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JUNE 1994 NUMBER 598 - Part I

Solar-Geophysical Data prompt reports

Data for May, April 1994, and Late Data

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

NATIONAL GEOPHYSICAL DATA CENTER
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Boulder, Colorado

Subscription information is on the inside back cover.

SOLAR-GEOPHYSICAL DATA

Number 598

(Issued in Two Parts)

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CONTENTS

PART I (PROMPT REPORTS) Page

PART II (COMPREHENSIVE REPORTS) Page

DETAILED INDEX OF OBSERVATIONS PUBLISHED IN SOLAR-GEOPHYSICAL DATA

CODE	KIND OF OBSERVATION	OCT 93	NOV	DEC	JAN 94	FEB	MAR	APR	MAY
A.	SOLAR AND INTERPLANETARY EVENTS								
A.1	Sunspot Drawings	592A 50	593A 47	594A 49	595A 43	596A 47	597A 41	598A 41	
A.2aa	International Provisional Sunspot Numbers	591A 25	592A 23	593A 26	594A 27	595A 25	596A 28	597A 24	598A 25
A.2c	American Sunspot Numbers	591A 25	592A 23	593A 26	594A 27	595A 25	596A 28	597A 24	598A 25
A.3a	Mt. Wilson Magnetograms	592A 50	593A 47	594A 49	595A 43	596A 47	597A 41	598A 41	
A.3b	Sunspot Mag Class and Regions	592A 98	593A 77	594A 96	595A 90	596A 90	597A 88	598A 87	
A.3c	Kitt Peak Magnetograms	592A 50	593A 47	594A 49	595A 43	596A 47	597A 41	598A 41	
A.3d	Mean Solar Magnetic Field (Stanford)	591A 35	592A 33	593A 37	594A 39	595A 33	596A 37	597A 31	598A 31
A.3e	Stanford Magnetograms	592A 50	593A 47	594A 49	595A 43	596A 47	597A 41	598A 41	
A.4	H-alpha Filtergrams	592A 50	593A 47	594A 49	595A 43	596A 47	597A 41		
A.6c	Stanford Solar Mag Field Synoptic Maps	592A 36	593A 40	594A 42	595A 36	596A 40	597A 34	598A 34	
A.6d	Kitt Peak Solar Mag Field Synoptic Maps	592A 48	593A 46	594A 48	595A 42	596A 46	597A 40	598A 40	
A.6e	Mass Ejections (Proxy data) from the Sun	596B 34	597B 29	598B 37					
A.6f	Active Prominences and Filaments	596B 35	597B 30	598B 38					
A.6g	Sac Peak Coronal Line Synoptic Maps	592A 40	593A 42	594A 44	595A 38	596A 42	597A 36	598A 36	
A.7h	Coronal Line Emission (Sac Peak)	592A 50	593A 43	594A 49	595A 43	596A 47	597A 41	598A 41	
A.8aa	2800 MHz- Solar Flux (Penticton)	591A 25	592A 23	593A 26	594A 27	595A 25	596A 28	597A 24	598A 25
A.8ac	2800 MHz- Adj. Solar Flux (Penticton)	591A 25	592A 23	593A 26	594A 27	595A 25	596A 28	597A 24	598A 25
A.8g	Adjusted Daily Solar Fluxes (Learmonth)	591A 25	592A 23	593A 26	594A 27	595A 25	596A 28	597A 24	598A 25
A.10g	Nancay Radioheliograph - 164 MHz	592A115	593A108	594A114	595A116	596A102	597A102	598A 98	
A.11g	Solar X-ray GOES (graphs/event table)	596B 25	597B 21	598B 27					
A.11k	Solar UV NOAA-9	May 86-Dec 88 in 566B 84							
A.11l	Solar UV NIMBUS7	Nov 78-Oct 84 in 542B 82							
A.11n	Solar YOHKOH Soft X-ray Images	592A 81	593A 77	594A 80	595A 74	596A 75	597A 72	597A 72	598A 71
A.12e	Solar Particles (IMP H & J)	Dec 88-Oct 89 in 570B 92							
A.12g	Solar Particles (GOES-7)	591A 4	592A 4	593A 4	594A 4	595A 4	596A 4	597A 4	598A 4
A.12h	Interplanetary Particles (SAMPEX)	Jul-Dec 92 in 595B 36; Jan-Jun 93 in 596B 56							
A.13e	Solar Plasma (IMP-H & J)	Feb-Sep 93 in 596B 48; Oct 93 in 596B 46; Nov 93 in 597B 39							
A.16b	NIMBUS Solar Irradiance	Nov 78-Jun 92 in 577B 56							
A.16c	ERBS, NOAA-9 & -10 Solar Irradiance	1989 in 551B 78; ERBS Oct 84-Jul 93 in 593B 43							
A.17c	Inferred Interplanetary Mag Field	1984-1988 data in 542A168; 1989 in 548A154							
C.	SOLAR FLARE-ASSOCIATED EVENTS								
C.1a	H-alpha Flares	591A 28	592A 26	593A 29	594A 30	595A 28	596A 31	597A 27	598A 28
C.1ba	H-alpha Flare Groups	596B 4	597B 4	598B 4					
C.1d	Flare Patrol Obsevations	591A 33	592A 30	———	———	———	———	———	———
C.1d	Flare Patrol Obsevations	596B 12	597B 10	598B 16					
C.3	Radio Bursts Fixed Frequency	596B 14	597B 12	598B 18					
C.3	Radio Bursts Fixed Frequency Selected	591A 34	592A 31	593A 36	594A 37	595A 31	596A 35	597A —	598A 30
C.4f	Radio Bursts Spectral (Sagamore Hill)	592A109	593A103	594A109	595A105	596A 99	597A 98	598A 94	
C.4k	Radio Bursts Spectral (Learmonth)	592A109	593A103	594A109	595A105	596A 99	597A 98	598A 94	
C.4l	Radio Bursts Spectral (Palehua)	592A109	593A103	594A109	595A105	596A 99	597A 98	598A 94	
C.4m	Radio Bursts Spectral (Ondrejov)	592A109	593A103	594A109	595A105	596A 99	597A 98	598A 94	
C.4n	Radio Bursts Spectral (Potsdam)		593A103	594A109	595A105	596A 99	597A 98	598A 94	
C.4o	Radio Bursts Spectral (San Vito)	592A109	593A103	594A109	595A105	596A 99	597A 98	598A 94	
C.4p	Radio Bursts Spectral (IZMIRAN)	592A109	593A103	594A109	595A105	596A 99	597A 98	598A 94	
C.6	Sudden Ionospheric Disturbances	592A106	593A100	594A105	595A101	596A 97	597A 96	598A 92	
D.	GEOMAGNETIC EVENTS								
D.1a	Geomagnetic Indices	592A122	593A115	594A120	595A123	596A109	597A110	598A107	
D.1ba	27-day Chart of Kp Indices	592A124	593A117	594A122	595A125	596A111	598A109	598A109	
D.1cb	Monthly Mean aa Indices	593A118	593A118	594A123	595A126	596A112	597A113	598A110	
D.1d	Principal Magnetic Storms	592A128	593A120	594A125	595A128	596A113	597A115	598A112	
D.1f	Sudden Commencements/Flare Effects	Nov-Dec	92 in 597	A 124	595A129	596A114	597A116	598A113	
D.1g	Equatorial Indices Dst	May-Jul 93 in 592A144; Aug-Dec 93 in 597A119							
D.1i	Polar Cap (PC) Index	See UAG	593A119	594A124	595A127	597A118	597A114	598A111	
F.	COSMIC RAYS								
F.1a	Cosmic Ray Neutron Cts (Deep River)	592A120	593A109	594A115	595A117	596A103	597A103	598A 99	
F.1b	Cosmic Ray Neutron Cts (Climax)	592A120	593A109	594A115	595A117	596A103	597A103	598A 99	
F.1h	Cosmic Ray Neutron Cts (Thule)	592A120	593A109	594A115	595A117	596A103	597A103	598A 99	
F.1i	Cosmic Ray Neutron Cts (Kiel)								
F.1j	Cosmic Ray Neutron Cts (Tokyo)	592A120	593A109	594A115	595A117	596A103	597A103	598A 99	
F.1n	Cosmic Ray Neutron Cts (Beijing)	592A120	593A109	594A115	595A117	596A103	597A103	598A 99	
F.1b	Cosmic Ray Neutron Cts (Haleakala)	592A120	593A109	594A115	595A117	596A103	597A103	598A 99	
H.	MISCELLANEOUS								
H.60	IUWDS Alert Periods	591A 20	592A 19	593A 20	594A 20	595A 18	596A 20	597A 19	598A 20

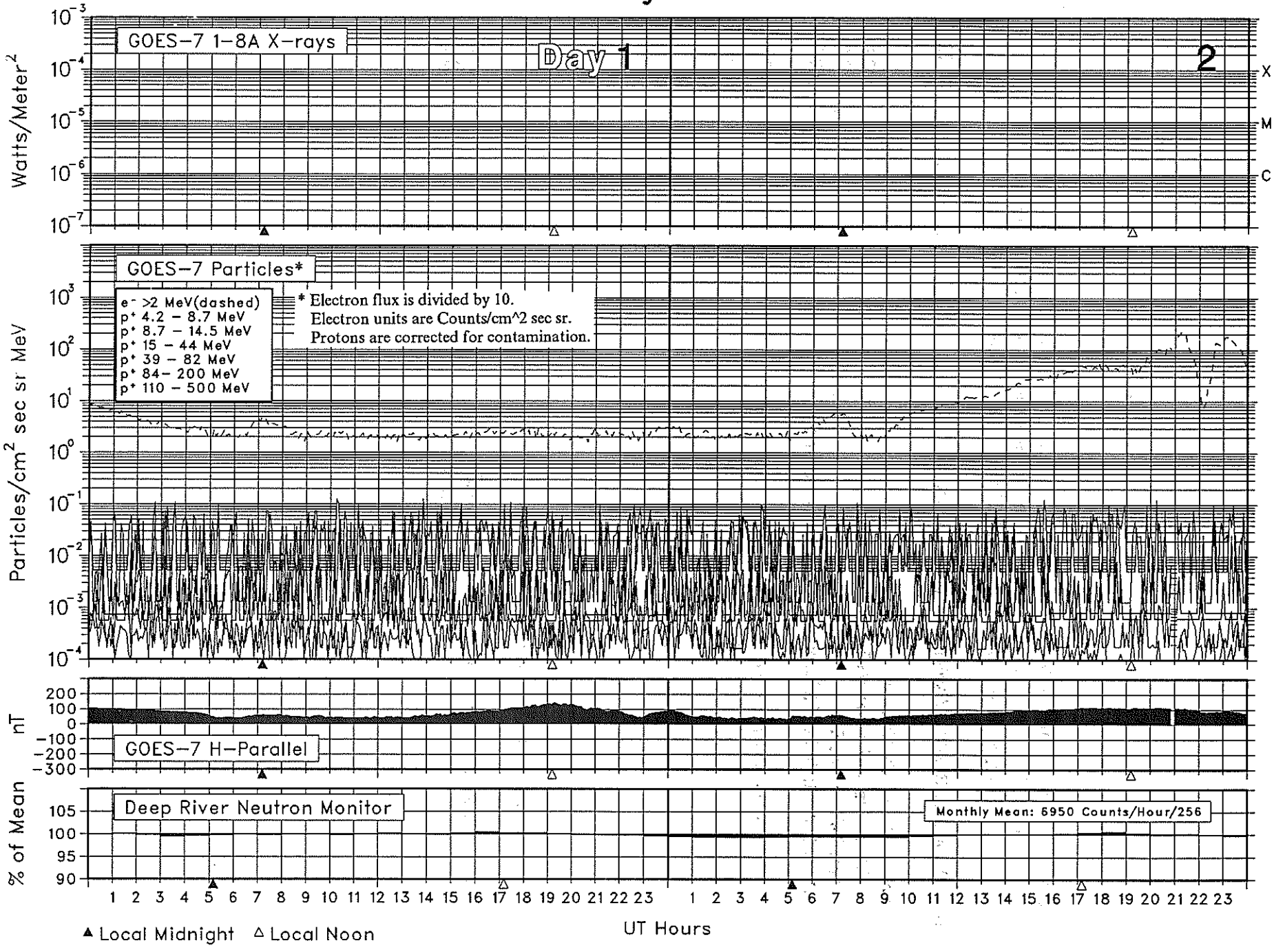
The entry "592A 50" under Oct 1993, for example, means that the sunspot drawings for Oct 1993 appear in SOLAR-GEOPHYSICAL DATA No. 592, Part I, and that they begin on page 50. "A" denotes Part I and "B", Part II. Blanks indicate data not yet received and dashes mark unavailable data.

