

Kodaikanal Observatory

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Introduction

Being one of the participants for solar studies during the International Geophysical Year, Kodaikanal Observatory was carrying out the programme of solar observations decided upon in consultation with the International Geophysical Year Committee. This Bulletin for the second half of 1957 which covers the first six months of the International Geophysical Year therefore contains, in addition to the usual summary of prominence and calcium flocculus observations, other observational data relating to surges, active prominence regions and sunspots as well as information concerning the hours of flare patrol and the times at which photoheliograms and spectroheliograms were secured at this observatory.

PART I

SUMMARY OF PROMINENCE AND CALCIUM FLOCCULUS OBSERVATIONS FOR THE SECOND HALF OF 1957

The results of observations of prominences and calcium flocculi made at Kodaikanal Observatory during the second half 1957 supplemented by data derived from photographs supplied by Mount Wilson and Meudon Observatories for those days on which Kodaikanal had imperfect or no observations are summarised in Part I of this Bulletin. Our thanks are due to the cooperating observatories for the photographs supplied by them.

Calcium Prominences on the limb

During the half-year under review photographs of calcium prominences were secured at Kodaikanal on 100 days which were counted as 98 effective days after giving due weightage to the photographs according to their quality. Spectroheliograms for 68 days were obtained from the Mount Wilson Observatory and for 44 days from the Meudon Observatory. In all, complete observations were available for 166 effective days.

The mean daily areas (in square minutes of arc) and the mean daily numbers of prominences derived from all the above records are as follows :—

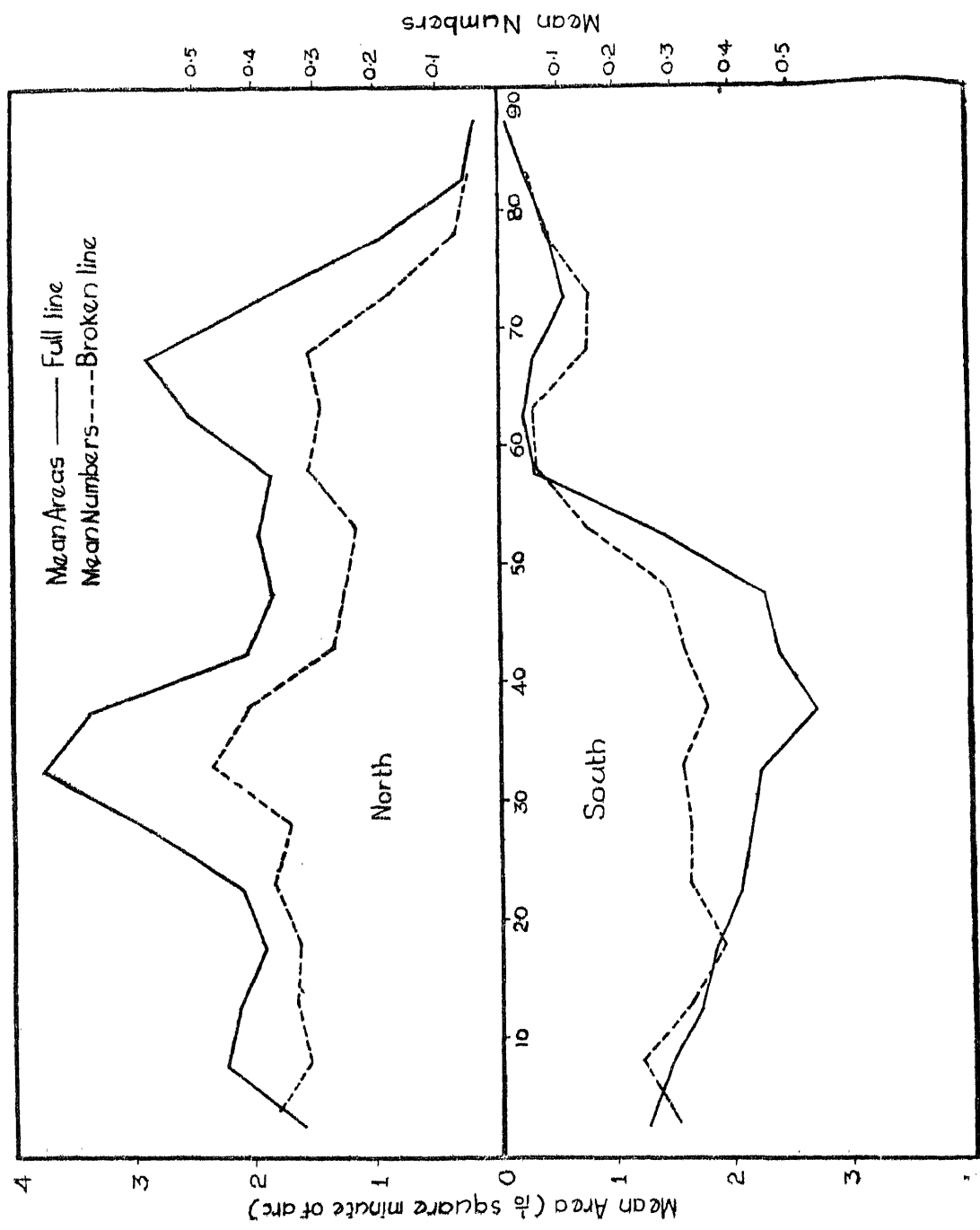
	Combined data	
	Mean daily areas	Mean daily numbers
North	3.67	4.91
South	2.36	3.99
TOTAL	6.03	8.90

These figures, when compared with the corresponding values of the previous half-year, indicate an increase of 22.5% in areas while the numbers show no significant variation. The values based on Kodaikanal observations alone are also given below for comparison with similar data published in Bulletins prior to 1923 *i.e.* before the cooperation of the other observatories came into force.

	Kodaikanal data only	
	Mean daily areas (sq. minutes)	Mean daily numbers
North	3.22	4.68
South	2.06	3.68
TOTAL	5.28	8.36

The distribution of areas and numbers in five-degree ranges of latitude as obtained from the combined data is represented in diagram I. In the curves for area, there are two peaks of activity in the northern hemisphere in the latitude belts 30°-35° and 65°-70° while in the southern hemisphere the maximum activity is in the zone 35°-40°.

DIAGRAM I
 Mean Areas & Mean Numbers of Calcium Prominences
 July - December 1957



The monthly, quarterly and half-yearly areas, numbers, heights and extents of prominences derived from all the photographs are collected in table I.

TABLE I

1957 months	No. of effective days	Areas in square minutes	Numbers	Daily means		Mean height	Mean extent
				Area (Sq. minutes)	Numbers		
July	30	197.25	280	6.57	9.33	53.2	6.02
August	29½	151.60	228	5.09	7.66	51.4	4.39
September	29½	170.30	286	5.72	9.61	51.7	5.27
October	23½	143.05	210	6.08	8.93	60.9	4.24
November	25	153.75	207	6.15	8.28	56.6	5.61
December	28	186.55	268	6.66	9.57	58.0	5.46
3rd Quarter	89½	519.15	794	5.80	8.87	52.2	5.28
4th Quarter	76½	483.35	685	6.32	8.95	58.4	5.13
and half year	166	1002.50	1479	6.04	8.91	55.1	5.21

The distribution of prominences about the sun's axis of rotation is as follows :—

1957 July—December			
	East	West	Percentage East
Areas (sq. minutes)	447.35	555.15	44.6
Numbers	697	782	47.1

There is a significant western excess in the distribution.

Observations with the Prominence Spectroscope

One metallic prominence was observed during the half-year under review. 15 bright reversals of H-alpha line and 2 dark reversals of D₃ line on the disc near sunspots were observed.

The mean heights in H-alpha, D₃ and H-beta lines of 11 prominences observed with the spectroscope and the mean height in the K-line of the same prominences as measured from the calcium spectroheliograms were as follows :—

	Mean height
K	96.8
H-alpha	70.2
D ₃	57.8
H-beta	50.3

Observations with the Hale Spectrohelioscope

Details of Doppler displacements in prominences and dark markings observed with the H-alpha line are given in table II.

TABLE II

	North	South	East	West	Displacements			Total
					To red	To violet	Both ways	
Displacements in prominences	43	32	35	40	..	..	75	75
Displacements in dark markings	4	4	3	5	..	1	7	8

Details of solar flares observed during the period are summarised in table III.

TABLE III

Date	Time in I.S.T.			Coordinates		Importance	Maximum width of H-alpha line observed	Remarks
	Begin-ning	Maxi-mum	End	Mean latitude	Mean longitude			
	H. M.	H. M.	H. M.	o	o			
1957,— July 3 . . . .	..	..	..	11N	41W	Probably 2	..	Noticed in H-alpha spectroheliogram taken at 1424 I.S.T. through passing clouds.
August, 30	09 25*	..	09 32	26S	15E	1?	1.8	Observed in spectrohelioscope
September 1	07 34	07 39	07 53	13N	08W	1	2	Do.
„ 2	09 40	09 43	10 00	13N	26W	1	1.8	Do.
„ 14	08 00	08 06	08 19	10N	38W	1	2.0	Do.
„ 15	09 03	09 04	09 30	07N	70E	2	5.2	Do.
„ 19	09 35	09 40	10 02	22N	06E	2 ^v	3.0	Do.
„ 20	10 20*	..	10 24	21S	0	1	1.8	Do.
„ 21	09 45	09 53	09 58	22N	23W	1	2.0	Do.
„ 24	08 27	08 30	08 40	10N	45W	1	2.7	Do.
November, 26	09 07	09 09	09 13	13S	07W	Probably 1	2.0	Do.
December, 6	09 34*	..	09 53	14N	44E	Probably 2		

*Beginning of observation of flare and not time of commencement of the flare.

Sudden disappearances of Prominences and H-alpha Dark Markings

No sudden disappearance of prominence or H-alpha dark marking was observed during the period.

Prominences projected on the disc as absorption markings

During the period under review photographs of the sun's disc in H-alpha line were obtained at Kodaikanal on 110 days. Spectroheliograms were also received for 55 days from the Mount Wilson Observatory and for 41 days from the Meudon Observatory. On the whole, records were available for 167½ effective days after giving weightage to the quality of the photographs.

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

	Combined data	
	Mean daily areas (millionths of the sun's visible hemisphere)	Mean daily numbers
North	2459	14.2
South	2166	13.1
TOTAL	4625	27.3

These figures show that compared to the previous half-year there has been a slight decrease in activity as judged from areas as well as from numbers. The areas show a decrease of 11.4% and the numbers 4.5%. The figures based solely on Kodaikanal photographs are also given for purposes of comparison.

		Kodaikanal data only	
		Mean daily area (millionths of the sun's visible hemisphere)	Mean daily numbers
North	. . . . .	2577	15.5
South	. . . . .	2334	14.0
TOTAL		4911	29.5

The distribution of the areas of the markings in 5° ranges of latitude as obtained from the combined data is shown in diagram II. There is a pronounced peak of activity in the latitude belt 35°-40° in the northern hemisphere. The maximum activity in the southern hemisphere is in the latitude belt 40°-45°.

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

	East	West	Percentage east
Total area (millionths of the sun's visible hemisphere uncorrected for foreshortening)	358,771	406,895	46.8
Total numbers	2,208	2,379	48.1

The western excess noticed during the previous half year is maintained.

Calcium Flocculus

During the period under review, calcium flocculus spectroheliograms were taken on 101 days at Kodaikanal Calcium disc spectroheliograms for 68 days were received from the Mount Wilson Observatory and for 44 days from the Meudon Observatory. In all, observations were available for 167½ effective days.

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

		Combined data
		Mean daily area (millionths of the sun's visible hemisphere)
North	. . . . .	16062
South	. . . . .	14278
TOTAL		30340

Compared to the previous half-year the mean daily area has thus increased by 42.4%.

The distribution of flocculi east and west of the sun's axis of rotation is as follows :-

	East	West	Percentage East
Total area in millionths of the sun's visible hemisphere	2,408,579	2,681,803	47.3

There is a noticeable western excess in the distribution of flocculi.

Special I.G.Y. data are given in tables IV to IX.

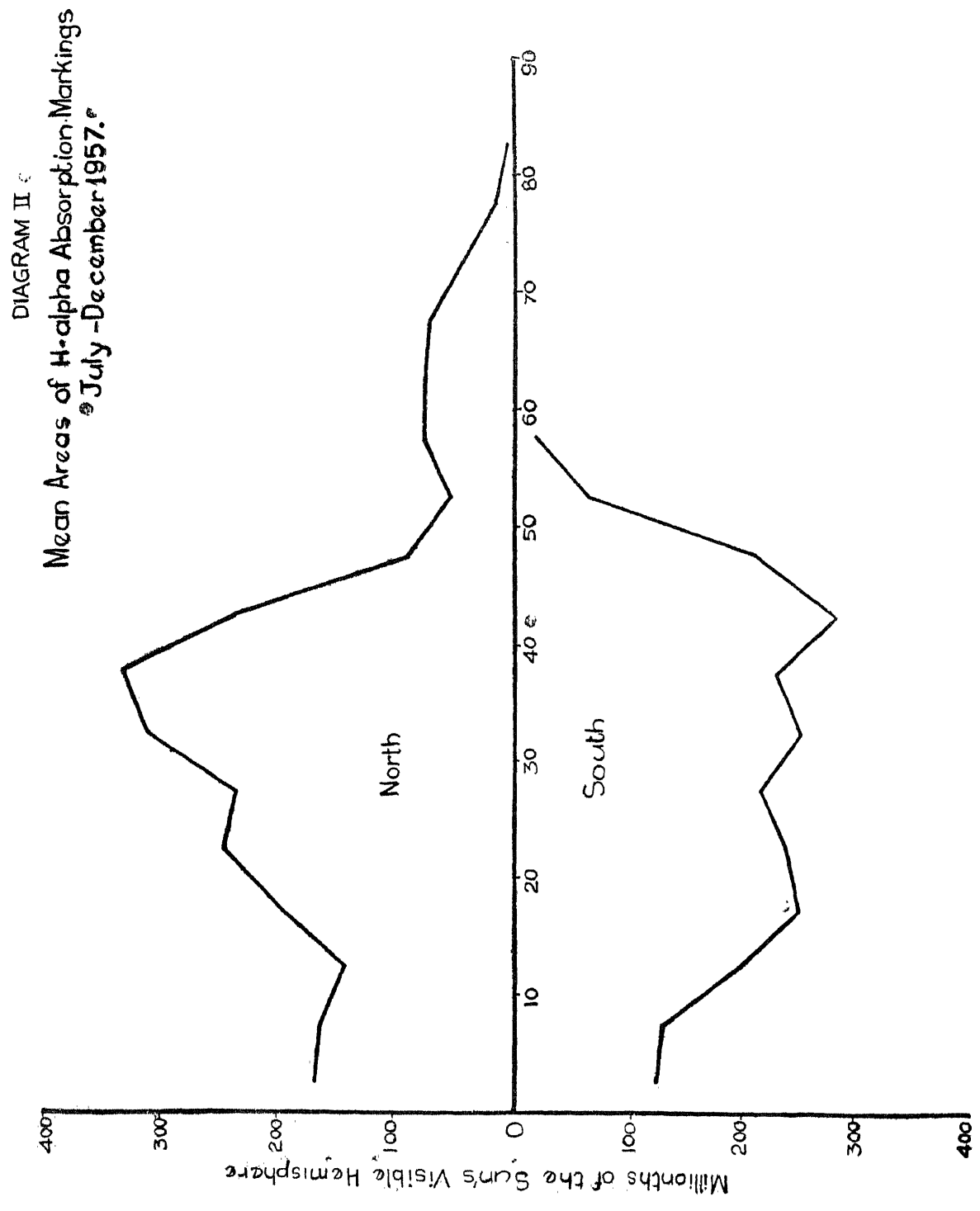


TABLE IV

SURGES, ERUPTIVE PROMINENCE AND ACTIVE PROMINENCE REGIONS

Date	Phenomenon	Importance	Position		Time I.S.T.		Direction of out-flow	Remarks*
			Latitude	Long. difference from central meridian°	Beginning	End		
1957—								
27th July	EPL	3	25S	90W	0804	0815	r	U, WS
13th August	BSL	3	15S	90W	0803	0847	rS	A, S, WS
18th August	APR	1	14N	90W	1550	..	r	P.
19th September	APR	2	19N	90W	0910	1100**	r	P**, Observation discontinued due to clouds.
18th November	EPL	3	20S	90E	1055	1145	r	E, WS, V(314 km/s) T.
23rd November	BSL	1	11N	90W	0826	0835	rS	..

*The symbols used are the same as those given in the I.G.Y. Instruction Manual.

TABLE V

FLARE PATROL HOURS (SPECTROHELIOSCOPE)

Date	Periods of watch (IST)	Date	Periods of watch (IST)
1957 July 1 0745—0830			
3	0800—0815; 0930—1000	1957—August	
6	0900—0910	7	0930—1015; 1030—1100; 1130—1200
11	0745—0830; 1030—1100	10	1000—1010
12	0925—0945	11	0750—0815; 0945—1000; 1030—1100
13	1020—1025	12	0915—1000; 1030—1100
14	0845—0920; 0930—1000; 1115—1120; 1130—1140; 1400—1430	13	0730—0830; 0930—1000
15	1020—1055	14	0945—1015; 1045—1115; 1130—1145
16	0745—0830; 0930—1000; 1030—1100	15	1005—1020; 1030—1035; 1140—1150
19	1400—1500	16	0730—0810
20	0730—0830; 0930—1000; 1030—1100; 1130—1200	18	0730—0830; 0930—1000; 1030—1050; 1410—1420; 1530—1600
21	0745—0845	19	0930—1015; 1115—1210; 1400—1425; 1530—1545
25	0800—0840; 0930—1000	23	0930—1000; 1038—1045; 1130—1150
26	0740—0750; 0930—1000	24	0850—0920
27	0728—0733; 0802—0830; 0930—1000; 1030—1100	27	1340—1420; 1455—1510
28	0730—0830; 0930—1000; 1030—1100; 1130—1200	28	0930—1000; 1030—1100
31	0800—0810; 0835—0900; 0940—1000	29	0730—0745; 0905—0920; 0930—0940; 1030—1115; 1135—1200
„ August 4	0730—0830; 0930—1000; 1030—1100	30	0732—0830; 0925—1000; 1030—1100; 1135—1150; 1155—1159
5	0750—0805; 0832—0843	31	0730—0830; 0930—1000; 1030—1100
6	1030—1100; 1130—1200; 1400—1430		

TABLE V—contd.

Date	Periods of watch (IST)	Date	Periods of watch (IST)
1957—September		1957—October	
1	0730—0830; 0930—1000; 1030—1055	20	0845—0930; 1030—1110; 1140—1200
2	0730—0830; 0930—1000; 1030—1100; 1140—1143; 1148—1150; 1415—1430; 1530—1545;	22	0730—0830; 0930—1000; 1030—1100
3	0745—0830; 0945—1000; 1030—1100; 1420—1430;	24	0735—0800; 0830—0845; 1110—1130;
4	0730—0830; 0930—1000; 1030—1100; 1130—1200; 1400—1430	30	0900—0925; 1410—1420;
5	0730—0830	31	0730—0830; 0930—1000; 1055—1105; 1448—1455;
6	0740—0825		
7	0930—1000; 1030—1042;	„ November	
8	1130—1200; 1540—1555	1	1050—1155
11	0935—0942	3	0735—0835; 0930—1000
12	0755—0830	8	0812—0820; 0830—0835
13	0730—0840; 0930—1000; 1030—1100; 1150—1200	10	0730—0830; 0930—0955; 1035—1100
14	0730—0840; 0930—0950; 1400—1430; 1530—1600	11	0900—0930
15	0900—0930	14	0730—0830;
16	0730—0750	15	0730—0830; 0930—1000; 1030—1045; 1105—1120; 1130—1200; 1415—1430
17	0730—0830	16	0730—0830; 0920—1010; 1030—1100; 1130—1200; 1410—1440; 1530—1600
18	0730—0830; 0930—1000	17	0730—0830; 0930—1000; 1030—1100; 1115—1200; 1400—1430; 1530—1600;
19	0815—1100;	18	0820—0850; 0900—0915; 0930—1000 1030—1145
20	0740—0805; 1020—1024	19	1130—1145
21	0730—0830; 0930—1005; 1145—1150	21	1015—1100; 1130—1200
22	0730—0830	23	0730—0845; 0930—1000; 1030—1100; 1130—1145;
23	0730—0830; 0930—1000; 1030—1100; 1130—1200; 1400—1430; 1530—1600	24	0835—1000;
24	0730—0840; 0930—1000; 1130—1200	26	0730—0750; 0830—1000; 1030—1040.
25	0730—0830; 0930—1000; 1030—1100; 1130—1200	„ December	
26	0730—0830; 0935—1005; 1030—1100; 1130—1145;	1	1235—1245; 1400—1410; 1440—1445
27	0730—0830	3	0730—0830; 0930—1000; 1030—1100; 1400—1430; 1530—1540
28	0730—0830	5	0740—0745; 0815—0840; 0930—1000; 1030—1100; 1130—1200; 1410—1430;
29	0730—0845; 0930—1005; 1030—1100; 1130—1200; 1400—1420; 1530—1600;	6	0730—0830; 0930—1000; 1030—1100; 1130—1150
30	0730—0830; 0930—1000; 1030—1100; 1130—1200	7	0730—0830; 0930—1000; 1030—1100;
„ October		9	0730—0830; 0930—1000; 1030—1100; 1130—1200; 1410—1430; 1530—1550
1	0735—0830; 0930—1000; 1030—1055;	10	1415—1430; 1530—1600
2	1015—1030	11	0745—0845; 0930—1000; 1030—1100; 1130—1200; 1400—1430; 1530—1600;
4	0745—0845; 0930—1000	12	0730—0830; 0930—1000; 1030—1100; 1130—1200;
7	0730—0830	13	0735—0830; 0930—1000; 1030—1100; 1130—1150; 1400—1430; 1530—1600;
8	0730—0835; 0930—1000; 1030—1100	14	0745—0810; 0835—0900; 0930—1000; 1030—1100; 1130—1200; 1400—1430; 1530—1600
9	0740—0810	15	0850—0900; 0920—1000; 1030—1100; 1130—1200; 1400—1430; 1530—1555;
11	0750—0756; 0815—0820; 0940—0947; 1410—1420; 1430—1437	16	0730—0830; 0930—1000; 1030—1100;
12	0730—0830; 0930—1000; 1030—1100; 1130—1200;	17	0735—0830; 0930—1005; 1155—1200
13	0730—0830	21	1510—1525; 1545—1555;
15	1000—1030	22	0905—1000; 1045—1100; 1130—1200; 1400—1430
16	0818—0825; 0940—0942; 0958—1003; 1015—1020	23	0732—0840; 0930—1000; 1030—1100; 1130—1200 1415—1430; 1530—1600
		31	0950—1100;

N.B.—Days when no observations were possible are not included in the list.

TABLE VI
LIST OF SPECTROHELIOGRAMS

Date†		H-alpha H. M. (I.S.T.)	K-Floccu- lus H. M. (I.S.T.)	K-Promi- nence H. M. (I.S.T.)
1957 July	1	07 42 07 48	07 55 08 01	08 08 08 13
	3	09 35 09 40 14 24	......	......
6		10 08 10 20 11 26	10 05 11 20 ..	11 11 11 17 ..
	11	08 01 08 06	08 12 08 14	08 18 08 43
	12	09 09 09 14	09 21 09 46	09 36 09 40
13	10 28	..	..
14		08 52 08 55 09 50	09 13 09 16 ..	09 04 09 10 ..
	15	10 14 10 17	10 25 10 27	10 31 10 36
	16	07 40 07 45	07 52 07 57	08 02 08 07
19		10 23 13 51	10 34 14 04	....
	20	07 39 07 45 11 02 14 24	07 51 07 53 11 11 15 14	07 57 08 03 11 20 14 38
21	08 19	..	..
25	08 20	..	..
26		07 46 07 51	09 22 09 25	09 29 09 35
	27	08 04 08 43 10 17 11 01 ..	08 16 08 38 11 09	08 12 08 28* 08 32* 08 34* 11 17
28		07 39 07 44 11 37 ..	07 50 07 52 08 16 11 44	07 56 08 01 11 50 ..
	31	08 11 08 39	08 49 08 53	09 02 09 43
	„ August 4	07 42 07 48 ..	07 58 08 01 08 46	08 08 08 14 ..

TABLE VI—*contd.*

Date	H-alpha	K-Floccu-	K-Promi-
	H. M. (I.S.T.)	lus H. M. (I.S.T.)	nence H. M. (I.S.T.)
1957 August 5	07 39 07 44	07 52 07 55	08 00 08 08
6	10 37 10 42 14 08	10 47 10 49 14 18	10 52 10 58 14 24
7	10 09 10 16	10 26 10 31	10 40 10 46
11	08 30 08 35	08 39 08 42	08 47 08 59
12	09 20 09 24	10 35 10 39	09 38 09 43
13	08 10 09 31	07 45 07 47	07 50 07 56 08 22* 08 26* 08 44* 08 53*
15	10 11 10 17	10 23 10 25	10 28 ..
16	07 36 07 46	07 52 08 01	08 07 ..
18	07 33 07 43 10 47 14 17	07 53 07 58 11 05 14 23	08 08 08 28 14 27 ..
19	09 54 15 13	10 08 15 30	12 03 ..
23	09 19 09 30 09 35 09 50	10 02 10 07	10 12 10 16
25	08 19	..	..
26	09 57	..	..
27	13 55 14 00	14 12..	....
28	09 14 09 24	09 33 09 35	09 46 09 51
29	08 29 10 46 11 36	10 54 10 57 ..	11 00 11 05 ..
30	07 38 07 44 09 32 11 25	07 55 07 57 11 18 ..	08 02 08 10 11 16 ..
31	07 36 07 39 ..	07 44 07 47 09 15	07 51 07 57 ..

TABLE VI—contd.

Date		H-alpha H. M. (I.S.T.)	K-Floccu- lus H. M. (I.S.T.)	K-Promi- nence H. M. (I.S.T.)
1957 Sept.	1	07 41 07 51	08 00 08 02	08 08 08 14
	2	07 30 07 41 09 51	07 55 07 58 ..	08 05 08 11 ..
	3	07 34 07 38 09 12 11 01 15 03	07 43 07 45 11 22 11 29 ..	07 50 08 01 09 21 11 19 ..
	4	07 38 07 46 14 07	07 58 08 05 14 14	08 15 08 21 14 18
	5	07 44 07 49	07 54 07 56	08 01 08 06
	6	07 49 07 53	08 01 08 03	08 08 08 14
	7	09 32 09 38	09 54 09 56	09 46 09 50
	8	10 56 11 00 14 28	11 05 11 07 14 38	11 38 11 45 ..
	10	12 37	12 43	12 50
	12	07 38 07 42	07 49 07 58	08 02 08 09
	13	07 35 07 42 10 50	07 51 07 56 10 58	08 01 08 06 11 03
	14	07 34 07 38 08 07 08 13** 08 16** 08 18** 08 21** 08 22** 08 32** 08 35** 08 39** 14 24	07 44 07 48	07 53 07 59 14 35
	15	07 38 07 47 09 10	07 54 07 56 ..	08 01 08 05 ..
	16	07 32 07 40	....	....
	17	07 35 07 39	07 45 07 47	07 56 08 01
	18]	07 33 07 42	07 58 08 01	08 08 08 13

TABLE VI—contd.

Date	H-alpha H. M. (I.S.T.)	K-Flocculus H. M. (I.S.T.)	K-Promi- nence H. M. (I.S.T.)
1957 Sept. 19	08 19 08 22 09 46 09 52** 09 54** 09 55** 09 57** 10 01** 10 02** 10 04** 10 05** 10 06** 10 10** 10 13** 10 14** 10 18** 10 20** 11 08	08 26 08 29	08 33 08 40 09 34* 09 44* 11 14
20	07 45 08 51	....	....
21	07 35 07 38 09 52** 09 53** 09 55** 09 56** 09 59**	07 45 07 47	07 51 07 56
22	07 36 07 39	07 45 07 47	07 52 07 59
23	07 37 07 41 11 08 14 23	07 49 07 52 11 15 14 29	07 57 08 02 11 19 14 34
24	07 38 07 42 08 42 11 26	07 47 07 49 11 33 ..	07 53 08 05 11 38 ..
25	07 37 07 42 09 41 11 31	07 49 07 51 11 22 ..	07 55 08 01 11 18 ..
26	07 34 07 40 10 52	07 46 07 48 11 03	07 52 07 58 11 08
27	07 34 07 39	07 57 08 00	08 08 08 15
28	07 35 07 39	07 44 07 46	07 51 07 56
29	07 30 07 35 11 01 14 21	07 45 07 47 10 48 14 58	07 51 07 56 10 52 14 54

TABLE VI—contd.

Date	H-alpha	K-Floccu-	K-Promi-
	H. M. (I.S.T.)	lus H. M. (I.S.T.)	nence H. M. (I.S.T.)
1957 Sept. 30	07 41 07 49 10 59	07 56 07 59 11 09	08 03 08 07 11 06
„ Oct. 1	07 43 07 48 11 07	07 53 07 56 11 19	08 01 08 12 ..
2	10 13 10 24	....	....
4	07 51 07 56 09 17	08 03 08 05 09 54	08 10 08 15 09 50
7	07 32 07 36	07 43 07 45	07 49 07 55
8	07 35 07 38	07 43 07 45	07 49 07 54
9	07 42 08 20	07 49 08 09	08 00 08 05
11	08 13 08 59	09 48 09 55	09 58 ..
12	07 36 07 40 11 04 14 12 ..	07 46 07 50 11 11 11 15 14 22	07 54 07 59 11 20 15 26 ..
13	07 37 07 41	07 46 07 48	08 02 08 10
15	10 15 10 20	10 02 10 27	10 07 10 32
16	10 25 11 10	....	....
20	10 29 10 34	10 41 10 43	10 48 10 52
22	07 44 07 48 11 24	07 54 07 57 11 32	08 01 08 07 11 38
24	07 41 07 49	07 54 07 57	08 37 08 44
30	08 52 08 59	09 06 09 08	09 13 09 20
31	07 34 07 38 11 11	07 46 07 48 09 01	07 53 07 59 ..
„ Nov. 1	11 01 11 10	11 20 11 24	11 30 11 37

TABLE VI—contd.

Date	H-alpha H. M. (I.S.T.)	K-Floccu- lus H. M. (I.S.T.)	K-Promi- nence H. M. (I.S.T.)
1957 Nove. 3	07 34 08 08 08 50 10 53	07 44 07 56	07 51 08 01
9	11 29	..	..
10	07 37 07 42	07 50 07 54	08 01 08 09
11	09 04 09 09	09 24 09 27	09 32 09 37
14	07 40 07 45	07 50 07 52	07 57 08 12
15	07 33 07 38 10 56 14 15	08 05 08 09 11 10 14 29	07 46 07 52 11 05 14 23
16	07 30 07 35 11 02 14 15	07 40 07 43 11 11 14 32	07 48 07 54 11 17 ..
17	07 36 07 41 11 27 14 35	07 45 07 48 11 11 14 26	07 53 07 59 11 18 14 22
18	09 28 09 34 14 50	09 41 09 44	09 49 09 55 11 05* 11 12* 11 16* 11 17* 11 31* 11 37* 11 41* 11 45*
19	11 18 11 47	11 26 11 30	11 34 11 37
21	10 27 10 35 ..	10 42 10 45 11 36	10 49 10 54 ..
23	07 36 07 42 11 05 14 07	07 47 07 50 11 12 14 24	07 55 08 01 07 38* 08 42 08 46 11 19 14 19
24	09 03 09 10	09 22 09 24	09 30 09 36
26	07 45 07 49 09 18	08 46 09 24 ..	09 08 09 29 ..

TABLE VI—*contd.*

Date		H-alpha H. M. (I.S.T.)	K-Flocculus H. M. (I.S.T.)	K-Promi- nence (H. M. (I.S.T.)
1957 Dec.	1	14 49 14 52	14 57 15 10	15 01 15 06
	3	07 37 07 43 14 14	07 50 07 53 14 33	07 59 08 06 14 28
	5	07 43 09 57 14 08	07 51 09 52 14 14	08 17 09 47 14 18
	6	07 47 07 51 09 40 09 47 10 00 11 27 15 37	07 59 08 03 11 34	08 08 08 14 11 40
	7	07 36 07 40	07 46 07 48	07 54 08 00
	9	07 55 08 01 11 07 14 22	08 08 08 11 11 19 14 34	08 17 08 22 11 23 14 38
	10	14 54 15 22 15 49	15 03 15 14 ..	15 08 15 33 ..
	11	08 14 08 21 12 07 14 09 ..	07 53 08 29 11 36 14 21 ..	07 59 08 34 11 21 11 31 14 18
	12	07 43 07 39 13 04	07 51 07 54 14 20	07 58 08 04 14 25
	13	08 13 08 17 11 17 14 20	07 49 07 53 11 22 14 25	07 57 08 01 11 25 14 29
	14	08 40 08 46 12 39 14 35	08 54 08 57 14 43 ..	09 02 09 07 12 54 14 47
	15	09 26 09 32 11 40 14 15	09 40 09 43 11 48 14 20	09 48 09 53 11 53 14 23
	16	07 42 07 49	07 56 07 57	08 02 08 07 09 37 10 01
	17	07 36 07 41 12 09	07 47 07 49 12 14	07 54 07 58 12 17

TABLE VI—contd

Date	H-alpha H. M. (I.S.T.)	K-Floccu- lus H. M. (I.S.T.)	K-Prom- inence H. M. (I.S.T.)
1957 Dec. 22	09 15 09 20 11 40 14 14 ..	09 33 09 35 11 50 14 29 ..	09 41 09 46 12 00 12 10 14 25
23	07 42 07 46 11 53 14 08	07 53 07 55 11 58 14 13	08 00 08 06 12 01 14 17
31	10 02 10 08	10 15 10 17	10 26 10 32

†Missing dates correspond to days when no photographs could be taken.
 *Sections showing eruptive prominence.
 **Sections showing flare region.

TABLE VII
 LIST OF PHOTOHELIOGRAMS**

Month	Date**	Time of Picture (I.S.T.)	Quality of image	Remarks*
1	2	3	4	5
1957—				
July	1	08 13	Poor	F
July	3	09 38	Fair	F
July	6	08 59	Fair	F
July	9	09 48	Good	F
July	11	07 57	Good	F
July		10 43	Poor	H
July	12	09 44	Poor	F
July	13	10 20	Fair	F
July	14	08 45 } 11 23 }	Good Poor	F H
July	15	10 15	Good	F
July	16	07 47	Good	F
July		10 32	Poor	H
July	19	10 05	Poor	F
July		13 55	Good	F
July	20	07 50	Good	F
July		10 22	Poor	H
July	21	08 45	Good	F
July	25	09 55	Fair	F
July	26	09 41	Fair	F
July	27	08 15	Good	F
July		10 45	Poor	H
July	28	07 50	Excellent	F
July		10 45	Fair	H
July	31	08 15	Excellent	F
August	4	07 54	Excellent	F
August	5	08 31	Good	F
August	6	10 40	Excellent	F
August		14 22	Fair	H

TABLE VII—contd.

1	2	3	4	5
1957—				
August	7	09 48	Good	F
August		10 53	Fair	F
August	10	09 59	Good	F
August	11	08 10	Excellent	F
August		10 52	Fair	H
August	12	09 20	Good	F
August		10 58	Fair	F
August	13	07 50	Excellent	F
August	14	09 03	Excellent	F
August	15	10 30	Good	F
August	16	07 47	Good	F
August	18	07 46	Good	F
August		10 02	Poor	H
August		14 26	Fair	H
August	19	10 05	Fair	F
August		15 06	Excellent	F
August	23	09 12	Fair	F
August	24	08 30	Good	F
August	26	10 15	Fair	F
August	27	13 55	Excellent	F
August	28	09 31	Good	F
August	29	09 10	Fair	F
August	30	08 25	Good	F
August		14 25	Fair	H
August		11 14	Poor	H
August	31	08 40	Good	F
August		10 50	Fair	F
September	1	08 20	Fair	F
September		10 31	Poor	H
September	2	07 41	Good	H
September		07 59	Good	F
September	3	07 46	Good	F
September	4	07 54	Excellent	F
September		10 34	Fair	H
September		14 20	Poor	H
September	5	07 53	Poor	F
September	6	07 38	Fair	H
September		07 56	Fair	F
September		08 48	Good	F
September	7	09 25	Good	F
September	8	10 46	Excellent	F
September		14 37	Good	F
September	11	08 20	Good	F
September	12	08 36	Fair	F
September		14 28	Good	H
September	13	07 50	Good	F
September		08 32	Fair	H
September		09 05	Good	H
September		11 15	Fair	H
September	14	08 40	Fair	F
September		07 49	Good	F
September		09 00	Fair	H
September		15 17	Fair	H
September	15	07 26	Fair	F
September		07 28	Poor	H
September	17	07 47	Fair	F
September		07 44	Good	H
September		07 40	Fair	H
September	18	07 40	Excellent	F
September		11 17	Fair	H
September	19	08 18	Good	F
September	20	07 56	Good	F
September	21	07 40	Excellent	F
September	22	07 48	Good	F
September		09 50	Fair	H

TABLE VII—*contd.*

1	2	3	4	5
1957—				
September		10 49	Poor	H
September	23	07 25	Fair	F
September		08 35	Excellent	F
September		10 57	Good	H
September		14 25	Good	H
September	24	08 12	Good	F
September	25	07 47	Excellent	F
September		10 48	Good	H
September	26	07 42	Excellent	F
September		10 58	Fair	H
September	27	07 58	Excellent	F
September		15 03	Good	H
September	28	07 38	Good	F
September	29	07 39	Excellent	F
September		10 27	Good	H
September		15 03	Fair	H
September	30	07 50	Fair	F
September		10 33	Fair	H
October	1	07 50	Good	F
October		10 58	Fair	F
October	2	10 17	Fair	F
October	4	08 21	Good	F
October	6	09 15	Excellent	F
October	7	07 50	Fair	F
October	8	07 37	Excellent	F
October	8	10 32	Excellent	H
October	9	10 30	Fair	F
October	11	08 51	Excellent	F
October	12	08 00	Good	F
October		11 48	Good	F
October	13	07 44	Good	F
October	13	10 41	Poor	H
October	14	10 30	Fair	F
October		09 31	Fair	F
October	15	10 30	Poor	F
October	16	08 22	Excellent	F
October		11 12	Fair	H
October	20	08 46	Good	F
October		10 28	Good	H
October	22	07 52	Excellent	F
October		11 41	Fair	H
October	24	07 45	Good	F
October	30	07 50	Excellent	F
October	31	07 42	Excellent	F
October		10 52	Good	H
November	1	11 22	Excellent	F
November	3	07 50	Excellent	F
November	4	11 58	Fair	F
November	8	08 29	Fair	F
November	10	07 47	Excellent	F
November	11	09 19	Excellent	F
November	14	08 10	Fair	F
November	14	08 44	Fair	F
November	15	07 35	Excellent	F
November		10 35	Good	H
November		14 35	Fair	H
November	16	07 58	Excellent	F
November		10 43	Good	H
November	17	07 48	Excellent	F
November		10 25	Excellent	H
November	18	09 15	Fair	F
November		10 35	Good	F
November	19	11 28	Good	F

TABLE VII—contd.

1	2	3	4	5
1957—				
November	21	10 43	Good	F
November	23	07 45	Excellent	F
November		10 45	Excellent	H
November		14 22	Good	H
November	24	08 41	Excellent	F
November	26	08 30	Excellent	F
November	27	10 02	Fair	F
December	1	13 40	Poor	F
December		07 44	Good	F
December	3	10 43	Good	H
December		14 17	Poor	H
December	5	10 07	Excellent	F
December		14 12	Poor	H
December	6	07 47	Excellent	F
December		10 12	Good	H
December	7	07 35	Excellent	F
December		10 56	Poor	H
December	9	08 05	Fair	F
December		11 02	Poor	H
December		14 52	Very Poor	H
December	10	14 33	Poor	F
December	11	07 55	Good	F
December		10 38	Excellent	H
December		14 20	Very Poor	H
December	12	07 59	Good	F
December		10 32	Poor	H
December		14 27	Poor	H
December	13	07 50	Fair	F
December		11 10	Fair	H
December		14 35	Fair	H
December	14	08 39	Good	F
December		10 57	Poor	H
December		14 18	Very Poor	H
December	15	08 56	Very Poor	F
December		09 28	Good	F
December		14 30	Very Poor	H
December	16	07 54	Good	F
December	17	08 12	Good	F
December	22	09 08	Good	F
December	23	08 02	Fair	F
December		11 55	Fair	H
December		15 35	Poor	H
December	31	09 27	Fair	F

*F—Full disc photograph. H Part of disc containing spot zones. **Missing dates correspond to days when no photographs could be taken due to bad weather.

TABLE VIII
SUNSPOT RELATIVE NUMBERS

Date*	Time I.S.T.	Number of groups	Number of spots	Image quality classified in 5 grades
1	2	3	4	5
1957—				
July	1 ^h	6	32	P
July	3	7	72	F
July	6	10	70	F

TABLE VIII—contd.

1		2	3	4	5	
1957—						
July	.	9	09 48	9	41	G
July	.	11	07 57	8	21	G
July	.	12	09 44	5	11	P
July	.	13	10 20	7	18	F
July	.	14	08 45	9	22	G
July	.	15	10 15	8	24	G
July	.	16	07 47	9	38	G
July	.	19	09 58	12	42	G
July	.	20	07 50	12	51	G
July	.	21	08 45	12	65	G
July	.	25	09 55	6	60	F
July	.	26	09 41	5	66	F
July	.	27	08 15	6	59	G
July	.	28	07 50	6	64	E
July	.	31	08 15	5	38	E
August	.	4	07 54	6	72	E
August	.	5	08 31	6	60	G
August	.	6	10 40	7	45	E
August	.	7	09 48	8	31	G
August	.	10	09 59	5	25	G
August	.	11	08 10	6	20	E
August	.	12	09 20	8	20	G
August	.	13	07 50	6	20	E
August	.	14	09 03	7	35	E
August	.	15	10 30	8	31	G
August	.	16	07 47	10	44	G
August	.	18	07 46	8	48	G
August	.	19	10 05	6	45	F
August	.	23	09 12	6	28	F
August	.	24	08 30	7	30	G
August	.	26	10 15	8	51	F
August	.	27	13 55	9	58	E
August	.	28	09 31	7	85	G
August	.	29	09 10	7	85	F
August	.	30	08 25	8	138	G
August	.	31	08 40	7	111	G
September	.	1	08 20	7	91	F
September	.	2	07 59	8	116	G
September	.	3	07 46	6	101	G
September	.	4	07 54	7	113	E
September	.	5	07 53	7	71	P
September	.	6	08 48	7	49	G
September	.	7	09 25	5	53	G
September	.	8	10 46	6	78	E
September	.	11	08 20	6	122	E
September	.	12	08 36	9	116	F
September	.	13	07 50	9	96	F
September	.	14	08 40	10	76	F
September	.	15	07 26	10	78	F
September	.	17	07 47	9	92	F
September	.	18	07 40	11	118	E
September	.	19	08 18	10	104	G
September	.	20	07 56	9	103	G
September	.	21	07 40	7	122	E
September	.	22	07 48	6	138	G
September	.	23	07 25	7	96	F
September	.	24	08 12	6	104	G
September	.	25	07 47	7	102	E
September	.	26	07 42	6	81	E

TABLE VIII—*contd.*

I					2	3	4	5	
1957—									
September	27	07 58	5	97	E
September	28	07 38	6	94	G
September	29	07 39	6	121	E
September	30	07 50	7	96	F
October	1	07 50	7	86	G
October	2	10 17	8	83	F
October	4	08 21	13	82	G
October	6	09 15	9	99	F
October	7	07 50	11	93	F
October	8	07 37	11	124	F
October	9	10 30	8	33	F
October	11	08 51	9	103	F
October	12	08 00	9	102	G
October	13	07 44	10	78	G
October	14	10 30	8	69	F
October	15	09 31	8	88	F
October	16	08 22	7	117	F
October	20	08 46	10	106	G
October	22	07 52	10	105	E
October	24	07 45	14	138	E
October	30	07 50	16	187	E
October	31	07 42	16	200	E
November	1	11 22	13	176	E
November	3	07 50	11	125	E
November	4	11 58	10	71	F
November	8	08 29	11	56	F
November	10	07 47	13	117	E
November	11	09 19	10	121	E
November	14	08 44	7	90	F
November	15	07 35	8	102	E
November	16	07 58	8	104	E
November	17	07 48	10	140	E
November	18	09 15	9	80	F
November	19	11 28	7	73	G
November	21	10 43	8	75	G
November	23	07 45	9	120	E
November	24	08 41	9	132	E
November	26	08 30	8	83	E
December	1	13 40	9	118	P
December	3	07 44	10	76	G
December	5	10 07	13	176	E
December	6	07 47	13	131	E
December	7	07 35	12	126	E
December	9	08 05	9	83	F
December	10	14 33	8	32	P
December	11	07 55	8	41	G
December	12	07 59	7	42	G
December	13	07 50	7	56	F
December	14	08 39	7	85	G
December	15	09 28	7	71	G
December	16	07 54	8	128	G
December	17	08 12	9	111	G
December	22	09 08	15	281	G
December	23	08 02	13	160	F
December	31	09 27	11	65	F

*Missing dates correspond to days when no photographs could be taken due to unfavourable weather.
†E—Excellent; G—Good; F—Fair; P—Poor; VP—Very Poor.

TABLE IX
POSITION AND CLASSIFICATIONS OF SUNSPOT-GROUPS

Date*	I.S.T.	Image** quality	b (heliogra- phic lati- tude) in degrees	l (heliogra- phic longi- tude) in degrees	Type according to Zurich classifica- tion	f (number of single spots)
1	2	3	4	5	6	7
1957 July 1	H 08 M 13	4	-22 +10 -13 +12 -29 -17	138 76 50 12 11 08	F G E G F J	4 6 9 6 6 1
1957 July 3	09 38	3	+08 -13 +12 -30 -17 +24 +11	75 49 13 10 07 24 338	G D D F J A A	4 11 23 23 1 5 5
1957 July 6	08 59	3	+12 -14 +14 -30 -16 +27 +12 +27 -13 +34	78 43 13 08 04 26 338 336 303 281	J G E E J J C J E J	2 8 14 22 3 1 10 2 7 1
1957 July 9	09 48	2	-12 +14 -30 -16 +26 +13 -13 +34 -14	36 18 11 05 15 337 304 280 260	J D G J A C G J B	2 11 7 1 1 9 5 1 4
1957 July 11	07 57	2	-28 +24 +13 -12 +34 -13 -33 +10	18 08 339 306 279 266 252 248	H C J G C B B C	4 1 1 6 1 3 3 2
1957 July 12	09 44	4	-11 +33 -30 +09 -15	302 274 248 245 210	D J E C J	3 1 4 2 1
1957 July 13	10 20	3	-12 +31 -32 +06 -18 +12 -38	302 277 247 251 212 182 178	B B E B B B B	3 1 9 1 1 1 2

TABLE IX—*contd.*

1	2	3	4	5	6	7
1957 July 14	08 45	2	-12 +33 -32 +13 -17 +12 -37 +22 +22	302 274 248 255 210 187 184 225 164	B B E B A C B B B A	3 1 6 2 1 2 3 3 1
1957 July 15	10 15	2	-12 +33 -32 +20 -17 +14 -35 +25	301 275 247 260 211 185 190 168	G J G B J G G G	2 2 7 2 1 2 3 5
1957 July 16	07 47	2	-12 +33 -32 +20 -17 +14 -36 +25 -10	311 273 247 261 212 185 190 168 178	J A G B E C G G A	2 1 8 3 3 3 4 10 4
1957 July 19	09 58	2	-32 -17 +14 -39 +26 -10 -19 -23 -35 -14 +08 +28	250 210 182 188 161 177 183 143 150 195 98 127	H J H A E B B C A B A A	2 1 2 1 11 5 6 2 3 4 1 4
1957 July 20	07 50	2	-33 -15 +16 -35 +26 -08 -18 -22 -33 -13 +10 +28	246 211 185 185 159 178 181 139 148 197 101 122	J H J H E B C C C B J B	1 5 1 1 16 6 6 2 5 3 1 4
1957 July 21	08 45	2	-16 +15 -35 +26 -8 -18 -22 -33 -13 +10 +29 +13	210 184 184 158 176 179 138 147 193 98 125 145	J J A E B C H J B E B B	3 1 2 17 7 8 5 3 2 9 4 4

TABLE IX—*contd.*

1	2	3	4	5	6	7
1957 July 25	09 55	3	-14 +27 -10 -23 +07 -15	193 141 188 143 93 52	H E A C E C	3 19 2 8 27 1
1957 July 26	09 41	3	+27 +10 -14 -24 +20	136 90 52 136 85	E F H G C	21 26 1 8 10
1957 July 27	08 15	2	+29 +10 -23 -13 +20 -29	136 96 136 53 86 16	E F H J A B	15 28 3 1 10 2
1957 July 28	07 50	1	+30 -23 +10 -13 +20 -29	135 136 95 51 85 14	H J G H C G	10 4 28 1 14 7
1957 July 31	08 15	1	+12 +22 -14 -29 +25	96 80 51 06 328	E B H E E	9 5 1 15 8
1957 August 4	07 54	1	-13 -28 +25 +08 -16 +33	47 02 330 300 353 13	H E G A A A	01 23 26 10 06 06
1957 August 5	08 31	2	-28 +34 -17 +26 +9 -14	05 11 354 331 299 252	F B B F E A	22 01 03 21 10 03
1957 August 6	10 40	1	-27 +27 +09 +33 -13 -33 +13	02 330 298 13 241 219 10	G G C B A A B	18 15 04 02 01 03 02
1957 August 7	09 48	2	-28 +27 +08 -14 -35 +14 -22 +14	359 329 299 241 238 06 259 326	H G C A C A A A	06 12 03 02 02 01 03 02
1957 August 10	09 59	2	+26 +09 -19	331 301 259	G H J	09 01 01

TABLE IX—*contd.*

1	2	3	4	5	6	7
1957 August 10	09 59	2	+14 -10	213 185	E E	11 03
1957 August 11	08 10	1	+11 -18 +14 -10 -17 +22	301 259 212 189 206 154	H B E C A A	01 02 12 03 01 01
1957 August 12	09 20	2	+09 +14 -08 -18 +22 +32 -27 -37	301 213 193 204 161 302 158 163	J G C A C A A A	01 09 05 01 01 01 01 01
1957 August 13	07 50	1	+14 -08 +22 -18 -33 -29	214 193 160 259 148 209	G J J A G B	08 02 02 01 03 04
1957 August 14	09 03	1	+14 -08 +22 -18 -33 -29 -24	216 195 159 265 146 209 124	G A C J C B B	18 03 01 01 06 05 01
1957 August 15	10 30	2	+14 -14 -36 -09 +19 -33 -20 +34	214 231 212 195 160 144 143 113	G D B A H G A A	13 07 02 01 01 04 02 01
1957 August 16	07 37	16	+14 -11 +21 -33 -27 -22 -16 +33 +16 -19	214 193 158 140 213 148 233 111 101 188	G B J B B B J J C A	14 02 01 08 02 02 04 01 09 01

TABLE IX—*contd.*

1	2	3	4	5	6	7
1957 August 18	07 46	2	+14 +22 -30 -19 -14 +33 +18 -32	215 157 141 143 225 109 97 114	B J A G J A E A	06 04 03 12 03 01 17 02
1957 August 19	10 05	3	+14 +20 -30 -20 +33 +17	206 158 138 151 110 101	A J A G A E	02 04 04 15 01 19
1957 August 23	09 12	3	+22 -23 -22 +17 -13 -24	152 123 138 100 48 28	J A A E J J	01 01 04 17 01 04
1957 August 24	08 30	2	+21 -23 +16 -15 -27 -19 +08	157 138 99 48 28 00 357	A A E J J A A	01 01 19 02 03 01 03
1957 August 26	10 15	3	+17 -15 -26 +12 +22 +12 -13 -29 +17 -13 -24	98 50 28 02 325 329 20 338 98 50 29	G J J G D C C H C J G	08 01 03 16 07 02 09 05 06 01 07
1957 August 27	13 55	1	+12 +24 +12 -13 -29 +18	03 320 320 20 340 66	E F C D E A	14 10 04 06 09 01
1957 August 28	09 31	2	-14 -24 +11 +24 +14 -13 -28 -09	50 27 04 326 324 21 336 312	J H C F J H G A	03 09 20 19 07 10 16 01
1957 August 29	09 10	3	-15 -25 +10 +25 +15 -14 -29	51 29 06 326 329 20 339	J H E F F H G	01 09 19 22 12 08 14

TABLE IX—contd.

1	2	3	4	5	6	7
1957 August 30	08 25	2	-15 -25 -14 +12 +15 +24 -18 -29	47 28 19 04 332 326 340 337	A C G E E F A G	02 13 09 27 30 26 06 25
1957 August 31	08 40	2	-25 +12 +24 +15 -13 -29 -18	28 03 328 332 21 335 340	J D E F J G B	07 15 29 34 04 13 09
1957 Sept. 1	08 20	3	-27 +13 +24 +16 -13 -28 -16	31 06 333 333 22 335 340	J D E E J G B	09 18 23 24 03 09 05
1957 Sept. 2	07 59	2	-27 +12 +25 +15 -13 -30 -17 -09	23 09 330 332 25 333 344 239	A B F F B G A B	03 09 28 53 02 10 09 02
1957 Sept. 3	07 46	2	+12 +25 +15 -30 -17 -09	09 330 332 336 345 240	B F F G A B	07 20 46 09 08 02
1957 Sept. 4	07 54	1	+24 +13 +15 -16 -29 +12 -10	330 02 334 341 339 204 239	F B F G H H D	45 07 44 06 05 01 05
1957 Sept. 5	07 53	4	+24 +13 -31 -16 -08 +14 -24	330 334 333 343 239 202 250	F F J J G E H	23 24 02 03 05 07 07
1957 Sept. 6	08 48	2	+25 +17 -28 -08 +13 -23 -13	332 338 336 240 194 251 286	E E H B F E A	06 07 01 04 12 18 01
1957 Sept. 7	09 25	2	+26 -09	333 237	J A	02 03

TABLE IX—*contd.*

1	2	3	4	5	6	7
1957 Sept. 7	09 25	2	+13 -24 -13	197 252 258	F E A	25 22 01
1957 Sept. 8	10 46	1	-24 -10 +34 -14 +11 -44	249 239 228 198 196 149	F J A D F G	24 03 05 11 34 01
1957 Sept. 11	08 20	1	-24 -08 -15 -42 +11 -19	251 221 197 153 198 153	G J E E F A	16 12 40 10 42 02
1957 Sept. 12	08 36	3	-25 -08 +11 -15 -43 -22 +22 -25 +15	247 215 196 192 146 152 144 117 113	F D E F D H B A J	15 12 30 36 11 03 05 02 02
1957 Sept. 13	07 50	2	-08 +11 -27 -16 -43 -22 +25 +14 -25	221 197 248 193 157 154 148 109 124	D F H F D J D D C	05 32 02 34 07 01 04 07 04
1957 Sept. 14	08 40	3	-06 +13 -17 -48 -21 +13 +27 -23 +08 +22	223 198 196 145 152 108 149 104 73 80	J E G G J D A A J J	01 21 17 06 02 12 06 02 03 06
1957 Sept. 15	07 26	3	+12 -16 -45 -21 +13 +24 -23 +08 +23 +39	198 195 145 153 110 152 105 77 85 125	E G G A E A A E E A	18 10 05 02 13 05 02 07 12 04
1957 Sept. 17	07 47	3	-16 +10 -44 -21 +24 +12 +23	189 192 153 151 149 107 105	G E H J H E J	02 02 01 01 07 18 01

TABLE IX—contd.

1	2	3	4	5	6	7
1957 Sept. 17	07 47	3	+22 +09	86 73	F F	34 26
1957 Sept. 18	07 40	1	-42 -22 +14 +27 -21 +12 +23 -16 -07 -20 -22	141 156 107 147 104 74 86 138 124 75 142	C J E D J F F C B B B	03 01 20 05 01 27 44 06 04 04 03
1957 Sept. 19	08 18	2	-43 +25 +12 -24 +10 +23 -18 -23 -25 -18	152 144 107 106 72 84 135 74 145 07	B A E A G F A B A J	02 05 22 01 17 44 01 06 04 02
1957 Sept. 20	07 56	2	+25 +13 -23 +10 +23 -18 -22 -24 -18	144 107 106 71 84 134 75 144 06	A B A G G A B A A	03 18 01 21 46 02 07 03 02
1957 Sept. 21	07 40	1	+13 +10 +23 -18 -22 -17 +15	108 72 86 136 75 09 346	B G F J B B A	14 39 44 01 11 05 08
1957 Sept. 22	07 48	2	+12 +23 -23 +08 -13 +17	108 83 76 69 18 341	D F D F B F	12 35 12 48 11 20
1957 Sept. 23	07 25	3	+15 +08 +23 -23 +17 -27 -15	108 69 83 78 341 322 20	J E F E E J C	03 28 20 11 28 01 05
1957 Sept. 24	08 12	2	+10 +23 -23 -12 +15 -27	70 82 81 17 335 324	F F E B F J	27 16 12 08 40 01

TABLE IX—contd.

1	2	3	4	5	6	7
1957 Sept. 25	07 47	1	+09 +23 -23 -18 +15 -27 +13	69 80 80 12 334 321 295	E F H A E B G	21 16 04 04 47 06 04
1957 Sept. 26	07 42	1	+10 +23 -13 -15 -27 +13	69 80 16 335 320 295	E J B E B G	15 05 06 39 09 07
1957 Sept. 27	07 58	1	+09 -14 +17 -28 +15	67 19 333 320 292	G C F D F	02 05 64 14 12
1957 Sept. 28	07 38	2	-13 +17 -26 +16 +28 +10	20 334 321 291 268 261	C E D F J B	04 54 14 18 02 02
1957 Sept. 29	07 39	1	-13 +17 -25 +18 +29 -18	25 335 322 290 268 255	A F G G B H	02 57 20 19 14 09
1957 Sept. 30	07 50	3	+17 -26 +17 +28 -20 -15 -05	335 321 291 268 255 228 225	F B G D G A A	47 10 21 09 06 02 01
1957 October 1	07 50	2	+17 -27 +16 +26 -20 -17 -07	334 320 293 269 254 227 227	E A G G G C A	29 06 16 14 16 04 01
1957 October 2	10 17	3	+17 -27 +16 +26 -20 -17 -06 -36	332 318 291 267 251 224 226 204	E H G G G C J A	17 04 16 20 19 05 01 01
1957 October 4	08 21	2	+24 -32 +13 +28 +20 -17	314 324 295 267 258 224	A A G G G G	01 01 07 28 15 15

TABLE IX—*contd.*

1	2	3	4	5	6	7
1957 October 4	08 21	2	-08 -40 +09 +12 -15 +40 +32	228 204 275 206 186 224 186	A B A A J A A	01 03 01 01 02 06 01
1957 October 6	09 15	1	+15 +28 -22 -17 -07 -41 -15 +42 +18	299 264 251 229 228 200 187 117 157	A G G B A B D B D	04 22 24 19 01 09 06 06 08
1957 October 7	07 50	3	+29 -22 -07 -17 +42 +20 +14 -41 -16 +18 +07	269 252 228 225 219 206 200 193 188 159 134	G E A B A A C D G E A	05 14 01 24 07 05 11 10 05 10 01
1957 October 8	07 37	1	+29 -22 -17 -05 -40 -16 +42 +20 +19 +14 +09	265 252 225 227 192 187 219 158 207 200 133	G G C A C E C E D F C	07 14 25 01 12 09 08 18 09 18 03
1957 October, 9	10 30	3	-22 -05 -40 -14 +41 +21 +14 +08	255 225 195 185 220 149 202 130	G A B E B E H A	06 01 04 02 04 13 02 01
1957 October 11	08 51	1	-43 -15 +43 +21 +15 +20 +08 -22 -24	193 189 218 153 203 91 90 99 227	J H J E H C B E E	07 02 10 40 14 05 06 16 03
1957 October 12	09 58	2	+43 +14 -40 -16 +22 -18	218 202 188 186 149 102	C H J D F G	08 09 03 03 41 13

TABLE IX—contd.

1	2	3	4	5	6	7
1957 October 12	09 58	2	+10 +20 +23	88 83 84	H H F	08 04 13
1957 October 13	07 44	2	-16 +42 +22 +13 +23 +08 -18 -28 +13 +04	187 213 151 200 94 91 104 76 124 62	D J F J C E F F B A	02 02 19 04 05 11 17 14 03 01
1957 October 14	10 30	3	-16 +24 +24 +08 -17 -25 -12 +08	193 153 86 93 104 71 123 56	B D B D G F A A	02 08 05 14 17 16 05 02
1957 October 15	09 31	3	+25 +24 +08 -17 -26 +08 -17 -24	153 86 93 104 76 55 30 140	E B B G F A A A	09 15 06 16 34 03 02 03
1957 October 16	08 22	1	+22 +24 +08 -17 -26 -17 -24	154 84 94 104 74 36 142	D C B G F A A	08 21 04 30 51 01 02
1957 October 20	08 46	2	+25 -18 -24 +16 +24 +20 +22 -27 -11 -25	73 108 66 37 113 03 330 319 14 28	B G F A B B C B A A	13 05 56 01 04 05 10 08 02 02
1957 October 22	07 52	1	-25 +25 -16 +15 +24 +22 +14 -12 -22 +14	66 69 35 08 350 323 320 298 318 292	F G B B C D C F D J	21 11 04 08 18 15 06 04 17 01

TABLE IX—contd.

1	2	3	4	5	6	7
1957 October 24	07 45	2	+28 -23 +17 +23 -26 -13 +10 +23 +13 +08 +26 -24 -13 +26	66 66 07 321 318 301 288 347 328 54 17 02 349 261	J J A B D C R B B A A B A B	04 05 03 14 25 12 07 21 29 01 10 01 01 02
1957 October 30	07 50	1	+23 -23 -12 +12 +13 +29 +23 +39 +42 +39 +14 -21 -20 -14 +27 +15	322 327 299 291 331 263 301 298 248 206 210 242 183 275 244 259	B B E B E E F A A A B F A A B A	04 03 14 02 12 07 24 03 04 02 07 74 01 10 15 05
1957 October 31	07 42	1	+24 -22 -11 +14 +16 +26 +23 +38 +41 +39 +13 -20 -18 -13 +26 +14	322 328 299 291 310 267 299 290 247 201 208 241 183 275 242 256	A J G B J H F A B B J F B J E A	05 07 17 05 08 05 25 02 03 05 07 68 06 11 24 02
1957 November 1	11 22	1	-11 +14 +22 -13 -20 +25 +27 +08 +14 -17 +37 +33 +19	303 292 298 234 245 268 242 227 208 183 193 160 154	G B F G F H E A H E A A A	10 02 11 13 68 02 28 03 09 23 05 01 01
1957 November 3	07 50	1	+09 +25 +21 +13	286 265 296 207	A J J J	02 06 06 06

TABLE IX—contd.

1	2	3	4	5	9	7
1957 November 3	07 50	1	-23 -18 -14 +27 +32 +19 +13	239 174 275 239 161 158 129	E G H G J J A	49 20 03 29 02 01 01
1957 November 4	11 58	3	+26 +13 -22 -18 -14 +26 +32 +19 +13 +27	264 205 236 174 274 237 160 158 132 130	J J E G J G B B B B	03 03 18 18 02 23 01 01 01 01
1957 November 8	08 29	3	+13 -17 -33 +18 +14 +25 +21 +20 -34 -18 -21	211 177 159 152 133 138 120 95 121 102 80	J G B B B A A E A A A	02 07 05 10 01 03 02 18 03 03 02
1957 November 10	07 47	1	-17 +29 +21 +15 +26 +22 +18 -32 -16 -22 -15 -23 +05	173 152 147 132 133 117 90 119 108 85 60 59 162	G B B A A A E J A B B C A	16 10 06 01 01 03 57 01 01 07 04 08 02
1957 November 11	09 19	1	-18 +29 +26 +23 +18 -34 -22 -24 -06 +05	170 148 132 116 88 119 83 60 138 68	E A A A D J D D A A	08 06 02 01 58 01 19 17 03 06
1957 November 14	08 44	3	-32 +16 -20 +06 -21 -08 +29	119 85 80 67 57 13 351	J D F E C B H	02 22 20 19 01 13 01
1957 November 15	07 35	1	+17 -32 -20	92 121 76	G A C	21 03 14

TABLE IX—contd.

1	2	3	4	5	6	7
1957 November 15	07 35	1	-22 +08 -08 +28 +14	61 73 14 353 347	A E A J J	05 31 26 01 01
1957 November 16	07 58	1	+17 -20 -22 +08 -08 +29 +15 +13	94 79 60 70 14 354 346 19	G C A E B J J B	17 11 02 36 23 02 03 10
1957 November 17	07 48	1	+17 -19 -22 +08 -08 +29 +15 +13 -18 +18	94 86 62 71 14 353 344 19 42 57	H E A E B E J B A A	16 08 02 38 18 14 10 29 02 03
1957 November 18	09 15	3	+20 -19 +08 -08 +28 +15 +13 +18 -18	90 87 71 18 352 343 20 305 298	J J E B G J D J J	05 03 20 07 15 08 18 02 02
1957 November 19	11 28	2	+10 -07 +28 +15 +14 +20 -13	71 21 351 338 21 300 287	G B C D G J H	07 10 14 17 17 02 06
1957 November 21	10 43	2	-06 +31 +17 +14 +22 -13 +12 -13	18 352 338 22 295 302 297 273	D D E E E J D D E	05 20 15 12 01 11 03 08
1957 November 23	07 45	1	+28 +17 +14 +22 -13 +12 -13 -27 -27	360 340 23 297 275 303 305 10 249	D E J J E C D H G	23 14 04 03 26 07 33 07 03
1957 November 24	08 41	1	+27 +17 +20 -13	358 338 297 273	D E J E	26 14 03 33

TABLE IX—*contd.*

1	2	3	4	5	6	7
1957 November 24	08 41	1	+12 -13 -27 -27 -13	301 304 11 247 340	B E H H A	04 37 06 03 06
1957 November 26	08 30	1	+15 +20 -13 +13 -13 -26 +28 -17	340 295 271 302 304 244 245 221	J H E J H H B C	08 04 35 01 17 03 04 11
1957 December 1	13 40	4	-13 +25 -19 +15 -09 -07 -20 -33 +04	271 251 226 211 216 180 175 179 126	J A E D B B E B A	05 01 33 15 07 13 36 05 03
1957 December 3	07 44	2	-19 +16 -09 -08 -23 -31 +06 +06 +29 -11	221 210 215 184 177 138 133 118 111 168	F E B J D C B C A B	11 09 04 02 41 02 02 01 01 03
1957 December 5	10 07	1	-19 +15 -13 -07 -20 -32 +06 +06 +27 +18 +08 -21 +16	226 213 206 184 179 136 135 119 105 90 79 79 141	F G C J E B C C H H J C	16 13 14 01 72 15 09 04 09 03 05 05 11
1957 December 6	07 47	1	-19 +15 -14 -13 -20 -34 +08 +04 +29 +17 +08 -21 +17	224 214 209 183 174 131 136 118 96 92 83 80 161	F G C A F D A A B B H C C	02 03 10 01 50 20 04 04 07 03 06 11 10
1957 December 7	07 35	1	-18 -10 -20	205 187 177	J A E	01 01 38

TABLE IX—contd.

1	2	3	4	5	6	7
1957 December 7	07 35	1	-30 +10 +07 +24 +19 +08 -18 +17 -34	136 137 120 105 88 81 77 164 66	D D C E H E D H B	30 05 05 04 10 06 15 05 06
1957 December 9	08 05	3	-22 -35 +05 +16 +08 -23 +16 -35 +13	179 135 122 89 80 84 166 69 44	G B B A H D J A A	15 06 14 11 12 20 01 03 01
1957 December 10	14 33	4	-34 +04 +11 -20 -34 +15 -14 +24	139 140 79 87 63 43 46 15	A A G C A A A A	01 05 12 10 01 01 01 01
1957 December 11	07 55	2	+08 +11 -20 -29 +15 -14 +24 -21	120 77 91 45 46 45 12 03	B G G B B C A A	04 17 05 04 02 06 01 02
1957 December 12	07 59	2	+08 +30 -19 +11 -12 +24 -20	120 104 90 75 44 13 360	J A D E B B B	01 01 04 29 03 02 02
1957 December 13	07 50	3	+11 -20 -14 +22 -21 -14 -16	74 89 45 12 359 09 330	E D B A B A H	22 06 08 01 13 03 03
1957 December 14	08 39	2	+11 -22 -13 -21 -13 -16 +17	78 86 49 04 08 328 347	F H A A B H A	34 02 02 04 16 14 13
1957 December 15	09 28	2	+11 -22 -21 -14 -17	77 84 06 06 327	D J J C F	16 01 01 12 24

TABLE IX--concl.

1	2	3	4	5	6	7
1957 December 15	09 28	2	+22 +18	349 311	A G	01 16
1957 December 16	07 54	2	+11 -20 -20 -12 -15 +20 +16 -24	77 85 06 09 327 310 39 344	J J A B F G A A	18 01 04 20 38 34 07 06
1957 December 17	08 12	2	+10 +13 +12 -21 -13 -25 -13 +20 +16	67 41 15 06 08 344 324 304 280	J B B A B C G E G	02 04 09 01 16 11 23 42 03
1957 December 22	09 08	2	-16 +18 +15 +14 +24 +22 -12 +24 -15 -15 +25 -27 -19 -19 +16	327 317 277 348 343 272 295 285 284 267 252 264 247 224 221	E E E A A J B A A J F F B J J	14 72 58 02 04 05 08 06 06 02 31 56 08 08 01
1957 December 23	08 02	3	-15 +18 +14 +23 -08 +24 -15 +23 -27 -20 -22 +13 -04	325 314 278 302 293 287 267 252 265 250 222 221 209	C E D J C C C F F B D J B	07 20 41 02 03 02 01 25 31 10 14 02 02
1957 December 31	09 27	3	+23 -21 +12 -03 -24 -11 +16 -13 +18 -18 -05	239 223 215 205 182 175 166 155 123 112 111	G D H J J J H G E B B	09 05 02 01 18 01 02 04 12 01 10

**1. Excellent 2. Good 3. Fair 4. Poor

* Missing dates correspond to days when no photographs could be taken.

PART II

MAGNETIC OBSERVATIONS FOR THE SECOND HALF OF 1957

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

The adopted values of the scale coefficients for the Horizontal Force, Vertical Force and Declination magnetographs for the second half of 1957 were 29 γ/cm , 115 γ/cm and 14'/cm respectively.

Trends in magnetic variations

The mean value of and range in horizontal force for the second half of 1957 were 39,521 γ and 187 γ respectively showing an increase over the corresponding values *viz.* 39,509 γ and 176 γ for the first half of 1957. The mean value of and range in vertical force decreased from 2,362 γ to 2,343 γ and 58 γ to 55 γ respectively in comparison with the corresponding values for the first half of 1957. The mean westerly declination was 2°36'·0 and its mean range was 5'·2 showing an increase of 0'·5 and 0'·4 respectively over the corresponding mean value and range for the first half of 1957.

PART III

IONOSPHERIC OBSERVATIONS FOR THE SECOND HALF OF 1957

A description of the system of ionospheric observations at Kodaikanal together with a brief description of the Ionosphere Recorder used has been given in Bulletin No. 146 of this observatory. The present Bulletin contains half-hourly values of 11 ionospheric parameters *viz.* foF₂, foF₁, foE, foEs, fbEs, fmin, h'F₂, h'F, h'E, h'Es and (M3000) F₂ with symbols and terminology as recommended by the Special Committee on World-wide Ionospheric Soundings to the URSI/AGI in its first report (Brussels, September 2, 1956.). The f-plots of the ionospheric parameters for Regular World Days and Special World Intervals, prepared under the IGY Programme, are also included in this bulletin.

KODAIKANAL OBSERVATORY }
November, 1958.

A. K. Das,
Dy. Director-General of Observatories.

MAGNETIC DATA

TABLE I

Hourly Values of Declination (Westerly), 1957

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

July

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††	32'0	29'2	27'5	28'2	30'5	32'4	34'2	36'6	36'6	36'2	36'3	35'8	34'8	34'0	34'1
2††	33'5	32'8	32'3	32'6	33'7	35'5	36'6	37'7	37'5	38'2	39'0	38'4	36'9	33'7	32'7
3††	33'3	31'9	30'7	30'5	32'4	33'7	35'5	35'8	36'8	36'9	37'2	35'9	34'9	34'7	34'9
4	34'5	33'5	33'0	33'1	34'7	36'3	37'7	38'9	39'0	38'3	37'3	36'9	36'5	36'6	35'6
5††	34'7	34'2	33'8	34'7	35'5	△	△	37'3	37'7	35'5	36'5	35'5	34'8	34'8	35'5
6	34'7	33'7	33'3	33'5	△	△	37'7	38'0	38'0	36'9	36'3	35'8	35'6	35'1	35'2
7	34'5	33'5	33'4	33'4	34'7	36'5	37'9	39'0	38'9	37'9	37'3	36'5	35'9	35'1	35'2
8	34'8	34'5	33'7	33'5	33'8	34'7	36'5	37'5	37'3	36'6	36'5	36'2	35'9	35'5	35'8
9	35'5	34'5	34'5	35'1	35'3	37'7	38'7	38'7	38'3	38'4	38'4	37'5	36'6	35'9	35'8
10†	35'1	34'4	33'5	33'4	34'4	35'9	36'6	38'9	38'6	38'6	37'6	36'2	35'8	35'1	35'8
11†	35'6	34'9	34'9	36'1	37'3	38'6	40'3	41'0	40'8	39'6	38'6	37'6	37'0	36'8	36'5
12	34'9	34'2	33'4	33'4	34'5	35'4	36'6	37'9	38'6	38'2	37'3	36'3	35'4	35'4	36'1
13†	34'9	34'0	33'7	34'8	36'5	37'6	38'9	39'1	39'1	38'6	37'0	36'1	34'9	35'1	35'9
14	35'2	34'4	33'4	33'8	35'2	36'6	38'6	39'8	40'3	39'3	37'7	36'3	35'9	35'9	36'1
15†	36'1	34'9	34'8	34'9	35'9	37'5	38'3	39'0	39'3	39'1	38'4	37'2	35'9	35'2	36'1
16	35'1	34'2	33'5	33'8	35'4	37'2	39'0	39'1	38'9	38'7	37'5	36'2	35'5	35'1	35'4
17	35'1	34'4	33'7	34'8	36'2	37'7	39'0	40'3	40'4	39'3	38'9	37'6	36'5	36'1	36'1
18	35'1	34'7	34'5	34'8	35'9	37'3	38'7	39'4	39'1	38'7	37'2	36'1	35'9	36'1	36'3
19††	34'7	33'4	33'1	33'8	35'2	36'5	38'6	39'4	39'0	39'1	37'9	37'6	37'5	37'2	37'3
20	34'7	33'3	33'1	33'8	35'1	37'0	38'9	40'0	40'0	39'3	38'4	37'2	36'2	35'8	36'1
21	34'9	34'4	33'5	34'0	35'1	36'5	37'6	38'4	38'0	38'3	38'0	37'3	36'3	35'9	36'1
22	35'2	34'8	34'7	34'8	36'2	37'7	39'7	40'3	40'4	39'1	37'5	35'9	35'6	35'9	36'1
23	34'8	34'5	34'7	34'9	36'3	37'2	38'6	38'0	39'0	38'7	37'7	36'6	35'8	36'5	35'6
24	35'2	35'1	34'9	35'1	35'9	36'5	37'6	38'6	38'3	38'2	37'6	36'8	36'2	35'5	36'1
25	35'1	34'7	34'5	35'2	36'2	37'3	37'9	38'7	39'4	38'6	37'6	36'6	36'2	36'2	36'3
26†	36'1	34'8	34'8	35'5	36'1	36'9	37'2	37'4	37'2	36'5	36'1	35'0	34'8	34'8	35'7
27	35'7	34'4	34'1	33'9	35'0	36'4	37'5	38'3	38'5	37'5	37'1	35'7	35'8	35'8	36'2
28	36'2	34'8	34'6	34'6	36'0	35'6	37'4	37'4	38'5	38'7	38'7	37'3	36'3	36'0	36'1
29	35'0	34'6	34'2	34'9	35'0	36'4	38'7	39'5	38'8	38'4	37'5	35'9	35'3	34'9	35'7
30	34'7	34'6	34'3	34'5	34'8	36'0	37'4	37'4	37'2	36'0	36'0	35'8	35'6	35'6	35'9
31	35'5	34'5	33'5	35'1	36'5	37'3	38'3	38'8	38'7	38'6	37'4	36'3	35'9	35'6	35'9
Mean . . .	34'9	34'1	33'6	34'0	35'2	36'5	37'9	38'7	38'7	38'2	37'6	36'6	35'9	35'6	35'8
Mean† . . .	35'6	34'6	34'3	34'9	36'0	37'3	38'1	39'1	39'0	38'4	37'5	36'4	35'7	35'4	36'0
Mean†† . . .	33'4	31'8	30'9	31'3	33'0	34'5	36'2	37'4	37'5	37'6	37'6	36'9	36'0	34'9	34'8

† Five International quiet days.

†† Five International disturbed days.

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

TABLE I

Hourly Values of Declination (Westerly), 1957

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

July

2° plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
									H. M.		H. M.				
34.2	34.4	34.1	34.2	34.0	33.5	32.8	33.5	33.5	33.4	07 01	37.2	02 05	27.2	10.0	1††
34.0	33.3	33.4	33.5	33.5	33.8	34.1	34.1	34.0	34.8	10 13	39.1	02 00	32.3	6.8	2††
34.9	34.8	34.7	34.7	34.7	34.7	34.8	34.7	34.5	34.5	09 10	37.5	02 45	29.9	7.6	3††
35.8	35.5	35.5	35.4	35.2	35.2	34.9	34.9	34.9	35.8	07 25	39.1	02 00	33.0	6.1	4
35.9	35.6	34.9	34.9	34.8	34.7	34.7	34.8	34.8	Δ	Δ	Δ	Δ	Δ	Δ	5††
35.6	35.2	35.2	34.2	34.2	34.1	34.8	34.7	34.5	Δ	Δ	Δ	Δ	Δ	Δ	6
35.8	35.9	35.9	35.6	35.5	34.9	34.9	34.9	34.9	35.7	06 31	39.3	02 00	33.4	5.9	7
36.1	35.9	35.8	35.8	35.6	35.6	35.6	35.6	35.5	35.6	07 27	38.0	03 02	33.4	4.6	8
36.1	35.9	35.8	35.9	35.6	35.5	35.4	35.4	35.5	36.3	05 30	39.0	01 20	34.4	4.6	9
35.9	35.9	35.9	35.8	35.8	35.8	35.8	35.9	35.8	35.9	07 24	39.0	03 00	33.4	5.6	10†
36.3	36.1	35.9	35.8	35.5	35.2	35.2	35.6	35.4	36.9	08 00	41.1	01 25	34.8	6.3	11†
36.5	36.3	36.2	36.1	35.9	35.8	35.8	35.6	35.2	35.9	07 41	38.7	01 56	33.3	5.4	12
36.3	36.3	36.3	36.5	36.3	36.2	36.2	36.2	36.1	36.4	07 30	39.3	01 41	33.4	5.9	13†
36.2	36.3	36.5	36.5	36.6	36.6	36.8	36.3	36.2	36.5	08 21	40.4	02 00	33.4	7.0	14
36.3	36.3	36.3	36.2	36.2	36.2	36.2	36.1	36.1	36.6	08 00	39.3	02 00	34.8	4.5	15†
36.2	35.9	35.9	35.9	35.9	36.1	36.2	36.2	36.2	36.2	07 17	39.4	02 05	33.4	6.0	16
36.3	36.3	36.3	36.3	36.3	36.2	36.1	36.2	35.8	36.7	08 00	40.4	01 35	33.4	7.0	17
36.6	36.3	36.2	35.9	35.8	35.8	35.9	35.4	35.1	36.4	07 12	39.7	01 18	34.4	5.3	18
36.3	35.9	34.9	34.8	34.8	34.7	34.5	34.5	34.7	36.0	07 28	39.4	01 55	32.7	6.7	19††
36.3	36.3	36.1	36.1	35.9	35.8	35.2	35.1	35.1	36.3	07 21	40.3	01 30	32.7	7.6	20
36.3	36.6	36.6	36.3	36.2	35.9	35.8	35.2	35.1	36.2	07 02	38.9	02 00	33.4	5.5	21
35.8	35.6	35.5	35.4	35.6	35.4	35.2	35.2	34.9	36.4	07 38	41.0	02 30	31.5	6.5	22
35.8	35.8	36.1	35.9	35.9	36.1	35.9	35.8	35.9	36.3	07 10	39.7	00 42	34.1	5.6	23
36.1	36.1	35.9	35.9	35.9	35.9	35.9	35.8	35.6	36.3	06 55	38.7	02 30	34.8	3.9	24
36.6	36.6	36.3	36.3	36.2	36.3	36.2	36.1	36.1	36.5	08 00	39.4	01 35	34.1	5.3	25
36.2	36.2	36.4	36.4	36.2	36.1	36.1	36.1	36.0	36.0	06 08	37.5	01 00	34.8	2.7	26†
36.4	36.8	36.4	36.2	36.2	36.2	36.2	36.2	36.1	36.2	07 51	38.8	01 30	33.9	4.9	27
36.1	36.1	36.1	36.1	36.0	35.9	35.7	35.9	35.7	36.3	08 58	38.8	01 39	34.4	4.4	28
35.9	35.9	35.9	35.9	35.9	35.7	35.6	35.6	34.9	36.1	07 18	39.9	01 50	33.9	6.0	29
36.0	35.9	35.9	35.9	35.9	35.8	35.6	35.6	35.3	35.7	07 02	37.6	02 04	33.9	3.7	30
35.9	35.9	35.9	35.9	35.8	35.8	35.8	35.8	35.6	36.3	07 00	39.1	02 00	33.4	5.7	31
36.0	35.9	35.8	35.8	35.7	35.6	35.5	35.5	35.4	36.0				5.8	Mean	
36.2	36.2	36.2	36.1	36.0	35.9	35.9	36.0	35.9						Mean††	
34.8	34.6	34.3	34.3	34.3	34.2	34.1	34.2	34.2						Mean††	

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 2

Hourly Values of Declination (Westerly), 1957

(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	35.8	34.8	34.2	34.6	35.6	36.9	37.6	38.4	38.7	38.7	38.6	38.0	36.7	36.0	35.9
2	35.5	34.5	33.5	34.7	36.1	38.4	39.6	40.2	39.2	38.4	37.4	36.1	35.4	35.2	35.9
3††	34.7	34.3	33.2	33.3	33.6	34.7	36.8	38.4	37.8	37.8	37.5	37.1	36.8	36.1	36.0
4	34.2	33.5	33.1	34.3	35.7	36.8	38.4	38.7	38.2	37.5	37.1	36.4	36.4	36.1	36.1
5	34.7	34.5	34.0	34.5	35.0	36.1	37.5	38.2	38.8	38.5	37.3	36.0	35.9	35.9	36.0
6††	34.3	33.6	33.2	34.0	36.0	37.5	37.8	36.7	36.9	36.1	35.7	35.7	34.4	34.8	35.8
7	33.7	33.0	33.0	34.6	36.0	37.5	38.2	38.3	38.1	37.6	37.2	36.2	36.0	35.4	35.7
8	34.7	34.7	35.0	36.0	37.2	38.8	38.9	38.8	38.5	37.5	37.5	36.4	36.1	36.1	36.4
9	35.3	34.4	33.4	34.3	35.7	37.1	38.9	39.2	38.6	38.6	37.5	36.2	36.0	36.1	36.4
10	35.1	34.6	34.6	35.9	37.3	37.6	38.6	37.9	37.7	36.3	35.9	34.9	35.4	35.6	35.8
11†	35.6	35.1	34.5	35.2	36.2	37.7	38.9	39.0	39.0	37.9	37.0	36.1	36.2	36.3	37.0
12	35.1	34.5	34.4	35.6	37.0	39.0	39.4	40.0	40.0	39.0	37.6	36.8	36.8	36.8	36.3
13††	34.9	34.4	39.4	33.5	37.6	37.5	38.3	38.6	38.3	38.4	38.0	37.0	34.9	34.9	35.5
14	34.7	33.3	33.1	34.3	35.7	37.4	38.5	39.2	39.9	39.4	38.1	37.3	35.4	35.3	35.4
15	34.9	33.6	33.1	33.5	36.0	37.6	39.1	40.4	40.6	39.2	38.0	36.7	36.2	36.2	36.3
16	34.9	33.6	33.2	37.6	34.8	36.4	37.8	38.1	37.8	37.3	36.4	35.7	35.5	36.2	36.7
17†	35.2	34.9	34.9	35.5	37.4	39.1	40.6	40.9	40.6	39.2	37.8	36.6	36.3	36.4	37.6
18	36.0	35.0	34.2	34.0	36.3	37.5	38.6	39.5	40.3	39.5	38.8	37.2	35.4	35.1	36.0
19	36.3	34.9	33.7	32.6	35.0	36.5	37.2	38.1	38.2	37.4	37.1	36.5	36.1	36.0	36.4
20	36.3	35.3	34.9	35.1	35.8	36.3	39.1	39.1	38.8	37.7	37.1	36.3	35.8	35.4	35.3
21	35.8	34.4	33.3	33.5	34.7	35.4	36.3	36.7	36.7	37.1	36.1	35.0	34.6	34.7	35.0
22†	35.1	34.6	34.0	34.7	36.2	37.6	38.9	39.3	39.2	38.2	37.2	36.6	36.6	36.6	36.9
23†	35.4	34.5	34.3	35.7	37.5	39.2	40.0	39.4	39.4	38.3	36.6	35.5	35.4	36.4	36.8
24†	35.4	34.1	33.8	35.0	36.8	39.0	40.1	40.6	39.3	38.3	37.6	36.6	36.6	36.8	36.8
25	36.2	35.1	34.0	34.3	35.8	37.6	40.1	40.6	40.1	39.6	38.9	37.6	36.8	36.9	37.6
26	35.5	34.8	34.1	35.0	36.9	38.7	39.3	39.4	39.3	38.0	36.9	36.6	36.6	37.2	36.9
27	35.4	34.1	33.3	34.1	35.9	37.5	38.3	39.7	38.3	38.7	38.3	37.5	36.8	36.8	36.8
28	36.1	35.0	33.7	33.6	35.4	37.5	38.2	38.7	39.0	38.9	38.3	37.8	36.4	36.1	36.5
29	35.7	35.0	34.5	35.2	36.8	38.3	39.9	40.6	40.7	40.4	39.2	37.6	36.6	36.4	36.5
30††	35.1	33.4	34.1	34.3	36.2	37.2	37.9	39.2	39.0	38.2	37.3	36.5	35.7	35.5	35.5
31††	35.0	33.6	32.6	34.0	35.4	36.6	38.3	39.3	38.7	37.6	36.8	36.2	35.5	35.4	35.4
Mean . . .	35.2	34.4	34.0	34.6	36.1	37.5	38.6	39.1	38.9	38.2	37.4	36.5	36.0	36.0	36.2
Mean† . . .	35.3	34.6	34.3	35.2	36.8	38.5	39.7	39.8	39.5	38.4	37.2	36.3	36.2	36.5	37.0
Mean†† . . .	34.8	33.9	34.5	33.8	35.8	36.7	37.8	38.4	38.1	37.6	37.1	36.5	35.5	35.3	35.6

† Five International quiet days

†† Five international disturbed days.

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

TABLE 2

Hourly Values of Declination (Westerly), 1957

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

August

2° plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
									H. M.		H. M.				
36.0	36.0	36.0	35.9	35.9	35.9	35.8	35.8	35.8	36.4	09 00	38.7	01 41	34.2	4.5	1
36.0	36.0	36.0	35.9	35.7	35.6	35.3	35.0	35.3	36.3	06 35	40.8	02 00	33.5	7.3	2
36.1	36.7	36.0	34.5	33.8	34.5	34.6	34.6	34.5	35.7	07 42	38.5	02 00	33.2	5.3	3††
36.3	36.1	36.0	36.0	35.6	35.4	35.3	35.4	35.3	36.0	06 00	39.2	01 35	32.9	6.3	4
36.4	36.1	35.9	35.6	35.6	35.7	35.4	34.9	34.5	35.9	08 00	38.8	01 45	33.9	4.9	5
36.0	36.1	36.0	35.8	35.4	36.0	34.8	34.6	34.3	35.5	05 33	38.9	01 35	33.1	5.8	6††
36.0	36.0	36.0	35.8	35.5	35.1	35.0	35.0	34.8	35.8	06 00	38.6	01 22	32.7	5.9	7
36.4	36.2	36.2	36.1	36.1	36.0	35.8	35.7	35.7	36.5	06 13	39.5	00 01	34.7	4.8	8
37.1	36.9	36.8	36.4	36.1	36.0	35.7	35.7	35.8	36.4	06 36	39.7	02 02	33.3	6.4	9
36.2	36.3	36.2	36.2	36.2	36.2	36.2	36.1	36.1	36.2	06 20	38.7	01 31	34.0	4.7	10
36.9	37.0	36.9	36.8	36.6	36.5	36.2	36.1	35.8	36.7	07 00	39.0	02 00	34.5	4.5	11†
36.3	36.3	36.1	35.8	35.5	35.1	35.1	35.1	35.1	36.6	07 19	40.1	01 32	34.0	6.1	12
35.6	35.5	35.5	35.8	35.8	35.4	35.2	35.1	35.1	36.3	06 35	38.7	02 00	33.4	5.3	13††
35.6	35.4	35.4	35.2	35.6	35.7	35.6	35.5	35.0	36.1	08 15	40.1	01 38	33.0	7.1	14
36.6	36.6	36.4	36.3	36.0	35.6	35.3	35.2	35.2	36.4	07 35	41.2	02 15	32.8	8.4	15
37.4	36.7	36.6	36.4	36.2	36.0	35.7	35.6	35.6	36.2	06 55	38.5	02 08	32.9	5.6	16
37.4	36.7	36.6	36.4	36.4	36.3	36.3	36.3	36.3	37.2	07 35	41.3	01 00	34.9	6.4	17†
36.1	36.3	36.5	36.5	36.7	36.7	36.7	36.5	36.5	36.7	08 00	40.5	03 00	34.0	6.5	18
36.4	36.4	36.4	36.5	36.5	36.4	36.4	36.4	36.4	36.2	07 50	38.6	02 45	33.5	5.1	19
36.1	36.3	36.3	36.3	36.3	36.4	36.3	36.4	36.3	36.5	06 40	39.2	02 00	34.9	4.3	20
35.3	35.1	35.8	36.1	36.3	36.1	36.1	36.1	35.7	35.5	07 18	37.5	02 00	33.3	4.2	21
36.9	37.1	36.9	36.8	36.6	36.6	36.5	36.2	36.7	36.7	07 00	39.3	01 35	33.7	5.6	22†
36.8	36.8	36.8	36.8	36.5	36.5	36.4	36.2	36.1	36.9	06 05	40.3	01 35	34.0	6.3	23†
36.9	37.3	37.2	36.8	36.6	36.6	36.5	36.4	36.4	37.0	06 56	40.7	01 45	33.6	7.1	24†
37.8	37.6	36.9	36.6	36.5	36.4	36.1	35.5	35.4	37.1	07 00	40.6	02 00	34.0	6.6	25
37.6	37.5	36.9	36.6	36.5	36.4	36.4	36.4	36.4	36.9	07 05	39.7	02 04	34.1	5.6	26
36.8	36.8	36.8	36.6	36.4	36.2	36.2	36.4	36.2	36.7	07 36	40.8	02 11	33.1	7.7	27
36.5	36.5	36.6	36.6	36.4	36.4	36.2	36.2	35.9	36.6	08 43	39.3	02 34	33.4	5.9	28
36.6	36.6	36.5	36.4	36.4	35.8	35.0	35.2	35.4	37.0	08 15	40.8	01 49	34.4	6.4	29
35.7	35.9	36.2	36.1	36.1	35.5	35.4	35.5	35.4	36.1	07 35	39.6	02 04	33.7	5.9	30††
35.8	36.1	36.1	36.4	36.1	35.9	36.4	36.4	35.9	36.1	06 47	39.4	02 00	32.6	6.8	31††
36.4	36.4	36.3	36.2	36.1	36.0	35.8	35.7	35.6	36.4					5.9	Mean
37.0	37.0	36.9	36.7	36.5	36.5	36.2	36.2	36.3							Mean†
35.8	36.1	36.0	35.7	35.4	35.5	35.3	35.2	35.0							Mean††

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 3

Hourly Values of Declination (Westerly), 1957

(Averages for sixty minutes centred 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	35.4	33.8	32.6	33.6	35.0	37.5	39.6	40.6	40.0	38.6	37.3	36.4	35.8	35.5	35.1
2	40.7	34.7	33.7	34.0	35.4	35.9	37.1	38.0	36.4	36.9	36.9	36.6	36.1	35.0	34.8
3††	30.3	29.5	29.5	31.0	Δ	36.4	38.2	39.6	38.2	37.6	35.2	34.8	32.4	32.0	32.6
4††	32.2	31.2	32.3	34.5	36.6	39.1	40.5	41.5	40.5	38.6	36.6	35.2	35.1	35.3	36.3
5	32.4	30.6	31.3	31.0	33.5	35.1	36.6	38.8	39.5	38.8	37.0	35.2	33.8	33.5	33.9
6	33.8	32.4	32.1	32.5	34.9	36.6	38.0	38.6	38.0	37.9	36.9	35.3	35.3	34.2	35.2
7	35.2	33.7	33.4	34.5	36.5	37.9	39.7	40.4	40.2	39.0	37.7	36.6	36.7	36.6	36.5
8†	35.6	33.9	32.5	35.1	39.0	41.2	41.2	40.8	40.2	39.3	37.7	36.6	36.3	35.9	36.3
9	35.8	35.1	34.1	35.3	36.9	39.3	40.7	41.2	40.7	39.0	37.6	35.5	35.2	35.2	35.2
10	35.9	34.8	33.8	34.8	36.2	38.0	40.4	42.2	40.8	38.7	37.2	36.1	36.2	36.5	36.3
11†	36.0	34.8	33.7	34.2	35.3	37.3	39.4	40.7	40.1	39.0	37.4	36.7	36.3	36.6	36.9
12	35.6	34.9	33.9	34.5	35.6	37.9	39.5	41.1	40.8	39.4	37.9	36.9	36.7	36.7	36.7
13††	36.3	35.3	35.1	34.2	33.2	32.5	34.8	34.6	32.1	32.1	26.7	25.7	27.9	29.3	31.0
14	34.4	33.9	33.8	34.8	36.0	37.7	39.5	40.5	39.5	37.6	35.5	35.1	34.1	34.5	34.1
15	35.2	34.1	32.7	33.1	34.2	35.2	36.5	36.7	37.4	36.6	35.3	35.9	35.9	36.0	36.0
16	36.5	35.3	34.9	35.2	36.9	37.9	39.4	40.8	40.8	39.5	37.9	36.6	36.6	36.6	36.6
17	36.5	35.3	35.2	35.3	36.7	38.8	39.5	40.2	39.3	38.1	37.2	36.5	36.0	36.0	35.3
18	37.0	35.3	35.0	35.2	37.0	37.4	39.4	40.3	40.1	39.4	38.3	38.0	38.0	37.3	36.9
19†	36.5	36.1	36.0	36.0	36.6	38.0	39.0	39.3	39.3	38.0	36.7	36.5	36.6	36.7	36.7
20†	36.6	36.0	36.4	36.6	37.0	38.4	39.3	39.8	40.1	39.3	38.0	37.4	37.9	37.3	36.7
21	36.6	36.4	36.4	37.0	37.7	38.4	39.9	40.1	39.5	38.1	37.6	35.5	33.8	33.8	33.8
22	33.7	32.4	33.1	34.5	35.2	36.3	36.9	36.9	37.7	36.5	35.3	35.3	35.3	35.1	32.5
23††	33.7	32.5	32.1	33.5	35.8	35.1	34.5	35.3	35.1	33.0	32.4	32.4	32.4	32.4	32.4
24	33.9	32.7	32.7	34.8	36.6	37.9	39.1	40.4	40.4	39.1	38.0	36.6	35.2	34.8	34.9
25	35.6	34.9	33.9	34.6	35.6	36.6	37.4	37.6	36.7	36.5	36.2	35.3	35.3	35.2	35.3
26	35.6	35.2	35.1	35.3	36.4	36.7	37.8	39.4	39.5	38.4	38.0	36.7	36.4	35.6	35.1
27†	36.6	35.4	35.0	35.4	36.2	38.2	40.0	41.3	41.0	40.0	39.5	38.2	37.2	36.8	36.5
28	36.8	36.0	35.4	35.5	36.7	37.1	37.5	38.3	38.9	38.3	37.5	36.8	36.8	36.7	36.5
29††	36.4	35.5	35.1	35.6	37.6	39.4	39.7	39.1	39.4	38.2	37.3	37.0	37.3	37.5	34.4
30	35.4	33.8	33.0	32.9	34.5	35.5	36.6	37.0	38.1	37.0	35.7	35.6	35.5	35.2	35.5
31															
Mean . .	35.6	34.3	33.9	34.6	36.0	37.3	38.6	39.4	39.0	38.0	36.7	35.8	35.6	35.4	35.3
Mean† . .	36.3	35.2	34.7	35.5	36.8	38.6	39.3	40.4	40.1	39.1	37.7	37.5	36.9	36.7	36.6
Mean†† . .	34.7	33.6	33.7	34.5	35.8	36.5	37.4	37.6	36.8	35.5	33.3	33.4	33.2	33.6	33.5

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 3

Hourly Values of Declination (Westerly), 1957

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

September

2° plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
									H. M.		H. M.				
35.9	36.1	36.4	36.4	36.4	36.4	36.2	36.2	36.2	36.4	06 42	40.8	02 12	32.3	8.5	1
35.0	35.0	35.1	34.7	34.7	32.7	33.3	31.3	29.4	35.1	06 26	38.5	23 37	23.8	9.7	2
33.8	33.8	33.8	33.6	33.0	32.9	32.6	33.0	32.6	Δ	Δ	Δ	Δ	Δ	Δ	3††
33.8	33.5	30.9	31.1	31.0	31.1	32.3	32.0	33.4	34.8	06 48	41.8	17 25	29.7	12.1	4††
34.9	35.1	34.8	34.5	34.5	33.9	33.9	33.9	33.8	34.6	07 20	40.8	01 25	29.6	11.2	5
35.3	35.2	35.2	35.2	35.3	35.3	35.2	35.2	35.2	35.4	07 30	38.7	01 54	32.0	6.7	6
36.3	36.5	36.6	36.5	36.3	35.9	35.8	35.9	36.0	36.7	08 16	41.9	01 33	32.7	9.2	7
36.5	36.6	36.6	36.5	36.3	36.2	36.3	36.2	35.9	37.0	05 30	41.4	01 52	32.4	9.0	8†
35.5	35.5	35.5	35.6	35.6	36.0	35.9	36.3	36.3	36.6	07 06	41.5	01 35	33.9	7.6	9
36.3	36.7	36.6	36.5	36.5	36.3	36.2	36.2	35.9	36.9	06 50	42.5	02 00	33.8	8.7	10
36.9	36.9	36.7	36.6	36.5	36.5	36.3	35.9	35.9	36.8	07 12	40.8	01 51	33.5	7.3	11†
36.9	37.0	36.9	36.7	36.6	36.6	36.6	36.6	36.7	37.0	07 15	42.2	01 56	33.8	8.4	12
31.1	31.4	33.7	33.8	33.8	33.8	34.5	34.5	34.5	32.6	06 45	37.4	10 42	24.1	13.3	13††
34.9	34.8	34.6	35.2	35.2	35.2	35.2	35.2	35.1	35.7	06 25	41.9	01 19	33.5	8.4	14
36.3	36.3	36.5	36.5	36.5	36.2	36.5	36.6	36.5	35.8	06 52	37.9	02 22	32.5	5.4	15
36.5	36.6	36.5	36.5	36.6	36.5	36.5	36.5	36.6	37.1	08 00	40.8	01 54	34.8	6.0	16
35.2	35.8	37.0	37.3	37.2	37.2	37.1	37.1	37.1	37.0	06 50	40.4	14 14	35.0	5.4	17
36.9	36.9	36.9	36.6	36.5	36.5	36.6	36.6	36.5	37.3	07 20	40.4	02 14	34.9	5.5	18
36.6	36.7	36.7	36.6	36.6	36.6	36.6	36.6	36.7	37.0	08 06	39.5	01 58	35.9	3.6	19†
36.9	36.9	36.7	36.7	36.7	36.7	36.7	36.6	36.7	37.4	07 30	40.2	01 24	35.9	4.3	20†
34.2	33.8	33.5	32.3	32.5	33.7	33.9	35.1	34.1	35.7	07 14	40.2	18 26	32.1	8.1	21
32.4	33.4	32.7	32.8	33.1	33.7	32.7	33.7	33.5	34.4	06 23	38.0	14 15	30.9	7.1	22
32.5	33.9	33.8	33.7	34.8	33.8	33.8	33.9	33.9	33.6	03 55	40.1	02 34	31.6	8.5	23††
35.2	35.2	35.2	35.2	35.2	35.2	35.5	35.5	35.9	36.1	07 42	40.7	01 25	32.5	8.2	24
35.8	35.6	36.0	35.6	35.3	35.3	35.3	35.8	35.9	35.7	06 12	37.7	01 45	33.8	3.9	25
35.4	35.7	35.7	35.9	35.4	35.9	35.9	36.3	36.6	36.4	08 00	39.5	01 50	34.8	4.7	26
36.5	36.7	36.4	36.4	36.4	36.4	36.4	36.7	36.8	37.3	07 15	41.3	02 00	35.0	6.3	27†
36.5	36.4	36.7	36.5	35.8	35.8	35.7	35.7	36.0	36.7	08 02	38.9	02 00	35.4	3.5	28
31.4	29.9	31.3	32.3	32.8	32.8	33.0	34.1	35.8	35.5	06 00	39.7	15 57	29.8	9.9	29††
35.5	35.5	35.6	35.6	35.6	35.6	35.6	35.6	35.6	35.5	07 49	38.5	03 22	32.5	6.0	30
															31
35.3	35.4	35.4	35.4	35.4	35.3	35.4	35.4	35.5	36.0					7.5	Mean
36.7	36.8	36.6	36.6	36.5	36.5	36.5	36.4	36.4							Mean†
32.2	32.2	32.4	32.7	33.1	32.7	33.4	33.6	34.4							Mean††

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

TABLE 4

Hourly Values of Declination (Westerly), 1957

(Averages for sixty minutes 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††	35.6	35.5	34.8	35.0	36.2	37.1	38.0	39.1	39.4	38.3	36.9	36.0	36.4	36.6	36.6
2	35.7	35.5	35.2	35.5	37.0	38.0	38.4	39.1	39.1	38.0	37.0	36.7	36.9	36.7	37.0
3	35.9	35.7	35.6	35.7	37.0	38.4	39.8	39.9	39.5	38.3	37.3	36.7	36.0	36.3	36.3
4	35.7	35.3	35.2	36.3	37.1	38.3	39.5	39.5	39.4	38.1	37.0	37.1	37.3	37.0	36.7
5	36.7	35.7	35.6	36.3	37.1	38.3	39.7	40.2	40.1	38.5	37.1	36.0	37.0	37.1	37.0
6†	36.3	35.7	35.9	36.0	38.0	38.1	38.5	39.4	38.1	37.4	36.6	35.7	36.6	37.1	37.0
7†	37.0	35.9	35.6	36.3	38.4	41.2	42.5	42.3	41.5	39.7	38.0	37.0	37.3	37.3	37.3
8†	36.7	35.7	35.5	36.3	38.3	39.8	40.9	40.9	39.8	38.4	37.3	37.1	37.8	37.4	37.1
9	36.9	35.7	35.6	36.4	38.4	40.1	41.1	42.2	41.5	39.9	38.3	37.4	37.1	37.0	37.0
10	36.7	35.6	34.6	35.3	36.9	38.5	40.8	41.1	39.5	38.1	36.7	36.7	36.9	35.7	35.6
11††	36.9	36.6	36.6	36.8	38.0	38.7	39.6	39.4	38.3	37.0	36.6	35.2	34.8	34.4	34.4
12	36.2	35.6	35.6	35.9	37.0	38.4	40.1	40.0	39.4	38.2	36.5	35.5	35.5	35.5	35.8
13††	35.5	35.2	35.1	35.8	36.5	38.5	39.5	39.5	39.7	38.6	37.4	36.8	36.9	36.7	36.1
14††	35.8	35.4	35.3	35.6	36.0	37.1	37.7	36.7	37.0	37.1	35.4	35.3	35.9	36.0	35.6
15	35.3	35.4	35.3	36.0	36.8	37.8	38.8	39.4	39.2	38.5	37.8	37.0	36.8	36.3	35.9
16†	35.6	35.2	35.6	36.6	37.9	39.1	40.2	39.4	38.1	37.3	36.6	36.6	36.7	36.9	36.7
17	36.7	36.2	36.5	36.9	37.3	36.8	39.1	39.3	38.7	38.1	37.9	37.6	37.6	37.3	37.2
18†	36.7	36.0	35.9	36.2	37.6	39.0	39.4	39.0	38.0	37.2	36.4	36.5	37.2	37.5	36.8
19	36.6	36.6	36.9	37.4	38.5	39.2	40.3	39.9	38.8	37.9	36.8	36.5	37.5	36.8	36.8
20	36.1	36.0	36.7	36.7	37.1	37.8	38.9	38.5	37.7	36.4	35.6	36.1	37.1	37.4	36.5
21††	35.1	35.7	36.3	36.2	36.3	37.3	37.7	38.1	37.6	36.6	36.3	36.3	36.6	36.6	36.4
22	37.4	37.0	37.6	37.6	37.7	38.4	39.1	38.4	37.0	36.0	34.3	34.2	35.2	35.6	35.9
23	35.3	35.0	36.3	36.9	37.9	39.4	40.1	39.0	37.9	37.0	36.6	36.5	36.9	36.3	36.1
24	36.1	36.1	36.2	36.3	37.7	39.8	40.3	39.3	38.7	37.3	36.5	36.2	36.6	36.3	36.2
25	36.1	35.9	36.1	26.2	37.6	38.9	39.6	38.9	37.8	36.7	36.2	35.7	36.4	36.4	36.1
26	34.8	35.0	36.0	36.7	37.7	38.8	39.2	38.8	37.7	36.3	34.7	34.6	35.9	36.1	35.9
27	36.0	35.7	35.7	35.9	36.0	37.5	38.5	38.8	38.1	37.5	36.8	36.7	36.7	36.1	36.0
28	35.6	35.7	35.7	25.9	37.0	38.7	39.3	38.4	37.6	37.4	37.0	37.0	36.6	36.0	35.9
29	35.2	35.2	35.2	35.8	35.6	37.2	37.6	37.7	37.3	37.0	37.2	37.2	37.0	36.2	35.9
30	36.0	35.6	35.9	35.8	35.8	36.9	38.3	37.5	35.7	34.8	35.7	35.5	35.7	35.7	35.1
31	35.7	35.9	35.9	38.3	38.5	38.9	39.4	38.3	37.1	35.9	35.5	35.8	35.8	35.4	35.7
Mean . .	36.1	35.7	35.8	36.3	37.3	38.5	39.4	39.3	38.6	37.5	36.6	36.3	36.6	36.6	36.3
Mean† . .	36.5	35.7	35.7	36.5	38.0	39.4	40.3	40.2	39.1	38.0	37.0	36.6	37.1	37.2	37.0
Mean†† . .	35.8	35.7	35.6	35.9	36.6	37.7	38.5	38.6	38.4	37.5	36.5	35.9	36.1	36.1	35.8

† Five international quiet days.

†† Five international disturbed days.

