.0	6.0	4.9	4.7	3.2	F	4
8.0	8.8	9.1	8.8	8.5	8.6	8.8	10.8	7.4	5.4	4.4	C	5
8.0	C	A	A	9.0	9.0	9.0	8.6	7.4 _{rs}	9.7	3.2	3.5 _{us}	6
C	C	C	C	C	8.1	10.0	8.2	6.4	4.4	3.5	FS	7
7.5	7.2	7.6	7.8	8.0	8.8	9.8 _{rs}	9.2 _{us}	6.8	5.8	4.4	4.7 _{us}	8
7.0	7.3	7.6	8.2	8.8	9.5	8.8	7.8	7.1	6.0	6.0	FS	9
6.5	6.7	7.2	7.9	7.9	8.4	8.4	8.5	7.7	5.5	4.5	4.1	10
7.6	7.6	8.1	9.0	9.5	9.1	8.7	8.8	7.8	7.0	6.2	6.0	11
8.2	8.6	9.1	9.8	10.0	9.8	10.0	8.0	6.6	5.8	5.1	4.2	12
6.8	7.0	7.0	7.6	8.2	9.1	9.0	8.1	9.0	6.0	4.6	4.2 ₁	13
7.8	7.8 _{rs}	8.0 _{rs}	8.6	C	C	7.1	6.0	5.6	4.8	1.4	3.1	14
7.1	7.0	7.3	8.0	8.4	8.2	8.6	9.2	8.5	6.5	5.4 _{rs}	4.8	15
6.8	6.6	7.1	A	8.3	9.1	9.0	8.6	8.0	4.7	3.9	3.4	16
6.4	6.8	7.3	8.4	9.5	9.1	9.1	6.6	4.4	2.7	2.0	1.8	17
6.3	6.6	6.1	7.0	7.0	6.6	6.7	6.8	6.0	6.3	7.1	6.8	18
7.5	7.4	7.7	8.1	8.5	9.6	9.6	7.3	5.6	F	4.0	F	19
6.7	6.8	7.4	8.3	9.0	8.9	7.9	5.1	3.9	3.3	2.9	2.8	20
6.3	6.8	6.5	6.8	8.0	9.0	8.8	7.5	6.9	6.4	F	1.8 _{rs}	21
6.6	6.0	6.1	7.1	7.7	8.0	8.6	7.6	7.6 _{rs}	4.7	3.3	3.0	22
6.0	6.0	6.5	7.0	8.1	9.0	9.0	8.2	F	1	5.9	5.8	23
6.6	6.2	6.1	6.5	6.8	7.5	7.6	7.8	8.0	7.5	F	4.6	24
7.5	8.0	8.3	8.8	9.0	9.5	9.8	9.0	F	7.4 _{us}	6.8	6.4	25
7.1	7.9	8.6	9.8	10.6	8.8	7.8	8.6	8.0	8.0	6.4	5.4	26
8.3	8.3	9.0	9.7	9.8	9.4	9.0 _{rs}	8.2	1.5	F	F	F	27
6.3	6.3	6.8	6.6	7.1	7.2	7.8	8.2	6.8	6.1	5.7	4.6	28
6.5	6.7	6.4	6.8	6.9	7.0 _{rs}	8.0	7.6	7.0	6.5	5.6	5.4	29
7.1	7.7	7.3	7.7	7.7	7.7	8.4	8.6	7.6	5.7	F	F	30
6.3	6.0	5.8 _{rs}	6.4	6.9	7.1	7.7	7.2	6.9 _{rs}	5.6 _{rs}	F	F	31
29	29	28	28	29	30	31	31	28	28	21	21	Count
7.1	7.1	7.4	8.0	8.3	8.8	8.8	8.2	6.8	5.6	4.6	4.6	Median
7.1	7.2	7.1	8.0	8.4	8.6	8.7	8.1	6.8	5.5	4.8	4.5	Mean

Sweep 1 Mc to 25 Mc in 27 seconds

Characteristic foF₂
Unit Mc
Month July 1962

TABLE 24—contd.
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	3 8	3 5r	3 3i	f	F	3 5	6 4	7 5	7 8	7 1	7 1	7 2
2	F	C	C	C	C	C	C	8 0	8 4	7 8	8 6	8 2
3	C	C	C	C	C	C	C	C	C	C	C	C
4	F	F	F	F	L	3 0	6 5	8 0	7 9	7 5	C	C
5	A	A	C	R	C	3 2	6 4	7 5	8 6	7 8	7 6	7 7
6	C	C	C	C	C	C	C	C	8 2	7 1	7 2	7 9
7	F	F	f	A	E	3 2	6 5	8 7	9 1	C	C	C
8	F	F	F	E	L	3 2ur	6 2	7 4	7 4	7 2	7 0	7 5
9	FS	FS	F	F	F	3 3ur	6 4	8 3	8 2	C	6 6	7 4
10	4 7	F	F	F	F	3 1i	5 9	7 6	7 5	6 6	6 4	6 4
11	2 7	S	S	S	S	2 9	5 8	7 4	8 0	7 6	7 2	7 1
12	4 8	4 2	3 2	3 0	2 8	3 6	6 6	8 2	8 0	7 8	7 4	7 8
13	2 4i	2 0i	f	F	E	2 9	6 3	6 8	7 4	6 8	6 9	6 9
14	2 5	2 3	2 0	2 1jF	1 4	2 9	5 8	8 0	7 8	7 2	7 4	8 0
15	2 2	2 0	R	E	1 8	3 4	6 4	7 2	8 2	8 4	7 6	7 6
16	3 6	3 1	2 8	2 8	2 1	3 2	5 9	7 6	7 9	7 5	6 8	7 0
17	2 1ur	F	1 7ur	1 8ur	E	3 0	5 9	7 4	7 7	7 3	6 6	6 2
18	E	E	E	E	E	2 9	6 2	7 4	7 8	C	C	6 3
19	4 7	f	f	f	F	3 3	5 7	7 1	C	7 4	7 2	7 6
20	F	F	f	F	F	3 2	6 1	7 7	8 4	7 6	7 0	6 8
21	1 9F	A	1 6i	A	L	2 8	5 6	7 0	7 8	7 5	6 4	6 6
22	F	f	f	f	E	2 8	5 5	C	8 0	8 0H	6 9	6 7
23	F	f	A	A	A	2 9	5 8	7 0	7 8	7 0	5 8	6 0
24	5 2ur	3 2r	2 7i	f	A	3 1F	5 2	6 4	7 6	8 0	7 7	6 7
25	F	FS	FS	FS	F	f	5 5	7 7	8 0	7 8	8 0	7 5
26	6 8	4 9	4 0	3 3	F	3 4r	5 7	7 0	7 2	7 0	6 4	6 6
27	3 5F	2 6	F	f	2 1	3 3	6 0	7 1	7 8	8 3	9 0	8 6
28	FS	4 7	3 3	2 8	1 7R	2 9	5 8	6 8	7 0	6 6	6 5	6 4
29	3 6	2 9	3 3	2 0	E	2 8	5 6	7 4	8 3	8 3	7 3	6 7
30	3 7	2 7	2 5	2 2	E	2 6	5 7	7 2	7 1	6 7	6 4	6 7
31	F	F	1	E	E	2 6	5 7	6 6	C	6 3	6 1	6 0
Count	17	13	12	12	17	27	28	28	28	27	27	28
Median	3 6	2 9	2 8	2 0	F	3 1	5 9	7 4	7 8	7 5	7 0	7 0
Mean	3 6	3 2	2 8	2 5	2 0	3 1	6 0	7 4	7 9	7 4	7 1	7 1

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic foF₂ Unit Mc Month July, 1962
 TABLE 24—cont'd Ionospheric Data 75°E Meridian
 Latitude 10 2° N Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
7.1	7.1	7.7	8.2	7.9	9.1	9.9	7.6	5.6	3.9h	9.9i	1	1
7.1	7.5	7.1	7.8	7.8	9.0	9.7	7.2	5.3	C	C	C	2
C	7.7	C	7.6	7.8	9.1	9.7	6.9	5.6	5.7	C	5.2i	3
8.5	8.9	8.8	9.5	11.2	9.5	7.0	5.3	1.7	1.0	2.6	F	4
8.3	8.8	8.8	8.8	8.1	8.6	10.0	9.2i	6.6	1.5	1	C	5
8.0	8.2	C	8.9	8.8	9.0	9.0	7.1i	5.0	3.2	3.4	3.6	6
C	C	C	C	C	8.9i	9.8	7.0	5.6i	3.4i	3.6	1	7
7.5	7.4	7.9	7.8	8.3	9.6i	10.0i	8.0	6.3	5.0	1.4	1.5	8
7.0	7.1	7.9	8.6	8.7	9.2	8.0	7.2	6.1	6.0	5.7	5.9	9
6.4	7.2	7.6	7.8	8.0	8.3	8.1	7.8	6.9	1.9	1.4	3.5	10
7.6	8.0	A	9.6	9.6	9.0	8.6	8.1	7.1	6.6	6.2	5.8	11
8.4	8.7	9.6	9.6	9.6	10.4	9.2	7.1	6.1	5.4	1.8	3.4	12
6.8	7.1	7.2	7.8	8.8	9.2	9.0	8.7	7.2	1.8	1.2	3.4i	13
7.6	7.6	8.2	9.8	C	7.9	6.6	6.2	5.1	1.3	1.3	3.0	14
7.0	7.2	7.4	8.1	8.1	8.6	8.5	8.8	7.6	5.8	5.1i	4.7	15
6.6	6.8	7.5	A	8.7	9.1	9.1	8.5	6.1	4.2	3.6	2.9	16
6.7	6.8	7.8	8.8	9.4	9.7	7.5	5.6	3.2	2.2	1.7	1.8	17
6.5	6.4	6.7	7.2	6.6	6.8	6.8	6.5	5.8	6.9	6.9	5.5	18
7.6	7.1	7.9	8.3	9.2	9.6	8.7	6.5	5.1i	F	F	F	19
6.8	7.0	8.0	8.5	9.0	8.4	6.4	4.1	3.7	3.1	2.8	2.5i	20
6.6	6.6	6.6	7.1	8.7	9.2i	8.0	7.2	6.4	F	F	4.3i	21
C	6.0	6.7	7.5	8.0	8.3	8.1	7.3i	6.7i	3.7	3.2	F	22
6.0	6.3	7.0	7.8	8.9	9.1	8.7	7.7	1	6.0	5.8	5.7	23
6.1	6.1	5.9	6.7	7.3	7.6	7.1	8.0	7.8	1	4.9	4.2	24
7.6	8.3	8.6	9.0	9.0	10.3	9.7	8.6	7.5i	7.2i	6.6	6.8	25
7.3	8.1	8.8	10.0	9.1	8.2	8.2	8.6	8.4	7.0	6.2	4.6	26
8.3	8.6	9.4	9.8	9.4	9.5	8.7i	7.0i	F	1	F	F	27
6.0	6.8	6.7	7.0	7.1	7.5	8.5	7.8	6.5	6.0	1.7	4.4	28
6.1	6.3	6.4	6.7	6.8	7.1i	8.1	7.3	6.6	6.2	5.3	4.8	29
7.4	7.3	7.6	7.8	7.6	8.3	8.5	7.9i	6.8	5.1i	F	F	30
6.3	5.7	6.1	6.6	6.8	7.1	7.6i	6.5	6.0	1.5	1	F	31
28	30	27	29	29	31	31	31	29	26	23	20	Count
7.0	7.1	7.6	8.2	8.7	9.0	8.5	7.1	6.1	5.0	1.4	4.4	Median
7.1	7.3	7.6	8.3	8.5	8.8	8.5	7.1	6.2	5.0	4.5	4.3	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic foF₁
Unit Mc
Month July, 1962

TABLE 25
Ionospheric Data
75° E Meridian 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	4.6	4.6
2								L	L	L	4.6	4.6
3								C	C	C	C	C
4								L	L	L	4.4	4.6
5								L	L	L	4.5	4.6
6								C	C	L	4.6	4.9
7								L	L	C	C	C
8								L	L	L	4.7	4.6
9								L	L	L ^{tr}	4.5	4.6
10								L	L	L	4.5	4.6
11							L	L	L	L	4.7	4.7
12							L	L	L	L	4.5	4.6
13							L	L	L	L	4.5	4.5
14							L	L	L	L	4.6	4.6
15							L	L	L	L	4.6	5.0
16								L	L	L	4.7	4.6
17								L	L	L	4.6	4.6
18								L	L	C	C	4.6
19								L	L	L	4.5	4.6
20								L	L	L	4.5	4.6
21							L	L	L	C	4.5	4.5
22							L	C	L	L	4.5	4.5
23							L	L	L	L	4.4	4.5
24							L	L	L	L	4.5	4.5
25							L	L	L	L	4.5	5.0
26							L	L	L	C	4.5	4.6
27							L	L	L	L	4.5	4.5
28							L	L	L	C	4.5	4.5
29							L	L	L	L	4.5	4.5
30							L	L	L	C	4.4	4.5
31							L	L	L	L	4.4	4.4
Count									6	15	22	27
Median									4.4	4.5	4.5	4.6
Mean									4.4	4.5	4.5	4.6

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic f_{oF_1}
Unit Mc
Month July, 1962

TABLE 25
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
4.6	4.5	4.4r	L	L	L							1
L	A	L	4.5	L	L							2
C	L	C	L	L	A							3
4.5	4.6	4.5	L	L	L							4
4.7ul	4.6	4.5	4.5	L	L							5
4.8	C	A	A	L	L							6
C	C	C	C	C	L							7
4.6	4.7	4.4	L	L	L							8
4.6	4.6	4.6	A	L	L							9
4.5	4.6	4.5	4.4	L	L							10
4.9	4.6	4.8	A	A	A							11
4.7	4.6	4.5	4.4	L	L							12
4.8	4.6	4.9	4.5	4.5	L							13
4.6	4.8	4.6	A	C	C	L						14
4.6	4.1	4.7	4.3	4.3	L	L						15
4.6	L	L	A	L	A							16
4.7	4.6	4.6	4.3	L	L							17
4.6	4.5	4.6	4.3	L	L							18
4.6	4.6	4.5	L	L	L							19
4.8	4.6	4.6	L	L	L							20
4.5	4.5	L	L	L	L							21
4.5	4.5	4.5	4.4	L	L							22
4.5	4.6	4.5	L	L	L							23
4.5	4.5	4.4	L	L	L							24
5.0	5.0	A	L	A	A							25
4.7	4.6	4.4	4.3	4.5	L	L						26
L	4.6	LH	LH	L	L	L						27
4.5	4.4	4.4	L	L	L							28
4.5	4.5	4.3	4.2	L	L							29
4.5	4.4	L	L	A	L							30
4.5	4.4	4.3	4.3	L	L							31
27	26	22	12	3								Count
4.6	4.6	4.5	4.4	.	.							Median
4.6	4.6	4.5	4.4	.	.							Mean

Sweep 10 Mc to 25.0 Mc in 27 seconds

Characteristic foF₁
Unit Mc
Month July, 1962

TABLE 25—Contd
Ionospheric Data
75°E Mean Time

Latitude 10 2° N,
Longitude 77 5° E.

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							L	L	L	L	4 6	4 6
2							L	L	L	L	4 6	4 5
3							C	C	C	C	C	C
4							L	L	L	L	C	C
5							L	L	4 4	4 5	4 9	4 6
6							C	C	4 4	4 8	5 0	4 8
7							L	L	L	C	C	C
8							L	L	L	4 6	L	4 6
9							L	L	L	C	4 6	4 6
10							L	L	1 4	4 5	4 5	4 6
11						L	L	4 3	4 5	4 5	4 7	4 6
12						L	L	L	L	4 8	4 7	4 6
13						L	L	L	4 5	4 5	4 5	4 7
14						L	L	4 2	4 4	4 8	4 6	4 6
15						L	L	L	4 5	4 6	4 7	4 6
16								L	L	L	4 7	4 6
17							L	L	4 4	4 5	4 6	4 6
18							L	L	L	C	C	4 6
19							L	L	L	4 5	L	4 6
20							L	L	L	4 7	4 5	4 5
21						L	L	L	L	4 5	4 7	4 5
22						L	L	C	L	4 4	4 5	4 5
23						L	L	L	L	4 5	4 4	4 5
24						L	L	L	L	4 4	4 5	4 5
25						L	L	L	L	L	4 9	5 0
26							L	4 5	4 4	4 6	4 5	4 5
27							L	L	L	L	L	L
28							L	L	L	L	4 5	4 5
29							L	L	L	L	L	4 6
30							L	L	L	4 3	4 4	4 5
31							L	L	C	4 4	4 5	4 4
Count								3	9	19	23	27
Median									4 4	4 5	4 6	4 6
Mean									4 4	4 5	4 6	4 6

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic foF₁
Unit Mc.
Month July, 1962

TABLE 25—Cont'd
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
4 5	L	L	L	L	L							1
L	A	4 4	L	L	L							2
C	4 6	G	L	L	L							3
L	L	L	L	L	L							4
4 7	4 7	L	L	L	L							5
4 8	A	C	L	L	L							6
C	C	C	G	C	L							7
4 7 _L	4 5	L	L	L	L							8
4 8 _{UL}	4 6	A	L	L	L							9
4 7	4 6	4 4	L	L	L							10
4 6	4 5	A	A	A	L							11
4 6	4 6	4 6	4 3	L	L							12
4 7	4 6	4 9	4 5	4 3	L							13
4 7	4 8	A	4 5	C	L							14
4 7	4 8	4 5	4 3	L	L							15
4 7	4 6	L	A	L	L							16
4 6	4 6	4 5	L	L	L							17
4 5	4 5	4 4	4 3	L	L							18
4 6	4 7	4 5	L	L	L							19
4 5	4 6	4 6	L	L	L							20
4 5	4 4	L	L	A	L							21
C	4 5	4 4	L	A	L							22
4 5	4 5	L	L	L	L							23
4 5	4 6	L	L	L	L							24
5 0	5 0	A	L	A	A							25
4 7	4 7	4 6	4 6	L	L							26
L	4 5	L	L	L	L							27
4 4	L	4 3	L	L	L							28
4 5	4 4	L	L	L	L							29
4 5	4 5	L	A	A	A							30
4 5	4 4	4 2	L	LH								31
2 5	25	13	6	1								Count
4 6	4 6	4 5	4 4									Median
4 6	4 6	4 5	4 4									Mean

Sweep 1.0 Mc to 25.0 Mc, in 27.seconds

Characteristic foE
Unit Mc.
Month: July, 1962

TABLE 26
Ionospheric Data
75° 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							2.1	A	A	A	A	A
2							A	A	A	A	A	A
3							C	C	C	C	C	C
4							1.8	2.6	A	A	A	A
5							A	A	A	A	A	A
6								C	C	A	A	A
7							1.8H	A	A	C	C	C
8							1.8	A	A	A	A	A
9							1.7(UA)	A	A	A	A	A
10							3.0	A	A	A	A	A
11							1.5	2.5	A	A	A	A
12							1.6	2.5	A	A	A	A
13							A	A	A	A	A	A
14							1.7	A	A	A	A	A
15							1.8	2.6	A	A	A	A
16							1.8	A	A	A	A	A
17							A	A	A	A	A	A
18							A	A	A	C	C	A
19							A	A	A	A	A	A
20							A	A	A	A	A	A
21							1.6	A	A	C	A	A
22							R	C	A	A	A	A
23							R	A	A	A	C	A
24							R	2.6	A	A	A	A
25							R	A	A	A	A	A
26								A	A	A	A	A
27							R	2.5	2.9	A	A	A
28							R	A	A	C	A	A
29							A	A	A	A	A	A
30							1.7H	A	A	C	A	A
31							R	A	A	A	A	A
Count							13	6	1	.		
Median							1.8	2.6	.	.	.	.
Mean							1.8	2.6	.	.	.	.

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic foE
Unit Mc
Month July, 1962

TABLE 26
Ionospheric Data
75°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	A	A	3.4	3.1	2.5	C						1
A	A	A	A	A	A							2
C	A	C	A	A	A							3
A	A	3.4	3.3	3.1	2.4	2.0						4
A	A	A	A	A	A							5
A	C	A	A	A	2.5							6
G	C	C	C	C	R							7
A	A	A	A	A	A							8
A	A	A	A	A	A							9
A	A	A	A	A	A							10
A	A	A	A	A								11
A	A	3.5	A	A								12
A	A	A	A	A								13
A	A	A	A	C								14
A	A	A	A	A	2.4							15
A	A	A	A	A	A							16
A	A	A	A	A	A							17
A	A	A	A	A	A							18
A	A	A	A	A	A							19
A	A	A	3.3	2.9	2.6							20
A	A	A	A	A	A							21
A	A	A	A	2.9	A							22
A	A	A	3.8	R	A							23
A	A	A	A	A	A							24
A	A	A	A	A	A							25
A	A	A	A	A	A							26
A	A	A	A	A	A							27
A	A	A	A	A	2.6							28
A	A	A	A	A	A							29
A	A	A	A	A	A							30
A	A	A	A	A	A							31
..		2	4	4	6	1						Count
.					2.5							Median
.	.	.	..	.	2.5							Mean

Sweep 10 Mc. to 25.0 Mc. in 27 seconds

Characteristic foE
 Unit Mc
 Month July, 1962

TABLE 26—Cont'd
 Ionospheric Data
 75°E Mean Time

Latitude 10°2' N
 Longitude 77°5' E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							2.4	A	A	A	A	A
2							A	A	A	A	A	A
3							C	C	C	C	C	C
4							2.2	A	A	A	A	A
5							A	A	A	A	A	A
6							C	C	A	A	A	A
7							2.1	2.8	A	C	A	C
8							2.2 ^{ur}	A	A	A	A	A
9							1.9	A	A	C	A	A
10							A	A	A	A	A	A
11							2.3	A	A	A	A	A
12							2.1	2.8	A	A	A	A
13							A	A	A	A	A	A
14							A	A	A	A	A	A
15							2.2	A	A	A	A	A
16							A	A	A	A	A	A
17							A	A	A	A	A	A
18							A	A	A	C	A	A
19							A	A	C	A	A	A
20							A	A	A	A	A	A
21							A	A	A	A	A	A
22							2.1	C	A	A	A	A
23							2.2	A	A	A	A	A
24							2.3	2.8	A	A	A	A
25							A	A	A	A	A	A
26							A	A	A	A	A	A
27							2.1	2.7	3.1	A	A	A
28							A	A	A	A	A	A
29							A	A	A	A	A	A
30							2.4 ^{re}	A	A	A	A	A
31							A	A	C	A	A	A
Count							13	4	1	.	.	..
Median							2.2		..	.	.	..
Mean							2.2	..	..	..	..	..

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds.

Characteristic foE
Unit Mc
Month July, 1962

TABLE 26—*Contd*
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
A	A	3 5	3 2	2 5 _{UR}	2 0							1
A	A	A	A	A	A							2
C	A	C	A	A	2 3							3
A	3 5	3 3	3 2	2 7	2 2							4
A	A	A	A	A	A							5
A	A	A	A	A	A							6
C	C	C	C	C	2 2 _{UR}							7
A	A	A	A	2 6 _{UA}	A							8
A	A	A	A	A	A							9
A	A	A	2 9	A	A							10
A	A	A	A	A								11
A	A	A	A	A								12
A	A	A	3 1	A								13
A	A	A	A	C								14
A	A	A	A	2 6	2 0							15
A	A	A	A	A	A							16
A	A	A	A	A	2 1							17
A	A	A	A	A	A							18
A	A	A	2 7	A	A							19
A	A	A	3 2	2 8	2 1							20
A	A	A	A	A	A							21
A	A	A	A	A	A							22
A	A	3 5	R	2 5								23
A	A	A	A	A	A							24
A	A	A	A	A	A							25
A	A	3 6	A	A								26
A	A	A	A	A	A							27
A	A	A	A	A	A							28
A	A	A	A	A	2 3							29
A	A	A	A	A	A							30
A	A	A	A	A								31
	1	4	6	6	8							Count
			3 2	2 6	2 2							Median
			3 0	2 6	2 2							Mean

Sweep 1.0 Mc to 25.0 Mc. in 27 seconds.

Characteristic foEs
Unit Mc
Month: July, 1962

TABLE 27
Ionospheric Data
75°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							G	8 2	10 2	10 8	11 6	11 7
2								8 6	10 4	11 6	11 8	9 8
3								C	C	C	C	C
4							G	6 0	9 2	11 0	C	C
5	3 6	4 8	1 9				2 5	7 0	9 2	11 0	12 0	12 0
6								C	C	9 5	12 0	12 0
7	3 0	5 0	4 1	2 0			2 8	6 2	9 0	C	C	C
8	C			2 8			3 0	8 4	10 0	11 4	12 0	12 0
9		2 0	3 0	2 8			5 0	10 6	10 8	11 4	12 7	13 0
10			2 4 0	3 4 _{us}			4 8	8 8	10 2	11 6	11 6	12 6
11		2 6		2 9			2 4	8 0	9 0	9 8	10 0	9 8
12							2 2	3 0	9 8	12 4	11 4	9 8
13	2 1	2 9	3 4	4 2	5 5		5 0	8 8	11 0	12 4	12 4	11 8
14		3 9	8 8	5 0	5 0		5 0	9 0	10 4	11 0	12 8	12 4
15		2 3	3 0				5 0	6 8	9 2	12 6	12 6	12 0
16			2 7				11 0	7 6	11 4	11 3	11 5	12 0
17		18 4	2 6	2 2	7 0		8 0	9 0	9 7	11 7	12 0	12 4
18							4 0	7 6	9 6	C	C	11 8
19				5 2			4 5	7 2	9 6	11 8	12 2	12 7
20	1 9	4 8	4 2		3 2	3 3	4 5	12 0	8 8	10 8	11 1	12 0
21		7 6 _{us}	12 0	8 0 _{us}	4 6		G	7 0 _{us}	12 8 _{us}	C	11 2	12 2
22		2 1		2 5 _{us}	3 4		G	C	9 0	12 2	12 4	12 2
23			10 6	11 4	3 8 _{us}	1 9	3 8 _{us}	8 2 _{us}	9 8	11 0	C	12 0
24				2 4	C		G	G	6 0	10 8	11 6	12 0
25				2 4	3 0		G	9 6	6 8	12 0	12 6	2 4 0
26	2 9	3 8		8 4	8 2	8 4	8 4	8 4	12 4	C	12 4	12 4
27	2 4	3 1	4 7	3 8 _{us}		6 0	G	6 4	8 0	7 2	10 0	10 0
28		4 0					G	C	9 6	C	12 0	11 6
29	5 2 _{us}	2 5	4 6	6 6 _{us}			4 8	8 1	8 8	12 0	12 0	12 0
30		5 2 _{us}					G	8 0	10 0	C	12 3	12 0
31	3 1	2 5 _{us}	2 3				G	8 8	10 4	12 2	12 0	12 4
Count	8	17	15	17	9	4	28	27	29	24	26	28
Median	3 0	3 8	4 1	3 4	4 6		2 9	8 1	9 7	11 4	12 0	12 0
Mean	3 0	4 6	6 1	4 4	4 9		4 8	7 7	9 7	11 2	11 9	12 2

Sweep 1 0 Mc to 25 0 Mc in 27 seconds.

Characteristic foEs
Unit Mc
Month July, 1962

TABLE 27
Ionospheric Data
75°E Mean Time

Latitude: 10 2° N
Longitude 77 5° E.

12	13	14	15	16	17	18	19	20	21	22	23	Date
11 6	9 8	9 8	G	G	G		4 4	5 0				1
11 6	18 0	12 0	11 4	8 6	5 8	6 8	7 0					2
C	10 2	C	14 0	12 2	12 0	6 0						3
6 0	8 8	5 0	4 2	G	G	G				4 0		4
11 1	11 4	7 2	6 6	7 3	7 2							5
11 0	C	23 0	22 0	9 2	4 4						2 4	6
C	C	C	C	C	G					5 2	7 0	7
12 0	10 4	9 3	10 0	7 6	13 0	6 0	4 0 _{us}					8
12 0	11 6	21 0	23 0	12 0	8 6	5 6	2 8					9
11 6	12 0	11 7	8 8	8 7	6 6						2 9	10
12 0	9 8	10 0	23 0	23 0	21 0	12 0	10 2	9 0				11
9 8	9 8	5 6	9 0	7 8	6 0	9 0	7 0			3 2	4 0	12
12 8	12 8	11 8	8 0	8 6	3 6	2 0						13
11 8	12 8	16 0	24 0	C	C				6 6	5 0		14
12 0	11 6	12 4	12 4	7 6	5 8						3 2	15
11 8	11 7	18 2	21 0	17 0	17 0	9 8	5 0		5 2		9 7	16
13 0	12 6	9 6	9 8	8 2	6 0	3 1						17
12 0	12 0	12 7	9 8	8 6	6 8	2 1	3 7	3 7			2 2	18
11 2	13 2	14 0	11 2	9 7	7 8	8 7	7 4	7 4		3 2	2 1	19
12 4	13 8	11 0	9 4	G	G	7 4	8 6	5 6	1 7		2 6	20
12 6	11 2	12 3	11 2	7 6	8 4					3 2		21
11 2	12 2	11 8	12 3	6 4	8 2							22
11 6	11 6	9 4	G	G	3 6	3 6					4 0 _{us}	23
12 0	12 0	12 0	10 6	6 4	4 2	3 2	4 4			2 8		24
12 0 _{us}	12 4 _{us}	23 0	18 4 _{us}	12 2	10 5	7 8 _{us}	2 5		2 8	4 2 _{us}		25
10 0	11 0	7 6	7 0	3 2	8 2							26
9 2	10 8	11 2	10 2	8 8	6 8							27
12 2	11 6	11 4	12 0	9 1	G	S					2 1	28
12 4	12 0	12 2	10 0	10 0	6 8						2 2	29
11 4	12 0	9 4	19 6	8 8	7 8	3 9						30
12 0	12 6	12 2	10 6	9 6	9 0	2 1						31
29	29	29	30	29	30	18	12	5	4	8	12	Count
11 8	11 7	11 8	10 6	8 6	6 8	5 8	4 7	5 6	..	3 6	2 8	Median
11 5	11 8	12 2	12 8	9 5	8 2	5 8	5 6	6 1	..	3 8	3 2	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds

Characteristic foEs
Unit: Mc
Month July, 1962

TABLE 27—Contd.
Ionospheric Data
75°E Mean Time

Latitude 10° 2' N.
Longitude 77° 5' E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							5 8	8 6	9 4	12 0	11 8	12 2
2								9 2	11 0	12 0	10 6	12 0
3	C	C	C	C	C	C	C	C	C	C	C	C
4				2 4			5 0	7 0	9 2	12 0	C	C
5	3 0	4 4	C		C		5 6	7 8	11 4	12 0	12 0	11 4
6							C	C	16 0	11 0	12 0	12 0
7	6 4	3 4		3 0			3 0	G	10 0	C	C	C
8							G	9 0	11 0	11 8	12 0	13 0
9	2 2	3 4	3 4	2 0			2 7	9 0	12 0	C	12 6	12 5
10							8 6	9 6	10 8	12 0	11 0	12 7
11	2 8	4 2		9 0			5 0	8 0	9 8	9 8	9 8	10 0
12							4 8	8 8	9 6	12 4	12 4	12 4
13	2 3	2 5	7 0	5 4			8 4	8 6	12 4	12 6	11 6	12 4
14	3 4	7 0	5 3	3 5			7 0	10 8	11 0	11 2	12 4	12 4
15	4 6	3 6					5 0	6 0	10 4	12 4	12 0	13 0
16			4 2				8 2	9 2	11 0	12 0	12 0	11 8
17	3 4	3 1	3 2	2 1			6 4	8 4	10 6	12 0	11 6	12 0
18					3 8		6 8	9 6	11 4	C	C	13 6
19	2 7		2 0	3 5		2 0	6 6	8 6	C	11 5	12 8	12 7
20	4 6 _{us}	3	3 3		3 6	2 0	9 6	7 5	9 4	11 5	10 0	12 0
21		7 8	8 0 _{us}	9 8			8 0 _{us}	18 0	11 0 _{us}	12 2	11 2	11 0
22				5 1 _{us}			G	C	10 4	12 0	12 5	12 0
23		6 4	9 8	8 2	2 1	1 9	7 0 _{us}	9 6	11 2	12 0	12 0	11 2
24					3 8		G	G	8 8	11 2	12 0	12 0
25					5 0 _{us}		9 9	6 5	10 8	12 0	11 8	12 0 _{us}
26	7 0	3 2	2 3		8 4	8 4	8 8	8 8	9 4	12 4	12 4	12 4
27		3 5	3 0		6 0		G	G	8 6	9 6	10 6	11 1
28							8 6	9 6	10 0	12 1	12 4	12 2
29		3 9	12 0				7 0	8 6	9 8	11 9	11 4	12 3
30		3					6 0	8 8	9 8	12 0	12 4	12 0
31	2 8						6 2	8 6	C	11 8	12 0	12 2
Count	12	13	12	11	7	4	28	28	28	27	27	28
Median	3 2	3 6	3 8	3 5	3 8		6 3	8 6	10 5	12 0	12 0	12 1
Mean	3 8	4 3	5 3	4 9	4 7		6 7	9 0	10 6	11 8	11 8	12 1

Sweep 1 0 Mc. to 25.0 Mc. in 27 seconds

Characteristic foEs
Unit: Mc
Month July, 1962

TABLE 27—(contd.)
Ionospheric Data
75°E Mean Time

Latitude 10 2° N.
Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
10 2	9 6	7 0	G	G	G							1
13 6	18 6	12 0	9 2	7 8	7 2	7 0	4 2		C	C	C	2
C	11 0	C	9 6	10 0	G	6 0			2 8			3
8 0	G	8 4	G	G	G						2 8	4
10 6	7 6	3 3	7 4	5 6								5
17 4	14 6	C	20 0	6 4	4 8				2 8	3 5	3 0	6
C	C	C	C	C	4 8				3 6	9 0	2 0	7
11 8	10 0	9 4	8 4	3 4	14 0	4 4	3 0					8
12 0	13 6	24 0	20 0	10 0	8 0	6 6						9
13 0	11 8	10 8	6 8	11 2	5 4							10
10 0	9 8	23 0	13 0	12 6	10 0	17 6	12 4	3 0				11
9 8	10 0	23 0	10 0	7 0	11 0	4 0				3 3	9 0	12
20 0	12 4	10 0	G	6 6	3 1							13
10 8	11 0	20 0	9 0	C					6 6		2 0	14
12 0	12 2	12 4	8 6	3 3	2 8					3 0	3 9	15
11 8	14 0	17 0	22 0	4 4	18 6	5 8	5 8	8 8	2 3	3 3	6 4	16
12 6	11 7	6 6	6 4	7 4	G							17
12 0	12 6	11 8	8 8	7 8	5 8	2 1	4r 6	3 2		1 9		18
12 2	11 8	10 6	8 7	9 0	5 8	7 7	9 2	5 4 _{US}	4 4 _{US}	5 0	1 8	19
12 2	12 0	9 2	G	G	G		6 4	2 7	6 6		6 6 _{US}	20
12 0	12 8	12 2	8 4	22 0	6 2				3 2	2 4		21
C	12 0	12 0	8 6	9 2	2 0						3 3 _{US}	22
11 6	10 8	7 0	G	G	3 3	5 2				2 1	3 2 _{US}	23
11 4	11 2	12 0	8 1	8 6	6 0 _{US}	4 6 _{US}	4 4					24
16 2 _{US}	12 4 _{US}	22 0	8 2	13 0	14 0 _{US}	6 8 _{US}			4 6 _{US}			25
12 8	12 4	3 8	6 0	8 4	8 4	2 7					2 8	26
8 9	11 4	11 3	9 2	8 6	6 0 _{US}						S	27
12 4	12 0	12 0	10 0	7 7	6 0	2 1					3 0	28
12 2	11 3	11 2	10 0	8 2	G	1 5					6 4	29
12 4	12 0	8 6	9 0	8 6	6 0					2 1		30
12 2	12 6	12 0	10 4	8 8								31
28	30	28	30	29	28	15	8	5	9	10	14	Count
12 0	11 9	11 6	8 6	7 8	5 8	5 2	5 2	3 2	3 6	3 2	3 1	Median
12 2	11 9	12 2	10 2	8 7	7 2	5 6	5 2	4 6	4 1	3 6	4 0	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds.

Characteristic fbEs
 Unit. Mc
 Month July, 1962

TABLE 28
 Ionospheric Data
 75°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							G	2.6	3.0	3.2	3.5	3.7
2								2.6	2.9	3.2	3.7	3.7
3								C	C	C	C	C
4							G	2.6	2.9	3.4	C	C
5	A	A	A				1.8	2.6	3.0	3.4	3.6	3.6
6								C	C	3.4	3.4	3.6
7		1.4						2.7	3.0	C	C	C
8				A			1.9	2.8	3.1	3.4	3.6	3.6
9		1.5	1.6	1.4			2.0	3.0	3.0	3.2	3.4	3.5
10				1.1				2.7	3.0	3.3	3.5	3.6
11							1.8	2.6	3.0	3.2	3.5	3.6
12							2.0	2.8	3.2	3.4	3.4	3.8
13	1.0	1.1	1.5	1.4	A		1.8	2.5	3.0	3.4	3.6	3.6
14		1.8	1.9	1.2	1.3		1.8	2.7	3.0	3.2	3.5	3.6
15		1.6	1.6				1.9	2.8	3.2	3.4	3.6	3.8
16			1.6					2.8	3.2	3.4	3.5	3.7
17		1.1	1.0	1.2	A		2.0	2.6	3.0	3.4	3.6	3.8
18							1.7	2.4	3.0	C	C	3.8
19				1.3			1.8	2.6	3.0	3.4	3.7	3.7
20	1.6	1.6	1.4		1.4	1.4	1.9	3.4	3.0	3.3	3.5	3.6
21		A	A	A	A		G	2.4	2.8	C	3.4	3.6
22					2.4		G	C	3.0	3.2	3.4	3.6
23			1.7	A	A	A	1.7	2.2	2.8	3.2	3.4	3.5
24				1.3	C		G	G	3.0	3.4	3.4	3.6
25							G	2.4	3.0	3.3	3.6	3.8
26	1.7	1.8		1.4	1.5	A	1.9	2.5	2.8	C	3.5	3.6
27	1.4		1.2			1.6	G	2.5	2.9	3.2	3.3	3.5
28		1.7					G	2.6	2.9	C	3.4	3.5
29	1.5		1.3	A			1.7	2.5	2.9	3.5	3.5	3.6
30							G	2.5	3.0	C	3.4	3.6
31	1.3						G	2.6	3.1	3.3	3.5	3.5
Count	7	11	12	12	8	4	25	28	29	24	27	28
Median	1.5	1.6	1.6	1.4	2.4	..	1.7	2.6	3.0	3.4	3.5	3.6
Mean	1.4	1.5	1.5	1.3	..	..	1.8	2.6	3.0	3.3	3.5	3.6

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic f_oE_s
Unit Mc.
Month July, 1962

TABLE 28
Ionospheric Data
75°E Mean Time

Latitude 10° 2' N.
Longitude 77° 5' E

12	13	14	15	16	17	18	19	20	21	22	23	Date
3.8	3.6	3.5	G	G	G	G	1.6					1
3.7	4.6	4.0	3.3	3.0	3.1	3.0	2.8					2
C	3.7	C	3.7	3.8	5.0	2.3						3
3.8	4.2	4.3	3.5	G	G	G						4
3.7	3.6	3.6	3.4	3.3	2.5							5
3.6	C	A	A	3.0							1.3	6
C	C	C	C	C	G					2.6	1.4	7
3.6	3.6	3.5	3.2	3.0	5.0	2.6	2.0					8
3.6	3.6	3.4	7.0	3.8	3.0	2.5						9
3.7	3.7	3.6	3.3	3.6	2.7						1.5	10
3.8	3.6	3.6	7.2	3.0	3.0	2.6	2.7	2.0				11
3.8	3.7	3.6	3.2	2.6	2.7	3.3	2.6			1.6	1.3	12
3.6	3.6	3.6	3.5	4.0	2.8	2.0						13
3.8	3.6	3.5	6.8	C	C				2.1	1.7		14
3.7	3.4	3.5	3.2	3.2	2.6						1.3	15
3.7	3.6	4.0	A	3.6	5.0	4.2	2.5		2.0		1.6	16
3.8	3.6	3.5	3.6	3.1	2.6	2.2						17
3.8	3.7	3.6	3.2	3.0	2.5	1.8	1.6	1.9				18
3.6	4.0	3.9	3.5	3.1	2.9	3.1	2.4	1.8		1.8	1.4	19
3.6	3.6	3.5		G	G	2.9	2.8	2.6			1.8	20
3.6	3.6	3.4	3.2	2.0	2.5					1.9		21
3.6	3.6	3.5	3.2	3.0	3.1							22
3.6	3.7	3.6	3.2	G	3.0	2.4					1.1	23
3.6	3.6	3.4	3.3	3.0	2.5	2.2	3.0			2.0		24
3.7	3.6	4.6	3.3	4.0	5.0	3.0	1.7		1.7	1.6		25
3.6	3.8	3.4	3.5	3.0	2.3							26
3.7	3.5	3.4	3.3	2.9	2.5							27
3.6	3.5	3.3	3.2	2.9		2.2						28
3.6	3.6	3.4	3.1	3.0	2.6							29
3.6	3.5	3.4	3.1	3.3	3.0	2.5						30
3.7	3.5	3.5	3.3	3.3	2.7	1.9						31
29	29	29	29	29	28	19	11	4	3	7	9	Count
3.7	3.6	3.5	3.3	3.0	2.7	2.5	2.5	..	.	1.8	4.4	Median
3.7	3.7	3.6	3.7	3.2	3.1	2.6	2.3	..	.	1.9	1.4	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds.

Characteristic f_oF₂
Unit Mc
Month July, 1962

TABLE 28—Cont'd
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E.

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							2 5	2 8	3 2	3 4	3 7	3 6
2								2 8	3 1	3 3	3 7	3 7
3								C	C	C	C	C
4				1 2			2 3	3 0	3 1	3 4	C	C
5	A	A	C	C	C		2 2	2 8	3 2	3 4	3 8	3 6
6								C	3 2	3 4	3 6	3 8
7	1 6			A				G	3 3	C	C	C
8							G	3 0	3 2	3 4	3 6	3 8
9	1 5	1 6	1 6	1 7			2 3	2 9	3 2	C	3 6	3 6
10							2 3	2 9	3 2	3 4	3 6	3 6
11	2 1			1 8			2 4	2 9	3 1	3 4	3 6	3 6
12							2 2	3 0	3 4	3 4	3 6	3 6
13	1 2	1 3	1 5	1 6			2 4	2 9	3 0	3 4	3 5	3 7
14	1 7	2 0	1 9	1 6			2 3	3 0	3 1	3 5	3 6	3 5
15	1 5	1 7					2 4	3 0	3 2	3 4	3 6	3 8
16			1 1				2 8	3 0	3 2	3 4	3 6	3 7
17	1 5	1 1	1 1	1 2			2 3	2 9	3 2	3 6	3 6	3 8
18							2 3	3 0	3 2	C	C	3 7
19	1 5		1 1	1 4		1 6	2 3	2 7	C	3 4	3 6	3 6
20	1 8	1 5	1 4			1 6	2 6	2 8	3 4	3 4	3 5	3 6
21		A	1 4	A			2 2	2 7	3 0	3 2	3 5	3 6
22				1 1			G	C	3 1	3 4	3 4	3 6
23		1 8	1 6	A		1 7	2 2	2 8	3 2	3 4	3 5	3 6
24					A		G	C	3 2	3 4	3 5	3 6
25					1 6		2 4	2 8	3 1	3 6	3 6	3 8
26	1 8	1 7	1 8		1 3	1 3	2 1	2 8	3 2	3 4	3 6	3 8
27			1 9		1 7		G	C	3 1	3 3	3 6	3 6
28							2 4	2 8	3 0	3 2	3 5	3 6
29			A				2 3	2 6	3 1	3 4	3 5	3 6
30							2 3	2 7	3 1	3 3	3 4	3 5
31	1 3						2 3	3 0	C	3 5	3 6	3 6
Count	12	10	12	11	5	4	27	28	28	27	27	28
Median	1 6	1 7	1 6	1 6	1 7	.	2 3	2 8	3 2	3 4	3 6	3 6
Mean	1 6	1 6	1 5	1 4	..	..	2 3	2 9	3 2	3 4	3 6	3 6

Sweep 1 0 Mc. to 25 0 Mc. in 27 seconds

Characteristic f_oF₂
Unit Mc
Month July, 1962

TABLE 28—Contd
Ionospheric Data
75°E Mean Time

Latitude 10°2' N
Longitude. 77°5' E.

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
3.6	3.5)	3.5	G	G	G							1
3.8	5.1)	3.5	3.3	2.9	3.5	2.9	2.6					2
C	3.8	C	3.6	3.1	G	2.5			3.0			3
4.2	G	3.8	G	G	G						A	4
4.0	3.8	3.2	3.2	4.1								5
3.8	5.4	C	3.4	2.8					2.5			6
C	C	C	C	C					2.0	2.4	1.5	7
3.6	3.5	3.4	3.2	2.8	5.8	2.2	1.8					8
3.6	3.7	5.0	3.2	3.1	3.0							9
3.8	3.7	3.4	3.1	4.4	2.5							10
3.6	3.7	A	3.4	2.8	2.7	2.3	3.0	2.1				11
3.8	3.8	3.8	3.4	3.2	3.6	2.7				1.7	E	12
3.7	3.4	3.8	G	3.6	2.5							13
3.6	3.7	4.8	3.9	C					2.0		1.3	14
3.8	3.5	3.4	3.2	2.8	2.2					1.6		15
3.7	4.0	5.2	A	2.9	2.9	3.0	2.5	2.8	1.8	1.6	1.8	16
3.7	3.5	3.4	3.2	2.8	G							17
3.7	3.6	3.4	3.2	2.7	2.1	1.6	2.1	1.6		1.5		18
3.8	3.8	3.7	3.2	3.0	2.6	2.4	2.1	1.9	2.1	1.6	1.5	19
3.7	3.6	3.4	G	G	G		2.4	2.6	1.9		1.8	20
3.6	3.5	3.4	2.1	5.0	2.2					1.9		21
C	3.6	3.4	3.0	4.0							1.8	22
3.7	3.6	3.2	G	G	2.2	2.0				1.5	1.4	23
3.6	3.6	3.2)	3.1	3.4	2.2	2.2	2.4					24
3.8	3.8	5.0)	3.2	4.6	4.8	3.1			2.0			25
4.0	3.8	3.4	3.2	2.6	2.1	2.2					1.5	26
3.7	3.4	3.3	3.2	2.8	2.1						1.8	27
3.6	3.5	3.2	3.2	2.6	2.1	2.1					1.6	28
3.6	3.6	3.3	3.1	2.8	G						2.8	29
3.5	3.5	3.4	3.5	3.3	2.7					2.0		30
3.6	3.5	3.4	3.1	2.7								31
28	30	28	30	29	25	13	8	5	8	9	13	Count
3.7	3.6	3.4	3.2	2.8	2.2	2.3	2.4	2.1	2.0	1.6	1.6	Median
3.7	3.7	3.7	3.2	3.2	2.8	2.4	2.5	2.2	2.1	1.8	1.7	Mean

Sweep 1.0 Mc to 25.0 Mc, in 27 seconds.

Characteristic: fmin
Unit: Mc
Month July, 1962

TABLE 29
Ionospheric Data
75°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	1.7	1.2	1.2	1.2	C	E	1.7	1.6	1.8	2.1	2.5	2.7
2	1.6	1.4	C	C	C	C	C	1.5	1.8	2.1	2.1	2.3
3	C	C	C	C	C	C	C	C	C	C	C	C
4	1.2	1.1	1.2	1.3	E	E	1.3	1.4	1.7	1.9	C	C
5	E	1.5	1.5	C	C	C	1.1	1.5	1.6	2.1	2.4	2.5
6	C	C	C	C	C	C	C	C	C	1.8	2.2	2.4
7	1.6	1.3	1.4	E	E	E	1.2	1.6	1.6	C	C	C
8	C	1.2	1.1	E	E	E	1.2	1.4	1.5	1.7	2.0	2.4
9	1.5	1.1	E	1.4	1.7	1.5	1.5	1.6	1.5	1.7	2.0	2.3
10	E	E	1.5	E	1.2	2.4	1.2	1.4	1.5	1.7	1.8	2.1
11	1.3	1.6	S	1.9	S	S	1.2	1.4	1.5	1.7	1.9	2.0
12	1.4	1.3	1.0	1.2	1.2	1.1	1.2	1.4	1.5	1.6	1.8	2.1
13	1.0	1.0	1.0	1.2	1.6	E	1.3	1.3	1.6	1.8	2.1	2.2
14	1.8	1.3	1.1	1.0	E	E	1.0	1.6	1.4	2.0	2.2	2.0
15	1.0	1.3	1.5	1.8	E	1.3	1.3	1.6	1.7	2.0	2.2	2.5
16	1.4	1.8	1.1	1.3	1.5	1.2	E	1.1	1.4	1.7	2.3	2.5
17	1.3	E	E	E	E	E	1.2	1.5	1.9	2.3	2.3	2.4
18	E	E	E	E	E	E	1.3	1.4	1.6	C	C	2.3
19	1.1	1.4	1.5	E	1.4	1.4	1.1	1.3	1.4	1.6	1.8	2.3
20	E	E	E	1.0	1.1	E	1.2	1.3	1.8	1.6	1.9	2.3
21	1.7	1.2	1.0	E	E	E	1.3	1.4	1.5	C	2.0	2.0
22	E	E	E	E	E	E	1.2	C	1.6	1.1	1.7	2.1
23	1.6	1.3	1.3	1.7	E	E	1.5	1.5	1.8	1.9	C	2.1
24	1.4	1.8	1.8	E	C	1.1	1.3	1.5	1.6	1.8	2.0	2.3
25	F	F	FS	E	1.2	E	1.3	1.5	1.8	1.9	2.0	2.2
26	1.4	1.5	1.3	1.0	E	A	1.1	1.3	1.6	C	2.0	2.3
27	1.3	1.2	E	1.3	E	1.6	1.4	1.6	1.8	2.1	2.1	2.4
28	1.4	1.5	1.5	1.6	1.5	E	1.4	1.4	1.5	C	2.0	2.3
29	E	1.1	1.2	1.2	1.3	E	1.3	1.3	1.5	1.9	2.0	2.4
30	1.4	1.6	1.4	E	E	E	1.2	1.2	1.5	C	1.9	2.3
31	E	1.5	E	F	E	E	1.6	1.6	1.6	1.8	2.2	2.5
Count	27	28	26	26	24	25	28	28	29	24	26	28
Median	1.3	1.3	1.2	1.0	E	E	1.2	1.4	1.6	1.8	2.0	2.3
Mean	1.4	1.4	1.3	1.3	1.4	1.4	1.3	1.4	1.6	1.8	2.1	2.3

Sweep 1.0 Mc to 25.0 Mc. in 27 seconds

Characteristic fmin
Unit Mc
Month July, 1962

TABLE 29
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

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

Sweep 1 0 Mc. to 25°0 Mc in 27 seconds

Characteristic f_{min}
Unit: Mc
Month July, 1962

TABLE 29—Contd
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	13	13	12	12	15	15	14	17	18	22	26	28
2	20	C	C	C	C	C	C	17	18	20	22	25
3	C	C	C	C	C	C	C	C	C	C	C	C
4	11	12	13	11	E	13	15	17	20	20	C	C
5	E	22	C	16	C	11	12	15	17	22	24	27
6	C	C	C	C	C	C	C	C	17	19	24	24
7	12	11	E	E	E	14	13	15	19	C	C	C
8	15	E	E	E	E	14	14	14	16	20	22	22
9	E	E	E	E	14	14	15	13	15	C	21	21
10	E	E	10	10	14	14	13	14	15	18	22	23
11	15	14s	S	10	S	12	12	15	17	17	21	22
12	11	11	E	10	10	14	10	15	17	17	21	20
13	10	10	10	13	E	14	10	15	16	18	23	21
14	16	12	10	10	11	14	11	15	17	21	22	22
15	10	14	E	E	12	12	13	17	18	22	25	24
16	18	16	11	13	11	12	13	13	16	19	23	25
17	15	E	E	12	E	14	13	18	22	23	26	26
18	E	E	E	E	E	11	14	16	18	C	C	22
19	14	13	10	E	14	10	11	13	C	18	22	23
20	E	E	E	13	13	11	13	13	17	18	23	26
21	17	11	11	16	E	15	13	14	16	18	20	24
22	E	E	E	E	E	12	12	C	17	17	20	21
23	15	11	12	E	E	15	16	16	19	19	20	24
24	16	17	16	14	E	13	14	17	17	19	20	24
25	F	FS	FS	FS	10	14	13	17	16	20	20	22
26	15	15	12	12	E	10	12	14	17	20	20	23
27	12	E	12	12	15	19	14	19	20	20	23	27
28	15	17	16	18	13	14	12	14	19	21	23	25
29	11	11	E	14	E	12	13	17	19	19	22	24
30	15	15	14	E	E	12	12	14	17	19	21	23
31	E	13	F	E	E	14	14	15	C	20	25	25
Count	28	27	24	27	26	28	28	28	28	27	27	28
Median	12	11	10	10	E	14	13	15	17	19	22	23
Mean	14	14	12	13	13	13	13	15	18	19	22	23

Sweep 10 Mc to 250 Mc in 27 seconds

Characteristic fmin
Unit Mc
Month July, 1962

TABLE 29Contd
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77.5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
2.7	2.6	2.5	2.5	2.2	1.8	1.7	1.5	1.8	2.3	2.2	2.0	1
2.6	2.4	2.2	2.2	1.7	1.6	1.5	1.9	2.2	C	C	C	2
C	2.5	C	2.1	2.2	2.6	1.6	2.2	2.0	1.6	C	1.1	3
2.6	2.7	2.6	2.5	2.2	1.8	1.7	1.5	1.6	C	1.7	1.5	4
2.8	2.5	2.3	2.0	1.7	2.6	2.0	2.0	1.5	2.0	2.4	C	5
2.4	2.4	C	2.2	1.7	2.2	1.6	1.5	1.6	1.6	1.5	1.4	6
C	C	C	C	C	1.9	2.2	1.7	1.8	1.4	1.4	1.2	7
2.2	2.4	2.4	2.2	1.7	1.3	1.3	1.5	1.5	1.7	1.3	1.5	8
2.2	2.4	2.1	2.0	1.9	1.4	2.4	1.9	1.6	1.7	1.6	E	9
2.4	2.1	2.0	2.2	1.7	1.4	1.7	1.6	1.6	1.7	1.5	1.5	10
2.1	2.1	2.1	2.0	1.4	1.3	1.4	1.1	1.3	2.0	1.5	1.1	11
2.5	2.0	1.7	1.7	1.5	1.5	1.3	2.2	1.6	1.5	1.6	E	12
2.1	2.1	2.3	2.9	2.0	2.0	1.8	1.5	1.1	1.2	1.3	1.5	13
2.5	2.3	2.0	1.8	C	2.2	2.1	2.1	1.8	1.0	1.3	1.2	14
2.5	2.4	2.3	2.2	1.7	1.6	1.7	1.9	1.6	1.6	1.5	1.3	15
2.5	2.4	2.0	1.8	2.0	1.6	2.3	1.7	1.6	1.3	1.6	1.4	16
2.6	2.3	2.3	2.8	1.7	1.7	1.6	1.4	1.3	1.9	1.4	1.2	17
2.4	2.1	1.9	1.9	1.6	1.3	1.1	E	1.5	1.4	1.1	1.1	18
2.3	2.2	2.4	2.3	1.8	1.3	2.2	1.6	1.3	E	1.2	1.3	19
2.5	2.1	2.3	2.7	2.0	1.6	1.6	1.3	1.1	1.9	1.8	1.6	20
2.4	2.3	2.0	1.8	1.4	1.3	1.6	1.7	1.5	1.4	1.6	1.1	21
C	2.4	2.1	2.6	2.0	E	1.9	1.6	1.3	1.3	1.3	1.6	22
2.4	2.3	2.0	2.4	2.1	1.7	1.7	1.5	1.4	1.7	1.0	E	23
2.4	2.3	2.0	1.9	1.7	1.3	1.6	1.5	1.7	1.8	1.8	1.2	24
2.2	2.3	2.0	1.9	1.8	1.7	1.4	1.7	1.6	1.3	1.7	1.5	25
2.3	2.4	2.0	1.6	1.5	1.5	1.6	1.6	1.8	1.6	1.6	1.3	26
2.3	2.4	2.1	2.2	1.8	1.4	1.4	1.4	1.3	1.4	1.4	1.4	27
2.3	2.4	2.0	2.2	1.8	1.8	1.6	1.2	1.4	1.2	1.5	E	28
2.6	2.3	1.9	1.8	1.6	1.8	1.2	1.5	1.5	1.4	1.5	1.2	29
2.3	2.4	1.9	2.2	2.0	1.6	2.2	1.7	1.5	1.6	1.8	1.6	30
2.4	2.3	2.2	2.2	1.7	2.2	1.5	1.5	1.5	1.6	1.4	1.2	31
28	30	28	30	29	31	31	31	31	29	29	29	Count
2.4	2.4	2.1	2.2	1.7	1.6	1.6	1.6	1.5	1.6	1.5	1.3	Median
2.4	2.4	2.1	2.2	1.6	1.7	1.7	1.6	1.5	1.6	1.5	1.4	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds

Characteristic h'F2
Unit Km.
Month July, 1962

TABLE 30
Ionospheric Data
75° 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	335	360	400	385	
2								L	310	305	380	340	
3								C	C	C	C	C	
4								280	300	L	C	C	
5								L	340L	320L	340	370	
6								C	C	350	380	410	
7								L	300	C	C	C	
8								L	L	L	400	380	
9								L	310	380	380	405	
10								L	L	340	L	420	
11							L	L	310	330	420	440	
12							L	L	290	340	420	400	
13							L	L	350	380	385	500	
14							L	L	300	360	410	440	
15							L	L	320	330	340	440	
16								L	L	380	400	395	
17								L	L	395	415	390	
18								L	320	C	C	445	
19								L	350	355	400	400	
20								275	300	L	435	400	
21							L	L	L	C	L	455	
22							L	C	L	370	390	430	
23							L	L	L	350	C	440	
24							L	L	300	360	380	385	
25							L	L	280	330	L	370	
26							L	L	310	C	445	430	
27								L	305	325	330	340	
28								L	340	C	415	410	
29								L	300	L	380	380	
30								L	L	C	380	440	
31								L	L	360	380	425	
Count								2	20	20	23	28	
Median								.	.	310	350	390	405
Mean								.	..	315	350	390	410

Sweep 10 Mc. to 25.0 Mc. in 27 seconds

Characteristic h'F2
Unit Km
Month July, 1962

TABLE 30
Ionospheric Data
75° E Meridian Time

Latitude 10 2° N
Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
380	400	385	380rr	L	L							1
400	400rr	I	400	340rr	I							2
C	400	C	380	L	320							3
360	360	L	L	320	260							4
380	360	370	330	I	L							5
420	C	A	A	320	L							6
C	C	C	C	C	I							7
400	400	360	400	L	L							8
380	400	360	A	L	L							9
400	430	400	340	I	I							10
100	415	380	A	A	A							11
120	400	360	390	L	L							12
140	480	390	350	330	L							13
420	390	405	A	C	C	I						14
460	350	465	310	310	L	I						15
390	L	400	A	335	A							16
440	400	380	335	310	300							17
160	430	485	390	L	L							18
340	425	380	370	L	L							19
425	440	375	325	300	260							20
430	410r	L	390	320L	I							21
440	450	435	380	L	I							22
140	455	400	340	315	I							23
435	440	440	L	L	I							24
380	360	A	L	A	A							25
130	440	345	360	310	J	L						26
365	370	360	340	305	I							27
420	390	380	L	L	I							28
400	420	380	370	L	I							29
390	350	I	L	A	L							30
460	440	480	400	L	L							31
29	28	23	20	12	4							Count
120	400	380	365	320								Median
410	405	400	360	320								Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic h'F2
Unit Km
Month July, 1962

TABLE 30—Cont'd
Ionospheric Data
75° E Mean Time

Latitude 10 2° N
Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							L	300	340	L	370	380
2								320	300	350	350	330
3							C	C	C	C	C	C
4							L	L	L	LH	C	C
5							L	L	340	340	360	370
6									360	380	370	440
7									310	C	C	C
8								L	L	360	L	400
9							L	280	360	C	420	400
10							L	310	340	365	410	400
11						L	L	300	335	350	480	370
12						L	L	L	L	370	410	400
13							L	L	350	400	420	480
14						L	L	300	320	380	420	430
15						L	L	L	320	370	410	480
16								L	L	L	420	380
17							L	L	350	410	410	435
18							L	L	L	C	C	490
19							L	L	C	L	L	350
20							L	280	315	400	375	360
21						L	L	300	360L	L	470	410
22							L	C	350L	370	410	470
23							L	L	320	420	430	440
24							L	L	325	350	390	420
25							L	290	L	L	380	360
26							L	310	315	420	540	425
27							L	L	305	340	350	360
28							L	L	340	L	380	410
29								300	305L	350r	380	410
30							L	300	360	360	390	405
31							L	L	C	420	420	400
Count								12	22	20	25	28
Median								300	340	370	410	400
Mean								300	335	375	405	405

Sweep 10 Mc to 250 Mc in 27 seconds

Characteristic h'F2
Unit Km
Month July, 1962

TABLE 30—Contd
Ionospheric Data
75° E Meridian Time

Latitude 10 2° N
Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
L	400	380	330	L	L							1
390 _{tr}	400	370	360	L	L							2
C	370	C	L	L	L							3
360	L	360	340	300								4
360	380	I	L	L								5
400	L	C	L	L								6
C	C	C	C	C	L							7
400 _L	360	380	L	L								8
420	380	A	340	L								9
430	415	365	I	I	L							10
420	405	A	A	A								11
385	360	360	320	I								12
480	410	390	340	310	L							13
360	390	365	340	C	I							14
460	400	400	390	L	I							15
425	480	380	A	330								16
420	385	350	320	300	255							17
445	430	L	360	L	L							18
360	465	370	L	300 _{tr}	L							19
L	400	350	305	280	L							20
465	L	400	360	A	L							21
C	430	410	L	A								22
430	420	390	340	300	L							23
420	500	L	L	320	I							24
375	350	A	L	A	A							25
420	370	345	340	L	L							26
380	360	350	320	L								27
390	410	360	L	L	L							28
405	395	I	L	L	I							29
370	365	L	350	A								30
425	500	410	380	L								31
26	27	20	17	8	1							Count
410	400	370	340	300								Median
410	405	375	340	305								Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h'F
Unit Km
Month July, 1962

TABLE 31
Ionospheric Data
75°E Merid. Time

Latitude 10 2' N
Longitude 77 5' E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	300	320	340	280	240	E	240	200 _{tr}	200 _{tr}	180 _{tr}	200	195
2	300	280	C	C	C	C	C	220	200	200	200	200
3	C	C	C	C	C	C	C	C	C	C	C	C
4	290	320	340	F	E	E	255	220	180 _{tr}	180 _{tr}	C	C
5	A	A	A	C	C	C	260	220	200	200	180	170 _{tr}
6	C	C	C	C	C	C	C	C	C	200	195	180
7	320	F	C	380 _p	E	E	240	220	200	C	C	C
8	C	380 _{tr}	420 _{tr}	A	E	E	240	220	200	200	180 _{tr}	180
9	280	280 _{tr}	300 _{tr}	300 _{tr}	I	I	240	220	200	185	180 _{tr}	180 _{tr}
10	290	255	305	315	210	I	240	220	200	190	180	180
11	290	S	S	S	S	S	240	220	200	190	180	180
12	255	250	280	300	300	260	240	230	210	200	170	200
13	315	300	340	265	A	E	250	200	190	200	200	190
14	310	290	340	310	260	E	250	215	210	200	195	195
15	300	300	270	270	E	300	250	220	220	200	200	185
16	280	305	305	260	240	255	240	220	200 _{tr}	195	180 _{tr}	195
17	235	250	300 _{tr}	270	A	E	250	220	205	200	190	195
18	E	E	E	E	E	E	250	220	210	C	C	190
19	285	340 _p	380 _{tr}	325	260	235	240	220	180 _{tr}	180 _{tr}	190 _{tr}	200
20	F	260	280	310	320 _{tr}	290	250	A	200	190	180	180
21	300	A	A	A	A	E	240	200 _{tr}	220	C	195	190
22	320	300 _p	300 _{tr}	240 _p	225	E	240	C	200	200	185	180
23	F	F	A	A	A	A	245	200	200	180	C	170 _{tr}
24	240	220	260	310	C	F	230	210	200	180 _{tr}	195	185
25	F	F	FS	FS	FS	E	240	210	210	200	205	200
26	210	240	250	265	280	A	245	205	175	C	180	195
27	260	280	100	F	F	290	215	225	210	205	200	205
28	280	210	240	240	230	E	245	225	200	C	195	190
29	300	280	255	A	210	E	240	225	215	215	200	195
30	270	300	300	245	220	F	240	220	210	C	190	185
31	F	F	F	F	E	E	240	200	200	200	195	190
Count	23	22	21	18	19	21	28	27	21	24	26	28
Median	290	280	300	290	280	E	240	220	200	200	190	190
Mean	280	285	305	285	255	275	245	215	200	195	190	190

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h_p
Unit Km
Month July, 1962

TABLE 31
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
190 _{tr}	200	190	220	200	225	210	220	210	250	300	F	1
180	A	A	220	200	λ	250	250	210	260	C	C	2
C	180	C	A	A	A	240	225	240	275	265	260	3
205	A	A	200 _{tr}	220	220	210	235	210	240	320	F	4
170 _{tr}	220	200	210	220	235	260	210	225	240	320	C	5
180 _{tr}	C	A	λ	220	230	210	220	220	210	260	260	6
C	C	C	C	C	240	260	220	220	240	300	320	7
180	200	190	180 _{tr}	210	A	250	210	220	240	260	280	8
180 _{tr}	200	205	A	A	240 _{trA}	250	260	260	250	215	215	9
180	200	180 _{tr}	180 _{tr}	A	230	250	235	230	225	245	285	10
190	195	200	A	A	λ	λ	270	310	280	300	280	11
180	170	200	200	210	235	260	250	260	250	270	310	12
180	190	180	215	A	240	215	220	220	220	210	210	13
190	190	180	A	C	C	260	260	260	270	260	210	14
200	190	185	200	220	220	255	250	225	210	250	270	15
190	180	A	A	220	λ	280	260	240	250	275	210	16
185	180	180	200	200	215	235	235	230	250	305	300	17
200	195	200	190	205	215	260	280	300	255	245	240	18
180 _{tr}	180	200	200 _{tr}	220	235	245	240	215	h	265	285 _{tr}	19
175 _{tr}	180	190	200 _{tr}	205	220	230	215	275	255	290	280	20
180	200	180	180	200	220	240	280	315	300	I	320	21
180	180	175	180	200	240	250	235	290	200	210	280	22
180	190	190	180 _{tr}	200	230	250	275	300 _{tr}	F	260	255	23
175	180	175 _{tr}	180	200	220	250	260	250	260	F	290	24
200	200	A	200	A	λ	265	280	h	300	265	250	25
180	200	200	220	215	215	260	260	240	240	210	280	26
200	200 _{tr}	195 _{tr}	195 _{tr}	200	240	260	280	300 _{tr}	h	F	I	27
195	200	180	200	210	240	260	260	260	260	300	300	28
190	195	195	205	220	225	240	230	240	220	215	280	29
200	195	190	200	205	230	250	210	230	260	300 _{tr}	300 _{tr}	30
200	195	200	190	200	230	240	255	270	300	300	250	31
29	27	21	24	23	24	20	31	30	28	27	26	Count
180	190	190	200	205	230	250	245	240	250	265	280	Median
185	190	190	200	210	230	250	250	250	250	275	275	Mean

Sweep 10 Mc to 250 Mc in 27 seconds

Characteristic h'F
Unit Km
Month July, 1962

TABLE 31—Contd
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	300	350	320	260	F	260	220	180 _{HT}	200	200	195	180 _{HT}
2	320	C	C	C	C	C	C	220	200	180 _{HT}	180 _{HT}	190
3	C	C	C	C	C	C	C	C	C	C	C	C
4	300	320	F	F	E	265	230	220	185	180	C	C
5	A	A	C	310	C	280	240	200	200	195	175	180 _{HT}
6	C	C	C	C	C	C	C	C	200	200	180	180
7	F	F	400 _F	A	L	260	210	210	200	C	C	C
8	360 _{UT}	400 _{UT}	F	F	F	265	240	220	180 _{HT}	190 _{HT}	180 _{HT}	180 _{HT}
9	280 _{UT}	300 _{UT}	300 _{UT}	F	250 _{UT}	260	240	220	195	C	200	200
10	230	285	325	320	F	255	230	220 _{HT}	200	195	185	180
11	315	S	S	A	S	265	235	220	200	180	190	180
12	295	260	280	310	270	270	220	220	200	175	180	175
13	310	340	A	280	E	275	235	215	190	190	190	190
14	300	320	310	320	260	280	235	220	200	200	195	190
15	320	320	C	E	240	260	230	220	215	190	195	180
16	290	315	280	240	220	250	215 _A	210	190	185 _{HT}	185	185
17	250	280 _{UT}	270	250	E	270	235	215	200	200	200	190
18	L	E	E	E	E	270	230	215	205	C	C	200
19	320	355 _{UT}	365	300	235	245	230	180 _{HT}	C	180 _{HT}	180 _{HT}	185
20	265	270	290	320 _F	280 _{UT}	270	240	215	205	185 _{HT}	180 _{HT}	180
21	320	A	300	A	E	255	220	215	200	200	190	180
22	310	300 _{UT}	F	F	F	255	210	C	205	190	190	180
23	I	320	A	A	A	260	225	200	185	180	175	180 _{HT}
24	220	295	280	F	A	250	220	200	195	180 _{HT}	190	180
25	b	15	15	F5	I	260	220	220	200	200	200	200
26	210	210	255	260	A	A	220	180	180	190	195	200
27	260	100	F	I	300	270	240	220	205	200	200	200
28	250	240	210	235	230	260	230	220	200	200	190	200
29	280	260	A	240	E	260	230 _{UT}	220	210	200	200	195
30	280	300	280	220	L	260	230	220	200	195	185	200
31	I	F	F	E	L	260	225	220	C	200 _{HT}	195	190
Count	24	22	16	18	20	27	28	28	28	27	27	28
Median	295	310	295	305	E	260	230	220	200	190	190	185
Mean	285	305	305	280	255	265	230	210	200	190	190	190

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'F
Unit Km
Month July, 1962

TABLE 31 Contd
Ionospheric Data
75°E Meridian Time

Latitude, 10 2° N
Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
200H	200	200H	200	210	210	210	225	240	290	300	320	1
180	A	200	220H	195	270	240	220	245	C	C	C	2
C	200	C	A	225	225	210	240	260	260	C	280	3
A	A	200	220	220	240	230	240	240	290	330	1	4
230	210	210	210	\	210	250	220	240	260	F	C	5
220	\	C	210	220	250	240	220	220	260	260	300	6
C	C	C	C	C	210	210	220	230	260	A	360	7
180	195	190	200	210	A	240	235	240	240	260	280	8
180H	200	A	200	220	260	260	260	250	240	260	210	9
190	195	180H	180H	\	240	215	230	225	210	260	280	10
190	195	A	A	A	A	A	\	280	300	300	265	11
180	200	200	200	230	280	250	260	260	255	290	320	12
180	180	220	200	250	240	240	220	200	240	215	300	13
190	180	\	A	C	240	260	260	260	260	250	260	14
195	180	180	200	220	235	260	240	220	240	250	270	15
185	210A	A	A	210	270	260	260	240	260	255	230	16
185	175	180H	200	200	230	235	235	235	280	320	280	17
200	200	200	190H	200	210H	270	290	270	255	235	260	18
190	180H	200	210	230	250	235	250	260	F	F	300A	19
180H	180H	185H	200	210	235	210	250	290	280	275	295	20
180	180	180	190	\	230	260	300	300	300	300	330	21
C	175	175H	200	A	240	235	230	210	220	260	300	22
195	190	180H	195	205	235	260	300H	F	275	260	215	23
180	180	180	200	\	210	250	260	210	F	300	320	24
200	200	A	200	\	A	280	300A	F	280	260	215	25
200	200	195	200	200	250	270	255	240	240	250	300	26
200	200	190	205	200	210	260	300	F	F	I	300	27
195	195	190	200	205	210	250	260	F	270	300	295	28
195	200	190	210	220	210	210	215	240	240	260	\	29
200	195	190	200	A	250	210	235	230	280	300	F	30
195	195	200	190	200H	240	210	270	280	300	260	F	31
27	27	23	26	21	23	30	30	27	27	25	25	Count
190	195	190	200	210	210	210	250	240	260	260	295	Median
190	190	190	200	215	215	230	250	215	265	275	290	Mean

SWEEP 10 Mc to 250 Mc in 27 seconds

Characteristic h'E
Unit Km
Month July, 1962

TABLE 32
Ionospheric Data
75°h Mean Time

Latitude 10 2° N
Longitude 77 5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							140	A	A	\	\	A
2								A	A	A	A	A
3								C	C	C	C	C
4							130	105 _U	A	A	G	C
5							A	A	A	A	A	A
6								C	C	A	\	A
7							120	120	A	C	G	C
8							120	110	105	A	A	A
9							120	110	A	A	A	A
10							115	A	A	A	A	A
11							120	115	A	A	A	A
12							120	115	A	A	A	A
13								A	A	A	A	A
14							120	A	A	\	A	A
15							120	120	A	A	A	A
16							110	A	A	A	A	A
17							A	A	A	A	A	A
18							120	110	110	C	C	A
19							A	110	A	A	A	A
20								A	A	A	A	A
21							105	A	A	C	A	A
22							120	C	A	A	A	A
23							120	A	A	A	C	A
24							120	100	A	A	A	A
25							120	A	A	A	A	A
26								A	A	C	A	A
27							120	110	105	A	A	A
28							125	A	A	C	A	A
29							A	A	A	A	A	A
30							100	A	A	C	A	A
31							130	A	A	A	A	A
Count							21	11	3			
Median							120	110				
Mean							120	110				

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'E
Unit Km
Month July, 1962

TABLE 32
Ionospheric Data
75°E Meridian Time

Latitude 10 2' N
Longitude 77 5" E

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

Sweep 1 0 Mc to 25 0 Mc. in 27 seconds

Characteristic h'E TABLE 32 (Contd.) Latitude 10 2° N
 Unit Km Ionospheric Data Longitude 77 5° E
 Month July, 1962 75°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							105	A	A	A	A	A
2							C	A	A	\	A	A
3							C	G	A	G	C	C
4							125	120	A	\	C	C
5							A	A	A	A	\	A
6							C	C	\	\	\	A
7							120	110	A	G	C	C
8							120	110	\	A	\	A
9							120	A	A	G	\	A
10							A	A	A	A	\	A
11							115	A	A	\	\	A
12							115	110	A	\	\	A
13							A	\	\	A	\	A
14							A	\	\	A	A	A
15							120	\	\	\	\	A
16							\	\	A	A	\	A
17							A	A	A	A	A	A
18							115	110	110	C	C	A
19							110	A	C	\	\	\
20							A	A	\	A	A	\
21							A	A	\	\	A	\
22							110	C	\	\	\	\
23							110	\	\	\	A	A
24							100	100	\	\	\	A
25							\	\	\	\	\	A
26							A	A	A	\	A	\
27							120	120	100	\	A	\
28							A	\	\	\	\	\
29							A	A	A	\	\	\
30							100	\	A	\	A	\
31							110	A	C	A	A	A
Count							16	7	2			
Median							115	110				
Mean							115	110				

Sweep 1 0 Mc. to 25 0 Mc. in 27 seconds.

