

METEOROLOGICAL SERVICE



MAGNETIC OBSERVATIONS  
AT VALENTIA OBSERVATORY

1985

DUBLIN

1987

U.D.C.  
550.38(058)

Price £3.20

## C O N T E N T S

	Page
1. Introduction	1
2. Site of Observations	1
3. Variometers and Recorders	1
4. Base Line Instruments	1
4.1 Declination	2
4.2 Horizontal Force and Vertical Force	2
5. Base Line Determination	2
6. Scale Values of the Variometers	2
7. Diurnal Variation of the Magnetic Elements	2
8. K - Indices	2
9. Magnetic Disturbance Data	3
10. Notes on the Tables	3
References	4
Table 1 Base Line Values as Computed from the Absolute Observations	6
Table 2 Adopted Base Line Values	7
Table 3 Monthly and Annual Mean Values of the Magnetic Elements	8
Table 4 Declination, Mean Hourly Values	20
Table 5 Horizontal Component, Mean Hourly Values	32
Table 6 Vertical Component, Mean Hourly Values	44
Table 7 Extreme Values of the Magnetic Elements	56
Table 8 Diurnal Variation - All Days - Declination	57
Table 9 Diurnal Variation - All Days - Horizontal Component	58
Table 10 Diurnal Variation - All Days - Vertical Component	59
Table 11 Diurnal Variation - Quiet Days - Declination	60
Table 12 Diurnal Variation - Quiet Days - Horizontal Component	61
Table 13 Diurnal Variation - Quiet Days - Vertical Component	62
Table 14 Diurnal Variation - Disturbed Days - Declination	63
Table 15 Diurnal Variation - Disturbed Days - Horizontal Component	64
Table 16 Diurnal Variation - Disturbed Days - Vertical Component	65
Table 17 Three-Hour Range Indices, K	67
Table 18 Sudden Commencements of Magnetic Storms or Periods of Storminess	67
Table 19 Presumed Solar Flare Effects	67
Table 20 Giant Pulsations	67
Table 21 Annual Mean Values of the Magnetic Elements 1899 - 1984	68

NOTE      To simplify reproduction, the letter  $y$  has been used throughout the text to signify  $\gamma$ .

## 1. Introduction

Absolute magnetic observations have been made at Valentia Observatory since 1888. An account of these observations during the period 1888-1953 has been published by the Meteorological Service [1]. In December, 1952, a set of La Cour Variometers was installed at the Observatory and was recording on an experimental basis during the year 1953. Other new instruments brought into use at the same time were:

- (a) The Copenhagen Quartz Horizontal Magnetometer (QHM)
- (b) The Copenhagen Magnetometric Zero Balance (BMZ)

During 1953, special comparative readings with the old and new instruments were made and an account of this comparison is given in [1].

The data for the years 1954-1984 have been published in annual volumes. The present volume contains the data for 1985.

## 2. Site of the Observations

The geographic and geomagnetic co-ordinates of Valentia Observatory are as follows:

Geographic co-ordinates	$\phi = 51^{\circ}56'N$	$\lambda = 10^{\circ}15'W$
Geomagnetic co-ordinates	$\delta = 56^{\circ}.6N$	$\lambda = 73^{\circ}.4E$

The height of the station above M.S.L. is 14 metres.

A full description of the site and of the variometer hut is given in [6]. The observing hut for absolute observations has been in use since October, 1956. A plan showing the layout of the instrument pillars in this hut, together with some particulars concerning its construction, is given in [7].

## 3. Variometers and Recorders

Up to December, 1955, the instruments, installed in the variometer hut, consisted of a standard La Cour 15 mm/hr recorder with a set of La Cour H, D and Z variometers. In December 1955, a second set of La Cour H, D and Z variometers with a La Cour 180 mm/hr (quick-run) recorder was installed, and has been recording continuously since 1st January, 1956.

A description of the instruments and of the recorders will be found in [2], [3] and [4].

The variometers-recorder lines are approximately along the Magnetic Meridian, the recorders being south of the variometers.

At Valentia, the time marking system in the La Cour recorder has been modified to give lines at ten minute intervals. In addition, a number of alarm devices have been installed to reduce to a minimum the possibility of accidental loss of trace.

A full description of the time marking system and alarm devices is given in [5] and [6].

## 4. Base Line Instruments

Since routine recordings began in 1954 a number of changes have been made in the instruments used for base line determination. An account of these changes and comparisons between the instruments is given in appendix to [9].

The base line instruments used during 1985 were:

Declination.....Ruska Observatory Magnetometer No. 5917 with Magnet No. 65S  
Horizontal Force...Proton Vector Magnetometer  
Vertical Force.....Proton Vector Magnetometer

#### 4.1 Declination

Ruska Observatory Magnetometer No. 5917 has been in use as the standard base line instrument for Declination since 1st January, 1959. Prior to this date, the instrument in use was the Dover Magnetometer No. 139 with Collimator Magnet No. 139A. Particulars of a comparison between the old and new instruments will be found in [8].

#### 4.2 Horizontal Force and Vertical Force

The proton Vector Magnetometer was introduced as a routine base line instrument for H and Z as from 1st January, 1970. An account of the comparison of results obtained with this absolute instrument and those obtained with the relative instruments used in previous years is given in the appendix to [9].

#### 5. Base Line Determination

A summary of the base line values, deduced from the observations made with the instruments specified in paragraph 4, is given in Table 1. The values adopted for the tabulation of the records are given in Table 2.

#### 6. Scale Values of the Variometers

The scale values for all three variometers were determined by means of the Helmholtz coil, supplied with the variometers. The scale value for the D variometer was also checked by geometric considerations.

The scale values for 1985 were:

D.....1 mm = 0.90  
H.....1 mm = 3.65nT  
Z.....1 mm = 5.60nT

#### 7. Diurnal Variation of the Magnetic Elements

Diurnal variation data for all days and international quiet and disturbed days for the seasons and the year are given in Tables 8 to 16. The months taken as comprising the different seasons are as is usual in magnetic work:

Winter.....January, February, November and December  
Equinox.....March, April, September and October  
Summer.....May, June, July and August.

#### 8. K - Indices

The K - Indices, given in Table 17, have been scaled, using the procedure recommended by the committee on Characterisation of Magnetic Disturbances of the I.A.G.A. The lower limit for K = 9 is 500nT.

The actual scaled value for K is given without reduction for a presumed solar flare effect.

9. Magnetic Disturbance Data

Tables 18 and 19 give the times of onset, as recorded on the Valentia normal speed magnetograms, of the following phenomena:

- (a) Sudden commencements of magnetic storms or periods of storminess (s.s.c.)
- (b) Presumed solar flare effects (s.f.e.)

Giant pulsations (p.g.) as recorded on the quick-run magnetometer are listed in Table 20.

Definitions and descriptions of the phenomena listed in Tables 18 to 20 will be found in [10].

10. Notes on the Tables

Tables 4 to 6 (incl.)

The hourly values are the mean values for each hourly interval centred at the half hours.

The mean for each day is the arithmetic mean of the 24 hourly values.

Tables 4 to 7 (incl.)

The international quiet and disturbed days are indicated by letters "Q" and "D" respectively. These days have been selected by the International Association of Geomagnetism and Aeronomy.

Tables 7 to 16 (incl.)

The maxima and minima are indicated by the letters "M" and "m" respectively.

Table 7

The temperature given for each day is the temperature observed in the variometer hut at 0900 GMT.

Table 21

The data given in this table have been adjusted, where necessary, to eliminate discontinuities resulting from occasional changes in base line instruments or other causes. Particulars of this homogeneization will be found in appendix to [9].

References

- [1] Magnetic Observations at Valentia Observatory 1941 - 1953  
(Published by the Irish Meteorological Service)
- [2] Communications Magnetiques No. 8.  
La Balance de Godhavn. Par D. La Cour.  
(Published by Det Danske Meteorologiske Institut, 1930).
- [3] Communications Magnetiques No. 11.  
La Variometre de Copenhague, Par D. La Cour et V. Laursen.  
(Published by Det Danske Meteorologiske Institut, 1930).
- [4] Observations Faites a Thule.  
Premiere partie: Magnetisme Terrestre, Par V. Laursen.  
(Published by Det Danske Meteorologiske Institut, 1943).
- [5] Electrical Controls and Alarm Circuits associated with La  
Cour Magnetic Recorders in operation at Valentia Observatory.  
By S. McWilliams.  
(Published in "Geomagnetica" publicacao comemorativa do 50<sup>o</sup>  
aniversario do Observatorio Magnetico de S. Miguel, Acores,  
Lisboa, 1962).
- [6] Magnetic Observations at Valentia Observatory, 1954.  
(Published by the Irish Meteorological Service).
- [7] Magnetic Observations at Valentia Observatory, 1956.  
(Published by the Irish Meteorological Service).
- [8] Magnetic Observations at Valentia Observatory, 1959.  
(Published by the Irish Meteorological Service).
- [9] Magnetic Observations at Valentia Observatory, 1970.  
(Published by the Irish Meteorological Service).
- [10] Provisional Atlas of Rapid Variations.  
(Published by the I.A.G.A. Committee on Rapid Magnetic  
Variations and Earth Currents).

Table 1 Baseline Values as Computed from the Absolute Observations

Declination                    9" + ..0.1 minutes  
 Horizontal Force            19000 + ..nanoTesla units  
 Vertical Force                44000 + ..nanoTesla units

Date	D	H	Z	Date	D	H	Z	Date	D	H	Z	Date	D	H	Z	Date	D	H	Z	Date	D	H	Z						
2/	1	370	154	386	4/	3	370	154	389	3/	5	372	154	395	3/	7	373	162	400	2/	9	371	156	404	1/	11	371	144	403
4/	1	371	155	384	6/	3	154	391	6/	5	372	155	394	5/	7	369	159	401	4/	9	368	158	404	4/	11	373	149	406	
7/	1	368	150	384	8/	3	371	154	390	8/	5	371	154	393	8/	7	374	165	401	6/	9	372	152	403	6/	11	371	144	404
9/	1	371	149	385	11/	3	369	154	390	10/	5	372	154	394	10/	7	369	160	404	9/	9	372	157	406	8/	11	373	152	407
11/	1	367	145	383	13/	3	371	155	392	13/	5	370	154	395	12/	7	371	161	403	11/	9	370	155	405	11/	11	373	145	404
14/	1	368	139	381	15/	3	371	153	390	15/	5	149	397	15/	7	368	159	401	13/	9	372	156	404	13/	11	371	146	403	
16/	1	373	142	383	18/	3	369	151	389	16/	5	368	156	396	17/	7	371	161	402	16/	9	371	156	405	15/	11	373	145	402
18/	1	369	144	381	20/	3	156	391	20/	5	371	153	396	19/	7	369	161	401	18/	9	371	156	404	18/	11	371	147	406	
21/	1	372	154	389	22/	3	370	151	390	22/	5	372	157	397	22/	7	371	161	403	20/	9	369	155	403	20/	11	373	144	403
23/	1	372	149	387	25/	3	369	155	390	24/	5	371	156	396	24/	7	370	164	403	23/	9	370	158	406	22/	11	370	144	405
25/	1	371	153	388	27/	3	373	154	384	27/	5	369	158	396	26/	7	370	160	403	25/	9	372	158	407	25/	11	371	144	403
28/	1	372	147	388	29/	3	371	154	391	29/	5	372	158	395	29/	7	370	162	402	27/	9	368	157	405	27/	11	373	141	402
30/	1	373	158	388	1/	4	372	156	393	31/	5	375	159	395	31/	7	370	154	403	30/	9	366	162	407	29/	11	371	145	404
1/	2	373	157	390	3/	4	369	156	392	3/	6	382	160	397	2/	8	370	159	402	2/	10	369	160	407	2/	12	371	157	409
4/	2	371	156	392	5/	4	158	394	5/	6	369	155	399	5/	8	369	158	402	4/	10	370	158	407	4/	12	373	152	410	
6/	2	371	156	391	8/	4	363	159	394	7/	6	370	156	398	7/	8	373	159	404	7/	10	370	151	405	6/	12	372	147	407
8/	2	372	156	390	10/	4	370	155	394	10/	6	373	151	399	9/	8	372	155	403	9/	10	365	155	406	9/	12	372	146	405
11/	2	369	153	389	12/	4	372	159	394	12/	6	374	157	397	12/	8	369	155	403	11/	10	369	156	407	11/	12	373	148	406
13/	2	371	152	389	15/	4	373	156	394	14/	6	372	156	398	14/	8	372	155	402	14/	10	368	153	408	13/	12	374	152	408
15/	2	363	147	389	17/	4	371	158	394	17/	6	373	156	399	16/	8	370	157	403	16/	10	369	147	405	16/	12	371	153	410
18/	2	368	154	389	19/	4	370	156	395	19/	6	371	156	398	19/	8	371	159	404	18/	10	367	150	406	18/	12	367	148	408
20/	2	370	154	390	22/	4	369	152	395	22/	6	157	399	21/	8	373	160	404	21/	10	370	156	406	20/	12	372	151	406	
22/	2	370	154	390	24/	4	366	152	393	24/	6	372	158	399	23/	8	371	156	402	23/	10	370	151	404	23/	12	372	147	408
25/	2	372	154	390	26/	4	370	154	393	26/	6	367	158	401	26/	8	370	157	404	25/	10	369	147	406	25/	12	373	148	406
27/	2	373	155	391	29/	4	374	153	394	28/	6	373	156	401	28/	8	372	157	404	28/	10	371	151	406	27/	12	372	141	404
1/	3	369	155	392	1/	5	374	153	394	1/	7	369	159	400	30/	8	370	158	404	30/	10	370	146	403	30/	12	372	143	407

Table 2

Adopted Baseline Values

1985

DECLINATION 9° + ..Tenths of minutes

Date	Adop	Date	Adop	Date	Adop	Date	Adop
1/ 1 - 4/ 1	371	15/ 2 - 19/ 2	369	6/ 5 - 8/ 6	371	30/ 9 - 1/10	369
5/ 1 - 9/ 1	370	20/ 2 - 21/ 2	370	9/ 6 - 4/ 7	372	2/10 - 8/10	370
10/ 1 - 17/ 1	369	22/ 2 - 14/ 3	371	5/ 7 - 10/ 7	371	9/10 - 25/10	369
18/ 1 - 19/ 1	370	15/ 3 - 25/ 3	370	11/ 7 - 26/ 8	370	26/10	370
20/ 1 - 26/ 1	371	26/ 3 - 10/ 4	371	27/ 8 - 18/ 9	371	27/10 - 2/11	371
27/ 1 - 1/ 2	372	11/ 4 - 15/ 4	372	19/ 9 - 25/ 9	370	3/11 - 6/11	372
2/ 2 - 11/ 2	371	16/ 4 - 28/ 4	371	26/ 9	369	7/11 - 16/11	373
12/ 2 - 14/ 2	370	29/ 4 - 5/ 5	372	27/ 9 - 29/ 9	368	17/11 - 31/12	372

HORIZONTAL COMPONENT 19000 + ..nanoTesla units

Date	Adop	Date	Adop	Date	Adop	Date	Adop
1/ 1 - 4/ 1	155	9/ 2 - 10/ 2	155	23/ 6 - 28/ 6	158	27/10 - 29/10	148
5/ 1	154	11/ 2 - 12/ 2	153	29/ 6 - 6/ 7	159	30/10 - 4/11	147
6/ 1	153	13/ 2	152	7/ 7 - 31/ 7	160	5/11 - 14/11	146
7/ 1	151	14/ 2 - 15/ 2	151	1/ 8 - 3/ 8	159	15/11 - 22/11	145
8/ 1	150	16/ 2	152	4/ 8 - 5/ 8	158	23/11 - 27/11	144
9/ 1	149	17/ 2	153	6/ 8 - 7/ 8	157	28/11 - 29/11	145
10/ 1	147	18/ 2 - 14/ 3	154	8/ 8 - 15/ 8	156	30/11	146
11/ 1	145	15/ 3 - 24/ 3	153	16/ 8 - 9/ 9	157	1/12	147
12/ 1	143	25/ 3 - 30/ 3	154	10/ 9 - 20/ 9	156	2/12	148
13/ 1	142	31/ 3 - 2/ 4	155	21/ 9 - 24/ 9	157	3/12 - 11/12	149
14/ 1 - 15/ 1	141	3/ 4	156	25/ 9 - 27/ 9	158	12/12	150
16/ 1	142	4/ 4 - 16/ 4	157	28/ 9 - 3/10	159	13/12 - 20/12	151
17/ 1	143	17/ 4 - 18/ 4	156	4/10 - 5/10	158	21/12	150
18/ 1	145	19/ 4 - 20/ 4	155	6/10 - 7/10	157	22/12	149
19/ 1	147	21/ 4 - 20/ 5	154	8/10 - 9/10	156	23/12	148
20/ 1	149	21/ 5 - 22/ 5	155	10/10 - 12/10	155	24/12	147
21/ 1 - 25/ 1	151	23/ 5 - 24/ 5	156	13/10 - 14/10	154	25/12	146
26/ 1	152	25/ 5 - 27/ 5	157	15/10 - 16/10	153	26/12	145
27/ 1	153	28/ 5 - 3/ 6	158	17/10 - 18/10	152	27/12 - 31/12	144
28/ 1	154	4/ 6 - 13/ 6	157	19/10 - 21/10	151		
29/ 1 - 30/ 1	155	14/ 6 - 19/ 6	156	22/10 - 23/10	150		
31/ 1 - 8/ 2	156	20/ 6 - 22/ 6	157	24/10 - 26/10	149		

VERTICAL COMPONENT 44000 + ..nanoTesla units

Date	Adop	Date	Adop	Date	Adop	Date	Adop
1/ 1 - 2/ 1	386	29/ 1 - 30/ 1	389	13/ 5 - 21/ 5	395	25/ 9 - 22/10	406
3/ 1 - 4/ 1	385	31/ 1 - 1/ 2	390	22/ 5 - 1/ 6	396	23/10 - 9/11	405
5/ 1 - 11/ 1	384	2/ 2 - 7/ 2	391	2/ 6 - 4/ 6	397	10/11 - 12/11	404
12/ 1 - 13/ 1	383	8/ 2 - 10/ 2	390	5/ 6 - 15/ 6	398	13/11 - 27/11	403
14/ 1 - 16/ 1	382	11/ 2 - 19/ 2	389	16/ 6 - 24/ 6	399	28/11	404
17/ 1	383	20/ 2 - 26/ 2	390	25/ 6 - 6/ 7	400	29/11	405
18/ 1 - 19/ 1	384	27/ 2 - 5/ 3	391	7/ 7 - 16/ 7	401	30/11	406
20/ 1	385	6/ 3 - 28/ 3	390	17/ 7 - 5/ 8	402	1/12	407
21/ 1 - 22/ 1	386	29/ 3	391	6/ 8 - 6/ 9	403	2/12 - 24/12	408
23/ 1 - 25/ 1	387	30/ 3 - 31/ 3	392	7/ 9 - 21/ 9	404	25/12	407
26/ 1 - 28/ 1	388	1/ 4 - 12/ 5	394	22/ 9 - 24/ 9	405	26/12 - 31/12	406

Note: The adopted values as shown above are for periods which are multiples of 24 hours commencing, from 1/1 to 29/4, at 0900 GMT and from 1/5 to 31/12 at 0000 GMT. On 30/4 the baseline value applies from 0900 GMT to 2400 GMT. The adopted baseline values for the 24 hour period ending at 0900 GMT on 1/1/85 are: Declination 9° 37.1', Horizontal Component 19155nT and Vertical Component 44387nT.



Table 3

Monthly and Annual Means of the Magnetic Elements 1985

<u>ALL DAYS</u>		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
Declination	10deg+..	50	42	37	28	17	10	3	-3	-9	-20	-28	-35	8
Horizontal Force	19000nT+..	39	43	49	45	54	57	55	53	51	51	50	50	50
Vertical Force	44000nT+..	453	452	446	445	445	442	445	445	447	449	451	455	448
<u>QUIET DAYS</u>		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
Declination	10deg+..	51	41	38	28	16	13	6	-1	-5	-21	-26	-32	9
Horizontal Force	19000nT+..	48	49	52	54	61	57	58	57	55	55	61	58	55
Vertical Force	44000nT+..	450	451	445	442	442	443	445	444	445	447	448	454	446
<u>DISTURBED DAYS</u>		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
Declination	10deg+..	45	38	34	25	17	8	1	-6	-6	-22	-37	-38	5
Horizontal Force	19000nT+..	25	34	40	26	49	52	50	50	46	41	35	42	41
Vertical Force	44000nT+..	457	451	452	442	444	441	450	445	448	450	454	456	449

Table 4		Declination						MEAN HOURLY VALUES,															10 <sup>+</sup> .....(Tenths of Minutes)				January 1985		Mean
Hour	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	D	29	38	54	69	48	32	43	54	64	71	78	62	71	72	71	57	48	61	47	-61	-39	21	25	42	44			
2		22	36	45	35	46	64	51	41	41	51	69	78	85	71	60	54	63	62	50	55	60	-5	11	40	49			
3		36	11	33	30	37	49	47	50	53	71	79	77	80	68	61	61	62	61	68	68	65	46	57	22	54			
4		21	13	21	32	39	49	52	50	51	56	61	68	71	74	67	59	61	61	56	54	55	29	28	17	48			
5	Q	39	34	38	45	49	51	44	43	44	50	61	76	82	78	69	62	69	67	63	67	59	47	44	43	55			
6	Q	38	42	32	37	46	42	46	50	50	48	51	57	65	64	54	49	53	55	50	51	44	28	50	51	48			
7	Q	46	36	35	40	45	47	47	47	45	42	50	50	60	68	63	59	67	73	73	60	60	49	50	50	53			
8		50	53	57	54	60	59	59	53	56	47	49	52	65	78	80	70	78	107	130	86	16	-10	-64	-26	52			
9	D	-10	29	40	0	33	58	60	86	105	74	59	58	90	80	51	53	58	-20	10	31	30	1	22	38	43			
10	D	55	63	39	78	58	40	59	60	68	75	77	70	74	104	69	51	34	32	-6	46	36	30	32	49	54			
11		49	49	51	69	59	55	69	69	69	78	86	89	68	75	70	55	55	57	46	22	1	-1	34	34	55			
12		37	41	48	57	83	59	44	52	61	67	75	78	69	83	60	48	53	57	13	26	35	-20	-12	31	48			
13		51	49	49	45	55	50	45	47	46	48	48	65	67	79	61	59	49	36	58	41	37	41	38	39	50			
14		41	49	53	57	54	58	49	48	43	51	59	67	84	92	81	67	38	56	60	55	47	45	48	47	56			
15		38	48	49	55	59	59	57	53	59	55	66	71	76	81	79	73	63	78	47	26	36	35	23	29	55			
16		31	36	51	63	46	47	49	49	50	59	63	80	86	77	59	50	53	49	49	49	46	40	44	45	53			
17		45	48	47	47	48	48	47	48	48	55	63	73	79	85	80	80	59	49	38	48	52	44	36	39	54			
18	Q	39	49	50	49	49	40	40	39	40	50	61	69	71	71	59	50	48	50	50	46	31	47	48	30	49			
19		40	43	40	41	40	42	46	43	46	49	60	79	79	83	80	70	59	34	49	47	44	45	45	43	52			
20	Q	41	40	44	40	41	41	40	35	36	42	51	61	61	70	69	58	58	60	53	58	50	42	42	41	49			
21		38	41	40	40	30	37	12	31	31	34	52	63	62	78	83	80	83	83	77	61	54	59	52	42	53			
22		43	46	50	50	51	50	49	47	48	61	61	60	67	66	68	64	65	65	66	59	60	60	19	-41	51			
23	D	22	24	22	26	29	-49	-17	36	51	40	60	75	82	110	73	109	79	80	71	60	61	21	41	43	48			
24		46	46	47	48	48	46	41	39	40	41	48	56	61	71	74	71	68	68	46	24	34	33	29	38	48			
25		37	38	31	41	42	44	42	44	49	55	60	58	61	69	69	59	57	55	57	51	48	44	41	41	50			
26		39	41	44	41	40	41	38	39	42	51	60	64	75	77	70	81	83	91	81	78	70	51	35	23	56			
27		29	21	22	28	41	41	40	41	46	51	60	63	72	80	77	70	62	72	73	62	69	1	20	29	49			
28	D	52	8	-11	-35	-26	-12	-4	12	26	42	86	112	130	132	144	118	102	76	-10	-8	17	-18	-26	-8	37			
29		-30	-25	12	33	59	42	41	42	42	45	50	62	82	79	72	82	75	73	74	50	-12	22	16	-10	41			
30		-6	36	39	35	32	44	53	44	41	43	50	61	68	69	72	71	45	15	47	39	41	32	33	24	43			
31		39	57	47	41	42	39	42	43	44	51	53	72	83	84	87	81	65	52	39	39	42	40	24	11	51			
Mean		34	37	39	42	45	42	43	46	50	53	61	69	75	80	72	67	62	59	52	45	40	29	29	29	50			
Mean Q		41	40	40	42	46	44	43	43	43	46	55	63	68	70	63	56	59	61	58	56	49	43	47	43	51			
Mean D		30	32	29	28	28	14	28	50	63	60	72	75	89	100	82	78	64	46	22	14	21	11	19	33	45			

Table 4 Hour Date	Declination						MEAN HOURLY VALUES,												10 <sup>+</sup> .....(Tenths of Minutes)					February 1985			Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	32	29	42	49	47	42	48	62	79	81	80	75	72	73	62	63	42	19	42	42	31	32	42	43	51		
2	46	46	47	40	29	22	23	38	43	49	54	63	68	71	61	52	50	41	31	41	41	31	23	32	43		
3	27	33	41	40	42	41	42	42	47	52	58	58	63	72	68	61	51	35	48	44	13	40	39	41	46		
4 Q	43	44	44	45	46	45	42	40	42	44	45	48	56	61	60	50	48	48	47	46	44	42	42	41	46		
5 D	41	50	44	46	38	33	43	50	64	52	50	49	51	76	95	84	71	51	50	4	6	20	23	-29	44		
6 D	-68	-64	10	25	24	51	122	155	105	61	53	75	77	82	77	60	44	-21	-59	36	31	6	19	26	39		
7	31	60	50	42	48	52	51	53	53	61	65	81	72	80	81	60	22	40	40	40	34	20	-12	6	47		
8 D	37	53	30	52	40	43	43	49	60	60	80	81	83	81	75	51	59	11	-25	-17	-46	-66	-8	34	36		
9	31	48	55	41	38	46	38	54	90	91	71	83	83	68	65	60	70	47	32	41	41	3	21	7	51		
10 D	21	35	61	47	22	33	33	35	51	51	51	59	81	76	81	72	53	2	16	-43	40	35	31	28	40		
11	19	40	39	43	55	52	61	51	47	43	50	60	79	89	89	53	53	50	32	13	38	33	-28	-6	44		
12	31	36	38	50	41	69	48	41	48	50	55	58	74	71	82	51	48	41	29	40	41	40	30	30	48		
13	33	36	38	40	40	40	39	38	38	37	44	58	80	69	60	60	54	57	49	-25	25	46	28	16	42		
14	33	48	50	48	38	42	50	56	68	55	60	65	68	79	70	66	69	66	57	50	32	8	-10	27	50		
15	35	23	11	20	20	30	47	36	38	32	39	49	52	55	59	56	49	46	44	30	34	27	27	38	37		
16 Q	36	39	39	38	38	38	34	31	33	33	37	46	57	67	67	68	47	39	22	6	33	35	20	13	38		
17	29	29	29	48	41	39	29	27	29	36	46	53	63	77	89	100	81	88	81	56	41	40	40	39	51		
18 Q	39	39	39	39	41	38	35	32	32	31	33	42	56	64	69	63	52	46	42	37	38	38	38	39	43		
19 Q	39	32	33	32	37	38	34	34	30	27	29	44	63	77	78	69	71	76	80	76	39	49	28	-11	46		
20	-11	9	-13	-14	-21	-14	-13	6	2	20	31	56	72	84	70	63	50	42	42	40	44	39	31	31	27		
21	39	40	40	40	40	34	30	36	31	30	39	50	72	88	102	110	103	67	56	60	47	31	11	15	50		
22	16	16	29	38	40	36	28	26	24	31	41	60	80	92	94	90	73	62	50	49	38	34	21	21	45		
23	24	38	42	33	35	32	23	17	21	35	43	64	82	89	86	75	65	64	70	74	57	31	18	15	47		
24	21	32	30	6	14	-5	-15	5	13	13	32	41	62	81	91	90	71	55	51	50	36	-12	-22	5	31		
25	11	21	26	19	39	24	19	11	18	41	50	60	69	89	82	88	60	32	47	45	41	32	30	29	41		
26 Q	10	11	-18	0	11	21	31	36	30	21	28	36	52	62	62	54	50	48	35	46	50	40	21	24	32		
27	32	37	45	31	31	32	37	32	31	30	36	54	68	74	82	74	71	60	61	63	61	51	-124	-66	38		
28 D	-64	-24	-79	-4	-20	31	97	69	34	34	51	71	73	89	70	81	67	35	0	-9	11	31	33	35	30		
Mean	22	30	30	33	32	35	39	42	43	43	48	59	69	76	76	69	59	45	38	33	34	27	15	19	42		
Mean Q	33	33	27	31	35	36	35	35	33	31	34	43	57	66	67	61	54	51	45	42	41	41	30	21	41		
Mean D	-6	10	13	33	21	38	68	72	63	62	57	67	73	81	80	70	59	16	-3	-5	8	5	20	19	36		

Table 4 Hour Date	Declination					MEAN HOURLY VALUES,												10 <sup>+</sup> .....(Tenths of Minutes)						March 1985			Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	32	33	31	41	59	5	31	39	41	32	31	36	42	59	63	61	57	50	46	41	37	29	20	0	38		
2 D	28	29	31	39	40	21	26	41	43	36	49	61	91	82	91	60	63	0	30	22	-5	-39	20	31	37		
3	33	35	40	56	19	61	45	32	23	14	23	41	62	71	83	64	52	48	30	32	25	20	31	23	40		
4	24	47	40	32	31	36	31	30	26	26	32	43	62	84	80	61	53	55	54	52	50	40	9	18	42		
5 D	28	24	23	1	17	42	33	19	21	24	28	41	64	89	91	81	83	47	-47	-45	-42	-31	-37	0	23		
6 D	-21	11	28	59	40	41	34	41	47	41	41	51	70	71	65	68	41	34	35	31	-19	-1	10	33	35		
7 D	51	34	21	29	31	34	43	30	25	31	47	51	61	75	81	44	19	21	-9	-45	-31	-3	24	35	29		
8 D	30	51	31	62	91	51	45	41	51	39	43	48	64	69	67	66	25	39	18	23	28	28	28	27	44		
9 Q	32	39	41	37	35	34	31	25	15	11	17	34	58	67	61	52	46	40	40	39	37	38	34	1	36		
10	19	21	32	34	35	34	31	29	19	13	15	33	62	80	91	94	93	93	85	71	63	39	28	9	47		
11	34	41	35	31	32	31	28	23	18	16	21	41	54	78	88	71	61	52	50	47	42	38	36	32	42		
12	31	29	27	25	31	25	25	25	22	20	22	37	53	71	87	79	61	51	55	55	-16	3	11	29	36		
13 Q	32	31	28	27	24	23	30	32	31	35	34	41	52	65	75	73	58	49	48	45	43	41	39	36	41		
14	34	33	31	31	29	33	34	35	32	29	39	59	81	84	79	78	66	54	19	41	9	23	19	11	41		
15	14	28	49	23	17	13	26	68	92	89	58	59	80	70	61	50	40	40	40	40	38	37	30	32	46		
16	21	35	32	20	20	26	30	29	24	20	27	59	81	100	110	80	56	45	37	38	30	-1	21	40	41		
17	30	31	49	29	21	21	23	23	19	18	23	44	73	78	71	64	59	50	47	45	19	0	1	19	36		
18	30	30	20	3	3	29	33	28	16	12	22	50	79	90	90	82	60	47	47	41	19	-14	20	34	36		
19	40	34	30	32	22	25	20	13	1	5	20	43	82	98	90	82	75	63	50	-5	-8	18	20	20	36		
20 Q	19	22	27	28	29	26	20	11	2	6	18	39	79	88	89	79	55	41	39	36	35	34	34	33	37		
21 Q	30	29	35	36	27	24	20	10	0	-3	8	31	70	101	100	96	66	50	42	42	39	31	25	20	39		
22 Q	9	20	34	32	29	25	20	10	0	-8	7	38	80	99	92	80	59	47	40	39	38	37	32	20	37		
23	10	9	19	22	20	20	16	2	-8	-3	17	49	81	99	99	86	66	50	42	30	27	32	21	-1	34		
24	-13	-2	9	20	21	18	11	4	-5	-5	12	40	67	88	90	81	70	52	48	46	46	6	-20	10	29		
25	17	22	30	30	28	25	20	12	6	8	24	54	96	120	113	110	98	80	61	30	30	31	28	18	45		
26	16	21	21	20	13	8	10	0	-13	-9	11	41	81	111	109	91	79	67	61	51	38	21	5	3	36		
27	-9	-3	-4	-11	0	1	2	-1	-12	0	25	48	64	88	91	87	99	98	79	60	20	15	18	-1	31		
28	-27	-29	-13	12	-16	13	38	13	-1	1	14	36	58	80	81	75	61	50	39	14	7	15	26	25	24		
29	28	26	27	26	23	22	19	7	-3	-1	17	35	58	77	81	74	55	44	36	33	8	17	25	11	31		
30	-32	-2	15	14	12	10	8	7	0	7	24	51	79	88	84	71	58	47	38	42	44	41	35	21	32		
31	31	26	20	37	21	18	9	-3	4	47	43	48	67	74	73	61	48	35	29	25	32	35	38	38	36		
Mean	19	24	27	28	26	26	26	22	17	18	26	45	69	84	85	74	61	50	40	33	22	19	20	20	37		
Mean Q	24	28	33	32	29	26	24	18	10	8	17	37	68	84	83	76	57	45	42	40	38	36	33	22	38		
Mean D	23	30	27	38	44	38	36	34	37	34	42	50	70	77	79	64	46	28	5	-2	-13	-8	9	25	34		



