MARCH 2006 NUMBER 739 - Part I

Solar-Geophysical Data prompt reports

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

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MARCH 2006 NUMBER 739 - Part I

Solar-Geophysical Data prompt reports

Data for January and February 2006

International Standard Serial Number: 0038-0911
Library of Congress Catalog Number: 79-640375 //r81

NATIONAL GEOPHYSICAL DATA CENTER
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Subscription information is on the inside back cover.

SOLAR-GEOPHYSICAL DATA

Number 739
(Issued in Two Parts)

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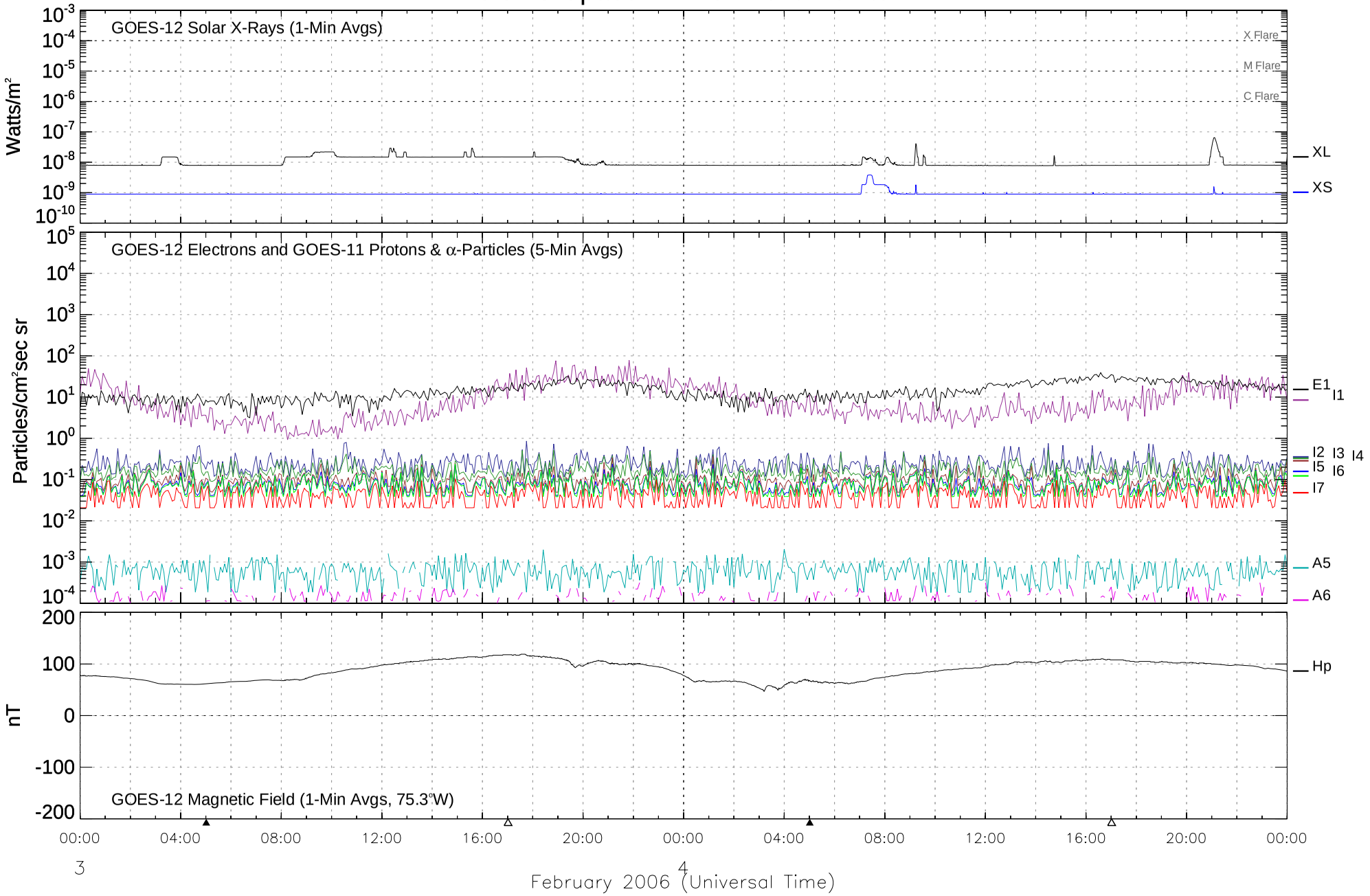
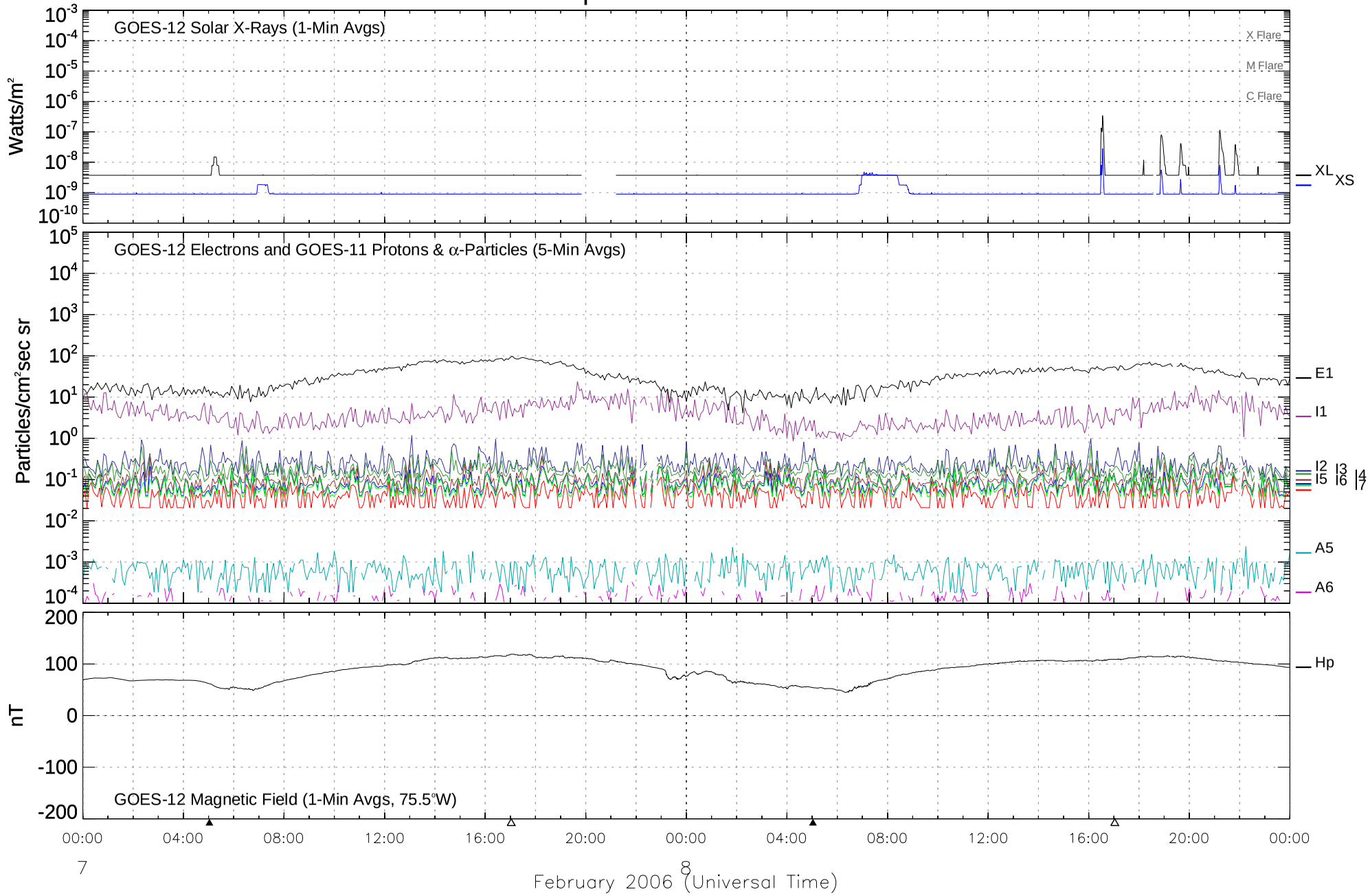
GOES Space Environment Monitor

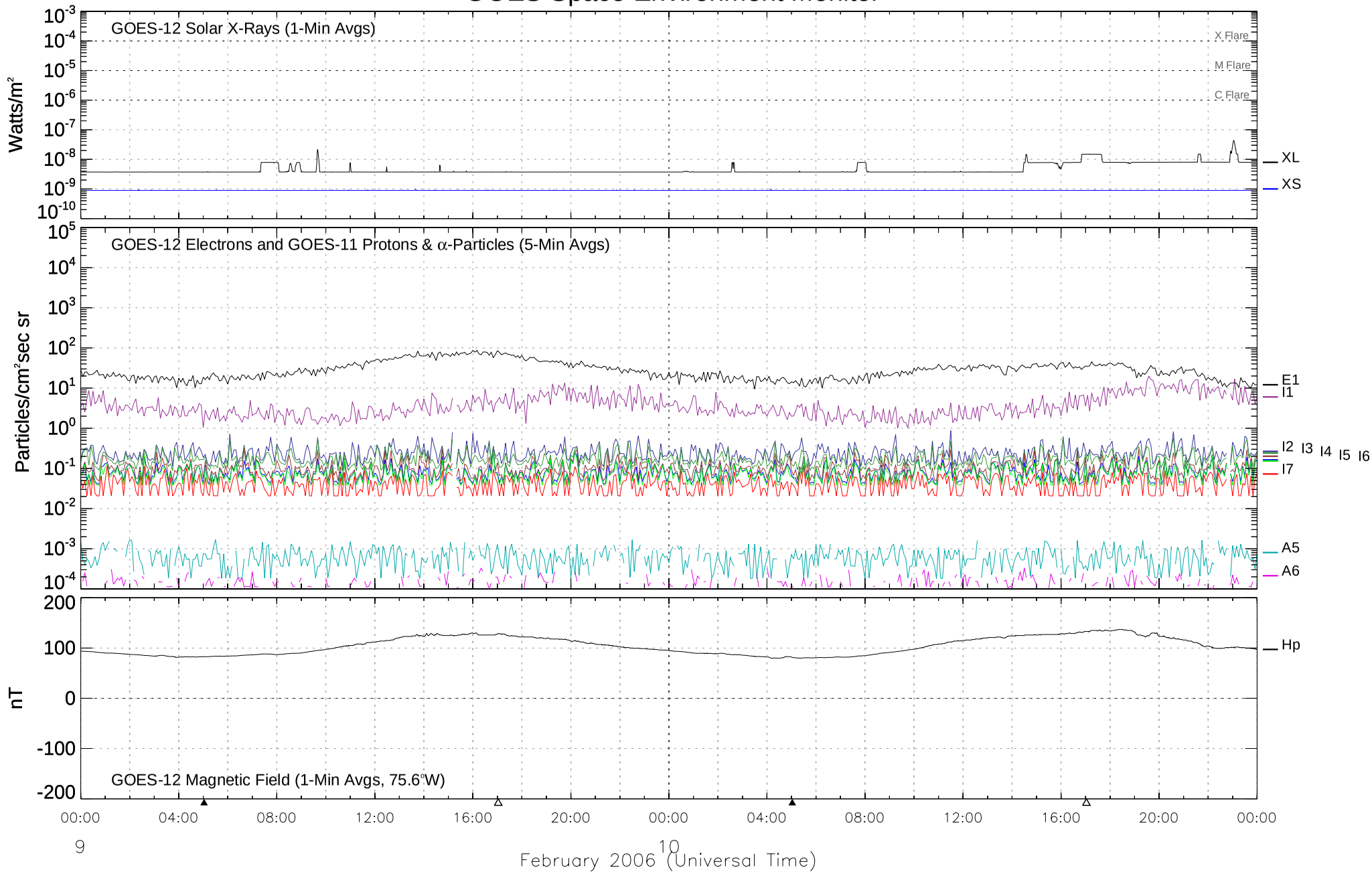


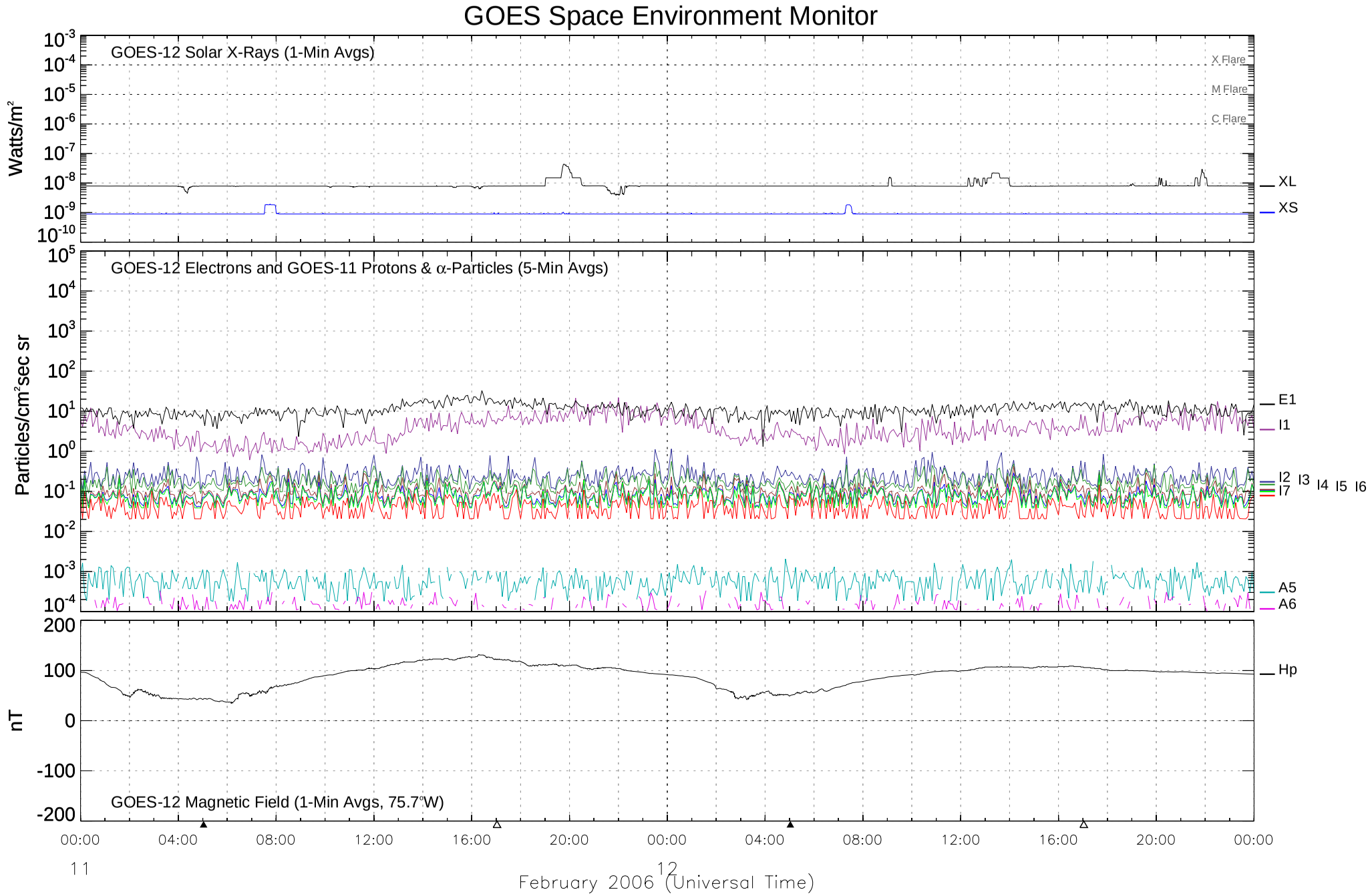
GOES Space Environment Monitor

GOES Space Environment Monitor

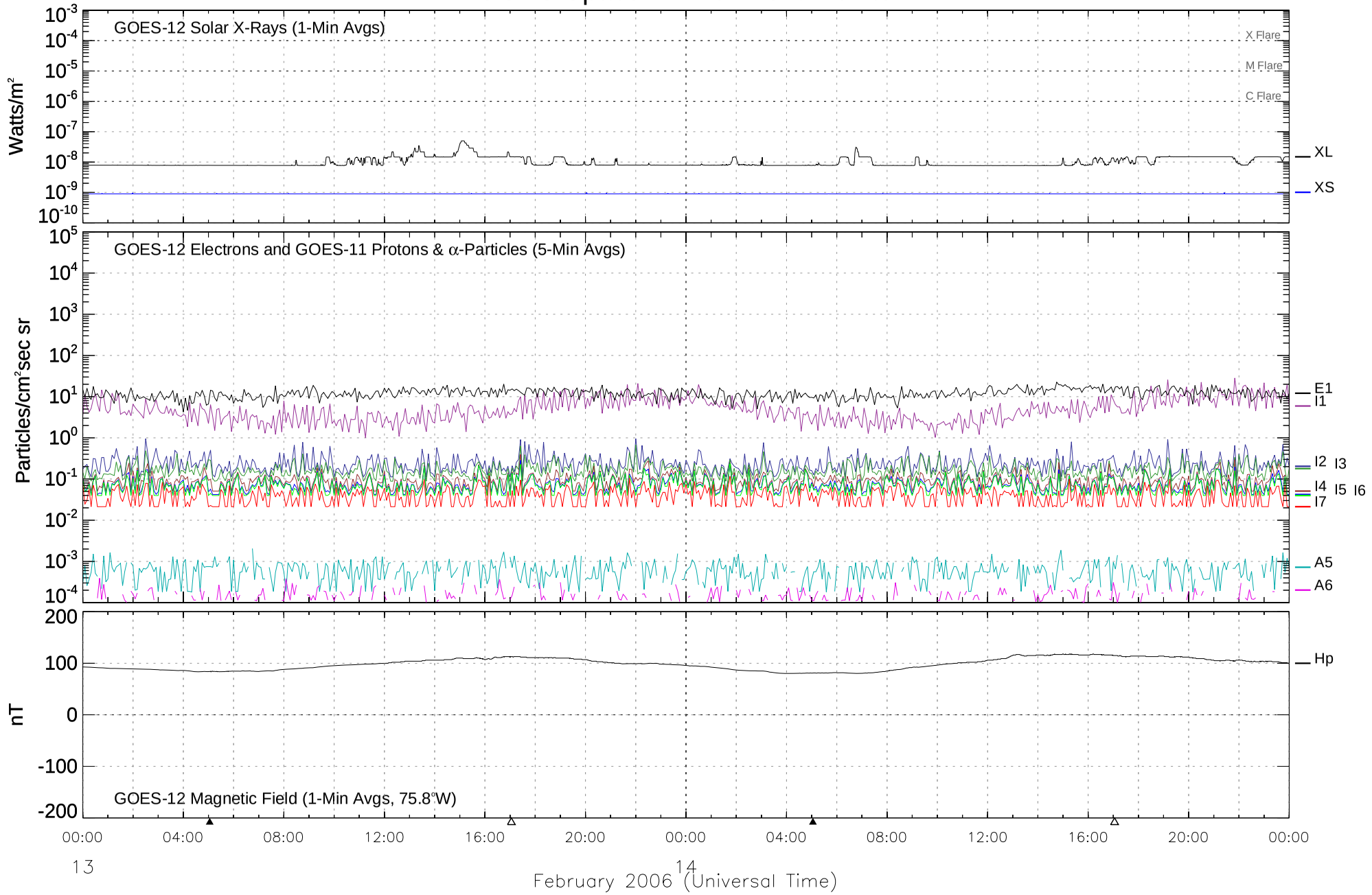


GOES Space Environment Monitor



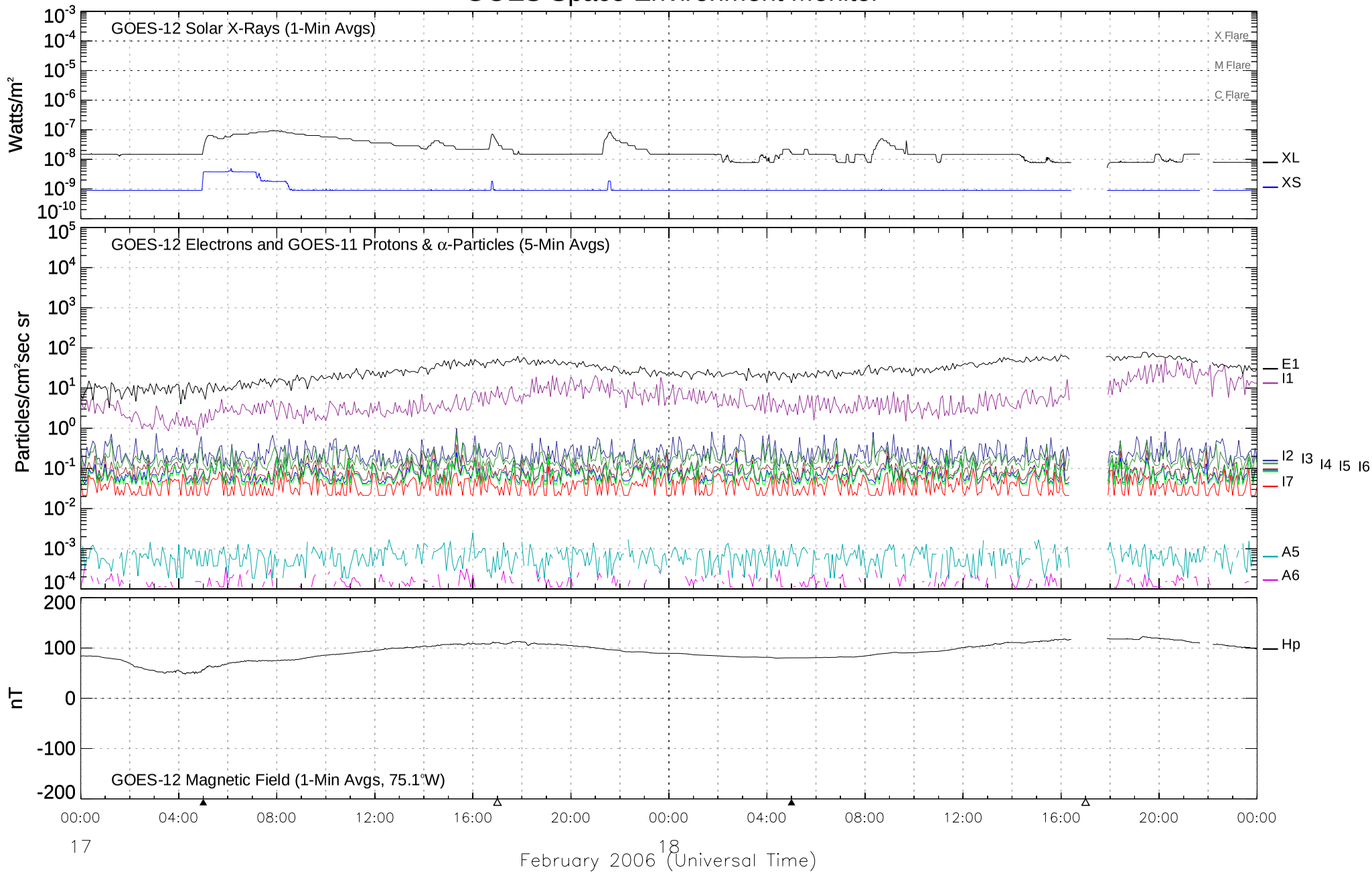

GOES Space Environment Monitor
GOES-12 Solar X-Rays (1-Min Avgs)
Watts/m²
X Flare
M Flare
C Flare
XL
XS
GOES-12 Electrons and GOES-11 Protons & α-Particles (5-Min Avgs)
Particles/cm²sec sr
E1
I1
I2
I3
I4
I5
I6
I7
A5
A6
GOES-12 Magnetic Field (1-Min Avgs, 75.7°W)
nT
Hp
00:00
04:00
08:00
12:00
16:00
20:00
00:00
04:00
08:00
12:00
16:00
20:00
00:00
11
12
February 2006 (Universal Time)

GOES Space Environment Monitor



GOES Space Environment Monitor

GOES Space Environment Monitor



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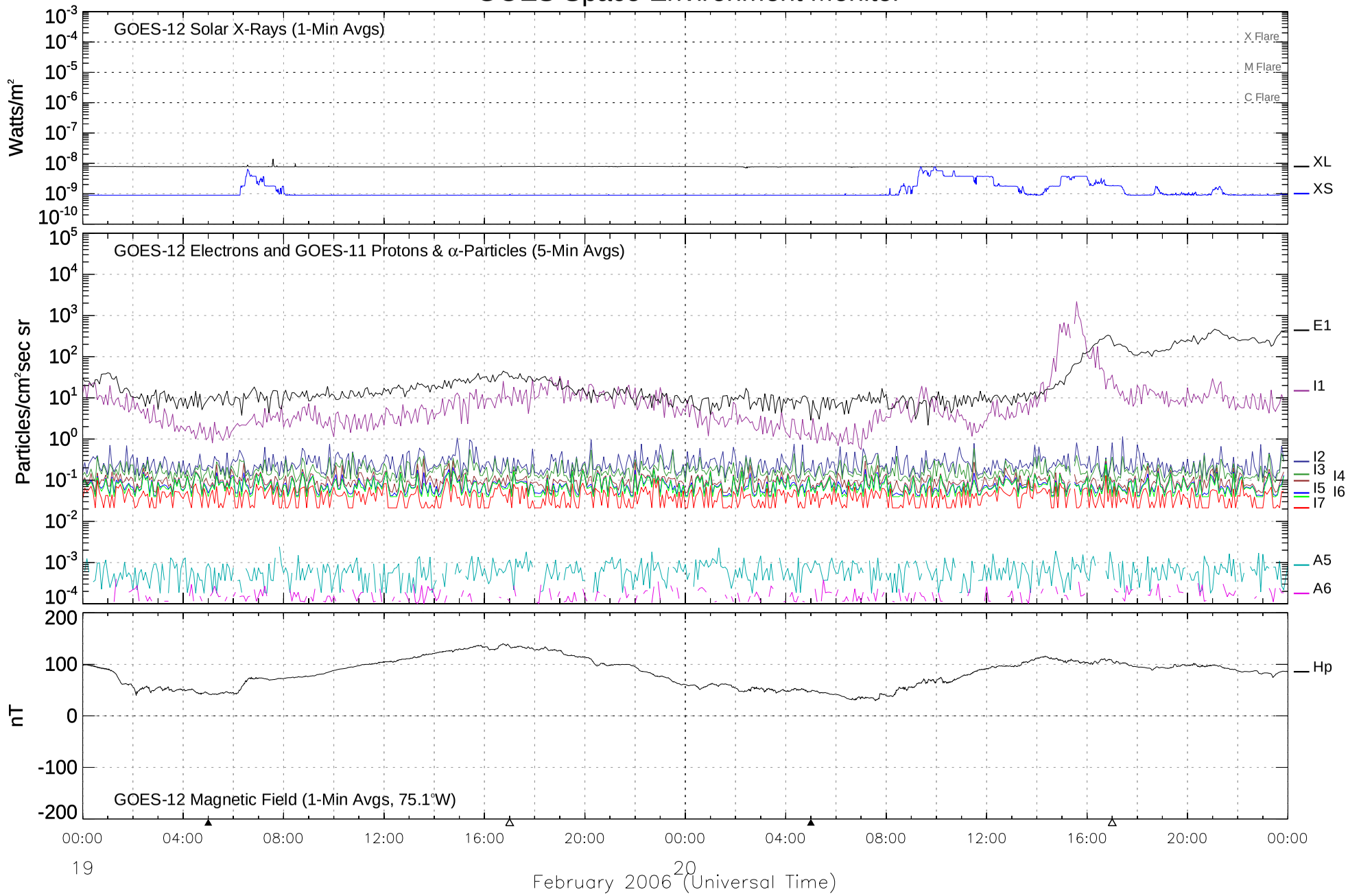
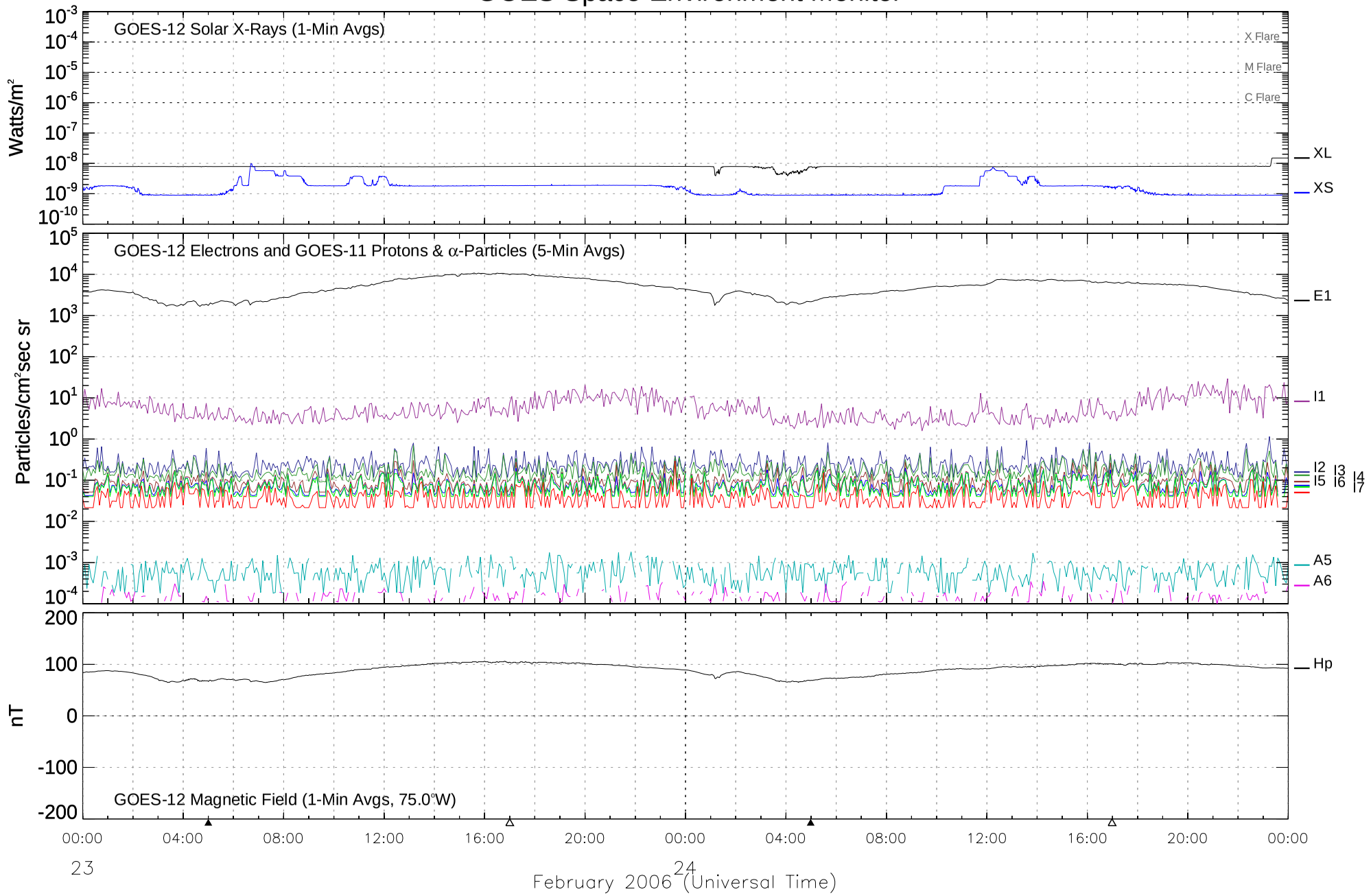


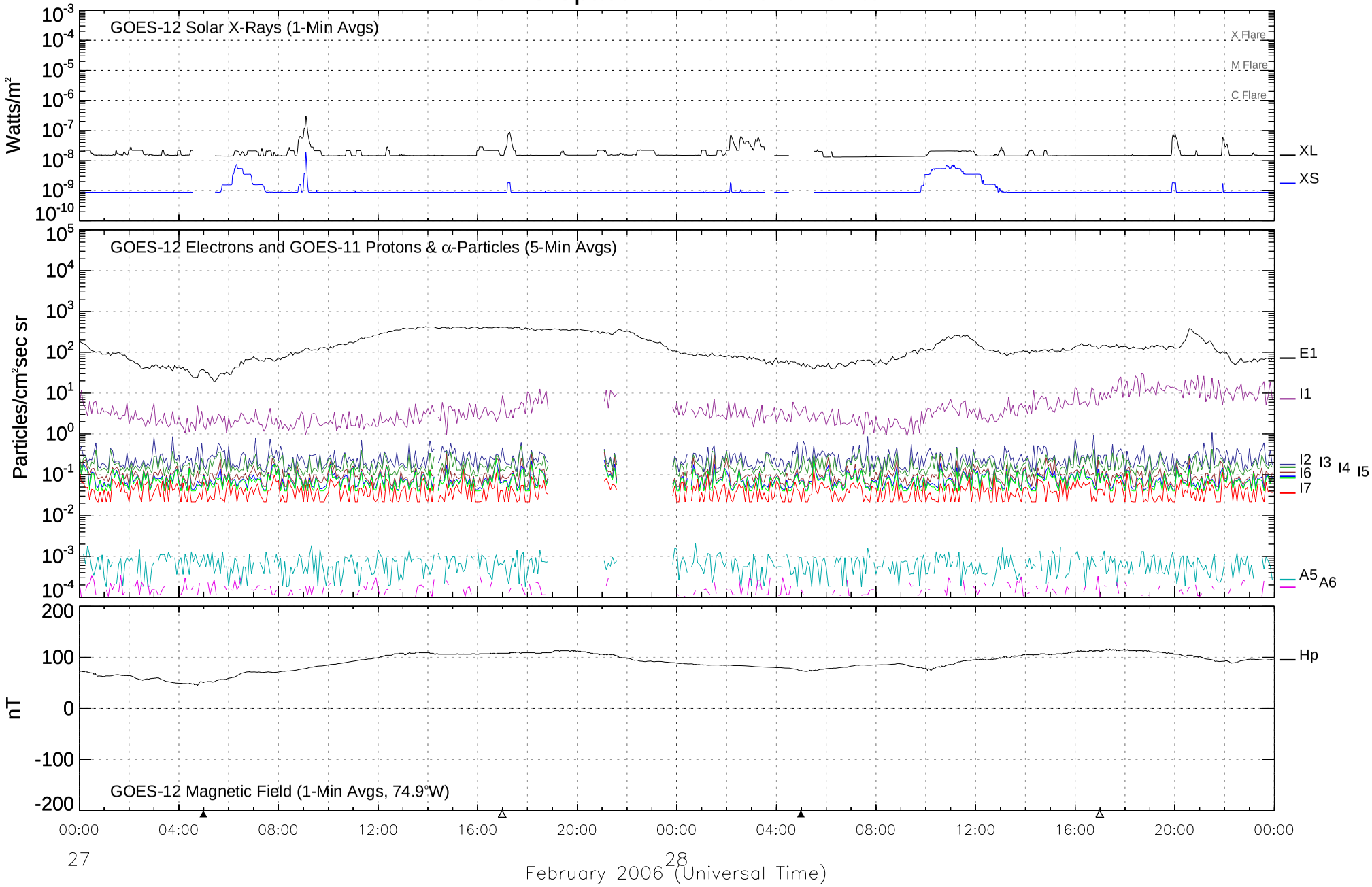
GOES Space Environment Monitor

GOES Space Environment Monitor



GOES Space Environment Monitor

GOES Space Environment Monitor



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

FEBRUARY 2006

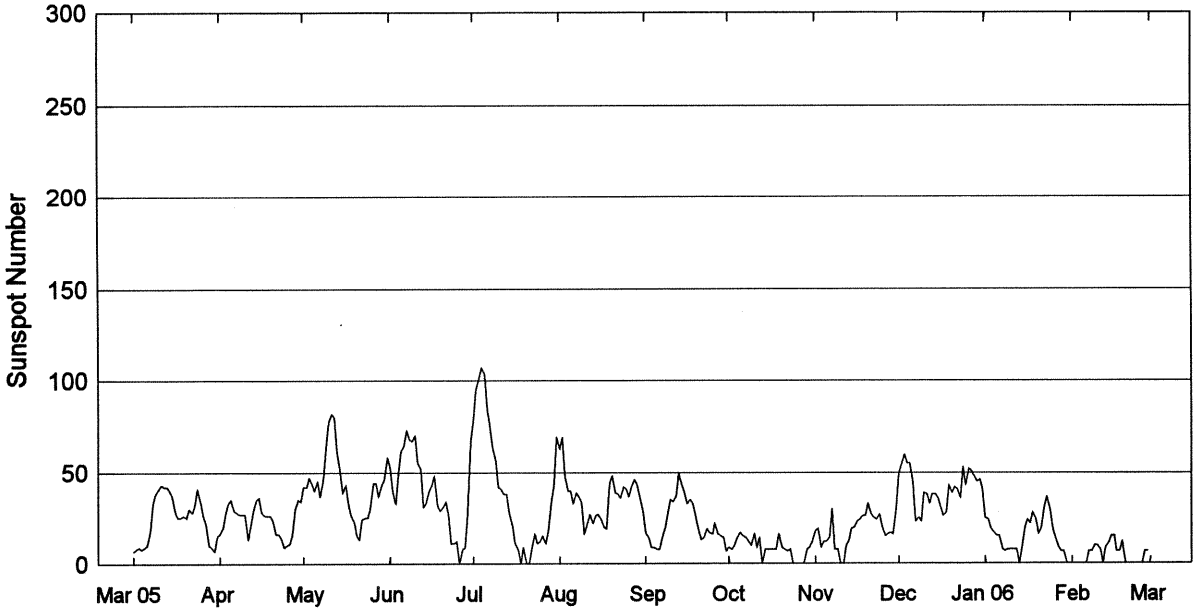
Julian Day	Date of Issue	Date of Obs	Wolf No.	10-cm Solar Flux	A-index	Rgn No.	Location Lat	Location Lon	Flares Opt	Flares M	Flares X	Date of Fcst	Region Fcst(1)	Geoadvice(1)
032	01	31	0	78	2				0	0	0	01		SOL: Quiet
									0	0	0	01		MAG: Quiet
									0	0	0	01		PRO: Quiet
033	02	01	0	78	4				0	0	0	02		SOL: Quiet
									0	0	0	02		MAG: Quiet
									0	0	0	02		PRO: Quiet
034	03	02	0	77	3				0	0	0	03		SOL: Quiet
									0	0	0	03		MAG: Quiet
									0	0	0	03		PRO: Quiet
035	04	03	0	79	4				0	0	0	04		SOL: Quiet
									0	0	0	04		MAG: Quiet
									0	0	0	04		PRO: Quiet
036	05	04	0	77	4				0	0	0	05		SOL: Quiet
									0	0	0	05		MAG: Quiet
									0	0	0	05		PRO: Quiet
037	06	05	0	76	3				0	0	0	06		SOL: Quiet
									0	0	0	06		MAG: Quiet
									0	0	0	06		PRO: Quiet
038	07	06	0	75	14				0	0	0	07		SOL: Quiet
									0	0	0	07		MAG: Quiet
									0	0	0	07		PRO: Quiet
039	08	07	0	74	4				0	0	0	08		SOL: Quiet
									0	0	0	08		MAG: Quiet
									0	0	0	08		PRO: Quiet
040	09	08	12	74	5	10852	S10	W04	0	0	0	09	Q	SOL: Quiet
									0	0	0	09		MAG: Quiet
									0	0	0	09		PRO: Quiet
041	10	09	24	75	1	10853	S11	W17	0	0	0	10	Q	SOL: Quiet
						10853	S11	W49	0	0	0	10	Q	MAG: Quiet
									0	0	0	10		PRO: Quiet
042	11	10	13	75	3	10853	S09	W64	0	0	0	11	Q	SOL: Quiet
									0	0	0	11		MAG: Quiet
									0	0	0	11		PRO: Quiet
043	12	11	11	76	7	10853	S09	W78	0	0	0	12	Q	SOL: Quiet
									0	0	0	12		MAG: Quiet
									0	0	0	12		PRO: Quiet
044	13	12	0	76	2				0	0	0	13		SOL: Quiet
									0	0	0	13		MAG: Quiet
									0	0	0	13		PRO: Quiet
045	14	13	0	76	3				0	0	0	14		SOL: Quiet
									0	0	0	14		MAG: Quiet
									0	0	0	14		PRO: Quiet
046	15	14	0	77	0				0	0	0	15		SOL: Quiet
									0	0	0	15		MAG: Quiet
									0	0	0	15		PRO: Quiet
047	16	15	15	79	12	10854	S07	E23	0	0	0	16	Q	SOL: Quiet
									0	0	0	16		MAG: Quiet
									0	0	0	16		PRO: Quiet
048	17	16	27	79	8	10855	S07	E10	0	0	0	17	Q	SOL: Quiet
						10855	N06	E28	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

FEBRUARY 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)
049	18	17	23	79	5	10855	S08	W09	0	0	0	18	Q	SOL: Quiet
						10855	N05	E15	0	0	0	18	Q	MAG: Quiet
									0	0	0	18		PRO: Quiet
050	19	18	0	79	3				0	0	0	19		SOL: Quiet
									0	0	0	19		MAG: Active
									0	0	0	19		PRO: Quiet
051	20	19	0	77	8				0	0	0	20		SOL: Quiet
									0	0	0	20		MAG: Quiet
									0	0	0	20		PRO: Quiet
052	21	20	0	76	17				0	0	0	21		SOL: Quiet
									0	0	0	21		MAG: Active
									0	0	0	21		PRO: Quiet
053	22	21	0	76	16				0	0	0	22		SOL: Quiet
									0	0	0	22		MAG: Active
									0	0	0	22		PRO: Quiet
054	23	22	0	76	11				0	0	0	23		SOL: Quiet
									0	0	0	23		MAG: Active
									0	0	0	23		PRO: Quiet
055	24	23	0	75	4				0	0	0	24		SOL: Quiet
									0	0	0	24		MAG: Quiet
									0	0	0	24		PRO: Quiet
056	25	24	0	76	7				0	0	0	25		SOL: Quiet
									0	0	0	25		MAG: Quiet
									0	0	0	25		PRO: Quiet
057	26	25	0	76	1				0	0	0	26		SOL: Quiet
									0	0	0	26		MAG: Quiet
									0	0	0	26		PRO: Quiet
058	27	26	0	77	5				0	0	0	27		SOL: Quiet
									0	0	0	27		MAG: Quiet
									0	0	0	27		PRO: Quiet
059	28	27	11	77	3	10856	S08	E69	0	0	0	28	Q	SOL: Quiet
									0	0	0	28		MAG: Quiet
									0	0	0	28		PRO: Quiet

International Relative Sunspot Numbers
Mar 2005 - Feb 2006

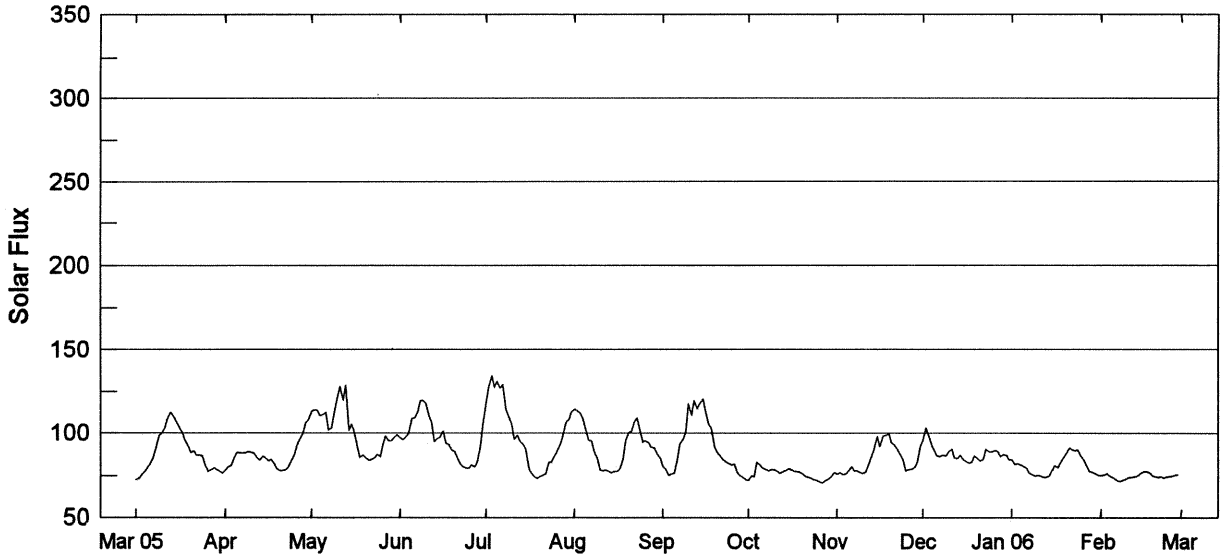


Day	Mar 05	Apr	May	Jun	Jul	Aug	Sep	Oct*	Nov*	Dec*	Jan 06*	Feb*
1	0	16	42	53	78	63	17	9	18	49	25	0
2	8	20	42	40	95	69	14	8	19	54	24	0
3	9	28	47	33	101	48	9	10	9	60	19	0
4	8	33	43	49	107	40	9	14	12	55	17	0
5	9	35	40	62	103	40	8	17	12	55	15	0
6	10	29	45	64	84	33	8	15	14	45	15	0
7	18	28	37	73	75	39	14	14	30	23	8	7
8	33	27	46	68	64	37	20	12	8	25	7	7
9	38	27	63	67	57	34	28	10	8	23	8	10
10	41	27	77	70	42	16	35	16	0	39	8	10
11	43	13	82	55	41	22	34	9	0	38	8	8
12	42	21	80	52	38	27	37	14	10	33	8	0
13	42	29	62	31	41	22	50	0	12	38	0	9
14	40	35	51	33	30	26	44	8	19	38	8	11
15	37	36	39	40	21	27	39	8	20	36	20	15
16	28	28	43	43	11	24	33	8	23	31	24	15
17	25	26	33	48	8	20	35	8	24	26	22	7
18	25	26	26	32	0	19	33	8	26	28	28	7
19	26	26	23	29	9	44	26	16	26	43	24	12
20	25	24	15	31	0	48	14	9	33	39	16	0
21	30	16	13	34	0	39	13	8	27	42	19	0
22	28	16	24	27	8	38	14	7	25	41	31	0
23	32	14	25	11	16	36	19	8	24	36	37	0
24	41	9	25	11	11	42	17	0	27	53	30	0
25	34	10	30	12	12	41	16	0	20	43	19	0
26	26	11	44	0	15	37	22	0	15	52	14	0
27	22	17	44	8	11	42	16	0	16	51	9	7
28	10	30	37	9	18	46	15	0	17	48	7	7
29	9	35	43	28	34	43	14	8	16	45	7	
30	7	34	46	67	43	37	7	9	30	46	0	
31	15		58		69	29		12		41	0	
Mean	24.8	24.2	42.7	39.3	40.1	36.4	21.9	8.5	18.0	41.2	15.4	4.7

* = Provisional.

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

Adjusted to 1 AU



Day	Mar 05	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 06	Feb
1	72.4	78.2	113.4	96.9	118.5	114.6	80.6	72.3	76.1	95.5	84.5	75.3
2	73.4	80.2	114.0	96.0	128.0	113.5	78.5	75.0	76.8	103.3	81.7	75.1
3	75.7	81.1	114.2	98.0	134.1	112.2	75.4	74.4	75.5	98.4	82.1	76.4
4	77.7	84.9	110.6	99.8	127.8	109.2	75.8	82.7	76.1	92.5	81.2	74.9
5	79.9	88.5	111.0	108.6	131.0	101.7	76.2	81.3	77.9	89.0	80.6	74.2
6	82.3	88.2	112.4	109.2	127.2	96.1	84.7	79.4	80.3	86.5	79.3	72.9
7	85.7	88.0	101.8	112.4	129.1	94.9	93.6#	78.7	78.0	86.3	76.6	72.0
8	92.2	87.9	103.2	119.3	114.2	88.9	95.5	78.0	77.9	86.9	75.6	72.0
9	98.5	88.8	112.2	119.7	110.2	84.7	100.6#	78.7	76.6	86.4	75.0	72.8
10	100.3	88.6	121.6	117.9	105.2	78.3	117.6	78.8	76.4	88.7	75.2	73.2
11	103.6	87.9	127.9	111.4	96.4	77.9	111.1	77.3	77.0	90.2	74.7	74.1
12	108.8	85.3	119.9	106.3	98.5	78.3	119.5	76.5	81.4	85.6	74.0	74.1
13	112.5	84.0	128.6	94.7	94.8	77.4	115.0#	77.6	86.0	85.2	74.0	74.4
14	110.3	86.0	101.7	96.8	92.9	76.7	117.9	78.0	90.4	86.8	74.9	75.4
15	107.0	85.5	105.2	97.5	90.1	77.7	120.6	79.1	97.8	84.2	78.3	76.6
16	103.6	83.6	101.4	101.3	78.8	77.7	112.9#	78.7	91.8	83.1	81.1	77.3
17	100.4	84.2	92.0	93.7	76.5	78.9	104.9	77.5	98.2	82.5	79.8	77.3
18	95.7	82.0	85.8	92.9	74.4	84.7	103.2	77.7	98.8	82.8	82.9	76.7
19	92.2	78.9	86.7	89.8	73.5	95.3	91.9	77.2	99.6	86.6	85.8	74.8
20	88.3	77.8	85.6	88.9	74.4	100.4	88.5	76.0	94.1	84.9	87.9	74.5
21	89.1	77.9	83.9	85.5	75.2	100.8	86.7	74.6	92.4	83.7	90.9	74.2
22	86.7	78.1	84.2	82.1	75.9	107.2*	84.3	74.0	90.3	84.8	89.9	74.4
23	87.1	80.2	85.5	80.1	82.7	109.3*	83.3	73.4	87.5	90.1	89.6	73.6
24	86.6	83.2	87.4	79.2	82.8	100.7	81.9	72.5	84.4	88.9	89.8	74.4
25	81.7	87.1	86.0	79.3	86.5	94.4	81.4	72.1	77.9	88.8	86.3	74.5
26	77.4	92.1	92.8	81.3	89.2	95.2	81.7	71.2	78.7	89.5	84.2	75.0
27	78.1	96.6	98.1	80.0	93.4	94.0	77.2	70.7	78.6	89.2	81.0	75.5
28	79.4	99.4	95.1	82.6	98.7	91.6	74.9	72.1	79.7	86.1	77.6	75.7
29	78.6	106.5	95.3	91.9	106.9	90.9	74	73.1	82.4	87.4	77.2	
30	77.5	108.0	97.5	105.9	108.2	87.6	72.4	74.5	92.0	86.9	76.5	
31	76.5		99.0		113.1	85.6		76.7		84.5	75.3	
Mean	89.0	86.6	101.7	96.6	99.6	92.8	92.1	76.1	84.4	87.9	80.8	74.7

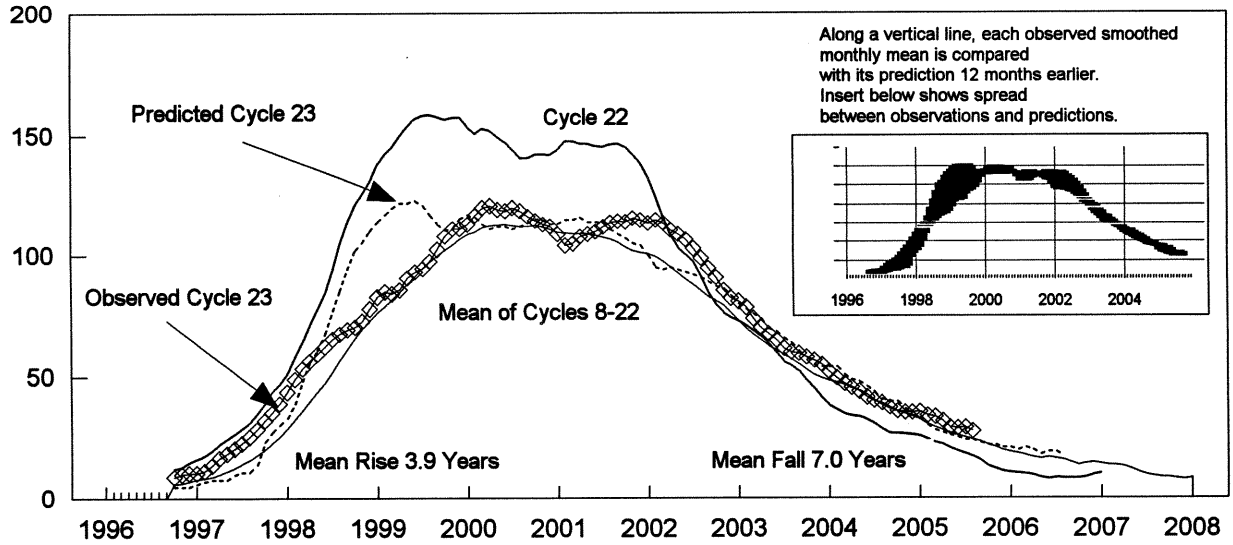
NOTE: # - 1700 or 1800UT reading, burst in progress at 2000UT. *-2300UT reading, burst in progress.
+ - 1700UT Reading, no data available at 2000UT.

DAILY SOLAR INDICES
February 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	32	16	0	1	77.6	536	222	129	75.3	73	43	32	25	10
2	33	17	0	0	77.3	535	220	131	75.1	76	42	31	25	9
3	34	18	0	0	78.7	395	187	116	76.4	77	43	31	16	9
4	35	19	0	0	77.0	528	219	130	74.9	77	43	31	24	8
5	36	20	0	1	76.3	526	220	131	74.2	76	42	32	24	9
6	37	21	0	0	74.9	533	224	130	72.9	79	42	29	23	8
7	38	22	7	3	74.0	532	224	130	72.0	79	42	32	25	11
8	39	23	7	7	74.0	528	203	122	72.0	75	41	30	26	10
9	40	24	10	9	74.8	538	222	129	72.8	75	41	32		9
10	41	25	10	2	75.2	533	210	126	73.2	76	42	30	23	12
11	42	26	8	1	76.0	535	219	129	74.1	78	42	31	24	11
12	43	27	0	1	76.0	—	—	—	74.1	—	—	—	—	—
13	44	1	9	5	76.3	533	216	127	74.4	79	42	30	24	9
14	45	2	11	7	77.3	504	209	128	75.4	89	43	31	24	8
15	46	3	15	12	78.5	542	212	128	76.6	78	44	33	24	9
16	47	4	15	14	79.2	546	216	133	77.3	80	45	32	24	9
17	48	5	7	6	79.2	507	219	134	77.3	81	46	33	18	9
18	49	6	7	3	78.5	540	222	131	76.7	81	45	34	25	10
19	50	7	12	3	76.5	526	205	123	74.8	80	44	34	25	10
20	51	8	0	0	76.2	542	222	131	74.5	76	45	35	25	11
21	52	9	0	0	75.9	514	221	131	74.2	76	44	33	25	12
22	53	10	0	0	76.0	533	212	127	74.4	76	45	31	25	12
23	54	11	0	0	75.1	516	219	128	73.6	77	44	29	23	9
24	55	12	0	0	76.0	532	221	130	74.4	77	43	34	26	13
25	56	13	0	0	76.0	537	221	129	74.5	78	44	34	26	8
26	57	14	0	1	76.5	538	226	128	75.0	79	44	34	25	9
27	58	15	7	4	77.0	511	209	121	75.5	79	44	33	25	10
28	59	16	7	5	77.1	540	221	130	75.7	81	44	32	24	11
MEAN			4.7	3.0	76.5	525	216	128	74.7	78	43	31	23	9

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	27	26	24	23	29
									(4)	(5)	(5)	(6)	(2)
2006	23	22	21	20	20	19	18	17	16	15	14	14	(18)
	(5)	(6)	(7)	(7)	(7)	(8)	(8)	(9)	(9)	(9)	(10)	(10)	(8)
2007	13	13	13	12	12	12	13	13	14	15	161	17	26
	(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.**

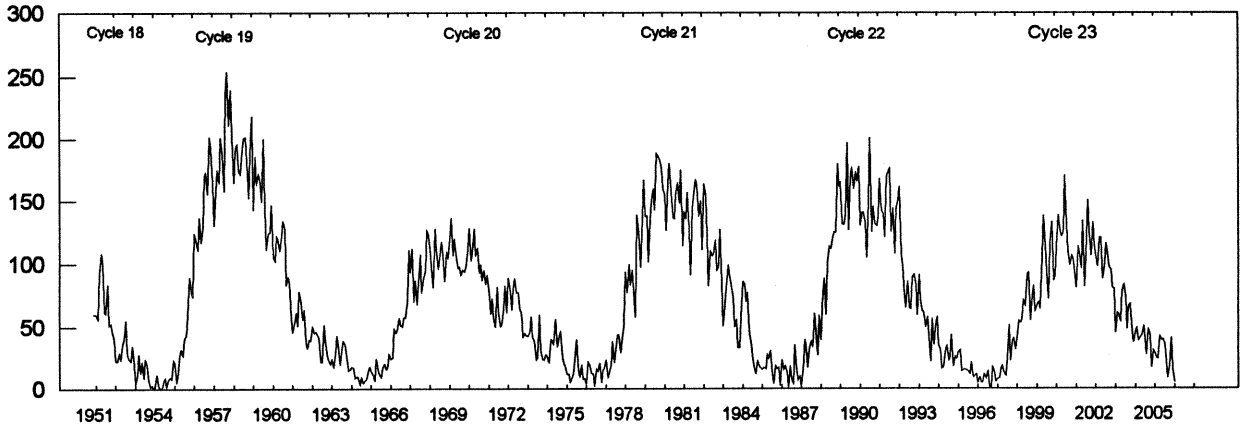
+ April 2000 marks Cycle 23 maximum.

