APRIL 2006 NUMBER 740 - Part I

Solar-Geophysical Data prompt reports

Data for February and March 2006
Explanation of Data Reports Issued as Number 515 (Supplement) July 1987

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APRIL 2006 NUMBER 740 - Part I

Solar-Geophysical Data prompt reports

Data for February and March 2006

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Boulder, Colorado

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SOLAR-GEOPHYSICAL DATA

Number 740
(Issued in Two Parts)

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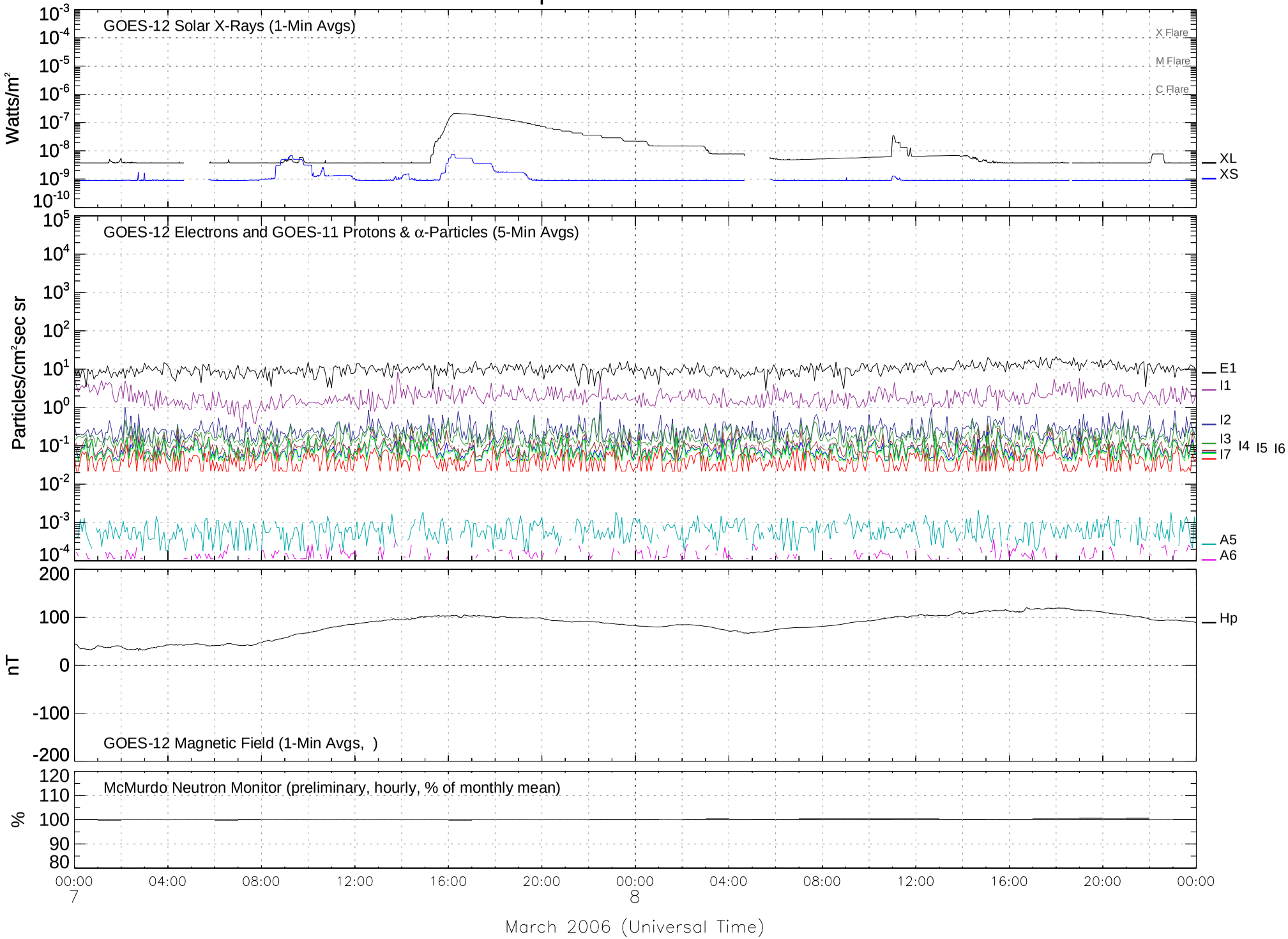
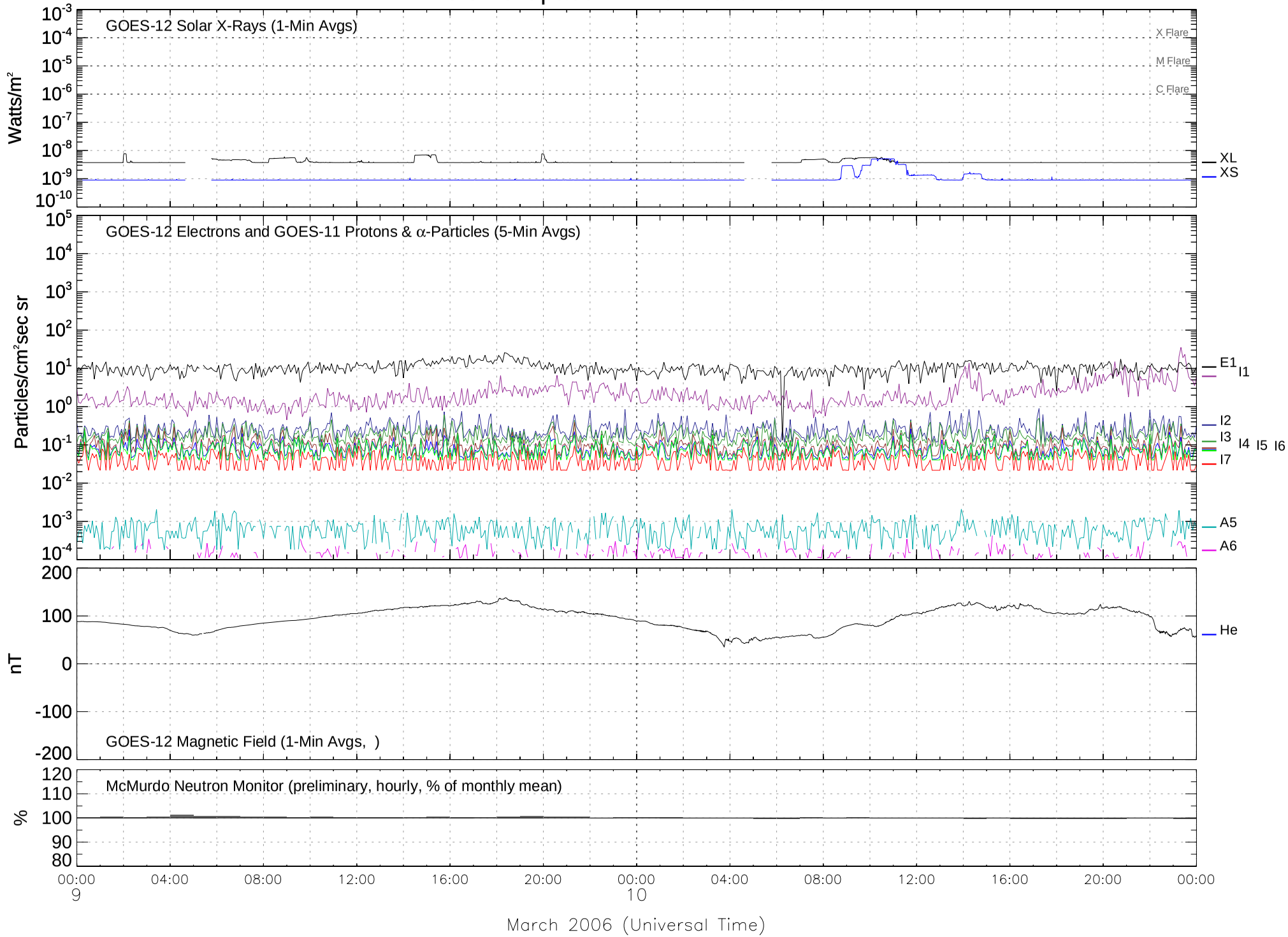
GOES Space Environment Monitor

GOES Space Environment Monitor

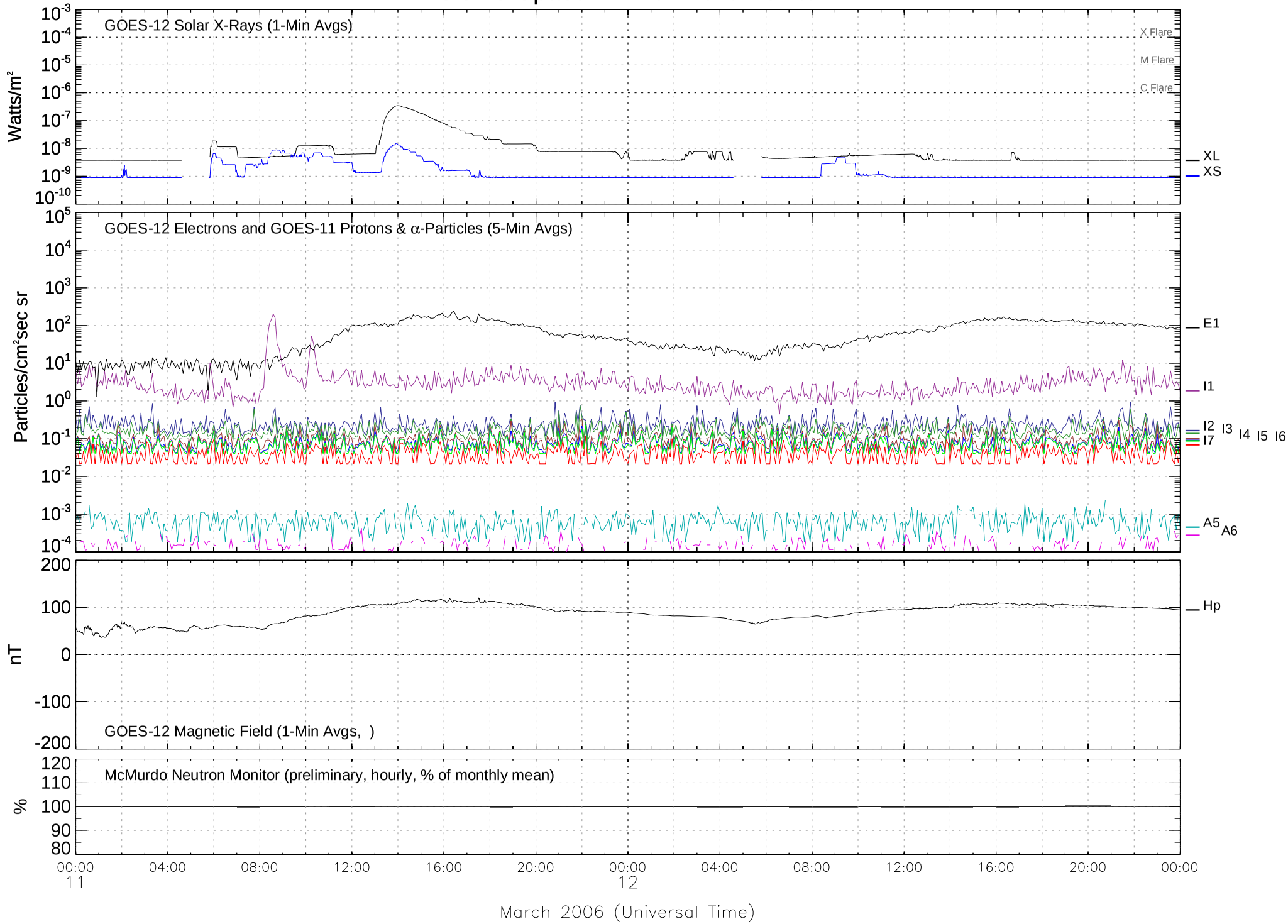
GOES Space Environment Monitor



GOES Space Environment Monitor

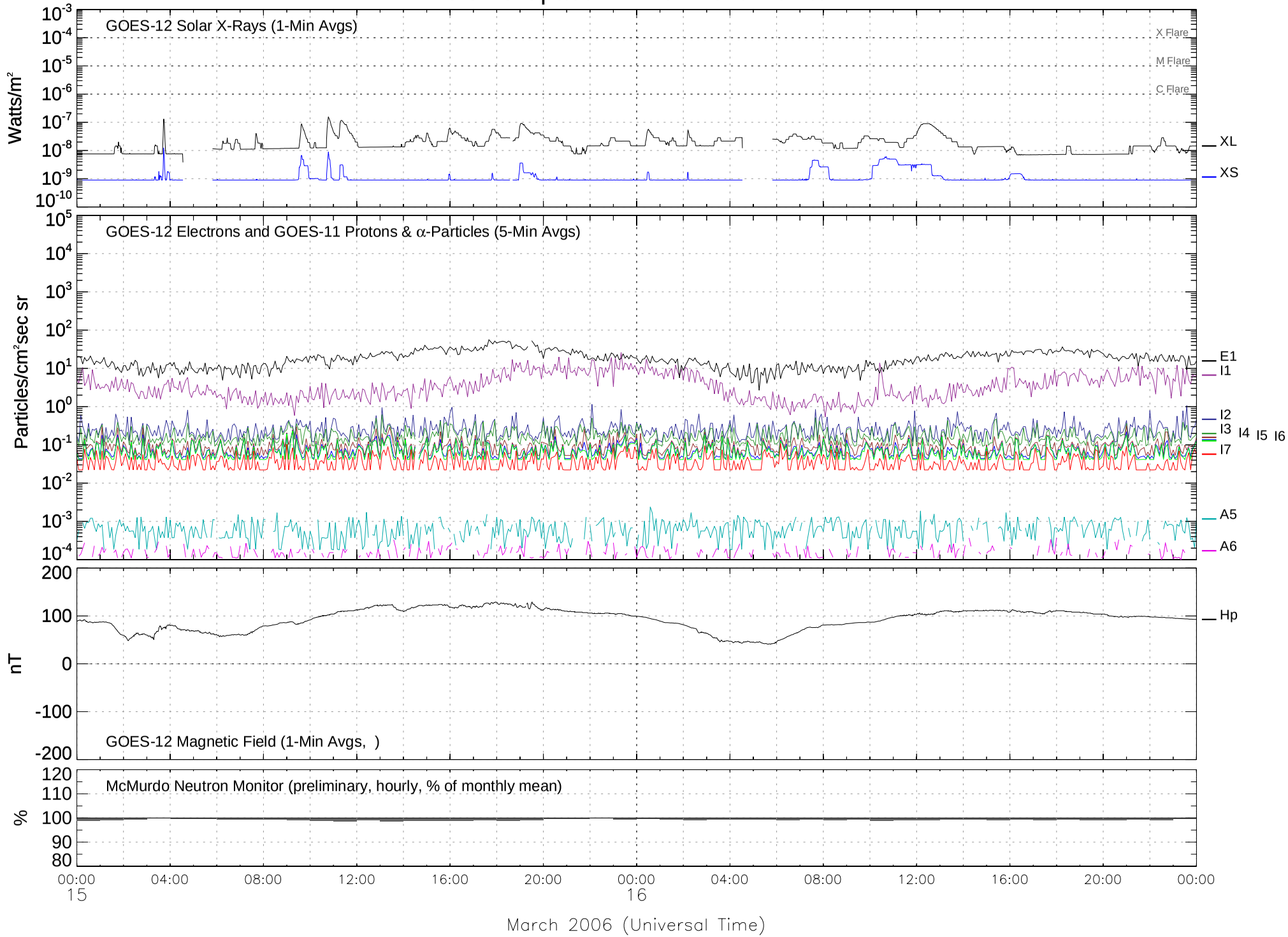


GOES Space Environment Monitor



GOES Space Environment Monitor

GOES Space Environment Monitor



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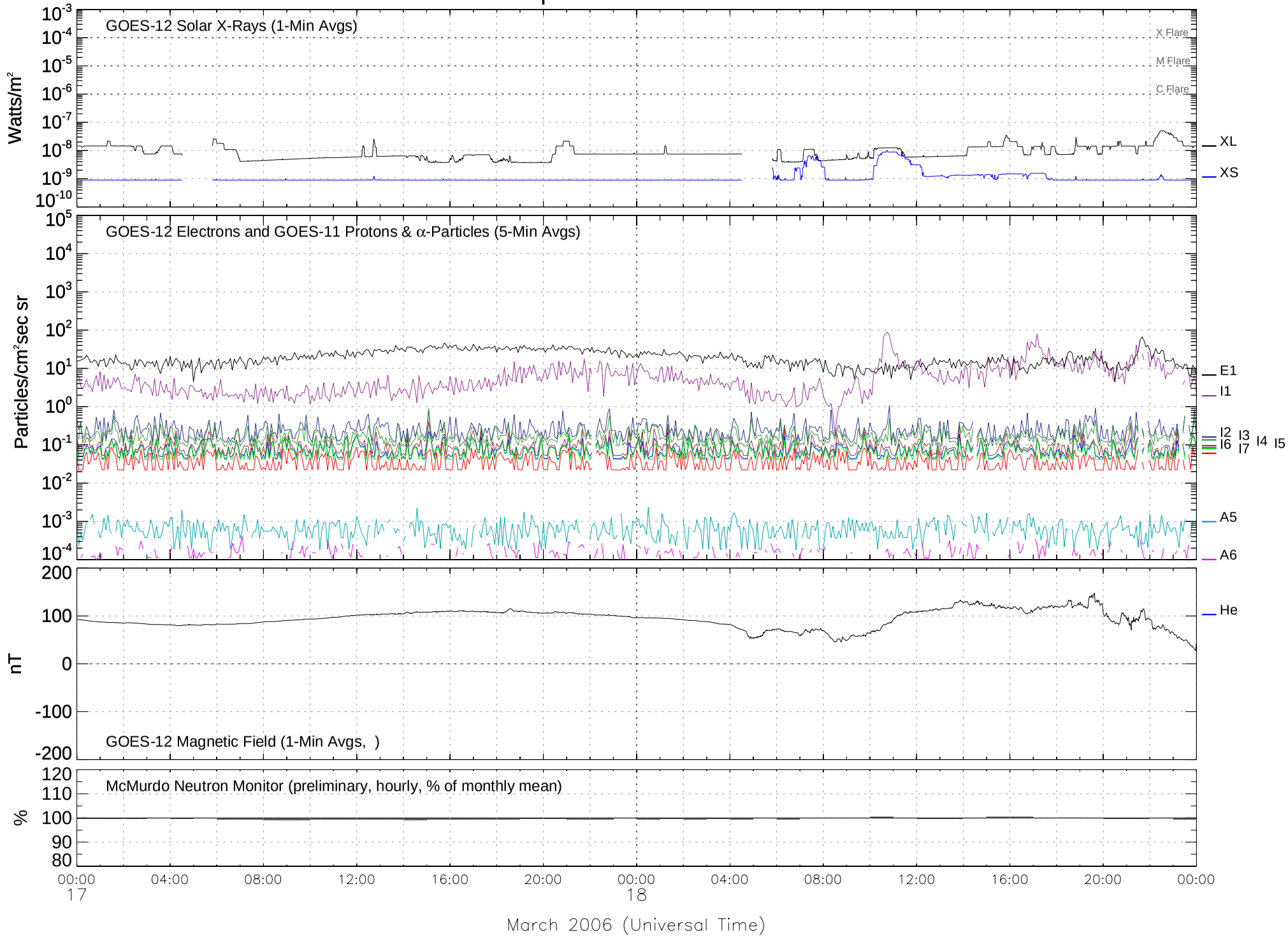
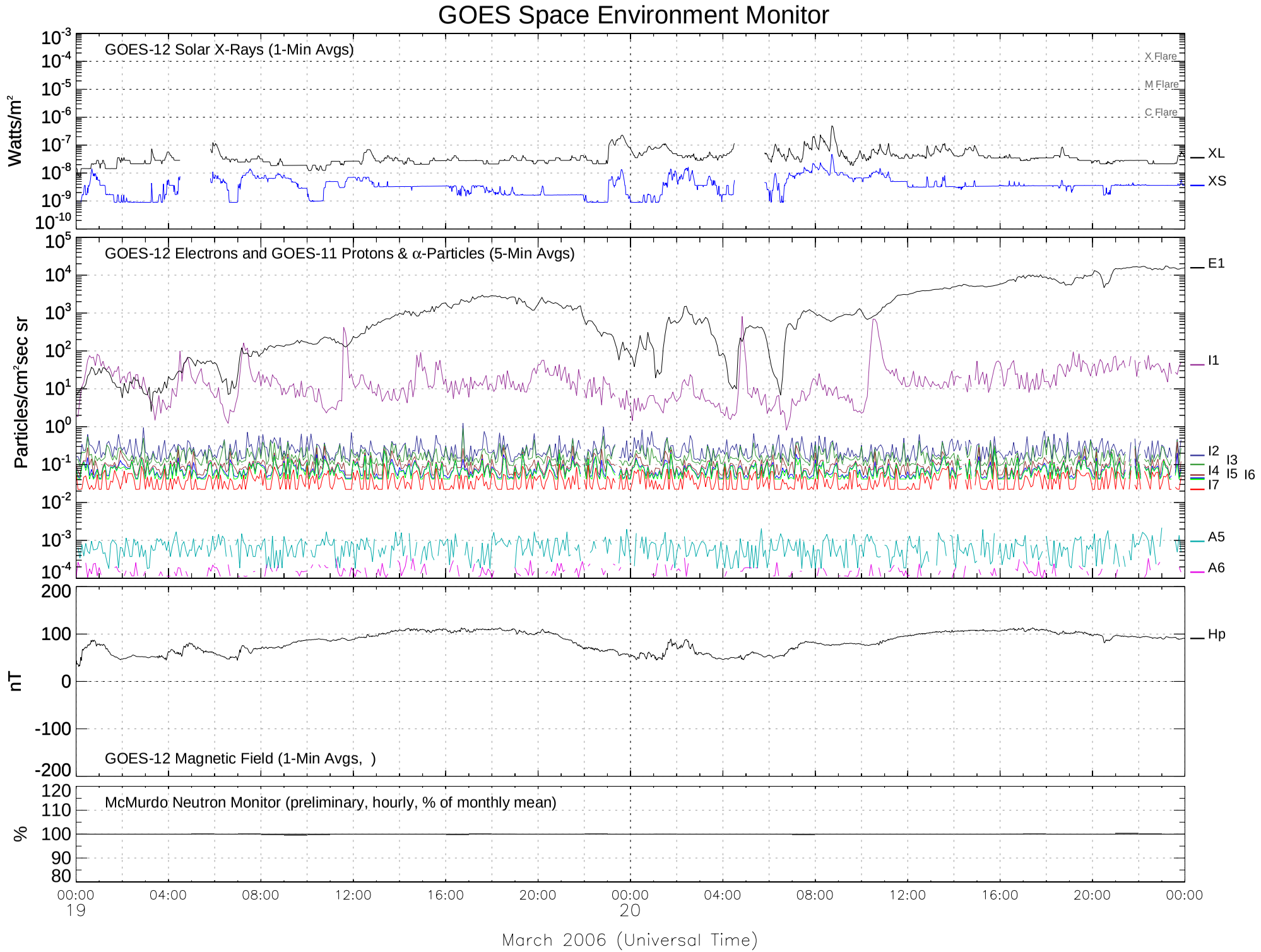
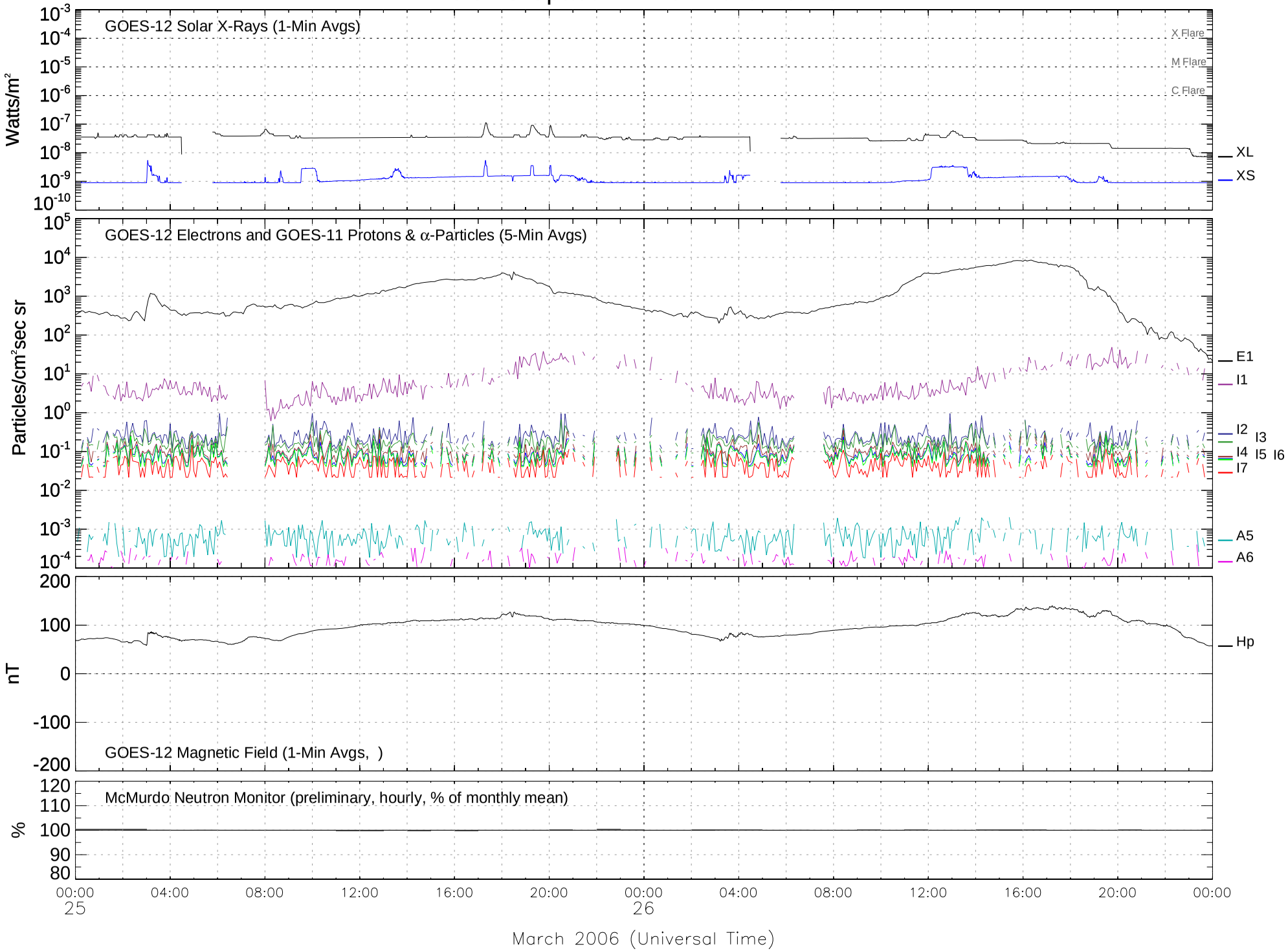



GOES Space Environment Monitor
GOES-12 Solar X-Rays (1-Min Avgs)
Watts/m²
X Flare
M Flare
C Flare
XL
XS
GOES-12 Electrons and GOES-11 Protons & α-Particles (5-Min Avgs)
Particles/cm²sec sr
E1
I1
I2
I3
I4
I5
I6
I7
A5
A6
GOES-12 Magnetic Field (1-Min Avgs,)
nT
Hp
McMurdo Neutron Monitor (preliminary, hourly, % of monthly mean)
%
00:00
19
04:00
08:00
12:00
16:00
20:00
00:00
20
04:00
08:00
12:00
16:00
20:00
00:00
March 2006 (Universal Time)

GOES Space Environment Monitor

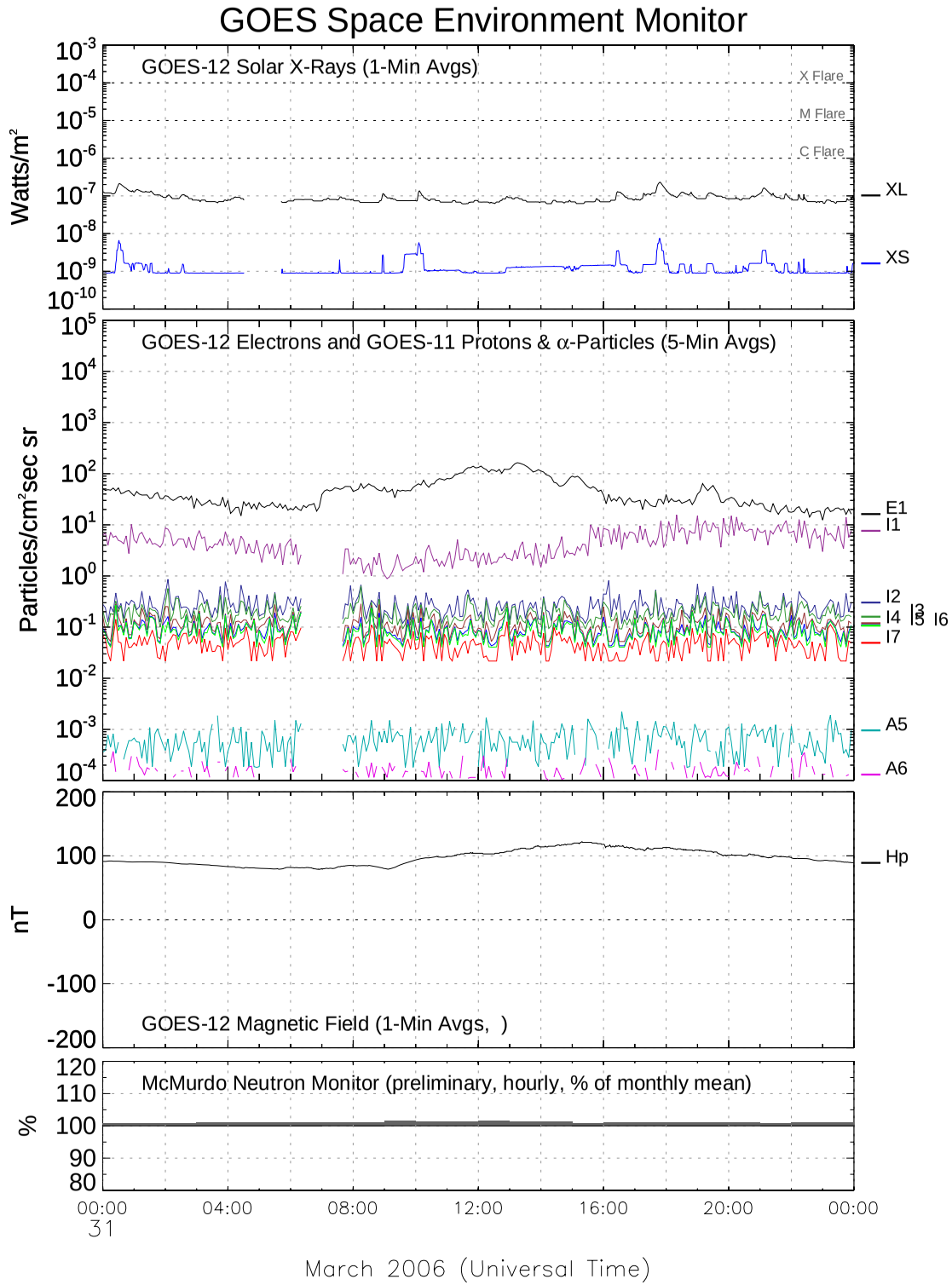
GOES Space Environment Monitor

GOES Space Environment Monitor



GOES Space Environment Monitor

GOES Space Environment Monitor


GOES Space Environment Monitor
GOES-12 Solar X-Rays (1-Min Avgs)
X Flare
M Flare
C Flare
Watts/m²
XL
XS
GOES-12 Electrons and GOES-11 Protons & α-Particles (5-Min Avgs)
Particles/cm²sec sr
E1
I1
I2
I3
I4
I5
I6
I7
A5
A6
Hp
nT
GOES-12 Magnetic Field (1-Min Avgs,)
McMurdo Neutron Monitor (preliminary, hourly, % of monthly mean)
%
00:00
04:00
08:00
12:00
16:00
20:00
00:00
31
March 2006 (Universal Time)

A L E R T P E R I O D S
The International Space Environment Service

MARCH 2006

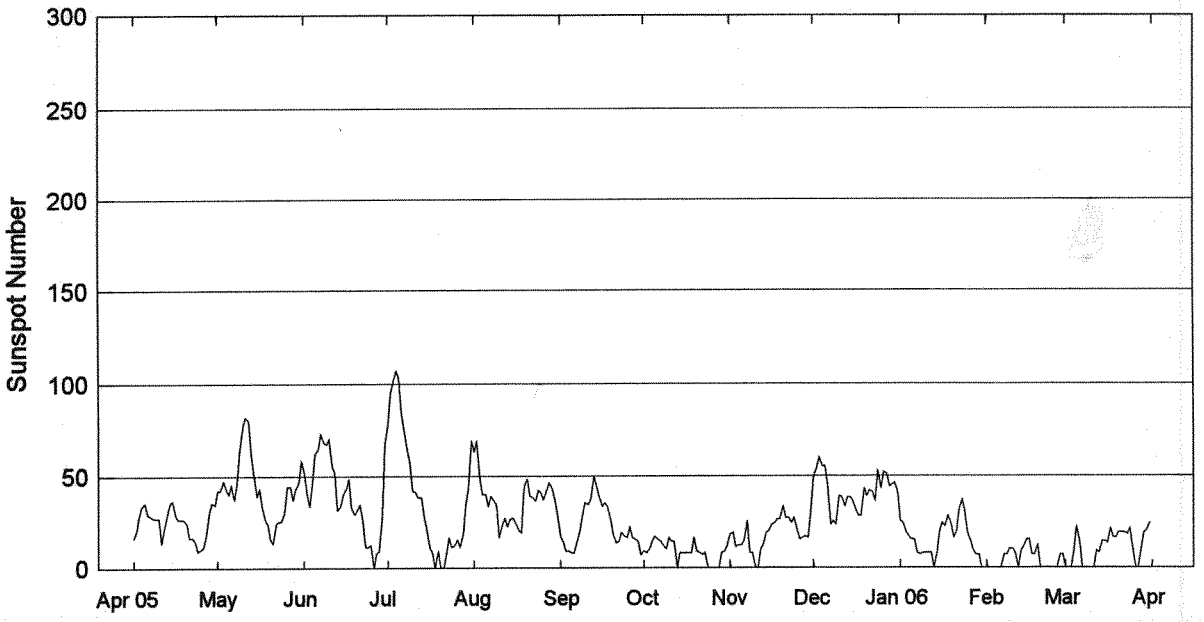
Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location Lat	Location Lon	Flares Opt	Flares M	Flares X	Date of Fcst	Region Fcst(1)	Geoadvice(1)
060	01	28	11	77	5	10856	S09	E54	0	0	0	01	Q	SOL: Quiet
									0	0	0	01		MAG: Quiet
									0	0	0	01		PRO: Quiet
061	02	01	0	77	7				0	0	0	02		SOL: Quiet
									0	0	0	02		MAG: Quiet
									0	0	0	02		PRO: Quiet
062	03	02	0	76	3				0	0	0	03		SOL: Quiet
									0	0	0	03		MAG: Quiet
									0	0	0	03		PRO: Quiet
063	04	03	0	76	2				0	0	0	04		SOL: Quiet
									0	0	0	04		MAG: Quiet
									0	0	0	04		PRO: Quiet
064	05	04	13	75	2	10856	S10	E01	0	0	0	05	Q	SOL: Quiet
									0	0	0	05		MAG: Quiet
									0	0	0	05		PRO: Quiet
065	06	05	28	74	1	10856	S10	W12	0	0	0	06	Q	SOL: Quiet
						10857	N08	E41	0	0	0	06	Q	MAG: Quiet
									0	0	0	06		PRO: Quiet
066	07	06	27	74	8	10856	S10	W25	0	0	0	07	Q	SOL: Quiet
						10857	N08	E26	0	0	0	07	Q	MAG: Quiet
									0	0	0	07		PRO: Quiet
067	08	07	25	74	12	10856	S08	W38	0	0	0	08	Q	SOL: Quiet
						10857	N05	E14	0	0	0	08	Q	MAG: Quiet
									0	0	0	08		PRO: Quiet
068	09	08	24	72	3	10856	S08	W50	0	0	0	09	Q	SOL: Quiet
						10857	N09	E00	0	0	0	09	Q	MAG: Quiet
									0	0	0	09		PRO: Quiet
069	10	09	12	73	2	10857	N08	W13	0	0	0	10	Q	SOL: Quiet
									0	0	0	10		MAG: Quiet
									0	0	0	10		PRO: Quiet
070	11	10	12	72	12	10857	N08	W28	0	0	0	11	Q	SOL: Quiet
									0	0	0	11		MAG: Quiet
									0	0	0	11		PRO: Quiet
071	12	11	0	74	13				0	0	0	12		SOL: Quiet
									0	0	0	12		MAG: Quiet
									0	0	0	12		PRO: Quiet
072	13	12	18	73	3	10858	N18	E15	0	0	0	13	Q	SOL: Quiet
									0	0	0	13		MAG: Quiet
									0	0	0	13		PRO: Quiet
073	14	13	14	73	1	10858	N18	W01	0	0	0	14	Q	SOL: Quiet
									0	0	0	14		MAG: Quiet
									0	0	0	14		PRO: Quiet
074	15	14	34	74	3	10858	N18	W14	0	0	0	15	Q	SOL: Quiet
						10859	S07	W79	0	0	0	15	Q	MAG: Quiet
						10860	S03	E50	0	0	0	15	Q	PRO: Quiet
075	16	15	22	74	8	10860	S04	E36	0	0	0	16	Q	SOL: Quiet
						10861	S12	E46	0	0	0	16	Q	MAG: Quiet
									0	0	0	16		PRO: Quiet
076	17	16	22	72	7	10860	S04	E22	0	0	0	17	Q	SOL: Quiet
						10861	S11	E33	0	0	0	17	Q	MAG: Quiet
									0	0	0	17		PRO: Quiet

A L E R T P E R I O D S
The International Space Environment Service

MARCH 2006

Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location Lat	Location Lon	Flares Opt	Flares M	Flares X	Date of Fcst	Region Fcst(1)	Geoadvice(1)
077	18	17	24	72	2	10860	S04	E10	0	0	0	18	Q	SOL: Quiet
						10861	S11	E20	0	0	0	18	Q	MAG: Quiet
									0	0	0	18		PRO: Quiet
078	19	18	27	72	22	10860	S04	W03	0	0	0	19	Q	SOL: Quiet
						10862	S07	E03	0	0	0	19	Q	MAG: Major
									0	0	0	19		PRO: Quiet
079	20	19	40	75	33	10860	S04	W16	0	0	0	20	Q	SOL: Quiet
						10862	S07	W10	0	0	0	20	Q	MAG: Active
									0	0	0	20		PRO: Quiet
080	21	20	33	77	26	10862	S07	W27	2	0	0	21	Q	SOL: Quiet
									0	0	0	21		MAG: Active
									0	0	0	21		PRO: Quiet
081	22	21	39	77	15	10862	S07	W39	4	0	0	22	E	SOL: Eruptive
									0	0	0	22		MAG: Quiet
									0	0	0	22		PRO: Quiet
082	23	22	49	76	11	10862	S06	W51	0	0	0	23	Q	SOL: Eruptive
						10863	N08	W52	0	0	0	23	Q	MAG: Quiet
									0	0	0	23		PRO: Quiet
083	24	23	36	77	3	10862	S07	W66	1	0	0	24	Q	SOL: Quiet
						10863	N08	W65	0	0	0	24	Q	MAG: Quiet
									0	0	0	24		PRO: Quiet
084	25	24	44	76	3	10862	S06	W77	0	0	0	25	Q	SOL: Quiet
						10863	N07	W79	0	0	0	25	Q	MAG: Quiet
						10864	S05	W61	0	0	0	25	Q	PRO: Quiet
085	26	25	0	76	6				0	0	0	26		SOL: Quiet
									0	0	0	26		MAG: Quiet
									0	0	0	26		PRO: Quiet
086	27	26	0	74	5				0	0	0	27		SOL: Quiet
									0	0	0	27		MAG: Quiet
									0	0	0	27		PRO: Quiet
087	28	27	0	74	8				0	0	0	28		SOL: Quiet
									0	0	0	28		MAG: Quiet
									0	0	0	28		PRO: Quiet
088	29	28	11	79	7	10865	S13	E60	0	0	0	29	Q	SOL: Quiet
									0	0	0	29		MAG: Quiet
									0	0	0	29		PRO: Quiet
089	30	29	31	82	5	10865	S12	E48	0	0	0	30	Q	SOL: Quiet
						10866	S06	E69	0	0	0	30	Q	MAG: Quiet
									0	0	0	30		PRO: Quiet
090	31	30	35	84	2	10865	S13	E32	2	0	0	31	Q	SOL: Quiet
						10866	S08	E56	0	0	0	31	Q	MAG: Quiet
									0	0	0	31		PRO: Quiet

International Relative Sunspot Numbers
Apr 2005 - Mar 2006

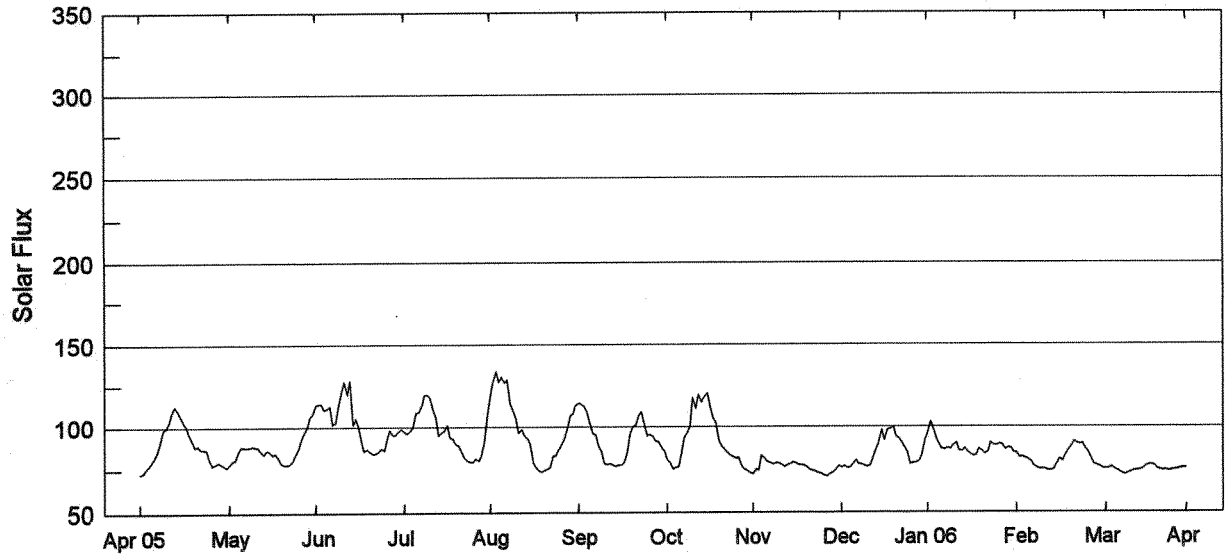


Day	Apr 05	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 06*	Feb*	Mar*
1	16	42	53	78	63	17	9	18	49	25	0	0
2	20	42	40	95	69	14	8	19	54	24	0	0
3	28	47	33	101	48	9	10	11	60	19	0	0
4	33	43	49	107	40	9	14	12	55	17	0	9
5	35	40	62	103	40	8	17	12	55	15	0	22
6	29	45	64	84	33	8	15	14	45	15	0	14
7	28	37	73	75	39	14	14	25	23	8	7	0
8	27	46	68	64	37	20	12	8	25	7	7	0
9	27	63	67	57	34	28	10	8	23	8	10	0
10	27	77	70	42	16	35	16	0	39	8	10	0
11	13	82	55	41	22	34	14	0	38	8	8	0
12	21	80	52	38	27	37	14	10	33	8	0	9
13	29	62	31	41	22	50	0	12	38	0	9	8
14	35	51	33	30	26	44	8	19	38	8	11	14
15	36	39	40	21	27	39	8	20	36	20	15	14
16	28	43	43	11	24	33	8	23	31	24	15	13
17	26	33	48	8	20	35	8	24	28	22	7	21
18	26	26	32	0	19	33	8	26	28	28	7	16
19	26	23	29	9	44	26	16	26	43	24	12	16
20	24	15	31	0	48	14	9	33	39	16	0	19
21	16	13	34	0	39	13	8	27	42	19	0	19
22	16	24	27	8	38	14	7	27	41	31	0	19
23	14	25	11	16	36	19	8	24	36	37	0	18
24	9	25	11	11	42	17	0	27	53	30	0	21
25	10	30	12	12	41	16	0	20	43	19	0	11
26	11	44	0	15	37	22	0	15	52	14	0	0
27	17	44	8	11	42	16	0	16	51	9	7	0
28	30	37	9	18	46	15	0	17	44	7	7	9
29	35	43	28	34	43	14	8	16	45	7		19
30	34	46	67	43	37	7	9	30	46	0		20
31		58		69	29		12		41	0		24
Mean	24.2	42.7	39.3	40.1	36.4	21.9	8.7	18.0	41.1	15.4	4.7	10.8

* = Provisional.

Penticton 2800 MHz (10.7cm) Solar Flux
Apr 2005 - Mar 2006

Adjusted to 1 AU



Day	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 06	Feb	Mar
1	78.2	113.4	96.9	118.5	114.6	80.6	72.3	76.1	95.5	84.5	75.3	75.6
2	80.2	114.0	96.0	128.0	113.5	78.5	75.0	76.8	103.3	81.7	75.1	74.7
3	81.1	114.2	98.0	134.1	112.2	75.4	74.4	75.5	98.4	82.1	76.4	74.2
4	84.9	110.6	99.8	127.8	109.2	75.8	82.7	76.1	92.5	81.2	74.9	73.8
5	88.5	111.0	108.6	131.0	101.7	76.2	81.3	77.9	89.0	80.6	74.2	73.0
6	88.2	112.4	109.2	127.2	96.1	84.7	79.4	80.3	86.5	79.3	72.9	72.5
7	88.0	101.8	112.4	129.1	94.9	93.6#	78.7	78.0	86.3	76.6	72.0	73.3
8	87.9	103.2	119.3	114.2	88.9	95.5	78.0	77.9	86.9	75.6	72.0	71.3
9	88.8	112.2	119.7	110.2	84.7	100.6#	78.7	76.6	86.4	75.0	72.8	71.8
10	88.6	121.6	117.9	105.2	78.3	117.6	78.8	76.4	88.7	75.2	73.2	71.2
11	87.9	127.9	111.4	96.4	77.9	111.1	77.3	77.0	90.2	74.7	74.1	73.1
12	85.3	119.9	106.3	98.5	78.3	119.5	76.5	81.4	85.6	74.0	74.1	72.3
13	84.0	128.6	94.7	94.8	77.4	115.0#	77.6	86.0	85.2	74.0	74.4	71.7
14	86.0	101.7	96.8	92.9	76.7	117.9	78.0	90.4	86.8	74.9	75.4	72.8
15	85.5	105.2	97.5	90.1	77.7	120.6	79.1	97.8	84.2	78.3	76.6	73.4
16	83.6	101.4	101.3	78.8	77.7	112.9#	78.7	91.8	83.1	81.1	77.3	71.7
17	84.2	92.0	93.7	76.5	78.9	104.9	77.5	98.2	82.5	79.8	77.3	71.3
18	82.0	85.8	92.9	74.4	84.7	103.2	77.7	98.8	82.8	82.9	76.7	71.7
19	78.9	86.7	89.8	73.5	95.3	91.9	77.2	99.6	86.6	85.8	74.8	74.6
20	77.8	85.6	88.9	74.4	100.4	88.5	76.0	94.1	84.9	87.9	74.5	76.2
21	77.9	83.9	85.5	75.2	100.8	86.7	74.6	92.4	83.7	90.9	74.2	76.1
22	78.1	84.2	82.1	75.9	107.2*	84.3	74.0	90.3	84.8	89.9	74.4	75.4
23	80.2	85.5	80.1	82.7	109.3*	83.3	73.4	87.5	90.1	89.6	73.6	76.1
24	83.2	87.4	79.2	82.8	100.7	81.9	72.5	84.4	88.9	89.8	74.4	75.4
25	87.1	86.0	79.3	86.5	94.4	81.4	72.1	77.9	88.8	86.3	74.5	75.2
26	92.1	92.8	81.3	89.2	95.2	81.7	71.2	78.7	89.5	84.2	75.0	73.3
27	96.6	98.1	80.0	93.4	94.0	77.2	70.7	78.6	89.2	81.0	75.5	74.0
28	99.4	95.1	82.6	98.7	91.6	74.9	72.1	79.7	86.1	77.6	75.7	79.0
29	106.5	95.3	91.9	106.9	90.9	74	73.1	82.4	87.4	77.2		81.5
30	108.0	97.5	105.9	108.2	87.6	72.4	74.5	92.0	86.9	76.5		83.7
31		99.0		113.1	85.6		76.7		84.5	75.3		86.1
Mean	86.6	101.7	96.6	99.6	92.8	92.1	76.1	84.4	87.9	80.8	74.7	74.7

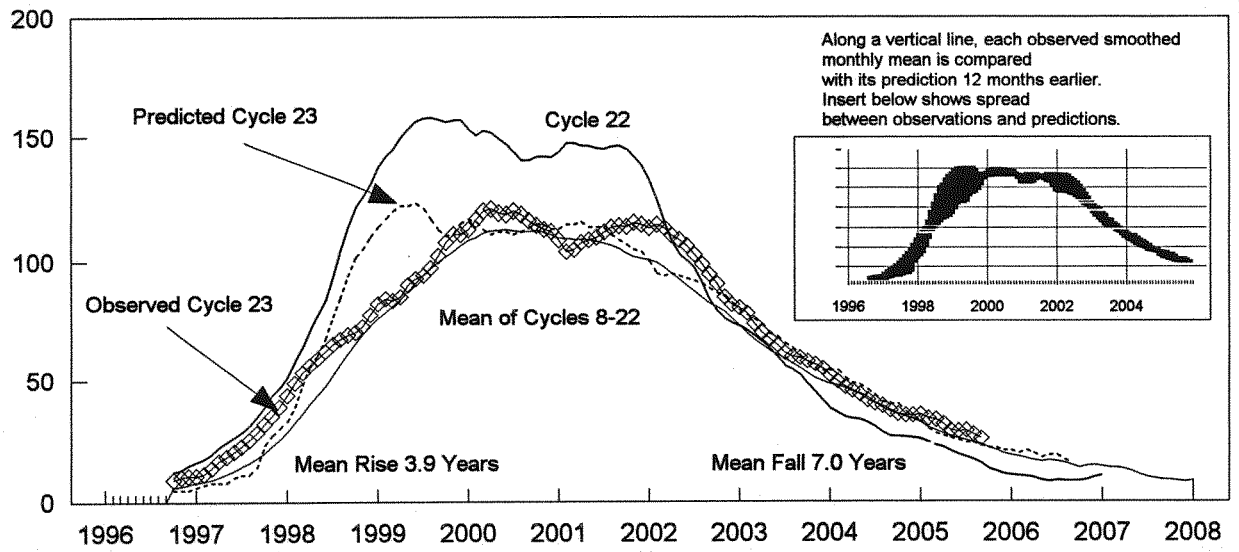
NOTE: # - 1700 or 1800UT reading, burst in progress at 2000UT. *-2300UT reading, burst in progress.
+ - 1700UT Reading, no data available at 2000UT.

DAILY SOLAR INDICES
March 2006

Day	Day of Year	Bartels Cycle Day	Sunspot Numbers Int	Sunspot Numbers Amer	Obs Flux Penticton (2800)	SGMR (15400)	SGMR (8800)	SGMR (4995)	Penticton (2800)	SGMR (2695)	SGMR (1415)	SGMR (610)	SGMR (410)	SGMR (245)
						-----Solar Flux Adjusted to 1 Astronomical Unit-------								
1	60	17	0	1	77.0	542	219	131	75.6	83	45	31	24	13
2	61	18	0	1	76.1	534	220	134	74.7	77	44	33	24	9
3	62	19	0	1	75.5	540	224	128	74.2	79	45	33	25	10
4	63	20	9	3	75.0	539	221	129	73.8	79	44	32	24	9
5	64	21	22	9	74.2	535	211	127	73.0	73	44	33	25	11
6	65	22	14	4	73.6	540	221	127	72.5	73	42	31	23	9
7	66	23	0	1	74.4	539	225	129	73.3	80	44	31	24	11
8	67	24	0	2	72.4	538	221	128	71.3	71	41	30	22	8
9	68	25	0	0	72.9	522	222	129	71.8	72	41	30	22	10
10	69	26	0	0	72.2	522	213	127	71.2	73	41	30	22	8
11	70	27	0	0	74.0	528	217	131	73.1	76	43	29	22	7
12	71	1	9	11	73.2	535	218	130	72.3	74	42	30	22	9
13	72	2	8	11	72.6	---	---	---	71.7	---	---	---	---	---
14	73	3	14	9	73.6	---	219	128	72.8	76	43	---	21	8
15	74	4	14	13	74.2	543	214	127	73.4	71	42	31	24	12
16	75	5	13	12	72.4	541	217	128	71.7	77	42	33	24	15
17	76	6	21	14	72.0	541	220	127	71.3	77	42	31	24	11
18	77	7	16	15	72.4	542	223	128	71.7	76	42	33	24	14
19	78	8	16	17	75.2	546	213	129	74.6	79	42	31	24	12
20	79	9	19	20	76.9	534	202	123	76.2	81	43	31	24	12
21	80	10	19	22	76.7	532	209	128	76.1	79	44	33	24	14
22	81	11	19	20	75.9	542	225	129	75.4	78	44	31	24	12
23	82	12	18	14	76.6	546	214	130	76.1	77	43	32	24	9
24	83	13	21	13	75.8	540	218	129	75.4	84	42	32	24	8
25	84	14	11	3	75.6	543	222	118	75.2	80	44	26	22	8
26	85	15	0	0	73.6	542	220	121	73.3	77	43	27	22	9
27	86	16	0	1	74.3	542	218	131	74.0	78	43	---	---	---
28	87	17	9	14	79.3	542	220	135	79.0	83	44	30	25	12
29	88	18	19	23	81.7	552	219	137	81.5	80	47	35	26	11
30	89	19	20	24	83.9	552	212	137	83.7	87	47	32	25	9
31	90	20	24	28	86.3	544	223	139	86.1	89	49	31	26	15
MEAN			10.8	9.9	75.5	539	218	129	74.7	77	43	31	23	10

NOTE: Radio flux values are from Sagamore Hill, Massachusetts, USA.