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

TABLE 4

Hourly Values of Declination (Westerly), 1957

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

October

2° plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
									H. M.		H. M.				
35.9	36.3	36.9	36.7	35.7	35.3	35.3	35.6	35.7	36.5	07 39	39.8	02 30	34.2	5.6	1††
36.9	37.0	37.0	36.9	36.9	36.3	36.0	35.9	35.7	36.9	07 30	39.5	02 04	34.6	4.9	2
36.2	35.9	36.0	35.7	36.4	36.3	36.3	35.9	36.2	36.8	07 30	39.9	01 35	35.5	4.4	3
36.7	36.7	36.7	35.9	35.9	36.0	36.3	36.3	36.3	36.9	06 04	39.9	01 14	34.6	5.3	4
37.0	37.0	36.9	36.7	36.3	36.6	36.3	36.5	36.3	37.2	07 18	40.8	02 00	35.6	5.2	5
37.0	37.0	37.0	37.0	37.0	36.9	36.9	36.9	37.0	37.1	07 30	39.2	01 00	35.7	3.5	6†
37.3	37.3	37.1	37.0	37.0	37.0	37.0	36.9	36.9	37.9	05 41	42.6	01 54	35.3	7.3	7†
37.1	37.1	37.3	37.1	37.0	37.0	37.0	37.0	37.0	37.6	06 35	41.2	01 42	35.3	5.9	8†
36.7	36.7	36.6	36.7	36.9	36.9	37.0	37.1	37.0	37.8	07 20	42.3	00 35	35.5	6.8	9
35.5	35.6	35.7	36.3	36.3	37.0	37.0	37.0	37.0	36.9	06 50	41.6	02 20	34.5	7.1	10
34.4	35.2	35.5	35.8	35.9	36.2	36.3	36.9	36.6	36.5	06 17	39.7	13 00	34.4	5.3	11††
35.6	35.6	35.6	35.6	35.8	35.8	35.6	35.8	35.6	36.5	06 30	40.4	11 25	35.4	5.0	12
36.1	36.1	36.4	36.1	36.4	36.1	36.5	35.8	35.7	36.8	06 30	39.9	02 05	34.8	5.1	13††
35.0	34.6	35.0	35.4	35.3	35.2	35.0	35.3	35.4	35.8	06 05	38.1	16 35	34.6	3.5	14††
36.0	36.0	36.0	36.0	35.6	35.9	35.4	35.4	35.4	36.6	07 10	39.5	01 05	35.2	4.3	15
36.6	36.6	36.6	36.6	36.6	36.6	36.7	36.7	36.7	37.0	06 15	40.4	01 00	35.2	5.2	16†
37.0	37.0	37.0	36.9	36.7	36.7	36.7	36.6	36.6	37.3	06 52	39.4	01 35	35.8	3.6	17
36.8	36.8	36.6	36.6	36.5	36.5	36.6	36.9	36.6	37.1	06 05	39.7	01 10	35.6	4.1	18†
36.8	36.7	36.5	36.5	36.4	36.3	36.1	36.1	36.3	37.3	06 15	40.6	21 00	36.1	4.5	19
36.7	36.7	36.5	36.1	35.6	35.1	35.1	35.0	35.0	36.5	06 15	39.1	22 00	35.0	4.1	20
36.3	36.3	36.2	36.0	35.9	35.3	34.9	34.6	36.0	36.3	07 00	38.7	22 38	34.5	4.2	21††
35.9	35.9	35.2	35.7	35.6	35.5	35.2	35.0	35.6	36.3	05 28	39.5	10 30	33.6	5.9	22
36.1	36.1	36.1	36.1	36.1	35.8	35.8	35.2	35.6	36.7	05 52	40.8	00 54	34.8	6.0	23
36.2	36.2	36.2	36.1	35.9	35.9	35.9	36.1	35.9	36.8	05 54	40.4	20 00	35.9	4.5	24
36.1	36.2	36.1	36.1	36.1	36.0	35.7	35.4	35.0	36.6	06 05	40.0	23 59	34.8	5.2	25
36.0	36.1	36.0	35.9	35.9	35.9	35.4	35.7	35.9	36.3	05 33	39.5	00 37	34.6	4.9	26
36.3	36.1	36.0	36.0	36.0	35.7	35.4	35.3	35.4	36.4	07 00	38.8	22 00	35.3	3.5	27
35.8	35.9	35.9	35.8	35.6	35.6	35.1	35.2	35.2	36.4	06 00	40.0	20 43	34.9	5.1	28
35.9	35.9	35.8	35.6	35.6	35.6	35.1	34.6	34.8	36.1	07 35	38.4	22 45	34.5	3.9	29
35.1	35.7	35.5	35.5	35.5	35.5	35.5	35.5	35.5	35.8	06 07	38.6	14 00	35.1	3.5	30
35.8	35.8	35.7	35.7	35.7	35.5	35.5	35.5	35.5	36.4	06 00	39.6	12 55	35.2	4.4	31
36.2	36.3	36.2	36.2	36.1	36.1	36.0	35.9	36.0	36.7					4.9	Mean
37.0	37.0	36.9	36.9	36.8	36.8	36.8	36.9	36.8							Mean†
35.5	35.7	36.1	36.0	35.8	35.6	35.6	35.6	35.9							Mean††

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 5

Hourly Values of Declination (Westerly), 1957

(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	35.0	35.9	36.1	37.0	37.5	39.6	39.5	38.5	38.1	37.4	36.4	35.8	36.3	35.8	35.7
2	35.4	35.6	35.8	36.1	37.0	37.8	37.8	37.0	36.4	36.4	35.8	35.7	36.1	36.1	35.8
3	35.4	35.1	35.3	36.0	37.1	38.4	39.2	39.2	38.4	36.8	35.8	36.1	36.0	35.4	34.9
4†	35.8	35.6	35.4	35.0	34.9	35.6	36.3	35.7	35.0	34.6	34.6	35.2	35.7	35.7	35.6
5†	35.5	35.6	35.7	35.7	35.6	35.7	36.3	35.7	35.5	35.6	35.6	35.3	35.6	35.6	35.6
6	36.2	36.7	37.0	36.7	36.2	36.9	37.0	36.3	35.9	35.5	35.3	35.3	35.6	35.7	35.6
7	35.6	35.5	32.5	31.7	32.7	34.1	34.2	34.1	33.7	33.0	32.8	33.7	34.4	34.2	33.8
8	34.9	35.2	35.4	35.1	35.4	36.2	36.6	35.5	34.1	33.8	34.2	34.1	34.5	33.8	34.1
9††	34.8	35.2	35.4	35.4	35.2	35.8	35.8	35.1	34.2	34.4	34.5	35.4	35.5	34.4	34.0
10	34.4	34.4	35.1	35.2	35.8	35.5	35.1	35.2	34.9	34.7	34.4	34.4	34.8	34.5	34.2
11	35.1	35.4	35.6	35.3	35.3	35.1	35.8	35.5	35.5	35.4	35.5	35.5	34.6	34.3	34.1
12	34.4	34.8	35.5	35.7	36.5	37.8	38.2	38.1	36.9	35.7	34.1	34.3	34.4	34.1	34.0
13	34.3	34.1	35.3	35.7	37.1	36.9	37.9	37.5	35.7	35.4	35.0	35.1	34.1	34.1	34.0
14	35.7	35.7	35.7	35.6	36.6	37.8	37.8	37.1	36.6	35.2	35.3	35.3	35.3	35.2	34.3
15	34.8	34.9	35.0	35.7	34.9	35.4	37.4	37.8	37.0	36.4	35.4	35.0	35.3	35.0	34.6
16	34.9	34.9	35.3	35.2	35.4	36.3	36.1	36.3	36.4	35.6	35.2	34.9	35.3	35.3	35.2
17†	34.6	34.5	34.9	34.9	35.0	36.0	36.4	36.6	36.3	35.4	35.3	35.3	35.4	35.4	35.2
18	35.2	35.3	35.4	35.3	34.6	35.6	36.6	36.7	35.4	34.9	34.6	34.0	34.2	34.0	33.5
19	34.2	34.5	35.3	35.3	35.4	36.7	36.7	36.6	35.7	35.4	35.4	35.3	35.3	35.2	34.6
20	35.3	35.6	36.1	36.8	36.8	36.7	36.7	36.4	36.3	35.0	35.1	35.5	35.7	35.3	35.0
21†	35.7	36.7	37.4	37.5	37.1	36.8	37.1	37.1	36.4	35.5	35.3	35.3	35.4	35.5	35.3
22†	35.4	35.7	36.1	36.8	38.3	38.3	38.3	38.3	37.1	36.7	36.1	36.2	36.5	35.7	35.4
23	35.5	36.4	37.3	37.9	38.1	38.1	38.3	37.8	36.7	36.5	36.4	36.1	35.7	35.7	35.5
24	35.4	35.5	36.5	36.8	37.8	38.3	38.3	37.8	36.4	36.1	35.7	35.7	35.7	35.5	35.4
25††	35.4	35.5	36.9	36.8	35.8	36.5	37.2	37.8	36.5	34.3	33.0	34.0	34.7	34.3	34.3
26††	34.1	35.4	37.1	36.9	37.2	38.3	38.2	37.4	35.8	35.7	35.8	34.1	35.1	34.4	34.3
27††	33.7	34.4	34.4	34.7	32.9	34.1	35.0	35.0	33.7	33.3	33.9	33.7	33.4	33.2	33.0
28††	33.7	35.3	35.3	34.8	35.1	36.4	36.9	36.5	35.4	35.5	34.3	34.4	34.4	34.0	34.0
29	33.6	33.9	34.7	35.7	36.7	36.5	37.1	37.8	37.1	36.7	36.1	35.5	35.5	35.4	35.0
30	34.0	34.3	35.1	35.5	36.5	36.9	37.6	37.7	37.2	36.6	35.6	35.2	35.4	35.5	35.1
Mean . .	34.9	35.3	35.6	35.7	36.0	36.7	37.1	36.8	36.0	35.5	35.1	35.0	35.2	34.9	34.7
Mean† . .	35.4	35.6	35.9	36.0	36.2	36.5	37.0	36.7	36.1	35.6	35.4	35.5	35.7	35.6	35.4
Mean†† . .	34.5	35.2	35.8	35.7	35.2	36.2	36.6	36.5	35.1	34.6	34.3	34.3	34.6	34.1	33.9

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 5

Hourly Values of Declination (Westerly), 1957

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

November

2° plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
									H. M.	'	H. M.	'			
35.6	35.6	35.6	35.4	35.0	34.6	34.6	34.7	35.0	36.3	05 43	39.9	20 30	34.4	5.5	1
35.7	35.7	35.8	35.8	35.7	35.7	35.7	35.6	35.6	36.1	05 30	37.9	00 45	35.4	2.5	2
35.0	35.3	35.1	34.9	34.6	34.9	35.3	35.4	35.6	36.1	06 04	39.8	01 35	35.0	4.8	3
35.5	35.6	35.6	35.6	35.5	35.3	34.9	35.2	35.3	35.4	06 00	36.3	04 00	34.9	1.4	4†
35.6	35.6	35.6	35.6	35.5	35.6	35.5	35.6	35.7	35.6	05 55	36.7	11 00	35.2	1.5	5†
35.7	35.6	35.6	35.6	35.9	33.9	34.3	34.3	35.5	35.8	06 00	37.0	19 46	33.6	3.4	6
34.0	34.1	34.1	34.1	34.2	34.2	34.4	34.4	34.5	33.9	00 01	35.5	02 20	31.4	4.1	7
34.2	34.2	34.5	34.4	34.4	34.5	34.2	34.2	34.1	34.7	06 06	36.9	08 40	33.4	3.5	8
34.1	34.1	34.1	34.1	34.0	33.7	33.7	34.0	34.1	34.6	06 00	35.9	20 00	33.7	2.2	9††
34.4	34.8	34.4	34.2	34.1	34.1	34.2	34.2	34.7	34.6	03 40	36.6	19 00	34.1	2.5	10
34.4	34.4	34.3	34.3	34.3	34.0	33.9	33.9	34.1	34.8	05 58	36.1	21 42	33.7	2.4	11
34.0	34.0	34.1	34.3	34.1	34.1	34.3	34.4	34.3	35.1	06 25	38.3	14 00	34.0	4.3	12
34.3	34.3	34.1	34.1	34.3	35.1	35.3	35.4	35.4	35.2	06 46	38.2	14 00	34.0	4.2	13
34.6	34.9	34.2	34.2	34.0	34.2	34.5	33.9	34.6	35.3	04 53	38.0	22 15	33.8	4.2	14
34.7	34.6	34.6	34.3	34.2	34.0	34.0	34.2	34.0	35.1	06 05	38.1	21 20	33.9	4.2	15
34.9	34.9	34.9	34.7	35.0	34.6	34.6	34.7	34.6	35.2	05 00	36.7	00 01	34.3	2.4	16
35.2	35.2	35.0	35.0	35.0	35.2	35.2	35.2	35.2	35.3	07 35	36.7	00 48	34.2	2.5	17†
33.8	33.6	33.6	33.6	33.5	33.8	33.9	33.9	33.8	34.5	06 20	37.0	14 08	32.9	4.1	18
34.6	34.5	34.5	34.3	34.3	34.2	34.2	34.9	35.0	35.1	05 05	37.7	21 30	34.0	3.7	19
35.0	35.0	35.0	35.0	34.8	34.4	34.7	34.6	35.1	35.5	03 22	36.9	20 00	34.4	2.5	20
35.4	35.4	35.4	35.4	35.3	35.1	35.3	35.4	35.3	35.9	03 00	37.5	20 00	35.1	2.4	21†
35.5	35.5	35.5	35.4	35.0	35.1	35.3	35.4	35.4	36.2	04 10	38.9	19 00	35.0	3.9	22†
35.4	35.5	35.4	35.3	35.1	35.0	34.3	34.4	35.1	36.1	06 00	38.3	21 00	34.3	4.0	23
35.4	35.5	35.4	35.1	35.1	35.0	35.0	35.1	34.7	36.1	05 37	38.5	20 37	34.6	3.0	24
34.7	35.0	34.3	34.0	33.6	33.9	33.7	34.0	34.0	35.0	05 52	38.3	19 20	33.2	5.1	25††
35.0	34.1	33.9	32.9	33.7	33.9	33.0	32.9	33.6	35.1	05 32	40.0	21 50	32.6	7.4	26††
33.6	34.1	33.9	33.6	33.7	35.0	33.2	32.6	32.9	33.7	06 40	35.5	22 15	32.5	3.0	27††
33.9	34.1	35.9	34.0	34.0	33.7	33.9	34.0	33.4	34.6	06 16	37.5	23 02	33.3	4.2	28††
35.3	35.3	35.6	35.6	34.1	34.1	34.1	34.1	34.0	35.3	07 08	38.1	00 01	33.6	4.5	29
35.2	35.4	35.4	35.4	35.4	35.5	35.6	35.6	35.6	35.7	06 42	38.2	13 40	34.8	3.4	30
34.8	34.9	34.8	34.7	34.6	34.5	34.5	34.5	34.7	35.3				3.6	Mean	
35.4	35.5	35.4	35.4	35.1	35.3	35.2	35.4	35.4						Mean†	
34.3	34.3	34.0	33.7	33.8	33.6	33.5	33.5	33.6						Mean††	

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 6

Hourly Values of Declination (Westerly), 1957
(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††	35.6	35.5	35.8	35.8	37.0	37.0	38.0	37.5	36.5	35.6	34.4	34.0	34.0	34.1	34.2
2	35.8	35.9	35.8	36.2	35.8	35.8	35.9	35.8	35.9	35.2	35.6	34.8	34.2	34.2	34.1
3	35.6	36.6	36.9	36.8	37.0	37.6	37.6	36.5	35.8	37.9	36.2	35.4	35.2	35.2	35.2
4	35.6	36.2	37.2	37.7	37.2	37.0	37.0	36.9	36.5	36.8	36.6	35.5	35.2	35.4	35.1
5	35.8	36.6	36.6	36.9	37.2	36.5	35.6	35.9	34.2	33.5	34.4	35.5	35.5	35.2	34.4
6††	35.8	36.6	36.2	35.9	34.8	34.5	35.1	36.1	35.6	35.8	35.6	35.1	34.2	34.2	34.2
7	36.2	36.9	37.2	37.2	37.2	37.0	37.0	36.5	35.2	35.1	35.1	35.1	35.1	34.1	34.1
8	35.8	35.8	36.6	36.8	36.8	36.8	36.9	37.0	36.6	35.6	35.5	35.4	35.4	35.4	34.9
9	36.6	36.5	36.8	36.5	36.1	35.5	35.7	35.7	35.3	35.0	35.0	35.3	35.4	35.3	35.0
10	35.5	36.5	37.5	37.4	36.8	37.6	38.2	38.3	37.1	36.4	35.5	34.3	34.3	35.3	35.0
11††	36.4	36.8	37.5	37.9	38.5	38.5	38.2	36.9	37.1	36.4	35.3	35.4	35.4	35.3	35.1
12††	34.0	35.0	35.5	35.8	35.7	35.4	35.5	35.4	35.1	35.7	35.4	35.7	35.3	35.1	34.4
13	35.4	35.7	36.5	35.8	35.3	35.5	36.4	36.9	36.7	35.5	34.4	34.3	35.4	35.4	35.1
14	35.7	36.4	36.7	35.8	36.4	36.5	36.8	35.8	35.5	36.5	36.4	35.7	35.4	35.7	35.4
15	35.5	36.7	37.1	37.1	36.7	36.6	36.4	37.0	36.7	36.7	36.8	36.6	36.4	35.4	35.6
16	36.0	36.6	37.5	37.3	36.4	35.4	35.3	35.4	35.6	35.7	36.7	36.4	35.7	35.4	35.3
17	36.6	37.0	37.7	37.0	35.4	34.0	34.9	34.6	35.2	36.0	36.4	35.2	36.4	36.0	35.3
18	36.1	37.0	37.0	36.8	35.4	35.3	35.3	35.3	36.3	36.7	36.8	36.6	35.6	35.6	35.3
19	36.3	36.4	37.0	36.7	36.3	35.4	35.6	35.4	35.6	36.3	37.5	37.8	36.7	36.4	36.4
20	35.0	35.7	37.4	37.2	36.3	35.3	34.2	36.3	35.2	35.1	35.2	35.1	35.1	35.5	35.2
21	35.5	36.3	36.7	37.2	37.9	38.0	37.6	36.3	36.6	36.0	36.5	36.5	36.5	35.9	35.3
22†	35.1	35.5	36.3	36.1	35.5	36.2	36.4	35.5	36.4	36.5	36.1	36.5	36.2	36.1	35.4
23†	35.8	36.4	37.6	37.1	36.4	36.7	36.7	36.3	36.1	36.1	36.5	36.3	36.0	36.0	35.0
24	35.0	36.0	37.1	37.5	37.5	37.4	37.8	37.5	36.7	36.5	36.4	36.7	36.1	36.1	35.7
25	36.4	36.5	37.7	37.4	36.3	36.3	38.0	36.4	36.4	36.2	35.9	35.9	36.0	36.3	35.3
26	35.5	35.9	36.3	36.8	36.3	35.9	34.8	35.1	35.4	36.3	36.6	35.8	35.6	35.9	34.9
27†	35.6	35.9	36.5	36.6	36.6	36.3	37.0	37.5	37.3	37.6	37.6	37.4	36.1	35.9	35.5
28†	34.9	35.1	35.9	36.2	36.2	36.3	36.9	37.0	37.6	37.5	36.1	35.5	35.5	35.8	35.6
29†	36.1	36.3	36.9	36.9	37.3	37.7	37.7	37.7	37.0	35.0	34.6	35.0	35.9	36.2	35.0
30	35.5	35.9	36.2	36.2	36.6	37.4	38.0	37.3	36.0	36.4	36.0	34.9	34.9	34.6	34.5
31††	37.4	37.7	37.7	37.7	36.2	36.6	36.4	35.9	36.2	35.6	34.9	34.5	34.5	34.6	34.2
Mean . . .	35.7	36.3	36.8	36.8	36.5	36.4	36.2	36.4	36.1	36.0	35.9	35.6	35.5	35.4	35.1
Mean† . . .	35.5	35.8	36.6	36.6	36.4	36.6	36.9	36.8	36.9	36.5	36.1	35.9	35.9	36.0	35.5
Mean†† . . .	35.8	36.3	36.5	36.6	36.4	36.4	36.6	36.4	36.1	35.8	35.1	34.9	34.7	34.7	34.4

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 6

Hourly Values of Declination (Westerly), 1957

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

December

2° plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
										H. M.		H. M.			
34'1	34'4	34'5	34'8	35'2	35'4	35'4	35'6	35'6	35'4	06 55	38'3	11 54	33'7	4'6	1††
34'2	34'8	34'5	34'8	35'1	35'1	35'2	35'5	35'6	35'2	06 30	36'6	14 00	34'1	2'5	2
35'2	35'4	35'2	34'8	34'8	34'9	34'9	35'1	35'5	35'9	05 42	38'3	18 00	34'8	3'5	3
35'2	35'4	35'4	35'1	34'8	35'2	35'4	35'4	35'5	36'0	02 15	38'0	19 00	34'8	3'2	4
34'1	34'2	34'9	34'2	34'2	34'1	34'1	34'4	35'2	35'1	03 50	37'6	08 38	33'0	4'6	5
34'2	34'2	34'4	34'4	34'4	34'4	34'8	35'1	35'5	35'1	01 20	36'9	11 40	34'1	2'8	6††
34'2	34'5	34'9	34'9	34'8	34'5	34'9	35'2	35'5	35'5	04 17	38'0	13 00	33'8	4'2	7
35'1	35'5	35'6	35'5	35'5	35'5	35'5	35'8	36'1	35'9	07 00	37'2	14 00	34'9	2'3	8
34'4	34'3	35'0	35'0	35'0	35'1	35'0	35'1	35'3	35'4	01 42	38'0	15 22	34'1	3'9	9
34'7	34'7	34'7	34'3	34'0	34'1	34'3	34'3	35'4	35'7	06 56	38'5	19 00	34'0	4'5	10
35'1	35'3	35'1	35'0	34'1	34'3	33'9	33'7	33'3	35'9	04 46	39'5	21 42	32'9	6'6	11††
35'1	35'4	35'4	35'3	34'3	34'6	34'7	34'7	34'7	35'1	03 57	36'1	19 27	34'0	2'1	12††
35'4	35'4	35'3	35'1	35'3	35'3	35'4	35'4	35'5	35'5	07 40	37'1	10 30	33'7	3'4	13
35'3	35'4	35'4	35'4	35'4	35'3	35'4	35'3	35'3	35'4	06 30	36'9	22 50	35'1	1'8	14
35'4	35'3	35'3	35'2	35'2	35'3	35'4	35'4	35'6	36'1	10 25	37'5	18 00	35'0	2'5	15
35'3	35'4	35'6	35'6	35'3	35'6	35'6	36'3	36'6	35'9	02 15	37'8	05 52	34'9	2'9	16
35'3	35'3	35'3	35'4	35'3	35'3	35'6	35'6	35'4	35'7	11 15	36'7	04 41	33'9	2'8	17
35'4	35'4	35'6	35'6	35'4	35'6	35'7	35'7	35'6	35'9	10 04	37'0	04 45	35'0	2'0	18
35'7	35'4	35'3	35'3	34'9	33'8	34'0	34'3	34'9	35'8	09 45	38'1	20 04	33'6	4'5	19
35'2	35'2	35'2	35'2	35'1	35'1	34'5	35'1	35'1	35'4	02 33	38'1	05 33	33'5	4'6	20
35'2	35'2	35'2	35'1	34'8	34'8	34'8	34'4	34'9	36'0	04 40	38'7	22 00	34'4	4'3	21
35'2	35'2	35'2	35'1	35'1	35'1	35'2	35'2	35'2	35'7	09 00	36'5	19 00	35'1	1'4	22†
35'0	35'0	35'0	35'0	34'9	34'9	34'9	34'7	34'9	35'8	01 56	37'8	22 00	34'7	3'1	23†
35'4	35'4	35'6	35'7	35'4	35'3	35'3	35'7	36'1	36'2	06 00	37'8	00 01	35'0	2'8	24
35'6	35'7	35'7	35'5	34'8	34'6	34'6	34'5	34'9	36'0	06 00	38'7	22 20	33'9	4'8	25
35'4	35'1	34'9	34'8	34'8	34'9	34'9	35'2	35'5	35'5	09 28	37'2	19 00	34'8	2'4	26
35'5	35'5	35'6	35'4	35'2	34'9	34'8	34'8	34'7	36'0	09 00	37'6	23 00	34'7	2'9	27†
35'4	35'6	35'9	35'8	35'8	35'5	35'8	35'6	35'9	36'0	08 35	37'9	00 01	34'9	3'0	28†
35'9	35'9	35'9	35'9	35'9	35'7	35'3	34'9	34'9	36'1	06 32	37'8	09 58	34'6	3'2	29†
34'5	34'9	34'9	35'0	35'6	35'9	36'3	36'6	37'0	35'9	06 00	39'0	14 35	34'2	4'8	30
33'5	33'4	33'2	33'1	32'1	33'1	32'4	33'4	33'6	34'9	03 20	38'4	18 56	32'0	6'4	31††
35'0	35'1	35'2	35'1	34'9	34'9	35'0	35'1	35'3	35'7					3'5	Mean
35'4	35'4	35'5	35'4	35'4	35'2	35'2	35'1	35'1							Mean†
34'4	34'5	34'5	34'5	34'0	34'4	34'2	34'5	34'5							Mean††

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 7

Hourly Values of Horizontal Force, 1957

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

July

39,000 γ plus tabular quantities

Date	Hours G. M. T.														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1††	320	324	338	348	404	418	410	407	403	414	424	431	428	422	424
2††	435	444	456	481	512	543	561	568	527	579	572	535	461	372	381
3††	431	436	443	424	451	478	539	517	445	528	508	486	467	457	458
4	458	464	482	519	580	588	595	596	584	562	533	518	507	506	496
5††	476	510	536	591	650	△	△	474	528	417	446	426	432	438	440
6	465	458	464	485	△	△	555	524	533	520	515	505	492	486	480
7	478	489	512	545	584	605	619	619	602	576	554	532	518	503	495
8	490	490	498	518	565	587	629	614	609	579	560	520	507	504	502
9	498	502	512	548	592	622	635	617	588	603	555	536	524	522	512
10†	506	500	509	521	551	606	640	639	624	603	564	537	519	523	523
11†	514	520	526	544	581	618	638	629	621	610	595	576	558	557	531
12	516	519	534	567	579	620	640	630	593	575	551	529	515	522	525
13†	506	521	541	573	611	637	645	630	603	572	553	538	528	529	526
14	524	530	544	575	614	629	632	631	628	606	574	551	541	536	530
15†	514	522	543	559	589	615	627	612	640	623	573	542	525	531	533
16	525	534	541	559	586	616	608	618	614	568	554	524	501	496	497
17	510	522	545	577	603	632	631	633	622	602	576	536	513	515	512
18	512	519	534	567	604	649	657	664	644	595	560	521	510	514	524
19††	496	507	526	545	574	593	638	628	572	578	531	534	534	540	542
20	482	491	510	526	557	581	609	606	586	553	527	506	533	513	507
21	501	510	532	572	603	634	645	608	611	598	578	554	540	530	520
22	525	530	543	572	617	692	695	635	616	594	574	532	539	516	507
23	492	511	535	577	635	599	614	623	617	599	580	550	521	512	507
24	501	514	524	552	589	614	630	629	625	602	579	549	523	525	523
25	508	517	528	560	601	630	655	642	618	588	571	551	542	538	536
26†	518	529	543	562	593	630	649	641	624	599	580	559	541	530	537
27	528	534	547	573	604	624	635	645	653	630	598	566	552	557	553
28	567	566	570	590	620	641	659	656	656	639	627	595	559	548	542
29	537	549	565	598	639	649	661	674	636	623	585	529	510	509	502
30	510	513	523	550	581	623	638	637	637	610	593	561	539	540	536
31	526	526	539	567	596	621	636	628	610	595	578	551	532	534	537
Mean . . .	498	505	519	544	580	607	623	616	600	586	562	536	520	514	511
Mean† . . .	511	518	532	552	585	621	640	630	622	601	573	550	534	536	530
Mean†† . . .	421	428	441	449	485	508	537	530	487	525	509	497	473	448	451

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 7

Hourly Values of Horizontal Force, 1957

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

July

39,000 γ plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
422	426	421	453	455	445	440	432	434	410	18 20	512	00 40	286	226	1††
393	367	371	397	418	428	427	433	432	462	09 00	619	13 30	353	266	2††
456	455	454	456	457	456	466	460	457	466	06 16	600	02 44	408	192	3††
491	489	488	490	486	489	489	478	468	515	07 22	602	00 22	457	145	4
443	443	444	444	444	443	440	456	460	Δ	Δ	Δ	Δ	Δ	Δ	5††
477	473	475	478	480	483	479	477	477	Δ	Δ	Δ	Δ	Δ	Δ	6
494	494	494	496	499	493	492	494	493	528	06 28	626	00 04	472	154	7
497	497	500	498	498	496	499	498	501	527	05 54	642	00 42	486	156	8
505	502	503	506	504	506	505	506	509	538	06 00	642	00 08	497	145	9
518	516	515	515	516	517	517	517	516	542	06 08	643	01 30	495	148	10†
522	520	519	519	517	518	522	520	516	554	06 22	640	00 08	513	127	11†
522	520	517	509	508	508	509	509	406	543	05 52	656	18 36	504	152	12
525	522	525	528	528	526	526	528	525	552	06 00	646	00 01	506	140	13†
523	522	525	528	530	529	527	514	512	556	06 32	635	22 59	510	125	14
530	527	525	521	521	518	519	518	519	552	07 06	645	00 10	513	132	15†
492	494	487	470	464	471	485	490	502	529	07 15	644	19 28	461	183	16
516	517	518	522	526	522	521	524	517	551	05 28	641	00 03	508	133	17
526	522	513	498	491	491	493	494	498	546	07 10	685	19 38	489	196	18
516	488	473	464	465	457	460	472	479	526	06 25	657	20 12	454	203	19††
502	499	496	494	500	496	493	492	499	523	05 42	621	00 01	481	140	20
516	518	519	518	518	521	521	520	519	550	05 21	659	00 16	500	159	21
494	488	481	475	469	476	476	479	484	542	04 58	714	19 10	462	252	22
506	505	506	507	507	506	508	511	513	543	05 54	637	00 24	491	146	23
516	511	505	493	493	501	503	499	503	542	07 30	644	18 30	488	156	24
533	527	525	525	526	527	523	517	516	554	05 49	666	00 01	505	161	25
533	531	529	528	527	528	527	526	527	558	06 02	658	00 01	517	141	26†
547	541	538	538	539	548	564	562	567	573	07 42	660	00 01	527	133	27
538	537	536	533	533	534	537	538	539	577	05 48	668	18 34	531	137	28
496	496	501	504	510	512	506	506	507	554	07 16	714	14 36	490	224	29
528	523	524	524	527	524	525	522	524	555	05 59	648	00 01	510	138	30
535	531	527	528	527	527	523	528	527	555	06 16	645	21 30	519	126	31
507	503	501	501	502	502	504	503	504	535					164	Mean
526	523	523	522	522	521	522	522	521							Mean†
447	434	430	443	449	451	451	449	451							Mean††

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 8

Hourly Values of Horizontal Force, 1957

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

August

39,000 γ plus tabular quantities

Date	Hours G.M.T.														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	523	526	548	584	620	655	650	624	620	613	596	574	547	531	527
2	529	526	538	536	605	641	666	656	623	592	540	520	521	522	522
3††	510	512	516	541	581	609	638	627	598	584	556	542	537	540	531
4	488	502	513	536	580	601	626	612	595	572	555	543	537	528	517
5	513	513	512	523	546	571	584	607	610	629	581	551	536	533	526
6††	498	500	507	517	555	594	581	544	500	492	492	486	484	487	470
7	483	488	496	533	570	605	608	605	592	569	542	523	507	504	503
8	510	525	548	575	613	643	609	592	581	571	550	527	524	527	530
9	513	521	543	564	602	641	665	669	643	612	569	539	527	533	544
10	526	529	542	570	592	605	620	618	608	582	548	530	532	532	521
11†	531	548	564	584	607	628	646	646	632	613	591	572	560	556	546
12	528	534	536	557	609	626	628	620	612	629	581	556	565	552	528
13††	518	534	548	561	576	590	594	574	542	525	507	478	467	469	466
14	493	503	526	566	596	622	635	629	619	600	576	552	534	524	516
15	498	504	503	530	582	618	646	641	639	607	581	548	532	526	520
16	506	505	512	540	569	608	631	633	626	617	597	562	541	537	532
17†	516	521	533	563	609	636	655	647	628	599	576	547	539	547	550
18	523	519	527	549	589	620	651	667	663	652	630	574	530	514	514
19	514	513	524	536	563	587	607	599	603	569	543	536	530	522	517
20	511	510	514	533	571	606	618	602	590	570	545	538	535	527	518
21	499	513	511	521	548	556	559	560	547	554	533	504	490	488	482
22†	504	513	537	565	587	603	617	620	608	593	583	568	550	540	534
23†	521	526	547	584	625	655	664	648	629	604	569	548	562	551	545
24†	528	531	547	592	647	669	663	635	603	584	569	558	554	549	546
25	535	539	550	585	631	668	685	668	642	623	600	576	562	560	555
26	522	527	545	570	608	632	631	615	597	575	567	569	564	554	537
27	523	525	532	570	629	635	602	634	627	597	580	547	542	540	528
28	510	513	524	560	619	661	653	620	609	599	599	568	542	536	532
29	519	520	540	571	604	624	635	627	614	600	580	563	547	536	527
30††	464	449	463	477	541	540	528	535	536	525	527	510	488	481	477
31††	472	472	478	506	538	564	576	566	539	530	525	515	513	505	498
Mean . . .	511	515	527	552	591	617	625	617	602	586	564	543	532	527	521
Mean† . . .	520	528	546	578	625	638	649	643	620	599	578	559	553	549	544
Mean†† . . .	492	493	502	520	558	579	583	569	543	531	521	506	498	496	488

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 8

Hourly Values of Horizontal Force, 1957

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

August

39,000 γ plus tabular quantities

Hours G.M.T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
526	526	525	529	528	528	530	530	530	562	05 08	667	00 10	522	145	1
523	518	519	520	518	513	507	508	510	549	05 10	673	21 18	503	170	2
533	543	530	464	456	493	490	497	492	538	05 10	659	18 50	444	215	3††
515	511	510	509	506	507	508	508	510	537	05 14	650	00 01	471	179	4
521	523	510	495	495	493	493	495	489	535	07 49	642	23 14	485	157	5
456	467	463	461	465	489	477	474	488	498	05 34	646	14 40	453	193	6††
495	490	488	486	488	490	493	496	501	523	05 58	644	00 20	480	164	7
522	518	516	514	520	523	520	520	512	545	05 26	664	00 01	509	155	8
545	538	535	531	526	525	520	509	524	560	06 35	692	22 14	506	186	9
516	513	515	518	518	519	521	523	528	547	06 42	624	16 44	512	112	10
540	537	534	534	534	534	533	530	528	568	06 25	653	22 50	526	127	11†
510	511	499	488	492	501	510	513	517	550	05 27	647	18 12	485	162	12
468	468	473	488	485	490	497	493	493	513	06 24	606	11 30	461	145	13††
508	505	502	498	500	509	509	501	497	543	06 21	646	00 01	492	154	14
517	516	514	517	516	509	503	503	505	545	06 55	666	00 17	496	170	15
525	520	519	519	518	515	518	516	515	549	06 10	640	01 34	501	139	16
541	531	528	528	528	528	532	531	527	560	05 50	659	00 01	515	144	17†
509	506	508	513	517	515	511	514	512	555	07 10	670	16 24	504	166	18
513	513	513	514	513	513	514	513	511	537	06 44	630	23 52	509	121	19
513	509	496	495	498	495	499	510	503	534	05 45	629	16 30	492	137	20
476	469	469	483	490	494	497	498	501	510	05 39	588	16 24	463	125	21
528	526	526	525	523	524	523	521	519	552	06 56	625	00 10	503	122	22†
539	536	533	532	530	527	529	529	529	565	05 50	667	00 07	520	147	23†
539	537	536	534	533	533	533	533	535	566	05 00	671	00 12	526	145	24†
547	541	533	527	524	514	512	512	521	571	05 50	701	21 27	508	193	25
529	523	511	512	519	521	523	528	528	554	05 38	637	17 00	507	130	
519	519	522	520	506	512	514	516	514	552	07 35	683	19 12	504	179	
519	516	514	511	514	519	514	512	517	553	05 27	670	00 14	508	162	28
523	520	518	516	529	547	464	467	482	549	05 55	652	21 03	447	205	29
477	477	486	485	484	480	477	475	472	494	04 41	597	00 44	419	178	30††
492	491	491	499	473	471	490	499	486	508	05 59	605	01 10	469	136	31††
516	513	511	509	508	511	508	509	510	543					157	Mean
537	533	531	531	530	529	530	529	528							Mean†
485	489	489	479	473	485	486	488	486							Mean††

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 9

Hourly Values of Horizontal Force, 1957

(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	
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	
1	498	501	510	543	576	596	601	610	575	557	536	522	513	502	492	
2	496	497	514	566	632	664	658	595	513	532	544	539	512	442	419	
3††	396	404	408	445	450	522	549	545	493	463	368	363	306	260	246	
4††	377	407	431	463	488	527	527	541	528	515	500	487	477	484	488	
5	277	237	239	230	305	234	235	342	398	419	414	380	343	338	355	
6	408	419	429	459	503	531	542	519	499	479	456	443	421	401	404	
7	435	448	478	516	552	572	589	580	566	533	515	503	503	489	475	
8†	455	459	505	572	635	660	638	594	552	520	509	509	508	501	489	
9	482	493	516	549	616	646	649	598	561	534	528	505	489	475	467	
10	478	481	500	539	595	643	662	654	592	542	521	507	505	502	494	
11†	486	484	506	555	611	662	662	646	616	591	558	533	523	515	506	
12	489	497	527	548	523	685	701	689	644	594	556	533	529	522	509	
13††	494	531	558	599	514	419	589	494	291	257	Δ	-23	89	131	176	
14	379	383	419	460	522	560	575	558	502	469	398	383	381	361	355	
15	429	428	440	479	532	542	546	548	548	540	530	514	496	478	473	
16	474	469	487	523	570	621	635	643	619	585	551	517	507	500	496	
17	494	503	544	578	637	694	678	645	615	574	559	536	504	488	473	
18	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	621	602	583	566	545	528	518	
19†	505	492	508	546	613	640	647	637	626	598	570	553	539	527	515	
20†	503	506	523	576	620	664	672	654	642	613	582	561	552	538	527	
21	516	520	545	593	633	Δ	Δ	Δ	623	588	588	519	406	375	369	
22	382	388	434	465	506	505	515	471	437	412	419	425	429	420	399	
23††	348	375	389	443	451	352	237	270	266	261	229	227	240	242	277	
24	383	401	437	493	547	560	582	580	573	530	502	463	424	420	412	
25	444	451	478	522	569	599	599	574	542	520	511	491	469	443	451	
26	466	467	480	523	579	620	636	629	602	570	543	523	511	489	469	
27†	482	474	486	511	572	613	643	638	618	586	568	548	533	517	505	
28	488	483	508	560	615	634	597	578	573	556	544	531	523	508	503	
29††	496	513	543	572	634	705	691	604	600	586	563	558	554	518	373	
30	324	339	369	393	401	435	444	427	469	439	388	386	398	419	412	
Mean . . .	440	444	467	505	550	581	582	569	547	523	499	483	470	456	444	
Mean† . . .	486	483	506	552	610	648	652	634	611	582	557	541	531	520	508	
Mean†† . . .	402	425	443	481	506	527	501	490	472	456	415	409	394	376	361	

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 9

Hourly Values of Horizontal Force, 1957

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

September

39,000 γ plus tabular quantities

Hours G.M.T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
494	494	496	496	497	499	498	496	496	525	06 27	630	13 54	488	142	1
397	383	385	376	376	360	400	376	328	479	05 35	712	23 06	318	394	2
254	270	303	286	308	329	340	365	373	377	06 37	684	15 33	213	471	3††
338	266	103	69	132	187	213	237	304	379	05 15	569	17 24	31	538	4††
360	367	360	368	383	379	376	393	406	339	09 31	455	05 34	148	307	5
388	367	369	376	392	408	417	425	431	437	05 52	552	16 11	363	189	6
463	459	464	465	469	465	464	462	461	497	08 15	631	00 01	434	197	7
484	484	483	482	480	480	481	477	480	518	04 56	665	00 32	451	214	8†
466	466	463	467	472	485	485	483	480	516	05 47	668	16 46	461	207	9
491	492	488	480	484	483	486	487	485	525	06 28	681	17 24	476	205	10
500	493	489	487	481	486	488	489	488	536	06 19	675	18 52	478	197	11†
503	504	503	502	502	499	502	501	499	544	07 12	715	00 29	487	228	12
213	239	303	309	325	332	351	361	369	Δ	Δ	Δ	Δ	Δ	Δ	13††
359	363	378	391	403	410	411	416	422	427	06 20	616	13 20	351	265	14
470	469	468	470	466	459	461	480	476	489	04 31	560	01 06	425	135	15
491	490	486	487	501	494	495	493	492	526	06 15	651	01 30	466	185	16
468	471	473	489	502	516	521	526	539	543	05 22	706	15 26	466	240	17
514	512	508	503	493	504	510	504	500	Δ	Δ	Δ	Δ	Δ	Δ	18
510	508	508	508	508	508	508	508	508	545	05 36	652	01 03	490	162	19†
524	521	512	508	512	511	512	512	518	557	06 05	682	00 30	501	181	20†
360	323	331	279	273	314	332	386	387	Δ	Δ	Δ	Δ	Δ	Δ	21
288	251	273	295	316	328	337	330	333	390	06 26	538	15 43	219	319	22
262	270	327	333	327	331	368	383	383	316	04 52	615	07 37	178	467	23††
413	416	417	420	433	448	447	448	448	467	06 34	606	00 01	381	225	24
455	457	459	462	463	466	467	468	464	493	06 08	618	13 22	429	189	25
455	456	471	472	476	480	487	489	487	516	11 30	615	15 30	451	194	26
495	486	479	484	485	484	488	493	494	528	04 50	646	01 18	471	175	27†
499	497	495	494	491	495	494	497	496	527	04 21	655	00 43	478	177	28
220	64	113	190	154	206	224	241	275	425	05 22	730	16 26	45	685	29††
398	395	420	413	419	427	435	447	447	410	07 54	513	00 10	299	214	30
424	413	414	417	423	430	437	442	445	475	..	..	..	..	262	Mean
503	498	494	494	493	494	495	496	498	..	..	..	..	..	..	Mean†
269	217	211	217	230	263	286	307	334	..	..	..	..	..	..	Mean††

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 10

Hourly Values of Horizontal Force, 1957

(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
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1††	439	459	473	512	553	576	596	603	575	553	539	520	499	488	471
2	461	468	494	510	565	607	608	590	572	557	543	533	524	511	507
3	489	492	490	535	591	638	660	636	604	579	556	535	509	518	516
4	484	480	493	535	585	631	652	623	587	545	521	521	521	510	503
5	483	488	500	546	598	638	664	645	643	565	538	526	530	524	513
6†	494	498	521	576	640	686	695	661	617	575	535	524	531	525	516
7†	518	515	528	575	631	679	697	672	643	606	573	557	553	544	534
8†	511	513	525	585	632	671	675	648	616	587	564	564	564	544	534
9	520	511	532	570	626	681	693	681	643	611	585	561	554	540	526
10	485	481	492	560	606	691	687	632	544	503	465	495	500	478	463
11††	479	476	502	551	642	681	676	638	582	557	524	475	459	449	432
12	472	474	492	519	571	627	658	628	599	570	531	515	505	492	484
13††	478	462	460	478	521	599	608	609	609	578	544	523	514	502	488
14††	471	469	481	496	558	626	594	502	512	535	492	487	488	467	454
15	453	463	478	532	567	593	604	595	569	544	515	505	491	463	457
16†	469	476	514	558	601	617	615	588	565	550	540	539	534	518	511
17	503	511	556	602	639	666	659	634	607	593	577	557	538	528	527
18†	517	525	551	598	632	655	659	635	603	579	564	559	553	537	527
19	515	525	558	592	636	670	688	663	615	587	560	546	549	541	527
20	498	502	521	553	594	615	628	617	593	560	549	544	545	525	515
21††	448	511	508	552	593	631	637	624	589	553	537	530	527	513	501
22	466	470	503	550	605	637	632	596	556	523	489	480	488	481	477
23	469	475	503	586	634	665	654	600	532	487	491	518	521	503	493
24	492	506	555	610	662	691	694	681	619	566	538	529	521	510	509
25	491	493	526	576	638	679	690	661	621	583	553	532	537	524	517
26	501	504	523	566	618	668	696	699	672	620	581	551	538	524	515
27	507	511	538	589	638	691	704	703	675	637	600	572	543	512	519
28	503	509	494	528	577	621	658	628	592	572	549	529	521	520	515
29	504	514	503	526	567	603	612	614	603	570	562	556	541	514	510
30	490	491	515	539	550	571	601	563	501	494	526	530	519	504	493
31	504	520	559	590	612	635	635	628	606	591	576	567	536	501	499
Mean . . .	488	493	513	555	603	643	653	629	596	566	543	532	524	510	502
Mean† . . .	502	505	578	576	627	662	668	641	609	579	555	549	547	534	524
Mean†† . . .	463	475	485	518	573	623	622	595	573	555	527	507	497	484	469

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 10

Hourly Values of Horizontal Force, 1957

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

October 39,000 γ plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
471	476	483	473	453	442	446	456	460	501	06 35	617	20 32	435	182	1††
497	494	489	493	493	490	486	479	473	519	04 54	622	00 48	457	165	2
473	451	452	466	484	489	487	481	483	526	05 38	667	15 41	442	225	3
495	489	481	479	472	494	482	486	484	523	06 01	673	18 49	469	204	4
512	501	490	488	493	501	500	498	495	537	06 06	671	17 32	481	190	5
514	513	512	512	511	510	513	516	518	551	05 49	702	00 01	493	209	6†
525	519	517	518	519	521	520	518	515	562	05 40	713	01 16	513	200	7†
528	526	524	524	522	520	519	523	522	560	05 38	680	00 26	505	175	8†
510	504	492	491	490	490	501	506	494	555	06 21	710	23 38	483	227	9
456	452	465	477	479	494	500	494	489	517	05 23	703	15 58	450	253	10
431	427	438	449	456	465	469	476	474	509	05 26	693	15 42	425	268	11††
481	470	459	454	459	460	460	480	484	514	05 54	667	17 28	452	215	12
483	479	478	479	479	475	489	471	470	511	07 08	626	02 07	450	176	13††
425	407	400	427	421	417	425	432	440	476	04 54	665	16 50	387	278	14††
450	448	451	458	454	472	462	463	471	498	05 52	608	15 22	442	166	15
505	500	498	500	506	507	505	506	503	530	05 28	622	00 20	438	184	16†
523	518	517	518	518	518	518	516	513	557	05 33	675	00 32	445	230	17
524	519	519	515	510	508	512	515	514	555	05 39	663	19 24	504	159	18†
519	515	517	519	515	501	494	499	503	556	06 08	790	21 19	492	238	19
518	514	506	488	478	473	470	457	465	530	06 10	631	22 28	449	182	20
504	487	489	494	499	491	466	430	443	523	05 22	653	22 18	423	230	21††
470	467	476	478	472	470	464	469	472	508	05 31	663	00 50	461	202	22
487	487	490	489	493	498	507	500	496	524	05 50	690	00 26	461	229	23
505	502	503	499	501	503	502	500	494	550	05 34	708	00 33	490	218	24
511	510	507	504	512	517	512	507	506	550	05 35	698	00 12	490	208	25
512	512	512	513	511	512	507	512	510	557	06 24	711	00 38	497	214	26
516	501	508	514	512	508	490	505	508	563	06 26	718	15 41	491	227	27
509	509	509	501	503	506	502	502	503	536	06 10	681	02 13	470	211	28
514	516	514	508	509	505	497	483	483	535	07 35	642	22 37	477	165	29
492	497	498	497	506	511	509	509	504	517	05 44	618	08 29	468	150	30
504	504	504	502	503	502	501	502	503	545	04 56	642	12 54	494	148	31
496	491	490	491	491	493	491	490	490	532	..	..	..	..	204	Mean
519	517	514	514	514	513	514	516	509	..	..	..	..	..	..	Mean†
463	455	458	464	462	458	459	453	457	..	..	..	..	..	..	Mean††

† Five International quiet days.

†† Five International disturbed days.

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

TABLE II

Hourly Values of Horizontal Force, 1957

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

November

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
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	501	509	529	576	602	666	655	632	615	591	561	544	525	522	512
2	508	516	541	585	626	659	640	628	605	595	580	568	557	540	531
3	501	506	522	575	627	665	686	663	638	591	550	517	499	475	463
4†	497	503	517	532	563	588	604	606	600	587	577	562	548	534	527
5†	503	516	547	580	605	621	632	630	626	616	596	575	560	546	540
6	518	532	567	608	652	687	693	679	649	610	575	568	566	556	548
7	431	402	400	455	532	588	612	567	535	492	464	469	459	448	437
8	467	480	504	533	567	582	570	572	573	535	503	494	476	466	470
9††	494	509	532	567	591	626	583	569	538	531	523	520	505	463	427
10	465	482	508	531	589	589	575	582	563	538	519	505	495	485	481
11	489	502	524	559	588	596	634	631	606	565	512	497	497	489	487
12	476	483	508	529	574	603	614	617	604	560	519	498	478	468	444
13	483	484	503	532	558	596	610	617	588	579	544	537	515	499	495
14	521	533	537	554	589	605	618	615	615	575	562	554	547	522	512
15	506	529	547	588	572	577	603	598	570	562	540	533	529	516	506
16	505	513	535	566	614	641	651	651	634	604	569	543	528	515	502
17†	508	516	534	560	595	622	637	633	621	606	562	547	541	530	519
18	512	519	528	568	581	628	670	658	602	572	540	497	450	416	422
19	471	478	491	505	530	568	563	551	549	549	546	528	511	496	491
20	496	516	544	585	607	621	613	585	584	585	570	553	525	499	496
21†	506	525	562	603	632	643	628	609	574	552	545	543	539	526	521
22†	508	523	571	623	678	668	634	599	575	557	549	545	540	533	
23	513	529	558	587	625	638	659	649	636	618	587	566	551	542	533
24	528	536	561	592	631	649	639	642	604	587	570	562	553	545	536
25††	513	524	568	578	560	615	642	660	584	522	513	514	505	504	501
26††	468	489	527	530	554	590	616	617	552	530	506	497	499	504	499
27††	425	433	427	437	374	411	456	493	455	433	428	417	406	426	425
28††	436	457	480	498	535	582	599	577	535	512	466	457	460	443	433
29	448	459	469	500	525	539	525	553	549	530	511	494	486	482	488
30	485	493	501	506	527	548	558	557	554	540	526	523	529	519	515
Mean . . .	489	500	521	551	580	607	615	609	585	561	537	524	513	501	493
Mean† . . .	504	517	546	580	615	630	634	622	604	587	567	555	547	535	528
Mean†† . . .	467	482	507	522	523	565	579	583	533	506	487	481	475	468	457

† Five International quiet days.

†† Five International disturbed days.

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

TABLE II

Hourly Values of Horizontal Force, 1957

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

November

39,000 γ plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
507	507	502	499	501	498	501	502	511	545	05 40	696	18 00	496	200	1
525	524	523	521	518	521	521	512	506	556	04 58	664	23 54	500	164	2
473	484	477	468	488	497	495	494	495	535	06 01	696	14 20	460	236	3
521	518	515	515	513	509	499	503	503	539	06 40	608	00 03	496	112	4†
532	530	531	523	519	517	517	517	517	558	06 18	634	00 01	502	132	5†
539	521	518	522	515	446	439	406	434	556	05 26	696	22 14	395	301	6
432	436	445	452	455	462	435	465	466	472	05 55	658	02 18	376	282	7
455	471	486	486	487	491	482	470	476	504	04 36	602	14 57	449	153	8
439	456	457	460	465	465	464	461	460	504	04 23	633	14 40	417	216	9††
477	479	464	470	466	476	479	475	478	507	04 50	610	16 54	460	150	10
481	478	477	481	486	475	468	477	478	520	06 33	668	20 24	467	201	11
439	465	471	472	475	485	484	479	482	509	07 22	624	15 10	436	188	12
499	497	488	484	488	501	505	507	508	526	06 46	626	00 34	481	145	13
507	492	487	485	488	505	504	491	498	538	07 40	644	16 34	479	165	14
501	500	510	501	498	500	508	512	507	534	06 03	634	18 37	495	139	15
497	504	505	503	519	513	512	508	506	547	05 01	659	14 32	492	167	16
516	517	517	517	516	516	517	518	512	549	06 12	640	00 01	507	133	17†
407	416	442	449	465	474	478	475	467	510	06 17	706	15 23	402	304	18
492	491	492	493	494	491	497	500	494	511	05 04	603	00 01	469	134	19
494	499	501	498	500	503	512	510	505	538	04 29	626	14 43	493	133	20
521	519	517	516	514	513	506	504	508	547	04 49	647	21 58	502	145	21†
528	518	518	513	513	515	516	514	512	560	04 18	707	00 01	507	200	22†
531	537	531	521	526	527	524	522	528	564	06 40	667	00 01	512	155	23
523	527	521	509	511	518	520	523	516	558	06 40	670	17 34	502	168	24
492	476	467	458	439	448	455	468	468	520	05 50	696	19 12	432	264	25††
463	453	434	411	416	423	445	420	411	494	06 57	703	18 19	397	306	26††
430	454	427	416	428	422	420	440	437	430	06 45	518	04 11	302	216	27††
425	431	437	441	454	440	450	466	453	478	06 14	616	15 39	419	197	28††
483	473	472	480	484	488	488	486	484	496	07 06	568	00 24	446	122	29
514	512	508	507	505	506	506	507	505	519	06 30	571	00 16	484	87	30
488	489	488	486	488	488	488	488	487	524	..	..	..	..	184	Mean
524	520	520	517	515	514	511	511	510	..	..	..	..	..	..	Mean†
450	454	444	437	440	440	447	451	446	..	..	..	..	..	..	Mean††

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 12

Hourly Values of Horizontal Force, 1957

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

December

39,000 γ plus tabular quantities

Date	Hours G. M. T.														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1††	502	511	523	522	590	597	621	632	593	576	557	520	506	487	477
2	493	494	503	528	549	585	581	586	597	563	566	525	498	446	463
3	495	508	528	559	579	589	609	565	547	549	549	530	522	502	495
4	492	503	526	561	576	605	599	584	562	556	554	532	524	516	508
5	488	500	518	541	578	561	553	561	540	522	515	521	510	494	475
6††	470	492	488	512	528	525	550	585	594	565	543	506	474	474	464
7	472	489	514	533	576	591	621	608	579	572	528	600	480	453	464
8	483	492	515	535	556	571	588	588	584	558	551	544	527	509	503
9	502	512	520	536	571	577	583	581	578	541	515	519	506	498	469
10	488	493	512	507	528	561	605	633	626	586	550	512	477	462	440
11††	475	473	480	499	557	568	570	551	567	563	522	505	491	489	475
12††	449	470	480	494	505	513	519	532	535	538	519	498	475	477	476
13	491	482	528	554	564	576	590	596	589	565	512	488	495	494	497
14	486	498	517	505	533	550	567	566	573	574	558	539	524	513	506
15	501	515	535	556	565	573	582	572	561	558	550	552	531	522	509
16	486	500	528	539	551	541	538	558	585	598	592	562	534	517	511
17	507	520	537	546	521	461	505	489	501	553	563	549	529	513	508
18	500	514	543	543	530	547	568	585	594	590	568	533	516	512	505
19	505	511	526	539	549	569	579	611	642	606	605	593	545	522	513
20	463	472	508	515	534	551	487	532	534	537	526	517	509	487	496
21	481	486	504	526	546	552	524	496	537	562	545	521	508	499	495
22†	482	485	501	531	541	569	585	589	591	576	551	534	519	509	505
23†	498	503	522	543	561	582	597	600	603	595	573	547	533	524	518
24	507	517	536	560	581	607	621	632	632	622	588	565	546	537	535
25	517	525	550	577	559	574	632	568	571	574	572	557	554	529	524
26	495	503	518	550	561	579	572	566	552	553	546	535	529	506	490
27†	486	496	516	527	554	574	578	587	579	575	568	552	533	520	508
28†	500	503	516	533	555	579	599	613	610	599	585	567	549	535	526
29†	518	521	536	558	590	612	611	601	588	582	579	564	553	543	563
30	504	511	518	511	551	579	617	580	547	582	565	511	477	477	479
31††	512	514	513	547	529	592	612	595	585	536	483	441	403	389	374
Mean . .	492	500	518	535	554	568	580	579	577	569	552	534	512	499	493
Mean† . .	497	502	518	538	560	583	594	598	594	585	571	553	537	526	524
Mean†† . .	481	492	497	515	542	559	574	579	577	560	525	494	470	463	453

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 12

Hourly Values of Horizontal Force, 1957

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

December

39,000 γ plus tabular quantities

Hours G.M.T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
475	473	474	483	492	494	489	499	496	525	06 53	682	15 37	471	211	1††
462	466	464	474	481	486	486	487	494	512	06 55	623	14 58	439	184	2
490	491	490	484	493	500	498	493	491	523	05 42	625	17 50	483	142	3
506	505	504	505	505	503	498	494	489	529	05 20	615	23 32	487	128	4
464	463	463	447	450	443	453	457	452	499	04 24	584	18 12	436	148	5
456	432	438	451	456	469	474	467	467	495	07 28	611	16 00	423	188	6††
477	479	481	485	481	475	479	475	479	516	06 31	639	13 10	444	195	7
503	504	504	504	498	497	499	502	499	526	06 06	600	00 01	482	118	8
460	463	464	470	473	475	479	489	487	511	07 06	597	14 57	458	139	9
429	430	435	434	439	455	463	453	465	499	07 14	643	15 03	426	217	10
458	468	469	456	461	464	453	459	453	497	09 06	598	21 10	436	162	11††
475	480	487	482	464	471	479	472	473	490	08 17	554	00 01	444	110	12††
485	492	464	476	478	480	485	486	485	515	06 31	607	16 47	460	147	13
505	506	504	502	501	500	500	500	499	522	06 26	584	00 01	485	99	14
471	466	477	479	488	490	490	490	487	522	06 33	608	15 34	457	151	15
506	505	506	511	507	502	502	502	511	529	09 15	604	00 07	485	119	16
502	498	494	504	504	493	495	493	492	512	03 40	566	04 38	433	133	17
496	497	502	501	500	501	505	504	527	527	08 30	604	15 22	490	114	18
501	497	494	496	487	473	463	464	463	531	08 06	668	20 45	458	210	19
493	490	487	482	482	482	479	487	485	501	04 45	601	05 50	446	155	20
494	492	488	487	486	484	485	485	485	507	04 46	587	00 06	479	108	21
505	504	503	501	500	501	502	499	524	524	08 02	594	00 30	481	113	22†
517	515	515	512	513	512	510	509	508	538	08 24	606	00 06	497	109	23†
531	528	524	517	517	512	509	509	514	552	07 18	640	22 00	506	134	24
527	523	518	510	497	485	487	488	482	538	06 26	644	22 22	477	107	25
486	482	485	482	485	494	491	491	488	518	05 28	589	18 40	470	119	26
507	513	512	508	506	499	497	497	496	529	07 26	593	00 01	484	109	27†
525	524	524	523	522	516	515	514	519	544	07 34	617	00 10	499	118	28†
532	531	529	526	526	524	516	510	504	551	05 20	619	23 04	502	117	29†
485	492	492	499	502	505	510	516	513	522	06 03	663	11 19	467	196	30
353	342	381	368	353	384	363	375	400	456	05 16	649	16 06	334	315	31††
486	486	486	486	485	486	485	486	486	518					151	Mean
517	517	517	514	513	510	508	506	505							Mean†
443	439	450	448	445	456	452	454	458							Mean††

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 13

Hourly Values of Vertical Force, 1957

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

July

2000 γ plus tabular quantities

Date	Hours G. M. T.														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1††	361	371	373	346	335	332	331	330	335	336	350	358	358	362	362
2††	362	362	359	351	338	335	331	324	321	324	319	324	319	321	346
3††	367	370	369	346	347	344	343	342	342	339	340	343	347	348	347
4	359	362	363	352	336	327	329	328	328	328	334	338	338	346	346
5††	358	368	369	353	314	Δ	Δ	334	331	327	330	334	348	350	348
6	359	368	371	366	346	342	346	355	365	358	351	346	345	348	351
7	359	365	359	346	334	321	320	312	313	323	330	335	343	345	347
8	358	366	370	370	366	349	333	329	333	336	335	345	352	348	347
9	359	362	360	352	345	339	338	338	340	337	338	337	348	352	351
10†	359	368	368	362	362	347	333	325	327	333	338	345	347	352	350
11†	358	361	363	363	358	354	347	350	353	347	342	339	340	349	347
12	357	362	364	356	346	336	327	322	315	332	337	338	345	347	348
13†	360	362	355	347	341	333	333	315	323	336	346	349	347	347	347
14	360	363	363	356	344	342	336	327	321	321	326	337	342	342	342
15†	356	358	358	354	347	337	334	332	327	323	326	347	360	355	348
16	361	364	364	362	362	376	382	385	373	355	358	359	353	348	348
17	369	369	367	355	345	334	333	326	327	329	332	336	346	348	346
18	357	360	358	355	349	345	336	333	326	334	347	348	349	346	346
19††	358	360	349	333	323	315	316	306	311	321	334	345	349	350	349
20	360	360	355	348	338	334	331	333	338	337	347	355	356	352	346
21	360	364	366	353	347	337	327	326	325	321	323	332	337	341	342
22	358	361	360	355	345	336	322	317	327	339	338	327	329	337	340
23	360	367	363	358	356	334	339	340	334	325	324	326	337	346	346
24	355	361	357	351	339	335	326	322	316	305	311	322	330	345	350
25	361	361	358	357	348	335	326	323	327	328	328	331	335	340	347
26†	357	361	359	350	350	347	337	330	328	328	337	343	342	347	348
27	361	361	359	359	359	358	357	354	349	340	346	350	358	356	348
28	361	362	357	348	339	337	337	335	327	326	325	326	335	346	347
29	361	363	358	346	335	330	326	324	324	327	327	334	346	348	347
30	361	369	370	366	357	348	340	346	342	337	335	337	348	349	348
31	359	361	351	342	346	342	346	348	357	363	363	360	360	358	355
Mean . . .	360	363	361	353	346	335	335	331	331	332	336	340	345	347	348
Mean† . . .	358	362	361	355	352	344	337	330	332	333	338	345	347	350	348
Mean†† . . .	340	365	360	343	332	327	326	320	322	327	326	342	342	344	352

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 13

Hourly Values of Vertical Force, 1957

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

July

2000 γ plus tabular quantities

Hours G. M. T.									Mean'	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
356	359	356	376	368	365	360	355	362	354	18 23	407	07 07	323	84	1††
348	346	355	367	370	367	362	362	362	345	18 45	376	12 30	310	66	2††
351	352	352	351	351	351	355	351	355	350	02 30	377	06 47	335	42	3††
345	346	350	351	351	353	353	351	351	344	01 30	366	05 05	321	45	4
353	354	355	355	356	356	355	353	360	Δ	Δ	Δ	Δ	Δ	Δ	5††
352	353	354	356	358	358	356	355	358	355	01 36	374	04 54	338	36	6
348	351	351	354	356	354	354	355	356	343	01 07	366	07 30	310	56	7
349	353	355	355	355	355	356	355	355	351	01 55	373	06 45	328	45	8
349	349	354	355	355	356	356	356	357	349	01 15	363	09 50	335	28	9
350	355	355	355	355	354	355	355	357	350	02 00	370	07 01	324	46	10†
347	350	354	355	355	355	356	355	353	352	02 42	364	11 04	337	27	11†
349	350	352	353	355	355	355	355	356	346	02 33	368	07 35	310	58	12
348	349	355	356	357	357	356	357	357	347	00 56	363	07 05	314	49	13†
345	347	349	353	353	353	354	349	349	345	02 00	364	08 00	312	52	14
348	349	350	352	353	353	355	356	360	347	11 56	361	08 20	322	39	15†
348	352	350	346	347	354	361	361	368	360	07 19	393	17 56	341	52	16
348	350	355	357	357	356	356	357	356	348	00 01	370	09 13	325	45	17
349	350	348	346	346	348	352	353	356	347	01 02	362	07 45	321	41	18
345	338	339	342	347	347	355	355	358	339	01 00	361	07 02	300	61	19††
346	349	349	349	352	350	353	353	360	343	00 45	361	06 32	323	38	20
344	348	350	353	353	353	354	354	354	344	02 00	367	09 05	318	49	21
340	341	342	345	346	350	355	356	357	343	01 11	362	06 36	310	52	22
347	348	350	353	353	354	355	356	357	347	01 00	369	05 07	321	48	23
348	348	349	347	350	356	356	354	356	341	00 50	362	09 05	303	59	24
348	348	350	351	353	354	354	353	353	345	00 28	364	06 32	320	44	25
348	348	350	354	356	357	357	356	357	348	00 45	362	08 45	326	36	26†
349	350	354	357	358	361	369	362	362	356	20 05	370	09 00	337	33	27
348	349	353	354	358	359	359	359	359	346	00 50	364	09 14	324	40	28
349	350	356	358	361	361	358	358	357	346	00 50	368	07 25	315	53	29
349	351	357	357	359	358	358	358	358	352	02 00	371	10 00	334	37	30
355	355	357	359	359	359	359	362	360	356	09 00	364	06 42	341	23	31
348	349	352	354	355	355	357	356	357	348					46	Mean
358	350	353	354	355	355	356	356	357							Mean†
350	348	350	362	362	360	362	357	361							Mean††

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 14

Hourly Values of Vertical Force, 1957

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

August

2000 γ plus tabular quantities

Date	Hours G. M. T.														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	357	360	360	353	342	332	327	329	333	329	330	334	336	344	348
2	360	361	361	361	358	342	333	330	339	351	363	365	363	352	349
3††	363	366	366	361	351	339	328	321	327	332	335	342	351	352	349
4	364	365	351	342	333	319	314	312	318	327	331	338	342	345	346
5	358	361	362	364	364	357	351	340	338	343	349	349	343	349	350
6††	364	362	353	351	349	349	341	338	343	347	361	343	344	352	343
7	362	363	360	346	330	316	319	327	323	327	330	341	342	344	351
8	362	360	354	353	342	336	331	340	344	343	342	350	353	354	353
9	363	365	355	340	330	320	308	302	306	308	323	338	342	342	353
10	362	363	360	360	360	362	355	352	351	349	352	354	348	347	347
11†	364	366	364	353	343	333	323	321	319	329	331	337	340	343	344
12	363	367	364	361	358	356	345	345	347	365	356	347	363	346	344
13††	368	373	360	342	322	309	303	302	318	323	329	341	352	356	355
14	366	370	369	358	344	332	329	320	325	332	342	344	354	350	349
15	362	367	365	360	345	340	330	322	330	333	338	344	348	349	346
16	361	365	364	348	333	319	313	308	310	308	317	322	321	323	325
17†	347	352	353	344	331	329	321	329	337	331	331	331	331	332	339
18	325	331	331	321	363	357	353	340	330	322	332	333	341	346	352
19	367	376	375	369	355	344	351	346	351	341	344	354	356	354	354
20	365	372	375	371	362	346	340	340	343	351	354	356	355	355	355
21	367	377	367	348	336	328	323	336	332	337	334	345	353	353	353
22†	368	369	363	347	330	325	321	322	329	336	342	344	347	350	352
23†	363	367	359	340	312	301	299	300	302	308	311	335	336	333	335
24†	347	353	351	335	314	335	335	343	353	359	353	351	351	351	353
25	347	374	374	364	352	339	342	354	359	354	350	353	359	354	355
26	366	374	374	368	361	346	339	341	346	354	363	363	355	352	351
27	367	374	369	360	341	323	319	316	311	320	327	338	347	351	352
28	365	370	372	362	338	316	304	298	300	311	312	316	338	352	354
29	366	366	360	353	341	331	320	314	314	321	330	341	345	350	351
30††	353	360	348	333	326	314	329	327	336	335	349	349	353	357	357
31††	364	361	360	364	361	351	349	356	367	375	379	374	366	353	356
Mean . . .	361	365	361	353	343	337	329	328	332	336	340	344	348	348	349
Mean† . . .	358	362	358	344	326	325	320	323	328	333	334	340	341	342	345
Mean†† . . .	362	365	358	350	341	332	330	329	338	342	351	350	353	354	352

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 14

Hourly Values of Vertical Force, 1957

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

August

2000 γ plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
351	353	352	347	348	348	348	348	348	344	01 00	362	06 00	327	35	1
351	351	355	356	357	355	353	355	358	353	11 45	366	06 56	328	38	2
350	359	353	337	342	300	350	360	359	348	02 00	367	06 26	319	48	3††
350	350	351	353	353	357	357	357	357	343	00 30	379	06 30	305	74	4
350	352	351	350	351	351	352	353	354	352	04 05	366	08 00	337	29	5
343	355	355	354	360	369	360	360	365	353	19 50	375	05 47	335	40	6††
351	352	352	353	355	358	359	360	362	345	00 15	365	05 09	312	53	7
353	353	354	355	361	362	359	359	356	351	00 25	363	05 50	330	33	8
354	353	354	354	354	355	354	354	362	341	01 02	366	06 54	298	68	9
348	351	354	356	356	357	360	361	363	355	00 54	364	07 30	344	20	10
348	352	353	354	355	359	360	360	360	346	01 00	367	07 23	318	49	11†
345	353	350	352	356	364	365	365	365	356	01 00	369	14 50	341	28	12
356	361	361	366	364	365	366	365	365	347	00 50	375	06 52	299	76	13††
349	354	355	355	361	365	362	361	361	350	01 02	372	07 00	320	52	14
349	355	355	361	361	361	359	358	360	350	01 00	368	07 05	320	48	15
328	330	332	337	337	340	343	341	344	332	01 25	366	09 02	307	59	16
333	331	332	332	332	331	331	330	329	334	02 00	355	06 11	318	37	17†
353	354	357	363	364	364	363	364	365	347	23 00	365	03 00	321	44	18
355	359	360	362	360	362	362	363	364	358	01 00	378	09 05	337	41	19
355	355	354	356	357	360	363	367	364	357	01 17	376	06 16	334	42	20
354	354	355	365	367	367	365	365	367	352	01 00	378	05 30	319	59	21
352	354	356	359	359	360	361	359	360	349	00 45	371	06 23	318	53	22†
336	336	337	339	342	342	342	342	342	332	00 56	368	05 25	297	71	23†
355	356	359	362	363	364	364	364	364	351	19 52	366	04 15	308	58	24†
355	359	358	360	362	359	360	362	366	357	01 45	377	05 33	333	44	25
353	355	355	361	365	363	365	367	366	358	01 00	375	05 43	337	38	26
352	354	361	360	358	362	365	365	362	348	01 13	376	07 57	306	70	27
353	354	358	359	362	365	363	363	366	344	01 00	373	06 30	296	77	28
352	354	357	359	368	373	341	344	354	346	19 24	389	07 00	313	76	29
357	360	364	362	364	364	362	361	361	349	01 10	371	04 58	296	75	30††
357	360	360	367	352	353	365	367	365	362	18 19	386	05 25	345	41	31††
350	353	354	355	356	359	358	358	359	349					51	Mean
345	346	347	359	350	351	352	351	351							Mean†
353	359	359	357	356	362	362	363	363							Mean††

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 15

Hourly Values of Vertical Force, 1957

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

September

2000 γ plus tabular quantities

Date	Hours G. M. T.														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	373	375	367	357	334	341	336	333	333	339	348	350	350	352	352
2	366	371	367	364	347	317	304	283	298	321	332	342	343	333	341
3††	376	375	359	352	345	338	338	326	332	317	318	329	325	325	341
4††	374	374	351	333	323	321	318	320	327	339	349	349	349	359	362
5	369	348	335	303	292	307	322	335	337	348	351	358	361	364	364
6	370	377	358	354	335	325	317	317	325	327	334	338	337	341	345
7	370	370	355	330	322	298	289	289	293	304	314	324	338	348	350
8†	361	363	369	341	323	313	304	304	310	322	329	336	337	344	345
9	359	365	356	346	342	321	301	300	315	324	334	333	336	345	347
10	359	367	362	355	347	327	311	302	301	315	333	338	347	348	347
11†	359	370	370	357	347	317	315	317	333	334	333	334	340	347	347
12	360	367	354	337	323	304	291	289	294	304	313	322	334	338	339
13††	357	384	367	329	323	329	288	226	210	223	239	324	344	355	368
14	365	369	371	303	360	345	331	315	299	303	326	339	337	337	347
15	364	370	368	357	352	336	334	333	336	338	337	337	337	342	347
16	357	360	356	347	344	332	321	318	322	336	346	344	339	345	347
17	359	365	362	345	332	310	299	301	311	321	326	327	326	337	337
18	362	363	357	350	334	Δ	Δ	Δ	315	319	323	325	332	338	345
19†	359	352	345	340	339	327	324	321	323	325	324	326	327	347	339
20†	356	361	355	354	339	325	317	313	315	324	324	325	329	338	342
21	Δ	Δ	Δ	Δ	337	Δ	Δ	Δ	327	334	346	301	286	309	333
22	361	361	349	333	324	311	299	310	323	326	334	338	345	349	348
23††	360	361	346	Δ	Δ	270	260	270	295	303	316	327	340	350	362
24	362	369	350	336	325	313	302	294	291	287	302	313	324	337	338
25	357	363	353	340	333	322	315	311	311	321	322	318	329	336	347
26	357	364	362	363	360	349	337	330	325	325	326	330	333	336	336
27†	353	361	357	347	336	325	323	302	301	306	315	325	334	338	339
28	349	357	350	340	335	314	304	314	317	324	326	326	335	340	345
29††	355	366	353	337	325	300	276	289	303	312	320	333	339	335	293
30	373	373	364	357	349	335	334	331	339	324	326	334	347	360	354
Mean . . .	362	367	358	345	332	322	313	308	312	318	325	333	338	344	345
Mean† . . .	358	365	365	348	335	318	314	308	315	321	326	332	337	343	344
Mean†† . . .	365	375	357	338	329	322	305	290	293	298	307	334	339	343	341

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 15

Hourly Values of Vertical Force, 1957

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

September

2000 γ plus tabular quantities

Hours G.M.T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ		
356	356	358	358	360	360	363	362	365	353	00 57	379	07 00	332	47	1
340	347	356	359	363	365	381	363	348	344	20 25	390	07 07	275	115	2
352	363	374	366	378	373	373	374	373	351	19 20	403	07 12	301	102	3††
313	305	282	306	346	376	371	380	387	346	22 32	395	17 27	271	124	4††
365	365	362	365	369	365	361	371	370	349	22 32	379	04 21	278	101	5
349	348	356	361	363	369	368	365	366	348	01 22	382	06 30	314	68	6
347	349	357	357	359	357	359	359	357	337	00 42	371	06 00	286	85	7
346	349	350	353	354	354	365	350	356	341	01 35	376	06 30	303	73	8†
348	349	353	356	359	360	359	357	357	343	00 46	368	06 30	293	75	9
348	352	353	353	357	357	359	359	357	344	00 51	368	07 30	300	68	10
347	347	350	353	353	356	357	357	357	346	01 00	372	05 02	310	62	11†
345	348	349	350	350	350	355	356	356	335	00 45	368	07 00	288	80	12
369	369	380	369	369	368	369	367	365	333	00 56	403	07 34	192	211	13††
352	357	362	364	364	362	361	361	362	348	01 48	372	07 57	289	83	14
347	350	354	355	353	350	355	362	357	349	01 00	372	07 18	332	40	15
347	348	349	356	359	356	356	356	356	346	00 48	363	06 54	316	47	16
341	345	348	355	359	359	359	359	360	339	01 02	367	06 04	297	70	17
346	347	348	349	348	354	356	350	353	Δ	Δ	Δ	Δ	Δ	Δ	18
345	347	348	350	352	353	353	353	355	341	00 25	361	06 52	318	43	19†
345	347	347	347	349	349	351	352	354	340	01 03	362	07 03	309	53	20†
336	336	345	334	337	356	361	372	363	Δ	Δ	Δ	Δ	Δ	Δ	21
304	315	345	356	367	364	360	357	355	339	20 10	376	15 29	292	84	22
350	359	377	369	361	360	373	371	364	Δ	Δ	Δ	Δ	Δ	Δ	23††
345	349	350	354	359	360	356	356	355	334	00 45	376	08 50	280	96	24
348	362	363	363	355	354	353	353	353	341	01 00	364	07 30	307	57	25
336	344	353	353	353	353	355	353	353	345	01 00	365	09 18	324	41	26
339	341	342	348	350	350	350	353	353	337	00 52	362	08 10	300	62	27†
316	347	347	349	350	354	351	353	354	339	01 00	359	06 15	302	57	28
268	256	311	350	328	351	353	357	360	324	20 20	377	15 35	247	130	29††
348	350	358	355	357	358	358	362	358	350	00 45	377	09 16	322	55	30
342	345	350	353	357	359	360	360	359	342					79	Mean
344	346	347	351	352	353	357	355	355							Mean†
325	323	337	348	355	367	367	369	371							Mean††

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 16

Hourly Values of Vertical Force, 1957

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

October

2000 γ plus tabular quantities

Date	Hours G. M. T.														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1††	354	364	354	348	342	333	331	325	319	323	327	328	334	340	342
2	354	361	355	341	338	336	331	331	331	326	334	335	338	345	347
3	355	358	354	349	345	334	323	312	312	322	324	326	327	335	342
4	354	358	347	336	325	315	303	301	305	312	323	334	336	345	347
5	354	360	347	332	317	310	301	292	291	302	318	333	339	344	346
6†	351	358	348	337	327	317	312	311	318	327	339	339	337	341	344
7†	355	361	358	342	329	316	310	312	316	317	317	326	335	339	341
8†	349	355	350	341	333	324	317	318	324	327	332	332	337	341	343
9	351	358	355	349	337	320	306	304	311	317	326	328	337	340	340
10	349	358	356	343	318	288	266	269	280	302	324	339	347	343	339
11††	349	358	350	349	329	306	295	295	300	316	328	324	327	336	336
12	355	361	366	365	361	341	318	313	306	309	316	227	337	342	343
13††	355	355	351	350	339	317	313	313	302	303	317	326	336	339	337
14††	349	350	352	349	339	324	304	317	326	323	316	335	337	337	340
15	359	361	356	347	337	327	326	325	325	320	326	329	335	336	339
16†	355	356	341	337	328	327	328	335	332	332	332	334	336	340	343
17	351	358	347	339	328	315	315	319	320	318	323	320	325	337	344
18†	352	359	350	336	317	311	303	306	306	319	326	331	329	337	339
19	350	357	355	351	340	334	318	311	317	320	317	323	332	337	337
20	350	351	349	357	349	339	334	337	337	336	337	334	334	336	340
21††	350	350	349	348	343	332	324	317	311	306	316	325	336	339	340
22	343	343	339	337	332	311	305	312	305	315	328	337	343	343	347
23	351	357	341	332	312	294	293	301	312	324	328	337	339	343	346
24	348	350	348	333	317	301	293	294	293	304	320	328	334	339	343
25	350	358	357	354	336	313	303	304	309	309	315	324	334	337	340
26	351	350	350	346	337	325	317	315	311	311	317	324	332	337	337
27	350	355	349	344	331	310	294	294	294	305	318	322	321	328	340
28	349	350	351	359	351	337	329	317	316	311	317	326	337	349	348
29	351	350	337	344	339	335	327	327	315	309	315	335	335	337	341
30	348	347	348	348	349	351	348	347	339	337	348	337	337	339	347
31	349	348	339	336	329	323	321	321	320	320	324	325	324	327	339
Mean . . .	351	355	350	344	334	321	313	313	313	317	324	330	334	339	342
Mean† . . .	352	358	349	339	327	319	314	316	319	324	329	332	335	340	342
Mean†† . . .	351	355	351	349	338	322	313	313	312	314	320	328	334	338	339

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 16

Hourly Values of Vertical Force, 1957

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

October

4000 γ plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
347	349	354	350	346	347	350	354	354	342	00 30	365	08 00	314	51	1††
345	347	347	350	351	350	349	349	348	343	00 44	365	08 24	325	40	2
339	338	347	350	358	357	354	351	353	340	18 25	363	07 46	311	52	3
347	346	347	348	348	358	354	351	351	337	00 42	361	06 20	300	61	4
318	347	347	348	351	355	351	351	350	335	00 42	362	07 30	290	72	5
346	348	349	351	350	351	350	351	351	349	00 45	359	06 25	309	50	6†
343	346	349	350	350	350	350	350	349	338	01 08	364	06 36	304	60	7†
343	346	349	350	350	350	350	350	350	340	01 00	355	06 21	315	40	8†
337	340	340	343	348	349	352	355	349	337	00 46	361	06 35	303	58	9
343	343	350	355	354	358	355	349	349	332	01 00	358	06 00	266	92	10
340	344	349	351	351	355	355	356	355	336	00 50	359	06 48	293	66	11††
347	341	341	346	350	351	352	362	359	342	02 00	366	08 30	305	61	12
341	345	347	349	349	349	355	348	346	337	21 00	361	08 15	297	64	13††
336	336	339	351	349	348	350	350	355	338	23 35	359	06 15	303	56	14††
343	347	349	354	350	358	351	351	355	342	00 42	364	08 30	319	45	15
343	346	348	349	351	350	349	350	350	341	00 42	361	03 30	325	36	16†
346	342	348	350	349	349	349	351	355	337	00 35	361	05 15	309	52	17
341	343	348	348	348	348	349	350	350	335	00 40	361	06 00	303	58	18†
340	343	347	349	348	343	343	349	350	338	00 37	361	06 35	309	52	19
344	348	347	343	343	347	349	343	351	343	02 45	359	06 00	332	27	20
349	341	348	351	352	350	344	336	337	337	22 43	361	07 35	304	57	21††
347	348	351	351	350	349	348	350	350	337	23 59	351	05 25	303	48	22
346	348	349	350	352	355	355	349	347	336	21 05	358	05 20	291	67	23
343	347	349	350	350	349	349	349	349	333	19 15	355	08 00	291	64	24
343	343	349	349	355	352	349	349	351	337	01 00	358	06 00	303	55	25
341	347	349	350	349	349	349	349	349	337	01 41	355	08 30	303	52	26
341	340	349	351	350	349	348	350	350	333	00 35	358	07 30	291	67	27
347	348	349	348	349	351	349	349	351	341	02 45	362	08 40	306	56	28
348	349	349	347	349	348	343	341	346	338	00 40	355	08 20	305	50	29
346	347	349	350	349	351	352	350	350	347	02 56	352	07 48	336	16	30
346	347	348	349	349	349	349	349	351	337	00 37	352	07 50	318	34	31
344	345	348	349	350	351	350	350	350	338					54	Mean
343	346	349	350	350	350	350	350	350							Mean†
343	343	343	350	349	350	351	349	349							Mean††

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 17

Hourly Values of Vertical Force, 1957

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

November

2000 γ plus tabular quantities

Date	Hours G. M. T.														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	γ
1	351	352	348	341	327	317	301	301	296	302	308	319	333	339	339
2	350	354	360	Δ	Δ	342	337	337	332	328	325	324	328	337	339
3	347	342	339	334	324	315	308	300	295	294	297	303	319	328	334
4†	340	356	355	363	365	362	358	360	353	339	334	327	334	339	340
5†	347	349	340	337	334	327	327	327	326	325	324	326	330	337	338
6	346	348	347	348	340	327	318	305	303	312	323	328	335	340	339
7	340	337	358	356	337	320	304	301	293	297	312	325	325	335	337
8	350	351	348	348	341	333	333	333	324	312	315	322	325	338	342
9††	350	347	346	339	335	325	322	322	320	320	325	325	327	327	324
10	350	354	345	339	330	318	326	312	311	319	323	327	334	338	342
11	351	350	342	338	331	325	324	312	307	303	303	317	326	337	338
12	345	349	342	338	334	322	310	308	301	301	308	316	324	334	328
13	349	346	345	347	341	339	328	323	314	310	316	325	326	337	338
14	351	354	346	342	330	328	322	316	309	311	317	324	331	335	337
15	348	345	339	337	325	328	320	315	312	316	323	327	335	338	338
16	342	345	346	347	340	333	327	314	303	314	322	322	325	333	334
17†	348	349	348	338	325	323	322	316	309	307	314	316	325	335	337
18	348	349	347	338	335	325	312	293	292	297	295	295	303	305	334
19	343	346	347	348	349	347	349	358	347	338	336	329	329	336	339
20	346	348	348	348	338	328	318	324	320	309	310	324	325	329	338
21†	341	348	348	348	339	327	319	326	327	326	327	332	335	339	340
22†	345	348	341	332	316	305	309	304	314	317	320	326	330	339	340
23	347	Δ	Δ	340	337	330	330	325	322	316	314	317	328	339	339
24	343	343	337	330	324	326	330	328	330	335	328	328	335	340	339
25††	341	342	339	336	337	338	331	321	291	306	328	330	334	342	342
26††	350	352	358	356	341	336	333	318	307	325	330	336	338	348	344
27††	350	351	350	336	365	371	365	352	348	340	334	337	340	352	349
28††	343	346	351	352	342	337	327	315	322	311	314	329	341	341	341
29	348	350	345	344	341	349	357	352	341	334	330	331	337	343	350
30	350	350	350	344	337	340	333	337	331	336	350	352	349	345	346
Mean . . .	347	348	346	344	337	331	326	321	316	316	320	325	330	337	339
Mean† . . .	344	350	346	344	336	329	327	327	326	323	324	325	331	338	339
Mean†† . . .	347	348	349	348	342	341	336	326	318	320	326	331	336	342	340

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 17

Hourly Values of Vertical Force, 1957

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

November

2000 γ plus tabular quantities

15	16	17	18	19	20	21	22	23	Mean	Maximum		Minimum		Range	Date
										Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
340	345	346	347	348	348	348	349	351	333	00 31	357	08 00	294	63	1
340	341	346	347	347	347	347	345	348	Δ	Δ	Δ	Δ	Δ	Δ	2
345	350	347	343	351	351	349	347	349	330	19 08	356	08 30	293	63	3
340	342	343	347	347	347	339	343	345	347	03 15	366	11 00	327	39	4†
338	340	345	340	340	342	342	340	340	336	00 36	351	10 00	324	27	5†
339	337	338	346	341	319	330	330	338	332	18 26	369	07 35	301	68	6
339	346	349	349	350	350	350	349	349	334	02 34	371	08 02	289	82	7
338	349	355	354	350	350	347	340	347	339	16 30	357	09 25	309	48	8
339	348	349	349	350	349	348	347	348	337	00 01	354	08 00	320	34	9††
339	346	339	348	347	349	348	347	348	337	00 35	358	07 22	309	49	10
338	340	340	346	348	342	342	348	347	333	00 01	351	08 45	302	49	11
335	349	348	348	348	349	348	347	349	333	16 22	357	08 15	299	58	12
340	340	338	339	343	348	347	347	348	336	00 40	350	09 15	305	45	13
338	337	338	340	332	350	348	345	347	335	00 36	360	08 13	302	58	14
338	339	348	345	345	346	348	348	346	335	17 00	352	07 45	311	41	15
337	342	345	345	349	347	345	342	345	335	18 17	351	08 00	303	48	16
338	339	342	343	343	341	342	345	346	333	00 39	350	08 30	304	46	17†
332	341	355	354	355	352	349	346	340	329	18 54	356	07 54	288	68	18
341	342	346	347	347	346	347	347	346	344	07 00	358	11 00	329	29	19
338	342	343	344	346	347	348	346	341	335	00 43	361	09 35	305	56	20
341	343	343	345	345	343	341	341	347	338	00 45	349	06 00	319	30	21†
339	337	340	342	344	347	345	344	343	332	00 45	350	07 00	304	46	22†
340	347	347	341	348	349	349	347	348	Δ	Δ	Δ	Δ	Δ	Δ	23
339	341	341	340	342	348	348	347	344	337	19 56	349	04 25	318	31	24
340	337	340	340	338	342	349	351	349	335	22 00	354	08 15	285	65	25††
329	336	337	328	340	342	354	340	338	338	02 09	364	07 08	296	68	26††
349	354	342	342	350	348	348	353	350	350	04 35	376	11 37	327	49	27††
341	349	351	350	353	344	351	354	349	340	21 25	360	09 30	307	53	28††
349	345	350	351	353	351	351	351	350	346	19 00	353	10 00	330	23	29
348	343	343	343	344	344	343	344	349	344	10 53	353	08 34	330	23	30
340	343	344	345	346	346	346	346	346	337					49	Mean.
339	340	343	343	344	344	342	343	344							Mean†
340	345	344	342	346	345	350	349	347							Mean††

† Five International quite days.

†† Five International disturbed days.

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

TABLE 18

Hourly Values of Vertical Force, 1957

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

December

2000 γ plus tabular quantities

Date	Hours G. M. T.														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1††	346	351	340	335	341	338	338	344	329	329	328	333	338	338	338
2	341	341	341	341	330	327	323	313	318	323	322	321	326	328	331
3	343	342	341	341	337	332	329	320	324	329	326	327	332	338	338
4	345	344	341	339	332	329	323	326	320	319	316	327	338	342	342
5	341	341	344	343	342	338	330	318	309	308	316	329	331	339	339
6††	351	353	351	348	344	344	339	320	299	283	292	305	320	340	340
7	344	347	352	354	358	353	339	316	316	297	300	312	320	329	342
8	346	352	347	352	353	348	339	332	330	321	330	331	332	341	343
9	345	351	346	352	352	344	344	342	329	310	312	331	332	339	332
10	345	346	354	363	376	369	364	342	323	307	310	316	321	330	330
11††	346	347	356	369	357	358	363	348	341	334	334	335	339	346	342
12††	343	345	345	351	356	355	358	357	341	325	323	334	341	348	348
13	355	350	348	346	341	332	325	312	314	309	301	323	335	346	347
14	351	350	351	356	355	348	347	346	333	324	326	335	340	346	347
15	347	347	347	347	344	337	333	325	321	321	322	343	338	347	343
16	347	349	347	352	358	359	368	361	341	311	312	327	334	345	347
17	347	344	343	345	350	379	379	372	371	350	333	326	334	334	347
18	352	347	349	352	360	358	349	325	306	303	304	314	329	345	347
19	350	348	345	347	345	347	345	333	292	286	311	325	344	335	340
20	343	338	341	356	368	357	371	356	344	334	327	336	338	345	348
21	346	346	346	350	350	349	368	362	356	334	318	330	342	349	349
22†	348	348	348	348	338	337	345	336	319	313	315	325	330	338	348
23†	349	349	345	350	354	348	348	345	327	313	315	328	337	344	348
24	349	349	348	354	350	348	350	337	316	306	305	322	335	341	344
25	350	351	348	348	335	351	348	337	346	344	345	336	337	339	346
26	348	349	348	348	342	328	323	326	334	338	326	331	336	336	337
27†	348	349	345	345	339	334	325	320	312	304	316	329	333	339	345
28†	349	350	348	346	338	335	323	313	299	303	315	326	328	336	341
29†	346	349	349	348	336	328	336	335	333	335	335	330	334	338	343
30	342	344	346	352	346	346	341	339	344	336	325	316	315	336	342
31††	344	348	346	330	342	326	313	299	275	269	282	300	313	325	328
Mean . . .	347	347	347	349	347	345	343	334	325	317	317	326	332	339	342
Mean† . . .	348	349	347	347	339	338	335	330	319	314	319	328	334	339	345
Mean†† . . .	346	349	348	347	348	344	342	334	317	308	312	321	330	339	339

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 18

Hourly Values of Vertical Force, 1957

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

December

2000 γ plus tabular quantities

Hours G. M. T.									Mean	Maximum		Minimum		Range	Date
15	16	17	18	19	20	21	22	23		Time	Mag.	Time	Mag.		
γ	γ	γ	γ	γ	γ	γ	γ	γ	γ	H. M.	γ	H. M.	γ	γ	
340	340	342	349	350	348	343	349	343	340	06 58	363	08 10	319	44	1††
338	341	343	346	346	346	344	343	344	334	17 54	350	07 15	307	43	2
339	342	343	343	347	351	347	344	344	337	19 35	353	07 00	319	34	3
343	343	343	346	346	346	342	342	342	337	17 52	349	09 38	314	35	4
338	342	341	337	341	339	343	343	342	335	23 59	350	09 00	308	42	5
339	330	343	350	351	352	352	345	343	335	00 45	354	09 15	278	76	6††
345	347	347	351	344	344	344	342	343	337	03 42	362	09 15	292	70	7
344	345	345	347	344	345	345	346	345	342	03 02	354	09 00	320	34	8
335	342	344	347	347	347	347	347	353	340	21 30	357	09 35	309	48	9
333	340	345	345	347	353	353	345	346	342	03 35	377	09 12	301	76	10
340	347	348	345	348	349	346	348	345	347	02 47	375	08 40	325	50	11††
346	350	354	353	346	348	354	347	348	347	06 35	357	09 26	319	38	12††
344	348	342	349	348	349	351	351	349	338	00 04	356	10 15	299	57	13
347	347	347	348	348	348	348	348	348	345	02 54	357	09 20	323	34	14
334	337	349	349	349	349	349	348	347	341	13 40	356	09 37	313	45	15
347	347	348	352	349	347	348	347	349	345	06 00	370	09 25	303	67	16
348	348	348	355	350	347	347	348	349	346	05 56	381	10 52	325	56	17
345	347	349	349	348	348	349	349	349	341	04 00	361	09 23	300	61	18
343	345	347	349	349	345	338	344	344	337	19 08	352	08 30	279	73	19
348	348	350	349	350	351	349	350	349	348	05 58	373	09 30	325	48	20
350	350	350	351	352	351	351	350	349	348	05 44	371	10 48	316	55	21
348	348	349	349	349	350	350	349	349	341	20 00	350	09 00	313	37	22†
349	349	350	350	351	350	350	350	350	344	04 00	354	09 17	312	42	23†
345	346	348	345	349	348	348	348	349	341	02 40	356	09 35	321	35	24
348	346	346	345	345	341	346	348	344	345	05 35	356	06 42	327	29	25
338	338	346	348	350	356	349	349	348	341	19 15	359	06 15	319	40	26
348	349	349	348	348	348	348	349	349	338	23 16	351	08 41	303	48	27†
345	345	346	348	348	346	344	346	348	336	01 00	353	08 15	295	58	28†
345	346	348	346	346	348	346	344	344	341	01 00	350	04 40	325	25	29†
346	346	346	348	346	346	348	348	345	341	03 00	353	11 25	313	40	30
328	331	352	342	337	352	337	345	350	326	22 58	361	08 13	265	96	31††
343	344	347	348	347	348	347	347	346	341					50	Mean
347	347	348	348	348	348	348	348	348							Mean†
339	340	348	348	346	350	346	347	345							Mean††

† Five International quiet days.

†† Five International disturbed days.

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

TABLE 19
PRINCIPAL MAGNETIC STORMS
July—December, 1957

Observatory	Greenwich Date	Storm Time		Sudden commencements			C-figure Degree of Activity (iv)	Maximal Activity on K scale = 0 to 9			Ranges			
		G.M.T. of Beginning.	G.M.T. of Ending.(i)	Type (ii)	Amplitude (iii)			Greenwich Day.	Greenwich 3 hr. period	K-index	D /	H γ	Z γ	
					D /	H γ								Z γ
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Astrophysical Observatory, Kodaikanal	July 2 .	h. m. 08 55	d. h 3 15	S.C.	2	68	19	ms	2	..	..	9	258	60
	July 4 .	23 43	5 12	...	—	—	—	ms	5	..	..	6	298	110
	August 3 .	15 58	4 09	S.C.	1	44	22	m	3	..	..	5	207	69
	August 29 .	19 20	30 20	S.C.	1	56	23	m	30	..	..	5	178	90
	September 2	03 15	3 19	S.C.	1.5	67	17	s	3	..	..	14	476	138
	September 4	13 00	5 23	S.C.	0.5	36	23	s	4	..	..	11	418	120
	September 13	00 49	13 16	S.C.	0.5	39	12	s	13	..	..	14	708 \pm 10	202
	September 21	10 06	22 11	S.C.	2	113	34	s	21	..	..	8	409	104
	September 22	13 45	23 21	S.C.	<1	53	23	s	23	..	..	10	421	138
	September 29	00 15	30 11	S.C.	—	19	11	s	29	..	..	10	636	144
	October 14 .	04 36	15 02	...	...	...	...	ms	14	..	..	3	271	60
	October 21 .	22 35	22 11	S.C.	1.5	59	33	m	22	..	..	5	234	63
	November 6	18 20	07 11	S.C.	<1	48	22	ms	7	..	..	5	279	83
	November 26	01 52	27 18	S.C.	<1	28	12	ms	26	..	..	6	390	77
	December 31	01 07	31 23	...	...	...	...	ms	31	..	..	7	307	83

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 traces.
- (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 downwards).
- (iv) Storm described by three degrees of activity: (m)—for moderate (when range is less than 250 γ)
(ms)—for moderately severe (when range is between 251 γ and 400 γ)
(s)—for severe (when range is above 400 γ)
(<)—for less than.

IONOSPHERIC DATA

Characteristic : foF₂
Unit : Mc
Month : July 1957

TABLE I
Ionospheric Data
75.0° E Mean Time

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

Day	00	01	02	03	04	05	06	07	08	09	10	11
1	7.5 ^F	6.6	6.1	5.4	3.3	3.4 ^H	6.5	9.0	11.2	13.0	12.8	12.2
2	C	C	F	U 7.0 ^F	F	D 4.5 ^F	8.3	11.4	12.6	12.6	12.2	11.7
3	10.1	U 9.5 ^s	9.3 ^F	9.3 ^F	F	F	F	11.8	12.9	12.6	13.8	13.4
4	10.1	F	F	F	F	F	9.1 ^F	10.9	11.5	11.8	10.8	10.6
5	F	F	F	8.4 ^F	7.9	7.2	8.5	10.1	11.6	10.6	D 8.6 ^W	10.0
6	F	8.1 ^F	8.0	7.8	7.1	6.8	9.1	10.7	11.8	13.1	13.1	13.1
7	F	F	D 9.2 ^F	8.0 ^F	7.2	5.9	7.7	10.0	10.8	10.0	10.0	9.8
8	F	F	F	F	F	U 6.0 ^F	8.3	10.6	12.0	12.3	C	C
9	U 8.6 ^F	8.5	8.5	U 8.3 ^F	8.4 ^F	8.7	9.4	10.8	11.6	11.7	10.7	10.2
10	F	F	F	F	U 7.8 ^F	U 6.5 ^F	8.2	10.5	11.3	12.2	11.5	10.3
11	F	F	F	U 6.7 ^F	7.9	U 7.4 ^s	8.6	10.9	11.9	12.2	12.0	C
12	F	F	F	F	F	U 6.1 ^F	8.1	10.3	11.5	11.2	10.9	10.4
13	F	F	F	F	F	U 6.5 ^F	8.4	10.1	10.6	10.6	10.3	10.3
14	U 9.7 ^s	U 8.6 ^F	7.5	6.8	U 6.1 ^s	4.6	U 7.7 ^s	10.5	11.6	11.8	11.0	10.6
15	U 8.5 ^F	F	F	8.2	8.0	6.8	7.9	9.8	10.6	10.6	10.2	10.2
16	F	F	7.5	6.9	5.3	3.5	5.0	10.3	12.0	12.0	12.4	12.4
17	U 9.7 ^s	8.6	F	F	F	F	F	F	11.7	11.5	10.8	10.5
18	F	F	F	F	F	F	F	10.7	11.1	10.8	10.4	10.0
19	F	F	8.0	F	U 7.0 ^F	7.3	S	11.0	11.6	11.0	10.7	10.8
20	F	F	F	F	U 8.0 ^F	5.8	8.0	10.0	10.8	11.4	11.0	10.8
21	U 9.4 ^F	F	F	U 7.8 ^F	6.6	4.2	7.1	9.9	11.4	C	C	C
22	C	C	C	C	C	C	C	C	11.2	11.4	10.5	U 9.9 ^W
23	F	F	F	F	U 5.6 ^F	F	8.1	10.8	12.1	11.8	10.5	10.9 ^H
24	U 9.2 ^F	F	8.9	9.2	8.8	J 8.7 ^F	9.3 ^F	10.9	12.2	12.2	11.2	10.5
25	U 9.5 ^s	9.4	8.4	7.8	8.0	7.0	8.3	10.5	11.6	11.3	10.8	10.2
26	U 9.6 ^s	9.3	U 9.2 ^s	8.9	8.4	6.4	7.8	10.3	11.6	11.7	11.1	10.4
27	F	F	U 9.6 ^s	F	F	4.2 ^V	U 6.9 ^s	9.7	11.0	11.3	11.2	11.4
28	10.5	10.2	9.5	8.4	7.5	6.3	7.2	C	11.5	11.3	10.9	10.6
29	F	F	F	U 9.4 ^s	6.5	U 3.7 ^F	6.8	9.6	10.2	9.6	9.5	9.6
30	U 9.1 ^s	8.9	8.7	7.5	7.0	7.1	8.6	10.2	11.0	C	C	9.7
31	10.2	7.8	6.3	5.8	U 5.6 ^F	4.7	7.0	9.9	10.7	10.8	10.4	10.2
Mean	U 9.4	8.7	8.3	7.8	7.0	6.0	7.9	10.4	11.5	11.5	11.0	10.7
Median	U 9.6	8.6	8.5	7.8	7.2	6.3	8.1	10.4	11.5	11.5	10.8	10.4
Count	14	11	15	19	21	25	26	28	31	29	28	28

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

Characteristic : foF₂
 Unit : Mc
 Month : July 1957

TABLE I
 Ionospheric Data
 75° 0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
13.1	12.8	12.6	12.6	12.3	12.0	11.8	11.5	11.0	10.7	10.2	D 9.2F	1
11.4	10.9	10.9	D10.7W	10.4	9.9	J 9.4S	8.8	8.0	8.3F	10.3	9.9	2
12.8	12.7	12.8	U13.0R	12.9	12.7	13.0	12.6	D11.6S	11.4	11.5	11.7F	3
10.5	10.8	11.0	11.4	11.4	U11.6S	D11.6S	10.5	J 8.4F	F	F	F	4
11.3	11.8	11.7H	11.8	12.1	U11.7S	U11.7S	U11.7S	10.6	9.6	9.0	8.8	5
12.5	13.1	12.6	12.6	12.8	13.1	J12.1S	11.4	10.1F	F	F	C	6
9.9	9.9	10.2	10.4	10.7	10.6	10.0	8.7F	7.4	F	F	F	7
C	10.4	10.6	C	C	J12.1S	J12.1S	12.1	10.6F	10.0	9.5	9.3	8
10.6	11.2	11.4	11.5	11.9	12.3	U11.9S	D11.5S	U 9.8S	F	F	F	9
9.9	10.3	9.8	10.3	C	11.5	U12.0S	11.4	U 9.6F	U 9.0F	U 9.2F	F	10
C	C	10.5	10.3	C	10.6	U10.0S	9.4	F	F	F	F	11
10.0	10.2	10.9	11.6	U12.0S	U12.0S	U12.5S	11.5	10.4	U10.2F	F	F	12
10.4	10.5	10.7	11.4	12.0	U11.7S	12.3	U11.7S	F	F	U10.9F	10.6	13
10.4	10.5	10.2	10.4	11.0	11.1	U11.6S	11.2	F	F	F	F	14
10.3	9.8	U9.5S	10.1	10.6	11.0	U11.8S	11.4	10.2	U 9.4F	F	F	15
12.2	12.1	12.2	12.0	12.0	12.0	U12.2S	12.0	F	10.0	9.6	10.0	16
10.5	10.8	10.6	11.0	11.4	U12.0S	12.0	11.4	F	U9.6F	F	F	17
10.2	10.2	10.8	11.6	11.3	11.5	U11.6S	U11.4S	F	U10.6F	F	10.0	18
10.6	10.6	11.3	U11.6S	13.0	13.0	12.6H	11.4	10.2	F	F	F	19
10.8	11.0	11.3	11.6	12.7	13.4	13.8H	12.3H	U10.3F	F	F	F	20
C	C	C	11.0	10.7	10.7	11.4	10.4	9.8	C	C	C	21
10.4	11.3	12.2	12.7	12.8	13.2	U12.8S	12.2	U10.8F	F	F	F	22
J11.2R	10.7	10.6	10.4	10.3	10.4	10.3	9.6	F	J 8.6F	8.9	9.3	23
10.6	10.4	10.4	10.7	10.8	11.0	11.2	10.4	9.5	9.2	9.0	9.4	24
10.4	10.7	11.2	11.3	12.0	12.2	J11.9S	10.9	J 9.5F	F	U 9.3F	F	25
10.3	10.2	10.2	11.0	11.4	11.4	U11.3S	11.3	F	F	F	F	26
11.4	11.5	11.0	11.3	11.8	12.7	U12.2S	U11.6S	F	U 9.3F	F	F	27
10.6	10.7	10.1	9.6	9.5	9.6	U 9.8S	10.0	U 8.9F	F	F	F	28
9.5	9.3	9.7	9.7	9.8	10.6	U11.7S	11.7	10.5	10.2	10.2	9.8	29
9.8	10.0	10.0	9.9	10.3	10.7	U11.2S	10.4	U10.0S	11.2	J12.1S	U12.3R	30
10.5	10.8	11.0	11.6	12.6	12.7	U12.8S	11.5	10.2	10.1	C	C	31
10.8	10.9	10.9	11.2	11.5	11.7	U11.7	11.1	9.9	9.8	10.0	10.0	Mean
10.5	10.7	10.8	11.3	11.6	11.7	U11.8	11.4	10.2	10.0	9.6	9.8	Median
28	29	30	30	28	31	31	31	22	17	13	12	Count

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

Characteristic : foF₂
 Unit : Mc
 Month : July 1957

TABLE 1--contd.
 Ionospheric Data
 75° 0' 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	7.5 ^F	5.7	5.9	4.8	2.6 ^V	5.5	7.6	10.8	11.8	13.4	12.7	12.4
2	C	D 7.2 ^F	F	F	F	6.1	10.0	12.0	D 11.8 ^R	12.6	12.1	11.5
3	10.0	U 9.5 ^S	8.9 ^F	U 8.9 ^F	F	F	11.3 ^F	12.2	12.8	13.4	13.8	13.1
4	F	F	F	F	F	U 7.6 ^F	10.3	11.1	11.8	11.3	10.6	10.6
5	F	F	U 8.4 ^F	8.2	7.8	7.2	9.3	10.8	11.6	8.8	9.2	10.6
6	8.2 ^F	8.0 ^F	7.8	7.7	6.9	7.9	10.2	11.1	12.3	13.1	13.3	12.8
7	F	U 9.8 ^F	U 8.4 ^F	7.6	6.6	6.2	9.2	10.5	10.4	10.0	10.0	9.9
8	F	F	F	U 7.2 ^F	F	6.8	9.3	11.3	12.2	12.1	C	C
9	8.5	8.5	U 8.1 ^F	U 8.3 ^F	9.0 ^F	8.7	10.4	11.3	11.5	11.2	10.5	10.5
10	F	F	F	U 8.4 ^F	U 7.2 ^F	6.8	9.7	11.1	11.8	11.9	11.0	10.0
11	F	F	F	U 7.1 ^S	8.0	U 7.4 ^S	9.8	11.4	12.4	12.4	C	C
12	F	F	F	F	U 6.6 ^F	6.4	U 9.4 ^S	11.0	11.5	10.9	10.6	10.4
13	F	F	F	F	U 6.6 ^F	7.2	U 9.6 ^S	10.4	10.8	10.2	10.4	10.3
14	U 9.1 ^S	7.6	6.9	6.7	5.4	5.5	U 9.4 ^S	11.2	11.6	11.3	10.7	10.5
15	U 8.2 ^F	F	U 7.8 ^F	8.2	7.6	6.7	8.9	10.1	10.6	10.5	10.4	10.3
16	F	D 7.8 ^{FS}	7.5	5.8	4.1	4.6	8.9	11.5	12.0	12.9	12.3	12.0
17	U 9.1 ^S	F	F	F	F	F	U 9.6 ^{FS}	U 11.0 ^S	11.4	11.5	10.6	10.6
18	F	F	F	F	F	F	U 10.8 ^F	11.1	11.0	10.6	10.0	10.3
19	F	8.6	F	F	7.2	8.0	U 10.4 ^S	11.4	11.4	10.6	11.0	10.6
20	F	F	F	F	U 7.3 ^S	6.6	7.2	10.5	11.3	11.2	11.0	10.8
21	F	F	U 8.0 ^F	U 7.8 ^F	U 5.5 ^R	5.1 ^{HV}	C	11.0	11.6	C	C	C
22	C	C	C	C	C	C	C	C	11.4	11.4	9.9	10.0
23	F	F	F	U 6.1 ^F	U 5.4 ^F	6.4 ^F	9.6	11.4	12.4	11.4 ^{HI}	10.6 ^H	J 11.2 ^R
24	F	U 8.9 ^F	9.2	8.9	8.9	8.0 ^F	10.1	11.4	12.4	11.6	10.8	10.3
25	9.8	8.9	8.0	8.1	7.9	6.8	9.5	11.4	11.8	10.9	10.4	10.1
26	9.7	U 9.3 ^S	9.3	8.5	7.3	6.2	U 9.6 ^S	11.3	11.6	11.5	10.7	10.3
27	F	F	F	F	U 5.1 ^F	U 5.3 ^S	8.6	10.5	11.3	11.2	11.2	11.3
28	10.2	9.8	8.8	8.0	7.0	5.4	8.5	C	11.7	11.2	10.6	10.5
29	F	F	F	8.2	4.8	U 5.2 ^F	8.6	10.0	10.2	9.3	9.5	9.6
30	9.0	8.8	8.5	6.9	6.9	7.4	9.0	10.6	C	C	U 9.7 ^C	9.6
31	8.7	U 7.2 ^S	6.4	U 5.6 ^S	5.4	J 5.2 ^S	9.2	10.4	11.0	10.5	10.0	10.3
Mean	9.0	8.4	8.0	7.5	6.5	6.5	9.4	11.0	11.6	11.3	10.8	10.7
Median	9.0	8.6	8.0	7.8	6.9	6.6	9.5	11.1	11.6	11.3	10.6	10.5
Count	12	15	16	21	24	27	29	29	30	29	28	28

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

Characteristic : foF2
 Unit : Mc
 Month : July 1957

TABLE 1—contd.
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
12.6	12.8	12.6	12.5	12.1	11.7	11.6	11.2	C	10.5	C	C	1
11.3	10.8	10.8	10.4	10.1	J 9.6s	D 9.4s	8.0	8.0	9.3F	10.4	10.1	2
13.0	12.7	13.3	12.9	C	13.1	D 12.8R	12.2	11.5	11.6	11.6	D 11.1F	3
10.7	10.9	11.4	11.6	11.4	J 11.9s	11.2	U 9.5s	F	F	F	F	4
11.6	11.6H	11.9	12.1	11.8	U 11.4s	11.7	11.1	9.8	9.1	8.8	8.8	5
13.0	12.8	12.5	12.6	13.1	12.5	U 12.0s	10.6F	F	F	F	F	6
9.8	D 10.0W	D 10.3W	10.8	10.5	U 10.5s	9.5	7.9F	J 7.1s	F	F	F	7
C	10.3	11.0	C	11.7	J 12.1s	12.3	11.1F	10.3F	9.6	9.5	F	8
10.9	11.5	11.4	11.6	12.2	U 12.1s	J 12.0s	10.5	U 9.5F	F	F	F	9
10.0	9.8	10.0	C	C	U 11.8s	U 12.0sF	10.4F	U 9.2F	F	F	F	10
C	10.6	10.5	10.4	U 10.6s	U 10.3s	U 9.6s	F	F	F	F	F	11
10.1	10.5	11.3	U 11.8s	U 12.0s	12.5	U 11.9s	10.8	10.4	F	F	F	12
10.4	10.6	10.8	U 11.6s	U 11.7s	12.2	12.4	10.7	F	F	U 11.0F	U 10.2s	13
10.5	10.3	10.1	10.5	11.0	11.3	U 11.4s	10.2	F	F	F	U 8.8F	14
10.3	9.7	9.7	10.3	11.0	U 11.5s	11.7	11.0	F	U 8.7F	F	F	15
12.0	12.1	12.2	12.1	12.4	12.2s	13.0	11.0	10.4	9.5s	10.0	9.8	16
10.8	10.7	10.9	11.2	U 11.8s	12.0	U 11.9s	10.6	F	U 9.6F	F	F	17
10.1	10.2	11.0	11.5	11.2	11.4	12.0	U 11.4s	F	F	8.8	U 10.2F	18
10.6	11.1	11.3	12.0	13.5	13.4	12.0H	10.8	F	F	F	F	19
11.0	11.3	11.4	12.3	12.2	14.0	12.8H	11.2	F	F	F	F	20
C	C	10.8	U 10.9W	10.6	10.7	10.6H	10.0	U 9.8F	C	C	C	21
10.7	11.7	C	12.7	13.0	U 13.3s	12.6	11.7	U 10.2F	F	F	F	22
11.1	10.5	10.6	10.3	10.3	10.4	10.3	9.0	F	8.6	9.1	U 9.4F	23
10.6	10.4	10.5	10.8	10.9	11.4	11.5	9.9	9.3	8.9	9.2	9.5	24
10.5	11.1	11.3	11.3	12.2	U 12.4s	U 11.6s	9.5	F	U 9.2F	U 9.4F	U 9.3s	25
10.2	10.2	10.5	11.2	11.3	11.4	U 11.2s	J 10.1s	F	F	F	F	26
11.6	11.2	10.9	U 11.6s	12.6	12.6	U 12.3s	10.8	U 9.7F	F	F	U 10.6F	27
10.5	10.2	10.1	9.5	9.5	U 9.7s	U 10.0s	9.4	U 8.3F	F	F	F	28
9.4	9.6	9.9	9.8	10.2	11.4	U 11.9s	11.0	10.2	10.6	9.8	U 9.7s	29
9.9	10.0	9.9	10.2	10.6	10.9	U 11.3s	U 10.1s	10.5	11.5	12.2	11.2	30
10.7	10.9	11.4	12.3	13.0	13.0	U 12.6s	10.8	10.0	C	C	C	31
10.9	10.9	11.0	11.3	11.5	11.8	11.6	10.4	9.7	9.7	10.0	9.9	Mean
10.6	10.6	10.9	11.5	11.7	11.8	11.9	10.6	9.8	9.5	9.6	9.8	Median
28	30	30	29	29	31	31	30	17	13	12	13	Count

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

Characteristic : foF₁
 Unit : Mc
 Month : July 1957

TABLE 2
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1									L	L	L	L
2								L	L	L	L	L
3									L	L	L	L
4									L	L	L	L
5								L	L	L	L	L
6								L	L	L	L	L
7									L	L	L	L
8									L	L	C	L
9									L	L	L	L
10								L	L	L	L	L
11									L	L	L	C
12								L	L	L	L _H	L _H
13								L	L	L	L	L
14								L	L	L	L	L
15								L	L	L	L	L
16									L	L	U ₅ 71.	L
17								L	L	L _H	L	L _H
18									L	U ₅ 21.	L _H	L _H
19								L	L	L	L	L _H
20								L	L	L	L _H	L _H
21								L	L	C	C	C
22								C	L	L	L	L
23								L	L	L	L	L
24								L	L	L	L	L
25									L	L	L	L
26								L	L _H	L	L	L
27								L	L	L	L	L
28								C	L	L	L	L
29								L	L	L	L	L
30								L	L	C	C	L
31								L	L	L	L	L
Mean
Median
Count	I	I	..