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 Sep 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 August 2006 prediction. There exists a 90% chance that in Aigust, the actual smoothed number will fall somewhere between 8 and 26.

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 - Feb 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	8.5	18.0	41.2	29.8	
2006	15.4	4.7											10.1	

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

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

FEBRUARY 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	08	1627	1633	1635	S10	W01				8	B 3.4	6.6E-05	1.2E+03	8.0E+03
GOES		2110	2113	2115						5	B 1.1	2.3E-05		
GOES	25	2043	2058	2109	S09	E85				26	B 1.9	2.5E-04	3.0E+02	5.3E+02
GOES	26	0751	0755	0759	S09	E81				8	B 1.8	6.1E-05	5.0E+02	9.4E+02
GOES		1401	1413	1418	S10	E80				17	B 1.6	1.5E-04	3.3E+02	5.8E+02
GOES	27	0859	0906	0909	S09	E71	10856			10	B 3.1	9.8E-05	1.1E+03	2.1E+03

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.

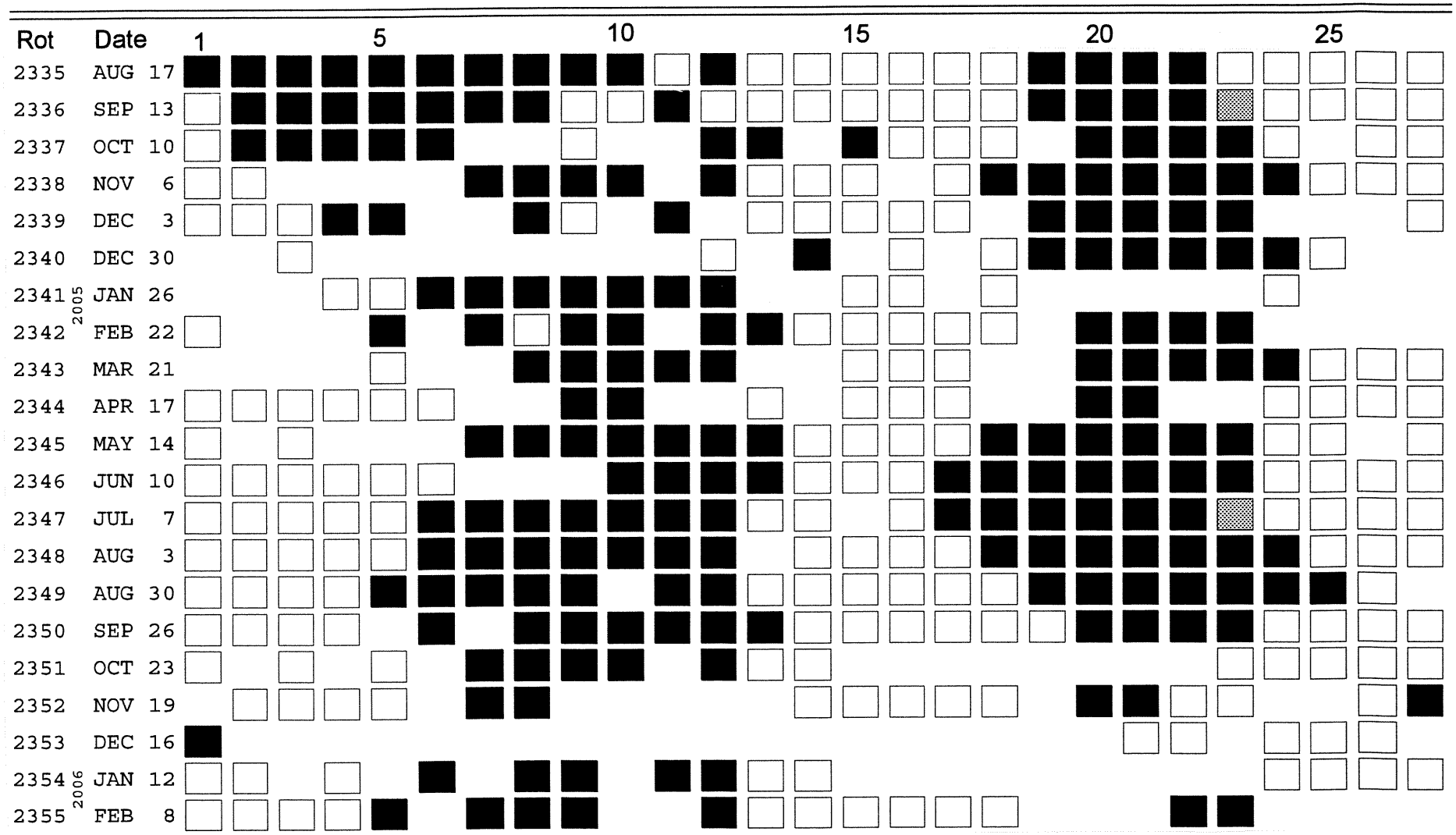
Note 3: Total intensity is derived from SXI imagery in units of data numbers/second of the largest flaring area.

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 H-ALPHA FLARES WERE REPORTED.

NO SOLAR RADIO BURSTS AT 2800 MHZ WERE REPORTED.

STANFORD MEAN SOLAR MAGNETIC FIELD

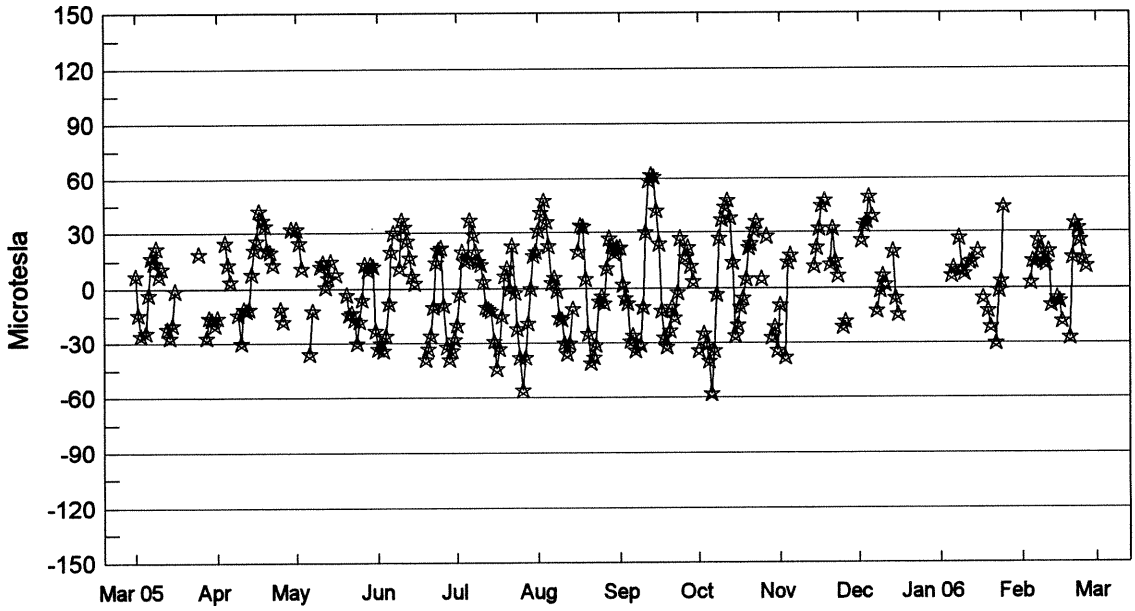


Mean Solar Magnetic Field Polarity: □ = field > 2 microT; ▒ = -2 microT ≤ field ≤ 2 microT

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

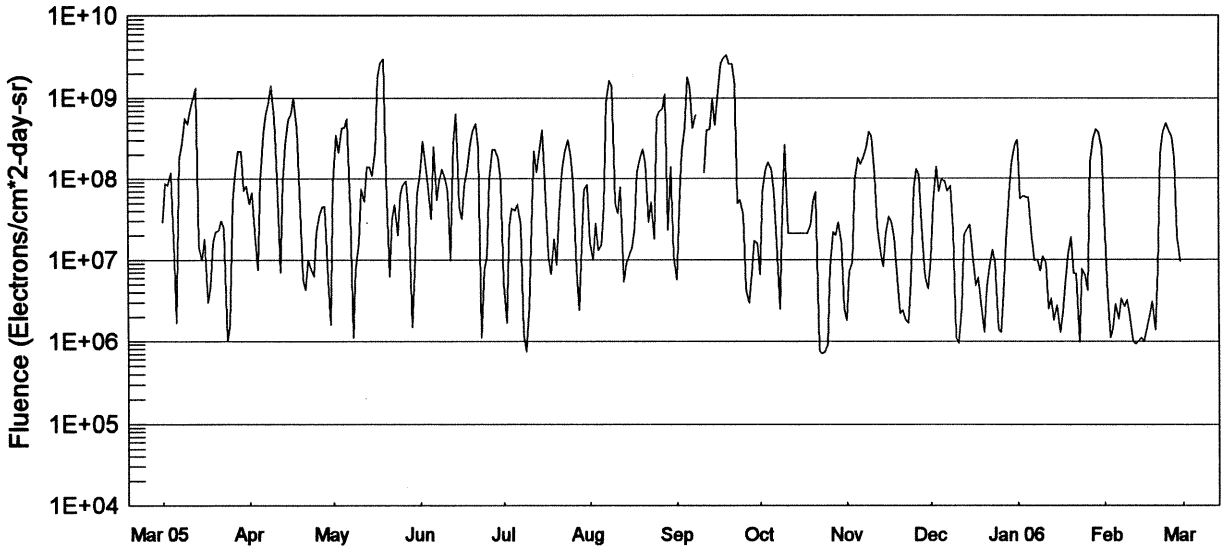
Observations are taken at 2000 UT. Rotation numbers given are the Bartels series, but the dates are not; these dates are five days earlier, to mark times of occurrence of phenomena on the Sun that affect the Earth during the given Bartels Rotation.

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



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

GOES Daily Electron Fluence
Mar 2005 - Feb 2006



Day	Mar 05	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 06	Feb
1	2.9E+07	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
2	8.6E+07	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
3	8.2E+07	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
4	1.2E+08	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
5	1.7E+07	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
6	1.7E+06	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
7	1.8E+08	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	2.6E+08	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	5.6E+08	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
10	4.8E+08	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
11	6.9E+08	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
12	1.0E+09	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
13	1.3E+09	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
14	1.4E+07	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
15	1.0E+07	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
16	1.8E+07	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
17	3.0E+06	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
18	4.6E+06	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
19	1.6E+07	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
20	2.2E+07	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
21	2.3E+07	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
22	3.0E+07	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
23	2.5E+07	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
24	1.0E+06	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
25	1.6E+06	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
26	5.2E+07	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
27	1.2E+08	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
28	2.2E+08	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
29	2.2E+08	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	
30	7.1E+07	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	
31	8.0E+07		6.2E+07		8.4E+07	1.1E+07		2.5E+06		2.6E+08	2.4E+08	

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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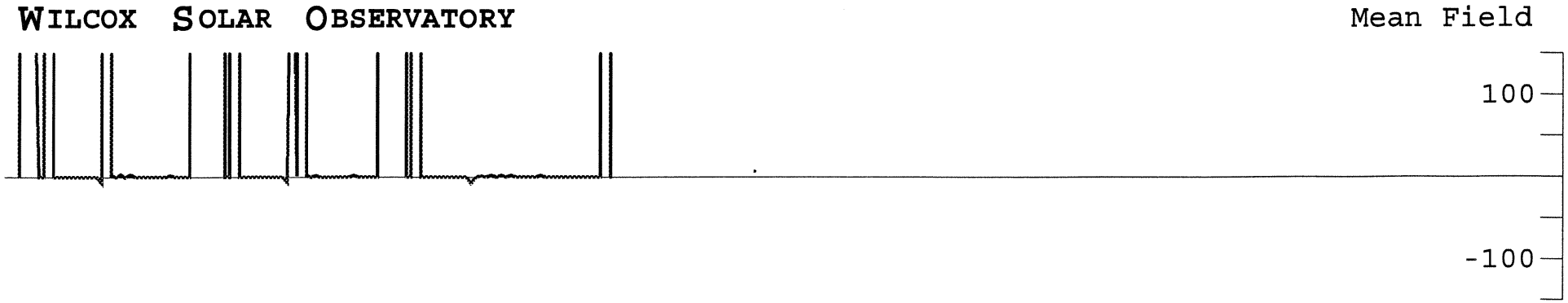
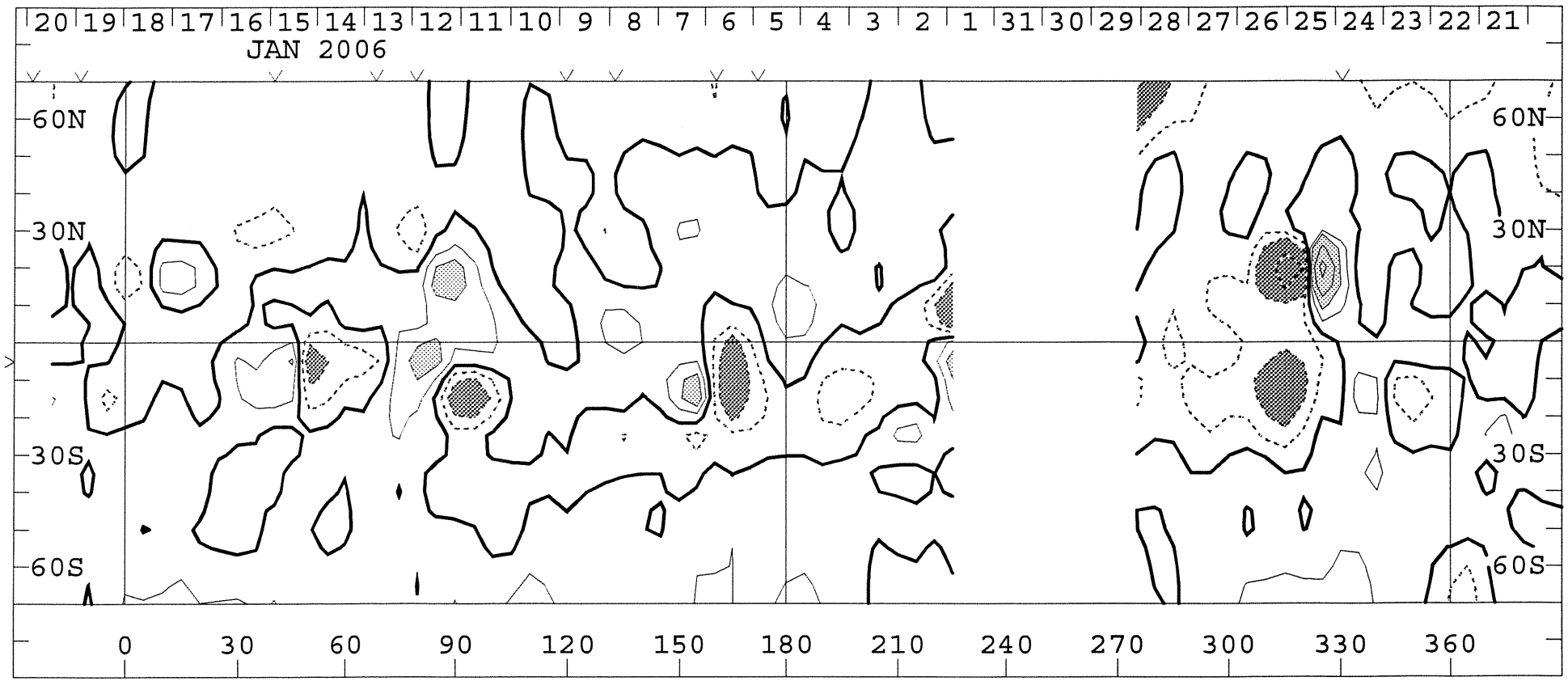
SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 2038
(22 December 2005 to 18 January 2006)

WILCOX SOLAR OBSERVATORY

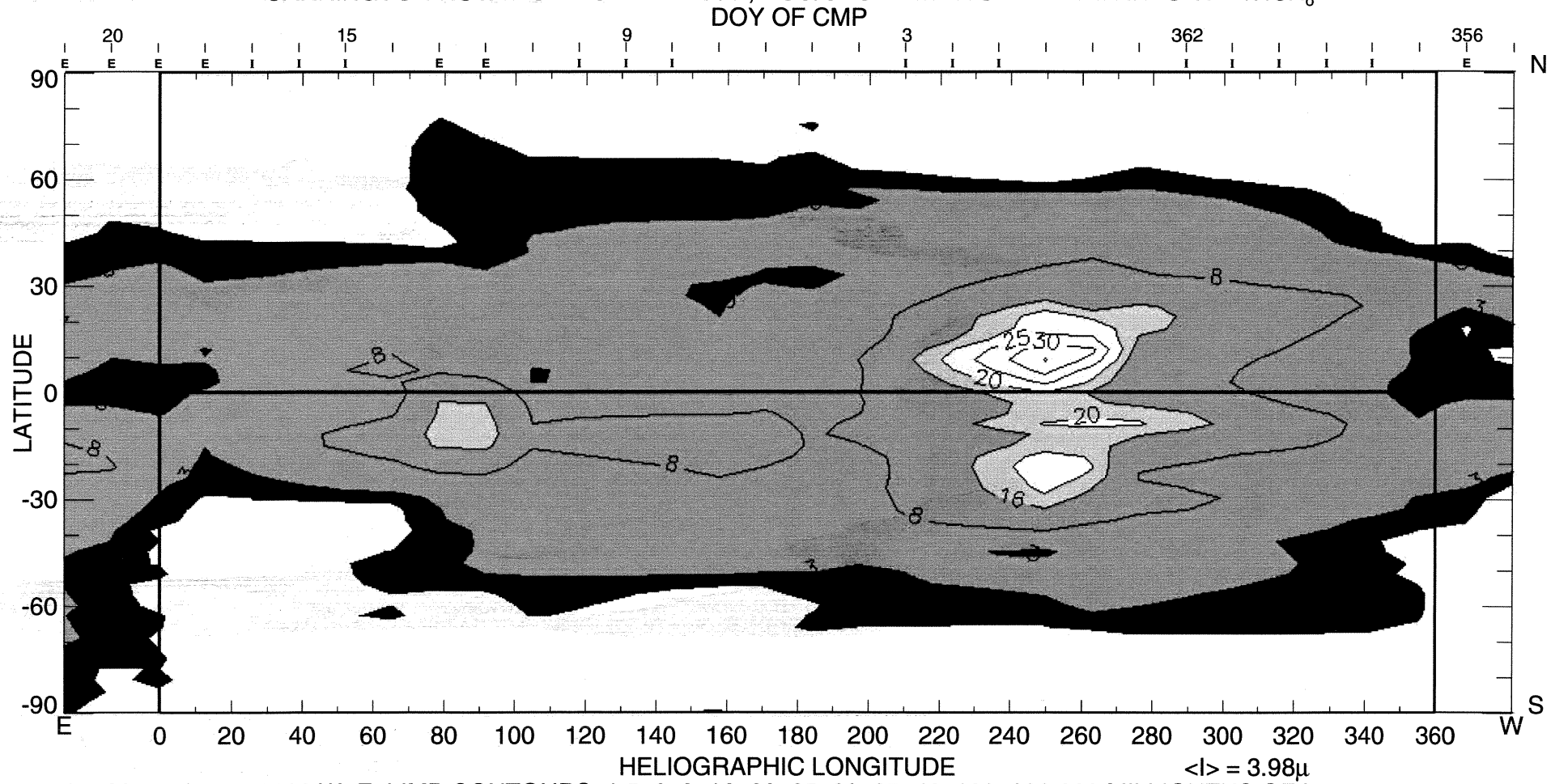


WSO - Photospheric Magnetic Field 0, ±100, 200, 500, 1000, 2000 MicroTesla



Heliographic Longitude

CARRINGTON ROTATION NUMBER 2038 ; NSO/SACRAMENTO PEAK FE XIV @ R = 1.15R_o



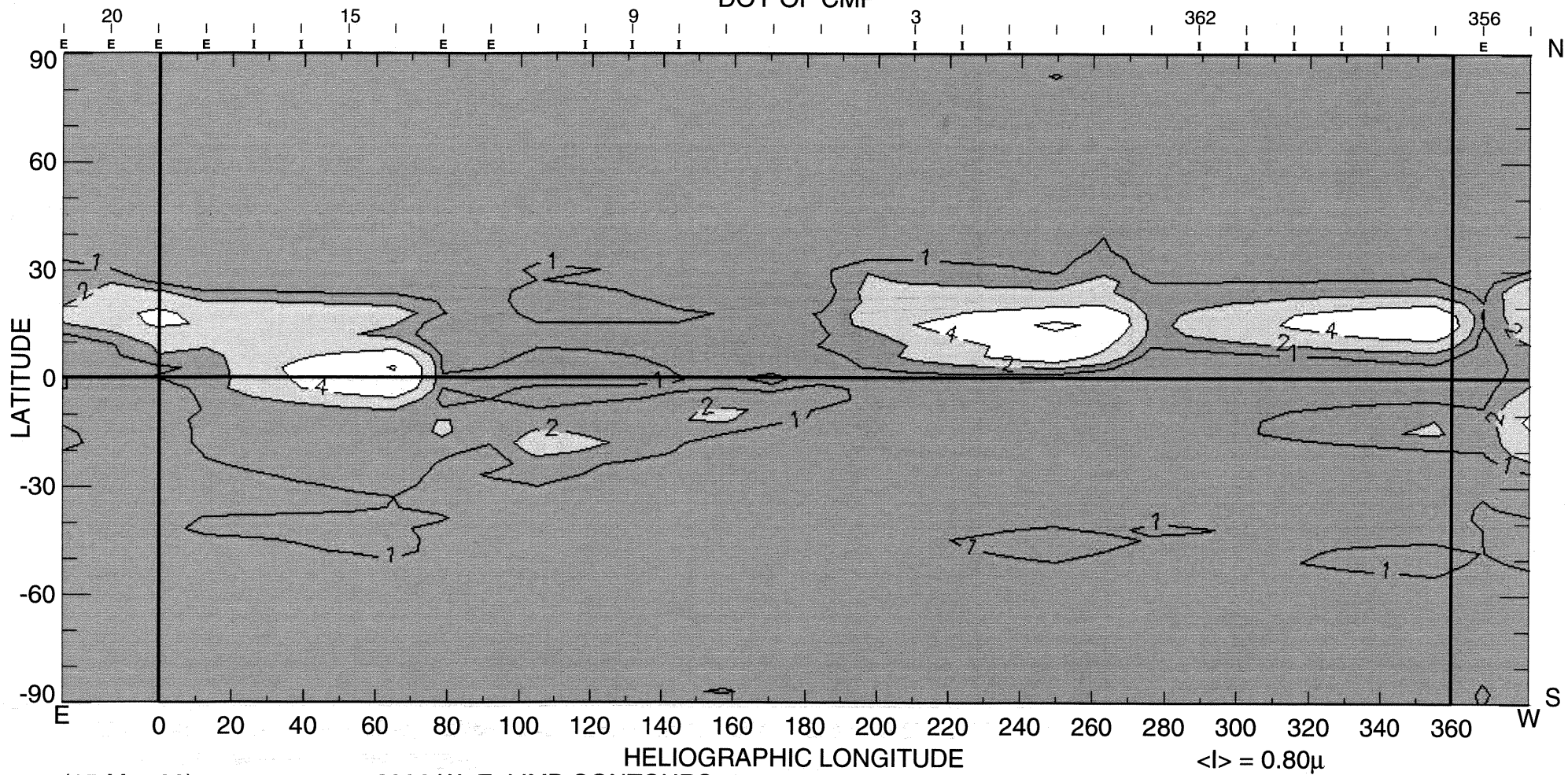
<I> = 3.98μ

(01-Mar-06) 2006 W+E LIMB CONTOURS: 1.5, 3, 8, 16, 20, 25, 30, 35, 40, 100, 120.000 MILLIONTHS OF I_o

CORONAL HOLES ARE SHOWN AS WHITE BORDERED BY BLACK

tex Wed Mar 1 09:56:39 2006

CARRINGTON ROTATION NUMBER 2038 ; NSO/SACRAMENTO PEAK FE X @ R = 1.15R_o

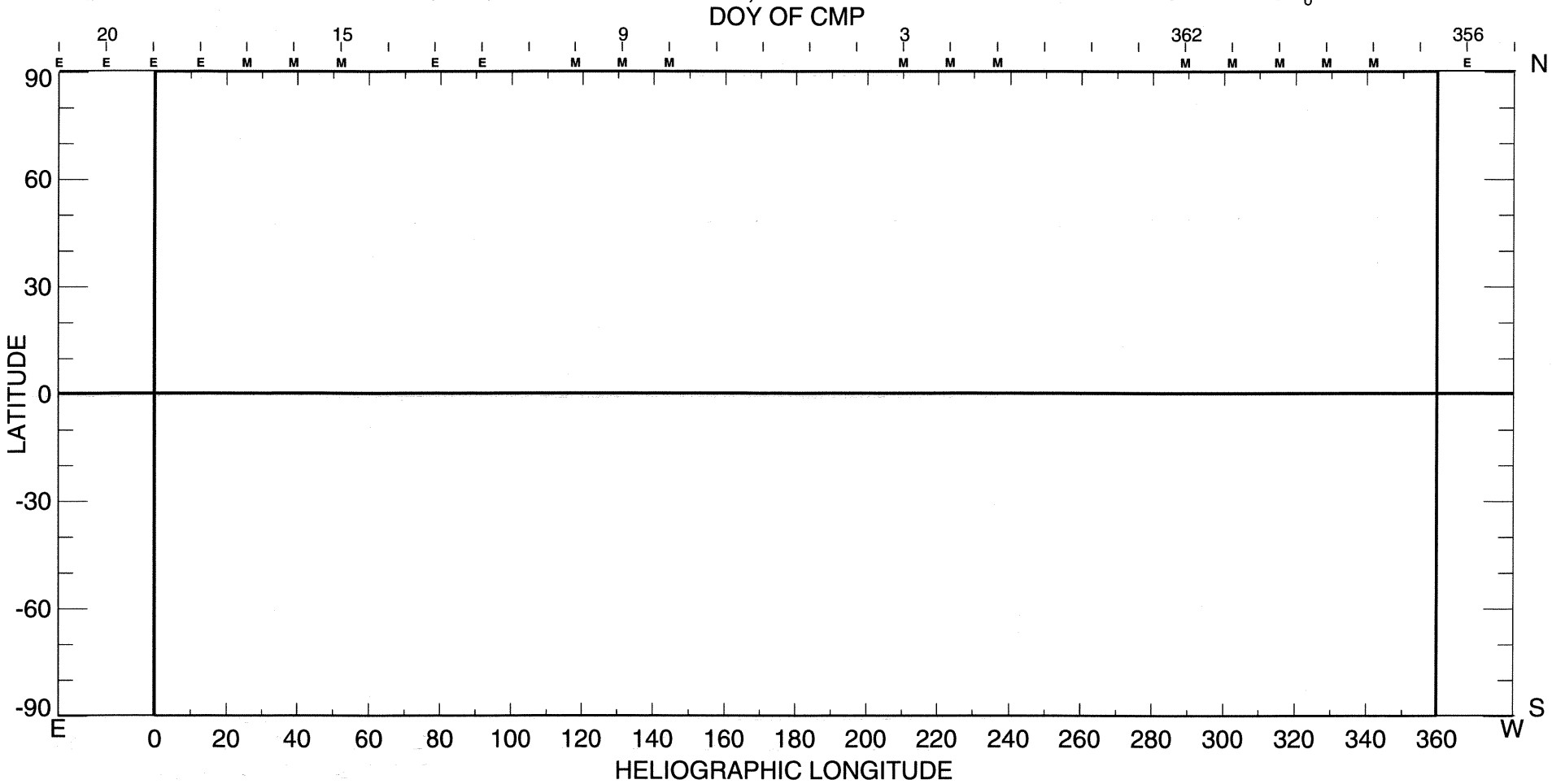


<I> = 0.80μ

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

tex Wed Mar 15 13:17:20 2006

CARRINGTON ROTATION NUMBER 2038 ; NSO/SACRAMENTO PEAK CA XV @ R = 1.15R_o



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

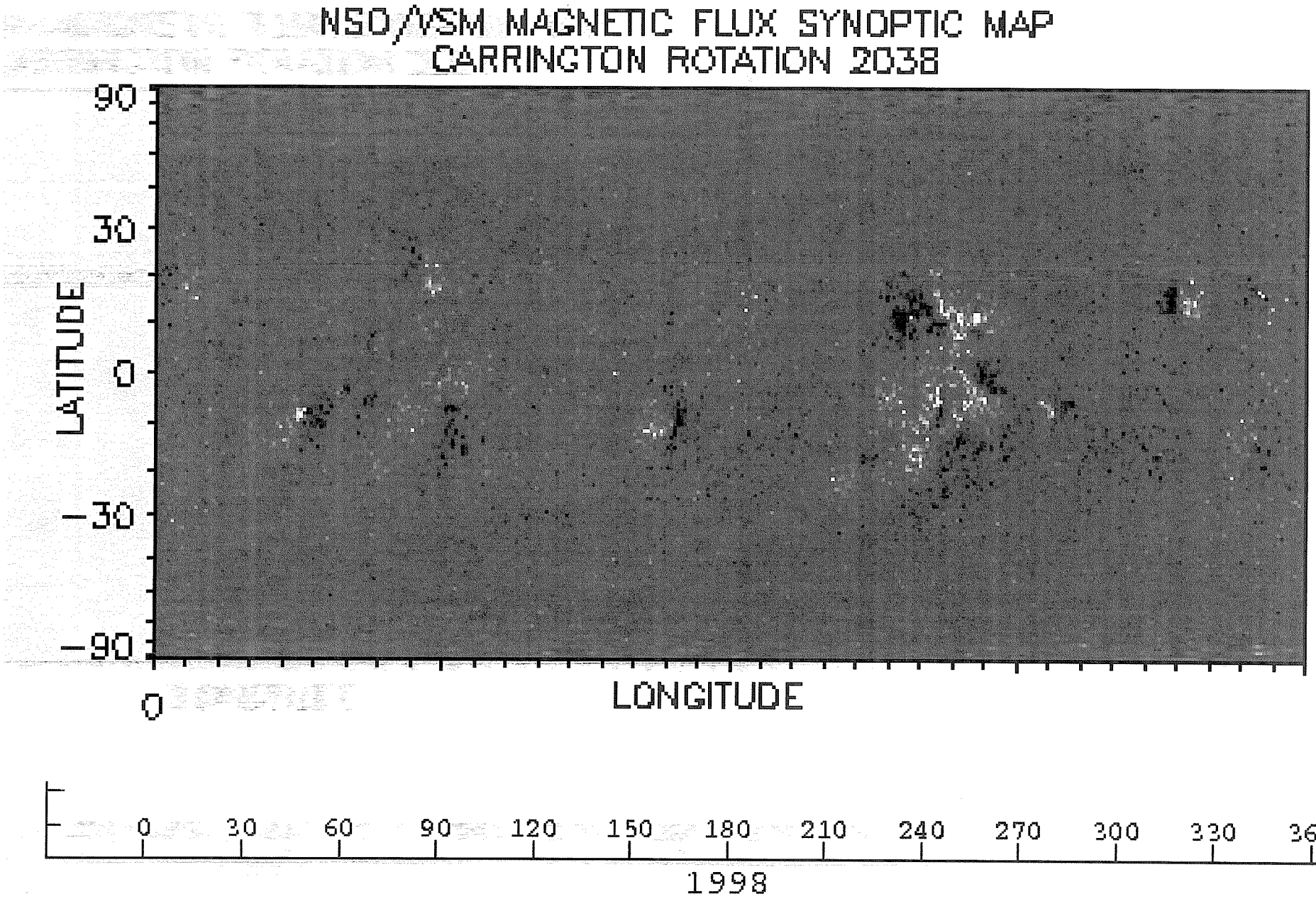
tex Wed Mar 1 09:56:05 2006

SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 2038

(22 December 2005 to 18 January 2006)

National Solar Observatory/Kitt Peak



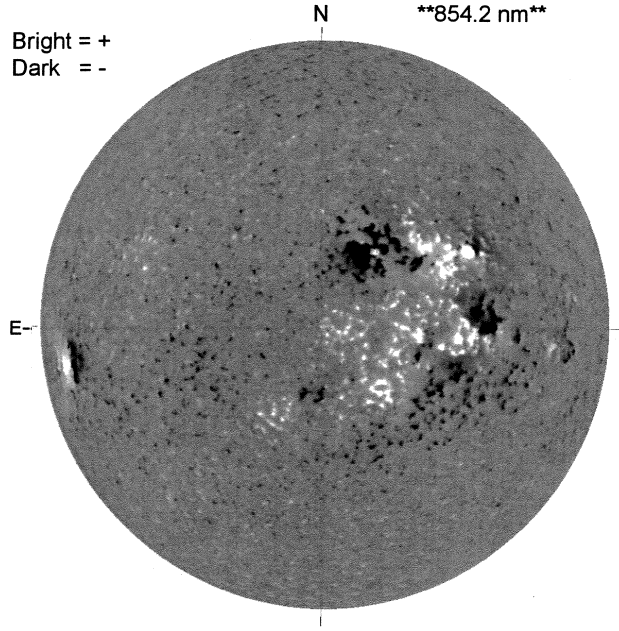
Heliographic Longitude

JANUARY 1, 2006 (P= 2.11, Bo = -3.01, Lo = 236.29)

KITT PEAK MAGNETOGRAM--SOLIS

854.2 nm

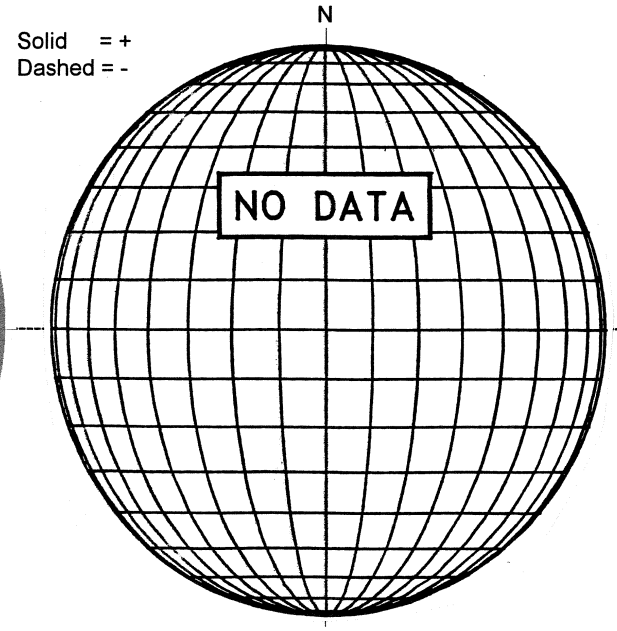
Bright = +
Dark = -



1727 UT

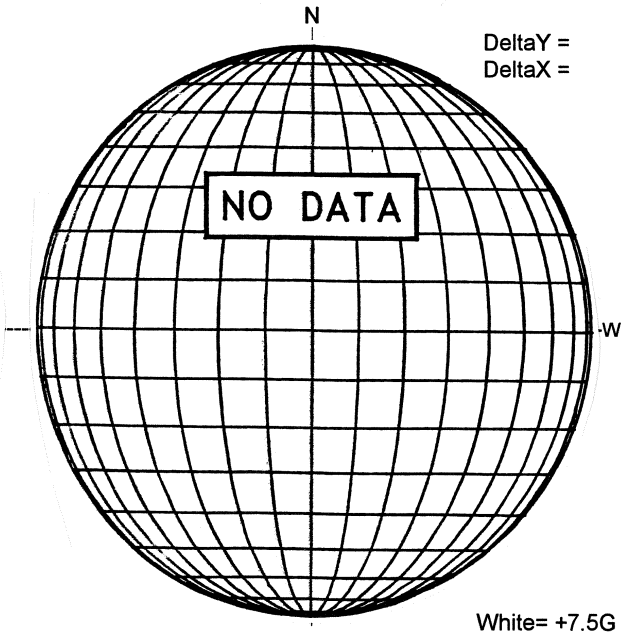
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



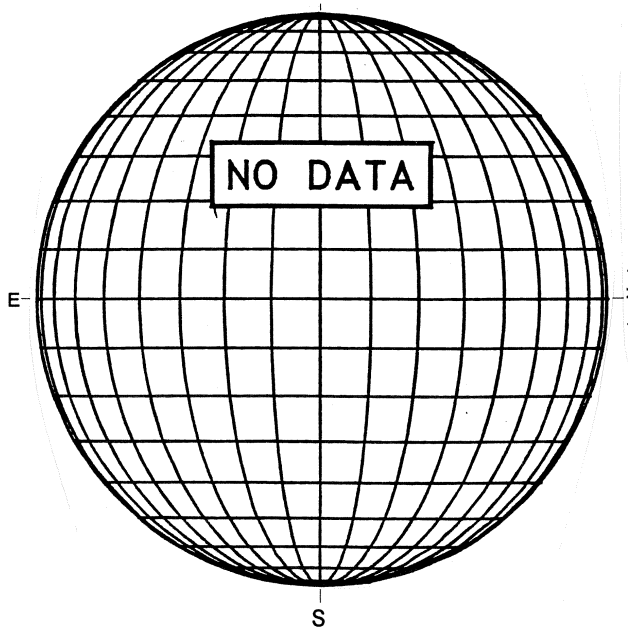
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =

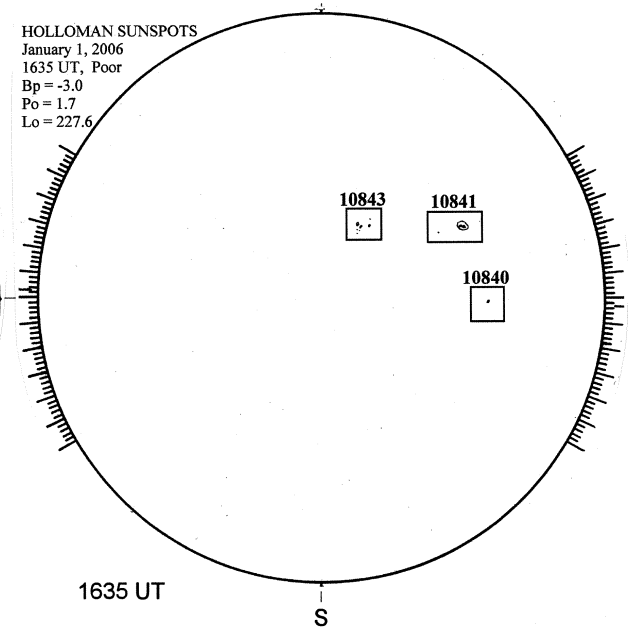


White= +7.5G
Black = -7.5G

HUAIROU H-ALPHA

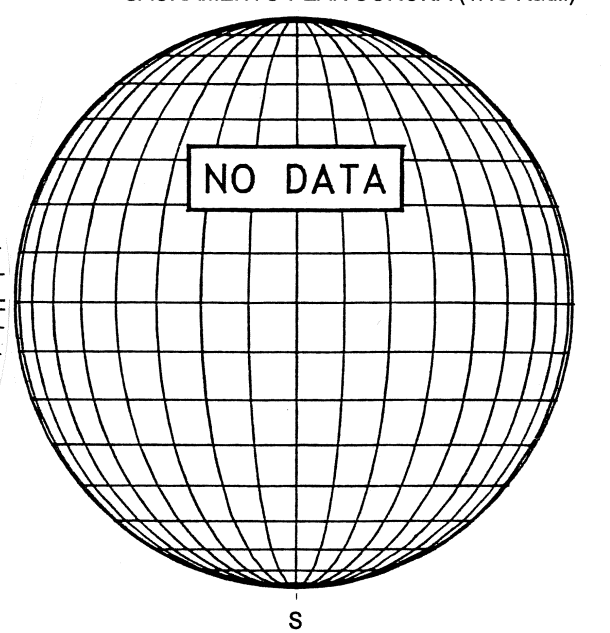


HOLLOMAN SUNSPOTS



1635 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

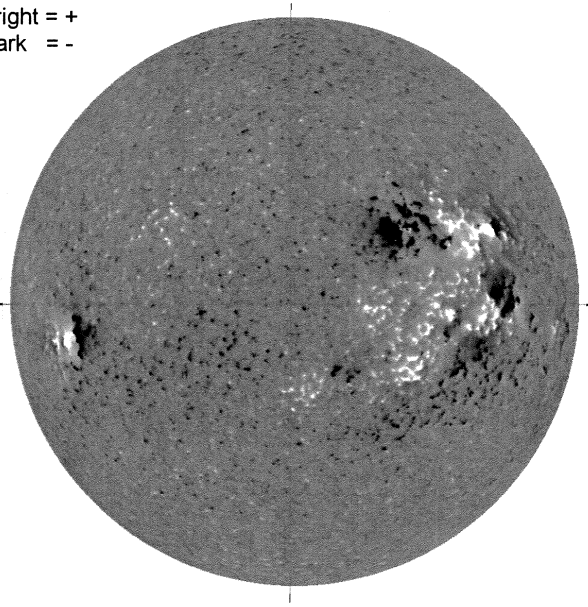


JANUARY 2, 2006 (P= 1.63, Bo = -3.13, Lo = 223.12)

KITT PEAK MAGNETOGRAM--SOLIS

N **854.2 nm**

Bright = +
Dark = -



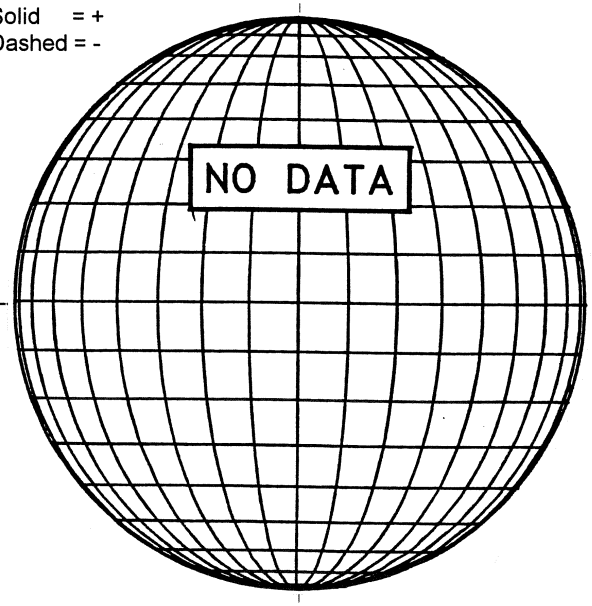
E--

1735 UT

STANFORD MAGNETOGRAM

N

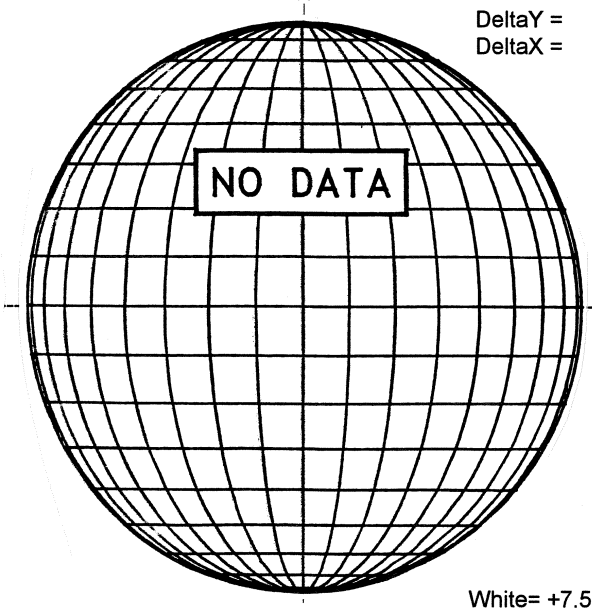
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

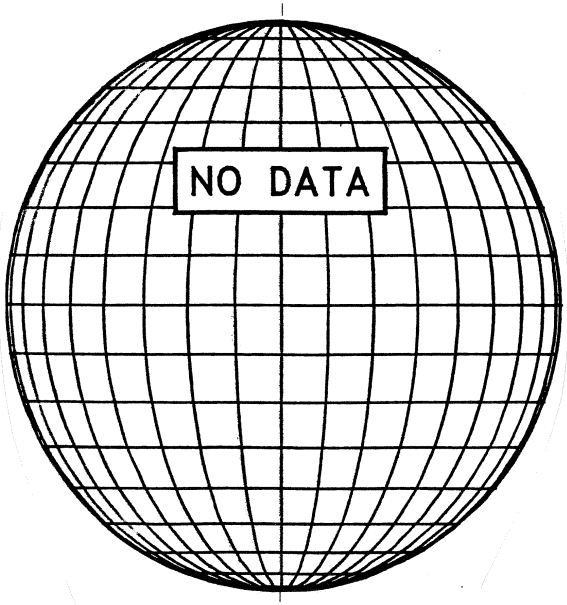
DeltaY =
DeltaX =



-W

White= +7.5G
Black = -7.5G

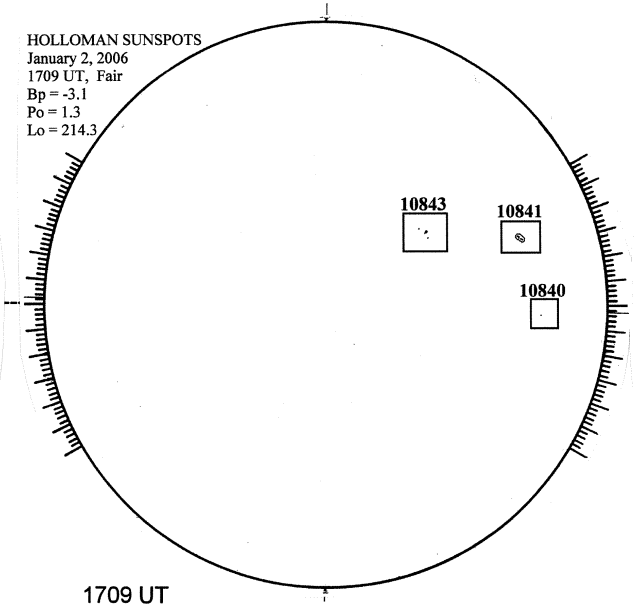
KANZELHOHE H-ALPHA



E--

S

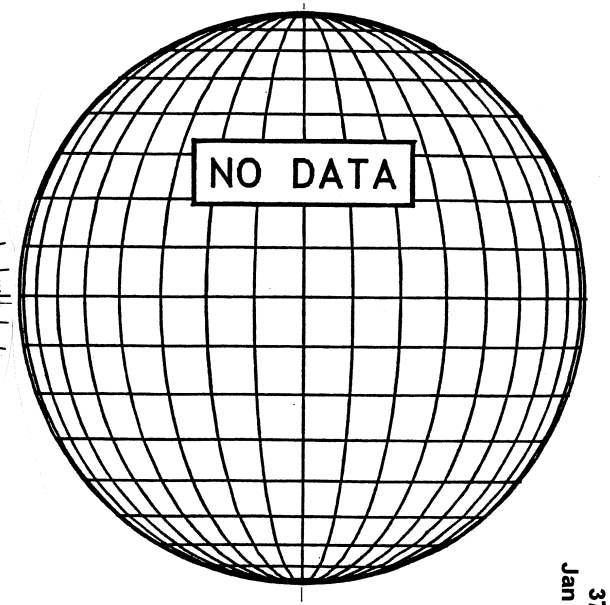
HOLLOMAN SUNSPOTS



1709 UT

S

LOMNICKY PEAK CORONA (1.04 Radii)----



S

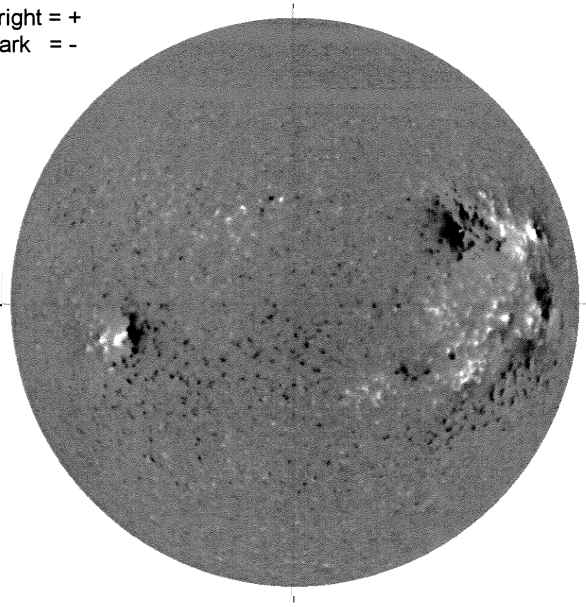
JANUARY 3, 2006 (P= 1.14, Bo = -3.24, Lo = 209.95)

KITT PEAK MAGNETOGRAM--SOLIS

N

854.2 nm

Bright = +
Dark = -



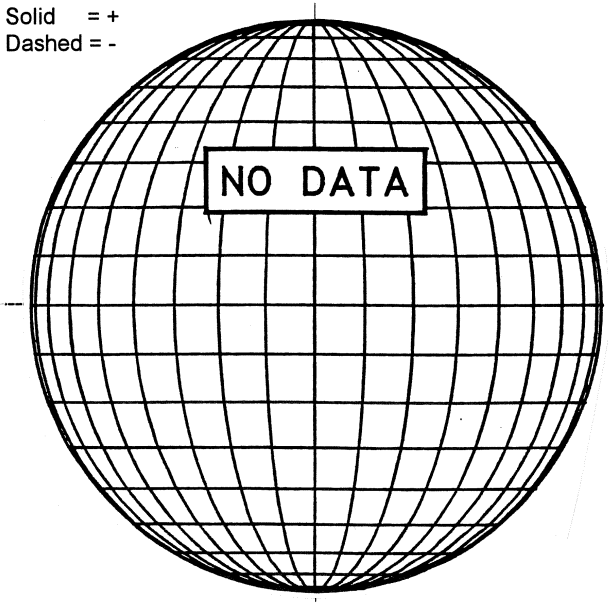
E-

2016 UT

STANFORD MAGNETOGRAM

N

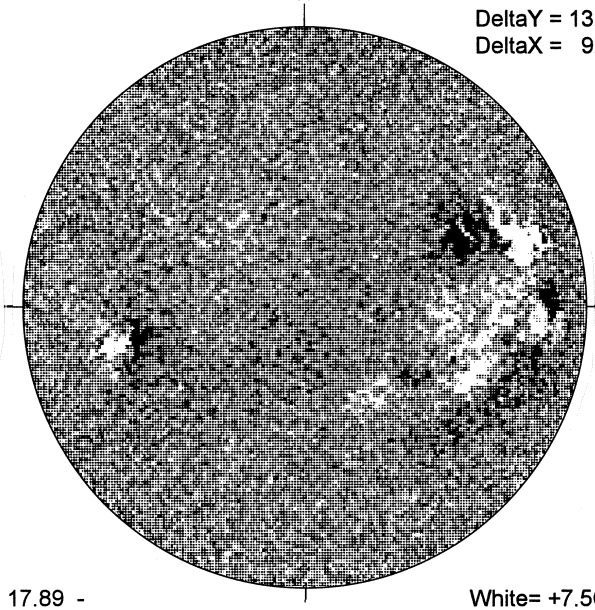
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6

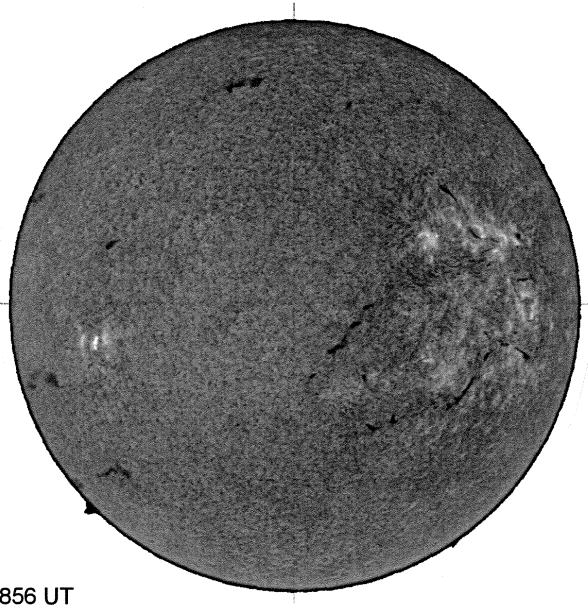


-W

17.89 -
18.87 UT

White= +7.5G
Black = -7.5G

CATANIA H-ALPHA

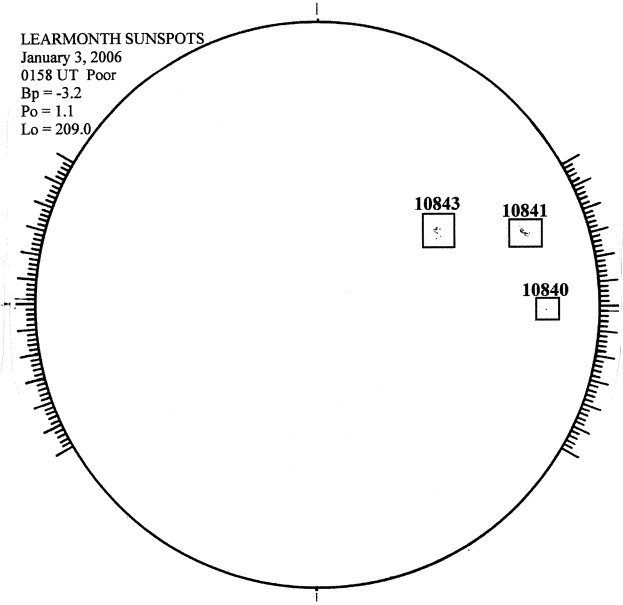


E-

0856 UT

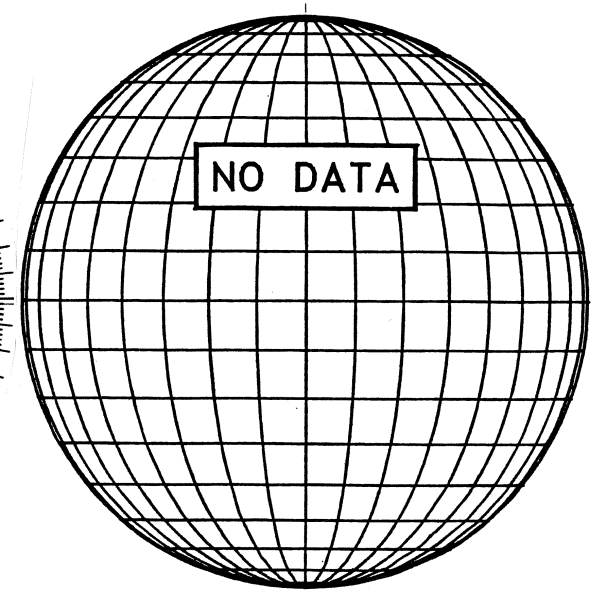
S

SAN VITO SUNSPOTS



S

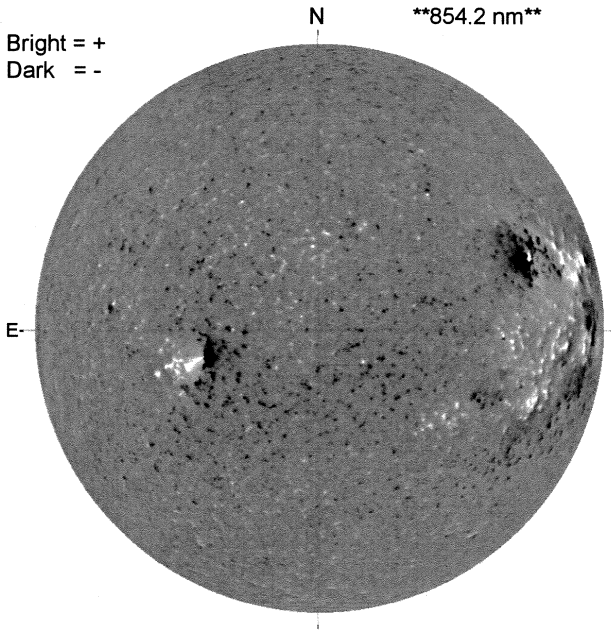
LOMNICKY PEAK CORONA (1.05 Radii)----



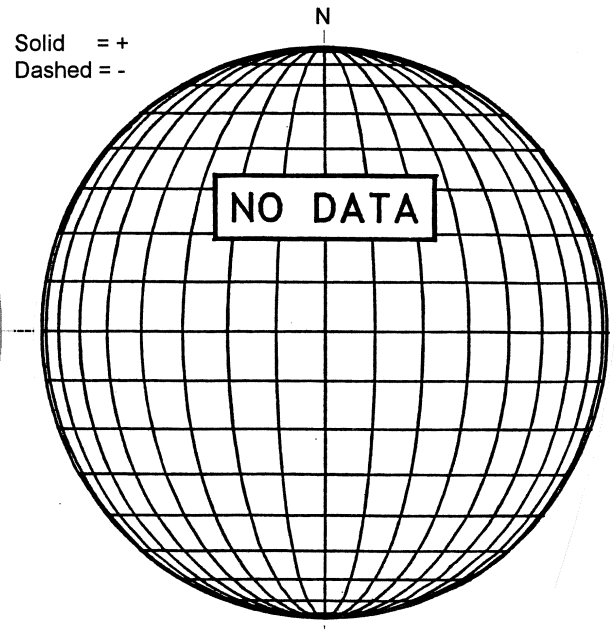
S

JANUARY 4, 2006 (P= 0.66, Bo = -3.36, Lo = 196.78)