Cycle 23 Smoothed Sunspot Numbers: Observed and Predicted



Smoothed Sunspot Numbers (Observed and Predicted) for Parts of Solar Cycles 22 and 23

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1996	10	10	10	9	8*	9	8	8	8	9**	10	10	8
1997	11	11	14	17	18	20	23	25	28	32	35	39	23
1998	44	49	53	57	59	63	65	68	69	71	73	78	62
1999	83	85	84	85	90	93	94	98	102	108	111	111	95
2000	113	117	120	120.8+	119	119	120	119	116	115	113	112	107
2001	109	104	105	108	109	110	112	114	114	114	115	115	111
2002	114	115	113	111	109	106	103	99	95	91	85	82	102
2003	81	79	74	70	68	65	62	60	60	58	57	57	66
2004	53	49	47	46	46	42	40	39	38	36	35	35	42
2005	35	34	34	32	29	29	29	27	26	25	24	23	29
										(2)	(2)	(3)	(1)
2006	22	21	20	19	19	118	18	17	16	15	14	13	(26)
	(4)	(6)	(6)	(6)	(7)	(7)	(8)	(9)	(9)	(9)	(9)	(9)	(7)
2007	13	12	12	12	12	12	13	13	14	15	16	17	13
	(9)	(9)	(9)	(9)	(10)	(11)	(12)	(14)	(15)	(17)	(19)	(21)	(13)

Solar Cycle 22 | Solar Cycle 23 | Min, Max, and Predictions

* May 1996 marks Cycle 22's mathematical minimum. ** October 1996 marks the consensus minimum NGDC is now using.

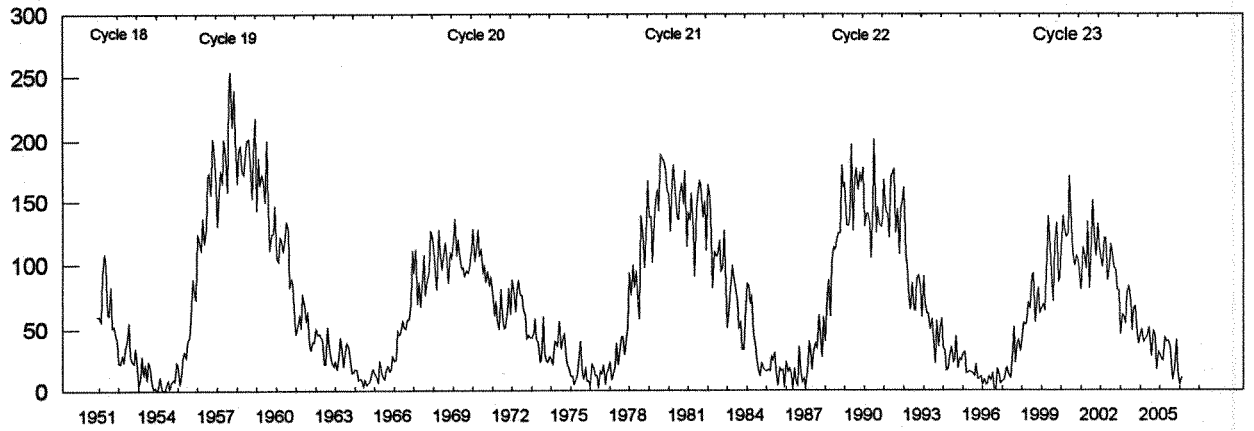
+ April 2000 marks Cycle 23 maximum.

Observed and Predicted Numbers. For the end of Cycle 22, and the rise and decline of Cycle 23, the table above lists observed smoothed sunspot numbers up to the one that includes the most recent monthly mean. We based these smoothed values on final monthly means through Dec 2005 and on provisional numbers thereafter. Table entries with numbers in parentheses below them denote predictions by the McNish-Lincoln method. (See page 9 in the Jul 1987 supplement to *Solar-Geophysical Data.*) Adding the number in parentheses to the predicted value generates the upper limit of the 90% confidence interval. Subtracting the number from the predicted value generates the lower limit. Consider, for example, the September 2006 prediction. There exists a 90% chance that in September, the actual smoothed number will fall somewhere between 7 and 25.

Points to Ponder. The McNish-Lincoln prediction method generates useful estimates of smoothed, monthly mean sunspot numbers for no more than 12 months ahead. Beyond 12 months, the predictions regress toward the mean of all 15 cycles of observations used in the computation. Moreover, the method remains very sensitive to the date defining the onset of the current cycle, that is, to the date of the most recent sunspot minimum. The new cycle predictions tabulated above are based on the consensus minimum value of 8.8 that occurred in October 1996.

Note: Please visit http://www.sec.noaa.gov for solar minimum and Cycle 23 discussions.

Mean Monthly Sunspot Numbers
Jan 1951 - Mar 2006



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean	
1951	59.9	59.9	55.9	92.9	108.5	100.6	61.5	61.0	83.1	51.6	52.4	45.8	69.4	
1952	40.7	22.7	22.0	29.1	23.4	36.4	39.3	54.9	28.2	23.8	22.1	34.3	31.5	
1953	26.5	3.9	10.0	27.8	12.5	21.8	8.6	23.5	19.3	8.2	1.6	2.5	13.9	
1954	0.2	0.5	10.9	1.8	0.8	0.2	4.8	8.4	1.5	7.0	9.2	7.6	4.4	m
1955	23.1	20.8	4.9	11.3	28.9	31.7	26.7	40.7	42.7	58.5	89.2	76.9	38.0	
1956	73.6	124.0	118.4	110.7	136.6	116.6	129.1	169.6	173.2	155.3	201.3	192.1	141.7	
1957	165.0	130.2	157.4	175.2	164.6	200.7	187.2	158.0	235.8	253.8	210.9	239.4	190.2	M
1958	202.5	164.9	190.7	196.0	175.3	171.5	191.4	200.2	201.2	181.5	152.3	187.6	184.8	
1959	217.4	143.1	185.7	163.3	172.0	168.7	149.6	199.6	145.2	111.4	124.0	125.0	159.0	
1960	146.3	106.0	102.2	122.0	119.6	110.2	121.7	134.1	127.2	82.8	89.6	85.6	122.3	
1961	57.9	46.1	53.0	61.4	51.0	77.4	70.2	55.8	63.6	37.7	32.6	39.9	53.9	
1962	38.7	50.3	45.6	46.4	43.7	42.0	21.8	21.8	51.3	39.5	26.9	23.2	37.6	
1963	19.8	24.4	17.1	29.3	43.0	35.9	19.6	33.2	38.8	35.3	23.4	14.9	27.9	
1964	15.3	17.7	16.5	8.6	9.5	9.1	3.1	9.3	4.7	6.1	7.4	15.1	10.2	m
1965	17.5	14.2	11.7	6.8	24.1	15.9	11.9	8.9	16.8	20.1	15.8	17.0	15.1	
1966	28.2	24.4	25.3	48.7	45.3	47.7	56.7	51.2	50.2	57.2	57.2	70.4	47.0	
1967	110.9	93.6	111.8	69.5	86.5	67.3	91.5	107.2	76.8	88.2	94.3	126.4	93.8	
1968	121.8	111.9	92.2	81.2	127.2	110.3	96.1	109.3	117.2	107.7	86.0	109.8	105.9	M
1969	104.4	120.5	135.8	106.8	120.0	106.0	96.8	98.0	91.3	95.7	93.5	97.9	105.5	
1970	111.5	127.8	102.9	109.5	127.5	106.8	112.5	93.0	99.5	86.6	95.2	83.5	104.5	
1971	91.3	79.0	60.7	71.8	57.5	49.8	81.0	61.4	50.2	51.7	63.2	82.2	66.6	
1972	61.5	88.4	80.1	63.2	80.5	88.0	76.5	76.8	64.0	61.3	41.6	45.3	68.9	
1973	43.4	42.9	46.0	57.7	42.4	39.5	23.1	25.6	59.3	30.7	23.9	23.3	38.0	
1974	27.6	26.0	21.3	40.3	39.5	36.0	55.8	33.6	40.2	47.1	25.0	20.5	34.5	
1975	18.9	11.5	11.5	5.1	9.0	11.4	28.2	39.7	13.9	9.1	19.4	7.8	15.5	
1976	8.1	4.3	21.9	18.8	12.4	12.2	1.9	16.4	13.5	20.6	5.2	15.3	12.6	m
1977	16.4	23.1	8.7	12.9	18.6	38.5	21.4	30.1	44.0	43.8	29.1	43.2	27.5	
1978	51.9	93.6	76.5	99.7	82.7	95.1	70.4	58.1	138.2	125.1	97.9	122.7	92.5	
1979	166.6	137.5	138.0	101.5	134.4	149.5	159.4	142.2	188.4	186.2	183.3	176.3	155.4	M
1980	159.6	155.0	126.2	164.1	179.9	157.3	136.3	135.4	155.0	164.7	147.9	174.4	154.6	
1981	114.0	141.3	135.5	156.4	127.5	90.9	143.8	158.7	167.3	162.4	137.5	150.1	140.4	
1982	111.2	163.6	153.8	122.0	82.2	110.4	106.1	107.6	118.8	94.7	98.1	127.0	115.9	
1983	84.3	51.0	66.5	80.7	99.2	91.1	82.2	71.8	50.3	55.8	33.3	33.4	66.6	
1984	57.0	85.4	83.5	69.7	76.4	46.1	37.4	25.5	15.7	12.0	22.8	18.7	45.9	
1985	16.5	15.9	17.2	16.2	27.5	24.2	30.7	11.1	3.9	18.6	16.2	17.3	17.9	
1986	2.5	23.2	15.1	18.5	13.7	1.1	18.1	7.4	3.8	35.4	15.2	6.8	13.4	m
1987	10.4	2.4	14.7	39.6	33.0	17.4	33.0	38.7	33.9	60.6	39.9	27.1	29.4	
1988	59.0	40.0	76.2	88.0	60.1	101.8	113.8	111.6	120.1	125.1	125.1	179.2	100.2	
1989	161.3	165.1	131.4	130.6	138.5	196.2	126.9	168.9	176.7	159.4	173.0	165.5	157.6	M
1990	177.3	130.5	140.3	140.3	132.2	105.4	149.4	200.3	125.2	145.5	131.4	129.7	142.6	
1991	136.9	167.5	141.9	140.0	121.3	169.7	173.7	176.3	125.3	144.1	108.2	144.4	145.7	
1992	150.0	161.1	106.7	99.8	73.8	65.2	85.7	64.5	63.9	88.7	91.8	82.6	94.3	
1993	59.3	91.0	69.8	62.2	61.3	49.8	57.9	42.2	22.4	56.4	35.6	48.9	54.6	
1994	57.8	35.5	31.7	16.1	17.8	28.0	35.1	22.5	25.7	44.0	18.0	26.2	29.9	
1995	24.2	29.9	31.1	14.0	14.5	15.6	14.5	14.3	11.8	21.1	9.0	10.0	17.5	
1996	11.5	4.4	9.2	4.8	5.5	11.8	8.2	14.4	1.6	0.9	17.9	13.3	8.6	m
1997	5.7	7.6	8.7	15.5	18.5	12.7	10.4	24.4	51.3	22.8	39.0	41.2	21.5	
1998	31.9	40.3	54.8	53.4	56.3	70.7	66.6	92.2	92.9	55.5	74.0	81.9	64.3	
1999	62.0	66.3	68.8	63.7	106.4	137.7	113.5	93.7	71.5	116.7	133.2	84.6	93.2	
2000	90.1	112.9	138.5	125.5	121.6	124.9	170.1	130.5	109.7	99.4	106.8	104.4	119.6	M
2001	95.6	80.6	113.5	107.7	96.6	134.0	81.8	106.4	150.7	125.5	106.5	132.2	111.0	
2002	114.1	107.4	98.4	120.7	120.8	88.3	99.9	116.4	109.3	97.5	95.5	80.8	104.0	
2003	79.7	46.0	61.1	60.0	54.6	77.4	83.3	72.7	48.7	65.5	67.3	46.5	63.9	
2004	37.7	45.8	49.1	39.3	41.5	43.2	51.0	40.9	27.7	48.0	43.5	17.9	40.4	
2005	31.3	29.1	24.8	24.2	42.7	39.3	40.1	36.4	21.9	8.7	18.0	41.1	29.8	
2006	15.4	4.7	10.8										10.3	

Values are preliminary after Dec, 2005. For the yearly means, each 'M' marks a sunspot cycle maximum and each 'm' a minimum.

Hα SOLAR FLARES

MARCH 2006

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Obs See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
LEAR	20	0437	0437	0440	S08	W13	10862	03	19.2	3	SF		3	E		17		ZU
LEAR		0843	0844	0850	S07	W18	10862	03	19.0	7	SF		3	E		16		ZU
LEAR	21	0937	0942	1001D	S08	W32	10862	03	19.0	24D	SF		3	E		44		F
HOLL		1631	1633	1642	S06	W36	10862	03	19.0	11	SF		3	E		32		F
HOLL		1838	1841	1856	S06	W37	10862	03	19.0	18	SF		3	E		35		FH
LEAR		2324	2325	2333	S07	W39	10862	03	19.0	9	SF		3	E		47		ZU
HOLL		2324	2326	2335	S06	W39	10862	03	19.0	11	SF		3	E		43		F
LEAR	23	0926	0926	0931	S06	W59	10862	03	19.0	5	SF		3	E		17		
HOLL	30	1514	1515	1522	S14	E39	10865	04	2.6	8	SF		3	E		26		F
HOLL		1525	1528	1533	S13	E40	10865	04	2.7	8	SF		3	E		10		F
HOLL		1825	1825	1829	S12	E34	10865	04	2.3	4	SF		3	E		16		E

"Remarks"

A = Eruptive prominence whose base is less than 90 degrees from central meridian.
B = Probably the end of a more important flare.
C = Invisible 10 minutes before.
D = Brilliant point.
E = Two or more brilliant points.
F = Several eruptive centers.
G = No visible spots in the neighborhood.
H = Flare accompanied by high-speed dark filament.
I = Active region very extended.
J = Distinct variations of plage intensity before or after the flare.
K = Several intensity maxima.
L = Existing filaments show signs of sudden activity.
M = White-light flare.
N = Continuous spectrum shows effects of polarization.
O = Observations have been made in the H and K lines of Ca II.
P = Flare shows Helium D3 in emission.
Q = Flare shows Balmer continuum in emission.
R = Marked asymmetry in H-alpha line suggests ejection of high-velocity material.
S = Brightness follows disappearance of filament in same position.
T = Region active all day.
U = Two bright branches, parallel or converging.
V = Occurrence of an explosive phase; important, expansion within roughly 1 minute that often includes a significant intensity increase.
W = Great increase in area after time of maximum intensity.
X = Unusually wide H-alpha line.
Y = System of loop-type prominences.
Z = Major sunspot umbra covered by flare.

Observation Type: C=Cinematographic, E=Electronic, P=Photographic, V=Visual

NOTE: Beginning with the February 2005 data, only H-alpha flares are included in this table. Because the number of H-alpha patrols are dwindling and emphasis is now on the X-ray flare reports, a separate table of solar X-ray flares is now produced.

X - R A Y S O L A R F L A R E S

MARCH 2006

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Xray	Total Integrated Flux(1)	Total Area(2)	Total(3) Intensity
GOES	07	1515	1614	1902						227	B 2.1	1.9E-03T		
GOES	11	1322	1400	1451	S10	W90	10856			89	B 3.4	1.4E-03	6.0E+02	1.1E+03
GOES	14	0700	0705	0710	S09	E67				10	B 3.6	1.3E-04	6.3E+02	1.9E+03
GOES		1359	1405	1413	S09	E63				14	B 1.7	1.1E-04	4.5E+02	9.5E+02
GOES		1553	1557	1607	S08	E61	10860			14	B 1.5	7.6E-05	2.3E+02	4.8E+02
GOES	15	0340	0344	0346	S04	W90	10859			6	B 1.2	2.6E-05	2.5E+02	4.6E+02
GOES		1043	1047	1053	S06	W90	10859			10	B 1.5	6.9E-05	3.5E+02	6.9E+02
GOES		1115	1121	1135	S06	W90	10859			20	B 1.1	1.1E-04	1.3E+02	2.1E+02
GOES	19	2302	2338	2348	S06	W12	10862			46	B 2.2	4.2E-04	6.8E+02	1.3E+03
GOES	20	0426	0437	0454			10862			28	B 7.1	6.1E-04		
GOES		0613	0616	0620			10862			7	B 1.0	3.9E-05		
GOES		0728	0732	0743	S06	W17	10862			15	B 1.3	9.1E-05	2.5E+02	5.6E+02
GOES		0751	0757	0801	S06	W17	10862			10	B 2.0	1.0E-04	8.8E+02	1.9E+03
GOES		0809	0813	0821	S06	W17	10862			12	B 2.3	1.2E-04	7.5E+02	2.0E+03
GOES		0837	0843	0849	S06	W17	10862			12	B 4.9	2.3E-04	1.1E+03	3.7E+03
GOES		1045	1048	1050	S05	W19	10862			5	B 1.1	2.7E-05	1.5E+02	3.1E+02
GOES		1107	1110	1112	S06	W18	10862			5	B 1.1	2.8E-05	2.5E+02	4.8E+02
GOES		1328	1336	1338	S06	W20	10862			10	B 1.1	5.8E-05	3.3E+02	6.2E+02
GOES	21	0915	0944	0956	S07	W32	10862			41	C 2.5	2.3E-03	3.3E+03	1.7E+04
GOES		1153	1158	1201	S06	W33	10862			8	B 2.2	6.9E-05	4.5E+02	1.1E+03
GOES		1201	1204	1207	S06	W33				6	C 1.3	2.7E-04	1.5E+03	6.8E+03
GOES		1628	1633	1640	S07	W35	10862			12	C 2.4	1.1E-03	2.4E+03	1.0E+04
GOES		1717	1726	1734	S07	W36	10862			17	B 1.1	1.0E-04	5.0E+01	8.2E+01
GOES		1753	1759	1818	S06	W37	10862			25	B 5.3	5.0E-04	1.1E+03	2.9E+03
GOES		1835	1842	1847	S06	W37	10862			12	C 1.2	6.2E-04	2.2E+03	8.0E+03
GOES		1913	1920	1925	S06	W37	10862			12	C 1.1	4.1E-04	2.0E+03	7.0E+03
GOES		1943	1946	1948	S07	W37	10862			5	B 1.4	3.6E-05	4.5E+02	9.9E+02
GOES		2054	2112	2119	S06	W38	10862			25	B 2.7	2.6E-04	6.3E+02	1.1E+03
GOES		2120	2124	2128	S06	W39	10862			8	B 3.7	1.4E-04	1.1E+03	2.6E+03
GOES		2205	2212	2215	S06	W39	10862			10	B 2.1	8.8E-05	8.5E+02	1.7E+03
GOES		2227	2230	2233	S06	W39	10862			6	B 1.7	5.5E-05	7.0E+02	1.4E+03
GOES		2258	2302	2306	S06	W39	10862			8	B 1.8	6.9E-05	3.5E+02	6.2E+02
GOES		2320	2326	2335	S06	W39	10862			15	C 2.1	1.2E-03	2.9E+03	1.1E+04
GOES	22	0038	0045	0050	S06	W41	10862			12	B 2.6	1.6E-04	8.5E+02	1.8E+03
GOES		0059	0107	0112	S06	W41	10862			13	B 4.6	2.5E-04	1.3E+03	3.5E+03
GOES		0201	0210	0219	S06	W41	10862			18	B 3.6	3.3E-04	1.3E+03	3.4E+03
GOES		0235	0239	0242	S06	W42	10862			7	B 2.6	9.1E-05	1.0E+03	2.3E+03
GOES		0535	0541	0544						9	B 1.2	6.0E-05		
GOES		0658	0720	0729						31	B 1.8	2.9E-04		
GOES		0829	0835	0840						11	B 2.3	1.0E-04		
GOES		0909	0916	0923						14	B 1.8	1.2E-04		
GOES		1059	1104	1112						13	B 2.8	1.6E-04		
GOES		1243	1250	1258						15	B 2.3	1.6E-04		
GOES		1538	1548	1553						15	B 2.3	1.5E-04		
GOES	23	0919	0926	0929			10862			10	B 2.2	8.5E-05		
GOES		1046	1057	1105						19	B 2.6	2.3E-04		
GOES		1203	1210	1214						11	B 1.4	7.7E-05		
GOES		1225	1232	1240						15	B 1.9	1.5E-04		
GOES		1300	1304	1307						7	B 1.3	4.6E-05		
GOES		1410	1423	1433						23	B 3.6	3.6E-04		
GOES		2107	2115	2123	S05	W67	10860			16	B 5.1	3.8E-04	2.0E+03	5.8E+03
GOES	24	1252	1259	1304						12	B 1.0	6.9E-05		
GOES	25	1715	1719	1723	S05	W90	10860			8	B 1.1	4.7E-05	3.5E+02	6.7E+02
GOES	27	1817	1823	1838						21	B 1.5	1.6E-04		
GOES	28	0649	0653	0658						9	B 1.0	5.3E-05		
GOES		0807	0811	0816						9	B 1.1	5.6E-05		

X - R A Y S O L A R F L A R E S

MARCH 2006

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Xray	Total Integrated Flux(1)	Total Area(2)	Total(3) Intensity
GOES	28	1342	1349	1357	S07	E88				15	B 3.3	2.2E-04	1.3E+03	2.7E+03
GOES		1554	1600	1605	S08	E86	10865			11	B 7.4	2.9E-04	1.6E+03	4.6E+03
GOES		1759	1805	1810	S07	E86	10865			11	B 2.3	1.1E-04	9.8E+02	1.9E+03
GOES	29	0602	0606	0611						9	B 1.3	6.0E-05		
GOES		0752	0755	0757	S12	E57	10865			5	B 1.0	2.7E-05	5.0E+01	9.3E+01
GOES		1226	1231	1239	S06	E79				13	B 1.3	8.8E-05	1.0E+02	1.7E+02
GOES		1321	1324	1328						7	B 1.0	3.8E-05		
GOES		2151	2235	2245	S10	E48	10865			54	B 2.5	5.2E-04	3.0E+02	5.4E+02
GOES	30	0654	0658	0700						6	B 1.0	3.5E-05		
GOES		1311	1346	1406						55	B 2.3	6.6E-04		
GOES		1502	1517	1529	S11	E38	10865			27	B 9.0	8.7E-04	2.3E+03	5.9E+03
GOES		1701	1709	1715	S06	E64	10866			14	B 7.1	4.0E-04	1.7E+03	4.2E+03
GOES		1821	1825	1830	S10	E33	10865			9	B 3.3	1.2E-04	3.5E+02	8.0E+02
GOES		2201	2232	2258						57	B 2.9	7.2E-04		
GOES	31	0853	0858	0904						11	B 1.1	6.6E-05		
GOES		1002	1007	1012						10	B 1.3	6.9E-05		
GOES		1622	1627	1640						18	B 1.3	1.2E-04		
GOES		1714	1748	1758	S12	E23	10865			44	B 2.3	3.8E-04	5.0E+01	8.2E+01
GOES		2146	2149	2153						7	B 1.0	4.0E-05		
GOES		2211	2214	2217						6	B 1.0	3.4E-05		

Note 1: Total integrated flux computed from the event start time to end if available (units=J/m*2).

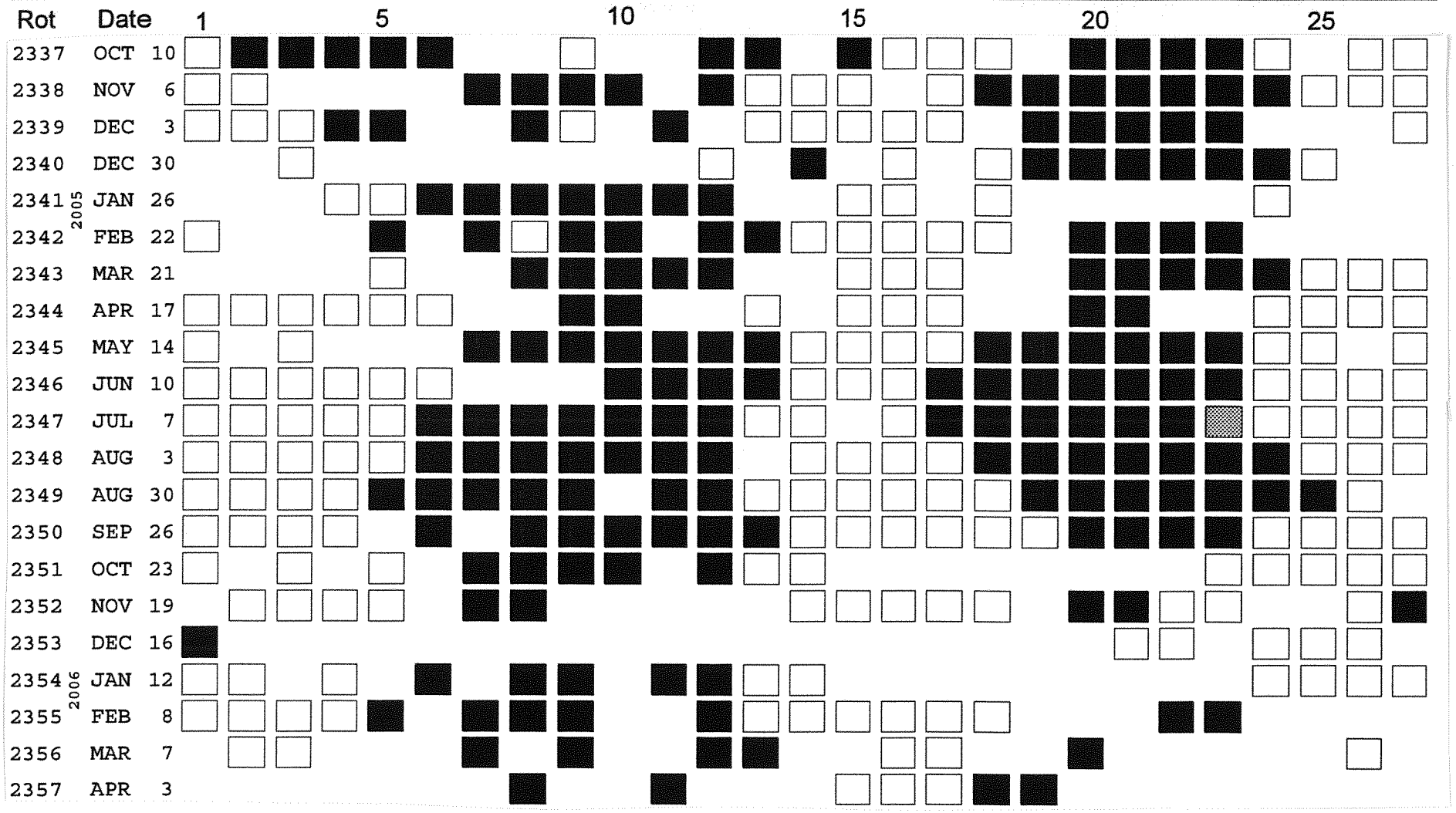
Note 2: Total area is derived from SXI imagery in units of squared arc seconds of the largest flaring area.

Note 3: Total intensity is derived from SXI imagery in units of data numbers/second of the largest flaring area.

TABLE FORMAT CHANGE: Data are from the GOES full disk xray monitor supplemented with Solar Xray Imager (SXI) data since January, 2004. Positions, areas, and intensities are taken from SXI imagery using the largest flare event on the disk. Only the largest event is selected during multiple flares on the disk.

No solar radio bursts at 2800 MHz were reported for March 2006.

STANFORD MEAN SOLAR MAGNETIC FIELD



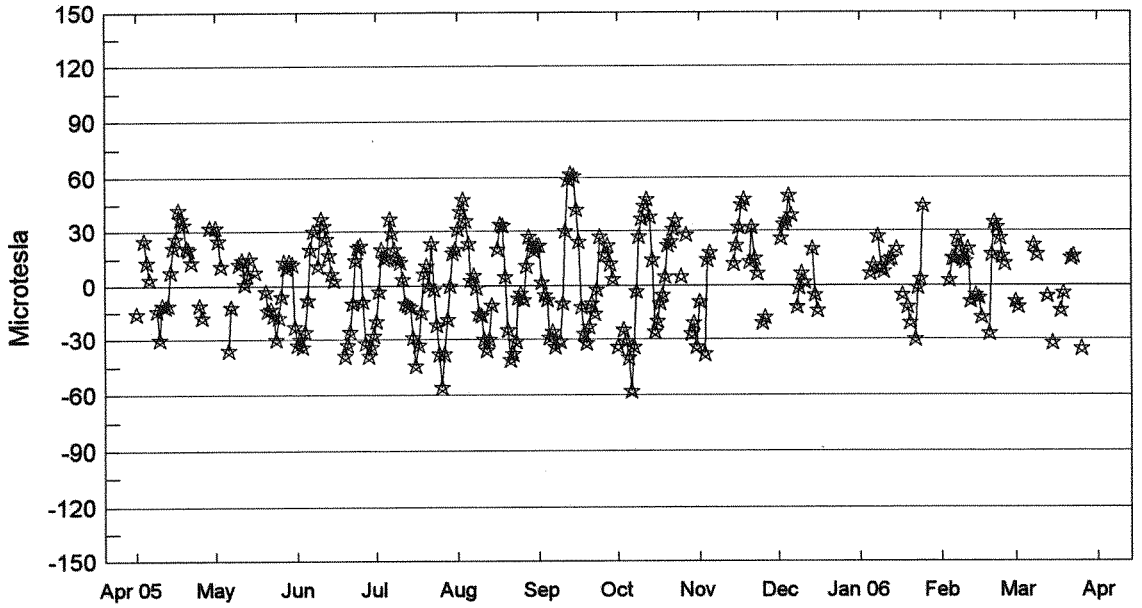
Mean Solar Magnetic Field Polarity: □ = field > 2 microT; ▒ = -2 microT ≤ field ≤ 2 microT

■ = field < -2 microT; No box = no data available

Observations are taken at 2000 UT. Rotation numbers given are the Bartels series, but the dates are not; these dates are five days earlier, to mark times of occurrence of phenomena on the Sun that affect the Earth during the given Bartels Rotation.

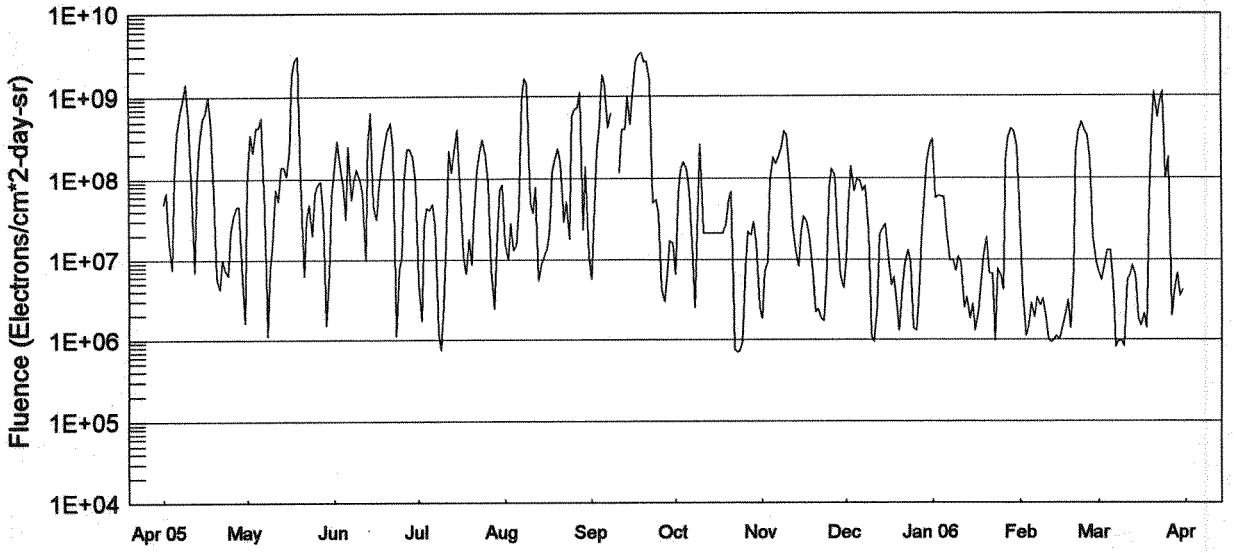
Stanford Mean Solar Magnetic Field (Microtesla)
"Sun-As-A-Star"

31
Mar 06



Day	Apr 05	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 06	Feb	Mar
1	-16	32	-33	-20	31	22	-34	-9	---	---	---	-9
2	---	25	-30	-3	41	2	---	---	26	---	---	-12
3	---	11	-34	20	48	-5	-25	-38	34	---	---	---
4	25	---	-26	15	36	-8	-31	14	36	---	3	---
5	13	---	-8	16	23	-29	-40	18	50	7	15	---
6	4	-36	20	37	3	-26	-58	---	39	11	15	---
7	---	-12	30	29	6	-34	-34	---	---	---	26	---
8	---	---	---	20	-1	---	-3	---	-12	27	20	22
9	-14	---	11	15	-16	-31	27	---	-1	10	14	17
10	-30	12	37	13	-17	-10	37	---	7	8	13	---
11	-11	14	33	4	-30	30	44	---	2	---	20	---
12	-12	1	26	-10	-36	59	48	---	---	14	-9	---
13	-11	6	17	-11	-30	62	38	---	---	15	---	-6
14	8	15	7	-12	-11	61	14	12	20	---	-5	---
15	21	---	3	-29	---	42	-26	22	-5	20	-7	-32
16	26	8	---	-44	20	24	-20	32	-14	---	-18	---
17	42	---	---	-33	34	-12	-10	45	---	-5	---	---
18	37	---	---	-15	33	-27	-5	48	---	---	---	-14
19	34	---	-39	7	5	-32	5	---	---	-12	-27	-4
20	21	-3	-33	11	-25	-23	22	13	---	-21	17	---
21	20	-14	-26	---	-41	-10	24	32	---	---	35	---
22	13	-13	-10	23	-38	-16	31	15	---	-30	32	15
23	---	-17	14	-2	-31	-2	36	7	---	-1	26	16
24	---	-30	21	-22	-7	27	---	---	---	4	16	---
25	-11	-18	22	-38	-4	---	5	-21	---	44	12	---
26	-18	-6	-9	-56	-8	17	---	-18	---	---	---	-35
27	---	13	-32	-38	11	22	28	---	---	---	---	---
28	---	10	-39	-19	27	12	---	---	---	---	---	---
29	32	13	-34	0	23	4	-27	---	---	---		---
30	---	12	-28	18	19	---	-21	---	---	---		---
31		-23		20	22		-34		---	---		---

GOES Daily Electron Fluence
Apr 2005 - Mar 2006



Day	Apr 05	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 06	Feb	Mar
1	4.9E+07	8.8E+07	1.2E+08	5.2E+06	1.6E+07	5.7E+06	6.5E+06	1.8E+06	1.0E+07	3.0E+08	3.1E+07	6.9E+06
2	6.7E+07	3.5E+08	2.9E+08	1.7E+06	1.0E+07	4.3E+07	6.7E+07	7.1E+06	4.9E+07	5.6E+07	3.6E+06	5.6E+06
3	1.7E+07	2.1E+08	1.6E+08	2.6E+07	2.8E+07	2.1E+08	1.3E+08	9.4E+06	1.4E+08	6.1E+07	1.1E+06	9.1E+06
4	7.6E+06	4.2E+08	8.4E+07	4.3E+07	1.3E+07	4.3E+08	1.6E+08	9.3E+07	6.9E+07	5.9E+07	1.5E+06	1.3E+07
5	9.8E+07	4.3E+08	3.2E+07	4.1E+07	1.5E+07	1.8E+09	1.3E+08	1.8E+08	9.6E+07	5.8E+07	2.9E+06	1.3E+07
6	3.6E+08	5.5E+08	2.5E+08	4.8E+07	4.6E+07	1.3E+09	6.8E+07	1.5E+08	9.3E+07	1.9E+07	1.9E+06	5.0E+06
7	6.4E+08	4.1E+07	5.5E+07	2.8E+07	8.8E+08	4.2E+08	1.6E+07	1.8E+08	7.0E+07	9.9E+06	3.3E+06	8.2E+05
8	8.6E+08	1.1E+06	9.5E+07	1.2E+06	1.6E+09	6.3E+08	2.5E+06	2.4E+08	8.1E+07	1.0E+07	2.7E+06	9.6E+05
9	1.4E+09	7.7E+06	1.3E+08	7.4E+05	1.4E+09	-999	3.8E+07	3.8E+08	2.3E+07	7.3E+06	3.2E+06	9.8E+05
10	5.5E+08	1.6E+07	1.0E+08	2.7E+06	4.9E+07	-999	2.6E+08	3.4E+08	1.1E+06	1.1E+07	2.1E+06	8.3E+05
11	1.0E+08	7.3E+07	6.9E+07	2.6E+07	3.8E+07	1.2E+08	2.1E+07	1.1E+08	9.4E+05	9.3E+06	1.0E+06	5.5E+06
12	7.0E+06	5.3E+07	9.9E+06	2.2E+08	7.8E+07	4.0E+08	2.1E+07	2.6E+07	2.6E+06	2.5E+06	9.2E+05	6.3E+06
13	9.1E+07	1.4E+08	2.8E+08	1.2E+08	5.4E+06	4.1E+08	2.1E+07	1.2E+07	2.0E+07	3.4E+06	1.0E+06	8.5E+06
14	2.7E+08	1.4E+08	6.4E+08	2.4E+08	9.0E+06	9.8E+08	2.1E+07	8.3E+06	2.4E+07	1.8E+06	1.1E+06	6.2E+06
15	5.5E+08	1.1E+08	4.5E+07	4.0E+08	1.1E+07	4.6E+08	2.1E+07	2.1E+07	2.7E+07	2.8E+06	1.0E+06	1.8E+06
16	6.2E+08	2.2E+08	3.2E+07	5.9E+07	1.4E+07	1.2E+09	2.1E+07	3.4E+07	1.2E+07	1.3E+06	1.5E+06	1.5E+06
17	1.0E+09	1.8E+09	8.0E+07	1.1E+07	2.4E+07	2.6E+09	2.1E+07	2.9E+07	4.8E+06	2.2E+06	2.1E+06	2.1E+06
18	4.2E+08	2.7E+09	1.4E+08	6.6E+06	1.2E+08	3.1E+09	2.1E+07	1.9E+07	6.0E+06	5.0E+06	3.1E+06	1.4E+06
19	6.8E+07	3.0E+09	2.6E+08	1.8E+07	1.8E+08	3.3E+09	2.7E+07	7.1E+06	2.9E+06	1.1E+07	1.4E+06	6.1E+07
20	5.8E+06	1.0E+08	3.9E+08	8.7E+06	2.3E+08	2.6E+09	5.4E+07	2.2E+06	1.3E+06	1.9E+07	7.6E+06	4.1E+08
21	4.3E+06	6.2E+06	4.8E+08	3.9E+07	1.6E+08	2.6E+09	6.8E+07	2.4E+06	4.4E+06	6.8E+06	2.0E+08	1.1E+09
22	1.0E+07	3.2E+07	2.4E+08	1.3E+08	2.9E+07	1.5E+09	7.6E+05	1.8E+06	8.9E+06	6.6E+06	3.7E+08	5.5E+08
23	7.6E+06	4.8E+07	1.1E+06	2.1E+08	5.2E+07	5.0E+07	7.1E+05	1.7E+06	1.3E+07	9.8E+05	4.9E+08	8.5E+08
24	6.3E+06	2.0E+07	7.7E+06	3.0E+08	1.8E+07	5.5E+07	7.3E+05	5.4E+06	9.3E+06	7.7E+06	4.0E+08	1.1E+09
25	2.2E+07	6.3E+07	1.1E+07	2.0E+08	5.7E+08	3.7E+07	9.0E+05	7.3E+07	1.4E+06	6.4E+06	3.3E+08	1.0E+08
26	3.6E+07	8.3E+07	9.7E+07	9.2E+07	6.8E+08	4.3E+06	8.0E+06	1.3E+08	1.3E+06	4.2E+06	1.7E+08	1.8E+08
27	4.5E+07	9.3E+07	2.3E+08	7.6E+06	7.3E+08	3.0E+06	2.2E+07	1.1E+08	3.9E+06	1.6E+08	1.9E+07	2.0E+06
28	4.6E+07	3.6E+07	2.3E+08	2.4E+06	1.1E+09	6.5E+06	2.0E+07	1.9E+07	1.7E+07	3.2E+08	9.4E+06	4.5E+06
29	5.8E+06	1.5E+06	1.8E+08	1.4E+07	2.3E+07	1.7E+07	2.9E+07	6.2E+06	6.3E+07	4.1E+08		6.8E+06
30	1.6E+06	6.8E+06	9.1E+07	7.2E+07	1.4E+08	1.6E+07	1.6E+07	4.4E+06	1.6E+08	3.8E+08		3.5E+06
31		6.2E+07		8.4E+07	1.1E+07		2.5E+06		2.6E+08	2.4E+08		4.2E+06

NOTE: The electron detector responds significantly to protons above 32 MeV; therefore, electron data are contaminated when a proton event is in progress. These days are indicated with '-999' in the table and are not plotted. '--' indicates data not available.

NOTE: GOES9 data began April, 1996 and ended on 26 July, 1998. GOES12 is primary satellite as of 15 May 2003.

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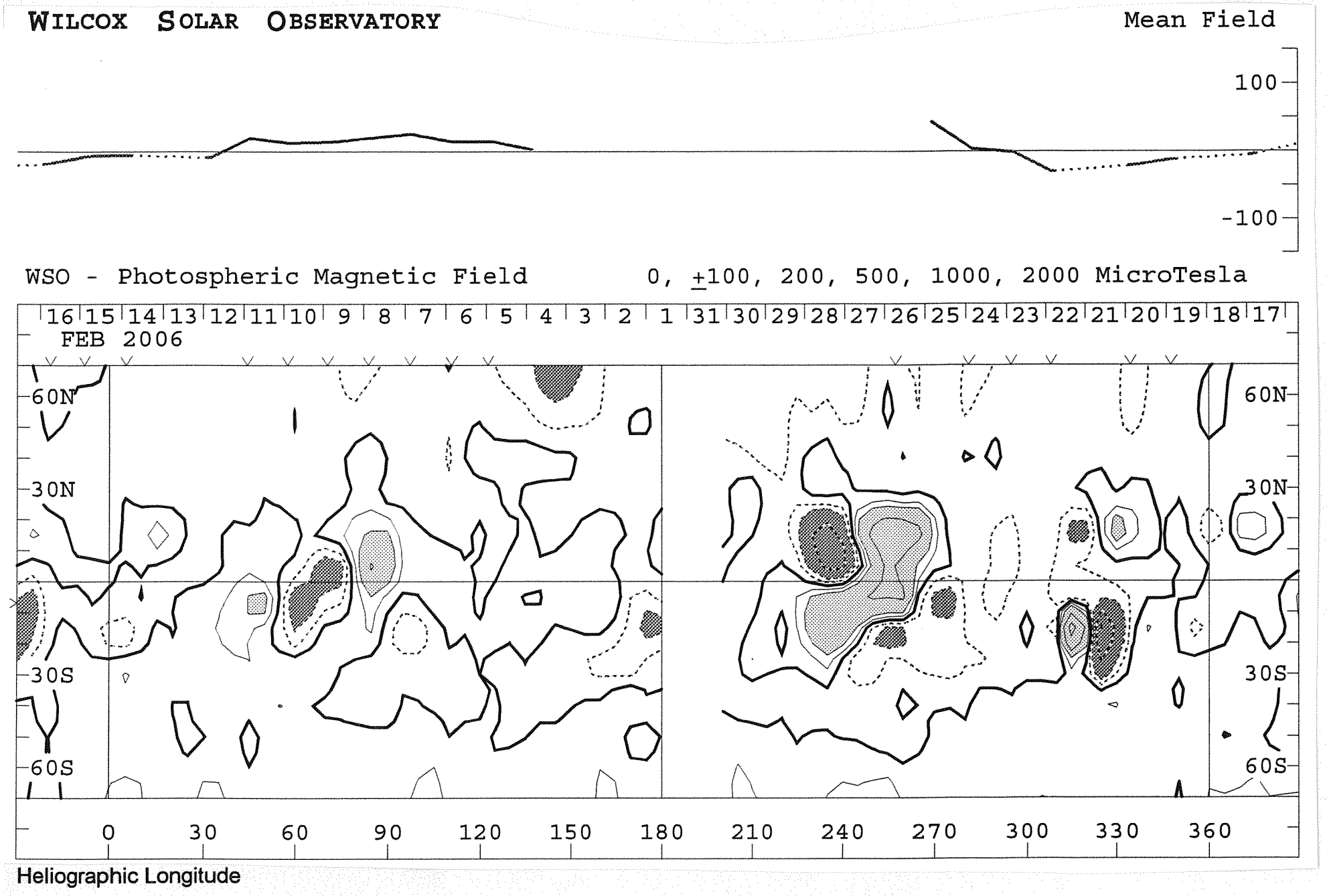
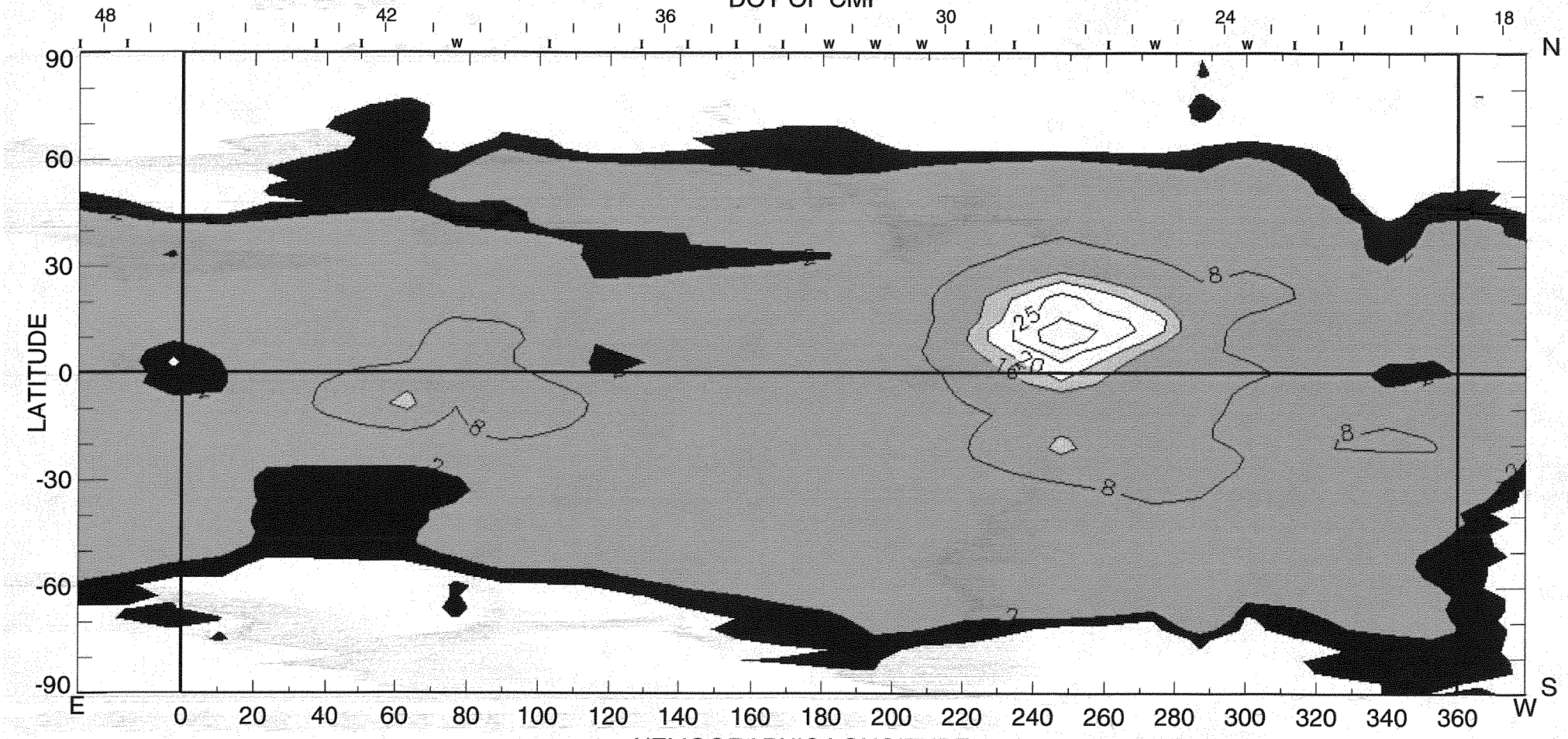
SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 2039

(18 January to 15 February 2006)



CARRINGTON ROTATION NUMBER 2039 ; NSO/SACRAMENTO PEAK FE XIV @ R = 1.15R_o



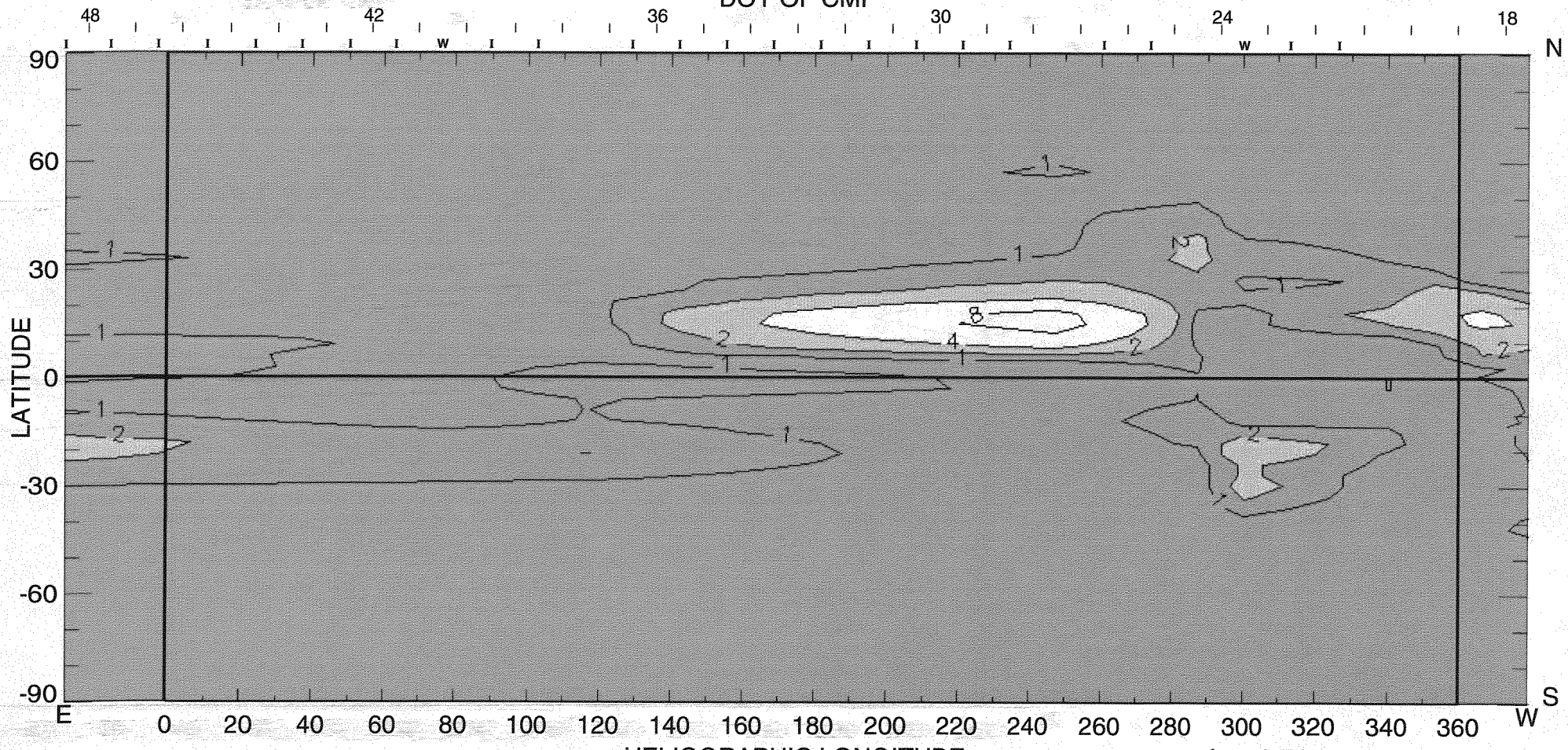
<I> = 3.60μ

(10-Apr-06) 2006 E+W LIMB CONTOURS: 1, 2, 8, 16, 20, 25, 30, 35, 40, 100, 120 MILLIONTHS OF I_o

CORONAL HOLES ARE SHOWN AS WHITE BORDERED BY BLACK

tex Mon Apr 10 13:41:33 2006

CARRINGTON ROTATION NUMBER 2039 ; NSO/SACRAMENTO PEAK FE X @ R = 1.15R_o

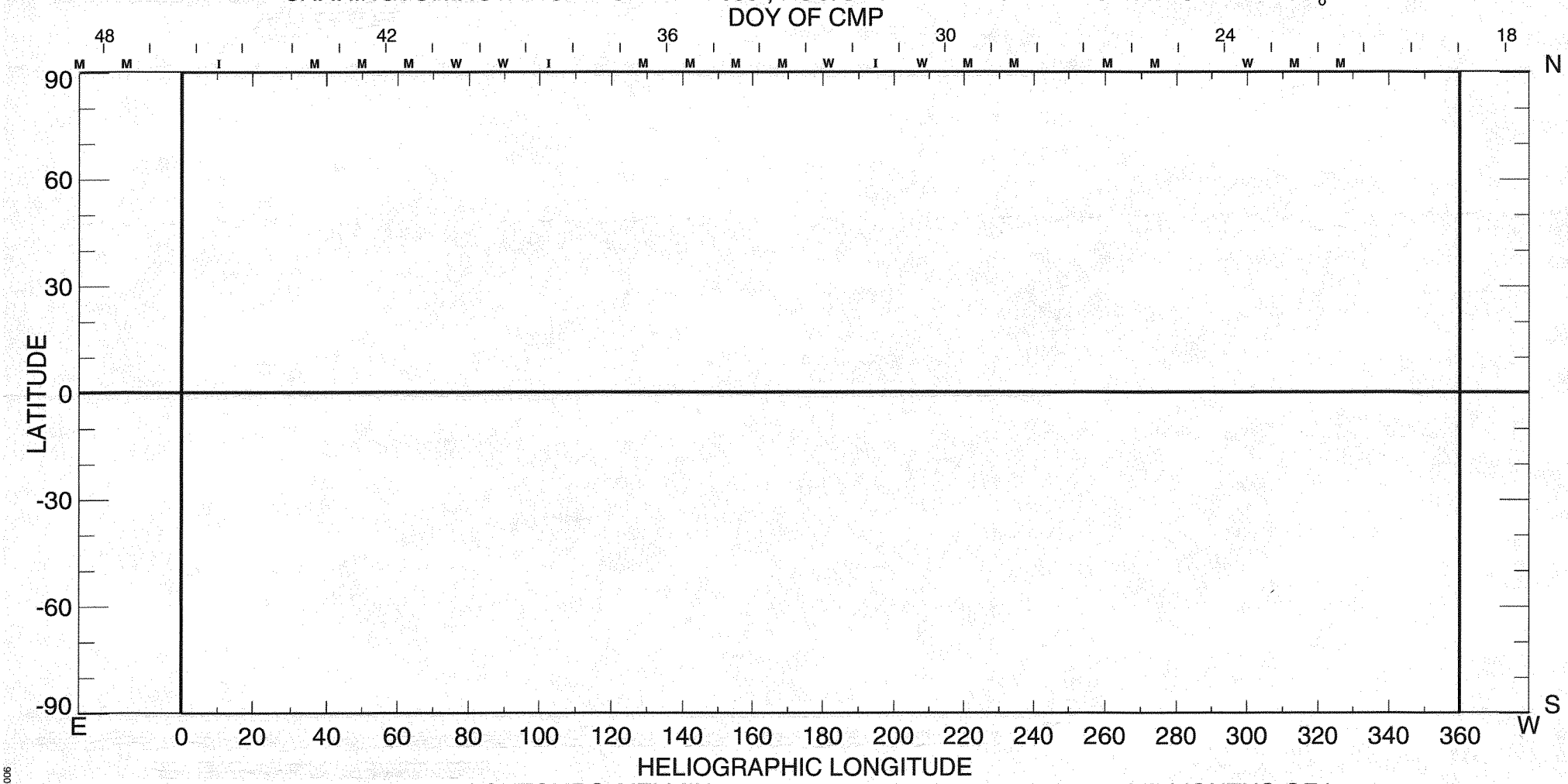


<I> = 0.74μ

(17-Apr-06) 2006 E+W LIMB CONTOURS: 1, 2, 4, 8, 12, 16, 32, 48 MILLIONTHS OF I_o

tex Mon Apr 17 13:43:59 2006

CARRINGTON ROTATION NUMBER 2039 ; NSO/SACRAMENTO PEAK CA XV @ R = 1.15R_o



(10-Apr-06) 2006 E+W LIMB CONTOURS: YELMIN, 1, 2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20 MILLIONTHS OF I_o

