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MARCH 2008 NUMBER 763 - Part I

Solar-Geophysical Data prompt reports

Data for January and February 2008

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NATIONAL GEOPHYSICAL DATA CENTER
Christopher G. Fox, Director
Boulder, Colorado

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Explanation of Data Reports Issued as Number 515 (Supplement) July 1987

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SOLAR-GEOPHYSICAL DATA

Number 763

(Issued in Two Parts)

Editor: Edward H. Erwin

Division Chief: William F. Denig
Solar-Terrestrial Physics Division

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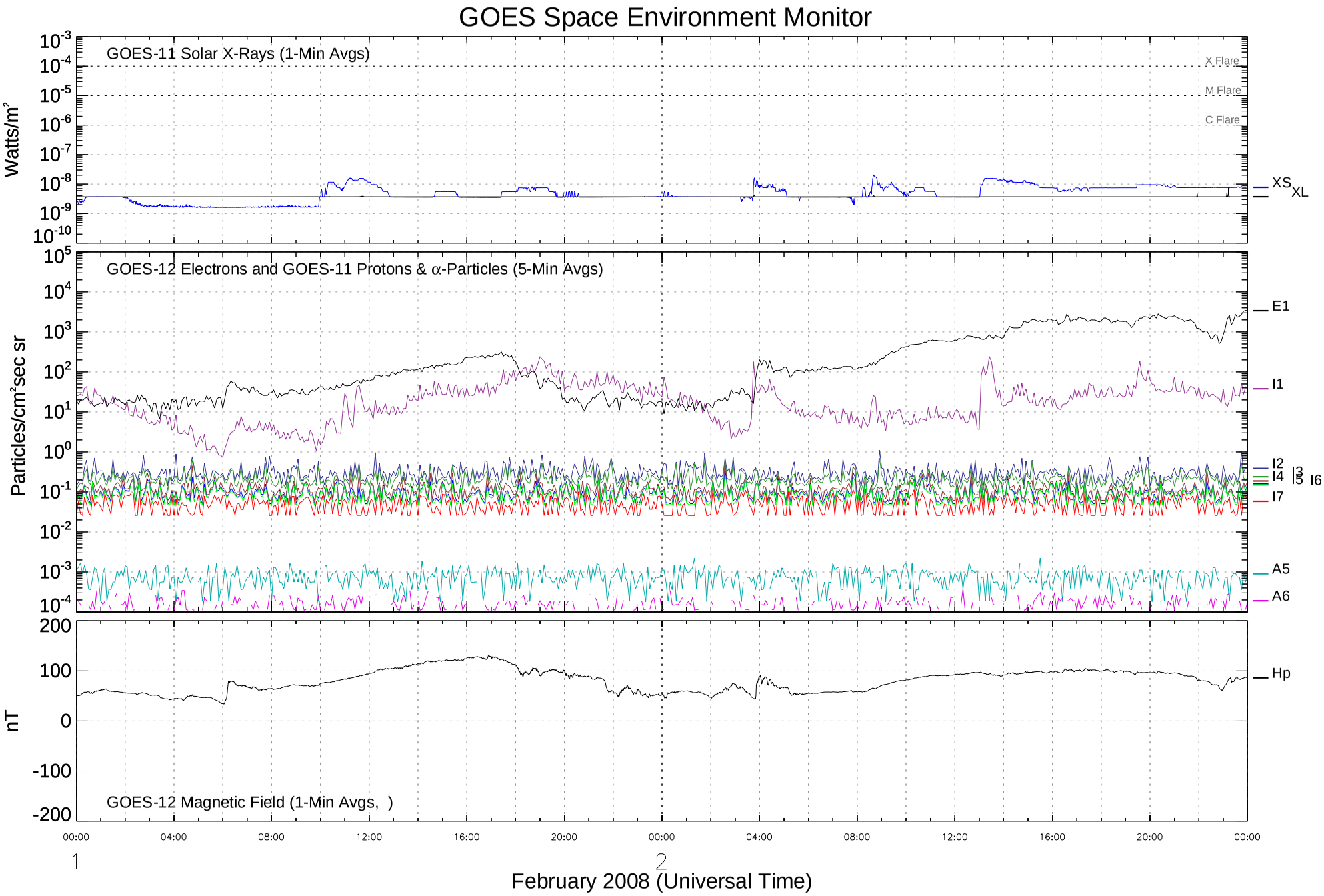
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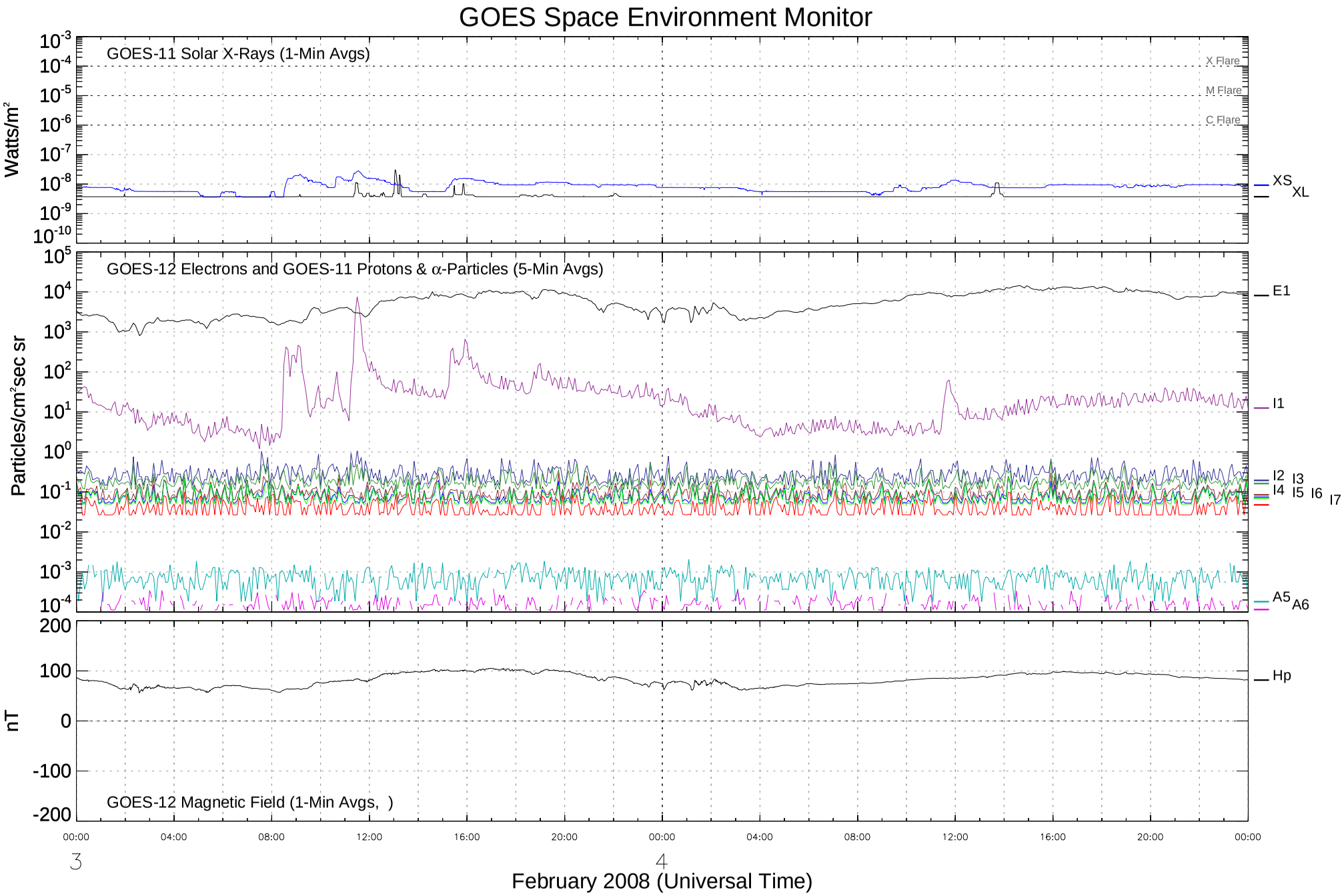
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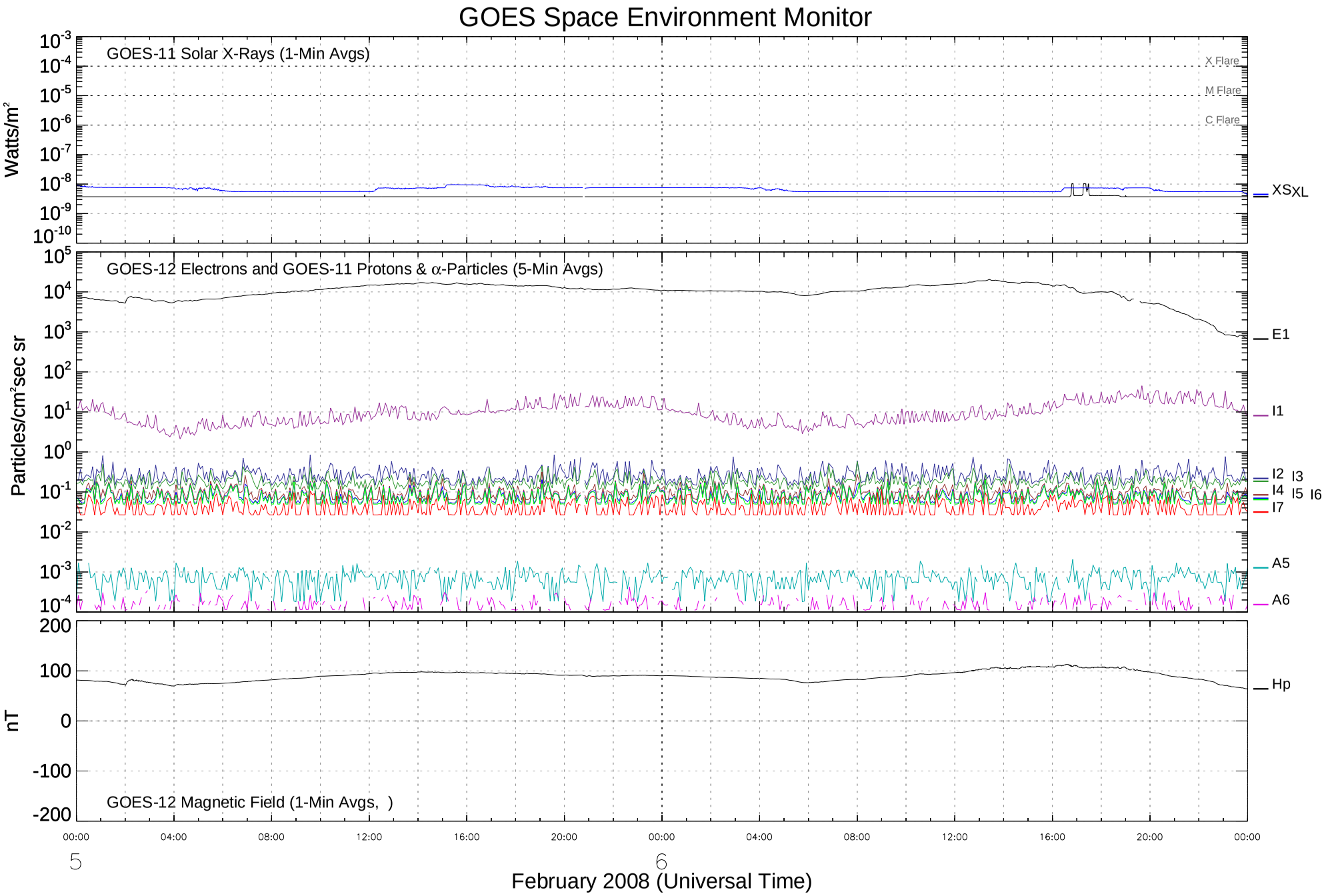
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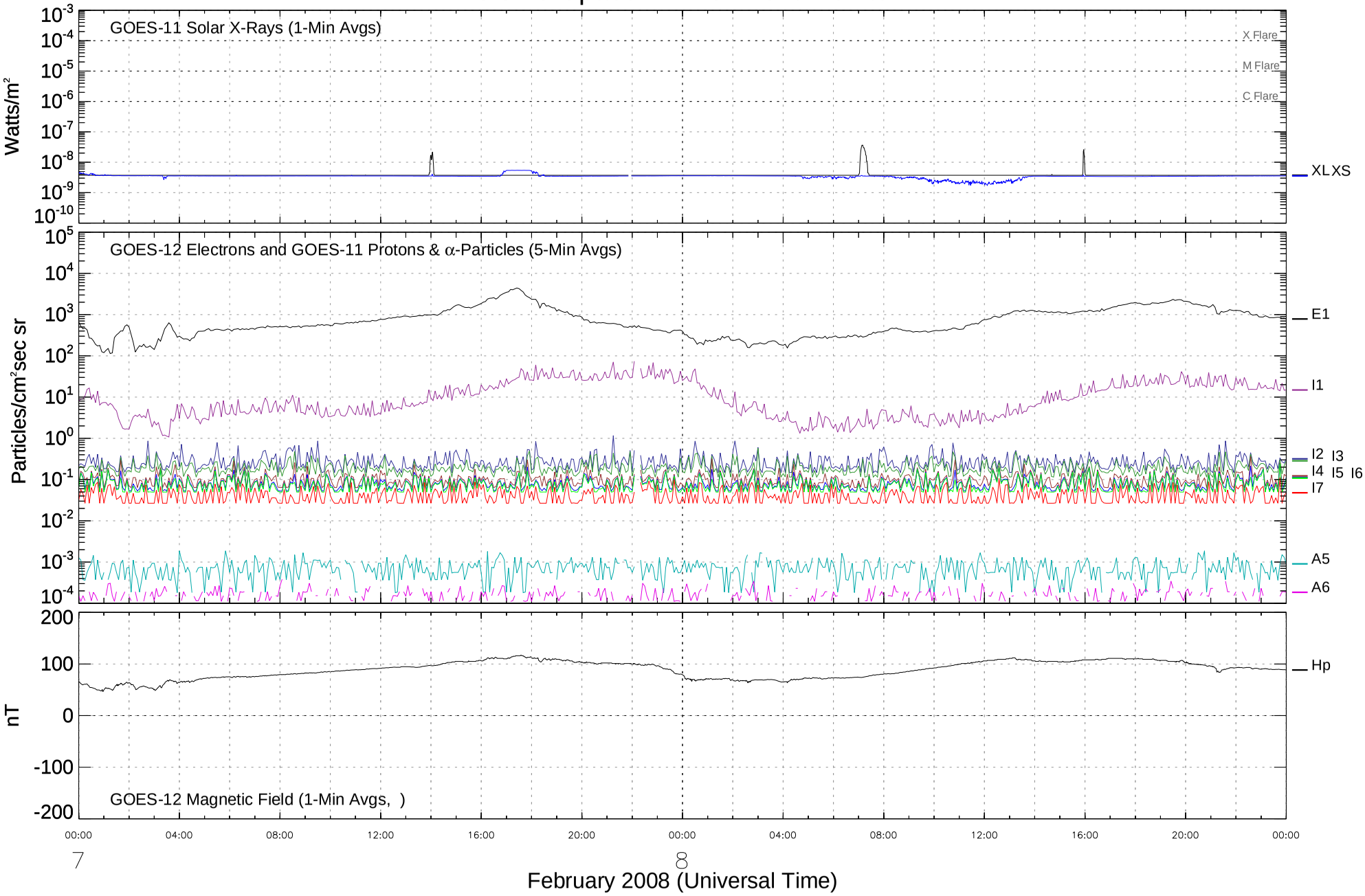

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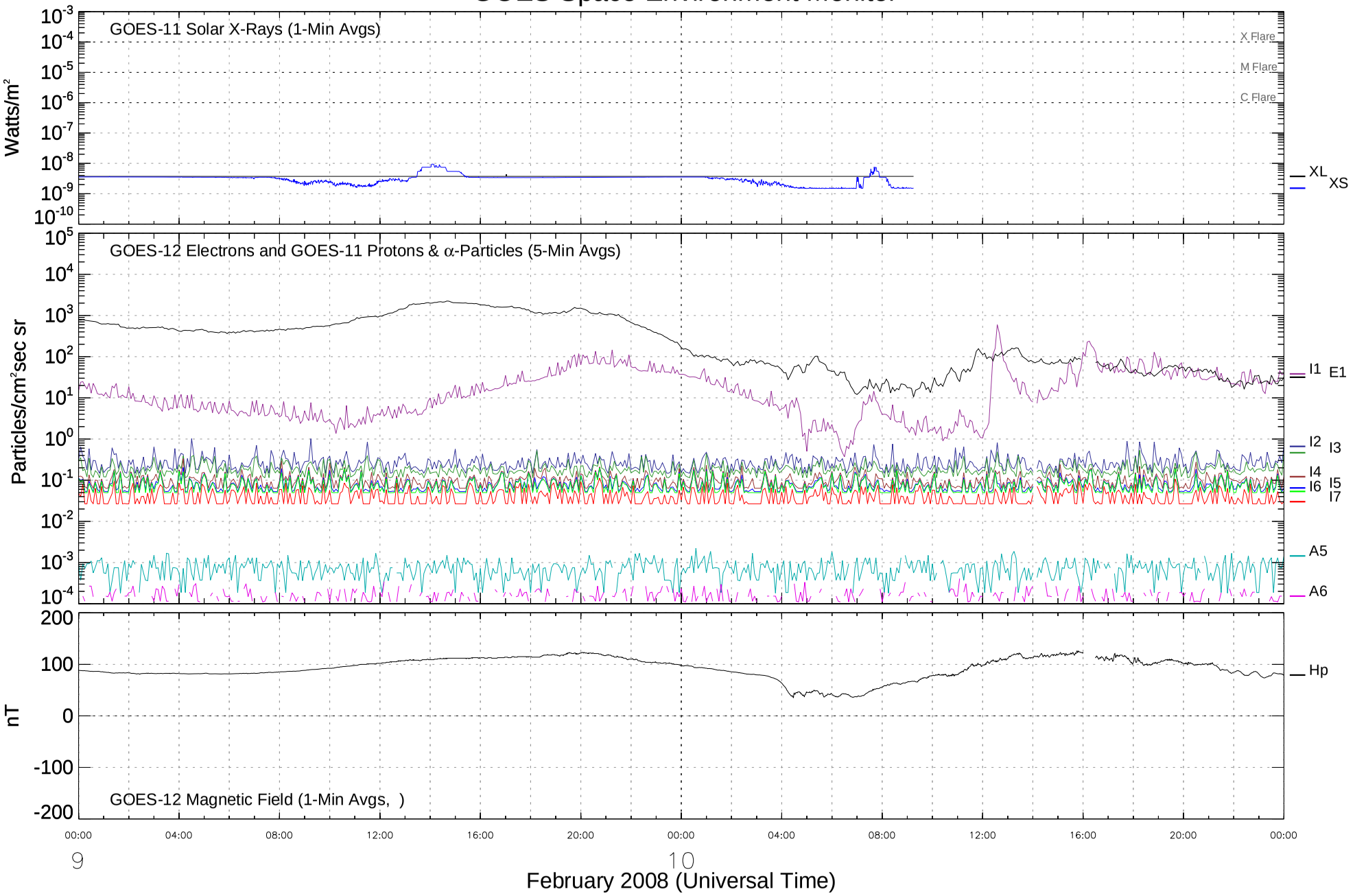

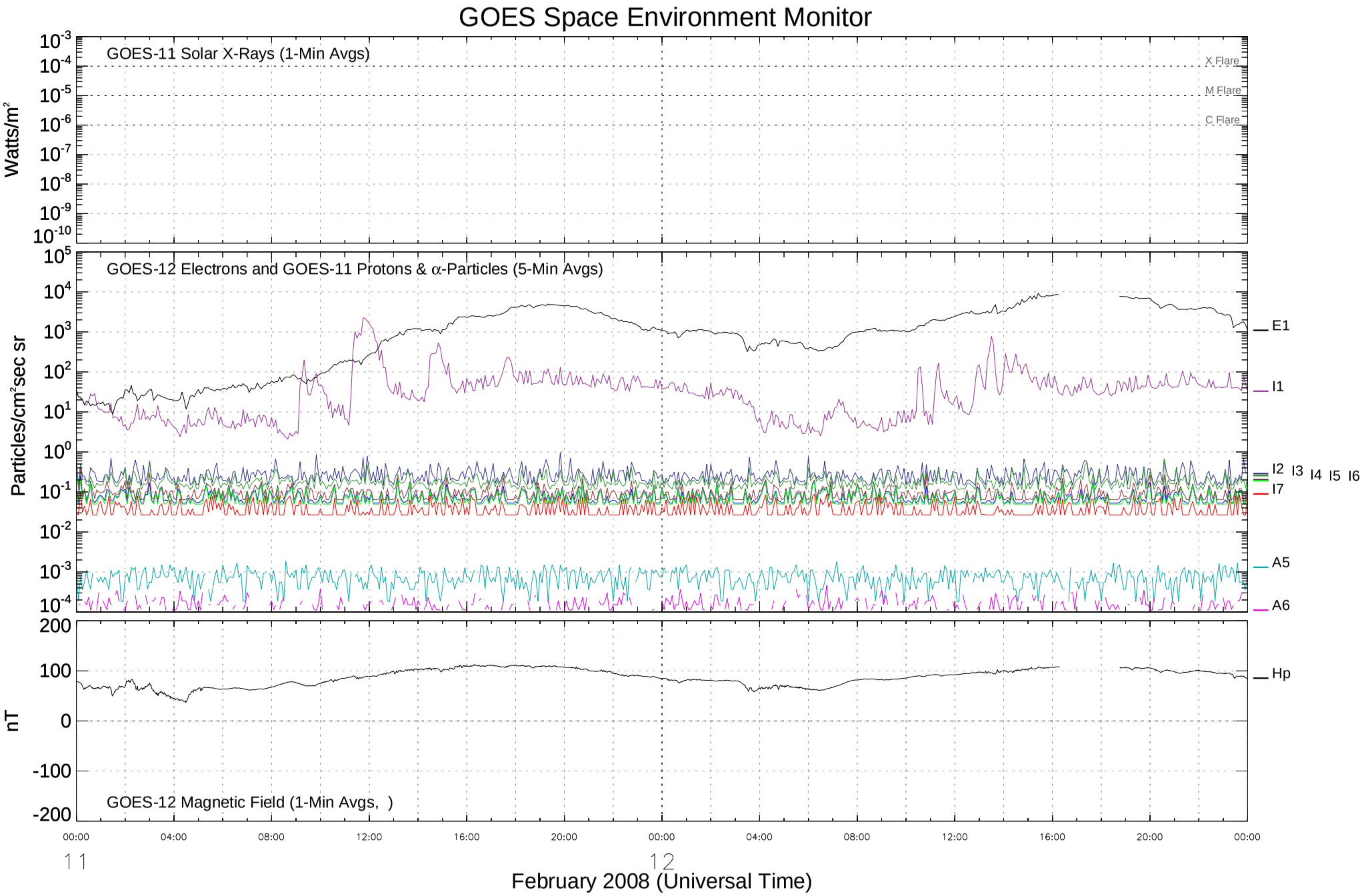
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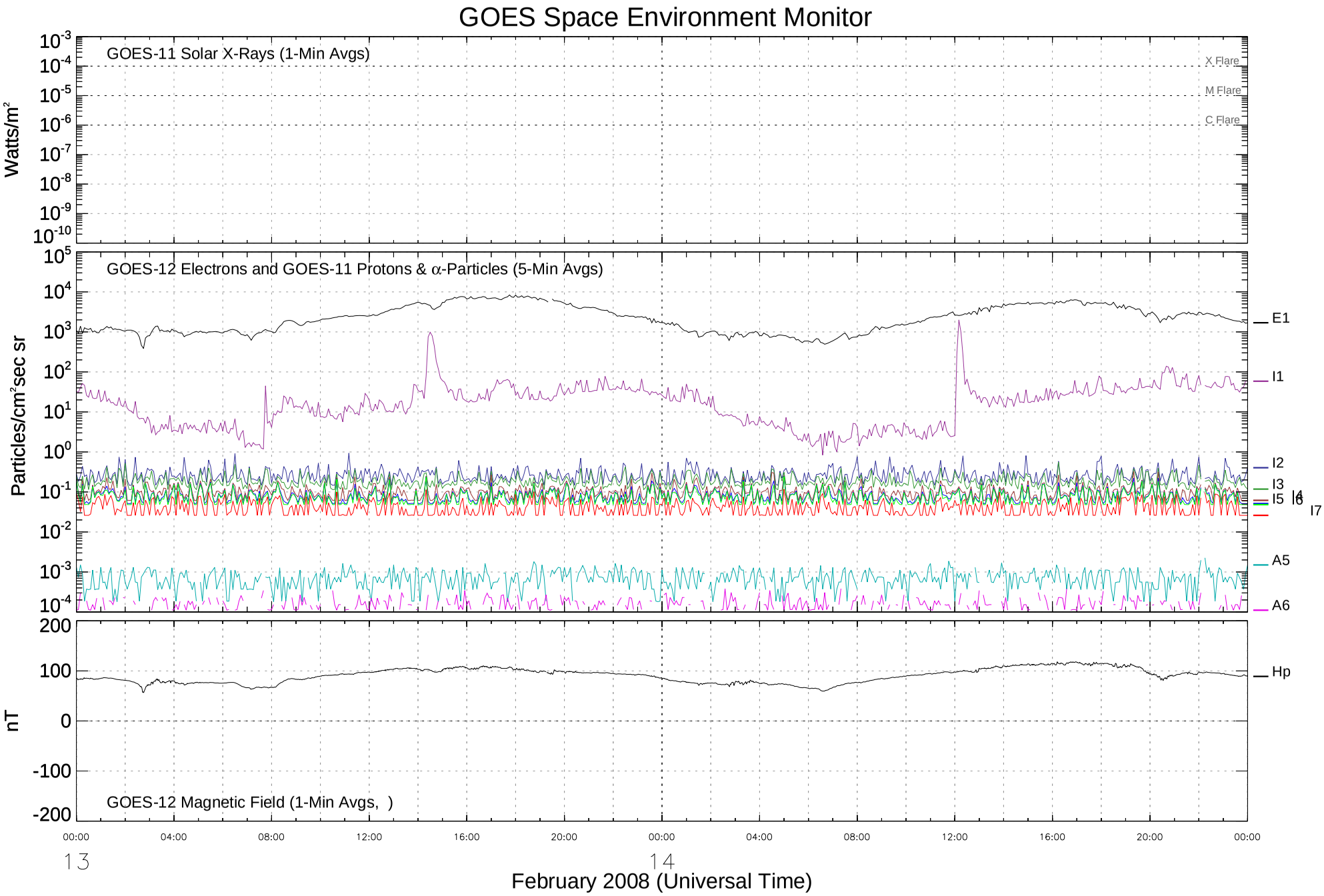
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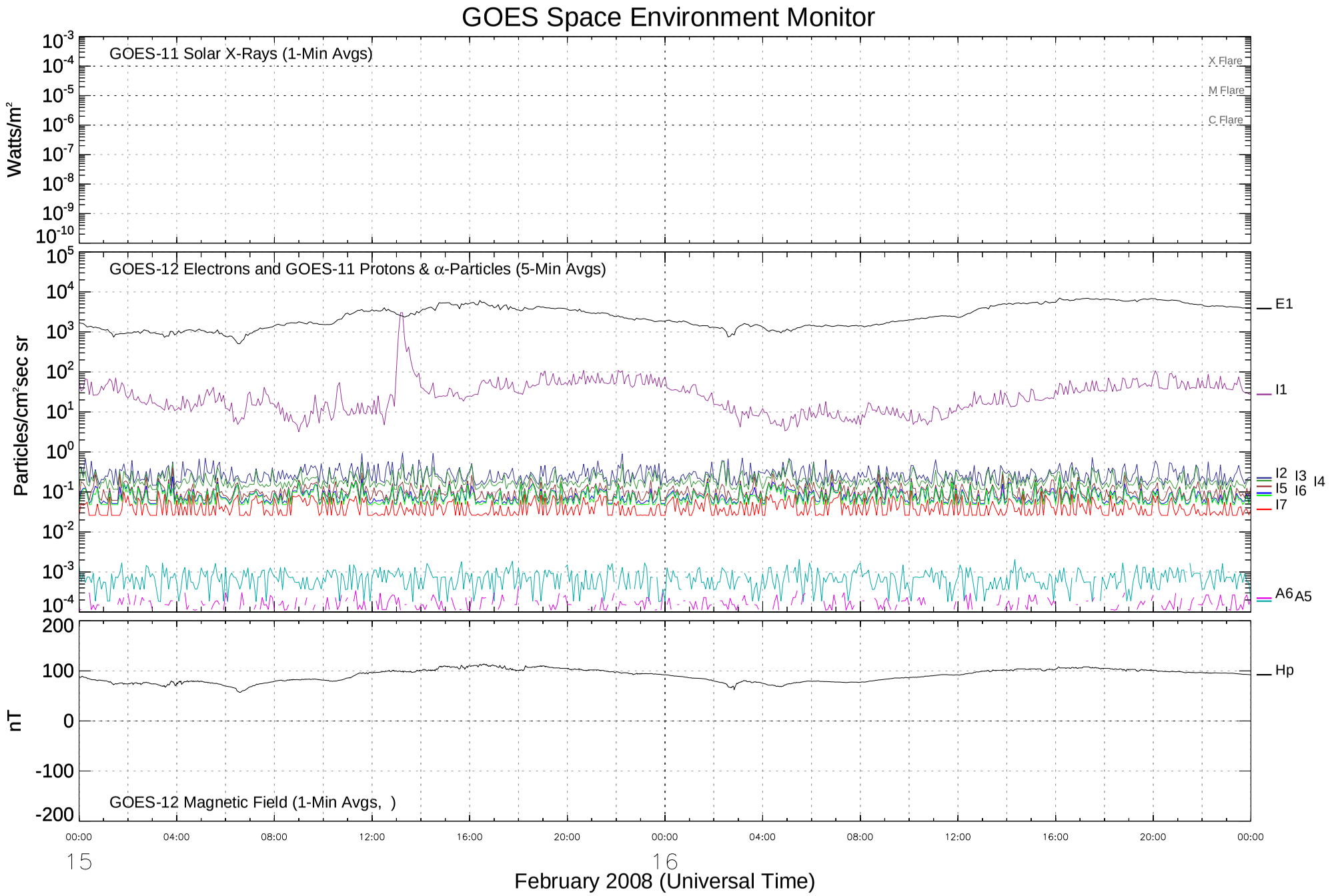
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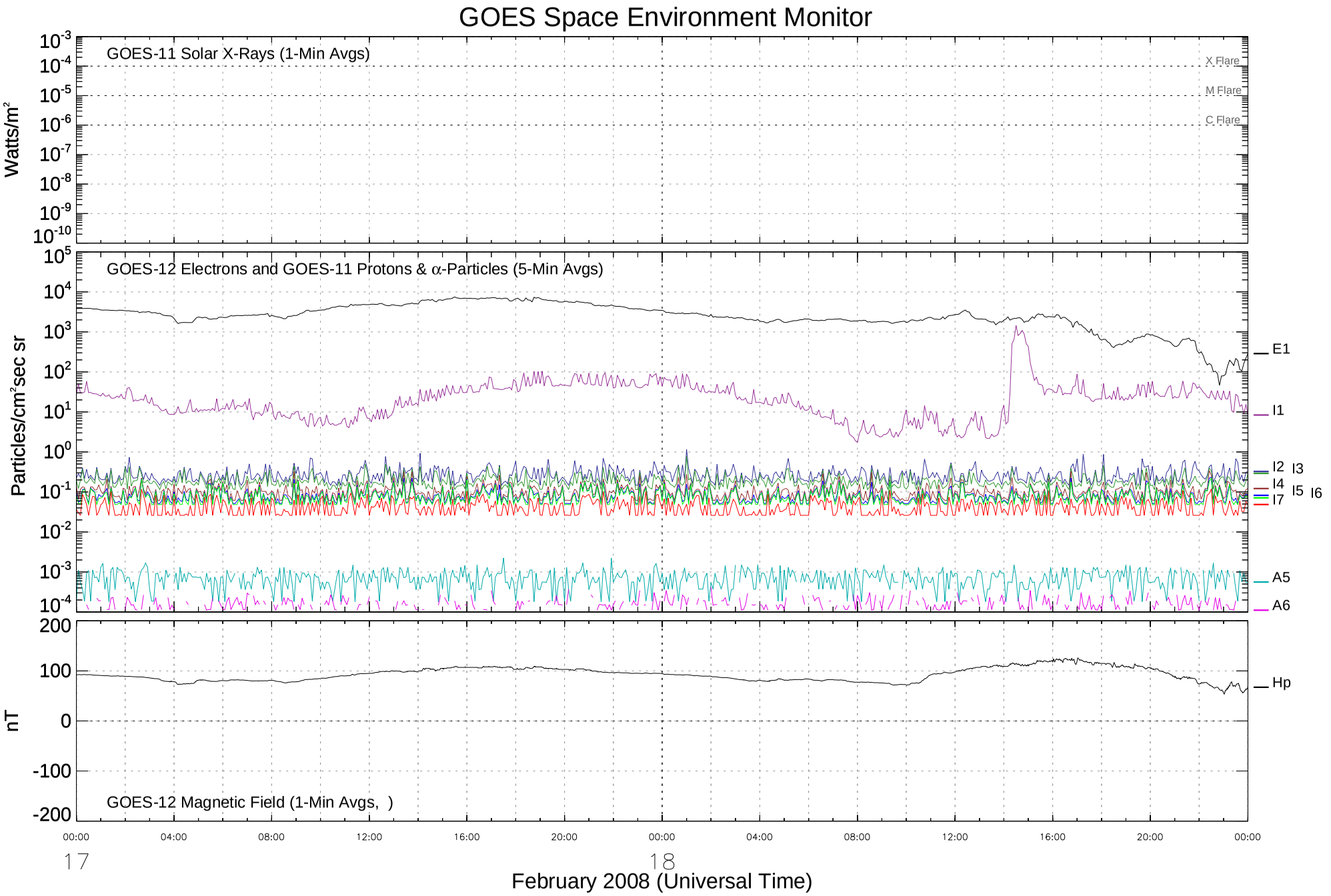
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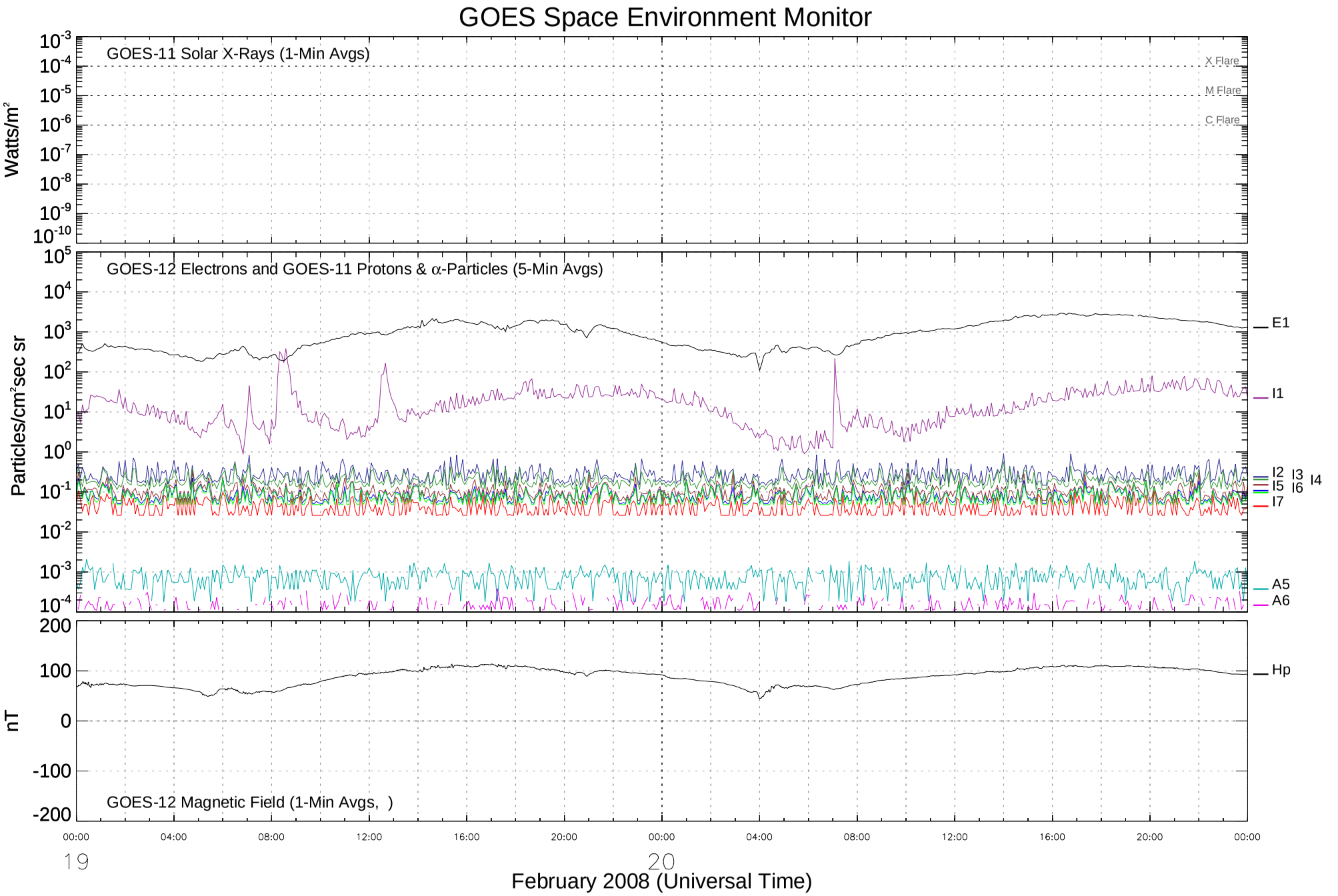
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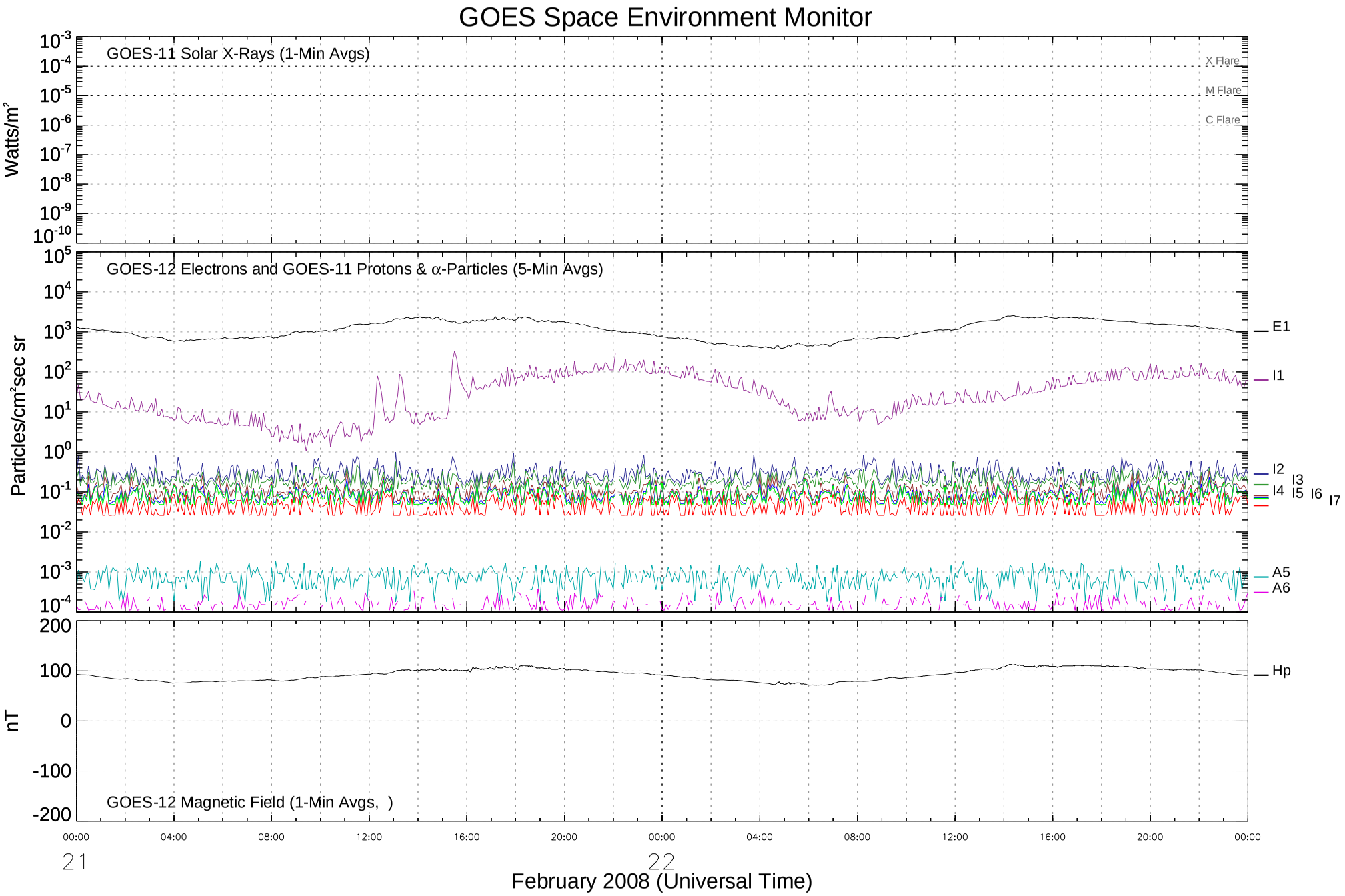
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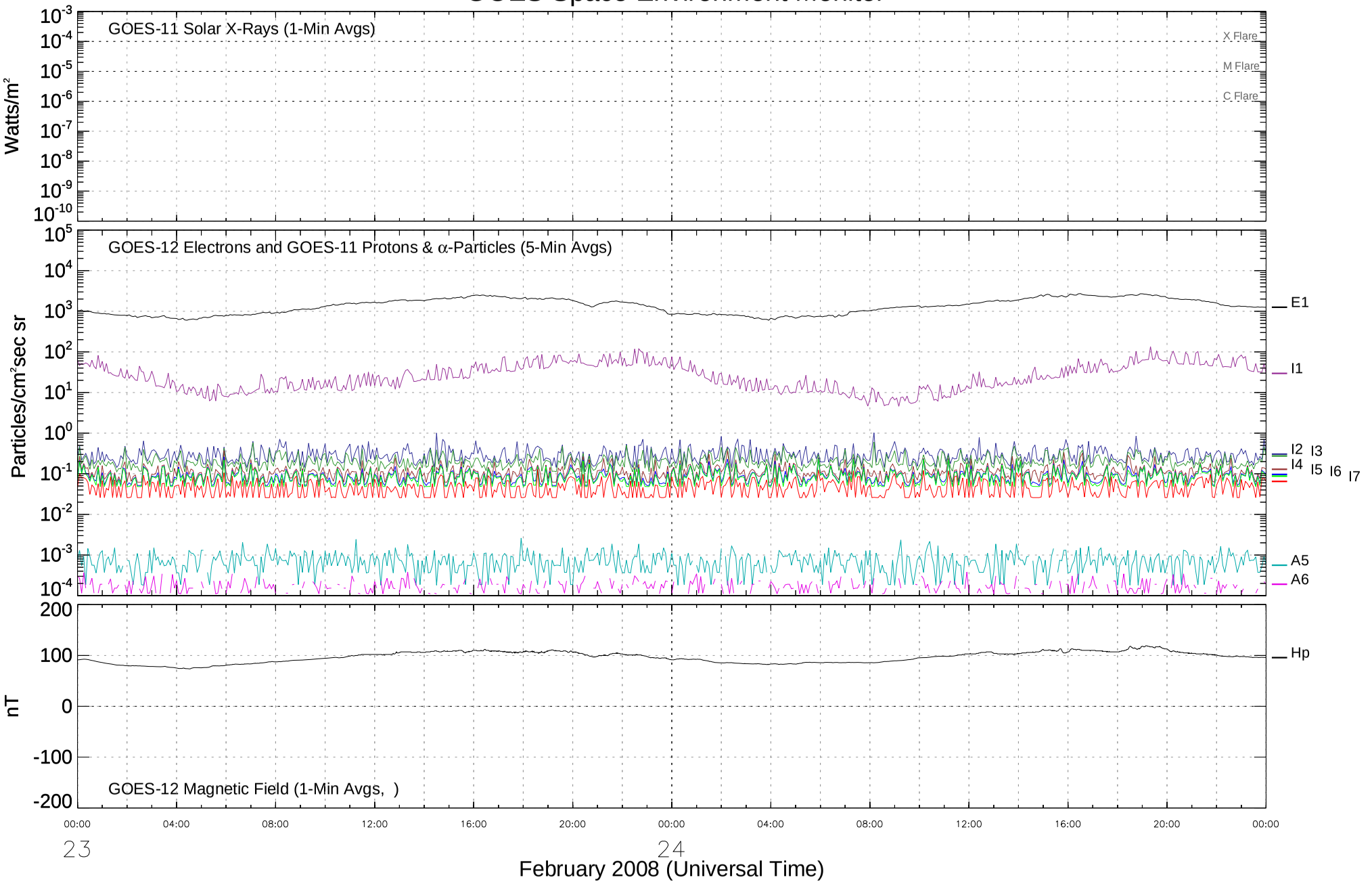

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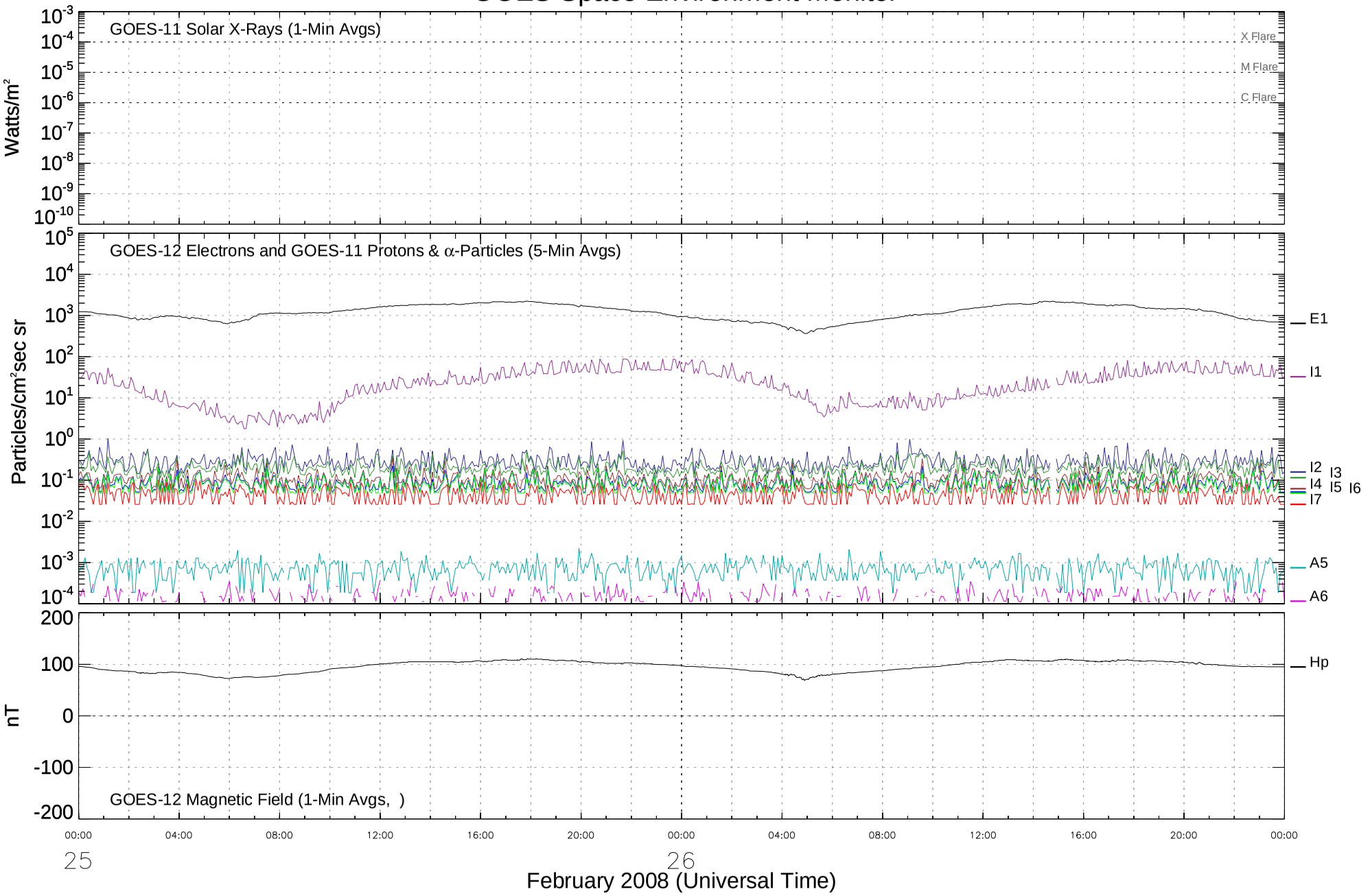

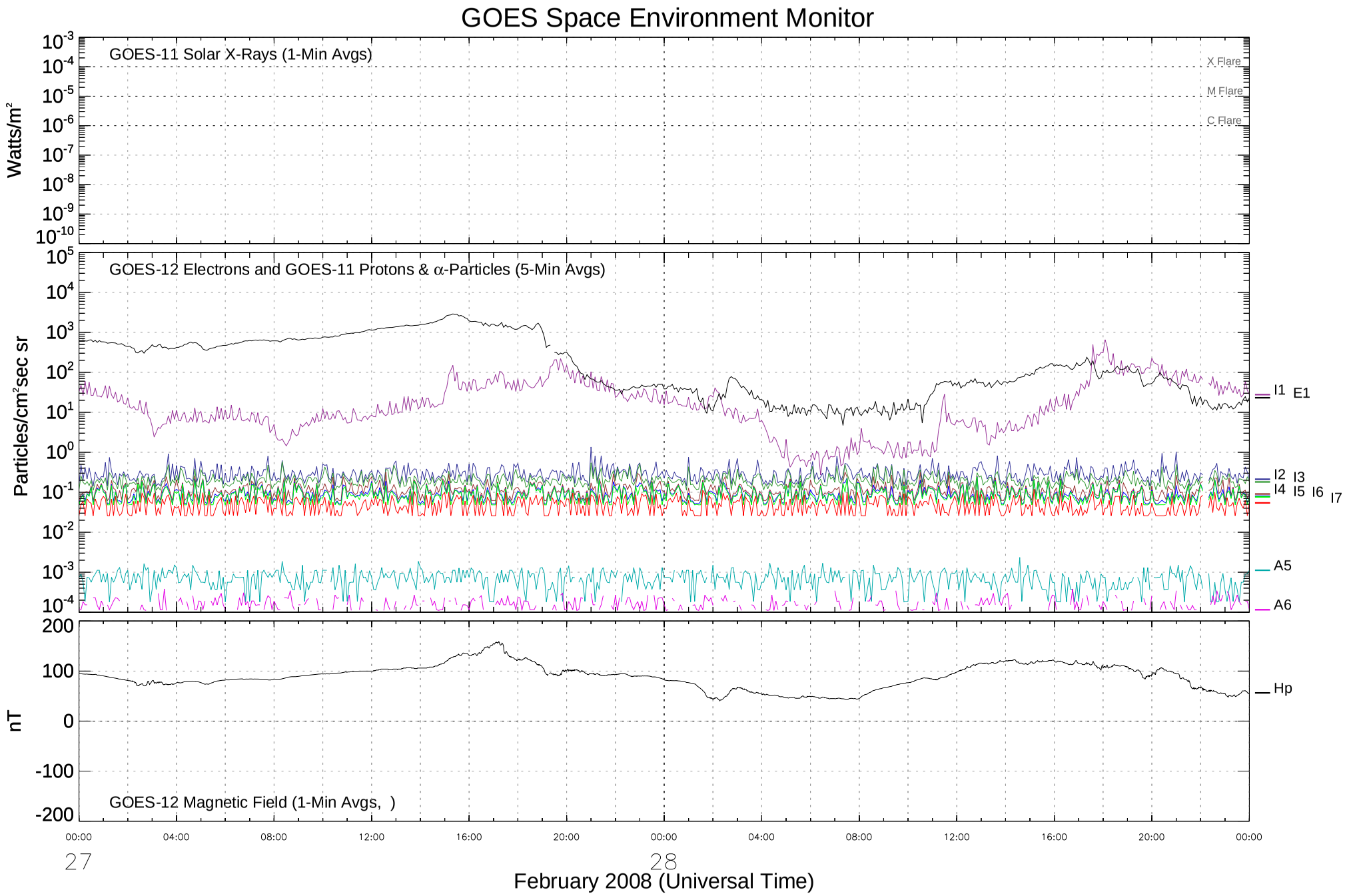
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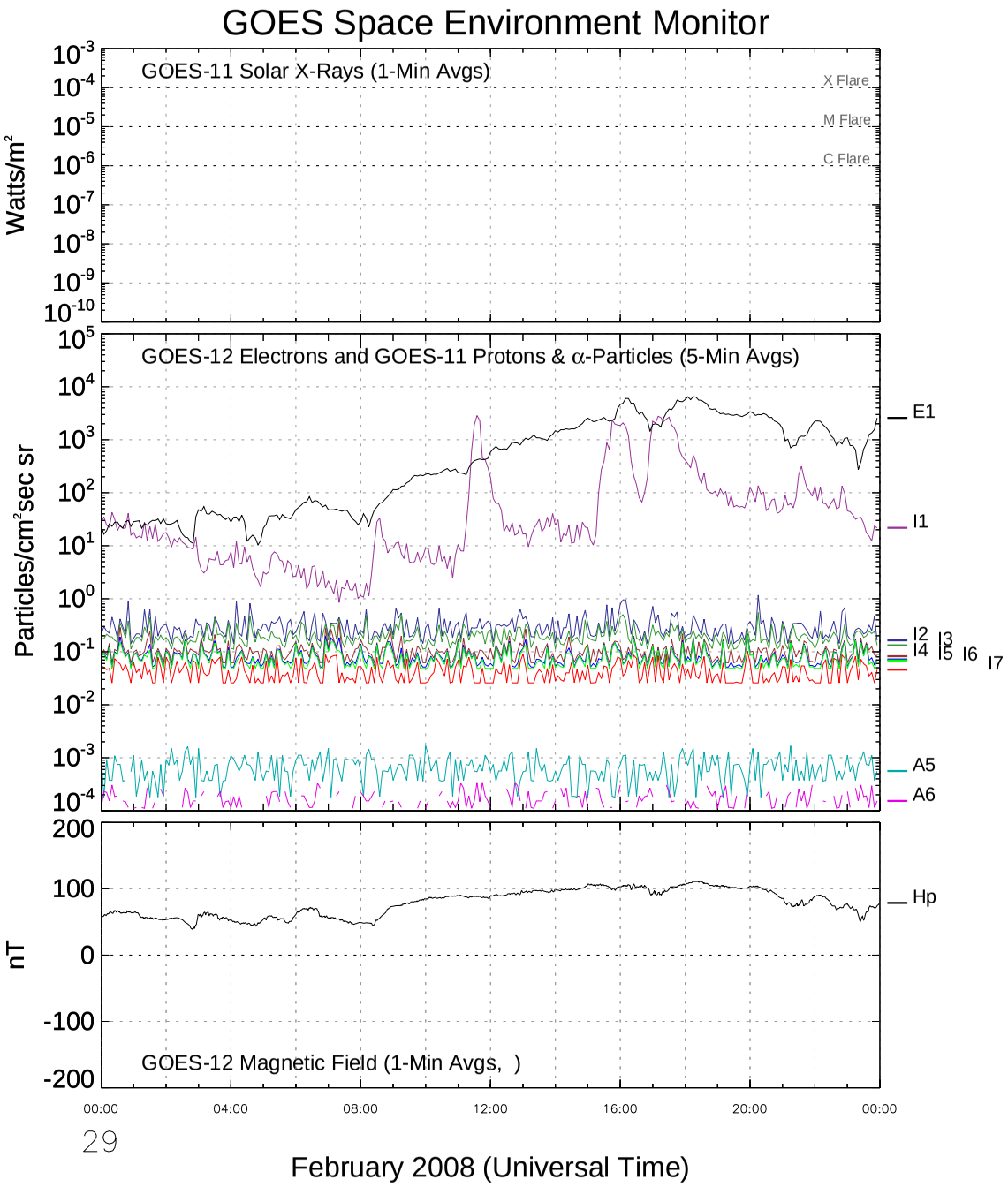
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A L E R T P E R I O D S
The International Space Environment Service

FEBRUARY 2008

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	15	72	8	10982	S08	E25	0	0	0	01	Q	SOL: Quiet
									0	0	0	01		MAG: Quiet
									0	0	0	01		PRO: Quiet
033	02	01	19	71	19	10982	S10	E14	0	0	0	02	Q	SOL: Quiet
									0	0	0	02		MAG: Quiet
									0	0	0	02		PRO: Quiet
034	03	02	16	72	21	10982	S08	W02	0	0	0	03	Q	SOL: Quiet
									0	0	0	03		MAG: Quiet
									0	0	0	03		PRO: Quiet
035	04	03	14	71	12	10982	S08	W16	0	0	0	04	Q	SOL: Quiet
									0	0	0	04		MAG: Quiet
									0	0	0	04		PRO: Quiet
036	05	04	14	71	7	10982	S09	W27	0	0	0	05	Q	SOL: Quiet
									0	0	0	05		MAG: Quiet
									0	0	0	05		PRO: Quiet
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									0	0	0	06		MAG: Quiet
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									0	0	0	11		MAG: Active
									0	0	0	11		PRO: Quiet
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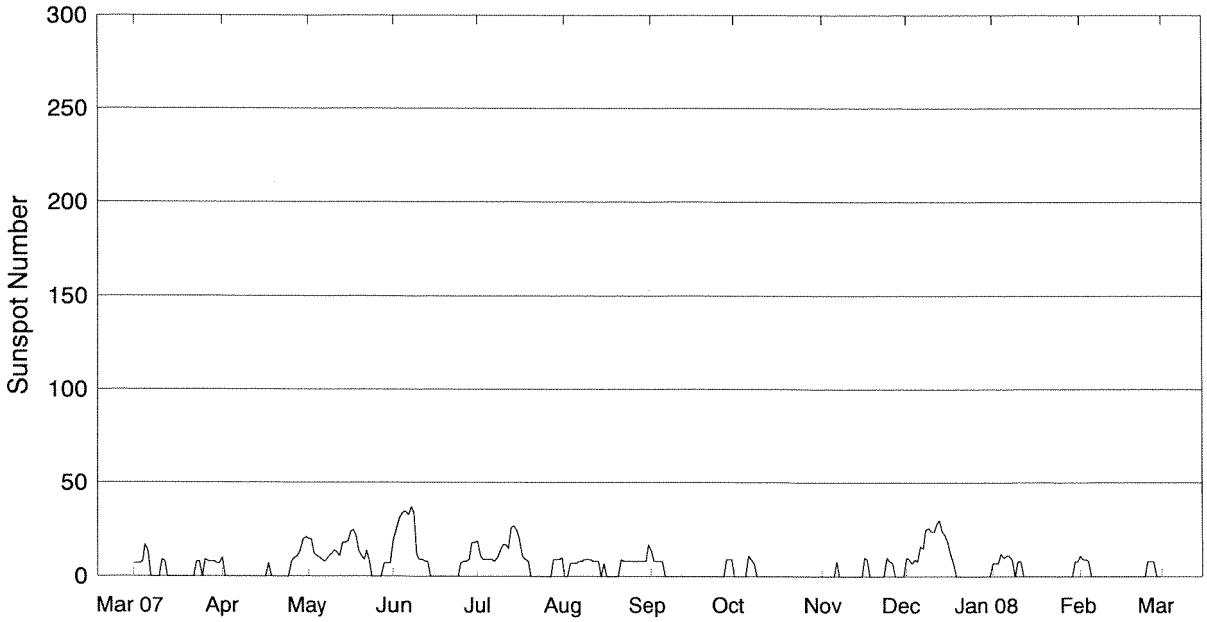
044	13	12	0	72	15				0	0	0	13		SOL: Quiet
									0	0	0	13		MAG: Quiet
									0	0	0	13		PRO: Quiet
045	14	13	0	71	16				0	0	0	14		SOL: Quiet
									0	0	0	14		MAG: Quiet
									0	0	0	14		PRO: Quiet
046	15	14	0	71	14				0	0	0	15		SOL: Quiet
									0	0	0	15		MAG: Quiet
									0	0	0	15		PRO: Quiet
047	16	15	0	70	9				0	0	0	16		SOL: Quiet
									0	0	0	16		MAG: Quiet
									0	0	0	16		PRO: Quiet
048	17	16	0	70	11				0	0	0	17		SOL: Quiet
									0	0	0	17		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 2008

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	0	71	8				0	0	0	18		SOL: Quiet
									0	0	0	18		MAG: Quiet
									0	0	0	18		PRO: Quiet
050	19	18	0	71	9				0	0	0	19		SOL: Quiet
									0	0	0	19		MAG: Quiet
									0	0	0	19		PRO: Quiet
051	20	19	0	72	17				0	0	0	20		SOL: Quiet
									0	0	0	20		MAG: Quiet
									0	0	0	20		PRO: Quiet
052	21	20	0	71	9				0	0	0	21		SOL: Quiet
									0	0	0	21		MAG: Quiet
									0	0	0	21		PRO: Quiet
053	22	21	0	72	6				0	0	0	22		SOL: Quiet
									0	0	0	22		MAG: Quiet
									0	0	0	22		PRO: Quiet
054	23	22	0	72	4				0	0	0	23		SOL: Quiet
									0	0	0	23		MAG: Quiet
									0	0	0	23		PRO: Quiet
055	24	23	0	72	4				0	0	0	24		SOL: Quiet
									0	0	0	24		MAG: Quiet
									0	0	0	24		PRO: Quiet
056	25	24	0	71	4				0	0	0	25		SOL: Quiet
									0	0	0	25		MAG: Quiet
									0	0	0	25		PRO: Quiet
057	26	25	12	71	4	10983	S01	W39	0	0	0	26	Q	SOL: Quiet
									0	0	0	26		MAG: Quiet
									0	0	0	26		PRO: Quiet
058	27	26	13	71	4	10983	S06	W54	0	0	0	27	Q	SOL: Quiet
									0	0	0	27		MAG: Quiet
									0	0	0	27		PRO: Quiet
059	28	27	12	71	11	10983	S05	W67	0	0	0	28	Q	SOL: Quiet
									0	0	0	28		MAG: Quiet
									0	0	0	28		PRO: Quiet
060	29	28	12	70	24	10983	S06	W81	0	0	0	29	Q	SOL: Quiet
									0	0	0	29		MAG: Quiet
									0	0	0	29		PRO: Quiet

International Relative Sunspot Numbers
Mar 2007 - Feb 2008

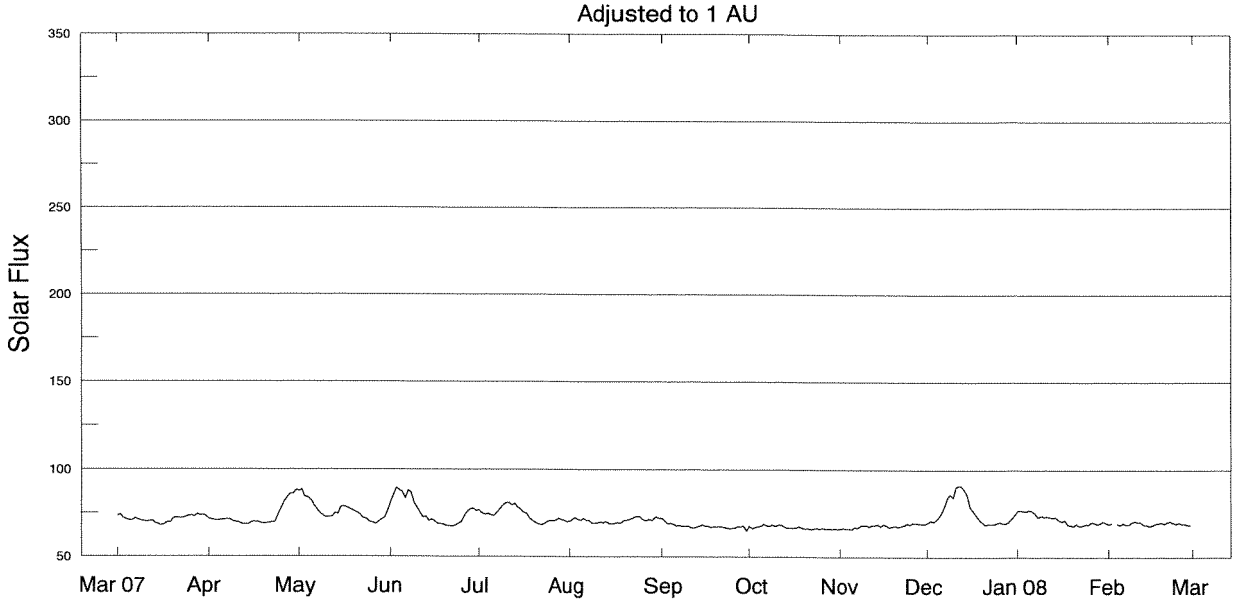


Day	Mar 07	Apr	May	Jun	Jul	Aug	Sep	Oct*	Nov*	Dec*	Jan 08*	Feb*
1	7	10	20	19	19	0	14	0	0	10	7	11
2	7	0	20	25	11	0	8	0	0	9	7	9
3	7	0	12	31	9	7	8	0	0	7	7	9
4	8	0	11	34	9	7	8	0	0	9	12	8
5	17	0	10	35	9	7	8	0	0	8	10	0
6	14	0	9	33	9	8	0	11	8	16	11	0
7	0	0	8	37	8	8	0	9	0	15	11	0
8	0	0	9	34	10	9	0	7	0	25	9	0
9	0	0	11	12	14	9	0	0	0	26	0	0
10	0	0	12	9	17	9	0	0	0	24	8	0
11	9	0	14	9	17	8	0	0	0	24	8	0
12	8	0	13	8	15	8	0	0	0	28	0	0
13	0	0	11	8	26	8	0	0	0	30	0	0
14	0	0	18	0	27	0	0	0	0	24	0	0
15	0	0	18	0	25	0	0	0	0	22	0	0
16	0	0	19	0	20	0	0	0	10	18	0	0
17	0	7	24	0	11	0	0	0	9	11	0	0
18	0	0	25	0	9	0	0	0	0	7	0	0
19	0	0	22	0	8	0	0	0	0	0	0	0
20	0	0	14	0	0	0	0	0	0	0	0	0
21	0	0	11	0	0	9	0	0	0	0	0	0
22	0	0	9	0	0	8	0	0	0	0	0	0
23	8	0	14	0	0	8	0	0	0	0	0	0
24	8	0	9	0	0	8	0	0	10	0	0	0
25	0	8	0	7	0	8	0	0	8	0	0	8
26	9	10	0	8	0	8	0	0	7	0	0	8
27	8	11	0	8	0	8	0	0	0	0	0	8
28	8	14	0	9	9	8	9	0	0	0	0	0
29	8	20	7	18	9	8	9	0	0	0	0	0
30	7	21	7	18	9	8	9	0	0	0	8	
31	7		7		0	17		0		0	8	
Mean	4.5	3.4	11.7	12.1	9.7	6.0	2.4	0.9	1.7	10.1	3.4	2.1

* = Provisional.