Table 4		Declination																								MEAN HOURLY VALUES,												10 <sup>+</sup> .....(Tenths of Minutes)												May 1985	
Hour	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean																									
1		13	12	6	0	3	-2	-7	-17	-20	-6	33	43	62	63	61	42	32	22	13	12	12	17	20	23	18																									
2	D	2	-17	-28	-28	-87	-28	10	10	-26	2	32	44	62	72	57	43	42	30	20	14	14	17	21	13	12																									
3		20	10	2	1	-5	-8	-16	-20	-21	-12	12	32	54	70	83	79	70	62	55	40	21	23	19	-4	24																									
4		9	15	5	2	13	-1	-11	-25	-20	2	20	48	69	91	103	102	102	82	52	35	30	14	11	13	32																									
5		21	12	12	15	13	-1	2	-14	-31	-28	-12	20	52	74	81	62	58	55	51	32	20	22	29	25	24																									
6		21	22	-10	-7	-21	-18	-25	-8	-24	-28	-10	11	25	45	61	61	59	39	31	31	22	19	16	8	13																									
7		-19	1	11	1	-9	-3	-9	-19	-21	-19	1	21	41	62	71	67	60	51	41	29	20	14	-9	-8	16																									
8		-2	-12	-1	-3	-7	-6	-9	-10	-17	-16	-5	13	26	60	81	82	78	70	50	42	36	31	20	13	21																									
9		-16	-9	0	-1	17	4	-17	-25	-23	-14	6	30	54	76	75	64	52	35	15	19	25	27	25	23	18																									
10		19	18	14	9	5	-6	-15	-22	-26	-17	-1	19	33	51	58	55	49	45	41	37	40	25	-22	-1	17																									
11		19	20	15	19	2	-15	-35	-30	-14	-8	-1	11	30	43	50	41	36	31	31	30	30	29	25	21	16																									
12	D	17	6	-3	-9	-16	-21	-29	-19	17	21	31	33	52	74	55	41	50	51	45	33	15	3	3	11	19																									
13	D	-9	-39	-29	-21	-27	-17	-19	-18	-2	20	41	52	60	63	51	55	49	42	43	41	34	-17	10	-19	14																									
14		-21	-34	-55	-70	-59	-44	-38	-31	-29	-9	9	21	39	50	53	51	52	48	40	19	28	26	22	21	4																									
15	D	15	31	-12	-14	-6	9	-21	-22	-11	10	21	38	52	60	59	52	39	33	23	10	10	11	-13	-11	15																									
16	D	7	10	3	0	-2	-16	-29	-39	-21	-2	30	63	91	92	95	87	78	61	19	19	27	21	-19	-15	23																									
17		9	7	6	3	-1	-10	-19	-18	-18	-7	20	41	60	73	82	63	49	42	38	34	25	-21	1	2	19																									
18		-21	-43	-16	1	8	-9	-23	-38	-30	-15	10	40	61	83	77	61	60	47	20	18	12	-1	-31	-29	10																									
19		-23	-23	-39	-22	-8	-27	-34	-24	-20	0	21	40	62	85	91	82	71	53	34	31	11	7	-1	-4	15																									
20		-31	-39	-31	-10	-9	-11	-19	-23	-21	-8	21	43	67	81	79	60	50	40	30	30	25	22	22	21	16																									
21		13	18	8	9	-1	-19	-26	-29	-29	-19	7	32	58	71	70	65	61	52	39	32	29	18	-7	13	19																									
22	Q	-6	-5	5	9	0	-19	-26	-25	-15	-11	13	33	54	59	54	49	41	36	31	28	23	28	24	21	17																									
23	Q	13	21	32	21	1	-26	-42	-49	-46	-27	-5	19	37	54	64	61	47	40	31	24	24	23	21	21	15																									
24		19	13	15	-1	-9	-19	-28	-31	-31	-13	20	41	51	65	71	62	51	41	44	42	28	11	18	15	20																									
25		14	17	13	11	1	-8	-16	-26	-29	-18	10	32	45	55	57	57	57	48	40	38	39	27	1	18	20																									
26		5	-14	-9	-7	-16	-14	-19	-19	-18	-24	-14	7	35	53	65	68	60	45	34	17	23	25	25	17	14																									
27		13	11	10	14	23	8	-6	-18	-25	-18	-9	6	30	47	54	50	46	38	33	25	18	18	18	17	17																									
28	Q	17	14	13	8	5	-6	-13	-12	-13	-14	-6	11	22	38	45	45	43	41	38	32	31	25	21	14	17																									
29	Q	8	11	6	1	0	-8	-9	-9	-8	-9	-4	10	24	33	35	31	28	22	21	22	21	20	13	20	12																									
30	Q	19	12	11	9	1	-10	-22	-29	-28	-14	12	39	54	68	64	53	45	57	33	32	33	33	28	23	22																									
31		14	8	23	3	-14	-29	-29	-22	-28	-29	-8	14	39	51	50	42	35	27	28	31	37	36	32	8	13																									
Mean		5	2	0	-1	-6	-11	-18	-21	-20	-10	10	29	48	63	66	59	53	45	34	28	25	18	11	9	17																									
Mean Q		10	11	13	10	1	-13	-21	-24	-21	-14	2	22	38	50	52	48	41	39	31	28	26	26	21	20	16																									
Mean D		6	-1	-13	-13	-27	-14	-17	-17	-8	10	31	46	63	72	63	56	52	43	30	23	20	7	0	-3	17																									



Table 4		Declination												MEAN HOURLY VALUES,												10 <sup>+</sup> .....[Tenths of Minutes]												July 1985			
Hour	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean															
1		-6	-8	-58	-28	-32	-47	-57	-41	-37	-29	-6	19	42	56	59	44	34	29	25	18	17	0	2	8	0															
2	Q	7	6	5	-1	-7	-11	-23	-24	-27	-21	-6	19	46	60	63	47	32	23	17	11	13	17	15	11	11															
3		11	12	18	11	1	-20	-39	-42	-40	-34	-12	12	33	52	62	61	51	33	22	21	20	19	12	3	11															
4	D	-18	-13	-6	-25	-28	-43	-58	-65	-57	-31	-6	22	59	91	61	80	82	54	40	-51	-36	-35	-38	-15	-1															
5		-17	-6	19	14	-19	-59	-65	-61	-57	-37	-15	3	30	46	40	44	55	51	49	24	3	-17	0	-27	0															
6	D	-10	-10	11	19	6	-21	-40	-39	-41	-46	-17	9	25	46	57	48	50	33	19	23	-9	-30	-11	1	3															
7		-3	-44	13	-33	-37	-21	-29	-27	-25	-30	-20	2	21	44	61	42	41	31	19	13	4	-11	-7	-9	0															
8		-5	1	-1	-3	4	-17	-12	-30	-41	-40	-16	11	22	34	41	24	30	38	16	0	5	-2	-39	-17	0															
9		-7	0	9	1	8	-11	-21	-21	-30	-32	-19	-3	17	34	51	57	51	42	30	21	10	-7	5	1	8															
10		-2	-1	-4	-9	-8	-15	-25	-30	-40	-39	-16	-3	11	29	33	41	49	47	34	31	0	2	1	7	4															
11		-5	-12	5	-6	-20	-39	-50	-42	-31	-28	-15	10	37	55	65	60	58	58	49	38	31	7	1	-14	9															
12	D	-10	-46	-110	-43	-30	-92	-59	-59	-37	-15	6	40	48	66	50	54	78	60	16	-44	8	20	20	17	-2															
13	D	10	5	-4	-12	-17	-31	-48	-50	-49	-40	-11	33	72	82	94	88	49	59	-4	11	11	-24	-47	-38	6															
14		-40	-19	0	19	41	0	-1	10	0	-18	0	12	17	38	35	30	30	20	17	13	10	7	2	0	9															
15		2	7	5	-6	16	-12	-34	-41	-46	-37	-21	-16	1	18	30	27	13	7	7	2	2	6	3	-9	-2															
16	Q	0	1	0	0	-3	-17	-28	-33	-39	-47	-30	-2	21	34	35	35	31	28	20	13	13	16	15	15	3															
17		0	-20	-1	0	34	-22	-38	-52	-49	-32	-8	28	51	63	89	79	58	48	30	4	-3	5	4	10	12															
18		7	-18	-18	-1	-6	-18	-38	-43	-40	-22	-11	17	43	60	59	48	22	10	19	11	8	-48	-27	-8	0															
19		0	3	0	-10	-21	-40	-41	-42	-47	-30	-11	12	32	55	52	51	45	21	12	8	7	11	10	8	4															
20		8	7	2	20	-12	-38	-51	-40	-38	-37	-21	0	22	42	52	51	38	30	27	21	14	10	9	7	5															
21	Q	9	-8	8	-10	-19	-17	-17	-26	-30	-20	-13	14	38	49	50	39	19	15	17	10	11	10	10	10	6															
22	Q	3	0	-5	-7	-11	-20	-40	-56	-59	-39	-19	1	21	34	48	48	39	28	21	19	30	30	25	19	5															
23		0	-10	-10	-11	-20	-57	-70	-73	-72	-60	-38	1	42	51	50	47	33	22	1	-8	10	10	5	-20	-6															
24		-17	-15	-19	-28	-23	-24	-27	-20	-23	-29	-8	19	38	51	59	50	39	30	23	22	1	-3	2	-2	4															
25		2	-30	-22	-19	-40	-41	-62	-37	-46	-40	-24	-6	12	23	34	39	33	25	14	0	9	10	7	-10	-6															
26		-14	-18	-17	-15	-20	9	-34	-30	-22	-16	3	22	37	38	38	40	31	25	25	28	-33	-52	-49	-2	0															
27		-23	-2	-11	-33	-31	-28	-27	-27	-38	-39	-22	6	33	31	20	22	18	9	9	1	1	2	2	11	-4															
28		0	-10	-14	7	-21	-29	-39	-39	-39	-30	-18	-9	12	30	41	41	36	22	18	8	-47	-31	-7	-2	-4															
29	Q	-4	-10	-12	-12	-18	-22	-36	-38	-40	-30	-12	10	33	51	58	55	50	35	20	9	10	9	0	-1	4															
30		-5	-5	-7	-1	17	7	-21	-38	-46	-33	-13	16	52	90	97	64	48	28	18	7	6	2	0	-10	11															
31	D	-14	-13	-11	-10	-22	-38	-41	1	-10	0	31	22	40	62	87	80	48	50	41	-11	-27	-61	-68	-128	0															
Mean		-4	-8	-7	-6	-10	-26	-37	-36	-38	-31	-12	10	33	49	54	50	42	33	22	9	3	-3	-4	-5	3															
Mean Q		3	-1	0	-5	-11	-16	-28	-34	-38	-30	-15	8	32	46	51	45	34	26	19	12	15	16	13	11	6															
Mean D		-7	-14	-23	-13	-17	-44	-48	-41	-38	-25	1	25	49	69	70	70	61	51	22	-13	-10	-25	-28	-32	1															





Table 4 Hour Date	Declination												MEAN HOURLY VALUES, 10 <sup>+</sup> .....(Tenths of Minutes)												September 1985			Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1	-12	-11	-17	-16	-29	-49	-51	-52	-51	-32	1	35	61	62	42	20	7	-10	-11	-10	-30	-58	-26	-10	-9			
2 Q	-9	-10	-10	-9	-19	-29	-40	-50	-49	-35	-12	25	45	53	53	39	17	-3	-11	-8	-1	1	-8	-9	-2			
3 Q	-8	-9	-12	-17	-15	-28	-42	-48	-46	-26	1	32	54	53	39	18	-1	-10	-9	-2	1	0	-8	-9	-3			
4 Q	-17	-17	-17	-19	-19	-21	-29	-39	-47	-39	-17	9	30	34	28	12	1	-5	-4	-2	0	-8	-8	-9	-7			
5 Q	-9	-13	-14	-17	-19	-20	-29	-32	-31	-21	-5	15	34	49	49	31	17	5	1	11	11	1	-1	-9	0			
6	-10	-10	-9	-21	-32	-38	-39	-39	-39	-29	-14	7	31	48	54	51	42	22	0	-12	-17	-19	-20	-29	-4			
7	-55	-16	-11	-39	-29	-35	-43	-44	-40	-39	-21	3	29	41	49	42	29	21	19	15	11	-12	-29	-23	-6			
8	-36	-37	-30	-30	-29	-29	-30	-35	-41	-32	-18	0	31	48	47	49	21	15	10	0	-7	-51	-34	-45	-10			
9	-32	-28	-17	-19	-13	-3	-24	-37	-39	-33	-17	21	43	50	41	32	25	-1	-8	4	3	-21	-44	-33	-5			
10	-18	-9	-5	-19	-29	-29	1	-10	-36	-19	-10	2	19	27	31	27	21	7	0	-57	-29	-52	-40	-53	-11			
11	-29	-33	-39	-43	-27	-28	-33	-36	-50	-45	-22	11	28	30	25	15	1	-5	-19	-71	-37	-20	-12	-5	-18			
12	-7	-15	-12	-20	-21	-22	-29	-40	-45	-37	-22	8	31	39	38	31	10	-12	-17	-9	-10	-11	-11	-6	-7			
13	-6	-6	-8	-15	-18	-12	-17	-25	-29	-21	-2	14	30	32	30	17	2	-8	-10	-10	-9	-10	-10	-18	-4			
14 D	-33	-21	-19	-16	-8	-20	-19	10	11	8	7	11	71	109	89	50	28	24	12	8	0	-23	-19	-20	10			
15	-27	-25	-35	-24	-31	-33	-30	-32	-38	-38	-27	-2	21	39	43	31	20	17	22	-67	-29	-20	-57	-49	-14			
16 D	-5	-7	-53	-49	-12	-44	-50	-54	-56	-39	-10	41	64	66	41	28	1	3	-8	-9	0	-20	-16	-51	-9			
17	-26	-6	-22	-19	-28	-19	-29	-31	-39	-38	-19	10	22	26	35	30	20	9	5	-10	-37	-23	-29	-24	-9			
18	-17	-15	-9	-17	-19	-23	-25	-32	-32	-30	-15	3	15	31	35	28	19	6	1	0	-1	-5	-9	-13	-4			
19 D	-11	-21	-22	-17	-21	-27	-23	-30	-40	-28	50	59	52	30	31	63	55	10	-7	-10	-145	-40	-21	-37	-5			
20 D	-51	-91	-52	-57	-22	-35	-42	-39	-21	-19	-8	7	29	32	43	12	18	18	11	7	-11	-14	-42	-82	-16			
21 D	-49	-28	0	-10	-23	-29	-7	-30	-42	-32	-20	-1	20	38	33	31	18	-8	-61	-22	-32	-34	-25	-14	-13			
22	-17	-49	-36	-40	-40	-51	-40	-31	-40	-31	-20	0	10	36	23	22	18	-2	0	-4	-10	-8	-15	-23	-14			
23	-30	-28	-24	-29	-28	-28	-33	-22	-10	-20	-20	-2	10	16	12	6	0	-3	-4	-7	-10	-18	-16	-18	-12			
24	-20	-25	-28	-40	-40	-37	-36	-30	-33	-30	-16	0	8	22	30	19	8	-30	-58	-6	-27	-81	-60	-34	-22			
25	-30	-23	-19	-40	-40	-33	-20	18	15	-30	-18	-2	15	20	32	26	4	-3	-28	-70	-40	-30	-34	-27	-14			
26	-27	-14	-27	-26	-20	-18	-17	-9	-31	-15	-11	-5	9	15	7	1	-8	-12	-6	-45	-31	-41	-68	-65	-18			
27	-24	-34	-25	-32	-35	-42	-15	-12	-28	-23	-20	12	17	25	25	14	4	-4	-12	-40	-34	-53	-64	-43	-17			
28	-26	-24	-21	-18	-25	-32	-34	-42	-46	-44	-29	-2	28	28	18	-2	-7	-12	-16	-15	-14	-20	-22	-19	-16			
29 Q	-17	-20	-15	-29	-25	-30	-33	-34	-38	-39	-22	8	26	28	20	9	-5	-14	-14	-20	-22	-14	-14	-14	-13			
30	-10	-15	-16	-18	-25	-28	-32	-35	-44	-42	-21	12	32	34	30	11	-1	-8	-8	-8	-9	-16	-29	-38	-11			
Mean	-21	-21	-20	-25	-24	-28	-29	-30	-34	-29	-12	11	31	39	36	25	13	0	-7	-15	-18	-23	-25	-27	-9			
Mean Q	-11	-13	-13	-17	-18	-25	-34	-40	-41	-31	-10	18	38	43	38	22	6	-4	-6	-3	-1	-3	-7	-9	-5			
Mean D	-29	-33	-28	-29	-16	-30	-27	-28	-29	-21	4	23	47	55	47	37	24	9	-10	-4	-37	-25	-24	-40	-6			

Table 4		Declination						MEAN HOURLY VALUES,												10 <sup>+</sup> .....(Tenths of Minutes)					October 1985			Mean
Hour	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	Q	-23	-18	-21	-23	-23	-27	-30	-38	-48	-50	-33	-13	1	9	12	12	-2	-12	-20	-19	-19	-20	-22	-23	-18		
2		-23	-22	-22	-35	-39	-36	-39	-49	-41	-41	-31	-12	9	18	11	8	8	-1	-1	-1	-2	-10	-17	-36	-16		
3		-21	-19	-20	-20	-21	-29	-31	-34	-20	-17	-2	23	54	52	53	60	30	0	-15	-19	-19	-37	-49	-37	-5		
4		-44	-70	-60	-58	-50	-40	-31	-12	-19	-19	-4	14	22	33	45	46	44	33	15	0	-2	-12	-40	-53	-10		
5	D	-25	-34	-24	-51	16	-12	17	38	-21	-2	7	25	10	10	20	30	-2	-31	-50	-124	-230	-104	-48	-72	-26		
6	D	-84	-41	-40	-47	-30	-18	30	46	0	-2	-20	2	10	20	-8	7	-5	-30	-68	-35	-39	-31	-52	-100	-21		
7	D	-77	-28	-11	-39	-20	6	-16	-25	-39	-39	-24	-10	9	23	30	26	20	-62	-56	-28	-43	-42	-60	-38	-22		
8		-46	-46	-44	-48	-32	-18	-28	-31	-35	-30	-30	-14	20	30	23	20	-24	-5	-17	-21	-85	-60	-36	-28	-23		
9		-21	-27	-20	-21	-27	-31	-30	-31	-41	-52	-50	-32	-10	9	11	7	-7	-16	-30	-30	-24	-20	-22	-20	-21		
10		-21	-22	-24	-32	-41	-38	-41	-37	-40	-44	-34	-15	9	20	14	5	-9	-18	-21	-17	-22	-41	-41	-46	-22		
11		-41	-31	-21	-26	-31	-33	-30	-21	-19	-33	-33	-24	10	17	29	42	39	21	9	1	-28	-68	-51	-58	-15		
12		-32	-71	-61	-44	-41	-40	-39	-33	-40	-41	-33	-14	6	17	19	15	4	-4	-13	-26	-44	-57	-36	-26	-25		
13	D	-8	-17	-29	2	-31	-47	-36	-40	-44	-45	-41	-23	-1	32	41	21	11	-41	-19	-15	-37	-48	-34	-38	-19		
14		-21	-19	-29	-30	-23	-42	-38	-37	-41	-42	-36	-18	9	18	21	12	-6	-15	-19	-16	-22	-23	-24	-21	-18		
15		-17	-19	-19	-21	-4	-4	40	-5	-30	-40	-41	-22	-1	9	9	5	-5	-11	-12	-20	-21	-29	-75	-74	-16		
16		-56	-30	-34	-41	-50	-37	-40	-31	-27	-31	-20	-3	19	35	40	32	7	-1	-8	-16	-17	-23	-43	-41	-16		
17		-54	-32	-45	-20	-44	-36	-38	-41	-45	-42	-34	-19	7	20	6	-1	2	28	18	19	-5	-23	-44	-75	-20		
18	D	-64	-43	-44	-38	-37	-36	-35	-37	-36	-50	-44	-15	14	18	40	37	17	9	9	-8	-48	-64	-42	-36	-21		
19		-29	-51	-52	-37	-37	-19	-31	-30	-39	-44	-42	-31	-11	9	9	1	0	-4	-11	-15	-20	-23	-24	-27	-22		
20		-27	-31	-31	-41	-40	-32	-36	-35	-30	-36	-39	-20	-4	5	9	8	-3	-12	-21	-31	-21	-23	-30	-28	-22		
21		-26	-30	-30	-31	-31	-31	-25	-28	-32	-46	-43	-36	-16	10	23	37	32	-20	7	-4	-21	-11	-23	-29	-16		
22		-33	-49	-51	-51	-51	-24	0	-21	-31	-42	-42	-31	-3	2	1	-3	-11	-17	-12	-71	-99	-63	-36	-32	-31		
23		-3	-6	-31	-23	-31	-31	-21	-19	-23	-35	-41	-28	-3	10	4	-3	-13	-33	-39	-43	-32	-33	-49	-44	-23		
24		-39	-29	-42	-32	-31	-33	-29	-32	-39	-47	-40	-21	-3	6	5	1	-4	-11	-41	-16	-21	-29	-31	-24	-23		
25		-23	-26	-31	-20	-31	-35	-38	-37	-37	-38	-30	-15	2	9	-1	-4	-9	-13	-12	-28	-27	-27	-31	-29	-21		
26	Q	-24	-29	-24	-22	-27	-23	-27	-31	-41	-44	-39	-19	1	7	1	-7	-17	-23	-23	-24	-27	-29	-30	-33	-22		
27	Q	-30	-29	-23	-24	-28	-30	-29	-37	-45	-47	-38	-21	1	9	3	-5	-11	-12	-14	-18	-29	-31	-39	-60	-23		
28	Q	-68	-36	-29	-29	-29	-29	-33	-31	-33	-39	-30	-12	8	11	11	1	-9	-16	-19	-22	-25	-27	-27	-24	-21		
29		-19	-21	-28	-39	-51	-51	-40	-40	-37	-31	-9	31	41	31	18	18	11	1	-14	-20	-21	-27	-29	-29	-14		
30	Q	-28	-25	-21	-20	-24	-28	-31	-36	-40	-45	-38	-23	-6	8	10	3	-3	-8	-13	-25	-31	-27	-26	-26	-20		
31		-27	-29	-27	-30	-33	-26	-26	-29	-33	-40	-38	-12	6	18	18	10	1	-8	-11	-19	-29	-30	-29	-29	-18		
Mean		-33	-31	-31	-31	-30	-28	-24	-26	-33	-36	-30	-12	7	17	17	14	3	-10	-16	-22	-35	-34	-36	-39	-20		
Mean Q		-34	-26	-23	-23	-25	-26	-29	-34	-40	-44	-35	-17	1	9	7	1	-7	-13	-17	-21	-25	-26	-28	-32	-21		
Mean D		-51	-32	-29	-34	-19	-20	-7	-3	-27	-27	-23	-3	8	21	25	24	8	-30	-36	-41	-78	-57	-46	-56	-22		



Table 4		Declination				MEAN HOURLY VALUES,												10 <sup>+</sup> .....(Tenths of Minutes)							December 1985				Mean
Hour	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24				
1		-53	-47	-37	-26	-1	-16	-34	-38	-38	-40	-39	-24	-16	-7	-8	-15	-18	-28	-31	-28	-153	-96	-85	-68	-38			
2		-77	-47	-79	-39	-20	-35	-26	-29	-35	-40	-40	-38	-25	-18	-14	-18	-22	-34	-21	-70	-78	-52	-51	-42	-39			
3		-35	-39	-37	-31	-20	-25	-24	-32	-33	-36	-38	-35	-28	-20	-18	-19	-41	-30	-28	-36	-38	-48	-58	-53	-32			
4		-48	-43	-38	-38	-42	-34	-32	-28	-29	-31	-32	-28	-18	-10	-9	-7	-1	-4	-41	-66	-58	-68	-75	-68	-34			
5		-47	-30	-17	-33	-38	-33	-35	-30	-30	-34	-34	-31	-28	-17	-14	-17	-27	-28	-41	-38	-40	-45	-50	-45	-32			
6		-39	-28	-28	-30	-32	-33	-32	-32	-32	-40	-38	-30	-24	-13	-17	-25	-23	-28	-28	-29	-35	-36	-38	-38	-29			
7 Q		-38	-38	-38	-36	-32	-30	-33	-32	-31	-28	-22	-15	-11	-12	-15	-21	-21	-19	-19	-32	-42	-39	-38	-37	-27			
8 Q		-37	-38	-39	-37	-32	-35	-33	-33	-37	-37	-32	-26	-23	-17	-16	-22	-25	-28	-35	-36	-35	-39	-39	-39	-31			
9 Q		-38	-38	-38	-41	-38	-38	-35	-35	-38	-44	-42	-34	-19	-14	-16	-21	-24	-26	-25	-29	-31	-37	-39	-39	-31			
10		-41	-60	-47	-49	-45	-38	-38	-38	-41	-42	-38	-11	1	20	40	-13	-26	-27	-35	-39	-38	-47	-68	-60	-32			
11		-60	-67	-51	-48	-46	-37	-42	-41	-42	-43	-39	-32	-19	-13	-11	-21	-25	-31	-34	-45	-47	-50	-71	-62	-40			
12		-38	-34	-38	-37	-37	-36	-44	-48	-46	-46	-39	-31	-26	-18	-18	-19	-27	-29	-32	-46	-44	-47	-49	-50	-36			
13 D		-89	-92	-69	-59	-62	-56	-50	-45	-38	-29	-27	54	6	19	13	12	-18	-32	-30	-39	-43	-48	-71	-103	-36			
14		-78	-59	-48	-52	-45	-47	-48	-48	-48	-48	-46	-39	-23	-21	-30	-28	-18	-17	-30	-31	-36	-44	-82	-78	-43			
15		-63	-56	-42	-57	-38	-41	-27	-39	-42	-46	-39	-37	-32	-18	-18	-21	-28	-28	-31	-31	-40	-82	-58	-48	-39			
16		-48	-48	-40	-33	-32	-31	-31	-35	-39	-46	-40	-32	-26	-22	-21	-25	-30	-32	-32	-30	-43	-43	-47	-58	-35			
17		-57	-21	-38	-39	-40	-38	-35	-30	-35	-40	-36	-29	-20	-18	-26	-28	-34	-38	-35	-35	-38	-42	-51	-49	-35			
18		-43	-40	-38	-34	-28	-29	-29	-28	-28	-37	-17	-7	-2	-8	-20	-18	-21	-24	-28	-33	-36	-38	-40	-67	-28			
19 D		-51	-68	-71	-41	-28	24	32	60	26	35	26	16	-10	-8	-1	-11	-4	-114	-48	-100	-43	-53	-64	-50	-22			
20		-68	-68	-71	-34	-28	-38	-41	-38	-40	-45	-39	-28	-19	-20	-13	-16	-25	-29	-33	-36	-40	-47	-48	-53	-37			
21 Q		-58	-66	-66	-58	-41	-38	-36	-37	-37	-38	-38	-31	-27	-19	-20	-28	-37	-37	-37	-38	-37	-38	-44	-42	-39			
22		-42	-40	-39	-38	-40	-49	-46	-37	-38	-43	-34	-18	-9	-17	-19	-18	-30	-31	-22	-28	-37	-40	-48	-43	-33			
23 Q		-37	-40	-42	-38	-37	-37	-39	-38	-41	-45	-38	-28	-26	-20	-18	-27	-28	-22	-27	-24	-20	-40	-42	-42	-32			
24		-64	-58	-46	-46	-47	-48	-48	-41	-36	-33	-31	-32	-26	-18	-18	-18	-24	-31	-29	-39	-44	-45	-45	-41	-37			
25		-40	-39	-40	-40	-41	-38	-38	-36	-38	-42	-37	-32	-31	-21	-26	-32	-29	-29	-27	-26	-36	-42	-94	-76	-38			
26		-68	-56	-47	-46	-36	-44	-41	-41	-42	-40	-37	-32	-28	-17	-27	-37	-38	-40	-45	-43	-45	-47	-47	-45	-40			
27		-40	-32	-33	-28	-31	-34	-41	-39	-40	-39	-30	-18	-17	-13	-16	-22	-29	-31	-29	-38	-95	-65	-71	-59	-36			
28 D		-56	-11	-28	-49	4	-50	-39	-32	-19	-14	-6	4	8	-28	-18	-14	-32	-18	-65	-129	-68	-75	-72	-51	-35			
29		-45	-41	-29	-38	-25	-35	-36	-43	-45	-50	-49	-40	-34	-25	-25	-34	-41	-44	-46	-48	-49	-53	-52	-60	-40			
30 D		-64	-83	-34	-95	-55	-50	-62	-36	-21	-23	-25	-49	-37	-17	-7	-10	-23	-92	-73	-41	-77	-97	-116	-88	-52			
31 D		-59	-47	-18	-37	-38	-35	-27	-21	-37	-55	-54	-27	-19	-44	-18	-45	-38	-53	-77	-47	-50	-58	-88	-68	-43			
Mean		-51	-47	-42	-41	-34	-35	-34	-32	-34	-36	-32	-23	-19	-14	-13	-20	-25	-33	-35	-42	-48	-51	-58	-55	-35			
Mean Q		-41	-43	-44	-41	-35	-35	-34	-34	-36	-37	-33	-26	-20	-15	-16	-23	-26	-25	-28	-31	-32	-38	-39	-39	-32			
Mean D		-63	-59	-43	-55	-35	-32	-28	-14	-17	-16	-16	0	-9	-15	-5	-13	-22	-61	-58	-70	-55	-65	-81	-71	-38			