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

Characteristic : foF₁
 Unit : Mc
 Month : July 1957

TABLE 2
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
L	L	L	L	L	L							1
L	L	L	L	L								2
L	L	B	L	L	L							3
L	L	L	L	L	L							4
L	L	L	L	L	L							5
L	L	L	E	L	L							6
L	L	L	C	L	L							7
C	L	L	L	C	L							8
L	L	L	L	L	L							9
L	L	L	L	L	L							10
C	C	L	L	C	L							11
L _H	L	L	L	L	L							12
L	L	L	L	L	L	L						13
L	L	L	L	L	L	L						14
L _H	L _H	E	L	L	L	L						15
L _H	U6.5L	L	L	L	L							16
U6.2L _H	U6.2L	L _H	L	L	L							17
L	L _H	L	U6.4L	L	L							18
L	L _H	L	L	L	L							19
L	L _H	L	L	L	L							20
C	C	C	L	A	L	L						21
L	L	L	L	L	L	L						22
L	L	L	L	L	L	L						23
L	L	L	L	L	L	L						24
L	L	L	L	L	L	L						25
L	L _H	L _H	L	L	L							26
L	L	L	L	L	L							27
L _H	L _H	L	L _H	L _H	L							28
L	L	L	L	L	L							29
L	L _H	L	L _H	L	L							30
L	L	L	L	L	L							31
..	..	..	..	..	..	..						Mean
..	..	..	..	..	..	..						Median
1	2	..	1	..	..	..						Count

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

Characteristic : foF₁
 Unit : Mc
 Month : July 1957

TABLE 2—*contd.*
 Ionospheric Data
 75° 0' 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
2								L	L	L	L	L
3								L	L	L	L	L
4								L	L	L	L	L
5								L	L	L	L	L
6								L	L	L	L	L
7								L	L	L	L	L
8								L	L	L	L	L
9								L	L	L	L	L
10								L	L	L	L	L
11								L	L	LH	C	C
12								L	L	L	LH	LH
13							L	L	L	L	L	L
14							L	L	L	L	L	L
15							L	L	L	L	L	L
16								L	A	LH	L	L
17								L	LH	LH	LH	U _{5.9L}
18								L	L	LH	L	L
19								L	L	L	L	LH
20								L	L	L	LH	L
21								L	L	C	C	C
22							C	L	L	L	L	L
23								L	L	L	L	L
24							L	L	L	L	L	L
25								L	L	L	L	L
26								L	LH	L	L	L
27								L	L	L	L	L
28								L	L	LH	L	4.7H
29								L	L	L	L	L
30								L	C	C	L	L
31								L	L	L	L	L
Mean
Median
Count	2

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

Characteristic : foF₁
 Unit : Mc
 Month : July 1957

TABLE 2—*contd.*
 Ionospheric Data
 75°0' 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	L	L	L	L							1
L	L	L	L	L	L							2
L	L	L	L	L	L							3
L	L	L	L	L	L							4
L	L	L	L	L	L							5
L	L	L	L	L	L							6
L	L	L	L	L	L							7
C	L	L	L	L	L							8
L	L	L	L	L	L							9
L	L	L	L	L	L							10
C	L ^H	L	L	L	L							11
L ^H	L	L	L	L	L							12
L	L	L	L	L	L							13
L	L	L	L	L	L							14
L	L ^H	L	L	L	L							15
L	6.3L	L	L	L	L							16
U7.2L ^H	U6.2L	L	L	L	L							17
L ^H	L	L	L	L	L							18
L ^H	A	U6.4L	L	L	L							19
L	U6.5L ^H	U6.0L	L	L	L							20
C	C	L	L	A	L							21
L	L	C	L	L	L							22
L	L	L	L	L	L							23
L	L	L	L	L	L							24
L	L	L	L	L	L							25
L ^H	L	L	L	L	L							26
L	L	L	L	L	L							27
L	L ^H	L	L	L	L							28
L	L	L	L	L	L							29
L	L	L	L	L	L							30
L	L	L	L	L	L							31
..	..	..	..	..	..							Mean
..	..	..	..	..	..							Median
1	3	2	..	..	..							Count

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

Characteristic : foE
 Unit : Mc
 Month : July 1957

TABLE 3
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							1.9	2.8H	A	A	A	A
2							2.0	A	A	A	A	A
3								A	A	A	A	A
4									U3.3R	A	A	A
5							2.1	A	A	A	A	D4.0R
6							2.3	3.0	3.5	A	A	A
7							2.0H	3.2	A	2.9	A	A
8							2.1	3.0	3.5	A	C	C
9							2.3	3.1	A	A	A	A
10							1.8H	3.0	A	A	A	A
11							C	C	C	C	C	C
12							1.6	A	A	A	A	A
13							A	A	A	A	A	A
14							2.1	A	A	A	A	A
15							2.1	A	A	A	A	A
16							2.2	A	A	A	A	A
17								A	A	A	A	A
18							2.0	A	A	A	A	A
19							2.1	A	A	A	A	A
20							U2.1A	A	A	A	A	A
21								U3.0R	A	C	C	C
22							C	C	A	A	A	A
23								A	A	A	A	A
24							1.9H	A	A	A	A	A
25									A	A	A	A
26								A	A	A	A	A
27								A	A	A	A	A
28								C	A	A	A	B
29								A	A	A	A	A
30								A	A	C	C	A
31							1.8	A	A	A	A	A
Mean							2.0	3.0	..	..	..	..
Median							2.1	3.0	..	..	..	..
Count							17	7	3	1	..	1

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

Characteristic : foE
 Unit : Mc
 Month : July 1957

TABLE 3
 Ionospheric Data
 75°0' E Mean Time

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

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

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

Characteristic : foE
 Unit : Mc
 Month : July 1957

TABLE 3—*contd.*
 Ionospheric Data
 75°0' 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 ^H	3'0	A	A	A	A
2							A	A	A	A	A	A
3							A	A	A	A	A	A
4								U3'2 ^R	A	A	A	A
5							2'3	A	A	A	A	D4'0 ^A
6							2'7	U3'4 ^R	A	A	A	A
7							2'8	A	A	A	A	A
8							2'7	3'4	A	A	C	C
9							2'8	A	A	A	A	A
10							2'6	3'2	A	A	A	A
11							C	C	C	C	C	C
12							A	A	A	A	A	A
13						1.4	A	A	A	A	A	A
14							A	A	A	A	A	A
15							A	A	A	A	A	A
16							3'0	A	A	A	A	A
17							N	A	A	A	A	A
18							2'6	A	A	A	A	A
19							A	A	A	B	A	A
20							A	A	A	A	A	A
21							C	A	B	C	C	C
22							2'4	C	A	A	A	A
23							A	A	A	A	A	A
24								A	A	A	A	A
25								A	A	A	A	A
26								A	A	A	A	A
27								A	A	A	A	A
28							A	C	A	A	A	A
29							A	A	A	C	A	A
30												
31							2'5	A	A	A	A	A
Mean						..	2'6	3'2	..	..	..	..
Median						..	2'6	3'2	..	..	..	..
Count						1	11	5	..	..	..	1

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

Characteristic : foE
 Unit : Mc
 Month : July 1957

TABLE 3—*contd.*
 Ionospheric Data
 75°0' 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	A							1
B	A	A	A	A	A							2
B	B	B	A	C	2.3	A						3
B	A	A	A	A	2.6							4
A	A	A	A	A	2.6							5
A	A	A	A	A	A							6
A	A	A	A	A	A	A						7
C	A	A	A	3.2	A							8
A	A	A	A	A	A							9
A	A	A	C	C	2.6							10
C	A	A	A	A	A							11
A	A	A	A	A	A							12
A	A	A	A	A	A							13
A	A	A	A	A	A							14
A	A	A	A	A	A							15
A	A	4.0	3.8	3.2	2.4							16
A	A	A	A	A	A							17
A	A	A	A	3.2	A							18
A	A	A	A	A	A							19
A	A	A	U3.7A	3.2								20
C	C	A	A	A	A							21
U3.4A	U4.0A	A	A	A	A							22
A	A	A	A	A	D2.7							23
A	A	A	A	A	A							24
B	A	A	A	3.8	2.5H							25
A	A	A	A	A								26
B	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
A	A	A	A	A								31
..	..	..	..	3.3	2.5	..						Mean
..	..	..	..	3.2	2.6	..						Median
1	1	1	2	6	7	..						Count

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

Characteristic : foEs
 Unit : Mc
 Month : July 1957

TABLE 4
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							2.9	G	9.0	12.6	11.4	12.0
2	C	C					6.0	12.0	11.0	12.0	12.0	11.8
3								8.0	6.0	10.6	12.6	12.6
4	6.0								G	12.0	12.0	12.0
5		4.0					G	8.0	10.6	12.0	12.6	G
6							G	G	6.0	11.0	12.4	13.0
7							2.9	8.8	11.6	12.2	12.8	12.8
8							G	G	G	11.0	C	C
9	3.2						G	6.6	11.0	12.0	12.0	12.6
10							G	G	9.0	9.4	12.5	12.8
11			7.0					C	4.0	11.2	13.2	C
12	2.6	2.8					2.7	12.0	11.0	12.4	12.6	12.6
13	11.0			3.2			S	11.0	12.2	12.0	13.0	13.0
14			2.6				4.4	11.5	12.2	12.0	13.0	12.8
15	3.6						G	10.4	12.0	12.0	13.4	13.0
16							4.8	9.4	11.4	12.2	12.0	12.0
17							4.2	8.2	10.2	11.0	12.2	12.2
18	4.6	5.2		U4.8s			G	8.8	10.8	12.0	12.6	12.0
19	7.6	5.6	7.4	6.2	2.0		G	11.0	11.4	11.4	13.0	13.0
20	3.4	2.8	3.2				5.0	9.2	10.8	11.4	12.2	12.4
21								11.0	11.4	C	C	C
22	C	C	C	C	C	C	C	C	9.7	11.0	12.6	13.8
23	U3.8s		D5.0s	D3.2s	2.6			8.6	11.0	11.6	14.0	12.6
24	3.8	6.6					3.3	8.5	10.8	11.5	13.0	13.0
25	D6.4s		2.7				D7.0s	10.0	11.0	12.4	13.0	13.8
26	2.1	2.6					U4.6s	U7.1s	11.0	11.2	12.3	13.2
27	U7.5s	U7.0s	S	U5.4s			U7.6s	U10.0s	12.0	11.2	12.4	11.2
28							U6.4s	C	10.6	12.1	13.0	12.8
29	U4.0s						4.2	U10.2s	12.0	12.1	13.2	15.9
30				U4.0s	D3.8s		2.5	4.6	10.2	C	C	13.0
31						U3.6s	2.5	8.0	10.8s	11.2	12.1	12.0
Mean	5.0	4.6	4.6	4.5	..	..	4.4	9.3	10.4	11.6	12.6	12.7
Median	3.9	4.6	4.1	4.4	..	..	2.9	8.8	10.8	12.0	12.6	12.7
Count	14	8	6	6	3	1	24	27	31	29	28	28

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

Characteristic : foEs
 Unit : Mc
 Month : July 1957

TABLE 4
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
12.4	14.0	15.8	11.0	11.2	8.8	8.0	7.0	4.0	3.3			1
12.0	11.8	11.8	11.2	10.0	6.6				8.6	6.3	3.2	2
11.2	12.0	B	12.2	11.0	10.6		11.0	3.6	3.2			3
12.0	12.0	12.0	11.6	12.8	10.8	7.0						4
11.6	12.8	6.2	10.9	11.6	6.8	4.4				2.4		5
10.0	11.4	11.0	12.0	10.8	8.4						C	6
12.8	12.8	12.4	12.6	11.4	10.8	5.0				4.0	7.8	7
C	12.4	12.6	C	C	8.0	4.6			4.6	4.0	5.8	8
12.4	13.0	12.0	12.0	11.0	8.6	12.0	3.4	2.8	2.8	9.0		9
12.6	12.4	12.8	12.0	C	G	4.4						10
C	C	12.4	12.8	C	8.6	S	8.4		6.4	4.6	2.4	11
13.0	17.0	20.0	21.4	14.0	U12.4s	S	5.7					12
13.0	13.0	13.8	20.0	12.0	10.6	S				2.9	4.0	13
13.0	12.2	12.2	12.0	10.6	11.6	U6.0s				1.9	4.4	14
12.8	12.7	12.8	11.6	6.6	3.6	U3.1s						15
11.4	11.2	7.6	10.0	4.2	3.5	2.7						16
12.6	12.2	12.5	11.4	8.6	7.0	D5.0s	U5.0s	4.4	4.8	4.0	5.0	17
12.4	12.4	12.4	12.0	7.6	4.6	4.6			2.5	4.2	D4.0s	18
12.8	11.6	12.6	12.0	18.0	9.0	7.0				3.0	3.4	19
13.0	12.6	11.8	8.2	6.0	G	D4.0s			2.6	3.4	3.4	20
C	C	C	13.0	11.2	D11.6s	D9.8s		3.8	C	C	C	21
12.0	11.4	11.8	D16.0s	D14.0s	12.4	S			S	D4.2s	4.6	22
12.8	13.0	12.6	12.6	12.0	U11.0s	G				4.4	D6.6s	23
12.8	12.8	12.6	12.4	D11.4s	D10.3s	D13.0s	8.0		2.7	U8.0s	D5.0s	24
12.8	12.8	U13.0s	12.0	11.4	D9.0s	S		D2.6s		2.2	S	25
U13.0s	13.2	13.0	U12.0s	U9.6s	U3.8s	S	U3.5s	S	1.8	3.6	2.6	26
12.4	12.1	U11.9s	U14.8s	U17.0s	S	U4.8s		1.8		U5.9s	U7.0s	27
12.6	12.8	U13.0s	U11.9s	12.0	12.0	U13.0s	U.0s		2.2	U3.9s	U5.3s	28
13.6	13.0	12.6	13.0	U15.0s	U11.0s	4.6	10.8	U4.6s		U5.8s		29
13.0	13.2	U17.0s	U16.6s	U13.8s	U9.0s	U7.0s		U4.2s	4.2	2.8		30
12.0	12.6	12.0	12.0	9.0	U12.0s	S			2.8	C	C	31
12.4	12.6	12.6	12.8	11.2	9.0	6.5	6.7	3.5	3.8	4.3	4.7	Mean
12.6	12.6	12.5	12.0	11.3	9.0	5.0	6.4	3.8	3.0	4.0	4.5	Median
28	29	29	30	28	30	21	10	9	14	21	16	Count

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

Characteristic : foEs
 Unit : Mc
 Month : July 1957

TABLE 4—contd.
 Ionospheric Data
 75.0° 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	G	11.0	12.0	12.0	11.4
2	C						6.6	11.6	14.0	12.0	10.8	11.5
3							4.0	8.0	6.6	12.0	11.8	12.8
4	3.0			5.8				G	11.0	11.4	12.2	12.6
5							G	9.6	11.6	12.0	12.2	8.4
6			3.2				G	G	10.6	12.6	12.6	11.8
7							6.8	8.8	11.4	12.6	12.8	13.0
8							G	4.3	10.6	12.0	C	C
9							G	8.8	11.0	13.0	13.0	13.6
10							G	G	9.0	12.4	12.8	12.6
11		4.0	3.4	3.0			10.2	3.7	7.6	12.4	C	C
12	2.9						6.3	11.0	11.0	12.6	12.4	13.6
13	4.2					G	10.8s	11.2	12.2	13.6	14.0	13.0
14		2.8				3.4	12.0	12.0	12.0	13.4	12.6	12.4
15							9.5	11.2	11.2	13.0	13.4	16.0
16							6.7	9.0	12.7	12.2	16.0	13.0
17	2.2						G	10.2	10.6	12.6	13.6	12.2
18	3.6	2.6	10.0s				4.1	11.0	11.0	12.0	12.4	12.8
19	10.2s	10.0s	10.0s	4.4			5.0	10.6	11.6	12.0	13.0	12.6
20	2.4	4.2	10.0s				7.0	10.6	11.0	12.2	13.0	12.8
21		3.7					C	11.4	12.3	C	C	C
22	C	C	C	C	C	C	C	C	10.8	12.5	12.0	10.7
23	S	2.8	10.4s	10.2s	10.0s		7.6	11.6	11.8	12.0	13.4	12.6
24	10.8s						10.0s	10.8	10.9	12.0	13.0	13.7
25	10.0s		2.8				10.4s	14.2	11.8	13.4	13.6	13.8
26	3.3	4.0					10.0s	10.7	10.9	12.0	12.8	13.2
27	10.0s	S	10.0s				10.0s	11.3s	11.7	13.0	12.6	12.3
28	3.6						10.0s	C	11.3	12.7	12.9	11.9
29	10.9s						S	11.0s	11.8	12.9	12.7	13.0
30			4.1	4.2			4.3	6.2	C	C	10.0s	12.9
31							5.0	10.8s	12.0	10.9	12.6	12.2
Mean	4.3	4.9	4.5	4.1	..	..	7.2	9.9	11.1	12.4	12.8	12.6
Median	3.6	3.9	4.1	4.2	..	..	6.3	10.6	11.1	12.4	12.8	12.7
Count	13	8	9	5	1	2	27	29	30	29	28	28

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

Characteristic : foEs
Unit : Mc
Month : July 1957

TABLE 4—contd.
Ionospheric Data
75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
12.0	18.5	12.0	12.0	9.0	8.2	8.6	U5.2s	3.4	2.4		C	1
12.2	12.2	12.0	11.2	8.2	G	3.5		3.8	9.0	8.6		2
12.2	12.0	12.4	11.6	C	G	8.8	7.6	3.8	2.5	4.2	4.0	3
12.2	12.6	12.2	12.0	11.0	9.0							4
12.0	9.0	9.8	10.6	10.0	4.4	6.9	2.6		5.4	6.4	2.0	5
11.4	13.0	12.0	11.2	11.0	8.0							6
13.3	12.5	12.2	12.0	12.0	U9.0s	3.6		1.8		4.4	3.8	7
C	12.4	12.6	C	5.8	3.2	S		1.9	4.8		5.6	8
12.4	12.8	12.4	11.0	D9.2s	9.0	U10.0s	2.8	3.4	U5.0s	6.0		9
12.8	12.8	12.6	C	C	G	3.0						10
C	13.4	13.3	12.0	11.2	U8.8s	U2.5s			3.3	3.8	2.0	11
13.0	20.0	21.0	12.5	13.5	U9.2s	S				2.4	5.8	12
12.8	13.0	13.4	12.8	10.6	14.0	S				4.2	4.2	13
13.0	13.2	12.6	11.6	U12.5s	U7.2s	S			1.9	4.2	3.1	14
12.6	13.2	12.6	10.0	3.6	3.0	S			S			15
12.0	12.0	8.0	8.0	4.6	2.5	2.2						16
12.8	12.6	12.0	10.0	6.2	D7.0s	D5.0s	5.0	4.0	3.2	3.2	4.0	17
12.6	12.4	12.8	11.0	4.0	5.3	D5.0s			3.6	3.8	S	18
12.2	19.0	10.6	19.6	12.0	9.0	5.0	5.0			5.6	3.3	19
12.0	12.0	9.4	8.0	G	7.0	D5.0s	4.2		3.2	4.6	D3.6s	20
C	C	13.2	D11.6s	D15.0s	U11.0s	S	S	U6.4F	C	C	C	21
12.2	12.0	C	D15.0s	U11.8s	D11.5s	S			D3.0s	D4.6s	D4.5s	22
13.0	13.0	12.4	12.4	11.0	U7.0s	D2.4s				U5.0s	D4.0F	23
12.8	12.4	12.8	12.0	12.6	U12.8s	U12.2s	6.0		D5.8s	D9.0s	D4.8s	24
12.8	13.0	12.6	D11.0s	D9.0s	D6.8s	S		2.0			2.7	25
12.3	13.4	U12.5s	10.9	S	U3.2s	S	U4.3s	2.1	2.9	S	U3.3s	26
12.2	12.0	11.6	U13.0s	14.0	U5.2s	U4.2s	1.7		3.1	U7.0s		27
12.7	12.6	12.8	U11.7s	U11.9s	12.2	S			2.0	U3.0s	U6.9s	28
13.8	12.8	12.7	U17.0s	U16.0s	4.0	U7.2s	3.6	U4.0s		3.3		29
14.1	17.0	U14.2s	U14.6s	S	U7.3s	U4.0s		S	3.7			30
13.0	12.8	U14.2s	11.2	9.4	U10.0s	S			C	C	C	31
12.6	13.3	12.5	12.0	10.2	7.7	5.5	4.4	3.3	3.8	4.9	4.0	Mean
12.6	12.8	12.6	11.6	11.0	7.2	5.0	4.3	3.4	3.2	4.4	4.0	Median
28	30	30	29	27	31	18	11	11	17	19	17	Count

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

Characteristic : fbEs
 Unit : Mc
 Month : July 1957.

TABLE 5
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							2.3		3.6	4.6	4.3	4.4
2	C	C					2.3	6.4	5.0	4.4	4.3	4.4
3								3.2	4.0	5.0	4.2	4.3
4	3.0									4.0	4.2	4.2
5								3.0	3.6	4.0	4.1	
6									4.6	3.8	4.1	4.2
7							2.3	3.0	3.6	4.0	4.2	4.2
8										3.8	C	C
9								3.0	3.5	4.0	4.2	4.3
10									3.6	3.9	4.4	4.4
11								C	3.6	3.8	4.2	C
12	1.6							3.6	3.4	4.0	4.0	4.3
13	2.5			1.4			2.1	3.0	3.6	4.1	4.2	4.4
14								3.0	3.6	4.0	4.1	4.2
15	1.4							3.0	3.5	4.0	4.1	4.2
16									3.8	4.0	4.2	4.4
17							2.2	3.0	3.6	4.0	4.2	4.4
18	1.6	1.7						3.0	3.6	4.0	4.2	4.3
19	2.6	1.9	2.8	1.2				3.0	3.6	4.0	4.1	4.4
20	1.8	1.4	1.6				2.1	3.0	3.6	3.9	4.2	4.3
21								3.1	3.5	C	C	C
22	C	C	C	C	C	C	C	C	3.5	3.9	4.2	4.3
23					1.8			3.0	3.6	4.0	4.2	4.4
24		2.2						3.0	3.6	4.0	4.2	4.3
25	2.6						2.2	3.1	3.6	4.0	4.2	4.4
26	1.5	1.8					2.1	3.0	3.6	4.0	4.2	4.4
27	2.1	2.4	1.8				2.5	2.8	4.0	4.0	4.1	4.4
28							2.1	C	3.5	4.0	4.0	4.8
29	1.5						2.0	3.1	3.5	3.9	4.0	4.2
30				1.5			2.1	2.9	3.5	C	C	4.2
31							2.0	2.9	3.4	3.8	4.0	4.2
Mean	2.0	1.9	..	..	..	..	2.2	3.2	3.7	4.0	4.2	4.3
Median	1.8	1.8	..	..	..	..	2.1	3.0	3.6	4.0	4.2	4.3
Count	11	6	3	3	1	..	13	23	29	29	28	27

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

Characteristic : fbEs
 Unit : Mc
 Month : July 1957

TABLE 5—contd.
 Ionospheric Data
 75° 0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
4.4	4.8	5.3	4.2	3.8	3.0	2.7	2.6	2.6	2.2			1
4.6	4.6	4.3	4.0	3.6	3.1				2.6	2.7	2.2	2
4.4	5.3		4.0	3.6	3.0		5.2	3.0	3.1			3
4.4	4.4	4.2	3.9	4.2	3.4	2.4						4
4.4	4.3	4.1	3.9	3.6	3.0					1.4		5
4.8	4.3	4.0	3.8	3.4	3.0							6
4.4	4.4	4.1	3.8	3.5	2.9	2.0				1.4	2.1	7
C	4.3	4.0	C	C	3.0	2.1			3.1	1.5	2.2	8
4.3	4.2	4.0	3.8	3.5	3.0	2.8	1.9	2.2	2.0	3.1		9
4.4	4.3	4.1	3.8	C		2.1						10
C	C	4.2	3.8	C	2.9	2.0			2.4	2.1	1.6	11
4.3	4.6	4.8	6.4	5.2	3.7	2.8	1.6					12
4.6	4.6	4.3	5.2	3.8	2.9	2.1				1.7		13
4.4	4.3	4.1	3.8	3.4	3.2	2.3					2.4	14
4.2	4.2	4.0	3.7	3.4	3.0	2.0						15
4.5		4.1	3.8	3.6	3.0	2.0						16
4.8	4.7	4.2	4.0	3.5	3.0	2.4	2.3	1.9	2.0			17
4.4	4.3	4.2	3.9	3.7	3.3	3.0				1.5		18
4.3	4.2	4.4	4.2	7.0	3.3	2.3				2.2	2.0	19
4.6	4.2	4.0	3.8			2.0			1.7	1.5	1.5	20
C	C	C	3.9	5.8	4.4	2.5			C	C	C	21
4.5	4.2	4.2	4.1	5.2	4.2	2.2				2.0		22
4.4	4.4	4.4	4.0	3.6	3.1					1.2	1.8	23
4.4	4.3	4.2	4.0	3.6	3.6	3.6	3.6		1.8	2.5	1.8	24
4.8	4.5	4.4	4.0	3.6	3.2	2.1				1.3		25
4.4	4.3	4.1	3.9	3.5	3.2	2.4			1.4	1.7	1.8	26
4.8	4.4	4.1	4.6	9.0	3.3	2.1				2.0	2.2	27
4.4	4.2	4.1	4.0	3.6	3.7	3.4	1.6		1.6	1.9	1.9	28
4.4	4.2	4.1	3.8	5.0	3.4	2.2	1.6			1.8		29
4.2	4.2	4.7	4.0	4.4	3.2	3.2		1.9	2.1	1.9		30
4.3	4.3	4.1	4.0	3.4	5.0	2.4			2.1	C	C	31
4.5	4.4	4.2	4.1	4.2	3.3	2.4	2.6	2.3	2.2	1.9	2.0	Mean
4.4	4.3	4.1	4.0	3.6	3.2	2.3	2.1	2.2	2.1	1.8	2.0	Median
28	28	29	30	27	29	26	8	5	13	19	12	Count

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

Characteristic : fbEs
 Unit : Mc
 Month : July 1957

TABLE 5—*contd.*
 Ionospheric Data
 75°0' 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	4.5	4.4	4.3
2	C						2.8	5.0	7.4	4.6	4.4	4.6
3							2.7	4.0	4.4	5.6	4.3	4.4
4									3.8	4.2	4.3	4.3
5								3.2	3.8	4.0	4.3	4.3
6									3.8	4.0	4.2	4.2
7							2.6	3.3	3.8	4.1	4.2	4.3
8								3.6	3.8	4.0	C	C
9								3.3	3.7	4.0	4.2	4.4
10									3.8	4.0	4.2	4.4
11							C	3.2	3.8	4.0	C	C
12							2.6	3.4	3.7	4.0	4.2	4.3
13	2.1						2.6	3.3	4.0	4.2	4.3	4.4
14		1.7					3.5	3.1	3.7	4.0	4.2	4.4
15							2.6	3.2	3.8	4.0	4.1	4.5
16								2.7	3.2	4.8	4.2	4.5
17	1.6							3.4	3.8	4.0	4.2	4.7
18	1.7	1.4					2.6	3.2	3.8	4.0	4.2	4.3
19	2.4	2.2	2.2	1.5				3.3	3.7	4.0	4.2	4.4
20	1.6	1.6	1.6				2.6	3.2	3.6	4.4	4.3	4.4
21		1.6						3.3	4.0	C	C	C
22	C	C	C	C	C	C	C	C	3.7	4.0	4.2	4.4
23							2.7	3.4	3.8	4.2	4.2	4.4
24	2.6						2.6	3.3	3.8	4.0	4.2	4.4
25	2.1		2.4				2.7	3.8	4.0	4.2	4.4	4.4
26	1.6	1.6					2.6	3.3	3.8	4.0	4.4	4.5
27	2.1	2.0	2.0				2.6	3.4	3.8	4.0	4.2	4.6
28	2.2						2.6	C	3.8	4.0	4.2	4.3
29	1.4						2.6	3.5	3.7	3.9	4.4	4.4
30			1.8	1.6			2.5	3.2	C	C	4.2	4.2
31							2.5	3.2	3.6	3.9	4.2	4.2
Mean	1.9	1.7	2.0	..	..	..	2.7	3.4	4.0	4.1	4.2	4.4
Median	2.1	1.6	2.0	..	..	..	2.6	3.3	3.8	4.0	4.2	4.4
Count	11	7	5	2	..	..	19	25	30	29	28	27

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

Characteristic : fbEs
 Unit : Mc
 Month : July 1957

TABLE 5—*conold.*
 Ionospheric Data
 75°0' 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	4.4	4.5	4.6	3.2	2.8	4.0	2.4	1.9	2.0		C	1
4.8	4.6	4.1	3.7	3.4				3.2	3.0			2
4.8	5.1	4.4	3.9	C	5.8	2.9	2.4	2.8	2.9	2.4		3
4.4	4.3	4.0	3.7	3.8	3.5							4
4.3	4.2	4.0	3.7	3.3	2.5		2.4		1.6	1.9	1.6	5
4.4	4.2	3.9	3.6	3.2	2.5							6
4.3	4.3	4.0	3.8	3.1	2.5	1.4		1.4	1.6	1.7	1.8	7
C	4.2	4.0	C	3.3	2.6	1.7						8
4.3	4.2	4.0	3.6	3.2	2.6	3.1	2.6	2.0	2.1	1.8		9
4.4	4.2	4.0	C	C		1.5						10
C	4.1	4.0	3.7	3.1	2.5	1.5			1.9	1.6		11
4.2	5.2	5.4	5.2	4.8	3.3	1.4					1.9	12
4.6	4.4	4.4	5.0	3.3	2.7	1.4				2.0		13
4.3	4.2	4.0	3.6	3.7	2.6	1.5				1.6		14
4.2	4.0	3.8	3.7	3.2	2.6	1.5						15
4.5	4.6	4.0	3.7	3.7	2.5	1.5						16
4.6	4.5	4.0	3.7	3.4	2.6	2.3	2.0	1.9	1.4		1.6	17
4.4	4.2	4.1	4.0	4.7	4.0	1.9			1.4			18
4.3	6.2	4.3	6.8	4.4	2.8	1.6	1.5			2.2	1.9	19
4.4	4.2	3.8	3.7		2.6	1.6	1.9		1.8	1.5	1.7	20
C	C	4.2	3.8	6.0	3.7	2.6			C	C	C	21
4.4	4.4	C	6.1	4.4	3.2	1.5			1.7	2.1	2.0	22
4.5	4.2	4.2	3.8	3.4	2.6	1.4				1.9	1.9	23
4.5	4.3	4.2	3.8	3.6	4.6	5.0	2.1		1.9	2.2	2.1	24
4.4	4.4	4.2	3.8	3.3	2.6	1.3					1.5	25
4.6	4.5	4.0	3.7	3.2	2.7	2.5	1.7		2.0	1.6	2.0	26
4.8	4.2	4.0	5.7	4.0	2.9	1.6			1.7	2.0		27
4.4	4.2	4.0	3.6	3.4	3.5	2.2			1.5	1.8	1.5	28
4.3	4.2	4.0	5.6	7.1	3.1	1.6		1.6		1.9		29
4.3	4.7	4.6	4.3	3.4	3.0	1.7		2.4	2.2			30
4.2	4.2	4.0	3.8	3.5	3.0	2.0			C	C	C	31
4.4	4.4	4.1	4.2	3.8	2.9	2.1	2.2	2.1	1.9	1.9	1.8	Mean
4.4	4.2	4.0	3.8	3.4	2.7	1.6	2.1	2.0	1.8	1.9	1.9	Median
28	30	30	29	28	28	27	9	8	16	16	13	Count

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

Characteristic : fmin
 Unit : Mc
 Month : July 1957

TABLE 6
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	1.7	2.4	1.5	1.8	1.7	1.6	1.7	1.9	2.2	3.2	3.0	2.7
2	C	C	1.8	1.4	1.6	1.7	1.8	2.4	2.7	2.6	2.8	2.8
3	2.0	2.0	1.7	1.6	1.9	2.0	2.6	2.6	2.8	3.6	3.0	3.0
4	1.6	2.2	2.1	1.6	1.6	2.2	2.6	3.4	2.8	2.5	2.7	2.6
5	1.7	2.0	1.7	1.6	1.9	1.5	1.8	2.0	1.8	2.4	2.4	2.8
6	1.7	1.7	1.6	1.8	1.7	1.6	1.8	2.3	2.8	2.6	2.3	2.4
7	1.6	1.8	1.9	1.9	1.7	1.6	1.7	1.6	1.9	2.3	2.4	2.4
8	1.4	1.7	1.3	1.4	1.3	1.5	1.7	1.9	2.1	2.3	C	C
9	1.7	2.3	2.1	1.6	1.4	1.6	1.9	2.0	2.1	2.4	2.4	2.6
10	1.6	1.4	1.5	1.3	1.4	1.3	1.3	1.5	2.2	2.6	2.4	3.0
11	C	C	C	C	C	C	C	C	C	C	C	C
12	1.2	1.7	1.6	1.8	1.5	1.2	1.2	1.5	1.7	2.1	2.1	2.7
13	1.8	1.7	1.6	1.1	1.3	1.3	1.3	1.8	2.3	3.0	2.8	3.2
14	1.8	1.8	1.4	1.8	1.6	1.3	1.6	1.7	1.9	2.2	2.4	2.5
15	1.1	1.8	1.2	1.3	1.2	1.2	1.4	1.7	2.0	2.4	2.4	2.4
16	1.4	1.4	1.4	1.3	1.3	1.4	1.7	1.9	2.2	2.4	2.6	3.0
17	1.1	1.4	1.5	1.5	1.5	1.7	1.9	1.9	2.3	2.5	2.6	3.1
18	1.1	1.4	1.3	1.6	1.6	1.5	1.6	1.9	2.2	2.6	2.5	2.6
19	1.4	1.2	E	E	1.3	1.5	1.4	1.7	2.2	2.4	2.4	2.4
20	1.2	E	1.1	1.5	1.3	1.3	1.3	1.7	2.2	2.4	2.7	2.6
21	1.4	1.4	1.6	1.7	1.9	1.9	1.9	2.1	2.2	C	C	C
22	C	C	C	C	C	C	C	C	1.9	2.2	2.2	2.4
23	1.7	1.7	UI 1.5 ^s	1.4	1.7	2.1	1.6	2.2	2.4	2.6	2.8	3.0
24	1.9	1.6	1.7	1.7	1.6	1.6	1.3	1.7	1.9	2.3	2.4	2.8
25	1.1	2.0	1.6	1.6	1.4	1.2	1.6	2.0	2.4	2.6	2.4	2.6
26	1.2	1.6	1.9	1.7	1.6	1.3	1.3	1.6	2.0	2.4	2.5	2.9
27	2.0	2.0	1.6	1.7	1.5	1.5	1.4	1.7	2.2	2.4	2.7	2.9
28	1.9	2.0	1.9	1.5	2.0	1.9	1.9	C	2.0	2.3	2.3	3.6
29	1.2	1.3	1.5	1.8	1.9	1.6	1.5	1.8	1.9	2.4	2.6	2.8
30	1.6	1.5	1.5	1.3	1.6	1.4	1.4	1.6	2.0	C	C	2.7
31	2.2	2.0	1.5	1.5	1.5	1.3	1.5	1.5	2.0	2.2	2.2	2.7
Mean	1.5	1.7	1.6	1.6	1.6	1.5	1.6	1.9	2.2	2.5	2.5	2.8
Median	1.6	1.7	1.6	1.6	1.6	1.5	1.6	1.8	2.2	2.4	2.4	2.7
Count	28	28	29	29	29	29	29	28	30	28	27	28

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

Characteristic : fmin
Unit : Mc
Month : July 1957

TABLE 6—contd.
Ionospheric Data
75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
2.8		2.8	2.8	2.2	1.7	1.4	1.9	1.6	1.6	2.0	1.8	1
3.3	3.0	3.3	2.7	2.2	2.2	2.3	1.5	1.9	1.9	1.3	2.0	2
3.1	5.3	7.0	3.4	2.5	2.2	2.3	1.5	1.7	2.0	2.9	3.0	3
2.6	2.8	2.7	2.4	1.7	1.5	1.4	1.4	1.4	1.6	2.0	1.5	4
2.8	2.5	2.8	2.4	2.1	1.7	2.4	1.9	1.7	1.8	1.0	1.6	5
2.8	2.7	2.5	2.2	2.3	2.0	2.0	1.3	1.2	1.4	1.3	C	6
2.6	2.5	2.3	2.2	2.0	1.6	1.6	1.4	1.4	1.5	1.2	1.5	7
C	2.6	2.4	C	C	1.6	1.4	1.4	1.3	1.3	1.5	1.4	8
2.5	2.4	2.3	2.2	2.2	2.0	1.2	1.4	1.5	1.5	1.5	1.6	9
3.0	2.8	2.4	2.4	C	2.0	1.5	1.5	1.4	1.5	C	C	10
C	C	2.3	2.0	C	1.7	1.1	1.3	1.5	1.1	E	1.4	11
2.6	2.6	2.3	2.2	1.9	1.4	1.1	1.1	1.4	1.3	1.7	1.6	12
3.4	3.2	3.0	2.4	2.0	1.6	1.3	1.1	1.2	1.5	1.4	1.5	13
2.6	2.6	2.2	2.0	1.9	1.4	1.1	1.1	1.2	1.3	1.4	1.3	14
2.4	2.4	2.3	2.1	1.8	1.6	1.2	1.2	1.3	1.5	1.5	1.4	15
3.0	5.4	3.0	2.6	2.4	2.0	1.6	1.3	1.5	1.4	1.5	1.3	16
3.1	3.0	2.6	2.2	2.2	1.7	E	E	E	1.5	1.2	E	17
2.6	2.7	2.7	2.4	2.4	2.0	1.5	1.4	1.3	1.3	1.2	1.6	18
2.8	2.6	2.7	2.4	2.1	1.7	1.4	1.3	1.7	1.2	1.1	1.7	19
2.7	2.7	2.4	2.3	2.4	2.4	1.4	1.3	1.3	1.1	1.1	1.3	20
C	C	C	2.6	2.3	1.8	1.1	1.1	1.3	C	C	C	21
2.8	2.8	2.7	2.5	2.3	2.0	1.2	1.6	1.2	1.4	E	1.8	22
3.1	2.7	3.6	2.4	2.3	2.2	1.7	E	1.4	1.3	E	1.3	23
3.0	2.8	2.8	2.4	2.4	1.8	1.5	1.3	1.5	1.4	1.4	1.4	24
4.4	3.3	2.7	2.3	2.2	1.7	1.3	1.2	E	1.3	1.1	1.5	25
3.0	2.8	2.6	2.3	2.0	1.7	S	U1.38	S	1.4	1.2	21.47	26
4.4	3.1	2.5	2.3	2.1	1.9	1.8	1.3	1.2	1.3	1.2	1.4	27
2.7	2.6	2.6	2.4	2.3	1.9	1.8	1.4	1.5	1.3	1.3	1.4	28
2.6	2.6	2.4	2.2	2.0	1.9	1.7	1.5	S	U2.58	1.6	1.8	29
2.6	2.3	2.4	2.1	2.0	1.8	2.0	1.4	E	1.4	1.2	1.3	30
2.8	2.7	2.6	2.6	2.1	2.2	1.6	1.5	1.5	2.0	C	C	31
2.9	2.9	2.8	2.4	2.2	1.8	1.5	1.4	1.4	1.5	1.4	1.6	Mean
2.8	2.7	2.6	2.4	2.2	1.8	1.4	1.3	1.4	1.4	1.3	1.5	Median
28	29	30	30	28	31	30	31	29	30	28	27	Count

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

Characteristic : fmin
Unit : Mc
Month : July 1957

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

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

Characteristic : fmin
 Unit : Mc
 Month : July 1957

TABLE 6—*contd.*
 Ionospheric Data
 75° 0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
3.2	3.0	2.7	2.3	2.4	1.5	1.6	1.3	C	1.2	2.1	C	1
4.8	3.3	3.0	2.5	2.2	1.7	1.8	1.8	1.7	2.0	2.3	2.0	2
4.8	5.1	4.4	2.8	C	2.0	1.5	1.4	1.9	2.0	2.6	2.0	3
4.4	3.0	2.6	2.1	1.8	1.6	1.7	1.4	1.4	1.6	1.5	1.6	4
2.8	2.7	2.6	2.2	1.8	1.3	1.7	1.8	1.6	1.3	1.3	1.5	5
2.8	2.4	2.4	2.3	2.4	1.8	1.5	1.2	1.2	1.4	1.5	1.6	6
2.6	2.4	2.2	2.3	1.7	1.3	1.0	1.3	1.4	1.7	1.4	1.5	7
C	2.4	2.4	C	2.0	1.5	1.1	1.5	1.7	1.4	1.5	1.6	8
2.5	2.6	2.3	2.4	2.0	1.3	1.2	1.5	1.5	1.4	1.5	C	9
2.8	2.6	2.4	C	C	1.7	1.1	1.2	1.6	C	C	C	10
C	2.3	2.3	2.2	1.7	1.6	1.1	1.5	1.4	1.2	1.1	1.4	11
2.6	2.5	2.3	2.2	1.6	1.3	E	1.4	1.2	1.3	1.4	1.6	12
3.6	3.0	2.6	2.4	1.7	1.4	E	1.1	1.2	1.4	1.2	1.6	13
2.6	2.4	2.2	2.0	1.7	1.2	E	1.1	1.2	1.2	1.1	1.1	14
2.4	2.2	2.1	1.9	1.9	1.3	1.2	1.2	1.2	1.7	1.4	1.5	15
3.1	3.4	2.8	2.5	1.9	1.6	1.4	1.4	1.4	1.5	1.3	1.7	16
3.0	2.8	2.2	2.2	1.7	1.4	1.0	1.1	1.0	1.0	1.5	1.1	17
2.5	2.6	2.6	2.6	2.2	1.9	1.1	1.3	1.1	1.0	1.6	1.4	18
2.7	2.8	2.6	2.4	1.8	1.4	E	E	1.2	1.5	1.6	1.3	19
2.8	2.8	2.2	2.2	2.2	1.6	E	1.1	1.4	E	1.2	1.6	20
C	C	2.9	2.5	2.1	1.5	E	U1.4F	1.1	C	C	C	21
2.8	3.2	C	2.5	2.0	1.7	E	1.4	U1.3F	1.3	1.3	E1.4S	22
2.7	2.5	3.0	2.4	2.2	1.8	E	1.4	1.3	E1.8S	1.1	1.3	23
2.8	2.6	2.9	2.4	2.1	1.8	1.2	1.1	1.7	1.2	1.6	1.6	24
3.2	U2.9S	2.5	2.2	2.1	1.3	E	1.3	1.4	1.3	1.6	1.2	25
2.6	U2.8S	U2.5S	2.2	1.9	1.3	S	U1.3S	F	1.3	1.3	1.8	26
4.0	2.8	2.5	2.2	2.0	1.8	1.4	1.2	1.3	1.2	1.5	1.8	27
2.8	2.7	2.4	2.4	2.2	1.8	U1.3S	1.6	1.5	1.2	1.4	E	28
2.6	2.5	2.3	2.1	2.0	2.3	U1.4S	1.3	1.5	1.9	1.8	1.5	29
2.5	2.3	2.4	2.1	1.9	1.8	1.4	1.2	E	1.8	2.4	3.0	30
2.8	2.5	2.5	2.3	2.0	2.0	E	1.4	1.4	C	C	C	31
3.0	2.8	2.6	2.3	2.0	1.6	1.3	1.3	1.4	1.4	1.5	1.6	Mean
2.8	2.6	2.5	2.3	2.0	1.6	1.1	1.3	1.4	1.4	1.4	1.6	Median
28	30	30	29	29	31	30	31	29	28	28	26	Count

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

Characteristic : h'F2
 Unit : Km
 Month : July 1957

TABLE 7
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1									LH	L	L	L
2								L	L	L	L	L
3									L	L	L	LH
4									L	L	L	L
5								L	L	LH	L	L
6								L	L	L	L	L
7									L	L	L	L
8									L	L	C	C
9									L	L	LH	L
10								L	240H	L	L	L
11									L	L	L	C
12								L	L	L	L	L
13								L	L	L	L	L
14								L	L	L	L	L
15								L	L	L	L	L
16									L	L	U330L	L
17								L	L	LH	L	LH
18									L	U300L	LH	LH
19								L	L	L	L	LH
20								L	L	L	L	L
21								L	320	C	C	C
22								L	L	L	L	L
23								L	L	L	L	L
24								L	L	L	L	L
25									L	L	L	L
26								L	L	L	L	L
27								L	L	L	L	L
28								L	L	L	LH	L
29								L	L	L	L	L
30								L	L	C	C	L
31								L	L	L	L	L
Mean							
Median							
Count								..	2	1	1	..

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

Characteristic : h'F2
 Unit : Km
 Month : July 1957

TABLE 7—*contd.*
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
L	L	L	L	L	L							1
L	L	L	L	L	L							2
LH	L	B	L	L	L							3
L	L	L	L	L	L							4
410L	540	LH	L	L	L							5
L	L	L	L	L	L							6
L	L	L	L	L	L							7
C	L	L	C	C	L							8
L	L	L	L	L	L							9
L	L	LH	L	C	L							10
C	C	L	L	C	L							11
L	L	L	L	L	L							12
L	L	L	L	L	L							13
L	L	L	L	L	L	L						14
L	L	L	L	L	L	L						15
L	U490L	L	L	L	L							16
U400L	U440L	L	L	L	L							17
L	LH	L	U480L	L	L							18
L	L	L	L	L	L							19
L	L	L	L	L	L							20
C	C	C	L	A	L							21
L	U465L	U465L	U440L	L	L	L						22
L	L	L	L	L	L	L						23
L	L	L	L	L	L	L						24
L	L	L	L	L	L	L						25
LM	L	L	L	L	L							26
L	U440L	U470L	L	A	U320L							27
LH	L	LH	400H	430H	L							28
L	L	L	L	L	L							29
L	L	L	L	L	L							30
L	U395L	L	L	L	L							31
..	460	..	..	..	..	..						Mean
..	450	..	..	..	..	..						Median
2	6	2	3	1	1	..						Count

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

Characteristic : h'F2
 Unit : Km
 Month : July 1957

TABLE 7—contd.
 Ionospheric Data
 75°0' 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
2								L	L	L	L	L
3								L ²⁶⁰	L	L	L	L ^{LH}
4								L	L	L	L	L
5								L	L	L	L	L
6								L	L	L	L	L
7								L	L	L	L	L
8								L	L	L	L	L
9								L	L	L	L	L
10								L	L	L	L	L
11								L	L	L	C	C
12								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 ^{U300L}	L ^{U400L}	L	L
17								L	L ^{LH}	L ^{LH}	L ^{LH}	L ^{U380L}
18								L	L	L	L	L
19								L	L	L	L ^{LH}	L
20								L	L	L	L	L
21							C	L	L	C	C	C
22								L	L	L	L	L
23							L	L	L	L	L	L
24							L	L	L	L	L	L
25								L	L	L	L	L
26								L	L	L	L ^{LH}	L
27								L	L	L	L	L
28								L	L	L	L	L
29								L	L	L	L	L ^{U405L}
30								L	L	L	L	L ^{LH}
31								L	L	L	L	L
Mean						
Median						
Count							..	1	1	1	..	2

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

Characteristic : h'F2
 Unit : Km
 Month : July 1957

TABLE 7—contd.
 Ionospheric Data
 75°0' 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	L	L	L	300							1
L	L	L	L	L								2
L	L	L	L	L								3
L	L	L	L	L								4
E470L	LH	L	L	L								5
L	L	L	L	L								6
L	L	L	L	L								7
C	L	L	L	L	L							8
L	L	L	L	L								9
L	L	L	L	L								10
C	L	L	L	L	L							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	490L	L	L	L	L							16
U515LH	U430L	L	L	L	L							17
LH	L	U480L	L	L	L							18
LH	L	U390L	A	L	L							19
L	U510L	L	L	U420L	L							20
C	C	L	L	A	L							21
U435L	U465L	C	L	L	L							22
L	L	L	L	L	L							23
L	L	L	L	L	L							24
L	L	L	L	L	L							25
L	U495L	L	L	L	L							26
L	L	L	U465L	U400L	L							27
L	L	LH	435H	L	L							28
LH	U445L	L	L	L	L							29
L	L	L	L	L	L							30
U390L	L	430	L	U375L	L							31
..	470	..	..	..	..							Mean
..	480	..	..	..	..							Median
4	6	3	2	3	1							Count

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

Characteristic : h'F
Unit : Km
Month : July 1957

TABLE 8
Ionospheric Data
75° 0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	355	280	260	260	250	340	340H	275	250	A	230H	230
2	C	C	U440F	U460F	360	240	260	A	A	240	220	210
3	275	315	335F	320	300	260	270	250	240	A	220	215
4	360	440	530	560	440	300	270	240	240	220	215	200H
5	320	310	280	250	240	220	270	240	230	210H	200	215H
6	340	320	300	260	245	275	265	255	A	220	205	200H
7	350	300	275	275	260	240	285	250	230	220H	210H	210H
8	365	300	290	290	240	240	260	245	235	220	C	C
9	335	320	300	300	300	240	265	240	230	215	210	200H
10	330	340	300	280	240	235	265	240	220	210	200H	195H
11	C	C	C	C	C	C	C	C	230	220	210	C
12	U400F	360	U330F	300	250	235	275	A	225	215	210H	200H
13	F	U380F	F	U370F	340	240	280	255	240	230	215	215
14	310	U300F	285	270	255	230	280	250	235	215	220	205
15	320	300	250	235	240	235	280	255	230	230	220	205
16	310	275	260	240	235	250	280	240	235	215	200	200
17	310	360F	440F	460F	340F	240F	270	240	235	215	205	200
18	360	U310F	310	295	275	235	280	250	215	215	200	200
19	340	380	440	410	350	260	280	255	240	220	210	200
20	480	520	420	320	280	240	280	250	220	230	225	200H
21	305	U295F	U305F	260	230	235	270	260	245	C	C	C
22	C	C	C	C	C	C	C	C	240H	230	215H	210H
23	U325F	U300F	320	U300F	U320F	U270F	270	240	230	220	220	210H
24	310	290	265	250	240	230	270	245	230	220	210	210
25	295	300	345	310	235	210	280	255	240	220	220	210
26	300	280	260	240	230	220	275	250	220H	210	200	210
27	F	285	240	220H	230	225	280	U250A	U225A	205	200	200
28	290	260	235	235	235	230	280	C	230	215	200	U210H
29	280	275	245	235	220	230	260	235	230	200	205	215
30	360	330	275	260	280	275	270	240	220	C	C	200
31	305	300	290	280	265	240	270	240	220	215	200H	215
Mean	330	320	315	300	275	245	275	250	230	220	210	205
Median	320	300	295	280	250	240	270	250	230	220	210	210
Count	26	28	28	29	29	29	29	26	29	27	28	28

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

Characteristic : h'F
Unit : Km
Month : July 1957

TABLE 8—*contd.*
Ionospheric Data
75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
230	AH	AH	255H	250	260	290	330	380	385	400	370	1
210	215H	230H	230H	240	270	300	400	440	U390F	285	270	2
220H	B	B	240	240	260H	280	360	375	395	365	350	3
210H	220H	220H	220H	A	265	300	380	480	U500F	500	420	4
215	215	225H	225H	240	260	280	320	365	410	425	395	5
A	210H	215H	220	235H	260	280	365	F	400	480	C	6
210H	200H	205H	225	235	255	290	385	U450F	455	440	U450F	7
C	215H	205	C	C	260	285	345	U400F	A	390	370	8
200H	200H	200H	200H	235	250	A	360	400F	420	F	360	9
200H	205	200H	210H	C	265	290	380	F	U430F	C	C	10
C	C	220	230	C	260	290	395	F	F	F	U420F	11
210H	U225A	A	A	A	280	300	370	U430F	U420F	F	F	12
210	210	225	A	240	255	295	360	U400F	F	U365F	U330F	13
210	210	225	225	240	260	300	360	F	F	U300F	U340F	14
205H	205H	210	220	230	250	280	340	440	U450F	U450F	U390F	15
205	B	220	220	225	250	285	355	330	390	370	310	16
220	230	205	230	245	260	300	400	300F	F	420	370	17
200	190	215	220	235	260	E300A	360	300	360	310	340	18
200	215	220	240	A	270	290	380	400	U430F	U520F	520F	19
225	220	215	220	250	260	295	380	F	400F	350F	320	20
C	C	C	230	A	A	U300A	U365N	F	C	C	C	21
220H	210H	210H	U225A	A	A	280	350	F	F	U440F	F	22
200H	215	220	225	235	250	285	355	F	U380F	375	340	23
200H	205H	205H	210H	220H	U260A	U310A	U380A	F	395	U380F	315	24
215H	210	220	225	240	250	290	365	F	U300F	U400F	F	25
200	205H	215H	205	230	245	285	360	F	F	U340F	U380F	26
220	205	195	U220A	A	245	290	380	F	U440F	U425F	355	27
210H	200H	215	240H	230H	A	310	360	F	U370F	U340F	320	28
220	205	200	220	A	260A	290	380	405	375	365	370	29
200	195H	U235A	205AH	A	255	295	370	U400F	350F	330	340	30
200	200	200	225	225	A	280	360	U440F	U390F	C	C	31
210	210	215	225	235	260	290	365	395	405	390	365	Mean
210	210	215	225	235	260	290	365	400	395	380	360	Median
27	26	27	28	20	27	30	31	18	23	25	24	Count

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

Characteristic : h'F

TABLE 8—*contd.*

Latitude : 10°2' N

Unit : Km

Ionospheric Data

Longitude : 77°5' E

Month : July 1957

75°0' E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	300	250	260	245	310	380	300	260	245	240	230	230H
2	C	400F	U460F	U410F	280	275	255	A	A	230	210	210H
3	280	320	335	300	315	260	255	240	A	A	220	210
4	395	480	560	510	360	280	260	235	230	210	210	200
5	320	295	260	240	235	245	250	230	220H	205	210	210H
6	330	320	280	245	260	280	260	240	230	215	205H	200H
7	330	275	270	275	240	285	265	240	220H	215H	210H	210
8	320	280	300	270	240	250	260	240	230	220	C	C
9	330	300	300	300	270	260	260	240	220	210H	210	205
10	330	320	300	260	225	255	255	235	220	205H	200H	185H
11	C	C	C	C	C	C	C	240	220	215H	C	C
12	380	U355	310	275	235	260	265	240	220	210	210H	200H
13	U360F	V400F	U410F	U380F	290	280	265	250	230	220	215	210
14	310	290	280	265	240	280	260	235	220	210	210	215
15	315	260	240	240	240	255	270	245	220	220	215	215
16	295	260	250	235	235	300	260	230	A	205	200	200
17	320	400F	470F	410F	280F	270	260	240	220	210	200	220
18	360	320	300	280	245	250	260	240	215	200H	200	200
19	340F	400	F	400	300	260	260	240	230	220	210	200
20	500	490	380	300	250	275	260	240	220	U230B	215	210
21	300	U315F	300	240	215	285H	C	250	240	C	C	C
22	C	C	C	C	C	C	C	C	235	220	210H	B
23	330	U300F	U300F	U310F	300	285	255	240	220	220	210	210H
24	300	280	260	250	230	240	250	240	230	215	210	210H
25	290	320	340	275	225	260	265	U255A	235	220H	220	210
26	290	265	255	240	220	250	260	230	220H	205	215	205
27	295	260	240	235H	220	260	260	U245A	220	200	200	200
28	280	220	240	230	235	255	260	C	220	200H	200	190H
29	270	265	240	230	220	260	245	235	220	210	220	210
30	350	300	265	265	280	260	250	230	C	C	200	200
31	300	300	295	270	240	260	255	230	215	210	200	210
Mean	325	320	310	290	255	270	260	240	225	215	210	205
Median	320	300	300	270	240	260	260	240	220	210	210	210
Count	28	29	28	29	29	29	28	28	27	28	28	27

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

III

Characteristic : h'F
 Unit : Km
 Month : July 1957

TABLE 8—contd.
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
230H	230H	255H	265	250H	275	330	375	380	395	400	C	1
E230B	230H	220H	240	240	275	330	460	440	340F	275	265	2
B	BH	240	240	C	270	A	360	380	380	360	340	3
205H	220H	220H	220	260	280	320	440	U500F	480	460	360	4
210	220H	225H	230	250	270	305	340	385	405	410	360	5
200H	220H	220H	220H	245	270	310	420	F	465	460	385	6
210H	220H	210H	225	245	275	320	U430F	U460F	420	440	395	7
C	220H	210H	C	250	270	310	400F	F	400	380	340	8
205H	200H	205H	220	240	260	320	410F	440	F	380	340	9
205H	205	215H	C	C	280	320F	U440F	F	U420F	C	C	10
C	200H	225	225	250	270	330	F	F	F	F	U440F	11
200H	A	A	A	A	300	320	U430F	F	F	F	U395F	12
220	220	235	A	235	275	305	U400F	F	U390F	U370F	320	13
210	210	225	230	240	270	320	U400F	380	U290F	F	320	14
200	205H	210	225	240	260	300	400	U470F	U420F	430	335	15
210	220	220	220	260	270	300	355F	400F	380	325	300	16
215	225	220	240	250	280	330	F	340F	400F	390	360	17
190	180	225	235	250	A	320	340F	270	390	345	320	18
205	A	230	A	A	265	320	440	F	F	515F	F	19
220	220	220	240	250	270	320	U440F	F	340F	320	310	20
C	C	230	240	A	U300A	260FH	U380F	F	C	C	C	21
210H	210H	C	A	A	U280A	305	400	F	F	F	350	22
220	210H	220	230	240	265	300H	400	F	U375F	360	320	23
195H	205H	210H	210H	225	U310A	U960A	390	U390F	380	340	300	24
210H	220	225	230	240	270	310	U400F	F	340	F	320	25
220H	220	210	235	230	270	320	400	F	F	U400F	U355F	26
210	200H	195	A	U240A	260	315	U440F	F	U460F	U390F	310	27
200	215H	U200A	210H	240H	300	340	U300F	F	F	340	300	28
215	200	205	A	A	270	U320S	400	380	360	U375F	370	29
200	U235A	U255A	A	U250A	265	300	U390F	F	330	330	330	30
205	200	U200A	220	230	A	305	U410F	U395F	C	C	C	31
210	215	220	230	245	275	315	400	400	390	380	340	Mean
210	220	220	230	240	270	320	400	390	390	380	340	Median
27	27	29	22	24	29	30	29	15	22	23	26	Count

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

Characteristic : h'E
 Unit : Km
 Month : July 1957

TABLE 9
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

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

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

Characteristic : h'E
 Unit : Km
 Month : July 1957

TABLE 9
 Ionospheric Data
 75°0' E Mean Time

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

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

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

Characteristic : h'E
 Unit : Km
 Month : July 1957

TABLE 9—*contd.*
 Ionospheric Data
 75°0' 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							115	110	110	A	A	A
2							110	110	A	105	105	A
3							105	105	A	A	A	A
4								110	A	A	A	A
5							110	110	A	A	A	110
6							120H	115H	A	A	A	A
7							115	110	A	105	A	A
8							115	105	105	A	C	A
9							105H	A	A	A	A	A
10							105	105	105	A	A	A
11							C	C	C	C	C	C
12							110	A	A	A	A	A
13						120	A	A	A	A	A	A
14							A	A	A	A	A	A
15							A	A	A	A	A	A
16							120	115	A	A	A	A
17							110	110	105	A	A	A
18							115	110	110	A	A	A
19							120	A	110	A	A	A
20							120	A	A	B	A	A
21								115	B	C	C	C
22							C	C	110	A	A	B
23							115	110	A	A	A	A
24							110	A	A	A	A	A
25									110	A	A	A
26								A	105	100	A	A
27								A	105	100	100	100
28							A	C	A	A	A	A
29								100	100	100	B	A
30							A	A	C	C	A	A
31							110H	A	A	A	100	A
Mean .						..	110	110	105	100	..	..
Median .						..	110	110	105	100	..	..
Count .						1	18	15	11	5	3	2

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

Characteristic : h'E
 Unit : Km
 Month : July 1957

TABLE 9—*contd.*
 Ionospheric Data
 75°0' 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	110	105	A	A							1
B	110	A	110	115	110							2
B	B	B	115	C	120							3
B	A	A	A	A	A							4
A	105	110	105	A	115							5
A	A	A	A	115	115							6
A	A	A	A	110	A	A						7
C	A	A	C	120	A	A						8
A	A	A	A	105	C							9
A	A	A	C	C	125							10
C	A	A	A	A	A							11
A	A	A	A	A	A							12
A	A	A	A	A	A							13
A	A	A	A	A	A							14
A	A	A	A	A	A							15
120	120	115	115	120	120							16
A	110	110	115	120								17
A	A	A	110	115	A							18
A	A	110	A	A								19
A	A	A	110	120								20
C	C	A	115	A	A							21
105	115	C	A	A	A							22
A	A	A	A	110	115							23
A	A	U105A	A	A	A							24
B	115	A	110	110	110H							25
A	A	A	A	A	A							26
B	A	A	A	A	A							27
A	A	A	A	A	A							28
100	100	100	A	A	A							29
100	A	A	A	A	A							30
A	A	A	A	A	A							31
..	110	110	110	115	115	..						Mean
..	110	110	110	115	115	..						Median
4	7	7	10	11	8	..						Count

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

Characteristic : h'Es
 Unit : Km
 Month : July 1957

TABLE 10
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							145	G	100	100	100	100
2	G	G					120	105	105	100	100	100
3								100	100	100	100	100
4	120								G	100	100	100
5		100					G	110	100	100	100	G
6							G	G	130	100	100	100
7							155	105	100	100	100	100
8							G	G	G	100	C	C
9	120						G	100	100	100	100	100
10							G	G	100	100	100	100
11			120					C	110	100	100	C
12	125	120					120	105	100	100	100	100
13	115			120			120	105	100	100	100	100
14			120				110	110	100	100	100	100
15	120						G	100	100	100	100	100
16							110	110	100	100	100	100
17							110	100	100	100	100	100
18	115	120		115			G	105	100	100	100	100
19	115	120	120	120	120		G	110	100	100	100	100
20	125	125	120				105	105	100	100	100	100
21							G	110	105	C	C	C
22	G	C	C	C	C	C	C	C	105	100	100	100
23	100	115	120	115			G	105	100	100	100	100
24	100	100					120	100	100	100	100	90
25	100		115				100	110	100	100	100	100
26	120	100					110	95	100	95	95	100
27	120	110	105	100			95	100	100	95	100	100
28							120	C	100	100	100	100
29	120						115	95	95	100	100	95
30				115	100		115	105	100	C	C	100
31						130	125	100	95	100	100	100
Mean	115	110	115	115	..	..	115	105	100	100	100	100
Median	120	115	120	115	..	..	115	105	100	100	100	100
Count	14	9	7	6	2	1	17	23	29	29	28	27

Sweep 1 Mc. to 25 Mc. in ½ min.

Characteristic : h'Es
Unit : Km
Month : July 1957

TABLE 10
Ionospheric Data
75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
100	100	100	100	100	100	100	100	100	100	100	100	1
100	100	100	100	105	110				105	100	100	2
100	100	B	100	100	105		100	100	100			3
100	100	100	100	100	100	100						4
100	100	120	100	100	100	140				105		5
100	100	100	100	100	100						C	6
100	100	100	100	100	100	100				125	120	7
C	100	100	C	C	100	100			120	135	120	8
100	100	100	100	100	100	100	100	100	100	105		9
100	100	100	100	C	G	120						10
C	C	100	100	C	100	105	125		100	100	105	11
100	100	100	100	100	105	100	105					12
100	100	100	100	100	100	100				100	100	13
100	100	100	100	100	100	100				140	120	14
100	100	100	100	100	105	105						15
100	100	100	100	G	G	140						16
100	100	100	100	105	110	110	110	110	130	130	120	17
100	100	100	100	110	120	120			115	120	120	18
100	100	100	100	100	100	100				110	120	19
100	100	100	110	110	G	110			120	120	120	20
C	C	C	100	105	110	110		105	C	C	C	21
100	100	100	100	100	100	100			S	100	100	22
100	100	100	100	100	100	G				120	110	23
95	90	95	100	100	100	100	100		105	115	105	24
100	100	100	100	100	100	100		105		125	S	25
95	100	95	95	95	100	100	140	105	130	120	115	26
100	100	100	95	95	95	100	100	160		120	110	27
100	100	95	95	100	95	95	95		125	125	120	28
95	100	100	95	95	100	100	135	100		120		29
100	100	95	95	95	100	100		110	105	105		30
95	95	95	95	95	100	100			100	C	C	31
100	100	100	100	100	100	105	115	110	110	115	115	Mean
100	100	100	100	100	100	100	100	105	105	120	120	Median
28	29	29	30	27	28	27	10	10	14	21	16	Count

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

Characteristic : h'Es
 Unit : Km
 Month : July 1957

TABLE 10—contd.
 Ionospheric Data
 75°0' 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	G	100	100	100	100
2	C						110	105	100	100	100	100
3							105	100	100	100	100	100
4	120			120			G	G	100	100	100	100
5							G	100	100	100	100	100
6			135				G	G	100	100	100	100
7							110	100	100	100	100	100
8							G	140	100	100	C	C
9							G	100	100	100	100	100
10							G	G	100	100	95	100
11		105	110	110			135	115	100	100	C	C
12	125						110	100	100	100	100	100
13	115					G	105	100	100	100	100	100
14		120				140	110	105	100	100	100	105
15							105	100	100	100	100	100
16							115	110	100	100	100	100
17	140						G	100	100	100	95	100
18	120	120	140				115	105	100	100	100	100
19	115	120	120	120			110	105	100	100	100	100
20	125	120	120				110	100	100	100	100	100
21		110					C	105	105	C	C	C
22	C	C	C	C	C	C	C	C	100	100	100	100
23	S	115	115	115	110		105	100	100	100	100	100
24	100						100	100	100	100	95	95
25	100		110				110	100	100	100	100	100
26	100	120					100	95	100	95	100	95
27	120	105	105				100	100	100	100	100	100
28	120						100	C	100	100	95	100
29	115						100	95	100	100	95	95
30			115	115			110	100	C	C	100	100
31							105	95	95	100	100	100
Mean	115	115	120	115	..	..	110	105	100	100	100	100
Median	120	120	115	115	..	..	110	100	100	100	100	100
Count	13	9	9	5	1	1	21	25	30	29	9	28

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

Characteristic : h'Es
 Unit : Km
 Month : July 1957

TABLE 10—contd.
 Ionospheric Data
 75°0' 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	100	100	100	100		C	1
100	100	100	100	110	G	110		100	110	100		2
100	100	100	100	C	G	100	100	100	100	120	120	3
100	100	100	100	100	100							4
100	100	100	100	100	135	125	100		100	100	100	5
100	100	100	100	100	100							6
100	100	100	100	100	100	100		100		120	120	7
C	100	100	C	100	100	100		135	120		120	8
100	100	100	100	100	100	100	100	100	105	105		9
100	100	100	C	C	G	120						10
C	100	100	100	100	105	100			120	105	100	11
100	100	100	100	105	105	105				130	120	12
100	100	100	100	100	100	100				100	120	13
100	100	100	100	100	100	100			130	120	125	14
100	100	100	100	100	110	105			100			15
100	100	100	100	120	G	110						16
100	100	105	105	110	105	110	110	110	130	125	115	17
100	100	100	100	120	120	120			110	120	120	18
100	100	100	100	100	100	100	105			120	115	19
100	100	100	100	G	110	115	110		120	120	120	20
C	C	100	105	105	110	U130s	140	110	C	C	C	21
100	100	C	100	100	100	100			100	100	115	22
100	100	100	100	100	100	105				115	105	23
100	100	100	100	100	100	100	100		115	110	100	24
100	100	100	100	100	100	100		100			120	25
100	95	95	95	100	120	S	110	105	120	120	110	26
100	100	100	95	95	100	100	160		120	120		27
100	100	95	95	100	95	95			130	120	120	28
95	100	100	95	95	120	140		100		120		29
100	95	95	95	100	95	140		110	140			30
95	95	95	95	100	100	100			C	C	C	31
100	100	100	100	100	105	110	110	105	115	115	115	Mean
100	100	100	100	100	100	100	105	100	120	120	120	Median
28	30	30	29	28	27	28	11	12	18	20	18	Count

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

Characteristic : (M₃₀₀₀)F₂
 Unit : —
 Month : July 1957

TABLE II
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	2.45 ^F	2.85	2.7	3.10	3.05	2.15 ^H	2.55	2.50	2.65	2.40	2.20	2.20
2	C	C	F	F	F	2.90 ^F	2.95	2.85	2.65	2.30	2.25	2.25
3	2.75	2.80 ^S	2.70 ^S	2.50 ^F	F	F	F	2.80	2.80	2.60 ^R	2.45	2.25
4	2.45	F	F	F	F	F	2.90 ^F	2.80	2.55	2.15	2.20	2.15
5	F	F	F	3.00	3.05	U3.25 ^S	3.10	2.90	2.60	U1.8 ^W	2.35	2.40
6	F	U2.30 ^F	2.45	2.70	2.95	2.90	3.05	2.90	2.70	2.50	2.20	2.15
7	F	F	F	U2.90 ^F	2.95	3.05	2.80	2.60	2.30	U2.2 ^W	2.25	2.20
8	F	F	F	F	F	U3.05 ^F	3.05	2.90	2.65	2.40	C	C
9	2.50 ^F	2.60	2.6	U2.60 ^F	2.65 ^F	3.10	3.00	2.75	2.50	2.15	2.15	2.10
10	F	F	F	F	F	F	3.05	3.00	2.70	2.50	2.10	D2.1 ^W
11	F	F	F	U2.30 ^F	2.80	3.20	3.00	2.90	2.70	2.40	2.10	C
12	F	F	F	F	F	U3.20 ^F	3.05	2.90	2.50	2.25	2.25	2.15
13	F	F	F	F	F	U3.00 ^F	2.70	2.60	2.50	2.30	2.25	2.30
14	U2.75 ^S	U2.90 ^F	2.85	2.90	U3.10 ^S	3.40	U3.0 ^S	2.90	2.65	2.20	2.15	2.25
15	U2.50 ^F	F	F	3.10	3.00	3.10	3.00	2.55	2.40	2.25	2.20	2.15
16	F	F	2.90	3.25	3.20	3.15	2.90	2.80	2.70	2.45	2.30	2.25
17	U2.80 ^S	2.55	F	F	F	F	F	F	2.55	2.20	2.35	2.15
18	F	F	F	F	F	F	F	2.70	2.45	2.20	2.20	2.15
19	F	F	2.35	F	U2.50 ^F	2.80	S	2.60	2.30	2.30	2.15	2.15
20	F	F	F	F	U2.90 ^F	2.70	2.70	2.60	2.40	2.30	2.15	2.05
21	U2.65 ^F	F	F	U3.00 ^F	3.30	E3.3 ^R	2.90	2.75	2.45	C	C	C
22	C	C	C	C	C	C	C	C	2.50	2.15	2.10	U2.1 ^W
23	F	F	F	F	U2.65 ^F	F	2.90	2.80	2.55	2.10	2.15	2.20
24	U2.55 ^F	F	2.85	2.85	3.00	U3.35 ^F	U3.05 ^F	2.85	2.55	2.25	D2.0 ^W	2.20
25	U2.65 ^S	2.60	2.45	2.60	2.95	3.20	2.80	2.60	2.50	2.10	2.10	2.10
26	U2.65 ^S	2.80	U2.80 ^S	2.95	3.10	3.20	2.85	2.65	2.50	2.20	2.15	2.05
27	F	F	U3.15 ^S	F	F	3.2 ^V	U3.0 ^S	2.80	2.60	2.30	2.15	2.15
28	2.75	2.90	3.05	3.15	3.20	3.30	2.95	C	2.50	2.25	2.15	2.10
29	F	F	F	U3.20 ^S	3.40	U3.45 ^F	3.00	2.70	2.50	2.25	2.20	2.15
30	U2.40 ^S	2.60	2.85	3.00	2.85	3.00	3.10	2.85	2.60	C	C	2.30
31	2.75	2.60	2.80	2.85	U2.95 ^F	3.00	3.05	2.95	2.65	2.20	2.25	2.25
Mean	U2.60	2.70	2.75	2.90	3.00	3.10	2.95	2.75	2.55	2.25	2.20	2.20
Median	U2.65	2.60	2.80	2.90	3.00	3.10	3.00	2.80	2.55	2.25	2.20	2.15
Count	14	11	14	18	20	24	26	28	31	29	28	28

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

Characteristic : (M3000)F2

TABLE II

Latitude : 10°2' N

Unit : —

Ionospheric Data

Longitude : 77°5' E

Month : July 1957

75°0' E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
2'15	2'15	2'15	2'05	2'10	U2'15s	2'20	2'20	2'15	2'20	2'25	U2'40F	1
2'15	2'15	2'05	U2'0W	2'25	2'20	D2'1s	2'00	2'00	2'20	2'60	U2'85s	2
2'05	2'05	2'25	2'20	2'20	2'20	2'25	2'30	U2'3s	2'30	2'40	2'50	3
2'10	2'10	2'15	2'20	2'15	U2'2s	D2'2s	2'05	U1'95F	F	F	F	4
2'40	2'20	2'1H	2'05	2'00	2'00	2'10	U2'25s	2'15	2'15	2'15	2'20	5
2'15	2'25	2'15	2'15	2'20	2'15	E2'1s	2'05	E2'0F	F	F	C	6
2'05	2'05	2'05	2'05	2'05	2'05	U2'15s	2'00	E2'0F	F	F	F	7
C	2'10	2'10	C	C	U2'35s	D2'30s	2'35	E2'2F	2'30	2'35	2'45	8
2'20	2'20	2'25	2'25	2'25	2'30	U2'35s	E2'2s	D2'1s	F	F	F	9
2'10	2'15	2'10	2'15	C	2'35	U2'35s	2'20	U2'15F	U2'20F	U2'30F	F	10
C	C	2'05	2'05	C	2'25	U2'25s	2'05	F	F	F	F	11
2'20	2'20	2'20	2'30	U2'35s	U2'35s	U2'35s	2'25	2'20	U2'25F	F	F	12
2'20	2'10	2'15	2'20	2'35	U2'4s	2'40	U2'35s	F	F	U2'40F	2'60	13
2'10	2'10	2'05	2'05	2'25	2'45	U2'35s	2'20	F	F	F	F	14
2'10	2'05	E2'05s	2'10	2'20	2'45	U2'6s	2'45	2'20	U2'20F	F	F	15
2'30	2'25	2'20	2'30	2'30	2'40	U2'45s	2'35	F	2'40	2'50	2'70	16
2'20	2'15	2'15	2'10	2'15	U2'25s	2'30	2'20	F	U2'20F	F	F	17
2'15	2'05	2'05	2'20	2'20	2'25	U2'35s	U2'3s	F	2'30	F	2'50	18
2'10	2'15	2'20	U2'2s	2'30	2'45	2'40	2'30	2'15	F	F	F	19
2'05	2'05	2'10	2'20	2'25	2'40	2'5H	2'3H	U2'10F	F	F	F	20
C	C	C	E1'95W	2'00	2'15	2'10	2'00	U2'05F	C	C	C	21
2'10	2'20	2'25	2'35	2'30	2'40	2'40	2'30	2'10	F	F	F	22
2'10	2'00	2'00	2'00	2'00	2'15	2'20	2'20	F	J2'30F	2'25	2'45	23
2'10	2'05	2'05	2'10	2'10	2'15	2'15	2'20	2'15	2'20	2'30	2'50	24
2'10	2'10	2'15	2'15	2'15	2'20	U2'15s	2'10	U2'10F	F	D2'20F	F	25
2'00	2'05	2'00	2'10	2'15	2'25	U2'25s	2'15	F	F	F	F	26
2'15	2'10	2'05	2'05	2'30	2'50	2'40	2'25	F	U2'20F	F	F	27
2'10	2'05	2'00	1'95	2'05	2'15	2'30	2'20	U2'15F	F	F	F	28
2'05	2'05	2'10	2'05	2'10	2'25	U2'4s	2'30	2'30	2'35	2'35	2'40	29
2'15	2'15	2'15	2'10	2'15	2'30	2'40	2'30	U2'35s	2'50	2'60	2'70	30
2'25	2'30	2'30	2'35	2'35	2'45	2'50	2'40	2'25	2'30	C	C	31
2'15	2'10	2'10	2'15	2'20	2'25	2'30	2'20	2'15	2'25	2'35	2'50	Mean
2'10	2'10	2'10	2'10	2'20	2'25	2'30	2'20	2'15	2'25	2'35	2'50	Median
28	29	30	30	28	31	31	31	22	17	13	12	Count

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

Characteristic : (M3000)F2
 Unit : —
 Month : July 1957

TABLE 11—contd.
 Ionospheric Data
 75°0' E Mean Time

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

Day	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	2'70	2'60	2'80	3'05	2'75	2'50	2'60	2'55	2'55	2'30	2'15	2'20
2	C	U2'15F	F	F	F	3'05	2'95	2'75	J2'50R	2'30	2'30	2'25
3	2'75	U2'70S	2'55F	U2'65F	F	F	2'80F	2'70	2'70	2'55	2'35	2'10
4	F	F	F	F	F	E2'90F	2'90	2'70	2'40	2'15	2'20	2'15
5	F	F	U2'90F	3'10	E3'20S	3'20	3'10	2'80	2'20	2'30	2'35	2'45
6	2'35F	2'35F	2'55	2'90	2'90	2'90	3'05	2'85	2'60	2'35	2'15	2'15
7	F	U2'90F	F	2'90	3'00	2'90	2'75	2'50	2'20	2'20	2'30	2'05
8	F	F	F	U2'80F	F	3'00	3'00	2'80	2'55	2'20	C	C
9	2'50	2'60	U2'60F	U2'65F	2'85F	3'05	2'90	2'60	2'25	2'20	2'25	2'15
10	F	F	F	F	F	3'05	3'00	2'90	2'60	2'30	E2'10W	2'10
11	F	F	F	U2'60S	3'15	3'00	3'00	2'80	2'55	2'25	C	C
12	F	F	F	F	U3'25F	3'10	U3'00S	2'70	2'35	2'25	2'15	2'20
13	F	F	F	F	U2'85F	2'90	U2'50S	2'60	2'40	2'30	2'25	2'20
14	U2'85S	2'85	2'90	3'00	3'25	3'05	U3'00S	2'80	2'40	2'20	2'15	2'10
15	U2'60F	F	U2'85F	3'05	3'05	3'10	2'75	2'40	2'40	2'30	2'15	2'10
16	F	U2'90FS	3'10	3'10	3'30	2'80	2'90	2'80	2'55	2'40	2'30	2'30
17	U2'75S	F	F	F	F	F	U2'95FS	U2'75S	2'30	2'20	2'15	2'20
18	F	F	F	F	F	F	U2'90F	2'60	2'35	2'10	2'25	2'15
19	F	2'45	F	F	2'75	2'95	U2'80S	2'40	2'30	2'25	2'15	2'10
20	F	F	F	F	U3'20S	2'75	2'70	2'45	2'35	2'20	2'10	2'05
21	F	F	U2'80F	U3'30F	E3'40R	2'90HV	C	2'60	2'30	C	C	C
22	C	C	C	C	C	C	C	C	2'35	2'10	2'10	2'10
23	F	F	F	U2'70F	U2'95F	E2'90F	2'85	2'70	2'40	2'00H	2'30H	2'15
24	F	U2'70F	E2'90S	2'95	3'10	3'15F	2'90	2'70	2'45	2'15	2'10	2'15
25	U2'65S	2'55	2'45	2'85	3'20	3'10	2'70	2'55	2'35	2'10	2'20	2'05
26	2'80	U2'80S	2'95	3'05	3'20	3'10	2'85	2'60	2'40	2'20	2'10	2'05
27	F	F	F	F	U3'40F	U2'85S	2'95	2'75	2'45	2'30	2'20	2'20
28	2'75	3'05	3'15	3'30	3'35	3'05	2'85	C	2'45	2'15	2'10	2'15
29	F	F	F	3'40	3'40	U3'00F	3'00	2'60	2'25	2'30	2'20	2'10
30	2'55	2'80	2'90	2'90	2'85	3'15	3'05	2'85	C	C	2'45	2'20
31	2'85	U2'75S	2'85	U3'00S	3'10	J3'05S	3'10	2'85	2'40	2'15	2'30	2'30
Mean	2'70	U2'70	2'80	2'95	3'10	3'00	2'90	2'70	2'40	2'25	2'20	2'15
Median	2'70	U2'70	2'85	3'00	3'15	3'00	2'90	2'70	2'40	2'20	2'20	2'15
Count	12	15	15	20	23	27	29	29	30	29	28	28

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

Characteristic : (M3000)F2

Unit : —

Month : July 1957

TABLE 11—contd.

Ionospheric Data

75°0' E Mean Time

Latitude : 10°2' N

Longitude : 77°5' E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
2'15	2'15	2'10	2'10	2'15	U2'20S	U2'25S	2'10	C	2'25	C	C	1
2'10	2'10	2'05	2'20	2'25	U2'10S	2'05	2'00	2'10	2'40	2'75	2'75	2
2'05	2'15	2'25	2'25	C	2'20	E2'30R	2'30	2'30	2'35	2'45	2'45F	3
2'15	2'15	2'15	2'20	2'15	U2'20S	2'15	E2'00F	F	F	F	F	4
2'35	2'10H	2'10	2'05	2'00	U2'05S	E2'25S	2'25	2'15	2'15	2'20	2'25	5
2'20	2'25	2'20	2'15	2'20	2'15	U2'05S	2'00	F	F	F	F	6
2'05	E2'05W	2'05	2'05	2'10	U2'10S	2'10	2'00F	E2'00S	F	F	F	7
C	2'05	2'15	C	2'25	U2'35S	2'35	2'25	2'20	2'30	2'35	F	8
2'15	2'25	2'20	2'20	2'30	U2'30S	J2'20S	2'10	U2'15F	F	F	F	9
2'10	2'15	2'10	C	C	U2'35S	U2'35S	2'20	U2'15F	F	F	F	10
C	2'05	2'05	2'10	U2'20S	U2'25S	U2'20S	F	F	F	F	F	11
2'20	2'20	2'30	U2'35S	U2'35S	2'35	U2'30S	2'20	2'20	F	F	F	12
2'20	2'15	2'20	U2'25S	U2'35S	2'40	2'40	2'30	F	F	U2'50F	U2'70S	13
2'05	2'05	2'05	2'10	2'35	2'35	U2'40S	2'15	F	F	F	U2'50F	14
2'05	2'00	2'05	2'20	2'40	U2'55S	2'55	2'35	F	U2'35F	F	F	15
2'30	2'25	2'20	2'30	2'35	U2'45S	2'50	2'30	2'30	2'45S	2'70	2'80	16
2'15	2'15	2'10	2'10	U2'20S	2'30	U2'35S	2'20	F	U2'35F	F	F	17
2'05	2'05	2'15	2'20	2'25	2'30	2'30	U2'25S	F	F	2'50	U2'65F	18
2'05	2'20	2'20	2'30	2'45	2'50	2'40H	2'20	F	F	F	F	19
2'10	2'10	2'10	2'20	2'40	2'50	2'40	2'15	F	F	F	F	20
C	C	2'00	E2'00W	2'05	2'15	2'05H	U2'05S	E2'10F	C	C	C	21
2'15	2'25	C	2'35	2'35	U2'40S	2'30	E2'20S	U2'10F	F	F	F	22
2'05	2'05	2'00	2'05	2'10	2'15	U2'20S	2'15	F	2'25	2'40	U2'50F	23
2'15	2'05	2'10	2'10	E2'15S	2'20	2'25	2'15	2'20	2'25	2'50	E2'60S	24
2'10	2'10	2'20	2'20	U2'20S	U2'20S	U2'15S	E2'05S	F	U2'15F	U2'40F	U2'60S	25
2'05	2'10	2'10	2'15	2'15	2'25	2'20	J2'15S	F	F	F	F	26
2'15	2'10	2'05	U2'20S	2'40	2'50	2'40	2'15	U2'15F	F	F	U2'65F	27
2'05	2'00	1'95	2'00	2'15	U2'30S	U2'30S	2'15	U2'15F	F	F	F	28
1'95	2'15	2'10	2'05	2'10	2'30	U2'40S	2'30	2'35	2'40	2'40	U2'40S	29
2'15	2'15	2'10	2'15	2'30	2'40	U2'40S	U2'35S	2'40	2'55	2'65	2'75	30
2'30	2'30	2'35	2'40	2'45	2'50	U2'50S	2'30	2'30	C	C	C	31
2'15	2'15	2'10	2'15	2'25	2'30	2'30	2'20	2'20	2'30	2'50	U2'60	Mean
2'10	2'10	2'10	2'20	2'25	2'30	2'30	2'15	2'15	2'35	2'50	U2'60	Median
28	30	30	29	29	31	31	30	17	13	12	13	Count

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

Characteristic : foF2
 Unit : Mc
 Month : August 1957

TABLE 12
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	F	F	F	F	F	F	J8.1F	U11.2F	U10.5F	C	C	9.6
2	F	F	U8.9F	F	U9.0F	F	U8.6F	10.7	11.6	11.9	10.6	C
3	U10.0F	U10.3F	U10.1S	10.0	F	7.3	7.9	10.2	11.8	12.3	12.0	11.4
4	F	F	F	U5.6F	F	4.1	6.8	10.1	11.4	10.9	9.6	10.3
5	F	F	F	8.4	7.0	4.5	7.0	C	C	C	12.4	12.5
6	F	F	F	F	U7.4F	4.5	6.8	9.8	11.5	12.3	12.2	11.5
7	U11.0F	F	U8.1F	U6.8F	6.2	4.7	6.8	11.4	11.5	11.4	10.7	10.1
8	F	F	F	F	F	6.4	7.4	C	9.8	9.8	9.6	9.9
9	9.4	9.1	8.4	6.3	3.9	3.1	6.5	9.5	10.0	9.9	9.9	9.6
10	F	U10.2F	U9.8F	9.2	7.9	4.1	6.7	9.4	10.6	11.1	11.5	11.4
11	F	F	F	U9.8F	U9.4F	U8.0F	U8.6F	U9.8F	10.6	10.7	10.6	10.9
12	F	F	U8.4F	U6.8S	3.8	2.8	6.5	10.0	11.0	11.5	11.4	11.4
13	F	F	F	F	U8.5F	1S	U7.8S	10.2	11.2	10.8	10.9	10.8
14	9.8	9.7	U9.4S	8.7	7.4	6.3	7.4	10.2	11.4	11.1	10.5	10.5
15	F	U10.2F	U10.6F	10.2	U8.3F	4.9	6.7	9.8	12.0	12.0	12.0	10.7
16	U12.0F	F	U8.3S	D6.8F	J6.0F	4.8	6.9	10.6	12.1	12.2	11.5	10.6
17	F	F	9.0	F	U5.2F	3.8	U6.8S	10.1	11.6	12.2	11.6	10.4
18	F	F	F	U8.8F	F	4.9	7.0	9.8	C	C	C	C
19	10.7	U9.6F	8.7	9.1	U9.7S	7.7	8.1	10.3	12.2	12.7	13.0	13.0
20	11.1	11.4	9.1	8.2	7.4	6.9	U8.3S	10.8	12.3	12.7	12.4	11.2
21	D9.8F	D10.0F	F	D11.4F	9.8	F	8.4	10.3	11.6	12.5	12.4	11.7
22	F	F	F	F	U7.2F	F	F	9.8	10.5	10.6	C	C
23	F	F	U8.8F	F	U7.2F	U3.9F	F	9.8	10.7	10.6	10.3	C
24	F	F	F	F	U6.8F	4.2	7.0	10.3	11.4	11.3	10.5	10.6
25	F	U11.0F	U9.0F	F	U5.8F	F	6.9	9.8	11.4	11.8	11.0	10.6
26	F	F	F	F	F	F	7.7	10.2	11.3	12.0	11.8	11.6
27	F	F	F	F	F	U6.6F	8.4	11.3	12.1	12.6H	U11.6H	11.0
28	12.6	F	F	F	F	F	F	11.0	11.8	11.6	10.3	10.1
29	F	U12.0S	8.8	8.2	U7.2S	4.7	6.6	10.2	11.3	11.3	11.1	11.0
30	F	10.4	5.7	3.3V	F	F	F	10.0	11.7	12.1	10.8	11.2
31	F	F	U10.6F	F	F	U6.8F	8.0	11.0	12.5	13.6	13.8	13.6
Count	9	11	17	17	21	22	27	29	29	28	28	27
Median	U10.7	U10.2	U8.9	8.4	U7.2	4.8	7.0	10.2	11.4	11.7	11.2	10.9
Mean	U10.7	U10.4	U8.9	8.1	U7.2	5.2	7.4	10.3	11.4	11.6	11.3	11.0

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foF2
Unit : Mc
Month : August 1957

TABLE 12
Ionospheric Data
75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
9.7	10.3	10.7	10.6	9.9	U10.2S	U10.3S	9.4	U8.5F	F	U9.0F	U9.8F	1
C	9.8	10.4	U10.6S	11.9	13.0	12.3	U11.7S	F	F	U9.2F	F	2
11.1	11.0	11.3	11.2	11.8	U11.8S	12.2	U12.0S	U10.6F	F	11.2F	F	3
10.0	10.3	10.4	11.0	11.3	11.0	11.2	10.4	F	F	F	F	4
11.8	11.2	10.7	10.7	10.8	11.1	11.1	10.0	F	F	F	F	5
11.9	12.4	12.7	13.4	13.4	13.3	13.4	U11.1R	F	F	F	F	6
10.3	10.0	10.1	10.6	11.0	11.2	11.4	U9.9S	F	F	F	F	7
9.9	10.6	10.9	10.8	11.5	12.4	12.9	12.5	U10.7F	F	F	F	8
9.7	C	C	10.4	10.7	11.1	11.5	11.5	F	F	F	F	9
11.1	10.9	11.0	11.3	12.0	12.1	U12.0SH	11.1H	F	F	F	F	10
10.6	10.7	10.8	11.0	11.4	11.0	U10.8S	9.7	F	F	F	F	11
11.6	11.9	13.1	12.6	13.5	13.4	13.5	12.2	F	F	F	F	12
10.5	10.3	10.7	10.7	10.9	U10.9S	11.1	11.0	11.0	10.9	10.7	10.2	13
10.4	10.1H	10.1	10.2	10.5	10.7	11.2	10.1	F	F	F	F	14
10.3	9.9	10.0	10.3	10.3	10.7	U11.1S	9.3	F	F	F	F	15
10.3	10.4	10.3	10.5	10.3	10.6	11.2	U10.4S	F	F	F	F	16
10.3	10.5	10.4	10.8	11.1	D11.6S	D11.6S	E11.0F	F	F	F	F	17
C	C	C	10.4	10.5	10.5	U10.6S	D9.6S	D8.6F	U9.2F	D9.3F	D9.4F	18
13.1	12.8	12.4	12.7	12.4	12.4	J12.0S	11.3	J10.3F	F	10.2	10.7	19
11.4	11.7	11.8	12.4	12.8	12.6	U11.8S	10.8	F	F	F	D10.6F	20
11.9	12.0	12.4	12.6	12.4	12.8	13.3S	D12.8R	U11.6S	F	F	F	21
C	C	C	C	C	C	U11.0S	9.0	F	F	F	F	22
10.8	10.8	11.0	11.4	12.2	12.6	U12.5S	U11.6S	F	F	F	F	23
10.7	11.7	12.1	12.8	13.6	13.8	13.1	U11.8S	F	F	F	F	24
10.6	11.1	11.3	U11.5S	11.2	U11.8S	12.5	11.0	F	F	F	F	25
11.5	11.4	11.9	12.4	12.9	12.8	U12.2S	J10.4S	F	F	F	F	26
11.6	11.2	10.7	10.0	10.0	10.6	11.2	U10.0R	F	F	F	F	27
10.5	10.8	10.8	10.7	11.1	11.4	U11.6S	10.8	10.2	10.5	F	F	28
10.8	10.8	10.6	10.4	10.2	10.6	10.7	U9.5S	U8.7F	F	U11.6S	F	29
11.7	11.5	11.0	10.8	10.2	10.6	10.7	U9.5S	U8.6F	F	F	F	30
12.8	12.8	13.2	13.5	13.4	14.0	13.8H	12.6	Fs	F	F	C	31
28	28	28	30	30	30	31	31	10	3	7	5	Count
10.8	10.8	10.8	10.8	11.2	11.5	11.6	10.8	U10.2	..	10.2	10.2	Median
11.0	11.0	11.2	11.3	11.5	11.8	11.8	10.8	U9.9	..	10.2	10.1	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foF2
Unit : Mc
Month : August 1957

TABLE 12—contd.
Ionospheric Data
75°0' 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	F	F	F	F	F	U6.6F	F	U10.4F	C	C	9.5	9.6
2	F	8.9	F	9.1	F	U7.2F	U10.4F	11.6	11.7	11.6	10.4	C
3	U10.2F	10.2	U10.0S	U9.2S	F	6.7	9.3	11.0	12.2	12.2	11.7	11.0
4	F	U9.5S	U5.6F	6.6	U6.8F	4.3	8.7	10.8	11.1	10.5	9.8	10.2
5	F	F	U8.8F	8.4	5.7	5.1	8.8	C	C	C	12.3	12.3
6	F	F	F	F	6.0	4.7	8.7	11.1	12.0	12.0	11.8	11.7
7	U9.9F	F	F	U6.4F	5.2	5.1	8.7	11.0	11.4	11.2	10.3	10.2
8	F	F	F	7.5	U7.3F	6.3	8.5	9.6	9.8	9.6	9.7	9.8
9	9.1	9.0	8.0	4.7	3.5	4.5	8.3	10.1	9.9	10.0	9.6	9.6
10	U10.4F	U9.8F	9.8	8.9	5.5	4.6	8.3	10.2	11.0	11.3	11.6	11.1
11	F	F	F	F	F	F	U9.5F	10.1	10.7	10.6	10.8	10.8
12	F	F	U7.9F	5.3	3.4	4.4	8.4	10.8	11.7	11.5	11.8	11.2
13	F	F	F	U8.7F	F	U6.3S	9.3	10.9	11.0	10.7	10.8	10.6
14	9.8	9.9	9.1	8.3	6.8	5.8	9.0	10.8	11.6	10.5	10.6	10.7
15	F	U10.3F	F	9.4	6.9	4.6	8.5	11.4	12.1	12.3	10.8	10.6
16	J11.9F	F	J7.0S	F	5.2	4.8	8.8	11.7	12.2	12.0	10.9	10.5
17	F	U10.6F	D7.1F	F	U4.5F	U4.4F	8.8	11.2	12.0	11.9	10.7	10.3
18	F	F	D9.6F	U8.3F	6.0	4.9	8.6	10.7	C	C	C	C
19	U10.1F	9.2	8.9	U9.3S	8.9	6.9	9.3	11.4	12.7	12.8	13.0	13.1
20	11.4	10.4	D8.4S	7.8	6.9	6.7	U9.8S	11.7	12.7	12.7	12.2H	11.0
21	F	F	J10.9F	U10.2F	8.9	J8.3F	9.5	10.6	D11.9R	12.4	12.4	11.7
22	F	F	F	F	U6.1F	F	U8.9F	10.3	10.5	C	C	C
23	U9.2F	F	F	U8.5F	U4.8F	F	U8.6F	10.5	10.8	10.4	10.3	10.6
24	F	F	U8.4F	U7.0F	U6.0F	4.6	8.8	11.2	11.5	10.8	10.5	10.5
25	F	F	U8.2F	6.3	F	F	8.7	10.7	11.6	11.4	10.7	10.6
26	F	F	U10.2F	F	U7.2F	U5.7F	8.8	10.9	11.8	12.2	11.7	11.6
27	F	F	F	F	U8.3F	5.9	U9.6S	11.5	12.8	12.1H	10.8	11.2
28	F	F	11.0	F	F	F	U9.8F	11.3	12.0	10.7	10.0	10.2
29	13.2	U10.0S	8.4	U7.6S	6.3	5.1	8.7	10.8	11.3	11.2	10.8	10.9
30	F	9.0	3.7	F	F	F	8.2	11.3	12.0	11.8	11.0	11.5
31	F	10.7	F	F	F	6.2	U9.7S	11.8	13.2	14.0	13.5	13.2
Count	10	13	19	20	22	25	30	30	28	27	29	28
Median	10.2	9.9	8.4	8.3	6.0	5.1	8.8	10.9	11.7	11.5	10.8	10.8
Mean	10.5	9.8	8.5	7.9	6.2	5.6	9.0	10.9	11.6	11.5	11.0	10.9

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foF2
 Unit : Mc
 Month : August 1957

TABLE 12—contd.
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
9.9	10.6	10.7	10.3	9.9	U10.4s	U10.1s	8.9	8.4	F	9.6	U9.3F	1
9.7	10.0	11.0	A	12.5	12.1	12.4	F	F	U10.0F	U9.4F	U10.4F	2
11.3	11.2	11.3	11.6	U11.8s	12.1	12.3	10.8F	F	F	F	11.3	3
10.0	10.3	10.7	11.1	11.2	11.1	10.9	F	F	F	F	F	4
11.5	11.0	10.5	10.7	11.1	11.3	J10.6s	U9.3F	F	F	F	F	5
12.2	12.7	13.2	13.6	13.2	13.4	12.3	U10.6F	F	F	F	U10.6F	6
10.1	10.0	10.4	10.8	11.1	11.4	10.7	U9.4F	F	F	F	F	7
10.4	10.7	10.7	11.1	11.7	12.8	13.1	11.6	F	F	F	9.4	8
C	C	10.2	10.5	10.9	11.2	11.5	U10.7F	F	F	F	F	9
11.0	10.7	11.3	11.7	12.4	12.2	11.5H	F	F	F	F	F	10
10.7	10.6	10.9	11.2	11.2	11.1	10.5	F	F	F	F	U8.4F	11
11.8	12.5	12.7	13.1	13.3	13.6	13.0	U11.6F	F	F	F	F	12
10.4	10.6	10.8	10.8	10.8	U11.0s	11.0	10.9	11.0	10.8	10.5	10.0	13
10.2H	9.9	10.2	C	10.6	10.9	10.8	9.0	F	F	F	F	14
10.0	9.9	10.2	10.2	10.4	10.9	U10.8s	U9.1F	F	F	F	U11.6F	15
10.4	10.4	10.5	10.3	10.6	10.8	U11.0s	D9.4s	F	F	F	F	16
10.3	10.3	10.6	10.8	11.3	D11.6s	U11.6s	U10.5s	F	F	F	F	17
C	C	C	10.5	10.5	U10.6s	D10.3s	9.3	U8.8F	9.3	F	10.5	18
13.0	12.6	12.7	12.4	12.4	12.1	J11.8s	U10.5F	J10.1s	9.9	10.4	10.8	19
11.5	11.8	12.1	12.6	12.9	12.2	D11.4s	F	F	F	F	U10.3F	20
12.0	12.4	12.5	12.4	12.4	13.3	13.4	12.3	U11.1F	F	F	F	21
C	C	C	C	C	U11.3s	U10.2s	F	U10.8F	C	F	F	22
10.8	11.0	11.3	11.8	12.5	13.0	12.4	10.5	F	F	F	F	23
11.4	11.8	12.3	13.0	13.8	13.6	12.6	U11.0F	F	F	F	F	24
10.8	11.2	11.4	11.3	11.4H	12.2	U11.8s	F	F	F	F	F	25
11.4	11.6	C	12.6	13.0	12.6	U11.5s	F	F	F	F	F	26
11.8	10.7	10.4	10.0	10.3	10.8	11.0	U9.5F	F	F	F	F	27
10.8	10.9	10.8	10.8	11.4	11.4	U11.4s	10.4	F	U10.2F	F	F	28
10.8	10.7	10.6	10.4	10.4	10.8	U10.5s	U9.0F	F	U10.8F	F	F	29
11.7	11.2	10.8	10.4	10.3	10.7	10.6	F	F	F	F	F	30
12.6	13.0	13.5	13.6	13.6	14.2H	13.2	FS	F	F	C	12.7F	31
28	28	28	28	30	31	31	21	6	6	4	12	Count
10.8	10.8	10.8	11.1	11.4	11.4	11.4	10.5	10.4	10.1	..	10.4	Median
11.0	11.1	11.2	11.4	11.6	11.8	11.5	10.2	10.0	10.2	..	10.4	Mean

Sweep 1.0 Mc. to 23.0 Mc. in 30 seconds.

Characteristic : foF₁
 Unit : Mc
 Month : August 1957

TABLE 13
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								L	L	C	C	L
2								L	L	L	L	L
3								L	L	L	L	L
4								L	L	L	L	L
5								C	C	C	L	L
6								L	L	L	L	L
7								L	L	L	L	L
8								L	L	L	L	L
9								L	L	L	L	L
10								L	L	L	L	L
11								L	L	L	L	L
12								L	L	L	L	L
13								L	L	L	LH	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	LH	L	L
25								L	L	L	L	L
26								L	L	L	L	L
27								L	L	L	L	L
28								L	L	L	L	L
29								L	L	L	L	L
30								L	L	L	L	LH
31								L	L	L	L	L
Count
Median
Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foF1
 Unit : Mc
 Month : August 1957

TABLE 13
 Ionospheric Data
 75°0' E Mean Time

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

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

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foF₁
 Unit : Mc
 Month : August 1957

TABLE 13—*contd.*
 Ionospheric Data
 75°0' 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	C	C	L	L
2								L	L	L	L	L
3								L	L	L	L	L
4							L	L	L	L	L	L
5								C	C	C	L	L
6								L	L	L	L	L
7								L	L	L	L	L
8								L	L	L	L	L
9								L	L	L	L	L
10								L	L	L	L	L
11								L	L	L	L	L
12								L	L	L	L	L
13								L	LH	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	L
18							L	L	L	L	L	L
19							L	L	L	L	L	L
20								L	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							L	L	LH	L	L	L
25								L	L	L	L	L
26								L	L	L	L	L
27								L	L	L	L	L
28							L	L	L	L	L	L
29								L	L	L	L	L
30								L	L	L	L	L
31								L	L	L	L	L
Count
Median
Mean

Sweep 1°0' Mc. to 25°0' Mc. in 30 seconds.

Characteristic : foF1
 Unit : Mc
 Month : August 1957

TABLE 13—*contd.*
 Ionospheric Data
 75°0' 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	L	L	L								1
L	L	L	L	L								2
L	L	L	L	L	A							3
L	L	L	L	L	L							4
												5
L	L	L	L	L								6
L	L	L	L	L	L							7
L	L	L	L	L	L							8
C	C	E	L	L	L							9
L	L	L	A	A								10
L	L	L	L	L								11
L	L	L	L	L								12
L	L	L	L	L								13
L	L	L	L	L								14
L	L	L	L	L								15
L	L	L	L	L	L							16
L	L	L	L	L								17
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
C	C	C	C	C	L							22
L	L	L	L	L	L							23
L	L	L	L	L	L							24
L	L	L	L	L	L							25
LH	L	A	L	L	L							26
LH	L	L	L	L	L							27
L	L	L	L	L	L							28
LH	LH	LH	L	L	L							29
L	LH	L	L	L	L							30
L	L	L	L°	L								31
I	..	..	..	..	..							Count
..	..	..	..	..	..							Median
..	..	..	..	..	..							Mean

Sweep 1°0' Mc. to 25°0' Mc. in 30 seconds.

Characteristic : foE
 Unit : Mc
 Month : August 1957

TABLE 14
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							2'1	A	A	C	C	A
2							2'1	U3'0F	A	A	A	C
3							R	A	A	A	A	A
4							1'9	A	A	A	A	A
5							2'0	C	C	C	A	A
6							R	A	A	A	A	A
7							1'9	A	A	A	A	A
8							A	C	A	A	A	A
9							R	A	A	A	A	A
10							4'0	A	A	A	A	A
11								A	A	A	A	A
12								A	A	A	A	A
13							1'9H	A	A	A	A	A
14								A	A	A	A	A
15								3'0H	A	A	A	A
16							2'0H	3'0	A	A	A	A
17								A	A	A	A	A
18								D2'9R	C	C	C	A
19								U2'9R	D3'2R	3'9	A	A
20							1'9	U2'8A	A	A	A	A
21							3'9	2'8H	A	A	A	A
22							A	A	A	A	C	G
23							2'0H	A	A	A	A	C
24								A	A	A	A	A
25								A	A	A	A	A
26							A	A	A	A	A	A
27								3'0	A	A	A	A
28							A	A	A	A	A	A
29							1'9	A	A	A	A	B
30							R	2'9	A	A	A	A
31								A	U3'4R	A	A	B
Count .							12	9	2	1	..	..
Median .							2'0	2'9	..	..	..	..
Mean .							2'3	2'9	..	..	..	..

Sweep 1'0 Mc. to 25'0 Mc. in 30 seconds.

Characteristic : foE
 Unit : Mc
 Month : August 1957

TABLE 14
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
A	A	A	A	A	A	A						1
C	A	A	A	A	A	A						2
A	A	A	A	A	A	A						3
A	A	A	A	A	A	A						4
A	A	A	A	A	A	A						5
A	4.2	4.0	R	A	A	A						6
A	A	A	A	A	A	A			A			7
A	A	A	A	A	A	A			A			8
A	C	C	A	A	A	2.9			F			9
A	A	A	A	3.4	2.9	A						10
A	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	A	A	A	A	A						14
A	A	A	A	A	A	A						15
A	A	A	A	A	A	A			A			16
A	A	A	A	A	A	A			A			17
C	A	C	A	A	A	A			A			18
A	A	A	A	A	A	A			Dr.8R			19
A	A	A	A	A	A	A			A			20
A	A	A	A	A	A	A						21
C	C	C	C	C	C	C						22
A	A	A	A	A	A	2.7						23
A	A	A	A	A	A	A						24
A	A	A	A	A	A	A						25
A	A	A	A	A	A	A						26
A	A	A	A	A	A	A						27
A	A	A	A	B	B	3.0						28
A	A	A	A	A	A	U2.8A						29
A	A	A	A	A	A	A						30
B	B	A	A	A	A	A						31
..	I	I	..	I	5	I						Count
..	..	..	..	..	2.9	..						Median
..	..	..	..	..	2.9	..						Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foE
 Unit : Mc
 Month : August 1957

TABLE 14—*contd.*
 Ionospheric Data
 75°0' 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	A	C	C	A	A
2							2.5	A	A	A	A	C
3							2.6	3.0	A	A	A	A
4							Λ	A	A	A	A	A
5							2.5	C	C	C	A	A
6							2.5	3.2	A	A	A	A
7							2.5	Λ	A	A	A	A
8							A	A	A	A	B	A
9							A	A	A	A	A	B
10							B	A	A	A	A	A
11							A	A	A	A	A	A
12							U2.5A	A	A	A	A	A
13							2.5H	A	A	A	A	A
14							2.5H	A	A	A	A	A
15							2.5H	U3.2A	A	A	A	A
16							2.5H	A	A	Λ	A	A
17							A	A	A	A	A	A
18							D2.5R	3.1	C	C	C	C
19							2.6	A	U3.5A	A	A	A
20							2.4	3.2	A	A	A	A
21							2.6H	2.2	A	A	A	4.2
22							A	A	A	C	C	A
23							A	A	A	A	A	A
24							2.3	A	A	A	A	A
25							2.5	A	A	A	A	A
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	B
30							2.4	A	A	A	A	B
31							2.7	3.3	A	A	A	B
Count .							19	7	1	..	..	1
Median .							2.5	3.2	..	..	..	..
Mean .							2.5	3.0	..	..	..	..