Penticton 2800 MHz (10.7cm) Solar Flux
Mar 2007 - Feb 2008

Adjusted to 1 AU



Day	Mar 07	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 08	Feb
1	73.4	71.6	87.6	81.6	76.8	70.4	72.1	67.8	66.3	69.9	76.7	69.0
2	74.2	71.1	88.8	85.6	75.1	71.5	70.6	66.5	66.8	71.0	77.0	69.8
3	72.0	70.8	84.4	89.5	74.2	72.4	69.1	67.3	66.5	70.5	76.7	*
4	71.3	70.8	83.9	88.2	74.9	71.4	69.4	67.4	66.5	71.5	76.4	69.3
5	70.8	71.0	82.4	87.1	73.9	70.9	68.8	67.8	66.2	73.1	77.1	68.5
6	70.8	71.1	79.4	83.6	73.5	72.0	67.8	68.9	67.3	75.9	76.6	69.6
7	71.8	71.4	77.1	88.1	75.5	71.0	68.2	68.1	66.9	79.8	75.2	68.9
8	71.4	71.3	74.7	86.8	77.6	71.0	67.6	67.9	68.4	84.4	73.0	69.0
9	70.6	70.2	73.5	81.0	79.7	69.3	67.7	68.6	68.2	86.2	74.0	70.3
10	70.2	69.7	72.6	78.2	80.8	69.3	67.9	67.9	68.4	84.3	73.2	70.7
11	70.1	69.5	72.9	75.6	81.1	69.5	67.0	68.6	67.7	90.5	73.5	70.2
12	70.3	68.6	72.9	72.6	79.5	70.0	66.7	68.3	68.3	91.1	73.2	70.3
13	70.6	68.6	75.0	73.1	80.6	69.5	67.2	67.3	68.4	90.9	72.9	68.7
14	69.2	68.6	74.4	70.6	78.2	70.3	67.6	66.7	68.9	89.0	73.1	68.8
15	68.5	69.8	78.5	71.3	77.1	69.3	68.5	66.8	67.7	86.1	71.3	68.0
16	68.0	69.8	78.9	70.2	75.3	69.0	67.8	66.7	69.1	79.1	70.6	68.6
17	68.6	69.8	78.3	68.9	74.7	69.3	67.6	67.0	68.2	76.9	71.3	69.4
18	69.8	69.3	77.6	68.8	71.8	69.6	67.1	67.7	67.2	74.4	68.8	69.5
19	69.5	68.9	76.6	68.5	70.5	69.4	67.4	66.8	67.9	72.1	68.6	70.0
20	72.0	69.1	75.9	67.8	69.5	70.7	67.4	66.3	68.0	70.2	68.0	69.3
21	72.3	69.4	75.0	67.6	68.6	70.9	67.4	66.6	67.4	68.7	69.3	70.3
22	72.0	69.7	73.7	67.5	68.3	71.6	67.2	66.0	68.0	69.1	68.1	70.8
23	72.0	69.8	71.9	68.1	69.3	72.4	66.8	66.4	68.3	69.1	68.4	70.1
24	72.4	74.0	71.7	69.1	70.2	73.2	66.5	66.8	69.5	69.1	69.1	69.3
25	73.3	77.4	69.9	69.8	70.8	73.1	66.6	66.3	68.8	69.7	68.9	69.9
26	73.5	81.5	69.5	72.8	70.6	71.6	66.8	66.7	69.6	70.2	70.3	69.3
27	73.0	83.8	68.8	75.7	70.9	70.7	67.4	66.2	69.6	69.7	69.8	69.4
28	74.3	86.1	70.5	77.4	72.1	71.6	67.4	66.6	69.3	69.5	69.2	68.7
29	73.6	86.0	71.5	77.8	71.1	71.0	67.8	66.2	69.3	70.3	69.5	68.5
30	73.9	88.2	72.6	76.4	71.0	73.0	65.1	66.3	69.2	72.5	70.6	
31	73.1		76.7		70.1	72.2		66.1		74.2	69.9	
Mean	71.5	72.9	76.0	76.0	74.0	70.9	67.8	67.1	68.1	76.1	71.9	69.4

* = No data available.

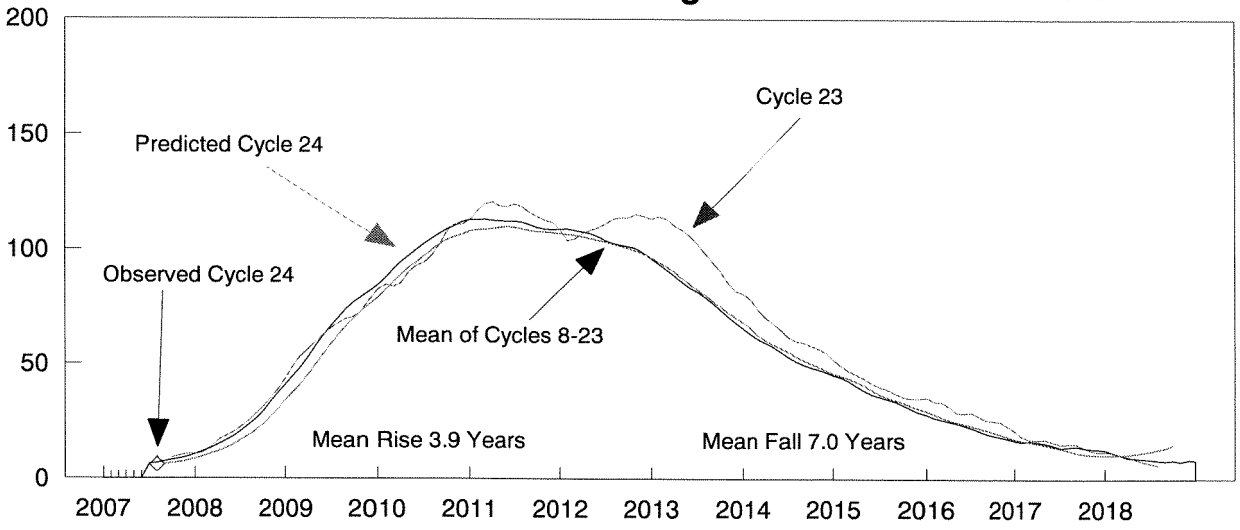
DAILY SOLAR INDICES

February 2008

	Day	Bartels	Sunspot		Obs Flux			-----Solar Flux Adjusted to 1 Astronomical Unit--------						
	of	Cycle	Numbers		Penticton	SGMR	SGMR	SGMR	Penticton	SGMR	SGMR	SGMR	SGMR	SGMR
Day	Year	Day	Int	Amer	(2800)	(15400)	(8800)	(4995)	(2800)	(2695)	(1415)	(610)	(410)	(245)
1	32	17	11	10	71.1	433	178	127	69.0	67	51	35	22	9
2	33	18	9	4	71.8	447	179	129	69.8	64	51	35	23	9
3	34	19	9	7	---	441	181	128	---	68	52	35	22	12
4	35	20	8	3	71.3	446	181	129	69.3	65	50	34	21	17
5	36	21	0	1	70.5	419	170	120	68.5	60	48	32	22	8
6	37	22	0	0	71.6	381	161	119	69.6	63	49	32	20	8
7	38	23	0	0	70.8	415	174	120	68.9	62	48	34	22	10
8	39	24	0	0	70.9	430	178	122	69.0	64	50	33	22	13
9	40	25	0	2	72.2	---	---	---	70.3	---	---	---	---	---
10	41	26	0	1	72.6	438	183	129	70.7	66	50	33	21	12
11	42	27	0	0	72.1	449	187	130	70.2	63	49	32	21	11
12	43	1	0	0	72.1	448	180	125	70.3	63	50	34	21	9
13	44	2	0	0	70.5	388	150	114	68.7	61	46	30	22	8
14	45	3	0	0	70.6	---	---	---	68.8	---	---	---	---	---
15	46	4	0	0	69.7	445	180	126	68.0	61	49	31	20	11
16	47	5	0	0	70.3	446	179	127	68.6	62	48	30	20	9
17	48	6	0	0	71.1	448	178	123	69.4	61	48	32	22	10
18	49	7	0	0	71.2	409	174	135	69.5	63	49	32	21	12
19	50	8	0	0	71.7	449	181	127	70.0	63	49	34	24	11
20	51	9	0	0	70.9	443	180	125	69.3	64	48	32	24	13
21	52	10	0	0	71.8	448	178	126	70.3	66	50	34	23	11
22	53	11	0	0	72.4	442	180	127	70.8	63	51	36	23	11
23	54	12	0	0	71.6	439	179	126	70.1	68	50	35	22	10
24	55	13	0	0	70.7	432	180	124	69.3	65	49	35	23	11
25	56	14	8	5	71.4	441	175	126	69.9	63	49	34	22	11
26	57	15	8	8	70.7	439	178	127	69.3	64	50	35	22	14
27	58	16	8	5	70.7	393	167	122	69.4	64	48	35	22	9
28	59	17	0	0	70.0	443	176	124	68.7	63	49	36	22	11
29	60	18	0	0	69.8	444	175	124	68.5	63	48	34	22	11
MEAN			2.1	1.6	71.1	433	176	125	69.4	63	49	33	21	10

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

Cycle 24 Smoothed Sunspot Numbers: Observed and Predicted
PRELIMINARY Based on August 2007 Smoothed Data



Smoothed Sunspot Numbers (Observed and Predicted) for Parts of Solar Cycles 23 and 24

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1996	10	10	10	9	8*	9	8	8	8	9**	10	10	8
1997	11	11	14	17	18	20	23	25	28	32	35	39	23
1998	44	49	53	57	59	63	65	68	69	71	73	78	62
1999	83	85	84	85	90	93	94	98	102	108	111	111	95
2000	113	117	120	120.8+	119	119	120	119	116	115	113	112	107
2001	109	104	105	108	109	110	112	114	114	114	115	115	111
2002	114	115	113	111	109	106	103	99	95	91	85	82	102
2003	81	79	74	70	68	65	62	60	60	58	57	57	66
2004	53	49	47	46	46	42	40	39	38	36	35	35	42
2005	35	34	34	32	29	29	29	27	26	26	25	23	29
2006	21	19	17	17	17	16	15	16	16	14	13	13	16
2007	12	12	11	10	9	8	7	6##	6	7	7	8	8
									(0)	(1)	(2)	(3)	(0)
2008	9	10	11	12	13	15	17	19	21	24	27	31	17
	(4)	(5)	(6)	(7)	(8)	(10)	(12)	(14)	(16)	(18)	(21)	(23)	(12)
2009	34	38	41	45	50	54	58	63	66	70	73	76	56
	(26)	(29)	(32)	(35)	(39)	(43)	(47)	(50)	(53)	(55)	(58)	(60)	(44)

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

*** May 1996 marks Cycle 22's mathematical minimum.** **** October 1996 marks the consensus minimum.**

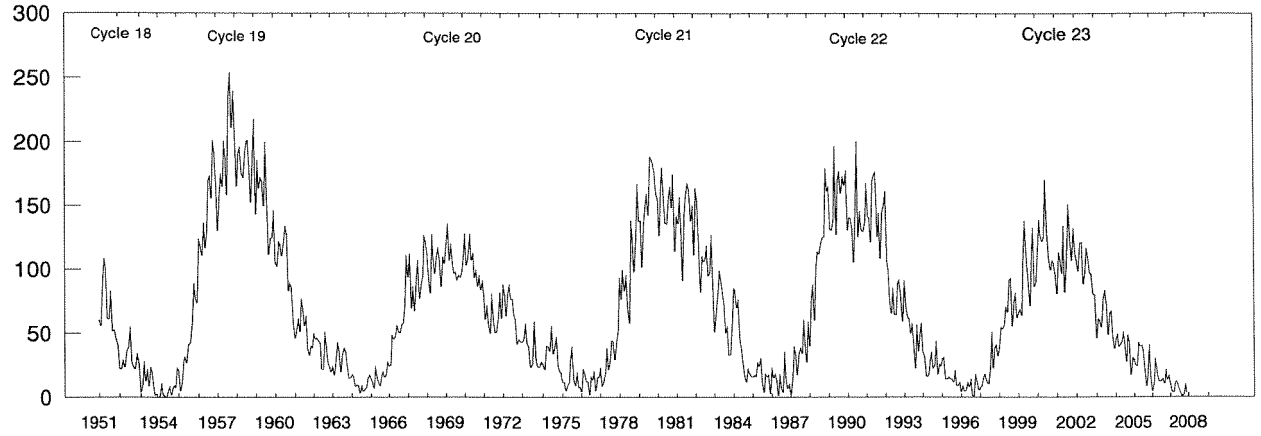
+ April 2000 marks Cycle 23 maximum. ## - Preliminary Cycle 24 Minumum

NOTE: This is a preliminary prediction using August 2007 as solar minimum.

Observed and Predicted Numbers. For the end of Cycle 23, and the rise and decline of Cycle 24, 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 2007 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 2008 prediction. There exists a 90% chance that in August 2008, the actual smoothed number will fall somewhere between 5 and 33.

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 16 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 a PRELIMINARY minimum of July, 2007. This will be updated monthly until the actual minimum is reached.

Mean Monthly Sunspot Numbers
Jan 1951 - Feb 2008



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean	
1951	59.9	59.9	55.9	92.9	108.5	100.6	61.5	61.0	83.1	51.6	52.4	45.8	69.4	
1952	40.7	22.7	22.0	29.1	23.4	36.4	39.3	54.9	28.2	23.8	22.1	34.3	31.5	
1953	26.5	3.9	10.0	27.8	12.5	21.8	8.6	23.5	19.3	8.2	1.6	2.5	13.9	
1954	0.2	0.5	10.9	1.8	0.8	0.2	4.8	8.4	1.5	7.0	9.2	7.6	4.4	m
1955	23.1	20.8	4.9	11.3	28.9	31.7	26.7	40.7	42.7	58.5	89.2	76.9	38.0	
1956	73.6	124.0	118.4	110.7	136.6	116.6	129.1	169.6	173.2	155.3	201.3	192.1	141.7	
1957	165.0	130.2	157.4	175.2	164.6	200.7	187.2	158.0	235.8	253.8	210.9	239.4	190.2	M
1958	202.5	164.9	190.7	196.0	175.3	171.5	191.4	200.2	201.2	181.5	152.3	187.6	184.8	
1959	217.4	143.1	185.7	163.3	172.0	168.7	149.6	199.6	145.2	111.4	124.0	125.0	159.0	
1960	146.3	106.0	102.2	122.0	119.6	110.2	121.7	134.1	127.2	82.8	89.6	85.6	122.3	
1961	57.9	46.1	53.0	61.4	51.0	77.4	70.2	55.8	63.6	37.7	32.6	39.9	53.9	
1962	38.7	50.3	45.6	46.4	43.7	42.0	21.8	21.8	51.3	39.5	26.9	23.2	37.6	
1963	19.8	24.4	17.1	29.3	43.0	35.9	19.6	33.2	38.8	35.3	23.4	14.9	27.9	
1964	15.3	17.7	16.5	8.6	9.5	9.1	3.1	9.3	4.7	6.1	7.4	15.1	10.2	m
1965	17.5	14.2	11.7	6.8	24.1	15.9	11.9	8.9	16.8	20.1	15.8	17.0	15.1	
1966	28.2	24.4	25.3	48.7	45.3	47.7	56.7	51.2	50.2	57.2	57.2	70.4	47.0	
1967	110.9	93.6	111.8	69.5	86.5	67.3	91.5	107.2	76.8	88.2	94.3	126.4	93.8	
1968	121.8	111.9	92.2	81.2	127.2	110.3	96.1	109.3	117.2	107.7	86.0	109.8	105.9	M
1969	104.4	120.5	135.8	106.8	120.0	106.0	96.8	98.0	91.3	95.7	93.5	97.9	105.5	
1970	111.5	127.8	102.9	109.5	127.5	106.8	112.5	93.0	99.5	86.6	95.2	83.5	104.5	
1971	91.3	79.0	60.7	71.8	57.5	49.8	81.0	61.4	50.2	51.7	63.2	82.2	66.6	
1972	61.5	88.4	80.1	63.2	80.5	88.0	76.5	76.8	64.0	61.3	41.6	45.3	68.9	
1973	43.4	42.9	46.0	57.7	42.4	39.5	23.1	25.6	59.3	30.7	23.9	23.3	38.0	
1974	27.6	26.0	21.3	40.3	39.5	36.0	55.8	33.6	40.2	47.1	25.0	20.5	34.5	
1975	18.9	11.5	11.5	5.1	9.0	11.4	28.2	39.7	13.9	9.1	19.4	7.8	15.5	
1976	8.1	4.3	21.9	18.8	12.4	12.2	1.9	16.4	13.5	20.6	5.2	15.3	12.6	m
1977	16.4	23.1	8.7	12.9	18.6	38.5	21.4	30.1	44.0	43.8	29.1	43.2	27.5	
1978	51.9	93.6	76.5	99.7	82.7	95.1	70.4	58.1	138.2	125.1	97.9	122.7	92.5	
1979	166.6	137.5	138.0	101.5	134.4	149.5	159.4	142.2	188.4	186.2	183.3	176.3	155.4	M
1980	159.6	155.0	126.2	164.1	179.9	157.3	136.3	135.4	155.0	164.7	147.9	174.4	154.6	
1981	114.0	141.3	135.5	156.4	127.5	90.9	143.8	158.7	167.3	162.4	137.5	150.1	140.4	
1982	111.2	163.6	153.8	122.0	82.2	110.4	106.1	107.6	118.8	94.7	98.1	127.0	115.9	
1983	84.3	51.0	66.5	80.7	99.2	91.1	82.2	71.8	50.3	55.8	33.3	33.4	66.6	
1984	57.0	85.4	83.5	69.7	76.4	46.1	37.4	25.5	15.7	12.0	22.8	18.7	45.9	
1985	16.5	15.9	17.2	16.2	27.5	24.2	30.7	11.1	3.9	18.6	16.2	17.3	17.9	
1986	2.5	23.2	15.1	18.5	13.7	1.1	18.1	7.4	3.8	35.4	15.2	6.8	13.4	m
1987	10.4	2.4	14.7	39.6	33.0	17.4	33.0	38.7	33.9	60.6	39.9	27.1	29.4	
1988	59.0	40.0	76.2	88.0	60.1	101.8	113.8	111.6	120.1	125.1	125.1	179.2	100.2	
1989	161.3	165.1	131.4	130.6	138.5	196.2	126.9	168.9	176.7	159.4	173.0	165.5	157.6	M
1990	177.3	130.5	140.3	140.3	132.2	105.4	149.4	200.3	125.2	145.5	131.4	129.7	142.6	
1991	136.9	167.5	141.9	140.0	121.3	169.7	173.7	176.3	125.3	144.1	108.2	144.4	145.7	
1992	150.0	161.1	106.7	99.8	73.8	65.2	85.7	64.5	63.9	88.7	91.8	82.6	94.3	
1993	59.3	91.0	69.8	62.2	61.3	49.8	57.9	42.2	22.4	56.4	35.6	48.9	54.6	
1994	57.8	35.5	31.7	16.1	17.8	28.0	35.1	22.5	25.7	44.0	18.0	26.2	29.9	
1995	24.2	29.9	31.1	14.0	14.5	15.6	14.5	14.3	11.8	21.1	9.0	10.0	17.5	
1996	11.5	4.4	9.2	4.8	5.5	11.8	8.2	14.4	1.6	0.9	17.9	13.3	8.6	m
1997	5.7	7.6	8.7	15.5	18.5	12.7	10.4	24.4	51.3	22.8	39.0	41.2	21.5	
1998	31.9	40.3	54.8	53.4	56.3	70.7	66.6	92.2	92.9	55.5	74.0	81.9	64.3	
1999	62.0	66.3	68.8	63.7	106.4	137.7	113.5	93.7	71.5	116.7	133.2	84.6	93.2	
2000	90.1	112.9	138.5	125.5	121.6	124.9	170.1	130.5	109.7	99.4	106.8	104.4	119.6	M
2001	95.6	80.6	113.5	107.7	96.6	134.0	81.8	106.4	150.7	125.5	106.5	132.2	111.0	
2002	114.1	107.4	98.4	120.7	120.8	88.3	99.9	116.4	109.3	97.5	95.5	80.8	104.0	
2003	79.7	46.0	61.1	60.0	54.6	77.4	83.3	72.7	48.7	65.5	67.3	46.5	63.9	
2004	37.7	45.8	49.1	39.3	41.5	43.2	51.0	40.9	27.7	48.0	43.5	17.9	40.4	
2005	31.3	29.1	24.8	24.2	42.7	39.3	40.1	36.4	21.9	8.7	18.0	41.1	29.8	
2006	15.4	4.7	10.8	30.2	22.2	13.9	12.2	12.9	14.4	10.5	21.4	13.6	15.2	
2007	16.8	10.7	4.5	3.4	11.7	12.1	9.7	6.0	2.4	0.9	1.7	10.1	7.5	
2008	3.4	2.1											2.8	

Values are preliminary after Sep 07. For the yearly means, each 'M' marks a sunspot cycle maximum and each 'm' a minimum.

Hα SOLAR FLARES

FEBRUARY 2008

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp	Xray	Opt	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks

NO EVENTS

"Remarks"

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

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

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

FEBRUARY 2008

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

NO EVENTS

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) from January, 2004, to April 12, 2007. 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.

IMPORTANT NOTE: The xray sensor on GOES 12 was turned off on April 12, 2007, at 2250UT. The GOES SXI instrument is also inoperative. GOES 11 is now primary with GOES 10 backup for xray data. Effective April 13, 2007, xray flare locations will be determined by optical flare reports. Xray event times will still be from the xray data.

S O L A R R A D I O E M I S S I O N
Selected Fixed Frequency Events

FEBRUARY 2008

Day	Freq	Sta	Type	Start (UT)	Time of Maximum (UT)	Duration (Min)	Flux Density Peak (10 -22 W/m 2 Hz)	Flux Density Mean (10 -22 W/m 2 Hz)	Int	Remarks
02	245	LEAR	8 S	2309.0	2309.0	U	160.0			QL=4 ST=2 TYP=3
08	245	LEAR	8 S	0927.0	0927.0	U	140.0			QL=4 ST=2 TYP=3

Reports are received routinely from the following observatories:
LEAR = Learmonth SGMR = Sagamore Hill SVTO = San Vito

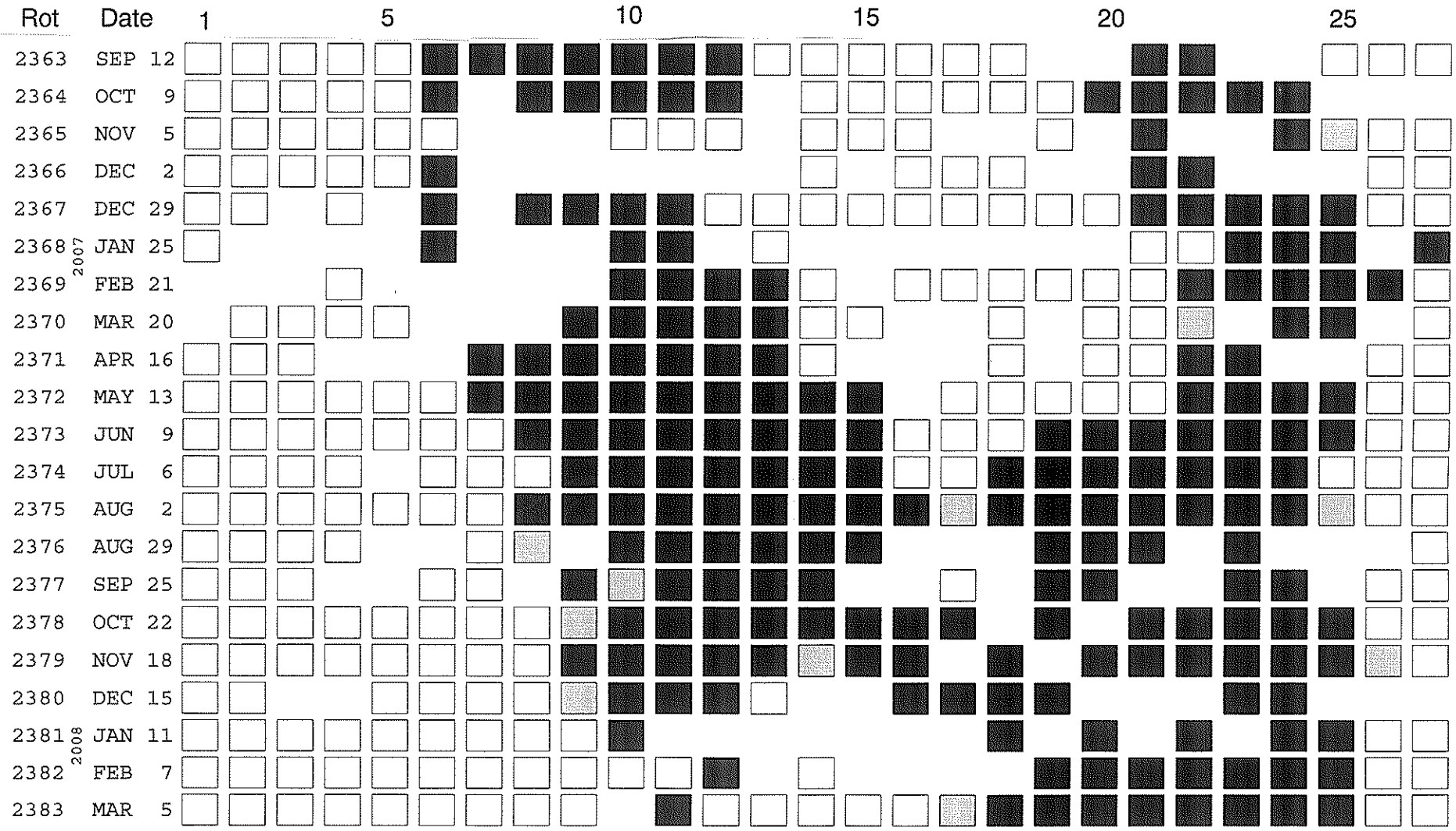
Explanation of Type Code:

1 Simple 1	7 Minor +	24 Rise	30 Post Burst Increase A	43 Onset of Noise Storm
2 Simple 1F	8 Spike	25 Rise A	31 Post Burst Decrease	44 Noise Storm in Progress
3 Simple 2	20 Simple 3	26 Fall	33 Absorption	45 Complex
4 Simple 2F	21 Simple 3A	27 Rise and Fall	40 Fluctuation	46 Complex F
5 Simple	22 Simple 3F	28 Precusor	41 Group of Bursts	47 Great Burst
6 Minor	23 Simple 3AF	29 Post Burst Increase	42 Series of Bursts	48 Major

1A Simple 1A	4A Simple 2AF	24PF Post Rise F	27F Rise and Fall F
3A Simple 2A	4O Rise Only	16A Fall A	27AF Rise and Fall AF
21A Simple 3A GRF	4OF Rise Only F	26O Fall Only	31A Post Burst Decrease A
2A Simple 1AF	4P Post Rise	26F Fall F	32A Absorption A

RSTN Site Information: Beginning in April 1986, the RSTN sites LEAR, PALE, SGMR, and SVTO fixed frequency solar radio data are periodically adjusted to several world standard stations. These world standard stations include: Kislovodsk, USSR 15,500 MHz; Penticton, Canada 2800 MHz; and Hiraiso, Japan 500 and 200 MHz.

STANFORD MEAN SOLAR MAGNETIC FIELD

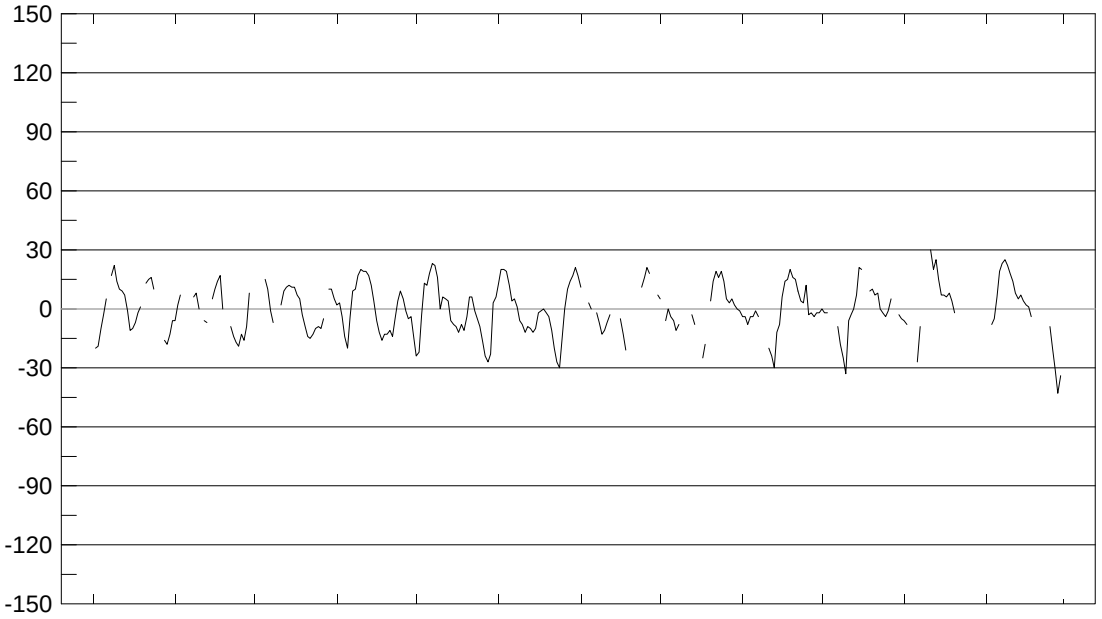


Mean Solar Magnetic Field Polarity: = field > 2 microT; = -2 microT ≤ field ≤ 2 microT

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

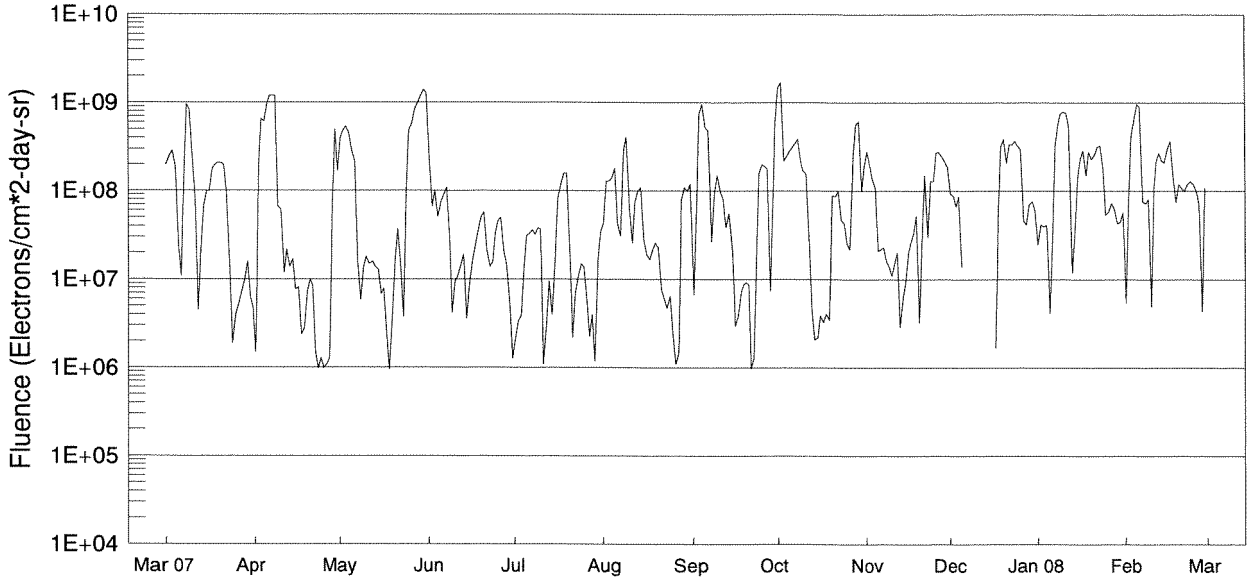
Observations are taken at 2000 UT. Rotation numbers given are the Bartels series, but the dates are not; these dates are five days earlier, to mark times of occurrence of phenomena on the Sun that affect the Earth during the given Bartels Rotation.

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



Day	Mar 07	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 08	Feb
1	---	-6	---	2	-24	13	11	5	-4	0	-6	-42
2	-20	2	---	3	-22	20	---	---	-4	-2	-8	---
3	-19	7	22	-4	-3	20	---	-6	-8	-2	---	-8
4	-10	---	---	-14	13	19	3	0	-4	---	---	-5
5	-3	---	15	-20	12	12	0	-4	-4	-8	---	6
6	5	10	10	-4	18	4	---	-6	-1	---	-27	19
7	---	.	-1	9	23	5	-2	-11	-4	-9	-9	23
8	17	6	-7	10	22	1	-7	-8	---	-18	---	25
9	22	8	---	17	16	-6	-13	---	-4	-25	---	22
10	14	0	---	20	---	-8	-11	---	---	-33	---	18
11	10	---	2	19	6	-12	-7	1	-20	-6	30	14
12	9	-6	9	19	5	-9	-3	---	-24	-3	20	8
13	7	-7	11	17	4	-10	---	-3	-30	0	25	5
14	-1	---	12	12	-6	-12	---	-8	-12	7	15	7
15	-11	5	11	4	-8	-10	---	---	-8	21	7	4
16	-10	10	11	-6	-9	-2	-5	---	6	20	7	2
17	-7	14	7	-12	-12	-1	-13	-25	14	---	6	1
18	-2	17	5	-16	-8	0	-21	-18	15	---	8	-4
19	1	---	-3	-13	-11	-2	---	---	20	9	4	---
20	---	---	-9	-13	-4	-4	-28	4	16	10	-2	8
21	13	---	-14	-11	6	-11	---	14	15	7	---	---
22	15	-9	-15	-14	6	-20	---	19	9	8	---	---
23	16	-14	-13	-5	-1	-27	---	16	4	0	---	---
24	10	-17	-10	4	-5	-30	11	19	3	-2	---	---
25	---	-19	-9	9	-9	-15	16	14	12	-4	---	-9
26	---	-13	-10	5	-17	0	21	5	-3	-1	---	-20
27	---	-16	-5	-1	-24	10	18	3	-2	5	---	-31
28	-16	-9	---	-5	-27	14	---	5	-4	---	-9	-43
29	-18	8	10	-4	-23	17	---	2	-2	---	---	-34
30	-13	---	10	-14	3	21	7	0	-2	-3	-16	
31	-6		5		6	17		-1		-5	---	

GOES Daily Electron Fluence
Mar 2007 - Feb 2008



Day	Mar 07	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 08	Feb
1	2.0E+08	1.5E+06	4.0E+08	2.4E+08	2.1E+06	4.3E+07	6.8E+06	1.5E+09	2.8E+08	9.3E+07	2.5E+07	5.5E+06
2	2.5E+08	1.9E+08	4.9E+08	6.7E+07	3.4E+06	1.3E+08	6.3E+07	1.7E+09	2.0E+08	8.8E+07	4.2E+07	8.0E+07
3	2.9E+08	6.6E+08	5.4E+08	1.0E+08	3.9E+06	1.3E+08	7.5E+08	2.2E+08	1.4E+08	6.7E+07	4.0E+07	4.1E+08
4	1.9E+08	6.2E+08	4.6E+08	5.1E+07	1.3E+07	1.4E+08	9.6E+08	2.5E+08	1.1E+08	8.6E+07	4.1E+07	6.5E+08
5	2.5E+07	9.6E+08	2.9E+08	7.7E+07	3.1E+07	1.8E+08	5.3E+08	2.9E+08	2.1E+07	1.4E+07	4.2E+06	9.7E+08
6	1.1E+07	1.2E+09	2.2E+08	9.0E+07	3.3E+07	4.3E+07	4.9E+08	3.2E+08	2.2E+07	---	2.3E+07	9.1E+08
7	1.4E+08	1.2E+09	1.6E+07	1.1E+08	3.6E+07	3.1E+07	2.7E+07	3.5E+08	2.3E+07	---	3.2E+08	7.6E+07
8	9.6E+08	1.2E+09	5.9E+06	3.1E+07	3.2E+07	2.9E+08	9.6E+07	3.9E+08	1.6E+07	---	5.6E+08	7.3E+07
9	8.4E+08	6.7E+07	1.4E+07	4.2E+06	3.8E+07	4.1E+08	1.5E+08	2.3E+08	1.4E+07	---	7.5E+08	8.1E+07
10	2.5E+08	6.2E+07	1.8E+07	9.4E+06	3.7E+07	6.6E+07	1.0E+08	1.7E+08	1.1E+07	---	7.9E+08	5.0E+06
11	8.0E+07	1.2E+07	1.5E+07	1.1E+07	1.1E+06	2.6E+07	8.2E+07	1.6E+08	1.5E+07	---	7.7E+08	1.1E+08
12	4.5E+06	2.2E+07	1.6E+07	1.4E+07	3.0E+06	7.5E+07	3.9E+07	3.1E+07	2.0E+07	---	5.5E+08	2.2E+08
13	2.2E+07	1.4E+07	1.4E+07	1.9E+07	9.6E+06	1.0E+08	5.6E+07	5.0E+06	2.9E+06	---	1.2E+07	2.7E+08
14	6.8E+07	1.7E+07	1.3E+07	3.6E+06	4.0E+06	1.1E+08	2.1E+07	2.1E+06	6.1E+06	---	3.5E+07	2.2E+08
15	1.0E+08	7.7E+06	6.9E+06	8.6E+06	1.9E+07	2.8E+07	3.0E+06	2.2E+06	9.4E+06	---	1.4E+08	2.1E+08
16	1.0E+08	8.2E+06	7.8E+06	1.6E+07	8.1E+07	1.9E+07	3.8E+06	3.9E+06	2.0E+07	---	2.3E+08	3.0E+08
17	1.8E+08	2.4E+06	2.5E+06	2.4E+07	1.2E+08	1.7E+07	7.2E+06	3.3E+06	2.7E+07	1.7E+06	2.9E+08	3.7E+08
18	2.0E+08	2.8E+06	9.6E+05	3.5E+07	1.6E+08	2.2E+07	8.8E+06	4.1E+06	3.3E+07	6.4E+07	1.5E+08	1.5E+08
19	2.1E+08	7.3E+06	3.1E+06	5.0E+07	1.6E+08	2.6E+07	9.3E+06	3.5E+06	5.2E+07	3.2E+08	2.8E+08	7.6E+07
20	2.1E+08	1.0E+07	1.6E+07	5.7E+07	2.3E+07	2.3E+07	8.8E+06	8.9E+07	3.3E+06	3.9E+08	2.3E+08	1.2E+08
21	2.0E+08	8.5E+06	3.7E+07	2.1E+07	2.2E+06	7.7E+06	9.8E+05	8.7E+07	2.6E+07	2.1E+08	2.6E+08	1.1E+08
22	1.0E+08	1.5E+06	1.5E+07	1.4E+07	7.0E+06	6.2E+06	1.3E+06	9.9E+07	1.5E+08	3.4E+08	3.2E+08	1.0E+08
23	1.6E+07	9.9E+05	3.8E+06	1.6E+07	1.1E+07	4.8E+06	2.2E+07	4.7E+07	3.0E+07	3.4E+08	3.3E+08	1.2E+08
24	1.9E+06	1.3E+06	1.0E+08	3.3E+07	1.5E+07	6.5E+06	1.6E+08	4.3E+07	1.3E+08	3.7E+08	1.8E+08	1.3E+08
25	4.0E+06	1.0E+06	4.9E+08	4.6E+07	1.4E+07	2.5E+06	2.0E+08	2.6E+07	1.3E+08	3.3E+08	5.4E+07	1.2E+08
26	5.4E+06	1.1E+06	5.8E+08	5.0E+07	6.3E+06	1.1E+06	1.9E+08	2.2E+07	2.7E+08	3.0E+08	5.8E+07	1.0E+08
27	7.6E+06	1.3E+06	8.6E+08	2.1E+07	2.3E+06	1.5E+06	1.8E+08	2.3E+08	2.8E+08	4.6E+07	7.3E+07	7.1E+07
28	9.9E+06	7.0E+07	9.9E+08	1.5E+07	4.0E+06	7.9E+07	7.5E+06	5.7E+08	2.5E+08	4.2E+07	6.2E+07	4.4E+06
29	1.6E+07	5.0E+08	1.2E+09	5.4E+06	1.2E+06	1.1E+08	7.1E+07	6.2E+08	2.2E+08	7.1E+07	4.3E+07	1.1E+08
30	6.3E+06	1.7E+08	1.4E+09	1.3E+06	1.6E+07	1.0E+08	6.1E+08	1.0E+08	1.9E+08	7.6E+07	4.5E+07	
31	4.8E+06		1.3E+09		3.5E+07	1.2E+08		1.9E+08		6.1E+07	5.7E+07	

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.

CONTENTS

Prompt Reports Number 763 Part I

DATA FOR **JANUARY 2008**

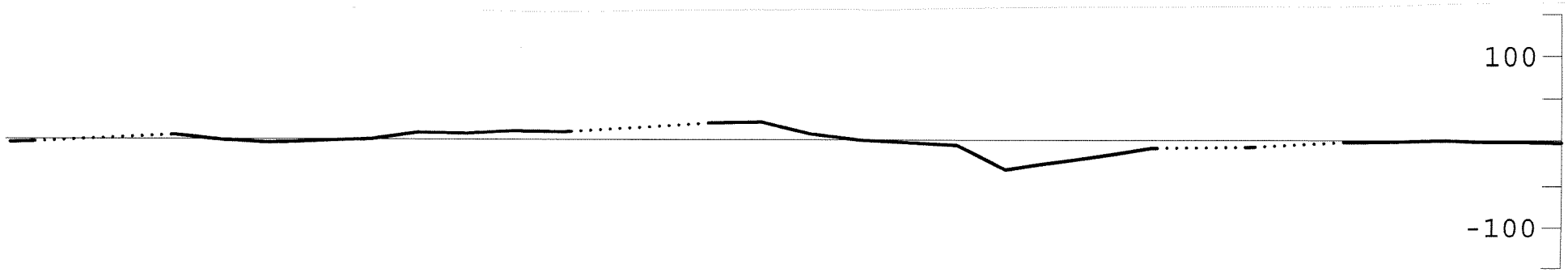
SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 2064

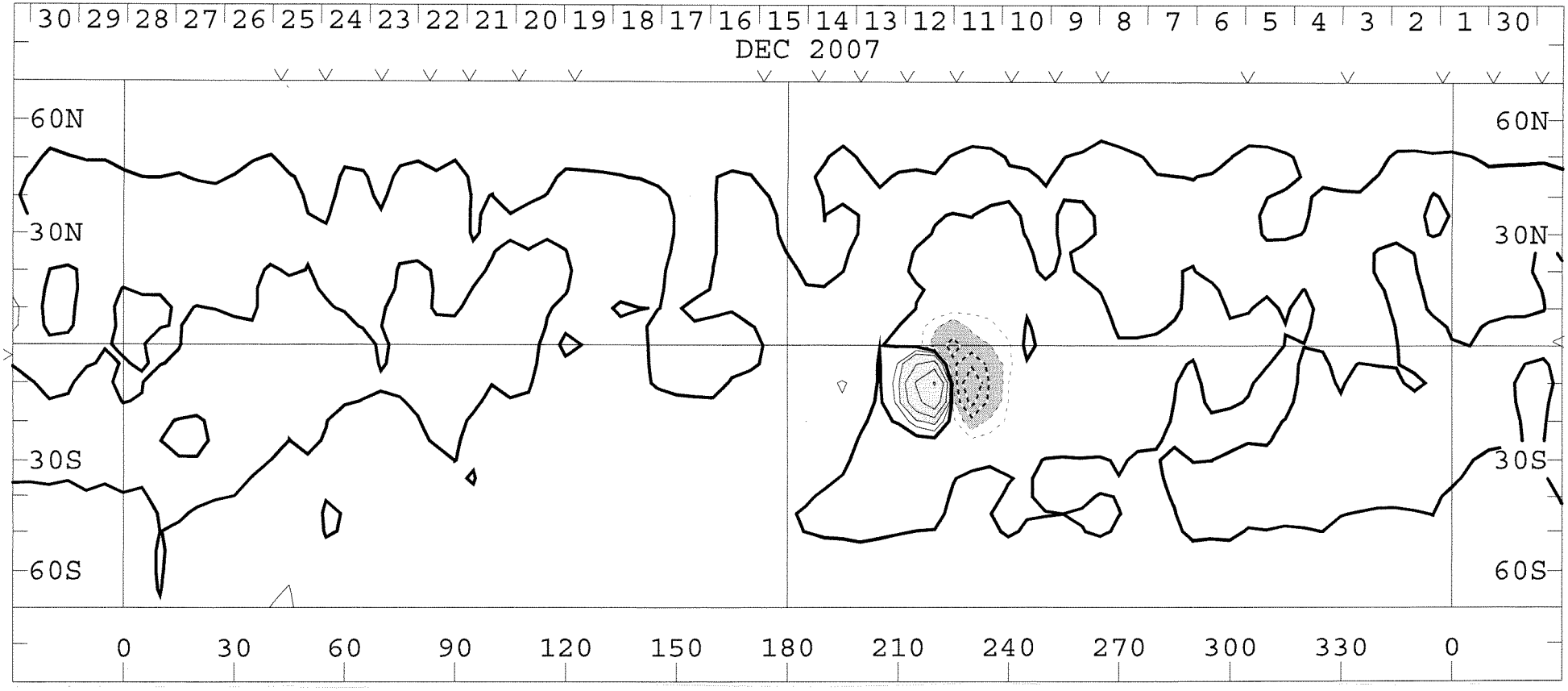
(1Dec 2007 to 28 Dec 2007)

Wilcox Solar Observatory

Mean Field



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



Heliographic Longitude

SOLAR MAGNETIC FIELD SYNOPTIC CHART

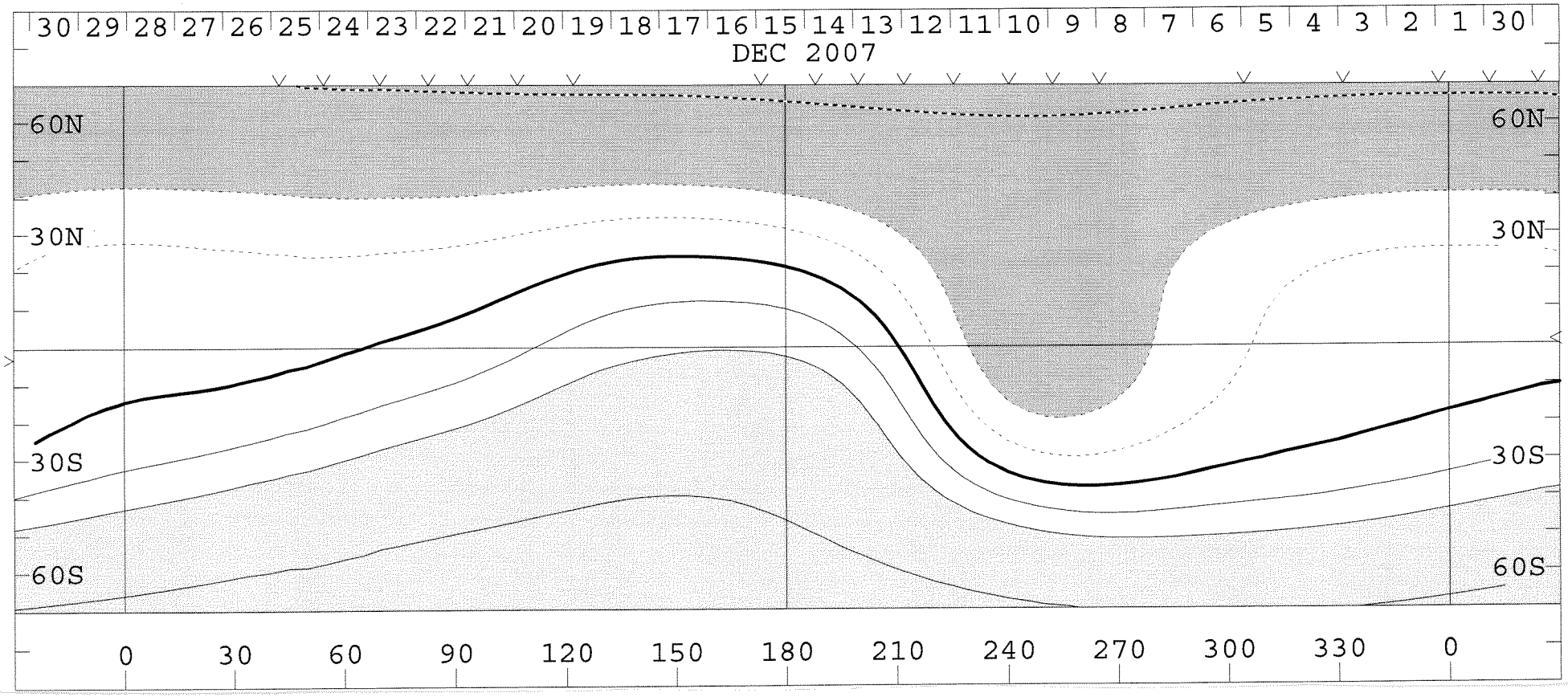
SOURCE SURFACE FIELD

CARRINGTON ROTATION NUMBER 2064

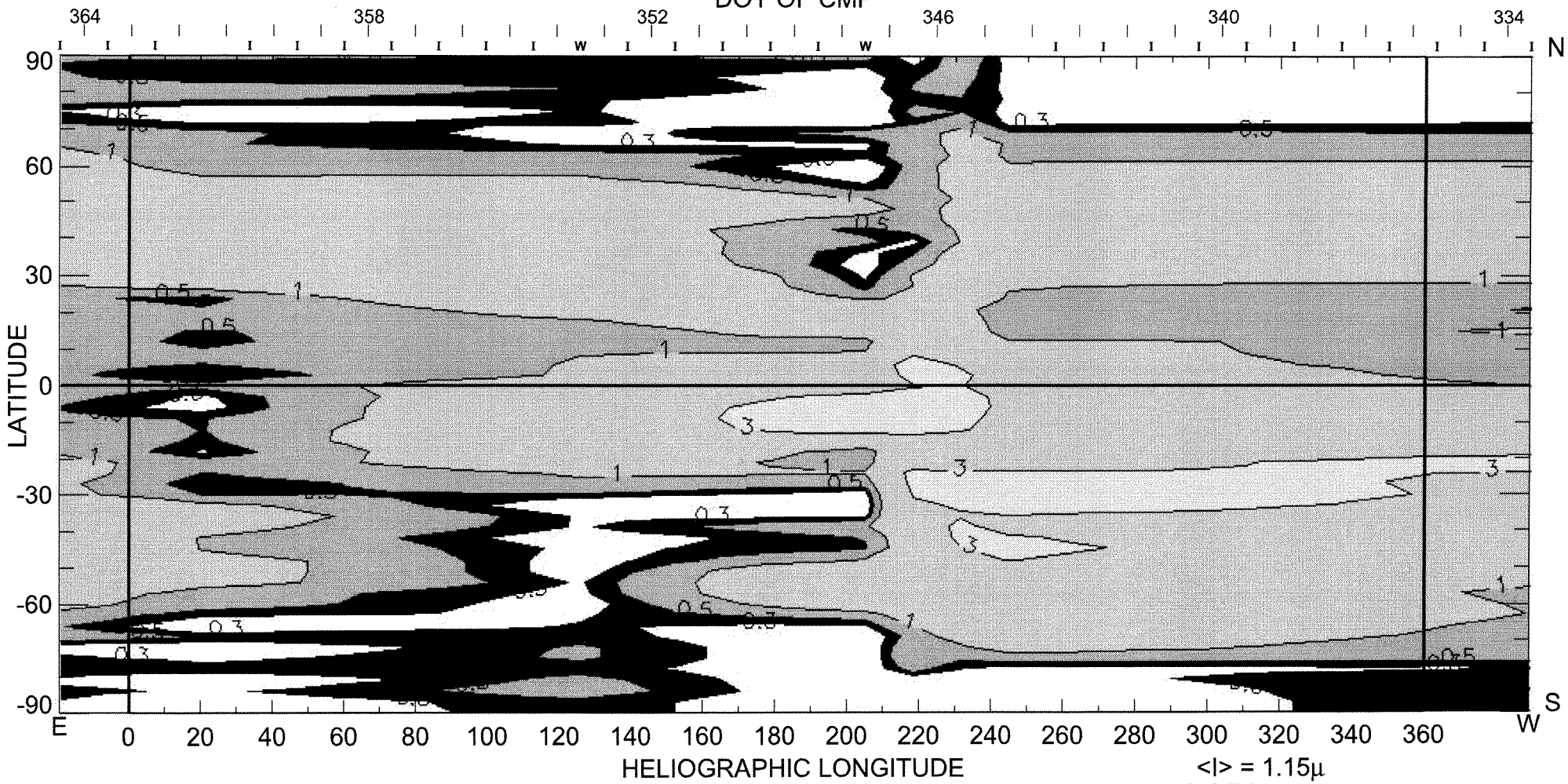
(1 Dec 2007 to 28 Dec 2007)