CONTENTS

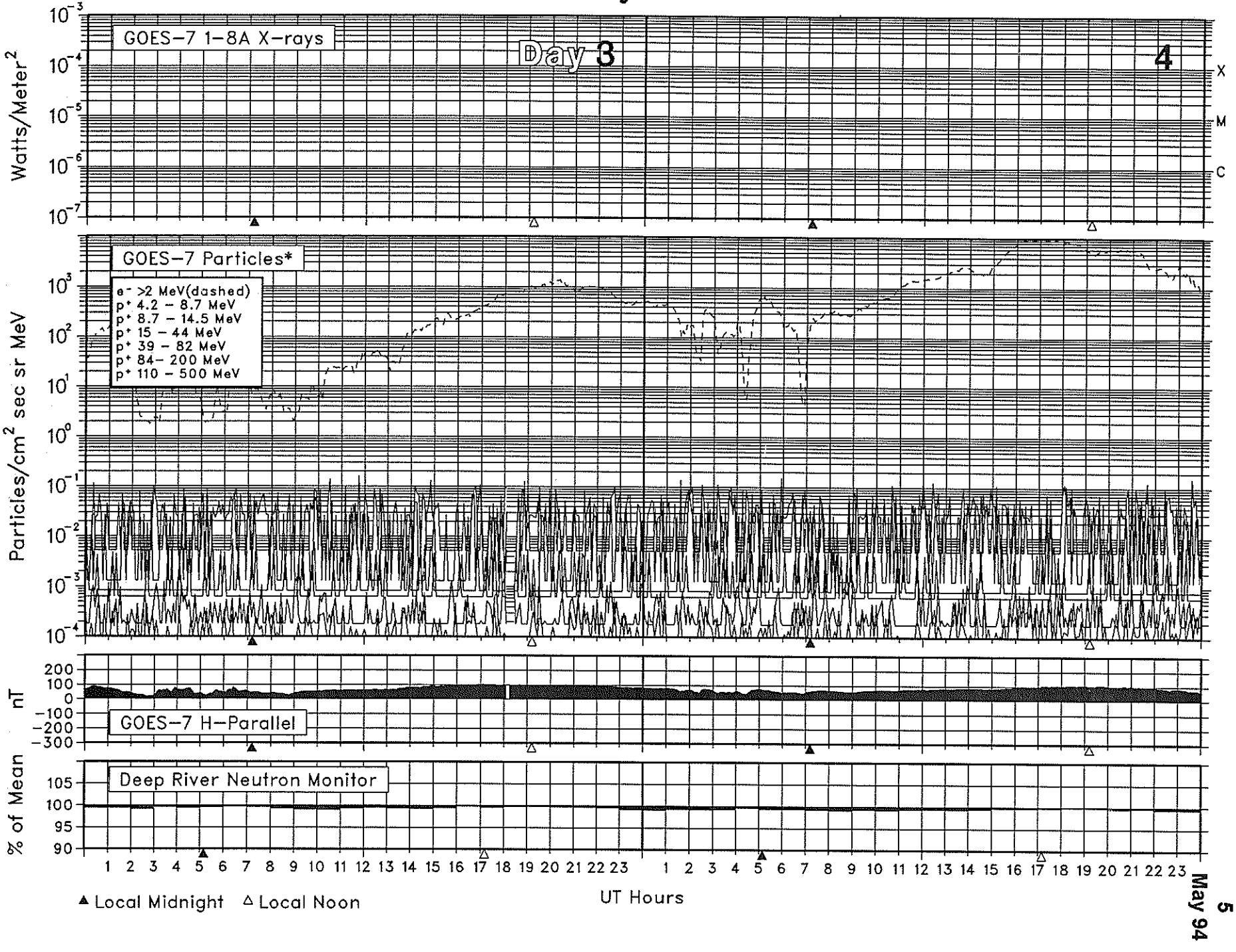
Prompt Reports Number 598 Part I

DATA FOR MAY 1994

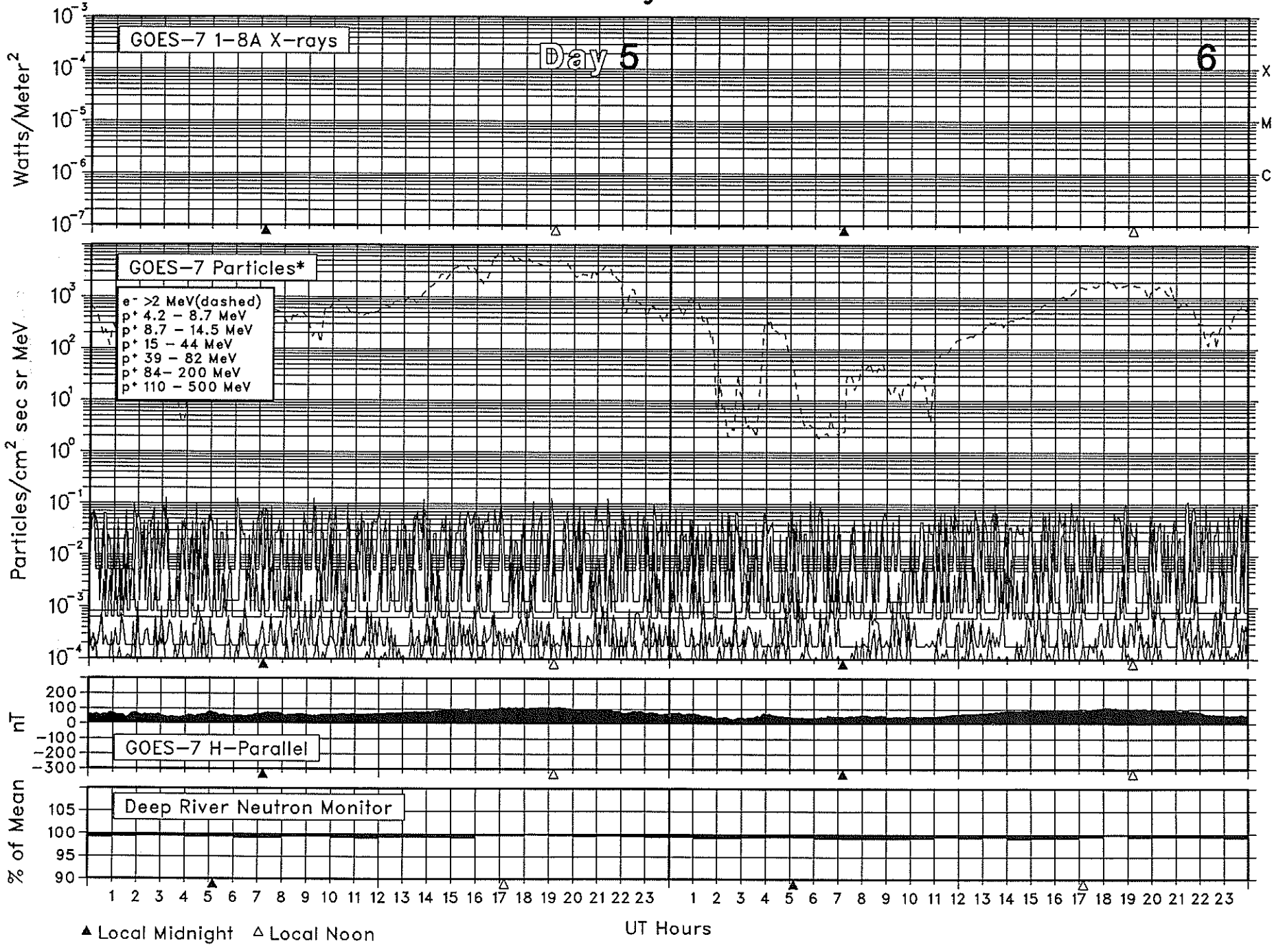
SOLAR-TERRESTRIAL ENVIRONMENT
May 1994



SOLAR-TERRESTRIAL ENVIRONMENT
May 1994



SOLAR-TERRESTRIAL ENVIRONMENT
May 1994



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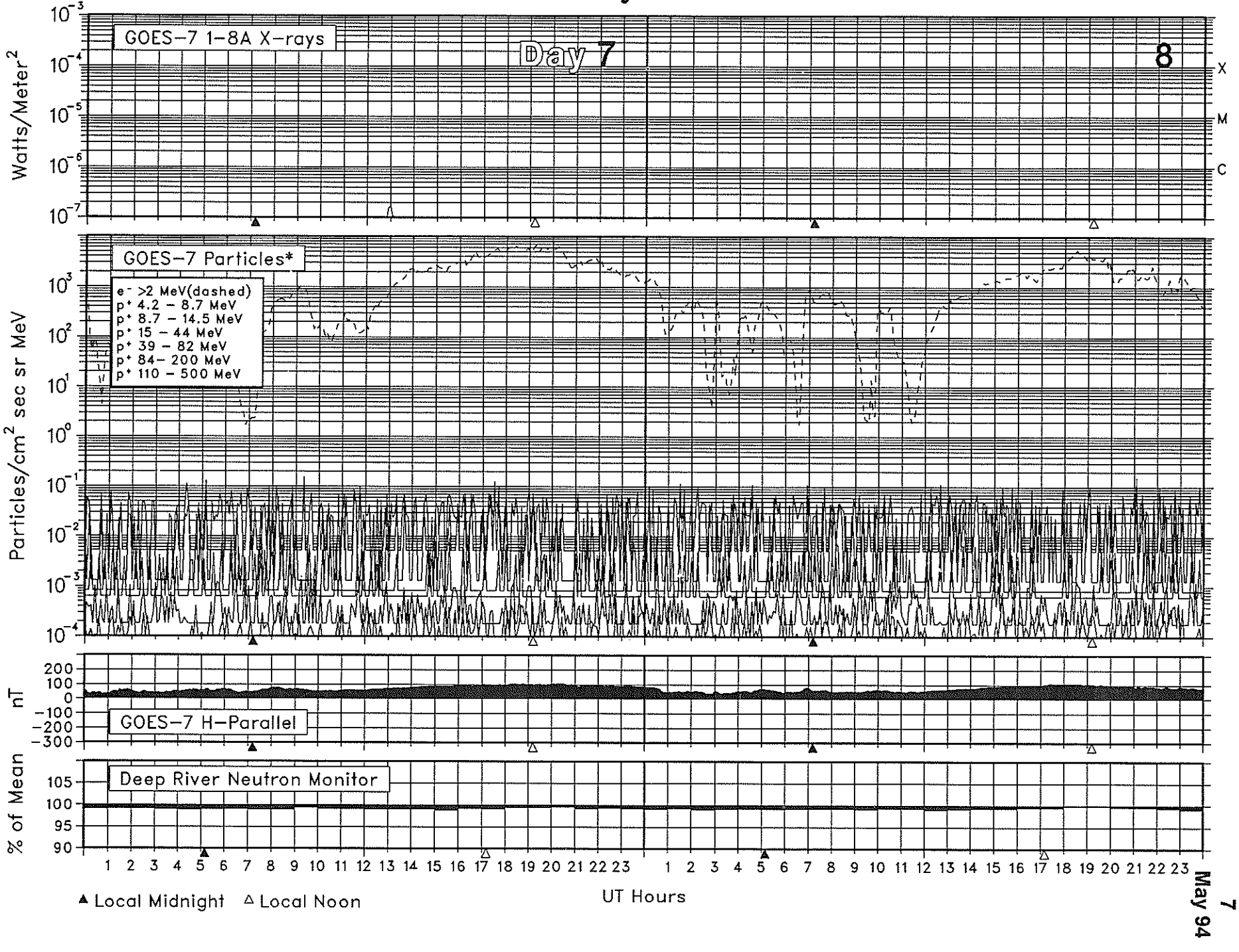
May 1994



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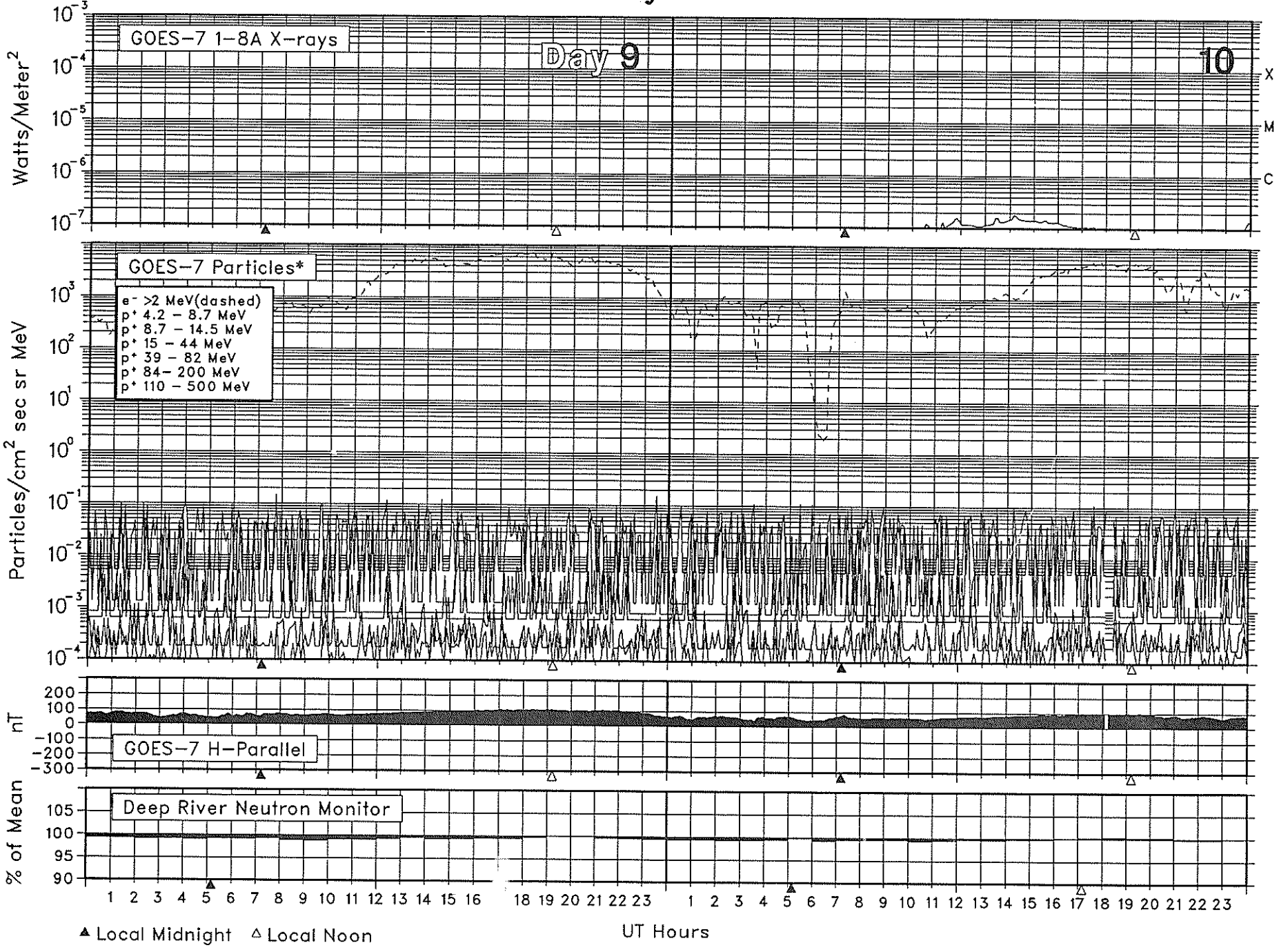
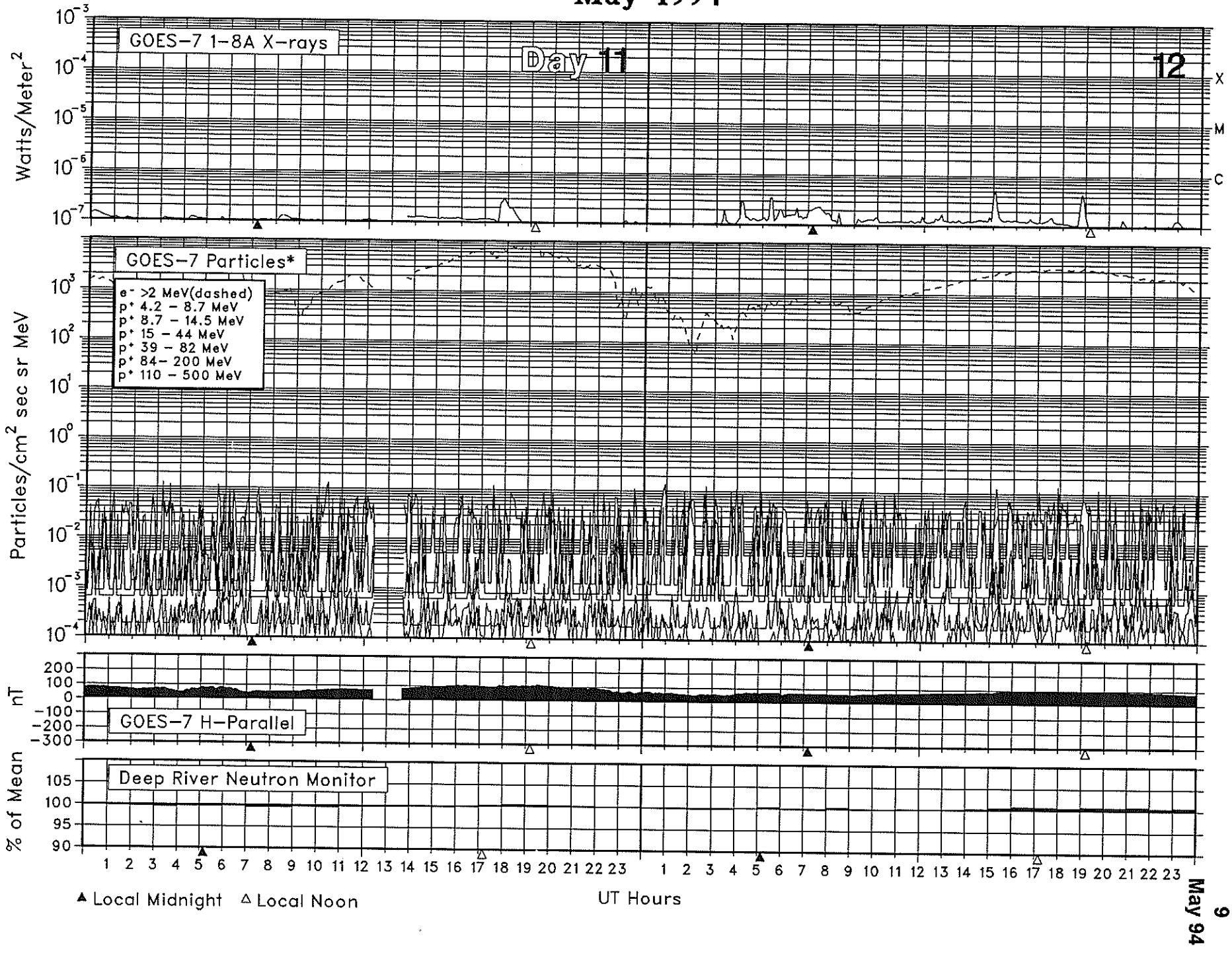
May 1994