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foE
 Unit : Mc
 Month : August 1957

TABLE 14—*contd.*
 Ionospheric Data
 75.0° 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	A							1
A	A	A	A	A	A							2
A	A	A	A	A	2.4							3
A	A	A	A	A	A							4
A	A	A	A	A	A							5
4.2	4.1	3.8	A	3.1	A							6
A	A	A	A	A	A							7
A	A	A	A	A	B							8
C	C	A	A	A	2.6							9
A	A	4.0	3.7	3.2	U2.4F							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	A	A	A							14
A	A	A	A	A	A							15
A	A	A	A	A	A							16
A	A	A	A	A	A							17
C	C	C	A	A	A							18
A	A	A	A	A	2.3							19
A	A	A	3.5	A	A							20
A	A	A	A	A	A							21
C	C	C	A	C	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	A	B	B	A	A							28
A	A	A	A	A	A	2.3						29
A	A	A	A	A	A							30
B	B	A	A	A	A							31
1	1	2	2	2	5							Count
..	..	..	..	..	2.4							Median
..	..	..	..	..	2.4							Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foEs
 Unit : Mc
 Month : August 1957

TABLE 15
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							U7 ^{0s}	9 ⁰	11 ⁰	C	C	13 ⁴
2	2 ⁸			9 ⁰			G	G	9 ⁰	10 ⁴	12 ⁴	C
3	4 ⁰						G	6 ⁸	10 ⁰	11 ⁸	12 ⁸	12 ⁴
4	U4 ^{8s}						4 ⁸	7 ⁴	11 ⁰	11 ⁴	12 ⁶	13 ⁰
5	3 ²	5 ²					G	C	C	C	11 ⁰	12 ²
6	4 ⁸	3 ⁴		5 ²			G	7 ³	10 ⁶	12 ⁶	15 ⁴	12 ⁴
7	2 ⁴	U4 ^{2s}					U6 ^{2s}	8 ⁸	11 ⁰	12 ²	12 ⁸	12 ⁰
8							6 ⁶	C	11 ⁰	12 ²	13 ⁴	12 ⁶
9							7 ⁰	9 ⁰	12 ²	12 ⁰	14 ⁰	12 ⁸
10							G	11 ⁰	10 ⁴	10 ⁸	12 ⁴	12 ⁶
11		6 ⁶			U3 ^{1s}	3 ⁰	2 ⁵	9 ⁰	12 ²	12 ⁰	12 ²	11 ⁹
12							2 ⁶	8 ⁷	8 ⁹	10 ⁶	12 ⁰	12 ¹
13	2 ⁷	U2 ^{7F}				3 ⁴	G	U8 ^{4s}	U11 ^{6s}	11 ⁴	13 ²	14 ⁰
14		D9 ^{0s}					3 ⁶	U7 ^{0s}	11 ⁰	12 ⁶	12 ⁹	13 ⁰
15							2 ¹	G	11 ¹	11 ³	12 ⁶	13 ⁰
16	D5 ^{8s}	4 ⁴						7 ⁶	10 ⁸	10 ⁸	12 ⁶	12 ⁴
17	D6 ^{6s}	3 ⁴						D9 ^{0s}	11 ¹	12 ⁰	13 ⁶	12 ⁰
18	U8 ^{6s}							G	C	C	C	C
19								7 ⁸	4 ²	9 ⁷	12 ⁶	11 ⁸
20			D4 ^{0s}				G	U7 ^{8s}	9 ⁵	9 ⁸	11 ⁵	12 ⁴
21	3 ⁷	6 ⁴			U5 ^{4s}		G	3 ⁰⁰	9 ⁸	12 ⁰	11 ³	11 ⁶
22							U6 ^{4s}	9 ⁴	11 ⁴	12 ⁰	C	C
23							G	10 ⁴	11 ⁰	11 ⁶	12 ⁰	C
24								4 ⁶	10 ⁰	10 ⁴	12 ⁰	13 ⁰
25	6 ⁸							9 ²	11 ⁴	12 ⁰	12 ⁵	12 ⁵
26							U7 ^{0s}	6 ⁶	10 ²	11 ⁰	12 ⁰	11 ⁰
27		2 ³	3 ³					7 ⁶	9 ⁸	11 ⁴	12 ²	12 ⁰
28	4 ⁰	2 ⁵					G	9 ²	11 ⁰	11 ²	12 ²	12 ⁰
29							G	10 ⁴	12 ⁰	11 ⁸	11 ⁸	G
30							G	G	11 ²	11 ⁶	12 ⁰	12 ⁰
31								4 ¹	8 ⁶	9 ⁴	12 ⁰	12 ²
Count	13	11	2	2	2	2	23	29	29	28	28	27
Median	4 ⁰	4 ²	..	..	..	..	..	7 ⁸	11 ⁰	11 ⁵	12 ⁴	12 ⁴
Mean	4 ⁶	4 ⁶	..	..	..	..	5 ¹	8 ⁰	10 ⁴	11 ⁴	12 ⁵	12 ⁴

Sweep 1°0' Mc. to 25°0' Mc. in 30 seconds.

Characteristic : foEs
 Unit : Mc
 Month : August 1957

TABLE 15
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
13.0	13.0	12.2	13.0	12.0	U10.0S	U12.0S	U5.0S		2.2	2.4	7.0	1
C	12.4	18.6	21.4	11.8	8.0	4.0						2
11.8	12.3	12.4	10.8	9.8	16.0	U8.0S						3
13.0	13.0	13.0	11.0	10.4	U12.0S	U9.0S				3.5	3.0	4
12.8	13.0	12.0	12.6	11.0	U7.0S	4.2				2.1		5
13.8	10.9	G	G	10.0	10.4	10.4					4.6	6
12.0	12.6	12.0	12.0	9.8	U10.0S	U7.0S				4.2	3.6	7
13.0	11.6	11.5	11.0	7.0	6.0	3.4						8
13.0	C	C	12.2	11.0	7.0	G				2.1		9
12.0	12.2	12.2	10.4	G	G	G						10
12.4	12.8	12.4	13.5	14.0	U11.0S							11
12.1	11.2	11.4	11.0	U9.0S	S	S				3.1	3.4	12
12.5	12.7	U12.7S	U12.1S	U11.0S	S	S	4.2					13
12.7	12.1	12.6	11.4	U11.1S	S	S				3.8	U4.3S	14
13.2	13.0	13.0	U12.2S	10.7	S					2.1	4.2	15
12.0	12.4	11.2	11.6	10.0	U6.8S	D5.8S	S				D6.3S	16
13.0	14.0	12.7	12.0	8.4	6.8	S				5.6	D7.0S	17
C	C	C	12.2	10.8	7.8	D4.2S						18
13.2	13.2	13.0	12.0	11.5	D9.0S	G						19
11.8	11.8	10.8	11.0	9.4	U10.8S	S			2.1	4.3	D6.6S	20
19.6	11.6	11.8	11.8	8.2	8.6	D9.0S		D4.4S	2.6	D5.6S	3.4	21
C	C	C	C	C	C	C						22
10.8	11.0	11.2	10.8	12.5	4.6	3.8	3.0					23
11.6	12.4	21.3	12.0	11.0	9.8	4.0					2.1	24
12.2	12.0	12.0	12.0	9.0	7.0	U4.8S	2.8				3.8	25
11.0	11.4	15.0	20.0	11.6	U11.6S						2.3	26
12.0	12.4	12.6	11.8	9.2	8.6	S	3.0			7.4	6.0	27
12.0	12.0	12.2	B	10.2	8.4					U6.0S		28
12.0	11.8	11.8	12.0	10.2	8.0							29
12.0	11.6	11.6	11.0	9.2	9.0							30
11.4	11.0	9.2	12.4	10.4	8.4	U7.0S				3.2	C	31
28	28	28	29	30	26	16	5	1	3	14	15	Count
12.2	12.2	12.2	12.0	10.3	8.5	4.5	3.0	..	..	3.6	4.2	Median
12.6	12.2	12.7	12.4	10.4	8.9	6.2	3.6	..	..	4.0	4.5	Mean

Sweep. 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foEs
 Unit : Mc
 Month : August 1957

TABLE 15—contd.
 Ionospheric Data
 75°0' 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		U6'2s					G	11'0	C	C	14'0	13'0
2		6'0					G	8'8	10'6	12'4	13'0	C
3			2'2	5'0		4'6	G	4'1	11'0	12'8	12'6	12'2
4	2'2						7'0	8'0	11'0	13'0	13'0	13'8
5							G	C	C	C	11'0	12'2
6	4'0		3'6				6'2	6'4	12'2	14'1	13'8	12'8
7	6'0	3'6					6'0	11'0	11'8	12'0	12'8	12'2
8							7'0	10'6	12'0	12'8	12'8	13'0
9							7'0	11'0	12'6	19'4	14'0	12'4
10							8'8	10'6	11'4	11'8	12'2	12'2
11				U3'2s			7'0	11'8	12'6	13'6	12'6	12'3
12							U8'0s	10'0	8'8	13'2	11'8	11'8
13	3'8		3'3	U3'8s			3'5	U11'0s	11'4	12'6	13'1	13'1
14							G	9'7	11'0	12'7	12'6	12'6
15							2'6	6'4	12'1	12'4	12'4	13'2
16								9'4	11'6	12'2	12'4	12'2
17	U6'6s	S					U6'9s	9'8	11'5	12'2	12'4	12'5
18	4'4				3'8		U7'0s	G	C	C	C	C
19							U7'0s	8'5	9'2	10'6	13'2	12'6
20			S		S		U7'0s	3'8	11'0	11'2	12'2	12'0
21	4'3						G	11'0	10'8	11'5	12'2	9'0
22							U7'0s	10'6	11'3	C	C	C
23							U7'0s	10'8	11'0	12'2	12'2	12'0
24							G	9'2	11'0	11'0	12'6	12'5
25	5'6						6'8	11'2	11'0	12'5	12'4	12'2
26							7'0	10'2	11'3	11'4	11'8	11'6
27	2'0		4'2				8'2	10'2	10'8	12'4	12'0	11'6
28	4'6	U6'0s					7'0	12'6	11'6	12'0	12'0	12'0
29							7'6	11'2	11'0	12'2	12'4	12'2
30							4'2	8'6	11'6	12'4	12'2	11'0
31	3'5						G	G	10'6	11'2	12'2	10'2
Count	11	4	4	3	1	1	30	30	28	27	29	28
Median	4'3	..	..	..	..	..	7'0	10'1	11'2	12'4	12'4	12'2
Mean	4'3	..	..	..	..	..	6'6	9'6	11'2	12'5	12'5	12'2

Sweep 1'0 Mc. to 25'0 Mc. 30 seconds.

Characteristic : foEs
 Unit : Mc
 Month : August 1957

TABLE 15—contd.
 Ionospheric Data
 75.0° E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
13.0	12.0	12.4	12.0	11.6	18.0	U4.4s				2.8	6.0	1
12.6	12.4	20.0	20.0	10.0	G	U3.6s				5.6	7.0	2
12.4	12.4	12.2	11.2	13.4	18.0						3.4	3
13.0	13.0	13.0	11.0	10.8	U10.8s	4.2			3.0	2.6	8.4	4
12.4	12.6	12.6	11.4	9.0	U6.0s				1.8		4.6	5
G	7.5	G	10.0	9.8	7.0						4.0	6
16.0	12.4	12.0	10.0	9.8	9.0					3.0		7
11.8	12.2	11.0	10.0	B	4.0	5.8						8
C	C	12.0	10.0	12.0	6.4				2.0			9
12.0	12.3	11.0	G	G	7.6							10
13.6	13.2	13.6	13.3	13.2	U8.8s							11
12.2	11.1	9.9	U10.1s	S	S				2.7	2.4		12
12.6	12.2	13.2	U10.6s	U11.0s	S	S						13
12.3	12.7	12.3	C	U10.0s	S	S				U5.0s	U4.0s	14
12.8	12.4	12.4	U12.0s	U9.9s	S				2.3	2.4	D5.6s	15
12.4	11.8	11.2	9.8	9.3	D6.9s	D3.8s				D2.5s	D9.0s	16
13.6	13.8	12.2	11.2	D9.4s	D9.0s	S			3.5	6.0	D9.6s	17
C	C	C	11.4	11.0	U6.8s	D3.2s						18
12.2	12.8	12.6	11.0	D9.4s	6.8							19
11.4	11.6	11.7	9.2	10.8	S				2.5	3.1	4.0	20
12.0	12.0	11.8	9.1	8.9	D11.5s	D5.7s	2.8	2.6	3.9	D4.6s		21
C	C	C	C	C	6.8				C			22
11.6	11.2	11.0	12.2	8.4	4.0	2.3	3.8					23
11.4	13.8	20.0	12.6	11.2	8.0						4.2	24
11.6	12.2	12.0	11.0	7.5	6.8	3.2				4.4	11.4	25
11.0	12.4	18.0	11.4	11.6	U7.0s				1.6	1.9	3.1	26
12.4	11.6	12.0	10.6	9.0	U8.0s	S			6.8	4.2	U6.2s	27
12.4	12.2	11.0	B	8.6	7.0				3.4	U6.0s		28
12.2	12.6	12.0	11.0	9.0	6.0							29
12.2	11.6	11.2	10.0	8.8	U8.0s							30
11.2	B	8.6	11.8	8.0	9.0	4.0				3.2	8.0	31
28	27	29	28	28	26	10	2	1	11	16	16	Count
12.2	12.3	12.0	11.0	9.8	7.0	3.9	..	..	2.7	3.2	5.8	Median
12.4	12.1	12.6	11.2	10.0	8.3	4.0	..	..	3.0	3.7	6.2	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : fbEs
Unit : Mc
Month : August 1957

TABLE 16
Ionospheric Data
75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							1.6	2.8	3.6	C	C	4.3
2									3.4	4.0	4.4	C
3	1.6							3.0	3.5	4.0	4.3	4.3
4	1.6						2.0	2.9	3.3	3.8	4.0	4.3
5		1.5						C	C	C	4.0	4.2
6	1.7			1.5				2.9	3.5	3.9	4.1	4.2
7	1.3	2.0					2.0	3.0	3.5	3.9	4.1	4.4
8							2.1	C	3.5	4.0	4.2	4.3
9							2.1	3.0	3.5	4.0	4.2	4.3
10								3.2	3.6	4.0	4.1	4.3
11							2.1	3.0	4.1	4.0	4.2	4.4
12							2.1	3.0	3.5	3.9	4.1	4.2
13	1.4	1.5						2.9	3.5	3.9	4.1	4.3
14							2.0	2.9	3.5	3.8	4.1	4.3
15							2.1		3.4	3.9	4.1	4.3
16	1.7							3.0	3.5	4.1	4.3	4.2
17	2.3	2.1						3.1	3.6	3.8	4.1	4.4
18	2.1								C	C	C	C
19								3.0	3.6	4.0	4.2	4.4
20			1.5					2.9	3.5	3.8	4.1	4.2
21	1.5	2.0						3.0	3.4	3.8	4.0	4.3
22							2.0	3.0	3.5	3.9	C	C
23								3.0	3.4	4.0	4.1	C
24								3.0	3.6	4.0	4.5	4.5
25	1.4							3.0	3.6	4.0	4.3	4.4
26							2.0	3.0	3.6	4.0	4.0	4.4
27								3.0	3.6	4.0	4.2	4.4
28	2.1							3.0	3.6	4.0	4.4	4.4
29								3.1	3.6	4.0	4.2	4.2
30									3.6	4.2	4.2	4.2
31								3.1	3.8	4.1	4.3	
Count .	11	5	1	1	..	..	11	25	29	28	28	25
Median .	1.6	2.0	..	..	..	..	2.0	3.0	3.5	4.0	4.2	4.3
Mean .	1.7	1.8	..	..	..	..	2.0	3.0	3.5	4.0	4.2	4.3

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : fbEs
 Unit : Mc
 Month : August 1957

TABLE 16
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
4.2	4.1	4.0	3.8	3.4	3.1	4.2	2.6		1.5	1.5	2.0	1
C	4.2	4.0	7.4	3.6	3.0	2.0						2
4.4	4.2	4.1	3.9	5.4	5.2	2.4						3
4.3	4.2	4.0	3.8	3.4	3.0	2.4				1.7	1.4	4
4.2	4.2	4.0	3.7	3.4	2.9	1.8				1.4		5
4.4	4.2			3.4	2.8						1.6	6
4.5	4.2	4.0	3.9	3.6	2.9	2.1				2.2		7
4.4	4.2	4.0	3.8	3.4	3.0	1.9						8
C	C	C	3.8	4.3	2.9					1.7		9
4.4	4.3	4.2	3.8									10
4.4	4.3	4.1	4.1	5.1	5.6							11
4.4	4.3	4.1	3.9	4.1	3.6	2.6				1.4	1.5	12
4.2	4.2	4.0	3.7	3.5	2.8	2.2						13
4.3	4.3	4.1	3.8	3.5	2.9	1.9	2.5			2.2	2.3	14
4.3	4.2	4.1	3.8	3.5	2.8					1.6	1.5	15
4.4	4.2	4.2	3.9	3.5	3.0	2.4					2.2	16
4.5	4.3	4.2	4.0	3.5	3.6	2.8				1.6		17
C	C	C	4.0	3.6	2.8	1.9						18
4.3	4.2	4.1	3.8	3.5	3.0							19
4.4	4.2	4.0	3.8	3.8	3.0				1.5	1.7		20
4.6	4.2	4.1	3.8	3.4	3.6	3.0		1.8	1.7	2.0	2.3	21
C	C	C	C	C	C							22
4.5	4.3	4.1	3.8	8.8	2.9	1.9	1.7					23
4.4	4.4	8.0	3.8	3.8	4.0							24
4.5	4.4	4.2	3.8	3.5	2.8	2.3	2.0				1.5	25
4.6	4.3	7.2	5.0	5.2	2.9							26
4.3	4.3	4.0	3.8	3.4	3.3	2.6				2.5		27
4.4	4.2	4.2			3.0					2.6		28
4.6	4.6	4.2	3.9	3.4	2.9							29
4.5	4.4	4.1	3.8	3.4	3.0							30
		4.5	5.0	4.6	3.4	2.6				1.6		31
27	27	27	28	28	29	18	4	1	3	14	9	Count
4.4	4.2	4.1	3.8	3.5	3.0	2.4	..	..	..	1.7	1.6	Median
4.4	4.3	4.4	4.0	4.0	3.2	2.4	..	..	..	1.8	1.8	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : fbEs
 Unit : Mc
 Month : August 1957

TABLE 16—*contd.*
 Ionospheric Data
 75°0' 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								3.3	C	C	4.3	4.2
2								3.2	3.7	4.1	4.2	C
3			1.3	1.7				3.4	3.7	4.0	4.3	4.4
4	1.5						2.5	3.2	3.7	4.0	4.2	4.2
5								C	C	C	4.2	4.3
6	1.6						2.5	3.3	3.6	4.0	4.2	4.3
7		1.9					2.5	3.2	3.7	4.0	4.2	4.4
8							2.6	3.2	3.7	4.0	4.5	4.4
9							2.6	3.4	3.7	4.1	4.3	..
10								3.4	3.9	4.1	4.2	4.3
11							2.6	3.4	3.9	4.0	4.3	4.3
12							2.6	3.2	3.7	4.0	4.2	4.4
13	1.5		1.5				2.6	3.3	3.7	4.0	4.3	4.3
14								3.2	3.7	4.0	4.2	4.3
15							2.6	3.2	3.7	4.0	4.2	4.3
16								3.3	3.8	4.1	4.2	4.4
17	2.5						2.6	3.3	3.8	4.0	4.2	4.4
18	2.1							C	C	C	C	C
19			1.6				2.6	3.2	3.8	4.0	4.3	4.5
20							2.5	3.2	3.8	4.1	4.1	4.2
21	1.7							3.2	3.6	4.0	4.2	4.3
22							2.6	3.2	3.6	C	C	C
23							2.5	3.2	3.7	4.0	4.2	4.4
24								3.2	4.0	4.5	4.6	4.4
25	1.5						2.6	3.4	3.8	4.0	4.4	4.6
26							2.6	3.2	3.7	4.0	4.5	4.5
27							2.3	3.3	3.8	4.0	4.2	4.4
28		1.8					2.5	3.2	3.8	4.1	4.4	4.5
29							2.6	3.5	3.9	4.3	4.3	4.6
30								3.3	3.9	4.1	4.2	
31									4.0	4.1	4.4	
Count .	7	2	3	1	..	..	19	28	28	27	29	25
Median .	1.6	..	..	..	..	..	2.6	3.2	3.7	4.0	4.2	4.4
Mean .	1.8	..	..	..	..	..	2.6	3.1	3.8	4.0	4.3	4.4

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : f_bE_s
 Unit : Mc
 Month : August 1957

TABLE 16—*contd.*
 Ionospheric Data
 75°0' E Mean Time

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

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

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : fmin
 Unit : Mc
 Month : August 1957

TABLE 17
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	1.6	1.4	1.7	1.5	1.6	1.6	1.6	1.7	2.7	C	C	3.0
2	1.4	1.8	1.3	1.6	1.3	1.3	1.5	1.6	2.2	2.4	3.6	C
3	1.3	1.3	1.2	1.1	1.2	1.3	2.1	1.5	2.2	2.5	3.1	2.6
4	1.6	1.5	1.3	1.2	1.4	1.6	1.5	1.4	1.7	2.0	2.3	2.6
5	1.4	1.1	1.3	1.5	1.4	1.3	1.4	C	C	C	2.4	2.6
6	1.5	1.8	1.6	1.5	1.9	1.7	1.7	1.8	2.0	2.7	2.6	2.8
7	1.3	1.2	1.6	1.7	1.5	1.4	1.5	2.0	2.3	2.5	2.6	2.6
8	1.5	1.3	1.6	1.1	1.3	1.3	1.0	C	1.6	2.4	2.6	3.0
9	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.6	2.2	2.8	2.5	2.8
10	1.4	1.6	1.4	1.7	1.4	1.3	1.8	2.4	2.5	2.7	2.8	2.9
11	1.3	1.3	1.3	1.2	E1.2S	1.3	1.5	1.6	2.0	2.1	2.4	2.8
12	E1.5F	E1.5F	1.4	1.8	1.3	1.4	1.4	1.8	2.0	2.4	2.6	2.7
13	1.2	1.4	E1.5F	E1.4F	E1.5F	1.5	1.6	1.5	1.8	2.4	2.6	2.6
14	1.9	1.5	1.2	1.4	1.6	1.4	2.0	1.9	2.1	2.3	2.6	2.9
15	1.9	1.5	1.6	1.5	1.5	1.6	1.8	1.7	2.0	2.4	2.5	2.6
16	1.4	1.7	1.6	1.5	1.4	1.5	1.7	1.9	2.2	2.8	2.8	2.8
17	1.6	2.0	1.8	1.5	1.4	1.4	1.8	1.7	2.0	2.5	2.5	2.9
18	1.8	1.7	1.8	1.7	1.6	2.1	2.4	2.0	C	C	C	C
19	1.5	1.6	1.4	1.8	1.9	2.2	2.2	2.1	2.6	3.0	2.6	2.8
20	1.4	1.2	1.2	1.3	1.3	1.8	1.5	2.0	2.1	2.4	3.0	2.9
21	1.2	1.1	1.5	1.8	2.1	1.8	1.6	1.7	2.0	2.2	2.2	2.6
22	2.3	1.6	1.5	1.2	1.3	1.6	1.4	1.6	2.0	2.4	C	C
23	1.3	1.3	1.6	1.6	1.3	1.4	1.4	1.6	1.9	2.4	2.6	C
24	1.7	1.4	1.7	1.5	1.5	1.7	2.1	2.0	2.5	2.8	2.9	3.0
25	1.0	1.3	1.5	1.3	1.5	1.6	2.1	1.9	2.4	2.6	3.2	3.2
26	1.8	1.6	1.5	1.3	1.6	1.6	1.6	2.1	2.4	2.8	2.8	3.0
27	1.5	1.2	1.6	1.2	1.3	1.5	2.0	2.2	2.3	2.6	3.0	3.2
28	1.8	1.2	1.5	1.7	1.6	1.5	1.6	1.7	2.2	2.5	3.5	3.2
29	1.5	2.2	1.2	1.4	1.4	1.6	1.6	1.9	2.6	3.0	3.0	5.4
30	2.0	1.7	1.7	1.3	1.5	2.0	1.4	1.6	2.1	3.2	2.8	3.0
31	1.6	1.6	1.5	1.7	1.6	1.3	1.5	2.0	3.0	2.5	3.0	5.4
Count .	31	31	31	31	31	31	31	29	29	28	28	27
Median .	1.5	1.5	1.5	1.5	1.4	1.5	1.6	1.8	2.2	2.5	2.6	2.9
Mean .	1.5	1.5	1.5	1.5	1.5	1.5	1.7	1.8	2.2	2.5	2.8	3.0

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : fmin
 Unit : Mc
 Month : August 1957

TABLE 17
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N.
 Longitude : 77.5° E.

12	13	14	15	16	17	18	19	20	21	22	23	Date
2.5	3.0	2.4	2.6	2.3	1.8	1.7	1.3	1.3	1.4	1.4	1.3	1
C	2.4	2.5	2.1	2.4	2.1	1.6	1.3	1.4	1.3	1.4	1.3	2
2.6	2.5	2.6	2.3	2.0	1.5	1.2	1.3	1.4	1.4	1.7	1.5	3
2.8	2.8	2.5	2.5	2.0	1.7	E	1.4	1.3	1.3	E	1.4	4
2.6	2.5	2.4	2.3	2.0	1.7	1.1	1.2	1.3	1.3	1.3	1.6	5
3.1	3.0	2.6	2.4	2.3	1.7	1.8	1.1	1.2	1.7	1.4	1.2	6
2.9	2.7	2.4	2.4	2.0	1.6	1.1	1.3	1.3	1.3	1.0	1.5	7
3.0	2.6	2.5	2.1	2.1	2.3	1.6	1.6	1.3	1.3	1.6	1.5	8
3.1	C	C	2.4	2.0	1.9	1.8	1.3	1.4	1.4	1.2	1.7	9
3.6	3.0	2.7	2.4	2.6	1.8	1.6	1.1	1.2	1.3	1.4	1.2	10
2.6	2.6	2.4	2.3	2.2	1.6	2.1	1.2	E1.5F	1.5	1.3	1.6	11
2.9	2.8	2.7	2.4	2.3	1.5	1.6	E1.4F	1.4	1.7	1.2	1.4	12
2.6	2.7	2.6	2.4	2.2	2.0	1.5	1.4	2.1	2.5	1.9	2.0	13
2.8	2.7	2.6	2.4	2.1	1.7	1.3	1.9	1.6	1.5	1.4	1.7	14
2.5	2.5	2.6	2.4	2.3	2.0	1.9	1.5	2.1	1.9	1.5	1.2	15
3.0	2.8	2.8	2.5	2.1	1.6	1.1	1.3	U1.6F	E1.6F	1.6	1.3	16
3.1	2.9	3.0	2.4	2.0	1.7	1.3	1.7	1.6	1.6	E	1.1	17
C	C	C	2.4	2.2	1.9	1.1	1.3	E1.7S	1.7	1.6	1.4	18
2.8	3.0	2.7	2.5	2.3	1.9	1.5	1.4	1.4	1.6	1.3	1.3	19
2.7	2.6	2.6	2.3	2.2	1.6	1.6	E	1.5	E1.2S	1.1	1.4	20
2.7	3.0	2.6	2.3	2.2	1.6	1.4	1.7	1.3	1.1	1.5	1.6	21
C	C	C	C	C	C	1.8	1.3	1.5	1.4	1.5	1.7	22
3.2	3.0	2.9	2.5	2.6	2.0	1.3	1.2	2.0	2.0	1.8	1.8	23
2.9	2.9	2.9	2.5	2.2	1.6	2.0	1.3	1.6	1.3	1.4	1.1	24
3.1	3.3	3.0	3.1	2.2	1.8	1.4	1.7	1.6	1.4	1.3	1.2	25
3.0	3.1	2.8	2.5	2.4	1.8	1.8	1.3	1.4	1.2	1.6	1.1	26
2.9	3.0	2.8	2.4	2.4	1.6	1.4	1.5	1.5	1.8	1.6	2.0	27
3.0	2.9	2.9	5.6	4.4	2.4	2.1	1.7	1.5	2.0	1.9	2.0	28
3.2	3.4	3.2	3.0	2.5	2.0	1.7	1.1	1.5	1.6	1.7	1.9	29
3.1	3.0	2.8	2.6	2.4	1.9	1.7	1.4	1.4	1.5	1.6	2.0	30
5.0	4.7	3.0	3.0	2.8	1.9	1.2	1.7	1.7	1.7	1.3	C	31
28	28	28	30	30	30	31	31	31	31	31	30	Count
2.9	2.9	2.6	2.4	2.2	1.8	1.6	1.3	1.5	1.5	1.4	1.4	Median
3.0	2.9	2.7	2.6	2.3	1.8	1.5	1.4	1.5	1.5	1.5	1.5	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : fmin
Unit : Mc
Month : August 1957

TABLE 17—*contd.*
Ionospheric Data
75.0° 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	1.5	1.4	1.7	1.4	1.5	1.6	2.0	2.3	C	C	3.3	3.1
2	1.5	1.5	1.4	1.3	1.3	1.4	1.4	1.8	2.3	2.4	2.4	C
3	1.7	1.3	1.0	1.2	1.3 ⁸	1.6	1.4	1.9	2.2	2.3	2.6	2.8
4	1.3	1.3	1.3	1.4	1.7	1.6	1.1	1.6	2.0	2.3	2.4	2.7
5	1.5	1.5	1.2	1.2	1.3	1.4	1.4	C	C	C	2.6	2.6
6	1.5	1.8	1.5	1.7	1.5	1.6	1.7	2.4	2.2	2.8	2.6	2.8
7	1.3	1.6	1.6	1.6	1.3	1.6	1.7	2.2	2.4	2.6	2.6	2.7
8	1.5	1.5	1.4	1.3	1.3	1.5	1.4	1.7	2.1	2.2	3.8	2.8
9	1.6	1.7	1.4	1.5	1.3	1.5	1.4	2.2	2.2	2.4	2.5	5.0
10	1.5	1.4	1.6	1.5	1.4	1.5	3.6	2.2	2.6	2.8	2.8	3.1
11	1.3	1.5	1.3	1.4	1.3	1.5	1.5	1.9	2.1	2.2	2.6	2.7
12	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.8	2.1	2.5	2.6	3.0
13	1.3	1.4	1.3	1.6	1.4	1.6	1.6	1.6	2.2	2.5	2.7	2.7
14	2.0	1.4	1.4	1.6	1.5	1.7	1.7	1.9	2.2	2.6	2.9	3.0
15	2.2	1.6	1.7	1.5	1.6	1.7	1.6	2.0	2.3	2.3	2.7	2.6
16	1.7	2.2	1.5	1.6	1.5	1.6	1.7	2.1	2.4	2.5	2.9	2.8
17	1.8	1.6	1.5	1.5	1.4	1.5	1.7	2.0	2.4	2.3	2.6	2.8
18	1.7	1.7	1.8	1.6	2.0	2.1	1.7	2.2	C	C	C	C
19	1.5	1.4	1.8	1.8	2.2	1.8	2.1	2.3	2.6	2.6	2.7	3.5
20	1.2	1.3	1.1	1.5	1.6	1.9	1.9	2.1	2.4	2.8	2.8	2.8
21	1.2	1.6	1.6	1.6	2.1	1.8	1.6	1.7	2.1	2.3	2.6	3.0
22	2.1	1.6	1.2	1.2	1.4	1.5	1.6	1.8	2.2	C	C	C
23	1.3	1.3	1.7	1.5	1.5	1.4	1.6	2.1	2.1	2.4	2.7	3.6
24	1.4	1.4	1.4	1.5	1.4	1.5	1.8	2.1	2.7	2.8	2.7	3.0
25	1.1	1.3	1.5	1.3	1.5	1.7	2.1	2.2	2.4	2.7	3.2	3.2
26	2.0	1.3	1.5	1.6	1.7	1.6	1.8	2.2	2.6	2.8	2.9	3.0
27	1.4	1.4	1.5	1.5	1.5	1.6	1.9	2.1	2.6	2.7	3.1	3.2
28	1.5	1.1	1.6	1.5	1.6	1.7	1.5	2.0	2.4	2.8	3.0	3.0
29	1.5	1.4	1.5	1.3	1.5	1.6	1.7	2.2	2.9	2.9	3.1	4.4
30	1.8	1.8	1.6	1.3	1.7	1.8	1.5	2.2	2.3	2.8	2.9	5.0
31	1.3	1.6	1.5	1.7	1.5	1.4	1.7	2.2	2.8	2.8	3.3	5.0
Count	31	31	31	31	31	31	31	30	28	27	29	28
Median	1.5	1.5	1.5	1.5	1.5	1.6	1.7	2.1	2.3	2.6	2.7	3.0
Mean	1.5	1.5	1.5	1.5	1.5	1.6	1.7	2.0	2.4	2.6	2.8	3.2

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : fmin
Unit : Mc
Month : August 1957

TABLE 17—contd.
Ionospheric Data
75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
2.6	2.8	2.8	2.5	1.9	1.8	1.3	1.7	1.5	1.4	1.2	1.4	1
2.6	2.4	2.4	2.2	2.2	2.0	E	1.2	1.4	1.3	1.5	1.3	2
2.5	3.0	2.8	2.3	1.8	1.4	1.5	1.4	1.4	1.1	1.5	2.0	3
2.8	2.6	2.5	2.4	1.8	1.3	E	1.1	1.3	1.0	1.4	1.6	4
2.6	2.4	2.3	2.5	1.7	1.6	1.5	1.3	1.3	E	1.4	1.5	5
3.3	2.8	2.4	2.3	2.0	1.6	1.3	1.4	1.5	1.4	1.4	1.0	6
2.6	2.6	2.4	2.2	1.9	1.4	1.5	1.3	1.3	1.6	1.5	1.4	7
3.0	2.7	2.5	2.5	4.2	1.9	1.5	1.3	1.3	1.5	1.5	1.3	8
G	G	2.6	2.2	2.0	1.6	1.5	1.3	1.5	1.1	1.6	1.6	9
3.8	3.0	2.4	2.4	1.9	1.8	1.3	1.0	1.2	1.4	1.3	1.5	10
2.6	2.6	2.4	2.4	2.0	1.3	1.8	1.7	1.4	1.6	1.3	1.6	11
3.0	2.8	2.6	U2.5s	2.4	U1.6s	1.5	1.5	1.4	1.2	1.3	1.5	12
2.6	2.7	2.5	2.4	2.0	1.9	1.5	2.2	2.7	2.2	2.0	1.8	13
2.9	2.7	2.4	C	1.8	1.6	1.0	1.8	1.7	1.8	1.3	1.4	14
2.7	2.6	2.5	2.4	2.1	1.9	1.5	1.9	2.0	1.2	1.3	1.4	15
2.8	2.8	2.6	2.5	1.9	1.2	E	U1.2s	1.5	U1.5s	1.2	1.5	16
3.0	3.0	2.7	2.2	2.0	1.7	1.1	1.8	1.4	U1.2s	1.2	1.3	17
G	G	G	2.3	2.0	1.1	U1.1s	1.6	1.6	1.7	1.5	1.4	18
3.0	2.8	2.6	2.4	2.1	1.7	1.1	1.4	1.4	1.6	1.3	1.3	19
2.7	2.6	2.6	2.5	2.0	1.5	1.3	1.5	1.4	1.3	1.2	1.2	20
2.6	2.8	2.4	2.2	2.0	1.6	E	1.3	1.3	1.3	1.7	2.0	21
C	C	C	C	C	1.6	1.2	1.4	1.4	C	1.6	1.4	22
3.2	3.1	2.6	2.7	2.0	1.6	1.2	1.2	2.0	1.7	2.1	1.6	23
3.0	2.4	2.5	2.2	1.9	1.5	1.3	1.2	1.3	1.3	1.4	1.1	24
3.2	3.1	3.2	2.6	2.1	1.6	1.4	1.5	1.7	1.6	E	1.4	25
3.2	3.0	3.2	2.4	2.1	1.6	1.3	1.3	1.3	1.3	E	1.4	26
3.0	3.1	2.4	2.2	1.6	1.4	E	1.5	1.5	1.7	2.1	1.7	27
3.1	3.0	4.0	5.4	3.0	2.0	1.7	1.7	1.6	1.7	2.2	1.8	28
3.3	3.2	2.8	2.8	2.2	1.9	1.2	1.6	1.4	1.6	1.8	1.9	29
3.0	2.8	2.7	2.4	2.4	1.9	1.6	1.7	1.6	1.6	1.9	1.5	30
5.0	4.7	2.4	2.8	2.0	1.4	E	1.9	1.6	1.9	C	2.6	31
28	28	29	29	30	31	31	31	31	30	30	31	Count
3.0	2.8	2.5	2.4	2.0	1.6	1.3	1.4	1.4	1.4	1.4	1.5	Median
3.0	2.9	2.6	2.5	2.1	1.6	1.4	1.5	1.5	1.5	1.5	1.5	Mean

Sweep 1°0 Mc. to 25°0 Mc. in 30 seconds.

Characteristic : h'F2
 Unit : Km
 Month : August 1957

TABLE 18
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N.
 Longitude : 77.5° E.

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								L	L	C	C	L
2								L	L	L	L	L
3								L	L	L	L	L
4								L	L	L	L	L
5								C	C	C	L	L
6								L	L	L	L	L
7								L	L	L	L	L
8								C	L	L	L	L
9								L	L	L	L	L
10								L	L	L	L	L
11								L	L	L	L	L
12								L	L	L	L	L
13								L	L	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	C	C	C	C
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								L	L	L	L	L
26								L	L	L	L	L
27								L	L	L	L	L
28								L	L	L	L	L
29								L	L	L	L	L
30								L	L	L	L	L
31								L	L	L	L	L
Count
Median
Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'F2
 Unit : Km
 Month : August 1957

TABLE 18
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
L	L	L	L	L	L							1
G	L	L	A	L	L							2
L	L	L	L	L	L							3
L	L	L	L	L	L							4
L	L	L	L	L	L							5
L	L	u440L	u410L	u470L	515							6
L	L	L	L	L	L							7
L	L	L	L	L	L							8
L	C	C	L	L	L							9
L	L	L	L	L	L							10
L	L	L	L	L	A							11
L _H	L _H	u435L	u460L	L	L							12
L	L _H	L	L	L	L							13
L	L _H	L _H	L	L	u400L							14
L	L	L	L	L	L							15
L	L	L	L	L	L							16
L	L	L	L	L	L							17
C	C	C	L	L	L							18
L	L	L	L	L	L							19
L	L	L	L	L	L							20
L	u480L	L	L	L	L							21
G	C	C	C	C	C							22
L	L	L	L	L	L							23
L	L	A	L	u430L	L							24
L	L	L	L	L	L							25
L	L	A	L	L	L							26
L	L	L	L	L	L							27
L	L	L	L	L	L							28
L	L	L	L	L	L							29
L	L	L _H	L	L	L							30
L	L	L	L	L	L							31
..	1	2	2	3	1							Count
..	..	..	..	..	..							Median
..	..	..	..	..	..							Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'F2
 Unit : Km
 Month : August 1957

TABLE 18—*contd.*
 Ionospheric Data
 75.0° 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	C	C	L	G ³⁴⁰
2								L	L	L	L	L
3								L	L	L	L	L
4							L	L	L	L	L	L
5								C	C	C	L	L
6								L	L	L	L	L
7								L	L	L	L	L
8								L	L	L	L	L
9								L	L	L	L	L
10								L	L	L	L	L
11								L	L	L	L	L
12								L	L	L	L	U ³⁵⁵ L
13								L	L	L	L	L
14								L	U ³⁰⁰ L	L	L	L
15								L	L	L	L	L
16								L	L	L	L	L
17							L	L	L	L	L	L
18							L	L	C	L	L	L
19							L	L	L	L	L	L
20								L	L	L	L ₁	L
21							L	L	L	L	L	L
22							L	L	L	C	L	L
23							L	L	L	L	L	L
24							L	L	L	L	L	L
25								L	L	L	L	L
26								L	L	L	L	L
27								L	L	L	L	L
28							L	L	L	L	L	L
29								L	L	L	L	L
30								L	L	L	L	L
31								L	L	L	L	L
Count	1	..	..	2
Median
Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'F2
 Unit : Km
 Month : August 1957

TABLE 18—*contd.*
 Ionospheric Data
 75°0' 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	L	L	L								1
L	L	L	A	L								2
L	L	L	L	L	L							3
L	L	L	L	L	L							4
L	L	L	L	L								5
L	U430L	440	U450L	500								6
L	L	L	L	L	L							7
L	L	L	L	L	L							8
C	C	L	L	L	L							9
L	L	L	L	L	L							10
L	L	L	L	L								11
L _{lit}	U420L	U420L	U425L	L								12
L	L _{lit}	L	L	L								13
L _{lit}	L	L	C	U395L								14
L	L	L	L	L								15
L	L	L	L	L								16
L	L	L	L	L	L							17
C	C	C	L	L								18
L	L	L	L	L	L							19
L	L	530 U460L	L	L	L							20
L	L	L	L	L								21
C	C	C	C	C	L							22
L	L	L	L	L	L							23
L	L	L	L	L	L							24
L	L	L	L	L _{lit}								25
L	L	L	L	L								26
L	L	L	L	L								27
L	L	L	L	L								28
L	L	L	L	L								29
L	L	L	L	L								30
L	L	L	L	L								31
..	2	4	2	2	..							Count
..	..	..	..	..	..							Median
..	..	..	..	..	..							Mean

Sweep 1°0' Mc. to 25°0' Mc. in 30 seconds.

Characteristic : h'F
 Unit : Km
 Month : August 1957

TABLE 19
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	300F	360F	300F	240F	240	225	260	235	230	C	C	210H
2	260	U245F	255	250F	230	210	260	235	215	210	210H	C
3	315	270	235	260	245	215	265	245	225	220H	215	200H
4	260	300	420	F	260	200	255	240	230	220	215H	200
5	325	280	260	250	220	225	260	C	C	C	200	200
6	U280F	U270F	U285F	U280F	255	220	270	240	245	215	210H	210H
7	320	300	270	275	240	235	270	240	220	215	200H	200
8	F	U300F	245	230	230	240	280	C	230	220	210	210
9	320	260	230	215	220	225	265	240	220	210	200	190H
10	U290F	260	240	220	215	225	270	245	230	215	200H	200
11	335	305	275	250	240	240	280	250	U240A	220	210	200
12	U320F	240	225	215	230	240	260	240	220	215H	200	195H
13	370	U365F	360	335	240	215	275	240	215	205	190H	190
14	310	320	315	255	220	230	270	240	210	210	195	205
15	U330F	265	240	230	210	220	275	240	230	220	205	205
16	260	220	215	235	240 ^o	230	265	235	220	210	205	200
17	U300F	260	235	240	235	235	265H	240	220	215	205	210
18	U330F	290	250	235	230	240	265	240	C	C	C	C
19	280	240	240	240	250	230	270	240	220H	215	200H	215H
20	290	255	235	235	240	240	260	240	220	210H	205	200H
21	335	315	285	260	260	235	265	240	220	205	200H	205
22	300	260	240	240	240	240	280	240	220	215	C	C
23	260	240	240	225	220	230	260	235	210	220	210 ^o	C
24	275	220	215	220	220	220	260	230	210	190H	220	210
25	235	230	215	220	210	220	260	240	220	220	210	210
26	275	220	220	215	220	220	260	230	215	205	200	200
27	280	265	260	255	225	220	255	240	220	U210A	220	210
28	285	295	280	245	230	220	280	240	215	200	200	200
29	250	240	225	235	230	220	265	240	225	220	210	B
30	270	220	200	330	U380F	F	270	240	220	230	220	210H
31	280	245	240	225	220	210	250	240	235	220	210	B
Count	30	31	31	30	31	30	31	29	29	28	28	25
Median	290	260	240	240	230	225	265	240	220	215	205	200
Mean	300	270	255	245	235	225	265	240	220	215	205	205

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'F
 Unit : Km
 Month : August 1957

TABLE 19
 Ionospheric Data
 75° 0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
205	200H	200	220H	230	245	A	380	U320F	F	U275F	280	1
C	215	215	A	240	260	290H	385	F	U410F	420F	U380F	2
195	200	225	230	A	A	285	365	U340F	F	F	240	3
195	200H	215H	215	220	240	290	375	F	440	410	365	4
200	200	200	200H	225	240	280	375	F	320	320	F	5
210H	205H	200H	225	230H	245	285H	360H	F	F	U320F	U330F	6
200H	200H	205H	220	230	240	270	355	460	U420F	460	450	7
210H	200H	205	205H	230	250	275	330	U400F	U330F	F	U360F	8
200H	C	C	230	A	245	285	375	400	330	380	320	9
180H	190	210	205	220	235	280H	U360H	U370F	U350F	U310F	F	10
210	215	205H	230	A	A	300	420	U380F	U405F	U400F	U360F	11
200	190	200	215	U240A	U255S	290	U340F	U330F	U350F	U340F	U365F	12
200	195	200	210	240	255	290	340	300	300	320	325	13
200	195	190	195H	230	250	300	395	F	F	U390F	U370F	14
200	200	215	215H	225	255	290	390	F	F	F	U320F	15
195	195	190	195	220	240	280	375	F	F	U410F	U330F	16
200H	220	210	220	230	U265A	300	F	F	F	U380F	F	17
C	C	C	220	235	260	295	U400F	U465F	U420F	390	325	18
210	210	210	230	240	260	295	360	U390F	F	U360F	335	19
200H	200H	200	215	240	U260A	285	U395F	U430F	U340F	U355F	U340F	20
200H	205H	200H	215H	230	U260A	290	345	U395F	F	U395F	U345F	21
C	C	C	C	C	C	285	440	F	U400F	425	U320F	22
200	200	210	210	A	235	260	360	U400F	U380F	380	365	23
200H	210	A	220	U230A	U270A	280	360	F	U330F	U310F	280	24
200	205	210	220	240	240	280	380	U340F	U400F	U350F	U320F	25
200	190H	A	A	A	240	280	410	U460F	320	U320F	320	26
205	205	215	220	235	E260A	300	U420F	400	400	380	310	27
200	200	200	B	B	260	290	380	390F	325	370	290	28
200	E200A	200	225	230	250	280	U400F	390F	360	320	290	29
210	210	210	220	235	255	280	380	U480F	U400F	F	320	30
B	B	220	A	E260A	260	290H	400	F	F	U310F	C	31
27	27	26	26	24	28	30	30	20	21	27	27	Count
200	200	205	220	230	250	285	380	390	360	370	325	Median
200	200	205	215	235	250	285	375	390	370	365	330	Mean

Sweep 1° 0 Mc. to 25° 0 Mc. in 30 seconds.

Characteristic : h'F
Unit : Km
Month : August 1957

TABLE 19—*contd.*
Ionospheric Data
75.0° 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	390F	320F	280F	240	235	255	250	240	C	C	220	210
2	280	245	245F	240	220	225	240	230	205	200	200	C
3	295	260	240	260	240	235	255	235	220	U205A	200H	200
4	280	370	420	320	220	250H	240	235	220	220H	205	200
5	295	265	255	240	220	265	240	C	C	200	200	200
6	265	U270F	U280F	U265F	225	255	250	230	220	205H	200H	200H
7	315	280	265	270	220	270	255	235	220	205H	200H	195H
8	U310F	U250F	235	235	230	280	260H	240	225	215	E215B	215
9	300	240	215	220	225	240	255	235	215	200	200	B
10	285	240	225	220	205	260	265	235	225	205	200H	190H
11	325	300	260	240	240	255	260	240	225	215	195H	210
12	280	225	225	220	240	280	250	230	210	205	195	200
13	U370F	U300F	345	305	225	240	260	240	210H	205	200	200
14	315	330	280	235	220	240	250	225	220	205	210	205
15	300	250	235	220	220	270	260	230	225	210	210	205
16	245	215	225	240	240	245	250	225	210	205	210	195
17	280	240	230	240	240	255	250	235	220	215	210	200
18	U315F	270	235	240	240	260	250	240	C	C	C	C
19	260	240	240	250	240	240	255	230	220	205	215	200H
20	275	240	240	235	240	250	250	230	210	200H	200	195H
21	320	290	260	260	240	235	250	235	220	200H	195H	200H
22	295	240	240	235	240	260	255	235	220	C	C	C
23	U260F	240	240	240	225	250	245	220	210	220	200	190H
24	250	220	210	215	210	235	240	210	200H	235	220	210H
25	235	220	220	215	220	250	260	235	220	215	210	200
26	240	220	220	220	220	240	240	220	210	200	200	200
27	260	280	265	240	220	230	245	235	215	220	215	210
28	300	300	260	235	230	240	240	U220A	205	200	200	200
29	240	230	235	230	220	250	250	235	220	215	210	200
30	245	200	230	400F	F	280	255	235	230	225	220	B
31	260	240	230	225	215	235	245	235	225	220	210	B
Count	31	31	31	31	30	31	31	30	28	27	29	25
Median	280	245	240	240	225	250	250	235	220	205	200	200
Mean	285	260	250	245	230	250	250	230	215	210	205	200

Sweep 1.0 Mc. to 25.0 Mc. in 30 second.

Characteristic : h'F
Unit : Km
Month : August 1957

TABLE 19—contd.
Ionospheric Data
75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
200H	205H	220	220	240	A	305	U380F	F	F	U260F	240	1
220	215	A	A	245	260H	315	F	U340F	U410F	400	360F	2
200	225H	230H	A	A	A	315	385	U360F	F	250	240	3
200	205H	220H	215H	235	275	315	435	400	410	380	360	4
200H	200	200H	215	240	240	300	400	320	F	380	U300F	5
205	205	215H	230H	235	265H	305H	F	F	U280F	U340F	330	6
205H	205	205H	220	225	250	290	420	500	U440F	460	U375F	7
200H	200H	200H	215	B	260	295	U365F	F	F	F	U330F	8
C	C	220	230	A	265	315	390	380	380	365	320	9
200	205	210	210	225	260	310H	U380F	U390F	F	U360F	U345F	10
200	210	215	A	A	270	350	U470F	U360F	F	U335F	395	11
195	U190A	200	220	U250S	275	300	U355F	U285F	U385F	U350F	360	12
200	200H	200	220	245	270	310	320	300	305	315	320	13
195	195	190	C	235	270	335	U400F	F	F	U410F	U350F	14
200	200H	210	230	245	270	320	U480F	F	F	U340F	U280F	15
195	195H	195H	215	230	265	315	F	F	F	U350F	U305F	16
215	210	210	230	240	U275A	310	F	F	U390F	365	U360F	17
C	C	C	220	240	280	325	420	U455F	400	365	305	18
200H	220	220	235	255	280	325H	F	U360F	F	340	320	19
200H	195H	210	220	U260A	260	325	F	F	F	U420F	335	20
210H	200H	215H	220	240	U300A	310	390	F	U405F	U385F	305	21
C	C	C	C	C	260	340	U400F	U380F	C	U380F	300	22
200	200	200	A	230	245	300	410	U340F	U360F	U390F	320	23
205H	210	A	A	A	260	320	U400F	U320F	280	U270F	260	24
200	210	210	220	240	260	315	F	U400F	F	370	300	25
190H	200	A	230	230	260	320	U470F	U360F	U310F	U320F	320	26
200	200	215	220	240	280	340	U420F	400	360	U280F	290	27
200	200	U230B	B	260	260	320	400	400	320	320	275	28
195H	U200A	200	230	240	270	325	F	F	340	310	270	29
210	210	215	220	240	260	320	F	U410F	F	F	275	30
B	U230B	230	A	250	280H	310	400F	F	U280F	C	265	31
27	28	26	22	25	29	31	22	21	17	28	31	Count
200	200	210	220	240	265	315	U400	U380	U360	U355	320	Median
200	205	210	220	240	265	315	U405	U375	U355	U350	315	Mean

Sweep 1°0 Mc. to 25°0 Mc. in 30 seconds.

Characteristic : h'E
 Unit : Km
 Month : August 1957

TABLE 20
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							120H	100	A	C	C	A
2							120H	100	100	A	A	C
3							140	105	A	A	A	A
4							110H	A	A	A	A	A
5							115	C	C	C	A	A
6							130	A	A	A	A	A
7							115	105	A	A	A	A
8							110	C	A	A	A	A
9							115	A	A	A	A	A
10							120H	110	A	100	A	A
11								A	A	105	100	100
12								100	100	100	100	100
13							120H	110	100	100	A	A
14								100	A	A	A	A
15								110H	110	105	A	A
16							130H	105	A	A	A	A
17								A	A	A	A	A
18								115H	C	C	C	C
19								110	105	110	A	A
20							120	105	105	A	A	A
21							130	110H	A	A	A	A
22							A	A	A	A	C	C
23							110	A	A	A	A	C
24								110	A	A	A	A
25								A	A	A	110	110
26							A	A	A	A	A	A
27								U110A	A	A	A	A
28							120	A	A	A	A	A
29							120	A	A	A	A	B
30							115	110	A	A	A	A
31								110	115	A	A	B
Count							18	18	7	6	3	3
Median							120	110	105	100	..	..
Mean							120	105	105	105	..	..

Sweep 1°0' Mc. to 25°0' Mc. in 30 seconds.

Characteristic : h'E
 Unit : Km
 Month : August 1957

TABLE 20
 Ionospheric Data
 75°0' E Mean Time

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

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

Sweep 1°0 Mc. to 25°0 Mc. in 30 seconds.

Characteristic : h'E
 Unit : Km
 Month : August 1957

TABLE 20—*contd.*
 Ionospheric Data
 75° 0' 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							115	100	C	C	A	A
2							100H	100	A	A	A	C
3							105	110	A	A	A	A
4							A	A	A	A	A	A
5							105	C	C	C	A	A
6							115	110	A	A	A	A
7							110	A	A	A	A	A
8							105	A	A	A	B	A
9							105	A	A	A	A	B
10							B	A	A	A	A	A
11							A	A	A	100	105	100
12							100	100	100	100	A	100
13							115	105	100	100	A	A
14							110H	A	A	A	A	A
15							105H	105	110	A	A	A
16							105H	A	A	A	A	A
17							A	A	A	A	A	A
18							115H	110	C	C	C	C
19							120	A	110	A	A	B
20							110	100	A	A	A	A
21							110H	105	A	A	A	110
22							A	A	A	C	C	C
23							110	A	A	A	A	A
24							110	A	A	A	A	A
25							110	A	A	110	110	110
26							110	A	A	A	A	A
27							A	A	A	A	A	A
28							A	A	A	A	A	A
29							115	A	A	A	A	B
30							115	110	A	A	A	B
31							110	105	A	A	A	B
Count	.						24	12	4	4	2	4
Median	.						110	105	..	..	..	..
Mean	.						110	105	..	..	..	..

Sweep 1° 0' Mc. to 25° 0' Mc. in 30 seconds.

Characteristic : h'E
 Unit : Km
 Month : August 1957

TABLE 20—*contd.*
 Ionospheric Data
 75°0' 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	A							1
A	A	A	A	A	A							2
A	A	110	105	A	125							3
A	A	A	A	A	A							4
A	A	A	110	A	A							5
115	110	105	A	105	A							6
A	A	A	A	A	A							7
A	A	A	A	B	120							8
C	C	A	A	A	120							9
A	A	A	105	110	A							10
100	100	100	A	A								11
100	A	A	A	A								12
A	A	A	A	115								13
A	A	A	C	A								14
A	A	A	A	A								15
A	A	A	A	A	A							16
A	A	A	A	A	A							17
C	C	C	A	A	A							18
A	A	A	A	A	120							19
A	A	A	105	A	A							20
A	A	A	A	A	A							21
C	C	C	C	C	A							22
A	A	A	A	A	110							23
A	A	A	A	A	A							24
A	A	A	110	A	A							25
A	A	A	A	A								26
A	A	A	A	A	A							27
A	A	B	B	A	A							28
A	A	A	A	A	110							29
A	A	A	A	A	A	125						30
B	B	A	A	A								31
3	2	3	5	4	6							Count
..	..	..	105	..	120							Median
..	..	..	105	..	120							Mean

Sweep 1°0 Mc. to 25°0 Mc. in 30 seconds.

Characteristic : h'Es
 Unit : Km
 Month : August 1957

TABLE 21
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							100	100	100	C	C	100
2	115			120			G	G	100	100	95	C
3	110						G	100	100	100	100	100
4	120						120	100	100	100	100	100
5	115	105					G	C	C	C	100	100
6	115	120		110			G	100	100	100	100	100
7	115	110					100	100	100	100	100	100
8							100	C	100	100	100	100
9							105	100	100	100	100	100
10							G	100	100	100	100	100
11		130			115	110	120	100	95	95	100	95
12							145	100	100	100	100	95
13	125	120				115	G	105	100	100	95	95
14		115					105	100	100	100	90	95
15							145	G	100	100	95	95
16	110	120F						100	95	95	90	90
17	110	120						100	100	100	100	100
18								G	C	C	C	C
19								100	120	100	100	100
20			100				G	100	100	100	100	95
21	115	110			110		G	130	100	100	100	100
22							110	100	100	100	C	C
23							G	100	100	100	100	C
24								100	100	100	100	100
25	105							105	100	100	100	100
26							100	100	100	100	95	95
27		135	115				100	100	100	100	100	100
28	120	120					G	100	100	100	100	100
29							G	100	100	100	100	G
30							G	G	100	100	100	100
31								110	100	100	100	100
Count	13	11	2	2	2	2	11	25	29	28	28	26
Median	115	120	..	..	..	..	105	100	100	100	100	100
Mean	115	120	..	..	..	..	115	100	100	100	100	100

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'Es
 Unit : Km
 Month : August 1957

TABLE 21
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
100	100	100	100	100	100	100	160		100	120	105	1
C	100	100	100	100	100	100						2
100	100	100	100	100	100	100						3
100	100	100	100	100	100	100				120	120	4
100	100	100	100	100	100	100				125	120	5
100	100	G	G	100	100						120	6
100	100	100	100	100	100	100				100	100	7
100	100	100	100	100	100	100						8
100	C	C	100	100	100	100				120		9
100	100	100	100	G	G	G						10
100	100	95	95	95	95							11
95	100	95	95	100	100	100				130	125	12
95	95	95	95	100	100	100	100					13
90	90	90	95	100	100	100				120	115	14
95	95	95	100	105	110					115	115	15
90	90	90	90	95	100	100	S				115	16
100	100	100	100	100	100	100				110	110	17
C	C	C	100	100	100	100						18
100	100	100	100	100	105	G						19
95	90	90	95	100	100	100			125	120	160	20
100	100	100	100	100	100	100		115	120	120	120	21
C	C	C	C	C	C							22
95	95	100	100	100	110	100	90					23
100	100	100	100	100	100	100					115	24
100	100	100	100	100	100	100	100				120	25
100	100	100	100	100	100						120	26
100	100	100	100	100	100	100	100			120	120	27
100	100	100	B	100	100					120		28
100	100	100	100	100	105							29
100	100	100	100	100	100							30
100	100	100	100	100	100	100				115	C	31
28	28	27	28	29	29	20	5	1	3	14	16	Count
100	100	100	100	100	100	100	100	..	..	120	120	Median
100	100	100	100	100	100	100	110	..	..	120	120	Mean

Sweep 1°0' Mc. to 25°0' Mc. in 30 seconds.

Characteristic : h'Es
 Unit : Km
 Month : August 1957

TABLE 21—*contd.*
 Ionospheric Data
 75.0° 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		110					G	100	C	C	100	100
2		105					G	100	100	100	95	C
3			110	105		180	G	135	100	100	100	100
4	100						100	100	100	100	100	100
5							G	C	C	C	100	100
6	120		110				110	100	100	100	100	100
7	115	110					100	100	100	100	100	100
8							100	100	100	100	100	100
9							100	100	100	100	100	100
10							100	100	100	100	95	100
11				115			105	100	95	95	95	95
12							100	100	100	100	95	95
13	120		120				110	100	100	95	95	95
14				160			G	100	95	90	95	90
15							165	120	100	95	95	90
16								95	100	90	85	90
17	110	110					110	100	100	100	100	100
18	110						150	G	C	C	C	C
19						145	100	100	100	100	100	100
20			100		100		100	105	100	100	95	95
21	120						G	100	100	100	100	100
22							105	100	100	C	C	C
23							100	100	100	100	100	90
24							G	100	100	100	100	100
25	105						110	105	100	100	100	100
26							100	100	100	100	95	100
27	120		115				100	100	100	100	100	100
28	120	115					100	100	100	100	100	100
29							100	100	100	100	100	100
30							115	100	100	100	100	100
31	135						G	G	100	100	100	100
Count	11	5	5	3	2	1	22	28	28	27	29	28
Median	120	110	110	..	..	..	100	100	100	100	100	100
Mean	115	110	110	..	..	..	110	100	100	100	100	100

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'Es
 Unit : Km
 Month : August 1957

TABLE 21—*contd.*
 Ionospheric Data
 75°0' 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	105				120	110	1
100	100	100	100	115	G	100				120	110	2
100	100	100	100	100	100						120	3
100	100	100	100	100	100	100			120	120	115	4
100	100	100	100	100	100				125		120	5
G	110	G	100	100	105						115	6
100	100	100	100	100	100					110		7
100	100	100	100	B	100	105						8
C	C	100	100	100	110				125			9
100	100	100	G	G	100							10
100	100	95	95	95	95							11
100	100	95	100	100	100				120	115		12
95	95	95	100	100	100	100						13
90	95	90	G	100	100	105				100	120	14
95	90	100	100	105	115				120	120	110	15
90	90	90	95	100	100	100				120	120	16
100	100	100	100	100	100	100			115	110	110	17
C	C	C	100	100	100	100						18
100	100	100	100	100	115							19
95	90	95	100	100	100				120	120	120	20
100	100	100	100	100	100	100	130	120	115	120		21
C	C	C	C	C	100	100						22
95	95	100	100	100	100	95	90					23
100	100	100	100	100	100						110	24
100	100	100	100	100	100	100				120	110	25
100	95	100	100	100	100				115	120	115	26
100	100	100	100	100	100	100				120	120	27
100	100	100	B	100	100				120	120		28
100	100	100	100	100	105							29
100	100	100	100	100								30
100	B	100	100	100	100	100					105	31
27	27	28	27	28	29	14	2	1	11	15	16	Count
100	100	100	100	100	100	100	..	..	120	120	115	Median
100	100	100	100	100	100	100	..	..	120	115	115	Mean

Sweep 1°0' Mc. to 25°0' Mc. in 30 seconds.

Characteristic : (M3000)F2

Unit : —

Month : August 1957

TABLE 22

Ionospheric Data

75°0' E Mean Time

Latitude : 10°2' N.

Longitude : 77°5' E.

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	F	F	F	F	F	F	J3'05F	U2'80F	U2'30F	C	C	2'25
2	F	F	U2'85F	F	E3'10F	F	E3'10F	3'00	2'70	2'35	2'15	C
3	U2'65F	U2'90F	U3'05S	E3'05S	F	U3'15S	3'25	3'05	2'85	2'50	2'20	2'30
4	F	F	F	U2'45F	F	3'30	3'10	2'85	2'60	2'15	2'25	2'30
5	F	F	F	3'05	3'40	3'25	3'05	C	C	C	2'45	2'20
6	F	F	F	F	U3'00F	3'40	2'95	2'95	2'70	2'45	2'15	2'15
7	U2'60F	F	U2'85F	U2'75F	3'00	3'25	2'85	2'85	2'55	2'20	2'20	2'30
8	F	F	F	F	F	3'10	2'80	C	2'50	2'35	2'30	2'30
9	2'65	3'05	3'30	3'40	3'20	3'40	3'05	2'70	2'45	2'35	2'20	2'25
10	F	U3'00F	E3'05S	3'20	3'50	3'40	3'00	2'85	2'60	2'30	2'35	2'25
11	F	F	F	U2'95F	U3'00F	U3'30F	U2'80F	U2'60F	2'50	2'40	2'20	2'20
12	F	F	U3'30F	U3'20S	3'10	3'30	3'00	3'00	2'70	2'30	2'20	2'25
13	F	F	F	F	U3'35F	Fs	U3'00S	2'80	2'40	2'30	2'25	2'15
14	2'60	2'60	2'65	2'85	3'05	3'20	3'10	2'85	2'50	2'30	2'25	2'25
15	F	U2'75F	U2'95F	3'15	U3'35F	3'30	3'00	2'95	2'85	2'45	2'10	2'15
16	U2'90F	F	U3'20S	U3'10F	E3'10F	3'40	3'15	3'00	2'75	2'40	2'15	2'20
17	F	F	3'20	F	U3'25F	3'40	U3'10S	3'00	2'70	2'35	2'00	2'15
18	F	F	F	U3'20F	F	3'30	3'05	3'00	C	C	C	C
19	2'70	E2'80F	2'90	2'90	U3'00S	3'20	2'95	2'80	2'70	2'50	2'30	2'10
20	2'75	2'95	3'00	2'95	2'95	3'10	3'10	3'00	2'80	2'50	2'15	2'20
21	E2'50F	E2'60F	F	D2'95F	3'05	F	3'10	2'95	2'60	2'30	2'25	2'15
22	F	F	F	F	U3'00F	F	F	2'75	2'50	2'40	C	C
23	F	F	U2'95F	F	U3'10F	U3'30F	F	2'85	2'50	2'35	2'30	C
24	F	F	F	F	U3'40F	3'40	3'10	3'00	2'65	2'20	2'40	2'35
25	F	U3'20F	U3'25F	F	U3'25F	F	3'05	2'95	2'70	2'30	2'20	2'20
26	F	F	F	F	F	F	3'20	2'95	2'65	2'20	2'20	2'30
27	F	F	F	F	F	U3'30F	3'15	3'15	2'75	2'30H	U2'20H	2'30
28	2'75	F	F	F	F	F	F	3'05	3'65	2'25	2'35	2'30
29	F	U3'15S	3'10	3'10	U3'25S	3'20	3'00	2'90	2'50	2'35	2'30	2'30
30	F	3'05	3'50	2'80	F	F	F	3'00	2'70	2'35	2'20	2'30
31	F	F	U3'00F	F	F	U3'40F	3'10	3'20	2'90	2'65	2'40	2'15
Count	9	11	17	17	21	22	27	29	29	28	28	27
Median	2'65	2'95	U3'05	3'05	U3'10	3'30	3'05	2'95	2'65	2'35	2'20	2'25
Mean	2'70	2'90	U3'05	3'00	U3'15	3'30	3'05	2'90	2'65	2'35	2'25	2'25

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : (M3000)F2

TABLE 22

Latitude : 10.2° N.

Unit : —

Ionospheric Data

Longitude : 77.5° E.

Month : August 1957

75.0° E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
2'25	2'20	2'15	2'10	2'10	U2'15S	E2'35S	2'20	U2'20F	F	U2'40F	U2'65F	1
C	2'15	2'20	E2'35S	2'40	2'60	2'50	U2'30S	F	F	U2'30F	F	2
2'15	2'20	2'30	2'25	2'30	U2'35S	2'35	U2'25F	D2'20F	F	2'60F	F	3
2'20	2'20	2'20	2'20	2'25	2'25	2'20	2'10	F	F	F	F	4
2'15	2'10	2'15	2'15	2'25	2'35	2'30	2'15	F	F	F	F	5
2'25	2'35	2'35	2'40	2'35	2'30	2'25	U2'10R	F	F	F	F	6
2'20	2'15	2'15	2'15	2'25	2'35	2'35	U2'15S	F	F	F	F	7
2'25	2'25	2'20	2'15	2'25	2'35	2'45	2'30	U2'15F	F	F	F	8
2'20	C	C	2'15	2'25	2'30	2'35	2'20	F	F	F	F	9
2'15	2'15	2'15	2'25	2'40	2'45	E2'45S	2'15	F	F	F	F	10
2'15	2'15	2'10	2'15	2'20	2'05	U2'00S	2'05	F	F	F	F	11
2'25	2'35	2'40	2'35	2'40	2'40	2'45	2'30	F	F	F	F	12
2'10	2'15	2'15	2'10	2'05	2'10	2'25	2'30	2'45	2'50	2'45	2'50	13
2'20	2'25	2'15	2'20	2'15	2'20	2'30	2'10	F	F	F	F	14
2'10	2'10	2'10	2'15	2'15	E2'25S	2'30	2'25	F	F	F	F	15
2'15	2'20	2'10	2'10	2'15	2'25	2'35	2'10	F	F	F	F	16
2'25	2'15	2'10	2'15	2'20	2'30	E2'35S	U2'25F	F	F	F	F	17
C	C	C	2'05	2'10	2'15	U2'25S	U2'15S	D2'00F	U2'15F	E2'30F	D2'40F	18
2'05	2'05	2'05	2'10	2'10	2'15	J2'15S	2'10	J2'20F	F	2'30	2'45	19
2'15	2'25	2'20	2'20	2'25	2'30	E2'20S	2'00	F	F	F	E2'30F	20
2'25	2'25	2'20	2'20	2'20	2'30	U2'30S	E2'25R	U2'15S	F	F	F	21
C	C	C	C	C	C	U2'10S	1'55	F	F	F	F	22
2'25	2'20	2'20	2'25	2'45	2'50	U2'50S	U2'25S	F	F	F	F	23
2'25	2'30	2'35	2'40	2'50	2'55	2'50	U2'25S	F	F	F	F	24
2'15	2'15	2'15	U2'20S	2'20	2'25	2'30	2'10	F	F	F	F	25
2'30	2'25	2'30	2'40	2'45	2'40	U2'35S	J2'10S	F	F	F	F	26
2'25	2'05	2'00	2'10	2'15	2'30	2'40	U2'20R	F	F	F	F	27
2'25	2'20	2'15	2'15	2'30	2'30	U2'30S	2'10	2'20	2'30	F	F	28
2'35	2'25	2'15	2'10	2'20	2'25	2'30	U2'10S	U2'15F	F	U2'50S	F	29
2'30	2'15	2'10	2'10	2'15	2'20	2'30	U2'10S	U2'00F	F	F	F	30
2'25	2'25	2'30	2'35	2'40	2'45	2'45	2'20	F	F	F	C	31
28	28	28	30	30	30	31	31	10	3	7	5	Count
2'20	2'20	2'15	2'15	2'25	2'30	2'30	2'15	U2'20	..	U2'40	2'45	Median
2'20	2'20	2'20	2'20	2'25	2'30	2'30	2'15	U2'15	..	U2'40	2'45	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : (M3000)F2

TABLE 22—contd.

Latitude : 10°2' N.

Unit : —

Ionospheric Data

Longitude : 77°5' E.

Month : August 1957

75°0' E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	F	F	F	F	F	U3'00F	F	2'55	C	C	2'25	2'30
2	F	2'85	F	3.15	F	U3'15F	U3'15F	2'90	2'55	2'20	2'15	C
3	U2'75F	2'90	U3'00S	U2.95S	F	3'15	3'10	2'95	2'70	2'35	2'15	2'20
4	F	U2'10S	U2'20F	2.70	U3'30F	2'75	3'05	2'75	2'40	2'15	2'30	2'20
5	F	F	U2'95F	3.25	3'40	3'00	3'00	C	C	C	2'30	2'20
6	F	F	F	F	3'25	2'85	3'10	2'90	2'60	2'25	2'15	2'25
7	U2'65F	F	F	U3'00F	3'15	3'00	2'90	2'70	2'35	2'20	2'30	2'20
8	F	F	F	3'10	U3'10F	3'00	2'50H	2'60	2'45	2'40	2'20	2'40
9	2'85	3'20	3'40	3'30	3'15	2'70	2'90	2'55	2'50	2'30	2'30	2'15
10	U2'80F	U3'00F	3'20	3'30	3'50	2'90	2'95	2'70	2'45	2'30	2'30	2'20
11	F	F	F	F	F	F	U2'75F	2'60	2'45	2'25	2'20	2'15
12	F	F	U3'20F	3.40	3'30	2'80	3'05	2'80	2'65	2'20	2'30	2'25
13	F	F	F	F	F	U3'20FS	2'95	2'60	2'25	2'25	2'25	2'15
14	2'65	2'60	2.70	3.05	3'05	3'10	2'95	2'60	2'30	2'35	2'30	2'25
15	F	U2'95F	F	3.25	3'40	2'80	3'05	2'60	2'65	2'20	2'20	2'15
16	U3'10F	F	J3'05S	F	3'15	3'25	3'10	2'95	2'60	2'20	2'15	2'20
17	F	F	U3'20F	F	U3'30F	F	3'10	2'90	2'55	2'10	2'20	2'15
18	F	F	U3'00F	F	3'30	3'00	3'15	2'90	C	C	C	C
19	2'75	2'90	2'85	2'90	3'10	3'10	2'85	2'75	2'65	2'45	2'20	2'10
20	2'80	3'00	3'00	2'95	3'05	3'10	3'05	2'95	2'70	2'35	2'05H	2'20
21	F	F	F	U2.75F	3'15	F	3'05	2'75	2'45	2'20	2'25	2'20
22	F	F	F	F	U3'20F	F	U2'75F	2'60	2'50	C	C	C
23	U2'90F	F	F	U3'20F	U3'30F	F	U3'05F	2'70	2'25	2'30	2'30	2'30
24	F	F	U3'10F	U3'25F	U3'45F	2'75	3'05	2'90	2'35	2'25	2'30	2'30
25	F	F	U3'50F	3.40	F	F	3'15	2'85	2'50	2'15	2'20	2'20
26	F	F	U3'25F	F	U3'35F	U3'30F	3'10	2'85	2'55	2'25	2'30	2'30
27	F	F	F	F	U3'30F	3'15	U3'15S	3'05	2'65	2'05H	2'30	2'30
28	F	F	3'05	F	F	F	U3'15F	2'90	2'40	2'30	2'35	2'30
29	3'15	3'20	3'10	U3'20S	3'30	2'75	3'00	2'70	2'45	2'30	2'30	2'30
30	F	3'40	3'20	F	F	F	3'25	2'85	2'50	2'15	2'30	2'30
31	F	3'05	F	F	F	3.20	U3'15S	3'10	2'75	2'55	2'25	2'20
Count	10	12	18	18	22	23	30	30	28	27	29	28
Median	U2'80	3'00	3'10	3'20	3'30	3'00	3'05	2'80	2'50	2'25	2'25	2'20
Mean	U2'85	2'95	3'05	3'10	3'25	3'00	3'00	2'80	2'50	2'25	2'25	2'25

Sweep 1°0 Mc. to 25°0 Mc. in 30 seconds.

Characteristic : (M3000)F2
 Unit : —
 Month : August 1957

TABLE 22—contd.
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N.
 Longitude : 77.5° E.

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
2'20	2'20	2'15	2'10	2'10	U2'25 ⁵	U2'30 ⁸	2'15	2'20	F	2'55	U2'80 ^F	1
2'15	2'15	2'25	A	2'45	2'55	2'45	F	F	F	U2'45 ^F	U2'50 ^F	2
2'10	2'25	2'30	2'30	U2'35 ⁵	2'40	2'35	2'20	F	F	F	3'00	3
2'20	2'20	2'15	2'20	2'30	2'25	2'20	F	F	F	F	F	4
2'15	2'10	2'10	2'25	2'35	2'35	2'25	U2'05 ^F	F	F	F	F	5
2'30	2'35	2'40	2'40	2'35	2'25	2'15	2'05	F	F	F	U2'60 ^F	6
2'20	2'20	2'15	2'10	2'20	2'30	2'35	2'30	U2'05 ^F	F	F	F	7
2'30	2'20	2'15	2'20	2'35	2'45	2'45	2'25	F	F	F	2'50	8
C	C	2'15	2'15	2'30	2'35	2'35	U2'10 ^F	F	F	F	F	9
2'10	2'15	2'20	2'35	2'45	2'45	2'30	F	F	F	F	F	10
2'10	2'10	2'10	2'15	2'20	2'20	2'15	F	F	F	F	U2'60 ^F	11
2'30	2'30	2'35	2'35	2'40	2'45	2'35	U2'20 ^F	F	F	F	F	12
2'10	2'20	2'20	2'10	2'05	2'15	2'30	2'35	2'50	2'50	2'50	2'60	13
2'20	2'10	2'15	C	2'20	2'25	2'20	2'05	F	F	F	F	14
2'10	2'10	2'10	2'15	2'20	2'30	2'25	U2'05 ^F	F	F	F	F	15
2'10	2'10	2'10	2'15	2'25	2'30	2'25	U2'05 ⁸	F	F	F	F	16
2'10	2'15	2'10	2'20	2'20	U2'35 ⁵	U2'25 ⁸	U2'15 ^F	F	F	F	F	17
C	C	C	2'05	2'15	2'20	U2'25 ⁸	2'10	U2'20 ^F	2'25	F	2'60	18
2'05	2'05	2'05	2'10	2'10	2'20	U2'10 ⁸	U2'10 ^F	U2'15 ⁸	2'30	2'40	2'55	19
2'20	2'20	2'20	2'25	2'35	2'25	U2'15 ⁸	F	F	F	F	U2'40 ^F	20
2'25	2'25	2'20	2'20	2'25	2'35	2'30	2'20	U2'15 ^F	F	F	F	21
C	C	C	C	C	U2'20 ⁸	U2'10 ⁸	F	F	C	F	F	22
2'25	2'20	2'20	2'35	2'45	2'60	2'45	2'25	U2'30 ^F	F	F	F	23
2'30	2'35	2'40	2'45	2'55	2'55	2'40	2'15	F	F	F	F	24
2'15	2'15	2'15	2'20	2'20	2'30	2'30	F	F	F	F	F	25
2'30	2'30	C	2'40	2'40	2'40	2'20	F	F	F	F	F	26
2'15	2'00	2'05	2'10	2'20	2'35	2'25	U2'15 ^F	F	F	F	F	27
2'25	2'15	2'10	2'25	2'30	2'30	U2'25 ⁸	2'15	F	U2'35 ^F	F	F	28
2'30	2'20	2'15	2'10	2'20	2'30	U2'20 ⁸	U2'10 ^F	F	U2'50 ^F	F	F	29
2'25	2'10	2'10	2'15	2'15	2'30	2'30	F	F	F	F	F	30
2'25	2'30	2'35	2'35	2'40	2'45	2'35	F	F	F	C	U3'05 ^F	31
28	28	28	28	30	31	31	21	7	5	4	11	Count
2'20	2'20	2'15	2'20	2'30	2'30	2'25	2'15	U2'20	2'35	..	2'60	Median
2'20	2'20	2'20	2'20	2'30	2'35	2'25	2'15	U2'20	2'40	..	2'65	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foF2

TABLE 23

Latitude : 10° 2' N.

Unit : Mc

Ionospheric Data

Longitude : 77° 5' E.

Month : September 1957

75° 0' E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	F	F	F	F	F	F	U8.4F	11.5	12.0	J12.0R	11.8	12.0
2	F	F	U11.3F	10.4	8.9	5.3	7.4	10.7	12.1	10.4	9.7	9.7
3	J12.4R	10.4	7.9	7.0	6.5	5.0	7.4	11.4	12.6	12.6	13.0	13.3
4	12.2	8.5	8.2	8.2	6.8	4.0	7.3	10.6	11.8	11.9	12.2	12.1
5	13.8F	11.9F	U13.2F	U12.8F	7.3F	6.6	8.1	11.4	11.7	13.7	13.1	13.3
6	F	F	U10.5F	8.6	5.7	4.6	8.1	11.5	12.0	12.8	12.7	12.4
7	C	C	C	C	C	C	C	C	C	C	C	C
8	F	F	F	9.4	F	F	F	10.3	11.6	10.5	10.5	11.0
9	U13.4F	11.2	U9.5F	F	5.4F	3.5F	6.8	10.5	11.4	11.6	11.2	10.6
10	11.5	10.6	F	10.0	9.2	6.4	7.6	11.1	12.4	U13.2R	11.4	10.8
11	F	F	10.2	9.0	7.8	6.3	U7.6S	10.2	12.4	12.8	C	11.4
12	10.8	F	8.6	F	F	F	U7.3S	10.4	11.3	10.6	10.2	10.2
13	F	U10.0F	F	F	F	U4.7F	U7.3S	10.4	11.0H	9.6	11.9	11.8
14	7.3	6.6	5.6	5.3	4.8	4.5	7.7	11.2	13.6	13.3	12.3	12.0
15	12.1	10.1	8.7	6.5	4.5	3.1	U7.8S	11.3	12.8	13.9	13.7	13.8
16	U9.5F	U9.2F	10.2	10.8	F	F	C	C	C	13.1	12.7	11.8
17	11.4	10.2	F	F	U7.1S	4.8	U7.5S	10.6	11.6	11.0	10.6	10.6
18	U11.6S	U10.7S	U9.6S	9.1	7.8	6.0	U8.1S	11.2	12.5	13.1	12.9	12.0
19	F	U9.8F	F	F	F	F	J5.0F	U7.6F	11.2	13.4	14.7	13.4
20	D8.8F	10.4	8.9	F	D6.2F	F	U7.2F	11.0	13.0	13.5	12.7	11.8
21	10.6	9.2	F	F	U5.4F	F	7.8	11.3	13.0	13.7	13.0	12.4
22	8.2	U7.4S	U6.6F	7.3	7.5	8.0	8.8	11.5	12.6	12.3	12.6	12.4
23	C	F	F	F	F	F	F	11.5	13.4	12.7	12.8	11.3
24	10.8	9.9	9.1	7.9	6.8	5.9	8.4	12.2	13.2	12.9	12.7	12.5
25	11.1	9.9	8.6	8.3	8.6	U7.5S	8.5	11.6	13.3	13.6	12.3	12.3
26	12.6	U10.7S	U9.2S	7.8	6.3	4.0	U7.5S	11.0	13.2	14.2	14.5	13.3
27	F	U9.8F	F	8.8	8.4	5.9	7.5	11.2	13.3	14.7	14.8	12.8
28	F	F	U8.5F	F	U7.6F	F	F	11.4	13.3	13.0	11.7	11.8
29	F	F	8.4	F	U8.9F	7.8	U8.4S	U11.6S	12.8	13.0	C	C
30	F	F	F	F	F	C	7.0	11.0	13.7	15.7	15.8	15.9
Count	17	19	19	17	21	20	25	28	28	29	27	28
Median	11.4	10.0	8.9	8.6	7.1	5.2	7.6	11.2	12.6	13.0	12.7	12.0
Mean	11.1	9.8	9.1	8.7	7.0	5.4	7.7	11.1	12.6	12.7	12.5	12.1

Sweep 1° 0 Mc. to 25° 0 Mc. in 30 seconds.

Characteristic : foF2
 Unit : Mc
 Month : September 1957

TABLE 23
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N.
 Longitude : 77.5° E.

12	13	14	15	16	17	18	19	20	21	22	23	Date
12.1	12.4	12.2	12.0	12.3	11.9	11.2	F	F	F	F	F	1
9.8	10.5	11.1	11.4	10.8	10.8	10.4	10.3	11.1	11.1	13.0	12.3	2
12.6	12.4	13.5	13.6	13.9	14.0	13.2	U11.8s	10.9	11.5	12.5	12.4	3
12.1	12.0	12.0	12.1	U12.0s	U11.8s	11.2	U9.6s	F	F	F	F	4
14.3	13.0	11.0	11.3	U11.5s	12.4	U13.3s	13.4	12.5	J12.1S	11.1	F	5
12.1	12.6	13.5	13.6	14.3	14.4	14.4	C	C	C	C	C	6
C	C	11.0	11.5	C	11.0	10.8	10.0	F	F	F	F	7
11.8	12.3	13.2	13.8	13.8	13.9	12.9	U11.0F	F	F	F	F	8
10.6	11.2	11.8	12.4	12.2	U11.5s	10.7	9.0	9.0F	U10.0s	11.0	U11.3s	9
10.6	10.4	11.2	J11.9s	12.4	12.7	U12.2s	10.9	F	F	F	F	10
11.5	11.6	12.2	12.2	12.4	12.1	U11.4s	F	F	F	F	F	11
10.3	10.4	10.8	11.2	11.3	11.3	11.4	U9.5s	F	F	F	F	12
9.7	9.6	D9.2W	9.2	11.4	10.8	12.8	11.9	9.8	8.8	8.0	7.7	13
11.6	11.9	12.1	12.7	13.0	13.0	J12.1s	11.0	10.9	11.2	12.6	13.9	14
13.8	13.9	14.2	13.9	13.4	12.8	10.9	9.0	F	F	C	C	15
11.0	10.3	10.7	11.2	11.6	12.2	12.4	J10.6s	F	F	J10.1s	F	16
10.7	11.2	11.6	12.2	12.4	J12.0s	U11.0s	8.0	F	J8.4F	F	U11.0F	17
12.4	12.2H	11.9	12.1H	12.3	J11.9s	U10.8s	J8.2s	F	F	F	F	18
12.5	12.1	12.5	D12.6s	12.5	12.2	D11.4s	U9.6s	F	F	F	F	19
11.5	11.3	11.7	11.9	11.8	U11.5s	U11.6s	F	F	F	F	F	20
12.2	12.4	12.7	J13.0s	12.9	12.6	J12.2s	14.5	14.7	12.4	10.6	U9.4s	21
12.4	12.9	13.3	13.8	13.2	U13.0R	11.9	9.8F	F	F	F	F	22
12.0	13.0	12.8	13.5	13.6	13.4	12.9	12.8	13.5	12.8	13.1	12.2	23
11.8	11.8	11.7	11.7	11.5	11.4	11.0	10.1	9.5	10.4	11.3	11.6	24
12.5	12.7	12.8	13.0	12.9	12.5	11.6	J10.1s	11.2	12.4	14.0	13.2	25
12.3	12.0	11.9	U11.8s	U11.7s	U11.8s	U11.8s	F	F	F	F	F	26
11.3	11.8	12.0	12.2	12.6	12.5	U12.2s	F	F	F	F	U12.6F	27
12.4	12.8	13.3	U13.0s	12.8	U12.2s	U11.4s	F	F	F	F	F	28
C	C	12.0	12.0	U11.6s	U11.6s	11.0	U8.6F	F	F	F	F	29
15.5	15.8	16.2	U15.6s	U15.3s	U15.2s	13.7	W	F	F	F	F	30
28	28	30	30	29	30	30	22	10	11	11	11	Count
12.0	12.0	12.0	12.2	12.4	12.2	11.6	10.2	11.0	11.2	11.3	12.2	Median
11.9	12.0	12.2	12.4	12.5	12.4	11.9	10.4	11.3	11.0	11.6	11.6	Mean

Sweep 1.0 Mc. to 25.0 Mc in 30 seconds.

Characteristic : foF2

TABLE 23—contd.

Latitude : 10°2' N.

Unit : Mc

Ionospheric Data

Longitude : 77°5' E.

Month : September 1957

75°0' E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	F	F	F	F	F	U6'4F	10'0	12'1	12'1	11'8	12'0	12'3
2	F	F	11'0	9'8	U6'8F	5'3	9'7	11'3	12'2	10'1	9'7	9'8
3	11'3	U10'0S	U7'1S	U7'2S	5'2	6'2	9'3	12'2	12'6	13'0	13'1	13'0
4	10'2	8'3	8'2	7'7	4'9	5'3	9'4	11'3	12'2	12'0	12'2	12'2
5	12'8F	11'5F	13'3F	J10'5F	U7'0F	6'2H	9'9	11'6	12'8	13'5	12'9	13'8
6	F	F	9'7	U7'2S	5'0	5'4	10'0	11'9	12'8	12'7	12'3	12'2
7	C	C	C	C	C	C	C	C	C	C	C	C
8	F	F	J10'1S	U9'4F	F	4'6F	8'8	11'3	I11'2C	10'4	10'7	11'4
9	U12'4F	10'2	F	U6'4F	4'5F	4'6F	8'8	11'0	11'7	11'4	11'0	10'7
10	11'5	10'8	J10'1S	U9'3S	7'8	5'4	U9'7S	11'8	13'0	12'1	11'2	10'6
11	U10'7F	U11'2F	U9'4S	U8'6F	6'9	5'0	U9'3S	11'3	12'7	12'6	C	11'4
12	F	U8'8F	8'3	F	F	U4'4F	9'2	11'2	10'8	10'5	10'1	10'2
13	U10'6F	U9'4F	U8'6F	F	5'3	U4'9F	U9'1S	11'0	9'3	11'0	12'0	11'5
14	7'0	5'8	5'4	4'8	4'7	5'4	9'5	12'6	13'7	12'8	11'9	11'9
15	10'8	9'2	8'0	5'4	3'8	4'8	9'6	12'2	13'6	13'9	13'7	13'8
16	F	U10'0F	10'4	F	F	U7'4F	C	C	C	12'8	12'3	11'4
17	10'9	9'6	F	8'2	U6'1S	5'4	9'4	11'4	11'4	10'8	10'6	10'6
18	U11'6S	U10'0S	U9'3S	8'5	U7'2S	5'9	9'9	11'8	13'0	13'0	12'9	12'4
19	F	F	8'5	F	F	F	9'8	12'4	13'8	14'7	14'3	12'7
20	U10'2F	F	F	F	F	J4'5F	9'4	12'2	13'6	13'3	12'1	11'5
21	F	U8'9S	8'4	U6'5F	F	F	10'0	12'2	13'2	13'4	12'7	12'2
22	7'5	U6'9S	U6'8S	7'3	J8'0S	7'8	9'9	12'4	12'3	12'4	12'6	12'3
23	C	F	F	F	F	F	10'0	12'6	13'4	12'8	D12'0W	11'5
24	10'5	9'3	8'8	7'3	6'5	6'3	10'5	12'8	13'0	12'7	12'7	12'1
25	10'8	9'1	8'5	8'5	8'5	6'2	10'7	12'7	13'3	12'6	12'2	12'4
26	12'1	U10'0S	8'6	U7'1S	5'2	4'9	U9'6S	12'2	13'8	14'4	14'2	12'6
27	F	U9'6F	F	8'8	7'5	5'2	U9'8S	12'4	14'3	14'8	14'0	12'2
28	F	F	U8'8F	U8'2F	F	F	U9'8S	12'5	13'3	12'1	11'6	12'1
29	F	F	U8'4F	U8'6F	8'8	6'5	U10'4S	12'3	U13'0R	C	C	C
30	F	F	F	F	F	C	9'4	12'5	14'8	C	15'8	15'6
Count	16	19	22	21	19	24	28	28	28	27	27	28
Median	10'8	U9'6	8'6	8'2	6'5	5'4	9'7	12'2	13'0	12'7	12'2	12'2
Mean	10'7	U9'4	8'9	7'9	6'3	5'6	9'7	12'0	12'7	12'5	12'3	12'0

Sweep 1°0 Mc. to 25°0 Mc. in 30 seconds.

Characteristic : foF2

TABLE 23—contd.

Latitude : 10°2'N.

Unit : Mc

Ionospheric Data

Longitude : 77°5' E.

Month : September 1957

75°0' E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
12'3	12'3	11'9	12'4	12'0	11'6	U10'6s	F	F	F	F	F	1
10'1	10'9	11'3	11'3	10'7	10'5	U10'2s	10'3	11'0	U12'0s	12'7	12'3	2
12'6	13'0	13'7	14'0	14'1	13'8	12'4	11'6	11'2	11'8	12'9	12'6	3
12'0	11'9	12'0	12'2	12'1	U11'8s	U10'7s	9'0	F	F	F	F	4
14'0	12'1	11'3	11'4	11'9	13'1	13'4	13'0	12'2	U11'5s	10'5F	F	5
12'4	12'9	13'6	13'7	14'6	14'6	J14'2s	C	C	C	C	C	6
C	10'7	11'2	11'4	11'3	11'0	10'6	9'7	F	F	F	F	7
12'0	12'7	13'3	13'8	13'9	13'4	U11'7s	F	F	F	F	F	8
10'9	11'5	12'1	12'4	U11'9s	11'4	10'0	U8'5F	U9'4s	10'5	U11'4s	11'7	9
10'3	10'8	11'8	12'3	12'7	U12'6s	U11'5s	U10'4F	F	F	F	F	10
11'4	12'0	12'3	12'5	12'2	U11'6s	U10'6s	F	F	U12'0F	F	F	11
10'3	10'6	11'1	11'2	11'4	11'4	10'6	F	F	F	F	F	12
9'4	9'8	9'0	10'1	11'3	11'9	13'2	10'8	U9'3s	8'2	7'6	7'5	13
11'8	11'9	12'3	12'8	13'2	12'7	11'2	10'9	11'0	11'5	13'7	13'6	14
13'9	14'1	14'3	13'8	13'2	12'2	9'3	F	F	F	F	19'9s	15
10'6	10'4	11'0	11'4	U12'0s	12'4	U11'6s	U9'8F	F	U10'1F	F	U10'6F	16
10'8	11'4	12'0	12'2	12'2	U11'4s	U9'4s	F	F	F	10'4F	11'4FV	17
12'3H	12'0	11'9	12'2	U12'3R	U11'6s	U10'0s	F	F	F	F	F	18
12'2	12'3	12'6	12'5	12'5	J12'0s	11'0	F	F	F	F	F	19
11'3	11'4	11'8	11'9	U11'8s	U11'8s	10'8	F	F	F	F	10'0	20
12'3	12'5	12'8	13'1	12'7	12'4	13'1	14'9	13'8	11'2	9'8	8'6	21
12'6	13'0	13'5	13'6	13'4	12'2H	U11'8W	F	F	F	F	U10'1s	22
12'7	12'8	13'0	13'9	13'3	13'2s	12'9	13'3	12'7	13'4	13'1	U11'5s	23
11'8	12'0	11'6	11'5	11'3	U11'3s	10'4	10'2	U9'9s	10'7	11'5	11'1	24
12'6	12'7	12'9	13'0	12'7	U11'7s	U10'8s	10'4	F	13'2	13'5	U13'2s	25
12'0	12'0	11'8	U11'8s	U11'6s	U11'8s	11'4	F	F	F	F	F	26
11'7	12'0	12'1	12'4	U12'7s	U12'6s	F	F	F	F	F	F	27
12'5	13'1	13'2	13'0	12'7	U11'5s	U10'5s	U9'5F	F	F	F	F	28
C	11'8	12'0	11'9	U11'6s	U11'4s	U10'7s	U8'6F	F	F	F	F	29
15'6	16'2	16'0	15'5	U15'2s	U14'6s	W	F	U10'6F	F	F	F	30
												31
												32
												33
												34
												35
												36
												37
												38
												39
												40
28	30	30	30	30	30	28	16	10	12	11	14	Count
12'0	12'0	12'0	12'4	12'2	U11'8	U10'8	10'4	11'0	11'5	11'5	11'2	Median
11'9	12'1	12'3	12'5	12'5	U12'2	U11'2	10'7	11'1	11'3	11'6	10'3	Mean

Sweep 1°0 Mc. to 25°0 Mc. in 30-seconds.

Characteristic : foF1
 Unit : Mc
 Month : September 1957

TABLE 24
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N.
 Longitude : 77.5° E.

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

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foF1
 Unit : Mc
 Month : September 1957

TABLE 24
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N.
 Longitude : 77.5° E.

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

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foF1
 Unit : Mc
 Month : September 1957

TABLE 24—*contd.*
 Ionospheric Data
 75.0° 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	L
2								L	L	L	L	L
3								L	L	L	L	L
4								L	L	L	L	L
5								L	L	L	L	L
6								L	L	L	L	L
7							C	L	L	L	L	L
8							L	C	L	C	C	C
9							L	L	L	L	L	L
10							L	L	L	L	L	L
11								L	L	L	C	L
12								L	L	L	L	L
13								L	L	L	L	B
14								L	L	L	L	L
15								L	L	L	L _H	L
16							C	C	C	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								L	L	L	L	L
26								L	L	L	L	L
27								L	L	L	L	L
28								L	L	L	L	L
29								L	L	C	C	C
30								L	L	C	C	L
Count
Median
Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foF1
 Unit : Mc
 Month : September 1957

TABLE 24—contd.
 Ionospheric Data
 75°0' 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	L	L	L	L							1
L	L	L	L	L	L							2
L	L	L	L	L	L							3
L	L	L	L	L	L							4
L	L	L	L	L	A							5
L	L	L	L	L								6
C	L	L	L	L								7
L	L	L	L	L								8
L	L	L	L	L								9
L	L	L	L	L								10
L	L	L	u6·8L	L								11
L	L	L	L	L								12
L	L	L	L	L								13
B	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 ^H	L ^H	L ^H	L								23
L	L	L	L	L								24
L	L	L	L	L								25
L	L	L	L	L								26
L	L	L	L	L								27
L	L	L	L	L								28
L	L	L	L	L								29
L	L	L	L	L								30
..	..	..	I	..	..							Count
..	..	..	..	..	..							Median
..	..	..	..	..	..							Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foE
 Unit : Mc
 Month : September 1957

TABLE 25
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							3.0	A	A	A	A	A
2							A	A	A	A	A	A
3							2.3	3.4	3.5	A	A	A
4							2.1	A	A	A	A	A
5							U2.1R	A	R	A	A	A
6							2.3	A	A	A	4.2	A
7							C	C	C	C	C	C
8							2.2	3.1	A	A	A	A
9							A	A	A	A	A	A
10								3.0	A	A	A	A
11								3.0	B	B	C	B
12								A	A	A	B	B
13							2.0	A	A	A	R	A
14								A	B	A	A	A
15							2.0	2.9	A	B	B	A
16							C	C	C	A	B	A
17							1.9	U3.6A	A	B	B	B
18							2.0	A	A	A	A	A
19							2.1	3.1	B	A	B	B
20							2.0	3.0	A	B	A	B
21							2.0	3.1	A	A	B	A
22							2.0	A	A	A	A	A
23							U1.9R	A	A	B	A	A
24							U2.1R	A	A	A	A	A
25							A	A	A	A	A	A
26							2.0	3.0	A	A	A	A
27								3.0	A	A	A	A
28							2.1	A	A	A	A	A
29							R	3.0	A	A	C	C
30							A	A	A	A	A	A
Count							18	12	1	..	1	..
Median							2.0	3.0	..	..	..	..
Mean							2.1	3.1	..	..	..	..

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foE
 Unit : Mc
 Month : September 1957

TABLE 25
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
A	A	A	A	A	A							1
A	4.3	A	A	A	A							2
A	B	A	3.9	A	A							3
A	A	A	A	A	A							4
A	A	A	A	A	A							5
A	B	B	A	A	A							6
C	C	A	A	C	2.8							7
A	A	A	A	A	2.9							8
A	A	A	A	A	A							9
A	A	A	A	3.3	A							10
B	B	A	A	A	A							11
B	A	A	A	A	A							12
A	A	A	3.7	A	R							13
A	B	A	A	A	A							14
A	A	A	A	A	A							15
A	A	A	A	A	A							16
B	B	A	A	A	A							17
A	A	A	A	S	A							18
A	A	A	A	A	A							19
A	A	A	A	A	A							20
A	A	A	A	A	A							21
B	B	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	A	A	A	A	A							28
C	C	A	A	A	A							29
4.0	4.1	A	A	A	A							30
I	2	..	2	I	2							Court
..	..	..	..	..	..							Median
..	..	..	..	..	..							Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foE
 Unit : Mc
 Month : September 1957

TABLE 25—*contd.*
 Ionospheric Data
 75°0' 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	A	A	A	B	A
2							2.6	A	A	B	A	A
3							2.8	A	A	A	A	A
4							A	A	A	A	A	A
5							A	A	A	A	A	A
6							A	A	A	A	A	A
7							C	C	C	C	C	C
8							2.9	A	A	A	A	A
9							2.6	A	A	A	A	A
10							2.6	B	A	A	A	A
11							2.6	A	B	B	C	B
12							2.6	A	A	A	B	B
13							2.5	A	A	A	A	B
14							2.4 ^H	B	A	A	A	A
15							2.5	A	A	B	A	A
16							C	C	C	A	A	A
17							2.8	A	A	B	B	B
18							2.7 ^H	A	A	A	A	B
19							2.7	3.4	A	B	B	B
20							2.7	A	A	A	B	A
21							U2.7 ^R	U3.5 ^A	A	B	A	A
22							U2.7 ^A	A	A	A	A	A
23							A	A	3.7	A	A	A
24							A	A	A	A	A	A
25							2.5 ^H	U3.5 ^A	A	A	A	A
26							2.5 ^H	A	A	A	A	A
27							2.5 ^H	3.4	A	A	B	A
28							A	A	A	A	A	A
29							2.5	A	A	C	C	C
30							A	A	A	C	A	A
Count	.						2.1	4	1	..	..	..
Median	.						2.6	..	..	..	..	..
Mean	.						2.6	..	..	..	..	..

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foE
 Unit : Mc
 Month : September 1957

TABLE 25—*contd.*
 Ionospheric Data
 75°0' 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	A							1
A	A	A	B	A	A							2
4.3	B	A	B	B	A							3
A	A	A	A	A	A							4
A	A	A	A	A	3.1	A						5
A	B	B	3.9	A	A							6
C	B	B	A	3.2	A							7
A	A	A	A	A	A							8
A	A	u4.1A	A	A	A							9
A	A	A	A	3.0	A							10
B	A	A	A	A	A							11
B	A	A	A	A	A							12
A	A	A	A	R	A							13
B	B	A	u3.7A	A	A							14
A	A	A	A	A	A	A						15
A	A	A	A	R	R							16
A	B	A	u3.8A	3.0	A							17
A	A	A	A	S	A							18
B	B	A	A	A	A							19
A	A	A	A	A	A							20
B	A	A	B	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
B	A	A	A	A	A							27
A	A	A	A	A	A							28
C	A	A	A	A	A							29
4.1	A	A	A	A	A							30
2	..	1	3	4	..							Count
..	..	..	..	..	..							Median
..	..	..	..	..	..							Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foEs

TABLE 26

Latitude : 10°2' N

Unit : Mc

Ionospheric Data

Longitude : 77°5' E

Month : September 1957

75°0' E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	7.0				5.4		G	9.0	11.8	12.0	13.6	13.0
2	7.4							10.0	11.0	11.0	12.0	12.0
3							G	8.0	5.0	10.8	12.2	12.0
4	U10.0s	U7.0s	8.0				G	11.0	12.0	12.8	13.0	13.0
5	3.6						U7.0s	8.0	G	11.0	12.0	11.4
6							G	9.8	11.6	11.6	11.2	12.3
7	C	C	C	C	C	C	C	C	C	C	C	C
8							G	8.4	11.0	12.0	12.6	13.0
9								9.2	11.0	11.0	12.8	12.4
10			1.5		6.0			7.0	10.0	10.8	12.0	11.0
11							5.0	G	11.0	11.6	C	12.4
12		4.4					1.4	9.0	11.2	12.0	11.6	12.4
13							G	9.4	11.0	10.8	G	12.2
14		U4.0s	U4.4s				2.9	6.6	G	11.2	12.3	12.3
15							G	G	9.2	G	12.2	12.0
16							C	C	C	11.0	12.0	12.4
17							C	9.6	11.3	11.2	11.3	11.8
18							G	8.5	10.8	11.4	11.8	12.0
19							G	G	7.2	11.8	14.0	13.8
20							G	G	11.0	G	12.3	11.6
21							G	G	9.4	11.3	12.4	12.1
22							G	8.6	11.7	11.5	12.2	12.6
23	C						G	8.0	11.9	G	13.3	18.3
24							G	U12.1s	13.0	12.6	18.0	U14.3s
25		U5.8s		S			2.8	8.9	11.8	12.0	13.6	14.0
26	U6.0s						G	G	8.4	12.4	14.0	13.0
27	U5.8s							5.0	10.0	12.0	18.0	17.2
28							5.8	8.6	11.8	12.2	12.5	18.8
29							G	G	11.5	12.0	C	C
30							S	12.0	12.0	6.0	14.0	13.0
Count .	6	4	3	..	2	..	23	28	28	29	27	28
Median .	6.5	..	..	..	..	..	G	8.6	11.0	11.4	12.3	12.4
Mean .	6.6	..	..	..	..	..	4.2	8.9	10.3	11.4	13.0	13.1

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foEs

TABLE 26

Latitude : 10°2' N

Unit : Mc

Ionospheric Data

Longitude : 77°5' E

Month : September 1957

75°0' E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
12.6	13.4	13.0	12.6	12.0	9.0	6.0						1
12.4	10.4	11.6	10.8	10.0	8.8	4.0	3.8	6.6	4.0		4.7	2
11.7	B	11.8	9.0	9.8	9.6							3
13.0	13.0	13.0	12.0	10.6	9.0	U4.0s						4
11.2	12.0	11.8	11.2	8.6	12.0	18.0	4.2				2.3	5
12.2	11.4	11.6	10.8	9.8	8.8		C	C	C	C	C	6
C	C	11.0	12.4	C	8.6	4.8					3.4	7
13.0	12.6	12.0	12.0	8.6	8.0					2.8		8
13.6	14.6	12.6	12.2	11.3	8.2				3.0	8.8		9
12.0	12.0	11.4	10.8	8.0	7.0						4.2	10
12.8	12.0	12.2	12.0	11.0	9.0				1.8	3.2		11
12.0	12.2	12.4	11.8	10.2	9.0	S				4.2	U5.0s	12
12.8	13.6	12.6	G	8.0	G					U4.2s		13
13.3	11.8	12.6	10.0	9.0	U8.2s						U6.0s	14
12.3	13.0	12.1	11.9	10.6	U8.6s	S					C	15
12.2	11.8	12.0	12.0	8.6	U7.8s							16
11.8	11.6	11.8	11.6	9.0	8.8							17
12.0	12.2	11.2	10.8	8.6	U8.0s						U4.9s	18
17.5	12.0	12.2	U12.0s	10.0	8.0							19
12.1	12.0	12.0	U12.2s	S	S							20
12.4	12.6	11.8	11.0	10.1	U9.0s					U5.0s		21
12.3	7.2	11.4	11.4	11.1	U8.8s							22
11.2	13.6	13.0	U12.0s	U10.4s	U8.6s							23
U14.4s	13.8	13.2	12.0	10.9	S						U6.8s	24
14.3	13.6	12.6	U12.0s	11.2	S							25
13.2	13.8	15.4	13.6	11.0	9.0				2.4			26
17.4	16.2	13.8	13.4	11.0	8.4							27
13.1	14.2	14.0	12.8	11.0	U8.8s					2.0		28
C	C	12.6	12.4	11.0	U9.8s							29
G	10.0	11.4	12.0	12.0	U9.2s							30
28	27	30	30	28	27	5	2	1	4	7	8	Count
12.4	12.2	12.2	12.0	10.2	8.8	4.8	..	..	..	4.2	4.8	Mediar
12.9	12.5	12.3	11.7	10.1	8.8	7.4	..	..	..	4.3	4.7	Mean

Sweep 1°0 Mc. to 25°0 Mc. in 30 seconds.