Wilcox Solar Observatory

0, ±1, 2, 5, 10, 20 microTesla



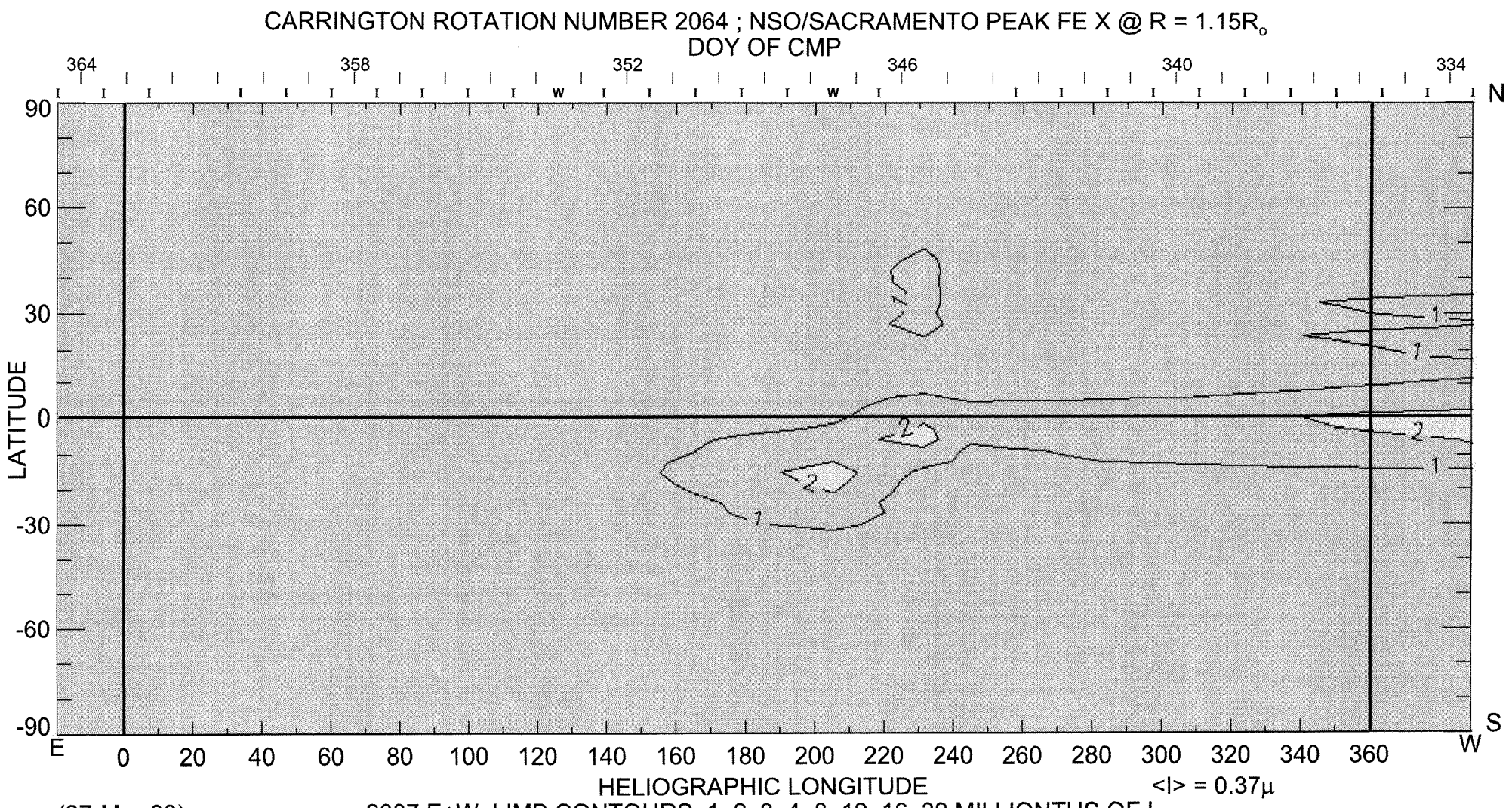
CARRINGTON ROTATION NUMBER 2064 ; NSO/SACRAMENTO PEAK FE XIV @ R = 1.15R_o



<λ> = 1.15μ

(27-Mar-08) 2007 E+W LIMB CONTOURS: 0.3, 0.5, 1, 3, 6, 8, 10, 12, 16, 20 MILLIONTHS OF I_o

CORONAL HOLES ARE SHOWN AS WHITE BORDERED BY BLACK

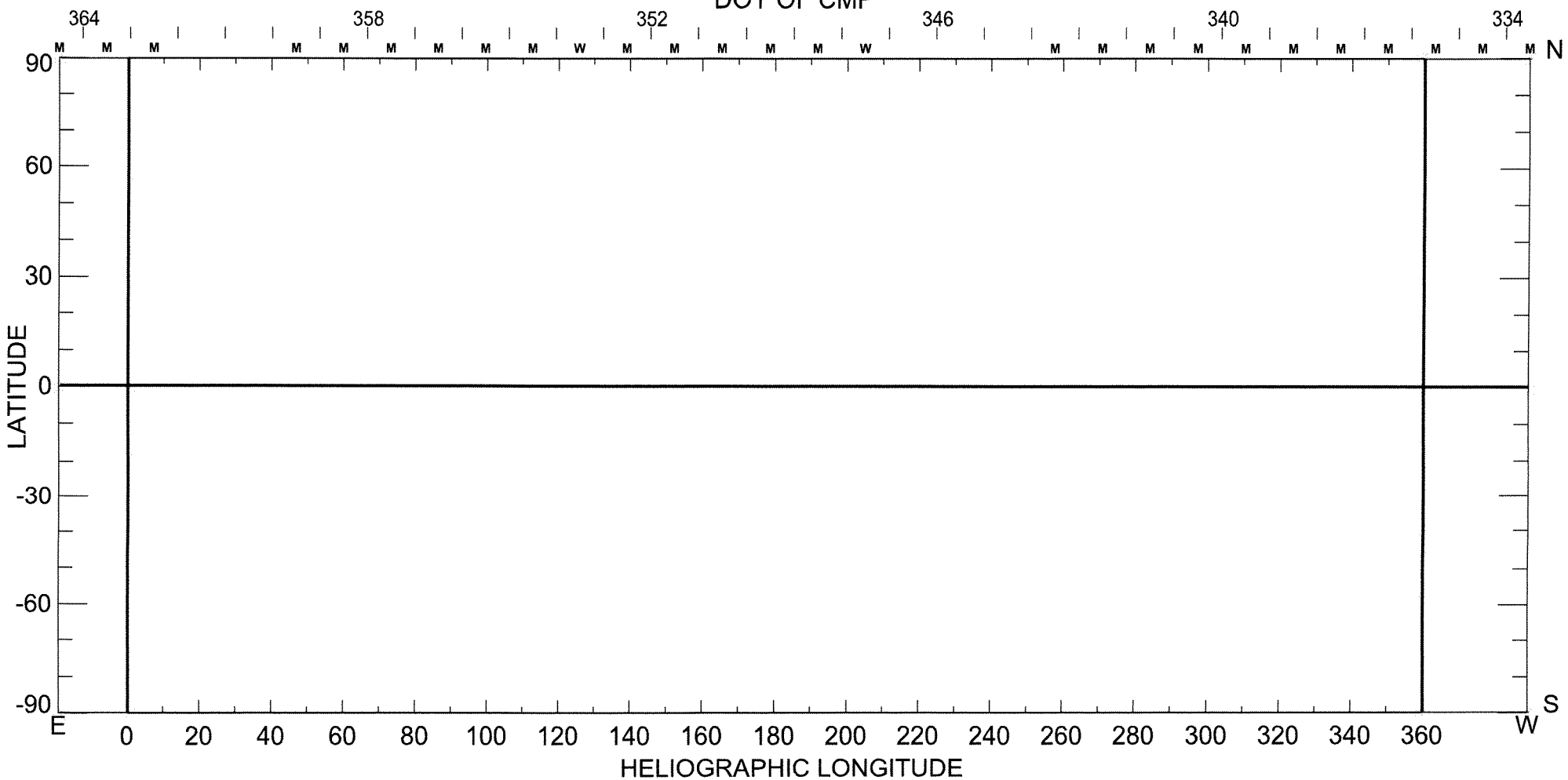


(27-Mar-08) 2007 E+W LIMB CONTOURS: 1, 2, 3, 4, 8, 12, 16, 32 MILLIONTHS OF I_o

tex Tue Mar 27 14:45:24 2008

37
Jan 08

CARRINGTON ROTATION NUMBER 2064 ; NSO/SACRAMENTO PEAK CA XV @ R = 1.15R_o



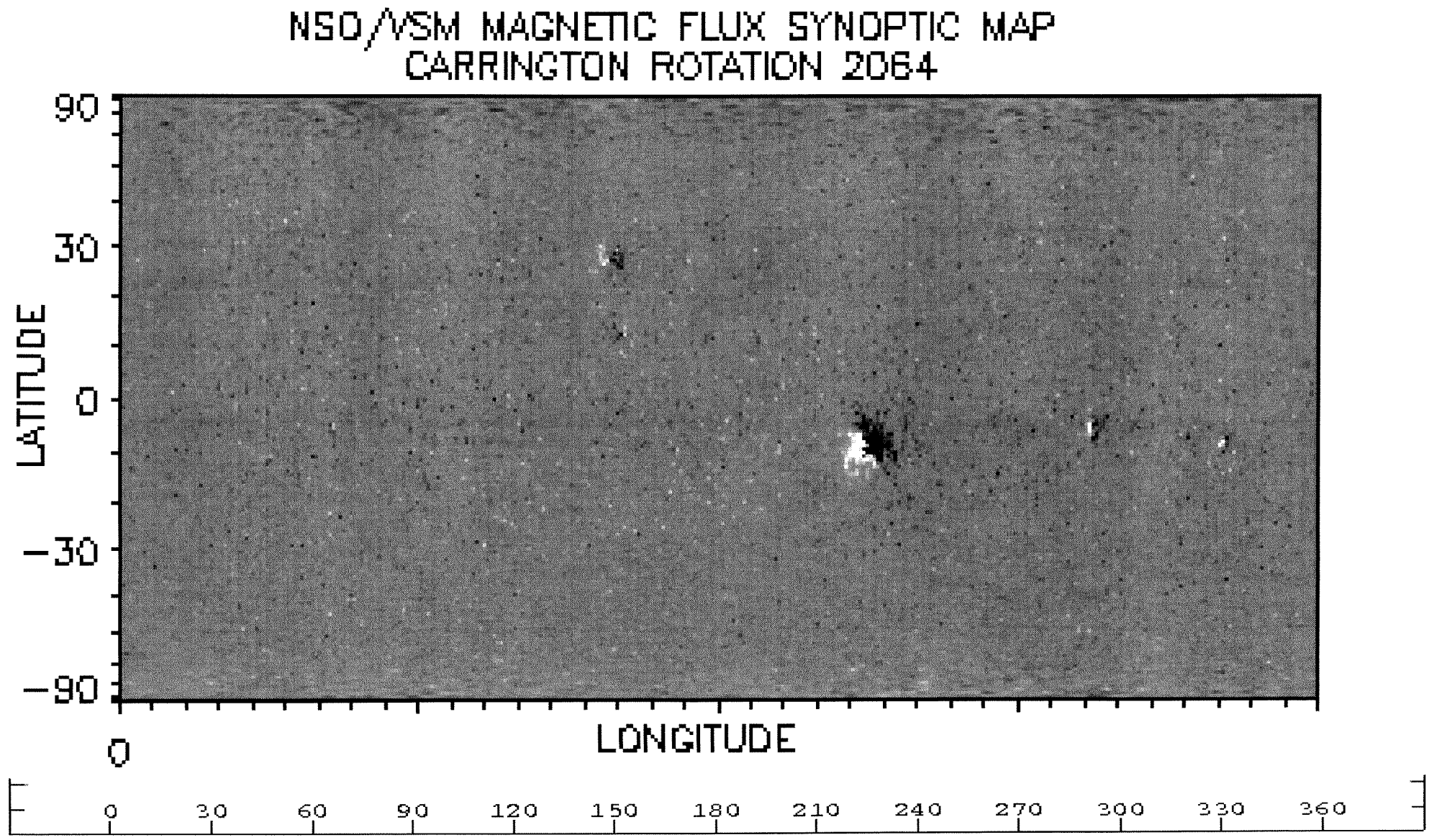
(14-Mar-08) 2007 E+W LIMB CONTOURS: 1, 2, 3, 4, 6, 8, 10, 12, 14, 16, 18, 20 MILLIONTHS OF I_o

SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 2064

(1 Dec 2007 to 28 Dec 2007)

National Solar Observatory/Kitt Peak

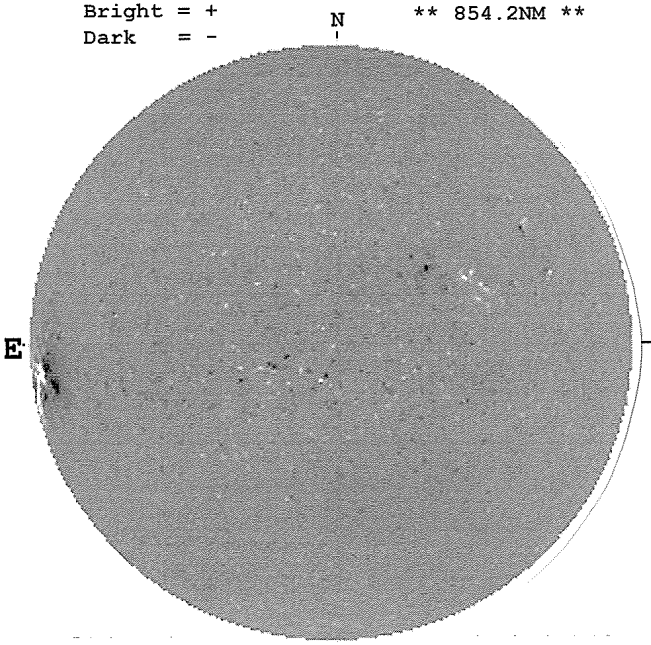


Heliographic Longitude

39
Jan 08

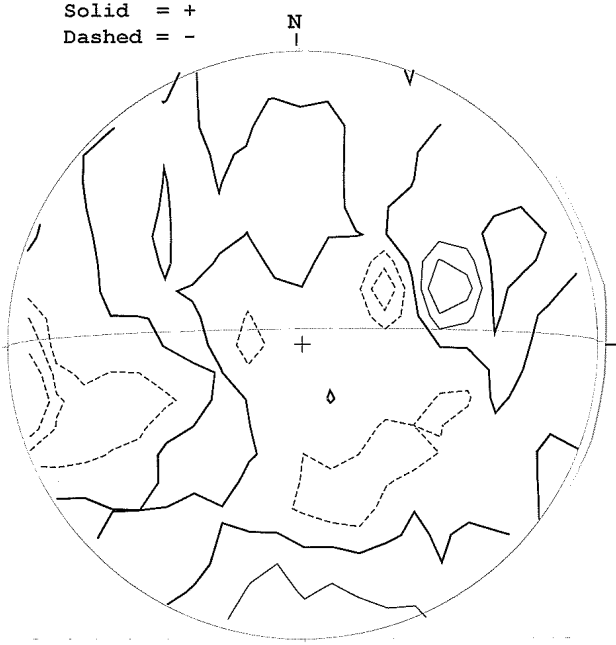
January 01, 2008 (P= 2.35, Bo=-2.95, Lo= 321.16)

KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **



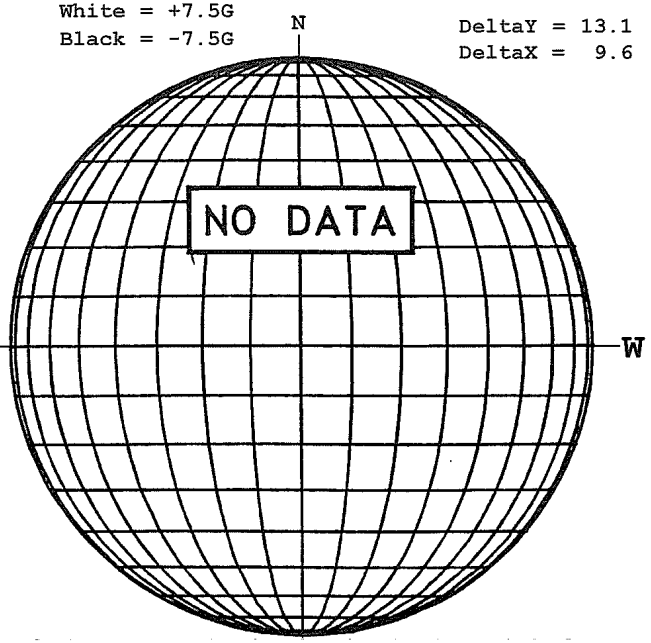
1901 UT

STANFORD MAGNETOGRAM
Solid = +
Dashed = -

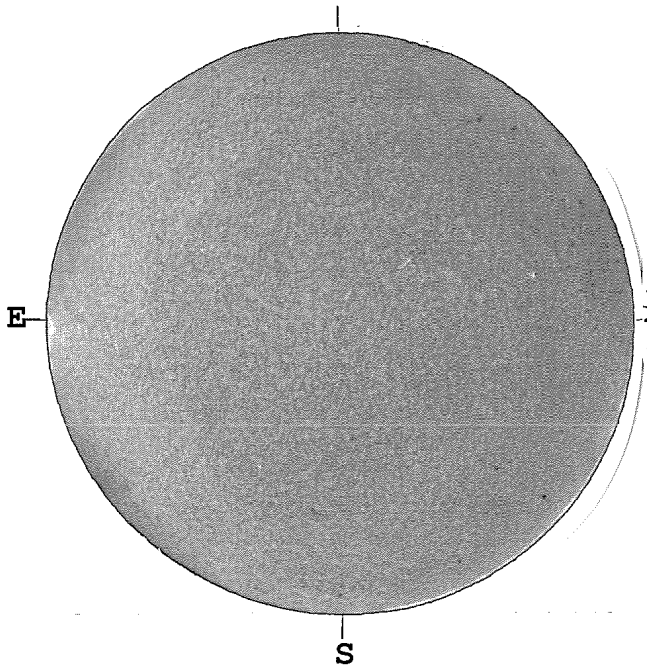


1739 UT

MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6

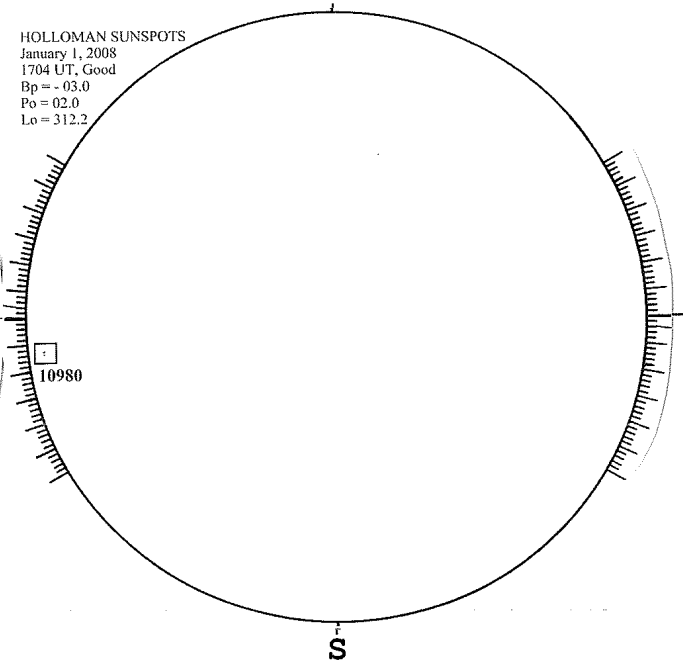


--- KANZELHOHE H-ALPHA



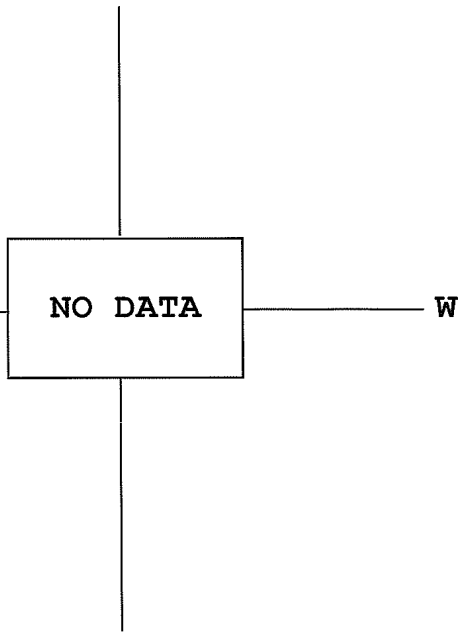
0822 UT

HOLLOMAN SUNSPOTS



1704 UT

SACRAMENTO PEAK CORONA (1.15 Radii)-----

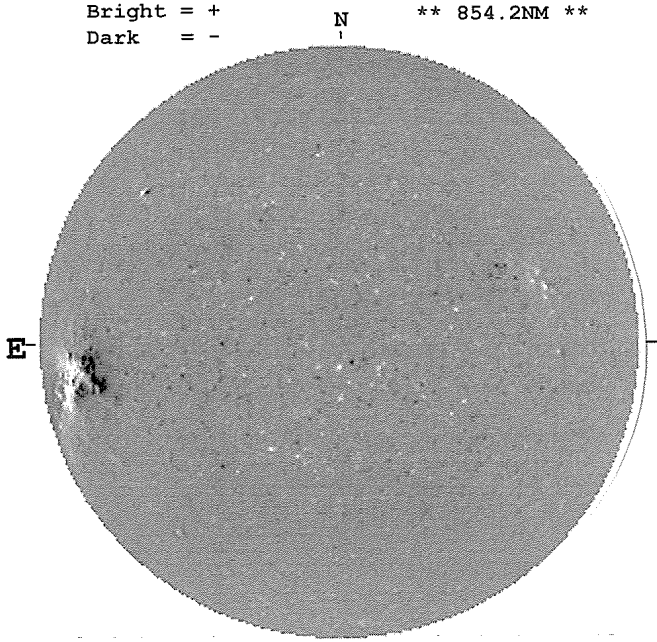


January 02, 2008 (P= 1.87, Bo=-3.07, Lo= 307.99)

KITT PEAK MAGNETOGRAM -- SOLIS

Bright = +
Dark = -

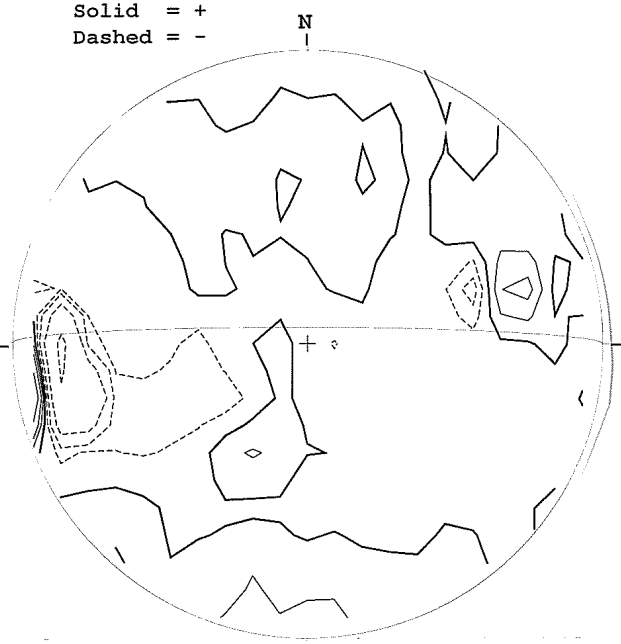
** 854.2NM **



1941 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

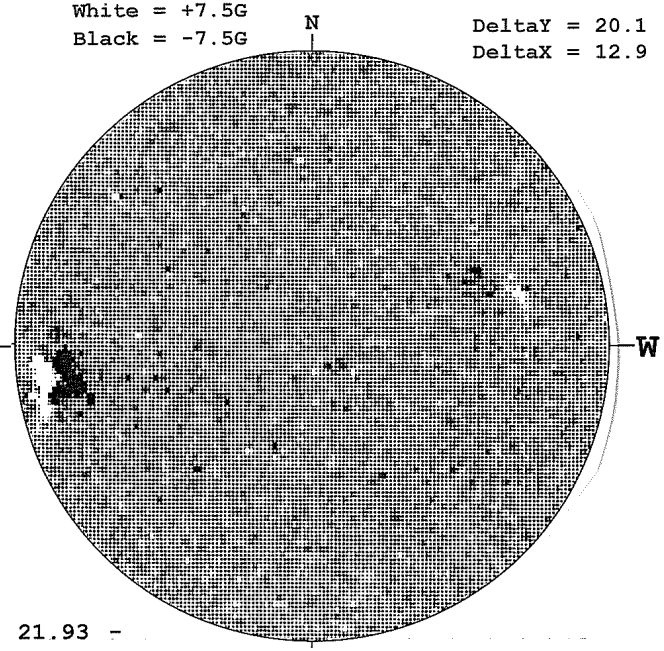


2026 UT

MT. WILSON MAGNETOGRAM

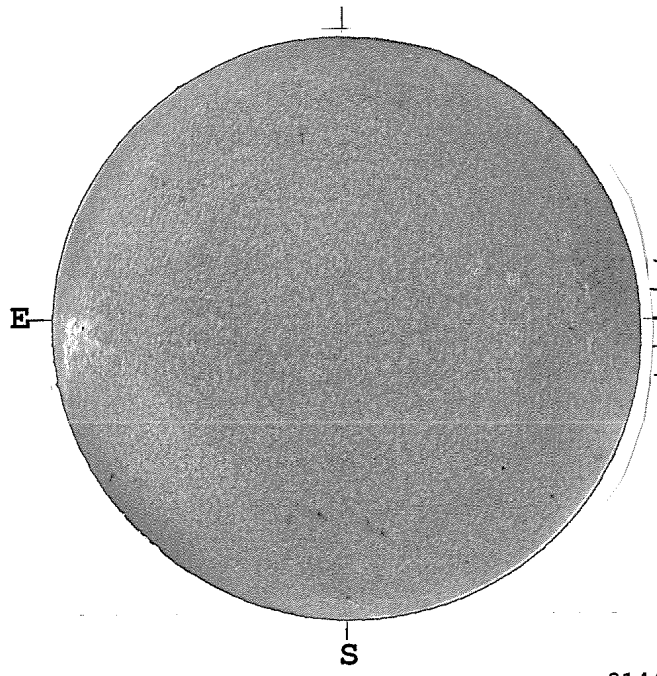
White = +7.5G
Black = -7.5G

DeltaY = 20.1
DeltaX = 12.9



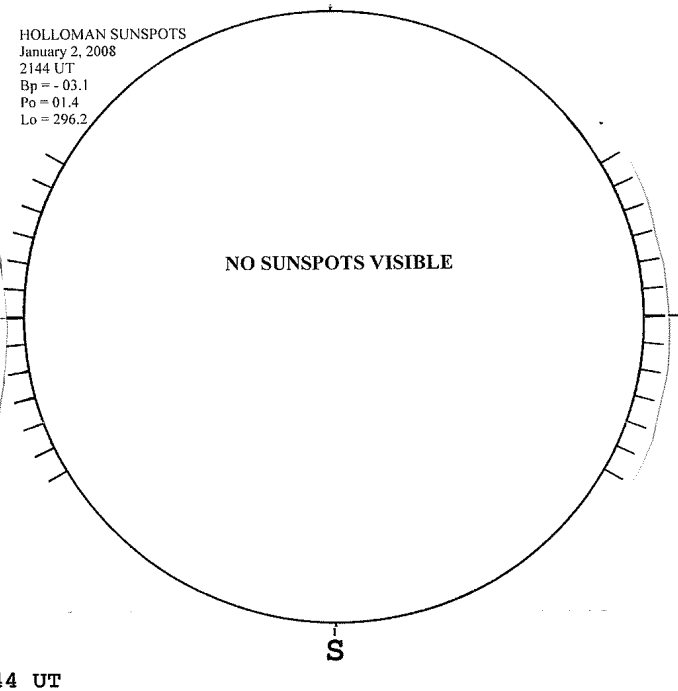
21.93 -
22.36 UT

--- KANZELHOHE H-ALPHA



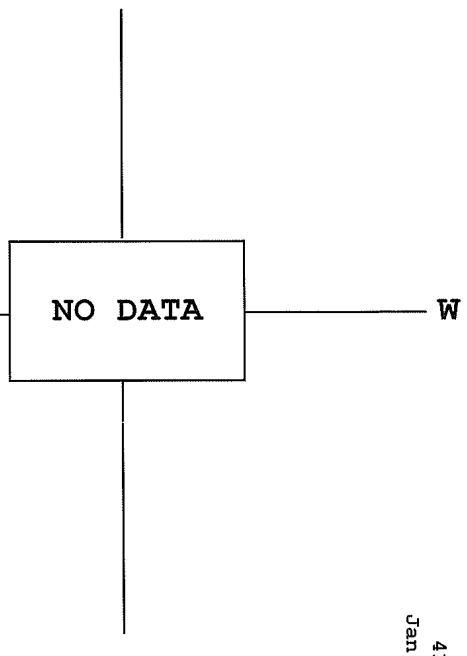
0811 UT

HOLLOMAN SUNSPOTS



2144 UT

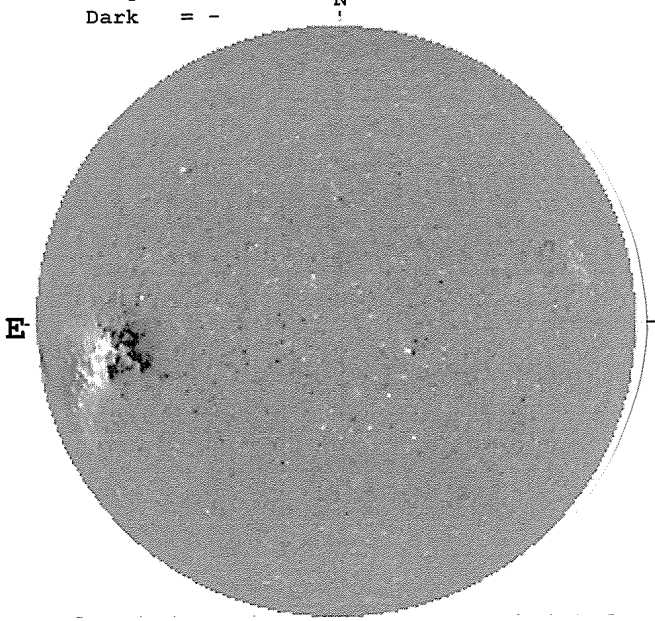
SACRAMENTO PEAK CORONA (1.15 Radii)-----



41
Jan 08

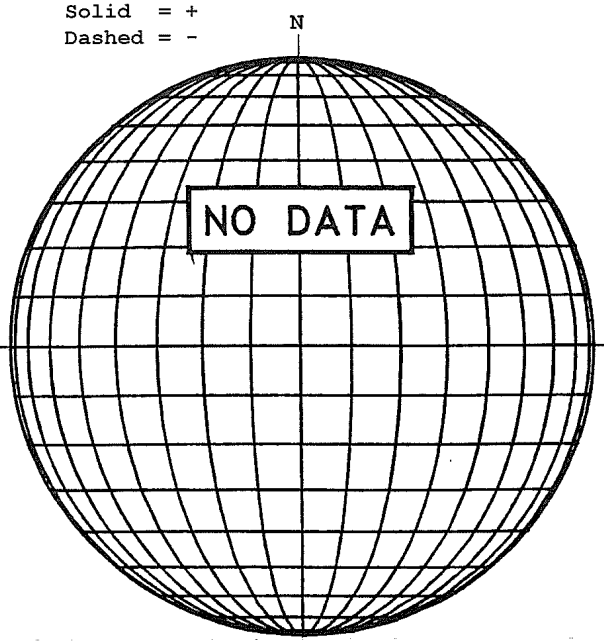
January 03, 2008 (P= 1.38, Bo=-3.18, Lo= 294.82)

KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **

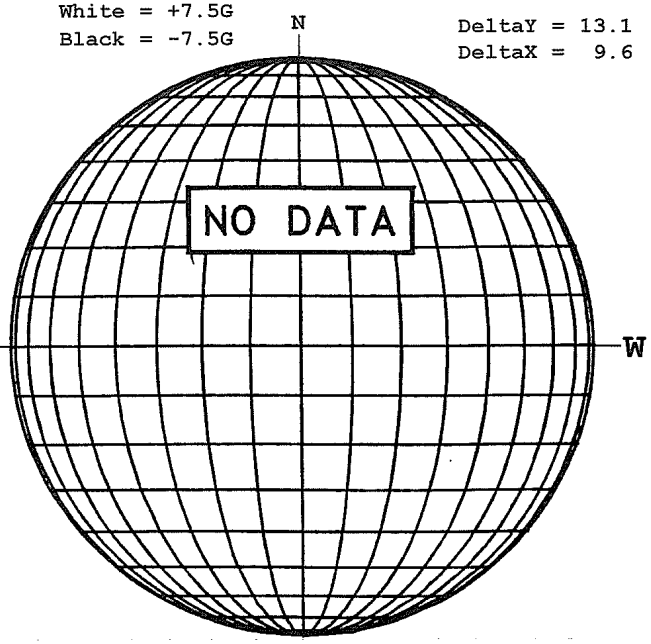


1854 UT

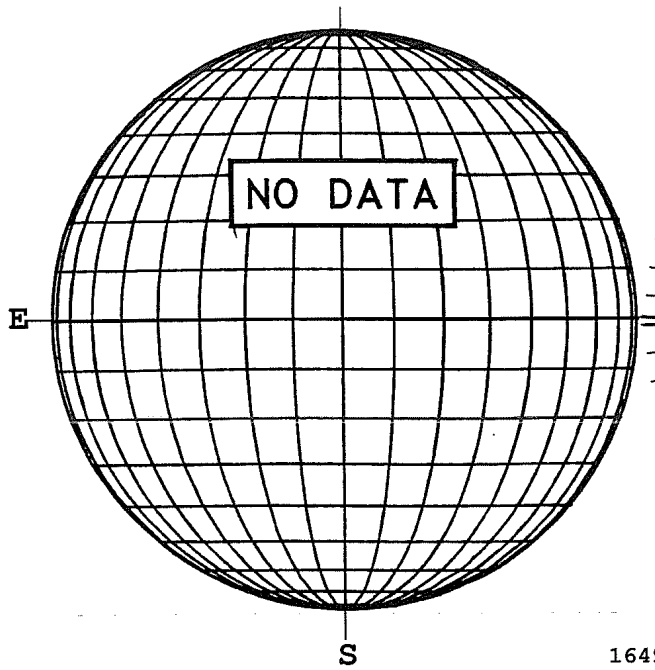
STANFORD MAGNETOGRAM
Solid = +
Dashed = -



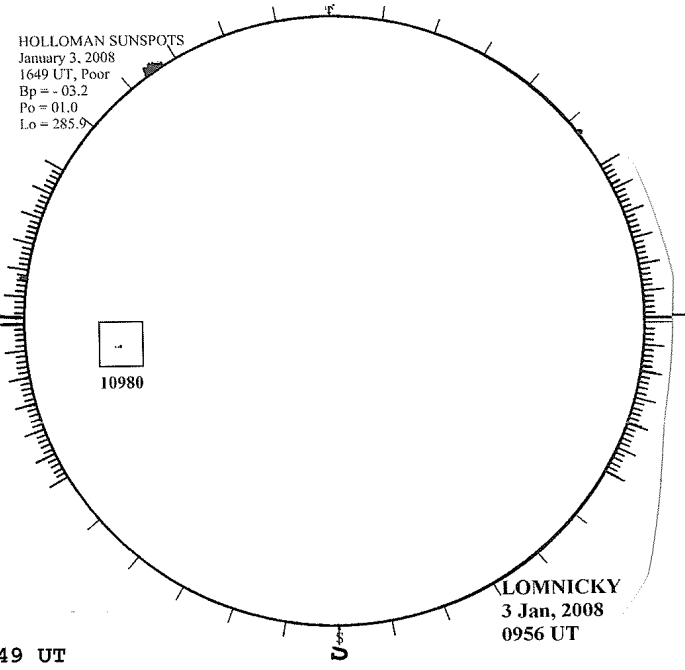
MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6



--- KANZELHOHE H-ALPHA

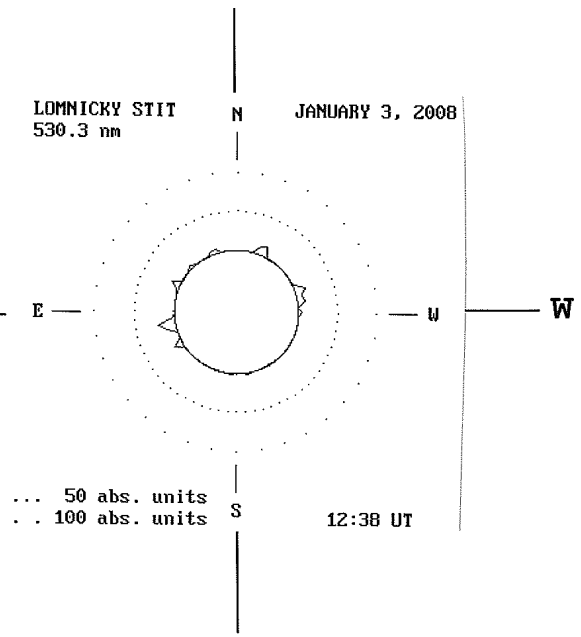


HOLLOMAN SUNSPOTS



1649 UT
0956 UT LOMN PROM

LOMNICKY PEAK CORONA (1.04 Radii)------

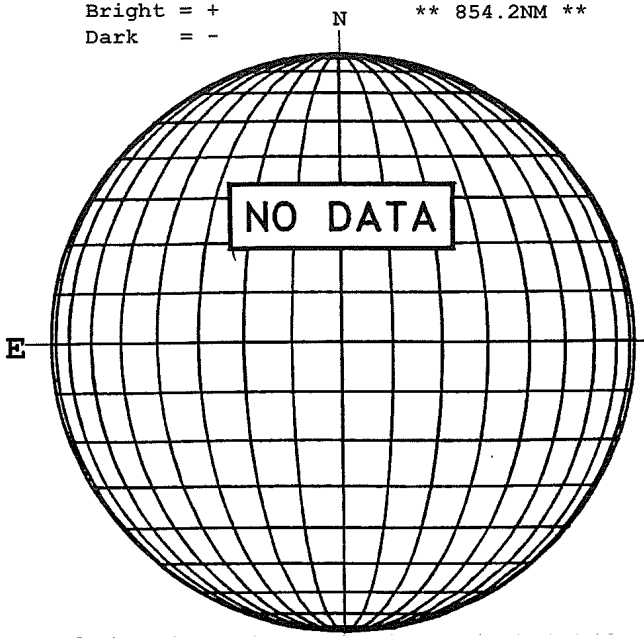


January 04, 2008 (P= 0.90, Bo=-3.30, Lo= 281.65)

KITT PEAK MAGNETOGRAM -- SOLIS

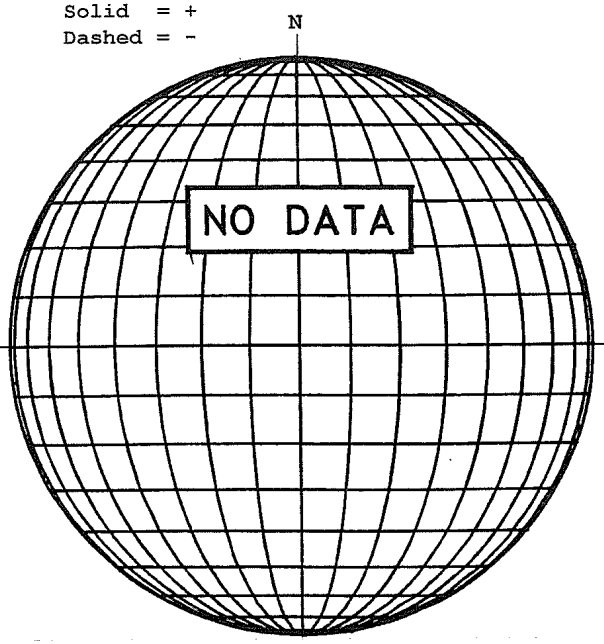
Bright = +
Dark = -

** 854.2NM **



STANFORD MAGNETOGRAM

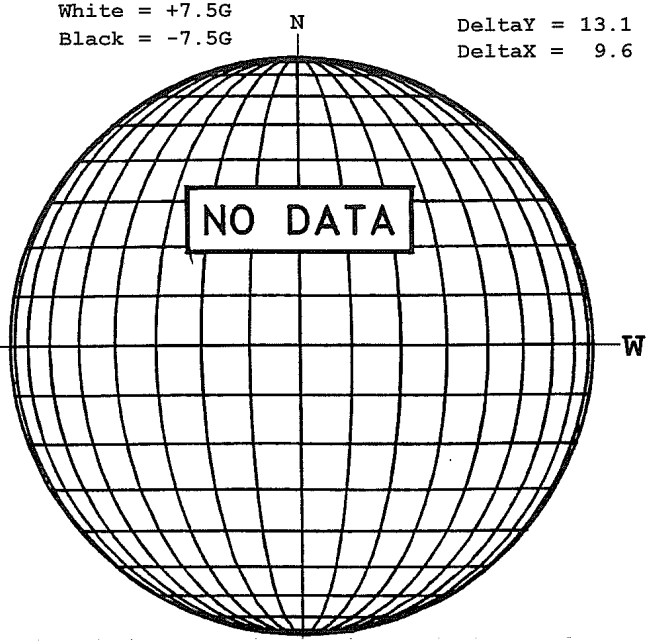
Solid = +
Dashed = -



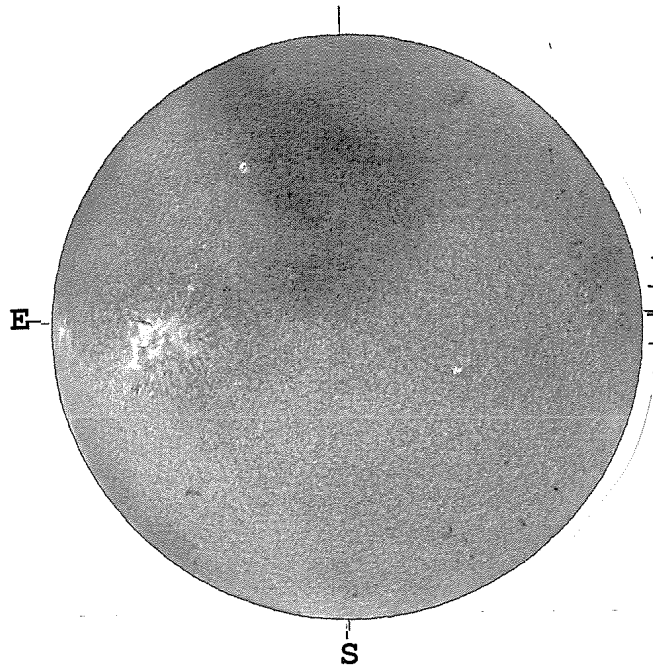
MT. WILSON MAGNETOGRAM

White = +7.5G
Black = -7.5G

DeltaY = 13.1
DeltaX = 9.6

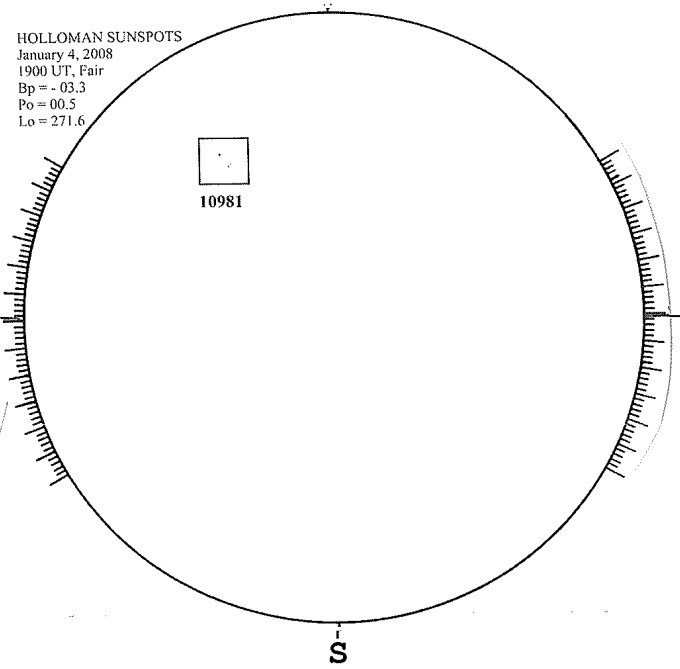


KANZELHOHE H-ALPHA



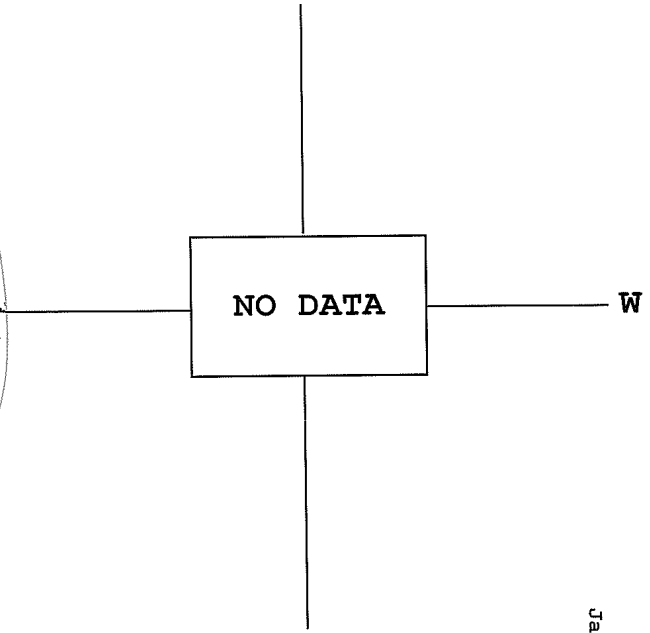
1030 UT

HOLLOMAN SUNSPOTS



1900 UT

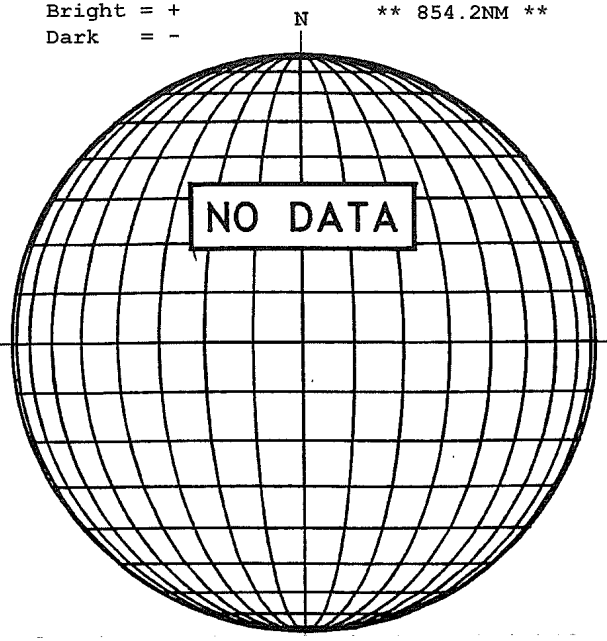
SACRAMENTO PEAK CORONA (1.15 Radii)



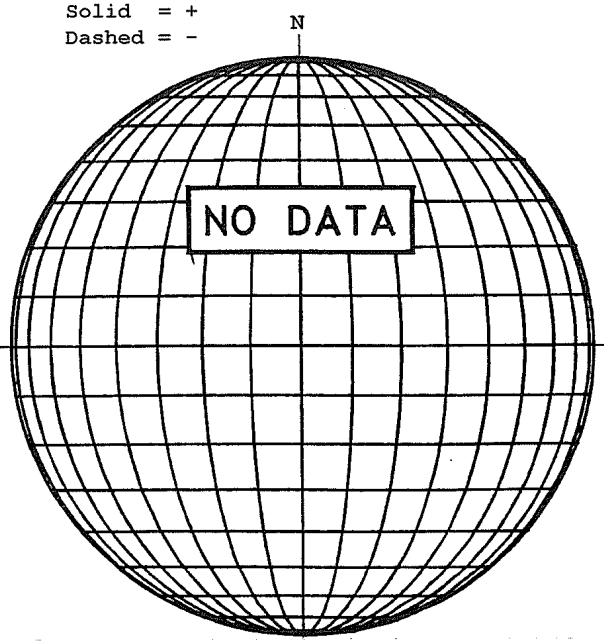
43
Jan 08

January 05, 2008 (P= 0.41, Bo=-3.41, Lo= 268.48)

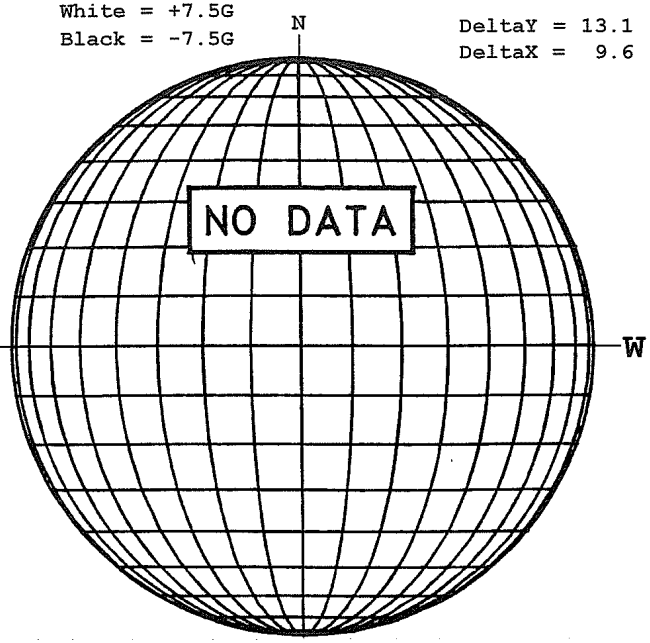
KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **



STANFORD MAGNETOGRAM
Solid = +
Dashed = -

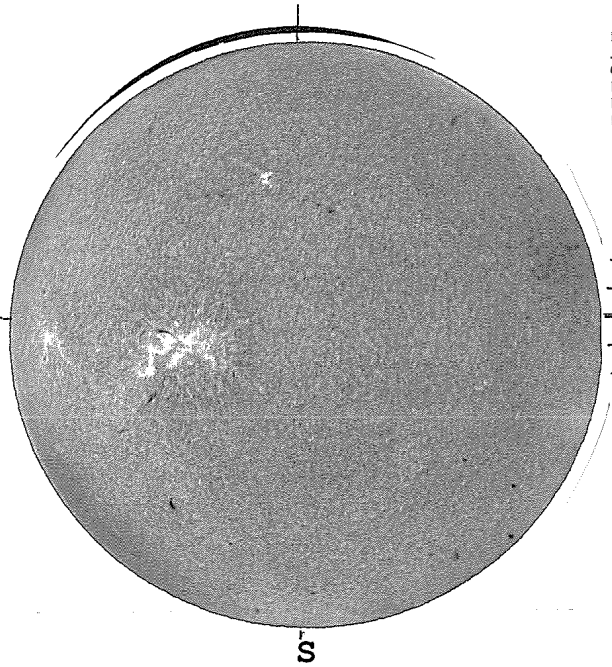


MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6



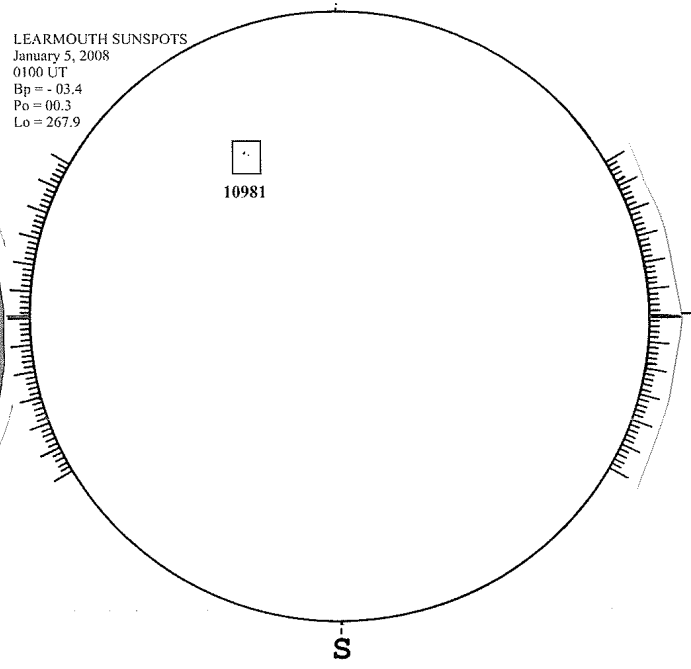
E W

KANZELHOHE H-ALPHA



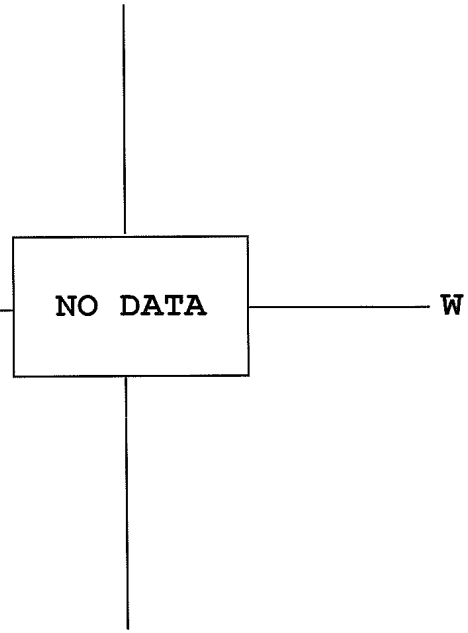
1312 UT

LEARMONTH SUNSPOTS



0100 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

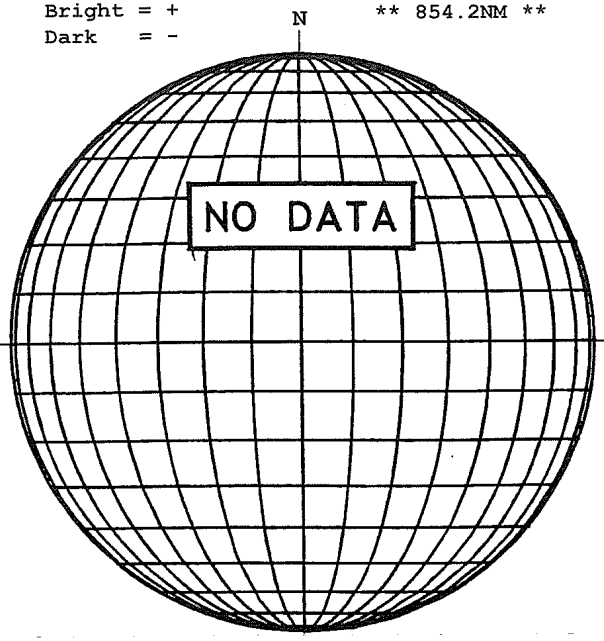


January 06, 2008 (P= -0.07, Bo=-3.53, Lo= 255.31)

KITT PEAK MAGNETOGRAM -- SOLIS

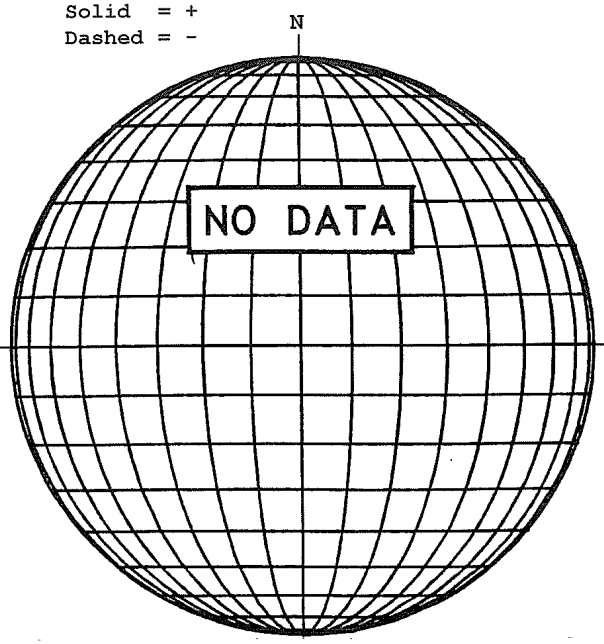
Bright = +
Dark = -

** 854.2NM **



STANFORD MAGNETOGRAM

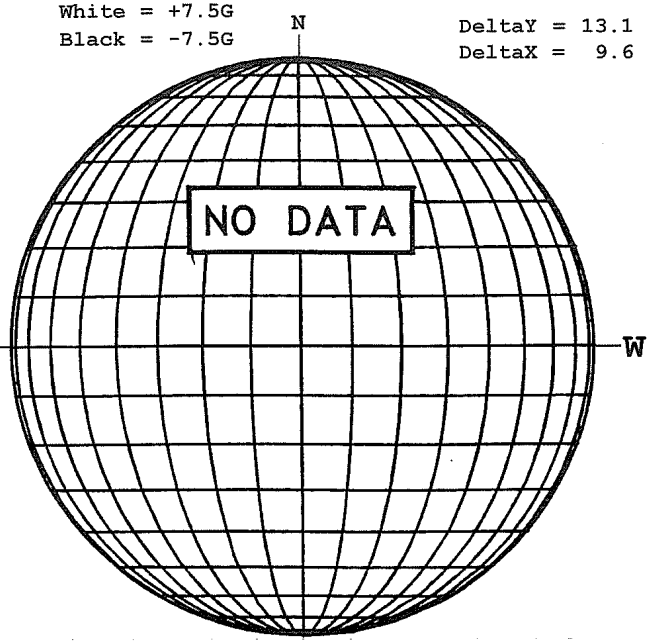
Solid = +
Dashed = -



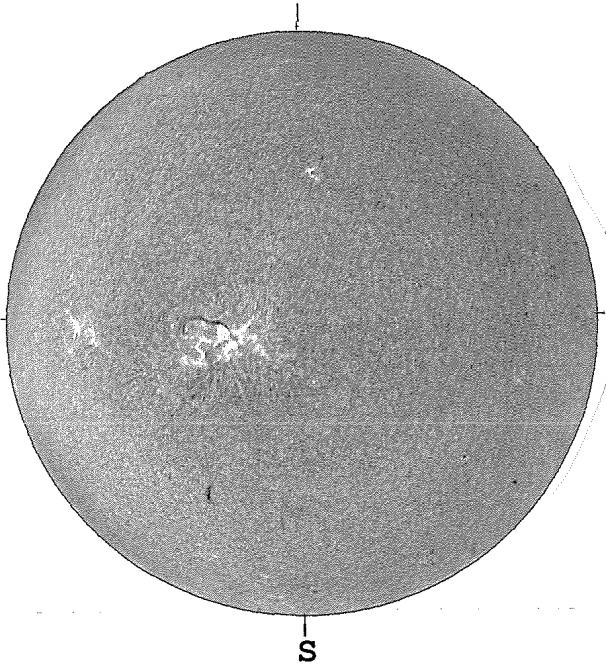
MT. WILSON MAGNETOGRAM

White = +7.5G
Black = -7.5G

DeltaY = 13.1
DeltaX = 9.6

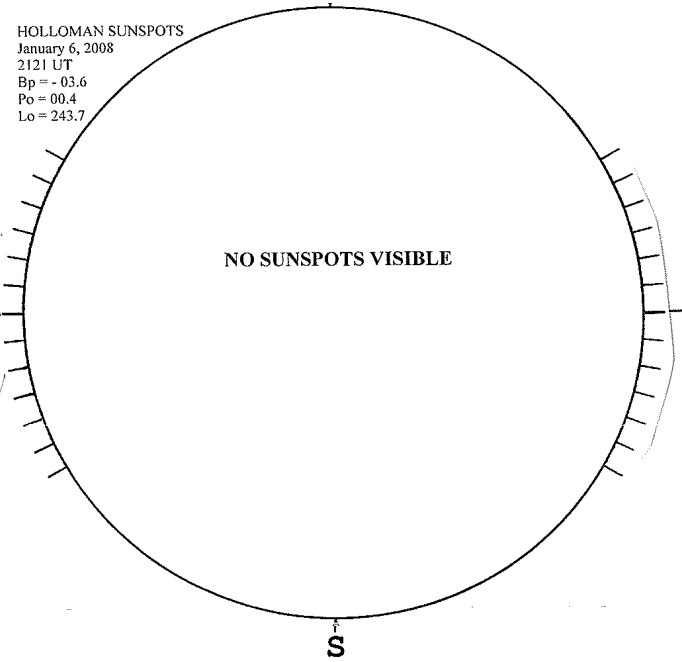


KANZELHOHE H-ALPHA



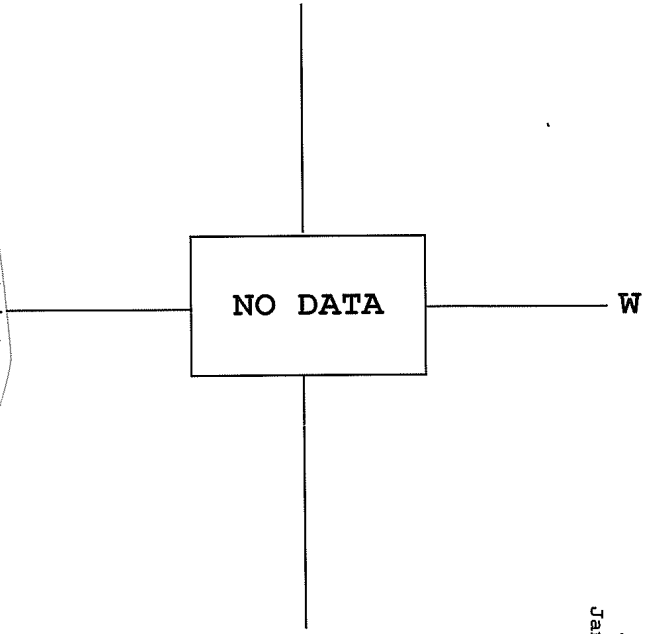
1018 UT

HOLLOMAN SUNSPOTS



2121 UT

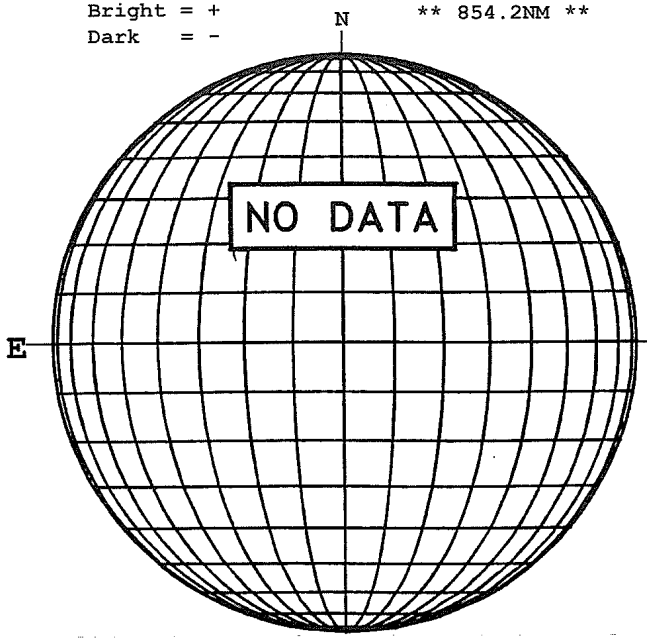
SACRAMENTO PEAK CORONA (1.15 Radii)-----