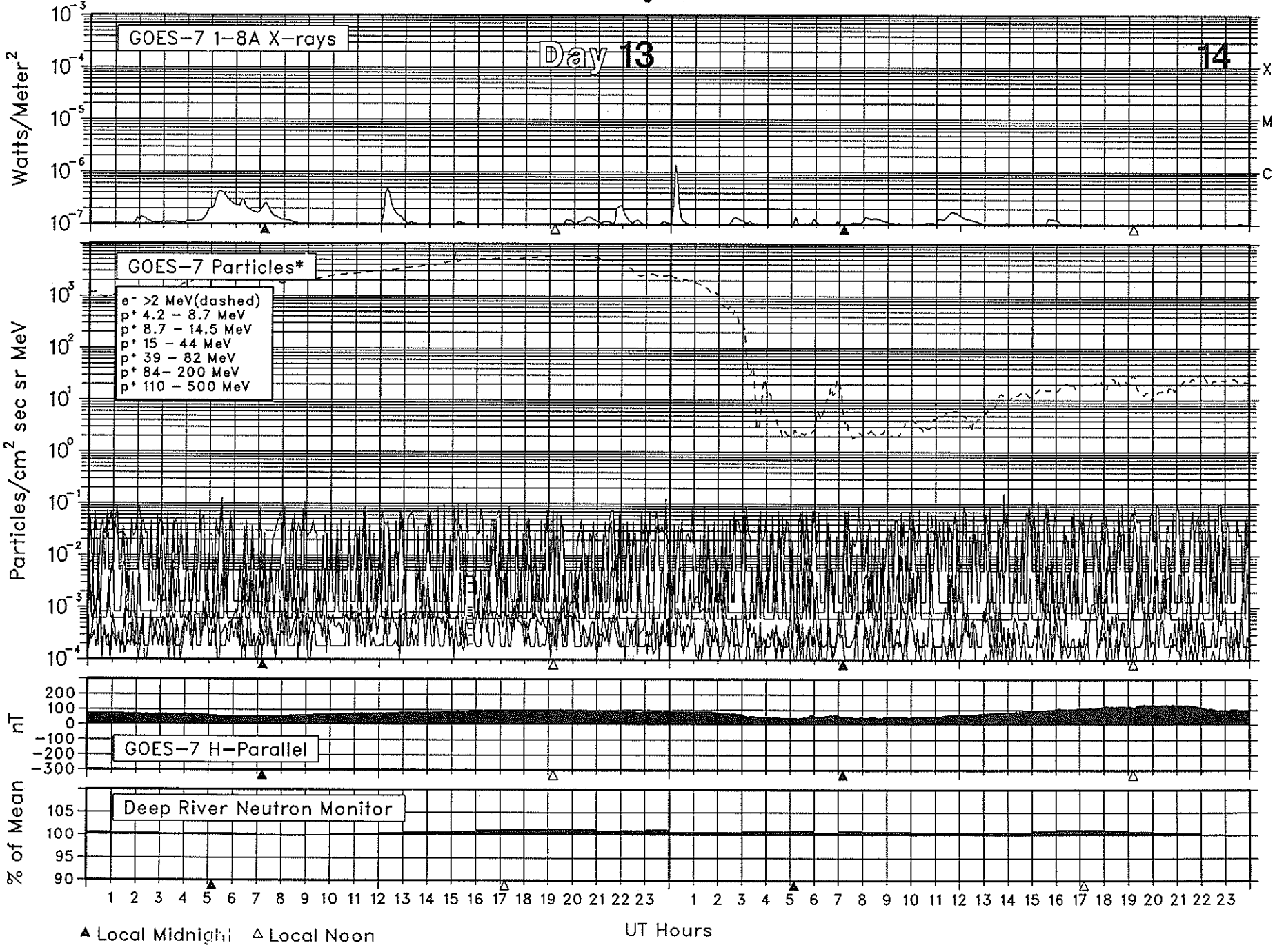


SOLAR-TERRESTRIAL ENVIRONMENT
May 1994



May 94

SOLAR-TERRESTRIAL ENVIRONMENT
May 1994



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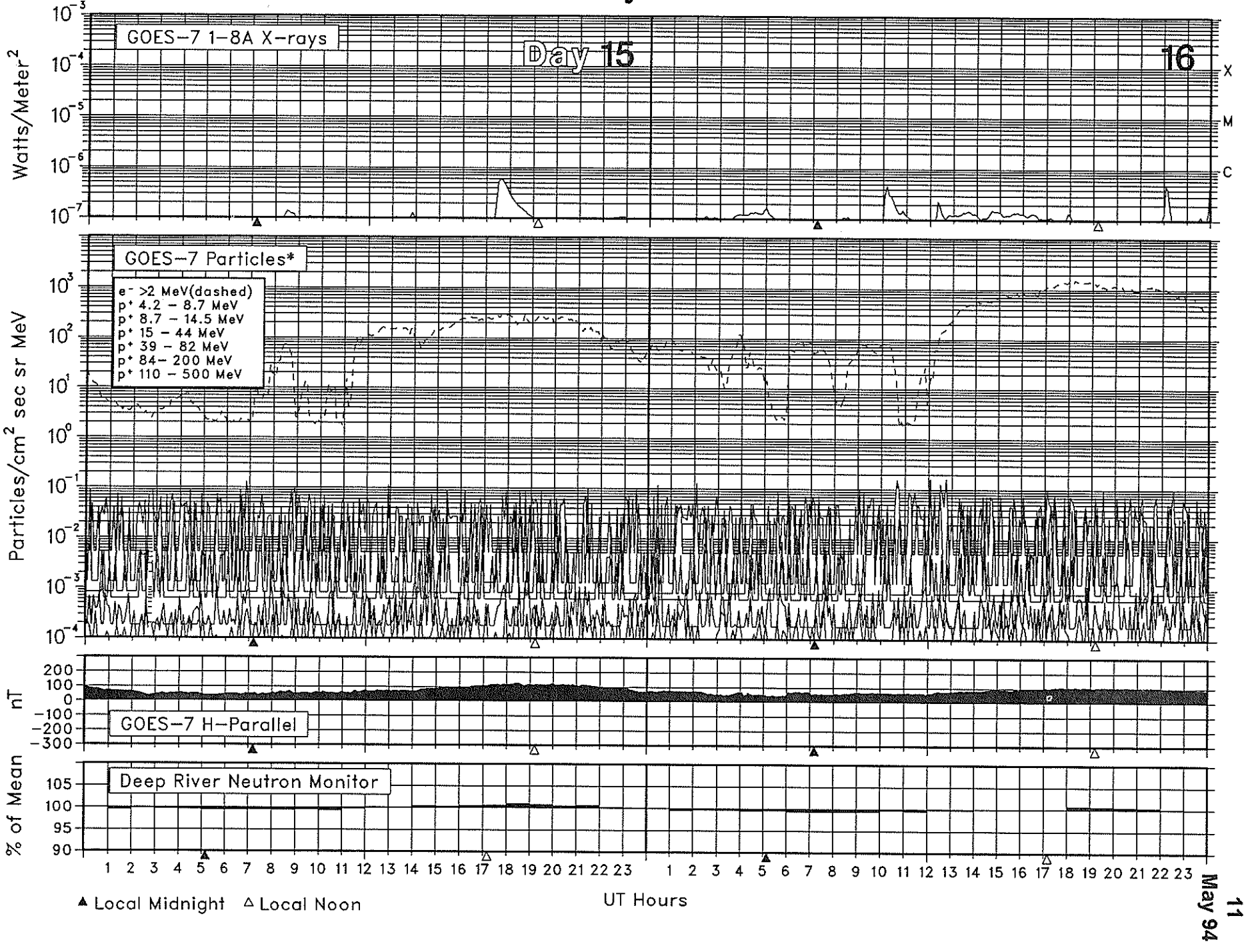
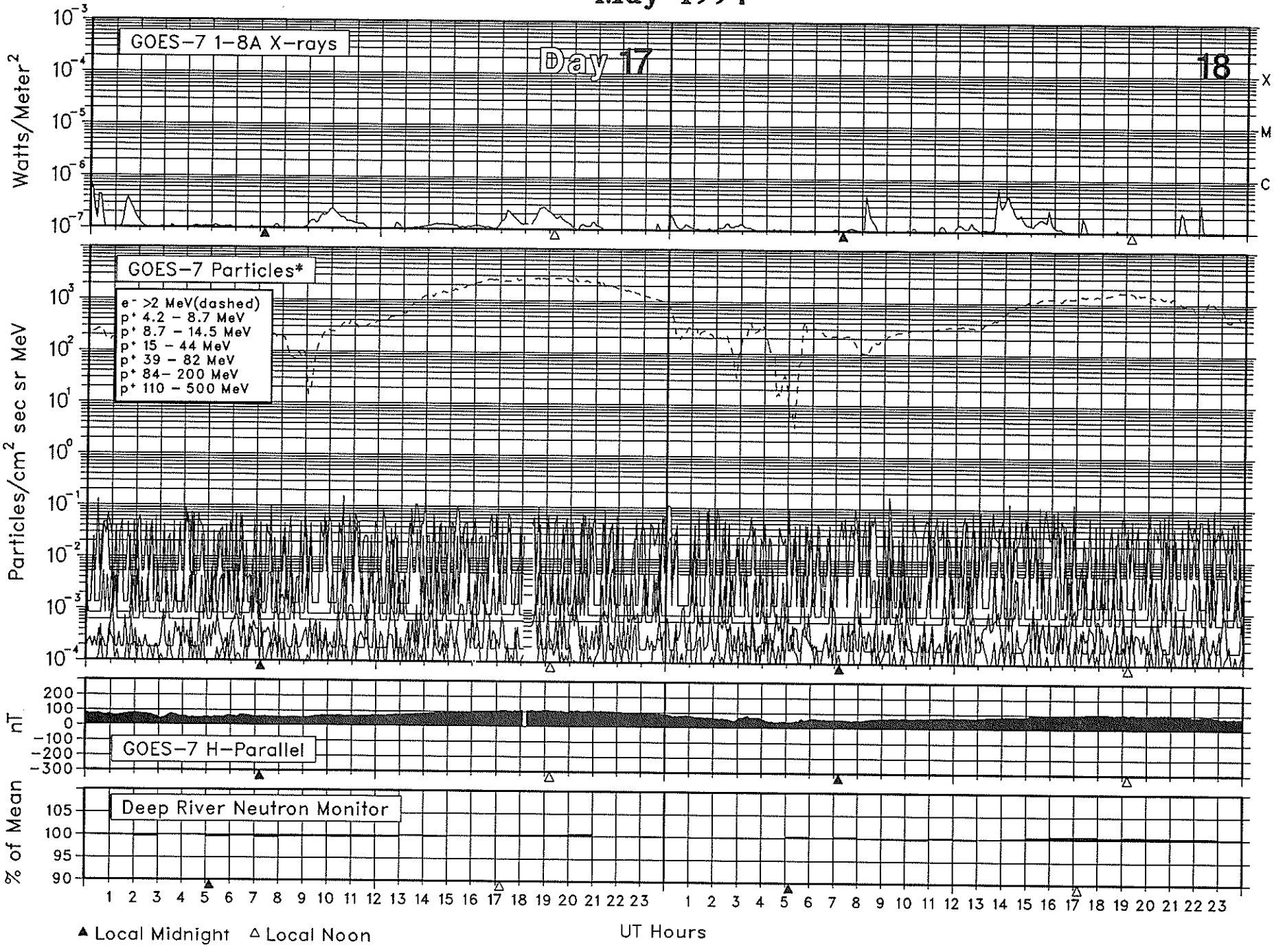
May 1994



SOLAR-TERRESTRIAL ENVIRONMENT
May 1994



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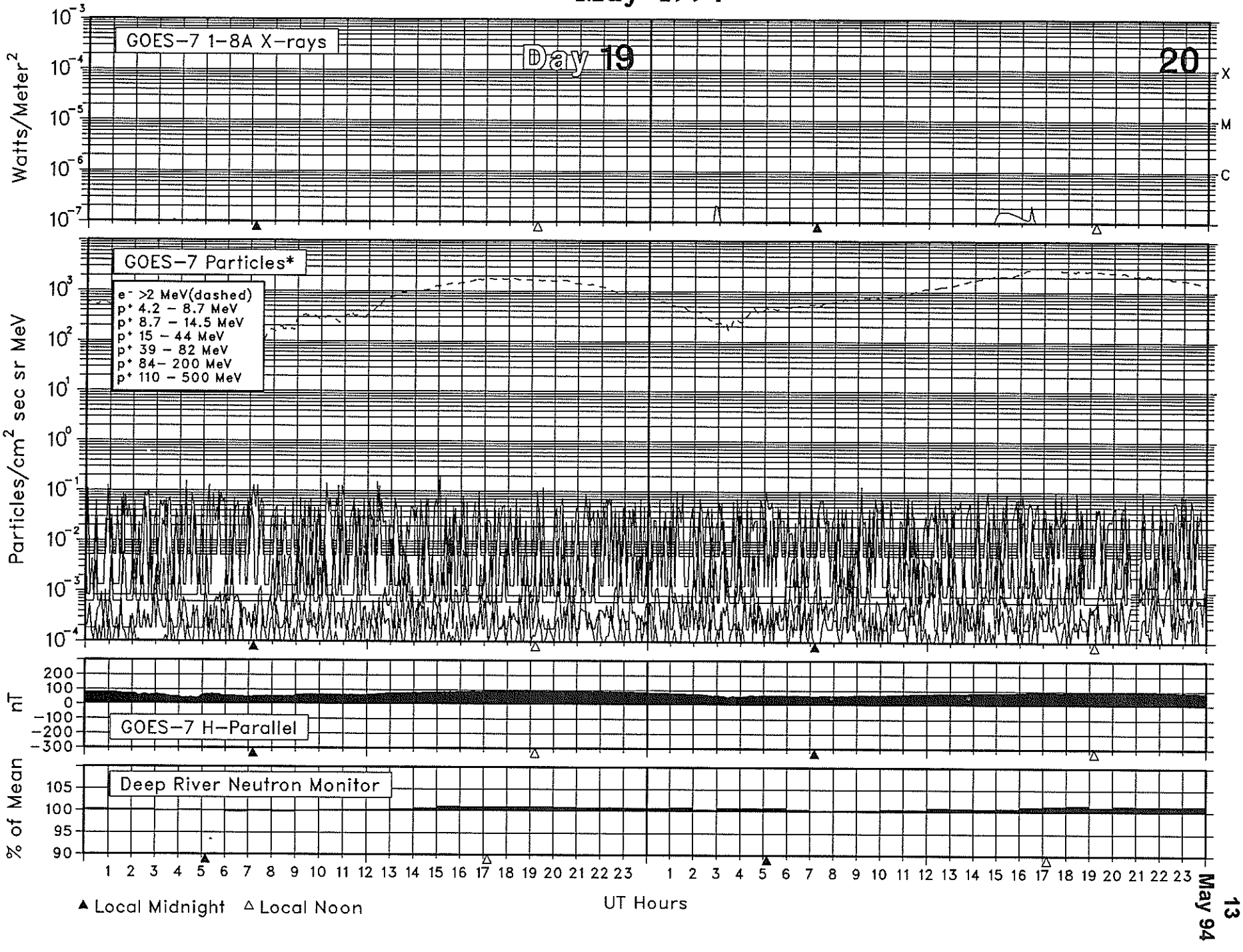
May 1994



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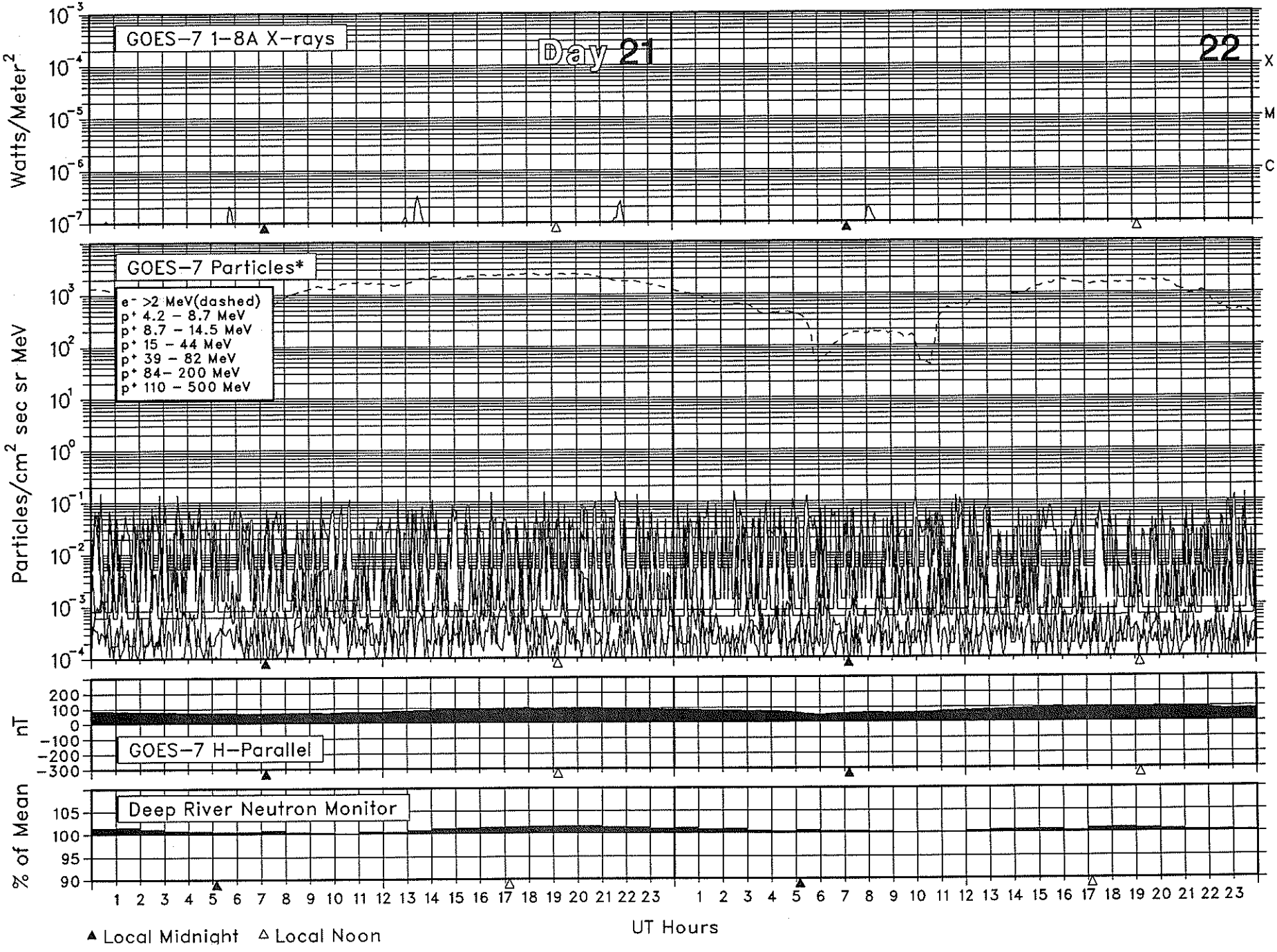
May 1994