Characteristic h'E
Unit: Km
Month July, 1962

TABLE 32 (Contd.)
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
A	A	105	120	115	130							1
A	A	A	A	A	A							2
C	A	C	A	A	120							3
A	115	105	120	115	125 _{HT}							4
120	110	110	A	A								5
A	110	C	A	A								6
C	C	C	C	C	130							7
A	A	110	110	120	A							8
A	A	A	A	A	A							9
A	A	A	110	A	A							10
A	A	A	A	A								11
A	A	A	A	A								12
A	A	A	120	A								13
A	A	A	A	A								14
A	A	A	A	115	120							15
A	A	A	A	A	A							16
A	A	A	110	A	125							17
A	A	A	110	110	120							18
A	A	A	120	A	A							19
A	A	A	115	120	120							20
A	A	A	A	A	A							21
C	A	A	115	A								22
A	A	110	110	110								23
A	A	A	A	A								24
A	A	A	A	A	A							25
A	A	120	A	A								26
A	A	A	A	A								27
A	A	A	A	A								28
A	A	A	A	A	120							29
A	A	A	A	A	A							30
A	A	A	A	A								31
1	3	6	11	7	9							Count
		110	115	115	120							Median
		110	115	115	125							Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'Es
Unit Km
Month July, 1962

TABLE 33
Ionospheric Data
75°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							G	100	100	100	100	100
2							100	100	100	100	100	100
3							C	C	C	C	C	C
4							G	105	100	100	C	C
5	110	140	100	C	C	C	120	110	100	100	100	100
6							C	C	C	100	100	100
7	120	120	120	120			140	100	100	C	C	C
8				120			120	100	100	100	100	100
9		100	100	100			100	100	100	100	100	100
10			130	115			110	100	100	100	100	100
11		135		125			140	100	100	100	100	100
12							130	120	100	100	100	100
13	125	120	120	140	125		120	100	100	100	100	100
14		120	115	120	110		110	100	100	100	100	100
15		120	120				120	100	100	100	100	100
16			110				120	100	100	100	100	100
17		110	115	110	105		100	100	100	100	100	100
18							120	100	100	C	C	100
19				120			115	105	100	100	100	100
20	100	115	115		120	100	115	105	100	100	100	100
21		100	100	100	100		G	100	100	C	100	100
22		120		105	100		G	C	100	100	100	100
23			100	100	100	100	100	100	100	100	C	100
24				100	C		G	G	100	100	100	100
25				115	100		G	100	100	100	100	100
26	115	110		120	100	100	100	100	100	C	100	100
27	120	160	135	120		100	G	100	100	100	100	100
28							G	100	100	C	100	100
29	120	125	120	100			100	100	100	100	100	100
30		100					C	100	100	C	100	100
31	120	130	120				G	100	100	100	100	100
Count	8	16	15	17	9		18	27	29	24	26	28
Median	120	120	115	115	100		120	100	100	100	100	100
Mean	115	120	115	115	105		115	100	100	100	100	100

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristics h'Es
 Unit Km
 Month July, 1962

TABLE 33
 Ionospheric Data
 75.1 Mc in 1 min

Latitude 10 2° N
 Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
100	100	100	G	G	G	G	110	105				1
100	100	100	100	100	100	100	100					2
G	100	G	100	100	100	100						3
100	100	140	140	G	G	G				120		4
100	100	100	100	100	100							5
100	G	100	100	105	100					110	120	6
G	G	G	G	G	G						140	7
100	100	100	100	100	100	100	100					8
100	100	100	100	100	100	100	100					9
100	100	100	100	100	100						120	10
100	100	100	100	100	100	100	100	100				11
100	100	100	100	100	100	100	100			120	125	12
100	100	100	100	100	190	130						13
100	100	100	100	G	G				120	100		14
100	100	100	100	100	140						120	15
100	100	100	100	100	100	100	115		100		115	16
100	100	100	100	105	100	100						17
100	100	100	100	105	105	110	105	100			120	18
100	100	100	100	100	100	100	100	100		100	100	19
100	100	100	190	G	G	100	100	100	90		110	20
100	100	100	100	100	100					115		21
100	100	100	100	100	100							22
100	100	100	G	G	120	120					100	23
100	100	100	100	100	100	100	100			120		24
100	100	100	100	100	100	100	100		115	110		25
100	100	100	100	120	100							26
100	100	100	100	100	100							27
100	100	100	100	100	G	100					120	28
100	100	100	100	100	100						120	29
100	100	100	100	100	100	100						30
100	100	100	100	100	100	140						31
29	29	29	28	25	25	18	12	5	4	8	12	Count
100	100	100	100	100	100	100	100	100		110	120	Median
100	100	100	100	100	105	105	100	100		110	120	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic h'Es
Unit Km
Month July, 1962

TABLE 33—Contd
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							100	100	100	100	100	100
2							C	100	100	100	100	100
3	C	C	C	C	C	C	C	C	C	C	C	C
4				110			100	100	100	100	C	C
5	100	140	C		C		110	100	100	100	100	100
6	C	C	C	C	C	C	C	C	100	100	100	100
7	120	140		110			110	C	100	C	C	C
8							C	100	100	100	100	100
9	100	100	100	100			130	100	100	C	100	100
10							100	100	100	100	100	100
11	160	120		120			100	100	100	100	100	100
12							125	100	100	100	100	100
13	120	120	115	120			110	100	100	100	100	100
14	120	120	120	110			100	100	100	100	100	100
15	120	120					120	100	100	100	100	100
16			110				100	100	100	100	100	100
17	120	115	115	115			100	100	100	100	100	100
18					105		105	100	100	C	C	100
19	100		120	115		115	105	100	C	100	100	100
20	120	115	120		195	125	110	110	100	100	100	100
21		100	110	100			100	100	100	100	100	100
22				100			C	C	100	100	100	100
23		100	100	100		100	100	100	100	100	100	100
24					110	85	C	C	100	100	100	100
25					100		100	100	100	100	100	100
26	110	115	110		100	100	100	100	100	100	100	100
27		140	120		100		C	C	100	100	100	100
28							100	100	100	100	100	100
29		120	105				100	100	100	100	100	100
30		105					100	100	100	100	100	100
31	120						100	100	C	100	100	100
Count	12	15	12	11	7	4	24	25	28	27	27	28
Median	120	120	110	110	100		100	100	100	100	100	100
Mean	120	120	110	110	105		105	100	100	100	100	100

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'Es
Unit Km
Month July, 1962

TABLE 33—*Contd*
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
100	100	100	G	G	G							1
100	100	100	100	100	100	100	100					2
G	100	G	100	105	G	100			100			3
100	G	100	G	G	G						110	4
100	100	105	100	100								5
100	100	G	105	100	120				120	120	120	6
G	G	G	G	G	100				120	110	130	7
100	100	100	100	120	100	100	100					8
100	100	100	100	100	100	100						9
100	100	100	100	100	100							10
100	100	100	100	100	100	100	100	100				11
100	100	100	100	100	100	100				130	130	12
100	100	100	G	100	110							13
100	100	100	100	G					100		120	14
100	100	100	100	120	120					120	120	15
100	100	100	100	100	100	100	110	100	100	115	115	16
100	100	100	100	100	G							17
100	100	100	105	110	110	110	105	100		125		18
100	100	105	110	100	100	100	100	100	100	125	100	19
100	100	100	G	G	G			90	110		100	20
100	100	100	100	100	100				120	120		21
G	100	100	100	100	95						100	22
100	100	100	G	G	120	115				100	100	23
100	100	100	100	100	100	100	100					24
100	100	100	100	100	100	100			105			25
100	100	100	100	100	100	120					120	26
100	100	100	100	100	100						115	27
100	100	100	100	100	100	130					120	28
100	100	100	100	100	G	130					110	29
100	100	100	100	100	100					100		30
100	100	100	100	100								31
28	29	28	25	25	23	15	8	5	9	10	15	Count
100	100	100	100	100	100	100	100	100	105	120	115	Median
100	100	100	100	100	105	105	100	100	110	115	115	Mean

Sweep 1.0 Mc to 2.70 Mc in 27 seconds.

Characteristic (M3000)F₂
 Unit
 Month July, 1962

TABLE 34
 Ionospheric Data
 75°E Meridian Time

Latitude 10 2' N
 Longitude 77 5' E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	2 80h	2 70h	I	I	I	E	3 30	2 95	2 65	2 50	2 15	2 50
2	J	J	C	C	C	C	C	3 10	2 85	2 60	2 50	2 65
3	C	C	C	C	C	C	C	C	C	C	C	C
4	3 05x	I	F	I	L	E	3 20	3 20	2 90	2 55	C	C
5	A	A	A	C	C	C	3 20	3 20	3 00	2 20	2 60	2 60
6	C	C	C	C	C	C	C	C	C	2 10	2 55	2 70
7	F	FS	F	F	L	E	3 30	3 20	3 15	C	C	C
8	C	F	F	A	E	F	3 25	3 20	2 65	2 10	2 50	3 55
9	FS	FS	I	I	F	F	3 10	3 40	3 15	2 60	2 50	2 50
10	3 35	F	3 00m	F	F	F	3 35	3 05	2 60	2 15	2 60	2 50
11	3 10	S	S	S	S	S	3 30	3 10	2 80	2 40	2 50	2 15
12	3 15	3 25	3 00	2 90	3 05	3 30	3 30	3 30	3 00	2 50	2 10	2 10
13	3 00	3 00	3 00	I	A	E	3 20	3 00	2 60	2 50	2 50	2 40
14	3 10x	3 15x	3 10	3 00x	3 30	E	3 10	3 00	2 80	2 55	2 10	2 50
15	3 10	3 10	3 30x	3 50	E	3 30	3 30	3 20	3 00	2 70	2 10	2 30
16	3 05us	2 70h	2 40	3 05	3 50	3 50	3 10	3 10	2 80	2 10	2 10	2 40
17	3 40	3 40m	F	F	A	E	3 30	3 10	2 80	2 40	2 50	2 50
18	E	E	L	L	E	E	3 30	3 30	2 90	C	C	2 45
19	2 90	I	F	F	F	3 50	3 40	3 15	2 90	2 40	2 50	2 60
20	F	F	F	I	F	3 40x	3 40	3 40	3 20	2 65	2 10	2 50
21	3 00x	A	A	A	A	F	3 40	3 25	2 95	C	2 15	2 45
22	F	F	F	F	3 65	L	3 15	C	3 00	2 70	2 40	2 15
23	F	F	A	A	A	A	3 65	3 30	3 00	2 40	C	2 50
24	3 10	3 65	3 50x	F	C	I	3 35	3 40	3 35	2 75	2 15	2 40
25	F	F	FS	FS	FS	L	3 35	3 10	3 20	2 75	2 50	2 30
26	3 30	3 50	3 30	3 40	3 10	A	3 20	3 00	2 70	C	2 30	2 70
27	2 70	2 65	F	F	L	3 20	3 50	3 30	3 20	3 10	3 00	2 70
28	3 00	F	3 40	3 45	3 50	I	3 10	3 00	2 70	C	2 15	2 50
29	3 10	3 10	3 30	A	3 60	E	3 40	3 30	3 10	2 60	2 50	2 50
30	3 20	3 00	3 15	3 60	3 15JR	L	3 50	3 20	2 80	C	2 50	2 15
31	F	I	F	F	L	E	3 40	3 15	2 80	2 60	2 70	2 50
Count	18	12	11	7	8	6	28	28	29	24	26	28
Median	3 10	3 10	3 15	3 30	3 50	3 35	3 30	3 20	2 90	2 50	2 50	2 50
Mean	3 10	3 10	3 20	3 25	3 40	3 35	3 30	3 20	2 90	2 55	2 50	2 50

Sweep 1.0 Mc to 2.50 Mc in 27 seconds

Characteristic (M3000)_{F₂}
Unit

TABLE 31
Ionospheric Data

Latitude 10 2' N
Longitude 77 5' E

Month July, 1962

75°E Meridian

12	13	14	15	16	17	18	19	20	21	22	23	Date
2 55	2 50	2 15	2 30	2 65	2 80	3 00	3 30	3 25	3 25	f	f	1
2 10	2 35	2 50	2 15	2 65	2 75	3 10	3 35	3 30	3 15	C	C	2
C	2 45	C	2 40	2 45	2 60	3 15	3 20	3 10	3 00	3 05	3 10	3
2 70	2 80	2 75	2 75	2 90	3 25	3 35	3 20	3 25	3 25	2 95	f	4
2 70	2 70	2 50	2 15	2 60	2 75	2 90	3 20	3 30	3 25	2 90	C	5
2 55	C	A	A	2 80	2 90	3 25	3 50	3 60	3 20	3 30	3 25	6
C	C	C	C	C	2 80	3 10	3 35	3 10	3 35	3 10	3 5	7
2 55	2 50	2 60	2 55	2 50	2 70	3 00	3 10	3 20	3 30	3 30	3 05	8
2 65	2 40	2 50	2 60	2 90	3 00	3 10	3 10	3 10	3 20	3 20	3 5	9
2 60	2 40	2 50	2 70	2 80	3 00	3 10	3 25	3 35	3 40	3 30	3 05	10
2 50	2 50	2 60	2 60	2 90	2 80	2 80	3 00	2 90	2 90	2 90	3 00	11
2 60	2 70	2 70	2 85	2 90	3 00	3 25	3 20	3 10	3 00	3 10	2 90	12
2 45	2 10	2 50	2 80	2 90	3 10	3 20	3 30	3 45	3 10	3 20	3 00	13
2 50	2 30 _{tr}	2 30 _{tr}	2 60	C	C	3 30	3 10	3 15	3 30	3 30	3 40	14
2 50	2 10	2 10	2 50	2 80	2 85	2 95	3 05	3 40	3 30	2 90 _p	3 25	15
2 50	2 30	2 10	A	2 80	2 90	3 00	3 10	3 30	3 10	3 20	3 35	16
2 50	2 50	2 60	2 90	3 10	3 10	3 35	3 20	3 30	3 40	3 20	3 25	17
2 10	2 15	2 25	2 55	2 60	2 95	2 65	2 70	2 75	2 80	3 05	3 10	18
2 50	2 50	2 40	2 60	2 80	3 20	3 30	3 30	3 30	f	3 10	f	19
2 50	2 40	2 55	2 90	3 00	3 20	3 15	3 35	3 10	3 10	3 30	3 30	20
2 50	2 40	2 45	2 50	2 75	3 10	3 10	3 00	2 80	2 95	f	2 50 _t	21
2 45	2 50	2 55	2 55	2 70	3 00	3 15	3 35	3 40	3 45	3 35	3 10	22
2 55	2 50	2 55	2 75	3 00	3 20	3 10	3 05	f	f	3 10	3 10	23
2 35	2 50	2 50	2 60	2 65	3 00	3 00	3 10	3 25	3 25	f	2 90	24
2 60	2 60	2 70	2 70	2 70	2 80	2 95	2 80	f	2 85 _{tr}	3 00	3 20	25
2 60	2 60	2 60	2 80	2 90	2 65	2 50	2 60	2 90	3 10	3 30	3 70	26
2 60	2 50	2 70	2 70	2 80	2 70	2 55	2 45	f	f	f	f	27
2 15	2 55	2 50	2 50	2 70	2 90	3 00	3 00	3 00	3 10	2 90	2 90	28
2 55	2 50	2 40	2 50	2 60	2 90 _{tr}	3 10	3 30	3 10	3 20	3 10	3 10	29
2 60	2 80	2 60	2 60	2 70	2 60	2 80	3 10	3 30	3 10	f	f	30
2 15	2 50	2 20 _{tr}	2 50	2 60	2 90	3 10	3 10	3 00 _{tr}	3 00 _{tr}	f	f	31
29	29	28	28	29	30	31	31	28	28	24	21	Count
2 70	2 50	2 50	2 60	2 80	2 90	3 10	3 10	3 25	3 20	3 10	3 10	Median
2 55	2 50	2 50	2 60	2 75	2 90	3 05	3 10	3 20	3 20	3 15	3 05	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic (M3000)F₂
Unit
Month July, 1962

TABLE 34—Contd
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	2 85	2 75r	2 85h	F	F	3 05	3 15	2 80	2 45	2 15	2 45	2 50
2	F	C	C	C	C	C	C	2 95	2 60	2 60	2 55	2 55
3	C	C	C	C	C	C	C	C	C	C	C	C
4	I	F	F	F	E	3 10	3 15	3 05	2 75	2 10	C	C
5	A	A	C	R	C	3 10	3 20	3 10	2 70	2 50	2 60	2 65
6	C	C	C	C	C	C	C	C	2 50	2 50	2 70	2 60
7	F	F	F	A	E	3 60	3 25	3 15	3 10	C	C	C
8	F	F	F	L	E	3 25	3 20	2 90	2 55	2 10	2 35	2 60
9	FS	FS	I	F	F	3 25	3 30	3 25	2 90	C	2 55	2 50
10	3 35	F	F	F	F	3 30	3 30	2 90	2 50	2 65	2 50	2 50
11	3 10	S	S	S	S	3 20	3 20	3 00	2 60	2 40	2 50	2 50
12	3 30	3 10	3 00	2 80	3 10	3 30	3 25	3 15	2 70	2 90	2 40	2 60
13	2 95	3 00	A	3 40	E	3 20	3 20	2 80	2 10	2 40	2 50	2 45
14	3 10	3 10	3 00	2 90r	3 40	3 10	3 10	3 00	2 60	2 40	2 15	2 50
15	3 00	3 20h	R	E	3 50	3 10	3 20	3 10	2 90	2 15	2 10	2 50
16	3 00	2 80	2 90	3 30	3 55	3 25	3 20	2 95	2 60	2 20	2 10	2 50
17	3 40	F	3 15rr	3 50ur	L	3 05	3 25	3 00	2 65	2 15	2 50	2 50
18	E	E	E	E	E	3 20	3 20	3 00	2 70	C	C	2 25
19	2 85	F	F	F	I	3 30	3 30	3 00	C	2 90	2 90	2 60
20	F	F	I	F	F	3 20	3 50	3 30	3 00	2 15	2 50	2 60
21	3 20h	A	3 15p	A	E	3 25	3 40	3 10	2 85	2 20	2 35	2 10
22	I	F	F	F	E	3 30	3 30	C	2 95	2 20rr	2 35	2 30
23	F	F	A	A	A	3 35	3 50	3 15	2 70	2 25	2 55	2 50
24	3 65rr	3 60r	3 35r	F	A	3 30	3 50	3 10	3 00	2 50	2 30	2 30
25	F	FS	FS	IS	F	F	3 25	3 15	3 00	2 60	2 10	2 60
26	3 30	3 40	3 30	3 20	F	3 30r	3 20	2 90	2 70	2 55	2 35	2 80
27	2 40r	2 60	F	F	3 20	3 35	3 50	3 30	3 15	3 00	2 80	2 70
28	FS	3 20	3 35	3 60	3 60r	3 10	3 20	2 80	2 70	2 40	2 60	2 50
29	3 05	3 20	3 20	3 50	E	3 30	3 30	3 10	2 90	2 50	2 50	2 50
30	3 10	3 00	3 00	3 60	E	3 30	3 40	3 05	2 70	2 50	2 60	2 10
31	I	F	F	E	E	3 30	3 30	2 90	C	2 40	2 55	2 60
Count	16	12	11	9	6	27	28	28	28	27	27	28
Median	3 10	3 10	3 15	3 40	3 45	3 25	3 25	3 00	2 70	2 40	2 50	2 50
Mean	3 10	3 10	3 10	3 40	3 40	3 25	3 30	3 05	2 75	2 40	2 50	2 50

Sweep 10 Mc. to 250 Mc. in 27 seconds

Characteristic (M3000)F₂
Unit
Month July, 1962

TABLE 34—Contd
Ionospheric Data
75 E Meridians

Latitude 10 2° N
Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
2 55	2 15	2 50	2 65	2 80	2 95	3 10	3 30	3 35	2 90 _h	2 90 _h	f	1
2 95	2 30	2 70	2 55	2 60	3 00	3 25	3 30	3 25	C	C	C	2
C	2 50	C	2 10	2 50	2 90	3 15	3 20	3 05	2 95	C	3 05 _h	3
2 75	2 75	2 75	2 80	3 05	3 35	3 35	3 20	3 20	3 00	2 90	f	4
2 70	2 60	2 50	2 55	2 75	2 85	3 00	3 10	3 25	3 10	f	C	5
2 50	2 15	C	2 60	2 90	3 15	3 30	3 50	3 30	3 40	3 25	2 80	6
C	C	C	C	C	2 90	3 35	3 20	3 10	3 25	2 70	f	7
2 45	2 35	2 55	2 15	2 55	2 90	3 15	3 25	3 30	3 45	3 10	3 5	8
2 40	2 55	2 60	2 80	2 95	3 10	3 10	3 10	3 10	3 30	3 10	3 10	9
2 30	2 40	2 60	2 70	2 80	3 00	3 15	3 20	3 15	3 10	3 10	3 10	10
2 30	2 50	3	2 75	2 80	2 80	2 85	2 90	2 90	2 80	2 90	3 10	11
2 65	2 60	2 80	2 90	3 00	3 10	3 30	3 30	3 15	3 00	3 10	2 95	12
2 40	2 40	2 50	2 75	3 00	3 10	3 30	3 25	3 20	3 25	3 15	3 00 _h	13
2 50	2 50	2 60	2 90	C	3 30	3 20	3 10	3 10	3 20	3 10	3 00	14
2 40	2 50	2 50	2 65	2 85	2 90	3 00	3 20	3 20	3 30	3 20 _h	3 15	15
2 10	2 35	2 45	3	2 90	3 05	3 10	3 10	3 25	3 10	3 25	3 50	16
2 15	2 55	2 65	2 90	3 20	3 30	3 35	3 10	3 35	3 35	3 15	3 30	17
2 40	2 40	2 20	2 60	2 55	2 50	2 70	2 65	2 80	3 00	3 30	3 10	18
2 60	2 40	2 50	2 75	3 05	3 10	3 15	3 10	3 20 _h	f	f	f	19
2 10	2 45	2 75	2 90	3 10	3 30	3 10	3 20	3 20	3 30	3 30	3 20 _h	20
2 30	2 50	2 50	2 50	2 80	3 15	3 15	2 90	2 85	f	f	2 65	21
C	2 50	2 50	2 60	2 85	3 10	3 20	3 10	3 25 _h	3 30	3 20	f	22
2 60	2 40	2 50	2 80	3 10	3 15	3 10	2 85	F	3 10	3 15	3 30	23
2 50	2 25	2 55	2 60	2 80	3 00	3 10	3 10	3 30	f	2 90	2 80	24
2 60	2 70	2 70	2 70	2 70	2 90	2 90	2 75	2 80 _h	3 00 _h	3 05	3 20	25
2 60	2 55	2 70	2 80	2 70	2 60	2 50	2 70	3 00	3 30	3 10	2 40	26
2 60	2 60	2 80	2 80	2 80	2 60	2 50	2 50 _h	f	f	f	f	27
2 60	2 50	2 50	2 55	2 70	2 95	3 00	3 00	3 00	2 90	2 90	2 95	28
2 50	2 50	2 50	2 50	2 80	2 80 _h	3 20	3 00	3 30	3 20	3 00	3 20	29
2 70	2 65	2 60	2 60	2 70	2 80	2 90	3 30 _h	3 30	3 00 _h	F	f	30
2 50	2 35	2 50	2 60	2 80	3 00	3 20 _h	3 00	3 00	2 95 _h	F	F	31
28	30	27	29	29	31	31	31	29	26	23	20	Count
2 50	2 50	2 50	2 65	2 80	3 00	3 15	3 20	3 20	3 15	3 10	3 10	Median
2 50	2 50	2 55	2 70	2 85	3 00	3 10	3 10	3 15	3 10	3 10	3 05	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic to F_2

TABLE 35

Latitude 10 2 N

Unit Mc

Ionospheric Data

Longitude 77 5 E

Month August, 1962

77°E Mean Time

Day	00	01	02	03	04	05	06	07	08	09	10	11
1		C	I	A	F	F	1.5	6.1	7.3	8.3	9.2	8.6
2	4.9	3.2i	2.6ur	F	F	1.8UR	4.4	6.6	7.6	7.6	7.8	8.9
3	1.9u	A	A	A	A	A	4.3	C	6.7	C	6.6	6.8
4	4.6	3.3	F	F	F	F	4.5	6.3	6.6	7.7	7.6	7.1
5	3.4	2.8b	2.6	1.8	F	1.6	4.1	6.9	6.7	6.6	6.7	6.1
6	3.6	F	F	F	F	B	4.6	6.5	6.4	7.1	6.8	5.9
7	2.3	2.3	1.8	F	F	B	4.7	6.2	7.4	7.8	6.6	6.3
8	F	F	F	F	F	B	4.7	6.7	7.5	8.9	8.1u	7.8
9	5.4	F	F	F	3.1	2.8	5.3	6.6	7.2	8.5	9.1	9.0
10	3.2u	2.5	1.5p	R	F	B	4.5	6.1	7.8	8.1	7.1	7.3
11	F	F	F	F	2.6	1.7	4.5	7.0	7.8	7.4	6.6	6.6
12	2.5	2.3	2.0	1.8	1.4	A	4.3	6.5	6.8	7.9	5.7	1.6
13	3.5	2.7	2.1	1.1	1.6	1.3	5.0	6.1	7.2	7.2	6.6	7.0
14	4.6	3.8	3.0	2.5	2.1	1.6	4.2	6.4	7.9	7.9	6.6	6.6
15	3.7	2.1	1.9	1.1	1.5	1.5	4.7	6.6	7.5	7.4	6.5	6.3
16	4.1	3.9	2.6	2.0	R	F	4.8	6.6	7.7	8.6	9.0	7.9
17	2.5	2.0	1.8UR	A	F	B	4.8	7.1	8.0	8.0	7.7	7.0
18	4.4	4.1	3.7	2.4	F	F	4.9	7.1	8.1	8.1u	8.7	7.6
19	6.6	5.9	5.9	4.1	2.9	2.0	4.6	6.9	7.9	7.7	7.2	7.3
20	5.3	4.1	3.1	3.3	3.7	2.4	4.9	6.7	7.4	8.6	8.8	8.8
21	7.1	6.6	4.9	4.0	3.1	2.1	4.9	6.6	8.2	8.5	9.0	8.8
22	3.0	2.6	2.1	1.6	1.2	F	4.1	6.2	7.7	8.0	8.0	9.0
23	6.7	6.0	5.0	3.4	3.0	2.6	4.1	6.7	8.9	9.1	9.8	10.1
24	6.2	5.6	3.6	3.5	3.1	2.6	5.2	7.1	8.1	8.9	9.7	9.7
25	5.2	5.6	4.2	2.6	F	F	5.0	7.7	7.8	7.8	7.6	7.9
26	F	4.3	I	1.8	F	F	4.8	7.0	8.0	7.8	8.0	8.0
27	2.2	2.7UR	2.2UR	1.5	R	R	4.8	7.1	7.8	7.8	C	6.1
28	F	F	F	R	F	F	4.4	6.2	7.1	7.2	6.0	6.1
29	3.6u	C	F	2.0UR	1.9	1.5UR	4.5	6.3	7.0	C	7.7	7.2
30	2.8	2.1	A	F	F	A	5.2u	5.8	7.6	7.1	6.8	7.9
31	3.0	2.1	1.7	F	F	R	4.7	6.7	8.0	8.1	7.6	7.4
Count	26	23	20	20	24	21	31	30	31	29	30	31
Median	3.6	3.2	2.6	1.9	1.4	1.4	4.6	6.6	7.6	7.8	7.6	7.3
Mean	4.1	3.6	2.9	2.5	2.4	2.0	4.7	6.6	7.6	7.8	7.6	7.3

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic f_oF_2
Unit Mc
Month August, 1962

TABLE 35
Ionospheric Data
75 I Mc in 1 sec

Latitude 10 2° N
Longitude 77 5° E

	12	13	14	15	16	17	18	19	20	21	22	23	Date
7 6	7 1	8 2	7 5	7 7	8 2	8 4	9 0	8 1	6 8	6 2	1		1
8 7	9 2	9 9	10 0	9 6	9 5	9 1	9 7	7 0	5 0 _{us}	4 1	2 7		2
6 4	6 3	6 6	6 7	7 0	7 7	7 7	6 9	6 2	5 6	4 9	1 6		3
6 5	7 3	7 9	8 2	8 1	8 0	8 7	8 8	7 2	6 2	5 6	4 3		4
6 0	6 0	6 5	7 2	8 0	8 5	8 7	8 0	5 3	5 2	5 1	1 3		5
6 1	6 6	7 3	8 3	8 3	8 8	8 6	7 5	6 1	3 7	2 9	2 1		6
6 5	6 6	6 7	7 3	7 6	7 8	8 8	8 6	8 0	5 9	1 8	4 1 _{us}		7
6 6	6 7	7 1	C	8 6	8 8	9 0	8 1	8 3	7 7	6 6	5 7 _{us}		8
7 5	7 1	8 0	8 7	9 1	9 7	9 0	7 8	6 7	6 1	4 0	3 3 ₁		9
7 3	7 1	7 5	8 6	8 5	9 0	8 5	8 0	7 1 _{us}	6 5	5 6	4 8		10
6 9	7 0	6 8	6 8	6 8	7 1	7 6	8 3	6 2	4 8	4 0	2 5		11
5 5	5 8	6 0	6 1	6 8	7 0	7 2	6 6	6 0	6 2	4 5	4 0		12
6 5	6 5	6 7	6 6	7 1	8 0	8 0	7 0	6 2	5 0	4 6	4 0		13
6 6	6 1	7 0	7 7	8 1	8 8	9 0	7 8	8 4	5 2	4 0	4 2		14
6 8	7 9	8 3	9 0	9 0	8 5	7 8	8 6	9 0	7 7	6 3	5 1		15
7 8	8 1	8 8	9 0	9 1	9 8	10 1	10 1	8 5	7 5	6 2	4 5		16
7 1	8 0	8 1	8 6	C	C	C	8 9	8 1	7 1	6 1	5 9 _s		17
7 6	8 0	9 0	9 5	9 3	9 1	8 8	8 3	8 5	8 1	8 2	7 8 _{us}		18
7 5	7 6	8 2	8 6	8 7	8 8	9 3	9 4	9 3	8 5	7 7	6 5		19
8 4	7 6	7 0	6 8	7 1	7 7	8 2	7 9	7 3 _{us}	6 8	6 9	6 5		20
8 8 _{ir}	8 0	7 1	7 7	8 2	8 6	8 6	8 3	7 1	6 0	4 8	3 8		21
8 8	7 4	7 8	8 1	8 0	8 0	8 8	8 4	7 8	7 4	7 0	6 2		22
10 8	11 1	11 2	C	C	C	11 2	10 1	10 2	8 8	7 2	6 2		23
9 6	9 8	10 8	11 4	10 6	11 0	10 8	10 8	10 0	9 4	7 8	5 1		24
8 2	8 1	9 0	9 2	9 2	9 8	10 0	9 6	1	8 4	7 0	4		25
8 2	8 8	9 4	9 8	10 5	10 8	9 6	9 0	5 6	3 5	2 5	2 1		26
6 6	6 8	7 7	8 8	9 8	9 8	9 6	8 7	7 8	6 1 _{us}	3 9	2 6		27
6 1	6 5	6 6	6 8	7 4	9 0	9 1	8 0	7 2	6 6	1	1		28
7 2	7 6	8 1	8 8	9 2	9 2	9 6	9 6 _{us}	7 8	6 8	5 8	1 5		29
7 4	7 8	8 4	9 0 _{ir}	9 4	9 8 _{us}	10 0	9 2	8 4	6 2 _{us}	1 6	3 8		30
7 2	7 2	7 9	8 3	9 0	9 5	10 1	8 8	6 9	5 2	1 6	4 3		31
9 1	3 1	3 1	2 9	2 9	2 9	3 0	3 1	9 0	9 1	9 0	2 7		Count
7 3	7 4	7 9	8 3	8 5	8 8	8 9	8 6	7 6	6 4	5 4	4 3		Median
7 4	7 5	8 0	8 3	8 5	8 8	9 0	8 6	7 6	6 5	5 4	4 5		Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic to F₂ FIGURE 35—Cont'd Latitude 10 2° N
 Unit Mc Ionospheric Data Longitude 77 5° E
 Month August, 1962 75 Is Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	I	F	I	A	L	2.8i	5.5	7.0	7.5	9.3	9.1	8.2
2	3.8	2.8 ^{up}	I	L	2.0i	2.8	5.9	7.3	7.2	7.8	8.1	8.9
3	R	E	A	A	A	2.6	5.5	7.0	7.2	7.2	7.0	6.6
4	3.9	3.3	I	I	I	2.7	5.7	6.6	6.9	7.5	7.3	6.6
5	2.8i	2.9	A	L	1.6	2.9	5.8	6.9	6.7	6.3	6.1	6.0
6	3.9	I	F	I	F	2.5	5.8	6.7	6.8	7.1 ⁱⁱ	6.9	6.1
7	2.9i	2.1	A	L	L	2.8	5.6	7.1	8.0	7.2 ⁱⁱ	6.4	6.5
8	F	F	F	F	F	F	5.8	6.8	7.7	8.0 ⁱⁱ	7.8	7.1
9	F	I	I	3.9 ⁱⁱⁱ	3.0	3.5 ⁱⁱⁱ	6.1	6.8	C	9.0	9.1	8.1
10	3.0i	1.8	R	R	A	2.6	5.6	7.5	C	7.8	7.1	7.2
11	F	F	F	I	2.2	2.7	6.0	7.7	7.8	6.8	C	6.8
12	0.7	2.1	2.0	1.5	A	2.5	C	6.8	6.6	5.8	5.7	5.5
13	3.0	2.5	I	F	1.1	2.7	5.8	7.0	7.1	6.7	7.0	6.8
14	4.3	3.1	2.8	2.3	1.9	2.6	5.5	7.1	7.6	6.6	6.6	6.6
15	2.8	2.0	C	1.3	1.6	2.8	5.8	7.2	7.8	6.6	6.1	6.5
16	1.9 ^{iv}	3.2	2.2	2.0	R	2.8	5.7	7.3	8.2	8.7	9.0 ^{iv}	7.1
17	2.3	2.0	A	L	L	2.7	6.0	7.8	8.3	7.7	7.2	7.0
18	1.5	3.9	3.3	3.3	L	2.9	6.1	7.1	8.5	8.1 ^{iv}	7.8	7.7
19	6.1	5.4	4.5	3.5	2.7	2.9	6.1	7.6	8.2	7.1	7.2	7.1
20	1.9	3.8	3.0	3.3	2.9	3.0	6.2	7.0	8.0	C	9.0	8.6
21	7.0	5.1	C	3.6	2.7	2.8	6.3	7.3	8.0	9.0	8.8	8.7 ⁱⁱ
22	2.8	2.6	2.0	1.6	1.3	2.7	5.8	6.6	7.4	7.8	8.6	9.2
23	6.6	5.4	4.0	3.1	2.8	2.6	5.6	8.1	9.2	9.8	10.2	10.4
24	6.1	1.6	3.1	3.1	3.2	3.1	6.5	8.0	8.6	9.3	9.6	9.6
25	5.1	1.9	3.1	1.9	1.5	2.6	6.6	7.9	7.8	7.5	7.6	8.2
26	F	I	2.2	1.8	L	2.6	6.1	8.0	7.8	8.0	8.0	8.2
27	2.2i	F	1.9	L	1.5	2.6	6.0	7.5	7.8	C	6.6	6.6
28	I	I	I	L	L	2.5	5.7	7.0	7.1	6.1	6.2	6.2
29	I	C	I	1.9 ⁱⁱⁱ	1.9	2.7	6.0	6.5	7.3	7.8	7.3	7.2
30	2.7	A	A	L	1.6 ^{iv}	2.8	5.8	7.1 ^{iv}	7.6	7.0	7.0	7.2
31	2.7	1.7	L	L	L	2.5	6.1	7.6	8.3	8.3	7.6	7.2
Count	23	21	14	23	21	30	30	31	29	29	30	31
Median	3.3	2.9	2.5	1.5	1.6	2.7	5.8	7.3	7.8	7.7	7.3	7.2
Mean	3.9	3.3	2.9	2.5	2.2	2.8	5.9	7.3	7.7	7.7	7.6	7.1

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic to F_2 TABLE 35—Cont'd Latitude 10 2° N
 Unit Mc Ionospheric Data Longitude 77 5° E
 Month August, 1962 75 L Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
7.2	7.0	8.1	7.5	7.8	8.1	9.0	8.9	7.1	6.6	5.1	6.9	1
9.0	9.1	10.2	9.6	9.3	9.7	10.1	8.2	7.1	1.6	3.8	2.3	2
6.1	6.1	6.7	7.1	7.1	8.3	7.5	6.5	6.1	1.9	4.9	4.3	3
6.7	7.8	8.3	8.2	8.0	8.5	9.1	8.1	6.8	6.1	5.3	3.9	4
6.0	6.3	7.0	7.8	8.6	9.2	8.7	7.9	5.0	5.1	5.1	1.0	5
6.6	6.1	8.3	8.1	8.5	8.7	8.1	7.1	1.8	3.2	2.6	2.2	6
6.1	6.6	7.0	7.5	7.7	8.1	8.9	8.0	7.1	5.2	1.8	1.1	7
6.6	7.0	7.5	8.0	8.9	9.0	8.9	8.5	7.8	6.9	6.1	5.1	8
7.1	7.5	8.2	8.1	9.1	9.6	8.1	7.1	6.7	1.6	3.1	3.2	9
7.1	7.3	8.0	8.6	8.9	8.9	8.5	7.9	7.0	5.8	5.1	5.0	10
7.0	7.0	6.8	6.6	6.8	7.1	8.3	7.5	5.3	3.9	2.7	2.5	11
5.7	5.9	6.0	6.7	6.7	7.1	7.0	6.0	6.0	3.6	4.2	3.7	12
6.1	6.6	6.6	6.9	7.6	8.0	7.8	6.6	6.0	1.5	1.3	1.1	13
6.6	6.6	7.1	8.0	8.6	9.0	8.6	8.0	7.0	1.3	3.8	1.2	14
7.2	8.0	8.8	9.0	9.0	8.2	8.2	9.0	8.7	7.0	5.6	1.5	15
8.1	8.5	9.0	9.1	9.6	10.2	10.6	9.2	8.1	7.0	5.0	3.1	16
7.6	8.0	8.6	8.7	8.1	8.1	9.1	8.5	7.8	6.1	5.7	5.2	17
7.6	8.6	9.3	9.4	9.3	9.1	8.5	8.7	8.1	1.1	1.1	7.0	18
7.1	8.0	8.1	8.6	8.6	9.1	9.1	9.1	8.6	8.1	7.2	6.2	19
7.7	7.2	6.9	6.9	7.3	7.9	8.1	7.8	6.9	6.8	6.1	7.2	20
8.2	7.8	7.6	7.9	8.2	8.7	8.6	7.8	6.6	5.3	1.1	3.4	21
7.8	7.6	8.0	8.0	7.8	8.6	9.0	7.8	7.6	7.2	6.6	6.2	22
11.1	11.2	11.1	11.1	11.1	11.1	11.0	9.6	9.1	8.7	6.8	6.2	23
9.6	10.2	11.0	11.0	10.1	11.0	10.6	10.0	9.8	9.0	6.1	1.8	24
8.2	8.8	9.1	9.2	9.1	10.2	10.0	1.1	9.2	7.8	6.2	1.1	25
8.6	9.0	9.5	10.0	11.0	9.6	9.6	6.7	1.5	2.9	2.9	2.3	26
6.7	7.2	8.1	8.1	10.3	9.6	9.3	8.2	7.5	1.8	3.2	2.3	27
6.1	6.5	6.8	7.0	8.2	9.1	8.6	7.1	6.8	1.1	5.1	4.3	28
7.1	8.0	8.6	9.0	9.2	9.5	9.8	8.8	7.0	6.1	5.1	3.2	29
7.6	8.2	8.8	9.0	9.8	10.0	9.6	8.7	7.2	5.9	3.9	3.6	30
7.0	7.6	8.0	8.5	9.3	10.0	10.0	7.6	5.7	1.8	4.1	4.3	31
31	30	30	28	29	30	31	30	31	29	29	29	Count
7.2	7.7	8.2	8.3	8.6	9.0	8.9	8.0	7.0	5.6	5.0	4.3	Median
7.4	7.8	8.1	8.3	8.7	9.1	9.0	8.0	7.0	5.8	1.9	1.3	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic foF1
 Unit Mc
 Month August, 1962

TABLE 36
 Ionospheric Data
 75 E Meridian

Latitude 10 2' N
 Longitude 77 5' E

Date	00	01	02	03	04	05	06	07	08	09	10	11	
1								I	I	4.2	4.1	4.1	
2								I	I	I	I	4.5	
3								C	I	C	4.5	4.5	
4								I	I	4.3	4.5	4.1	
5								L	I	I	4.1	4.1	
6								I	4.2	4.4	4.5	4.4	
7								L	I	I	4.1	4.5	
8								L	I	4.4	4.4	4.5	
9								I	I	I	4.5	4.6	
10							I	L	I	I	4.6	4.6	
11								I	I	I	I	4.5	
12								I	I	L	I	4.5	
13								L	L	L	4.5	4.5	
14								I	L	I	4.6	4.6	
15								L	L	I	4.6	4.6	
16									I	I	4.6	4.8	
17									I	4.5	I	4.6	
18									L	L	4.5	4.6	
19									I	I	4.6	4.6	
20									I	L	I	4.7	
21								I	L	4.4	4.5	5.2	
22								L	L	4.6	4.4	4.7	
23									L	L	4.3	4.5	
24									L	L	4.4	4.7	
25									I	I	4.3	4.7	
26									L	I	4.3	4.5	
27									L	I	C	4.5	
28									L	L	4.3	4.4	
29									I	I	C	4.5	
30									L	L	4.4	4.4	
31									I	L	I	I	
Count										8	15	28	29
Mechan										4.4	4.5	4.6	4.5
Mean										4.4	4.5	4.6	4.6

Sweep 1.0 Mc to 2.0 Mc in 27 seconds

Characteristic foF1
Unit Mc
Month August, 1962

TABLE 36
Ionospheric Data
75°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	1.5	L	I	L	I							1
1.6	A	A	A	L	L							2
4.5	4.5	L	I	L	I							3
4.5	4.5	L	L	L	I							4
4.5	L	4.3	I	L	I							5
4.5	4.4	4.4	A	L	L							6
1.4	4.4	4.3	L	L	I							7
1.5	4.5	4.4	C	LH	I							8
4.5	4.5	4.4	A	A	I							9
4.6	1.5	4.4	4.1	I	I							10
1.5	4.5	4.4L	L	L	L							11
4.5	4.4	4.1	I	L	L							12
4.6	4.5L	L	L	I	L							13
4.5I	L	I	I	L	I							14
I	L	I	I	I	I							15
4.7	4.6	I	L	L	L							16
1.7	1.8	I	L	C	C							17
1.7	4.6	4.6	L	A	L							18
1.7	1.6	4.7	1.4	I	I							19
1.6	1.6	1.5	I	I	I							20
1.9	1.6	4.6	4.3	4.3	I							21
1.8	1.7	4.5	4.6	I	I							22
1.9	4.6	1.8	C	C	C							23
4.7	4.6	4.9	4.5	L	L							24
1.6	1.7	1.5	A	A	A							25
1.6	1.6	4.5	A	1.1	L							26
1.5	4.5	1.5	L	I	I							27
1.5	4.1	1.4	L	L	I							28
A	A	4.1	4.4u	L	I							29
1.4	1.5	1.3	I	L	I							30
L	L	L	L	L	L							31
27	25	21	6	2								Count
1.6	4.5	1.1	1.1									Median
4.6	4.5	4.5	4.1									Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic foF1
 Unit Mc
 Month August, 1962

TABLE 36—*Contd*
 Ionospheric Data
 75°E Mean Time

Latitude 10·2° N
 Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							L	L	L	4 3	4 4	4 5
2							L	L	L	L	4 5	4 5
3							I	L	L	4 4	4 5	4 5
4							L	L	L	4 4	4 4	4 5
5							L	L	L	4 3	4 4	4 4
6							L	L	4 2	4 4	4 5	4 5
7							L	L	I	4 4	L	4 4
8							L	L	L	4 5	4 5	4 5
9							L	L	C	L	4 6	4 5
10							L	L	C	L	4 6	4 5
11							L	L	L	4 6	C	4 5
12							C	I	L	L	4 5	4 5
13							L	L	L	4 5	4 5	4 6
14							L	L	L	4 6L	4 6	4 6
15							L	L	L	L	4 6	L
16							L	I	L	4 6	4 6	4 5
17							I	L	4 6	4 6	4 6	4 6
18								L	4 6	L	4 6	4 7
19							I	I	L	4 5	L	4 6
20								L	L	C	4 8	4 6
21							L	4 2	4 8	4 8	4 6	4 6
22							L	L	L	4 5	4 7	4 8
23							L	L	4 3	4 8	4 7	4 6
24							L	L	4 4	4 6	4 7	4 7
25							L	L	4 7	4 6	4 6	4 6
26							L	L	4 4	4 6	4 5	4 7
27							L	L	L	C	4 5	4 6
28							L	L	4 3	4 4	4 4	4 4
29							L	L	4 3	4 5	4 5	4 5
30							I	L	4 4	4 3	L	4 5
31							L	L	L	L	L	L
Count							1	11	22	26	29	
Median									4 4	4 5	4 6	4 5
Mean									4 5	4 5	4 6	4 6

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic foF1
 Unit Mc
 Month August, 1962

TABLE 36—Contd
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
4 4	1 4	L	L	L								1
4 5	A	A	A	L								2
4 6	1 4	L	L	L	L							3
4 5	1 1	L	A	L	L							4
4 4	L	L	L	L	L							5
4 5	G	1 3	A	L	L							6
4 4	4 4	4 3	LH	A								7
4 5	4 5	4 4	L	L								8
4 6	1 6	1 1	A	L								9
4 5	L	4 4	L	L								10
4 5	1 5	L	L	L	L							11
4 5	1 1	4 4L	L	L	L							12
4 5L	L	L	L	L								13
4 6L	L	A	L	L								14
L	L	1	L	L	L							15
4 7	4 6	L	L	L								16
L	4 6	4 6	G	G	G							17
4 7	4 6	A	L	L								18
4 9	4 7	4 6	L	L	L							19
4 7	4 6	4 6	L	L								20
1 6	1 7	4 5	1 4	L	L							21
4 7	4 6	4 5	4 5									22
1 7	1 7	G	G	G	L							23
4 8	4 6	1 7	4 4	L								24
4 7	1 6	1 6	A	A								25
4 6	4 5	A	1 5	3 9	L							26
4 5	4 6UL	4 4	C	L								27
4 4	4 4	L	L	L								28
A	1 4	1 1	L	L								29
1 5	4 5	1 3	L									30
L	L	L	L	L	L							31
27	23	16	4	1								Count
4 5	4 6	4 4										Median
4 6	4 5	4 5										Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic foE
Unit Mc
Month August, 1962

TABLE 37
Ionospheric Data
75°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								Λ	3 0	Λ	9 5	Λ
2							1 8	2 6	3 0	3 2	Λ	Λ
3								C'	Λ	C'	Λ	Λ
4							1 8	2 5	2 9	Λ	Λ	Λ
5								2 5	Λ	Λ	Λ	Λ
6							1 7	2 5	Λ	Λ	Λ	Λ
7							R	Λ	Λ	Λ	Λ	Λ
8								Λ	Λ	Λ	Λ	Λ
9							R	Λ	Λ	Λ	Λ	Λ
10							R	Λ	Λ	Λ	Λ	Λ
11							1 7	Λ	Λ	Λ	Λ	Λ
12							1 9	Λ	Λ	Λ	Λ	Λ
13							R	2 6	Λ	Λ	Λ	Λ
14							R	Λ	Λ	Λ	Λ	Λ
15							2 2	Λ	Λ	Λ	Λ	Λ
16								2 5	2 9	Λ	Λ	Λ
17							1 8 _{ir}	Λ	Λ	Λ	Λ	Λ
18							R	2 5	Λ	Λ	Λ	Λ
19							Λ	Λ	Λ	Λ	Λ	Λ
20							1 7	2 6	3 0	3 2	Λ	Λ
21								2 6	2 9	Λ	Λ	Λ
22							1 7	2 5	3 0 _{ir}	3 2	Λ	Λ
23							1 6	2 3	2 8	3 1	Λ	Λ
24								Λ	Λ	Λ	Λ	Λ
25							1 7	Λ	Λ	Λ	Λ	Λ
26								Λ	Λ	Λ	Λ	Λ
27							1 6	Λ	Λ	Λ	C'	Λ
28							R	2 5	Λ	Λ	Λ	Λ
29							1 6 _{ur}	Λ	Λ	C'	Λ	Λ
30							1 7 _{ur}	Λ	Λ	Λ	Λ	Λ
31							1 5	2 3	Λ	Λ	Λ	Λ
Count							15	13	8	4	1	
Median							1 7	2 5	3 0			
Mean							1 7	2.5	2 9			

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic foE
 Unit Mc
 Month August, 1962

TABLE 37
 Ionospheric Data
 75°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	A	A	A	2.9	R							1
A	A	A	A	A	A							2
A	A	A	A	A	2.5							3
A	A	A	A	2.9	A							4
A	A	A	A	A	A							5
A	A	A	A	A	2.4 ^{UR}							6
A	A	A	A	2.7 ^R	A							7
A	A	A	C	R	R							8
A	A	A	A	A	A							9
A	A	A	A	A	A							10
A	A	A	A	2.9	3.0 ^h							11
A	A	A	A	A	A							12
A	A	A	A	A	2.6							13
A	A	A	A	3.0	R							14
A	A	A	A	A	A							15
A	A	A	A	2.8	A							16
A	A	A	A	A	C							17
A	A	A	A	A	A							18
A	A	A	A	2.7	2.3							19
A	A	A	A	A	A							20
A	A	A	A	A	A							21
A	A	A	A	A	A							22
A	A	3.3	A	C	C							23
A	A	A	3.1	A	A							24
A	A	A	A	A	A							25
A	A	A	A	A	2.2							26
A	A	A	3.1	2.7	A							27
A	A	A	A	A	2.6							28
A	A	A	A	2.6 ^{UR}	A							29
A	A	A	A	2.6 ^{UR}	R							30
A	A	A	A	A	A							31
		1	2	10	7							Count
				2.8	2.5							Median
				2.8	2.5							Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds

Characteristic foE
Unit Mc
Month August, 1962

TABLE 37—Contd
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77.5° E

Date	0090	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							2 3	A	3 1	A	A	3 6
2							2 3	2 8	3 1	3 5	A	A
3							A	A	A	A	A	A
4							2 1	2 7	A	A	A	A
5							2 2	A	A	A	A	A
6							2 2 _M	A	A	A	A	A
7							R	A	A	A	A	A
8							A	A	A	A	A	A
9							2 1 _{RM}	A	C	A	A	A
10							2 1	A	C	A	A	A
11							A	A	A	A	C	A
12							C	A	A	A	A	A
13							2 3	A	A	A	A	A
14							A	A	A	A	A	A
15							2 8	A	A	A	A	A
16							1 8	2 7	A	A	A	A
17							2 1	A	A	A	A	A
18							2 2	A	A	A	A	A
19							A	A	A	A	A	A
20							2 3	2 9	3 1	C	A	A
21							2 1	2 7	3 2	A	A	A
22							2 3	2 7	3 2	A	A	A
23							2 2	2 7	3 0	3 1	3 3	3 4 _H
24							A	A	A	A	A	A
25							A	A	A	A	A	A
26							A	A	A	A	A	A
27							A	A	A	C	A	A
28							2 0 _M	A	A	A	A	A
29							2 2	A	A	A	A	A
30							A	A	A	A	A	A
31							2 1	2 7	3 0	A	A	A
Count							19	8	7	2	1	2
Median							2 2	2 7	3 1			
Mean							2 2	2 7	3 1			

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic foL
Unit Mc
Month August, 1962

TABLE 37—Contd
Ionospheric Data
75°E Meridian Time

Latitude 10 2' N
Longitude 77 5' E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
A	A	A	A	R	A							1
A	A	A	R	A	A							2
A	A	A	A	A	2 2							3
A	A	A	A	R	A							4
A	A	A	A	2 6	A							5
A	C	A	A	R	1 9m							6
A	A	A	A	A	A							7
A	A	A	2 8m	R								8
A	A	A	A	A	A							9
A	A	A	B	A	A							10
A	A	A	A	A	A							11
A	A	A	A	A	3 0							12
A	A	A	A	2 7								13
A	A	A	3 5	2 8								14
A	A	A	A	A	A							15
A	A	A	A	A	A							16
A	A	A	A	A	C							17
A	A	A	3 0	A	A							18
A	A	A	3 0	2 9	1 7							19
A	A	A	A	A	A							20
A	A	A	A	A	R							21
A	A	A	A	A	A							22
B	3 4	C	C	C	C							23
3 5	A	3 2	2 9	R	1 9							24
A	A	A	A	A								25
A	A	A	A	R								26
A	A	A	C	A								27
A	A	A	A	2 6	1 7							28
A	A	A	2 9m	2 4m								29
A	A	A	2 9m	2 6m								30
A	A	A	3 0	A	A							31
1	1	1	8	7	6							Count
			3 0	2 6	1 9							Median
			3 0	2 7	2 1							Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic foEs

Unit Mc

Month August, 1962

TABLE 38
Ionospheric Data
75°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				9.2	5.0	6.0	4.0	8.8	6.0	12.0	G	11.0
2							G	G	G	G	7.0	11.0
3		20.0	4.6	7.0	8.4	7.0	6.0	C	11.0	C	12.0	12.2
4							G	G	G	10.2	11.2	12.0
5			5.0					7.2	9.4	10.8	11.4	11.6
6	3.1						6.2	4.0	10.2	12.6	11.9	12.6
7							G	7.8	10.0	12.2	11.4	12.1
8					2.1		5.0	9.6	11.0	10.7	12.0	12.6
9			5.0us	7.0	5.0		S	6.0	8.0	11.6	10.6	11.6
10	5.2us				6.3		G	6.8	9.8	12.0	12.0	12.5
11				8.0us			G	6.8	9.2	10.2	12.0	12.3
12						5.0	G	8.8	9.6	11.2	11.2	11.2
13	5.2us						G	4.6	9.1	12.0	12.2	12.0
14	2.2		4.8us	3.8us			G	6.6	10.8	10.8	12.0	11.2
15	4.2us	3.4	6.05us				G	7.0	9.4	10.4	10.6	12.2
16	3.0	3.7us	4.7	3.0			2.5	G	6.0	11.9	12.7	12.0
17		3.6	4.3	6.2			G	9.6	12.0	12.9	11.8	12.4
18	3.2	3.3	6.6	3.9			7.4	G	9.0	10.4	12.0	12.6
19	8.0us	11.0	5.3us	2.4			4.4	6.8	9.6	12.4	11.8	12.8
20	9.8		2.3				G	G	G	G	10.0	11.6
21							3.8	2.8	3.4	9.2	12.4	12.2
22	3.7						G	8.0	5.2	G	9.8	12.8
23							G	G	G	G	10.0	11.0
24	1.9	3.1	9.0		8.4		8.4	8.4	9.8	10.4	9.8	9.8
25	9.4	2.1	5.2	3.8	7.0		1.7	8.2	8.8	10.4	12.6	11.0
26	3.0	4.3	6.8	2.2		3.8	G	7.0	9.8	11.4	12.4	11.4
27				2.0			G	6.8	11.0	12.4	C	12.0
28	3.4						2.7	G	9.2	11.6	12.0	12.0
29							7.6	5.4	8.2	C	11.2	11.0
30	6.8	6.0	6.4			4.0	2.4	5.6	11.0	12.0	12.4	12.0
31							G	G	7.4	11.8	11.8	12.4
Count	15	10	14	12	7	5	29	30	31	29	30	31
Median	3.4	3.6	5.1	3.8	6.3	5.0	G	6.7	9.2	11.2	11.8	12.0
Mean	4.4	6.0	5.4	4.9	6.0	5.2	4.6	6.9	9.0	11.8	11.4	11.8

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic foF₂
Unit Mc
Month August, 1962

TABLE 38
Ionospheric Data
75 L Mc in Time

Latitude 10 2' N
Longitude 77 5' E

12	13	11	15	16	17	18	19	20	21	22	23	Date
11.6	11.1	11.0	11.0	7.2	6.2		9.0	8.2	1.1			1
11.0	9.1	10.6	12.0	11.2	12.2	9.0	9.6	6.1	5.1	2.2	2.0	2
12.0	12.0	11.1	10.6	8.8	6.8							3
11.0	12.0	10.8	6.4	G	9.0		2.3	2.0				4
12.0	12.0	9.2	9.0	8.0	9.6	7.0						5
12.2	11.8	12.1	20.6	5.6	G		9.6	1.6				6
12.3	12.6	12.2	10.6	G	8.0		3.6					7
12.0	12.0	12.2	G	G	G							8
12.2	12.0	10.0	22.0	10.0	7.8						6.0us	9
12.6	12.6	11.4	10.8	9.6	7.6us		2.1	2.3	1.8			10
12.0	11.8	11.5	10.1	8.0	G	5.1	2.1					11
11.1	12.0	12.0	11.0	8.6	7.0		7.1					12
12.0	11.6	12.0	11.8	8.3	G	9.8	7.6	6.5			5.0us	13
11.4	11.8	12.1	12.8	6.9	7.0us	6.3						14
12.0	12.0	10.0	9.1	7.8	6.1	3.8	1.8	3.1		2.3	1.9	15
12.2	11.2	11.7	9.8	7.0	6.7	5.6	6.6					16
12.0	12.0	11.0	8.6	G	G	G	5.8			5.2	2.9	17
12.6	10.6	10.3	17.1	13.0	7.0	9.5				11.0	7.8us	18
12.1	12.8	11.2	10.3	5.8	G			5.2	3.0			19
11.8	11.6	11.8	11.2	8.7	6.6	18.0	12.5	7.0				20
11.8	11.1	12.8	9.8	8.0	6.8		2.1					21
12.4	12.4	9.0	9.1	8.0	6.4			6.8		3.1	4.0	22
11.0	9.2	G	G	G	G		2.3				2.8	23
9.8	7.6	1.2	3.6	6.6	12.1	3.6	3.0		3.0		3.2	24
9.8	9.1	12.2	10.8	10.6	8.2	6.1	1.8	8.2	1.0	2.0	3.8	25
11.1	10.8	5.6	9.4	7.0	2.6		5.2					26
12.2	12.7	11.8	G	G	9.0	6.0	1.8				5.0	27
12.1	11.8	10.8	12.0	6.1	G		2.1	5.6				28
13.4	9.2	7.0	5.6	G	9.0			1.0		3.2	1.0	29
12.0	12.0	11.0	8.5	G	6.8				7.6us			30
12.2	12.0	12.0	9.6	7.2	7.2						1.0	31
31	31	31	29	29	29	12	20	19	7	7	13	Count
12.0	11.8	11.2	10.1	7.2	6.8	5.8	1.8	5.6	4.4	3.1	1.0	Median
11.8	11.1	10.7	10.9	8.2	7.1	6.5	5.1	5.3	4.3	1.1	3.9	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic foEs

TABLE 38—Contd

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month August, 1962

75 E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1			1 6	6 4	1 0	1 0	8 8	8 8	6 0	12 4	11 6	9 1
2							G	G	G	G	9 8	9 8
3	1 8	3 1	1 4	7 0	9 2		8 0	10 4	10 0	12 0	12 6	12 6
4							G	G	7 0	11 0	11 8	12 0
5			7 6				5 4	8 2	10 1	12 0	11 8	12 0
6	3 8						1 8	9 6	12 2	12 1	12 0	12 7
7			7 0				G	8 6	9 8	12 1	12 2	12 0
8				3 0	2 1		8 0	8 6	9 8	11 6	12 0	13 0
9			5 0	8 6	4 8		G	6 0	G	11 6	11 6	12 2
10	5		5 0		6 0		5 8	8 8	G	11 1	12 2	12 6
11			18 0	1 2			5 0	8 2	10 2	12 2	G	12 2
12					5 6		G	8 8	11 0	11 0	11 8	11 6
13							7 1	8 6	10 0	12 2	12 3	12 2
14	2 0	5 0	3 6				1 6	9 0	12 0	12 2	12 0	11 6
15	5 2	5 4				3 6	G	9 4	9 5	11 0	12 0	13 8
16	3 5	3 7	5 8				G	5 8	10 8	12 0	12 3	11 6
17	7 1	4 4	5 0				6 4	6 6	12 0	12 0	12 2	12 4
18	3 8	2 4	3 7		1 2		G	8 6	10 0	11 6	12 0	12 0
19	10 8	7 2	3 6				6 8	9 0	11 6	12 0	12 4	12 6
20	8 0						G	G	7 4	G	11 2	10 2
21			G				G	9 4	8 0	11 0	12 0	12 0
22							G	G	5 6	12 0	9 8	12 4
23		2 5				2 7	5 0	G	8 0	1 1	G	G
24	2 9	1 1	2 9	8 4	8 2		7 6	11 2	12 4	9 1	9 8	10 6
25	3 0	2 1	1 1	9 6			8 2	8 6	10 8	12 2	10 2	11 2
26	3 4	5 6	2 1	2 3			6 0	9 6	11 0	12 1	11 4	11 6
27	2 6			9 4			5 8	8 0	10 6	G	11 6	12 0
28	2 0						G	8 6	11 6	11 6	12 0	12 1
29							G	7 0	9 0	10 0	12 0	9 0
30	7 0	9 4	5 8				4 2	10 0	10 0	11 2	12 0	13 1
31							G	5 6	5 8	12 2	12 0	12 0
Count	15	12	11	9	8	3	30	31	29	29	30	31
Median	3 5	1 1	1 8	1 2	5 2		4 7	8 6	10 0	12 0	12 0	12 0
Mean	1 5	1 6	5 5	5 2	5 5		6 3	8 3	9 7	11 4	11 7	11 8

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic foEs

TABLE 38—Contd

Latitude 10 2' N

Unit Mc

Ionospheric Data

Longitude 77 5'E

Month August 1962

75 E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
11 6	11 6	11 8	8 0	8 6	8 4		8 0					1
10 4	11 0	12 2	7 6	8 4	10 0	1 0	4 6	1 0	1 6	2 2		2
11 4	12 6	11 0	8 8	8 0	5 6							3
12 0	11 4	8 8	7 6	G	9 0	1 0	2 2					4
12 0	12 0	6 0	8 0	G	6 0	5 6					3 9	5
12 1	G	11 8	11 2	G	G	1 6	1 8					6
12 2	12 8	11 6	7 6	10 6	6 0	3 1	2 1					7
12 0	12 6	11 0	G	G	5							8
12 2	20 0	10 0	22 0	8 8							18 2	9
12 1	11 6	11 2	7 6	8 8	7 0		2 1	1 8				10
12 0	11 8	10 8	8 1	7 0	1 2	7 8				3 2		11
12 4	12 2	10 0	9 0	7 6	1 6						2 1	12
12 6	12 2	11 8	9 4	5 8	1 2	8 0	1 6				2 1	13
12 2	12 2	12 0	7 4	7 1	7 0					9 2	1 8	14
12 3	10 8	9 6	8 0	7 8	1 8	5 8		2 1	3 2	3 2	2 6	15
12 3	11 8	9 6	7 7	7 2	6 0	6 4				3 0	3 9	16
12 2	11 3	11 0	6 1	G	G	6 0			1 8		5 8	17
11 6	11 0	7 6	13 7	11 8	6 0			1 7	6 2	1 5	6 0	18
12 1	11 0	11 8	7 2	G	2 3	2 1	2 3				3 1	19
12 1	11 7	11 6	9 7	7 6	7 8	10 1	9 6	1 3				20
12 0	12 0	12 4	8 8	7 6	G	2 6					2 0	21
12 0	12 0	11 0	8 1	8 0					3 5		3 2	22
8 0	G	G	G	G	3 1							23
1 8	8 6	9 8	3 6	3 1	1 1	2 1			3 1	6 1	3 8	24
17 1	10 0	12 4	10 1	10 1	6 6	6 0	3 0	6 5	3 1		1 1	25
9 8	10 0	10 8	8 2	1 6								26
12 1	12 0	8 1	G	6 6	1 6	5 6	3 2				5 0	27
12 2	17 8	11 0	8 4	3 3	G	11 6	6 0					28
14 0	7 6	7 2	G	G	2 6						6 0	29
12 0	11 0	9 4	G	6 8					7 6			30
12 0	12 0	11 2	8 0	6 1	6 8					5 8	3 4	31
91	30	30	29	29	25	17	12	5	8	8	16	Count
12 0	11 6	11 0	8 0	7 2	5 6	5 6	3 9	1 8	4 0	3 2	3 9	Mean
11 7	11 7	10 2	9 0	7 5	6.1	5 5	1 1	1 5	1 1	1 0	1 3	Mean

Sweep 10 Mc to 25 0 Mc in 27 seconds

Characteristic f_oF₂
 Unit Mc.
 Month August, 1962

TABLE 39
 Ionospheric Data
 75°E Mean Time

Latitude 10°2' N
 Longitude 77°5' E

12	13	14	15	16	17	18	19	20	21	22	23	Date
3.6	3.5	3.1	3.2	3.5	2.6		2.5	2.8	2.1			1
4.2	1.6	8.2	7.8	4.0	2.8	2.1	1.9	2.3	2.1	2.2	2.0	2
3.6	3.6	3.1	3.1	2.8	2.5							3
3.6	3.6	3.1	3.1	3.0	3.4		2.0	1.8				4
3.6	3.6	3.4	3.6	3.0	3.0	2.6						5
3.7	3.5	3.0	1.6	3.0	G	1.9	1.7					6
3.6	3.5	3.5	3.1	G	2.7		2.9					7
3.6	3.5	3.1	G	G	G							8
3.6	3.5	3.3	3.8	4.7	2.9						1.4	9
3.6	3.6	3.3	3.3	2.9	2.5		1.5	1.9	1.5			10
3.7	3.6	3.5	3.2	2.9	G	2.8						11
3.6	3.6	3.1	3.2	3.0	2.4		2.3					12
3.7	3.6	3.4	3.3	3.0	G	3.2	2.6	2.1			1.6	13
3.8	3.6	3.5	3.1	3.0	2.6	2.8						14
3.7	3.6	3.5	3.3	3.0	2.8	2.0	1.7	1.5		1.1		15
3.9	3.9	3.5	3.2	3.0	2.8	2.6	2.1					16
3.6	3.6	3.6	3.3	G	G	G	1.9				1.5	17
3.7	3.6	3.6	3.7	4.5	2.7					3.8	2.2	18
3.8	3.6	3.6	3.2	3.1	G			2.3	1.8			19
3.7	3.7	3.7	3.3	2.9	2.4	3.1	3.4	2.3				20
3.7	3.7	3.5	3.5	3.0	2.6		1.5					21
3.7	3.7	3.7	3.2	3.0	2.4			3.2		1.5	1.7	22
3.7	4.1	G	G	G	G		1.8				2.2	23
3.8	4.1	3.7	3.2	3.1	3.0	2.3	1.6		2.3		1.3	24
3.5	3.8	3.6	4.8	3.8	2.7	3.8	3.1	1	2.1	2.0	1.7	25
3.8	3.5	3.8	3.0	3.6	2.6		2.2					26
3.6	3.6	3.1	G	2.8	2.5	2.2	1.8				1.5	27
3.6	3.5	3.1	3.2	3.1	G			2.1				28
3.4	4.4	3.2	3.2	G	2.1			1.7			1.7	29
3.6	3.6	3.4	3.2	G								30
3.6	3.6	3.4	3.2	3.0	3.0						1.7	31
31	31	31	29	29	28	12	18	12	6	5	12	Count
3.7	3.6	3.6	3.3	3.0	2.6	2.6	2.0	2.3	2.2	2.0	1.7	Median
3.7	3.7	3.6	3.6	3.2	2.7	2.6	2.1	2.2	2.1	2.2	1.7	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds

Characteristic f_oF₂
Unit Mc
Month August, 1962

TABLE 39—Contd
Ionospheric Data
75°E Mean Time

Latitude 10 2°N
Longitude 77 5°E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1				A		1 5	2 2	2 9	3 1	3 4	3 5	3 6
2							G	G	G	G	3 7	4 0
3			A	A	A		2 3	2 7	3 1	3 4	3 6	3 7
4							G	G	3 2	3 1	3 5	3 6
5			A				2 2	2 8	3 1	3 3	3 5	3 6
6	1 4						2 2	2 8	3 6	3 5	3 5	3 5
7			A				G	2 7	3 1	3 5	3 5	3 6
8							2 4	2 8	3 1	3 3	3 6	3 6
9			1 9	2 3	1 9		G	2 7	C	3 5	3 5	3 6
10	1 4		1 2		A		2 3	2 8	G	3 3	3 6	3 6
11				1 6			2 3	2 7	3 1	3 3	C	3 7
12					A		C	2 8	3 1	3 1	3 6	3 6
13							2 2	2 8	3 1	3 1	3 6	3 7
14							2 2	2 8	3 2	3 6	3 6	3 8
15	2 3	1 5					G	2 8	3 2	3 6	3 7	3 7
16	1 6	1 6	1 4				G		3 2	3 5	3 7	3 7
17	1 1	1 4	A					2 8	3 2	3 5	3 7	3 8
18	1 6	1 5	1 5				G	2 8	3 2	3 1	3 6	3 8
19	2 3	1 8					2 3	2 8	3 2	3 5	3 7	3 7
20	1 8						G	G	3 2	C	3 7	3 8
21			G				G	2 9	3 1	3 1	3 6	3 7
22							G	G		2 3	3 6	3 6
23		1 6				1 2		G		1 0	G	G
24	1 0	E	L	1 1	1 3		2 1	2 8	3 2	3 6	3 7	3 7
25	1 1	1 6	1 1	1 3			2 2	2 7	3 1	3 5	3 5	3 5
26	1 5	1 6	1 4	1 3			2 1	2 7	3 0	3 3	3 6	3 6
27	1 6						2 2	2 7	3 2	C	3 6	3 7
28	1 5						G	2 8	3 1	3 1	3 5	3 6
29							G	2 8	3 1	3 4	3 6	3 6
30	1 7	A	A				2 2	2 8	3 2	3 3	3 5	3 7
31							G	2 8	3 1	3 1	3 5	3 6
Count	14	10	12	7	5	2	28	30	27	29	30	31
Median	1 6	1 6	1 4	1 6	A		2 2	2 8	3 1	3 4	3 6	3 6
Mean	1 6	1 6	1 5	1 5			2 2	2 8	3 2	3 4	3 6	3 7

Sweep 1 0 Mc to 25 0 Mc in 27 seconds.

Characteristic f_oF₂

TABLE 39—Contd

Latitude 10.2°N

Unit Mc

Ionospheric Data

Longitude 77 5°E

Month August, 1962

75°L Meru Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
3.5	3.7	3.2	3.2	3.8	2.6		2.6					1
4.0	7.9	6.8	1.9	2.9	5.1	1.7	2.4	3.0	2.0	2.1		2
3.6	3.6	3.3	3.0	2.8	G							3
3.6	3.7	3.2	6.8	G	2.8	3.5	2.2					4
3.6	3.5	3.3	3.2	G	2.1	2.3					1.9	5
3.5	G	3.1	1.1	G	G	1.9	1.7					6
3.6	3.5	3.3	3.0	1.0	2.2	2.1	1.6					7
3.6	3.5	3.3	G	G	2.2							8
3.5	3.5	3.4	\	3.0							1.9	9
3.5	3.5	3.3		2.7	2.1		1.5					10
3.8	3.5	3.3	3.0	2.7	2.2	3.2						11
3.7	3.5	3.3	3.1	2.7	2.0							12
3.7	3.6	3.2	3.2	2.6	2.2	1.0	2.3				1.5	13
3.8	3.6	3.0	3.2	3.0								14
3.7	3.6	3.3	3.1	2.9	2.3	5.0			1.6	1.3	1.1	15
3.8	3.6	3.1	3.3	2.9	2.1	2.9				1.3	1.0	16
3.7	3.8	3.1	3.4	G	G						1.1	17
3.6	3.6	7.6	4.0	3.8	2.5			1.8	2.1	2.0	2.6	18
3.8	3.6	3.1	3.1	G	2.2	1.3	1.9				1.1	19
3.8	3.6	3.1	3.2	2.7	2.1	2.0	2.1	2.1				20
3.7	3.6	3.6	3.3	2.9	G	2.1					1.1	21
3.7	3.5	3.1	3.2	2.8					1.9		1.0	22
	G	G	G	G	2.1							23
1.0	3.9	3.4	3.3	2.7	2.6	1.9			2.3	2.3	1.5	24
3.6	3.7	3.1	4.3	3.6	2.2	3.0	1.5	2.6	2.0		1.8	25
3.3	3.9	1.8	3.3	3.0								26
3.6	3.5	3.3	G	2.8	2.5	2.2	1.8					27
3.6	3.8	3.2	3.2	G	G	3.6	2.2					28
3.8	1.0	3.3	G	G	2.0						1.7	29
3.8	3.5	3.2	G	2.8								30
3.7	3.5	3.2	3.2	3.0	2.5					2.5	1.6	31
3.0	3.0	3.0	2.8	2.8	2.5	1.6	1.2	1	6	6	1.1	Count
3.7	3.6	3.3	3.2	2.8	2.2	2.1	2.0		2.0	2.2	1.1	Median
3.7	3.8	3.7	3.5	3.0	2.1	2.7	3.0		2.0	2.0	1.5	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic fmin
 Unit : Mc
 Month August, 1962

TABLE 40
 Ionospheric Data
 75°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	1.1	C	E	E	E	L	1.5	1.9	2.1	2.0	2.3	2.1
2	1.6	1.6	1.3	1.2	1.4	1.1	1.9	1.7	1.8	2.2	2.0	2.0
3	1.4	A	1.2	1.2	1.6	F	2.0	C	1.6	C	2.2	2.6
4	1.7	1.2	C	C	C	C	1.4	1.1	1.8	2.1	2.3	2.4
5	2.0	1.6	1.4	1.5	E	1.6	1.9	1.9	1.1	2.0	2.9	2.2
6	1.1	L	L	1.1	1.1	B	1.1	1.4	1.5	1.9	2.0	2.1
7	1.6	1.4	L	1	F	1	1.3	1.2	1.6	1.9	1.9	2.3
8	1.1	1.1	1.3	1.3	E	B	1.1	1.5	1.7	1.7	2.0	2.3
9	1.4	1.8	L	1.6	1.5	1.1	1.3	1.1	1.8	1.9	1.9	2.9
10	1.2	1.9	1.1	1.1	L	B	1.2	1.3	1.5	1.6	1.9	2.1
11	2.0	1.6	1.5	1.0	1.4	1.5	1.2	1.2	1.6	1.8	2.2	2.2
12	1.3	E	L	E	E	2.5	1.7	1.3	1.1	1.8	2.0	2.2
13	F	E	1.2	1.4	E	1.1	1.3	1.3	1.1	1.8	2.0	2.3
14	L	L	L	L	1.0	E	1.1	1.3	2.0	2.1	2.3	2.4
15	1.7	E	1	E	E	F	1.1	1.1	1.6	2.0	2.2	2.9
16	E	L	1.1	1.3	1.4	1	1.2	1.5	2.0	2.2	2.5	2.6
17	1.3	1.3	1.3	1.6	L	L	1.9	1.3	1.6	2.1	2.3	2.6
18	1.1	1.4	E	1.1	E	E	1.4	1.9	1.8	2.2	2.4	2.6
19	1.6	1.8	1.1	1.2	1.2	1.3	1.2	1.3	1.6	2.0	2.9	2.6
20	1.6	1.4	1.3	1.4	1.0	1.0	1.2	1.1	1.8	2.2	2.3	2.6
21	1.0	1.5	1.9	E	1.1	1.0	1.6	1.8	2.1	2.1	2.2	2.6
22	E	1.0	1.9	F	E	E	1.9	1.6	2.1	2.6	2.1	2.6
23	1	1.2	E	L	F	1.0	1.4	1.6	1.3	2.2	2.2	2.9
24	E	E	F	E	1.2	1.4	1.1	1.3	1.6	1.7	2.2	2.9
25	L	E	L	1.1	E	E	1.1	1.1	1.7	1.9	2.2	2.4
26	L	E	E	L	E	L	1.5	1.9	1.5	2.0	2.9	2.6
27	1.5	1.3	1.4	1.2	E	E	1.1	1.4	1.7	2.1	C	2.4
28	E	1.3	1.1	L	E	E	1.3	1.1	1.5	2.0	2.2	2.4
29	1.5	C	1.1	1.1	1.1	1.1	1.2	1.1	1.1	C	2.0	2.4
30	1.1	1.2	1.9	E	E	1.2	1.3	1.1	1.5	2.0	2.9	2.5
31	1.9	1.4	1.9	F	F	F	1.2	1.9	1.6	1.8	2.0	2.2
Count	91	28	90	10	90	27	91	90	91	29	90	91
Median	1.9	1.2	1.2	1.1	E	1	1.9	1.4	1.6	2.0	2.2	2.4
Mean	1.4	1.4	1.9	1.9	1.2	1.9	1.9	1.4	1.7	2.0	2.2	2.4

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic fmin
Unit Mc
Month August 1962

TABLE 10
Ionospheric Data
75 L Mc in Time

Latitude 10 2° N
Longitude 77 5° E

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

Sweep 1 0 Mc to 25 0 Mc in 27 seconds.