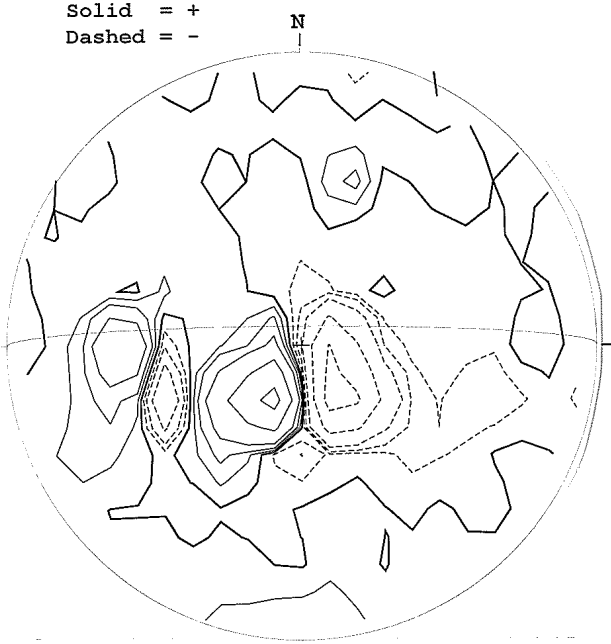
45
Jan 08

January 07, 2008 (P= -0.56, Bo=-3.64, Lo= 242.14)

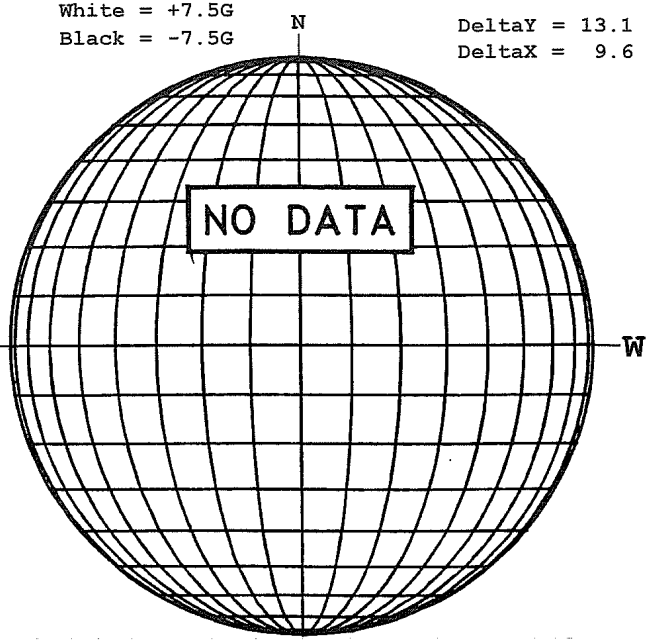
KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **



STANFORD MAGNETOGRAM
Solid = +
Dashed = -

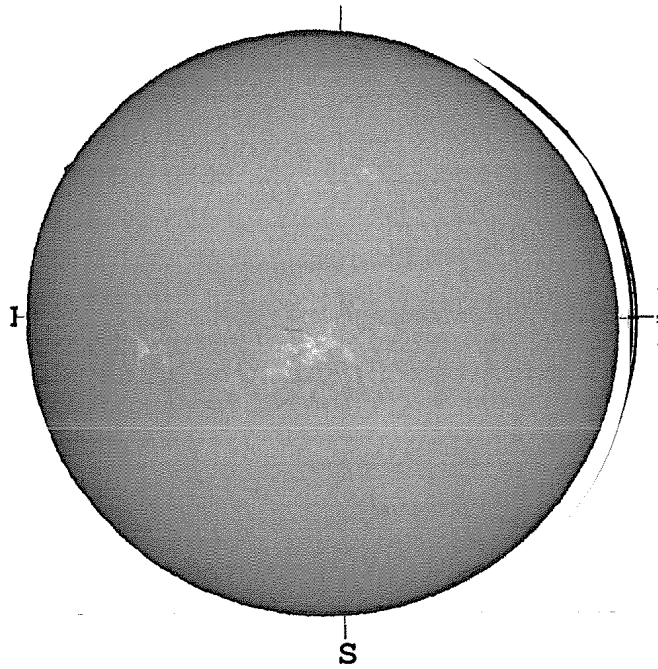


MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6



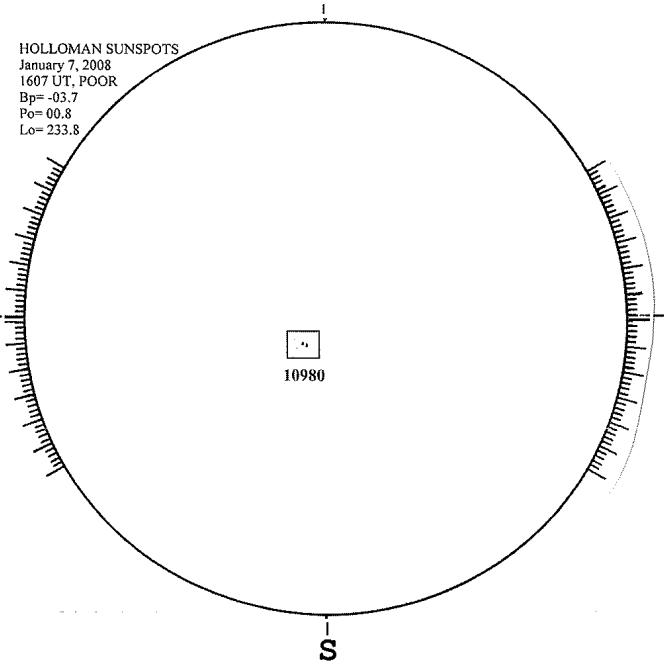
2318 UT

MEUDON H-ALPHA



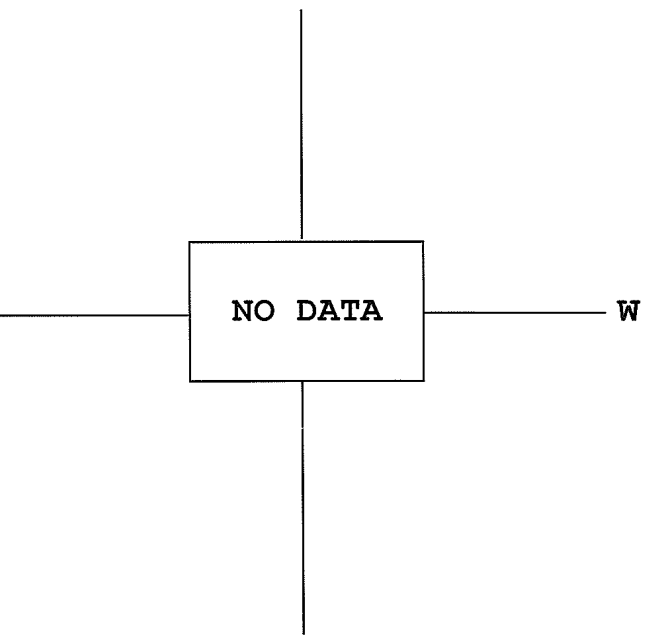
0843 UT

HOLLOMAN SUNSPOTS



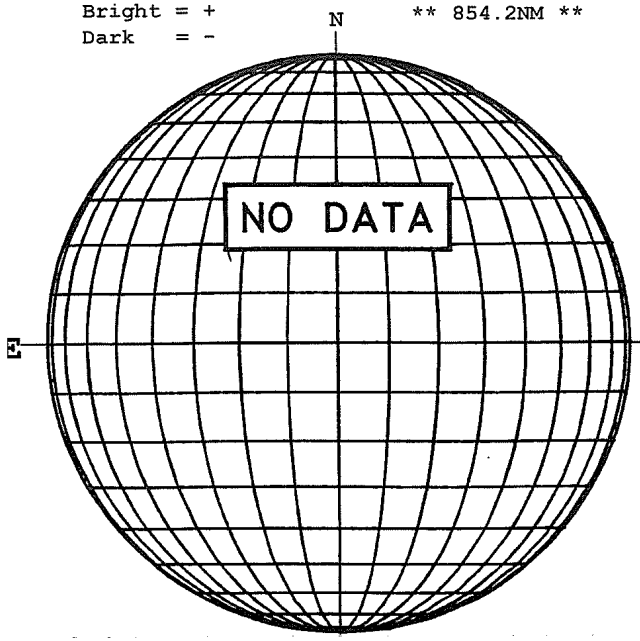
1607 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

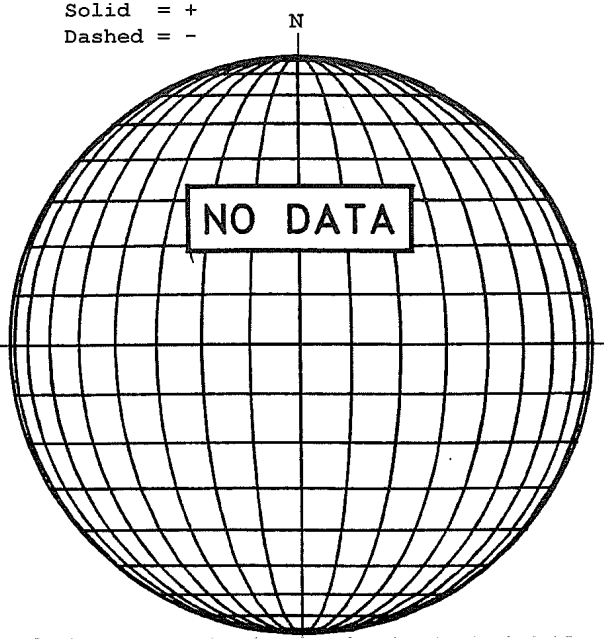


January 08, 2008 (P= -1.04, Bo=-3.75, Lo= 228.97)

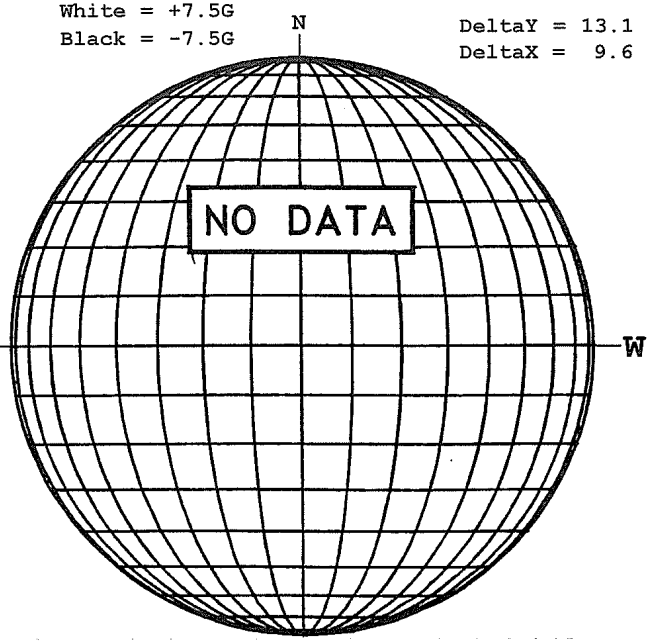
KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **



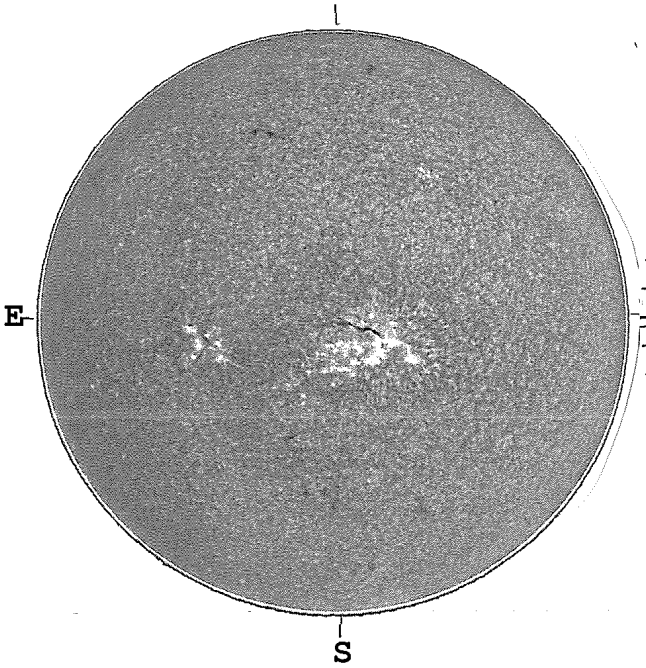
STANFORD MAGNETOGRAM
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6

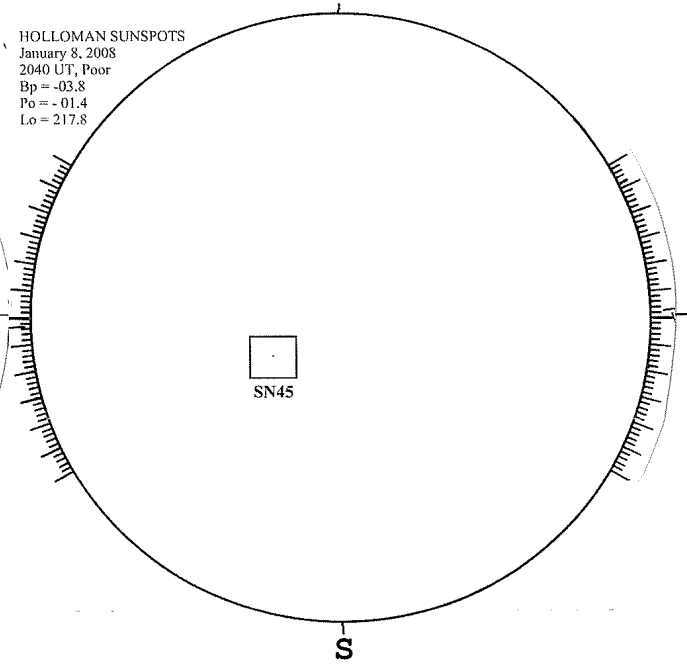


HUAIROU H-ALPHA



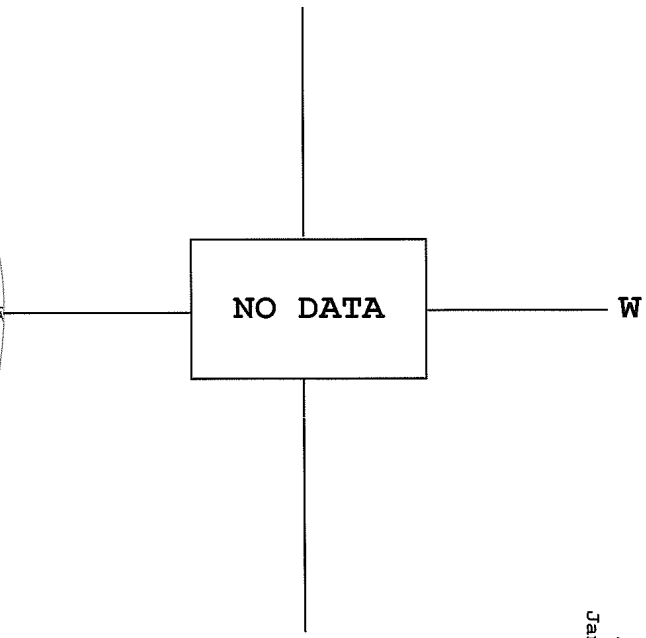
0333 UT

HOLLOMAN SUNSPOTS



2040 UT

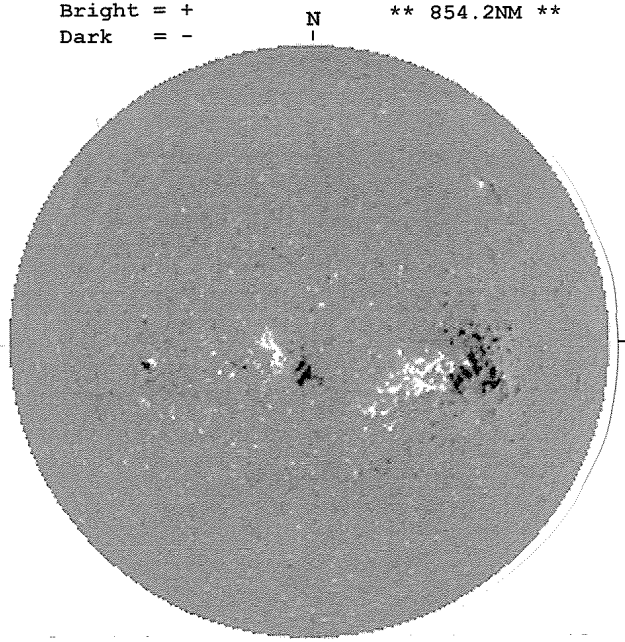
SACRAMENTO PEAK CORONA (1.15 Radii)-----



47
Jan 08

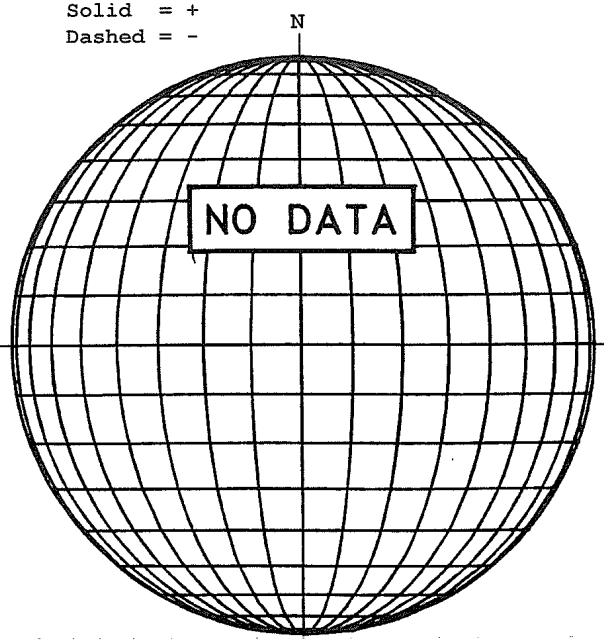
January 09, 2008 (P= -1.52, Bo=-3.86, Lo= 215.80)

KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **

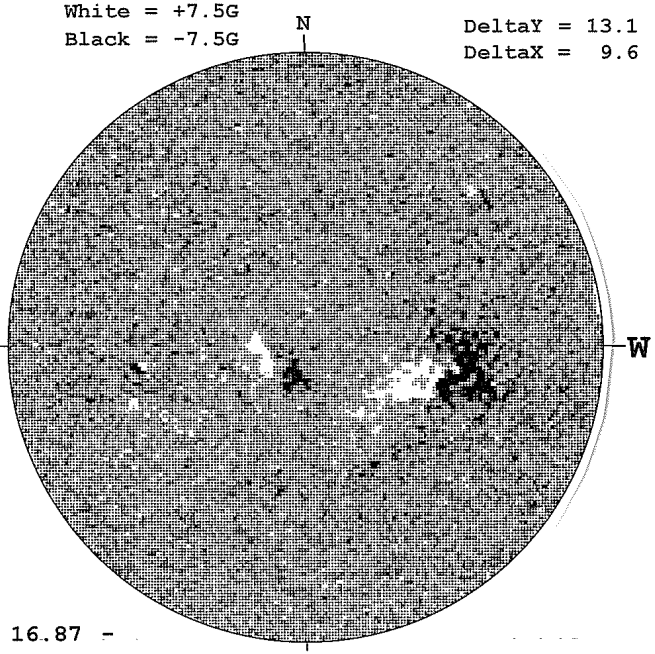


1914 UT

STANFORD MAGNETOGRAM
Solid = +
Dashed = -

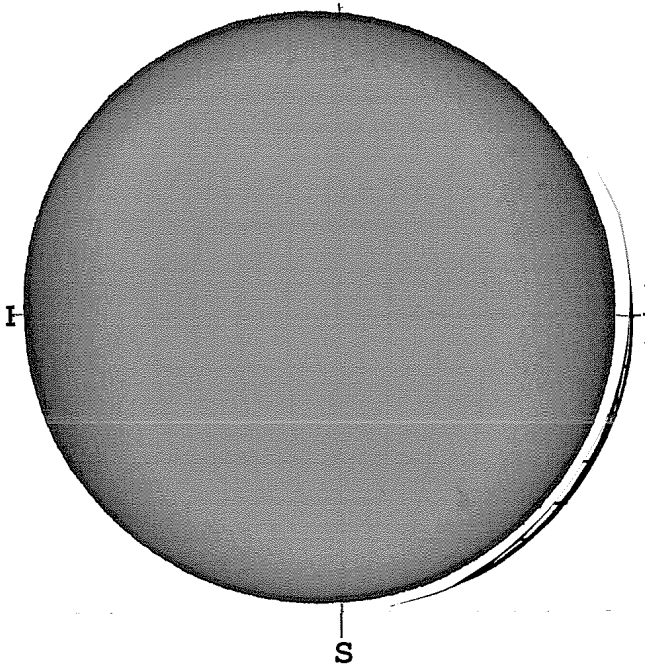


MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6



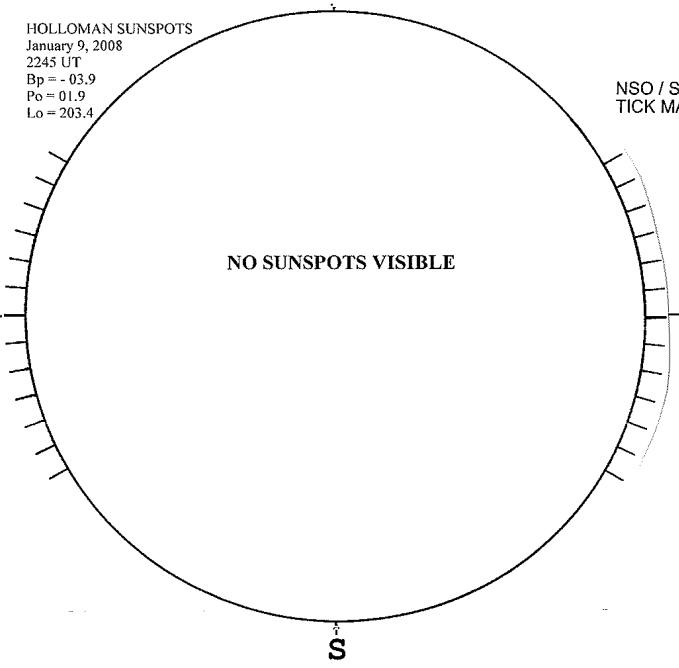
16.87 -
17.85 UT

--- MEUDON H-ALPHA



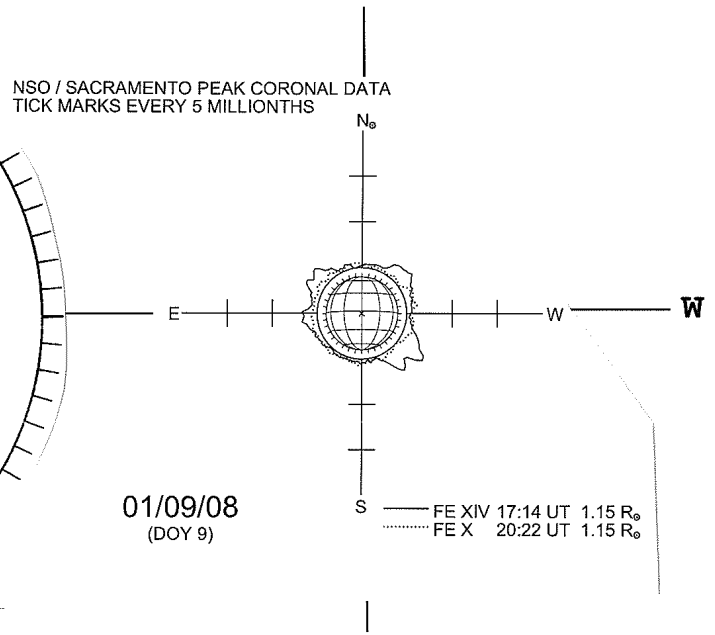
1110 UT

HOLLOMAN SUNSPOTS



2245 UT

SACRAMENTO PEAK CORONA (1.15 Radii)-----



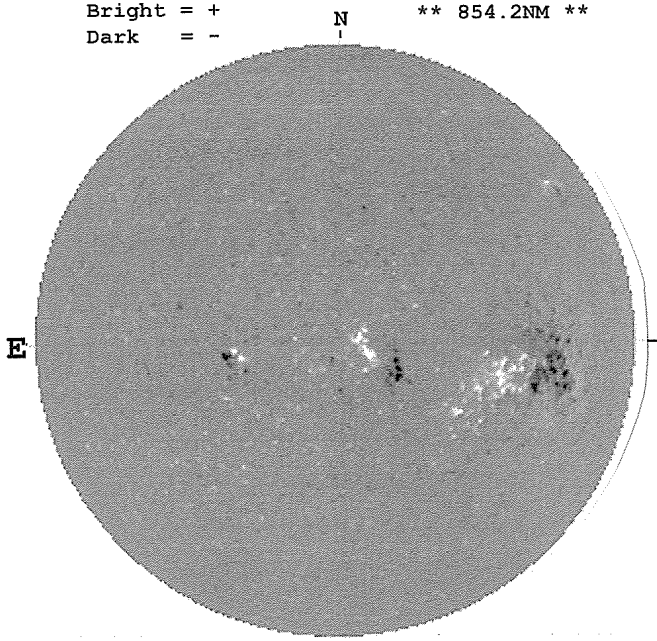
01/09/08
(DOY 9)

January 10, 2008 (P= -2.00, Bo=-3.97, Lo= 202.63)

KITT PEAK MAGNETOGRAM -- SOLIS

Bright = +
Dark = -

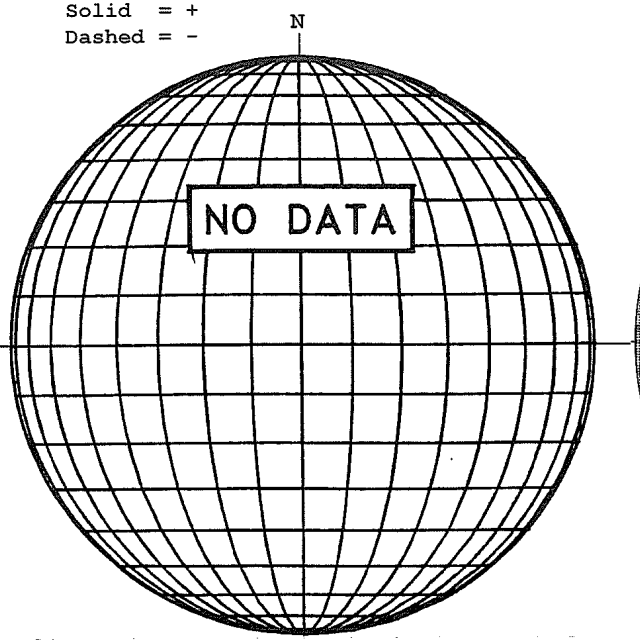
** 854.2NM **



1846 UT

STANFORD MAGNETOGRAM

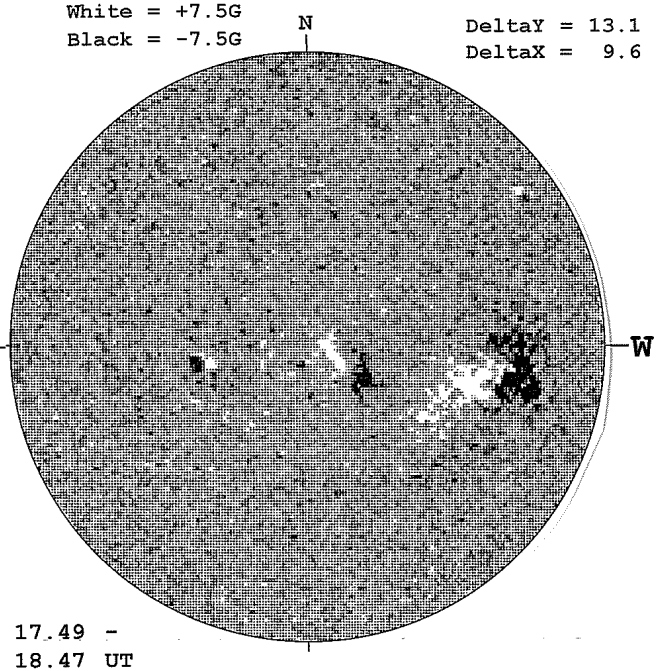
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

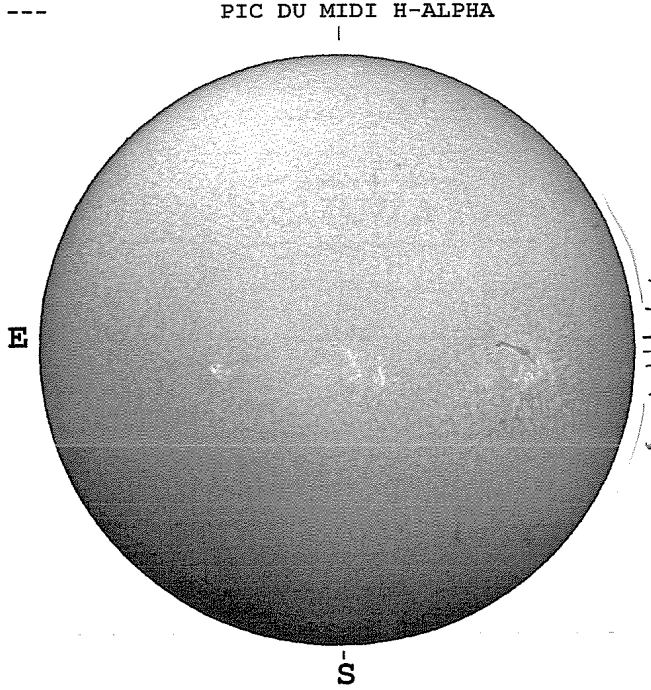
White = +7.5G
Black = -7.5G

DeltaY = 13.1
DeltaX = 9.6



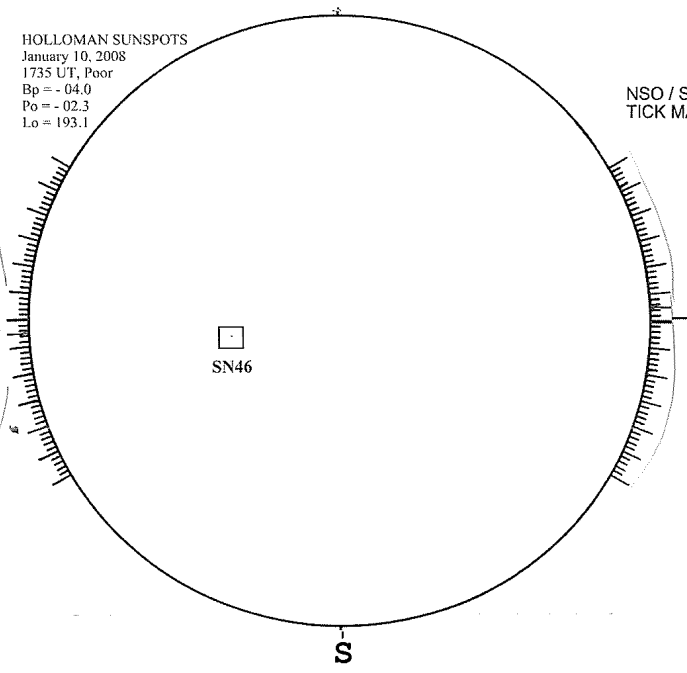
17.49 -
18.47 UT

--- PIC DU MIDI H-ALPHA



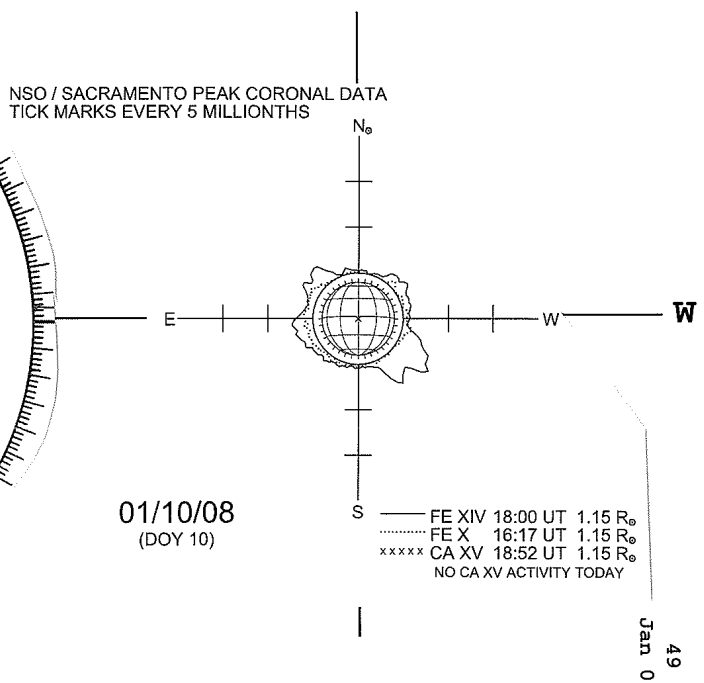
1242 UT

HOLLOMAN SUNSPOTS



1735 UT

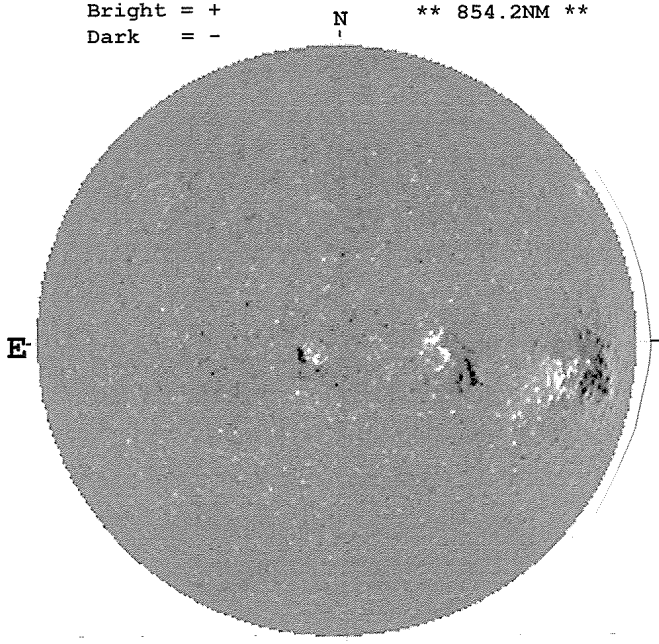
SACRAMENTO PEAK CORONA (1.15 Radii)----



January 11, 2008 (P= -2.48, Bo=-4.07, Lo= 189.47)

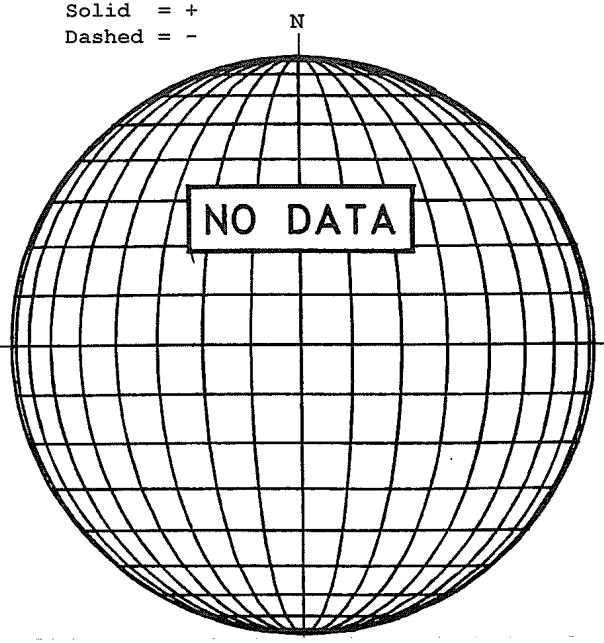
Jan 08 50

KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **

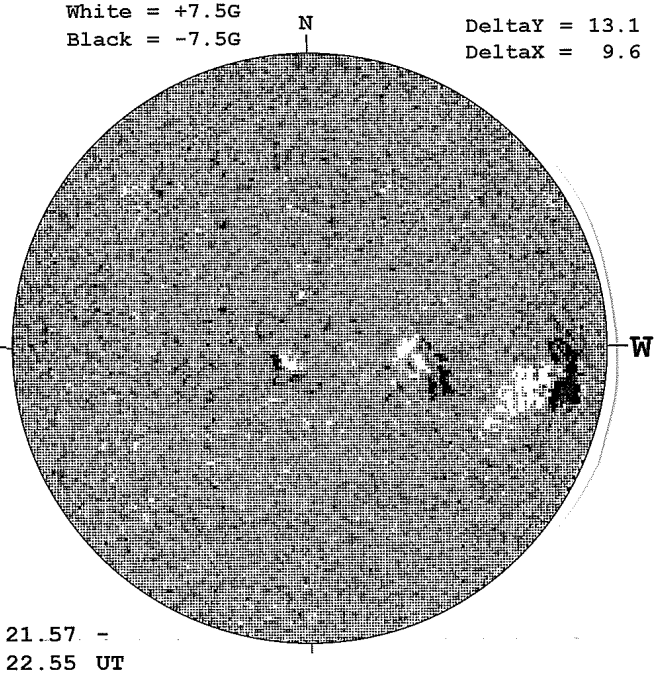


2034 UT

STANFORD MAGNETOGRAM
Solid = +
Dashed = -

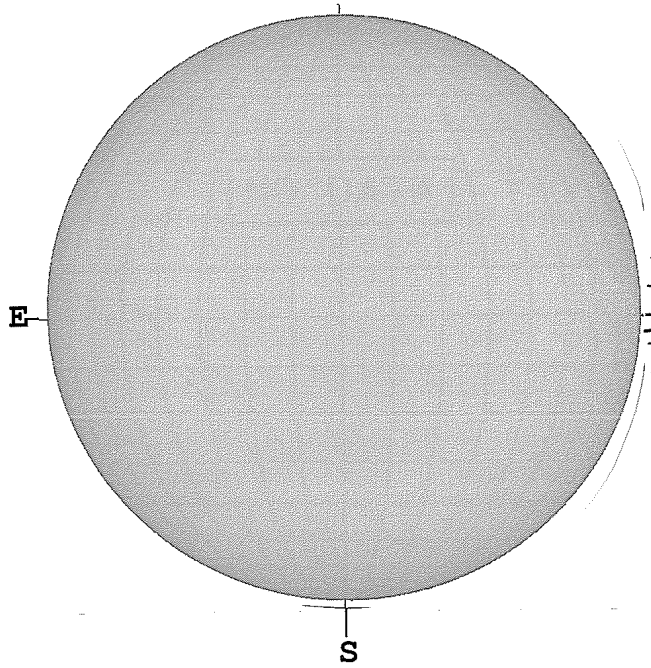


MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6



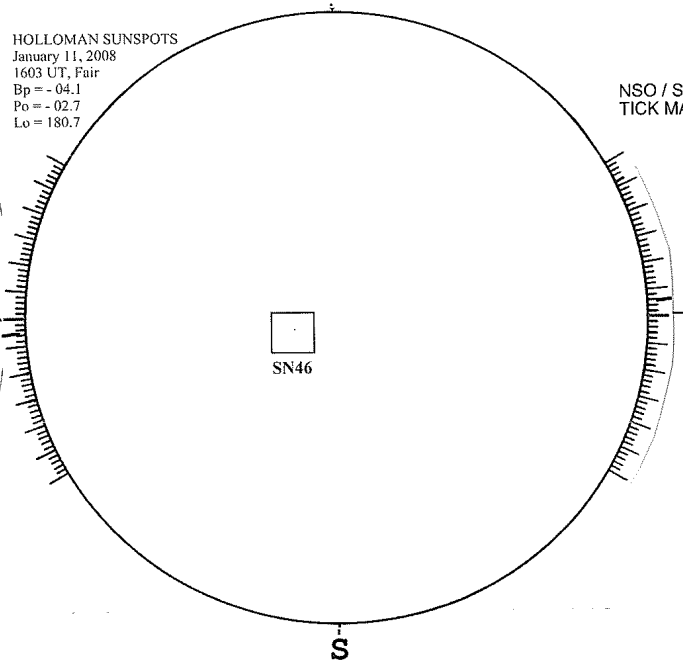
21.57 -
22.55 UT

BIG BEAR H-ALPHA



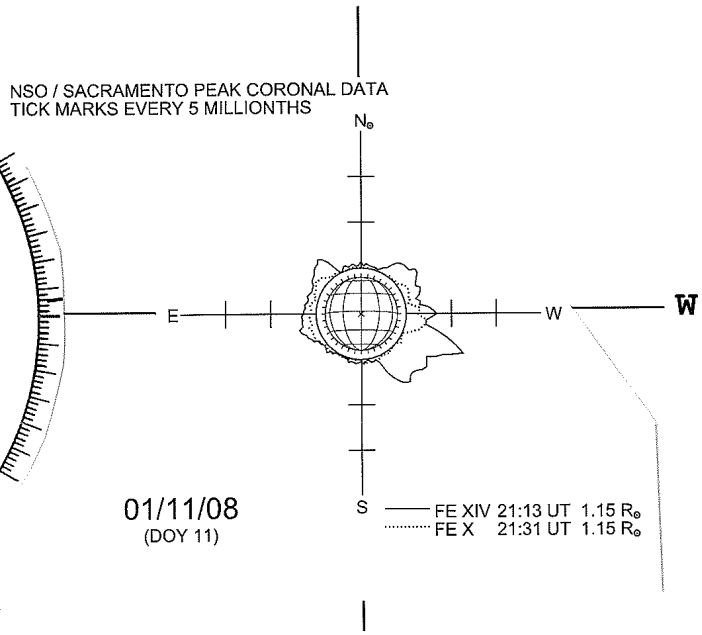
1720 UT

HOLLOMAN SUNSPOTS



1603 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

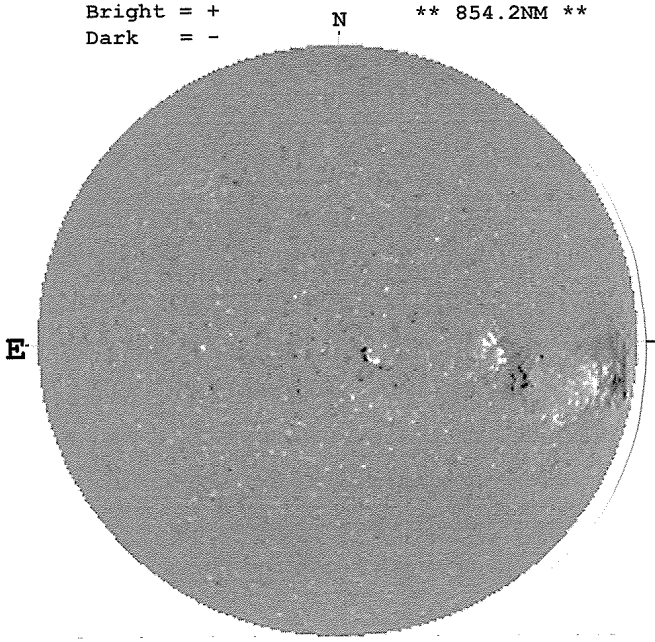


January 12, 2008 (P= -2.96, Bo=-4.18, Lo= 176.30)

KITT PEAK MAGNETOGRAM -- SOLIS

Bright = +
Dark = -

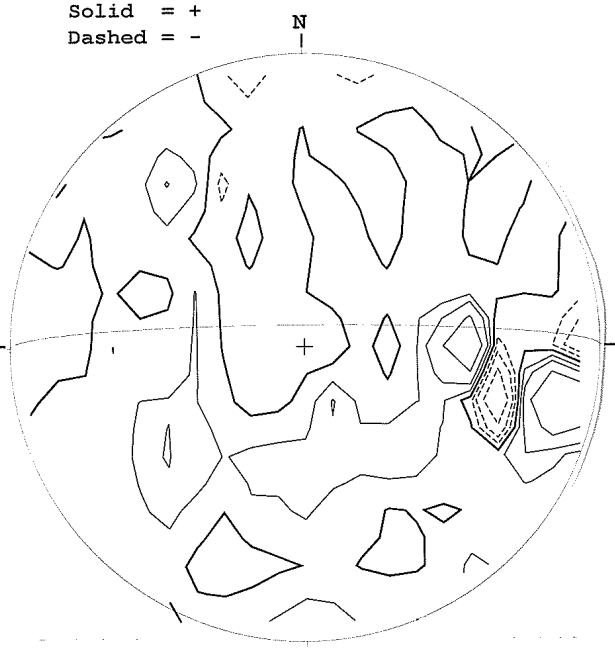
** 854.2NM **



1739 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

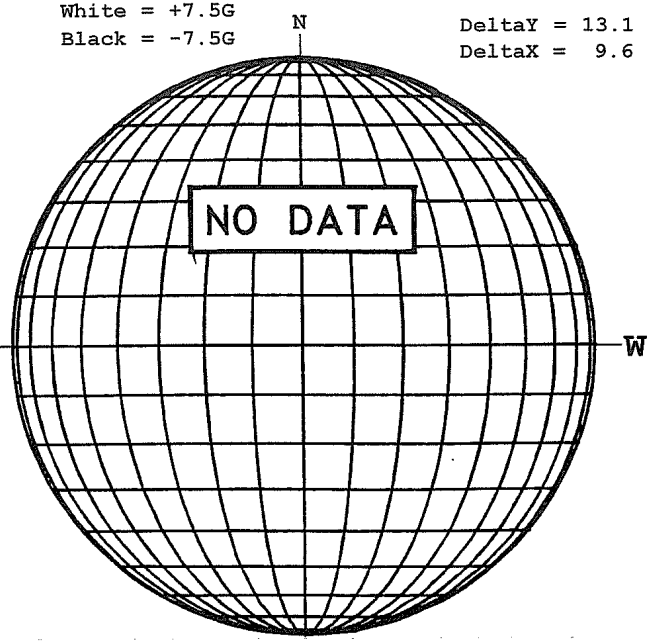


2113 UT

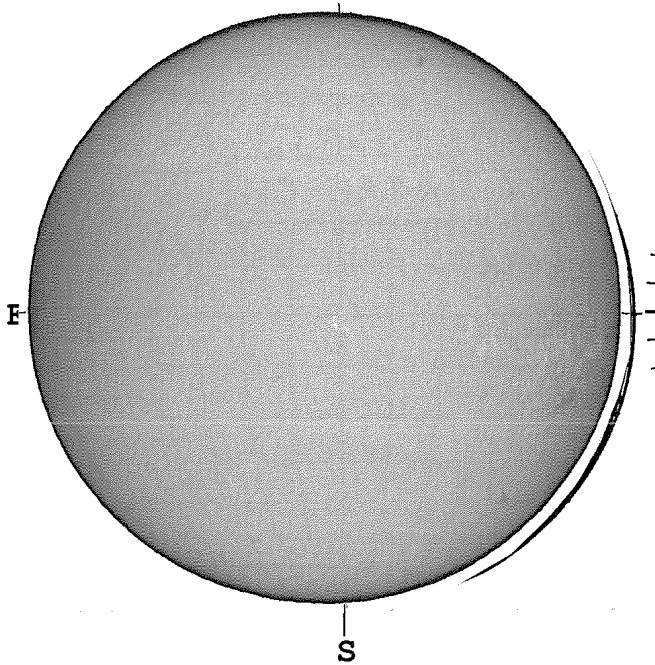
MT. WILSON MAGNETOGRAM

White = +7.5G
Black = -7.5G

DeltaY = 13.1
DeltaX = 9.6



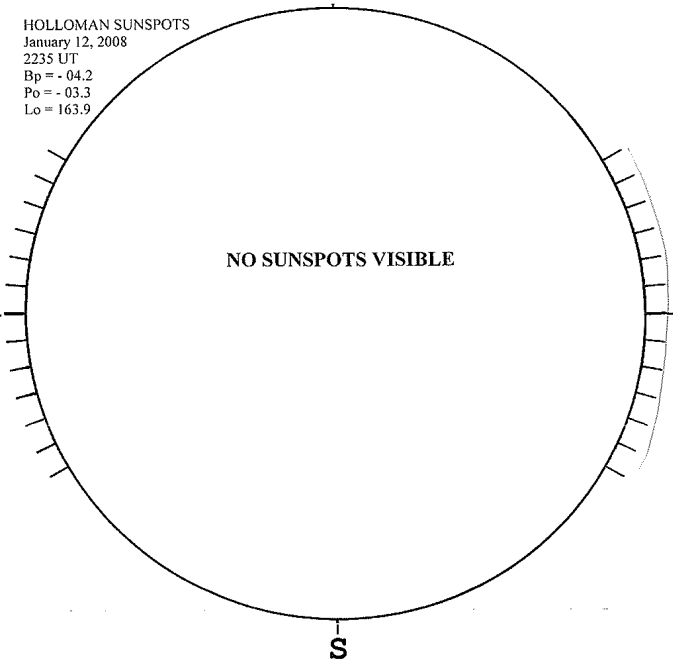
MEUDON H-ALPHA



1237 UT

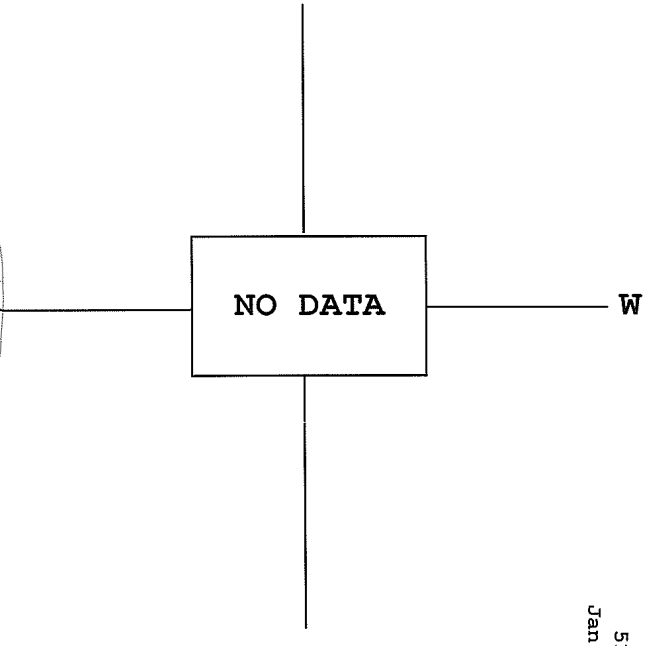
HOLLOMAN SUNSPOTS

HOLLOMAN SUNSPOTS
January 12, 2008
2235 UT
Bp = - 04.2
Po = - 03.3
Lo = 163.9



2235 UT

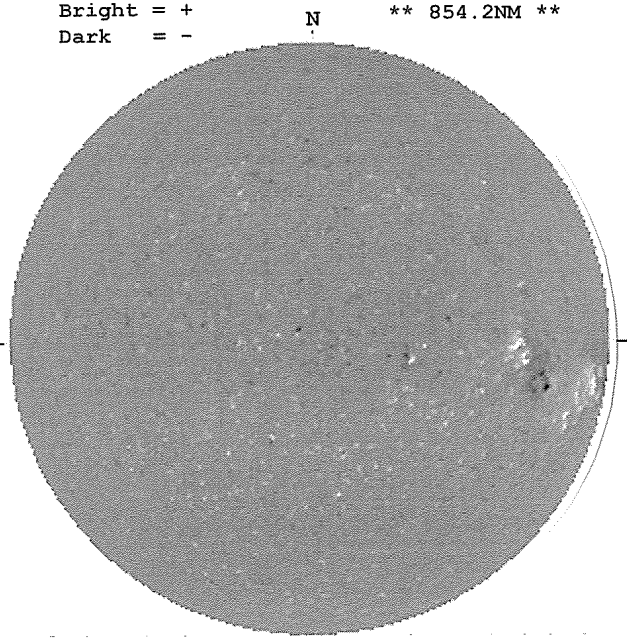
SACRAMENTO PEAK CORONA (1.15 Radii)



51
Jan 08

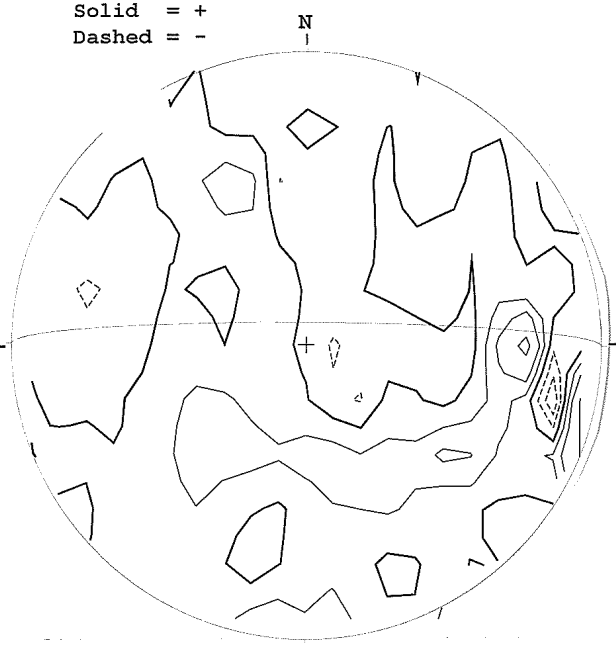
January 13, 2008 (P= -3.43, Bo=-4.29, Lo= 163.13)

KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **



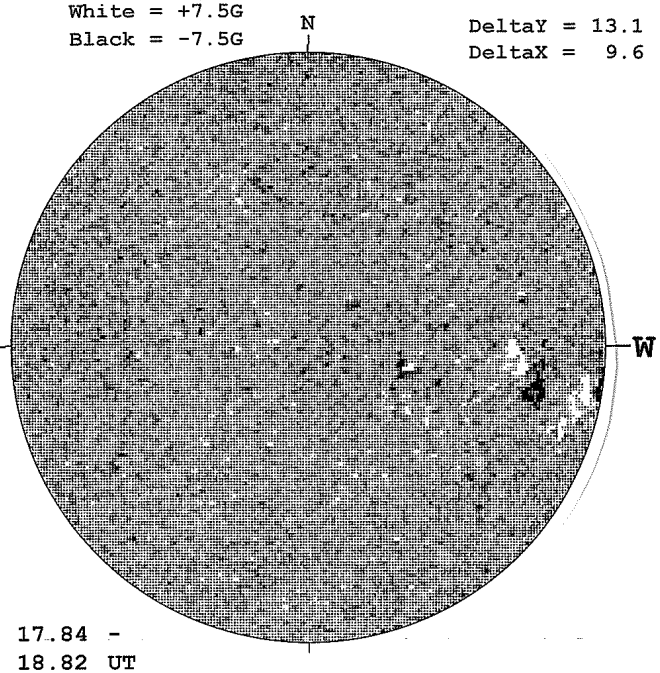
1744 UT

STANFORD MAGNETOGRAM
Solid = +
Dashed = -



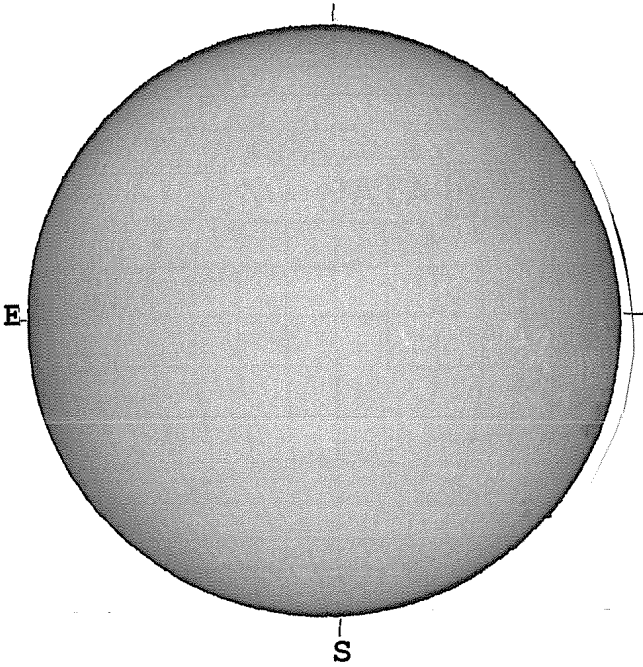
2300UT

MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6



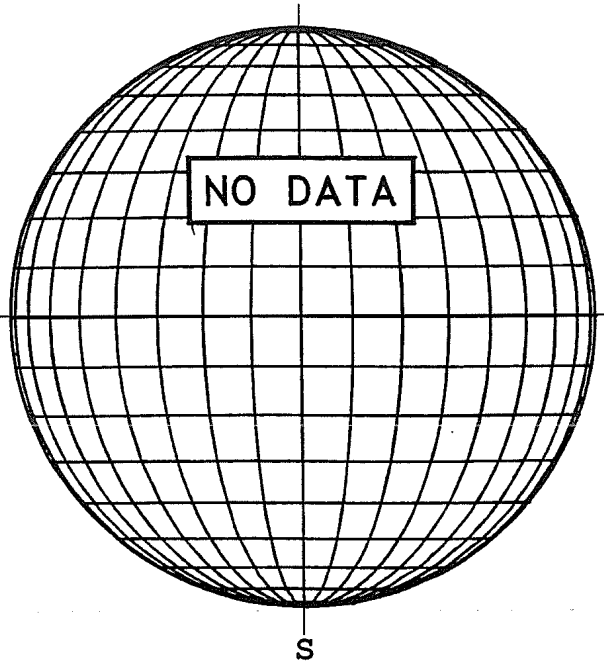
17.84 -
18.82 UT

MEUDON H-ALPHA

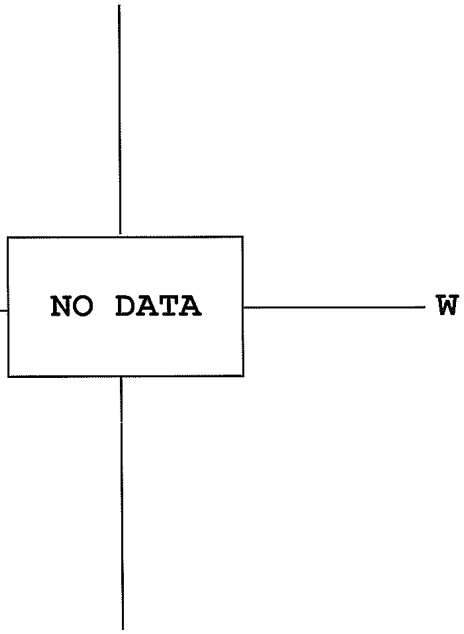


1202 UT

HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)-----

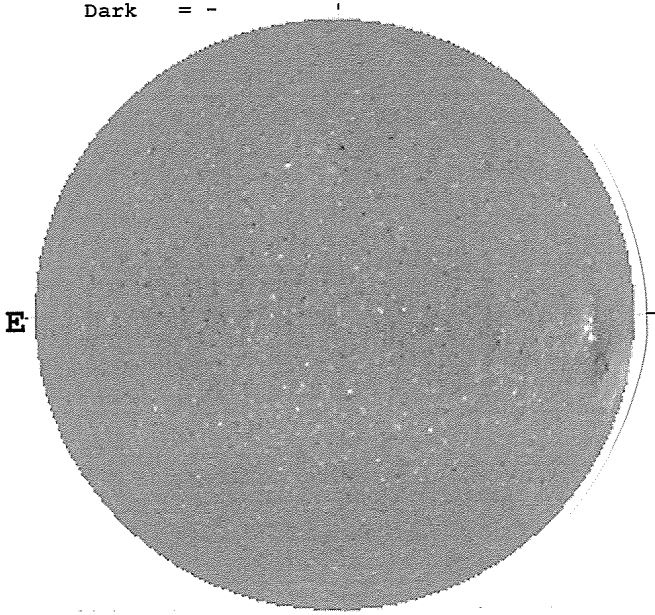


January 14, 2008 (P= -3.91, Bo=-4.39, Lo= 149.96)