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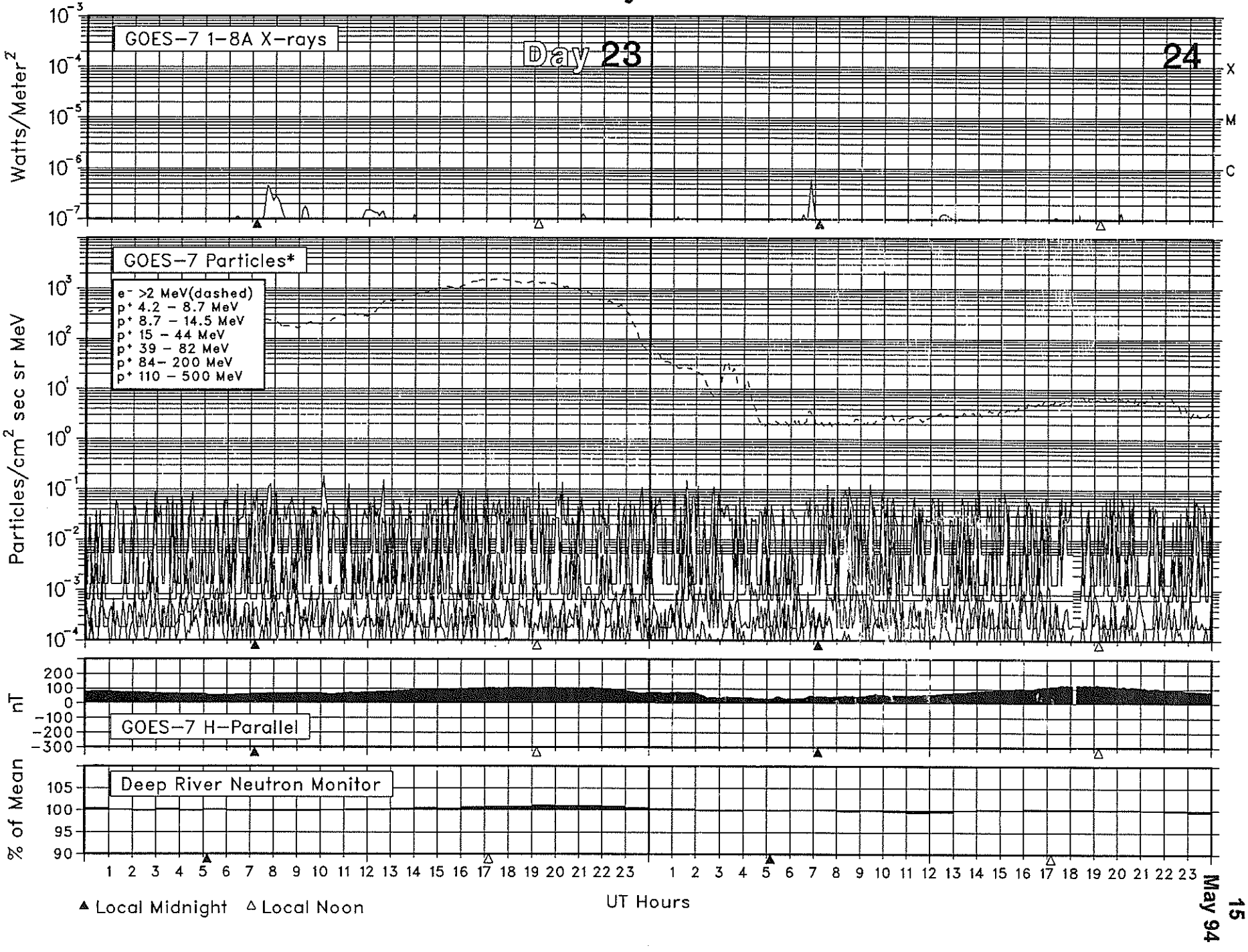
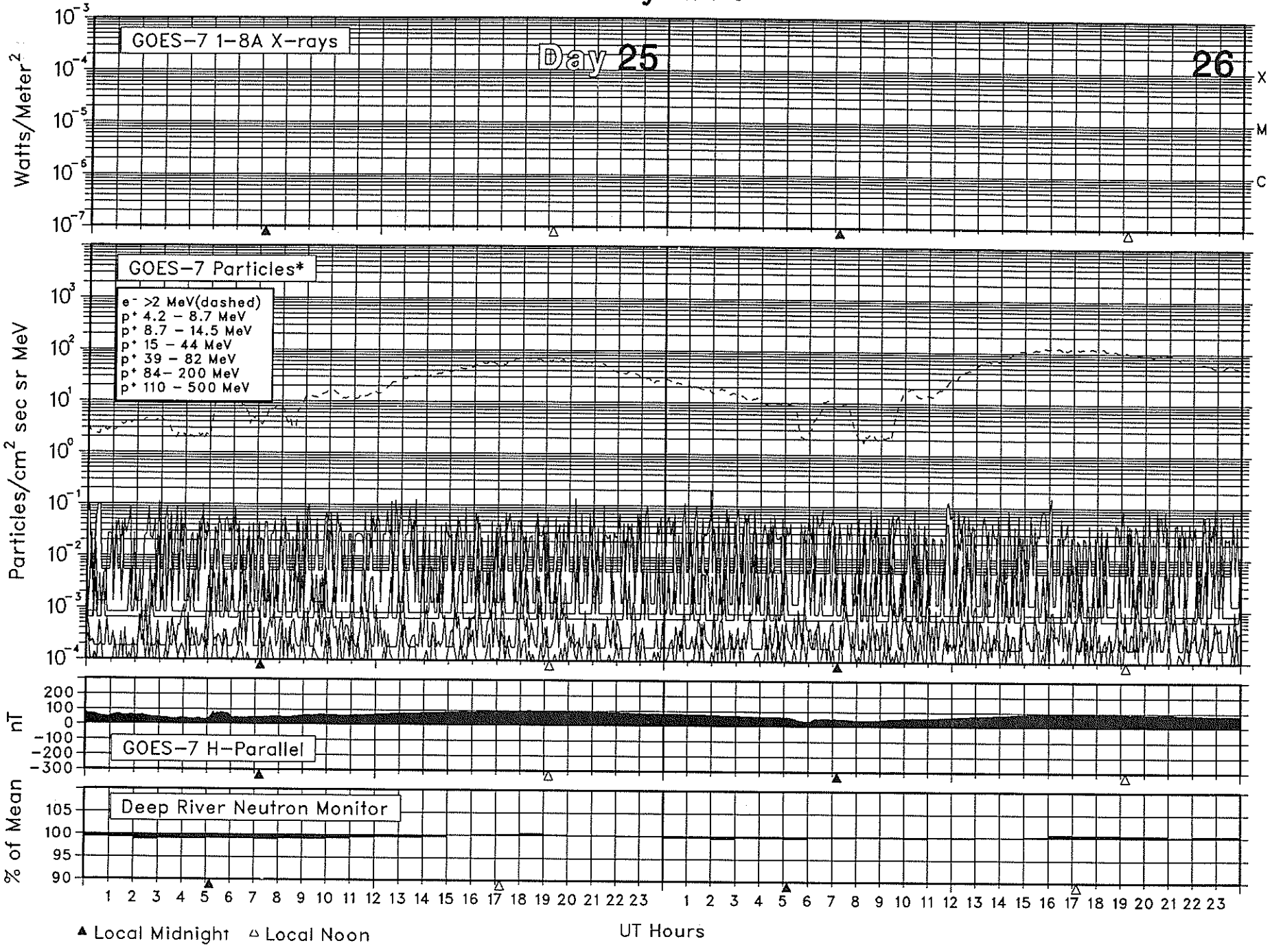
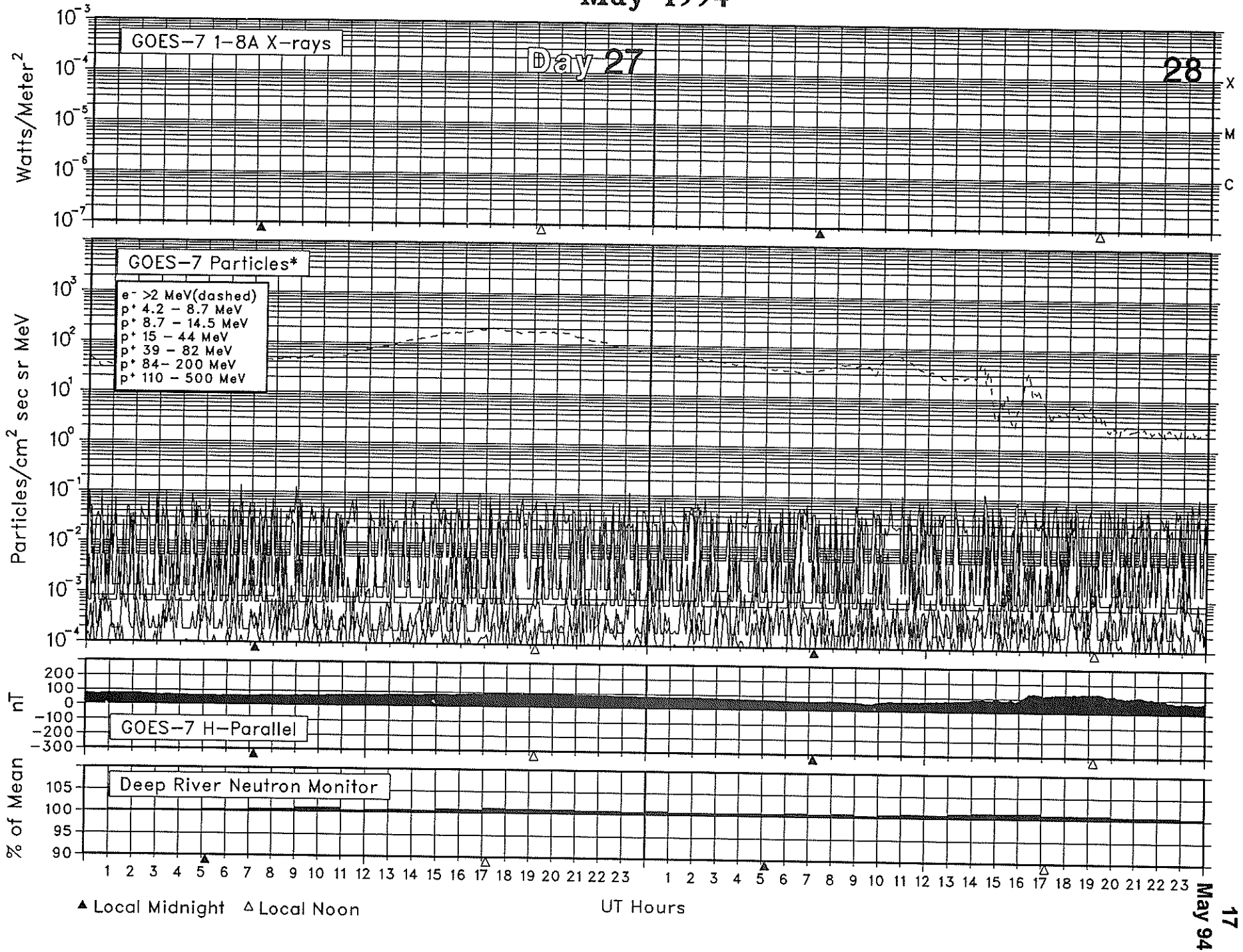
May 1994



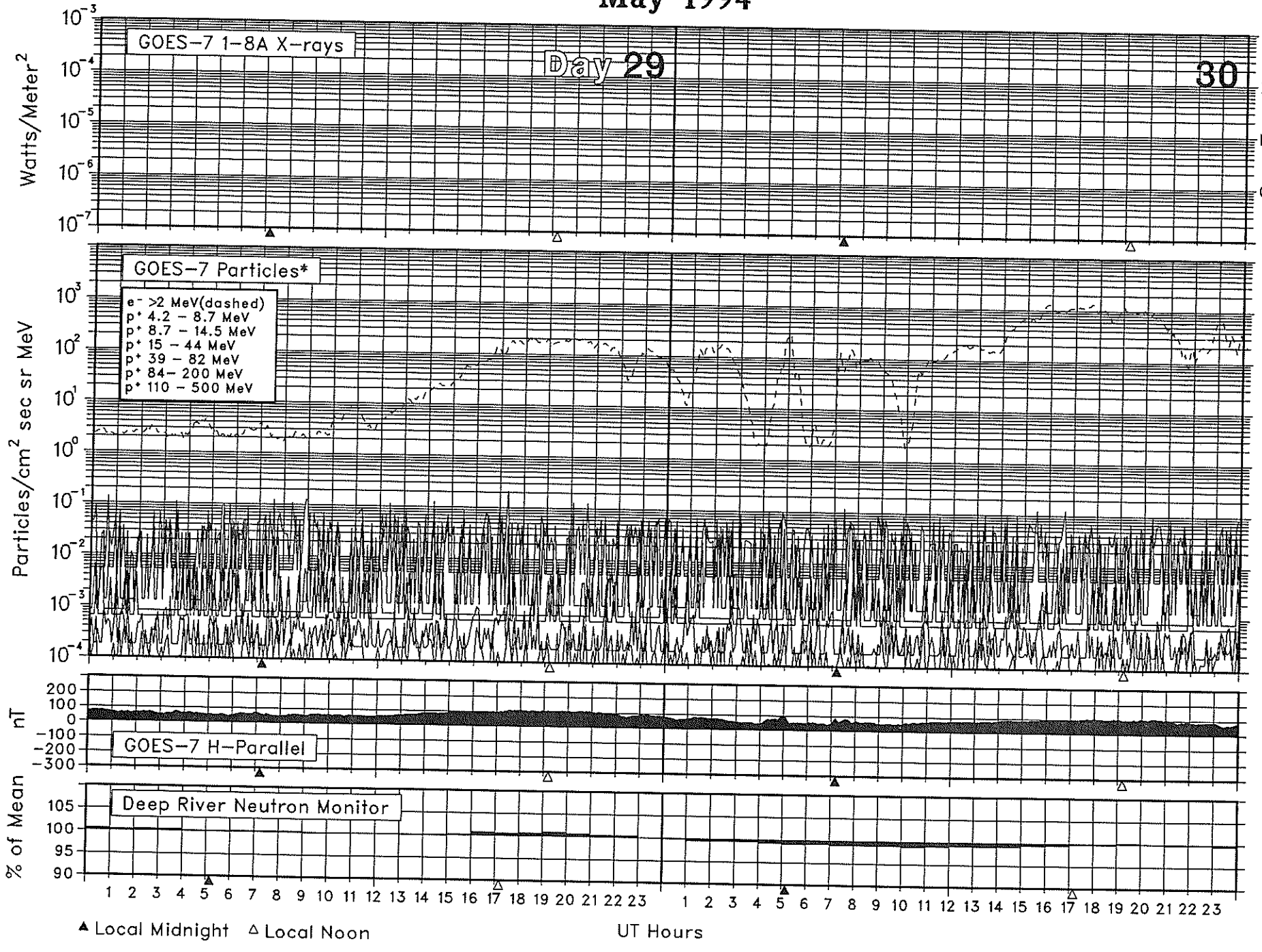
SOLAR-TERRESTRIAL ENVIRONMENT
May 1994



SOLAR-TERRESTRIAL ENVIRONMENT
May 1994



SOLAR-TERRESTRIAL ENVIRONMENT
May 1994



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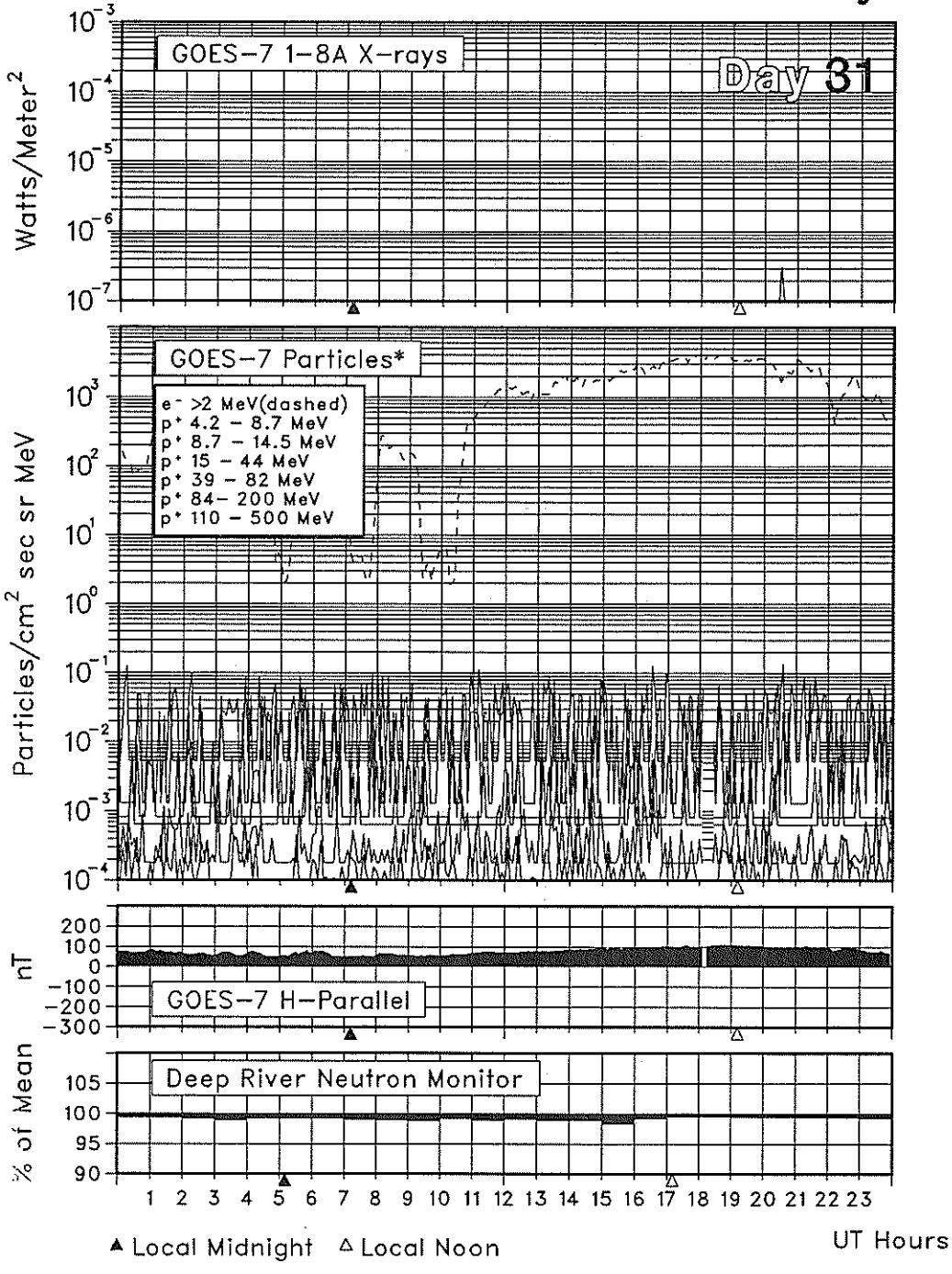
May 1994



* Electron flux is divided by 10.
Electron units are Counts/cm^2 sec sr.
Protons are corrected for contamination.