Table 5		Horizontal Component						MEAN HOURLY VALUES,													1900nT+....(nT Units)				January 1985			
Hour	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean		
1	D	38	34	42	38	45	45	41	38	44	41	33	28	38	46	46	16	23	30	23	2	-9	46	10	21	32		
2		21	25	37	43	31	31	31	31	41	42	38	29	32	40	43	43	40	36	39	40	34	67	34	25	36		
3		30	26	25	32	40	39	41	42	43	44	43	50	53	50	47	42	44	48	49	47	28	16	28	51	40		
4		36	28	32	36	37	40	43	44	40	40	42	44	44	45	45	45	48	46	47	45	43	41	40	48	42		
5	Q	39	38	39	41	42	47	48	48	45	44	45	48	50	57	57	54	50	47	49	48	45	33	38	43	46		
6	Q	37	38	41	40	41	46	49	49	49	48	49	49	49	53	53	49	43	43	46	48	45	50	46	43	46		
7	Q	41	43	40	43	48	54	57	56	57	57	59	56	56	61	59	54	51	49	44	40	39	43	46	46	50		
8		49	53	54	53	56	56	56	57	61	56	57	55	52	55	62	65	63	40	15	22	-6	-3	10	22	44		
9	D	10	16	22	54	26	55	46	30	30	25	22	34	29	-11	10	27	16	-18	19	24	25	33	30	29	24		
10	D	37	41	29	27	44	55	49	43	33	37	25	10	32	39	37	28	27	19	19	34	33	33	42	50	34		
11		46	38	38	43	47	50	45	47	53	43	26	39	42	40	35	34	38	29	14	14	30	37	34	35	37		
12		45	42	32	31	38	41	47	40	41	36	22	22	30	28	22	30	37	20	10	19	22	28	29	28	31		
13		40	34	33	31	26	30	33	34	33	20	22	27	32	35	25	34	25	28	33	27	34	39	44	53	32		
14		45	42	43	47	50	57	54	48	43	44	41	29	36	37	33	40	30	30	40	41	42	47	49	48	42		
15		51	54	54	55	60	63	65	64	61	62	56	46	48	46	44	20	21	30	21	19	26	34	33	33	44		
16		32	35	38	41	48	46	46	45	41	42	35	31	35	40	40	42	37	38	39	40	42	42	44	44	40		
17		43	44	44	45	47	49	52	55	55	49	39	33	33	39	37	29	33	30	43	49	45	43	42	45	43		
18	Q	45	44	50	52	55	58	57	59	59	58	59	58	57	55	52	49	50	47	46	43	42	43	43	44	51		
19		44	45	45	46	47	46	52	53	57	56	51	52	46	46	47	47	37	28	41	44	45	46	45	45	46		
20	Q	45	46	43	42	42	43	48	48	51	52	49	48	48	49	51	44	43	30	30	43	49	48	48	45	45		
21		46	45	45	46	39	36	59	54	49	48	53	51	46	49	51	51	48	47	48	48	48	44	46	46	48		
22		48	50	49	50	52	53	53	52	51	51	52	48	48	47	51	50	46	42	55	58	63	56	18	20	48		
23	D	21	30	33	26	40	42	51	43	51	54	29	9	21	16	37	27	11	22	29	26	24	40	37	34	31		
24		33	35	32	33	33	35	36	39	39	39	41	42	44	43	42	44	47	43	44	43	41	41	36	34	39		
25		39	41	37	33	35	40	45	46	52	52	52	44	43	52	57	55	54	53	55	57	53	52	54	52	48		
26		48	46	46	46	45	47	50	51	53	51	47	48	52	54	55	60	61	55	57	57	54	49	42	40	51		
27		42	34	37	37	42	46	49	49	47	43	41	38	41	46	52	53	53	50	37	31	28	25	34	29	41		
28	D	12	8	35	15	21	21	24	23	41	44	31	22	-13	-30	-16	-28	-26	-34	-21	-6	-6	-24	-12	-21	3		
29		30	13	6	0	-1	11	11	14	14	13	10	11	14	18	23	23	16	22	23	21	-4	1	17	34	14		
30		16	20	25	30	31	30	30	31	33	31	38	42	43	37	35	35	26	35	34	32	33	27	42	41	32		
31		37	40	44	40	41	45	47	49	45	43	46	33	10	26	34	33	28	31	36	37	41	41	38	38	38		
Mean		37	36	38	39	40	44	46	45	46	44	40	38	38	39	41	39	36	33	34	35	33	36	35	37	39		
Mean Q		41	42	43	44	46	50	52	52	52	52	52	52	52	55	54	50	47	43	43	44	44	43	44	44	48		
Mean D		24	26	32	32	35	44	42	35	40	40	28	21	21	12	23	14	10	4	14	16	13	26	21	23	25		

Table 5	Horizontal Component						MEAN HOURLY VALUES,															19000nT+....(nT Units)				February 1985			
Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean				
Date																													
1	50	37	31	34	40	47	51	54	53	54	54	51	39	36	33	32	23	30	32	33	40	44	46	45	41				
2	45	44	44	46	49	53	52	49	47	45	41	33	35	40	37	38	37	33	35	36	35	39	41	42	42				
3	46	42	41	38	40	43	46	48	49	52	51	52	51	35	28	32	37	35	42	39	45	42	44	43	43				
4 Q	43	44	45	45	47	47	47	49	51	52	48	45	48	51	53	52	50	49	50	50	49	45	47	48	48				
5 D	47	50	49	49	56	57	51	69	78	64	56	55	47	45	17	10	31	42	46	29	35	29	35	49	46				
6 D	55	16	17	28	41	55	53	64	53	36	33	22	-15	1	25	30	30	-18	-5	21	26	35	30	57	29				
7	36	39	39	34	37	45	49	41	48	50	42	37	9	28	31	28	28	40	42	42	40	33	51	41	38				
8 D	37	47	43	39	45	44	45	46	49	43	18	29	37	41	48	40	40	13	9	20	21	22	12	29	34				
9	36	42	43	39	41	36	40	28	34	44	35	29	28	19	31	25	29	36	41	41	40	43	38	33	35				
10 D	41	35	44	49	40	34	45	48	41	35	39	40	40	30	30	38	35	29	15	21	25	34	36	38	36				
11	41	40	39	39	40	41	49	51	50	47	43	38	34	34	32	32	43	42	38	46	47	42	50	56	42				
12	45	45	45	47	47	48	51	52	53	48	44	39	41	42	42	34	39	35	42	45	46	46	46	46	45				
13	48	46	45	45	46	48	49	48	51	50	48	42	41	42	48	47	47	50	42	25	41	47	55	54	46				
14	47	50	47	49	48	47	49	49	54	55	53	49	45	47	49	50	40	18	37	46	45	61	81	50	49				
15	46	55	49	40	45	44	48	53	49	51	51	50	47	48	50	50	50	50	51	51	51	49	48	49	49				
16 Q	50	50	50	50	53	53	53	55	59	65	59	55	52	52	50	39	37	38	37	48	49	48	50	50	50				
17	51	51	51	52	59	68	67	64	57	48	41	39	38	44	38	20	13	11	18	23	39	46	46	46	43				
18 Q	48	48	47	47	48	49	53	53	53	49	48	45	46	47	49	49	50	51	52	52	54	54	53	52	50				
19 Q	54	54	51	49	50	50	54	54	55	52	47	47	49	56	60	59	59	55	54	53	48	49	45	28	51				
20	38	39	55	51	49	51	54	58	63	55	47	40	44	48	48	48	48	48	49	44	46	46	44	44	48				
21	46	46	47	47	51	54	54	51	51	49	46	42	44	45	47	43	41	48	52	50	26	15	29	34	44				
22	31	28	38	43	40	41	43	45	44	45	44	44	49	52	52	52	48	47	48	47	48	51	61	55	46				
23	51	50	52	48	47	48	52	55	54	49	40	35	34	39	44	51	54	52	48	40	37	36	47	55	47				
24	48	57	61	44	36	35	44	44	48	47	42	33	36	37	39	33	42	48	49	49	44	51	30	38	43				
25	39	41	50	42	40	48	54	54	43	44	42	35	42	49	50	49	37	39	49	53	54	49	48	54	46				
26 Q	49	59	50	40	44	42	44	48	49	46	39	35	39	43	48	50	51	52	41	44	43	47	49	49	46				
27	51	53	57	50	51	53	56	59	59	54	53	49	45	47	46	46	48	49	55	61	61	58	13	11	49				
28 D	23	13	32	8	33	18	65	44	30	17	-4	15	-5	4	27	23	18	16	25	40	35	34	38	42	25				
Mean	44	44	45	43	45	46	51	51	51	48	43	40	37	39	41	39	39	37	39	41	42	43	43	44	43				
Mean Q	49	51	49	46	48	48	50	52	53	53	48	45	47	50	52	50	49	49	47	49	49	49	49	45	49				
Mean D	41	32	37	35	43	42	52	54	50	39	28	32	21	24	29	28	31	16	18	26	28	31	30	43	34				

Table 5	Horizontal Component						MEAN HOURLY VALUES,														1900nT+....(nT Units)				March 1985	
Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
Date																										
1	39	42	37	50	51	48	23	39	43	31	31	33	36	39	40	40	40	40	40	42	43	39	52	56	41	
2 D	48	44	42	47	48	54	54	48	54	52	54	37	24	18	28	20	24	-10	14	32	20	45	34	38	36	
3	44	41	44	40	36	26	53	45	41	35	33	32	30	33	37	36	42	44	43	47	40	41	45	47	40	
4	49	47	44	44	46	44	50	51	51	44	35	32	38	43	42	44	52	57	61	61	62	58	45	50	48	
5 D	52	62	57	46	43	50	70	60	53	42	40	42	44	56	44	45	38	13	6	8	36	30	37	14	41	
6 D	36	40	39	36	39	41	50	47	36	37	33	34	34	28	34	39	28	44	46	49	49	47	36	44	39	
7 D	56	52	42	42	48	50	54	54	50	34	24	29	34	42	32	27	29	14	6	41	45	32	39	49	39	
8 D	56	66	39	38	42	54	42	41	39	24	26	30	34	29	40	41	35	42	41	47	47	57	59	47	42	
9 Q	49	46	45	44	45	46	48	47	44	34	29	30	34	41	46	44	44	44	45	47	49	51	51	56	44	
10	53	46	47	51	54	55	57	59	55	51	49	53	60	66	70	65	65	58	59	63	62	35	34	48	55	
11	42	42	44	45	45	47	48	50	49	46	45	49	50	58	49	47	47	46	48	52	54	54	54	54	49	
12	53	52	50	48	49	49	53	54	55	53	48	45	45	46	48	43	49	50	45	36	31	25	36	44	46	
13 Q	46	47	45	45	44	44	49	57	60	54	55	54	51	50	48	51	52	52	54	56	57	58	58	57	52	
14	56	55	54	55	54	55	58	62	65	66	64	61	53	50	54	54	54	54	54	57	54	48	48	48	56	
15	50	54	68	57	57	58	64	51	50	53	48	46	44	33	38	39	41	44	48	52	53	53	50	51	50	
16	57	53	57	52	49	51	54	57	60	55	51	49	54	54	42	43	50	53	54	55	55	53	50	58	53	
17	58	53	56	51	52	53	55	55	54	52	54	57	60	59	58	56	57	58	60	65	59	55	53	51	56	
18	53	59	63	52	54	51	59	56	53	47	42	43	45	52	54	58	56	56	55	59	49	47	43	53	52	
19	56	53	55	56	57	59	64	61	57	50	48	43	43	46	45	55	54	53	49	33	42	45	51	53	51	
20 Q	53	50	49	49	52	55	58	59	58	56	51	53	58	54	59	57	50	56	56	59	59	58	59	58	55	
21 Q	58	55	59	63	58	56	59	59	55	46	39	35	40	49	53	55	57	56	58	61	57	59	56	54	54	
22 Q	53	65	57	55	55	56	58	57	51	43	39	39	44	48	50	51	55	61	64	66	67	68	65	59	55	
23	51	45	45	53	55	55	56	53	48	36	27	24	30	38	44	48	53	53	56	58	55	56	54	55	48	
24	53	53	54	54	57	57	58	55	53	45	41	38	36	43	49	56	60	62	63	64	63	59	50	46	53	
25	49	51	53	53	53	56	53	53	51	42	36	37	42	49	54	58	62	63	64	49	59	59	64	59	53	
26	64	64	63	54	54	54	56	54	53	43	37	38	40	44	44	55	60	63	59	49	39	39	42	49	51	
27	49	47	49	44	47	48	48	49	47	39	41	44	46	56	57	67	73	63	59	62	54	56	43	51	52	
28	54	60	46	52	61	40	54	62	53	40	34	28	28	31	40	47	52	54	51	38	35	43	54	55	46	
29	54	49	51	53	54	54	55	56	54	41	35	31	33	38	43	44	45	55	62	59	52	53	55	54	49	
30	69	59	54	51	52	54	54	51	44	37	35	39	40	40	44	49	54	55	59	66	64	64	62	59	52	
31	59	64	54	55	54	54	56	56	42	34	35	34	37	35	40	45	47	51	47	50	55	57	58	59	49	
Mean	52	52	50	50	50	51	54	53	51	44	41	40	42	44	46	48	49	49	49	51	51	50	50	51	49	
Mean Q	52	53	51	51	51	51	54	56	54	47	43	42	45	48	51	52	52	54	55	58	58	59	58	57	52	
Mean D	50	53	44	42	44	50	54	50	46	38	35	34	34	35	36	34	31	21	23	35	39	42	41	38	40	



Table 5 Hour Date	Horizontal Component						MEAN HOURLY VALUES,													1900nT+....(nT Units)				April 1985		Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	59	62	63	63	60	58	55	54	50	35	32	42	25	35	43	26	28	36	39	41	45	45	50	49	46	
2	46	48	49	48	45	44	49	45	36	23	26	21	27	33	38	38	43	43	56	60	43	45	58	53	42	
3	52	75	50	43	48	51	51	55	53	46	34	28	40	48	50	48	50	44	61	54	39	45	60	63	50	
4	53	49	48	51	44	49	47	42	39	34	30	26	32	44	43	43	36	45	52	52	65	55	52	54	45	
5	55	56	56	52	46	50	52	50	41	29	22	23	29	36	46	52	54	56	58	58	58	55	56	55	48	
6 Q	55	53	52	52	53	55	55	52	48	37	25	23	30	41	51	57	60	63	63	58	55	57	61	62	51	
7	61	64	62	62	62	64	64	55	48	31	23	19	25	35	42	49	50	52	57	59	57	58	57	56	51	
8	56	57	57	57	59	59	60	62	57	47	35	28	33	44	50	55	55	68	71	55	57	50	34	45	52	
9 D	40	42	45	46	50	53	69	65	49	24	27	32	48	51	26	19	2	24	35	47	46	48	48	49	41	
10	49	48	47	46	49	49	51	49	49	42	26	25	30	37	36	40	41	49	51	57	64	60	62	60	47	
11	56	57	62	57	57	54	50	49	47	41	36	39	39	41	49	53	55	48	58	61	59	59	59	58	52	
12 Q	57	55	53	53	56	55	55	55	55	50	47	45	48	52	53	52	55	57	55	59	59	57	57	57	54	
13	57	56	55	56	57	58	58	57	54	47	43	44	44	49	57	65	66	67	72	72	72	72	69	65	59	
14	67	57	63	62	53	47	57	57	57	47	42	40	38	39	50	54	62	63	65	66	60	59	59	60	55	
15 Q	62	59	57	57	56	55	57	56	54	49	47	45	46	51	53	55	58	60	65	69	70	69	72	71	58	
16	72	68	62	62	62	62	64	63	55	48	42	36	37	49	59	60	58	57	60	65	67	65	61	63	58	
17 Q	63	57	57	57	58	57	56	53	47	42	38	38	46	49	55	56	53	54	58	57	61	59	60	62	54	
18 Q	71	62	58	56	55	57	56	51	44	36	29	28	32	43	47	51	56	61	66	66	66	66	68	71	54	
19	75	75	66	62	66	69	65	56	41	34	29	35	40	47	53	56	57	53	38	46	34	36	70	47	52	
20 D	50	27	33	45	36	50	44	38	1	10	16	17	27	32	47	52	54	53	68	52	33	-2	-33	-28	30	
21 D	-74	-89	37	44	5	-53	-45	-50	-74	-18	6	11	14	0	9	25	45	44	42	31	17	29	35	29	1	
22	27	30	29	32	32	32	31	33	27	7	9	15	16	22	20	25	25	40	53	55	54	53	54	56	32	
23	69	51	41	43	43	44	47	43	29	24	20	21	26	35	44	41	41	40	39	50	56	56	57	59	42	
24	66	64	61	38	54	48	39	56	44	34	18	12	15	30	39	41	49	52	58	57	57	55	54	53	46	
25	52	60	59	60	49	51	54	43	40	49	33	6	19	29	32	38	41	53	55	51	54	54	55	67	46	
26	58	49	64	59	66	60	37	43	49	39	25	34	35	38	41	45	53	65	63	59	61	49	54	43	50	
27	49	54	54	54	65	53	54	38	33	28	27	11	7	25	34	47	38	50	55	54	46	49	55	74	44	
28 D	76	56	62	36	19	27	24	-39	-49	-79	-72	-40	-14	8	1	23	33	35	42	41	46	50	50	54	16	
29	50	50	47	49	23	48	33	35	30	23	19	14	18	28	27	37	44	48	50	48	51	51	54	52	39	
30 D	52	52	50	49	50	51	53	49	40	43	47	66	63	-6	10	29	34	35	41	43	54	44	44	44	43	
Mean	53	50	53	52	49	49	48	44	36	30	26	26	31	36	40	44	47	51	55	55	54	52	53	53	45	
Mean Q	62	57	55	55	56	56	56	53	50	43	37	36	40	47	52	54	56	59	61	62	62	62	64	65	54	
Mean D	29	18	45	44	32	26	29	13	-6	-3	5	17	28	17	19	30	34	38	46	43	39	34	29	30	26	

Table 5 Hour Date	Horizontal Component						MEAN HOURLY VALUES,													19000nT+....(nT Units)				May 1985	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean
1	44	43	41	41	41	44	46	43	38	26	23	29	33	31	36	34	43	50	54	54	53	52	54	54	42
2 D	50	48	57	79	63	50	58	27	-3	-32	9	20	16	12	13	24	33	40	51	52	50	48	49	47	36
3	46	47	44	44	44	44	44	37	29	20	19	23	32	39	44	50	54	59	67	67	70	66	59	57	46
4	49	54	52	50	50	47	48	44	36	33	39	37	37	34	41	34	48	50	60	64	63	60	60	60	48
5	64	58	55	54	54	54	51	49	42	29	21	25	36	47	50	55	62	70	73	73	66	69	77	74	55
6	70	65	69	62	52	53	41	47	45	37	32	32	36	39	44	49	59	59	66	61	61	61	62	66	53
7	67	48	60	54	50	51	49	47	40	34	31	31	34	41	49	51	54	54	59	64	64	59	69	59	51
8	54	52	52	57	54	54	52	51	47	40	36	36	34	45	50	54	61	57	67	71	69	67	65	74	54
9	72	57	55	54	52	73	71	62	47	37	30	22	26	34	45	53	56	60	65	64	64	64	63	61	54
10	60	60	59	57	57	56	53	50	48	45	42	42	40	45	52	59	66	73	74	69	69	67	69	57	57
11	58	60	61	62	63	59	54	46	42	43	39	38	40	43	44	49	49	55	61	66	71	71	72	72	55
12 D	69	66	65	61	59	58	54	49	44	54	61	54	54	48	34	50	53	60	59	64	58	49	54	55	56
13 D	59	54	46	48	49	49	54	54	54	49	45	44	48	50	55	61	62	73	74	74	62	57	54	48	55
14	46	53	61	57	53	48	43	40	38	35	37	34	34	38	48	54	63	63	72	71	69	64	61	60	52
15 D	66	65	63	46	50	49	54	50	44	33	31	32	29	21	29	35	50	66	69	66	62	68	70	55	50
16 D	51	51	49	48	48	46	45	40	39	40	42	42	34	37	39	38	45	59	63	69	60	63	59	52	48
17	59	55	54	54	54	52	46	42	39	39	44	47	50	49	44	39	49	54	61	64	63	65	55	51	51
18	54	54	48	50	50	49	48	45	41	34	32	34	39	44	40	51	68	64	60	50	54	54	49	46	48
19	39	45	42	39	39	39	39	39	38	34	33	36	45	39	34	38	39	54	66	64	55	51	49	49	44
20	49	45	39	39	40	41	39	31	24	18	22	27	35	44	49	52	61	68	74	74	68	68	64	63	47
21	61	63	59	56	55	58	55	48	36	27	24	28	32	32	42	57	68	67	63	67	70	65	58	61	52
22 Q	60	53	51	50	55	55	52	45	36	32	35	42	48	50	53	55	59	67	75	69	70	70	72	73	55
23 Q	74	68	69	62	62	58	55	50	42	39	42	46	42	41	48	54	60	61	65	69	73	72	72	73	58
24	73	72	72	69	66	61	56	52	46	42	46	48	53	61	63	68	68	71	80	81	84	75	69	66	64
25	65	66	66	68	67	66	64	61	60	57	51	49	52	57	59	75	67	71	81	86	85	87	66	70	67
26	72	74	62	62	64	63	60	58	57	54	51	48	46	42	44	51	52	67	66	62	70	69	68	65	59
27	63	61	62	63	66	63	62	61	56	45	41	39	39	40	46	52	55	60	65	68	67	67	68	65	57
28 Q	64	63	62	62	65	65	62	57	54	50	48	53	52	48	48	58	65	70	76	78	78	76	73	72	62
29 Q	69	73	74	70	70	67	64	58	55	58	59	56	53	53	56	61	67	67	69	72	73	70	66	66	64
30 Q	66	65	64	67	66	64	62	57	53	47	50	48	48	54	56	58	63	70	75	79	78	80	78	76	64
31	75	74	73	74	73	69	66	67	67	64	57	53	50	44	46	57	60	68	77	83	88	85	85	88	68
Mean	60	58	58	57	56	55	53	49	43	38	38	39	40	42	45	51	57	62	67	68	67	66	64	62	54
Mean Q	67	64	64	62	64	62	59	53	48	45	47	49	49	49	52	57	63	67	72	73	74	74	72	72	61
Mean D	59	57	56	56	54	50	53	44	36	29	38	38	36	34	34	42	49	60	63	65	58	57	57	51	49

Table 5		Horizontal Component						MEAN HOURLY VALUES,										1900nT+....(nT Units)								June 1985			
Hour	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean			
1		93	67	64	83	80	70	69	59	55	37	22	33	43	41	40	43	54	52	53	56	62	63	57	67	57			
2		63	59	58	58	58	56	50	41	38	43	46	50	43	37	35	44	50	53	54	58	57	56	53	55	51			
3	Q	56	58	58	58	58	56	52	48	45	39	37	38	43	46	50	53	51	52	48	58	61	60	61	64	52			
4		66	57	57	57	58	58	57	53	50	42	36	31	32	37	38	53	54	59	74	75	72	71	67	69	55			
5		70	64	61	59	59	65	60	50	41	30	30	32	41	42	50	62	67	73	79	77	80	82	82	84	60			
6	D	88	72	66	67	73	73	65	57	49	49	49	51	52	62	69	109	69	62	69	67	71	67	79	49	66			
7	D	53	50	54	60	59	52	51	37	21	29	47	44	27	27	57	77	70	65	72	78	74	63	67	64	54			
8		80	74	55	42	67	57	38	32	21	15	15	29	38	37	39	39	48	57	72	69	62	57	58	58	48			
9		55	55	54	52	53	59	55	45	36	32	34	37	44	48	52	55	62	79	97	117	90	58	53	52	57			
10	D	32	29	29	37	25	43	37	23	5	-13	1	-5	12	20	29	32	43	53	57	70	62	57	57	53	33			
11		53	55	50	42	48	48	39	41	41	37	29	29	33	33	34	38	60	60	69	78	72	71	66	61	49			
12		58	54	64	56	50	53	46	50	53	56	52	50	51	46	39	52	50	60	65	67	59	60	58	59	55			
13		54	54	55	56	57	55	51	52	53	50	46	45	46	45	43	51	60	63	68	73	69	66	59	54	55			
14	Q	57	56	55	54	55	55	51	52	49	43	36	39	42	49	53	59	64	69	72	71	73	72	66	67	57			
15		67	68	62	66	61	60	56	52	46	39	36	31	35	41	49	55	63	71	76	76	70	66	61	62	57			
16	Q	60	60	60	60	61	59	57	52	50	43	34	27	23	31	43	50	58	70	77	77	76	74	74	72	56			
17		76	70	70	70	70	70	66	61	58	53	51	50	51	55	53	51	48	68	72	81	78	71	70	75	64			
18	Q	68	67	65	68	71	71	68	61	55	39	32	32	36	43	51	56	62	62	64	69	68	68	68	68	59			
19	Q	66	66	67	66	66	65	60	55	52	51	45	38	40	39	44	51	55	64	74	77	78	75	76	77	60			
20		78	77	76	71	64	67	68	60	55	50	45	47	62	57	62	72	63	53	68	75	70	79	72	66	65			
21		64	63	60	62	58	63	66	63	56	51	43	42	45	44	55	62	69	76	76	81	80	77	73	72	63			
22		72	70	70	72	71	70	67	65	62	52	46	44	45	42	42	50	52	62	70	76	78	75	71	72	62			
23		70	71	84	71	68	64	66	63	59	46	34	28	21	37	53	63	68	73	76	77	75	71	68	66	61			
24		68	63	62	60	59	60	58	58	59	53	45	42	46	51	56	64	73	81	88	88	86	85	81	78	65			
25		79	74	71	63	63	63	62	57	53	48	45	45	49	49	63	68	68	73	89	83	75	63	65	68	64			
26	D	79	65	66	63	64	58	53	53	52	33	28	30	29	38	52	65	51	67	85	86	71	66	47	56	57			
27		56	58	53	51	54	57	51	47	43	40	39	39	44	46	52	60	85	80	70	71	82	78	71	64	58			
28	D	63	73	61	52	45	46	39	46	48	38	28	23	29	38	48	50	48	55	73	81	71	68	59	60	52			
29		58	62	56	52	51	48	46	35	39	29	36	47	45	46	49	53	56	61	69	66	73	65	64	62	53			
30		64	59	57	56	56	55	53	47	44	43	41	40	48	54	61	66	63	73	79	71	78	63	59	62	58			
Mean		66	62	61	59	59	59	55	51	46	40	37	37	40	43	49	57	59	65	72	75	72	68	65	65	57			
Mean Q		61	61	61	61	62	61	58	54	50	43	37	35	37	42	48	54	58	63	67	70	71	70	69	70	57			
Mean D		63	58	55	56	53	54	49	43	35	27	31	29	30	37	51	67	56	60	71	76	70	64	62	56	52			

Table 5 Hour Date	Horizontal Component						MEAN HOURLY VALUES,													1900nT+....(nT Units)				July 1985		Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	66	93	63	53	54	50	49	34	36	28	20	22	35	42	42	54	59	64	66	71	66	62	62	59	52	
2 Q	57	55	56	57	55	52	49	44	36	29	27	29	35	40	51	55	56	66	65	59	62	62	62	62	51	
3	62	61	63	58	59	57	54	48	43	38	36	39	40	47	54	59	61	64	71	75	77	84	73	72	58	
4 D	69	59	65	59	65	70	65	59	63	59	51	57	50	27	52	66	65	47	53	79	84	52	67	71	61	
5	57	56	55	57	59	53	46	36	32	30	24	24	31	28	35	47	57	59	73	73	68	66	66	59	50	
6 D	60	58	59	59	60	64	48	33	37	31	22	24	34	43	44	48	57	56	66	72	75	93	66	62	53	
7	60	48	51	61	54	38	45	48	34	35	32	32	43	52	40	42	43	53	64	66	65	61	60	58	49	
8	55	59	58	60	57	58	55	60	57	48	36	37	30	35	34	36	56	80	77	71	62	57	69	50	54	
9	47	55	61	68	54	51	43	45	43	37	35	35	36	37	36	47	51	56	59	62	64	55	55	54	49	
10	50	54	60	53	57	59	57	53	43	33	26	23	25	30	40	56	72	75	78	79	77	65	62	75	54	
11	82	75	73	74	69	65	61	57	48	47	50	47	44	46	53	59	66	77	88	82	73	69	66	71	64	
12 D	80	67	52	43	58	59	43	45	50	26	-10	3	8	0	26	55	65	68	84	76	41	45	46	50	45	
13 D	53	54	58	57	55	53	48	40	34	21	8	-2	15	32	40	44	60	59	67	59	67	52	49	51	45	
14	39	45	57	44	48	70	59	41	32	32	20	18	26	34	28	38	46	49	56	58	59	56	55	55	44	
15	53	52	52	52	54	55	53	49	38	34	29	30	30	32	37	47	55	57	60	61	63	61	59	58	49	
16 Q	58	59	56	60	59	61	61	53	46	40	35	35	44	51	52	58	55	57	63	66	65	74	72	79	57	
17	82	67	60	60	62	72	70	69	61	52	25	36	34	56	56	45	38	57	57	55	60	63	68	70	57	
18	77	75	63	59	60	64	58	55	49	44	40	38	38	45	44	52	55	66	62	68	71	60	60	59	57	
19	61	66	74	68	65	61	56	51	46	35	30	26	40	45	40	52	55	60	67	64	66	65	65	65	55	
20	65	65	66	68	60	60	58	55	49	40	37	36	48	54	61	63	56	55	61	70	73	70	70	73	59	
21 Q	73	71	65	67	65	63	58	60	47	36	39	44	46	53	55	57	60	61	65	70	70	70	69	69	60	
22 Q	68	66	67	65	65	65	65	59	52	40	33	33	36	45	52	58	65	69	74	77	94	95	96	90	64	
23	87	80	79	74	60	65	55	49	45	43	46	48	52	47	50	55	59	65	65	71	65	64	63	80	61	
24	58	55	55	55	58	62	59	55	50	52	52	41	32	45	42	40	52	57	65	68	65	68	60	64	55	
25	69	64	53	56	50	58	52	50	51	48	37	39	39	40	49	55	60	58	60	60	64	63	61	65	54	
26	70	57	55	57	59	60	62	55	53	43	35	45	49	47	53	60	52	63	71	78	90	94	70	75	61	
27	64	60	60	58	55	55	50	40	47	40	29	15	41	37	49	55	59	60	64	55	58	62	65	76	52	
28	75	71	60	59	57	61	55	54	54	49	40	40	47	50	60	60	64	70	72	77	64	67	66	65	60	
29 Q	64	66	61	59	58	60	56	53	46	40	45	53	57	57	58	64	65	59	66	66	70	65	62	60	59	
30	62	62	69	70	69	59	64	61	58	54	50	43	58	59	43	66	72	66	65	65	70	70	72	72	62	
31 D	70	63	60	64	63	60	47	38	35	7	21	46	45	39	35	46	30	55	60	58	57	67	65	45	49	
Mean	64	63	61	60	59	59	55	50	46	38	32	33	38	42	46	53	57	62	67	68	68	66	65	65	55	
Mean Q	64	63	61	62	60	60	58	54	45	37	36	39	44	49	54	58	60	62	67	68	72	73	72	72	58	
Mean D	66	60	59	56	60	61	50	43	44	29	18	26	30	28	39	52	55	57	66	69	65	62	59	56	50	

Table 5 Hour Date	Horizontal Component						MEAN HOURLY VALUES,													1900nT+....(nT Units)				August 1985			Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	44	46	52	50	51	35	29	33	33	33	33	47	51	61	60	46	55	65	63	60	65	72	61	63	50		
2	62	62	54	55	56	51	45	46	37	31	40	49	54	54	58	62	54	65	58	60	62	54	51	58	53		
3	59	58	52	55	57	57	53	47	40	34	34	39	43	51	53	59	64	70	61	66	65	66	65	58	54		
4	64	62	64	56	54	54	49	48	48	44	29	25	29	38	42	54	54	60	63	65	62	64	58	59	52		
5 Q	58	61	61	58	59	58	53	45	40	42	46	53	56	60	56	56	60	58	58	62	62	62	62	63	56		
6 Q	61	64	62	60	59	58	57	54	48	44	41	36	35	41	47	50	58	66	70	71	70	69	68	67	57		
7 Q	63	69	65	61	61	61	57	51	45	44	45	43	43	45	47	52	57	58	60	66	75	77	72	66	58		
8	57	56	57	60	60	61	59	53	47	44	42	44	45	51	53	54	56	64	68	72	70	65	57	57	56		
9 Q	62	62	55	56	56	56	52	46	40	33	32	36	43	49	54	56	57	59	68	75	73	72	76	72	56		
10	72	68	68	67	68	72	62	56	59	48	37	32	36	47	50	55	54	56	61	63	66	66	67	70	58		
11 Q	80	74	57	59	58	56	54	50	46	45	46	39	35	41	48	53	56	58	61	64	67	68	69	69	56		
12 O	68	66	65	66	66	63	60	58	55	45	42	41	41	48	51	64	64	71	89	95	78	56	54	71	62		
13 O	61	48	44	62	52	34	48	43	13	19	9	19	22	28	40	40	46	59	51	51	64	63	59	49	43		
14	53	49	51	51	53	50	33	32	42	30	35	36	40	45	40	47	54	56	60	60	61	59	61	59	48		
15	50	58	49	46	44	43	51	46	35	35	32	32	35	28	34	43	55	56	56	58	59	54	58	53	46		
16	50	53	51	53	50	53	53	47	40	31	26	33	46	56	51	41	41	51	51	58	56	57	59	66	49		
17	62	62	61	55	71	64	60	54	42	42	43	40	40	44	43	38	44	43	56	65	66	62	61	68	54		
18	57	57	62	70	69	69	57	53	48	42	42	43	47	47	48	54	62	63	70	82	76	97	87	55	61		
19	57	69	61	57	58	52	43	45	41	33	28	27	27	39	51	59	61	62	63	65	71	64	60	62	52		
20	60	60	62	57	52	50	54	42	43	38	38	37	37	42	42	49	48	57	67	64	63	67	73	67	53		
21	59	52	57	57	52	47	52	52	53	43	43	41	41	49	51	57	61	63	63	60	62	64	64	81	55		
22 D	71	65	62	57	52	50	50	49	19	16	42	48	40	47	50	51	43	56	56	77	72	52	58	64	52		
23	83	65	55	57	53	49	43	42	37	24	17	10	39	55	62	66	63	58	60	62	55	63	59	63	52		
24	61	67	55	52	55	54	47	44	38	38	37	35	39	49	58	60	60	61	58	60	61	67	62	58	53		
25	57	59	60	65	79	64	60	29	35	38	30	31	32	40	38	37	53	50	54	57	59	50	55	54	49		
26	56	71	57	56	51	44	51	46	38	41	46	49	54	57	61	58	59	71	70	63	67	65	57	69	57		
27	55	56	57	58	56	52	45	38	31	20	29	50	59	63	62	59	59	52	58	63	65	67	64	62	53		
28	64	58	56	57	57	58	57	52	48	43	43	42	52	57	57	42	50	63	57	62	69	66	71	63	56		
29 D	62	70	63	55	54	55	59	54	43	38	40	46	43	50	55	62	59	60	65	62	57	62	66	57	56		
30	54	54	57	56	49	48	50	49	44	34	28	29	38	45	49	53	56	61	73	60	52	50	53	51	50		
31 O	66	81	61	57	51	44	29	30	12	-6	-5	14	28	30	27	44	22	29	28	30	44	49	69	63	37		
Mean	61	61	58	57	57	54	51	46	40	35	35	37	41	47	50	52	54	59	61	64	64	64	63	62	53		
Mean Q	65	66	60	59	59	58	55	49	44	42	42	41	42	47	50	53	58	60	63	68	69	70	69	67	57		
Mean D	66	66	59	59	55	49	49	47	28	22	26	34	35	41	45	52	47	55	58	63	63	56	61	61	50		