Characteristic : foEs

TABLE 26—*contd.*

Latitude : 10°2' N

Unit : Mc

Ionospheric Data

Longitude : 77°5' E

Month : September 1957

75°0' E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1				6.2			10.5	11.0	11.8	12.8	13.0	15.4
2	9.0						6.2	12.0	10.4	11.0	12.0	12.6
3							2.8	11.8	10.8	12.2	12.0	12.5
4	9.0	u7.0s	6.6				9.4	11.0	12.4	12.8	13.0	12.8
5							8.0	10.0	11.2	11.6	7.8	12.0
6							7.8	11.0	11.0	12.8	12.2	12.0
7	C	C	C	C	C	C	C	C	C	C	C	C
8							G	10.6	112.00	12.8	12.2	12.6
9	6.9						G	9.6	10.4	11.9	12.4	12.6
10				6.4			G	9.0	11.0	11.8	11.6	11.0
11				5.0			G	8.4	11.4	13.0	C	12.6
12	u6.6s						G	11.4	11.0	12.2	12.6	12.0
13							G	11.4	11.4	4.6	12.1	11.3
14	u3.5s	3.6	u4.2s				3.3	G	11.2	12.6	12.2	13.6
15							G	8.0	11.0	G	12.1	12.2
16							C	C	C	12.2	12.0	12.0
17							u8.2s	10.8	11.2	11.0	11.2	11.8
18				3.0			3.1	10.2	10.8	12.0	11.8	12.1
19							G	7.4	11.8	12.0	13.0	13.8
20							G	10.6	11.4	12.2	12.2	12.6
21							G	7.0	11.2	G	12.2	11.8
22							u6.0s	10.6	11.6	12.0	12.4	12.4
23	C						u7.0s	10.4	G	12.4	18.0	13.4
24			u6.3s				u7.6s	12.0	13.2	14.0	u14.0s	u15.0s
25		u4.8s		u5.6s			3.3	10.3	12.2	13.6	14.0	13.3
26							G	6.8	11.4	12.3	13.0	14.0
27	u5.8s						G	G	12.0	13.8	17.2	17.4
28							6.8	11.2	11.8	12.6	13.0	12.4
29							G	10.6	12.0	C	C	C
30							u9.2s	11.0	6.0	C	12.0	7.8
Count	6	3	3	5	..	..	28	28	28	27	27	28
Median	6.8	..	..	5.6	..	..	3.0	10.6	11.3	12.2	12.2	12.6
Mean	6.8	..	..	5.2	..	..	6.6	10.2	11.2	12.6	12.6	12.7

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foEs
 Unit : Mc
 Month : September 1957

TABLE 26—*contd.*
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
14'0	13'0	13'2	11'4	10'8	8'4							1
12'2	12'0	10'8	9'0	9'0	8'0	4'0	4'0	5'0		9'0		2
11'0	12'0	12'0	B	7'8	8'0						5'0	3
13'0	13'0	12'8	10'6	11'0	8'0						03'4s	4
12'2	12'4	11'6	9'0	10'0	19'0	10'4				2'5		5
12'6	B	11'0	10'0	10'0	8'6		C	C	C	C	C	6
C	10'0	12'0	10'8	9'8	7'6	5'0				2'7	3'1	7
13'2	12'0	11'6	9'0	8'6	7'6						5'4	8
13'6	12'5	11'6	11'0	9'1	07'3s			2'3	6'8	06'6s		9
11'4	11'0	11'4	9'0	G								10
12'0	12'2	12'6	11'4	10'4	07'0s				2'5	3'8		11
12'4	12'2	12'6	11'0	09'6s	06'6s							12
12'6	13'0	12'6	9'0	G							07'2s	13
B	12'4	12'2	8'0	7'0						05'6s		14
12'0	11'6	12'0	11'2	9'2	S				3'8		7'8	15
12'6	12'3	11'8	9'2	7'8	S							16
12'0	11'2	11'6	9'0	9'2	S							17
11'8	11'6	11'2	9'6	8'6	S							18
12'2	12'0	12'2	10'8	09'4s	S							19
11'7	12'7	12'1	10'9	S								20
12'0	12'0	11'4	10'6	10'2	S					3'4		21
11'1	13'2	10'3	11'3	9'8								22
9'2	14'0	12'6	11'6	09'5s								23
14'0	13'1	12'6	11'3	010'3s	2'8		1'9			07'0s		24
12'2	12'1	12'2	011'6s	S	S						S	25
14'6	14'3	13'8	11'6	09'0s	S			2'0	05'6s		09'0s	26
17'0	15'8	13'4	11'4	8'8	07'0s							27
14'2	12'2	13'2	12'0	09'0s	S				2'3			28
C	12'2	12'6	12'0	10'4								29
8'0	11'8	4'4	11'6	10'4	S							30
27	29	30	29	28	13	3	2	3	5	9	8	Count
12'2	12'2	12'0	10'9	9'3	7'6	..	..	..	3'8	3'8	5'4	Median
12'4	12'4	11'8	10'5	9'4	8'1	..	..	..	4'2	4'8	5'8	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : fbEs
 Unit : Mc
 Month : September 1957

TABLE 27
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	2.4				1.6			3.0	3.7	4.1	4.4	4.6
2	1.8							3.0	3.6	4.0	4.4	4.4
3								3.3	4.2	4.4	4.3	4.5
4	3.2	2.4	2.5					3.1	3.6	4.0	4.3	4.4
5	1.3						2.1	3.1		4.0	4.6	4.6
6								3.1	3.6	4.1	4.4	4.6
7	C	C	C	C	C	C	C	C	C	C	C	C
8								3.2	3.7	4.2	4.3	4.5
9								3.1	3.6	4.0	4.2	4.5
10			1.3		1.9			3.0	3.8	4.0		
11											C	4.8
12								3.0	3.8	4.2	4.6	4.8
13								3.0	3.8	4.2		4.4
14		1.6	1.3				2.3	3.1		4.1	4.4	4.6
15									3.6		4.6	4.7
16							C	C	C	4.3		4.5
17								3.1	3.8	4.2		4.8
18								3.2	3.6	4.0	4.3	4.4
19										4.4	5.0	4.8
20									3.8		4.6	
21									3.9	4.2	4.6	4.6
22								3.2	3.9	4.2	4.6	4.8
23	C							3.1	3.7		4.4	4.6
24								3.1	3.7	4.2	4.5	4.6
25				1.8			2.3	3.2	3.8	4.2	4.4	4.6
26									3.8	4.0	4.4	4.4
27	1.6								3.6	4.1	4.4	4.6
28								3.0	3.6	4.0	4.3	4.4
29									3.6	4.0	C	C
30								3.6	6.0	5.2	5.0	10.0
Count .	5	2	3	1	2	..	3	20	24	25	24	27
Median .	1.8	..	..	..	..	..	..	3.1	3.7	4.1	4.4	4.6
Mean .	2.1	..	..	..	..	..	..	3.1	3.8	4.2	4.5	4.8

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : fbEs

Unit : Mc

Month : September 1957

TABLE 27
Ionospheric Data
75.0° E Mean Time

Latitude : 10.2° N

Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
4.6	4.5	4.3	4.0	3.5	2.8	1.8						1
4.5	4.3	4.1	3.7	3.6	2.8	2.1	1.8	2.3	2.0		2.6	2
4.5		4.5	3.9	3.7	3.0							3
4.4	4.4	4.3	3.9	3.4	2.9	1.7						4
4.6	4.6	4.1	3.8	3.3	6.0	6.4	2.1				1.5	5
4.7	4.7	4.6	3.9	3.9	3.0		C	C	C	C	C	6
C	C	4.4	4.0	C	2.8	2.2					2.1	7
4.6	4.6	4.4	4.0	3.6	2.8					1.5		8
4.4	4.5	4.4	4.0	3.5	2.8				2.4	2.6		9
4.4	4.2	4.1	3.8	3.3	2.8						1.8	10
4.9	4.8	4.4	4.0	3.7	2.9							11
4.8	4.6	4.4	4.0	3.5	2.8					2.0		12
4.8	4.5	4.2		3.6						1.9		13
4.7		4.5	4.0	3.5	2.8						2.3	14
4.5	4.3	4.3	3.9	3.6	2.9						C	15
4.6	4.6	4.2	4.0	3.6								16
4.7		4.4	4.0	3.6	2.9							17
4.8	4.3	4.2	4.0		2.8						2.4	18
4.6		4.4	4.0	3.6	2.8							19
4.6	4.4	4.4	4.0	3.6	2.9							20
4.7	4.8	4.4	4.4	3.8	2.9					2.2		21
4.9	5.0	4.7	4.1	3.4	2.8							22
6.4	4.5	4.4	4.0	3.5	2.7							23
4.6	4.5	4.2	3.9	3.4	2.7							24
4.6	4.3	4.3	3.8	3.3	2.7							25
4.4	4.4	4.2	3.8	3.3	2.7							26
4.7	4.4	4.2	4.0	3.4	2.6							27
4.5	4.4	4.2	3.9	3.3	2.6							28
C	C	4.2	3.8	3.4								29
	4.4	4.1	3.9	3.3	2.6							30
27	24	30	29	28	27	5	2	1	2	5	6	Count
4.6	4.5	4.3	4.0	3.5	2.8	2.1	..	..	..	2.0	2.2	Median
4.7	4.5	4.3	3.9	3.5	2.9	2.8	..	..	..	2.0	2.1	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : fbEs
 Unit : Mc
 Month : September 1957

TABLE 27—contd.
 Ionospheric Data
 75° 0' 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				2.0			2.6	3.4	4.1	4.3	4.7	4.7
2	2.6						2.6	3.7	3.8	4.6	4.5	4.5
3							2.4	4.2	4.0	4.0	4.5	4.6
4	3.0	2.0	2.1				2.0	3.4	3.8	4.3	4.4	4.4
5							2.8	3.3	4.0	4.1	4.4	4.7
6							2.8	3.4	3.8	4.2	4.6	4.6
7	C	C	C	C	C	C	C	C	C	C	C	C
8								3.4	13.90	4.2	4.5	4.6
9	2.2							3.3	3.9	4.2	4.4	4.5
10				1.8				3.6	4.0	4.2	4.3	4.5
11								3.5			C	4.8
12	2.0							3.6	4.0	4.4	4.6	4.6
13								3.4	4.0	4.3	4.5	5.3
14	1.3	1.5					2.8		4.0	4.2	4.5	4.7
15								3.4	4.0	4.2	4.4	4.5
16							C	C	C	4.2	4.4	4.5
17							2.7	3.4	4.0	4.2	4.4	4.7
18							3.0	3.5	3.8	4.3	4.4	4.6
19									4.2	4.2	4.8	4.7
20								3.6	4.0	4.5	4.7	4.8
21								3.5	4.0		4.7	4.8
22							2.7	3.5	4.0	4.4	4.8	4.9
23	C						2.7	3.5		4.2	4.5	4.6
24			2.1				2.8	3.4	4.0	4.4	4.5	4.7
25				1.9			2.7	3.5	4.0	4.2	4.5	4.6
26								3.4	3.9	4.1	4.4	4.4
27	1.5								4.0	4.2	4.4	4.6
28							2.7	3.4	4.0	4.3	4.4	4.4
29								3.3	3.8	C	C	C
30							3.0	4.2	4.5	C	6.7	7.0
Count	6	2	2	3	..	..	14	25	26	22	25	28
Median	2.1	..	..	..	..	..	2.7	3.4	4.0	4.2	4.5	4.6
Mean	2.1	..	..	..	..	..	2.7	3.4	4.0	4.3	4.6	4.7

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : fbEs
 Unit : Mc
 Month : September 1957

TABLE 27—contd.
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
4.6	4.4	4.1	3.8	3.1	2.4							1
4.4	4.3	4.0	4.0	3.2	2.4	1.5	1.9	2.5		3.0		2
4.5	4.6	4.2		3.3	2.5						1.7	3
4.4	4.3	4.2	3.7	3.2	2.6						1.5	4
4.5	4.2	4.0	3.7	3.1	7.3	2.3				1.7		5
4.6		4.6	3.9	3.4	2.4		C	C	C	C	C	6
C	5.1	4.4	4.0	3.2	2.4	1.6				1.8	2.0	7
4.6	4.4	4.2	4.0	3.2	2.4						1.7	8
4.4	4.5	4.2	3.7	3.1	2.3			2.4	1.6	2.1		9
4.3	4.3	4.0	3.7							1.4	1.7	10
4.6	4.6	4.2	4.0	3.4								11
	4.4	4.2	3.8	3.2								12
4.6	4.6	4.1	4.0								2.0	13
	4.6	4.2	3.7	3.2								14
4.5	4.3	4.0	3.8	3.2	2.3				2.4		2.0	15
4.4	4.4	4.2	3.8									16
4.7		4.2	3.8	3.2								17
4.4	4.3	4.1	3.8									18
4.8		4.2	3.8	3.2								19
4.6	4.6	4.1	3.9	3.2								20
	4.6	4.3	3.4							1.7		21
4.8	5.2	4.5	3.9	3.2								22
4.7	4.4	4.3	3.8	3.2								23
4.6	4.5	4.1	3.6	3.1	2.2		1.3			2.2		24
4.4	4.2	4.3	3.7	3.1								25
	4.3	4.0	3.6	3.0					1.7		1.5	26
4.3	4.4	4.2	3.7	3.0								27
4.4	4.2	4.1	3.7	3.0	2.1							28
C	4.3	4.0	3.6	3.0								29
	4.4	4.0	3.8	3.2								30
23	27	30	28	26	12	3	2	2	3	7	8	Count
4.5	4.4	4.2	3.8	3.2	2.4	..	..	..	..	1.8	1.7	Median
4.5	4.4	4.2	3.8	3.2	2.8	..	..	..	..	2.0	1.8	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : f min
Unit : Mc
Month : September 1957

TABLE 28
Ionospheric Data
75.0° E Mean Time

Latitude : 10.2° N
Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	2.4	1.9	1.7	1.5	1.1	1.6	1.6	2.2	2.6	3.2	3.2	3.4
2	1.2	1.8	1.8	1.7	1.7	1.8	2.1	1.9	2.4	2.9	3.4	3.6
3	1.7	2.1	2.1	1.7	1.7	1.4	2.1	2.4	2.6	2.9	3.0	3.5
4	1.7	2.4	2.5	1.8	1.8	1.7	1.7	2.2	2.6	2.9	3.0	3.1
5	1.0	1.2	1.3	1.5	1.5	1.5	1.4	2.0	2.4	2.8	2.9	3.1
6	1.9	2.0	2.0	1.5	1.7	1.4	1.8	2.0	2.2	3.0	3.4	3.6
7	C	C	C	C	C	C	C	C	C	C	C	C
8	1.8	1.6	1.5	1.8	1.7	1.8	1.9	2.0	2.6	2.9	3.0	3.5
9	1.7	2.0	1.7	2.0	1.8	1.8	2.2	2.1	2.4	2.8	2.9	3.4
10	1.7	1.4	1.1	1.4	1.8	2.1	2.0	1.9	2.7	2.8	2.8	3.1
11	1.8	1.7	1.5	1.5	1.6	1.8	2.0	2.0	4.2	5.1	C	4.0
12	1.5	1.8	1.8	1.8	1.8	1.6	1.2	2.1	2.6	2.9	4.0	3.0
13	1.6	1.3	1.2	1.2	1.4	1.5	1.6	1.9	3.0	2.9	3.2	3.2
14	1.3	1.2	1.7	1.7	1.6	1.6	1.5	1.9	4.0	2.9	3.1	3.2
15	1.7	1.5	1.6	1.6	1.5	1.5	1.7	2.1	2.3	5.2	3.6	3.2
16	1.7	1.8	1.5	1.5	1.6	1.5	C	C	C	3.0	5.2	3.0
17	1.4	1.2	1.4	1.2	1.2	1.1	1.7	2.2	2.5	3.0	4.8	3.8
18	1.7	1.5	1.3	1.2	1.3	1.3	1.8	2.1	2.6	3.0	3.2	3.4
19	1.6	1.4	1.3	1.4	1.4	1.4	1.6	2.2	4.0	3.4	4.6	3.8
20	1.6	1.3	1.2	1.7	1.5	1.6	1.7	2.2	2.4	4.5	3.4	4.9
21	1.4	1.4	1.3	1.5	1.6	1.5 ^F	1.6	2.0	2.4	2.9	3.7	3.2
22	1.7	1.6	1.2	1.8	1.6	1.7	1.8	2.2	2.6	2.9	3.2	3.5
23	C	1.8	1.8	1.6	1.5	1.5	2.2	2.0	2.4	3.6	3.0	3.1
24	1.5	1.7	1.8	1.9	1.6	1.5	1.9	1.9	2.5	2.8	2.9	3.0
25	2.0	1.6	1.6	1.4	1.8	1.7	1.8	2.3	2.3	2.6	2.8	3.1
26	1.7	1.7	1.3	1.5	1.4	1.4	1.7	1.9	2.4	2.5	3.0	3.1
27	1.3	1.5	1.5	1.3	1.3	1.5	2.2	2.0	2.7	2.8	3.0	3.4
28	1.3	1.5	1.3	1.3	1.4	1.4	1.7	1.9	2.2	2.6	2.6	3.0
29	1.2	1.3	1.2	1.2	1.3	1.4	1.7	2.0	2.2	2.7	C	C
30	1.2	1.4	1.1	1.5	1.3	C	2.2	2.0	2.8	3.0	3.0	3.2
Count	28	29	29	29	29	28	28	28	28	29	27	28
Median	1.6	1.6	1.5	1.5	1.6	1.5	1.8	2.0	2.6	2.9	3.1	3.2
Mean	1.6	1.6	1.5	1.5	1.5	1.6	1.8	2.1	2.7	3.1	3.3	3.4

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : f min
 Unit : Mc
 Month : September 1957

TABLE 28
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
3.4	3.3	3.0	3.3	2.5	2.0	1.4	1.3	1.4	1.2	1.5	1.3	1
3.4	3.2	2.9	2.6	2.9	2.1	1.5	1.1	1.2	2.0	2.2	2.4	2
3.4	5.1	3.3	2.7	3.0	2.6	1.8	1.2	1.6	2.0	1.9	1.7	3
3.5	3.2	3.0	2.5	2.4	2.1	1.6	1.4	1.2	1.6	1.3	1.5	4
3.4	3.9	2.8	2.5	2.3	1.9	1.6	1.4	1.5	1.4	1.3	1.4	5
3.4	4.5	4.6	U3.2s	3.7	3.0	1.8	C	C	C	C	C	6
C	C	4.4	3.2	C	2.0	1.1	1.2	1.8	2.1	1.9	2.1	7
3.4	3.4	3.7	3.0	2.7	2.5	2.0	1.8	1.5	1.5	1.1	1.7	8
3.2	3.5	3.7	2.9	2.6	2.2	1.7	1.6	1.5	1.3	1.4	1.8	9
3.1	3.0	3.1	2.6	2.4	2.0	1.6	1.4	1.3	1.4	1.2	1.2	10
4.3	3.5	3.0	3.0	3.2	2.6	1.8	1.4	1.5	1.0	1.1	1.9	11
3.6	3.4	3.1	2.6	2.4	2.1	1.7	1.6	1.5	1.5	1.4	1.4	12
4.0	3.1	2.9	2.8	2.8	2.4	2.0	1.9	1.6	1.9	1.5	1.6	13
3.7	5.5	3.4	2.9	2.5	2.4	1.9	1.5	1.8	1.6	1.5	2.1	14
3.4	3.2	3.1	2.8	2.8	2.3	1.7	1.9	1.8	1.7	C	C	15
3.2	3.5	3.2	2.8	2.8	2.9	1.7	1.6	1.6	1.5	1.4	1.7	16
3.4	5.0	3.2	3.0	3.0	U2.6s	1.7	1.5	1.7	1.6	1.4	1.4	17
3.8	3.2	3.1	3.1	3.8	U2.5s	E1.7s	S	E1.8s	1.5	1.5	1.5	18
3.4	5.4	3.2	E2.7s	S	U2.2s	1.5	1.2	1.7	1.6	1.5	1.7	19
3.2	3.2	3.0	2.8	U2.8s	2.4	1.9	1.6	1.5	1.5	1.5	1.6	20
3.6	3.8	3.2	3.9	3.0	2.2	1.6	2.0	1.8	1.7	1.4	1.9	21
4.0	4.9	3.2	2.7	2.6	2.2	1.5	1.5	1.5	1.4	1.7	1.8	22
3.4	3.5	3.0	2.8	2.6	2.4	1.6	1.4	1.4	1.7	1.8	1.8	23
3.0	3.0	2.7	2.4	2.3	1.9	1.5	1.5	1.4	1.4	1.5	1.7	24
3.1	2.8	3.1	2.5	2.3	1.9	1.6	1.4	1.6	1.4	1.4	1.5	25
3.0	2.8	2.5	2.5	2.2	2.1	1.5	1.4	1.5	1.5	1.5	1.3	26
3.2	3.2	3.3	2.6	2.3	2.2	1.4	1.3	1.3	1.3	1.4	1.2	27
3.2	3.1	3.0	2.8	2.5	1.8	1.4	1.4	1.4	1.3	1.3	1.6	28
C	C	2.8	2.7	2.6	2.4	1.9	1.5	1.3	1.4	1.5	1.8	29
3.4	3.2	3.2	3.0	2.8	2.2	1.5	1.4	1.5	1.8	1.7	1.4	30
28	28	30	30	28	30	30	28	29	29	28	28	Count
3.4	3.4	3.1	2.8	2.6	2.2	1.6	1.5	1.5	1.5	1.5	1.6	Median
3.4	3.7	3.2	2.8	2.7	2.3	1.6	1.5	1.5	1.5	1.5	1.6	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : f min
Unit : Mc
Month : September 1957

TABLE 28—*contd.*
Ionospheric Data
75°0' 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	2.0	1.9	1.7	1.2	1.3	1.7	2.0	2.6	3.0	3.2	4.2	3.8
2	2.0	1.9	1.9	1.5	1.9	1.8	1.8	2.2	3.0	4.6	3.5	3.3
3	2.1	1.9	1.8	1.7	1.5	1.5	2.6	2.4	2.9	3.1	3.4	3.1
4	2.0	2.0	2.1	2.2	1.6	1.9	1.9	2.4	2.6	3.2	3.4	3.3
5	1.1	1.3	1.5	1.8	1.5	1.5	1.6	2.1	3.2	3.0	3.0	3.1
6	1.8	1.9	2.0	1.7	1.4	1.8	1.9	2.1	2.6	2.9	3.8	3.5
7	C	C	C	C	C	C	C	C	C	C	C	C
8	1.6	1.6	1.5	1.8	2.0	1.4	2.2	2.3	12.7C	3.0	3.6	3.6
9	1.7	1.7	2.0	2.1	1.7	2.1	2.0	2.2	2.7	2.9	3.0	3.5
10	1.7	1.5	1.4	1.4	2.5	1.9	2.0	2.9	2.6	2.8	3.0	3.2
11	1.7	1.6	1.6	1.4	2.1	1.9	1.9	2.6	4.8	5.0	C	4.2
12	1.5	1.7	1.7	1.6	1.7	1.6	1.9	2.6	2.8	3.0	4.0	3.6
13	1.4	1.2	1.1	1.4	1.4	1.7	1.8	2.0	2.8	3.2	3.1	5.2
14	1.3	1.2	1.6	1.9	1.7	1.6	1.5	3.8	2.7	2.9	3.3	3.8
15	1.5	1.6	1.5	1.4	1.5	1.6	1.8	2.2	2.7	5.5	3.1	3.2
16	2.0	1.5	1.6	1.6	1.6	1.7	C	C	C	2.8	3.0	3.1
17	1.3	1.4	1.1	1.3	1.2	1.4	1.8	2.3	2.6	5.1	5.6	3.8
18	1.6	1.1	1.3	1.3	1.3	1.5	1.9	2.2	2.6	3.5	3.1	3.8
19	1.3	1.3	1.2	1.8	1.4	1.7	2.2	2.5	3.1	5.6	4.2	3.6
20	1.6	1.4	1.4	1.9	1.5	1.6	1.8	2.2	2.5	3.7	3.8	3.7
21	1.3	1.5	1.4	1.8	1.4	1.7	1.8	2.2	2.6	5.2	3.4	3.4
22	1.3	1.4	1.6	1.9	1.5	1.6	1.6	2.3	2.7	2.9	3.3	3.5
23	C	1.6	1.5	1.5	1.5	1.7	1.9	2.2	2.7	3.0	2.9	3.2
24	1.6	1.5	2.0	1.7	1.4	1.6	1.9	2.1	2.7	3.0	2.8	3.1
25	1.6	1.9	1.6	1.4	1.8	1.6	1.8	2.4	2.5	2.5	3.0	3.0
26	1.6	1.4	1.4	1.6	1.4	1.3	1.8	2.2	2.4	2.8	3.0	3.0
27	1.3	1.6	1.4	1.4	1.3	1.4	1.9	2.2	2.9	3.0	4.9	3.4
28	1.6	1.4	1.2	1.6	1.6	1.4	1.7	2.0	2.3	2.6	2.9	3.3
29	1.2	1.2	1.2	1.1	1.3	1.6	1.6	1.9	2.5	C	C	C
30	1.3	1.4	1.3	1.4	1.3	C	1.6	3.0	2.6	C	3.0	3.2
Count	28	29	29	29	29	28	28	28	28	27	27	28
Median	1.6	1.5	1.5	1.6	1.5	1.6	1.8	2.2	2.7	3.0	3.3	3.4
Mean	1.6	1.5	1.5	1.6	1.6	1.6	1.9	2.4	2.8	3.5	3.4	3.5

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : f min
 Unit : Mc
 Month : September 1957

TABLE 28—contd.
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
3.4	3.2	2.8	2.8	2.3	1.8	1.2	1.4	1.3	1.4	1.2	1.4	1
3.2	3.0	2.7	4.0	2.6	2.0	1.1	1.1	1.1	1.8	1.8	2.3	2
3.6	3.8	3.1	6.1	3.3	2.2	1.7	1.2	1.6	1.8	1.8	1.7	3
3.3	3.0	2.9	2.5	2.3	2.2	1.2	1.3	1.0	1.4	1.7	1.2	4
3.2	3.1	2.6	2.4	2.0	2.0	1.5	1.3	1.4	1.4	1.1	1.7	5
3.6	6.0	4.6	2.9	2.4	2.2	1.5	C	C	C	C	C	6
C	5.1	4.0	2.9	2.3	1.5	1.0	1.1	1.7	2.3	1.5	2.0	7
3.6	3.6	3.1	3.1	2.4	2.4	1.5	1.5	1.6	1.6	1.5	1.5	8
3.2	4.0	3.2	2.9	2.4	2.3	1.4	1.3	2.2	1.5	1.8	1.6	9
3.0	3.4	2.8	2.7	2.2	2.2	1.2	1.6	1.6	1.3	1.4	1.4	10
4.4	3.8	3.0	3.2	2.6	2.4	1.4	1.5	1.4	1.1	1.4	1.5	11
4.8	3.2	2.8	2.8	2.2	2.4	1.3	1.5	1.5	1.6	1.7	1.5	12
3.4	3.2	2.8	2.3	2.5	2.3	1.7	1.9	1.9	1.9	2.0	1.7	13
7.2	4.0	3.2	2.7	2.5	2.3	1.3	1.5	1.7	1.7	1.6	2.0	14
3.1	3.1	3.0	2.8	2.5	2.2	1.6	1.6	1.7	1.3	2.2	1.9	15
3.2	3.2	3.0	2.8	2.8	U2:6S	1.3	1.5	1.6	1.6	1.6	1.5	16
3.8	4.8	3.4	3.0	2.6	1.9	1.1	1.6	1.5	1.8	1.6	1.5	17
4.0	3.2	3.0	3.0	U3:6S	U2:4S	E1:2S	S	1.6	1.5	1.4	1.8	18
3.2	5.4	E3:2S	E3:0S	U2:3S	2.0	1.2	1.7	1.7	1.5	1.6	1.8	19
3.4	3.3	2.9	3.0	2.5	2.4	1.5	1.9	1.4	1.6	1.5	1.4	20
5.0	3.4	3.2	4.0	2.7	2.3	1.3	1.6	1.6	1.9	1.5	1.8	21
3.7	3.5	3.0	2.8	2.3	2.2	1.9	1.8	1.2	1.5	1.9	1.5	22
3.6	3.2	3.0	2.8	2.6	2.2	1.5	1.6	1.6	1.7	1.7	1.5	23
2.9	2.8	2.6	2.4	2.1	1.8	1.2	E	1.4	1.4	1.2	1.9	24
2.9	2.8	3.1	2.5	2.3	2.2	1.4	1.4	1.6	1.3	1.7	1.7	25
2.9	2.8	2.6	2.4	2.1	2.1	1.3	1.5	1.3	1.2	1.5	1.3	26
4.8	3.1	3.1	2.4	2.2	2.1	1.2	1.3	1.3	1.4	1.2	1.4	27
3.0	3.0	3.1	2.7	2.2	1.7	1.2	1.4	1.3	1.3	1.4	1.1	28
C	3.2	2.8	2.7	2.6	2.0	1.3	1.3	1.4	1.4	1.6	1.4	29
3.4	3.2	2.8	3.2	2.6	2.2	1.4	1.4	1.6	1.8	1.5	1.7	30
28	30	30	30	30	30	30	28	29	29	29	29	Count
3.4	3.2	3.0	2.8	2.4	2.2	1.3	1.5	1.6	1.5	1.6	1.5	Median
3.7	3.5	3.0	3.0	2.5	2.1	1.4	1.4	1.5	1.6	1.6	1.6	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 second.

Characteristic : h'F2
 Unit : Km
 Month : September 1957

TABLE 29
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								L	L	L	L	L
2								L	L	L	L	L
3								L	L	L	L	L
4								L	L	L	L	L
5												
6												
7							C	C	L	L	L	L
8							L	L	L	L	L	L
9								L	L	L	L	L
10												
11								L	L	L	C	L
12								L	L	L	L	L
13								L	L	L	L	L
14								L	L	L	L	L
15								L	L	L	L	L
16							C	C	C	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								L	L	L	L	L
26								L	L	L	L	L
27								L	L	L	L	L
28								L	L	L	L	L
29								L	L	L	L	L
30								C	C	C	C	C
Count	1
Median
Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'F2
 Unit : Km
 Month : September 1957

TABLE 29
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

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

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'F2
 Unit : Km
 Month : September 1957

TABLE 29—contd.
 Ionospheric Data
 75.0° 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	L
2								L	L	L	L	L
3								L	L	L	L	L
4								L	L	L	L	L
5								L	L	L	L	L ^H
6								L	L	L	L	L
7							G	L	L	L	L	L
8								L	L	L	L	L
9							L	L	L	L	L	L
10								L	L	L	L	L
11								L	L	L	C	L
12								L	L	L	L	L
13								L	L	L	L ^{U44oL}	L
14								L	L	L	L	L
15								L	L	L	L	L
16							C	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								L	L	L	L	L
26								L	L	L	L	L
27								L	L	L	L	L
28								L	L	L	L	L
29								L	L	L	L	L
30								L	L	L	L	L
Count	I	..
Median
Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'F2
 Unit : Km
 Month : September 1957

TABLE 29—*contd.*
 Ionospheric Data
 75°0' 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	L	L	L	L							1
L	L	L	L	L	L							2
LH	LH	LH	LH	LH	LH							3
LH	LH	L	L	L	L							4
LH	LH	L	L	L	A							5
L	L	L	L	L	L							6
C	L	L	L	L	L							7
L	L	L	L	L	L							8
L	L	L	L	L	L							9
L	L	L	L	L	L							10
L	L	L	L	L	L							11
L	L	L	L ^{v460L}	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	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	L							22
L	L ^{u515L}	L	L	L	L							23
L	L ^{v620L}	L	L	L	LH							24
L	L	L	L	L	L							25
L	L	L	L	L	L							26
L	L	L	L	L	L							27
L	L	L	L	L	L							28
L	L	L	L	L	L							29
L	L	L	L	L	L							30
C	C	C	C	C	C							Count
1	2	..	1	..	..							Median
..	..	..	..	..	..							Mean
..							

Sweep 1°0' Mc. to 25°0' Mc. in 30 seconds.

Characteristic : h'F

TABLE 30

Latitude : 10° 2' N

Unit : Km

Ionospheric Data

Longitude : 77° 5' E

Month : September 1957

75° 0' E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	U270F	U310F	U330F	U400F	U320F	U240F	275	250	235	235	220	220
2	280	260	230	215	205	205	250	235	215	205	200	200
3	310	275	220	260	250	350	300	265	250	240H	220H	215
4	260	270	280	235	220	225	280	245	230	215	210	200
5	340	275	225	225	200	220	295	255	240	235	220	220
6	U385F	290	240	225	230	235	260	240	215H	210H	215	215
7	C	C	C	C	C	C	C	C	C	C	C	C
8	280	240	220	220	210	200	245	235	225	210	210	205
9	U245F	230	215	215	220	215	260	230	200	205H	210H	210
10	240	240	225	220	215	200	255	230	220	205	205H	200H
11	295	250	230	235	230	220	260	240	U240B	B	C	220
12	230	250	250	250	240	220	280	245	235	220	215	210
13	260	245	240	235	220	230	260	240	235	220	220	225
14	320	290	270	240	250	235	270	245	230	210	215	210
15	245	240	230	225	220	240	270	240	210	B	210	205
16	260	255	260	260	240	230	C	C	C	235	B	215
17	220	215	230	220	220	220	265	240	225	215	U220B	215
18	225	220	230	220	220	220	260	240	220	220	215	210
19	265	250	240	240	235	240	270	250	U240B	240	U240B	230
20	255	230	230	225	220	220	260	240	240	U230B	225	B
21	230	230	225	220	230	U250F	265	240	230	220	225	210
22	250	300	435	370	360	295	290	250	240	230	215	230
23	C	240	255	240	220	230	280	250	240	230	235	235
24	240	260	240	245	240	230	280	260	245	235	235	230
25	220	220	240	240	240	205	265	260	240	220	220	230
26	240	230	230	230	220	220	255	235	225	210	200H	210
27	250	250	250	240	220	210	260	245	240	230	220	225
28	250	240	250	240	230	220	255	240	230	210	200	210
29	230	220	255	250	240	215	255	240	220	210	C	C
30	C	C	C	C	C	C	C	C	C	C	C	C
Count .	27	28	28	28	28	28	27	27	27	26	25	26
Median .	250	250	240	235	225	220	265	240	230	220	215	215
Mean .	265	250	250	245	235	230	265	245	230	220	215	215

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'F
 Unit : Km
 Month : September 1957

TABLE 30
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
215H	210	220	230	240	260	300	F	U405F	U270F	U225F	280	1
200	200H	205H	220	240	250	280	330	305	255	260	295	2
200	B	235	225	240	265	305H	425H	395H	300	235	245	3
200	200	215	210	220	245	280	330F	305F	320F	335	300F	4
225	220H	215	215	220	A	A	305	340	375	435	435	5
210	220	B	220	240	250H	280	C	C	C	C	C	6
C	C	B	235	C	260	305	405F	U420F	F	U350F	U290F	7
210	210	220	215	240	255	300H	360	F	300	300	240	8
210H	220	220	225	235	260	305	U420F	F	300	285	260	9
200H	200H	205H	210H	210H	240H	290	400	320	275	260	F	10
225	220	220	220	240	260	300	U390F	U360F	370	U300F	300	11
215	220	220	220	235	255	300	460	U440F	400	F	300	12
235	235	240	245	260	290	300	240	220	260	295	310	13
215	B	230	230	240	260	315	U395F	360F	285	240	255	14
205	205H	210	230	240	275	320	F	F	U440F	C	C	15
210H	210H	215	220	250	260	320	F	F	F	300	U275F	16
200H	U230B	220	220	260	260	310	F	F	F	U320F	250	17
220H	210	210H	220	240	260	320	F	F	F	U340F	U310F	18
220	B	215	240	250	275	300H	U180F	F	U330F	F	U300F	19
210	210	220	220	240	265	330	U535F	U425F	U430F	U340F	285	20
215	215	220	240	250	270	310	300	245	245	260	245	21
225	240	230	240	245	265	340	F	F	390	375	300F	22
A	240	250H	255H	260H	280	325	340	300	270	280	260	23
220	225	230	240	250	270	325	U395F	375	280	340	240	24
230	220	225	230	260	280	340	445	350	270	240	250	25
210	210	220	225	240	275	340	U440F	U460F	290	250	250	26
220	215	220	240	250	280	340	U435F	380	240	260	245	27
220	220	220	240	255	280	340	U440F	U460F	U390F	360	280	28
C	C	C	C	C	C	C	C	C	C	C	C	29
C	C	C	C	C	C	C	C	C	C	C	C	30
26	24	26	28	27	27	27	21	19	23	24	25	Count.
215	220	220	225	240	260	310	400	360	300	290	280	Median.
215	215	220	230	240	265	310	395	360	315	295	280	Mean.

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'F

Unit : Km

Month : September 1957

TABLE 30—contd.

Ionospheric Data

75°0' 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	290	U300F	F	U365F	U280F	U260F	255	240	240	220	U230B	220
2	260	250	220	210	200	220	240	230	210	U220B	200	200
3	295	230	260	240	245	365	280	250	230H	225H	225H	200H
4	245	280	250	230	215	260	260	240	220	215	205	200
5	315	250	225	205	210	230	260	260	240	220	220	225
6	330	265	230	225	240	255	255	230	210	215	220H	205
7	C	C	C	C	C	C	C	C	C	C	C	C
8	260	240	220	215	220	220	240	225	I220C	205H	220	205
9	245	220	220	215	210	U245F	240	225	215	205H	215	215H
10	240	235	230	210	210	215	240	220	220	215	200H	200H
11	260	235	240	220	220	225	240	235	B	U240B	C	225
12	240	240	250	240	235	225	255	240	220	220	215	200
13	245	240	240	220	220	240	250	240	230	215	220	B
14	305	270	250	250	245	275	255	240	220	215	220	210
15	235	240	240	225	225	265	255	230	225	B	200H	215
16	260	260	255	240	230	230	C	C	C	210H	B	210
17	220	225	220	225	215	240H	250	230	220	B	B	200H
18	220	225	225	215	220	240	250	230	215	220	205	200H
19	240	240	245	235	230	260	260	245	240	B	225	225
20	240	230	225	240	220	F	250	240	230	225	215	210
21	240	225	230	230	235	260	255	235	220	B	220	210
22	280	400	405	350	345	300	270	240	235	220	220	235
23	C	250	260	230	220	255	265	250	235	240	240	235
24	245	250	235	245	240	245	260	255	240	235	235	220
25	220	230	250	245	220	220	260	245	240	220	225	235
26	240	230	230	230	220	240	240	230	220	210	215	205
27	250	250	240	230	210	230	245	240	230	240	B	230
28	255	250	240	230	220	220	250	230	220	200	200	215
29	220	240	260	255	220	220	240	230	220	C	C	C
30	C	C	C	C	C	C	C	C	C	C	C	C
Count	27	28	27	28	28	27	27	27	26	23	23	26
Median	245	240	240	230	220	240	255	240	220	220	220	210
Mean	255	250	245	240	230	245	255	235	225	220	215	215

Sweep 1°0' Mc. to 25°0' Mc. in 30 seconds.

Characteristic : h'F
 Unit : Km
 Month : September 1957

TABLE 30—contd.
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
210	215	220	230	240	280	345	U400F	U310F	U300F	260	U270F	1
200	205H	210H	230	245	260	310	320	260	240	280	305	2
205	U220B	230	B	250	280H	305H	435H	320	260	235	255	3
205	210	220	220	240	265	320	F	F	340F	280F	335	4
220H	220H	220H	220	235	A	285	335	350	400	440	U420F	5
215	B	B	220	245	260H	315	C	C	C	C	C	6
C	B	B	240	255	280	360	430F	U380F	F	U380F	295	7
215	220	220	230	240	280H	350H	320	280	300	320	U285F	8
215	220	230	225	250	280	370	F	U300F	275	260	260	9
200	200H	210H	215H	230H	260	355	350	340	250	295	330	10
220	220	220	220	250	280	365	U360F	340	U300F	280	240	11
210	215	220	225	240	270	380	F	U460F	F	365	280	12
220	240	240	U260A	280	300	260	220	230	270	300	320	13
B	230	230	235	245	285	360	U395F	U320F	255	240	255	14
210	215	215	235	260	290	370	U460F	F	F	F	275	15
210	205	220	240	255	290	400	F	U470F	U300F	300	230	16
205H	U225B	220	225	245	280	400	F	F	U380F	270	240	17
210	210	215	220	255	290	420	F	U370F	U285F	U320F	U280F	18
215	B	U230S	U240S	265	300	425	F	U465F	U240F	U285F	F	19
215	215	220	240	255	290	425	F	F	U370F	295F	240	20
B	220	230	245	260	285	320	270	240	250	260	240	21
230	250	240	240	260	295	400	F	350F	380F	335	275	22
235	220H	255H	260H	275	300	340	320	300	260	280	245	23
220	220	225	245	260	290	380	U400F	320	260	255	230	24
220	220	230	240	265	300	430	U400F	300	255	250	255	25
210	215	220	240	260	300	435	F	U330F	300	260	245	26
U220B	220	220	250	260	300	U420F	380	420	250	255	240	27
220	220	220	240	260	300	430	U440F	500	345	340	240	28
C	C	C	C	C	C	C	C	C	C	C	C	29
C	C	C	C	C	C	C	C	C	C	C	C	30
25	25	26	27	28	27	28	17	23	24	26	26	Count
215	220	220	235	255	285	370	380	330	280	280	260	Median
215	220	225	235	255	285	370	365	345	295	295	270	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'E
 Unit : Km
 Month : September 1957

TABLE 31
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							110	A	A	A	A	A
2								A	A	A	A	A
3							140	115H	110	A	A	A
4							120	A	A	A	A	A
5							100	A	100	A	A	A
6							145	A	A	A	110	A
7							C	C	C	C	C	C
8							145H	105	A	A	A	A
9								105	A	A	A	A
10								100	A	A	A	A
11								115	B	B	C	B
12								A	A	A	B	B
13							120	110	A	110	115	A
14								A	B	A	A	A
15							120	110	A	B	B	A
16							C	C	C	B	B	A
17							120	105	A	B	B	B
18							125	A	A	A	A	A
19							120	120	B	115	B	B
20							130	110	A	B	A	B
21							120	110	105	A	B	A
22							130	A	A	A	A	A
23							130	110	105	B	A	A
24								115	115	A	A	A
25									105	A	A	A
26							135	115	A	A	A	A
27								110	A	A	A	A
28							130	A	A	A	A	A
29							120	110	A	A	C	C
30							C	C	C	C	C	C
Count							19	17	4	2	2	..
Median							120	110	..	..	..	..
Mean							125	110	..	..	..	..

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'E
 Unit : Km
 Month : September 1957

TABLE 31
 Ionospheric Data
 75°0' E Mean Time

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

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

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'E
 Unit : Km
 Month : September 1957

TABLE 31—*contd.*
 Ionospheric Data
 75°0' 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	B	A
2							105 ^H	A	A	B	A	A
3							125	A	A	A	A	A
4							110	A	A	A	A	A
5							A	A	A	A	A	A
6							A	A	A	A	A	A
7							C	C	C	C	C	C
8							120 ^H	A	A	A	A	A
9							110 ^H	105	A	A	A	A
10							110 ^H	B	A	A	A	A
11							115	115	B	B	C	B
12							115	A	A	A	B	B
13							110	110	A	A	A	B
14							110	B	A	A	A	A
15							110	110	A	B	A	A
16							C	C	C	A	A	A
17							110	A	A	B	B	B
18							110	A	A	A	A	B
19							120	115	115	B	B	B
20							110	A	A	B	B	B
21							115	110	A	B	100	100
22							110	A	A	A	A	A
23							115	105	100	A	A	A
24							120	A	A	A	A	A
25							115	105	A	A	A	A
26							120	110	A	A	A	A
27							115	110	A	A	B	A
28							120	A	A	A	A	A
29							110	A	A	C	C	C
30							C	C	C	C	C	C
Count							25	10	2	..	1	1
Median							110	110	..	..	..	..
Mean							115	110	..	..	..	..

Sweep 1°0' Mc. to 25°0' Mc. in 30 seconds.

Characteristic : h'E
 Unit : Km
 Month : September 1957

TABLE 31—*contd.*
 Ionospheric Data
 75.0° 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	A							1
A	A	A	B	A	A							2
115	B	A	B	B	A							3
A	A	A	A	A	A							4
A	A	A	A	100	A							5
												6
A	B	B	110									7
C	B	B	A	110	A							8
A	A	110	110									9
A	A	115	A	A								10
A	A	A	100	100								11
B	A	A	A	A								12
B	A	A	A	110	110							13
A	A	A	A	A	115							14
A	B	A	A	110	A							15
												16
A	A	A	A	A								17
B	A	A	A	120	130							18
A	B	A	105	110								19
A	A	A	A	S								20
A	B	A	A	A								21
												22
B	A	A	B	A								23
B	A	A	A	A								24
120	A	A	A	A								25
A	A	A	A	A								26
												27
A	A	A	A	A								28
B	A	A	A	A								29
A	A	A	A	A								30
C	C	C	C	C								Count
2	..	2	5	7	1							Median
..	..	..	110	110	..							Mean
..	..	..	105	110	..							

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'Es

Unit : Km

Month : September 1957

TABLE 32

Ionospheric Data

75°0' E Mean Time

Latitude : 10°2' N

Longitude : 77°5' E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	110				105		G	100	100	100	100	100
2	100							100	100	100	100	100
3							G	100	135	100	100	100
4	100	100	100				G	100	100	100	100	100
5	105						100	100	G	100	100	100
6							G	100	100	100	100	100
7	C	C	C	C	C	C	C	C	C	C	C	C
8							G	100	100	100	100	100
9								100	100	100	100	100
10			80		100			100	100	100	100	100
11							120	G	100	100	C	100
12		100					100	100	100	100	100	100
13							G	100	100	100	G	100
14		110	110				150	100	G	100	95	90
15							G	G	95	G	100	90
16							C	C	C	100	100	100
17							G	100	100	100	100	100
18							G	100	100	100	100	100
19							G	G	100	100	100	100
20							G	G	100	G	100	100
21							G	G	100	100	100	100
22							G	100	100	100	95	95
23	C						G	100	95	G	100	100
24							G	100	100	100	100	100
25		115		105			140	100	100	100	100	100
26	100						G	G	100	100	100	100
27	120							120	100	100	100	100
28							160	100	100	100	100	100
29							G	G	100	100	C	C
30							C	C	C	C	C	C
Count .	6	4	3	1	2	..	6	20	25	25	25	27
Median .	100	..	..	..	..	..	130	100	100	100	100	100
Mean .	105	..	..	..	..	..	130	100	100	100	100	100

Sweep 1°0' Mc. to 25°0' Mc. in 30 seconds.

Characteristic : h'Es
 Unit : Km
 Month : September 1957

TABLE 32
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
100	100	100	100	100	105	110						1
100	100	100	100	100	100	100	100	100	100		140	2
100	B	100	100	100	100							3
100	100	100	100	100	100	100						4
100	100	100	100	100	100	100	100				125	5
100	100	100	100	100	100		C	C	C	C	C	6
C	C	100	100	C	100	100					120	7
100	100	100	100	100	100					120		8
100	100	100	100	100	100				120	100		9
100	100	100	100	100	100						120	10
100	100	100	100	100	100				125	120		11
100	100	100	100	100	100	100				120		12
100	100	100	G	100	G					115		13
100	100	95	95	100	100						110	14
100	95	100	100	100	100	115					C	15
100	100	100	100	100	105							16
100	100	100	100	100	90							17
100	95	100	100	100	100						110	18
100	100	100	100	100	100							19
100	100	100	100	100	100							20
										100		21
95	95	95	95	100	100							22
100	125	95	95	95	100							23
110	100	100	100	105	115							24
100	100	100	95	100	100						105	25
100	100	100	100	100	100					115		26
95	95	100	100	100	105				130			27
100	100	100	100	100	105					130		28
100	100	100	100	100	105							29
C	C	C	C	C	C							30
C	C	C	C	C	C							30
27	26	28	27	27	27	7	2	1	4	8	7	Count
100	100	100	100	100	100	100	..	..	..	120	120	Median
100	100	100	100	100	100	105	..	..	..	115	120	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'Es

TABLE 32--*contd.*

Latitude : 10°2' N

Unit : Km

Ionospheric Data

Longitude : 77°5' E

Month : September 1957

75°0' E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1				105			100	100	100	100	100	100
2	100						105	100	100	100	100	100
3							155	100	100	100	100	100
4							100	100	100	100	100	100
5							100	100	100	100	100	100
6							100	100	100	100	100	100
7	C	C	C	C	C	C	C	C	C	C	C	C
8							G	100	1100C	100	100	100
9							G	100	100	100	100	100
10				100			G	100	100	100	100	100
11				110			G	100	100	100	C	100
12	105						G	100	100	100	100	100
13							G	100	100	110	100	100
14	110	110	105				170 ^H	G	100	95	100	95
15							G	100	95	G	100	100
16							C	C	C	100	100	100
17							100	100	100	100	100	100
18				100			130	100	100	100	100	100
19							G	100	100	100	100	100
20							G	100	100	100	100	100
21							G	100	100	G	100	100
22							100	100	100	100	90	100
23	C						100	100	G	100	100	100
24							100	100	100	100	100	100
25		120	100	105			140	100	100	100	100	100
26							G	100	100	100	100	100
27	115						G	G	100	100	100	100
28							100	100	100	100	100	100
29							G	100	100	C	C	C
30							C	C	C	C	C	C
Count .	4	2	2	5	..	..	14	25	26	25	26	27
Median .	..	..	..	105	..	..	100	100	100	100	100	100
Mean .	..	..	..	105	..	..	115	100	100	100	100	100

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'Es

TABLE 32—contd.

Latitude : 10.2° N

Unit : Km

Ionospheric Data

Longitude : 77.5° E

Month : September 1957

75.0° E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
100	100	100	100	100	105							1
100	100	100	100	100	100	100	100	100		115		2
115	100	100	B	100	100						105	3
100	100	100	100	100	100						100	4
100	100	100	100	100	100	100				120		5
100	B	100	100	100	100		C	C	C	C	C	6
C	100	100	100	100	100	100				130	125	7
100	100	100	100	100	100						105	8
100	100	100	100	100	105			125	100	100		9
100	100	100	100	G						100	120	10
100	100	100	100	100	100				120	120		11
100	100	100	100	100	100							12
100	100	100	100	G							120	13
B	95	95	100	100						110		14
95	100	95	100	100	115				115		125	15
100	95	100	100	100	S							16
100	100	100	100	90	S							17
100	95	100	100	100	S							18
100	100	100	100	100	100							19
100	100	100	100	100								20
95	95	95	100	100	100					100		21
100	100	95	95	100								22
105	100	100	100	110								23
100	100	100	100	100	150		130			100		24
100	100	100	100	105	S						100	25
95	100	100	100	100	105			125	120		120	26
100	100	100	100	100	105							27
100	100	100	100	105	110				140			28
C	C	C	C	C	C							29
C	C	C	C	C	C							30
26	27	28	27	26	18	3	2	3	5	9	9	Count
100	100	100	100	100	100	..	..	..	120	110	120	Median
100	100	100	100	100	105	..	..	..	120	110	115	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : (M3000)F2
 Unit : —
 Month : September 1957

TABLE 33
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	F	F	F	F	F	F	U3'05F	2'85	U2'45R	2.25	2'35	2'25
2	F	F	U3'10F	3'20	3'40	3'50	3'20	3'10	2'60	2'30	2'45	2'30
3	J2'75R	2'90	3'10	2'85	3'00	2'45	2'70	2'80	2'45	2.25	2'25	2'20
4	3'00	2'80	2'85	3'15	3'40	3'20	2'80	2'70	2'40	2'45	2'35	2'25
5	U2'75F	2'80F	U2'55F	3'40	3'40F	3'20	2'70	2'65	2'55	2.20	2'35	2'40
6	F	F	U3'00F	3'35	3.25	3'25	3'10	2'95	2'50	2'45	2'40	2'25
7	C	C	C	C	C	C	C	C	C	C	C	C
8	F	F	F	3'20	F	F	F	3'00	2'45	2'45	2'35	2'25
9	U3'20F	3'25	3'40	F	3.40F	3'50F	3'10	2'95	2'55	2'35	2'30	2'20
10	2'90	2'95	F	3'10	3.30	3'40	3'10	3'05	2'65	U2'25R	2'30	2'30
11	F	F	3'10	3'10	3.25	3'45	U3'10S	3'00	2'65	2'30	C	2'20
12	2'90	F	3'00	F	F	F	U2'90S	2'70	2'40	2'35	2'35	2'30
13	F	U2'95F	F	F	F	3'20F	E3'10S	2'90	2.05H	2'65	2'60	2'10
14	2'65	2'80	2'85	2'95	2.90	3'10	2'95	2'80	2'60	2'25	2'20	2'15
15	3'05	3'00	3'00	3'15	3.20	3'20	E3'00S	2'95	2'65	2'40	2'25	2'25
16	U2'90F	U3'00F	2'90	2'80	F	F	C	C	C	2'25	2'10	2'10
17	3'00	3'00	F	F	3.25	3'35	2'95	2'75	2'40	2'35	2'30	2'20
18	U2'80S	3'00	2'95	3'05	3.15	3'30	2'95	2'80	2'45	2'25	2'20	2'15
19	F	U2'85F	F	F	F	J3'20F	U2'90F	2'90	2'70	2'45	2'15	2'05
20	U3'10F	3'00	3'00	F	U3.40F	F	U3'05F	2'85	2'60	2'25	2'15	2'10
21	2'80	2'90	F	F	3.20	F	2'95	2'95	2.60	2'25	2'10	2'10
22	2'90	2'50	2'20	2'35	2.35	2'55	2'75	2'35	2.20	2'05	2'05	2'05
23	C	F	F	F	F	F	F	2'55	2.15	2'25	2'00	1'95
24	2'65	2.80	2'80	2'80	2.90	3'10	2'75	2'55	2.25	2'20	2'10	2'05
25	2'90	3.10	2'85	2'85	3.00	U3'35S	3'00	2'70	2.35	2'10	2'10	2'05
26	2'90	U3'00S	U3'10S	3'15	3.35	3'40	3'00	3'00	2.80	2'50	2'20	2'05
27	F	U2'85F	F	3'00	3.20	3'40	3'15	3'00	2'75	2'45	2'10	2'05
28	F	F	U3'00F	F	U3.25F	F	F	3'00	2.60	2'25	2'20	2'15
29	F	F	2'90	F	U3.05F	3'35	3'15	2'90	2.50	2'20	C	C
30	C	C	C	C	C	C	C	C	C	C	C	C
Count .	17	19	19	17	21	20	24	27	27	28	26	27
Median .	2'90	2'95	3'00	3'10	3'25	3'30	3'00	2'90	2'50	2'25	2'20	2'15
Mean .	2'90	2'90	2'95	3'05	3'15	3'20	3'00	2'85	2'50	2'30	2'25	2'15

Sweep 1'0 Mc. to 25'0 Mc. in 30 seconds.

Characteristic : (M3000)F2
 Unit : —
 Month : September 1957

TABLE 33
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
2'15	2'15	2'15	E2'20R	2'15	E2'20S	2'05	F	F	F	F	F	1
2'15	2'25	2'25	2'10	2'00	2'10	2'20	2'20	2'35	2'50	2'65	2'75	2
2'10	2'20	2'30	2'30	E2'40R	2'35	2'15	U2'05S	2'05	2'20	2'55	2'90	3
2'20	2'20	2'20	2'25	2'30	2'25	2'25	F	F	F	F	F	4
2'30	2'00	2'15	2'25	2'30	2'40	U2'60S	2'50	2'40	U2'35S	2'30	F	5
2'30	2'25	2'30	2'30	2'35	2'45	2'35	C	C	C	C	C	6
C	C	2'20	2'20	C	2'20	2'15	2'05	F	F	F	F	7
2'25	2'30	2'30	2'30	2'35	2'40	2'25	U2'00F	F	F	F	F	8
2'20	2'20	2'20	2'20	2'15	U2'05S	2'05	2'00	2'15F	U2'40S	2'55	U2'75S	9
2'20	2'15	2'20	J2'20S	2'30	2'35	U2'25S	2'10	F	F	F	F	10
2'10	2'10	2'15	2'10	2'15	2'20	2'10	F	F	F	F	F	11
2'15	2'10	2'05	2'10	2'15	2'25	2'20	U2'00S	F	F	F	F	12
2'00	2'00	U1'90W	2'05	2'20	2'25	2'50	2'80	2'75	2'75	2'70	2'65	13
2'10	2'10	2'10	2'10	2'25	2'25	2'10	2'05	2'10	2'30	2'65	2'95	14
2'15	2'10	2'10	2'10	2'10	1'95	U1'95S	2'05	F	F	C	C	15
2'05	2'10	2'10	2'10	2'20	2'30	2'20	J2'00S	F	F	J2'50F	F	16
2'10	2'10	2'10	2'15	2'10	J2'05S	U1'95S	E1'90W	F	J2'15F	F	U2'60F	17
2'10	2'10	2'10	2'10H	2'10	J2'05S	U2'00S	J1'85S	F	F	F	F	18
2'05	2'05	2'10	2'05	2'05	2'05	U1'95S	E1'90W	F	F	F	F	19
2'05	2'10	2'10	2'05	2'10	U2'15S	U2'05S	F	F	F	F	F	20
2'00	2'05	2'05	2'10	2'05	2'05	J2'00S	2'15	2'50	2'70	2'75	2'90	21
1'95	2'05	2'05	2'05	2'10	2'00	1'90	2'00	F	F	F	F	22
2'00	2'05	1'95	1'95	1'95	2'10	2'05	2'15	2'20	2'40	2'55	2'70	23
2'00	1'95	1'95	2'00	2'05	2'00	1'95	2'05	2'20	2'40	2'70	2'90	24
2'10	2'05	2'00	2'00	2'00	1'95	1'90	J2'10S	2'05	U2'30S	2'55	2'75	25
2'05	2'10	2'05	U2'05S	U2'05S	U2'15S	U2'05S	F	F	F	F	F	26
2'10	2'10	2'10	2'05	2'10	2'15	2'00	F	F	F	F	U2'65F	27
2'20	2'15	2'15	2'10	2'05	1'95	U1'95S	F	F	F	F	F	28
C	C	C	C	C	C	C	C	C	C	C	C	29
C	C	C	C	C	C	C	C	C	C	C	C	30
27	27	28	28	27	28	28	21	10	11	11	11	Count
2'10	2'10	2'10	2'10	2'10	2'10	2'05	2'05	2'20	2'40	2'55	2'75	Median
2'10	2'10	2'10	2'10	2'15	2'15	2'10	2'10	2'30	2'40	2'60	2'75	Mean

Sweep 1'0 Mc. to 25'0 Mc. in 30 seconds.

Characteristic : (M3000)F2
 Unit : —
 Month : September 1957

TABLE 33—*contd.*
 Ionospheric Data
 75°0' 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	F	F	F	F	F	U3'25F	2'95	2'70	2'25	2'35	2'25	2'20
2	F	F	3'10	3'15	U3'35F	3'10	E3'20S	2'80	2'35	2'45	2'30	2'25
3	2'85	U3'00S	2'90	3'00	3'00	2'35	2'85	2'55	2'35	2'25	2'20	2'20
4	3'00	2'75	2'95	3'20	3'40	2'75	2'80	2'60	2'45	2'45	2'30	2'30
5	2'80	2'75F	2'85F	U3'30F	3'20F	2'80H	2'75	2'70	2'45	2'15	2'40	2'35
6	F	F	3'15	3'40	3'30	2'95	3'05	2'70	2'40	2'45	2'30	2'25
7	C	C	C	C	C	C	C	C	C	C	C	C
8	F	F	U3'10S	U3'40F	F	2'90F	3'20	2'75	U2'40C	2'35	2'35	2'25
9	U3'20F	3'30	F	U3'40F	3'40F	2'60F	3'10	2'70	2'35	2'30	2'30	2'15
10	2'95	3'00	U2'95S	U3'15S	3'30	3'25	U3'10S	2'80	2'45	2'25	2'25	2'20
11	U3'00F	U3'10F	U3'00S	U3'25F	3'15	3'15	U3'10S	2'80	2'50	2'20	C	2'15
12	F	U3'20F	3'00	F	F	U3'20F	2'90	2'45	2'40	2'35	2'30	2'20
13	2'80F	U3'00F	U3'10F	F	3'30	E3'00F	U3'15S	2'50	2'35	2'55	2'40	U1'95W
14	2'75	2'80	2'90	2'85	3'00	2'70	2'95	2'65	2'40	2'15	2'25	2'10
15	2'95	2'95	3'10	3'20	3'30	2'65	3'10	2'85	2'50	2'25	2'25	2'20
16	F	U2'85F	2'70	F	F	U3'20F	C	C	C	2'15	2'10	2'05
17	3'10	3'00	F	3'15	3'35	2'75	2'90	2'55	2'40	2'35	2'25	2'15
18	U2'90S	U2'90S	3'00	3'15	U3'20S	3'05	2'95	2'60	2'35	2'20	2'20	2'10
19	F	F	2'95	F	F	F	2'90	2'80	2'55	2'25	2'05	2'05
20	U2'90F	F	F	F	F	U3'10F	3'05	2'75	2'40	2'10	2'15	2'05
21	F	2'95	3'00	3'25	F	F	3'10	2'85	2'45	2'10	2'10	2'10
22	2'80	2'30	2'30	2'45	2'35	2'65	2'50	2'30	2'20	2'05	2'05	2'00
23	C	F	F	F	F	F	2'70	2'40	2'20	2'05	U1'95W	2'00
24	2'70	2'75	2'75	2'85	2'95	2'85	2'70	2'45	2'20	2'10	2'10	2'00
25	3'00	2'90	2'80	2'90	3'10	3'10	2'90	2'60	2'15	2'10	2'05	2'05
26	3'00	U3'10S	3'15	U3'25S	3'35	2'70	3'15	2'95	2'65	2'30	2'05	2'05
27	F	U2'90S	F	3'10	3'30	3'05	3'10	2'90	2'65	2'30	2'05	2'05
28	F	F	U3'00F	U3'20F	F	F	U3'20S	2'75	2'30	2'25	2'20	2'20
29	F	F	U2'85F	U2'90F	U3'20F	3'35	3'10	2'70	U2'30R	C	C	C
30	C	C	C	C	C	C	C	C	C	C	C	C
Count	16	19	22	21	19	24	27	27	27	27	26	27
Median	2'90	2'95	3'00	3'15	3'30	3'00	3'05	2'70	2'40	2'25	2'20	2'15
Mean	2'90	2'90	2'95	3'10	3'20	2'95	3'00	2'65	2'40	2'25	2'20	2'15

Sweep 1'0 Mc. to 25'0 Mc. in 30 seconds.

Characteristic : (M3000)F2
 Unit : —
 Month : September 1957

TABLE 33—concl'd.
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
2'15	2'15	2'10	2'15	2'15	2'15	E2'00S	F	F	F	F	F	1
2'25	2'35	2'20	2'05	E2'05W	2'20	2'20	2'25	2'55	U2'65S	2'80	2'75	2
2'20	2'25	2'30	E2'40R	2'35	2'30	2'05	2'00	2'15	2'35	2'85	3'00	3
2'20	2'20	2'20	2'25	2'25	U2'20S	2'20	2'10	F	F	F	F	4
2'15	U2'05W	2'15	2'25	2'35	2'55	2'55	2'45	2'40	U2'30S	2'30	F	5
2'25	2'25	2'30	2'30	2'40	2'40	U2'30S	C	C	C	C	C	6
C	2'20	2'20	2'20	2'20	2'20	2'05	2'10	F	F	F	F	7
2'30	2'30	2'30	2'35	2'40	2'35	U2'15S	F	F	F	F	F	8
2'20	2'20	2'20	2'20	U2'15S	2'05	2'00	U1'95F	U2'30S	2'40	U2'60S	2'80	9
2'15	2'20	2'20	2'30	2'35	U2'35S	U2'15S	U2'10F	F	F	F	F	10
2'10	2'10	2'10	2'15	2'20	U2'20S	U2'00S	F	F	U2'50F	F	F	11
2'15	2'10	2'10	2'10	2'20	2'30	2'10	F	F	F	F	F	12
1'95	1'95	1'90	2'15	2'30	2'35	2'70	2'80	U2'70S	2'80	2'65	2'65	13
2'5	2'10	2'05	2'15	2'25	2'20	2'05	2'05	2'20	2'50	2'85	3'05	14
2'15	2'15	2'10	2'10	2'00	U1'95S	U2'05S	F	F	F	F	U2'70S	15
2'05	2'05	2'10	2'15	U2'25S	2'25	U2'10S	U2'00F	F	U2'25F	F	U2'85F	16
2'10	2'10	2'15	2'15	2'10	U2'00S	U1'95S	F	F	F	F	2'70	17
2'10H	2'10	2'10	2'10	E2'10R	U2'05S	U1'95S	F	F	F	F	F	18
2'05	2'10	2'05	2'05	2'05	J2'00S	U1'90W	F	F	F	F	F	19
2'10	2'10	2'05	2'05	U2'15S	U2'15S	2'00	F	F	F	F	2'70	20
2'00	2'05	2'00	2'10	2'00	1'95	2'00	2'35	2'65	2'75	2'90	2'90	21
2'00	2'05	2'05	2'00	2'05	2'00	U1'85W	F	F	F	F	U2'70S	22
2'05	2'00	1'95	1'90	2'00	2'00	2'05	2'10	2'30	2'45	2'65	2'70	23
2'00	2'00	2'00	2'00	2'05	U2'05S	2'05	U2'10F	U2'35S	2'55	2'80	3'00	24
2'05	2'00	2'00	2'05	2'00	U1'90S	U1'85S	1'95	F	2'45	2'60	2'90	25
2'10	2'05	2'00	U2'05S	U2'15S	U2'15S	1'95	F	F	F	F	F	26
2'10	2'10	2'05	2'10	2'10	2'10	F	F	F	F	F	F	27
2'15	2'15	2'10	2'05	2'00	U1'95S	U1'90S	U2'00F	F	F	F	F	28
C	C	C	C	C	C	C	C	C	C	C	C	29
C	C	C	C	C	C	C	C	C	C	C	C	30
27	28	28	28	28	28	27	15	9	12	10	14	Count
2'10	2'10	2'10	2'10	2'15	2'15	2'05	2'10	2'35	2'50	2'70	2'80	Median
2'10	2'10	2'10	2'15	2'15	2'15	2'10	2'15	2'40	2'50	2'70	2'80	Mean

Sweep 1'0 Mc. to 25'0 Mc. in 30 seconds.

Characteristic : foF2
 Unit : Mc
 Month : October 1957

TABLE 34
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	F	U9.0F	F	10.6	F	F	F	U12.0F	13.8	14.3	13.2	12.8
2	F	F	10.0	U10.0S	F	U9.2F	10.8	13.5	14.5	14.7	13.7	12.6
3	F	F	F	8.9F	F	F	F	U11.7F	14.0	14.7	14.0	12.4
4	U11.4F	F	11.6F	F	F	F	U10.2S	12.8	14.5	15.0	14.3	12.9
5	F	F	U13.8F	12.4	F	U10.0S	U9.0S	U12.1S	13.7	14.3	12.6	11.8
6	12.4	U12.0F	10.4	9.8	8.8	5.6	7.9	U11.6S	13.2	13.0	11.8	11.3
7	F	F	F	8.0F	F	3.8	7.3	11.1	13.2	14.0	13.1	12.0
8	F	U11.8F	10.6	F	F	6.8	8.5	11.4	13.6	14.4	14.0	12.5
9	F	F	F	F	7.1	F	7.7	11.2	13.8	14.8	14.0	12.0
10	U11.7F	F	U11.4F	11.4	10.8	F	F	U11.5F	13.7	U13.9R	11.4	10.8
11	12.1	U11.8S	10.8	10.5	10.8	U10.6S	11.0	13.0	14.8	14.0H	11.0	10.6
12	U12.1S	10.8	10.7	10.8	10.8	10.6	11.0	U13.3R	14.6	15.4H	15.0	12.8
13	U9.6S	10.8	10.7	10.8	U10.2S	9.4	10.8	13.4	15.1	15.3	C	C
14	U11.8S	U11.8S	10.6	9.3	8.1	8.4	U10.3S	13.0	U15.0S	14.8	13.6	C
15	U11.6S	11.0	10.7	11.1	11.2	U10.3S	11.0	13.4	14.6	14.5	13.6	13.4
16	F	U10.7F	10.2	10.3	10.0	8.6	9.5	12.3	13.4	13.4	13.5	13.8
17	F	U9.0F	8.8	9.1	F	F	C	J11.8S	13.2	13.3	12.7	C
18	F	10.4	FS	U9.2F	8.2	7.3	8.9	12.0	13.4	J13.0R	12.4	12.3
19	F	F	F	F	F	C	C	C	C	C	C	C
20	11.3	11.0	10.0	U9.3S	8.9	F	U10.1S	12.8	14.6	15.2	14.7	14.4
21	J12.1F	J12.0F	U10.4F	U9.4F	U8.6F	7.5	9.8	12.7	14.4	14.8	14.4	13.5
22	11.3	12.5	9.9	5.9	4.2	F	7.1S	11.2	12.4	11.7	11.3	11.6
23	U9.5F	F	12.0F	U9.6F	7.7	6.5	8.4	11.7	13.0	11.8	11.0	11.0
24	U11.2F	U12.0F	11.3	9.9	8.5	8.2	10.0	11.7	12.3	11.9	11.4	10.8
25	11.4	11.0	10.5	10.6	9.6	7.4	U9.2S	12.3	13.9	14.1	12.6	11.7
26	11.7	F	F	10.2	7.6	4.8	8.3	12.0	13.4	14.0	12.9	11.8
27	F	F	U9.8F	U8.8F	8.0	U7.4S	8.8	12.2	13.6	13.5	12.2	11.2
28	S	U11.5S	10.4	U9.5S	U9.3S	9.4	10.6	12.8	14.5	14.9	14.5	13.2
29	11.2	11.1	U11.5S	11.2	11.1	10.7	F	13.1	14.6	15.0	14.6	13.7
30	12.4	C	12.0	10.8	U9.2S	8.4	U10.2S	12.6	14.1	14.7	U14.6C	14.6
31	U9.0F	U10.3FS	U10.5F	U10.3S	U9.8S	F	U10.4S	12.7	13.1	13.6	13.2	12.6
Count	18	19	24	27	22	21	25	30	30	30	29	27
Median	U11.4	U11.0	10.6	10.0	9.0	8.4	9.8	12.2	13.8	14.3	13.2	12.4
Mean	U11.3	U11.0	10.8	9.9	9.0	8.1	9.5	12.3	13.9	14.1	13.2	12.4

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foF2

TABLE 34

Latitude : 10°2' N

Unit : Mc

Ionospheric Data

Longitude : 77°5' E

Month : October 1957

75°0' E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
12.5	12.5	12.9	12.8	12.5	12.3	U11.6s	F	F	F	F	F	1
12.5	12.9	13.2	13.5	13.0	U11.9s	11.0	F	F	F	F	F	2
12.1	12.4	12.8	13.1	13.0	12.9	11.4	F	U10.3F	F	F	F	3
12.4	13.0	13.2	13.9	14.0	14.0	12.8	F	F	F	F	F	4
11.5	11.7	12.0	12.7	12.8	U13.2s	12.8	11.5F	U11.6s	F	12.4F	U12.7F	5
11.4	11.8	12.4	13.2	13.8	14.1	13.2	F	F	F	F	F	6
11.8	11.9	12.3	12.7	12.8	12.5	U11.6s	F	F	F	F	F	7
12.4	13.0	13.5	13.8	14.0	14.1	13.1	U10.8F	F	F	F	F	8
11.6	11.7	12.0	12.3	12.3	12.3	U11.5s	F	F	F	F	F	9
11.0	11.5	12.0	12.2	12.6	U12.0s	D11.4W	U8.9F	F	F	F	F	10
10.7	11.0	11.1	U11.6s	11.7	U11.6s	U11.8s	11.0	12.6	U13.2s	13.0	J12.1R	11
12.0	12.0	12.2	U12.2R	U12.0s	U11.7s	U10.7s	U9.4R	U9.6s	J10.0s	U9.2s	U9.5s	12
12.2	12.0	11.8	U11.6s	11.7	U11.8s	U11.4s	U10.0F	U10.0F	U11.2F	U11.6s	U11.8s	13
12.2	13.2	13.8	13.1	U13.0R	U12.7R	U11.5s	10.8	U10.9F	U11.3s	U12.2s	U12.0s	14
13.2	13.6	14.0	U14.2s	13.8	12.8	U10.8s	F	F	F	F	U12.1F	15
14.0	14.5	14.8	U14.6s	14.8	U14.3s	12.5H	F	F	F	F	F	16
12.8	13.0	13.7	14.0	C	13.5	12.2H	9.7	F	9.0	F	F	17
12.2	12.3	12.4	12.6	12.6	12.4	U11.4s	1s	F	F	F	F	18
C	C	C	C	C	13.3	12.5	C	F	8.8	U9.4F	D10.8R	19
13.7	13.6	13.6	13.7	13.6	13.1	U11.7s	F	F	F	F	F	20
12.9	12.6	12.6	12.8	12.8	12.5	U11.4s	U10.6W	F	U10.6F	10.6	U11.4s	21
11.6	12.0	12.2	12.4	12.3	12.4	11.3	9.9	U9.8F	F	F	U11.0F	22
11.5	12.0	12.9	13.4	13.3	13.1	11.6	U9.4W	U9.7s	F	U9.4F	U9.5F	23
10.6	C	C	C	C	U11.5s	11.0	10.6	J11.2s	U10.8F	10.5	11.2	24
11.6	12.0	12.1	12.4	12.6	12.4	11.6	U9.6W	U9.3F	U10.4F	11.5	U11.3F	25
10.8	10.6	10.4	10.7	10.8	11.0	10.6	U8.2F	U8.8F	9.6	10.5	F	26
11.0	10.8	11.0	11.4	11.5	11.2	11.0	11.2	12.2	11.3	10.7	U11.5s	27
11.8	11.6	11.8	12.0	11.8	U11.5s	U10.8s	9.6	U9.3s	U9.8s	10.6	11.3	28
12.9	12.4	12.3	12.7	12.4	U12.0s	D10.4W	U9.6W	U10.2s	11.2	U11.8s	U12.0s	29
14.4	14.4	14.8	14.8	14.4	13.1H	10.0	F	F	F	F	U8.9F	30
12.0	11.9	11.8	11.5	11.4	D10.4W	9.0	F	F	F	F	U9.3F	31
30	29	29	29	28	31	31	17	14	13	14	17	Count
12.0	12.0	12.4	12.7	12.7	12.4	11.4	9.9	U10.1	U10.6	10.6	U11.3	Median
12.1	12.3	12.6	12.8	12.8	12.5	11.5	10.0	U10.4	U10.3	11.0	U11.0	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foF2
 Unit : Mc
 Month : October 1957

TABLE 34—*contd.*
 Ionospheric Data
 75°0' 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	F	U9'6F	F	F	F	F	F	13'4	14'4	13'9	13'0	C
2	F	9'9F	U9'9S	10'3F	F	9'3	12'1	14'3	14'7	C	13'0	12'3
3	F	F	F	8'1F	F	F	F	12'8	14'3	14'4	12'9	12'2
4	U12'0F	11'8F	11'6	U11'8F	F	9'0	11'6	13'6	14'9	14'8	12'9	12'5
5	F	F	U13'0F	12'3F	U11'2S	U7'4F	U10'6S	13'2	14'0	14'0	12'1	11'6
6	12'3	11'4F	10'0	9'6	7'6	5'4U	9'8	12'6	13'3	12'1	11'4	11'2
7	F	F	F	F	5'1F	D5'0R	9'7	12'2	14'0	13'9	U12'4W	11'8
8	F	U11'5F	10'0	9'0F	7'7	6'2	10'1	12'7	14'3	14'2	12'7	12'5
9	F	F	8'3F	7'6	6'2	5'3F	10'0	12'3	14'7	14'6	12'7	11'6
10	U11'6F	F	11'4	F	F	F	F	13'1F	14'0	D12'3W	11'0	10'8
11	U11'8S	11'1	10'5	10'8	10'8	U10'3S	12'0	14'2	14'7	12'0	10'8	10'7
12	U11'3S	10'7	10'8	10'8	11'0	U10'2S	12'4	14'0	U15'1S	15'4	14'0	12'2
13	U10'5S	11'0	10'8	10'8	U9'8S	9'6	12'5	C	15'3	C	C	12'0
14	U12'0S	11'0	10'2	8'5	8'4	8'9	11'3	14'6	15'2	14'2	12'4	C
15	U11'4S	10'8	10'8	11'0	11'2	10'0	12'4	14'2	14'6	14'2	13'6	13'3
16	F	10'3	10'1	10'2	9'8	7'8	11'0	13'0	13'4	13'3	13'6	14'0
17	J9'8F	F	9'2	8'6	F	C	C	12'6	13'3	J13'1R	12'6U	12'5
18	F	10'1	F	U8'8F	7'6	7'0	10'6	12'8	13'5	12'8	12'4	12'2
19	F	F	F	U10'3F	C	C	C	C	C	C	C	C
20	U11'2F	10'5	9'8	8'9	U8'4F	U8'6F	11'6	13'7	15'4U	15'3	14'8	14'2
21	J12'0F	11'2	U10'2F	U9'4F	7'9	8'0	U11'2S	13'5	14'7	14'7	14'0	13'2
22	12'1	11'4	8'3	4'6	4'3	4'6	9'4	12'2	12'2	11'4	11'5	11'6
23	F	F	U11'2F	8'6	7'0	6'4	10'3	12'6	12'5	11'3	10'8	11'0
24	F	11'6	10'8	8'8	8'3	8'4	11'0	12'1	12'3	11'7	11'0	10'6
25	11'3	10'6	10'6	10'3	8'6	7'0	10'9	13'2	14'3	13'8	12'0	11'7
26	11'4	U10'4F	10'4	8'9	6'0	5'8	10'3	12'7	13'8	13'7	12'2	11'3
27	F	U9'7F	F	U8'5F	7'9	7'0	10'4	13'2	13'9	13'0	11'4	11'0
28	J12'0S	11'2	U9'8S	9'1	U9'5S	U9'5S	11'8	13'9	14'8	15'0	14'0	12'4
29	10'9	11'3	11'2	10'9	11'2	U10'4S	U12'2S	13'8	14'9	14'7	14'5	13'3
30	12'2	U11'8S	11'9	U9'8S	8'8	8'8	11'4	13'4	14'7	14'8	14'8	14'4
31	U9'8F	U10'4F	U10'7F	U10'2S	F	U9'2S	U11'8S	13'1	13'5	13'5	12'9	12'2
Count	.	18	23	25	28	23	26	26	29	30	28	29
Median	.	U11'5	11'0	10'5	9'5	8'4	8'2	11'1	13'2	14'3	13'9	12'7
Mean	.	U11'4	10'8	10'5	9'5	8'4	7'9	11'1	13'2	14'2	13'6	12'7

Sweep 1°0 Mc. to 25°0 Mc. in 30 seconds.

Characteristic : foF2
 Unit : Mc
 Month : October 1957

TABLE 34—concl'd.
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
12'9	12'7	12'8	12'7	12'6	U11'8s	U10.2s	F	F	F	F	F	1
12'6	13'1	13'3	13'2	12'6	11'6	U9.6s	F	F	F	F	F	2
12'2	12'5	13'0	13'0	U12'9s	U12'5s	D10'3W	F	F	F	F	U10'9F	3
12'8	13'0	13'4	14'0	14'1	13'4	U12'0s	F	F	F	F	F	4
11'4	11'8	12'3	12'7	12'8	13'2	12'2	U11'2s	U11'7s	U12'1F	U12'7F	13'0	5
11'7	12'1	12'8	13'5	14'3	14'0	U11'8s	F	F	F	F	F	6
11'7	12'2	12'6	12'7	12'7	J12'1s	10'5F	F	F	F	F	F	7
12'7	13'3	13'7	13'9	14'1	U13'8s	U11'0s	F	F	F	F	F	8
11'6	11'8	12'0	12'4	12'2	U11'8s	D10'3W	F	F	F	F	F	9
11'2	11'8	12'2	12'4	12'4	U11'8s	D11'3WF	F	F	F	U12'0F	12'2	10
11'0	11'1	11'3	U11'6s	U11'6s	U12'0s	11'4	11'4	U13'0s	U13'2s	12'8	12'2	11
12'0	12'0	12'2	J12'2R	U11'8s	11'4	9'8	U9'4s	U9'6s	U9'5F	U9'5s	S	12
12'0	12'0	11'8	11'6	U11'8s	U11'8s	10'6	U9'6F	U10'6F	F	U12'0s	U11'8s	13
12'8	13'5	13'5	13'0	U13'0R	U11'7s	10'9	10'8	C	U11'5s	U12'6s	U11'6s	14
13'4	13'8	U14'4s	U14'2s	13'7	U11'3s	U10'0s	F	F	F	F	U12'0F	15
14'3	14'7	14'6	14'8	U14'8s	13'6	U9'4F	F	F	F	F	U10'4F	16
13'0	13'5	13'8	14'0	13'7	12'8	D11'3WH	9'0	F	U8'8F	U9'8FH	U10'8H	17
12'3	12'4	12'6	12'6	12'6	U12'2s	U9'6s	F	F	F	F	F	18
C	C	C	C	13'2	13'1	U11'1W	F	F	8'9	U9'4F	10'6	19
13'6	13'6	13'6	14'0	13'4	12'8	W	F	F	F	F	F	20
12'7	12'6	12'7	12'8	12'8	J12'0s	D11'2W	10'6H	F	F	10'8	11'1	21
11'8	12'1	12'3	12'3	12'6	U11'8s	10'6	U10'0F	F	U10'3F	F	U10'2F	22
11'8	12'4	13'2	13'6	13'5	12'6	D10'4W	D10'2W	F	U9'0F	U9'1F	U11'0F	23
10'8	C	C	C	C	U11'3s	10'6	10'9	U10'8F	F	10'8	11'3	24
11'8	12'0	12'3	12'5	12'5	U12'1s	D10'5W	U9'3F	F	F	11'5	11'6	25
10'7	10'5	10'6	10'7	11'0	11'1	9'4	F	U9'5F	F	10'7	F	26
11'0	10'8	11'3	11'6	11'4	11'1	10'8	U11'6s	U11'6s	10'4V	11'1	U11'6s	27
11'6	11'8	U11'6s	U11'6s	U11'6s	11'4	D10'2W	U9'3s	F	10'3	11'0	U11'4s	28
12'6	12'3	12'6	12'6	12'6	D11'3W	D9'9W	U9'5s	11'2	11'6	12.2	12'6	29
14'3	14'6	14'8	14'7	14'0H	12'8H	9'0Z	F	F	F	U9.8F	F	30
11'9	12'0	11'6	11'5	11'0	D9'8W	D8'4W	F	F	F	U9'0F	U9'3F	31
30	29	29	29	30	31	30	14	8	11	18	19	Count
12'0	12'3	12'6	12'7	12'6	U12'0	U10'4	U9'8	U11'0	U10'3	U10'9	U11'4	Median
12'2	12'5	12'7	12'8	12'8	U12'1	U10'5	U10'1	U11'0	U10'4	U10'9	U11'3	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foF1
 Unit : Mc
 Month : October 1957

TABLE 35
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								L	L	L	L	L
2								L	L	L	L	L
3								L	L	L	L	L
4								L	L	L	L	L
5									L	L	L	L
6									L	L	L	L
7									L	L	L	L
8								L	L	L	L	L
9								L	L	L	L	L
10									L	L	L	L
11								L	L	L	L	L ₁₁
12								L	L	L	L	L ₁
13								L	L	L	L	C
14								L	L	L	L	C
15								L	L	L	L	C
16								L	L	L	L	L
17									L	L	L	L
18								L	L	L	L	L
19								C	L	C	C	C
20									L	L	L	L
21									L	L	L	L
22									L	L	L	L
23									L	L	L	L
24									L	L	L	L
25									L	L	L	L
26									L	L	L	L
27								L	L	L	L	L
28									L	L	L	L
29								L	L	L	L	L ₁₁
30								L	L	L	L	L ₁₁ u8'3L
31								L	L	L	L	L
Count	1
Median
Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foF1
 Unit : Mc
 Month : October 1957

TABLE 35
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
L	L	L	L	L								1
L	L	L	L	L								2
L	L	L	L	L								3
L	L	L	L	L								4
L	L	L	L	L								5
L	L	L	L	L								6
L	L	L	L	L								7
L	L	L	L	L								8
L	L	L	L	L								9
L	L	A	A	L	L							10
L	L	L	L	L								11
L	L	L	L	L								12
L	L	L	L	L								13
L	L	L	L	L								14
L	L	L	L	L								15
L	L	L	L	L								16
L	L	L	L	L								17
L	L	L	L	L								18
L	L	L	L	L								19
L	L	L	L	L								20
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
L	L	L	L	L								26
L	L	L	L	L								27
u7'5L	u7'2L	L	L	L								28
u8'2L	u7'6L	u7'2L	L	L								29
LII	u7'6L	L	L	L								30
u8'0L	u7'6L	u7'0L	L	L								31
u8'4L	u8'0L	L	L	L								31
4	5	2	..	..	..							Count
..	7.6	..	..	..	..							Median
..	7.6	..	..	..	..							Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foF1
 Unit : Mc
 Month : October 1957

TABLE 35—*contd.*
 Ionospheric Data
 75°0' 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	C
2							L	L	L	C	L	L
3								L	L	L	L	L
4								L	L	L	L	L
5								L	L	L	L	L
6								L	L	L	L	L
7								L	L	L	L	L
8								L	L	L	L	L
9								L	L	L	L	L
10								L	L	L	L	L
11								L	L	L	L	L
12								L	L	L	L	L
13								C	L	C	C	L
14								L	L	L	L	C
15								L	L	L	L	L
16								L	L	L	L	L
17								L	L	L	L	L
18							C	L	L	L	L	L
19							C	C	C	C	C	C
20								L	L	L	L	L
21								L	L	L	L	L
22								L	L	L	L	L _H
23								L	L	L	L	B
24								L	L	L	L	L
25								L	L	L	L	L
26								L	L	L	L	L
27								L	L	L	L	L
28								L	L	L	L	L
29								L	L	L	L	u8'3L
30								L	L	L	u8'4L u8'6L	u7'8L u8'3L
31							L	L	L	L	L	L
Count	2	3
Median
Mean

Sweep 1.0 Mc to 25.0 Mc. in 30 seconds.

Characteristic : foF1
 Unit : Mc
 Month : October 1957

TABLE 35—concl'd.
 Ionospheric Data
 75°0' 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	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
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	A	A	L								10
L	L	L	L	L								11
L	L	L	L	L								12
L	L	L	L	L								13
L	L	L	L	L								14
L	L	L	L	L								15
L	L	L	L	L								16
L	L	L	L	L								17
L	L	L	L	L								18
L	L	L	L	L								19
L	L	L	L	L								20
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
L	L	L	L	L								26
L	L	L	L	L								27
L	L	L	L	L								28
L	L	L	L	L								29
L	L	L	L	L								30
L	L	L	L	L								31
4	3	1	..	..								Count
..	..	..	..	..								Median
..	..	..	..	..								Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foE
Unit : Mc
Month : October 1957

TABLE 36
Ionospheric Data
75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								3'0	A	A	A	A
2								4'1	3'6	A	A	A
3								A	A	A	A	A
4								3'2	A	A	A	A
5								2'9	A	A	A	A
6								A	A	A	A	A
7							2'2	3'1	A	A	A	A
8								3'0	A	A	A	A
9							2'2	3'0	A	B	A	A
10								A	A	A	A	A
11								A	A	A	A	A
12							U2'2R	3'0	A	A	A	A
13								3'1	A	A	C	C
14							2'2	3'1	A	A	A	C
15							A	A	A	B	A	A
16								B	A	B	A	A
17								3'0	A	A	A	C
18								U3'1A	U3'5A	A	A	C
19							C	C	C	C	C	C
20								3'2	B	A	A	A
21							2'0	3'2H	3'6	A	A	A
22							2'0	A	A	A	A	A
23								A	A	A	A	A
24								A	A	A	A	A
25								3'0H	A	A	A	A
26								3'2	A	A	A	A
27								3'2	A	A	A	A
28								3'2	U3'6R	A	A	A
29								3'1	3'7	A	A	A
30								A	A	A	A	A
31								U3'3F	A	A	A	A
Count	.						6	20	5	..	..	..
Median	.						2'1	3'1	3'6	..	..	..
Mean	.						2'2	3'2	3'6	..	..	..

Sweep 1°0' Mc. to 25°0' Mc. in 30 seconds.

Characteristic : foE
 Unit : Mc
 Month : October 1957

TABLE 36
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
A	A	A	A	A	A							1
A	A	A	A	A	A							2
A	A	A	A	A	A							3
A	A	A	A	A	A							4
A	A	A	A	A	U3'2A							5
A	A	A	A	A	A							6
A	A	A	A	A	A							7
A	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	2'4							11
A	A	A	A	A	A							12
A	A	A	A	A	A							13
B	A	A	A	A	A							14
A	B	A	A	A	A							15
B	A	A	A	A	A							16
A	A	A	A	A	A							17
A	A	4'0	U3'5A	C	A							18
A	A	4'0	A	A	A							19
C	C	C	C	C	C							20
A	A	4'0	3'5	3'2								21
A	3'8	B	3'1	A	2'4							22
A	A	A	A	A	A							23
B	A	4'1H	U4'1R	A	A							24
B	A	C	C	C	A							25
A	A	A	A	A	A							26
A	B	A	A	A	A							27
A	A	A	A	A	A							28
A	A	A	A	A	A							29
A	U4'1A	U4'0R	A	A	A							30
A	A	A	A	A	2'4							31
..	2	5	4	2	3							Count
..	..	4'0	..	..	..							Median
..	..	4'0	..	..	..							Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds,

Characteristic : foE

TABLE 36—contd.

Latitude : 10°2' N

Unit : Mc

Ionospheric Data

Longitude : 77°5' E

Month : October 1957

75°0' E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							..	A	A	A	A	C
2							2.7	A	A	C	A	A
3							A	U3.5A	A	A	A	A
4							2.6	A	A	A	A	A
5							..	A	A	A	A	A
6							2.6	A	A	A	A	A
7							2.7	3.3	A	A	A	A
8							2.8	3.3	A	A	A	A
9							2.5	3.3	A	A	A	A
10							2.7	A	A	A	A	A
11							2.8	A	A	A	A	A
12							2.6	A	A	A	A	A
13							2.7	C	A	C	C	B
14							2.7	3.3	A	A	A	C
15							A	A	A	A	A	A
16							2.7	A	A	B	B	A
17							C	U3.1A	A	A	A	A
18							A	3.3	A	A	A	A
19							C	C	C	C	C	C
20							2.7	3.4H	B	A	A	A
21							2.7H	3.2	U3.6A	A	A	A
22							2.6	A	A	A	A	A
23							2.6H	A	A	A	A	B
24							A	A	A	A	A	A
25							2.6H	A	A	A	A	A
26							2.7H	A	A	A	A	B
27							2.7	A	A	A	A	A
28							2.8H	U3.5R	A	A	A	A
29							2.6	3.4	A	A	A	A
30							2.7	A	A	A	A	A
31							U2.8F	A	A	A	A	A
Count .							23	11	1	..	..	..
Median .							2.7	3.3	..	..	..	..
Mean .							2.7	3.3	..	..	..	..

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foE
 Unit : Mc
 Month : October 1957

TABLE 36—*concl.*
 Ionospheric Data
 75°0' 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
A	A	A	A	A								4
A	A	A	U3·6A	A								5
A	A	A	A	A								6
A	A	A	A	A								7
A	A	A	A	A								8
B	A	A	A	A								9
A	A	A	A	A								10
A	B	A	A	A								11
A	A	A	A	A								12
A	A	A	A	A								13
A	A	A	A	A								14
A	A	A	A	A								15
A	A	A	A	A								16
A	A	U3·9A	A	A								17
A	B	3·9	A	3·4								18
C	C	C	C	..								19
A	A	3·6	3·6	2·8								20
A	A	3·3	A	A								21
A	A	A	A	A								22
A	B	4·7	A	A								23
B	A	A	C	C								24
A	A	A	A	A								25
A	A	A	A	A								26
B	B	A	A	A								27
A	A	A	A	A								28
A	B	A	A	A								29
A	U4·2R	U3·8A	A	A								30
A	A	A	A	A								31
..	1	6	2	2								Count
..	..	3·8	..	..								Median
..	..	3·9	..	..								Mean

Sweep 1·0 Mc. to 25·0 Mc. in 30 seconds.

Characteristic : foEs

TABLE 37

Latitude : 10°2' N

Unit : Mc

Ionospheric Data

Longitude : 77°5' E

Month : October 1957

75°0' E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1		10.0	11.0	5.6				8.0	11.4	12.0	14.0	13.0
2								G	8.0	10.6	12.0	11.8
3	8.0						3.4	7.2	9.0	11.8	12.4	12.6
4								G	10.0	10.8	11.8	11.8
5								G	11.0	11.0	13.0	12.0
6								10.0	9.0	10.6	11.8	21.2
7							G	G	9.0	11.0	11.8	12.0
8							6.6	5.8	9.0	10.0	12.0	12.4
9							4.3	G	8.6	9.8	12.0	12.0
10								4.1	11.0	11.0	11.6	12.0
11	7.6							6.8	9.3	11.8	12.0	12.6
12							G	G	8.8	12.2	12.6	13.4
13							5.2	6.0	4.8	12.0	C	C
14				6.8			G	G	11.4	12.1	12.6	C
15					5.0		5.8	8.6	12.0	12.2	13.2	12.6
16								8.5	11.8	11.6	12.5	12.2
17								8.8	10.8	11.4	12.0	C
18				5.8	5.0			U9.0s	10.6	11.6	13.2	13.0
19						C	C	C	C	C	C	C
20					U5.7s		U6.0s	8.4	9.4	10.8	11.4	12.0
21		2.8	5.6				S	7.6	11.0	11.0	12.2	12.2
22							G	U9.2s	10.8	12.0	12.0	12.3
23								9.2	11.6	11.6	12.3	12.2
24								U10.8s	12.0	11.8	12.6	13.1
25							5.4	6.4	11.0	12.0	12.6	13.4
26								8.6	11.6	12.3	12.4	13.1
27					3.0			9.0	11.8	12.0	12.0	12.6
28							5.2	G	8.6	12.0	12.2	12.2
29								8.2	G	11.6	12.4	11.4
30		C						7.0	9.0	9.6	12.0	12.2
31								9.0	11.0	11.6	13.0	12.7
Count .	2	2	2	3	4	..	12	30	30	30	29	27
Median .	..	..	..	..	..	..	4.8	7.4	10.7	11.6	12.2	12.3
Mean .	..	..	..	..	..	..	5.2	8.0	10.1	11.4	12.3	12.7

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foEs
 Unit : Mc
 Month : October 1957

TABLE 37
 Ionospheric Data
 75.0° E. Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E.

12	13	14	15	16	17	18	19	20	21	22	23	Date.
12.0	12.6	12.8	11.8	10.8	08.0s							1
11.8	11.6	11.8	11.8	8.8	8.4							2
12.0	12.0	12.0	11.0	10.0	8.4							3
11.8	11.6	11.2	9.0	9.0	8.0							4
12.2	12.0	12.0	10.6	G	6.6				7.6			5
11.8	11.4	10.6	10.6	11.0	10.0							6
12.0	11.6	12.0	10.6	8.0	S							7
12.0	12.0	11.0	10.0	9.0	08.0s					6.6		8
12.0	11.6	12.0	11.8	9.7	8.0							9
12.0	12.0	12.0	18.0	9.0	8.0						8.0	10
14.2	15.5	12.8	U11.5s	10.4	07.0s							11
13.2	14.0	12.4	12.4	10.6	S							12
13.0	12.4	12.6	12.5	10.2	7.6							13
G	12.0	13.2	12.4	11.2	S				3.7			14
12.5	12.4	12.4	11.8	9.2	07.0s					4.4	05.4s	15
										8.7	07.6s	
12.2	11.7	11.6	11.0	10.4	07.0s					5.6	5.2	16
11.6	11.6	12.0	11.4	C	07.4s							17
12.2	12.6	11.8	U11.6s	09.3s	S							18
C	C	C	C	C	..		C			2.4		19
11.8	11.4	10.6	9.8	8.4	..				05.0s	06.0s	06.8s	20
12.4	11.8	11.0	12.0	9.4	07.0s							21
12.0	12.0	11.7	11.0	8.6	S				1.9			22
12.5	11.7	G	4.3	9.0	07.8s							23
12.4	12.0	C	C	C	07.4s					2.0		24
13.8	12.6	11.8	12.0	8.8	S							25
12.3	12.0	12.0	11.4	U10.0s	S							26
12.4	12.0	12.0	11.6	9.0	8.0							27
12.2	12.0	12.2	11.2	9.2	07.0s							28
11.8	12.0	11.6	11.0	9.0	06.8s				7.4			29
12.0	10.0	G	10.0	9.4	3.5							30
12.4	12.2	12.0	11.8	10.0	07.0s							31
30	30	29	29	28	22	..	..	..	6	6	5	Count
12.2	12.0	12.0	11.4	9.2	07.5	..	..	..	4.4	5.8	06.8	Median
12.3	12.1	11.9	11.2	9.5	07.4	..	..	..	4.6	5.6	06.5	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic: foEs

Unit: Mc

Month: October 1957

TABLE 37—contd.

Ionospheric Data

75.0° 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	6.2	10.0	7.0				7.0	12.0	12.0	13.8	14.0	G
2							7.0	10.6	10.0	C	12.0	12.0
3							U11.0s	6.0	11.0	12.2	12.4	12.0
4	U7.0s						G	7.8	10.4	11.8	11.4	11.8
5								8.0	10.8	12.0	12.4	12.0
6							G	9.8	10.4	11.8	12.0	11.8
7							G	G	10.2	12.0	12.0	12.0
8							G	8.0	10.0	11.6	12.2	12.4
9							G	6.4	10.6	11.8	12.0	12.1
10		6.8				7.0	5.4	8.6	11.0	11.4	11.8	12.0
11	7.0		6.2				G	6.6	11.8	11.8	11.5	12.6
12							5.8	7.0	10.8	12.3	13.0	12.3
13							5.6	C	5.1	C	C	11.7
14							G	8.0	11.4	13.4	13.0	C
15					4.8	U9.2s	U7.0s	10.8	12.2	12.5	14.0	12.4
16							5.8	10.6	11.6	13.0	12.0	12.2
17						C	C	9.8	10.8	12.0	12.6	11.6
18				U6.0s			U8.4s	10.6	11.4	12.0	13.0	12.2
19				S	C	C	C	C	C	C	C	C
20				S	U4.4s		4.8	9.0	9.6	11.8	12.0	11.8
21		U5.8s		U5.4s			U8.4s	9.2	11.2	12.2	13.4	12.0
22							G	10.2	11.6	12.2	12.0	12.2
23							G	10.8	11.9	12.2	12.2	11.3
24							U8.6s	11.6	12.2	12.4	13.0	13.0
25							5.6	7.8	12.0	12.3	13.2	13.9
26							G	11.0	12.1	12.3	12.6	13.3
27					4.8		6.0	10.8	11.6	12.2	12.2	12.2
28					2.5		4.0	G	11.0	12.4	12.0	12.4
29							G	4.2	10.8	12.2	12.0	12.0
30							G	9.0	10.6	11.0	12.0	12.0
31							8.6	11.4	12.0	12.0	12.4	12.6
Count	3	3	2	4	2	2	28	29	30	28	29	28
Median	..	..	..	..	..	..	5.1	9.0	11.0	12.2	12.2	12.0
Mean	..	..	..	..	..	..	6.8	9.1	10.9	12.2	12.4	12.2

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : foEs
 Unit ; Mc
 Month : October 1957

TABLE 37—contd.
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date	
13'0	12'0	12'0	9'0	9'0								1	
11'8	12'0	11'8	9'6	8'0							4'6	2	
12'0	11'8	12'0	9'4	10'0								3	
12'0	11'8	8'8	9'0	9'2								4	
12'0	12'0	11'6	8'0	7'0				2'2	7'4			5	
11'6	11'0	10'0	11'0	11'0								6	
12'0	11'6	11'0	9'0	8'0								7	
12'0	11'0	10'2	8'8	9'0						2'6		8	
12'2	11'8	11'8	10'4	10'2								9	
11'8	11'4	12'0	12'2	9'0							7'6	10	
14'0	14'0	11'7	11'0	8'6	S							11	
13'4	13'0	13'4	10'8	9'0								12	
12'4	12'6	12'6	10'4	9'8				2'3	2'6			13	
10'6	12'0	12'4	11'0	8'6				C		06'6s		14	
12'4	12'2	12'4	10'5	8'8						8'6		15	
11'6	11'6	11'6	10'8	9'0				2'0	4'0	5'8		16	
11'8	11'7	11'4	9'6	08'6s								17	
12'0	12'0	11'4	10'3	09'2s								18	
C	C	C	C	C								19	
11'6	11'2	9'6	8'0	8'6				2'2	3'1	05'8s	6'6	7'6	20
12'1	11'6	10'8	9'6	8'2									21
12'3	11'6	11'2	9'0	8'0				2'0					22
11'6	G	G	8'5	8'2									23
12'3	13'0	C	C	C									24
13'0	12'6	12'0	10'3	8'6					2'6				25
13'4	13'0	12'2	11'0	08'0s	S				06'0s				26
12'2	12'4	12'2	9'4	8'4									27
12'4	12'0	11'4	11'0	9'0									28
12'2	11'4	12'0	10'0	9'4									29
12'0	G	7'0	10'0	8'4									30
12'4	12'0	12'2	9'4	8'8									31
30	30	29	29	29	..	..	..	5	7	5	3	Count
12'0	11'9	11'7	10'0	8'8	..	..	..	2.2	4'0	6'6	..	Median
12'2	12'0	11'4	9'9	8'8	..	..	..	2.1	4'9	6'0	..	Mean

Sweep 1'0 Mc. to 25'0 Mc. in 30 seconds.

Characteristic : fbEs
Unit : Mc
Month : October 1957

TABLE 38
Ionospheric Data
75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1		2.2	2.2	1.8				3.0	3.7	4.0	4.2	4.5
2									3.6	4.1	4.4	4.4
3	1.6						2.2	3.6	3.6	4.1	4.3	4.5
4									3.8	4.0	4.2	4.4
5									3.8	4.1	4.2	4.4
6								3.0	3.6	4.0	4.3	4.4
7									3.8	4.1	4.4	4.5
8							2.4	3.1	3.7	4.0	4.4	4.4
9							2.2		3.7	4.7	4.5	4.4
10								3.4	3.8	4.2	4.6	4.6
11	2.8							3.1	3.8	4.2	4.4	4.6
12									3.6	4.1	4.4	4.6
13									4.1	4.4	C	C
14				2.2					3.8	4.2	4.4	C
15					1.7		2.2	3.4	4.0		4.6	4.6
16									3.8	4.2	4.6	5.0
17							C	3.1	3.7	4.2	4.4	C
18				2.1	2.0			3.2	3.8	4.2	4.4	4.6
19						C		C	C	C	C	C
20					1.8		2.6			4.2	4.4	4.7
21								3.2	3.8	4.2	4.6	4.6
22								3.1	3.7	4.2	4.5	4.7
23								3.2	3.9	4.2	4.6	4.6
24								3.2	3.8	4.3	4.5	4.6
25								3.2	3.7	4.2	4.3	4.7
26								3.2	4.0	4.3	4.5	4.5
27								3.2	3.9	4.3	4.5	4.6
28									3.8	4.3	4.6	4.7
29										4.2	4.4	4.6
30		C						3.2	3.8	4.2	4.4	4.6
31								3.4	3.8	4.3	4.5	4.6
Count	2	1	1	3	3	..	5	18	28	29	29	27
Median	..	..	..	..	..	..	2.2	3.2	3.8	4.2	4.4	4.6
Mean	..	..	..	..	..	..	2.3	3.2	3.8	4.2	4.4	4.6

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : fbEs
Unit : Mc
Month : October 1957

TABLE 38
Ionospheric Data
75°0' E Mean Time

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

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

Sweep 1'0 Mc. to 25'0 Mc. in 30 seconds.

Characteristic : fbEs

TABLE 38—contd.

Latitude : 10°2' N

Unit : Mc.

Ionospheric Data

Longitude : 77°5' E

Month : October 1957

75°0' E Mean Time

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

Sweep 1'0 Mc. to 25'0 Mc. in 30 seconds.

Characteristic : fbEs
 Unit : Mc
 Month : October 1957

TABLE 38—*contd.*
 Ionospheric Data
 75°0' 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	4'3	4'0	3'6	3'0								1
4'5	4'4	4'0	3'6	3'0							1'4	2
4'5	4'4	4'1	3'7	3'0								3
4'4	4'3	4'0	3'6	2'6								4
4'4	4'3	4'1	3'5	3'0				1'5	2'0			5
4'4	4'3	4'0	6'4	5'1								6
4'4	4'3	4'0	3'6	3'0								7
4'6	4'2	4'0	3'6	3'2						1'5		8
5'0	4'3	4'1	3'7	3'0								9
4'6	4'3	7'2	8'4	3'0							2'9	10
4'6	4'5	4'0	3'7	3'0								11
4'5	4'4	4'2	3'8	3'0								12
4'6	4'3	4'0	3'6	3'0				1'7				13
4'6	4'3	4'0	3'7	3'0				C				14
4'6	4'6	4'0	3'7	3'0						3'0		15
4'6	4'4	4'0	3'6	3'0						2'1		16
4'6	4'3	4'0	3'6	3'0								17
4'6	C	4'0	3'6	3'0								18
C	C	C	C	C								19
4'5	4'3	4'0	3'7	3'0				1'8	2'2	2'0		20
4'6	4'8	4'2	3'8	3'0								21
4'5	4'4	4'0	3'6	3'0				1'8				22
4'5			3'8	3'0								23
		C	C	C						1'8		24
4'5	4'2	4'0	3'4	2'9								25
4'6	4'5	4'0	3'6	3'0						1'4		26
5'0	4'6	4'0	3'7	3'0								27
4'6	4'4	4'1	3'6	3'0								28
4'6	4'5	4'0	3'7	3'0								29
4'6		4'0	3'8	3'0								30
4'6	4'3	4'0	3'6	2'9								31
29	26	28	29	29	..	..	..	4	5	4	2	Count
4'6	4'3	4'0	3'6	3'0	..	..	..	..	1'8	..	..	Median
4'6	4'4	4'1	3'9	3'0	..	..	..	..	1'8	..	..	Mean

Sweep 1'0 Mc. to 25'0 Mc. in 30 seconds.

Characteristic : fmin
Unit : Mc.
Month : October 1957

TABLE 39
Ionospheric Data
75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	1.5	1.7	2.0	1.8	1.8	1.6	2.2	2.3	2.4	2.6	2.9	3.0
2	1.6	1.5	1.3	1.2	1.3	1.6	2.2	2.0	2.4	3.2	3.2	3.1
3	1.6	1.6	1.3	1.3	1.4	1.4	1.8	1.7	2.5	3.0	3.1	3.2
4	1.6	1.5	1.3	1.4	1.4	2.2	2.2	2.0	2.4	2.8	3.0	3.0
5	1.7	C	1.6	C	C	C	2.2	2.4	2.6	2.7	3.2	3.0
6	1.7	1.2	1.5	1.4	1.8	1.9	2.2	1.8	2.4	2.8	3.2	3.0
7	1.4	1.5	1.6	1.6	1.8	1.7	1.8	2.0	2.3	3.0	3.0	3.4
8	1.6	1.7	1.4	1.7	1.5	1.6	E	2.1	2.5	2.9	3.0	3.2
9	2.0	1.7	1.9	2.0	1.8	1.6	1.6	1.9	2.8	4.7	3.2	3.2
10	1.5	1.8	1.8	1.6	1.6	2.0	2.3	2.2	2.5	3.0	3.2	3.3
11	1.2	1.7	1.3	1.7	1.4	1.5	2.2	1.9	2.4	2.8	3.1	3.2
12	1.3	1.3	1.4	1.4	1.3	1.3	1.8	2.0	2.4	3.0	3.0	3.4
13	1.3	1.2	1.3	1.3	1.3	1.3	2.2	2.4	2.6	2.8	C	C
14	1.6	2.1	2.0	1.7	1.7	1.4	1.8	2.2	2.6	2.7	2.9	C
15	1.4	1.6	1.3	1.4	1.2	1.6	1.4	2.2	3.1	5.0	3.4	3.5
16	1.6	1.5	1.8	1.8	2.0	2.0	2.2	3.4	2.7	3.4	3.5	3.6
17	1.5	1.7	2.2	2.0	2.4	2.0	C	2.2	2.4	3.0	3.0	C
18	1.7	2.1	1.9	1.3	1.7	2.0	1.9	2.0	2.7	3.0	3.2	3.4
19	2.0	1.8	1.7	1.6	1.8	C	C	C	C	C	C	C
20	1.8	1.5	1.7	2.0	1.4	1.6	2.5	2.8	5.0	3.1	3.2	3.5
21	1.7	1.7	2.2	2.0	2.0	1.7	1.7	2.2	2.5	2.8	3.4	3.2
22	1.8	1.9	1.6	1.7	1.6	2.2	1.8	2.1	2.4	2.6	3.0	3.2
23	1.7	1.6	1.6	1.8	1.6	1.7	2.3	2.3	2.6	3.0	3.2	3.1
24	1.8	2.4	2.2	2.1	1.5	1.7	2.2	2.2	2.7	3.3	3.2	3.3
25	1.6	1.4	1.5	1.5	1.6	1.4	2.2	2.4	2.2	2.8	2.9	3.1
26	1.9	1.9	1.6	1.6	1.6	1.7	2.4	2.3	2.8	2.9	3.2	3.0
27	1.8	1.6	1.5	1.7	1.6	1.5	2.3	2.6	2.8	2.8	3.1	3.4
28	1.9	1.9	1.8	1.7	1.7	2.0	2.2	2.4	2.7	3.0	3.2	3.2
29	1.6	1.5	1.4	1.5	1.6	1.5	2.2	2.2	2.8	3.0	2.8	3.2
30	1.5	C	1.6	1.2	1.4	1.4	2.3	2.1	2.4	2.9	3.0	3.4
31	1.6	2.0	1.7	1.6	1.6	1.5	2.2	2.7	2.4	3.0	3.0	3.1
Count	31	29	31	30	30	29	29	30	30	30	29	27
Median	1.6	1.7	1.6	1.6	1.6	1.6	2.2	2.2	2.5	3.0	3.1	3.2
Mean	1.6	1.7	1.6	1.6	1.6	1.7	2.1	2.2	2.6	3.0	3.1	3.2

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : fmin
Unit : Mc
Month : October 1957

TABLE 39
Ionospheric Data
75.0° E Mean Time

Latitude : 10.2° N
Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
3.2	3.0	2.8	2.6	2.4	2.0	1.5	1.2	1.7	1.3	1.7	1.6	1
3.0	3.0	3.0	2.5	2.5	2.1	1.5	1.3	1.4	1.4	1.5	1.5	2
3.4	3.0	3.0	2.7	2.6	2.0	1.3	1.5	1.4	1.5	2.0	1.5	3
3.2	3.0	3.1	2.6	2.4	2.6	1.5	1.6	1.7	1.8	1.5	1.8	4
3.2	3.2	2.9	2.4	2.2	2.5	1.4	1.0	1.3	1.4	2.1	2.2	5
3.2	3.5	3.1	2.8	2.7	2.2	1.6	1.6	1.6	1.6	1.6	1.8	6
3.4	3.5	3.0	2.8	2.5	2.3	1.4	1.6	1.7	1.5	2.1	2.0	7
3.2	3.2	2.9	2.6	2.1	2.6	1.6	1.5	1.7	1.3	1.5	1.8	8
3.4	3.6	3.0	2.6	2.5	2.7	1.5	1.5	1.5	1.6	1.8	1.8	9
3.4	3.4	3.3	2.6	2.6	2.2	1.5	1.3	1.7	2.0	1.6	1.9	10
3.2	2.9	2.8	2.4	2.5	1.7	1.6	1.3	1.5	1.6	1.4	1.3	11
3.2	3.1	3.2	2.8	2.6	2.8	1.2	1.2	1.3	1.3	1.3	1.4	12
3.2	3.2	2.8	2.7	2.6	2.1	1.2	1.5	1.7	1.7	1.7	1.4	13
4.7	3.1	2.9	2.8	2.4	2.2	1.2	1.2	1.4	1.4	1.3	1.2	14
3.8	4.4	3.1	2.4	2.2	1.9	1.8	1.6	1.7	1.7	1.5	2.0	15
4.6	3.2	2.8	2.4	2.4	2.0	1.6	1.6	1.7	1.6	2.2	2.1	16
3.1	3.2	2.8	2.6	C	2.1	1.4	1.4	1.9	S	1.7	1.7	17
3.7	3.2	3.2	U2.75	2.1	U2.08	U1.48	U1.4F	S	1.7	U1.7S	U1.7S	18
C	C	C	C	C	2.6	1.4	C	U1.7F	U1.9S	1.7	2.0	19
3.4	3.2	2.9	2.9	2.6	2.2	1.5	U1.8S	1.7	1.4	1.4	1.6	20
3.4	3.1	4.8	2.6	2.5	2.2	1.6	1.2	1.7	1.6	1.9	1.7	21
3.2	3.4	2.9	2.5	2.5	2.0	1.5	1.3	1.6	1.5	1.7	1.4	22
4.0	3.4	3.0	3.1	2.4	2.1	1.5	1.7	1.6	1.6	1.6	1.4	23
6.0	3.8	C	C	C	2.1	1.6	1.5	1.6	1.7	1.6	1.4	24
3.0	2.9	3.3	2.6	3.3	2.0	1.5	1.4	1.4	1.7	1.6	1.8	25
3.2	5.2	2.9	2.4	2.2	1.9	1.4	1.4	1.4	1.3	1.6	2.0	26
4.0	4.0	3.2	2.6	2.4	2.5	1.4	1.6	1.6	1.5	1.6	1.8	27
3.2	3.2	3.0	2.8	2.4	1.9	1.4	1.6	1.6	1.6	1.7	2.0	28
3.3	3.2	3.0	2.4	3.0	2.5	1.4	1.5	1.5	1.5	1.6	1.6	29
3.1	2.9	3.3	3.0	2.4	2.1	1.3	1.6	1.8	1.9	1.5	1.7	30
3.0	3.0	2.9	2.4	2.2	2.1	1.4	1.6	1.6	1.4	1.4	2.0	31
3.0	3.0	2.9	2.9	2.8	3.1	3.1	3.0	3.0	3.0	3.1	3.1	Count
3.2	3.2	3.0	2.6	2.4	2.1	1.5	1.5	1.6	1.6	1.6	1.7	Median
3.5	3.3	3.1	2.6	2.5	2.2	1.5	1.4	1.6	1.6	1.6	1.7	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : f min
 Unit : Mc
 Month : October 1957

TABLE 39—contd.
 Ionospheric Data
 75.0° 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	1.7	1.7	1.7	1.9	1.8	2.0	2.8	2.1	2.4	2.6	2.9	C
2	1.4	1.4	1.4	1.2	1.6	1.7	1.8	2.1	2.6	C	3.2	3.1
3	1.5	1.3	1.6	1.5	1.3	1.5	1.6	2.6	2.8	3.1	3.5	3.4
4	1.4	1.5	1.3	1.4	1.7	2.0	2.2	2.2	2.4	2.8	3.0	3.4
5	1.8	C	C	C	C	2.0	2.6	2.4	2.8	3.0	3.0	3.4
6	1.3	1.3	1.4	1.6	1.7	1.7	1.8	2.1	2.6	3.1	3.2	3.2
7	1.5	1.7	1.7	1.9	1.8	1.7	1.7	2.3	2.8	3.0	3.1	3.5
8	1.5	1.5	1.6	1.6	1.6	1.9	1.7	2.3	2.6	2.9	3.2	3.3
9	1.6	1.7	2.2	1.9	1.7	1.7	1.7	2.3	2.7	3.6	3.2	3.1
10	1.7	1.8	1.6	1.6	1.7	1.6	2.3	2.6	2.8	3.0	3.3	3.4
11	1.2	1.4	1.8	1.7	1.7	1.7	1.8	2.4	2.8	3.0	3.8	3.2
12	1.4	1.3	1.3	1.2	1.4	1.6	1.8	2.1	2.6	3.0	3.0	3.2
13	1.2	1.3	1.3	1.5	1.3	1.6	2.2	C	2.8	C	C	4.0
14	2.1	1.9	2.0	1.7	1.4	1.7	1.9	2.3	2.4	2.8	3.2	C
15	1.4	1.4	1.3	1.7	1.7	1.4	1.8	2.3	2.8	3.6	3.4	3.2
16	1.4	1.6	1.7	1.8	1.9	1.8	2.2	2.4	2.9	5.0	4.2	3.8
17	1.6	1.8	2.1	2.2	2.4	C	C	2.1	2.9	3.4	3.1	3.4
18	1.9	1.7	1.6	1.4	2.2	2.0	1.9	2.4	2.8	3.0	3.4	3.4
19	1.8	1.7	1.5	1.7	C	C	C	C	C	C	C	C
20	1.8	1.7	2.0	1.9	1.5	1.9	2.1	2.7	4.6	3.1	3.4	3.4
21	1.7	1.7	2.0	2.0	1.6	1.8	1.9	2.2	2.6	2.8	3.3	3.4
22	1.8	1.7	1.6	1.4	1.3	1.6	1.9	2.2	2.6	2.8	3.5	3.0
23	1.6	1.4	1.7	1.6	1.6	1.9	2.2	2.4	2.8	3.0	3.0	5.9
24	2.2	2.3	2.3	1.9	1.7	1.8	2.3	2.4	3.0	3.2	3.3	3.6
25	1.6	1.5	1.4	1.7	1.5	1.8	1.9	2.1	2.5	2.8	3.2	3.1
26	1.9	1.9	1.6	1.4	1.6	1.6	2.1	2.6	2.9	3.0	3.3	3.8
27	1.7	1.4	1.5	1.5	1.6	1.7	2.0	2.4	2.6	3.0	3.0	3.1
28	2.0	1.8	1.8	1.4	1.5	1.8	1.9	3.0	3.0	3.0	3.2	3.8
29	1.8	1.5	1.5	1.6	1.6	1.8	2.0	2.4	2.8	3.0	3.0	3.2
30	1.7	1.6	1.5	1.5	1.4	1.7	2.0	2.2	2.6	3.0	3.0	3.2
31	1.9	1.8	1.6	1.6	1.7	1.8	2.1	2.4	2.8	2.9	3.1	3.1
Count	31	30	30	30	29	29	29	29	30	28	29	28
Median	1.7	1.6	1.6	1.6	1.6	1.7	1.9	2.3	2.8	3.0	3.2	3.4
Mean	1.6	1.6	1.6	1.6	1.6	1.7	2.0	2.3	2.8	3.1	3.2	3.4

Sweep 1° 0 Mc. to 25° 0 Mc. in 30 seconds.