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages — MAY 1994

Julian Day	Date of Issue	Date of Obser-vation	Wolf No.	10-cm Solar Flux	A-index	Location °Lat	Location °Long	Flares Total	Flares M	Flares X	Date of Forecast	Region Forecast [1]	Geoadvice[1]
121	01	30	038	075	1	S14	W56	0	0	0	01	Q	SOL: Quiet
						S10	W02	0	0	0	01	Q	MAG: Minor
						S12	E21	0	0	0	01	Q	PROTON: Quiet
122	02	01	080	075	20	S16	W68	0	0	0	02	Q	SOL: Quiet
						S11	W06	0	0	0	02	Q	MAG: Minor
						S12	E07	0	0	0	02	Q	PROTON: Quiet
						N06	E40	0	0	0	02	Q	
						S14	E46	0	0	0	02	Q	
						N08	W29	0	0	0	02	Q	
123	03	02	075	076	30	S11	W06	0	0	0	03	Q	SOL: Quiet
						N07	E26	1	0	0	03	Q	MAG: Minor
						S15	E33	0	0	0	03	Q	PROTON: Quiet
						N08	W42	0	0	0	03	Q	
						N02	W14	0	0	0	03	Q	
124	04	03	052	074	32	N07	E13	0	0	0	04	Q	SOL: Quiet
						S14	E22	0	0	0	04	Q	MAG: Minor
						N08	W57	0	0	0	04	Q	PROTON: Quiet
						S07	W13	0	0	0	04	Q	
125	05	04	038	073	22	N06	W02	0	0	0	05	Q	SOL: Quiet
						S14	E09	0	0	0	05	Q	MAG: Active
						N09	W68	0	0	0	05	Q	PROTON: Quiet
126	06	05	015	073	24	S14	W05	0	0	0	06	Q	SOL: Quiet
						S14	E09	0	0	0	06	Q	MAG: Active
						N09	W68	0	0	0	06	Q	PROTON: Quiet
127	07	06	045	074	23	S14	W18	0	0	0	07	Q	SOL: Quiet
						N09	E26	0	0	0	07	Q	MAG: Active
						S08	E38	0	0	0	07	Q	PROTON: Quiet
128	08	07	034	074	27	N10	E14	0	0	0	08	Q	SOL: Quiet
						S07	E24	1	0	0	08	Q	MAG: Active
						S08	E38	0	0	0	08	Q	PROTON: Quiet
129	09	08	044	075	24	S14	W45	0	0	0	09	Q	SOL: Quiet
						S07	E11	0	0	0	09	Q	MAG: Active
						S10	E38	0	0	0	09	Q	PROTON: Quiet
130	10	09	016	077	26	S06	W03	0	0	0	10	Q	SOL: Quiet
						S07	E11	0	0	0	10	Q	MAG: Active
						S10	E38	0	0	0	10	Q	PROTON: Quiet
131	11	10	027	080	18	S07	W18	0	0	0	11	Q	SOL: Quiet
						S12	E71	0	0	0	11	Q	MAG: Active
						S10	E38	0	0	0	11	Q	PROTON: Quiet
132	12	11	038	082	22	S07	W30	0	0	0	12	Q	SOL: Quiet
						S12	E55	0	0	0	12	Q	MAG: Active
						N07	E79	0	0	0	12	Q	PROTON: Quiet
133	13	12	045	087	10	S12	E42	0	0	0	13	Q	SOL: Eruptive
						N07	E65	2	0	0	13	E	MAG: Quiet
						N10	E28	0	0	0	13	Q	PROTON: Quiet

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages — MAY 1994

Julian Day	Date of Issue	Date of Obser-vation	Wolf No.	10-cm Solar Flux	A-index	Location	Flares			Date of Forecast	Region Forecast [1]	Geoadvice[1]
						°Lat °Long	Total	M	X			
134	14	13	071	089	6	N07 E52	1	0	0	14	E	SOL: Eruptive
						N10 E15	0	0	0	14	Q	MAG: Active
						S06 W10	0	0	0	14	Q	PROTON: Quiet
						N06 E25	0	0	0	14	Q	
						N08 E65	0	0	0	14	Q	
135	15	14	067	090	15	S11 E16	0	0	0	15	Q	SOL: Eruptive
						N08 E38	2	0	0	15	E	MAG: Active
						N10 E02	0	0	0	15	Q	PROTON: Quiet
						N06 E12	0	0	0	15	Q	
						N09 E52	0	0	0	15	Q	
136	16	15	055	091	18	S12 E02	0	0	0	16	Q	SOL: Eruptive
						N07 E25	0	0	0	16	Q	MAG: Active
						N10 W12	0	0	0	16	Q	PROTON: Quiet
						N09 E38	1	0	0	16	Q	
137	17	16	058	091	26	N08 E12	0	0	0	17	Q	SOL: Quiet
						N05 W26	3	0	0	17	Q	MAG: Active
						N04 W09	0	0	0	17	Q	PROTON: Quiet
						N10 E24	0	0	0	17	Q	
138	18	17	059	095	16	N08 W01	0	0	0	18	Q	SOL: Eruptive
						N12 W40	0	0	0	18	Q	MAG: Active
						N09 E10	3	0	0	18	Q	PROTON: Quiet
						N08 E67	0	0	0	18	Q	
139	19	18	058	094	19	N08 W14	5	0	0	19	Q	SOL: Eruptive
						N09 W01	0	0	0	19	Q	MAG: Quiet
						N08 E54	0	0	0	19	Q	PROTON: Quiet
140	20	19	048	091	15	N08 W28	0	0	0	20	Q	SOL: Eruptive
						N08 E39	0	0	0	20	Q	MAG: Quiet
						N08 E54	0	0	0	20	Q	PROTON: Quiet
141	21	20	035	090	9	N09 W41	0	0	0	21	Q	SOL: Eruptive
						N09 E27	1	0	0	21	Q	MAG: Quiet
						N08 E54	0	0	0	21	Q	PROTON: Quiet
142	22	21	035	088	6	N09 W55	3	0	0	22	Q	SOL: Quiet
						N08 E14	0	0	0	22	Q	MAG: Quiet
						N08 E54	0	0	0	22	Q	PROTON: Quiet
143	23	22	031	085	7	N08 W67	0	0	0	23	Q	SOL: Quiet
						N08 W00	0	0	0	23	Q	MAG: Quiet
						N08 E54	0	0	0	23	Q	PROTON: Quiet
144	24	23	026	081	6	N08 W80	0	0	0	24	Q	SOL: Quiet
						N09 W13	1	0	0	24	Q	MAG: Quiet
						N08 E54	0	0	0	24	Q	PROTON: Quiet
145	25	24	022	078	18	N08 W93	0	0	0	25	Q	SOL: Quiet
						N08 W26	1	0	0	25	Q	MAG: Quiet
						N08 E54	0	0	0	25	Q	PROTON: Quiet
146	26	25	012	074	21	S07 E52	0	0	0	26	Q	SOL: Quiet
						N08 W26	1	0	0	26	Q	MAG: Quiet
						N08 E54	0	0	0	26	Q	PROTON: Quiet

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages MAY 1994

Julian Day	Date of Issue	Date of Obser-vation	Wolf No.	10-cm Solar Flux	A-index	Location °Lat	Location °Long	Flares Total	Flares M	Flares X	Date of Forecast	Region Forecast [1]	Geoadvice[1]
147	27	26	011	071	11	S07	E38	0	0	0	27	Q	SOL: Quiet
						N08	W26	1	0	0	27	Q	MAG: Quiet
						N08	E54	0	0	0	27	Q	PROTON: Quiet
148	28	27	000	070	4	S07	E38	0	0	0	28	Q	SOL: Quiet
						N08	W26	1	0	0	28	Q	MAG: Quiet
						N08	E54	0	0	0	28	Q	PROTON: Quiet
149	29	28	000	070	23	S07	E38	0	0	0	29	Q	SOL: Quiet
						N08	W26	1	0	0	29	Q	MAG: Minor
						N08	E54	0	0	0	29	Q	PROTON: Quiet
150	30	29	000	069	30	S07	E38	0	0	0	30	Q	SOL: Quiet
						N08	W26	1	0	0	30	Q	MAG: Minor
						N08	E54	0	0	0	30	Q	PROTON: Quiet
151	31	30	000	069	35	S07	E38	0	0	0	31	Q	SOL: Quiet
						N08	W26	1	0	0	31	Q	MAG: Minor
						N08	E54	0	0	0	31	Q	PROTON: Quiet

[1] **Region Forecast and Flare Geoadvice**

Q =Quiet (<50% probability of C-class flares)
E =Eruptive (C-class flares expected, probability >=50%)
A =Active (M-class flares expected, probability >=50%)
M =Major (X-class flares expected, probabiljty >=50%)
P =Proton (Proton flares exptected, probability >=50%)
Warning condition (activity levels expected to increase, but no numeric forecast given)
Nil (end of Alert period)
No forecast

Magnetic Geoadvice

Quiet
Active conditions expected (A>=20 or K=4)
Minor storm expected (A>=30 or K=5)
Major magstorm expected (A>=50 or K>=6)
Severe magstorm expected (A>=100 or K>=7)
Magstorm in progress (A>=30 or K>=4)
Warning condition (activity levels expected to increase, but no numeric forecast given)
Nil (end of Alert period)
No forecast

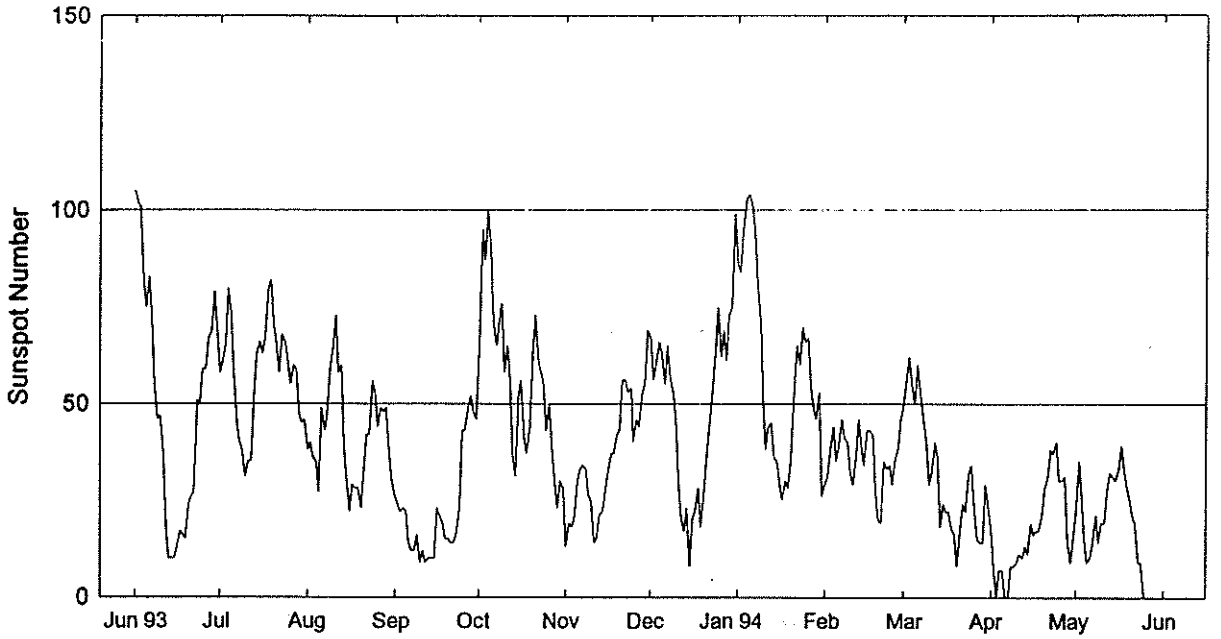
Proton Geoadvice

Quiet
Proton event expected (10 pfu at >10 MeV)
Major proton event expected (100 pfu at >100 MeV)
Proton event in progress (>10 MeV)
Warning condition (activity levels expected to increase, but no numeric forecast given)
Nil (end of Alert period)
No forecast

STRATWARM ALERTS

No stratwarms recorded this month

International Relative Sunspot Numbers
Jun 1993 - May 1994

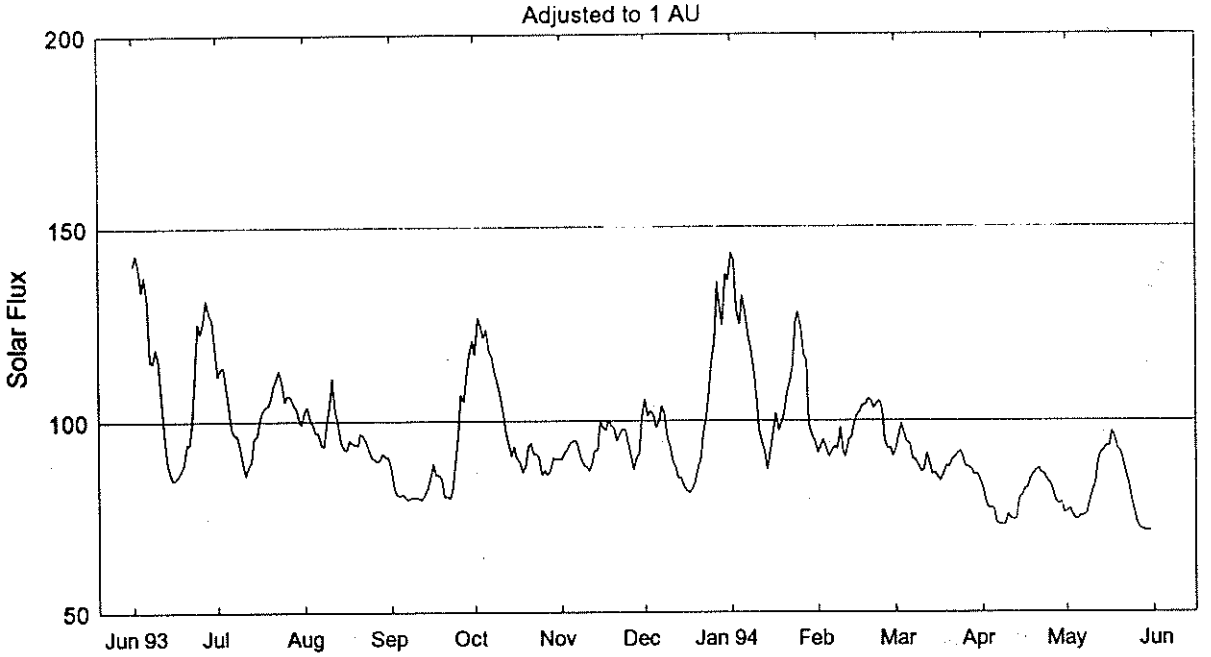


Day	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 94*	Feb*	Mar*	Apr*	May*
1	105	58	38	26	64	13	67	86	29	49	17	21
2	102	61	40	24	95	19	56	84	31	56	7	35
3	101	66	36	22	87	18	60	95	38	62	0	26
4	82	80	35	23	100	20	66	103	44	54	7	15
5	75	73	27	22	90	30	63	104	35	50	7	9
6	83	58	49	14	71	33	55	101	40	60	0	10
7	72	45	43	12	65	34	65	94	46	52	0	14
8	55	40	47	12	70	33	57	81	41	46	8	21
9	46	38	59	16	76	26	53	71	40	41	8	14
10	47	31	65	9	58	25	46	51	32	29	9	19
11	37	35	73	12	65	14	31	38	29	32	11	19
12	18	35	58	9	56	15	21	44	36	40	10	27
13	10	51	60	10	37	21	17	45	46	36	13	31
14	10	63	39	10	31	22	23	36	39	18	11	21
15	10	66	29	10	52	27	8	35	34	24	19	30
16	13	63	22	23	56	32	20	29	43	22	16	33
17	17	67	29	21	41	37	22	25	43	22	17	39
18	16	80	28	19	37	37	28	30	42	18	17	33
19	15	82	28	15	44	42	18	28	28	16	21	28
20	24	71	23	15	63	43	27	35	20	8	28	25
21	26	66	31	14	73	56	37	53	19	17	31	25
22	27	58	42	14	61	56	44	65	35	24	38	21
23	51	68	42	16	58	53	54	60	33	22	37	19
24	50	66	56	23	55	54	63	70	34	32	40	9
25	59	61	53	43	43	40	75	66	29	34	30	9
26	59	55	44	43	50	46	62	67	36	24	30	0
27	67	60	49	49	39	44	69	54	38	15	31	0
28	69	59	48	52	29	53	61	49	46	14	15	0
29	79	47	49	48	23	55	73	46		14	9	0
30	70	45	37	46	30	69	75	53		29	15	0
31		46	30		28		99	26		24		0
Mean	49.8	57.9	42.2	22.4	56.4	35.6	48.9	58.8	35.9	31.7	16.7	18.2

* = Provisional. The definitive yearly mean sunspot number equals 54.6 for 1993.

Penticton 2800 MHz (10.7cm) Solar Flux
Jun 1993 - May 1994

Adjusted to 1 AU



Day	Jun 93	Jul	Aug	Sep	Oct	Nov	Dec	Jan 94	Feb	Mar	Apr	May
1	140.4	111.8	102.8	87.1	117.1	90.0	105.6	143.4	91.7	92.4	82.4	76.3
2	143.4	113.6	103.7	82.6	126.9	91.8	101.3	141.4	93.5	96.3	79.3	77.1
3	140.4	114.2	100.8	80.9	124.8	92.4	102.6	128.7	95.1	99.2	77.4	75.6
4	133.7	110.1	98.9	80.5	121.5	94.1	101.6	124.6	92.7	96.3	77.2	74.4
5	137.7	103.9	97.0	81.0	123.7	94.8	98.3	132.4	90.6	94.2	77.2	74.4
6	131.3	98.4	97.1	80.2	118.0	94.9	99.9	127.7	92.2	94.1	73.3	75.3
7	115.7	96.5	93.8	79.6	116.6	93.5	103.8	122.1	93.3	90.0	73.0	75.2
8	115.2	96.4	93.4	80.2	113.1	90.2	101.9	118.9	92.6	89.9	72.9	75.8
9	118.9	93.2	99.1	80.1	110.1	88.7	95.4	113.1	98.3	88.7	72.9	78.8
10	116.0	89.0	104.5	80.1	107.1	88.2	93.2	106.5	91.8	86.8	75.7	81.4
11	104.9	85.8	111.2	79.8	102.3	87.0	89.7	97.8	90.7	87.0	74.6	83.6
12	96.2	88.7	103.2	79.5	97.3	88.9	88.1	94.6	95.1	91.7	74.2	89.2
13	89.4	89.5	99.2	81.1	94.5	92.2	85.1	91.9	95.4	89.1	74.3	91.4
14	86.4	95.7	94.6	82.6	90.8	92.3	85.1	87.3	98.9	86.2	79.9	92.1
15	84.6	96.3	92.8	85.6	93.5	99.9	82.8	92.6	101.3	86.5	80.6	93.4
16	85.0	100.3	92.4	89.0	90.3	98.2	81.9	97.0	102.3	85.3	82.3	93.3
17	86.1	102.6	95.1	85.9	89.4	97.7	81.1	102.0	103.9	84.3	82.5	97.2
18	87.4	103.7	94.3	86.0	86.7	100.2	82.4	97.5	103.9	85.9	84.9	95.8
19	88.8	104.1	93.9	85.0	88.1	98.7	84.2	99.5	105.6	88.3	86.2	92.7
20	94.1	105.6	93.8	80.3	93.5	98.0	88.1	101.6	105.2	87.9	87.0	91.9
21	94.0	108.9	97.0	80.6	94.2	94.8	89.9	107.3	103.1	90.0	87.6	89.9
22	99.8	111.2	96.2	79.8	91.3	96.8	96.6	109.5	104.4	90.5	86.3	86.7
23	113.1	113.3	94.8	82.0+	91.4	97.9	101.6	114.6	105.1	91.2	86.1	83.6
24	125.4	109.8	92.5	90.0+	90.6	97.5	107.5	125.1	102.9	92.1	84.3	79.9
25	122.6	105.1	90.6	96.5	86.0	94.7	115.2	128.1	94.8	90.4	83.8	76.1
26	126.0	106.8	90.2	106.8	87.4	90.8	120.5	123.9	92.6	88.1	82.0	73.4
27	131.7	106.4	89.4	104.9	86.0	87.3	135.8	116.8	93.0	88.0	79.0	72.1
28	127.8	104.6	90.2	111.7	87.3	90.7	129.2	115.7	90.8	87.3	78.4	71.4
29	126.7	103.5	91.7	116.8	90.5	91.2	124.4	98.9		85.8	78.9	71.4
30	120.3	100.8	90.7	120.9	90.0	100.8	138.0	96.1		86.1	76.0	71.3
31		99.1	90.6		90.1		136.2	94.7		84.9		71.1
Mean	112.8	102.2	96.0	87.9	99.7	93.8	101.5	111.3	97.2	89.5	79.7	81.7

+ = suspect values due to software problems.