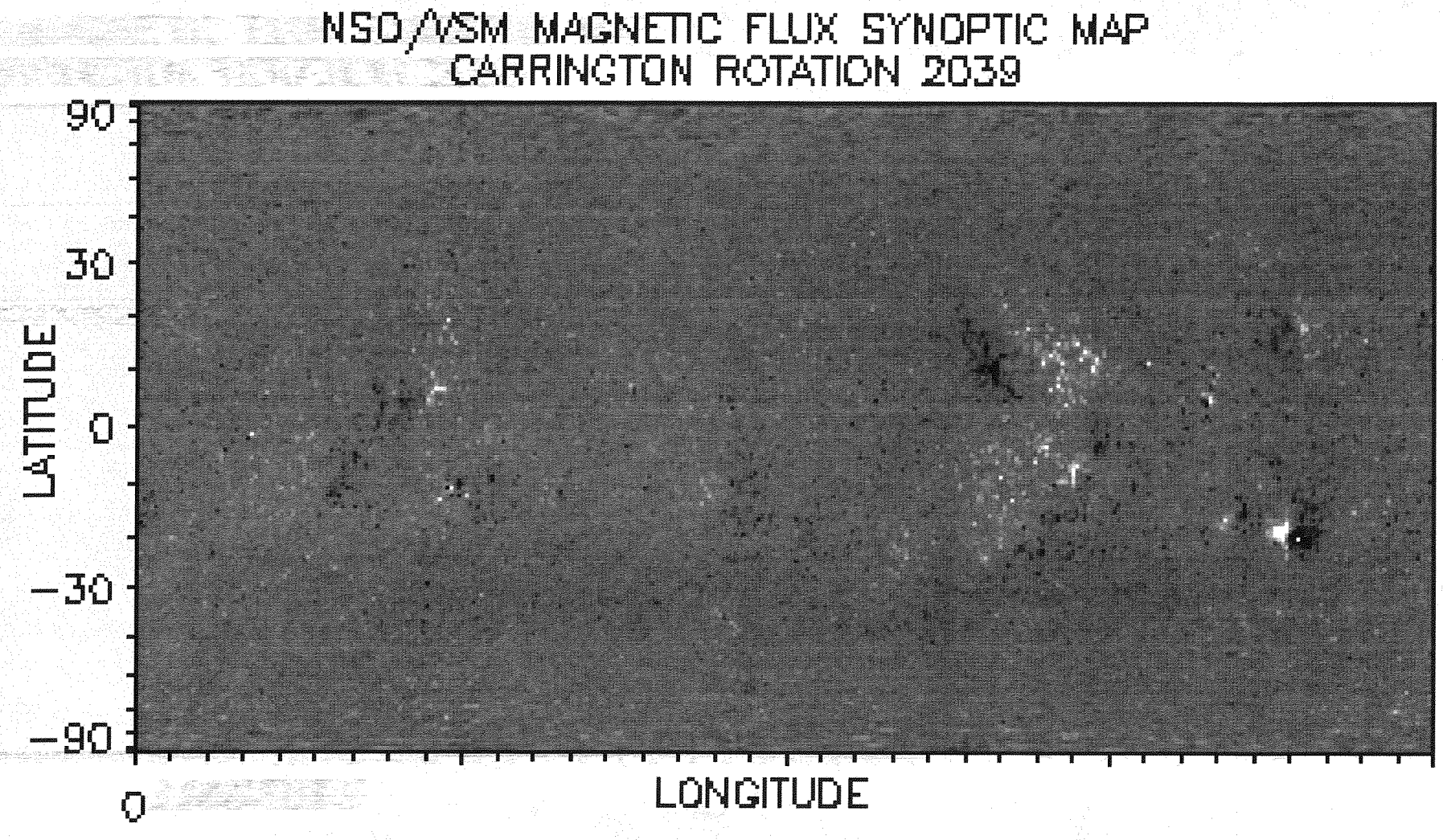
tex Mon Apr 10 13:41:01 2006

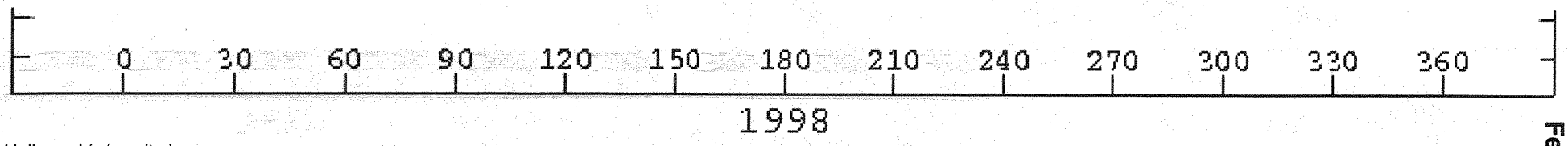
SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 2039

(18 January to 15 February 2006)

National Solar Observatory/Kitt Peak





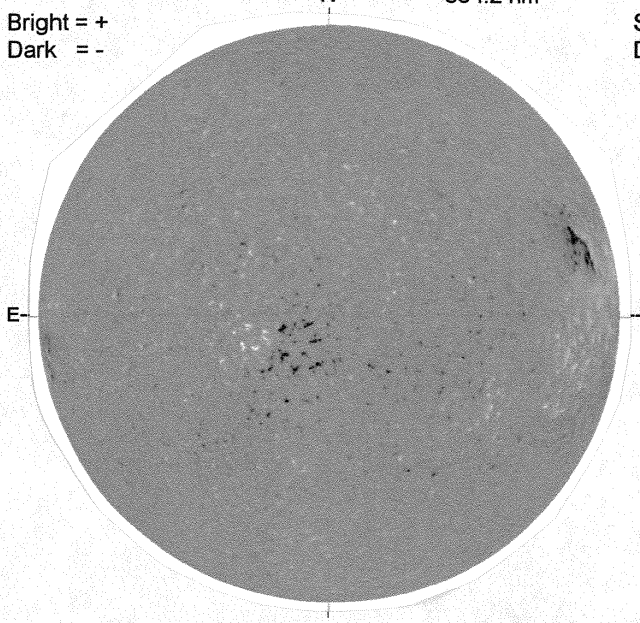
Heliographic Longitude

FEBRUARY 1, 2006 (P= -12.12, Bo = -6.02, Lo = 188.09)

KITT PEAK MAGNETOGRAM--SOLIS

854.2 nm

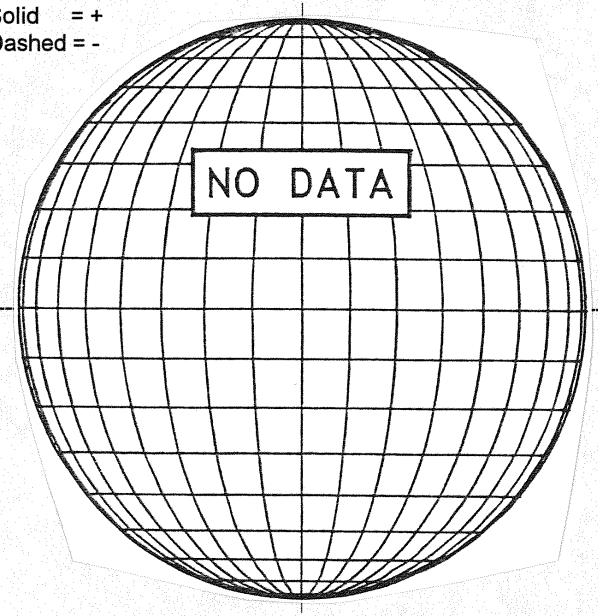
Bright = +
Dark = -



2135 UT

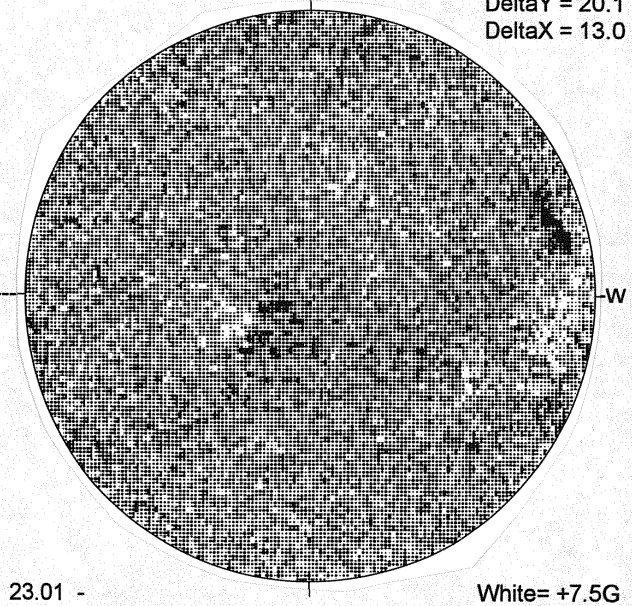
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

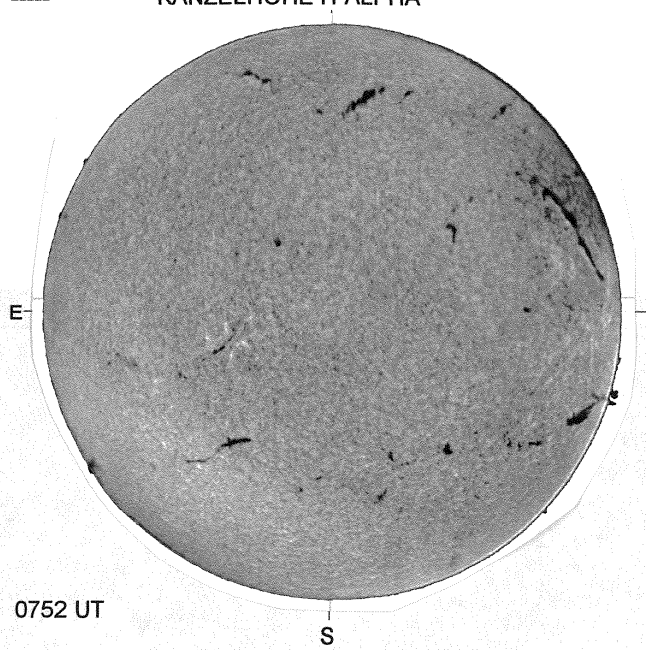
DeltaY = 20.1
DeltaX = 13.0



23.01 -
23.44 UT

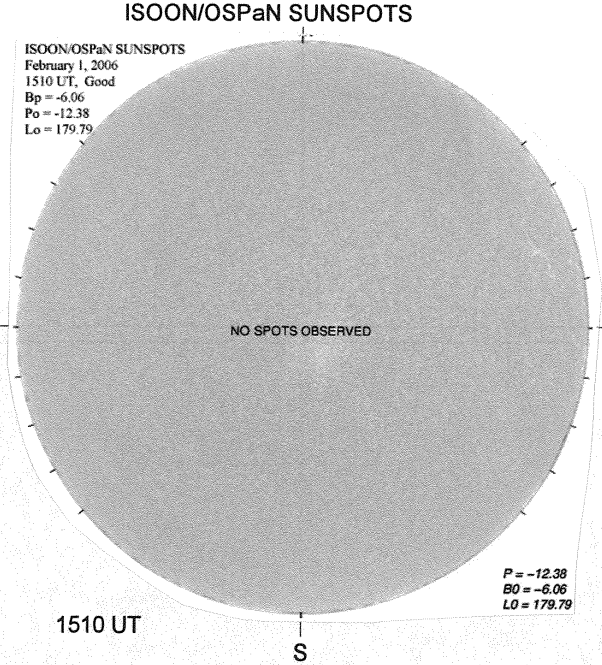
White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA



0752 UT

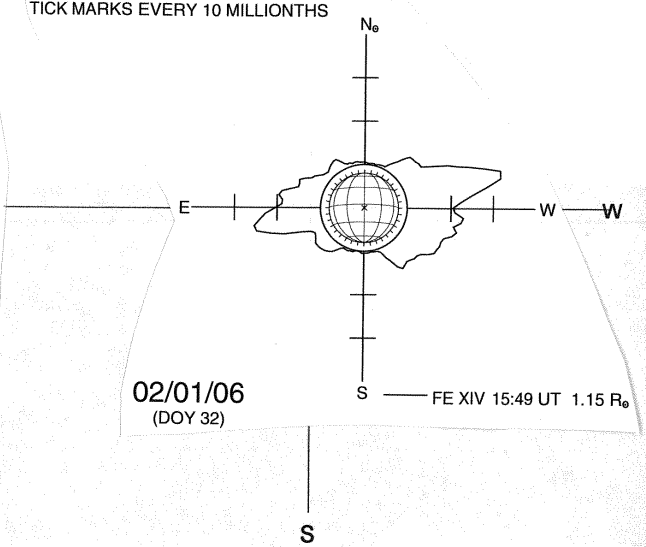
ISOON/OSPaN SUNSPOTS



1510 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS



02/01/06
(DOY 32)

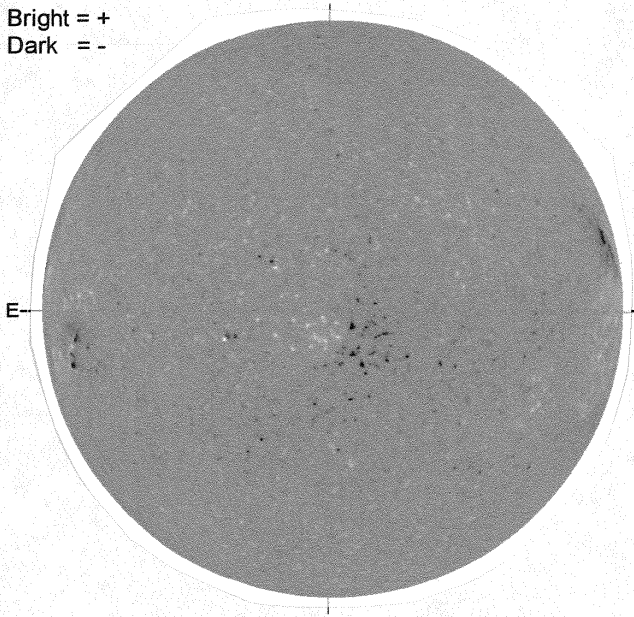
FE XIV 15:49 UT 1.15 $R_\odot$

FEBRUARY 2, 2006 (P= -12.52, Bo = -6.09, Lo = 174.93)

KITT PEAK MAGNETOGRAM--SOLIS

854.2 nm

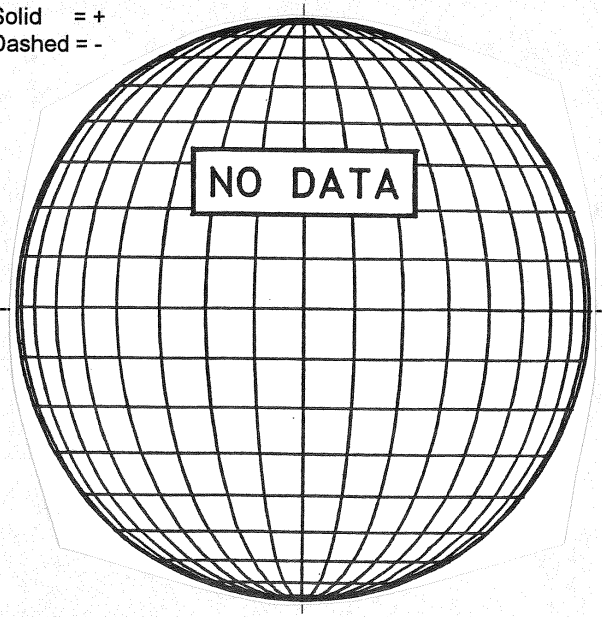
Bright = +
Dark = -



2234 UT

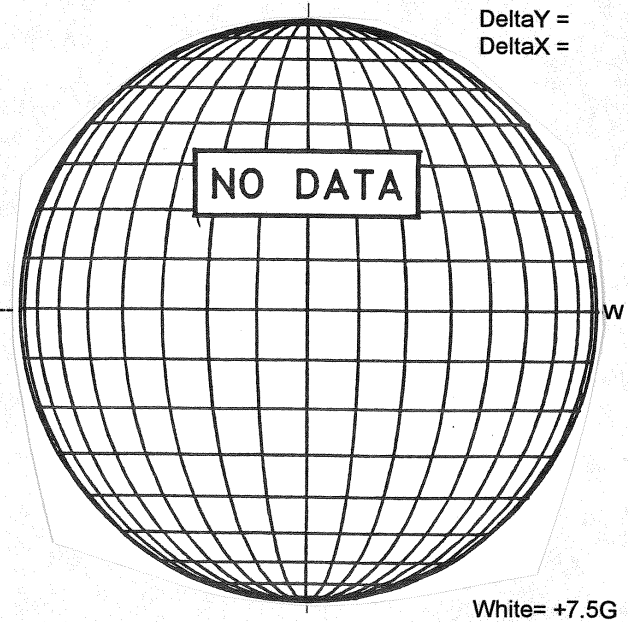
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



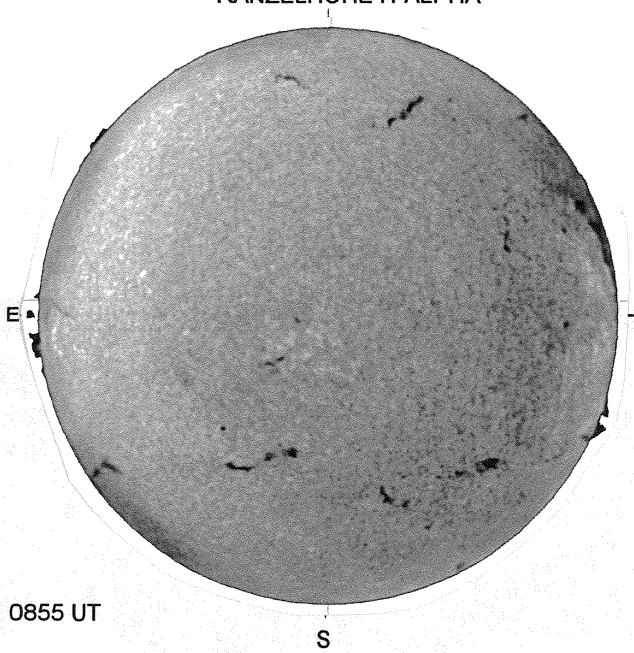
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



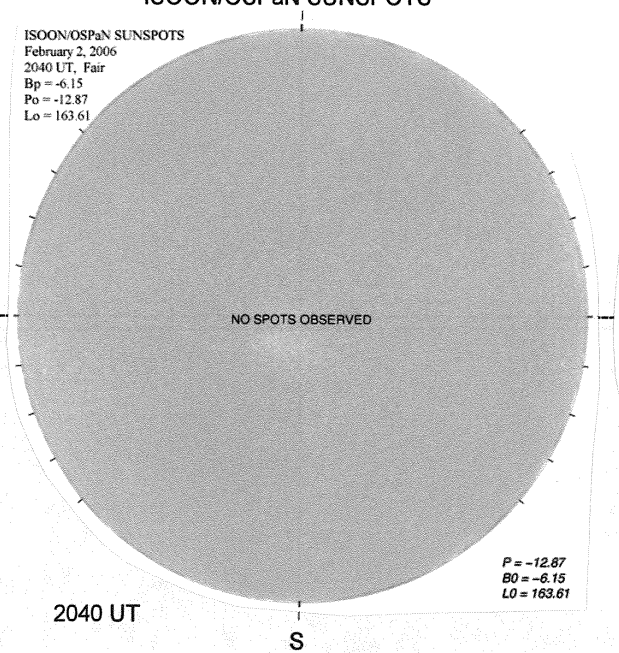
White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA



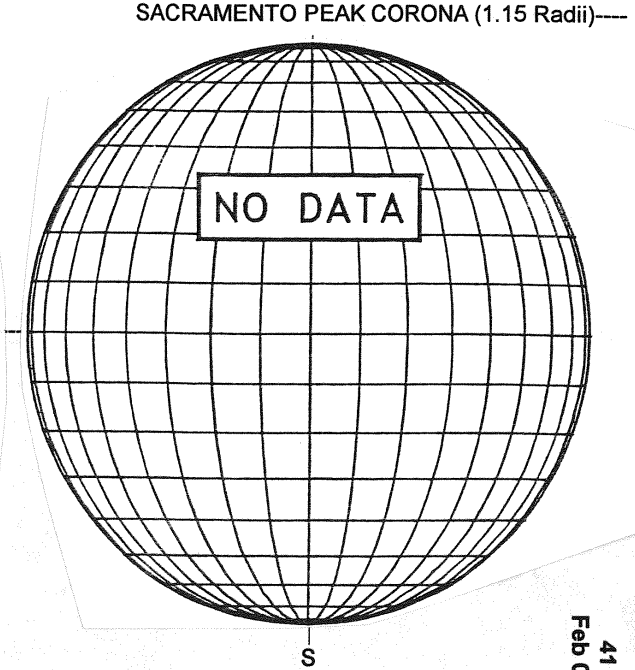
0855 UT

ISOON/OSPaN SUNSPOTS



2040 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

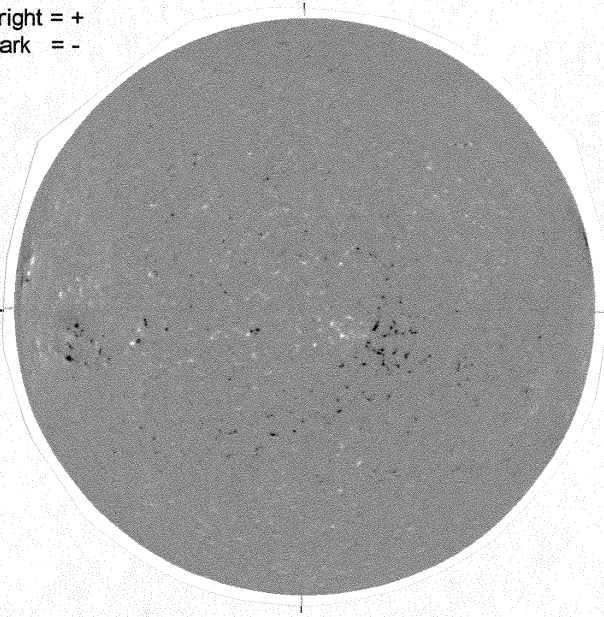


FEBRUARY 3, 2006 (P= -12.93, Bo = -6.16, Lo = 161.76)

KITT PEAK MAGNETOGRAM--SOLIS

854.2 nm

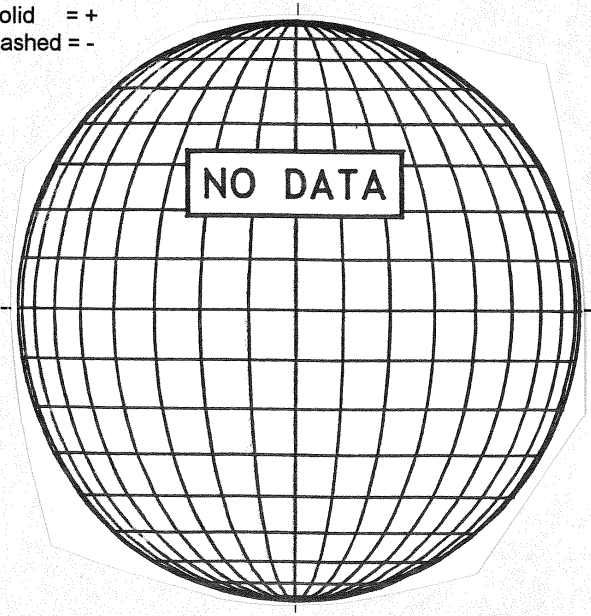
Bright = +
Dark = -



1658 UT

STANFORD MAGNETOGRAM

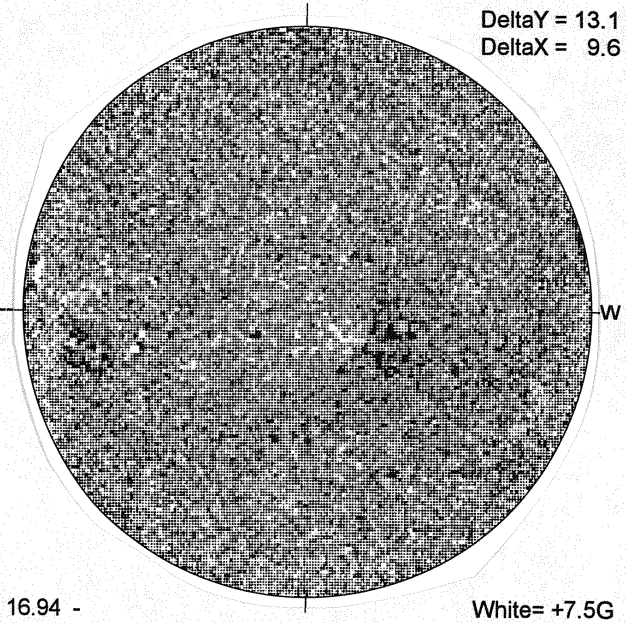
Solid = +
Dashed = -



16.94 -
17.91 UT

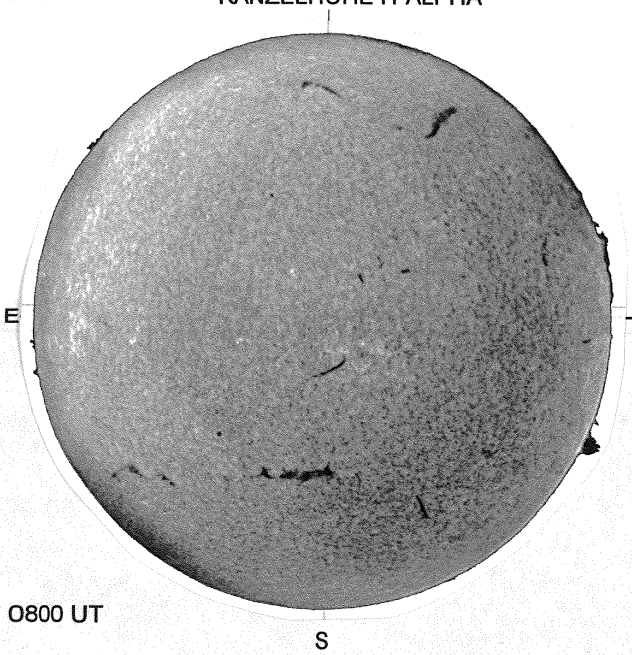
MT. WILSON MAGNETOGRAM

DeltaY = 13.1
DeltaX = 9.6



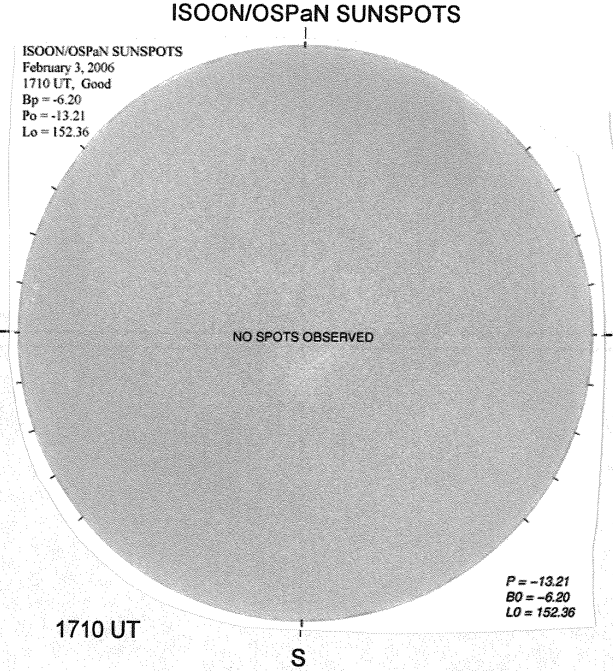
White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA



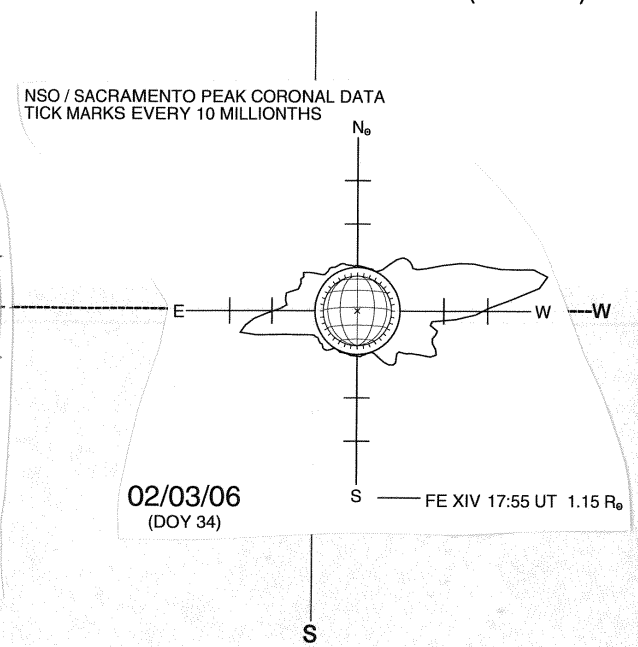
0800 UT

ISOON/OSPaN SUNSPOTS



1710 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

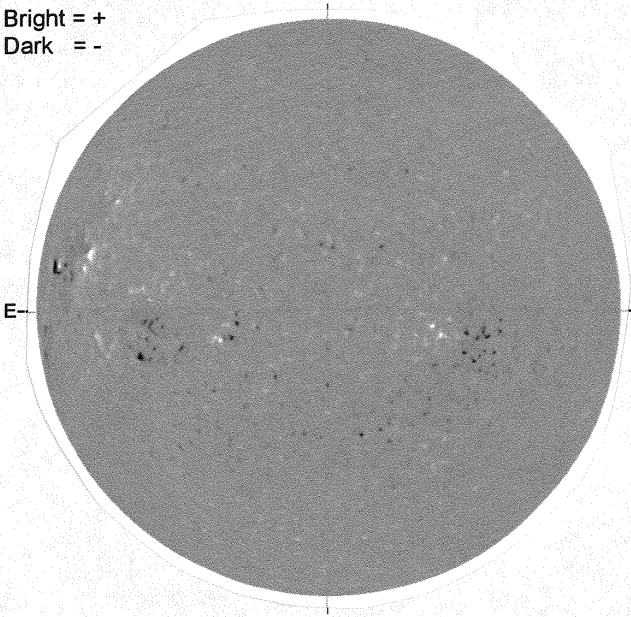


FEBRUARY 4, 2006 (P= -13.32, Bo = -6.22, Lo = 148.59)

KITT PEAK MAGNETOGRAM--SOLIS

854.2 nm

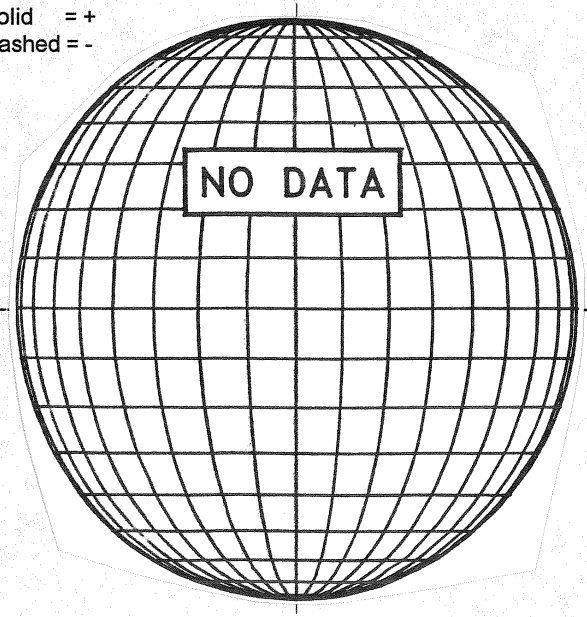
Bright = +
Dark = -



1932 UT

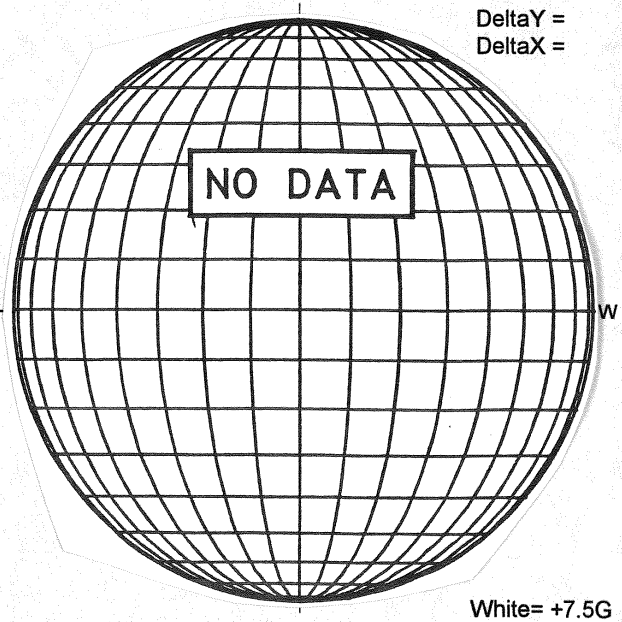
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



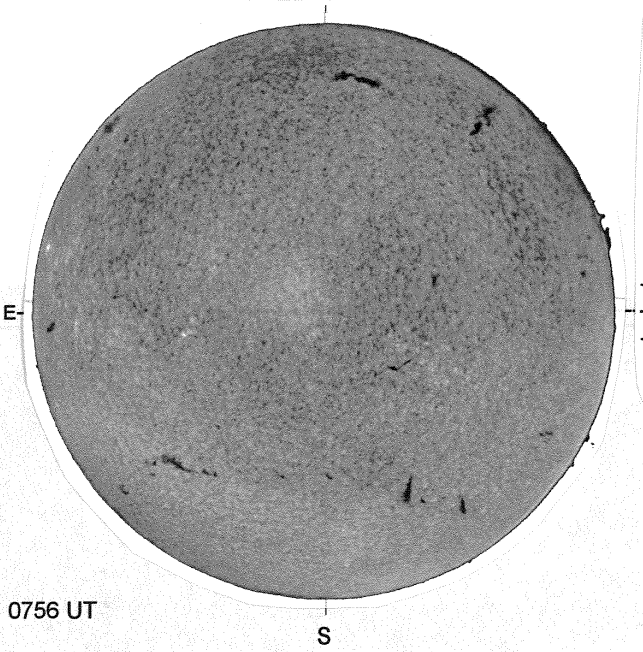
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



White= +7.5G
Black = -7.5G

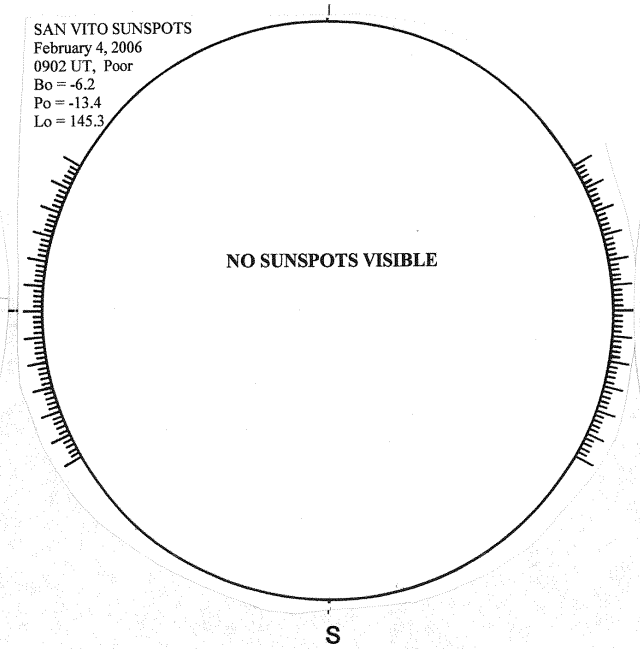
KANZELHOHE H-ALPHA



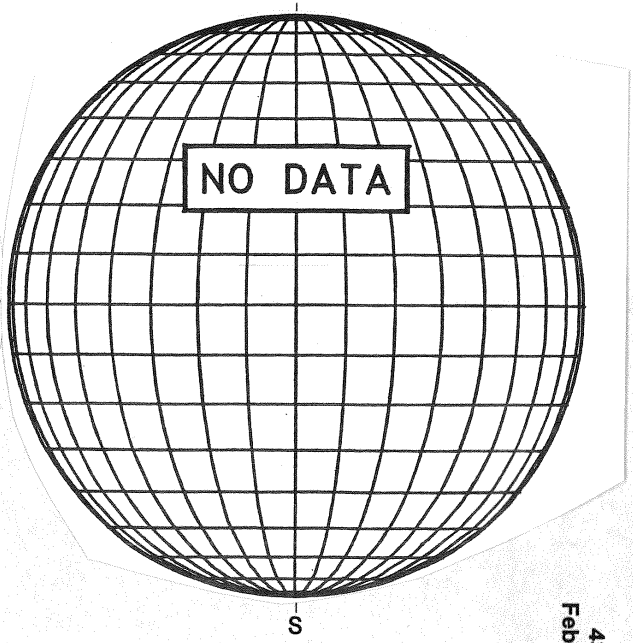
0756 UT

SAN VITO SUNSPOTS

SAN VITO SUNSPOTS
February 4, 2006
0902 UT, Poor
Bo = -6.2
Po = -13.4
Lo = 145.3



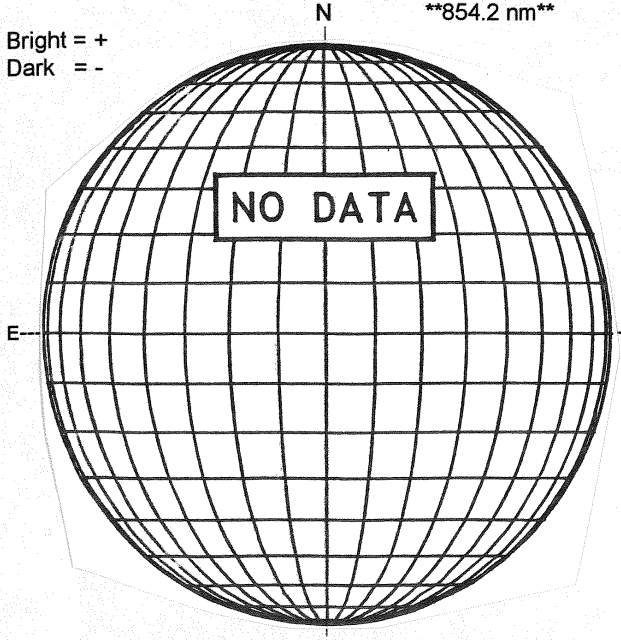
SACRAMENTO PEAK CORONA (1.15 Radii)



FEBRUARY 5, 2006 (P= -13.72, Bo = -6.29, Lo = 135.43)

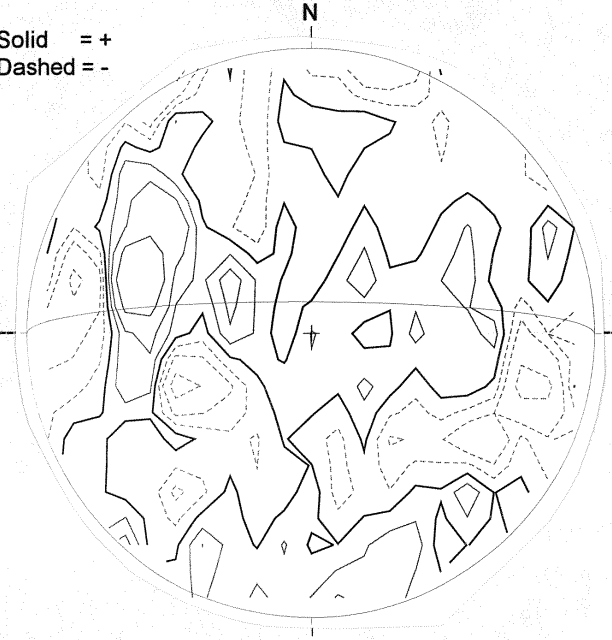
KITT PEAK MAGNETOGRAM--SOLIS
854.2 nm

Bright = +
Dark = -



STANFORD MAGNETOGRAM

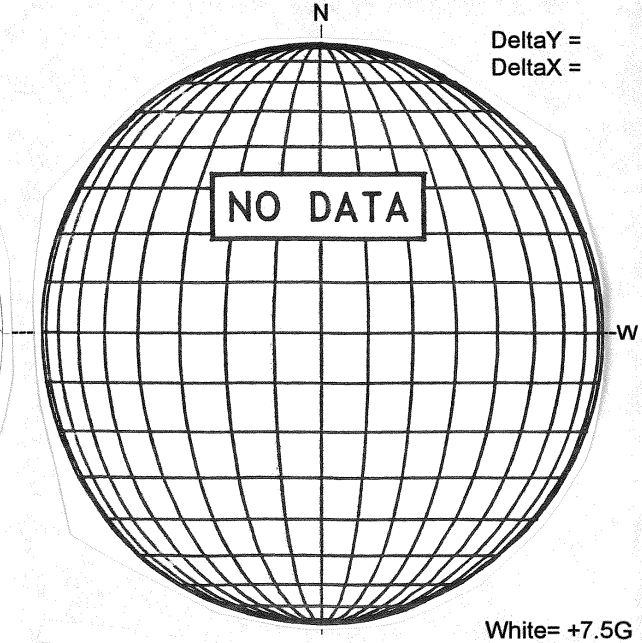
Solid = +
Dashed = -



2305 UT

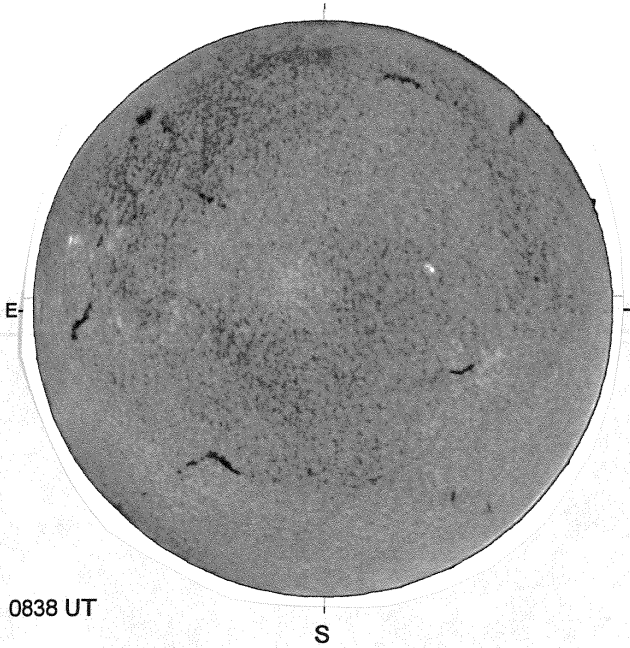
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



White= +7.5G
Black = -7.5G

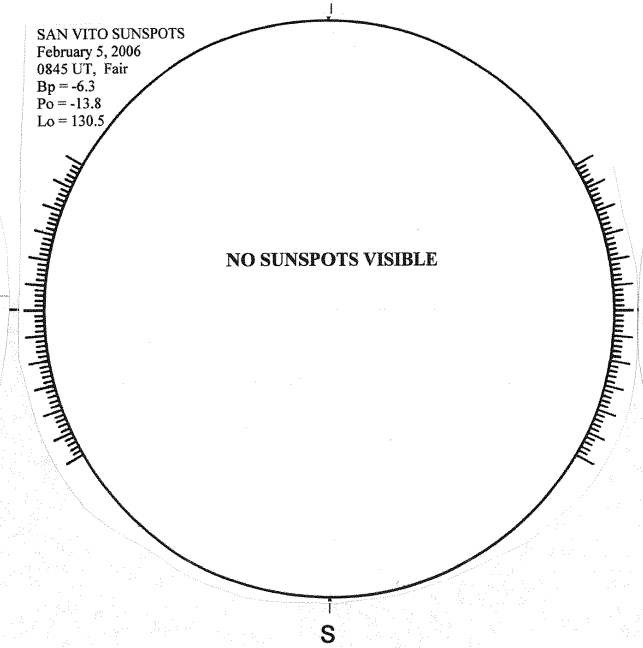
KANZELHOHE H-ALPHA



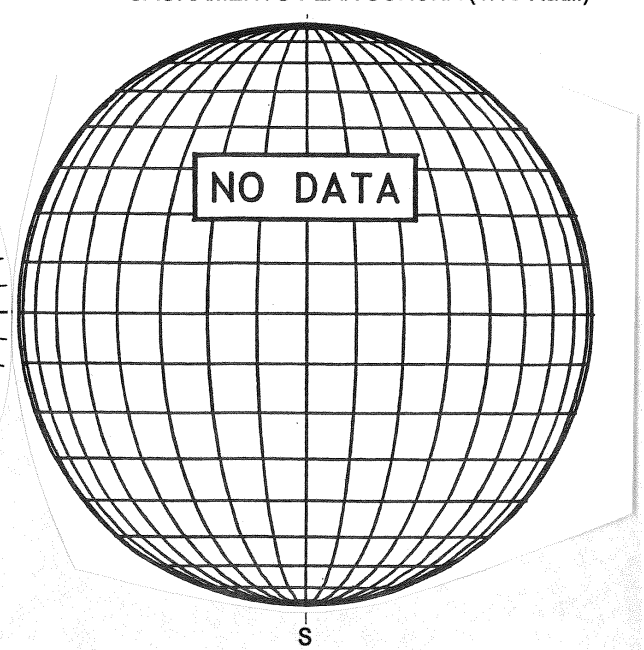
0838 UT

SAN VITO SUNSPOTS

SAN VITO SUNSPOTS
February 5, 2006
0845 UT, Fair
Bp = -6.3
Po = -13.8
Lo = 130.5



SACRAMENTO PEAK CORONA (1.15 Radii)----

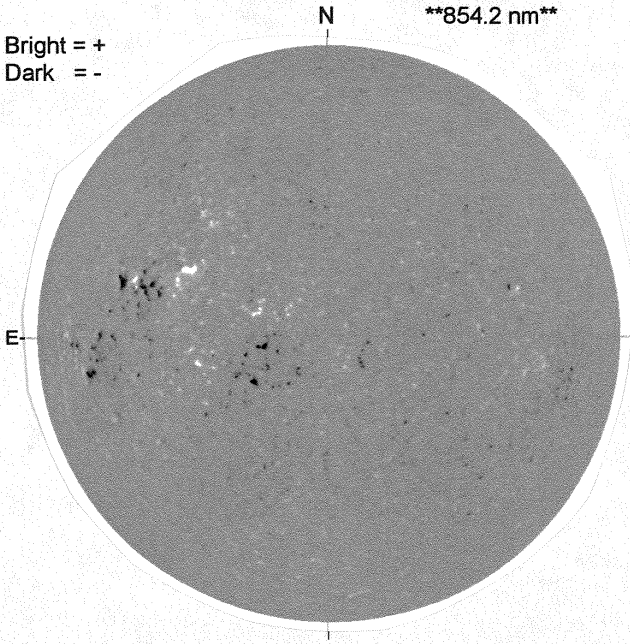


FEBRUARY 6, 2006 (P= -14.10, Bo = -6.35, Lo = 122.26)

KITT PEAK MAGNETOGRAM--SOLIS

854.2 nm

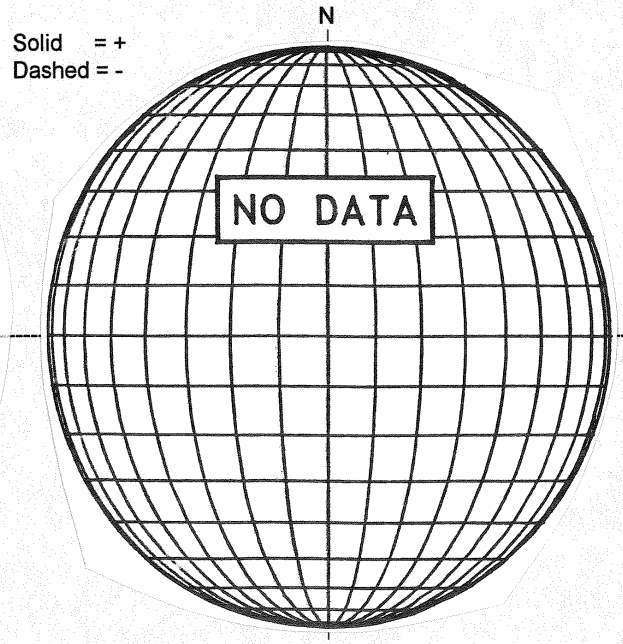
Bright = +
Dark = -



1726 UT

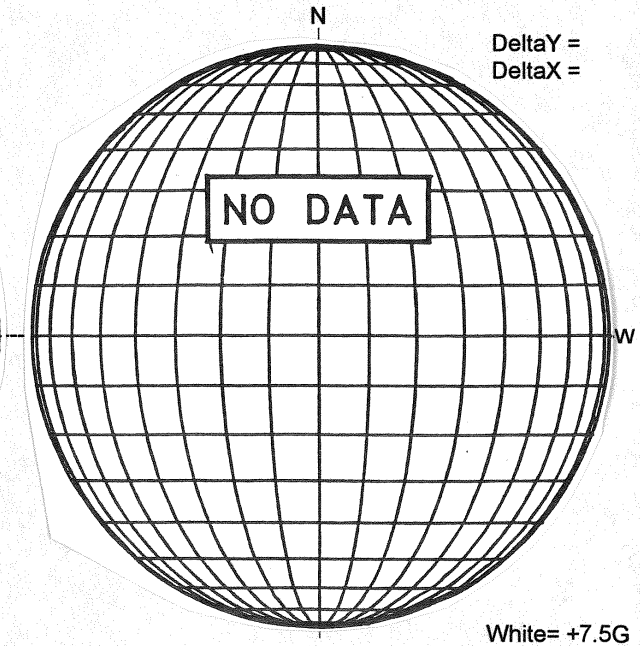
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



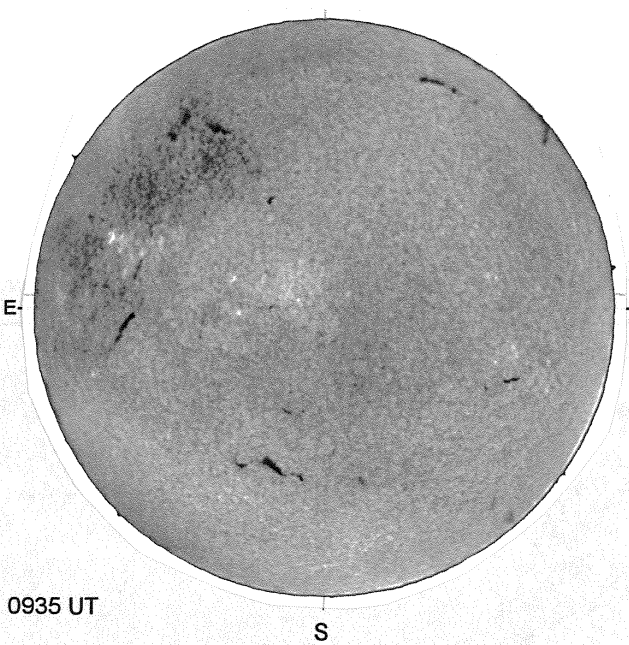
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



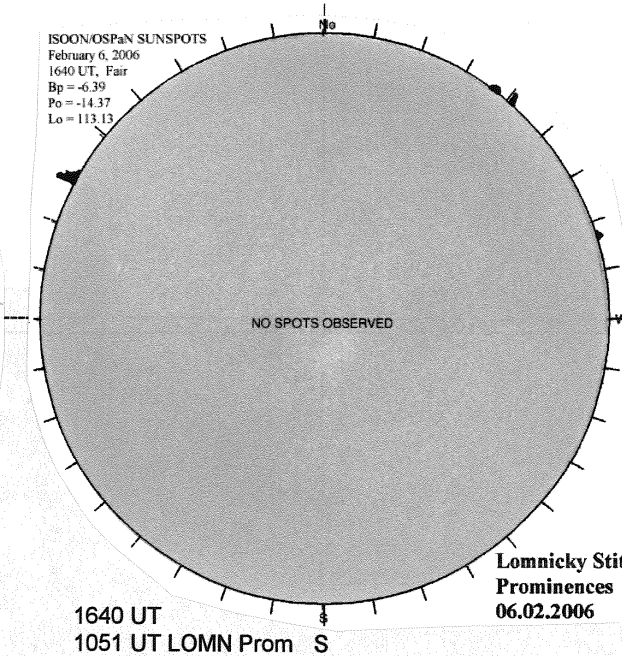
White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA



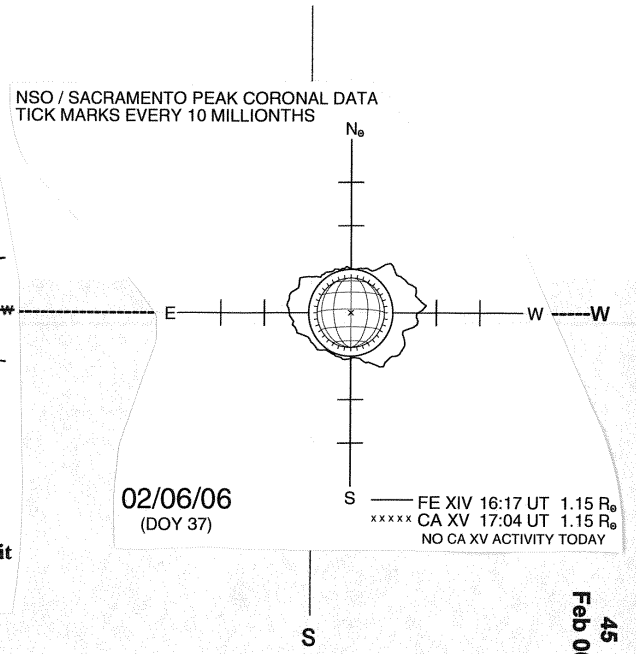
0935 UT

ISOON/OSPaN SUNSPOTS



1640 UT
1051 UT LOMN Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

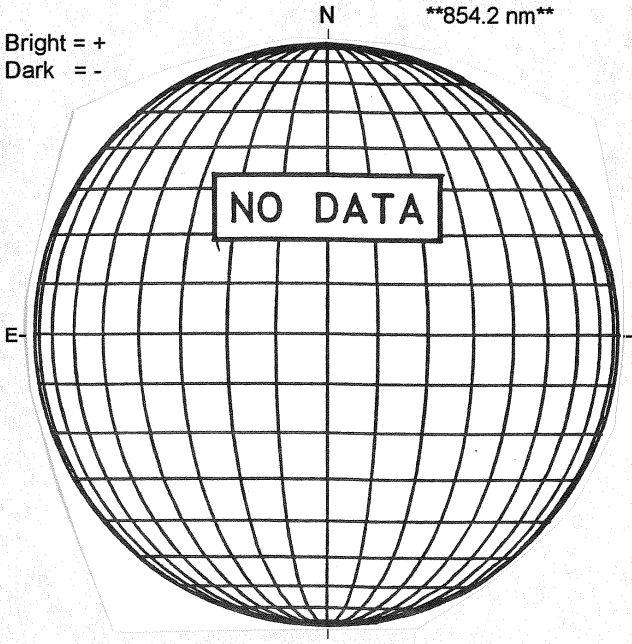


FEBRUARY 7, 2006 (P= -14.48, Bo = -6.41, Lo = 109.09)

KITT PEAK MAGNETOGRAM--SOLIS

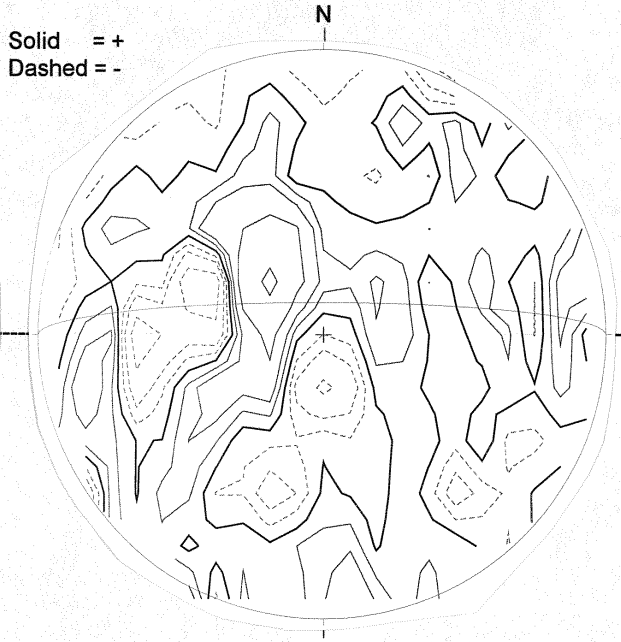
854.2 nm

Bright = +
Dark = -



STANFORD MAGNETOGRAM

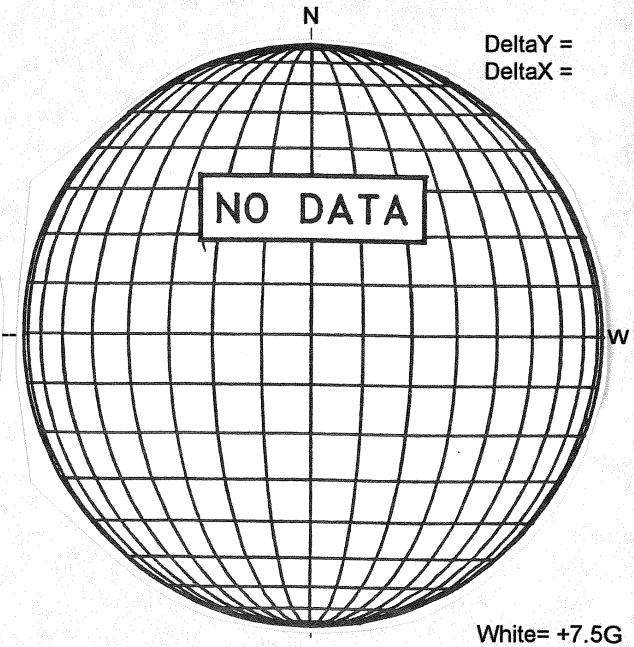
Solid = +
Dashed = -



2114 UT

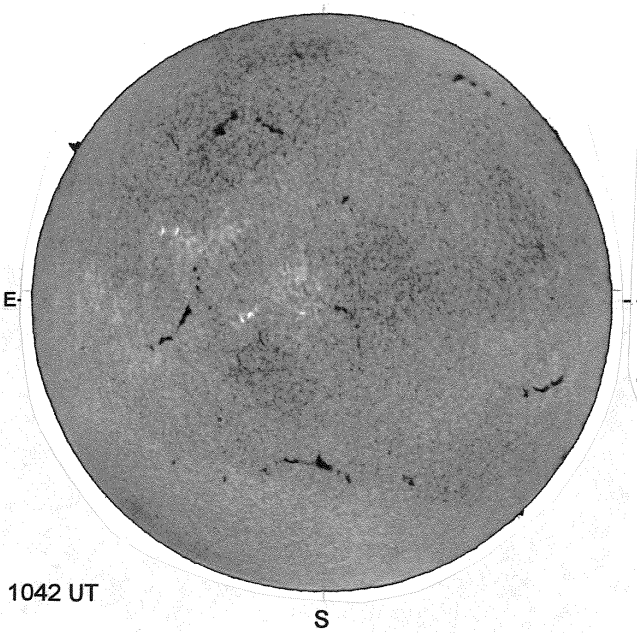
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



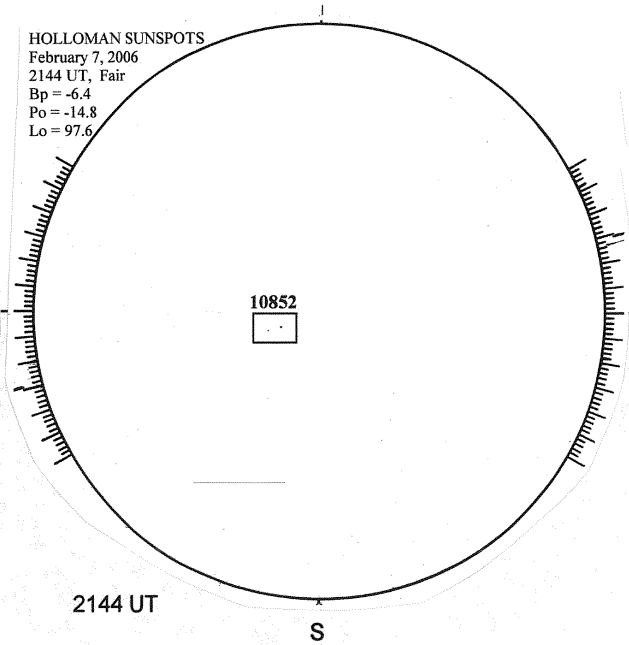
White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA



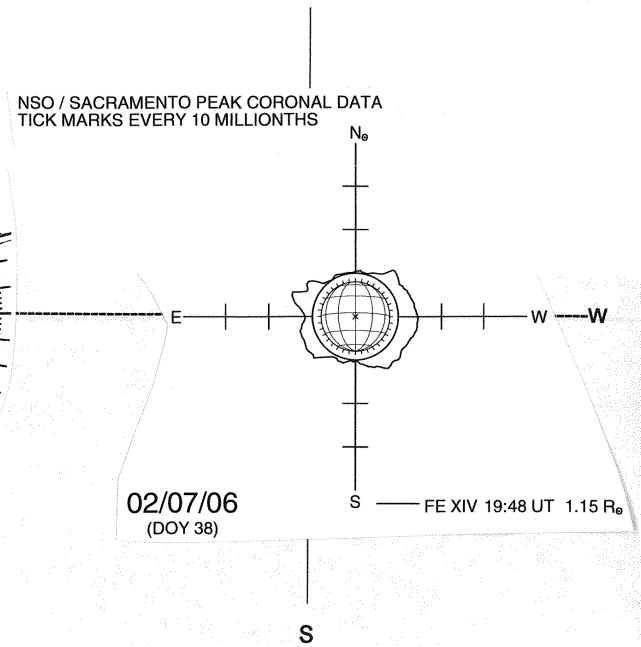
1042 UT

HOLLOMAN SUNSPOTS



2144 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

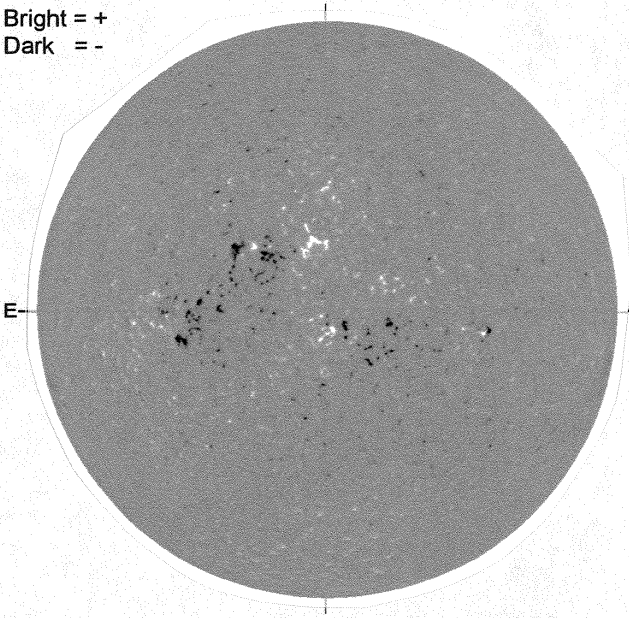


FEBRUARY 8, 2006 (P= -14.86, Bo = -6.47, Lo = 95.93)

KITT PEAK MAGNETOGRAM--SOLIS

854.2 nm

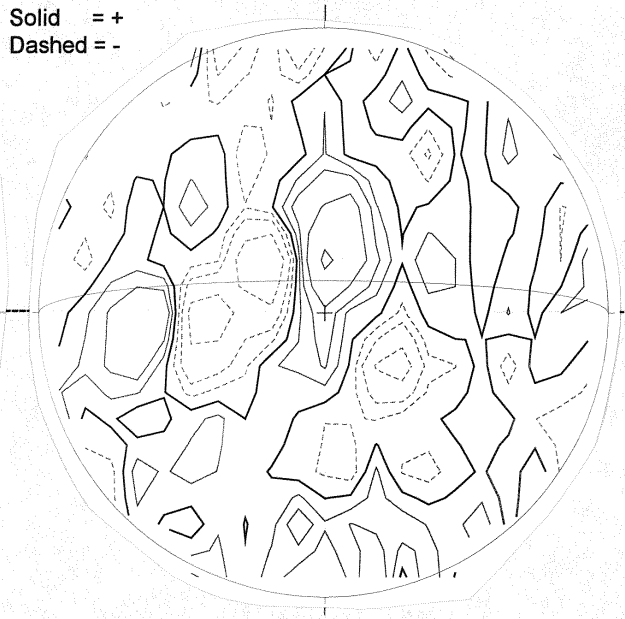
Bright = +
Dark = -



1636 UT

STANFORD MAGNETOGRAM

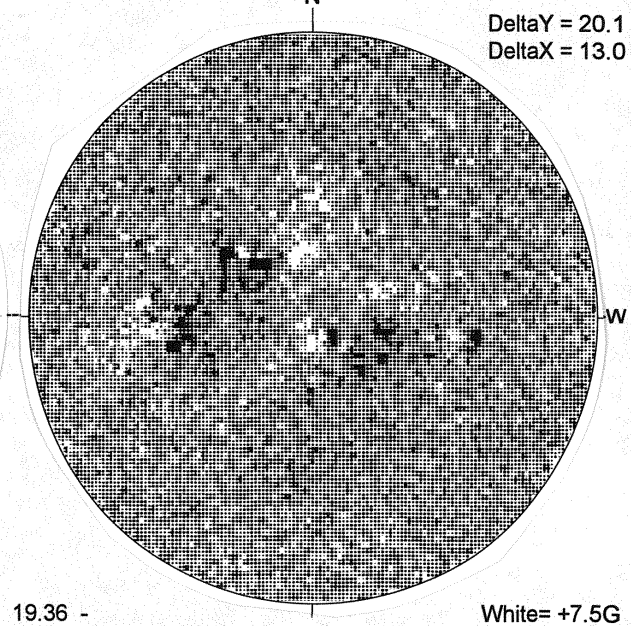
Solid = +
Dashed = -



2125 UT

MT. WILSON MAGNETOGRAM

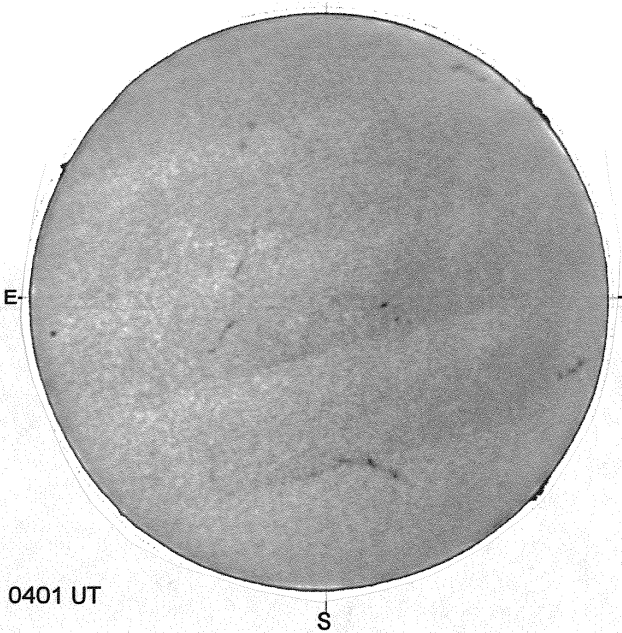
DeltaY = 20.1
DeltaX = 13.0



19.36 -
19.79 UT

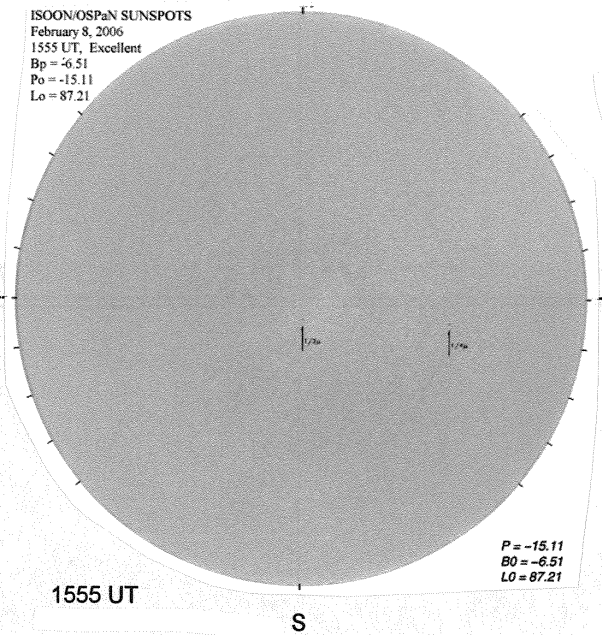
White= +7.5G
Black = -7.5G

HUAIROU H-ALPHA



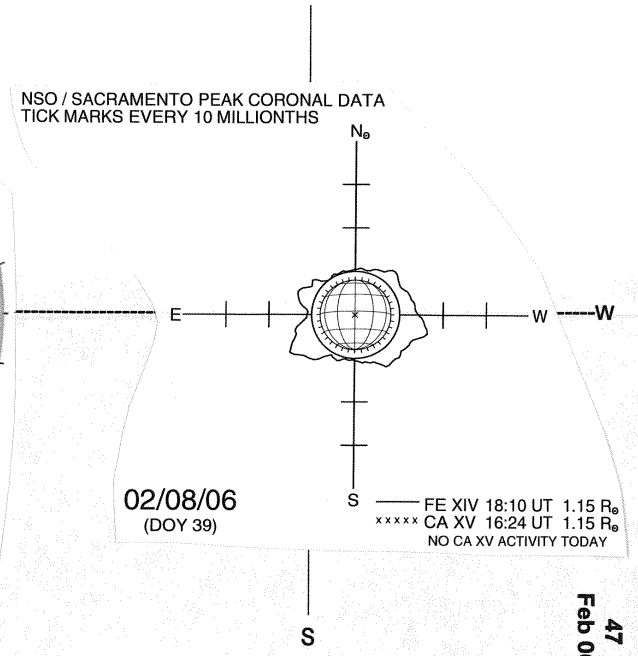
0401 UT

ISOON/OSPaN SUNSPOTS



1555 UT

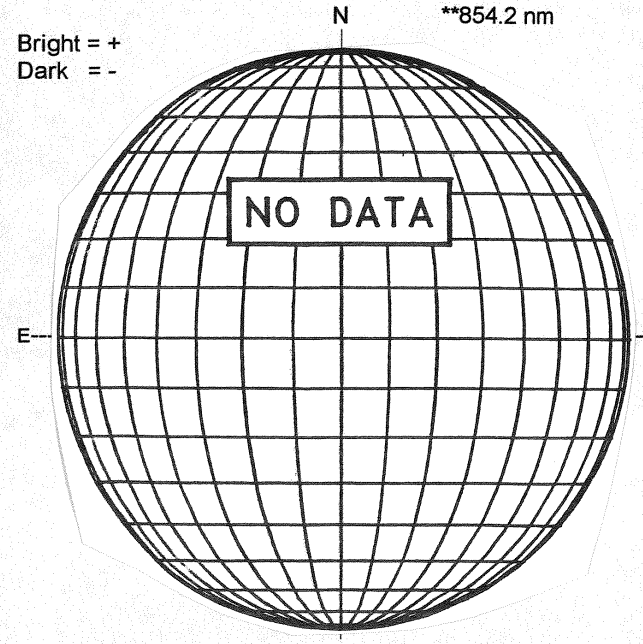
SACRAMENTO PEAK CORONA (1.15 Radii)----



FEBRUARY 9, 2006 (P= -15.23, Bo = -6.53, Lo = 82.76)

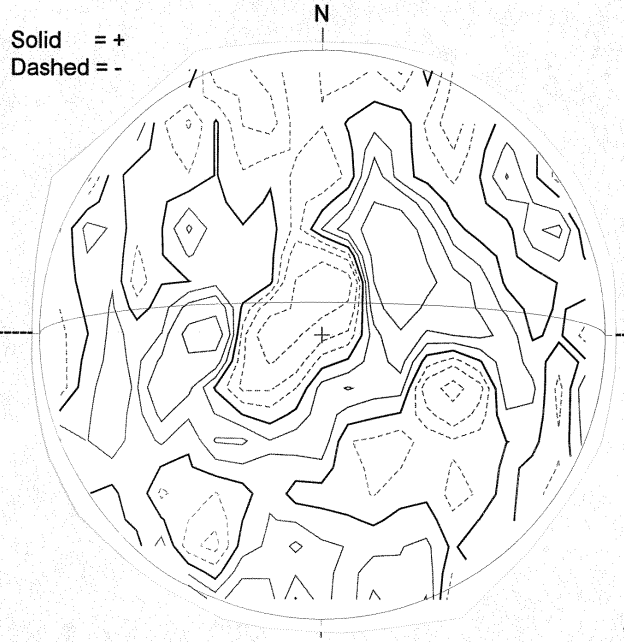
KITT PEAK MAGNETOGRAM--SOLIS

Bright = +
Dark = -



STANFORD MAGNETOGRAM

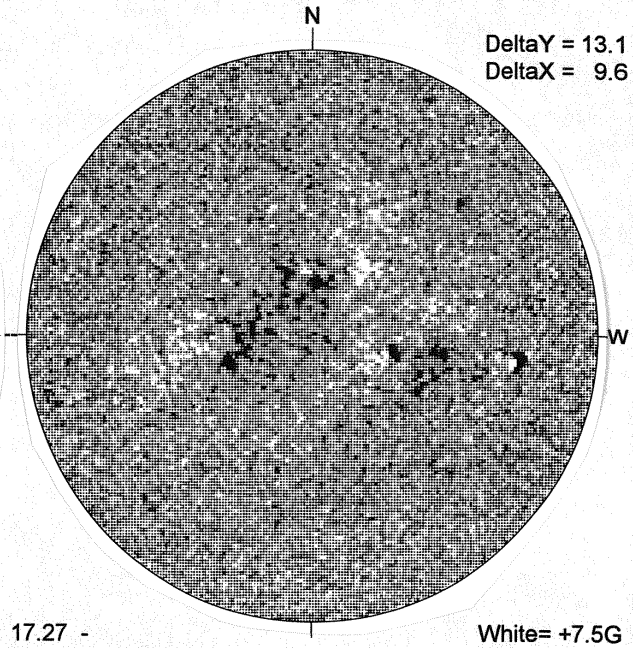
Solid = +
Dashed = -



2136 UT

MT. WILSON MAGNETOGRAM

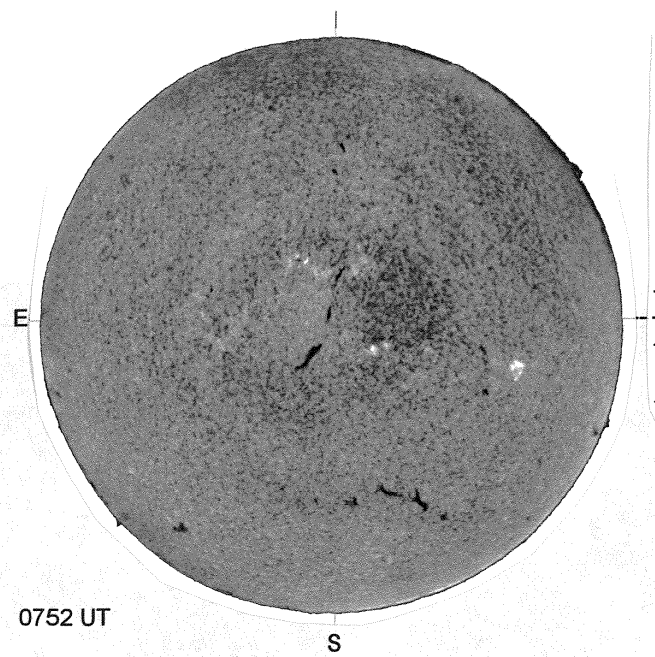
DeltaY = 13.1
DeltaX = 9.6



17.27 -
18.24 UT

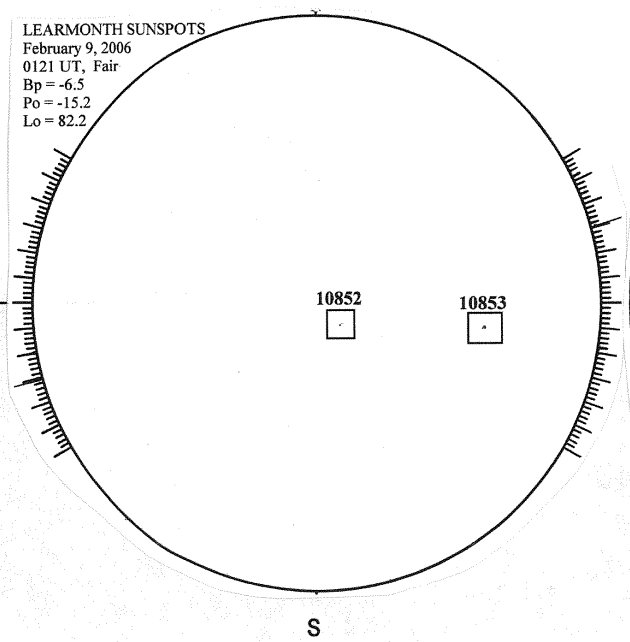
White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA

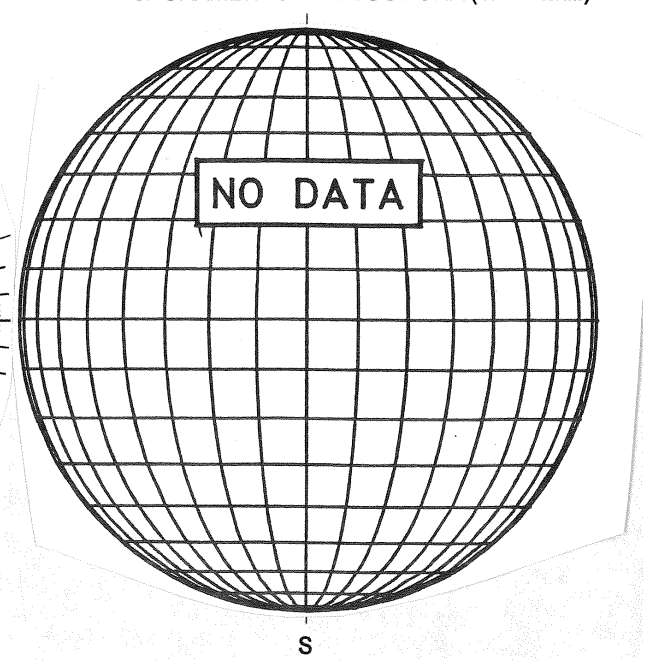


0752 UT

HOLLOMAN SUNSPOTS

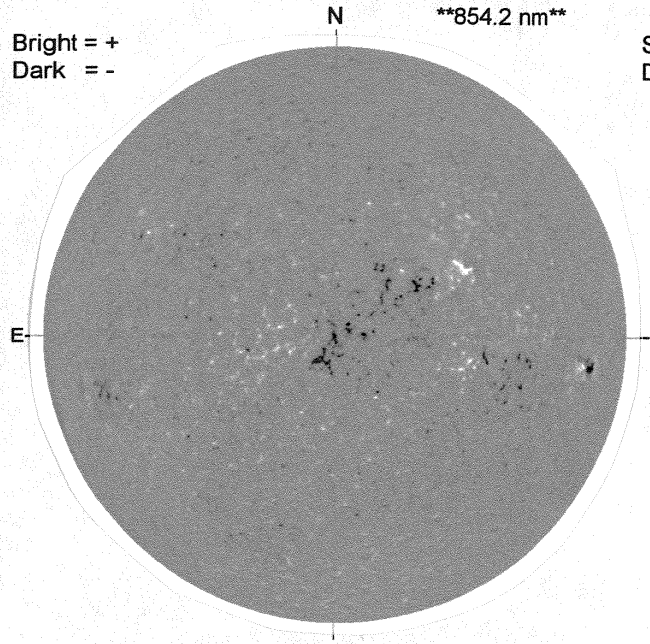


SACRAMENTO PEAK CORONA (1.15 Radii)

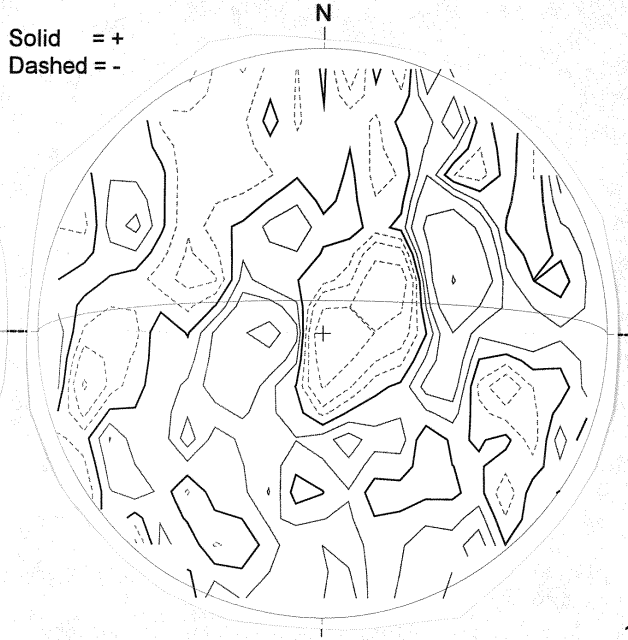


FEBRUARY 10, 2006 (P= -15.60, Bo = -6.58 Lo = 69.59)

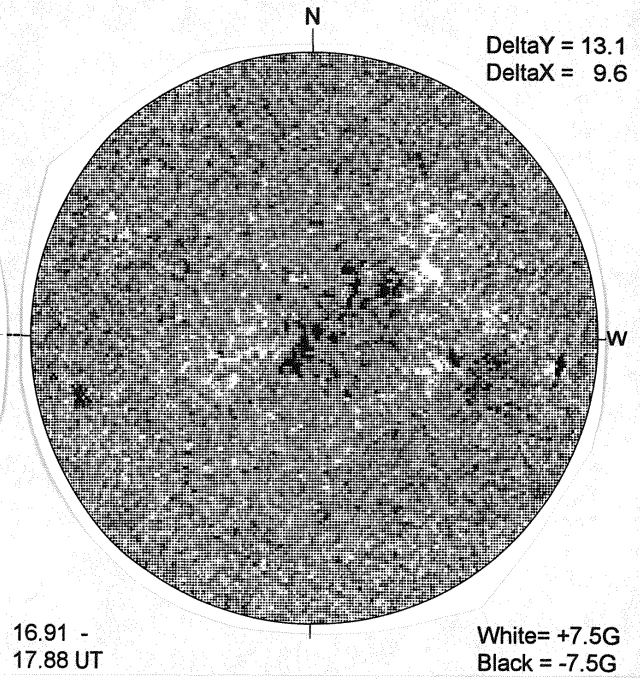
KITT PEAK MAGNETOGRAM--SOLIS



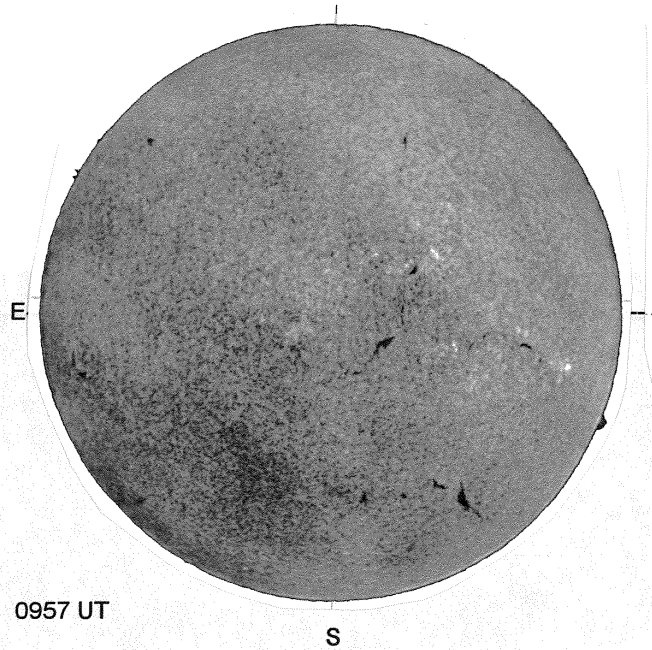
STANFORD MAGNETOGRAM



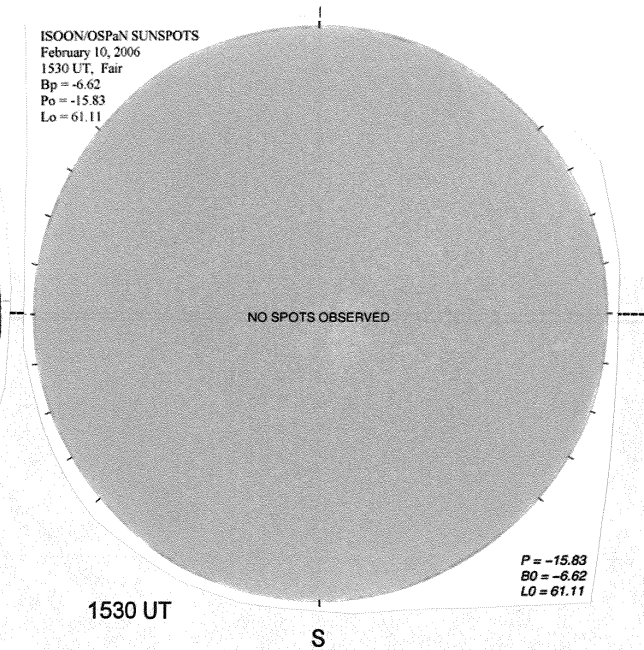
MT. WILSON MAGNETOGRAM



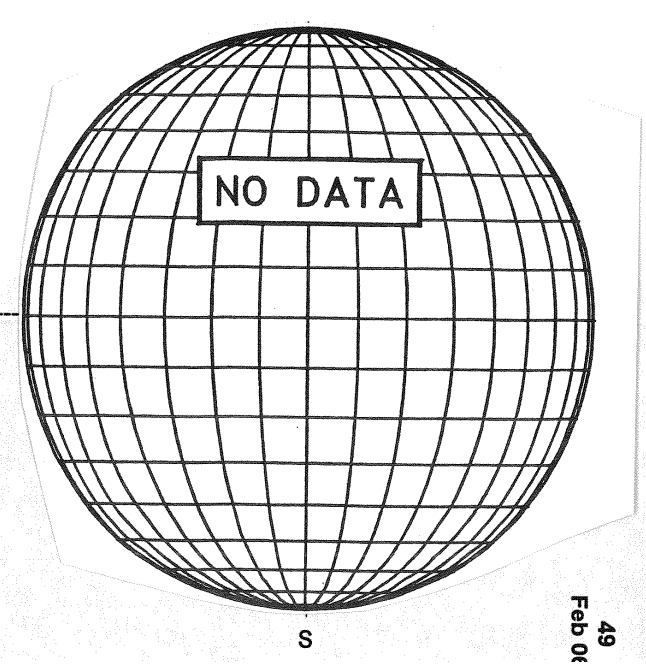
KANZELHOHE H-ALPHA



ISOON/OSPaN SUNSPOTS

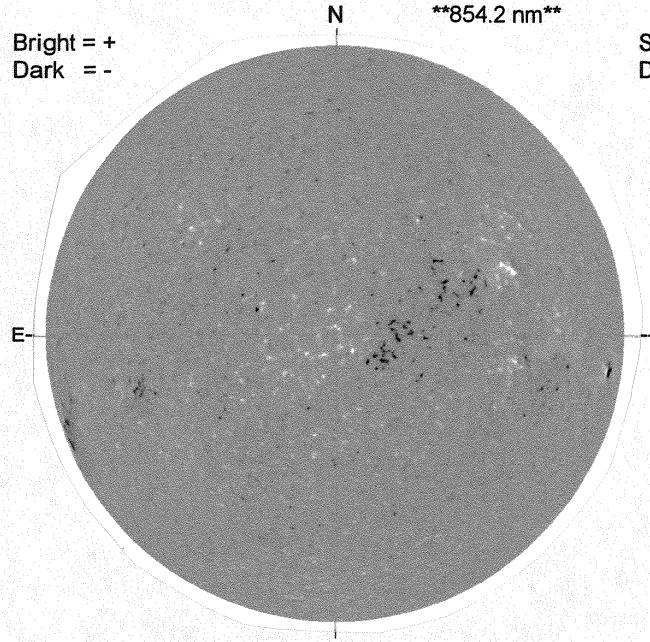


SACRAMENTO PEAK CORONA (1.15 Radii)----

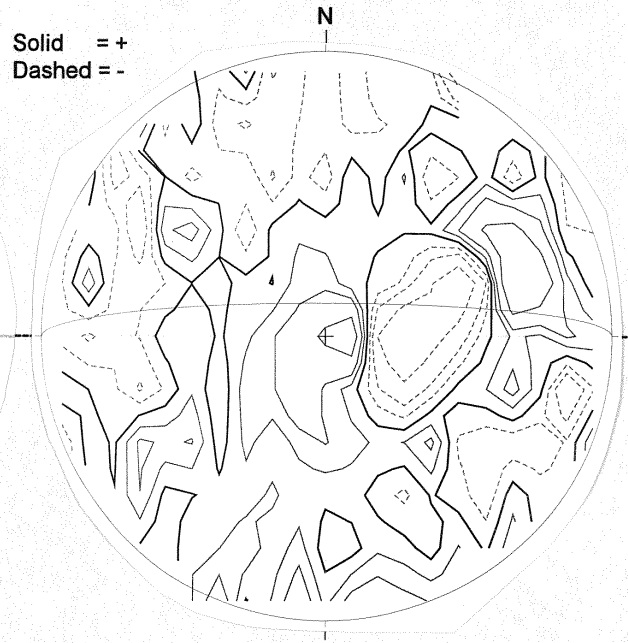


FEBRUARY 11, 2006 (P= -15.96, Bo = -6.64, Lo = 56.42)

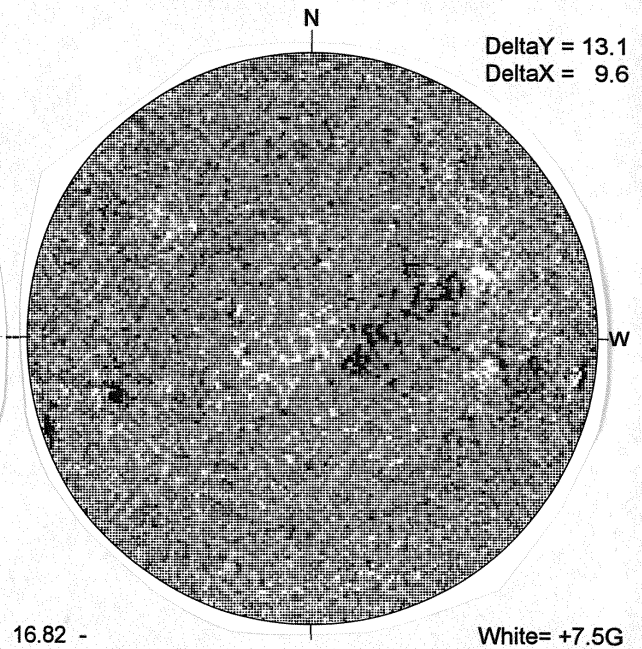
KITT PEAK MAGNETOGRAM--SOLIS



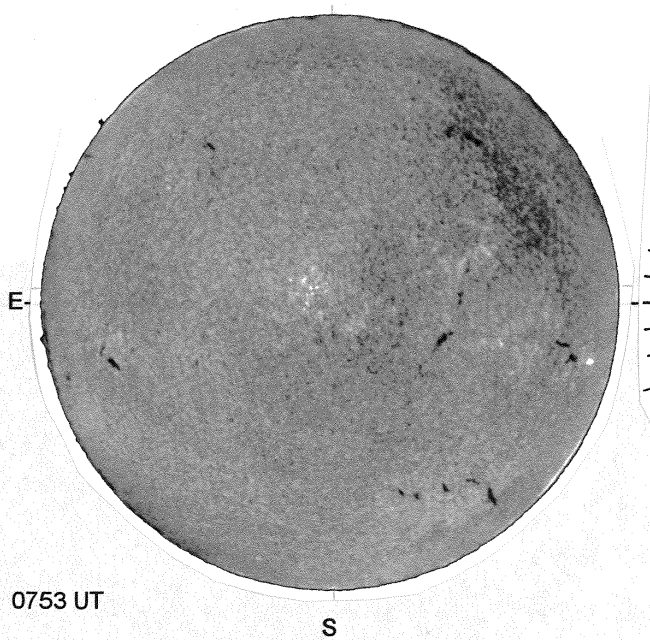
STANFORD MAGNETOGRAM



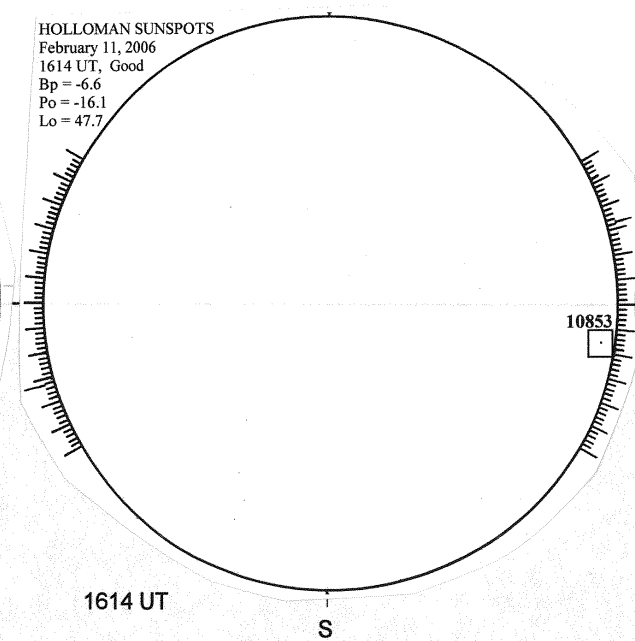
MT. WILSON MAGNETOGRAM



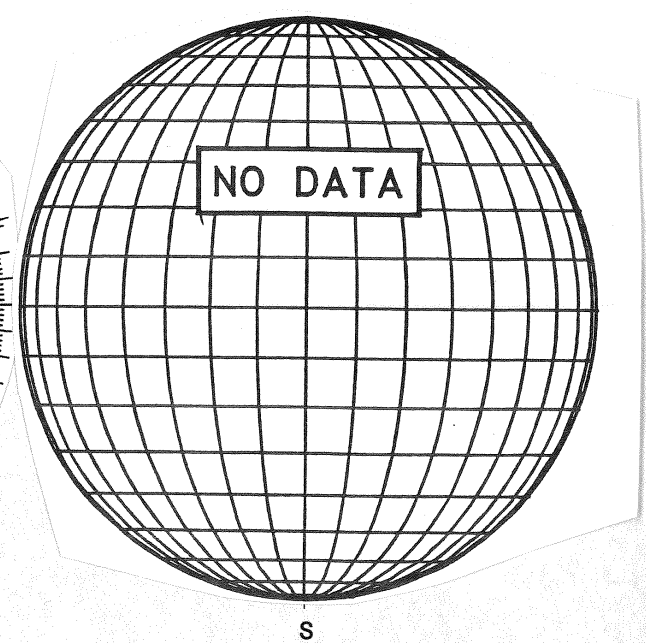
KANZELHOHE H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)----

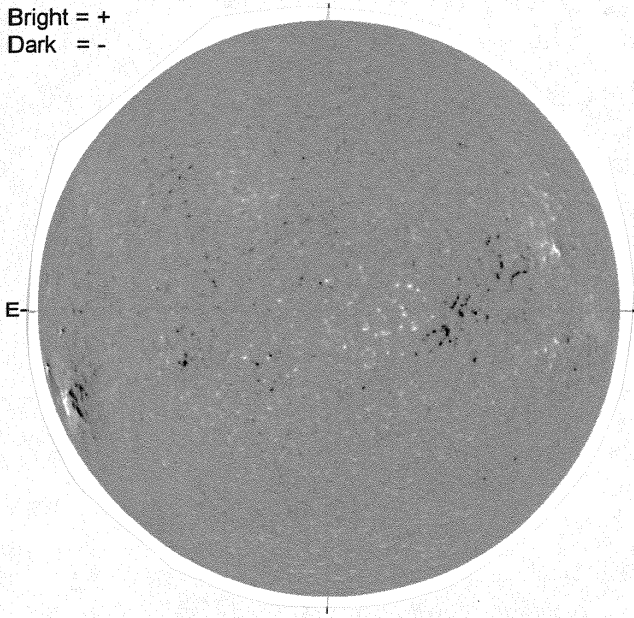


FEBRUARY 12, 2006 (P= -16.32, Bo = -6.69, Lo = 43.26)

KITT PEAK MAGNETOGRAM--SOLIS

854.2 nm

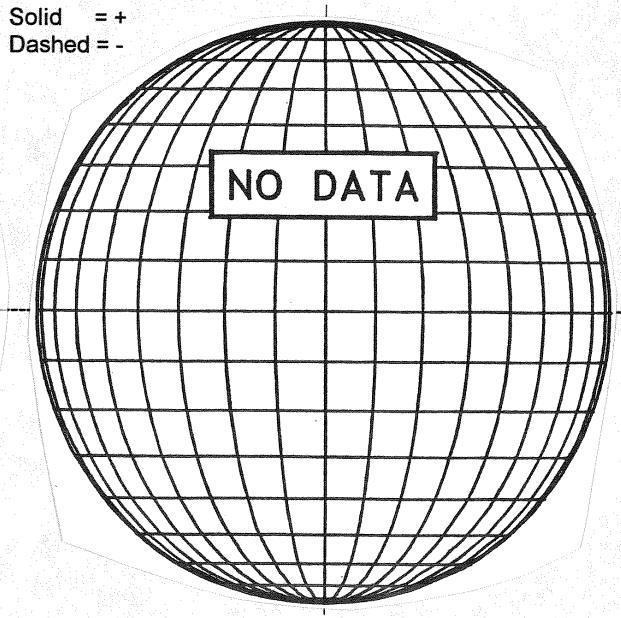
Bright = +
Dark = -



1706 UT

STANFORD MAGNETOGRAM

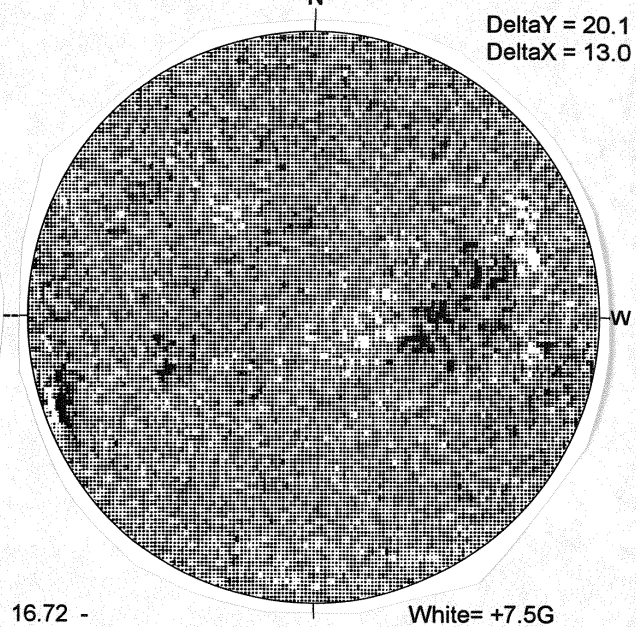
Solid = +
Dashed = -



16.72 -
17.15 UT

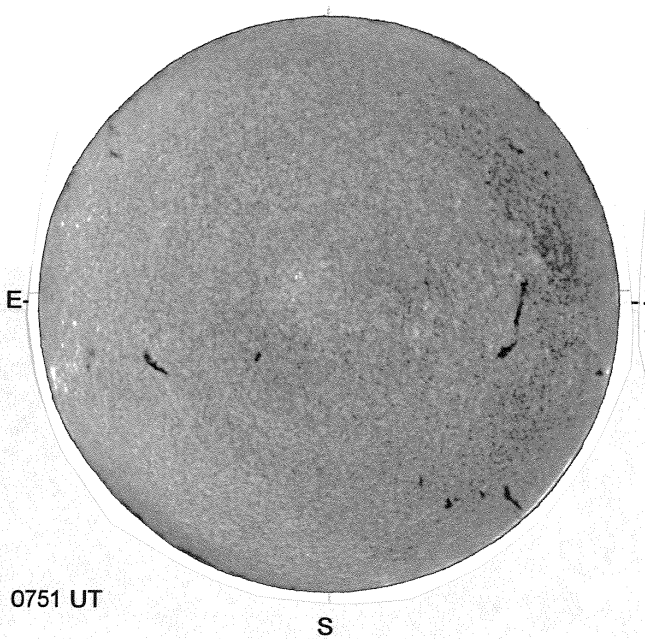
MT. WILSON MAGNETOGRAM

DeltaY = 20.1
DeltaX = 13.0



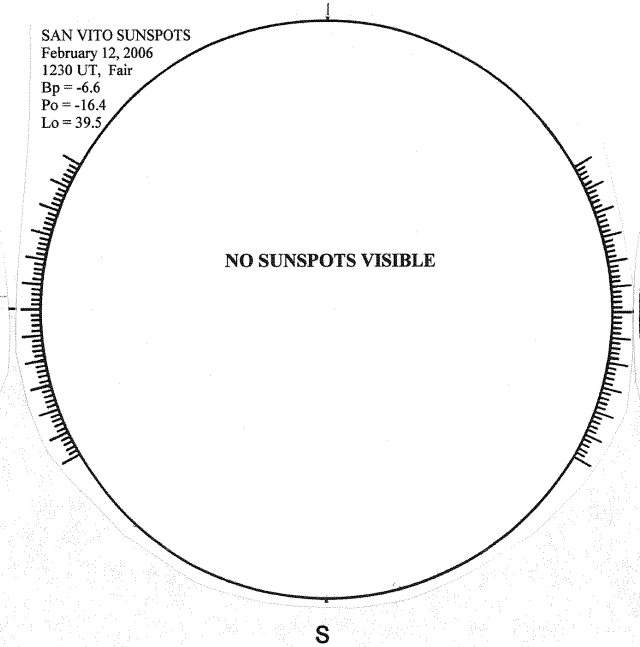
White= +7.5G
Black = -7.5G

---- KANZELHOHE H-ALPHA

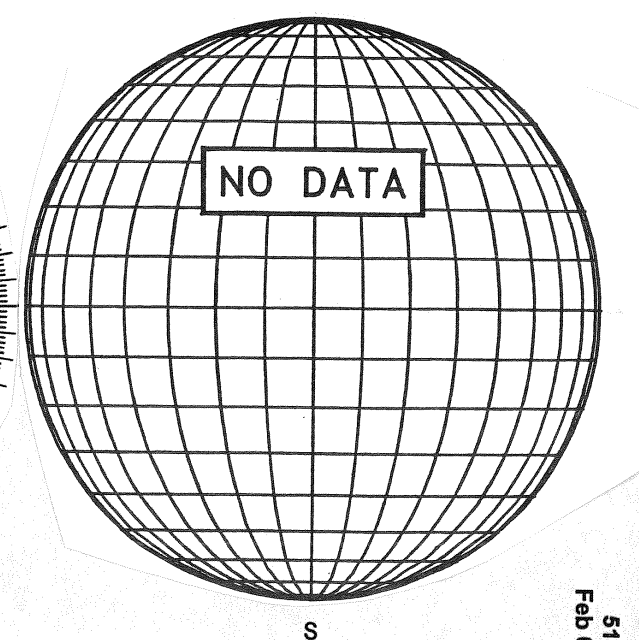


0751 UT

SAN VITO SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)----



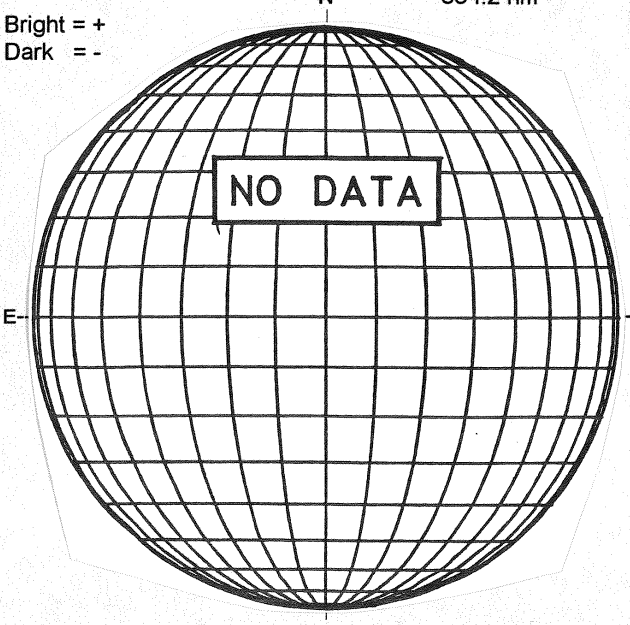
51
Feb 06

FEBRUARY 13, 2006 (P= -16.67, Bo = -6.74, Lo = 30.09)

KITT PEAK MAGNETOGRAM--SOLIS

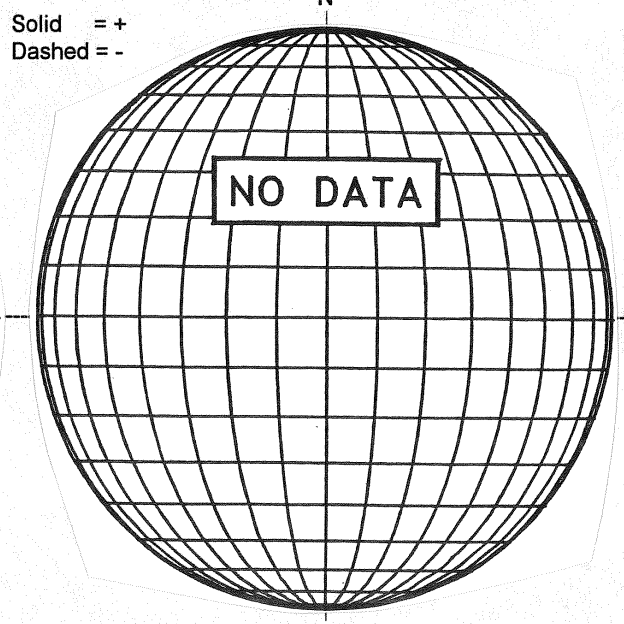
854.2 nm

Bright = +
Dark = -



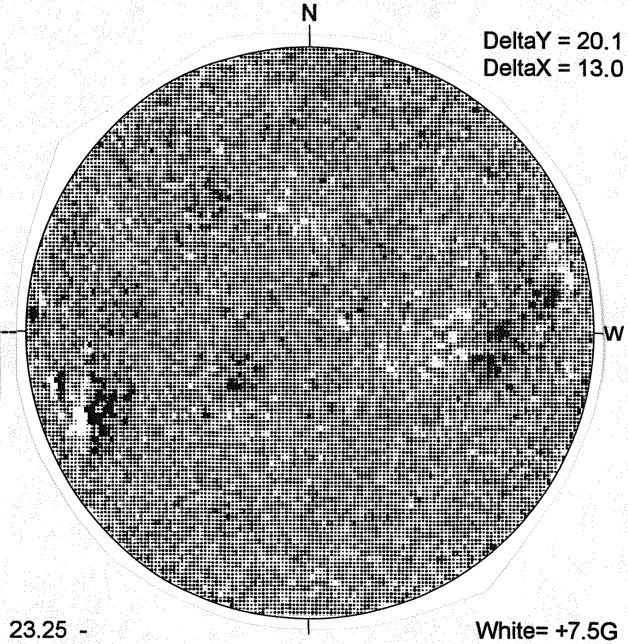
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