Table 5 Hour Date	Horizontal Component						MEAN HOURLY VALUES,														19000nT+....(nT Units)			September 1985			Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	52	49	47	47	47	45	42	36	29	25	27	35	44	50	54	57	57	52	51	57	60	57	51	54	47		
2 Q	55	54	54	53	55	54	52	46	37	27	26	33	47	52	54	57	57	57	56	58	61	63	60	60	51		
3 Q	58	57	57	58	56	57	54	46	39	29	28	33	47	55	56	55	53	55	59	63	63	63	65	60	53		
4 Q	57	57	58	57	59	57	57	52	47	42	44	45	49	57	57	57	57	59	65	67	68	67	65	64	57		
5 Q	63	63	63	63	60	60	57	52	50	42	39	42	49	56	61	64	67	73	73	72	72	72	72	71	61		
6	67	67	73	72	67	67	65	62	59	54	47	42	41	44	47	47	50	46	50	48	43	54	60	67	56		
7	67	62	67	62	57	63	66	59	54	46	38	37	40	44	50	53	58	63	61	67	68	65	76	71	58		
8	71	64	63	63	61	63	61	53	47	47	44	42	46	37	52	55	53	56	62	62	60	71	55	52	56		
9	60	55	55	58	59	63	64	62	58	52	41	28	33	42	44	48	39	37	37	52	57	57	58	56	51		
10	56	56	58	57	61	56	46	51	55	40	34	34	36	36	40	44	43	44	46	56	53	49	56	60	49		
11	53	54	56	51	48	58	55	47	46	38	30	34	39	48	52	52	56	58	50	38	40	50	55	58	49		
12	57	56	57	55	55	55	54	53	46	36	29	34	42	46	45	45	44	46	52	56	59	60	59	58	50		
13	59	59	59	60	61	60	62	60	57	48	37	42	47	49	53	53	54	56	57	58	60	61	61	66	56		
14 D	69	56	56	57	61	66	81	71	75	70	62	53	65	35	23	37	45	52	55	58	57	57	55	55	57		
15	51	49	48	47	53	52	50	47	45	42	40	42	45	51	54	56	57	65	66	29	46	57	61	62	51		
16 D	65	67	53	31	45	46	39	37	36	29	34	21	2	30	43	47	39	36	41	56	55	61	71	56	43		
17	52	56	48	45	49	48	46	42	38	26	15	19	22	36	44	47	49	52	56	55	52	60	54	50	44		
18	54	53	56	56	56	54	51	48	49	43	35	30	36	47	49	51	57	57	59	63	66	64	64	63	53		
19 D	65	66	58	62	67	69	67	67	55	-2	-37	-10	37	47	53	59	16	26	41	45	25	36	42	42	42		
20 D	47	46	46	43	50	53	49	42	22	25	10	18	34	38	42	36	56	60	50	55	55	81	57	49	44		
21 D	47	43	50	49	47	49	39	44	43	37	36	19	31	37	33	48	43	47	45	43	51	52	55	61	44		
22	58	50	48	52	52	55	43	48	49	42	32	33	35	42	33	35	37	35	52	50	52	53	57	61	46		
23	57	51	53	55	55	57	52	51	43	35	39	38	37	37	41	42	46	51	58	58	57	53	53	53	49		
24	53	52	52	52	52	57	57	57	65	66	56	47	43	46	43	48	46	41	30	32	47	68	58	49	51		
25	58	53	60	55	56	59	59	48	53	51	48	45	44	45	55	37	39	46	50	57	50	69	66	51	52		
26	53	56	56	55	53	54	57	59	43	12	34	43	52	56	54	53	52	53	54	45	53	70	74	45	52		
27	52	51	50	53	53	47	40	55	52	39	29	36	35	38	45	48	51	52	54	46	47	70	71	50	49		
28	51	52	53	54	53	53	52	51	49	44	37	35	35	37	39	48	49	49	49	52	54	56	59	59	49		
29 Q	57	57	57	58	59	60	59	58	55	49	42	40	44	52	57	59	58	58	59	59	59	62	61	63	56		
30	67	60	57	59	59	59	55	52	48	46	47	51	53	53	58	59	60	61	59	58	56	55	70	59	57		
Mean	58	56	56	55	56	57	54	52	48	39	34	35	40	45	48	50	50	51	53	54	55	60	61	58	51		
Mean Q	58	58	58	58	58	58	56	51	46	38	36	39	47	54	57	58	58	60	62	64	65	65	65	64	55		
Mean D	59	56	53	48	54	57	55	52	46	32	21	20	34	37	39	45	40	44	46	51	49	57	56	53	46		

Table 5		Horizontal Component						MEAN HOURLY VALUES,														1900nT+....(nT Units)				October 1985			
Hour	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean			
1	Q	56	57	57	56	56	56	57	56	54	49	45	44	43	45	49	52	53	53	55	59	60	59	60	59	54			
2		61	61	58	55	55	55	59	58	60	57	50	46	47	49	53	58	61	62	63	69	70	64	66	67	59			
3		60	63	64	64	69	70	71	66	66	59	45	42	39	39	43	42	37	45	39	47	55	52	52	54	53			
4		59	55	49	55	59	60	61	72	71	59	44	40	39	42	41	39	39	45	50	59	59	68	53	52	53			
5	D	55	62	66	65	50	44	36	59	56	37	13	2	19	30	31	36	14	15	10	33	40	10	44	45	36			
6	D	22	33	31	29	30	43	24	23	30	12	12	26	12	23	25	28	31	43	50	48	40	57	53	63	33			
7	D	37	26	39	50	41	47	53	39	41	37	29	17	18	22	29	27	26	25	42	45	50	60	48	78	39			
8		61	47	43	48	48	53	60	54	53	47	30	32	37	30	36	38	39	43	46	47	52	50	47	52	46			
9		53	51	51	54	56	52	52	55	57	49	44	39	38	41	42	50	51	50	51	51	53	55	55	56	50			
10		55	56	56	57	54	56	57	55	53	48	41	36	36	36	46	51	56	58	60	60	52	42	43	46	50			
11		50	55	53	55	64	68	67	65	76	68	58	47	48	48	55	53	41	49	55	51	60	56	58	50	56			
12		61	69	48	45	47	50	50	51	50	45	41	41	43	45	50	53	49	50	57	54	61	63	54	55	51			
13	D	59	57	54	57	64	57	55	54	52	49	46	47	48	55	45	43	47	40	53	54	55	66	55	57	53			
14		56	54	54	52	55	59	54	53	52	49	37	38	47	49	52	49	48	53	57	55	58	59	62	61	53			
15		61	61	62	65	72	70	51	43	54	46	38	34	38	44	49	50	46	45	49	53	55	54	42	42	51			
16		40	52	53	68	61	51	61	51	42	37	31	38	51	59	58	47	47	53	54	55	55	53	65	62	52			
17		46	48	48	46	50	49	53	53	51	53	46	41	48	47	53	55	59	46	37	35	44	54	53	55	49			
18	D	46	43	48	45	48	49	51	48	50	45	39	22	9	34	50	45	32	42	45	52	62	65	47	67	45			
19		72	50	51	52	58	60	60	54	50	52	34	35	40	46	48	55	54	54	56	55	56	57	57	56	53			
20		52	51	51	51	50	52	53	54	46	48	44	39	36	40	45	50	50	48	50	52	55	54	54	53	49			
21		52	52	52	59	62	68	73	73	68	61	58	50	51	56	49	51	31	47	52	52	43	51	52	52	55			
22		54	63	57	49	51	53	57	63	48	47	45	45	48	50	51	47	45	43	51	38	51	42	43	54	50			
23		55	55	51	51	53	55	59	60	58	49	45	44	40	44	45	49	50	48	52	51	48	45	66	51	51			
24		48	52	50	49	51	52	56	58	52	45	42	41	43	49	50	51	50	48	47	55	54	55	57	54	50			
25		52	50	48	49	57	56	55	58	58	45	44	44	47	47	47	52	54	46	45	41	44	54	64	59	51			
26	Q	55	54	55	57	59	60	64	64	64	56	49	41	39	39	45	49	51	52	55	55	55	56	55	56	54			
27	Q	53	52	53	53	53	53	53	52	51	49	48	49	53	57	59	57	56	57	58	60	59	55	51	64	54			
28	Q	53	48	48	52	55	58	58	58	58	53	48	47	43	46	48	51	55	57	59	58	59	58	57	58	54			
29		62	65	71	70	71	70	74	74	65	48	31	27	41	53	56	55	53	51	57	59	62	62	58	57	58			
30	Q	58	57	58	60	59	59	59	58	58	58	56	55	58	60	62	61	62	62	63	60	61	62	63	61	60			
31		60	58	59	61	59	62	64	64	62	58	53	58	53	58	60	60	58	45	37	50	57	59	60	59	57			
Mean		54	53	53	54	55	56	57	56	55	49	41	39	40	45	47	49	47	48	50	52	54	55	55	57	51			
Mean Q		55	54	54	56	56	57	58	58	57	53	49	47	47	49	53	54	55	56	58	58	59	58	57	60	55			
Mean D		44	44	48	49	47	48	44	45	46	36	28	23	21	33	36	36	30	33	40	46	49	52	49	62	41			

Table 5	Horizontal Component						MEAN HOURLY VALUES,														1900nT+....(nT Units)			November 1985			
Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean		
Date																									Mean		
1	59	69	61	59	61	60	68	72	68	59	44	33	35	37	37	26	52	53	44	37	42	51	57	60	52		
2 D	60	59	58	59	62	65	64	57	60	58	52	44	36	44	24	22	29	35	41	29	15	16	37	57	45		
3 D	58	45	57	49	44	44	43	47	44	42	14	22	23	38	36	38	29	49	52	49	53	54	65	68	44		
4	47	47	46	61	48	44	50	46	47	45	43	38	36	37	33	29	34	30	39	34	31	40	49	53	42		
5	47	47	47	49	52	57	59	61	60	47	35	27	25	35	40	41	37	30	25	28	25	56	44	43	42		
6	41	46	43	43	43	63	58	61	58	49	43	39	38	36	38	46	50	40	46	45	46	48	50	56	47		
7	51	54	55	56	47	51	61	58	56	51	40	39	43	46	51	53	52	52	51	46	44	46	46	48	50		
8	57	46	46	46	49	51	51	52	51	46	41	38	41	45	55	57	59	64	65	59	45	54	59	58	51		
9	60	61	59	58	59	62	62	64	66	62	57	52	47	51	50	44	11	37	39	41	48	51	53	53	52		
10	70	58	50	47	51	54	55	53	51	49	45	38	39	48	59	58	60	60	61	60	51	53	54	48	53		
11	46	49	49	51	55	58	59	59	57	49	47	45	46	47	52	53	52	46	46	46	51	54	58	56	51		
12 Q	57	56	56	56	55	56	58	59	58	53	51	50	51	56	59	61	61	64	65	66	66	61	55	54	58		
13 D	54	60	59	60	60	61	62	61	61	60	65	58	44	25	46	59	56	62	56	48	2	23	36	42	51		
14	49	42	56	39	42	45	47	48	46	43	43	40	41	40	51	52	46	47	46	54	55	49	57	70	48		
15	65	46	45	52	55	54	56	56	56	53	46	41	40	34	46	47	51	51	50	45	54	57	61	51	51		
16	53	54	45	45	50	50	50	49	50	43	41	45	44	40	41	52	57	53	51	52	50	66	51	45	49		
17	52	50	50	54	56	59	61	63	67	59	49	42	43	49	45	36	46	35	45	36	45	47	43	47	49		
18	51	51	45	45	49	45	56	50	50	43	40	40	45	45	44	34	41	52	41	27	42	44	56	47	45		
19	44	46	46	45	50	52	54	55	56	55	54	55	56	57	58	57	55	54	57	55	62	53	52	52	53		
20 Q	51	52	53	55	57	59	62	65	65	63	59	53	52	57	60	63	63	65	64	60	58	55	54	58	58		
21 Q	58	58	59	58	60	62	63	67	66	64	59	55	53	55	59	63	65	66	67	66	68	62	58	57	61		
22	53	57	58	50	53	56	57	62	63	57	53	51	54	59	62	62	62	60	54	53	53	58	60	61	57		
23 Q	58	58	59	58	60	64	65	66	67	64	57	50	50	54	58	60	64	64	64	65	65	64	64	64	61		
24 Q	65	63	64	65	67	69	73	74	71	66	60	59	57	58	64	65	64	63	63	63	60	62	63	66	64		
25	64	57	58	59	59	64	68	69	69	67	59	57	60	70	71	71	69	67	66	64	61	56	56	62	63		
26	60	59	59	60	59	64	68	73	69	61	59	55	52	56	62	65	65	66	65	63	60	56	54	59	61		
27	59	59	59	61	61	76	83	74	63	64	51	41	38	32	17	10	31	30	43	44	44	44	46	49	49		
28	48	54	49	48	49	54	56	58	58	56	52	52	53	57	59	57	56	57	57	58	57	56	55	54	55		
29 D	56	55	57	56	56	57	58	57	68	76	81	81	70	70	60	40	22	16	-12	-43	-82	-86	-73	-68	28		
30 D	-55	-3	-4	7	5	9	35	14	11	12	12	15	-32	-3	13	15	11	17	24	14	24	21	24	26	9		
Mean	51	52	51	52	52	56	59	58	58	54	48	45	43	46	48	48	48	50	49	45	43	46	48	50	50		
Mean Q	58	57	58	58	60	62	64	66	65	62	57	53	53	56	60	62	63	64	65	64	63	61	59	60	61		
Mean D	35	43	45	46	45	47	52	47	49	50	45	44	28	35	36	35	29	36	32	19	2	6	18	25	35		



Table 5		Horizontal Component						MEAN HOURLY VALUES,														1900nT+....(nT Units)				December 1985			
Hour	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean			
1		30	30	30	33	36	43	42	41	42	36	40	44	40	37	35	39	40	34	37	23	4	20	23	36	34			
2		27	38	24	27	35	41	44	37	38	40	42	42	40	35	37	39	35	35	34	29	39	37	37	45	37			
3		48	43	43	43	43	49	53	51	49	46	44	42	40	40	41	37	28	44	43	44	46	43	46	43	44			
4		44	44	43	42	47	52	56	59	60	54	49	50	54	54	49	44	37	25	21	34	41	46	39	36	45			
5		36	45	51	49	49	49	54	54	50	49	48	45	46	44	41	41	49	51	49	52	50	49	49	49	48			
6		49	52	52	51	54	56	59	57	59	54	49	49	52	51	44	49	53	54	55	56	56	55	54	53	53			
7 Q		54	54	55	56	57	60	65	66	67	59	58	58	60	61	64	62	64	61	56	55	55	56	56	56	59			
8 Q		55	53	53	54	57	59	61	63	64	66	62	63	62	64	68	68	65	62	59	63	64	62	61	61	61			
9 Q		59	57	64	60	59	61	63	63	63	59	56	55	57	60	64	68	69	70	71	69	65	62	62	57	62			
10		52	56	58	57	54	58	66	69	68	65	54	41	29	26	28	47	50	52	49	49	52	49	47	43	51			
11		54	63	43	43	43	48	53	54	55	56	56	57	58	55	49	47	43	49	51	49	51	56	51	43	51			
12		46	49	47	48	49	50	52	54	54	54	54	54	54	55	55	56	57	53	51	46	49	55	51	44	52			
13 D		50	45	38	41	53	52	50	54	55	64	48	17	33	15	-6	15	30	36	38	36	35	30	33	51	38			
14		30	24	35	31	33	35	37	39	46	51	52	52	53	46	46	44	44	35	42	48	43	46	59	53	43			
15		43	41	53	46	43	45	51	50	50	50	47	46	47	48	49	49	47	48	51	51	43	46	40	43	47			
16		63	46	47	48	49	51	51	54	57	55	54	54	53	54	56	57	56	58	59	54	49	46	44	43	52			
17		45	56	51	47	51	56	61	59	58	54	55	56	59	55	51	51	47	45	49	51	51	49	47	49	52			
18		51	51	51	54	57	60	63	77	67	57	54	60	53	49	62	66	67	66	63	62	61	59	59	65	60			
19 D		63	68	62	64	77	69	75	36	21	6	1	3	27	45	41	43	34	20	9	18	21	37	44	47	39			
20		42	49	36	42	43	49	48	44	43	45	43	31	35	41	44	45	46	47	50	49	49	48	46	45	44			
21 Q		46	44	41	43	46	50	51	55	56	55	52	53	55	54	53	55	56	57	57	55	51	51	51	53	52			
22		52	53	56	54	63	60	60	63	65	61	57	57	59	60	57	58	57	57	56	55	56	55	55	55	58			
23 Q		54	54	54	55	59	59	61	62	67	65	59	52	52	58	64	65	66	66	66	60	56	46	43	40	58			
24		42	44	48	47	47	48	54	60	68	65	63	58	53	55	54	52	53	54	53	53	55	53	53	53	54			
25		52	52	52	53	55	57	62	63	63	64	65	62	59	62	64	63	62	62	61	56	58	57	50	50	59			
26		48	42	52	46	51	64	58	58	60	56	51	52	52	55	53	54	51	52	51	56	59	59	59	58	54			
27		57	58	60	61	69	70	71	72	78	69	65	65	57	60	65	66	68	70	70	50	20	40	43	52	61			
28 D		64	68	64	54	43	69	80	80	56	28	40	46	34	22	44	25	49	47	38	41	42	56	50	56	50			
29		57	53	54	52	50	58	61	61	64	57	54	54	52	51	51	52	53	53	55	56	55	58	56	52	55			
30 D		63	45	50	41	57	77	58	60	24	43	38	37	43	42	25	-14	6	22	27	33	26	55	55	36	40			
31 D		42	43	45	44	48	48	55	56	45	48	47	43	29	27	30	31	26	31	43	48	50	43	38	43	42			
Mean		49	49	49	48	51	55	57	57	55	53	50	48	48	48	48	48	49	49	49	48	47	49	48	49	50			
Mean Q		54	52	53	54	56	58	60	62	63	61	57	56	57	59	63	64	64	63	62	60	58	55	55	53	58			
Mean D		56	54	52	49	56	63	64	57	40	38	35	29	33	30	27	20	29	31	31	35	35	44	44	47	42			

Table 6 Hour Date	Vertical Component						MEAN HOURLY VALUES,															44000nT+....(nT Units)				January 1985			Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1 D	452	447	443	432	439	443	444	445	445	447	453	449	447	451	456	468	464	458	466	496	482	425	444	453	452				
2	459	455	453	440	436	440	449	453	453	451	448	451	448	455	461	459	456	457	460	456	458	466	455	456	453				
3	455	459	456	453	448	446	447	448	447	442	445	450	450	455	456	457	455	455	453	453	460	468	470	460	454				
4	459	457	455	451	449	448	451	451	450	445	444	444	444	447	451	452	451	452	452	453	453	461	460	455	451				
5 Q	452	455	455	452	451	448	449	448	446	442	440	439	442	448	453	452	452	454	453	451	454	463	464	458	451				
6 Q	458	459	460	456	453	454	451	448	447	445	444	444	445	452	456	459	457	455	455	454	454	454	447	452	452				
7 Q	455	456	456	454	452	450	445	444	444	441	441	441	441	444	451	452	454	454	454	457	456	457	452	452	450				
8	454	452	452	453	454	453	452	447	444	444	442	442	436	441	444	447	447	449	471	481	512	496	478	443	456				
9 D	444	448	448	444	422	423	432	432	432	443	448	449	438	472	484	473	469	505	475	464	463	464	451	448	453				
10 D	443	443	443	431	439	442	443	444	448	444	447	453	447	445	456	462	464	473	477	457	459	458	452	442	451				
11	442	448	450	448	452	454	452	451	451	447	451	452	455	455	463	464	463	464	477	481	474	463	453	454	457				
12	448	446	450	450	444	453	454	453	451	448	448	450	452	450	463	460	456	462	476	468	463	473	453	445	455				
13	439	442	443	444	444	453	455	454	455	456	456	452	451	448	458	457	462	463	458	467	463	458	456	450	454				
14	448	447	447	449	451	451	453	455	457	452	452	453	448	452	459	459	469	462	461	462	463	462	459	457	455				
15	457	452	452	451	450	452	453	455	456	454	452	455	453	455	458	465	467	462	472	480	470	468	465	461	459				
16	450	454	448	446	449	448	448	451	452	451	455	452	452	459	463	460	456	455	455	455	456	456	454	454	454				
17	454	453	452	450	450	449	450	449	447	446	445	449	452	453	455	463	463	471	463	455	454	459	462	459	454				
18 Q	458	454	453	452	451	449	449	446	443	441	443	443	443	449	453	455	453	453	452	453	456	450	453	457	450				
19	453	453	451	449	446	446	445	445	442	438	439	438	440	444	452	454	455	464	454	450	448	448	447	448	448				
20 Q	451	451	450	450	447	444	444	444	443	437	437	437	436	440	445	451	451	455	455	449	447	447	446	446	446				
21	448	448	450	449	451	445	439	433	435	436	434	434	436	438	441	449	451	453	453	454	454	453	453	453	445				
22	451	451	451	449	449	448	447	446	443	436	437	437	435	437	441	448	452	457	451	448	444	446	471	474	448				
23 D	456	457	457	457	442	450	433	422	421	432	436	441	443	445	460	459	484	472	472	472	470	472	457	457	453				
24	456	456	457	457	457	458	458	457	452	445	443	439	440	444	447	451	452	457	462	464	456	455	456	456	453				
25	454	457	458	457	457	457	457	455	450	447	446	447	444	440	446	452	453	453	453	452	451	450	447	447	451				
26	447	447	447	450	451	451	451	449	446	440	440	440	438	439	445	445	447	450	455	455	457	460	462	463	449				
27	456	458	458	456	455	455	455	455	454	452	449	448	445	446	446	448	449	451	458	468	468	493	468	468	457				
28 D	469	478	468	455	438	439	447	447	438	436	428	431	447	468	495	527	548	557	538	496	489	506	488	472	475				
29	452	437	438	440	446	458	458	460	460	460	459	457	452	455	456	457	465	468	468	475	495	481	484	452	460				
30	453	452	456	458	457	454	453	456	454	453	450	447	448	449	453	456	469	472	459	465	462	467	462	458	457				
31	455	449	446	448	449	451	451	450	451	453	450	450	454	457	457	459	466	469	468	463	460	460	465	460	456				
Mean	453	452	452	449	448	449	449	448	447	445	445	446	445	449	456	459	461	464	464	463	463	463	459	455	453				
Mean Q	455	455	455	453	451	449	448	446	445	441	441	441	441	447	452	454	453	454	454	453	453	454	452	453	450				
Mean D	453	455	452	444	436	439	440	438	437	440	442	445	444	456	470	478	486	493	486	477	473	465	458	454	457				

Table 6 Hour Date	Vertical Component						MEAN HOURLY VALUES,												4400nT+... (nT Units)				February 1985			Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
1	452	451	450	450	451	450	448	443	440	444	447	448	452	455	456	458	470	471	462	461	463	460	457	457	454	
2	457	458	457	454	452	446	444	441	440	443	448	450	449	450	455	457	458	461	461	457	458	460	460	456	453	
3	455	452	452	453	451	451	451	449	448	445	444	444	441	450	459	463	462	467	455	459	460	452	453	454	453	
4 Q	456	457	457	455	454	453	452	449	447	447	449	449	446	443	447	451	452	452	452	451	451	453	452	453	451	
5 D	452	452	453	452	452	451	443	433	428	433	436	436	438	439	451	467	467	465	461	474	461	461	457	460	451	
6 D	443	437	432	442	447	436	421	414	432	447	443	439	454	462	465	470	471	513	510	462	462	462	457	445	453	
7	444	441	450	457	457	452	451	449	444	441	442	441	457	455	457	468	480	478	464	460	460	462	461	450	455	
8 D	449	441	440	453	451	451	451	451	446	443	440	441	441	442	450	464	463	490	488	477	476	465	450	443	454	
9	447	439	439	447	450	447	450	443	440	442	448	448	449	459	460	465	470	470	470	462	460	467	455	460	454	
10 D	450	448	437	441	452	450	454	450	449	452	453	449	445	453	460	465	471	488	482	495	460	461	460	459	458	
11	456	450	453	452	452	456	456	455	455	456	450	449	448	446	454	468	466	466	469	466	459	460	470	448	457	
12	440	444	448	446	450	443	449	450	450	449	449	446	440	445	449	468	460	465	465	459	459	459	459	456	452	
13	451	451	450	450	450	453	454	454	455	456	453	448	449	451	453	457	457	456	459	481	455	454	458	452	454	
14	447	442	442	446	449	449	446	441	439	446	446	447	449	447	448	448	456	467	468	462	467	461	449	439	450	
15	448	448	441	441	447	445	444	445	449	449	449	449	449	449	449	452	455	457	457	459	458	461	459	458	451	
16 Q	458	457	456	455	453	451	451	451	449	446	446	442	441	442	449	457	459	459	465	462	451	451	457	457	453	
17	449	451	450	447	447	439	436	435	438	440	441	442	444	445	449	461	479	482	481	482	474	463	459	459	454	
18 Q	459	458	458	457	453	451	450	449	449	452	449	447	443	446	449	453	457	456	455	455	451	451	450	451	452	
19 Q	452	455	454	455	453	451	449	449	449	449	446	437	435	437	441	449	449	449	450	454	464	459	467	477	451	
20	469	460	459	452	449	444	439	431	430	427	426	421	428	432	444	452	457	458	457	456	452	453	454	454	446	
21	451	453	453	454	454	454	452	449	449	447	441	439	437	440	444	453	459	464	462	459	469	478	474	468	454	
22	466	465	461	459	459	460	460	456	452	447	440	435	436	440	447	453	460	463	463	460	460	457	452	447	454	
23	448	448	449	453	453	453	453	451	449	447	444	439	438	441	446	452	456	457	458	461	470	474	467	456	453	
24	451	443	441	442	441	449	459	449	447	447	440	440	437	436	440	454	461	463	460	459	463	465	460	451	450	
25	450	450	448	450	446	449	450	450	447	440	439	438	436	435	440	447	462	470	458	457	456	456	454	451	449	
26 Q	450	447	449	444	443	446	448	450	450	450	446	440	439	440	441	449	452	454	460	457	456	459	459	454	449	
27	450	449	444	449	449	448	448	448	449	451	444	437	437	439	442	448	451	457	456	451	455	458	505	443	450	
28 D	442	419	420	384	408	403	379	409	435	443	443	442	451	458	459	460	466	479	482	469	455	458	454	453	440	
Mean	452	449	448	448	449	448	446	444	445	446	444	442	443	446	450	457	462	467	465	463	460	460	460	454	452	
Mean Q	455	455	455	453	451	450	450	450	449	449	447	443	441	442	445	452	454	454	456	456	455	455	457	458	451	
Mean D	447	439	436	434	442	438	430	431	438	444	443	441	446	451	457	465	468	487	485	475	463	461	456	452	451	

Table 6		Vertical Component						MEAN HOURLY VALUES,															44000nT+....(nT Units)				March 1985			
Hour	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean				
1		455	452	451	446	427	434	438	443	448	452	452	448	441	441	446	450	452	457	457	458	458	461	461	451	449				
2	D	448	446	447	443	442	446	444	442	441	441	436	435	436	449	458	476	483	511	486	473	480	472	453	455	456				
3		456	453	451	442	451	440	443	449	451	451	443	436	436	442	449	459	462	461	463	459	461	462	455	458	451				
4		453	448	449	452	452	450	450	449	450	447	443	440	436	441	450	459	456	451	450	450	450	454	468	461	450				
5	D	453	443	442	450	444	441	435	440	440	441	441	437	433	435	451	457	474	501	530	491	471	457	451	423	453				
6	D	433	440	441	438	450	447	443	443	443	443	441	439	437	448	460	460	470	466	457	454	464	452	450	448	449				
7	D	440	446	454	454	450	448	443	447	447	443	440	440	440	443	457	475	489	490	498	489	456	452	450	449	456				
8	D	438	427	443	432	428	436	440	445	442	449	447	439	436	446	455	460	477	466	469	458	455	450	441	445	447				
9	Q	444	449	451	454	456	457	456	456	455	450	440	432	432	437	445	453	458	460	457	455	452	448	449	453	450				
10		444	448	447	450	450	450	450	449	448	445	438	425	418	423	427	437	447	450	451	452	454	470	472	457	446				
11		447	450	454	454	455	455	455	453	450	447	440	430	430	430	434	444	451	456	456	456	453	451	450	450	448				
12		450	449	450	450	450	451	450	450	450	446	440	430	423	428	436	443	454	459	459	463	483	467	461	455	450				
13	Q	450	450	450	450	450	450	448	445	443	440	434	431	429	429	433	440	447	450	450	450	450	449	449	448	444				
14		448	446	447	446	446	446	446	445	446	445	437	428	427	431	432	440	446	451	461	451	460	458	459	458	446				
15		450	446	436	442	445	445	440	431	430	434	437	430	426	438	445	450	454	454	451	450	450	450	455	454	443				
16		450	443	440	443	443	442	443	445	446	443	445	428	426	429	436	450	454	454	453	451	455	460	449	446	445				
17		445	442	440	445	445	445	444	444	445	444	435	420	419	428	435	441	446	449	446	445	456	457	458	450	443				
18		450	438	437	441	440	438	439	442	442	440	431	421	420	427	436	444	450	452	450	448	460	460	449	448	442				
19		448	450	450	449	449	446	442	445	446	442	435	426	424	432	444	453	452	455	456	470	463	456	453	452	447				
20	Q	453	453	452	452	450	449	448	448	444	435	428	417	410	426	438	452	459	458	452	449	448	446	446	446	444				
21	Q	447	449	448	444	445	447	446	446	446	442	438	429	421	425	435	445	455	455	451	449	450	450	450	451	444				
22	Q	451	442	440	446	448	449	449	450	450	449	440	427	419	423	437	449	454	451	449	445	443	442	443	450	444				
23		452	453	450	448	448	449	450	450	450	442	432	422	419	424	434	445	451	457	456	456	451	449	450	452	445				
24		450	447	444	444	446	448	449	450	447	440	430	420	418	420	427	437	447	453	451	450	450	460	456	446	443				
25		447	444	446	447	450	450	450	450	445	436	425	413	410	417	430	437	448	450	456	466	456	450	450	449	443				
26		442	433	436	438	444	448	449	450	447	438	430	417	410	414	430	440	450	457	460	463	470	469	465	459	444				
27		453	450	450	450	450	449	449	449	448	434	428	419	413	417	427	434	442	456	464	469	472	460	457	457	446				
28		460	439	441	431	434	430	430	439	440	437	430	425	423	427	436	445	452	459	462	471	469	459	450	447	443				
29		444	448	447	447	447	447	450	451	449	442	434	423	421	428	437	445	451	454	453	452	459	453	449	451	445				
30		447	430	431	438	441	442	444	447	442	434	425	416	416	425	434	441	446	449	450	444	445	446	448	450	439				
31		444	444	443	439	442	442	445	448	442	429	429	426	426	432	438	446	452	453	455	454	452	451	450	449	443				
Mean		448	445	445	445	446	446	445	446	446	442	436	428	425	431	440	449	456	460	460	458	458	456	453	451	446				
Mean Q		449	449	448	449	450	450	449	449	448	443	436	427	422	428	438	448	455	455	452	450	449	447	447	450	445				
Mean D		442	440	445	443	443	444	441	443	443	443	441	438	436	444	456	466	479	487	488	473	465	457	449	444	452				