DAILY SOLAR INDICES

May 1994

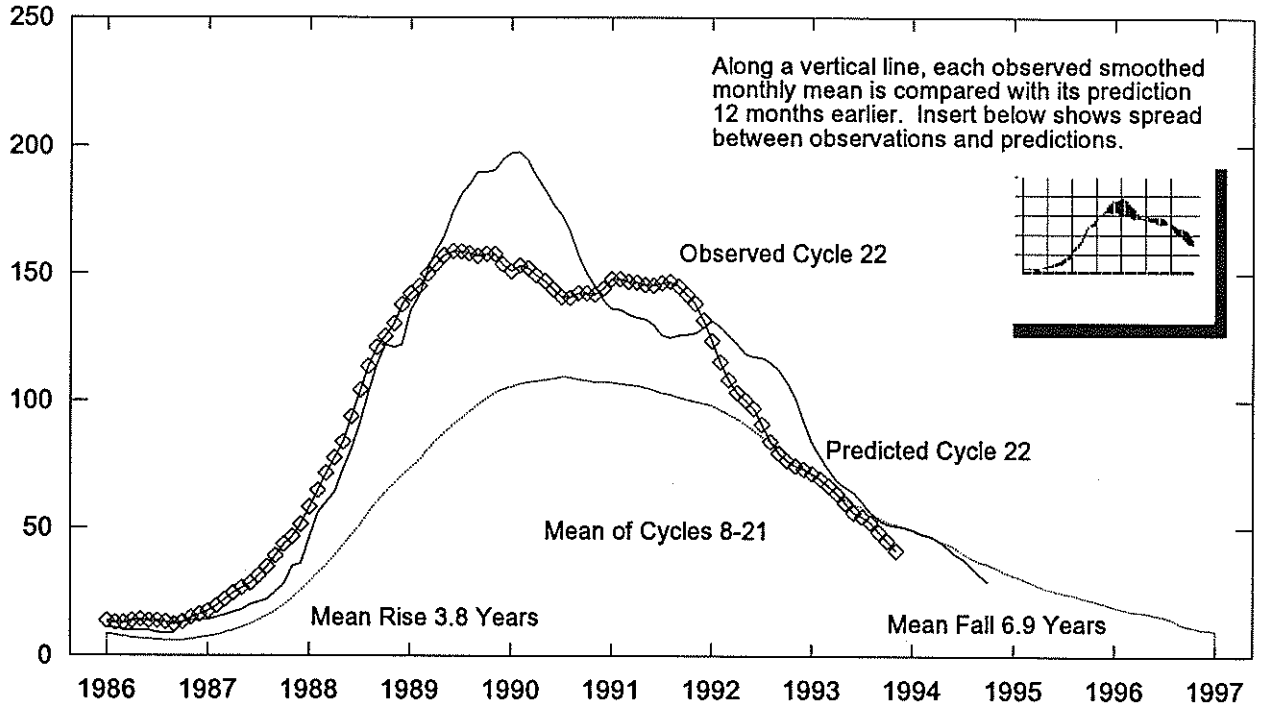
Day	Day of Year	Bartels Cycle Day	Sunspot Numbers Int	Amer	Obs Flux Penticton (2800)	Solar Flux Adjusted to 1 Astronomical Unit — LEAR (15400)	LEAR (8800)	LEAR (4995)	Pentic (2800)	LEAR (2695)	LEAR (1415)	LEAR (610)	LEAR (410)	LEAR (245)
1	121	15	21	35	75.2	517	211	125	76.3	73	53	45	27	13
2	122	16	35	37	75.9	529	211	126	77.1	73	54	46	27	14
3	123	17	26	25	74.4	528	208	125	75.6	73	54	46	27	14
4	124	18	15	14	73.1	511	209	124	74.4	72	53	46	27	13
5	125	19	9	11	73.1	530	211	123	74.4	70	52	46	27	12
6	126	20	10	18	74.0	530	211	123	75.3	70	52	46	27	12
7	127	21	14	18	73.8	515	208	125	75.2	72	53	46	26	12
8	128	22	21	21	74.4	531	208	124	75.8	72	53	46	27	13
9	129	23	14	14	77.3	527	208	126	78.8	73	54	40	21	13
10	130	24	19	18	79.8	532	209	128	81.4	76	55	41	22	13
11	131	25	19	21	81.9	530	210	132	83.6	76	57	42	23	14
12	132	26	27	28	87.4	517	209	132	89.2	81	60	43	23	14
13	133	27	32	36	89.5	536	215	139	91.4	86	64	44	24	16
14	134	1	31	37	90.2	528	215	139	92.1	86	66	46	26	31
15	135	2	30	30	91.4	527	220	141	93.4	88	68	47	24	14
16	136	3	33	36	91.3	533	223	145	93.3	91	71	47	24	14
17	137	4	39	38	95.0	522	212	142	97.2	91	71	50	25	15
18	138	5	33	35	93.6	541	226	147	95.8	93	72	50	25	14
19	139	6	28	31	90.6	528	221	144	92.7	92	71	49	25	13
20	140	7	25	28	89.8	559	219	141	91.9	88	70	48	24	13
21	141	8	25	26	87.7	528	218	139	89.8	89	68	47	24	13
22	142	9	21	23	84.6	531	220	137	86.7	85	65	45	24	13
23	143	10	19	18	81.5	515	218	135	83.6	84	62	45	24	13
24	144	11	9	9	77.9	526	212	130	79.9	78	57	45	24	13
25	145	12	9	8	74.2	528	209	127	76.1	73	55	41	22	13
26	146	13	0	1	71.5	525	204	122	73.4	70	52	40	21	12
27	147	14	0	0	70.2	512	207	123	72.1	68	51	37	21	12
28	148	15	0	0	69.5	518	207	122	71.4	69	50	38	21	12
29	149	16	0	0	69.5	512	210	123	71.4	68	50	37	21	12
30	150	17	0	0	69.4	504	208	121	71.3	68	49	38	21	12
31	151	18	0	0	69.1	501	207	120	71.1	67	49	37	21	13
MEAN			18.2	19.9	79.9	524	212	130	81.7	77	58	44	24	13

The International numbers shown above are preliminary values; the American numbers are final.

The observed and the adjusted Penticton fluxes tabulated here are the "Series C" daily values reported by the Dominion Radio Astrophysical Observatory, Penticton, British Columbia, Canada. Numbers in parentheses in the column headings denote frequencies in MHz.

Equipment problems produced any gaps in the Air Weather Service's Learmonth (LEAR) observations.

Cycle 22 Smoothed Sunspot Numbers: Observed and Predicted



Smoothed Sunspot Numbers (Observed and Predicted) for Parts of Solar Cycles 21 and 22

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1987	18	20	22	24	26	28	31	35	39	44	47	51	32
1988	58	65	71	78	84	94	104	114	121	125	130	138	99
1989	142	145	150	154	157	158	158	158	157	157	158	154	154
1990	151	153	152	149	147	144	141	140	142	142	142	144	146
1991	148	148	147	146	146	145	146	147	145	142	138	132	144
1992	124	115	108	103	100	97	91	84	80	76	74	73	94
1993	71	69	67	64	60	56	55	52	49	45	41	39	56
( )												(3)	(3)
1994	38	36	35	34	33	33	31	29	28	27	26	25	31
( )	(5)	(6)	(7)	(8)	(9)	(11)	(14)	(16)	(17)	(18)	(19)	(20)	(13)
1995	25	24	23	22	21	20	19	19	19	18	17	16	20
( )	(21)	(21)	(21)	(21)	(21)	(20)	(20)	(20)	(20)	(19)	(18)	(18)	(20)

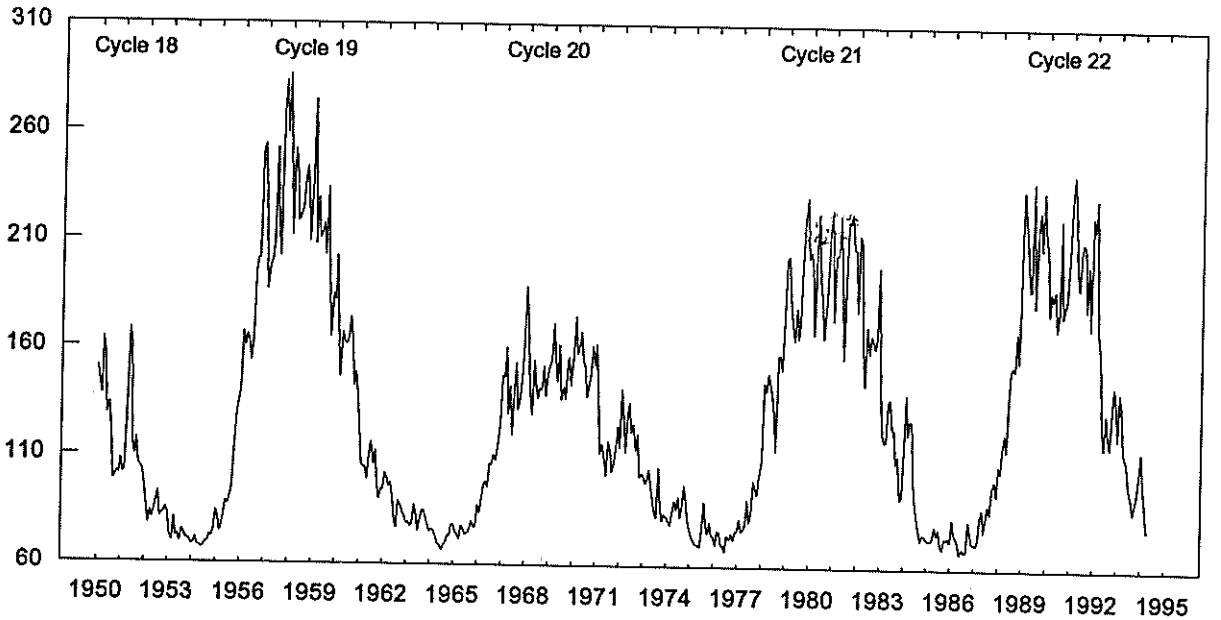
Solar Cycle 22 | Min, Max, and Predictions

September 1986 marks the minimum of Solar Cycle 21 and the onset of Cycle 22, which in turn, reached a maximum in July 1989.

Observed and Predicted Numbers. For the end of Cycle 21, and the rise and decline of Cycle 22, the table above lists observed smoothed sunspot numbers up to the one that includes the most recent monthly mean. We based these smoothed values on final monthly means through Dec 1993 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 Nov 1994 prediction. There exists a 90% chance that in Nov 1994, the actual smoothed number will fall somewhere between 7 and 45.

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 14 cycles of observations used in the computation. Moreover, the method remains very sensitive to the date defining the onset of the current cycle, that is, to the date of the most recent sunspot minimum. The new cycle predictions tabulated above are based on the minimum value of 12.3 that occurred in Sep 1986.

Monthly Mean 2800 MHz Solar Flux (Observed)
Jan 1950 - May 1994



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1950	150.7	143.3	137.8	164.3	157.1	128.7	134.1	120.9	98.6	99.9	101.9	101.1	128.2
1951	107.9	101.9	102.5	127.1	168.6	161.7	116.3	109.8	117.8	106.0	104.4	102.4	118.9
1952	95.4	86.2	78.5	84.0	80.9	84.8	88.8	93.3	81.5	82.8	83.4	85.7	85.4
1953	83.2	72.8	70.4	81.0	72.5	73.0	69.8	75.5	74.3	71.9	71.4	70.8	73.9
1954	68.7	69.2	71.9	68.7	68.0	67.3	67.7	69.9	70.1	73.2	72.6	75.5	70.2
1955	84.3	82.0	74.8	77.3	82.8	88.8	87.3	90.7	91.1	111.8	130.0	134.6	95.0
1956	141.2	167.2	160.6	165.9	163.4	154.0	162.8	193.8	200.9	201.6	250.4	253.7	184.6
1957	231.2	186.7	197.8	200.0	208.5	252.1	218.0	202.3	267.1	283.1	259.2	286.5	232.7
1958	251.5	212.2	251.5	245.9	218.6	220.5	224.1	237.0	243.5	228.0	209.2	238.2	231.7
1959	274.5	207.9	229.2	210.6	212.7	217.5	203.0	234.2	194.3	165.1	184.8	182.2	209.7
1960	202.6	170.9	146.8	167.6	162.7	161.9	163.9	174.4	164.5	142.3	148.9	138.1	162.0
1961	122.0	106.4	104.8	105.0	99.3	109.9	116.5	106.2	112.7	96.7	90.3	94.8	105.4
1962	94.9	102.2	100.3	96.2	97.9	91.0	80.7	77.3	89.5	87.8	84.9	82.0	90.4
1963	79.5	79.7	77.8	79.5	87.8	83.5	75.9	80.9	85.1	85.1	81.7	78.4	81.2
1964	75.4	76.8	75.9	72.6	69.5	69.0	67.0	69.3	70.2	73.4	73.7	78.8	72.6
1965	78.6	75.2	74.1	72.0	78.2	77.0	74.3	74.8	76.6	80.2	77.7	77.8	76.4
1966	87.9	84.2	90.3	97.2	98.5	96.3	106.7	106.6	110.9	108.6	113.3	124.6	102.1
1967	147.7	147.0	160.6	129.9	143.0	120.2	140.3	153.7	132.1	136.1	145.3	163.0	143.2
1968	189.1	173.2	142.6	129.5	154.9	142.3	137.2	142.2	141.0	152.5	138.5	148.4	149.3
1969	152.7	155.2	172.3	155.5	145.4	162.2	136.6	143.0	137.3	154.0	156.7	143.6	151.2
1970	158.3	175.4	158.4	162.0	168.4	154.9	152.0	138.2	143.2	148.3	162.0	152.8	156.2
1971	162.6	137.8	111.9	116.7	109.9	101.7	117.4	114.1	104.0	107.2	114.0	124.5	118.5
1972	114.8	141.8	128.5	112.9	129.6	135.4	122.0	125.7	113.6	121.1	101.6	102.9	120.8
1973	102.2	98.7	100.4	105.0	97.0	91.2	84.5	82.9	105.6	87.7	81.5	84.2	93.4
1974	83.1	80.9	79.2	86.1	90.6	86.3	92.5	83.0	87.8	97.6	90.3	81.1	86.5
1975	77.5	74.2	72.4	70.7	70.1	69.7	77.2	90.4	79.6	75.7	80.8	74.6	76.1
1976	74.7	70.5	76.7	76.3	70.6	70.6	67.5	74.8	73.1	75.9	72.9	76.7	73.4
1977	77.4	82.3	76.6	77.6	79.6	91.5	81.1	84.3	99.9	96.9	93.7	102.1	86.9
1978	109.6	145.4	141.8	149.4	146.5	142.2	131.1	114.0	157.9	158.2	151.5	175.5	143.6
1979	203.0	204.1	185.8	173.8	165.2	180.3	165.9	172.7	200.2	217.9	231.7	203.5	192.0
1980	206.2	200.0	168.1	207.9	224.0	193.2	184.8	166.2	183.9	204.2	218.1	225.8	198.5
1981	174.6	204.5	205.3	223.2	194.6	156.9	191.9	220.6	219.5	224.3	207.8	207.8	202.6
1982	179.0	214.2	210.5	161.8	144.7	171.9	159.6	167.9	165.3	161.9	167.4	199.4	175.3
1983	142.3	122.6	118.6	118.9	137.1	138.6	125.0	124.4	109.0	112.4	92.5	93.4	119.6
1984	116.1	140.6	122.0	128.7	128.3	100.3	89.3	83.7	78.1	73.5	76.3	75.9	101.1
1985	74.5	73.7	73.3	75.1	80.2	76.1	78.7	71.5	69.5	74.7	74.2	74.8	74.7
1986	73.2	83.6	77.0	75.1	72.6	67.6	70.2	68.4	68.7	83.0	77.1	72.6	74.1
1987	72.5	71.5	74.0	84.9	87.8	77.9	84.2	90.0	86.1	98.1	101.2	94.4	85.3
1988	108.0	105.0	114.9	122.7	115.2	139.4	152.7	154.2	152.5	169.8	156.2	199.8	141.0
1989	235.4	222.4	205.1	189.6	190.1	239.6	181.9	217.1	225.9	208.7	235.1	213.0	213.7
1990	210.1	178.3	188.8	185.3	189.7	170.9	180.7	222.6	177.4	182.0	184.3	204.9	189.6
1991	229.4	243.0	230.0	198.8	190.3	206.8	212.0	210.3	180.6	201.3	172.0	223.9	208.1
1992	217.6	232.1	171.3	158.5	125.4	116.7	132.2	122.1	116.8	130.8	145.2	139.1	150.7
1993	121.0	142.6	136.4	115.9	112.3	109.3	99.0	93.7	87.0	100.3	95.9	104.8	109.7
1994	115.0	99.6	90.4	79.1	79.9								92.8