Characteristic : f min
 Unit : Mc
 Month : October 1957

TABLE 39--contd.
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
3.4	3.0	2.8	2.7	2.2	2.0	U1.8s	1.5	1.7	1.4	1.6	1.5	1
3.2	3.0	3.0	2.7	2.2	2.0	1.4	1.4	1.5	1.4	1.4	1.4	2
3.1	3.0	2.8	2.7	2.3	2.0	1.3	1.6	1.5	1.4	1.9	1.4	3
3.2	3.3	2.8	2.8	2.2	2.2	U2.2s	1.7	1.5	1.7	1.7	1.5	4
3.4	3.3	3.0	2.6	2.2	2.0	1.5	1.2	1.3	1.7	2.3	1.9	5
3.3	3.0	3.0	2.8	2.6	2.1	1.3	1.4	1.5	1.4	1.8	1.6	6
3.3	3.2	3.0	2.6	2.3	2.0	1.3	1.7	1.5	1.7	2.2	2.0	7
3.4	3.0	2.8	2.1	2.2	2.1	1.2	1.7	1.3	1.7	1.5	1.6	8
5.0	3.2	3.0	2.8	2.2	2.1	1.3	1.6	1.5	1.6	1.6	1.7	9
3.4	3.0	3.0	2.6	2.4	2.0	1.2	1.3	1.6	1.5	2.1	1.7	10
3.1	3.6	2.7	2.6	2.2	2.0	1.1	1.3	1.4	1.6	1.4	1.2	11
3.0	3.1	3.0	3.1	2.3	2.0	1.1	1.2	1.4	1.3	1.3	1.3	12
3.4	2.9	2.8	2.6	2.4	2.1	1.1	1.6	1.3	1.7	1.4	1.5	13
3.3	3.2	2.8	2.7	2.2	2.0	1.2	1.3	C	1.3	1.3	1.3	14
3.6	3.6	2.9	2.4	1.8	1.8	1.2	1.6	1.7	1.6	1.6	1.7	15
3.4	3.0	2.6	2.6	2.2	1.8	1.4	1.5	1.7	1.6	1.5	1.6	16
3.3	3.0	2.8	2.6	2.2	1.9	1.1	1.6	S	U2.0s	1.6	1.6	17
3.4	4.6	2.9	2.5	1.9	1.9	1.3	1.8	1.7	1.5	1.6	U1.5s	18
C	C	C	C	3.4	2.0	1.2	1.7	1.7	1.1	1.6	1.9	19
3.4	3.0	2.8	2.6	2.4	1.9	1.2	1.9	1.6	1.5	1.4	1.7	20
3.0	3.2	2.8	2.8	2.3	2.0	1.2	1.7	1.6	1.5	1.8	1.9	21
3.3	3.1	2.5	2.6	2.2	1.8	1.4	1.8	1.5	U1.6s	1.5	1.6	22
3.5	4.3	2.9	2.6	2.3	1.9	1.3	1.5	1.7	1.6	1.7	1.6	23
5.3	3.6	C	C	C	1.9	1.3	1.5	1.6	1.3	1.7	1.4	24
3.0	2.8	2.6	2.6	2.2	1.9	1.2	1.5	1.5	1.6	1.6	2.0	25
3.4	3.2	2.8	2.4	1.9	1.8	1.2	1.5	1.5	E	2.2	2.1	26
5.0	3.4	3.0	2.5	2.1	1.9	1.3	1.3	1.5	1.6	1.8	1.8	27
3.0	3.0	2.7	2.6	2.2	1.8	1.1	1.6	1.6	1.5	1.6	2.0	28
3.2	4.0	2.7	2.6	2.3	1.8	1.4	1.3	1.3	1.5	1.6	1.8	29
3.0	2.8	3.0	2.6	2.3	1.9	1.3	1.4	1.8	1.9	1.7	1.6	30
3.1	3.2	2.6	2.4	2.2	1.8	1.1	1.5	1.6	1.5	1.6	1.5	31
30	30	29	29	30	31	31	31	29	31	31	31	Count
3.3	3.2	2.8	2.6	2.2	2.0	1.3	1.5	1.5	1.5	1.6	1.6	Median
3.4	3.2	2.8	2.6	2.3	1.9	1.2	1.5	1.5	1.5	1.7	1.6	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'F2
 Unit : Km
 Month : October 1957

TABLE 40
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

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

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'F2
 Unit : Km
 Month : October 1957

TABLE 40
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
L	L	L	L	L								1
L	L	L _H	L _H	L								2
L	L _H	L _H	L _H	L _H								3
L _H	L _H	L	L	L								4
L	L _H	L	L	L								5
L	L	L	L	L								6
L	L	L	L	L								7
L _H	L	L	L	L								8
L _H	L	L	L	L								9
L	L	A	A	L	L							10
L	L	L	L	L								11
L	L	L	L	L								12
L	L	L	L	L	L							13
L	L	u5701	L	L	L							14
L	L	L	L	L	L							15
L	L	L	L	L								16
L	L	L	L	L	L							17
L	L	L	L	L	L							18
C	C	C	C	C	L	C						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
L	L	L	L	L								26
L	L	L	L	L								27
L	u6001	L	L	L								28
L	L	L	L	L								29
u6001	u5901	u5701	L	L								30
L	L	u5701	L	L								31
1	2	3	..	..	..							Count
..	..	..	..	..	..							Median
..	..	..	..	..	..							Mean

Sweep 1°0 Mc. to 25°0 Mc. in 30 seconds.

Characteristic : h'F2
 Unit : Km
 Month : October 1957

TABLE 40—*contd.*
 Ionospheric Data
 75.0° 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	C
2								L	LH	C	L	L
3								L	LH	L	L	L
4								L	LH	L	LH	L
5								L	LH	LH	L	L
6								L	L	L	L	L
7								L	L	L	L	L
8								L	L	L	L	LH
9								L	L	L	L	L
10								L	L	LH	L	LH
11								L	L	L	L	L
12								L	L	LH	L	L
13								C	L	C	C	L
14								L	L	L	L	C
15								L	L	L	L	L
16							L	L	L	L	L	L
17							C	L	L	L	L	L
18								L	L	L	L	L
19								C	L	C	C	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								L	L	L	L	L
26								L	L	L	L	L
27								L	L	L	L	L
28								L	L	L	L	L
29								L	L	L	L	L
30								L	L	L	U540L	L
31							L	L	L	L	L	U590L
Count							1	1
Median						
Mean						

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'F2
 Unit : Km
 Month : October 1957

TABLE 40—*contd.*
 Ionospheric Data
 75°0' 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	L	L	L								1
L	L	L _{LH}	L _{LH}	L								2
L	L _{LH}	L _{LH}	L _{LH}	L _{LH}								3
L _{LH}	L	L	L	L _{LH}								4
L	L _{LH}	L	L	L								5
L	L	L	L	L								6
L	L	L	L	L								7
L	L	L	L	L								8
L _{LH}	L	L	L	L								9
L	L	A	A	L								10
L	L	L	L	L								11
L	L	L	L	L								12
L	L	L	L	L								13
L	05601	06401	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
C	C	C	C	C								19
L	L	565	L	L								20
L	L	L	L	L								21
L	L	L	L	L								22
L	L	L	L	L								23
L	G	G	G	G								24
L	L	L	L	L								25
L	L	L	L	L								26
L	L	L	L	L								27
L	L	L	L	L								28
L	L	L	L	L								29
05801	05701	05801	L	L								30
L	L	L	L	L								31
1	2	3	..	..								Count
..	..	..	..	..								Median
..	..	..	..	..								Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'F
Unit : Km
Month : October 1957

TABLE 41
Ionospheric Data
75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	C	C	C	C	C	C	C	C	C	C	C	C
2	235	210	225	270	U275F	U230F	250	235	220	215	210	205H
3	240	220	220	210	215	220	255	240	225	215	200H	200
4	255	250	255	235	225	225	255	240	230	205	200	200
5	235	240	240	240	215	200	240	235	220	220	200H	200
6	240	220	225	225	210	205	245	230	220	215	205	200
7	230	215	210	215	215	210	250	235	220	200	200	210
8	245	230	220	220	210	205	250	230	220	200	215	215
9	U280F	225	225	U225F	220	215	250	235	220	U230B	210	200
10	260	250	260	240	220	200	255	235	225	220	215	210
11	285	250	235	240	280	240	250	240	230	210	200	215H
12	260	260	260	240	240	235	280	245	240	220	220	215
13	260	265	260	240	230	230	270	250	240	220	C	C
14	260	260	240	240	280	315	290	250	240	230	220	C
15	280	280	270	270	240	220	280	255	240	U240B	230	230
16	250	245	260	260	240	235	280	260	240	230	220	240
17	285	290	270	245	240	235	C	260	240	235	225	C
18	280H	265	265	250	230	245	290	260	245	235	230	235H
19	U300F	290	280	265	250	C	C	C	C	C	C	C
20	265	240	255	245	260	255	265	260	B	240	230	230
21	260	260	275	260	240	280	300	265	250	240	225	225
22	270	240	220	220	260	F	300	270	245	235	220	220H
23	285	270	245	220	235	240	290	265	245	235	225	225
24	290	260	240	235	275	280	300	260	245	240	220	225
25	260	250	270	250	230	220	280	260	240	225	210	220
26	260	260	240	230	225	225	290	260	250	240	225	230
27	295	265	245	260	240	235	285	255	240	235	230	225
28	280	260	230	270	290	260	295	255	240	235	230	220
29	280	280	275	270	260	250	300	255	240	240	225	225
30	270	C	260	245	260	270	300	260	240	240	230	240
31	280	265	270	260	260	240	300	265	250	240	240	225
Count	30	29	30	30	30	28	28	29	28	29	28	26
Median	260	260	250	240	240	235	280	255	240	230	220	220
Mean	265	250	250	245	240	235	275	250	235	225	220	220

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'F
 Unit : Km
 Month : October 1957

TABLE 41
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
200H	215H	205H	215	230	260	320	420	400	320	315	260	1
215H	215	215	220	235	260	335	F	F	U340F	F	U250F	2
200H	205	210	225	240	265H	340H	395	U360F	U320F	300	275	3
200	215	220	220	240	265H	340H	F	U500F	U300F	U280F	U295F	4
200H	200	200	220	240	260H	330	420	F	340	260	250	5
205H	215H	210	225	A	270H	350H	U510F	U500F	U380F	U285F	U290F	6
215	210H	215H	220	235	260	335	U400F	F	280	320	260	7
210	205	210H	215	240	270H	340H	440	F	280	300	280	8
215	220	210	220	240	275H	360	U500F	F	F	U305F	U280F	9
215	210	A	A	A	280	350	420	380	300	270	260	10
220	225	230	240	260	280	360	390	300	265	260	260	11
220	225	230	240	260	290	375	460	400	345	280	270	12
220	220	215	240	260	280	360	460	U420F	320	290	260	13
220	225	230	250	260	280	355	400	U320F	310	280	280	14
220	230	235	240	255	280	360	U440F	380	U380F	320	270	15
230	220	230	235	250	280	380	U400F	F	340	400	280	16
215H	220H	220H	230	C	285	375	470	505F	U400F	U360F	290	17
225	230H	235	U255A	260	295	400	F	F	U465F	U400F	U300F	18
C	C	C	C	C	C	400	C	F	F	350	300	19
230	230	230	245	260	300	410	F	U430F	F	U305F	295	20
220H	230	B	245	260	295	390	500	F	U355F	335	280	21
230	235	230	250	270	300	400	500	U500F	F	U440F	310	22
230	230	240	260	270	280H	400	465	U450F	U430F	345	315	23
B	240	C	C	C	300	390	U470F	U430F	420	320	290	24
220	225	230	240	260	295	400	U515F	F	380F	320	285	25
225	U240B	230	240	260	300	405	U560F	F	U370F	330	300	26
225	230	240	245	260	300	400	410	380	355	320	280	27
235	230	230	240	260	300	410	490	450	380	320	280	28
220	230	235	240	265	300	400	460	400	340	295	280	29
240	240	235	255	280	310	420	520F	500F	460F	345	300	30
230	230	240	235	260	310	430	525	465	440	320	300	31
29	30	27	28	26	30	31	26	20	27	30	31	Count
220	225	230	240	260	280	375	460	425	345	320	280	Median
220	225	225	235	255	285	375	460	425	355	320	280	Mean

Sweep 1°0 Mc. to 25°0 Mc. in 30 seconds.

Characteristic : h'F
Unit : Km
Month : October 1957

TABLE 41—*contd.*
Ionospheric Data
75°0' 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	C	C	C	C	C	C	C	C	C	C	C	C
2	225	215	245	280	255	235	245	230	215	C	210	215H
3	235	220	210	210	215	245	240	235	220	205	200	200H
4	250	260	240	225	220	225	245	235	215	205	205	205
5	245	240	245	235	205	215	240	225	220H	200H	200	205H
6	235	225	225	220	210	220H	240	230	215	205	205	210
7	220	210	215	220	215H	235H	240	220	220	200	205	215
8	235	220	225	220	210	220	240	225	215	200H	205	210
9	250	230	230	220	215	225	240	230	220	220	205	205
10	255H	260	260	225	205	220	240	230	220	220	205	205
11	270	240	240	260	260	220	245	230	220	210	200	220
12	260	260	260	240	240	250	260	240	230	220	215	210
13	265	260	250	235	230	240	260	C	240	C	C	230
14	260	240	230	250	310	310	260	240	230	230	220	C
15	275	280	265	270	220	240	260	250	235	230	225	220
16	245	260	260	255	240	240	260	250	230	U240B	225	220
17	285	280	245	240	240	C	C	250	240	230	225	225
18	265	260H	250	245	245	260	270	250	240	230	225	230H
19	U300F	U295F	265	250	C	C	C	C	C	C	C	C
20	255	240	250	260	250	265	270	255	250	230	230	230H
21	260	275	260	260	260	310	280	255	245	230	225	225
22	255	220	210	250	360	380	280	260	240	230	215	205H
23	275	250	230	230	245	245	270	260	240	230	230	230
24	270	245	240	260	280	295	275	250	240	230	220	225
25	260	260	270	240	225	240	265	245	235	225	220	230
26	260	255	235	220	220	260	270	250	245	230	230	220
27	280	260	240	250	235	245	270	245	240	230	220	215
28	270	240	250	290	275	275	280	250	235	225	225	230
29	280	280	275	260	260	260	270	240	240	235	220	220
30	255	255	260	245	260	290	270	255	240	230	235	230
31	280	265	260	260	260	275	280	260	240	240	230	220
Count	30	30	30	30	29	28	28	28	29	27	28	27
Median	260	255	245	245	240	245	260	245	235	230	220	220
Mean	260	250	245	245	245	255	260	245	230	225	215	220

Sweep 1°0' Mc. to 25°0' Mc. in 30 seconds.

Characteristic : h'F
 Unit : Km
 Month : October 1957

TABLE 4I.—*contd.*
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
200H	200H	200	220	245	280	400	400	360	280	300	235	1
215H	215H	220	225	245	290	400F	U460F	U380F	F	U365F	280	2
205H	205	220	225	250	290H	390H	F	U320F	360	280	270	3
205	215	215H	235	250	290H	420H	F	U360F	U300F	300	240	4
205H	200	215	230	240H	285	400	400	340	300	255	245	5
210H	215H	220	A	A	300H	460H	F	U440F	U340F	U300F	240	6
215	215H	215H	225	240	290	405	F	F	300	280	245	7
210	205	215H	220	255	290H	405	460	280	F	270	U260F	8
220	210	215	230	255	300	U455F	F	U300F	F	F	280	9
205	A	A	A	260	300	405	400	F	280	255	280	10
220	220	230	255	265	305	405	340	275	260	260	260	11
220	230	235	250	260	310	440	425	370	310	270	260	12
220	225	235	255	270	305	440	U430F	380	310	260	260	13
230	235	240	250	270	310	400	395	C	290	280	280	14
230	235	230	245	260	310	420	400	F	320	310	260	15
230	230	230	240	265	315	430	U400F	410	400	310	280	16
220H	220	220H	245	270	315	425	480	465	395	310H	280H	17
225	U235B	235	245	275	315H	480	F	F	F	340	285	18
C	C	C	C	C	C	490	F	F	U400F	325	285	19
225	230	235	250	260	325	F	U500F	U400F	U355F	295	280	20
230	240	240	260	280	320	450	U480F	F	335	310	280	21
230	230	240	260	275	320	470	500	U480F	F	U370F	290	22
230	240	245	260	250H	315H	480	U455F	U495F	370	340	300	23
B	235	C	C	C	330	440	U460F	400	365	300	275	24
230	220	230	255	280	330	480	495F	F	U350F	295	270	25
230	230	235	255	275	340	U500F	F	U385F	U380F	320	300	26
230	230	240	255	270	335	425	385	365	330	300	280	27
230	230	240	255	280	340	480	460	440	350	290	280	28
220	230	240	255	280	335	440	440	360	310	280	280	29
240	240	240	255	285	315	500	510F	500F	380F	320	295	30
235	240	240	250	280	350	520	520	460	380	300	295	31
29	29	28	27	28	30	30	23	23	26	30	31	Count
220	230	230	250	265	310	440	455	380	340	300	280	Median
220	225	230	245	265	310	440	445	390	335	300	275	Mean

Sweep 1°0' Mc. to 25°0' Mc. in 30 seconds.

Characteristic : h'E
 Unit : Km
 Month : October 1957

TABLE 42
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2°N
 Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								C	C	C	C	C
2								100	100	A	A	A
3								A	A	A	A	A
4								100H	A	A	A	A
5								105	A	A	A	A
6								100	A	A	A	A
7							125H	100	A	A	A	A
8								100	A	A	A	A
9							115H	100	A	B	A	A
10								105	A	A	A	A
11								110	A	A	A	A
12							120	115	110	A	A	A
13								115	110	A	C	C
14							130	110	A	A	A	C
15							A	A	A	B	A	A
16								B	A	B	A	A
17								110	110	A	A	C
18								105	110	A	A	A
19							C	C	C	C	C	C
20								125	B	A	A	A
21							140	115	110	A	A	A
22							135	A	A	A	A	A
23								A	A	A	A	A
24								A	A	A	A	A
25								115H	110	A	A	A
26								120	A	A	A	A
27								120	A	A	A	110
28								115	115	115	A	110
29								120	120	A	110	110
30								115	110	110	A	A
31								120	110	105	A	A
Count .							6	23	11	3	1	3
Median .							130	110	110	..	..	..
Mean .							130	110	110	..	..	..

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'E
 Unit : Km
 Month : October 1957

TABLE 42
 Ionospheric Data
 75.0° E Mean Time

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

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

Sweep 1°0 Mc. to 25°0 Mc. in 30 seconds.

Characteristic : h'E
 Unit : Km
 Month : October 1957

TABLE 42—*contd.*
 Ionospheric Data
 75.0° 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	C	C	C	C
2							110	A	A	C	A	A
3							115	110	A	A	A	A
4							115	A	A	A	A	A
5								100	A	A	A	A
6							100	A	A	A	A	A
7							100H	100	A	A	A	A
8							100	100	A	A	A	A
9							105	100	A	A	A	A
10							110	105	A	A	A	A
11							105	100	A	A	A	A
12							120	110	A	A	A	A
13							120	C	110	C	C	B
14							115	110	A	A	A	C
15							A	110	A	A	A	A
16							120	A	110	B	B	A
17							C	110	A	B	A	A
18							A	110	A	A	A	A
19							C	C	C	C	C	C
20							120	120	B	A	A	A
21							120	105	105	A	A	A
22							120	U115A	A	A	B	A
23							120H	A	A	A	A	B
24							A	A	A	A	A	A
25							120H	110	A	A	A	A
26							120H	A	A	A	A	B
27							120	A	115	A	A	A
28							120	120	115	110	A	110
29							120	120	115	A	110	110
30							120	110	A	110	A	A
31							120	115	110	A	A	A
Count .							24	20	7	2	1	2
Median .							120	110	110	..	..	..
Mean .							115	110	110	..	..	..

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'E
 Unit : Km
 Month : October 1957

TABLE 42—*contd.*
 Ionospheric Data
 75.0° 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	100	100								1
A	A	A	A	A								2
A	A	A	A	A								3
A	A	A	A	A								4
A	A	A	100	105								5
A	A	A	A	A								6
A	A	A	A	105								7
A	A	A	A	A								8
B	A	A	A	A								9
A	A	A	A	A								10
A	B	A	A	115								11
A	A	A	A	115								12
A	A	A	110	A								13
A	A	A	115	A								14
A	A	A	110	A								15
A	110	110	110	A								16
A	A	105	115	115								17
A	B	105	A	A								18
C	C	C	C	C								19
A	A	115	110	120								20
A	A	115	115	120								21
A	A	A	115	120								22
B	B	115	110	A								23
B	A	C	C	C								24
A	A	A	A	A								25
A	A	A	A	A								26
B	B	A	115	115								27
A	110	A	110	A								28
110	B	A	115	A								29
A	110	120	A	A								30
A	A	A	110	A								31
I	3	7	15	10								Count
..	..	115	110	115								Median
..	..	110	110	115								Mean

Sweep 1.0 to 25.0 Mc. in 30 seconds.

Characteristic : h'Es
 Unit : Km
 Month : October 1957

TABLE 43
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1		C	C	C				C	C	C	C	C
2								G	100	100	100	100
3	100						100	100	100	100	100	100
4								G	100	100	100	100
5								G	100	100	100	100
6								100	100	100	100	100
7							G	G	100	100	100	100
8							90	90	100	100	100	100
9							120	G	100	100	95	95
10								110	100	100	100	100
11	95							95	95	95	90	100
12							G	G	100	100	100	100
13							100	100	120	100	C	C
14				105			G	G	100	100	100	C
15					100		100	100	100	100	100	100
16								100	100	100	100	100
17								100	100	100	100	C
18				110	105			100	100	100	100	100
19						C	C	C	C	C	C	C
20					100		100	100	100	100	100	100
21		115	125				105	100	100	100	100	100
22							G	100	100	100	100	100
23								100	100	100	100	100
24								100	100	100	100	100
25							110	100	100	100	100	100
26								100	100	100	100	100
27					140			100	100	100	100	100
28							125	100	100	100	100	100
29								115	G	100	100	100
30		C						100	100	100	100	100
31								105	100	100	100	100
Count .	2	1	1	2	4	..	9	22	28	29	28	26
Median .	..	..	..	..	..	..	100	100	100	100	100	100
Mean .	..	..	..	..	..	..	105	100	100	100	100	100

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'Es
 Unit : Km
 Month : October 1957

TABLE 43
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
100	100	100	100	100	100							1
100	100	100	100	100	100							2
100	100	100	100	100	100							3
100	100	100	100	100	100							4
100	100	100	100	100	100							5
100	100	100	100	G	100				100			6
100	100	100	100	100	100							7
100	100	100	100	100	100							8
100	100	100	100	95	100					100		9
100	100	100	100	100	95							10
100	100	100	100	100	100						100	11
100	100	100	100	100	105							12
100	100	100	100	100	110							13
100	100	100	100	100	105				110			14
G	100	100	100	100	105					110	100	15
100	100	100	100	100	105					110	110	16
100	100	100	100	105	110					110	100	17
100	100	100	100	C	110							18
100	100	100	100	100	100							19
C	C	C	C	C	C		C			115		20
100	100	100	100	100	100				110	110	105	21
100	100	100	100	105	110							22
100	100	100	100	105	115				130			23
100	100	G	160	100	110							24
100	100	C	C	C	100				110			25
100	100	100	100	100	100							26
100	100	100	100	100	100							27
100	100	100	100	100	110							28
100	100	100	100	100	110							29
100	100	100	100	105	105							30
100	100	G	100	105	125							31
100	100	100	100	105	105							31
29	30	27	29	27	27	..	..	..	5	6	5	Count
100	100	100	100	100	105	..	..	..	110	110	100	Median
100	100	100	100	100	105	..	..	..	110	110	105	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'Es
 Unit : Km
 Month : October 1957

TABLE 43—*contd.*
 Ionospheric Data
 75.0° 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	C	C	C				C	C	C	C	C	C
2							125	100	100	C	100	100
3							100	120	100	100	100	100
4	100						G	100	100	100	100	100
5								100	100	100	100	100
6							G	100	100	100	100	100
7							G	G	100	100	100	100
8							G	90	100	100	100	100
9							G	95	100	95	95	100
10		100				120	95	100	100	100	100	100
11	90		100				G	95	95	90	95	100
12							100	100	100	100	100	100
13							100	C	120	C	C	100
14							G	100	100	100	100	C
15					120	100	100	100	100	100	100	100
16							100	100	100	100	100	100
17						C	C	100	100	100	100	100
18				110			100	100	100	100	100	100
19					C	C	C	C	C	C	C	C
20				105	105		100	100	100	100	100	100
21		105		100			130	100	100	100	100	100
22							G	100	100	100	100	100
23							G	100	100	100	100	100
24							100	100	100	100	100	100
25							100	100	100	100	100	100
26							G	100	100	100	100	100
27				110			100	110	100	100	100	100
28				110			110	G	100	100	100	100
29							G	120	100	100	100	100
30							G	100	100	100	100	100
31							105	100	100	100	100	100
Count	2	2	1	5	2	2	15	26	29	27	28	28
Median	..	..	..	110	..	..	100	100	100	100	100	100
Mean	..	..	..	105	..	..	105	100	100	100	100	100

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : h'Es
 Unit : Km
 Month : October 1957

TABLE 43—*contd.*
 Ionospheric Data
 75.0° 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								1
100	100	100	100	100								2
100	100	100	100	100							100	3
100	100	100	100	100								4
100	100	100	100	100				115	100			5
100	100	100	100	100								6
100	100	100	100	100								7
100	95	100	95	100								8
100	100	100	100	100								9
100	100	100	100	100							100	10
100	100	100	100	100	110							11
100	100	100	100	105								12
100	100	100	100	105				120	110			13
100	100	100	100	110				C		115		14
100	100	100	100	105						100		15
100	100	100	105	105				120	120	100		16
100	100	100	100	110								17
100	100	100	100	105								18
C	C	C	C						115			19
100	100	100	100	105				120	110	110	105	20
100	100	100	100	110								21
100	100	100	100	110				130				22
100	G	G	100	105								23
100	100	C	C	C					110			24
100	100	100	100	100								25
100	100	100	100	100	110				100			26
100	100	100	100	110								27
100	100	100	100	110								28
100	100	100	105	105								29
100	G	100	100	110								30
100	100	100	100	110								31
30	28	28	29	29	2	..	..	5	7	4	3	Count
100	100	100	100	105	..	..	..	120	110	..	..	Median
100	100	100	100	105	..	..	..	120	110	..	..	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : (M3000)F2

TABLE 44

Latitude : 10°2' N

Unit : —

Ionospheric Data

Longitude : 77°5' E

Month : October 1957

75.0° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	C	C	C	C	C	C	C	C	C	C	C	C
2	F	F	2'85	U2'75S	F	U2'90F	3'00	2'80	2'55	2'25	2'20	2'15
3	F	F	F	U3'10F	F	F	F	U2'90F	2'65	2'35	2'10	2'15
4	U2'60F	F	2'80F	F	F	F	U3'05S	2'90	2'65	2'25	2'10	2'10
5	F	F	U2'85F	2'90	F	U3'40S	U3'00S	U3'00S	2'70	2'30	2'20	2'15
6	2'75	U3'00S	3'00	2'95	3'10	3'50	3'15	U3'00S	2'55	2'25	2'30	2'20
7	F	F	F	3'10F	F	3'40	3'10	3'10	2'75	2'40	2'15	2'10
8	F	U2'90F	3'05	F	F	3'30	3'10	3'00	2'70	2'35	2'05	2'15
9	F	F	F	F	3'15	F	3'10	3'00	2'75	2'45	2'10	2'05
10	U2'70F	F	U2'80F	2'90	3'15	F	F	U2'95F	2'60	U2'10R	2'20	2'20
11	2'65	U2'70S	3'00	2'90	2'75	2'95	3'00	2'75	2'50	2'00H	2'20	2'20
12	U2'75S	2'75	2'75	2'80	2'90	3'00	2'85	U2'75R	2'55	2'35	2'05	2'05
13	U2'60S	2'65	2'75	2'85	U3'00S	3'00	2'95	2'85	2'70	2'45	C	C
14	U2'65S	U2'75S	2'80	3'10	2'80	2'70	U2'75S	2'65	U2'50S	2'20	2'00	C
15	U2'55S	2'60	2'60	2'70	2'75	3'05	2'80	2'65	2'40	2'10	2'10	2'05
16	F	U2'60F	2'75	2'80	2'90	3'10	2'90	2'65	2'30	2'20	2'15	2'10
17	F	U2'60F	2'80	2'75	F	C	C	U2'55S	2'25	2'15	2'05	C
18	F	2'65	Fs	U2'85F	2'85	3'05	2'80	2'55	2'20	2'15	2'10	2'00
19	F	F	F	F	F	C	C	C	C	C	C	C
20	2'50	2'75	2'80	U2'85S	2'85	F	2'80	2'65	2'45	2'30	2'10	2'00
21	J2'60F	J2'70F	U2'70F	U2'85F	U2'95F	2'85	2'65	2'50	2'30	2'15	2'00	1'95
22	2'45	2'70	3'05	3'20	3'10	F	2'70S	2'45	2'20	2'10	1'95	2'00
23	U2'50F	F	2'85F	U3'10F	3'00	3'05	2'70	2'55	2'10	2'15	2'15	1'95
24	U2'30F	U2'55F	2'85	2'95	2'70	2'75	2'65	2'40	2'25	2'20	2'10	1'95
25	2'55	2'65	2'70	2'80	2'95	3'05	U2'75S	2'65	2'40	2'10	1'95	1'95
26	2'65	F	F	2'95	3'10	3.15	2'80	2'75	2'45	2'10	2'00	1'95
27	F	F	U2'60F	U2'80F	3'00	U3'00S	2'85	2'70	2'35	2'10	E2'00W	E2'05W
28	S	U2'65S	2'80	U2'80S	U2'70S	2.80	2'70	2'50	2'50	2'30	2'05	E1'95W
29	2'55	2'45	U2'40S	2'55	2'65	2.65	F	2'40	2'35	2'20	2'10	E2'00W
30	2'50	C	2'70	2'90	U2'90S	2.90	U2'70S	2'45	2'30	2'20	C	2'05
31	U2'35F	U2'35FS	U2'50F	U2'50S	U2'70S	F	U2'70S	2.35	2'25	2'10	2'00	E2'00W
Count	18	18	24	26	22	21	25	29	29	29	27	26
Median	U2'60	U2'65	2'80	2'85	2'90	3'00	2'80	2'65	2'45	2'20	2'10	2'05
Mean	U2'55	U2'65	2'80	2'85	2'90	3'05	2'85	2'70	2'45	2'20	2'10	2'05

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : (M3000)F2
 Unit : —
 Month : October 1957

TABLE 44
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
2'10	2'10	2'10	2'10	2'10	U2'10S	U2'05S	F	F	F	F	F	1
2'15	2'15	2'15	2'10	2'05	U2'05S	1'95	F	F	F	F	F	2
2'15	2'15	2'15	2'15	2'15	2'05	1'95	F	U2'10F	F	F	F	3
2'10	2'15	2'15	2'20	2'20	2'15	2'05	F	F	F	F	F	4
2'15	2'10	2'15	2'15	2'20	U2'20S	2'10	2.00	U2'10S	F	2'35F	U2'55F	5
2'20	2'15	2'20	2'25	2'30	2'35	2'15	F	F	F	F	F	6
2'15	2'10	2'10	2'10	2'15	2'15	U2'05S	F	F	F	F	F	7
2'15	2'15	2'20	2'25	2'25	2'25	2'10	U1'95F	F	F	F	F	8
2'10	2'15	2'10	2'10	2'05	2'05	U2'00S	F	F	F	F	F	9
2'10	2'10	2'10	2'10	2'05	U2'05S	E1'95W	U2'00F	F	F	F	F	10
2'05	2'00	2'00	2'00	2'05	U2'05S	U2'10S	2'05	2'30	U2'55S	2'70	J2'75R	11
2'00	2'00	2'00	2'00	U2'05S	U2'00S	U1'95S	U1'95R	U2'00S	J2'15S	U2'40S	U2'50S	12
2'05	U2'00W	W	U2'00S	2'05	U2'10S	U2'00S	U1'90F	U2'00F	U2'15F	U2'40S	U2'60S	13
1'95	2'00	2'00	U2'05W	W	U1'95R	U2'00S	1'95	U2'10F	U2'25S	U2'40S	U2'50S	14
2'05	2'00	2'05	U2'00S	2'00	U1'90W	U1'95S	F	F	F	F	U2'65F	15
2'10	2'10	2'10	U2'15S	2'15	U2'05S	W	F	F	F	F	F	16
2'05	2'05	2'00	2'00	C	2'00	E1'95W	E1'90W	F	U2'20F	F	F	17
2'00	2'00	2'00	1'95	2'00	2'00	W	F	F	F	F	F	18
C	C	C	C	C	C	1'95	C	F	2'05	U2'00F	E2'40R	19
2'00	2'00	2'05	2'05	2'05	2'00	U1'90S	F	F	F	F	F	20
2'00	1'95	2'00	2'00	2'00	1'95	U1'90S	W	F	U2'05F	2'10	U2'25S	21
1'95	1'95	1'90	2'00	2'00	2'05	1'90	1'80	U2'05F	F	F	U2'15F	22
2'00	2'00	2'05	2'10	2'10	2'00	1'85	U1'80W	U1'85S	U1'90F	U2'05F	U2'10F	23
1'95	C	C	C	C	2'05	1'90	1'80	1'90	U1'90F	2'05	2'20	24
1'95	1'95	2'00	2'00	2'00	2'00	1'90	U1'80W	U1'90F	U2'00F	2'20	U2'35F	25
2'00	1'90	1'90	1'90	2'00	2'05	1'90	U1'85F	U1'95F	2'00	2'10	F	26
E2'00W	E2'00W	E2'00W	2'00	2'00	1'95	E1'90W	2'00	2'05	2'15	2'20	U2'40S	27
E1'95W	U2'00W	E2'00W	E2'00W	1'95	U1'95S	E1'90W	E1'90W	U1'95S	U2'10S	2'10	2'45	28
1'95	E1'95W	E2'00W	2'00	2'00	E1'90W	E1'90W	E1'90W	U2'00S	2'10	U2'25S	U2'30S	29
E2'00W	2'00	2'00	2'50	2'00	U1'90WH	1'90	F	F	F	F	U2'25F	30
E1'95W	E1'95W	E1'95W	E1'95W	E1'90W	E1'85W	E1'95W	F	F	F	F	U2'35F	31
30	29	29	29	28	30	31	17	14	14	14	17	Count
2'00	2'00	2'00	2'05	2'05	2'05	1'95	1'90	U2'00	U2'10	2'20	U2'40	Median
2'05	2'05	2'05	2'05	2'05	2'05	1'95	1'90	U2'00	U2'10	2'25	U2'40	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : (M3000)F2
 Unit : —
 Month : October 1957

TABLE 44—contd.
 Ionospheric Data
 75.0° 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	C	C	C	C	C	C	C	C	C	C	C	C
2	F	U3.15F	U2.80S	2.65F	F	3.00	2.95	2.70	2.40	C	2.20	2.15
3	F	F	F	3.20F	F	F	F	2.85	2.55	2.15	2.15	2.15
4	U2.60F	2.80F	2.85	U2.90F	F	3.20	3.00	2.75	2.45	2.10	2.15	2.10
5	F	F	U2.90F	3.00F	U3.20S	U3.30F	U3.10S	2.85	2.50	2.05	2.15	2.15
6	U2.80F	3.00F	3.00	3.10	3.35	2.75H	3.10	2.80	2.30	2.25	2.30	2.20
7	F	F	F	F	U3.30F	U2.50RH	3.20	2.95	2.60	2.15	E2.15W	2.10
8	F	F	3.10	3.15F	3.30	3.25	3.10	2.85	2.50	2.15	2.15	2.20
9	F	F	3.10F	3.15	3.40	U3.00F	3.10	2.85	2.60	2.25	2.10	2.10
10	U2.80F	F	2.80	F	F	F	F	2.75F	2.40	E2.15W	2.20	2.15
11	U2.70S	2.90	2.95	2.85	2.75	3.05	2.95	2.65	2.30	2.20	2.25	2.15
12	U2.80S	2.75	2.80	2.80	2.90	U3.00S	2.85	2.65	U2.45S	2.20	2.00	2.00
13	U2.60S	2.70	2.80	2.95	U3.00S	2.95	2.90	C	2.60	C	C	2.05
14	U2.70S	2.80	3.00	3.00	2.65	2.80	2.65	2.60	2.40	2.15	1.90	C
15	U2.55S	2.60	2.65	2.65	3.00	2.95	2.75	2.50	2.25	2.10	2.05	2.05
16	F	2.70	2.80	2.85	3.05	3.15	2.80	2.45	2.20	2.20	2.10	2.10
17	J2.70F	F	2.75	2.95	F	C	C	2.35	2.20	U2.15R	2.05	2.05
18	F	2.60	F	U2.90F	2.95	2.90	2.75	2.45	2.10	2.05	2.05	2.00
19	F	F	F	U2.75F	C	C	C	C	C	C	C	C
20	U2.45S	2.75	2.90	2.85	2.85	U2.90F	2.75	2.55	2.40H	2.20	2.05	2.00
21	J2.70F	2.60	U2.80F	U2.90F	2.95	2.75	U2.60S	2.40	2.25	2.05	1.95	1.95
22	2.50	2.90	3.15	3.00	2.45	2.35	2.65	2.30	2.10	2.10	1.95	1.95
23	F	F	U2.95F	3.05	3.05	2.65	2.75	2.25	2.10	2.15	2.15	2.00
24	F	2.80	2.90	2.90	2.70	2.75	2.50	2.35	2.20	2.15	2.00	1.95
25	2.60	2.65	2.70	2.85	3.05	2.85	2.80	2.55	2.30	2.00	1.95	1.95
26	2.60	U2.80F	2.90	3.00	3.10	2.55	2.80	2.60	2.25	2.05	2.00	1.95
27	F	U2.60F	F	U2.90F	2.90	2.85	2.80	2.50	2.20	2.05	2.00	2.00
28	U2.45S	2.85	U2.85S	2.70	U2.70S	U2.75S	2.60	2.60	2.40	2.15	E2.00W	E1.95W
29	2.45	2.40	2.50	2.65	2.70	U2.70S	U2.50F	2.35	2.35	2.15	2.00	1.95
30	2.55	U2.60S	2.75	U2.90S	2.85	2.75	2.60	2.40	2.25	2.20	2.10	2.00
31	U2.40S	U2.40F	2.55F	U2.65S	F	U2.90S	U2.55S	2.30	2.15	2.05	E2.00W	E1.95W
Count	18	21	25	28	23	26	26	28	29	27	28	28
Median	2.60	2.75	2.85	2.90	2.95	2.90	2.80	2.60	2.30	2.15	2.05	2.00
Mean	2.60	2.75	2.85	2.90	2.95	2.85	2.80	2.60	2.35	2.15	2.10	2.05

Sweep 1.0 Mc. to 25.0 Mc. in 30 seconds.

Characteristic : (M3000)F2
 Unit : —
 Month : October 1957

TABLE 44—contd.
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
2.10	2.10	2.15	2.05	2.10	U2.10S	U2.05S	F	F	F	F	F	1
2.15	2.20	2.15	2.10	2.05	2.00	U1.95F	F	F	F	F	F	2
2.15	2.15	2.15	2.15	U2.00S	E1.90W	F	F	F	F	F	U2.50F	3
2.10	2.15	2.15	2.20	2.20	2.10	U2.00S	F	F	F	F	F	4
2.10	2.15	2.15	2.20	2.20	2.20	2.05	U2.05S	U2.15S	U2.20F	U2.45F	2.65	5
2.15	2.15	2.25	2.25	2.35	2.25	U2.00S	F	F	F	F	F	6
2.15	2.10	2.10	2.15	2.15	U2.10S	1.95F	F	F	F	F	F	7
2.15	2.20	2.20	2.25	2.25	U2.20S	U2.00S	F	F	F	F	F	8
2.10	2.10	2.10	2.10	2.05	U2.05S	E2.00W	F	F	F	F	F	9
2.10	2.10	2.10	2.10	2.05	U2.00S	E1.90F	F	F	F	U2.40F	2.65	10
2.05	2.00	2.00	2.00	U2.05S	U2.10S	2.00	2.15	U2.40S	U2.65S	2.75	2.75	11
2.00	2.00	2.00	J2.05R	U2.05S	1.95	1.90	U1.95S	U2.10S	U2.25F	U2.50S	S	12
2.05	W	W	2.00	U2.05S	U2.05S	1.90	U1.90F	U2.10F	F	U2.65S	U2.55S	13
2.00	2.00	U2.05W	W	W	U2.00S	2.00	2.05	C	U2.35S	U2.40S	U2.60S	14
2.00	2.05	U2.00S	U2.00S	U1.95W	U1.95S	U1.95S	F	F	F	F	U2.65F	15
2.10	2.10	2.10	2.15	U2.10S	U2.00W	U2.00F	F	F	F	F	U2.55F	16
2.05	2.05	2.00	2.00	2.00	1.95	W	1.95	F	U2.35F	U2.40FH	U2.25H	17
2.00	2.00	1.95	2.00	2.00	W	W	F	F	F	F	F	18
C	C	C	C	C	C	W	F	F	2.05	U2.10F	2.30	19
2.00	2.00	2.05	2.05	2.05	1.95	W	F	F	F	F	F	20
1.95	2.00	2.00	2.00	2.00	1.90	W	1.90H	F	F	2.25	2.50	21
2.00	2.00	1.95	2.05	2.00	U2.05S	1.85	U1.85F	F	U2.00F	F	U2.25F	22
2.00	2.00	2.10	2.10	2.05	1.95	U1.75W	U1.80W	F	U1.95F	U2.05F	U2.20F	23
1.95	C	C	C	C	1.95	1.80	1.90	U1.95F	U2.00F	2.15	2.40	24
2.00	1.95	2.00	2.00	2.05	2.05	U1.80W	U1.75F	F	F	2.20	2.45	25
1.90	1.85	1.90	1.95	2.00	2.00	1.80	F	U2.00F	F	2.20	F	26
E2.00W	E1.95W	E2.00W	2.00	E2.00W	E1.95W	E1.95W	U2.05S	U2.10S	2.10V	2.25	U2.50S	27
E1.95W	E2.00W	U2.00S	U2.00S	U1.95S	E1.90W	E1.90W	U1.90S	F	2.05	2.30	U2.45S	28
E2.00W	E1.95W	E2.00W	2.00	E1.90W	E1.85W	E1.90W	U1.95S	2.00	2.10	2.15	2.35	29
E2.00W	2.00	2.05	2.05	1.95H	WH	U1.85Wz	F	F	F	U2.10F	F	30
1.95	E1.95W	E1.95W	E1.90W	E1.85W	E1.90W	E1.85W	F	F	F	U2.25F	U2.40F	31
30	29	29	29	29	30	30	14	8	12	18	19	Count
2.00	2.00	2.05	2.05	2.05	2.00	1.90	U1.90	U2.10	U2.10	U2.25	U2.50	Median
2.05	2.05	2.05	2.05	2.05	2.00	1.90	U1.95	U2.10	U2.15	U2.30	U2.45	Mean

Sweep 1.0 Mc. to 25.0 Mc. in 30 Seconds.

Characteristic : foF2

Unit : Mc

Month : November 1957

TABLE 45
Ionospheric Data
75°0' E Mean Time

Latitude : 10°2' N

Longitude : 77°5' E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	U9'6F	C	C	C	C	C	C	C	C	C	C	C
2	U10'9F	11'6	11'2	10'1	8'4	6'6F	F	11'9	13'5	14'0	13'0	12'5
3	U11'5RH	U11'0F	F	10'6	8'8	5'1	8'0	11'2	12'7	C	C	C
4	11'3	11'9	11'8	9'9	8'0	6'2	8'8	12'0	14'0	15'2	15'4	15'1
5	F	11'6F	10'0	F	8'5F	F	9'2	11'8	13'0	13'1	13'3	12'9
6	F	F	F	F	F	F	F	12'0	13'0	12'8	11'9	11'6
7	F	11'4F	U9'7S	8'3	8'8	U6'3S	7'1	11'3	13'8	14'0	U14'2R	11'8
8	12'6	12'6	12'1	11'3	10'8	8'5	U9'4S	12'4	14'1	14'5	13'9	13'9
9	U12'0R	U11'7S	U10'8F	10'8	9'5	7'7	9'1	U11'2R	12'0	12'5	12'6	12'5
10	12'0	11'9	11'3	11'3	11'3	10'4	11'1	13'3	14'2	13'6	12'8	13'0
11	U11'8F	C	11'3	11'4	U9'7S	7'9	9'3	J12'1S	12'9	13'1	13'3	13'2
12	13'8	12'9	12'3	11'7	U9'2S	6'7	8'7	12'2	13'7	14'5	13'9	12'7
13	12'8	12'6	12'1	11'2	7'8	5'2	8'5	12'1	13'4	14'3	14'7	14'1
14	9'8	10'8	C	9'7	10'0	8'6	9'3	12'3	13'8	14'3	14'4	13'8
15	13'0	13'4	12'9	11'4	9'1	8'3	9'5H	10'3	11'3	12'0	12'8	12'9
16	J13'9R	13'7	12'7	11'0	10'5	U9'5S	U10'4S	12'8	14'0	14'3	13'8	C
17	U12'8R	13'7	13'0	U11'7S	10'1	7'5	U8'5S	U11'8S	C	C	13'1	12'6
18	U11'3S	F	10'8	10'5	8'9	5'7	U7'8S	U11'5S	13'3	13'7	13'4	12'2
19	10'7	U10'5F	U10'0S	10'7	9'2	J7'4S	U9'1S	12'5	14'1	C	14'7	13'8
20	12'1	12'3	11'0	9'9	8'4	6'5	8'4	11'3	13'0	13'5	13'4	12'9
21	F	F	F	U9'4F	U10'2S	8'6	U9'1S	11'0	11'9	12'4	12'3	12'1
22	F	F	F	F	U8'6F	U6'6F	J8'2F	11'0	11'5	11'4	11'8	11'7
23	F	F	F	10'0	F	U7'6S	8'6	J11'8S	13'2	12'8	12'7	11'9
24	U11'7S	J12'2R	11'2	U9'6S	7'6	5'4	U7'4S	11'4	12'6	C	C	C
25	12'8	12'2	11'1	11'0	U10'2S	8'2	8'6	11'5	12'3	12'8	13'0	12'2
26	U11'6F	U12'0S	11'7	U11'8F	11'5	F	11'1	12'8	13'3	13'8	13'7	13'0
27	J11'7S	12'3	10'7	10'6	F	F	U6'6S	11'1	12'5	13'8	14'5	14'7
28	12'5	12'0	11'6	11'4	11'2	10'5	10'8H	U9'5S	11'5	12'4	12'0	10'8
29	11'3	11'0	U10'2S	10'5	10'6	9'8	U10'3S	12'0	14'0	14'2	14'3	C
30	12'9	U11'7S	10'6	9'4	8'0	5'9	U7'8S	11'3	12'9	14'0	14'8	14'6
Count	24	23	23	26	26	25	27	29	28	25	27	25
Median	11'9	12'0	11'2	10'6	9'2	7'5	8'8	11'8	13'1	13'7	13'4	12'9
Mean	11'9	12'0	11'3	10'6	9'4	7'5	8'9	11'7	13'0	13'5	13'5	12'9

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

Characteristic : foF2
 Unit : Mc
 Month : November 1957

TABLE 45
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
C	11'3	11'2	11'0	11'0	11'2	D10'8W	D9'6W	D9'2WF	10'6	U10'6F	F	1
12'6	12'7	12'6	12'2	11'6	11'5	D10'2W	U8'7F	D8'7W	F	J10'4R	10'9	2
C	C	C	10'6	10'9	10'9	10'0	D9'1W	U9'6S	10'9	11'7	11'6	3
14'4	13'9	13'4	13'0	12'8	U11'9S	D10'8W	D8'5WF	F	F	J8'5F	F	4
12'7	12'5	12'2	D12'0W	U11'8S	U11'3S	U10'1S	D8'8WF	F	F	F	F	5
11'4	11'3	11'7	11'9	U11'8S	J12'0S	11'8	D10'7W	D10'4F	10'8	11'1	U11'8S	6
11'7	12'0	12'6	13'0	13'3	13'5	13'0	U11'6W	U11'7S	U11'7S	U11'7S	U11'8S	7
13'6	13'3	13'0	12'6	12'9	13'0	U11'6S	U11'8S	U12'0S	U11'8S	U11'8S	U12'4R	8
12'6	12'0	12'0	U11'9S	U11'7S	U11'5S	D11'0W	U9'5S	D10'4W	U11'6S	U11'9S	12'3	9
13'2	13'9	13'0	12'6	12'3	12'6	U12'0S	D10'9W	11'0	U11'8FS	U12'0S	12'4F	10
12'8	12'8	12'6	12'0	12'3	12'6	U11'8S	10'0	10'6	U11'1F	12'0	U13'1R	11
12'2	12'2	C	C	11'9	12'7	J12'1S	11'6	11'7	12'4	12'6	J13'1S	12
13'1	12'7	12'5	12'2	12'2	11'6	10'6	U9'4F	U8'5F	U9'4F	U9'6F	U9'5S	13
13'3	12'6	12'3	J12'2S	11'7	11'7	10'6	9'4	9'2	U10'3F	11'3	U12'6R	14
13'0	13'0	13'4	13'1	U13'1R	12'7	U11'8S	10'9	11'2	12'3	13'2	U13'9R	15
11'6	11'2	11'2	11'6	U11'8S	U11'8S	U11'6S	10'6	10'6	U11'6S	12'8	13'4	16
12'6	12'4	C	12'7	13'0	12'9	12'3	12'4	U9'3F	F	FS	10'8	17
11'7	11'5	11'4	C	11'6	11'4	11'0	10'8	10'8	10'7	U11'4S	11'1	18
13'9	14'0	13'8	J13'0R	12'4	11'4	10'7	10'0	11'1	U11'6S	11'4F	U11'6F	19
13'5	13'6	13'8	13'5	12'8	U11'8S	10'8	10'3	F	U10'6F	F	F	20
12'6	13'0	13'5	13'0	13'0	U11'8S	U11'3S	F	F	F	F	F	21
C	12'6	13'2	13'8	13'6	13'7	13'0	U11'6F	U11'0F	F	F	F	22
11'6	C	11'7	11'4	U10'8R	10'7	U9'6S	U9'8S	U10'8F	U11'5F	12'8	U12'3F	23
C	C	C	C	12'8	12'6	U12'6W	U11'9S	J11'4R	U11'8S	J12'4R	12'8	24
11'3	U10'6W	11'2	U11'6S	U11'6S	U11'4S	11'3	11'0	J11'9S	R	U10'9R	11'3	25
12'6	12'6	12'6	12'8	12'8	12'8	12'9	12'8	12'9	13'0	14'2	12'3	26
14'8	14'5	14'7	14'5	U13'9R	13'8	U13'8R	13'9	13'9	D14'0R	13'7	13'7	27
D10'0W	10'7	11'4	11'4	11'0	11'2	11'3	U10'3R	10'7	U11'8S	U11'8S	12'0	28
C	14'3	13'8	C	U13'0R	12'6	U11'7S	D11'6W	F	F	F	13'4	29
13'9	13'9	13'8	C	13'8	13'0	U11'8S	U11'5F	F	F	F	F	30
25	27	26	25	30	30	30	29	24	21	23	23	Count
12'6	12'6	12'6	12'2	12'3	11'8	U11'4	U10'7	U10'8	U11'6	U11'8	12'3	Median
12'7	12'6	12'6	12'4	12'3	12'1	U11'5	U10'6	U10'8	U11'5	U11'7	12'2	Mean

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

Characteristic : foF2

TABLE 45—contd.

Latitude : 10° 2' N

Unit : Mc

Ionospheric Data

Longitude : 77° 5' E

Month : November 1957

75° 0' E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	F	C	C	C	C	C	C	C	C	C	C	C
2	J11'3R	11'3	11'0	9'2	J7'1S	F	10'6	13'0	13'9	13'7	12'7	12'6
3	U11'4F	U10'5F	U10'8R	10'0	6'9	6'0	U9'6S	12'1	13'0	C	C	C
4	U11'6S	11'8	11'3	9'1	7'0	6'6	10'5	13'2	C	15'2	15'2	14'7
5	U11'4F	11'1	F	F	F	7'5F	10'8	12'2F	13'3	13'1	13'1	12'8
6	F	F	F	8'7F	F	F	11'0F	13'0	12'9	12'2	11'7	11'4
7	J12'2F	10'2	8'5	8'8	U7'8S	U6'9S	U9'5S	13'0	13'9	14'2	D12'8W	11'4
8	12'8	12'4	11'8	11'2	U9'9S	7'4	11'2	13'4	14'4	14'4	14'0	13'6
9	U11'8S	U11'0F	11'0	10'6	8'5	U7'3S	10'4	11'7	U12'2R	12'4	12'7	12'5
10	12'0	11'5	11'3	11'2	10'7	9'9	12'4	14'0	14'1	13'4	12'6	13'1
11	C	C	11'5	10'9	8'8	7'6	11'0	12'8	13'0	13'2	13'5	13'0
12	13'3	12'7	12'0	10'8	7'8	6'6	10'8	13'2	14'4	14'1	12'9	12'3
13	12'5	12'2	12'0	9'6	6'4	6'3	10'5	12'8	14'0	14'6	14'6	13'8
14	10'3	10'8	U9'6F	10'1	U9'6S	8'0	11'0	13'2	14'0	14'5	14'0	13'6
15	13'2	13'5	12'1	10'4	8'5	8'8	10'1H	10'7	11'6	12'5	12'9	12'7
16	13'6	13'3	U11'5S	10'6	U10'2S	U9'2S	U11'7S	13'9	14'4	14'0	C	11'8
17	D12'7R	13'7	12'4	10'8	9'0	6'9	U10'4S	12'9	C	13'3	12'8	12'5
18	11'3V	10'9V	10'9	10'1	7'6	5'6	9'8	12'7	13'6	13'8	12'8	11'8
19	10'9	J9'9S	10'4	10'4	8'1	J7'4S	J11'0S	13'5	14'5	C	14'1	13'7
20	12'4	12'0	10'2	U9'3S	8'0	6'1	J10'0S	12'2	13'2	13'4	13'1	13'5
21	F	F	F	U9'8F	9'3	8'0	U10'0S	11'4	12'3	12'4	12'3	12'2
22	F	F	F	U8'6F	U8'0F	F	U10'0S	11'4	11'4	11'6	11'8	C
23	F	F	F	U9'8F	U8'2F	6'8	10'5	12'6	12'9	12'8	12'5	11'9
24	J11'6R	U11'8S	F	F	6'6	5'0	U9'7S	12'1	12'8	C	C	C
25	12'6	U11'8S	11'0	10'9	9'0	7'0	10'7	J12'2R	12'4	13'0	13'0	11'5
26	12'0	F	11'8	U11'6S	F	11'2	J11'8S	13'0	13'7	13'6	13'6	12'8
27	12'4	11'2	10'5	10'7	F	F	U9'2S	11'8	13'0	14'2	14'7	14'8
28	12'1	11'7	11'8	11'6	10'9	10'5	10'8H	10'7	12'3	12'5	11'2	10'5
29	11'3	U10'6S	10'0	10'6	10'4	U9'4S	11'2	13'2	14'2	14'2	14'3	C
30	12'3	11'0	U9'8S	8'6	6'7	5'6	U9'8S	12'1	13'6	14'5	14'6	14'2
Count	24	23	23	27	25	25	29	29	27	26	26	25
Median	12'0	11'5	11'0	10'4	8'2	7'3	10'5	12'8	13'3	13'5	13'0	12'7
Mean	12'0	11'6	11'0	10'1	8'4	7'5	10'6	12'6	13'3	13'5	13'2	12'7

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

Characteristic : foF2
 Unit : Mc
 Month : November 1957

TABLE 45—contd.
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
C	11.3	D11.0W	11.0	11.3	11.0	D10.0W	D9.2W	D9.7WF	U10.6F	U10.4F	U10.8F	1
12.8	12.6	12.5	11.9	11.6	11.0	D9.4W	D8.6W	F	U9.0F	U10.8F	11.4H	2
C	C	10.4	10.8	C	10.4	D9.2W	9.2	10.0	11.1	11.6	11.5	3
14.1	13.8	13.2	12.9	12.4	U11.4S	D9.6W	F	F	F	F	F	4
12.8	12.5	D12.0W	D11.9W	U11.7S	D11.0W	D9.2W	F	F	F	F	F	5
11.4	11.4	11.7	11.9	12.0	J12.0S	D11.3W	D10.2WF	10.9	11.1	F	12.2	6
12.0	12.5	12.9	13.1	U13.2R	U13.3R	J12.0S	11.5	U11.8R	U11.8S	J12.0S	U11.9S	7
13.6	13.0	12.8	12.8	12.8	12.4	U11.8S	U12.2R	U11.6S	U11.6S	U11.6S	U12.5R	8
12.2	12.0	12.0	U11.8S	U11.7S	11.4	D10.6S	D10.2W	U10.2S	U11.2R	12.3	12.0	9
13.8	13.3	12.8	12.0	12.3	D12.6W	D11.6W	D10.7W	U11.6R	11.8	U12.3R	11.6	10
12.9	12.7	12.4	12.1	12.5	12.5	10.6	10.3	U10.8F	11.3	12.8	13.7	11
12.4	12.0	C	11.9	12.3	12.7	11.8	11.5	U11.9F	12.3	13.0	13.0	12
12.9	12.5	12.4	12.1	U11.8S	11.3	9.9	U8.9F	U9.2S	U10.0F	9.4	9.9	13
13.0	12.4	12.3	C	C	J11.2S	U9.7S	J9.1S	U9.5F	10.8	12.0	U12.8R	14
13.0	13.3	13.3	13.1	U13.0R	12.5	D11.1W	11.0	11.6	13.0	13.8	U13.8R	15
11.4	11.2	11.3	U11.5S	J12.0R	U11.5S	10.8	10.4	11.2	12.6	13.4	13.4	16
12.5	12.6	C	12.8	J13.0S	12.9	11.4	U9.6F	FS	FS	F	10.7V	17
11.6	11.4	11.6	11.5	11.4	11.3	10.9	10.8	10.8	U11.3S	U11.4S	11.0	18
14.2	13.9	13.6	U12.6R	U11.7S	11.0	10.2	10.7	11.2	U11.8S	U11.6V	12.1	19
13.6	13.8	13.5	12.9	D12.6W	11.2	10.5	10.6	10.7	10.6	F	F	20
12.9	13.2	13.3	13.0	12.8	U11.8S	U10.8W	F	F	F	F	F	21
12.1	12.8	13.7	13.8	13.6	13.4	12.3	F	F	F	F	F	22
11.5	11.6	11.6	11.0	10.8	10.4	U9.6S	U10.5F	U11.4F	12.6	R	J12.6R	23
C	C	C	12.8	12.6	12.6	12.5	U11.6S	U11.8S	U11.8S	12.6	12.8	24
U11.0W	10.7	11.5	U11.6S	U11.6S	U11.4S	10.8	U11.6S	12.4	U11.6S	10.8	11.6	25
12.4	12.7	12.7	12.9	12.7	12.9	12.8	12.9	13.0	13.7	13.8	11.6	26
14.6	14.6	14.8	14.2	13.8	13.8	14.5	13.9	U14.1R	13.8	13.5	J13.1S	27
10.2	11.3	11.3	11.0	11.0	11.4	U10.8S	10.5	11.0	U11.6S	12.2	11.4	28
14.5	14.1	13.8	U12.8R	12.6	12.1	U11.4S	U11.0F	F	U12.2F	13.6F	13.3	29
13.8	13.9	13.8	13.5	13.6	12.8	U11.6S	U11.5F	F	F	F	F	30
27	28	27	29	28	30	30	26	22	24	21	24	Count
12.8	12.6	12.5	12.1	12.4	11.6	U10.8	U10.6	U11.2	U11.6	12.2	12.0	Median
12.7	12.6	12.5	12.3	12.3	11.9	U11.0	U10.7	U11.2	U11.6	12.1	12.1	Mean

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

Characteristic : foF1
 Unit : Mc
 Month : November 1957

TABLE 46
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

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

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

Characteristic : foF1
 Unit : Mc
 Month : November 1957

TABLE 46
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

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

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

Characteristic : foF1
 Unit : Mc
 Month : November 1957

TABLE 46—*contd.*
 Ionospheric Data
 75°0' 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							C	C	C	C	C	C
2								L	L	L	L	L
3							L	L	L	L	L	L
4								L	L	L	L	L
5								L	L	L	L	L
6								L	L	L	L	L
7								L	L	L	L	L
8							L	L	L	L	L	L
9							L	L	L	L	L	L
10								L	L	L	L	L
11								L	L	L	L	B
12								L	L	L	L	L
13								L	L	L	L	L
14								L	L	L	L	L
15								L	L	L	L	L
16								L	L	L	L	L
17								L	L	L	L	L
18								L	L	L	L	L
19								L	L	L	L	L
20								L	L	L	L	L
21							L	L	L	L	L	L
22								L	L	L	L	L
23								L	L	L	L	L
24								L	L	L	L	L
25								L	L	L	L	L
26								L	L	L	L	L
27								L	L	L	L	L
28								L	L	L	L	L
29								L	L	L	L	L
30								L	L	L	L	L
Count							I	I
Median						
Mean						

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

Characteristic : foF1
 Unit : Mc
 Month : November 1957

TABLE 46--*contd.*
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
C	L	L	L	L								1
L	L	L	L	L								2
C	C	L	L	L								3
L	L	L	L	L								4
L	L	L	L	L								5
L	L	L	L	L								6
L	L	L	L	L								7
L	L	L	L	L								8
L	L	L	L	L								9
L	L	L	L	L								10
L	L	L	L	L								11
L	L ^{LH}	L	L	L								12
L	L	L	L	L								13
L	L	L	L	L								14
L	L	L	L	L								15
L	L	L	L	L								16
L	L	L	L	L								17
L	L	L	L	L								18
L	L	L	L	L								19
L	L	L	L	L								20
L	L	L	L	L								21
L	L	L	L	L								22
L	L	L	L	L								23
C	C	L	L	L								24
L	L	L	L	L								25
L	L	L	L	L								26
07:4L	07:0L	L	L	L								27
07:7L	L	L	L	L								28
L	07:8L	L	L	L								29
L	L	L	L	L								30
L	L ^{LH}	L	L	L								30
2	2	..	..	..								Count
..	..	..	..	..								Median
..	..	..	..	..								Mean

Sweep 1.0 Mc. to 25.0 Mc. in 27 seconds

Characteristic : foE
 Unit : Mc
 Month : November 1957

TABLE 47—*contd.*
 Ionospheric Data
 75.0° 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							C	C	C	C	C	C
2							2.8	U3.4F	A	A	A	A
3							2.6	A	A	C	C	C
4							U2.8R	U3.4F	C	A	A	A
5							U2.5R	A	A	A	A	A
6							2.7	A	A	A	A	A
7							2.8	U3.3R	A	A	A	A
8							U2.6R	A	A	A	A	A
9							A	A	A	A	A	A
10							U2.6R	A	A	A	A	A
11							U2.8A	A	A	A	A	B
12							2.9	A	A	A	A	A
13							2.5	A	A	A	A	A
14							U2.5A	U3.1R	A	A	A	A
15							A	A	A	A	B	B
16							U2.4R	U2.9A	A	B	C	A
17							2.5H	U2.7A	C	A	A	A
18							U2.5R	3.1	A	A	A	B
19							2.5H	3.2	3.2	C	A	U3.8A
20							U2.5F	3.2	U3.3A	A	B	B
21							A	A	A	A	A	A
22							A	A	A	B	A	C
23							A	A	A	A	A	A
24							2.6	A	A	C	C	C
25							2.5	A	2.6	A	B	A
26								U3.2A	U3.8A	A	A	A
27							2.3	U3.3A	U3.6R	4.0	4.1	A
28								A	A	A	A	A
29							2.5	3.4	A	A	4.2	C
30							U2.5R	3.2	3.6	A	B	A
Count							22	13	6	1	2	1
Median							2.5	3.2	3.4	..	..	..
Mean							2.6	3.2	3.4	..	..	..

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

Characteristic : foE
 Unit : Mc
 Month : November 1957

TABLE 47—*contd.*
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
C	A	A	A	A								1
A	A	B	A	A								2
C	C	A	A	C								3
A	A	3.8	A	A								4
A	A	A	A	F								5
A	A	A	A	A								6
B	B	U3.8R	U3.6R	U2.8R								7
A	A	A	A	A								8
A	A	A	U3.3R	A								9
A	A	A	A	A								10
A	A	A	U3.3A	U2.5A								11
A	A	C	A	A								12
A	A	A	A	A								13
A	A	A	C	C								14
A	A	A	U3.4A	U2.8A								15
B	A	3.0	U3.2A	A								16
A	A	C	3.2	2.6								17
B	A	A	3.2	U2.8F								18
U3.5A	A	U3.3A	3.1	F								19
A	A	U3.3A	F	U2.7A								20
A	A	A	A	A								21
A	A	A	A	A								22
A	B	A	A	A								23
C	C	C	B									24
B	A	A	A									25
B	A	U3.8A	A	A								26
A	R	A	A	U2.7A								27
A	A	A	A	A								28
B	A	A	U3.2F	A								29
A	A	A	U2.6R	2.6H								30
I	..	6	10	8								Count
..	..	3.6	3.2	2.7								Median
..	..	3.5	3.2	2.7								Mean

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

Characteristic : foEs
 Unit : Mc
 Month : November 1957

TABLE 48
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1		C	C	C	C	C	C	C	C	C	C	C
2								8.2	12.0	12.0	12.2	12.0
3							G	G	11.0	C	C	C
4								7.0	11.0	11.0	11.8	11.7
5								10.4	10.4	10.4	12.4	12.0
6								9.8	11.2	11.4	12.0	12.2
7								G	8.0	11.0	12.0	12.0
8	2.2							7.8	10.6	11.6	12.0	11.8
9								11.0	11.0	11.4	12.0	11.4
10				2.3				8.6	10.8	11.0	12.4	12.4
11		C					U7.0s	U9.0s	11.2	12.0	12.0	12.0
12								3.8	U10.0s	11.7	13.0	12.4
13								G	10.0	11.0	11.8	12.4
14			C				2.3	U8.5s	U10.0s	10.6	12.0	12.1
15	U3.0s						2.1	U9.0s	U10.8s	10.8	12.1	11.8
16								U7.0s	10.5	10.8	12.2	C
17	2.8	3.0	4.2		5.0			7.0	C	C	12.0	12.0
18								3.5	10.8	10.8	11.8	11.0
19	U4.8s	U4.0s	U7.0s				G	4.0	11.4	U8.6c	11.4	12.0
20								U9.0s	11.0	10.4	11.8	11.8
21								9.0	11.0	11.4	12.8	12.0
22								8.8	11.4	11.4	12.0	12.6
23								U9.0s	11.4	12.0	12.2	12.2
24							6.0	8.6	9.3	C	C	C
25							4.4	9.0	10.6	9.4	11.0	11.0
26		3.0						U7.0s	7.0	10.4	11.8	11.5
27								G	8.4	G	G	10.6
28	3.2	2.2						7.0	9.0	10.2	11.6	11.4
29								G	G	8.8	11.0	C
30								G	G	8.2	11.2	11.4
Count	5	4	2	1	1	..	7	29	28	26	27	25
Median	3.0	..	..	..	..	..	2.3	7.8	10.7	10.9	12.0	12.0
Mean	3.2	..	..	..	..	..	4.4	7.9	10.4	10.7	11.9	11.8

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

Characteristic : foEs
 Unit : Mc
 Month : November 1957

TABLE 48
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
C	11.8	11.0	10.8	8.6				2.0				1
12.2	12.2	12.0	12.0	8.8							2.3	2
C	C	C	11.0	8.6								3
11.8	11.4	11.2	11.0	9.0								4
12.0	11.4	11.0	10.8	8.4								5
12.2	12.3	12.0	11.6	8.8								6
11.2	11.0	11.8	6.0	8.0					3.6			7
12.0	11.4	11.6	10.6	8.6	G							8
11.8	11.0	11.8	10.8	8.0								9
G	12.0	11.8	11.0	9.0	7.0			2.4	3.0			10
12.1	12.1	11.9	U11.8s	G	S							11
13.1	12.5	C	C	8.0	S							12
12.1	12.0	12.3	12.0	U9.8s	S							13
11.8	12.0	10.8	10.5	U9.0s								14
12.0	11.8	12.1	U11.6s	U7.8s					3.4	U9.2s		15
12.0	12.4	11.7	11.0	8.4	S							16
12.0	12.0	C	11.4	9.4	U6.0s							17
11.6	12.0	11.8	C	U9.2s	S						U5.4s	18
10.7	8.6	10.0	U11.3s	9.0								19
11.8	11.6	11.6	11.0	10.3						3.0		20
12.2	11.4	12.0	11.0	7.0								21
C	12.2	11.5	10.8	9.2								22
12.2	C	11.8	11.8	8.8		8.0						23
C	C	C	C	8.4					3.2			24
11.0	11.4	11.3	11.0	8.4					3.4	5.4	4.0	25
12.0	11.5	9.6	10.4	7.9								26
11.8	8.0	G	10.6	8.5	S					2.5		27
11.2	11.2	11.2	11.2	8.0					3.4			28
C	9.0	8.0	C	8.0								29
10.8	9.2	7.2	C	G	G							30
25	27	26	25	30	4	1	..	2	6	4	3	Count
12.0	11.6	11.6	11.0	8.6	..	..	..	..	3.4	..	..	Median
11.8	11.3	11.2	10.9	8.6	..	..	..	..	3.3	..	..	Mean

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

Characteristic : foEs
 Unit : Mc
 Month : November 1957

TABLE 48—contd.
 Ionospheric Data
 75°0' 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		C	C	C	C	C	C	C	C	C	C	C
2							G	10.0	12.0	12.0	12.2	12.0
3							G	10.0	11.0	C	C	C
4							G	8.2	C	12.0	12.0	11.7
5							8.6	9.6	10.6	12.0	12.4	12.2
6							8.4	10.1	11.1	12.2	12.0	12.2
7							8.0	G	10.4	12.0	12.0	12.0
8							11.0	9.4	10.0	12.0	12.0	12.0
9							U7.0s	11.0	11.4	11.0	12.0	12.0
10							G	10.6	11.4	12.2	12.2	12.8
11	C	C					U8.1s	U10.8s	11.4	12.1	12.2	11.8
12							3.3	8.7	11.0	11.9	12.5	13.1
13							G	U9.0s	U9.6s	12.0	12.3	12.1
14							3.5	U8.0s	11.3	12.2	12.0	11.8
15							U7.0s	U10.0s	11.0	12.0	11.9	12.1
16	U3.6s						G	8.6	10.6	11.4	C	11.8
17	U5.2s						3.0	8.8	C	11.7	11.8	11.8
18							4.6	U9.0s	11.0	12.0	11.6	11.3
19	U6.6s	U4.8s					G	U7.0s	8.8	C	9.8	10.0
20			2.7				U6.6s	9.3	11.0	12.0	12.0	11.4
21							U8.0s	11.0	11.2	12.2	12.2	12.4
22							8.4	11.0	10.8	11.8	12.2	C
23							U6.0s	11.0	11.8	12.2	12.6	12.2
24							U7.0s	8.8	10.6	C	C	C
25							G	9.0	G	12.2	11.0	11.0
26							2.5	7.0	9.2	11.4	11.2	12.0
27							G	U7.0s	G	G	C	11.4
28							U6.0s	7.4	9.4	11.0	11.6	10.2
29							G	G	8.0	11.0	G	C
30							G	G	7.5	10.8	11.4	11.5
Count	4	3	1	2	..	..	29	29	27	26	26	25
Median	..	..	..	..	..	..	3.5	9.0	10.8	12.0	12.0	12.0
Mean	..	..	..	..	..	..	6.5	9.2	10.5	11.8	11.9	11.8

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

Characteristic : foEs

TABLE 48—*contd.*

Latitude : 10° 2' N

Unit : Mc

Ionospheric Data

Longitude : 77° 5' E

Month : November 1957

75° 0' E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
C	12.0	11.0	8.8	8.0				4.0				1
11.7	12.0	11.0	10.2	8.0								2
C	C	12.0	8.4	C								3
11.4	11.4	11.0	9.0	8.0								4
12.0	11.6	11.0	8.0	07.4s					2.6			5
12.0	11.8	11.8	9.4	8.0								6
12.0	11.0	7.4	C	8.8								7
11.6	11.6	11.0	8.3	8.0								8
11.2	11.8	11.6	8.0	07.0s								9
11.8	11.4	11.0	8.6	8.0				2.2				10
12.4	12.1	12.1	7.8	8.0								11
13.0	12.1	C	8.4	07.8s								12
12.2	12.2	12.0	10.4	09.0s								13
11.7	11.2	10.2	C	C								14
11.9	11.7	11.1	8.0	08.0s					3.5	08.0s		15
11.7	11.7	10.8	9.4	8.1							2.8	16
11.8	11.6	C	9.4	08.2s								17
11.2	12.3	11.8	9.6	07.7s							05.0s	18
9.8	10.8	11.0	9.4	08.0s								19
11.4	11.4	11.2	09.5s	09.3s						5.4		20
12.0	11.4	11.4	8.4	8.0								21
12.0	12.0	11.2	9.0	8.2								22
12.2	11.6	11.6	9.4	8.0								23
C	C	C	8.0	8.0					3.8			24
11.2	11.0	10.8	8.8	8.2								25
11.2	10.5	9.8	8.0	7.8								26
10.6	G	10.9	8.4	8.1			3.2				05.4s	27
11.4	11.0	11.4	8.2	7.0					2.9			28
8.0	8.6	9.0	G	7.0								29
9.7	8.8	6.8	G	G								30
27	28	27	29	28	..	..	1	2	4	2	3	Count
11.7	11.6	11.0	8.4	8.0	..	..	..	..	..	..	..	Median
11.4	11.4	10.8	8.8	8.0	..	..	..	..	..	..	..	Mean

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

Characteristic : fbEs
 Unit : Mc
 Month : November 1957

TABLE 49
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1		C	C	C	C	C	C	C	C	C	C	C
2								3.2	3.8	4.1	4.4	4.6
3									3.7	C	C	C
4								3.1	4.3	4.3	4.4	4.6
5								3.0	3.7	4.0	4.2	4.5
6									3.1	3.7	4.1	4.4
7									3.8	4.1	4.3	4.4
8								3.1	3.7	4.0	4.2	4.4
9								3.0	3.7	4.1	4.2	4.4
10				1.7				3.0	3.6	4.0	4.2	4.4
11		C					2.2	3.1	3.7	4.1	4.2	4.4
12								3.0	3.6	4.1	4.3	4.5
13									3.6	4.0	4.7	4.4
14			C				2.0	3.0	3.6	4.0	4.2	4.3
15							2.1	3.0	3.7	4.0	4.3	
16								3.0	3.6	4.4	4.3	C
17	1.9							3.0	C	C	4.4	4.4
18									3.6	4.0	4.2	
19	2.2	2.5	2.3					3.0	3.5	4.0	4.2	4.4
20								3.1	3.6	4.2	4.5	4.8
21								3.0	3.7	4.2	4.4	4.5
22								3.1	3.8	4.2	4.4	4.6
23								3.0	3.6	4.0	4.4	4.5
24								3.0	3.7	C	C	C
25								3.0	3.6	4.0	4.6	4.6
26		2.4						3.1	3.7	4.0	4.3	4.5
27									3.8			4.4
28	2.5	2.2						3.0	3.6	4.1	4.2	4.4
29										4.0	4.3	C
30										4.0	4.2	4.8
Count	3	3	1	1	..	..	3	22	26	25	26	23
Median	..	..	..	..	..	..	..	3.0	3.7	4.0	4.3	4.5
Mean	..	..	..	..	..	..	..	3.0	3.7	4.1	4.3	4.5

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

Characteristic : fbEs
 Unit : Mc
 Month : November 1957

TABLE 49
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
C	4.5	4.2	3.7	3.4				2.0				1
4.5	4.3	4.1	3.8	3.3							2.0	2
C	C	C	3.7	3.4								3
4.5	4.2	4.0	3.7	3.3								4
4.5	4.2	4.1	3.8	3.2								5
4.4	4.4	4.2	3.7	3.2								6
4.4	5.0	4.3	3.9	3.2					2.0			7
4.4	4.3	4.0	3.7	3.2								8
4.4	4.2	4.0	3.6	3.1								9
	4.3	4.0	3.6	3.2	2.4			1.7	1.8			10
4.5	4.2	4.0	3.6		2.3							11
4.6	4.5	C	C	3.2	2.4							12
4.3	4.4	4.4	3.8	3.2	2.3							13
4.4	4.2	4.0	3.7	3.0								14
4.7	4.5	4.2	3.7	3.3					1.9	2.6		15
4.4	4.3	4.0	3.7	3.2								16
4.4	4.4	C	C	3.2								17
		4.2	C	3.2							2.2	18
4.4	4.4	4.0	3.7	3.2								19
4.6	4.4	4.2	3.8	3.3						1.7		20
4.4	4.2	4.0	3.6	3.2								21
C	4.4	4.2	3.8	3.2								22
4.5	C	C	3.8	3.4								23
C	C	C	C						2.4			24
4.6	4.6	4.1	3.7	3.2						2.2	2.0	25
4.5	4.4	4.0	3.8	3.2								26
4.5	4.4		3.6	3.2								27
4.4	4.4	4.0	3.6	3.2					2.0			28
C	4.4	4.2	C	3.2								29
4.4	4.3	4.0	C									30
23	26	24	24	27	4	..	..	2	5	3	3	Count
4.4	4.4	4.0	3.7	3.2	..	..	..	..	2.0	..	..	Median
4.5	4.4	4.1	3.7	3.2	..	..	..	..	2.0	..	..	Mean

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

Characteristic : fbEs
 Unit : Mc
 Month : November 1957

TABLE 49—*contd.*
 Ionospheric Data
 75°0' 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		C	C	C	C	C	C	C	C	C	C	C
2								3.5	4.0	4.3	4.6	4.6
3								3.4	4.0	C	C	C
4								3.6	C	4.3	4.4	4.5
5							2.6	3.3	4.0	4.3	4.4	4.5
6							2.6	3.4	4.0	4.2	4.4	4.5
7							2.8		3.9	4.2	4.4	4.5
8							2.6	3.4	4.0	4.2	4.3	4.4
9							2.6	3.4	3.8	4.2	4.3	4.4
10				1.9				3.4	3.9	4.0	4.4	4.4
11	C	C					2.7	3.3	3.9	4.1	4.3	
12							2.6	3.3	4.0	4.2	4.5	4.6
13								3.3	3.8	4.1	4.4	4.4
14							2.6		4.0	4.0	4.2	4.4
15							2.7	3.4	3.8	4.1	4.5	5.0
16	2.0							3.2	3.8	4.4	C	4.4
17	1.8							3.2	C	4.2	4.4	4.3
18								3.3	3.8	4.2	4.4	4.4
19	2.1	2.1						3.2	3.8	C	4.4	4.5
20							2.7	3.4	3.9	4.2	5.0	4.6
21							2.6	3.4	4.0	4.2	4.4	4.4
22							2.7	3.4	4.0	4.2	4.5	C
23							2.4	3.4	4.0	4.2	4.5	4.6
24								3.4	4.0	C	C	C
25								3.3		4.2	4.5	4.6
26		2.3					2.6	3.4	3.8	4.2	4.4	4.6
27								3.2				4.3
28	2.2						2.4	3.3	4.0	4.1	4.3	4.4
29									3.9	4.2		C
30									4.0	4.1	4.6	4.8
Count	4	2	..	1	..	..	15	25	25	24	24	23
Median	..	..	..	..	..	..	2.6	3.4	4.0	4.2	4.4	4.5
Mean	..	..	..	..	..	..	2.6	3.4	3.9	4.2	4.4	4.5

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

Characteristic : fbEs

TABLE 49—*contd.*

Latitude : 10°2' N

Unit : Mc

Ionospheric Data

Longitude : 77°5' E

Month : November 1957

75°0' E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
C	4.2	4.0	3.7	3.1				2.4				1
4.6	4.4	4.6	3.6	3.0								2
C	C	4.0	3.8	C								3
4.3	4.3	4.0	3.7	3.0								4
4.3	4.2	3.8	3.6	3.0					1.8			5
												6
4.4	4.3	3.9	3.5	2.9								7
5.0	4.6	4.0		2.8								8
4.4	4.1	3.9	3.6	2.8								9
4.3	4.1	3.8	3.4	2.8								10
4.4	4.2	3.8	3.4	2.9				1.5				11
												12
4.3	4.1	3.8	3.6	2.8								13
4.5	4.5	C	3.6	3.0								14
4.4	4.4	4.0	3.6	2.8								15
4.4	4.2	3.9	C	C								16
4.6	4.3	4.0	3.5	2.8					1.9	2.2		17
												18
4.6	4.2	4.0	3.4	3.0							2.4	19
4.4	4.3	C	3.6	2.9								20
												21
4.4	4.4	4.0	3.6	3.0								22
4.4	4.1	4.0	3.5	2.9								23
4.4	4.3	4.0	3.6	3.0						2.0		24
												25
4.3	4.2	4.0	3.4	2.9								26
4.6	4.2	4.0	3.6	2.8								27
4.4		4.0	3.5	2.9								28
C	C	C										29
	4.4	3.9	3.6						2.4			30
												31
4.6	4.3	4.0	3.4	2.8								32
4.4		3.9	3.4	3.0			2.1				2.6	33
4.3	4.3	4.0	3.4	2.9					2.3			34
	4.0	3.8		2.8								35
4.4	4.2	4.0										36
24	26	27	25	25	..	..	1	2	4	2	3	Count
4.4	4.2	4.0	3.6	2.9	..	..	..	..	..	..	..	Median
4.4	4.3	4.0	3.5	2.9	..	..	..	..	..	..	..	Mean

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

Characteristic : fmin
Unit : Mc
Month : November 1957

TABLE 50
Ionospheric Data
75.0° E Mean Time

Latitude : 10.2° N
Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	2.0	C	C	C	C	C	C	C	C	C	C	C
2	1.6	1.6	1.5	1.9	1.6	1.7	2.3	2.2	2.7	3.0	3.0	3.1
3	1.7	1.7	1.7	1.8	1.9	1.9	2.0	2.0	2.3	C	C	C
4	2.2	1.8	1.7	1.5	1.4	1.6	2.2	2.2	2.6	3.0	2.8	2.8
5	2.2	1.8	1.5	1.8	1.5	1.7	2.1	2.3	2.6	2.8	2.9	3.0
6	1.4	1.7	1.4	1.4	1.6	1.6	2.2	2.2	2.3	2.9	2.9	3.0
7	1.8	1.6	1.9	1.6	1.8	1.8	2.6	3.0	2.6	3.0	2.7	2.8
8	1.4	1.3	1.4	1.4	1.6	1.7	2.2	2.2	2.5	2.8	3.1	3.0
9	1.8	1.8	1.6	1.8	1.6	1.6	2.1	2.0	1.6	2.4	2.7	3.2
10	1.6	1.8	1.8	1.3	1.5	1.8	2.2	2.2	2.3	2.6	2.6	2.6
11	1.7	C	1.7	1.5	1.6	1.7	2.0	2.0	2.4	2.8	3.0	3.1
12	1.5	1.5	1.6	1.7	2.0	1.5	2.1	2.1	2.4	3.0	3.0	3.0
13	1.7	1.5	1.5	1.7	1.7	1.9	2.1	2.2	2.5	3.0	4.4	3.0
14	1.58	1.4	C	1.4	1.4	1.5	1.6	2.1	2.4	2.8	3.0	2.8
15	1.5	1.4	1.7	1.7	1.6	1.8	1.7	2.0	2.2	2.5	2.7	5.2
16	1.7	1.9	1.8	2.1	1.7	1.8	2.0	1.7	2.1	4.2	3.0	C
17	1.6	1.8	1.7	1.4	1.8	1.6	2.0	1.8	C	C	2.6	3.0
18	2.2	1.7	1.6	1.7	1.7	1.7	2.1	2.4	2.4	2.8	2.9	5.6
19	1.6	1.4	1.4	1.8	1.6	1.7	1.6	1.9	2.2	2.5	2.6	2.8
20	1.9	1.8	1.8	1.6	1.6	1.8	2.2	2.0	2.4	3.3	3.6	4.4
21	2.1	1.6	1.4	1.5	1.6	1.6	2.1	2.0	2.6	2.8	3.0	3.0
22	1.7	2.2	1.7	1.6	1.7	1.7	2.3	2.1	2.4	2.8	3.0	3.2
23	2.0	1.7	1.7	1.9	1.7	1.4	2.0	2.0	2.4	2.6	2.8	3.0
24	1.4	1.7	1.7	1.4	1.5	1.4	2.0	2.0	2.6	C	C	C
25	1.6	1.7	1.8	1.5	1.7	1.7	2.0	1.8	2.2	2.7	3.4	3.1
26	2.3	2.1	2.1	1.8	1.5	1.5	2.0	1.9	2.3	3.0	3.0	3.3
27	1.6	2.1	1.8	1.2	1.7	1.9	2.0	1.9	2.4	3.3	3.2	3.1
28	1.7	1.9	2.2	1.8	2.0	1.8	2.0	1.9	2.4	3.0	3.0	3.1
29	1.9	2.1	2.0	2.5	2.0	1.8	2.0	1.9	2.6	2.8	3.0	C
30	1.6	1.6	1.6	1.7	1.8	1.5	2.0	1.9	2.4	3.0	3.0	4.4
Count	30	28	28	29	29	29	29	29	28	26	27	25
Median	1.7	1.7	1.7	1.7	1.6	1.7	2.0	2.0	2.4	2.8	3.0	3.0
Mean	1.8	1.7	1.7	1.7	1.7	1.7	2.1	2.1	2.4	2.9	3.0	3.3

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

Characteristic : fmin
 Unit : Mc
 Month : November 1957

TABLE 50
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2°N
 Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
C	3.3	3.0	2.4	2.8	2.5	1.5	2.0	1.7	1.8	1.8	2.0	1
3.0	3.1	2.6	2.7	2.6	2.4	1.3	1.5	1.6	1.8	1.5	1.9	2
C	C	C	2.5	2.4	2.4	1.4	1.6	1.8	2.1	2.2	1.9	3
3.0	2.8	2.8	2.4	2.5	2.4	1.8	1.4	2.1	2.0	2.0	2.0	4
2.9	3.0	2.6	3.2	2.6	2.4	1.5	1.6	1.6	1.7	1.6	1.6	5
3.0	2.9	2.8	2.4	2.3	2.3	1.5	1.6	1.5	1.6	1.6	1.8	6
3.0	5.0	3.0	2.8	2.4	2.3	1.4	1.8	1.9	2.0	1.6	1.6	7
3.0	2.8	2.6	2.4	2.1	1.9	1.6	1.2	1.4	1.7	2.2	1.6	8
3.0	2.9	2.6	2.3	2.2	2.3	1.6	1.6	1.7	1.6	2.0	1.7	9
8.2	2.8	2.4	2.3	2.4	2.4	1.5	1.6	1.6	1.8	2.2	2.2	10
3.0	2.6	2.3	2.4	2.3	2.0	1.4	1.6	1.4	1.7	2.1	1.7	11
3.1	3.1	C	C	2.4	2.0	1.5	1.6	1.7	1.7	2.0	1.5	12
2.9	2.9	4.0	2.5	2.1	2.0	1.4	1.3	1.6	1.7	1.8	1.9	13
3.0	2.8	2.5	2.2	1.9	2.3	1.9	UI 1.58	1.6	1.5	2.0	1.6	14
2.8	3.2	2.8	2.6	2.3	2.4	1.8	1.7	1.8	1.4	1.6	2.0	15
3.1	2.6	2.6	2.3	2.3	2.0	1.6	1.6	1.7	1.6	1.6	1.6	16
3.0	3.2	C	2.4	2.4	2.4	1.8	1.9	2.0	2.0	1.8	1.8	17
5.6	4.8	3.2	C	2.5	2.3	1.9	1.6	1.6	2.0	2.2	1.8	18
2.9	2.8	2.7	2.6	2.3	2.3	1.7	2.0	1.7	1.4	1.6	2.1	19
3.8	3.3	3.0	2.3	2.4	2.4	1.5	1.7	2.1	1.7	1.4	2.0	20
3.1	2.9	2.6	2.3	2.4	2.4	1.7	1.5	1.8	1.9	1.9	2.0	21
C	3.0	2.8	2.3	2.4	2.4	1.4	1.6	1.9	1.9	2.0	2.0	22
3.1	C	4.4	2.3	2.5	2.5	1.5	1.8	1.7	1.6	1.9	1.9	23
C	C	C	C	3.4	2.4	1.9	2.0	1.8	2.1	1.9	2.0	24
3.2	3.8	2.7	2.5	2.5	2.5	1.7	1.8	1.8	1.7	1.8	1.6	25
3.2	3.4	3.0	2.4	2.4	2.4	1.6	1.9	1.7	1.7	1.9	1.7	26
3.2	3.0	3.1	2.6	2.6	2.4	1.6	2.4	2.0	2.2	2.0	1.6	27
3.2	3.2	2.7	2.5	2.4	2.4	1.6	1.5	2.0	1.4	3.0	2.2	28
C	3.0	2.6	C	2.1	1.8	1.3	1.7	2.0	2.0	1.7	1.8	29
3.0	3.0	2.7	C	2.2	2.0	1.4	2.0	*.1	2.2	2.3	1.6	30
25	27	26	25	30	30	30	30	30	30	30	30	Count
3.0	3.0	2.7	2.4	2.4	2.4	1.6	1.6	1.7	1.7	1.9	1.8	Median
3.4	3.2	2.8	2.5	2.4	2.3	1.6	1.7	1.8	1.8	1.9	1.8	Mean

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

Characteristic : fmin
Unit : Mc
Month : November 1957

TABLE 50—concl'd.
Ionospheric Data
75.0° 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	1.8	C	C	C	C	C	C	C	C	C	C	C
2	1.7	1.8	1.7	1.5	1.7	1.8	2.1	2.4	3.0	3.0	3.2	3.2
3	1.8	1.7	1.8	1.9	1.7	1.8	1.8	2.2	2.6	C	C	C
4	2.3	1.7	1.5	1.6	1.7	1.8	2.2	2.2	C	2.8	2.8	3.1
5	2.1	1.8	2.0	2.0	1.8	1.9	2.3	2.4	2.7	2.8	3.0	2.8
6	1.5	1.5	1.5	1.5	1.4	1.7	2.2	2.3	2.7	3.0	3.1	3.0
7	1.7	1.3	1.7	1.6	1.8	1.9	2.2	2.6	2.8	2.6	3.0	3.0
8	1.4	1.5	1.6	1.4	1.7	1.6	2.2	2.3	2.7	2.8	3.0	3.0
9	1.9	1.7	1.7	1.7	1.7	1.6	1.9	2.3	2.6	2.8	3.2	3.0
10	1.7	1.4	1.7	1.4	1.7	2.0	2.2	2.2	2.4	2.7	2.7	3.2
11	C	C	1.6	1.6	1.6	1.7	1.8	2.2	2.5	2.8	3.0	3.5
12	1.7	1.6	1.6	1.4	1.5	1.6	1.8	2.3	2.7	3.0	3.1	3.5
13	1.9	1.7	1.7	1.6	1.6	1.7	2.0	2.3	2.6	2.7	3.1	3.0
14	1.9	1.3	1.6	1.6	1.6	1.7	1.4	2.4	2.7	2.7	2.9	3.1
15	1.8	1.6	1.7	1.6	1.6	1.8	1.8	2.1	2.4	2.6	3.5	4.7
16	1.8	1.7	2.2	1.6	1.6	1.7	1.7	2.0	2.6	4.0	C	2.8
17	1.6	1.6	1.6	1.7	1.5	1.4	1.8	2.2	C	2.6	3.0	2.9
18	2.1	1.6	1.6	1.6	1.8	1.7	1.9	2.3	2.7	2.7	3.6	6.6
19	1.6	1.4	1.7	1.7	1.6	1.6	1.6	1.8	2.3	C	2.8	3.0
20	1.7	1.8	1.7	1.7	1.6	1.9	1.9	2.2	2.6	2.9	5.0	4.4
21	1.4	1.5	1.5	1.5	1.6	1.7	1.8	2.4	2.6	3.0	3.2	3.0
22	2.2	1.9	1.7	1.7	1.7	1.6	2.2	2.3	2.6	4.6	3.0	C
23	2.0	1.9	1.8	1.8	1.6	1.7	1.4	2.3	2.5	2.7	3.1	3.0
24	2.4	1.5	1.4	1.5	1.3	1.6	1.9	2.4	2.8	C	C	C
25	1.7	1.6	1.6	1.5	1.6	1.6	1.7	2.1	2.6	2.6	3.4	3.0
26	2.4	1.6	2.0	1.7	1.6	1.6	2.2	2.1	2.6	2.8	3.2	3.4
27	1.7	2.0	1.4	1.7	1.8	1.7	2.0	2.1	2.9	3.5	2.8	3.1
28	2.0	2.2	1.9	1.7	1.8	1.8	1.7	2.2	2.5	2.9	3.0	3.0
29	1.8	1.7	2.1	2.3	1.6	1.6	2.0	2.4	2.6	2.6	3.0	C
30	1.6	1.7	1.6	2.0	1.7	1.6	2.2	2.0	2.8	3.0	4.5	3.5
Count	29	28	29	29	29	29	29	29	27	26	26	25
Median	1.8	1.6	1.7	1.6	1.6	1.7	1.9	2.3	2.6	2.8	3.0	3.0
Mean	1.8	1.6	1.7	1.7	1.6	1.7	1.9	2.2	2.6	2.9	3.2	3.4

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

Characteristic : fmin
 Unit : Mc
 Month : November 1957

TABLE 50--concl'd.
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
C	3.0	2.6	2.8	2.4	2.0	1.4	1.8	1.5	1.7	1.8	2.0	1
3.2	2.8	4.6	3.0	2.4	1.9	2.1	2.1	1.4	UI.88	1.6	1.7	2
C	C	2.8	2.6	C	1.9	1.3	1.7	2.0	2.2	2.1	2.0	3
3.0	2.8	2.6	2.6	2.2	1.8	1.6	2.0	2.0	2.2	1.8	1.6	4
3.0	2.8	2.6	2.8	2.3	1.9	1.4	1.7	1.7	1.4	2.0	1.8	5
3.0	2.8	2.6	2.4	2.1	1.9	1.4	1.4	1.6	1.5	1.5	1.5	6
5.0	4.6	3.0	2.4	2.2	2.0	1.3	1.7	1.6	1.6	2.0	1.5	7
2.8	2.8	2.6	2.6	1.9	1.7	1.2	1.4	1.6	2.1	2.0	1.6	8
3.0	2.8	2.4	2.3	2.1	1.8	1.5	1.6	1.6	1.7	1.8	1.6	9
3.0	2.6	2.4	2.4	2.4	2.2	1.2	1.5	1.1	2.3	2.2	1.6	10
2.8	2.5	2.5	2.7	2.2	1.7	1.1	1.5	1.6	1.8	1.7	1.9	11
3.2	3.0	C	2.5	2.2	1.8	1.4	1.7	1.6	1.5	1.8	1.5	12
2.8	3.5	2.9	2.3	2.0	1.7	1.2	1.6	1.6	1.6	1.8	2.0	13
2.9	2.7	2.4	C	C	1.7	1.3	1.4	1.5	1.6	2.1	1.5	14
3.8	3.0	2.9	2.4	2.0	2.0	1.5	1.6	1.6	1.4	1.5	1.7	15
4.0	2.8	2.5	2.5	2.0	1.8	1.6	1.6	1.6	1.8	2.0	1.8	16
2.8	3.0	C	2.7	2.3	2.4	1.9	2.0	1.9	1.9	1.6	1.7	17
5.0	3.6	2.6	2.4	2.3	1.8	1.5	1.9	1.8	2.4	2.0	1.8	18
2.8	2.7	2.8	2.4	2.2	2.0	1.3	1.8	1.8	1.6	2.0	1.7	19
3.4	3.0	2.6	2.7	2.2	1.9	1.5	1.9	1.7	1.6	1.5	2.0	20
3.0	2.8	2.5	2.4	2.2	1.8	1.3	2.0	1.8	2.0	2.0	2.0	21
3.4	3.2	2.6	2.6	2.2	1.9	1.2	1.9	2.0	2.1	2.0	2.2	22
2.8	5.4	2.8	2.4	2.3	1.8	1.8	1.8	1.7	1.5	2.3	1.6	23
C	C	C	4.0	3.0	2.0	1.3	1.8	2.0	2.0	2.4	1.7	24
4.8	3.2	2.5	2.5	2.4	1.8	1.7	2.5	1.9	2.4	1.6	1.7	25
3.6	3.2	2.8	2.6	2.3	1.9	1.7	1.6	1.6	1.9	1.7	1.7	26
3.2	3.0	2.9	2.6	2.2	2.0	2.0	1.3	1.8	1.9	1.7	1.5	27
3.2	3.0	2.6	2.4	2.2	1.8	1.6	1.7	1.7	2.2	2.5	2.0	28
4.6	2.8	2.6	2.4	1.8	1.8	1.3	2.0	2.0	1.7	1.8	1.8	29
3.0	2.9	2.4	2.5	2.2	1.9	1.5	2.1	2.2	2.2	2.2	1.8	30
27	28	27	29	28	30	30	30	30	30	30	30	Count
3.0	3.0	2.6	2.5	2.2	1.9	1.4	1.7	1.7	1.8	1.9	1.7	Median
3.4	3.1	2.7	2.6	2.2	1.9	1.5	1.8	1.7	1.8	1.9	1.8	Mean

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

Characteristic : h'F2
 Unit : Km
 Month : November 1957

TABLE 51
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

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

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

Characteristic : h'F2
 Unit : Km
 Month : November 1957

TABLE 51
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
C	L	L	L	L								1
L	L	L	L	L								2
C	C	C	L	L	L							3
L	L	L	L	L								4
L	L	L	L	L								5
L	L	L	L	L								6
L	L	L	L	L								7
L	L	L	L	L								8
B	L	L	L	L								9
												10
L	L	L	L	L								11
L	L	C	C	L								12
L	L	L	L	L	L							13
L	L	L	L	L								14
L	L	L	L	L								15
L	L	L	L	L								16
L	L	C	L	L								17
L	L	L	L	L								18
L	L	L	L	L								19
L	L	u510L	L	L								20
L	L	L	L	L								21
C	L	L	L	L	L							22
L	C	L	L	L								23
C	C	C	C	L								24
L	L	L	L	L								25
u600L	u580L	u480L	L	L								26
560	L	L	L	L								27
L	u510L	L	L	L								28
C	L	L	L	L								29
L	L	L	C	E								30
..	..	..	..	..	..							Mean
..	..	..	..	..	..							Median
2	2	2	..	..	..							Count

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

Characteristic : h'F2
 Unit : Km
 Month : November 1957

TABLE 51—*contd.*
 Ionospheric Data
 75°0' 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	G	G	C	C	C
2								L	L	L	L	L
3								L	L	L	L	L
4							L	L	L	L	L	L
5								L	L	L	L	L
6								L	L	L	L	L
7								L	L	L ^H	L	L
8							L	L	L	L	L	L
9								L	L	L	L	L
10							L	L	L	L	L	L
11								L	L	L	L	L
12								L	L	L	L	L
13								L	L	L	L	L
14								L	L	L	L	L
15								L	L	L	L	L
16								L	L	L	C	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 ^{U520L}
21							L	L	L	L	L	L
22								L	L	L	L	L
23								L	L	L	L	L
24								L	L	L	L	L
25								L	L	L	L	L
26								L	L	L	L	L
27								L	L	L	L ⁴⁶⁰	L ⁵¹⁵
28								L	L	L	L	L
29								L	L	L	L	L
30								L	L	L	L	L
Count	1	2
Median
Mean

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

Characteristic : h'F2
 Unit : Km
 Month : November 1957

TABLE 51—*contd.*
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
G	L	L	L	L ^H								1
L	L	L	L	L								2
C	C	L ^H	L	C								3
L	L	L	L	L								4
L	L	L	L	L								5
L	L	L	L	L								6
L	L	L	L	L								7
L	L	L	L	L	L							8
L	L	L	L	L								9
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	L	L	L							14
L	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
U520L	U530L	L	L	L								19
L	U520L	L	L	L								20
L	L	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
L	L	L	L	L	L							25
U520L	U500L	L	L	L	L							26
580	L	L	L	L	L							27
L	U550L	L	L	L	L							28
L	L	L	L	L	L							29
L	L	L	L	L	L							30
3	4	..	..	..								Count
..	..	..	..	..								Median
..	..	..	..	..								Mean

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 : November 1957

75°0' E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	300	C	C	C	C	C	C	C	C	C	C	C
2	280	265	260	240	235	240	295	260	245	240	230	225
3	275	260	255	240	225	240	300	260	245	C	C	C
4	300	280	250	230	225	235	285	255	A	230	225	225
5	260	260	260	270	260	235	300	260	240	235	235	220H
6	U280F	U260F	U250F	250	260F	235	290	260	245	235	225	220
7	240	240	240	355	400	540	305	260	245	240	235	220
8	275	260	260	245	240	225	285	260	245	240H	225	225
9	260	270	240	240	240	240	305	260	245	230	220H	220
10	250	255	280	300	265	230	300	260	245	235	230	220
11	275	C	260	230	235	245	300	260	250	240	230	230
12	260	250	250	240	235	240	290	260	240	240	230	235
13	280	275	260	230	220	240	300	265	250	240	235	230
14	310	280	C	240	230	240	300	265	250	240	240	230
15	300	270	270	245	255	290	320H	280	260	245	230	B
16	280	265	240	240	230	230	300	255	240	240	240	C
17	285	265	260	230	220	215	290	260	C	C	225	220
18	285	260	230	235	220	210	285	260	250	240	235	B
19	280	290	300	265	230	225	280	260	240	230	225	230
20	260	245	240	230	220	230	300	260	245	240	240	U240S
21	305	270	240	235	240	230	300	260	250	240	235	230
22	U310F	280	260	240	225	240	300	265	245	240	240	240
23	340	335	300	250	240	230	300	260	240	240	235	235
24	275	260	245	240	240	235	300	265	245	C	C	C
25	270	280	280	280	240	240	300	260	250	240	230	235
26	290	320	310	295	265	235	290	260	250	240	240	235
27	310	330	270	275	U465F	U450F	320	265	250	240	240	230
28	300	300	295	280	280	280	320H	270	250	240	240	235
29	265	260	290	300	300	265	300	270	245	240	230	C
30	260	265	250	240	230	225	300	250	240	230	230	240
Count	30	28	28	29	29	29	29	29	27	26	27	23
Median	280	265	260	240	240	235	300	260	245	240	230	230
Mean	280	275	260	255	255	255	300	260	245	240	230	230

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

Characteristic : h'F
 Unit : Km
 Month : November 1957

TABLE 52
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
C	230	235	245	260	300	410	505	500	400F	340	315	1
225	230	235	250	260	300	400	480	U470F	U440F	340	300	2
C	C	C	240	260	300	415	440	370	300	270	275	3
225	225	230	240	260	300	400	540	F	480	U340F	325	4
220	220H	210	255	265	300	420	520	U560F	440	390	300	5
215	230	235	240	265	295	390	440	425F	350	320	300	6
220	240	240	240	265	300	400	460	400	350	300	280	7
225	225	235	240	260	300H	380	405	335	300	295	270	8
220.H	225H	225H	245	260	300	390	U450F	420	325	295	260	9
B	235H	240	235H	260H	290	380	430	380	350	305	300	10
230	235	240	245	260	300	400	460	405	360	300	280	11
225	230H	C	C	265	300	400	445	390	330	300	290	12
225	240	245	255	270	300	400	475	490	415	370	320	13
230	225	230	250	270	300	400	465	470	380	330	285	14
245	245	245	255	270	300	400	460	400	345	320	290	15
225	220H	225	240	260	295	380	440	400	345	305	285	16
220	225	C	245	260	300	380	U510F	F	U460F	U360F	300	17
B	U245B	230	C	280	305	400	400	340	285	260	265	18
225	235	240	245	265	300	380	440	380	340	310	290	19
235	C	230	250	260	300	390	405	400	370	380	365	20
225	230	235	240	260	300	400	U500F	U520F	500	460	380	21
C	220	240	240	260	300	380	U460F	F	440	400	U360F	22
220	C	220	245	260	300	400	460	400	360	300	300	23
C	C	C	C	270	305	390	460	410	360	300	280	24
230	235	230	240	260	310	400	440	360	325	325	310	25
240	240	240	245	270	310	380	400	320	300	260	275	26
240	235	230	250	270	300	355	370	315	285	285	290	27
225	240	235	245	270	300	380	430	395	310	300	270	28
C	225	230	C	255	280	365	480	425	U360F	290	270	29
220	220	210 H	C	250	290	380	F	U390F	U330F	U290F	275	30
23	26	26	25	30	30	30	29	27	30	30	30	Count
225	230	235	245	260	300	395	460	400	350	305	290	Median
225	230	235	245	265	300	390	455	410	365	320	295	Mean

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

Characteristic : h'F
Unit : Km
Month : November 1957

TABLE 52—contd.
Ionospheric Data
75.0° 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	280	C	C	C	C	C	C	C	C	C	C	C
2	270	260	250	240	240	U260F	270	245	240	230	225	230
3	275	260	240	230	215	275	275	255	240	C	C	C
4	285	260	240	230	230	260	265	245	C	235	230	225
5	260	260	270	260	250	250	260	250	240	220	225	215H
6	U275F	U250F	260	260	240	250	270	260	240	230	220	220
7	225	250	280	390	500	380H	275	250	240	230	220	220
8	270	260	255	240	235	245	270	250	240	230	225	225H
9	265	255	240	240	240	280	280H	260	240	225	225H	225H
10	245	260	300	300	245	245	265	250	240	235	230	220
11	C	C	240	230	240	270	280	255	245	235	230	B
12	260	240	260	235	230	270	280	255	240	235	230	235
13	285	270	250	230	230	275	280	260	240	240	220	230
14	300	260	260	240	240	270	280	250	240	240	240	230
15	295	265	260	230	270	330	295H	265	250	240	235	240
16	280	240	235	240	230	260	280	250	240	240	C	225
17	270	265	255	220	215	255	280	250	C	230	225	220
18	280	250	255	230	215	230	270	255	245	230	240	B
19	280	290	280	240	220	235	270	250	235	C	225	225
20	255	235	225	220	215	240	280	255	240	235	240	235
21	285	250	240	240	235	250	280	255	240	240	235	220
22	U310F	270	240	235	230	250	280	260	240	245	240	C
23	340	340	255	240	220	240	280	260	240	235	230	230
24	300	260	240	240	235	260	270	260	240	C	C	C
25	275	280	280	260	240	240	280	260	240	240	230	220
26	300	340	300	280	255	240	280	255	240	240	240	235
27	310	300	260	360	U500F	400	270	260	240	235	235	230
28	300	295	280	280	280	305	290H	260	240	235	240	230
29	260	275	300	300	280	260	280	260	240	240	220	C
30	260	260	245	235	230	245	270	240	235	230	235	230
Count	29	28	29	29	29	29	29	29	27	26	26	23
Median	280	260	255	240	235	260	280	255	240	235	230	225
Mean	280	270	260	255	255	270	275	255	240	235	230	225

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

Characteristic : h'F

TABLE 52—contd.