Characteristic fmin TABLE 40 (cont'd) Latitude 10 2° N
 Unit Mc Ionospheric Data Longitude 77 5° E
 Month August 1962 75°L Meridian

Hour/Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	1.1	1.0	I	F	C	1.1	1.7	1.5	2.0	2.0	2.1	2.5
2	1.4	1.3	1.2	1.2	1.3	1.3	1.1	1.8	2.0	2.5	2.6	2.5
3	F	E	1.1	1.5	1.2	1.1	1.5	1.6	1.9	2.2	2.1	2.5
4	1.4	G	G	C	C	1.2	1.4	1.7	1.8	2.3	2.1	2.6
5	1.8	1.4	1.5	F	1.0	1.5	1.3	1.5	1.7	2.0	2.2	2.1
6	1.2	1.1	1.1	F	1.2	1.3	1.3	1.5	1.7	2.0	2.2	2.3
7	E	E	E	L	1	1.3	1.2	1.1	1.7	2.1	2.0	2.1
8	E	1.3	1.2	E	1.4	1.1	1.1	1.6	1.9	1.8	2.2	2.3
9	1.4	1.4	E	1.6	1.2	1.2	1.4	1.8	G	2.0	2.1	2.2
10	1.1	E	F	1.2	1.2	1.2	1.1	1.5	G	1.8	2.0	2.4
11	1.6	1.5	1.4	1.1	1.5	1.4	1.1	1.3	1.6	2.0	G	2.2
12	1.3	F	E	1.0	1.8	1.7	G	1.2	1.5	2.0	2.0	2.2
13	E	1.1	1.3	1.2	E	1.1	1.5	1.3	1.7	2.0	2.1	2.1
14	E	E	F	1.4	E	L	1.2	1.5	1.6	2.3	2.4	2.5
15	1.5	1.1	G	1.1	1.0	E	1.3	1.5	1.8	2.0	2.3	2.1
16	E	E	1.6	1.6	1.3	1.3	1.3	1.7	2.0	2.1	2.5	2.6
17	1.1	E	1.3	E	E	1.2	1.5	1.6	2.1	2.2	2.1	2.6
18	1.5	1.1	E	E	L	1.2	1.8	1.8	2.2	2.3	2.6	2.6
19	1.7	1.3	1.3	1.5	1.3	1.3	1.3	1.5	1.9	2.2	2.3	2.5
20	1.2	1.4	1.2	1.1	1.0	F	1.2	1.7	2.3	G	2.3	2.5
21	1.0	1.1	G	1.1	1.2	1.1	1.1	1.9	2.1	2.2	2.4	2.5
22	E	E	E	L	E	1.3	1.1	1.7	2.0	2.3	2.5	2.5
23	1.2	F	1.1	E	E	F	1.6	1.8	2.2	2.4	2.7	2.4
24	E	E	E	E	E	1.7	E	1.1	1.7	2.2	2.3	2.4
25	1.0	F	E	1.2	E	1.7	1.0	1.1	1.7	2.2	2.2	2.3
26	F	E	E	E	L	1.1	1.1	1.5	1.8	2.1	2.6	2.6
27	1.5	1.7	E	E	E	1.5	1.3	1.6	1.7	G	2.2	2.5
28	E	E	E	E	E	1.1	1.2	1.5	1.7	2.2	2.1	2.5
29	1.5	G	1.2	L	F	1.1	1.4	1.4	1.5	1.8	2.2	2.1
30	1.1	1.3	1.5	E	1.4	1.5	1.1	1.1	1.8	2.0	2.1	2.5
31	1.3	1.1	E	E	E	1.5	1.3	1.5	1.7	2.0	2.2	2.1
Count	31	29	28	29	29	31	30	31	29	29	30	31
Median	1.1	1.1	1.1	1.1	1.0	1.3	1.4	1.5	1.8	2.1	2.1	2.5
Mean	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.6	1.8	2.1	2.3	2.4

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

TABLE 40 (cont'd)
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5' E

Characteristic	Month August 1962											Date	
Unit Mc	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	
2.1	2.2	2.1	2.0	1.8	1.6	1.7	1.8	2.6	2.0	1.6	1.4		1
2.5	2.1	2.1	2.1	1.9	1.7	1.6	1.3	1.2	1.2	1.2	1.1		2
2.5	2.1	2.1	2.2	2.0	1.5	1.4	1.1	1.6	1.8	1.7	1.2		3
2.5	2.5	2.1	3.1	2.8	2.0	1.1	1.5	2.0	2.6	2.0	2.0		4
2.7	2.2	2.4	2.0	2.2	1.6	1.6	1.6	1.1	1.5	1.5	1.1		5
2.9	G	2.1	1.9	2.5	1.6	1.5	1.3	1.6	1.2	1.6	1.2		6
2.5	2.2	2.2	2.1	2.1	1.9	1.5	1.2	1.1	1.1	1.2	1.2		7
2.5	2.3	2.2	2.1	2.2	2.2	1.8	1.1	1.6	1.5	1.6	1.1		8
2.3	2.3	2.0	1.9	2.0	2.7	1.7	1.5	1.1	1.1	1.7	1.3		9
2.9	2.3	2.0	3.5	1.7	1.1	1.6	1.5	1.2	2.1	1.7	1.8		10
2.1	2.6	2.2	2.0	1.9	1.6	1.1	1.8	1.9	1.8	1.5	1.1		11
2.3	2.7	2.2	2.0	1.7	1.6	1.6	2.2	2.0	1.6	1.5	1.1		12
2.4	2.1	2.1	2.1	1.9	1.9	1.5	1.3	2.0	1.8	1.5	1.1		13
2.4	2.5	2.6	2.6	2.2	2.1	2.2	1.7	2.0	1.7	1.6	1.4		14
2.5	2.3	2.2	2.0	1.8	1.2	1.5	1.8	1.5	1.1	1.5	1.1		15
2.8	2.3	2.1	2.1	1.8	1.6	2.1	1.8	1.3	1.1	1.1	1.5		16
2.5	2.3	2.3	2.3	G	G	1.2	1.3	1.6	1.5	1.1	1.3		17
2.6	2.6	2.1	2.3	1.7	1.5	1.2	1.1	1.2	1.7	1.7	1.6		18
2.6	2.5	2.0	2.1	1.9	1.3	1.3	1.0	1.1	1.2	1.3	1.2		19
2.7	2.3	2.1	2.2	1.8	1.3	1.3	1.0	1.0	1.8	1.8	1.2		20
2.4	2.3	2.1	2.1	2.0	1.5	1.2	1.5	1.7	1.3	1.1	1.0		21
2.5	2.3	2.2	2.0	1.8	2.5	1.7	1.3	1.1	1.1	1.3	1.5		22
3.6	2.6	G	G	G	1.4	1.4	1.1	1.2	1.8	1.2	1.1		23
2.3	2.1	2.8	2.5	1.9	1.7	1.5	1.7	2.0	2.3	2.0	1.5		24
2.4	2.2	2.0	1.8	1.7	1.3	1.1	1.3	1.3	1.8	1.6	1.5		25
2.5	3.0	2.0	3.0	2.6	2.2	1.7	1.6	2.0	1.7	2.1	1.5		26
2.5	2.4	2.1	G	2.2	1.6	1.5	1.5	1.6	1.5	1.6	1.5		27
2.1	2.1	2.2	2.0	2.0	1.5	1.6	1.4	1.7	2.0	1.5	1.6		28
2.0	2.1	1.9	2.6	2.0	1.6	1.6	1.7	1.8	1.5	1.6	1.2		29
2.6	2.4	2.4	2.4	2.2	2.2	1.6	1.4	1.6	1.7	1.8	1.4		30
2.5	2.4	2.4	2.4	2.0	1.6	1.8	1.6	1.6	1.4	1.4	1.1		31
31	30	30	29	29	30	31	31	31	31	31	31		Count
2.5	2.4	2.2	2.1	2.0	1.6	1.5	1.4	1.6	1.6	1.6	1.4		Median
2.5	2.4	2.2	2.3	2.0	1.7	1.5	1.5	1.6	1.6	1.6	1.4		Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds

Characteristic $h'F_2$ Latitude 10 2' N
 Unit Km Ionospheric Data Longitude 77 5' E
 Month August 1962 75°L. Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
390	100M	315	L	325	I							1
350	360M	A	A	L	L							2
370	410	405	L	I	L							3
420	400	340	325	L	L							4
410	430	360	310	L	L							5
420	395	380	310U	320	280							6
410	415	370	360	310	I							7
390	400	370	C	315	I							8
370	370	340	325	320	L							9
400	365	360	340	L	I							10
390	390	375	I	L	L							11
485	355	190	400	L	L							12
420	420	390	L	I	L							13
400	420	390	330	L	I							14
L	380	385	L	L	L							15
380	360	350	330L	L	L							16
360	370	365	L	C	C							17
340	340	310	L	A	L							18
390	380	360	320	300	L							19
375	400	L	L	L	L							20
390	410	410	350	300	L	L						21
400	380	360	370	I								22
375	370	350	C	C	C	L						23
390	310	350	310	L	L							24
310	370	350	A	A	A							25
360	310	330	A	300	L							26
400	360	360	320UL	300	L							27
410	380	380	L	L	L							28
A	350	340	330	L	L							29
385	360	310	L	L	L							30
L	380	310	L	L	L							31
28	31	29	15	9	1							Count
390	380	360	330	310								Median
390	385	365	310	310								Mean

Sweep 1.0 Mc to 25.0 Mc, in 27 seconds.

Characteristic $h'F_2$

TABLE 41—Contd

Latitude 10° 2' N

Unit Km

Ionospheric Data

Longitude 77° 5' E

Month August 1962

75°E Mc in Line

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130	
1							I	300	310	310 _{tr}	310 _{tr}	350	
2							210	270	295	305	325	310	
3							L	L	360	315	390	100	
4							I	I	310	380 _{tr}	400 _{tr}	100	
5							I	L	370 _{tr}	380	440	160	
6							I	300	325	365	110	395	
7							I	300	I	390	I	420	
8							I	280	I	360	370	360	
9							I	280	C:	110	360	360	
10							I	I	C:	350	360	360	
11							I	I	330	360	C:	390	
12							C:	L	310	I	410	500	
13							I	I	L	375	390	110	
14							L	I	I	370	120	450	
15							I	I	350	I	120	I	
16							I	270	305	315	350	360	
17							255	275	325	360	370	L	
18								L	315	L	335	370	
19							I	I	330	320	L	365	
20								I	300	C:	350	360	
21							I	295	335	390	380	365	
22							I	L	L	330	370	390	
23							L	L	280	310	310	350	
24							I	I	300	315	310	350	
25							I	L	310	335	345	360	
26							L	L	305	370	390	395	
27							I	L	L	C:	380	400	
28							L	300	340	380 _{tr}	120	110	
29								L	325	360	380	380	
30							I	I	310 _{tr}	350	L	380	
31							L	L	I	L	310	L	
Count								2	10	22	25	27	28
Median									280	325	350	370	380
Mean									285	325	350	375	385

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds

Characteristic $h'F_2$		TABLE 11--Contd											Latitude 10 2' N	
Unit Km		Ionospheric Data											Longitude 77 5' E	
Month August 1962		75°E Meridian												
1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date		
420	380	310	F3	L									1	
360tr	A	A	A	L									2	
420	420	395	L	F	275								3	
400	360	310	A	F	L								4	
410	410	360	315	390									5	
425	C	350	320	390	275								6	
420	420	380	325	300									7	
420	390	360	320	L									8	
390	370	310	A	380									9	
380	380	350	320	F									10	
390	375	370	F	F	F								11	
500	410	420	L	F	F								12	
420	420	F	L	L									13	
415	415	A	F	F									14	
410	390	F	F	F	L								15	
370	360	330	325	L									16	
385	310	310	F	C	C								17	
365	360	A	L	F									18	
395	370	335	L	F	L								19	
385	375	380	F	L									20	
400	400	400	320	L	L								21	
360	360	390	320										22	
350	320	C	C	C	L	L							23	
360	360	315	300	F									24	
350	385	360	A	A									25	
360	310	A	300	270	L								26	
380	390	340	C	280									27	
405	380	L	L	L									28	
A	310	320	L	F									29	
390	350	310	F										30	
L	380	310	F	L	L								31	
29	29	23	11	6	2								Count	
390	380	310	420	285									Median	
395	380	355	325	300									Median	

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h'F
 Unit Km
 Month August 1962

TABLE 42
 Ionospheric Data
 75°E Meridian

Latitude 102° N
 Longitude 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	260	C	215	A	I	I	215	220	200	190	180rt	180rt
2	260	360	310	320	I	220	210	215	200	200	195rt	200
3	320	A	A	A	A	A	240	C	185rt	C	200	190
4	220	210	I	F	I	F	240	220	200	200	200	180
5	245	300	260	280	L	260	240	215	200	200	180	180rt
6	245	290	240rt	I	F	B	210	220	A	210	200	195
7	215	250	280	L	E	E	210	220rtA	215	200	195	200
8	I	I	I	I	I	B	240	220rtA	200	190	200	200
9	270	I	260	I	260	255	240	220	220	220	200rt	200
10	260	210	290	280	I	B	240	220	210	200	190	190
11	260	255	255	260rt	220	230	235	190rt	190	180	175rt	180
12	220	215	220	225	210	A	290	200	200	180	180	180
13	235	240	260	I	220	260	210rt	200	190	180rt	190	180
14	240	220	260	280	210	220	220	210	200	190	175	175
15	220	280	300	E	290	285	210	215	200	190	180	180
16	275	275	285	265	C	E	210	220	200	185rt	190	195
17	325	330	I	A	E	E	245	215	210	205	205	190
18	285	290	275	215	E	E	215	215	190rt	190rt	190	180
19	280	275	255	215	240	220	210	215	180rt	180rt	200	180
20	260	240	210	240	240	210	235	210	200rt	190	200	180rt
21	230	215	235	210	210	220	240	215	200	175	175	200
22	230	210	200	210	290	E	235	220	190	200	180	180
23	265	220	220	210	310	310	210	215	200	220	210	190
24	250	210	225	270	290	280	210	220	210	185	180	180
25	320	260	220	220	L	E	215	215	210	190	190	180
26	280	280	265	250	L	F	210	205	195	190	180	180
27	320	300	260	260	L	L	230	220	210	200	C	180
28	360	240rt	I	F	E	E	235	210	200	190	180	180
29	300rt	C	280	260	210	210	210	210	195	C	200	190
30	320	300	A	L	E	A	240	220	180rt	180rt	200	180
31	260	275	310	L	L	E	230	210	195	185	185	180
Count	30	26	25	23	23	21	31	30	30	29	30	31
Median	260	260	260	215	220	215	240	215	200	190	190	180
Mean	275	265	265	255	250	240	235	215	200	195	190	185

SwEEP 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h'F
 Unit Km
 Month August 1962

TABL 42
 Ionospheric Data
 75 E Mean time

Latitude 10 2° N
 Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
180 _{II}	175 _{II}	200	185 _{II}	A	200	250	215	215	F	210	225	1
A	A	A	A	A	230	210	220	225	210	210	220	2
180 _{II}	180	195	195	180 _{II}	225	230	225	230	220	240	210	3
185	180	180	180 _{II}	220	A	240	240 _F	220	240	255	295	4
180	185	180	210	200	240	240	220	210	220	245	240	5
185	185 _{II}	195	A	220	220	210	250 _{GA}	220	230	240	240	6
200	190	190	190	220	230	245	270 _{GA}	230	220	230	270	7
200	195	190	C	200 _{II}	225	245	260	260	240	240	240	8
190	190	180 _{II}	A	A	240	250	235	225	215	225	250	9
190	200	200	195	200	220	245	240	240	255	280	300	10
175 _{II}	175 _{II}	190	190 _{II}	200	200	240	220	215	210	220	225	11
180	180	185	195	200	200	235	240	235	210	210	230	12
180	170 _{II}	180	190	195	215	240	210	235	220	225	240	13
180	180	180	190	200	210	240	220	215	210	240	255	14
180	170 _{II}	190	200	200	220	250	210	220	215	220	240	15
200	200	190	185	215	245	250	240	240	215	245	300	16
180 _{II}	180	195	200	C	C	C	265	280	280	285	280	17
180 _{II}	180	185	220	A	210	250	270	240 _I	295	260 _A	270	18
175 _{II}	180	200	185	205	235	250	270	265	235	225	220	19
185	180	190	185	205	210	260 _I A	270 _{II} A	270	255	260	255	20
180	185	180	190	195	220	240	210	230	220	225	225	21
180	185	200	185	190	220	210	250	260	270	260	280	22
180	210	200	C	C	C	250	260	260	210	210	260	23
190	230	215	200	215	245	250	260	270	260	320	330	24
175	210	200	A	260	245	260	250	210	210	270	280	25
175	175	205	A	230	220	210	230	220	220	280	300	26
180	190	200	200	210	220	250	260	240	220	240	300	27
180	175 _{II}	180	175	220	220	240	260	260	250 _F	260 _F	280	28
A	A	200	200	200	220	250	250	225	240	245	260 _F	29
200	200	200	210	200	220	260	240	220	220	240	270	30
180	185	195	200 _{II}	220	240	240	220	220	220	230	250	31
29	29	30	24	25	28	30	31	31	30	31	31	Count
180	185	190	190	200	220	215	240	235	230	240	260	Median
185	185	190	195	210	225	245	245	240	230	245	265	Mean

SwEEP 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'F

TABLE 42—Contd

Latitude 10 2° N

Unit Km

Ionospheric Data

Longitude. 77 5° E

Month August 1962

75°L Mean time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	F	F	F	A	E	260	225	200	195	185	180	185
2	940	960	975	900	240	260	220	210	200	195 _{EX}	200	200
3	L	L	A	A	A	240	220	205	180 _{EX}	180 _{EX}	200	180
4	205	215	F	F	F	250	220	220	200	200	190	195
5	300	280	A	E	E	265	245	220	205	200	195	180
6	270	F	F	F	F	260	230	210	A	200	190 _{EX}	190
7	250	260	A	E	F	260	225	210	205	200	200	200
8	F	F	F	F	F	270	230	205	200	190	200	200
9	320 _{EX}	F	F	260	270	260	225	230	C	220	200 _{EX}	195
10	210	250	295	300	A	255	235	220	C	200	190	195
11	250 _{EX}	260 _{EX}	255 _{EX}	240	220	210	230	200	185	170 _{EX}	C	180
12	210	220	220	210	A	260	C	200	180	180	180	180
13	230	255	300 _{EX}	F	260	210	215	190	180	185	190	180
14	230	235	260	260	210	220	220	200 _{EX}	200	185	180	180
15	260	270	C	300	250	240	220	210	200	180	180	175
16	280	285	280	265	240	245	245	210	195	200	200	200
17	335	325	A	E	E	265	225	210	195 _{EX}	205	200	195
18	280	280	235	E	E	270	230	200 _{EX}	200	185	180	180
19	275	275	245	210	220	265	230	200 _{EX}	180 _{EX}	190 _{EX}	200	180 _{EX}
20	255	225	235	245	220	230 _{EX}	230	215	180 _{EX}	C	190	200
21	220	215	C	210	225	230	215	215	180	180	175	185
22	235	245	280	E	E	260	230	215	200	200	180	180
23	250	230	220	230	210	240	225	215	190	220	195	190
24	250	220	240	215	220	260	230	210	200	195	180	170
25	280	240	230	225	L	280	230	210	200	190	190	180
26	280	270	270	260	E	270	230	200	200	185	180	180
27	340	300	240	E	L	260	230	220	200	C	200	180
28	280 _{EX}	230 _{EX}	E	E	E	260	220	210	200	180	180	180
29	300	C	280	260	220	260	220	200	200	200	200	190
30	320	A	A	E	300	260	230	215	200	180 _{EX}	200	185
31	260	300	E	E	E	255	215	200	190	185	180	180
Count	29	25	19	25	25	31	30	31	28	29	30	31
Median	260	255	245	240	220	260	225	210	200	190	190	180
Mean	270	260	260	260	245	255	225	210	195	190	190	185

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'E
 Unit Km
 Month August 1962

TABLE 43
 Ionospheric Data
 75°E Me in time

Latitude 10 2° N
 Longitude 77 5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								△	105	△	105	△
2							120 _{IT}	100 _{IT}	100	100	△	△
3								C	△	C	△	△
4							190 _{IT}	105	105	△	△	△
5								100	△	△	△	△
6							120	110	△	△	△	△
7							120	△	△	△	△	△
8								△	△	△	△	△
9							130	△	△	△	△	△
10							120	△	△	△	△	△
11							115	△	△	△	△	△
12							100	△	△	△	△	△
13							115	105	△	△	△	△
14							100	105	100	△	△	△
15							110	△	△	△	△	△
16								105	105	△	△	△
17							120	△	△	△	△	△
18							120	110	△	△	△	△
19							110	△	△	△	△	△
20							115	105	105	105	△	△
21								120	120	△	△	△
22							120	110	105	110	△	△
23							120	110	110	110	△	△
24								△	△	△	△	△
25							115	△	△	△	△	△
26								△	△	△	△	△
27							120	△	△	△	C	△
28							125	110	△	△	△	△
29							120	105	△	C	△	△
30							120	△	△	△	△	△
31							115	105	100	△	△	△
Count							29	15	9	4	1	
Median							120	105	105			
Mean							120	105	105			

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h'F
 Unit Km
 Month August, 1962

TABLE 43
 Ionospheric Data
 75 h Mc at time

Latitude 10 2' N
 Longitude 77 5° E

12	13	11	15	16	17	13	19	20	21	22	23	Date
A	A	A	A	105	100							1
A	A	A	A	A	A							2
A	A	A	A	A	105							3
A	A	A	A	115	A							4
A	A	A	A	A	A							5
A	A	A	A	A	110							6
A	A	A	A	110	A							7
A	A	A	A	115	120							8
A	A	A	A	A	A							9
A	A	A	A	A	A							10
A	A	A	A	A	110							11
A	A	A	A	A	A							12
A	A	A	A	A	A							13
A	A	A	A	105	120							14
A	A	A	A	A	A							15
A	A	A	A	100	A							16
A	A	A	A	A	C							17
A	A	A	A	A	A							18
A	A	A	A	105	110							19
A	A	A	A	A	A							20
A	A	A	A	A	105							21
A	A	A	A	A	A							22
A	A	120	A	C	C							23
A	A	A	120	A	A							24
A	A	A	A	A	A							25
A	A	A	A	A	125							26
A	A	A	110	115	A							27
A	A	A	A	120	120							28
A	A	A	A	120	A							29
A	A	A	110	110	120							30
A	A	A	A	A	A							31
		1	4	12	14							Count
				110	110							Median
				110	110							Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic $h^{\circ}E$

FAPRL 43—Cont'd

Latitude 10 2° N

Unit Km

Ionospheric Data

Longitude 77 5° E

Month August, 1962

75 L Mean time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							120	\	100	\	\	105
2							110 _{tr}	100	100	105	\	\
3							\	\	\	\	\	\
4							110	105	\	\	\	\
5							100	\	\	\	\	\
6							110	\	\	\	\	\
7							110	\	\	\	\	\
8							\	\	\	\	\	\
9							105	\	G	\	\	\
10							110	\	G	\	\	\
11							\	\	\	\	G	\
12							G	\	\	\	\	\
13							110	100	\	\	\	\
14							100	100	100	\	\	\
15							100	\	\	\	\	\
16							115	105	\	\	\	\
17							115	\	\	\	\	\
18							115	105	\	\	\	\
19							105	\	\	\	\	\
20							110	105	105	G	\	\
21							120	115	105	\	\	\
22							110	105	100	\	\	\
23							110	105	110	110	110	100
24							\	\	\	\	\	\
25							\	\	\	\	\	\
26							\	\	\	\	\	\
27							120	110	\	G	110	\
28							110	\	\	\	\	\
29							120	\	\	\	\	\
30							120	\	\	\	\	\
31							110	100	100	\	\	\
Count							21	12	8	2	2	2
Median							110	105	100			
Mean							110	105	100			

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h^oE
 Unit Km
 Month August, 1962

TABLE-13 Contd
 Ionospheric Data
 75 L Mean time

Latitude 10 2' N
 Longitude 77 5' E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
A	A	\	\	105	A							1
A	A	A	100	A	A							2
A	A	A	A	105	115							3
A	\	A	A	120	A							4
A	A	\	A	120	120							5
A	G	A	A	125	A							6
A	A	A	A	A	A							7
A	A	A	105	A	A							8
\	\	\	A	120								9
A	A	A	B	A	\							10
A	A	A	A	100								11
A	A	A	A	A	100							12
A	A	A	A	110								13
\	\	A	100	120								14
A	A	A	A	A	A							15
\	A	A	A	A	A							16
A	A	A	110	G	G							17
A	A	A	110	110	A							18
A	A	105	105	110	120							19
A	A	A	A	\	A							20
A	A	A	A	A	110							21
A	A	A	A	A	A							22
B	110	G	G	G								23
100	A	110	110	105	130							24
A	A	A	A									25
A	A	A	A	120								26
A	A	110	G	A								27
A	A	A	A	120	120							28
A	A	A	A	120	120							29
A	A	A	110	120								30
A	\	A	A	A	A							31
1	1	3	9	17	7							Count
			110	120	120							Median
			110	115	115							Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h⁺Es

TABLE 11

Latitude 10° 2' N

Unit Km

Ionospheric Data

Longitude 77° 5' E

Month August, 1969

75 L Mc in 1 min

Date	00	01	02	03	04	05	06	07	08	09	10	11
1				100	100	100	100	100	100	100	C	100
2							C	C	C	C	100	100
3		100	100	100	100	100	100	C	100	C	100	100
4							C	C	C	100	100	100
5			100					100	100	100	100	100
6	115						110	110	100	100	100	100
7							C	100	100	100	100	100
8						110	100	100	100	100	100	100
9			110	110	100		130	100	100	100	100	100
10	115				100		C	100	100	100	100	100
11				100			C	100	100	100	100	100
12						100	C	100	100	100	100	100
13	120						C	100	100	100	100	100
14	120		100	100			C	100	100	100	100	100
15	100	100	100				C	100	100	100	100	100
16	120	100	100	100			120	C	100	100	100	100
17		115	120	100			C	100	100	100	100	100
18	90	120	110	100			100	C	100	100	100	100
19	100	100	110	100			105	100	100	100	100	100
20			100				C	C	C	C	100	100
21							130	120	130	100	100	100
22	130						C	130	120	C	100	100
23							C	C	C	C	100	100
24	120	120	100		100		100	100	100	100	100	100
25	120	120	100	100	100		130	100	100	100	100	100
26	120	130	110	100		130	C	100	100	100	100	100
27				100			C	100	100	100	C	100
28	110						130	C	100	100	100	100
29							130	100	100	C	100	100
30	100	100	100			100	120	100	100	100	100	100
31							C	C	100	100	100	100
Count	15	10	14	12	7	5	14	22	27	25	20	31
Median	115	110	100	100	100	100	120	100	100	100	100	100
Mean	115	110	100	100	100	100	115	100	100	100	100	100

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h ¹ E _s		TABLE 44										Latitude 10 2° N
Unit Km		Ionospheric Data										Longitude 7 5° E
Month	August 1962	75°E Meridian Time										Date
12	13	14	15	16	17	18	19	20	21	22	23	
100	100	100	100	120	115		105	100	100			1
100	100	100	100	100	100	120	100	100	95	90	90	2
100	100	100	100	100	100							3
100	100	100	100	G	100		100	95				4
100	100	100	100	100	100	100						5
100	100	100	100	100	G		100	100				6
100	100	100	100	G	100		100					7
100	100	100	G	G	G							8
100	100	100	100	100	100						100	9
100	100	100	100	100	100		100	100	95			10
100	100	100	100	100	G	100	95					11
100	100	100	100	100	100	100	100					12
100	100	100	100	100	G	100	100	95			110	13
100	100	100	100	100	100	120						14
100	100	100	100	100	100	130	110	110		100	100	15
100	100	100	100	100	100	100	100					16
100	100	100	100	G	C	C	145			110	120	17
100	100	100	100	105	105	120				105	100	18
100	100	100	100	100	G			100	125			19
100	100	100	100	100	105	100	100	100				20
100	100	100	100	100	100		120					21
100	100	100	100	100	100			110		120	120	22
100	100	G	C	C	C		120				120	23
100	100	115	120	G	100	130	120		120		130	24
100	100	100	100	100	100	100	100	100	120	120	120	25
100	100	100	100	100	125		120					26
100	100	100	G	G	100	100	100				120	27
100	100	100	100	100	C		100	100				28
100	100	100	100	G	120			110		120	120	29
100	100	100	100	G	100				130			30
100	100	100	100	100	100						120	31
31	31	30	28	21	25	12	20	13	7	7	13	Count
100	100	100	100	100	100	100	100	100	120	110	120	Median
100	100	100	100	100	105	110	105	100	110	110	115	Mean

Sweep 1 0 Mc. to 25 0 Mc. in 27 seconds

Characteristic h⁺E's
 Unit Km
 Month August 1962

TABLE 44—Contd
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1			105	105	100	100	100	100	100	100	100	100
2							G	G	G	G	100	100
3	90	100	100	100	100		100	100	100	100	100	100
4							G	G	100	100	100	100
5			100				100	100	100	100	100	100
6	115						120	100	100	100	100	100
7			100				G	100	100	100	100	100
8				110	110		100	100	100	100	100	100
9			105	100	100		G	100	C	100	100	100
10	115		110		100		100	100	C	100	100	100
11			100	100			100	100	100	100	C	100
12					100		C	100	100	100	100	100
13							100	100	100	100	100	100
14	110	100	105			120	100	100	100	100	100	100
15	100	100					G	100	100	100	100	100
16	100	100	100				G	150	100	100	100	100
17	100	100	115				125	100	100	100	100	100
18	125	125	100		100		G	100	100	100	100	100
19	110	100	135				100	100	100	100	100	100
20	100						G	G	115	C	100	100
21			C				G	120	105	100	100	100
22							G	G	130	100	100	100
23		120				110	120	110	115	120	120	100
24	120	115	110	100	100		100	100	100	100	100	100
25	120	115	100	100			100	100	100	100	100	100
26	120	110	110	115			100	100	100	100	100	100
27	105			100			100	100	100	C	100	100
28	105						G	100	100	100	100	100
29							G	100	100	100	100	100
30	100	100	100				100	100	100	100	100	100
31							G	100	100	100	100	100
Count	16	12	16	9	8	9	17	27	28	28	90	31
Median	110	100	100	100	100		100	100	100	100	100	100
Mean	110	105	105	105	100		105	105	100	100	100	100

Sweep 1 0 Mc. to 25 0 Mc. in 27 seconds

Characteristic (M 3000)F₁

TABLE 45

Latitude 10 2" N

Unit

Ionospheric Data

Longitude 77 5" E

Month August 1962

75th Meridian

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	1	C	E	A	F	J	3 50	3 30	3 15	3 00	2 80	2 50
2	2 75	2 70 _F	2 80 _{CRF}	F	F	F	3 30	3 45	3 40	3 25	3 10	3 10
3	3 90 _F	A	A	A	A	A	3 25	C	2 80	C	2 40	2 45
4	3 45	3 55	F	F	F	F	3 40	3 40	3 20	2 90	2 50	2 55
5	3 05	3 05	3 25	3 45	R	R	3 35	3 20	3 15	2 70	2 40	2 60
6	3 40	F	F	F	F	B	3 30	3 35	3 05	2 80	2 55	2 60
7	3 35	3 35	3 20	F	F	F	3 40	3 30	3 05	2 45	2 60	2 45
8	1	F	F	F	F	H	3 30	3 20	3 10	2 65	2 35	2 60
9	3 10	F	F	F	3 30	3 20	3 30	3 40	3 25	3 05	2 80	2 35
10	3 15	3 10 _F	3 20 _F	R	F	B	3 30	3 20	3 15	2 55	2 50	2 60
11	1	F	F	F	3 60	3 60	3 40	3 30	2 40	2 50	2 55	2 50
12	3 55	3 15	3 30	3 60	3 50	A	3 35	3 05	2 70	2 70	2 55	2 55
13	3 40	3 45	3 30	L	3 60	3 65	3 60	3 20	2 90	2 15	2 50	2 60
14	3 50	3 60	3 50	3 30	3 60	3 60	3 35	3 15	2 90	2 50	2 60	2 40
15	3 60	3 50	3 35	L	3 25	3 60	3 40	3 25	2 80	2 10	2 15	2 65
16	3 05	3 00	3 05	3 35	R	L	3 45	3 45	3 30	3 00	2 60	2 50
17	2 90	2 35	3 10 _{CRF}	A	F	F	3 35	3 30	2 80	2 35	2 10	2 50
18	3 00	3 05	3 25	3 45	F	F	3 35	3 40	3 10	2 60	2 10	2 15
19	3 05	3 15	3 30	3 40	3 10	3 60	3 25	2 90	2 65	2 60	2 55	2 50
20	3 25	3 45	3 50	3 35	3 35	3 55	3 45	3 40	3 30	3 20	2 05	2 60
21	3 30	3 50	3 30	3 30	3 10	3 65	3 55	3 40	3 40	3 15	2 40	2 60
22	3 50	3 40	3 40	2 90	3 30	1	3 60	3 60	3 50	3 10	3 00	2 70
23	3 10	3 40	3 35	3 40	3 00	2 85	3 40	3 35	3 40	3 30	3 05	3 00
24	3 35	3 45	3 40	3 10	3 10	3 30	3 40	3 20	2 90	2 75	2 75	2 75
25	2 85	3 20	3 50	3 55	J	L	3 45	2 95	2 80	2 60	2 50	2 70
26	1	3 00	1	3 55	L	L	3 50	3 35	2 90	2 60	2 65	2 65
27	3 00	3 00 _{CRF}	3 50 _{CRF}	3 45	J	L	3 50	3 40	3 00	2 40	C	2 55
28	1	F	F	R	F	F	3 55	3 50	3 10	2 40	2 55	2 70
29	3 00	C	F	3 40 _{CRF}	3 55	3 60 _{CRF}	3 50	3 50	3 05	C	2 70	2 55
30	2 90	3 10	A	J	F	A	3 40 _{CRF}	3 30	2 80	2 55	2 60	2 75
31	3 30	3 30	3 10	J	L	J	3 60	3 40	3 00	2 80	2 10	2 60
Count	26	29	20	15	19	19	31	30	31	29	30	31
Median	3 10	3 35	3 30	3 40	3 40	3 60	3 40	3 30	3 05	2 60	2 60	2 60
Mean	3 20	3 25	3 30	3 40	3 40	3 45	3 40	3 35	3 05	2 75	2 60	2 60

Step 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic (M 3000)F₂

TABLE 45—Contd

Unit

Ionospheric Data

Latitude 10° 2' N

Month August, 1962

75°E Mean Time

Longitude 77° 5' E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	F	F	F	A	E	3 20 _F	3 40	3 20	3 15	2 85	2 70	2 50
2	2 60	2 70 _{UR}	F	F	3 50 _F	3 20	3 50	3 45	3 35	3 15	3 05	3 00
3	R	E	A	A	A	3 20	3 30	3 00	2 70	2 60	2 50	2 50
4	3 60	3 55	F	F	F	3 25	3 45	3 30	3 00	2 70	2 10	2 55
5	3 15	3 15	A	E	3 40	3 25	3 15	2 90	2 50	2 50	2 45	2 40
6	3 10	F	F	F	F	3 25	3 35	3 10	2 90	2 45	2 40	2 70
7	3 20 _k	3 30	A	E	E	3 10	3 40	3 20	2 80	2 95 _{IR}	2 50	2 45
8	F	F	F	F	F	3 35	3 25	2 90	2 40	2 50	2 50	2 55
9	F	F	F	3 30 _{UR}	3 20	3 20 _{UR}	3 40	3 35	C	2 95	2 60	2 30
10	3 45 _F	3 30	R	R	A	3 10	3 30	3 10	C	2 45	2 60	2 50
11	F	F	F	F	3 60	3 25	3 40	3 10	2 60	2 60	C	2 60
12	3 60	3 60	3 60	3 50	A	3 30	C	2 75	2 70	2 55	2 55	2 55
13	3 50	3 30	F	F	3 15	3 40	3 50	3 10	2 60	2 65	2 50	2 50
14	3 60	3 55	3 30	3 25	3 60	3 15	3 20	3 10	2 50	2 60	2 50	2 40
15	3 60	3 50	C	3 35	3 50	3 10	3 15	3 20	2 60	2 45	2 45	2 60
16	3 00 _{js}	3 05	3 25	3 45	R	3 05	3 45	3 40	3 15	2 70	2 30 _{IR}	2 50
17	2 80	3 05	A	E	E	3 00	3 40	3 05	2 60	2 45	2 45	2 50
18	2 95	3 20	3 45	E	E	2 95	3 40	3 25	2 85	2 40	2 50	2 50
19	3 05	3 20	3 30	3 40	3 50	3 00	3 20	2 85	2 55	2 45	2 55	2 35
20	3 30	3 50	3 40	3 30	3 55	3 25	3 40	3 35	3 20	C	2 80	2 40
21	3 40	3 40	C	3 10	3 60	3 15	3 50	3 50	3 25	3 00	2 75	2 40 _{IR}
22	3 45	3 30	3 00	E	E	3 15	3 60	3 40	3 40	3 20	2 90	2 50
23	3 20	3 40	3 50	3 15	2 85	3 00	3 50	3 35	3 30	3 20	3 00	3 00
24	3 45	3 50	3 30	3 30	3 50	3 10	3 25	3 05	2 80	2 75	2 70	2 70
25	3 05	3 40	3 40	3 60	E	3 20	3 15	2 90	2 75	2 75	2 70	2 65
26	F	F	3 15	3 40	E	3 15	3 50	3 10	2 70	2 70	2 55	2 65
27	3 00 _F	F	3 50	E	F	3 20	3 50	3 30	2 70	C	2 50	2 60
28	F	F	E	E	L	3 35	3 60	3 40	3 75	2 55	2 55	2 60
29	F	C	F	3 40 _{UR}	3 60	3 40	3 50	3 30	3 00	2 70	2 60	2 50
30	3 00	\	A	E	3 40 _{UR}	3 30	3 40	3 10 _{UR}	2 60	2 40	2 70	2 60
31	3 45	3 35	E	E	F	3 40	3 50	3 30	2 85	2 60	2 60	2 50
Count	23	20	12	13	14	30	30	31	29	29	30	31
Median	3 20	3 30	3 35	3 35	3 50	3 20	3 40	3 20	2 80	2 60	2 55	2 50
Mean	3 25	3 30	3 35	3 35	3 45	3 20	3 40	3 20	2 85	2 65	2 60	2 55

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds

Characteristic (M 3000) F_2 TABLE 45—Contd
 Unit Ionospheric Data Latitude 10 2° N
 Month August, 1962 75°E Mer Time Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
2 35	2 45	2 60	2 50	2 70	2 85	2 95	3 10	3 05r	3 10	f	3 10us	1
2 70tr	2 65	2 75	2 85	2 80	2 95s	3 15	3 35	3 50	3 35	2 50	2 85p	2
2 35	2 45	2 60	2 55	2 70	3 00	3 00	3 00	3 20	3 10	3 20	3 30	3
2 50	2 65	2 75	2 80	2 90	3 00	3 15	3 30	3 30	3 25	3 00	3 10	4
2 65	2 10	2 60	2 80	3 00	3 15	3 20	3 55	3 25	3 30	3 35	3 45	5
2 50	C	2 80	3 00	3 10	3 20	3 25	3 15	3 60	3 45	3 40	3 10	6
2 50	2 50	2 50	2 70	3 00	3 00	3 10	3 15	3 50	3 40	3 30	f	7
2 40	2 50	2 65	2 80	2 90	3 00	3 00	3 00	3 10	3 20	3 15	3 15us	8
2 55	2 60	2 75	2 75	3 05	3 20	3 10	3 25	3 40	3 40	3 30r	3 10	9
2 50	2 55	2 65	2 70	2 70	2 70	2 70	2 95	3 00	2 90	2 90	3 00	10
2 55	2 60	2 65	2 60	2 70	2 85	3 10	3 10	3 15	3 50	3 10	3 40	11
2 10	2 45	2 75	2 60	2 60	2 90	3 05	3 20	3 40	3 55	3 10	3 30	12
2 45	2 50	2 50	2 10	2 80	3 10	3 30	3 25	3 55	3 50	3 50	3 10	13
2 55	2 50	2 70	2 85	3 00	3 10	3 15	3 20	3 50	3 10	3 20s	3 50	14
2 65	2 55	2 50	2 70	2 70	2 65	2 60	3 00	3 30	3 10	3 20	3 05	15
2 60	2 50	2 60	2 70	2 80	2 85	2 95	3 10	3 15	3 15	2 85	2 70	16
2 55	2 55	2 60	2 65	C	C	2 90	2 90	2 95	2 95	2 90	2 90	17
2 60	2 70	2 60	2 70	2 65	2 65	2 70	2 75	2 95	f	f	3 00	18
2 60	2 35	2 60	2 65	2 70	2 75	2 85	2 95	3 10	3 20	3 30	3 25	19
2 35	2 50	2 10	2 15	2 60tr	2 75	2 90	2 95	3 00	3 00	3 05	3 30	20
2 50tr	2 35	2 50	2 60	2 90	2 95	3 00	3 15	3 10	3 40	3 50	3 20	21
2 40	2 60	2 50	2 15	2 70	2 80	3 00	2 95	3 00	3 10	2 90	3 00	22
2 95	2 90	C	C	C	2 80	2 80	3 00	3 10	3 10	3 00	3 20	23
2 70	2 80	2 95	3 00	3 00	3 00	2 90	2 95	3 00	3 00	2 70	2 80	24
2 70	2 65	2 70	2 70	2 80	2 95	3 00	f	3 10	3 00	3 10	f	25
2 85	2 90	3 00	3 10	3 40	3 50	3 10	3 55	3 50	3 40	3 15	3 00	26
2 60	2 70	2 80	C	3 25tr	3 20	3 15	3 25	3 55tr	3 55	3 20	2 90tr	27
2 55	2 60	2 50	2 70	2 90	3 15	3 15	3 15	3 20	f	2 95r	2 90tr	28
2 75	2 95	2 95	2 90	2 95	2 95tr	3 05	3 30	3 40us	3 40us	3 10p	2 90	29
2 45	2 75	2 80	2 85tr	2 95	3 05	3 10	3 30	3 50tr	3 50	3 20	3 10	30
2 60	2 50	2 70	2 70	2 90	3 00	3 35	3 30	3 10	3 10	3 10	3 30	31
31	30	30	28	29	30	31	30	31	29	29	29	Count
2 55	2 55	2 60	2 70	2 90	3 00	3 05	3 15	3 30	3 10	3 20	3 15	Median
2 55	2 60	2 65	2 70	2 85	2 95	3 05	3 15	3 25	3 30	3 15	3 15	Mean

Sweep 1 0 Mc. to 25 0 Mc. in 27 seconds

Characteristic foF₂
 Unit Mc
 Month September, 1962

TABLE 46
 Ionospheric Data
 75°E Meridian Time

Latitude 10 2° N
 Longitude 77 5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	C	3 0	2 6	1 5	2 0	L	4 7	6 7	8 5	9 0	8 6	7 7
2	4 8	3 3	2 6	1 9	A	E	4 8	7 4	8 7	7 8	8 3	8 5
3	4 8	1 1	3 2	2 6	2 2	2 0	5 0	8 0	9 0	9 0	9 3	9 0
4	2 5	2 1	F	A	A	E	5 1	7 9	8 6	8 6	7 1	7 8
5	5 6	5 3	3 8	3 0	2 3 ₂	E	4 9	7 7	8 0	9 0	8 0	7 4
6	FS	L	F	3 3	3 1	2 4	IS	7 5	9 0	C	C	7 5
7	6 5	5 3 ₂	4 2	3 4	3 1	2 9	5 4	7 6	8 2	7 6	7 6	7 8
8	7 6 ₂	6 4 ₂	3 8	2 4	1 8	1 4	5 2 ₂	7 8	9 2	9 3	9 6	9 6
9	8 0 ₂	7 0	4 7	3 6	2 5	2 0	5 2	7 8	9 0	9 2	8 6	8 4
10	7 6 ₂	6 8 ₂	1 7	3 3 ₂	2 2	1 6	5 4	8 0	8 9	9 0	9 2	10 0
11	3 3 ₂	3 1	2 6	1 9	C	E	5 3	7 6	9 0	9 5	8 5 ₂	8 0
12	2 8	2 5	2 0	E	E	E	5 0	7 5	7 8	7 3	7 6	7 7
13	4 8	3 4	2 3	1 9	E	F	5 5	8 6	9 8	9 6	9 0	9 0
14	4 2	3 3	2 6	2 2	1 9	E	5 1	8 3	9 2	8 3	7 6	7 8
15	4 9	4 0	2 8	1 7	E	E	5 0	7 8	8 1	7 0	7 2	7 5
16	4 4	3 7	3 0	2 4	1 9	E	4 9	7 6	7 2	6 7	6 5	6 7
17	7 2	5 1	3 8	2 1	1 8	E	5 1	7 6	8 4	8 1 ₂	7 7	7 4
18	5 1	4 9	4 7	3 6	2 7	1 8	C	C	8 6	8 0 ₂	C	7 1
19	1	6 8	5 6	4 1	3 6	2 1	1 8	7 5	8 6	9 0	8 4 ₂	7 2
20	5 9	5 4	5 1	F	1	F	5 3	7 7	9 0	9 1	8 8	8 0
21	7 2	C	C	C	C	C	C	C	8 6	9 8	9 3 ₂	8 0
22	8 8	7 2	5 0	3 2	2 1	1 9	5 0	7 7	9 2	9 8	9 2	8 3
23	6 2	5 3	3 9	3 1	3 0	2 7	5 4	7 8	C	C	7 6	7 8
24	7 6	7 2	5 6	3 6	2 2	1 4	5 6	7 8	8 6	7 7	7 4	7 4
25	C	7 8	5 4	4 6	4 2	3 8	5 7	8 0	9 0	9 3	8 6	8 8
26	C	8 3	3 3	E	L	F	6 4	7 8	8 5	9 6	10 8	11 2 ₂
27	10 3	8 5	5 1 ₂	3 8	3 0	4 0 ₂	5 3	8 2	9 4	10 0	8 7	8 3
28	10 0	8 7	5 3	3 3	1 9	1	5 3	7 6	8 9	8 8 ₂	7 9	8 0
29	F	9 2	7 3 ₂	5 1	3 0	1 5	5 3	8 3	8 8	7 9	7 1	7 4
30	7 5	7 1	6 1	4 7	3 1	2 3	5 7	8 3	9 2	10 2	9 5	9 8
Count	24	28	27	27	25	20	27	28	29	28	28	30
Median	6 0	5 3	3 9	3 1	2 2	1 4	5 2	7 8	8 8	9 0	8 4	7 9
Mean	6 2	5 5	4 1	3 1	2 6	2 3	5 2	7 8	8 7	8 7	8 4	8 2

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic foF₂

TABLE 46

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month September 1962

73°E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
7 6	7 8	8 4	9 0	9 7	10 6	10 5	8 8	7 8	7 1	6 6	6 2	1
8 7	9 5	9 8	10 3	10 2	10 2	10 5	10 8	10 8	8 7	5 9	5 0	2
9 0	9 3	9 6	9 8	10 4	10 7	11 0	10 0	8 2	7 2	5 3	3 3	3
8 0	8 4	9 0	9 2	9 5	10 2	11 0	9 5	8 4	7 5	6 1	5 7	4
7 7	7 8	8 2	8 8	9 4	10 0	10 0	9 8	8 3	7 0	6 4 _{us}	6 0 _{us}	5
7 1	7 6	8 6	9 0	9 0	9 0	9 4	9 1	S	8 6	7 2 _{us}	7 0	6
7 8	7 8	8 6	9 8	10 5	10 0	10 3	9 8	8 7	9 0	C	8 2	7
9 4	9 0	9 0	9 4	10 5	10 9	10 8	8 8	F	8 8 _{us}	8 6	7 6 _{us}	8
8 4	9 0	9 7	10 1	10 9	10 8	10 2	9 2	9 2	8 6	7 9	7 6	9
10 7	11 3	11 8	12 4	12 4	12 3	11 2	9 8	8 9	5 8	4 2	3 5	10
8 0	8 0	8 8	10 0	11 0	11 5	10 6	9 2	8 9	6 9	5 6	3 7	11
7 2	7 4	8 9	11 0	10 5	10 7	10 8	10 1	9 3	7 8 _{us}	6 3 _{us}	5 4 _{us}	12
9 3	9 5	10 5	11 7	12 0	11 7	11 1	10 3	10 7	8 5 _{us}	6 4	5 3 _{us}	13
7 8	8 2	9 2	10 0	10 5	10 8	10 0	9 5	9 3	8 6	7 0	5 6	14
7 3	C	9 0	10 0	11 0	11 5	10 6	9 5	9 0	8 0	6 6	5 5	15
7 1	7 6	8 3	9 2	9 9	10 1	9 2	7 8	F	I	8 3	8 0	16
7 6	8 0	8 8	9 0	9 0	9 0	8 4	7 5	I	F	I	F	17
7 0	7 2	7 8	9 0	9 6	9 6	9 3	F	F	I	I	8 4	18
8 0	8 4	9 0	9 9	10 1	9 0	8 5	9 9	9 5	8 3	7 5	7 6	19
8 4	8 7	8 8	9 6	10 3	10 6	9 8	C	C	9 5	9 2	9 1	20
8 3	8 6	9 4	9 8	9 6	10 0	9 6	9 6	8 8	8 5	9 0	8 8	21
8 4	8 7	10 0	11 4	10 7	C	10 0	10 4	10 6	10 0	8 8	7 6	22
8 4	8 8	9 4	10 0	10 0	10 4	10 6	10 0	9 8	9 6	8 4	7 6	23
8 0	8 4	8 6	9 2	9 6	9 8	9 6	8 8	F	I	F	7 8	24
9 0	9 4	10 2	11 0	11 2	11 1	11 0	10 9	11 0 _F	10 8 _I	9 2	8 5	25
10 5 _{II}	9 1	10 0	10 2	10 5	10 6	10 1	10 0	9 8 _I	9 2	8 7	9 5	26
8 3	8 8	9 5	10 6	10 1	10 2	10 2	9 2	9 4	K	10 5	10 6	27
8 1	8 4	9 2	9 4	9 6	10 0	10 0	9 2	9 0	8 7	I	F	28
7 6	8 4	9 0	9 6	9 9	10 4	10 4	9 7	9 1	8 6	9 0	7 5	29
10 8	11 0	11 9	12 6	12 8	12 8	12 9	12 4	12 1 _{II}	10 7	8 6	7 0	30
30	29	30	30	30	29	30	28	23	25	25	28	Count
8 0	8 4	9 0	9 8	10 2	10 1	10 2	9 6	9 2	8 6	7 5	7 6	Median
8 3	8 6	9 3	10 0	10 3	10 5	10 3	9 6	9 4	8 5	7 5	6 9	Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic foF₂ TABLE 46—Cont'd Latitude 10 2° N
 Unit Mc Ionospheric Data Longitude 77 5° E
 Month: September 1962 75°E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
7 5	8 0	8 7	9 2	10 3	10 6	9 6	8 2	7 4 _{pl}	6 9	6 6	5 3	1
9 1	10 0	10 4	10 4	9 9	10 6	10 4	10 7	10 2	7 0	5 9	4 8	2
9 4	9 6	9 7	10 1	10 6	10 6	10 9	9 3	7 5	5 4	3 5	2 4	3
8 2	8 9	9 2	9 4	9 8	10 5	10 7	8 8	7 9	6 6	5 6	5 6	4
7 8	8 0	8 4	9 0	9 8	10 0	10 0	9 0	7 6	6 6	6 3 _{us}	5 5 _{us}	5
7 2	8 1	8 8	9 0	9 0	8 4	9 2	9 3 _{us}	9 2 _{us}	8 0	7 2 _{us}	S	6
7 8	8 0	9 4	10 0	10 2	10 4	9 8	9 4	9 2	8 6	8 6	8 0 _{us}	7
9 2	8 9	9 2	10 0	10 6	10 8	9 8	8 5	F	8 5	8 3	7 6 _{us}	8
8 7	9 2	10 0	10 6	10 8	10 4	9 4	9 2	9 0	7 8	7 7	7 5 _{us}	9
10 8	11 7	12 1	12 4	12 2	12 0	10 6	9 3 _{us}	7 4 _{us}	4 6	3 9 _{us}	3 4	10
8 0	8 2	9 4	10 4	11 4	11 1	9 8	9 1	8 1	6 2	4 7	3 2	11
7 4	8 1	10 0	10 8	10 5	10 8	10 5	9 5	9 0	6 8	5 8 _{us}	5 1	12
9 3	9 8	11 0	12 0	12 0	11 5	10 8	10 8	9 7	7 5 _{us}	6 0	4 5	13
7 9	8 7	9 7	10 4	10 7	10 6	9 6	9 5 _{us}	9 5 _{us}	8 0	6 0	5 0 _{us}	14
7 4	8 5	9 6	10 5	11 6	11 0	10 0	9 3	9 0	6 9	6 0	4 9	15
7 2	7 9	8 7	9 7	10 0	9 6	8 4	7 6	8 1	8 4	8 2	8 0	16
7 6	8 4	9 0	9 1	9 1	8 8	7 9	C	C	7 9	C	5 2 _{us}	17
7 2	7 4	8 2	9 5	9 8	9 5	F	F	F	F	8 1	8 6	18
8 3	8 7	9 4	10 1	9 3	8 7	9 0	10 0	8 6	7 9	S	6 3	19
8 5	8 6	9 2	9 8	10 5	10 2	9 7	C	9 5	9 4	9 4	8 2	20
8 4	8 8	9 8	10 2	9 8	9 8	9 8	9 4	8 6	8 8	9 0	8 9	21
8 2	9 3	10 6	11 0	C	10 2	10 0	10 6	10 6	9 2	7 8	6 8	22
8 8	9 0	9 6	10 0	10 0	10 4	10 6	10 0	9 6	8 8	8 2	7 6	23
8 2	8 4	9 2	9 6	9 6	10 0	9 4	8 6	F	F	F	C	24
9 2	9 6	10 6	11 2	11 4	11 6	10 8	11 0	10 8 _r	9 9	8 8	9 0	25
9 5 _{us}]	9 6	10 1	10 4	10 8	10 4	10 1	9 8	9 4	8 8	9 0	9 6	26
8 5	9 1	10 0	10 1	10 3	10 1	10 0	9 0	F	10 5	10 5	10 4	27
8 2	8 8	9 3	9 4	9 7	10 2	9 5	9 0	8 9	8 1 _{us}	F	F	28
8 1	8 7	9 3	9 9	10 4	10 4	9 8	9 5	8 8	8 9	8 4	7 6	29
11 0	11 4	12 1	12 6	12 8	13 0	12 3	12 6	11 6	9 3	8 0	6 1 _{us}	30
30	30	30	30	29	30	29	27	25	28	26	27	Count
8 2	8 8	9 5	10 1	10 3	10 4	9 8	9 3	9 0	8 0	7 8	6 3	Median
8 4	8 9	9 7	10 1	10 4	10 4	9 9	9 5	9 0	7 9	7 2	6 5	Mean

Sweep 1 0 Mc to 25 0 Mc, in 27 seconds

Characteristic foF₁

TABLE 47

Latitude 10 2° N

Unit Mc.

Ionospheric Data

Longitude 77 5° E

Month September, 1962

75°E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								L	L	I	L	I
2								L	L	L	L	4.6
3								I	I	I	L	A
4								L	I	I	4.8	4.8
5							L	I	L	I	4.8	4.7
6								L	L	C	C	L
7								L	I	L	L	L
8								I	L	L	L	I
9								L	I	L	L	4.7UL
10								L	L	L	L	L
11							I	L	I	L	L	L
12							L	I	L	L	L	L
13							L	L	L	L	L	L
14							I	L	L	L	L	L
15							L	I	L	L	L	I
16								L	I	I	4.9	4.7
17								L	I	L	4.7	4.8
18								C	L	L	C	4.7
19								I	I	L	L	4.7
20								L	L	L	L	L
21							C	C	L	4.9	4.8	4.7
22							L	L	4.4	L	4.7	4.8
23							L	L	C	C	4.7	4.8
24							I	L	L	L	4.8	4.8
25							L	L	L	5.0	4.8	4.8
26								I	L	L	L	L
27								L	L	L	L	L
28								I	L	L	L	L
29								I	L	L	L	L
30							L	L	L	L	L	L
Count									1	2	9	19
Median											4.8	4.7
Mean											4.8	4.7

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic foF₁

TABLE 47

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month September 1962

75°E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
L	L	L	A	L	L							1
L	L	L	L	L	L							2
L	L	L	L	L	L							3
4.7	L	L	L	L	L							4
L	L	L	L	L	L							5
L	L	L	L	L	L							6
4.8 _{UL}	L	L	L	L	L							7
L	4.7	L	L	L	L							8
L	L	4.8 _{UL}	L	L	L							9
4.8 _{UL}	L	L	L	L	L							10
L	L	L	L	L	L							11
L	L	L	L	L	L							12
L	L	L	L	L	L							13
L	L	L	A	L	L							14
L	C	L	A	A								15
4.9	L	L	L	A	L							16
4.7	4.8	L	L	A	A							17
4.7	4.5	L	L	L	L							18
4.6	L	L	L	L	L							19
4.7	L	L	L	L	L							20
4.7	4.6	4.6	4.5	L								21
4.8	5.1	A	4.5	L	C							22
4.7	4.8	L	L	L								23
4.8	4.8	4.6	4.2	L								24
4.8	4.8	4.8	L	L	L							25
L	L	L	L	L	L							26
L	L _H	L	L	L	L							27
4.8	L	L	L	L	L							28
4.8	L	L	L	L	A							29
L	L	A	A	L								30
15	8	4	3									Count
4.8	4.8											Median
4.8	4.8											Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds

Characteristic foF₁ TABLE 47—Contd Latitude 10 2° N
 Unit Mc. Ionospheric Data Longitude 77 5° E
 Month September, 1962 75°E Mean Time

Date/Hour	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							L	L	4.1	C	L	L
2							L	L	L	L	L	L
3							L	L	L	L	L	L
4							L	L	L	L	4.8	4.8
5							L	L	L	L	4.7	4.7
6								L	C	C	4.7	4.7
7							L	L	L	4.6 _{UL}	L	L
8							L	L	L	L	L	L
9							L	L	L	4.8	L	L
10							L	L	L	L	L	4.9 _{UL}
11							L	L	L	L	L	L
12							L	L	L	L	L	L
13							L	L	L	L	L	L
14							L	L	L	L	L	L
15							L	L	L	L	L	L
16								L	L	L	4.7	4.7
17								L	L	L	4.7	4.7
18								C	L	L	4.7	4.7
19							L	L	L	L	4.7	4.7
20								L	L	L	L	4.8
21							C	C	4.7	4.7	4.8	4.7
22							L	L	5.0	4.6	4.9	4.9
23							L	L	L	4.6	4.9	4.8
24						L	L	L	L	5.0	4.9	4.8
25							L	L	4.7	5.0	4.8	4.9
26							L	L	L	L	L _H	L
27							L	L	L	L	L	L
28							L	L	L	L	L	L
29							L	L	L	L	4.9	4.8
30							L	L	L	L	L	L
Count									4	7	13	15
Median										4.7	4.8	4.8
Mean										4.8	4.8	4.8

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic foF₁ TABLE 47—Contd Latitude 10 2° N
 Unit: Mc. Ionospheric Data Longitude 77 5° E
 Month September, 1962 75°E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
L	L	L	A	L								1
L	L	L	L	A								2
L	L	L	L	L								3
L	L	L	L	L								4
L	L	L	L	L	L							5
4.9	L	L	L	L								6
4.7	L	L	L	L	L							7
4.8 _{min}	L	L	L	L								8
L	L	4.6 _{min}	L	L								9
L	L	L	L	L								10
L	L	L	A	L								11
L	L	L	L	L	L							12
L	L	L	L	L	L							13
L	L	A	L	L								14
L	L	A	L	A								15
L	L	L	A	A								16
L	L	L	L	A								17
4.8	4.6	4.5	L	L								18
4.6	L	L	L	L								19
4.6	L	L	L	L	L							20
4.6	4.9	4.6	L									21
4.6	4.7	A	4.6	C								22
5.0	4.5	4.7	L	L								23
4.8	4.6	4.6	L									24
5.0	4.7	4.5	4.6	L								25
L	L	L	L	L								26
L	4.6	L	L	L								27
4.7	4.8	L	L	L								28
L	L	L	L	L								29
L	L	A	L	L								30
<hr/>												
12	8	6	2									Count
<hr/>												
4.8	4.6	4.6										Median
<hr/>												
4.8	4.7	4.6										Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic foE
Unit MC
Month September 1962

TABLE 48
Ionospheric Data
75°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							1 7	2 7	A	A	A	A
2							1 8	A	A	A	A	A
3							2 0	A	A	A	A	A
4							1 6	2 5	A	A	A	A
5								A	A	A	A	A
6							1 7 _{ur}	2 6 _{ur}	A	C	C	A
7							1 7	A	A	A	A	A
8							1 6	A	A	A	A	A
9							1 8	2 6 _{ur}	A	A	A	A
10							1 6 _{ur}	2 5	A	A	A	A
11							1 6 _{ur}	2 5	A	A	A	A
12							R	A	A	A	A	A
13							R	A	A	A	A	A
14								A	A	A	A	A
15							1 6	A	A	A	A	A
16							R	A	A	A	A	A
17							1 7	2 6	A	A	A	A
18							C	C	A	A	C	A
19							1 6	2 4	A	A	A	A
20								2 3	A	A	A	A
21							C	C	A	A	A	A
22							1 8	2 5	A	A	A	A
23								A	C	A	A	A
24								A	A	A	A	A
25								2 5	A	A	A	A
26							R	2 6 _{ur}	R	R	A	A
27								2 6 _{ur}	A	A	A	A
28							1 7	2 5	A	A	A	A
29							1 8	2 5	A	A	A	A
30							1 6	2 4	A	A	A	A
Count							17	16				
Median							1 7	2 5				
Mean							1 7	2 5				

Sweep 1 0 Mc to 25 0 Mc in 27 seconds.