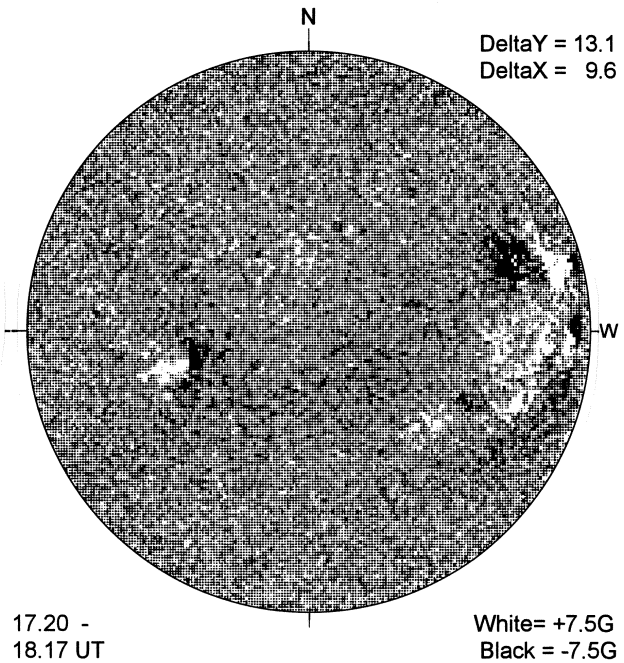
KITT PEAK MAGNETOGRAM--SOLIS



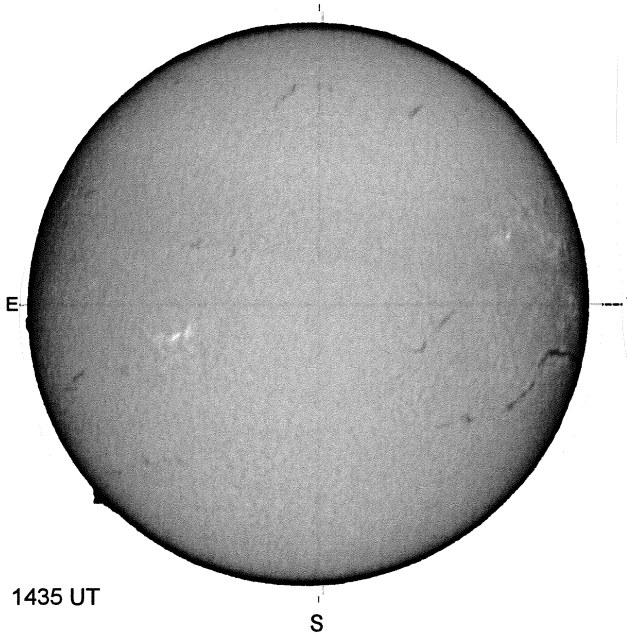
STANFORD MAGNETOGRAM



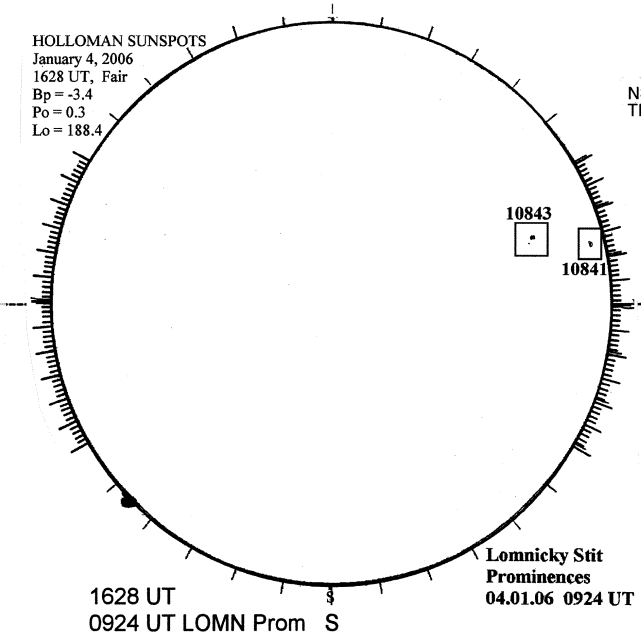
MT. WILSON MAGNETOGRAM



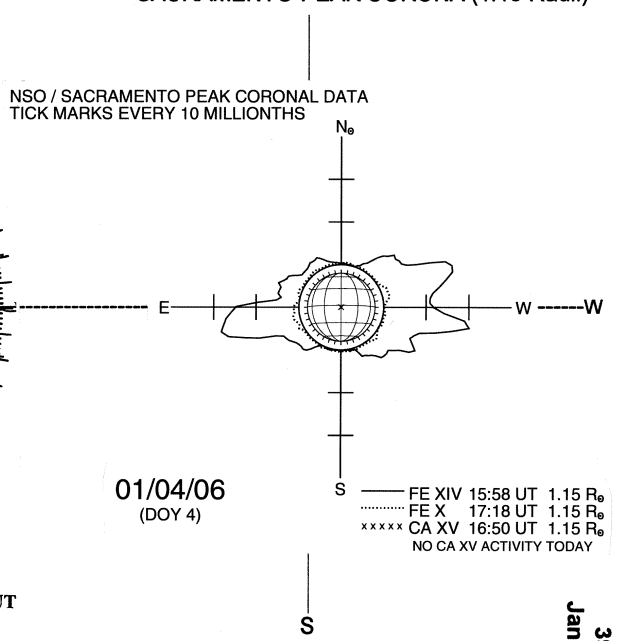
MEUDON H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)----

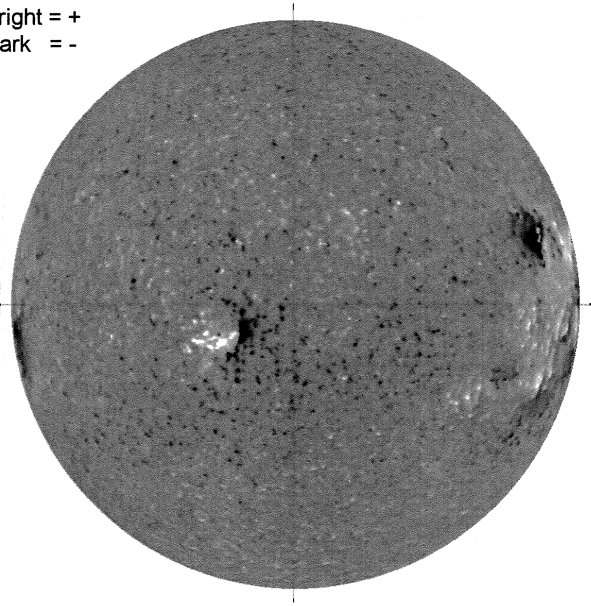


JANUARY 5, 2006 (P= 0.17, Bo = -3.47, Lo = 183.61)

KITT PEAK MAGNETOGRAM--SOLIS

854.2 nm

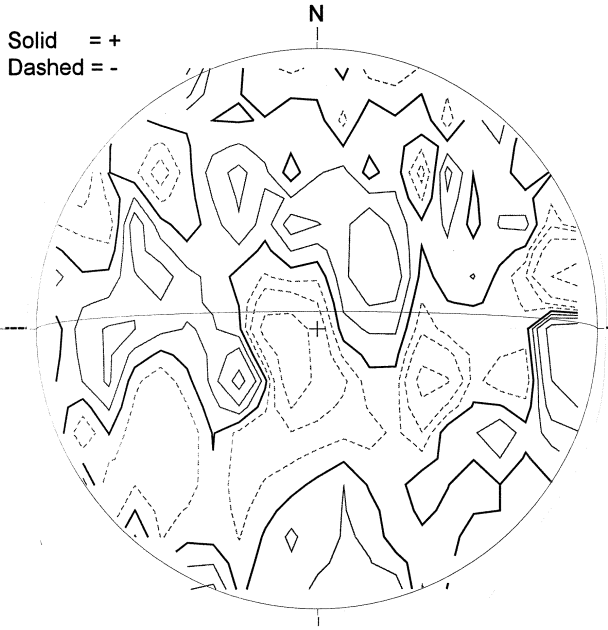
Bright = +
Dark = -



1650 UT

STANFORD MAGNETOGRAM

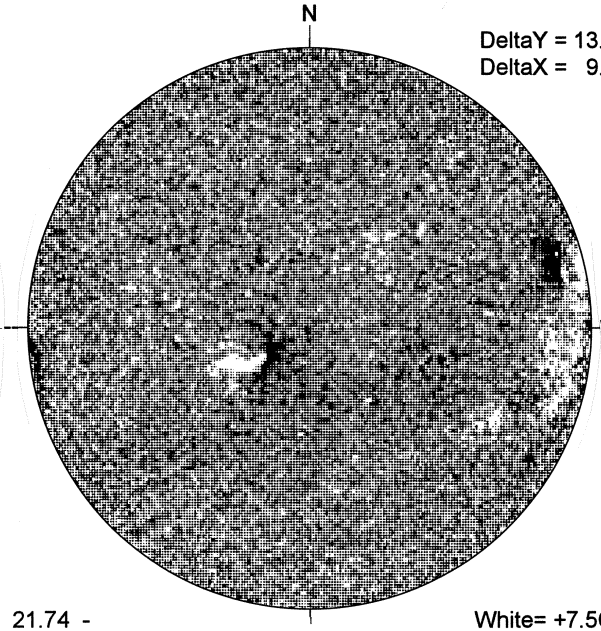
Solid = +
Dashed = -



2128 UT

MT. WILSON MAGNETOGRAM

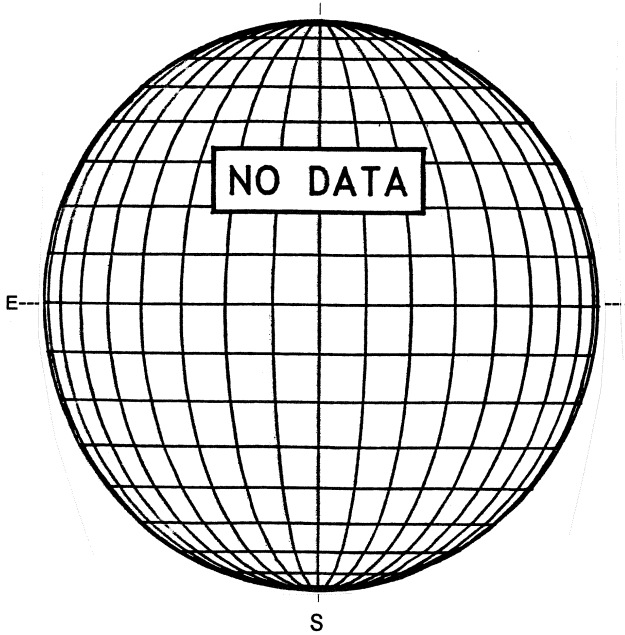
DeltaY = 13.1
DeltaX = 9.6



21.74 -
22.71 UT

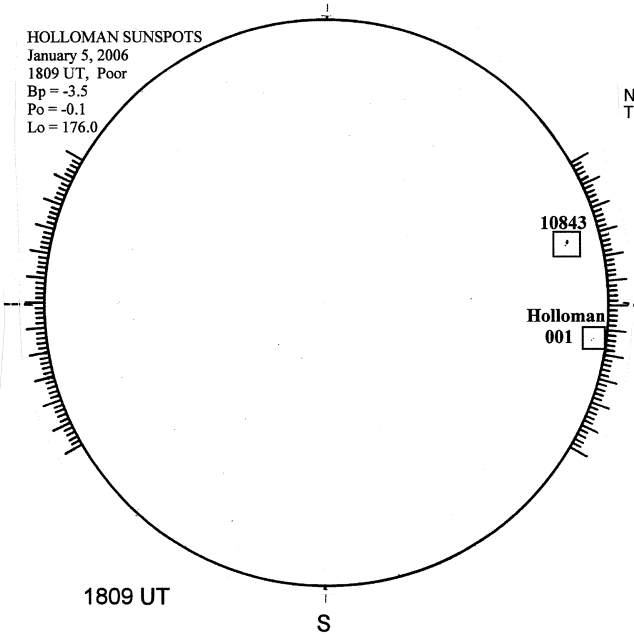
White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA



HOLLOMAN SUNSPOTS

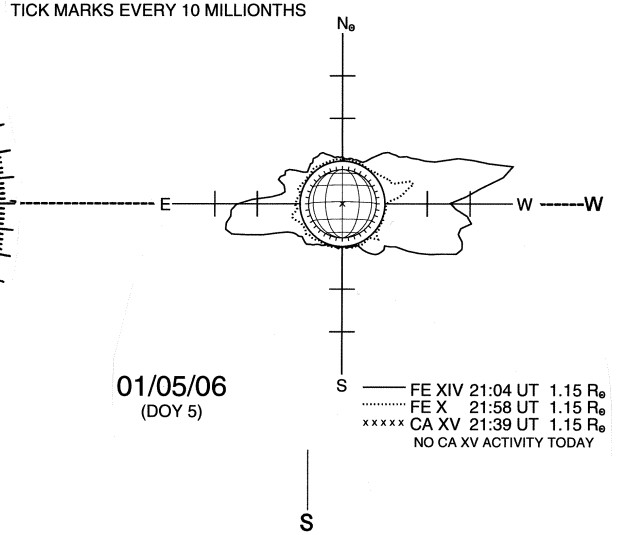
HOLLOMAN SUNSPOTS
January 5, 2006
1809 UT, Poor
Bp = -3.5
Po = -0.1
Lo = 176.0



1809 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS

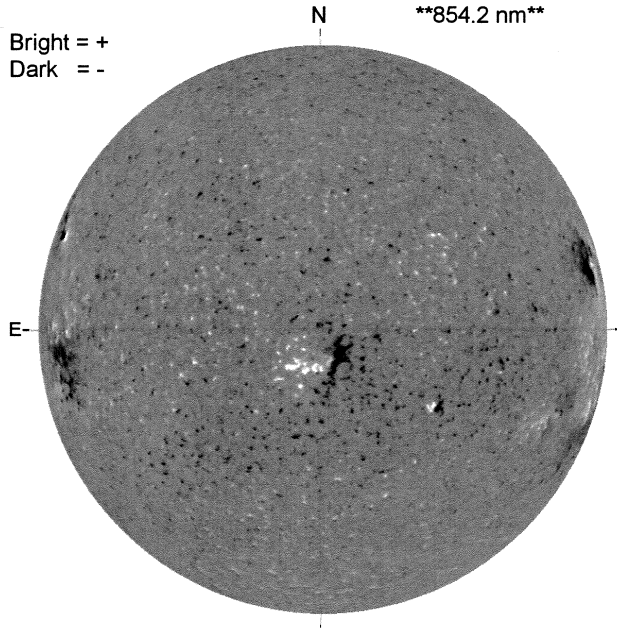


01/05/06
(DOY 5)

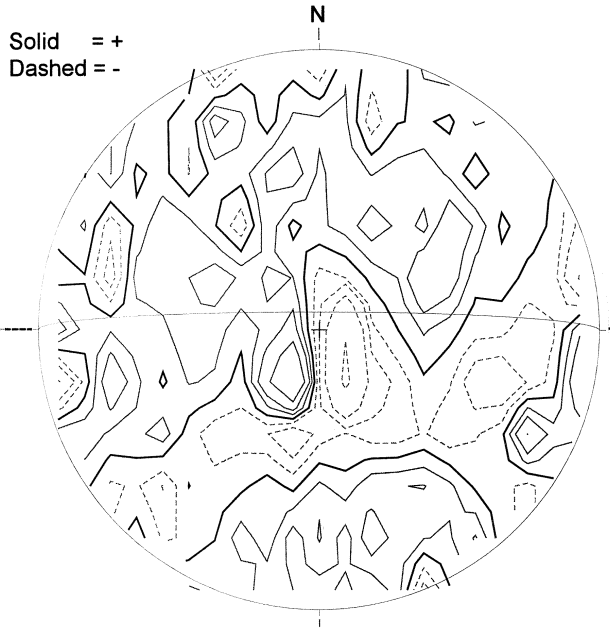
FE XIV 21:04 UT 1.15 $R_\odot$
FE X 21:58 UT 1.15 $R_\odot$
CA XV 21:39 UT 1.15 $R_\odot$
NO CA XV ACTIVITY TODAY

JANUARY 6, 2006 (P= -0.31, Bo = -3.58, Lo = 170.44)

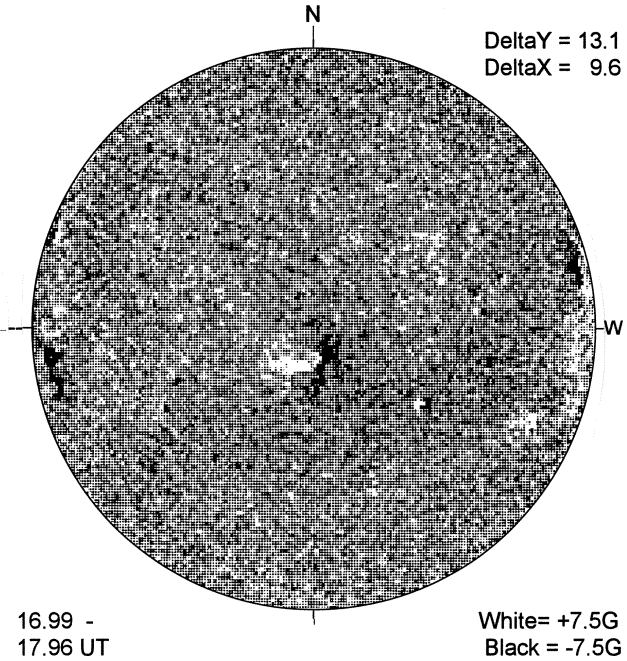
KITT PEAK MAGNETOGRAM--SOLIS



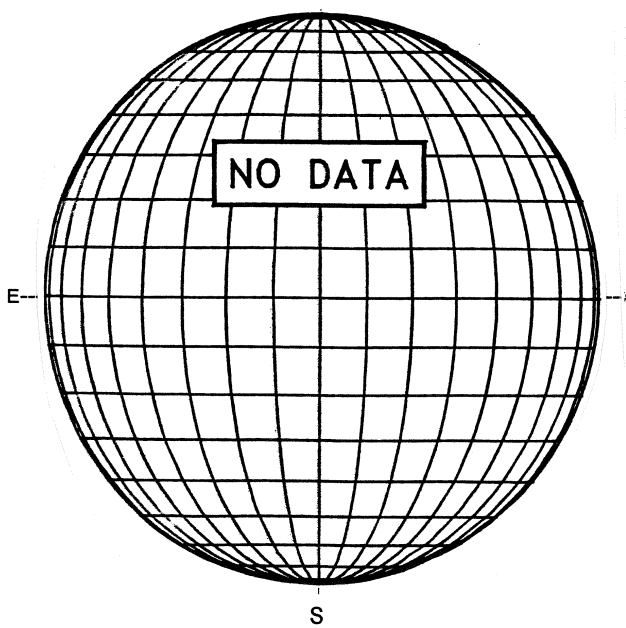
STANFORD MAGNETOGRAM



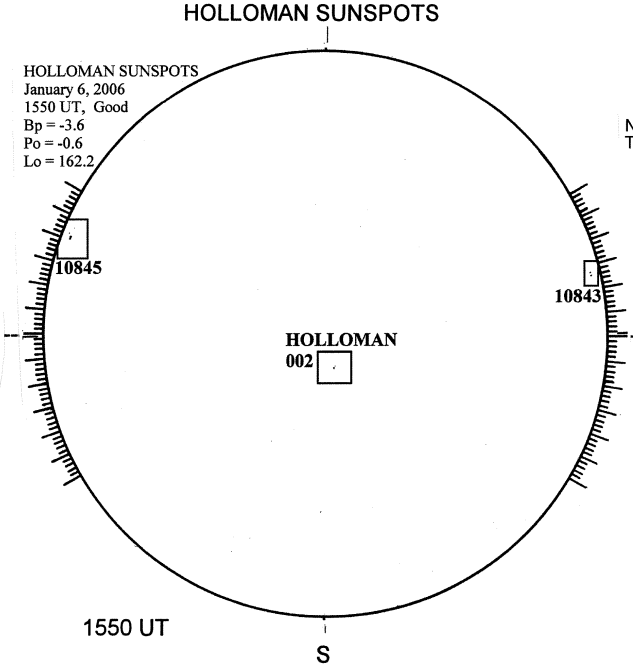
MT. WILSON MAGNETOGRAM



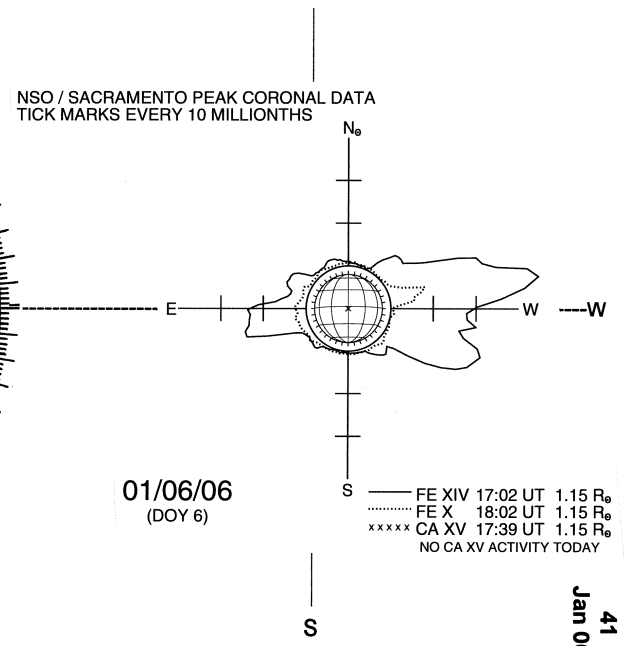
CATANIA H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)----

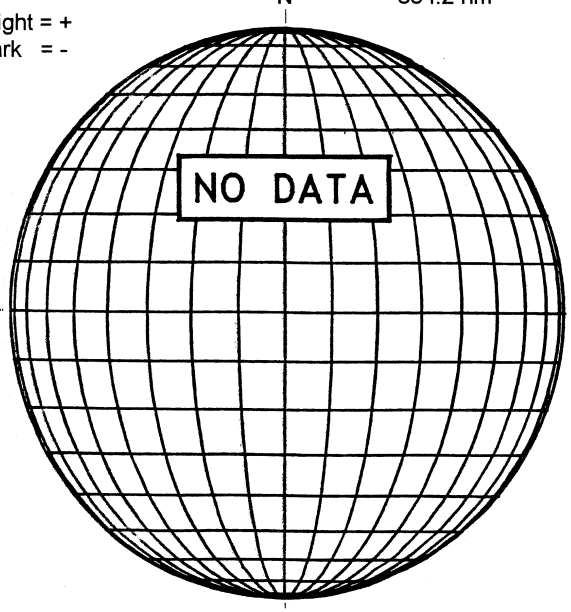


JANUARY 7, 2006 (P= -0.79, Bo = -3.70, Lo = 157.27)

KITT PEAK MAGNETOGRAM--SOLIS

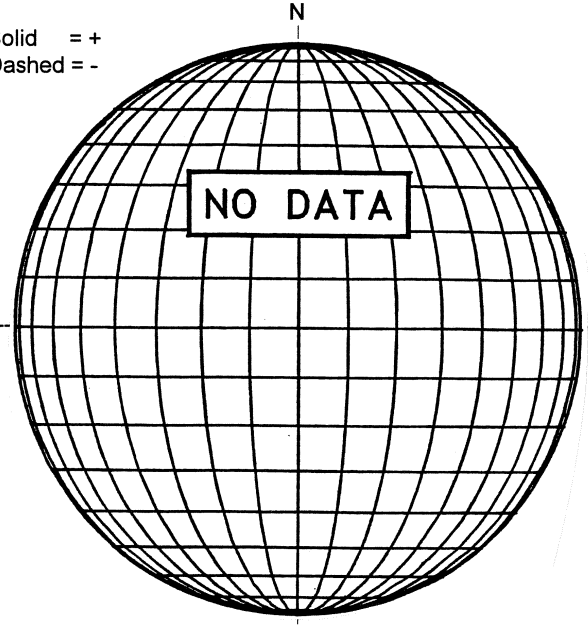
854.2 nm

Bright = +
Dark = -



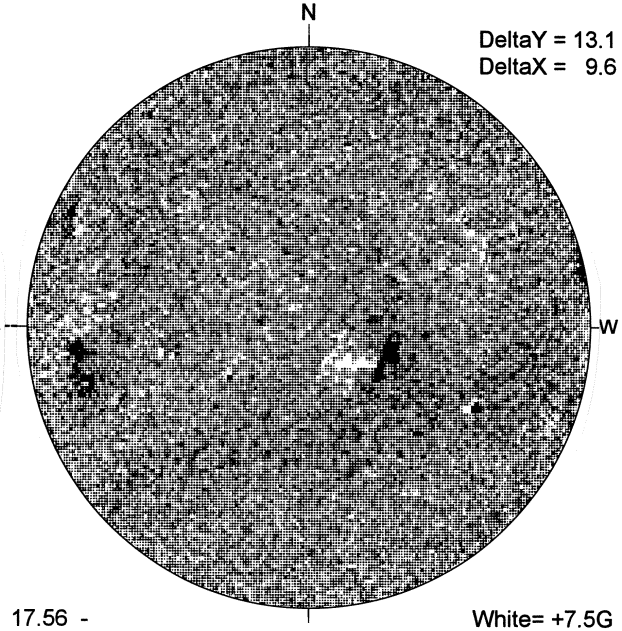
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

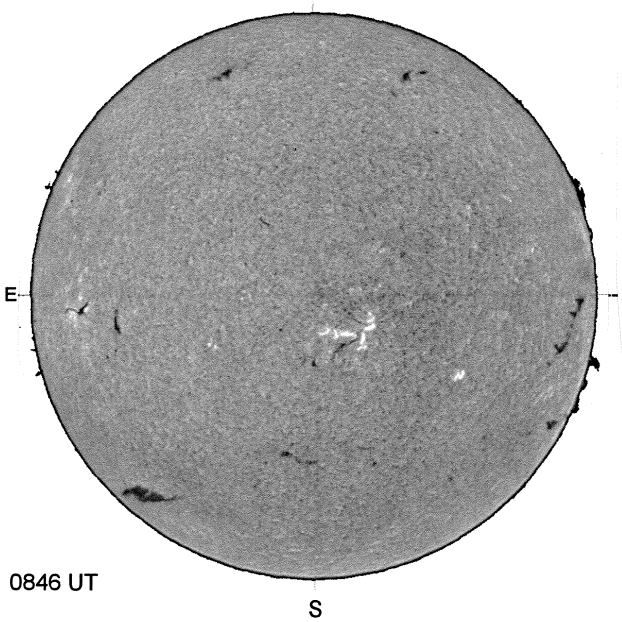
DeltaY = 13.1
DeltaX = 9.6



17.56 -
18.54 UT

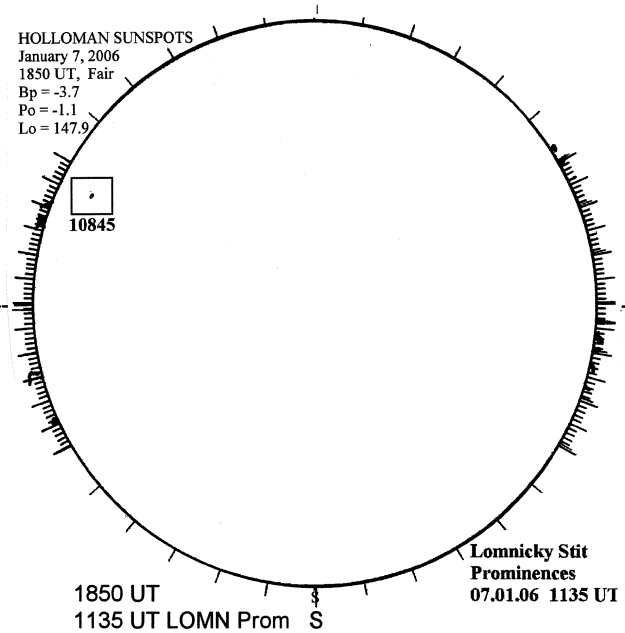
White= +7.5G
Black = -7.5G

CATANIA H-ALPHA



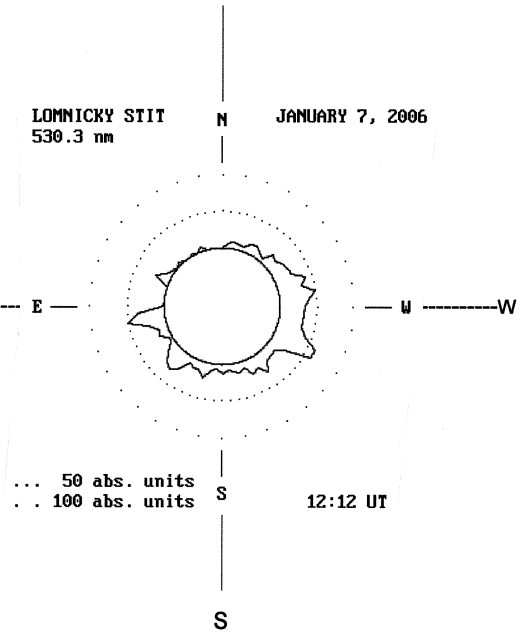
0846 UT

HOLLOMAN SUNSPOTS



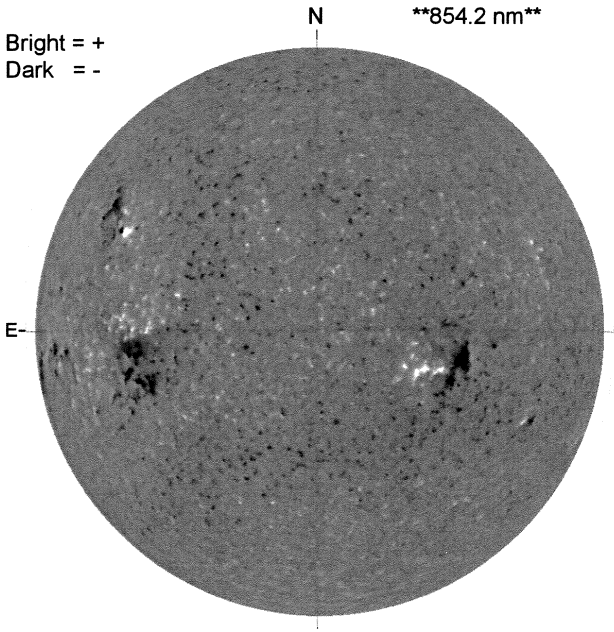
1850 UT
1135 UT LOMN Prom

LOMNICKY PEAK CORONA (1.04 Radii)----

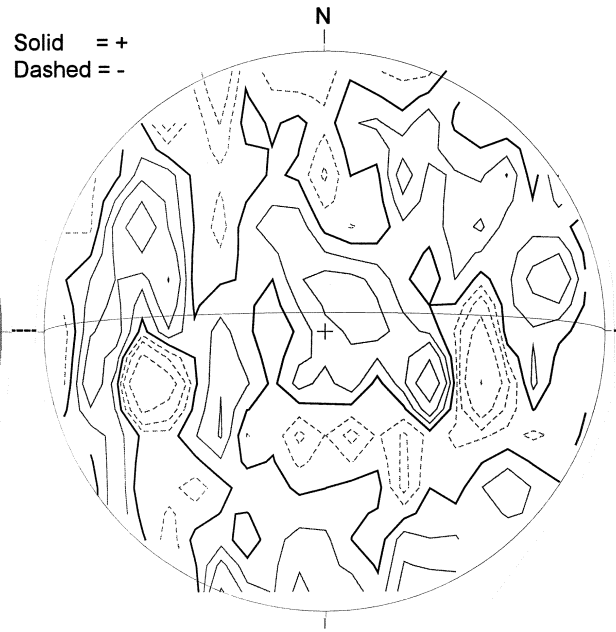


JANUARY 8, 2006 (P= -1.28, Bo = -3.81, Lo = 144.10)

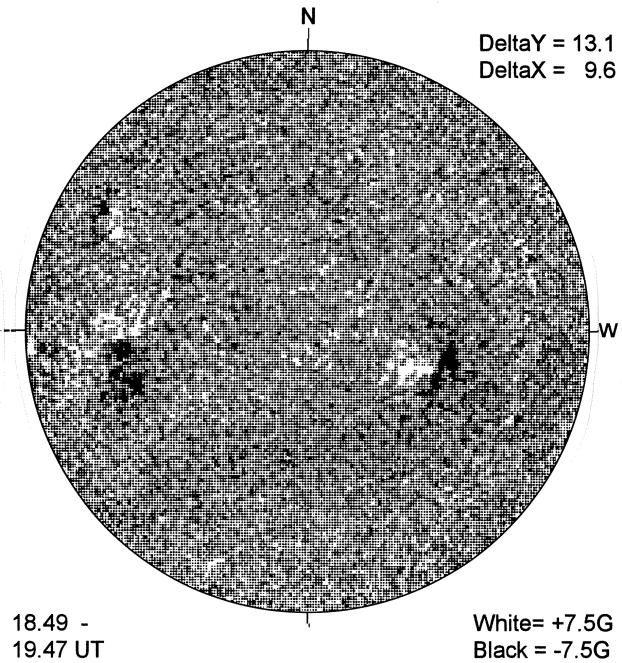
KITT PEAK MAGNETOGRAM--SOLIS



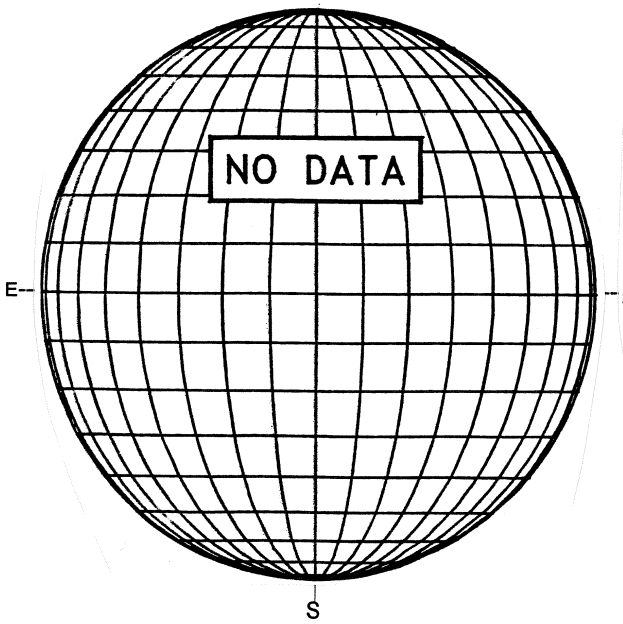
STANFORD MAGNETOGRAM



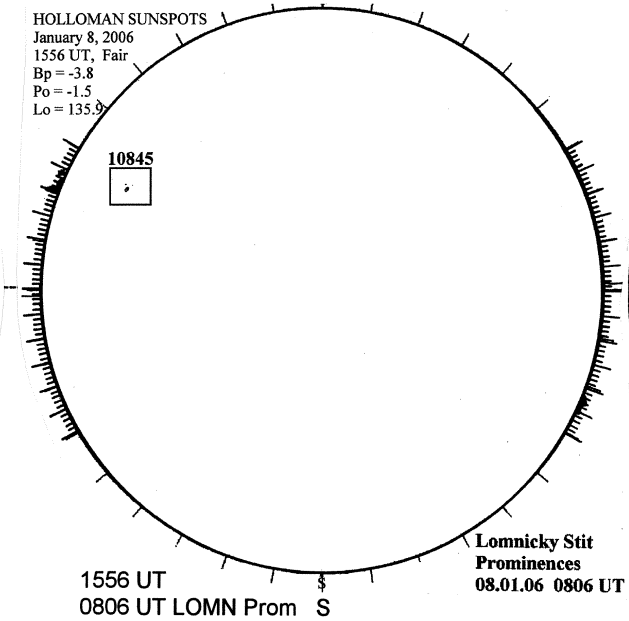
MT. WILSON MAGNETOGRAM



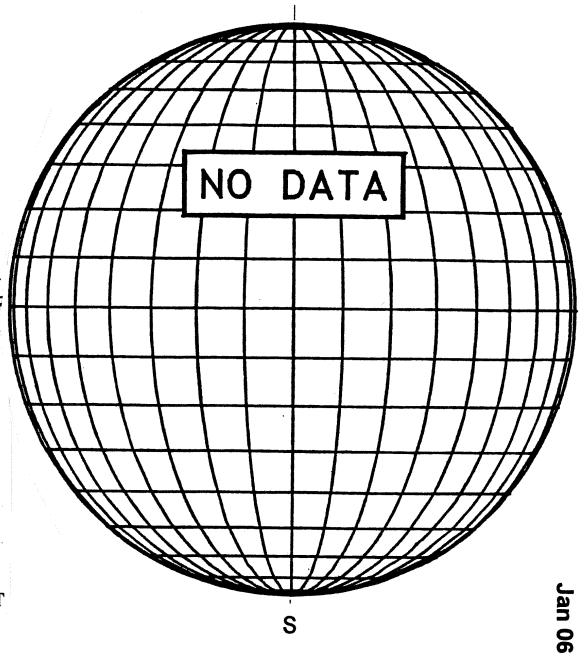
---- KANZELHOHE H-ALPHA



HOLLOMAN SUNSPOTS



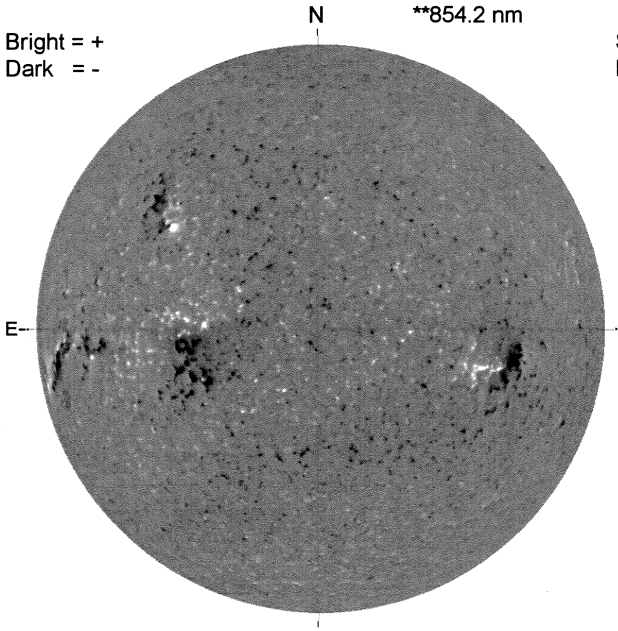
SACRAMENTO PEAK CORONA (1.15 Radii)----



JANUARY 9, 2006 (P= -1.76, Bo = -3.91, Lo = 130.94)

KITT PEAK MAGNETOGRAM--SOLIS

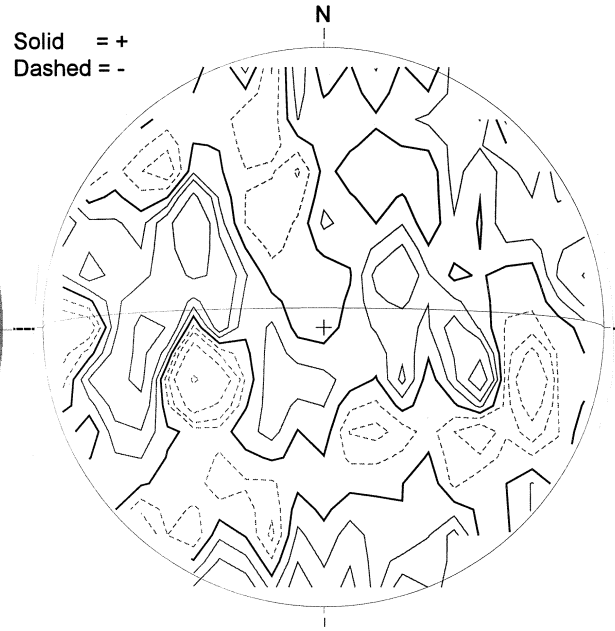
Bright = +
Dark = -



1755 UT

STANFORD MAGNETOGRAM

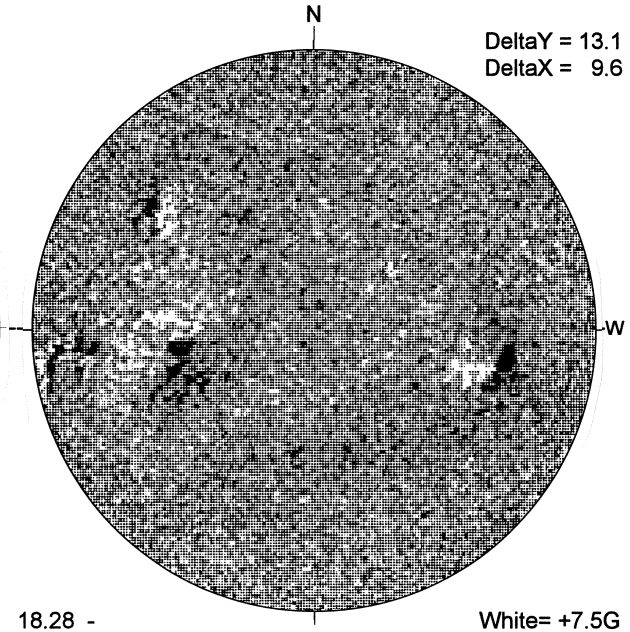
Solid = +
Dashed = -



2054 UT

MT. WILSON MAGNETOGRAM

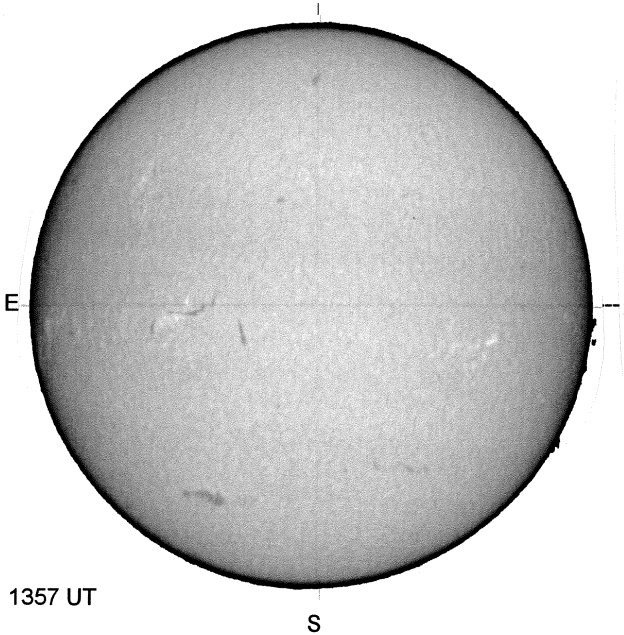
DeltaY = 13.1
DeltaX = 9.6



18.28 -
19.26 UT

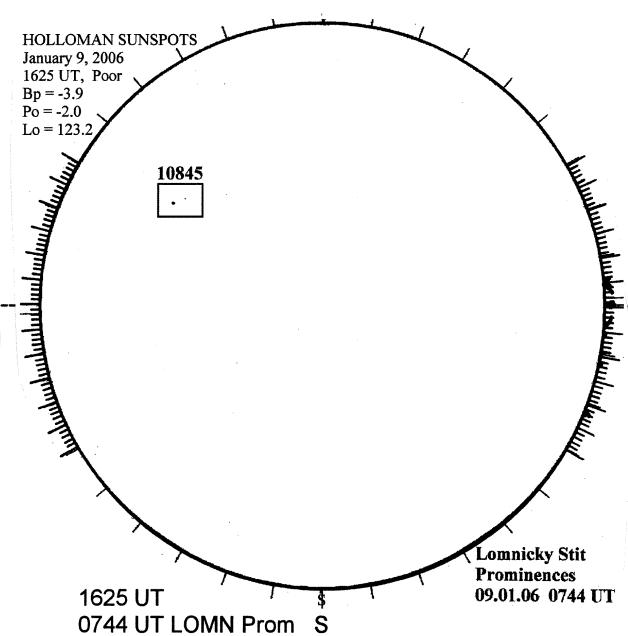
White= +7.5G
Black = -7.5G

MEUDON H-ALPHA



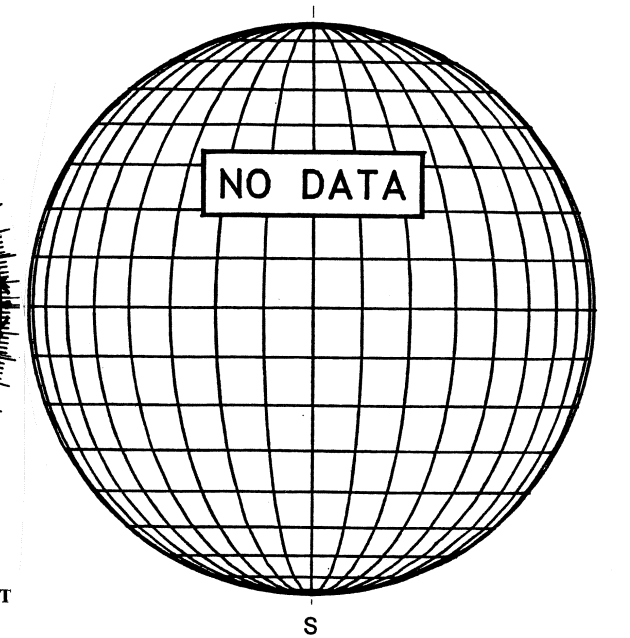
1357 UT

HOLLOMAN SUNSPOTS



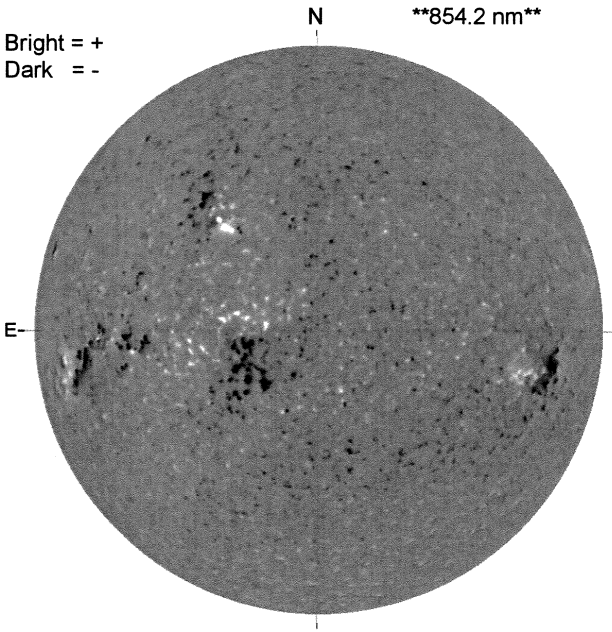
1625 UT
0744 UT LOMN Prom

LOMNICKY PEAK CORONA (1.04 Radii)

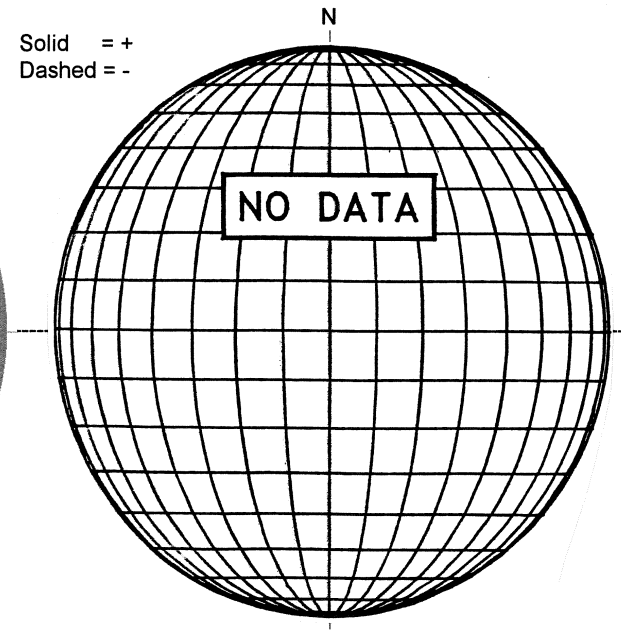


JANUARY 10, 2006 (P= -2.24, Bo = -4.02 Lo = 117.77)

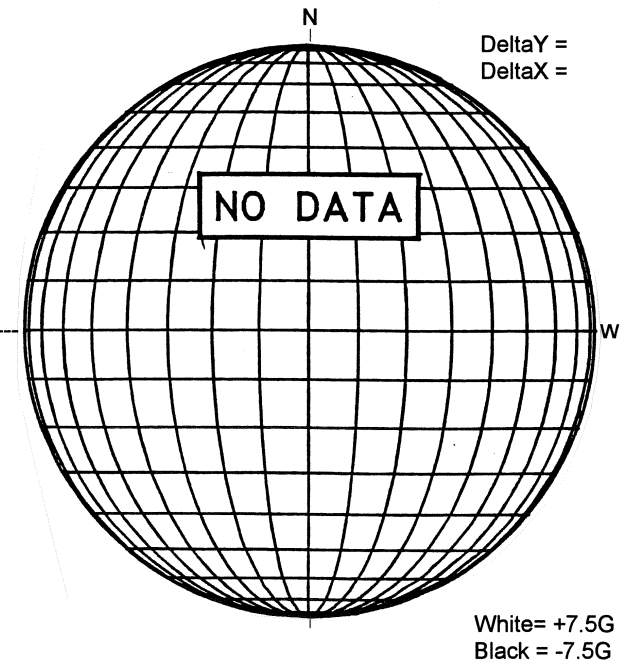
KITT PEAK MAGNETOGRAM--SOLIS



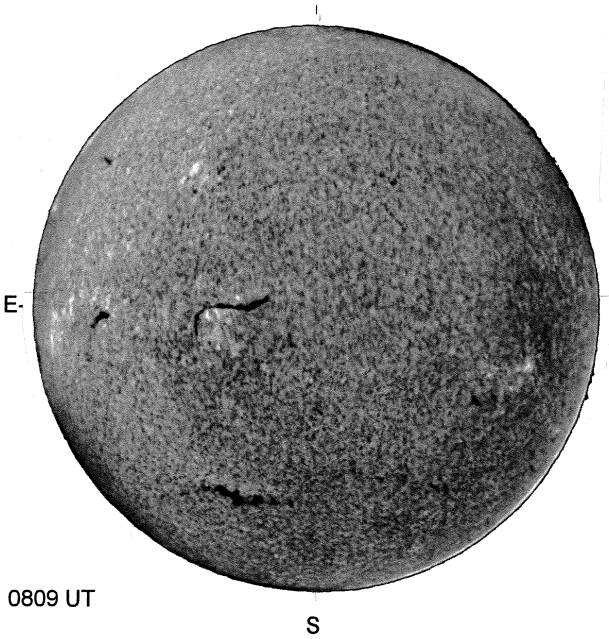
STANFORD MAGNETOGRAM



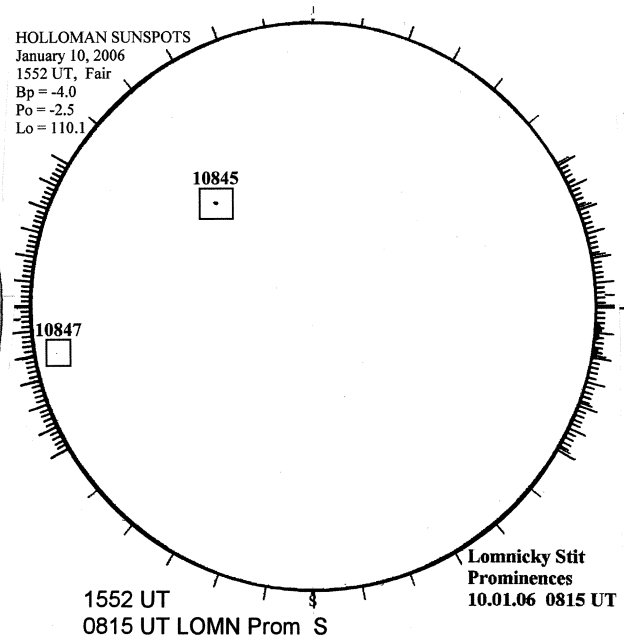
MT. WILSON MAGNETOGRAM



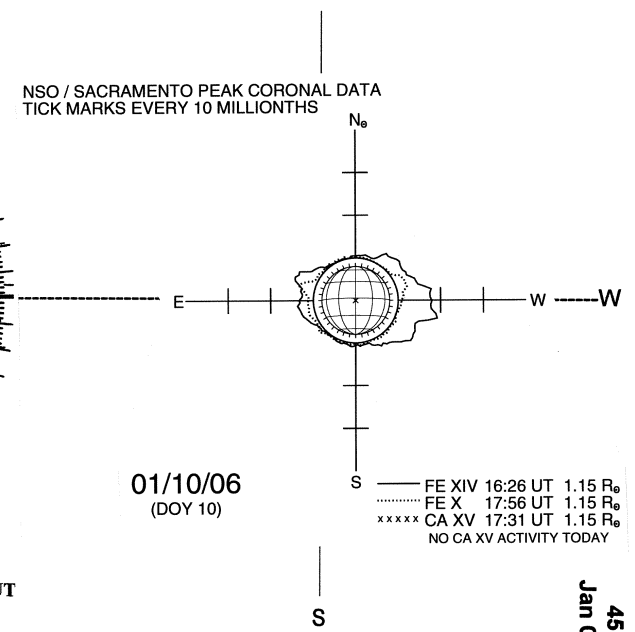
KANZELHOHE H-ALPHA



HOLLOMAN SUNSPOTS

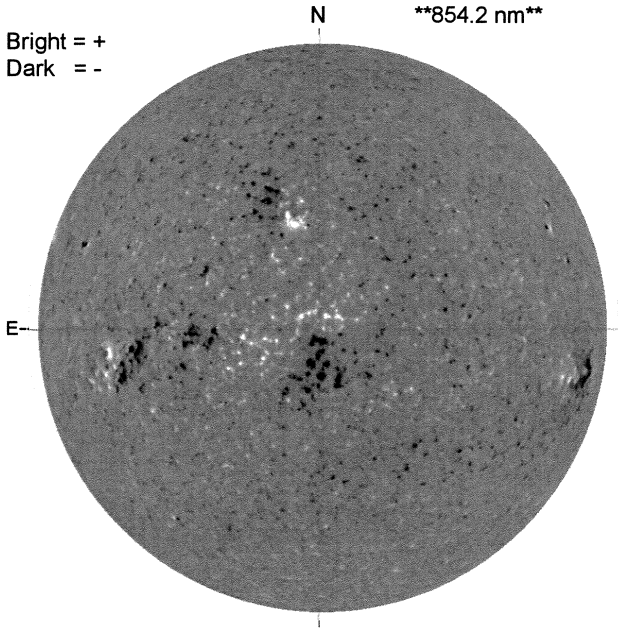


SACRAMENTO PEAK CORONA (1.15 Radii)----

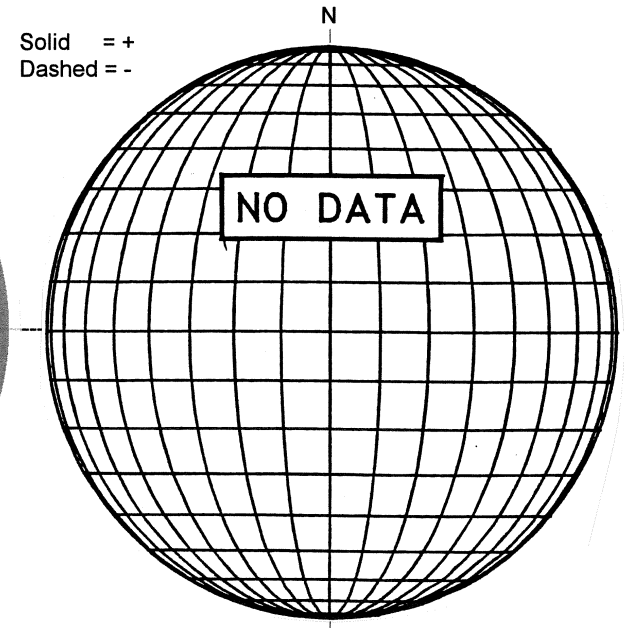


JANUARY 11, 2006 (P= -2.71, Bo = -4.13, Lo = 104.60)