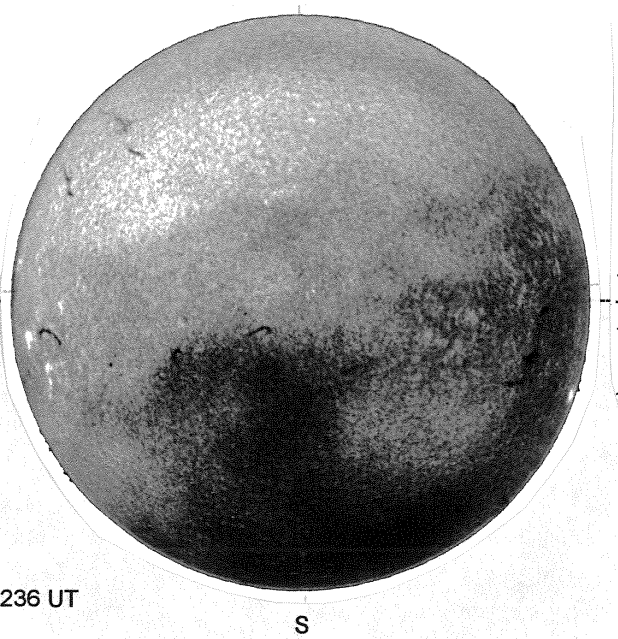
DeltaY = 20.1
DeltaX = 13.0



23.25 -
23.68 UT

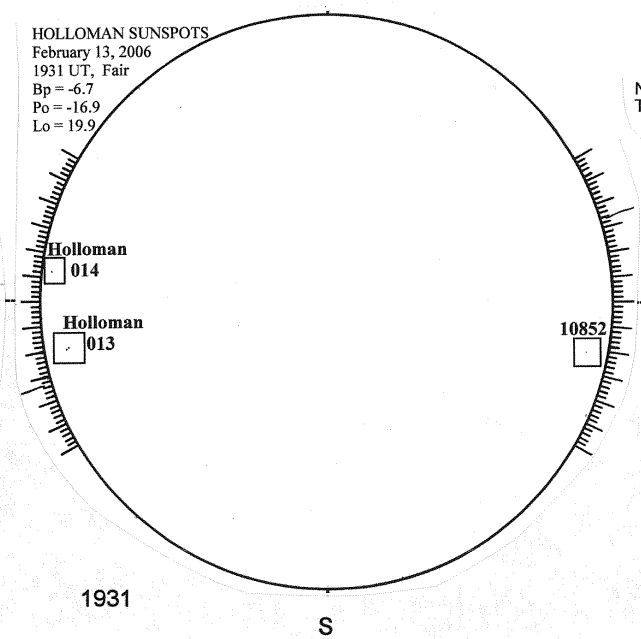
White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA



1236 UT

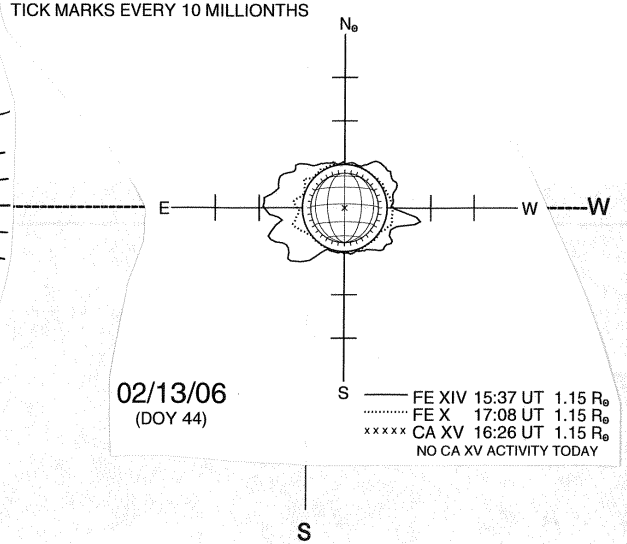
HOLLOMAN SUNSPOTS



1931

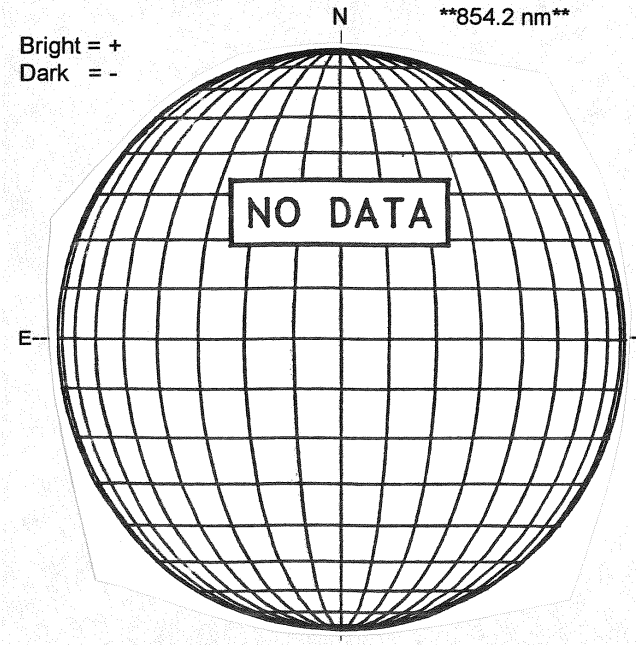
SACRAMENTO PEAK CORONA (1.15 Radii)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS

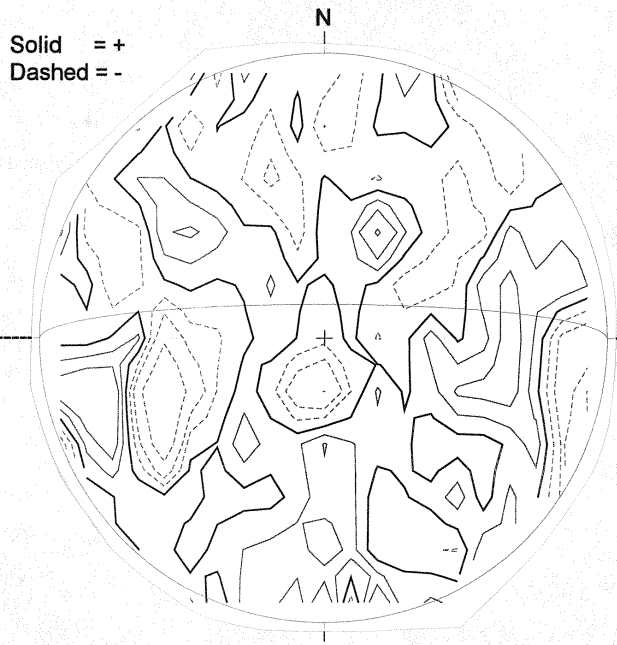


FEBRUARY 14, 2006 (P= -17.01, Bo = -6.78, Lo = 16.92)

KITT PEAK MAGNETOGRAM--SOLIS

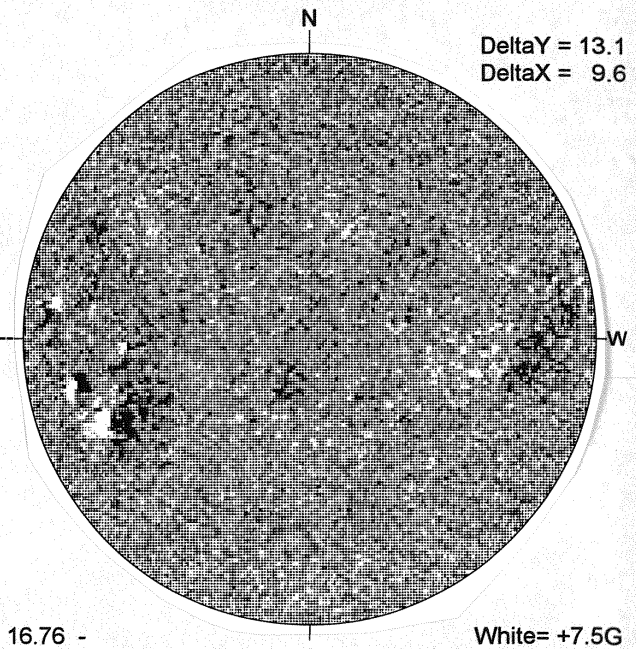


STANFORD MAGNETOGRAM



2128 UT

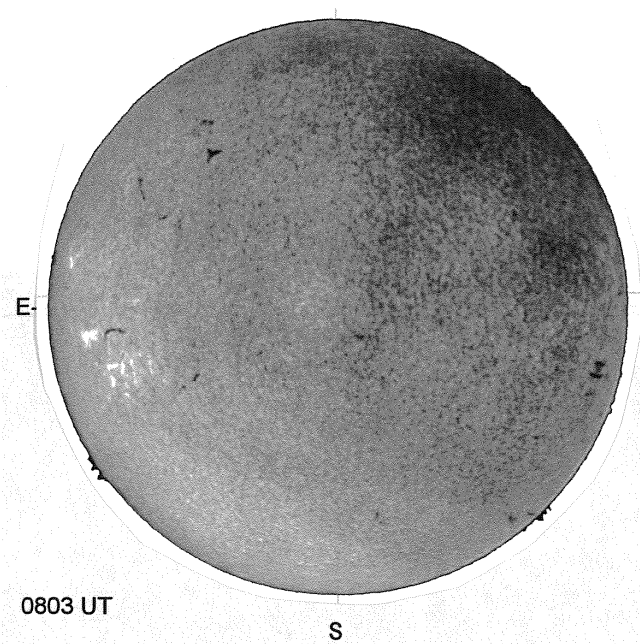
MT. WILSON MAGNETOGRAM



16.76 -
18.12 UT

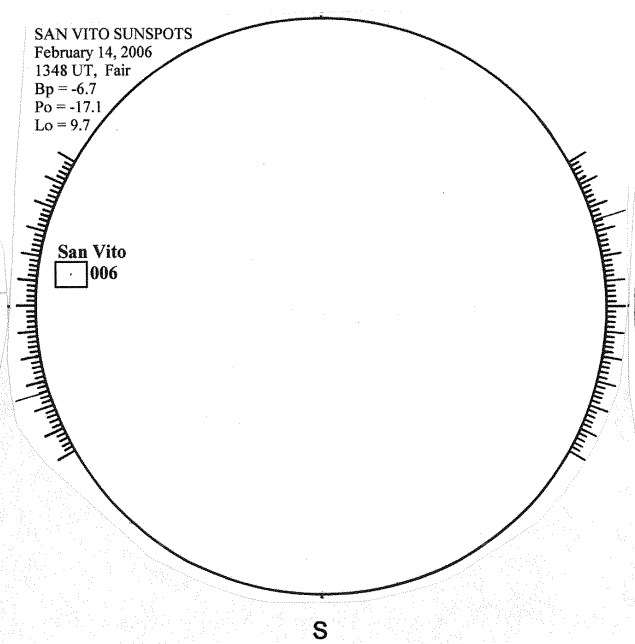
White= +7.5G
Black = -7.5G

----- KANZELHOHE H-ALPHA

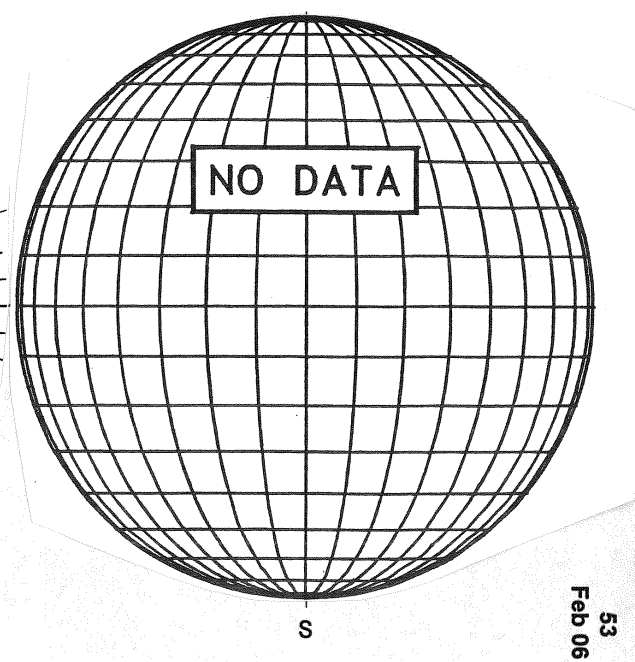


0803 UT

LEARMONTH SUNSPOTS

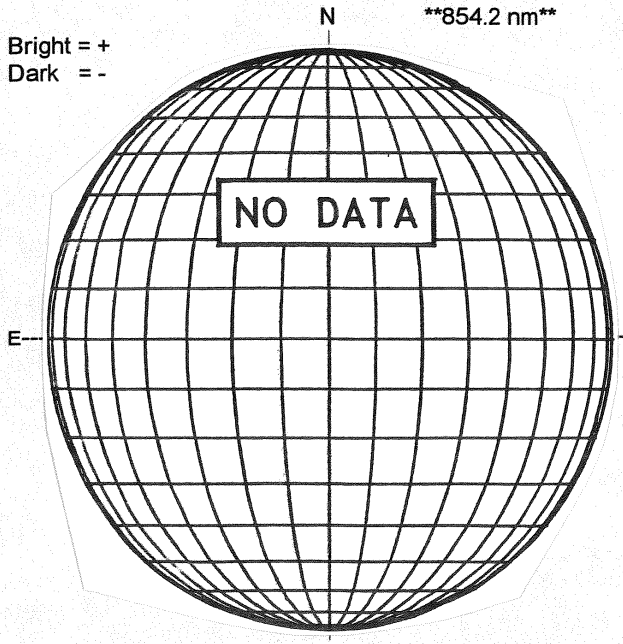


SACRAMENTO PEAK CORONA (1.15 Radii)----

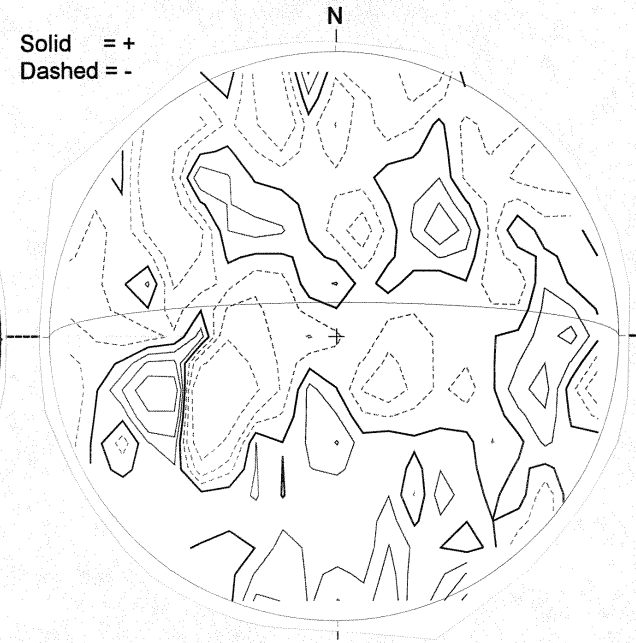


FEBRUARY 15, 2006 (P= -17.35, Bo = -6.83, Lo = 3.75)

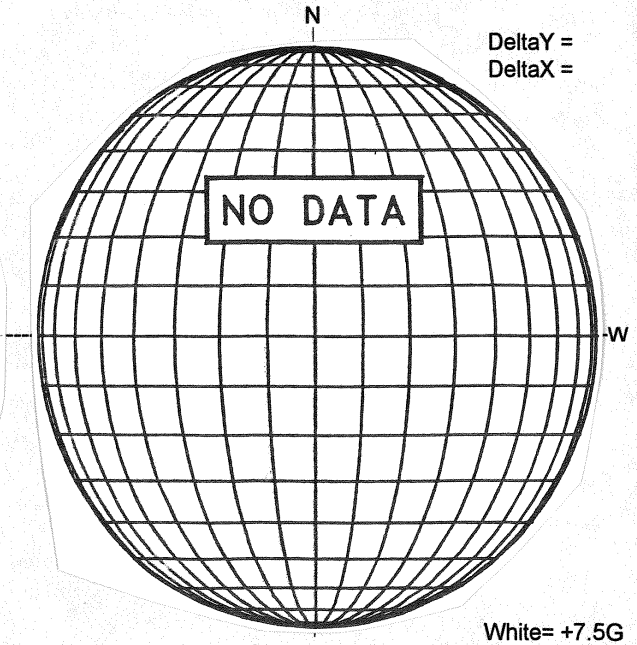
KITT PEAK MAGNETOGRAM--SOLIS



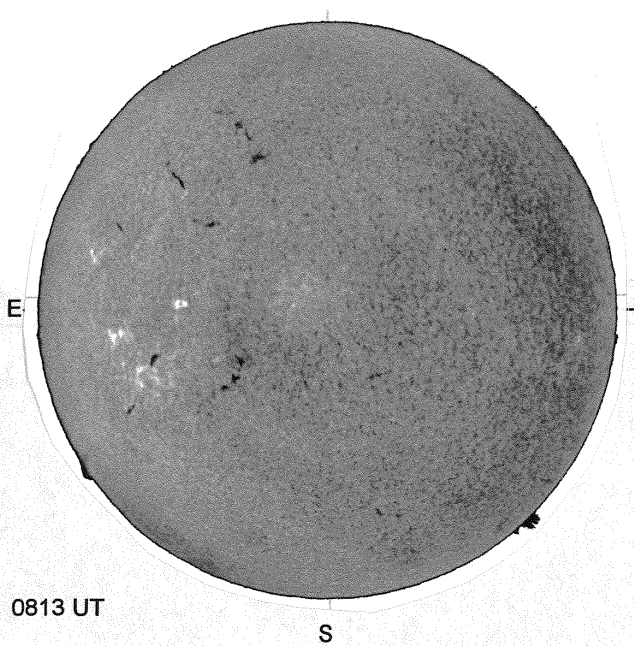
STANFORD MAGNETOGRAM



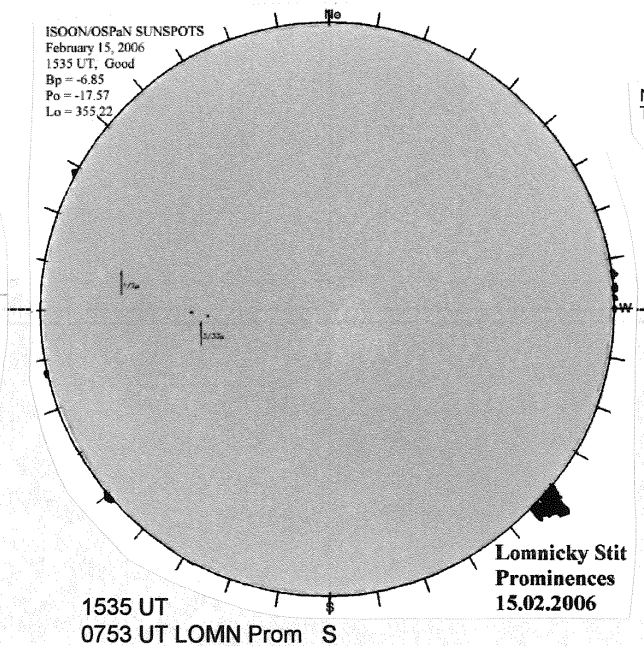
MT. WILSON MAGNETOGRAM



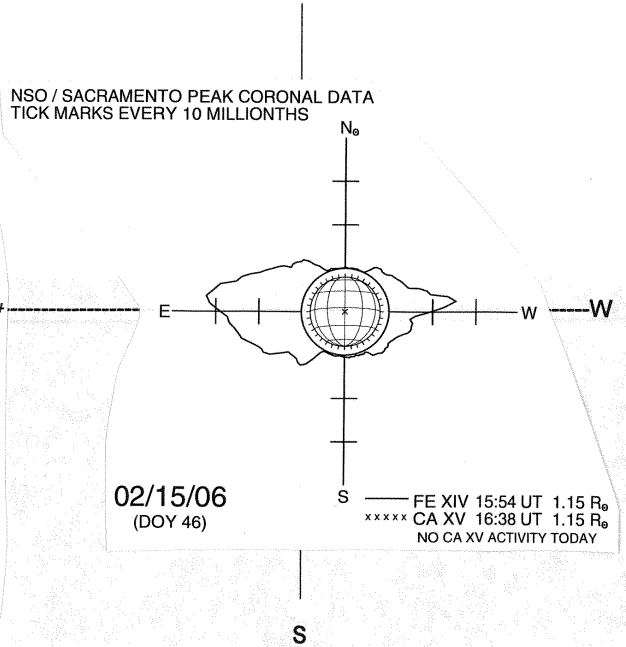
KANZELHOHE H-ALPHA



ISOON/OSPaN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)

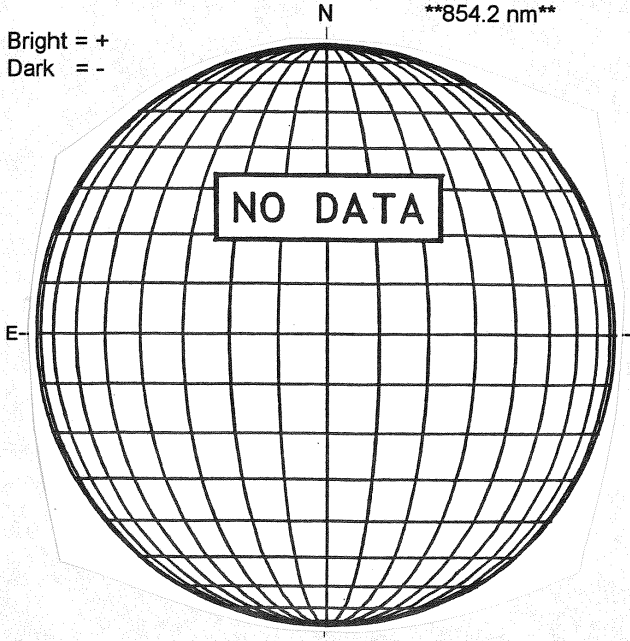


FEBRUARY 16, 2006 (P= -17.69, Bo = -6.87, Lo = 350.58)

KITT PEAK MAGNETOGRAM--SOLIS

854.2 nm

Bright = +
Dark = -



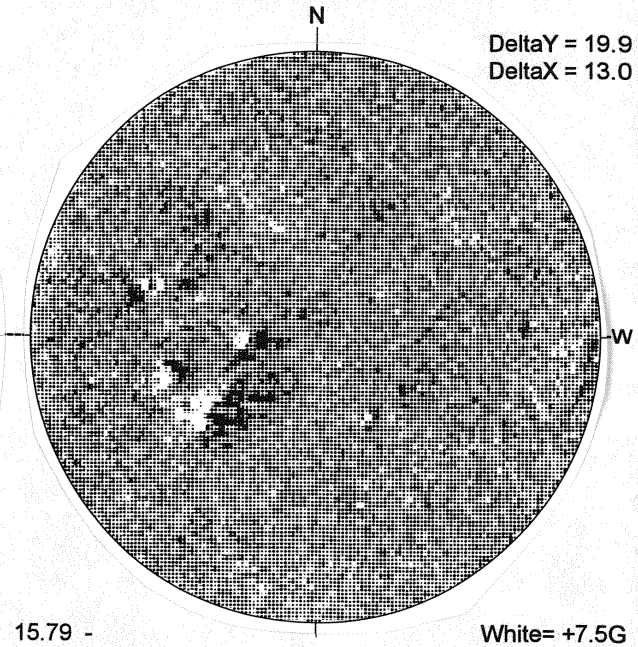
STANFORD MAGNETOGRAM

Solid = +
Dashed = -

1804 UT

MT. WILSON MAGNETOGRAM

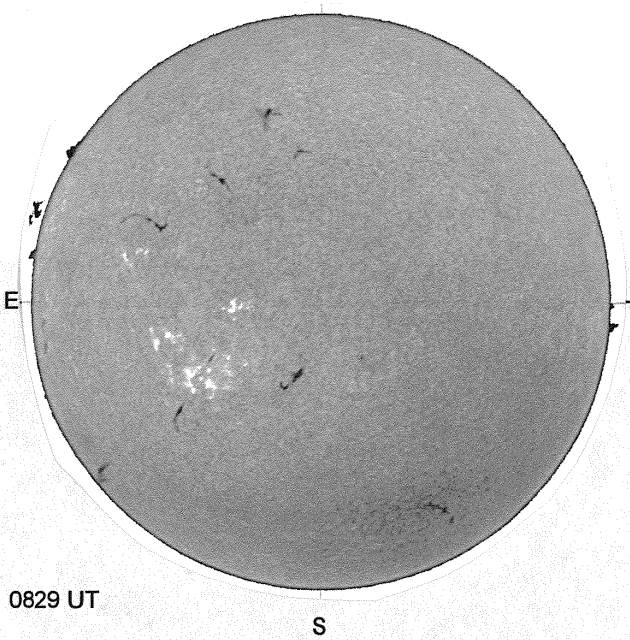
DeltaY = 19.9
DeltaX = 13.0



15.79 -
16.22 UT

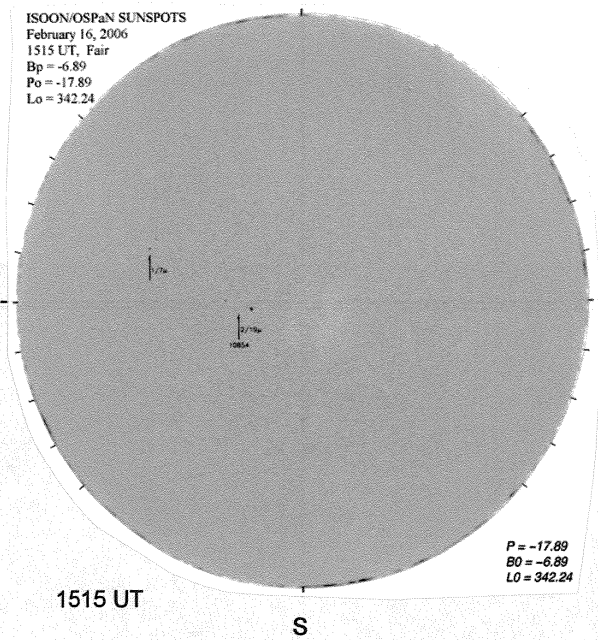
White= +7.5G
Black = -7.5G

CATANIA H-ALPHA



0829 UT

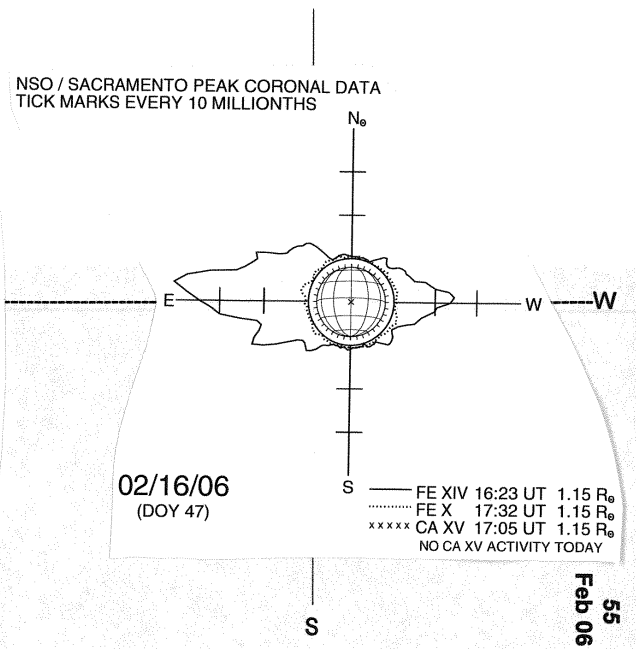
ISOON/OSPaN SUNSPOTS



1515 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS



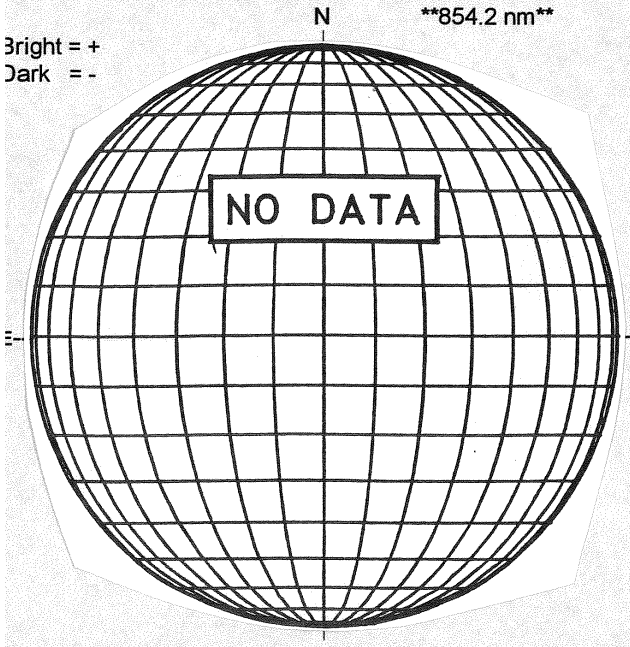
02/16/06
(DOY 47)

FE XIV 16:23 UT 1.15 $R_\odot$
FE X 17:32 UT 1.15 $R_\odot$
CA XV 17:05 UT 1.15 $R_\odot$
NO CA XV ACTIVITY TODAY

FEBRUARY 17, 2005 (P= -18.01, Bo = -6.91, Lo = 337.42)

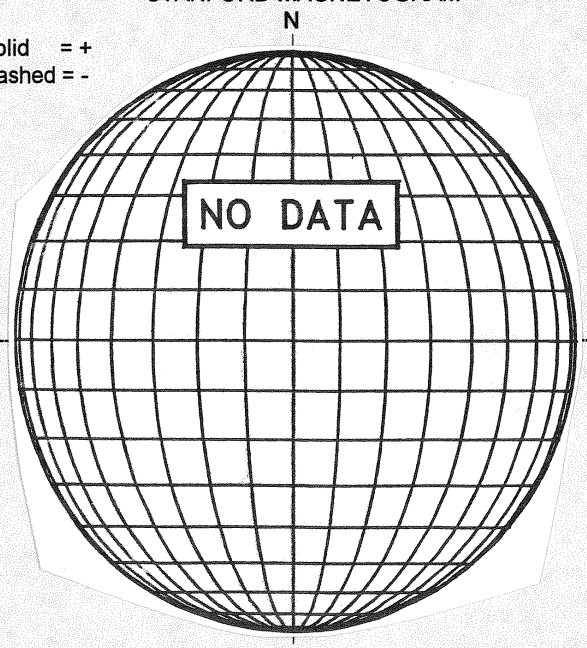
KITT PEAK MAGNETOGRAM--SOLIS

Bright = +
Dark = -



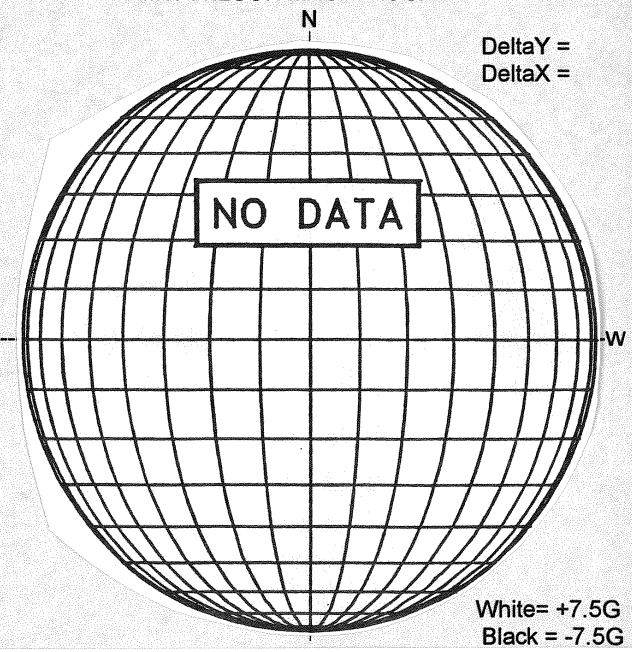
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



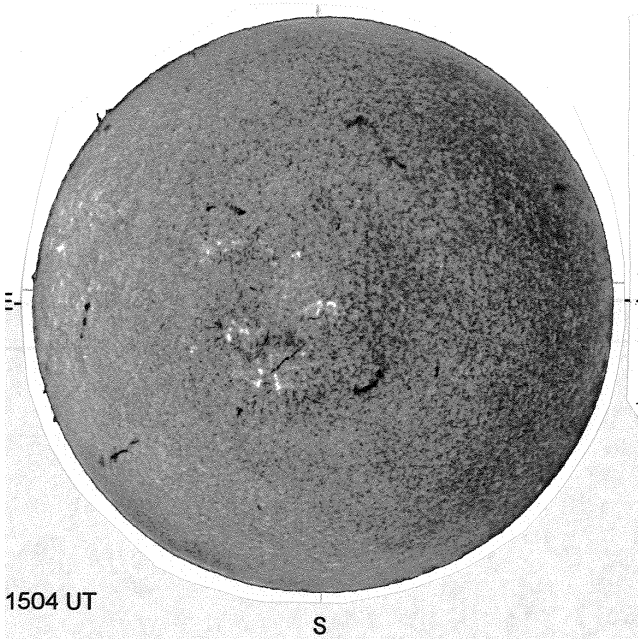
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =

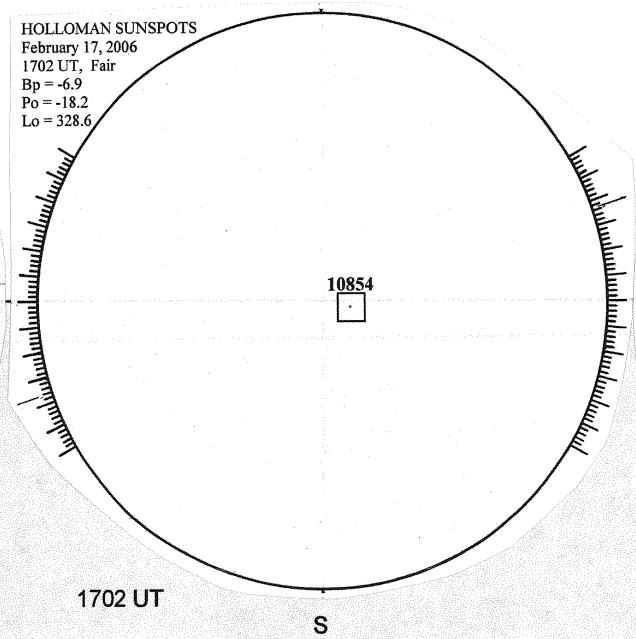


White= +7.5G
Black = -7.5G

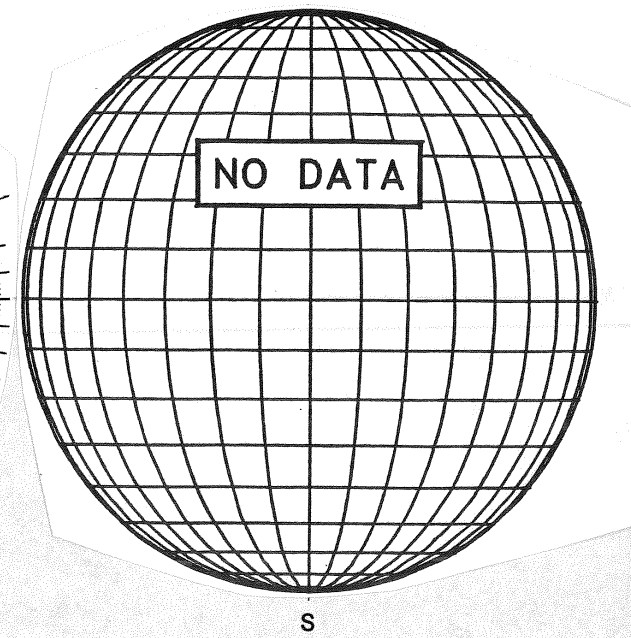
KANZELHOHE H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)----

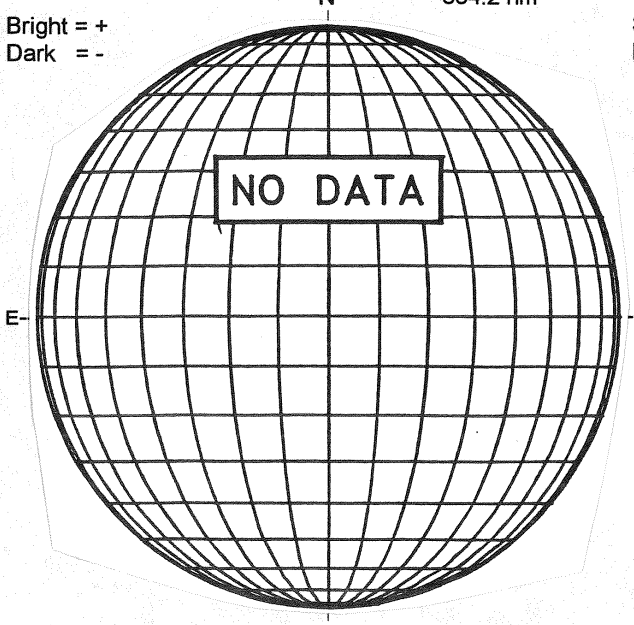


FEBRUARY 18, 2006 (P= -18.34, Bo = -6.95, Lo = 324.25)

KITT PEAK MAGNETOGRAM--SOLIS

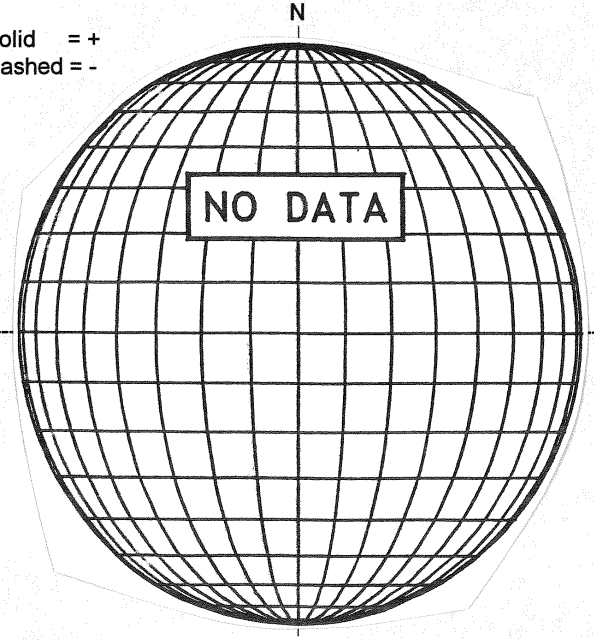
854.2 nm

Bright = +
Dark = -



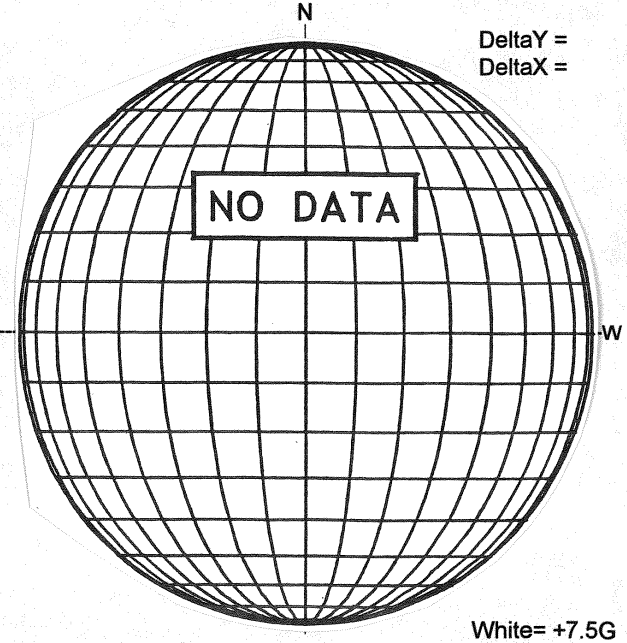
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



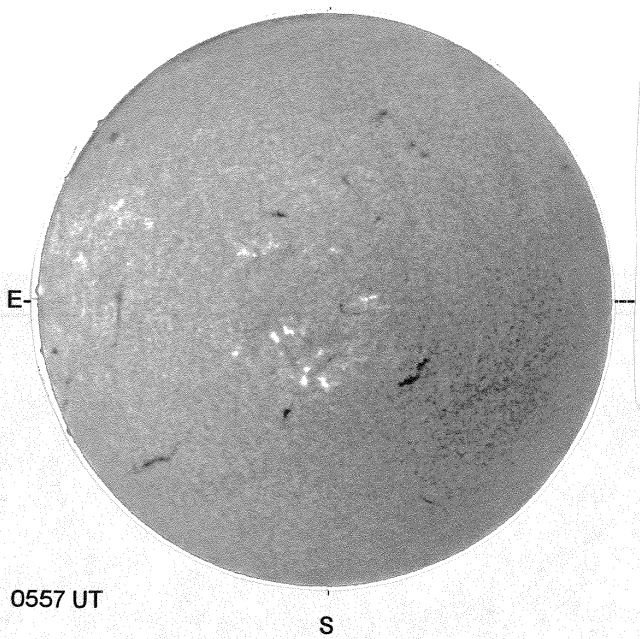
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



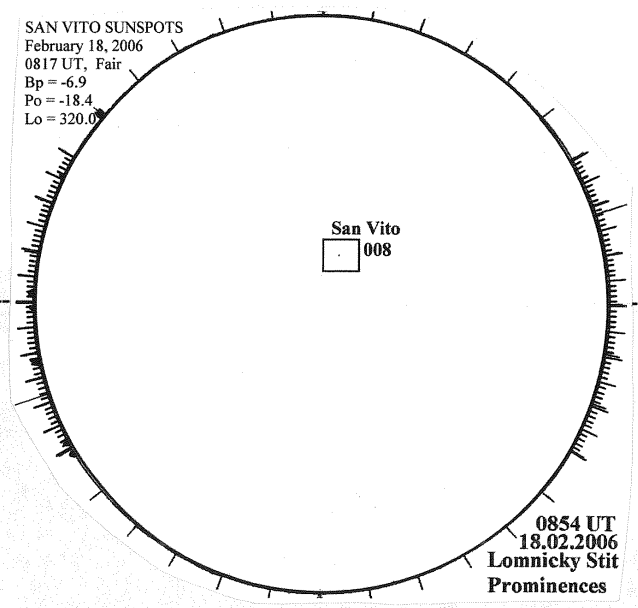
White= +7.5G
Black = -7.5G

---- HUAIROU H-ALPHA



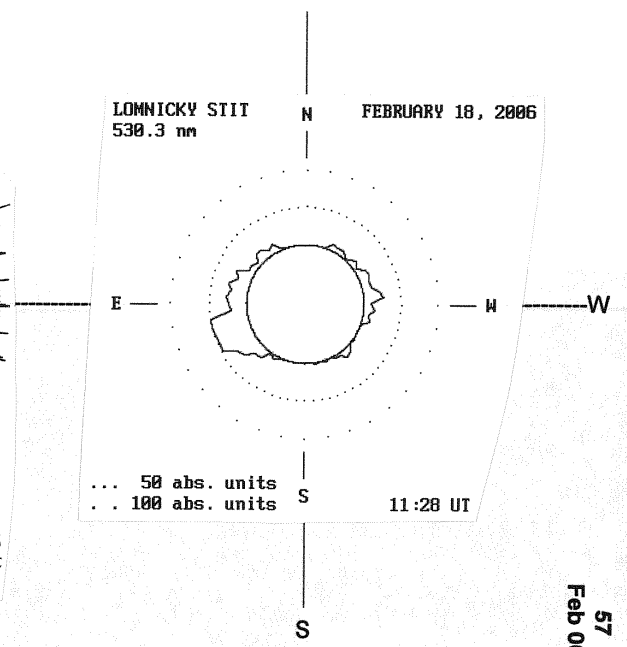
0557 UT

SAN VITO SUNSPOTS



0854 UT LOMN Prom S

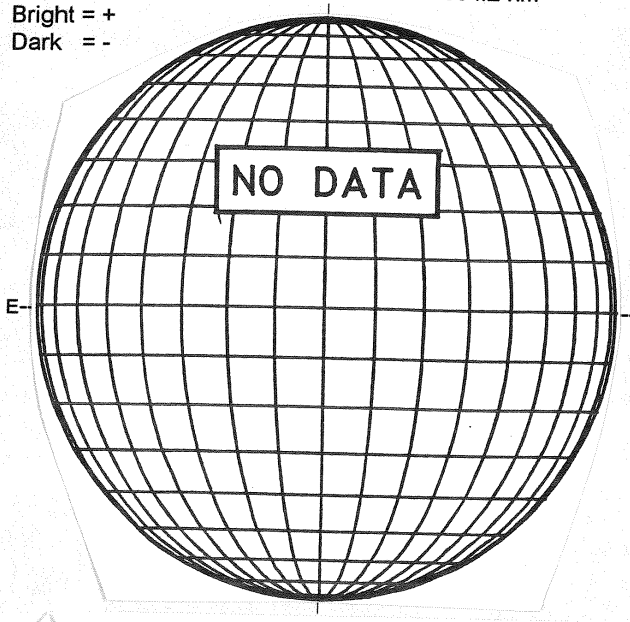
LOMNICKY PEAK CORONA (1.04 Radii)----



FEBRUARY 19, 2006 (P= -18.65, Bo = -6.98, Lo = 311.08)

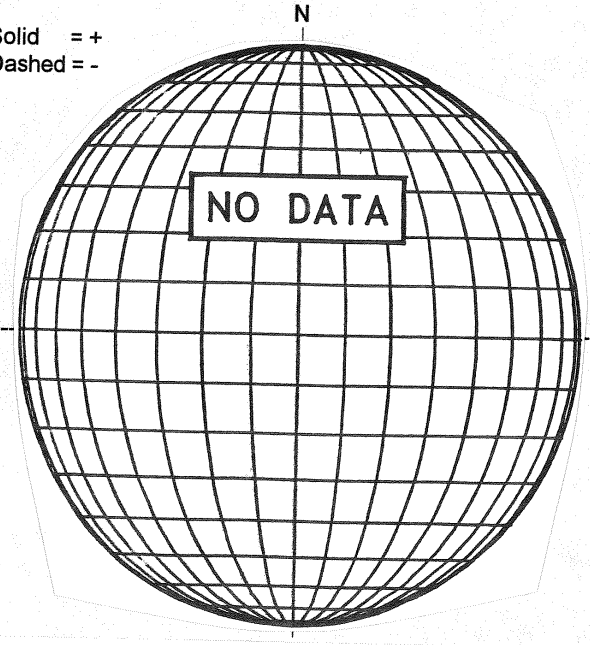
KITT PEAK MAGNETOGRAM--SOLIS
854.2 nm

Bright = +
Dark = -



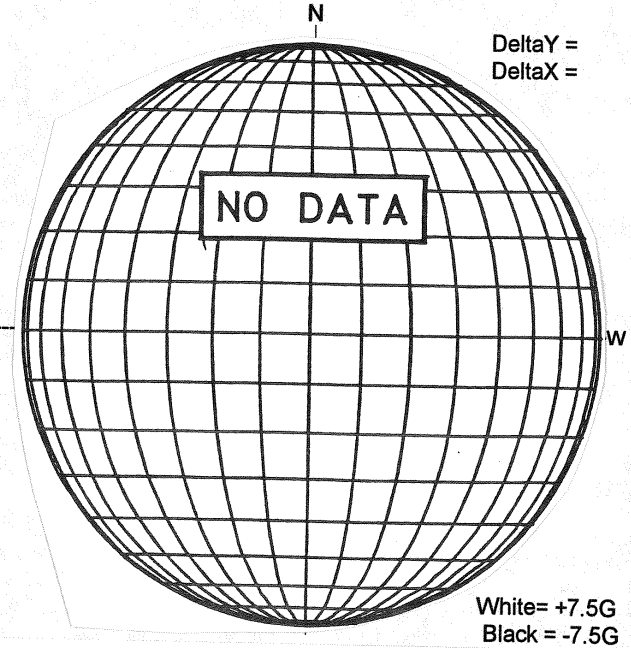
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



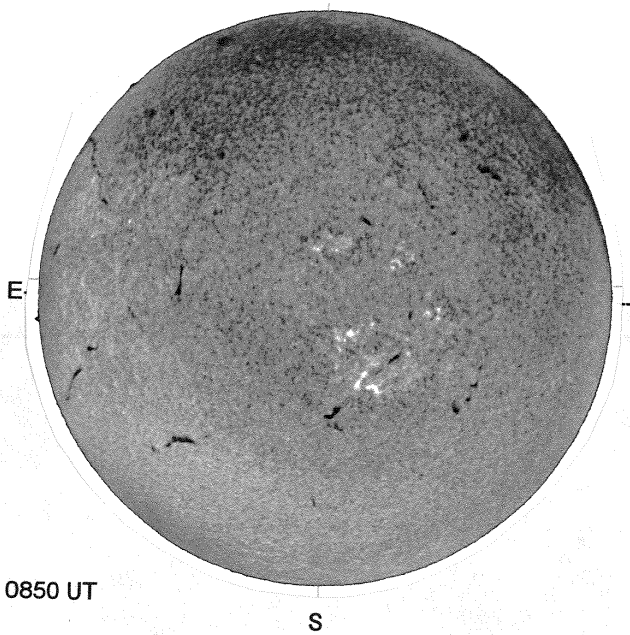
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



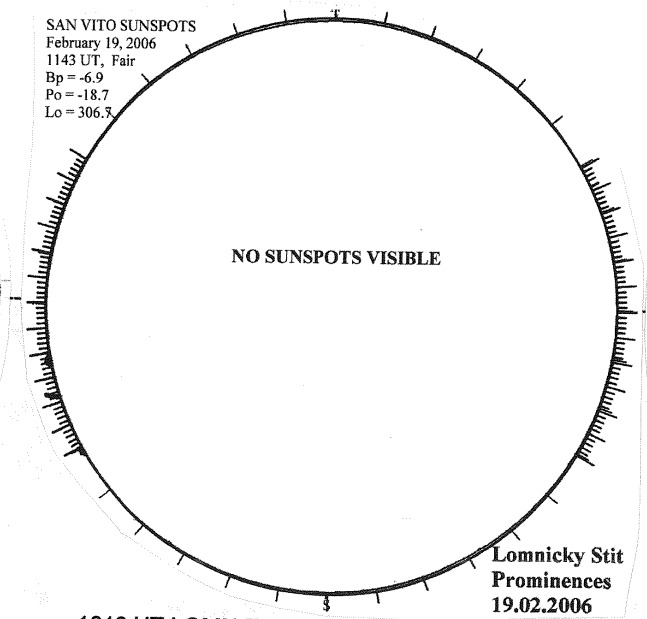
White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA



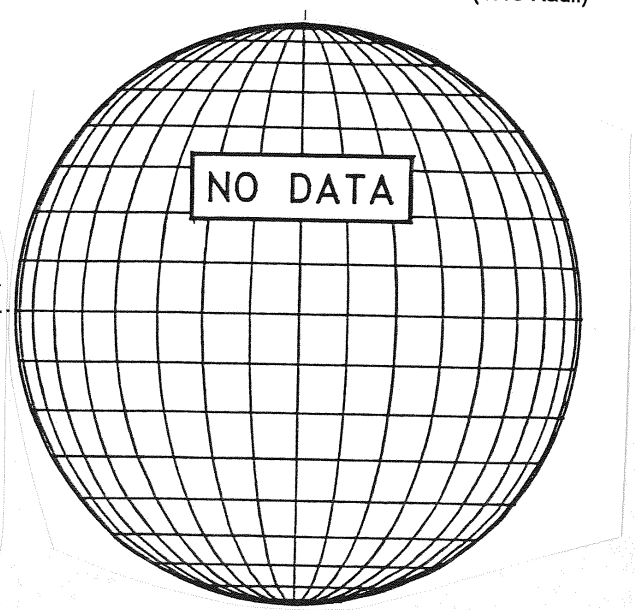
0850 UT

SAN VITO SUNSPOTS



1016 UT LOMN Prom

SACRAMENTO PEAK CORONA (1.15 Radii)----

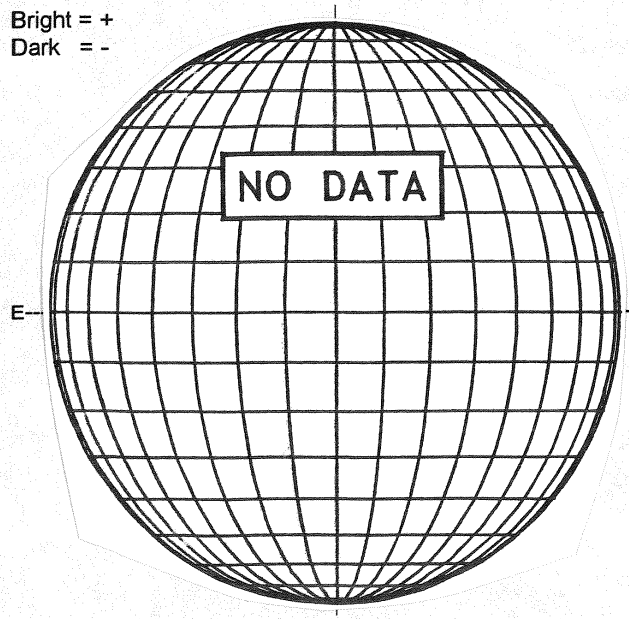


FEBRUARY 20, 2006 (P= -18.96, Bo = -7.02, Lo = 297.91)

KITT PEAK MAGNETOGRAM--SOLIS

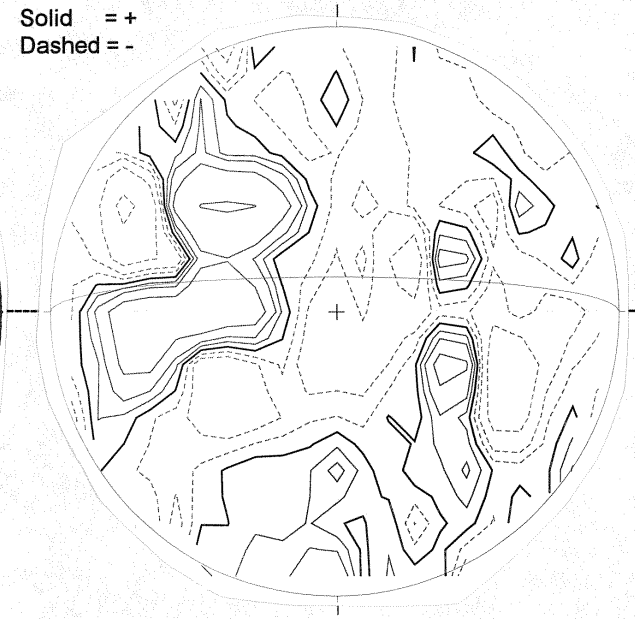
854.2 nm

Bright = +
Dark = -



STANFORD MAGNETOGRAM

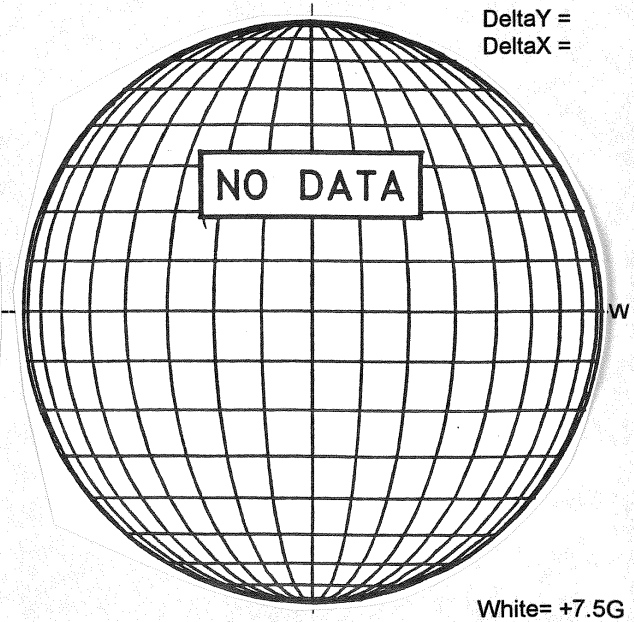
Solid = +
Dashed = -



2108 UT

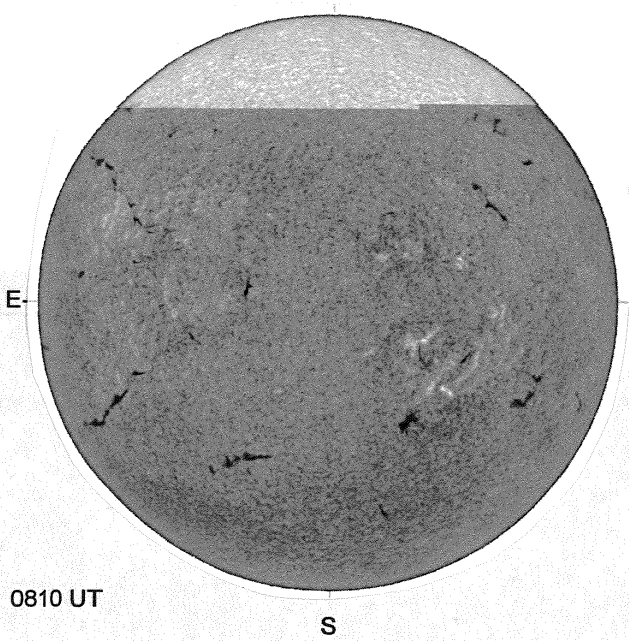
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