Latitude : 10°2' N

Unit : Km

Ionospheric Data

Longitude : 77°5' E

Month : November 1957

75.0° E Mean Time

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
G	225	240	255	280	340	480	505	U470F	370	325	300	1
230	230	250	255	275	330	470	U480F	U460F	U390F	300	280	2
C	C	235	255	C	340	455	400	325	280	270	285	3
225	230	240	260	275	320	480	F	F	340	330	320	4
220	220A	240H	255	275	335	490	535	U500F	410	360	U290F	5
215	220	240	255	275H	325	440	440	380	340	305	275	6
235	240	240	255	280H	340	440	440	385	320	295	280	7
220	230	240	250	275H	330	420	370	320	300	280	260	8
220H	225	240H	250	280	320	U440S	440	360	310	255	260	9
220	225	235	255	275H	320	420	405	360	320	300	280	10
230	235	240	255	280	325	465	430	385	330	290	280	11
220	240H	C	260	285	335	435	420	355	305	290	285	12
235	240	250	255	280	340	460	500	440	380	345	320	13
230	230	240	C	C	340	450	465	440	340	300	280	14
240	245	255	260	285	340	440	435	370	315	300	280	15
230	225	225	260	280	320	415	435	365	320	295	290	16
220	230	C	250	280	320	U455S	F	U480F	U400F	320	280	17
B	240	245	260	295	340	420	365	305	280	265	260	18
235	235	240	260	280	325	425	420	370	340	300	265	19
240	235	240	250	280	330	420	400	380	360	380	315	20
225	235	240	240	270	330	460	U540F	460	U450F	400	400	21
230	230	240	245	270	335	460	F	U420F	380	F	350	22
220	B	240	250	280	340	470	420	400	325	300	280	23
C	C	C	260	285	340	425	440	400	330	300	275	24
U240B	235	230	250	280	340	440	410	340	320	310	290	25
240	235	245	260	290	340	400	360	315	280	245	300	26
235	235	245	260	290	320	360	310	290	285	290	300	27
230	240	240	260	275	330	420	400	350	300	280	270	28
220	220	235	250	265	310	450	480	390	320	270	265	29
220	215H	230	245	260	320	U420F	U435F	U350F	U300F	F	270	30
26	27	27	29	28	30	30	27	29	30	28	30	Count
230	230	240	255	280	330	440	435	380	320	300	280	Median
230	230	240	255	280	330	440	435	385	335	305	290	Mean

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

Characteristic : h'E
 Unit : Km
 Month : November 1957

TABLE 53
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1							C	C	C	C	C	C
2								115	A	A	A	A
3							175	110	A	C	C	C
4								115	A	105	A	105
5								110	105	105	A	A
6								A	A	A	A	A
7								B	110	A	A	A
8								115	110	110	110	A
9								110	A	110	A	105
10								A	A	A	A	A
11								A	110	105	A	A
12								120	A	A	A	A
13								115	A	A	B	A
14								U115A	A	A	A	A
15								A	A	A	A	B
16								110	100	B	A	C
17								115	C	C	A	A
18								125	110	110	A	B
19							140	110	110	110	A	A
20								115	110	B	B	B
21								A	A	A	A	A
22								115	110	A	A	A
23								110	A	A	A	A
24								110	110	C	C	C
25								A	A	110	B	A
26								115	115	110	A	A
27								115H	110	120	115	110
28								A	115	A	110	A
29								120	120	115	A	C
30								110H	110	110	A	B
Count							2	21	15	12	3	3
Median .							..	115	110	110	..	..
Mean .							..	115	110	110	..	..

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

Characteristic : h'E
 Unit : Km
 Month : November 1957

TABLE 53
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
C	110	A	A	A								1
A	A	A	A	A								2
C	C	C	A	110								3
A	105	105	105	A								4
105	100	105	A	A								5
A	A	A	110	A								6
A	B	A	115	115								7
A	110	A	105	A	140							8
A	110	105	105	105								9
B	A	A	A	A								10
A	A	A	A	115H	A							11
A	A	C	C	115	A							12
A	A	B	A	U110A	A							13
A	A	A	A	A								14
B	A	A	A	115								15
A	A	A	110	120	130							16
A	A	C	110	115								17
B	B	A	C	A								18
110	U105F	110	110	115								19
B	C	110	105	120								20
A	A	A	A	110								21
C	A	A	110	115								22
A	C	B	A	115								23
C	C	C	C	B								24
A	B	110	110	110								25
A	A	A	110	120								26
A	A	115	U115A	U120A								27
A	A	A	110	115								28
C	A	A	C	110								29
105	105	110	C	110	125H							30
3	7	8	14	20	3							Count
..	105	110	110	115	..							Median
..	105	110	110	115	..							Mean

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

Characteristic : h'E
 Unit : Km
 Month : November 1957

TABLE 53—*contd.*
 Ionospheric Data
 75°0' 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							C	C	C	C	C	C
2							120	115	A	A	A	A
3							115	110	105	C	C	C
4							120	110	C	A	A	A
5							120	110	105	A	A	105
6							125	A	A	A	A	A
7							120H	110	105	A	A	A
8							120H	110	A	A	110	A
9							110	110	A	105	A	105
10							125H	110	A	A	A	A
11							UI15A	115	110	A	A	B
12							120	UI15A	A	A	A	B
13							120	110	A	A	A	A
14							UI20A	115	A	A	A	A
15							A	A	A	A	B	B
16							110	105	105	B	C	A
17							120	110	C	105	A	A
18							125	110	110	A	B	B
19							110	110	110	A	A	110
20							120	110	110	C	B	B
21							A	A	A	A	A	A
22							120	110	A	B	A	C
23							120	110	A	A	A	A
24							120	110	110	C	C	C
25							120	A	110	A	B	A
26								115	110	A	A	A
27							125	115	B	120	110	A
28								115	110	A	110	A
29							120	115	120	A	110	A
30							125	105	110	A	B	C
Count .							25	25	14	3	4	3
Median .							120	110	110	..	..	..
Mean .							120	110	110	..	..	..

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

Characteristic : h'E
 Unit : Km
 Month : November 1957

TABLE 53—*contd.*
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
C	A	A	A	A								1
A	A	B	A	A								2
C	C	A	105	C								3
105	105	105	A	A								4
A	105	A	A	F								5
A	A	A	110	A								6
B	B	110	115	120								7
110	110	105	A	A								8
105	105	105	110	110								9
A	A	A	A	A								10
A	A	A	110	U120A								11
A	A	C	110	A								12
A	B	A	U115A	A								13
A	A	A	C	C								14
B	A	A	110	U115A								15
B	A	105	115	120								16
A	A	C	110	125								17
B	B	A	110	120								18
110	110	110	110	120								19
A	110	105	120	120								20
A	A	A	110	A								21
A	A	110	110	A								22
A	B	A	110	120								23
C	C	C	B									24
B	A	110	110									25
B	A	110	115	120								26
A	115	U115A	U115A	120								27
A	A	A	115	120								28
B	A	A	110	A								29
110	110	110	110	120H								30
5	8	12	22	14								Count
110	110	110	110	120								Median
110	110	110	110	120								Mean

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

Characteristic : h'Es
Unit : Km
Month : November 1957

TABLE 54
Ionospheric Data
75.0° E Mean Time

Latitude : 10.2° N
Longitude : 77.5° E.

Date	00	01	02	03	04	05	06	07	08	09	10	11
1		C	C	C	C	C	C	C	C	C	C	C
2								105	100	100	100	100
3							G	G	100	C	C	C
4								105	105	100	100	100
5								105	100	100	100	100
6								105	100	100	100	100
7								G	100	100	100	100
8	120							105	100	100	100	100
9								105	100	100	100	100
10				110				105	100	100	100	100
11		C					105	110	100	100	100	100
12								100	100	100	100	100
13								G	100	100	100	100
14			C				100	100	100	100	100	100
15	120						180	105	100	100	100	100
16								100	100	100	100	C
17	115	110	125		120			105	C	C	100	100
18								130	100	100	100	100
19	110	110	105				G	110	100	100	100	100
20								105	100	100	100	100
21								105	100	100	100	100
22								100	100	100	100	100
23								100	100	100	100	100
24							115	105	100	C	C	C
25							105	105	100	100	100	100
26		110						110	100	100	100	100
27								G	110	G	G	100
28	120	120						100	100	100	100	100
29								G	G	100	100	C
30								G	G	100	100	100
Count	5	4	2	1	1	..	5	23	26	25	26	25
Median	120	..	..	..	..	..	105	105	100	100	100	100
Mean	115	..	..	..	..	..	120	105	100	100	100	100

Sweep 1.0 Mc. 25.0 Mc. to 27 seconds.

Characteristic : h'Es
 Unit : Km
 Month : November 1957

TABLE 54
 Ionospheric Data
 75°0' E Mean Time

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

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

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

Characteristic : h'Es

TABLE 54—*contd.*

Latitude : 10°2' N.

Unit : Km

Ionospheric Data

Longitude : 77°5' E.

Month : November 1957

75°0' E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1		C	C	C	C	C	C	C	C	C	C	C
2							G	105	100	100	100	100
3							G	100	100	C	C	C
4							G	105	C	100	100	100
5							105	105	100	100	100	100
6					115		110	105	100	100	100	100
7							110	G	100	100	100	100
8							105	105	100	100	100	100
9							100	100	100	100	100	100
10					105		G	105	100	100	100	100
11	C	C					110	105	100	100	100	100
12							100	100	100	100	100	100
13							G	105	100	100	100	100
14							100	120	100	100	100	100
15							110	100	100	100	100	100
16	110						G	100	100	100	C	100
17	115						130	100	C	100	100	100
18							145	105	100	100	100	100
19	110	110	110				G	100	100	C	100	100
20							105	105	100	100	100	100
21							105	100	100	100	100	100
22		120					100	100	100	100	100	C
23							100	100	100	100	100	100
24							105	100	100	C	C	C
25							G	100	G	100	100	100
26		110					140	100	100	100	100	100
27							G	100	G	G	G	100
28	120						120	100	100	100	100	100
29							G	G	100	100	G	C
30							G	G	100	100	100	100
Count .	4	3	1	2	..	..	18	26	25	25	24	25
Median .	..	..	..	..	..	..	105	100	100	100	100	100
Mean .	..	..	..	..	..	..	110	100	100	100	100	100

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

Characteristic : h'Es
 Unit : Km
 Month : November 1957

TABLE 54—*contd.*
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
C	100	100	100	105				115				1
100	100	100	105	105								2
C	C	100	100	C								3
100	100	100	100	100								4
100	100	100	100	100					110			5
												6
100	100	100	105	110								7
100	100	100	G	105								8
100	100	100	100	110								9
100	100	100	100	100								10
100	100	100	105	105				120				11
												12
100	100	100	100	105								13
100	100	C	100	100								14
100	100	100	100	110								15
100	100	100	C	C					115	115		16
100	100	100	100	100							110	17
100	100	C	105	110								18
100	100	100	100	105							115	19
100	100	100	105	105								20
100	100	100	100	105						115		21
												22
100	100	100	100	100								23
100	100	100	100	105								24
C	C	C	100	105					115			25
100	100	100	100	100								26
												27
100	100	100	100	100			130				120	28
100	G	100	100	110					120			29
100	100	100	110	110								30
100	100	100	G	100								31
100	100	100	G	G								32
27	27	27	26	27	..	..	1	2	4	2	3	Count
100	100	100	100	105	..	..	..	..	..	..	..	Median
100	100	100	100	105	..	..	..	..	..	..	..	Mean

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

Characteristic : (M3000)F2

TABLE 55

Latitude : 10°2' N.

Unit :—

Ionospheric Data

Longitude : 77°5' E.

Month : November 1957

75°0' E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	U2'40F	C	C	C	C	C	C	C	C	C	C	C
2	U2'50F	2'65	2'75	2'95	3'05	3'05F	F	2'60	2'35	2'10	2'00	2'00
3	U2'40R	U2'35F	F	2'90	3'20	3'10	2'60	2'55	2'30	C	C	C
4	2'60	2'70	2'80	3'00	3'05	3'05	2'85	2'70	2'55	2'35	2'20	2'10
5	F	2'70F	2'90	F	2'90F	F	2'80	2'55	2'40	2'25	2'15	2'10
6	F	F	F	F	F	F	F	2'50	2'30	2'20	2'15	2'05
7	F	3'05F	U2'95S	2'40	2'30	U2'05S	2'55	2'60	2'55	2'25	U2'00R	2'00
8	2'60	2'70	2'85	2'90	3'00	3'10	U2'85S	2'60	2'45	2'20	2'10	2'10
9	U2'45R	U2'50S	U2'60F	2'90	2'90	3'00	2'60	U2'50R	2'30	2'20	2'10	2'05
10	2'70	2'80	2'75	2'60	2'70	2'95	2'75	2'55	2'25	2'10	2'10	2'15
11	2'35	C	2'55	2'85	U2'85S	2'95	2'70	2'40	2'25	2'25	2'10	2'10
12	2'50	2'75	2'75	2'85	3'00	2'90	2'70	2'60	2'40	2'20	2'00	1'95
13	2'50	2'60	2'80	2'90	3'00	2'95	2'70	2'65	2'40	2'25	2'10	2'00
14	2'25	2'30	C	2'65	2'85	2'90	2'75	2'50	2'35	2'25	2'00	1'95
15	2'35	2'50	2'65	2'75	2'85	2'65	2'40H	2'40	2'20	2'20	2'05	2'00
16	J2'55R	2'65	2'75	2'75	2'80	U2'85S	U2'75S	2'45	2'25	2'10	2'00	C
17	2'40	2'60	2'65	U2'85S	2'95	3'00	U2'70S	2'60	C	C	2'00	2'00
18	U2'30S	F	2'70	2'75	3'10	3'20	U2'75S	U2'65S	2'35	2'10	2'05	2'00
19	2'45	2'55	U2'50S	2'70	2'80	J2'95S	U2'65S	2'55	2'35	C	2'10	2'00
20	2'40	2'65	2'95	3'00	3'00	3'10	2'65	2'45	2'30	2'15	2'05	2'05
21	F	F	F	U2'90F	U3'00F	3'00	U2'75S	2'40	2'30	2'20	2'10	2'05
22	F	F	F	F	U3'00F	U3'20F	J2'90F	2'40	2'35	2'25	2'15	2'05
23	F	F	F	2'85	F	U3'10S	2'75	J2'60S	2'40	2'15	2'00	2'00
24	U2'55S	J2'75R	2'80	U3'00S	3'05	3'20	U2'90S	2'60	2'35	C	C	C
25	2'65	2'70	2'70	2'80	U3'00S	3'10	2'80	2'50	2'25	2'30	2'10	2'00
26	U2'45F	U2'40S	2'35	U2'40F	2'55	F	2'80	2'55	2'30	2'20	2'10	2'00
27	J2'45S	2'40	2'65	2'75	F	F	U2'50S	2'65	2'40	2'35	2'35	2'35
28	2'60	2'70	2'70	2'80	2'80	2'80	2'50H	U2'65S	2'40	2'20	2'00	E2'00W
29	2'70	2'75	U2'65S	2'65	2'65	2'80	U2'75S	2'50	2'50	2'40	2'20	C
30	2'75	2'80	2'90	3'05	3'10	3'10	U2'70S	2'70	2'55	2'35	2'30	2'15
Count	24	23	23	26	26	25	27	29	28	25	27	25
Median	2'50	2'65	2'75	2'85	3'00	3'00	2'75	2'55	2'35	2'20	2'10	2'00
Mean	2'50	2'65	2'75	2'80	2'90	2'95	2'70	2'55	2'35	2'20	2'10	2'05

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

Characteristic : (M3000)F2
 Unit :—
 Month : November 1957

TABLE 55
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
C	1'95	E1'95W	E1'95W	1'95	2'00	E1'95W	W	W	1'95	U2'10F	F	1
1'95	2'00	E1'95W	E1'90W	2'00	1'95	E1'95W	U1'90F	E1'90W	F	J2'05R	2'20	2
C	C	C	2'00	1'95	2'00	1'95	E1'90W	U2'05S	2'30	2'45	2'60	3
2'00	2'00	1'95	E1'95W	1'90	U2'00S	E1'90W	W	F	F	J2'25F	F	4
2'00	2'00	E1'95W	E1'95W	U1'95S	U2'00S	U2'05S	W	F	F	F	F	5
2'00	1'95	2'00	2'05	U2'15S	J2'10S	E2'00W	E1'90W	U2'05F	2'10	2'20	U2'40S	6
1'95	2'00	2'00	2'10	2'10	2'10	2'00	W	U2'00S	U2'10S	U2'20S	U2'50S	7
2'05	2'00	2'00	2'00	2'00	2'00	U2'00S	U2'00S	U2'10R	U2'15S	U2'20S	U2'35R	8
2'00	2'00	2'00	U2'00S	U2'05S	U2'00S	E1'90W	U1'95S	E1'90W	U2'05S	U2'20S	2'40	9
2'15	2'05	2'00	2'00	2'00	2'00	U2'00S	E1'90W	1'95	U2'05F	U2'30S	U2'25F	10
2'00	1'90	1'95	1'90	2'05	2'00	2'00	1'95	1'95	2'05	2'20	2'40	11
1'95	1'95	C	C	2'05	2'00	J2'00S	1'95	2'00	2'05	2'30	2'40	12
1'95	1'90	1'95	2'00	2'00	1'95	1'85	U1'85F	U1'90F	U2'05F	2'00	2'15	13
1'95	1'90	1'90	1'95	1'95	1'95	1'85	1'80	1'75	U1'85F	2'10	U2'30R	14
1'95	1'90	1'90	2'00	U1'95R	1'90	1'95	1'85	1'90	2'10	2'35	U2'50R	15
1'90	1'90	1'90	1'95	2'00	U2'00S	U1'95S	1'90	2'00	U2'05S	2'15	2'35	16
1'95	1'95	C	1'95	2'00	2'00	1'95	1'90	U1'90F	F	1'	2'15	17
1'95	1'95	1'90	C	1'95	1'90	1'90	1'95	2'10	2'20	2'35	2'50	18
2'00	2'00	1'95	1'95	1'90	1'90	1'95	2'00	1'95	U2'05S	2'05F	U2'10F	19
2'05	C	2'00	1'95	1'90	U1'90S	1'95	1'95	F	U2'05F	F	F	20
2'00	2'05	2'05	2'05	2'00	U2'00S	U1'95S	F	F	F	1'	F	21
C	2'00	2'10	2'10	2'10	2'05	2'00	U2'00F	U2'00F	F	F	F	22
1'95	C	1'95	E1'95W	U1'95R	1'95	U2'05S	U1'95S	U2'00F	U2'10F	2'30	U2'40F	23
C	C	C	C	2'05	2'00	U2'00W	U2'00S	J2'10R	U2'20S	J2'35R	2'55	24
1'95	W	2'00	2'00	U2'00S	U2'00S	E1'95W	E1'95W	J2'15S	R	U2'20R	2'20	25
1'95	E2'00W	2'00	2'00	2'05	2'05	2'05	2'05	2'25	2'40	2'60	2'60	26
2'20	2'15	2'10	2'10	U2'10R	2'05	2'10	2'20	U2'40R	R	2'65	2'65	27
E2'00W	2'05	2'05	E2'00W	2'00	2'05	2'05	U2'00R	2'05	U2'35S	U2'55S	2'70	28
C	2'15	2'10	C	U2'00R	E2'00W	U2'05S	E1'90W	F	F	F	2'70	29
2'05	2'00	2'00	C	2'10	2'10	U2'05S	U1'95F	F	F	F	F	30
25	26	26	25	30	30	30	29	24	20	23	23	Count
2'00	2'00	2'00	2'00	2'00	2'00	U2'00	1'95	U2'00	U2'10	2'20	2'40	Median
2'00	2'00	2'00	2'00	2'00	2'00	U2'00	1'95	U2'00	U2'10	2'25	2'40	Mean

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

Characteristic : (M3000)F2
 Unit : —
 Month : November 1957

TABLE 55—contd.
 Ionospheric Data
 75.0° 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	F	C	C	C	C	C	C	C	C	C	C	C
2	J2.50R	2.70	2.90	3.00	J3.05S	F	2.70	2.50	2.25	2.00	2.00	2.00
3	U2.40F	U2.50F	U2.80R	3.10	3.15	2.55	U2.60S	2.50	2.20	C	C	C
4	U2.60S	2.75	2.90	3.00	3.00	2.75	2.80	2.60	C	2.25	2.15	2.00
5	U2.55F	2.80	F	F	F	3.00F	2.65	2.45F	2.30	2.15	2.10	2.05
6	F	F	F	2.85F	F	F	2.70F	2.35	2.30	2.20	2.05	2.00
7	J3.10F	3.00	2.65	2.35	U2.10S	U2.10S	U2.70S	2.70	2.40	2.10	DI.95W	1.95
8	2.70	2.80	2.80	2.90	U3.05S	3.00	2.75	2.50	2.30	2.10	2.10	2.10
9	U2.50S	U2.50F	2.75	2.95	2.85	U2.90S	2.40	2.40	U2.30R	2.15	2.10	2.05
10	2.80	2.80	2.65	2.65	2.80	2.90	2.70	2.30	2.20	2.00	2.10	2.15
11	C	C	2.80	2.85	2.90	2.80	2.60	2.30	2.30	2.15	2.10	2.05
12	2.60	2.80	2.85	3.00	2.95	2.75	2.65	2.50	2.30	2.15	2.00	2.00
13	2.60	2.65	2.80	3.05	3.05	2.50	2.65	2.50	2.30	2.20	2.05	1.95
14	2.25	2.45	2.50	2.65	U2.80S	2.85	2.65	2.55	2.20	2.05	1.95	1.90
15	2.35	2.65	2.70	2.85	2.80	2.55	2.05H	2.35	2.20	2.05	2.00	2.00
16	2.60	2.70	2.75	2.80	U2.80S	2.80	U2.60S	2.35	2.10	2.05	C	1.95
17	R	2.65	2.70	2.80	3.00	U2.95S	2.65	2.45	C	2.05	2.05	1.95
18	2.45V	2.40V	2.80	2.90	3.05	2.35	2.75	2.55	2.15	2.05	2.00	1.95
19	2.55	J2.50S	2.50	2.80	2.90	J2.55S	J2.60S	2.45	2.30	C	2.00	2.00
20	2.50	2.80	2.95	U3.05S	U2.80S	2.80	J2.55S	2.40	2.20	2.10	2.05	2.00
21	F	F	F	U3.00F	2.95	2.90	U2.50S	2.40	2.20	2.15	2.05	2.00
22	F	F	F	U3.00F	U3.15F	F	U2.60S	2.35	2.30	2.20	2.10	C
23	F	F	F	U3.00F	U3.10F	3.00	2.65	2.40	2.30	2.10	2.05	2.00
24	J2.60R	U2.70S	F	F	3.10	3.00	U2.75S	2.50	2.25	C	C	C
25	2.65	U2.70S	2.75	2.90	3.00	2.90	2.80	J2.30R	2.25	2.25	2.05	1.95
26	2.50	F	2.45	2.50	F	2.90	U2.70S	2.40	2.35	2.15	2.05	1.95
27	2.40	2.55	2.75	2.40	F	F	U2.70S	2.50	2.35	2.45	2.10	2.25
28	2.60	2.70	2.80	2.80	2.80	2.70	2.70H	2.50	2.30	2.05	2.00	DI.95W
29	2.70	2.65	2.60	2.65	2.70	2.90	2.65	2.50	2.50	2.30	2.20	C
30	2.70	2.85	3.00	2.95	3.05	2.90	U2.75S	2.60	2.40	2.30	2.30	2.10
Count	23	23	23	27	25	25	29	29	27	26	26	25
Median	2.60	2.70	2.75	2.90	2.95	2.85	2.65	2.45	2.30	2.15	2.05	2.00
Mean	2.55	2.70	2.75	2.85	2.90	2.75	2.65	2.45	2.30	2.15	2.10	2.00

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

Characteristic : (M3000)F2
 Unit : —
 Month : November 1957

TABLE 55—*contd.*
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
C	DI'90W	DI'95W	DI'95W	1'95	2'00	W	W	DI'95WF	U2'00F	U2'20F	U2'30F	1
2'00	1'95	DI'95W	DI'95W	2'00	1'95	DI'90W	DI'85W	F	U2'05F	U2'15F	2'25H	2
C	C	2'00	1'95	C	2'05	DI'90W	DI'95W	2'20	2'40	2'55	2'50	3
2'00	2'00	1'95	DI'90W	1'95	UI'95S	UI'90W	F	F	F	F	F	4
2'00	2'00	DI'95W	DI'95W	U2'00S	DI'95W	W	F	F	F	F	F	5
1'95	2'00	2'00	2'10	2'15	J2'05S	DI'95W	DI'95WF	2'00	2'10	F	2'40	6
2'00	2'00	2'00	2'10	U2'15R	U2'10R	J2'00S	DI'95W	U2'00R	U2'15S	J2'35S	U2'50S	7
2'05	2'00	2'00	2'05	2'10	2'00	UI'95S	U2'00R	U2'15S	U2'15S	U2'30S	U2'40R	8
2'00	2'00	2'00	U2'05S	U2'00S	1'95	DI'90W	DI'90W	U2'20S	U2'10R	2'30	2'55	9
2'10	2'00	2'00	2'05	2'00	D2'00W	DI'90W	DI'90W	U2'00R	2'20	U2'25R	2'35	10
1'95	1'90	1'90	2'00	2'05	2'00	1'90	2'00	2'00	2'10	2'30	2'45	11
1'95	1'95	C	2'00	2'00	2'00	1'95	1'95	2'05	2'15	2'45	2'50	12
1'90	1'95	1'95	2'00	2'05	1'90	1'90	UI'90F	U2'00F	2'00F	2'10	2'10	13
1'95	1'90	1'90	C	C	1'90	UI'90S	J1'85S	UI'80F	2'00	2'15	U2'30R	14
1'95	1'90	1'95	2'00	UI'95R	1'95	E1'80W	1'95	2'00	2'20	2'45	U2'50R	15
1'90	1'90	1'95	1'95	J2'00S	U2'00S	1'95	1'95	2'00	2'10	2'25	2'40	16
2'00	1'95	C	2'00	2'00	2'00	1'90	UI'90F	F	F	F	2'20V	17
1'95	1'95	1'95	1'95	1'95	1'90	1'90	2'00	2'10	2'30	2'45	2'50	18
2'00	2'00	1'95	UI'90R	UI'90S	1'95	1'95	1'95	2'00	U2'05S	U2'10F	2'30	19
2'05	2'00	2'00	1'95	W	1'95	1'95	2'00	2'10	2'00	F	F	20
2'05	2'05	2'05	2'05	1'95	U2'00S	W	F	F	F	F	F	21
2'00	2'00	2'10	2'10	2'10	2'05	U2'00W	F	F	F	F	F	22
DI'90W	1'95	1'95	DI'95W	UI'90W	2'00	U2'00S	UI'90F	U2'00F	2'20	R	J2'45R	23
C	C	C	2'10	2'00	2'00	U2'00W	U2'00S	U2'15S	U2'30S	2'40	2'60	24
W	UI'95W	2'00	U2'05S	U2'00S	U2'00S	DI'95W	U2'00S	2'20	U2'20S	2'20	2'20	25
E2'00W	2'00	2'00	2'05	2'05	2'05	2'05	2'15	2'30	2'45	2'70	2'55	26
2'15	2'10	2'10	2'05	2'10	2'10	2'15	2'25	U2'50R	2'60	2'65	2'70	27
2'00	2'05	2'00	2'00	2'00	2'10	U2'05S	2'00	2'20	U2'50S	2'60	2'70	28
2'15	2'10	2'05	U2'05R	E2'00W	2'10	UI'90S	E1'90W	F	U2'30F	2'60F	2'70	29
2'05	2'00	2'05	2'05	2'10	2'05	UI'95S	U2'00F	F	F	F	F	30
27	28	27	29	28	30	30	26	22	24	21	24	Count
2'00	2'00	2'00	2'00	2'00	2'00	1'90	1'95	2'00	2'15	2'30	2'45	Median
20'0	2'00	2'00	2'00	2'00	2'00	1'95	1'95	2'10	2'20	2'35	2'45	Mean

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

Characteristic : foF2
 Unit : Mc
 Month : December 1957

TABLE 56
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N.
 Longitude : 77.5° E.

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	F	F	10.7F	10.4	9.4	6.5	U7.4S	10.8	12.2	12.6	12.6	12.2
2	U10.6F	U10.8F	10.8	U9.9S	J7.2S	6.5	8.1	10.8	13.1	13.2	12.8	12.0
3	8.5	U9.1S	F	10.4	9.5	8.4	8.8	10.8H	11.5	12.3	12.6	12.4
4	F	U8.7F	F	F	F	F	U9.4S	U11.4F	11.7	11.8	12.0	11.9
5	F	F	F	8.9F	6.8	5.2	6.7	10.0	11.8	12.7	13.0	12.8
6	F	U8.5F	U8.7F	9.7	11.2	10.9	9.9	11.6	12.5	13.0	13.4	13.4
7	U8.4F	U9.0F	U9.6S	F	U9.6S	8.1	U9.1S	11.7	13.1	13.8	13.8	13.0
8	9.4	9.4	9.3	10.0	9.4	8.4	8.8	11.4	12.9	13.7	C	C
9	F	F	F	8.8F	U8.2F	F	8.4	11.2	13.3	C	C	C
10	11.3	10.4F	F	U9.8F	U9.5F	F	9.6	12.1	13.5	13.9	14.1	14.1
11	9.0	U8.7F	U8.4F	8.2	U9.1S	8.8	U10.8S	12.9	13.7	14.0	13.0	12.5
12	U10.0S	U10.0S	U10.1S	U9.2S	7.7	8.3	U5.6S	U9.2S	U11.6S	13.5	14.1	14.3
13	11.4	U10.1S	10.0	10.0	U10.2S	U9.4S	U9.2S	U9.2S	11.3	11.8	12.1	11.7
14	10.6	U9.2S	U9.2S	F	U9.4S	U7.5S	U7.2S	U10.5S	12.0	12.9	13.3	13.0
15	F	F	F	F	F	U8.0F	F	U9.2S	11.3	12.1	12.2	12.4
16	F	U8.0F	U9.6F	9.9	9.4	U7.1S	U7.3S	10.2	11.8	12.8	13.6	13.7
17	U6.9S	F	F	F	U7.8F	8.8	S	U9.1S	12.2	13.5	14.6	14.4
18	10.8	10.4	F	F	U9.0F	8.3	FS	FH	11.4	J13.1R	13.8	14.0
19	F	U6.8F	FS	FS	7.7	6.8	7.6	10.8	13.1	13.8	13.7	J13.1S
20	8.5	8.9	8.5	U9.2S	8.4	8.5	8.9	U9.7S	11.7	13.2	C	C
21	F	F	F	9.0	F	U8.6F	U10.6F	12.3	13.3	13.3	13.0	12.9
22	F	U10.3F	F	F	F	8.9	U9.3S	11.2	J12.2R	J12.4R	12.2	11.8
23	C	C	F	F	F	U6.6F	U7.2F	U10.6F	12.2	12.4	12.7	12.3
24	F	U9.0F	F	8.9F	7.8	6.4	7.0	10.0	J12.2R	12.3	12.0	11.7
25	F	F	F	U8.7F	8.4F	F	F	U11.0F	12.0	J12.2R	12.7	12.5
26	10.9	10.5	U10.0S	F	F	F	F	F	U12.3F	12.8	13.0	12.6
27	8.8	U8.5F	U8.9F	8.7	U9.2S	U9.3S	8.7	10.9	12.3	12.5	12.3	12.0
28	J9.9S	U10.3F	F	F	F	F	8.5	U11.1S	12.3	12.5	12.7	C
29	F	F	F	F	F	F	F	F	11.8	J12.1R	12.0	11.8
30	F	F	F	U7.4F	F	F	F	U9.3S	J11.8S	12.7	12.9	12.5
31	9.9	9.8	10.0	9.5	8.0	5.7	6.7	J9.7S	11.6	J12.1R	12.8	12.6
Count	16	21	14	19	22	23	24	28	31	30	28	27
Median	9.9	U9.2	U9.6	9.2	9.0	8.3	8.6	10.8	12.2	12.8	12.8	12.5
Mean	9.7	U9.4	U9.6	9.3	8.8	7.9	8.4	10.7	12.2	12.8	13.0	12.7

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

Characteristic : foF2
 Unit : Mc
 Month : December 1957

TABLE 56
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
12'4	12'3	12'0	12'3	U11'9S	U11'7S	D10'5W	F	F	F	F	U11'0F	1
11'4	11'0	11'5	11'2	11'0	10'4	U9'5S	8'8	U8'8R	8.5	8'6F	F	2
12'1	12'3	12'8	12'4	U12'0S	U11'2S	U9'5S	U7'6W	F	F	F	U8'4F	3
11'5	11'7	12'0	U11'8S	11'5	10'7	9'9	F	F	U8.2W	F	F	4
12'7	12'8	C	12'8	12'8	U11'8S	U10'8S	9'6	F	F	8'5	F	5
13'1	U11'9W	D10'4W	10'2	10'0	U9'6S	9'8	9'0	8'4F	8.6F	8.8	F	6
12'3	11'8	11'8	11'8	11'7	11'7	U11'5S	U10'3W	10'8	10.6	U10'0F	U8'9F	7
14'1	13'5	13'2	13'0	12'1	11'1	U10'0R	U8'2F	F	F	F	F	8
13'0	13'0	12'8	12'8	12'8	12'4	U11'8S	U11'2F	F	F	U11.4S	11'5	9
13'0	D11'0W	10'2	9'8	9'8	U10'0S	U10'0S	9'6	U9'4S	U8.5F	F	U9'4F	10
C	12'0	11'7	11'4	11'0	U11'2S	10'9	10'7	10'8	10.9	11.2	10'6	11
14'4	14'0	13'3	D11'6W	9'7	9'8	U9'6S	U9'6S	11'3	11.1	U11.5S	11'4	12
11'9	11'5	11'2	10'9	11'0	U11'4S	U11'5S	11'3	10'9	11.2	U11.4S	U11'4S	13
12'5	12'1	11'5	C	10'6	10'0	F	8'3	F	F	F	F	14
12'0	12'0	12'3	U11'6S	11'4	11'0	S	C	F	F	F	F	15
13'6	13'0	12'2	10'3	9'6	U9'4S	8'9	7'9	U6'5F	U6'6F	U7.4S	7'4	16
11'6	U13'9R	14'7	13'8	12'7	10'8	9'6	8'3	F	F	F	U10'4F	17
13'7	13'5	12'4	10'6	10'0	9'8	9'4	8'6	U8'0F	F	U8.5F	F	18
12'7	11'7	10'6	10'0	10'0	J10'2S	10'0	9'4	8'6	U8'4F	8.9	U8'5F	19
C	C	12'8	12'4	U12'0R	U11'3S	11'3	9'6	U7'8W	8'2	U8.8F	U9'4S	20
12'8	12'8	J12'3S	11'1	9'8	9'7	U9'6S	9'5	F	F	F	F	21
11'3	10'8	D10'4W	10'6	10'7	10'8	10'0	F	U8'0F	F	F	F	22
12'0	12'0	U12'0W	U11'6W	U11'0W	U10'2S	U10'0S	U9'5S	U9'2F	F	F	F	23
U11'0W	U11'0W	U10'8W	U10'5W	D10'1W	U10'2S	U9'7S	U9'0W	U8'5S	8'6	F	U8'8F	24
U11'8W	12'6	12'8	12'4	U11'8S	D11'0W	U10'0S	U8'6W	U8'4W	F	F	U9'6F	25
J12'1R	12'0	11'6	11'4	11'2	U11'0W	10'4	D9'2W	U9'0F	U9'2F	U9'4S	8'9	26
11'6	11'5	11'5	11'4	11'3	10'6	U9'5S	8'4	F	F	F	U9'5F	27
C	C	C	C	C	U9'6S	U9'6S	8'9	8'3	7'4	F	6'9F	28
11'8	J11'9R	12'2	12'5	12'5	12'4	U11'9S	10'6F	F	F	F	F	29
12'3	11'7	11'7	10'7H	10'3	10'0	9'4	8'7	8'6	8'7	J8.5F	C	30
11'9	10'4	10'0	9'9	10'0	U9'8S	9'9	8'4	8'8	9'2	10'3	9'2	31
28	29	29	29	30	31	30	27	19	16	15	18	Count
12'4	12'0	12'0	11'4	11'0	U10'7	U10'0	9'0	8'6	8'6	U8'9	U9'4	Median
12'5	12'1	11'9	11'5	11'1	U10'7	U10'1	9'2	9'0	9'0	U9'5	U9'5	Mean

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

Characteristic : foF2
 Unit : Mc
 Month : December 1957

TABLE 56—contd.
 Ionospheric Data
 75°0' 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	F	F	10.7	10.0	8.1	5.5	9.3	U11.8s	12.7	12.6	12.3	12.3
2	10.7	10.9	10.2	8.2	6.7	6.5	9.6	12.1	13.2	13.1	12.4	11.8
3	8.8	10.1	10.2	10.2	9.2	7.5	9.8H	10.9	11.9	12.4	12.4	12.3
4	8.7	F	F	F	F	F	U10.8s	U11.7F	11.8	11.9	12.0	11.6
5	F	F	F	U8.1F	5.6	5.0	8.5	11.1	12.6	12.9	12.9	12.8
6	F	U9.0F	9.0	9.7	U11.4S	9.8	10.8	12.4	12.9	13.2	13.7	13.2
7	U8.8F	U9.2F	U9.6s	U9.4F	9.0	7.5	10.8	12.4	13.8	13.8	13.7	12.8
8	9.3	9.4	9.5	9.9	8.8	7.6	10.3	12.7	13.2	14.1	C	14.2
9	F	F	U9.0F	F	F	7.0	10.1	12.6	13.7	C	C	C
10	U10.8F	F	F	U9.4F	9.3	U9.0F	10.8	12.8	13.9	13.8	14.1	13.8
11	U8.8F	F	8.0	U8.6F	U9.2S	U9.1S	U11.6S	13.7	13.7	13.3	12.9	12.5
12	U10.0S	U10.0S	10.4	8.2	8.3	U7.7F	U7.5S	10.6	12.4	13.6	14.1	14.2
13	11.0	10.0	U9.9S	U10.2S	S	8.4	U10.0SH	10.8	11.6	12.0	12.4	11.8
14	U9.6S	F	F	10.0	8.4	6.4	U9.2S	11.2	12.5	13.2	13.2	12.8
15	F	F	F	F	F	F	S	10.4	11.6	12.3	12.3	12.1
16	F	U9.0F	10.0	10.1	8.3	5.7	8.9	11.0	12.7	13.1S	13.6	13.8
17	U6.7S	F	F	F	8.4	9.0	S	10.8	13.0	13.9	14.7	14.3
18	10.6	F	F	F	9.0	U8.4F	U10.2F	10.5	12.1S	13.6	14.3R	13.8
19	U7.7F	FS	FS	7.8	7.5	6.2	9.4	12.4	13.4	13.8	13.7	12.9
20	8.8	8.4	8.8	8.8	8.2	8.4	S	10.9	12.8	13.4	C	C
21	F	F	F	FS	U8.7F	F	11.4	12.7	13.3	13.4	U13.0R	12.8
22	U9.0F	U9.0F	F	F	U8.6F	8.5	U10.2S	U11.8S	12.4R	12.5	12.0	11.6
23	C	F	F	F	U7.8F	U5.8F	U9.3F	U11.8S	12.4	12.6	12.6	12.2
24	F	F	U9.0F	8.5	17.3S	5.5	8.6	11.0	12.4	12.2	12.0	U11.4W
25	F	F	F	U8.6F	F	F	U10.0F	U11.4F	12.0	12.4	12.7	U12.0W
26	10.8	J10.4R	F	F	F	F	F	U11.6F	12.6F	13.0	12.7	J12.1R
27	8.9F	F	U8.6F	8.8	U9.6S	8.7	U10.2S	J11.8S	12.4	12.4	12.3	11.9
28	J9.9S	U10.5F	F	F	U9.5S	U8.1R	U10.1S	J12.0S	12.4	12.7	12.4	C
29	F	F	F	F	F	F	F	11.0	J12.0R	U12.0R	11.8	11.8
30	F	F	F	F	F	F	F	10.7	12.3	12.7	12.9	12.3
31	J10.4S	10.3	10.0	8.8	6.5	5.1	8.4	10.9	11.9	12.8	12.6	12.4
Count	19	13	15	19	23	24	25	31	31	30	28	27
Median	9.3	10.0	9.6	8.8	8.4	7.6	10.0	11.6	12.5	13.0	12.7	12.4
Mean	9.4	9.7	9.5	9.1	8.4	7.4	9.8	11.6	12.6	13.0	12.9	12.6

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

Characteristic : foF2

Unit : Mc

Month : December 1957

TABLE 56—contd.

Ionospheric Data

75°0' E Mean Time

Latitude : 10°2' N

Longitude : 77°5' E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
12'5	12'1	12'3	UI2'2R	UI1'8s	D11'0W	U9'6W	F	F	F	F	U10'6F	1
11'0	11'3	11'6	11'1	10'7	10'0	9'2	8'8	U8'8R	D8'0R	8'8	8'9	2
12'3	12'5	12'8	12'2	11'8	U10'7W	U8'6W	F	F	F	F	U8'5F	3
11'6	11'9	12'0	UI1'6s	11'2	10'1	9'3	F	F	F	F	F	4
12'8	C	12'8	12'8	UI2'1s	UI1'4s	U10'0s	U9'4F	U9'2F	U8'6F	8'0	U8'3F	5
12'6	UI1'0W	10'1	10'1	10'0	9'7	9'6	U8'2F	8'5F	8'7	8'8	F	6
UI2'0W	11'7	11'8	11'6	11'7	UI1'6s	UI1'0W	10'4	U10'6R	10'7	U9'6s	9'1	7
13'6	13'6	C	UI2'2R	11'7	U10'7R	9'3	F	F	U8'8F	F	F	8
13'0	12'8	12'8	12'9	12'9	12'3	UI1'8s	F	F	11'5F	11'4	11'4F	9
UI2'0R	D10'6W	9'9	9'7	9'9	U10'0s	U10'0s	U9'4s	8'9	8'4F	U8'9F	U9'3s	10
12'2	11'8	11'3	11'0	11'3	11'1	10'7	10'6	U10'4R	U11'3s	U11'0R	U10'0R	11
14'3	13'8	12'6	D10'2W	U9'6s	U9'8s	U9'5s	10'4	11'2	11'1	U11'5s	U11'5s	12
11'7	11'3	11'2	10'8	11'1	UI1'4s	UI1'4s	11'0	11'0	11'2	11'0	11'1	13
12'4	11'7	11'4	C	10'1	U9'6s	8'9	F	F	F	F	F	14
12'0	12'2	11'8	11'5	11'3	U10'2s	9'0	8'6	U7'0F	F	F	F	15
J13'1s	12'8	11'5	9'8	9'6	U9'0s	8'6	U7'4F	U6'4F	6'8	7'5	7'4	16
14'6	14'6	14'2	UI3'1R	J12'2s	10'0	9'0	U7'4F	F	F	F	10'6	17
13'8	13'0	11'3	10'3	10'0	U9'6s	U9'1s	U8'4F	U7'9F	F	U8'4F	F	18
12'3	11'2	10'3	10'0	10'0	U10'0s	U9'4s	9'0	U8'3W	8'8	F	8'5	19
C	C	12'7	12'3	11'9	11'2	10'8	U8'0F	J8'0F	F	U9'4s	U8'7F	20
13'0	12'6	11'6	9'9	9'8	U9'7s	9'6	9'4	F	F	F	F	21
10'8	D10'6W	U10'6W	10'6	10'8	10'5	U9'2s	U8'0F	F	F	F	F	22
12'1	12'0	UI1'9W	D11'0W	U10'7W	U10'0s	U10'0s	U9'5s	F	F	F	F	23
UI1'0W	U10'9W	U10'8W	D10'3W	U10'2W	10'0	U9'4s	U8'8W	8'8	F	U8'6F	F	24
UI2'2W	12'8	12'5	UI1'8s	UI1'6W	U10'8W	U9'2W	D8'0W	F	F	U9'4F	10'4	25
12'0	11'8	11'5	UI1'3W	UI1'2W	10'8	U9'6s	U8'8F	U9'0F	U9'4s	9'0	8'8	26
11'6	11'4	11'6	11'4	11'0	10'4	9'1	F	F	U8'4F	F	F	27
C	C	C	C	9'7	U9'6s	9'4	8'8	7'9	J7'1s	6'9	J7'0F	28
11'8	11'9	12'4	12'4	12'5	12'4	11'4	F	F	F	F	F	29
11'9	11'7	11'3	10'5	10'0	9'9	8'9	8'6	8'7	8'6	U8'2F	8'6	30
11'1	10'1	9'7	10'1	10'0	10'0	9'4	8'4	9'0	U9'5s	10'1	8'8	31
29	28	29	29	31	31	31	23	18	17	18	19	Count
12'2	11'8	11'6	11'1	11'0	U10'1	9'4	8'8	8'8	8'8	9'0	8'9	Median
12'3	12'0	11'7	11'2	10'9	U10'4	9'7	8'9	8'9	9'2	9'2	9'3	Mean

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

Characteristic : foF1
 Unit : Mc
 Month : December 1957

TABLE 57
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1									L	L	L	L
2									L	L	L	L
3									L	L	L	L
4									L	L	L	L
5									L	L	L	L
6									L	L	L	L
7									L	L	L	L
8									L	L	L	L
9								L	L	L	L	L
10								L	L	L	L	L
11								L	L	L	L	L
12								L	L	L	L	L
13								L	L	L	L	L
14								L	L	L	L	L
15								L	L	L	L	L _H
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 _H	L
24								L	L	L	L	L
25								L	L	L	L	L
26								L	L	L	L	L
27								L	L	L	L	L
28								L	L	L	L	L
29								L	L	L	L	L
30								L	L	L	L	L
31								L	L	L	L	L
Count
Median
Mean

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

Characteristic : foF1
 Unit : Mc
 Month : December 1957

TABLE 57
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
L	L	L	L	L								1
L	L	L	L	L								2
L	L	L	L	L								3
L	L	L	L	L								4
L	L	C	L	L								5
L	L	L	L	L	L							6
L	L	L	L	L	L							7
L	L	L	L	L	L							8
L	L	L	L	L	L							9
L	L	L	L	L	L							10
C	L	L	L _{HR}	L								11
L	L	L	L	L								12
L	L	L	L	L								13
L	L	L	C	L								14
L	L	L	L	L								15
L	L	L _{HR}	L _{HR}	L								16
L	B	L	L	L								17
L	L	L	L	L								18
L	L	L	L	L								19
C	C	L	L	L								20
L	L _{HR}	L _{HR}	L	L								21
L	L	L	L	L								22
L	L	L	L	L								23
L	L	L _{HR}	L	L								24
L	07°01'	L	L	L								25
L	L	L	L	L								26
L	7°0'	L	L	L								27
C	C	C	C	C								28
L	L	L	L	L	L							29
L	L	L	L	L	L							30
L	L	L	L	L								31
2	2	..	..	..	..							Count
..	..	..	..	..	..							Median
..	..	..	..	..	..							Mean

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

Characteristic : foF1
 Unit : Mc
 Month : December 1957

TABLE 57—*contd.*
 Ionospheric Data
 75°0' 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	L
2								L	L	L	L	L
3								L	L	L	L	L
4								L	L	L	L	L
5								L	L	L	L	L
6												
7								L	L	L	L	L
8								L	L	L	L	L
9								L	L	L	L	L
10								L	L	L	L	L
11								L	L	L	L	L
12								L	L	L	L	L
13								L	L	L	L	L
14								L	L	L	L	L
15								L	L	L	L	L
16												
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												
22							L	L	L	L	L	L
23								L	L	L	L	L
24								L	L	L	L	L
25								L	L	L	L	L
26												
27								L	L	L	L	L
28												
29								L	L	L	L	L
30								L	L	L	L	L
31								L	L	L	L	L
Count
Median
Mean

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

Characteristic : foF1
 Unit : Mc
 Month : December 1957

TABLE 57—*contd.*
 Ionospheric Data
 75.0° 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	L	L	L								1
L	L	L	L									2
L	L	L	L									3
L	L	L	L									4
L	C	L	L	L								5
L	L	L	L	L								6
L	L	L	L	L								7
L	L	L	L	L								8
L	L	L	L	L								9
L	L	L	L	L								10
L	L	L	L	L								11
L	L	L	L	L								12
L	L	L	L	L								13
L	L	L	L	L								14
L	L	L	L	L								15
L	L ^H	L	L	L								16
L	B	L	L	L								17
L	L	L	L	L								18
L	L	L	L	L								19
L	C	L	L	L								20
L	L ^H	L	L	L								21
L	L	L	L	L								22
L	u6.4L	L	L	L								23
L	L	L	L	L								24
L	u7.0L	L	L	L								25
L	L	L	L	L								26
7.1	6.9	L	L	L								27
C	C	L	L	L								28
L	7.1	6.9	L	L								29
L	L	L	L	L								30
L	L	L	L	L								31
1	4	1	..	..								Count
..	..	..	..	..								Median
..	..	..	..	..								Mean

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

Characteristic : foE
 Unit : Mc
 Month : December 1957

TABLE 58
 Ionospheric Data
 75°0' E Mean Time

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

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								3.0	A	A	A	A
2								3.0	A	A	A	A
3								A	A	A	A	A
4								A	A	A	A	A
5								3.0	A	A	A	B
6								2.9	3.5	B	U4.2R	A
7								2.8	3.4	A	A	A
8								2.8	A	A	C	C
9								U2.9R	3.6	G	C	C
10								A	3.4	4.0	A	A
11								2.5	3.3	A	U4.0A	A
12								A	A	U3.8A	A	A
13								A	B	A	A	A
14								A	U3.5A	A	A	B
15								A	A	A	A	A
16								A	A	A	A	A
17								A	A	A	U4.1R	B
18								A	A	3.8	B	U4.2A
19								2.8H	A	A	A	A
20								A	A	A	C	C
21								2.8	3.5	4.0	A	4.3
22								A	A	A	A	A
23								A	A	A	A	A
24								A	A	A	A	A
25								2.9	A	A	A	A
26								2.3	B	A	A	A
27								A	A	A	A	A
28								2.8	A	A	A	C
29								2.8	A	A	A	A
30								2.8	3.5	U3.9A	A	A
31								2.9	A	3.9	A	A
Count								16	8	6	3	2
Median								2.8	3.5	3.9	..	..
Mean								2.8	3.5	3.9	..	..

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

Characteristic : foE
 Unit : Mc
 Month : December 1957

TABLE 58
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
Λ	Λ	Λ	Λ	Λ								1
Λ	Λ	Λ	Λ	Λ								2
Λ	Λ	Λ	Λ	Λ	Λ							3
Λ	Λ	Λ	B	Λ	Λ							4
B	Λ	C	Λ	Λ	Λ							5
Λ	Λ	Λ	Λ	Λ	Λ							6
Λ	Λ	Λ	Λ	Λ	Λ							7
Λ	Λ	Λ	Λ	Λ	Λ							8
Λ	Λ	Λ	3.8	Λ	Λ							9
Λ	Λ	Λ	Λ	Λ	Λ							10
G	Λ	Λ	Λ	Λ	2.3							11
Λ	Λ	Λ	Λ	Λ	Λ							12
Λ	Λ	Λ	Λ	U3.2A	Λ							13
Λ	Λ	Λ	C	Λ	Λ							14
Λ	Λ	Λ	Λ	Λ	Λ							15
A	Λ	Λ	Λ	Λ	Λ							16
B	B	B	B	Λ	Λ							17
Λ	B	Λ	Λ	Λ	Λ							18
Λ	C	B	Λ	Λ	Λ							19
C	Λ	Λ	Λ	Λ	2.5							20
4.3	Λ	Λ	Λ	Λ	Λ							21
Λ	Λ	Λ	Λ	Λ	2.5							22
Λ	Λ	Λ	Λ	Λ	2.5							23
Λ	Λ	Λ	Λ	Λ	Λ							24
Λ	Λ	Λ	Λ	Λ	Λ							25
Λ	Λ	Λ	Λ	Λ	Λ							26
Λ	Λ	Λ	Λ	Λ	Λ							27
G	Λ	C	Λ	C	Λ							28
Λ	Λ	Λ	Λ	Λ	Λ							29
Λ	4.3	Λ	Λ	Λ	F							30
Λ	Λ	Λ	Λ	Λ	2.6							31
I	I	..	I	I	5							Count
..	..	..	..	..	2.5							Median
..	..	..	..	..	2.5							Mean

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

Characteristic : foE
 Unit : Mc
 Month : December 1957

TABLE 58—*contd.*
 Ionospheric Data
 75.0° E Mean Time

Latitude : 0.2° N
 Longitude : 77.5° E

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							2.6	A	A	A	A	A
2							2.4	3.2	A	A	A	A
3							A	A	A	A	A	A
4							A	A	A	A	A	A
5							2.5	A	A	A	A	A
6												
7							2.5	3.3	3.7	A	A	A
8							2.4	3.2	A	A	A	A
9							2.4	A	A	A	C	A
10							2.3	3.2	A	C	C	C
							2.4	3.1	3.7	A	A	A
11												
12							2.0	3.1	A	A	A	B
13							A	A	U3.7A	A	A	U4.0R
14							A	B	A	A	A	A
15							U2.5R	3.2	A	A	A	A
							U2.2A	A	A	A	A	A
16												
17							A	A	A	A	A	A
18							A	A	A	U3.8R	R	B
19							A	A	A	4.0	B	B
20							2.2	A	A	A	A	A
							A	A	A	A	C	C
21												
22								3.1	A	A	4.3	U4.4A
23							2.2	A	A	A	A	A
24							2.2H	A	A	A	A	A
25							A	A	A	A	A	A
26							2.3	A	A	A	A	A
27							2.3	2.0	A	A	A	A
28							2.3	A	A	A	A	A
29							2.2	A	A	A	A	C
30							2.3	A	A	A	A	A
								A	A	A	A	A
31									3.7	A	A	A
								3.2	U3.8A	A	A	A
Count							19	10	5	2	1	2
Median							2.3	3.2	3.7	..	..	..
Mean							2.3	3.1	3.7	..	..	..

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

Characteristic : foE
 Unit : Mc
 Month : December 1957

TABLE 58—*contd.*
 Ionospheric Data
 75° 0' 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	U3'4R	A								2
A	A	A	A	A								3
A	A	A	A	A								4
B	C	A	A	3'0								5
A	A	A	A	A								6
A	A	A	A	A								7
A	A	C	A	A								8
A	A	A	3'6	A								9
A	A	A	A	A								10
A	A	A	A	2'8								11
A	A	A	A	A								12
A	A	A	A	U2'8A								13
A	A	A	C	2'8								14
A	A	A	A	A								15
A	A	A	A	A								16
B	B	B	A	A								17
A	A	A	A	A								18
A	B	B	A	A								19
C	C	A	U3'5R	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	B	A	A								26
A	B	B	A	A								27
C	C	C	C									28
A	A	A	A	A								29
A	4'2	A	A	3'0								30
A	A	A	3'6	A								31
..	1	..	4	5								Count
..	..	..	..	2'8								Median
..	..	..	..	2'9								Mean

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

Characteristic : foEs

TABLE 59

Latitude : 10°2' N

Unit : Mc

Ionospheric Data

Longitude : 77°5' E

Month : December 1957

75°0' E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								U10·6s	10·4	11·4	11·4	11·2
2								G	8·8	9·6	10·4	11·0
3		3·2						8·8	9·6	11·0	11·2	12·4
4		4·0	3·4					8·4	9·8	10·4	11·4	11·0
5							2·0	8·0	10·0	10·8	11·0	11·0
6								G	8·8	B	7·0	11·0
7								G	8·0	10·0	10·4	11·4
8							4·0	7·0	8·8	10·0	C	C
9								G	8·2	C	C	C
10								8·0	6·4	G	11·0	12·4
11								3·4	G	10·4	10·0	11·0
12		2·8	3·6					7·0	9·0	10·4	11·0	11·2
13								8·4	11·0	11·2	11·2	12·0
14		2·4						8·0	8·0	10·0	10·2	9·4
15							3·4	8·2	9·0	10·6	12·0	11·4
16								U11·8s	U9·0s	10·8	11·0	10·6
17								U8·8s	U8·0s	8·7	G	B
18	U7·0s	3·1						U7·0s	8·6	G	B	9·0
19								U7·0s	10·0	10·8	10·9	11·2
20			U4·0s	5·6				U9·0s	10·8	9·8	C	C
21		4·2						G	8·3	9·6	11·2	5·7
22								8·6	11·0	11·2	12·4	11·8
23	G	G						7·0	8·8	11·2	12·0	11·8
24								U6·8s	11·0	11·6	12·5	12·0
25								8·8	10·6	10·2	10·0	11·4
26	5·7		4·0	U7·4s	5·6	3·1		G	10·4	10·8	11·8	12·2
27	4·8							U6·8s	8·5	9·6	10·8	11·3
28			3·8	4·0				U6·8s	9·0	10·4	11·6	C
29				2·6				G	8·8	11·0	11·0	11·0
30								G	G	10·6	11·0	11·7
31	5·3				U5·8s			G	9·0	G	11·6	11·7
Count	4	6	5	4	2	1	4	31	31	29	27	26
Median	..	3·2	3·8	..	..	..	..	7·0	9·0	10·4	11·0	11·2
Mean	..	3·3	3·8	..	..	..	..	7·8	9·3	10·5	11·0	11·1

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

Characteristic : foEs

TABLE 59

Latitude : 10°2' N

Unit : Mc

Ionospheric Data

Longitude : 77°5' E

Month : December 1957

75°0' E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
11.0	10.0	10.4	9.2	8.0								1
11.0	10.2	10.0	10.0	7.6								2
10.6	10.4	11.0	10.6	8.8	8.0							3
11.6	11.2	11.0	8.6	8.8	6.6							4
B	11.0	C	10.4	8.6								5
12.0	12.1	11.8	11.3	9.6	8.0							6
12.2	12.0	12.0	12.0	8.8								7
11.0	10.6	11.0	10.8	8.6								8
11.6	11.6	10.8	8.8	8.0						2.6		9
12.0	11.8	11.4	11.4	8.8	4.0							10
C	12.0	11.8	10.6	8.8	G							11
11.0	11.0	11.2	11.2	10.0	3.2							12
11.4	12.0	11.6	11.2	8.0					3.4			13
10.0	9.2	9.2	C	8.8						10.0	6.0	14
11.0	10.6	11.0	9.0	7.8			C					15
12.0	11.5	12.0	U11.8s	U10.2s	8.8							16
G	B	G	10.0	9.6	U8.0s							17
11.0	11.0	12.3	12.0	9.3	10.4							18
12.3	12.0	12.0	11.3	9.4								19
C	C	10.0	10.6	8.0	U7.4s							20
G	11.7	12.0	11.4	10.7	U7.8s							21
11.8	11.8	12.0	11.0	9.2	6.8							22
12.0	12.0	12.0	11.0	8.8	U7.0s							23
12.0	12.0	12.5	12.0	10.4	7.8							24
9.8	12.0	11.2	11.0	11.0	8.2							25
12.0	11.6	9.0	12.0	9.2	G					4.6	2.8	26
11.2	11.6	10.6	11.4	8.2	6.8						U7.0s	27
C	C	C	C	C						2.2	3.1	28
18.0	16.0	11.6	13.6	9.4	6.8					2.8		29
11.0	10.0	11.2	11.2	8.8	6.8					3.7	C	30
11.8	11.6	11.3	11.2	8.8	U7.4s						2.7	31
27	28	29	29	30	20	..	..	..	1	6	5	Count
11.4	11.6	11.2	11.2	8.8	7.2	..	..	..	..	3.2	3.1	Median
11.6	11.4	11.2	10.9	9.0	7.2	..	..	..	..	4.3	4.3	Mean

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

Characteristic : foEs

TABLE 59—contd.

Latitude : 10°2' N

Unit : Mc

Ionospheric Data

Longitude : 77°5' E

Month : December 1957

75°0' E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1							6.6	9.0	11.0	11.0	12.0	11.0
2							G	8.0	9.0	10.8	11.4	11.0
3		2.7					8.0	9.0	9.6	11.8	11.6	11.4
4	2.4	4.0					U6.0s	U9.4s	10.6	11.0	11.8	11.8
5			8.0				G	U10.0s	9.8	11.8	10.6	11.0
6							G	7.6	7.7	10.6	9.6	12.0
7							3.2	G	7.0	9.6	8.0	11.8
8							5.6	7.6	9.0	10.0	C	10.4
9							G	7.6	10.0	C	C	C
10							G	8.0	G	10.6	12.0	12.2
11							3.2	G	8.0	11.0	11.0	G
12		3.2					6.0	7.0	9.2	11.4	11.8	8.0
13							5.2	9.0	10.0	11.0	12.0	12.2
14							G	7.0	9.4	10.2	B	10.4
15							4.2	9.2	10.4	11.6	11.8	11.8
16							S	U11.6s	11.0	12.0	10.6	10.6
17							S	U9.0s	8.8	G	G	G
18	2.7	3.6					U4.3s	U9.0s	4.8	G	7.8	B
19							3.3	U8.0s	10.1	11.0	12.0	12.1
20		2.0	2.7	U3.8s			S	U10.8s	9.2	11.6	C	C
21	5.4							G	9.6	11.0	7.0	9.8
22							4.8	U9.0s	11.2	11.4	12.2	12.0
23	C						G	8.4	9.8	11.8	11.6	11.8
24							4.0	8.6	10.8	12.0	11.7	11.5
25							U5.8s	10.2	10.6	9.3	10.5	12.4
26	3.8		5.2	8.6	3.1	4.8	G	7.6	10.3	11.6	12.0	11.8
27							G	8.6	9.0	10.8	11.2	11.4
28		3.8	4.2				G	U7.0s	9.0	11.4	12.0	C
29			7.7				G	8.7	9.8	12.0	11.6	10.6
30							3.4	4.2	9.0	11.0	11.0	11.2
31		6.8		6.8				G	U9.4s	11.0	11.8	11.8
Count	4	7	5	3	1	1	26	31	31	30	27	27
Median	..	3.6	5.2	..	..	..	3.2	8.4	9.6	11.0	11.6	11.4
Mean	..	3.7	5.6	..	..	..	4.9	8.5	9.4	10.7	11.0	11.3

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

Characteristic : foEs
 Unit : Mc
 Month : December 1957

TABLE 59—*contd.*
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
10.6	10.0	8.8	8.0	7.8								1
10.4	10.0	10.0	8.0	7.4								2
11.2	10.0	10.0	9.0	8.4								3
12.0	10.4	10.4	8.4	8.0								4
11.0	C	11.0	9.0	8.0								5
12.0	11.8	11.0	9.6	8.5					3.0			6
11.4	12.0	12.0	10.0	8.6								7
10.0	12.0	C	10.0	8.0								8
10.8	10.6	10.6	7.8	8.0						3.6		9
12.0	11.6	11.0	10.0	8.6								10
12.2	10.6	10.6	9.2	8.0								11
11.8	11.0	11.8	10.0	8.0				2.8				12
12.0	11.2	12.0	9.6	7.4					4.2	4.8		13
9.6	9.6	9.0	C	7.0								14
11.0	9.0	10.4	8.6	7.0								15
11.0	12.0	12.0	10.6	8.8	2.4							16
G	B	11.0	9.7	9.1							3.7	17
11.7	12.0	12.0	9.8	8.7								18
10.8	11.4	11.6	9.8	8.6							5.4	19
C	C	10.6	9.0	8.0								20
10.4	12.0	11.9	10.4	U9.08								21
12.0	12.0	11.8	10.6	9.0								22
11.8	12.0	11.0	10.2	7.8	5.0							23
12.4	12.0	12.0	10.4	8.3								24
11.6	11.4	10.7	9.8	U9.08								25
11.4	8.0	11.0	10.5	8.3						3.5	5.6	26
11.0	10.8	11.0	9.8	8.0						7.4		27
C	C	C	C	7.4						2.8		28
13.0	18.0	17.0	9.4	8.0					2.8	2.8		29
11.6	10.7	11.5	8.6	7.6					3.2			30
11.7	11.4	10.8	9.8	8.4							3.4	31
29	27	29	29	31	2	..	..	1	4	6	4	Count
11.4	11.4	11.0	9.8	8.0	..	..	..	..	..	3.6	..	Median
11.4	11.2	11.2	9.5	8.2	..	..	..	..	..	4.2	..	Mean

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

Characteristic : fbE
 Unit : Mc
 Month : December 1957

TABLE 60
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

Date	00	01	02	03	04	05	06	07	08	09	10	11
1								3.0	3.5	4.0	4.2	4.5
2									3.5	4.0	4.2	4.4
3		2.2						3.0	3.5	4.0	4.3	4.5
4		2.3						3.0	3.6	4.0	4.2	4.6
5							2.0	3.0	3.6	4.0	4.3	4.5
6									3.5		4.2	4.4
7									3.4	4.0	4.1	4.3
8								2.9	3.4	4.0	C	C
9									3.6	C	C	C
10								2.9	3.5		4.1	4.4
11								2.9		3.8	4.0	4.0
12		1.8	3.2					2.8	3.4	3.9	4.1	4.2
13								3.0		4.0	4.2	4.6
14		1.7						3.0	3.5	4.0	4.6	
15							1.7	2.8	3.4	4.0	4.2	4.3
16								2.7	3.5	4.0	4.1	4.3
17								2.8	3.5	4.0		
18	2.7	2.4						3.0	3.5			4.3
19								2.8	3.5	4.0	4.3	4.3
20			1.7	1.5				2.7	3.6	4.0	C	C
21		2.0							3.6	4.0	4.3	4.5
22								2.8	3.8	4.0	4.2	4.4
23	C	C						3.0	3.5	4.0	4.2	4.4
24								2.8	3.5	4.0	4.4	4.4
25									3.6	4.0	4.4	4.6
26	2.2			2.0	2.0	1.6				4.0	4.4	4.6
27	2.2							2.9	3.5	4.4	4.4	4.5
28			2.4	2.2					3.5	4.0	4.3	C
29				2.2					3.5	4.0	4.2	4.6
30										4.0	4.2	4.6
31	1.9					2.3			3.5		4.3	4.4
Count	4	6	3	4	2	1	2	20	27	26	26	25
Median	..	2.1	..	..	..	..	..	2.9	3.5	4.0	4.2	4.4
Mean	..	2.1	..	..	..	..	..	2.9	3.5	4.0	4.2	4.4

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

Characteristic : fBEs
 Unit : Mc
 Month : December 1957

TABLE 60
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

12	13	14	15	16	17	18	19	20	21	22	23	Date
4.4	4.2	4.0	3.6	3.3								1
4.5	4.5	4.0	3.7	3.3								2
4.3	4.2	4.2	3.7	3.4	2.4							3
4.4	4.2	4.3	4.0	4.6	2.6							4
	4.4	C	4.0	3.5								5
4.4	4.4	4.1	3.7	3.3	2.4							6
4.4	4.2	4.2	3.8	3.3								7
4.4	4.2	4.1	3.7	3.3								8
4.3	4.2	4.0	3.8	3.2						2.0		9
4.4	4.2	4.0	3.6	3.1	2.5							10
C	4.2	4.0	3.6	3.1								11
4.2	4.2	4.0	3.7	3.6	2.3				2.5			12
4.4	4.2	4.0	3.6	3.1						2.6		13
4.4	4.4	4.3	C	3.2								14
4.2	4.1	4.0	3.7	3.2			C					15
4.3	4.1	4.0	3.7	3.2	2.6							16
			4.0	3.4	2.6							17
4.5	4.7	4.1	3.8	3.3	2.6							18
4.4	4.4	4.3	4.0	3.3								19
C	C	3.8	3.3	2.6								20
	4.3	4.1	3.8	3.4	3.2							21
4.4	4.4	4.2	3.9	3.4								22
4.6	4.4	4.2	3.9	3.4								23
4.5	4.4	4.2	3.8	3.4	2.6							24
4.7	4.4	4.2	4.0	3.4	2.6							25
4.5	4.3	4.2	4.0	3.5								26
4.4	4.3	4.4	4.0	3.4								27
C	C	C	C	C						2.0	2.5	28
										2.2		29
5.4	5.0	5.0	4.0	3.5	2.7					1.8	C	30
4.6	4.3	4.2	3.8	3.4						2.4		31
4.5	4.4	4.3	3.8	3.4							2.0	
25	28	27	29	30	13	..	..	..	1	5	3	Count
4.4	4.3	4.2	3.8	3.4	2.6	..	..	..	..	2.0	..	Median
4.5	4.3	4.2	3.8	3.4	2.6	..	..	..	..	2.2	..	Mean

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

Characteristic : fbEs
Unit : Mc
Month : December 1957

TABLE 60—*contd.*
Ionospheric Data
75°0' 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	3'3	3'8	4'0	4'4	4'4
2								3'2	3'8	4'0	4'3	4'4
3		2'2					2'5	3'3	4'0	4'1	4'4	4'4
4	2'0	2'3					2'5	3'2	3'8	4'2	4'4	4'5
5								3'2	3'7	4'2	4'4	4'6
6								3'2	3'7	4'3	4'2	4'4
7							2'4	3'8	4'1	4'2	4'3	
8							2'4	3'1	3'8	4'0	C	4'3
9								3'2	3'8	C	C	C
10								3'1		4'0	4'3	4'4
11							2'6		3'6	4'0	4'0	
12		1'7					2'4	3'1	3'8	4'0	4'2	4'3
13							2'3		4'2	4'2	4'3	4'5
14								3'2	3'7	4'0	4'0	4'6
15							2'3	3'2	3'7	4'0	4'2	4'4
16							2'3	3'1	3'7	4'0	4'2	4'4
17							2'3	3'2	3'7			
18	2'0	2'0					2'4	3'2	3'8		4'5	
19							2'3	3'1	3'6	4'6	4'3	4'4
20			1'4	2'0			2'3	3'1	3'8	4'0	C	C
21	2'6								3'8	4'2	4'4	4'4
22								3'3	3'8	4'1	4'3	4'3
23	C							3'2	3'8	4'0	4'4	4'6
24							2'4	3'2	3'6	4'2	4'3	4'4
25								3'3	3'8	4'2	4'5	4'7
26	2'0							3'2	4'0	4'2	4'4	4'6
27					3'2	1'7		3'6	4'0	4'4	4'4	4'4
28		2'5	1'8					3'1	3'8	4'1	4'4	C
29			3'0					3'1	3'9	4'2	4'4	4'6
30							2'4	3'4	3'8	4'2	4'5	4'6
31		2'4		2'2					3'8	4'2	4'4	4'5
Count	4	6	3	3	1	..	16	26	30	28	26	25
Median .	..	2'2	..	..	..	..	2'4	3'2	3'8	4'1	4'4	4'4
Mean .	..	2'2	..	..	..	..	2'4	3'2	3'8	4'1	4'3	4'5

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

Characteristic : fbEs
 Unit : Mc
 Month : December 1957

TABLE 60—*contd.*
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
4.2	4.3	3.8	3.5	3.0								1
4.4	4.1	4.0	3.4	3.0								2
4.4	4.3	4.0	3.6	3.0								3
4.4	4.3	4.0	4.6	4.0								4
5.0	C	4.0	4.0	3.0								5
4.4	4.2	4.0	3.6	2.9								6
4.4	4.2	4.1	3.8	3.0								7
4.3	4.2	C	3.6	3.0								8
4.2	4.2	4.0	3.6	3.0						1.8		9
4.4	4.0	3.9	3.4	2.8								10
4.2	4.2	3.8	3.4	2.8								11
4.2	4.0	3.8	3.4	2.8				2.1				12
4.3	4.0	3.8	3.4	2.9								13
4.4	4.3	4.0	C									14
4.2	4.0	3.9	3.5	3.0								15
4.2	4.0	3.9	3.5	3.0	2.0							16
		4.3	3.8	3.0							2.2	17
4.3	4.2	4.0	3.6	3.0								18
4.4	5.1	4.2	3.6	3.0								19
C	C	4.1	3.6	3.1								20
4.5	4.3	4.0	3.6	3.1								21
4.4	4.2	4.0	3.6	3.0								22
4.5	4.2	4.0	3.6	3.0	2.1							23
4.4	4.2	4.0	3.6	3.0								24
4.5	4.4	4.2	3.7	3.0								25
4.4	4.2		3.7	3.2						2.1	2.2	26
4.4	4.4		3.8							2.8		27
C	C	C	C							2.0		28
5.4	5.0	4.0	4.0	3.0					2.0			29
4.6	4.3	4.0	3.6	3.1								30
4.4	4.3	4.0	3.7	3.1							2.2	31
28	27	27	29	28	2	..	..	1	1	4	3	Count
4.4	4.2	4.0	3.6	3.0	..	..	..	..	..	..	..	Median
4.4	4.3	4.0	3.6	3.0	..	..	..	..	..	..	..	Mean

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

Characteristic : fmin

TABLE 61

Latitude : 10.2° N

Unit : Mc

Ionospheric Data

Longitude : 77.5° E

Month : December 1957

75.0° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	2.0	2.0	1.9	2.3	2.0	1.9	2.0	2.1	2.4	2.6	2.9	3.0
2	2.4	1.8	1.7	1.7	1.7	1.8	2.0	2.2	2.2	2.6	2.8	3.0
3	2.1	2.0	2.1	2.0	1.6	1.5	1.9	2.0	2.3	2.9	3.1	3.0
4	2.0	1.7	2.2	1.7	1.7	1.6	2.0	1.9	2.4	2.7	3.0	3.5
5	1.9	2.0	1.9	1.4	1.8	1.8	1.5	2.2	2.4	2.6	3.0	4.0
6	2.2	2.2	2.0	1.9	1.7	1.6	2.0	2.0	2.2	4.8	3.0	3.2
7	1.6	1.4	1.6	1.4	1.5	1.6	1.9	1.9	2.1	2.4	2.7	3.0
8	1.7	1.9	1.8	2.0	1.7	1.9	1.8	1.7	2.0	2.3	C	C
9	1.8	1.5	1.5	1.7	1.6	1.8	1.8	2.3	2.4	C	C	C
10	2.0	2.0	2.0	1.7	1.8	1.6	1.8	2.0	2.3	3.2	3.0	3.1
11	2.0	2.0	1.8	1.7	1.7	1.7	1.8	2.1	2.2	2.4	2.6	2.8
12	2.0	1.6	1.5	1.6	1.6	1.6	1.8	1.9	2.4	2.6	2.6	3.0
13	1.8	1.8	1.9	1.4	1.6	1.4	1.1	2.4	4.1	3.1	3.4	3.6
14	1.9	1.7	1.4	1.6	1.5	1.4	1.8	2.2	2.6	2.6	3.6	4.8
15	2.2	2.0	1.8	1.9	1.6	1.6	1.5	1.6	2.2	2.4	2.6	2.7
16	1.7	1.5	1.6	1.6	1.7	1.6	1.9	1.9	2.1	2.4	2.6	2.7
17	1.5	1.3	1.7	1.5	1.4	1.4	1.7	1.6	2.0	2.6	3.1	5.0
18	2.0	1.4	2.0	1.9	2.3	1.9	1.8	2.0	2.3	2.8	5.6	2.8
19	1.8	1.5	1.8	1.6	1.3	1.4	1.7	1.9	2.3	2.6	2.6	2.9
20	1.4	1.5	1.2	1.3	1.5	1.6	1.8	1.9	2.2	2.6	C	C
21	1.6	2.0	2.0	1.7	1.9	1.8	1.9	2.1	2.5	3.0	3.0	3.5
22	2.0	2.0	2.0	1.6	1.7	1.5	1.7	1.8	2.2	2.5	2.6	2.8
23	C	C	1.6	2.1	1.6	1.8	1.7	1.7	2.2	2.7	2.7	3.0
24	1.8	1.8	1.3	1.5	1.2	1.3	1.7	1.3	2.0	2.4	3.0	2.8
25	2.0	2.0	1.6	1.5	1.6	1.7	1.7	2.0	2.3	2.6	3.3	2.9
26	1.4	2.0	1.5	1.3	1.3	1.4	1.6	1.6	4.0	2.8	3.0	3.2
27	2.0	2.4	1.6	1.9	1.9	1.7	1.7	1.5	2.0	2.6	2.8	3.0
28	1.7	2.0	1.5	2.0	1.7	1.7	1.6	1.7	2.2	2.6	2.6	C
29	2.0	2.2	1.8	1.4	2.4	1.9	1.7	1.8	2.2	2.8	3.0	3.1
30	2.5	2.0	2.1	1.7	1.7	1.3	1.7	2.2	2.8	2.8	3.0	3.2
31	1.5	1.8	1.8	1.6	2.3	1.6	1.7	2.2	2.6	2.8	3.0	3.0
Count	30	30	31	31	31	31	31	31	31	30	28	27
Median	2.0	2.0	1.8	1.7	1.7	1.6	1.8	1.9	2.3	2.6	3.0	3.0
Mean	1.9	1.8	1.7	1.7	1.7	1.6	1.8	1.9	2.4	2.7	3.0	3.2

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

Characteristic : fmin
 Unit : Mc
 Month : December 1957

TABLE 61
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
3.0	3.0	2.6	2.2	2.4	2.4	1.5	1.8	2.2	1.7	2.1	2.0	1
3.0	3.0	2.6	2.3	2.5	2.5	1.9	2.1	1.6	1.8	1.8	2.5	2
3.2	3.0	3.0	2.4	2.6	2.1	1.4	2.0	2.2	2.2	2.1	2.2	3
3.0	2.8	3.0	4.0	2.2	1.7	1.6	1.6	2.0	2.0	2.0	2.1	4
5.4	3.0	C	2.6	2.6	2.5	1.6	2.2	2.1	2.1	2.0	2.0	5
2.9	3.0	2.8	2.4	2.2	2.0	1.4	1.7	1.7	1.7	1.9	1.8	6
2.8	3.0	3.0	2.6	2.4	2.4	1.7	2.0	2.8	2.0	1.5	2.0	7
3.0	3.0	3.0	2.4	2.4	2.4	1.4	1.9	2.0	1.9	2.0	2.0	8
2.8	2.7	2.8	2.6	2.5	2.4	1.5	1.5	1.8	1.8	2.0	2.0	9
2.8	2.7	2.6	2.2	2.1	2.0	1.3	1.6	2.0	1.9	1.8	1.7	10
C	2.8	2.5	2.3	2.2	1.9	1.4	1.4	1.4	1.8	1.9	2.1	11
3.0	2.6	2.6	2.4	2.4	1.9	1.4	1.6	1.7	1.7	1.9	1.9	12
3.0	3.0	2.5	2.2	2.4	2.4	1.4	1.5	1.6	1.4	1.8	1.9	13
3.4	3.2	3.4	C	1.9	2.4	1.8	2.0	2.4	1.5	1.8	1.6	14
2.8	2.6	2.4	2.2	2.2	2.1	1.4	C	2.0	1.7	2.0	2.0	15
2.6	2.7	2.5	2.3	2.2	2.4	1.5	1.9	2.0	1.8	1.9	1.7	16
4.4	11.0	4.6	3.5	2.7	2.2	1.4	1.6	2.1	2.0	1.7	2.0	17
3.4	4.5	2.6	2.4	2.4	2.1	1.4	2.1	1.6	1.6	1.6	1.5	18
3.0	3.1	3.6	3.0	2.4	2.6	1.6	1.4	1.8	1.6	1.8	1.4	19
C	C	4.5	2.7	2.8	2.2	1.6	1.6	2.1	1.9	2.0	1.9	20
3.5	3.0	2.8	2.3	2.4	2.2	1.6	1.4	1.5	1.5	2.0	2.0	21
2.8	2.9	2.6	2.2	2.7	2.1	1.5	1.8	1.7	1.7	1.5	1.7	22
3.0	2.9	2.6	2.4	2.1	1.9	1.5	1.4	1.8	1.8	1.5	1.8	23
3.0	2.8	2.6	2.2	2.2	2.5	1.5	1.7	1.6	1.6	1.6	1.6	24
3.2	3.2	2.7	2.4	2.4	2.1	2.7	1.3	1.6	1.7	1.6	1.4	25
3.0	3.0	2.6	2.6	2.4	2.2	1.7	1.6	1.4	1.7	2.2	1.5	26
3.2	3.1	3.0	2.6	2.6	2.8	1.9	2.0	2.2	2.2	2.2	1.7	27
C	C	C	C	C	2.9	1.7	1.5	2.0	2.0	1.3	1.4	28
3.0	3.2	2.9	2.6	2.4	2.4	1.6	1.8	2.1	2.0	1.6	2.2	29
3.2	3.0	2.8	2.5	2.5	2.4	1.6	2.3	1.8	2.1	1.6	C	30
3.0	3.0	2.8	2.6	2.6	2.2	1.8	1.8	1.8	1.9	2.4	1.4	31
28	29	29	29	30	31	31	30	31	31	31	30	Count
3.0	3.0	2.8	2.4	2.4	2.2	1.5	1.7	1.8	1.8	1.9	1.9	Median
3.2	3.3	2.9	2.5	2.4	2.3	1.6	1.7	1.9	1.8	1.8	1.8	Mean

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

Characteristic : fmin
 Unit : Mc
 Month : December 1957

TABLE 61—contd.
 Ionospheric Data
 75.0° 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	2.0	1.7	2.0	2.2	1.8	1.8	1.8	2.2	2.4	2.9	3.0	3.0
2	1.9	1.7	1.7	1.7	1.6	1.7	2.0	2.0	2.3	2.7	3.0	3.0
3	2.2	1.8	2.2	1.8	1.7	1.5	1.7	2.2	2.8	2.8	3.0	3.1
4	1.7	1.9	1.8	1.7	1.7	1.7	1.8	2.3	2.6	3.0	3.2	3.1
5	1.8	1.8	1.7	1.6	1.7	1.6	2.2	2.4	2.5	2.6	3.0	3.4
6	2.2	2.5	2.1	2.0	1.9	1.9	2.0	2.0	2.4	3.0	3.0	3.0
7	1.5	1.6	2.2	1.4	1.6	1.5	1.9	2.2	2.6	2.5	3.0	2.8
8	2.0	2.1	2.0	1.6	1.8	1.7	1.8	1.9	2.2	2.5	C	2.8
9	1.6	1.6	1.6	1.5	1.4	1.6	1.8	2.2	2.6	C	C	C
10	2.2	1.7	2.2	2.2	1.7	1.7	2.0	2.1	2.6	2.8	3.0	3.0
11	1.9	1.6	1.8	1.5	1.7	1.7	1.7	2.2	2.2	2.4	2.8	3.4
12	1.5	1.5	1.9	1.6	1.6	1.3	1.8	2.2	2.8	2.6	2.6	3.0
13	1.7	1.9	1.8	1.5	1.6	1.4	1.6	4.5	3.5	3.3	3.0	3.0
14	2.0	1.5	1.8	1.6	1.4	1.5	2.0	2.2	2.6	2.8	5.7	3.6
15	1.8	1.7	2.2	1.8	1.5	1.7	1.5	1.8	2.4	2.4	2.6	2.7
16	1.6	1.7	1.7	1.6	1.6	1.7	1.8	2.0	2.3	2.5	2.7	2.5
17	1.7	1.6	1.5	1.6	1.3	1.3	1.7	1.7	2.3	3.0	3.2	4.4
18	1.8	2.0	1.8	1.8	2.0	1.9	2.0	2.2	2.7	3.0	4.4	6.1
19	1.9	1.4	1.8	1.5	1.5	1.6	1.9	2.1	2.4	2.6	2.7	3.0
20	1.4	1.3	1.3	1.2	1.6	1.6	1.8	2.0	2.5	2.6	C	C
21	1.3	2.0	1.7	1.6	1.6	1.7	2.4	2.4	2.8	3.0	3.3	3.0
22	1.8	1.8	1.7	1.8	1.8	1.5	1.7	2.0	2.4	2.4	2.6	2.8
23	C	1.7	1.8	1.7	1.5	1.6	1.6	2.0	2.3	2.6	3.0	3.4
24	2.0	1.6	1.4	1.3	1.4	1.4	1.3	1.7	2.1	2.6	3.0	2.8
25	2.0	1.7	1.6	1.7	1.7	1.8	1.9	2.1	2.2	2.6	3.1	3.0
26	1.6	1.7	1.7	1.4	1.4	2.1	1.7	2.0	2.9	3.0	3.3	3.0
27	2.0	2.2	1.7	2.0	2.0	1.7	1.4	1.9	2.2	2.6	2.8	3.2
28	2.2	1.9	1.5	2.0	1.8	1.6	1.7	1.8	2.2	2.5	3.0	C
29	2.4	2.1	1.4	2.1	2.0	2.0	2.1	2.2	2.6	2.8	3.0	3.0
30	1.6	2.9	1.7	1.7	1.7	1.4	1.2	2.4	2.6	2.8	3.0	3.2
31	1.5	1.7	2.0	2.0	2.2	1.4	2.4	2.2	2.6	3.0	3.0	3.0
Count	30	31	31	31	31	31	31	31	31	30	28	28
Median	1.8	1.7	1.8	1.7	1.7	1.6	1.8	2.1	2.5	2.6	3.0	3.0
Mean	1.8	1.8	1.8	1.7	1.7	1.6	1.8	2.2	2.5	2.7	3.1	3.2

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

Characteristic : fmin
 Unit : Mc
 Month : December 1957

TABLE 61—contd.
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
2.9	2.8	2.5	2.3	2.3	1.7	1.3	1.9	2.2	1.7	2.2	2.2	1
3.0	2.8	2.4	2.5	2.6	2.0	1.8	1.8	2.1	2.4	2.4	2.2	2
3.0	2.8	3.0	2.7	2.4	1.9	1.6	2.0	2.2	2.2	2.1	1.8	3
3.0	3.0	2.8	2.3	1.8	2.0	1.5	2.2	1.9	2.0	2.1	1.9	4
5.0	C	2.8	3.2	2.4	2.0	1.2	2.0	2.0	1.8	1.8	2.4	5
3.0	3.0	2.4	2.4	2.2	1.8	1.8	1.7	2.2	1.7	2.2	1.6	6
3.0	2.9	2.9	2.6	2.4	2.0	1.8	2.2	2.0	1.5	2.3	1.8	7
2.8	3.1	C	2.6	2.2	2.0	1.5	1.6	2.0	2.0	1.7	1.7	8
2.7	2.8	3.0	2.5	2.2	1.9	2.2	1.7	2.0	1.7	1.6	2.0	9
2.8	2.7	2.5	2.4	2.1	1.8	1.3	1.7	2.0	2.0	1.7	1.7	10
2.5	2.8	2.3	2.4	2.1	1.7	1.5	1.7	1.7	2.0	1.8	1.6	11
2.7	2.5	2.6	2.4	2.2	1.8	1.3	1.4	1.8	2.2	1.6	2.2	12
2.8	2.8	2.3	2.4	2.2	1.9	1.4	1.5	1.4	1.5	2.3	2.2	13
3.2	3.2	2.6	C	2.6	1.9	1.4	2.4	2.2	2.0	1.7	1.7	14
3.0	2.6	2.3	2.4	2.2	1.9	1.5	1.7	1.9	2.0	2.2	2.0	15
2.8	2.6	2.4	2.3	2.3	1.8	1.2	2.0	2.1	1.6	1.8	1.9	16
4.7	6.0	4.2	3.1	2.4	2.0	1.5	2.0	2.0	1.9	1.5	1.6	17
3.0	3.0	2.4	2.4	2.2	2.0	1.3	1.7	1.6	1.6	1.7	1.6	18
3.1	5.0	3.6	3.1	2.3	2.0	1.3	1.5	1.6	2.0	1.9	1.3	19
C	C	3.1	3.0	2.6	2.1	1.2	1.7	1.9	1.9	1.5	1.4	20
3.0	2.8	2.5	2.6	2.2	2.1	1.2	1.4	1.6	1.5	1.5	2.0	21
2.8	2.6	2.6	2.4	2.1	2.0	1.1	1.9	1.6	1.7	1.6	1.7	22
3.0	2.8	2.4	2.4	2.2	1.4	1.5	1.7	1.7	1.7	1.6	1.7	23
2.7	2.8	2.4	2.4	2.1	3.0	1.2	1.4	1.5	1.6	2.0	1.8	24
3.4	3.0	2.6	2.6	2.3	2.0	1.2	1.5	1.7	1.7	1.5	1.7	25
3.1	2.8	4.6	2.6	2.2	2.2	1.3	1.6	1.6	2.0	1.6	1.7	26
3.1	4.4	4.4	3.0	3.2	2.3	1.6	1.4	2.2	2.4	1.5	1.8	27
C	C	C	C	3.0	2.3	1.6	1.6	2.2	2.0	1.7	1.7	28
3.2	3.1	2.7	3.0	2.5	2.3	1.2	2.0	2.0	1.5	2.0	2.0	29
3.3	3.2	2.6	2.6	2.6	2.1	1.8	2.0	2.2	1.9	1.8	2.0	30
3.0	3.0	2.8	2.6	2.4	2.1	1.3	1.6	1.7	1.8	1.8	1.7	31
29	28	29	29	31	31	31	31	31	31	31	31	Count
3.0	2.8	2.6	2.6	2.3	2.0	1.4	1.7	2.0	1.9	1.8	1.8	Median
3.1	3.1	2.8	2.6	2.3	2.0	1.4	1.8	1.9	1.8	1.8	1.8	Mean

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

Characteristic : h'F2
 Unit : Km
 Month : December 1957

TABLE 62
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

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

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

Characteristic : h'F2
 Unit : Km
 Month : December 1957

TABLE 62
 Ionospheric Data
 75°0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
L	L	L	L	L								1
L	L	L	L	L								2
L	LH	LH	L	L								3
L	L	L	L	L								4
L	L	C	L	L								5
L	L	L	L	L	L							6
L	L	L	L	L	L							7
L	LH	LH	L	LH	L							8
LH	LH	L	L	L								9
												10
L	L	L	L	L								11
L	L	L	L	L								12
L	L	L	L	L								13
L	L	L	C	L								14
L	L	L	L	L								15
L	L	L	L	L								16
u460L	B	L	L	LH								17
L	L	L	L	L								18
L	L	L	L	L								19
G	C	L	L	L								20
L	L	LH	L	L								21
L	L	L	L	L								22
L	L	L	L	L								23
L	L	L	L	L								24
L	u600L	L	L	L								25
L	L	L	L	L	L							26
565	615	L	L	L								27
C	C	C	L	C								28
L	L	L	L	L								29
L	L	L	L	L								30
L	L	L	L	L								31
2	2	..	..	..								Count
..	..	..	..	..								Median
..	..	..	..	..								Mean

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

Characteristic : h'F2
 Unit : Km
 Month : December 1957

TABLE 62—*contd.*
 Ionospheric Data
 75°0' 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	LH	LH	LH
2								L	L	L	L	L
3								L	L	L	L	L
4								L	L	L	L	L
5								L	L	L	L	L
6								L	L	L	L	L
7								L	L	L	L	L
8								L	L	L	L	L
9								L	L	L	L	L
10								L	L	L	LH	LH
11								L	L	L	L	L
12								L	L	L	L	L
13								L	L	L	L	L
14								L	L	L	L	L
15								L	L	L	L	L
16								L	L	L	L	L
17								L	L	L	L	L
18								L	L	L	L	L
19								L	L	L	L	L
20								L	L	L	L	L
21								L	L	L	L	L
22							L	L	L	L	L	L
23								L	L	L	L	L
24								L	L	L	L	L
25								L	L	L	L	L
26								L	L	L	L	L
27								L	L	L	L	L
28								L	L	L	L	L
29								L	L	L	L	L
30								L	L	L	L	L
31								L	L	L	L	L
Count	1	..
Median
Mean

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

Characteristic : h'F2
 Unit : Km
 Month : December 1957

TABLE 62—contd.
 Ionospheric Data
 75°0' 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	L	L	L								1
L	L	L	L									2
L	LH	L	L									3
L	L	L	L									4
L	C	L	L	L								5
												6
L	L	L	L	L								7
L	L	L	L									8
L	LH	L	L	L								9
LH	LH	L	L									10
												11
L	L	L	L	L								12
L	L	L	L	L								13
L	L	L	L	L								14
L	L	L	L	L								15
L	L	L	L	L								16
L	L	L	LH	LH								17
L	L	L	L	L								18
L	L	L	L	L								19
L	L	L	L	L								20
C	C	L	L	L								21
U565L	LH	LH	L	L								22
L	L	L	L	L								23
L	U530L	L	L	L								24
U520L	L	L	L	L								25
L	U610L	L	L	L								26
												27
L	L	L	L	L								28
U610L	600	L	L	L								29
C	C	C	L	L								30
L	610	L	L	L								31
L	L	L	L	L								31
3	4	1	..	..								Count
..	..	..	..	..								Median
..	..	..	..	..								Mean

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

Characteristic : h'F

TABLE 63

Latitude : 10.2° N

Unit : Km

Ionospheric Data

Longitude : 77.5° E

Month : December 1957

75.0° E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	270	260	250	240	220	220	290	260	240	235	225	230
2	280	260	240	225	240	255	300	260	240	235	225	220
3	280	285	265	250	240	240	315	265	245	235	225	220
4	320	295	275	260	240	220	280	260	245	235	230	225
5	F	320	255	220	220	260	320	260	240	235	230	225
6	370	330	360	325	265	220	280	260H	250	U245B	230	220
7	325	280	260	245	240	230	290	255	240	230	225	220
8	250	275	280	260	235	220	275	260	240	235	C	C
9	U270F	260	240	U245F	230	245	280	260	240	C	C	C
10	280	270	240	255	255	245	280	260	240	235	225	220
11	295	315	300	305	265	290	280	260	240	230	230	230
12	275	280	300	240	290	380	320	260	245	230	230	235
13	265	290	290	260	260	240	320	260	260	240	235	220
14	280	310	280	250	225	235	300	260	240	225	225	240
15	380	U380F	320	290	270	260	320	265	250	240	225	220H
16	300	290	280	260	230	220	290	260	240	235	230	220
17	260	305	U310F	290	240	240	320	270	245	235	230	U240B
18	290	290	330	305	255	235	330	270	245	235	B	220
19	290	270	275	240	220	225	280	260	240	235	230	230
20	240	240	290	300	330	300	330	270	250	235	C	C
21	290	U335F	295	275	300	270	300	270	240	230	230	220
22	300	280	280	265	280	240	280	260	240	240	230	225
23	C	C	U340F	300	240	230	285	260	240	240	220H	220
24	310	280	270	260	240	230	290	265	240	230	225	220
25	310	320	280	280	280	275	300	270	250	240	240	230
26	300	300	310	350	360	350	340	270	260	240	230	230
27	340	350	345	325	265	220	265	270	255	245	235	230
28	345	320	325	340	280	260	280H	270	250	240	230	C
29	410	375	340	360F	F	300	305	270	250	240	235	240
30	U410F	335	300	285	300	315	355	275	245	240	230	240
31	330	310	285	240	240	235	290	270	255	240	230	240
Count .	29	30	31	31	30	31	31	31	31	30	27	27
Median .	295	290	285	260	250	240	290	260	245	235	230	225
Mean .	305	300	290	275	260	255	300	265	245	235	230	225

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

Characteristic : h'F
 Unit : Km
 Month : December 1957

TABLE 63
 Ionospheric Data
 75° 0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
220H	220	220	240	260	300	395	500	F	320	300	280	1
215H	215	220	240	260	300	370	430	380	380	320	300	2
210H	215	225	245	265H	290	380	F	F	F	F	U335F	3
220	220	230	240	260	290	380	560	F	F	400	400	4
B	225	C	245	260	295	380	450	F	460	380	360	5
220	220	225	245	260	290	360	425	U440F	350	320	305	6
220	220	230	245	255	290H	370	430	405	335	285	270	7
225	220	235	240	260	295	370	480	500	440	375	360	8
215	200H	230H	240H	250	290H	365	U440F	F	U370F	U305F	U295F	9
215	210H	220H	235	245	295	350	400	400	395	360	260	10
220	220	230	220	270	295	360	390	340	310	300	280	11
230	220	225	240	250	290	340	350	290	270	260	270	12
220	220	220	240	250	280	335	370	380	320	295	265	13
210	220	230	C	250	285	380	460F	F	F	420	340	14
215	220	220	230	260	295	360	C	U480F	U460F	390	280	15
215	205	210H	210H	255	300	370	460	F	U480F	340	270	16
220	B	240	245	265	290	365	500	F	U490F	400	285	17
215	230	230	240	260	290	365	460	U470F	460	355	340	18
220	215	230	245	260	300	370	435	460	385	320	280	19
C	C	240	240	260	295	360	495	U570F	U460F	U400F	310	20
220	220H	230H	240	265	300	370	450	440	380	355	325	21
220	220	220	240	260	290	360	U500F	U480F	U560F	460	465	22
220	220	210	240	255	290	360	470	460F	440	360	340	23
215	220	215H	240	260	295	365	480	460	460	440	340	24
220	225	230	240	250	300	380	510	500	U340F	U380F	340	25
220	220	220	240	260	300	370	460	440	400	340	340	26
220	220	220	240	260	300	370	520	F	525	450	410	27
C	C	C	C	C	300	370	460	480	520	500	450	28
U245A	U240A	U250A	240	260	300H	360	500	F	U520F	U500F	460	29
230	220	225	240	270	300	380	470	405	355	360	C	30
230	230	230	240	270	305	365	500	410	325	300	330	31
28	28	29	29	30	31	31	29	21	28	30	30	Count
220	220	225	240	260	295	370	460	440	400	360	330	Median
220	220	225	240	260	295	365	460	440	410	365	330	Mean

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

Characteristic : h'F

TABLE 63—contd.

Latitude : 10° 2' N

Unit : Km

Ionospheric Data

Longitude : 77° 5' E

Month : December 1957

75° 0' E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	275	260	240	240	215	235	270	240	235	230	225	220
2	265	260	235	220	240	270	270	245	235	230	220H	220
3	280	290	270	235	240	260	280	255	240	225	225	220
4	300	290	270	240	235	230	275	255	240	235	230	225
5	320	280	235	220	235	280	280	255	235	230	230	225
6	360	330	355	300	235	235	280H	250	240	235	225	215
7	305	265	260	240	235	240	270	250	235	230	225	225
8	260	295	280	250	220	220	265	250	235	225H	C	225
9	255	255	250	240	U225F	245	270	245	240	C	C	C
10	275	240	255	255	255	240	275	245	240	225	225	220
11	300	320	300	280	295	265	275	250	230	220	235	220
12	275	300	260	270	320	420	290	250	235	230	225	225
13	280	300	280	255	245	265	280	U270B	240	230	230	210H
14	295	300	260	240	240	240	275	250	225	230	B	220
15	365	U360F	320	260	260	275	280	260	240	235	220	215
16	325	290	270	250	220	225	280	250	240	230	220	220
17	300	340	U315F	280	240	260	290	250	240	230	225	220
18	280	300	305	275	230	250	290H	260	240	230	230	B
19	290	265	260	225	230	235	280	260	235	235	220	220
20	235	260	295	320	315	285	290	260	240	230	C	C
21	340	300	270	300	280	270	290	255	240	230	220	220
22	280	280	275	280	270	240	280	250	240	230	230	220
23	C	U340F	330	260	240	240	280	260	240	220H	220	235
24	300	280	260	240	240	240	290	260	240	225	220	220
25	320	280	280	285	275	265	290	260	240	240	235	220
26	290	300	320	U360A	360	340	300	260	245	235	220	220
27	340	345	340	300	240	230	290	260	250	240	230	230
28	340	320	335	315	260	255	295	260	240	230	230	C
29	F	325	U390A	U340F	F	290	295	260	245	240	225	235
30	360	320	285	300	300	310	300	260	240	230	230	235
31	310	305	265	240	240	240	295	255	245	235	225H	235
Count	29	31	31	31	30	31	31	31	31	30	27	27
Median	300	300	275	260	240	250	280	255	240	230	225	220
Mean	300	295	285	270	255	260	285	255	240	230	225	225

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

Characteristic : h'F
 Unit : Km
 Month : December 1957

TABLE 63—contd.
 Ionospheric Data
 75°0' E Mean Time

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

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
220	220H	220	250	270	335	440	460	F	320	300	280	1
220	205H	235	250	275	320	405	400	385F	360	310	290	2
220	200H	240	250	280H	315	F	F	F	F	F	340	3
220	220	235	245	265	320	480	F	F	400	380	400	4
B	C	245	260	270	320	425	480	F	405	340	U370F	5
225	225	230	250	275	320	390	U450F	400F	340	320	320	6
220	220	240	250	265H	320	415	425	360	310	285	260	7
220	220H	C	245H	275H	310	425	500	F	405	370	U300F	8
215	220	230	250H	270	315H	410	U460F	U405F	U340F	U300F	280	9
210H	200H	235	240	265	310	390	400	405	365	300	270	10
220	220	230	260	280	315	380	380	330	300	280	280	11
220	220	220	250	275	300	380	320	280	260	260	270	12
220	220	230	240	260	300	360	370	370	290	280	270	13
210	230	230	C	270	320	440	F	F	U410F	380	350	14
205	215	225	240	260	320	430	F	U460F	F	320	295	15
210	200H	215	250	270	315	400	F	F	U400F	300	260	16
220	B	245	250	280	325	440	600	U500F	U440F	U360F	285	17
205	220	240	250	270	310	425	460	460F	425	340	300	18
215	B	240	260	280	330	420	460	425	350	300	250	19
C	C	240	245	280	320	420	560	F	U470F	340	300	20
220	230H	240	260	280	330	425	440	415	340	325	300	21
220	215	240	240	270	315	440	U500F	U460F	U510F	480	420	22
210	210	220	240	275	320	430	U460F	U460F	400	350	310	23
210	220	240	245	265	325	440	465	460	450	400H	310	24
220	230	240	240	270	320	450	520	U500F	U370F	U360F	310	25
220	220	B	250	280	330	440	480	400	350	340	335	26
225	220	U235B	260	280	325	460	620	U600F	500	440	360	27
C	C	C	C	270	325	425	460	510	510	460	410	28
A	U240A	240	245H	270	320	430	F	F	F	U465F	U435A	29
230	220	220H	250	280	330	440	430	380	345	350	345	30
230	220H	235	260	280	330	460	470	360	310	310	345	31
27	26	28	29	31	31	30	25	22	28	30	31	Count
220	220	235	250	270	320	425	460	410	370	340	300	Median
220	220	235	250	275	320	425	465	425	380	345	320	Mean

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

Characteristic : h'E
Unit : Km
Month : December 1957

TABLE 64
Ionospheric Data
75.0° E Mean Time

Latitude : 10.2° N
Longitude : 77.5° E

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

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

Characteristic : h'E
 Unit : Km
 Month : December 1957

TABLE 64
 Ionospheric Data
 75° 0' E Mean Time

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

12	13	14	15	16	17	18	19	20	21	22	23	Date
A	A	A	A	A								1
A	A	A	A	110								2
A	A	A	A	A	A							3
A	A	A	B	A	A							4
B	A	C	105	110								5
A	A	A	A	A	A							6
A	A	A	A	A								7
A	A	105	105	110								8
A	A	A	110	A								9
A	A	A	A	105	A							10
A	A	A	A	110	140							11
A	A	A	A	110								12
A	A	A	A	110								13
A	110	A	C	110								14
A	A	110	A	110								15
A	A	A	A	A								16
B	B	B	B	A	A							17
A	B	A	A	105	A							18
A	A	B	A	A								19
C	C	B	A	120	135							20
110	A	A	A	110	A							21
A	A	A	A	170	120							22
A	A	A	A	105	120							23
A	A	A	A	110	120							24
A	A	A	A	115	120							25
105	105	100	105	110	130							26
A	A	A	105	A								27
C	C	C	C	C								28
A	A	A	A	A	A							29
A	105	A	A	110	140							30
A	A	A	A	110	120							31
2	3	3	5	19	9							Count
..	..	..	105	110	120							Median
..	..	..	105	110	125							Mean

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

Characteristic : h'E
 Unit : Km
 Month : December 1957

TABLE 64—*contd.*
 Ionospheric Data
 75°0' 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							115H	105	105	A	A	A
2							115	105	100	A	A	A
3							A	A	A	A	A	A
4							110	105	A	105	A	A
5							120H	110	105	A	A	105
6							120H	105	110	A	A	A
7							120H	110	A	A	105	A
8							120H	105	105	A	C	105
9							120H	110	105	C	C	C
10							125	105	105	105	A	A
11							120	115	110	A	A	B
12							120	110	110	A	A	110
13							120	B	110	A	A	A
14							120	115	110	A	B	B
15							120	A	A	A	A	A
16							120	A	A	A	A	A
17							A	A	A	105	100	B
18							A	A	A	110	B	B
19							120	110	110	A	A	A
20							A	A	A	A	C	C
21							..	115	A	A	110	110
22							120	A	A	A	A	A
23							120	110	105	A	A	A
24							A	110	A	A	A	A
25							120	110	105	A	110	A
26							120	110	110	110	110	110
27							105	A	105	A	A	A
28							125	110	A	A	A	C
29							145	110	A	A	A	A
30							..	A	110	A	A	A
31							..	115	110	A	A	A
Count .							23	21	18	5	5	5
Median .							120	110	110	105	110	110
Mean .							120	110	105	105	105	110

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

Characteristic : h'E
 Unit : Km
 Month : December 1957

TABLE 64—contd.
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2300	Date
A	A	A	100	A								1
A	A	A	105	120								2
105	105	A	A	A								3
A	A	A	A	A								4
B	C	A	A	115								5
A	A	A	A	A								6
A	A	A	A	A								7
A	A	C	105	120								8
A	A	A	105	A								9
A	A	A	105	110								10
A	105	A	110	110								11
A	A	A	110	120								12
A	A	A	110	115								13
110	A	A	C	1135 ^B								14
A	A	A	110	115								15
A	A	A	A	A								16
B	B	B	A	A								17
A	A	A	105	A								18
A	B	B	A	A								19
C	C	A	120	A								20
A	A	105	110	A								21
A	A	A	A	110								22
A	A	A	A	120								23
A	A	A	110	115								24
A	A	A	110	115								25
105	105	B	110	115								26
A	B	B	110									27
C	C	C	C									28
A	A	A	A	A								29
A	105	A	110	120								30
A	A	A	110	115								31
3	4	1	18	16								Count
..	..	..	110	115								Median
..	..	..	110	115								Mean

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

Characteristic : h'Es
 Unit : Km
 Month : December 1957

TABLE 65
 Ionospheric Data
 75.0° E Mean Time

Latitude : 10.2° N
 Longitude : 77.5° E

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

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

Characteristic : h'Es
 Unit : Km
 Month : December 1957

TABLE 65
 Ionospheric Data
 75°0' E Mean Time

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

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

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

Characteristic : h'Es
 Unit : Km
 Month : December 1957

TABLE 65—*contd.*
 Ionospheric Data
 75.0° 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							G	100	100	100	100	100
3		105					105	100	100	100	100	100
4	105	110					105	100	100	100	100	100
5			110				G	100	100	100	100	100
6							G	100	100	100	100	100
7							100	G	100	100	100	100
8							120	100	100	100	C	100
9							G	100	100	C	C	C
10							G	100	G	100	100	100
11							120	G	100	100	100	G
12		120					110	100	100	100	100	100
13							110	100	100	100	100	100
14							G	100	100	100	B	100
15							100	100	100	100	100	100
16							100	100	100	100	100	100
17							100	100	100	G	G	G
18	100	105					100	100	100	G	100	B
19							100	100	100	100	100	100
20		110	115	115			100	100	100	100	C	C
21	110							G	100	100	110	100
22							100	100	100	100	100	100
23	C						G	100	100	100	100	100
24							100	100	100	100	100	100
25							100	100	100	100	100	100
26	110		120	100	100	100	G	100	100	100	100	100
27							G	100	100	100	100	100
28		110	115				G	100	100	100	100	C
29			110				G	100	100	100	100	100
30							100	110	100	100	100	100
31		105		100				G	100	100	100	100
Count	4	7	5	3	1	1	18	27	30	28	26	25
Median	..	110	115	..	..	..	100	100	100	100	100	100
Mean	..	110	115	..	..	..	105	100	100	100	100	100

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

Characteristic : h'Es
 Unit : Km
 Month : December 1957

TABLE 65—*contd.*
 Ionospheric Data
 75.0° 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								1
100	100	100	100	100								2
100	100	100	100	100								3
100	100	100	100	100								4
100	C	100	100	100								5
100	100	100	100	105					120			6
100	100	100	105	110								7
100	100	C	100	100								8
100	100	100	100	100						110		9
100	100	100	100	105								10
100	100	100	100	105								11
100	100	100	100	100				100				12
100	100	100	100	105					120	120		13
100	100	100	C	100								14
100	100	100	100	100								15
100	100	100	100	100	150							16
G	B	100	100	100								17
100	100	100	100	100							100	18
100	100	100	100	100								19
C	C	100	100	100							120	20
100	100	100	100	100								21
100	100	100	100	100								22
100	100	100	100	100	100							23
100	100	100	100	100								24
100	100	100	100	105								25
100	100	100	100	100						120	110	26
100	100	100	100	100						110		27
C	C	C	C	105						120		28
100	100	100	100	105					120	120		29
100	100	100	100	105					125			30
100	100	100	100	100							110	31
28	27	29	29	31	2	..	..	1	4	6	4	Count
100	100	100	100	100	..	..	..	..	..	120	..	Median
100	100	100	100	100	..	..	..	..	..	115	..	Mean

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

Characteristic : (M3000)F2

TABLE 66

Latitude : 10°2' N

Unit : —

Ionospheric Data

Longitude : 77°5' E

Month : December 1957

75°0' E Mean Time

Date	00	01	02	03	04	05	06	07	08	09	10	11
1	F	F	2'75F	2'95	3'10	3'10	U2'75S	2'50	2'40	2'20	2'15	2'05
2	U2'20F	U2'55F	2'75	U3'00S	J3'00S	2'90	2'70	2'60	2'55	2'30	2'10	2'00
3	2'55	2'40	F	2'70	2'90	3'00	2'70	2'05H	2'35	2'10	2'10	2'05
4	F	U2'50F	F	F	F	F	U2'80S	U2'40F	2'30	2'20	2'10	2'00
5	F	F	F	2'90F	3'15	3'05	2'55	2'65	2'40	2'15	2'05	2'10
6	F	U2'20F	U2'25F	2'35	2'55	2'90	U2'85S	2'55	2'30	2'15	2'10	2'10
7	U2'25F	U2'55F	U2'65S	F	U2'90S	3'00	2'70	2'65	2'45	2'30	2'05	2'00
8	2'55	2'60	2'55	2'60	2'95	2'95	2'80	2'70	2'40	2'30	C	C
9	F	F	F	2'80F	U3'00F	F	2'75	2'70	2'55	C	C	C
10	2'45	2'50F	F	U2'80F	2'80	F	2'75	2'60	2'50	2'50	2'40	2'15
11	2'50	U2'40F	U2'45F	2'60	U2'75S	2'60	U2'60S	2'70	2'65	2'60	2'10	2'05
12	U2'30S	U2'55S	U2'60S	U2'90S	2'80	2'40	U2'45S	U2'80S	U2'60S	2'45	2'35	2'30
13	2'75	U2'65S	2'70	2'80	U2'95S	U3'00S	U2'70S	U2'70S	2'50	2'35	2'20	2'20
14	2'60	U2'60S	U2'65S	F	U3'05S	U3'10S	U2'90S	U2'60S	2'60	2'50	2'35	2'25
15	F	F	F	F	F	U3'00F	F	U2'70S	2'60	2'35	2'25	2'20
16	F	U2'50F	U2'75F	2'80	3'00	U3'20S	2'80	2'55	2'40	2'30	2'25	2'20
17	U2'50S	F	F	F	U2'60F	2'85	S	U2'70S	2'60	2'45	2'50	2'40
18	2'40	2'45	F	F	U2'80F	3'10	Fs	FH	2'45	U2'35R	2'30	2'20
19	F	U2'50F	Fs	Fs	3'00	3'00	2'80	2'70	2'45	2'30	2'20	2'05
20	2'65	2'70	2'55	2'50	2'50	2'50	2'45	2'55	2'35	2'35	C	C
21	F	F	F	2'60	F	U2'70F	U2'60F	2'45	2'35	2'25	2'05	2'05
22	F	U2'60F	F	F	F	2'85	U2'85S	2'50	J2'25R	J2'20R	2'10	2'00
23	C	C	F	F	F	U3'00F	U2'90F	U2'70F	2'40	2'20	2'10	2'05
24	F	U2'50F	F	2'70F	2'95	3'00	2'60	2'50	J2'35R	2'20	2'00	2'00
25	F	F	F	U2'60F	2'65F	F	F	U2'45F	2'30	J2'20R	2'20	2'05
26	2'55	2'60	U2'65S	F	F	F	F	F	U2'30F	2'15	2'10	1'95
27	2'20	U2'30F	U2'15F	2'35	2'50	U2'90S	2'75	2'50	2'25	2'15	2'00	2'00
28	J2'20S	U2'35F	F	F	F	F	2'80	U2'55S	2'30	2'15	2'00	C
29	F	F	F	F	F	F	F	F	2'35	J2'10R	2'05	2'00
30	F	F	F	U2'55F	F	F	F	U2'50S	J2'40S	2'30	2'15	2'00
31	2'05	2'30	2'55	2'90	3'00	3'00	2'55	2'55	2'40	J2'15R	2'10	1'95
Count	16	21	14	19	22	23	24	28	31	30	28	27
Median	2'50	U2'50	U2'65	2'70	2'90	3'00	2'75	2'60	2'40	2'30	2'10	2'05
Mean	2'40	U2'50	U2'55	2'70	2'85	2'90	2'70	2'60	2'40	2'30	2'15	2'10

Sweep 1'00 Mc. to 25'0 Mc. in 27 seconds.