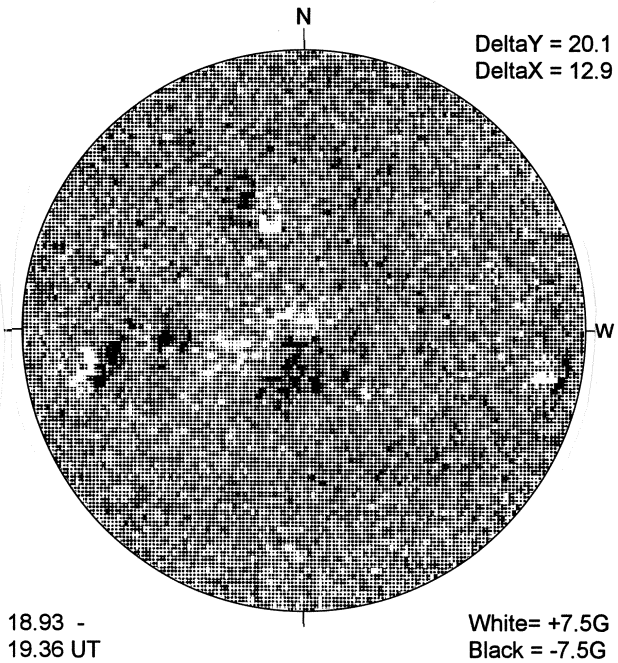
KITT PEAK MAGNETOGRAM--SOLIS



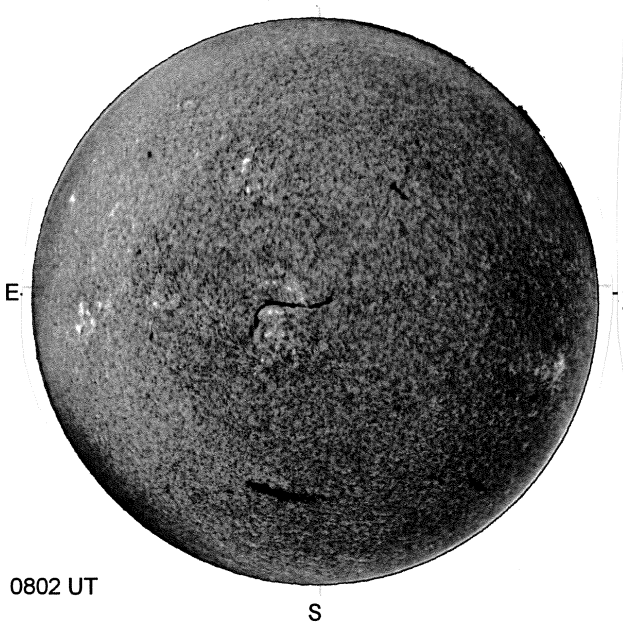
STANFORD MAGNETOGRAM



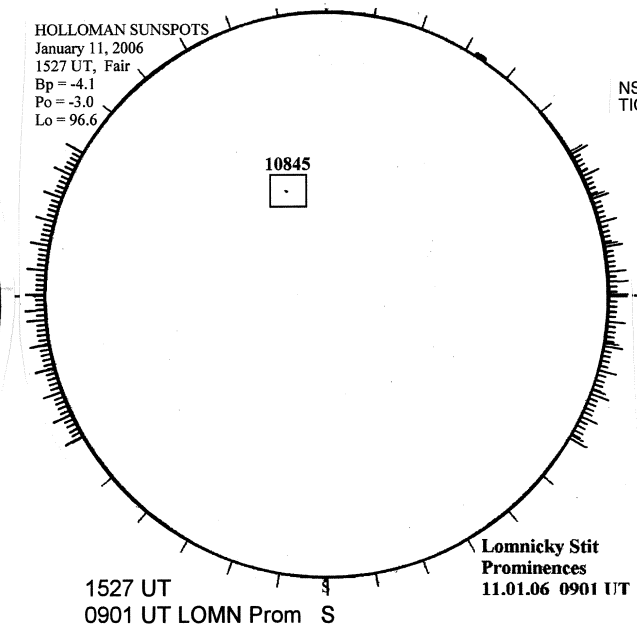
MT. WILSON MAGNETOGRAM



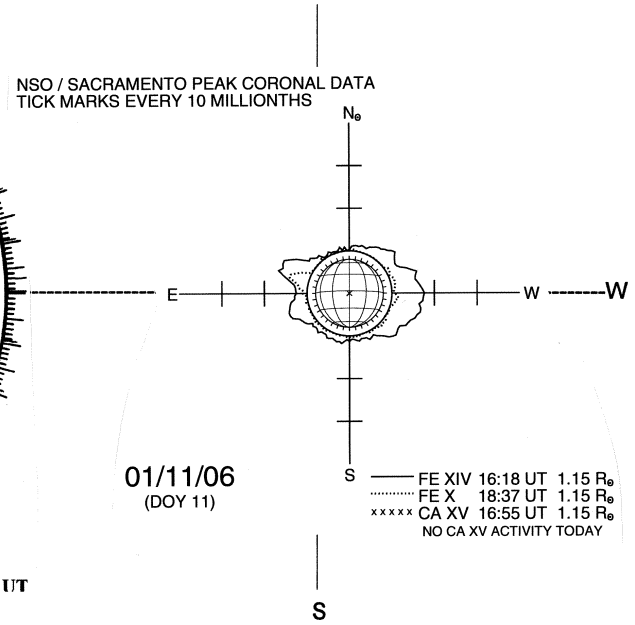
KANZELHOHE H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)----

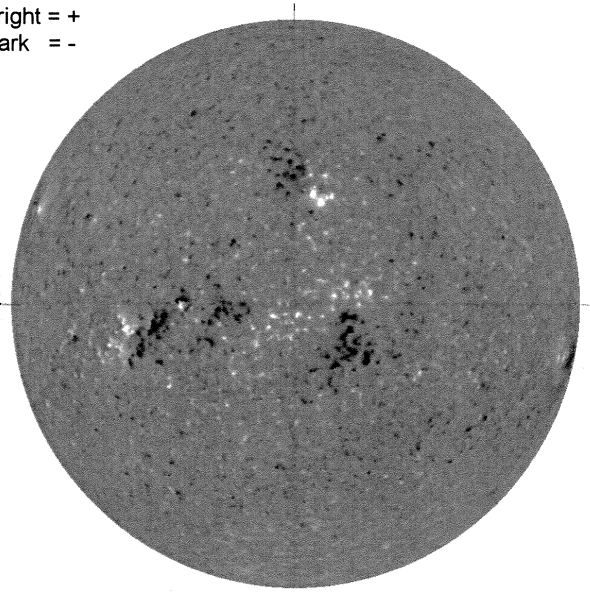


JANUARY 12, 2006 (P= -3.19, Bo = -4.23, Lo = 91.43)

KITT PEAK MAGNETOGRAM--SOLIS

N **854.2 nm**

Bright = +
Dark = -



E-

1723 UT

STANFORD MAGNETOGRAM

N

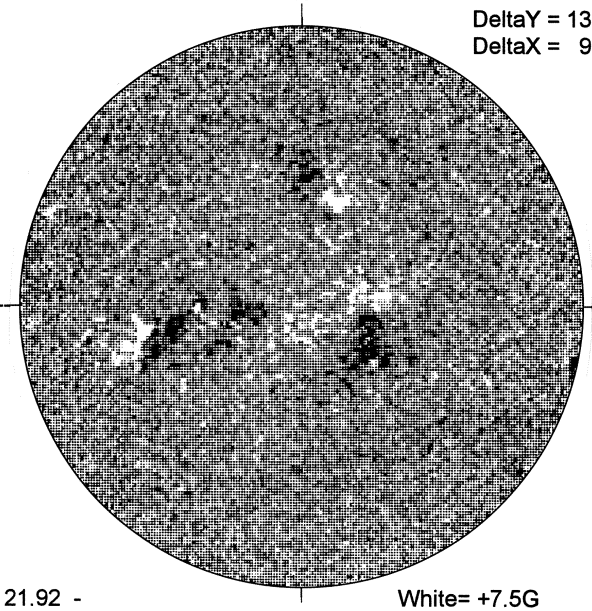
Solid = +
Dashed = -

2135 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6



-W

21.92 -
22.90 UT

White= +7.5G
Black = -7.5G

---- KANZELHOHE H-ALPHA

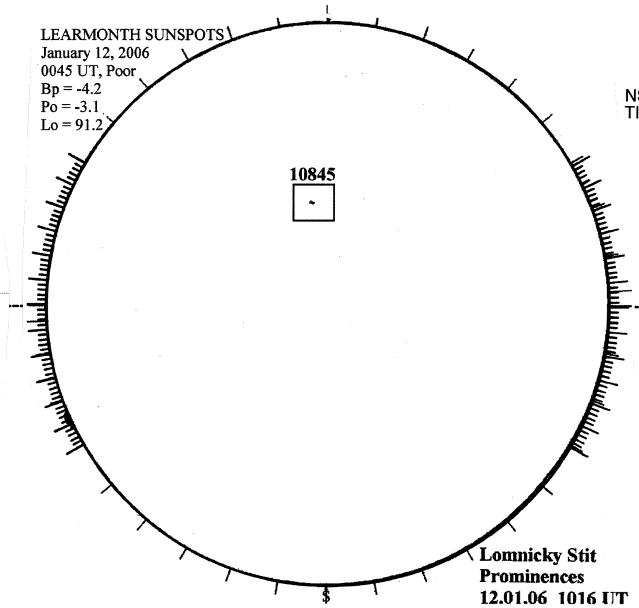
E-

0756 UT

S

SAN VITO SUNSPOTS

LEARMONTH SUNSPOTS
January 12, 2006
0045 UT, Poor
Bp = -4.2
Po = -3.1
Lo = 91.2

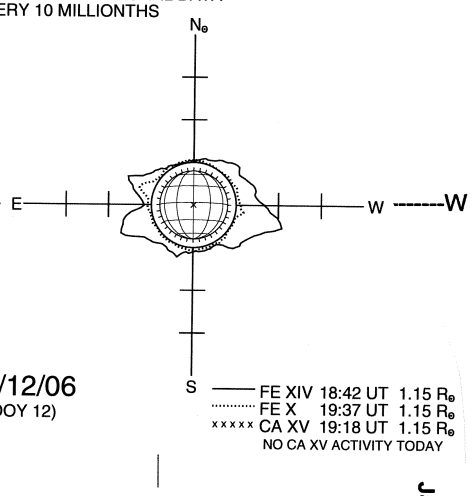


Lomnicky Stit
Prominences
12.01.06 1016 UT

1016 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS



01/12/06
(DOY 12)

FE XIV 18:42 UT 1.15 R☉
FE X 19:37 UT 1.15 R☉
xxxxx CA XV 19:18 UT 1.15 R☉
NO CA XV ACTIVITY TODAY

S

47
Jan 06

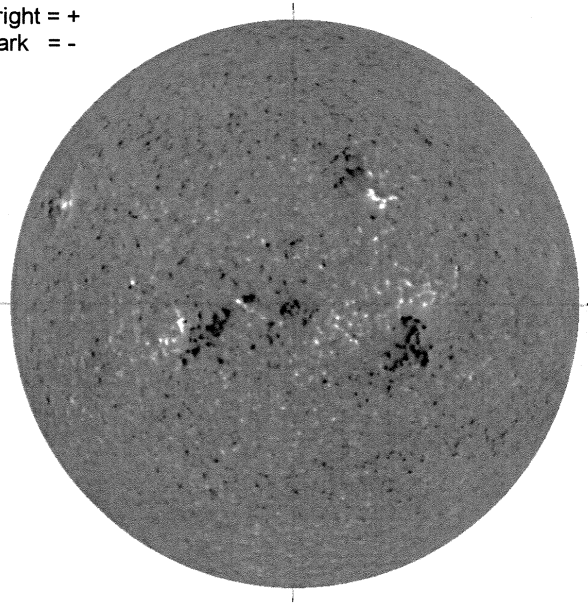
JANUARY 13, 2006 (P= -3.66, Bo = -4.34, Lo = 78.26)

KITT PEAK MAGNETOGRAM--SOLIS

N

854.2 nm

Bright = +
Dark = -



E-

1726 UT

STANFORD MAGNETOGRAM

N

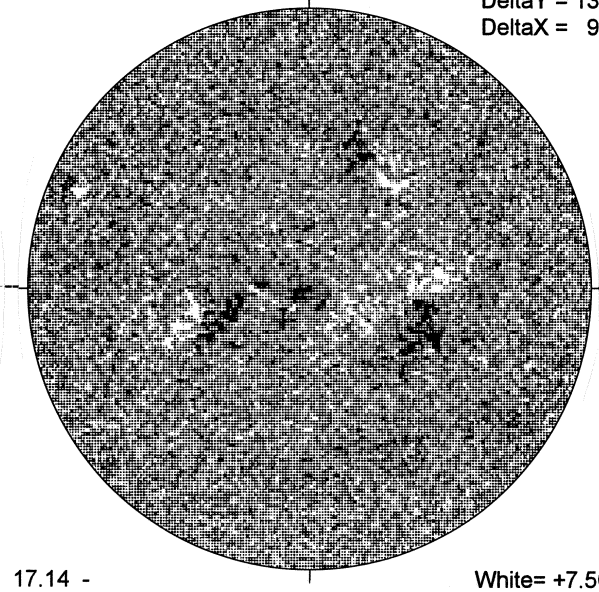
Solid = +
Dashed = -

1752 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6



-W

17.14 -
18.11 UT

White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA

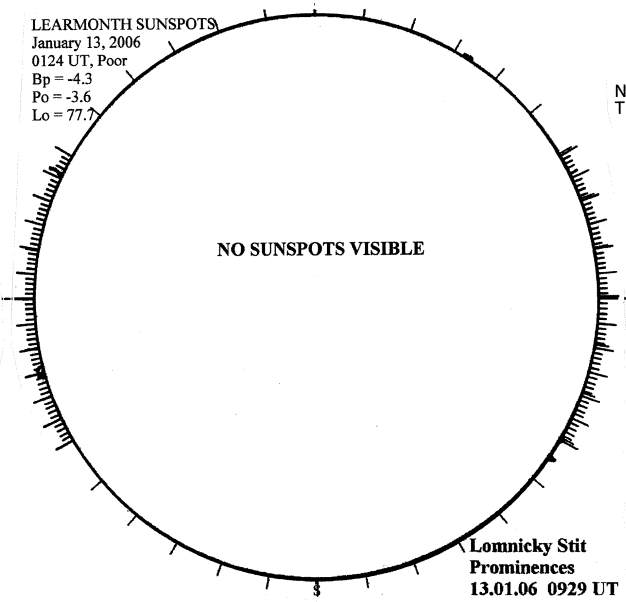
E-

0759 UT

S

SAN VITO SUNSPOTS

LEARMONTH SUNSPOTS
January 13, 2006
0124 UT, Poor
Bp = -4.3
Po = -3.6
Lo = 77.7



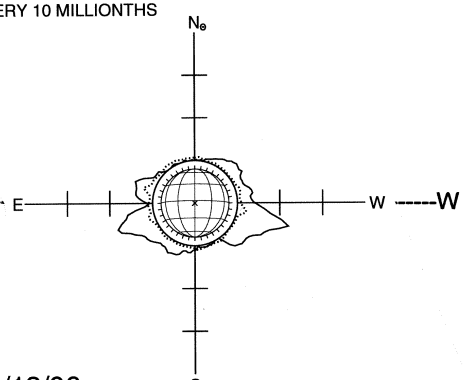
NO SUNSPOTS VISIBLE

Lomnicky Stit
Prominences
13.01.06 0929 UT

0929 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS



01/13/06
(DOY 13)

FE XIV 15:27 UT 1.15 $R_\odot$
FE X 17:01 UT 1.15 $R_\odot$
CA XV 16:03 UT 1.15 $R_\odot$
NO CA XV ACTIVITY TODAY

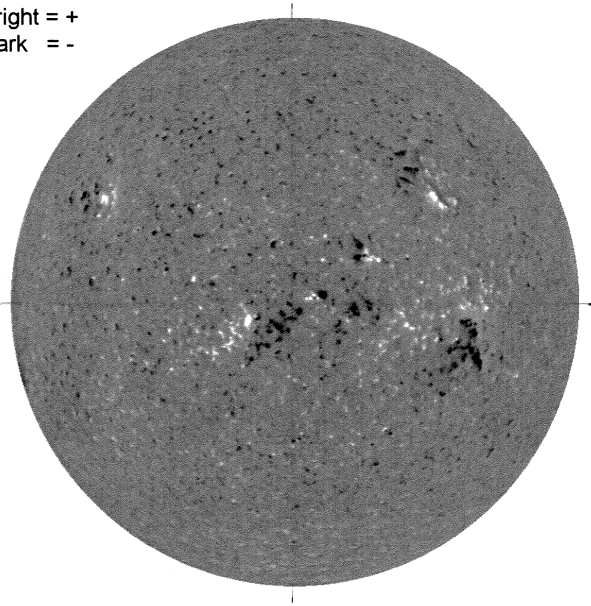
S

JANUARY 14, 2006 (P= -4.14, Bo = -4.44, Lo = 65.09)

KITT PEAK MAGNETOGRAM--SOLIS

N **854.2 nm**

Bright = +
Dark = -



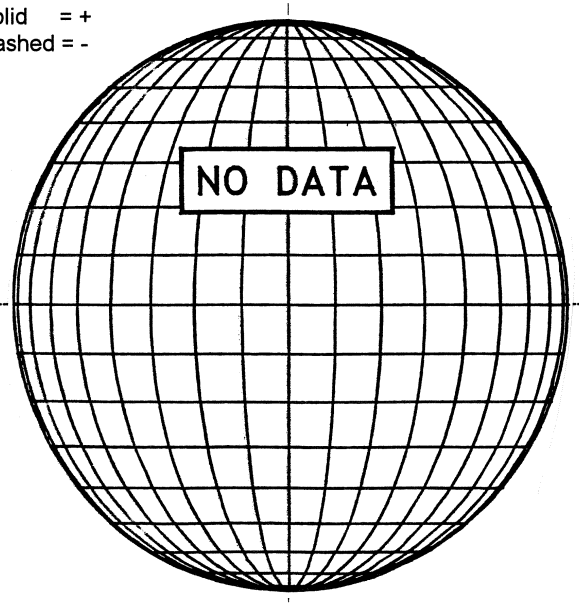
E-

1839 UT

STANFORD MAGNETOGRAM

N

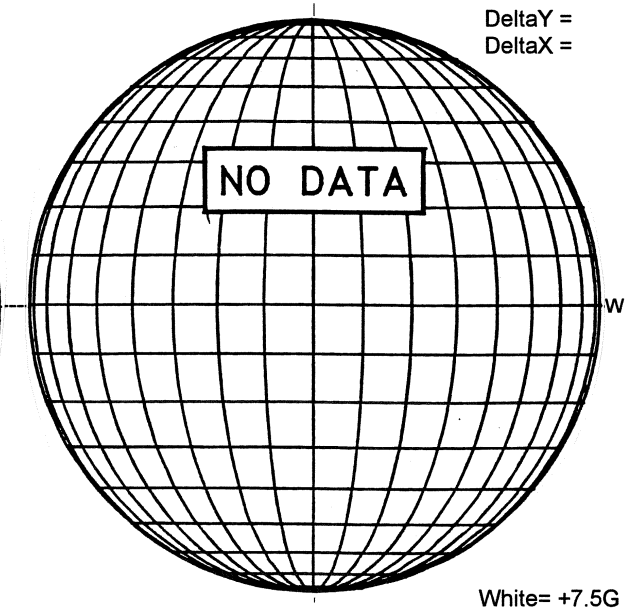
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY =
DeltaX =



-W

White= +7.5G
Black = -7.5G

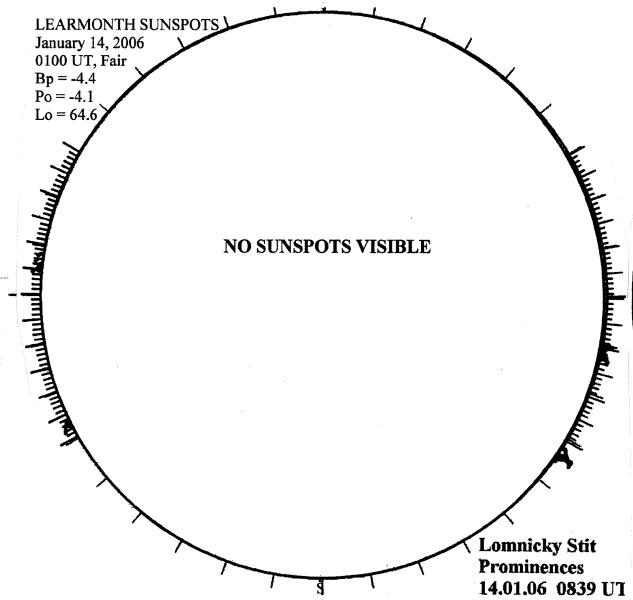
---- KANZELHOHE H-ALPHA

E-

0753 UT

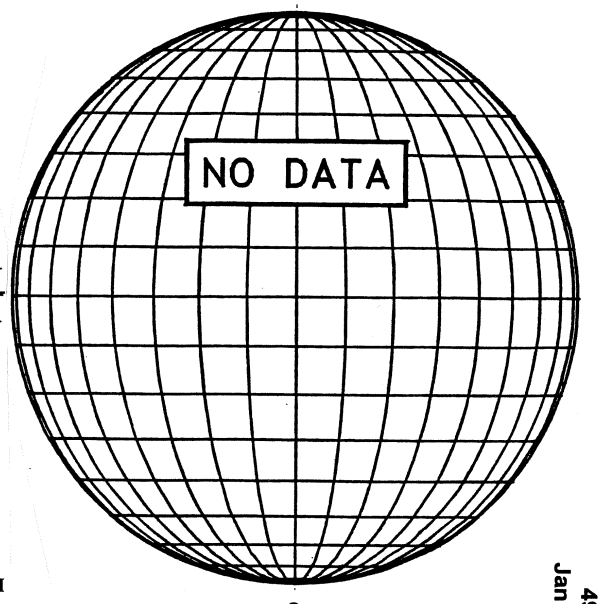
S

LEARMONTH SUNSPOTS



0839 UT LOMN Prom S

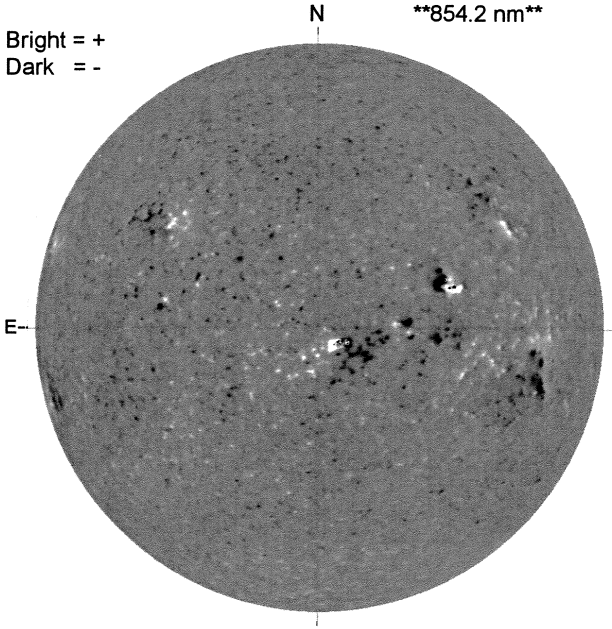
SACRAMENTO PEAK CORONA (1.15 Radii)----



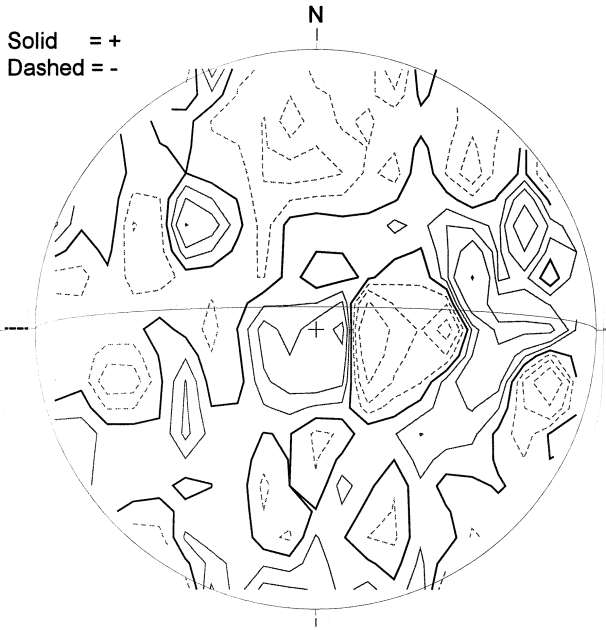
S

JANUARY 15, 2006 (P= -4.61, Bo = -4.54, Lo = 51.92)

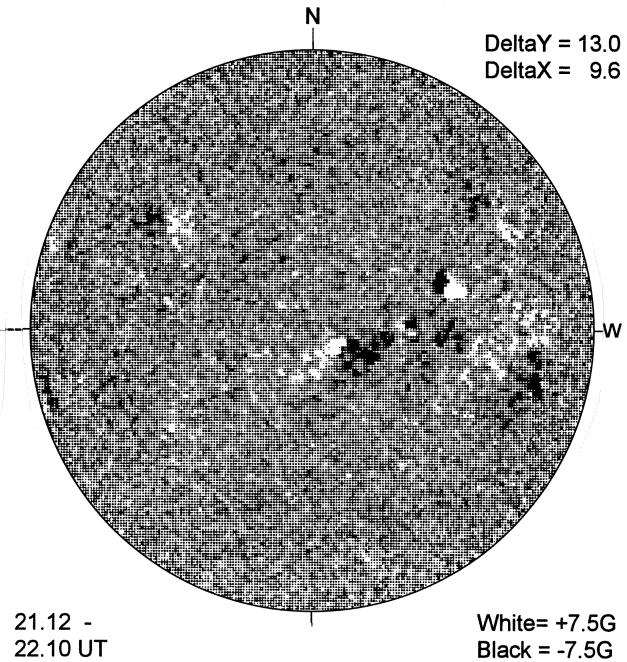
KITT PEAK MAGNETOGRAM--SOLIS



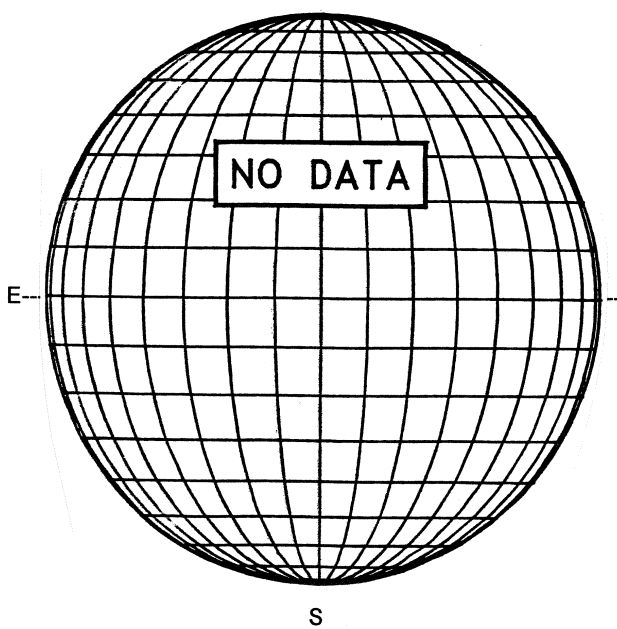
STANFORD MAGNETOGRAM



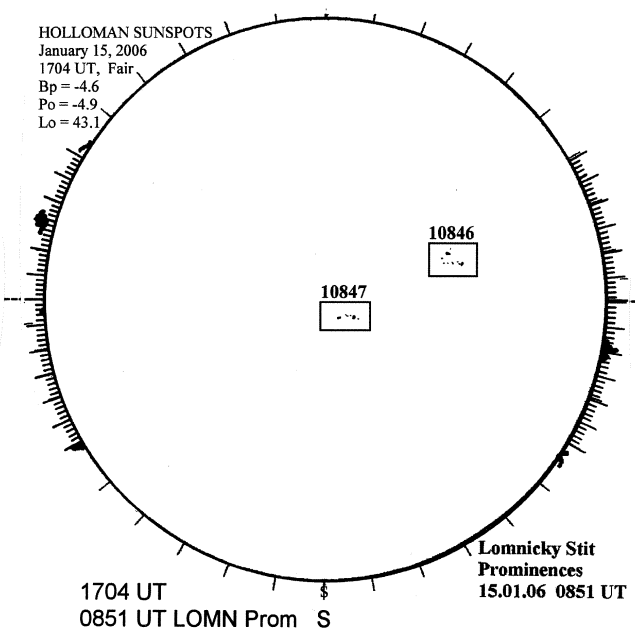
MT. WILSON MAGNETOGRAM



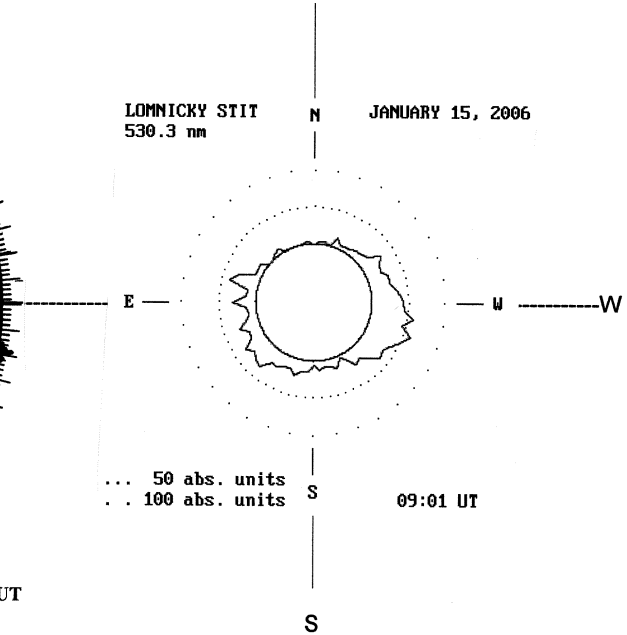
KANZELHOHE H-ALPHA



HOLLOMAN SUNSPOTS

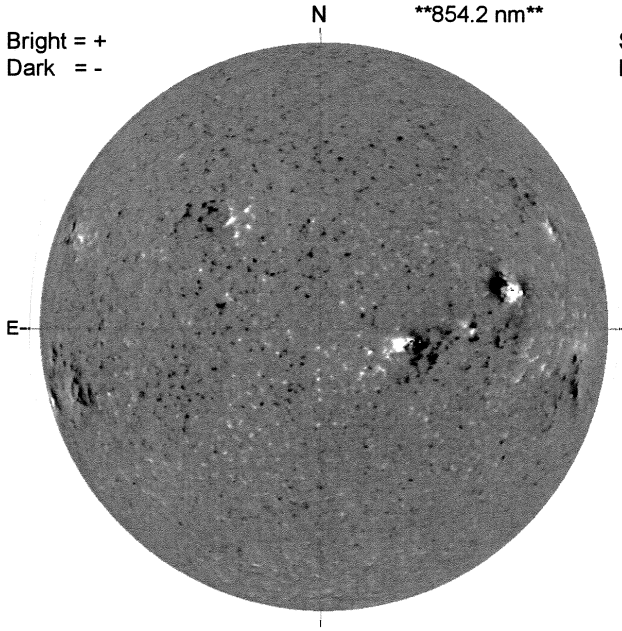


LOMNICKY PEAK CORONA (1.04 Radii)

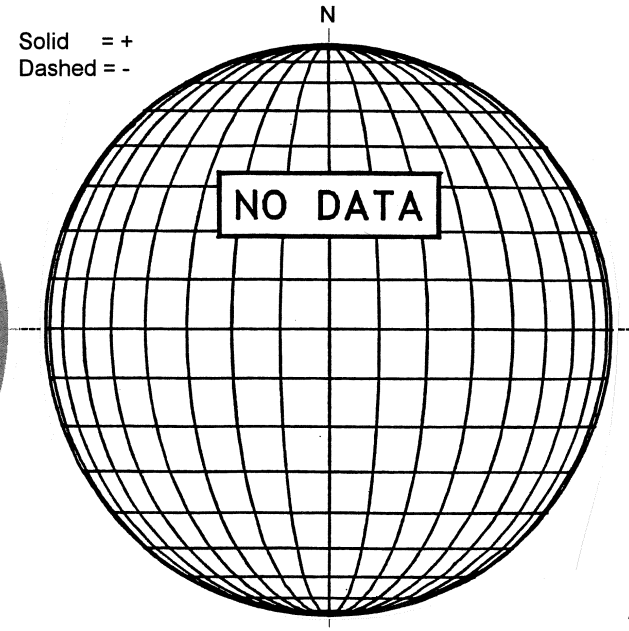


JANUARY 16, 2006 (P= -5.07, Bo = -4.64, Lo = 38.76)

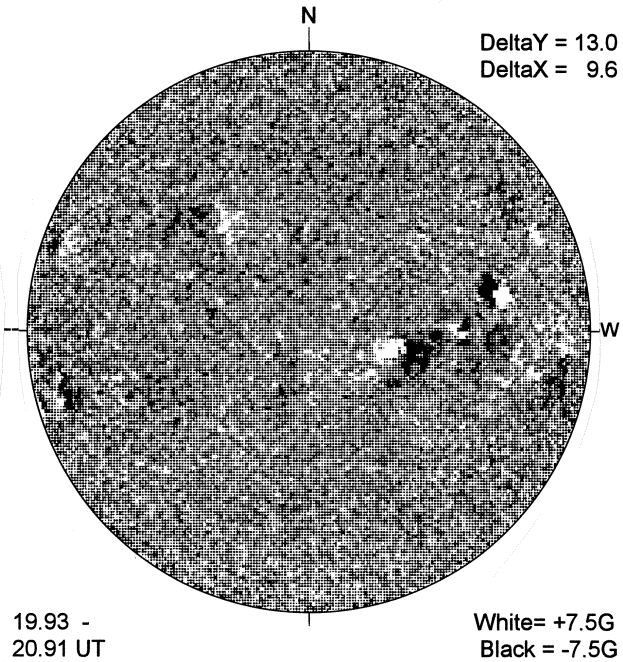
KITT PEAK MAGNETOGRAM--SOLIS



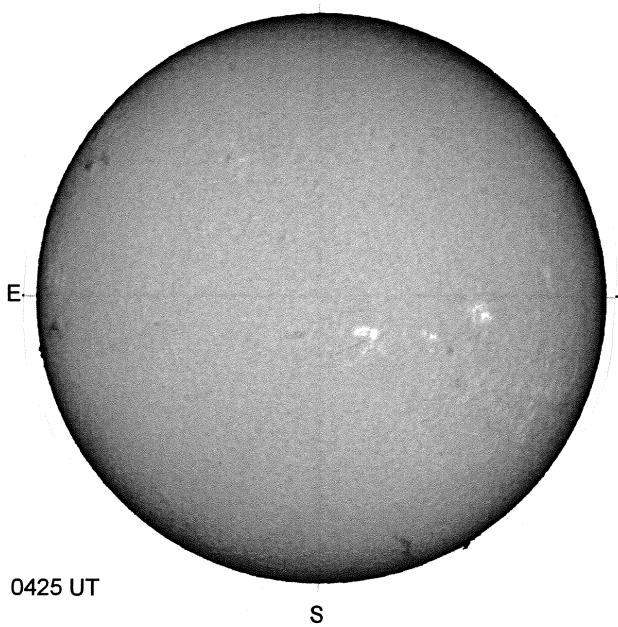
STANFORD MAGNETOGRAM



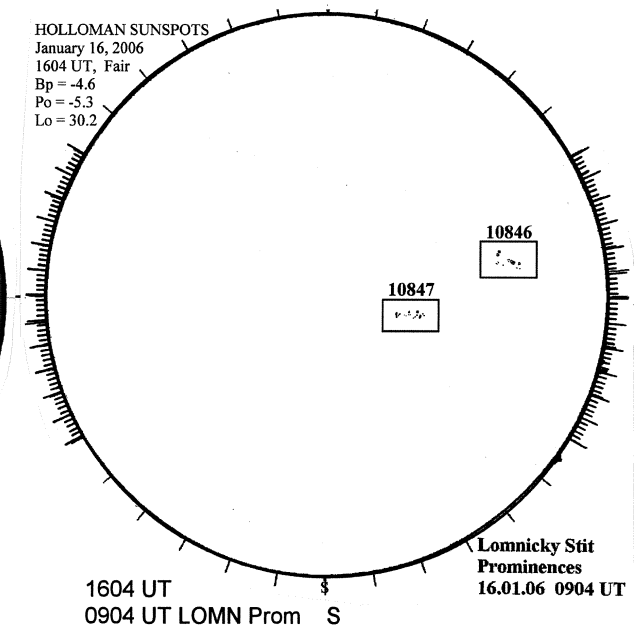
MT. WILSON MAGNETOGRAM



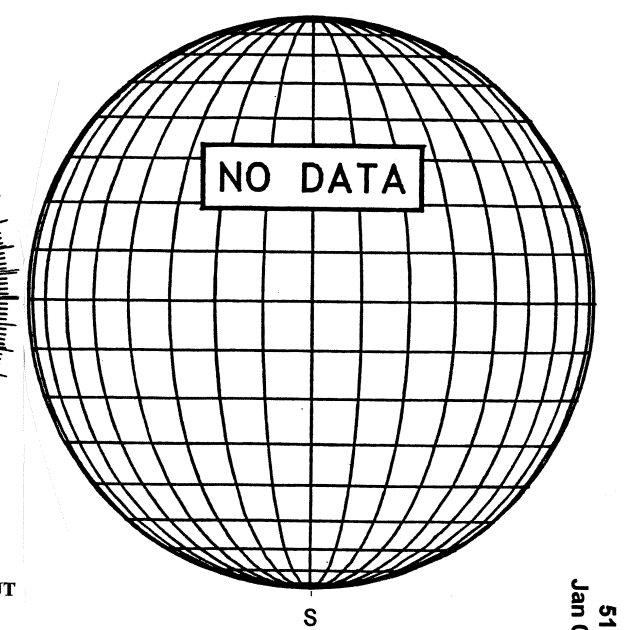
----- YUNNAN H-ALPHA



HOLLOMAN SUNSPOTS

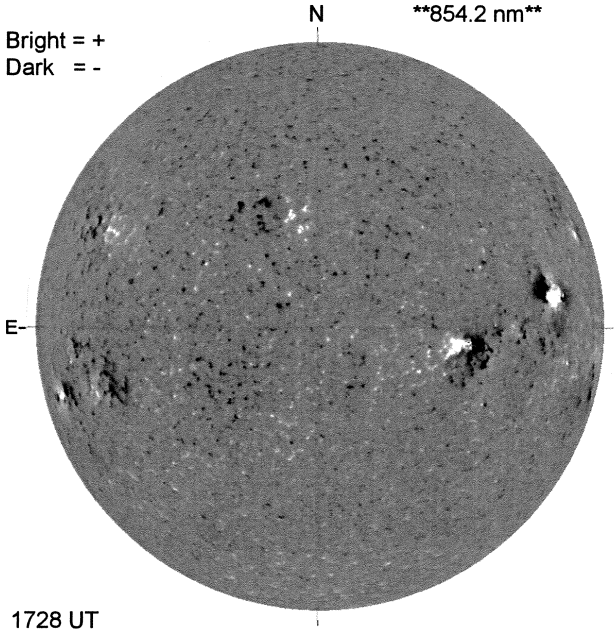


SACRAMENTO PEAK CORONA (1.15 Radii)----

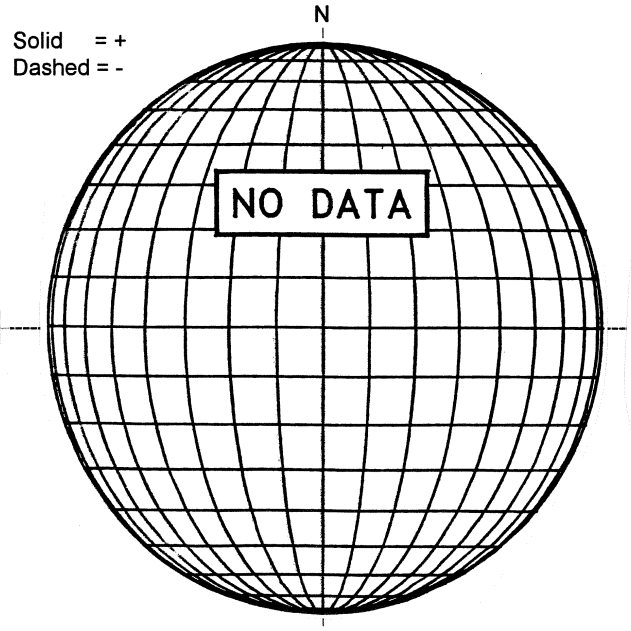


JANUARY 17, 2005 (P= -5.54, Bo = -4.74, Lo = 25.59)

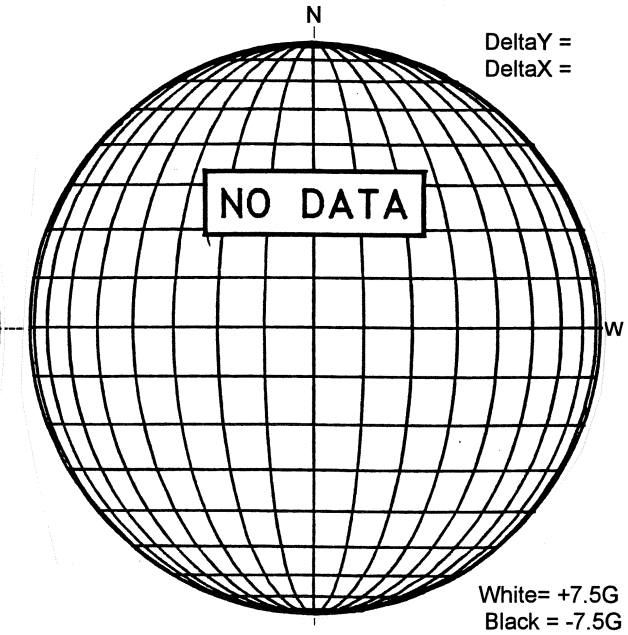
KITT PEAK MAGNETOGRAM--SOLIS



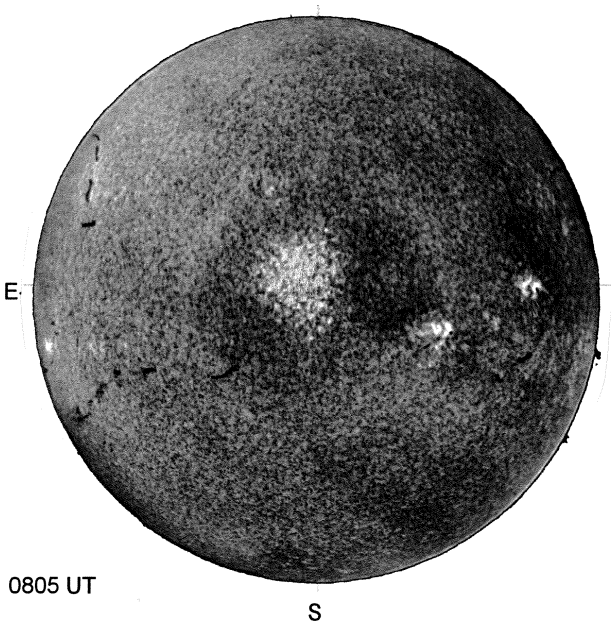
STANFORD MAGNETOGRAM



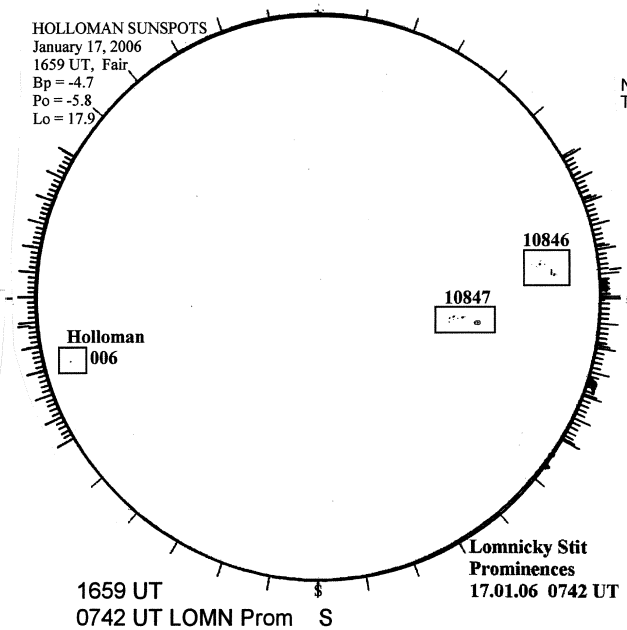
MT. WILSON MAGNETOGRAM



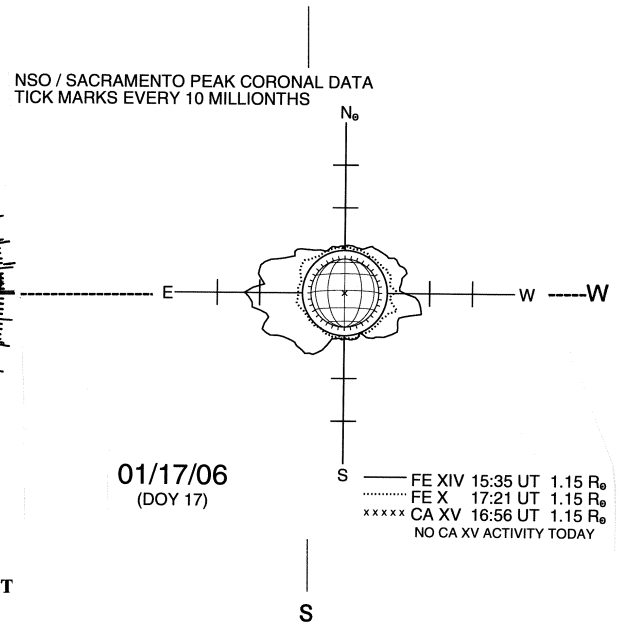
KANZELHOHE H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)----

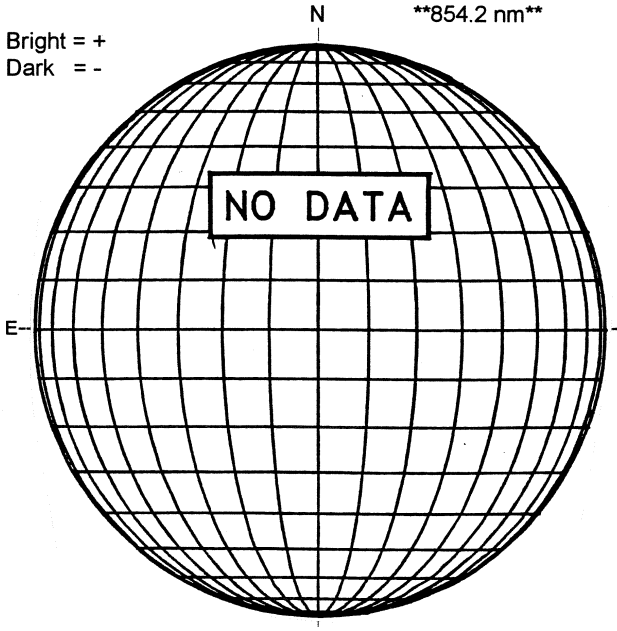


JANUARY 18, 2006 (P= -6.00, Bo = -4.84, Lo = 12.42)

KITT PEAK MAGNETOGRAM--SOLIS

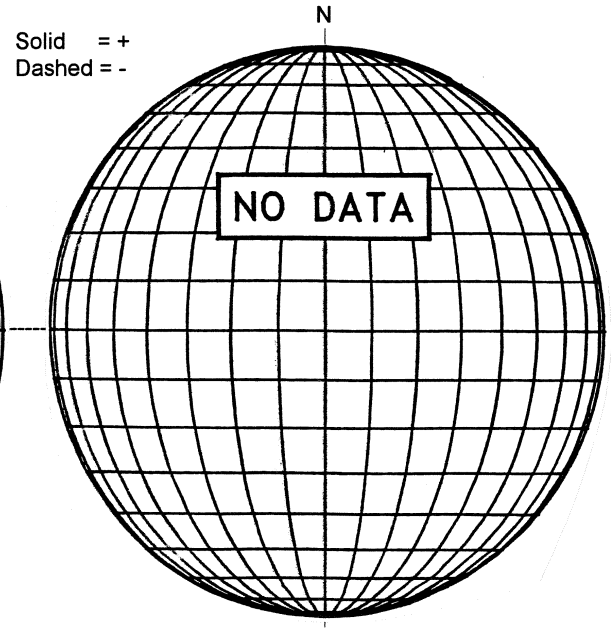
854.2 nm

Bright = +
Dark = -



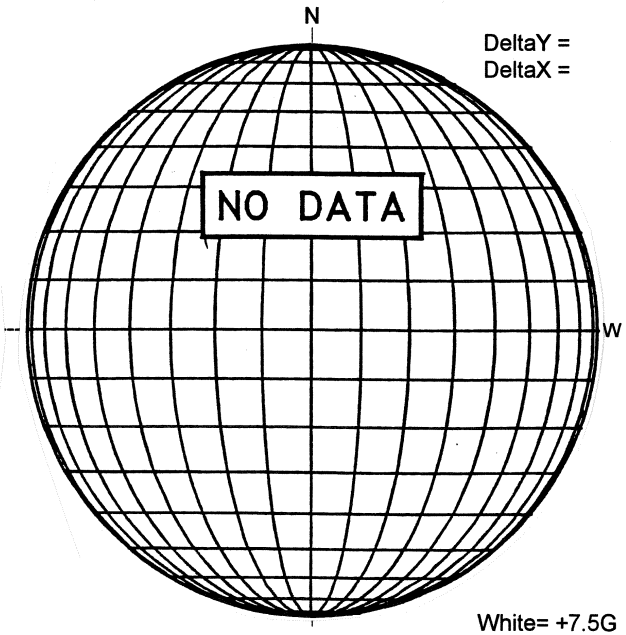
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



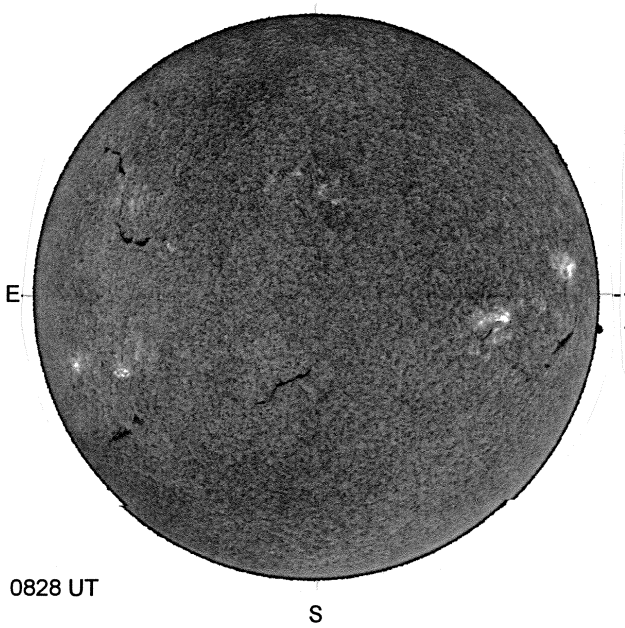
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



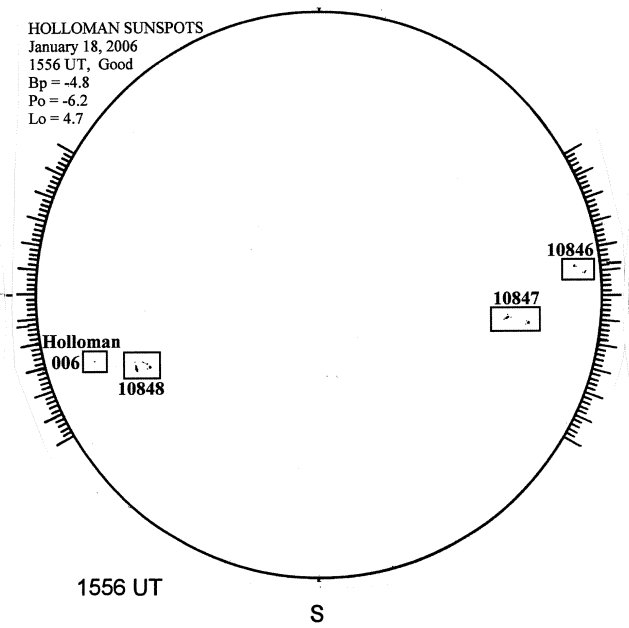
White= +7.5G
Black = -7.5G

CATANIA H-ALPHA



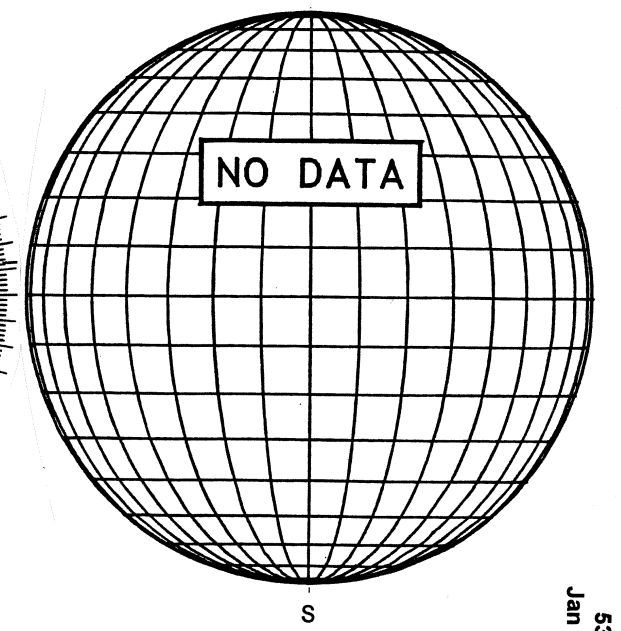
0828 UT

HOLLOMAN SUNSPOTS



1556 UT

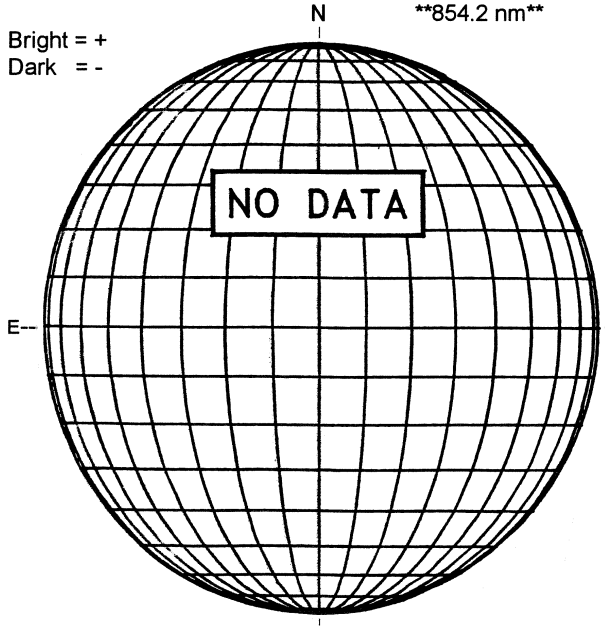
SACRAMENTO PEAK CORONA (1.15 Radii)----



JANUARY 19, 2006 (P= -6.46, Bo = -4.93, Lo = 359.25)