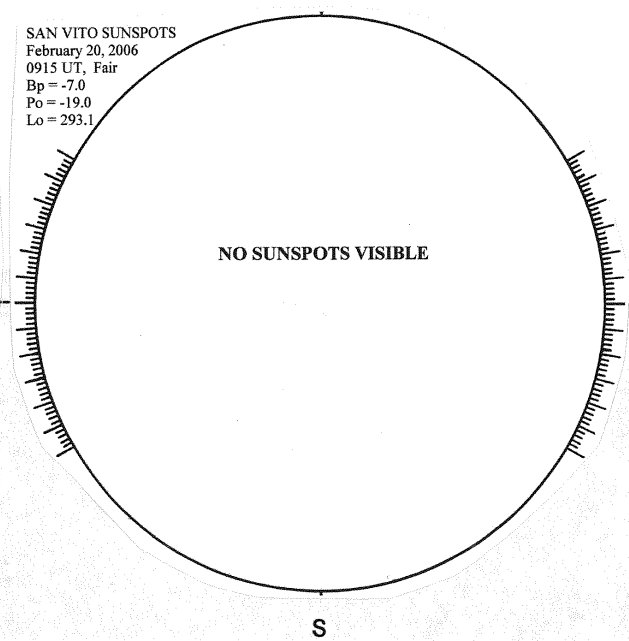
White= +7.5G
Black = -7.5G

---- CATANIA H-ALPHA

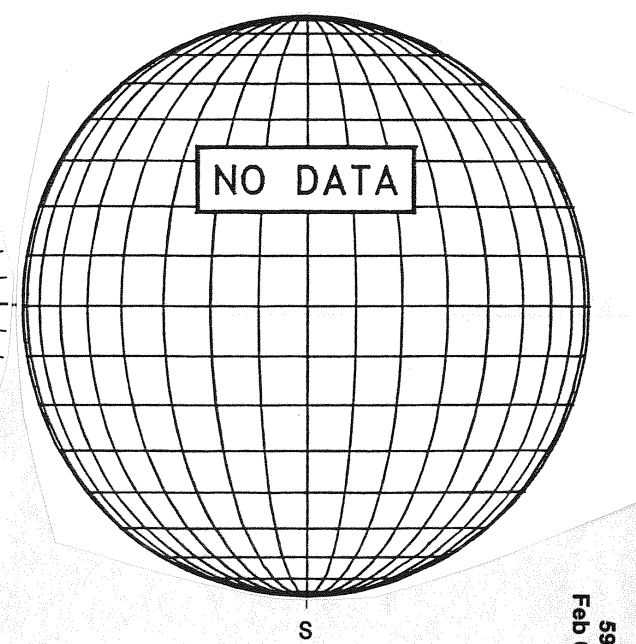


0810 UT

SAN VITO SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)----

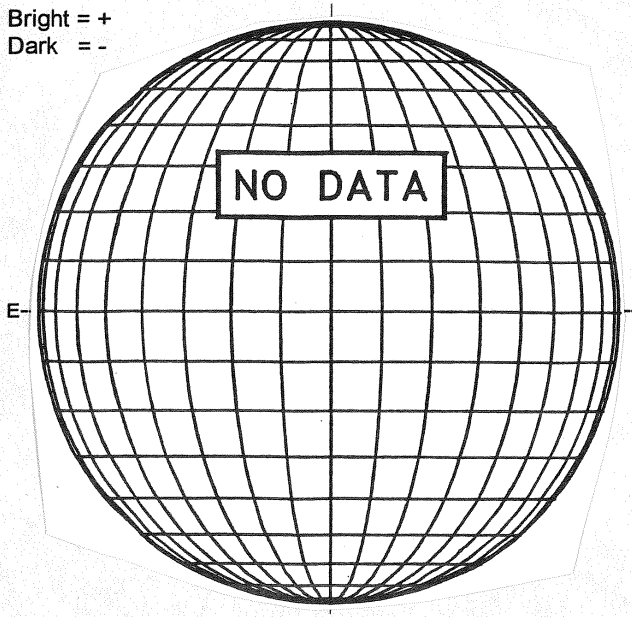


FEBRUARY 21, 2006 (P= -19.27, Bo = -7.05, Lo = 284.74)

KITT PEAK MAGNETOGRAM--SOLIS

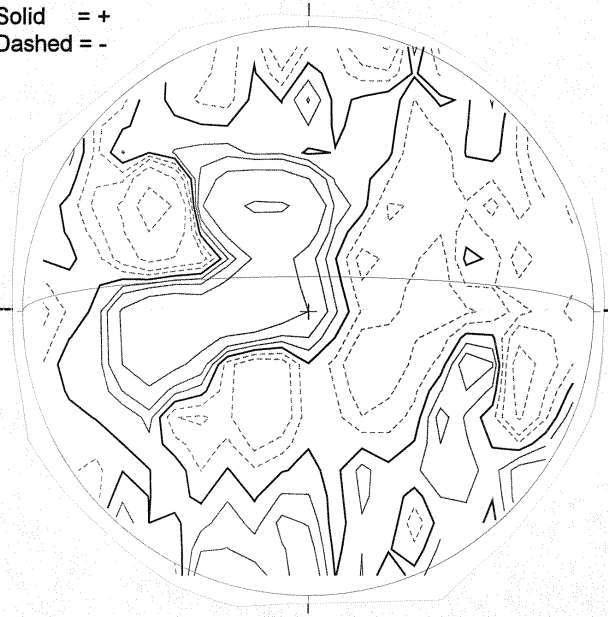
854.2 nm

Bright = +
Dark = -



STANFORD MAGNETOGRAM

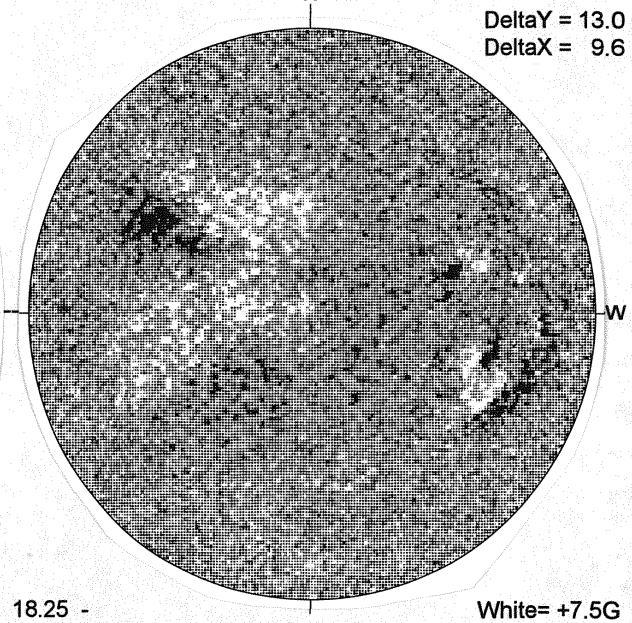
Solid = +
Dashed = -



2129 UT

MT. WILSON MAGNETOGRAM

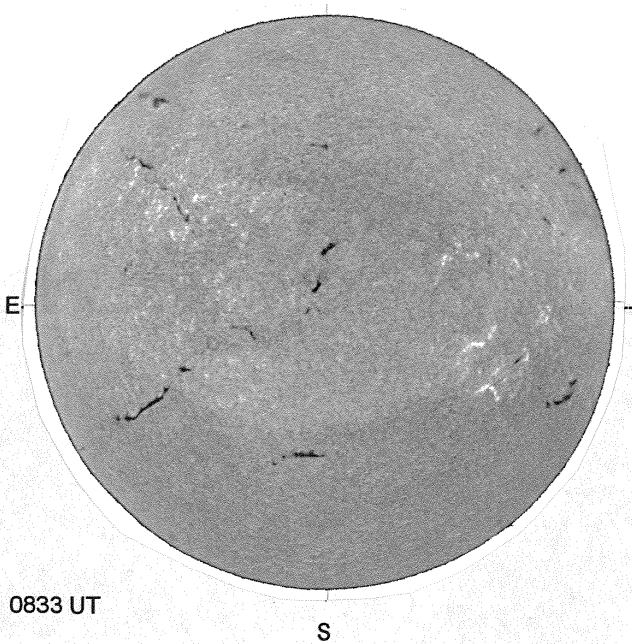
DeltaY = 13.0
DeltaX = 9.6



18.25 -
19.22 UT

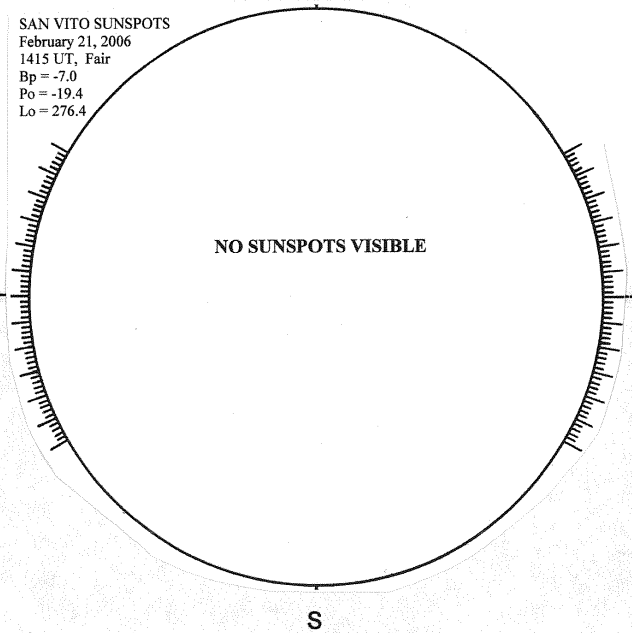
White= +7.5G
Black = -7.5G

CATANIA H-ALPHA

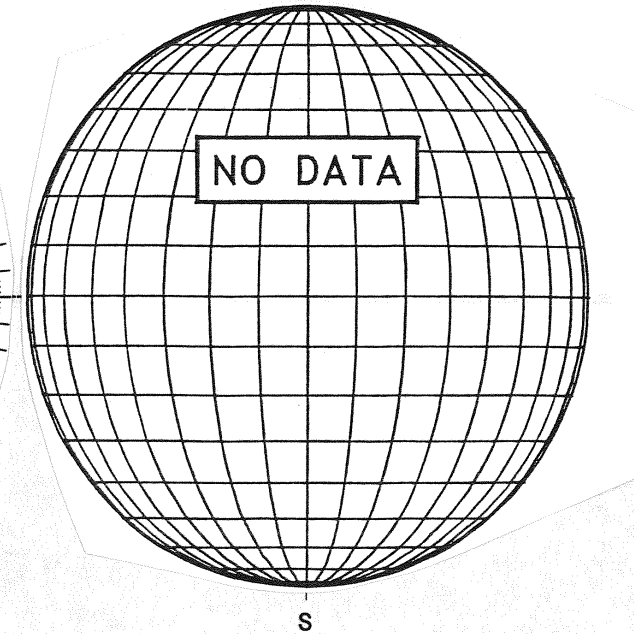


0833 UT

SAN VITO SUNSPOTS

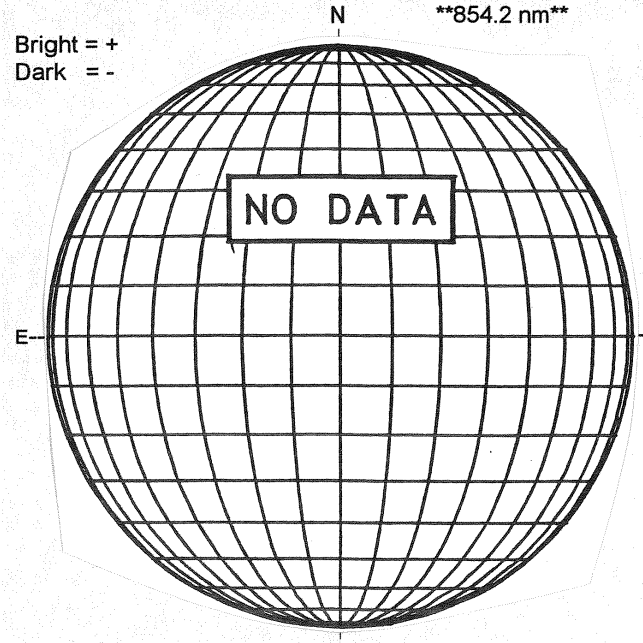


SACRAMENTO PEAK CORONA (1.15 Radii)

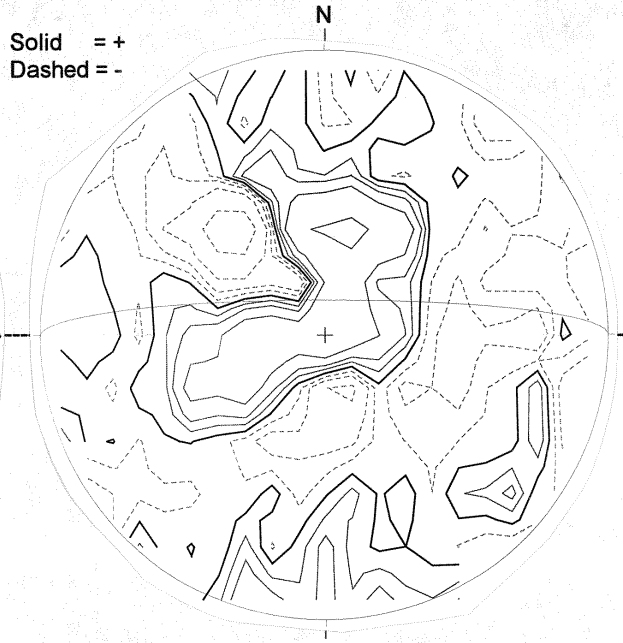


FEBRUARY 22, 2006 (P= -19.57, Bo = -7.08, Lo = 271.57)

KITT PEAK MAGNETOGRAM--SOLIS

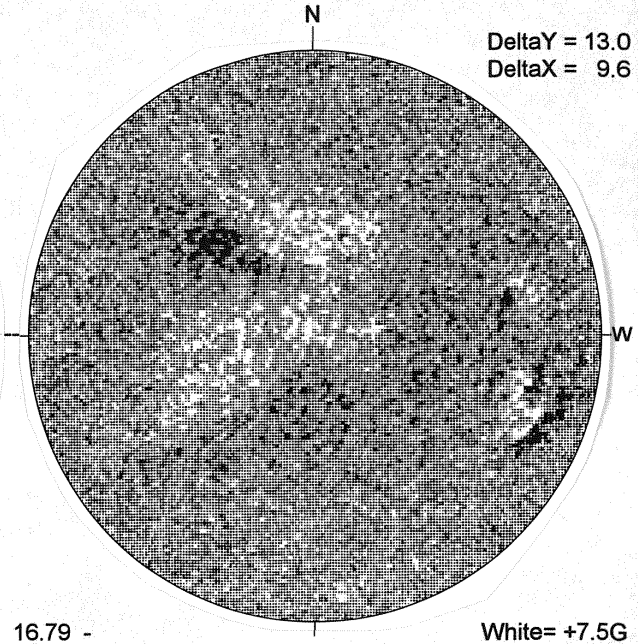


STANFORD MAGNETOGRAM



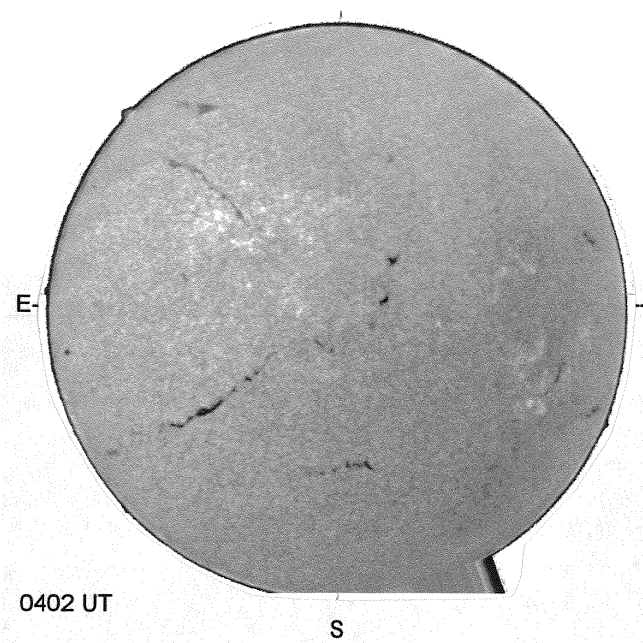
2114 UT

MT. WILSON MAGNETOGRAM



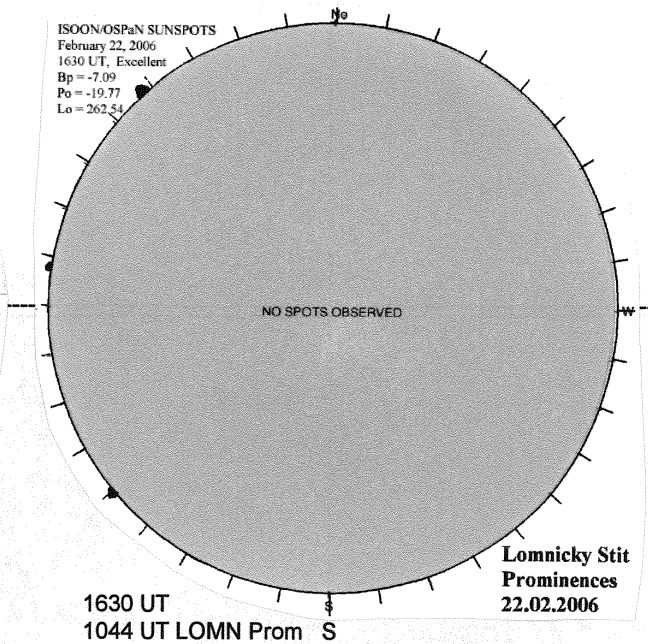
16.79 -
17.75 UT

---- HUAIROU H-ALPHA



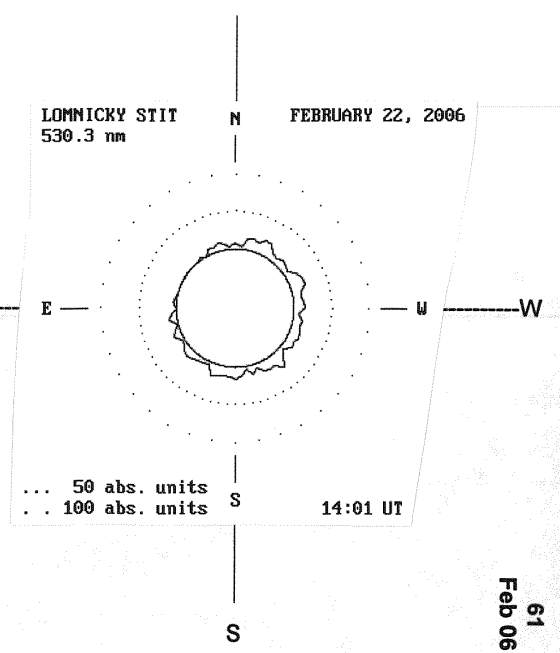
0402 UT

ISOON/OSPaN SUNSPOTS



1630 UT
1044 UT LOMN Prom S

LOMNICKY PEAK CORONA (1.04 Radii)----



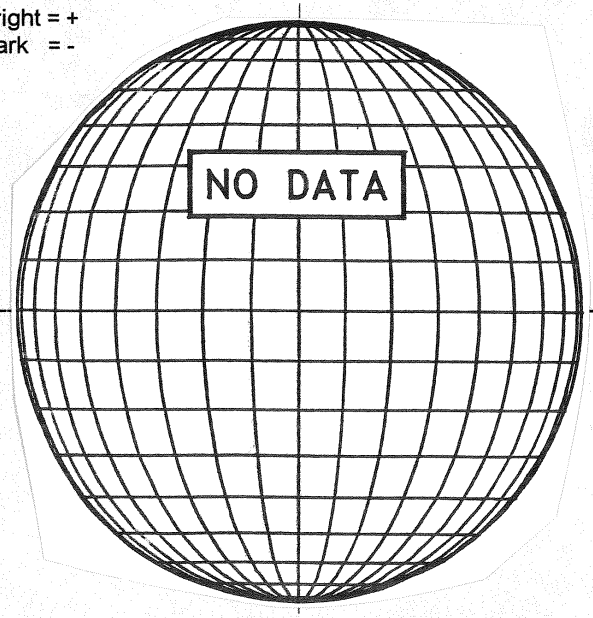
61
Feb 06

FEBRUARY 23, 2006 (P= -19.86, Bo = -7.10, Lo = 258.40)

KITT PEAK MAGNETOGRAM--SOLIS

854.2 nm

Bright = +
Dark = -



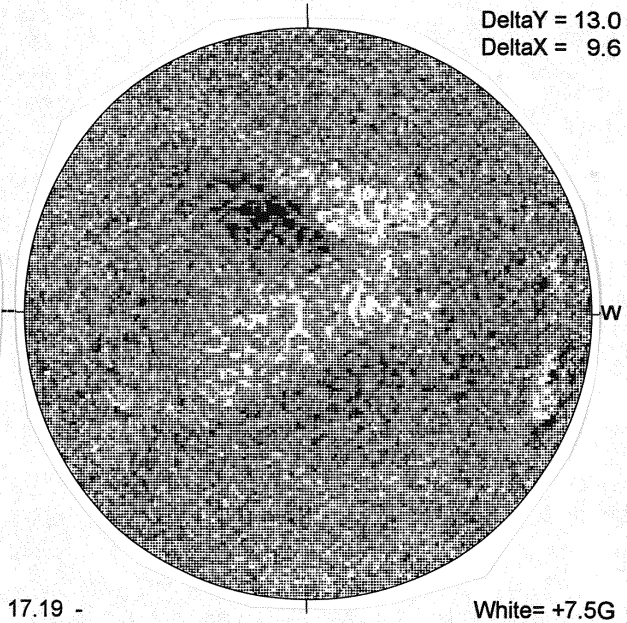
STANFORD MAGNETOGRAM

Solid = +
Dashed = -

2129 UT

MT. WILSON MAGNETOGRAM

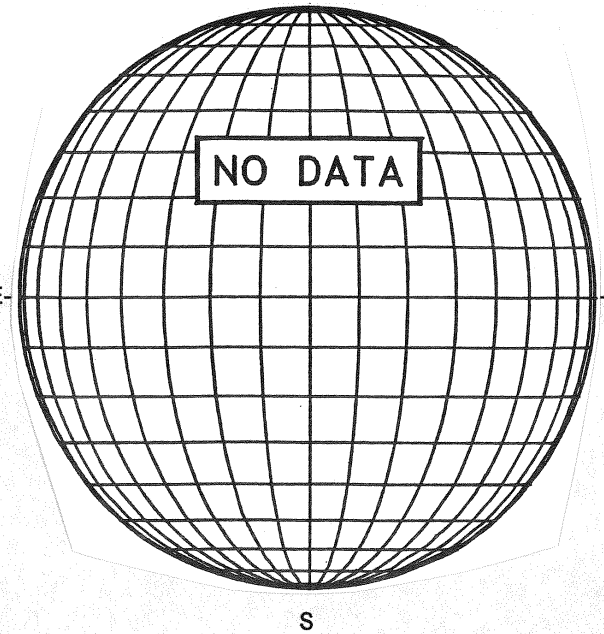
DeltaY = 13.0
DeltaX = 9.6



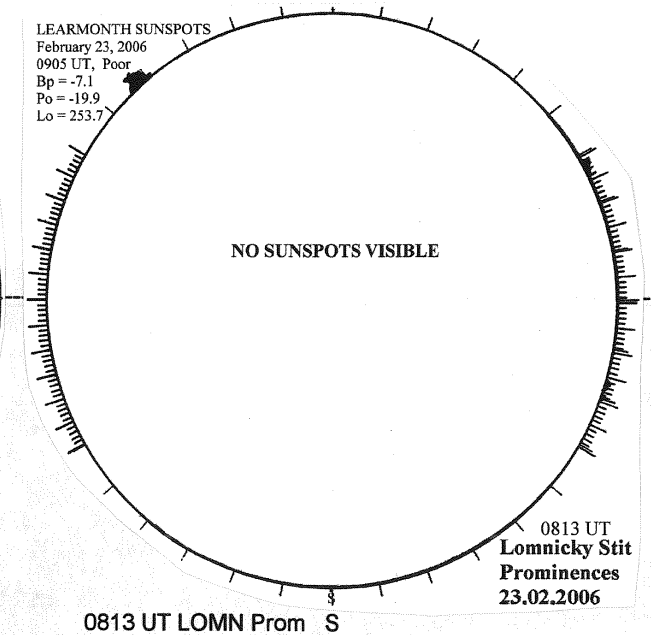
17.19 -
18.15 UT

White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA

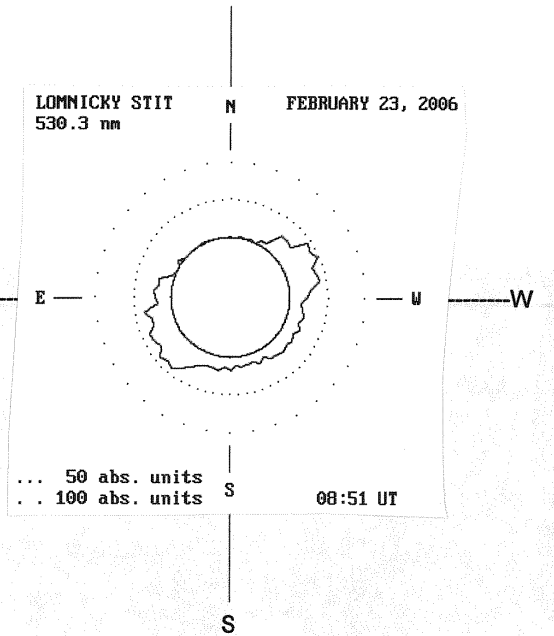


SAN VITO SUNSPOTS



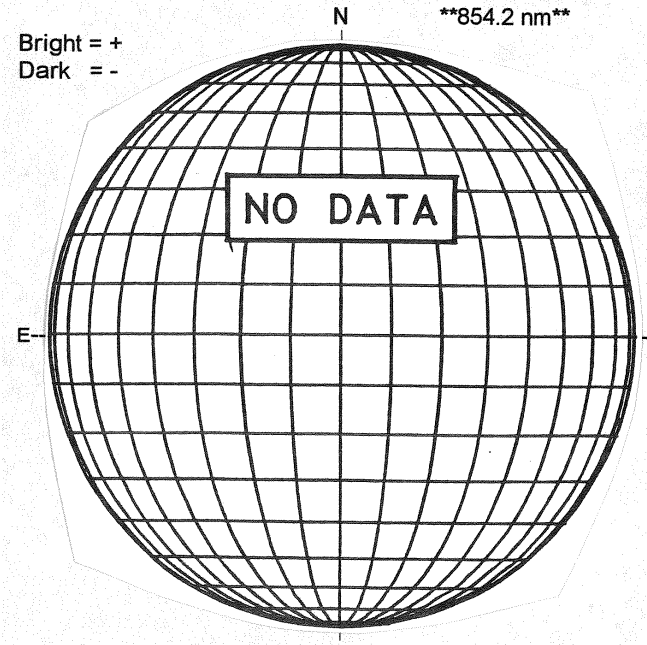
0813 UT LOMN Prom

LOMNICKY PEAK CORONA (1.04 Radii)

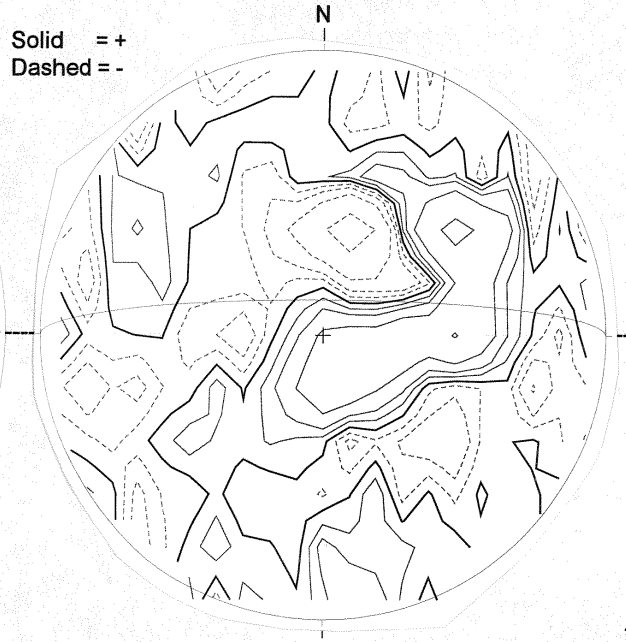


FEBRUARY 24, 2006 (P= -20.15, Bo = -7.13, Lo = 245.23)

KITT PEAK MAGNETOGRAM--SOLIS

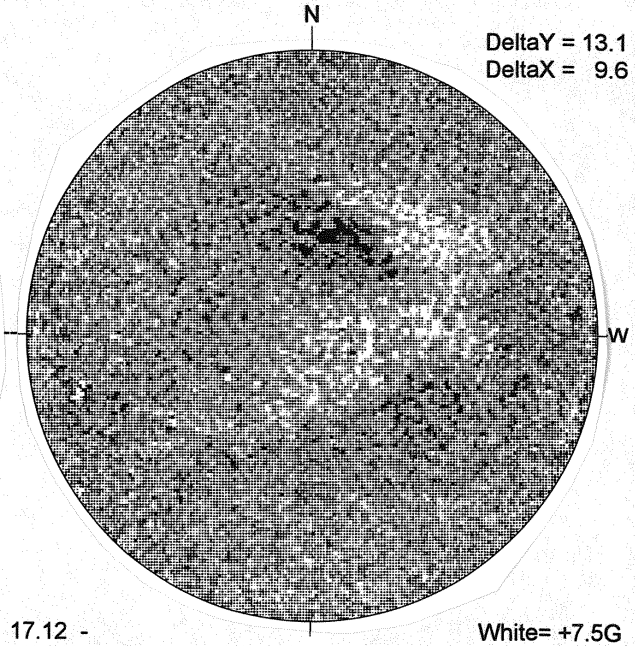


STANFORD MAGNETOGRAM



2118 UT

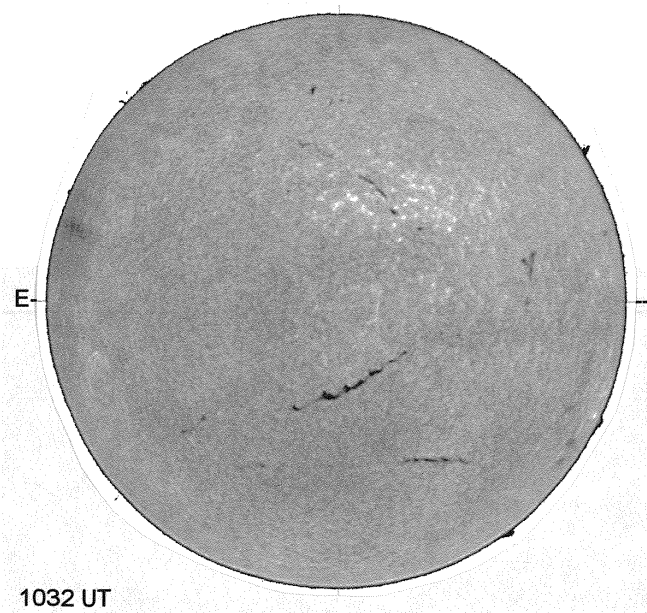
MT. WILSON MAGNETOGRAM



17.12 -
18.09 UT

White= +7.5G
Black = -7.5G

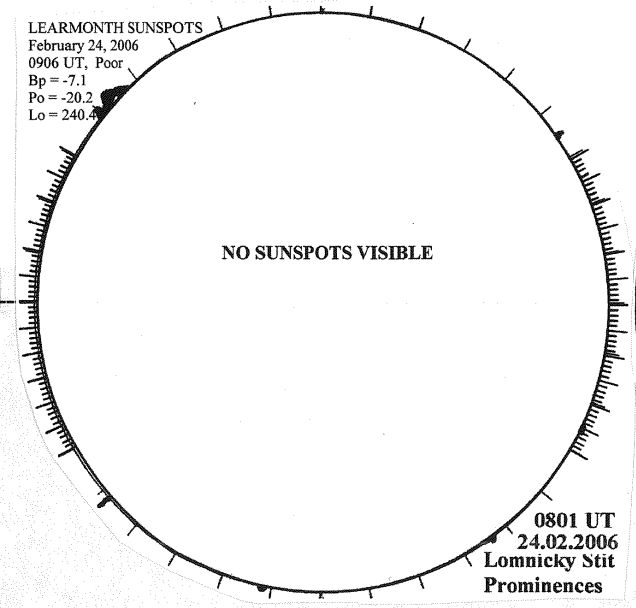
----- CATANIA H-ALPHA



1032 UT

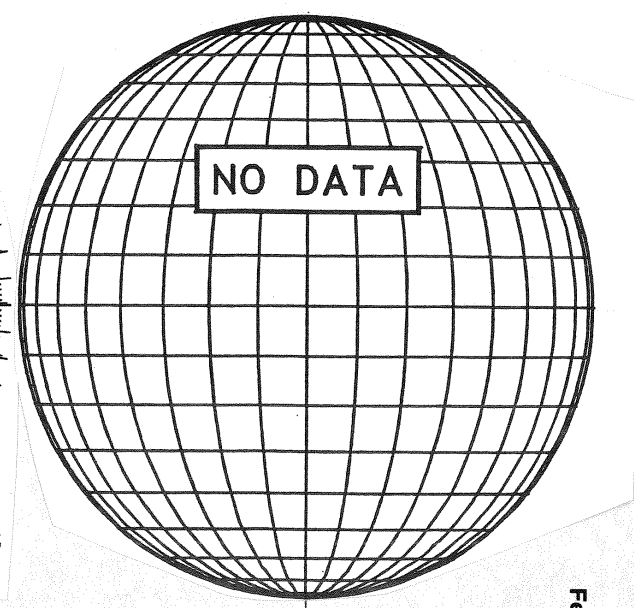
S

SAN VITO SUNSPOTS



0801 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----



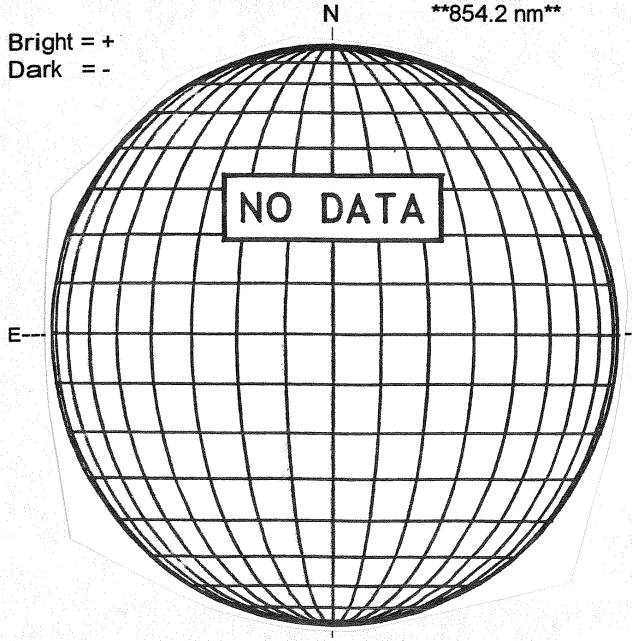
S

FEBRUARY 25, 2006 (P= -20.43, Bo = -7.15, Lo = 232.06)

KITT PEAK MAGNETOGRAM--SOLIS

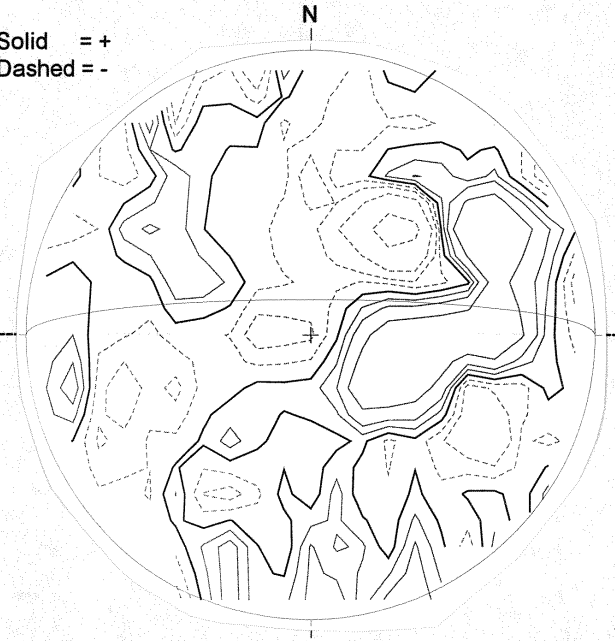
854.2 nm

Bright = +
Dark = -



STANFORD MAGNETOGRAM

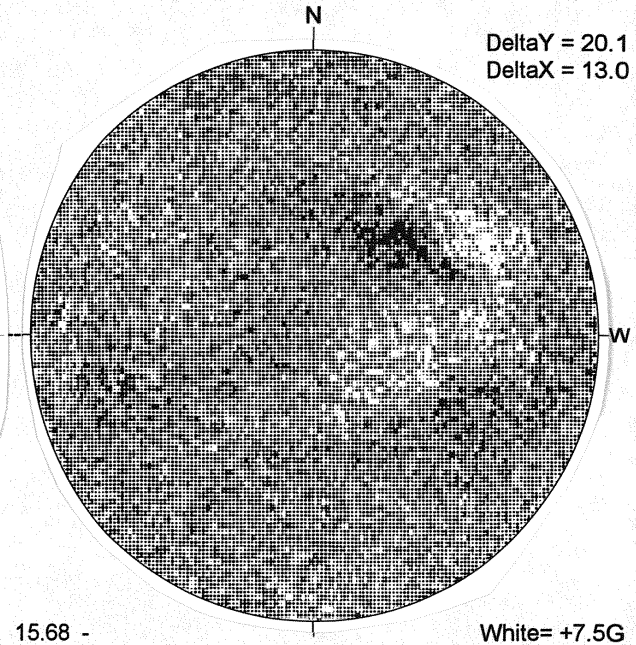
Solid = +
Dashed = -



1859 UT

MT. WILSON MAGNETOGRAM

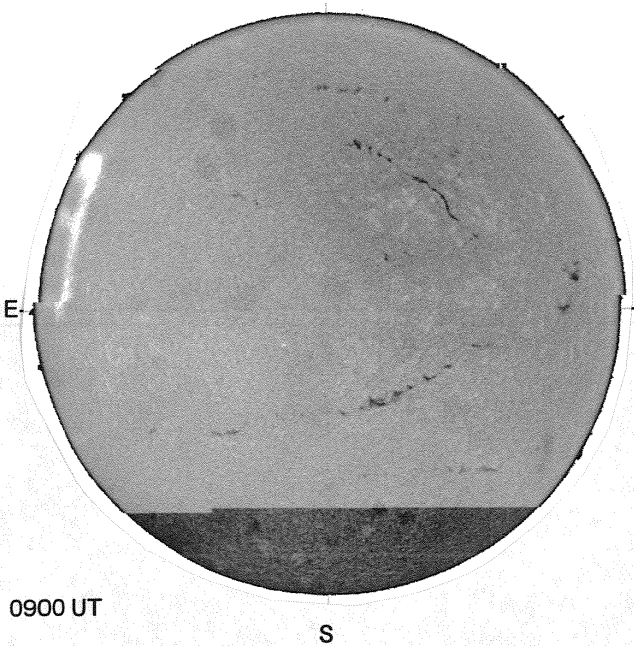
DeltaY = 20.1
DeltaX = 13.0



15.68 -
16.11 UT

White= +7.5G
Black = -7.5G

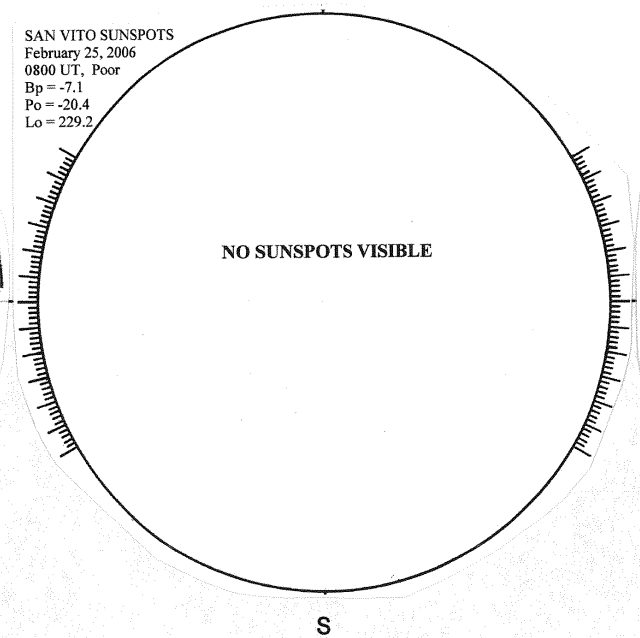
CATANIA H-ALPHA



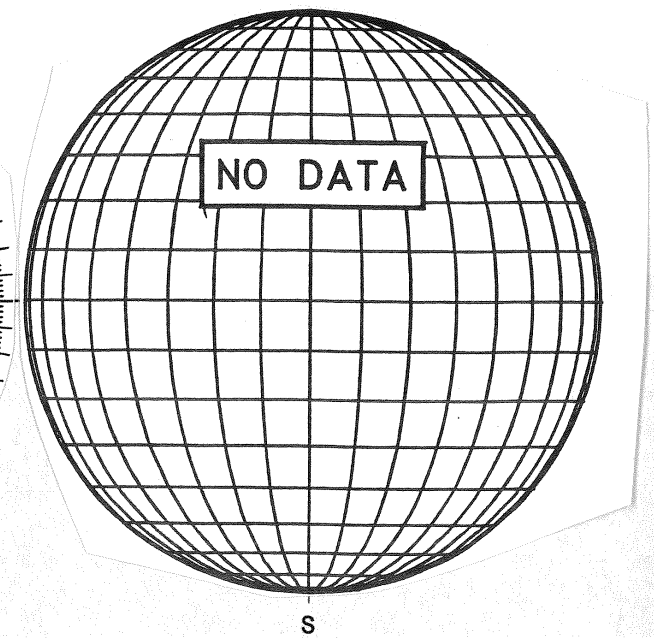
0900 UT

LEARMONTH SUNSPOTS

SAN VITO SUNSPOTS
February 25, 2006
0800 UT, Poor
Bp = -7.1
Po = -20.4
Lo = 229.2



SACRAMENTO PEAK CORONA (1.15 Radii)

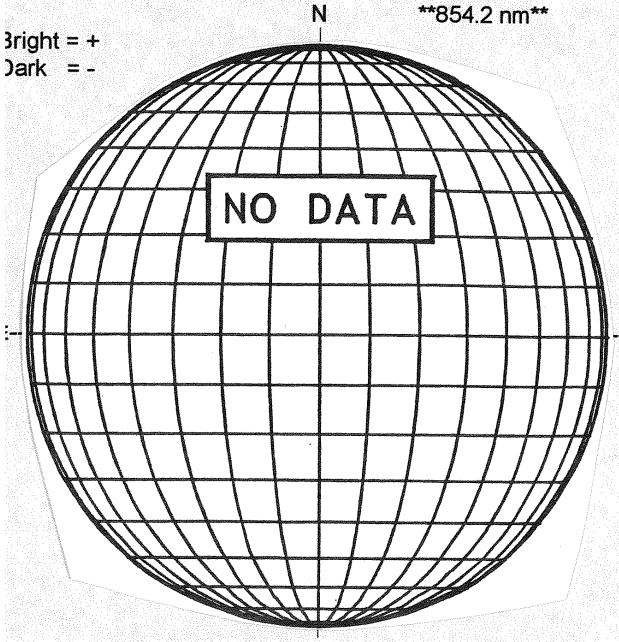


FEBRUARY 26, 2006 (P= -20.70, Bo = -7.17, Lo = 218.89)

KITT PEAK MAGNETOGRAM--SOLIS

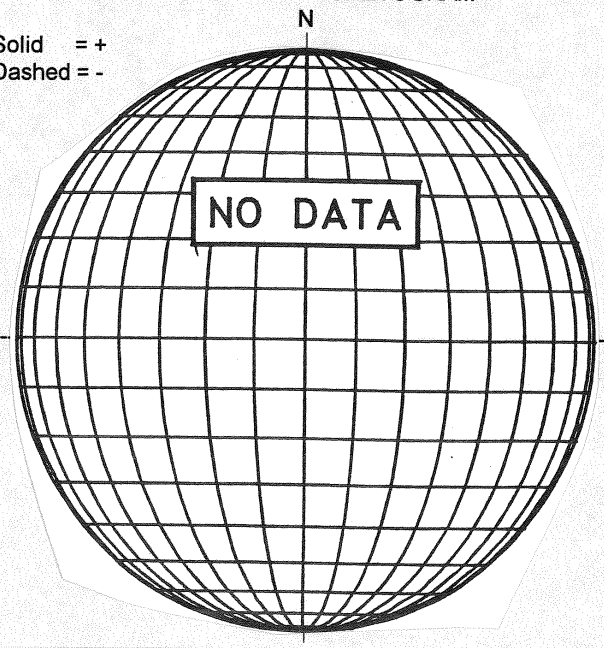
854.2 nm

Bright = +
Dark = -



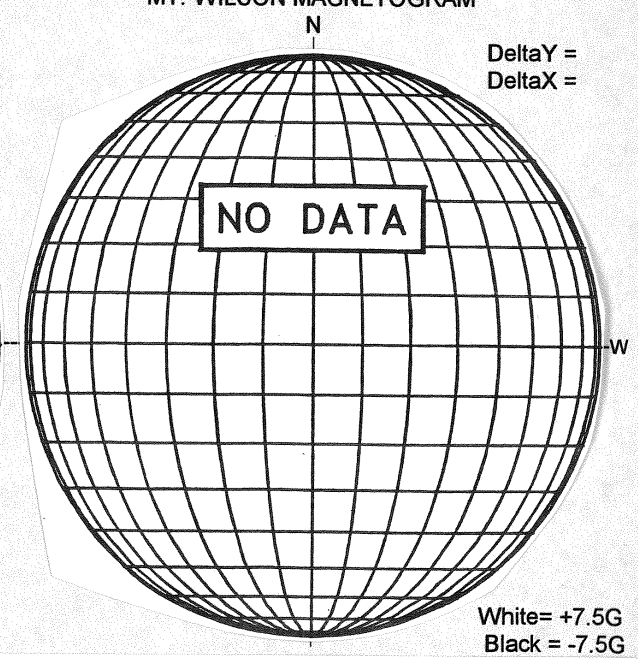
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



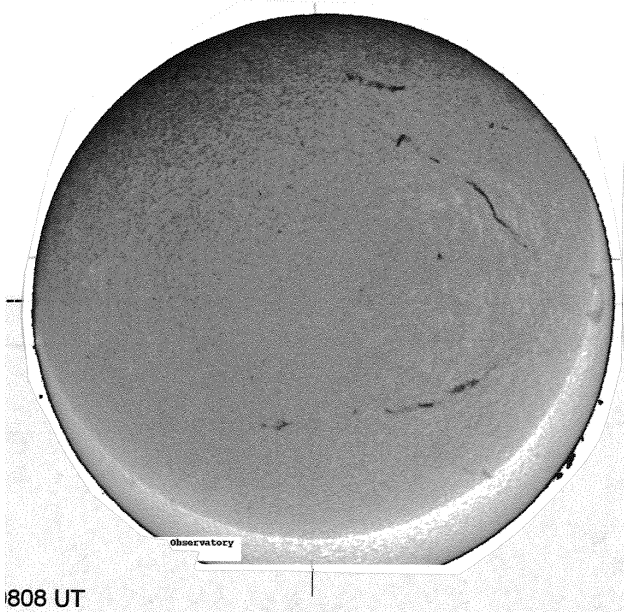
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



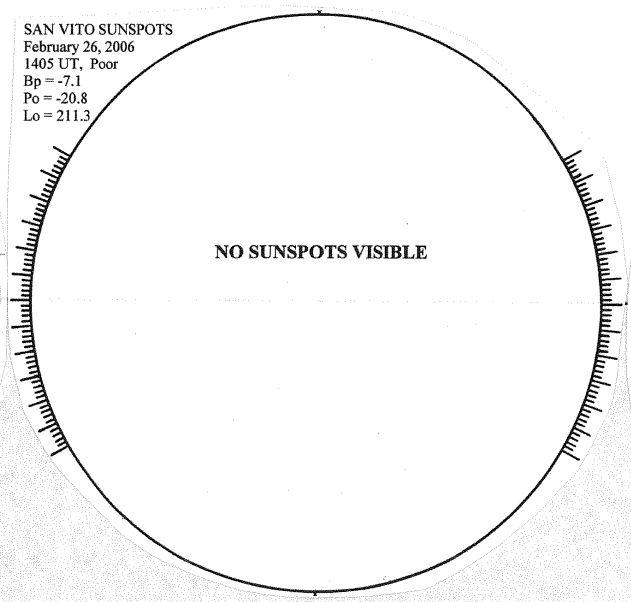
White= +7.5G
Black = -7.5G

CATANIA H-ALPHA



808 UT

SAN VITO SUNSPOTS



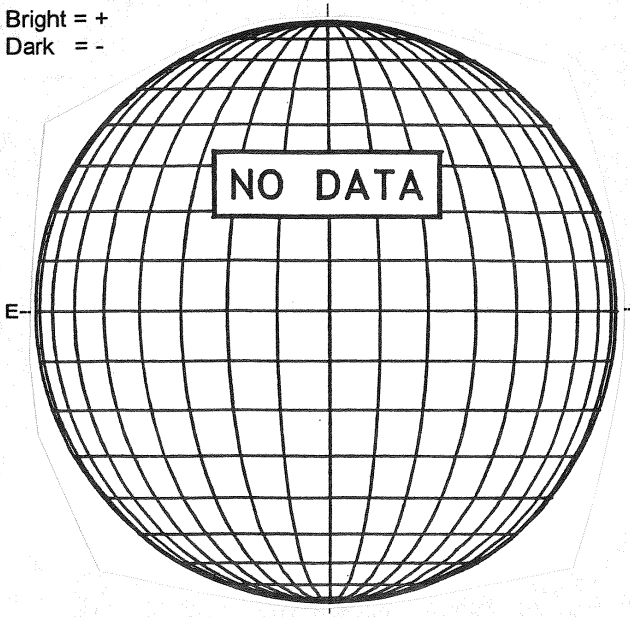
SACRAMENTO PEAK CORONA (1.15 Radii)

FEBRUARY 27, 2006 (P= -20.97, Bo = -7.19, Lo = 205.72)

KITT PEAK MAGNETOGRAM--SOLIS

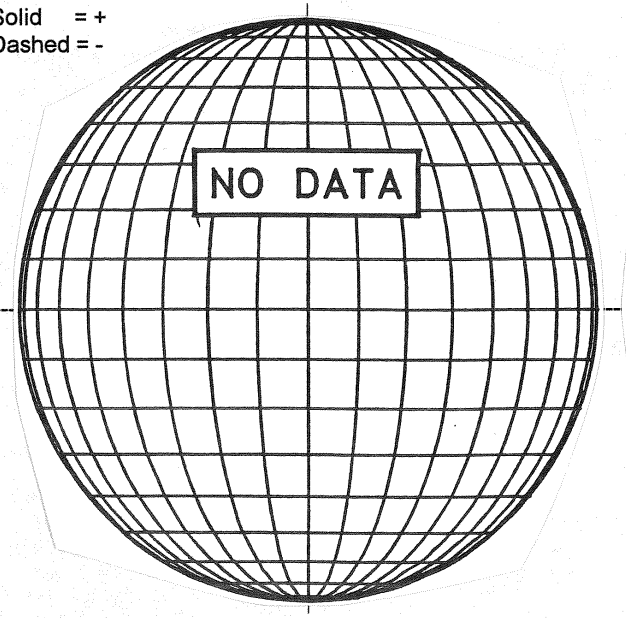
854.2 nm

Bright = +
Dark = -



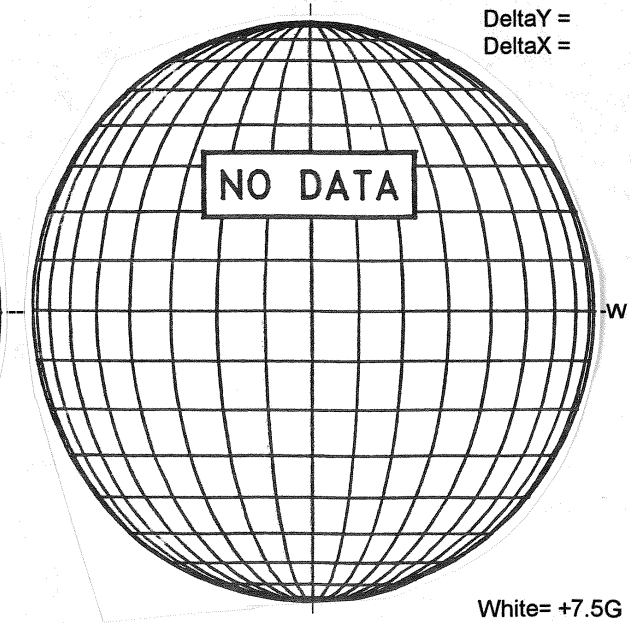
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



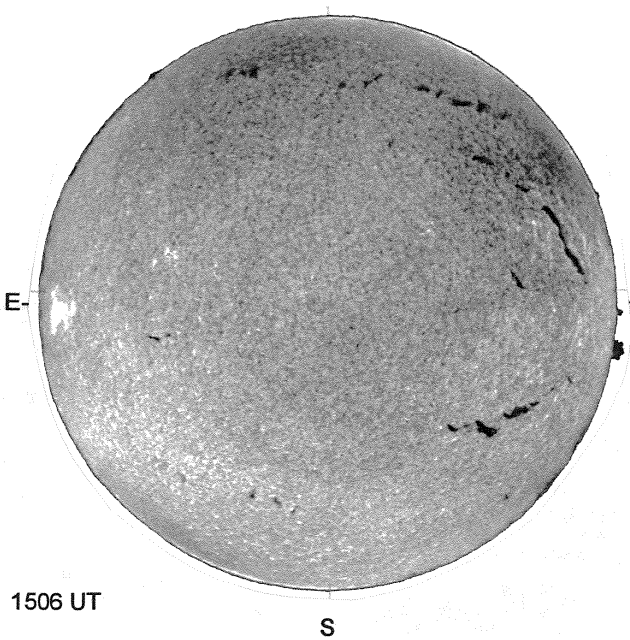
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