Table 6 Hour Date	Vertical Component						MEAN HOURLY VALUES,												4400nT+....(nT Units)				April 1985				Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
1	448	448	446	444	444	444	448	450	446	441	434	427	421	434	444	485	494	487	480	475	467	458	455	456	453		
2	454	454	452	451	450	450	450	448	447	444	435	429	432	437	447	457	466	471	490	461	452	454	451	445	451		
3	451	433	428	443	444	443	442	447	447	438	426	422	421	431	444	453	462	471	477	473	454	453	447	443	446		
4	444	448	450	447	443	440	445	447	446	439	433	430	433	439	448	462	474	474	464	465	459	448	443	444	449		
5	446	449	446	450	444	450	454	454	452	441	430	422	422	433	441	453	457	457	454	451	446	446	449	447	446		
6 Q	446	450	453	453	453	453	454	455	453	441	427	421	414	424	436	449	454	454	453	453	455	452	443	441	445		
7	444	445	446	447	446	445	448	445	444	441	434	424	421	425	442	453	461	466	461	454	450	446	445	445	445		
8	444	446	447	448	448	449	449	450	446	439	429	418	413	418	431	443	450	455	460	468	471	464	467	465	447		
9 D	432	437	445	448	453	443	436	438	434	423	417	409	406	417	447	488	504	486	474	467	463	461	454	452	447		
10	451	451	451	453	454	453	453	453	445	438	432	426	422	423	434	452	455	464	464	462	457	460	450	444	448		
11	446	445	431	442	436	435	442	446	449	443	437	432	432	434	441	451	456	464	459	455	454	452	452	452	445		
12 Q	448	445	447	446	446	446	448	453	452	444	434	425	424	426	435	444	450	454	455	454	452	451	451	452	445		
13	449	447	447	445	445	444	446	448	450	444	431	417	414	420	431	441	448	454	447	448	447	457	453	444	442		
14	446	445	437	443	444	436	434	436	434	432	424	417	422	432	444	454	454	454	453	453	453	454	451	450	442		
15 Q	448	448	447	445	445	444	444	444	442	434	427	418	421	426	434	442	444	445	444	444	443	444	449	448	440		
16	443	442	445	443	440	441	438	438	437	428	421	414	420	427	437	445	451	454	451	444	444	445	452	454	440		
17 Q	444	444	446	446	445	444	444	444	444	438	426	420	421	427	435	444	447	450	450	448	446	444	444	443	441		
18 Q	437	440	442	444	444	443	444	447	445	435	423	415	416	422	433	443	444	447	446	443	440	441	440	441	438		
19	441	443	445	447	444	441	440	442	437	422	420	415	416	423	433	454	467	488	512	505	507	490	460	428	451		
20 D	422	422	404	425	418	422	427	434	426	438	428	424	423	428	443	456	468	487	494	497	490	476	458	431	443		
21 D	393	251	335	289	272	293	334	374	354	409	437	442	454	463	486	514	536	531	521	509	491	474	494	495	423		
22	451	454	463	464	464	463	464	464	458	454	455	451	444	444	452	464	468	464	464	464	457	454	454	454	458		
23	444	440	447	454	456	454	454	455	447	447	440	431	428	433	444	455	467	479	475	471	463	457	455	455	452		
24	450	434	435	426	442	442	436	438	448	451	432	424	424	431	444	456	465	472	468	464	460	455	454	453	446		
25	454	448	438	431	444	451	453	449	448	442	430	423	426	438	444	451	457	464	466	469	464	460	460	453	448		
26	436	439	419	411	425	433	434	432	434	434	432	426	423	425	435	444	449	458	466	473	462	478	457	444	440		
27	442	434	430	406	415	421	426	434	431	443	444	439	439	448	462	483	472	467	464	462	469	464	451	453	446		
28 D	399	404	377	360	411	421	414	387	416	451	457	453	454	459	464	470	472	473	476	477	468	464	462	461	440		
29	457	453	447	416	383	410	437	449	453	450	444	435	434	440	447	455	462	463	464	461	458	458	458	458	446		
30 D	457	456	455	454	454	453	453	454	452	436	424	410	412	426	461	479	477	486	479	471	464	469	467	465	455		
Mean	442	437	437	434	435	437	440	442	441	439	432	425	425	432	444	458	464	468	468	465	460	458	454	451	445		
Mean Q	445	445	447	447	447	446	447	449	447	438	427	420	419	425	435	444	448	450	450	448	447	446	445	445	442		
Mean D	421	394	403	395	402	406	413	417	416	431	433	428	430	439	460	481	491	493	489	484	475	469	467	461	442		

Table 6		Vertical Component						MEAN HOURLY VALUES,														4400nT+....(nT Units)				May 1985			
Hour		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean			
Date																													
1		464	464	464	462	456	454	454	455	449	442	437	433	432	444	455	463	464	464	463	462	460	458	458	458	455			
2	D	464	464	448	416	412	383	376	394	421	424	424	426	431	440	454	464	464	464	464	462	457	454	454	457	438			
3		457	457	458	460	457	455	456	453	449	439	430	424	421	428	439	450	454	454	456	456	457	454	456	461	449			
4		456	456	460	459	452	453	451	448	443	436	431	423	424	434	444	451	456	463	465	463	458	460	456	454	450			
5		452	454	457	456	455	455	453	455	454	446	437	426	422	430	442	456	461	461	463	466	464	457	451	452	451			
6		454	448	446	445	450	447	450	444	446	444	438	433	432	430	437	445	454	464	463	456	454	449	450	452	447			
7		453	448	444	448	454	454	454	453	449	438	426	423	423	428	438	447	454	460	461	461	457	454	450	446	447			
8		446	447	447	452	453	454	453	453	447	439	431	425	422	419	427	442	453	461	465	464	460	455	455	450	447			
9		442	441	442	445	443	443	444	444	445	442	436	428	425	424	435	449	458	465	469	462	454	451	449	448	445			
10		448	448	450	452	454	458	458	455	452	444	435	427	423	425	433	441	445	450	454	457	454	459	464	447	447			
11		444	444	446	444	451	454	454	449	444	441	434	424	424	429	440	450	452	452	450	451	451	449	448	447	445			
12	D	447	448	446	444	444	446	443	437	431	434	426	424	415	423	441	444	452	456	467	474	474	473	464	454	446			
13	D	446	445	442	443	444	439	440	436	434	434	427	426	427	437	445	445	453	461	463	465	467	475	459	463	447			
14		457	457	453	445	437	442	442	440	436	433	427	426	426	432	438	446	453	456	458	464	452	454	454	455	445			
15	D	454	443	446	443	443	440	443	439	434	425	425	419	419	434	445	455	458	458	466	468	463	456	450	444	445			
16	D	444	447	451	451	452	453	447	442	433	424	418	414	416	431	445	452	454	460	476	465	456	456	465	454	446			
17		447	452	452	450	449	449	449	447	443	441	434	427	427	435	442	453	457	456	456	455	455	458	445	447	447			
18		453	451	443	445	445	452	452	446	444	437	429	423	422	429	440	449	454	468	480	474	465	460	461	450	449			
19		453	448	446	445	445	455	450	445	441	430	425	423	420	428	442	452	458	469	472	466	465	463	463	457	448			
20		455	446	445	447	454	457	456	455	451	442	427	417	418	426	437	449	455	457	455	450	448	447	444	448	445			
21		446	447	453	453	455	455	455	453	446	434	419	415	420	432	445	451	459	468	471	460	455	456	459	448	448			
22	Q	451	448	449	451	455	457	453	445	439	431	425	423	424	435	444	450	454	453	454	453	447	448	444	443	445			
23	Q	443	442	439	444	448	453	452	446	439	428	419	412	412	421	431	444	452	455	455	451	445	445	445	442	440			
24		445	445	444	447	451	453	450	447	444	433	418	407	406	415	427	437	445	452	446	443	448	452	446	445	439			
25		444	445	445	446	447	448	451	448	444	436	427	418	416	423	433	443	446	455	454	450	446	449	459	449	443			
26		448	442	439	444	446	446	446	445	442	439	431	423	420	424	430	438	446	455	463	463	454	450	448	447	443			
27		446	445	444	443	442	446	450	451	446	443	436	423	420	429	418	443	448	453	454	454	454	451	448	447	443			
28	Q	446	444	444	444	447	449	449	447	444	441	437	428	421	423	428	436	441	446	447	451	447	449	449	449	442			
29	Q	449	445	444	446	446	446	447	446	444	440	435	429	426	426	434	437	443	449	447	448	448	450	450	446	443			
30	Q	446	446	446	445	446	447	446	445	440	437	426	419	416	418	427	436	442	446	444	443	443	442	445	446	439			
31		447	448	444	444	445	446	440	436	436	433	426	424	424	427	435	440	441	442	441	440	437	439	441	446	438			
Mean		450	449	448	447	448	448	447	445	442	436	429	423	422	428	438	447	452	457	459	458	455	454	453	450	445			
Mean Q		447	445	444	446	448	450	449	446	441	435	428	422	420	425	433	441	446	450	449	449	446	447	447	445	442			
Mean D		451	449	447	439	439	432	430	430	431	428	424	422	422	433	446	452	456	460	467	467	463	463	458	454	444			

Table 6		Vertical Component						MEAN HOURLY VALUES,														44000nT+... (nT Units)				June 1985	
Hour		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
Date																											
1		443	444	433	425	425	426	424	419	415	419	419	421	425	426	438	445	447	462	474	458	453	448	448	445	437	
2		437	440	445	446	447	452	449	445	441	435	429	425	424	428	437	444	447	449	449	452	452	445	442	442	442	
3	Q	444	446	447	447	447	452	451	445	439	429	422	414	410	417	427	440	450	456	454	450	447	443	441	441	440	
4		435	435	438	442	444	444	444	441	438	435	424	413	413	419	426	435	444	448	450	447	444	441	441	440	437	
5		438	438	441	444	446	447	447	445	438	430	424	411	401	408	420	429	442	450	449	449	445	441	442	439	436	
6	D	437	440	439	438	445	445	445	441	441	431	414	398	398	409	428	448	491	478	472	466	458	458	458	430	442	
7	D	430	428	428	440	420	431	441	450	446	441	426	417	411	428	436	445	460	468	460	478	469	454	452	446	442	
8		428	428	438	428	425	425	427	431	440	441	430	421	417	425	438	448	455	460	460	460	459	455	452	449	439	
9		444	446	445	444	448	449	448	444	441	437	432	428	423	424	430	437	440	443	445	456	487	478	461	428	444	
10	D	427	428	410	391	378	388	418	428	430	428	430	426	425	431	445	456	461	461	467	468	465	465	459	458	435	
11		448	441	441	440	442	448	448	445	448	442	439	436	431	434	438	442	448	453	452	451	450	452	454	457	445	
12		454	438	442	444	439	438	438	438	440	443	436	428	427	431	438	443	448	456	457	461	465	461	456	456	445	
13		456	453	451	448	448	448	447	445	447	447	444	438	432	432	435	441	452	460	461	463	463	463	462	455	450	
14	Q	448	449	449	448	448	449	453	447	447	444	439	434	431	433	441	447	447	451	451	451	450	452	454	454	447	
15		456	454	451	448	450	448	448	446	443	438	435	427	424	428	438	442	447	452	453	463	458	455	455	452	446	
16	Q	452	453	452	451	450	452	451	445	438	429	425	422	423	424	434	445	449	449	449	450	448	447	447	447	443	
17		449	448	446	448	449	454	451	445	439	431	428	424	423	426	433	439	448	451	450	450	449	447	446	447	443	
18	Q	446	447	448	448	448	449	449	448	444	438	432	428	428	434	442	448	453	458	456	451	448	447	447	445	445	
19	Q	446	447	449	448	449	451	450	448	439	436	428	421	422	428	437	439	443	446	448	448	445	444	443	442	442	
20		442	444	445	447	449	449	447	443	439	434	430	426	419	420	431	437	451	459	458	459	455	448	447	449	443	
21		447	446	447	445	448	444	447	447	446	438	429	423	422	429	430	438	442	446	448	450	449	448	447	441	442	
22		440	441	442	442	447	449	447	443	447	447	439	432	429	437	442	448	450	455	457	454	450	449	445	443	445	
23		442	441	431	434	435	432	429	434	439	439	432	421	419	424	429	438	443	450	452	452	449	447	447	446	438	
24		445	443	444	443	444	445	449	446	442	438	429	421	420	423	429	429	439	443	447	449	449	446	446	449	440	
25		444	440	440	443	444	445	447	448	443	434	424	420	420	423	431	440	444	448	446	455	460	460	451	450	442	
26	D	440	433	438	440	443	445	440	439	440	439	432	426	423	430	438	443	455	460	474	484	469	463	452	446	446	
27		446	433	437	443	446	448	449	445	444	441	439	436	428	430	438	440	443	453	462	459	459	468	446	450	445	
28	D	441	435	427	429	430	435	432	426	436	439	437	430	433	437	438	442	450	453	460	455	454	456	464	455	441	
29		443	439	439	441	443	444	443	443	433	427	430	424	427	434	437	442	450	457	453	451	463	447	447	446	442	
30		444	447	448	447	447	449	450	449	446	440	432	427	428	430	436	442	448	450	450	451	460	460	459	444	445	
Mean		443	442	441	441	441	443	444	442	440	436	430	424	422	427	435	442	450	454	455	456	456	453	450	446	442	
Mean Q		447	448	449	448	448	451	451	447	441	435	429	424	423	427	436	444	448	452	452	450	448	447	446	446	443	
Mean D		435	433	428	428	423	429	435	437	439	436	428	419	418	427	437	447	463	464	467	470	463	459	457	447	441	

Table 6	Vertical Component						MEAN HOURLY VALUES,												44000nT+... (nT Units)				July 1985			
Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean	
Date																										
1	444	427	427	430	436	441	441	439	437	429	423	418	421	426	438	448	452	455	458	455	449	454	448	445	439	
2 Q	447	448	448	450	450	450	449	446	443	437	428	421	419	424	437	454	461	459	456	451	447	445	445	445	444	
3	446	447	446	449	451	453	452	444	439	433	424	416	411	417	425	437	445	450	448	443	440	440	441	441	439	
4 D	441	439	438	444	445	447	448	442	436	432	422	412	415	427	440	451	467	482	480	493	456	457	440	425	445	
5	433	436	433	433	440	442	443	439	437	430	425	422	420	425	441	447	450	452	457	460	463	460	448	448	441	
6 D	432	434	431	431	438	448	448	446	436	428	419	414	419	424	430	445	452	465	466	461	467	450	441	433	440	
7	421	427	410	425	437	438	445	443	446	441	431	427	427	428	440	460	461	463	463	461	461	460	451	441	442	
8	441	441	445	447	444	450	445	450	447	441	440	433	431	433	438	448	450	459	480	479	471	465	453	439	449	
9	441	441	436	431	421	430	439	441	449	447	440	430	426	428	430	434	446	454	460	459	460	460	450	449	442	
10	449	446	441	441	444	448	451	453	452	446	443	434	427	428	431	436	442	445	451	452	461	454	452	448	445	
11	446	444	439	440	441	444	444	442	442	434	428	424	420	421	429	435	440	444	447	454	457	462	458	451	441	
12 D	442	439	447	403	401	419	421	427	428	430	437	440	447	463	478	492	510	526	527	521	470	461	459	457	456	
13 D	455	455	454	454	454	458	459	452	446	438	430	424	428	431	441	459	482	484	513	484	479	477	466	444	457	
14	441	441	431	431	421	426	430	432	444	451	448	448	448	453	461	463	464	470	466	462	459	458	458	458	449	
15	454	454	451	452	440	439	444	445	448	448	445	445	442	442	447	450	454	457	456	452	449	450	451	454	449	
16 Q	451	451	451	450	451	454	453	451	448	445	441	432	433	441	448	452	453	458	459	457	451	449	450	449	449	
17	451	452	451	448	439	447	446	449	447	439	432	429	429	438	448	469	471	466	466	466	460	452	451	449	450	
18	443	439	442	442	449	452	454	449	444	425	424	420	418	422	427	434	443	446	440	437	437	444	432	429	437	
19	431	432	430	431	433	436	434	434	433	442	428	420	415	421	435	447	454	463	463	460	452	451	451	449	439	
20	448	451	452	445	454	459	454	448	447	444	441	432	432	433	442	454	469	463	459	454	452	450	448	445	449	
21 Q	445	447	443	447	450	450	449	449	449	438	432	422	422	431	438	448	452	454	453	453	451	449	447	446	444	
22 Q	445	447	447	449	452	455	456	452	449	440	429	422	422	425	432	442	450	453	452	449	442	442	442	442	443	
23	444	447	445	447	449	446	448	446	442	432	424	420	419	429	442	449	461	462	466	461	452	449	451	442	445	
24	439	442	443	445	444	449	444	439	441	440	433	429	429	431	435	442	449	452	452	452	462	454	450	447	443	
25	436	441	432	428	436	442	442	435	438	432	432	431	424	427	431	433	441	451	457	462	454	452	451	450	440	
26	441	442	442	441	442	431	439	439	440	439	436	433	433	440	441	443	449	450	450	450	462	452	442	423	442	
27	432	431	437	439	440	441	440	442	445	442	440	433	432	439	445	447	452	456	452	450	450	450	450	444	443	
28	439	438	439	432	435	440	442	442	443	442	440	435	432	432	434	442	447	450	452	455	472	453	448	448	443	
29 Q	448	449	448	446	448	450	449	445	445	441	434	432	432	433	437	443	449	452	452	452	452	450	451	451	445	
30	449	448	448	443	436	436	438	439	439	433	425	420	420	430	444	454	455	460	454	450	446	444	444	449	442	
31 D	448	450	450	449	452	452	444	432	439	432	427	427	424	432	450	475	512	482	485	493	482	469	441	446	454	
Mean	443	443	441	440	441	444	445	443	443	438	432	427	426	431	440	449	458	461	463	461	457	454	449	445	445	
Mean Q	447	448	447	448	450	452	451	449	447	440	433	426	426	431	438	448	453	455	454	452	449	447	447	447	445	
Mean D	444	443	444	436	438	445	444	440	437	432	427	423	427	435	448	464	485	488	494	490	471	463	449	441	450	



Table 6 Hour Date	Vertical Component						MEAN HOURLY VALUES,														4400nT+....(nT Units)				August 1985				Mean
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
1	431	431	441	442	449	453	452	452	449	440	431	420	410	417	428	450	460	460	464	463	457	460	450	447	444				
2	442	445	446	451	452	451	452	451	447	442	430	421	423	431	441	450	466	472	477	472	467	462	447	442	449				
3	439	442	448	450	449	453	452	453	452	444	435	425	422	429	442	452	460	462	466	461	456	452	452	448	448				
4	444	445	446	446	447	451	451	451	449	441	432	419	416	424	435	447	459	464	463	458	452	449	449	445	445				
5 Q	445	444	444	448	451	454	453	452	448	438	428	422	424	426	440	453	458	461	459	453	452	448	447	445	446				
6 Q	445	446	445	447	449	453	453	453	450	442	433	427	423	427	435	445	452	458	460	460	457	448	447	445	446				
7 Q	447	444	444	445	449	452	452	452	446	440	432	421	414	420	430	441	446	450	452	450	448	447	449	453	443				
8	451	447	445	443	444	446	449	449	447	441	433	419	414	420	429	435	442	446	449	453	453	454	455	450	442				
9 Q	450	443	442	443	447	453	452	451	449	442	433	424	420	424	436	442	446	448	447	446	446	448	446	444	443				
10	444	444	443	443	443	449	451	446	440	441	432	421	417	425	439	449	454	456	457	458	457	451	450	448	444				
11 Q	443	441	438	440	443	449	451	451	450	443	433	429	429	434	445	451	452	451	451	448	445	446	446	446	444				
12 D	446	448	447	446	445	447	447	445	439	432	425	418	414	423	432	431	438	443	443	444	467	484	482	443	443				
13 D	413	444	386	405	404	402	429	433	431	434	435	433	430	438	447	452	456	462	470	475	481	453	433	440	437				
14	445	448	445	441	441	446	441	447	441	444	439	432	433	438	448	455	455	458	457	450	450	454	453	452	446				
15	452	449	447	448	446	446	451	446	444	441	436	432	433	445	455	454	454	453	453	452	454	461	452	451	448				
16	445	445	443	445	449	452	453	456	453	447	439	429	425	429	443	455	463	463	463	463	451	446	455	436	448				
17	443	443	444	441	443	450	450	446	440	431	425	416	426	436	446	462	470	466	464	456	452	453	450	443	446				
18	444	448	449	450	451	452	450	448	443	436	429	420	420	427	442	450	456	458	457	452	452	458	436	439	444				
19	437	437	443	429	434	444	446	451	446	443	435	429	429	433	442	452	458	460	460	453	449	451	451	452	444				
20	452	441	436	443	450	449	449	453	450	441	433	423	420	423	433	445	460	463	463	461	453	453	443	443	445				
21	443	440	441	443	450	450	449	451	445	436	429	422	423	426	435	446	453	458	460	454	451	449	448	443	444				
22 D	441	433	415	435	443	445	446	447	443	441	438	426	425	430	434	450	471	485	476	487	461	449	450	442	446				
23	432	437	432	417	431	446	451	452	448	442	434	431	429	432	441	446	452	453	456	460	466	465	451	446	444				
24	432	434	441	441	446	452	453	456	453	444	439	432	426	432	443	451	454	454	452	450	450	453	449	446	445				
25	448	448	445	450	446	447	434	434	436	441	435	426	426	428	438	450	460	463	460	453	451	456	454	454	445				
26	454	440	446	449	442	446	449	448	448	443	436	432	431	433	443	450	452	451	452	450	450	463	450	458	447				
27	437	441	435	433	443	447	447	445	442	443	431	422	424	437	447	454	457	468	453	446	447	447	450	452	444				
28	450	447	449	452	450	447	446	446	443	440	432	428	430	434	443	456	461	459	469	456	450	453	441	444	447				
29 D	441	433	444	443	441	435	433	438	435	430	425	423	425	441	446	453	462	460	474	464	455	445	443	444	443				
30	448	443	437	445	445	450	450	450	448	445	436	427	427	431	443	451	452	451	452	460	466	453	450	450	446				
31 D	446	433	447	446	451	455	447	436	433	419	413	425	433	441	460	473	490	528	513	493	475	468	449	442	455				
Mean	443	442	440	442	444	447	448	448	445	440	432	425	424	430	441	450	457	461	461	458	456	454	449	446	445				
Mean Q	446	444	443	445	448	452	452	452	449	441	432	425	422	426	437	446	451	454	454	451	450	447	447	447	444				
Mean D	437	438	428	435	437	437	440	440	436	431	427	425	425	435	444	452	463	476	475	473	468	460	451	442	445				

Table 6		Vertical Component						MEAN HOURLY VALUES,													4400nT+... (nT Units)				September 1985				
Hour		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean			
Date																													
1		445	451	454	454	458	462	459	453	445	435	428	422	423	434	450	460	466	473	463	455	460	456	444	444	450			
2	Q	446	450	452	452	453	456	461	461	454	446	433	425	425	431	443	454	463	463	459	451	448	446	447	446	449			
3	Q	446	448	450	451	451	454	457	457	453	443	426	415	417	433	449	457	460	458	453	449	448	450	446	446	447			
4	Q	446	447	450	450	450	451	453	453	448	437	427	421	422	426	436	446	452	450	451	450	448	448	446	446	444			
5	Q	445	445	445	448	448	450	450	451	444	437	429	423	420	423	427	440	446	452	450	448	447	448	445	445	442			
6		445	443	443	445	445	447	448	447	443	433	429	426	426	430	442	450	467	480	483	480	474	467	461	457	450			
7		449	437	435	444	444	447	452	450	450	446	439	429	424	428	432	442	448	454	453	453	455	460	454	449	445			
8		448	444	444	445	444	449	452	455	456	446	436	431	427	430	437	444	456	454	454	456	457	460	448	450	447			
9		443	444	444	445	443	441	446	448	445	442	436	430	430	434	443	451	465	476	474	461	456	462	458	451	449			
10		446	444	444	447	448	447	441	447	452	442	438	436	435	437	440	444	452	460	460	472	448	457	447	440	447			
11		440	442	442	442	439	442	444	448	451	445	438	432	434	439	443	447	451	453	457	472	455	451	449	446	446			
12		450	450	449	450	449	448	449	450	450	445	441	434	430	432	440	447	452	458	453	448	447	448	448	448	447			
13		449	450	450	450	449	445	445	446	446	441	434	430	431	433	437	445	452	454	452	451	447	446	448	448	445			
14	D	443	444	447	446	444	444	434	428	428	429	428	428	416	427	455	460	462	456	454	452	453	457	447	450	443			
15		452	454	456	453	452	452	450	448	446	444	437	431	427	434	445	453	454	453	453	502	458	453	458	443	450			
16	D	436	433	454	447	444	448	454	453	449	441	432	422	433	437	448	460	480	473	465	456	451	453	439	443	448			
17		435	432	443	445	450	449	452	453	449	444	435	429	429	433	440	449	454	455	454	457	458	449	448	447	445			
18		444	447	446	449	450	452	453	452	446	442	436	434	433	432	437	445	450	456	456	453	451	449	448	447	446			
19	D	444	444	445	444	445	447	445	446	446	442	432	435	436	444	443	447	485	491	482	473	514	452	453	456	454			
20	D	458	456	443	444	429	441	445	446	443	442	435	434	430	434	448	461	454	455	463	463	464	451	452	456	448			
21	D	444	444	435	440	444	442	436	448	450	444	437	435	433	434	441	446	458	471	479	463	464	454	451	441	447			
22		444	451	445	447	447	447	445	447	450	445	439	433	433	433	443	452	463	465	457	459	458	457	457	455	449			
23		455	453	454	451	449	447	449	448	445	446	445	437	437	438	444	447	449	452	452	451	451	455	455	454	449			
24		453	453	453	453	452	447	447	447	447	444	440	435	435	433	438	445	452	471	478	456	465	465	446	445	450			
25		446	450	443	450	446	445	442	437	442	449	442	439	440	442	442	456	467	463	463	467	450	443	430	440	447			
26		447	446	450	449	446	446	443	443	447	446	442	436	433	438	444	448	449	448	448	462	454	446	439	439	445			
27		434	444	446	449	449	448	440	439	444	440	440	431	436	439	447	454	456	455	453	462	455	454	437	436	445			
28		444	448	449	449	450	450	449	450	449	443	435	430	431	444	453	456	456	453	450	446	445	446	445	444	446			
29	Q	446	448	447	449	446	446	445	445	444	437	431	425	427	436	445	453	455	454	450	448	446	444	445	445	444			
30		444	446	448	448	449	449	449	448	448	440	431	424	426	433	440	448	453	453	452	450	449	452	447	444	445			
Mean		446	446	447	448	447	448	448	448	447	442	435	430	429	434	442	450	458	460	459	459	456	453	448	447	447			
Mean Q		446	448	449	450	450	451	453	453	449	440	429	422	422	430	440	450	455	455	453	449	447	447	446	446	445			
Mean D		445	444	445	444	441	444	443	444	443	440	433	431	430	435	447	455	468	469	469	461	469	453	448	449	448			



Table 6		Vertical Component						MEAN HOURLY VALUES,															44000nT+....(nT Units)				November 1985			
Hour		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean				
Date																														
1		450	445	445	448	448	447	445	445	445	445	442	435	434	442	447	475	462	462	469	479	456	456	453	445	451				
2	D	444	446	449	450	450	449	449	446	447	445	438	432	435	435	461	474	495	477	475	483	521	454	451	445	456				
3	D	425	435	405	417	433	438	449	449	452	449	449	448	451	453	462	472	484	462	459	462	464	461	455	448	449				
4		448	436	425	431	438	442	445	448	451	452	445	439	440	444	448	459	467	465	467	460	461	455	451	445	448				
5		445	446	446	447	448	451	451	452	454	455	449	446	449	454	459	462	468	474	483	484	487	455	452	445	457				
6		445	442	440	440	431	442	445	449	452	452	445	442	440	447	457	463	461	470	459	461	464	463	459	451	451				
7		450	445	443	444	445	445	446	449	453	455	452	445	442	445	448	451	453	455	454	455	455	455	455	454	450				
8		445	446	445	446	445	445	446	446	446	448	445	441	442	445	445	445	445	445	442	446	456	455	452	452	446				
9		448	450	449	445	445	445	445	445	445	444	436	433	438	445	448	455	473	470	469	473	458	461	460	462	452				
10		452	453	449	445	443	447	450	450	452	450	446	445	445	455	455	456	455	453	454	452	456	475	445	448	451				
11		449	452	449	449	450	449	449	446	446	447	445	444	444	449	456	459	457	459	459	454	451	454	451	451	451				
12	Q	452	452	453	453	451	450	449	447	446	444	438	437	439	447	454	456	454	454	450	448	447	451	452	454	449				
13	D	454	451	451	451	451	451	450	447	445	442	433	432	437	454	461	462	459	461	457	461	530	468	459	456	455				
14		459	444	438	450	446	451	451	451	450	448	441	436	437	452	455	460	461	464	460	463	463	463	462	452	452				
15		433	441	444	445	451	453	453	453	453	445	442	443	442	458	458	463	463	463	463	470	461	463	448	444	452				
16		443	445	446	448	452	452	453	452	451	448	445	439	440	446	453	453	453	460	461	455	456	456	449	446	450				
17		447	448	448	449	451	452	453	453	449	447	443	442	442	443	448	460	461	484	467	463	466	463	460	457	454				
18		450	443	447	443	448	449	449	450	451	451	445	443	439	443	447	453	456	455	462	474	463	473	451	450	451				
19		449	449	441	429	448	449	452	452	452	446	443	441	439	442	444	449	451	455	453	455	455	454	454	453	448				
20	Q	450	451	450	447	448	449	447	448	450	451	449	443	441	443	445	448	451	450	450	451	453	453	454	451	449				
21	Q	447	444	444	445	446	446	446	446	445	446	443	441	441	443	445	448	449	450	449	450	450	452	454	454	447				
22		454	456	450	444	443	443	445	446	446	447	445	443	442	442	446	451	451	451	453	454	455	453	453	452	449				
23	Q	452	451	452	450	447	448	449	448	448	451	450	448	446	447	452	454	453	452	451	450	448	452	452	451	450				
24	Q	450	448	448	445	445	444	443	443	443	446	444	442	444	446	450	451	449	450	448	447	448	450	453	454	447				
25		448	447	447	447	444	444	442	442	442	443	444	443	440	437	442	446	448	448	447	446	445	450	451	451	445				
26		451	447	447	448	447	444	445	440	440	444	443	440	442	448	450	451	451	450	449	449	452	453	454	455	448				
27		453	453	453	452	447	446	443	439	435	442	443	445	447	455	472	495	472	480	473	465	463	456	454	453	456				
28		451	446	449	447	451	453	452	448	445	446	446	444	441	446	451	456	457	457	456	452	451	451	452	450	450				
29	D	451	451	451	451	451	452	452	450	445	436	433	432	435	437	448	454	469	484	527	518	514	498	496	477	463				
30	D	384	405	386	415	428	425	426	435	457	459	465	453	462	476	464	465	481	473	465	472	465	457	458	455	447				
Mean		446	446	443	444	446	447	447	447	448	447	444	441	442	447	452	458	460	461	461	462	464	459	455	452	451				
Mean Q		450	449	449	448	447	447	447	446	446	448	445	442	442	445	449	451	451	451	450	449	449	452	453	453	448				
Mean D		432	438	428	437	443	443	445	445	449	446	444	439	444	451	459	465	478	471	477	479	499	468	464	456	454				