Characteristic foE
 Unit Mc.
 Month September, 1962

TABLE 48
 Ionospheric Data
 75°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	A	A	A	A	A							1
A	3 7	A	A	A	A							2
A	A	A	A	A	A							3
A	A	A	\	A	A							4
A	A	A	A	3 0	A							5
A	A	A	A	A	A							6
A	A	A	A	2 9UR	2 2TR							7
A	A	A	3 2UA	2 9UA	A							8
A	A	A	A	2 8TR	A							9
A	A	3 4	3 1	2 8	A							10
\	A	A	\	A	A							11
A	A	A	3 1	3 0	R							12
\	A	3 2	R	B	B							13
A	A	A	3 0h	A	A							14
\	C	A	A	A	A							15
A	A	A	A	2 7UA	\							16
A	A	A	\	A	A							17
A	A	A	A	R	\							18
A	A	A	A	A	A							19
\	A	A	A	A	A	A						20
\	A	A	A	A	A							21
\	A	A	\	A	A							22
A	A	A	A	A	A							23
A	A	A	A	\	\							24
A	A	A	A	A	A							25
A	A	A	A	A	A	A						26
A	A	A	A	A	R							27
A	A	A	A	2 7	A							28
A	A	A	A	A	A							29
A	A	A	A	A	A							30
	1	2	1	8	1							Count
				2 8								Median
				2 8								Mean

Sweep 1.0 Mc to 25.5 Mc in 27 seconds

Characteristic foE
 Unit Mc
 Month September, 1962

TABLE 48--Cont'd
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							2 2	2 9	A	C	A	A
2							2 1	A	A	A	A	A
3							A	A	A	A	A	A
4							2 1	A	A	A	A	A
5							2 2	A	A	A	A	A
6							A	A	C	C	A	A
7							A	A	A	A	A	A
8							2 2UR	A	A	A	A	A
9							2 2UR	A	A	A	A	A
10							2 2	2 8	A	A	A	A
11							2 3	A	A	A	A	A
12							A	A	A	A	A	A
13							A	A	A	A	A	A
14							2 4R	A	A	A	A	A
15							2 1R	A	A	A	A	A
16							A	A	A	A	A	A
17							2 3	R	A	A	A	A
18							C	C	A	A	A	A
19							2 1	A	A	A	A	A
20							2 1	A	A	A	A	A
21							C	C	A	A	A	A
22							2 3	A	A	A	A	A
23							2 2	A	A	A	A	A
24							A	A	A	A	A	A
25							A	2 8	A	A	A	A
26							2 0	2 8	3 0	A	A	A
27							2 0UR	A	A	A	A	A
28							2 3	A	A	A	A	A
29							2 3	A	A	A	A	A
30							2 1	2 8	A	A	A	A
Count							20	5	1			
Median							2 2	2 8				
Mean							2 2	2 8				

Sweep 1.0 Mc to 25.5 Mc in 27 seconds

Characteristic foE
 Unit Mc
 Month September, 1962

TABLE 48—Contd
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5' E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Data
A	A	A	A	A								1
A	3.6	A	A	A	\							2
A	A	\	\	R								3
A	A	A	\	A	\							4
A	A	A	3.1	2.5								5
A	A	A	A	A								6
A	A	A	3.0	2.6								7
A	A	A	3.0 _{UA}	2.6 _{UR}	\							8
A	A	A	A	2.5								9
A	A	A	2.9	2.4								10
A	A	A	A	A								11
A	A	3.8	R	R								12
A	A	R	B	B								13
A	A	3.2 _R	3.1 _R	A								14
A	A	3.2	2.8 _R	\								15
A	A	A	A	A								16
A	A	A	A	A	\							17
A	A	A	2.8	2.3	\							18
A	A	A	A	A								19
A	A	A	3.0	A	A							20
A	A	A	A	A								21
A	A	A	A	A								22
A	A	A	A	A								23
A	A	A	A	A								24
A	A	A	A	A								25
A	A	A	A	A								26
A	A	A	A	B								27
A	A	A	A	A								28
A	A	A	A	A								29
A	A	A	A	A								30
	1	3	8	6								Count
			3.0	2.5								Median
			3.0	2.5								Mean

Sweep 1 0 Mc to 25.5 Mc in 27 seconds

Characteristic foEs

TABLE 49

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month September 1962

75°E Meridian Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1		9 8					G	G	10 0	10 8	11 4	12 0
2	9 8						G	8 0	9 4	9 6	12 0	10 4
3					4 0	6 0	G	8 0	9 0	11 1	12 0	12 2
4	7 4			4 1	4 0		G	6 7	10 6	10 0	11 1	11 7
5	4 8 ^{rs}		2 4 ^{rs}					8 1	9 8	10 8	12 0	11 4
6		2 0		6 6			G	4 8	9 0	C	C	12 0
7	3 4						2 2	8 6	11 8	11 6	11 1	12 0
8							G	6 0	8 6	8 1	12 2	11 1
9							G	G	8 4	10 2	11 6	12 4
10							G	G	9 0	11 1	5 8	10 2
11							G	G	8 7	9 8	10 8	12 0
12	3 2 ^{rs}	2 1					G	7 0 ^{rs}	9 2	11 0	11 1	11 2
13							G	7 0	9 0	11 0	12 0	12 0
14	2 0		2 8				G	8 0	10 7	12 0	19 0	12 2
15	5 0 ^{rs}						G	7 4	9 2	11 0	11 0	11 2
16	13 2	3 1	4 6		4 6		G	8 0	10 8	11 0	10 8	11 8
17	3 6						G	G	10 6	11 7	12 0	11 8
18	9						C	C	9 0	10 4	C	12 0
19	4 8	2 3		6 4			G	5 6	8 8	10 8	11 0	11 8
20			3 1	6 8 ^{rs}	2 8		G	G	7 2	9 8	11 0	11 8
21							C	C	8 8	11 8	12 2	11 0
22							G	5 3	8 0	10 0	11 0	13 0
23								10 0	C	C	12 8	14 0
24	6 6						2 2	8 3	11 0	12 0	9 8	11 1
25					9 0		2 6	G	10 8	12 0	10 8	11 4
26	C						G	G	5 6	12 6	12 2	12 2
27		5 6 ^{rs}	5	3 8			G	4 6	10 6	11 8	12 0	12 2
28							G	5 8	10 6	11 4	11 7	11 6
29	3 5						G	6 5	9 6	11 0	10 8	11 6
30							G	4 8	9 4	10 4	11 5	12 0
Count	12	6	4	5	5	1	23	28	29	28	28	30
Median	4 3	2 7		6 4	4 0		G	5 9	9 2	11 0	11 4	11 8
Mean	5 1	9 2		5 5	3 7			6 9	9 6	10 7	11 1	11 8

Sweep 1 0 Mc to 25 5 Mc in 27 seconds

Characteristic to Es
 Unit Mc
 Month September 1962

TABLE 49
 Ionospheric Data
 75% Mean Time

Latitude 10 2° N
 Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
12 0	11 8	10 2	11 0	7 6	6 0	4 2						1
11 2	G	9 2	9 6	9 2	8 4	3 8						2
11 0	11 0	11 0	10 0	6 8	6 0							3
11 0	11 7	11 6	10 6	7 6	7 0	6 8	4 1				2 1	4
12 0	12 0	11 2	9 0	6 4			3 8					5
19 0	12 2	12 0	12 0	8 0	5 2	5 8	3 8	3 2		2 8	2 7	6
11 8	12 0	11 1	8 2	3 0	2 8						3 0tr	7
12 0	12 0	11 6	7 0	6 1	6 0tr						6 6	8
10 5	9 8	8 6	7 6	1 1	7 8				2 1		2 2	9
7 8	5 5	G	1 8	G	3 0						3 9	10
11 8	12 0	11 0	8 0	6 0								11
11 4	12 2	12 0	7 6	G	1 0tr					2 2	2 4	12
11 2	11 0	G	5 8	G	G					7 1tr	3 2	13
12 0	12 0	9 8	10 6	6 8	8 1	1 1tr		1 0tr	8 0tr		3 8tr	14
12 0	G	8 0	13 1	12 2	8 8	1 2tr						15
12 0	11 8	12 2	11 6	17 0	5 7				7 0	3 8		16
11 7	12 0	11 4	9 2	9 8	17 0	5 8	1 0	6 6	5 6	6 1	8 7	17
11 8	12 0	12 0	9 5	G	4 1				2 9	1 6	3 3	18
9 6	9 6	8 8	9 1	7 8								19
12 0	11 6	10 8	8 0	6 2	6 8	3 0			3 8	4 2		20
11 0	11 0	11 0	11 0	10 2	6 8							21
12 6	12 4	11 0	18 0	1 5								22
12 0	11 0	9 6	9 8	8 2	7 0		6 0	6 2				23
11 4	11 4	12 0	10 0	8 8	6 6			1 8	5 2	3 8	1 1	24
11 2	10 0	10 2	11 2	10 0	10 0						2 2	25
12 0	12 0	12 2	10 6	8 0	6 0				2 1	2 5	2 1	26
12 2	11 6	10 6	8 6	G							3 0tr	27
11 4	11 6	11 1	9 2	7 7	6 6						3 6	28
11 7	11 8	11 6	9 3	11 5					2 9	2 3		29
10 7	7 8	10 0	8 1	6 1								30
30	29	30	30	30	23	8	5	5	9	10	16	Count
11 8	11 7	11 0	9 1	7 2	6 6	1 9	1 0	1 6	3 8	3 8	3 2	Median
11 5	11 2	10 9	9 7	8 0	6 8	1 8	4 1	4 5	4 4	4 0	3 6	Mean

Sweep 1 0 Mc to 25 5 Mc in 27 seconds

Characteristic foEs

TABLE 49—Contd

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month September 1962

75 E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	4.6	3.0	1.9				G ₂	8.0	10.8	C'	11.6	12.0
2	4.2						G ₂	9.4	9.8	12.0	12.0	12.0
3	4.0 _{UM}			8.2	4.8		5.6 _{UM}	8.4	10.6	12.0	12.0	11.4
4	4.4			7.5			G ₂	9.7	10.8	10.8	11.6	11.8
5	4.4 _{UM}	2.4 _{UM}					5.0 _{UM}	9.0	11.0	11.0	11.0	11.0
6	2.1		5.0				4.3	9.0	C	C	12.4	12.0
7							6.0	9.6	11.1	11.4	12.0	11.8
8							G ₂	7.0	9.2	12.0	12.0	12.0
9				4.0			G ₂	7.1	10.0	11.8	11.2	11.0
10							2.7	5.2	12.0	9.2	10.2	1.0
11							G ₂	8.0	9.1	11.0	11.0	11.8
12	3.6						5.0 _{UM}	8.1	9.4	11.2	11.2	12.0
13							6.0 _{UM}	8.0	10.0	11.2	12.0	12.0
14				6.0 _{UM}			G ₂	8.0	11.8	12.2	11.8	11.6
15							G ₂	8.2	9.1	12.0	11.0	11.2
16	8.4	3.1					7.1	10.6	9.6	10.2	10.8	11.8
17							G ₂	C	11.8	11.1	11.8	12.2
18	5					C	C	C	9.8	10.6	10.8	12.0
19	9.0			5.8			G ₂	6.8	9.0	11.1	10.8	10.8
20			1.8	3.6			5.1	6.8	10.6	10.8	11.2	11.8
21		C	C	C	C	C	C	C	11.0	12.0	11.0	11.0
22							G ₂	9.0	10.0	11.0	13.0	12.6
23							G ₂	9.0	12.0	13.0	12.4	12.0
24	5.2						9.6	8.6	10.8	9.8	11.0	12.0
25							9.0	5.0	12.0	12.1	12.1	11.2
26	5						G ₂	C ₂	G ₂	10.6	12.0	12.0
27	5.6 _{UM}	5.2					G ₂	8.2	12.2	12.2	12.2	12.0
28							G ₂	9.0	12.6	12.0	11.8	12.0
29							G ₂	8.5	10.4	10.4	11.6	11.4
30							G ₂	C ₂	11.4	11.8	12.0	11.4
Count	11	4	3	6	1		28	28	29	28	90	90
Median	4.4			5.9			G ₂	8.2	10.6	11.3	11.7	11.8
Mean	5.0			5.8			5.0	8.2	10.7	11.3	11.6	11.5

Sweep 1.0 Mc to 25.5 Mc in 27 seconds

Characteristic foEs

TABLE 19 -Contd

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month September 1962

75°E Mean Time

1230	1930	1130	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
12 0	11 4	8 8	12 0	6 0		1 0					5 0s	1
8 6	G	8 0	7 8	10 2	8 1							2
11 8	11 0	9 8	8 6	G	5 0						8 6	3
12 2	11 2	9 6	8 4	5 7	10 0	7 0	4 5				1 8s	4
11 8	11 8	10 9	7 1	G		3 8					2 9	5
12 4	11 8	12 0	9 4	5 8							1 2	6
12 1	12 0	11 0	3 1	3 9	2 5						3 0s	7
12 0	11 6	8 6	10 6	G	5 6					6 0s		8
10 0	9 6	7 8	6 6	3 8						6 0s		9
5 8	5 6	1 0	G	3 2	1 6						1 1s	10
11 8	12 0	5 8	11 0	5 2								11
12 0	12 0	7 0s	G	G						2 1	3 1	12
11 2	9 0	G	G	G						1 1s	3 2s	13
11 8	11 5	11 2	7 2	9 0	6 1s	5 4	1 1s	1 8s			5 1s	14
12 0	10 8	11 6	10 0	11 0	1 6						10 8	15
12 2	12 2	11 6	8 6	9 1			1 0	3 8	3 2	5 0		16
11 8	11 6	11 0	13 4	11 0	10 6s	G	C	6 3	C	5		17
12 2	11 8	11 6	G	G	3 8		3 9	6 7	3 0	2 8		18
10 8	9 4	9 5	8 6	7 0					1 6			19
12 2	10 8	10 8	6 8	7 0	5 8		5 0	3 8				20
12 0	11 0	11 0	8 1	8 1								21
11 8	14 2	13 2	7 6	G	C					2 3		22
13 0	11 6	10 1	8 6	8 2	3 7		1 1			3 2		23
11 0	11 0	9 6	9 0	8 1			2 0	5 0	6 0			24
10 0	10 0	11 0	9 0	8 1					3 3	1 8s		25
12 0	12 0	12 0	8 6	7 6			2 1	1 9	1 9			26
12 0	12 0	9 6	6 9	G								27
12 0	11 4	10 0	8 2	7 1			2 7					28
11 8	11 1	10 8	8 5	8 6				1 6				29
8 0	8 1	11 0	8 2	1 1					1 2			30

90	30	30	30	29	12	9	2	8	8	11	16	Count
11 9	11 4	10 6	8 1	6 0	5 3			3 6	4 9	4 4	1 9	Median
11 1	11 0	10 0	8 6	7 4	5 7			9 5	1 9	4 1	4 6	Mean

Sweep 1 0 Mc. to 25 5 Mc in 27 seconds

Characteristic f_oF₂s
 Unit Mc
 Month September 1962

TABLE 50
 Ionospheric Data
 75°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		1.1					G	G	3.0	3.3	3.5	3.8
2	1.5						G	G	2.6	3.0	3.1	3.6
3					2.1		G	G	2.7	3.3	3.6	3.9
4	1.8			A	A		G	G	2.6	3.0	3.1	3.6
5	2.5	1.6	1.1					G	2.5	3.0	3.1	3.6
6		2.0		6.6			G		3.0	C	C	3.6
7								G	2.8	3.2	3.5	3.7
8							G	G	2.6	3.0	3.1	3.6
9							G	G	3.0	3.3	3.6	3.7
10							G	G	3.0	3.4	3.6	3.6
11							G	G	3.0	3.5	3.6	3.8
12	1.1	1.8					G	G	2.7	3.2	3.4	3.8
13							G	G	2.6	3.0	3.3	3.7
14	1.3		1.6					G	2.6	3.0	3.3	3.8
15	2.6						G	G	2.7	3.0	3.3	3.8
16	3.0	1.7	1.5		1.3		G	G	2.6	3.0	3.1	3.7
17	1.5						G	G	3.4	3.4	3.7	3.7
18	2.3						G	G	3.1	3.4	C	3.7
19	2.2	2.2					G	G	2.8	3.1	3.3	3.6
20			1.1	1.6	1.6			G	3.0	3.3	3.4	3.7
21							C	C	3.1	3.1	3.8	3.6
22							G	G	2.6	3.0	3.3	3.6
23								G	2.5	C	C	3.7
24	1.7							1.9	2.5	3.0	3.3	3.8
25						1.3		2.0	2.7	3.0	3.1	3.6
26	C						G	G	C	3.1	3.6	3.6
27		1.9						G	2.6	3.0	3.3	3.6
28							G	G	2.6	3.0	3.3	3.6
29							G	G	2.7	3.0	3.5	3.7
30							G	G	3.1	3.4	3.7	3.8
Count	11	7	4	3	5		22	26	29	28	28	30
Median	1.8	1.8			1.6		G	2.6	3.0	3.4	3.6	3.7
Mean	2.0	1.8						2.6	3.1	3.1	3.6	3.8

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic f_oE_s
 Unit Mc
 Month September 1962
 TABLE 50
 Ionospheric Data
 75°E Mean Time
 Latitude 10 2° N
 Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
3 8	3 7	3 5	5 0	3 0	2 8	2 4						1
3 7	G	3 6	3 2	3 0	3 4	2 4						2
3 8	3 7	5 4	3 2	3 0	2 6							3
3 7	3 7	3 5	3 2	3 0	3 6	2 6	2 0				1 5	4
3 7	3 7	3 5	3 2	3 0			2 4					5
3 8	3 7	3 5	3 2	3 0	2 6			2 2				6
3 8	3 7	3 5	4 0		2 4						1 6	7
3 7	3 7	3 5	3 3	2 9	2 6						2 0	8
3 7	3 8	3 5	3 4		2 8				1 6			9
4 2	3 8	G	3 2	G	2 9						1 8	10
3 8	3 7	3 5	3 4	3 0								11
3 8	3 8	3 6	3 4	G	2 3					1 4		12
3 8	3 7	G	3 4	G	G					2 2	1 1	13
3 8	3 8	3 8	4 4	3 7	3 3	1 8		2 2	3 0		1 7	14
3 8	G	3 4	5 0	4 4	3 7	2 9						15
3 8	3 7	3 5	3 2	6 0	2 3				2 8	1 9		16
3 8	3 8	3 6	3 4	4 6	5 4	1 7	2 1	2 6	2 8	2 6	2 8	17
3 7	3 7	3 5	3 3	G	2 5				1 6	1 6		18
3 6	3 6	3 6	5 2	2 9								19
3 8	3 7	3 4	3 2	2 9	2 6	1 8			2 0	1 9		20
3 6	3 6	3 4	3 2	3 0	2 2							21
3 7	3 6	4 6	3 5	3 5								22
3 7	3 8	3 8	3 4	3 0	2 3		1 8	2 4				23
3 9	3 6	3 6	3 2	3 0	2 4			1 7	1 6	2 0	1 9	24
3 8	3 8	3 6	3 4	2 8	3 6						1 6	25
3 7	3 6	3 4	3 1	2 8	2 3				1 5	1 6		26
3 6	3 6	3 4	3 1	G							1 4	27
3 7	3 7	3 5	3 1	3 0	2 2						1 2	28
3 7	3 7	3 5	3 4	3 4	3 6				1 8			29
3 8	3 6	4 6	3 8	3 5								30
30	29	30	30	28	23	7	4	5	9	8	11	Count
3 8	3 7	3 5	3 3	3 0	2 6	2 3		2 2	1 8	1 9	1 6	Median
3 8	3 7	3 7	3 5	3 4	2 8	2 1		2 2	2 1	1 9	1 7	Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fbEs

TABLE 50—Contd

Unit Mc

Ionospheric Data

Latitude 10 9° N

Month September 1962

75°E Mean Time

Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	2 0	1 3					G	2 9	3 2	C	3 8	3 7
2							G	2 9	3 0	3 4	3 7	3 7
3	1 4			2 0	2 1		2 2	3 0	3 7	4 0	4 2	4 0
4	1 6			A			G	2 8	3 2	3 4	3 7	3 7
5	1 7	1 5					2 2	2 9	3 2	3 4	3 6	3 8
6			1 4				2 2	2 8	C	C	3 6	3 8
7							2 3	3 0	3 3	3 6	3 8	3 7
8							G	2 8	3 2	3 4	3 6	3 8
9							G	2 8	3 2	3 4	3 6	3 6
10							2 2	2 8	3 2	3 4	3 6	3 8
11							G	2 9	3 2	3 6	3 7	3 8
12	1 5						2 2	2 9	3 2	3 6	3 7	3 8
13							2 4	2 8	3 2	3 4	3 6	3 7
14							G	2 9	3 2	3 4	3 7	3 8
15							G	2 8	3 2	3 5	3 6	3 8
16	2 1	1 6					2 4	2 8	3 2	3 6	3 7	3 7
17							G	3 2	3 6	3 8	3 9	3 9
18	2 0						C	C	3 8	3 5	3 6	3 7
19	2 4						G	2 8	3 2	3 4	3 7	3 7
20			1 4	1 5			2 2	2 7	3 1	3 4	3 6	3 6
21							C	C	3 2	3 6	4 0	4 6
22							G	2 8	3 2	3 4	3 6	3 7
23							G	2 8	3 4	3 6	3 8	3 6
24	1 7						2 3	2 8	3 2	3 6	3 8	3 8
25							2 3	3 0	3 2	3 6	3 7	4 0
26	2 0						G	G	G	3 6	3 6	3 8
27	2 3	1 9					G	2 8	3 2	3 5	3 6	3 6
28							G	2 8	3 2	3 5	3 6	3 7
29							G	2 9	3 2	3 5	3 7	3 7
30							G	G	3 2	3 5	3 7	3 8
Count	11	4	2	4	1		28	28	29	28	30	30
Median	2 0						G	2 8	3 2	3 5	3 7	3 8
Mean	1 9						2 3	2 8	3 2	3 5	3 7	3 8

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic f_{hEs}

TABLE 50—Contd

Unit Mc

Ionospheric Data

Latitude 10 2° N

Month September 1962

75°E Meridian Time

Longitude 77 5° E

1230	1330	1430	1530	1620	1730	1830	1930	2030	2130	2230	2330	Date
3.6	3.6	3.4	4.8	3.0		2.7					1.5	1
3.8	G	3.7	3.2	4.0	3.0							2
4.0	4.0	4.2	3.2	G	2.5						2.5	3
3.6	3.8	3.4	3.2	2.8	3.9	3.1	2.6				2.1	4
3.7	3.6	3.4	3.1	G		1.9						5
3.7	3.8	3.1	3.2	2.9							1.8	6
3.7	3.6	4.0	3.0	2.8	2.0							7
3.7	3.6	3.4	3.1	G	2.5					2.0		8
3.8	3.6	3.5	3.1	3.1						2.2		9
4.2	3.7	3.4	G	2.6							2.0	10
3.8	3.6	3.6	3.8	3.0								11
3.7	3.7	3.4	G	G						1.1	1.8	12
3.8	3.8	G	G	G						1.7	1.4	13
3.8	3.6	6.3	3.8	3.2	2.4		2.2	2.0	2.5			14
4.2	3.6	5.2	3.4	3.8	3.0						1.1	15
3.8	3.6	3.5	5.8	5.0				1.6	2.0	1.5		16
3.8	3.7	3.4	5.8	7.4	2.8		2.0	2.6	2.8	Cl	2.6	17
3.7	3.6	2.5	G	G	2.0			1.8	1.4		1.5	18
3.8	3.6	3.5	3.0	2.5						1.9		19
3.6	3.6	3.2	3.0	2.8	2.4			2.4	1.7			20
3.7	3.5	3.5	3.2	2.6								21
3.6	4.2	4.6	3.4	G							1.8	22
3.6	3.6	3.6	3.0	2.7	2.0				2.1		2.0	23
3.8	3.5	3.4	3.0	2.6				1.8	1.6	2.3		24
4.0	3.8	3.6	3.1	2.6						1.6	2.1	25
3.6	3.5	3.2	3.0	2.6				2.1		1.7		26
3.6	3.5	3.4	3.0	G								27
3.6	3.7	3.4	3.1	2.6				1.6				28
3.8	3.5	3.4	3.2	3.9					2.1			29
3.7	3.6	4.4	3.8	2.8						1.7		30
30	30	30	30	29	11	3	3	8	8	10	13	Count
3.7	3.6	3.4	3.1	2.7	2.5			1.9	2.0	1.7	1.8	Median
3.8	3.7	3.7	3.5	3.2	2.6			2.0	2.0	1.8	1.9	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic from
Unit Mc
Month September 1962

TABLE 51
Ionospheric Data
75°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	C	10	12	13	E	E	13	17	16	20	22	26
2	13	17	16	14	E	E	15	14	18	24	25	26
3	14	14	21	18	13	12	15	15	17	20	24	26
4	15	11	11	E	E	E	13	17	19	23	23	26
5	13	15	E	16	16	E	18	17	17	21	23	25
6	16	11	13	14	12	10	15	15	13	C	C	21
7	15	12	11	16	12	12	13	14	17	21	23	26
8	13	E	11	E	E	E	13	14	16	21	22	24
9	24	17	15	12	11	E	15	13	16	20	23	25
10	13	14	E	E	12	E	13	15	17	21	24	25
11	16	16	13	14	C	E	13	15	18	20	23	24
12	E	E	E	E	E	E	15	14	16	20	22	23
13	11	11	E	12	E	E	14	15	16	19	20	24
14	E	E	12	13	11	E	17	15	18	22	23	26
15	19	20	19	15	E	E	14	14	16	21	23	24
16	14	E	13	12	13	E	14	16	17	21	25	27
17	14	14	11	11	11	E	13	15	18	20	25	26
18	24	16	18	13	13	11	C	C	18	23	C	26
19	22	13	17	13	15	15	14	16	18	21	24	25
20	13	11	10	E	10	15	17	16	17	21	23	25
21	16	C	C	C	C	C	C	C	17	21	23	21
22	12	13	12	11	10	10	14	17	18	21	25	26
23	14	14	16	13	12	E	17	12	C	C	23	25
24	10	14	14	13	10	13	13	15	17	22	25	28
25	C	15	E	10	E	10	16	17	15	21	23	26
26	C	20	20	E	E	E	15	18	19	24	26	26
27	16	15	15	17	16	15	17	15	16	23	24	25
28	11	10	E	11	12	E	15	16	18	24	23	26
29	E	11	E	10	14	11	12	15	17	20	25	26
30	11	13	10	13	13	11	13	26	17	22	26	26
Count	27	29	29	29	28	29	28	28	29	28	28	30
Median	14	13	12	13	11	E	14	15	17	21	23	26
Mean	15	14	14	13	12	12	14	15	17	21	24	25

Sweep 1 0 Mc to 95.0 Mc in 27 seconds

Characteristic fmin TABLE 51 Latitude . 10 2° N
 Unit Mc Ionospheric Data Longitude 77 5° E.
 Month September, 1962 75°k Mc ut Time

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

Sweep 1 0 Mc to 2 5 0 Mc in 27 seconds

Characteristic from
 Unit Mc
 Month September, 1962

TABLE 51—Contd
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	E	1.2	1.3	1.1	1.0	1.4	1.4	1.6	1.8	G	2.5	2.6
2	1.4	1.4	1.7	1.3	E	1.4	1.2	1.7	2.0	2.4	2.6	2.6
3	1.1	1.7	1.6	1.4	1.3	1.5	1.3	1.6	1.8	2.2	2.5	2.8
4	E	1.1	E	E	E	1.5	1.4	1.7	1.9	2.3	2.4	2.4
5	E	E	E	1.3	1.6	1.6	1.4	1.5	1.8	2.2	2.1	2.5
6	1.1	1.0	1.1	1.3	1.1	1.1	1.1	1.6	G	G	2.2	2.1
7	1.2	1.1	1.4	1.3	1.0	1.6	1.3	1.5	1.8	2.2	2.6	2.5
8	1.3	1.2	E	E	1.0	1.2	1.3	1.5	1.9	2.1	2.4	2.4
9	1.7	1.5	1.3	1.1	E	1.1	1.3	1.5	1.8	2.3	2.5	2.6
10	1.5	1.5	E	1.1	E	E	1.3	1.6	2.0	2.3	2.1	2.6
11	1.6	1.1	1.1	1.2	1.1	1.2	1.4	1.4	1.9	2.0	2.5	2.6
12	E	E	1.1	E	E	1.3	1.3	1.1	1.8	2.1	2.3	2.3
13	1.2	1.1	1.1	E	E	1.6	1.3	1.6	1.9	2.0	2.3	2.5
14	1.1	1.1	1.2	1.4	1.1	1.4	1.5	1.6	1.8	2.2	2.5	2.5
15	2.2	2.0	1.9	E	E	1.6	1.1	1.5	1.9	2.1	2.5	2.6
16	1.1	1.5	1.1	1.5	1.1	1.3	1.6	1.5	1.9	2.3	2.5	2.6
17	1.6	1.3	1.1	1.1	1.0	1.3	1.4	1.8	1.9	2.4	2.6	2.7
18	1.7	1.5	1.3	1.2	G	G	G	G	1.9	2.3	2.4	2.5
19	2.2	2.0	1.6	1.6	1.5	1.2	1.4	1.7	1.9	2.3	2.4	2.5
20	1.1	1.0	E	1.0	1.4	1.5	1.6	1.6	1.9	2.0	2.6	2.7
21	1.3	G	G	G	G	G	G	G	1.8	2.2	2.4	2.5
22	1.5	1.4	1.2	1.1	1.0	1.4	1.6	1.7	1.8	2.3	2.5	2.8
23	1.1	1.5	1.2	1.1	1.0	1.2	1.5	1.6	1.8	2.1	2.5	2.5
24	1.1	1.3	1.4	1.0	1.4	1.5	1.3	1.7	1.9	2.3	2.1	2.6
25	G	1.4	E	1.2	1.1	1.1	1.7	1.5	1.8	2.2	2.4	3.2
26	1.7	1.9	1.6	L	E	1.1	1.5	1.8	2.0	2.3	2.6	2.8
27	1.4	1.3	1.6	1.5	1.4	1.4	1.5	1.6	1.8	2.3	2.5	2.6
28	E	E	1.1	1.4	E	1.2	1.5	1.7	2.1	2.3	2.5	2.7
29	1.1	E	E	1.0	1.1	1.1	1.7	1.8	1.9	2.2	2.5	2.6
30	1.1	1.2	L	1.1	1.2	1.3	1.4	1.8	2.1	2.6	2.7	3.0
Count	29	29	29	29	28	28	28	28	29	28	30	30
Median	1.2	1.3	1.1	1.1	1.0	1.1	1.1	1.6	1.9	2.2	2.5	2.6
Mean	1.4	1.4	1.3	1.3	1.2	1.4	1.4	1.6	1.9	2.2	2.5	2.6

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds

Characteristic Ionm Unit Mc. Month September, 1962
 TABLE 51—Contd
 Ionospheric Data
 75°E Mean Time
 Latitude 10 2° N
 Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
2.7	2.6	2.2	2.1	2.2	2.3	2.0	1.7	1.7	2.0	1.4	1.4	1
2.0	2.6	2.4	2.4	1.9	1.8	2.1	2.6	2.1	1.6	1.7	1.4	2
2.7	2.5	2.4	2.5	2.2	1.7	1.5	1.7	1.8	1.6	1.4	1.6	3
2.6	2.2	2.3	1.9	1.8	1.7	1.8	1.7	1.6	1.6	1.3	1.6	4
2.5	2.5	2.5	2.4	2.2	2.0	1.2	1.7	2.0	1.9	1.5	1.1	5
2.6	2.6	2.4	2.4	2.4	2.6	2.3	2.2	1.7	1.7	1.5	1.4	6
2.7	2.5	2.2	2.4	1.7	1.5	1.5	1.6	1.4	1.4	1.6	1.6	7
2.6	2.6	2.6	2.4	2.2	2.2	2.2	1.5	2.6	1.3	1.4	2.0	8
2.6	2.6	2.4	2.2	1.8	2.0	1.3	1.4	1.7	1.3	1.5	1.5	9
2.1	1.7	2.6	2.5	1.9	1.6	1.4	1.5	1.4	1.2	1.5	1.2	10
2.6	2.7	2.4	2.3	2.6	2.1	1.6	1.6	1.5	1.6	1.6	1.5	11
2.4	2.4	2.5	2.1	1.9	2.2	1.5	1.7	1.4	1.3	1.6	1.2	12
2.5	2.5	3.0	2.1	2.8	2.3	1.6	1.7	1.6	1.3	1.4	1.4	13
2.5	2.4	2.4	2.5	2.2	1.7	1.9	1.0	1.4	1.7	1.8	1.8	14
2.5	2.6	2.6	2.1	2.2	2.0	1.9	1.6	1.4	1.6	1.4	1.1	15
2.5	2.7	2.4	2.4	2.0	2.0	1.1	1.6	1.3	1.4	1.5	1.5	16
2.7	2.6	2.4	2.4	1.8	1.4	1.4	1.4	1.4	1.9	1.1	1.1	17
2.6	2.5	2.3	2.6	2.0	1.8	1.5	1.4	1.2	1.3	1.9	1.5	18
2.6	2.5	2.4	2.4	1.9	1.7	1.4	1.6	1.6	1.4	1.5	1.3	19
2.6	2.4	2.3	2.2	1.9	1.4	1.4	1.1	1.3	1.8	1.9	1.7	20
2.4	2.4	2.2	2.2	1.9	1.8	1.1	1.6	1.2	1.3	1.4	1.3	21
2.5	2.8	2.6	2.5	1.1	2.4	1.9	1.6	1.6	1.4	1.4	1.4	22
2.4	2.3	2.4	2.5	1.9	1.8	1.6	1.6	1.8	2.3	1.7	1.9	23
2.5	2.6	2.3	2.3	1.9	1.8	1.7	2.0	1.3	1.4	1.6	1.1	24
2.6	2.6	2.6	2.3	2.0	2.3	2.0	1.8	2.2	1.6	1.6	1.5	25
2.6	2.6	2.3	2.2	1.7	1.7	1.2	1.3	1.2	1.4	1.3	1.4	26
2.6	2.5	2.3	2.0	2.1	2.0	1.6	1.6	1.5	1.6	1.3	1.2	27
2.7	2.6	2.5	2.5	2.1	1.7	1.5	1.6	1.1	1.5	1.4	1.1	28
2.6	2.5	2.5	2.8	2.5	2.0	1.6	1.5	1.3	1.4	1.8	1.4	29
2.7	2.3	1.8	1.9	1.4	2.0	1.5	1.6	1.5	1.7	1.5	1.5	30
30	30	30	30	29	30	30	29	30	30	29	28	Count
2.6	2.6	2.4	2.4	2.0	2.0	1.6	1.6	1.5	1.6	1.5	1.4	Median
2.6	2.5	2.4	2.1	2.1	1.9	1.6	1.6	1.6	1.6	1.5	1.4	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic $h'F_2$ Latitude 102° N
 Unit, Km Ionospheric Data Longitude 77.5° E
 Month September, 1962 75°L Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								260	I	310	360m	380
2								I	I	310	390	305
3								I	300	300	310	A
4								I	I	I	355	365
5							L	L	L	L	350	350
6								L	L	C	C	380
7								I	I	325	I	I
8								I	L	I	I	310m
9								L	I	I	I	310m
10								I	L	L	310	I
11							L	L	L	L	I	L
12							L	I	L	L	L	380
13							L	I	L	L	350	L
14							L	L	I	I	L	360
15							L	L	I	I	350	I
16								I	L	I	400	380
17								I	300	320	315	370
18								C	300	I	C	375
19								L	280	L	L	315
20								260	280	L	L	I
21									C	L	315	320
22							L	L	280	L	300	340
23							L	L	C	C	340	350
24							L	L	L	L	360	360
25							L	L	L	320	330	340
26								I	280	295	320	I
27								L	L	L	L	L
28								L	L	L	L	L
29								I	I	L	I	L
30							L	L	L	L	L	L
Count								2	7	8	16	18
Median									280	320	340	355
Mean									290	315	310	355

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h'F,

TABLE 52

Latitude 10°2' N

Unit Km

Ionospheric Data

Longitude 77°5' E

Month September 1962

75 L.M. in Time

	12	13	14	15	16	17	18	19	20	21	22	23	Date
370	I		365	\	L	I							1
325	310	I	I	300	L	A							2
325	I	A		305	I	I							3
345	I	I	I	I	I	I							4
I	360	L	I	I	I	I							5
340	I		370	I	I	I							6
360	I		320	I	I	I							7
L	360	I	I	I	L	I							8
L	I		320	I	L	I							9
305	L		300	280	280								10
350	L		320	I	L								11
L	340	I	I	300	I	I							12
340	I		I	I	I	L							13
I	I		I	A	L								14
I	C		340	A	\								15
400	I		I	I	L	I							16
350	345		330	I	I	I							17
I	315		350	310	I	I							18
345	310		330	I	I	I							19
340	I		I	I	I	L							20
330	340		330	300	I								21
330	365		A	300	L	C							22
330	340		I	I	I								23
360	335		320	280	I								24
330	330		320	I	I	L							25
350	I		I	I	I	I							26
L	340		I	I	L	I							27
330	I		I	I	I	L							28
320	I		I	I	A								29
310	300		I	I	L								30
	22	14	13	8	1								Count
	340	340	330	300									Median
	340	340	330	295									Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic $h^1 F_2$ Latitude 10 2° N
 Unit Km Ionospheric Data Longitude 77 5° E
 Month September 1962 75°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							L	275	L	C	360	375
2							I	L	L	325	320	L
3							I	L	300	320	320	340
4							I	L	L	I	360	360
5							L	L	L	I	350	360
6								L	C	C	380	380
7							L	L	L	310	L	L
8							I	L	L	I	340	340
9							L	L	L	320	L	L
10							L	I	L	L	L	330
11							I	L	L	320r	I	360
12							L	L	I	L	L	365
13							I	I	L	L	L	330
14							L	L	L	L	320	L
15							L	L	L	I	L	L
16								I	L	L	370	375
17								L	310	L	335	350
18								C	I	360	355	370
19							L	I	310	L	375	355
20								280	I	I	L	350
21							C	C	300	330	350	310
22							L	L	300	295	330	310
23						L	L	L	L	340	370	310
24							L	I	L	355	390	360
25							L	L	310	310	310	340
26							L	I	295	315	320r	310
27							L	L	L	L	L	L
28							L	L	300	315	L	350
29							L	L	L	L	370	340
30							L	L	L	L	305	L
Count								2	8	13	20	23
Median									300	325	350	350
Mean									305	330	350	355

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic $h^1 F_2$ TABLE 52—Cont'd Latitude 10 2' N
 Unit Km Ionospheric Data Longitude 77 5" E
 Month September 1962 75 E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
370	370	340	A	300								1
345	340	320	300	A								2
335	L	305	305	L								3
340	350	L	L	L								4
L	350	L	L	L	L							5
340	L	L	L	L	L							6
340	L	L	L	L	L							7
360	340 ^{UL}	L	L	L	L							8
L	L	320	L	L	L							9
L	320	300	L	260								10
340	340	300	A									11
L	340	L	L	L	L							12
340	L	L	L	L	L							13
L	L	A	L									14
L	350	A	L	A								15
L	L	L	L	L								16
350	315	L	L	A								17
380	L	325	L	L								18
335	335	L	L	L								19
340	L	L	L	L								20
320	350	315	L									21
315	320	A	285	C								22
370	330	320	L	L								23
350	320	320	L									24
340	320	300	300	L								25
L	L	L	L	L								26
L	320	L	L	L								27
320	325	300	L	L								28
325	L	L	L	L								29
L	L	L	L	L								30
20	18	12	4	2								Count
340	340	320										Median
345	335	315										Mean

Sweep 10 Mc to 25.0 Mc in 27 seconds

Characteristic h'F
 Unit Km
 Month September 1962

TABLE 51
 Ionospheric Data
 75 h Mc m Time

Latitude 10 2' N
 Longitude 77 5' E

12	13	14	15	16	17	18	19	20	21	22	23	Date
175 _{tr}	180 _{tr}	200	A	220	240	250	265	260	240	220	245	1
180	210	200	200	220	A	250	250	230	227	260	245	2
185	200	A	200	205	230	240	240	240	22	220	215	3
190	190	180 _{tr}	185 _{tr}	225	270	250	250	240	220	210	240	4
180	180	180	190	215	230	210	210	220	210	260	305	5
180	190	200	200	220	240	260	260	240	240	210	280	6
190	190	180	A	215	230	260	280	275	240	C1	220	7
190	195	185 _{tr}	200	210	240	260	315	310 _{tr}	260	240	260	8
180 _{tr}	200	200	200	200	230	250	280	280	280	285	270	9
205	200	200	200	210	230	240	255	220	220	240	250	10
180	180	200	200	220	240	255	280	240	220	230	260	11
180	180	200	205	230	240	260	280	240	210	230	245	12
190	200	220	220	220	230	260	260	220	215	210	255	13
180	180	220	A	260	260	260	280	255 _{tr}	240	235	265	14
175	C	180	A	A	260	260	210 _{tr}	230	220	230	235	15
180 _{tr}	180	180 _{tr}	200	A	240	270	360 _{tr}	265 _{tr}	255	245	240	16
185	180	185	205	A	A	260	300	250	260	275	315 _{tr}	17
180 _{tr}	180	180	210	205	230	260	255 _{tr}	250	220 _{tr}	230	240	18
180	190	190	190	210	230	250	220	235	235	225	220	19
200	200	200	205	220	240	265	275	C1	210	230	225	20
190	190	195	190	220	240	250	240	240	250	220	225	21
180	180	A	215	240	C1	265	260	240	220	230	240	22
195	200	220	220	220	240	260	255	240	230	240	240	23
220	200	200	200	220	240	270	300	F	F	240	210	24
200	210	200	210	220	240	260	270	F	220 _{tr}	240	210	25
200	200	200	200	220	240	260	300	270	230	240	235	26
195	200 _{tr}	200	200	225	240	280	310	280	210	210	260	27
195	200	200	200	220	240	270	300	270	1	270 _{tr}	260	28
180	200	200	220	A	245	270	300	290	255	220	240	29
200	200	A	A	A	250	270	260	225	215	225	230	30
30	29	27	25	25	27	30	30	27	28	29	30	Count
185	195	200	200	220	240	260	270	240	230	240	240	Median
190	195	195	205	220	240	260	275	250	235	240	240	Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'F TABLE 53—Cont'd Latitude 10 2' N
 Unit Km Ionospheric Data Longitude 77 5' E
 Month September 1962 751 Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	Λ	210	210	230	230	280	250	220	200 _{tr}	190	180	180
2	305	260	260	210	1	275	210	200	200	200	195	180
3	300	250	210	Λ	300	260	225	200	Λ	Λ	Λ	200
4	315	270	15	Λ	15	275	210	220	200	195	190	185
5	260	250	210	290	250	270	290	200	200	180	180	180
6	300	300	300	280	220	210	220	200	190	190	180	200
7	210	290	210	260	260	300	220 _{tr}	290	210	200	200	180
8	220	220	290	210	260	270	290	210	200	190 _{tr}	190	200
9	220	220	220	220	210	210	220	180 _{tr}	180 _{tr}	180 _{tr}	175 _{tr}	180 _{tr}
10	220	205	220	220	220	260	220	200	200	180 _{tr}	180 _{tr}	200
11	210	295	230	210	260	255	220	200	200	190	180	180
12	310	250	290	1	1	260	220	200	200	180	190	180
13	225	290	260	1	1	280	290	200	180	200	180 _{tr}	200
14	260	235	260	210	230	260	225	205	185	185	180	195
15	260	210	260	1	1	260	290	210	190	180	190	180
16	255	215	210	210	215	270	290	200	200	190	190	180
17	215	215	215	235	215	270	225	210	200	195	190	190
18	270	210	295	290	1	1	1	190	180 _{tr}	180	175 _{tr}	180
19	290	290	225	235	210	210	225	190 _{tr}	190	180 _{tr}	180	180
20	220	260	290	280	250	210	235	220	200	200	195 _{tr}	190 _{tr}
21	225	1	1	1	1	1	1	1	200	195	200	Λ
22	210	220	220	290	210	260	290	215	200	190	180	190
23	235	220	210	210	210	250	290	210	220	190	190	180
24	210	290	290	290	260	255	295	210	190	180	180	190
25	1	220	235	210	290	295	210	215	200	190	190	200
26	210	220	210	1	15	260	235	220	210	215	200	210
27	210	210	230	230	295	260	210	220	200	200	195	195
28	225	210	220	225	15	255	225	205	190 _{tr}	185	180	180 _{tr}
29	235	230	220	210	210	250	295	210	200	190	195	180 _{tr}
30	215	225	215	295	230	250	235	225	200	190	190 _{tr}	205
Cont'd	28	29	29	27	28	28	28	28	28	17	29	29
Median	210	290	235	210	230	260	290	210	200	190	190	185
Mean	250	295	210	210	210	260	230	210	200	190	185	190

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h'F

TABLE 53—Contd

Latitude 10.2° N

Unit Km

Ionospheric Data

Longitude 77 5° E

Month September 1962

73 F Mc in 1 mu

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
175 ₁₁	200	210	A	220	210	260	270	235	230	230	275	1
200	200	215	220	A	250	255	240	230	240	275	300	2
220	A	A	210	200	240	220	220	225	220	220	A	3
180	195	200	220	225	270	260	255	225	230	235	240	4
180	180	180	195	220	230	210	220	220	250	290	335	5
180	205	200	220	230	250	260	210	230	240	260	280	6
190	190	A	210	220	240	275	280	260	240	240	220	7
200	190 ₁₁	200	200	220	250	280	320 _{11F}	290 _{11F}	240	260	220	8
200	195	200	200	220	210	260	280	1	280	200	260	9
210 _{11A}	200	200	210	220	230	260	240	220	220	240	260	10
180	190	200	A	220	240	280	270	220	230	240	295	11
180	200	200	220	235	250	280	260	220	215	240	215	12
180 ₁₁	215	220	220	230	255	275	235	215	215	250	280	13
190	190	A	240	240	255	270	260	220 _F	240	245	270	14
A	205	A	220	A	250	260	210 _F	220	220	235	235	15
180	180	195	A	A	255	330	305 _F	265	235	245	235	16
180	180	185	A	A	255	270	260	260	260	305 _F	315	17
170 ₁₁	180	200	205	220	240	280	250	250	220	250	225	18
195	185	210	200	220	245	240	215	215	225	240	215	19
190	190 ₁₁	200	205	225	250	275	275	255	230	230	220	20
180	180	200	200	220	240	215	250	215	210	230	235	21
180	A	A	230	C	260	265	260	230	220	225	240	22
180	180	220	215	235	255	275	250	240	210	210	240	23
200	200	200	200	230	255	280	300	1	220	250	250	24
210	200	200	215	235	260	280	260	260	230	240	240	25
200	200	200	200	230	260	280	280 _F	240	235	240	240	26
205	200	200	210	230	260	320	315 _F	260	235	240	240	27
185	200	200	200	230	250	290	300	1	240 _{11F}	250	260	28
195	180	210	230	A	255	305	300	270	235	230	240	29
195	200	A	A	240	260	270	240	225	220	230	225	30
29	28	24	25	24	30	30	28	26	30	30	28	Count
190	195	200	210	225	250	270	260	230	230	240	240	Median
190	195	200	210	225	250	270	265	240	235	250	255	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h'E
 Unit Km
 Month September 1962

TABLE 54
 Ionospheric Data
 75°E Meridian

Latitude 10 2° N
 Longitude 77 5 E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							125	100	A	A	A	A
2							120	A	A	A	A	A
3							120	A	A	A	A	A
4							120	105	A	A	A	A
5							A	A	A	A	A	A
6							120	105	A	C'	C'	A
7							120	A	A	A	A	A
8							120	105	105	A	A	A
9							140	100	A	A	A	A
10							120	100	A	A	A	A
11							100	100	A	A	A	A
12							115	A	A	A	A	A
13							120	A	A	A	A	A
14								100	A	A	A	A
15							115	A	A	A	A	A
16							140	110	A	A	A	A
17							120	110	A	A	A	A
18							C'	C'	A	C'	A	A
19							110	100	100	A	A	A
20								110	A	A	A	A
21							C'	C'	A	A	A	A
22							120	110	A	A	A	A
23								A	C'	C'	A	A
24								A	A	A	A	A
25								110	A	A	A	A
26							120	115	110	100	A	A
27								100	A	A	A	A
28							120	110	A	A	A	A
29							120	110	A	A	A	A
30							120	105	A	A	A	A
Count							21	19	9	1		
Median							120	105				
Mean							120	105				

sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h'E		TABLE 51											Latitude 10 5° N	
Unit Km		Ionospheric Data											Longitude 77 5° E	
Month September 1962		75 & Mu in 1 min											Date	
12	13	11	15	16	17	18	19	20	21	22	23			
Δ	Δ	Δ	Δ	Δ	Δ								1	
Δ	110	Δ	Δ	Δ	Δ								2	
Δ	Δ	Δ	Δ	Δ	Δ								3	
Δ	Δ	Δ	Δ	Δ	Δ								4	
Δ	Δ	Δ	Δ	110	Δ								5	
Δ	Δ	Δ	Δ	120	Δ								6	
Δ	Δ	Δ	Δ	110	120								7	
Δ	Δ	110	110	120	Δ								8	
Δ	Δ	105	100	110	120								9	
Δ	Δ	110	105	110	Δ								10	
Δ	Δ	Δ	Δ	Δ	Δ								11	
Δ	Δ	Δ	110	110	100								12	
Δ	Δ	110	115	B	B								13	
Δ	Δ	Δ	110	110	Δ								14	
Δ	Δ	Δ	100	Δ	Δ								15	
Δ	Δ	Δ	110	110	Δ								16	
Δ	Δ	Δ	Δ	Δ	Δ								17	
Δ	Δ	Δ	Δ	110	Δ								18	
Δ	Δ	105	Δ	Δ	Δ								19	
Δ	Δ	Δ	110	Δ	Δ	A							20	
Δ	Δ	Δ	Δ	Δ	Δ								21	
Δ	Δ	Δ	Δ	Δ	Δ								22	
Δ	Δ	Δ	Δ	Δ	Δ								23	
Δ	Δ	Δ	Δ	Δ	Δ								24	
Δ	Δ	Δ	Δ	Δ	Δ								25	
Δ	Δ	Δ	Δ	Δ	Δ								26	
Δ	Δ	Δ	Δ	105	Δ								27	
Δ	Δ	Δ	Δ	110	Δ								28	
Δ	Δ	Δ	Δ	Δ	Δ								29	
Δ	Δ	Δ	Δ	Δ	Δ								30	
		1	5	9	12	3						Count		
			110	110	110						Median			
			110	110	110						Mean			

Sweep 10 Mc to 25.0 Mc in 27 seconds

Characteristic h'E

TABLE 54—Cont'd

Latitude 10°2' N

Unit Km

Ionospheric Data

Longitude 77°5' E

Month September 1962

75°E Meridian Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							110 ^u	A	A	C	A	A
2							105 ^u	A	A	A	A	A
3							A	A	A	A	A	A
4							110	A	A	A	A	A
5							100	A	A	A	A	A
6							105	A	C	C	A	A
7							110	A	A	A	A	A
8							110	A	110	A	A	A
9							105	A	A	A	A	A
10							105	100	A	A	A	A
11							100	A	A	A	A	A
12							A	A	A	A	A	A
13							A	A	A	A	A	A
14							110	100	A	A	A	A
15							110	A	A	A	A	A
16							110	105	A	A	A	A
17							115	105	A	A	A	A
18						C	C	C	A	A	A	A
19							105	100	A	A	A	A
20							115	A	A	A	A	A
21						C	C	C	A	A	A	A
22							120	A	A	A	A	A
23							120	A	A	A	A	A
24							A	A	A	A	A	A
25							A	110	A	A	A	A
26							115	115	105	A	A	A
27							115	A	A	A	A	A
28							110	A	A	A	A	A
29							120	A	A	A	A	A
30							110	100	A	A	A	A
Count							29	8	2			
Median							110	100				
Mean							110	105				

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h'F

TABLE 51—Contd

Latitude 10° 2' N

Unit Km

Ionospheric Data

Longitude 77° 5' E

Month September 1962

75 E Magnetic Line

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
A	A	A	A	A								1
\	105	A	\	A	A							2
\	A	A	A	120								3
\	B	A	A	A	A							4
A	A	A	110	110								5
\	A	A	115	A								6
\	A	A	110	105								7
A	110	A	110	120	A							8
\	105	105	A	105								9
\	A	A	110	110								10
A	A	A	A									11
A	A	110	110	110								12
A	A	120	B	B								13
A	A	100	115	A								14
A	A	105	110	A								15
A	A	A	110	110								16
A	A	A	A	A	A							17
\	A	A	115	115	A							18
A	A	A	A	A	A							19
A	A	A	105	A	A							20
\	A	A	A									21
A	A	A	A	A								22
A	A	A	A	A								23
\	A	A	A	A								24
\	A	A	\	A								25
\	A	A	A	A								26
A	A	A	A	B								27
A	A	A	A	A								28
\	A	A	A	A								29
A	A	A	A	A								30
	3	5	11	9								Count
		105	110	110								Median
		110	110	110								Mean

Sweep 1.0 Mc to 25.0 Mc, in 27 seconds.

Characteristic h'Es

TABLE 55

Latitude 10.2° N

Unit Km

Ionospheric Data

Longitude 77° 5' E

Month September 1962

75° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1		120					G	G	100	100	100	100
2	105						G	G	100	100	100	100
3						100	G	G	100	100	100	100
4	110			110	100		G	G	100	100	100	100
5	100	100	100					G	100	100	100	100
6		120		100			G	160	100	G	G	100
7	120						120	100	100	100	100	100
8							G	100	100	100	100	100
9							G	G	100	100	100	100
10							G	G	100	100	100	100
11							G	G	100	100	100	100
12	100	100					G	G	100	100	100	100
13							G	100	100	100	100	100
14	100		100				G	100	100	100	100	100
15	100						G	100	100	100	100	100
16	100	100	110		105		G	100	100	100	100	100
17	120						G	G	100	100	100	100
18	100						G	G	100	100	G	100
19	100	95		110			G	150	100	100	100	100
20			115	105	100			G	100	100	100	100
21							G	G	100	100	100	100
22							G	120	100	100	100	100
23								100	G	G	100	100
24	120						120	100	100	100	100	100
25					100		140	G	100	100	100	100
26	G						G	G	G	100	100	100
27		100	100	100				100	100	100	100	100
28							G	100	100	100	100	100
29	115						G	100	100	100	100	100
30							G	120	100	100	100	100
Count	13	7	5	5	5	1	3	20	28	28	28	30
Median	100	100	100	105	100			100	100	100	100	100
Mean	105	105	105	105	100			110	100	100	100	100

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h'Es
 Unit Km
 Month September, 1962

TABLE 55
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
100	100	100	100	100	100	100						1
100	G	100	100	100	100	100						2
100	100	100	100	100	100							3
100	100	100	100	100	100	100	100				100	4
100	100	100	100	100			110					5
100	100	100	100	100	100	135	100	100		135	120	6
100	100	100	100	115	120						105	7
100	100	100	100	110	100						105	8
100	100	100	100	120	100				130		100	9
100	95	G	95	G	120						100	10
100	100	100	100	100								11
100	100	100	100	G	100					120	120	12
100	100	G	130	G	G					100	100	13
100	100	100	100	100	105	110		100	100		120	14
100	C	100	100	100	100	100						15
100	100	100	100	105	100				115	115		16
100	100	100	100	100	100	105	100	110	100	100	100	17
100	100	100	100	G	95				115	115	120	18
100	100	100	100	100	100							19
100	100	100	100	100	100	100			110	115		20
100	100	100	100	100	100							21
100	100	100	100	100								22
100	100	100	100	100	120		115	115				23
100	100	100	100	100	120			140	120	120	120	24
100	100	100	100	100	100						120	25
100	100	100	100	100	100				100	120	120	26
100	100	100	100	G							120	27
100	100	100	100	100	105						120	28
100	100	100	100	100	105				130	120		29
100	100	100	100	100								30
30	28	28	30	25	22	8	5	5	9	10	16	Count
100	100	100	100	100	100	100	100	110	115	120	120	Median
100	100	100	100	100	105	105	105	115	115	115	110	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds.

Characteristic h'Es

TABLE 55—Contd

Latitude 10.2° N

Unit Km

Ionospheric Data

Longitude 77 5° E

Month September, 1962

75°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	120	120	120				G	100	100	C	100	100
2	115						G	100	100	100	100	100
3	110			100	100		100	100	100	100	100	100
4	105			100			G	100	100	100	100	100
5	100	100					100	100	100	100	100	100
6	120		100				120	100	C	C	100	100
7							100	100	100	100	100	100
8							G	100	100	100	100	100
9				135			G	100	100	100	100	100
10							120	100	100	100	100	105
11							G	100	100	100	100	100
12	100						100	100	100	100	100	100
13							100	100	100	100	100	100
14				100			G	100	100	100	100	100
15							G	100	100	100	100	100
16	100	120					100	100	100	100	100	100
17							G	G	100	100	100	100
18	100					C	C	C	100	100	100	100
19	100			115			G	100	100	100	100	100
20			110	100			100	100	100	100	100	100
21		C	C	C	C	C	C	C	100	100	100	100
22							G	100	100	100	100	100
23							G	100	100	100	100	100
24	110						120	100	100	100	100	100
25							120	100	100	100	100	100
26	100						G	G	G	100	100	100
27	100	100					G	100	100	100	100	100
28							G	100	100	100	100	100
29							G	100	100	100	100	100
30							G	G	100	100	100	100
Count	13	4	3	6	1		11	25	28	28	30	30
Median	100			100			100	100	100	100	100	100
Mean	105			110			105	100	100	100	100	100

Sweep 1 0 Mc. to 25 0 Mc. in 27 seconds

Characteristic h'Es Latitude 10.2° N
 Unit Km. Ionospheric Data Longitude 77.5° E

Month September, 1962		75°E Mean Time										Date
1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	
100	100	100	100	100		100					100	1
100	G	100	100	100	100							2
100	100	100	100	G	100						105	3
100	100	100	100	100	100	100	100				100	4
100	100	100	100	G		120					120	5
											120	6
100	100	100	100	110	110	140					120	7
100	100	100	100	110	G	100				100		8
100	100	100	100	120						100		9
95	95	105	G	120	140							10
												11
100	100	100	100	G	G					120	120	12
100	100	G	G	G						100	100	13
100	100	100	110	100	110		100	100	100		110	14
100	100	110	100	100	100						100	15
												16
100	100	100	100	110				120	115	135	130	17
100	100	100	100	100	100	100	120	100	100	100	100	18
100	100	100	G	G	100			120	115	135	105	19
100	100	100	100	100	100					105		20
100	100	100	100	100	100			105	110			21
												22
100	100	100	120	G							120	23
100	100	100	100	100	100	100		120			120	24
100	100	100	100	100	100			130	120	120		25
100	100	100	100	100	100					120	100	26
									100	100	120	27
100	100	100	100	G								28
100	100	100	100	100	100			100				29
100	100	100	110	105					120			30
100	100	100	100	100				100				30
30	29	29	26	22	12	9	9	10	8	11	16	Count
100	100	100	100	100	100			100	110	120	110	Median
100	100	100	100	105	110			110	110	115	110	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic (M 3000) F_2

TABLE 56

Latitude 10 2° N

Unit

Ionospheric Data

Longitude 77 5° E

Month September, 1962

75°E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	C	3 25	3 45	3 30	3 45	E	3 40	3 45	3 20	2 80	2 20 _{tr}	2 40
2	2 80	2 95	3 25	J 30	A	E	2 80	2 70	2 80	2 70	2 55	2 55
3	3 00	3 25	3 20	3 25	3 30	3 15	3 25	3 35	3 00	2 65	2 45	2 60
4	3 00	3 00	F	A	A	E	3 30	3 10	2 75	2 40	2 55	2 50
5	3 35	3 15	3 40	3 50	3 50 _F	E	3 50	3 10	2 90	2 45	2 40	2 65
6	FS	F	I	2 80	3 15	3 50	E _b	3 25	2 90	C	C	2 50
7	3 15	3 20 _{tr}	3 20	3 25	3 20	3 15	3 15	3 05	2 50	2 55	2 50	2 55
8	3 50	3 60	3 60	3 50	3 50	3 60	3 40 _{tr}	3 40	3 05	2 70	2 70	2 55
9	3 40 _{tr}	3 50	3 60	3 50	3 55	3 60	3 50	3 30	3 00	2 55	2 50	2 65
10	3 25 _{tr}	3 60 _{tr}	3 50	3 55 _{tr}	3 55	3 55	3 45	3 50	3 20	2 65	2 70	2 75
11	3 45 _{tr}	3 50	3 50	3 60	C	E	3 50	3 40	3 15	2 75	2 10 _{tr}	2 40
12	3 00	3 20	3 60	F	E	L	3 40	3 10	2 60	2 60	2 60	2 50
13	3 45	3 50	3 50	3 05	E	F	3 50	3 20	2 85	2 50	2 60	2 50
14	3 20	3 30	3 10	3 25	3 60	E	3 40	3 30	2 80	2 60	2 55	2 55
15	3 20	3 50	3 50	3 60	E	E	3 50	3 25	2 55	2 70	2 70	2 55
16	3 30	3 45	3 45	3 50	3 50	I	3 30	2 85	2 60	2 55	2 50	2 50
17	3 50	3 45	3 55	3 50	3 45	E	3 40	3 40	2 90	2 10 _{tr}	2 55	2 50
18	2 95	3 25	3 35	3 40	3 45	3 50	C	C	2 95	2 30 _{tr}	C	2 55
19	I	3 50	3 50	3 55	3 10	3 55	3 40	3 35	3 20	2 80	2 20 _{tr}	2 50
20	3 15	3 45	3 00	I	F	I	3 45	3 50	3 20	2 85	2 30	2 50
21	3 50	C	C	C	C	C	C	C	3 10	2 80	2 30 _{tr}	2 60
22	3 30	3 50	3 45	3 60	3 30	3 50	3 45	3 10	2 90	2 70	2 40	2 40
23	3 35	3 35	3 45	3 30	3 30	3 50	3 40	3 25	C	C	2 50	2 50
24	3 35	3 45	3 45	3 45	3 45	3 50	3 30	3 10	2 55	2 50	2 50	2 55
25	C	3 40	3 40	3 30	3 35	3 45	3 40	3 40	3 00	2 55	2 55	2 50
26	C	3 60	3 60	I	E	L	3 40	3 40	3 25	3 15	2 90	2 55 _{tr}
27	3 30	3 35	3 50 _{tr}	3 40	3 40	3 60 _{tr}	3 40	3 35	3 00	2 45	2 40	2 50
28	3 30	3 50	3 50	3 40	3 50	E	3 60	3 40	2 90	2 30 _{tr}	2 60	2 50
29	F	3 40	3 35	3 45	3 60	3 50	3 30	3 20	2 60	2 45	2 50	2 50
30	3 30	3 30	3 30	3 45	3 45	3 40	3 45	3 40	3 10	2 65	2 45	2 55
Count	21	28	27	25	21	15	27	28	29	28	28	30
Median	3 30	3 40	3 45	3 45	3 45	3 50	3 40	3 35	2 90	2 60	2 50	2 50
Mean	3 25	3 35	3 40	3 45	3 45	3 45	3 40	3 30	2 90	2 60	2 50	2 55

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic (M 3000)_{f₂}

TABLE 56

Latitude 10 2° N

Unit

Ionospheric Data

Longitude 77 5° E

Month September 1962

75° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
2 40	2 50	2 45	2 75	2 90	3 00	3 00	2 95	3 00	3 10 _u	3 20	3 10 _{us}	1
2 60	2 70	2 60	2 60	2 70	2 70	2 70	2 95	3 25	3 00	3 05	2 90	2
2 65	2 55	2 60	2 70	2 80	2 90	3 05	3 30	3 25	3 40	3 50	2 90	3
2 60	2 50	2 50	2 55	2 70	2 75	2 95	3 00	3 10	3 30	3 20	3 40	4
2 60	2 60	2 45	2 65	2 85	3 05	3 10	3 20	3 30	3 30	3 10 _{us}	2 85 _{us}	5
2 50	2 60	2 55	2 50	2 65	2 85	2 90	3 00	S	3 25	3 20 _{us}	3 10	6
2 40	2 50	2 60	2 70	2 90	3 00	3 00	2 90	3 00	3 20	C	3 45	7
2 50	2 45	2 60	2 80	2 90	3 00	2 90	2 70	F	3 05	3 10	3 30	8
2 60	2 65	2 70	2 80	2 85	2 90	2 75	2 65	2 80	2 90	2 90	3 00	9
2 80	2 90	2 95	3 10	3 25	3 25	3 20	3 10	3 40	3 40	3 30	3 30	10
2 60	2 60	2 60	2 90	3 20	3 30	3 10	3 00	3 25	3 40	3 40	3 15	11
2 50	2 70	2 80	3 00	3 00	3 10	3 05	3 00	3 20	3 40 _{us}	3 40 _{us}	3 40 _{us}	12
2 60	2 60	2 75	3 00	3 15	3 20	3 10	3 10	3 40	3 50	3 30	3 20	13
2 55	2 65	2 70	2 80	2 90	2 80	2 80	2 85	3 10	3 30	3 30	3 10	14
2 50	C	2 70	2 85	3 00	3 20	3 10	3 05	3 25	3 40	3 40	3 40	15
2 55	2 60	2 55	2 65	2 75	2 80	2 65	2 40	I	Γ	3 10	3 25	16
2 55	2 60	2 65	2 65	2 60	2 70	2 70	2 75	I	F	F	F	17
2 50	2 45	2 60	2 80	3 00	3 05	2 90	F	F	F	F	3 30	18
2 60	2 60	2 65	2 70	2 65	2 45	2 40	2 80	3 15	3 25	3 40	3 30	19
2 55	2 60	2 55	2 70	2 75	2 80	2 85	C	C	3 15	3 35	3 35	20
2 55	2 55	2 60	2 65	2 70	2 65	2 70	2 85	3 00	3 00	3 20	3 25	21
2 60	2 50	2 70	2 90	2 90	C	2 80	2 80	3 00	3 30	3 30	3 30	22
2 50	2 50	2 50	2 65	2 65	2 70	2 70	2 80	3 00	3 30	3 20	3 25	23
2 50	2 50	2 50	2 60	2 70	2 65	2 60	2 60	F	F	F	3 20	24
2 60	2 60	2 70	2 70	2 80	2 80	2 70	2 70	2 95 _v	3 10 _r	3 10	3 20	25
2 40 _u	2 40	2 60	2 60	2 60	2 70	2 80	2 70	3 05	3 15	3 00	3 30	26
2 50	2 50	2 55	2 70	2 70	2 70	2 55	2 40	2 55	F	3 15	3 20	27
2 65	2 60	2 60	2 60	2 60	2 60	2 70	2 50	2 60	2 80	F	F	28
2 60	2 55	2 60	2 60	2 70	2 70	2 70	2 70	2 75	2 95	3 15	3 25	29
2 65	2 70	2 80	2 90	2 95	3 00	2 90	2 90	3 10 _{ys}	3 20	3 20	3 30	30
30	29	30	30	30	29	30	28	23	25	25	28	Count
2 55	2 60	2 60	2 70	2 80	2 80	2 80	2 85	3 10	3 25	3 20	3 25	Median
2 55	2 60	2 60	2 75	2 85	2 85	2 85	2 85	3 05	3 20	3 20	3 20	Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic (M 3000) F₂

TABLE 56—Cont'd

Latitude 10 2° N

Unit

Ionospheric Data

Longitude 77 5" E

Month September 1962

75° E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	3 30	3 30	3 20v	3 50	3 40	3 00	3 50	3 40	3 05	C1	2 50	2 40
2	2 90	3 10	3 25	3 45	E	2 90	2 90	2 65	2 50	2 60	2 50	2 60
3	3 00	3 35	3 30	3 25	3 20	3 05	3 40	3 10	2 90	2 50	2 50	2 60
4	3 00	2 70	R	A	E	3 00	3 20	3 00	2 50	2 30	2 50	2 50
5	3 15	3 35	3 45	3 50	3 60r	3 20	3 40	3 10	2 70	2 40	2 55	2 55
6	F	F	2 90us	2 95	3 45	F	3 35	3 10	C	C	2 50	2 40
7	3 25us	3 40	3 30	3 20us	3 20	3 05	3 20	2 85	2 50	2 60	2 65	2 50
8	3 55	3 60	3 55	3 45	3 55	3 15	3 40	3 20	2 85	2 70	2 60	2 55
9	3 50us	3 60r	3 50	3 60	3 60	3 40	3 40	3 20	2 75	2 45	2 55	2 65
10	3 40us	3 50	3 55	3 60	3 55	3 15	3 50	3 40	2 95	2 45	2 85	2 80
11	3 50us	3 60	3 60	3 60	3 50	3 10	3 50	3 30	3 00	2 35rr	2 50	2 45
12	3 15	3 40	3 65	E	E	3 00	3 30	2 70	2 70	2 55	2 60	2 50
13	3 50	3 50	3 30	E	E	3 10	3 45	3 05	2 60	2 50	2 50	2 70
14	3 25	3 35	3 10	3 50	3 60	3 30	3 40	3 05	2 60	2 70	2 60	2 50
15	3 40	3 50	3 55	E	E	3 20	3 40	2 90	2 50	2 70	2 70	2 50
16	3 40	3 50	3 45	3 50	R	3 05	3 10	2 50	2 65	2 60	2 55	2 60
17	F	3 50	3 60	3 45	3 40	3 00	3 45	3 20	2 60	2 60	2 50	2 55
18	3 10	3 30	3 45	3 35	C	C	C	C	2 60	2 55	2 55	2 55
19	3 50js	3 45	3 50	3 40	3 20	3 10	3 40	3 25	3 00	2 60	2 50	2 60
20	3 45	3 20	F	3 10	F	3 30	3 40	3 25	3 00	2 55	2 40	2 50
21	3 15	C	C	C	C	C	C	C	3 05	2 60	2 50	2 70
22	3 40	3 40	3 50	3 30	3 50	3 00	3 40	3 15	2 80	2 60	2 35	2 55
23	3 35	3 40	3 45	3 30	3 45	3 20	3 35	2 95	2 40	2 40	2 45	2 60
24	3 35	3 30	3 50	3 55	3 45	3 15	3 40	2 90	2 40	2 60	2 40	2 50
25	C	3 35	F	F	3 40	3 30	3 50	3 25	2 85	2 30	2 55	2 50
26	3 40	3 50	3 55	E	L	3 00	3 40	3 30	3 20	3 10	2 75rr	2 45
27	3 30	3 40	3 50	3 45	3 50	3 50	3 40	3 10	2 75	2 30	2 50	2 45
28	3 40	3 40	3 50	3 50	E	3 55	3 50	3 10	2 60	2 55	2 60	2 55
29	F	3 30	3 40	3 15	3 55	3 20	3 30	3 00	2 45	2 45	2 55	2 60
30	3 20	3 30	3 40	3 50	3 50	3 50	3 50js	3 30	2 90	2 20rr	2 60	2 50
Count	26	28	26	23	19	27	28	28	29	28	30	30
Median	3 10	3 40	3 45	3 45	3 50	3 15	3 40	3 10	2 70	2 55	2 50	2 55
Mean	3 30	3 40	3 40	3 40	3 45	3 15	3 35	3 10	2 75	2 55	2 55	2 55

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic (M 3000) F₂ Unit Month September 1962
 TABLE 56—Cont'd Ionospheric Data 75° E Mean Time
 Latitude 10 2° N Longitude 77 5° E

1290	1390	1490	1590	1690	1790	1890	1990	2090	2190	2290	2390	Date
2 50	2 50	2 65	2 80	2 95	3 05	3 00	3 00	3 00 _{UF}	3 20	3 10	2 90	1
2 75	2 75	2 65	2 70	2 60	2 70	2 80	3 10	3 20	2 95	3 00	2 90	2
2 60	2 55	2 60	2 80	2 90	3 00	3 30	3 30	3 25	3 50	3 45	3 00	3
2 60	2 50	2 50	2 60	2 70	2 85	2 90	3 05	3 20	3 20	3 20	3 40	4
2 70	2 50	2 60	2 85	2 90	3 05	3 10	3 30	3 30	3 20	3 05 _{US}	3 65 _{US}	5
2 70	2 55	2 50	2 60	2 70	2 85	2 95	3 10 _{US}	3 20 _{US}	3 25	3 15 _{US}	3 50	6
2 50	2 50	2 70	2 80	3 00	3 00	2 95	2 95	3 10	3 25	3 45	3 50	7
2 45	2 50	2 80	2 90	2 95	3 00	2 85	2 70	F	3 10	3 15	3 30 _{US}	8
2 65	2 65	2 70	2 80	2 90	2 80	2 70	2 70	2 80	2 90	2 95	3 10 _{US}	9
2 90	2 90	3 10	3 20	3 25	3 25	3 10	3 25 _{US}	3 40 _{US}	3 40	3 30 _{US}	3 40	10
2 60	2 55	2 70	3 00	3 20	3 25	3 00	3 15	3 40	3 10	3 35	3 15	11
2 50	2 80	2 90	3 00	3 05	3 10	2 95	3 10	3 30	3 35	3 40 _{US}	3 40	12
2 60	2 60	2 85	3 10	3 15	3 20	3 00	3 25	3 50	3 10 _{US}	3 25	3 20	13
2 65	2 65	2 70	2 95	2 90	2 80	2 80	2 90 _{US}	3 20	3 10	3 20	3 10	14
2 60	2 70	2 75	2 95	3 10	3 20	3 00	3 10	3 30	3 40	3 40	3 35	15
2 50	2 55	2 60	2 70	2 75	2 75	2 45	2 50	2 95	3 00	3 15	3 35	16
2 55	2 65	2 65	2 65	2 65	2 70	2 70	(	(	3 05	(	2 90 _{US}	17
2 50	2 60	2 70	2 85	3 05	3 00	F	F	F	3 10	3 10	3 50	18
2 60	2 60	2 70	2 65	2 65	2 10	2 60	3 00	3 20	3 30	S	3 50	19
2 60	2 55	2 60	2 75	2 80	2 80	2 80	(	3 10	3 30	3 30	3 40	20
2 50	2 50	2 60	2 60	2 60	2 60	2 80	2 95	3 00	3 20	3 20	3 20	21
2 50	2 55	2 70	2 90	(	2 80	2 75	2 90	3 10	3 30	3 20	3 30	22
2 50	2 50	2 65	2 65	2 70	2 65	2 80	3 00	3 15	3 20	3 10	3 30	23
2 50	2 50	2 55	2 70	2 75	2 70	2 60	2 50	1	F	F	(	24
2 70	2 65	2 70	2 80	2 80	2 70	2 70	2 80	3 05 _U	3 20	3 15	3 30	25
2 35 _U	2 50	2 60	2 65	2 65	2 75	2 70	2 80	3 00	3 00	3 20	3 40	26
2 50	2 55	2 60	2 75	2 75	2 65	2 45	2 45	1	3 00	3 10	3 20	27
2 60	2 60	2 65	2 60	2 65	2 60	2 60	2 50	2 70	2 80 _U	1	1	28
2 65	2 60	2 55	2 65	2 80	2 80	2 70	2 70	2 85	3 05	3 15	3 30	29
2 60	2 65	2 90	2 90	3 00	2 95	2 85	3 00	3 20	3 20	3 25	3 30 _U	30
30	30	30	30	29	30	29	27	25	28	26	27	Count
2 60	2 55	2 65	2 80	2 80	2 80	2 80	3 00	3 20	3 20	3 20	3 30	Median
2 60	2 60	2 70	2 80	2 85	2 85	2 80	2 95	3 15	3 20	3 20	3 25	Mean

Sweep 1 (0 Mc to 25 0 Mc in 27 seconds)

Characteristic fo F2
 Unit Mc
 Month October 1962

TABLE 57
 Ionospheric Data
 75°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	5 0	3 8	2 3	1 1	E	1 2	5 8	8 2	9 4	8 5	8 6	8 6
2	5 7	5 0	2 6	1 4	1 4	1 4	5 3	8 4	9 6	9 0	9 4	8 8
3	8 5	7 7	6 8	6 0	4 9	2 6	5 8	8 4	9 6	9 0	7 9	8 0
4	8 9	8 0	6 2	4 8	3 1	1 8	5 1	7 7	9 4	10 2	8 6	8 6
5	7 3	7 0	6 7	5 7	1 9	3 9	5 8	8 3	9 5	9 5	9 5	8 0
6	8 6	6 4	3 1	2 5	2 7	2 7	5 8	8 2	9 6	10 7	10 0	9 4
7	4 2	3 2	2 6	3 0	2 6	2 4	5 6	8 7	10 0	9 6	8 4	8 3
8	8 4	8 4	7 6	5 4	2 3	R	5 8	8 0	8 9	9 4	10 8	10 2
9	8 6	8 6	7 8	6 3	5 4	2 0	5 6	7 8	9 2	10 8	10 8	9 8
10	7 7	6 8	4 9	4 3	3 2	2 0	5 3	7 8	9 6	11 0	11 2	9 6
11	6 2	5 5	F	F	F	3 7	5 8	8 6	9 6	10 0	8 2	8 0
12	6 4	5 8	4 5	3 0	2 2	2 0	5 6	8 0	9 6	10 0	8 8	8 1
13	6 5	5 6	3 8	3 0	2 6	2 3	5 3	7 3	7 6	7 1	7 3	7 5
14	7 0	5 7	3 2	2 5	2 0	1 6	5 3	8 0	9 6	10 1	9 4	8 1
15	6 2	5 6	5 7	4 6	3 4	2 6	5 8	8 3	9 8	11 1	11 0	9 5
16	8 0	7 0	5 3	3 3	1 5	E	5 6	8 1	9 5	9 5	8 3	7 9
17	3 8	4 0	1 2	4 4	3 8	2 8	5 5	8 1	9 4	9 8	9 8	9 0
18	6 8	7 2	4 0	2 8	2 0	1 7	5 3	7 8	9 6	10 4	11 0	10 6
19	8 5	8 5	7 8	6 8	6 6	6 6	7 6	9 4	9 9	10 0	9 0	9 0
20	7 2	5 9	4 7	4 0	3 8	F	5 1	8 1	10 2	10 7	10 4	9 8
21	8 1	7 3	5 3	4 8	3 9	3 2	5 7	8 3	9 9	10 7	10 4	9 7
22	8 4	8 3	F	7 8	6 7	5 6	6 6	8 7	9 8	9 6	9 4	9 1
23	5 2	4 3	3 1	2 5	2 3	1 1	5 7	8 2	9 4	11 0	11 0	10 6
24	9 3	F	8 3	7 2	7 2	F	F	7 7	9 1	9 8	9 1	8 8
25	7 4	6 9	6 1	5 5	1 3	3 0	5 7	9 0	9 5	9 8	9 1	9 3
26	7 6	6 4	4 6	3 0	2 5	1	4 8	8 0	9 0	9 6	9 6	9 7
27	7 8	7 4	7 2	7 2	6 8	6 1	7 1	9 0	10 0	10 1	10 0	10 2
28	7 6	6 7	5 5	4 4	2 7	2 0	5 4	8 2	9 6	9 6	9 5	10 4
29	8 0	7 4	6 4	4 8	3 2	2 2	5 2	7 8	8 6	8 4	8 6	8 3
30	7 0	6 4	5 8	5 4	3 4	2 3	5 3	7 6	8 8	8 7	8 0	8 2
31	6 3	6 2	5 6	4 8	4 4	2 7	5 2	7 8	8 6	8 0	7 6	8 0
Count	31	30	29	30	30	36	30	31	31	31	31	31
Median	7 4	6 6	5 3	4 5	3 3	2 4	5 6	8 1	9 6	9 8	9 4	9 0
Mean	7 2	6 4	5 2	4 4	3 7	2 9	5 7	8 2	9 4	9 7	9 4	9 0

Swap 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fo f2
 Unit Mc
 Month October 1962

TABLE 57
 Ionospheric Data
 75° E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
8 7	9 4	10 6	11 9	12 0	11 7	11 8	12 5	11 2	9 4	7 0	6 2	1
8 7	8 6	9 5	10 8	10 5	10 4	10 1	9 9	11 3	11 2	10 2	9 2	2
8 4	9 0	9 4	10 4	C	C	10 6	9 9	9 6	9 6	9 1	9 0	3
8 6	8 6	9 0	9 7	10 4	10 4	11 2	10 5	9 7	8 7	8 3	7 4	4
8 2	8 9	9 5	10 2	10 8	10 9	10 6	9 6	9 4	9 5 ^U	10 0	9 4	5
10 6	11 0	11 6	11 4	11 0	10 8	11 6	11 4	10 6	11 0	10 9	6 6	6
8 5	9 2	10 0	11 0	C	11 4	11 0	10 2 ^U	10 4 ^U	10 6	9 8 ^U	8 8	7
9 0	9 4	9 6	10 4	10 8	11 2	11 2	9 6 ^U	9 6 ^U	9 6 ^U	9 6 ^U	8 8	8
9 6	10 0	10 8	11 8 ^U	11 6 ^U	11 8 ^U	11 8 ^U	11 0	10 2	10 8	9 6 ^U	8 2	9
8 6	9 0	9 8	10 0	10 4	10 2 ^U	9 2 ^U	9 2	9 8 ^U	8 4	6 6	6 0 ^U	10
8 5	8 9	8 8	9 0	9 0	9 1	9 3	8 8	8 6	8 2	7 6	6 8	11
8 9	8 8	9 2	10 0	10 2	10 3	10 4	9 4	8 6	8 6	8 0	7 4 ^U	12
8 0	8 8	9 4	10 0	10 5	10 6	9 5	8 1	7 8	8 4	8 0	7 5	13
8 8	10 0	11 2	11 7	11 7	11 4	11 5	10 7 ^U	11 0	10 4	8 5	7 5 ^U	14
9 8	10 0	10 1	10 4	10 7	10 7	10 3	10 0	10 4	10 4	9 5	8 1	15
8 0	8 6	9 3	10 6	11 2	11 7	11 5	11 7	10 8	8 2	6 0	4 7	16
8 4	8 5	8 7	9 6	10 4	11 0	11 0	10 5	10 0	9 7 ^U	8 4	7 5	17
9 4	8 9	8 8	8 8	9 0	9 5	9 5	9 4	9 1	9 1	9 4	9 3	18
9 0	9 6	9 5	9 4	9 5	10 6	9 8	9 2	10 0	10 2	9 9	8 5 ^U	19
9 8	10 2	10 4	10 6	11 0	11 4	10 5	9 0	F	F	F	9 0	20
10 4	10 6	11 4	11 6	11 4	19 4	8 8 ^U	F	F	F	F	F	21
10 4	11 6	11 7	11 7	11 2	10 6	10 1	9 3	8 8	10 1	10 0	6 9	22
10 4	10 2	10 4	10 8	10 8	9 6	9 2	9 1	9 1	8 8	8 1	8 4	23
8 8	9 6	10 2	10 6	10 6	10 2	9 7	9 5	10 4	10 8	9 4	8 1	24
9 7	10 3	11 3	11 8	12 0	11 3	10 0 ^U	8 8	10 2	10 6	9 4	9 2	25
9 9	9 8	10 3	10 8	11 2	11 0	9 6	9 4	9 6	9 3	9 6	9 4	26
11 0	12 4	12 8	13 1	12 8	12 8	11 6	10 6	11 0	10 8	9 6	8 4	27
10 0	11 8	12 4	12 8	13 0	12 6	11 6	9 6	8 7	8 4 ^F	8 4	8 8	28
8 5	9 2	9 8	10 8	10 8	10 7	10 4	8 5	8 0	F	8 0	7 6	29
8 7	9 4	10 2	10 6	10 8	10 6	10 2	9 8	9 6	9 0	7 3	6 6	30
8 5	8 8	9 4	10 6	11 1	11 2	10 6	9 3	8 7	8 8	8 7	9 6	31
31	31	31	31	29	30	31	30	29	28	29	30	Count
8 8	9 4	10 0	10 6	10 8	10 8	10 4	9 6	9 7	9 6	9 1	8 2	Median
9 1	9 6	10 2	10 7	10 9	10 9	10 5	9 8	9 7	9 6	8 8	8 0	Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds.