Hα SOLAR FLARES

MAY 1994

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
GOES	01	1717	1720	1724						7		B 1.2						
SVTO	02	0445E	0446U	0449D	N05	E36	7713	05	4.9	4D	SF		2	E		78		UF
SVTO	07	1257	1258	1301	S08	E31	7719	05	9.9	4	SF	B 2.1	3	E		10		
GOES		1439	1442	1444						5		B 1.2						
GOES	09	0900	0904	0906						6		B 1.0						
GOES	10	1059	1104	1106						7		B 1.2						
GOES		1112	1116	1120						8		B 1.4						
GOES		1326	1329	1332						6		B 1.9						
GOES	11	1738	1752	1802						24		B 3.4						
GOES		1942	1947	1954						12		B 1.0						
GOES	12	0319	0323	0325						6		B 3.0						
GOES		0405	0409	0411						6		B 7.6						
GOES		0522	0524	0526						4		B 9.7						
SVTO		0547	0553	0600	N06	E75	7722	05	17.8	13	SF	B 2.7	3	E		13		H
GOES		0629	0632	0634						5		B 3.0						
GOES		0658	0730	0735						37		B 2.6						
GOES		0752	0755	0757						5		B 2.4						
GOES		0818	0822	0824						6		B 2.2						
GOES		0907	0910	0912						5		B 1.4						
GOES		0954	0956	0957						3		B 1.7						
GOES		1154	1157	1159						5		B 1.8						
GOES		1231	1232	1233						2		B 2.0						
GOES		1241	1245	1247						6		B 2.1						
GOES		1450	1453	1455						5		B 2.1						
GOES		1458	1503	1510						12		B 6.3						
HOLL		1850	1854	1904	N07	E67	7722	05	17.8	14	SF	B 5.9	3	E		36		
GOES		2034	2037	2041						7		B 1.5						
GOES	13	0454	0521	0541						47		B 4.4						
SVTO		1205	1215	1236	S07	W50	7719	05	9.7	31	SF	B 5.0	3	E		51		FH
RAMY		1224E	1224U	1237	S07	W50	7719	05	9.8	13D	SF		4	E		30		FS
HOLL		2146	2147	2155	N04	E50	7722	05	17.6	9	SF	B 2.4	3	E		17		F
LEAR	14	0009	0012	0023	N03	E48	7722	05	17.6	14	1F	C 1.6	3	E		114		FE
PALE		0010E	0013U	0020D	N09	E49	7722	05	17.7	10D	S		1	E				F
GOES		0507	0512	0514						7		B 1.5						
SVTO		1106	1109	1117	N10	E47	7722	05	18.0	11	SF		3	E		12		F
GOES		1855	1901	1903						8		B 1.2						
HOLL	15	1728	1729	1733	N09	E39	7726	05	18.6	5	SF	B 6.0	3	E		19		
SVTO	16	1006	1010	1034	N11	W16	7723	05	15.2	28	SF	B 5.3	3	E		26		
SVTO		1219	1222	1233	N11	W18	7723	05	15.1	14	SF	B 2.6	3	E		32		F
GOES		1436	1440	1446						10		B 1.7						
HOLL		1801	1802	1806	N13	W20	7723	05	15.2	5	SF		3	E		13		
GOES		2200	2208	2214						14		B 5.2						
GOES		2330	2335	2337						7		B 1.4						
LEAR	17	0001	0003	0013	N10	E23	7726	05	18.7	12	SF		3	E		53		F
LEAR		0021	0025	0037	N10	E23	7726	05	18.7	16	SF	B 5.8	3	E		37		F
PALE		0126E	0126U	0132D	N10	E20	7726	05	18.6	6D	SF	B 3.9	3	E		14		
GOES		2328	2331	2335						7		B 1.4						
GOES		2358	2404	2413						15		B 2.0						
GOES	18	0809	0812	0815						6		B 6.6						
GOES		1114	1120	1123						9		B 1.4						
SVTO		1159	1201	1203	N08	W12	7722	05	17.6	4	SF	B 1.5	3	E		10		
GOES		1231	1234	1237						6		B 1.8						
SVTO		1338	1340	1412	N06	W08	7722	05	18.0	34	SF		3	E		48		FH
RAMY		1338	1341	1352	N07	W04	7722	05	18.3	14	SF	B 7.7	3	E		48		FH
RAMY		1355	1404	1418	N07	W08	7722	05	18.0	23	SF	B 5.4	3	E		46		F
GOES		1543	1547	1549						6		B 3.5						

Hα SOLAR FLARES

MAY 1994

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	Imp See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
RAMY	18	1711	1711	1716	N06	W09	7722	05	18.0	5	SF	B 2.5	3	E		16		F
GOES		1834	1837	1840						6		B 1.3						
HOLL		2116	2120	2126	N06	W12	7722	05	18.0	10	SF	B 2.9	3	E		15		F
GOES		2201	2206	2208						7		B 5.3						
GOES	20	0248	0253	0259						11		B 2.5						
SVTO		1453	1456	1509	N10	W71	7723	05	15.3	16	SF		3	E		21		
HOLL		1625	1627	1636	N07	E32	7727	05	23.1	11	SF	B 2.6	3	E		28		F
SVTO		1626	1627	1633	N08	E32	7727	05	23.1	7	SF		2	E		28		F
SVTO	21	0546	0551	0600	N09	W42	7722	05	18.1	14	SF	B 2.7	3	E		22		F
RAMY		1113E	1113U	1122D	N09	W46	7726	05	18.0	9D	SF		2	E		16		
GOES		1215	1218	1221						6		B 1.0						
SVTO		1256	1258	1306	N08	W44	7722	05	18.2	10	SF	B 1.6	3	E		20		
GOES		1321	1331	1338						17		B 3.3						
GOES		2029	2032	2034						5		B 1.0						
GOES		2122	2125	2128						6		B 1.0						
GOES		2130	2150	2155						25		B 2.9						
SVTO	22	0804	0811	0819	N14	W54	7726	05	18.2	15	SF	B 1.9	3	E		38		F
GOES	23	0619	0624	0629						10		B 1.2						
SVTO		0735	0743	0813	N09	W04	7727	05	23.0	38	SF	B 4.8	3	E		42		F
GOES		0908	0914	0924						16		B 1.8						
GOES		1230	1234	1238						8		B 1.7						
GOES		1352	1356	1401						9		B 1.2						
GOES		2103	2107	2113						10		B 1.3						
GOES	24	0107	0112	0115						8		B 1.2						
GOES		0628	0632	0638						10		B 1.4						
GOES		0645	0651	0655						10		B 7.3						
GOES		1148	1151	1154						6		B 1.0						
GOES		1715	1719	1722						7		B 1.4						
HOLL		1812	1812	1824	N09	W23	7727	05	23.0	12	SF	B 3.0	3	E		18		
GOES		2000	2007	2011						11		B 1.6						
GOES	31	2026	2030	2034						8		B 4.2						

"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

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

MAY 1994

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
12	2695	LEAR	8 S	0408.0	0408.0	U	40.0			QL=4 ST=2 TYP=3
	8800	LEAR	8 S	0408.0	0408.0	U	43.0			QL=4 ST=2 TYP=3
	2695	SVTO	8 S	0408.0	0408.0	U	37.0			QL=4 ST=2 TYP=3
	8800	SVTO	8 S	0408.0	0408.0	U	52.0			QL=4 ST=2 TYP=3

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

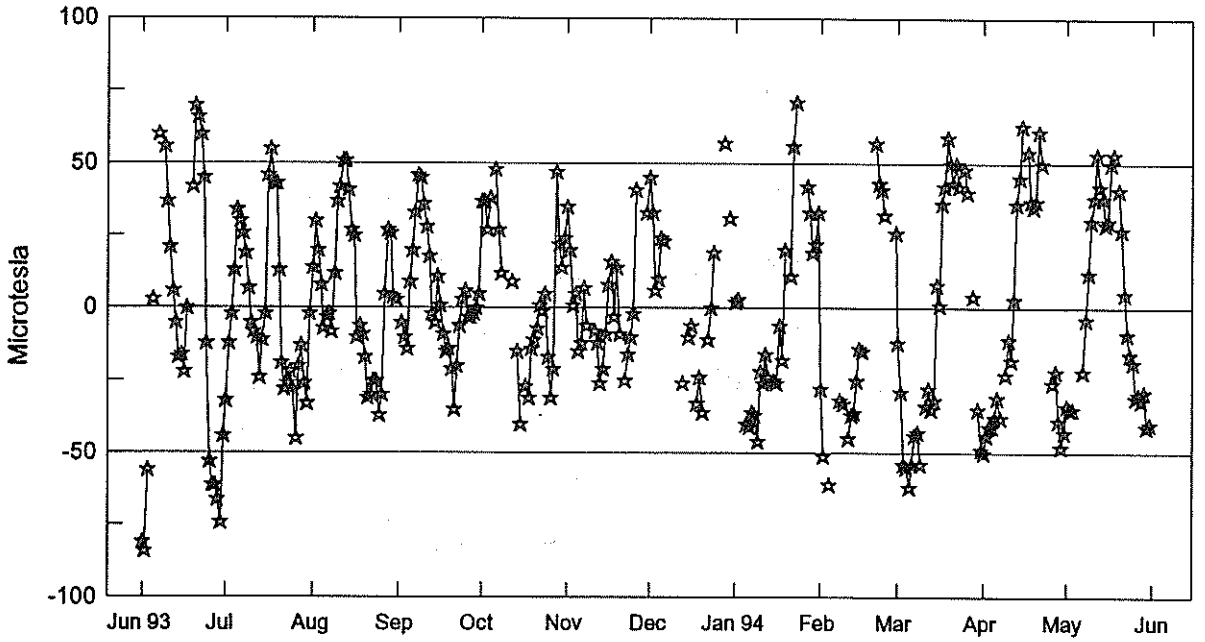
Explanation of Type Code:

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	40 Rise Only	16A Fall A	27AF Rise and Fall AF
21A Simple 3A GRF	40F Rise Only F	260 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; Hiraiso, Japan 500 and 200 MHz; and Toyokawa, Japan 9400, 3750, 2000 and 1000 MHz.

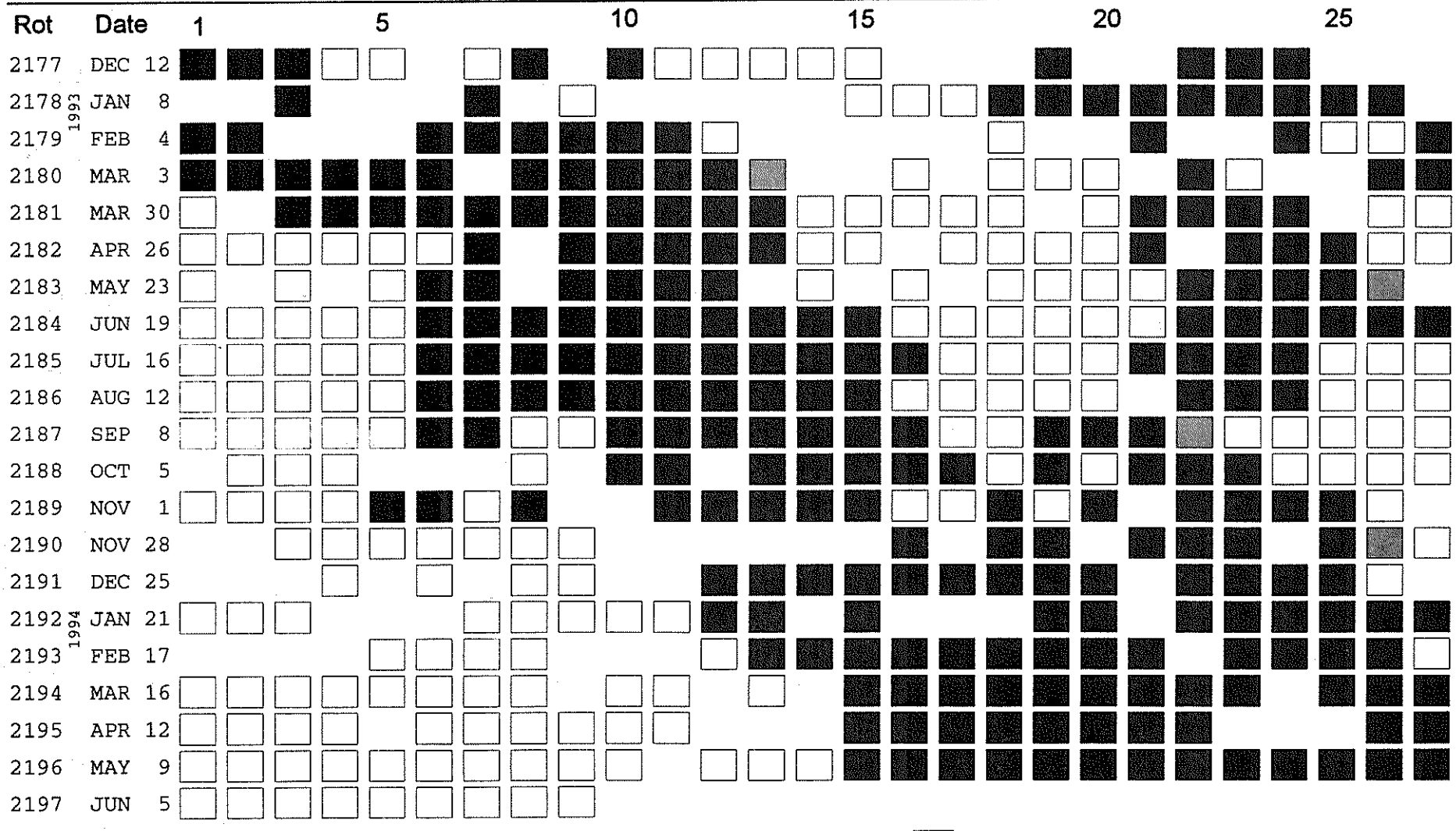
Stanford Mean Solar Magnetic Field (Microtesla)
"Sun-As-A-Star"



Day	Jun 93	Jul	Aug	Sep	Oct	Nov	Dec	Jan 94	Feb	Mar	Apr	May
1	-81	-32	14	---	37	35	45	2	-28	-12	-50	-34
2	-84	-12	30	-5	37	20	33	3	-51	-29	-44	-35
3	-56	-2	20	-10	27	1	6	---	---	-54	-41	-35
4	---	13	8	-14	38	5	10	---	-61	-55	-41	---
5	3	34	-7	9	---	-15	24	-40	---	-62	-38	---
6	---	30	-3	20	48	-12	23	-41	---	-54	-31	---
7	60	26	-2	33	27	7	---	-36	---	-44	-38	-22
8	---	19	-8	46	12	-6	---	-37	-32	-43	---	-4
9	56	7	12	45	---	---	---	-46	-33	-54	-23	12
10	37	-5	37	36	---	---	---	-22	---	---	-11	30
11	21	-8	42	28	---	-8	---	-26	-45	-34	-18	38
12	6	-10	51	18	9	-12	---	-16	-37	-28	3	53
13	-5	-24	51	-2	---	-26	-26	-24	-36	-35	36	42
14	-17	-11	41	-5	-15	-21	---	---	-25	-32	45	38
15	-16	-2	27	11	-40	-9	-10	-25	-14	8	63	29
16	-22	46	25	1	---	8	-6	-26	-15	1	---	30
17	0	55	-10	-9	-27	16	---	-6	---	36	54	50
18	---	43	-6	-15	-31	-3	-33	-18	---	42	37	53
19	42	43	-9	-14	-14	14	-24	20	---	59	35	---
20	70	13	-17	-21	-11	-9	-36	---	---	50	37	41
21	66	-19	-31	-35	-7	---	---	11	57	43	61	27
22	60	-28	-30	-20	1	-25	-11	56	43	50	50	5
23	45	-26	-25	-6	-1	-16	0	71	41	42	---	-9
24	-12	-22	-25	3	5	-10	19	---	32	---	---	-16
25	-53	-28	-37	6	-17	-2	---	---	---	48	---	-19
26	-61	-45	-30	-3	-31	41	---	---	---	40	-26	-31
27	-61	-20	5	-3	-21	---	---	42	---	---	-22	-30
28	-66	-13	27	-2	47	---	57	33	26	4	-39	-32
29	-74	-26	26	0	22	---	---	19		---	-48	-29
30	-44	-33	4	5	14	33	31	22		-35	-43	-41
31		-2	3		24		---	33		-49		-40

Note: --- Indicates no data available for the day.

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.