Table 6		Vertical Component						MEAN HOURLY VALUES,															4400nT+....(nT Units)				December 1985			
Hour	Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	Mean				
1		455	455	456	455	447	452	455	454	447	446	444	439	439	446	454	457	462	466	463	465	497	458	455	446	455				
2		448	437	447	440	445	449	447	450	454	453	447	446	446	449	450	457	465	466	462	478	461	454	455	448	452				
3		448	450	451	452	455	455	455	455	452	451	450	450	450	450	450	458	468	458	458	458	460	460	458	454	454				
4		453	452	453	452	454	452	452	452	452	454	451	448	446	447	450	456	458	471	488	485	470	466	461	456	457				
5		453	448	444	450	452	454	456	457	456	454	454	451	452	454	458	459	462	461	465	462	464	464	463	458	456				
6		457	454	454	454	455	456	458	457	455	457	455	451	450	454	458	458	457	457	458	459	461	461	461	460	457				
7 Q		458	456	454	453	453	452	451	452	453	454	454	450	450	453	455	455	455	455	456	461	461	460	459	458	455				
8 Q		457	457	456	455	452	451	452	452	454	452	451	449	449	450	454	456	455	455	456	455	455	456	457	457	454				
9 Q		457	456	453	451	450	449	449	449	451	455	455	452	451	455	457	457	455	453	451	452	454	456	457	458	453				
10		462	466	454	455	451	448	447	446	446	446	446	444	457	459	462	472	469	464	465	461	458	462	468	466	457				
11		462	453	446	449	453	452	454	451	450	450	447	447	448	453	459	465	465	462	460	459	456	458	460	456	455				
12		455	456	458	457	456	454	452	449	448	447	446	446	447	449	455	458	458	457	457	458	456	452	454	460	454				
13 D		470	461	458	456	454	448	447	444	440	434	437	427	449	456	481	478	478	470	464	464	460	464	468	460	457				
14		452	450	452	458	458	458	457	454	448	446	441	445	445	450	457	458	458	465	465	460	458	460	466	452	455				
15		450	453	445	447	447	453	448	451	451	450	447	444	443	445	450	456	458	460	458	457	460	468	454	452	452				
16		445	447	448	449	452	453	454	453	452	449	445	442	440	443	448	452	453	454	453	453	458	458	458	459	451				
17		455	436	445	450	451	451	450	450	450	449	445	439	438	440	447	450	453	456	456	455	454	456	456	451	449				
18		448	448	448	448	449	451	451	448	448	448	441	440	441	450	452	449	450	451	455	455	455	457	455	455	450				
19 D		448	449	444	436	430	418	418	426	445	445	455	458	474	463	460	465	467	498	474	493	478	473	472	457	456				
20		456	453	450	445	450	456	456	458	458	458	458	455	451	450	451	457	459	459	458	458	458	459	459	460	456				
21 Q		459	458	457	454	449	450	451	453	453	453	453	451	449	448	449	455	456	455	455	456	457	459	460	458	454				
22		458	457	454	452	451	451	449	449	449	452	452	451	449	449	455	457	459	456	456	458	458	460	460	459	454				
23 Q		458	458	456	455	454	450	450	450	450	449	449	450	450	451	454	456	455	451	454	454	457	468	470	471	455				
24		476	468	461	458	457	454	453	446	446	450	450	455	456	457	459	461	459	456	458	459	458	458	458	457	457				
25		458	458	457	455	454	452	450	449	449	449	449	449	450	449	455	458	455	454	453	456	458	457	474	455	454				
26		456	454	450	451	449	448	447	447	448	447	450	454	454	456	460	462	458	457	458	455	454	453	453	453	453				
27		452	452	453	452	452	448	449	446	444	446	445	445	447	454	457	456	456	456	454	460	466	468	461	460	453				
28 D		453	435	445	452	434	445	439	442	445	453	452	451	456	476	468	482	475	470	487	489	465	461	460	454	458				
29		455	457	458	463	459	463	463	462	457	456	455	454	454	458	464	468	469	467	465	463	460	457	455	456	460				
30 D		453	453	428	428	415	418	434	433	439	446	446	457	451	452	459	485	494	506	476	466	476	464	452	446	453				
31 D		444	439	435	446	449	451	447	448	455	457	453	446	449	466	459	473	471	474	474	457	456	457	466	454	455				
Mean		455	452	451	451	450	450	450	449	450	450	449	448	449	453	456	461	462	463	462	462	461	460	460	456	455				
Mean Q		458	457	455	454	452	450	451	451	452	453	452	450	450	451	454	456	455	454	454	456	457	460	461	460	454				
Mean D		454	447	442	444	436	436	437	439	445	447	449	448	456	463	465	477	477	484	475	474	467	464	464	454	456				

Table 7

Extreme Values of the Magnetic Elements  
HORIZONTAL COMPONENT

January 1985

Date	DECLINATION			Range	HORIZONTAL COMPONENT			VERTICAL COMPONENT			Temp degC					
	Maximum G.M.T.	10deg+	Minimum G.M.T.		Maximum G.M.T.	1900nT+	Minimum G.M.T.	Range	Maximum G.M.T.	Minimum 4400nT+		Range G.M.T.				
1 D	10:14	8.5	-14.9m	20:58	23.4	21:00	106M	-30	20:28	136M	20:58	519	399m	21:25	120	22.0
2	12:21	10.4	-7.0	21:18	17.4	21:24	90	9	23:12	81	21:18	498	427	04:19	71	21.4
3	11:07	8.6	-.9	01:23	9.5	23:44	63	10	21:00	53	23:32	485	436	00:16	49	21.1
4	13:17	8.0	-1.5	23:05	9.5	00:00	55	24	01:29	31	21:20	474	441	11:20	33	21.2
5 Q	12:27	8.4	2.4	01:30	6.0	13:49	61	27	21:54	34	22:01	471	437	11:10	34	21.2
6 Q	12:53	7.0	1.0	21:01	6.0	21:30	56	33	01:19	23	21:01	465	443	12:06	22m	20.2
7 Q	18:10	8.0	3.0	02:32	5.0	13:50	63	38	02:29	25	19:10	464	440	12:40	24	19.9
8	18:40	16.3	-10.2	22:37	26.5	14:37	68	-23	20:23	91	20:29	528	434	23:44	94	19.9
9 D	08:31	12.8	-8.0	03:47	20.8	03:23	74	-41	13:41	115	17:30	517	406	04:51	111	20.9
10 D	04:00	12.1	-5.1	18:00	17.2	05:49	62	-11	17:51	73	17:55	511	420	03:55	91	20.7
11	11:10	10.6	-3.0	21:22	13.6	08:50	57	-10	18:50	67	19:18	493	444	09:32	49	19.1
12	04:39	11.7	-6.9	21:49	18.6	00:56	53	4	18:12	49	21:49	485	432	04:37	53	21.0
13	13:24	8.7	1.1	17:00	7.6	23:36	60	15	19:26	45	16:56	475	433	00:21	42	21.0
14	13:38	9.9	1.9	16:31	8.0	05:47	62	18	16:24	44	16:32	480	443	00:08	37	17.2
15	15:03	8.9	-.1	19:11	9.0	05:51	66	5	18:45	61	19:00	493	449	04:40	44	13.3
16	12:17	9.3	2.4	00:07	6.9	04:31	50	27	11:09	23	14:30	464	441	03:33	23	18.3
17	15:27	9.8	.9	17:56	8.9	08:10	58	23	15:55	35	17:56	483	443	09:54	40	17.3
18 Q	13:40	8.0	.9	20:34	7.1	08:56	62	38	19:42	24	20:30	463	440	10:00	23	17.3
19	13:36	8.9	2.5	17:32	6.4	08:47	59	21	17:11	38	17:19	468	434	09:49	34	19.1
20 Q	13:50	7.3	3.0	01:51	4.3m	08:52	53	17	18:01	36	18:06	465	435	10:01	30	20.8
21	17:01	9.3	0.0	16:04	9.3	06:49	62	19	05:13	43	04:31	455	431	11:16	24	21.1
22	16:50	8.1	-7.4	23:14	15.5	21:03	69	-12	22:51	81	23:02	505	434	12:20	71	20.9
23 D	13:33	13.7	-6.7	05:08	20.4	08:56	66	-3	16:35	69	16:42	503	411	08:16	92	20.7
24	13:54	8.5	1.1	19:22	7.4	16:12	48	28	22:50	20	19:22	468	438	11:30	30	20.9
25	13:40	7.8	1.3	02:57	6.5	18:55	60	26	02:41	34	02:50	465	439	13:40	26	20.9
26	17:40	9.7	1.0	23:18	8.7	15:49	64	33	23:04	31	23:19	471	437	12:44	34	20.6
27	20:13	9.1	-4.0	21:35	13.1	16:57	54	18	21:21	36	21:36	508	442	13:27	66	21.0
28 D	15:20	17.5M	-11.8	22:13	29.3M	02:30	63	-49m	15:53	112	17:40	565M	425	10:40	140M	20.7
29	12:52	9.1	-10.5	22:57	19.6	23:00	72	-19	00:00	91	22:57	518	417	01:15	101	21.7
30	11:54	8.2	-6.6	00:03	14.8	23:03	59	5	00:00	54	16:56	493	442	11:52	51	21.7
31	15:10	9.5	-3.2	23:10	12.7	00:00	0	0	00:00	0m	23:10	477	440	01:38	37	21.9
Mean		9.8	-2.7		12.6		61	8		53		488	433		55	

Table 7

Extreme Values of the Magnetic Elements  
HORIZONTAL COMPONENT

February 1985

Date	DECLINATION				Range	HORIZONTAL COMPONENT				VERTICAL COMPONENT			Temp degC			
	Maximum G.M.T.	10deg+	Minimum G.M.T.			Maximum G.M.T.	19000nT+	Minimum G.M.T.		Maximum G.M.T.	44000nT+	Minimum G.M.T.		Range		
1	08:47	9.3	-1.8	17:02	11.1	11:11	61	8	16:51	53	17:00	497	436	08:49	61	21.6
2	13:42	8.2	-.4	05:00	8.6	05:50	58	26	18:02	32	18:08	469	439	06:55	30	21.7
3	13:03	8.1	-.9	20:23	9.0	12:03	54	24	17:10	30	20:12	470	440	12:20	30	21.6
4 Q	14:09	6.4	3.4	21:33	3.0m	14:40	54	42	00:32	12	01:09	458	442	14:00	16m	21.7
5 D	14:30	10.2	-7.9	23:53	18.1	08:36	83	0	14:36	83	19:49	489	425	08:30	64	21.1
6 D	07:36	19.1M	-12.9	17:59	32.0	07:10	86	-39m	17:45	125M	17:59	551	402	07:33	149M	21.9
7	11:56	9.1	-3.9	22:28	13.0	22:31	59	-3	12:11	62	16:31	486	433	01:08	53	21.6
8 D	13:14	10.2	-8.9	21:26	19.1	15:53	60	-4	19:06	64	17:46	522	433	01:42	89	21.7
9	08:59	10.1	-2.4	21:37	12.5	21:45	52	11	13:24	41	17:58	479	430	01:52	49	21.0
10 D	02:06	10.4	-13.1	19:07	23.5	07:00	57	-19	18:50	76	19:07	548	424	02:05	124	20.7
11	13:00	9.4	-5.2	22:30	14.6	22:58	68	18	15:03	50	22:29	487	438	23:50	49	21.0
12	12:56	9.2	2.1	00:00	7.1	08:12	57	24	15:04	33	15:38	473	438	05:30	35	21.1
13	12:56	8.8	-7.0	19:29	15.8	22:54	75	8	19:16	67	19:30	506	446	11:21	60	21.1
14	13:57	8.9	-6.9	22:11	15.8	22:20	104M	11	17:32	93	22:11	479	429	22:33	50	21.1
15	14:42	6.1	-1.2	21:56	7.3	01:36	61	38	03:45	23	21:55	473	437	02:55	36	20.2
16 Q	15:10	7.9	-3.3	19:04	11.2	09:30	67	29	18:59	38	19:04	482	438	13:23	44	20.2
17	15:18	10.8	.6	07:07	10.2	05:57	71	6	17:20	65	19:10	489	429	06:49	60	21.2
18 Q	14:20	7.2	2.7	10:16	4.5	08:10	55	44	11:39	11m	00:00	460	441	12:30	19	21.1
19 Q	18:55	8.6	-2.1	23:29	10.7	14:18	62	22	23:11	40	23:20	483	433	12:06	50	21.2
20	13:22	9.4	-3.1	02:44	12.5	08:49	65	33	01:02	32	00:03	471	419	11:43	52	21.2
21	15:31	11.6	-.1	22:13	11.7	18:54	57	9	21:09	48	22:12	484	436	12:46	48	21.4
22	13:42	10.2	.1	01:21	10.1	22:41	70	24	01:17	46	01:20	471	433	12:07	38	21.5
23	13:21	10.1	-.6	22:35	10.7	23:21	58	30	21:05	28	21:21	479	436	12:00	43	21.6
24	15:01	10.1	-5.2	21:50	15.3	02:39	73	23	23:54	50	21:46	480	431	00:55	49	21.3
25	13:30	9.2	.2	00:09	9.0	23:59	69	23	17:04	46	17:15	479	434	12:12	45	21.2
26 Q	14:33	7.1	-2.8	02:50	9.9	00:00	68	34	18:39	34	18:45	467	437	12:50	30	21.0
27	14:36	8.8	-25.9m	22:41	34.7M	21:17	67	-35	23:00	102	22:37	555M	421	23:10	134	21.5
28 D	06:20	12.2	-16.2	02:38	28.4	06:45	85	-24	02:58	109	18:10	497	366m	03:25	131	21.3
Mean		9.5	-4.3		13.9		66	13		53		489	430		59	

Table 7

## Extreme Values of the Magnetic Elements

March 1985

Date	DECLINATION			HORIZONTAL COMPONENT						VERTICAL COMPONENT			Temp degC			
	Maximum	10deg+	Minimum	Range	Maximum	Minimum	Range	Maximum	Minimum	Range						
	G.M.T.		G.M.T.		G.M.T.			1900nT+			G.M.T.	G.M.T.		4400nT+	G.M.T.	
1	04:45	8.6	-2.9	05:34	11.5	05:02	74	16	06:27	58	21:36	468	417	04:46	51	21.0
2 D	15:04	10.9	-8.7	21:05	19.6	05:22	59	-30m	17:19	89	17:29	538	426	11:56	112	20.0
3	05:38	9.1	-.2	21:18	9.3	06:20	57	18	05:21	39	21:18	471	431	05:39	40	21.0
4	13:34	8.9	-.7	22:46	9.6	18:26	67	29	10:59	38	22:25	473	435	12:43	38	20.8
5 D	23:32	12.1	-15.6m	20:16	27.7M	20:20	83	-22	23:44	105M	18:40	581M	368m	23:33	213M	21.0
6 D	13:06	8.9	-11.1	00:00	20.0	07:10	60	15	16:47	45	20:32	483	429	00:30	54	21.2
7 D	14:39	9.9	-10.8	20:00	20.7	00:45	64	-7	18:53	71	18:58	537	436	00:50	101	21.1
8 D	03:52	13.0M	-1.9	18:47	14.9	00:56	83	14	09:56	69	16:31	483	412	03:47	71	21.3
9 Q	13:20	6.9	-2.6	23:39	9.5	23:25	60	27	10:44	33	23:28	462	430	12:00	32	21.8
10	17:20	10.0	-1.7	23:09	11.7	14:13	76	22	22:05	54	22:42	480	416	12:35	64	21.8
11	14:25	10.1	1.1	09:15	9.0	13:53	65	38	14:39	27	17:50	459	427	13:55	32	21.3
12	14:45	9.7	-4.4	20:55	14.1	08:19	57	19	21:36	38	20:21	497	421	12:53	76	21.2
13 Q	15:10	7.8	2.1	04:54	5.7m	08:08	63	43	03:57	20	00:00	451	427	11:58	24m	21.7
14	13:06	9.4	-.7	18:33	10.1	09:26	69	40	21:44	29	18:33	471	424	11:54	47	21.1
15	08:47	10.1	-.8	05:19	10.9	02:23	73	31	13:40	42	22:52	458	422	12:09	36	21.2
16	14:29	11.6	-3.0	21:21	14.6	23:59	75	28	14:59	47	21:20	469	424	12:50	45	21.0
17	12:50	8.1	-3.9	20:55	12.0	00:00	74	45	01:48	29	20:54	476	416	12:16	60	21.2
18	13:54	9.7	-3.7	21:36	13.4	01:30	88M	39	10:52	49	21:37	469	418	11:58	51	21.2
19	14:14	10.1	-4.9	19:56	15.0	06:28	66	26	19:35	40	19:49	488	420	11:41	68	21.2
20 Q	12:44	9.8	-.9	08:37	10.7	14:48	66	47	16:20	19m	16:34	461	408	12:21	53	21.1
21 Q	13:53	11.0	-.8	09:03	11.8	03:29	67	34	11:07	33	17:00	458	418	12:40	40	.1
22 Q	13:51	10.4	-1.0	09:06	11.4	01:22	74	36	11:27	38	17:00	456	418	12:33	38	21.0
23	13:25	10.4	-1.7	08:58	12.1	19:47	61	22	10:51	39	19:40	460	417	12:26	43	21.2
24	14:24	9.7	-4.7	21:47	14.4	17:53	66	31	12:07	35	21:45	477	417	12:50	60	21.0
25	13:42	12.2	-.2	09:04	12.4	18:11	68	34	12:03	34	19:16	469	408	12:01	61	21.1
26	14:00	12.9	-2.0	09:03	14.9	00:49	77	34	10:48	43	20:51	472	410	12:24	62	21.2
27	16:57	10.3	-1.8	08:58	12.1	15:56	77	39	12:36	38	20:18	478	412	12:17	66	21.3
28	14:07	8.9	-6.0	00:41	14.9	00:49	80	26	11:30	54	19:49	478	420	03:33	58	21.2
29	14:37	8.7	-1.2	09:09	9.9	18:56	66	28	12:26	38	20:12	467	419	12:10	48	22.2
30	13:48	9.3	-5.9	00:20	15.2	00:24	85	33	12:46	52	00:16	467	413	12:20	54	22.0
31	12:41	8.7	-.9	07:19	9.6	01:15	69	28	10:45	41	19:11	459	423	12:42	36	21.8
Mean		9.9	-3.2		13.2		70	25		45		478	419		59	



Table 7

## Extreme Values of the Magnetic Elements

April 1985

Date	DECLINATION			HORIZONTAL COMPONENT						VERTICAL COMPONENT			Temp degC			
	Maximum G.M.T.	10deg+	Minimum G.M.T.	Range	Maximum G.M.T.	1900nT+	Minimum G.M.T.	Range	Maximum G.M.T.	4400nT+	Minimum G.M.T.	Range				
1	15:12	20.3	-2.9	08:57	23.2	03:18	66	1	12:57	65	15:45	503	417	12:05	86	22.0
2	14:04	11.8	-12.1	19:07	23.9	19:11	81	17	11:56	64	18:20	503	425	11:26	78	22.0
3	13:39	10.2	-10.7	19:15	20.9	10:10	101	22	11:01	79	19:10	501	415	01:59	86	22.0
4	13:56	9.3	-5.9	20:35	15.2	20:44	80	13	16:57	67	17:04	487	424	11:54	63	22.0
5	13:51	10.3	-3.1	08:56	13.4	19:32	62	17	10:30	45	16:27	458	417	11:40	41	21.8
6 Q	13:34	10.1	-3.1	09:02	13.2	18:47	69	18	11:24	51	21:00	464	413	12:16	51	21.8
7	13:45	10.3	-3.0	09:12	13.3	05:58	69	16	11:13	53	17:55	470	419	12:14	51	21.9
8	13:49	9.7	-14.5	23:32	24.2	18:09	79	23	11:47	56	20:11	480	412	12:30	68	21.8
9 D	14:27	19.6	-9.7	00:00	29.3	07:07	71	-17	16:48	88	16:13	522	401	12:50	121	21.8
10	14:45	11.1	-1.9	21:57	13.0	22:04	78	19	10:58	59	21:58	469	417	13:01	52	21.7
11	02:23	9.0	-3.1	03:21	12.1	02:43	69	33	10:25	36	17:20	466	414	02:23	52	21.4
12 Q	13:48	7.2	-.8	09:06	8.0m	20:27	64	41	11:26	23m	18:54	460	422	12:11	38	21.5
13	14:13	8.2	-1.6	08:43	9.8	20:17	77	40	12:19	37	21:37	464	413	12:55	51	21.7
14	13:28	10.2	-3.2	04:01	13.4	18:20	71	34	12:22	37	21:38	460	416	11:43	44	21.6
15 Q	13:35	7.0	-1.7	09:23	8.7	23:00	76	40	11:59	36	22:50	454	416	11:45	38	21.9
16	13:07	11.0	-2.6	23:53	13.6	00:52	74	31	11:54	43	23:52	460	413	10:50	47	22.0
17 Q	14:27	7.8	-2.3	08:43	10.1	24:00	86	35	10:57	51	00:00	454	417	11:48	37	22.0
18 Q	14:13	9.2	-3.0	09:02	12.2	00:00	86	25	11:00	61	08:00	451	414	11:48	37	22.0
19	14:53	14.7	-13.7	23:12	28.4	22:41	83	18	20:27	65	18:40	520	410	23:31	110	21.9
20 D	16:06	9.9	-23.7	24:00	33.6	18:57	77	-57	23:12	134	19:22	505	385	02:24	120	21.9
21 D	08:25	26.0	-54.7m	02:16	80.7M	02:46	105	-152m	01:41	257M	16:37	563M	85m	01:41	478M	21.6
22	13:37	7.0	-1.9	08:01	8.9	24:00	67	-3	09:39	70	16:25	471	443	12:30	28m	21.5
23	14:37	8.5	-3.1	08:07	11.6	00:43	76	15	11:24	61	17:21	480	426	12:48	54	21.6
24	13:17	8.9	-4.3	09:36	13.2	02:00	78	4	11:16	74	17:10	473	418	11:46	55	21.3
25	02:50	7.1	-2.1	09:03	9.2	23:50	96	-6	11:40	102	19:27	475	420	11:57	55	21.5
26	03:17	8.8	-11.9	21:48	20.7	02:11	89	16	10:40	73	21:49	509	386	03:12	123	21.8
27	03:36	10.9	-7.3	23:54	18.2	23:56	134M	0	11:53	134	15:05	493	387	03:37	106	21.9
28 D	07:27	26.4M	-15.5	01:15	41.9	00:00	129	-92	09:57	221	19:02	484	343	03:04	141	21.3
29	04:18	12.6	-5.8	07:31	18.4	00:00	61	-13	04:47	74	18:22	465	374	04:18	91	21.8
30 D	13:40	23.8	-2.8	09:30	26.6	12:19	96	-76	13:56	172	17:40	501	393	12:20	108	21.8
Mean		11.9	-7.6		19.6		82	2		80		482	399		84	

Table 7

## Extreme Values of the Magnetic Elements

May 1985

Date	DECLINATION					HORIZONTAL COMPONENT					VERTICAL COMPONENT				Temp degC	
	Maximum	Minimum		Range	Maximum	Minimum		Range	Maximum	Minimum		Range				
	G.M.T.	10deg+	G.M.T.			G.M.T.	19000nT+			G.M.T.	G.M.T.		44000nT+	G.M.T.		
1	14:10	7.2	-3.3	09:16	10.5	22:10	60	17	10:10	43	00:00	465	426	12:22	39	21.3
2 D	06:07	7.2	-9.8m	05:03	17.0M	03:12	84	-44m	09:34	128M	01:03	472	354m	05:56	118M	22.0
3	14:43	8.9	-2.7	07:43	11.6	18:54	72	14	10:08	58	23:08	464	418	12:39	46	21.9
4	14:57	11.3M	-3.7	07:56	15.0	19:47	66	24	15:21	42	18:48	467	421	12:11	46	21.1
5	14:07	8.6	-3.8	08:56	12.4	18:43	84	20	10:50	64	19:20	469	421	12:29	48	21.1
6	14:42	7.2	-3.8	09:06	11.0	00:24	84	29	10:36	55	17:54	472	424	13:00	48	21.1
7	14:04	7.4	-2.7	09:00	10.1	00:04	86	28	11:45	58	18:38	462	422	12:13	40	21.1
8	15:56	8.6	-2.4	09:24	11.0	23:48	95	31	09:49	64	18:05	466	418	13:38	48	21.9
9	13:49	8.2	-3.2	07:15	11.4	00:00	90	20	11:12	70	18:24	473	422	13:15	51	21.3
10	14:35	6.1	-3.6	22:54	9.7	19:15	77	36	12:55	41	22:01	469	420	12:43	49	21.3
11	14:30	5.1	-4.2	07:15	9.3	20:54	74	35	10:23	39	06:10	457	422	12:29	35	21.1
12 D	13:43	8.1	-3.9	06:54	12.0	19:51	71	28	14:28	43	20:20	479	414	12:47	65	21.8
13 D	13:20	7.0	-5.9	21:27	12.9	17:52	79	40	11:38	39	21:27	497M	423	10:57	74	21.9
14	14:37	5.9	-7.7	03:40	13.6	19:53	78	30	12:03	48	19:43	470	424	11:54	46	22.0
15 D	13:24	6.4	-3.9	22:26	10.3	02:00	82	16	13:21	66	18:48	473	416	12:00	57	21.9
16 D	14:27	10.5	-4.7	07:23	15.2	19:21	79	26	15:22	53	18:31	485	411	12:08	74	21.9
17	14:29	8.6	-4.6	21:37	13.2	21:05	74	29	15:04	45	21:37	467	425	12:48	42	22.0
18	13:32	9.1	-5.9	22:51	15.0	16:50	75	30	10:22	45	18:16	485	416	11:58	67	22.2
19	14:26	9.9	-4.4	02:44	14.3	19:15	74	29	16:18	45	18:08	478	420	12:30	58	22.0
20	14:09	8.5	-4.9	02:10	13.4	18:44	84	16	09:08	68	17:20	459	415	11:51	44	22.0
21	13:28	7.7	-3.3	08:13	11.0	16:49	75	21	10:02	54	18:01	478	413	10:58	65	22.0
22 Q	12:57	6.3	-3.0	06:27	9.3	18:06	80	27	09:16	53	05:41	459	418	11:58	41	22.0
23 Q	14:40	6.7	-5.4	07:41	12.1	00:05	77	37	09:32	40	17:30	458	410	11:53	48	22.2
24	14:33	7.7	-3.3	07:37	11.0	20:06	93	41	09:34	52	05:22	456	405	11:45	51	22.0
25	15:42	6.1	-3.2	08:05	9.3	21:24	100M	47	10:56	53	22:26	465	414	12:10	51	22.1
26	14:45	7.8	-3.1	09:24	10.9	01:12	92	32	15:00	60	19:30	467	417	12:08	50	22.1
27	14:18	5.8	-2.9	08:51	8.7	21:37	71	31	11:27	40	19:58	455	416	11:54	39	22.0
28 Q	14:41	5.1	-2.5	07:42	7.6	19:20	82	43	13:59	39	22:49	455	420	12:32	35	21.6
29 Q	14:45	3.8	-1.8	07:42	5.6m	01:45	76	50	13:13	26m	22:00	454	425	12:57	29m	21.3
30 Q	13:47	7.2	-3.1	07:28	10.3	21:44	81	44	12:02	37	05:30	449	413	12:40	36	21.6
31	13:36	5.7	-3.9	09:15	9.6	24:00	98	41	13:40	57	23:39	453	421	11:50	32	22.0
Mean		7.4	-3.9		11.4		80	28		52		467	416		51	

Table 7

Date	DECLINATION					Extreme Values of the Magnetic Elements						VERTICAL COMPONENT				June 1985
	Maximum G.M.T.	10deg+	Minimum G.M.T.	Range	HORIZONTAL COMPONENT			Maximum G.M.T.	Minimum 1900nT+	Range	Minimum G.M.T.	Maximum G.M.T.	Minimum 4400nT+	Range	Temp degC	
					Maximum G.M.T.	Minimum G.M.T.	Range									
1	14:11	9.4	-7.3	06:13	16.7	00:27	100	13	10:28	87	18:05	479	406	08:16	73	22.0
2	15:07	5.4	-3.3	09:05	8.7	00:56	68	30	14:27	38	19:54	458	421	12:01	37	22.0
3 Q	13:47	7.6	-3.2	09:02	10.8	24:00	68	35	10:09	33m	17:50	457	407	12:22	50	22.2
4	15:06	7.9	-3.2	09:00	11.1	19:18	82	27	12:02	55	18:29	453	408	11:53	45	23.0
5	14:51	8.3	-4.5	07:41	12.8	24:00	87	27	10:21	60	18:12	452	399	12:33	53	22.3
6 D	16:01	18.5M	-14.9	22:09	33.4M	15:22	122	37	23:30	85	16:24	519M	395	11:57	124M	22.0
7 D	12:51	8.1	-7.2	20:00	15.3	20:10	90	3	13:03	87	20:00	508	408	12:13	100	21.8
8	00:29	7.6	-4.9	04:53	12.5	00:27	89	9	09:18	80	18:00	463	415	12:11	48	22.0
9	19:22	6.5	-19.8m	22:29	26.3	19:22	128M	7	22:15	121M	22:22	508	414	23:32	94	22.1
10 D	14:27	8.2	-17.6	02:09	25.8	19:02	85	-20m	09:06	105	18:47	475	370m	04:09	105	22.0
11	15:10	4.9	-5.2	05:59	10.1	19:41	87	24	10:38	63	23:24	460	429	12:46	31	22.1
12	16:00	6.0	-3.1	03:49	9.1	18:58	71	34	14:07	37	21:02	471	424	12:00	47	22.0
13	14:58	5.6	-2.9	08:57	8.5	19:15	77	38	14:10	39	22:14	469	429	13:10	40	22.1
14 Q	13:07	5.6	-3.2	06:30	8.8	21:06	78	34	10:43	44	06:30	458	429	12:09	29m	21.8
15	16:30	5.4	-4.2	04:35	9.6	19:43	81	28	11:43	53	19:30	468	421	12:20	47	21.6
16 Q	14:30	6.3	-5.6	07:08	11.9	18:59	80	21	12:20	59	01:27	455	421	11:10	34	21.8
17	14:53	7.1	-5.8	08:35	12.9	19:10	85	36	16:26	49	04:55	456	419	12:22	37	22.2
18 Q	14:16	7.7	-4.3	08:17	12.0	06:03	74	29	10:47	45	17:31	460	425	11:45	35	22.1
19 Q	17:11	4.7	-4.8	08:34	9.5	19:52	81	35	11:34	46	05:46	455	419	11:50	36	22.1
20	15:17	10.2	-4.5	08:16	14.7	15:52	102	30	15:59	72	17:22	461	415	12:57	46	22.2
21	15:19	6.2	-3.8	09:04	10.0	19:16	83	35	13:15	48	19:42	452	420	12:06	32	22.2
22	14:45	4.9	-4.1	09:03	9.0	19:57	80	38	11:05	42	18:40	459	427	12:04	32	22.1
23	15:40	7.1	-5.6	04:53	12.7	02:06	90	13	12:10	77	18:40	454	416	12:00	38	22.1
24	16:10	5.5	-2.7	09:22	8.2m	19:10	92	41	11:20	51	19:11	454	419	12:10	35	22.2
25	15:40	4.2	-6.8	08:57	11.0	18:50	100	43	11:10	57	20:25	470	418	12:13	52	22.2
26 D	15:38	8.8	-6.1	19:25	14.9	19:01	101	16	12:32	85	19:24	498	419	12:12	79	22.1
27	17:41	5.8	-5.7	21:47	11.5	16:28	98	34	11:38	64	21:45	477	426	12:37	51	22.2
28 D	15:38	6.3	-6.7	03:46	13.0	18:56	87	19	11:58	68	23:10	472	420	07:09	52	22.3
29	15:46	6.3	-4.6	20:30	10.9	20:34	86	21	09:55	65	20:25	476	421	11:26	55	22.4
30	14:43	6.2	-5.7	22:29	11.9	18:29	86	36	11:28	50	22:26	470	426	11:20	44	22.3
Mean		7.1	-5.9		13.1		88	26		62		469	416		53	