Characteristic fo F2
Unit Mc
Month October 1962

TABLE 57—Cont'd
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	1 6	2 9	1 8	E	E	3 2	7 3	8 8	9 2	8 5	8 7	8 6
2	5 6	4 2	1 8	1 2	1 3	3 2	7 2	9 3	9 5	9 4	C	8 7
3	8 9	7 3 ^{us}	6 8	5 5	4 0	3 3	7 3	9 2	9 5	8 2	7 9	7 9
4	8 9	6 9	5 5	4 2	2 7	2 2	6 8	8 4	9 7	9 6	8 6	8 3
5	7 1	7 0	6 0	5 3	4 6	3 8	7 5	8 8	9 7	9 4	8 0	8 1
6	7 8 ^{us}	5 1 ^{us}	2 6	2 8	2 7 ^{us}	3 5	7 0 ^{us}	9 2	9 8	10 2	9 4	10 0
7	3 4	2 6	2 6	2 8	2 5	3 4	7 2 ^{us}	9 6	9 8	8 6	8 4	8 3
8	8 2	7 9	7 3 ^{us}	3 2 ^{us}	2 0 ^{us}	3 4	7 0 ^{us}	8 7	9 2	10 6	10 9	C
9	8 6	8 0	7 0 ^{us}	5 8	3 4	3 2	7 0	8 5	9 9	10 9	10 6	9 6
10	7 0 ^{us}	5 8 ^{us}	4 4	3 6	2 7	3 1	6 8	8 8	10 4	11 2	10 6	8 6
11	6 2 ^{us}	F	F	4 1	F	3 7 ^{us}	7 2	9 2	9 8	9 6 ^{us}	8 0	8 5
12	6 1 ^{us}	5 5	3 7	2 4	2 2	3 4 ^{us}	6 8	8 8	9 8	9 6	8 4	8 3
13	5 9	1 9	3 3	2 9	2 4	3 1	6 7	7 8	7 5	7 4	7 3	7 7
14	6 5	1 6	2 6	2 1	1 9	3 2	7 0	9 0	10 0	9 8 ^{us}	8 8	8 5
15	6 0	5 7	5 1	3 9	2 9	3 1	7 4	9 1	10 1	11 3	10 1 ^{us}	9 5
16	7 7	6 5	1 2	2 2	E	3 2	7 9 ^{us}	9 1	9 8	8 6	8 0	7 9
17	9 8	1 0	1 4	4 2	3 6	3 3	7 1 ^{us}	8 7	9 8	9 8	4 0	8 6
18	7 0	6 3 ^{us}	3 4	2 3	1 9	3 3	6 6	8 8	10 0	10 7	10 6 ^{us}	10 4 ^{us}
19	8 4	8 0 ^{us}	7 1 ^{us}	6 6	6 7	6 8	8 4	9 6	10 0	9 4	9 0	9 2
20	6 4	5 1	4 3	3 9	F	3 0	7 0	9 2	10 4	10 8	10 0	9 8
21	8 0	6 1	5 1	4 3	3 3	1 0	7 2	9 0	10 6	10 5	9 8	10 2
22	8 6	1 1	8 3	7 0	6 3	1 9	8 0	9 4	9 8	9 5 ^{us}	9 0	9 6
23	4 6	1 1	2 5	2 3	2 2	F	7 2	8 7	10 2	11 0	11 0	10 6
24	9 4	10 0	7 4	7 1	7 4 ^{us}	1 1	6 6	8 1	9 5	9 7	8 9	8 6
25	7 1	6 9	5 9	5 3	3 4	3 9	7 8	9 2	9 8	9 1	9 2	9 5
26	7 2	5 7	3 6	2 7	2 6	2 8	6 9	C	9 2	9 5	9 6	9 9
27	7 7	6 9	7 2	7 2	6 6	5 9	8 0	9 4	10 0	10 0	10 0	10 6
28	7 0	6 0	5 2	3 6	2 2	3 2	7 2	9 2	9 4	9 1	9 6	10 2
29	7 8	6 8	5 6	3 8	2 5	3 1	6 9	8 2	8 6	8 6	8 4	8 4
30	6 4	6 2	5 7	4 5	2 7	3 2	6 4	8 5	9 0	8 0	8 0	8 4
31	6 2	6 2	5 2	4 4	3 6	3 2	6 9	8 7	8 0	7 9	7 9	8 1
Count	31	29	30	31	29	29	31	30	31	31	30	30
Median	7 0	6 2	5 1	3 9	2 7	3 3	7 1	8 9	9 8	9 6	9 0	8 6
Mean	6 9	6 0	4 9	4 1	3 3	3 6	7 2	8 9	9 6	9 6	9 1	9 0

Sweep 1 0 Mc to 25 0 Mc. in 27 seconds

Characteristic to F2

TABLE 57—Contd

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month October 1962

75°E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
8.9	9.8	11.4	12.0	11.8	11.8	11.8	12.2	10.4	8.2	6.6	5.8	1
8.7	9.0	10.0	10.8	10.6	10.3	9.9	10.6 ^U	11.6	10.6	9.5	8.5	2
8.6	9.1	9.8	C	C	11.2	10.3	9.7	9.6	9.4	9.1	9.2	3
8.6	8.8	9.4	10.2	10.4	10.9	10.9	9.9	9.1	8.5	7.6	7.2	4
8.6	9.3	10.0	10.6	11.0	10.9	10.0	9.4	9.6	9.8	9.8	9.0	5
11.0	11.2	11.6	11.4	10.8	11.4	11.4	11.0	11.0	11.4	9.4	5.1 ^U	6
8.8	9.6	10.8	11.3	11.4	11.2	10.3	10.0	10.2	10.2	9.6 ^U	8.2	7
9.0	9.4	10.0	10.4	10.8	11.6 ^U	10.6 ^U	9.6 ^U	9.6 ^U	9.8 ^U	9.2	8.6	8
9.8	10.6	11.4 ^U	11.7	11.6	11.6 ^U	11.6 ^U	10.4	10.4	10.0	8.4	8.0	9
8.6	9.4	9.6	10.4	10.4 ^U	9.6 ^U	9.0	9.4	9.2 ^U	7.3 ^U	6.2 ^U	5.8	10
8.7	8.8	8.8	9.0	9.0	9.4	9.2	9.0	8.6	7.6	7.1 ^U	6.8	11
8.6	9.1	9.6	10.0	10.1	10.4	9.9	8.7	8.7	8.4	7.6	7.0	12
8.5	9.0	9.9	10.4	10.8	10.1	9.0	7.7 ^U	8.2	8.1	7.6 ^U	7.2	13
9.3	10.5	11.7	11.9	11.6	11.3	11.5	10.6	11.0	9.7	8.1	7.0	14
9.9	10.0	10.1	10.5	10.8	10.5	10.1	9.7 ^F	10.4	9.8	8.7	8.2	15
8.2	9.0	10.0	11.0	11.4	11.6	11.3	11.3	9.8 ^U	6.8	5.1	4.0	16
8.4	8.5	9.0	9.8	10.6	11.0	11.0 ^U	10.4	9.7	9.3	8.0	7.3	17
9.0	8.8	8.8	9.0	9.1	9.5	9.5	9.2	9.1	9.3	9.5	8.6	18
9.4	9.6	9.4	9.4	10.4	10.0	9.4	9.7	10.0	10.1	9.1	7.6 ^U	19
10.0	10.1	10.4	11.0	11.3	11.0	9.5	F	F	F	F	8.7	20
10.4	11.0	11.4	11.6	11.0	9.8 ^U	F	F	F	F	F	F	21
11.0	11.6	11.9	11.4	10.9	10.6	9.4	9.0	9.9 ^U	10.2	9.7	6.1 ^U	22
10.2	10.4	10.4	10.9	10.2	9.3	9.0	9.0	9.1	8.4	8.1	F	23
9.0	10.0	10.4	10.5	10.6	10.2	9.5	10.1	10.7	10.6	8.7	7.6	24
9.9	10.6	11.4	12.0	11.7	11.8	9.2	9.2	10.7	10.0	9.3	8.5	25
9.8	10.2	10.6	11.0	11.4	10.6	9.0	9.4	F	F	9.6	8.8	26
11.6	12.8	13.0	13.0	12.4	12.6	11.0	11.0	11.0	10.2	8.8	8.0	27
11.2	12.0	12.6	12.8	13.0	12.0	11.0	9.0	8.4	8.4 ^U	8.6	8.4	28
8.7	9.4	10.2	11.0	10.6	10.9	9.2	8.1	F	8.6	F	7.2	29
8.9	9.6	10.6	10.8	10.8	10.4	9.7	9.7 ^U	9.6	8.0	6.8	6.4	30
8.6	8.8	10.0	11.0	11.2	11.2	10.0	8.7	8.9	8.8	8.8	9.6	31
31	31	31	30	30	31	30	29	27	28	28	29	Count
9.0	9.6	10.2	11.0	10.8	10.9	10.0	9.7	9.7	9.4	8.6	7.6	Median
9.4	9.9	10.5	10.9	10.9	10.8	10.1	9.7	9.8	9.2	8.4	7.5	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic fo F1
Unit Mc
Month October 1962

TABLE 58
Ionospheric Data
75°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	I	L	
3								L	L	L	I	L	
4								L	L	L	I	L	
5								L	L	L	L	L	
6									I	L	4.8 _{UI}	L	
7								L	L	L	L	L	
8								L	L	L	L	L	
9								I	I	L	I	L	
10							I	L	L	I	1.6 _{UI}	L	
11								I	I	I	L	L	
12							L	L	L	L	1.8 _H	L	
13								L	L	L	1.8 _H	L	
14								I	L	I	L	L	
15								L	L	L	L	I	
16							L	L	L	L	L	L	
17							L	L	L	L	L	L	
18							L	L	L	L	L	L	
19							L	L	L	L	L	L	
20							L	L	L	L	L	L	
21								L	L	L	L	L	
22								L	L	L	L	L	
23								L	L	L	L	4.7	
24								L	L	L	4.7	L	
25								L	L	L	L	L	
26								L	L	L	4.6	L	
27								L	L	4.6	4.6	5.0	
28								L	L	L	5.0	L	
29							L	L	L	L	5.0	L	
30							L	L	L	L	L	I	
31							L	L	L	4.5	4.8	5.2	
Count											2	8	3
Median												4.8	
Mean												4.8	

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic fo F₁
Unit Mc
Month October 1962

TABLE 58
Ionospheric Data
75°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
L	L	L	L	L								3
L	L	L	L	L								4
L	L	L	L	L								5
4 8UL	L	L	L	L								6
L	L	L	L	L								7
L	4 8UL	L	L	L								8
L	L	L	L	L								9
L	L	L	L	L								10
L	L	L	L	L								11
L _{FR}	L _{FR}	L	L	L								12
L _{FR}	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
L	L	L	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
4 8	4 8	4 6	L	L								26
5 0	4 7	5 0	L	L								27
4 8	5 0	4 8	L	L								28
5 0	4 9	4 5	L	L								29
4 7	4 8	A	L	L								30
4 7	4 6	4 8	L	L								31
7	7	5										Count
4 8	4 8	4 8										Median
4 8	4 8	1 7										Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic fo F₁
 Unit Mc
 Month October 1962

TABLE 58—Cont'd
 Ionospheric Data
 75°E Mean Time

Latitude 102° N
 Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1								I	L	L	I	L
2								L	L	L	G	L
3								L	L	L	L	L
4								L	L	I	L	L
5							L	L	L	I	L	L
6								L	L	L	L	L
7								L	L	L	L	L
8							L	L	I	L	L	G
9							L	L	L	L	L	L
10							L	I	I	L	L	L
11								I	L	L	L	L
12							L	I	L	L _{IR}	L	L _{IR}
13							L	L	L	L _{IR}	L _{IR}	L _{IR}
14							L	I	L _{IR}	L	L	L
15							I	L _{IR}	I	L	L	L
16							L	L	L	L	L	L
17							L	L	L	L	L	L
18							I	L	L	L	L	L
19						I	L	L	L	L	L	L
20							L	L	L	L	L	L
21								L	L	I	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	G	I	1 7	L	L
27							L	L	L	4 7	5 0	5 0
28							L	L	L	L	4 9	4 9
29							L	L	L	L	4 7	5 1
30							L	L	4 5	4 8	4 9	5 0
31							I	L	I	L	4 8	L
Count									1	8	5	4
Median											4 9	
Mean											4 9	

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fo F₁
Unit Mc
Month October 1962

TABLE 58—Contd
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
L	L	I	I	L								1
L	L	I	I	L								2
L	I	L	C	C								3
L	I	I	I									4
L	L	L	I	L								5
4 7	L	L	I	L								6
I	4 7	I	I	L								7
L	L	L _{st}	I	L								8
L	L	L	L	L								9
L	L	I	L	L								10
L	L	L	L	L								11
L _{st}	L _{st}	I	I	L	L	L						12
L _{st}	L	I	L	L	L							13
L _{st}	L	I	L _{st}	L	L							14
I	L	L	I	I								15
I	L	L	L	L	L							16
L	I	L	L	L	L	L						17
L	L	L	L	L	L							18
L	L	L	L	L	L	L						19
L	I	I	L	L								20
L	L	L	L	L								21
L	L	L	L	L								22
L	L	L	L	L								23
I	L	L	I	I								24
L	L	L	L	L								25
4 9	4 5	I	L	L								26
5 0	4 9	5 0	L	L								27
5 0	4 8	4 4	L	L								28
4 9	4 7	4 5	L	L								29
4 6	4 6	A	I	L								30
4 8	4 6	I	L	L	L							31
7	7	3										Count
4 9	4 7											Median
4 8	4 7											Mean

Sweep 1°0 Mc to 25 0 Mc in 27 seconds

Characteristic fo E

TABLE 59

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month October 1962

75°E Meridian Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							1 7	2 5	A	A	A	A
2								2 5	A	A	A	A
3							1 7	A	A	A	A	A
4								2 5	A	A	A	A
5							1 8	2 6	A	A	A	A
6								2 4	A	A	A	A
7							1 6	2 4	A	A	A	A
8							1 7 _{UR}	2 6	3 0	A	A	A
9							A	2 6 _{UR}	2 9	A	A	A
10							1 8 _{UR}	2 6	A	A	A	A
11							1 9	A	A	A	A	A
12							R	2 5 _R	A	A	A	A
13							R	A	A	A	A	A
14								2 4 _{UR}	A	A	A	A
15							R	2 6 _H	A	A	A	A
16							1 7	2 5	A	A	A	A
17							1 7 _R	2 5	A	A	A	A
18								2 6	3 0	A	A	A
19							R	2 5	A	A	A	A
20							1 8	2 6	A	A	A	A
21							1 7	2 5	A	A	A	A
22							1 8 _{UR}	2 5	A	A	A	A
23							R	2 6 _H	A	A	A	A
24								A	A	A	A	A
25							1 7 _{UR}	A	A	A	A	A
26								A	A	A	A	A
27							1 6	A	A	A	A	A
28								A	A	A	A	A
29								A	A	A	A	A
30							1 6	2 4	A	A	A	A
31							A	A	A	A	A	A
Count							15	21	3			
Median							1 7	2 5				
Mean							1 7	2 5				

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fo F. Latitude 10 2° N
 Unit Mc Ionospheric Data Longitude 77 5° E
 Month October 1962 75 E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
A	A	3 5	3 1	2 8								1
A	A	A	A	A								2
A	A	A	3 1	A								3
A	A	A	A	2 8								4
A	A	A	A	2 9	2 1							5
3 6	A	A	A	A	R							6
A	A	A	A	A	A							7
A	A	A	A	A	A							8
A	A	3 2 ^{UA}	A	A	A							9
A	A	A	A	A	A							10
A	A	A	A	A	A							11
A	A	A	A	A	A							12
A	A	A	A	A	A							13
A	A	A	3 0	A	A							14
A	A	A	A	A	A							15
A	A	A	A	2 6 ^R								16
A	A	A	A	R								17
A	A	A	A	A	R							18
A	A	A	A	A	A							19
A	A	A	A	A	A							20
A	3 2	A	A	A	A							21
A	A	A	A	A	A							22
A	A	A	A	A	A							23
A	A	A	A	A	A							24
A	A	A	A	A	A							25
A	A	A	A	A	A							26
A	A	A	A	A	A							27
A	3 6	3 2	A	A	A							28
A	A	A	A	A	A							29
A	A	A	A	2 5								30
A	A	A	A	2 4								31
1	2	3	3	6	1							Count
				2 7								Median
				2 7								Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds.

Characteristic fo E
Unit Mc
Month October 1962.

TABLE 59—Contd
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							2 3	A	A	\	A	A
2							2 5	A	A	A	G	A
3							A	A	A	A	A	A
4							2 2	A	A	A	A	A
5							2 2	A	A	A	A	A
6							2 3ur	A	A	A	A	A
7							2 1	A	A	A	A	A
8							2 3	2 8	A	A	A	G
9							2 2ur	2 6	A	3 UA	A	A
10							2 2	2 8	A	A	A	A
11							2 3	A	A	A	A	A
12							2 1R	A	A	\	A	A
13							A	A	A	A	A	A
14							2 3R	R	A	A	A	A
15							R	R	A	A	A	A
16							2 8	A	A	A	A	A
17							2 2	A	A	A	A	A
18							2 1	2 8	3 1	A	A	A
19							2 2	A	A	A	A	A
20							2 4R	2 7	A	A	A	A
21							2 2	2 7	A	A	A	A
22							2 3R	A	A	A	A	A
23							2 1	2 7	A	A	A	A
24							A	A	A	A	A	A
25							2 3R	A	A	A	A	A
26							A	G	A	A	A	A
27							A	\	A	A	A	A
28							2 0	A	A	A	A	A
29							1 7	A	A	\	A	A
30							2 1	A	A	A	A	A
31							A	A	\	\	A	A
Count							24	7	1	1		
Median							2 2	2 7				
Mean							2 2	2 7				

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fo E
 Unit Mc
 Month October 1962

TABLE 59—Contd
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
A	3 5	3 3	2 9	A								1
A	A	A	A	A								2
A	A	A	A	C	C							3
A	A	A	A	A								4
A	A	A	A	A	2 5							5
A	A	A	A	A	R							6
A	A	A	A	A	A							7
A	A	A	2 8UA	2 4	A							8
A	A	3 2UA	A	A	A							9
A	A	A	A	A	A							10
A	A	A	A	A	A							11
A	A	A	A	A	A	A						12
A	A	A	A	A	A	A						13
A	A	3 2	R	A	A							14
A	A	A	A	A	A							15
A	A	A	A	A	R							16
A	A	A	A	A	R							17
A	A	A	A	A	A	A						18
A	A	A	A	A	A							19
A	A	A	A	A	A							20
A	3 2	A	A	A	A							21
A	A	A	A	A	A							22
A	A	A	A	A	A							23
A	A	A	A	A	A							24
A	A	A	A	A	A							25
A	A	A	2 9	A								26
A	A	A	A	A								27
3 5	A	3 0	2 7	A								28
A	A	A	A									29
A	A	A	2 5									30
A	A	A	2 6	2 3								31
1	2	4	6	9								Count
			2 8									Median
			2 7									Mean

Sweep 1 0 Mcs to 25 0 Mc in 27 seconds.

Characteristic fo Es

TABLE 60

Latitude 10° 2' N

Unit Mc

Ionospheric Data

Longitude 77° 5' E

Month October 1962

75°E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	4.2						G	G	11.0	11.2	11.8	12.4
2								7.0	9.4	9.8	9.8	12.0
3	5.0 _{us}		5.0 _{us}				G	7.6	11.0	11.4	11.8	12.0
4								G	9.8	11.4	11.0	11.4
5	9.0 _{us}	2.2					G	G	9.0	10.8	11.4	11.0
6								3.4	9.2	10.6	12.0	11.0
7	7.4						G	3.4	11.6	13.6	12.0	13.4
8	7.4	3.4					G	G	G	11.8	11.2	12.8
9	2.8	3.4	3.0 _{us}				3.4	G	G	9.4	12.0	12.0
10							G	G	8.6	9.6	12.0	12.0
11							G	8.3	11.4	12.0	11.7	12.4
12							G	6.0 _{us}	10.2	12.1	12.7	12.3
13		3.2					G	8.6	11.0	11.8	12.2	12.0
14								G	9.2	10.0	12.2	12.0
15		5.4 _{us}	4.8				G	5.1	9.0	11.8	12.2	12.1
16							G	G	9.2	11.2	11.0	10.2
17							G	G	10.2	11.0	11.1	11.6
18								G	5.6	10.2	11.6	12.0
19			3.4	3.2	2.4		G	G	9.2	10.4	11.6	12.0
20						2.0	G	G	9.0	12.0	12.0	11.2
21	5.0 _{us}	5.0	4.6		2.4		G	6.8	8.6	10.6	11.5	11.6
22	5				2.2		4.8	G	9.4	10.7	10.8	7.7
23	7.5			2.6	3.0		4.3	G	8.8	10.2	12.0	11.6
24	3.5				5.8		2.6	9.0	9.8	11.0	12.0	11.2
25							G	8.4	9.8 _{us}	12.0	12.0	11.8
26								8.4	11.2	12.6	12.1	11.8
27			5.0	5.0	8.4		6.4	8.0	9.0	10.6	9.8	9.6
28								8.4	11.4	12.4	11.6	12.4
29							1.7	8.4	11.0	12.0	12.4	12.4
30		9.0	8.0	8.4			4.4	8.4	11.2	11.1	12.1	12.4
31							2.3	8.2	10.8	12.1	12.1	12.4
Count	9	7	7	4	6	1	24	31	31	31	31	31
Median	5.0	3.4	4.8		2.7		G	3.4	9.4	11.2	12.0	12.0
Mean	5.8	4.5	4.8		4.0		3.7	7.3	9.8	11.2	11.7	11.7

Sweep 1.0 Mc to 25.0 Mc, in 27 seconds

Characteristic fo Es

TABLE 60

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month October 1962

75°E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
12 0	12 0	G	4 8	G								1
12 0	12 0	9 4	7 0	8 6								2
12 4	11 8	10 4	8 0	C				3 4	4 0	6 4us	5 0us	3
11 6	11 8	11 0	9 6	7 6		3 0						4
11 8	11 4	11 4	9 0	G	5 7							5
G	7 6	9 0	8 8	8 2	6 8	5 0	3 5	3 2				6
13 4	11 6	10 4	11 5	C	6 6				4 2	2 8		7
13 6	12 2	11 0	9 6	5 4	5 0us					3 4		8
13 0	11 0	5 7	4 1	9 2	7 0us		7 6					9
12 0	10 8	10 8	11 2	8 2	6 8							10
12 2	12 0	11 5	11 0	8 8	8 2us							11
12 4	12 0	12 0	9 4	7 7	7 8							12
11 9	12 1	11 7	9 4	7 6	5 6us	4 85		5 6				13
12 2	8 6	8 4	8 0	4 8	2 8	9 6						14
12 8	11 6	11 3	9 7	7 9	7 2			3 8	4 6			15
11 0	11 4	12 0	8 3us	G								16
12 2	13 0	11 0	8 8	G					2 7us	4 2		17
11 0	12 0	10 0	10 0	8 0	4 6us	5 6us						18
11 8	12 2	11 0	9 6	7 6us	4 6	4 6	2 4			2 9		19
10 8	10 0	8 1	8 0	8 0us	6 0us							20
11 0	8 3	8 8	9 8	7 6	4 4						S	21
7 7	7 6	6 7	9 0	8 2	3 8							22
11 0	11 0	11 0	8 8	8 2	5 6			2 3	3 0	3 8		23
12 0	11 0	9 6	9 2	7 0	5 0					4 4		24
12 4	10 4	9 5	8 6	8 6	6 6							25
12 0	11 4	9 8	7 0	8 2	6 2		5 4	8 2	6 4			26
7 6	10 3	7 8	7 0	6 0								27
11 4	4 7	4 6	4 2	4 6						5 6		28
11 6	12 4	10 6	8 0	9 0	9 2				8 2	8 2	7 0	29
12 4	12 4	9 4	7 4	6 2				6 2				30
12 4	12 1	11 4	7 2	G							5 0	31
31	31	31	31	29	21	6	4	7	7	9	3	Count
12 0	11 6	10 4	8 8	7 6	6 0	4 9		3 8	4 2	4 4		Median
11 7	10 9	9 8	8 5	7 6	6 0	5 4		4 7	4 7	4 6		Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fo Es

TABLE 60—Contd

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month October 1962

75°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							G	9.4	12.0	11.8	12.0	12.0
2							G	9.0	10.0	9.0	C	11.8
3	2.1						5.0	9.8	11.4	12.0	12.0	11.8
4							G	9.0	10.6	11.0	11.1	10.6
5							G	7.2	9.4	10.4	11.4	12.0
6							G	7.6	9.0	11.0	11.0	9.0
7	3.6						2.8	9.0	11.4	12.0	12.6	12.6
8	3.8		1.8				G	G	7.6	12.0	10.8	C
9	1.8	9.6		3.8		3.2	G	G	7.8	6.4	12.0	13.0
10							G	7.0	8.4	11.6	11.6	11.8
11							G	8.8	12.0	11.8	11.7	12.3
12							G	8.0	12.1	12.6	12.6	12.7
13							S	8.6	11.2	12.0	12.0	12.0
14							G	G	11.6	11.3	12.2	12.6
15	1-3us	4.6		1.9			G	G	11.6	12.0	12.8	12.8
16							G	9.0us	11.0	11.2	11.4	11.3
17							G	7.2	10.2	10.4	12.0	12.0
18							G	5.5us	5.0us	11.0	11.8	12.0
19			4.8us	2.2			G	8.8	11.0	11.7	12.0	11.6
20				2.0		1.8	G	6.0us	9.2	11.0	11.0	11.6
21	4.8us			2.9	2-3		G	G	9.4	11.4	11.8	11.5
22				1.9			G	7.0	10.6	10.4	10.7	8.2
23				2.1		2.2	6.8	G	11.2	10.2	12.0	12.0
24	3.2					3.4	7.0	9.6	10.7	11.7	11.8	11.8
25							G	8.6	11.8	12.0	11.7	12.0
26							8.2	C	12.4	12.4	12.4	11.4
27		2.2	6.2	4.6		4.2	7.0	9.0	9.0	10.0	10.6	12.4
28							2.5	10.4	11.0	12.4	12.4	12.0
29	8.2						2.3	9.8	12.4	12.0	13.0	11.6
30	6.0	11.0	8.2				G	9.0	11.6	11.4	12.2	12.8
31							8.2	9.8	12.4	12.4	12.4	12.4
Count	9	1	4	8	1	5	30	30	31	31	30	30
Median	3.8			2.2		3.2	G	8.6	11.0	11.6	12.0	12.0
Mean	4.2	.	..	2.7		3.0	5.5	8.9	10.5	11.2	11.8	11.8

Sweep 1.0 Mc to 25.0 Mc. in 27 seconds.

Characteristic fo Es
 Unit Mc
 Month October 1962

TABLE 60—Cont'd
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
12 2	G	5 6	G	7 0							3 8	1
12 6	11 4	10 8	5 3	7 0			3 4			7 0us	5 0us	2
11 8	11 6	9 2	C	C				3 8				3
11 8	11 8	11 6	8 0									4
12 0	11 4	9 7	7 8	5 8								5
6 8	8 2	9 4	8 0	7 0		4 6		4 6				6
12 0	11 0	8 6	9 0	8 0	2 8			3 8			9 6	7
12 2	12 0	11 0	6 4	3 2	3 2						1 8	8
14 4	11 0	4 0	8 0	8 0us			1 8			5.6		9
11 2	10 6	9 8	8 8	8 0		3 6						10
12 0	11 6	11 3	9 6	8 0					S			11
12 6	12 6	11 6	8 6	6 8	7 6							12
11 8	11 8	9 8	8 2	S	S	3 2						13
12 1	8 2	G	G	8 0	6 6	5 7us	2 5					14
13 0	11 3	11 1	8 8	8 5	3 6		3 7	5 0	4 0			15
11 4	11 2	12 0	7 0	G								16
11 6	11 4	9 4	5 0us	G					4 8us	2 3		17
11 4	12 0	10 2	8 8	8 0	4 4us							18
11 0	11 4	10 8	8 6	6 2	7 4us		3 2	2 7				19
10 6	7 7	7 6	7 6	7 8	2 8us						4 8us	20
9 6	5 8	9 2	8 4	6 8							S	21
10 7	7 4	8 2	8 0	7 0								22
11 7	11 3	9 7	7 8	6 8					3 0	4 0		23
12 0	11 0	9 8	8 0	7 0						5 8		24
11 0	7 6	8 0	8 0	8 2			3 1					25
11 4	10 8	8 0	6 0	10 0			7 6					26
9 8	9 8	4 4	5 0	6 4								27
G	11 4	4 2	4 7	4 0							8 8	28
12 0	13 0	10 0	7 0	11 0	8 0			4 2	8 4			29
12 4	10 4	8 6	3 4	8 4	7 2		5 2					30
12 4	12 4	8 6	G	2 8						5 6		31
31	31	31	30	28	10	4	8	6	4	6	6	Count
11 8	11 3	9 4	7 9	7 0	5 5	.	3 3	4 0	.	5 6	4 9	Median
11 6	10 6	9 1	7 4	7 1	5 4		3 8	4 0	.	5 1	5 6	Mean

Sweep 1 0 Mc. to 25.0 Mc in 27 seconds

Characteristic f b Es
Unit Mc
Month October 1962.

TABLE 61
Ionospheric Data
75°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							G	G	30	34	36	38
2								26	30	33	36	36
3	13		19				G	26	30	34	36	38
4								G	30	34	35	36
5	40	15					G	G	30	34	36	36
6								28	32	34	36	36
7							G	28	30	34	36	37
8	26	18								34	35	36
9			17				27	G	G	34	36	36
10							G	G	30	33	36	36
11							G	26	30	35	37	35
12							G	26	30	35	35	37
13								27	31	35	35	37
14									30	30	36	37
15		19	14				G	26	30	33	36	37
16							G	G	30	33	36	38
17							G	G	30	33	35	36
18								G	30	33	36	36
19			15	12	12		G	G	30	34	36	38
20						14	G	G	30	33	36	36
21	17	17	17		14		G	26	30	33	38	38
22	15				13			G	30	34	35	36
23				13	16		18	G	30	32	35	36
24	17						19	26	30	34	36	38
25							G	25	30	33	35	38
26								26	30	33	35	37
27			22	24	18			26	30	34	35	36
28								25	30	32	36	37
29							18	25	30	33	35	35
30		26	28	13				23	30	32	35	35
31							17	25	30	32	34	36
Count	6	5	7	4	5	1	19	29	30	31	31	31
Median	17	18	17		14		G	25	30	33	36	36
Mean	21	19	19		15		20	26	30	33	36	37

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic f_oF₂
Unit Mc
Month October 1962

TABLE 61
Ionospheric Data
75 L Mc in Time

Latitude 10 2° N
Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
3.7	3.6	G	3.8	G								1
3.8	3.6	3.4	3.2	2.8						2.1	2.0	2
3.8	3.7	3.3	3.1	G				1.8	1.8			3
3.8	3.6	3.4	3.2	2.8		2.0						4
3.8	3.7	3.4	3.2	G								5
G	3.6	3.1	3.0	3.0		1.8	2.0	1.6				6
3.6	3.8	4.0	3.8	G	2.2				1.8			7
3.6	3.6	3.1	3.0	2.8	2.2					1.7		8
3.8	3.6	3.7	3.4	3.2			4.0					9
3.6	3.6	3.4	3.2	2.8	2.1							10
3.6	3.4	3.4	3.2	2.8	2.3							11
3.7	3.4	3.4	3.2	2.8	2.6							12
3.6	3.6	3.4	3.1	2.8	2.7	2.2		2.0				13
3.7	3.6	3.4	3.2	3.0	2.1	1.8						14
3.7	3.6	3.5	3.3	3.0	2.8			1.8				15
3.6	3.6	3.5	3.1	G								16
3.6	3.6	3.1	3.2	G					1.6	2.1		17
3.6	3.5	3.4	3.1	2.8	2.1	2.4						18
3.8	3.6	3.4	3.1	2.7		1.6	1.8					19
3.6	3.4	3.4	3.0	2.8	2.2							20
3.7	3.8	3.4	3.2	2.8	2.0						2.0	21
3.7	3.5	3.3	3.0	2.6								22
3.6	3.6	3.4	3.1	2.7	1.9			1.4		1.6		23
3.8	3.6	3.3	3.0	2.7	2.0							24
3.6	3.5	3.3	3.2	3.0	2.2							25
3.6	3.5	3.3	3.3	2.8	2.4		2.1	2.8	2.2			26
3.6	3.8	3.4	3.0	2.6								27
3.6	3.5	3.3	3.4	3.4						2.3		28
3.6	3.6	3.3	3.1	3.8	4.8				2.4	2.2	3.0	29
3.5	3.4	4.1	3.0	3.0				1.9				30
3.6	3.5	3.4	3.0	G							1.6	31
31	31	31	31	29	16	6	4	7	5	6	4	Count
3.6	3.6	3.4	3.2	2.8	2.2	1.9		1.8	1.8	2.1		Median
3.7	3.6	3.4	3.2	2.9	2.4	2.0		1.9	2.0	2.0		Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic f b Es
Unit Mc
Month October 1962

TABLE 61—Contd
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							G	2 8	3 2	3 5	3 8	3 8
2							G	2 8	3 2	3 5	C	3 7
3	1 5						2 3	2 8	3 2	3 5	3 7	3 8
4							G	2 8	3 1	3 5	3 6	3 7
5							G	3 0	3 2	3 5	3 7	3 8
6							G	3 0	3 3	3 4	3 6	3 6
7							2 4	2 9	3 2	3 4	3 6	3 8
8	2 0		1 7				G	G	3 2	3 4	3 6	C
9		1 6		1 5			G	G	3 2	3 5	3 6	3 6
10							G		3 2	3 4	3 6	3 6
11							G	2 8	3 2	3 5	3 6	3 5
12							G	2 8	3 1	3 4	3 6	3 7
13							2 2	2 9	3 3	3 5	3 7	3 7
14									3 1	3 5	3 6	3 8
15	1 1	1 9		1 6			G	G	3 2	3 5	3 6	3 7
16							G	2 8	3 2	3 4	3 7	3 7
17							G	2 8	3 2	3 1	3 6	3 7
18							G	2 8	3 1	3 4	3 6	3 7
19			1 9	1 3			G	2 9	3 4	3 6	3 7	3 8
20				1 3		1 2	G	2 8	3 1	3 6	3 6	3 6
21	1 7						G	G	3 2	3 5	3 6	3 7
22						1 1	G	2 8	3 2	3 5	3 5	3 6
23				1 4			G	G	3 2	3 4	3 6	3 8
24	1 7						2 3	2 8	3 2	3 5	3 8	3 7
25							G	2 8	3 2	3 4	3 6	3 8
26							2 3	C	3 2	3 4	3 6	3 6
27		1 6	2 8	2 0		1 7	2 3	2 8	3 2	3 5	3 6	3 6
28							2 1	2 7	3 0	3 1	3 6	3 6
29	2 6						2 2	2 7	3 2	3 1	3 6	3 6
30	1 7	1 0	2 0				G	2 7	3 2	3 1	3 6	3 6
31							2 2	2 8	3 1	3 4	3 5	3 6
Count	7	4	4	6	1	2	28	28	31	31	30	30
Median	1 7			1 4			G	2 8	3 2	3 5	3 6	3 7
Mean	1 8			1 5			2 3	2 8	3 2	3 5	3 6	3 7

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic f_oF₂
 Unit Mc
 Month October 1962

TABLE 61—*Contd.*
 Ionospheric Data
 73°E Merid Time

Latitude 10° 2' N
 Longitude 77° 5' E

1290	1390	1490	1590	1690	1790	1890	1990	2090	2130	2230	2330	Date
37	G	36	G	26								1
37	35	36	30	26			20			28	17	2
37	35	32	G					19				3
37	36	34	29									4
37	35	34	30	25								5
38	36	33	31			18						6
36	38	37	36	25	16			24			28	7
36	35	32	30	26	18							8
37	40	34	31	26						20		9
36	35	34	30	26		15						10
35	34	33	31	25					21			11
35	34	34	31	24	24							12
36	35	33	30	28	23	20						13
36	35			27	18							14
38	38	35	31	18			19	23				15
36	35	32	30	G								16
36	35	34	30	G					18	18		17
36	34	32	30	25	21							18
37	36	33	30	24	17		18	16				19
36	35	34	30	24	18						22	20
37	35	32	30	24							22	21
42	36	31	29	24								22
36	36	32	30	24					17	15		23
35	36	32	29	25						23		24
36	34	32	30	28			20					25
36	34	32		28			24					26
36	37	32	30	30								27
G	34	33	38	28							19	28
38	34	31	36	36	28			20	15			29
36	34	30	30	24	18		22					30
36	34	32	G	27						26		31
31	31	30	28	28	11	9	6	5	4	6	5	Count
36	35	33	30	26	18		20	20		22	22	Median
37	35	34	31	26	20		20	20		22	22	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic from

TABLE 62

Latitude 10 2° N

Unit Mc.

Ionospheric Data

Longitude 77 5° E

Month October 1962.

75°E Meridian

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	1.3	1.1	1.4	1.1	E	E	1.3	1.8	1.5	2.1	2.4	2.4
2	1.4	1.4	1.6	1.3	E	E	1.5	1.7	1.9	2.2	2.4	2.4
3	1.0	1.5	1.1	1.5	1.3	1.1	1.4	1.5	1.8	1.9	2.2	2.3
4	1.0	E	1.1	1.3	1.0	1.1	2.0	1.7	1.9	1.9	2.2	2.4
5	1.1	E	E	L	E	L	1.4	1.6	1.8	2.0	2.3	2.6
6	E	L	1.1	F	1.2	E	1.8	2.0	1.5	2.0	2.2	2.6
7	1.3	1.6	1.0	E	E	E	1.3	1.5	1.7	2.0	2.3	2.5
8	1.7	1.4	1.5	1.8	1.3	1.1	1.5	1.7	2.0	1.9	2.1	2.3
9	L	1.1	1.5	1.2	1.8	1.3	1.5	1.5	1.8	2.0	2.1	2.5
10	1.6	1.4	1.1	1.5	1.1	1.2	1.5	1.4	1.8	2.0	2.2	2.4
11	1.0	1.1	1.0	1.0	E	1.2	1.8	1.5	1.9	2.2	2.1	2.3
12	1.1	L	E	1.1	L	1.1	1.4	1.5	1.9	2.0	2.3	2.5
13	1.1	E	1.1	E	1.0	1.1	1.4	1.4	1.6	1.9	2.2	2.1
14	F	1.3	1.2	L	E	E	1.8	1.4	1.8	2.5	2.3	2.5
15	1.1	1.1	1.1	1.3	1.4	E	1.2	1.7	2.1	2.3	2.5	2.6
16	L	1.1	1.3	1.2	1.1	1	1.2	1.6	1.8	2.2	2.3	2.5
17	E	E	E	E	E	1.1	1.1	1.6	1.8	2.0	2.1	2.3
18	1.5	1.5	1.3	1.1	1.1	L	1.8	1.7	1.9	2.0	2.2	2.3
19	1.4	1.3	1.2	L	E	1.1	1.4	1.7	1.8	2.2	2.1	2.4
20	1.7	1.5	1.4	1.0	E	F	1.4	1.6	1.7	1.9	2.2	2.4
21	1.7	1.0	1.1	1.2	F	F	1.1	1.8	1.9	2.3	2.6	2.5
22	1.3	1.5	1.2	1.1	F	1.4	1.4	1.5	1.7	2.2	2.3	2.6
23	1.1	1.2	1.3	1.3	L	1	1.3	1.5	2.0	2.1	2.3	2.4
24	1.5	1.5	1.3	1.0	1.4	1.2	1.3	1.6	1.8	2.2	2.3	2.5
25	1.4	1.2	L	1.0	1	1.0	1.1	1.3	1.9	2.1	2.2	2.4
26	1.3	1.3	L	1.0	1	1.2	1.8	1.7	1.5	2.3	2.2	2.4
27	1.6	1.2	1.3	L	F	1.0	1.6	1.2	1.1	2.0	2.1	2.6
28	L	E	E	L	E	1.2	1.7	1.4	1.6	2.0	2.8	2.5
29	1.5	1.3	1.0	1.0	E	L	1.5	1.3	1.5	1.7	2.2	2.4
30	1.8	1.3	F	1.0	1.1	1.0	1.4	1.5	1.7	2.0	2.2	2.2
31	1.1	L	1.1	1.1	1.0	1.0	1.3	1.3	1.7	1.9	2.2	2.4
Count	31	31	31	31	31	31	31	31	31	31	31	31
Median	1.3	1.2	1.1	1.0	E	1.0	1.4	1.5	1.8	2.0	2.3	2.4
Mean	1.3	1.3	1.2	1.2	1.2	1.2	1.5	1.6	1.8	2.1	2.3	2.4

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds

Characteristic fmin
Unit Mc.
Month October 1962

TABLE 62
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
2.6	2.5	2.4	2.4	2.2	2.3	1.4	1.4	1.6	1.6	1.6	1.4	1
2.5	2.5	2.0	2.1	2.3	2.2	1.7	1.7	1.8	1.7	1.8	1.6	2
2.4	2.4	2.2	2.0	C	C	1.6	1.7	1.3	1.7	1.6	1.3	3
2.5	2.4	2.4	2.3	2.3	2.5	1.8	1.7	1.4	1.4	1.4	1.4	4
2.7	2.6	2.2	2.3	1.9	1.7	1.6	1.6	1.6	1.6	1.2	E	5
2.8	2.4	2.4	2.1	2.4	1.9	1.4	1.3	1.5	1.4	1.7	1.6	6
2.4	2.4	2.2	2.1	C	1.5	1.3	1.5	2.0	1.4	1.8	1.7	7
2.5	2.4	2.2	1.9	1.8	1.6	1.5	1.7	1.6	1.6	1.5	1.5	8
2.4	2.4	2.5	2.4	2.1	2.0	1.4	1.5	1.6	1.4	1.5	1.8	9
2.4	2.6	2.4	2.1	2.2	1.8	1.5	1.5	1.7	1.5	1.7	1.5	10
2.3	2.3	2.2	2.1	2.2	1.6	2.0	2.2	2.1	2.3	2.1	1.6	11
2.5	2.5	2.3	2.1	2.2	1.6	1.6	1.7	1.6	1.5	1.5	1.2	12
2.5	2.3	2.3	2.0	2.3	1.6	1.2	1.3	E	2.0	1.6	1.4	13
2.4	2.5	2.3	2.0	2.1	1.6	1.3	1.4	1.4	1.6	1.7	1.4	14
2.6	2.5	2.5	2.2	2.2	1.8	1.5	1.1	1.1	1.4	1.5	1.4	15
2.5	2.4	2.4	2.0	2.2	2.0	1.6	1.4	1.5	1.6	1.6	E	16
2.4	2.2	2.2	1.9	2.2	2.0	1.7	1.6	1.5	1.4	1.1	1.6	17
2.3	2.2	2.2	2.0	2.4	2.0	1.4	1.7	1.5	1.6	1.8	2.0	18
2.5	2.6	2.1	2.0	1.9	1.4	1.7	1.4	1.5	1.4	1.8	1.8	19
2.5	2.4	2.0	2.0	2.0	1.4	1.7	1.4	1.5	1.6	1.6	1.8	20
2.6	2.5	2.6	2.2	2.2	1.6	1.1	1.5	1.6	1.6	1.7	1.4	21
2.3	2.0	1.9	2.3	2.2	2.0	1.4	1.7	1.3	1.7	1.5	1.4	22
2.5	2.4	2.2	1.9	1.9	1.4	1.2	1.7	E	1.0	1.4	1.5	23
2.3	2.2	2.1	1.8	1.6	1.5	1.5	1.7	1.8	1.6	2.0	1.6	24
2.3	2.3	2.0	1.8	2.0	2.2	1.5	1.9	2.0	1.6	1.6	1.3	25
2.4	2.4	2.3	2.0	2.4	2.2	1.6	1.2	1.4	1.4	2.1	1.6	26
2.2	2.0	2.0	1.7	2.5	2.2	1.5	1.5	1.6	1.5	1.6	E	27
2.4	2.4	2.2	2.3	2.5	2.0	1.5	1.5	1.5	1.5	1.8	1.7	28
2.4	2.4	2.2	1.8	1.9	1.9	2.0	1.5	1.6	1.6	2.0	1.5	29
2.3	2.2	2.2	2.2	2.0	2.1	1.5	2.1	1.5	1.5	1.7	1.4	30
2.4	2.4	2.1	2.0	2.6	2.1	1.5	1.5	1.5	1.4	1.3	1.3	31
31	31	31	31	29	30	31	31	31	31	31	31	Count
2.4	2.4	2.2	2.0	2.2	1.9	1.5	1.5	1.5	1.6	1.6	1.5	Median
2.4	2.4	2.2	2.1	2.2	1.9	1.5	1.6	1.6	1.6	1.6	1.5	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds

Characteristic fmin
 Unit Mc
 Month October, 1962

TABLE 62—Contd
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	13	16	11	E	E	14	13	16	19	22	25	24
2	13	14	14	10	E	13	17	17	20	23	C	23
3	E	15	14	14	12	14	15	16	21	20	23	24
4	11	E	10	14	11	14	16	18	19	23	24	25
5	14	11	E	E	E	13	13	17	19	22	24	26
6	10	14	11	E	E	15	14	23	19	22	25	26
7	14	15	11	E	E	11	15	18	19	22	25	24
8	15	14	E	17	12	11	16	19	19	22	24	C
9	E	15	13	13	15	15	14	17	18	26	24	25
10	15	13	15	13	10	12	14	17	17	22	23	25
11	12	10	10	10	10	14	16	18	20	23	25	24
12	11	E	E	E	E	11	14	16	20	23	25	26
13	E	10	11	E	E	14	14	15	18	21	24	24
14	E	E	E	10	E	14	14	17	20	23	23	25
15	E	11	14	11	11	11	14	19	23	23	26	26
16	12	15	13	11	E	12	14	18	19	20	25	26
17	E	E	E	12	10	12	15	18	20	22	22	24
18	15	13	14	12	11	12	16	19	20	21	22	24
19	11	16	E	E	12	12	16	19	21	24	25	24
20	13	15	11	E	11	E	15	17	18	24	23	24
21	11	16	10	15	E	13	17	17	20	25	26	25
22	16	16	13	12	11	12	17	17	19	23	24	22
23	E	10	1.5	11	E	12	13	18	20	23	24	25
24	16	12	E	11	14	12	15	15	20	23	24	23
25	12	10	E	E	10	13	17	16	19	22	24	25
26	13	14	E	E	E	14	15	C	19	22	25	24
27	16	10	E	11	12	12	10	14	20	18	24	23
28	10	10	E	11	E	13	12	16	19	22	24	24
29	14	10	10	10	E	12	12	14	16	18	22	24
30	16	10	E	14	10	13	14	16	18	22	22	23
31	10	E	E	12	10	13	13	16	13	21	24	24
Count	31	31	31	31	31	31	31	30	31	31	30	30
Median	12	12	10	11	10	13	15	17	19	22	24	24
Mean	13	13	12	12	11	13	15	17	19	22	24	24

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic fmin		TABLE 62—Contd											Latitude 10 2° N
Unit Mc		Ionospheric Data											Longitude 77 5° E
Month October, 1962		75°E Mean Time											
	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
2 5	2 7	2 4	2 5	2 0	1 8	1 5	1 7	1 8	1 6	1 5	1 2		1
2 5	2 8	1 8	2 7	2 6	2 1	2 0	1 7	1 9	1 8	1 7	E		2
2 4	2 3	2 2	C	C	1 6	1 4	1 9	1 5	1 5	1 8	1 3		3
2 5	2 4	2 5	2 5	3 0	2 0	1 8	1 8	1 6	1 4	1 5	1 4		4
2 5	2 5	2 3	2 4	1 8	1 6	1 6	1 5	1 6	1 2	E	E		5
2 8	2 2	2 2	2 7	2 6	1 9	1 4	1 6	1 3	1 7	1 5	1 6		6
2 4	2 3	2 2	2 2	1 8	1 3	1 6	1 9	E	1 8	1 7	1 6		7
2 4	2 3	2 0	1 9	1 9	1 5	1 4	1 5	1 7	1 5	1 4	E		8
2 4	2 4	2 2	2 0	1 8	1 6	2 4 ^{us}	1 5	1 9	1 5	1 8	1 7		9
2 5	2 4	2 4	2 5	2 2	1 6	1 1	1 5	1 6	1 2	1 5	1 0		10
2 4	2 2	2 3	2 2	1 9	1 9	2 3	2 2	2 1	2 1	1 9	1 4		11
2 5	2 5	2 3	2 3	2 1	1 4	1 9	2 0	1 4	1 3	1 3	1 1		12
2 4	2 2	2 9	2 4	2 0	1 4	1 3	1 4	1 6	1 4	1 5	1 2		13
2 5	2 3	2 5	2 5	1 9	1 4	1 7	1 4	1 4	1 5	1 5	1 3		14
2 7	2 6	2 3	2 3	2 0	1 4	1 9	E	1 4	1 4	1 5	E		15
2 4	2 3	2 2	2 2	1 8	1 7	1 8	1 3	1 5	1 3	1 5	1 1		16
2 4	2 2	2 3	2 1	2 0	1 8	1 6	1 5	1 4	1 3	1 6	1 5		17
2 4	2 3	2 2	2 4	2 2	1 5	1 6	1 4	1 6	1 8	2 0	1 4		18
2 6	2 4	2 3	2 2	1 7	1 3	1 6	1 6	1 3	1 5	1 8	1 8		19
2 3	2 0	2 0	2 0	1 6	1 2	1 3	1 4	1 5	1 6	1 5	1 7		20
2 5	2 4	2 3	2 3	1 8	1 5	1 6	1 6	1 6	1 6	1 3	1 4		21
2 0	2 0	2 5	2 4	1 9	1 5	1 6	1 7	1 6	1 5	1 4	1 3		22
2 4	2 3	2 3	2 2	1 8	1 4	1 2	1 4	1 0	1 3	1 5	1 6		23
2 5	2 3	1 9	1 8	1 6	1 5	1 6	1 4	1 6	1 7	2 2	1 5		24
2 4	2 2	1 9	2 0	1 9	1 7	1 4	1 8	1 8	1 6	1 4	1 7		25
2 6	2 3	2 2	2 2	1 7	1 8	2 1	1 5	1 8	2 0	2 0	1 5		26
2 5	2 5	1 7	1 8	2 4	1 7	1 9	1 6	1 5	1 6	1 2	E		27
2 6	2 2	2 2	2 0	1 9	1 7	1 8	1 6	1 5	1 8	2 2	1 4		28
2 4	2 2	2 2	2 2	1 8	1 6	1 4	1 7	1 2	1 6	1 9	1 7		29
2 2	2 4	2 3	2 2	1 8	1 2	2 1	1 5	2 0	1 6	1 7	1 3		30
2 4	2 3	2 0	2 2	2 1	1 6	1 5	1 5	1 5	1 4	1 6	1 7		31
31	31	31	30	30	31	31	31	31	31	31	31		Count
2 4	2 3	2 2	2 2	1 9	1 6	1 6	1 5	1 6	1 5	1 5	1 4		Median
2 5	2 3	2 2	2 2	2 0	1 6	1 7	1 6	1 6	1 6	1 6	1 4		Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic $h'F_2$
 Unit: Km.
 Month October, 1962

TABLE 63
 Ionospheric Data
 75°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	LH	L	L	L
2								L	LH	300	L	300
3								L	L	LH	L	L
4								L	L	305 _H	305	300
5								250	L	300 _H	L	I.
6									L	L	310	L
7									L	L	I.	L
8								L	L	L	L	L
9								L	L	L	L	L
10							L	L	L	I.	300	L
11								L	L	L	L	L
12							L	260	L	I.	305	L
13								L	L	I.	I.	I.
14								L	300	I.	L	L
15								360	285	300	300	I.
16							L	L	L	I.	I.	I.
17							L	L	I	L	I.	L
18							I.	L	L	L	I.	L
19							I.	I.	L	I.	I	L
20							L	L	I	I.	I.	320 _L
21								L	L	I.	I.	310
22								L	L	I.	I.	305
23								L	L	L	L	300
24								L	L	L	290	L
25								L	I.	I.	300	L
26								L	L	L	275	I.
27								L	L	280	280	300
28							L	L	L	L	305	L
29							L	L	L	I.	315	L
30							L	L	L	I.	I.	I.
31							L	L	L	295	315	340
Count								3	2	6	12	8
Median										300	300	300
Mean										295	300	310

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic h'F₂
 Unit Km
 Month October, 1962

TABLE 63
 Ionospheric Data
 75°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	300	I.	L								1
L	305	L	L	L								2
320	L	L	I.	G								3
395	L	L	L	L								4
320	315	300	I.	I.								5
310	L	L	L	L								6
L	L	L	L	G								7
I.	310 _{UL}	L	L	L	I.							8
L	L	I.	L	I	I							9
I.	L	I	L	L								10
390	L	L	L	L								11
L	L	L	I.	L	I.							12
L	L	L	L	L	I.							13
320	L	L	I.	L	I.							14
325	310	L	I.	I.	I.							15
L	L	L	I.	I.	L							16
I.	I	L	I.	I.	I.							17
L	L	L	I.	L	I.							18
L	L	L	L	L	I.							19
L	315 _L	L	I.	L	L							20
300	300	L	I.	L								21
310	300	L	L	I.								22
L	L	300	L	L								23
L	I.	L	L	I.								24
L	L	L	I.	I.								25
310	300	300	L	I.								26
315	300	300	L	L								27
300	300	300	I.	L	I.							28
330	320	295	I.	L								29
320	320	A	L	L								30
320	315	310	I.	I.	L							31
15	13	8										Count
320	310	300										Median
320	310	300										Mean

Sweep 1.0 Mc to 25.0 Mc. in 27 seconds.

Characteristic $h'F_2$

TABLE 63—Contd

Latitude 10 2° N

Unit Km.

Ionospheric Data

Longitude 77 5° E

Month October, 1962

75°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1								L	L _H	L	L	L
2								L	L _H	L	C	L
3								L	L _H	L	L	320
4								L	L	300 _H	300	L
5							L	L	L	315 _H	L	340
6								L	L	L	L	L
7								L	L	L	L	L
8							L	L	L	L	L	C
9							L	L	L	L	L	L
10							240	L	L	L	L	L
11								L	L	L	L	340
12							L	280	L	320	L	L
13							L	L	L	L	L	L
14							L	280	L	315	L	L
15							L	290	L	L	320	330
16							L	L	L	L	L	L
17							L	L	L	L	L	L
18							L	L	270	300 _L	L	L
19						L	L	L	L	L	L	L
20							L	L	L	L	L	320 _L
21								280	280	L	L	320
22								L	L	L	L	310
23								L	L	L	L	325
24								L	L	L	L	L
25								L	L	L	305	L
26							L	C	L	280	L	L
27							L	L	L	280	290	310
28							L	L	L	L	290	300
29							L	L	L	L	300	340
30							L	L	300	320	330	340
31							L	L	L	L	330	L
Count						..	1	4	3	8	8	12
Median										310	300	320
Mean										305	310	325

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic $h'F_2$

TABLE 63—Contd

Latitude 10° 2' N

Unit Km.

Ionospheric Data

Longitude 77° 5' E

Month October, 1962

75°E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
L	L	305	L	L								1
330	L	L	L	L								2
L	L	300	L	C								3
400	300	L	L	L								4
330	300	L	L	L								5
310	L	L	L	L								6
L	310	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	L							12
L	L	L	L	L	L							13
315	L	L	L	L	L							14
315	L	L	L	L	L							15
L	L	L	L	L	L							16
L	L	L	L	L	L							17
L	L	L	L	L	L							18
L	L	L	L	L	L							19
L	L	L	L	L	L							20
300	L	L	L	L								21
300	L	L	L	L								22
300	L	L	L	L								23
L	L	L	L	L								24
L	L	L	L	L								25
315	280	L	L	L								26
305	310	305	L	L								27
310	300	280	L	L								28
310	310	300	L	L								29
310	305	A	L	L								30
335	300	L	L	L	L							31
15	9	5										Count
310	300	300										Median
320	300	300										Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds.

Characteristic, h'F

TABLE 64

Latitude 10 2° N

Unit: Km

Ionospheric Data

Longitude 77 5° E

Month October, 1962

75°E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	225	220	240	270	h	h	240	220	200	195	220	200
2	255	220	230	C	300	400	245	220	200	200	195	200
3	255	240	240	220	215	215	235	220	205	205	200	200
4	260	230	220	220	220	220	290	220	210	200	190 _{rx}	180 _{rx}
5	280	250	240	210	225	215	240	220	200	195	190	180
6	220	205	220	280	310	260	240	220	200	200	190	195
7	220	230	240	240	250	240	240	220	200	200	200	195
8	255	260	250	200	240	260	230	250	205	200	180 _{rx}	195
9	260	240	260	240	220	240	240	230	220	205	180	195
10	290	220	220	220	240	220	240	230	200	200	200	180
11	265	300	320	285	235	220	235	220	200	195 _{rx}	200	185
12	240	220	220	220	250	245	240	225	195	195	190 _{rx}	180
13	240	220	230	235	240	245	250	225	215	200	190 _{rx}	185 _{rx}
14	220	220	220	245	240	240	260	230	220	215	200	200
15	240	260	250	240	250	235	245	235	220	200	210	190
16	235	235	220	215	240	E	240	200 _{rx}	190	180 _{rx}	180	180
17	230	245	245	245	235	220	240	205 _{rx}	200	200	200	195
18	235	220	210	220	240	240	240	220	220	200	200	190
19	240	230	240	260	250	220	240	220	200	195	185	200
20	225	225	230	240	320	I	250	235	200	205	180 _{rx}	205
21	230	225	235	230	240	255	270	230	210	200	195	200
22	235	220	230	240	250	210	245	220	215	200	200	180
23	220	230	220	260	300	320 _{rx}	245	230	215 _{rx}	200	200	185 _{rx}
24	250	240	225	250	255	270	255	235	220	200	200	200
25	230	240	275	260	220	235	245	235	215	200	200	200
26	220	225	230	240	280	320	260	235	220	200	200	200
27	230	235	260	280	280	250	255	235	220	210	210	200
28	230	225	235	225	220	245	255	230	200	200	200	185
29	240	230	225	220	220	230	250	230	200	195	190	180
30	240	260	260	240	200	225	240	220	210	200	200	200
31	255	260	250	250	240	230	260	220	195	200	200	180
Count	31	31	31	30	31	30	31	31	31	31	31	31
Median	235	230	235	240	240	240	240	225	205	200	200	195
Mean	240	235	235	240	250	245	245	225	205	200	195	190

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds.

Characteristic h'f
 Unit Km
 Month October, 1962

TABLE 64
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
200	200	200 _{tr}	A	220	235	275 _{tr}	210	220	205	225	235	1
200	200	205	200	A	250	270	270	220	220	225	240	2
200	195	190	200	C	C	260	280	240	220	245	250	3
195	180	200	220	225	245	255	255	235	235	220	265	4
200	200	200	215	230	250	270	300 _{tr}	270 _{tr}	230	220	225	5
200	205	210	200	220	210	260	260	260	210	220	230	6
190	220	220	A	C	210	260	300	260	210	210	210	7
200	200	200	180 _{tr}	220 _{tr}	250	260	300	270	210	210	210	8
215	210	210	220	240	250	260	300	260	220	235	210	9
180	180	195	200	225	210	260	220	210	205	220	210	10
200	200	200	205	235	250	250	240	235	230	235	240	11
185 _{tr}	190 _{tr}	210	220	235	260	280	295	280	260	240	240	12
185 _{tr}	210	210	215	225	260	295	300	330 _{tr}	250	225	235	13
200	210	215	220	230	260	280	270 _{tr}	260	230	220	230	14
200	200	210	220	240	265	290	280 _{tr}	280 _{tr}	240	230	210	15
180	190	200	200	220	210	270	260	215	200	220	220	16
190	185	200	210	230	250	275	260	235	220	220	220	17
200	200	200	200	220	240	265	290	270	210	230	235	18
200	190	200	200	200	250	300	320	255	210	220	220	19
200	200	210	205	220	260	300	310	360 _{tr}	310	250 _{tr}	230	20
210	200	185 _{tr}	200	220	250	300	330 _{tr}	300 _{tr}	300 _{tr}	265 _{tr}	245	21
205	210	205	205	215	250	270	280	275	225	220	215	22
200	205	215	200 _{tr}	220	250	275	290	260	210	260	250	23
215	210	210	205	215	215	280	300	270	235	235	230	24
195	195	210	215	235	250	290	300	215	235	250	220	25
200	215	200	210	210	260	300	315	300	275	240	240	26
215	220	230	220	225	260	290	280	240	210	240	230	27
220	220	220	220	250	255	280	310	300	260	250	240	28
180	220	215	210	250	A	290	280	295	F	230	220	29
200	210	A	200	250	255	280	280	210	220	240	250	30
180	200	220	220	235	250	280	210	320	280	240	235	31
31	31	30	29	28	29	31	29	31	30	31	31	Count
200	200	210	205	225	250	275	290	260	240	235	235	Median
200	200	205	210	230	250	275	285	265	240	235	235	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds.

Characteristic h'F
 Unit Km
 Month October 1962

TABLE 64—Contd
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	225	235	240	F	E	230	260	205	200	195	200	205
2	210	205	260	300	320	280	210	215	200	200	C	195
3	210	210	225	220	205	210	220	215	205	200	200	200
4	250	220	220	220	220	225	220	205	200	195rr	195	185
5	260	240	215	225	220	225	230	215	200	180rr	180	180
6	220	200	265	310	280	250	295	220	200	200	190	200
7	220	210	240	240	250	260	210	210	200	200	200	190
8	290	260	230	220	215	210	240	220	200	200	200	C
9	250	210	240	240	220	225	240	220	210	200	200	200
10	220	220	220	230	220	230	220	210	200	200	195	180
11	280	300	310r	250	225	225	230	210	200	190	185	180
12	235	220	220	240	255	260	210	210	200	190rr	185	185rr
13	230	225	235	240	240	260	240	210	200	190	190rr	180rr
14	210	220	240	240	240	270	240	225	215rr	215	200	200
15	250	240	245	245	240	250	240	225rr	205	200	200	190
16	235	230	220	220	E	265	270rr	200rr	200	190	185	180
17	215	210	245	240	270	240	220	210	200	200	195	185
18	230	205	220	240	255	260	240	220	215	200	195	200
19	230	210	255	255	245	220	290	205	200	195	190	200
20	230	225	230	280	F	290	240	210rr	195rr	200	200	200
21	230	220	240	240	245	255	240	220	210rr	200	185rr	190rr
22	225	240	25	250	240	230	240	220	210	200	180rr	180
23	290	220	275	275	315	280	240	225	210	200	195	195
24	245	230	240	250	270	270	245	225	210	200	195	200rr
25	230	280	285	245	225	240	220	205	200	200	200	200
26	220	225	245	240	240	245	240	C	215	200	200	200
27	240	240	240	240	240	250	240	220	215	210	205	210
28	235	225	235	240	240	250	240	210	200	200	195	210
29	240	230	220	225	240	255	240	220	200	190	180	180
30	240	270	260	220	225	240	230	200	200	200	200	200
31	260	260	255	255	220	260	240	210	200	200	190	195
Count	31	31	31	31	30	31	31	30	31	31	30	30
Median	235	230	240	240	240	255	240	215	200	200	195	195
Mean	235	235	245	245	245	255	235	215	205	195	195	190

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'F TABLE 64—Cont'd Latitude: 10 2° N
 Unit Km Ionospheric Data Longitude: 77.5° E
 Month October 1962 75 E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Day
200	200	215	220	220	260	260	220	215 ^r	215 ^r	240	240	1
200	200	200	205	240	260	280	F	225	220	240	250	2
200	200	200 _{tr}	C	C	250	275	F	230	220	255	260	3
190	210	190	220	240	250	255	210	240	220	235	270	4
195	200	200	210	225	255	300	280 _r	245 _r	230	220	290	5
215	205	200	220	240	255	260	260	260	220	220	220	6
200	220	220	A	230	260	280	260 _{tr}	260	240	220	260	7
210	200	180 _{tr}	210	240	260	280	300	260	240	240	260	8
200	220	210	200	240	260	280	260	240	220	240	280	9
180	185	200	200	240	260	260	210	200	210	280	255	10
200	200	200	205	240	260	260	240	230	290	240	240	11
190 _{tr}	195 _{tr}	215	225	245	260	300	300	260	240	235	240	12
215 _{tr}	200	210 _{tr}	220	245	270	320 _{tr}	310	280	220	240	220	13
200 _{tr}	215	220	225 _{tr}	245	265	310	310	240	220	225	230	14
210	215	215	215	250	260	320	310	260	230	235	240	15
180	180 _r	180	200	225	250	275	230	200	200	215	225	16
185	195	200	225	240	260	280	245	235	220	220	230	17
200	200	200	205	235	260	280	275	260	235	220	235	18
200	205	200	215	240	260	325	300	240	220	220	220	19
200	200	205	210	240	270	320	360 _r	360	280 _r	220	225	20
205	200	200	200	290	265	340 _r	310 _{tr}	280 _r	285 _r	235 _r	255	21
A	205	205	210	295	260	275	295	240	220	210	215	22
205	200	200	220	245	260	290	280	285	250	260	255	23
205	210	215	205	240	260	300	280	255	240	235	225	24
200	195	215	225	245	265	315	270	295	245	240	220	25
215	205	210	220	250	270	320	300	280	260	240	230	26
215	230	220	220	250	270	300	245	240	230	240	235	27
215	215	220	250	250	265	300	310	275	240	250	240	28
200	215	210	240	260	260	310	300	300	240 _r	230	235	29
200	200	235	245	260	260	280	260	235	220	240	255	30
210	210	220	230	250	265	280 _r	360	280	260	260	235	31
30	31	30	29	30	31	30	26	31	31	31	31	Count
200	200	205	220	240	260	280	280	240	230	235	235	Median
200	205	205	215	240	260	290	275	250	230	235	240	Mean

Sweep 10 Mc to 250 Mc in 27 seconds

Characteristic h'E
Unit: Km.
Month October 1962.

TABLE 65
Ionospheric Data
75°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							120π	100	A	Λ	Λ	Λ
2								105	Λ	Λ	Λ	Λ
3							120	105	A	Λ	Λ	Λ
4								115	Λ	Λ	Λ	Λ
5							120	105π	Λ	Λ	Λ	Λ
6								120	A	Λ	Λ	Λ
7							120	110	A	Λ	Λ	Λ
8							110	105	100	Λ	Λ	Λ
9							120	110	110	Λ	Λ	Λ
10							140	105	A	Λ	Λ	Λ
11							140	110	A	Λ	Λ	Λ
12							140	115	A	Λ	Λ	Λ
13							130	A	A	Λ	Λ	Λ
14								115	A	Λ	Λ	Λ
15							120	115	A	Λ	Λ	Λ
16							115	100	A	Λ	Λ	Λ
17							120	105	A	Λ	Λ	Λ
18								110	100	Λ	Λ	Λ
19							120	110	A	Λ	Λ	Λ
20							125	115	A	Λ	Λ	Λ
21							120	115	110	Λ	Λ	Λ
22							140	105	A	Λ	Λ	Λ
23							115	110	110	Λ	Λ	Λ
24								110	105	Λ	Λ	Λ
25							110	105	A	Λ	Λ	Λ
26								Λ	Λ	Λ	Λ	Λ
27							140	Λ	Λ	Λ	Λ	Λ
28								Λ	Λ	Λ	Λ	Λ
29								Λ	Λ	Λ	Λ	Λ
30							120	110	A	Λ	Λ	Λ
31							Λ	A	A	A	Λ	Λ
Count							21	25	6			
Median							120	110	110			
Mean							125	110	105			

Sweep 1 0 Mc. to 25.0 Mc. in 27 seconds

Characteristic h'E
Unit Km
Month October 1962

TABLE 65
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
^	^	105	105	110								1
^	^	^	^	^								2
^	^	^	105	^								3
^	^	^	^	110								4
^	^	^	^	115	120							5
110	^	^	^	^	120	140						6
^	^	110	110	^	^							7
^	^	110	110	120								8
^	105	115	115	^								9
^	^	^	^	115	120							10
^	^	^	^	^								11
^	^	^	^	^	^							12
^	^	^	^	^	^							13
^	^	^	110	115	^							14
^	^	^	^	^	^							15
^	^	^	^	100								16
^	^	^	^	120								17
^	^	^	^	^	^							18
^	^	^	^	^	120							19
^	^	^	^	^	^							20
105	110	^	^	120	120							21
^	^	^	^	110	^							22
^	^	^	^	110	120							23
^	^	^	^	110	130							24
^	^	^	^	^	^							25
^	^	^	^	^								26
^	^	^	^	^								27
^	110	105	^	^								28
^	^	^	^	^								29
^	^	^	^	120								30
^	^	^	^	120								31
2	3	5	7	15	7							Count
	..	110	110	115	120							Median
		110	110	115	125							Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds.

Characteristic h'E
 Unit Km
 Month October 1962

TABLE 65—*Cont'd*
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							105	A	A	A	A	A
2							115	A	A	A	C	A
3							105	A	A	A	A	A
4							115	105	A	A	A	A
5							110	A	A	A	A	A
6							120	A	A	A	A	110
7							120	105	A	A	A	A
8							120	105	105	A	A	C
9							120	110	A	120	A	A
10							110	100	A	A	A	A
11							115	A	A	A	A	A
12							120	A	A	A	A	A
13							120	A	A	A	A	A
14							120	110	A	A	A	A
15							120	115	A	A	A	A
16							110	A	A	A	A	A
17							100	100	A	A	A	A
18							120	105	105	A	A	A
19							110	A	A	A	A	A
20							120	110	A	A	A	A
21							120	110	110	A	A	A
22							120	A	A	A	A	A
23							110	115	A	A	A	A
24							120	A	A	A	A	A
25							120	105	A	A	A	A
26							A	C	A	A	A	A
27							A	A	A	A	A	A
28							120	A	A	A	A	A
29							115	A	A	A	A	A
30							120	A	A	A	A	A
31							A	A	A	A	A	A
Count							28	13	3	1	—	1
Median							120	105				
Mean							115	105				

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h'E
 Unit Km
 Month October 1962

TABLE 65—Contd
 Ionospheric Data
 73°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
A	105	105	115	110								1
A	A	A	A	A								2
A	A	A	C	C								3
A	A	A	A	A								4
A	A	110	115	120								5
A	A	A	A	140								6
A	A	110	110	A								7
A	A	110	115	120								8
105	110	110	110	120								9
A	A	A	A	120								10
A	A	A	A	A								11
A	A	A	A	A	A							12
A	A	A	A	A	A							13
A	A	115	120	A								14
A	A	A	A	A								15
A	A	A	A	110								16
A	A	A	A	120								17
A	A	A	A	A	A							18
A	A	A	A	A								19
A	A	A	A	A								20
A	110	110	110	120								21
A	A	A	120	115								22
A	A	A	115	115								23
A	A	A	110	115								24
A	A	A	A	A								25
A	A	A	115	A								26
A	A	A	A	A								27
120	A	105	120	A								28
A	A	A	A									29
A	A	A	120									30
A	A	A	115	120								31
2	3	8	14	13								Count
		110	115	120								Median
		110	115	120								Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic. h'E_s

TABLE 66

Latitude 10.2° N

Unit Km

Ionospheric Data

Longitude 77.5° E

Month October 1962

75°E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	120						G	G	100	100	100	100
2								100	100	100	100	100
3	100		100				G	100	100	100	100	100
4								G	100	100	100	100
5	100	100					G	G	100	100	100	100
6	120							140	100	100	100	100
7							G	A	100	100	100	100
8	100	105					G	G	G	100	100	100
9	120	140	120				120	G	G	100	100	100
10							G	G	100	100	100	100
11							G	100	100	100	100	100
12							G	100	100	100	100	100
13							G	100	100	100	100	100
14		110						G	100	100	100	100
15		100	100				G	100	100	100	100	100
16							G	G	100	100	100	100
17							G	G	100	100	100	100
18								G	100	100	100	100
19			100	100	100		G	G	100	100	100	100
20						100	G	G	100	100	100	100
21	105	105	105		105		G	155	100	100	100	100
22	100				100		105	G	100	100	100	100
23	125			100	100		100	G	100	100	100	100
24	110				125		125	100	100	100	100	100
25							G	100	100	100	100	100
26								110	100	100	100	100
27			100	100	100		145	100	100	100	100	100
28								100	100	100	100	100
29							160	100	100	100	100	100
30		100	100	100			110	100	100	100	100	100
31							140	100	100	100	100	100
Count	10	7	7	4	6	1	8	16	29	31	31	31
Median	110	105	100		100		120	100	100	100	100	100
Mean	110	110	105		105		125	110	100	100	100	100

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h'Es
 Unit Km
 Month October 1962

TABLE 66
 Ionospheric Data
 75°E Mean Time

Latitude 10°2' N
 Longitude 77 5' E

12	13	14	15	16	17	18	19	20	21	22	23	Date
100	100	G	120	G								1
100	100	100	100	100						100	100	2
100	100	100	120					120	105			3
100	100	100	100	100		140						4
100	100	100	100	G	110							5
G	100	100	100	100	100	100	100	140				6
100	100	115	110	G	110				110	140		7
100	100	100	100	100	100					120		8
100	100	125	120	105	100		140					9
100	100	100	100	100	100							10
100	100	100	100	100	110							11
100	100	100	100	100	100							12
100	100	100	100	100	100			120				13
100	100	100	100	130	120	115						14
100	100	100	100	100	100			190	195			15
100	100	100	100	G								16
100	100	100	100	G					100	100		17
100	100	100	100	100	100	100	100					18
100	100	100	100	100	110	115	110				110	19
100	100	100	100	100	100							20
100	100	100	100	100	110						100	21
100	100	100	100	100	110							22
100	100	100	100	100	115			115	135	110		23
100	100	100	100	100	110					105		24
100	100	100	100	100	105							25
100	100	100	100	100	100		120	100	115			26
100	100	100	100	100	100							27
100	120	110	110	120						115		28
100	100	100	100	100	100				110	100	130	29
100	100	100	120	100					120			30
100	100	100	100	G							120	31
90	91	90	91	24	21	6	4	6	8	9	4	Count
100	100	100	100	100	100	110		120	110	110	..	Median
100	100	100	105	100	105	110		120	115	110	..	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds.