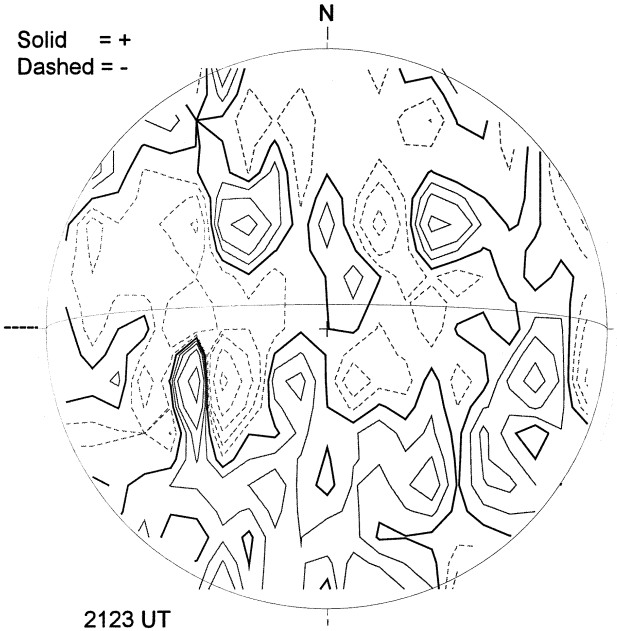
KITT PEAK MAGNETOGRAM--SOLIS

Bright = +
Dark = -



STANFORD MAGNETOGRAM

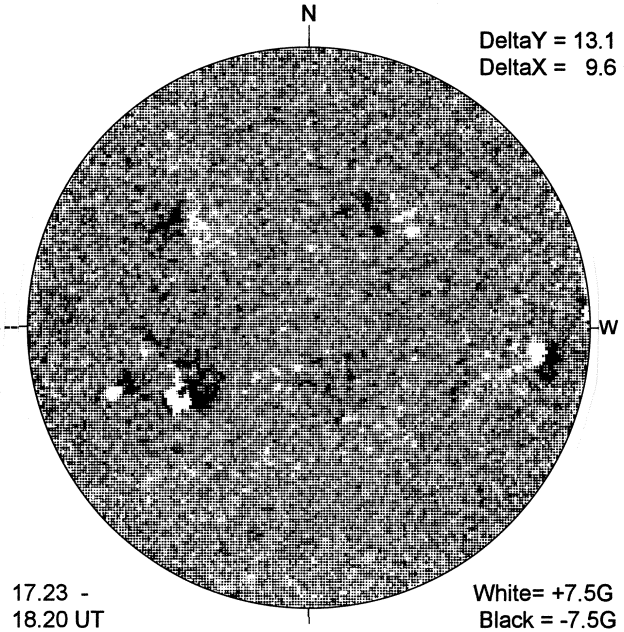
Solid = +
Dashed = -



2123 UT

MT. WILSON MAGNETOGRAM

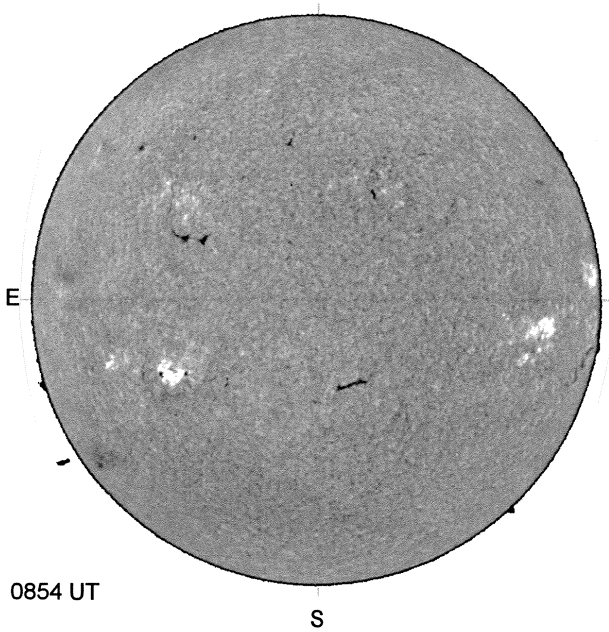
DeltaY = 13.1
DeltaX = 9.6



17.23 -
18.20 UT

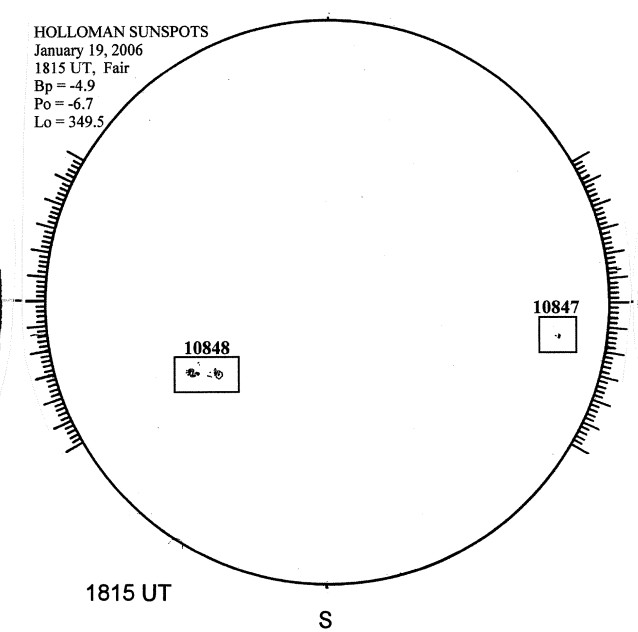
White= +7.5G
Black = -7.5G

CATANIA H-ALPHA



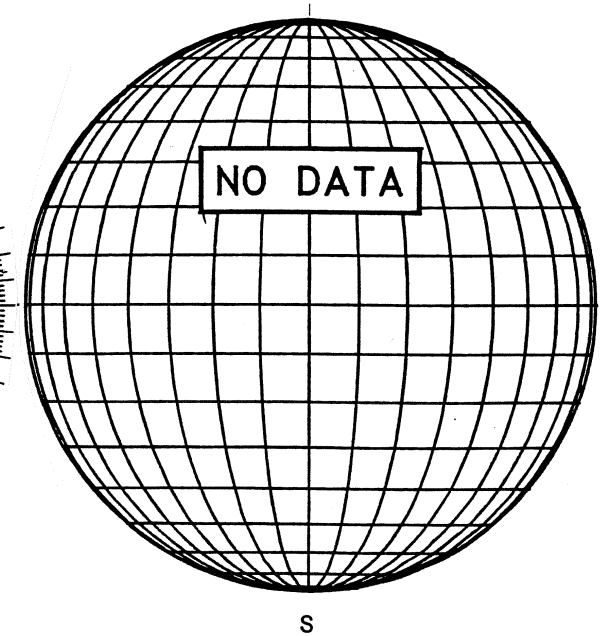
0854 UT

HOLLOMAN SUNSPOTS



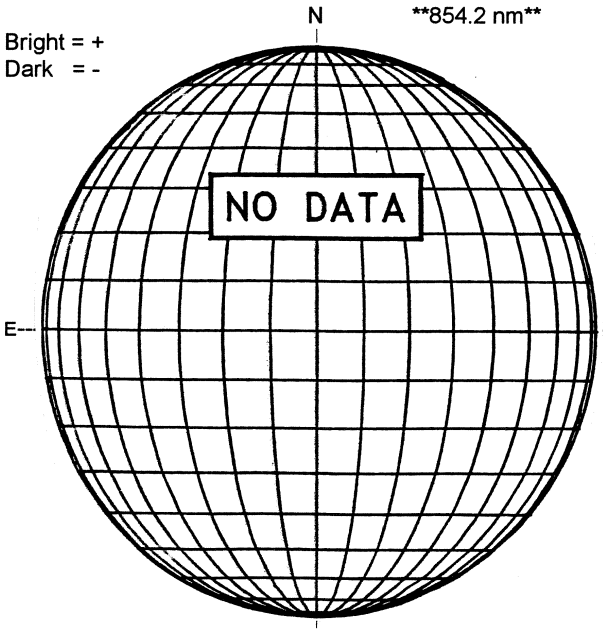
1815 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

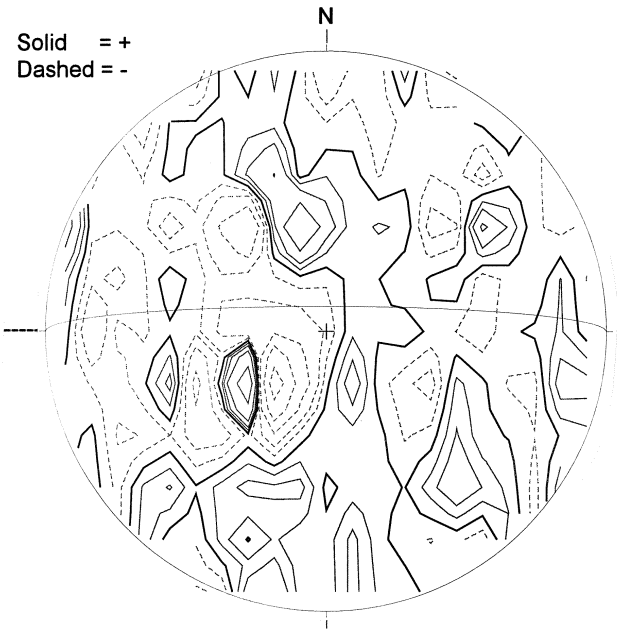


JANUARY 20, 2006 (P= -6.92, Bo = -5.02, Lo = 346.09)

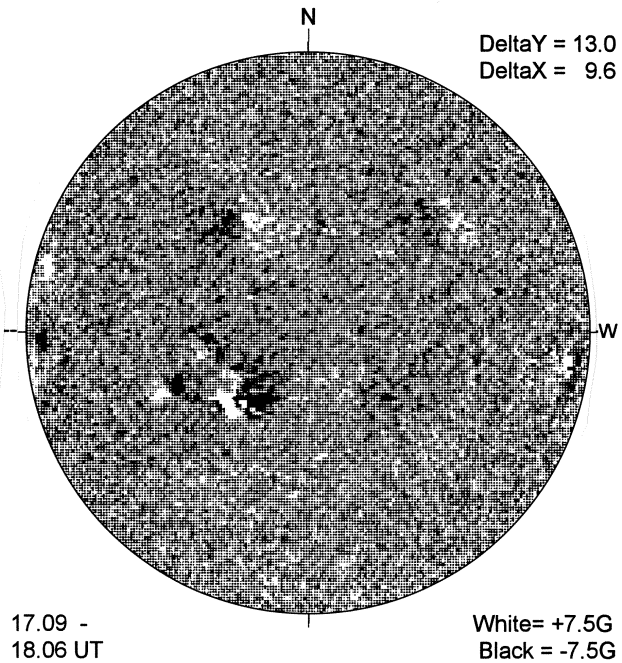
KITT PEAK MAGNETOGRAM--SOLIS



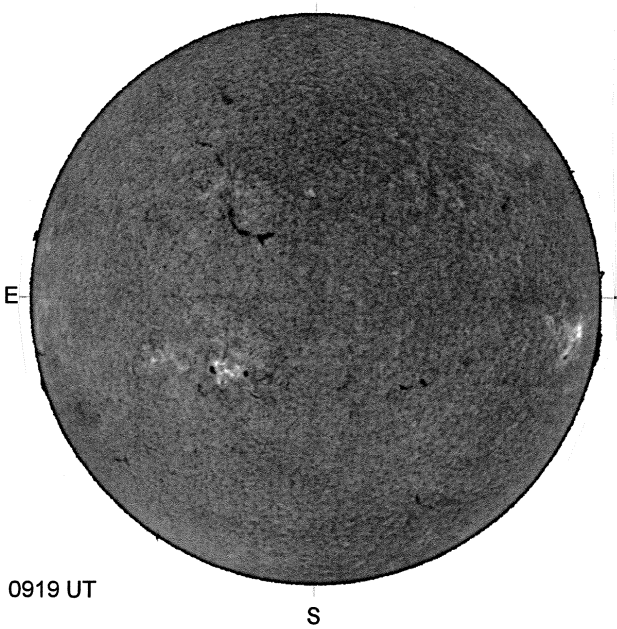
STANFORD MAGNETOGRAM



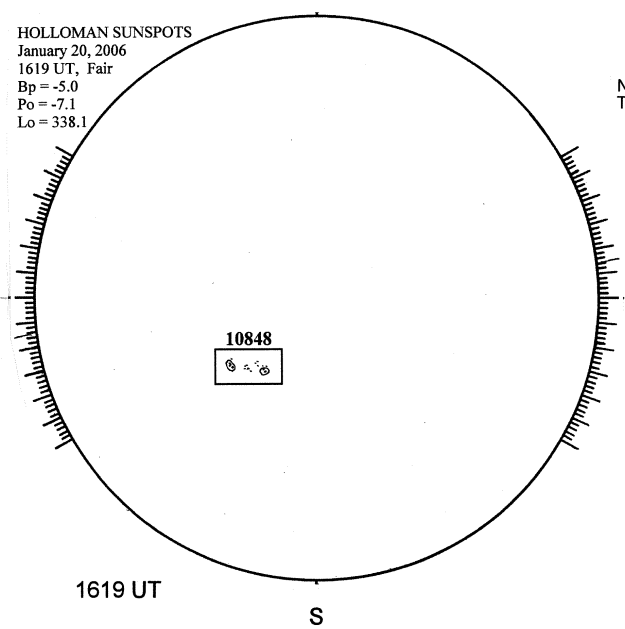
MT. WILSON MAGNETOGRAM



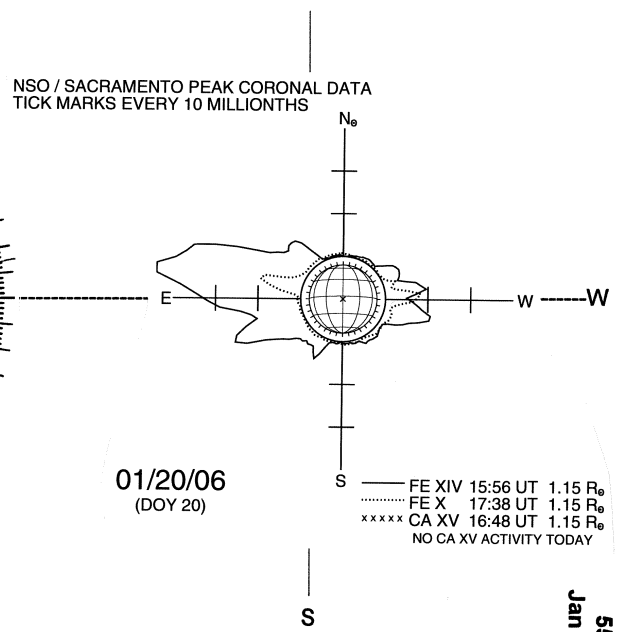
---- CATANIA H-ALPHA



HOLLOMAN SUNSPOTS



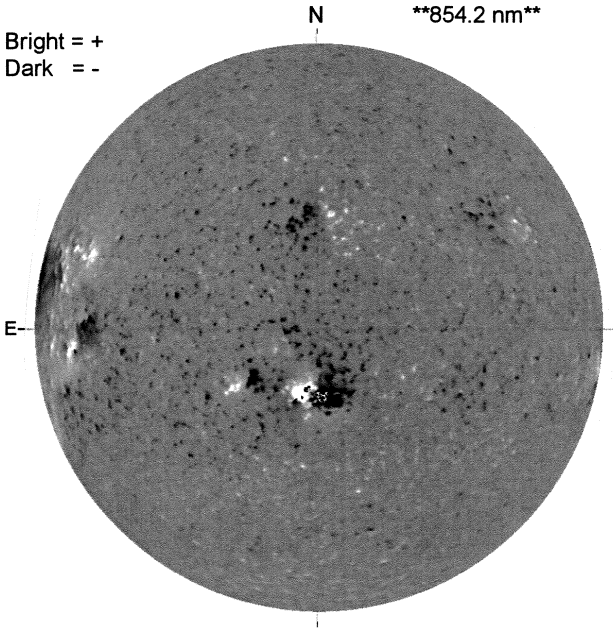
SACRAMENTO PEAK CORONA (1.15 Radii)----



JANUARY 21, 2006 (P= -7.37, Bo = -5.12, Lo = 332.92)

KITT PEAK MAGNETOGRAM--SOLIS

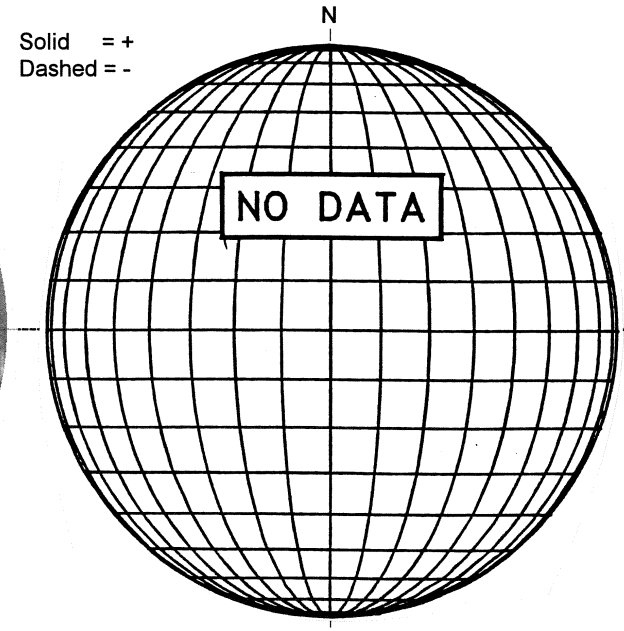
Bright = +
Dark = -



1920 UT

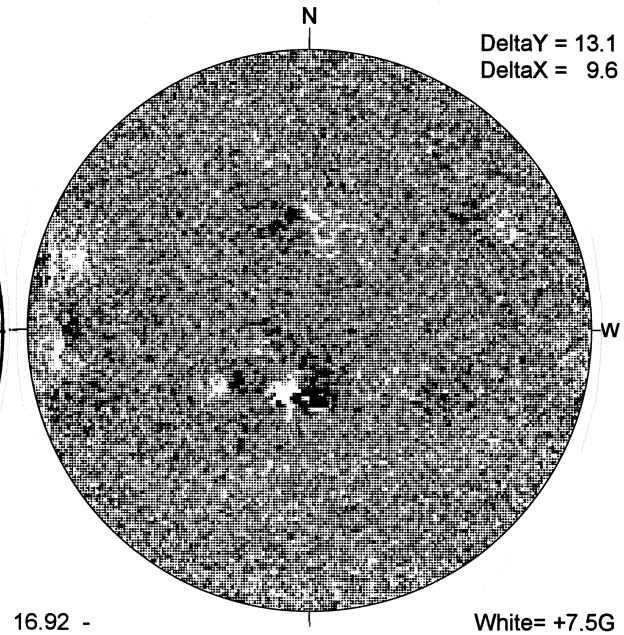
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

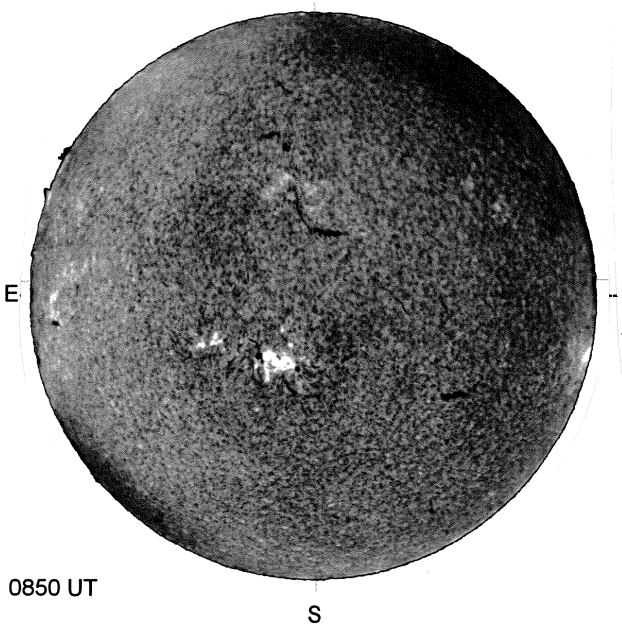
DeltaY = 13.1
DeltaX = 9.6



16.92 -
17.89 UT

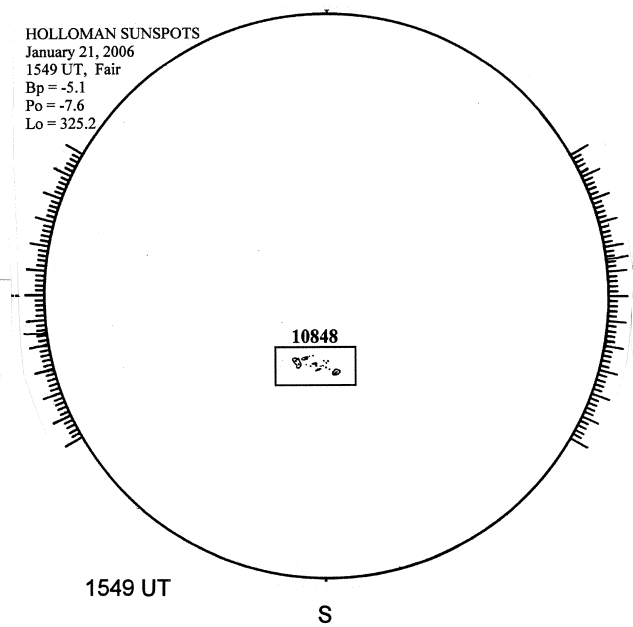
White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA



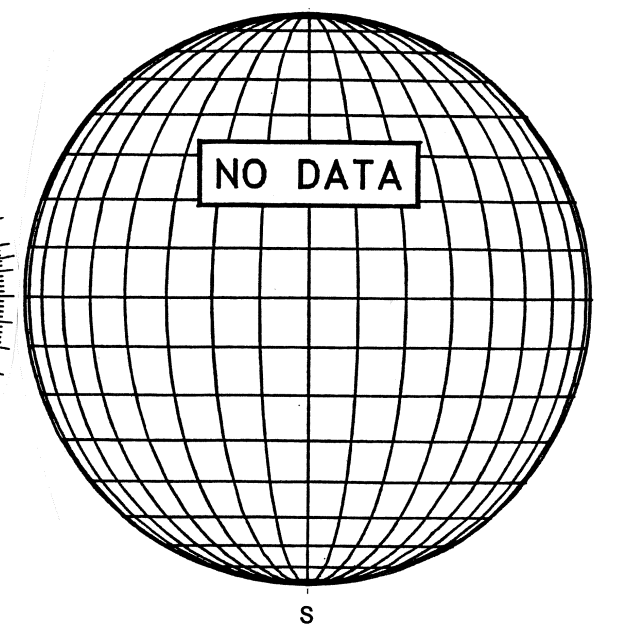
0850 UT

HOLLOMAN SUNSPOTS



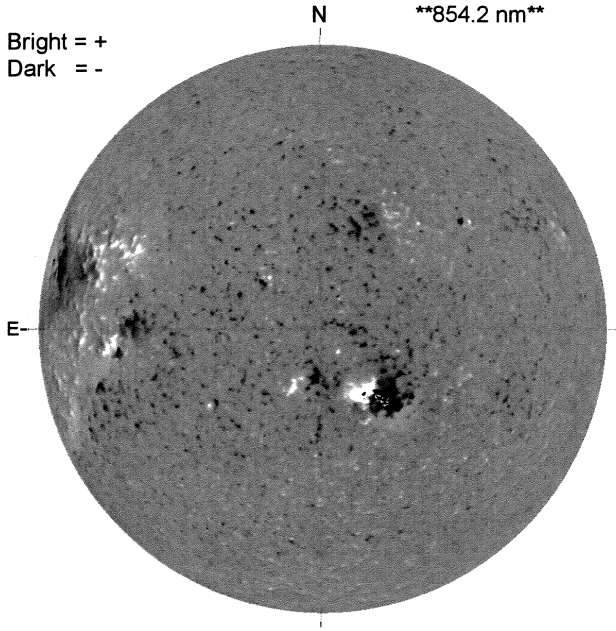
1549 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

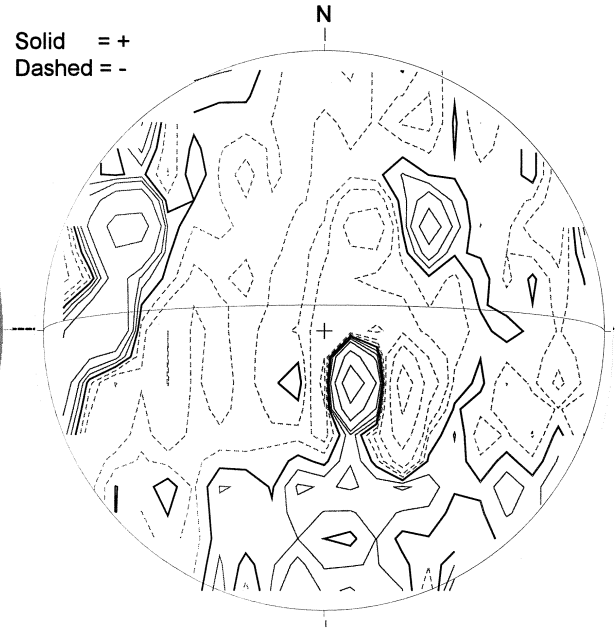


JANUARY 22, 2006 (P= -7.82, Bo = -5.21, Lo = 319.75)

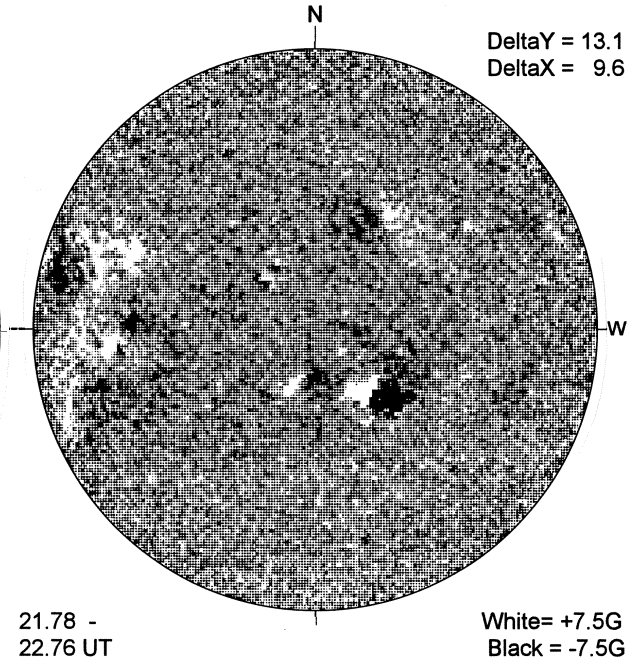
KITT PEAK MAGNETOGRAM--SOLIS



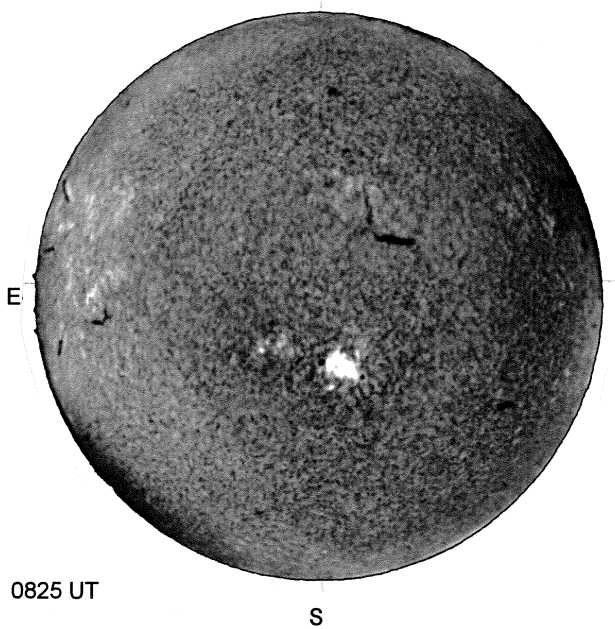
STANFORD MAGNETOGRAM



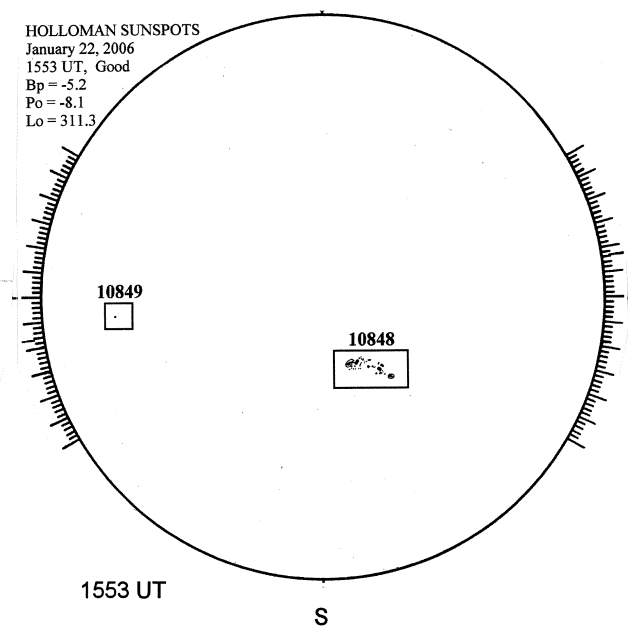
MT. WILSON MAGNETOGRAM



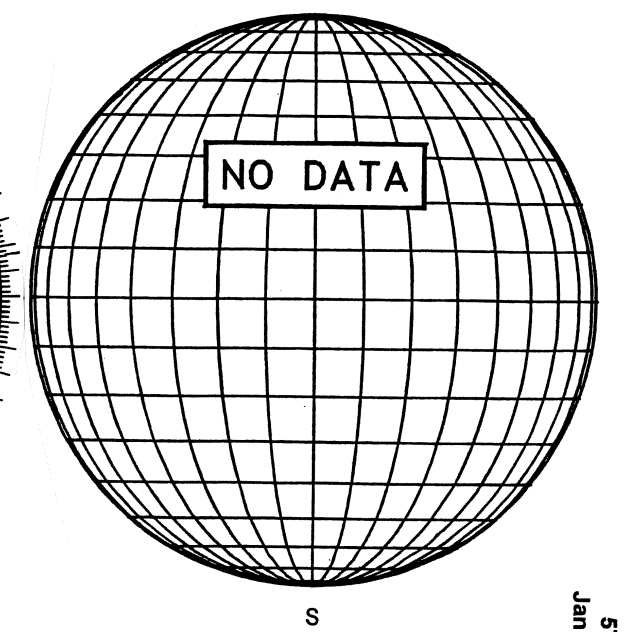
KANZELHOHE H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)----

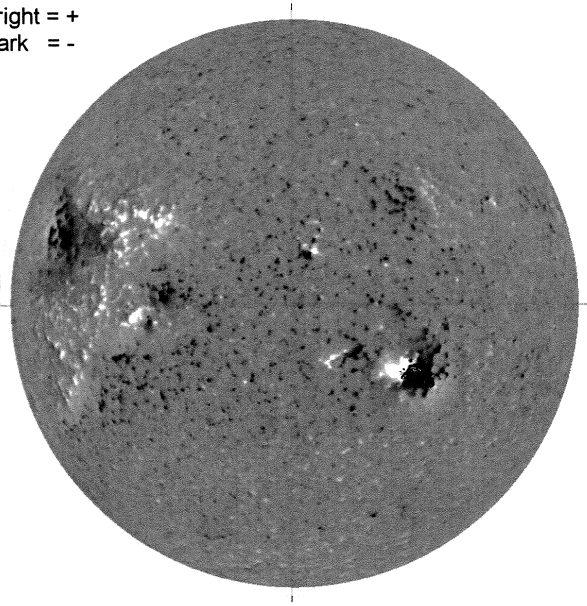


JANUARY 23, 2006 (P= -8.27, Bo = -5.30, Lo = 306.59)

KITT PEAK MAGNETOGRAM--SOLIS

N **854.2 nm**

Bright = +
Dark = -



E-

2016 UT

STANFORD MAGNETOGRAM

N

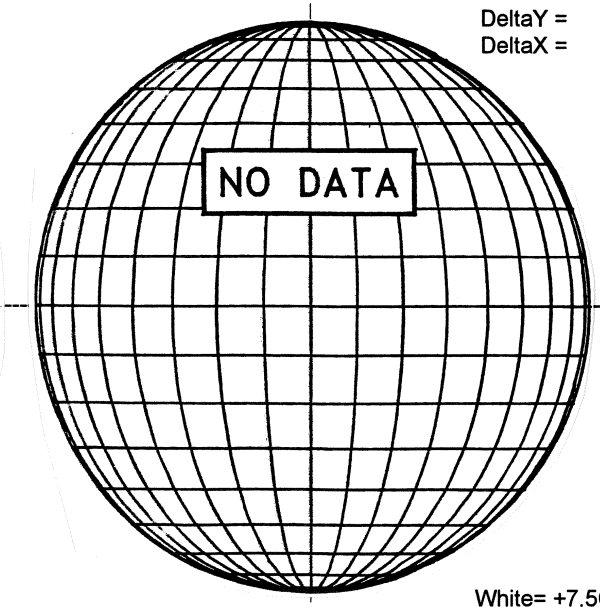
Solid = +
Dashed = -

2118 UT

MT. WILSON MAGNETOGRAM

N

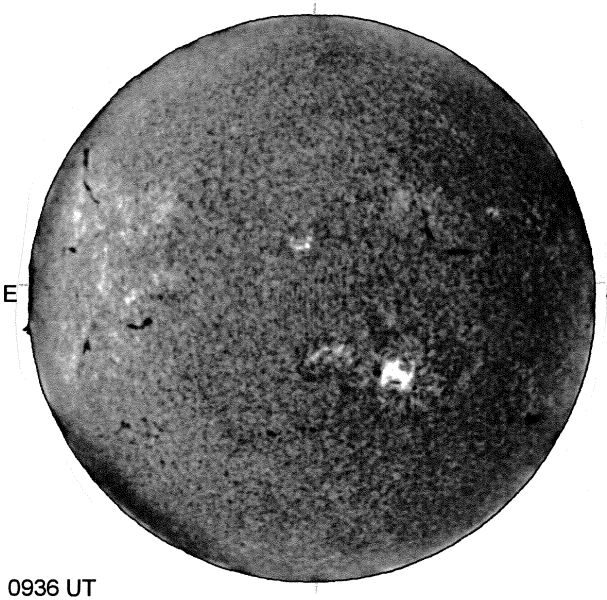
DeltaY =
DeltaX =



-W

White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA

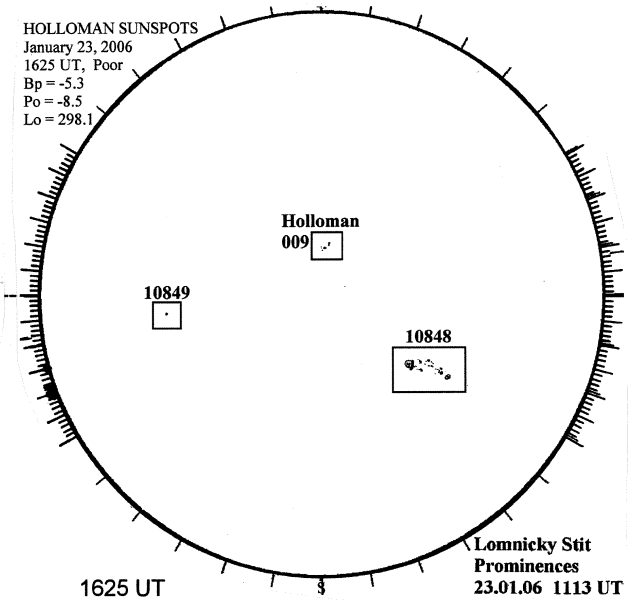


E

0936 UT

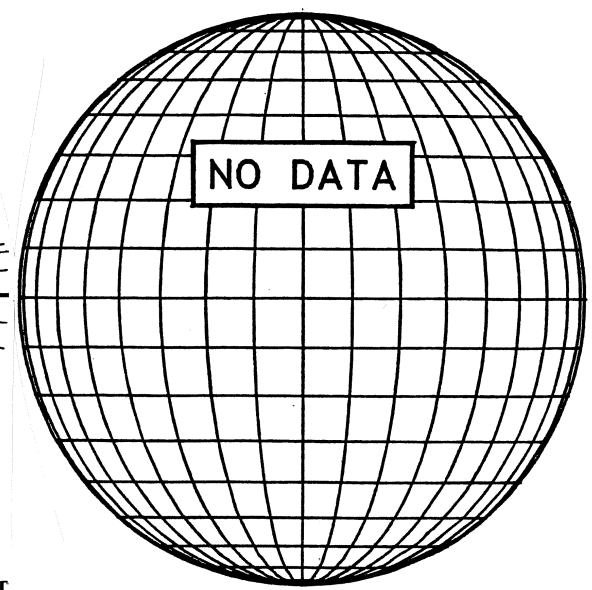
S

HOLLOMAN SUNSPOTS



1625 UT
1113 UT LOMN Prom S

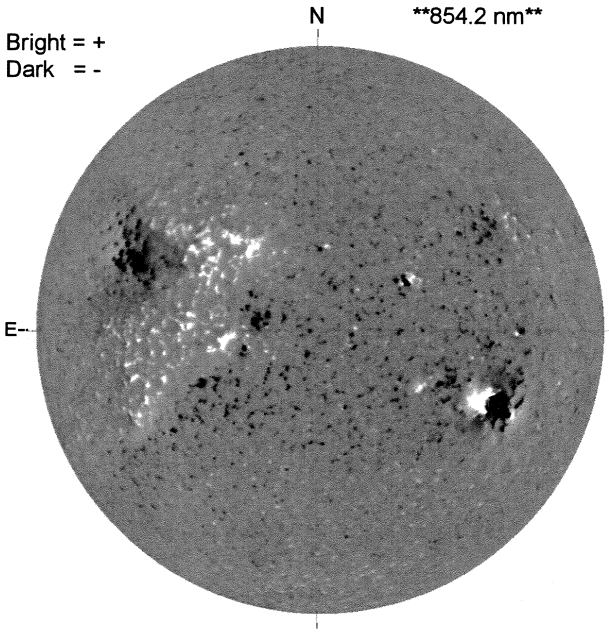
SACRAMENTO PEAK CORONA (1.15 Radii)----



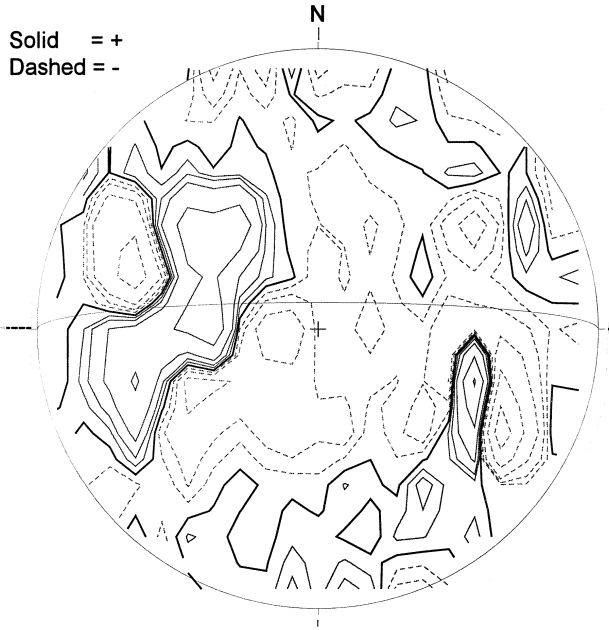
S

JANUARY 24, 2006 (P= -8.71, Bo = -5.38, Lo = 293.42)

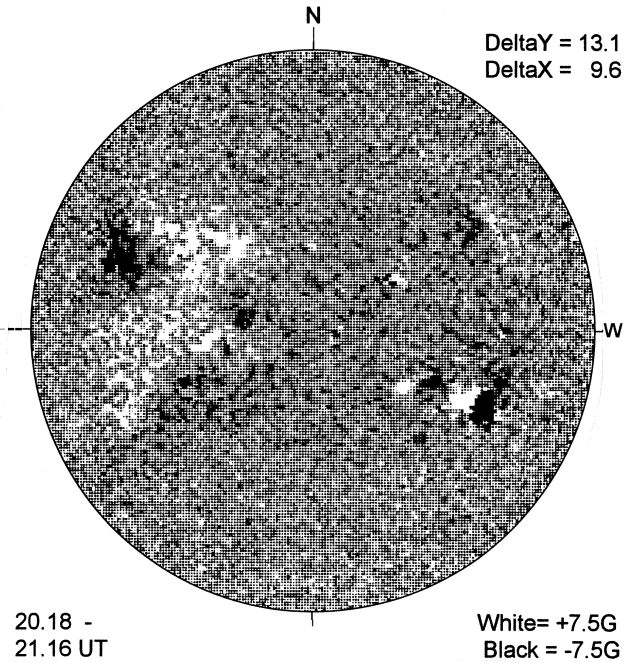
KITT PEAK MAGNETOGRAM--SOLIS



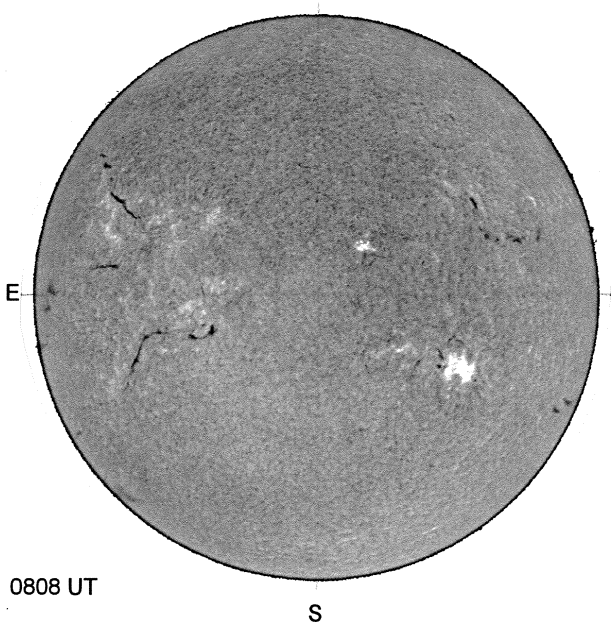
STANFORD MAGNETOGRAM



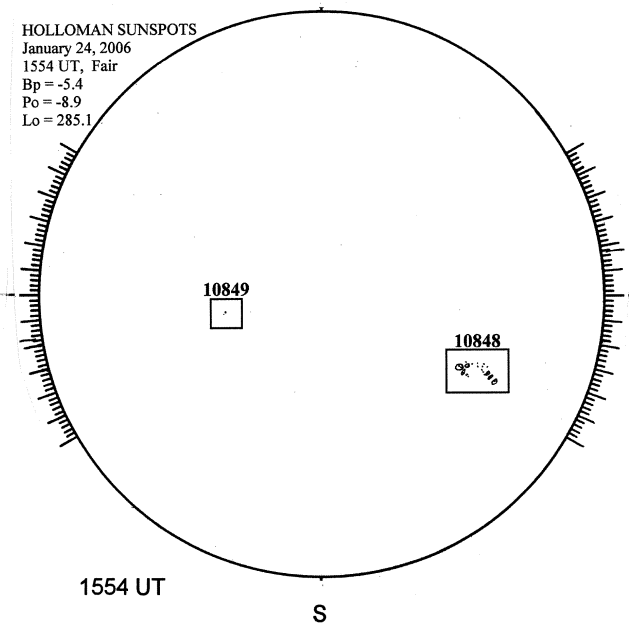
MT. WILSON MAGNETOGRAM



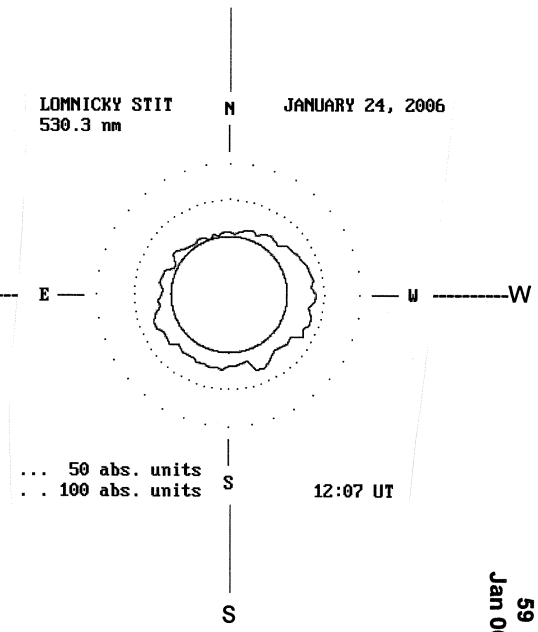
CATANIA H-ALPHA



HOLLOMAN SUNSPOTS



LOMNICKY PEAK CORONA (1.04 Radii)----

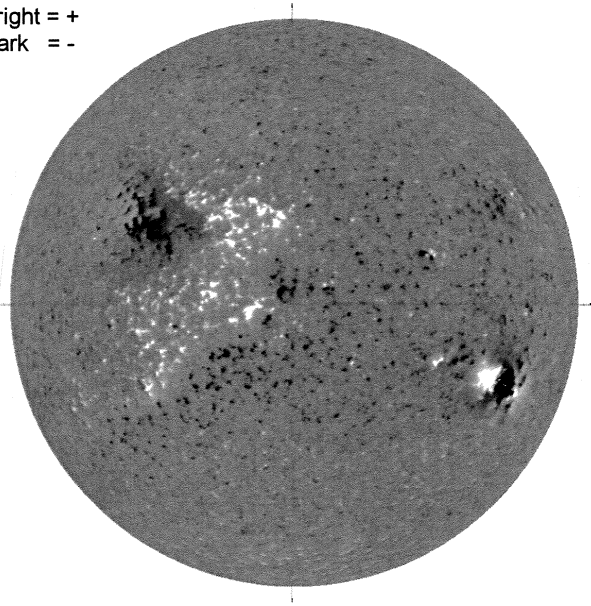


JANUARY 25, 2006 (P= -9.15, Bo = -5.47, Lo = 280.25)

KITT PEAK MAGNETOGRAM--SOLIS

N **854.2 nm**

Bright = +
Dark = -



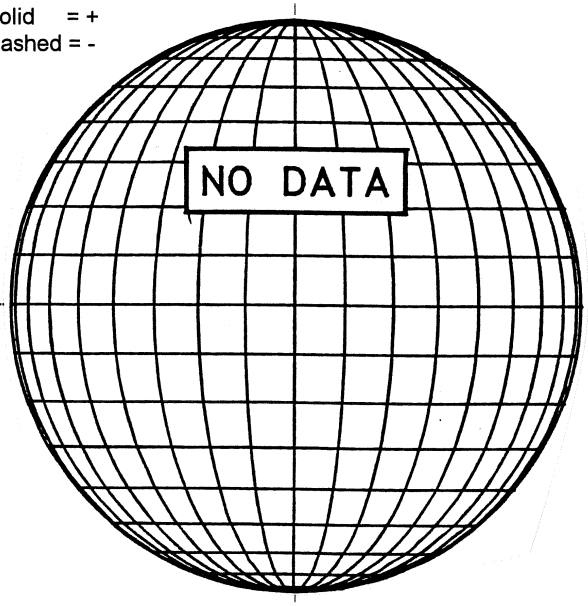
E

1809 UT

STANFORD MAGNETOGRAM

N

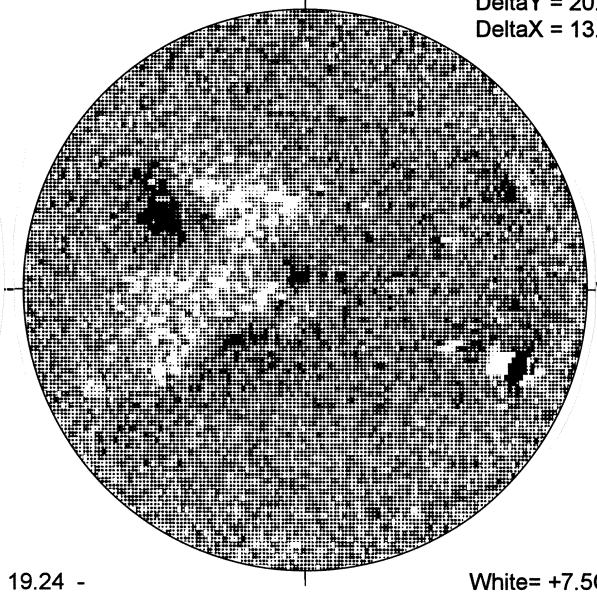
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 20.0
DeltaX = 13.0

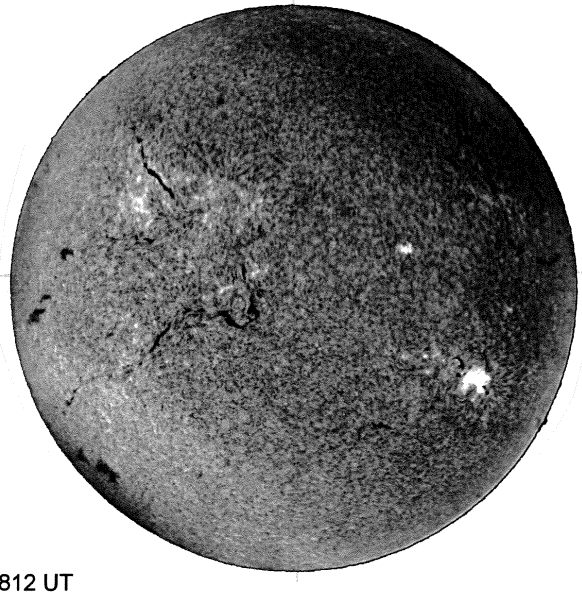


W

19.24 -
19.66 UT

White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA

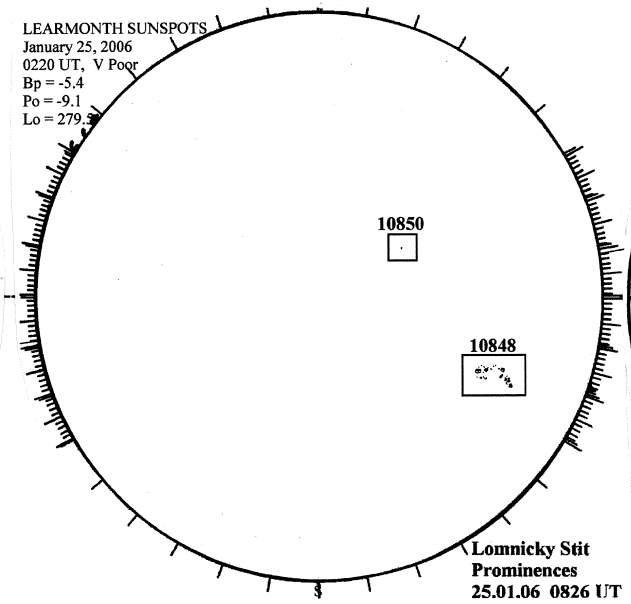


E

0812 UT

S

LEARMONTH SUNSPOTS



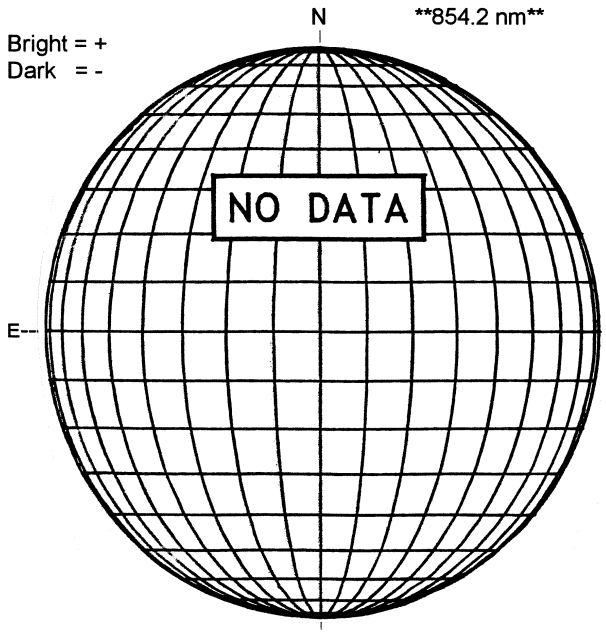
0826 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)

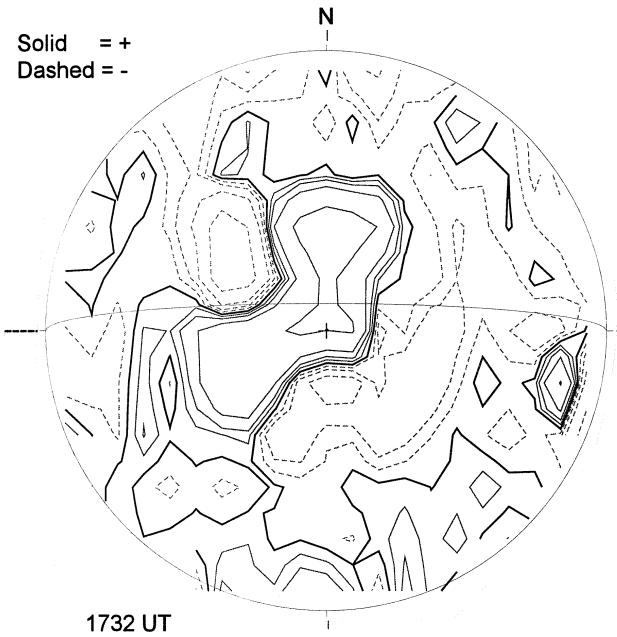
S

JANUARY 26, 2006 (P= -9.59, Bo = -5.55, Lo = 267.09)