Table 7

## Extreme Values of the Magnetic Elements

July 1985

Date	DECLINATION					HORIZONTAL COMPONENT						VERTICAL COMPONENT			Temp degC	
	Maximum	10deg+	Minimum	Range	Maximum	Minimum	Range	Maximum	Minimum	Range	Temp					
	G.M.T.		G.M.T.									G.M.T.	G.M.T.	G.M.T.		G.M.T.
1	14:16	6.6	-8.5	02:21	15.1	01:35	112	17	10:05	95	18:27	460	415	11:29	45	22.4
2 Q	14:11	7.0	-3.0	08:53	10.0	18:04	71	25	10:53	46	16:35	462	417	12:30	45	22.5
3	15:25	6.3	-4.8	06:44	11.1	21:30	86	35	10:33	51	06:04	457	410	12:30	47	22.6
4 D	13:23	11.0	-10.7	19:34	21.7	19:50	124	6	13:01	118	19:34	522	406	11:33	116	22.7
5	16:36	6.8	-8.0	06:48	14.8	19:52	83	16	10:27	67	20:58	470	419	12:47	51	22.7
6 D	14:26	6.6	-7.7	21:04	14.3	21:07	110	18	10:29	92	20:56	485	412	11:29	73	22.1
7	14:10	7.1	-7.9	01:22	15.0	19:27	75	23	14:39	52	17:52	468	399	02:12	69	22.3
8	14:07	5.1	-6.1	22:16	11.2	18:50	95	21	14:55	74	18:44	491	429	11:52	62	22.6
9	15:20	6.1	-3.9	08:16	10.0	03:35	73	33	14:16	40	20:20	462	414	04:06	48	22.8
10	16:56	5.7	-4.9	09:16	10.6	19:52	89	20	10:57	69	20:28	469	424	12:50	45	22.9
11	14:33	7.0	-6.0	06:30	13.0	18:57	105	42	12:47	63	21:37	468	419	12:34	49	22.6
12 D	16:55	11.0	-13.8	02:46	24.8	18:44	133M	-27m	10:41	160M	18:40	563M	387m	03:34	176M	22.8
13 D	14:48	10.6	-5.9	08:53	16.5	18:25	83	-10	11:33	93	18:15	530	421	11:35	109	22.6
14	05:48	6.3	-4.8	00:13	11.1	05:27	75	13	11:29	62	17:53	472	411	04:51	61	22.2
15	04:50	4.2	-5.0	08:03	9.2	20:41	66	27	10:30	39	17:10	459	427	04:50	32	22.5
16 Q	14:18	3.9	-5.2	09:12	9.1	23:27	82	33	11:18	49	18:35	460	430	11:50	30	22.5
17	14:42	10.0	-6.0	07:41	16.0	00:51	89	6	10:42	83	15:30	474	426	12:17	48	22.7
18	13:00	6.6	-6.7	21:15	13.3	01:03	88	27	12:19	61	21:15	454	416	12:09	38	22.2
19	13:51	6.7	-5.1	08:33	11.8	02:26	80	19	11:17	61	17:40	466	413	11:52	53	22.1
20	15:00	5.9	-5.9	06:20	11.8	20:14	76	34	11:21	42	16:32	472	430	12:56	42	22.2
21 Q	14:21	5.2	-3.6	08:07	8.8m	01:00	76	35	09:41	41	16:40	457	419	11:50	38	22.3
22 Q	14:36	5.0	-6.5	07:59	11.5	20:35	98	30	11:00	68	06:19	458	419	12:16	39	22.7
23	13:06	6.0	-10.0	08:30	16.0	23:11	96	37	08:27	59	19:54	476	414	12:25	62	22.7
24	14:50	6.7	-3.5	09:10	10.2	20:13	82	25	12:35	57	20:42	475	426	12:08	49	1.0
25	15:16	4.2	-7.2	06:27	11.4	24:00	80	29	11:14	51	19:22	467	421	03:02	46	23.2
26	12:55	4.3	-7.0	22:00	11.3	20:50	105	30	10:53	75	20:34	475	409	23:33	66	23.0
27	12:57	5.2	-4.8	09:06	10.0	24:00	98	9	11:14	89	17:40	459	424	00:10	35	22.3
28	14:56	4.8	-6.8	20:40	11.6	00:00	98	30	11:17	68	20:37	482	429	03:50	53	22.6
29 Q	14:14	6.1	-4.2	08:33	10.3	18:51	74	39	09:38	35m	19:20	455	430	12:10	25m	22.7
30	14:22	11.7M	-4.9	08:57	16.6	16:11	76	35	11:24	41	17:22	462	416	11:20	46	22.6
31 D	15:51	10.9	-14.0m	23:47	24.9M	22:01	97	-6	09:32	103	16:22	532	417	22:27	115	22.6
Mean		6.8	-6.4		13.3		90	22		68		476	418		59	

Table 7

## Extreme Values of the Magnetic Elements

August 1985

Date	DECLINATION					HORIZONTAL COMPONENT					VERTICAL COMPONENT			Temp degC		
	Maximum G.M.T.	10deg+	Minimum G.M.T.	Range		Maximum G.M.T.	1900nT+	Minimum G.M.T.	Range		Maximum G.M.T.	4400nT+	Minimum G.M.T.		Range	
1	14:41	11.0	-12.0	00:00	23.0	21:27	80	25	06:27	55	21:21	474	403	12:19	71	22.4
2	15:38	6.0	-5.8	08:21	11.8	17:11	74	28	09:06	46	18:39	482	418	11:27	64	22.6
3	13:26	5.7	-4.2	09:05	9.9	17:48	81	31	09:48	50	18:12	469	420	12:02	49	22.2
4	13:24	7.4	-5.8	09:11	13.2	18:59	69	21	11:05	48	17:55	466	412	12:06	54	22.3
5 Q	13:36	5.0	-4.9	08:31	9.9	21:44	66	38	08:58	28m	17:45	462	420	11:31	42	22.4
6 Q	14:24	6.0	-4.9	08:35	10.9	19:25	76	33	12:00	43	20:06	464	422	12:40	42	22.4
7 Q	14:29	5.1	-4.7	07:23	9.8	21:00	81	40	12:15	41	23:55	455	413	12:13	42	22.5
8	15:17	5.1	-5.0	00:25	10.1	19:50	80	40	09:43	40	22:22	463	412	12:08	51	22.4
9 Q	13:46	5.0	-5.0	07:51	10.0	19:37	83	31	10:27	52	05:31	454	418	12:40	36	22.2
10	14:06	5.1	-4.0	06:02	9.1	23:47	75	30	11:30	45	19:59	462	415	12:30	47	22.3
11 Q	13:43	4.0	-5.0	06:47	9.0m	00:46	95	31	12:12	64	06:45	454	426	12:00	28m	22.2
12 D	19:22	8.3	-16.0m	23:15	24.3M	19:04	156M	36	11:52	120M	22:09	501	413	12:30	88	22.3
13 D	13:46	5.1	-15.5	20:22	20.6	00:00	95	-4	10:49	99	20:22	528	366m	02:35	162M	22.1
14	13:41	5.1	-5.0	07:40	10.1	21:03	64	25	06:30	39	18:02	463	431	11:23	32	22.1
15	12:32	3.9	-5.5	08:29	9.4	20:23	68	26	13:16	42	21:35	465	429	11:32	36	22.2
16	13:57	6.9	-7.0	22:40	13.9	23:07	72	23	10:30	49	19:12	479	423	12:50	56	22.2
17	13:13	7.0	-5.9	08:00	12.9	23:06	76	33	12:11	43	16:10	474	414	11:23	60	22.3
18	13:43	7.0	-7.8	21:53	14.8	21:55	119	37	11:02	82	21:22	471	415	11:25	56	22.8
19	03:40	6.0	-5.3	05:45	11.3	21:00	79	24	12:18	55	17:40	461	415	03:38	46	22.5
20	14:43	6.2	-6.4	05:12	12.6	21:57	80	32	12:04	48	16:48	465	416	13:12	49	22.6
21	14:01	5.0	-5.9	00:23	10.9	23:26	89	36	11:33	53	18:00	461	416	11:46	45	22.4
22 D	15:31	6.6	-12.0	19:44	18.6	19:51	102	-11	09:13	113	19:45	510	409	02:33	101	22.3
23	13:51	6.6	-6.8	21:27	13.4	00:12	93	0	11:25	93	21:26	478	413	03:43	65	22.3
24	12:53	4.8	-5.8	08:03	10.6	21:42	72	32	11:27	40	08:02	458	422	00:36	36	22.2
25	14:20	6.3	-7.2	05:27	13.5	04:42	84	20	08:10	64	17:39	465	423	11:40	42	22.2
26	13:18	5.0	-9.3	23:36	14.3	18:07	87	35	08:50	52	21:37	472	428	12:00	44	22.6
27	13:34	6.1	-8.8	01:57	14.9	15:10	74	15	09:38	59	17:24	472	419	11:40	53	22.4
28	15:15	4.9	-5.5	07:38	10.4	22:42	82	27	15:49	55	18:20	476	425	11:22	51	22.3
29 D	14:55	5.5	-7.9	18:52	13.4	18:55	81	26	12:48	55	18:53	495	415	12:12	80	22.3
30	13:43	5.9	-5.5	20:00	11.4	18:17	79	27	11:02	52	19:48	476	424	11:54	52	22.4
31 D	13:34	11.7M	-10.1	05:53	21.8	01:23	92	-18m	09:33	110	17:12	543M	407	09:55	136	22.1
Mean		6.1	-7.0		13.2		84	25		59		475	416		59	

Table 7

## Extreme Values of the Magnetic Elements

September 1985

Date	DECLINATION					HORIZONTAL COMPONENT					VERTICAL COMPONENT			Temp degC		
	Maximum	Minimum		Range	Maximum	Minimum		Range	Maximum	Minimum	Range					
	G.M.T.	10deg+	G.M.T.		G.M.T.	1900nT+	G.M.T.		G.M.T.	4400nT+		G.M.T.				
1	12:42	6.9	-6.7	20:57	13.6	21:20	62	23	09:20	39	17:31	475	420	11:51	55	22.3
2 Q	13:37	5.8	-5.5	08:10	11.3	21:18	65	22	10:33	43	16:44	465	423	11:45	42	22.3
3 Q	13:00	6.3	-5.2	08:03	11.5	22:41	69	23	10:16	46	16:10	463	412m	12:00	51	22.3
4 Q	12:59	3.9	-4.9	08:47	8.8	20:56	71	40	09:53	31m	06:40	455	416	11:58	39	22.0
5 Q	13:40	5.1	-3.7	07:44	8.8	18:10	77	37	10:27	40	18:10	453	417	13:00	36	22.2
6	14:00	6.4	-6.2	23:56	12.6	23:58	86	34	17:44	52	18:00	494	424	12:30	70	21.6
7	14:18	5.2	-6.5	00:30	11.7	00:00	84	31	11:12	53	21:11	466	421	12:47	45	22.1
8	13:32	5.7	-7.3	21:26	13.0	21:18	79	29	13:36	50	21:08	472	425	12:55	47	22.6
9	13:40	5.6	-6.3	21:50	11.9	05:27	67	22	11:50	45	18:00	484	425	12:22	59	22.5
10	14:36	3.3	-8.9	19:38	12.2	23:04	73	28	11:05	45	19:35	481	430	22:23	51	22.3
11	13:01	3.2	-9.5	19:30	12.7	05:50	62	27	10:36	35	19:24	482	429	11:47	53	22.7
12	13:32	4.7	-4.9	08:34	9.6	20:58	63	28	10:19	35	17:50	463	428	12:33	35	22.5
13	13:14	3.7	-3.1	08:34	6.8	24:00	85	35	10:20	50	17:29	455	427	11:56	28	22.4
14 D	13:55	14.1M	-5.5	21:44	19.6	12:51	95	-1	14:02	96	21:45	468	412m	12:19	56	22.4
15	14:36	5.4	-15.2	19:42	20.6	18:26	82	3	19:31	79	19:40	543	424	12:30	119	22.1
16 D	12:59	8.2	-9.9	03:08	18.1	22:03	88	-30	12:10	118M	16:41	487	414	00:52	73	22.4
17	12:24	4.2	-5.9	20:04	10.1	21:40	70	8	10:44	62	20:00	474	422	12:25	52	22.7
18	14:35	4.3	-4.0	09:05	8.3	20:50	68	28	11:54	40	17:43	461	430	13:10	31	22.6
19 D	16:06	9.1	-22.0m	20:35	31.1M	01:19	74	-43m	10:03	117	20:29	547M	426	10:33	121M	22.2
20 D	14:06	5.3	-11.0	01:45	16.3	21:58	93	0	10:48	93	20:20	474	422	04:53	52	21.9
21 D	14:02	5.9	-8.2	18:06	14.1	22:47	69	13	11:27	56	18:05	501	427	06:17	74	22.8
22	13:44	4.4	-6.0	01:50	10.4	23:12	65	22	17:10	43	17:11	472	427	12:57	45	22.6
23	13:43	2.1	-3.8	01:02	5.9m	05:32	62	29	09:06	33	00:12	457	435	11:52	22m	22.3
24	14:07	5.1	-10.7	21:30	15.8	21:37	80	22	18:52	58	18:30	482	428	11:54	54	22.5
25	12:53	4.5	-10.0	19:17	14.5	22:01	88	23	15:44	65	19:17	484	424	22:12	60	22.7
26	13:10	1.8	-9.0	22:11	10.8	22:18	90	-5	09:35	95	19:41	474	428	22:51	46	22.7
27	11:44	3.1	-12.4	21:31	15.5	21:41	112M	21	10:28	91	21:31	494	423	22:46	71	22.7
28	12:37	3.6	-5.4	09:06	9.0	22:08	61	29	10:51	32	15:39	458	427	12:02	31	22.8
29 Q	12:50	3.0	-4.4	09:10	7.4	23:31	68	37	11:13	31m	16:35	457	422	11:09	35	23.0
30	12:50	3.8	-5.2	23:02	9.0	22:21	83	44	09:16	39	16:50	456	424	12:00	32	23.0
Mean		5.1	-7.5		12.7		76	19		57		477	424		53	

Table 7

## Extrema Values of the Magnetic Elements

October 1985

Date	DECLINATION				HORIZONTAL COMPONENT						VERTICAL COMPONENT				Temp degC	
	Maximum G.M.T.	10deg+	Minimum G.M.T.	Range	Maximum G.M.T.	1900nT+	Minimum G.M.T.	Range	Maximum G.M.T.	4400nT+	Minimum G.M.T.	Range				
1 Q	15:10	1.8	-5.5	09:05	7.3	22:45	64	40	12:31	24	17:13	458	425	11:58	33	22.9
2	13:32	1.9	-5.2	07:25	7.1	22:55	72	44	11:30	28	17:28	456	426	11:55	30	22.6
3	15:36	7.6	-5.1	22:36	12.7	05:45	73	32	16:10	41	18:40	473	426	12:15	47	22.3
4	15:06	5.1	-8.0	01:47	13.1	07:38	78	35	14:38	43	22:32	475	426	11:25	49	22.0
5 D	07:16	8.6M	-30.5m	20:26	39.1M	22:52	101M	-17m	16:58	118M	18:39	538M	373m	22:56	165M	21.8
6 D	07:14	5.8	-12.4	23:15	18.2	23:32	71	-6	09:42	77	14:40	487	377	01:32	110	22.0
7 D	15:37	3.4	-12.8	17:33	16.2	23:09	88	-8	17:23	96	17:32	537	420	01:47	117	21.7
8	13:55	4.4	-15.0	20:38	19.4	20:48	78	24	13:33	54	20:38	504	429	01:55	75	21.7
9	14:12	1.7	-6.0	18:55	7.7	19:03	62	36	11:41	26	18:56	473	432	13:03	41	22.2
10	13:48	2.6	-5.6	21:04	8.2	18:34	66	31	13:04	35	21:04	468	435	12:29	33	22.3
11	16:12	5.7	-8.4	21:08	14.1	08:37	80	31	16:25	49	21:07	484	430	12:28	54	22.1
12	15:13	2.6	-8.2	01:56	10.8	01:12	89	38	10:44	51	19:55	466	433	12:34	33	22.3
13 D	13:46	5.1	-8.1	21:05	13.2	21:10	78	27	17:14	51	17:36	489	425	13:12	64	22.4
14	12:52	2.7	-5.1	09:13	7.8	05:08	66	30	10:29	36	16:13	464	427	12:52	37	22.2
15	06:45	6.7	-9.3	23:02	16.0	05:10	82	27	07:33	55	16:39	471	422	06:46	49	22.2
16	14:35	4.7	-9.1	00:11	13.8	03:49	83	24	10:24	59	16:36	471	432	12:33	39	20.7
17	13:06	4.8	-8.5	23:07	13.3	16:51	64	25	17:57	39	19:46	479	422	12:59	57	22.2
18 D	14:39	5.4	-8.6	21:06	14.0	24:00	90	-1	12:16	91	20:17	479	426	11:32	53	22.1
19	14:15	2.0	-6.5	01:47	8.5	00:01	91	18	10:51	73	18:57	459	422	12:26	37	21.6
20	15:20	1.1	-5.0	03:40	6.1	07:14	57	31	12:10	26	19:32	464	427	12:10	37	22.2
21	16:18	6.9	-5.4	17:07	12.3	07:23	79	17	16:47	62	17:03	500	428	12:07	72	22.0
22	14:13	1.7	-12.0	20:06	13.7	01:41	73	24	19:20	49	19:46	488	431	12:06	57	20.2
23	13:46	1.6	-6.3	22:13	7.9	22:22	84	35	13:03	49	22:12	466	433	12:21	33	21.1
24	13:52	1.0	-6.6	18:37	7.6	07:22	63	37	11:53	26	18:38	473	427	12:09	46	22.0
25	13:45	1.7	-4.8	05:04	6.5	22:15	69	37	19:50	32	19:10	467	434	12:10	33	20.9
26 Q	13:03	1.1	-5.4	09:21	6.5	07:57	67	34	12:05	33	16:08	460	436	11:55	24m	20.3
27 Q	13:12	1.2	-7.8	24:00	9.0	23:41	76	45	11:32	31	23:22	457	429	12:30	28	22.1
28 Q	13:02	2.0	-7.9	00:03	9.9	00:00	63	41	12:47	22	16:10	454	424	11:49	30	21.9
29	12:49	5.1	-5.9	05:00	11.0	02:16	79	21	11:08	58	16:43	463	425	11:20	38	20.0
30 Q	13:37	1.2	-4.7	09:04	5.9m	18:33	64	52	11:14	12m	19:26	458	431	12:53	27	20.0
31	13:57	2.2	-4.3	09:35	6.5	07:00	66	32	18:30	34	17:54	472	425	11:45	47	19.9
Mean		3.5	-8.1		11.7		75	27		48		476	424		51	

Table 7

## Extreme Values of the Magnetic Elements

November 1985

Date	DECLINATION					HORIZONTAL COMPONENT					VERTICAL COMPONENT			Temp degC		
	Maximum	Minimum		Range	Maximum	Minimum		Range	Maximum	Minimum		Range				
	G.M.T.	10deg+	G.M.T.		G.M.T.	19000nT+	G.M.T.		G.M.T.	44000nT+	G.M.T.					
1	14:45	5.4	-16.1	19:10	21.5	01:09	77	14	15:09	63	19:05	513	431	12:11	82	20.0
2 D	13:51	8.6	-30.9	20:15	39.5	23:56	85	-14	20:07	99	20:15	575	416	24:00	159	19.6
3 D	02:50	3.8	-11.0	16:40	14.8	00:04	86	3	10:30	83	16:38	515	385	02:50	130	19.3
4	02:40	1.2	-11.5	18:05	12.7	03:14	67	21	15:59	46	18:05	492	411	02:40	81	21.0
5	12:56	3.9	-16.5	21:10	20.4	21:22	79	19	12:30	60	21:09	499	429	21:31	70	20.1
6	04:51	3.4	-7.0	00:13	10.4	05:22	67	31	17:30	36	17:33	481	428	04:43	53	19.9
7	13:20	1.2	-5.0	03:33	6.2	06:41	65	35	10:45	30	19:48	460	439	02:55	21	20.2
8	13:23	1.2	-4.8	00:32	6.0	18:07	68	36	11:13	32	21:03	462	440	18:16	22	22.0
9	16:02	6.8	-8.6	19:24	15.4	08:35	68	3	16:31	65	19:17	491	425	11:30	66	20.0
10	12:54	2.9	-23.0	21:35	25.9	00:16	78	32	11:24	46	21:35	521	425	21:59	96	19.8
11	13:17	2.0	-5.5	00:00	7.5	21:58	65	41	00:01	24	18:21	464	441	10:48	23	19.9
12 Q	13:05	.7	-4.5	10:03	5.2	20:16	69	47	11:25	22	15:21	457	435	11:35	22	19.5
13 D	13:43	5.1	-28.7	20:44	33.8	17:53	81	-26	20:29	107	20:44	574	429	11:17	145	19.6
14	12:50	3.3	-11.7	01:00	15.0	23:57	91	27	01:38	64	22:18	473	431	11:38	42	19.7
15	12:52	2.2	-9.0	19:59	11.2	00:00	88	14	13:09	74	19:09	481	427	00:10	54	18.7
16	13:36	1.1	-8.7	21:42	9.8	21:54	73	32	13:37	41	21:38	466	437	12:10	29	20.1
17	15:13	4.3	-13.7	17:49	18.0	08:07	69	20	17:31	49	17:44	520	438	11:05	82	19.7
18	15:10	2.2	-11.3	21:44	13.5	22:07	75	21	19:47	54	21:44	489	433	12:31	56	21.1
19	03:07	6.8	-5.4	20:06	12.2	20:29	67	34	03:13	33	20:06	465	410	03:07	55	19.8
20 Q	13:46	0.0	-4.8	22:23	4.8	07:52	67	48	02:19	19m	22:09	460	440	12:57	20	19.1
21 Q	13:17	-1.1	-4.7	24:00	4.6	20:32	70	50	11:49	20	22:31	455	440	11:37	15	18.9
22	13:48	1.5	-7.8	01:24	9.3	01:13	66	47	03:41	19m	01:04	463	439	13:46	24	19.3
23 Q	13:49	-8	-5.1	22:04	4.3m	08:20	69	49	12:02	20	22:04	455	443	05:02	12m	18.0
24 Q	13:21	-8	-7.0	23:08	6.2	07:50	75	54	13:10	21	23:04	462	440	11:27	22	18.8
25	14:02	.9	-6.3	00:15	7.2	13:47	76	54	20:59	22	23:27	453	435	13:49	18	19.0
26	12:36	.2	-5.8	06:18	6.0	07:21	75	51	22:43	24	22:50	459	435	08:01	24	18.7
27	14:08	5.2	-6.6	20:25	11.8	06:21	87	-20	15:21	107	15:26	518	433	08:38	85	19.0
28	04:14	.1	-5.6	22:12	5.7	09:05	62	42	00:18	20	17:04	460	440	11:37	20	18.8
29 D	15:36	2.8	-33.8	18:57	36.6	11:35	93M	-135m	20:54	228M	18:57	612M	388	24:00	224M	19.2
30 D	07:10	9.0M	-35.1m	01:33	44.1M	20:31	45	-80	00:37	125	12:54	496	347m	00:17	149	21.0
Mean		2.8	-11.7		14.7		73	18		55		490	426		63	



Table 7

## Extreme Values of the Magnetic Elements

December 1985

Date	DECLINATION			HORIZONTAL COMPONENT						VERTICAL COMPONENT			Temp degC			
	Maximum G.M.T.	10deg+	Minimum G.M.T.	Range	Maximum G.M.T.	1900nT+	Minimum G.M.T.	Range	Maximum G.M.T.	4400nT+	Minimum G.M.T.	Range				
1	04:36	.6	-21.5m	20:28	22.1	23:18	48	-11	20:15	59	20:27	532	436	11:37	96	22.0
2	14:30	-.9	-13.5	19:50	12.6	23:28	50	17	02:40	33	19:49	497	431	01:30	66	22.0
3	14:43	-1.4	-6.5	22:59	5.1	06:27	56	13	16:12	43	16:28	476	445	00:33	31	21.9
4	17:08	1.2	-9.2	18:50	10.4	08:30	62	6	18:43	56	18:50	520	444	12:49	76	21.5
5	02:16	-.5	-5.6	18:34	5.1	02:40	57	32	00:01	25	18:38	470	440	02:15	30	20.0
6	13:47	-.8	-4.6	10:02	3.8	08:18	64	40	14:35	24	22:01	466	448	01:41	18	19.9
7 Q	13:06	-.8	-5.9	20:04	5.1	08:22	70	51	01:01	19m	20:04	469	448	12:26	21	19.7
8 Q	13:51	-.8	-4.3	23:46	3.5m	14:59	70	51	02:13	19m	00:01	459	448	12:04	11m	19.5
9 Q	13:39	-.9	-4.9	03:20	4.0	18:15	73	53	11:30	20	24:00	460	448	06:20	12	19.1
10	14:27	6.1	-7.9	22:28	14.0	06:51	71	14	13:29	57	15:57	477	438	11:28	39	19.9
11	14:27	-.6	-8.3	22:47	7.7	01:00	74	37	02:23	37	00:35	472	440	02:04	32	19.8
12	14:05	-1.1	-5.9	23:28	4.8	21:23	70	34	23:09	36	23:21	467	445	11:30	22	21.2
13 D	11:31	8.2	-15.1	23:15	23.3M	04:42	75	-15	14:07	90	14:51	494	418	11:23	76	22.0
14	17:17	-.4	-13.3	22:42	12.9	22:50	81	21	01:14	60	22:38	485	438	10:32	47	22.0
15	06:27	-1.1	-9.4	21:19	8.3	02:04	60	27	21:04	33	21:16	479	436	02:13	43	22.0
16	13:51	-1.8	-7.3	23:57	5.5	00:20	71	33	23:57	38	23:51	467	437	12:27	30	21.7
17	01:39	1.2	-7.3	00:00	8.5	01:45	65	34	00:02	31	00:00	466	428	01:35	38	22.0
18	12:52	.7	-8.4	23:13	9.1	07:25	81	40	13:03	41	23:09	466	437	12:15	29	20.1
19 D	07:48	8.3M	-14.8	17:19	23.1	04:17	87M	-14	17:02	101	17:16	526	410	05:53	116	19.9
20	15:11	-.7	-8.6	01:57	7.9	01:22	51	26	12:00	25	24:00	465	441	03:16	24	20.1
21 Q	13:30	-1.7	-7.1	01:23	5.4	17:27	61	37	02:55	24	00:01	465	446	13:30	19	21.2
22	12:38	.2	-5.8	05:45	6.0	08:31	68	49	00:09	19m	21:50	464	447	04:38	17	19.7
23 Q	19:31	-1.6	-6.7	23:59	5.1	08:58	70	33	23:46	37	23:52	482	448	08:42	34	19.8
24	14:06	-1.5	-6.8	00:23	5.3	07:57	77	35	00:05	42	00:00	481	440	08:03	41	19.6
25	13:34	-1.5	-13.8	22:54	12.3	10:43	66	44	22:20	22	22:42	480	447	13:10	33	19.7
26	13:30	-1.1	-7.8	00:31	6.7	05:33	68	38	00:41	30	14:50	465	445	04:56	20	19.2
27	14:02	-.8	-11.7	20:21	10.9	08:08	80	4	20:18	76	20:21	503	442	10:52	61	18.1
28 D	15:17	4.0	-17.8	19:11	21.8	07:07	86	-6	15:29	92	19:10	519	425	04:47	94	16.8
29	04:34	-1.6	-7.0	23:28	5.4	08:05	67	46	04:18	21	16:19	470	452	10:39	18	16.0
30 D	02:13	4.1	-18.9	17:45	23.0	00:35	86	-25m	15:29	111M	17:45	552M	403m	05:05	149M	19.3
31 D	02:06	-.5	-13.8	18:06	13.3	07:46	58	0	17:54	58	18:00	506	428	02:06	78	19.0
Mean		.4	-9.6		10.1		69	24		45		484	438		46	

Table 5

## Diurnal Variation - ALL Days - Declination (Tenths of Minutes)

1985

Hr	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Month	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24
Jan	-16	-13	-11	-8	-5	-8	-7	-4	0	3	11	19	25	30M	22	17	12	9	2	-5	-10	-21m	-21m	-21m
Feb	-20	-12	-12	-9	-10	-7	-3	0	1	1	6	17	27	34M	34M	27	17	3	-4	-9	-8	-15	-27m	-23
Mar	-18	-13	-10	-9	-11	-11	-11	-15	-20m	-19	-11	8	32	47	48M	37	24	13	3	-4	-15	-18	-17	-17
Apr	-24	-20	-20	-14	-16	-17	-21	-24	-26	-28m	-11	16	42	60	64M	49	37	19	6	-3	-6	-16	-23	-25
May	-12	-15	-17	-18	-23	-28	-35	-38m	-37	-27	-7	12	31	46	49M	42	36	28	17	11	8	1	-6	-8
June	-10	-11	-13	-19	-23	-30	-36	-37	-39m	-34	-15	6	29	42	48	49M	40	31	24	14	4	0	-9	-11
July	-7	-11	-10	-9	-13	-29	-40	-39	-41m	-34	-15	7	30	46	51M	47	39	30	19	6	0	-6	-7	-8
Aug	-14	-14	-13	-15	-19	-29	-34	-38m	-36	-26	-6	18	40	53M	52	44	32	18	8	3	-2	-11	-11	-15
Sept	-12	-12	-11	-16	-15	-19	-20	-21	-25m	-20	-3	20	40	48M	45	34	22	9	2	-6	-9	-14	-16	-18
Oct	-13	-11	-11	-11	-10	-8	-4	-6	-13	-16	-10	8	27	37M	37M	34	23	10	4	-2	-15	-14	-16	-19m
Nov	-17	-18	-5	0	1	2	0	-1	-5	-9	-4	11	28	34	35M	28	18	10	5	-10	-24	-23	-25m	-24
Dec	-16	-12	-7	-6	1	0	1	3	1	-1	3	12	16	21	22M	15	10	2	0	-7	-13	-16	-23m	-20
Year	-14	-13	-11	-10	-11	-15	-17	-18	-19m	-17	-5	13	31	42	43M	36	26	15	7	-1	-7	-12	-16	-16
Winter	-16	-12	-7	-6	-3	-3	-2	0	-1	-1	4	15	24	30M	28	22	14	6	1	-7	-13	-18	-23m	-21
Equinox	-15	-12	-11	-11	-11	-12	-12	-15	-19	-20m	-8	14	36	49M	49M	40	27	13	4	-3	-10	-14	-17	-18
Summer	-10	-12	-12	-15	-19	-28	-36	-37m	-37m	-29	-10	12	33	47	51M	46	37	27	18	9	3	-4	-7	-9

Table 9

Diurnal Variation - ALL Days - Horizontal Component

1985

Hr	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Month	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24
Jan	-2	-3	-1	0	1	5	7M	6	7M	5	1	-1	-1	0	2	0	-3	-6m	-5	-4	-6m	-3	-4	-2
Feb	1	1	2	0	2	3	8M	8M	8M	5	0	-3	-6m	-4	-2	-4	-4	-6m	-4	-2	-1	0	0	1
Mar	3	3	1	1	1	2	5M	4	2	-5	-8	-9m	-7	-5	-3	-1	0	0	0	2	2	1	1	2
Apr	8	5	8	7	4	4	3	-1	-9	-15	-19m	-19m	-14	-9	-5	-1	2	6	10M	10M	9	7	8	8
May	6	4	4	3	2	1	-1	-5	-11	-16m	-16m	-15	-14	-12	-9	-3	3	8	13	14M	13	12	10	8
June	9	5	4	2	2	2	-2	-6	-11	-17	-20m	-20m	-17	-14	-8	0	2	8	15	18M	15	11	8	8
July	9	8	6	5	4	4	0	-5	-9	-17	-23m	-22	-17	-13	-9	-2	2	7	12	13M	13M	11	10	10
Aug	8	8	5	4	4	1	-2	-7	-13	-18m	-18m	-16	-12	-6	-3	-1	1	6	8	11M	11M	11M	10	9
Sept	7	5	5	4	5	6	3	1	-3	-12	-17m	-16	-11	-6	-3	-1	-1	0	2	3	4	9	10M	7
Oct	3	2	2	3	4	5	6M	5	4	-2	-10	-12m	-11	-6	-4	-2	-4	-3	-1	1	3	4	4	6M
Nov	1	2	1	2	2	6	9M	8	8	4	-2	-5	-7m	-4	-2	-2	-2	0	-1	-5	-7m	-4	-2	0
Dec	-1	-1	-1	-2	1	5	7M	7M	5	3	0	-2	-2	-2	-2	-2	-1	-1	-1	-2	-3m	-1	-2	-1
Year	4	3	3	2	3	3	3	1	-2	-7	-11	-12m	-10	-7	-4	-2	-1	1	4	5M	4	5M	4	4
Winter	-1	-1	0	-1	1	4	7M	7M	6	4	0	-3	-4	-3	-1	-3	-3	-4	-3	-3	-5m	-3	-2	-1
Equinx	5	4	4	3	4	4	4	2	-1	-8	-13	-14m	-11	-7	-4	-1	-1	0	3	4	4	5	5	6M
Summer	8	6	4	3	3	2	-2	-6	-11	-17	-20m	-19	-15	-12	-8	-2	2	7	12	14M	13	11	9	9

Table 10

## Diurnal Variation - ALL Days - Vertical Component

1985

Hr	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Month	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24
Jan	0	-1	-1	-4	-5	-4	-4	-5	-6	-8m	-8m	-7	-8m	-4	3	6	8	11M	11M	10	10	10	6	2
Feb	0	-3	-4	-4	-3	-4	-6	-8	-7	-6	-8	-10m	-9	-6	-2	5	10	15M	13	11	8	8	8	2
Mar	2	-1	-1	-1	0	0	-1	0	0	-4	-10	-18	-21m	-15	-6	3	10	14M	14M	12	12	10	7	5
Apr	-3	-8	-8	-11	-10	-8	-5	-3	-4	-6	-13	-20m	-20m	-13	-1	13	19	23M	23M	20	15	13	9	6
May	5	4	3	2	3	3	2	0	-3	-9	-16	-22	-23m	-17	-7	2	7	12	14M	13	10	9	8	5
June	1	0	-1	-1	-1	1	2	0	-2	-6	-12	-18	-20m	-15	-7	0	8	12	13	14M	14M	11	8	4
July	-2	-2	-4	-5	-4	-1	0	-2	-2	-7	-13	-18	-19m	-14	-5	4	13	16	18M	16	12	9	4	0
Aug	-2	-3	-5	-3	-1	2	3	3	0	-5	-13	-20	-21m	-15	-4	5	12	16M	16M	13	11	9	4	1
Sept	-1	-1	0	1	0	1	1	1	0	-5	-12	-17	-18m	-13	-5	3	11	13M	12	12	9	6	1	0
Oct	-1	-3	-1	-1	-2	-3	-4	-4	-3	-3	-7	-14	-15m	-10	-3	4	11	14M	12	10	9	5	4	1
Nov	-5	-5	-8	-7	-5	-4	-4	-4	-3	-4	-7	-10m	-9	-4	1	7	9	10	10	11	13M	8	4	1
Dec	0	-3	-4	-4	-5	-5	-5	-6	-5	-5	-6	-7m	-6	-2	1	6	7	8M	7	7	6	5	5	1
Year	-1	-2	-3	-3	-3	-2	-2	-2	-3	-6	-10	-15	-16m	-11	-3	5	10	13M	13M	12	11	8	6	2
Winter	-2	-3	-5	-5	-5	-5	-5	-6	-6	-6	-7	-9m	-8	-4	1	6	8	11M	10	9	9	7	5	1
Equinox	-1	-4	-3	-3	-3	-3	-3	-2	-2	-5	-11	-17	-19m	-13	-4	5	12	16M	15	13	11	8	5	2
Summer	1	0	-1	-2	-1	2	2	1	-2	-6	-13	-19	-21m	-15	-6	3	10	14	16M	14	12	10	6	3