Characteristic h'Es
 Unit: Km
 Month October 1962

TABLE 66—Contd
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							G	100	100	100	100	100
2							G	100	100	100	C	100
3	100						100	100	100	100	100	100
4							G	100	100	100	100	100
5							G	100	100	100	100	100
6							G	100	100	100	100	100
7	105						120	100	100	100	100	100
8	100		100				G	G	100	100	100	C
9	120	120		100		120	G	G	100	100	100	100
10							G	120	100	100	100	100
11							G	100	100	100	100	100
12							G	100	100	100	100	100
13							100	100	100	100	100	100
14							G	G	100	100	100	100
15	100	100		100			G	G	100	100	100	100
16							G	100	100	100	100	100
17							G	100	100	100	100	100
18							G	100	100	100	100	100
19			100	100			G	100	100	100	100	100
20				100		100	G	100	100	100	100	100
21	100			105	105		G	G	100	100	100	100
22				105			G	100	100	100	100	100
23				100		110	140	G	100	100	100	100
24	110					105	105	100	100	100	100	100
25							G	100	100	100	100	100
26							110	C	100	100	100	100
27		110	100	100		110	100	100	100	100	100	100
28							120	100	100	100	100	100
29	100						120	100	100	100	100	100
30	110	100	100				G	100	100	100	100	100
31							100	100	100	100	100	100
Count	9	4	4	8	1	5	10	24	31	31	30	30
Median	100			100		110	110	100	100	100	100	100
Mean	105			100		110	110	100	100	100	100	100

Sweep 1 0 Mc to 25 0 Mc, in 27 seconds.

Characteristic: h'Es		TABLE 66—Cont'd										Latitude: 10 2° N	
Unit Km		Ionospheric Data										Longitude: 77 5° E	
Month October 1962		75°E Mean Time											
1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date	
100	G	120	G	100									1
100	100	100	100	100			120			100	100		2
100	100	100	C	C				120					3
100	100	100	100	100									4
100	100	100	100	110									5
100	100	100	100	100		100		120					6
100	100	110	120	110	120			120			100		7
100	100	100	100	140	120						125		8
100	100	130	105	100		140				100			9
100	100	100	100	100		105							10
100	100	100	100	100					120				11
100	100	100	100	100	100								12
100	100	100	100	100	100	100							13
100	100	G	G	120	120	110	135						14
100	100	100	100	100	115		100	125	140				15
100	100	100	100	G									16
100	100	100	100	G					100	100			17
100	100	100	100	100	100	100							18
100	100	100	100	100	110		105	115					19
100	100	100	100	100	100						105		20
100	100	100	100	100								100	21
100	100	100	100	100	100								22
100	100	100	100	105					105	105			23
100	100	100	100	105						105			24
100	100	100	100	100			115						25
100	100	100	100	100			115						26
100	100	100	100	100									27
G	100	115	120	120							100		28
100	100	100	100	100	100			120	100				29
100	100	100	120	100	100		120						30
100	100	100	G	140						115			31
30	30	30	27	27	11	1	8	6	5	6	6		Count
100	100	100	100	100	100		120	120	105	100	100		Median
100	100	100	100	105	110		120	120	115	105	105		Mean

Sweep 1 0 Mc. to 25.0 Mc. in 27 seconds.

Characteristic (M3000) F_2

TABLE 67

Latitude 10 2° N

Unit —

Ionospheric Data

Longitude 77 5° E

Month October 1962

75°E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	3 40	3 60	3 40	3 40	E	E	3 30	3 30	2 65	2 50	2 50	2 40
2	3 10	3 45	3 55	3 30 _{JR}	2 95	2 50	3 30	3 25	2 70	2 70	2 55	2 60
3	3 25	3 30	3 35	3 40	3 55	3 65	3 40	3 30	2 80	2 40 _H	2 55	2 60
4	3 20	3 40	3 35	3 40	3 55	3 65	3 40	3 45	3 05	2 50 _H	2 65	2 55
5	3 20	3 25	3 30	3 25	3 50	3 70	3 60	3 35	3 00	2 30 _{TR}	2 50	2 65
6	3 40	3 50	3 55 _{UR}	3 05	3 05 _{US}	3 35	3 35	3 40	3 00	2 70	2 40	2 50
7	3 45	3 45	3 25 _{UR}	3 20	3 35	3 35	3 25	3 25	2 90	2 35 _H	2 60	2 50
8	3 25	3 20	3 25	3 65	3 50	R	3 45	3 35	3 30	3 00	2 65	2 30 _{UR}
9	3 05	3 20	3 20 _{US}	3 15	3 50 _{US}	3 60	3 40	3 30	3 25	2 90	2 50	2 30
10	3 35	3 25	3 35	3 30 _{US}	3 45	3 60	3 40 _{US}	3 40	3 15	2 95	2 45	2 25
11	3 10 _{US}	2 85 _{US}	F	1	F	3 65 _I	3 50	3 35	3 00	2 45	2 60	2 60
12	3 35	3 40	3 50	3 60	3 45	3 40 _{UR}	3 40	3 35	2 90	2 40	2 50	2 55
13	3 40	3 50	3 45	3 45	3 45	3 45	3 20	2 90	2 60	2 50	2 60	2 60
14	3 50	3 40	3 50	3 40	3 30	3 55	3 20	3 40	3 10	2 60	2 40 _H	2 40
15	3 45	3 40	3 30	3 40	3 30	3 50	3 40	3 40	3 10	2 90	2 45	2 40 _H
16	3 30	3 40	3 50	3 65	3 65	E	3 50	3 35	3 00	2 50	2 40	2 50
17	3 45	3 35	3 35	3 20	3 35	3 60	3 35	3 30	3 05	2 60	2 40	2 40
18	3 40	3 55 _{US}	3 55	3 55	3 30	3 50	3 40	3 40	3 20	3 05	2 65	2 30 _H
19	3 30	3 30	3 25 _{US}	3 20	3 20	3 30	3 35	3 10	2 80	2 50	2 65	2 60
20	3 40 _{US}	3 45	3 30	3 30	2 85	F	3 30 _{US}	3 25	3 05	2 70	2 40	2 55
21	3 25	3 35 _{US}	3 30	3 40	3 35	3 30	3 30	3 30	3 10	2 85	2 45	2 50
22	3 20	3 30	F	3 20	3 20	3 50	3 30	3 20	3 10	2 45	2 40	2 70
23	3 50	3 50	3 40	3 30	3 10	Γ	3 30	3 40	3 20	2 90	2 60	2 60
24	3 05	Γ	3 30	3 30	3 20	Γ	F	3 10	2 75	2 60	2 50	2 40
25	3 45	3 30	3 05	3 20	3 50	3 30	3 30	3 20	2 90	2 50	2 65	2 55
26	3 40	3 30	3 55	3 40	3 15	1	3 20	2 85	2 70	2 70	2 60	2 60
27	3 30	3 25	3 10	3 10	3 15	3 30	3 30	2 90	2 80	2 70	2 60	2 60
28	3 35	3 30	3 50	3 60	3 50	3 40	3 30	3 00	2 75	2 60	2 60	2 50
29	3 30	3 40	3 50	3 50	3 60	3 60	3 30	3 10	2 60	2 70	2 70	2 60
30	3 40	3 20	3 10	3 10	3 45	3 60	3 50	3 25	2 80	2 50	2 65	2 55
31	3 10	3 10	3 30	3 30	3 40	3 50	3 30	3 00	2 55	2 80	2 60	2 65
Count	31	30	29	30	29	24	30	31	31	31	31	31
Median	3 35	3 35	3 35	3 35	3 35	3 50	3 30	3 30	3 00	2 60	2 55	2 55
Mean	3 30	3 35	3 35	3 35	3 35	3 45	3 35	3 25	2 95	2 65	2 55	2 50

Sweep 1 0 Mc to 25 0 Mc in 27 seconds.

Characteristic (M3000) F₂
 Unit —
 Month October 1962

TABLE 67
 Ionospheric Data
 75°E Mean Time

Latitude 10 2' N
 Longitude 77 5' E

12	13	14	15	16	17	18	19	20	21	22	23	Date
2 55	2 60	2 80	2 90	2 95	2 85	2 70	2 95	3 25	3 45	3 30	3 30	1
2 95	2 50	2 70	2 80	2 75	2 70	2 65	2 75	3 00	3 30	3 30	3 25	2
2 60	2 50	2 55	2 70	C	C	2 85	2 80	3 00	3 10	3 05	3 05	3
2 50	2 50	2 60	2 60	2 70	2 80	3 00	3 00	3 05	3 10	3 10	3 05	4
2 55	2 60	2 60	2 70	2 70	2 80	2 70	2 65	2 80	3 25 _{US}	3 25	3 30	5
2 60	2 70	2 80	2 75	2 65	2 55	2 60	2 80	2 95	3 10	3 30	3 45	6
2 45	2 50	2 65	2 80	C	2 85	2 75	2 70 _{US}	2 90 _{US}	3 10	3 30 _{US}	3 20	7
2 40	2 45	2 50	2 60	2 70	2 75	2 80	2 70 _{US}	2 80 _{US}	3 05 _{US}	3 20 _{US}	3 10	8
2 10	2 60	2 65	2 70 _{US}	2 80	2 80 _{US}	2 75 _{US}	2 70	2 95	3 10	3 15 _{US}	3 35	9
2 50	2 55	2 60	2 55	2 50	2 50 _{US}	2 60 _{US}	2 90	3 35 _{US}	3 35	3 20	3 15 _{US}	10
2 55	2 55	2 55	2 50	2 60	2 65	2 80	2 90	3 20	3 20	3 20	3 30	11
2 50	2 55	2 50	2 60	2 70	2 75	2 75	2 70	2 80	3 00	3 20	3 30 _{US}	12
2 60	2 60	2 55	2 75	2 60	2 60	2 60	2 15	2 60	3 00	3 20	3 40	13
2 60	2 60	2 65	2 80	2 80	2 70	2 60	2 65	3 00	3 30	3 40	3 40	14
2 35	2 60	2 65	2 60	2 50	2 60	2 60	2 60	2 80	3 10	3 30	3 30	15
2 60	2 65	2 70	2 80	2 90	2 95	2 90	3 00	3 25	3 15	3 30	3 50	16
2 45	2 50	2 50	2 65	2 80	2 90	2 80	2 85	3 05	3 30 _{US}	3 30	3 30	17
2 35	2 15	2 55	2 75	2 65	2 70	2 70	2 75	2 85	3 05	3 20	3 35	18
2 60	2 55	2 45	2 55	2 65	2 70	2 65	2 65	2 95	3 10	3 35	3 40	19
2 60	2 65	2 65	2 65	2 70	2 70	2 50	2 30	F	F	F	3 15	20
2 70	2 70	2 80	2 85	2 65	2 40	2 15	F	F	F	F	F	21
2 75	2 90	2 90	2 80	2 65	2 40	2 45	2 50	2 50	2 90	3 20	3 50	22
2 50	2 55	2 60	2 55	2 50	2 50	2 50	2 55	2 75	2 80	2 85	2 90	23
2 55	2 50	2 55	2 60	2 70	2 60	2 60	2 60	2 70	3 10	3 30	3 30	24
2 55	2 60	2 70	2 80	2 70	2 50	2 40	2 20	2 70	3 00	3 10	3 40	25
2 50	2 60	2 60	2 70	2 70	2 65	2 50	2 50	2 60	2 70	3 00	3 20	26
2 60	2 90	2 90	2 90	2 90	2 75	2 60	2 60	2 65	3 00	3 10	3 25	27
2 70	2 80	2 80	2 80	2 80	2 75	2 60	2 60	2 60	2 85 _F	3 05	3 25	28
2 55	2 70	2 70	2 85	2 90	2 00	2 80	2 80	2 70	F	3 40	3 40	29
2 65	2 70	2 75	2 80	2 90	2 75	2 65	2 80	3 05	3 20	3 30	3 20	30
2 50	2 60	2 80	2 80	2 90	2 95	2 70	2 60	2 60	2 80	3 00	3 30	31
31	31	31	31	29	30	31	30	29	28	29	30	Count
2 55	2 60	2 65	2 70	2 70	2 70	2 65	2 70	2 85	3 10	3 20	3 30	Median
2 55	2 60	2 65	2 70	2 70	2 70	2 65	2 70	2 90	3 10	3 20	3 30	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic (M3000) F_2

TABLE 67—Contd

Latitude 10° 2' N

Unit —

Ionospheric Data

Longitude 77° 5' E

Month: October, 1962

73°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	3 45	3 45	3 50	E	E	2 90	3 40	3 00	2 50	2 45	2 45	2 40
2	3 20	3 50	3 50	3 30	2 90	2 90	3 25	3 00	2 50	2 60	C	2 45
3	3 30	3 30	3 35	3 45	3 65	3 55	3 40	3 00	2 45H	2 50	2 60	2 65
4	3 25	3 30	3 50	3 50	3 60	3 10	3 50	3 30	2 85	2 40H	2 65	2 50
5	3 20	3 30	3 30	3 40	3 55	3 15	3 50	3 20	2 70	2 30H	2 70	2 55
6	3 40us	3 50us	3 10	3 00	3 15us	3 30	3 40us	3 20	2 85	2 45	2 50	2 50
7	3 45	3 35	3 20	3 40	3 30	3 10	3 30us	3 15	2 60	2 50	2 55	2 50
8	3 25	3 20	3 40us	3 55us	3 40us	2 80	3 40us	3 30	3 20	2 85	2 40	C
9	3 10	3 15	3 20us	3 20	3 60	3 15	3 50	3 40	3 10	2 65	2 40	2 30
10	3 30us	3 30us	3 30	3 40	3 55	2 95	3 45	3 30	3 10	2 70	2 15H	2 45
11	3 05us	F	E	3 20	E	3 35H	3 50	3 20	2 75	2 10H	2 65	2 65
12	3 30us	3 50	3 55	3 50	3 40	2 90H	3 40	3 10	2 65	2 40	2 50	2 50
13	3 45	3 45	3 35	3 45	3 10	2 95	3 10	2 70	2 60	2 60	2 55	2 55
14	3 40	3 35	3 40	3 40	3 50	3 00	3 40	3 30	2 85	2 40H	2 40	2 60
15	3 40	3 40	3 40	3 40	3 40	3 20	3 45	3 30	3 00	2 70	2 30H	2 50
16	3 30	3 50	3 50	3 65	E	2 95	3 50	3 20	2 65	2 60	2 50	2 55
17	3 35	3 40	3 30	3 30	3 45	3 20	3 50us	3 20	2 85	2 15	2 45	2 45
18	3 40	3 60us	3 50	3 30	3 25	3 00	3 30	3 25	3 15	2 85	2 30H	2 30H
19	3 30	3 30us	3 30us	3 20	3 25	3 40	3 25	3 00	2 55	2 65	2 55	2 55
20	3 30	3 45	3 35	3 05	F	3 00	3 30	3 15	2 90	2 50	2 50	2 60
21	3 35	3 15	3 30	3 40	3 30	3 20	3 35	3 20	3 00	2 65	2 50	2 65
22	3 50	F	3 05	3 20	3 30	3 40	3 35	3 10	2 75	2 35	2 50	2 80
23	3 30	3 50	3 30	3 25	2 90	F	3 40	3 20	3 00	2 70	2 60	2 50
24	3 05	3 45	3 30	3 20	3 10	F	3 20	2 90	2 65	2 50	2 40	2 50
25	3 40	3 05	3 05	3 40	3 45	3 10	3 40	3 10	2 60	2 45	2 60	2 50
26	3 20	3 50	3 55	3 35	3 00	2 90	3 10	C	2 65	2 70	2 55	2 50
27	3 30	3 20	3 10	3 20	3 20	3 35	3 10	2 80	2 70	2 65	2 60	2 60
28	3 30	3 40	3 50	3 55	3 45	2 85	3 20	2 90	2 60	2 70	2 60	2 55
29	3 30	3 45	3 50	3 60	3 50	3 05	3 20	2 80	2 65	2 70	2 60	2 50
30	3 30	3 30	3 25	3 35	3 60	3 00	3 40	3 05	2 45	2 55	2 60	2 60
31	3 20	3 30	3 30	3 40	3 50	3 10	3 25	2 70	2 80	2 50	2 65	2 50
Count	31	29	30	30	27	29	31	30	31	31	30	30
Median	3 30	3 40	3 30	3 40	3 40	3 10	3 40	3 15	2 70	2 55	2 50	2 50
Mean	3 30	3 40	3 35	3 35	3 40	3 10	3 35	3 10	2 75	2 55	2 50	2 55

Sweep 1.0 Mc to 25.0 Mc, in 27 seconds.

Characteristic (M3000)F2

TABLE 67—Contd

Latitude 10 2° N

Umt. —

Ionospheric Data

Longitude 77 5° E

Month October 1962

75°E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
2 55	2 70	2 90	2 95	2 90	2 80	2 85	3 15	3 35	3 40	3 30	3 25	1
2 40	2 60	2 70	2 80	2 70	2 70	2 65	2 90	3 20	3 35	3 30	3 25	2
2 50	2 60	2 65	C	C	2 85	2 85	2 85	3 10	3 10	3 05	3 15	3
2 50	2 60	2 60	2 60	2 75	2 90	3 00	3 00	3 20	3 10	3 00	3 20	4
2 60	2 55	2 70	2 70	2 80	2 85	2 65	2 70	2 90	3 35	3 35	3 40	5
2 70	2 75	2 75	2 65	2 60	2 55	2 70	2 95	3 00	3 20	3 35	3 50 ^{US}	6
2 50	2 60	2 80	2 80	2 80	2 80	2 70	2 70	3 00	3 15	3 20 ^{US}	3 20	7
2 40	2 50	2 55	2 60	2 70	2 70 ^{US}	2 70 ^{US}	2 80 ^{US}	2 90 ^{US}	3 20 ^{US}	3 10	3 10	8
2 55	2 60	2 65 ^{US}	2 80	2 80	2 70 ^{US}	2 70 ^{US}	2 85	3 05	3 10	3 30	3 35	9
2 60	2 60	2 60	2 55	2 55 ^{US}	2 55 ^{US}	2 65	3 05	3 35 ^{US}	3 30 ^{US}	3 15 ^{US}	3 10	10
2 55	2 50	2 50	2 50	2 55	2 80	2 90	3 00	3 20	3 20	3 30	3 20	11
2 55	2 55	2 55	2 65	2 70	2 80	2 65	2 75	2 80	3 10	3 20	3 35	12
2 55	2 55	2 55	2 60	2 60	2 65	2 10	2 40	2 60	3 00	3 30	3 50	13
2 55	2 70	2 80	2 85	2 70	2 60	2 60	2 80	3 20	3 40	3 40	3 30	14
2 60	2 60	2 60	2 60	2 60	2 60	2 50	2 70	3 00	3 30	3 20	3 30	15
2 55	2 70	2 75	2 90	2 90	2 95	2 90	3 20	3 40 ^{US}	3 35	3 45	3 45	16
2 45	2 50	2 60	2 70	2 85	2 85	2 80 ^{US}	2 95	3 20	3 35	3 30	3 40	17
2 45	2 50	2 55	2 65	2 70	2 70	2 75	2 75	2 90	3 10	3 30	3 30	18
2 50	2 50	2 45	2 70	2 65	2 70	2 55	2 75	3 05	3 25	3 40	3 35 ^{US}	19
2 60	2 65	2 65	2 70	2 75	2 60	2 40	F	F	F	F	3 20	20
2 70	2 70	2 80	2 70	2 50	2 30	F	F	F	F	F	F	21
2 80	2 90	2 85	2 70	2 55	2 40	2 50	2 40	2 65	3 10	3 50	3 50	22
2 55	2 60	2 55	2 55	2 50	2 50	2 50	2 50	2 85	2 80	2 90	F	23
2 55	2 50	2 60	2 70	2 60	2 60	2 55	2 65	2 95	3 30	3 30	3 35	24
2 50	2 60	2 80	2 80	2 60	2 40	2 20	2 50	2 80	3 10	3 30	3 45	25
2 55	2 50	2 60	2 70	2 70	2 60	2 45	2 50	F	F	3 10	3 30	26
2 75	2 90	2 95	2 95	2 85	2 70	2 50	2 65	2 80	3 05	3 20	3 30	27
2 75	2 80	2 80	2 80	2 80	2 70	2 60	2 55	2 65	2 95 ^W	3 15	3 25	28
2 60	2 65	2 80	2 90	2 95	2 95	2 70	2 65	F	3 20	F	3 40	29
2 65	2 65	2 75	2 85	2 85	2 70	2 80	2 80	3 05	3 20	3 30	3 20	30
2 60	2 60	2 80	2 90	2 95	2 85	2 60	2 55	2 70	2 90	3 10	3 40	31
31	31	31	30	30	31	30	29	27	28	28	29	Count
2 55	2 60	2 65	2 70	2 70	2 70	2 65	2 75	3 00	3 20	3 30	3 30	Median
2 55	2 60	2 70	2 75	2 70	2 70	2 65	2 75	3 00	3 20	3 25	3 30	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic fo F2

TABLE 68

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month November, 1962

75°E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	9.6	8.0	5.9	4.4	2.4	1.7	5.2	8.0	9.6	10.4	10.7	9.8
2	F	F	8.4	7.5 ^{us}	6.0	4.1	6.2	8.8	9.6	10.0	10.0	9.2
3	7.8	7.8	7.2	6.9	5.0	3.9	5.7	7.9	9.3	10.0	10.5	9.8 ^{II}
4	7.9	7.8	7.2	5.2	3.5	2.6	5.2	7.8	9.2	9.8	9.2	9.1
5	7.1	6.5	5.0	4.2	4.4	4.7	6.3	7.6	8.6	8.6	8.6	8.6
6	7.7	7.2 ^{us}	6.8	5.1 ^{us}	3.6	2.2	5.0 ^{us}	7.9	8.8	9.2	8.2	9.0
7	6.8 ^{us}	7.0 ^{us}	7.3 ^{us}	7.0 ^{us}	5.8	5.8	7.2 ^{II}	8.0	10.2	11.0	10.9	11.0
8	6.6	5.6	4.8	3.8	2.7	2.0	5.2	8.0	9.7 ^{us}	9.8	9.0	8.8
9	8.0	8.0	7.2 ^{us}	5.6 ^{us}	4.4	2.8	5.0	8.0	9.5	10.6	10.7	10.2
10	6.8	6.6	6.2	3.5	2.2	1.8	5.2 ^{us}	7.6	8.4	8.1	8.1	8.8
11	7.5	6.8	6.2	4.8	F	F	5.2	8.0	9.2	10.0	10.0	9.8
12	5.7	4.8	4.0	2.9	2.4	1.7	5.1	7.8	9.0	10.0	9.8	10.0
13	5.2	4.9	1.6	3.2	2.1	1.5	4.9	7.8	9.2	9.5	8.6	8.6
14	6.2 ^{us}	5.8	5.1	4.4	3.4	2.6	5.1	7.5	9.0	9.1	8.7 ^{II}	8.0
15	6.4	6.3	5.6	4.1	5.2 ^{us}	3.4	5.1	7.6	8.8	8.8	8.4	7.8
16	2.5	2.3	2.8	2.6	2.0	1.9	5.1	7.8	8.6	9.2	9.4	8.8
17	6.4	6.2 ^{us}	6.4 ^{us}	5.8 ^{us}	4.6	2.8	4.9	7.9	9.0	9.2	9.2	9.6
18	5.9	5.6	5.6	5.2	4.0	2.6	5.1	7.8	9.6	9.6	8.6	8.8
19	5.7	5.6	4.7	3.7	2.6	1.6	4.8	7.1	9.2	9.4	8.6	8.5
20	5.6	5.6	5.0	4.2	3.4	3.1	5.0	7.4	8.1	8.0	8.0	7.9
21	1.6	4.1	3.9	2.7	2.3	1.9	4.3	6.7	7.6 ^{us}	7.8	8.2	8.0
22	7.2	6.8	5.6	5.6	3.6	2.2	4.4	7.2	9.2	9.6	9.4	9.7
23	5.1 ^{us}	5.3	5.4 ^{us}	3.8	2.7	2.0	4.3	6.6	C	8.1	8.9	9.1
24	5.4	4.4	3.5	2.9	2.5	1.9	4.6	7.1	7.5	7.8	8.2	8.7
25	3.9	4.1	4.0 ^{us}	3.8	3.0	1.8	4.3	7.3	8.3	7.8	8.3	8.5
26	6.1	6.1	5.6 ^{us}	1.5	3.8	2.7	4.4	6.6	6.9	6.8	7.0	7.0
27	4.4	3.9	3.2	2.4	1.7	E	4.2	6.8	6.9	6.9	7.0	7.8
28	4.8	4.6	3.6 ^{us}	2.7	2.2	1.6	4.1	6.6	7.8	7.8	7.9	8.3
29	5.9	5.4	5.1	3.3	2.2	R	3.9	6.2	7.0	7.5	7.4	7.7
30	5.7	6.0	5.6 ^{us}	5	3.9	2.1	4.3	7.2	8.3	8.7	9.5	8.9
Count	29	29	30	28	29	28	30	30	29	30	30	30
Median	6.2	5.8	5.5	4.2	3.4	2.2	5.0	7.6	9.0	9.2	8.6	8.8
Mean	6.2	5.8	5.4	4.3	3.4	2.5	5.0	7.5	8.7	9.0	8.9	8.9

Sweep 1.0 Mc to 25.0 Mc, in 27 seconds.

Characteristic fo F2
 Unit Mc
 Month November, 1962

TABLE 68
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
9 7	10 1	10 2	10 2	10 9	10 9	10 8	9 5	9 0	F	F	F	1
8 6	9 0	9 2	9 0	9 0	9 2	8 8	7 4	F	F	F	7 4	2
8 9	8 6	8 8	9 6	10 0	10 0	9 4	8 6	8 7	F	8 0	8 2	3
9 0	9 5	9 6	10 4	10 8	10 8	10 9	10 2	10 0	9 2	8 8	7 9	4
9 0	10 0	10 2	10 6	11 5	11 0	11 0	9 8	F	F	8 2	7 9	5
9 7	10 4	10 8	10 5 ^{us}	10 8 ^{us}	10 3	9 6 ^{us}	8 9	8 8	1'	7 6 ^{us}	8 5	6
10 8	10 6	11 0	10 6 ^{us}	10 2 ^{us}	9 6 ^{us}	9 1 ^{us}	9 0	8 8	F	9 0 ^{us}	8 7	7
8 9	9 7	10 2	10 6	11 0	11 0	10 4	9 6 ^{us}	9 2	9 0 ^{us}	1'	1'	8
9 6	9 9	10 0	10 6	10 9	10 8	10 8	9 4	8 8	9 0 ^{us}	8 0 ^{us}	7 2 ^{us}	9
8 9	9 2	9 8	10 6	11 0	11 3	10 4	9 0	8 6	F	F	F	10
9 8	10 6	11 0	12 0	11 8	11 0	11 0	9 1	8 8	8 6	7 6	6 5	11
10 8	11 0	11 8	12 0	11 4	10 8	11 0	10 1	9 2	9 2	7 9	6 0	12
9 1	9 6	10 1	10 6	10 8	10 0	9 2	9 0	8 8	9 0	8 3	7 2	13
8 0	8 4	8 6	9 2	9 4	9 6	9 0	8 4	8 6	8 0	7 1	6 5 ^{us}	14
8 4	9 5	9 8	10 5	10 4	10 2	9 6	8 6	11 0	8 7	4 6	3 2	15
8 8	9 2	9 8	10 0	10 1	9 3	8 8	9 0	9 4	9 2	7 2	6 8	16
9 0	9 0	9 2	9 0	9 0	9 6	9 7	8 8	7 6	7 1	6 4	6 1	17
9 1	9 1	8 7	9 2	9 2	9 4	9 2	8 7	9 4	7 4	6 8	5 8	18
8 8	9 0	8 9	8 9	8 8	8 6	8 6	7 8	7 8	7 8	6 4	5 8	19
7 8	8 0	8 7	9 2	9 4	9 4	9 0	8 5	8 3	8 6	7 1	7 4	20
7 8	7 8	8 6	9 4	10 0	10 0	9 2	9 0	8 8	9 2	8 0	7 6	21
9 8	10 3	11 2	11 4	11 8	11 0	10 1	9 6	9 6	9 1	7 2	6 2	22
9 4	10 2	10 0	10 0	9 6	9 8	9 6	9 2	9 6	8 5	6 8	6 0 ^{us}	23
9 0	9 3	10 0	10 6	11 0	10 6	9 8	9 2	8 6	9 0	6 4	4 7	24
8 4	8 4	9 0	9 7	9 4	8 8	8 2	6 8	7 1	7 8	6 5	6 3	25
7 6	C	8 0	8 0	8 3	8 4	8 1	8 2	7 8	7 0	6 0	5 0	26
7 8	8 0	8 5	8 4	9 0	9 2	9 2	8 2	8 0	7 7	7 3 ^{us}	5 2	27
8 2	9 0	9 6	9 6	9 2	8 7	8 5	8 3	8 3	8 0	6 0 ^{us}	5 7	28
7 5	7 7	7 5	7 5	8 3	8 1	8 3	7 7	7 9	7 2	6 3	5 8	29
8 5	8 5	8 8	8 3	8 5	8 7	9 2	8 5	8 3	6 1	5 2	3 9	30
30	29	30	30	30	30	30	30	28	23	26	26	Count
8 9	9 2	9 7	10 0	10 0	9 9	9 4	9 0	8 8	8 6	7 1	6 2	Median
8 9	9 3	9 6	9 9	10 0	9 9	9 6	8 8	8 7	8 3	7 0	6 3	Mean

Sweep 1 0 Mc to 25 0 Mc, in 27 seconds

Characteristic to F2

TABLE 6B—cont'd

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month November, 1962

75°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	8.8	7.2	5.4	3.1	1.9	3.0	7.2	8.9	9.9	10.7	10.7 _{FX}	9.8
2	F	9.0	7.6 _{US}	6.6	5.1	4.2	7.8	9.5	9.6	10.3	9.6	9.1
3	7.6	7.4	6.9	5.8	4.0	3.6	7.4	8.4	9.8	10.3	9.9	9.4 _{IX}
4	7.8	7.5	6.2	4.6	2.8	3.3	6.7	8.5	9.7	9.8	8.9	9.0
5	6.6	6.2	4.6	4.3	4.4	5.2	6.5	8.0	8.8	8.6	8.6	8.8
6	7.4	7.2 _{US}	5.6	4.6	2.8	3.2 _{US}	6.8	8.5	8.9	8.4	8.4	9.4
7	FS	7.2 _{US}	7.4 _{US}	6.3 _{US}	5.7	6.6	7.1 _{US}	9.1	10.6	11.2	10.8	10.9
8	6.1 _{US}	5.2	4.3	3.0	2.3	3.0	7.0	9.0	9.7	9.4	8.7	8.6
9	8.0	8.4	6.4	4.9 _{US}	3.9	3.0	6.8	9.0	10.2	10.8	10.4	10.0
10	6.2	6.6	4.8	2.6	1.9	3.0	6.7	8.0	8.9	8.0	8.5	9.0
11	7.2	6.7	5.6	4.7	F	3.6	6.8	8.6	9.8	9.8	10.0	9.4
12	5.2	4.4	3.4	2.6	1.9	3.2	6.6	8.6	9.8	10.0	9.8	10.0
13	5.0	5.1	3.8	2.6	1.7	2.8	6.9	8.7	9.5	9.1	8.4	8.8
14	6.2	5.8	5.2	4.0	3.0	3.1	6.8	8.2	9.2	8.8 _{IX}	8.2	8.1
15	6.5	6.3	5.3 _{US}	F	4.4	3.6	6.5	8.4	9.0	8.5	8.0	8.0
16	2.4	2.7	2.7	2.5	2.0	3.0 _{IX}	6.8	8.0	9.0	9.0	9.0	8.6
17	6.2 _{US}	6.4	6.1 _{IX}	5.2	3.9	3.2	6.6	8.6	9.2	9.0	9.4	9.2
18	6.1	5.8	5.4 _{US}	4.6	3.4	2.9 _{IX}	6.9	8.8	9.2	8.6	8.8	9.0
19	5.8	5.4	4.2	3.0	1.9	2.6	6.6	8.6	9.6	9.0	8.5	8.9
20	5.7 _{US}	5.4 _{US}	4.6	3.7	3.2	3.3	6.3	8.0	8.3	8.0	8.0	7.8
21	4.3	4.1	3.3	2.5	2.0	2.5	5.6	7.3 _{US}	7.8	8.2	8.0	7.9
22	7.1	6.1 _{US}	6.0	4.6	2.6	2.7	5.9	8.5	9.5	9.1	9.5	9.6
23	5.4	5.5	4.6	3.2	2.5	2.7	5.8	C	C	9.0 _{IX}	9.1	9.2
24	4.8	4.2	3.2	2.6	2.1	2.8	6.4	7.4	7.6	8.0	8.4	9.0
25	4.2 _{US}	4.1	3.8	3.8	2.2	2.5	5.8	8.1	8.0	8.2	8.2	8.4
26	6.3	6.3	4.8	4.1	3.3	2.7	5.8	6.8	6.8	7.0	7.0	7.1
27	4.2	3.8	2.8	1.8	1.3	2.3	5.8	6.9	7.0	7.0	7.2	7.8
28	4.4	4.4	2.8	2.4	1.8	2.4	5.7	7.3	7.9	7.8	C	8.3
29	5.7	5.6	4.2 _{US}	2.6	2.0	2.2	5.4	6.8	7.5	7.3	7.4	7.7
30	5.8	S	5.1 _{US}	4.3	3.4	R	6.1 _{US}	8.1	8.7	8.8	9.1	8.5
Count	28	29	30	29	29	29	30	29	29	30	29	30
Median	6.1	5.8	4.8	3.8	2.6	3.0	6.6	8.4	9.2	8.9	8.7	9.0
Mean	6.0	5.9	4.9	3.8	2.9	3.2	6.5	8.2	8.9	8.9	8.8	8.8

Sweep 1.0 Mc to 25.0 Mc, in 27 seconds

Characteristic fo F2

TABLE 68—*cont'd*

Latitude 10° 2' N

Unit Mc

Ionospheric Data

Longitude 77.5° E

Month November, 1962

75°E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
9.8	10.1	10.1	10.4	10.7	10.9	9.9	9.1	9.0 _{ur}	F	F	F	1
8.8	9.2	9.0	9.1	9.0	9.0	8.0	7.1 _F	F	F	F	7.6	2
8.8	8.7	9.2	9.9	10.0	9.8	8.9	8.5	F	8.8	8.0	8.0	3
9.4	9.8	10.2	10.4	10.7	11.0	10.4	10.2	9.3	9.2	8.4	7.8	4
9.4	10.1	10.2	11.0	11.6	11.1	10.5	F	F	F	8.1	7.8	5
10.0	10.2	10.6	10.6	10.6 _{us}	9.8 _{us}	9.2 _{us}	8.7	9.0 _{us}	8.5 _{ur}	7.6 _{us}	11	6
10.6	10.8	10.8	10.4 _{us}	10.0	9.6	9.4 _{ur}	8.8	F	F	9.0	7.9	7
9.2	10.0	10.2	11.0	11.0	10.8	10.0	9.6 _{us}	9.2 _{ur}	8.8 _{ur}	F	8.3	8
9.8	10.0	10.5	10.8	10.9	11.0	9.8 _{us}	9.0	8.8 _{ur}	8.6	8.0	7.2	9
9.0	9.4	10.2 _{us}	10.9	11.2	11.0	9.8	8.7	F	F	F	7.8	10
10.0	10.8	11.6	12.6	11.4	11.0	10.6	8.8	F	8.2	6.6	6.5	11
10.9	11.2	11.8	11.8	11.3	10.8	10.7	9.6	9.4	7.8	6.6	5.7	12
9.2	10.0	10.4	10.8	10.5	9.4	9.2	8.6	8.8	9.0	7.7	6.6	13
8.1	8.5	8.8	9.5	9.6	9.4	8.6	8.6	7.7	6.6	6.4	14	14
9.2	9.7	10.2	10.4	10.3	10.4	9.0	9.8	10.6	6.1	9.8	2.7	15
8.8	9.3	9.4	10.2	9.9	9.0	8.8	9.4	9.2	8.4	6.8	6.7	16
9.0	9.0	9.1	9.0	9.4	9.5	9.2	8.2	7.4	6.6	6.2	5.9	17
9.1	8.8	9.0	9.2	9.1	9.6	9.0	9.2	8.5	7.2	6.2	5.8	18
8.8	8.9	9.0	8.9	8.6	8.7	8.2	7.9	7.9	7.4	6.0	5.6	19
7.9	8.7	8.9	9.4	9.2 _{us}	9.1	8.6	8.2	8.5	8.1	6.1 _{ur}	5.2	20
7.8	8.2	8.8	9.8	10.2	9.8	8.8	9.0	9.2	8.8	7.4	7.4	21
10.2	10.8	11.2	11.8	11.2	10.6	10.2	9.6	9.4	8.2	6.8	5.8	22
9.6	10.4	10.3	9.6	9.6	9.6	9.6	9.6	9.8	7.8	6.2	5.6	23
9.3	9.6	10.3	10.8	10.9	10.0	9.7	8.6	8.8	8.0	5.6	4.4	24
8.4	8.6	9.4	9.6	9.0	8.5	7.8	6.8	8.0	7.1	6.4	6.3	25
C	8.0	8.1	C	8.2	8.2	8.2	8.0	7.6	6.4	5.3	4.7	26
8.1	8.6	8.4	8.6	9.0	9.2	8.8	8.0	7.8	7.4	5.7	4.9	27
8.8	9.3	9.6	9.6	9.1	8.5	8.4	8.1	8.1	6.9	5.7	5.8	28
7.5	7.5	7.7	8.0	8.4	8.5	8.0	7.1	7.6	6.6	6.2	5.6	29
8.5	8.7	8.7	8.3	8.6	9.1	8.8	8.1	7.6	5.7	4.6	3.5	30
29	30	30	29	30	30	30	29	24	25	26	28	Count
9.1	9.4	10.0	10.2	10.0	9.6	9.1	8.7	8.8	7.8	6.5	6.1	Median
9.1	9.4	9.7	10.1	10.0	9.8	9.2	8.7	8.7	7.7	6.6	6.2	Mean

Sweep 1.0 Mc to 25.0 Mc, in 27 seconds

Characteristic fo F1
Unit: Mc
Month November, 1962

TABLE 69
Ionospheric Data
75°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	I	I
2								L	L	L	L	L
3								L	L	I	L	L
4								L	L	L	L	L
5								L	I	L	L	I
6								L	L	L	L	4 8UL
7								L	L	L	L	L
8								L	L	L	L	L
9								L	L	L	L	L
10								L	L	L	I	4 7
11								I	L	L	L	4 9
12								L	L	L	4 7	4 9
13								L	L	L	4 8	5 0
14								L	L	L	4 8	4 9
15								L	L	L	4 8	4 8
16								L	L	L	L	L
17								L	L	L	L	4 7
18								L	L	L	L	L
19								L	L	4 6	L	L
20								L	L	L	4 6	4 7
21								I	L	L	L	1 7
22								L	L	L	L	4
23								L	L	C	L	L
24								L	L	L	L	1 6
25								L	L	L	L	4 5
26								L	L	L	L	L
27								L	L	LH	L	LH
28								L	L	L	4 6	L
29								L	L	L	L	LH
30								LH	L	LH	4 6	1 6
Count										4	8	12
Median											4 8	4 8
Mean											4 8	4 8

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fo F1

TABLE 69

Latitude 102° N

Unit Mc

Ionospheric Data

Longitude 77° 5' E

Month November, 1962

75°E Mean Time

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
L	L	L	L	L								3
L	L	L	L	L								4
L	L	L	L	L								5
												6
L	L	L	L	L								7
L	L	L	L	L								8
4.7	L	L	L	L								9
L	L	L	L	L								10
L	L	L	L	L								11
4.9	5.0	A	A	L	L							12
5.0	A	4.9	4.6	L	L							13
4.8	5.0	4.7	L	L								14
4.7	4.9	L	A	L	L							15
4.8	4.7	4.5	L	L	L							16
L	L	L	L	L								17
L	L	L	L	L								18
L	L	L	L	L								19
4.7	L	L	L	L								20
4.6	L	L	L	L								21
L	L	L	L	L	L							22
L	L	L	L	L	L							23
L	L	L	L	L	L							24
4.6	L	L	A	L	L							25
L	L	L	L	L	L							26
LH	L	L	L	L	L							27
LH	L	L	L	L	L							28
L	L	4.5	4.3	L	L							29
4.5	4.5	L	L	L	L							30
A	4.5	L	L	L	L							30
10	6	4	2									Count
4.7	4.8											Median
4.7	4.8											Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic fo F₁
Unit Mc
Month November, 1962

TABLE 69—*Contd*
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							L	L	L	I	L	I
2							L	L	L	I	L	I
3								L	L	L	L	I
4								L	L	I	L	L
5								I	L	L	I	I
6									L	L	I	L
7								L	L	L	L	I
8							L	L	L	L	L	L
9							L	L	L	L	1 5UL	I
10							L	I	L	I	L	I
11							L	L	L	L	4 9	5 0
12							L	L	L	4 9	4 9	4 8
13							L	L	L	4 7	5 0	4 8
14							L	L	L	4 9	5 0	4 9
15							I	L	L	4 7	I	4 8
16									L	L	4 8	L
17							L	L	L	L	4 7L	4 8
18							L	L	L	L	L	L
19							I	L	L	L	L	4 7
20								L	L	L	4 6	L
21							L	L	L	L	L	4 6
22							L	L	L	L	L	L
23							L	C	C	L	L	L
24							I	L	L	L	L	4 7
25							I	L	L	L	L	I
26							L	L	L	L	L	1.11
27							L	LH	LH	L	L	1.11
28							L	L	LH	LH	C	L
29							L	L	L	L	LH	L
30								L	LH	LH	1 6	4-6
Count										5	9	10
Median										4 7	4 8	4 8
Mean										4 8	4 8	4 8

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fo F₁

TABLE 70—Contd

Latitude 10.2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month November, 1962

75°E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
L	I	L	L									1
L	L	I	I	L								2
L	L	L	L	L								3
L	LH	L	L	L								4
L	L	I	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
5 0	5 0	A	A	L	I							11
5	4 6	4 5	L	L	L							12
4 8	4 7	L	L	L	L							13
4 7	4 8	L	L	L	L							14
5 0	4 8	4 9	L	L	L							15
L	L	L	L	L								16
L	L	L	L	L								17
L	L	L	L	L								18
4 6	L	L	L	L								19
4 6	L	L	L	L								20
L	L	L	L	L	L							21
L	L	L	L	A								22
L	I	L	L	L	L							23
L	L	A	L	L	L							24
L	L	L	L	L	L							25
C	LH	I	C	L								26
L	LH	LH	L	L								27
4 6	L	L	L	L								28
L	4 5	L	L	L								29
4 4	L	I	L	L								30
8	6	2										Count
4 6	4 8											Median
4 7	4 7											Mean

Sweep 1° 0 Mc to 25 0 Mc in 27 seconds

Characteristic fo E
Unit Mc
Month November, 1962

TABLE 70
Ionospheric Data
75°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							R	2 5	Λ	Λ	Λ	Λ
2								2 6	Λ	Λ	Λ	Λ
3								2 5	3 0	Λ	Λ	Λ
4								Λ	Λ	Λ	Λ	Λ
5							F	Λ	Λ	Λ	Λ	Λ
6							1 6	Λ	Λ	Λ	Λ	Λ
7							3 2 ^{UR}	2 4	Λ	Λ	Λ	Λ
8								Λ	Λ	Λ	Λ	Λ
9							1 6 ^{UR}	Λ	Λ	Λ	Λ	Λ
10							1 6	Λ	Λ	Λ	Λ	Λ
11							1 4	Λ	Λ	Λ	Λ	Λ
12							R	Λ	Λ	Λ	Λ	Λ
13							1 5	Λ	Λ	Λ	Λ	Λ
14								2 4	Λ	Λ	Λ	Λ
15							R	Λ	Λ	Λ	Λ	Λ
16								Λ	Λ	Λ	Λ	Λ
17								Λ	Λ	Λ	Λ	Λ
18								Λ	Λ	Λ	Λ	Λ
19							1 5	Λ	Λ	Λ	Λ	Λ
20							1 5	Λ	Λ	Λ	Λ	Λ
21								Λ	Λ	Λ	Λ	Λ
22								Λ	Λ	Λ	Λ	Λ
23								Λ	C	Λ	Λ	Λ
24							R	Λ	Λ	Λ	Λ	Λ
25								Λ	Λ	Λ	Λ	Λ
26							R	Λ	Λ	Λ	Λ	Λ
27							R	Λ	Λ	Λ	Λ	Λ
28							1 6	Λ	Λ	Λ	Λ	Λ
29							1 7	Λ	Λ	Λ	Λ	Λ
30							R	Λ	Λ	Λ	Λ	Λ
Count							10	5	1			
Median							1 6	2 5				
Mean							1 7	2 5				

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic fo E
 Unit Mc
 Month November, 1962

TABLE 70
 Ionospheric Data
 75°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	A	A	3 0	A	A							1
A	A	A	A	A	A							2
A	A	A	A	A	A							3
A	A	A	2 9	A	A							4
A	A	A	A	B	A							5
A	A	A	A	A	A							6
A	A	A	A	A	A							7
A	A	3 3	A	A	A							8
A	A	A	3 0	2 6	A							9
A	A	A	A	A	A							10
A	3 5	A	A	A	A							11
A	A	3 2	2 7	A	A							12
A	A	A	A	2 4	A							13
A	A	3 2	3 0	A	A							14
A	A	A	2 9	R	A							15
A	A	A	A	A	A							16
A	A	A	A	2 5	A							17
A	A	A	A	2 6	A							18
A	A	A	A	A	A							19
A	A	A	A	A	2 1UR							20
A	A	A	A	A	1 9							21
A	A	A	3 0	2 5	1 8							22
A	3 2	3 0	A	A	A							23
A	A	A	A	A	A							24
A	A	3 2	3 1	2 5	R							25
A	A	A	A	A	A							26
A	C	A	A	A	R							27
A	A	A	A	A	A							28
A	A	A	A	A	A							29
A	A	A	A	A	A							30
..	2	5	8	6	3							Count
..	→	3 2	3 0	2 5								Median
.	.	3 2	3 0	2 5								Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic fo E
Unit Mc
Month November, 1962

TABLE 70—Contd
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77.5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							2 1	2 8	A	A	A	A
2							2 2	A	A	A	A	A
3							2 3	2 7	A	A	A	A
4							2 2	A	A	A	A	A
5							2 2	A	A	A	A	A
6							A	A	A	A	A	A
7							2 0 _{UA}	2 6	A	A	A	A
8							2 1 _{UA}	A	A	A	A	A
9							2 2 _{UA}	A	A	A	A	A
10							A	A	A	A	A	A
11							A	A	A	A	A	A
12							2 1	A	A	A	A	A
13							2 2	A	A	A	A	A
14							2 0	A	A	A	A	A
15							A	A	A	A	A	A
16							2 0	A	A	A	A	A
17							2 1	A	A	A	A	A
18							2 2 _U	A	A	A	A	A
19							2 1	A	A	A	A	A
20							A	A	A	A	A	A
21							A	A	A	A	A	A
22							A	A	A	A	A	A
23							A	C	C	A	A	A
24							A	A	A	A	A	A
25							A	A	A	A	A	A
26							A	A	A	A	A	A
27							A	A	A	A	A	A
28							A	A	A	A	C	A
29							A	A	A	A	A	A
30							A	A	A	A	A	A
Count							15	9				
Median							2 1					
Mean							2 1					

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fo E

TABLE 70—Contd

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77.5° E

Month November, 1962

75°E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
A	A	A	2 9	A								1
A	A	A	A	A								2
A	A	A	F	A	A							3
A	A	3 0	R	A								4
A	A	A	2 6	A								5
A	A	A	2 8	A								6
A	A	A	A	A								7
A	A	3 2	A	A								8
A	A	A	2 8	A								9
A	A	A	A	A								10
A	3 3	A	A	A								11
A	A	2 9	2 8	A								12
A	A	A	2 8	2 1	1 8							13
A	A	A	2 8	R								14
A	A	3 0	R									15
A	A	A	A	2 3								16
A	A	A	2 8	2 1								17
A	A	A	2 6	A	A							18
A	A	A	A	A								19
A	A	A	A	2 0								20
A	A	A	2 6	2 2 _r								21
3 3	3 1	2 9	2 8	A								22
A	A	A	A	A								23
A	A	A	2 7 _r	A								24
A	A	A	2 7	R								25
C	A	A	C	A								26
A	A	A	A	A	A							27
A	A	A	A	A								28
A	A	A	A	A								29
A	A	A	A	A								30
1	2	5	13	5	1							Count
		3 0	2 8	2-1								Median
		3 0	2 7	2 1								Mean

Sweep 1 0 Mc to 25.0 Mc in 27 seconds

Characteristic fo Es

TABLE 71

Latitude 102° N

Unit Mc

Ionospheric Data

Longitude 77.5° E

Month November, 1962

75°E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							G	G	8.4	12.0	12.0	12.4
2	7.4		4.2	2.4				G	8.2	10.0	11.4	11.4
3	4.0	6.0	4.4	6.2				G	11.0	12.0	12.0	12.0
4									7.6	10.6	8.9	11.0
5							G		8.0	9.8	11.2	11.8
6	3.6						G	8.1	10.6	11.3	12.0	12.8
7	3.6	5.0 _{us}	2.7	2.4	2.3		G	1.3	8.0	9.0	9.2	10.0
8									6.8	9.0	11.2	10.8
9							C	8.4	8.6	9.3	11.8	11.8
10				3.8			G	8.8	11.0	12.0	12.0	11.4
11							C	8.2	10.2	10.8	11.1	12.4
12							G	8.4	10.0	11.8	11.1	11.6
13	2.4						G	6.4	11.4	10.2	12.0	12.4
14								G	9.0	10.8	9.8	11.0
15							G	8.8	10.6	12.4	12.1	13.4
16									7.2	9.8	9.6	11.2
17		3.6	5.6 _{us}	2.7					8.2	9.6	9.8	11.1
18		5.0	4.0 _{us}						7.0	9.4	10.2	11.0
19		4.2	3.2	2.7			G	6.8	10.7	11.6	10.7	11.3
20							G	7.5	9.7	11.4	12.0	11.4
21									6.8 _{us}	9.8 _{us}	9.6	11.8
22			2.1						6.2 _{us}	8.8	9.6	11.4
23	4.9 _{us}	2.7							6.0 _{us}	C	11.0	11.2
24							C	8.0 _{us}	8.8 _{us}	10.0 _{us}	11.0	10.4
25			3.4 _{us}						6.2 _{us}	8.8	10.0	10.8
26		2.3	2.1				G	6.8	9.3	12.0	12.0	11.8
27							G	6.8	11.0	11.6	11.0	10.4
28							G	8.8 _{us}	10.0	11.4	12.0	11.0
29							G	8.8	12.0	10.6	12.2	12.5
30			3.0	2.1	4.7 _{us}		G	8.8	6.8	12.1	12.0	12.7
Count	6	7	10	7	2		18	30	29	30	30	30
Median	3.8	4.2	3.3	2.7			C	7.1	9.7	10.9	11.1	11.5
Mean	4.2	4.1	3.5	2.2				7.3	9.6	10.8	11.4	11.6

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic fo f₃₀₀₀M
 Unit Mc
 Month November, 1962

TABLE 71
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
12 2	11 6	10 2	8 2	7 6	8 0	2 2				2 4	3 4	1
12 0	12 0	10 4	10 0	7 0					2 8	6 4	5 6	2
12 0	11 6	11 0	10 2	5 4						5 6us		3
12 0	11 2	9 0	7 0	7 6	8 6				2 8		5 0	4
11 4	8 8	8 6	9 0	6 6						6 0		5
13 8	11 4	10 0	8 8	9 0	7 0us	4 6		2 2	7 0us			6
12 0	11 0	10 0	11 0	8 0					9 2	4 8us		7
12 0	9 4	G	7 0	10 0	7 0 us						5 0us	8
10 6	11 0	9 6	7 4	5 0	5 6				4 4	4 2	4 0	9
12 0	11 6	11 0	10 4	7 4	5 4	2 4						10
12 4	G	9 0	10 0	7 0	7 6					6 5		11
8 4	12 4	5 8	4 0	9 9	6 6				9 2	2 6	5 4	12
11 4	11 6	9 6	8 8	6 2						6 0	3 0	13
11 2	11 0	12 4	8 9	G						4 6	2 8	14
12 4	12 4	G	G	6 2	8 2		2 1	5 8	5 4			15
10 8	10 8	8 7	7 2	6 8								16
10 6	10 6	9 8	8 4	4 8		2 9	4 4	6 5		6 2	3 8	17
10 0	11 0	11 6	8 8	6 2	5 8	4 4	9 3	2 3		6 0		18
11 2	10 8	9 7	9 2	8 0	G				6 6			19
11 8	11 6	10 8	8 8	6 6	G				3 4			20
11 0	10 8	8 2	6 0	G	G							21
9 6	G	5 8	6 0	8 0	8 0	3 8		8 6				22
12 0	11 0	11 0	8 4	7 8	4 2		9 1					23
10 4	8 4	9 2	12 0	G	4 0us							24
11 2	11 0	G	5 6	G	2 8	4 4				2 8		25
11 7	G	10 6	9 6	6 6	G	3 2		3 2				26
10 4	11 6	10 3	8 6	12 7	15 0	3 8						27
10 2	9 2	9 8	8 6	8 2	12 0	8 0				2 8	5 0	28
12 0	12 2	11 0	8 6	6 4	7 8	7 0us				9 2	3 0	29
20 2	13 4	10 6	11 0	8 0	4 8	3 2					2 2	30
30	29	30	90	90	22	12	4	6	9	15	12	Count
11 6	11 0	9 8	8 6	6 7	6 2	9 8		4 5	3 4	5 6	9 9	Median
11 6	11 1	9 8	8 5	7 2	7 1	4 2		4 8	4 3	5 1	4 0	Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds.

Characteristic fo Es

TABLE 71—Contd

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month November, 1962

75°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							G	5 6	10 4	12 0	12 2	12 2
2	5 2us		4 0	3 6			G	8 2	10 4	10 4	12 0	11 4
3	6 0	3 6	5 0us				G	9 8	11 2	12 0	12 0	12 0
4							G	8 4	10 8	10 4	11 8	11 6
5							G	9 4	10 0	11 0	11 8	11 8
6	2 4						6 8	9 0us	11 0	11 4	11 8	12 0
7	4 8	2 0	3 1	2 7	2 5		2 6	G	8 0	11 2	10 0	11 8
8							G	9 0us	12 0	12 0	11 4	11 2
9							G	8 4	10 6	11 4	12 0	11 4
10							5 0us	11 0	12 0	11 1	12 2	12 0
11							8 2	10 0	11 0	12 1	12 4	11 0
12							8 2	8 8	12 4	12 1	11 4	9 8
13							4 1	8 8	10 8	12 4	11 4	12 4
14							G	8 2	11 0	12 4	12 4	12 4
15				1 8			8 2	10 4	10 6	12 4	12 4	11 6
16							5 6	6 6	9 2	10 4	11 6	11 8
17	2 2	3 8us	5 2us			5 2	4 7	8 8	9 6	10 8	12 0	11 6
18	4 7	5 5					G	7 8	9 0	11 3	10 7	11 0
19		2 5	3 2				3 8	8 8	9 5	11 0	11 0	11 0
20							5 8	9 7	11 0	11 6	12 0	11 6
21							4 0us	8 2	9 8us	10 4	11 8	10 8
22							4 8us	8 0	11 4	12 0	11 4	9 4
23	3 0	3 2					5 0us	C	C	11 0	11 0	11 6
24							6 0us	8 2us	10 2us	11 0	10 8	9 2
25							6 0us	8 2	9 3	11 0	10 6	11 6
26		2 5	2 1				7 8us	9 0	10 0	11 6	11 6	12 1
27							S	9 8s	10 0	11 6	10 6	11 2
28							4 8	10 2	12 0	10 8	C	9 6
29						9 2	S	9 7	11 0	12 0	12 2	11 6
30		2 6	2 3	S			S	9 7	11 0	11 1	12 0	10 4
Count	7	8	7	3	1	2	27	29	29	30	29	30
Median	4 7	2 9	3 2				4 7	8 8	10 6	11 2	11 8	11 5
Mean	1 0	3 2	3 6				5 6	8 8	10 5	11 4	11 6	11 3

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fo Es

TABLE 71—Contd

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month November, 1962

75°E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
11 0	11 0	9 4	G	7 4	6 0					3 4	5 4	1
12 0	11 8	10 3	8 4	7 6	5 6			3 4	2 2	9 0		2
11 6	11 8	10 8	5 4	7 4			1 4		5 6	4 0		3
11 8	12 2	7 0	G	8 4				2 6	4 2	5 0		4
10 4	12 2	11 4	6 6	7 0						4 8	2 6	5
11 4	11 0	9 5	7 0	8 6	6 0us			4 0	3 8		3 2	6
10 4	11 6	10 0	8 8	8 2					7 0us			7
10 2	7 8	G	10 0	9 4						5 0	6 0us	8
12 0	10 0	9 0	3 7	6 4	4 0			2 0	6 7	7 4us		9
12 4	11 0	9 4	8 0	6 6	4 8	2 2			2 0			10
9 6	7 6	9 0	9 0	5 0						8 2		11
12 4	7 8	4 0	G	6 8				4 6	2 7	4 1	4 0	12
11 4	10 8	10 0	8 2	G	3 2					5 8		13
12 4	10 4	9 0	G	G					3 4			14
12 4	11 4	12 0	G	7 8	6 4		5 6					15
11 0	9 6	8 4	5 5	6 4		4 0	6 8	4 3		2 3		16
11 6	10 6	10 3	6 2	G						6 8		17
9 7	10 6	9 6	7 0	6 8	4 4	3 7	3 6	3 6	4 6			18
10 0	10 4	9 8	8 7	6 7				4 4	6 6			19
11 0	10 8	9 2	7 6	5 6		5 6						20
11 0	9 0	6 8	G	5 0								21
G	G	5 8	G	8 4	4 6	3 8						22
11 6	11 4	9 0	7 0	6 0us		4 4	4 8					23
9 4	8 1	14 6	G	3 6	4 0us							24
11 0	8 6	6 0	G	G					4 0			25
G	10 0	10 3	G	6 0	8 3us			3 0				26
10 8	9 8	10 2	7 4	11 4	5 0us	3 8						27
8 0	9 8	8 0	8 0	6 5	7 2us	4 4	7 2	3 6				28
11 5	11 2	9 6	8 3	6 6	S				4 4	4 2		29
13 2	10 2	11 0	8 0	4 0	S							30
29	30	30	29	30	13	8	6	10	13	13	5	Count
11 0	10 5	9 4	7 0	6 6	3 0	3 9	5 2	3 0	4 2	5 0	4 0	Median
11 1	10 3	9 3	7 4	6 7	5 3	4 0	4 9	3 6	4 4	5 4	4 2	Mean

Sweep 1 0 Mc to 25 0 Mc, in 27 seconds.

Characteristic f_oF₂

TABLE 72

Latitude 10 2 N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month November, 1962

75°E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
36	35	33	30	28	31	20				17	19	1
36	35	33	30	26					19	21	24	2
36	25	33	30	27						21		3
36	35	33	30	28	25				16		21	4
36	38	40	33	27						24		5
36	35	33	30	28	25	20		14	25			6
37	36	34	36	32	23							7
38	34	G	32	50	36						20	8
36	34	34	30	36	24				16	19		9
35	36	33	30	28	20							10
37	G	43	42	31	30					21		11
36	46	33	34	26	19				16	17	17	12
36	36	33	32	27						23	22	13
36	35	33	42	G						16	14	14
36	36	G	G	30	30		17	22	23			15
36	35	32	30	26								16
35	34	32	30	26		15		16		19		17
35	34	32	30	26	22	20	20	18		14		18
36	34	34	30	27	G				22			19
37	34	32	30	25	G							20
34	34	33	30	G	G							21
34	G	32	29	26	24	25		34				22
35	34	31	30	25	19		24					23
36	35	36	38	G	22							24
34	33	G	30	G	30	17						25
34	C	32	30	26		16		19				26
35	34	33	29	45	40	30						27
35	35	32	29	25	32	24					23	28
35	34	32	29	26	25	20				22	19	29
41	35	32	29	25	23	19						30
30	29	30	30	30	22	11	9	6	7	12	9	Count
36	35	33	30	26	24	20		18	19	20	20	Median
36	35	33	32	29	26	20		20	20	20	20	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic f_oF₂

TABLE 72—Contd

Latitude 10° 2' N

Unit Mc

Ionospheric Data

Longitude 77° 5' E

Month November, 1962

75°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							G	2.8	3.1	3.5	3.5	3.6
2	1.7		1.4	1.5			G	2.9	3.2	3.4	3.6	3.6
3	2.0	1.6	1.7				G	2.7	3.0	3.3	3.5	3.6
4							G	2.7	3.0	3.3	3.5	3.6
5							G	2.7	3.1	3.5	3.5	3.6
6	1.6						2.2	2.8	3.2	3.4	3.5	3.6
7	2.1	1.7	1.7				2.1	G	3.1	3.4	3.6	3.6
8							G	2.8	3.1	3.4	3.4	3.6
9							G	2.8	3.3	3.3	3.5	3.6
10							2.2	2.7	3.2	3.3	3.6	3.6
11							2.3	2.7	3.1	3.4	3.6	3.7
12							2.2	2.9	3.1	3.5	2.6	3.6
13							2.3	2.8	3.1	3.4	3.6	3.6
14							G	2.8	3.1	3.3	3.6	3.6
15				1.1			2.3	2.8	3.1	3.7	3.6	3.7
16							2.2	2.6	3.0	3.4	3.6	3.6
17	1.5	1.9	2.1					2.7	3.1	3.4	3.6	3.6
18		1.5					G	2.7	3.1	3.5	3.6	3.6
19		1.5	1.2					2.8	3.1	3.3	3.5	3.6
20							2.1	2.7	3.0	3.3	3.5	3.6
21							2.2	2.6	3.0	3.2	3.4	3.4
22							2.0	2.6	3.1	3.2	3.4	3.4
23	2.0	1.5					2.0	G	C	3.2	3.3	3.4
24							2.0	2.5	3.0	3.2	3.4	3.4
25							2.0	2.6	3.0	3.2	3.4	3.4
26		1.3					2.0	2.6	3.0	3.3	3.4	3.5
27							2.1	2.6	3.0	3.3	3.4	3.5
28							2.0	2.7	3.0	3.2	C	3.5
29							2.0	2.8	3.0	3.1	3.3	3.4
30		1.6	1.5	1.5			1.9	2.6	3.0	3.2	3.4	3.5
Count	6	8	6	3			28	29	29	30	29	30
Median	1.8	1.6	1.6				2.0	2.7	3.1	3.4	3.5	3.6
Mean	1.8	1.6	1.6				2.1	2.7	3.1	3.4	3.5	3.6

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic f_b E_s TABLE 72—Cont'd Latitude 10° 2' N
 Unit Mc Ionospheric Data Longitude 77° 5' E
 Month November, 1962 75°E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
3.6	3.5	3.2	G	3.0	2.5					1.8	2.1	1
3.6	3.4	3.1	2.9	2.3	1.8			1.6	2.0	2.4		2
3.6	3.4	3.3	2.9	2.4					2.1	1.8		3
3.5	3.4	3.1	G	2.9				2.1	2.1			4
3.6	4.6	3.3		2.6						1.9		5
3.6	3.1	3.3	2.8	3.0	1.9			1.7	2.2		1.3	6
3.6	3.4	3.2	3.2	2.3					2.1			7
3.4	3.4	G	4.0	3.6						1.9	1.8	8
3.4	3.6	3.3	3.0	3.0	1.9				2.1	1.8		9
3.5	3.4	3.2	3.0	2.6					1.5			10
3.5	3.6	1.0	3.8	2.9						2.2		11
4.6	3.4	3.5	G	2.3				2.3	1.6	1.9	2.0	12
3.6	3.5	3.2	3.0	G	1.7					2.3		13
3.6	3.4	3.2	G	G					1.4			14
3.6	3.1	3.2	G	3.0	1.9		1.9					15
3.5	3.4	3.1	2.8	2.3						1.7		16
3.5	3.4	3.1	2.8	G			1.7	1.4				17
3.6	3.3	3.2	2.9	2.9	1.8	2.3	2.1	2.0	1.8			18
3.5	3.4	3.2	3.0	2.5				1.6	1.9			19
3.5	3.4	3.1	2.8	2.1		2.0						20
3.4	3.1	3.0	G	2.4								21
G	G	3.0	G	3.2	2.1	2.6						22
3.1	3.3	3.0	2.7	2.2		2.0	2.3					23
3.6	3.3	1.6	G	2.4								24
3.3	3.5	3.2	G	G					2.2			25
G	3.2	3.1	C	G	2.1							26
3.4	3.3	3.1	2.8	3.1	3.4	2.1						27
3.5	3.2	3.1	2.7	2.5	2.7	2.2	2.6					28
3.5	3.3	3.0	2.8	2.6	2.5				2.1	2.1		29
3.8	3.2	3.1	2.9	2.3	1.8							30
29	30	30	28	30	13	6	5	7	13	11	4	Count
3.5	3.4	3.2	2.8	2.4	1.9	2.2	2.1	1.7	2.1	1.9		Median
3.6	3.4	3.2	3.0	2.7	2.2	2.2	2.1	1.8	1.9	2.0		Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic f min

TABLE 73

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month November, 1962

75°E Mean Time

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

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic f min

TABLE 73

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month November, 1962.

75°E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
2.4	2.4	2.3	2.0	1.8	1.4	1.2	1.6	1.7	1.6	1.2	1.5	1
2.5	2.2	2.1	1.9	2.1	2.0	1.8	1.4	1.5	1.2	1.9	1.2	2
2.4	2.3	2.2	2.0	2.0	2.1	1.7	1.4	1.5	1.4	1.4	1.7	3
2.4	2.4	2.2	2.1	2.1	2.0	1.7	1.5	1.4	1.5	1.7	1.3	4
2.4	2.4	2.0	2.2	2.7	2.2	1.8	1.4	1.6	1.6	1.4	1.5	5
2.2	2.2	2.2	1.9	1.7	1.5	1.2	1.4	1.3	1.5	2.1	1.5	6
2.2	2.5	2.3	2.2	2.2	2.0	1.5	1.6	1.5	1.6	1.3	1.3	7
2.2	2.3	2.2	1.9	2.0	1.7	1.5	1.3	1.2	1.3	1.4	1.4	8
2.4	2.3	2.2	2.0	2.2	2.0	1.8	1.5	1.5	1.5	1.3	1.6	9
2.4	2.4	2.3	2.0	2.2	1.6	1.4	1.3	1.4	1.6	1.4	1.5	10
2.4	2.4	1.6	1.7	1.7	2.0	1.5	1.4	1.5	1.5	1.7	1.8	11
2.2	2.3	2.4	2.4	2.2	1.6	1.3	1.3	1.6	1.0	1.3	1.0	12
2.6	2.4	2.3	2.1	2.0	2.0	1.3	1.4	1.3	1.6	1.4	1.6	13
2.4	2.4	2.4	2.2	2.5	2.1	1.6	2.0	1.4	1.3	1.1	1.1	14
2.4	2.4	2.4	2.4	2.0	1.7	1.7	1.2	2.0	2.0	1.7	1.7	15
2.3	2.2	2.2	1.8	1.8	2.0	1.9	1.6	1.5	1.3	1.6	1.5	16
2.4	2.2	2.1	1.8	2.0	1.8	1.4	1.6	1.4	1.6	1.5	1.8	17
2.1	2.2	2.0	1.8	1.7	1.1	1.3	1.4	1.3	1.6	1.0	1.3	18
2.3	2.3	2.0	1.9	1.7	1.7	1.3	1.5	1.5	1.4	1.3	1.3	19
2.2	2.2	1.9	1.7	1.6	1.5	1.5	1.6	1.5	1.3	1.4	1.1	20
2.2	2.2	2.0	1.8	1.8	1.5	1.8	1.8	1.5	1.9	1.7	1.3	21
2.3	2.5	2.2	2.0	2.0	1.8	1.5	2.2	1.8	2.1	1.6	1.3	22
2.0	2.2	1.9	1.6	1.7	1.8	1.6	1.4	2.1	1.7	1.5	1.4	23
2.1	2.1	2.0	1.8	2.1	1.7	1.8	2.1	1.5	1.9	1.6	1.2	24
2.0	2.0	2.0	1.8	1.7	1.7	1.5	1.8	1.8	1.8	1.8	2.0	25
2.2	C	1.8	1.5	1.5	1.5	1.3	1.5	1.4	1.9	2.1	1.7	26
2.1	1.9	1.7	1.7	1.6	1.4	1.8	1.8	2.2	1.5	1.5	1.2	27
2.2	2.1	2.2	1.8	1.5	1.3	1.1	2.1	2.2	2.2	2.2	1.4	28
2.0	2.1	1.9	1.7	1.8	1.6	1.2	2.0	1.6	1.6	2.0	1.9	29
2.2	2.1	1.9	1.6	1.6	1.3	1.3	1.6	1.6	1.5	1.3	1.4	30
30	29	30	30	30	30	30	30	30	30	30	30	Count
2.2	2.3	2.2	1.9	1.9	1.7	1.5	1.5	1.5	1.6	1.5	1.4	Median
2.3	2.3	2.1	1.9	1.9	1.7	1.5	1.6	1.6	1.6	1.5	1.4	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic f_{min}

TABLE 73—Contd

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month November, 1962.

75°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	12	11	E	11	10	11	14	15	19	22	21	24
2	17	10	E	13	16	14	15	15	18	19	21	24
3	16	14	E	22	12	12	17	18	20	22	23	24
4	13	13	12	12	E	13	16	16	20	22	21	23
5	16	16	E	E	E	12	15	16	19	21	23	23
6	E	E	E	E	E	12	15	17	18	21	23	23
7	11	14	15	E	E	E	14	16	21	22	22	24
8	13	13	E	E	E	13	14	16	18	22	22	23
9	E	E	12	E	10	10	14	15	17	22	22	22
10	14	10	E	E	E	11	12 _{US}	14	17	20	22	23
11	12	15	E	E	10	10	13	14	20	22	24	24
12	12	10	E	E	10	11	14	16	18	22	22	22
13	14	11	12	10	E	11	13	14	17	20	24	21
14	15	10	E	11	11	11	16	18	18	22	22	24
15	12	12	E	E	12	13	15	17	20	22	23	24
16	10	16	11	E	E	12	14	15	18	22	23	25
17	11	E	E	13	17	12	14	15	18	24	23	22
18	13	E	13	12	11	15	15	17	18	21	21	22
19	E	10	12	10	10	10	14	15	19	22	24	23
20	11	E	E	E	E	10	13	14	18	21	22	23
21	13	11	E	10	E	E	13	14	17	19	20	21
22	11	12	E	10	11	10	12	15	16	19	20	25
23	11	E	10	10	E	11	13	C	C	18	22	20
24	11	15	E	E	E	E	12	13	17	17	19	21
25	E	12	13	10	E	11	12	14	15	18	20	20
26	14	12	E	E	11	11	11	15	16	21	21	21
27	15	14	E	E	E	13	12	14	15	17	19	20
28	14	E	E	E	E	11	13	14	16	18	C	21
29	13	12	E	11	E	E	11	13	15	19	20	29
30	17	11	1	E	E	11	12	13	20	20	20	20
Count	30	30	30	30	30	30	30	29	29	30	29	30
Median	12	11	E	E	E	11	14	15	18	21	22	23
Mean	13	12	12	12	12	12	14	15	18	21	22	22

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic f min

TABLE 73—Contd

Latitude 10 2° N

Unit: Mc

Ionospheric Data

Longitude 77 5° E

Month November, 1962.

75°E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
2.3	2.4	2.0	2.3	1.7	1.2	2.0	1.6	1.5	1.6	1.5	1.7	1
2.4	2.2	2.1	1.2	2.0	1.3	1.6	1.4	1.2	1.3	1.2	1.8	2
2.4	2.1	2.2	2.2	2.2	1.9	1.5	1.1	1.7	1.2	1.5	1.7	3
2.4	2.4	2.2	2.3	2.2	1.9	1.8	1.6	1.3	1.0	1.6	1.7	4
2.5	2.3	1.8	1.0	2.8	1.7	1.8	1.5	1.7	1.5	1.6	1.2	5
2.4	2.3	2.0	2.0	1.6	1.3	1.5	1.7	1.5	1.8	1.7	1.2	6
2.2	2.4	2.2	2.2	1.9	1.6	1.3 ^{US}	1.5	1.7	2.0	2.2	1.5	7
2.3	2.3	2.4	1.9	1.8	1.5	1.3	1.5	1.4	1.5	1.3	1.3	8
2.3	2.2	2.2	2.2	2.3	1.7	1.5	1.3	1.1	1.5	1.7	1.5	9
2.3	2.3	2.2	2.2	2.0	1.4	1.5	1.4	1.3	1.1	1.1	1.1	10
2.4	1.9	1.7	1.7	2.1	1.6	1.5	1.6	2.0	1.8	2.0	1.4	11
2.3	2.2	2.4	2.6	2.0	1.6	1.2	1.4	1.0	1.5	1.4	E	12
2.5	2.4	2.1	2.2	1.6	1.5	1.1	1.1	1.4	1.6	1.6	1.8	13
2.4	2.4	2.4	2.4	2.1	1.7	1.8	1.5	1.5	1.3	1.3	1.7	14
2.6	2.1	2.4	2.6	1.7	1.3	1.4	1.4	1.8	1.8	1.6	1.3	15
2.4	2.3	1.9	2.1	1.7	1.8	2.0	1.4	1.6	1.7	1.6	1.6	16
2.3	2.2	1.8	2.0	1.7	1.6	1.4	1.5	1.4	1.7	1.7	1.3	17
2.3	2.1	1.9	1.8	1.4	E	1.4	1.1	1.6	1.2	1.2	E	18
2.2	2.3	1.9	2.2	1.7	1.3	1.4	1.6	1.3	1.3	1.4	1.1	19
2.2	2.1	1.8	1.9	1.7	1.9	1.6	1.5	1.5	1.3	1.2	1.1	20
2.2	1.9	2.0	2.0	1.9	1.1	1.7	1.5	1.8	1.9	1.3	1.4	21
2.4	2.2	2.0	2.0	1.8	1.6	1.6	1.8	2.2	1.5	1.3	1.3	22
2.2	1.9	1.9	1.7	1.6	1.6	1.5	1.3	2.0	1.6	1.4	1.4	23
2.2	2.0	1.9	2.2	1.7	1.5	1.8	2.0	1.7	1.7	1.4	1.3	24
2.0	2.0	2.1	1.9	1.8	1.7	1.6	1.8	1.7	1.6	1.8	1.8	25
C	1.8	1.6	C	1.6	1.3	1.5	1.6	1.4	2.2	1.6	1.5	26
1.9	1.9	1.8	1.7	1.4	1.2	2.0	1.6	1.4	1.4	1.5	1.6	27
2.0	2.1	1.9	1.8	1.4	1.1	1.6	1.5	2.1	2.1	2.1	1.6	28
2.0	1.9	1.8	1.6	1.4	1.2	1.8	1.5	2.0	1.9	2.0	1.5	29
2.2	2.1	1.7	1.9	1.6	1.3	2.0	1.6	1.7	1.4	E	E	30
2.9	3.0	3.0	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	Count
2.3	2.2	2.0	2.0	1.7	1.5	1.6	1.5	1.6	1.6	1.5	1.4	Median
2.3	2.2	2.0	2.1	1.8	1.5	1.6	1.5	1.6	1.6	1.5	1.5	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic $h'F_2$

TABLE 74

Latitude 10 2° N

Unit Km

Ionospheric Data

Longitude 77 5° E

Month November 1962

75°E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								L	L	L	L	L
2								L	L	300	300	I
3								L	L	L	300	L
4								L	L	L	300	L
5								L	L	I.	320	320
6								L	I.	300 ^{ul}	L	320
7								L	L	L	L	320 ^{ul}
8								L	L	L	L	I
9								L	L	L	L	L
10								L	I.	L	L	310
11							L	L	L	I.	L	310
12							I	L	L	295	320	325
13							I.	L	L	320	320	340
14							I	L	L	320	340	360
15							L	L	L	L	350	360
16								L	L	L	L	320
17								L	L	305	L	320
18								L	L	L	L	340
19								L	I	305	L	L
20								L	L	L	340	355
21							L	L	L	I	355	365
22							I	L	L	I.	L	A
23							L	L	C	I	320	305 ^L
24							L	L	I	L	330	320
25							L	L	L	I	L	315
26								L	L	L	L	L
27								L	L	330	L	360
28								L	L	330	340	340
29								L	L	L	L	L
30								L	L	330	340	365
Count									--	10	14	20
Median									--	310	325	320
Mean										315	325	335

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds.