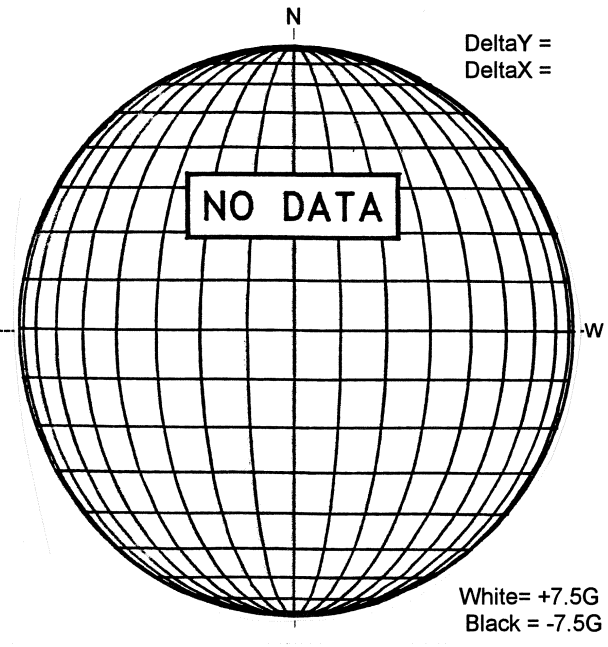
KITT PEAK MAGNETOGRAM--SOLIS



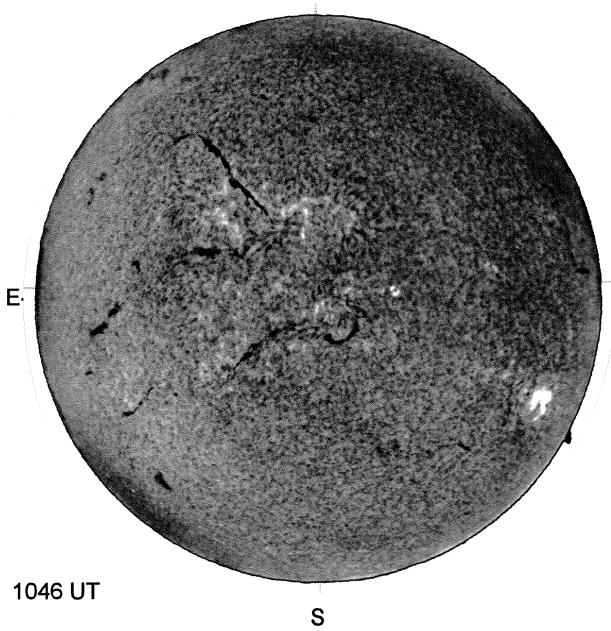
STANFORD MAGNETOGRAM



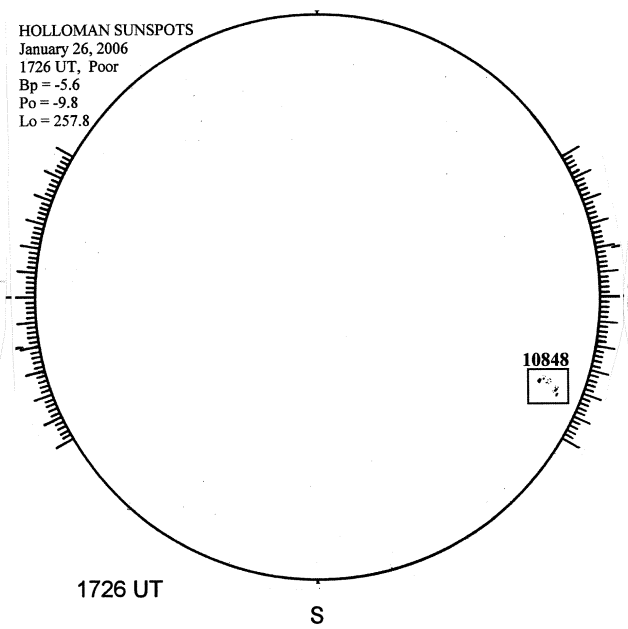
MT. WILSON MAGNETOGRAM



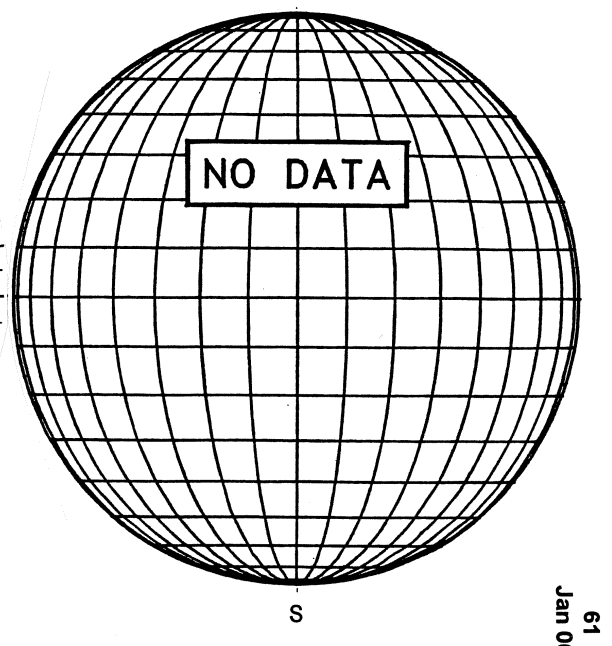
KANZELHOHE H-ALPHA



HOLLOMAN SUNSPOTS

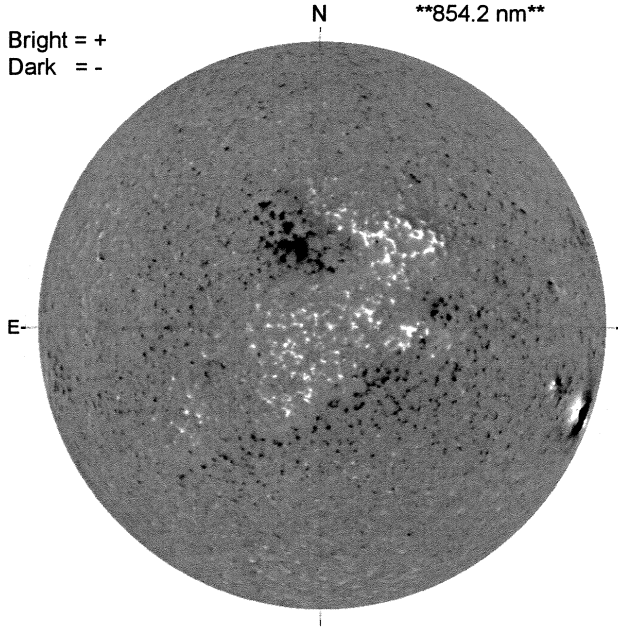


SACRAMENTO PEAK CORONA (1.15 Radii)----

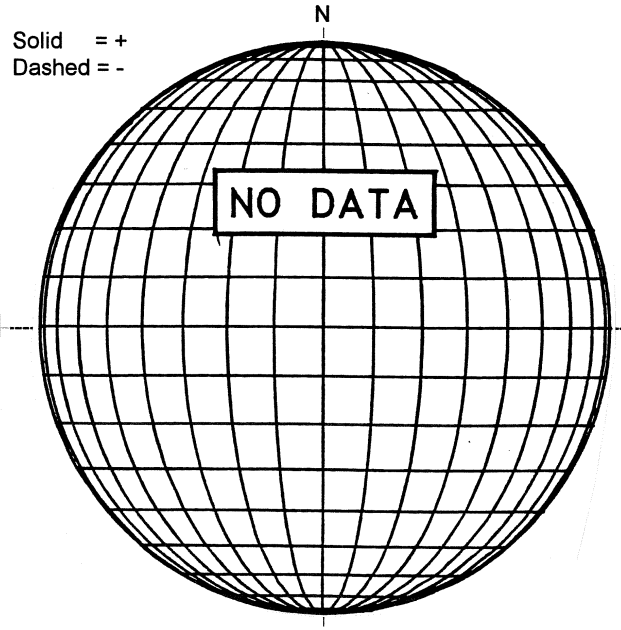


JANUARY 27, 2006 (P= -10.02, Bo = -5.63, Lo = 253.92)

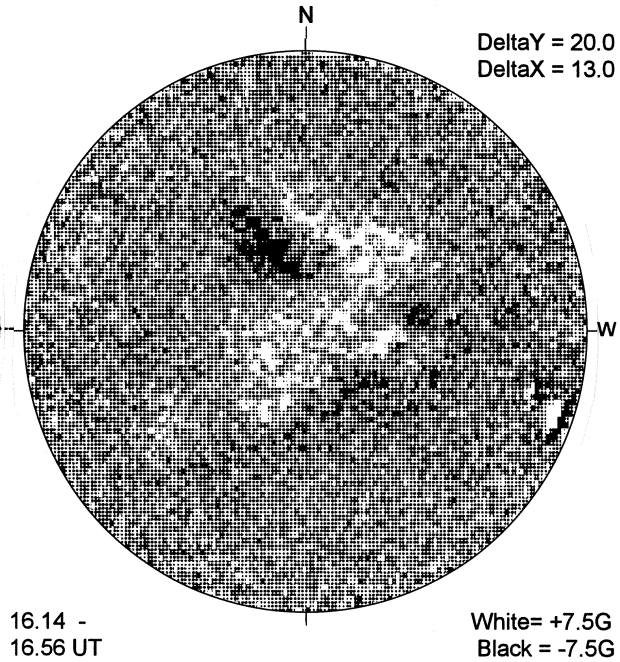
KITT PEAK MAGNETOGRAM--SOLIS



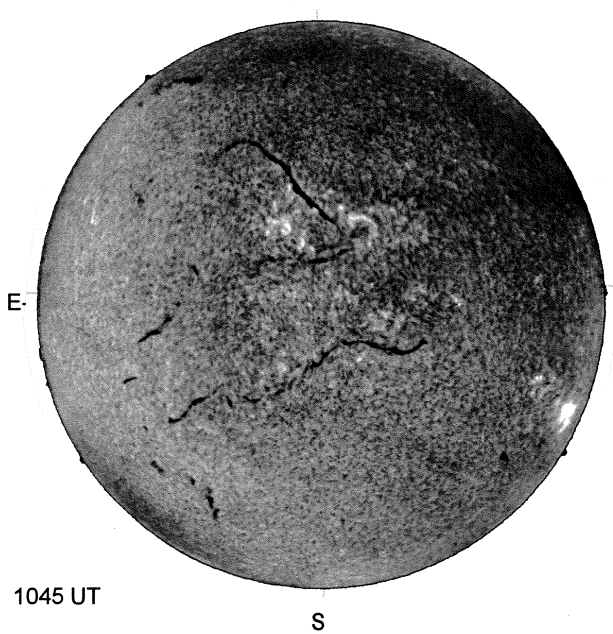
STANFORD MAGNETOGRAM



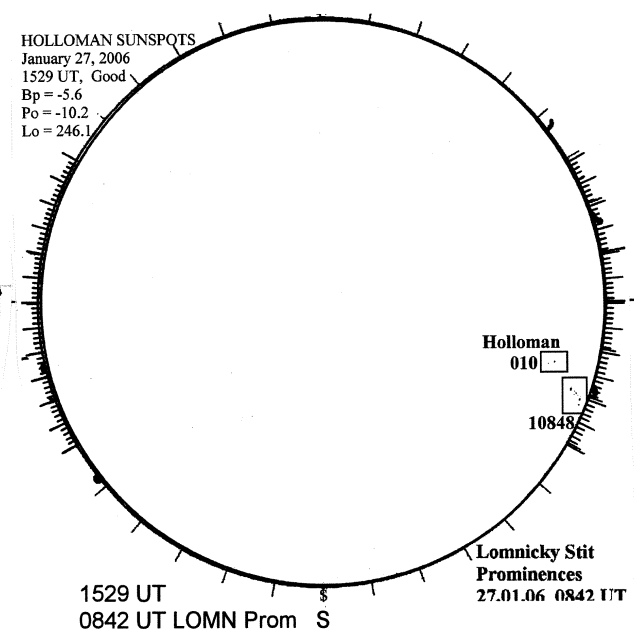
MT. WILSON MAGNETOGRAM



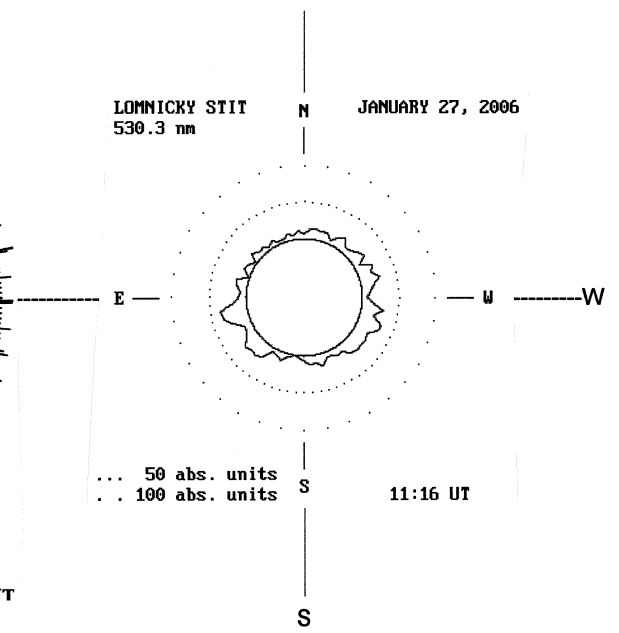
KANZELHOHE H-ALPHA



HOLLOMAN SUNSPOTS

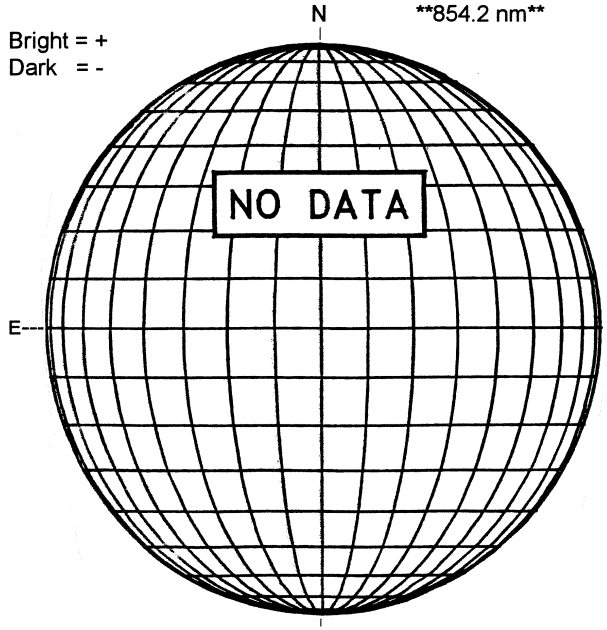


LOMNICKY PEAK CORONA (1.04 Radii)----

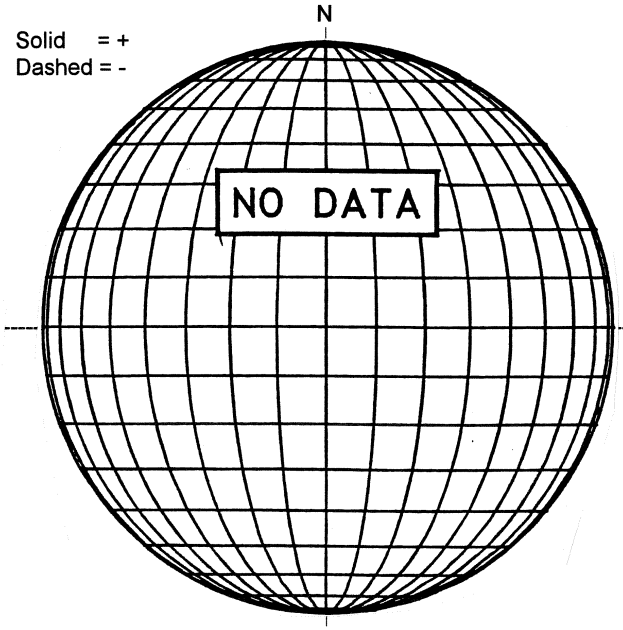


JANUARY 28, 2006 (P= -10.45, Bo = -5.71, Lo = 240.75)

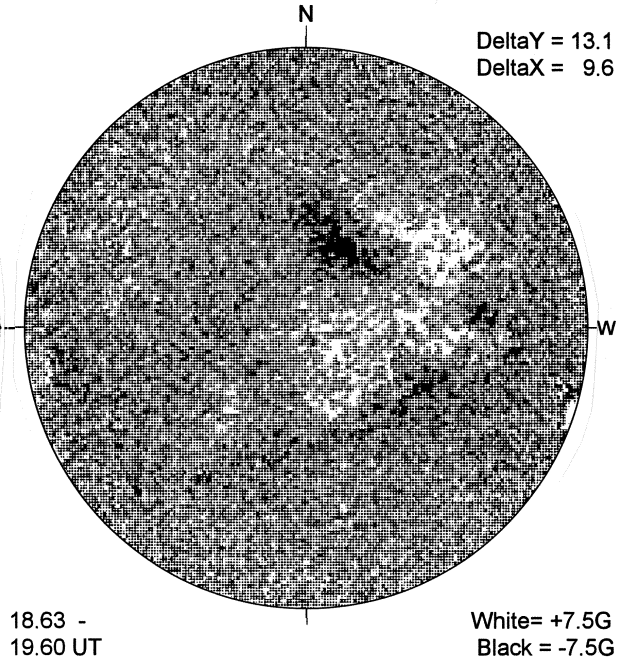
KITT PEAK MAGNETOGRAM--SOLIS



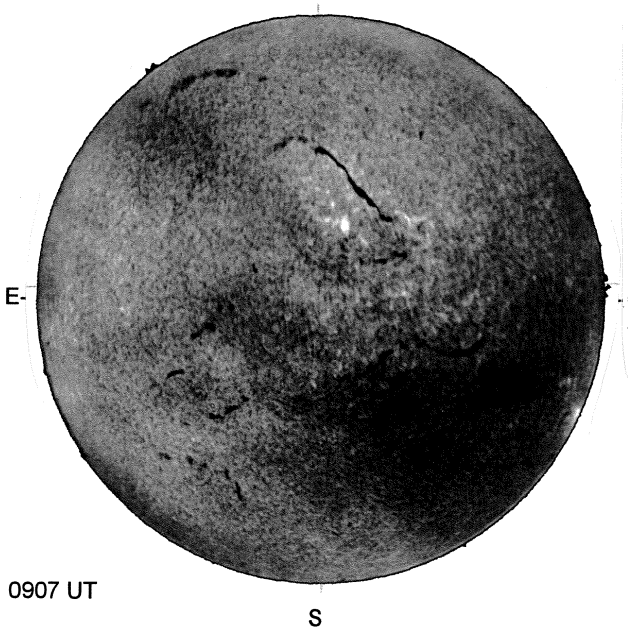
STANFORD MAGNETOGRAM



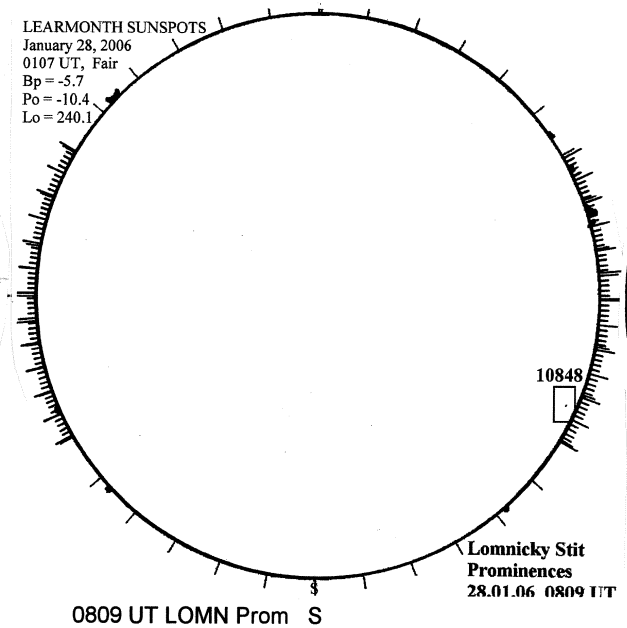
MT. WILSON MAGNETOGRAM



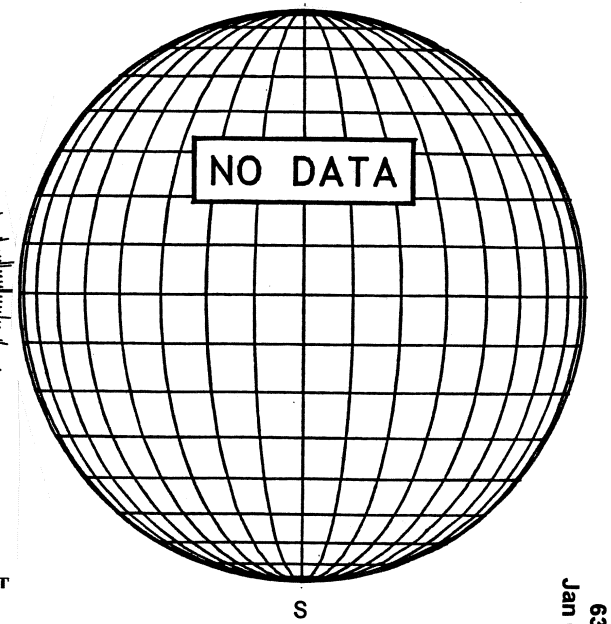
KANZELHOHE H-ALPHA



LEARMONTH SUNSPOTS

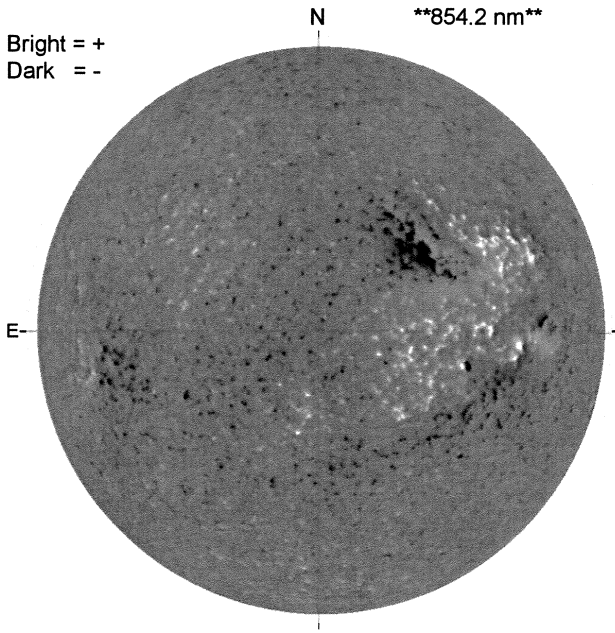


SACRAMENTO PEAK CORONA (1.15 Radii)----

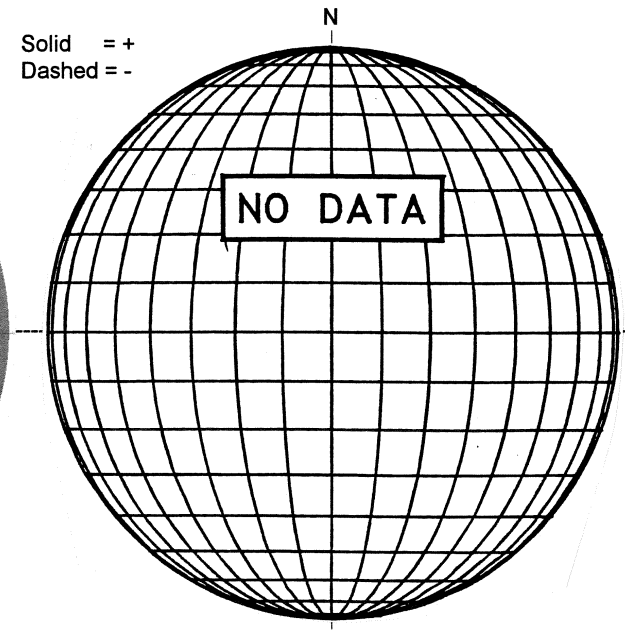


JANUARY 29, 2006 (P= -10.87, Bo = -5.79, Lo = 227.59)

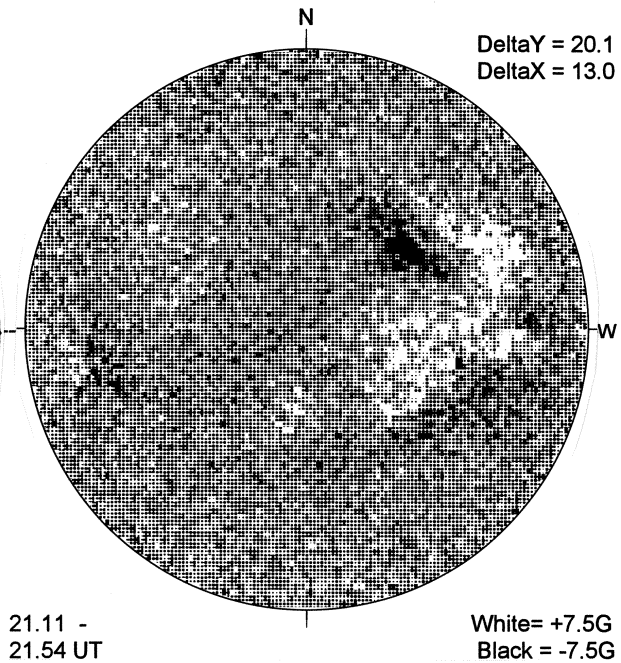
KITT PEAK MAGNETOGRAM--SOLIS



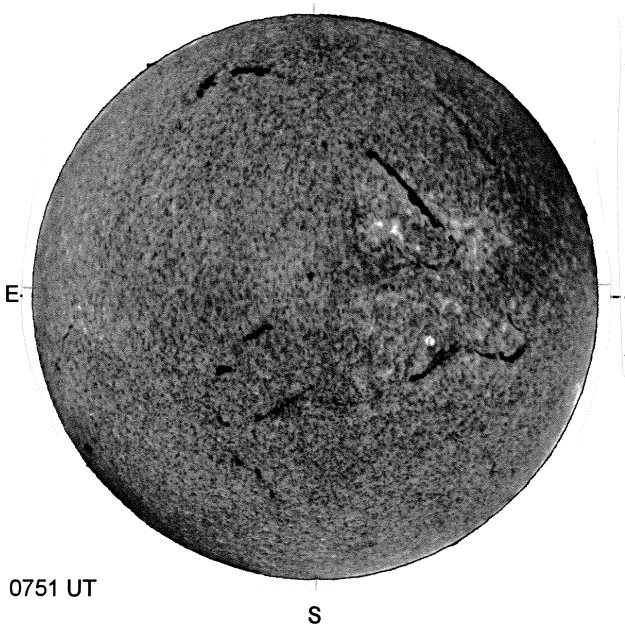
STANFORD MAGNETOGRAM



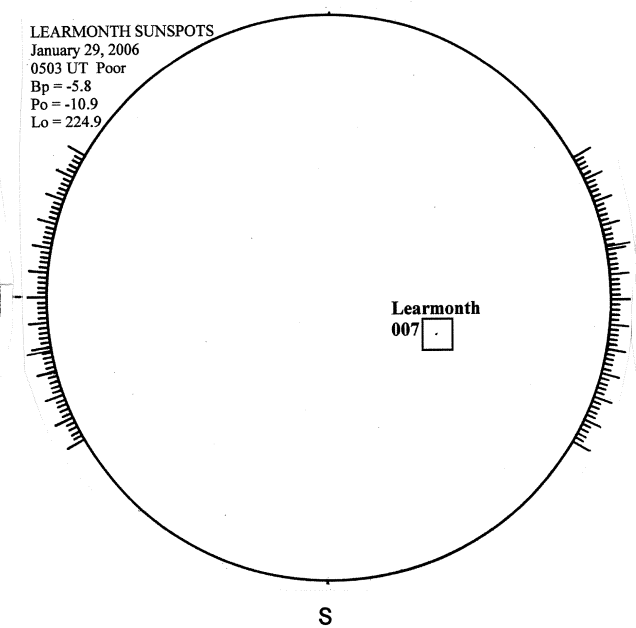
MT. WILSON MAGNETOGRAM



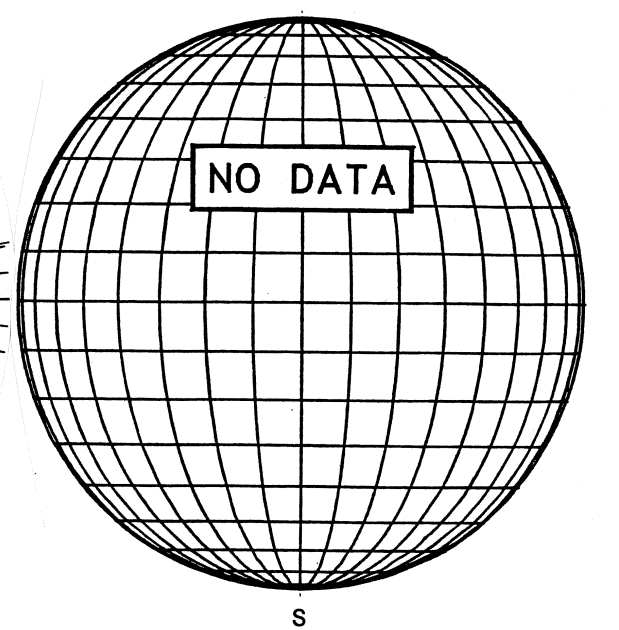
KANZELHOHE H-ALPHA



LEARMONTH SUNSPOTS

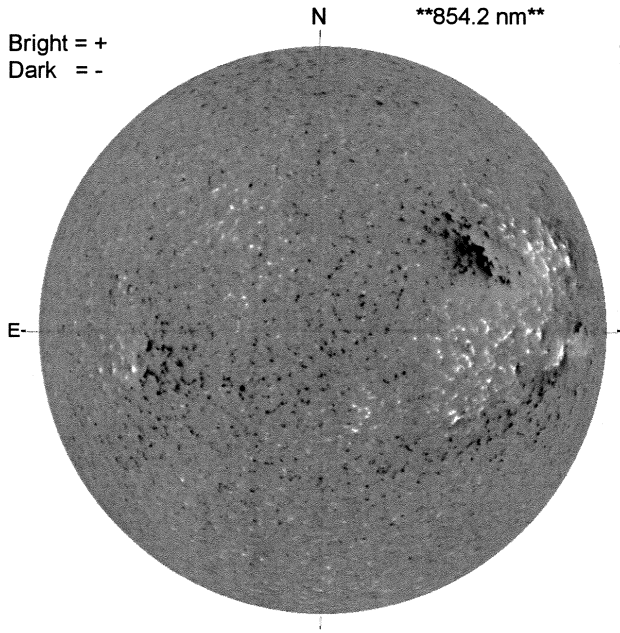


SACRAMENTO PEAK CORONA (1.15 Radii)

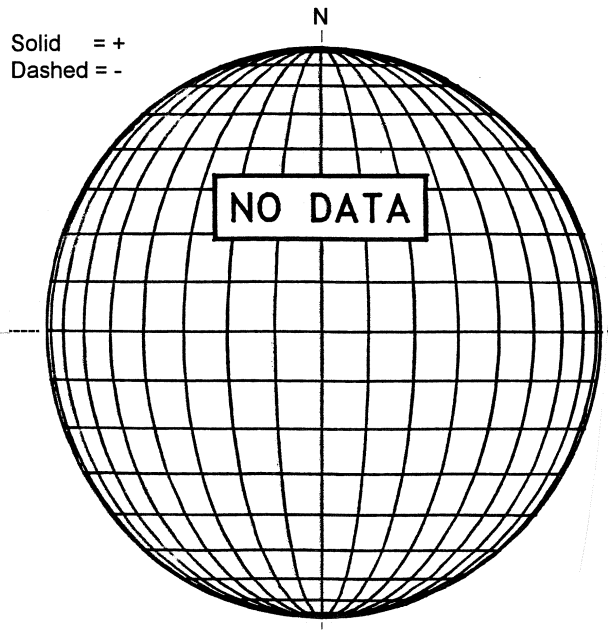


JANUARY 30, 2006 (P= -11.29, Bo = -5.87, Lo = 214.42)

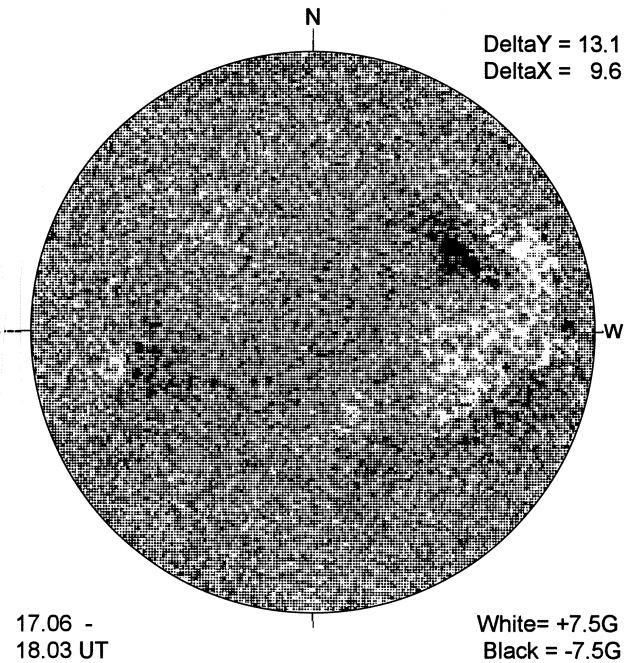
KITT PEAK MAGNETOGRAM—SOLIS



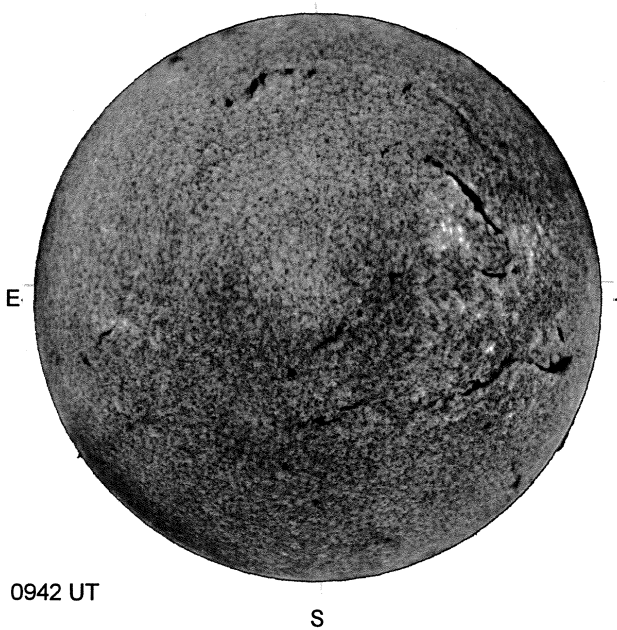
STANFORD MAGNETOGRAM



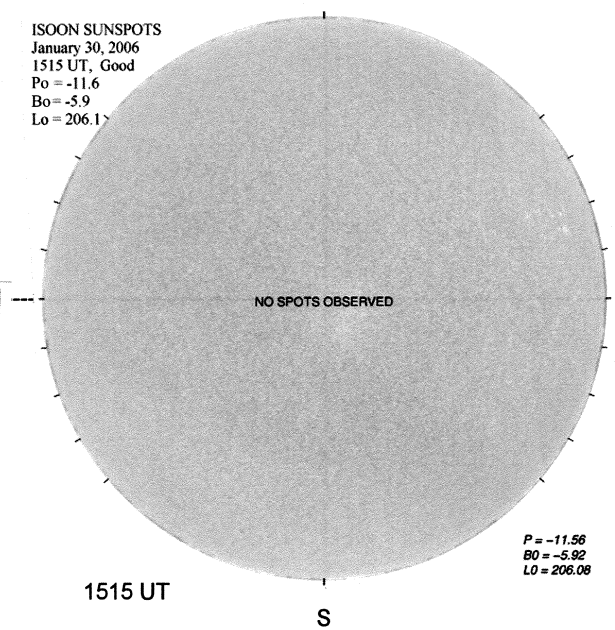
MT. WILSON MAGNETOGRAM



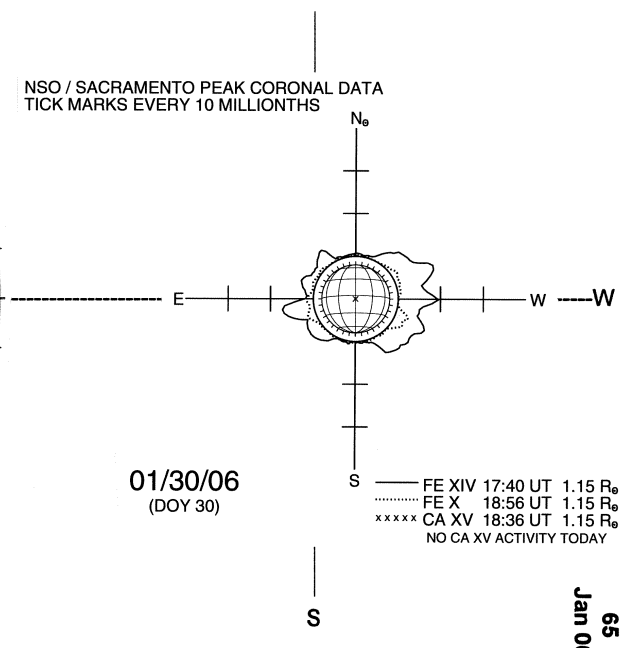
KANZELHOHE H-ALPHA



ISOON/OSPaN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)

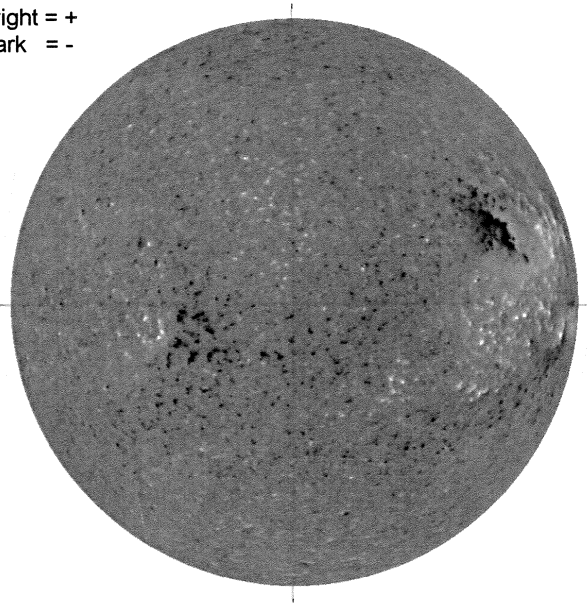


JANUARY 31, 2006 (P= -11.71, Bo = -5.94, Lo = 201.26)

KITT PEAK MAGNETOGRAM--SOLIS

N **854.2 nm**

Bright = +
Dark = -



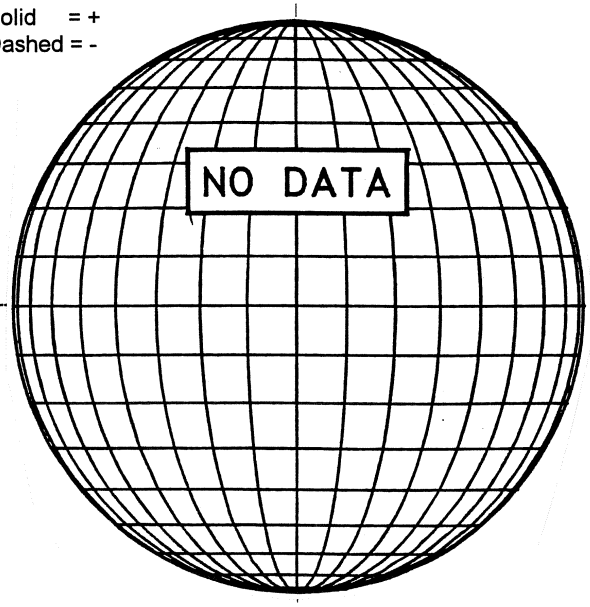
E

1855 UT

STANFORD MAGNETOGRAM

N

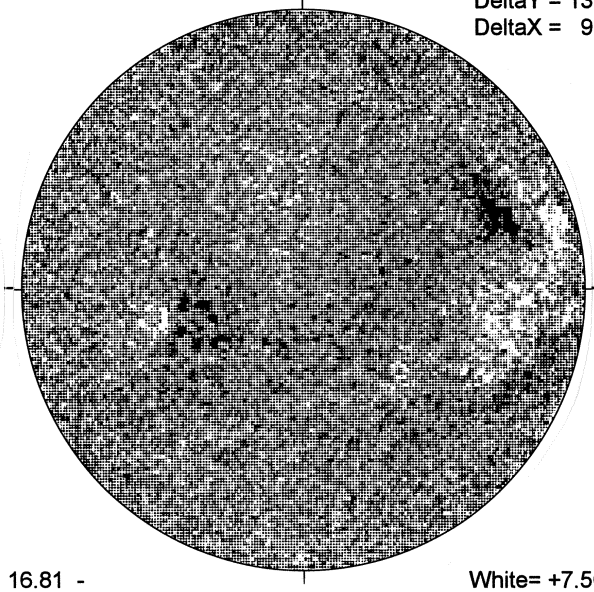
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6

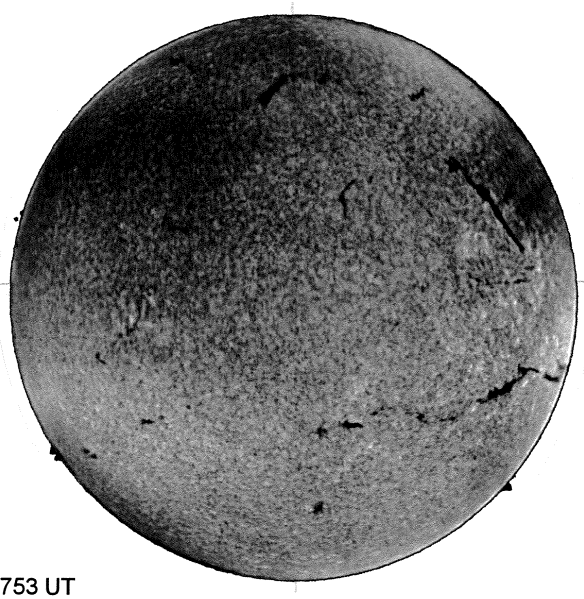


W

16.81 -
17.78 UT

White= +7.5G
Black = -7.5G

KANZELHOHE H-ALPHA



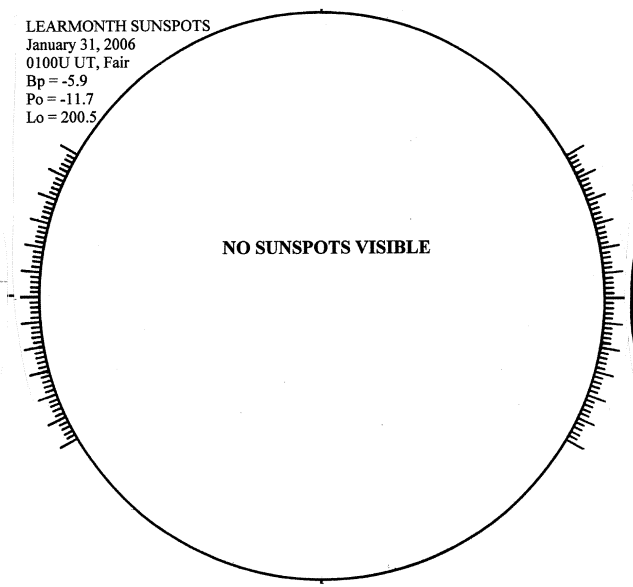
E

0753 UT

S

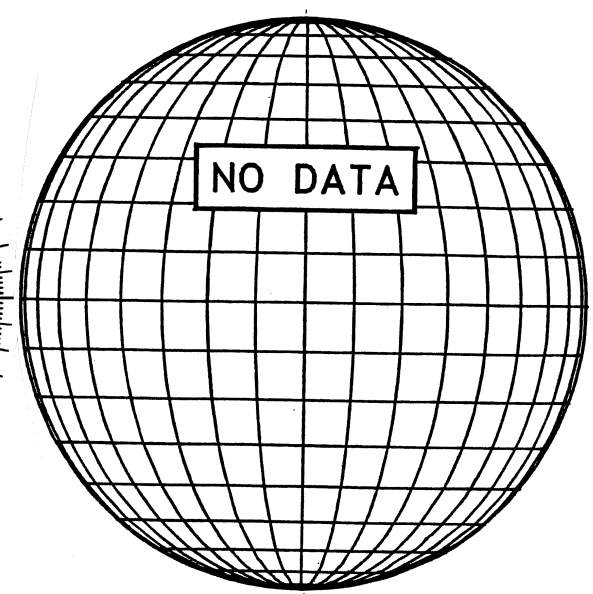
LEARMONTH SUNSPOTS

LEARMONTH SUNSPOTS
January 31, 2006
0100U UT, Fair
Bp = -5.9
Po = -11.7
Lo = 200.5



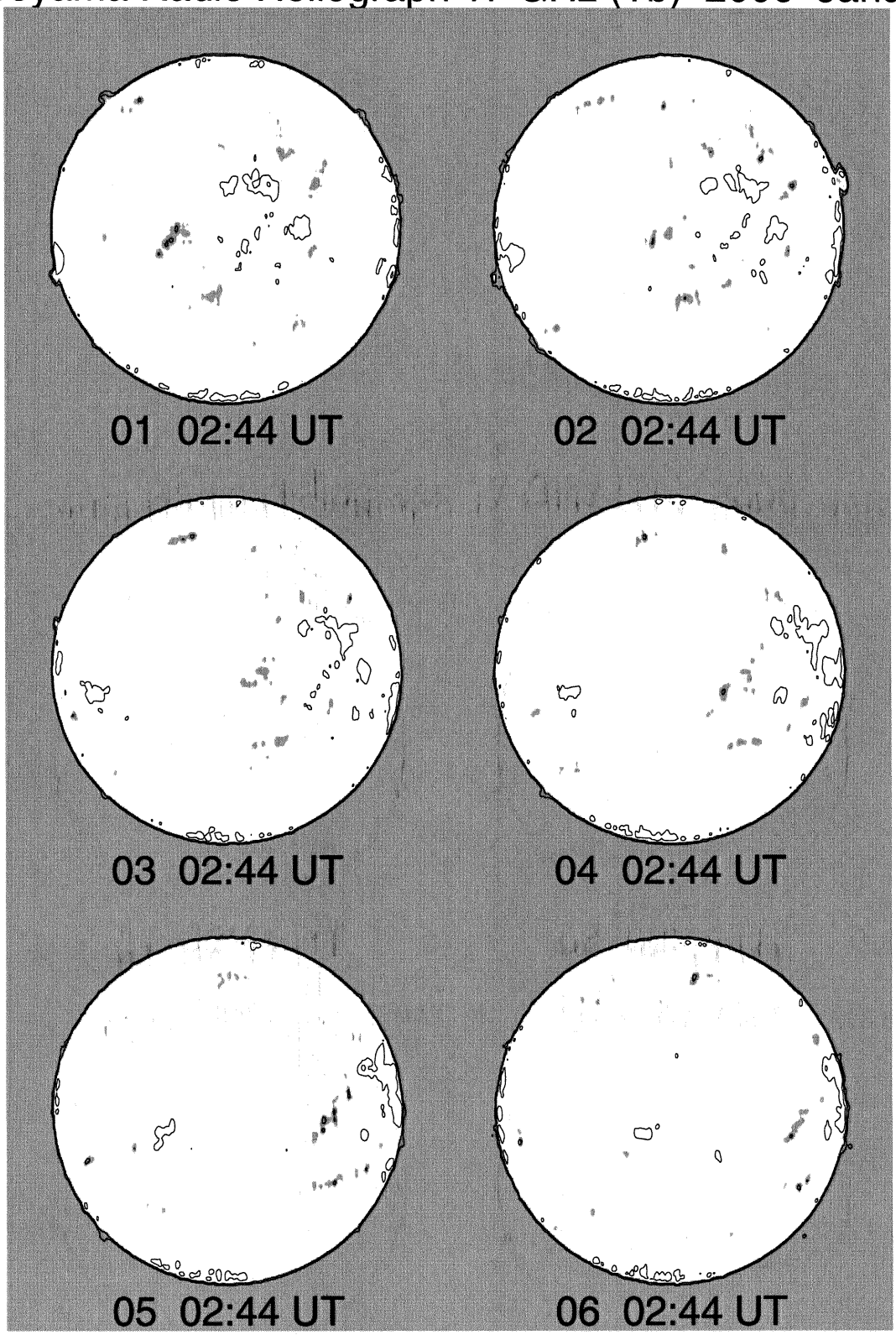
S

SACRAMENTO PEAK CORONA (1.15 Radii)----



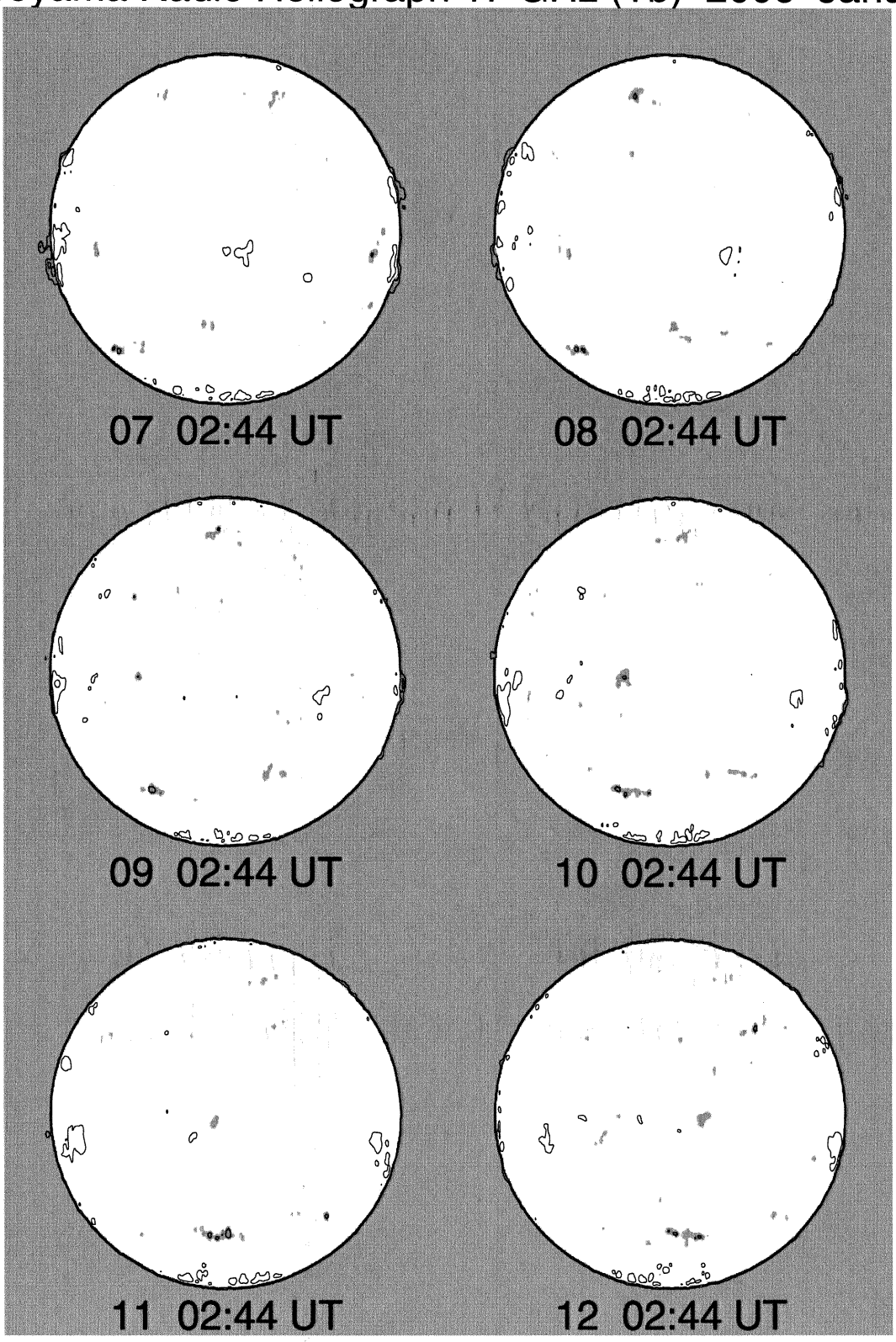
S

Nobeyama Radio Heliograph 17 GHz (Tb) 2006 January



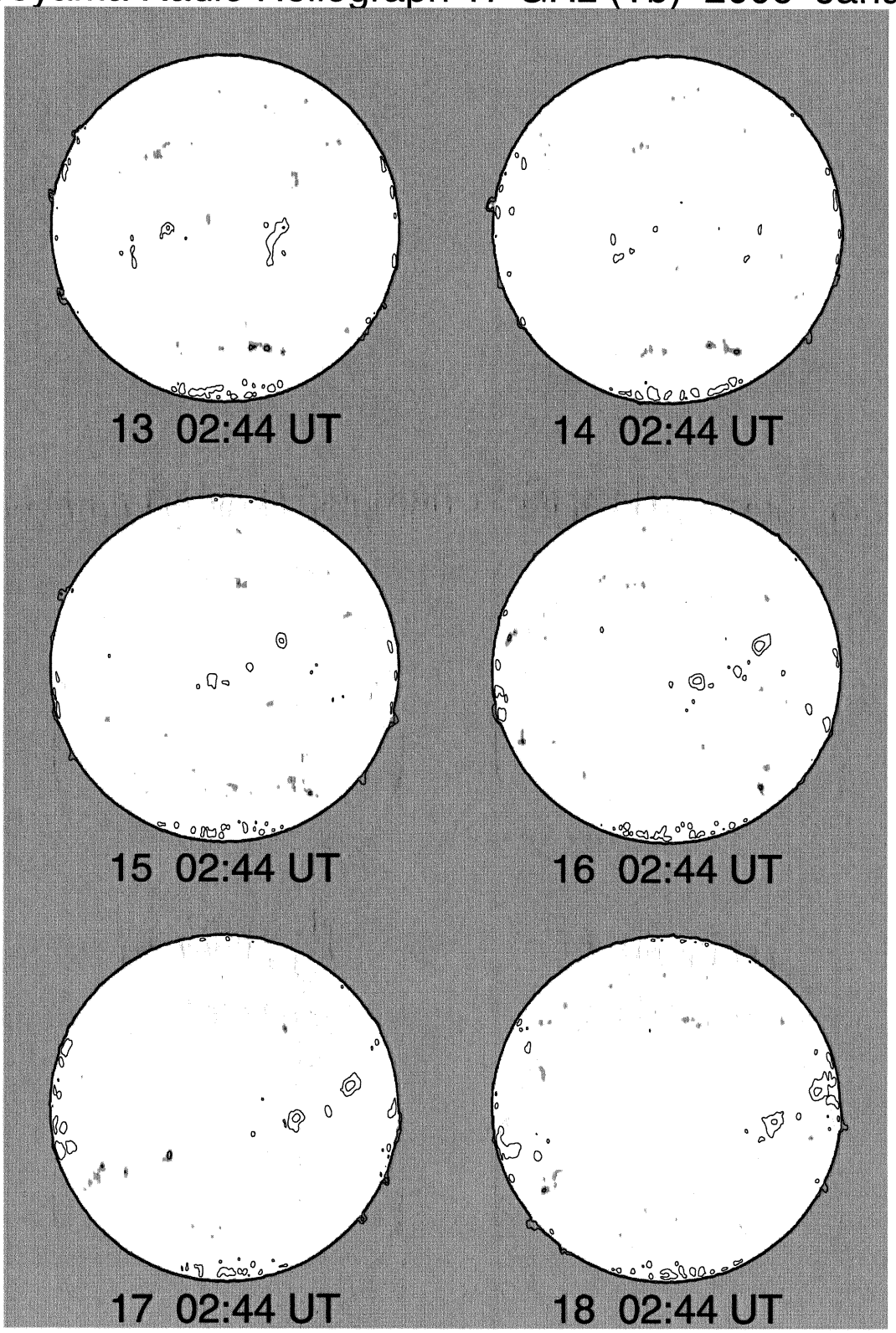
Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2006 January