KITT PEAK MAGNETOGRAM -- SOLIS

Bright = +
Dark = -

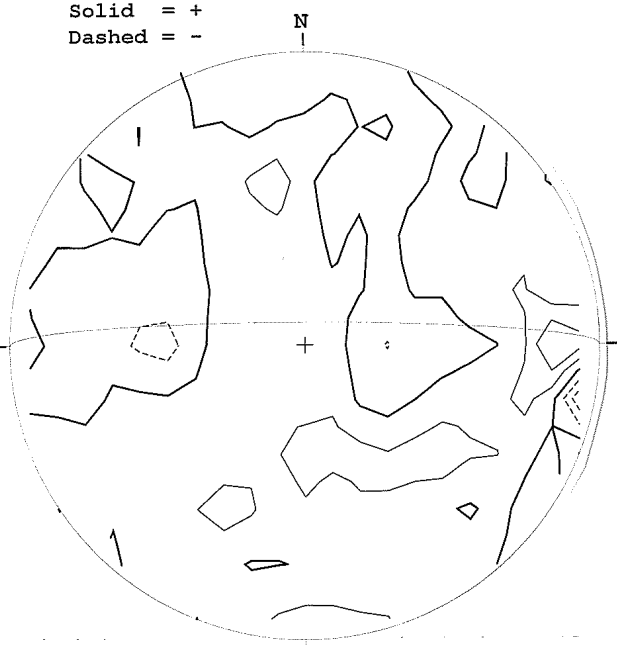
** 854.2NM **



1911 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

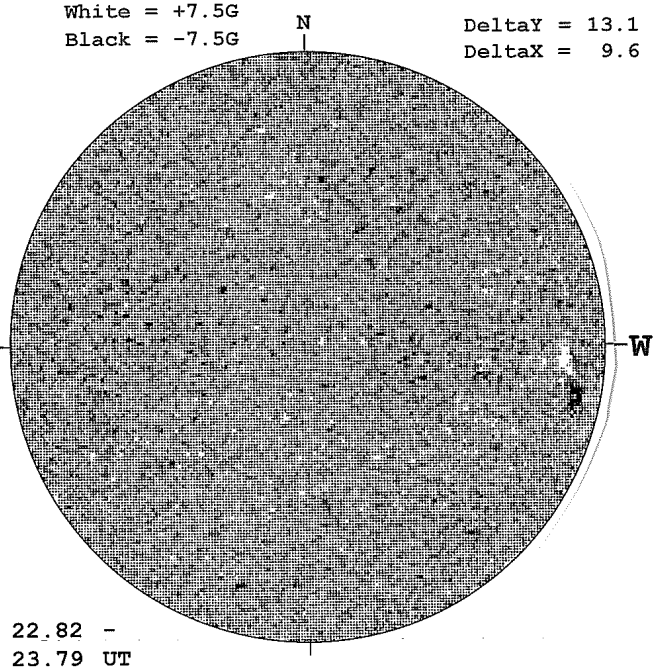


1830 UT

MT. WILSON MAGNETOGRAM

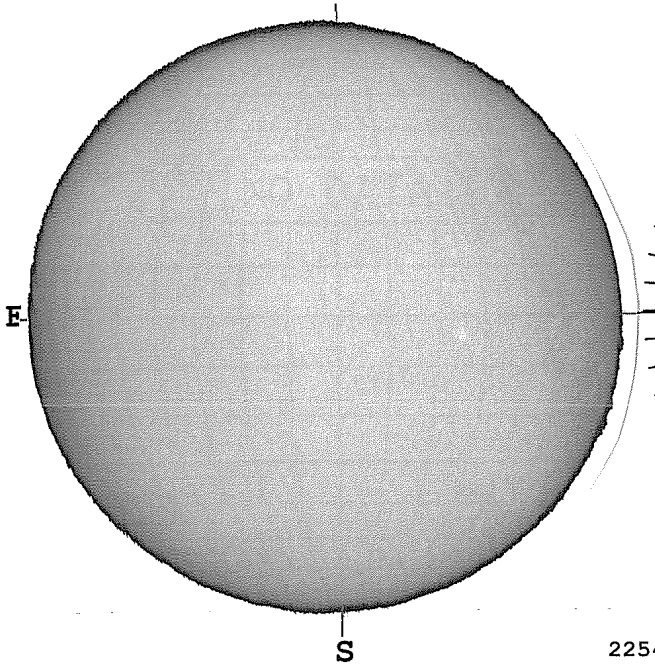
White = +7.5G
Black = -7.5G

DeltaY = 13.1
DeltaX = 9.6



22.82 -
23.79 UT

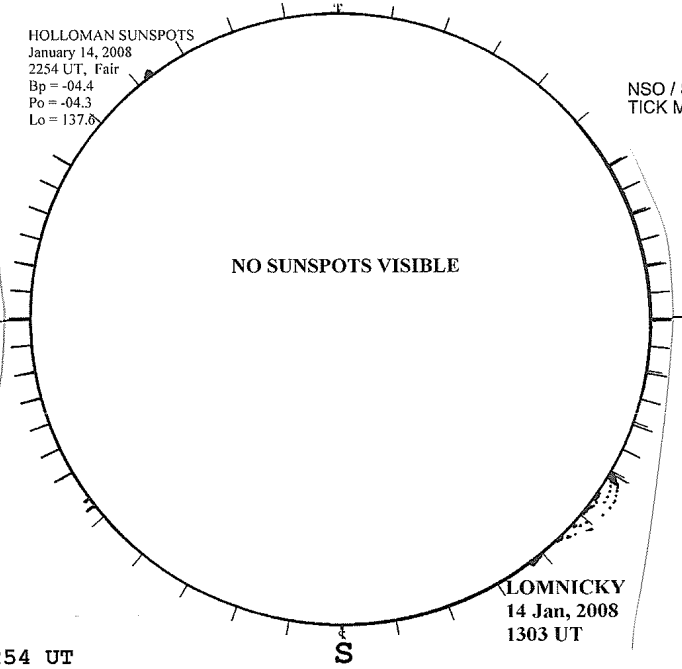
MEUDON H-ALPHA



0911 UT

HOLLOMAN SUNSPOTS

HOLLOMAN SUNSPOTS
January 14, 2008
2254 UT, Fair
Bp = -04.4
Po = -04.3
Lo = 137.6

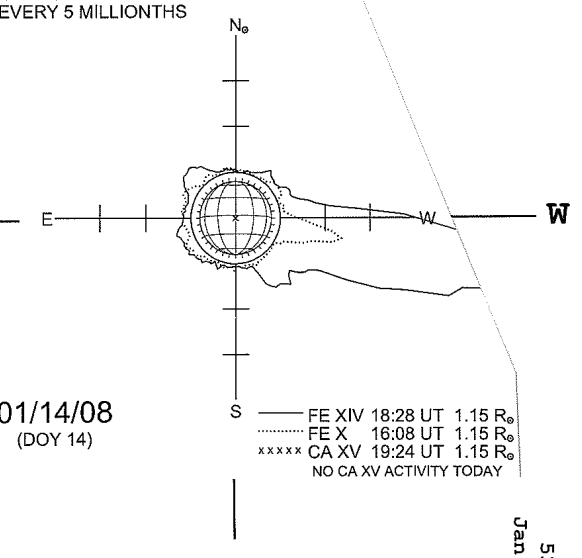


LOMNICKY
14 Jan, 2008
1303 UT

2254 UT
1303 UT LOMN PROM

SACRAMENTO PEAK CORONA (1.15 Radii)-----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 5 MILLIONTHS



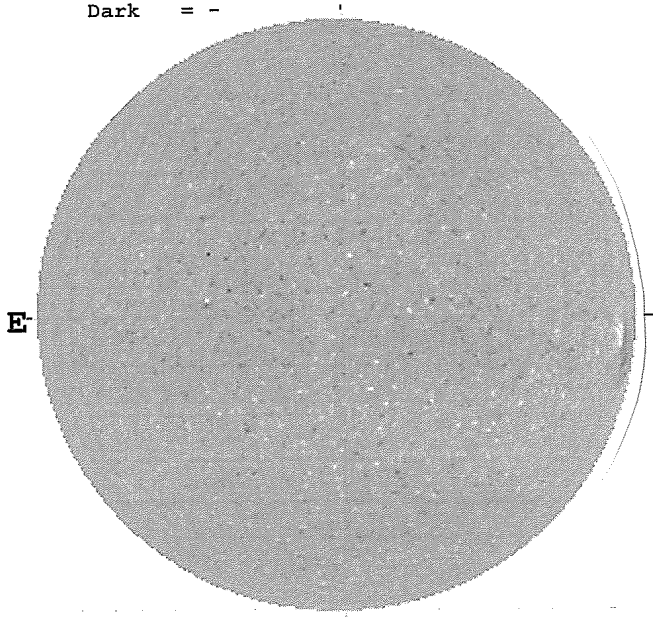
01/14/08
(DOY 14)

FE XIV 18:28 UT 1.15 R⊙
FE X 16:08 UT 1.15 R⊙
xxxxx CA XV 19:24 UT 1.15 R⊙
NO CA XV ACTIVITY TODAY

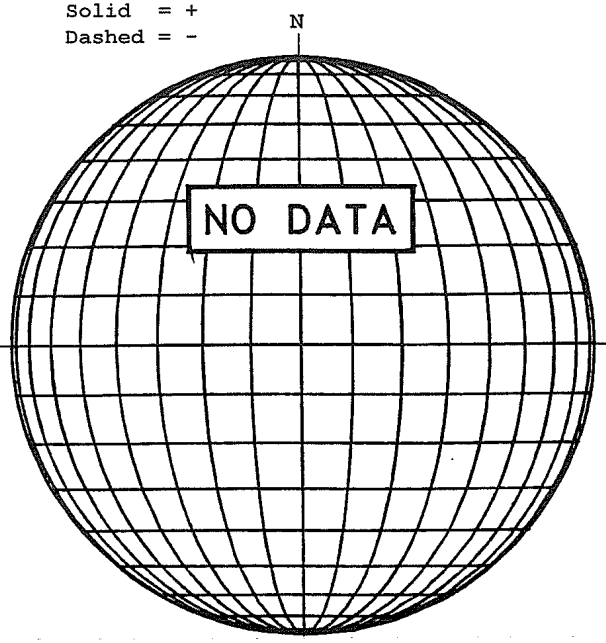
53
Jan 08

January 15, 2008 (P= -4.38, Bo=-4.49, Lo= 136.79)

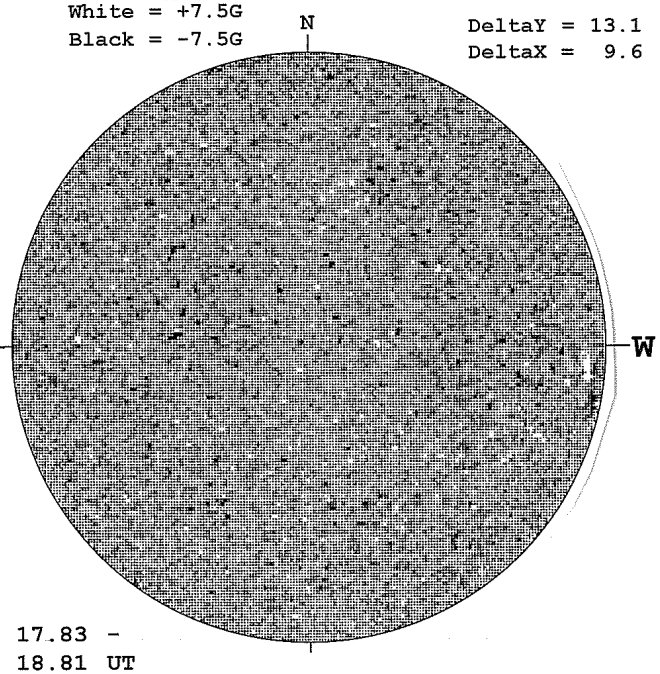
KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **



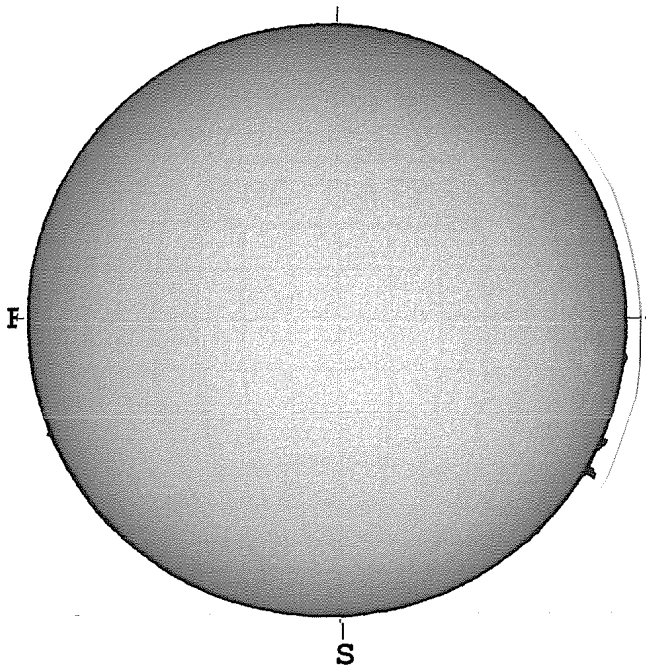
STANFORD MAGNETOGRAM
Solid = +
Dashed = -



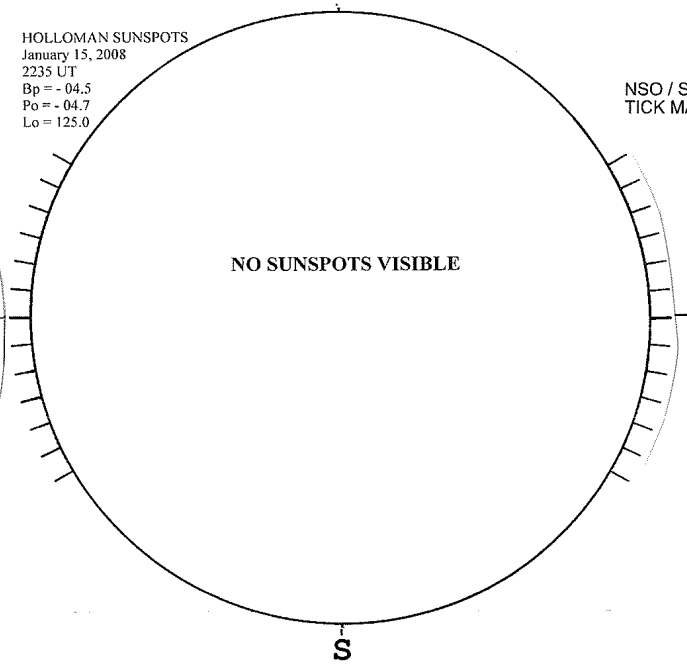
MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6



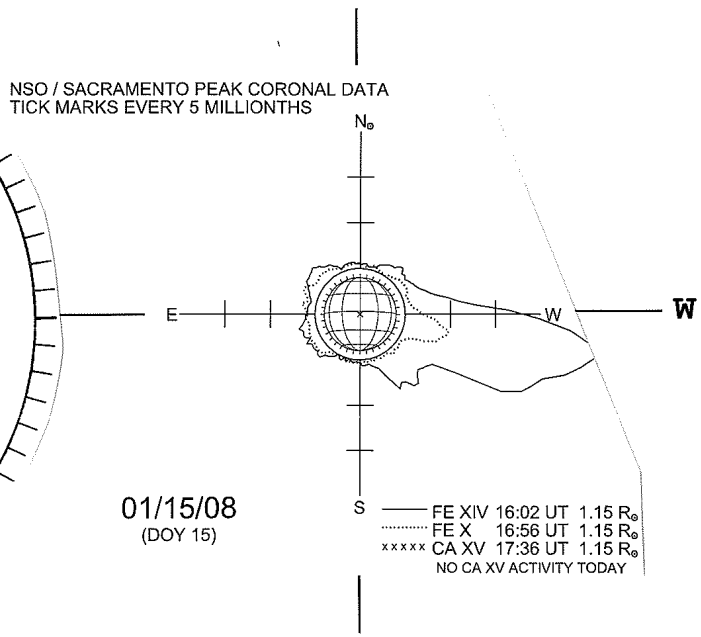
--- YUNNAN H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)-----

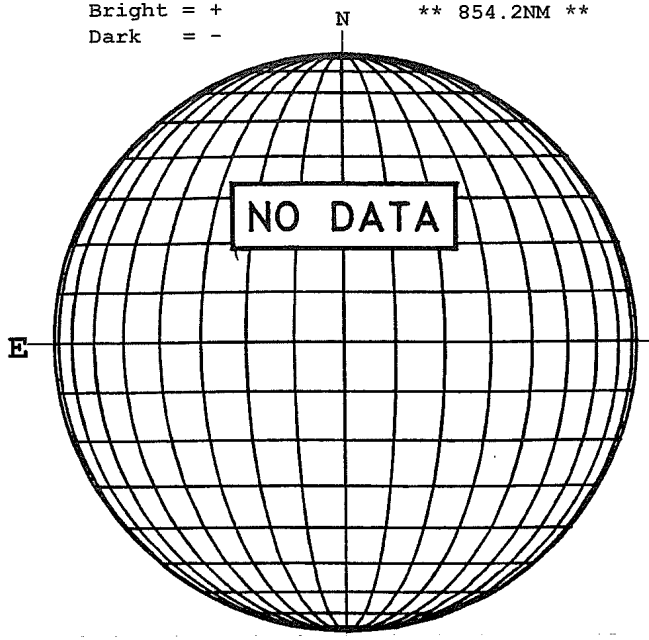


January 16, 2008 (P= -4.85, Bo=-4.59, Lo= 123.63)

KITT PEAK MAGNETOGRAM -- SOLIS

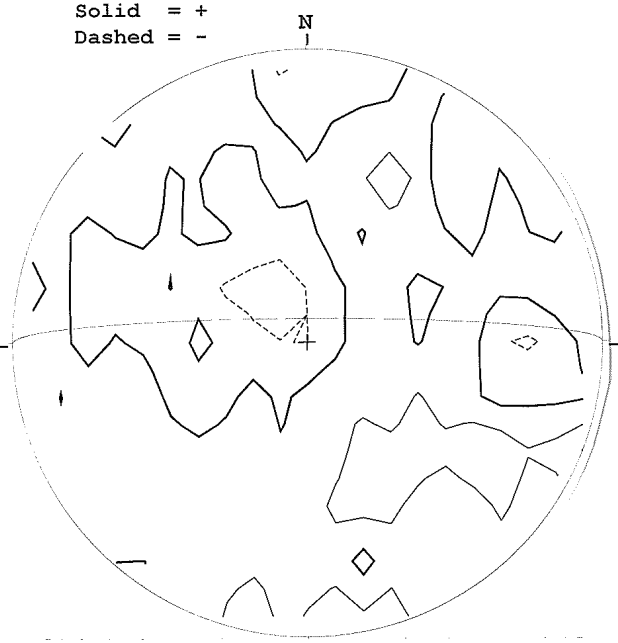
Bright = +
Dark = -

** 854.2NM **



STANFORD MAGNETOGRAM

Solid = +
Dashed = -

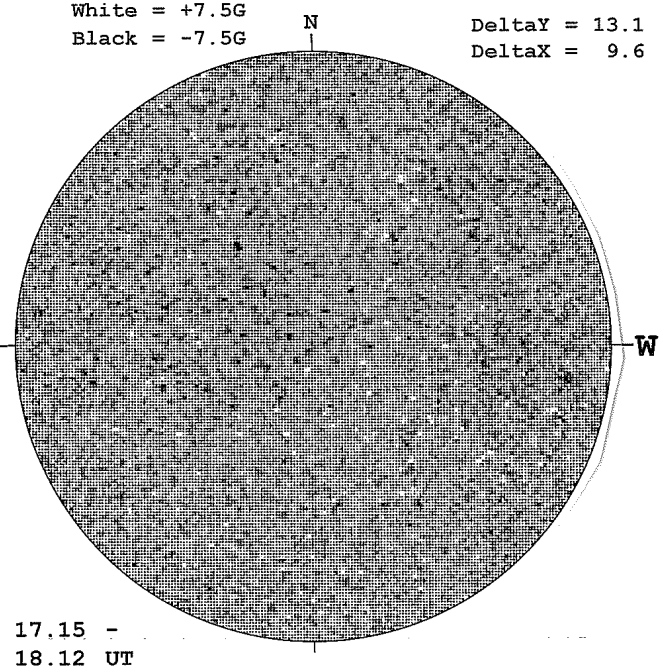


1804 UT

MT. WILSON MAGNETOGRAM

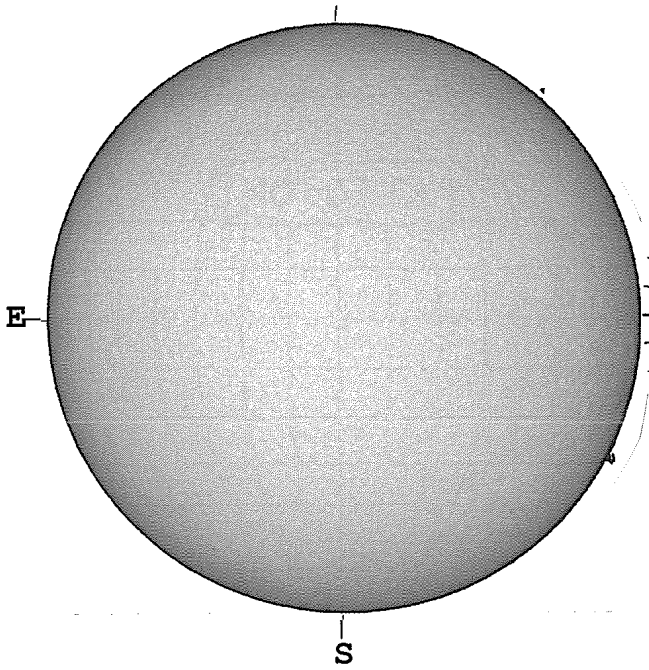
White = +7.5G
Black = -7.5G

DeltaY = 13.1
DeltaX = 9.6



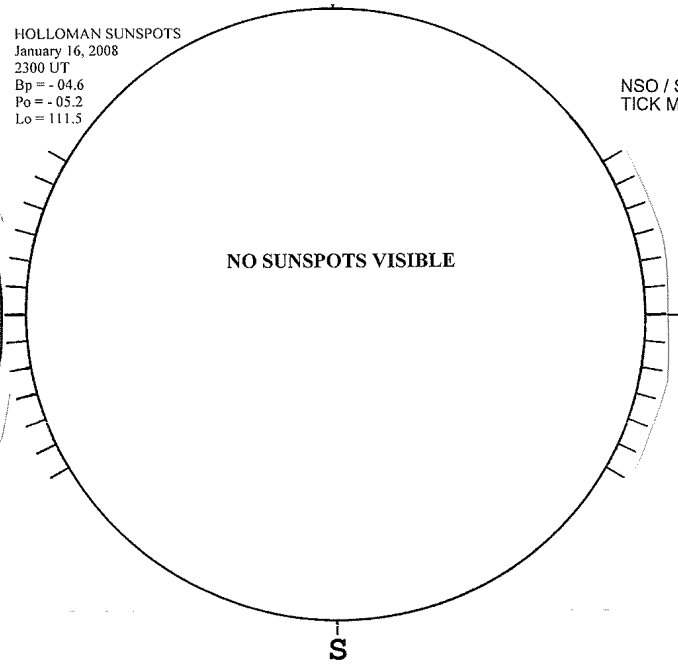
17.15 -
18.12 UT

--- CATANIA H-ALPHA



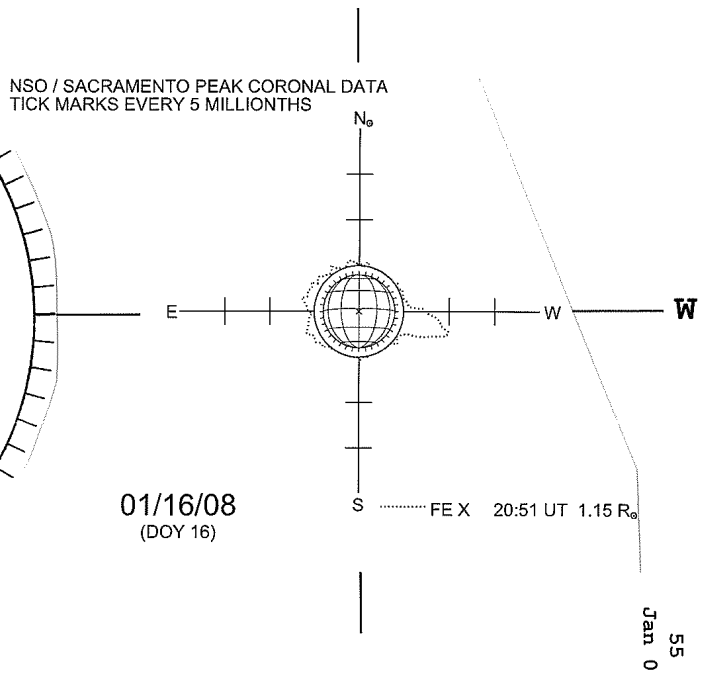
0910 UT

HOLLOMAN SUNSPOTS



2300 UT

SACRAMENTO PEAK CORONA (1.15 Radii)-----

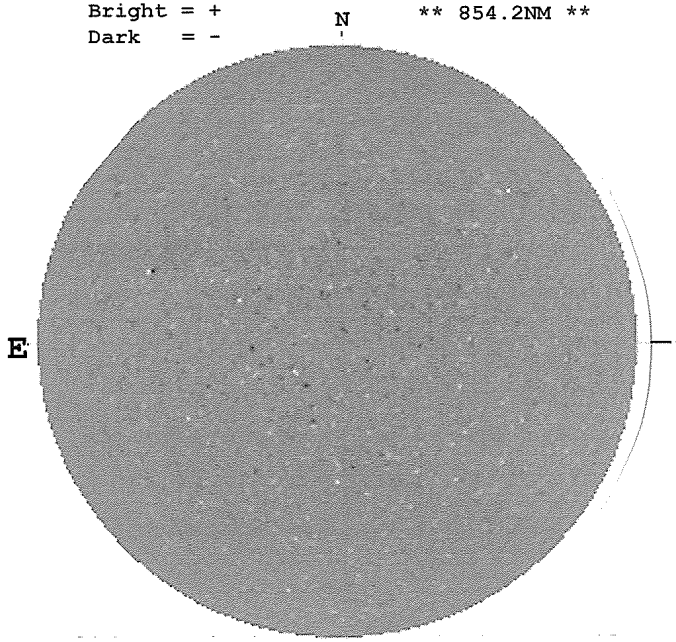


01/16/08
(DOY 16)

55
Jan 08

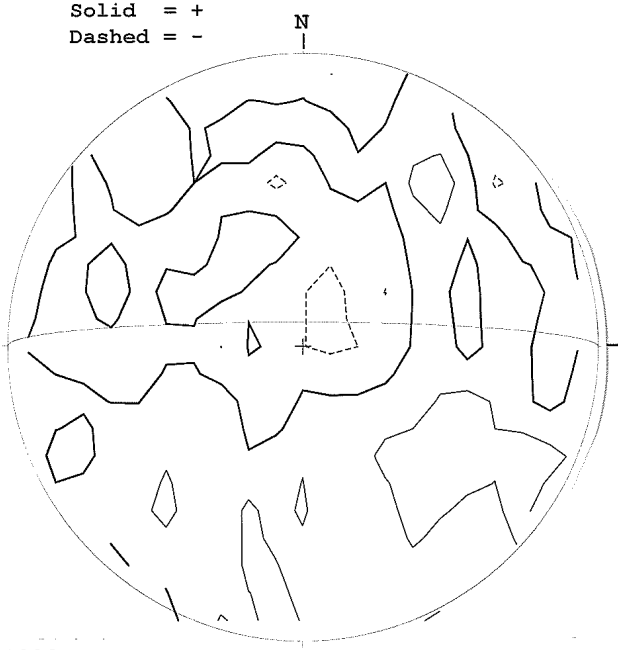
January 17, 2008 (P= -5.31, Bo=-4.69, Lo= 110.46)

KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **



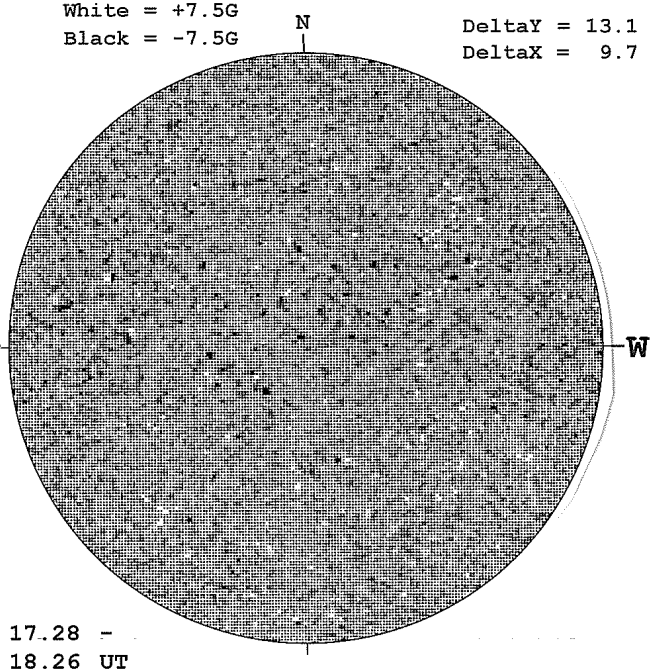
2048 UT

STANFORD MAGNETOGRAM
Solid = +
Dashed = -



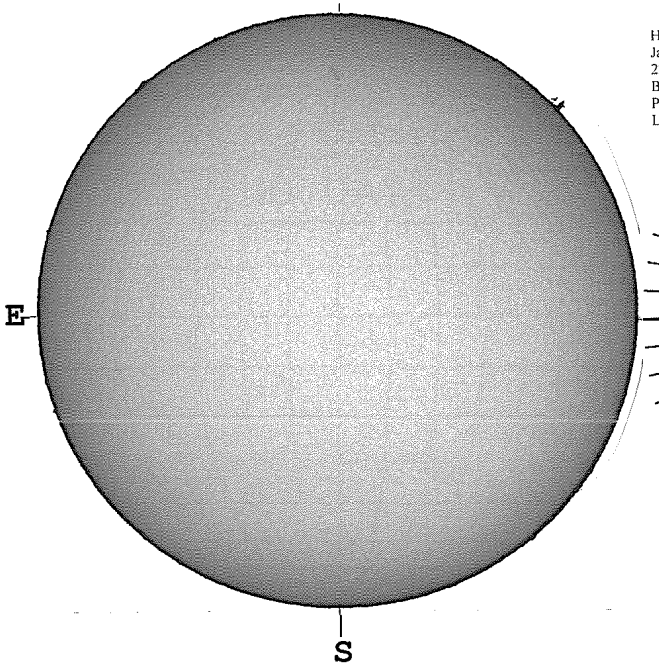
1920 UT

MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.7



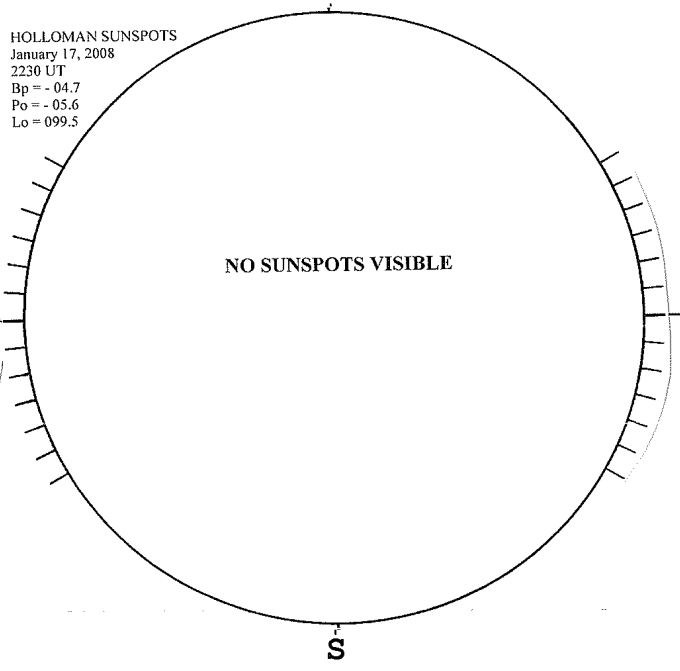
17.28 -
18.26 UT

--- YUNNAN H-ALPHA



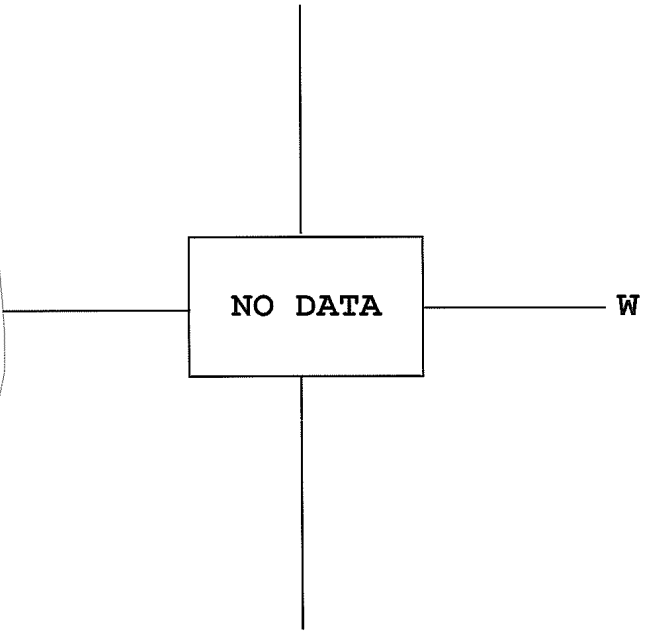
0406 UT

HOLLOMAN SUNSPOTS



2230 UT

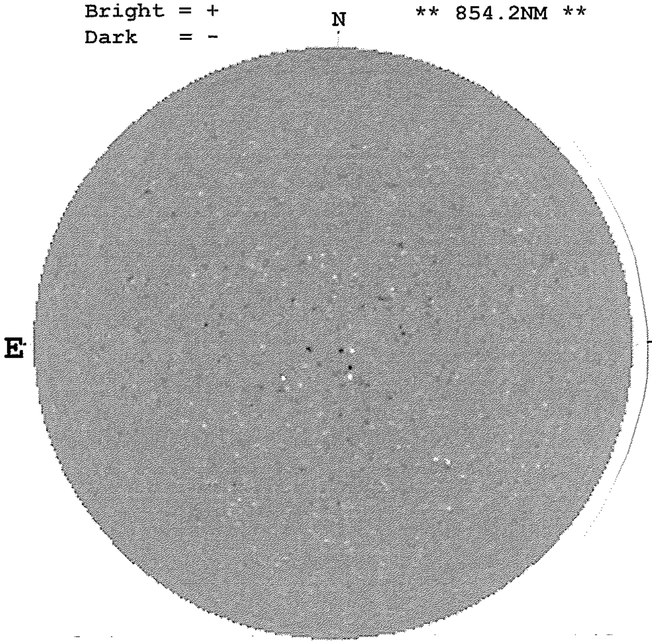
SACRAMENTO PEAK CORONA (1.15 Radii)-----



January 18, 2008 (P= -5.78, Bo=-4.79, Lo= 97.29)

KITT PEAK MAGNETOGRAM -- SOLIS

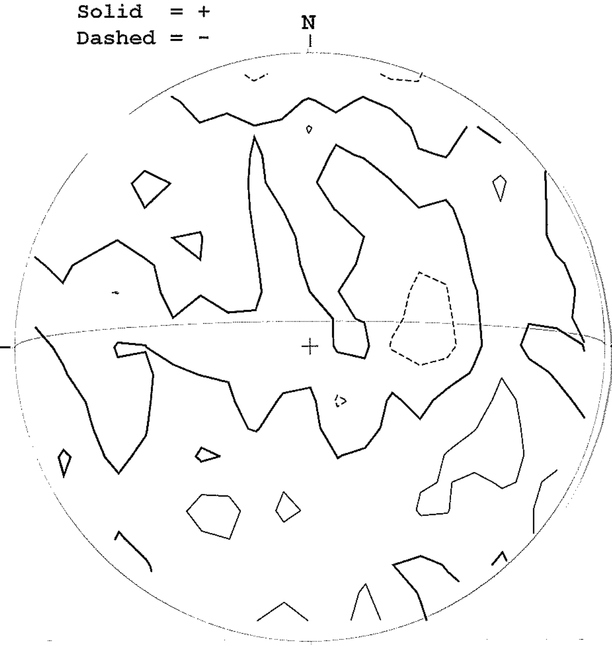
Bright = + ** 854.2NM **
Dark = -



1844 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

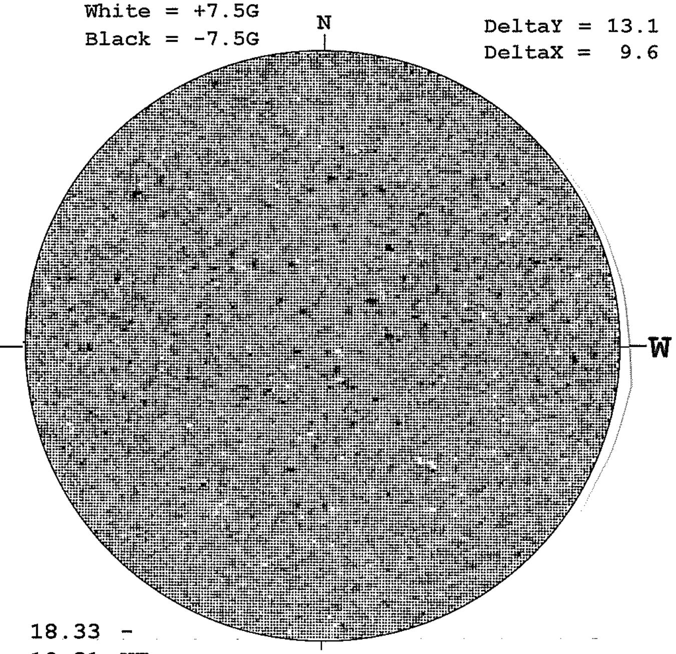


2116 UT

MT. WILSON MAGNETOGRAM

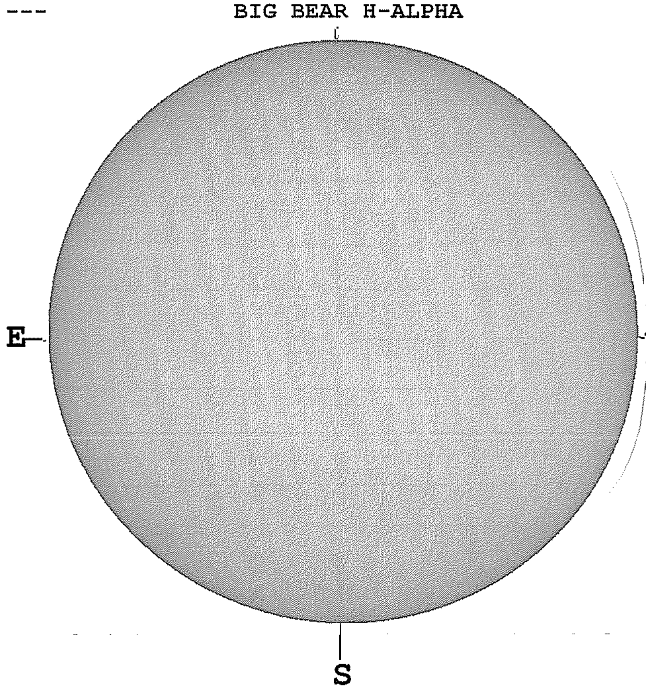
White = +7.5G
Black = -7.5G

DeltaY = 13.1
DeltaX = 9.6



18.33 -
19.31 UT

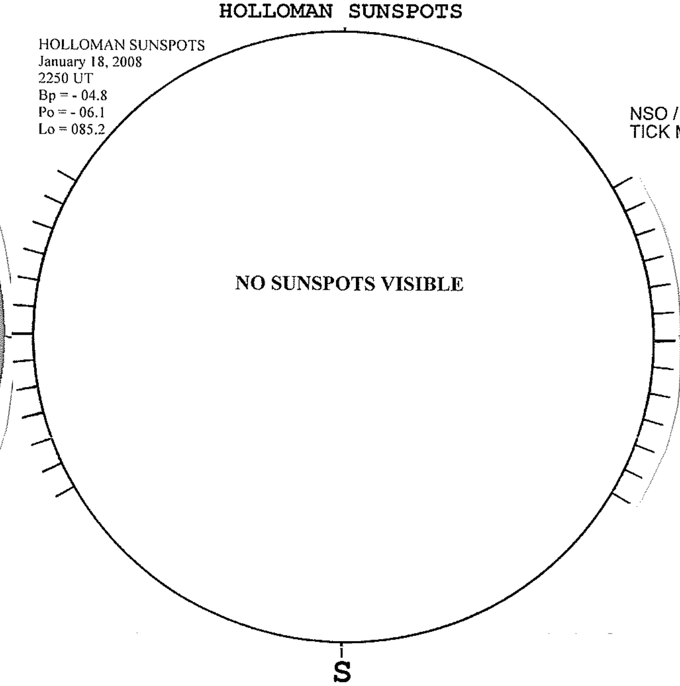
--- BIG BEAR H-ALPHA



1617 UT

HOLLOMAN SUNSPOTS

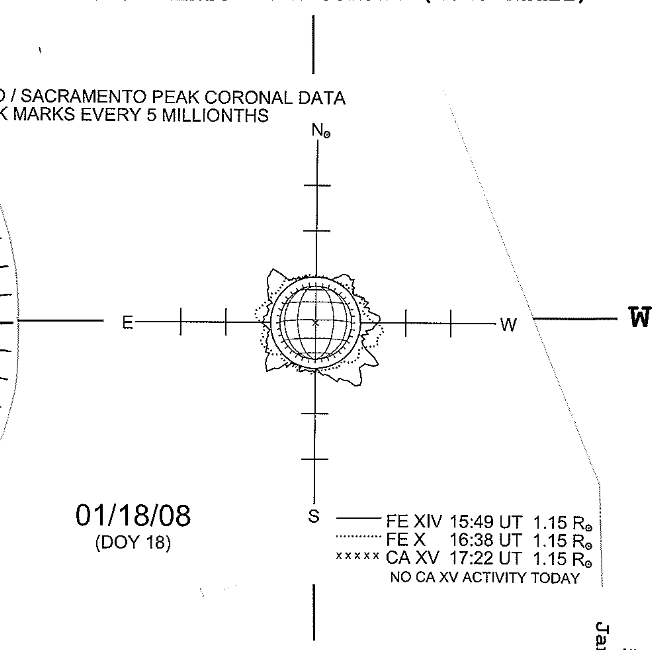
HOLLOMAN SUNSPOTS
January 18, 2008
2250 UT
Bp = - 04.8
Po = - 06.1
Lo = 085.2



2250 UT

SACRAMENTO PEAK CORONA (1.15 Radii)-----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 5 MILLIONTHS



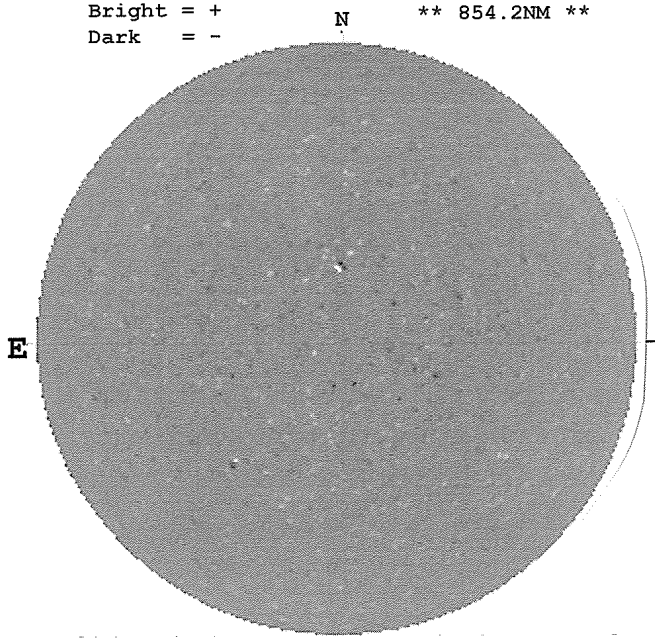
01/18/08
(DOY 18)

FE XIV 15:49 UT 1.15 $R_\odot$
FE X 16:38 UT 1.15 $R_\odot$
xxxxx CA XV 17:22 UT 1.15 $R_\odot$
NO CA XV ACTIVITY TODAY

January 19, 2008 (P= -6.24, Bo=-4.88, Lo= 84.12)

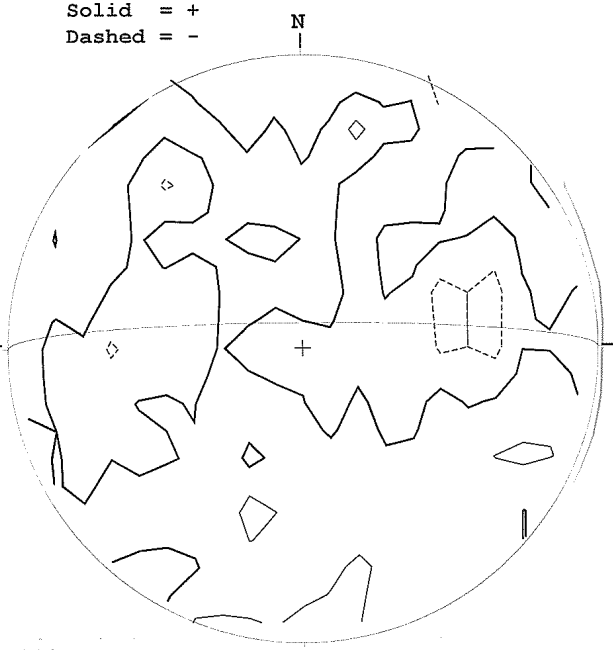
Jan 08 58

KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **



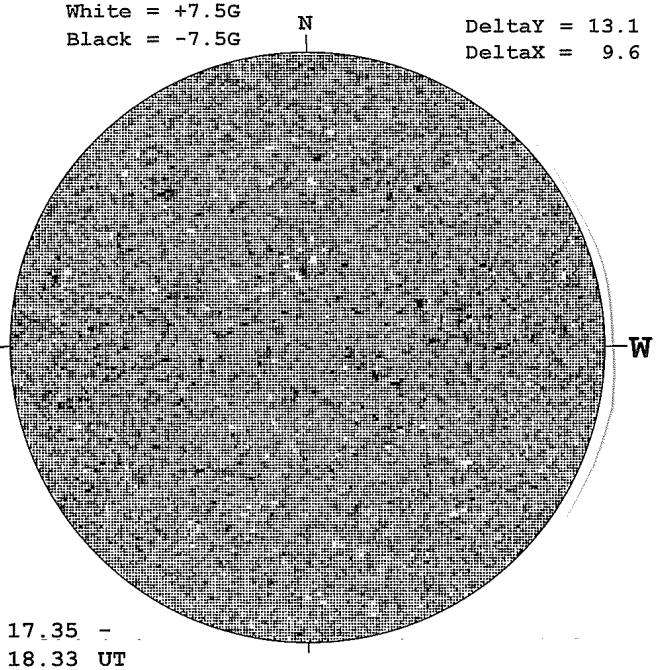
2012 UT

STANFORD MAGNETOGRAM
Solid = +
Dashed = -



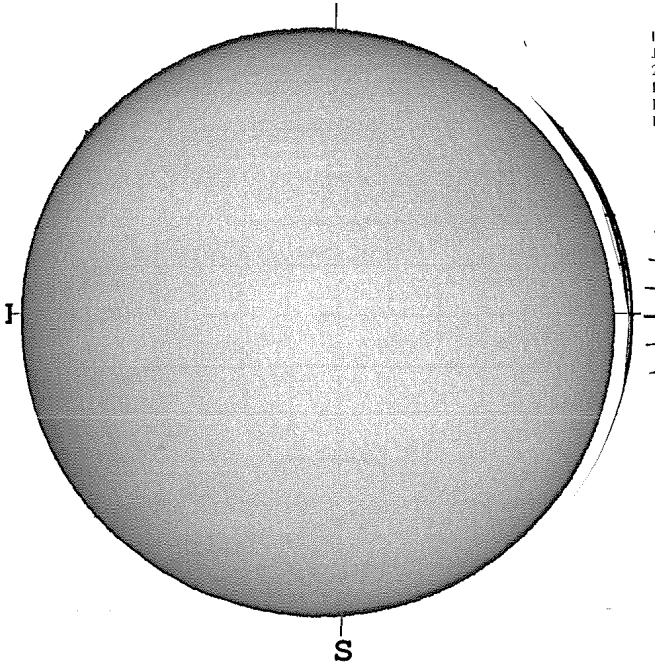
2319 UT

MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6



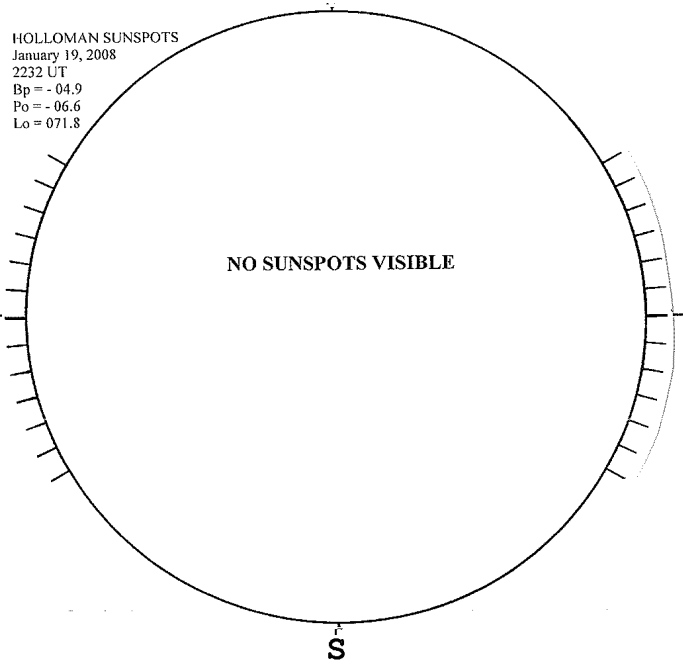
17.35 -
18.33 UT

--- MEUDON H-ALPHA



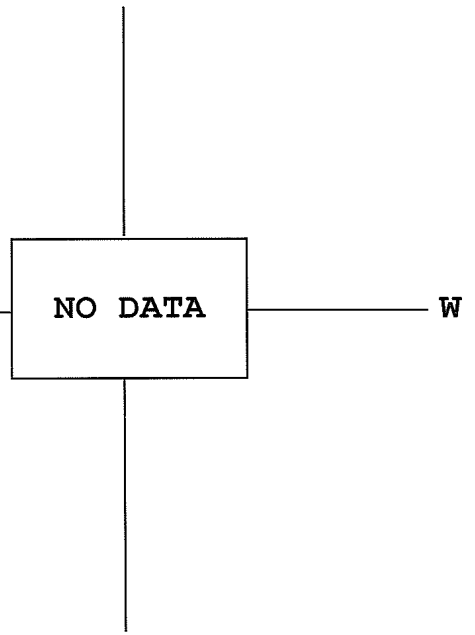
0953 UT

HOLLOMAN SUNSPOTS



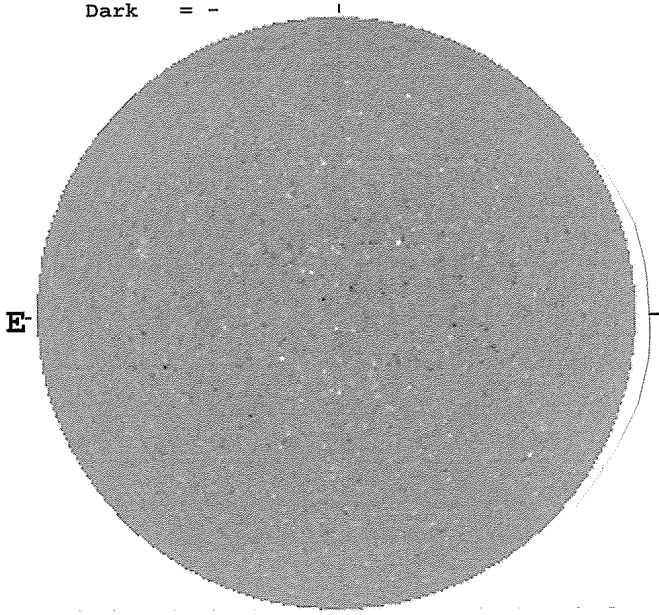
2232 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



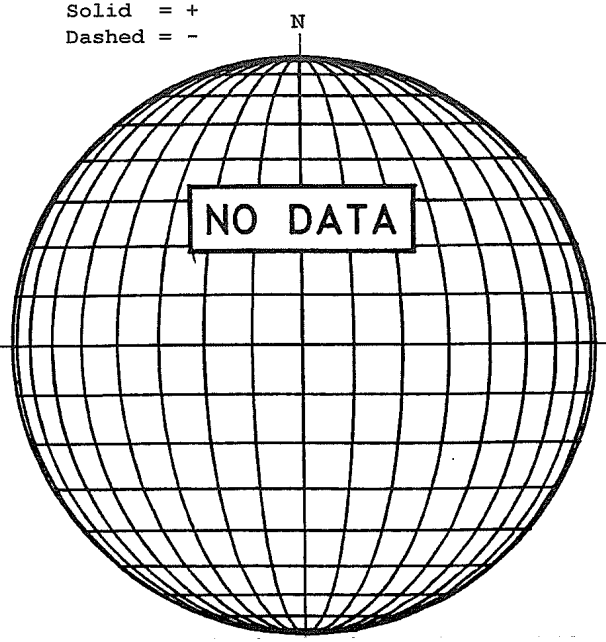
January 20, 2008 (P= -6.70, Bo=-4.98, Lo= 70.96)

KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **

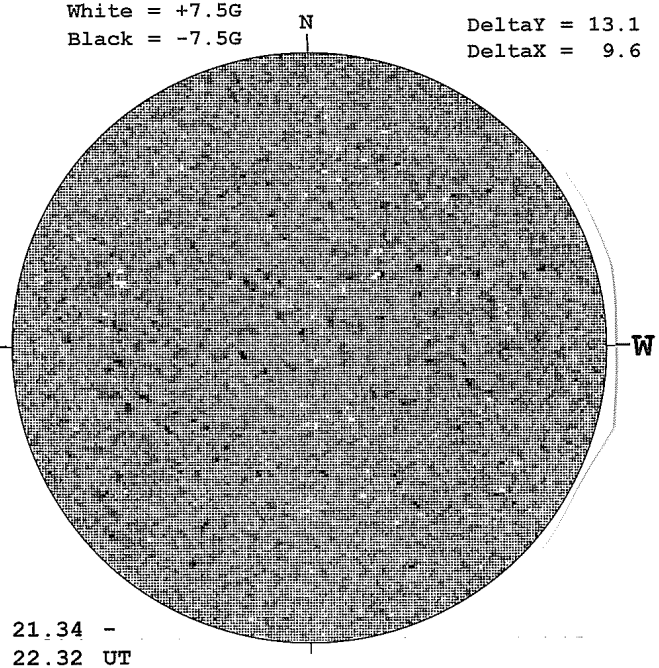


1900 UT

STANFORD MAGNETOGRAM
Solid = +
Dashed = -

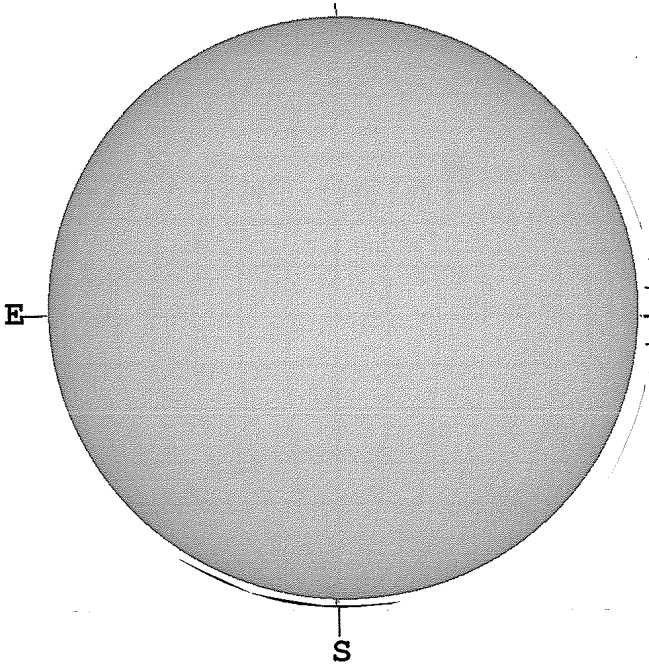


MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6



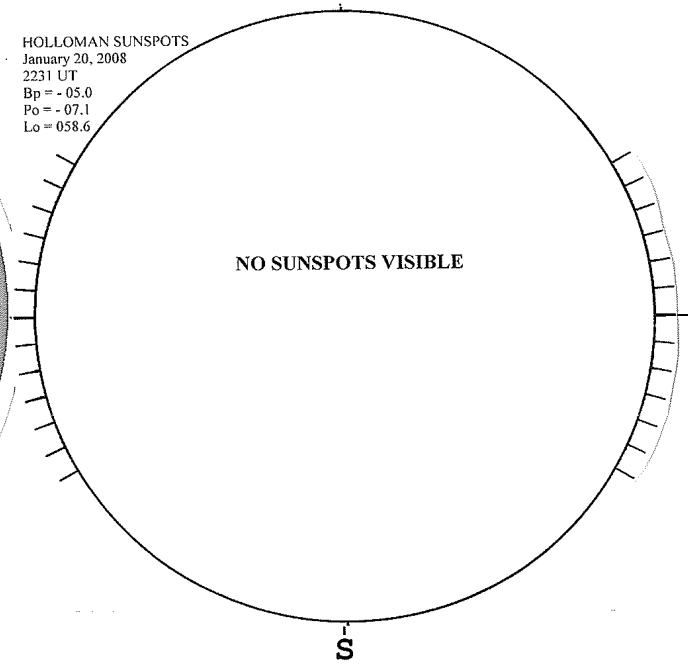
21.34 -
22.32 UT

BIG BEAR H-ALPHA



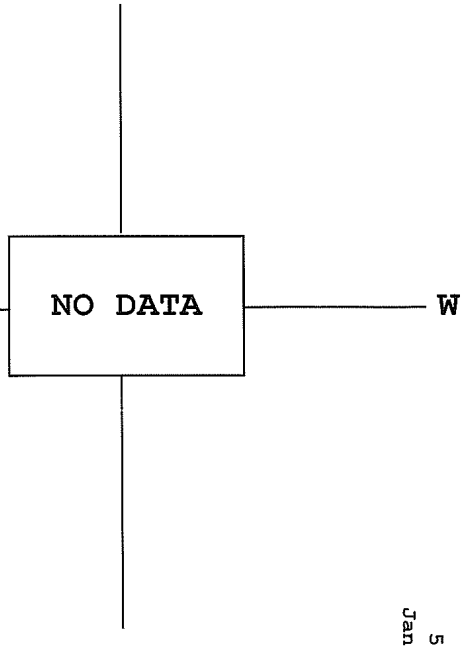
1616 UT

HOLLOMAN SUNSPOTS



2231 UT

SACRAMENTO PEAK CORONA (1.15 Radii)-----

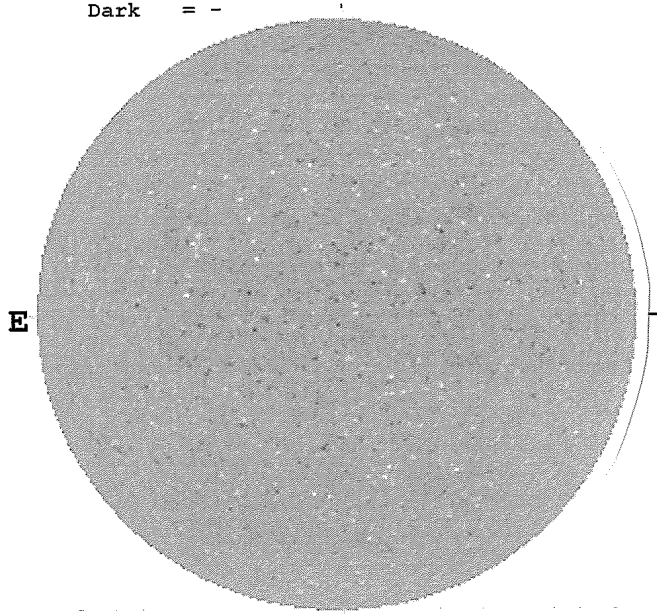


59
Jan 08

January 21, 2008 (P= -7.15, Bo=-5.07, Lo= 57.79)