Table 11

## Diurnal variation - Quiet Days - Declination (Tenths of Minutes)

1985

Hr	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Month	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24
Jan	-10	-11m	-11m	-9	-5	-7	-8	-8	-8	-5	4	12	17	19M	12	5	8	10	7	5	-2	-8	-4	-8
Feb	-8	-8	-14	-10	-6	-5	-6	-6	-8	-10	-7	2	16	25	26M	20	13	10	4	1	0	0	-11	-20m
Mar	-14	-10	-5	-6	-9	-12	-14	-20	-28	-30m	-21	-1	30	46M	45	38	19	7	4	2	0	-2	-5	-16
Apr	-9	-6	-8	-11	-11	-13	-18	-28	-39m	-38	-19	9	31	47	48M	32	22	13	5	3	-1	-5	-5	-4
May	-6	-5	-3	-6	-15	-29	-37	-40m	-37	-30	-14	6	22	34	36M	32	25	23	15	12	10	10	5	4
June	-4	-4	-9	-12	-17	-27	-41	-47m	-43	-35	-16	7	30	42	44M	38	33	25	18	11	9	4	1	-5
July	-3	-7	-6	-11	-17	-22	-34	-40	-44m	-36	-21	2	26	40	45M	39	28	20	13	6	9	10	7	5
Aug	-5	-11	-11	-14	-18	-29	-37	-41m	-40	-33	-12	11	31	46M	45	36	24	15	9	7	4	5	2	-4
Sept	-6	-8	-8	-12	-13	-20	-29	-35	-36m	-26	-5	23	43	48M	43	27	11	1	-1	2	4	2	-2	-4
Oct	-13	-5	-2	-2	-4	-5	-8	-13	-19	-23m	-14	4	22	30M	28	22	14	8	4	0	-4	-5	-7	-11
Nov	-5	-3	-2	-2	-1	0	-3	-4	-7	-14m	-11	1	14	22M	20	15	8	4	3	2	1	-4	-10	-14m
Dec	-9	-11	-12m	-9	-3	-3	-2	-2	-4	-5	-1	6	12	17M	16	9	6	7	4	1	0	-6	-7	-7
Year	-7	-8	-7	-9	-10	-13	-19	-23	-25m	-23	-11	7	25	35M	34	26	18	12	7	5	3	0	-3	-7
Winter	-8	-9	-10	-8	-4	-4	-5	-6	-7	-9	-4	5	14	20M	18	12	8	7	4	2	-1	-5	-9	-12m
Equinox	-10	-7	-6	-8	-9	-12	-16	-23	-30m	-29	-14	9	32	43M	42	30	17	7	3	2	0	-2	-5	-9
Summer	-5	-8	-8	-11	-16	-27	-37	-42m	-41	-33	-15	7	27	41	43M	36	27	21	14	9	8	7	4	0

Table 12

## Diurnal Variation - Quiet Days - Horizontal Component

1985

Hr	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Month	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24
Jan	-7m	-6	-5	-4	-2	2	4	4	4	4	4	4	4	7M	6	2	-1	-5	-5	-4	-4	-5	-4	-4
Feb	0	2	0	-3	-1	-1	1	3	4M	4M	-1	-4m	-2	1	3	1	0	0	-2	0	0	0	0	-4m
Mar	0	1	-1	-1	-1	-1	2	4	2	-5	-9	-10m	-7	-4	-1	0	0	2	3	6	6	7M	6	5
Apr	8	3	1	1	2	2	2	-1	-4	-11	-17	-18m	-14	-7	-2	0	2	5	7	8	8	8	10	11M
May	6	3	3	1	3	1	-2	-8	-13	-16m	-14	-12	-12	-12	-9	-4	2	6	11	12	13M	13M	11	11
June	4	4	4	4	5	4	1	-3	-7	-14	-20	-22m	-20	-15	-9	-3	1	6	10	13	14M	13	12	13
July	6	5	3	4	2	2	0	-4	-13	-21	-22m	-19	-14	-9	-4	0	2	4	9	10	14	15M	14	14
Aug	8	9	3	2	2	1	-2	-8	-13	-15	-15	-16m	-15	-10	-7	-4	1	3	6	11	12	13M	12	10
Sept	3	3	3	3	3	3	1	-4	-9	-17	-19m	-16	-8	-1	2	3	3	5	7	9	10M	10M	10M	9
Oct	0	-1	-1	1	1	2	3	3	2	-2	-6	-8m	-8m	-6	-2	-1	0	1	3	3	4	3	2	5M
Nov	-3	-4	-3	-3	-1	1	3	5M	4	1	-4	-8m	-8m	-5	-1	1	2	3	4	3	2	0	-2	-1
Dec	-4	-6m	-5	-4	-2	0	2	4	5	3	-1	-2	-1	1	5	6M	6M	5	4	2	0	-3	-3	-5
Year	2	1	0	0	1	1	1	0	-3	-8	-10	-11m	-9	-5	-2	0	2	3	5	6	7M	6	6	5
Winter	-3m	-3m	-3m	-3m	-1	1	3	4	5M	3	0	-2	-1	2	4	3	3	1	1	1	0	-1	-2	-3m
Equinox	2	1	0	0	1	1	2	0	-3	-9	-13m	-13m	-9	-5	-1	0	1	3	5	6	6	7M	6	7M
Summer	6	5	3	3	3	2	-1	-6	-12	-17	-18m	-17	-16	-12	-7	-3	1	5	9	11	13M	13M	12	12

Table 13

Diurnal Variation - Quiet Days - Vertical Component

1985

Hr	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Month	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24
Jan	SM	SM	SM	3	1	-1	-2	-4	-5	-9m	-9m	-9m	-9m	-3	2	4	3	4	4	3	3	4	2	3
Feb	4	4	4	2	0	-1	-1	-1	-2	-2	-4	-8	-10m	-9	-6	1	3	3	5	5	4	4	6	7M
Mar	4	4	3	4	5	5	4	4	3	-2	-9	-18	-23m	-17	-7	3	10M	10M	7	5	4	2	2	5
Apr	3	3	5	5	5	4	5	7	5	-4	-15	-22	-23m	-17	-7	2	6	8M	8M	6	5	4	3	3
May	5	3	2	4	6	8M	7	4	-1	-7	-14	-20	-22m	-17	-9	-1	4	8M	7	7	4	5	5	3
June	4	5	6	5	5	8	8	4	-2	-8	-14	-19	-20m	-16	-7	1	5	9M	9M	7	5	4	3	3
July	2	3	2	3	5	7	6	4	2	-5	-12	-19m	-19m	-14	-7	3	8	10M	9	7	4	2	2	2
Aug	2	0	-1	1	4	8	8	8	5	-3	-12	-19	-22m	-18	-7	2	7	10M	10M	7	6	3	3	3
Sept	1	3	4	5	5	6	8	8	4	-5	-16	-23m	-23m	-15	-5	5	10M	10M	8	4	2	2	1	1
Oct	2	3	4	4	3	2	2	0	-1	-4	-9	-15	-16m	-9	-1	4	7M	7M	4	2	1	0	1	2
Nov	2	1	1	0	-1	-1	-1	-2	-2	0	-3	-6m	-6m	-3	1	3	3	3	2	1	1	4	5M	5M
Dec	4	3	1	0	-2	-4m	-3	-3	-2	-1	-2	-4m	-4m	-3	0	2	1	0	0	2	3	6	7M	6
Year	3	3	3	3	3	4	3	2	0	-4	-10	-15	-16m	-12	-5	2	6	7M	6	5	3	3	3	3
Winter	3	3	2	0	-1	-2	-3	-3	-3	-4	-5	-7	-8m	-5	-1	2	2	2	2	2	2	4	4	5M
Equinox	3	3	4	5	5	5	5	5	3	-3	-12	-19	-21m	-14	-5	4	8	9M	7	5	3	3	2	3
Summer	3	3	2	3	5	8	7	5	1	-5	-13	-19	-21m	-16	-7	1	6	9M	9M	7	5	4	3	3

Table 14

## Diurnal Variation - Disturbed Days - Declination (Tenths of Minutes)

1985

Hr	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Month	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24
Jan	-15	-13	-16	-17	-17	-31	-17	5	18	15	27	30	44	55M	37	33	19	1	-23	-31	-24	-34m	-26	-12
Feb	-44m	-28	-25	-5	-17	0	30	34	25	14	19	29	35	43M	42	32	21	-22	-41	-43	-30	-33	-18	-19
Mar	-11	-4	-7	4	10	4	2	0	3	0	8	16	36	43	45M	30	12	-6	-29	-36	-47m	-42	-25	-9
Apr	-97m	-71	-91	-46	-23	-10	-12	1	26	-5	0	32	55	85	92M	69	61	32	22	9	-3	-32	-46	-48
May	-11	-18	-30	-30	-44m	-31	-34	-34	-25	-7	14	29	46	55M	46	39	35	26	13	6	3	-10	-17	-20
June	-24	-29	-35	-40m	-30	-37	-36	-32	-37	-23	-2	23	47	55	63	72M	51	44	26	1	2	3	-25	-23
July	-8	-15	-24	-14	-18	-45	-49m	-42	-39	-26	0	24	48	68	69M	69M	60	50	21	-14	-11	-26	-29	-33
Aug	-15	-23	-15	-39m	-32	-30	-35	-36	-28	-10	11	28	50	62M	62M	59	52	21	10	-5	-23	-22	-21	-29
Sept	-23	-27	-22	-23	-10	-24	-21	-22	-23	-15	10	29	53	61M	53	43	30	15	-4	2	-31	-19	-18	-34m
Oct	-29	-10	-7	-12	3	2	15	19	-5	-5	-1	19	30	43	47M	46	30	-8	-14	-19	-56m	-35	-24	-34
Nov	-22	-45	-15	5	13	22	23	23	11	7	7	27	39	47	52M	47	19	21	21	-32	27	-52	-54m	27
Dec	-25	-21	-5	-17	3	6	10	24	21	22	22	38M	29	23	33	25	16	-23	-20	-32	-17	-27	-43m	-33
Year	-26	-25	-24	-19	-13	-14	-9	-5	-5	-3	10	27	43	54M	54M	47	34	13	-1	-15	-27	-27	-28	-29m
Winter	-26	-26	-14	-8	-4	-1	12	21	19	14	19	31	37	42M	41	34	19	-5	-15	-34	-42m	-35	-34	-31
Equinox	-39m	-27	-31	-19	-5	-7	-4	0	0	-6	4	24	44	58	60M	47	34	9	-6	-11	-34	-32	-28	-31
Summer	-14	-21	-26	-30	-30	-35	-38m	-35	-32	-16	6	27	48	61M	61M	60	50	36	18	-3	-7	-13	-22	-26



Table 15

## Diurnal Variation - Disturbed Days - Horizontal Component

1985

Hr	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Month	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24
Jan	-1	1	7	7	10	19M	17	10	15	15	3	-4	-4	-13	-2	-11	-15	-21m	-11	-9	-12	1	-4	-2
Feb	7	-2	3	1	9	8	18	20M	16	5	-6	-2	-13	-10	-5	-6	-3	-18m	-16	-8	-6	-3	-4	9
Mar	10	13	4	2	4	10	14M	10	6	-2	-5	-6	-6	-5	-4	-6	-9	-19m	-17	-5	-1	2	1	-2
Apr	3	-8	19	18	6	0	3	-13	-32m	-29	-21	-9	2	-9	-7	4	8	12	20M	17	13	8	3	4
May	10	8	7	7	5	1	4	-5	-13	-20m	-11	-11	-13	-15	-15	-7	0	11	14	16M	9	8	8	2
June	11	6	3	4	1	2	-3	-9	-17	-25m	-21	-23	-22	-15	-1	15	4	8	19	24M	18	12	10	4
July	16	10	9	6	10	11	0	-7	-6	-21	-32m	-24	-20	-22	-11	2	5	7	16	19M	15	12	9	6
Aug	16M	16M	9	9	5	-1	-1	-3	-22	-28m	-24	-16	-15	-9	-5	2	-3	5	8	13	13	6	11	11
Sept	13M	10	7	2	8	11	9	6	0	-14	-25	-26m	-12	-9	-7	-1	-6	-2	0	5	3	11	10	7
Oct	3	3	7	8	6	7	3	4	5	-5	-13	-18	-20m	-8	-5	-5	-11	-8	-1	5	8	11	8	21M
Nov	0	8	10	11	10	12	17M	12	14	15	10	9	-7	0	1	0	-6	1	-3	-16	-33m	-29	-17	-10
Dec	14	12	10	7	14	21	22M	15	-2	-4	-7	-13	-9	-12	-15	-22m	-13	-11	-11	-7	-7	2	2	5
Year	9M	7	8	7	8	9M	9M	4	-3	-9	-12m	-12m	-11	-10	-6	-3	-4	-3	2	5	2	4	4	5
Winter	5	5	8	7	11	15	19M	15	11	8	1	-2	-8	-8	-5	-9	-9	-12	-10	-9	-14m	-7	-5	1
Equinox	7	4	9M	7	6	7	7	1	-5	-13	-16m	-15	-9	-8	-6	-2	-5	-4	0	6	6	8	5	7
Summer	13	10	7	7	5	3	0	-6	-15	-24m	-22	-19	-18	-16	-8	3	1	8	14	18M	14	9	9	6

Table 16

## Diurnal Variation - Disturbed Days - Vertical Component

1985

Hr	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Month	to 1	to 2	to 3	to 4	to 5	to 6	to 7	to 8	to 9	to 10	to 11	to 12	to 13	to 14	to 15	to 16	to 17	to 18	to 19	to 20	to 21	to 22	to 23	to 24
Jan	-4	-2	-5	-13	-21m	-18	-17	-19	-20	-17	-15	-12	-13	-1	13	21	29	36M	29	20	16	8	1	-3
Feb	-4	-12	-15	-17	-9	-13	-21m	-20	-13	-7	-8	-10	-5	0	6	14	17	36M	34	24	12	10	5	1
Mar	-10	-12	-7	-9	-9	-8	-11	-9	-9	-9	-11	-14	-16m	-8	4	14	27	35	36M	21	13	5	-3	-8
Apr	-21	-48m	-39	-47	-40	-36	-29	-25	-26	-11	-9	-14	-12	-3	18	39	49	51M	47	42	33	27	25	19
May	7	5	3	-5	-5	-12	-14	-14	-13	-16	-20	-22m	-22m	-11	2	8	12	16	23M	23M	19	19	14	10
June	-6	-8	-13	-13	-18	-12	-6	-4	-2	-5	-13	-22	-23m	-14	-4	6	22	23	26	29M	22	18	16	6
July	-6	-7	-6	-14	-12	-5	-6	-10	-13	-18	-23	-27m	-23	-15	-2	14	35	38	44M	40	21	13	-1	-9
Aug	-8	-7	-17	-10	-8	-8	-5	-5	-9	-14	-18	-20m	-20m	-10	-1	7	18	31M	30	28	23	15	6	-3
Sept	-3	-4	-3	-4	-7	-4	-5	-4	-5	-8	-15	-17	-18m	-13	-1	7	20	21M	21M	13	21M	5	0	1
Oct	-7	-17m	-8	-5	-9	-8	-9	-8	0	-2	-5	-11	-9	-7	1	10	23	35M	26	19	19	-1	-5	-13
Nov	-22	-16	-26m	-17	-11	-11	-9	-9	-5	-8	-10	-15	-10	-3	5	11	24	17	23	25	45M	14	10	2
Dec	-2	-9	-14	-12	-20m	-20m	-19	-17	-11	-9	-7	-8	0	7	9	21	21	28M	19	18	11	8	8	-2
Year	-8	-12	-13	-14	-14	-13	-13	-12	-11	-11	-13	-16m	-15	-7	4	14	24	30M	29	25	21	11	6	0
Winter	-8	-10	-15	-15	-15	-15	-17m	-16	-12	-10	-10	-11	-7	1	8	17	23	29M	26	22	21	10	6	0
Equinx	-11	-20m	-15	-16	-17	-14	-14	-12	-10	-8	-11	-15	-14	-8	5	17	29	35M	32	23	21	8	4	-1
Summer	-4	-4	-9	-11	-11	-10	-8	-9	-10	-14	-19	-23m	-23m	-13	-2	8	21	26	30M	30M	21	16	9	1

- 64 -

Table 17

## Three Hour Range Indices, K 1985

Date	January			February			March			April			May		June			
	K	K	Sum	K	K	Sum	K	K	Sum	K	K	Sum	K	K	Sum	K	K	Sum
1	3322	2366	27	3232	2422	20	2432	1113	17	1112	4532	19	1222	3311	15	4433	2223	23
2	3332	2225	22	1332	2222	17	2223	3444	24	1222	2353	20	4554	2311	25	1011	3122	11
3	3212	2134	18	2111	3230	13	2431	2223	19	4223	2443	24	1111	2122	11	1001	1222	9
4	3112	1113	13	1011	1011	6	2122	1213	14	2222	2343	20	2222	2321	16	2012	1222	12
5	1211	1212	11	1243	4344	25	3332	3456	29	2222	2211	14	1121	2232	14	1121	1221	11
6	2101	1223	12	4343	4554	32	5233	3343	26	0022	2133	13	3232	2213	18	3312	4435	25
7	1211	1221	11	3233	3313	21	3222	3443	23	1122	2211	12	3111	1123	13	3434	4442	28
8	2111	2454	20	3213	2444	23	4433	3333	26	0113	2235	17	1222	2223	16	4333	2321	21
9	4533	5434	31	3133	3223	20	1111	1103	9	4333	4430	24	3322	1120	14	1221	1345	19
10	4433	3443	28	4322	3452	25	2112	2223	15	0123	3223	16	0011	1223	10	5533	2332	26
11	2233	2343	22	2222	1334	19	1111	3110	9	4311	1311	15	2122	1121	12	2332	2332	20
12	3322	2334	22	1321	2221	14	0121	2143	14	1121	1111	9	1133	3323	19	3331	3222	19
13	2222	3332	19	1011	1243	13	1132	2111	12	1111	1213	11	3221	1224	17	0021	2212	10
14	1122	2310	12	2231	1434	20	1121	2132	13	3321	2222	17	3311	1221	14	1111	1111	8
15	1112	2332	15	3221	1113	14	3244	3112	20	1111	1112	9	4221	3324	21	1211	1121	10
16	2211	2211	12	1112	1232	13	2131	3234	19	1112	3113	13	1121	2333	16	0012	1211	8
17	0012	1322	11	1221	3231	15	3122	2143	18	2011	1113	10	2111	3223	15	1021	2422	14
18	2111	2131	12	0111	1111	7	3211	1133	15	3011	1111	9	2111	3323	16	1112	1210	9
19	1122	1310	11	1111	1133	12	1112	2142	14	2233	3344	24	2321	3322	18	1012	2211	10
20	1111	1331	12	3232	1111	14	1121	2210	10	5442	2245	28	2100	1221	9	0111	3423	15
21	1322	2111	13	0111	3233	14	1111	2112	10	8764	3443	39	2121	1322	14	1212	2211	12
22	1111	2225	15	2111	1212	11	3111	1112	11	2112	2322	15	1111	1121	9	1222	2221	14
23	3544	4434	31	1111	1123	11	2211	1112	11	3121	2231	15	2211	1121	11	3213	3211	16
24	1121	1122	11	3332	3224	22	2111	1114	12	4433	3211	21	1101	1122	9	1122	1213	13
25	2221	1111	11	2322	2313	18	2011	2231	12	3434	2224	24	0011	1323	11	3221	2233	18
26	1111	1213	11	3310	0021	10	3111	3132	15	4433	1434	26	3211	3321	16	3222	3343	22
27	2210	1134	14	2112	1126	16	1111	2242	14	3533	3335	28	1112	2111	10	2222	2333	19
28	5333	4455	32	5544	3342	30	4331	1233	20	5464	3222	28	1112	2111	10	4333	3223	23
29	4312	1245	22				1111	1232	12	2521	2221	17	1112	1111	9	3123	2233	19
30	4222	2323	20				3111	2221	13	1014	6432	21	0011	1111	6	2011	1223	12
31	3113	3224	19				2223	2121	15				2221	1222	14			

Table 17 (contd.)

## Three Hour Range Indices, K 1985

Date	July			August			September			October			November			December		
	K	K	Sum	K	K	Sum	K	K	Sum	K	K	Sum	K	K	Sum	K	K	Sum
1	4121	2322	17	4323	4433	26	1212	1233	15	1011	1111	7	2113	3352	20	2212	3254	21
2	1101	1221	9	2222	1332	17	0112	2111	9	2121	1112	11	0123	3465	24	4222	2242	20
3	1210	1122	10	2211	1322	14	0112	2111	9	1123	2322	16	5313	3433	25	1111	1311	10
4	3232	4454	27	1113	2111	11	0111	1111	7	3233	2123	19	4321	1433	21	1112	2333	16
5	3322	3333	22	1112	2211	11	0001	1111	5	2444	3465	32	0012	2244	15	3212	2221	15
6	3232	3344	24	1011	1211	8	2111	2323	15	4333	3334	26	3412	2312	18	1111	2111	9
7	4332	3223	22	2011	1122	10	3211	1222	14	4323	1544	26	1212	1012	10	1111	1121	9
8	1232	3443	22	2211	1222	13	1111	3233	15	3322	2343	22	2011	2132	12	1010	1110	5
9	3321	2222	17	2001	0122	8	2213	2333	19	1131	1121	11	1112	2442	17	2101	0121	8
10	2111	2333	16	1223	1212	14	1231	1244	18	1112	1132	12	3322	2135	21	2214	4112	17
11	2221	2332	17	3102	1110	9	2211	1141	13	2233	2333	21	2111	1212	11	3211	1113	13
12	4434	4453	31	1011	2355	18	1011	1221	9	4121	1233	17	1111	0012	7	3331	2223	19
13	2113	3333	19	5533	3354	31	0101	1103	7	2312	3433	21	3112	4364	24	1114	4314	19
14	3432	2211	18	2231	2211	14	3233	5323	24	1212	1111	10	4312	2234	21	2221	2324	18
15	1322	1111	12	2221	2222	15	1211	1254	17	1342	2113	17	4112	3133	18	3221	1123	15
16	1111	1222	11	2211	3233	17	4424	4324	27	3332	2212	18	2112	2113	13	3020	1122	11
17	3414	3332	23	1321	1232	15	2112	3133	16	3322	3433	23	1123	2542	20	4111	2211	13
18	3212	2323	18	2112	2234	17	1022	2110	9	3224	4343	25	2211	2334	18	0022	3213	13
19	3112	3211	14	3421	2122	17	2134	3454	26	3313	2110	14	4411	1121	15	3443	3544	30
20	1321	2331	16	2221	2312	15	3333	2334	24	0122	1110	8	1001	1011	5	3212	1111	12
21	1121	1111	9	3131	1223	16	3233	3443	25	1222	3433	20	1111	1011	7	1211	1111	9
22	1011	1231	10	4244	2343	26	3132	3222	18	3332	2244	23	2211	2110	10	1111	1111	8
23	1322	2233	18	4213	3323	21	1122	1110	9	2122	2223	16	1111	1111	8	0022	1122	10
24	1223	2332	18	3111	2112	12	0133	3344	21	2121	1132	13	1011	1002	6	2132	1110	11
25	3332	1233	20	2242	3312	19	3231	2343	21	2221	2222	15	2112	2111	11	1011	1114	10
26	2322	2344	22	3222	2234	20	2234	1134	20	0022	1001	6	1121	1111	9	3211	1111	11
27	3223	3223	20	3113	2321	16	1232	1134	17	1011	1113	9	1333	4421	21	1121	1143	14
28	3222	1332	18	1212	2433	18	1112	2111	10	3122	1000	9	2211	1111	10	3443	4453	30
29	1111	2221	11	3232	3342	22	1101	1111	7	3223	2211	16	0023	3365	22	1111	1011	7
30	2222	3322	18	3211	1332	16	2101	1123	11	0012	1011	6	6543	5332	31	4443	3544	31
31	2134	4444	26	3333	3434	26				0111	1330	10				3122	3443	22

Table 18 Sudden Commencements of Magnetic Storms  
or Periods of Storminess (S.S.C's)

Date	Time	Date	Time	Date	Time	Date	Time	Date	Time
	(GMT)		(GMT)		(GMT)		(GMT)		(GMT)
Jan 8	1411	Mar 10	0924	Jun 24	1411	Oct 31	1059	Dec 27	1902
Jan 23	0806	Apr 30	0923	Jul 4	0402	Nov 29	0809		
Feb 5	0349	May 31	2253	Jul 23	0350	Dec 9	2032		
Mar 4	1828	Jun 6	1109	Aug 12	1148	Dec 12	2118		
Mar 9	2250	Jun 9	1715	Sep 14	0601	Dec 18	0648		

Table 19 Presumed Solar Flare Effects (S.F.E's)

NIL

Table 20 Giant Pulsations (p.g.'s)

NIL

TABLE 21 ANNUAL MEAN VALUES OF THE MAGNETIC ELEMENTS

Year	D	H	I	X	Y	Z	T
1899	-21 35.0	17739	68 33.0	16495	-6525	45149	48508
1900	-21 30.0	17765	68 29.6	16529	-6511	45084	48458
1901	-21 27.7	17801	68 26.3	16567	-6513	45048	48438
1902	-21 24.2	17833	68 23.9	16603	-6508	45037	48439
1903	-21 18.7	17833	68 22.6	16614	-6481	44967	48393
1904	-21 15.2	17840	68 20.9	16627	-6467	44941	48352
1905	-21 10.4	17848	68 19.2	16643	-6447	44895	48313
1906	-21 06.3	17867	68 16.9	16669	-6433	44856	48283
1907	-21 01.4	17870	68 17.0	16680	-6411	44867	48295
1908	-20 55.7	17870	68 16.3	16691	-6383	44840	48270
1909	-20 50.3	17877	68 15.1	16708	-6359	44813	48247
1910	-20 44.6	17892	68 13.0	16732	-6337	44771	48214
1911	-20 38.1	17889	68 12.1	16741	-6304	44729	48174
1912	-20 29.3	17898	68 10.3	16766	-6265	44684	48135
1913	-20 19.6	17892	68 09.2	16778	-6215	44628	48081
1914	-20 12.3	17895	68 07.8	16794	-6181	44583	48040
1915	-20 03.8	17869	68 07.9	16785	-6130	44522	47974
1916	-19 53.1	17869	68 06.6	16804	-6078	44473	47929
1917	-19 43.0	17855	68 06.9	16808	-6024	44449	47901
1918	-19 36.2	17843	68 06.5	16809	-5986	44405	47855
1919	-19 27.2	17840	68 06.1	16822	-5941	44382	47833
1920	-19 17.9	17837	68 05.3	16835	-5895	44345	47798
1921	-19 06.5	17844	68 03.4	16861	-5841	44292	47751
1922	-18 57.0	17844	68 02.9	16877	-5795	44273	47734
1923	-18 46.5	17846	68 01.3	16896	-5744	44219	47684
1924	-18 34.9	17847	68 00.3	16917	-5687	44184	47652
1925	-18 22.4	17841	67 59.6	16932	-5624	44143	47612
1926	-18 10.8	17825	67 59.6	16935	-5561	44104	47570
1927	-17 59.5	17826	67 58.5	16954	-5506	44066	47535
1928	-17 48.0	17813	67 58.5	16960	-5445	44033	47500
1929	-17 37.3	17807	67 58.6	16971	-5391	44022	47487
1930	-17 27.6	17798	67 58.7	16978	-5340	44004	47467
1931	-17 16.8	17798	67 57.4	16995	-5287	43956	47422
1932	-17 05.4	17791	67 57.1	17005	-5228	43928	47394
1933	-16 54.5	17792	57 56.4	17023	-5175	43904	47372
1934	-16 43.7	17791	67 55.8	17038	-5121	43880	47349

1935	-16 32.7	17782	67 55.6	17046	-5064	43850	47319
1936	-16 21.6	17777	67 55.7	17057	-5007	43842	47309
1937	-16 11.7	17777	67 55.9	17072	-4958	43849	47315
1938	-16 02.7	17782	67 56.3	17089	-4915	43876	47342
1939	-15 54.1	17793	67 56.1	17112	-4875	43896	47365
1940	-15 45.6	17798	67 56.1	17129	-4834	43908	47378
1941	-15 36.8	17808	67 55.2	17151	-4793	43900	47374
1942	-15 28.0	17831	67 53.6	17185	-4755	43898	47381
1943	-15 19.8	17837	67 53.6	17202	-4716	43913	47397
1944	-15 11.6	17861	67 52.1	17237	-4681	43917	47410
1945	-15 03.6	17867	67 51.1	17253	-4642	43895	47392
1946	-14 54.2	17857	67 52.3	17256	-4593	43914	47406
1947	-14 45.1	17876	67 52.3	17287	-4552	43961	47456
1948	-14 37.2	17883	67 52.1	17304	-4514	43971	47468
1949	-14 30.1	17911	67 50.9	17340	-4485	43996	47502
1950	-14 23.9	17952	67 49.8	17388	-4464	44056	47573
1951	-14 16.5	17983	67 48.3	17428	-4434	44077	47604
1952	-14 10.3	18020	67 45.7	17472	-4412	44072	47614
1953	-14 03.6	18061	67 44.3	17520	-4388	44121	47675
1954	-13 55.9	18109	67 41.8	17576	-4360	44147	47717
1955	-13 48.5	18137	67 39.9	17613	-4329	44146	47727
1956	-13 41.6	18158	67 39.0	17642	-4298	44165	47752
1957	-13 35.1	18192	67 37.1	17683	-4273	44178	47777
1958	-13 29.0	18226	67 35.4	17724	-4250	44197	47808
1959	-13 22.9	18252	67 34.1	17756	-4224	44215	47831
1960	-13 16.4	18279	67 32.7	17791	-4197	44229	47857
1961	-13 10.3	18318	67 30.5	17836	-4174	44242	47884
1962	-13 04.1	18359	67 27.9	17884	-4151	44245	47903
1963	-12 57.6	18391	67 26.0	17923	-4125	44253	47922
1964	-12 51.6	18428	67 23.7	17966	-4102	44260	47943
1965	-12 46.1	18466	67 21.4	18009	-4081	44268	47965
1966	-12 40.8	18495	67 19.8	18044	-4060	44277	47985
1967	-12 35.7	18526	67 18.3	18080	-4040	44298	48016
1968	-12 30.7	18564	67 16.3	18123	-4022	44316	48047
1969	-12 25.8	18605	67 14.1	18169	-4005	44337	48082
1970	-12 20.6	18651	67 11.8	18220	-3987	44361	48122
1971	-12 14.8	18697	67 09.3	18271	-3966	44379	48157
1972	-12 08.2	18735	67 07.4	18316	-3939	44400	48191

TABLE 21 (Contd.)

ANNUAL MEAN VALUES OF THE MAGNETIC ELEMENTS

Year	D	H	I	X	Y	Z	T	
1973	-12 00.7	18773	67	05.3	18362	-3907	44416	48220
1974	-11 52.0	18609	67	03.5	18407	-3868	44436	48253
1975	-11 43.0	18849	67	10.2	18456	-3828	44447	48278
1976	-11 33.0	18882	66	59.1	18500	-3781	44454	48298
1977	-11 22.7	18914	66	57.1	18543	-3731	44456	48312
1978	-11 11.9	18932	66	56.2	18572	-3677	44465	48328
1979	-11 01.0	18956	66	54.5	18607	-3622	44460	48333
1980	-10 50.4	18980	66	52.7	18641	-3570	44450	48332
1981	-10 40.4	18990	66	52.1	18662	-3517	44455	48341
1982	-10 30.2	19000	66	51.6	18682	-3463	44461	48350
1983	-10 20.1	19022	66	50.0	18713	-3413	44454	48353
1984	-10 10.1	19036	66	49.0	18737	-3361	44450	48355
1985	-10 00.8	19050	66	47.9	18759	-3313	44448	48358