Characteristic h'F₂

TABLE 74

Latitude 10 2° N

Unit Km

Ionospheric Data

Longitude 77 5° E

Month November, 1962

75 h Mean Time

'12	13	14	15	16	17	18	19	20	21	22	23	Date
300	L	I	L	L								1
L	320	L	L	L								2
910	L	L	L	L								3
L	I	300	L	L								4
320	I	L	300	L								5
I	I	L	L	L								6
L	L	L	I	L								7
910	I	L	L	L								8
I	I	I	L	L								9
I	L	L	L	L								10
320	300	A	A	L	L							11
990	A	310	290	L	L							12
320	320	300	L	L	L							13
350	355	L	A	L	L							14
350	310	315	L	L	L							15
I	I	L	L	L								16
L	L	L	L	L								17
L	I	L	L	L								18
925	305	L	I	L								19
325	L	I	L	L								20
L	L	L	L	L	L							21
905	295r	L	L	L								22
L	320	I	L	I	L							23
905	I	I	A	L	L							24
L	I	L	L	L	L							25
360	C	L	L	L	L							26
325	L	910	L	A	L							27
310	910	990	910	L	L							28
355	360	I	L	L	L							29
360	930	L	L	L	L							30
<hr/>												
18	11	6	3									Count
<hr/>												
325	320	310										Median
<hr/>												
330	325	910										Mean

Sweep 1 0 Mc. to 25 0 Mc. in 27 seconds.

Characteristic $h'F_2$

TABLE 74—Contd.

Latitude 10° 2' N

Unit Km

Ionospheric Data

Longitude 77° 5' E

Month November, 1962

75°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							L	L	L	I	LH	L
2							L	L	I	L	L	320
3								L	L	I	300	325
4								L	300	L	300	L
5								L	L	L	320	I
6								L	L	I	L	330tr
7								I	L	L	L	I
8							L	L	L	L	I	I
9							L	I	L	L	290tr	L
10							L	L	L	L	L	L
11							L	I	I	L	310	310
12							L	L	L	315	320	320
13							L	L	L	320	330	330
14							L	L	L	330	360	360
15							L	L	L	340	L	360
16								L	L	L	320	L
17							L	L	290	310	305	315
18							I	I	L	L	L	L
19							L	L	L	305	L	320
20								L	L	310	310	L
21							L	I	L	I	350r	375
22							L	L	L	L	320	300
23							L	C	C	L	335r	320r
24							L	L	L	L	L	320
25							I	I	L	L	320	L
26							I	L	I	L	I	I
27							L	I	L	I	I	310
28							L	L	I	310	C	L
29							L	L	L	310	L	L
30								L	310	320	360	315
Count									3	11	16	16
Median										320	320	320
Mean										325	325	330

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic $h'F_2$ TABLE 74—*Contd.* Latitude 10 2' N
 Unit Km Ionospheric Data Longitude 77 5' E
 Month November, 1962 75°E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
L	I	I	I	I								1
L	300	I	I	L								2
315	I	L	L	L								3
L	L	L	I	L								4
L	L	L	L	L								5
320 _{ur}	L	L	L	L								6
L	L	I	I	L								7
L	L	L	L	L								8
L	L	L	I	L								9
L	L	L	L	L								10
320	300	A	A	L	L							11
A	300	295	L	L	L							12
320	310	L	L	L	L							13
330	320	L	L	L	L							14
310	310	310	L	L								15
L	L	L	L	L								16
L	L	L	L	L								17
L	L	I	L	L								18
320	L	L	L	L								19
330	315	I	L	L								20
340	L	L	L	L	L							21
310	310 _L	L	L	A								22
325 _r	305	L	I	L	L							23
L	320	A	L	L	L							24
L	L	L	L	L	L							25
G	I	L	G	L								26
L	355	310	300	L								27
345	L	310	L	L								28
L	340	L	L	L								29
330	L	L	L	L								30
13	12	4	1	.								Count
325	315											Median
325	320											Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h'f
Unit Km
Month November, 1962

TABLE 75
Ionospheric Data
75° Mean Time

Latitude 10 2° N
Longitude 77 5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	225	240	235	220	235	240	235	220	215	200	205	200
2	240	240	220	235	220	220	240	235	220	215	200	200
3	225	245	240	220	220	235	240	230	220	200	200	200
4	240	230	220	210	220	235	245	230	220	200	200	200
5	230	230	220	210	255	240	250 _{tr}	220	215	200	195	180
6	260	245	220	220	230	245	250	230	200	210	200	200
7	260	260	250	240	260	280	255	235	220	205	200	200
8	220	220	220	220	230	260	240	225	200	180 _{tr}	180 _{tr}	185
9	240	240	220	225	220	220	240	225	200	200	200	180 _{tr}
10	220	220	200	200	220	240	240	220	200	180 _{tr}	180 _{tr}	180 _{tr}
11	225	220	220	210	220	230	210	200	180	180	180	180
12	220	240	220	240	220	240	240	230	210	195	200	195
13	250	240	210	240	240	265	255	230	210	200	180	190
14	210	240	230	220	225	235	210	235	215	200	215	205
15	280	260	260	280	260	245	255	210	200	180	200	210
16	265	300	220	270	260	265	270	245	210 _{tr}	200 _{tr}	200 _{tr}	200
17	260	270	280	245	225	225	260	225	205	200 _{tr}	215 _{tr}	200
18	280	280	250	235	225	230	250	225	205	200	180 _{tr}	185 _{tr}
19	230	220	220	230	240	270	250	230	210	200	195	200
20	235	230	230	230	240	240	255	225	205	205	200	195
21	220	220	220	225	230	250	260	200 _{tr}	200	195	190	185 _{tr}
22	250	280	280	225	220	220	260	230	200	210	200	A
23	240	240	220	220	220	220	260	220	C	200	190 _{tr}	210
24	220	220	230	230	240	250	260	240	200	205	200	200
25	250	270	270	210	215	235	260	230	220	200	195	200
26	250	240	210	210	230	235	260	240	220	200	200	200
27	245	240	230	230	260	E	260	240	205	200 _{tr}	190	180 _{tr}
28	230	225	220	240	240	280	265	240	225	210	200	200
29	230	240	220	230	240	260	270	240	225	200	200	190 _{tr}
30	240	240	255	F	280	230	260	200 _{tr}	200	190 _{tr}	200 _{tr}	220
Count	30	30	30	29	30	30	30	30	29	30	30	29
Median	240	240	225	230	230	240	235	230	210	200	200	200
Mean	240	245	235	230	235	245	250	225	210	200	195	195

Sweep 1.0 Mc. to 25.0 Mc in 27 seconds.

Characteristic h'F
 Unit Km
 Month November, 1962.

TABLE 75
 Ionospheric Data
 7⁵⁰ Mean Time

Latitude 10 2° N
 Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
200	200	200	215	235	260	280	315	320	300r	240rr	F	1
200	200	200	200	230	260	300	F	F	F	260	240	2
200	200	200rr	215	235	260	295	300h	F	260r	260	255	3
200	195	200	205	230	260	275	290	260	245	220	235	4
200	200	A	200	220	255	280	300	300	240	250	240	5
200	200	200	210	220	260	300	325	320	300	260	240	6
200	210	220	210uA	220	250	300	300rr	310	260	240	220	7
180rr	180rr	205	220	A	260	280	300	280	260	255	255	8
195	180rr	200	200	240	260	265	280	280	240	230	220	9
180rr	205	200	200	220	245	265	300	280	270	240	235	10
200	200	A	A	235	260	275	315	305	273	250	240	11
215	A	210	220	230	260	270	270	265	240	240	240	12
185	210	210	220	220	250	280	290	270	250	240	230	13
200	200	200	A	225	250	270	295	275	210	240	240	14
200	210	215	225	240	280	310	310	245	220	240	260	15
200rr	200	215	225	230	260	275	265	215	225	210	255	16
190rr	180rr	180rr	210	235	255	260	265	280	255	245	260	17
180rr	195	195	205	215	260	265	270	240	230	235	235	18
185	180rr	195	200	210	250	260	260	245	240	220	230	19
200	200	200	210	210rr	255	260	235	240	230	220	225	20
195	190	200	200	220	265	300	300	270	230	235	250	21
200	200	200rr	210	230	260	270	300	A	240	235	235	22
205	210	200	205	220	260	260	270	240	230	240	220	23
210	205	210	A	210	250	280	300	275	215	220	235	24
180rr	200	210	220	220	245	265	265	255	215	240	240	25
190rr	C	210	215	225	250	280	265	260	240	240	240	26
205rr	210	210	220	A	A	270	270	280	215	220	240	27
205	215	220	215	250	A	270uA	260	260	240	250	280	28
215	200L	205	210	220	260	260	260	240	230	235	240	29
A	220	200	200	230	260	250	260	240	225	245	245	30
29	28	27	27	28	28	30	29	27	29	30	29	Count
200	200	200	210	225	260	270	290	270	240	240	240	Median
195	200	205	210	225	255	275	285	270	245	240	240	Mean

Sweep 1 0 Mc. to 25 0 Mc. in 27 seconds.

Characteristic h'F TABLE 75—*Contd* Latitude 10 2° N
 Unit Km Ionospheric Data Longitude 77 5° E
 Month November, 1962 75°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	230	240	220	220	240	260	225	215	200	200	200	200
2	240	210	230	230	220	210	240	225	220	210	200	200
3	240	235	240	220	220	215	235	220	200 _{rr}	200	200	200
4	230	240	225	220	235	260	210	225	215	205	200	200
5	230	220	230	215	250	260	210	200	200	200	190	195
6	260	225	220	220	210	275	210	220	200	200	200	200
7	260	250	240	250	265	300	210	225	210	200	190	210
8	220	225	230	235	235	260	235	210	180 _{rr}	180 _{rr}	185	200
9	240	230	230	220	220	240	230	220	215	195	195	195
10	220	220	200	220	230	260	230	210	195	180 _{rr}	180 _{rr}	185
11	220	220	220	220	220	240	230	195	180	180	180	205
12	235	225	225	240	220	260	210	220	200	205	200	190
13	240	235	240	230	240	280	210	200	205	200	190	190
14	240	240	225	230	235	250	240	225	200	190	200	200
15	275	240	280	270	250	260	240	200	200	220	180	190
16	260	270	260	260	275	280	255	200 _{rr}	215	200 _{rr}	200	195 _{rr}
17	260	280	270	235	225	240	240	220	200 _{rr}	195 _{rr}	210	200 _{rr}
18	270	270	240	230	220	270	210	205	200	190	180 _{rr}	185 _{rr}
19	230	225	230	230	240	265	235	220	210	200	200	195 _{rr}
20	240	230	235	230	250	250	240	200	205	200	200	200
21	220	220	220	225	240	265	210	200 _{rr}	200	195	180 _{rr}	200
22	280	280	260	220	220	260	250	220	220	200	200 _{rr}	205
23	250	210	220	220	230	270	250	C	C	195	200	200
24	220	230	240	240	240	250	255	220	200	205	200	200
25	265	280	260	210	220	280	340	225	210	200	185	180
26	245	240	240	240	230	250	250	225	220	205	200	195 _{rr}
27	240	240	230	210	270	300	240	220 _{rr}	200 _{rr}	200	200	190 _{rr}
28	230	235	220	240	210	290	215	230	200 _{rr}	200 _{rr}	C	200
29	240	235	210	220	230	300	250	240	210	200	195 _{rr}	215
30	235	210	275	300	210	260	240	220	200 _{rr}	195 _{rr}	215	220
Count	30	30	30	30	30	30	30	29	29	30	29	30
Median	240	240	230	230	235	260	240	220	200	200	200	200
Mean	240	240	235	235	235	265	240	215	205	200	195	200

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'F TABLE 75—*Contd* Latitude 10 2 N
 Unit Km Ionospheric Data Longitude 77 5° E
 Month November, 1962 75°E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
195	210	225	220	250	260	300	320	f _o F ₂	f _o F ₂	235 _U	240 _F	1
200	200	200	220	240	265	320	F ₂	f _o F ₂	f _o F ₂	250	225	2
190	200	200	220	215	265	305 _U	300 _U	280 _U	250	250	210	3
195	195	215	220	245	260	280	280	260	210	220	230	4
180 _H	\	200	220	240	270	295	300	270	210	240	215	5
195	200	200 _H	220	245	265	320	320	305	275	240	250	6
200	200	210	230	220 _H	270	300	300 _{UF}	280	260	240	220	7
175 _U	200	210	A	260	260	300	300	265	260	260	240	8
180 _U	200	210	205	A	260	260	300	265	240	230	220	9
180	200	205	205	230	250	300	300	280	240	220	225	10
200	200	A	\	210	260	300	320	300	250	245	230	11
A	215	220	225	250	270	270	270	260	240	240	240	12
215	210	205	220	235	260	290	280	260	240	235	240	13
205	200	200	220	240	260	280	295	255	240	240	260	14
180	210	200	240	260	280	335	310	220	220	240	260	15
200	200	225	230	245	265	280	255	215	230	235	255	16
195 _U	195 _U	210	215	230	255	260	275	270	240	245	265	17
190	195	185	195 _U	240 _U	260	275	265	195	210	230	230	18
185	195	195	200	250	255	265	250	210	235	220	230	19
200	200	190	210	245	260	250	235	215	220	225	220	20
185 _U	185 _U	200	215	235	275	305	280	260	230	240	250	21
200	200	210	220	260	265	280	280	255	220	230	230	22
195	200	195	215	240	260	260	260	230	240	230	220	23
205	210	A	210	210	260	300	300	240	210	230	240	24
180 _H	210	215	210	240	240	280	260	240	230	240	255	25
C ₁	200 _U	220	C ₁	250	260	270	260	240	210	240	240	26
200	200 _U	200 _U	215	A	260	270	280	270	225	240	240	27
220	220	220	220	250	265 _U A	270	270	245	260	260	260	28
210	205 _U	200	215	240	260	260	250	230	230	230	240	29
220	210	205	220	260	250	260	250	220	250	245	250	30
28	29	28	27	28	30	30	29	28	28	30	30	Count
195	200	205	220	210	260	280	280	260	210	240	240	Median
195	200	205	215	245	260	285	280	255	240	240	240	Mean

Sweep 1.07 Mc to 25.0 Mc in 27 seconds

Characteristic h'E
Unit Km
Month November, 1962

TABLE 7b
Ionospheric Data
75°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							120	115	A	A	A	A
2								105	A	A	A	A
3								110	100	A	A	A
4								105	A	A	A	A
5							120	A	A	A	A	A
6							130	115	120	A	A	A
7							120	120	110	110	105	A
8								110	A	A	A	A
9							120	105	A	A	A	A
10							120	110	A	A	A	A
11							130	A	A	A	A	A
12							150	A	A	A	A	A
13							135	A	A	A	A	A
14								120	A	A	A	A
15							140	A	A	A	A	A
16								110	110	B	A	A
17								115	110	110	A	A
18								115	105	A	A	A
19							150	105	A	A	A	A
20							160	110	105	A	A	A
21								A	A	A	A	A
22								A	A	A	A	A
23								A	C	A	A	A
24							120	A	A	A	A	A
25								A	A	A	A	A
26							130	A	A	A	A	A
27							130	A	A	A	A	A
28							130	A	A	A	A	A
29							135	A	A	A	A	A
30							120	A	A	A	A	A
Count							18	15	7	2		
Median							130	110	110			
Mean							130	110	110			

Sweep 1 0 Mc. to 25 0 Mc in 27 seconds

Characteristic h'E
 Unit Km
 Month November, 1962

TABLE 76
 Ionospheric Data
 75°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	A	A	105	A	A							1
A	A	A	A	A	A							2
A	A	A	105	A	A							3
A	A	A	105	A	A							4
A	A	A	A	120	A							5
A	A	110	115	A	A							6
A	A	A	A	120	A							7
A	A	105	A	A	A							8
A	A	A	105	120	A							9
A	A	A	110	120	120							10
A	110	A	A	A								11
A	A	120	120	A								12
A	A	A	A	120	A							13
A	A	A	120	140								14
A	A	120	120	A								15
A	A	A	110	120								16
105	A	A	A	115								17
A	A	A	105	115								18
A	A	A	A	115	150							19
A	A	A	A	110	135							20
A	C	A	110	115	100							21
A	105	105	A	A								22
A	A	A	A	A	A							23
A	A	A	A	120								24
A	A	105	110	115								25
A	C	A	A	A	120							26
A	A	A	A	A	A							27
A	A	A	A	A	A							28
A	A	A	A	A	A							29
A	A	A	A	A	A							30
1	2	6	13	14	5							Count
		110	110	120	120							Median
		110	110	120	125							Mean

Sweep 1 0 Mc to 25.0 Mc in 27 seconds.

Characteristic h'E
 Unit Km
 Month November, 1962

TABLE 76—contd
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							120	105	\	A	A	A
2							115	A	\	A	A	A
3							115	115	A	A	A	A
4							115	A	A	\	A	A
5							110	A	A	A	A	A
6							120	120	110	A	A	110
7							120	120	110	A	A	A
8							120	A	A	\	A	A
9							120	105	A	A	A	\
10							120	A	A	A	A	A
11							A	\	\	\	A	A
12							120	\	A	\	A	A
13							120	A	A	A	A	A
14							120	A	A	\	A	A
15							A	A	A	A	A	\
16							120	110	A	A	A	A
17							120	A	110	110	A	A
18							120	110	\	A	A	A
19							115	A	A	A	A	A
20							120	110	110	A	A	A
21							A	\	A	A	A	A
22							A	A	A	\	A	A
23							\	C	C	A	A	A
24							A	A	A	A	A	A
25							\	A	\	A	A	A
26							A	A	\	A	A	A
27							A	A	A	A	A	A
28							125	A	A	A	C	A
29							A	A	A	A	A	\
30							110	A	A	A	A	A
Count							20	8	4	1		1
Median							120	110				
Mean							120	110				

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds

Characteristic h'F

TABLE 76—contd

Latitude 10 2° N.

Unit Km

Ionospheric Data

Longitude 77 5° E

Month November, 1962

75°E Meridian

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
A	A	\	115	A								1
A	A	\	A	A								2
A	\	\	105	A								3
A	\	105	120	A								4
A	\	A	115	A								5
A	A	110	115	A								6
A	A	A	A	A								7
A	105	110	A	\								8
A	A	\	120	A								9
A	A	105	115	120								10
A	125	A	\									11
A	A	120	185	A								12
A	A	A	120	120	140							13
A	A	A	120	180								14
A	A	120	120									15
A	A	110	115	120								16
A	A	A	115	125								17
A	A	A	110	A	A							18
A	A	A	115	120								19
A	A	A	110	120								20
A	A	105	115	115								21
110	105	105	115	\								22
A	A	A	A	A								23
A	A	A	115	A								24
A	\	100	115	120								25
C	A	A	C	A								26
A	A	A	A	A								27
A	\	A	\	\								28
A	A	A	\	A								28'
A	A	A	A	A								30
1	9	10	20	9	1							Count
		110	115	120								Median
-		110	115	120								Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds.

Characteristic h'Es
 Unit Km
 Month November, 1962

TABLE 77
 Ionospheric Data
 75°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							G	G	100	100	100	100
2	110		105	105				G	100	100	100	100
3	105	100	100	100				G	G	100	100	100
4								100	100	100	100	100
5							G	100	100	100	100	100
6	100						G	100	100	100	100	100
7	110	100	120	100	105		G	G	100	100	100	100
8								100	100	100	100	100
9							G	100	100	100	100	100
10				110			G	100	100	100	100	100
11							G	100	100	100	100	100
12							G	100	100	100	100	100
13	120						G	100	100	100	100	100
14								G	100	100	100	100
15							G	110	100	100	100	100
16								110	100	100	100	100
17		115	110	115				100	100	100	100	100
18		105	115					100	100	100	100	100
19		110	110	105			G	100	100	100	100	100
20							G	100	100	100	100	100
21								100	100	100	100	100
22			120					100	100	100	100	100
23	105	100						100	C	100	100	100
24							G	100	100	100	100	100
25			110					110	100	100	100	100
26		120	120				G	100	100	100	100	100
27							G	100	100	100	100	100
28							G	100	100	100	100	100
29							G	100	100	100	100	100
30			110	110	100		G	100	100	100	100	100
Count	6	7	10	7	2			25	28	30	30	30
Median	110	105	110	105				100	100	100	100	100
Mean	110	105	110	105				100	100	100	100	100

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic h'Es

TABLE 77

Latitude 10 2° N

Unit Km

Ionospheric Data

Longitude 77 5° E.

Month November, 1962

75°E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
100	100	100	100	100	100	100				110	110	1
100	100	100	100	100					110	105	105	2
100	100	100	100	100						105		3
100	100	100	100	100	100				105		105	4
100	100	100	100	100						105		5
100	100	100	100	100	100	100		140	110			6
100	100	100	100	100					120	130		7
100	100	G	100	100	100						100	8
100	100	100	100	120	100				110	120	110	9
100	100	100	100	100	120	160						10
100	G	100	15	100	100					100		11
100	100	100	130	120	130				120	120	120	12
100	100	100	100	100						110	120	13
100	100	100	100	G						120	110	14
100	100	G	G	100	100		120	120	120			15
100	100	100	100	105								16
100	100	100	100	100		140	125	115		110	125	17
100	100	100	100	100	100	100	100	100		110		18
100	100	100	100	100	G				110			19
100	100	100	100	100	G				120			20
100	100	100	100	G	G							21
100	G	100	100	100	100	100		105				22
100	100	100	100	100	100		100					23
100	100	100	100	G	100							24
100	100	G	100	G	130	120				110		25
100	C	100	100	100	G	140		130				26
100	100	100	100	100	100	100						27
100	100	100	100	100	100	100				115	110	28
100	100	100	100	100	100	100				115	115	29
100	100	100	100	100	100	100					120	30
30	27	27	29	26	18	12	4	6	9	15	12	Count
100	100	100	100	100	100	100		120	110	110	110	Median
100	100	100	100	100	105	115		120	115	110	110	Mean

Sweep 1 0 Mc. to 25 0 Mc. in 27 seconds

Characteristic h'Es
 Unit Km
 Month November, 1962.

TABLE 77—Cont'd
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							G	100	100	100	100	100
2	120		105	105			G	100	100	100	100	100
3	105	105	100				G	G	100	100	100	100
4							G	100	100	100	100	100
5							G	100	100	100	100	100
6												
7	110	105	100	105	100		110	100	100	100	100	100
8							130	G	100	100	100	100
9							G	100	100	100	100	100
10							G	100	100	100	100	100
11							100	100	100	100	100	100
12							115	100	100	100	100	100
13							110	100	100	100	100	100
14							G	100	100	100	100	100
15				120			115	100	100	100	100	100
16							110	100	100	100	100	100
17	115	110	105			120	130	100	100	100	100	100
18	120	120					G	100	100	100	100	100
19		110	105				100	100	100	100	100	100
20							110	100	100	100	100	100
21							100	100	100	100	100	100
22							100	100	100	100	100	100
23	105	100					100	C	C	100	100	100
24							100	100	100	100	100	100
25							100	100	100	100	100	100
26		115	120				100	100	100	100	100	100
27							100	100	100	100	100	100
28							115	100	100	100	C	100
29						145	100	100	100	100	100	100
30		110	110	110			110	100	100	100	100	100
Count	6	8	7	4	1	2	21	27	29	30	29	30
Median	110	110	105				100	100	100	100	100	100
Mean	110	110	105				105	100	100	100	100	100

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'Es

TABLE 77—Cont'd

Latitude 10 2° N

Unit Km.

Ionospheric Data

Longitude 77 5° E

Month November, 1962.

75°E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
100	100	100	G	100	100						110	1
100	100	100	100	100	100							2
100	100	100	100	100	100		125		105	105		3
100	100	100	G	100				110	105	105		4
100	100	100	140	100						105		5
100	100	100	100	100	100			125	120		120	6
100	100	100	100	100					120			7
100	100	G	100	100						105	100	8
100	100	100	145	120	140			120	110	115		9
100	100	100	100	100	130	200			105			10
100	100	100	100	115						100		11
100	100	140	G	115				115	115	120	120	12
100	100	100	100	G	140					115		13
100	100	100	G	G					120			14
100	100	120	G	100	100		120					15
100	100	100	100	105						115		16
100	100	100	100	G		130	120	120		110		17
100	100	100	105	100	100	100	100	125	120			18
100	100	100	100	110				110	110			19
100	100	100	100	105		100						20
100	100	100	G	100								21
G	G	100	G	100	100	100						22
100	100	100	100	100		100	100					23
100	100	100	G	100	100							24
100	100	100	G	G					115			25
C	100	100	C	115	140			130				26
100	100	100	100	100	100	100						27
100	100	100	100	100	115	100	115	120				28
100	100	100	100	100	100				115	115		29
100	100	100	100	100	100							30
28	29	29	20	26	15	8	6	9	12	11	4	Count
100	100	100	100	100	100	100	120	120	115	110		Median
100	100	100	105	105	110	115	115	120	115	110		Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic (M 3000) F2

TABLE 78

Latitude 10 2° N.

Unit —

Ionospheric Data

Longitude 77 5° E.

Month November, 1962.

75°E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	3 30	3 40	3 45	3 55	3 50	3 45	3 30	3 30	3 15	2 80	2 35	2 50
2	F	F	3 25	3 25 _{us}	3 30	3 50	3 85	3 30	3 05	2 80	2 45	2 50
3	3 20	3 20	3 20	3 40	3 35	3 40	3 40	3 35	3 20	2 85	2 50	2 30 _{it}
4	3 20	3 25	3 40	3 40	3 50	3 40	3 25	3 15	2 90	2 55	2 60	2 60
5	3 30	3 30	3 40	3 30	3 30	3 30	2 90	3 10	2 70	2 60	2 60	2 70
6	3 15	3 25 _{us}	3 20	3 40	3 50	3 30	3 15 _{us}	3 00	2 80	2 60	2 80	2 80
7	3 00 _{us}	3 10 _{us}	3 00 _{us}	3 25 _{us}	3 15	2 95	2 90 _{it}	3 25	3 00	2 90	2 60	2 70
8	3 30	3 40	3 45	3 55	3 40	3 45	3 30	3 20	2 80 _{us}	2 50	2 60	2 50
9	3 15	3 20	3 40 _{us}	3 45 _{us}	3 50	3 40	3 25	3 25	3 00	2 85	2 60	2 50
10	3 30	3 40	3 55	3 60	3 55	3 40	3 25 _{us}	3 00	2 60	2 70	2 60	2 70
11	3 40	3 45	3 50	3 40	F	F	3 30	3 20	2 90	2 80	2 60	2 55
12	3 40	3 40	3 50	3 50	3 60	3 40	3 25	3 20	2 90	2 60	2 55	2 50
13	3 40	3 50	3 50	3 50	3 60	3 50	3 30	3 10	2 90	2 50	2 50	2 55
14	3 30	3 30	3 40	3 30	3 35	3 40	3 40	3 35	3 10	2 60	2 40 _{it}	2 45
15	3 10	3 15	3 15	F	3 10 _{us}	3 35	3 30	3 00	2 80	2 50	2 45	2 35
16	3 15	3 20	3 35	3 05	3 15	3 15	3 10	2 90	2 75	2 45	2 30	2 50
17	3 10	3 10 _{us}	3 10 _{us}	3 30 _{us}	3 45	3 50	3 20	3 10	2 70	2 75	2 45	2 50
18	3 00	3 10	3 20	3 40	3 50	3 60	3 25	3 10	2 75	2 55	2 60	2 55
19	3 40	3 40	3 30	3 40	3 35	3 40	3 20	3 15	2 90	2 50	2 60	2 60
20	3 25	3 40	3 35	3 30	3 25	3 30	3 15	3 00	2 60	2 50	2 50	2 40
21	3 45	3 45	3 45	3 25	3 35	3 30	3 05	2 90	2 70 _{us}	2 70	2 70	3 45
22	3 00	2 90	3 10	3 45	3 60	3 45	3 00	3 00	2 90	2 80	2 60	2 60
23	3 35 _{us}	3 20	3 50 _{us}	3 50	3 50	3 40	3 10	2 70	C	2 70	2 70	2 65
24	3 50	3 45	3 45	3 40	3 40	3 40	3 20	2 85	2 70	2 70	2 70	2 65
25	3 30	3 20	3 20 _{us}	3 35	3 50	3 60	3 10	3 20	2 70	2 80	2 60	2 75
26	3 00	3 15	3 40 _{us}	3 35	3 40	3 40	3 15	2 80	2 70	2 70	2 65	2 55
27	3 35	3 40	3 45	3 45	3 45	E	3 20	2 90	2 60	2 80	2 70	2 65
28	3 40	3 45	3 45	3 40	3 45	3 20	3 10	2 90	2 75	2 60	2 70	2 75
29	3 30	3 45	3 50	3 40	3 50	R	3 05	2 90	2 75	2 60	2 60	2 50
30	3 35	3 40	3 15 _{us}	S	3 20	3 55	3 40	3 10	2 80	2 75	2 55	2 35
Count	29	29	30	28	29	27	30	30	29	30	30	30
Median	3 30	3 30	3 40	3 40	3 45	3 40	3 20	3 10	2 80	2 70	2 60	2 55
Mean	3 25	3 30	3 35	3 40	3 40	3 40	3 20	3 10	2 85	2 65	2 55	2 55

Sweep 1 0 Mc to 25 0 Mc in 27 seconds.

Characteristic (M 3000) F2
 Unit —
 Month November, 1962

TABLE 78
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
2 60	2 55	2 50	2 60	2 70	2 75	2 70	2 65	2 55	f _o F ₂	f _o F ₂	f _o F ₂	1
2 55	2 50	2 60	2 50	2 50	2 65	2 55	2 45	f _o F ₂	f _o F ₂	f _o F ₂	3 25	2
2 50	2 40	2 55	2 70	2 80	2 80	2 60	2 45	2 60 _z	f _o F ₂	3 00	3 10	3
2 55	2 60	2 65	2 75	2 85	2 85	2 75	2 75	2 80 _s	2 90	3 15	3 25	4
2 70	2 80	2 80	2 75	2 85	2 80	2 65	2 60 _{us}	f _o F ₂	f _o F ₂	2 95	3 05	5
2 65	2 60	2 55	2 50	2 55 _{us}	2 65	2 65 _{us}	2 50	2 55	f _o F ₂	3 00 _{us}	3 5	6
2 60	2 50	2 50	2 50 _{us}	2 55 _{us}	2 55 _{us}	2 40 _{us}	2 35	2 60	f _o F ₂	3 10 _{us}	3 35	7
2 60	2 70	2 70	2 75	2 80	2 75	2 60	2 70 _{us}	2 65	2 85 _{us}	f _o F ₂	f _o F ₂	8
2 65	2 65	2 60	2 60	2 75	2 85	2 75	2 70	2 80	3 00 _{us}	3 25 _{us}	3 10 _{us}	9
2 60	2 60	2 65	2 70	2 80	2 80	2 70	2 60	2 70	f _o F ₂	f _o F ₂	1	10
2 70	2 80	2 90	3 00	3 00	3 00	2 90	2 70	2 70	3 00	3 20	3 30	11
2 60	2 75	2 85	2 90	2 95	2 90	2 90	2 75	2 90	3 20	3 20	3 10	12
2 60	2 65	2 65	2 70	2 60	2 50	2 60	2 55	2 75	3 10	3 30	3 40	13
2 50	2 50	2 55	2 70	2 80	2 90	2 80	2 70	2 90	3 10	3 30	3 25 _{us}	14
2 70	2 70	2 60	2 75	2 80	2 85	2 65	2 50	3 00	3 40	3 35	3 20	15
2 50	2 95	2 10	2 60	2 60	2 60	2 60	2 70	3 00	3 20	3 20	3 10	16
2 50	2 40	2 40	2 60	2 70	2 75	2 85	2 65	2 80	3 00	3 10	3 10	17
2 50	2 60	2 50	2 50	2 70	2 80	2 80	3 65	3 00	3 15	3 30	3 35	18
2 60	2 50	2 40	2 40	2 55	2 60	2 80	2 80	2 95	3 30	3 35	3 25	19
2 55	2 50	2 50	2 55	2 65	2 70	2 70	2 85	2 95	3 20	3 40	3 35	20
2 50	2 60	2 70	2 70	2 70	2 80	2 65	2 60	2 80	3 20	3 20	3 10	21
2 80	2 80	2 90	3 00	2 80	2 70	2 70	2 70	2 90	3 20	3 30	3 30	22
2 70	2 70	2 60	2 50	2 70	2 75	2 80	2 85	3 00	3 20	3 30	3 50 _{us}	23
2 80	2 70	2 75	2 85	3 00	3 00	2 90	2 80	2 90	3 35	3 45	3 40	24
2 60	2 60	2 70	2 85	2 90	2 80	2 80	3 90	3 00	3 10	3 20	3 15	25
2 60	C	2 60	2 55	2 70	2 80	2 80	2 80	3 00	3 10	3 25	3 30	26
2 70	2 55	2 60	2 50	2 75	2 95	3 05	2 90	2 95	3 10	3 25 _{us}	3 35	27
2 75	2 70	2 75	2 70	2 65	2 60	2 70	2 80	3 00	3 20	3 20 _{us}	3 15	28
2 50	2 55	2 50	2 60	2 80	2 90	2 90	3 00	3 10	3 20	3 30	3 40	29
2 55	2 65	2 50	2 50	2 45	2 65	2 90	3 00	3 15	3 05	3 30	3 25	30
30	29	30	30	30	30	30	30	28	23	26	26	Count
26 0	2 60	2 60	2 65	2 70	2 80	2 70	2 70	2 90	3 15	3 25	3 30	Median
2 60	2 60	2 60	2 65	2 75	2 75	2 75	2 70	2 85	3 15	3 25	3 25	Mean

Sweep 1 0 Mc. to 25 0 Mc. in 27 seconds

Characteristic (M 3000) F2

TABLE 78—Contd

Latitude 10 2° N

Unit —

Ionospheric Data

Longitude 77 5° E

Month November, 1962

7.5 L Min Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	3 30	3 40	3 40	3 55	3 40	3 00	3 35	3 20	3 00	2 65	2 30 _{IT}	2 60
2	F	3 20	3 30 _{UB}	3 30	3 15	3 10	3 10	3 20	3 00	2 60	2 10	2 50
3	3 20	3 30	3 25	3 50	3 40	3 35	3 10	3 25	3 00	2 70	2 15	2 50 _{IT}
4	3 25	3 25	3 40	3 50	3 10	3 00	3 25	3 00	2 75	2 50	2 60	2 55
5	3 30	3 40	3 45	3 30	3 30	3 20	3 20	2 90	2 65	2 60	2 65	2 50
6	3 20	3 30 _{UB}	3 15	3 10	3 30	2 90 _{UB}	3 20	2 90	2 65	2 10 _{IT}	2 80	2 70
7	F _S	3 20 _{UB}	3 25 _{UB}	3 20 _{UB}	3 00	2 95	2 95 _{UB}	3 10	2 95	2 80	2 60	2 60
8	3 30 _{UB}	3 40	3 35	3 45	3 40	3 00	3 25	3 95	2 55	2 50	2 50	2 60
9	3 45	3 30	3 40	3 10 _{UB}	3 15	3 10	3 30	3 15	2 95	2 75	2 60	2 60
10	3 30	3 55	3 50	3 40	3 30	2 80	3 20	2 80	2 70	2 65	2 60	2 65
11	3 40	3 50	3 40	3 25	F	3 20	3 20	3 00	2 85	2 70	2 60	2 65
12	3 45	3 50	3 50	3 55	3 65	2 70	3 30	3 00	2 75	2 60	2 50	2 60
13	3 45	3 45	3 65	3 60	3 40	2 85	3 20	3 00	2 60	2 50	2 55	2 60
14	3 35	3 30	3 40	3 45	3 35	3 05	3 10	3 20	2 90	2 10 _{IT}	2 15	2 50
15	3 10	3 35	3 05 _{UB}	F	3 30	3 05	3 15	2 90	2 60	2 15	2 35	2 50
16	3 20	3 25	3 15	3 20	3 15	2 75 _{IT}	3 05	2 75	2 65	2 35	2 35	2 50
17	3 10 _{UB}	3 00	3 20 _{IT}	3 25	3 15	2 70 _{IT}	3 15	2 85	2 75	2 55	2 15	2 50
18	3 05	3 15	3 35 _{UB}	3 40	3 50	2 80 _{IT}	3 30	2 90	2 60	2 55	2 60	2 50
19	3 40	3 40	3 30	3 40	3 15	2 90	3 30	3 10	2 70	2 50	2 60	2 60
20	3 40 _{UB}	3 40 _{UB}	3 30	3 35	3 20	3 10	3 00	2 75	2 50	2 55	2 50	2 40
21	3 50	3 40	3 50	3 40	3 40	3 00	3 00	2 80 _{UB}	2 65	2 70	2 55	2 50
22	3 00	3 00 _{UB}	3 20	3 45	3 40	2 80	3 05	3 10	2 95	2 60	2 60	2 70
23	3 30	3 30	3 50	3 45	3 40	2 90	3 10	C	C	2 70	2 60	2 70
24	3 50	3 50	3 40	3 40	3 40	2 80	3 20	2 80	2 70	2 70	2 65	2 80
25	3 25 _{UB}	3 20	3 30	3 50	3 60	2 90	3 20	3 00	2 65	2 65	2 65	2 60
26	3 00	3 20	3 30	3 40	3 40	3 15	3 00	2 60	2 60	2 55	2 60	2 60
27	3 30	3 45	3 50	3 50	3 45	2 75	3 05	2 70	2 60	2 75	2 65	2 70
28	3 40	3 50	3 30	3 10	3 35	2 75	3 10	2 85	2 60	2 70	C	2 70
29	3 40	3 40	3 45 _{UB}	3 30	3 65	2 75	3 05	2 75	2 60	2 65	2 55	2 50
30	3 35	S	3 15 _{UB}	3 05	3 45	R	3 30	3 00	2 80	2 60	2 45	2 10
Count	28	29	30	29	29	29	30	29	29	30	29	30
Median	3 30	3 35	3 35	3 40	3 40	2 90	3 20	2 95	2 70	2 60	2 60	2 60
Mean	3 30	3 35	3 35	3 40	3 40	2 95	3 20	2 95	2 75	2 60	2 55	2 60

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic (M 3000) F2
Unit —
Month: November, 1962

TABLE 78—Cont'd
Ionospheric Data
75 F Mean Time

Latitude 10° 2' N
Longitude 77° 5' E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
2 60	2 50	2 50	2 60	2 75	2 75	2 70	2 65	2 60 _{min}	f	f	1	1
2 50	2 55	2 55	2 50	2 60	2 70	2 15	2 15	f	f	f	3 25	2
2 50	2 10	2 60	2 75	2 80	2 70	2 55	2 50	f	2 90	3 10	3 10	3
2 55	2 60	2 70	2 75	2 85	2 80	2 70	2 75	2 80	3 10	3 10	3 20	4
2 75	2 80	2 80	2 80	2 80	2 70	2 60	f	f	f	3 00	3 15	5
2 60	2 55	2 50	2 50	2 65 _{min}	2 70 _{min}	2 55 _{min}	2 55	2 55 _{min}	2 90 _{min}	3 10 _{min}	1 5	6
2 60	2 50	2 40	2 50 _{min}	2 55	2 50	2 20 _{min}	2 10	f	f	3 20	3 30	7
2 60	2 70	2 75	2 80	2 80	2 70	2 60	2 60 _{min}	2 80 _{min}	2 85 _{min}	f	3 20	8
2 60	2 70	2 60	2 70	2 80	2 80	2 75 _{min}	2 70	2 90 _{min}	3 15	3 30	3 10	9
2 60	2 60	2 65	2 70	2 75	2 70	2 65	2 60	f	f	f	3 20	10
2 75	2 80	2 90	3 00	3 05	2 95	2 70	2 70	f	3 10	3 30	3 10	11
2 65	2 80	2 90	3 00	2 90	2 80	2 70	2 80	3 00	3 30	3 30	3 30	12
2 60	2 65	2 70	2 60	2 55	2 50	2 50	2 75	3 00	3 20	3 35	3 30	13
2 10	2 50	2 60	2 75	2 85	2 90	2 75	2 80	3 10	3 25	3 30	3 30	14
2 75	2 60	2 70	2 80	2 85	2 85	2 50	2 60	3 35	3 10	3 30	3 15	15
2 40	2 30	2 50	2 65	2 55	2 60	2 65	2 90	3 10	3 20	3 10	3 10	16
2 40	2 35	2 50	2 60	2 70	2 80	2 80	2 70	2 90	3 10	3 10	3 05	17
2 60	2 65	2 55	2 55	2 70	2 75	2 70	2 85	3 05	3 25	3 30	3 30	18
2 50	2 15	2 40	2 60	2 60	2 75	2 80	2 90	3 10	3 25	3 35	3 30	19
2 60	2 50	2 50	2 65	2 75 _{min}	2 70	2 80	2 95	3 15	3 30	3 30 _{min}	3 40	20
2 70	2 70	2 70	2 75	2 75	2 70	2 60	2 65	2 95	3 25	3 20	3 10	21
2 90	2 85	2 90	2 95	2 80	2 70	2 70	2 75	3 00	3 30	3 30	3 40	22
2 70	2 70	2 60	2 60	2 60	2 80	2 85	2 95	3 15	3 25	3 40	3 30	23
2 75	2 70	2 70	2 90	3 00	2 90	2 85	2 80	3 10	3 45	3 10	3 40	24
2 60	2 65	2 75	2 80	2 80	2 75	2 80	2 80	3 10	3 30	3 20	3 00	25
2 65	2 60	2 50	2 65	2 75	2 75	2 75	2 85	3 05	3 20	3 30	3 30	26
2 65	2 60	2 65	2 65	2 85	3 00	3 00	2 85	2 95	3 30	3 35	3 10	27
2 75	2 65	2 70	2 60	2 55	2 70	2 70	2 95	3 10	3 20	3 20	3 20	28
2 50	2 60	2 60	2 70	2 85	2 70	2 95	3 05	3 20	3 35	3 10	3 30	29
2 65	2 65	2 55	2 10	2 55	2 75	2 95	3 00	3 30	3 10	3 30	3 20	30
29	30	30	29	30	30	30	29	24	25	26	28	Count
2 60	2 60	2 60	2 70	2 75	2 75	2 70	2 75	3 05	3 25	3 30	3 30	Median
2 60	2 60	2 65	2 70	2 75	2 75	2 70	2 75	3 00	3 20	3 25	3 25	Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic fo F2

TABLE 79

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month December, 1962

75° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	3.5	3.6	3.8	2.9	2.3	1.9	1.4	6.7	8.1	8.7	9.1	9.0
2	4.6	4.7	4.1	3.2	2.5	1.7	3.8	6.4	7.6	7.6	7.0	7.0
3	3.3	2.9	2.5	2.2	2.0	1.6	4.1	6.6	8.2	8.5	8.1	8.1
4	5.3	4.9	4.6	4.4 _F	3.5	2.1 _U	4.3	6.6	8.3	8.6	7.8	C
5	4.9	4.5	3.9	3.0	2.0	1.6	3.9	6.6	7.9	7.7	7.6	8.5
6	5.9	5.3	5.2 _U	4.3	3.1	1.9	3.9	6.5	7.5	7.9	8.3	8.3
7	5.5	4.1	4.0	2.9	2.5	2.3	4.2	6.9	8.3	8.6	8.3	8.2
8	4.8	5.1 _U	4.7	4.3	4.0	3.3	4.1	6.6	8.8	8.6	7.9	7.6
9	5.1 _U	5.0	4.5	4.2	4.2 _U	F	F	7.0	8.5	9.5	8.8	8.6
10	6.0	5.3	4.2	2.7	2.2	2.0	3.2	5.6	6.4	6.7	7.2	7.5
11	F	6.5 _F	F	4.2	2.4	1.7	3.5	6.2	6.7	6.9	7.5 _U	7.6
12	7.4 _J	4.9	4.6	F	2.7 _F	2.1	4.0	6.5	7.6	8.3	8.7	8.3
13	6.7	6.6	5.9	5.7	4.0	2.5	4.0	7.0	7.8	8.3	7.9	7.8
14	5.3	4.9	4.0	2.8	1.7	R	3.9	6.6	7.6	8.9	9.0	8.3
15	4.4	4.0	3.8	3.3	3.0	2.4	3.9	6.4	7.7	8.6	8.6	8.8
16	5.1	5.0	5.2	F	4.1 _F	3.2	3.6	6.6	7.4	7.1	7.6 _K	7.3
17	4.0	3.6	3.2	3.2	3.0	2.6	3.7	6.2	7.8	7.7	7.7	7.4
18	5.7	F	F	F	F	F	3.3	6.7	8.1	9.6	9.6	9.5
19	F	F	6.1	5.4	F	F	F	6.7	8.0 _K	8.4	7.7	7.4
20	5.8	5.4	F	F	F	F	F	7.2 _I	8.2	7.6	8.0 _{JR}	7.7
21	F	F	F	F	F	I	F	6.0	7.1	7.0	7.5	7.6
22	4.4	4.4	F	F	F	I	F	6.4	8.0	C	C	C
23	5.7	5.2	4.6	4.0	3.6	3.7	4.2	5.6	6.6	6.8	6.7	6.7
24	5.6	5.5	5.6	3.9	2.6	1.7	3.2	6.0	7.4 _U	8.4	7.8	7.7
25	6.4	5.0	4.4	3.8	4.2	3.0	3.4	7.0	8.1	8.4	8.3	6.6
26	3.9	3.5	3.5	3.2	2.9	2.2	3.2	6.0	7.1	7.2	6.1	6.1
27	6.3	4.7	3.4	2.8	1.8	1.6	3.0	6.1	8.1	8.4	8.0	8.0
28	4.2	3.7	3.4	3.0	2.2	1.1 _{JR}	3.0	5.8	7.6	8.4	8.0 _K	6.6
29	1.7 _R	R	1.3 _R	L	F	F	2.8	5.7	6.8	7.0 _U	6.6	6.5
30	4.0	3.2	2.6	2.5	1.7	1.4 _{UR}	2.9	5.6	7.0	7.3	6.6	6.3
31	2.8	3.1	2.9	2.6	2.4	I	3.2	5.7	7.2 _U	7.3 _V	6.2 _U	5.8
Count	28	27	25	25	26	23	26	31	31	30	30	29
Median	5.1	4.9	4.1	3.2	2.6	2.0	3.8	6.4	7.7	8.3	7.8	7.6
Mean	4.9	4.6	4.1	3.5	2.8	2.2	3.6	6.4	7.7	8.0	7.8	7.6

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

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Characteristic fo F2

TABLE 79

Latitude 10 2' N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month December 1962

75° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
9 3	9 6	9 5	9 5	9 9	10 1	9 9	7 5	7 3	6 6	5 6	5 0	1
7 4	7 8	7 8	7 7	7 6	7 7	7 3	C	7 9	5 9	4 9	4 0	2
8 7	8 1	7 8	7 2	7 2	6 9	6 6	5 9	f	5 3	5 6	5 9	3
C	8 2	8 1	8 0	8 3	9 1	8 4	7 7	7 7	6 1 _{us}	5 5	5 9	4
8 6	9 1	9 4	8 7	8 0	7 8	8 2	7 4	7 6	7 1	6 6	6 5	5
8 5	8 6	8 8	8 7	7 6	7 7	8 0	7 5	7 9	8 1	5 7	5 9	6
8 4	8 5	8 9	8 6	8 6	8 9	7 1	7 0	6 8	7 8	6 5	5 6	7
8 1	8 5	8 1	8 8	8 6	8 8	8 1	7 4	7 6	7 4 _{us}	6 4 _{us}	5 4	8
9 2	9 4	9 4	9 3	9 0	8 5	8 0	7 1 _{us}	7 6	7 1	6 3	6 2	9
8 2	8 9	8 7	8 8	8 8	8 8	7 9	7 0	f	f	f	f	10
7 6	8 1	9 1	9 5	9 2	9 2	8 6	8 5	8 6	7 6	7 8	7 4	11
8 6 _{ff}	7 8	7 8	7 9	8 1	8 0	7 9	8 1	7 8	7 5	7 6 _{ff}	7 6	12
7 8	8 2	8 1	8 5	8 1	8 3	8 5	7 6	8 1	7 8	7 1	6 0	13
8 1	7 9	7 4	7 5	7 8	8 9	8 2	7 7	8 2	6 7	6 1	4 9	14
9 0	9 4	9 9	9 5	9 0	9 4	9 3	7 9	7 9	7 8	6 9	5 9	15
7 7	8 1	8 0	7 5	7 6	7 8	7 2	6 6	7 0	6 6	6 0	5 1	16
8 2	8 4	8 2	8 0	7 4	7 8	8 0	7 0	6 8	6 6	5 8	5 4	17
9 0	8 8	9 0	9 0	8 5	8 7	8 4	8 7	8 0	7 0 _{ff}	f	f	18
8 6	9 4	8 8	9 4	10 0	9 6	9 0	8 0	8 1	7 8	7 0	6 2	19
8 4	8 4	8 0	7 2	7 0	7 2	7 2	7 0	6 9	f	f	f	20
7 6	8 3	8 9	9 0	9 2	9 5	9 6	C	C	9 0	6 5	5 0	21
7 8	7 8	7 9	8 0	7 8	8 2	8 9	7 8 _{us}	7 2 _{us}	7 1 _{us}	6 0	6 4	22
7 2	7 2	7 3	7 2	7 3	7 8	7 6	7 0	6 8	7 0	6 9	6 1	23
7 0	7 6	7 1	7 6	7 6	7 8	7 7	8 0	7 5	6 5	6 6	5 6	24
6 8	7 0	6 7	6 6	6 9	7 2	7 3	7 0	6 9	6 0	5 3	4 0	25
6 5	7 0	7 6	7 2	7 2	7 0	6 6	6 6	f	f	f	5 4	26
7 9	8 1	8 1	8 6	9 4	9 0	8 6	7 9 _{us}	7 9 _{us}	7 0	6 8	5 8	27
6 8	7 5	7 7	8 0	8 4	8 2	8 0	6 9	6 5	4 4	3 0	1 9 _{ff}	28
6 9	7 9	7 6	7 9	8 4	7 7	7 6	7 2 _{us}	7 9	6 5	5 6	4 5	29
6 0	6 0	6 3	6 3	6 6	6 9	6 7	6 4	6 6	4 6	3 8	2 9	30
6 1 _{us}	6 4	6 8	6 5	7 0	7 6	7 9	6 8	7 1	6 7	5 8	5 0 _{us}	31
30	31	91	31	91	31	91	29	27	28	27	28	Count
8 0	8 2	8 1	8 0	8 1	8 2	8 0	7 3	7 9	7 0	6 1	5 4	Median
7 9	8 1	8 1	8 1	8 1	8 2	8 0	7 9	7 4	6 8	6 0	5 3	Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

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Characteristic fo F2
Unit Mc
Month December 1962

TABLE 79—Contd.
Ionospheric Data
75° L Mer Time

Latitude 10 2° N
Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	3.6	3.8	3.3	2.6	2.2	2.4	6.0	7.7	8.4	8.9	9.4	9.0
2	4.7	4.4	3.4	2.8	2.1	1.9	5.4	7.1	7.9	7.1	7.1	7.3
3	3.0	2.7	2.3	2.1	1.7	2.2	5.6	7.3	8.8	8.3	8.1	8.2
4	5.2	4.8	4.6	3.8 _r	2.9 _r	2.5 _v	5.8	7.4	8.6	8.5	7.9	C
5	5.0	4.4	3.5	2.4	1.8	2.2	5.4	7.5	8.0	7.5	8.2	8.6
6	5.8	5.3	4.6	3.5	2.5	2.1	5.3	7.1	7.9	8.3	8.4	8.5
7	4.7	4.2	3.1	2.5	2.5	2.5	5.9	7.7	8.7	8.7	8.6	8.2
8	4.8	5.1	4.5	4.1	3.7	3.4	5.4 _{uv}	7.7	8.8	8.2	7.8	7.7
9	5.0	4.8	4.4	4.0	F	F	6.3 _{uv}	7.7	9.0	9.0	8.6	8.6
10	5.8	4.8	3.3	2.4	2.0	2.2	4.9	6.0	6.6	7.0	7.4	7.6
11	F	6.8	F	3.2	2.0	2.0	1.9	6.6	6.8	7.1	7.3	7.9
12	5.6	4.9	4.5	F	2.3 _r	2.4	5.6	7.0	8.3	8.5	8.4	8.4
13	6.5	6.3	5.9	4.9	3.1	1.9	5.6	7.6	7.8	8.2	7.8	7.8
14	5.1	4.7	3.3	2.3	1.4	1.9	5.5	6.9	8.3	9.0	8.8	8.4 _r
15	4.3	3.9	3.3	3.1	2.8	1.9	5.5	7.1	8.6	8.8	8.6	8.9
16	5.1	5.3	4.7	F	3.6	2.2	5.3	7.2	7.8	7.5 _{ir}	7.4	7.3
17	3.7	3.4 _r	3.4	3.1	2.9	2.0	5.2	6.9	8.0	7.8 _{ir}	7.7	7.7
18	F	F	F	F	F	F	5.2	7.9	8.5	9.6	9.8	9.2
19	F	6.9 _r	5.7	5.2	F	F	5.1	7.4	8.6	8.4	C	7.9
20	5.7	F	F	F	F	F	6.4 _{uv}	7.8	8.0	7.5	8.0	8.4
21	F	F	F	F	F	F	4.8	6.8	7.4	6.9	7.7	7.7
22	4.4	F	F	F	F	F	F	7.2 _{uv}	8.8	C	C	7.7
23	5.5	4.9	4.4	3.7	3.7	3.5	4.4	6.2	6.8	7.0	7.0	6.8
24	5.2	5.7	4.8	2.8	2.0	E	4.8	6.8	8.2	8.3	7.7	7.0
25	5.9	4.8	4.0	4.0	3.2	2.3	5.0	7.9	8.6	8.4	7.3	6.8
26	3.8	3.6	3.4	2.7	2.6	1.8	1.8	6.8	7.2	6.6	6.4 _{ir}	6.3
27	5.6	3.8	3.2	2.3	1.7	1.8	4.8	7.8	8.5	8.2	C	8.0
28	3.9	3.6	3.2	2.6	1.8	1.5 _{ir}	4.8	6.6	8.4	8.5	6.8	6.8
29	1.8 _r	1.5	1.3 _r	L	L	L	4.4	6.6	7.1 _{vs}	6.8	6.4	6.6
30	3.8	2.8	2.5	2.1	1.6 _r	L	1.5	6.4	7.4	7.1 _{ir}	6.0	6.1
31	2.9	3.1	2.8	2.5	2.3	2.4	1.6	6.7	7.8	6.5	5.9	5.9
Count	27	27	26	25	25	25	30	31	31	30	28	30
Median	5.0	4.7	3.4	2.8	2.3	2.1	5.2	7.1	8.2	8.2	7.8	7.8
Mean	4.7	4.5	3.7	3.0	2.3	2.0	5.2	7.1	8.1	7.9	7.7	7.7

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic	TABLE 79—Contd.											Latitude	
'o F2	Ionospheric Data											10 2° N	
Unit Mc	75° E Mean Time											Longitude	
Month	December 1962											77 5° E	
	1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
9 6	9 4	9 6	9 4	9 4	9 6	8 4	7 1	7 0	6 1	5 1	4 6		1
7 7	7 9	8 1	7 8	7 8	7 4	7 2	7 9	6 6	5 6	4 3	3 6		2
8 6	8 0	7 5	7 0	7 0	6 7	6 1	F	F	5 5 ^{UP}	5 5	5 3		3
C	8 0	7 9	8 1	8 7	9 3	8 2	7 7	7 9 ^{UP}	5 4	5 1	5 1		4
9 2	9 2	9 1	8 4	7 6	8 1	7 9	7 1	7 9	7 0	6 6	6 2		5
8 8	8 8	8 7	8 1	7 7	7 8	7 7	7 4	8 5	7 1	5 6	6 1		6
8 5	8 4	8 8	8 8	8 5	7 6	7 1 ^{UP}	7 0	7 0	7 9 ^{UP}	6 3	5 4		7
8 4	8 4	8 5	8 8	9 0	8 6	7 5 ^{UP}	7 4	7 7	7 2 ^{UP}	6 0	5 1		8
9 2	9 4	9 3	8 8	8 6	8 2	7 3	7 6	7 6	6 8	6 1	6 2		9
8 6	8 7	8 8	8 7	8 8	8 4	7 6	6 4 ^{UP}	F	F	F	6 7		10
8 4	8 8	9 3	9 4	9 1	9 0	8 4	8 6	8 2	7 8	7 5	7 6		11
7 9	7 8	7 8	7 9	8 2	7 8	7 9	8 3	7 4 ^{UP}	7 9 ^{UP}	7 6	7 9		12
8 2	8 6	8 6	8 2	8 0	8 6	8 0	8 4	7 8	7 7	6 6	5 7		13
8 0	7 7	7 4	7 6	8 0	8 4	7 7	7 6	7 8	6 2	5 4	4 5		14
9 7	9 2	9 3	9 4	9 1	9 6	8 4	8 0	8 0	6 8	5 7	5 2		15
7 9	8 0	8 0	7 6	7 7	7 4	6 8	6 8	7 0	5 9	5 4	4 4		16
8 6	8 0	7 8	7 2	7 2	7 8	7 3	6 9	6 8	5 8	5 6	5 2		17
8 9	9 1	9 2	8 8	8 8	8 7	8 4	8 4	7 6 ^{UP}	7 0	F	F		18
9 2	9 0	8 8	9 8	9 6	9 4	8 6	8 2	8 4	7 4	6 4	5 9		19
8 2	8 2	7 6	7 0	7 2	7 2	7 2	6 8	6 1 ^{UP}	F	F	5 7		20
8 3	8 4	9 0	9 0	9 2	9 8	9 0	C	10 0	6 8	5 6	4 6		21
8 0	8 0	7 9	7 8	8 0	8 4	8 2	7 5 ^{UP}	7 2 ^{UP}	6 4	6 0	6 0		22
7 3	7 9	7 9	7 2	7 4	8 0	7 1	6 8	7 0	7 2	6 9	6 0		23
7 2	7 3	7 4	7 9	7 7	7 6	7 6	8 0	6 7	6 2	6 1	6 4		24
7 0	6 7	6 8	6 6	7 1	7 4	7 5	7 4	6 1	5 4	4 7	4 0		25
6 8	7 2	7 6	7 2	7 2	6 6	6 6	6 2	F	F	6 0	5 8		26
8 2	8 2	8 4	9 2	9 8	9 0	7 6	F	7 6 ^{UP}	7 2	6 4	5 1		27
7 1	7 5	7 9	8 6	8 6	8 0	7 6	6 9	6 2 ^{UP}	3 4	2 6	1 2 ^{UP}		28
7 2	7 7	7 8	7 9	8 1	7 8	7 1	6 9	6 7	5 9	5 0 ^{UP}	4 3		29
5 8	6 3	6 1	6 4	6 8	6 9	6 6	6 6	5 4 ^{UP}	3 8	3 4	2 8		30
6 2	6 5	6 7	6 7	7 5	7 8	7 3	7 1 ^{UP}	6 8	6 4 ^{UP}	5 4 ^{UP}	5 2 ^{UP}		31
30	31	31	31	31	31	31	28	28	28	28	30		Count
8 2	8 0	8 0	8 1	8 0	8 0	7 6	7 4	7 2	6 6	5 6	5 2		Median
8 1	8 1	8 2	8 11	8 2	8 2	7 6	7 4	7 9	6 4	5 7	5 2		Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fo F1
Unit Mc
Month December 1962

TABLE 80
Ionospheric Data
75 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								I	L	I	I	L	
2								I	I	I	L	I	
3								I	I	L	L	I	
4								I	I	I	I	G	
5								I	L	I	L	L	
6								I	I	I	L	I	
7								I	I	I	A	I	
8								L	L	L	L	I	
9								I	L	I	I	I	
10								L	I	I	L	I	
11								I	I	I	I	L	
12								L	I	I	I	4 5	
13								L	I	I	4 5	4 5	
14								I	I	I	L	L	
15								L	I	I	I	L	
16								I	4 5	4 6	4 6	4 8	
17							I	I	4 3	4 6	4 4	4 8	
18								L	I	L	I	L	
19							I	I	4 3	4 4	4 8	4 5	
20								L	I	4 6	4 7	4 7	
21							I	I	I	I	4 6	4 5	
22							L	I	I	G	G	G	
23								L	I	I	I	4 6	
24							L	I	I	I	I	4 6	
25							L	L	L	I	4 5	L	
26								I	4 1	4 4	4 5	4 8	
27								I	L	4 3	4 5	I	
28								I	I	I	4 4	4 4	
29								I	I	I	4 3	4 4	
30								L	LH	4 9	4 4	4 4	
31								L	I	4 2	4 4	4 4	
Count									4	0	13	14	
Median											4 5	4 5	4 5
Mean											4 4	4 5	4 6

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fo F1

TABLE 80

Latitude 10 2°N

Unit Mc

Ionospheric Data

Longitude 77.5°E

Month December, 1962

75° E Mean Time

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

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fo F₁TABLE 80—*contd*

Latitude 10 2°N

Unit Mc

Ionospheric Data

Longitude 77 5°E

Month December, 1962

75° E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1								L	L	I	L	L
2								L	L	I	I	L
3								L	L	L	L	I
4								L	L	L	L	G
5								L	L	L	L	L
6								L	L	L	L	L
7							L	L	L	L	L	A
8								L	A	L	L	I
9								I	I	L	L	A
10							I	I	I	I	I	I
11								L	I	L	L	L
12								L	L	I	4 6	L
13								L	I	I	L	L
14							L	L	I	4 4	L	4 6
15								L	I	I	I	4 6
16							L	L	L	4 5	4 5	4 8
17							L	4 2	4 2	4 6	5 0	4 6
18								L	I	I	I	L
19							L	L	4 5	4 5	G	4 7
20							I	L	4 2	4 8	4 6	4 7
21							L	L	L	L	4 1	L
22							L	L	I	G	G	I
23							L	I	L	4 4	L	I
24							L	L	L	L	L	4 5
25							L	L	L	L	4 5	4 6
26							L	L	4 8	4 5	4 4	4 5
27								L	I	4 8	G	4 5
28							L	L	L	L	L	4 4
29							I	L	4 1	4 4	4 4	4 5
30								I	L	4 4	4 4	4 4
31							L	I	4 1	L	4 4	4 4
Count									4 2	4 5	4 5	4 6
Median									4 2	4 4	4 4	4 6
Mean								1	6	10	10	14

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fo F ₁		TABLE 80— <i>contd</i>										Latitude
Unit Mc		Ionospheric Data										Longitude
Month December, 1962		75° E Mean Time										
1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
L	L	L	L	L								1
L	L	L	L	L								2
4.5	L	L	L	L								3
C	L	L	L	L								4
L	L	L	L	L								5
L	L	L	L	L								6
A	L	L	L	L								7
L	L	L	L	L								8
L	L	L	L	L								9
L	L	L	L	L								10
4.7	L	A	L	L								11
L	L	L	L	L								12
L	L	L	L	L								13
4.6	L	L	L	L								14
4.4	L	L	L	L								15
4.6	4.4	4.5	L	L	L							16
4.5	4.5	4.3	L	L	L							17
L	L	L	L	L	L							18
4.8	4.4	4.3	L	L	L							19
L	4.6	L	L	L	L							20
L	L	L	L	L	L							21
4.6	L	L	L	L	L							22
L	L	L	L	L	L							23
L	4.3	L	L	L	L							24
4.5	4.4	L	L	L	L							25
4.5	4.4	4.6	L	L	L							26
4.5	4.5	LH	L	L	L							27
L	L	L	L	L	L							28
4.4	4.3	4.3	LH	L	L							29
4.3	4.2	L	LH	L	L							30
4.4	4.2	4.2	LH	L	L							31
4.5	4.4	4.4										Count
4.5	4.4	4.3										Median
4.4	4.4	4.3										Mean

Sweep 1.0 Mc to 25.0 Mc in 27 seconds.

Characteristic foE
 Unit Mc
 Month December, 1962

TABLE 81
 Ionospheric Data
 75°E Meridian Time

Latitude 102° N
 Longitude 77 5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								2 3	2 9	A	A	A
2								A	A	A	A	A
3								2 4	A	A	A	A
4								2 4	2 9	A	A	C
5								A	A	A	A	A
6								A	A	A	A	A
7							1 4	A	A	A	A	A
8								A	A	A	A	A
9								A	A	A	A	A
10							1 4	A	A	A	A	A
11								A	A	A	A	A
12								A	A	A	A	A
13								2 3	A	A	A	A
14								2 3	2 7H	A	A	A
15								2 3H	2 6	3 2	A	A
16								A	A	A	A	A
17								A	A	A	A	A
18								A	A	3 0	A	A
19								A	A	A	A	A
20								2 2	A	A	A	A
21								A	A	A	A	A
22								A	A	C	C	C
23								A	A	A	A	A
24								A	A	A	A	A
25								2 3	3 2	A	A	A
26								A	A	A	A	A
27								2 2	A	A	A	A
28								2 2H	A	A	A	A
29								A	A	A	A	A
30								2 2	A	A	A	A
31								2 3H	A	A	A	A
Count							2	12	5	2		
Median								2 3	2 9			
Mean								2 3	2 9			

Sweep 1 0 Mc. to 25 0 Mc. in 27 seconds.

Characteristic foE

TABLE 81

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month December, 1962

75°E Mean Time

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

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic foE TABLE 81—*contd* Latitude 10° 2' N
 Unit Mc Ionospheric Data Longitude 77° 5' E
 Month December, 1962 75°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							2 1	2 7	A	A	A	A
2							1 9	A	A	A	A	A
3							2 0	2 8	A	A	A	A
4							2 1	2 7	A	A	A	C
5							2 1	A	A	A	A	A
6							A	A	A	A	A	A
7							1 9	A	A	A	A	A
8							1 9	A	A	A	A	A
9							1 8	A	A	A	A	A
10							A	A	A	A	A	A
11							A	A	A	A	A	A
12							1 8	A	A	A	A	A
13							1 8	A	A	A	A	A
14							1 8	2 5	2 8	A	A	A
15							1 9	2 6	9 0	3 1	A	A
16							2 1	A	A	A	A	A
17							A	A	A	A	A	A
18							A	2 5	A	A	A	A
19							A	A	A	A	C	A
20							A	A	A	A	A	A
21							1 8	A	A	A	A	A
22							1 6	A	A	A	C	A
23							A	A	A	A	A	A
24							1 9	A	A	A	A	A
25							1 9	3 0	A	A	A	A
26							2 0	A	A	A	A	A
27							R	2 6 _H	3 2	A	C	A
28							R	2 5 _H	A	A	A	A
29							A	A	A	A	A	A
30							1 7	A	A	A	A	A
31							1 8 ₄	A	A	A	A	A
Count							2 0	9	3	1		
Median							1 9	2 6				
Mean							1 9	2 7				

Sweep 1 0 Mc to 25 0 Mc in 27 seconds.

Characteristic foE
 Unit Mc
 Month December, 1962

TABLE 81—*contd.*
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
A	A	A	A	A								1
A	A	A	A	A								2
A	A	A	A	A								3
C	A	A	A	A								4
A	A	A	A	A								5
A	A	A	A	A								6
A	A	A	2 7	A								7
A	A	A	2 8	2 3								8
A	A	A	2 8	2 2								9
A	A	A	A	A								10
A	A	A	A	A								11
A	A	A	A	A								12
A	A	A	A	2 3								13
A	A	A	A	2 3								14
3 3	3 2	A	A	2 9								15
A	A	A	A	A								16
A	A	A	A	A								17
A	A	A	A	A								18
A	A	A	2 8	2 4								19
A	A	A	A	A								20
A	A	A	2 8 _r	2 4								21
A	A	A	A	A								22
A	A	A	A	A								23
A	A	A	A	A								24
A	A	A	A	A								25
A	A	A	A	R								26
A	A	R	R	A	A							27
A	A	3 0	R	A	A							28
A	A	A	R	2 5 _r								29
A	A	A	A	A								30
A	A	A	A	2 4 _r								31
1	1	1	5	9								Count
			2 8	2 3								Median
			2 8	2 3								Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic foE
Unit Mc.
Month December, 1962

TABLE 82
Ionospheric Data
75°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			5 0us					G	G	9 0	9 4	9 2
2		2 2	3 2					6 4us	9 0	12 0	12 0	12 0
3								4 8	8 6	10 0	11 8	12 0
4								4 0	G	9 8	10 0	C
5								7 0us	9 6us	10 0	11 4	9 0
6			2 2				1 4	7 0us	8 8	10 6	9 6	10 0
7		2 1					G	6 6us	9 8	16 8	16 6	13 8
8					1 7			4 9	9 8	9 0	9 8	8 6
9			1 8					5 8us	9 0	9 4	9 0	8 8
10							G	7 6	10 4	10 4	11 2	11 0
11	3 4	1 4	3 1				2 2	5 8	8 2	9 0	11 0	9 8
12								7 0us	9 5	10 0	11 4	11 6
13		2 5	2 2					G	7 2	9 7	11 0	10 9
14								4 4	4 8	8 2	10 6	11 3
15								G	G	G	7 2	9 3
16					3 6			8 0	11 2	9 2	11 2	11 4
17								10 0	9 2	9 4	10 0	10 8
18								4 4	6 8	G	10 0	9 2
19	6 4	7 8				2 1		5 8	3 2	9 0	11 0	10 4
20					2 2			G	8 4	9 0	10 4	8 8
21	6 0us		3 2	1 9				4 8	9 0	11 0	10 4	11 0
22	3 1	3 4us				3 1		4 8	8 0	C	C	C
23						4 0	2 2	4 8	8 4	9 6	10 0	9 1
24								6 4	6 8	9 0	10 0	9 6
25								G	G	7 0	9 6	10 0
26		4 5	6 4	4 1				8 4	9 0	10 4	10 2	11 0
27								G	6 0	8 0	10 8	11 8
28		2 5	4 3us	3 0				G	8 0	9 8	11 2	10 6
29						4 3		S	9 6	10 4	12 2	11 9
30								G	8 6	11 3	11 8	11 4
31								G	8 7	10 7	12 4	11 6
Count	4	8	9	3	3	4	5	30	31	30	30	29
Median		2 5	3 2				1 4	4 8	8 6	9 6	10 7	10 8
Mean		3 3	3 5					6 1	8 4	9 9	10 8	10 5

Sweep 1 0 Mc to 27 0 Mc in 27 seconds

Characteristic foEs
Unit Mc
Month December, 1962

TABLE 82
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77.5° E

12	13	11	15	16	17	18	19	20	21	22	23	Date
10 0	10 8	10 6	8 2	6 0	7 4	10 6						1
11 0	11 4	9 6	9 4	7 4								2
12 0	11 6	11 2	9 0 ^{US}	8 2								3
C	11 8	9 0	9 2	5 6	9 0				11 4			4
8 8	9 6	10 0	10 0 ^{US}	7 4		4 0						5
9 8	9 6	10 8	10 8	7 8	G							6
15 6	12 0	9 7	9 0	8 0	G			4 4	3 8	7 8		7
9 6	12 0	9 6	10 4	7 8			2 4					8
12 4	9 8	8 8	8 8	8 0	G							9
11 8	10 4	8 8	6 8	6 6						3 8	3 8	10
10 6	8 8	12 4	6 0	4 2	2 9							11
11 2	11 5	9 4	9 0	7 8	5 8	9 6	5 7	2 9			2 6	12
11 2	12 0	10 7	9 0	6 5			7 0					13
11 4	11 0	11 6	9 4	7 0	2 3				7 5			14
G	6 6	4 6	9 8	7 5	G							15
11 2	10 1	10 4	9 6	7 0	G	6 0	3 2					16
9 6	10 6	11 4	10 4	7 8	5 0							17
10 0	10 4	9 1	9 7	7 6	4 4	2 8					4 4	18
11 4	11 0	G	6 2	G	G						2 3	19
10 6	10 2	11 6	10 0	8 2	6 0				2 3	3 0	2 8	20
9 5	8 8	9 0	6 2	G	2.9						2 0	21
12 0	10 8	11 0	10 0	6 0	2 0	9 0	2 3			4 0 ^{US}		22
11 0	11 0	9 7	9.8	5.8 ^{US}	G		7 4	3 0	2 2	4 0		23
9 0	11 0	8 8	9 0	7 0	4 4 ^{US}			3 2				24
9 0	10 0	9 0	9 0	7 8	G	1 9					4 6	25
11 8	11 8	10 4	10 0	7 0				1 8				26
12 2	10 8	9 6	G	7 6	G						4 6	27
10 8	10 4	7 4	G	G								28
12 0	12 0	12 0	8 3	G	G	2.0	2 7	3 0		1 9		29
10 6	10 8	10 8	11 0 ^{US}	7 6	G	2 7						30
10 0	10 4	10 8	9 6	G	G			7 0 ^{US}	S			31
30	31	31	31	31	28	9	7	7	5	6	8	Count
10 9	10 8	9 7	9 2	7 0	G	3 0	3 2	3 0	3 8	3 9	3 3	Median
10 9	10 6	9 9	9 1	7 1	4 7	4 7	4 4	3 6	5 4	4 1	3 4	Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic foEs
Unit Mc
Month December, 1962

TABLE 82—contd
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	2 6	3 6					G	6 2	8 0	8 2	9 6	8 8
2	7 0	2 8					G	8 0	9 8	12 0	12 0	12 0
3							G	7 0	11 4	11 8	11 6	12 0
4							G	7 6	8 0	10 0	10 4	C
5							G	9 0	10 0	11 0	11 4	8 0
6			2 5				7 4	9 0	10 4	9 6	11 0	9 4
7			1 8				4 8 _{us}	6 4 _{us}	9 8	9 6	19 6	12 0
8							G	8 0	12 8	9 6	10 1	9 6
9			1 8	1 9			3 4	7 6	9 2	11 8	9 0	13 8
10							5 0 _{us}	8 8	11 0	11 4	12 2	11 4
11	2 6	3 1					4 8	6 6	9 6	10 4	9 2	16 8
12							S	8 2	8 8	10 6	11 0	11 2
13		2 8	4 0				G	6 4	9 6	9 6	11 2	11 6
14							G	G	5 8	9 2	12 4	11 6
15							4 6	G	6 0	G	8 2	11 0
16	6 8						G	6 6	9 0	9 2	10 8	11 6
17							2 8	11 0	10 0	10 6	11 0	11 4
18					2 1		S	4 8	10 6	10 2	10 2	10 2
19	5 0				1 7			8 2	9 8	10 6	C	9 8
20					1 7			4 6	5 8	9 8	10 6	8 2
21	3 6		3 6 _{us}				G	8 0	10 6	11 0	11 0	10 0
22	2 8				2 2		2 2	8 0	8 0	C	C	11 0
23					3 5 _{us}	7 0	3 2 _{us}	6 1	10 0	11 0	10 2	9 6
24							G	8 0	8 0	10 0	9 4	9 0
25							G	G	6 0	8 2	9 0	9 0
26		3 4	2 8	6 0			2 4	8 4	9 0	9 8	9 8	11 0
27							G	G	G	10 9	C	11 9
28	2 4	3 0	3 2				G	4 6	8 8	10 2	11 0	10 8
29						2 8	S	9 0	10 4	10 8	11 4	11 0
30							G	8 0 _{us}	10 0	9 8	10 0	11 0
31							G	7 0	9 7	12 0	11.2	11 3
Count	8	6	7	2	5	2	26	31	31	30	28	30
Median	3 2	3 0	2 8		2 1		G	7 6	9 6	10 2	10 9	11 0
Mean	4 1	3 1	2 8		2 2		4 1	7 4	9 2	10 3	10 9	10 9

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic foEs
Unit Mc
Month December, 1962

TABLE 82—contd.
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
11.4	10.6	9.4	7.0	6.4	6.0			4.2				1
11.0	10.8	9.6	8.4	6.4								2
12.0	12.0	10.0	8.8	7.0								3
C	11.6	10.6	7.0	8.0				4.6	3.6			4
9.0	10.4	11.0	8.4	6.8	4.0							5
9.0	10.6	9.8	8.8	7.8								6
14.0	9.6	10.4	7.0	6.6			2.0	3.6				7
10.8	11.4	9.7	7.6	6.0		3.0						8
11.8	11.0	9.2	7.0	6.0								9
9.6	8.2	8.0	7.0	8.9					4.4	4.4		10
13.2	9.2	9.8	3.4	7.4	5.4							11
11.3	9.6	9.2	8.3	6.7	2.8	7.8	2.9	2.3			4.6	12
11.6	10.0	9.6	8.0	6.0	6.0							13
11.5	11.4	10.0	8.4	G	3.4							14
G	G	8.8	8.5	5.7				3.8				15
11.2	12.4	10.0	7.6	6.2	2.9	7.0						16
12.4	13.0	10.0	8.0	7.0	3.5							17
8.8	9.6	10.4	8.6	6.0	4.8	2.2					5.8	18
12.4	9.8	5.8	3.7	3.6				1.9		3.0	5.4	19
9.4	12.4	12.4	12.4	8.6	8.2				2.0	2.8	4.4us	20
10.2	9.0	8.6	G	G	5.4		C		4.2			21
11.2	10.8	10.0	8.0	5.0us		2.5		2.0	2.0	3.2		22
11.0	9.2	10.4	7.6	4.6	1.5	5.0	4.1	2.4	2.8			23
9.0	9.6	9.2	8.0	6.0us				2.2				24
10.0	10.0	9.8	8.6	7.6us	3.8					4.6		25
10.6	10.0	12.4	8.2	G								26
10.8	10.6	G	G	6.2	2.5					3.4	4.2	27
10.6	8.6	G	G	4.6								28
11.6	12.0	11.9	G	G			3.0	2.4				29
10.4	10.8	11.2	8.2	5.4us					8			30
10.6	12.0	9.8	8.6	G			2.8	8.0	2.9			31
30	31	31	31	31	14	6	5	11	7	6	5	Count
10.9	10.6	9.8	8.0	6.0	3.9	4.0	2.9	2.4	2.9	3.3	4.6	Median
10.9	10.5	9.9	7.8	6.4	4.3	4.6	3.0	3.4	3.1	3.6	4.9	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds.