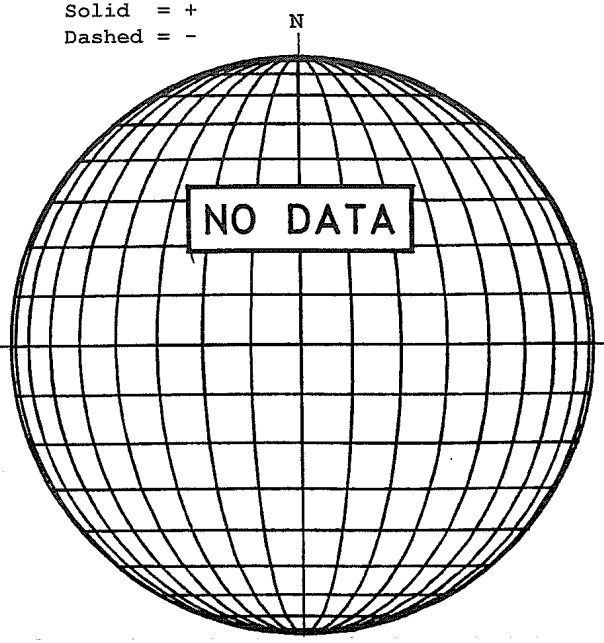
Jan 08 60

KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **

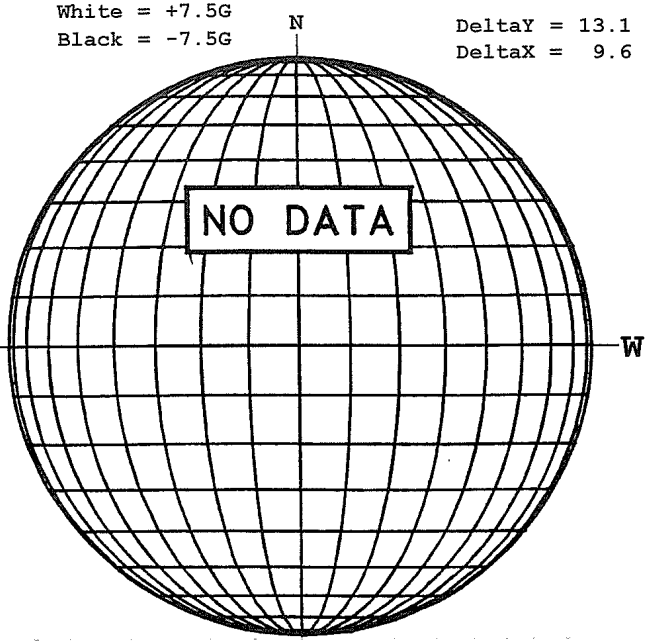


1840 UT

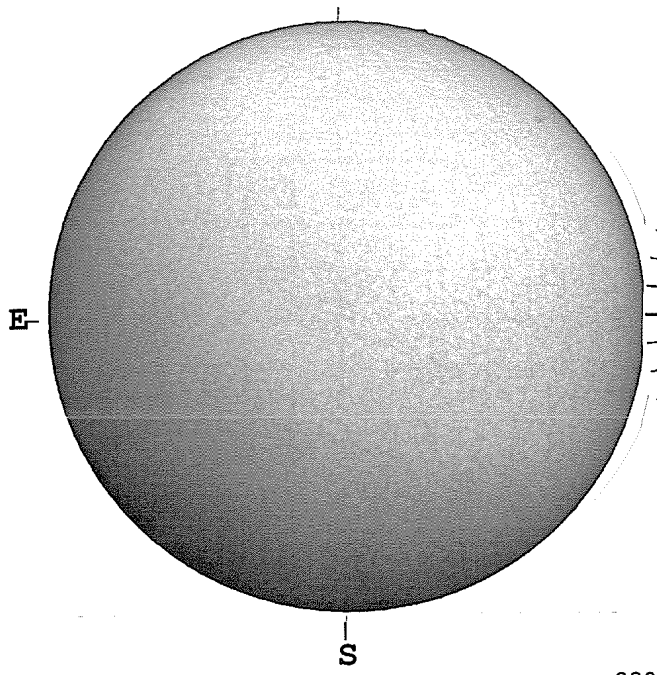
STANFORD MAGNETOGRAM
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6

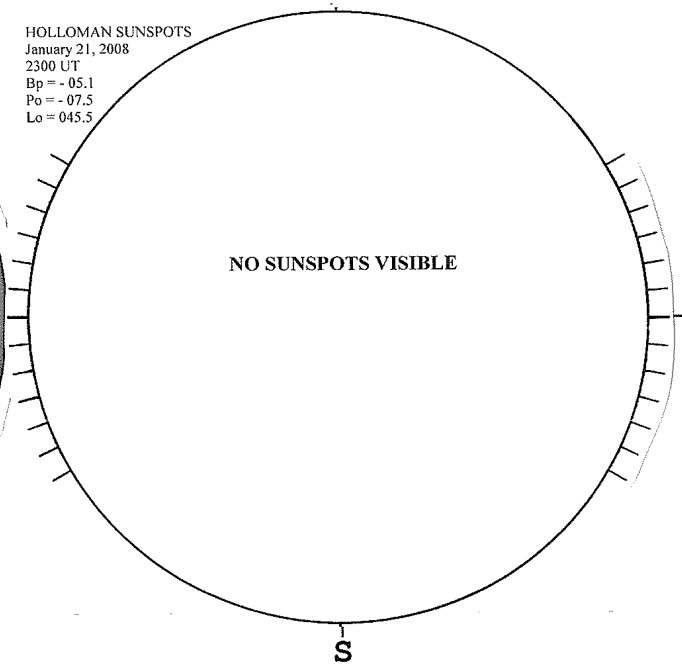


--- PIC DU MIDI H-ALPHA



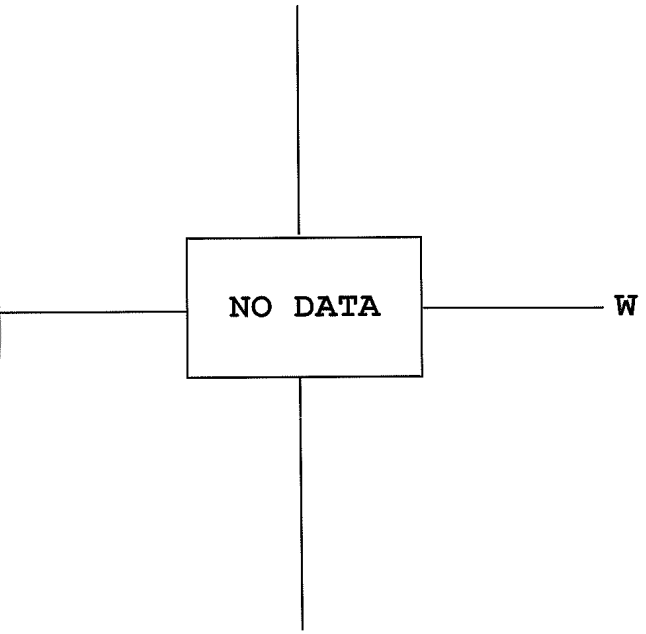
1003 UT

HOLLOMAN SUNSPOTS



2300 UT

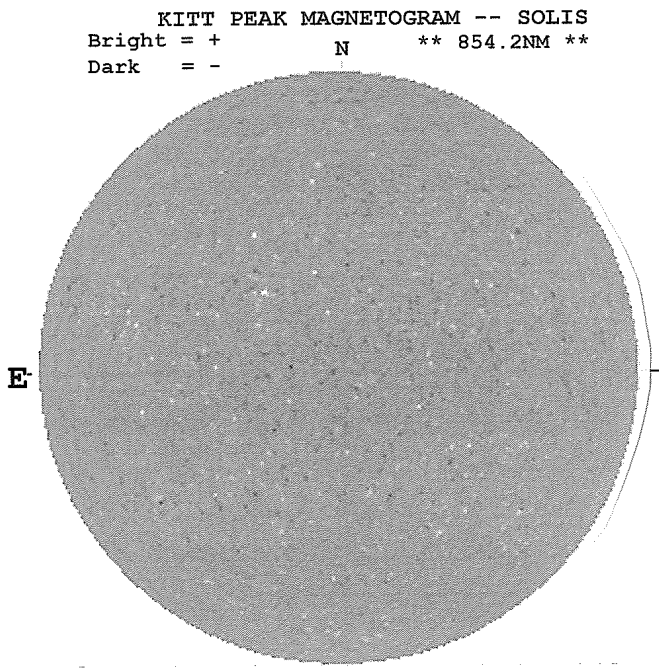
SACRAMENTO PEAK CORONA (1.15 Radii)-----



January 22, 2008 (P= -7.60, Bo=-5.16, Lo= 44.62)

KITT PEAK MAGNETOGRAM -- SOLIS

Bright = +
Dark = -

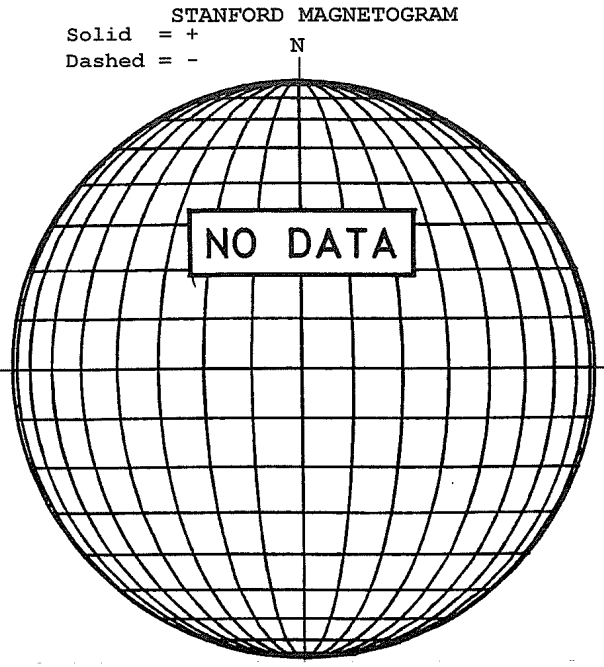


** 854.2NM **

1857 UT

STANFORD MAGNETOGRAM

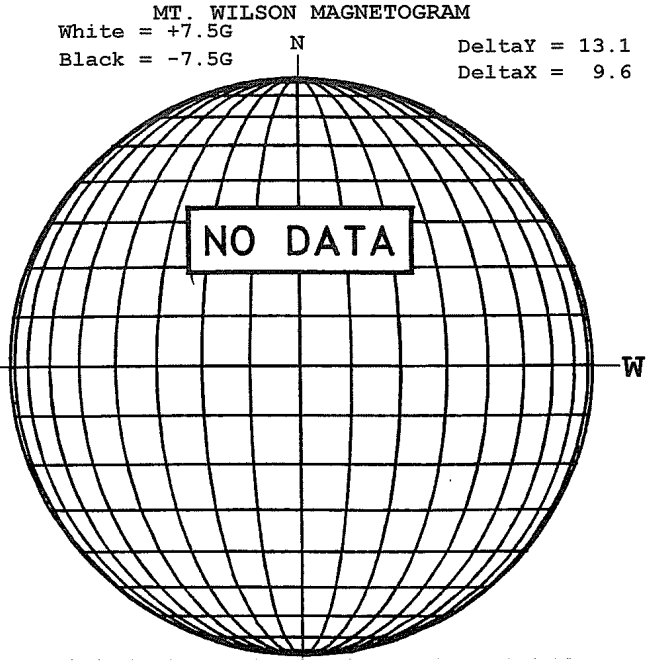
Solid = +
Dashed = -



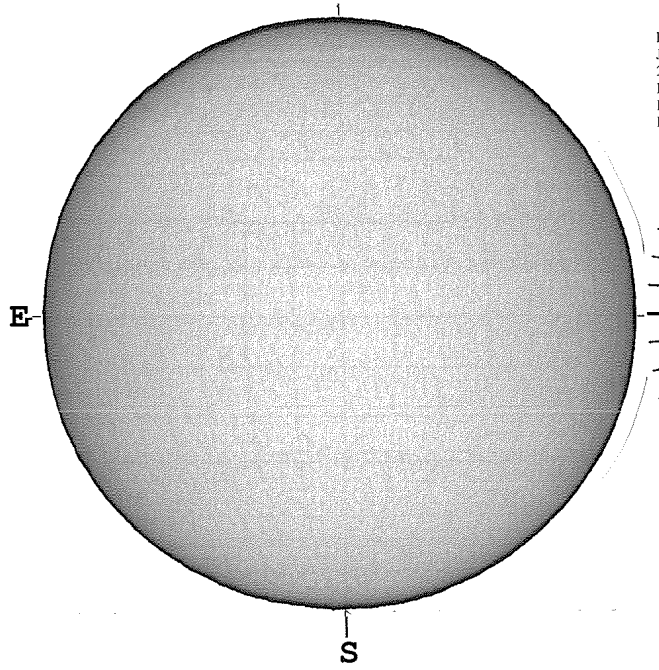
MT. WILSON MAGNETOGRAM

White = +7.5G
Black = -7.5G

DeltaY = 13.1
DeltaX = 9.6

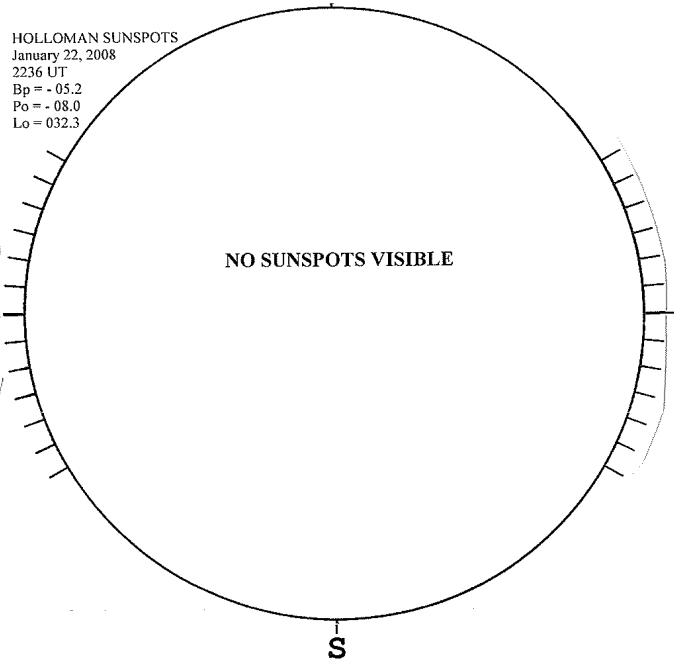


MEUDON H-ALPHA



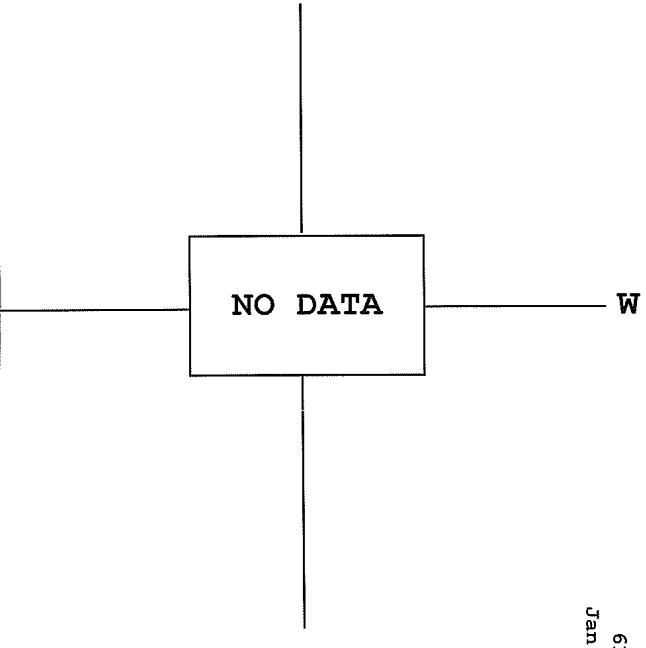
1334 UT

HOLLOMAN SUNSPOTS



2236 UT

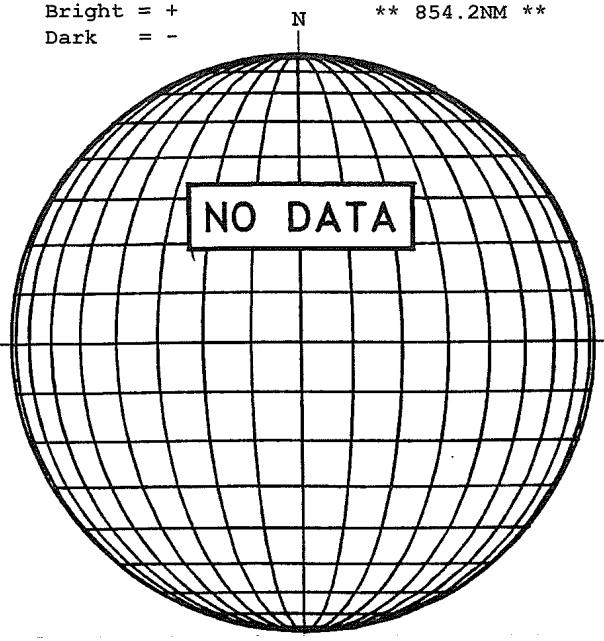
SACRAMENTO PEAK CORONA (1.15 Radii)-----



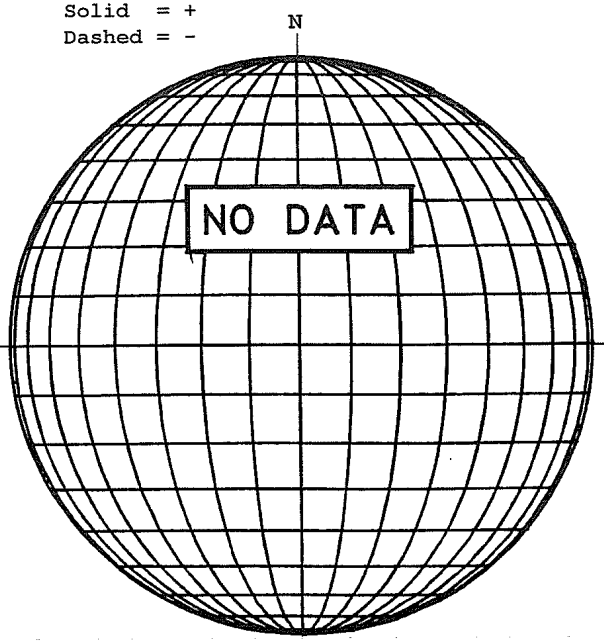
61
Jan 08

January 23, 2008 (P= -8.05, Bo=-5.25, Lo= 31.46)

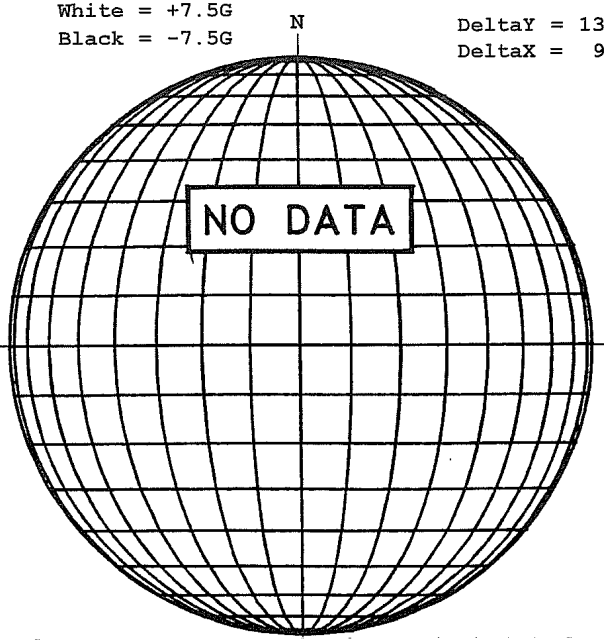
KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **



STANFORD MAGNETOGRAM
Solid = +
Dashed = -

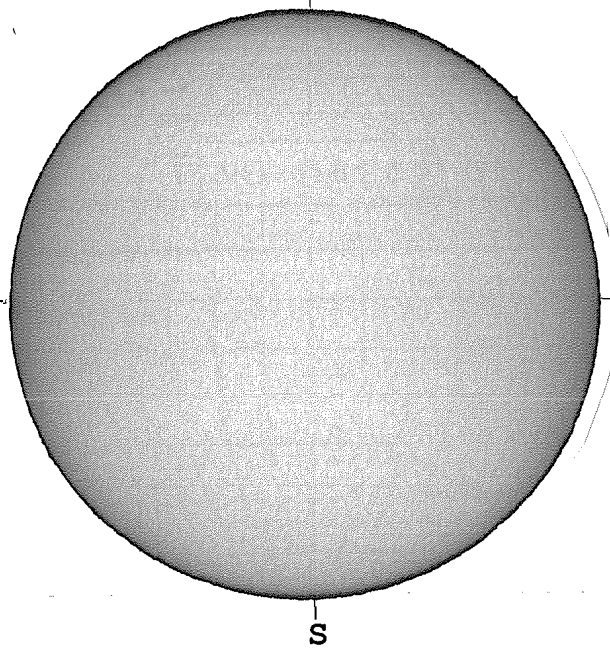


MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6



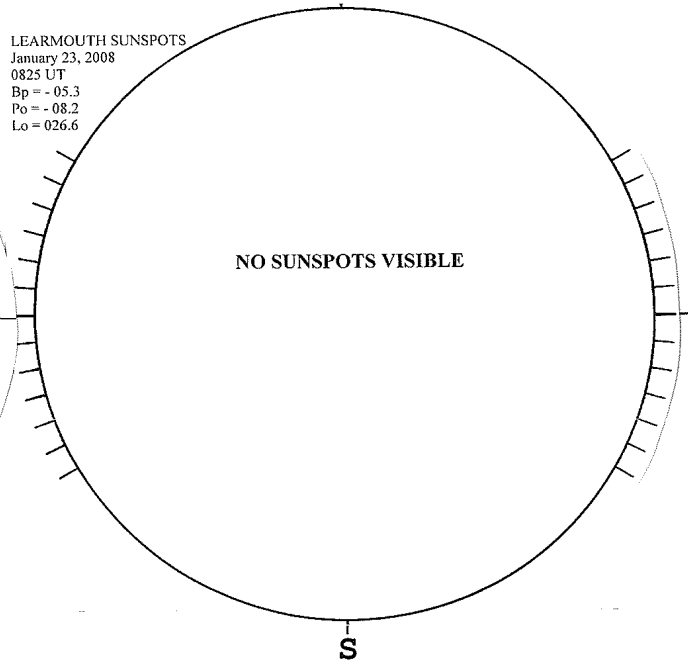
E W

MEUDON H-ALPHA



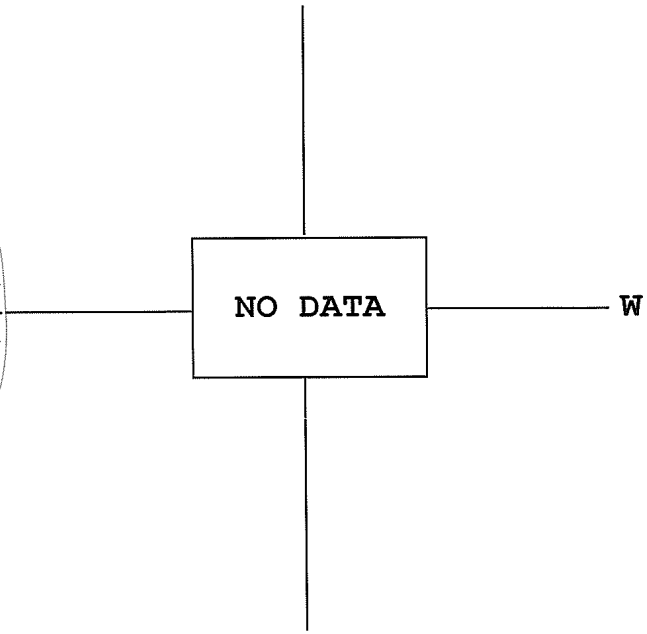
1400 UT

LEARMONTH SUNSPOTS



0825 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

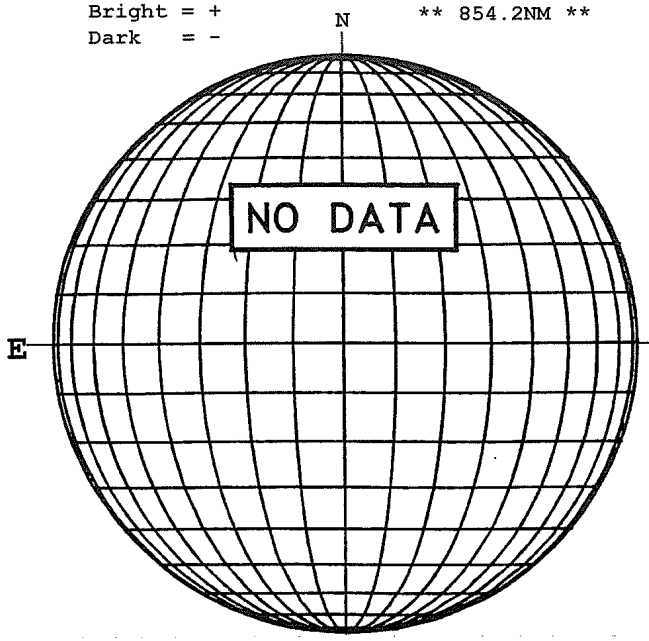


January 24, 2008 (P= -8.50, Bo=-5.34, Lo= 18.29)

KITT PEAK MAGNETOGRAM -- SOLIS

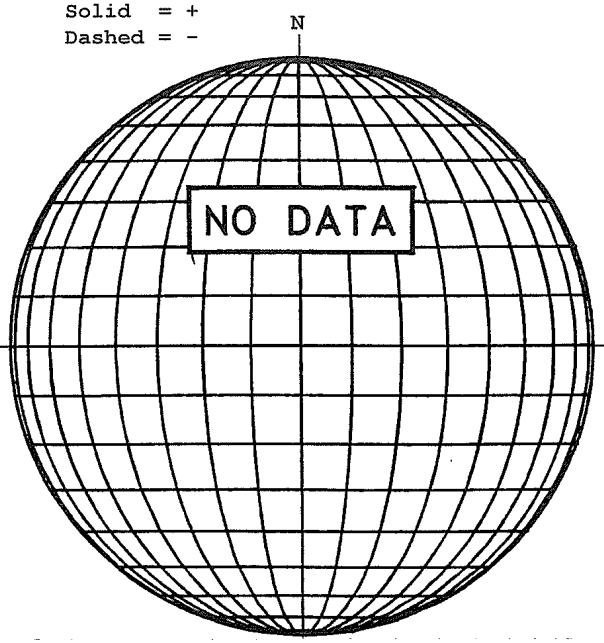
Bright = +
Dark = -

** 854.2NM **



STANFORD MAGNETOGRAM

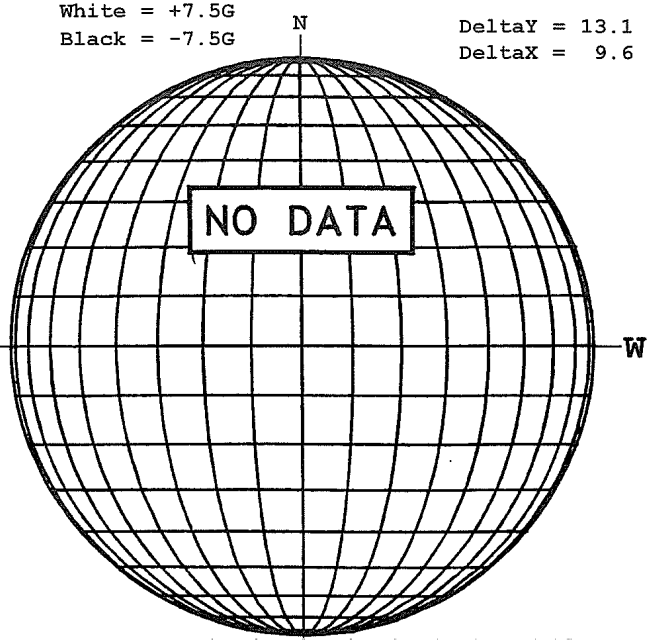
Solid = +
Dashed = -



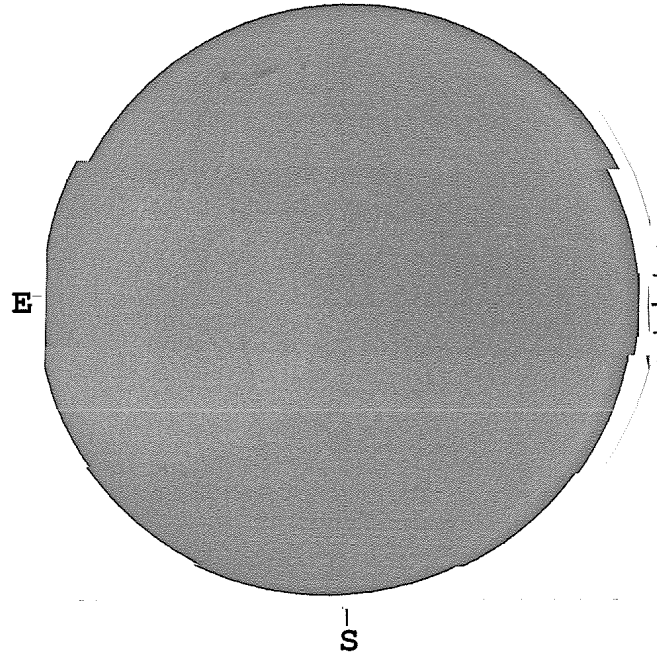
MT. WILSON MAGNETOGRAM

White = +7.5G
Black = -7.5G

DeltaY = 13.1
DeltaX = 9.6

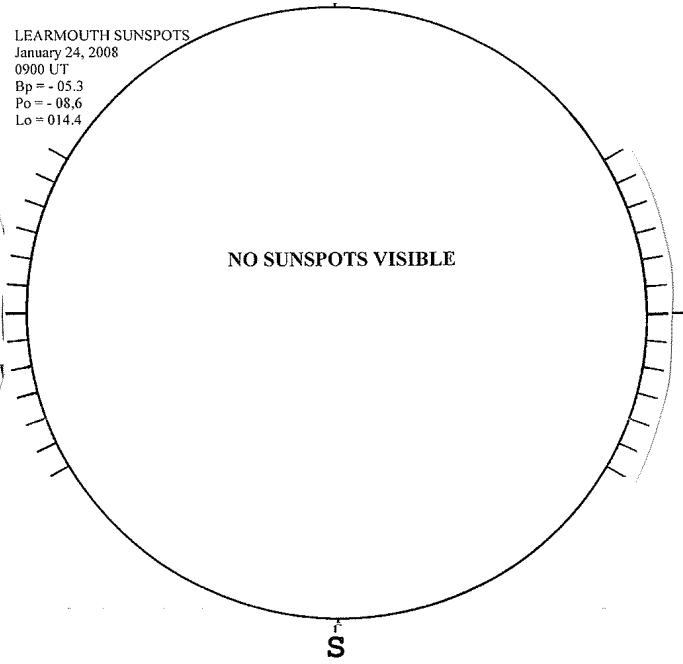


--- CATANIA H-ALPHA



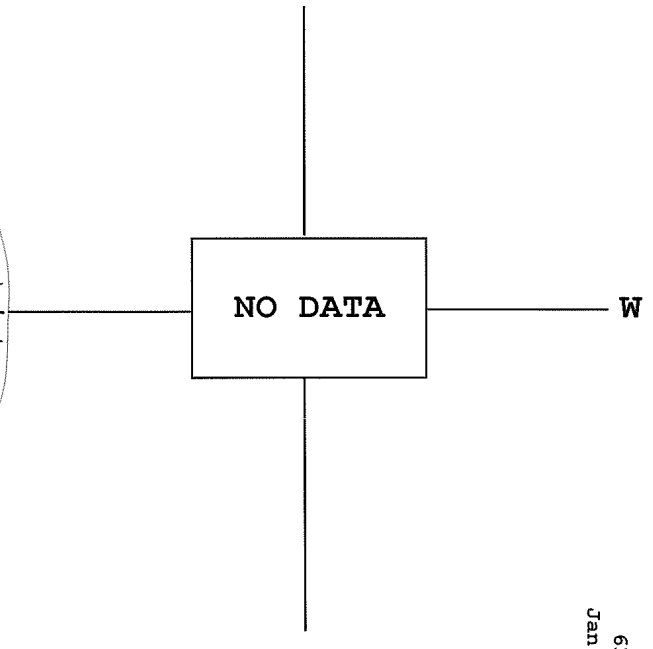
0845 UT

LEARMONTH SUNSPOTS



0900 UT

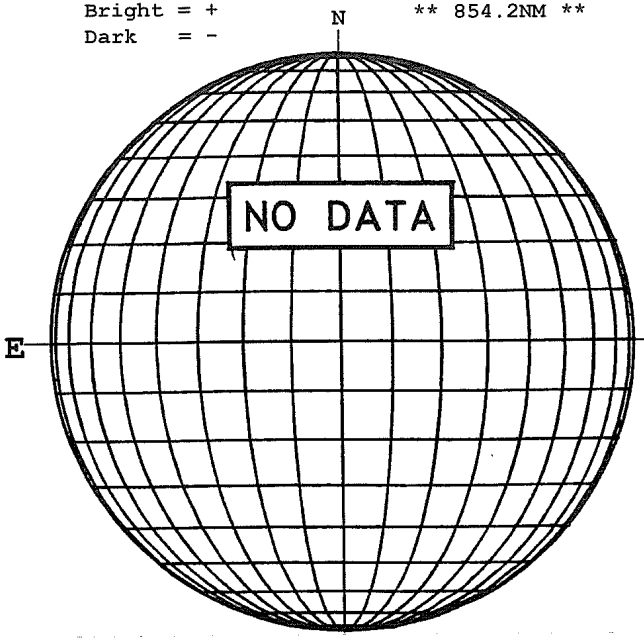
SACRAMENTO PEAK CORONA (1.15 Radii)-----



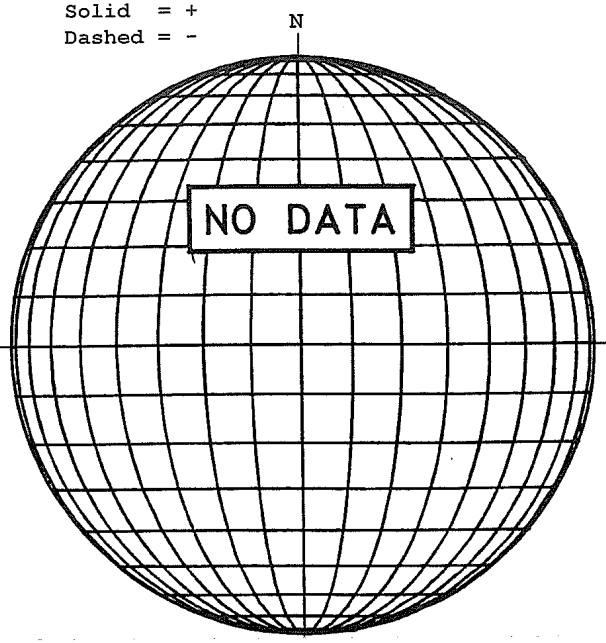
63
Jan 08

January 25, 2008 (P= -8.94, Bo=-5.43, Lo= 5.12)

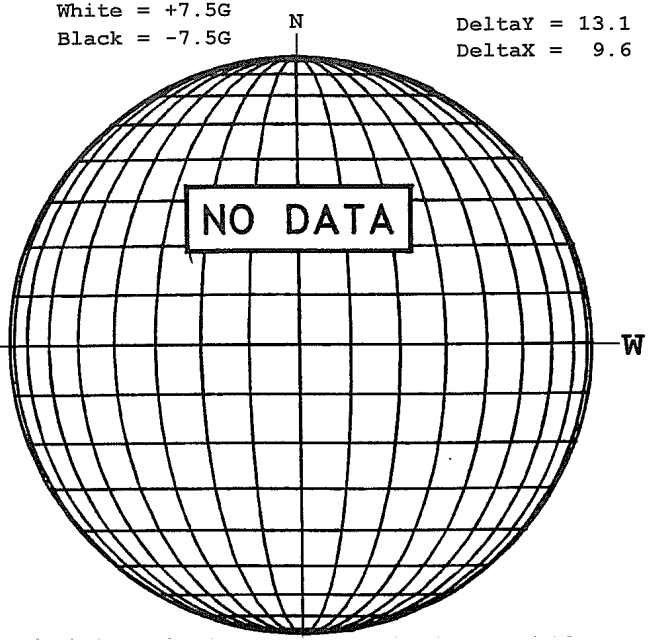
KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **



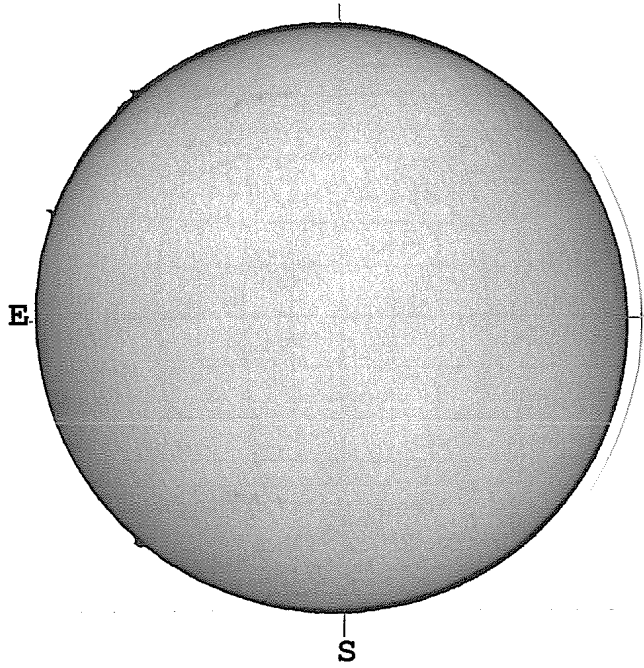
STANFORD MAGNETOGRAM
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6

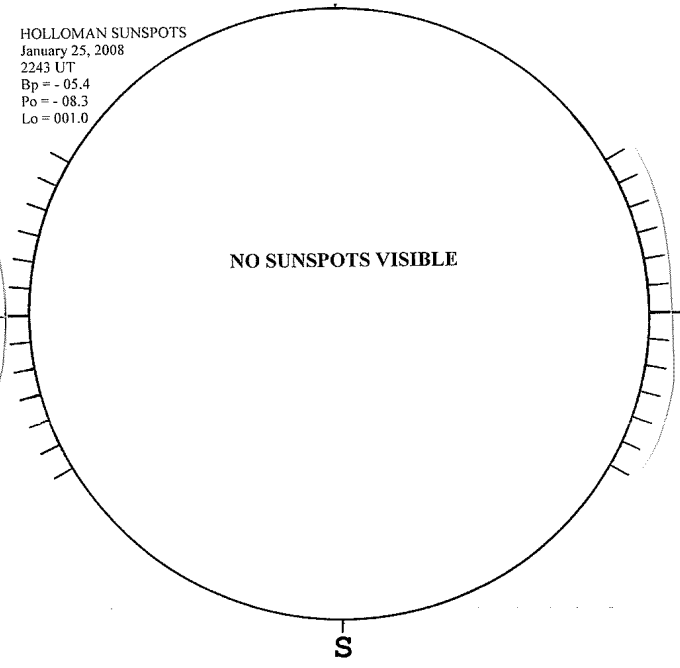


--- MEUDON H-ALPHA



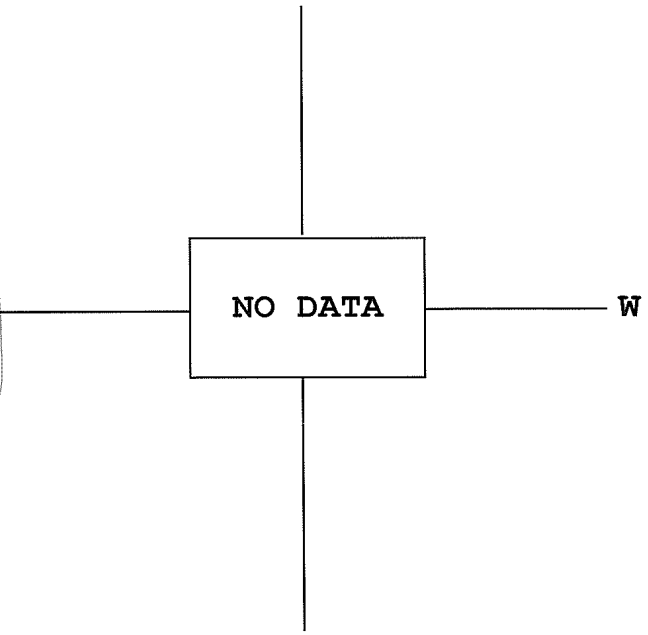
0938 UT

HOLLOMAN SUNSPOTS



2243 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

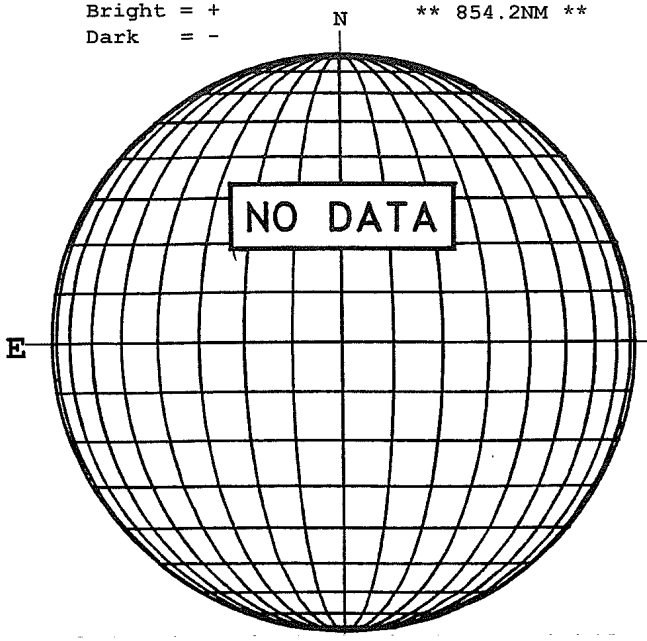


January 26, 2008 (P= -9.37, Bo=-5.51, Lo= 351.96)

KITT PEAK MAGNETOGRAM -- SOLIS

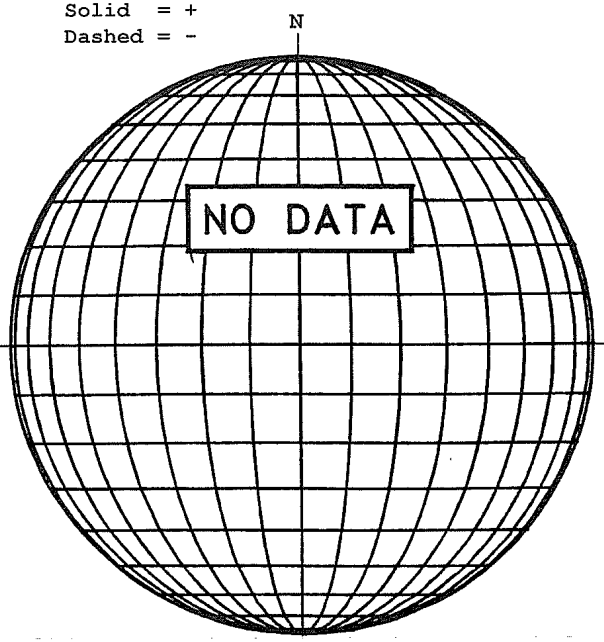
Bright = +
Dark = -

** 854.2NM **



STANFORD MAGNETOGRAM

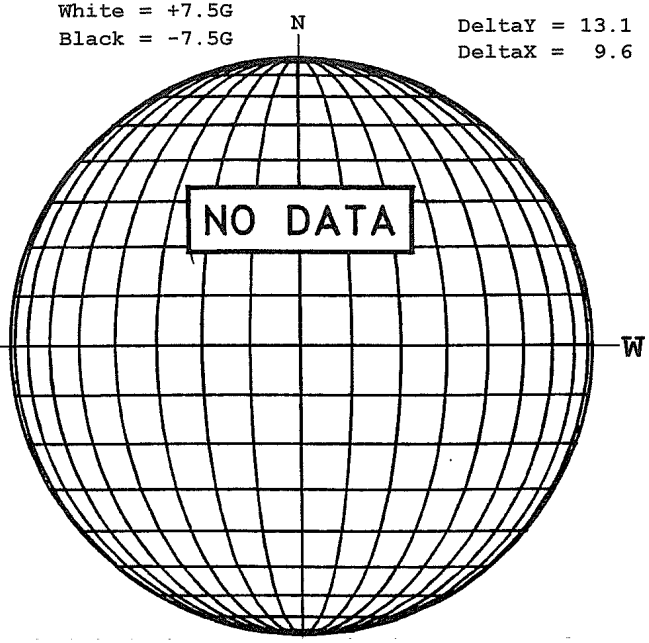
Solid = +
Dashed = -



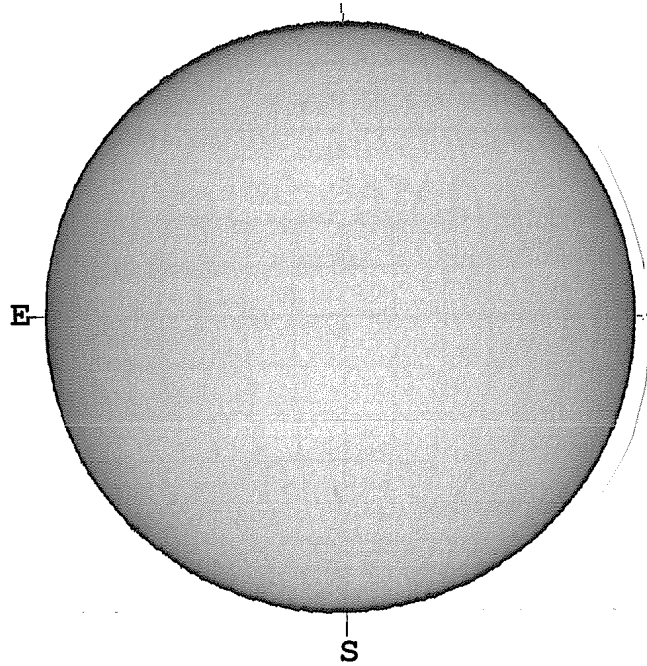
MT. WILSON MAGNETOGRAM

White = +7.5G
Black = -7.5G

DeltaY = 13.1
DeltaX = 9.6

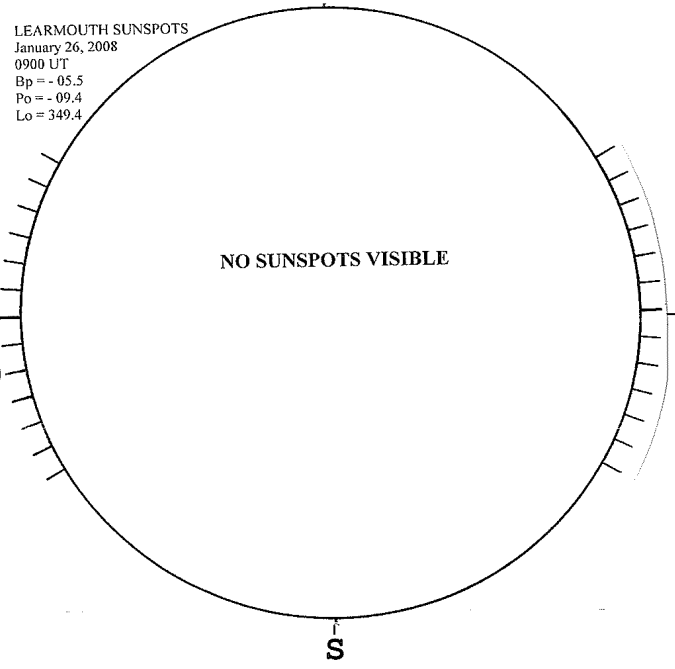


MEUDON H-ALPHA



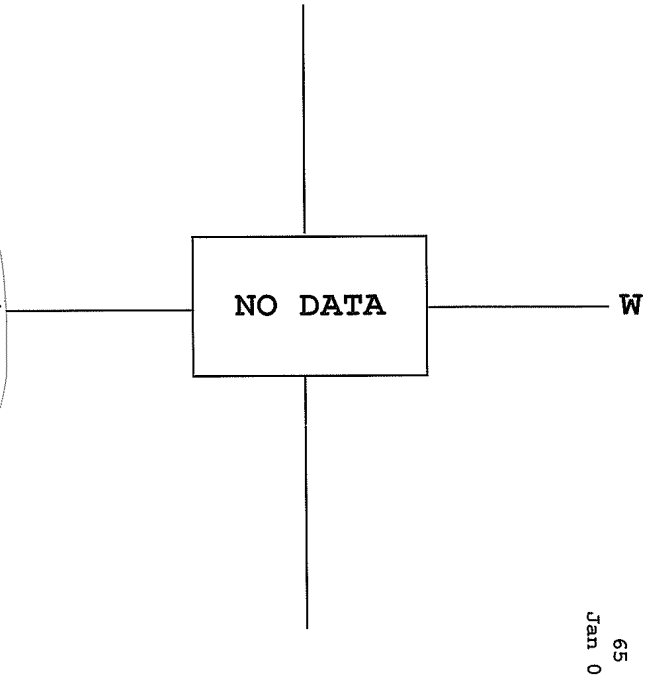
1401 UT

LEARMONTH SUNSPOTS



0900 UT

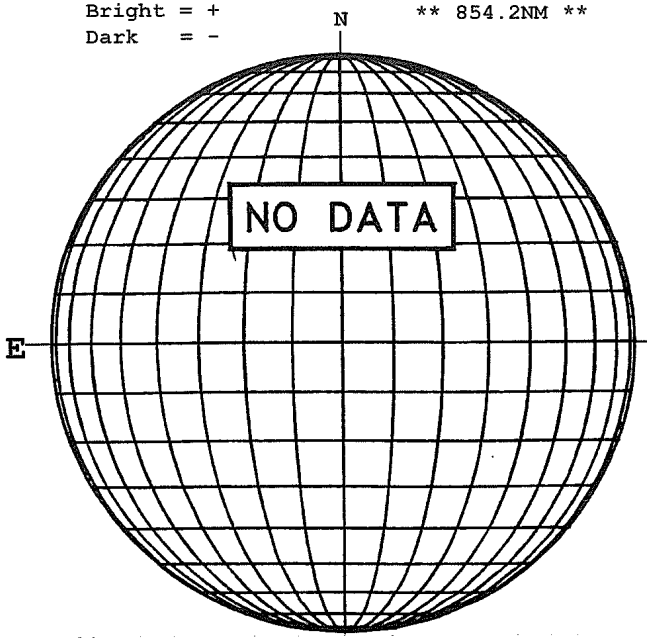
SACRAMENTO PEAK CORONA (1.15 Radii)-----



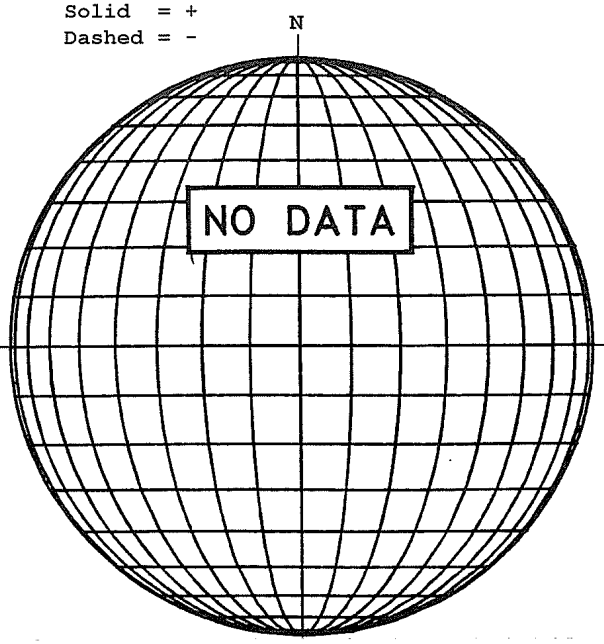
65
Jan 08

January 27, 2008 (P= -9.81, Bo=-5.59, Lo= 338.79)

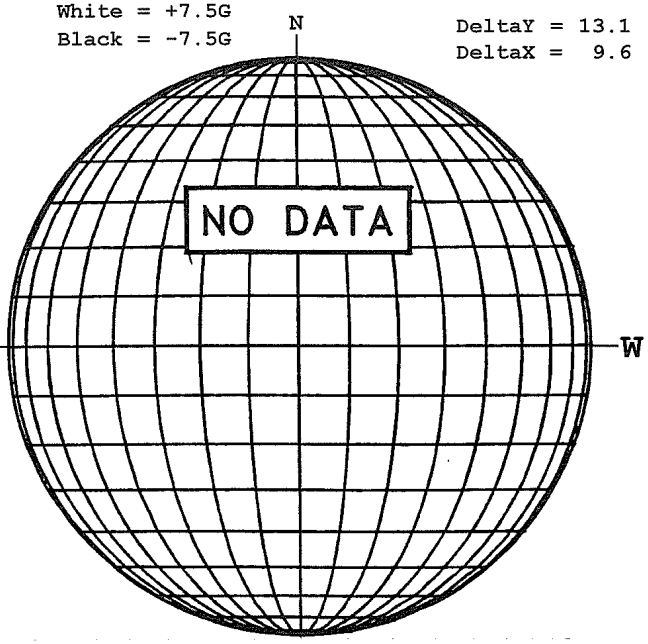
KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **



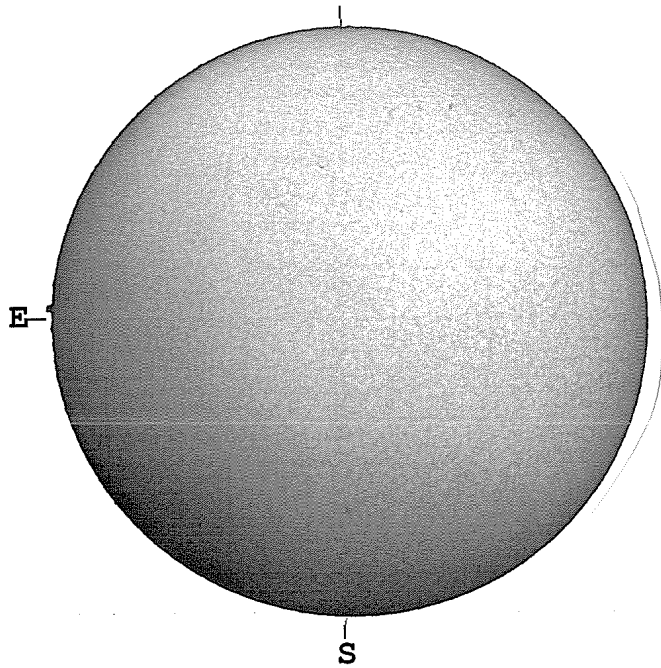
STANFORD MAGNETOGRAM
Solid = +
Dashed = -



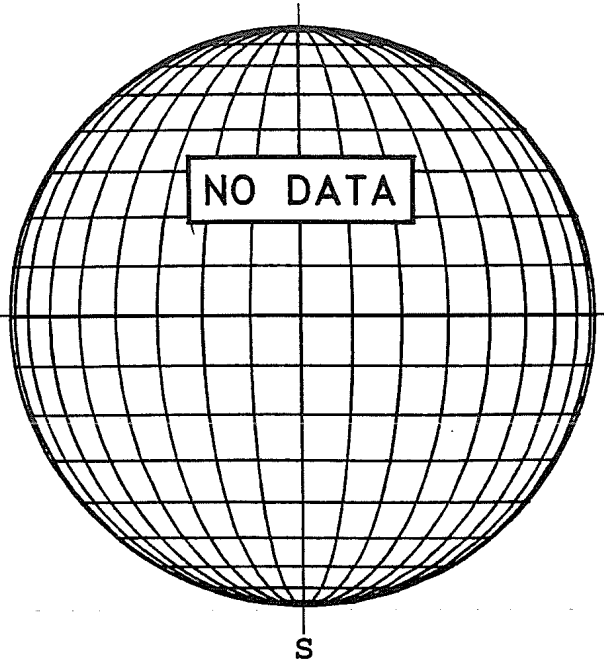
MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6



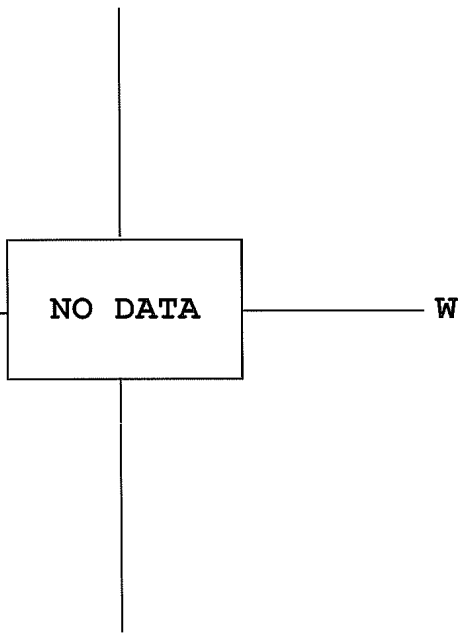
PIC DU MIDI H-ALPHA



HOLLOMAN SUNSPOTS



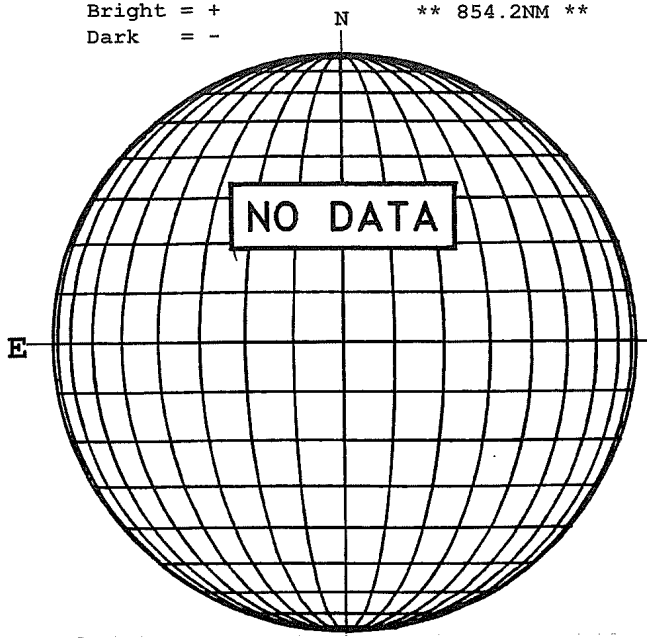
SACRAMENTO PEAK CORONA (1.15 Radii)