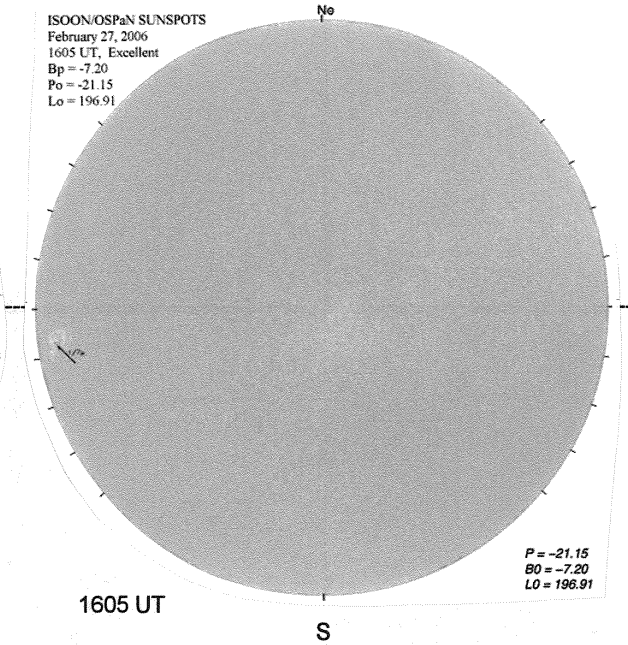
White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA



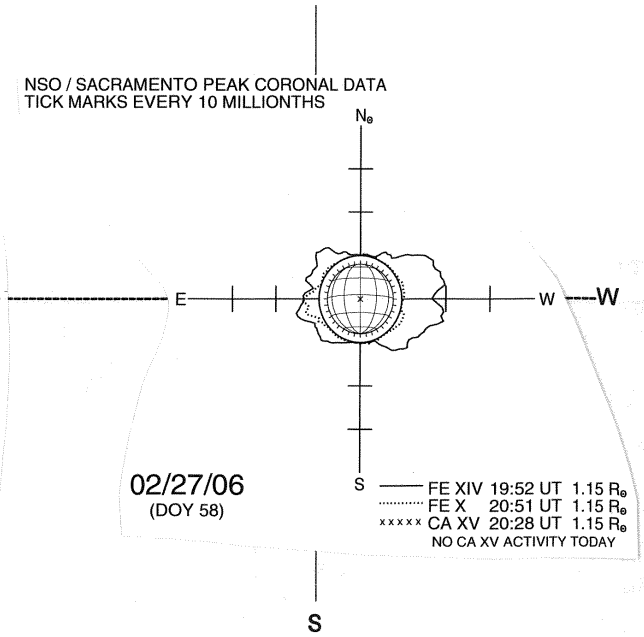
1506 UT

ISOON/OSPaN SUNSPOTS



1605 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

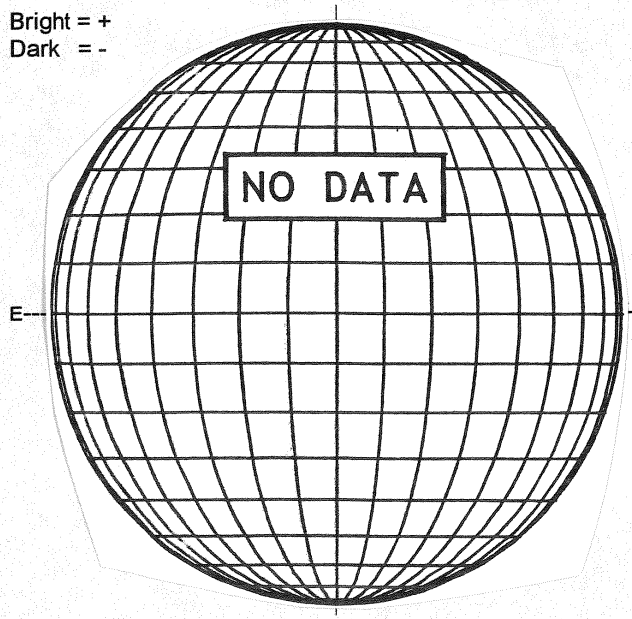


FEBRUARY 28, 2006 (P= -21.24, Bo = -7.20, Lo = 192.55)

KITT PEAK MAGNETOGRAM--SOLIS

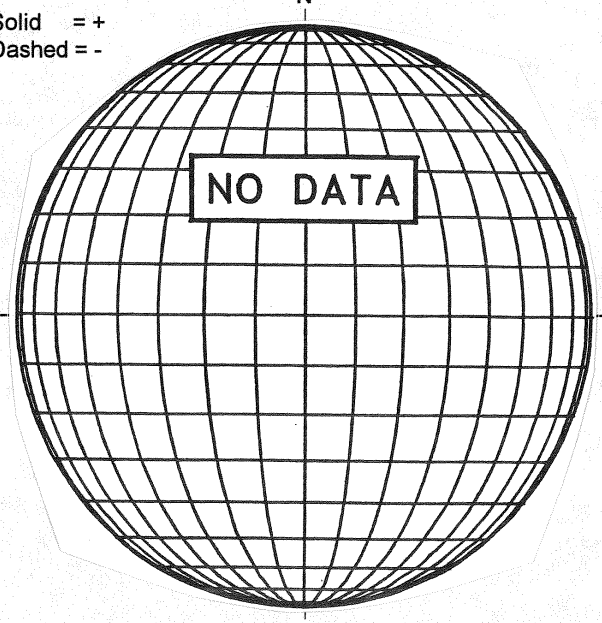
854.2 nm

Bright = +
Dark = -



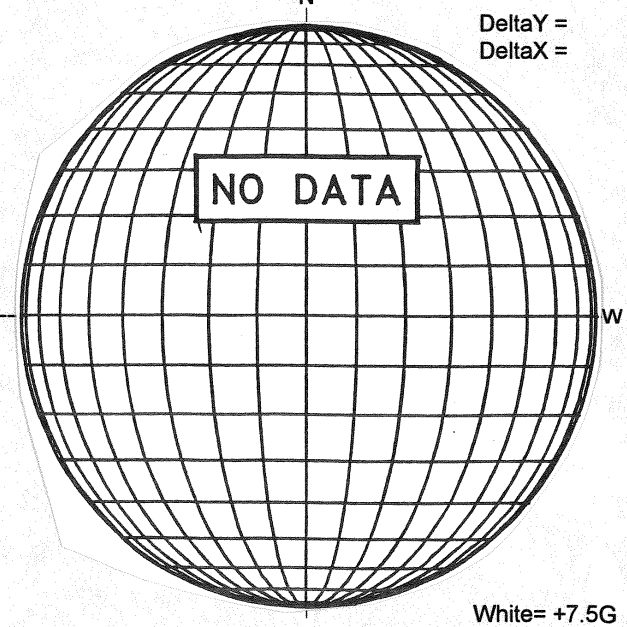
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



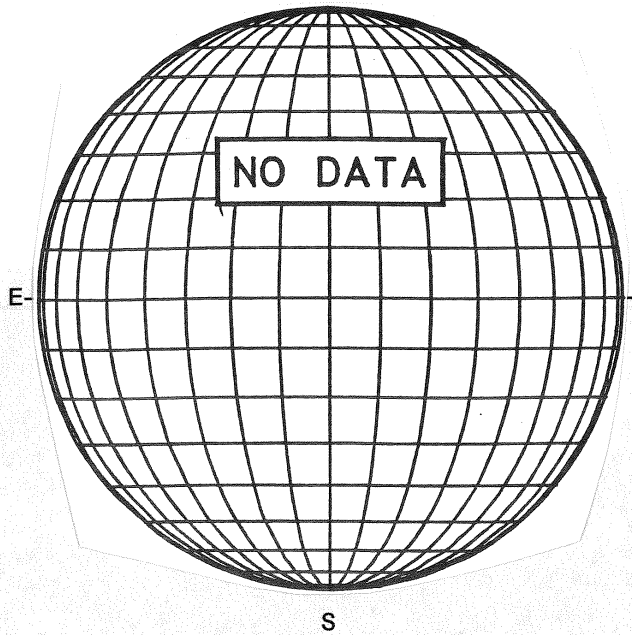
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =

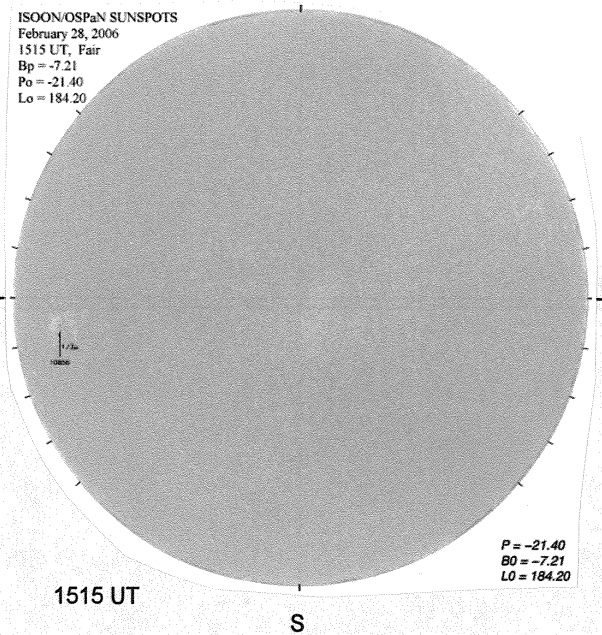


White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA

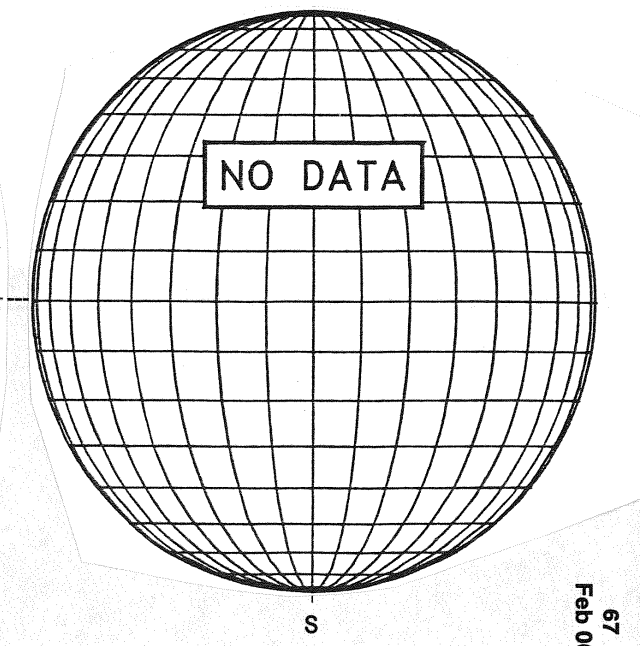


ISOON/OSPaN SUNSPOTS

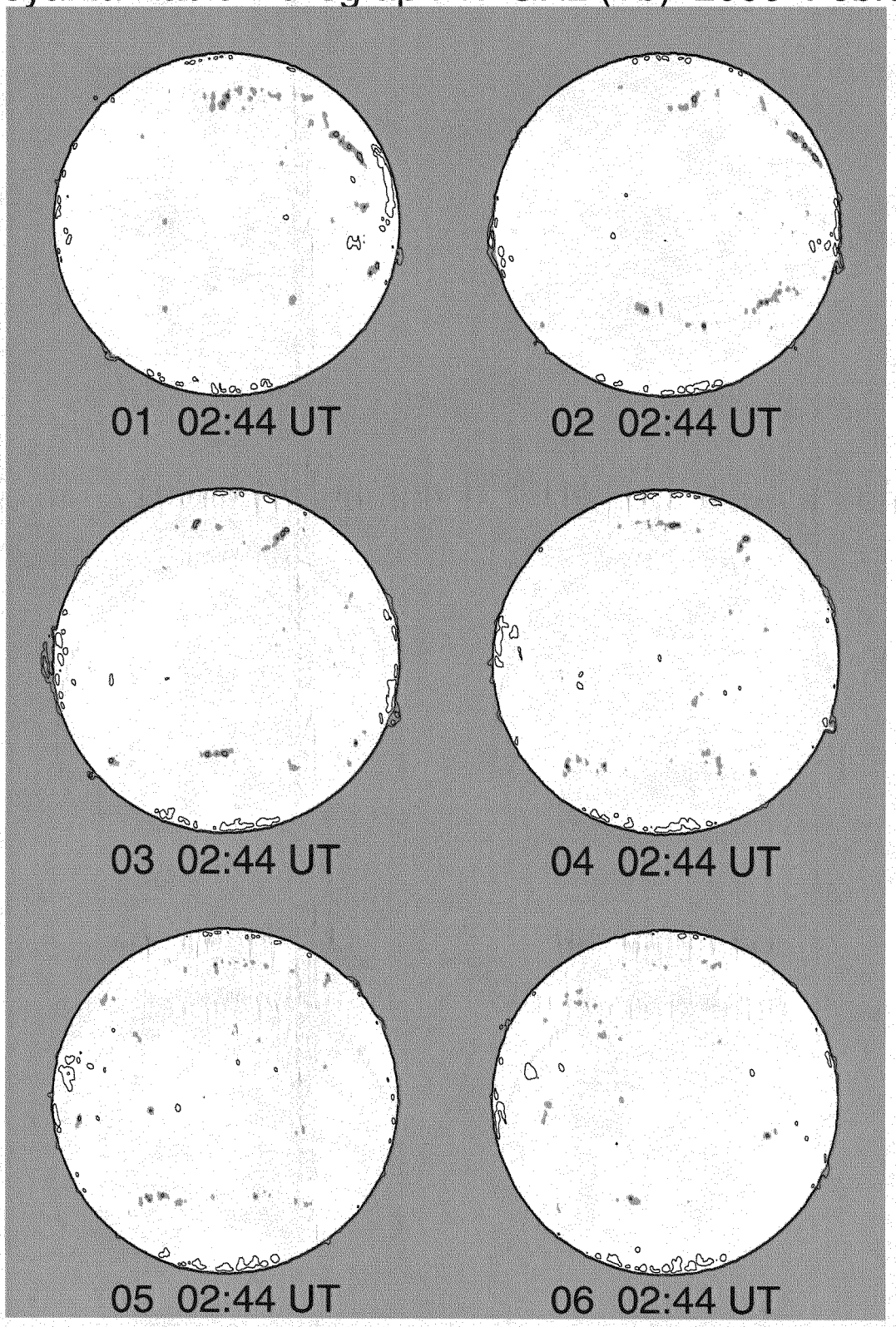


1515 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

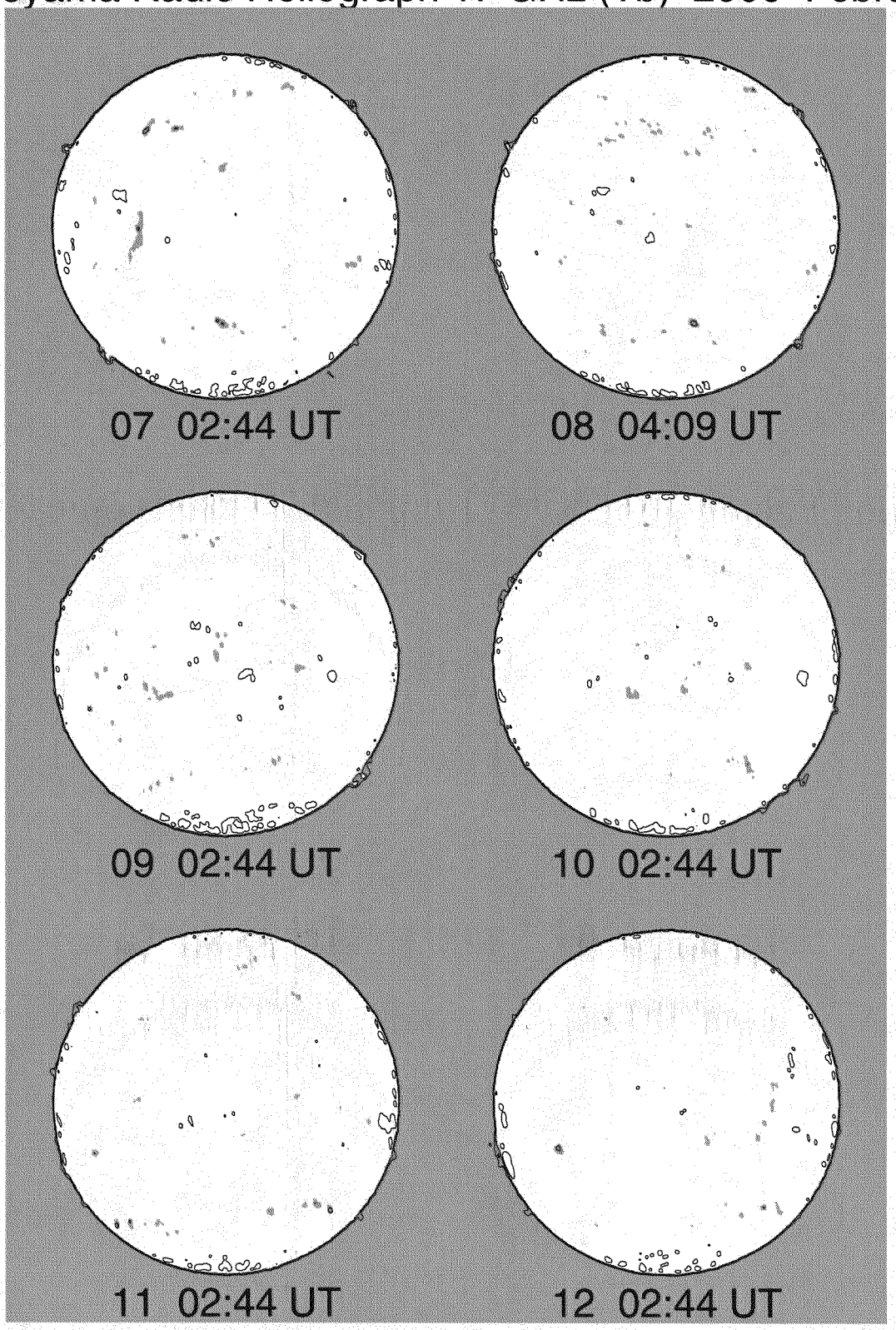


Nobeyama Radio Heliograph 17 GHz (Tb) 2006 February



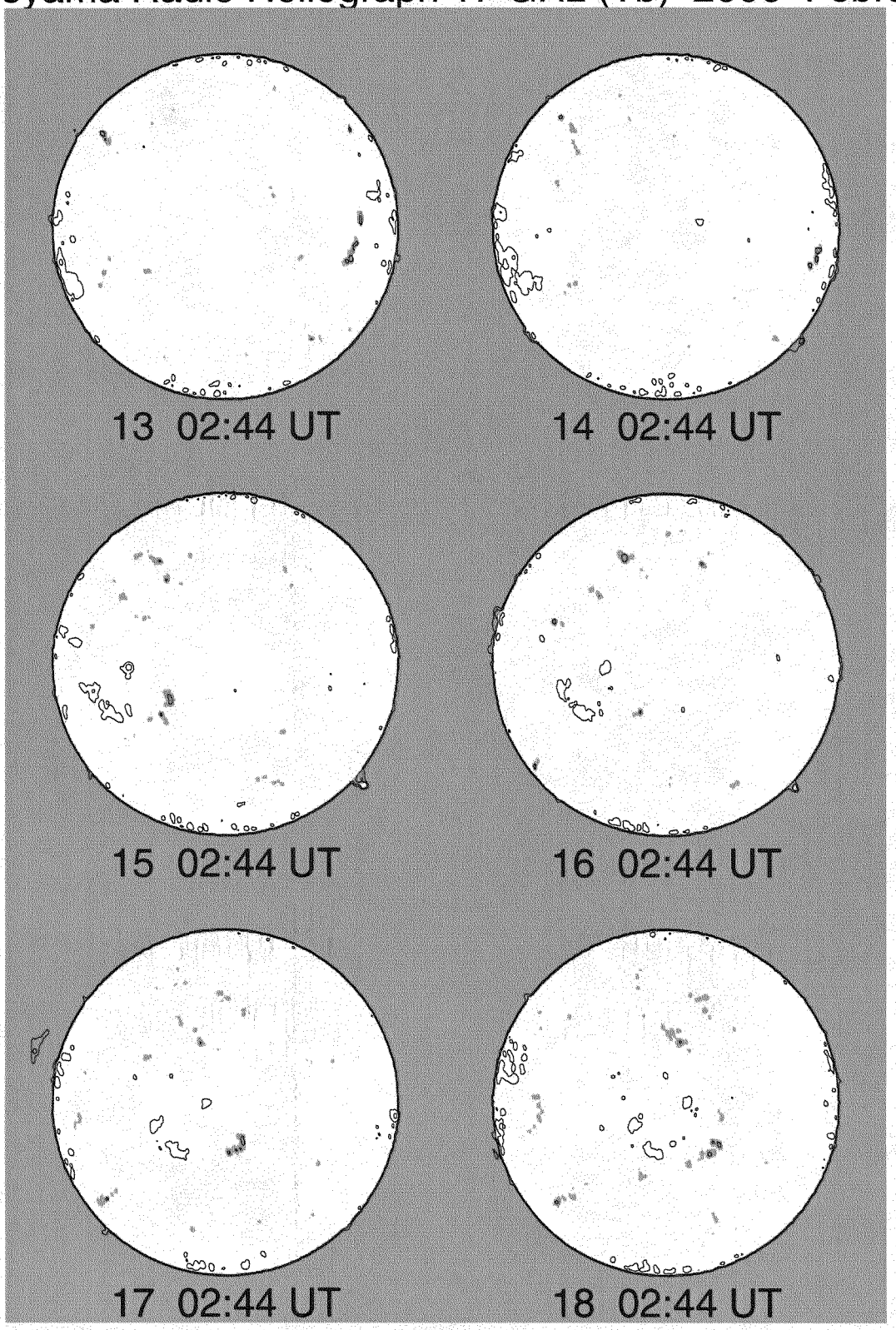
Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2006 February



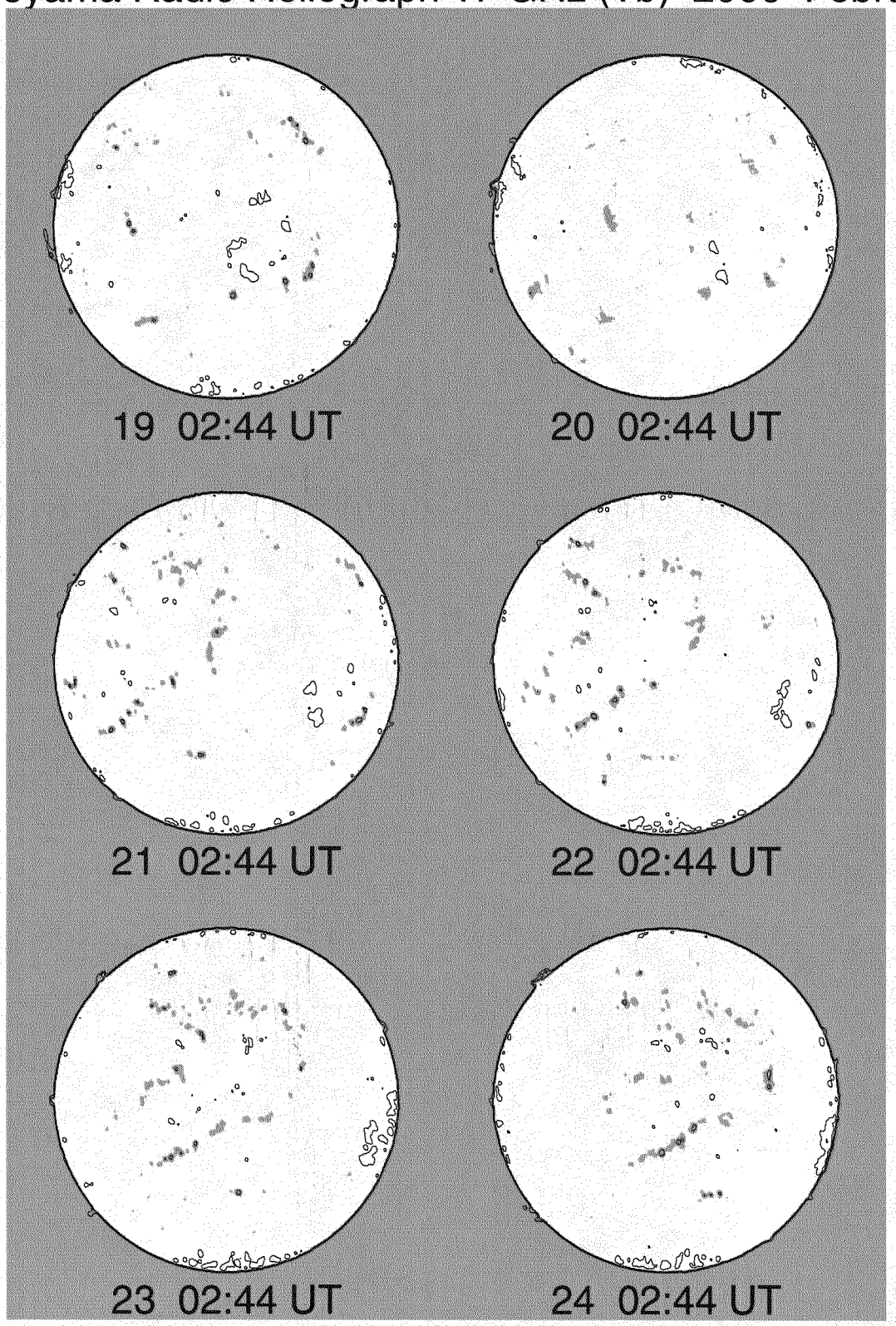
Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2006 February



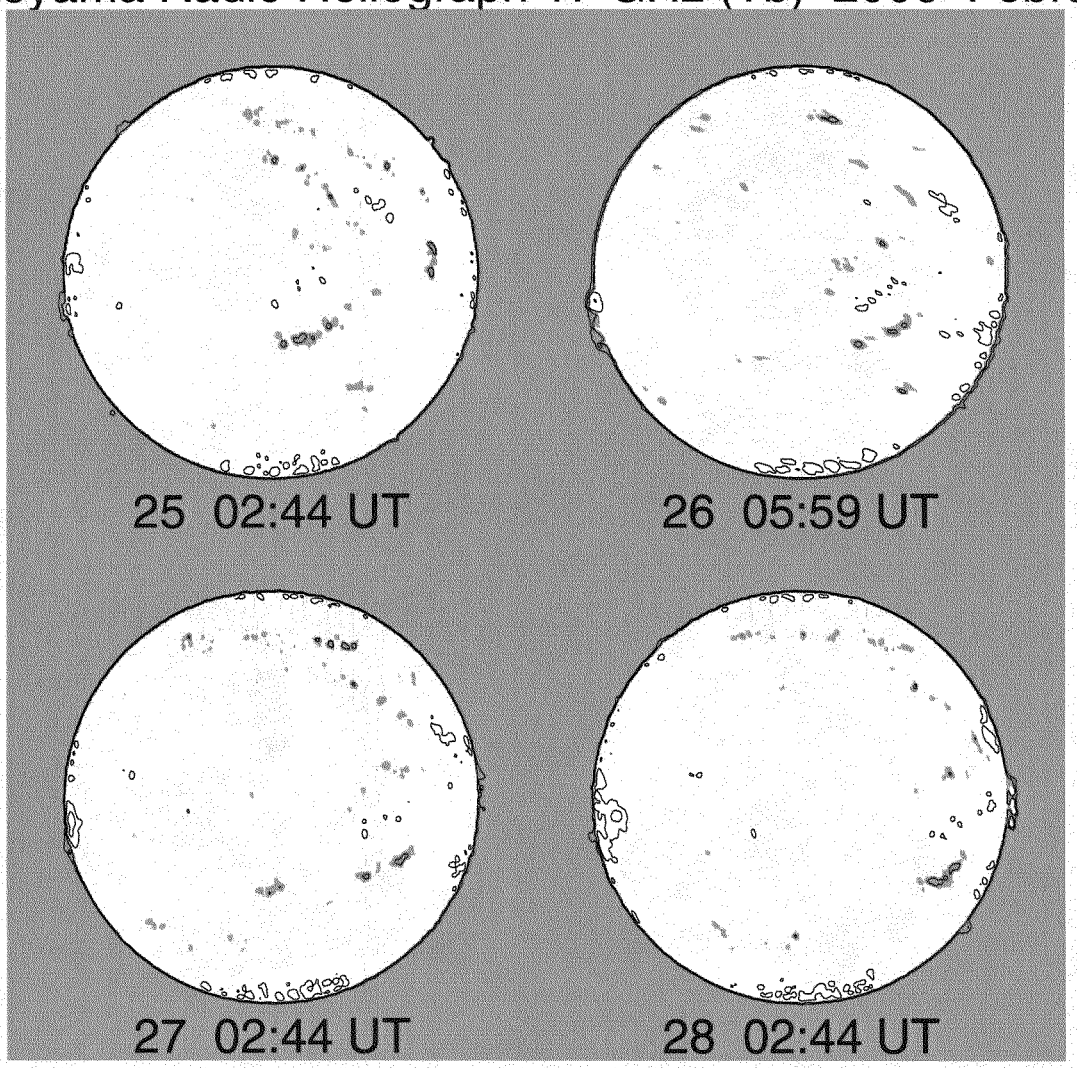
Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2006 February



Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2006 February



Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

S U N S P O T G R O U P S
(Ordered by Central Meridian Passage Date)

FEBRUARY 2006

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Mo	Day	Time (UT)	Lat	CMD	CMP Mo	Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
10849B		VORO	02	02	0010	S05	E06	02	2.4			BXO	2	2	1	4
10853		VORO	02	08	2351	S10	W36	02	6.3			HRX	18	1		3
10853		LEAR	02	09	0121	S11	W37	02	6.3		A	HAX	10	1	1	3
10853		KAND	02	09	0913	S10	W41	02	6.3			CAO		3	4	3
10853		VORO	02	09	2343	S10	W49	02	6.3			AXX	5	1		3
10853		LEAR	02	10	0210	S09	W52	02	6.2		B	BXO	20	3	4	3
10853		HOLL	02	11	1614	S09	W74	02	6.1		A	HSX	30	1	1	4
10852		LEAR	02	07	0934	S10	E16	02	8.6		A	AXX	10	1	1	2
10852		HOLL	02	07	2144	S09	E08	02	8.5		B	CSO	10	2	4	3
10852		LEAR	02	08	0345	S09	E07	02	8.7		A	AXX	10	1	1	2
10852		SVTO	02	08	0805	S10	E03	02	8.6		A	HSX	10	1	1	3
10852		HOLL	02	08	1554	S10	E00	02	8.7		A	HSX	10	3	2	3
10852		VORO	02	08	2351	S11	W04	02	8.7			AXX	8	2		3
10852		LEAR	02	09	0121	S11	W05	02	8.7		A	AXX	10	3	1	3
10852		HOLL	02	13	1931	S11	W69	02	8.6		A	AXX	20	1	1	3
10852A		KAND	02	16	0746	N16	W45	02	12.9			AX		1		4
10854		VORO	02	15	0021	S07	E35	02	17.6			BRO	14	3	2	3
10854		LEAR	02	15	0223	S07	E34	02	17.6		B	DAI	20	7	7	3
10854		TACH	02	15	0559	S08	E33	02	17.7			BRO	10	3	4	4
10854		SVTO	02	15	1000	S07	E30	02	17.7		B	DSO	30	4	4	3
10854		KAND	02	15	1215	S07	E38	02	18.3			BXO		2	4	2
10854		HOLL	02	15	1540	S07	E27	02	17.7		B	DSO	40	5	5	2
10854		LEAR	02	16	0131	S07	E22	02	17.7		B	DAO	30	6	5	3
10854		KAND	02	16	0746	S08	E19	02	17.7			BXO		2	5	4
10854		SVTO	02	16	0920	S08	E16	02	17.6		B	DSO	30	4	6	3
10854		HOLL	02	16	1654	S07	E12	02	17.6		B	DSO	30	5	6	3
10854		VORO	02	17	0035	S08	E04	02	17.3			AXX	7	1		3
10854		LEAR	02	17	0126	S08	E03	02	17.3		A	HAX	10	1	1	2
10854		SVTO	02	17	1040	S09	W01	02	17.4		A	AXX	10	1		3
10854		KAND	02	17	1235	S09	W03	02	17.3			AX		1		3
10854		HOLL	02	17	1702	S07	W06	02	17.3		A	AXX	10	1		3
10854A		LEAR	02	18	0526	N02	W01	02	18.1		B	BXO	10	2	2	2
10854A		SVTO	02	18	0817	N03	W04	02	18.0		A	AXX	10	1	1	3
10854A		VORO	02	19	0027	N02	W10	02	18.3			AXX	4	1		3
10854A		LEAR	02	19	0041	N02	W11	02	18.2		A	AXX	10	1	1	3
10855		HOLL	02	13	1931	N05	E76	02	19.5		A	AXX	20	1	1	3
10855		LEAR	02	14	0135	N05	E69	02	19.2		A	AXX	30	1	1	2
10855		TACH	02	14	0614	N03	E67	02	19.3			AXX	13	1	1	3
10855		KAND	02	14	0820	N03	E68	02	19.4			AX		1		3
10855		SVTO	02	14	1348	N03	E63	02	19.3		A	AXX	10	1	1	3
10855		VORO	02	15	0021	N05	E55	02	19.1			AXX	6	1		3
10855		LEAR	02	15	0223	N05	E55	02	19.2		A	AXX	20	2	1	3
10855		HOLL	02	15	1540	N05	E49	02	19.3		A	AXX		1	1	2
10855		LEAR	02	16	0131	N05	E40	02	19.0		A	HAX	10	1	1	3
10855		KAND	02	16	0746	N04	E38	02	19.2			AX		1		4
10855		HOLL	02	16	1654	N07	E31	02	19.0		A	HSX	20	1	1	3
10855		VORO	02	17	0035	N05	E27	02	19.0			AXX	5	1		3
10855		LEAR	02	17	0126	N05	E27	02	19.1		A	AXX	10	2	2	2
10854B		LEAR	02	13	0103	S12	E79	02	19.0		A	AXX	30	1	1	2
10854B		HOLL	02	13	1931	S12	E69	02	19.0		A	BXX	20	3	2	3
10854B		LEAR	02	14	0135	S12	E62	02	18.7		A	AXX	20	2	1	2
10854B		TACH	02	14	0614	S14	E60	02	18.8			AXX	5	1	1	3
10854B		HOLL	02	16	1654	S11	E28	02	18.8		A	AXX		1	1	3
10854B		LEAR	02	19	0041	S13	E01	02	19.1		B	BXO	10	2	1	3

Stations reporting:

HOLL = Holloman
KAND = Kandilli
LEAR = Learmonth
MWIL = Mt. Wilson
PALE = Palehua
RAMY = Ramey
SVTO = San Vito
TACH = Tashkent
VORO = Voroshilov

SUDDEN IONOSPHERIC DISTURBANCES
FEBRUARY 2006

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type SWF	SEA	SPA	LF-SPA	SES	Flare (UT)	X-ray Class	NOAA Region
01	0759	0812	0842	1	1					1	No flare		
04	0907	0913	1015	1	1					1	No flare		
06	1259	1303	1325	1	1					1	*		
09	0900	0914	0942	1	1					1	No flare		
09	0946	0958U	1030	1	1					1	No flare		
14	1421	1426	1444	1	1					1	No flare		
17	1057	1140	1200	1	1					1	*		
21	0834	0854	0936	1	1					1	*		
22	1034	1053	1112	1	1					1	*		
24	1038	1047	1156	1	1					1	*		
25	1217	1233	1450	1	1					1	*		
26	0732	0754U	0928	1	1					1	0751	B1.8	

* = no flare patrol.

OBSERVATORIES REPORTING FOR FEBRUARY 2006

Mishawaka, Indiana, USA	SES	Upice, Czech Republic	SEA
Panska Ves, Czech Republic	SES, SEA, SWF	Villiersdorp, South Africa	SES

Observations are not necessarily continuous.

S O L A R R A D I O E M I S S I O N
Spectral Observations

FEBRUARY 2006

OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
01	0000	0800	CULG								
	0759	1433	ONDR								
	0825	1530	BLEN								
	2000	2400	CULG								
02	0000	0800	CULG								
	0757	1435	ONDR								
	0825	1530	BLEN								
	2000	2400	CULG								
03	0000	0800	CULG								
	0755	1437	ONDR								
	0825	1530	BLEN								
			SVTO	1214.0	1217.0	III		2	25	83	
	2000	2400	CULG								
04	0000	0800	CULG								
	0753	1440	ONDR								
	0825	1530	BLEN								
	2000	2400	CULG								
05	0000	0800	CULG								
			PALE	0151.0	0158.0	III		1	25	88	
	0751	1442	ONDR								
	0825	1530	BLEN								
	2000	2400	CULG								
06	0000	0800	CULG								
	0749	1444	ONDR								
	0825	1530	BLEN								
	2000	2400	CULG								
07	0000	0800	CULG								
	0747	1446	ONDR								
	0825	1530	BLEN								
	2000	2400	CULG								
08	0000	0800	CULG								
	0745	1448	ONDR								
	0815	1535	BLEN								
	2000	2400	CULG								
09	0000	0800	CULG								
	0743	1450	ONDR								
	0755	1535	BLEN								
	2000	2400	CULG								
10	0000	0800	CULG								
	0741	1453	ONDR								
	0750	1535	BLEN								
	2000	2400	CULG								
11	0000	0800	CULG								
	0738	1455	ONDR								
	0750	1535	BLEN								
	2000	2400	CULG								
12	0000	0800	CULG								
	0736	1457	ONDR								
	0750	1535	BLEN								
	2000	2400	CULG								
13	0000	0800	CULG								
	0734	1459	ONDR								
	0750	1535	BLEN								
	2000	2400	CULG								
14	0000	0800	CULG								
	0732	1501	ONDR								

S O L A R R A D I O E M I S S I O N
Spectral Observations

FEBRUARY 2006

OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
14	0750	1535	BLEN								
	2000	2400	CULG								
15	0000	0800	CULG								
			PALE	0106.0	0107.0	III		1	25	172	
	0730	1503	ONDR								
	0745	1545	BLEN								
	2000	2400	CULG								
16	0000	0800	CULG								
	0727	1505	ONDR								
	0745	1545	BLEN								
			SVTO	1206.0	1207.0	III		2	25	86	
			SGMR	1255.0	1256.0	III		1	30	171	
			SVTO	1255.0	1256.0	III		2	25	155	
			SVTO	1305.0	1306.0	III		1	25	44	
	2000	2400	CULG								
17	0000	0800	CULG								
	0725	1507	ONDR								
	0740	1545	BLEN								
	2000	2400	CULG								
18	0723	1509	ONDR								
	0735	1550	BLEN								
			LEAR	0755.0	0755.0	III		1	31	127	
			SVTO	0755.0	0755.0	III		1	25	127	
	0000	0800	CULG	0755.0	0755.0	III	B	1	30	90	
	2000	2400	CULG								
19	0000	0800	CULG								
	0721	1512	ONDR								
	0735	1550	BLEN								
	2000	2400	CULG								
20	0000	0800	CULG								
	0719	1514	ONDR								
	0735	1550	BLEN								
	2000	2400	CULG								
21	0000	0800	CULG								
	0716	1516	ONDR								
	0735	1550	BLEN								
	2000	2400	CULG								
22	0000	0800	CULG								
	0714	1518	ONDR								
	0735	1550	BLEN								
	2000	2400	CULG								
23	0000	0800	CULG								
	0712	1520	ONDR								
	0730	1555	BLEN								
	2000	2400	CULG								
24	0000	0800	CULG								
	0710	1522	ONDR								
	0730	1555	BLEN								
	2000	2400	CULG								
25	0000	0800	CULG								
	0707	1524	ONDR								
	0725	1555	BLEN								
			SGMR	1916.0	1918.0	III		1	30	67	
	2000	2400	CULG								
26	0000	0800	CULG								
	0705	1525	ONDR								
	0725	1555	BLEN								

S O L A R R A D I O E M I S S I O N
Spectral Observations

FEBRUARY 2006

OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
26	2000	2400	CULG								
27	0000	0800	CULG								
	0709	1527	ONDR								
	0720	1600	BLEN								
	2000	2400	CULG								
28	0000	0800	CULG								
	0700	1529	ONDR								
	0715	1600	BLEN								
	2000	2400	CULG								

Event Remarks:

B = Single burst
C = Underlyling continuum (particularly with Type I)
DC = Drifting chains
DP = Drifting pairs
F = Fundamental emission (Type II)
FS = Fine structures (Type IV)
G = Small group of bursts (<10)
GG = Large group of bursts (>10)
H = Herringbone
HARM = Harmonic
N = Intermittent activity in this period
MOV = Moving (Type IV)
MWB = Meter wave burst
RS = Reverse slope burst
S = Storm in the sense of intermittent but apparently connected actively
SH = Secondary harmonic emission
STA = Stationary (Type IV)
U = U-shaped burst of Type III
UE = Uncertain emission (Type II)
W = Weak

Frequency qualifiers:

X = Extends beyond instrument range
U = Uncertain frequency

Remarks:

SWF = Associated short wave fade observed
ESS = Estimated shock speed in km/s (Type II)
FLA = Associated flare observed (class optional)

Stations Reporting:

CULG = Culgoora IZMI = Izmiran LEAR = Learmonth ONDR = Ondrejov BLEN = Bleien
PALE = Palehua POTS = Potsdam SGMR = Sagamore Hill SVTO = San Vito

NOTE 1: Beginning June 26, 2001, the Bleien observatory changed to higher frequencies (1-4Ghz).

SOLAR RADIO NOISE STORM AT 164 MHZ

FROM NANÇAY RADIOHELIOGRAPH

FEBRUARY 2006

	HELIOGRAPHICS POSITIONS MEAN VALUES[1]		IMP[2]	OBSERVING TIME[3]	
	E-W	S-N		START(UT)	END(UT)
16/02/06*	-0.21	+0.18	II	8H35 E	15H35 D

SOLAR RADIO NOISE STORM AT 327 MHZ

FROM NANÇAY RADIOHELIOGRAPH

FEBRUARY 2006

	HELIOGRAPHICS POSITIONS MEAN VALUES[1]		IMP[2]	OBSERVING TIME[3]	
DAY	E-W	S-N		START(UT)	END(UT)
16/02/06*	-0.21	+0.13	I	8H35 E	15H35 D

OTHERS DAYS: NO DETECTABLE NOISE STORM

* For the days marked by an asterisk, intense ionopheric gravity waves are observed during the whole day. Without a more detailed analysis, leading to decreased uncertainties in the deviation, the positions which are indicated are estimatedithin 0.2 R

** Following a large burst

*** importance not well determined due to the proximity off the very strong other source

**** no flux measurements available

---

[1] POSITIVE E-W AND S-N COORDINATES CORRESPOND TO THE N-W QUADRANT

[2] IMP1: FLUX< 5 SFU IMP2: 5< FLUX < 20 SFU IMP3: 20< FLUX <100 SFU
IMP4: 100< FLUX <300 SFU IMP5> 300 SFU

[3] E NOISE STORM IN PROGRESS AT THE BEGINNING OF THE NANÇAY OBSERVATIONS
D NOISE STORM IN PROGRESS AT THE END OF THE NANCAY OBSERVATIONS

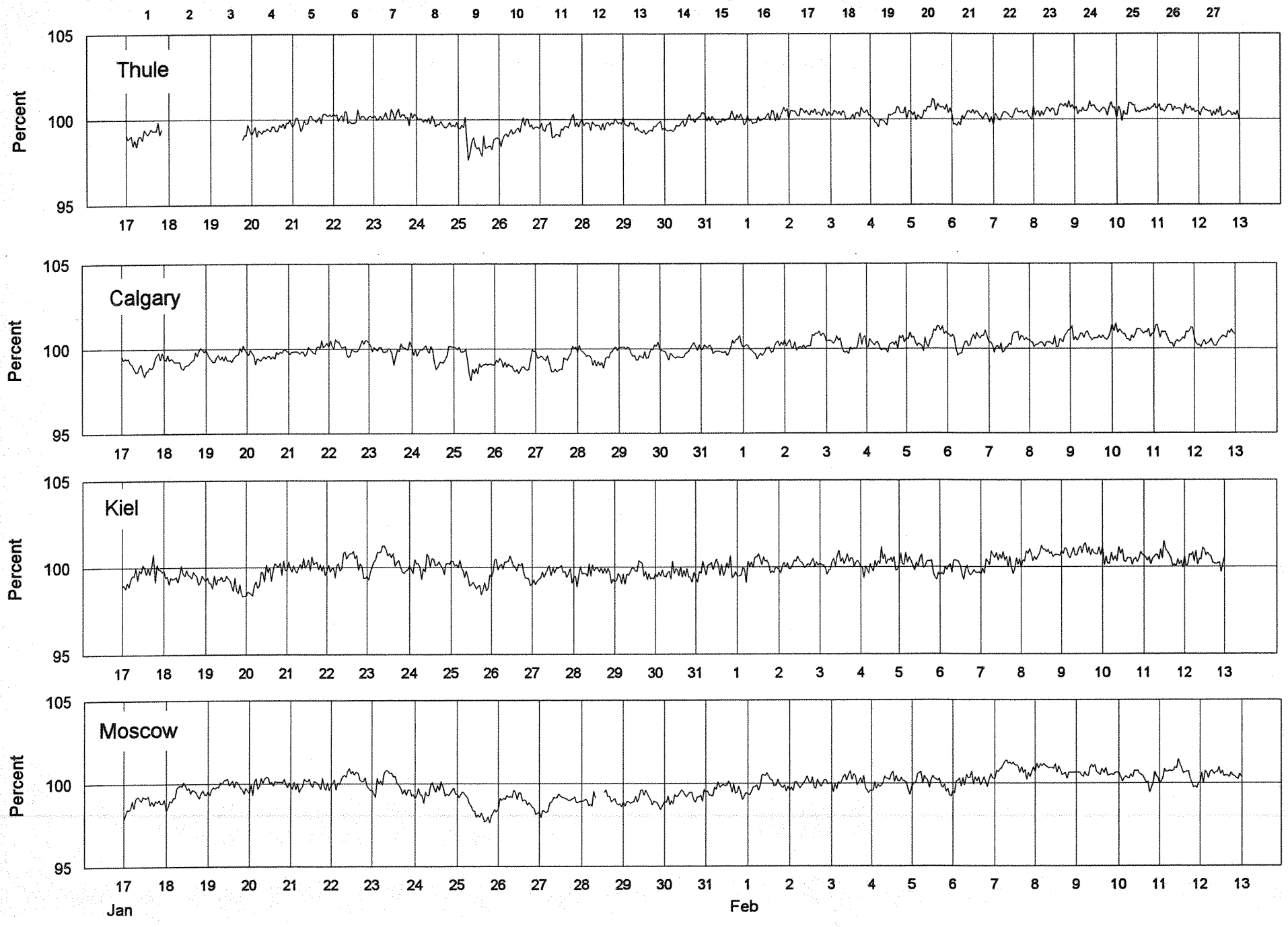
COSMIC RAY INDICES
(Neutron Monitor)
February 2006

Day	THULE Average (cts/h)/100	CALGARY Average (cts/h)/300	KIEL Average (cts/h)/100	MOSCOW Average (cts/h)/64	CLIMAX Average (cts/h)/100	BEIJING Average (cts/h)/256	HALEAKALA Average (cts/h)/1000
1	4407.7	3836.2	6117.8	9184.1	4161.2	2077.5	3596.0
2	4418.5	3852.8	6124.5	9186.7	4176.8	2087.6	3589.4
3	4414.7	3848.2	6131.6	9196.2	4168.1	2091.2	3578.5
4	4408.4	3846.8	6125.5	9194.2	4156.2	2090.9	3573.4
5	4424.7	3862.0	6125.2	9193.0	4162.3	2081.1	3564.2
6	4407.8	3855.8	6106.3	9201.7	4156.3	2088.8	3590.5
7	4413.0	3851.3	6134.1	9269.9	4149.0	2092.1	3592.3
8	4427.0	3852.7	6158.5	9265.5	4148.1	2090.5	3576.3
9	4428.3	3865.2	6170.2	9249.8	4158.5	2079.4	3585.5
10	4425.5	3872.8	6147.9	9219.4	4168.5	2066.3	3589.4
11	4428.2	3866.7	6146.5	9235.9	4165.5	2069.8	3594.6
12	4418.6	3856.2	6143.1	9235.4	4158.8	2070.1	3586.7
13	4422.8	3868.5	6147.0	9238.7	4165.3	2067.9	3587.6
14	4431.9	3885.3	6161.1	9230.2	4175.7	2067.3	3585.2
15	4431.4	3883.0	6168.0	9212.5	4193.8	2074.0	3587.8
16	4439.9	3887.7	6188.5	9225.4	4196.7	2083.3	3585.3
17	4449.0	3894.5	6199.6	9216.4	4184.2	2079.7	3585.0
18	4461.9	3902.8	6207.7	9230.5	4196.7	2084.1	3589.3
19	4469.6	3909.7	6210.0	9236.4	4210.6	2082.6	3593.6
20	4454.8	3889.5	6181.6	9190.5	4203.6	2075.4	3584.0
21	4427.0	3862.8	6147.1	9114.3	4182.5	2071.1	3570.5
22	4429.0	3857.5	6147.0	9119.3	4185.1	2078.0	3570.3
23	4439.1	3851.8	6168.0	9146.7	4189.5	2072.7	3573.3
24	4450.5	3844.7	6167.0	9139.9	4196.7	2076.4	3584.2
25	4426.5	3839.8	6170.7	9154.0	4189.9	2085.3	3580.0
26	4424.8	3839.7	6207.4	9220.5	4196.2	2078.6	3578.9
27	4421.9	3822.8	6206.1	9216.5	4184.7	2072.3	3584.5
28	4388.1	3825.3	6189.8	9181.4	4181.1	2072.8	3583.6
Mean	4428.0	3861.9	6160.6	9203.8	4177.2	2078.8	3583.7

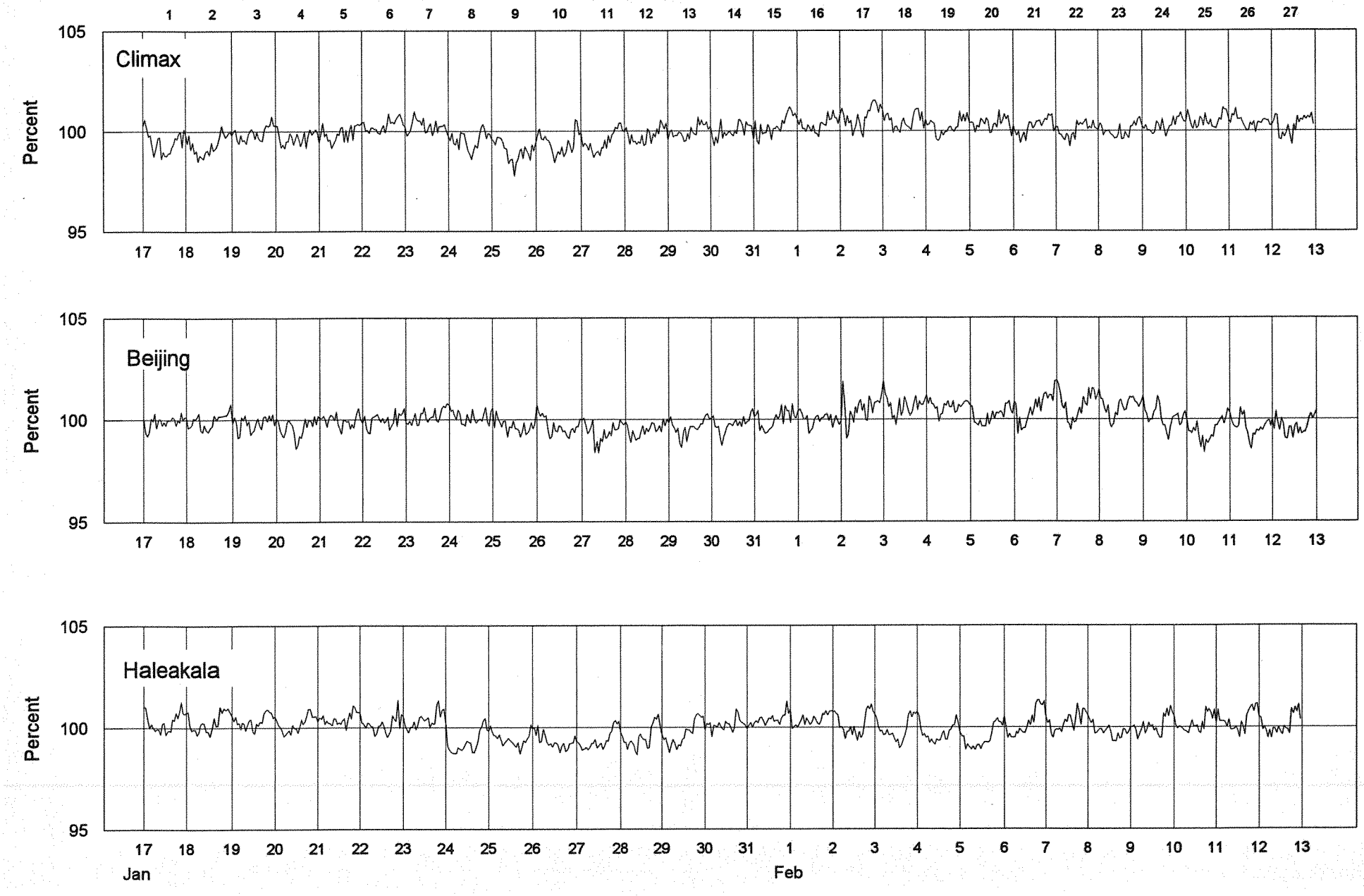
For less than 24-hour coverage, parentheses enclose the number of hours for which data are available. For Climax, parentheses enclose the number of section hours whenever the sum of both sections falls below 40 hours, and for Haleakala, whenever the sum of all three sections falls below 60 hours.

COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2354 - Beginning 17 Jan 2006

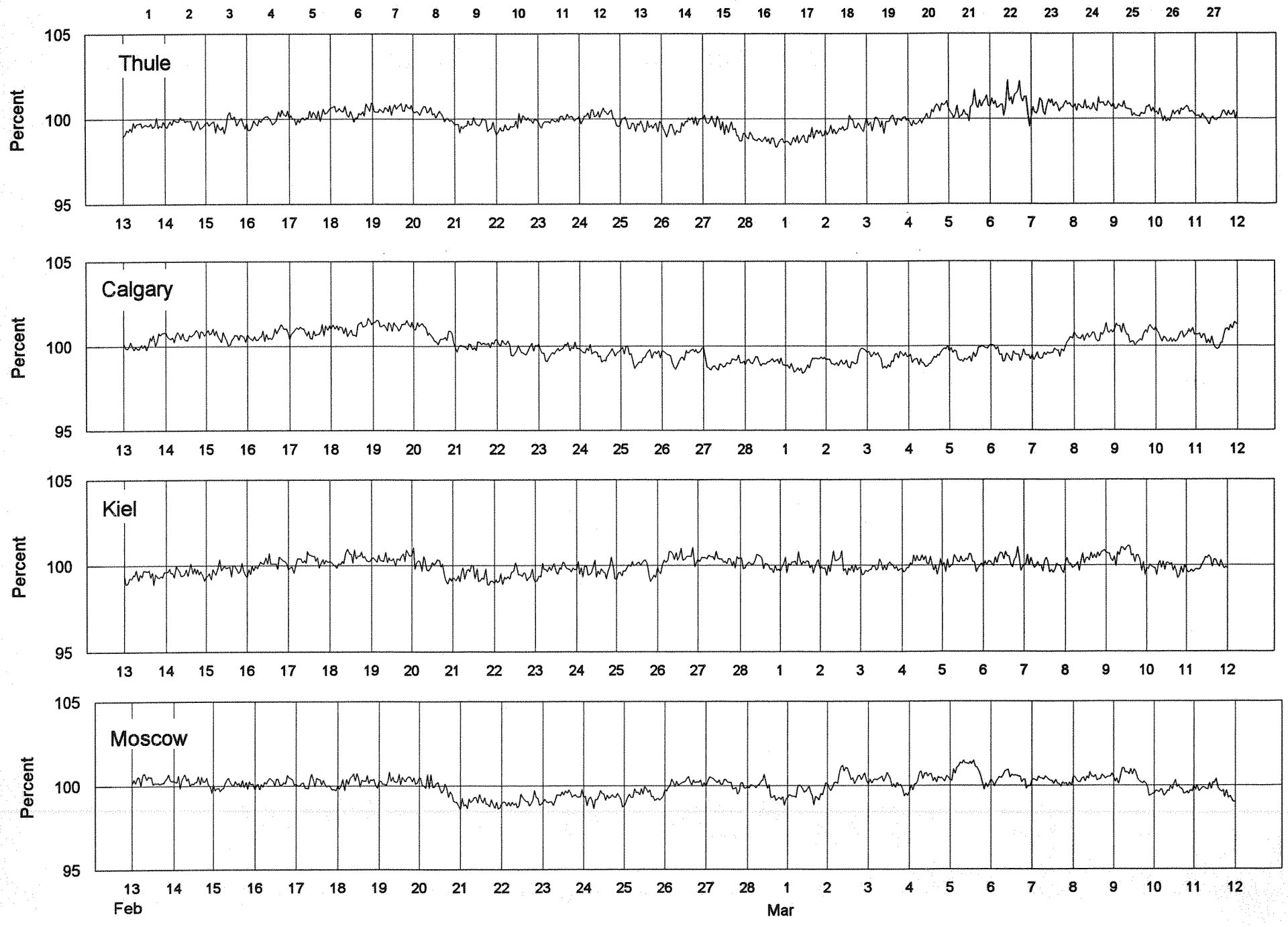


COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2354 - Beginning 17 Jan 2006

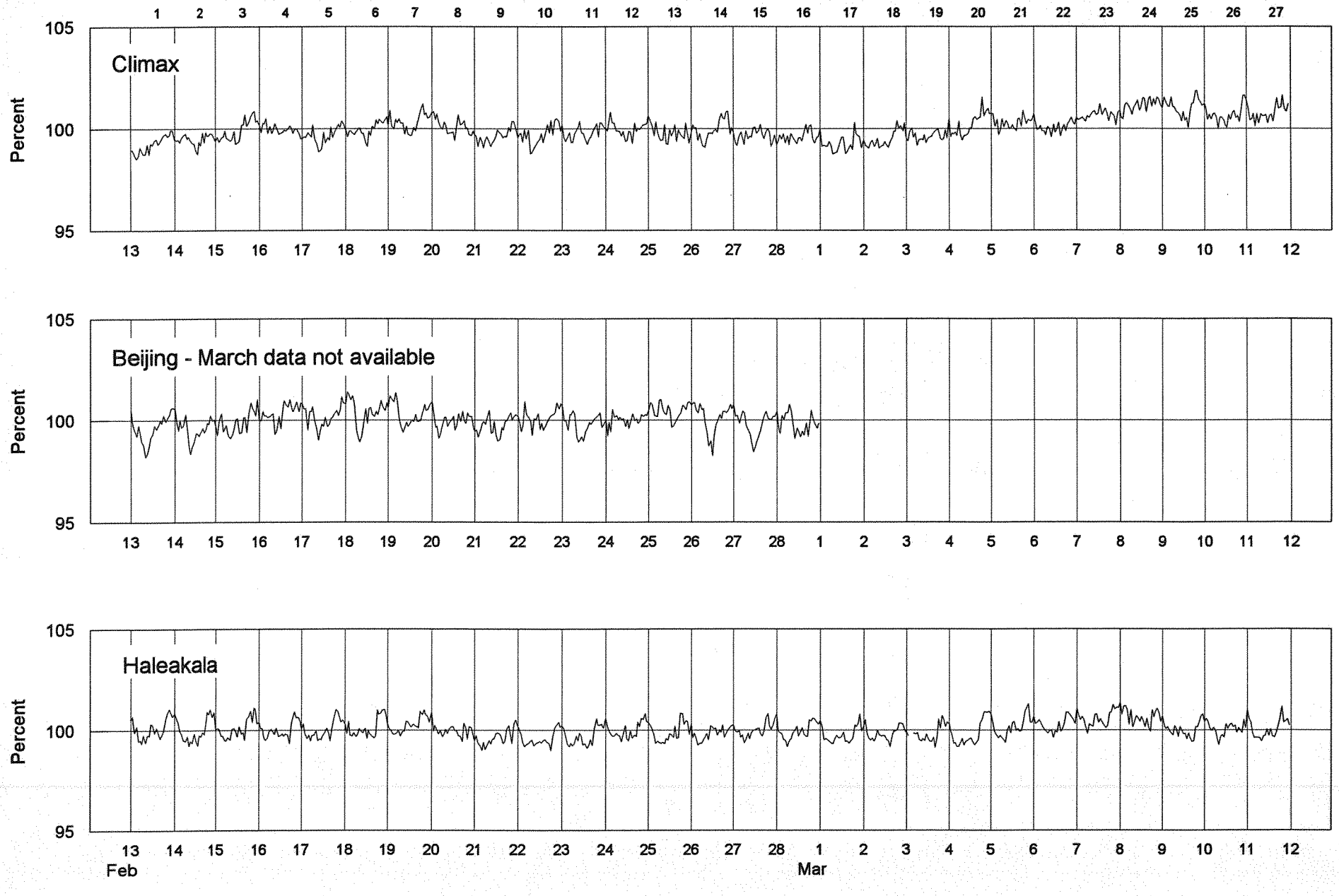


COSMIC RAY INDICES
(Neutron Monitor)

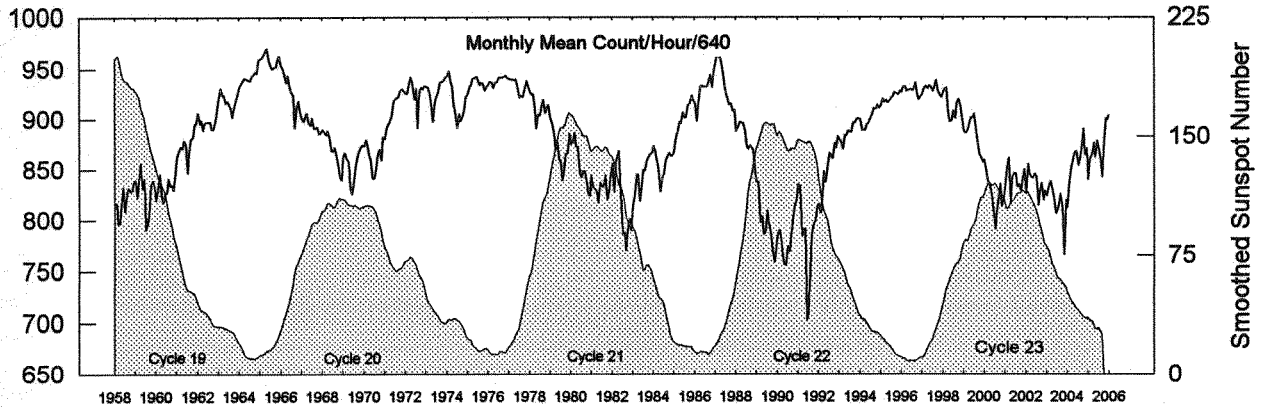
Bartels Rotation 2355 - Beginning 13 Feb 2006



COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2355 - Beginning 13 Feb 2006



Moscow Neutron Monitor Pressure-Corrected Values
Jan 1958 - Feb 2006



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1958	8171*	8175*	7973*	7971*	8145*	8330*	8087*	8266*	8324*	8291*	8294*	8378*	8200*
1959	8405	8223	8443	8565	8309	8416	7911	7972	8054	8351	8397	8325	8281
1960	8199	8313	8459	8264*	8178*	8272*	8272*	8417	8348	8348	8295	8464	8319*
1961	8619	8682	8731*	8708*	8791*	8759*	8472	8676	8808	8816	8957	8956	8748*
1962	9061	8959	8996	8891	8964*	8974	8977	8977	8908	8902	8973	9056	8940*
1963	9201	9308	9243	9239	9154	9180	9147	9109	9020	9110	9194	9259	9180
1964	9321	9353	9395	9416	9410	9396	9384	9425	9442	9473	9458	9594	9422
1965	9602	9608	9642	9685	9701	9586	9530	9505	9520	9525	9608	9630	9595
1966	9531	9502	9439	9367	9438	9336	9261	9242*	8916	9105*	9178	9094	9284*
1967	9006	8973	9038	9059	8956	8940	9015	8913	8911	8924	8860	8873	8956
1968	8904	8875*	8844*	8892*	8825*	8690*	8689	8725	8635*	8533*	8428	8394	8703*
1969	8628	8666	8606	8584	8334	8261	8378	8510	8612	8689	8731	8751	8562
1970	8735	8799	8749	8639	8608	8418	8420	8540	8656	8702	8596	8827	8641
1971	8805	8921	8952	8982	9028	9185	9190	9219	9215	9285	9302	9276	9113
1972	9260	9254	9367	9419	9364	9192	9311	8916	9275	9319	9298	9336	9275
1973	9333	9321	9258	9107	8975	9160	9233	9263	9368	9376	9392	9423	9267
1974	9431	9481	9390	9327	9153	9062	8916	9054	8983	9027	9092	9222	9178
1975	9238	9317	9361	9405	9415	9425	9395	9339	9370	9361	9285*	9330	9353*
1976	9339	9375	9370	9310	9363	9371	9423	9418	9423	9428	9440	9415	9380
1977	9405	9404	9401	9392	9399	9318	9209	9236	9216	9302	9384*	9341	9334*
1978	9279	9243	9254	9113	8907	9050	9035	9149	9189	9062	9118	9145	9216
1979	9012	8955	8860	8693	8778	8599	8592	8396	8470	8662	8661	8857	8740
1980	8752	8776	8871	8737	8732	8463	8430	8490	8491	8379	8259	8242	8552
1981	8451	8330	8311	8277	8176	8379	8332	8338	8452	8206	8289	8439	8332
1982	8565	8277	8565	8649	8686	8279	7870	7882	7712	7931	8023	7902	8195
1983	8150	8253	8460	8460	8194	8343	8498	8492	8575	8625	8658	8670	8448
1984	8736	8686	8574	8505	8286	8421	8476	8590	8632	8669	8641	8644	8575
1985	8671	8813	8878	8973	8958	9066	9018	9017	9140	9155	9233	9183	9009
1986	9162	8982	9125	9316	9339	9328	9326	9327	9368	9444	9312	9472	9292
1987	9553	9646	9619	9618	9505	9349	9268	9202	9149	9153	9085	9094	9353
1988	8885	8922	8979	8968	8961	8904	8724	8704	8745	8716	8699	8474	8807
1989	8381	8385	7985	8043	7868	7888	8102	7977	7897	7709	7592	7701	7961
1990	7871	7910	7846	7652	7574	7569	7755	7701	7864	8037	8168	8185	7844
1991	8356	8347	7850	7915	7926	7025	7082	7510	7863	7964	8008	8153	7833
1992	8169	8078	8247	8490	8378	8535	8670	8649	8614	8767	8717	8833	8512
1993	8804	8784	8705	8846	8842	8888	8884	8880	8968	8968	9010	9011	8882
1994	9001	8895	8899	8898	8942	8963	9013	9055	9110	9098	9141	9112	9011
1995	9122	9206	9169	9193	9159	9186	9203	9228	9272	9257	9241	9286	9210
1996	9266	9328	9324	9287	9291	9302	9295	9302	9364	9226	9192	9227	9284
1997	9240	9311	9334	9302	9340	9318	9277	9322	9390	9281	9233	9217	9297
1998	9273	9306	9312	9057	8981	8983	9088	9007	9157	9196	9133	9036	9127
1999	8883	8867	8887	8937	9021	9018	9058	8904	8794	8660	8627	8574	8853
2000	8600	8481	8377	8358	8283	8107	7921	8081	8224	8365	8146	8215	8263
2001	8314	8521	8617	8168	8428	8468	8473	8334	8359	8289	8447	8505	8410
2002	8277	8555	8462	8434	8420	8462	8438	8157	8289	8374	8207	8297	8364
2003	8251	8344	8398	8329	8238	8075	8099	8178	8268	8150	7675	8209	8185
2004	8139	8385	8525	8580	8676	8684	8546	8589	8715	8909	8646	8718	8593
2005	8411	8614	8649	8770	8624	8792	8707	8632	8436	8793	9015	9001	8704
2006	9061	9204											9133

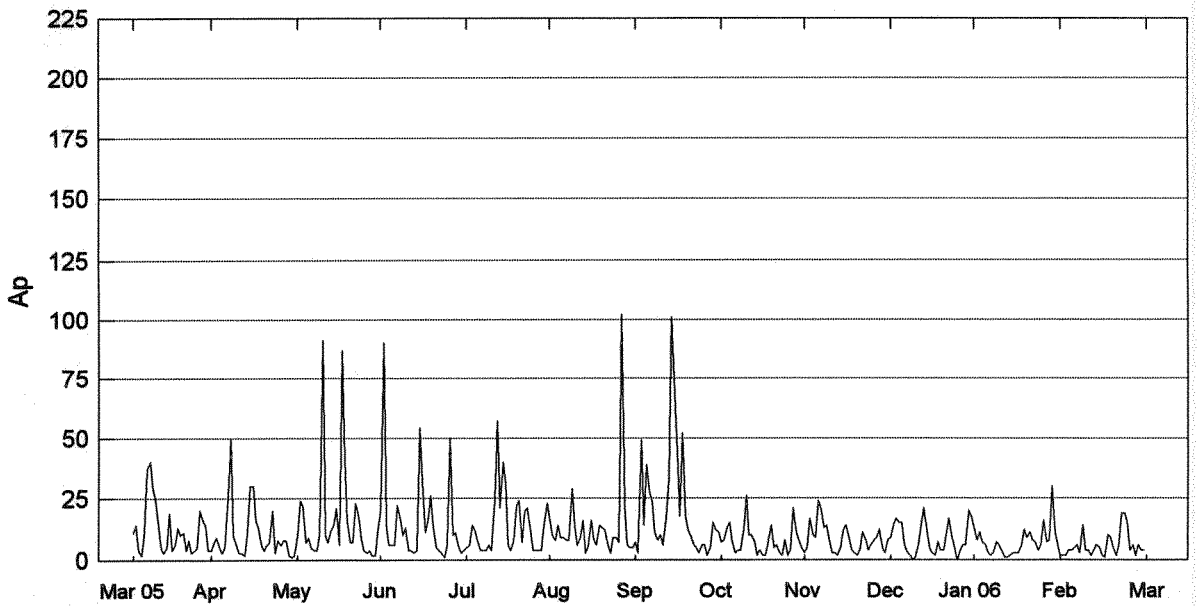
Multiply table entries by 64 to obtain hourly counting rate. Moscow, Russia: N55, E37, Alt= 200 m, Cutoff Rigidity= 2.42GV.
NOTE: * Indicates data have been restored using the corresponding data of other cosmic ray stations.

Geomagnetic Activity Indices
February 2006

Day		Kp Three-Hourly Indices 1	2	3	4	5	6	7	8	Sum	Ap	Cp	Km Three-Hourly Indices 1	2	3	4	5	6	7	8	Am	aa Provisional N	S	M	
1	Q8	0	0+	1+	1-	1	1-	0+	2+	7-	4	0.1	0+	1o	2-	1o	2-	1-	0+	2o	7	7	11	7	12 CC
2	Q10	2-	1-	0+	1+	1-	1-	2-	2-	9-	4	0.1	2-	1-	1o	2o	1o	1+	2o	2-	10	11	11	9	13 CC
3		0+	0+	1-	2-	1-	1+	3	1+	9+	5	0.2	1-	1-	1+	2-	1o	2-	3o	1+	11	14	15	11	18
4		2+	3	1+	1	1	1	0+	0+	10+	6	0.3	2o	2+	1+	1+	1+	1o	0+	1-	9	12	11	16	7 CK
5	Q6	1	0	2-	1-	0+	0+	2-	1-	6+	3	0.1	1+	0+	2-	1o	1-	0+	2o	1+	7	8	9	9	9 CC
6	D4*	2-	4-	2	2	4-	2+	3	4-	22	14	0.8	2-	3-	2o	3-	4-	2+	3+	4-	27	28	23	17	35
7		2	1+	1	0	0+	1-	1+	2-	8+	4	0.1	1+	1+	1+	1-	1-	1o	2-	2-	8	8	9	9	9 C
8	Q9	3-	1-	1+	1-	0+	0	0+	0+	6+	4	0.1	2-	1-	2-	1+	0+	0o	1-	0+	6	5	5	8	3 CC
9	Q3	0	0	0+	1-	1	0	1+	1+	5-	2	0.0	0o	0+	1o	1o	1o	0+	1+	1+	6	8	7	4	10 CC
10		1	0+	0	0	0	0+	2-	3	6+	4	0.1	1o	1-	1-	1o	0+	0o	2-	3-	8	9	8	5	12 CC
11		2	2	2	1-	2	3-	1+	0+	13	6	0.3	2-	1+	2o	1o	3-	3-	1+	1-	13	15	13	13	16
12		2+	3	2-	1-	1	1+	0	0	10	5	0.2	2-	2+	2-	1o	1+	2-	0+	0+	9	10	11	15	6 CK
13	Q5	0	0	0	0	1-	2-	1	1	4+	2	0.0	0+	0+	1-	0o	1+	2-	1o	1+	6	6	8	4	10 CC
14	Q1	0	0	0	0	0+	0	0	1+	2-	1	0.0	0+	1-	0+	0+	1-	0o	0+	1+	4	4	6	4	7 CC
15	D5*	1-	1	2	3	2	2-	3+	4-	17+	10	0.6	1+	1o	2-	3o	2+	2-	3+	3+	20	24	21	14	31
16		3	3-	3	2+	1+	1+	2-	1+	17-	9	0.5	3-	2o	3o	2+	1+	1+	2-	1o	16	17	17	22	12
17		1	3-	2-	1-	1	1	0+	1	9+	5	0.2	1-	2o	1+	1o	1+	1+	1-	1+	9	8	10	10	8 CC
18	Q4	0	0+	0	1-	2-	1-	1-	1-	5-	2	0.0	0+	1o	0+	1-	2-	1-	1-	1-	5	7	8	6	9 CC
19		2	2	2	1	1+	1+	2+	2-	14-	6	0.3	2o	2+	2o	1o	1+	2o	3-	2o	14	16	15	14	17
20	D1*	2+	2	3-	3+	4+	5-	3+	3+	26	19	1.0	2+	2-	3-	3+	4o	5-	3+	3o	37	39	38	21	56
21	D2*	3+	4-	3	4	3+	4-	3	3-	27-	19	1.0	3-	3-	3o	4o	3+	3+	3-	3o	32	33	36	32	37
22	D3*	4	3+	3+	3+	3-	3+	2-	2-	23+	15	0.9	3+	2+	3-	3+	3o	4-	2o	2-	26	29	29	32	27
23		2-	2	1+	1+	0+	0+	1	1	9	4	0.2	1+	2-	2-	1+	1-	1-	1o	1o	8	7	7	8	7 C
24		3-	2-	1	2+	2+	1-	0+	0+	11+	6	0.3	2+	1+	0+	3-	2+	1o	0o	0+	11	13	11	16	8 KC
25	Q2	2	1-	0+	0+	0	0	0	0	3+	2	0.0	1+	1-	1-	0+	0o	0o	0o	0o	3	6	5	8	3 CC
26		1	2+	1-	0+	1+	2	2-	3-	12	6	0.3	1o	2+	1o	1-	2-	2+	2-	3-	13	17	15	12	20 K
27	Q7	2-	1+	2-	1-	1-	0	0+	1+	8-	4	0.1	1+	1o	1+	1-	1+	0o	1-	1+	6	9	6	7	8 CK
28		0+	0	1	2	1+	1-	2-	2+	9+	4	0.2	0+	1-	1o	3o	2-	1o	2-	2+	11	11	13	10	15 KC
Mean											6	0.29									12.2	13.8	13.6		13.6

Day	Kn Three-Hourly Indices 1	2	3	4	5	6	7	8	An	Ks Three-Hourly Indices 1	2	3	4	5	6	7	8	As	Sa	Prov Ri	Ra	Rs	IMF
1	0o	0+	2-	1o	2-	1-	0+	2o	7	0+	1+	1+	1o	2-	1o	1-	2o	8	75.3	0	1	19	
2	2-	0+	0+	2-	1o	1+	2o	2-	9	2-	1o	1o	2o	1o	1+	2o	2-	10	75.1	0	0	19	
3	0+	0+	1o	1+	1o	2-	3o	1+	9	1+	1+	2-	2-	1+	2-	3o	2-	12	76.4	0	0	21	
4	2o	2o	2-	1+	2-	1+	0o	1-	9	2o	2+	1+	1+	1+	1o	0+	1-	9	74.9	0	0	19	
5	1o	0o	2-	1-	1-	0o	2-	1+	6	1+	1o	1+	1o	1-	1-	2+	2-	9	74.2	0	1	18	
6	1+	3o	2o	3o	4-	2+	3+	4o	30	2-	3-	2o	2-	4-	2+	3o	3+	24	72.9	0	0	17	
7	1+	1-	1+	0+	0+	1-	2-	2-	7	2-	1+	1o	1o	1o	1o	2-	2-	9	72.0	7	3	16	
8	2-	1-	2-	1+	0+	0+	0+	0o	6	2-	1-	1+	1+	0+	0o	1-	1-	6	72.0	7	7	16	
9	0o	0+	1-	1o	1+	0+	1+	2-	6	0o	0+	1o	1o	1o	0+	1+	1+	6	72.8	10	9	17	
10	1-	0+	0+	0+	0o	0o	2-	3o	7	1o	1-	1o	1+	0+	0o	2o	3-	9	73.2	10	2	17	
11	2-	1o	2o	1o	3-	3o	1+	0+	14	2-	1+	2-	1o	2+	2+	1+	1-	12	74.1	8	1	18	
12	1+	2+	1+	1-	1+	2-	0o	0o	8	2o	2o	2o	1+	2-	1+	0+	1-	10	74.1	0	1	18	
13	0+	0+	0+	0o	2-	2o	1o	1o	6	0+	0+	1o	0+	1+	2-	1o	1+	6	74.4	9	5	18	
14	0o	0o	0o	0o	0+	0+	0o	1+	2	1-	1o	1o	0+	1-	0o	0+	2-	5	75.4	11	7	19	
15	1-	1o	2-	3o	2+	2-	3+	3o	20	2-	1+	2o	3-	2o	2o	3+	3+	20	76.6	15	12	21	
16	3-	2o	3+	3-	1+	1+	2-	1o	17	3-	2o	3-	2+	1+	1o	2-	1o	15	77.3	15	14	21	
17	0+	2+	1+	1o	2-	2-	1-	1+	9	1o	1+	1+	1o	1+	1o	1-	1+	8	77.3	7	6	21	
18	0+	0o	0o	1-	2o	1o	1-	1-	5	1-	2-	1-	1o	1+	0+	1-	1-	6	76.7	7	3	21	
19	2-	1+	2o	1o	1+	2o	3-	2o	13	3-	3-	2-	1o	1+	2-	2+	2+	15	74.8	12	3	19	
20	2o	2-	3-	4-	4+	5-	3+	3+	39	3-	2o	3o	3+	4o	4+	3+	3o	36	74.5	0	0	18	
21	3-	3o	3o	4o	3+	3+	3o	3-	35	3-	2+	3o	4-	3+	3+	3-	3+	30	74.2	0	0	18	
22	3+	3-	3o	3+	3o	4o	2o	2-	29	3+	2o	3-	3o	3o	3o	2o	1+	23	74.4	0	0	18	
23	1+	2-	2o	1+	1-	1o	1+	1-	8	2-	1+	1+	1+	1-	0+	1-	1o	7	73.6	0	0	17	
24	2+	2-	1-	3o	3-	1o	0+	0+	13	3-	1o	0+	2+	2-	1+	0o	1-	9	74.4	0	0	18	
25	1+	0+	1-	0o	0o	0+	0o	0+	3	2-	1o	1o	0+	0o	0o	0o	0o	4	74.5	0	0	18	
26	1-	2o	1o	0+	2-	3-	2-	3o	13	1o	2+	1+	1o	2-	2+	2-	3-	13	75.0	0	1	19	
27	1+	1o	1+	1-	1+	0o	1-	1+	7	1o	1-	1+	1-	1+	0o	1-	2-	6	75.5	7	4	20	
28	0o	0o	1-	3o	2+	1o	2-	2+	11	0+	1o	1+	3-	1+	1o	2-	2+	11	75.7	7	5	20	
Mean									12.4									12.1	74.7	4.7	3.0	18.7	

Daily Average Indices Ap
Mar 2005 - Feb 2006

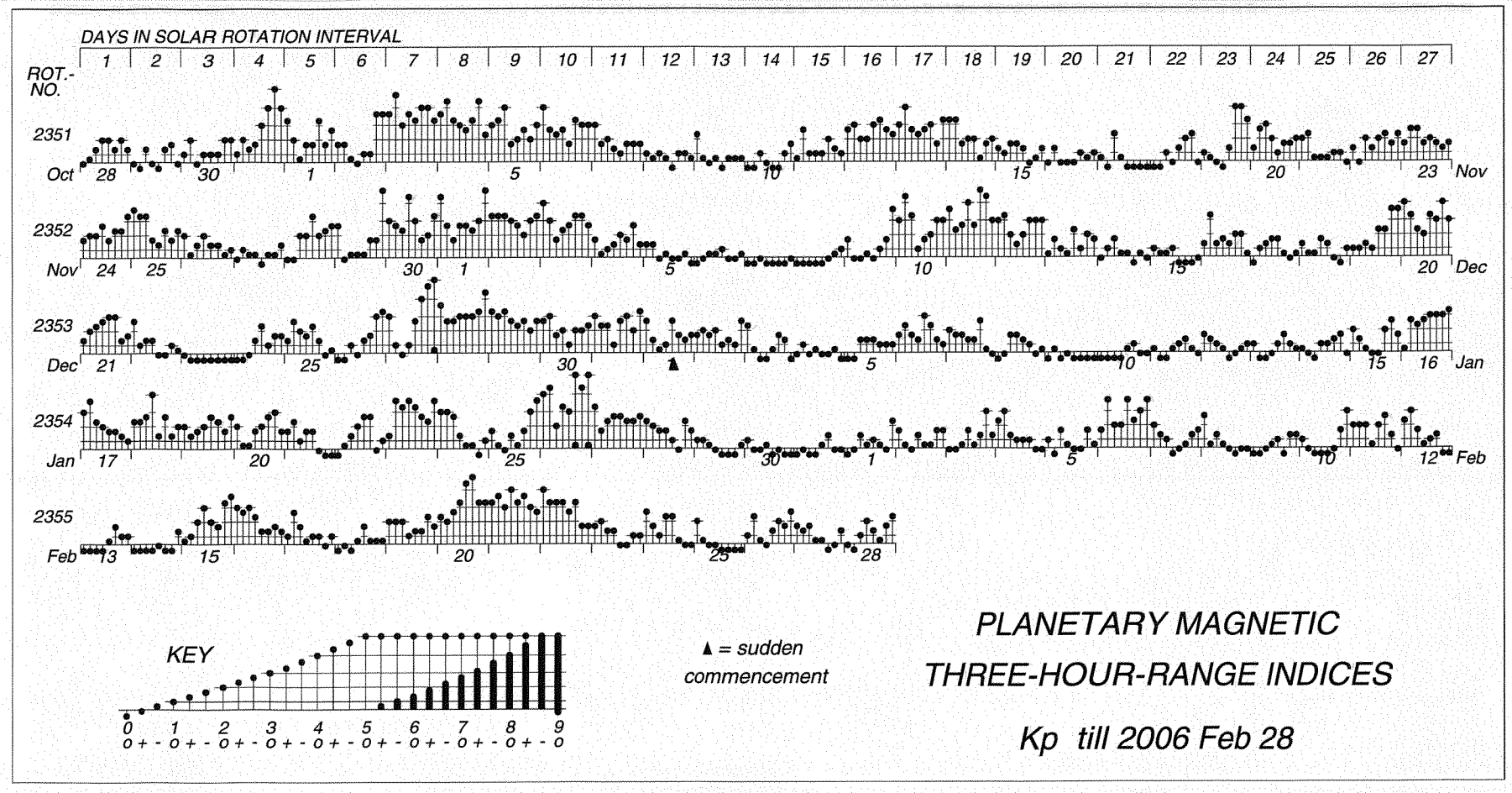


Day	Mar 05	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 06	Feb
1	11	5	22	6	14	14	14	13	10	17	7	4
2	14	3	7	6	12	9	39	15	9	15	6	4
3	4	5	9	6	7	9	27	7	24	15	3	5
4	2	26	5	22	4	8	24	3	20	6	2	6
5	11	50	4	17	4	8	11	4	13	3	3	3
6	37	10	4	10	4	29	8	4	14	2	7	14
7	40	6	10	13	6	14	10	12	7	0	6	4
8	29	3	91	4	4	6	6	26	3	1	4	4
9	25	3	10	4	24	9	17	10	3	6	1	2
10	14	2	7	3	57	16	33	10	2	14	1	4
11	5	11	12	4	21	3	101	7	5	21	2	6
12	3	30	14	54	40	5	75	2	12	12	3	5
13	5	30	21	32	31	16	44	4	14	5	3	2
14	19	16	6	11	6	8	18	2	9	3	3	1
15	4	13	87	16	4	6	52	2	4	2	6	10
16	6	6	41	26	8	14	18	7	3	7	12	9
17	13	4	16	14	22	13	12	14	2	4	9	5
18	10	6	7	5	24	12	10	5	4	4	11	2
19	11	7	7	4	7	6	6	6	11	10	8	6
20	4	20	23	3	20	3	5	3	8	17	7	19
21	8	3	18	1	21	9	3	2	4	9	4	19
22	3	8	9	6	12	9	6	8	6	5	6	15
23	4	6	4	50	4	7	6	2	8	0	16	4
24	5	8	3	10	4	102	2	4	9	4	7	6
25	20	8	4	11	4	22	5	21	12	6	8	2
26	16	2	2	6	4	6	15	11	5	6	30	6
27	14	1	2	3	14	5	12	8	3	20	11	4
28	4	2	12	4	23	5	11	5	8	18	6	4
29	4	10	20	5	17	7	7	3	9	13	2	
30	7	24	90	6	10	3	8	5	14	8	2	
31	9		14		8	49		17		11	2	
Mean	12	11	19	12	14	14	20	8	8	9	6	6

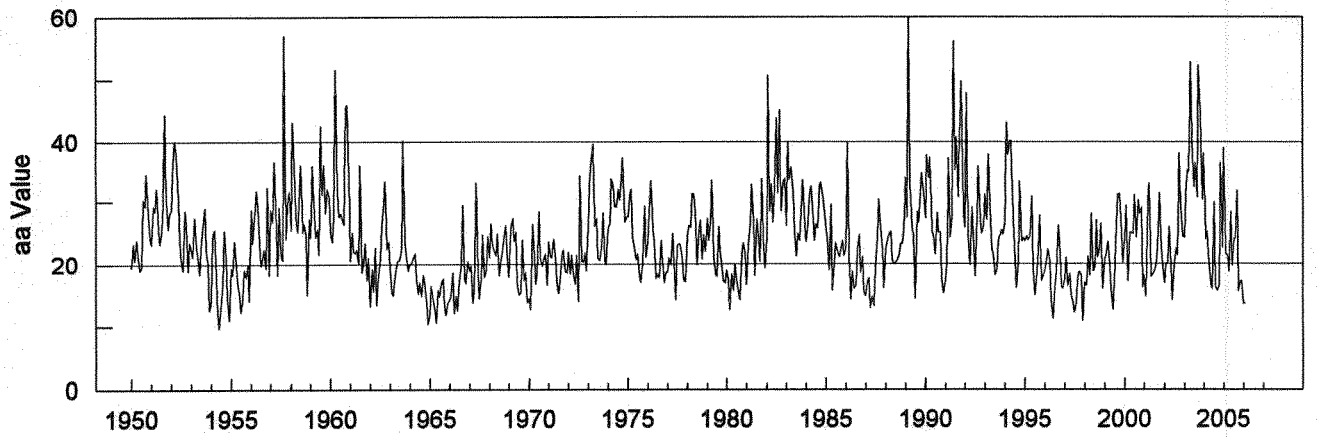
PLANETARY 3-HOUR-RANGE INDICES (Kp) BY 27-DAY SOLAR ROTATION INTERVAL

GeoForschungsZentraum Potsdam

Kp through Feb 28, 2006



Monthly Mean aa Index Jan 1950 - Feb 2006



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1950	19.5	23.2	20.6	23.8	21.7	19.0	19.5	30.2	29.3	34.5	28.0	24.0	24.4
1951	23.1	29.2	28.5	32.1	25.5	23.2	25.2	29.7	44.4	30.3	25.7	28.2	28.8
1952	28.5	34.3	40.1	38.0	33.1	23.8	20.7	19.0	28.5	26.4	18.9	23.4	27.9
1953	22.3	21.2	27.4	22.7	21.4	18.4	22.5	26.1	29.0	22.4	20.2	12.6	22.2
1954	13.9	24.5	25.5	20.6	12.0	9.7	13.1	16.5	25.4	21.1	14.5	10.9	17.3
1955	19.3	18.2	23.6	21.1	16.7	15.1	12.3	14.3	19.1	17.8	19.9	14.1	17.6
1956	28.7	23.3	27.6	31.7	29.3	23.5	19.8	20.7	22.4	19.3	32.3	18.2	24.7
1957	28.7	26.8	36.7	28.8	18.1	29.1	21.7	20.7	57.0	24.0	29.5	31.7	29.4
1958	25.5	43.2	36.1	27.6	25.2	29.7	36.0	25.1	26.5	24.7	15.0	27.2	28.5
1959	24.3	35.9	29.9	24.2	25.7	21.6	42.5	31.2	36.1	28.2	32.1	30.8	30.2
1960	25.2	23.5	27.6	51.5	31.6	27.6	28.1	27.2	26.4	45.6	45.9	34.5	32.9
1961	20.6	25.1	22.0	21.8	22.3	20.1	36.0	18.5	20.7	23.3	17.3	21.1	22.4
1962	13.2	19.2	15.5	22.6	13.4	18.1	21.0	26.2	29.8	33.3	22.5	23.5	21.5
1963	19.3	15.3	14.9	18.2	20.4	20.5	20.8	22.5	40.2	23.5	20.7	18.9	21.3
1964	20.1	20.1	21.0	21.7	17.5	15.1	16.9	14.8	18.2	16.9	13.8	10.3	17.2
1965	11.8	16.3	14.3	12.6	10.5	15.7	14.7	16.8	17.5	13.1	11.7	13.8	14.1
1966	14.2	14.8	18.6	12.0	14.8	12.5	17.1	20.0	29.4	17.5	16.8	20.5	17.3
1967	18.9	19.8	13.8	15.5	33.1	18.6	14.4	17.5	24.7	17.8	18.9	24.5	19.8
1968	21.1	26.5	23.3	22.2	21.4	24.9	18.0	20.1	22.0	24.8	26.2	20.3	22.6
1969	17.8	25.8	27.3	23.6	25.2	16.7	15.0	15.3	23.8	17.2	18.7	13.8	20.0
1970	14.4	12.7	26.4	23.1	16.6	18.3	28.4	21.0	19.7	20.6	21.6	16.5	19.9
1971	23.5	21.2	21.1	23.9	21.1	17.0	15.2	17.1	21.4	22.2	18.8	18.6	20.1
1972	21.9	18.3	21.5	18.1	16.6	21.5	14.0	34.2	20.4	20.4	21.8	18.9	20.6
1973	26.1	32.7	36.9	39.6	26.1	27.3	20.9	20.6	22.8	28.2	20.7	19.9	26.8
1974	25.8	26.4	33.7	32.9	29.2	29.2	32.0	30.2	33.7	37.3	26.8	27.5	30.4
1975	27.6	31.1	32.0	24.3	22.7	20.7	21.7	18.1	16.9	20.2	29.3	21.1	23.8
1976	23.3	28.5	33.4	25.4	23.7	17.5	18.4	17.7	23.7	20.4	16.9	18.6	22.3
1977	18.7	21.0	19.9	24.9	20.1	14.2	22.9	23.2	23.0	20.9	17.3	17.0	20.3
1978	24.6	26.2	25.9	31.3	31.2	28.3	19.9	25.6	27.0	20.8	24.6	22.0	25.6
1979	27.3	23.7	26.9	33.5	21.0	18.3	17.9	26.0	22.0	19.3	17.1	16.8	22.5
1980	19.0	17.3	12.7	18.4	15.6	20.0	17.0	15.9	14.2	21.9	23.3	21.7	18.1
1981	16.5	23.1	26.6	32.8	26.9	18.0	27.2	24.0	20.4	33.7	24.1	19.3	24.4
1982	24.2	50.6	28.5	32.9	26.7	32.1	43.9	31.4	45.1	28.5	33.0	33.8	34.2
1983	26.2	40.0	33.6	35.7	31.6	24.9	21.3	24.9	23.7	28.3	33.5	26.0	29.1
1984	23.5	26.7	30.7	32.5	27.2	23.7	26.4	25.8	32.6	33.1	31.0	29.0	28.5
1985	25.7	24.1	19.0	29.5	15.6	19.9	23.4	22.0	21.2	22.2	23.7	21.4	22.3
1986	22.4	40.0	21.1	14.3	18.8	15.9	16.3	22.3	24.7	18.6	21.2	15.3	20.9
1987	14.8	16.6	17.6	12.9	14.7	13.2	19.3	24.3	30.3	25.8	22.4	16.0	19.0
1988	22.4	23.4	24.8	25.2	20.5	20.0	20.2	20.6	21.4	23.2	23.3	25.5	22.5
1989	33.9	27.5	60.1	32.8	25.7	24.9	14.4	28.4	26.7	31.4	34.7	31.4	31.0
1990	27.4	37.8	33.9	37.4	25.1	24.6	21.6	28.2	25.1	25.1	17.4	15.2	26.6
1991	17.2	20.1	37.3	24.3	27.3	56.2	35.2	40.8	30.7	44.1	49.7	28.0	34.2
1992	25.9	47.7	24.5	19.8	29.1	24.8	17.9	24.1	35.8	27.0	25.0	26.1	27.3
1993	31.2	27.1	37.9	29.2	22.1	21.8	18.2	19.2	23.8	24.6	25.5	24.8	25.5
1994	26.5	43.2	37.9	40.2	40.2	27.2	20.6	16.0	20.2	33.3	23.6	24.1	29.4
1995	23.6	24.5	23.8	24.2	30.9	19.1	14.9	17.0	22.2	27.9	17.2	18.2	22.0
1996	18.8	20.8	22.3	20.5	14.0	11.1	14.7	18.8	26.2	23.5	16.3	15.9	18.6
1997	17.4	21.0	16.3	18.4	15.1	13.7	12.1	13.7	18.4	18.7	18.0	10.8	16.1
1998	16.8	16.4	21.2	18.0	28.1	18.8	19.3	27.0	21.1	22.4	26.5	15.9	21.0
1999	20.8	21.3	23.5	21.3	15.8	12.7	16.9	26.2	31.2	31.3	25.1	20.1	22.2
2000	24.2	29.4	17.1	25.1	25.0	24.9	31.1	24.3	30.2	28.1	29.1	16.1	25.4
2001	18.0	14.7	30.2	33.0	17.8	18.2	18.7	19.9	22.7	31.4	24.4	19.5	22.4
2002	16.8	20.0	20.2	26.0	19.9	14.2	19.9	22.5	21.4	38.1	29.3	24.4	22.7
2003	24.2	31.3	35.2	34.9	52.7	40.2	32.4	36.4	30.7	52.2	44.7	30.4	37.1
2004	38.1	23.9	25.2	20.1	16.6	15.9	29.9	16.3	15.6	16.3	36.4	22.6	23.1
2005	39.0	21.6	21.4	18.8	28.4	19.7	24.0	24.0	31.8	15.5	17.1	17.1	23.2
2006	13.6	13.6											13.6

PLANETARY GEOMAGNETIC ACTIVITY

3-HOUR-RANGE INDICES Km AND aa BY 27-DAY SOLAR ROTATION INTERVAL

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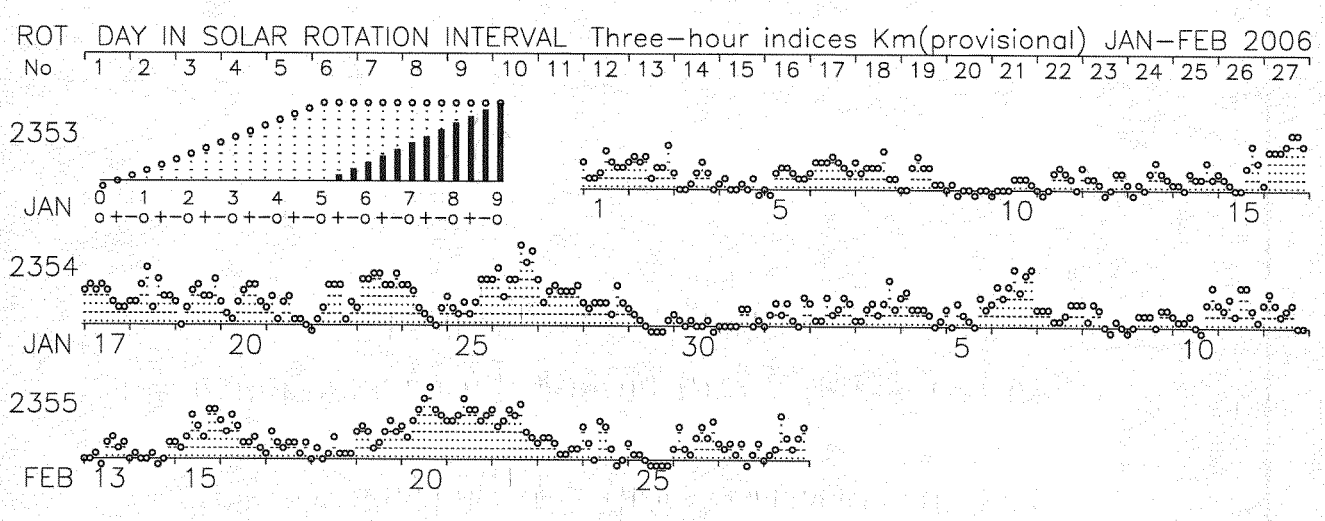
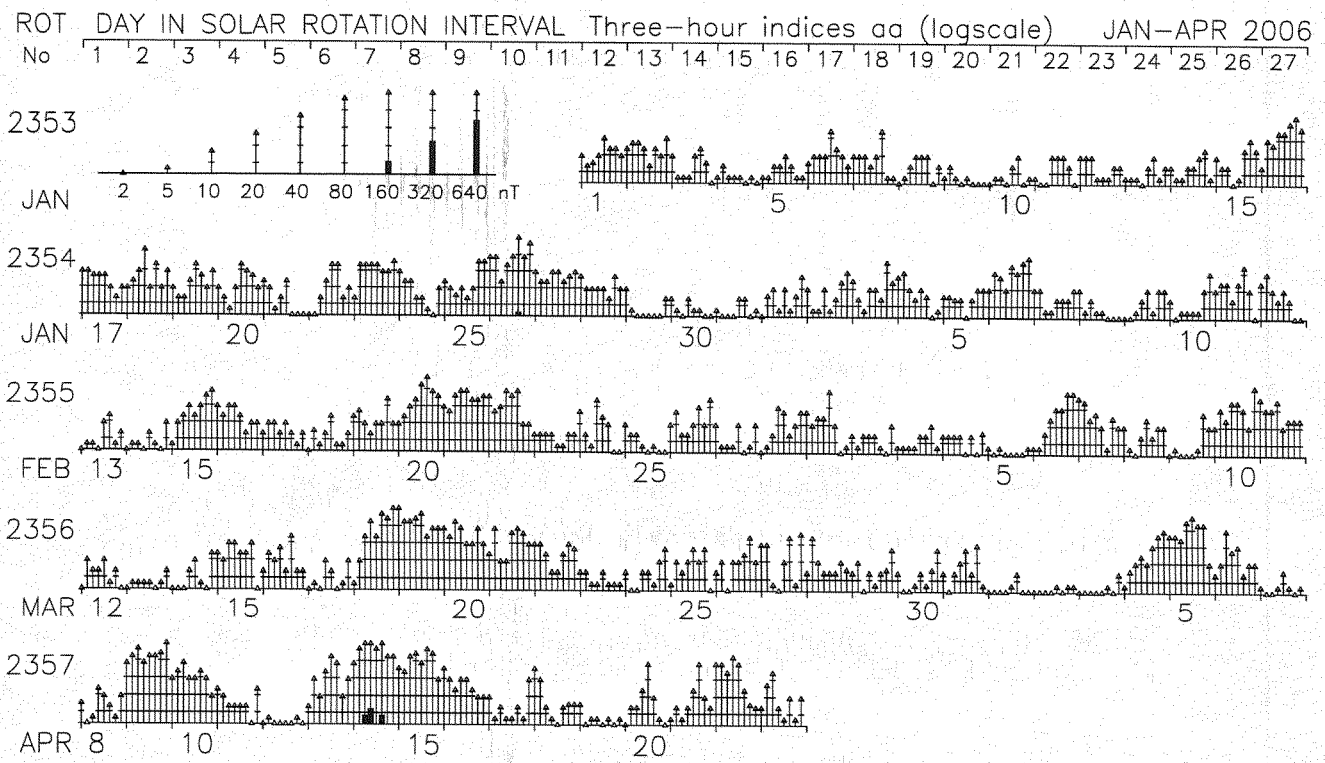
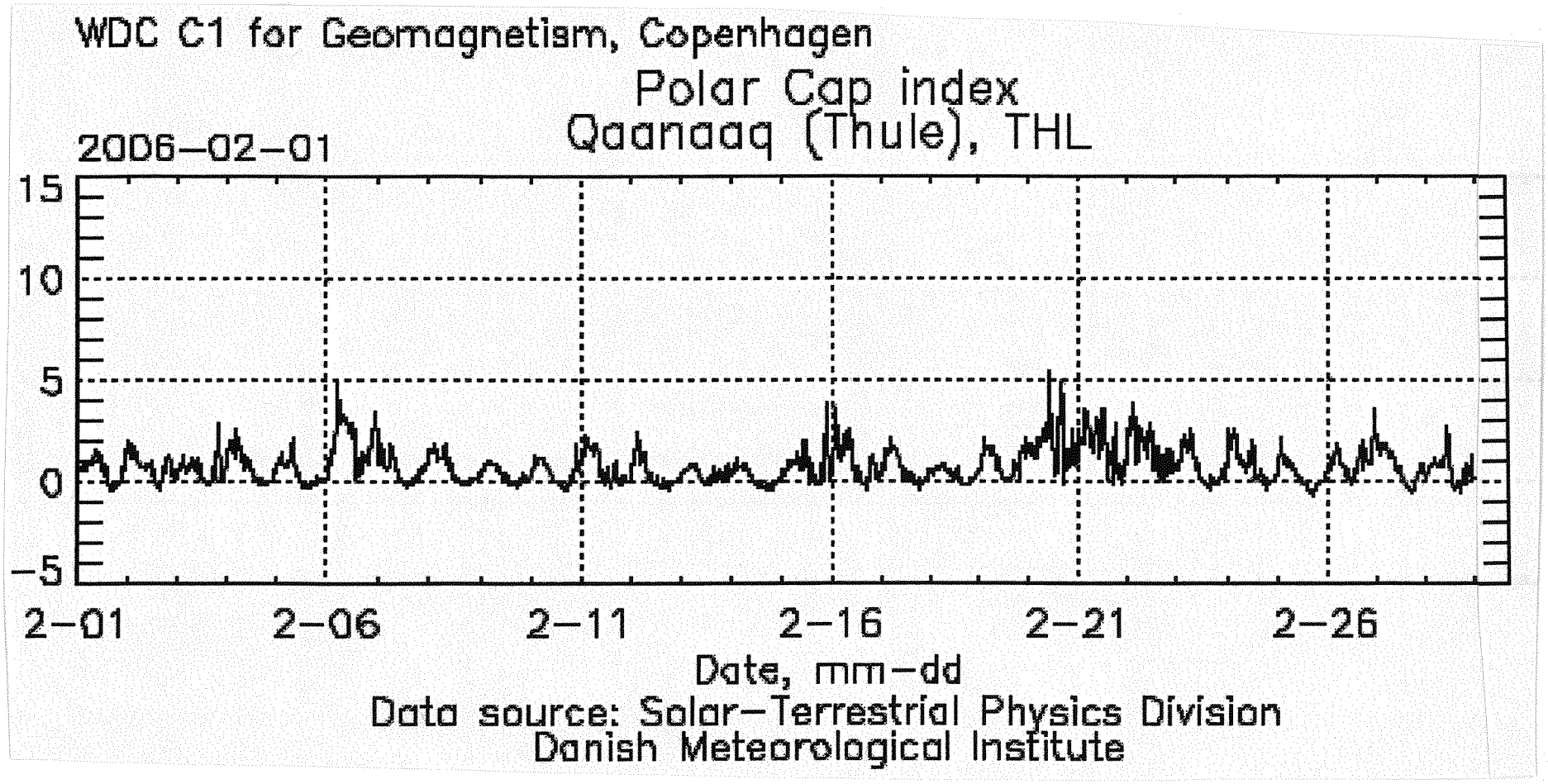


Indices Derivation at C.E.T.P.; Graph Prepared at ISGI Publication Office.



Indices Derivation at C.E.T.P.; Graph Prepared at ISGI Publication Office.


WDC C1 for Geomagnetism, Copenhagen
Polar Cap index
Qaanaaq (Thule), THL
2006-02-01
15
10
5
0
-5
2-01
2-06
2-11
2-16
2-21
2-26
Date, mm-dd
Data source: Solar-Terrestrial Physics Division
Danish Meteorological Institute

P R I N C I P A L M A G N E T I C S T O R M S

FEBRUARY 2006

Sta	Geomag Lat	Commencement Day	Time (UT)	Type	SC Amplitudes D (Min)	H (Gamma)	Z (Gamma)	Maximum 3-Hour K Index Day(3-Hour Periods)	K	Ranges D (Min)	H (Gamma)	Z (Gamma)	End Day	Hour (UT)
JAI	17.4N	05	1900	..	..	..	..		-	2	79	11	06	24
NGP	11.3N	05	1900	..	..	..	..		-	2	86	06	06	24
ABG	09.4N	05	1900	..	..	..	..	06(5,7)	4	2	84	11	06	24
HYB	07.6N	05	1400	..	..	..	..	06(5)	4	2	95	8	07	01
PND	02.0N	05	1900	..	..	..	..		-	2	97	27	06	24
TIR	00.6S	05	1900	..	..	..	..		-	3	103	33	06	24
HYB	07.6N	15	0400	..	..	..	..	15(4)	4	3	74	19	16	22
JAI	17.4N	18	2100	..	..	..	..		-	5	90	20	21	20
NGP	11.3N	18	2100	..	..	..	..		-	4	103	19	21	20
ABG	09.4N	18	2100	..	..	..	..	19(2,3,6) 20(4,6,7) 21(4,5,6) 26(6,8)	4	4	103	24	21	20
HYB	07.6N	18	1900	..	..	..	..	20(6)	5	4	109	16	22	24
PND	02.0N	18	2100	..	..	..	..		-	3	122	56	21	20
TIR	00.6S	18	2100	..	..	..	..		-	4	165	52	21	20
GNA	43.0S	20	0558	..	..	..	..	20(5,6)	5	18	60	93	20	21

Stations:

ABG = ALIBAG
AMS = MARTIN DE VIVIES
ANN = ANNAMALAINAGAR
BJI = BEIJING
CAN = CANBERRA
CMO = COLLEGE
CZT = PORT ALFRED
DRV = DUMONT D'URVILLE
ETT = ETAIYAPURAM
GNA = GNANGARA
GUA = GUAM
HER = HERMANUS
HON = HONOLULU
HYB = HYDERABAD
JAI = JAIPUR
KRC = KARACHI
NGP = NAGPUR
PAF = PORT AUX FRANCAIS
PMG = PORT MORESBY
PND = PONDICHERRY
SHL = SHILLONG
SIT = SITKA
TIR = TIRUNELVELI
UJJ = UJJAIN

Stations reporting no storms observed: CAN KRC

MAGNETIC STORM SUDDEN COMMENCEMENTS AND SOLAR FLARE EFFECTS (PRELIMINARY REPORT ON RAPID MAGNETIC VARIATIONS)

February 2006

Storm Sudden Commencements (SSC)			Solar Flare Effects (sfe)		
Day	Time	Quality: Station Group*	Day	Begin-End	Station(s)
None			15	1258-1310	GUI

REPORTING OBSERVATORIES (up to the 3rd of April 2006):
SOD NUR LER ESK NGK VAL HAD DOU BDV CLF HRB NAG GCK MMB EBR SPT KAK KNY GUI HYB GNA CNB LIV

Three-letter codes identify each observatory. Reporting stations have been grouped by the character of the observed event. The letter A means very remarkable; B means fair, but unmistakable; C means very poor, doubtful; and - means no quality figure given. The * means that the SSC, at least in one component, was preceded by a small reversed impulse. SSCs are given only when five or more stations report the event. SFEs include all reports. If an SFE is confirmed by solar or ionospheric events, the name of the station is identified with a plus sign (+).

Note that we have included data of the Antartic Station LIVINGSTONE (62° 39' 44" S, 60°23' 41" W) -- Luis F.

Criterion on Provisional SSC data

From December 2002, we are giving as provisional SSC only the SSC reported by more than 4 observatories. This is a change with respect to the previous criterion according to which we used to give the SSC reported by more than 5 observatories. The change, pending IAGA confirmation, has been provisionally taken because of the decreasing number of reporting observatories in order to keep the homogeneity of the data. The idea is to keep the same minimum percentage of the observatories reporting an SSC, relative to the total number of reporting observatories, to be considered as a probable SSC.