Characteristic : (M3000) 2

TABLE 66

Latitude : 10°2' N

Unit : —

Ionospheric Data

Longitude : 77°5' E

Month : December 1957

75°0' E Mean Time

12	13	14	15	16	17	18	19	20	21	22	23	Date
2'00	2'00	2'00	2'00	1'95	1'90	E1'90W	F	F	F	F	F	1
2'00	2'00	2'00	2'00	1'95	1'95	2'05	2'00	2'10	2'00	2'20	2'35	2
2'00	2'05	2'05	2'00	U2'00S	1'95	U2'00S	U1'90W	F	F	F	U2'20F	3
2'05	2'00	2'00	U2'05S	1'90	1'95	2'00	F	F	E1'95W	F	F	4
2'05	2'00	C	2'00	1'95	U1'95S	W	E1'90W	F	F	2'05	F	5
2'00	E1'90W	E1'90W	1'90	1'95	2'00	2'10	2'00	2'00F	2'10F	2'25	F	6
1'90	1'95	1'95	1'95	2'05	2'05	U2'00S	U1'90W	1'90	2'15	U2'30F	U2'40F	7
2'10	2'00	1'95	1'95	2'00	2'00	U1'95R	U1'95F	F	F	F	F	8
2'05	2'05	2'00	2'00	2'05	2'00	U1'95S	U1'90F	F	F	U2'20S	2'35	9
2'00	E1'90W	E1'90W	1'90	2'00	2'05	U2'05S	2'05	2'05	2'10	F	U2'45F	10
C	2'05	2'00	E2'00W	2'00	U2'05S	2'05	E2'00W	2'15	2'15	2'20	2'25	11
2'20	2'15	1'95	W	E2'00W	2'10	U2'20S	U2'20S	2'30	2'60	U2'60S	2'55	12
2'05	2'00	1'95	2'00	2'15	U2'20S	U2'30S	2'20	2'30	2'35	U2'50S	2'55S	13
2'05	2'10	2'00	C	2'00	2'00	2'10	E1'90W	F	F	F	F	14
2'10	2'10	2'05	U2'05S	2'05	2'00	S	C	F	F	F	F	15
2'15	2'05	1'90	1'90	1'95	2'05	2'10	1'90	U1'90F	U2'00F	U2'15S	2'35	16
2'30	U2'40R	2'20	2'05	1'95	1'95	2'05	1'90	F	F	F	U2'40F	17
2'10	2'00	1'95	1'90	1'95	2'05	2'00	1'90	U1'90F	F	U2'10R	F	18
2'00	1'95	1'90	1'95	1'90	2'00	2'05	2'00	1'95	2'00	2'20	U2'40F	19
C	C	2'00	1'95	2'00	2'00	2'00	1'90	U1'80F	1'90	U2'00F	U2'15S	20
2'00	1'95	1'95H	1'85	1'85	2'00	U2'00S	1'90	F	F	F	F	21
U2'00W	U2'00W	W	U2'00W	1'95	2'00	1'95	F	U1'90F	F	F	F	22
2'05	2'00	U2'00W	D1'90W	D1'90W	U2'00S	U2'00S	U1'95S	U2'00F	F	F	F	23
U1'95W	2'00	W	W	D1'90W	U2'00S	U2'00S	D1'90W	U2'00S	1'95	F	U2'30W	24
U1'95W	2'00	2'00	2'00	U1'95S	D1'90W	U1'95S	D1'90W	W	F	F	U2'15F	25
J2'00R	1'95	1'95	1'95	1'95	D1'90W	1'95	D1'90W	U1'95F	U2'10F	U2'25S	2'20	26
1'95	1'95	1'90	1'95	1'90	1'90	U2'00S	1'85	F	F	F	U2'05F	27
C	C	C	C	C	U1'95S	U1'95S	1'90	1'85	1'85	F	2'00F	28
2'00	J2'00R	2'00	2'00	2'05	2'00	U2'00S	1'90F	F	F	F	F	29
1'90	1'90	1'90	1'90H	1'90	1'95	1'90	1'90	2'00	2'05	J2'15F	C	30
1'85	1'90	1'90	1'90	1'90	U1'90S	1'95	1'85	1'95	2'15	2'20	2'25	31
28	29	29	29	30	31	30	27	19	16	15	18	Count
2'00	2'00	1'95	1'95	1'95	2'00	2'00	1'90	1'95	2'10	2'20	2'30	Median
2'05	2'00	1'95	1'95	1'95	2'00	2'00	1'95	2'00	2'10	2'20	2'30	Mean

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

Characteristic : (M3000)F2

TABLE 66—*contd.*

Latitude : 10°2' N

Unit : —

Ionospheric Data

Longitude : 77°5' E

Month : December 1957

75°0' E Mean Time

Date	0030	0130	0230	0330	0430	0530	0630	0730	0830	0930	1030	1130
1	F	F	2'80	3'05	3'20	3'10	2'75	2'40	2'35	2'10	2'10	2'05
2	2'35	2'65	2'90	3'10	3'00	2'80	U2'70S	2'60	2'40	2'20	2'05	2'00
3	2'35	2'35	2'55	2'90	2'95	2'85	2'45H	2'50	2'25	2'15	2'10	2'00
4	2'40	F	F	F	F	F	U2'65S	U2'35F	2'25	2'25	2'05	2'00
5	F	F	F	U3'15F	3'05	2'75	2'45	2'60	2'30	2'05	2'10	2'10
6	F	U2'15F	2'25	U2'55S	2'70	3'00	2'60	2'45	2'25	2'10	2'10	2'05
7	U2'40F	U2'55F	U2'70S	U2'75F	3'00	2'85	2'75	2'50	2'35	2'15	2'00	2'00
8	2'55	2'55	2'60	2'70	2'90	3'00	2'75	2'50	2'40	2'25	C	2'15
9	F	F	U2'70F	F	F	2'95	2'80	2'60	2'40	C	C	C
10	U2'45F	F	F	2'80	2'85	U2'95F	2'70	2'50	2'55	2'40	2'25	2'05
11	U2'60F	F	2'45	U2'50F	U2'60S	U2'60S	U2'70S	2'70	2'60	2'25	2'05	2'05
12	U2'55S	U2'50S	2'85	2'90	2'60	U2'20F	U2'60S	2'65	2'45	2'40	2'30	2'30
13	2'70	2'65	U'275S	U2'90S	S	3'00	U2'45S ^H	2'55	2'40	2'30	2'10	2'05
14	U2'60S	F	F	2'90	3'10	3'10	U2'70S	2'50	2'55	2'40	2'30	2'20
15	F	F	F	F	F	F	S	2'60	2'50	2'30	2'20	2'15
16	F	U2'60F	U2'65F	2'90	3'10	3'10	2'60	2'50	2'35	2'30	2'20	2'15
17	U2'40S	F	F	F	2'85	2'75	S	2'60	2'50	2'45	2'45	2'35
18	2'50	F	F	F	2'90	3'00	U2'50FH	2'40	U2'40S	2'35	U2'25R	2'15
19	U2'40F	FS	FS	2'90	2'90	2'95	2'80	2'55	2'30	2'25	2'10	2'05
20	2'60	2'65	2'55	2'55	2'50	2'60	S	2'40	2'35	2'25	C	C
21	F	F	F	FS	U2'60F	F	2'55	2'35	2'30	2'15	2'00	2'00
22	U2'70F	U2'70F	F	F	F	2'90	U2'70S	U2'45S	J2'25R	2'10	2'05	2'00
23	C	F	F	F	U2'90F	U3'10F	U2'75F	U2'55S	2'30	2'15	2'05	2'05
24	F	F	U2'70F	2'85	J3'05S	3'00	2'60	2'45	2'25	2'15	2'00	U2'00W
25	F	F	F	U2'65F	F	F	U2'70F	U2'35F	2'25	2'20	2'15	U1'95W
26	2'55	J2'60R	F	F	F	F	F	U2'45F	2'20F	2'10	2'00	J1'95R
27	2'25F	F	U2'25F	2'40	U2'80S	2'90	U2'65S	J2'25S	2'15	2'05	2'00	1'95
28	J2'30S	U2'50F	F	F	U2'80S	U2'90R	U2'70S	J2'35S	2'20	2'05	2'00	C
29	F	F	F	F	F	F	F	2'45	J2'15R	U2'10R	2'00	2'00
30	F	F	F	F	F	F	F	2'55	2'35	2'25	2'10	1'95
31	J2'15S	2'45	2'70	2'90	3'05	2'95	2'65	2'50	2'20	2'20	2'00	1'90
Count	19	13	15	19	22	24	25	31	31	30	28	28
Median	U2'45	U2'55	2'70	2'90	2'90	2'95	2'70	2'50	2'35	2'20	2'10	2'05
Mean	U2'45	U2'55	2'65	2'80	2'90	2'90	2'65	2'50	2'35	2'20	2'10	2'05

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

Characteristic : (M3000)F2

TABLE 66—contd.

Latitude : 10°2' N

Unit : —

Ionospheric Data

Longitude : 77°5' E

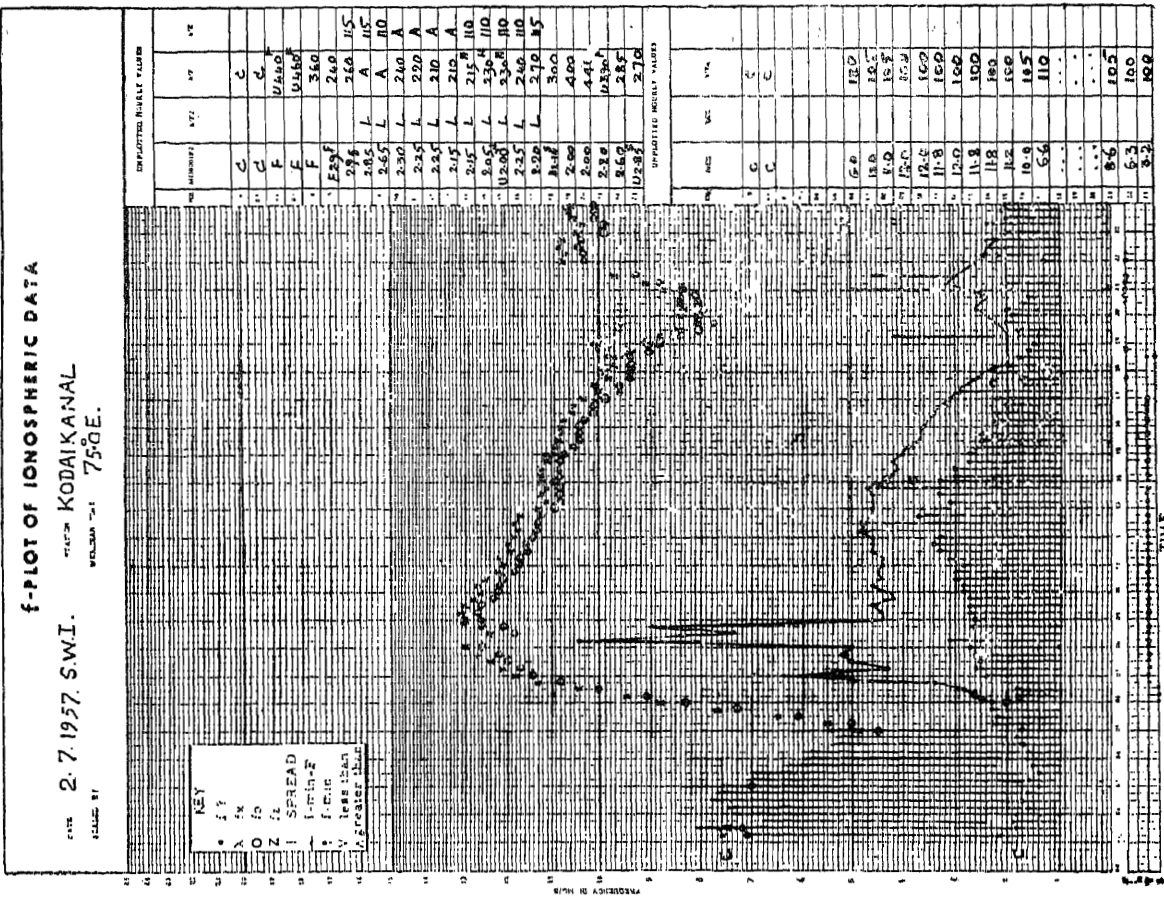
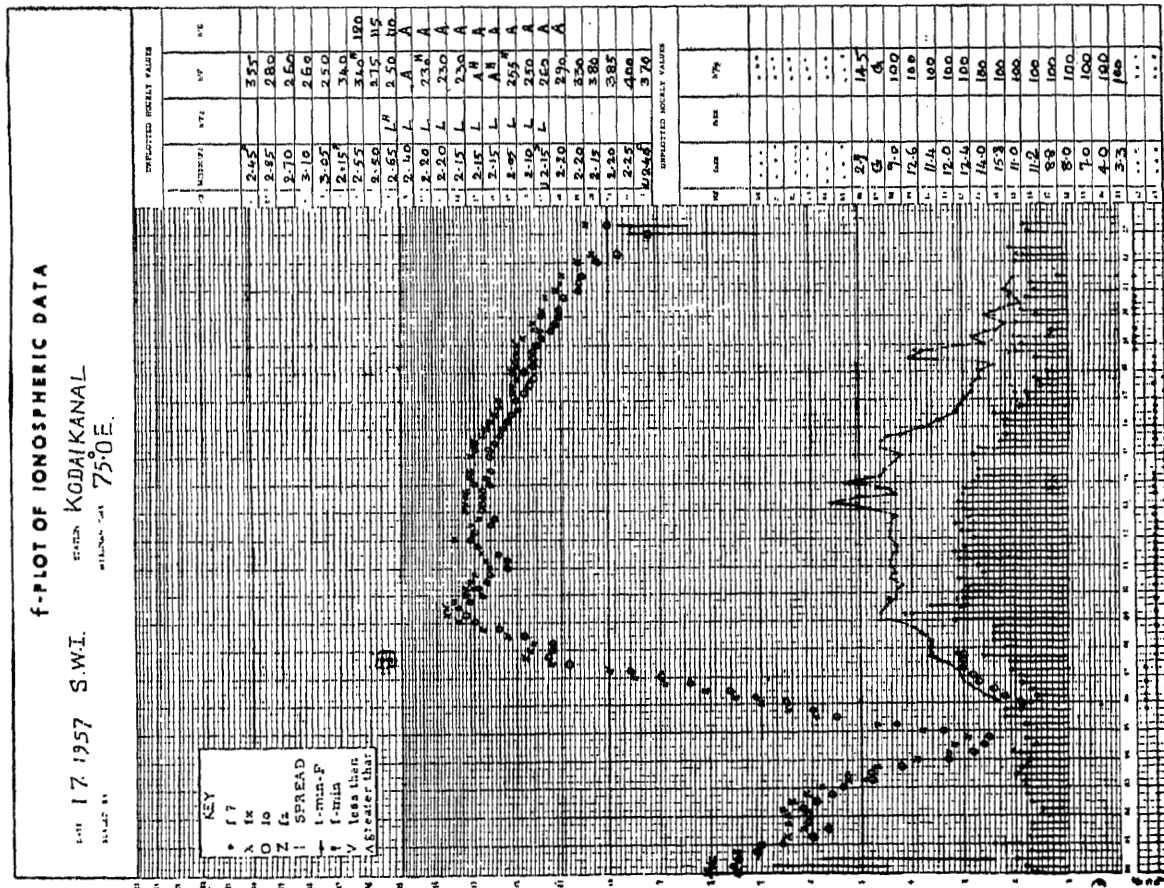
Month : December 1957

75°0' E Mean Time

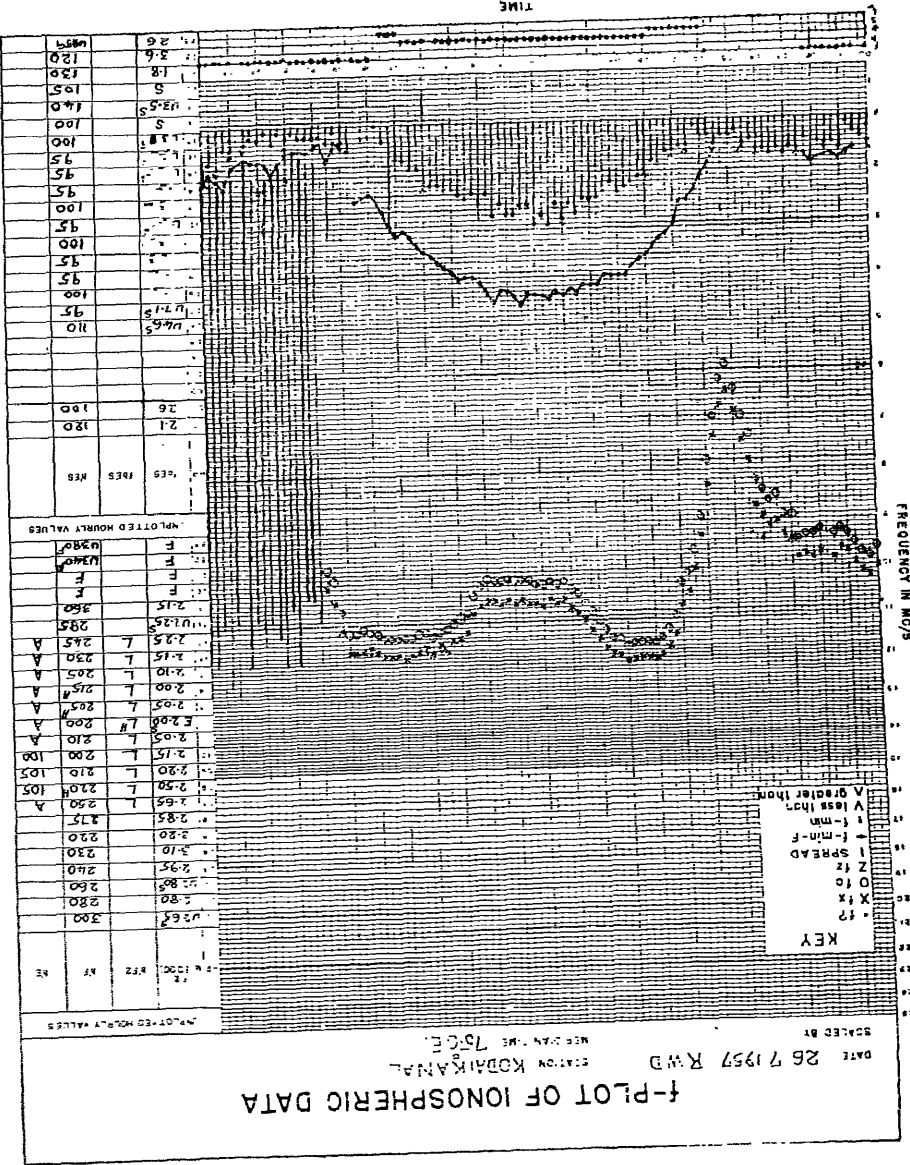
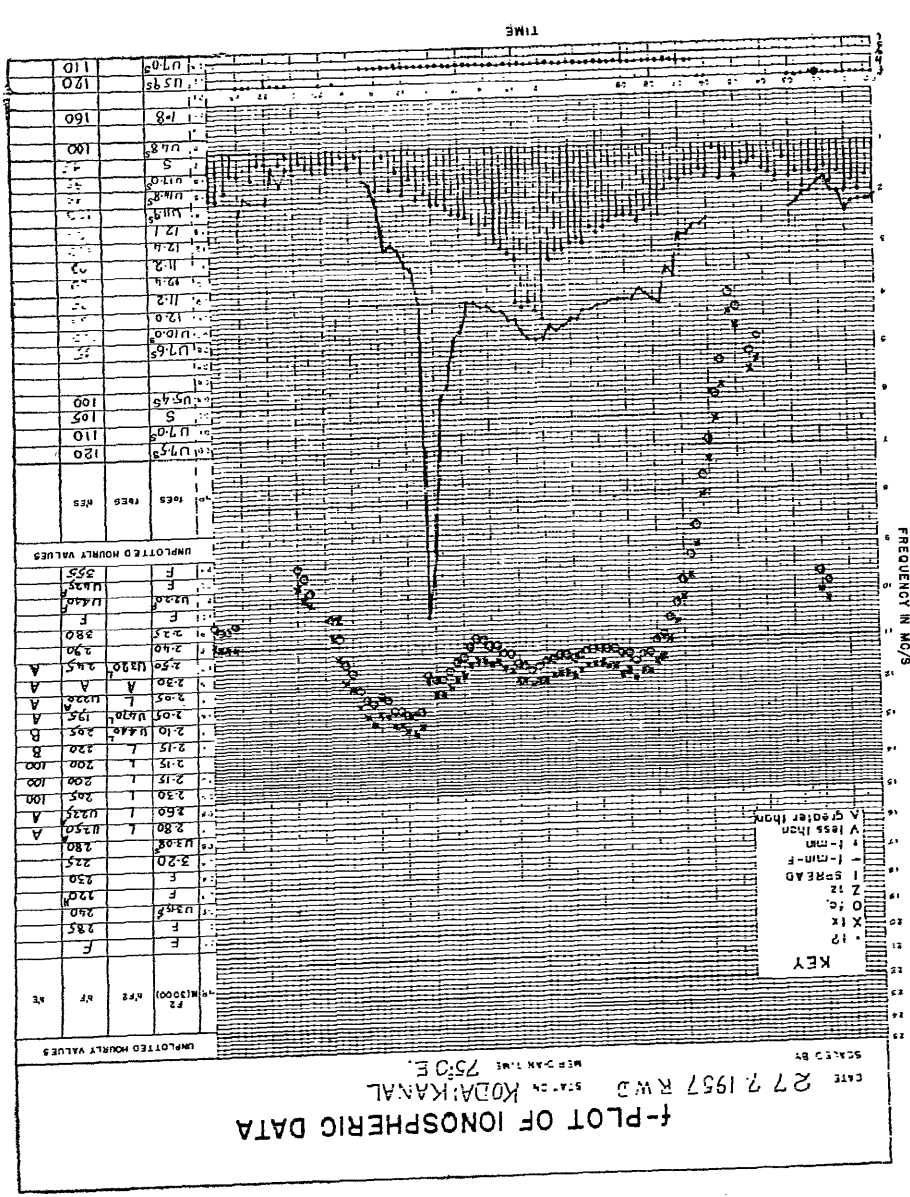
1230	1330	1430	1530	1630	1730	1830	1930	2030	2130	2230	2330	Date
2'00	2'00	2'00	U2'00R	1'95	E1'90W	E1'90W	F	F	F	F	U2'20F	1
2'00	2'00	2'00	1'95	1'90	2'00	2'00	2'05	U2'05R	2'15	2'30	2'45	2
2'00	2'05	2'05	2'00	1'95	U1'90W	U1'90W	F	F	F	F	U2'10F	3
2'00	2'00	2'05	U2'00S	1'90	2'00	1'95	F	F	F	F	F	4
2'00	C	2'05	2'00	U1'90S	U1'90S	U1'95S	U1'90F	U1'90F	U2'00F	2'05F	U2'10F	5
1'95	E1'90W	1'90	1'95	2'00	2'05	2'05	U2'00F	2'05F	2'15	2'20	F	6
U1'95W	2'00	1'95	2'00	2'05	U2'05S	U1'90W	1'90	U2'10R	2'10	U2'35S	2'55	7
2'05	2'00	C	U2'00R	2'05	U2'00R	1'95	F	F	F	F	F	8
2'05	1'95	2'00	2'00	2'00	1'95	U2'00S	F	F	2'15F	2'25	2'35F	9
U1'90R	U1'85W	1'95	1'95	2'00	U2'10S	U2'05S	U2'10S	2'05	2'10F	U2'30F	U2'50S	10
2'05	2'00	E2'00W	2'05	2'00	2'05	2'00	2'10	U2'20R	2'10	U2'20R	U2'20R	11
2'20	2'05	E1'90W	E1'90W	U2'10S	U2'25S	U2'20S	2'20	2'45	2'55	U2'60S	U2'70S	12
2'00	E2'00W	E2'00W	2'00	2'20	U2'30S	U2'20S	2'20	2'30	2'40	2'50	2'60	13
2'10	2'05	2'00	C	2'00	U2'10S	2'00	F	F	F	F	F	14
2'10	2'10	2'10	2'05	E2'00W	U2'05S	E2'00W	E1'95W	U2'10F	F	F	F	15
2'10	1'95	1'85	2'00	1'90	2'10	2'00	U1'90F	U2'00F	2'05	2'30	2'35	16
2'30	2'25	2'15	2'00	U1'90S	2'00	1'95	U1'85F	F	F	F	2'35	17
2'05	1'90	1'85	1'90	2'00	2'00	U1'95S	U1'90F	U1'95F	F	U2'15F	F	18
1'95	1'90	1'90	1'90	1'95	2'05	2'05	1'90	1'90	2'10	F	2'50	19
C	C	1'95	2'00	1'95	2'00	1'95	U1'85F	U1'80F	F	U2'10F	U2'30F	20
2'00	U1'95H	1'90H	U1'80W	1'90	1'95	2'00	1'95	F	F	F	F	21
U2'00W	U1'95W	W	U1'95W	2'00	2'00	U1'90S	U1'90F	F	F	F	F	22
2'05	2'00	U1'90W	U1'90W	U1'90W	U2'00S	U1'95S	U2'00S	F	F	F	F	23
U2'00W	U1'95W	W	U1'90W	U1'95W	2'00	U2'00S	U1'90W	2'00	F	U2'10F	F	24
U1'95W	2'00	2'00	U2'00S	U1'95W	U1'90W	U1'90W	U1'95W	F	F	U2'05F	2'30	25
1'95	1'95	1'95	U1'95W	U1'90W	1'95	U1'95S	U1'90F	U2'00F	U2'20S	2'20	2'15	26
1'95	1'95	1'95	1'90	1'90	1'95	1'95	F	F	U1'85F	F	F	27
C	C	C	C	1'85	U1'95S	1'95	1'90	1'85	U1'90S	2'00	U2'00F	28
2'00	2'00	2'00	2'05	2'00	1'95	1'90	F	F	F	F	F	29
1'90	1'95	1'90	1'90	1'90	1'90	1'90	1'95	2'05	2'10	U2'10F	2'15	30
1'90	1'95	1'90	1'90	1'90	1'90	1'90	1'90	2'10	U2'20S	2'25	2'20	31
29	28	29	29	31	31	31	23	18	16	18	19	Count
2'00	2'00	1'95	2'00	1'95	2'00	1'95	1'90	2'05	2'10	2'20	2'30	Median
2'00	2'00	1'95	1'95	1'95	2'00	2'00	1'95	2'05	2'15	2'20	2'30	Mean

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

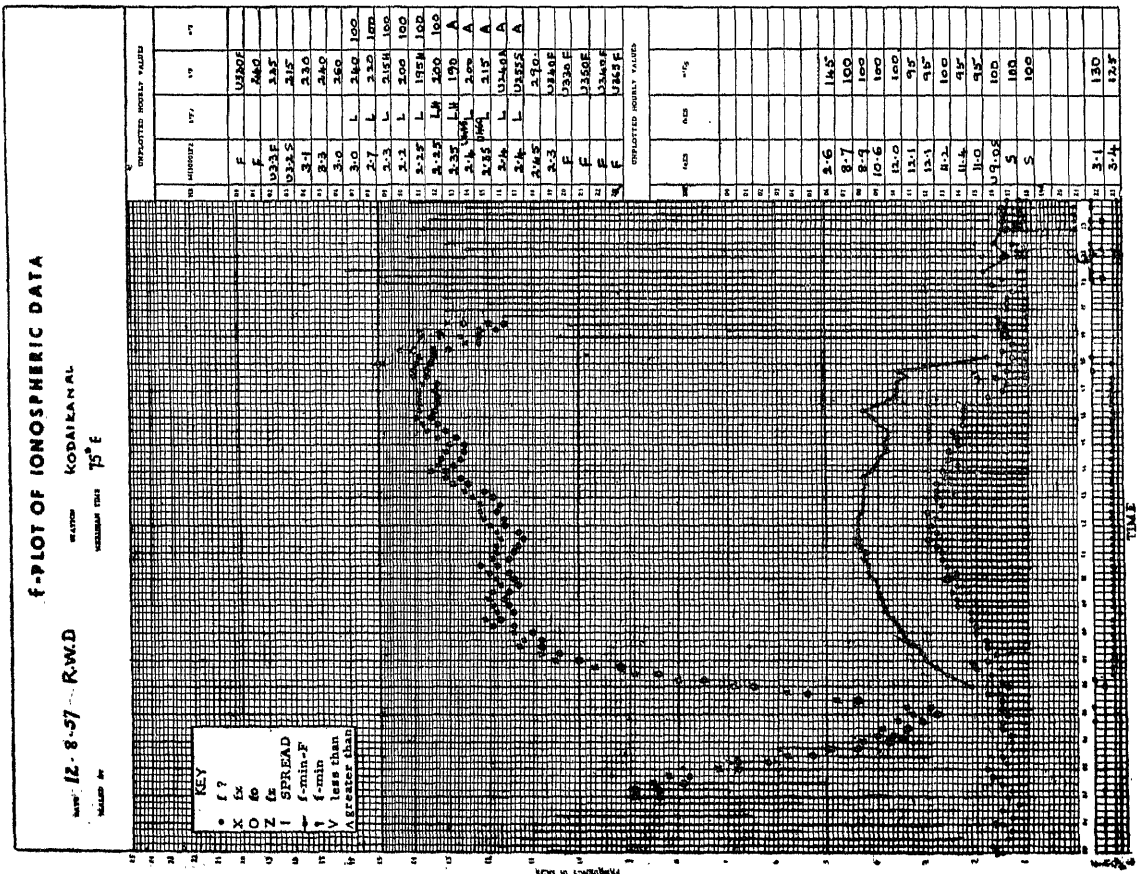
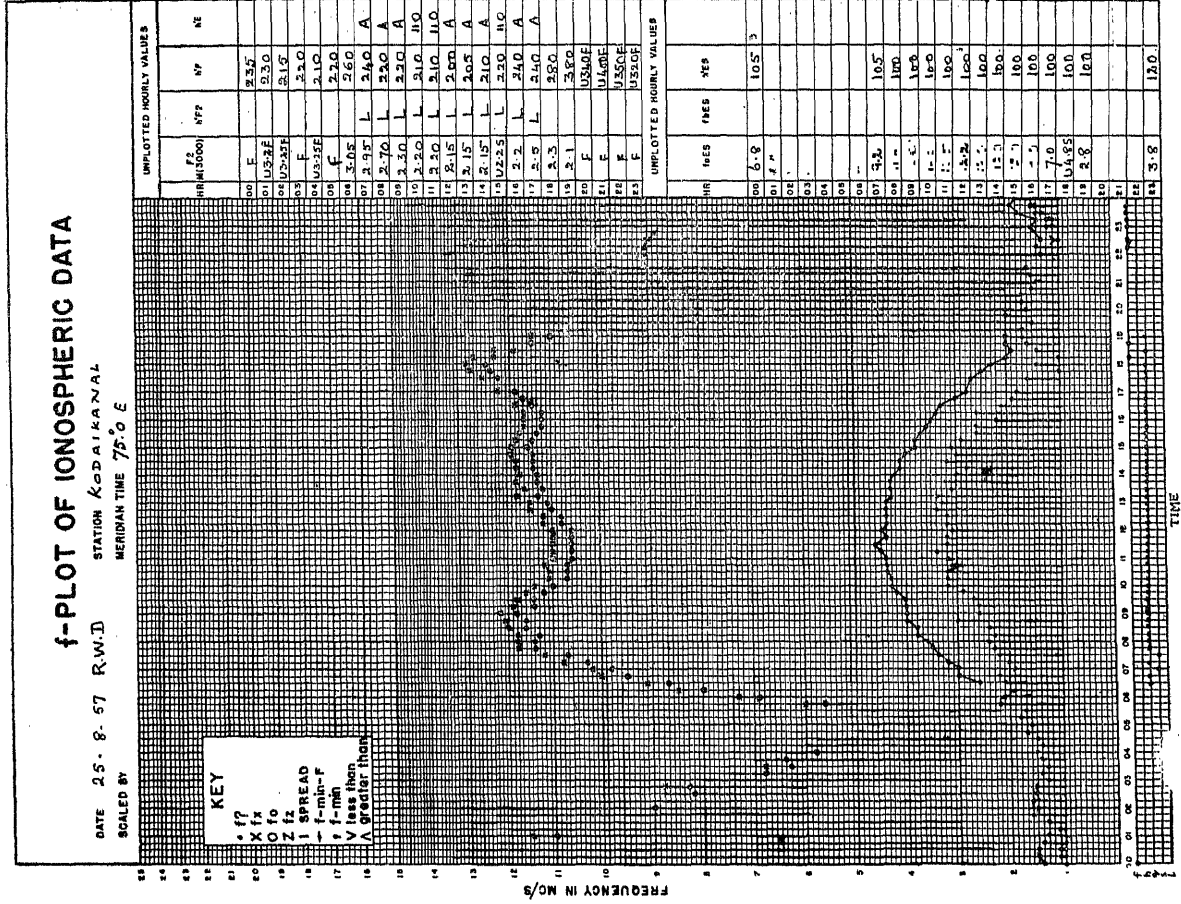
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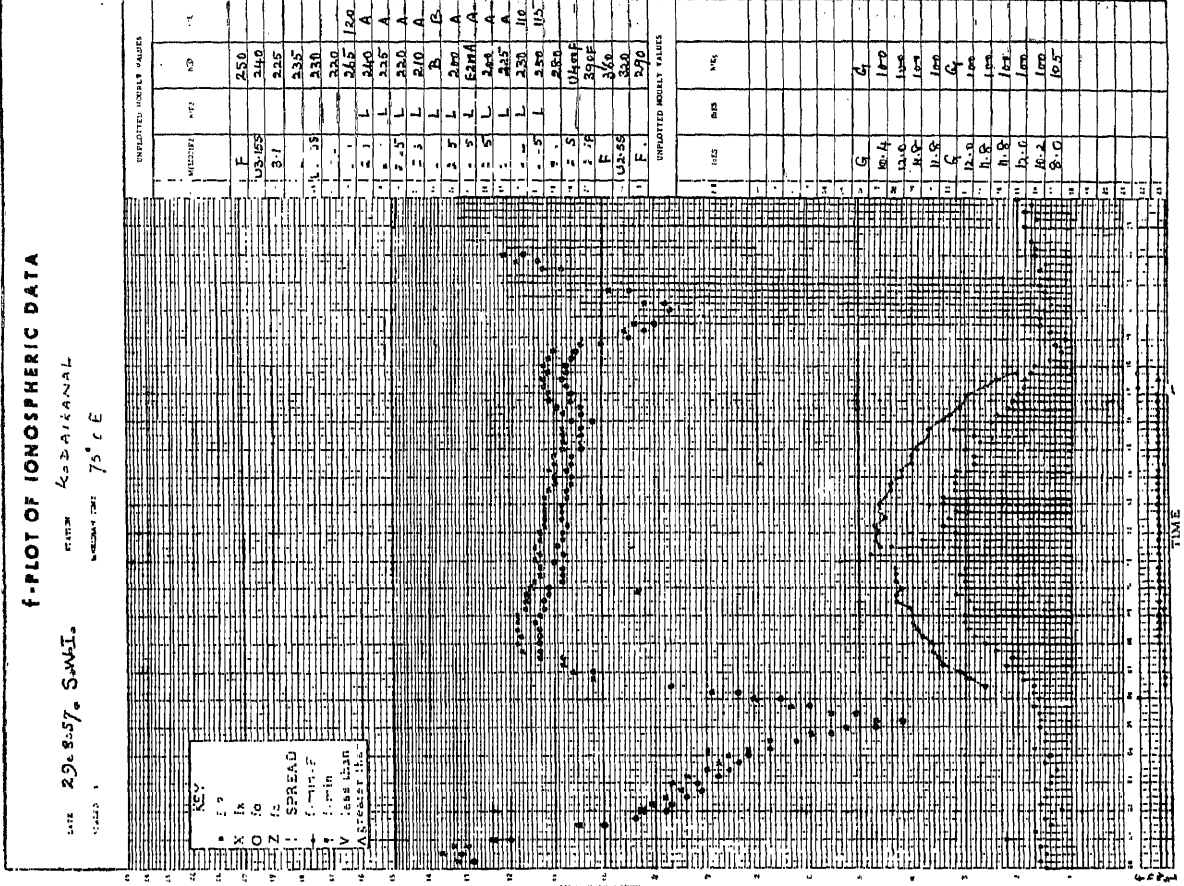
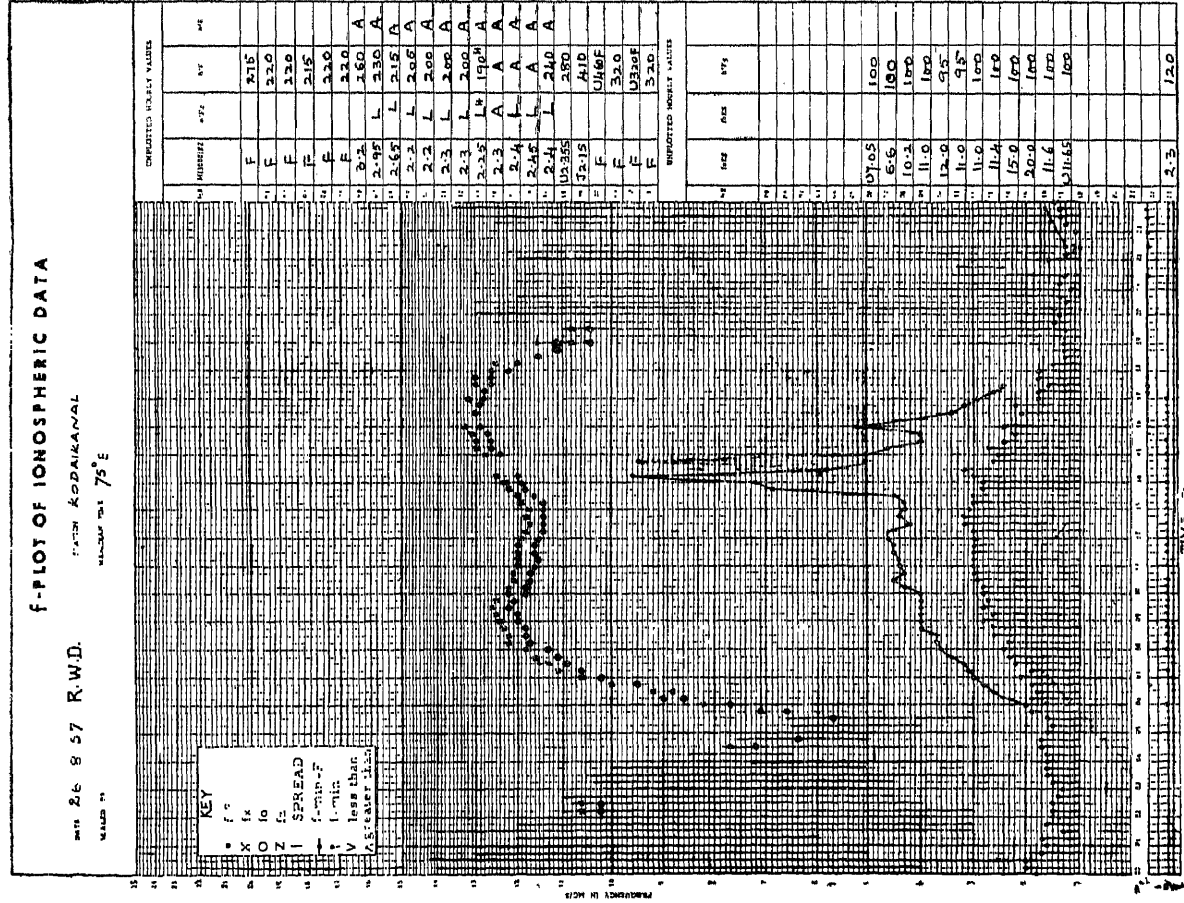
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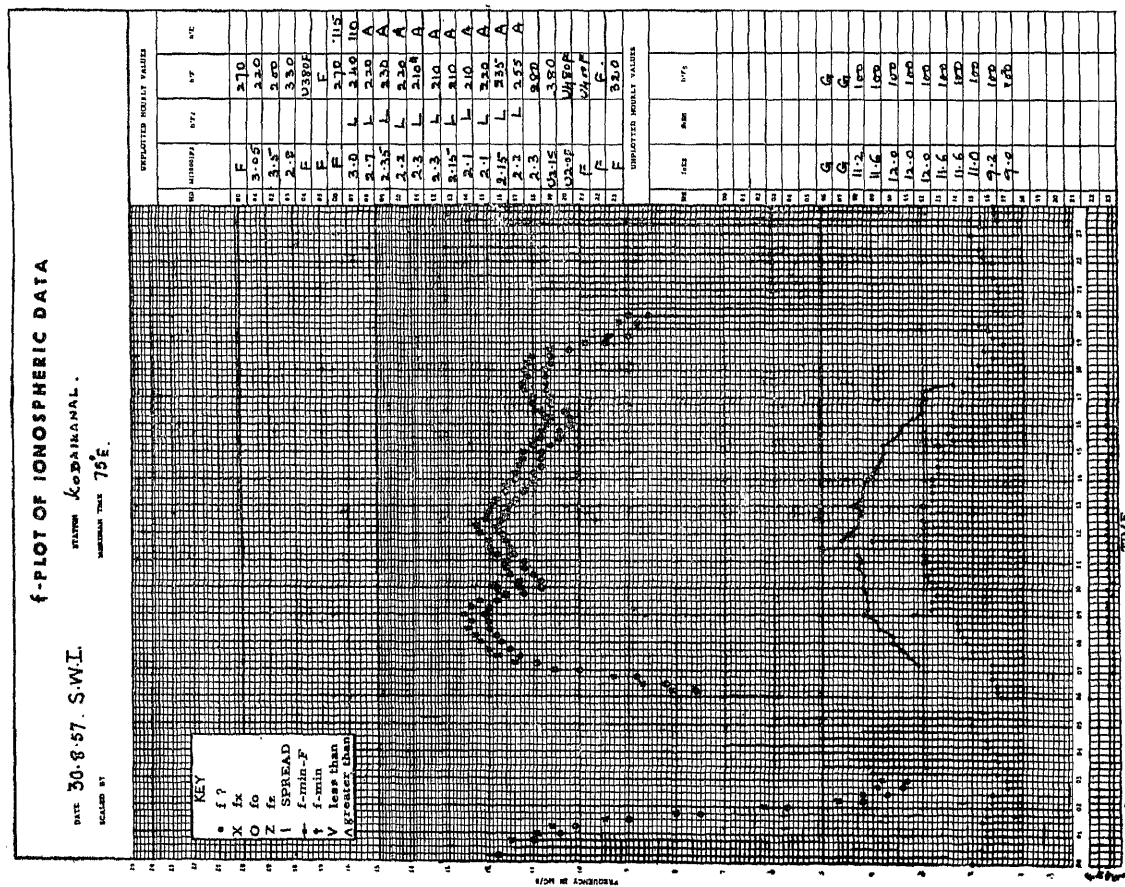
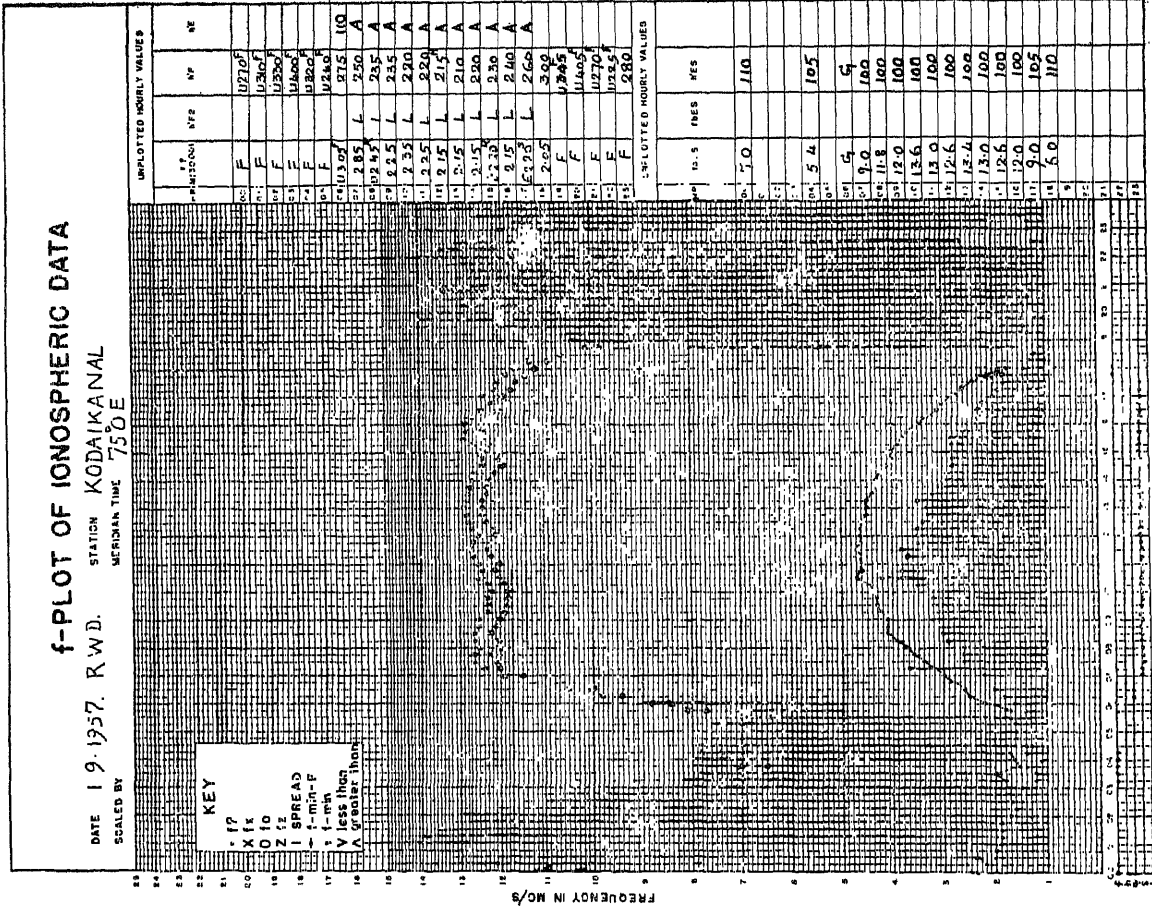
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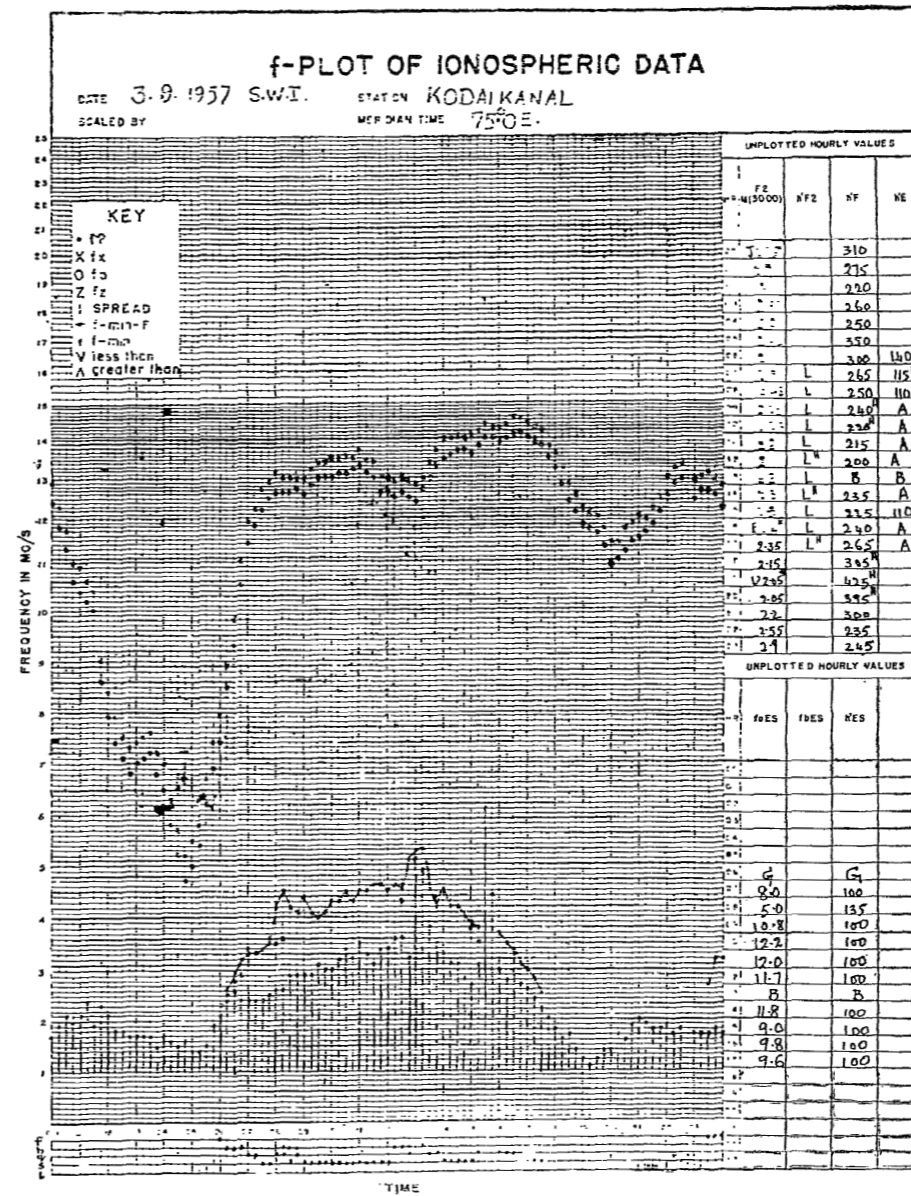
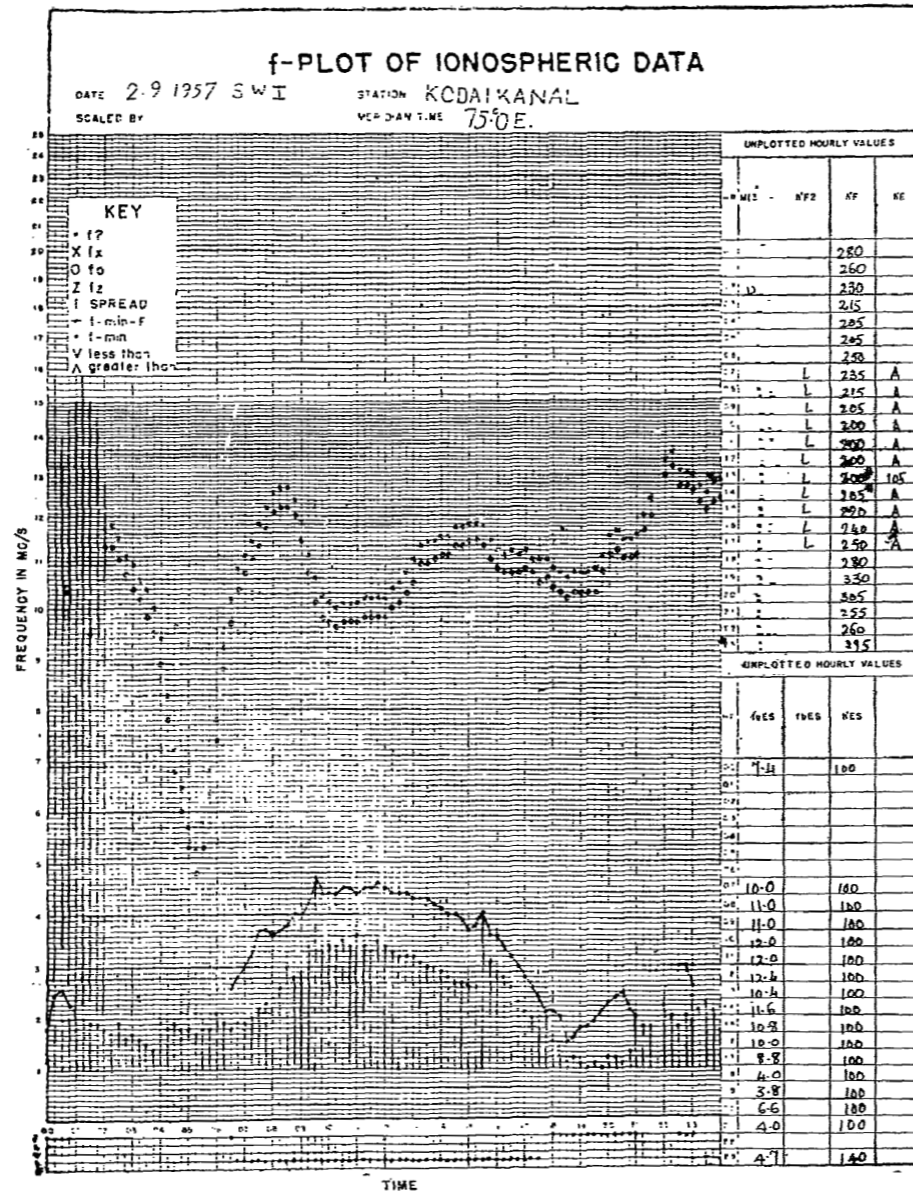
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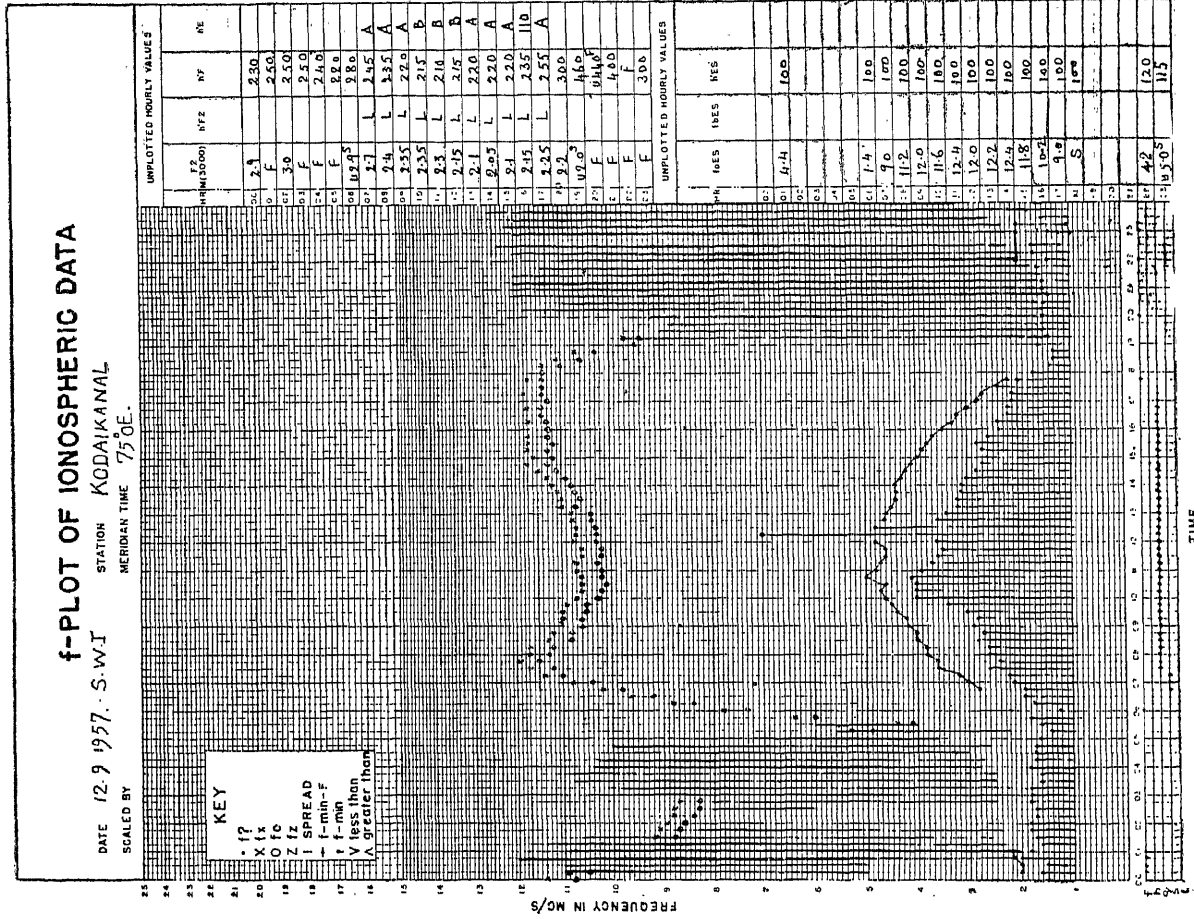
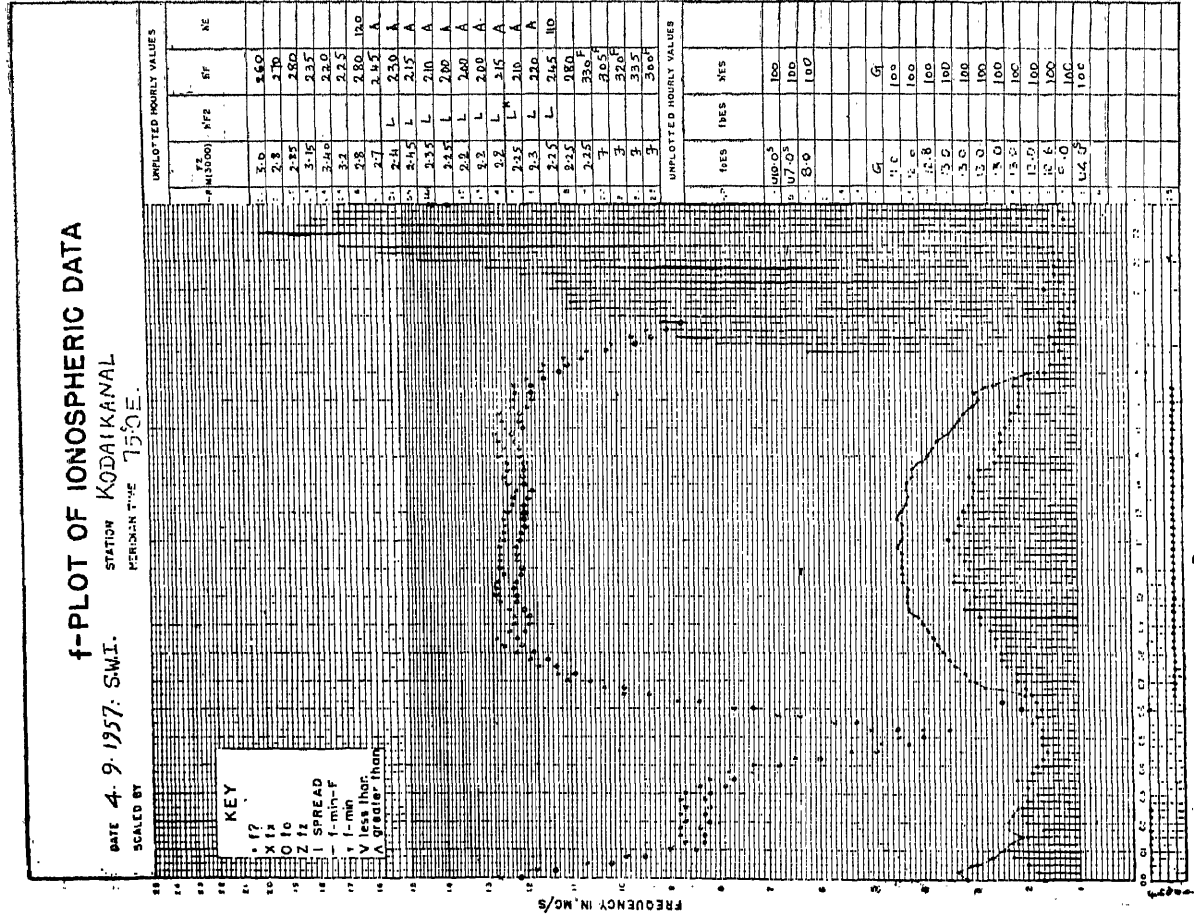
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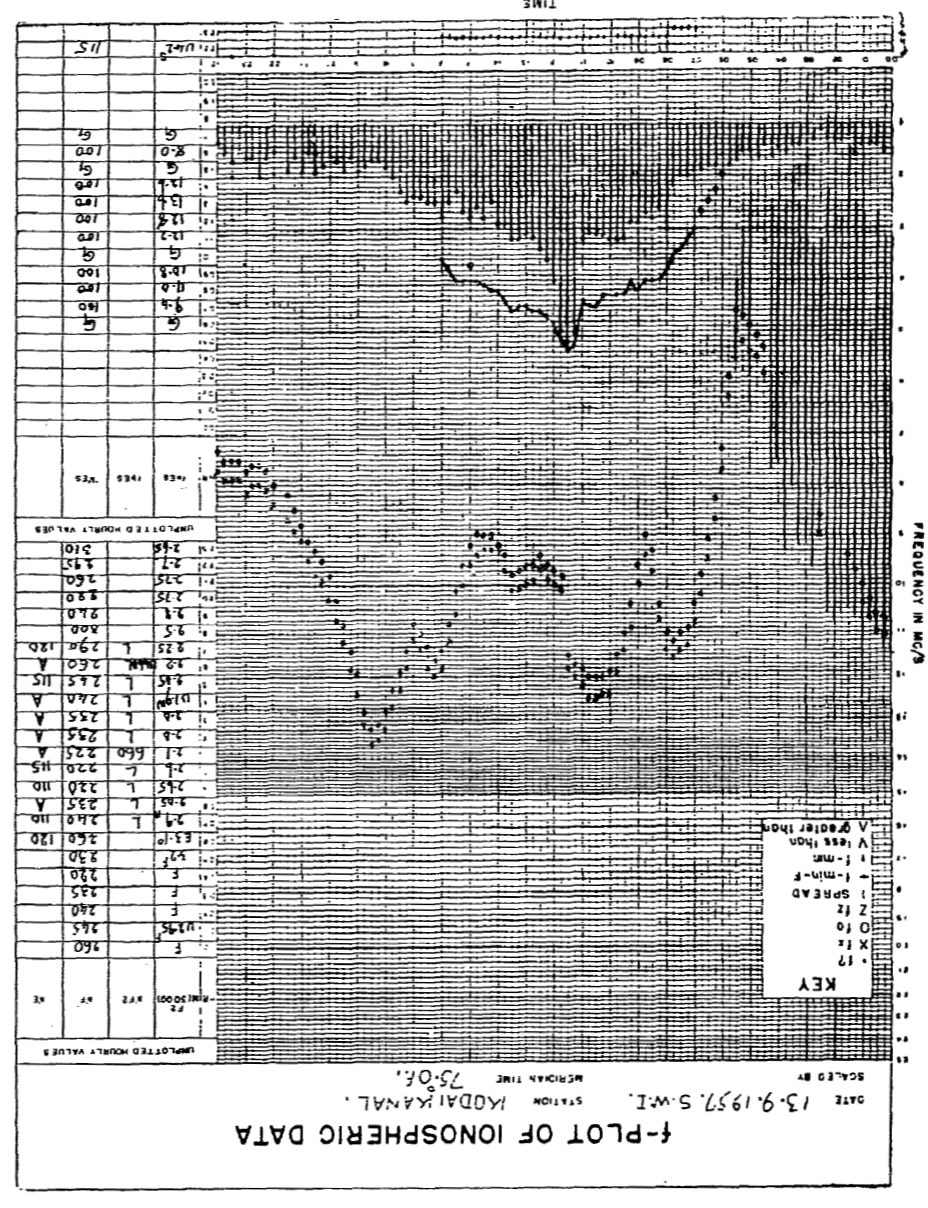
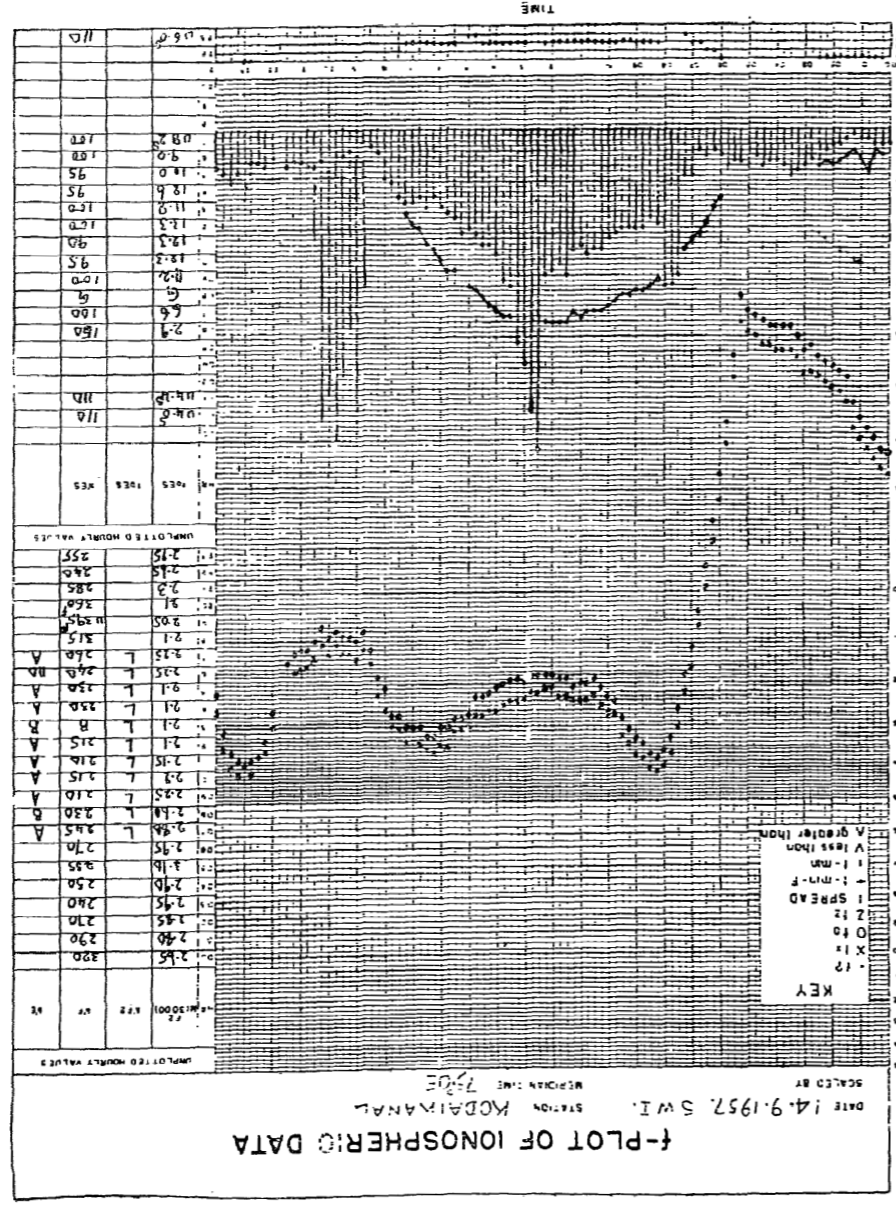
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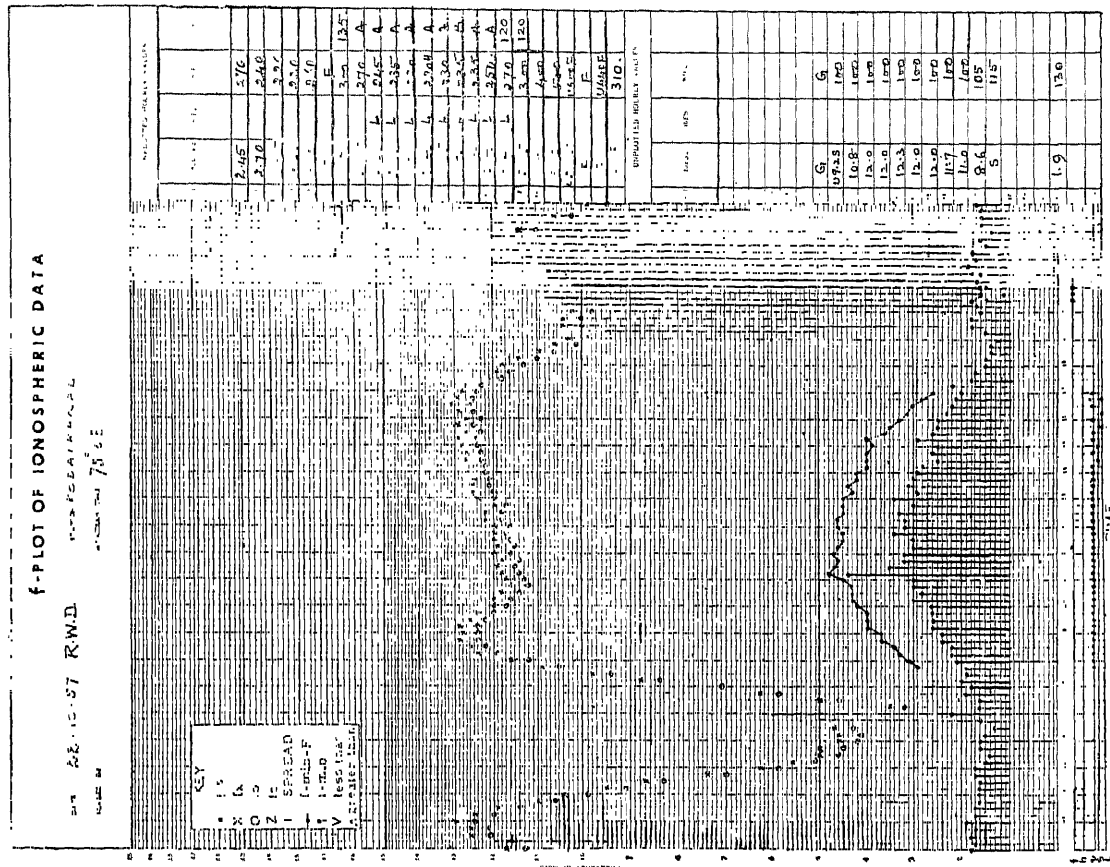
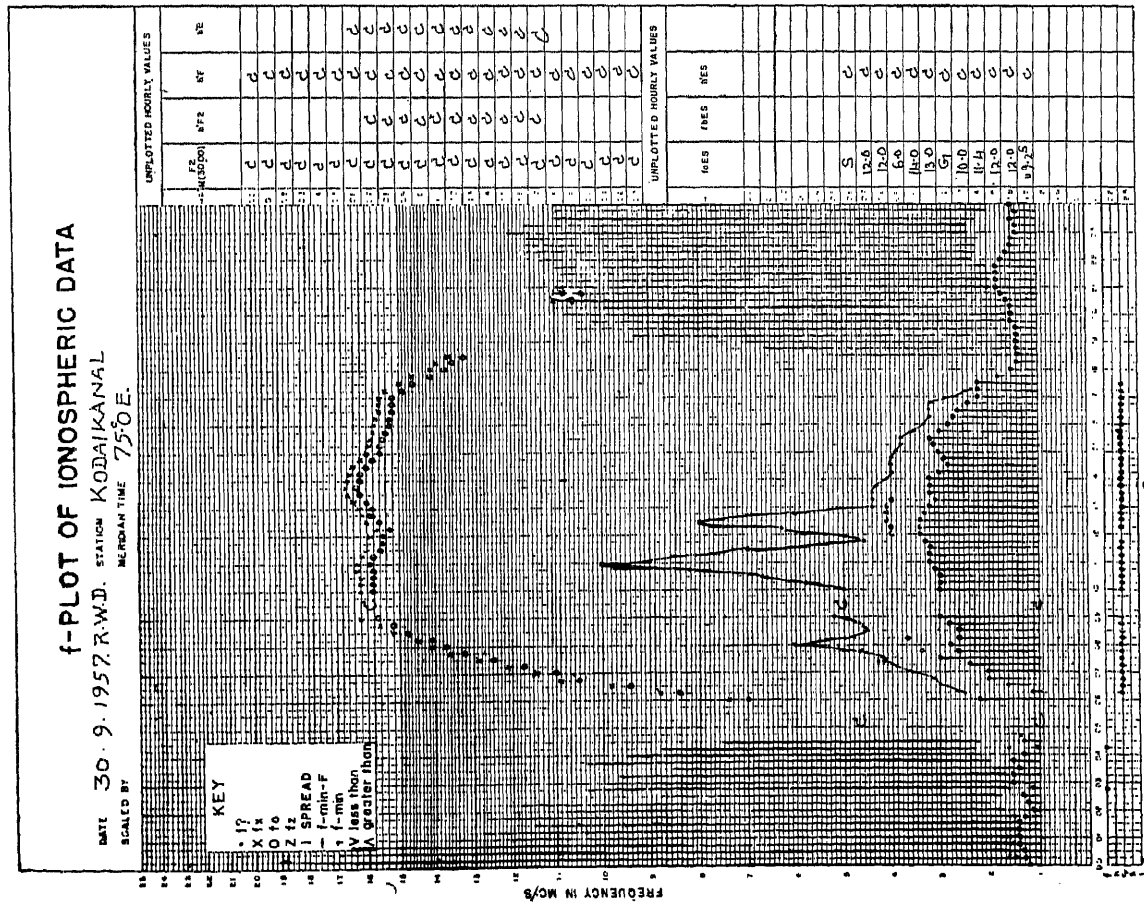


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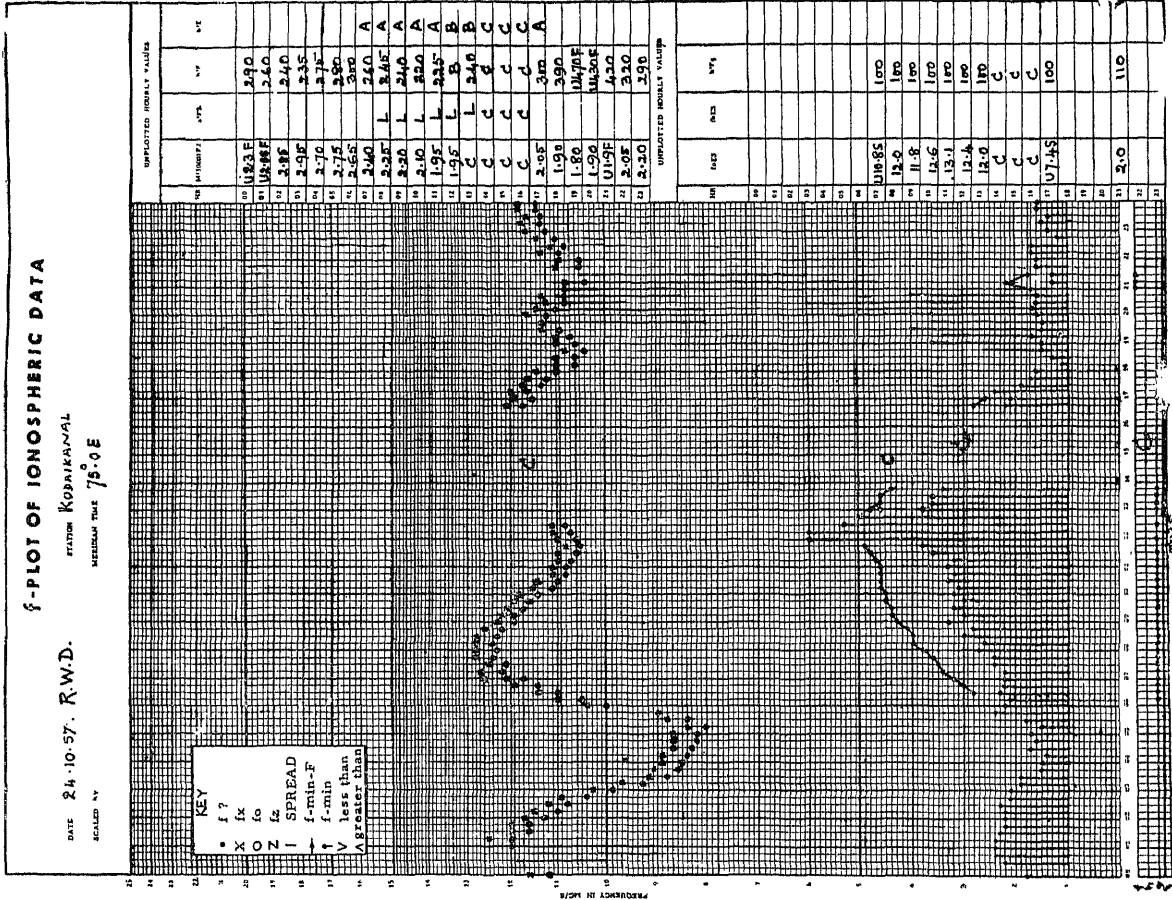
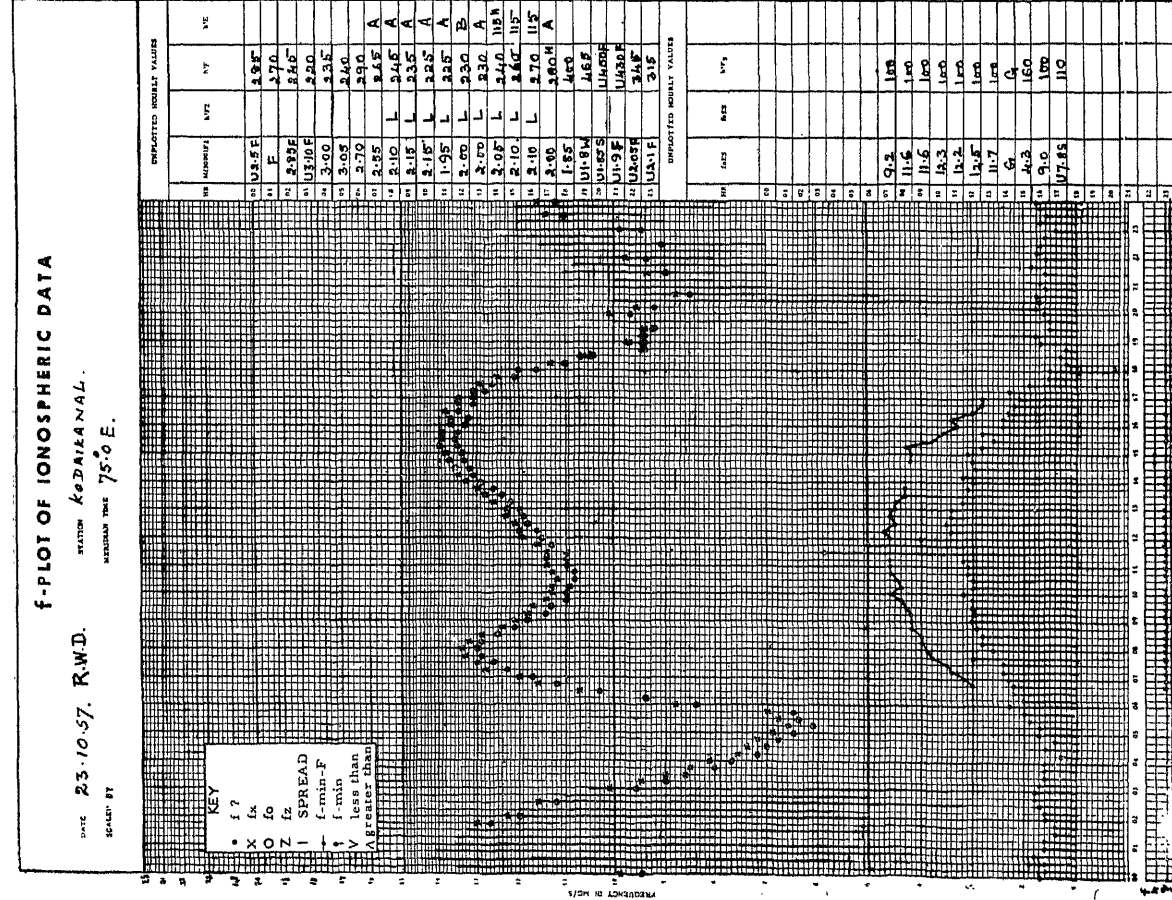


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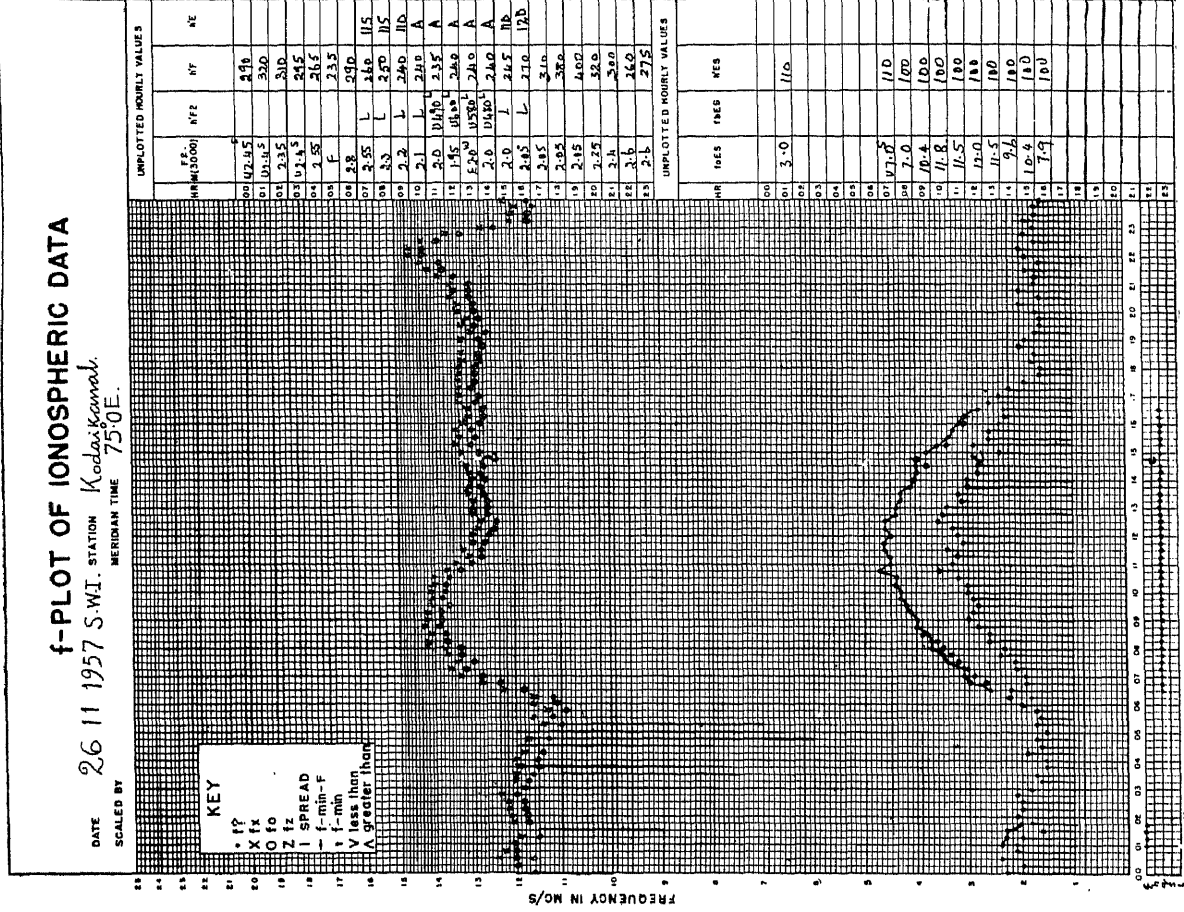
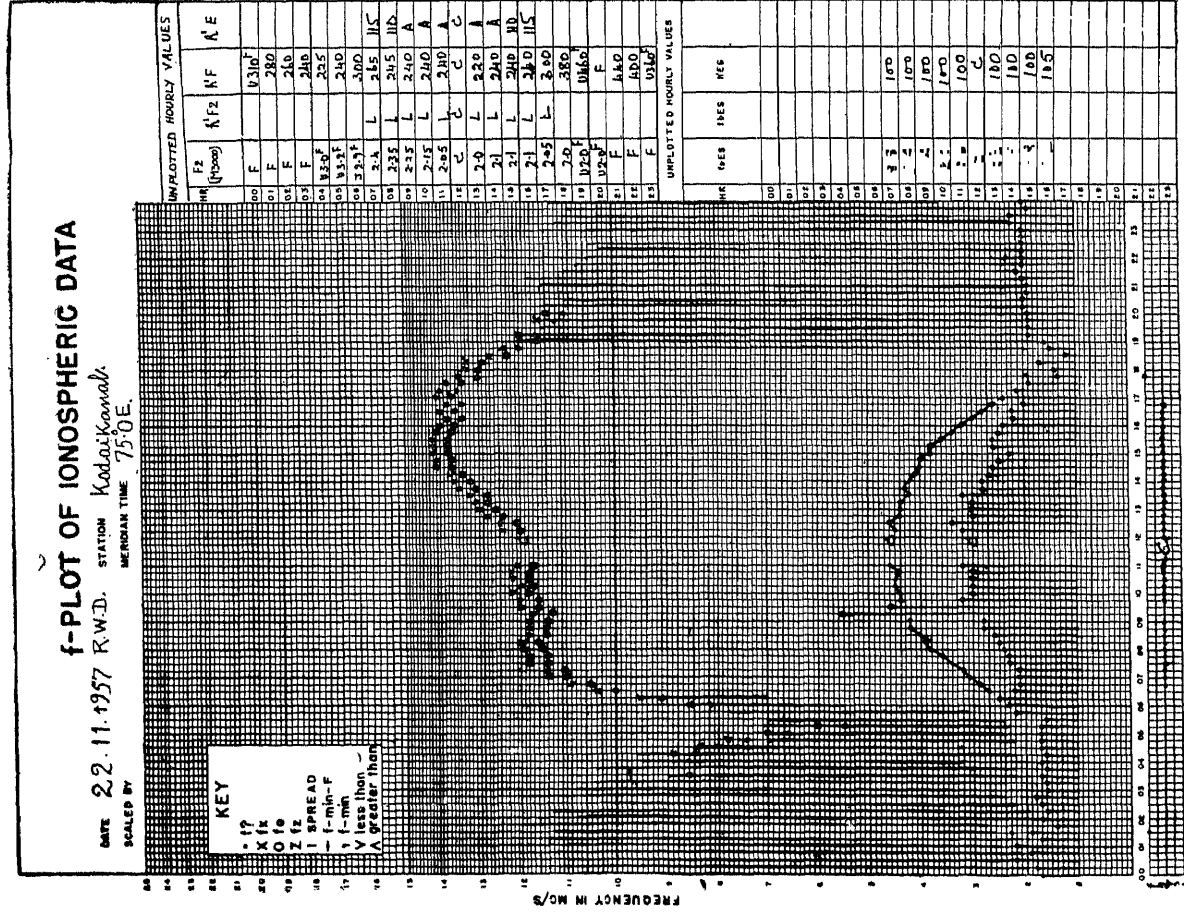
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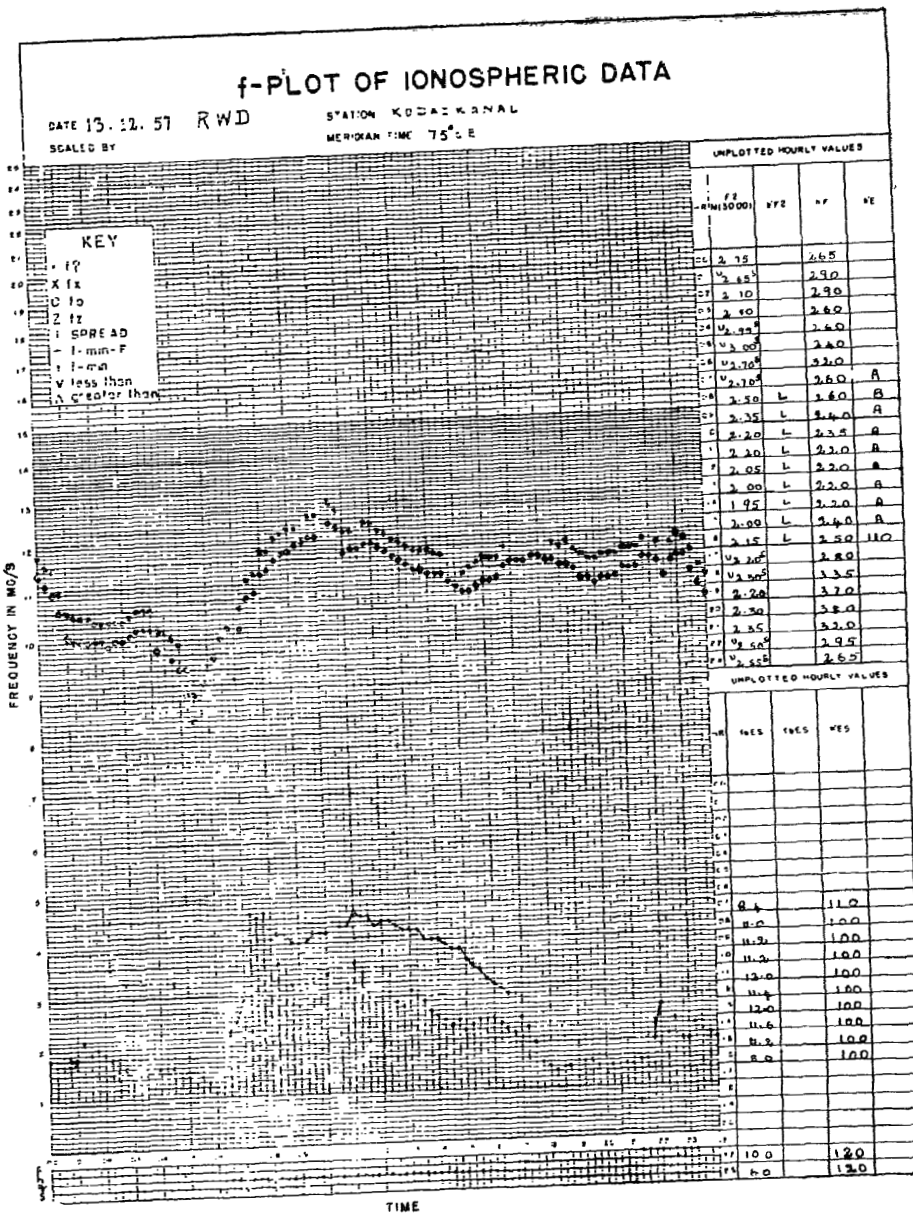
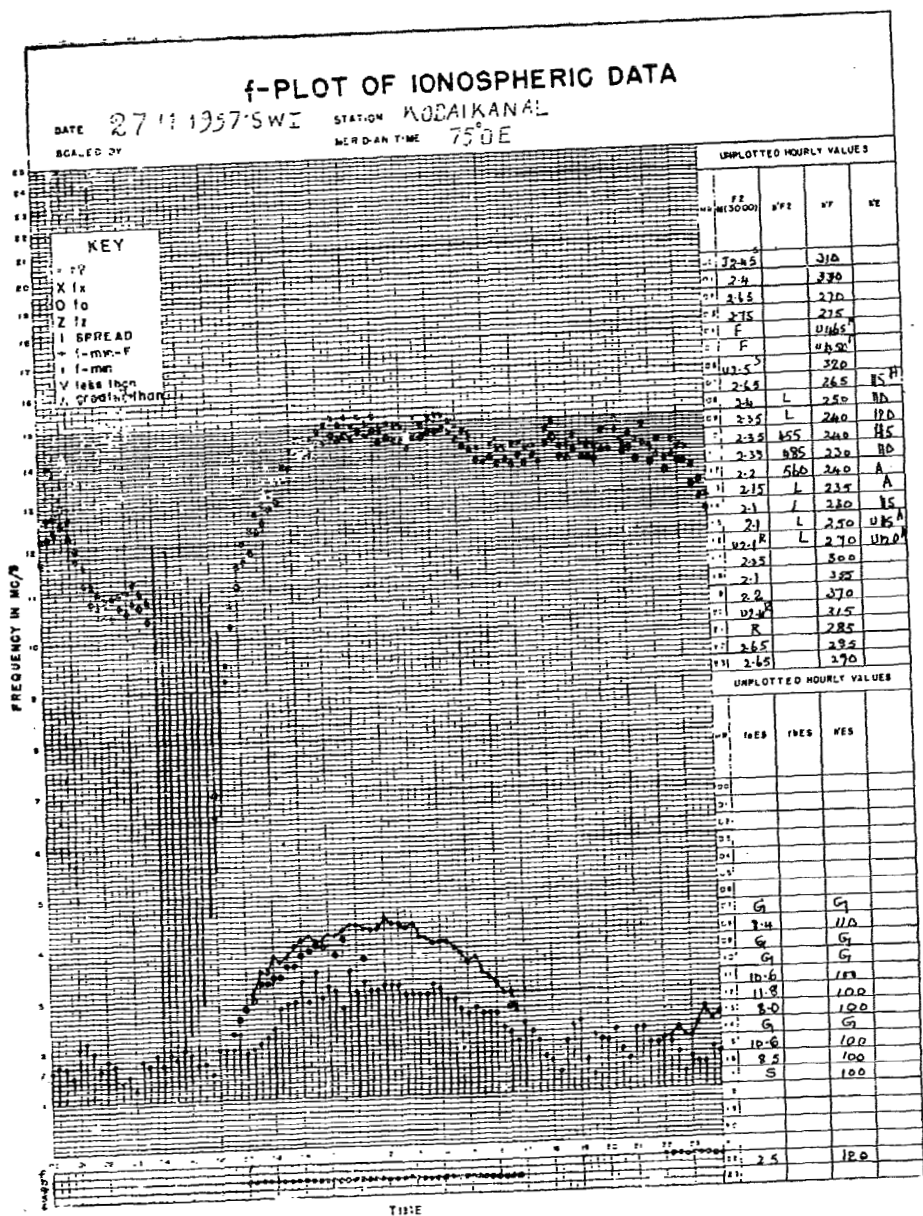
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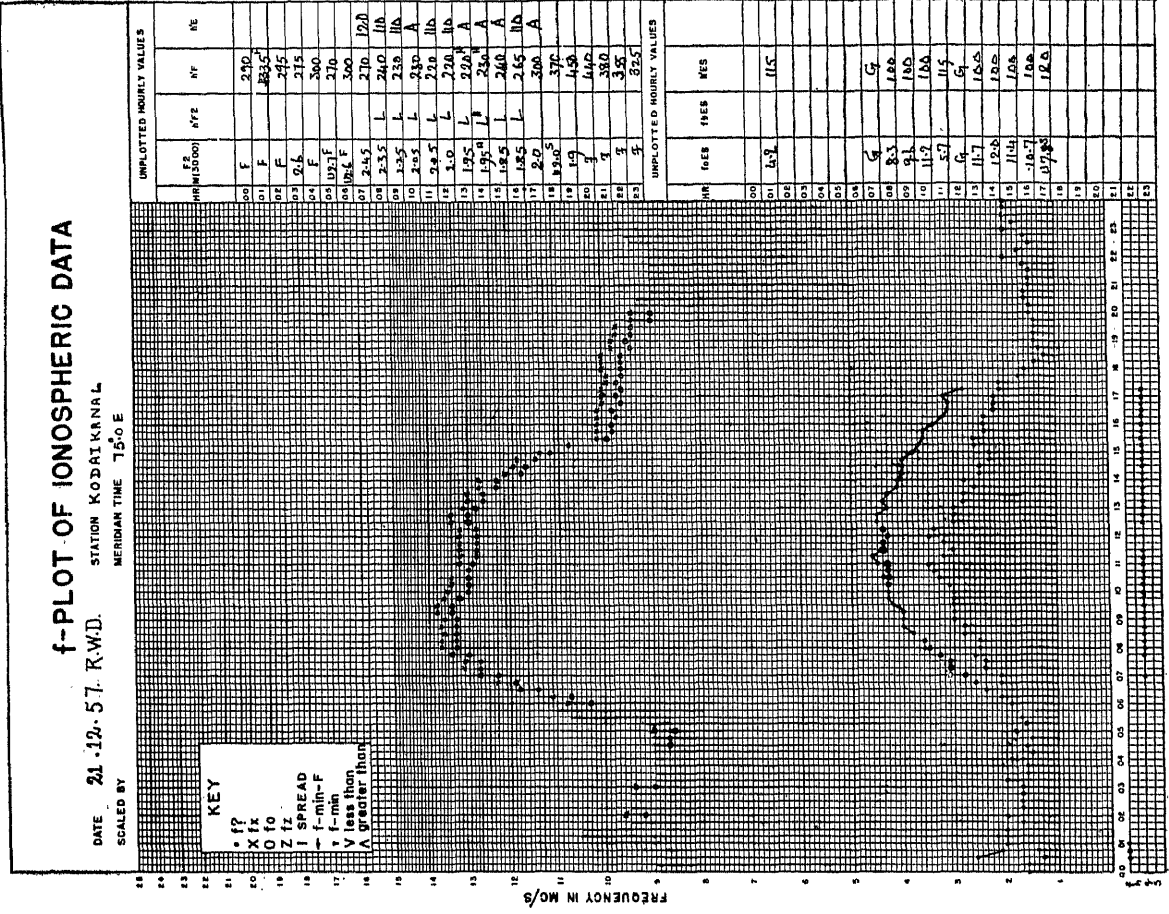
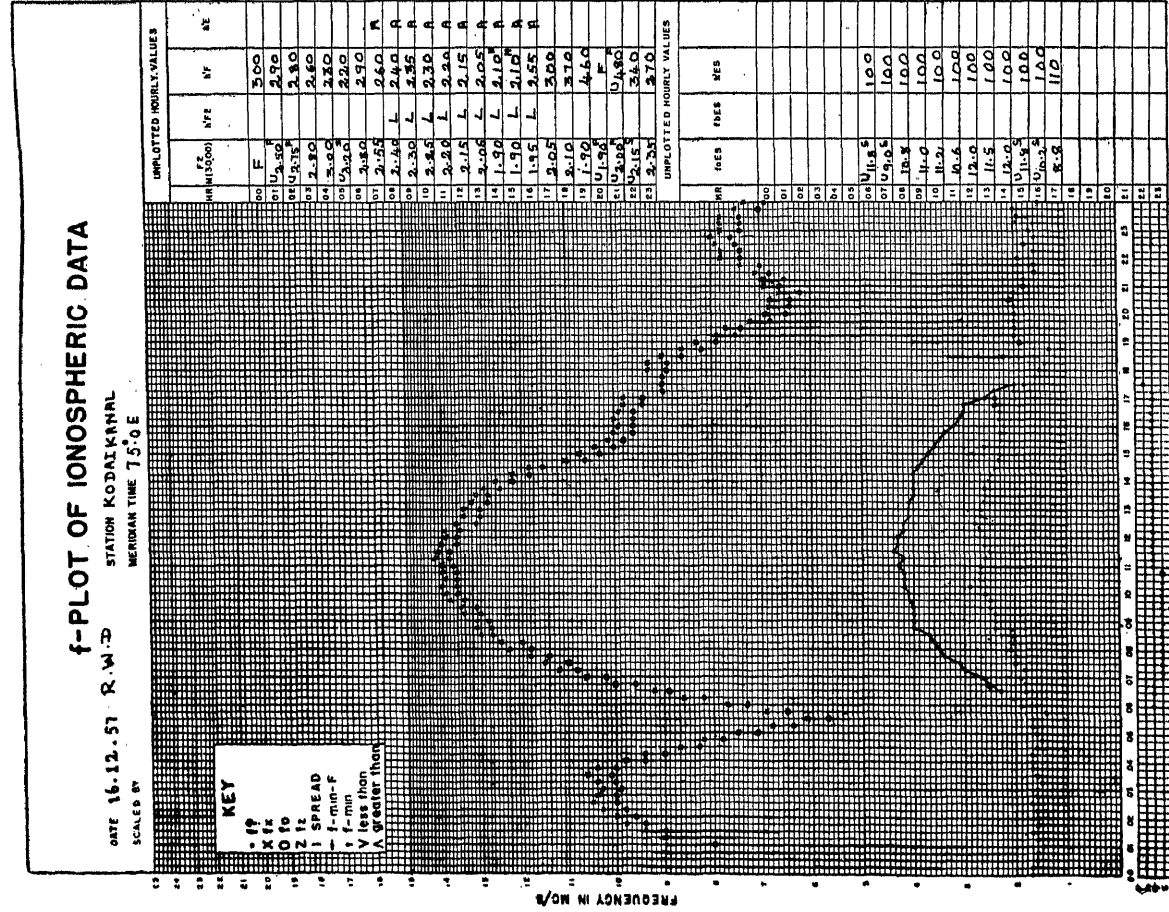
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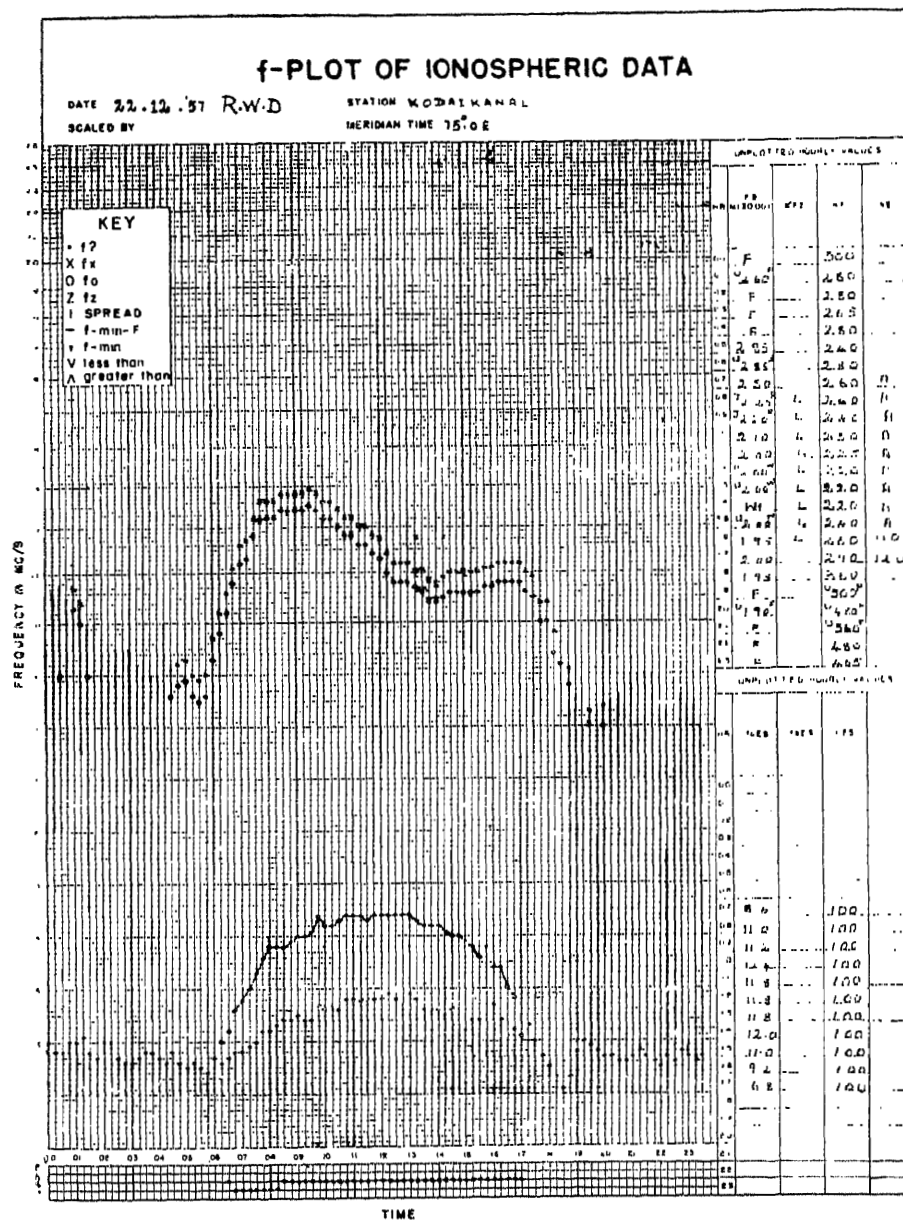
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Block No. XVI



Block No. XVII



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