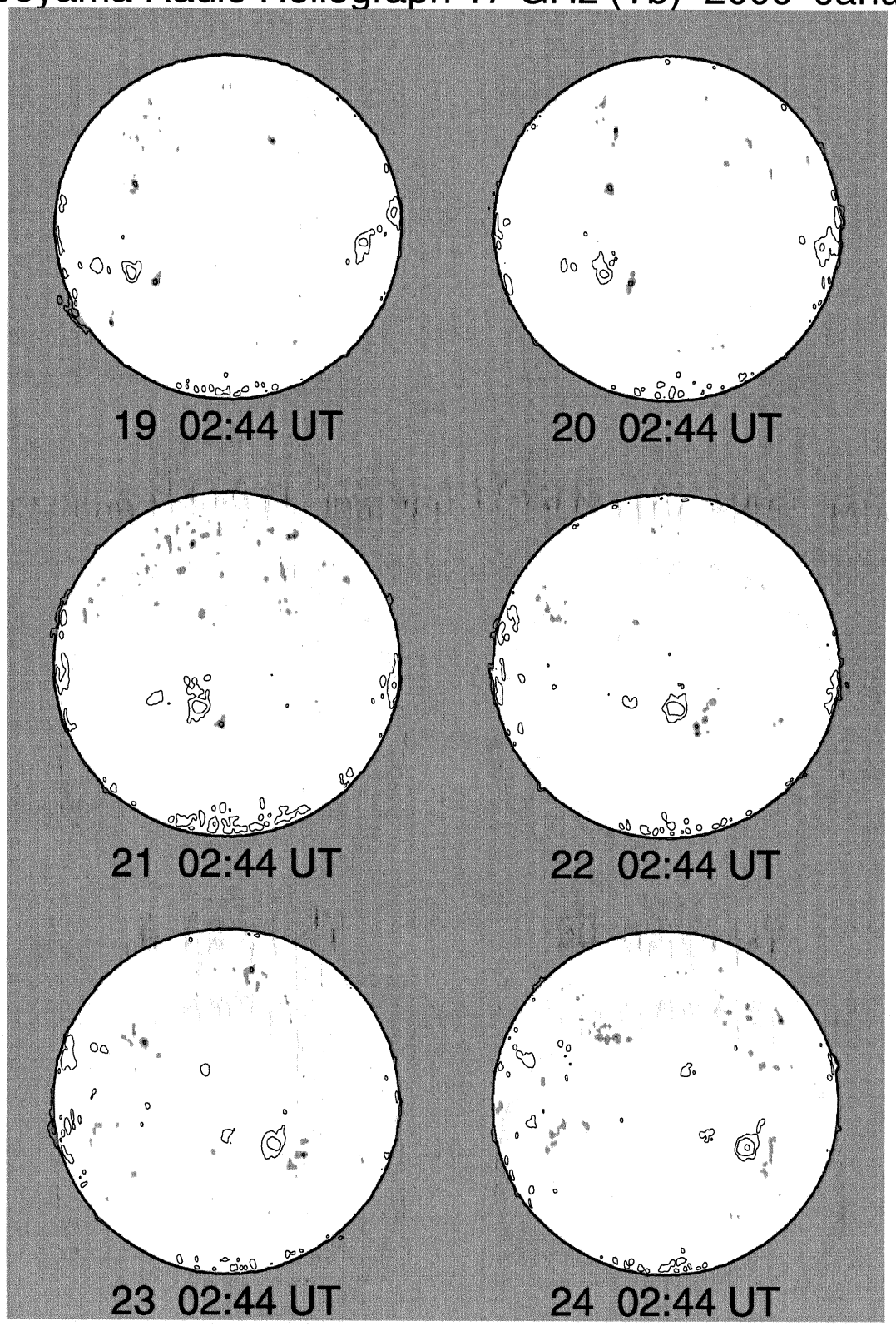
Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2006 January



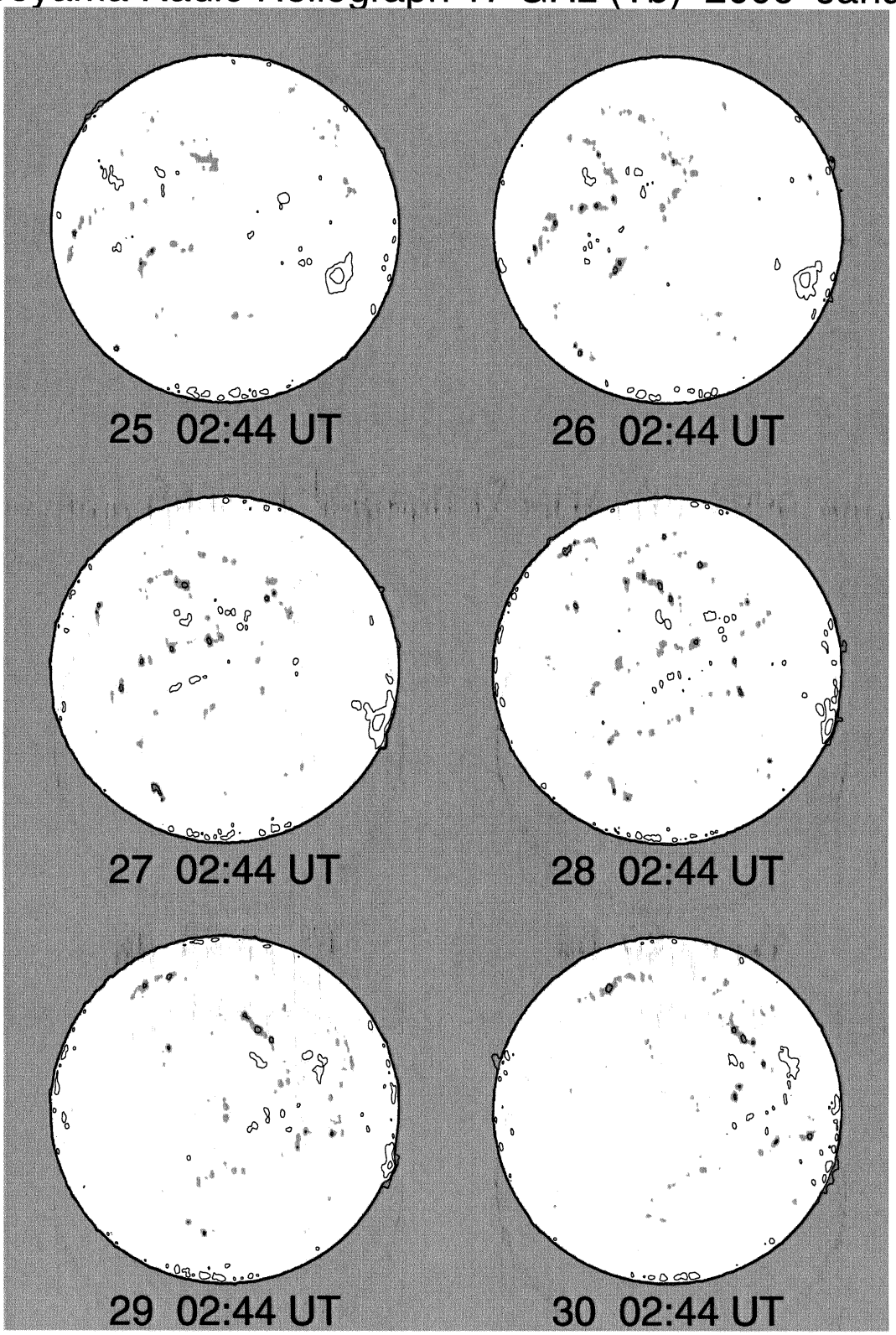
Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2006 January



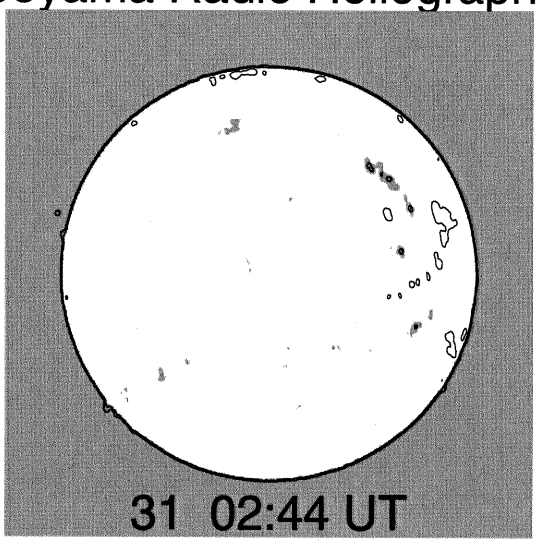
Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2006 January



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 January



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)

JANUARY 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
10843		VORO	12	26	0020	N12	E79	01	1.0			HAX	102	3		4
10843		LEAR	12	26	0136	N11	E78	12	31.9		A	HAX	30	1	2	2
10843		KAND	12	26	0945	N12	E75	01	1.0			HA		1	2	3
10843		HOLL	12	26	1723	N12	E70	01	1.0		B	CAO	60	4	9	3
10843		VORO	12	27	0049	N11	E67	01	1.1			CAO	112	7	2	3
10843		LEAR	12	27	0103	N11	E64	12	31.8		A	HAX	40	7	6	3
10843		SVTO	12	27	1428	N11	E58	01	1.0		A	HSX	40	1	2	2
10843		HOLL	12	27	1700	N13	E56	12	31.9		A	HAX	20	8	8	2
10843		VORO	12	28	0011	N12	E52	12	31.9			CAI	61	4	5	4
10843		LEAR	12	28	0045	N11	E51	12	31.9		A	HAX	40	4	6	2
10843		KAND	12	28	0718	N10	E51	01	1.1			CSO		2	3	4
10843		SVTO	12	28	0950	N11	E49	01	1.1		A	HSX	50	3	3	2
10843		HOLL	12	28	1701	N13	E42	12	31.9		B	CSO	20	4	6	3
10843		VORO	12	29	0019	N12	E38	12	31.9			CAO	48	2	5	3
10843		LEAR	12	29	0332	N12	E38	01	1.0		A	HAX	40	5	7	2
10843		KAND	12	29	0808	N12	E36	01	1.0			CSO		2	2	4
10843		HOLL	12	29	1541	N12	E32	01	1.1		B	CSO	20	7	5	3
10843		LEAR	12	30	0340	N11	E27	01	1.2		A	HAX	10	3	3	1
10843		KAND	12	30	0730	N10	E24	01	1.1			CSO		6	4	3
10843		SVTO	12	30	0800	N12	E25	01	1.2		A	HSX	20	1	2	2
10843		HOLL	12	30	1544	N12	E18	01	1.0		B	CAO	40	4	4	3
10843		VORO	12	30	1614	N12	E21	01	1.2			CAI	40	2	5	2
10843		VORO	12	31	0025	N11	E15	01	1.1			BRO	26	4	1	4
10843		LEAR	12	31	0512	N11	E11	01	1.0		A	HAX	10	3	3	1
10843		KAND	12	31	1040	N11	E09	01	1.1			CSO		2	2	4
10843		HOLL	12	31	1719	N12	E05	01	1.1		B	CSO	30	5	4	3
10843		LEAR	01	01	0436	N11	W01	01	1.1		A	HAX	10	3	2	3
10843		KAND	01	01	0920	N12	W03	01	1.2			CAO		6	4	3
10843		HOLL	01	01	1635	N12	W09	01	1.0		B	DSI	40	7	5	2
10843		VORO	01	02	0157	N12	W14	01	1.0			CRI	60	12	3	4
10843		LEAR	01	02	0433	N11	W16	01	1.0		A	HAX	10	4	4	1
10843		KAND	01	02	0840	N12	W17	01	1.1			CAO		6	4	4
10843		SVTO	01	02	0924	N13	W17	01	1.1		B	CSO	20	2	2	2
10843		HOLL	01	02	1709	N12	W21	01	1.1		A	HSX	20	4	3	3
10843		VORO	01	03	0149	N11	W26	01	1.1			CRI	22	11	3	4
10843		LEAR	01	03	0158	N12	W26	01	1.1		A	HAX	20	7	3	2
10843		KAND	01	03	0821	N11	W29	01	1.2			CAO		2	2	4
10843		SVTO	01	03	0920	N13	W30	01	1.1		B	CSO	40	4	2	3
10843		VORO	01	04	0114	N12	W39	01	1.1			HRX	31	3		4
10843		LEAR	01	04	0133	N14	W39	01	1.1		A	HAX	30	4	2	4
10843		TACH	01	04	0635	N14	W41	01	1.2			AR	28	2	1	3
10843		SVTO	01	04	1045	N13	W44	01	1.1		A	HAX	30	2	2	2
10843		HOLL	01	04	1628	N12	W48	01	1.1		B	CAO	80	3	4	3
10843		VORO	01	05	0040	N12	W51	01	1.2			HRX	26	4		4
10843		LEAR	01	05	0103	N14	W51	01	1.2		A	HAX	60	2	2	1
10843		VORO	01	05	0122	N16	W49	01	1.3			AXX	6	1		3
10843		TACH	01	05	0626	N13	W53	01	1.3			AXX	9	1	1	2
10843		SVTO	01	05	0831	N12	W56	01	1.1		B	CSO	60	2	3	2
10843		HOLL	01	05	1809	N12	W61	01	1.2		A	HAX	40	2	2	2
10843		VORO	01	06	0039	N07	W68	12	31.9			BXO	5	5		3
10843		VORO	01	06	0039	N12	W64	01	1.2			HRX	9	2		4
10843		LEAR	01	06	0139	N13	W65	01	1.2		A	HAX	80	1	2	1
10843		SVTO	01	06	0725	N11	W68	01	1.2		A	AXX		1		3
10843		KAND	01	06	0905	N12	W70	01	1.1			HA		1	1	4
10843		HOLL	01	06	1550	N13	W74	01	1.1		A	AXX		2	1	4
10843A		HOLL	01	06	1550	S11	W02	01	6.5		A	AXX		2	1	4
10843B		VORO	01	07	0038	S03	E18	01	8.4			BXO	2	2	1	4
10845		KAND	01	06	0905	N19	E77	01	12.2			HA		1	1	4
10845		HOLL	01	06	1550	N18	E76	01	12.4		B	CAO	50	2	2	4
10845		VORO	01	07	0038	N19	E69	01	12.3			HSX	61	6		4
10845		LEAR	01	07	0145	N18	E67	01	12.2		A	HSX	60	1	2	2
10845		SVTO	01	07	1210	N18	E63	01	12.3		A	HSX	40	1	2	3
10845		HOLL	01	07	1850	N20	E58	01	12.2		B	CAO	50	3	3	3
10845		VORO	01	08	0039	N19	E55	01	12.2			HSX	51	3		4
10845		LEAR	01	08	0152	N18	E55	01	12.3		A	HAX	20	1	1	2
10845		SVTO	01	08	1013	N18	E53	01	12.5		A	HSX	30	1	2	2

S U N S P O T G R O U P S
(Ordered by Central Meridian Passage Date)
JANUARY 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
10845		HOLL	01	08	1556	N18	E47	01	12.2		B	CAO	70	3	3	3
10845		VORO	01	09	0011	N18	E42	01	12.2			AXX	29	1		3
10845		SVTO	01	09	0745	N18	E38	01	12.2		A	HSX	30	1	2	3
10845		HOLL	01	09	1625	N17	E33	01	12.2		B	CSO	20	2	4	2
10845		VORO	01	10	0022	N18	E29	01	12.2			AXX	17	1		2
10845		SVTO	01	10	0810	N18	E27	01	12.4		A	HRX	30	2	2	3
10845		KAND	01	10	1014	N17	E24	01	12.2			HA		1	1	3
10845		HOLL	01	10	1552	N17	E21	01	12.2		A	HAX	20	1	2	3
10845		VORO	01	11	0011	N17	E17	01	12.3			AXX	15	1		3
10845		LEAR	01	11	0345	N17	E15	01	12.3		A	HAX	20	3	2	2
10845		SVTO	01	11	0745	N17	E13	01	12.3		A	HSX	20	1	2	3
10845		HOLL	01	11	1527	N18	E08	01	12.2		A	HAX	10	1	2	3
10845		LEAR	01	12	0045	N18	E03	01	12.2		A	HAX	20	3	1	2
10845		VORO	01	12	0101	N17	E04	01	12.3			AXX	13	1		3
10845		SVTO	01	12	0720	N17	E01	01	12.4		A	HSX	20	1	1	2
10846		VORO	01	15	0020	N05	W17	01	13.7			AXX	6	1		4
10846		LEAR	01	15	0236	N04	W19	01	13.7		B	BXO	10	5	2	2
10846		SVTO	01	15	0830	N05	W24	01	13.5		B	DSO	30	6	4	3
10846		HOLL	01	15	1704	N06	W26	01	13.8		B	DSI	60	10	7	3
10846		VORO	01	16	0027	N04	W31	01	13.7			CRI	77	13	5	3
10846		LEAR	01	16	0108	N05	W32	01	13.6		B	DAI	70	13	6	4
10846		KAND	01	16	0721	N03	W33	01	13.8			DAO		4	6	3
10846		TACH	01	16	0749	N05	W33	01	13.8			BRI	32	7	5	3
10846		SVTO	01	16	1010	N07	W37	01	13.6		B	DSO	70	9	6	3
10846		HOLL	01	16	1604	N05	W40	01	13.7		B	DSI	140	13	8	3
10846		VORO	01	17	0016	N04	W45	01	13.6			DAI	79	10	6	3
10846		TACH	01	17	0745	N05	W48	01	13.7			CAO	59	4	4	4
10846		SVTO	01	17	0804	N05	W50	01	13.6		B	DSO	60	7	8	3
10846		LEAR	01	17	1242	N05	W44	01	14.2		B	DAO	70	9	7	2
10846		HOLL	01	17	1659	N03	W54	01	13.7		B	DAO	70	9	7	3
10846		VORO	01	17	2357	N04	W58	01	13.7			CAI	28	4	5	3
10846		LEAR	01	18	0100	N04	W58	01	13.7		B	DAO	40	5	6	1
10846		TACH	01	18	0805	N05	W61	01	13.8			BRO	31	3	4	3
10846		KAND	01	18	0825	N03	W65	01	13.5			BXO		3	8	3
10846		SVTO	01	18	0938	N05	W65	01	13.5		B	BXO	40	3	6	2
10846		HOLL	01	18	1556	N04	W67	01	13.6		B	DAO	60	4	7	4
10846		VORO	01	19	0021	N03	W73	01	13.5			BXO	14	3	3	4
10846		LEAR	01	19	0350	N04	W78	01	13.3		A	AXX	20	1	1	1
10847		HOLL	01	10	1552	S12	E68	01	15.8		A	AXX		1	1	3
10847		SVTO	01	15	0830	S09	E00	01	15.3		B	CRO	10	4	3	3
10847		HOLL	01	15	1704	S09	W06	01	15.3		B	DAO	40	6	6	3
10847		VORO	01	16	0027	S08	W09	01	15.3			CRI	32	9	4	3
10847		LEAR	01	16	0108	S08	W09	01	15.4		B	DAI	60	14	4	4
10847		KAND	01	16	0721	S08	W11	01	15.5			CAI		5	5	3
10847		TACH	01	16	0749	S07	W12	01	15.4			BRI	13	8	4	3
10847		SVTO	01	16	1010	S08	W14	01	15.4		B	DSO	50	8	6	3
10847		HOLL	01	16	1604	S08	W18	01	15.3		B	DAI	100	16	8	3
10847		VORO	01	17	0016	S08	W21	01	15.4			DAI	86	11	5	3
10847		TACH	01	17	0745	S07	W25	01	15.4			BRI	28	4	7	4
10847		SVTO	01	17	0804	S08	W27	01	15.3		B	DSO	40	5	7	3
10847		LEAR	01	17	1242	S07	W22	01	15.9		B	DAI	60	10	7	2
10847		HOLL	01	17	1659	S08	W32	01	15.3		B	DAI	70	10	8	3
10847		VORO	01	17	2357	S08	W36	01	15.3			CRI	64	7	6	3
10847		LEAR	01	18	0100	S07	W36	01	15.3		B	DAO	50	7	6	1
10847		TACH	01	18	0805	S08	W40	01	15.3			BRO	21	4	7	3
10847		KAND	01	18	0825	S09	W40	01	15.3			EAO		5	8	3
10847		SVTO	01	18	0938	S08	W43	01	15.2		B	DSO	50	5	8	2
10847		HOLL	01	18	1556	S09	W46	01	15.2		B	DAO	50	8	8	4
10847		VORO	01	19	0021	S09	W50	01	15.3			DRI	31	8	7	4
10847		LEAR	01	19	0350	S07	W53	01	15.2		B	DAO	50	3	6	1
10847		SVTO	01	19	0950	S08	W52	01	15.5		A	HSX	30	2	1	3
10847		HOLL	01	19	1815	S09	W57	01	15.5		B	CRO	20	2	2	3
10847		VORO	01	20	0051	S08	W59	01	15.6			AXX	13	1		3
10847		LEAR	01	20	0332	S08	W62	01	15.5		A	AXX	10	1	1	1
10847B		VORO	01	19	0021	S02	W50	01	15.3			BXO	3	2	1	4
10847A		VORO	01	18	2357	S05	W21	01	17.4			AXX	1	1		3

S U N S P O T G R O U P S
(Ordered by Central Meridian Passage Date)
JANUARY 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
10848		TACH	01	18	0805	S19	E46	01	21.8			AR	22	2	2	3
10848		KAND	01	18	0825	S18	E48	01	22.0			BXO		6	5	3
10848		SVTO	01	18	0938	S18	E44	01	21.7		A	AXX	10	2	2	2
10848		HOLL	01	18	1556	S18	E41	01	21.8		B	DAI	90	9	6	4
10848		VORO	01	19	0021	S19	E36	01	21.8			DAI	122	13	5	4
10848		LEAR	01	19	0350	S18	E34	01	21.7		B	DAO	100	9	6	1
10848		SVTO	01	19	0950	S19	E32	01	21.8		B	DSO	160	10	8	3
10848		HOLL	01	19	1815	S19	E27	01	21.8		B	DAI	140	22	8	3
10848		VORO	01	20	0051	S19	E23	01	21.8			DAI	294	16	7	3
10848		LEAR	01	20	0332	S20	E22	01	21.8		B	DAO	160	9	9	1
10848		TACH	01	20	0736	S20	E19	01	21.8			DAO	135	5	7	2
10848		SVTO	01	20	0810	S21	E18	01	21.7		B	DSO	170	8	8	3
10848		HOLL	01	20	1619	S18	E14	01	21.7		BG	DHI	160	17	9	3
10848		VORO	01	21	0107	S19	E10	01	21.8			DAI	344	27	8	3
10848		LEAR	01	21	0208	S20	E10	01	21.8		B	DAI	190	20	10	2
10848		TACH	01	21	0559	S20	E09	01	21.9			DAI	185	14	10	3
10848		SVTO	01	21	0829	S19	E05	01	21.7		B	EAO	210	14	11	2
10848		KAND	01	21	0839	S18	E06	01	21.8			EAC		7	10	2
10848		HOLL	01	21	1549	S19	E03	01	21.9		BG	EKC	200	19	11	3
10848		VORO	01	21	2359	S19	W03	01	21.8			DAI	421	31	9	3
10848		TACH	01	22	0626	S20	W05	01	21.9			DAI	194	13	10	4
10848		SVTO	01	22	0734	S19	W06	01	21.8		BG	ESI	210	16	13	3
10848		HOLL	01	22	1553	S19	W09	01	22.0		B	EAC	240	54	11	4
10848		VORO	01	23	0031	S20	W16	01	21.8			DKI	327	22	9	3
10848		LEAR	01	23	0650	S18	W18	01	21.9		BGD	EAC	300	39	11	4
10848		HOLL	01	23	1625	S19	W24	01	21.8		B	EAC	260	29	12	2
10848		VORO	01	24	0012	S20	W27	01	21.9			EKC	420	22	7	3
10848		LEAR	01	24	0110	S18	W27	01	22.0		BG	EAC	380	34	12	3
10848		HOLL	01	24	1554	S19	W36	01	21.9		B	EAC	250	22	12	3
10848		VORO	01	25	0040	S20	W41	01	21.9			EKC	208	19	10	3
10848		LEAR	01	25	0220	S18	W42	01	21.9		BG	EAC	270	28	11	1
10848		SVTO	01	25	0800	S18	W44	01	22.0		B	ESI	160	17	13	2
10848		VORO	01	26	0038	S20	W53	01	22.0			EKC	144	10	10	4
10848		LEAR	01	26	0148	S20	W54	01	21.9		BG	EAC	170	16	12	2
10848		SVTO	01	26	0741	S18	W57	01	22.0		B	ESI	100	11	12	3
10848		HOLL	01	26	1726	S20	W63	01	21.9		B	EAC	130	17	13	2
10848		VORO	01	27	0009	S21	W66	01	21.9			EAC	89	6	11	4
10848		LEAR	01	27	0146	S20	W67	01	21.9		B	EAO	130	8	11	2
10848		SVTO	01	27	1026	S19	W71	01	22.0		B	CRO	30	2	7	2
10848		HOLL	01	27	1529	S20	W74	01	22.0		B	EAI	100	9	12	4
10848		VORO	01	28	0054	S20	W75	01	22.3			AXX	14	2		3
10848		LEAR	01	28	0107	S24	W76	01	22.2		A	HAX	30	1	1	3
10848A		HOLL	01	17	1659	S16	E68	01	22.9		A	AXX		1	1	3
10848B		HOLL	01	18	1556	S16	E58	01	23.1		A	AXX		1	1	4
10848B		HOLL	01	27	1529	S15	W57	01	23.3		B	CSO	20	2	3	4
10850		LEAR	01	23	0650	N06	E04	01	23.6		B	BXI	30	6	4	4
10850		HOLL	01	23	1625	N06	W01	01	23.6		B	DSO	20	6	3	2
10850		LEAR	01	24	0110	N06	W06	01	23.6		A	AXX	20	2	2	3
10850		LEAR	01	25	0220	N06	W17	01	23.8		A	AXX	10	1	1	1
10849		VORO	01	21	2359	S07	E57	01	26.3			AXX	4	1		3
10849		LEAR	01	22	0051	S07	E56	01	26.2		A	HAX	20	1	1	3
10849		TACH	01	22	0626	S09	E55	01	26.4			AXX	9	1	1	4
10849		HOLL	01	22	1553	S07	E48	01	26.2		A	HSX	10	1	1	4
10849		VORO	01	23	0031	S08	E42	01	26.2			AXX	7	1		3
10849		LEAR	01	23	0650	S07	E39	01	26.2		A	AXX	10	1	1	4
10849		HOLL	01	23	1625	S08	E33	01	26.1		A	HSX	10	1	1	2
10849		VORO	01	24	0012	S08	E28	01	26.1			AXX	2	1		3
10849		LEAR	01	24	0110	S07	E27	01	26.1		A	AXX	20	2	2	3
10849		HOLL	01	24	1554	S08	E20	01	26.2		A	HSO	10	2	1	3
10849A		LEAR	01	29	0503	S12	W24	01	27.4		A	AXX	10	1	1	2

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
JANUARY 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
02	1302	1311U	1327	1	1					1	No flare		
03	1028	1047U	1208	1	1					1	1134	B1.1	10841
04	1123	1149U	1207	1	1					1	*		
05	0921	0925	0941	1	5					2	0917	C4.4	10843
10	0932	0946	1055	1	1					1	No flare		
11	0916	0929U	0955	1	1					1	No flare		
13	0922	0940U	1005	1	1					1	No flare		
13	1324	1337	1355	1	1					1	No flare		
15	1444	1514	1550	1	1					1	1442	C1.0	
22	0657	0700	0705	1-	1					1	0653	B1.5	10848
22	0825	0840	1016	1	1					1	0821	B1.9	10848
22	1013	1017	1021	1-	1					1	1003	B4.8	10848
22	1237	1244	1307	1-	5					4	1232	C1.3	10848
22	1405	1411	1428	1-	5					10	1401	C4.1	10848
22	1652	1658	1728	2-	5					3	1650	C2.0	10848
22	1742	1825	1904	2	1					1	1805	B3.8	10848
22	2125	2127	2143	1-	1					1	2114	C1.7	10848
22	2148	2152	2203	1-	1					1	2144	C1.8	10848
24	0716	0723	0746	1+	3					2	0714	C1.0	10848
24	0958	1009U	1034	2	1					1	1029	B1.9	10848
25	0819	0837U	0932	1	1					1	No flare		
25	1143	1149	1244	1	1					1	*		
26	1343	1402	1416	1	1					1	No flare		

* = no flare patrol.

OBSERVATORIES REPORTING FOR JANUARY 2006

Alberta, Canada	SES	Mishawaka, Indiana, USA	SES
Athens, Greece	SES	Palo Alto, California, USA	SES
Brookline, Massachusetts, USA	SES	Panska Ves, Czech Republic	SES, SEA, SWF
Edenvale, Rep of S. Africa	SES	Seville, Ohio, USA	SES
Isola del Gran Sasso, Italy	SES	Udine City, Italy	SES
Marlborough, Massachusetts, USA	SES	Upice, Czech Republic	SEA
Milan, Italy	SES	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

JANUARY 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			LEAR	0112.0	0112.0	III		1	31	150	
	0000	0734	HIRA	0112.0	0112.5	III	B	1	50	130	
	0000	0800	CULG	0112.0	0112.0	III	B	1	30	90	
			HIRA	0154.0	0155.0	III	B	3	50	210	
			LEAR	0154.0	0155.0	III		2	30	180	
			CULG	0155.0	0155.0	III	G	1	27	140	
	0813	1413	POTS								
	0839	1332	ONDR								
	0900	1450	BLEN								
			SVTO	1215.0	1215.0	III		1	76	174	
			LEAR	2250.0	2250.0	III		1	25	180	
	2148	2400	HIRA	2250.5	2251.0	III	B	1	25X	200	
	2000	2400	CULG	2251.0	2251.0	III	B	1	20	90	
02	0000	0734	HIRA								
	0000	0800	CULG								
	0838	1334	ONDR								
	0900	1450	BLEN								
	0813	1416	POTS	0951.4	0951.9	III	GG	2	200U	250	
			POTS	1132.2	1132.8	III	G	1	200U	250	
			SVTO	1145.0	1145.0	III		1	73	180	
	2000	2400	CULG								
	2148	2400	HIRA								
03			LEAR	0055.0	0108.0	III		2	29	180	
			PALE	0055.0	0057.0	III		1	25	150	
	0000	0800	CULG	0055.0	0057.0	III	G	1	20	130	
			LEAR	0108.0	0108.0	III		2	29	180	
			LEAR	0125.0	0126.0	III		1	25	180	
			PALE	0125.0	0126.0	III		1	25	120	
	0000	0735	HIRA	0125.5	0126.0	III	B	1	25X	200	
			CULG	0126.0	0126.0	III	B	1	27	90	
			LEAR	0233.0	0235.0	III		1	26	157	
			HIRA	0233.5	0234.0	III	B	1	25X	150	
			CULG	0234.0	0234.0	III	B	1	25	90	
			LEAR	0249.0	0249.0	III		2	25	180	
			HIRA	0249.5	0250.0	III	G	1	50	190	
			CULG	0250.0	0250.0	III	B	1	25	90	
			CULG	0331.0	0331.0	III	B	1	27	60	
			LEAR	0338.0	0340.0	III		2	52	180	
			HIRA	0338.5	0340.5	III	G	1	90	230	
			LEAR	0511.0	0514.0	III		2	79	146	
			HIRA	0511.5	0514.5	III	G	1	80	120	
			LEAR	0642.0	0642.0	III		1	88	180	
			HIRA	0642.5	0643.0	III	B	1	50	110	
			CULG	0652.0	0652.0	III	B	2	23	60	
			CULG	0715.0	0716.0	III	G	2	20	90	
			HIRA	0715.0	0719.0	III	G	3	40	210	
			LEAR	0715.0	0717.0	III		1	25	180	
			CULG	0717.0	0719.0	III	G	3	18	140	
			LEAR	0717.0	0718.0	V		2	25	180	
			SVTO	0717.0	0718.0	III		2	25	180	
			CULG	0738.0	0738.0	III	B	1	30	70	
			CULG	0749.0	0753.0	III	G	1	23	80	
			LEAR	0751.0	0752.0	III		1	74	180	
	0838	1335	ONDR								
			SVTO	1135.0	1137.0	III		1	46	180	
	0900	1450	BLEN	1135.7	1135.8	III	G	1	140	370	
	0813	1416	POTS	1135.9	1137.1	III	G	2	40X	400X	
			SGMR	1412.0	1413.0	III		1	30	168	
			SVTO	1412.0	1413.0	III		2	25	161	
			POTS	1413.3	1413.5	III	B	1	40X	55U	
			SGMR	1443.0	1541.0	III	N	1	30	172	
			SGMR	1620.0	1749.0	III	N	1	30	180	
	2000	2400	CULG	2026.0	2028.0	III	G	1	30	100	
			CULG	2120.0	2120.0	III	B	1	50	100	
			CULG	2221.0	2257.0	III	N	1	20	90	
			LEAR	2235.0	2240.0	III		1	75	125	
			LEAR	2255.0	2257.0	III		1	25	113	

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

JANUARY 2006

Day	OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
03	2148	2400	HIRA	2256.0	2257.0	III	G	1	25X	110	
			CULG	2355.0	2400.0	III	G	1	23	80	
			HIRA	2358.5	2359.0	III	B	1	25X	60	
04			LEAR	0036.0	0036.0	III		2	25	160	
			PALE	0036.0	0036.0	III		1	25	140	
	0000	0736	HIRA	0036.0	0036.5	III	B	1	30	130	
	0000	0800	CULG	0036.0	0036.0	III	B	1	30	100	
			CULG	0044.0	0044.0	III	B	1	30	57	
			CULG	0054.0	0056.0	III	G	1	27	90	
			HIRA	0054.0	0056.0	III	G	1	25X	130	
			LEAR	0054.0	0056.0	III		2	25	108	
			PALE	0054.0	0055.0	III		1	25U	88U	
			LEAR	0158.0	0202.0	III		1	25	104	
			CULG	0202.0	0202.0	III	B	1	30	90	
			HIRA	0202.0	0202.5	III	B	1	30	120	
			LEAR	0300.0	0301.0	III		1	25	56	
			CULG	0301.0	0301.0	III	B	1	30	50	
			LEAR	0326.0	0327.0	III		2	25	155	
			HIRA	0326.5	0327.0	III	B	1	30	110	
			CULG	0327.0	0327.0	III	B	1	27	80	
			CULG	0503.0	0505.0	III	G	2	23	75	
			HIRA	0503.0	0504.5	III	G	1	25X	80	
			LEAR	0503.0	0504.0	III		2	25U	95U	
			LEAR	0633.0	0638.0	III		2	25	147	
			CULG	0636.0	0637.0	III	G	1	20	70	
			HIRA	0636.0	0636.5	III	B	1	50	70	
			LEAR	0835.0	0836.0	III		2	45	75	
			SVTO	0835.0	0836.0	III		1	25	65	
	0837	1337	ONDR								
			LEAR	0844.0	0845.0	III		1	35U	145U	
			SVTO	0844.0	0845.0	III		1	25U	37U	
	0900	1450	BLEN								
			LEAR	0939.0	0943.0	III		2	25	155	
	0810	1416	POTS	0939.9	0943.1	III	G,N,U	2	40X	300	
			SVTO	0942.0	0943.0	V		2	29	141	
			POTS	1055.7	1055.9	III	G	2	200U	260	
			LEAR	2252.0	2256.0	III		1	25	180	
			PALE	2252.0	2255.0	III		1	25	180	
	2000	2400	CULG	2252.0	2255.0	III	G	1	25	130	
	2148	2400	HIRA	2252.0	2255.0	III	G	2	30	220	
05			LEAR	0543.0	0544.0	III		2	25	170	
	0000	0737	HIRA	0544.0	0545.0	III	G	1	25X	200	
	0000	0800	CULG	0544.0	0545.0	III	G	1	23	90	
	0810	1419	POTS	0920	0925	IV		3	40X	400X	
			LEAR	0920.0	0923.0	III		2	25	180	
			SVTO	0920.0	0922.0	V		3	25	180	
			ONDR	0920.1	0922.0	DCIM	G	3	800X	2000X	
	0837	1338	ONDR	0920.1	0921.4	DCIM	G	2	2000X	4500X	
	0900	1450	BLEN	0920.1	0926.2	II		3	110X	4000X	
			POTS	0922	0938	II	UE	3	40X	400X	
			LEAR	0923.0	0939.0	II		2	25	180	ESS 1127
			SVTO	0923.0	0939.0	II		1	25	180	ESS 0724
	2000	2400	CULG								
06			LEAR	0647.0	0649.0	III		1	25	133	
			SVTO	0647.0	0648.0	III		1	25	40	
	0000	0800	CULG	0648.0	0650.0	III	G	1	18	70	
	0038	0738	HIRA	0648.0	0648.9	III	G	1	25X	140	
	0836	1340	ONDR								
	0900	1450	BLEN								
	0810	1419	POTS	1241.9	1243.3U	DCIM		2	200U	330	
	2000	2400	CULG								
	2148	2400	HIRA								
07	0000	0800	CULG								
			LEAR	0057.0	0057.0	III		1	25	60	
	0000	0739	HIRA	0057.0	0057.5	III	B	1	25X	60	

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

JANUARY 2006

Day	OBSERVATION Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
07			HIRA	0142.0	0142.5	III	B	1	25X	50	
			LEAR	0142.0	0142.0	III		1	25	71	
	0810	1422	POTS								
	0835	1342	ONDR								
	0900	1450	BLEN								
	2000	2400	CULG	2141.0	2141.0	III	B	1	23	90	
	2148	2400	HIRA								
08	0000	0740	HIRA								
	0000	0800	CULG								
	0810	1422	POTS								
	0834	1343	ONDR								
	2000	2400	CULG								
	2148	2400	HIRA								
09	0000	0741	HIRA								
	0000	0800	CULG								
	0833	1345	ONDR								
	0900	1450	BLEN								
			SVTO	0959.0	1000.0	III		1	39	73	
	0807	1425	POTS	0959.0	1001.1	III	G	2	40X	400	
	2000	2400	CULG								
	2148	2400	HIRA								
10	0000	0035	HIRA								
	0000	0800	CULG								
	0807	1425	POTS								
	0832	1347	ONDR								
	0900	1450	BLEN								
	2000	2400	CULG								
11	0000	0800	CULG								
	0804	1428	POTS								
	0832	1349	ONDR								
	0900	1455	BLEN								
			SVTO	1006.0	1006.0	III		1	38	73	
	2000	2400	CULG								
12	0000	0800	CULG								
	0804	1428	POTS								
	0830	1350	ONDR								
	0900	1455	BLEN								
	2000	2400	CULG								
13			LEAR	0004.0	0007.0	II		1	34	46	ESS 0500
	0000	0800	CULG	0005.0	0008.0	UNCLF		1	35	45	
	0801	1431	POTS								
	0829	1352	ONDR								
	0900	1455	BLEN								
	2000	2400	CULG								
14	0000	0800	CULG								
	0801	1431	POTS								
	0833	1354	ONDR								
	0900	1455	BLEN								
	2000	2400	CULG								
15	0000	0800	CULG								
			LEAR	0454.0	0455.0	III		1	34	50	
	0801	1434	POTS								
	0832	1356	ONDR								
	0900	1455	BLEN								
	2000	2400	CULG								
16	0000	0800	CULG								
	0758	1437	POTS								
	0825	1358	ONDR								
	0850	1500	BLEN								
	2000	2400	CULG								

SOLAR RADIO EMISSION
Spectral Observations

JANUARY 2006

Day	OBSERVATION Start (UT)	OBSERVATION End (UT)	Sta	EVENT Start (UT)	EVENT End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	FREQUENCY Upper (MHz)	Remarks
17	0000	0800	CULG								
	0758	1440	POTS								
	0824	1400	ONDR								
	0850	1500	BLEN								
	2000	2400	CULG								
18	0000	0800	CULG								
	0823	1402	ONDR								
	0850	1500	BLEN								
	0755	1440	POTS	1047.2	1048.1	DCIM		1	220	360	
	2000	2400	CULG								
19	0000	0800	CULG								
	0821	1405	ONDR								
	0845	1510	BLEN								
	0755	1443	POTS	1015	1116	I	S,N	1	210	360	
			POTS	1156.3	1156.9	UNCLF		1	260	370	
			POTS	1210.2	1211.3	I	S,N	1	230	300	
			POTS	1227	1441 U	I	S,N	2	200U	360	
	2000	2400	CULG								
20	0000	0800	CULG								
	0752	1446	POTS	0754 E	1427 U	I	S,N	2	200U	380	
	0820	1407	ONDR								
	0845	1510	BLEN								
21	0752	1449	POTS	0754 E	1828 U	I	S,N	1	200U	360	
	0818	1409	ONDR								
	0840	1515	BLEN								
22	0749	1449	POTS	0752 E	1132	I	S,N	2	200U	400X	
	0816	1411	ONDR								
	0840	1515	BLEN								
	2210	2400	CULG								
23	0000	0800	CULG								
	0816	1413	ONDR								
	0840	1515	BLEN								
	0746	1452	POTS	0914	0924	I	S,N	1	200	330	
	2000	2400	CULG								
24	0000	0800	CULG								
			LEAR	0246.0	0246.0	III		2	25	116	
	0813	1415	ONDR								
	0830	1520	BLEN								
	0740	1455	POTS	0958.6	0959.0	DCIM		2	330	400X	
			PALE	1929.0	1930.0	III		1	25	153	
			SGMR	1929.0	1930.0	III		1	30	180	
	2000	2400	CULG								
25	0000	0705	CULG								
	0737	1458	POTS								
	0812	1418	ONDR								
	0825	1520	BLEN								
26	0810	1420	ONDR								
	0734	1501	POTS	0819.7	0902	I	S,N	1	200U	280	
	0825	1520	BLEN								
			POTS	0958.1	1004	I	S,N	1	210	330	
			POTS	1101	1219	I	S,N	1	200	280	
	2235	2400	CULG								
27	0000	0800	CULG								
	0808	1422	ONDR								
	0825	1520	BLEN								
	0731	1504	POTS	0856	0905	I	S,N	1	200	250	
	2000	2400	CULG	2043.0	2043.0	III	B	1	25	75	
			CULG	2051.0	2052.0	III	G	1	20	90	
			CULG	2058.0	2058.0	III	B	1	30	90	

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

JANUARY 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
27			CULG	2124.0	2124.0	III	B	1	27	80	
			CULG	2135.0	2138.0	III	G	3	18	150	
			PALE	2135.0	2138.0	III		1	25	164	
			CULG	2323.0	2323.0	III	B	1	27	80	
			CULG	2346.0	2346.0	III	B	1	30	70	
28			LEAR	0206.0	0212.0	III		2	25	180	
	0000	0800	CULG	0208.0	0209.0	III	G	1	27	90	
			CULG	0212.0	0212.0	III	B	1	25	70	
	0806	1424	ONDR								
	0825	1520	BLEN								
	0725	1507	POTS	1240	1255	I	S,N	1	210	300	
	2000	2400	CULG	2125.0	2126.0	III	G	1	23	40	
			CULG	2224.0	2224.0	III	B	1	18	70	
29			LEAR	0307.0	0308.0	III		1	25	58	
	0000	0800	CULG	0307.0	0308.0	III	G	1	20	65	
	0722	1510	POTS								
			CULG	0737.0	0737.0	III	B	1	23	90	
			LEAR	0737.0	0737.0	III		2	25	105	
			SVTO	0737.0	0737.0	III		1	25	75	
	0805	1426	ONDR								
	0825	1520	BLEN								
	2000	2400	CULG								
30	0000	0800	CULG								
	0803	1429	ONDR								
	0825	1530	BLEN								
			LEAR	0905.0	0909.0	III		2	25	167	
			SVTO	0905.0	0909.0	III		1	25	151	
	0719	1513	POTS	0906.2	0908.9	III	G,N	1	40X	80U	
			SVTO	1107.0	1107.0	III		1	29	125	
			POTS	1107.7	1108.1	III	B	1	40X	80U	
	2000	2400	CULG								
31	0000	0800	CULG								
	0801	1431	ONDR								
	0825	1530	BLEN								
			LEAR	0939.0	0941.0	III		2	32U	130U	
			SVTO	0940.0	0941.0	III		1	25	84	
	0713	1516	POTS	0940.1	0941.5	III	G	1	40X	75U	
	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
JANUARY 2006

	HELIOGRAPHICS POSITIONS MEAN VALUES[1]		IMP[2]	OBSERVING TIME[3]	
	E-W	S-N		START(UT)	END(UT)
19/01/06	-0.57	-0.40	I	11H39	15H32 D
20/01/06	-0.37	-0.31	I	11H35 E	15H32 D
22/01/06	+0.08	-0.36	I	8H32 E	15H32 D
24/01/06	+0.79	-0.38	I	8H33 E	15H28 D
25/01/06	+0.80	-0.44	II	8H33 E	15H33 D

SOLAR RADIO NOISE STORM AT 327 MHZ
FROM NANÇAY RADIOHELIOGRAPH
JANUARY 2006

	HELIOGRAPHICS POSITIONS MEAN VALUES[1]		IMP[2]	OBSERVING TIME[3]	
DAY	E-W	S-N		START(UT)	END(UT)
19/01/06	-0.55	-0.34	I	9H48	15H32 D
20/01/06	-0.37	-0.29	I	11H35 E	15H32 D
21/01/06	-0.17	-0.34	I	8H33 E	15H32 D
22/01/05	+0.04	-0.27	I	8H32 E	15H32 D
23/01/06	+0.30	-0.39	I	11H20 E	15H33 D
24/01/06	+0.71	-0.40	I	8H33 E	15H28 D
25/01/06	+0.64	-0.42	I	8H33 E	15H33 D
25/01/06	+0.90	-0.43	I	8H33 E	15H33 D

01, 02 January: NO DATA

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 estimated within 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

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[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

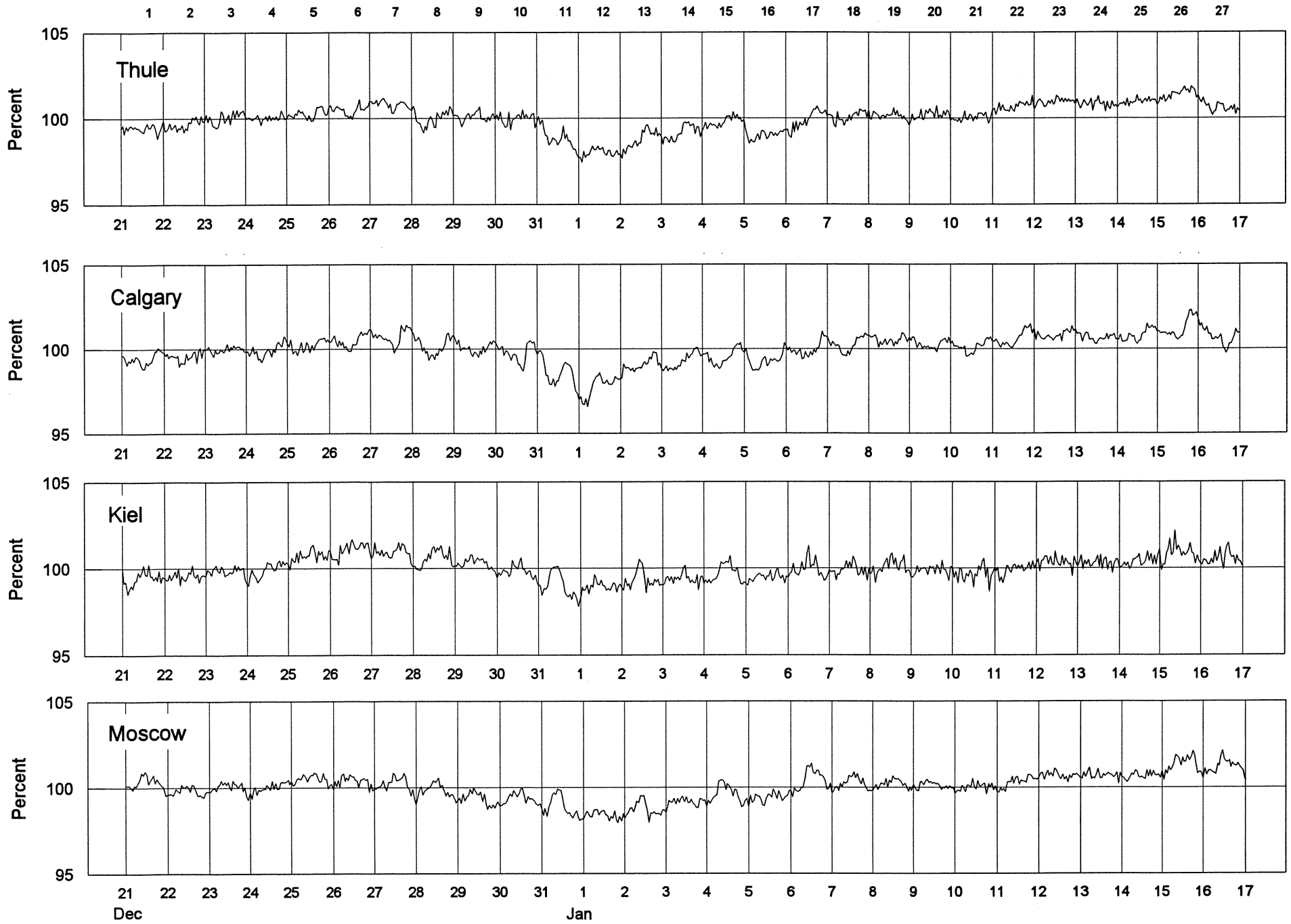
COSMIC RAY INDICES
(Neutron Monitor)
January 2006

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	4258.6	3700.8	5983.2	8816.3	4009.8	2055.9	3540.6
2	4290.5	3748.7	6006.5	8845.9	4048.5	2059.5	3562.1
3	4308.2	3756.3	6010.0	8883.8	4059.5	2062.9	3556.0
4	4335.1	3767.0	6027.5	8925.2	4062.8	2061.3	3549.2
5	4303.8	3758.0	6014.7	8907.2	4036.0	2066.8	3557.2
6	4339.9	3783.7	6043.3	8997.0	4070.0	2071.2	3570.3
7	4348.8	3794.2	6041.7	8979.7	4091.0	2073.0	3578.4
8	4352.1	3804.8	6052.7	8976.4	4106.6	2078.3	3581.6
9	4353.2	3796.3	6038.6	8970.3	4094.4	2070.5	3579.3
10	4346.4	3790.0	6026.8	8961.2	4082.7	2069.5	3578.9
11	4374.4	3807.0	6042.5	8985.6	4109.2	2064.4	3580.8
12	4386.6	3815.7	6069.0	9022.1	4125.5	2069.4	3595.1
13	4381.4	3810.8	6065.4	9021.3	4114.0	2069.4	3594.3
14	4386.6	3815.0	6069.5	9019.0	4122.8	2074.1	3591.0
15	4405.0	3830.5	6099.3	9079.2	4158.9	2068.9	3606.3
16	4373.6	3812.3	6080.8	9068.5	4131.8	2068.7	3597.1
17	4362.9(21)	3803.7	6092.5	9083.0	4125.8	2075.4	3593.8
18	---	3813.8	6084.4	9136.8	4119.5	2076.4	3592.8
19	4367.0(5)	3820.8	6058.1	9176.4	4143.4	2073.9	3594.8
20	4378.3	3822.5	6081.0	9608.7	4135.2	2069.4	3589.2
21	4400.3	3834.7	6119.1	9182.3	4142.3	2076.7	3598.1
22	4406.2	3842.0	6127.5	9213.6	4160.0	2077.0	3588.1
23	4410.0	3835.5	6136.7	9184.8	4158.1	2080.7	3596.1
24	4394.5	3826.3	6122.8	9144.8	4129.6	2080.2	3557.2
25	4344.4	3808.3	6078.8	9051.0	4107.3	2071.0	3562.5
26	4374.8	3801.0	6113.3	9094.6	4122.5	2070.8	3559.2
27	4381.3	3811.7	6091.8	9084.0	4126.6	2065.5	3560.3
28	4389.2	3820.0	6095.6	9097.3(20)	4139.3	2066.8	3565.9
29	4380.9	3830.3	6091.4	9096.5	4146.5	2069.3	3571.8
30	4391.7	3828.2	6092.9	9114.7	4147.7	2072.2	3587.5
31	4402.4	3839.2	6108.2	9153.7	4158.0	2077.4	3596.0
Mean	4364.0	3804.2	6069.8	9060.5	4112.4	2070.5	3578.4

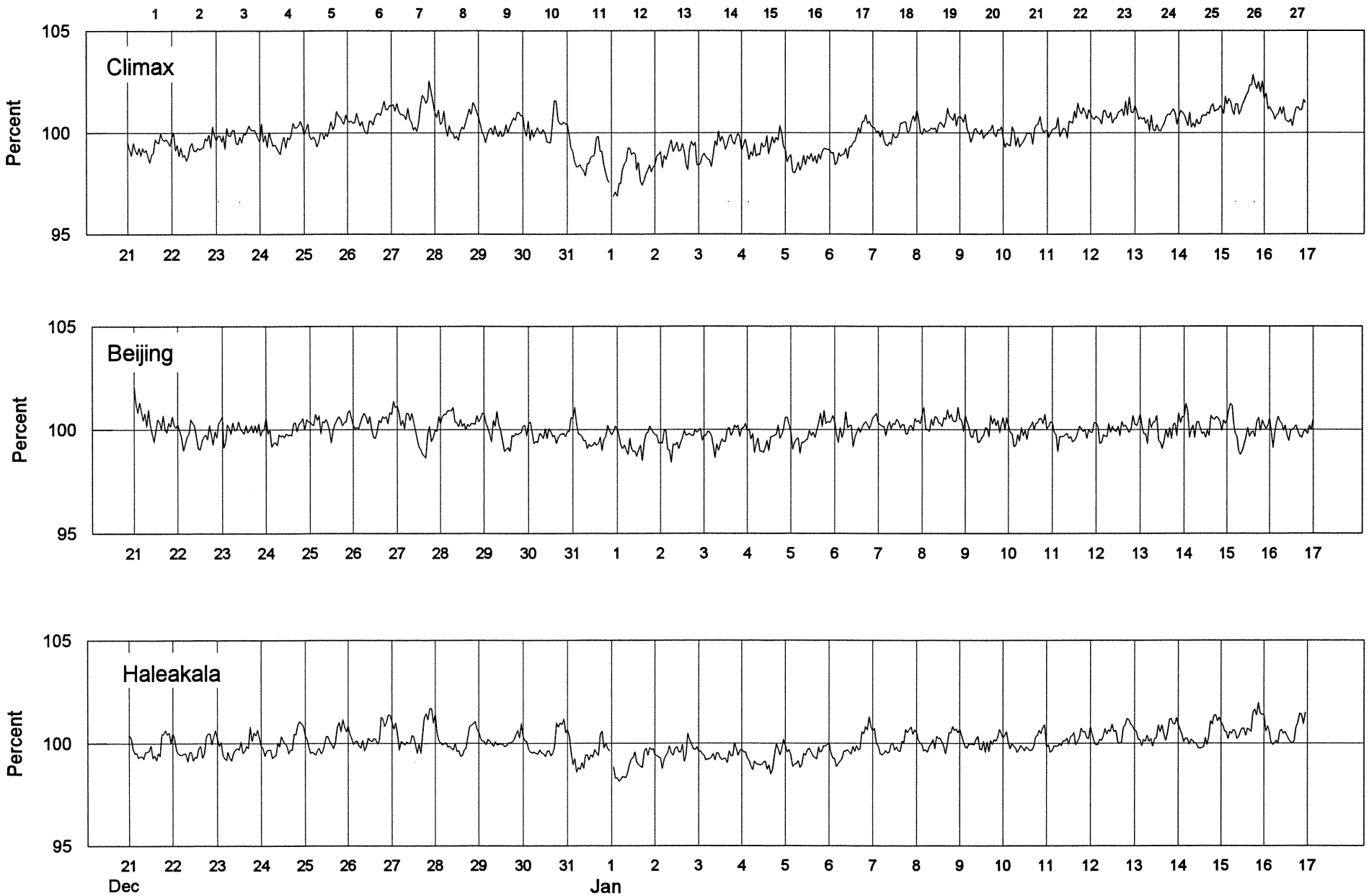
For less than 24-hour coverage, parentheses enclose the number of hours for which data are available. For Climax, parentheses enclose the number of section hours whenever the sum of both sections falls below 40 hours, and for Haleakala, whenever the sum of all three sections falls below 60 hours.

COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2353 - Beginning 21 Dec 2005

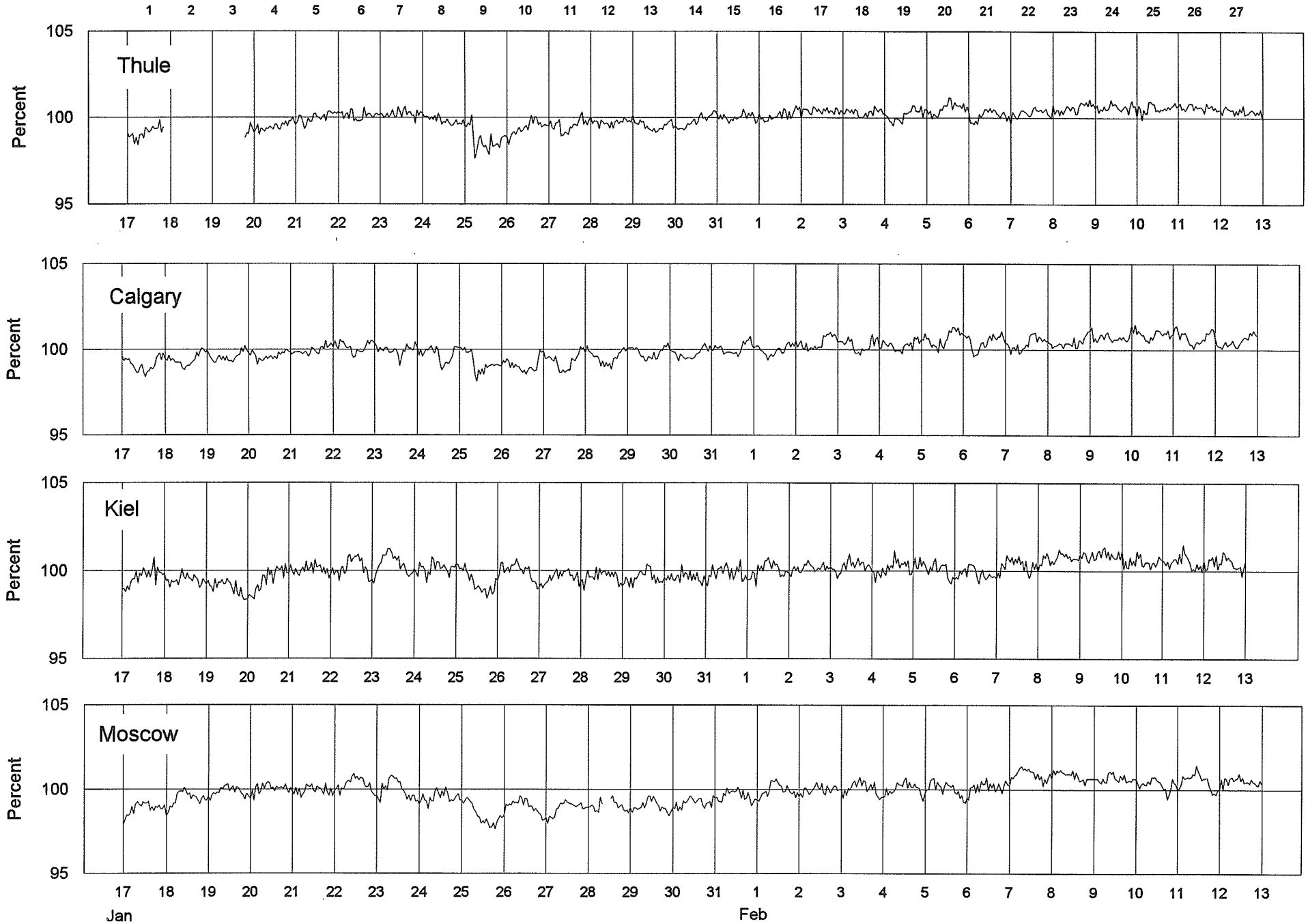


COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2353 - Beginning 21 Dec 2005

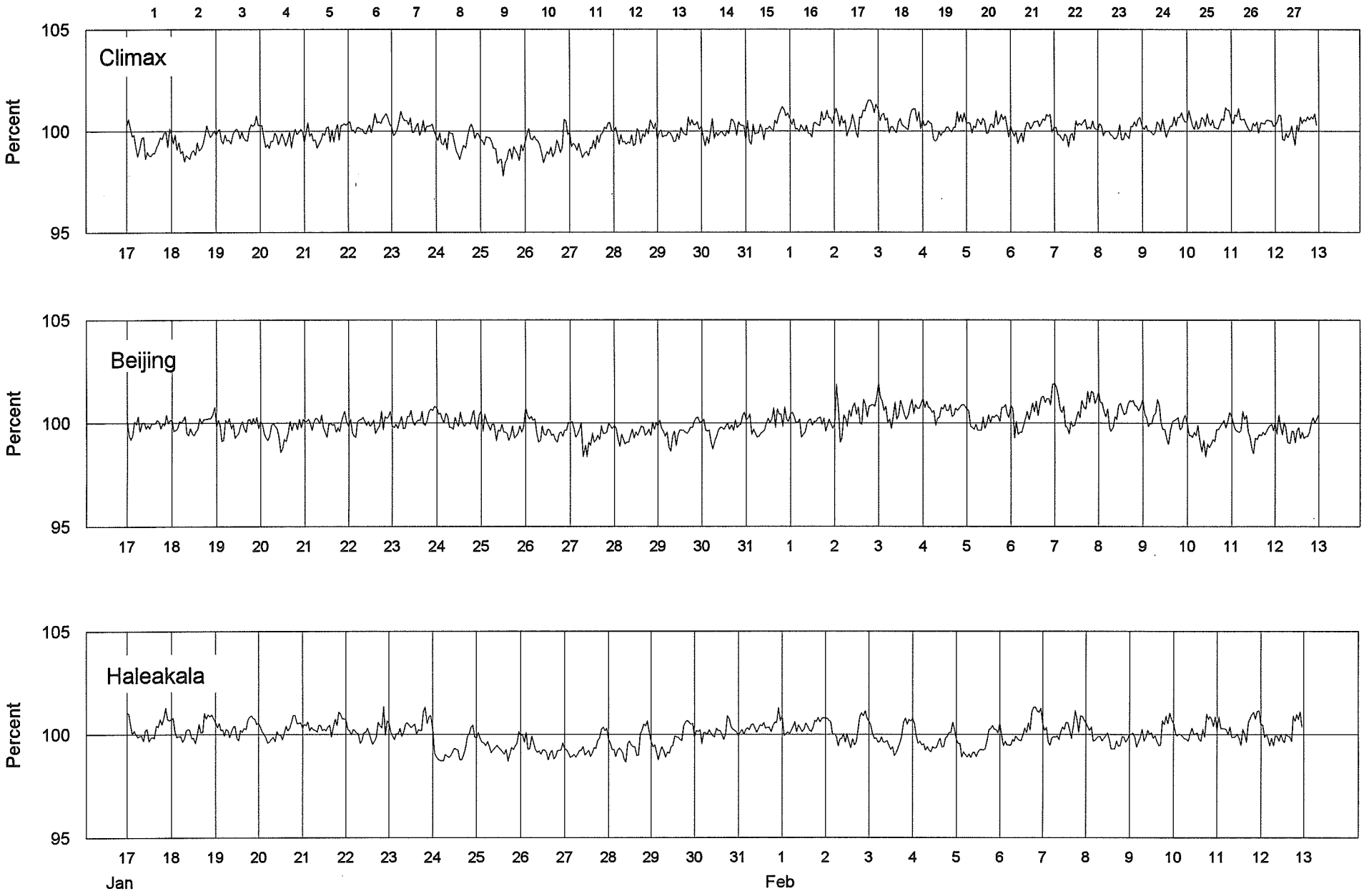


COSMIC RAY INDICES
(Neutron Monitor)

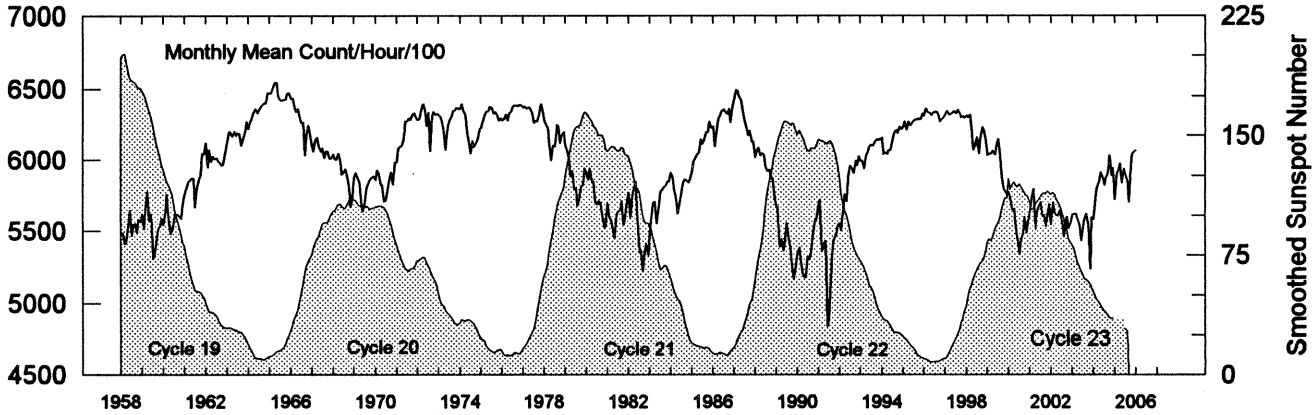
Bartels Rotation 2354 - Beginning 17 Jan 2006



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



Kiel Neutron Monitor Pressure-Corrected Values
Jan 1958 - Jan 2006



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1958	5481	5488	5409	5417	5523	5651	5466	5538	5553	5485	5584	5561	5513
1959	5623	5515	5659	5783	5569	5625	5307	5328	5420	5518	5536	5593	5540
1960	5539	5628	5764	5596	5480	5509	5557	5628	5620	5607	5586	5692	5601
1961	5766	5793	5853	5856	5872	5874	5672	5804	5859	5898	6046	6041	5861
1962	6122	5949	6072	5989	6030	6010	6013	5991	5982	5963	5971	6052	6012
1963	6125	6197	6191	6163	6194	6168	6185	6182	6103	6133	6197	6260	6175
1964	6215	6253	6287	6331	6355	6321	6347	6366	6383	6399	6393	6475	6344
1965	6474	6469	6506	6542	6545	6451	6424	6420	6423	6424	6467	6475	6468
1966	6433	6432	6375	6330	6353	6300	6258	6258	6033	6168	6236	6172	6279
1967	6101	6061	6139	6155	6088	6061	6086	6016	6064	6063	6014	6009	6071
1968	6041	6011	6001	6048	5997	5901	5910	5937	5878	5805	5673	5739	5912
1969	5876	5909	5872	5845	5686	5640	5700	5812	5843	5864	5879	5887	5818
1970	5863	5928	5906	5830	5831	5716	5719	5803	5885	5915	5832	5985	5851
1971	5985	6081	6094	6103	6151	6268	6265	6286	6275	6314	6322	6288	6203
1972	6281	6278	6351	6387	6344	6232	6328	6065	6306	6334	6313	6318	6295
1973	6309	6298	6250	6155	6074	6220	6271	6296	6341	6340	6365	6360	6273
1974	6353	6391	6331	6308	6201	6139	6047	6132	6090	6113	6139	6215	6205
1975	6217	6267	6308	6334	6341	6370	6363	6320	6334	6313	6272	6286	6310
1976	6275	6281	6314	6269	6325	6331	6370	6380	6379	6375	6383	6380	6339
1977	6366	6371	6355	6366	6357	6322	6254	6272	6263	6317	6391	6355	6332
1978	6271	6242	6215	6113	5998	6101	6095	6241	6232	6117	6167	6193	6165
1979	6104	6063	6006	5883	5923	5794	5806	5682	5723	5820	5827	5942	5881
1980	5905	5862	5942	5850	5854	5702	5690	5717	5704	5611	5522	5528	5741
1981	5697	5600	5569	5517	5447	5600	5642	5650	5717	5539	5564	5702	5604
1982	5772	5586	5755	5799	5848	5582	5347	5362	5217	5349	5414	5329	5530
1983	5481	5606	5702	5711	5549	5659	5787	5785	5814	5820	5852	5849	5718
1984	5911	5880	5799	5740	5622	5706	5753	5837	5867	5856	5844	5864	5807
1985	5911	5986	6016	6038	6049	6142	6114	6135	6193	6192	6260	6220	6105
1986	6229	6093	6176	6280	6308	6336	6350	6331	6315	6356	6259	6359	6283
1987	6429	6489	6484	6443	6410	6319	6273	6217	6171	6198	6131	6131	6308
1988	6013	6064	6085	6030	6047	6033	5945	5922	5931	5880	5872	5761	5965
1989	5673	5678	5385	5441	5360	5407	5552	5460	5378	5228	5167	5241	5414
1990	5348	5381	5313	5197	5177	5173	5324	5297	5382	5471	5563	5584	5351
1991	5696	5726	5355	5405	5431	4841	4882	5162	5390	5443	5466	5540	5361
1992	5553	5500	5624	5766	5713	5869	5956	5942	5905	5994	5960	6024	5817
1993	5996	5992	5937	6026	6061	6094	6108	6099	6129	6137	6142	6141	6072
1994	6150	6042	6052	6067	6070	6068	6129	6189	6203	6183	6226	6209	6132
1995	6225	6260	6205	6260	6234	6250	6267	6279	6281	6285	6279	6319	6262
1996	6301	6354	6330	6324	6306	6325	6332	6331	6303	6262	6277	6294	6312
1997	6313	6337	6313	6314	6324	6336	6317	6347	6319	6295	6301	6289	6317
1998	6305	6293	6312	6177	6069	6101	6154	6042	6149	6220	6190	6124	6178
1999	6034	6040	6041	6062	6032	6100	6140	6023	5898	5805	5780	5765	5977
2000	5778	5729	5650	5661	5537	5441	5339	5425	5487	5602	5481	5542	5556
2001	5629	5736	5800	5509	5631	5678	5707	5602	5614	5527	5637	5694	5647
2002	5540	5701	5628	5613	5610	5651	5562	5455	5556	5599	5512	5558	5582
2003	5613	5624	5624	5588	5543	5428	5532	5582	5624	5544	5235	5595	5544
2004	5579	5730	5810	5854	5908	5882	5856	5874	5898	6029	5887	5941	5854
2005	5723	5898	5931	5970	5840	5936	5899	5847	5705	5956	6042	6056	5900
2006	6070												6070

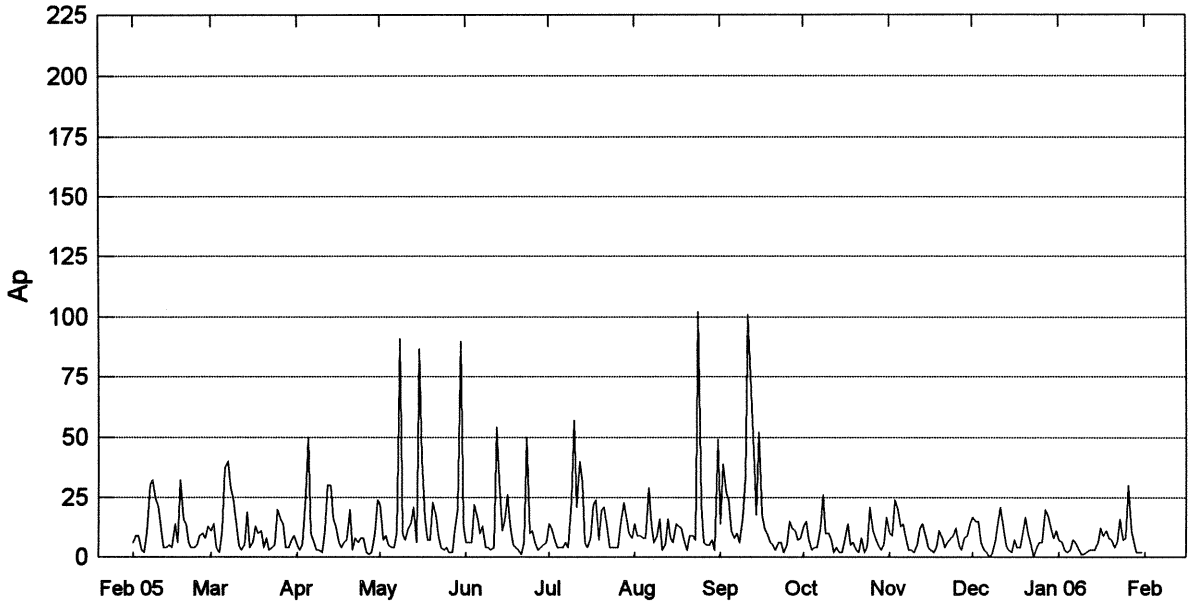
Multiply table entries by 100 to obtain hourly counting rate. Kiel, Germany: N54, E10, Alt= 54 m, Cutoff Rigidity= 2.32GV.

Geomagnetic Activity Indices
January 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		3-	1+	1-	1	3-	2-	1+	2-	13	7	0.3	2o	1o	1o	1+	3-	2o	2-	2-	12	12	15	10	17	
2		2-	2	2-	2	1	1+	1	3-	13+	6	0.3	2o	2+	2o	2+	1o	2-	2-	3o	16	14	19	18	15	
3		2+	1-	0	0	1-	2-	1+	0	7-	3	0.1	1+	0+	0+	1-	1+	2o	1+	0+	7	9	8	7	10	CC
4	Q4	0+	1	0+	1-	0+	0+	1-	0	4-	2	0.0	1-	1o	0+	0+	1-	0+	1o	0o	4	4	5	6	4	CC
5		0	0	1+	1+	1+	1	1	1	7	3	0.1	0+	0o	1+	2-	2-	1+	1o	1o	8	6	8	7	8	CC
6		2-	2+	2-	1+	3	2+	1+	1	15-	7	0.4	1+	2o	2o	2o	2+	2o	2-	1+	13	14	14	11	17	C
7		2	2-	2-	1+	1+	3-	1-	0+	12-	6	0.3	2o	1+	2-	2-	2-	3-	1o	1o	12	11	13	11	14	KK
8		0	0+	2-	2-	1+	1	0+	1-	7	4	0.1	0+	0+	2-	2+	2-	2-	1-	1-	8	6	10	7	9	CC
9	Q1	0	1-	0	0+	0	0	0	0	1	1	0.0	0+	1-	0o	0+	0+	0o	0+	0+	3	4	5	5	3	CC
10	Q2	0	0	0	0	1-	1	0+	0+	2+	1	0.0	0o	0+	0+	0+	1o	1o	1o	1-	4	4	7	4	7	CC
11	Q7	1-	0	0	1-	1	1+	1-	0+	5-	2	0.0	0+	0o	0+	1+	2-	1+	1o	0+	6	6	8	5	9	CC
12	Q10	2-	1+	1	1-	0	0+	1-	1	7-	3	0.1	2-	1o	1o	1-	0o	0+	1+	1+	6	9	8	10	7	CC
13	Q8	1	0	0	0+	1	2-	1	1-	6-	3	0.1	1-	0o	1-	0+	1+	2o	1+	1o	7	5	8	4	8	CC
14	Q9	1-	0+	0	1	1	1+	2-	0+	6+	3	0.1	1-	1-	0+	1+	1o	1o	2o	1o	7	8	9	7	10	CC
15		2	1+	1-	0+	0+	2	3-	2-	11	6	0.2	1+	1o	1-	0+	0+	2-	3o	2o	10	13	10	8	15	CK
16	D3*	1-	3-	2+	3-	3	3	3	3+	21-	12	0.7	1-	3-	3-	3-	3o	4-	4-	3o	28	30	34	21	44	
17		3	4-	2+	2	2-	2-	1+	1	17-	9	0.5	2+	3-	2+	3-	2+	2-	1+	1+	16	14	21	22	13	
18	D4*	2+	2+	3-	4	1+	3-	1+	2	19-	11	0.6	2-	2-	3-	4-	1+	3o	2o	2o	21	27	21	28	20	
19		2	1+	2-	2	3-	2+	2-	3-	16+	8	0.4	2-	0+	1+	2+	3-	2o	2o	3o	15	19	14	11	22	
20		2	1-	1-	2-	2	3-	3	2-	14+	7	0.4	2-	1o	1-	2-	2+	3-	3-	2-	14	17	14	9	22	
21		2-	2+	1	2-	2-	0+	0	0	9-	4	0.1	1+	2o	1-	2-	2o	1-	1-	0+	9	9	7	10	6	CK
22		0	1-	1+	2	3-	3-	0+	1	11-	6	0.3	0o	1-	1+	3-	3-	3-	1-	2-	13	13	15	7	21	
23	D2*	1+	4-	3+	4-	3+	3-	2+	4-	24	16	0.9	1+	3o	3o	3+	3+	3-	3-	3+	28	32	23	26	29	
24		3	3	3-	1+	1-	1-	0	1	12+	7	0.4	3-	3-	2+	1+	1o	1-	0+	1+	12	11	11	16	7	C
25		2-	1-	0+	1+	1-	2-	3	4-	13	8	0.4	2o	1+	1o	2-	1o	2-	3o	3o	15	22	14	12	24	
26	D1	4	4+	2	3+	3	5+	4+	5+	32-	30	1.3	3o	4-	2o	3o	3o	5o	4o	5-	48	66	41	35	72	
27	D5*	3+	2-	2+	3-	3-	2+	2+	3-	20	11	0.6	3o	2-	2+	3-	2+	2+	2+	3-	20	22	19	20	21	
28		2+	2	2-	2-	1	0+	2+	2-	13	6	0.3	2-	1+	2-	2-	2-	1o	3-	2-	12	16	11	14	13	CK
29	Q6	1	1	1-	0+	0	0	0	1-	4-	2	0.0	1+	1o	1-	0+	0o	0o	0o	1-	4	4	6	5	4	CC
30	Q3	1	0+	0+	1-	0	0+	0	0	3-	2	0.0	1o	1-	0+	1-	0+	0+	1-	0o	3	4	6	6	4	CC
31	Q5	0	0+	0	0	1-	1+	0+	0+	3	2	0.0	0+	0+	0+	0+	1+	1+	0+	1-	4	4	5	3	6	CC
Mean											6	0.29									12.4	14.0	13.3		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	2-	1+	1-	1-	2+	2-	1o	1+	10	2o	1o	1+	2-	3-	2+	2+	2-	15	84.5	25	27	29	
2	1+	2-	2-	2o	1o	1+	1+	3-	13	3-	3-	3-	3-	1o	2o	2-	3+	20	81.7	24	24	26	
3	2-	0o	0o	0+	1+	2+	1+	0o	7	1+	1-	1-	1o	1+	2-	1+	1-	7	82.1	19	24	27	
4	0+	1-	0o	0+	1o	0+	1o	0o	3	1o	1+	1-	1-	1-	1-	1o	0o	5	81.2	17	18	26	
5	0o	0o	1o	2-	2-	1+	1o	1o	7	1-	0+	1+	2-	2-	1o	1+	1+	8	80.6	15	10	25	
6	1o	2o	2-	2o	3-	2+	1+	1+	13	1+	2+	2o	2-	2+	2-	2-	1+	14	79.3	15	11	24	
7	2o	1-	2o	2-	2-	3+	1-	0+	12	2-	2-	1+	2-	2-	2+	1+	1+	12	76.6	8	8	21	
8	0o	0+	2o	3-	2-	2-	0+	1-	9	1o	1-	1+	2o	1+	2-	1o	1o	8	75.6	7	8	20	
9	0o	0+	0o	0+	0+	0o	0o	0o	1	1o	1o	0+	0+	0+	0+	1o	1o	4	75.0	8	8	19	
10	0o	0o	0o	0+	1-	1+	0+	0+	3	0o	1-	1-	1-	1+	1-	1+	1o	5	75.2	8	8	19	
11	0+	0o	0o	1-	2-	2-	1-	0+	5	1-	0+	0+	2-	2o	1+	1+	1-	7	74.7	8	8	19	
12	2-	1-	1-	1-	0o	0+	1o	1o	5	2-	1+	1+	1-	0o	0+	1+	1+	7	74.0	8	5	18	
13	1-	0o	0o	0o	1+	2-	1+	1-	5	1o	0+	1+	1-	1o	2o	2-	1+	8	74.0	0	1	18	
14	0+	0+	0o	1+	1+	1+	2o	1-	6	1o	1+	1-	1+	1o	1o	2o	1+	9	74.9	8	2	19	
15	2-	1-	1-	0o	1-	2o	3+	1+	11	1o	1+	1-	1-	0+	2-	3-	2+	10	78.3	20	21	23	
16	0+	3-	3-	3-	3+	4o	4-	3+	29	1o	3o	3-	3-	3o	3+	4-	3-	27	81.1	24	27	26	
17	2+	3-	3-	3-	2+	2-	1+	1o	17	2+	2+	2o	3-	2+	2-	1+	2-	16	79.8	22	24	24	
18	2-	2-	3-	4o	2-	3+	2-	2o	23	2o	2o	2+	3+	1o	3-	2+	2+	19	82.9	28	28	28	
19	1+	1-	1+	3-	3-	2+	2o	3o	17	2-	0+	1+	2o	2o	2-	2+	3-	14	85.8	24	23	31	
20	2-	1-	0+	2-	3-	3o	3o	1+	16	2-	1+	1-	2-	2+	2+	2o	2-	13	87.9	16	17	33	
21	1o	2o	1o	2-	2o	1o	0+	0+	8	2o	2+	0+	2-	2o	1-	1o	0+	9	90.9	19	24	36	
22	0o	1-	1+	3-	3o	3o	1-	1o	13	0o	1-	1o	2+	2+	2+	1-	2+	12	89.9	31	32	35	
23	1o	3o	3o	4-	3o	3o	2+	3+	29	2-	3o	3o	3o	4-	3-	3-	3o	28	89.6	37	34	35	
24	3-	3-	3-	1o	1-	1-	0o	1-	12	3-	2o	2o	2-	1+	1o	0+	2-	12	89.8	30	28	35	
25	1+	1o	1-	2-	1o	2o	3+	3+	16	2+	2-	1+	2o	1o	2-	3-	3-	15	86.3	19	21	31	
26	3+	3+	2o	3+	3o	5o	3+	5-	46	3o	4-	2o	3o	3o	5o	4+	5-	50	84.2	14	14	29	
27	3o	2-	3-	3-	3-	2+	2+	3-	22	3-	2-	2o	3-	2o	2+	3-	3-	19	81.0	9	12	25	
28	2-	1+	2o	2-	1+	1o	2+	1+	12	2-	1+	2-	1+	2-	1o	3-	2-	13	77.6	7	2	22	
29	1o	1o	1-	0+	0o	0o	0o	0+	3	2-	1o	0+	1-	0o	0+	0+	1o	4	77.2	7	1	21	
30	0+	0o	0o	1-	1-	0o	0+	0o	2	1+	1+	0+	1o	0+	1-	1o	0o	5	76.5	0	0	21	
31	0o	0+	0+	0+	1+	2-	0o	0o	4	1-	0+	0+	0+	1o	1+	1-	1+	5	75.3	0	0	19	
Mean									12.2									12.9	80.8	15.4	15.1	25.3	

Daily Average Indices Ap
Feb 2005 - Jan 2006

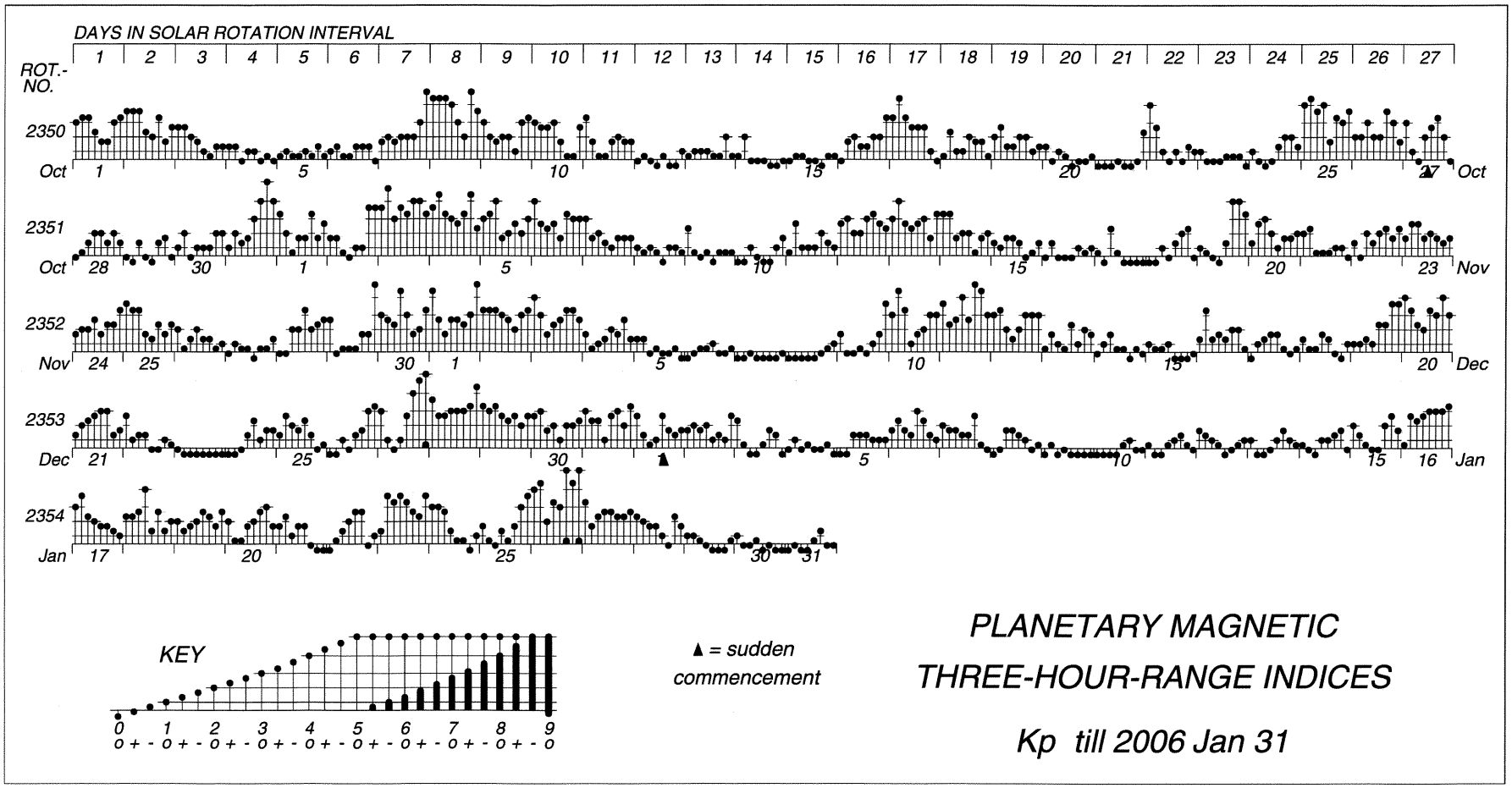


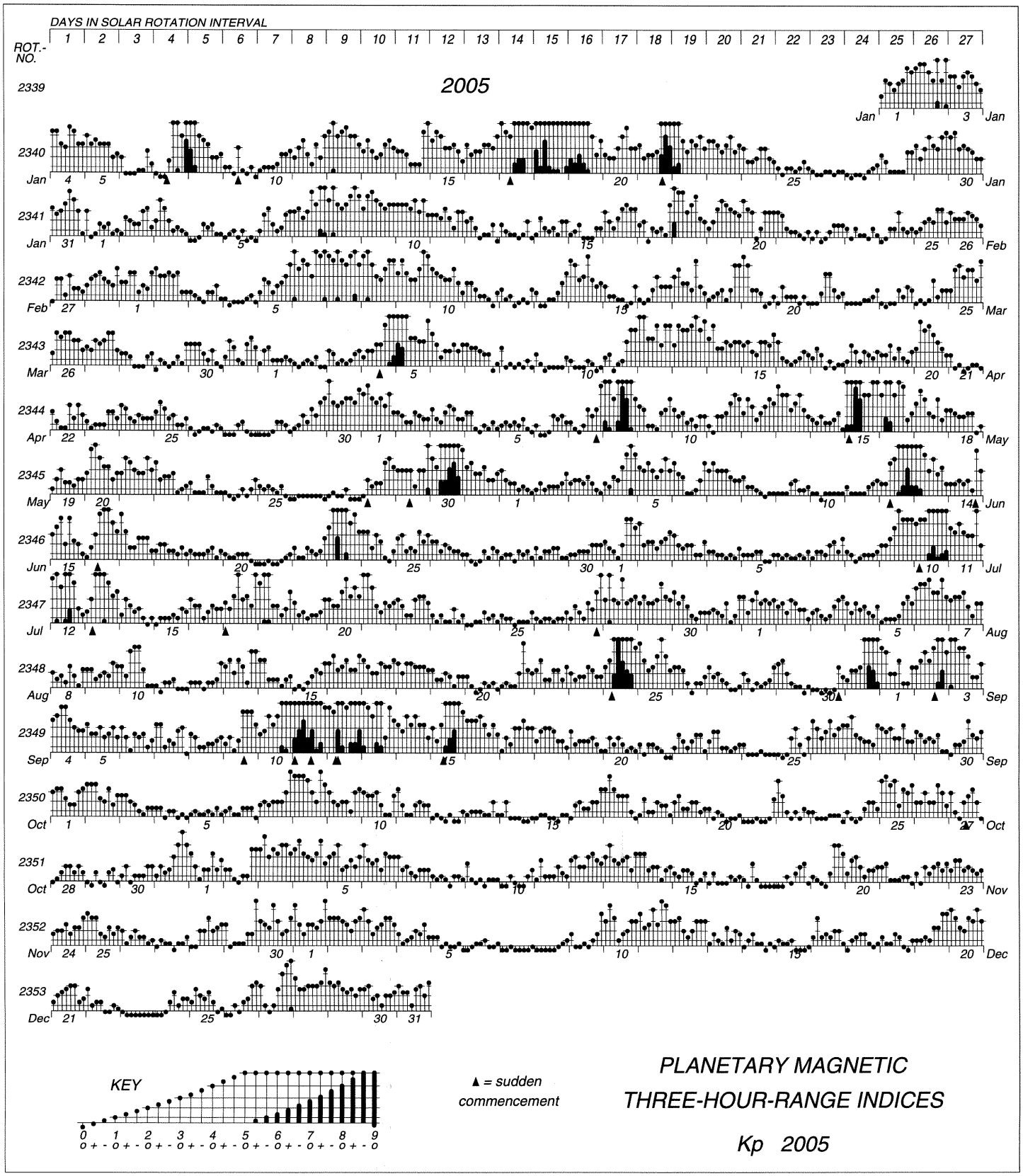
Day	Feb 05	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 06
1	6	11	5	22	6	14	14	14	13	10	17	7
2	9	14	3	7	6	12	9	39	15	9	15	6
3	9	4	5	9	6	7	9	27	7	24	15	3
4	3	2	26	5	22	4	8	24	3	20	6	2
5	2	11	50	4	17	4	8	11	4	13	3	3
6	10	37	10	4	10	4	29	8	4	14	2	7
7	30	40	6	10	13	6	14	10	12	7	0	6
8	32	29	3	91	4	4	6	6	26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

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

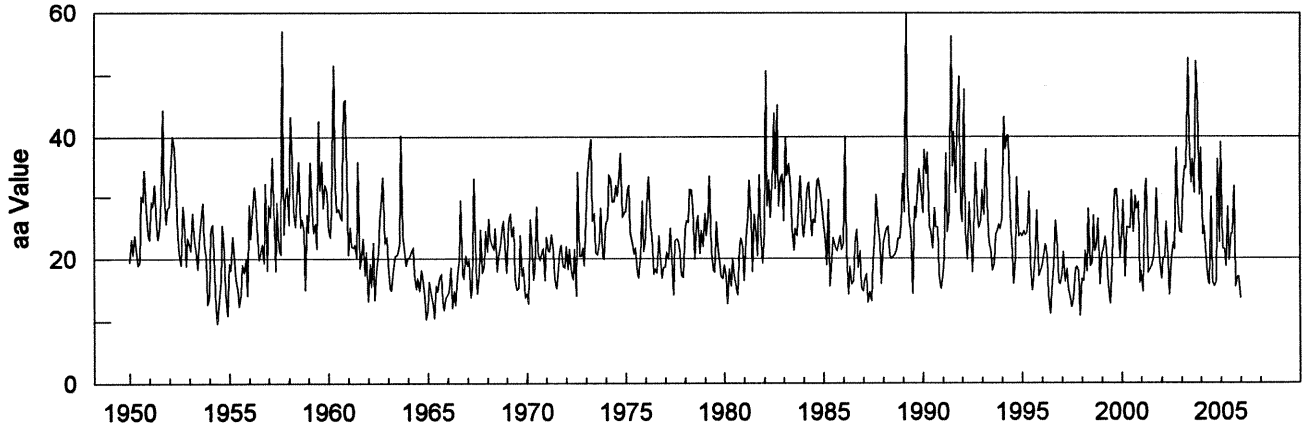
GeoForschungsZentraum Potsdam

Kp through Jan 31, 2006




DAYS IN SOLAR ROTATION INTERVAL
ROT.-NO.
2005
KEY
▲ = sudden commencement
PLANETARY MAGNETIC
THREE-HOUR-RANGE INDICES
Kp 2005

Monthly Mean aa Index Jan 1950 - Jan 2006

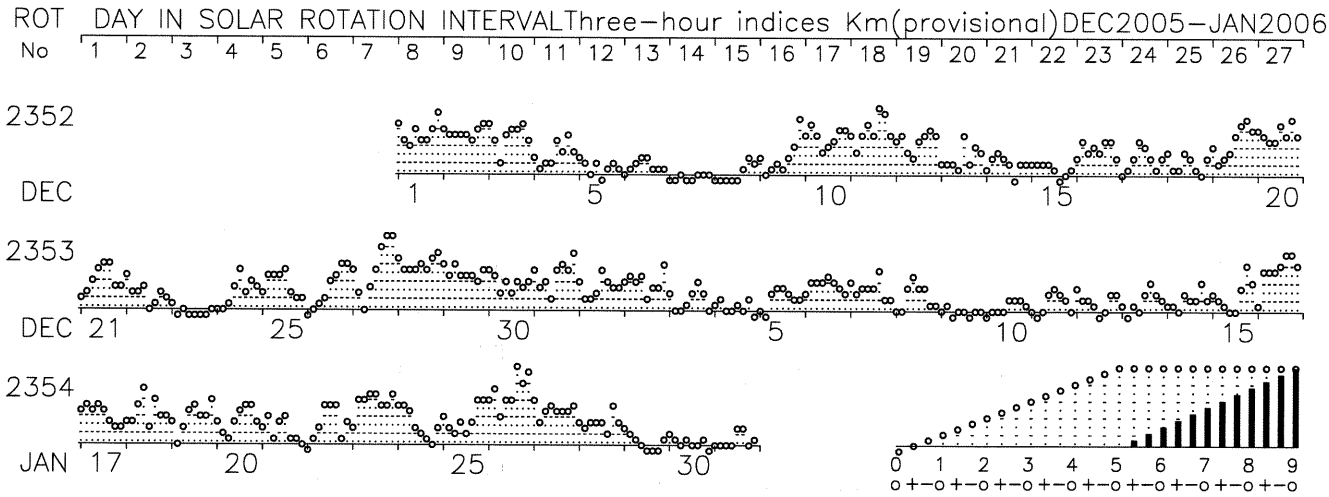


Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1950	19.5	23.2	20.6	23.8	21.7	19.0	19.5	30.2	29.3	34.5	28.0	24.0	24.4
1951	23.1	29.2	28.5	32.1	25.5	23.2	25.2	29.7	44.4	30.3	25.7	28.2	28.8
1952	28.5	34.3	40.1	38.0	33.1	23.8	20.7	19.0	28.5	26.4	18.9	23.4	27.9
1953	22.3	21.2	27.4	22.7	21.4	18.4	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

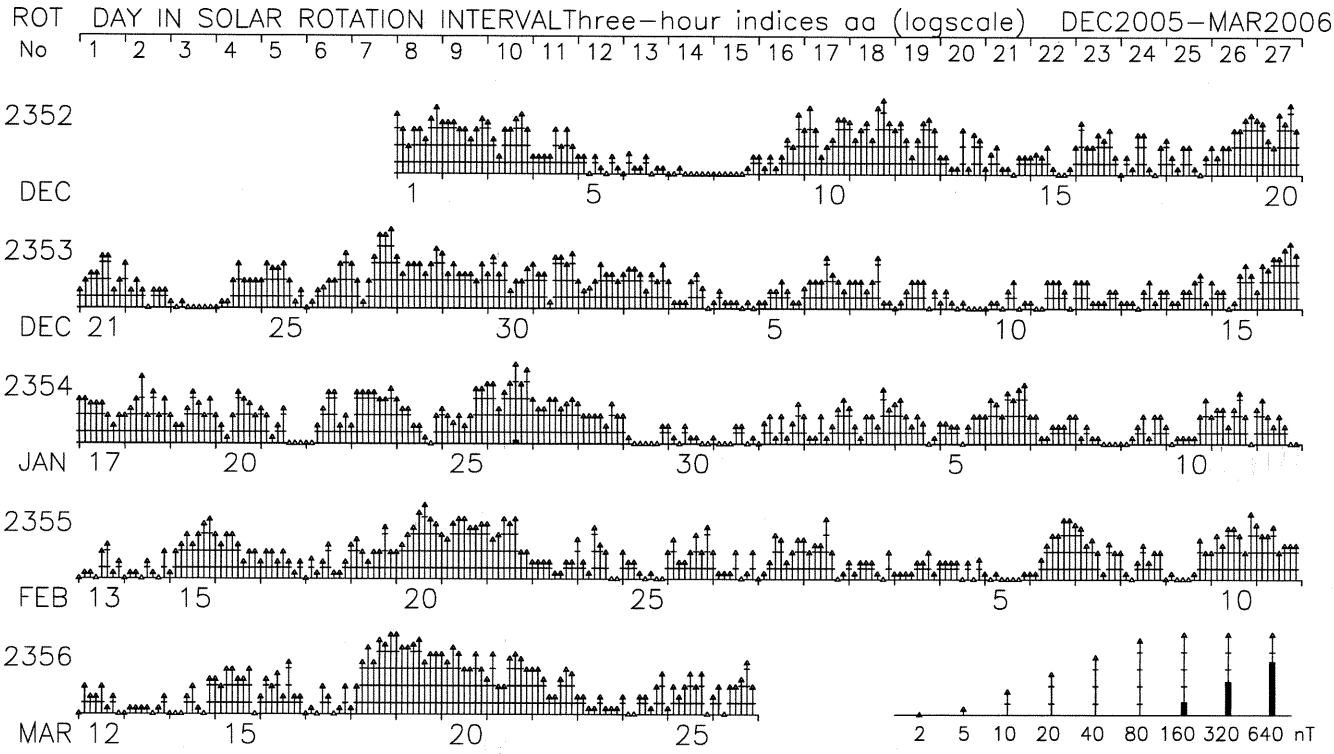
PLANETARY GEOMAGNETIC ACTIVITY

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

ISGI PUBLICATION OFFICE – EMail : ISGI.PUBOFF@cetp.ipsl.fr
CETP, 4 Avenue de Neptune, F-94107 Saint Maur des Fosses CEDEX – FRANCE

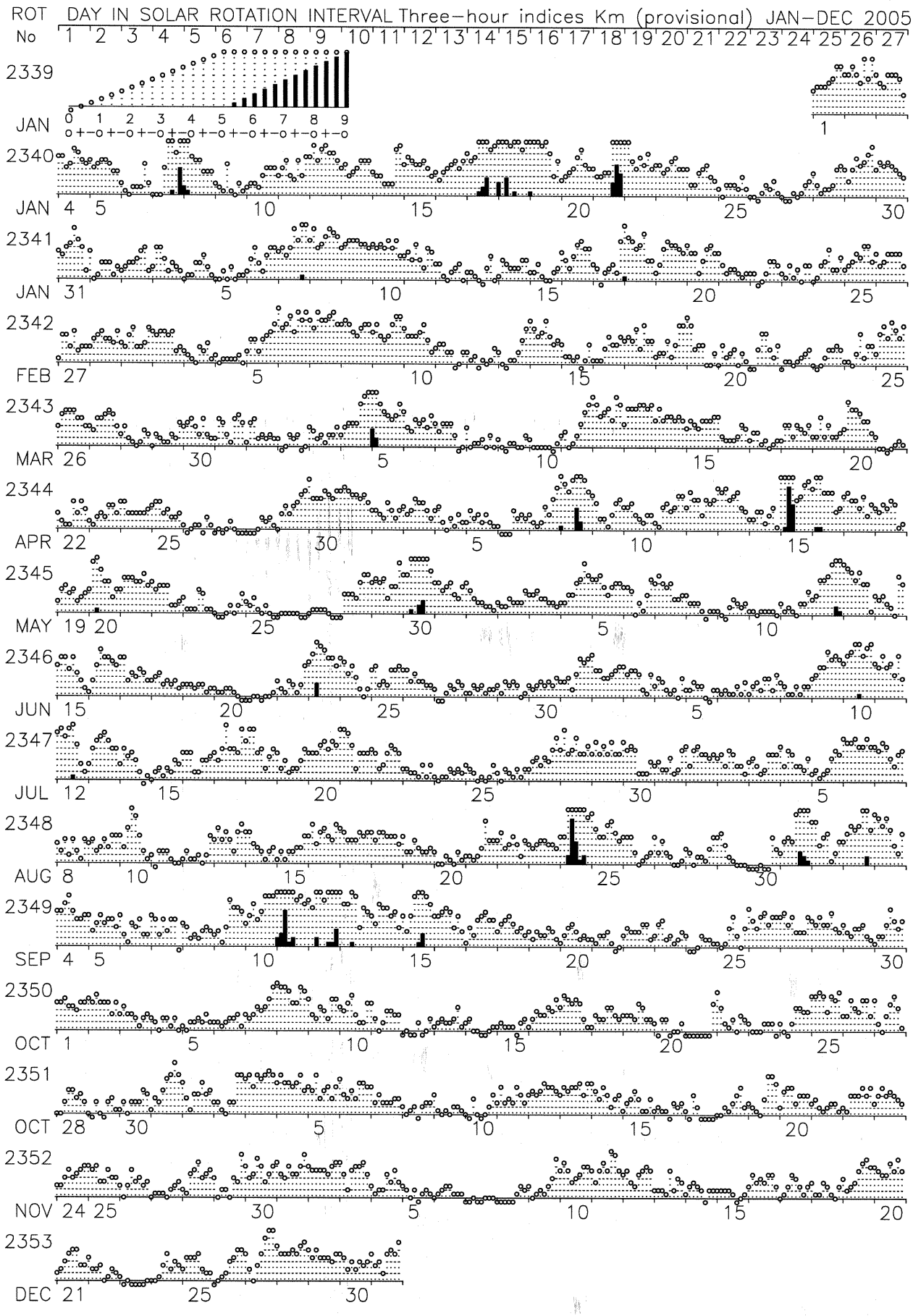


Indices Derivation at C.E.T.P.; Graph Prepared at ISGI Publication Office.



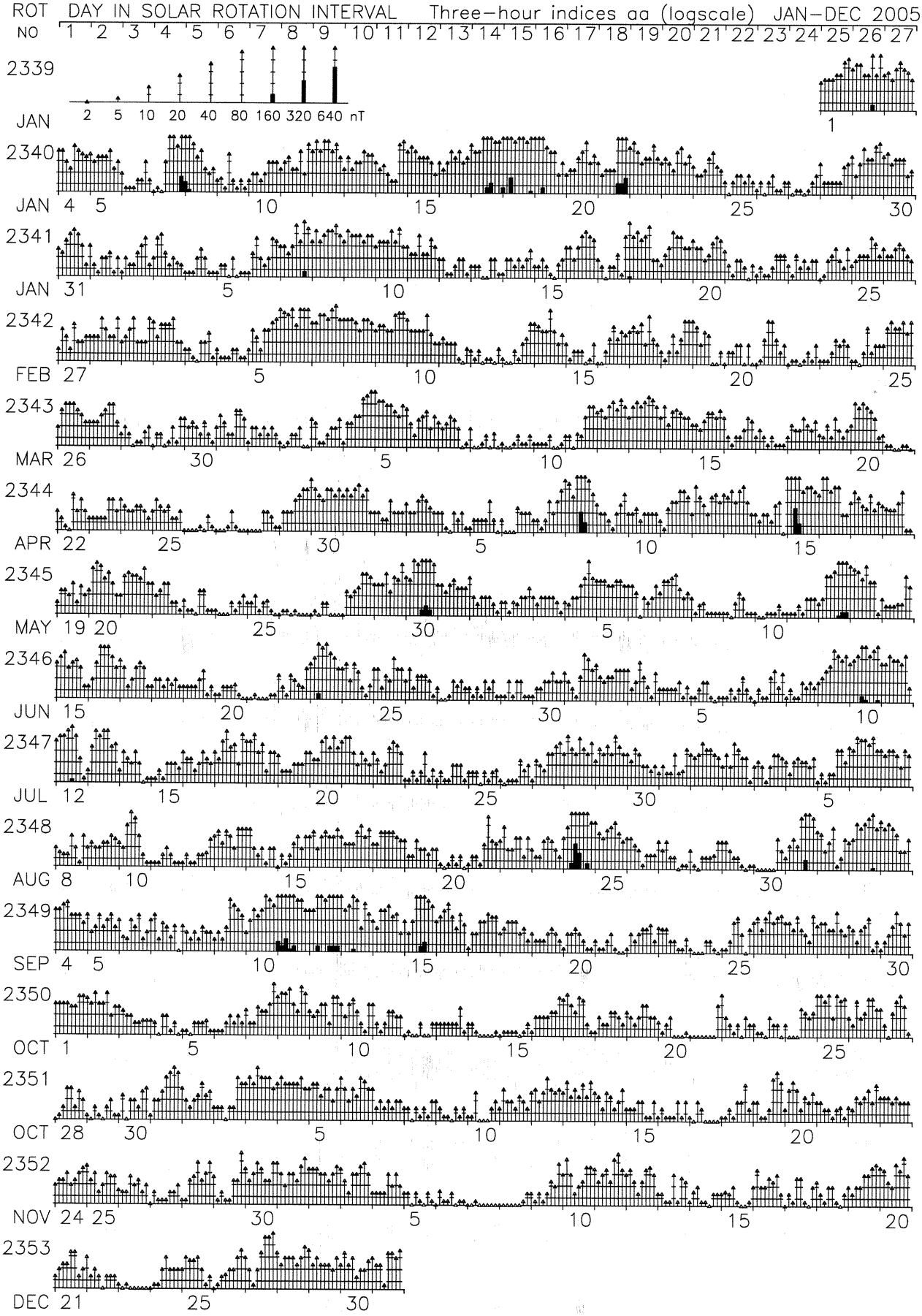
Indices Derivation at C.E.T.P.; Graph Prepared at ISGI Publication Office.

PLANETARY GEOMAGNETIC ACTIVITY – MUSICAL DIAGRAM OF Km 2005

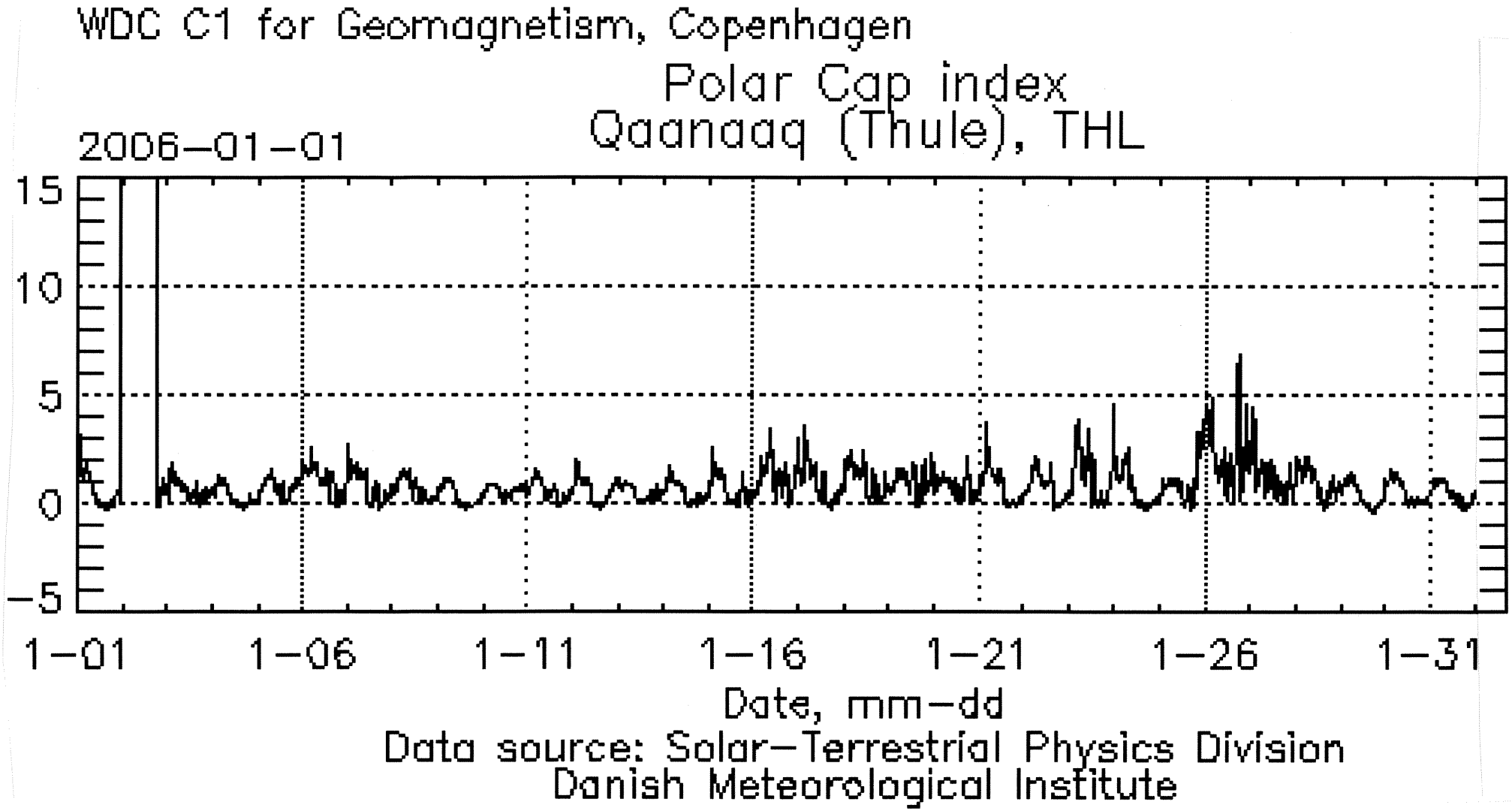


Indices Derivation at C.E.T.P.; Graph Prepared at ISGI Publication Office.

PLANETARY GEOMAGNETIC ACTIVITY – MUSICAL DIAGRAM OF aa 2005



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


WDC C1 for Geomagnetism, Copenhagen
Polar Cap index
Qaanaaq (Thule), THL
2006-01-01
15
10
5
0
-5
1-01
1-06
1-11
1-16
1-21
1-26
1-31
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

JANUARY 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	15	1600	..	..	..	..		-	3	87	20	17	20
NGP	11.3N	15	1600	..	..	..	..		-	4	94	23	17	20
ABG	09.4N	15	1600	..	..	..	..	15(4) 16(5,6)	5	4	97	35	17	20
PND	02.0N	15	1600	..	..	..	..		-	3	110	40	17	20
TIR	00.6S	15	1600	..	..	..	..		-	5	144	48	17	20
JAI	17.4N	23	0200	..	..	..	..		-	4	71	19	24	03
NGP	11.3N	23	0200	..	..	..	..		-	3	81	17	24	03
ABG	09.4N	23	0200	..	..	..	..	23(3)	5	4	78	28	24	03
PND	02.0N	23	0200	..	..	..	..		-	1	82	42	24	03
TIR	00.6S	23	0200	..	..	..	..		-	3	86	56	24	03
JAI	17.4N	24	2130	..	..	..	..		-	4	58	18	27	23
NGP	11.3N	24	2130	..	..	..	..		-	4	63	22	27	23
ABG	09.4N	24	2130	..	..	..	..	26(4,6,8)	5	3	59	31	27	23
PND	02.0N	24	2130	..	..	..	..		-	2	70	47	27	23
TIR	00.6S	24	2130	..	..	..	..		-	3	79	55	27	23

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 GNA

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

January 2006

Storm Sudden Commencements (SSC)			Solar Flare Effects (sfe)		
Day	Time	Quality: Station Group*	Day	Begin-End	Station(s)
01	1405	B: SOD* NUR* LER* ESK* HAD* DOU CLF* HRB GUI HYB LIV*	22	1304-1322	GUI
		C: NGK* BDV* NAG* GCK EBR*	27	1003-1010	NAG

REPORTING OBSERVATORIES (up to the 3rd of January 2006):
SOD NUR LER ESK NGK VAL HAD DOU BDV CLF HRB NAG GCK MMB EBR SPT KAK HTY 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 (62º 39' 44" S, 60º23' 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.