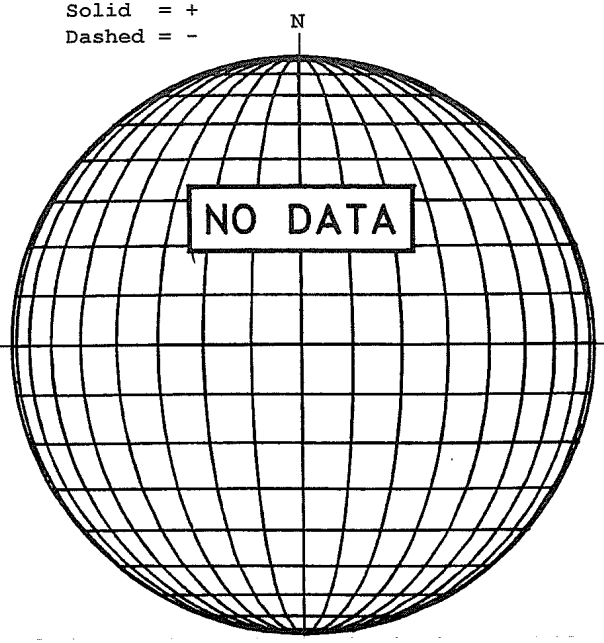
1010 UT

January 28, 2008 (P=-10.24, Bo=-5.67, Lo= 325.62)

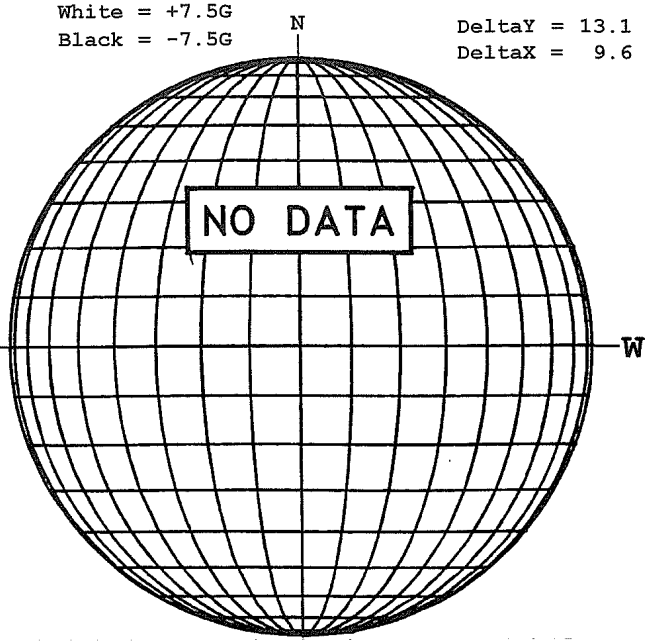
KITT PEAK MAGNETOGRAM -- SOLIS
Bright = +
Dark = -
** 854.2NM **



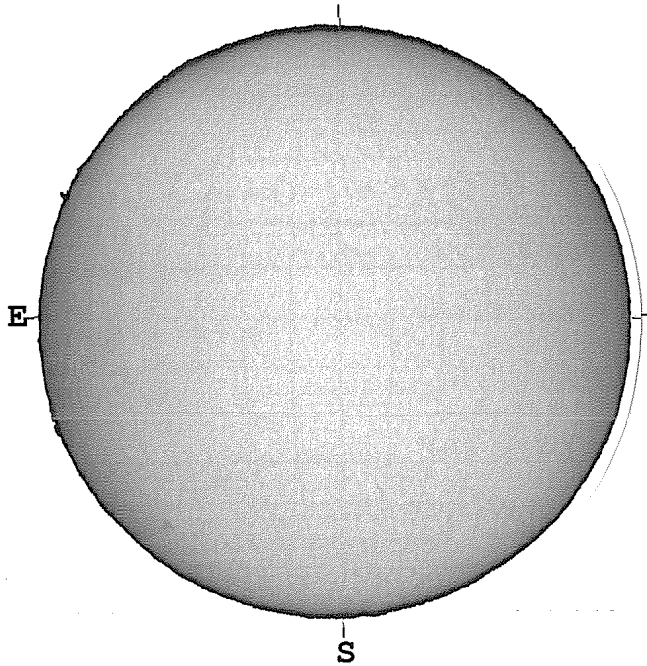
STANFORD MAGNETOGRAM
Solid = +
Dashed = -



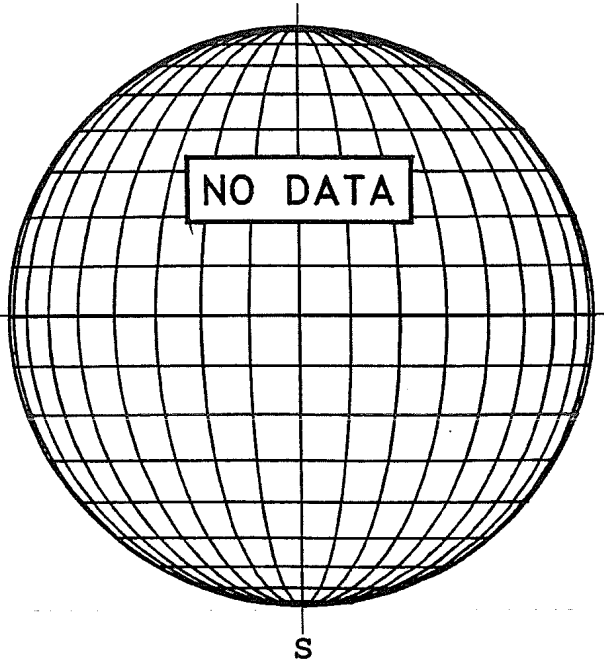
MT. WILSON MAGNETOGRAM
White = +7.5G
Black = -7.5G
DeltaY = 13.1
DeltaX = 9.6



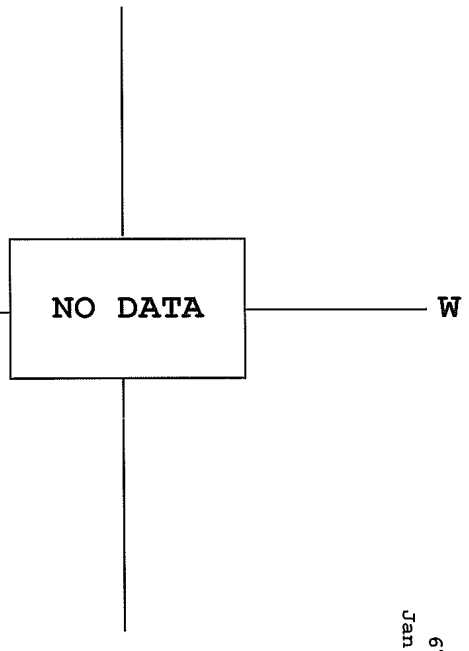
MEUDON H-ALPHA



HOLLOMAN SUNSPOTS



SACRAMENTO PEAK CORONA (1.15 Radii)



1336 UT

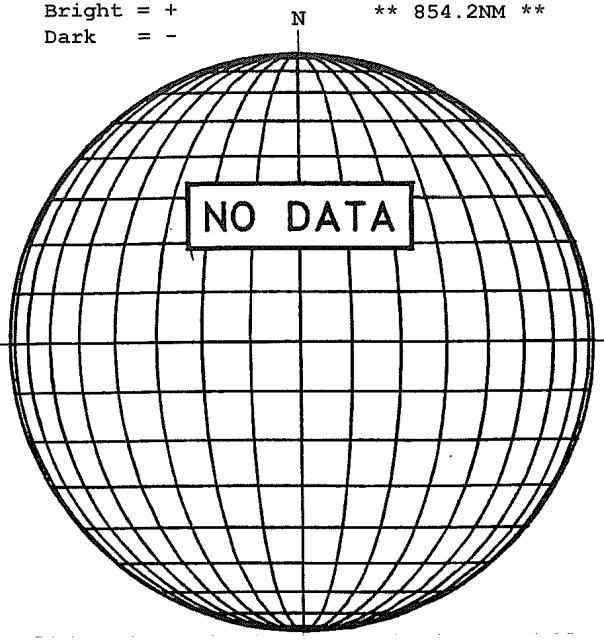
67
Jan 08

January 29, 2008 (P=-10.66, Bo=-5.75, Lo= 312.46)

KITT PEAK MAGNETOGRAM -- SOLIS

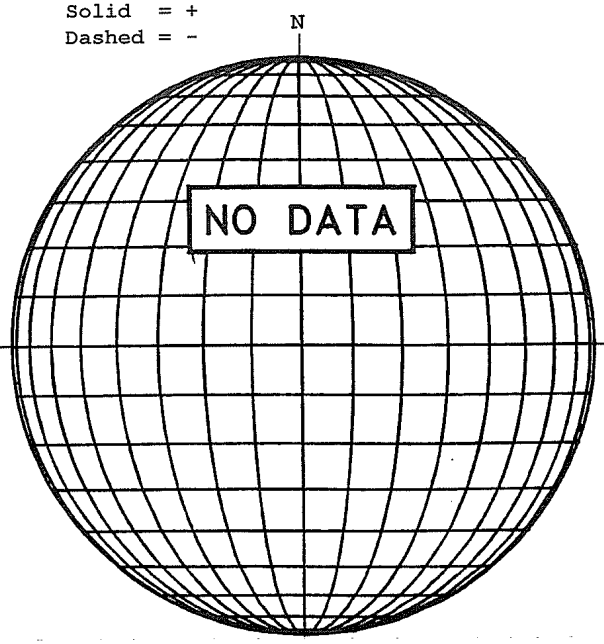
Bright = +
Dark = -

** 854.2NM **



STANFORD MAGNETOGRAM

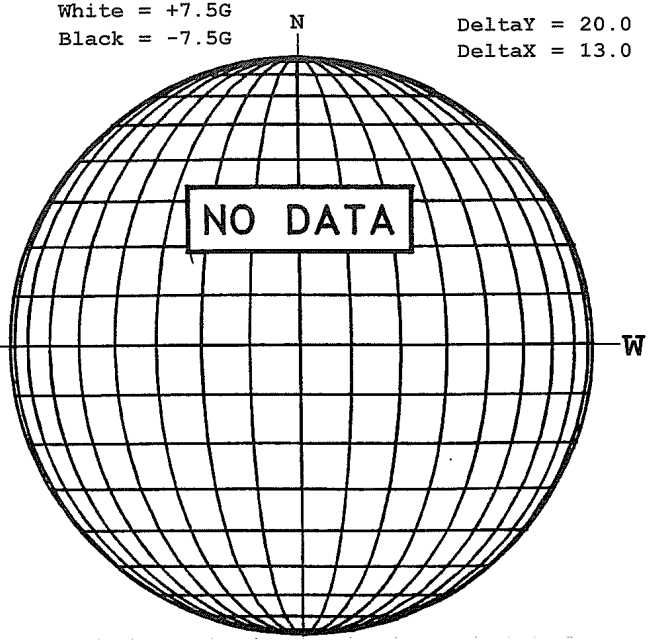
Solid = +
Dashed = -



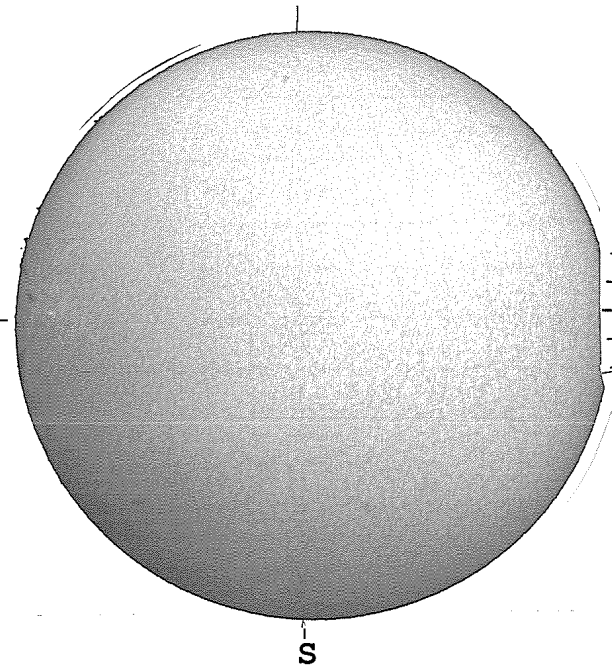
MT. WILSON MAGNETOGRAM

White = +7.5G
Black = -7.5G

DeltaY = 20.0
DeltaX = 13.0

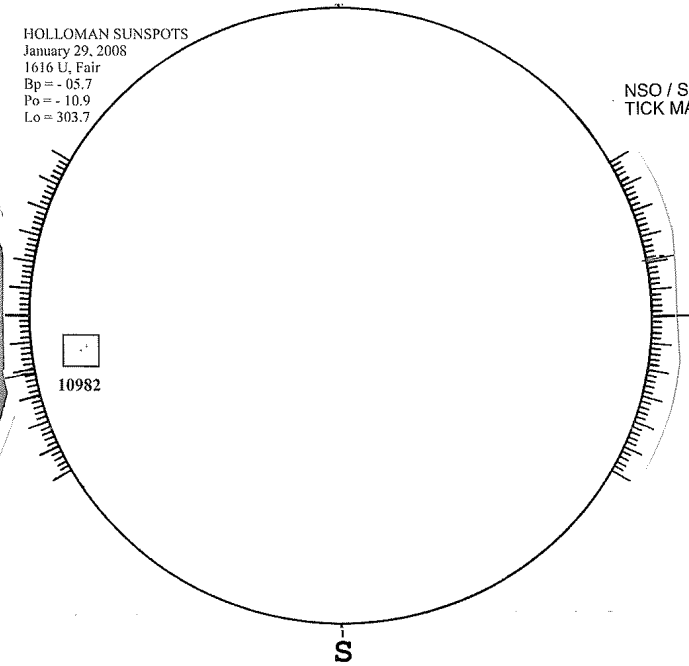


--- PIC DU MIDI H-ALPHA



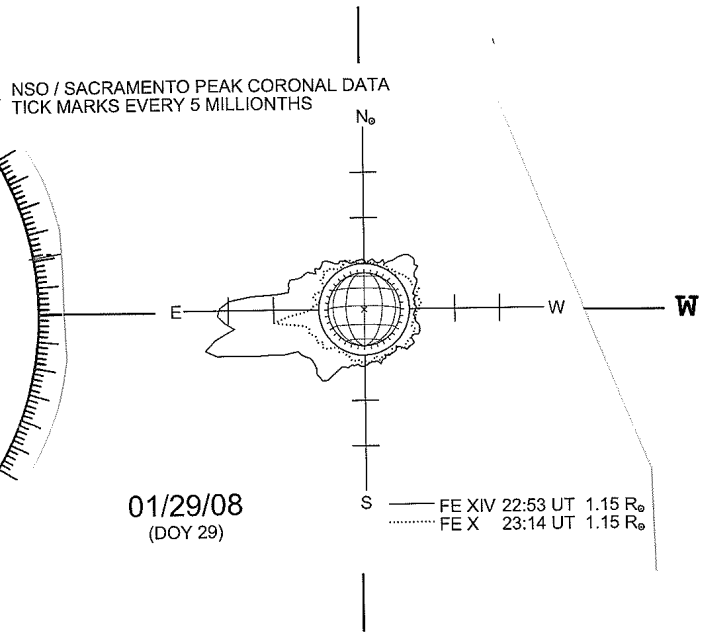
0918 UT

HOLLOMAN SUNSPOTS



1616 UT

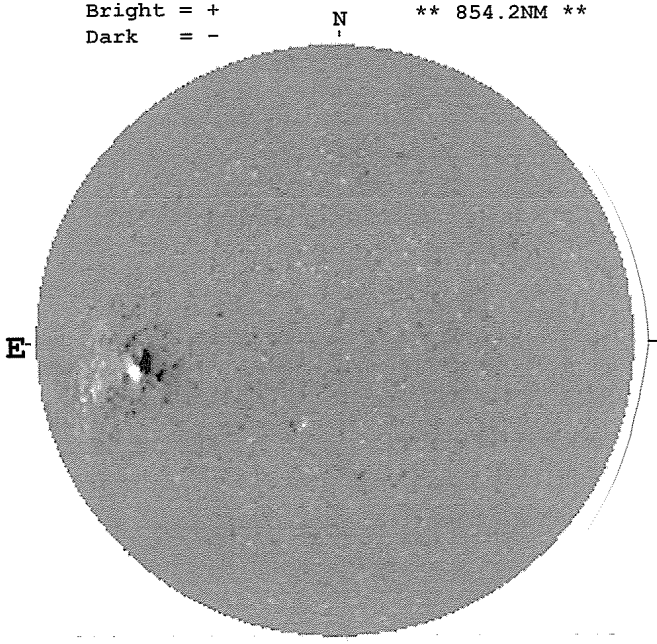
SACRAMENTO PEAK CORONA (1.15 Radii)-----



January 30, 2008 (P=-11.09, Bo=-5.83, Lo= 299.29)

KITT PEAK MAGNETOGRAM -- SOLIS

Bright = +
Dark = -

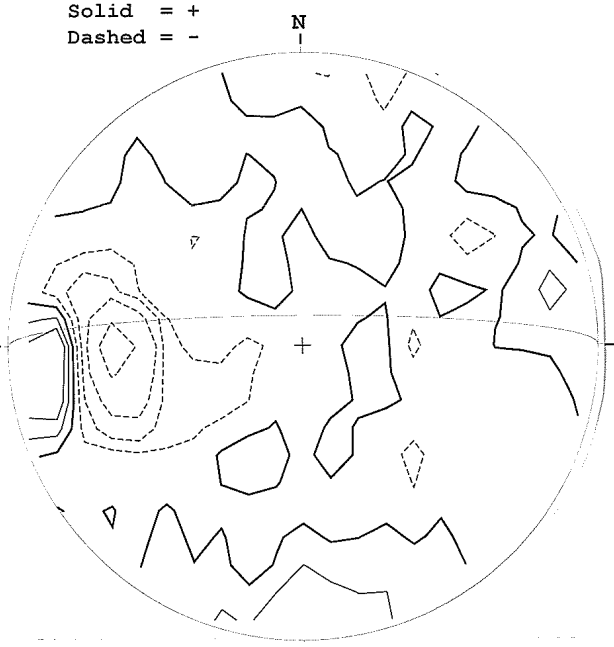


** 854.2NM **

1858 UT

STANFORD MAGNETOGRAM

Solid = +
Dashed = -

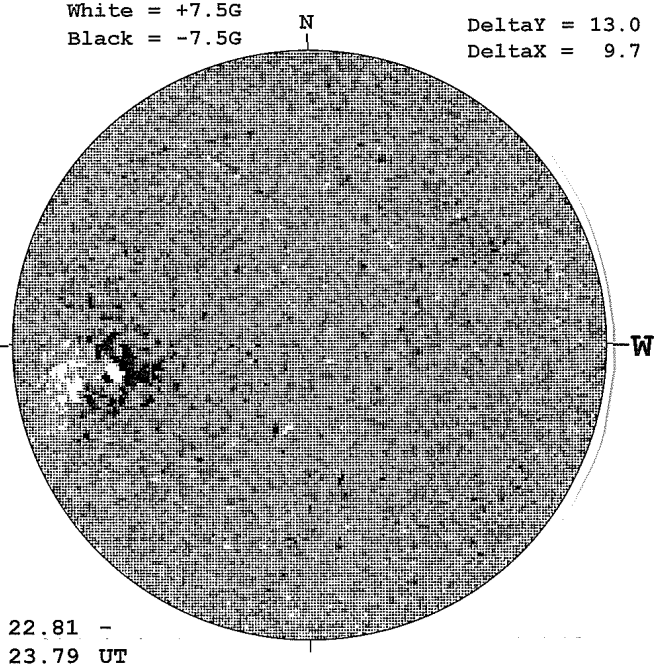


2057 UT

MT. WILSON MAGNETOGRAM

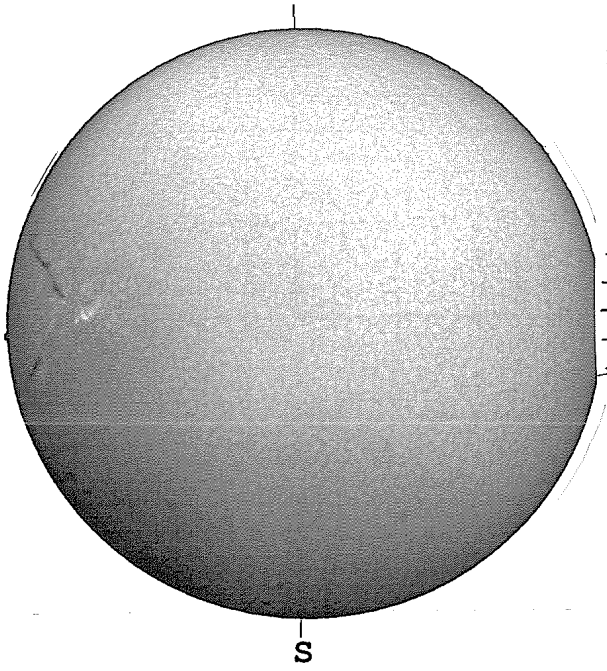
White = +7.5G
Black = -7.5G

DeltaY = 13.0
DeltaX = 9.7



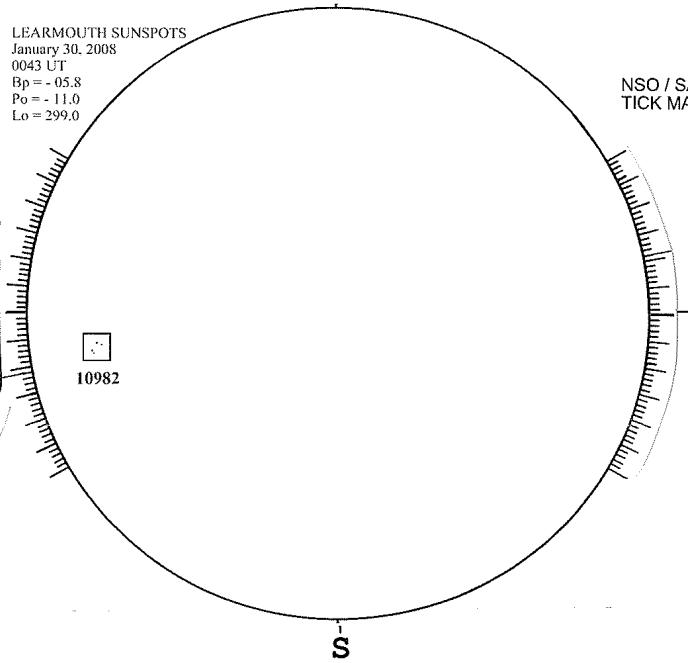
22.81 -
23.79 UT

PIC DU MIDI H-ALPHA



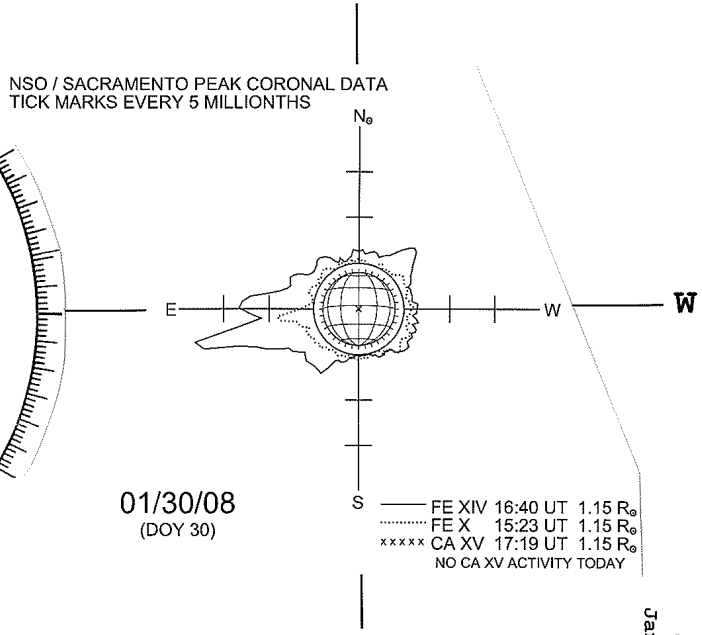
1009 UT

LEARMONTH SUNSPOTS



0043 UT

SACRAMENTO PEAK CORONA (1.15 Radii)-----



69
Jan 08

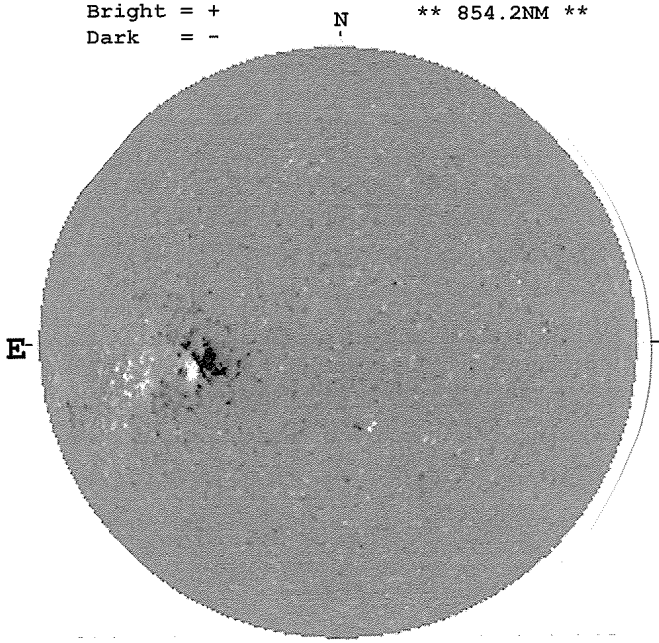
January 31, 2008 (P=-11.50, Bo=-5.91, Lo= 286.12)

Jan 08 70

KITT PEAK MAGNETOGRAM -- SOLIS

Bright = +
Dark = -

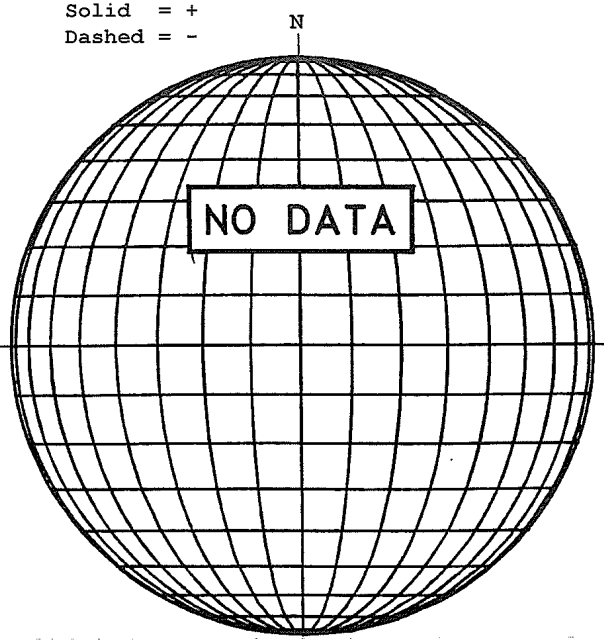
** 854.2NM **



1906 UT

STANFORD MAGNETOGRAM

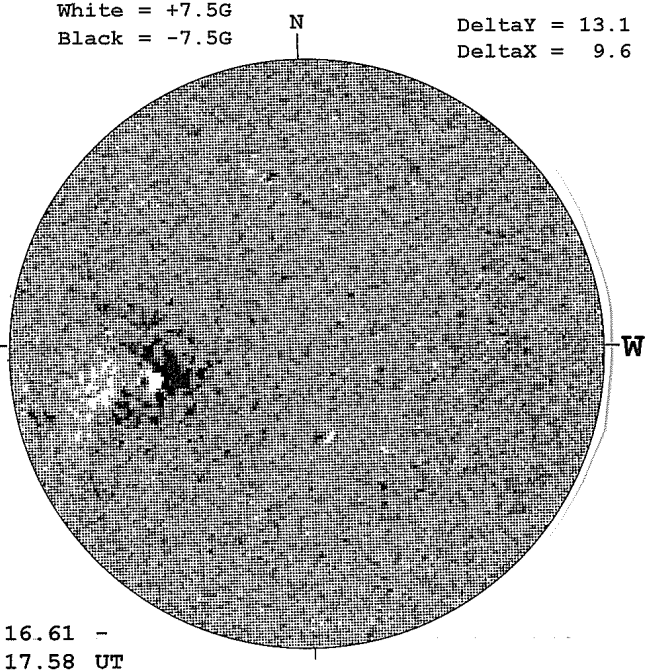
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

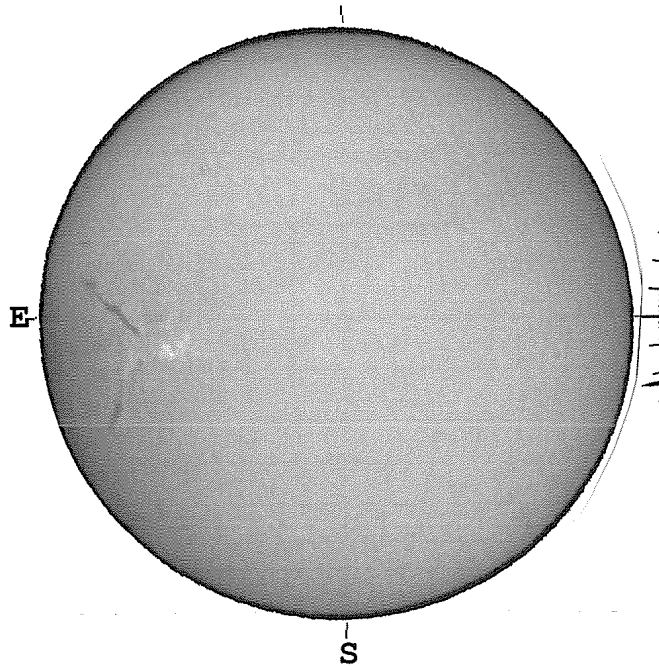
White = +7.5G
Black = -7.5G

DeltaY = 13.1
DeltaX = 9.6



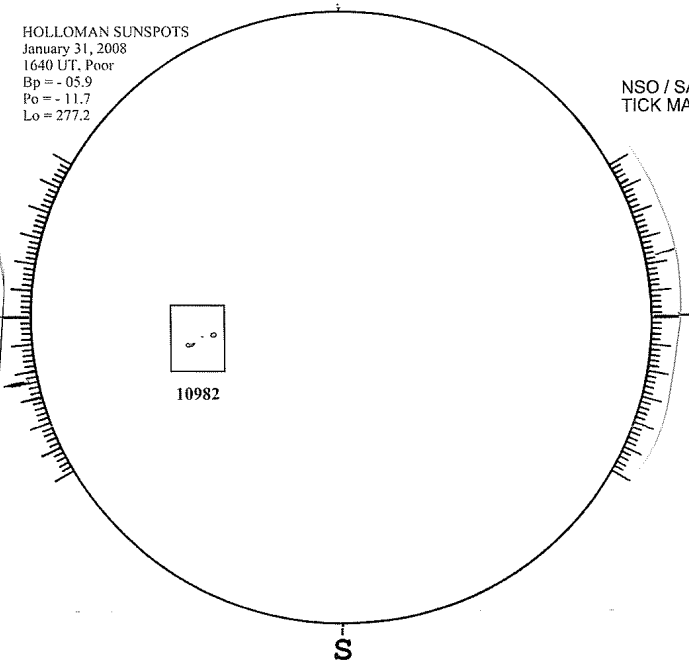
16.61 -
17.58 UT

MEUDON H-ALPHA



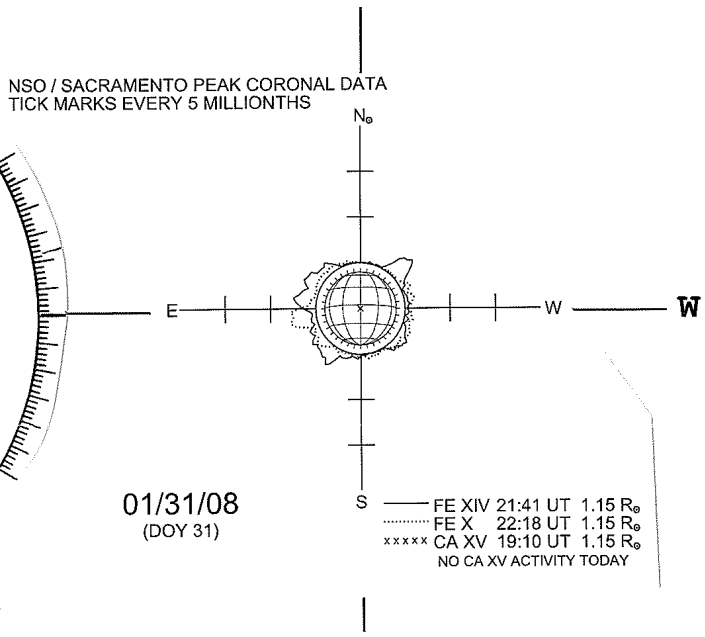
1006 UT

HOLLOMAN SUNSPOTS



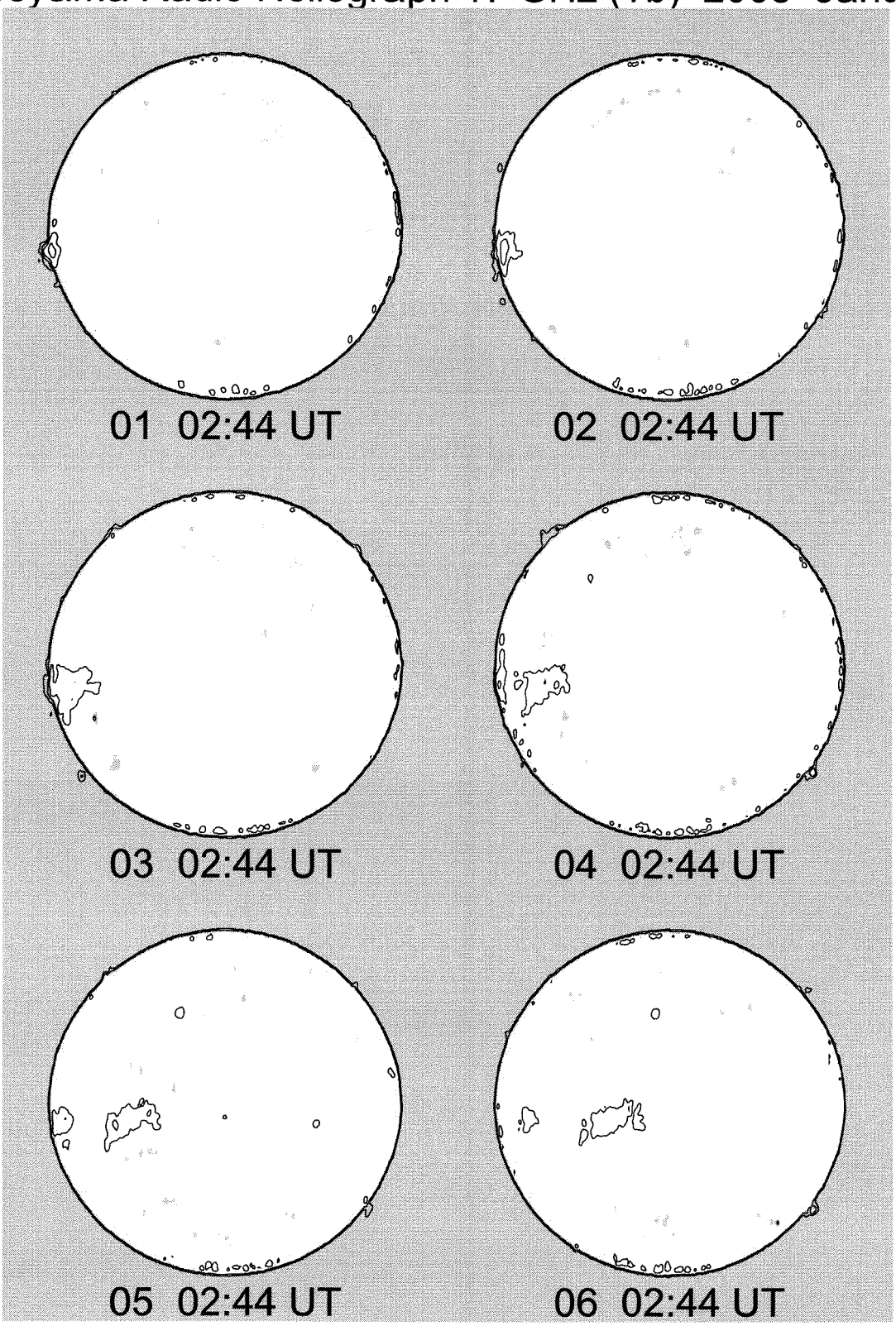
1640 UT

SACRAMENTO PEAK CORONA (1.15 Radii)-----



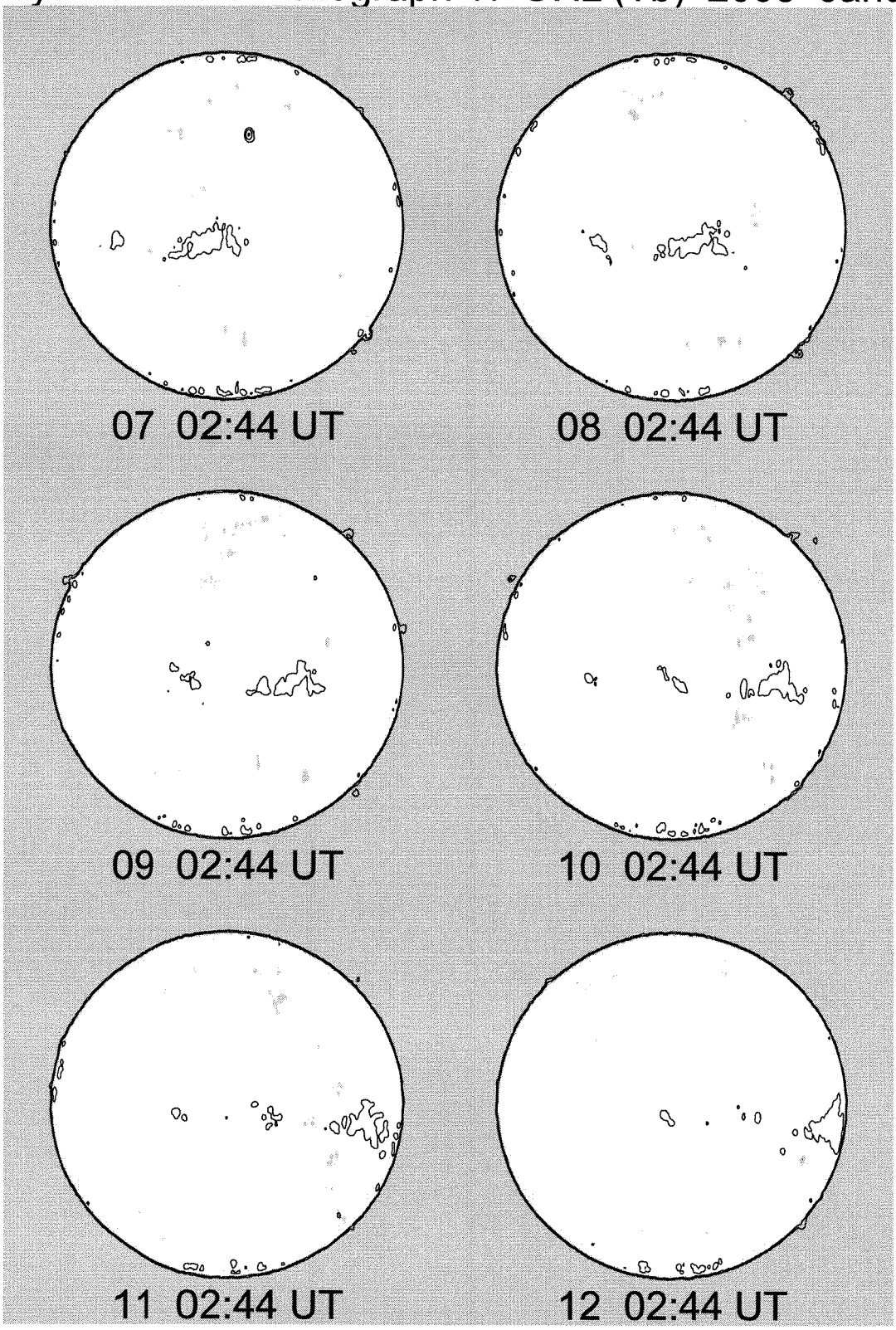
01/31/08
(DOY 31)

Nobeyama Radio Heliograph 17 GHz (Tb) 2008 January



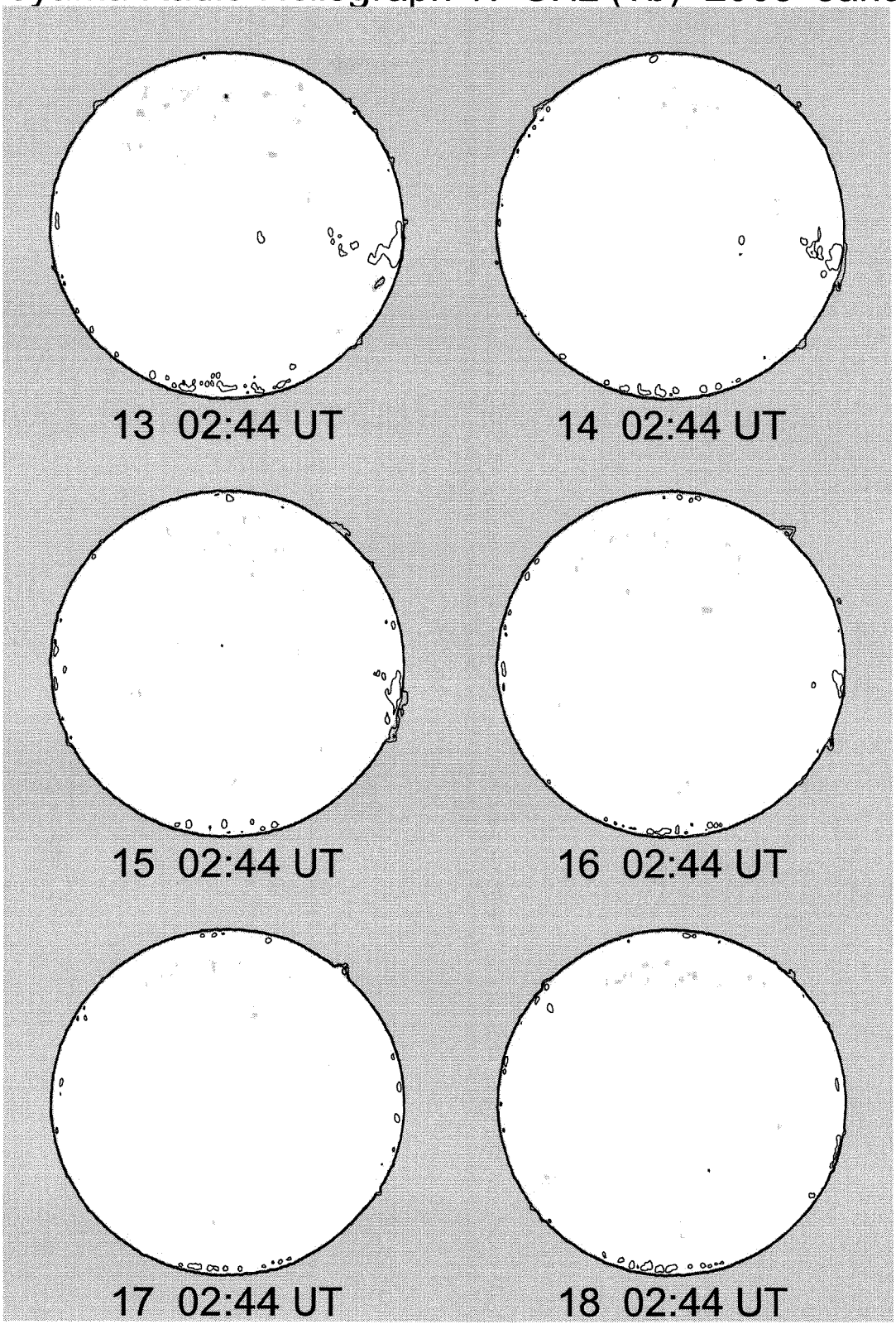
Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2008 January



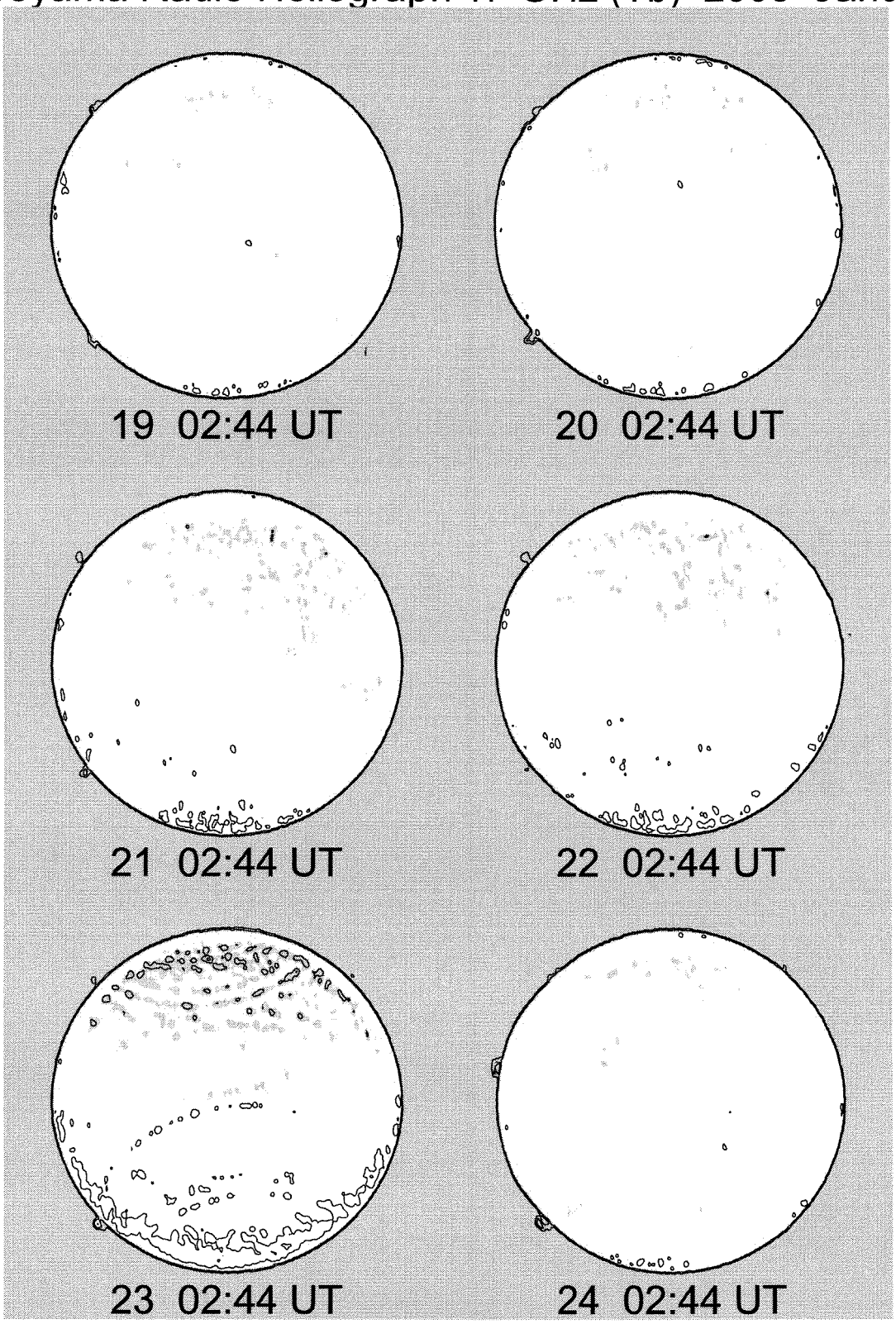
Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2008 January



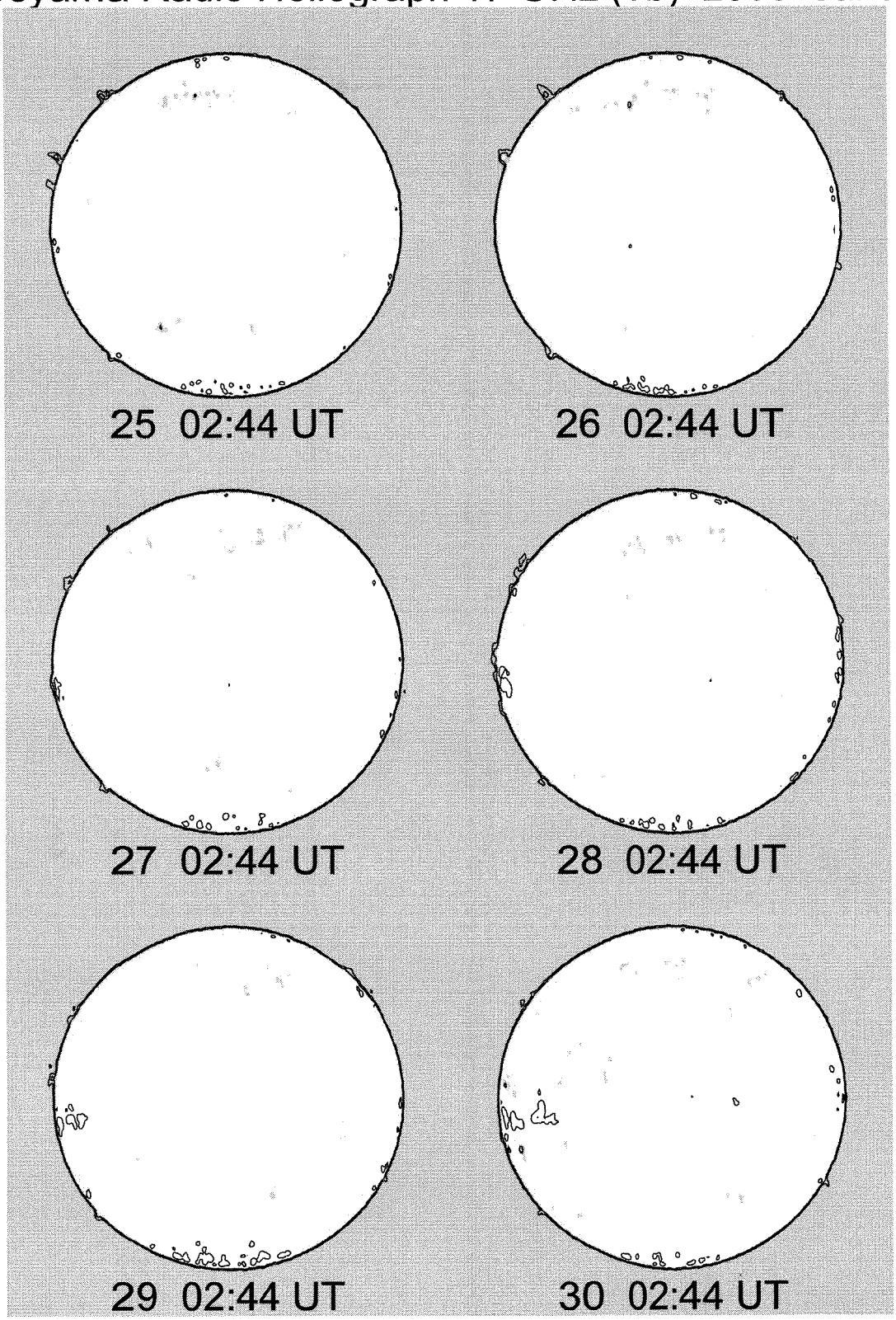
Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2008 January



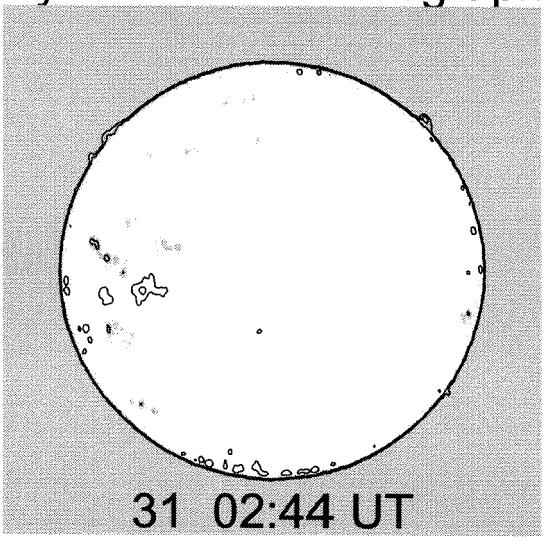
Contour Levels Tb=[5,8,12,20,50,100] x 10^3 K
Grey level Tb <= 9,500 K

Nobeyama Radio Heliograph 17 GHz (Tb) 2008 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) 2008 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 2008

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
0981		LEAR	01	04	0255	N33	E35	01	6.9		B	BXO	20	2	1	2
0981		HOLL	01	04	1900	N28	E23	01	6.6		B	CSO	20	3	4	3
0981		VORO	01	05	0009	N28	E18	01	6.4			BAO	12	3	3	3
0981		PURP	01	05	0048	N29	E20	01	6.6			CSO	8	2	2	4
0981		LEAR	01	05	0100	N29	E20	01	6.6		A	AXX	20	2	1	2
0981		LEAR	01	06	0056	N27	E04	01	6.3		A	AXX	20	2	2	3
0981		PURP	01	06	0230	N29	E10	01	6.9			AXX	2	1	1	3
0981		PURP	01	07	0058	N28	W05	01	6.6			AXX	2	1	1	3
0980		PURP	01	01	0225	S06	E83	01	7.3			HRX	14	1	1	3
0980		LEAR	01	01	0521	S05	E78	01	7.0		A	AXX	30	1	1	2
0980		HOLL	01	01	1704	S08	E72	01	7.1		A	BXO	30	2	2	4
0980		LEAR	01	02	0029	S07	E68	01	7.1		A	AXX	30	1	1	3
0980		PURP	01	02	0046	S06	E71	01	7.3			CSO	44	2	4	3
0980		VORO	01	02	0055	S06	E69	01	7.2			HAX	43	1		3
0980		SVTO	01	02	0815	S10	E68	01	7.4		B	CSO	40	3	7	2
0980		PURP	01	03	0055	S07	E55	01	7.1			HSX	26	2	2	3
0980		LEAR	01	03	0124	S06	E55	01	7.2		A	HAX	20	2	1	2
0980		VORO	01	03	0316	S06	E53	01	7.1			HAX	27	3		3
0980		SVTO	01	03	1000	S06	E49	01	7.1		A	HSX	20	4	2	4
0980		HOLL	01	03	1649	S07	E44	01	7.0		B	CSO	30	4	3	2
0980		VORO	01	04	0042	S06	E40	01	7.0			AXX	5	2	1	3
0980		PURP	01	04	0055	S07	E41	01	7.1			BXI	8	4	4	4
0980		LEAR	01	04	0255	S06	E40	01	7.1		A	AXX	10	3	1	2
0980		PURP	01	05	0048	S11	E32	01	7.4			BXO	5	3	3	4
0980		PURP	01	07	0058	S08	E02	01	7.2			BXO	4	3	3	3
0980		LEAR	01	07	0350	S04	E02	01	7.3		A	AXX	10	4	1	2
0980		HOLL	01	07	1607	S08	W06	01	7.2		B	DSO	30	4	3	2
0980		PURP	01	08	0050	S07	W13	01	7.1			DSO	8	3	3	3
0980		LEAR	01	08	0508	S08	W13	01	7.2		A	AXX	20	6	4	2
0980		KAND	01	08	0805	S12	W22	01	6.7			AAX		1		4
0980		PURP	01	09	0110	S08	W26	01	7.1			BXO	4	3	3	3
0980A		LEAR	01	06	0056	S08	E51	01	9.9		A	AXX	10	3	1	3
0980A		HOLL	01	08	2040	S11	E13	01	9.8		A	AXX	10	1	1	2
0980B		HOLL	01	10	1735	S06	E21	01	12.3		A	AXX	10	1	1	2
0980B		VORO	01	11	0109	S06	E16	01	12.2			HAX	11	1		3
0980B		KAND	01	11	0815	S05	E12	01	12.2			AX		1		3
0980B		HOLL	01	11	1603	S06	E07	01	12.2		A	AXX	10	1	1	3
0980B		VORO	01	12	0139	S06	E02	01	12.2			AXX	1	1		3
0982A		LEAR	02	03	0119	S01	W77	01	28.4		A	AXX	30	1	1	2

Stations reporting:

HOLL = Holloman LEAR = Learmonth PURP = Purple Mountain TACH = Tashkent
KAND = Kandilli PALE = Palehua SVTO = San Vito VORO = Voroshilov

SUDDEN IONOSPHERIC DISTURBANCES
JANUARY 2008

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type SWF	SEA	SPA	LF-SPA	SES	Flare (UT)	X-ray Class	NOAA Region
01	1537	1542	1548	1-	1					1	1530	C 1.1	10980
05	1102	1112	1230	1	1		1				*		
05	1352	1402	1444	1	1		1				*		
17	1447	1457	1528	1	1		1				*		
18	1006	1015	1112	1	1		1				No flare		
24	1036	1042	1100	1	1		1				No flare		

OBSERVATORIES REPORTING FOR NOVEMBER 2007

Seville, Ohio, USA	SES
Upice, Czech Republic	SEA

Observations are not necessarily continuous.
* = No Flare Patrol

SOLAR RADIO EMISSION
Spectral Observations

JANUARY 2008

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
01	0000	0738	HIRA								
	0000	0800	CULG								
	0839	1332	ONDR								
	0905	1445	BLEN								
			PALE	1938.0	0000.0	III		2	26U	180U	
	2000	2400	CULG								
	2143	2400	HIRA								
02	0000	0739	HIRA								
	0000	0800	CULG								
	0838	1333	ONDR								
	0905	1445	BLEN								
	2000	2400	CULG								
	2143	2400	HIRA								
03	0000	0740	HIRA								
	0000	0800	CULG								
	0838	1335	ONDR								
	0905	1445	BLEN								
	2000	2400	CULG								
	2144	2400	HIRA								
04	0000	0741	HIRA								
	0000	0800	CULG								
	0837	1325	ONDR								
	0905	1445	BLEN								
	2000	2400	CULG								
	2144	2400	HIRA								
05	0000	0742	HIRA								
	0000	0800	CULG								
	0837	1338	ONDR								
	0905	1445	BLEN								
	2000	2400	CULG								
	2144	2400	HIRA								
06	0000	0743	HIRA								
	0000	0800	CULG								
	0836	1324	ONDR								
	0900	1450	BLEN								
	2000	2400	CULG								
	2144	2400	HIRA								
07	0000	0744	HIRA								
	0000	0800	CULG								
	0835	1341	ONDR								
	0900	1450	BLEN								
	2000	2400	CULG								
	2144	2400	HIRA								
08	0000	0744	HIRA								
	0000	0800	CULG								
	0835	1339	ONDR								
	0900	1450	BLEN								
	2000	2400	CULG								
	2144	2400	HIRA								
09	0000	0745	HIRA								
	0000	0800	CULG								
	0834	1344	ONDR								
	0900	1450	BLEN								
	2000	2400	CULG								
	2144	2400	HIRA								
10	0000	0746	HIRA								
	0000	0800	CULG								
	0833	1346	ONDR								
	0855	1450	BLEN								
	2000	2400	CULG								

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

JANUARY 2008

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
10	2143	2400	HIRA								
11	0000	0746	HIRA								
	0000	0800	CULG								
	0832	1336	ONDR								
	0855	1455	BLEN								
	2000	2400	CULG								
	2143	2400	HIRA								
12	0000	0747	HIRA								
	0000	0800	CULG								
	0830	1510	BLEN								
	0831	1350	ONDR								
	0855	1455	BLEN								
	2000	2400	CULG								
	2143	2400	HIRA								
13	0000	0748	HIRA								
	0000	0800	CULG								
	0830	1352	ONDR								
	0850	1455	BLEN								
	0855	1455	BLEN								
	2000	2400	CULG								
	2142	2400	HIRA								
14	0000	0749	HIRA								
			SVTO	0740.0	0740.0	V		2	25	43	
	0000	0800	CULG	0740.0	0740.0	III	B	1	23	40	
	0829	1354	ONDR								
	0850	1455	BLEN								
	2000	2400	CULG								
	2142	2400	HIRA								
15	0000	0750	HIRA								
	0000	0800	CULG								
	0827	1347	ONDR								
	0850	1450	BLEN								
	2000	2400	CULG								
	2142	2400	HIRA								
16	0000	0751	HIRA								
	0000	0800	CULG								
	0826	1358	ONDR								
	0850	1500	BLEN								
	2000	2400	CULG								
	2142	2400	HIRA								
17	0000	0752	HIRA								
	0000	0800	CULG								
	0825	1400	ONDR								
	0845	1500	BLEN								
	2000	2400	CULG								
	2141	2400	HIRA								
18	0000	0753	HIRA								
	0000	0800	CULG								
	0823	1402	ONDR								
	0840	1505	BLEN								
	2141	2400	HIRA								
19	0000	0755	HIRA								
	0822	1404	ONDR								
	0830	1510	BLEN								
	2141	2400	HIRA								
20	0000	0756	HIRA								
	0000	0800	CULG								
	0820	1406	ONDR								
	0830	1515	BLEN								

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

JANUARY 2008

OBSERVATION			EVENT				FREQUENCY		
Day	Start (UT)	End (UT)	Sta	Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	Lower (MHz)	Upper (MHz)	Remarks
20	2000	2400	CULG								
	2140	2400	HIRA								
21	0000	0757	HIRA								
	0000	0800	CULG								
	0819	1355	ONDR								
	0825	1515	BLEN								
	0830	1515	BLEN								
	2000	2400	CULG								
	2140	2400	HIRA								
22	0000	0758	HIRA								
	0000	0800	CULG								
	0817	1410	ONDR								
	0825	1515	BLEN								
	2000	2400	CULG								
	2139	2400	HIRA								
23	0000	0759	HIRA								
	0000	0800	CULG								
	0816	1412	ONDR								
	0825	1520	BLEN								
	2000	2400	CULG								
	2138	2400	HIRA								
24	0000	0800	CULG								
	0000	0800	HIRA								
	0814	1414	ONDR								
	0825	1520	BLEN								
	2000	2400	CULG								
	2137	2400	HIRA								
25	0000	0400	HIRA								
	0000	0800	CULG								
	0655	0801	HIRA								
	0812	1417	ONDR								
	0825	1520	BLEN								
	2000	2400	CULG								
	2137	2400	HIRA								
26	0000	0800	CULG								
	0000	0802	HIRA								
	0811	1419	ONDR								
	0825	1520	BLEN								
	2000	2400	CULG								
	2136	2400	HIRA								
27	0000	0800	CULG								
	0000	0803	HIRA								
	0809	1421	ONDR								
	0825	1525	BLEN								
	2000	2400	CULG								
	2135	2400	HIRA								
28	0000	0800	CULG								
	0000	0804	HIRA								
	0807	1423	ONDR								
	0825	1525	BLEN								
	2000	2400	CULG								
	2134	2400	HIRA								
29	0000	0800	CULG								
	0000	0804	HIRA								
	0805	1416	ONDR								
	0900	1525	BLEN								
	2000	2400	CULG								
	2134	2400	HIRA								
30	0000	0800	CULG								

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

JANUARY 2008

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
30	0000	0805	HIRA								
	0803	1428	ONDR								
	0825	1530	BLEN								
	2000	2400	CULG								
	2133	2400	HIRA								
31	0000	0800	CULG								
	0000	0806	HIRA								
	0802	1430	ONDR								
	0825	1530	BLEN								
	2000	2400	CULG								
	2133	2400	HIRA								

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).
NOTE 2: Potsdam has reduced sensitivity in the 400-800 MHz range.