Characteristic fbE
Unit Mc
Month December, 1962

TABLE 83
Ionospheric Data
75°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			2 6					G	G	3 2	3 4	3 5
2			1 5					2 3	2 8	3 1	3 2	3 4
3								2 4	2 9	3 1	3 3	3 5
4								2 5	G	3 1	3 3	C
5								2 3	2 8	3 2	3 3	3 4
6			1 3					2 2	2 8	3 1	3 3	3 5
7		1 2					G	2 3	2 6	3 0	3 2	4 1
8					1 7			2 6	2 8	3 1	3 4	3 5
9								2 2	2 8	3 1	3 3	3 4
10							G	2 2	2 8	3 1	3 4	3 4
11			1 5				1 3	2 3	2 8	3 0	3 2	3 3
12								2 2	2 7	3 0	3 2	3 4
13		1 5	1 3					G	2 8	3 1	3 2	3 4
14								2 3	2 7	3 1	3 4	3 4
15								G	G	G	3 3	3 4
16					1 6			2 2	2 8	3 0	3 4	3 5
17								2 4	2 9	3 1	3 4	3 5
18								2 2	2 6	G	3 2	3 4
19	2 6	2 2				1 2		2 2	2 8	3 0	3 2	3 4
20					1 5			G	2 8	3 0	3 3	3 4
21	2 2		1 5					2 2	2 6	3 0	3 3	3 4
22	2 1	1 8				1 3		2 2	2 6	C	C	C
23							1 3	2 2	2 7	3 0	3 2	3 4
24								2 2	2 7	3 1	3 3	3 4
25								G	G	3 1	3 2	3 4
26		1 5	1 4	1 5				2 2	2 7	3 2	3 4	3 4
27								G	2 7	3 0	3 2	3 3
28		1 8	1 5	1 7				G	2 8	2 9	3 3	3 6
29								2 2	2 6	3 0	3 2	3 3
30								G	2 7	3 0	3 2	3 3
31								G	2 7	3 1	3 3	3 4
Count	3	6	8	2	3	2	4	31	31	30	30	29
Median		1 6	1 5					2 2	2 7	3 1	3 3	3 4
Mean		1 7	1 6					2 3	2 7	3 1	3 4	3 4

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic f_{br}s
 Unit Mc
 Month December, 1962.

TABLE 83
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° E
 Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
3 5	3 3	3 5	3 9	2 6	2 6	4 0						1
3 4	3 3	3 2	3 0	2 6								2
3 5	3 4	3 2	3 0	2 6								3
C	3 4	3 2	3 0	2 6	2 8				3 6			4
3 5	3 4	3 2	3 0	2 7		2 0						5
3 5	3 4	3 2	3 0	2 7	G							6
6 0	4 1	3 3	3 0	2 6	G			1 4	1 7	2 3		7
3 5	3 4	3 2	3 0	2 6			2 1					8
3 6	3 4	3 2	3 0	2 6	G							9
3 5	3 4	3 2	3 0	2 6						1 8	1 8	10
4 0	3 4	4 0	3 0	2 8	2 5							11
3 4	3 4	3 2	2 9	2 6	2 0	2 4	2 6	2 0			2 0	12
3 5	3 3	3 2	2 9	2 6			2 8					13
3 4	3 4	3 2	2 9	2 7	2 3				2 2			14
G		3 5	3 0	2 6	G							15
3 5	3 4	3 4	3 0	2 7	G	3 0	2 2					16
3 5	3 4	3 3	3 1	2 6	2 0							17
3 5	3 7	3 3	3 1	2 7	2 0	1 7					2 1	18
3 4	3 2	G	3 0	G	G						1 5	19
3 4	3 3	3 4	3 0	2 7	3 0				1 8	1 3	2 4	20
3 4	3 2	3 2	3 0	G	2 3						1 2	21
3 4	3 4	3 2	3 0	2 6	2 0	1 7	1 6			1 6		22
3 4	3 4	3 1	3 0	2 6	G		2 4		1 5	1 7		23
3 5	3 4	3 2	3 0	2 6	2 2							24
3 4	3 4	3 2	3 0	2 7	G	1 8					1 8	25
3 6	3 4	3 2	3 0	2 6				1 6				26
3 3	3 3	3 2	G	2 8	G							27
3 3	3 4	3 2	G	G								28
3 4	3 3	3 2	3 0	G	G	1 9	2 0	1 9		1 4		29
3 4	3 3	3 2	3 0	2 7	G	1 5						30
3 1	3 4	3 2	3 0	C	G			4 2	1 5			31
80	80	31	31	31	23	9	7	5	6	6	7	Count
3 5	3 4	3 2	3 0	2 6	G	1 9	2 2	1 9	1 8	1 6	1 8	Median
3 6	3 4	3 3	3 0	2 6	2 3	2 2	2 2	2 2	2 0	1 7	1 8	Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fbrs

TABLE 83—Cont'd

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month December, 1962.

75°E Mc in 1mc

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	1 7	2 0					G	3 6	3 0	3 3	3 4	3 5
2	2 6	1 6					G	2 6	3 0	3 2	3 3	3 4
3							G	2 7	3 0	3 2	3 4	3 5
4							G	2 7	3 0	3 2	3 4	C
5							G	2 6	3 0	3 2	3 4	3 4
6							2 0	2 6	3 1	3 2	3 4	3 5
7				1 5			2 0	2 6	3 0	3 2	4 1	3 3
8				1 1			G	2 6	4 5	3 2	3 5	3 4
9							1 9	2 6	3 0	3 2	3 3	3 0
10							1 8	2 5	3 0	3 2	3 4	3 5
11	1 4	1 6					1 9	2 5	3 0	3 1	3 3	3 2
12							1 9	2 6	2 9	3 1	3 4	3 4
13		1 3	1 4				G	2 5	2 9	3 1	3 3	3 4
14							G	G		3 2	3 5	3 4
15								G	3 0	G	3 3	3 3
16	4 0						G	2 6	3 0	3 2	3 4	3 6
17							1 9	2 6	3 0	3 2	3 4	3 4
18						1 3	1 7	2 5	2 8	3 2	3 3	3 4
19	2 6					1 3		2 5	2 8	3 2	C	3 1
20						1 2	1 9	2 5	2 9	3 2	3 3	3 4
21	1 7						G	2 5	2 9	3 2	3 4	3 4
22	1 8		1 0			1 3	1 8	2 4	2 9	C	C	3 4
23							1 8	2 5	3 0	3 2	3 4	3 4
24							G	2 6	3 0	3 2	3 3	3 5
25							G	G	2 9	3 2	3 3	3 3
26		1 8	1 7	1 8			1 8	2 5	2 9	3 4	3 4	3 5
27							G	G	G	3 3	C	3 5
28	1 9	1 4	1 4				G	2 6	2 9	3 2	3 3	3 4
29							1 8	2 6	2 8	3 2	3 3	3 4
30							G	2 5	2 9	3 1	3 3	3 3
31							G	2 6	3 0	3 2	3 4	3 5
Count	8	6	6	1	1	1	29	31	30	30	28	30
Median	1 8	1 6	1 4				G	2 6	3 0	3 2	3 4	3 4
Mean	2 2	1 6	1 4				1 9	2 6	3 0	3 2	3 4	3 6

Sweep 1 0 Mc. to 25 0 Mc. in 27 seconds

Characteristic fhrs
 Unit Mc
 Month December, 1962.

TABLE 83—Contd
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
3 6	3 3	3 9	3 0	2 8	2 4			1 6				1
3 4	3 3	3 0	2 8	2 9								2
3 5	3 3	3 1	2 9	2 9								3
G	3 4	3 1	2 8	2 9					2 2			4
3 4	3 4	3 1	2 9	2 4	2 1							5
3 5	3 4	3 1	2 8	2 4								6
3 4	3 5	3 2	2 8	2 3			1 4	1 3				7
3 5	3 3	3 1	2 8	2 4		1 8						8
3 3	3 3	3 1	2 8	2 9								9
3 4	3 4	3 1	2 9	3 1					1 8			10
3 8	3 7	4 5	3 0	2 7	1 9							11
3 3	3 3	3 0	2 8	2 4	1 8	2 7	2 6	1 7			1 8	12
3 4	3 3	3 1	2 7	2 3	1 8							13
3 4	3 2	3 0	2 8	G	2 6							14
G	G	3 2	2 8	2 3				1 6				15
3 5	3 3	3 2	2 8	2 3	1 6	3 0						16
3 5	3 3	3 0	2 9	2 4	1 6							17
3 4	3 5	3 1	3 0	2 3	2 1	1 5					2 0	18
3 4	3 2	3 1	2 8	2 3				1 4		1 5	1 5	19
3 4	3 4	3 1	2 8	2 4					1 5	1 4	1 4	20
3 4	3 2	3 1	G	G	1 9				1 6			21
3 4	3 2	3 2	2 8	2 3		1 7		1 4		1 8		22
3 4	3 3	3 1	2 8	2 3		1 9	1 8	1 5				23
3 4	3 3	3 1	2 8	2 6				1 6				24
3 4	3 4	3 1	2 8	2 4	1 9					1 1		25
3 6	3 4	3 2	2 8	2 4								26
3 4	3 2	G	G	2 5	1 7					1 9		27
3 3	3 2	G	G	2 5								28
3 4	3 3	3 1	G	G			1 7					29
3 4	3 3	3 2	2 8	2 5					1 5			30
3 5	3 4	3 1	2 8	G				2 3	1 6	1 8		31
3 0	3 1	3 1	3 1	3 1	1 2	6	4	9	6	5	4	Count
3 4	3 3	3 1	2 8	2 3	1 9	1 8		1 6	1 6	1 5		Median
3 5	3 3	3 2	2 8	2 4	2 0	2 1		1 6	1 7	1 5		Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic *f*_{min}

Unit Mc

Month December, 1962

TABLE 84

Ionospheric Data

75°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	14	15	E	E	E	19	13	16	14	18	19	21
2	18	13	11	13	13	11	15	13	15	17	19	20
3	13	15	11	10	E	F	15	14	16	18	20	22
4	12	14	15	E	11	11	16	15	15	18	21	C
5	15	16	13	19	10	12	16	14	15	18	20	20
6	14	11	E	14	14	E	11	10	14	17	17	22
7	14	E	10	10	E	E	11	19	14	16	20	20
8	17	15	E	E	L	E	14	11	13	11	20	20
9	12	12	E	E	11	19	14	13	14	16	20	22
10	11	10	E	E	L	F	L	12	14	17	19	21
11	18	11	14	11	11	10	E	12	13	16	18	19
12	15	19	E	C	10	E	14	12	16	17	19	23
13	13	12	E	E	13	12	14	14	14	17	19	21
14	11	E	E	E	E	F	11	13	16	18	18	21
15	13	E	E	10	E	11	11	14	15	19	18	22
16	E	18	E	E	E	E	14	11	13	18	20	22
17	16	12	E	E	E	E	13	E	14	18	20	21
18	14	16	11	13	E	11	13	12	13	17	19	20
19	E	E	15	E	10	E	13	11	15	16	16	20
20	10	15	14	10	E	12	16	13	12	17	18	20
21	14	15	E	E	E	E	12	14	13	17	19	22
22	13	E	E	E	E	E	13	12	15	C	C	C
23	14	13	13	13	12	11	E	11	14	17	20	21
24	11	E	E	13	E	11	13	13	13	14	20	20
25	13	15	12	11	E	E	14	13	18	16	21	20
26	E	13	11	10	12	13	12	12	13	16	22	24
27	13	E	F	E	E	L	12	14	15	18	20	22
28	17	11	E	12	11	K	11	14	15	19	21	22
29	14	R	E	E	E	11	11	12	15	16	20	21
30	E	13	E	E	E	E	11	14	14	19	18	22
31	12	E	E	L	E	E	11	13	14	18	23	23
Count	31	30	31	30	30	31	31	31	31	30	30	29
Median	14	12	E	E	11	11	13	13	11	17	20	21
Mean	14	11	12	12	12	12	13	13	14	17	19	21

Sweep 10 Mc to 25.0 Mc in 27 seconds

Characteristic fmin		TABLE 84											Latitude 10 2° N
Unit Mc		Ionospheric Data											Longitude 77 5° E
Month December, 1962		75°E Mean Time											
12	13	14	15	16	17	18	19	20	21	22	23	Date	
2 2	2 2	2 2	1 7	1 9	1 7	1 7	1 6	1 6	1 9	1 5	1 2	1	
2 1	2 0	1 8	1 7	1 8	2 0	1 7	C	2 5	2 2	2 5	2 0	2	
2 2	2 1	2 0	1 7	1 9	2 0	1 3	1 9	2 0	1 8	1 6	1 4	3	
C	1 9	2 0	1 7	1 6	1 9	2 3	1 7	1 8	1 8	1 7	1 5	4	
2 1	2 1	2 2	2 0	2 2	1 7	1 9	1 2	1 9	1 7	1 9	1 8	5	
2 1	2 1	1 9	1 8	1 8	1 7	1 5	1 6	1 8	1 4	1 6	1 3	6	
2 2	2 0	2 3	1 8	1 7	1 4	1 4	1 1	E	1 4	1 4	1 7	7	
2 0	2 0	1 9	1 8	2 7	2 0	1 2	E	1 5	1 5	1 4	1 3	8	
2 2	2 1	2 1	2 0	1 9	1 7	1 2	1 9	1 8	1 8	1 5	1 4	9	
1 9	1 7	1 9	1 5	3 0	2 0	1 3	1 6	1 7	1 6	1 6	1 4	10	
1 9	1 9	2 0	1 5	1 7	E	2 0	1 7	1 9	1 7	1 7	1 4	11	
2 3	1 9	1 9	1 9	1 8	1 5	1 4	1 4	1 6	1 7	1 8	1 3	12	
2 1	2 2	1 8	1 8	1 7	1 9	2 0	1 9	2 0	1 6	1 7	1 3	13	
2 1	2 0	1 8	1 7	1 6	1 6	1 5	1 3	2 0	1 5	1 6	1 4	14	
2 8	2 3	2 3	1 9	1 7	1 3	1 5	1 5	1 8	1 6	1 6	1 0	15	
2 2	2 0	1 9	1 6	1 6	1 9	1 3	1 4	2 0	1 8	1 0	2 1	16	
2 9	1 8	1 9	1 4	1 5	E	1 5	1 3	1 5	1 7	E	E	17	
2 1	1 8	1 8	1 7	1 5	1 5	1 3	1 6	1 5	1 7	1 5	1 1	18	
2 2	2 0	2 2	1 8	2 2	1 3	1 3	1 3	1 5	1 4	1 4	1 0	19	
2 3	2 0	2 0	1 7	1 7	1 2	1 3	1 7	1 5	1 1	1 2	1 5	20	
2 1	2 2	2 2	2 0	2 0	1 6	1 7	C	C	1 7	1 4	E	21	
2 0	2 2	2 2	1 8	1 8	1 5	1 5	1 4	1 2	1 3	1 5	1 5	22	
2 2	2 0	1 8	1 6	1 6	1 3	1 4	E	1 5	E	E	1 3	23	
2 2	2 1	2 0	1 7	1 9	2 0	1 5	1 5	1 2	1 5	1 4	1 7	24	
2 2	2 0	2 0	1 9	1 6	1 5	1 2	1 5	1 6	1 3	1 2	1 3	25	
2 6	2 4	2 2	2 0	1 8	2 1	1 4	1 5	1 6	1 5	1 4	E	26	
2 2	2 3	2 1	1 9	1 8	1 4	1 3	1 9	1 8	1 4	1 5	1 4	27	
2 3	2 3	2 0	1 8	1 9	2 1	1 6	1 4	1 4	1 5	1 4	1 5	28	
2 2	2 1	2 0	1 7	1 8	1 5	1 4	1 3	1 1	1 3	1 2	1 2	29	
2 3	2 2	1 9	1 8	1 6	1 6	1 4	1 4	1 4	1 2	1 6	1 5	30	
2 1	2 4	2 2	1 8	1 6	1 4	1 5	1 4	1 1	E	1 4	1 5	31	
30	31	31	31	31	31	31	29	30	31	31	31	Count	
2 2	2 1	2 0	1 8	1 8	1 6	1 4	1 5	1 6	1 5	1 5	1 4	Median	
2 2	2 1	2 0	1 8	1 8	1 6	1 5	1 5	1 6	1 6	1 6	1 4	Mean	

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fmin

TABLE 84—Contd

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month December, 1962

75°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	1 2	1 4	1 1	1 2	1 1	1 9	1 2	1 4	1 7	1 9	2 0	2 2
2	E	1 6	1 1	1 1	1 5	1 2	1 4	1 5	1 6	1 8	2 0	2 0
3	1 4	E	1 6	1 3	E	E	1 3	1 5	1 7	1 9	2 1	2 2
4	1 4	1 3	1 3	1 1	1 2	1 1	1 4	1 5	1 7	2 0	2 1	C
5	1 3	1 5	1 3	1 1	1 3	1 0	1 3	1 5	1 6	1 8	2 1	2 3
6	1 5	1 3	1 3	1 1	E	E	1 2	1 4	1 5	1 8	2 1	2 1
7	1 0	1 4	E	L	1 1	L	1 2	1 2	1 5	1 7	2 1	2 1
8	1 7	1 4	1 1	E	E	E	1 2	1 1	1 6	1 7	1 8	2 0
9	1 3	1 1	E	1 2	1 1	E	1 4	1 4	1 5	1 8	2 0	2 2
10	1 7	1 1	1 2	1 0	E	E	1 1	1 4	1 6	1 9	2 0	2 2
11	1 4	1 5	1 3	1 1	E	1 2	1 1	1 1	1 4	1 7	1 9	1 9
12	1 3	1 7	E	1 3	1 1	E	1 3	1 4	1 6	1 8	2 1	2 2
13	1 2	1 3	E	E	1 3	1 2	1 3	1 3	1 6	1 8	2 0	2 2
14	1 1	E	E	E	E	1 0	1 3	1 4	1 9	1 8	2 1	2 1
15	1 2	E	E	F	1 0	1 1	1 4	1 7	1 7	1 7	2 2	2 3
16	E	1 0	E	E	1 1	1 0	1 3	1 1	1 6	1 7	2 2	2 2
17	1 3	E	E	E	E	L	1 2	1 2	1 6	1 8	2 0	2 0
18	1 2	1 5	1 1	1 3	1 0	1 4	1 3	1 1	1 4	1 6	1 8	2 0
19	E	1 5	1 5	1 1	1 0	1 2	1 3	1 4	1 6	1 8	C	2 0
20	1 4	1 5	1 3	1 1	1 1	2 0	1 3	1 3	1 5	1 8	2 0	2 2
21	1 4	1 4	E	E	E	E	1 1	1 2	1 6	2 0	2 1	2 1
22	1 2	E	F	F	E	1 3	1 2	1 3	1 5	C	C	1 7
23	1 3	E	1 1	1 1	1 8	E	1 1	1 3	1 6	1 8	2 0	2 2
24	1 1	1 6	E	E	E	E	1 3	1 4	1 5	1 7	2 0	2 0
25	1 3	1 3	E	E	E	E	1 4	1 5	1 6	1 9	2 2	2 1
26	E	1 3	E	1 1	1 4	1 2	1 1	1 3	1 5	2 0	2 2	2 2
27	1 2	E	E	E	E	E	1 2	1 5	1 6	1 9	C	2 2
28	1 5	E	E	1 4	1 1	E	E	1 3	1 9	1 9	2 0	2 2
29	1 3	1 1	E	E	E	1 2	1 2	1 4	1 6	1 9	1 9	2 1
30	1 5	1 3	L	E	E	E	E	1 7	1 5	1 9	2 0	2 3
31	1 2	E	1 1	E	1 1	E	1 1	1 3	1 6	1 9	2 3	2 3
Count	31	31	30	30	31	31	31	31	31	30	28	30
Mean	1 3	1 4	1 2	1 2	1 2	1 3	1 3	1 4	1 6	1 8	2 0	2 1
Median	1 3	1 3	E	1 1	1 0	E	1 2	1 4	1 6	1 8	2 0	2 2

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic fmin

TABLE 84—Contd

Latitude 10 2° N

Unit Mc

Ionospheric Data

Longitude 77 5° E

Month December, 1962

75°E Mc in fmin

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
23	21	21	18	15	15	20	20	14	14	14	19	1
20	19	18	20	18	16	25	26	24	22	24	17	2
23	20	18	20	17	15	18	18	20	17	15	14	3
C	C	19	20	17	22	20	20	11	21	20	17	4
20	24	22	22	24	18	16	20	17	19	18	14	5
22	20	18	21	16	17	17	20	18	17	15	14	6
21	23	20	18	16	15	12	E	12	17	16	19	7
22	20	20	19	19	14	15	19	18	14	15	10	8
21	20	20	21	18	15	14	20	15	14	15	13	9
20	26	18	16	16	19	19	18	16	11	17	16	10
18	19	16	16	16	14	18	20	17	16	16	13	11
21	20	18	18	18	14	13	11	15	16	18	10	12
21	20	18	18	15	15	23	22	16	19	14	11	13
22	20	18	17	15	16	17	16	17	14	10	E	14
26	25	22	18	16	16	15	16	16	17	15	15	15
22	18	17	18	14	13	16	22	19	20	18	17	16
22	19	17	17	14	E	16	10	12	14	13	10	17
19	19	17	17	15	14	13	15	19	14	16	10	18
21	19	19	23	15	14	16	15	11	12	14	10	19
21	26	20	19	16	16	16	13	16	13	12	13	20
22	22	22	22	18	16	13	C	14	14	12	15	21
22	22	20	21	16	18	13	17	11	14	15	15	22
22	22	19	19	16	12	14	14	E	14	13	12	23
21	22	19	20	19	18	17	14	11	15	13	14	24
21	20	20	20	16	12	17	15	14	13	11	18	25
23	23	22	20	18	16	16	15	15	15	12	14	26
23	23	19	19	13	13	14	17	15	14	14	12	27
22	22	19	22	16	15	15	14	14	15	18	14	28
23	20	19	18	17	16	14	E	14	13	13	14	29
22	20	19	18	15	16	14	14	14	14	14	13	30
23	23	21	18	13	17	14	11	11	12	17	16	31
30	31	31	31	31	31	31	30	31	31	31	31	Count
22	20	19	19	16	15	16	16	15	14	15	14	Median
22	21	19	19	16	16	16	17	15	15	15	14	Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'F2
 Unit Km
 Month December, 1962

TABLE 85
 Ionospheric Data
 75°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	300	320	320	325
2								L	L	I	380	365
3								L	305	L	L	340
4								I	280	305	325	C
5								L	L	L	340	L
6								L	I	I	L	390m
7								I	L	L	L	350
8								I	L	L	L	L
9								L	L	L	310m	330
10								L	I	I	L	355
11								I	L	I	L	355
12								I	I	L	L	325
13								L	L	335	335	325
14								L	L	L	L	L
15								I	I	285	310	I
16								L	330	340	380	370
17							L	L	310	330	320	360
18								I	L	305	305	L
19							I	I	300	290	340	310
20								I	L	320	330	330
21							L	I	I	L	360	320
22							L	L	L	C	C	C
23								L	L	L	L	340
24							L	L	300	300	320	340
25							L	L	L	L	320	L
26								L	290	320	370	400
27								270	280	305	355	I
28								L	320	305	340	360
29								I	L	I	L	370
30								L	L	340	380	410
31								I	L	320	365	400
Count								1	10	16	20	22
Median									300	310	340	345
Mean									300	315	340	350

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'F2

TABLE 85—*cont'd*

Latitude 10 2° N

Unit Km

Ionospheric Data

Longitude 77 5° E

Month December, 1962

75°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1								L	300	310	320	340
2								L	340	340	360	A
3								L	300	325	345	360
4								L	300	L	335 34	C
5								L	L	L	340	320
6								L	300 ^{UL}	L	340 ^{UL}	335 ^{UL}
7							L	L	L	L	L	L
8							L	L	A	L	335 ^{UL}	310
9								L	L	L	335 ^{UL}	A
10							L	L	L	L	365	355 ^{UL}
11								L	L	335	340	A
12								L	L	L	320	L
13								L	L	335	335	345
14							L	L	285	300	L	350
15								L	280	300	340	320
16							L	L	L	350	350	380
17							L	320	310	320	365	360
18								L	L	L	L	L
19							L	L	310	310	C	340
20							L	L	300	340	335	360
21							L	L	L	L	320	340
22							L	L	L	C	C	L
23							L	L	320	340	L	L
24							L	L	300	300	L	350
25							L	L	L	320	320	380
26							L	L	310	335	340	380
27								280	285	310	C	360
28							L	L	305	315	L	345
29							L	L	320	365	400	390
30								L	330	380	400	330
31							L	290	315	L	400	400
Count								3	18	19	22	22
Median									300	335	310	350
Mean									305	330	350	360

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'F2		TABLE—85 <i>contd.</i>											Latitude 10 2° N
Unit Km		Ionospheric Data											Longitude 77 5° E
Month December, 1962		75°E Mean Time											
1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date	
340	L	L	L	L								1	
370	L	320	L	L								2	
345	L	L	L	L								3	
C	L	L	L	L								4	
340	L	L	L	L								5	
325	L	L	L	L								6	
L	L	L	L	L								7	
330	L	L	L	L								8	
335	L	L	L	L								9	
L	L	L	L	L								10	
360	345	A	L	L								11	
L	L	L	L	L								12	
L	L	L	L	L								13	
335	L	L	L	L								14	
300	315	305	L	L								15	
360	330	350	L	L	L							16	
340	360	340	L	L	L							17	
L	L	L	L	L								18	
350	320	305	L	L	L							19	
L	360	L	L	L								20	
L	L	L	L	L	L							21	
360	L	L	L	L	L							22	
350	L	L	L	L	L							23	
L	320	L	L	L	L							24	
370	350	L	L	L	L							25	
380	340	320	L	L	L							26	
360	360	L	295	L	L							27	
L	L	325	300	L	L							28	
360	350	335	L	L	L							29	
400	L	L	L	L	L							30	
395	350	350	L	280								31	
21	12	9	2	1								Count	
350	350	325										Median	
355	340	330										Mean	

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

TABLE 86
 Ionospheric Data
 75° E Mean Time

Characteristic h'F
 Unit Km
 Month December, 1962

Latitude 10 2° N
 Longitude 77 5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	250	265	A	250	240	245	260	240	230	215	215	215
2	255	240	240	210	240	250	265	220	200	200	200	195
3	220	230	230	250	260	270	260	235	225	220	210	200
4	220	230	240	215	210	235	240	230	220	205	200	C
5	305	290	240	235	240	250	260	210	220	220	210	200
6	235	235	235	235	240	250	265	220	200 _{rx}	200	200	200
7	220	220	220	230	270	270	255	235	215	200	A	A
8	235	230	235	215	270	280	260	235	220	200	195	200
9	235	210	260	290	300 _{rx}	260 _{rx}	260	210	210	200	190	200
10	225	225	215	240	260	270	275	210 _{rx}	215	205	210	200
11	240	215	230	220	250	265	275	240	225	210	200	200
12	230	260	280	255	255	255	275	240	230	200 _{rx}	200 _{rx}	200 _{rx}
13	235	210	240	240	230	210	270	210	200 _{rx}	200	200	205
14	235	235	220	230	250	25	260	240	225	215	210	210
15	240	235	235	255	250	230	250	230	220	205	200	200 _{rx}
16	240	270	250	260	250	220	260	235	210	200	200	210
17	210	210	240	260	260	250	270	210	230	205	200	200
18	310	285	265	255	275	280	285	250	230	225 _{rx}	220	200
19	300	260	240	300	320	300 _w	300	210	220	200	200	220
20	260	280	230	310	320	280	275	240	230	220	210	210
21	F	F	1	275 _h	300 _v	260 _w	275	240	220 _{rx}	220	210	200
22	250	280	1	1	320 _h	260	270	220	220	C	C	C
23	210	220	240	265	250	215	260	220	210	200	190	180 _{rx}
24	225	230	200	205	220	230	250	220	210	200	200	200
25	200	205	200	215	200	200	235	210	200	200	190	180 _{rx}
26	220	220	250	260	240	235	255	210	180	200	200	190
27	215	205	220	230	240	235	285	240	225	215	200	195
28	225	240	235	235	210	260	260	230	215	205	200	195
29	265	R	S	E	E	E	265	230	200 _{rx}	200 _L	200	190
30	220	230	225	230	230	215	260	235	200 _{rx}	205	195	190
31	230	235	250	250	250	210	250	230	220	200	185 _{rx}	180
Count	30	29	27	30	31	31	31	31	31	30	29	28
Median	235	235	235	250	250	255	260	235	220	200	200	200
Mean	240	240	235	250	255	255	265	230	215	205	200	200

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'F
Unit Km
Month December, 1962

TABLE 86
Ionospheric Data
75°E Mean Time

Latitude 10 2° N
Longitude 77 5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
205	210	220	200	240	260	A	240	240	235	240	240	1
190	180	200	200	200	245	260	C	235	235	240	235	2
200	185 _{EX}	190	200	220	245	280	360	F	260	240	225	3
C	195	180 _{EX}	200	220	255	235	245	A	235	235	280	4
200	200 _{EX}	200	200	220	250	260	280	270	235	235	230	5
200	205	205	200	220	245	260	270	240	215	230	220	6
A	A	200	190 _{EX}	220	240	260	280	275	230	225	230	7
205	200	195	200	215	245	255	260	245	225	230	230	8
A	200	195	200	220	260	270	300	285	260	215	245	9
215	200	200 _{EX}	205 _{EX}	230	255	290	320 _{EX}	350 _{EX}	305 _{EX}	300 _{EX}	240 _{EX}	10
215	200	A	200	240	265	280	305	300	250	255	240	11
200 _{EX}	205	200	205	200 _{EX}	255	275	285	270	250	210	235	12
195	190	200	200	230	255	250	280	245	235	235	230	13
200	195	185	195	230	250	235	295	250	230	230	245	14
200	200	200	205	210	215	235	265	265	225	230 _{EX}	235	15
195	180	215	220	235	250	280	290	280	240	210	240	16
210	200	200	215	220	250	255	270	280	260	245	280	17
210	210	200 _{EX}	235	235	215	265	280	350 _{EX}	315	260	280	18
210	200	200	220	240	260	275	320	285	260	240	250	19
200	200	200	200	220	A ₁	280	305	310	280	235	240	20
190	180 _{EX}	195	200	220	210	240	C	C	205	220	290	21
190	180 _{EX}	200	200	210	240	245	250	210	220	230	220	22
200	180 _{EX}	190	190	200	230	240	260	215	240 _{EX}	225	220 _{EX}	23
190	180	175 _{EX}	180	210	235	240	225	225	235	220	220	24
175 _{EX}	190	180 _{EX}	180 _{EX}	205	230	220	220	205	200	200	220	25
180	175	175	185	205	230	260	300	350	250	235	210	26
190	185 _{EX}	190	215 _{EX}	230	240	260	300	F	F	225	225	27
190	190	195	190	220	240	240	220	215	215	220	260	28
190	190	185	195	220	240	240	245	255	230	225	225	29
185 _{EX}	180	190	190	220	235	240	240	215	220	225	220	30
195	180	180	180 _{EX}	200	230	225	235	A	225	250	235	31
28	30	30	31	31	30	30	29	27	29	31	31	Count
200	190	200	200	220	245	260	270	255	235	235	235	Median
195	190	195	200	220	215	255	270	265	240	235	235	Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'F
 Unit Km
 Month December, 1962

TABLE 86—*contd.*
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	260	300	270	240	240	280	230	240	220	220	205	200
2	245	240	240	240	240	230	245	200	200 _{rx}	200	200	185
3	220	225	240	260	270	280	240	235	220	215	205	200
4	220	245	240	240	240	240	235	225	205	200	200	C
5	300	265	240	240	250	280	250	240	205	215	205	205
6	235	240	235	240	240	270	250	205	210	200	200	200
7	220	225	235	250	260	280	240	205	210	195	A	A
8	240	235	235	255	255	280	240	205	\	200	200	200
9	240	255	270	300	280 _{rx}	260 _{rx}	215	215	205	200	200	A
10	230	220	235	230	265	300	205 _{rx}	205 _{rx}	215	200	200	200
11	240	235	235	225	260	300	255	220 _{rx}	220	215	200	A
12	220	280	270	240	260	260	235	230	205	205	200	200
13	235	230	255	240	240	260	250	225	215	200	195 _{rx}	200
14	235	220	225	235	275	305	245	230	225	200	210	200
15	240	245	245	250	230	240	240	225	210	200	200	220
16	260	260	255	240	240	250	240	220	210	200	200	200
17	240	240	240	270	245	250	255	220	220	200	200	200
18	300	280	270	260	275	380 _{rx}	265	240	220	220	200	195
19	280	260	260	310	320	280	255	230	205	200	C	200
20	280	270	310	390	320	260	250	210	210	215	210	200
21	F	240 _{rx}	I	280 _{rx}	280 _{rx}	260 _{rx}	260	235	220	210	200	190
22	255	305 _{rx}	F	F	300 _{rx}	240	240	220	215	C	C	180
23	210	220	255	260	240	240	230	220	200	195	200	180 _{rx}
24	230	220	200	220	220	E	230	220	205	200	200	190
25	200	200	200	200	200	210	230	200	200	180	180 _{rx}	180 _{rx}
26	220	240	265	A	235	250	240	205	190	200	200	180
27	210	225	225	250	260	330	240	230	210	215	C	195
28	235	235	240	230	260	265	240	230	225	200	190	190
29	250	265	280	E	E	E	240	240	215	200	195	190
30	225	225	220	235	250	E	240	225	200	200	200	190 _{rx}
31	235	235	260	250	260	230	235	225	200	190	185	200
Count	30	31	29	29	31	31	31	31	30	30	27	27
Median	235	240	240	250	260	265	240	225	210	200	200	200
Mean	240	245	245	250	255	270	245	220	210	205	200	195

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'E
Unit Km
Month December, 1962

TABLE 87
Ionospheric Data
75°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								115	115	A	A	A
2								110	A	A	A	A
3								115	105	A	A	A
4								110 _m	105	A	A	C
5								110	105	A	A	A
6								A	A	A	A	A
7							115	A	A	A	A	A
8								A	A	A	A	A
9								A	A	A	A	A
10							180	A	A	A	A	A
11								110	105	A	A	A
12								115	110	110	A	A
13								115	105	A	A	A
14								110	110	105	A	A
15								110	105	105	105	A
16								A	A	A	A	A
17								A	A	A	A	A
18								115	105	105	105	A
19								A	A	A	A	A
20								120	A	A	A	A
21								A	A	A	A	A
22								100	A	C	C	C
23								A	A	A	A	A
24								A	A	A	A	A
25								100	100	A	A	A
26								A	A	A	A	A
27								115	A	A	A	A
28								105	A	A	A	A
29								A	A	A	A	A
30								105	A	A	A	A
31								105	A	A	A	A
Count								2	18	11	4	2
Median								110	105			
Mean								110	105			

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h E TABLE 87—Contd Latitude 10 2° N
 Unit Km Ionospheric Data Longitude 77 5° E
 Month December, 1962 75°E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
A	A	110	A	A								1
A	A	A	A	A								2
A	A	A	A	120								3
C	A	A	110	A								4
A	A	A	110									5
A	A	A	A	A								6
A	A	A	110	A								7
A	A	A	115	120								8
A	A	A	115	120								9
A	A	A	A	A								10
A	A	A	A	A								11
A	A	110	110	120								12
A	A	A	110	120								13
A	A	A	A	120								14
110	110	110	105	115								15
A	A	A	A	A								16
A	A	A	A	A								17
A	105	110	110	120								18
A	A	A	120	120								19
A	A	A	A	A								20
A	A	A	110	110								21
A	A	A	A	100								22
A	A	A	A	A								23
A	A	A	A	A								24
A	A	A	A	A								25
A	A	A	A	130								26
A	A	E	100	A	A							27
A	A	100	120	A								28
A	A	A	105	110								29
A	A	A	A	A								30
A	A	A	A	100								31
1	2	5	14	14								Count
		110	110	120								Median
		110	110	115								Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds.

Characteristic, h'Es

TABLE 88

Latitude 10 2° N

Unit Km

Ionospheric Data

Longitude 77 5° E

Month December, 1962

75°E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1			105					G	G	100	100	100
2			110	110				100	100	100	100	100
3								100	100	100	100	100
4								120	G	100	100	C
5								100	100	100	100	100
6			115				170	105	100	100	100	100
7		110					G	100	100	100	100	100
8					105			105	100	100	100	100
9			105					105	100	100	100	100
10							G	110	105	100	100	100
11	125	100	115				115	105	100	100	100	100
12								105	100	100	100	100
13		110	115					C	100	100	100	100
14								110	115	100	100	100
15								G	G	G	100	100
16					140			100	110	100	100	100
17								120	110	100	100	100
18								105	100	G	100	100
19	100	100				110		120	115	100	100	100
20					120			C	110	100	100	100
21	110		100	100				100	100	100	100	100
22	100	105				100		100	100	C	C	C
23						100	100	100	100	100	100	100
24								100	100	100	100	100
25								G	G	100	100	100
26		100	100	100				100	100	100	100	100
27								G	100	100	100	100
28		105	100	100				G	100	100	100	100
29						100		100	100	100	100	100
30								G	100	100	100	100
31								G	100	100	100	100
Count	4	7	9	4	3	4	3	22	27	28	30	29
Median		105	105					100	100	100	100	100
Mean		105	105					105	100	100	100	100

Sw. ep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'Es

TABLE 88—Contd

Latitude 10 2° N

Unit Km

Ionospheric Data

Longitude 77 5° E

Month December, 1962

75°E Mean Time

Date	0030	0130	0230	0330	0440	0530	0630	0730	0830	0930	1030	1130
1	110	110					G	100	100	100	100	100
2	110	110					G	100	100	100	100	100
3							G	100	100	100	100	100
4							G	125	100	100	100	C
5							G	100	100	100	100	100
6			115				110	100	100	100	100	100
7			110				125	100	100	100	100	100
8							G	100	100	100	100	100
9			115	100			115	100	100	100	100	100
10							115	105	100	100	100	100
11	120	115					105	105	100	100	100	100
12							120	105	100	100	100	100
13		110	110				G	100	100	100	100	100
14							G	G	135	100	100	100
15							115	G	110	G	100	100
16	130						G	115	100	100	100	100
17							125	110	100	100	100	100
18					115		100	115	100	100	100	100
19	100				120			110	100	100	C	100
20					120		115	115	105	100	100	100
21	120		100				G	100	100	100	100	100
22	100				100		120	100	100	C	G	100
23					100	100	100	100	100	100	100	100
24							G	100	100	100	100	100
25							G	G	100	100	100	100
26		100	100	100			115	100	100	100	100	100
27							G	G	G	100	C	100
28	105	100	100				G	100	100	100	100	100
29						100	100	100	100	100	100	100
30							G	100	100	100	100	100
31							G	100	100	100	100	100
Count	8	6	7	2	5	2	14	27	30	29	28	90
Median	110	110	110		115		115	100	100	100	100	100
Mean	110	105	105		110		115	105	100	100	100	100

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'Es
 Unit Km
 Month December, 1962

TABLE 88—Contd
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
100	100	100	100	100	100			120				1
100	100	100	100	105								2
100	100	100	100	105								3
G	100	100	100	100				120	115			4
100	100	100	100	105	115							5
100	100	100	100	110								6
100	100	100	100	110			140	125				7
100	100	100	110	110		100						8
100	100	100	100	115								9
100	100	100	100	110					115	130		10
100	100	100	100	100	140							11
100	100	100	100	110	100		100	100			115	12
100	100	100	100	105	105							13
100	100	100	100	G	130							14
G	G	100	100	100				120				15
100	100	100	110	120	100	100						16
100	100	100	110	120	100							17
100	100	100	105	115	120							18
100	100	120	120	120				130		120	120	19
100	100	100	100	110					130	130	115	20
100	100	100	G	G	125		G		105			21
100	100	100	100	100	100	105		115	100	100		22
100	100	100	100	100	130	100	100	100	120			23
100	100	100	100	100	100							24
100	100	100	100	100	80					100		25
100	100	100	100	G								26
100	100	G	G	100	100					110	115	27
100	100	G	G	100								28
100	100	100	G	G			120	120				29
100	100	100	100	100					115			30
100	100	100	100	G			115	100	100			31
29	30	29	27	26	13	6	5	11	8	6	5	Count
100	100	100	100	105	105	100	115	120	115	115	115	Median
100	100	100	100	105	110	105	115	115	110	115	115	Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic (M3000)F2

TABLE 89

Latitude 10 2° N

Unit —

Ionospheric Data

Longitude 77 5° E

Month December, 1962

75°E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	3 20	3 10	S	3 35	3 30	3 35	3 25	3 25	3 20	2 95	2 80	2 75
2	3 30	3 35	3 30	3 30	3 35	3 40	3 15	3 05	2 70	2 50	2 60	2 60
3	3 45	3 40	3 40	3 30	3 20	3 15	3 25	3 10	3 00	2 70	2 55	2 70
4	3 30	3 20	3 20	3 25	3 35	3 45 ^{UP}	3 35	3 40	3 30	3 00	2 80	C
5	2 90	3 00	3 25	3 35	3 35	3 30	3 15	2 90	2 80	2 70	2 65	2 65
6	3 30	3 25	3 30 ^{US}	3 35	3 50	3 40	3 00	2 90	2 80	2 75	2 60	2 75
7	3 50	3 50	3 35	3 45	3 20	3 25	3 05	3 15	2 90	2 80	2 80	2 70
8	3 45	3 45 ^{US}	3 35	3 25	3 15	3 00	2 80	3 05	2 90	2 70	2 60	2 70
9	3 30	3 20	3 20	3 00	3 00 ^{UP}	F	F	3 00	2 90	2 90	2 80	2 60
10	3 40	3 45	3 40	3 45	3 25	3 25	3 05	2 85	2 60	2 60	2 60	2 60
11	F	3 30 ^F	F	3 50	3 25	3 25	2 90	2 80	2 75	2 65	2 50 ^{tr}	2 70
12	3 25 ^{tr}	3 05	2 95	I	3 35 ^F	3 25	2 95	2 90	2 75	2 70	2 50	2 55
13	3 25	3 20	3 25	3 30	3 45	3 40	3 20	3 15	3 05	2 55	2 55	2 70
14	3 25	3 30	3 45	3 40	3 50	R	3 10	3 35	3 20	3 10	3 75	2 50
15	3 25	3 35	3 30	3 30	3 25	3 45	3 30	3 45	3 30	3 25	3 10	2 80
16	3 25	3 10	3 00	F	3 25 ^F	3 50	3 15	3 20	2 75	2 60	2 70	2 70
17	3 40	3 40	3 30	3 20	3 30	3 40	3 20	3 00	2 70	2 80	2 65	2 65
18	2 85	F	F	F	F	F	3 05	2 80	2 90	2 80	2 70	2 40
19	I	F	3 30	3 00	F	F	F	3 15	2 90	2 50	2 65	2 60
20	3 10	2 90	F	F	F	F	F	2 90	2 70	2 60	2 70	2 75
21	F	F	F	F	F	F	F	3 05	2 60	2 55	2 60	2 60
22	3 40	3 10	F	F	F	F	F	3 20	3 05	C	C	C
23	3 50	3 50	3 20	3 10	3 30	3 50	3 20	3 10	2 80	2 80	2 70	2 80
24	3 40	3 40	3 45	3 55	3 60	3 60	3 40	3 40	3 15 ^{US}	2 75	2 80	2 70
25	3 55	3 65	3 20	3 60	3 55	3 65	3 45	3 60	3 50	3 30	2 70	2 70
26	3 70	3 55	3 20	3 30	3 45	3 40	3 30	3 20	2 85	2 60	2 55	2 60
27	3 20	3 35	3 40	3 45	3 40	3 15	2 90	3 15	3 20	3 05	2 75	2 40
28	3 50	3 45	3 40	3 40	3 35	3 50 ^{tr}	3 20	3 25	3 15	2 75	2 30 ^{tr}	2 65
29	3 40 ^R	R	3 40 ^R	E	E	F	3 20	3 10	2 80	2 60	2 55	2 60
30	3 50	3 40	3 40	3 30	3 40	3 40 ^{tr}	3 20	3 25	2 95	2 60	2 55	2 55
31	3 35	3 35	3 25	3 20	3 25	F	3 35	3 30	3 00	2 70	2 60 ^{tr}	2 55
Count	28	27	25	24	25	22	26	31	31	30	30	29
Median	3 30	3 35	3 30	3 30	3 35	3 40	3 20	3 15	2 90	2 70	2 65	2 65
Mean	3 35	3 30	3 30	3 30	3 35	3 35	3 15	3 15	2 95	2 75	2 65	2 65

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic. (M 3000)F2

TABLE 89

Latitude 10° 2 N

Unit —

Ionospheric Data

Longitude 77° 5 E

Month December, 1962

75°E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
2 80	2 70	2 50	2 60	2 70	2 95	3 05	3 10	3 15	3 25	3 25	3 35	1
2 50	2 50	2 50	2 65	2 65	2 80	2 80	C	3 10	3 25	3 45	3 45	2
2 65	2 50	2 35	2 45	2 50	2 70	2 60	2 40	F	2 90	3 20	3 25	3
C	2 40	2 30	2 60	2 80	2 95	3 10	3 05	3 10	3 30 _{us}	3 30	2 95	4
2 65	2 65	2 50	2 35	2 60	2 70	2 90	2 70	2 80	3 20	3 30	3 20	5
2 70	2 70	2 60	2 35	2 50	2 70	2 85	2 85	3 00	3 35	3 35	3 45	6
2 80	2 80	2 70	2 50	2 50	2 55	2 80	2 70	2 90	3 20	3 35	3 50	7
2 70	2 65	2 40	2 45	2 70	2 80	2 80	2 85	3 00	3 20 _{us}	3 30 _{us}	3 35	8
2 70	2 65	2 70	2 65	2 55	2 60	2 65	2 60 _{us}	2 70	2 95	3 20	3 25	9
2 70	2 70	2 70	2 70	2 70	2 70	2 70	2 55	F	F	F	F	10
2 65	2 65	2 80	2 70	2 70	2 85	2 75	2 60	2 80	3 00	3 20	3 20	11
2 40 _{st}	2 55	2 40	2 50	2 55	2 70	2 70	2 75	2 95	3 00	3 10 _{st}	3 30	12
2 50	2 60	2 45	2 50	2 50	2 75	2 90	2 90	3 10	3 20	3 30	3 40	13
2 55	2 50	2 45	2 45	2 65	2 80	3 10	2 95	3 00	3 15	3 30	3 35	14
2 80	3 00	3 00	2 90	2 75	2 75	2 90	2 85	3 00	3 25	3 35	3 35	15
2 55	2 50	2 40	2 50	2 65	2 80	2 95	2 80	2 90	3 15	3 20	3 40	16
2 65	2 65	2 50	2 30	2 60	2 80	2 95	2 90	2 80	2 90	3 10	3 00	17
2 45	2 60	2 55	2 45	2 60	2 65	2 85	2 75	2 50	2 65 _{st}	F	F	18
2 50	2 50	2 60	2 70	2 80	2 80	2 75	2 65	2 70	2 90	3 10	3 20	19
2 70	2 40	2 30	2 35	2 60	2 75	2 70	2 65	2 75	F	F	F	20
2 55	2 75	2 70	2 75	2 85	3 05	3 15	C	C	3 55	3 50	3 50	21
2 60	2 55	2 60	2 65	2 75	2 90	3 00	3 00 _{us}	3 05 _{us}	3 20 _{us}	3 30	3 30	22
2 60	2 60	2 60	2 65	2 80	2 90	3 10	3 00	3 00	3 10	3 40	3 50	23
2 60	2 60	2 60	2 70	2 80	2 90	3 00	3 10	3 00	3 20	3 40	3 40	24
2 60	2 50	2 50	2 65	2 70	3 20	3 20	3 30	3 45	3 50	3 50	3 60	25
2 55	2 65	2 70	2 70	2 60	2 85	2 85	2 60	F	F	F	3 50	26
2 60	2 60	2 50	2 65	2 90	2 95	2 90	2 75	2 75	2 85	3 20	3 35	27
2 65	2 70	2 80	3 00	3 10	3 10	3 10	3 25	3 40	3 50	3 60	3 30 _{st}	28
2 60	2 70	2 60	2 70	2 70	2 90	3 00	3 05	3 10	3 20	3 35	3 50	29
2 50	2 50	2 50	2 60	2 75	2 95	3 05	3 05	3 25	3 30	3 45	3 55	30
2 45 _{st}	2 60	2 50	2 60	2 70	3 10	3 35	3 20	3 20	3 15	3 35	3 30 _{st}	31
30	31	31	31	31	31	31	29	27	28	27	28	Count
2 60	2 60	2 50	2 60	2 70	2 80	2 90	2 85	3 00	3 20	3 30	3 35	Median
2 60	2 60	2 55	2 60	2 70	2 85	2 90	2 85	3 00	3 15	3 30	3 35	Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic (M3000)F2

TABLE 89—*contd.*

Latitude 10 2° N

Unit —

Ionospheric Data

Longitude 77 5° E

Month December, 1962

77°E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	3 20	3 05	3 20	3 30	3 30	2 70	3 25	3 20	3 10	2 85	2 80	2 75
2	3 35	3 35	3 30	3 40	3 50	2 80	3 20	2 90	2 55	2 65	2 50	2 55
3	3 40	3 40	3 35	3 30	3 20	2 90	3 20	3 10	2 85	2 60	2 70	2 60
4	3 10	3 10	3 20	3 25	3 10	2 75	3 45	3 40	3 20	2 75	2 70	C
5	2 90	3 10	3 30	3 40	3 10	2 65	3 05	2 80	2 65	2 55	2 60	2 70
6	3 30	3 20	3 30	3 40	3 50	2 95	3 00	2 90	2 80	2 70	2 70	2 70
7	3 50	3 40	3 40	3 20	3 15	3 10	3 20	3 05	2 80	2 75	2 60	2 60
8	3 40	3 40	3 30	3 20	3 05	2 95	3 20	3 00	2 80	2 80	2 60	2 60
9	3 20	3 20	3 10	3 00	F	F	2 90	3 00	2 95	2 85	2 70	2 65
10	3 45	3 50	3 40	3 35	3 20	3 00	2 90	2 75	2 50	2 55	2 60	2 60
11	F	3 20	F	3 40	3 25	2 75	2 95	2 70	2 70	2 65	2 65	2 65
12	3 20	3 00	2 95	F	3 30	2 95	3 00	2 65	2 80	2 50	2 60	2 45
13	3 20	3 35	3 25	3 45	3 10	3 40	3 15	3 10	2 75	2 40	2 70	2 60
14	3 30	3 40	3 35	3 45	3 30	2 50	3 35	3 30	3 20	2 95	2 60	2 55
15	3 30	3 30	3 30	3 30	3 10	3 25	3 15	3 35	3 25	3 20	2 80	2 80
16	3 10	3 00	3 20	F	3 50	3 45	3 30	3 00	2 60	2 75	2 60	2 55
17	3 40	3 40	3 30	3 25	3 40	2 30	3 00	2 85	2 75	2 60	2 80	2 60
18	F	F	F	F	F	F	3 10	2 90	2 80	2 80	2 55	2 95
19	F	2 90	3 20	2 80	F	F	3 10	2 60	2 85	2 40	C	2 60
20	2 95	F	F	F	F	F	3 00	2 90	2 60	2 80	2 70	2 65
21	F	F	F	F	F	F	3 10	2 85	2 45	2 65	2 70	2 65
22	3 30	F	F	F	F	F	3 10	3 00	C	C	C	2 60
23	3 45	3 30	3 20	3 15	3 45	3 50	3 20	3 00	2 90	2 70	2 60	2 70
24	3 40	3 40	3 50	3 50	3 60	E	3 40	3 20	3 00	2 80	2 70	2 70
25	3 60	3 55	3 40	3 50	3 70	3 70	3 70	3 30	3 50	3 10	2 80	2 60
26	3 70	3 30	3 15	3 10	3 50	3 40	3 25	2 95	2 80	2 60	2 40	2 60
27	3 30	3 35	3 40	3 40	3 45	2 90	3 10	3 20	3 15	2 95	C	2 55
28	3 45	3 40	3 45	3 40	3 35	3 30	3 25	3 15	3 00	2 50	2 60	2 60
29	3 40	3 20	3 40	E	E	E	3 25	2 95	2 80	2 65	2 50	2 55
30	3 50	3 45	3 10	3 30	3 40	E	3 30	3 10	2 80	2 40	2 60	2 45
31	3 35	3 30	3 25	3 25	3 25	3 45	3 35	3 20	2 75	2 65	2 50	2 50
Count	27	27	26	24	24	22	30	31	31	30	28	30
Median	3 35	3 30	3 30	3 30	3 40	3 00	3 20	3 00	2 80	2 65	2 60	2 60
Mean	3 30	3 30	3 30	3 30	3 35	3 10	3 20	3 00	2 85	2 70	2 65	2 60

Sweep 1.0 Mc to 25.0 Mc in 27 seconds

Characteristic (M3000)F2
 Unit —
 Month December, 1962

TABLE 89—Contd
 Ionospheric Data
 75°E Mean Time

Latitude 10 2° N
 Longitude 77 5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2240	2530	Date
2 70	2 60	2 55	2 60	2 80	3 05	3 05	3 10	3 20	3 25	3 25	3 40	1
2 45	2 50	2 40	2 60	2 60	2 85	3 00	3 15	3 10	3 30	3 45	3 45	2
2 60	2 10	2 45	2 50	2 60	2 80	2 55	F	F	3 05 _{us}	3 25	3 25	3
C	2 30	2 50	2 70	2 90	3 10	3 10	3 10	3 20 _{us}	3 30	3 15	2 75	4
2 70	2 60	2 40	2 40	2 60	2 85	2 80	2 70	2 90	3 20	3 20	3 20	5
2 70	2 70	2 50	2 45	2 50	2 80	2 80	3 05	3 20	3 45	3 95	3 45	6
2 80	2 70	2 60	2 40	2 65	2 70	2 70 _{us}	2 70	3 00	3 35 _{us}	3 30	3 40	7
2 70	2 50	2 10	2 50	2 70	2 00	2 90 _{us}	2 90	3 10	3 40 _{us}	3 30	3 30	8
2 70	2 70	2 60	2 55	2 60	2 55	2 70	2 70	2 80	3 10	3 25	3 35	9
2 70	2 75	2 65	2 70	2 70	2 70	2 55	2 45 _F	F	F	F	3 20	10
2 60	2 70	2 70	2 70	2 70	2 80	2 75	2 70	2 85	3 10	3 25	3 30	11
2 55	2 40	2 10	2 50	2 60	2 75	2 65	2 75	2 95 _{js}	3 05 _{js}	3 20	3 40	12
2 55	2 45	2 50	2 60	2 65	2 85	2 95	3 00	3 10	3 30	3 30	3 35	13
2 60	2 40	2 10	2 55	2 70	2 90	3 00	3 00	3 05	3 25	3 40	3 25	14
3 00	3 00	2 95	2 80	2 75	2 85	2 85	2 90	3 10	3 95	3 35	3 20	15
2 50	2 35	2 55	2 60	2 80	3 00	2 90	2 80	3 10	3 15	3 40	3 40	16
2 60	2 55	2 35	2 60	2 70	2 90	3 00	2 70	2 90	3 00	2 95	2 90	17
2 55	2 60	2 45	2 50	2 65	2 75	2 80	2 65	2 55 _{js}	2 70 _{js}	F	F	18
2 55	2 50	2 60	2 70	2 80	2 80	2 65	2 70	2 85	3 00	3 10	3 15	19
2 50	2 35	2 30	2 15	2 50	2 70	2 70	2 70	2 90 _{us}	F	F	3 30	20
2 60	2 70	2 75	2 70	2 90	3 20	3 10	C	3 10	3 50	3 50	3 50	21
2 60	2 50	2 60	2 70	2 80	3 00	3 00	3 00 _{us}	3 15 _{us}	3 30	3 30	3 30	22
2 70	2 65	2 60	2 80	2 90	3 10	3 05	3 00	3 10	3 30	3 40	3 40	23
2 45	2 80	2 70	2 75	2 80	2 80	3 00	3 10	3 00	3 40	3 50	3 50	24
2 60	2 60	2 50	2 60	3 00	3 20	3 30	3 30	3 40	3 50	3 65	3 50	25
2 50	2 75	2 70	2 55	2 70	2 90	2 70	2 70	F	F	3 40	3 20	26
2 65	2 55	2 60	2 70	3 00	3 00	2 80	F	2 95 _{us}	3 15	3 30	3 50	27
2 70	2 75	2 85	3 00	3 10	3 10	3 20	3 30	3 45 _{us}	3 50	3 40	3 40 _{us}	28
2 65	2 65	2 70	2 70	2 85	3 90	3 05	3 00	3 15	3 30	3 40 _{us}	3 45	29
2 55	2 50	2 55	2 75	2 90	3 05	3 05	3 10	3 20 _{us}	3 15	3 55	3 45	30
2 45	2 50	2 65	2 60	2 90	3 10	3 15	3 15 _{us}	3 10	3 35 _{us}	3 30 _{us}	3 30 _{us}	31
90	91	91	91	91	91	91	98	28	28	28	90	Count
2 60	2 60	2 55	2 60	2 70	2 85	2 90	2 95	3 10	3 30	3 30	3 40	Median
2 60	2 60	2 55	2 60	2 75	2 90	2 90	2 90	3 05	3 25	3 35	3 35	Mean

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic h'F
 Unit . Km
 Month September 1961

TABLE 30
 Ionospheric Data
 75°E Mean Time

Latitude 10 2°N
 Longitude 77.5°E

12	13	14	15	16	17	18	19	20	21	22	23	Hour/Date
200	A	200	A	240	A	240	240	240	225	220	250	1
190	200	200	A	A	235	260	295	250	240	240	260	2
C	C	C	C	C	C	C	265	260	250	260	260	3
C	C	200	C	200	220	245	225	240	235	240	260	4
180 _H	190 _H	200	200	220	220	245	260	250	280	245	280	5
190	180 _H	190 _H	220	280	240	260	300	270 _F	225	290	280	6
195	190	185	200	220	280 _A	280	320	F	F	260	250	7
190	190	200	210	215	240	280	F	F	C	C	295 _F	8
C	200	200	A	220	240	280	340	2320 _F	2905 _F	F	260	9
190	190	200	A	A	260	280	320	F	F	290	260	10
195	195	200	205	220	240	265	310	280	260	255	245	11
180	185 _H	A	210	A	240	260	270	235	220	285	245	12
190	180	180	205	215	280	275	280	F	240	235	240	13
180	180	200	205	220	240	275	315	255	220	240	270	14
180	200	200	A	235	250	275	300	275 _F	260	270 _F	265	15
200	180 _H	A	205	A	245	270	305	280	260	265	260	16
C	C	C	C	A	A	280	305	F	F	255	240	17
190 _H	200	200	A	235 _A	245	270	300	245 _F	300 _F	250 _F	270	18
C	200	200	C	220	240	275	330	305 _F	F	275	280	19
200	200	A	220	220	245	280	325	300	255	260	270	20
200	200	200	220	280	260	270	280	250	240	250	260	21
190	185	200	220	220	235	260	260	280	235	250	245	22
195	200	195	210 _F	215	245	270	315	260	255	250	255	23
C	C	C	C	215	240	280	325	315	250 _F	270 _F	300	24
200	200	180	205	220	250 _H	280	300	245	235	235	275	25
180	180	200	210	280	260	280	320	320	275	280	280	26
200	205	A	220	225	240	270	300	250	230	250	240	27
200	200	200	200	220	275	300	320	280	240	220	225	28
200	200	200	205	215	245	300	370	310	240 _F	240	240	29
210	210	A	200	220	260	300	370	F	F	F	260	30
24	25	22	19	24	27	29	29	24	25	27	30	Count
190	200	200	205	220	240	275	305	260	240	250	260	Median
195	195	195	210	225	245	275	300	270	250	250	260	Mean

Sweep 10 Mc. to 25.0 Mc in 27 seconds

Characteristic . h'F
Unit : Km
Month . September 1961

TABLE 30 (Contd.)
Ionospheric Data
75°E Mean Time

Latitude 10 2°N
Longitude : 77.5°E

Date/Hour	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	275	280	260	230	225	260	240	215	200	195	195	200
2	280	260	270	240	v260F	270	220	220	220	190H	170H	190
3	245	240	240	240	E	265	225	205	200	200	C	C
4	300	300	275	260	240	255	C	200	195	185	180H	C
5	305	320	320	280	220	215	230	205	200	200	195	180
6	300	270	230	240	230	250	230	205H	185H	190	190	190
7	270	235	260	E	E	280	240	220	200	200	200	195
8	240	225	220	220	230	280	240	200	205	C	195	190
9	260	230	220	220	210	270	240	200	190	C	C	C
10	260	220	220	225	250	270	240	220	200	200	190	190
11	260	235	220	215	E	275	230	205H	200	195	180	180
12	235	220	215	240	220	240	240	220	200	190	180	180
13	230	220	220	v260H	E	270	230	210	200	185	190	180
14	275	250	230	220	225	260	240	200	200	195	195	185
15	220	215	220	225	235	270	230	210	200	195	190	180
16	240	220	220	230	260	280	235	220	210	190H	195	180H
17	250	220	230	240	220	225	235	220	200H	C	C	C
18	220	210	210	220	230	250	230	215	200	200	200	200
19	260	220	215	230	245	265	230	215	200	200	195H	C
20	260	220	220	230	225	240	235	220	200	195	195	200
21	260	220	240	255	240	235	240	205	200	180	180	200
22	240	205	225	240	F	270	235	v180F	200	180	185	190
23	240	220	225	235	215	250	230	200	195	190	200	195
24	250	210	220	235	v265F	260	225	200	195	C	C	C
25	270	235	235	235	255	275	245	230	215	200	205	200
26	235	220	240	E	E	280	240	225	210	200	200	185
27	240	220	235	C	C	265	240	220	210	190H	200	200
28	235	210	235	235	260	260	240H	215	210	200	190	200
29	240	230	230	240	235	280	240	225	215	200	190	190
30	225	225	240	245	230	245	240	215	200	200	195	210
Count	30	30	30	29	29	30	29	30	30	26	26	24
Median	250	225	230	235	240	265	235	215	200	195	195	190
Mean	255	235	235	235	235	260	235	210	200	195	190	190

Sweep 1 0 Mc to 25 0 Mc in 27 seconds

Characteristic . h'F
Unit Km
Month . September 1961

TABLE 30 (Contd)
Ionospheric Data
75°E Mean Time

Latitude . 10 2°N
Longitude . 77 5°E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Hour/Date
200	A	A	200H	A	u260A	240	240	240	230	240	265	1
190H	200	A	A	A	240	270	270	240	235	260	265	2
C	C	C	C	C	C	C	275	250	260	260	280	3
C	C	C	200	210	240	245	240	240	240	260	275	4
195	180H	200	200	220	240	260	F	240	240	260	300	5
185	190	220	220	220	245	280	u295F	245	225	230	260	6
200	195	190	220	A	u270A	295	300	F	220	260	245	7
190	190	190	205	225	260	300	F	F	C	C	300	8
185	200	A	215	240	260	305	u360F	u320F	F	260	260	9
190	195	A	A	u270A	270	360	F	u270F	F	F	270	10
190	180	200	215	225	250	300	280	270	250	250	240	11
185	220	205	A	230	260F	270	250	220	230	240	250	12
190	190	200	215	220	250	280	F	F	240	240	255	13
180	200	200	220	230	260	310	305	220	220	260	260	14
180	200	A	A	240	260	300	u275F	u220F	u270F	u270F	260	15
195	205	A	A	265	255	300	u300F	285	260	265	260	16
C	C	C	C	A	260	300	F	F	250	250	240	17
200	205	u205A	A	230	260	C	F	265	280F	250	280	18
200	200	200	210	180H	260	305	310	330	285F	285	285	19
200	A	A	220	230	260	310	310	260	245	255	290	20
200	200	200	220	270	260	290	260	240	240	260	260	21
200	200	215	220	220	250	270	240	235	235	250	235	22
A	200	205	220	235	255	300	300	240	260	260	280	23
C	C	C	C	235	260	300	315	u305F	u250F	270	300	24
200	195	200	205	235	265	300	260	235	220	260	275	25
180	195	200	220	270	260	325	320	300	275	280	270	26
200	220	215	220	230	260	300	290	240	230	250	240	27
205	200	210	200	240H	260	320	300	255	240	220	230	28
200	200	200	220	230H	270	360	360	270	240	240	240	29
210	210	200	210	240	270	360	u340F	F	F	F	240	30
25	24	19	21	25	29	28	24	25	26	27	30	Count
195	200	200	215	230	260	300	300	240	240	260	260	Median
195	200	205	215	235	260	300	290	255	245	255	265	Mean

Sweep 1 0 Mc. to 25 0 Mc. in 27 seconds

ERRATA FOR KODAIKANAL OBSERVATORY BULLETIN NO. CLXIX

Part I

Solar Data

Page No.	Column	Title	Read	for
8	9	Remarks	**	

Part II

Magnetic Data

Page No.	Table No.	Date/Line.	Hour/column.	Read	for
11	-	-	Hour	Magnetic	Tables
13	5	31	<u>Maximum</u>	41.8	14.8
14	6	22	13	37.5	37.2
15	6	2	19	39.0	38.0
15	6	3	19	39.0	38.0
15	6	Mean††	15	38.5	33.5
19	8	11	<u>Minimum</u>	37.9	47.9
19	8	14	Mag		
19	8	14	Mean	38.8	38.5
20	9	22	03	40.4	41.4
22	10	5	08	39.4	38.4
24	11	17	03	597	497
27	12	2	25	558	548
28	13	17	10	590	690
28	13	25	07	638	648
28	13	Mean	12	550	556
31	14	5	<u>Mean</u>	581	561
31	14	17	15	556	566
36	17	12	05	206	216
36	17	12	06	208	218
36	17	Mean†	01	213	214
36	17	Mean†	09	196	197
36	17	Mean††	07	199	195
36	17	Mean††	12	206	205
37	17	1	<u>Minimum</u>	201	209
37	17	1	Mag		
37	17	1	Range	18	10
37	17	2	<u>Minimum</u>	185	187
37	17	2	Mag		
37	17	2	Range	34	32
37	17	3	<u>Maximum</u>	1737	0737
37	17	3	Time		
37	17	5	Range	34	40
37	17	8	Mean	210	209
37	17	27	<u>Minimum</u>	190	194
37	17	27	Mag		
37	17	27	Range	24	20
37	17	Mean††	16	209	208

Contd.... 2

Part II
Magnetic Data

Page No.	Table No.	Date/Line.	Hour Column	Read	for
38	18	27	04	193	293
38	18	Mean +	11	198	19
39	18	7	Range	43	51
39	18	19	23	204	208
39	18	20	<u>Maximum</u>	0210	0600
			Time		
39	18	20	<u>Maximum</u>	210	204
			Mag		
39	18	20	Range	16	10
39	18	28	23	203	200
42	20	11	13	203	208
42	20	Mean +	10	194	192
44	21	Mean +	10	186	187
44	21	Mean +	12	188	189
44	21	Mean ++	03	192	194
45	21	7	<u>Maximum</u>	0300	0800
			Time		
45	21	Mean +	20	196	197
46	21	Mean +	02	188	189
46	21	Mean +	03	189	191
46	21	Mean +	04	190	189
46	21	Mean +	05	191	190
46	21	Mean +	06	192	172
46	21	Mean +	07	189	188
46	21	Mean +	08	186	183
46	21	Mean +	09	180	182
46	21	Mean +	11	180	181
46	21	Mean +	13	187	189
46	21	Mean +	14	188	189
46	21	Mean ++	13	187	186
47	22	11	16	183	189
47	22	12	16	189	183
47	22	13	16	187	189
47	22	Mean +	15	190	189
47	22	Mean +	17	191	190
47	22	Mean +	18	192	191
47	22	Mean +	19	193	191
47	22	Mean +	20	193	192
47	22	Mean ++	16	192	194
47	22	Mean ++	17	185	187
47	22	Mean ++	19	190	186

Part III
Ionospheric Data

Page No.	Table No.	Line/Date.	Column/ Hour	Read	for
55	25	26	16	4.5	4.5
65	27 (Contd)	18	1930	4.6	41.6
65	"	Mean	1930	6.2	5.2
71	29	13	16	2.3	2.0
78	31	Count	08	29	21
93	34 (Contd)	31	2130	2.95	2.95US
95	35	11	22	3.0	4.0
96	35 (Contd)	31	0830	8.1	8.3
103	37	30	16	2.8UR	2.6UR
106	38	15	02	6.0US	6.05US
106	38	Mean	09	11.3	11.8
107	38	15	20	2.1	3.1
107	38	24	21	3.2	3.0
108	38 (Contd)	Count	0230	16	11
109	"	2	1430	10.2	12.2
109	"	12	1330	11.2	12.2
111	39	25	18	2.8	3.8
114	40	13	06	1.2	1.3
114	40	14	08	2.1	2.0
114	40	14	09	2.0	2.1
118	41	4	10	380H	380A
121	41 (Contd)	2	1230	360H	360U
127	43	13	16	A	Z
127	43	13	17	110	100
127	43	13	16	100	110
129	43 (Contd)	8	1630	120	A
129	43 (Contd)	9	1630	A	120
129	43 (Contd)	20	1630	110	A
130	44	9	03	100	110
132	44 (Contd)	4	1530	110	100
158	51	30	07	1.6	2.6
181	56 (Contd)	5	2330	2.65IS	3.65IS
195	60	13	18	4.88	4.85
222	67	20	04	2.80	2.85
238	71	4	09	9.0	39.0
244	72 (Contd)	12	1030	3.6	2.6
254	75	13	05	260	265
255	75	Count	14	28	27
258	76	Count	10	1	-
263	77	11	15	100	15
263	77	11	17	115	100
267	78	18	19	2.65	3.65
273	79 (Contd)	Mean	1530	8.1	8.11
276 &	80 (Contd)	Interchange all figures against			
277		"Count" and "Mean" (0030 to 2330hrs)			
289	83 (Contd)	31	2230	-	1.3
290	84	22	04	F	E
291	84	10	16	2.0	3.0
291	84	18	16	1.6	1.5
292	84 (Contd)	Interchange "mean" and "median" and all figures against them (0030 to 1130 hrs.)			

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ERRATA FOR KODAIKANAL OBSERVATORY BULLETIN NO. CLXIX

Part III

Page No.	Table No.	Line/ Date	Column/ Hour	Read	for
298	86	27	06	280	285
303	87	16Jan	15	105	110
307	88	14	21	115	-
307	88	15	21	-	115
309	88(Contd)	18	1830	120	-
310	89	14	10	2.75	3.75

Amb/-