SOLAR RADIO NOISE STORM AT 150.9 MHZ

FROM NANÇAY RADIOHELIOGRAPH

JANUARY 2008

	HELIOGRAPHICS POSITIONS MEAN VALUES[1]		IMP[2]	OBSERVING TIME[3]	
DAY	E-W	S-N		START(UT)	END(UT)

SOLAR RADIO NOISE STORM AT 327 MHZ

FROM NANÇAY RADIOHELIOGRAPH

JANUARY 2008

	HELIOGRAPHICS POSITIONS MEAN VALUES[1]		IMP[2]	OBSERVING TIME[3]	
DAY	E-W	S-N		START(UT)	END(UT)

OTHERS DAYS: NO DETECTABLE NOISE STORM

• For the days marked by an asterisk, intense ionospheric gravity waves are observed during the whole day. Without a mode detailed analysis leading to increase 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

---

[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

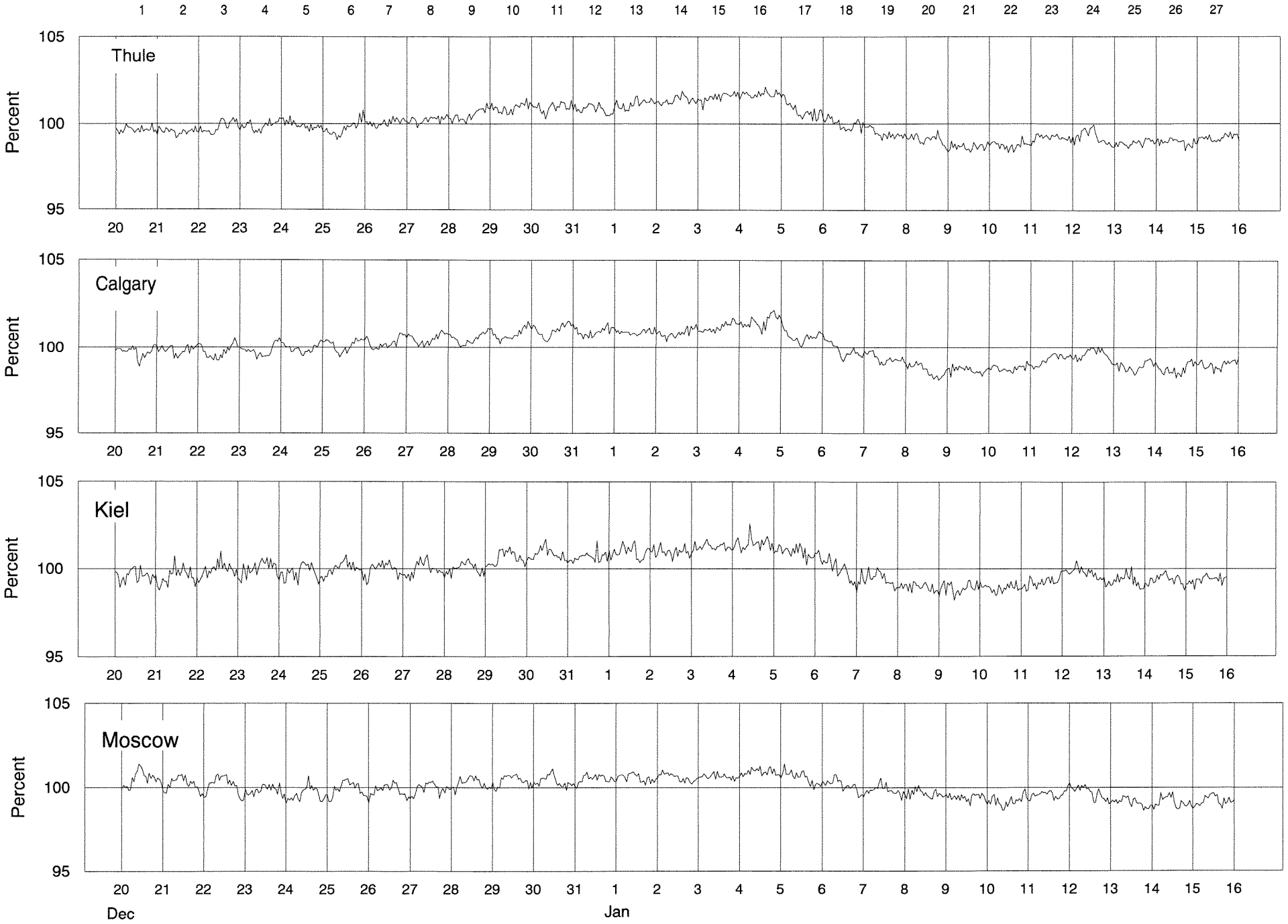
COSMIC RAY INDICES
(Neutron Monitor)
January 2008

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	4618.8	4045.8	6400.5	9492.8		2102.3	
2	4628.3	4043.7	6402.1	9495.1		2097.4	
3	4636.4	4057.5	6420.4	9498.9		2094.5	
4	4643.5	4070.5	6432.2	9525.6		2096.4	
5	4604.0	4035.2	6402.0	9493.9		2097.2	
6	4567.9	4002.5	6347.8	9450.8		2086.7	
7	4542.7	3981.8	6302.6	9423.1	data	2081.9	data
8	4526.7	3952.5	6273.3	9403.7	not	2077.7	not
9	4506.0	3953.3	6268.1	9384.8	available	2080.4	available
10	4510.3	3957.3	6269.4	9363.0		2081.6	
11	4530.2	3978.0	6288.5	9399.1		2076.2	
12	4532.9	3990.7	6326.4	9411.2		2090.6	
13	4516.9	3962.0	6294.9	9355.1		2089.0	
14	4518.9	3955.7	6299.5	9356.6		2086.1	
15	4530.8	3965.2	6298.9	9363.4		2090.8	
16	4530.8	3973.2	6313.4	9382.0		2093.3	
17	4531.2	3967.8	6304.3	9386.6		2094.6	
18	4540.0	3970.8	6290.7	9407.5		2091.8	
19	4550.0	3979.2	6282.7	9428.6		2089.8	
20	4546.6	3977.0	6282.0	9456.4		2081.8	
21	4545.3	3982.3	6305.2	9487.1		2083.7	
22	4554.2	3989.7	6323.4	9526.5		2087.8	
23	4562.7	3998.7	6299.4	9487.0		2092.8	
24	4562.7	4007.0	6296.8	9472.9		2086.7	
25	4574.7	4011.5	6308.0	9519.3		2087.2	
26	4596.7	4014.5	6319.1	9571.7		2088.5	
27	4597.3	4027.5	6340.4	9636.6		2091.0	
28	4617.1	4052.3	6330.5	9598.5		2097.5	
29	4619.5	4053.2	6346.7	9563.2		2109.6	
30	4608.9	4057.2	6377.5	9569.1		2107.1	
31	4600.5	4045.8	6399.7	9561.2		2100.4	
Mean	4566.0	4001.9	6327.3	9466.8		2090.7	

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

COSMIC RAY INDICES
(Neutron Monitor)

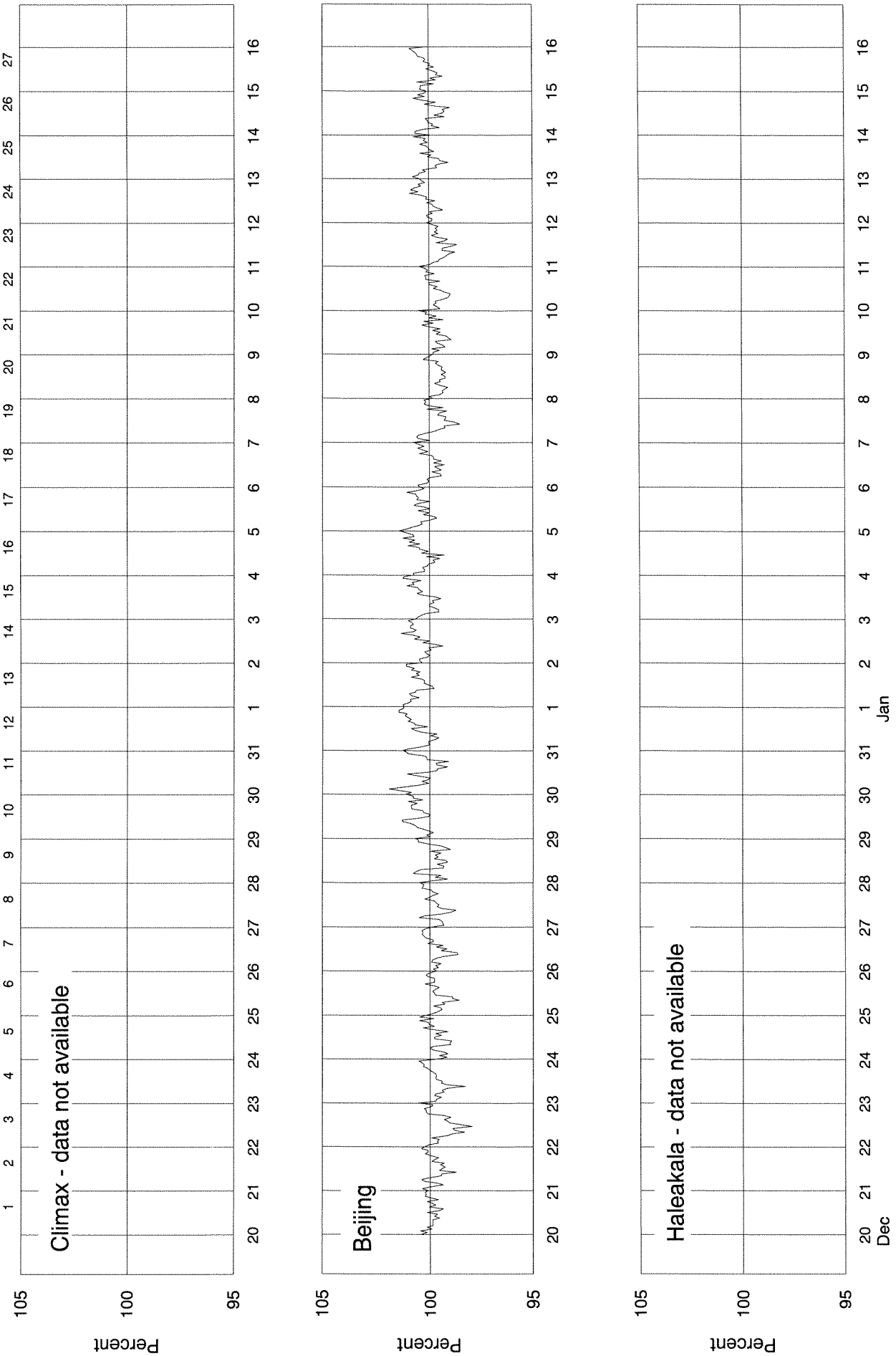
Bartels Rotation 2380 - Beginning 20 Dec 2007



85
Jan 08

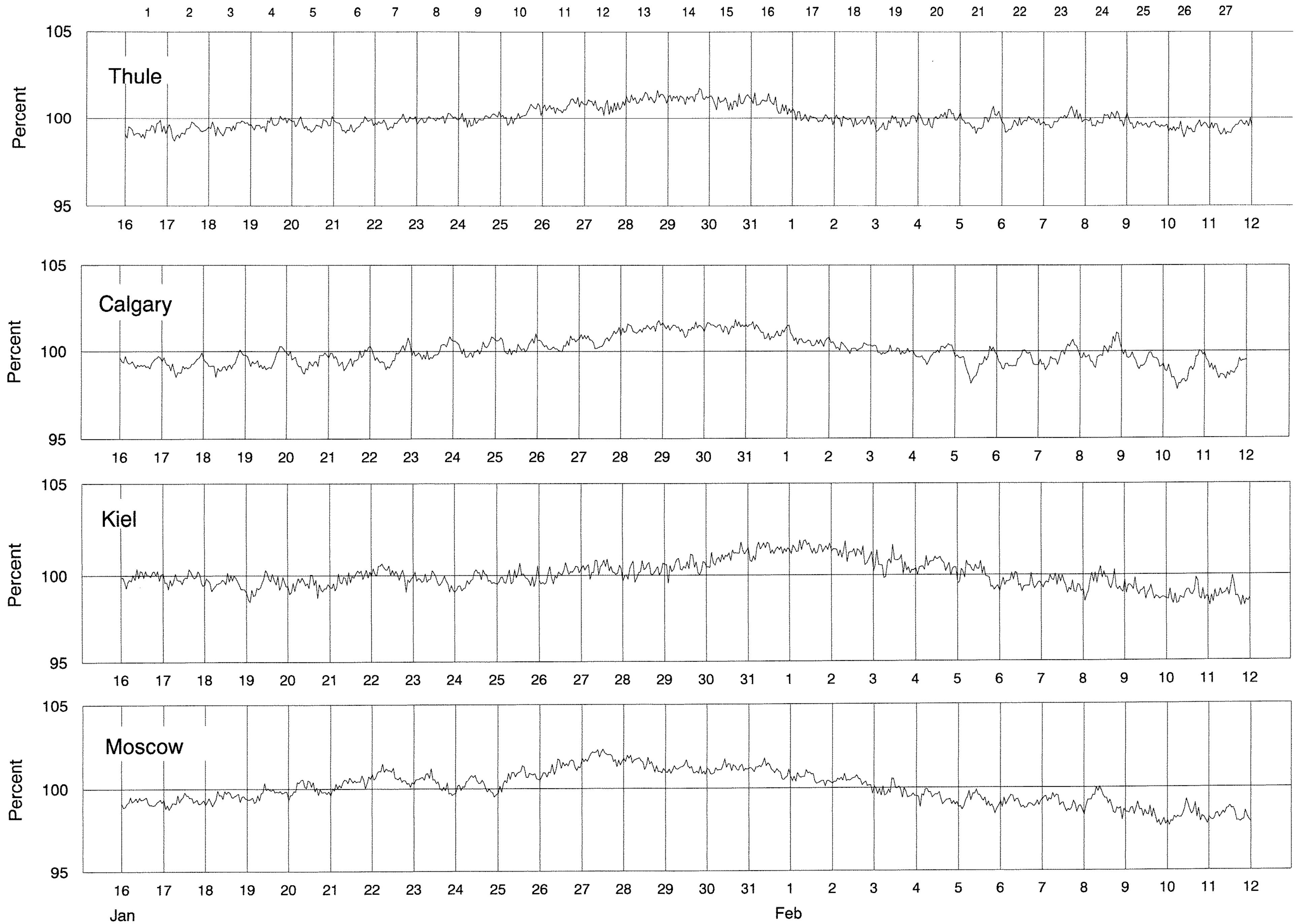
COSMIC RAY INDICES
(Neutron Monitor)

Bartels Rotation 2380 - Beginning 20 Dec 2007

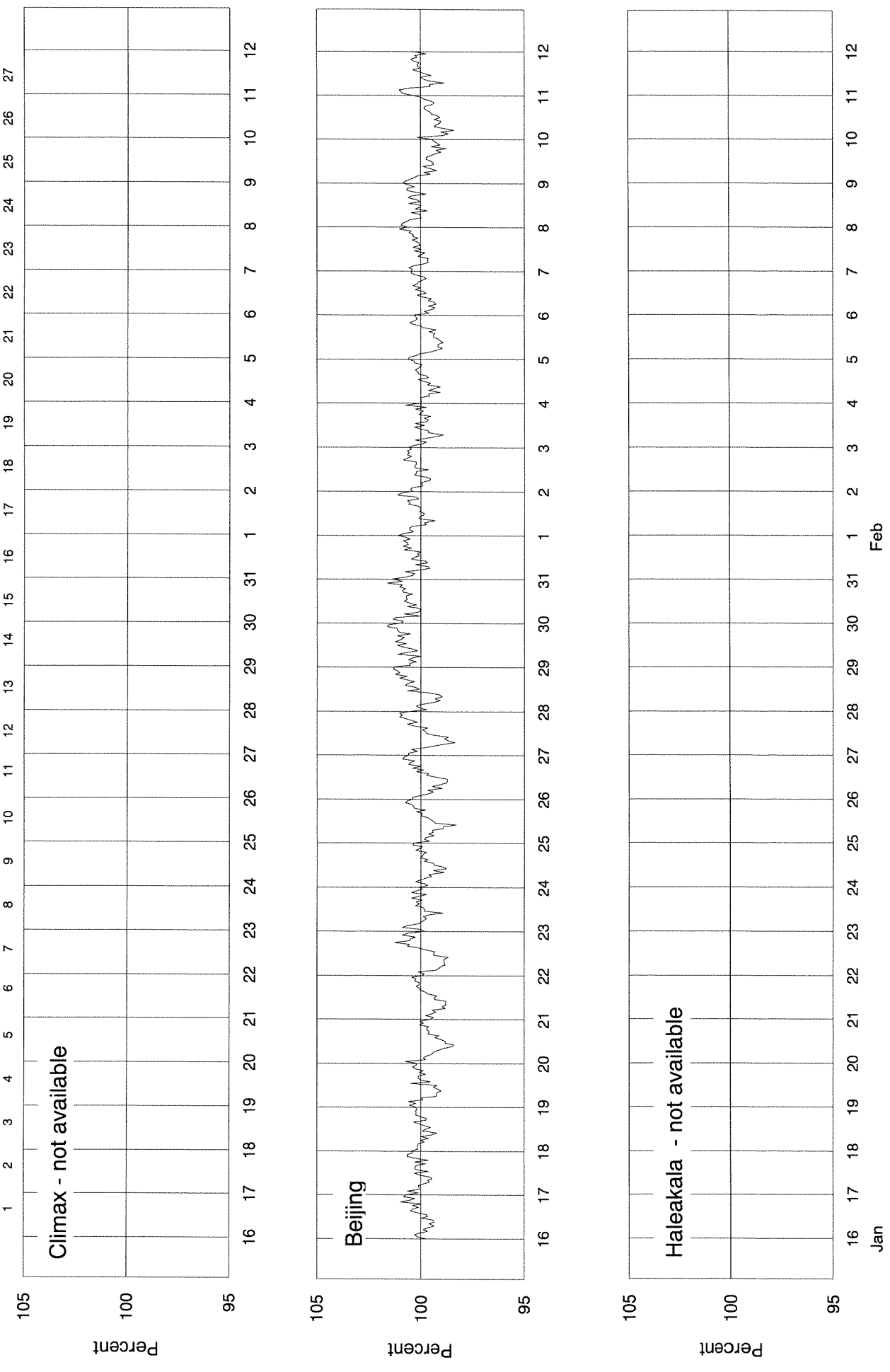


COSMIC RAY INDICES
(Neutron Monitor)

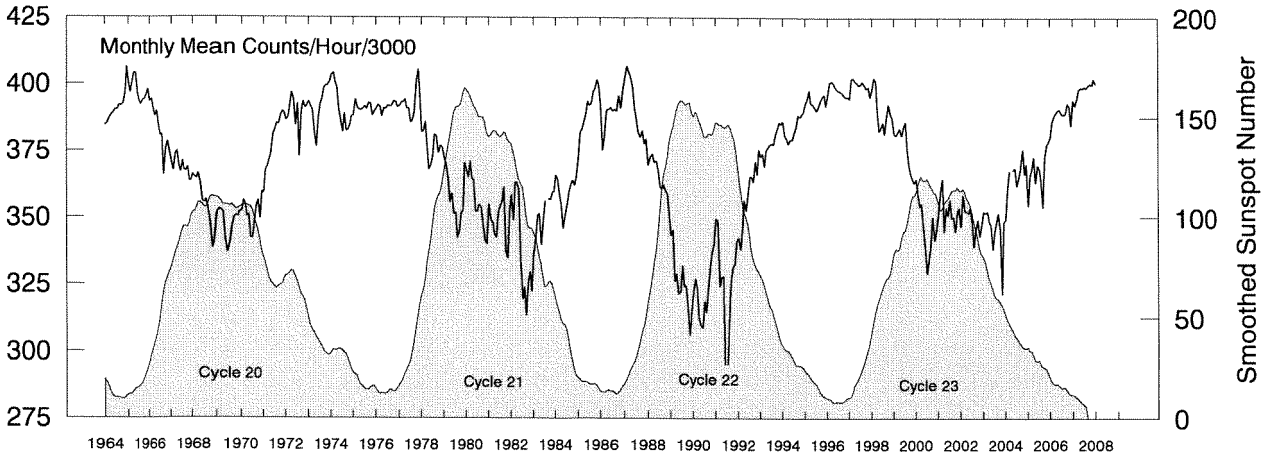
Bartels Rotation 2381 - Beginning 16 Jan 2008



COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2381 - Beginning 16 Jan 2008



Calgary Neutron Monitor Pressure-Corrected Values
Jan 1964 - Jan 2008



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1964	3847	3852	3872	3883	3892	3905	3905	3921	3920	3926	3966	4064	3913
1965	4006	3968	4007	4040	4040	3967	3935	3923	3938	3942	3960	3980	3976
1966	3935	3943	3906	3881	3899	3844	3807	3814	3663	3758	3785	3750	3832
1967	3710	3678	3741	3750	3697	3671	3713	3679	3675	3691	3638	3639	3690
1968	3663	3653	3647	3665	3632	3561	3556	3567	3529	3482	3386	3420	3563
1969	3515	3531	3529	3520	3417	3370	3408	3464	3500	3507	3506	3524	3483
1970	3523	3565	3548	3505	3512	3424	3426	3477	3543	3564	3497	3596	3515
1971	3593	3678	3693	3712	3737	3813	3832	3853	3851	3883	3899	3893	3786
1972	3865	3875	3924	3969	3942	3847	3926	3731	3895	3935	3912	3920	3895
1973	3935	3919	3903	3819	3768	3875	3926	3944	3986	3995	3997	4008	3923
1974	4036	4043	4005	3988	3906	3861	3822	3890	3827	3831	3850	3881	3912
1975	3883	3943	3914	3905	3904	3910	3918	3907	3929	3927	3884	3897	3910
1976	3908	3923	3915	3881	387	3909	3921	3918	3920	3936	3935	3916	3916
1977	3919	3933	3933	3943	3911	3911	3857	3865	3895	4010	4055	3961	3933
1978	3823	3826	3860	3773	3681	3697	3730	3811	3808	3744	3772	3764	3774
1979	3726	3696	3647	3559	3592	3516	3521	3427	3447	3519	3528	3705	3573
1980	3681	3652	3711	3649	3643	3527	3525	3550	3540	3471	3414	3403	3564
1981	3550	3491	3483	3440	3426	3522	3546	3560	3615	3374	3348	3520	3490
1982	3586	3492	3634	3632	3608	3344	3196	3239	3137	3257	3296	3225	3387
1983	3364	3421	3510	3515	3399	3487	3563	No Data	3571	3569	3597	3599	3509
1984	3661	3646	3586	3551	3460	3515	3551	3593	3623	3641	3623	3652	3592
1985	3723	3821	3834	3858	3888	3936	3921	3929	3971	3987	4017	3997	3907
1986	3923	3755	3814	3905	3906	3915	3902	3907	3902	3958	3912	3974	3898
1987	4025	4068	4047	4028	3993	3914	3866	3822	3802	3827	3779	3796	3914
1988	3698	3729	3739	3709	3714	3682	3621	3608	3624	3603	3590	3520	3653
1989	3436	3454	3263	3290	3216	3222	3321	3224	3246	3164	3063	3152	3254
1990	3227	3272	3232	3129	3099	3089	3188	3147	3237	3317	3375	3401	3226
1991	3496	3489	3244	3279	3280	2873	2896	3078	3253	3311	3330	3412	3245
1992	3425	3382	3463	3566	3528	3593	3655	3655	3636	3711	3665	3758	3586
1993	3730	3741	3693	3753	3765	3775	3780	3775	3815	3836	3859	3852	3781
1994	3864	3807	3798	3779	3793	3793	3822	3841	3885	3878	3891	3896	3837
1995	3929	3945	3919	3929	3927	3917	3902	3919	3940	3956	3963	3920	3931
1996	3960	4008	4012	4010	3993	3983	3976	3976	3970	3960	3953	3955	3980
1997	3947	4023	4024	4014	4007	3998	4001	4010	3999	3985	3990	3955	3996
1998	3982	4025	4013	3910	3827	3839	3857	3817	3876	3925	3890	3875	3903
1999	3816	3811	3823	3836	3810	3843	3861	3760	3699	3664	3644	3631	3767
2000	3646	3586	3544	3554	3465	3386	3293	3337	3395	3503	3417	3447	3464
2001	3510	3599	3646	3449	3537	3511	3570	3501	3504	3449	3521	3537	3528
2002	3469	3585	3527	3526	3517	3541	3479	3393	3455	3493	3431	3474	3491
2003	3523	3517	3524	3488	3473	3384	3450	3480	3517	3460	3216	3485	3460
2004	3492	3604	3676	---	3680	3689	3612	3645	3683	3756	3665	3702	3655
2005	3546	3658	3688	3729	3633	3698	3684	3640	3541	3729	3775	3785	3676
2006	3804	3862	3883	3894	3905	3906	3890	3888	3893	3929	3918	3849	3885
2007	3940	3921	3947	3981	3988	3986	3992	3986	3997	4002	3999	4021	3980
2008	4002												4002

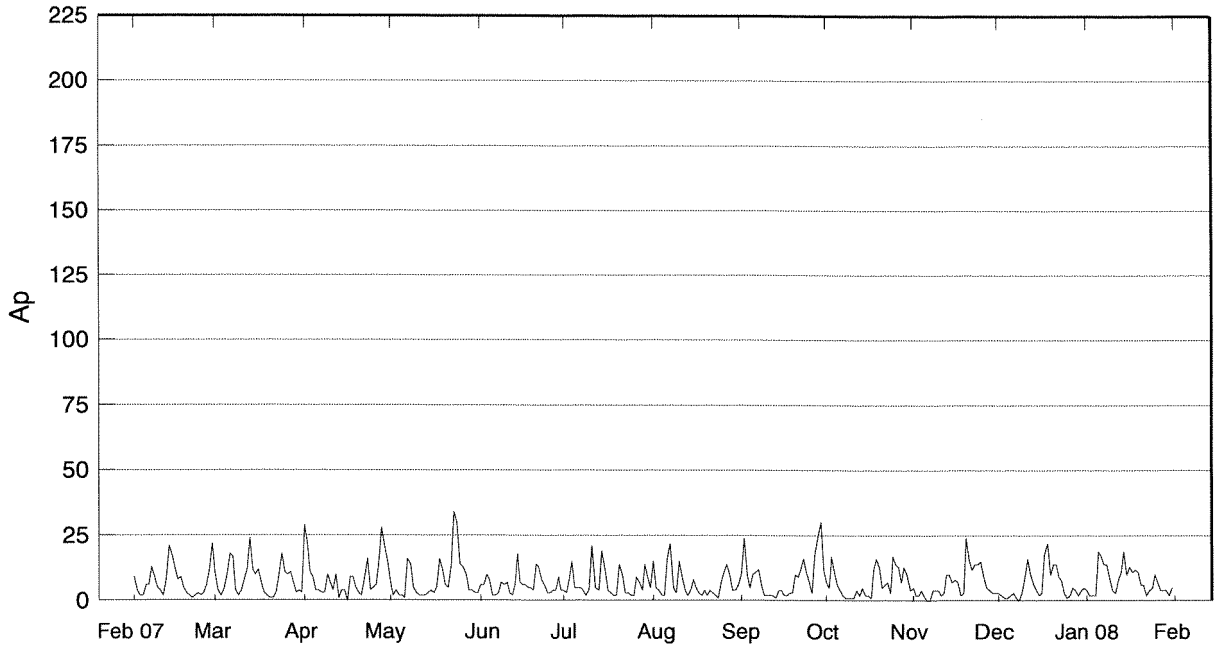
Multiply table entries by 300 to obtain hourly counting rate. Calgary, Canada: N51 W114, Alt=1128m, Cutoff Rigidity=1.09GV.

Geomagnetic Activity Indices
JANUARY 2008

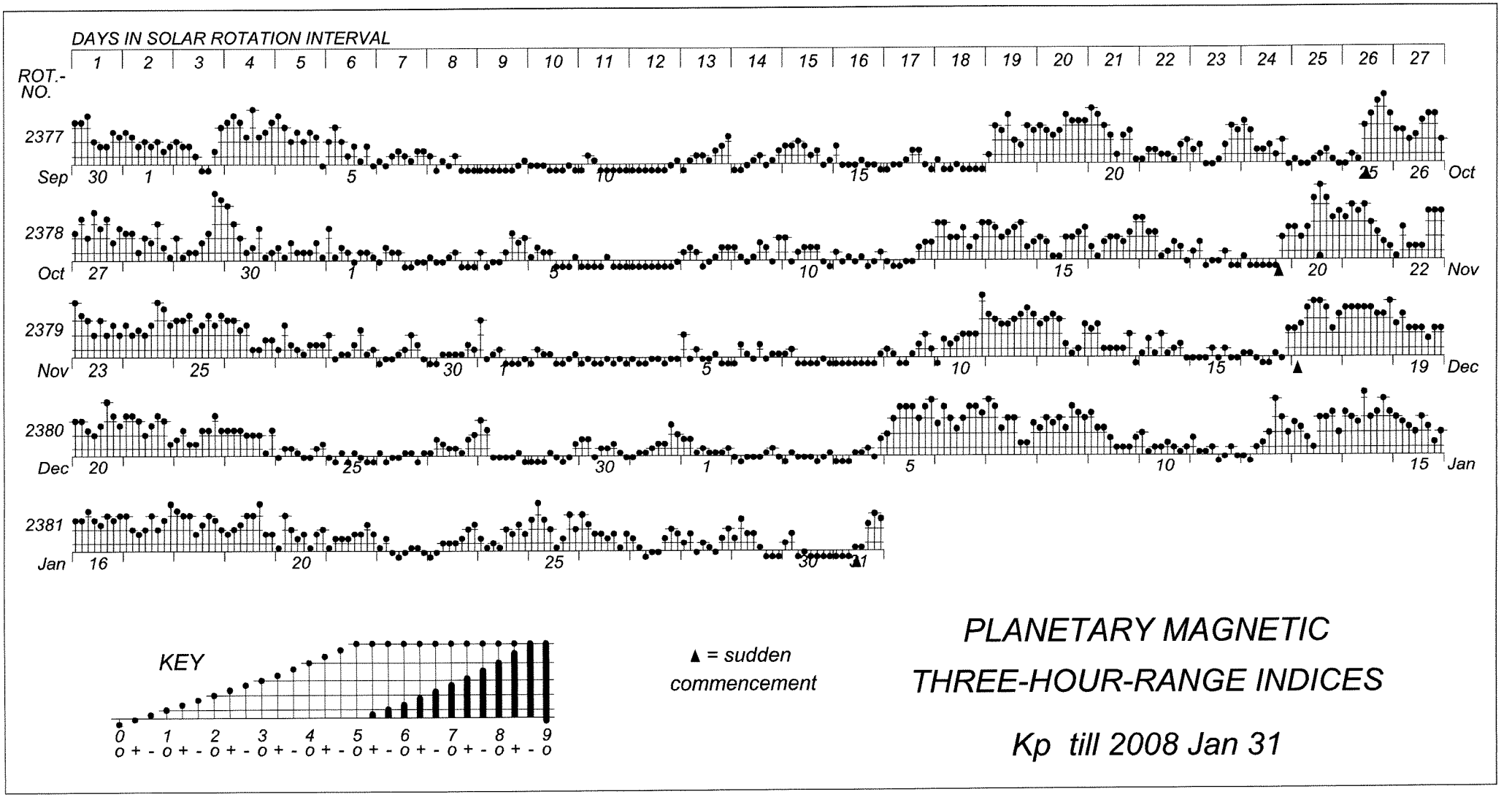
Day		Kp Three-Hourly Indices 1	2	3	4	5	6	7	8	Sum	Ap	Cp	Km Three-Hourly Indices 1	2	3	4	5	6	7	8	aa Provisional Am	N	S	M	
1	Q7	2-	2-	1-	1	1-	1-	1-	1	8	4	0.1	1o	1+	0o	1+	1o	1-	0+	1o	5	6	7	7	7 CC
2	Q2	0+	0	0+	0+	0+	1-	1	0+	3+	2	0.0	0+	0+	1-	1-	1-	1o	1+	1-	5	5	7	5	7 CC
3	Q1	0	1-	0+	0+	0+	0	0+	1-	3-	2	0.0	1-	0+	0+	1-	0+	0+	0+	1-	3	4	6	6	4 CC
4	Q5	0	0	0	1-	1-	1	0+	2-	4+	2	0.0	0+	0o	0o	0+	1-	1o	1-	2o	5	6	7	3	10 C
5	D2*	2	3	4-	4-	4-	3	4-	4	27-	19	1.0	2+	3-	4-	4-	4-	3o	4-	3+	37	46	48	40	54
6	D3*	3-	4-	3	2+	3	4-	4-	3+	25+	17	0.9	3-	3o	3-	2+	3+	4-	3+	3o	30	32	30	22	40
7	D5*	4	4-	2+	3	3	1+	1+	3-	21+	14	0.8	3+	3o	2+	3-	3o	1o	2-	3-	23	27	22	31	18
8	D4*	2+	3	3-	3	2+	4-	3+	3	23+	14	0.8	1+	2+	2+	3o	2+	3o	3o	3-	22	25	25	21	29
9		3+	2+	2+	2-	1	1	1	2-	14+	8	0.4	3-	2-	2+	2-	2-	1o	1+	1+	13	14	12	16	10 C
10	Q9	2	1-	1	1	1+	1	1-	1	9-	4	0.1	1+	1o	1o	2-	2-	1+	1+	1+	9	8	11	10	9 CC
11	Q6	2-	1-	1-	1	0	0+	1	0+	6-	3	0.1	2-	0+	1-	1+	0+	0+	1+	1-	6	9	7	10	6 CC
12		0+	0	1	1+	2	4	3	2	14-	8	0.5	0+	1-	1+	1+	2+	4-	3-	2o	15	19	18	8	29 K
13		3-	2+	2-	1	3	3	3+	2	19	11	0.6	2+	2-	1+	1+	3o	3o	4-	2-	21	22	18	11	29
14	D1*	3+	3	3-	4+	3	3+	4	3+	27	19	1.0	3-	2+	2+	4o	3-	3+	4-	3o	31	34	37	33	39
15		3	3-	2+	2	3	2+	1+	2	19-	10	0.6	3-	2o	2+	2+	3o	2+	2-	2-	18	20	22	20	22
16		3-	3-	3+	3-	2+	3	3-	3	22+	13	0.8	2+	2+	3-	3+	3-	3-	2+	3-	22	24	23	22	25
17		3	2	2-	2	3	2	3-	4-	20	11	0.7	3-	1+	2-	2+	3o	2o	2+	3o	21	25	24	22	27
18		3+	3	3	2-	2+	3	3-	2	21	12	0.7	3-	2+	2+	2o	3-	3-	3-	2o	20	24	22	16	30
19		2-	2	2+	3	3	4-	2-	2-	19	11	0.6	1+	1+	2+	3-	3o	3+	2o	2-	20	23	25	17	31
20		1-	3	2	1+	2-	1-	2-	2	13	6	0.3	1-	2+	2-	2-	2o	1o	2-	2o	12	15	12	14	13
21		1-	1+	1+	1+	2-	2-	2+	2-	12	6	0.3	1-	1o	1+	1+	2-	2-	2o	2-	10	12	8	7	13 CC
22	Q3	1-	1+	0+	0	0+	1-	1-	0+	4+	2	0.0	1-	1o	0o	0+	0+	1-	1o	1-	4	4	8	4	7 CC
23		0	0+	1	1	1	1+	2	2+	9	4	0.2	0+	0+	1+	1+	1+	2-	2o	2-	9	12	13	9	17 CC
24		1+	1-	1	1-	2	2-	2+	2-	11+	5	0.2	1o	1o	1+	1o	2o	2-	2o	1+	10	15	10	7	18 C
25		3-	4-	3-	2	1-	1+	3	2	18	10	0.6	2o	3o	3-	2+	1+	1o	3-	2-	18	24	17	24	17
26		3	2+	2-	2-	1+	2-	1-	2-	14	7	0.4	3-	2-	1+	2o	2-	2-	1+	2-	13	14	14	14	14 K
27	Q8	1+	1-	0	0+	0+	1+	2	2-	8-	4	0.1	1-	1-	0+	0+	0+	1+	2+	2-	7	10	8	6	12 CC
28	Q10	1	2-	0+	1	1-	0+	1+	2	8+	4	0.1	1-	1+	0+	1+	1o	0+	1+	2o	7	10	9	9	11 CC
29		1+	3-	2-	2-	1-	0	0	0	8	4	0.1	1o	2+	1+	2-	1o	0+	0o	0+	7	7	8	9	5 CC
30	Q4	1	2-	0	0+	0	0	0	0	3	2	0.0	1o	1o	0o	0+	0+	0o	0o	0o	3	4	4	5	2 CC
31		0	0	0	1-	1-	2+	3	3-	9+	5	0.2	0+	0o	0o	1o	1+	3-	3o	3-	12	13	16	5	23
Mean											8	0.39									14.1	16.7	16.2		16.3

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	1-	1o	0o	1+	1-	1-	0o	0+	4	1o	1+	0o	1o	1o	1o	1-	1+	7	76.7	7	5	21	
2	0o	0o	0o	1-	1-	1o	1o	0+	3	1-	1-	1o	1o	1-	1o	1+	1+	7	77.0	7	8	21	
3	0o	0+	0+	0+	0+	0+	0+	0+	2	1o	0+	0+	1-	0+	0+	0+	1o	4	76.7	7	7	21	
4	0o	0o	0o	1-	1o	1o	1-	2-	4	1-	0+	0+	0+	1-	1o	1o	3-	6	76.4	12	7	21	
5	2-	2-	3+	4o	4-	3o	4-	3+	35	3o	3o	4o	4-	3+	3-	4o	3+	39	77.1	10	5	21	
6	2+	3o	3-	3-	4-	4-	3+	3o	30	3-	3o	3o	2+	3o	3+	3+	3o	30	76.6	11	2	21	
7	3+	3o	2+	3o	3o	1+	1+	2+	23	4-	3-	2+	3-	3-	1o	2+	3-	23	75.2	11	2	19	
8	1+	2+	3-	3o	2+	3+	3o	3-	24	2-	2+	2+	3-	2o	3o	3-	3-	21	73.0	9	3	17	
9	3-	2-	3-	2-	2o	1+	1+	1+	14	3-	1+	2+	2-	1+	1o	1+	1o	12	74.0	0	1	18	
10	1+	1-	1-	2-	2-	1+	1o	1o	8	2-	1+	1+	2-	2-	1o	1+	1+	10	73.2	8	4	17	
11	1+	1-	1-	1+	0o	0+	1o	0+	5	2-	0+	1o	1+	0+	1-	2-	1o	7	73.5	8	5	17	
12	0o	0o	1-	1+	2+	4-	3-	2+	16	1-	1o	2o	1+	2+	3+	3-	2-	16	73.2	0	1	17	
13	2+	1+	1+	1+	3+	3+	4-	2-	22	3-	2-	1+	1+	3o	3-	3+	2o	19	72.9	0	0	17	
14	3-	2+	2+	4+	3-	3+	4-	2+	31	3-	2+	2+	4-	3-	3+	4-	3+	31	73.1	0	0	17	
15	2+	2o	2+	3-	3+	3-	1+	2-	19	3-	2o	2o	2o	3-	2+	2o	2o	17	71.3	0	0	15	
16	2o	2+	3-	3+	3-	3-	2+	3-	24	2+	2o	2o	3o	3-	3-	2+	3-	21	70.6	0	0	14	
17	3-	1+	1+	3-	3o	2o	2+	3o	21	3-	2-	2o	2o	3o	2o	3-	3+	21	71.3	0	0	15	
18	3-	2+	3-	2-	3-	3-	3-	1+	20	3-	2-	2o	2+	2+	3-	3-	2+	19	68.8	0	0	12	
19	1o	1+	2+	3o	3o	3+	2o	2-	20	2-	1+	2o	2+	3o	3+	2o	2o	19	68.6	0	0	12	
20	0+	2+	2-	2-	2o	1-	2o	2o	12	1o	2+	2o	2-	2-	1o	2-	2o	12	68.0	0	0	11	
21	0+	1o	1+	1+	2o	2-	2o	2-	10	1+	1o	1+	1+	1+	1+	2o	2o	10	69.3	0	0	13	
22	0+	1+	0o	0o	0+	1-	0+	0+	3	1-	1o	0o	0+	1-	1o	1+	1o	5	68.1	0	0	12	
23	0o	0o	1+	1o	1o	2-	2-	2-	7	1o	1-	2-	2-	1+	2-	2o	2o	10	68.4	0	0	12	
24	1o	1-	1+	1o	2o	2o	2+	1+	10	1+	1+	1o	1o	2o	2-	2o	1+	10	69.1	0	0	13	
25	2+	3o	3o	3-	1o	1+	3o	2-	20	2o	3-	3-	2-	1+	1o	3-	2o	16	68.9	0	0	12	
26	3-	2o	1+	2o	2o	2o	1o	1+	13	3-	1+	1+	2o	2-	1+	1+	2-	12	70.3	0	0	14	
27	1-	0+	0o	0o	0+	1+	2+	2-	6	1o	1o	0+	0+	0+	1o	2o	2-	7	69.8	0	0	13	
28	0+	1+	0o	1+	1o	0+	1+	2o	7	1-	2-	0+	1+	1+	0+	2-	2o	8	69.2	0	0	13	
29	1o	2o	1+	2o	1o	0+	0o	0o	7	1+	2+	1o	2-	1+	0o	0o	1-	8	69.5	0	1	13	
30	1-	1o	0o	0o	0+	0o	0o	0o	2	1+	1o	0+	0+	1-	0o	0o	0o	3	70.6	8	10	14	
31	0o	0o	0o	1-	1o	3-	3o	2+	11	0+	0+	0o	1+	1+	3-	3o	3-	13	69.9	8	11	13	
Mean									14.0									14.3	71.9	3.4	2.3	15.7	

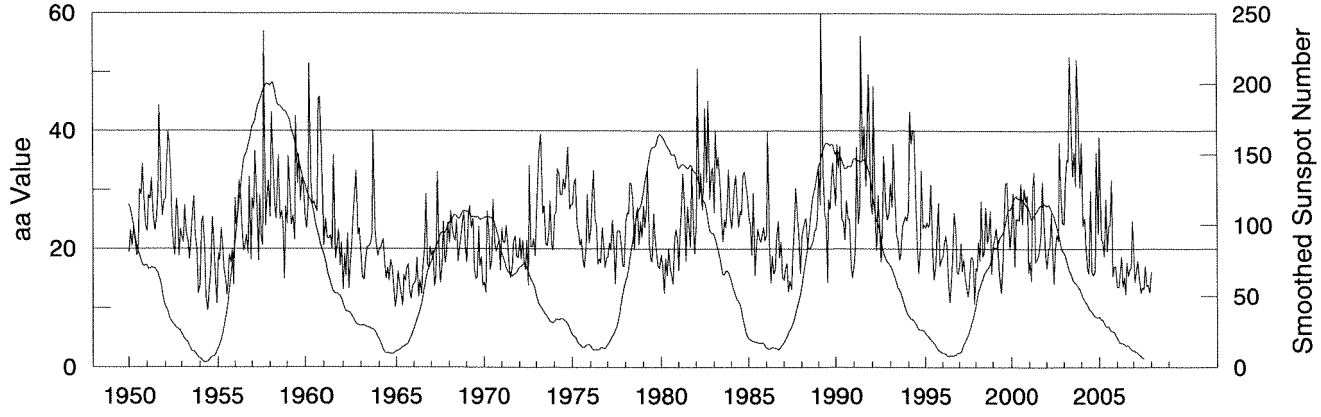
Daily Average Indices Ap
Feb 2007 - Jan 2008



Day	Feb 07	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 08
1	9	11	29	7	6	4	15	10	7	5	3	4
2	4	4	22	2	6	3	5	24	8	2	2	2
3	2	2	11	4	10	8	4	10	9	2	1	2
4	2	4	9	2	8	15	2	5	10	4	1	2
5	6	10	4	2	2	5	2	10	11	2	2	19
6	6	18	4	1	2	5	16	11	4	0	3	17
7	13	17	3	16	3	5	22	12	2	0	1	14
8	9	4	3	14	7	4	5	6	1	4	0	14
9	5	2	10	5	6	2	3	2	1	4	3	8
10	4	4	7	3	7	4	15	2	1	4	9	4
11	2	8	4	2	3	21	9	2	1	2	16	3
12	8	12	10	2	2	5	4	2	4	3	10	8
13	21	24	1	2	6	4	2	1	2	10	6	11
14	18	12	4	3	18	19	4	4	5	10	4	19
15	13	10	4	4	7	12	8	4	2	7	2	10
16	8	12	0	3	6	4	5	2	2	8	3	13
17	9	7	9	5	6	3	3	2	1	7	18	11
18	5	3	9	16	5	2	2	3	12	2	22	12
19	3	2	5	12	5	2	4	3	16	3	10	11
20	2	1	3	6	4	14	2	10	13	24	14	6
21	1	1	2	5	14	10	4	9	5	16	14	6
22	2	3	9	13	13	3	3	12	6	12	9	2
23	3	10	16	34	8	3	2	16	7	14	8	4
24	2	18	4	30	6	2	1	11	3	14	3	5
25	3	11	5	14	3	2	7	7	17	15	1	10
26	6	10	6	13	3	9	11	3	14	9	2	7
27	12	11	16	10	4	7	14	18	13	5	5	4
28	22	7	28	4	4	4	10	24	7	4	4	4
29		3	21	4	9	14	4	30	13	3	2	4
30		4	15	3	4	9	4	12	10	3	4	2
31		3		3		5	6		4		5	5
Mean	7	8	9	8	6	7	6	9	7	7	6	8


DAYS IN SOLAR ROTATION INTERVAL
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
ROT.-NO.
2377
Sep 30 1 5 10 15 20 25 26 Oct
2378
Oct 27 30 1 5 10 15 20 22 Nov
2379
Nov 23 25 30 1 5 10 15 19 Dec
2380
Dec 20 25 30 1 5 10 15 Jan
2381
Jan 16 20 25 30 31
KEY
0 1 2 3 4 5 6 7 8 9
o + - o + - o + - o + - o + - o + - o + - o + - o
▲ = sudden commencement
PLANETARY MAGNETIC
THREE-HOUR-RANGE INDICES
Kp till 2008 Jan 31

Monthly Mean aa Index Jan 1950 - Jan 2008



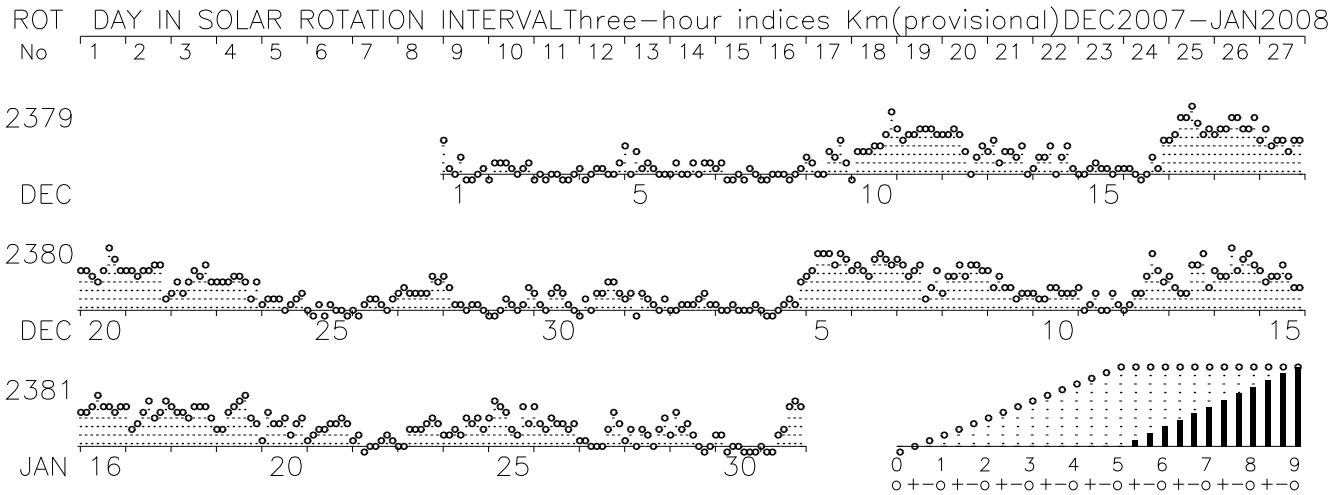
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1950	19.5	23.2	20.6	23.8	21.7	19.0	19.5	30.2	29.3	34.5	28.0	24.0	24.4
1951	23.1	29.2	28.5	32.1	25.5	23.2	25.2	29.7	44.4	30.3	25.7	28.2	28.8
1952	28.5	34.3	40.1	38.0	33.1	23.8	20.7	19.0	28.5	26.4	18.9	23.4	27.9
1953	22.3	21.2	27.4	22.7	21.4	18.4	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	15.8	18.8	13.7	15.2	12.4	17.7	15.5	16.6	16.8	24.7	16.2
2007	19.2	14.4	16.3	18.0	15.0	12.7	13.5	13.2	17.1	13.8	14.0	12.7	15.0
2008	16.2												16.2

PLANETARY GEOMAGNETIC ACTIVITY

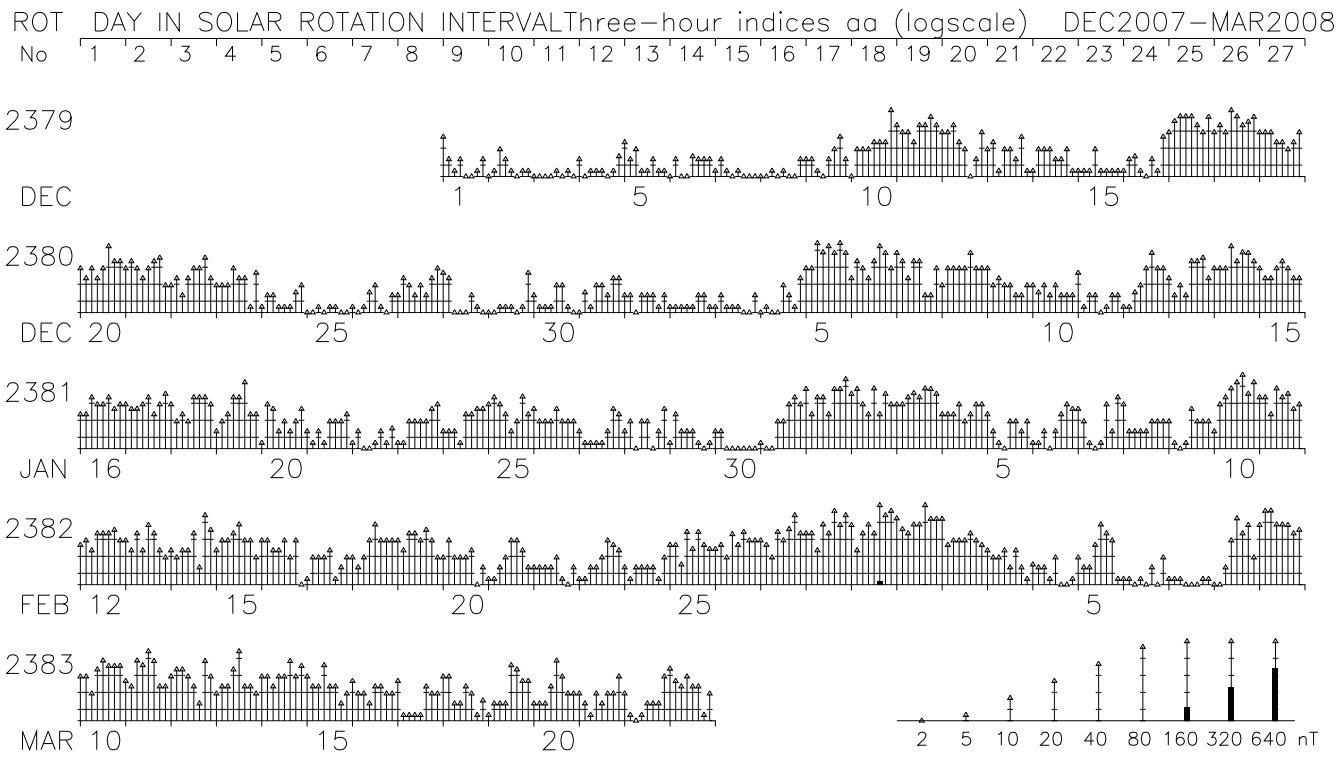
3-HOUR-RANGE INDICES Km AND aa BY 27-DAY SOLAR ROTATION INTERVAL

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.

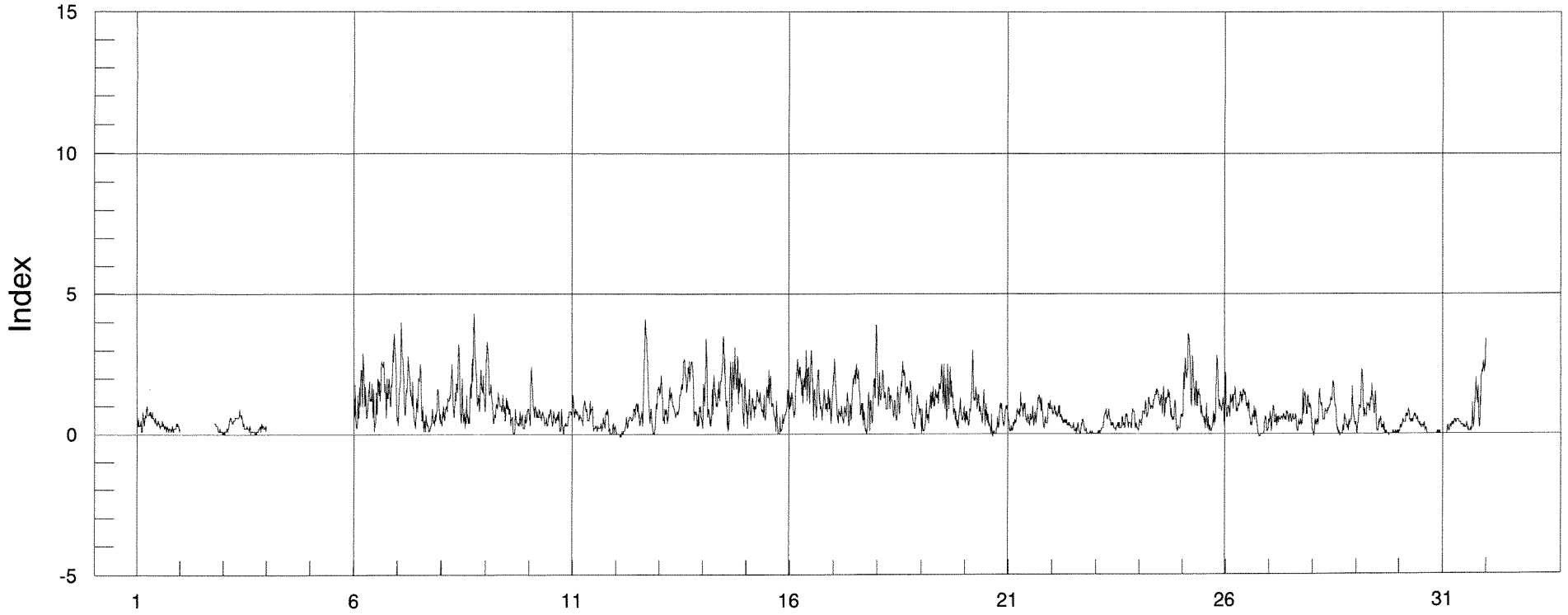


Indices Derivation at C.E.T.P.; Graph Prepared at ISGI Publication Office.

Polar Cap Index

Qaanaaq - Thule

WDC C1 for Geomagnetism, Copenhagen



Data Source: Geomagnetism and Space Physics
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 2007

Sta	Geomag Lat	Commencement Time Day	(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 Hour Day	(UT)
JAI	17.4N	04	2249	SC	- 03	12	- 3		-	4	95	16	06	24
NGP	11.3N	04	2249	SC	- 02	13	- 2		-	3	93	11	06	24
ABG	09.4N	04	2249	SC	- 0.3	11	- 3	5(3,5)	5	3	93	23	06	24
HYB	07.6N	04	2248	SC	- 0.5	14	- 3	5(3,5) 6(3)	5	3	100	16	09	15
PND	02.0N	04	2249	SC	- 02	12	11		-	3	102	65	06	24
TIR	00.6S	04	2249	SC	- 03	10	11		-	3	137	68	06	24
JAI	17.4N	12	0600	..	..	..	..		-	4	96	24	14	23
NGP	11.3N	12	0600	..	..	..	..		-	4	101	21	14	23
ABG	09.4N	12	0600	..	..	..	..	12(6) 13(5)	5	4	99	29	14	23
HYB	07.6N	12	0500	..	..	..	..	12(6) 13(5) 14(4)	5	5	110	14	15	16
PND	02.0N	12	0600	..	..	..	..		-	4	113	37	14	23
TIR	00.6S	12	0600	..	..	..	..		-	5	132	50	14	23
HYB	07.6N	16	0400	..	..	..	..	16(4) 17(4) 19(3,6)	4	3	86	22	19	23
HYB	07.6N	23	0200	..	..	..	..	25(7)	4	2	47	19	25	22
HYB	07.6N	31	1100	..	..	..	..	31(6)	4	1	43	03	31	24

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

JANUARY 2008

Storm Sudden Commencements (SSC)			Solar Flare Effects (sfe)		
Day	Time	Quality: Station Group*	Day	Begin-End	Station(s)
04	2250	C: BDV NAG GCK SPT GUI HYB	25	0720-0733	GUI
31	1123	A: CNB* B: LER* ESK* HAD* GNA C: NGK* BDV			

REPORTING OBSERVATORIES (up to 03-03-2008):
NUR LER ESK NGK VAL HAD DOU BDV CLF HRB NAG GCK MMB EBR SPT KAK KNY GUI HYB GNA CNB

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

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

Criterion on Provisional SSC data

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