CONTENTS

Prompt Reports Number 598 Part I

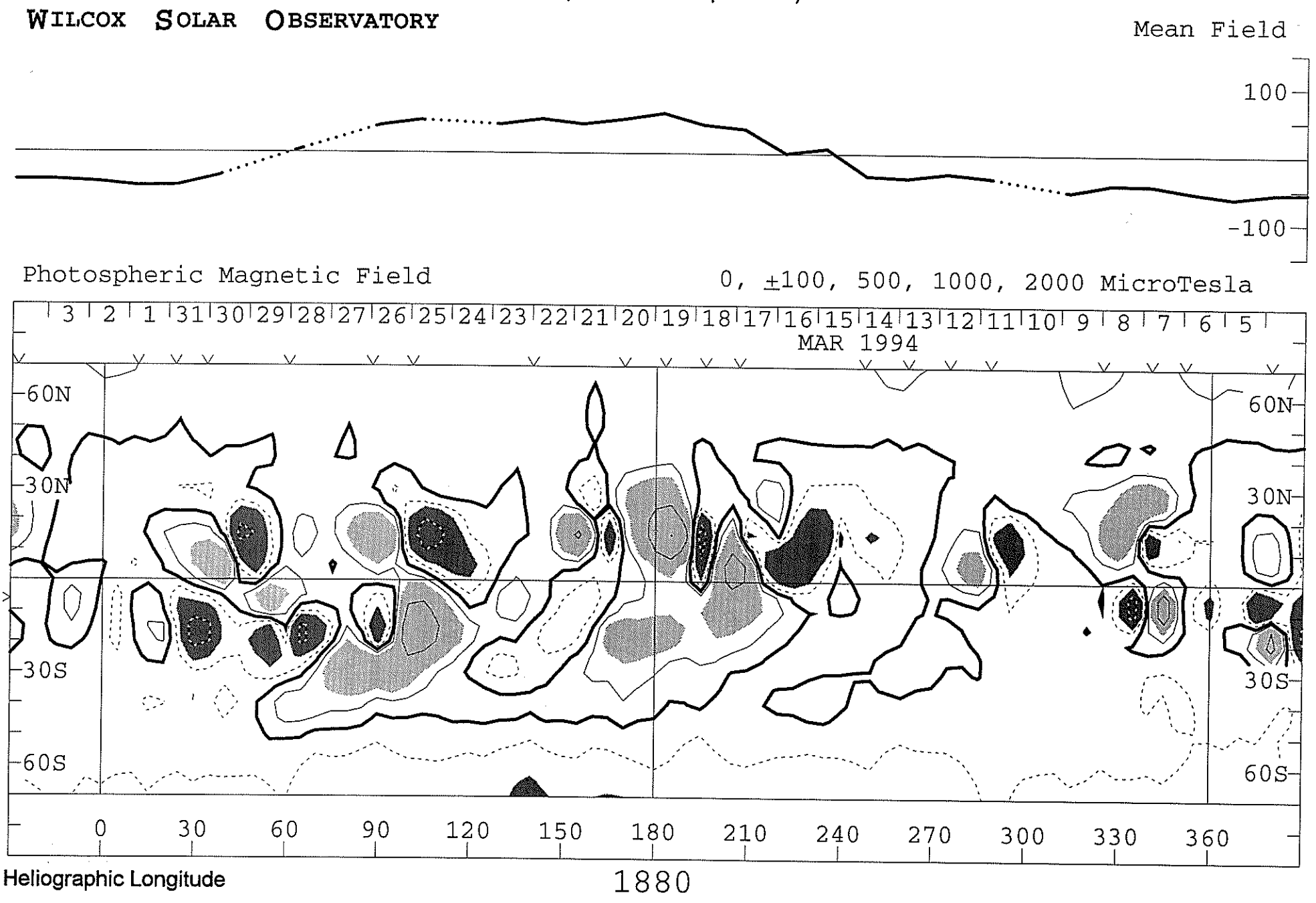
DATA FOR APRIL 1994

SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1880

(6 March to 2 April 1994)

WILCOX SOLAR OBSERVATORY



SOLAR MAGNETIC FIELD SYNOPTIC CHART

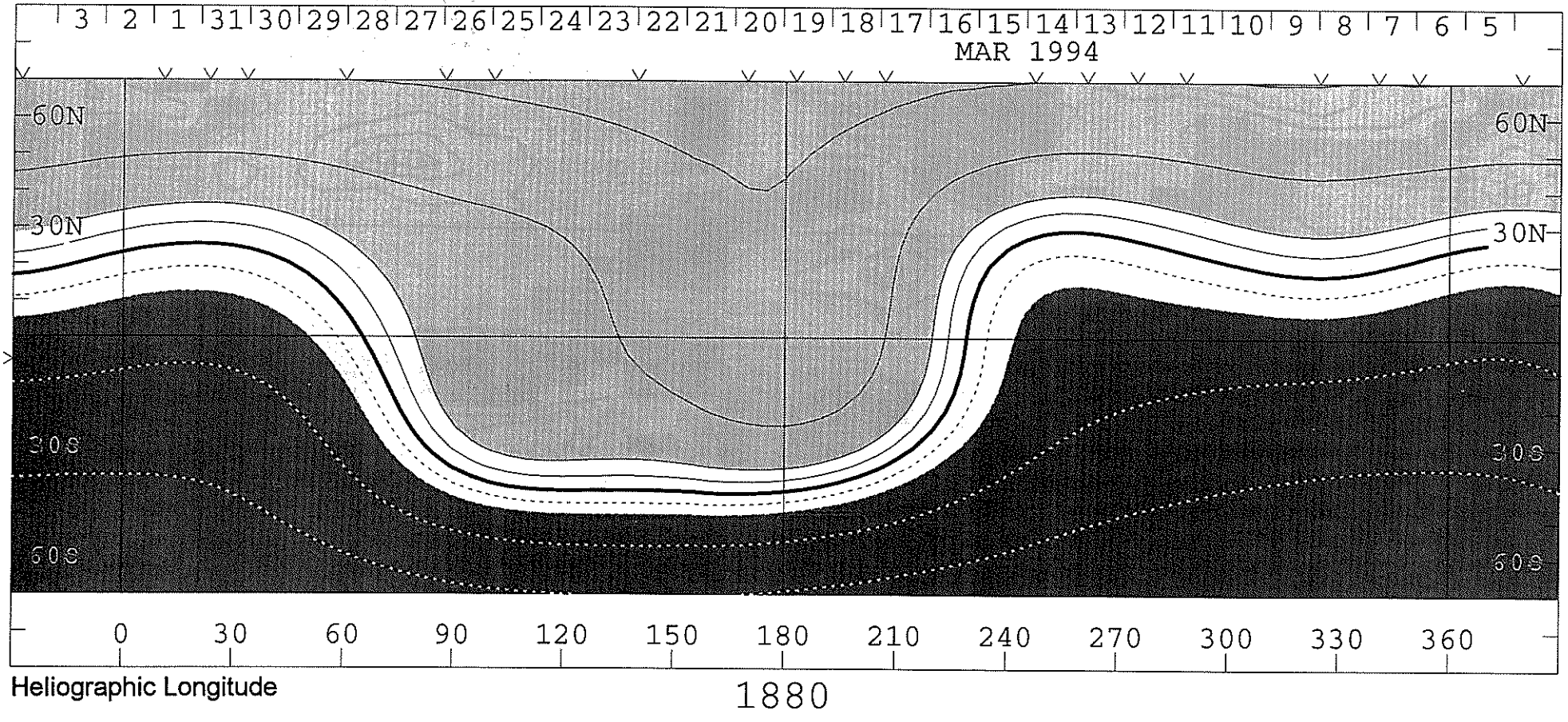
SOURCE SURFACE FIELD

CARRINGTON ROTATION NUMBER 1880

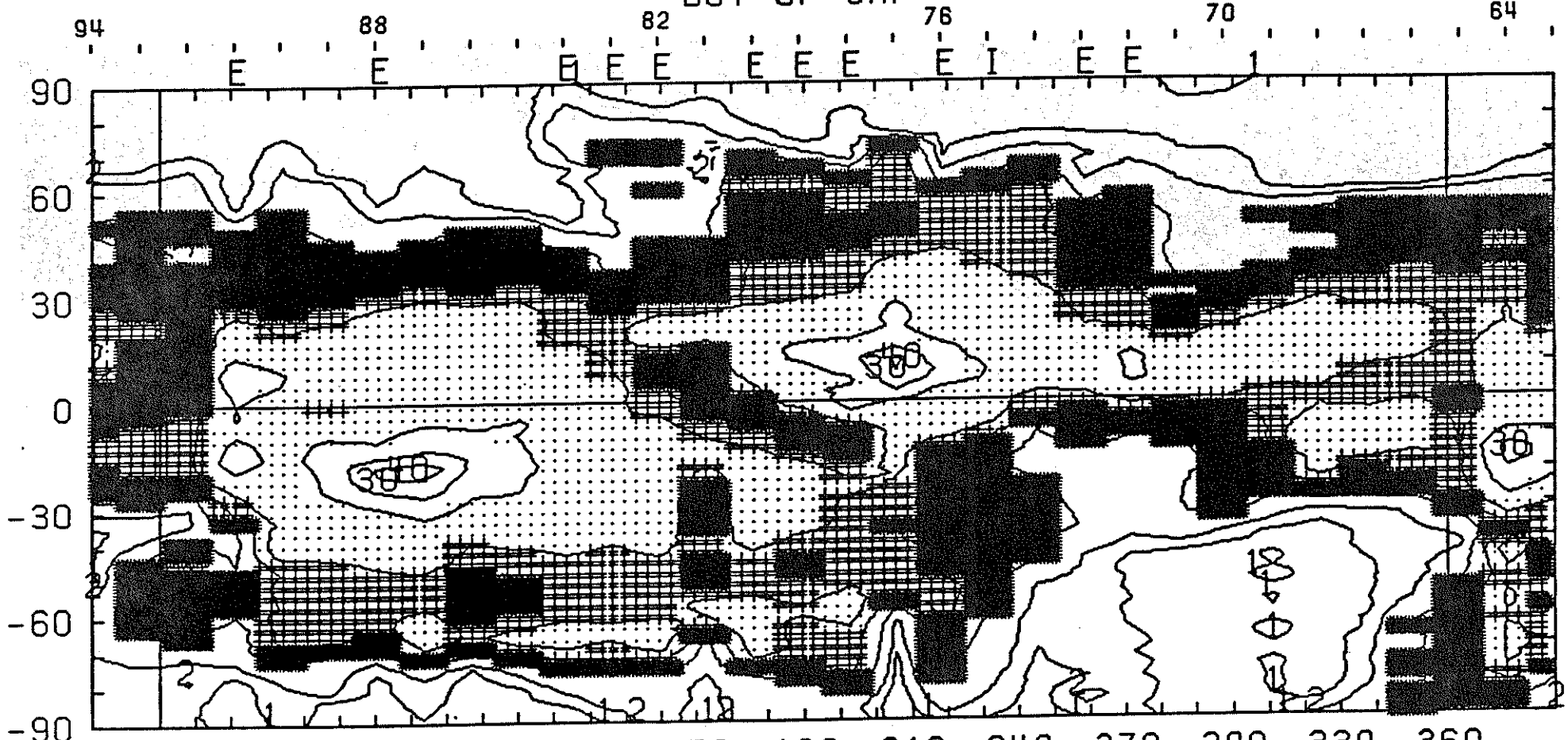
(6 March to 2 April 1994)

Wilcox Solar Observatory

0, ±1, 2, 5, 10, 20 microTesla



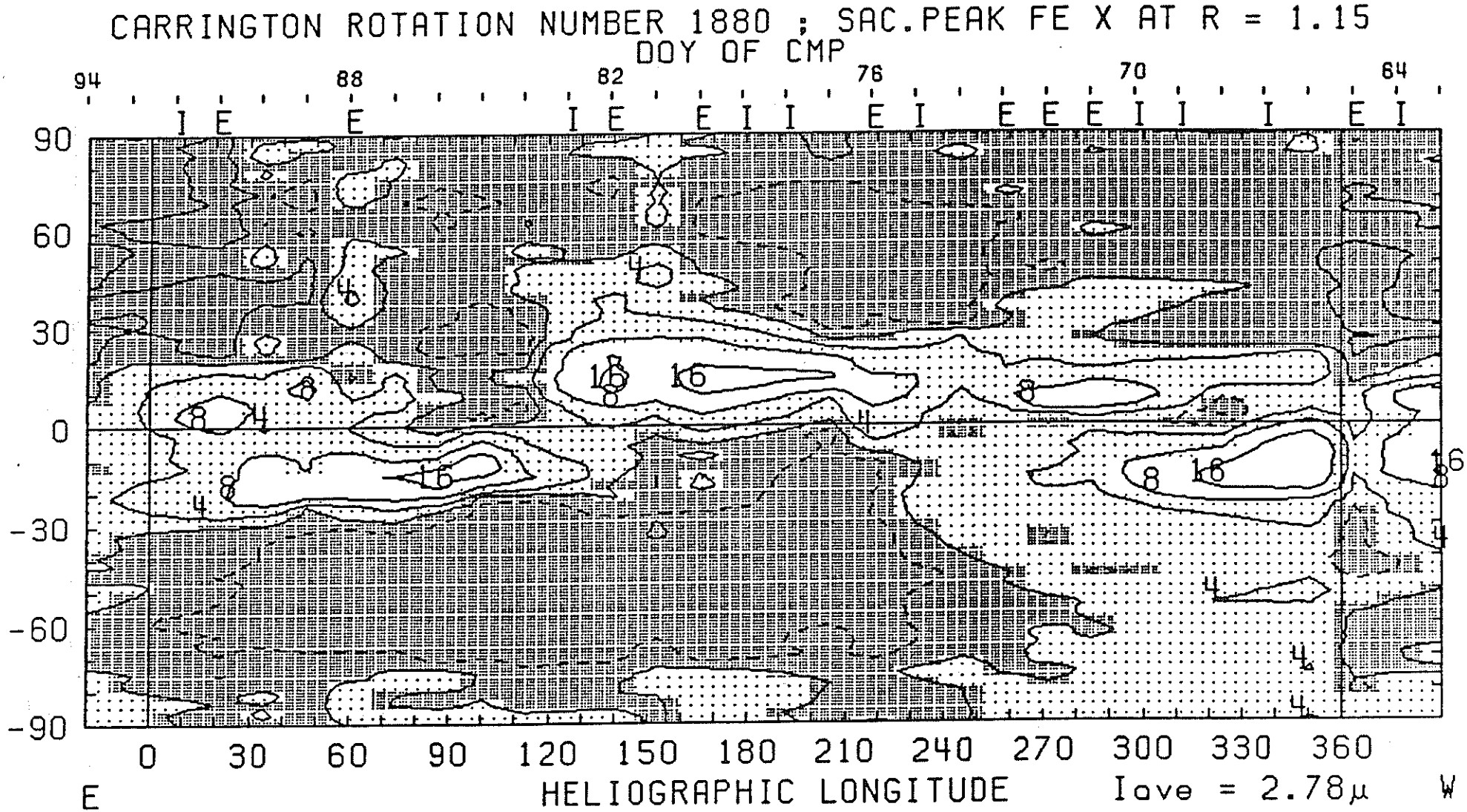
CARRINGTON ROTATION NUMBER 1880 ; SAC.PEAK FE XIV AT R = 1.15

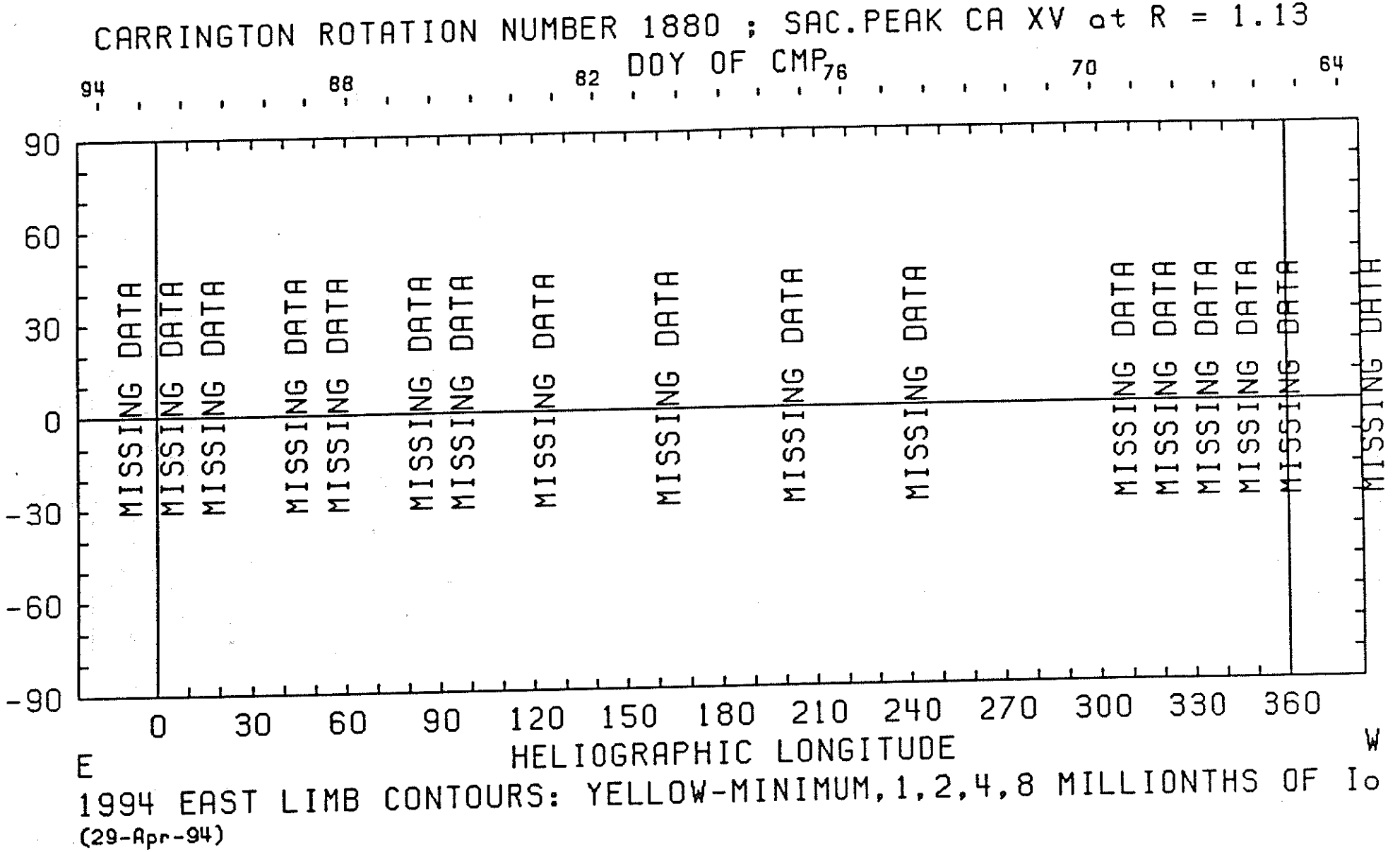


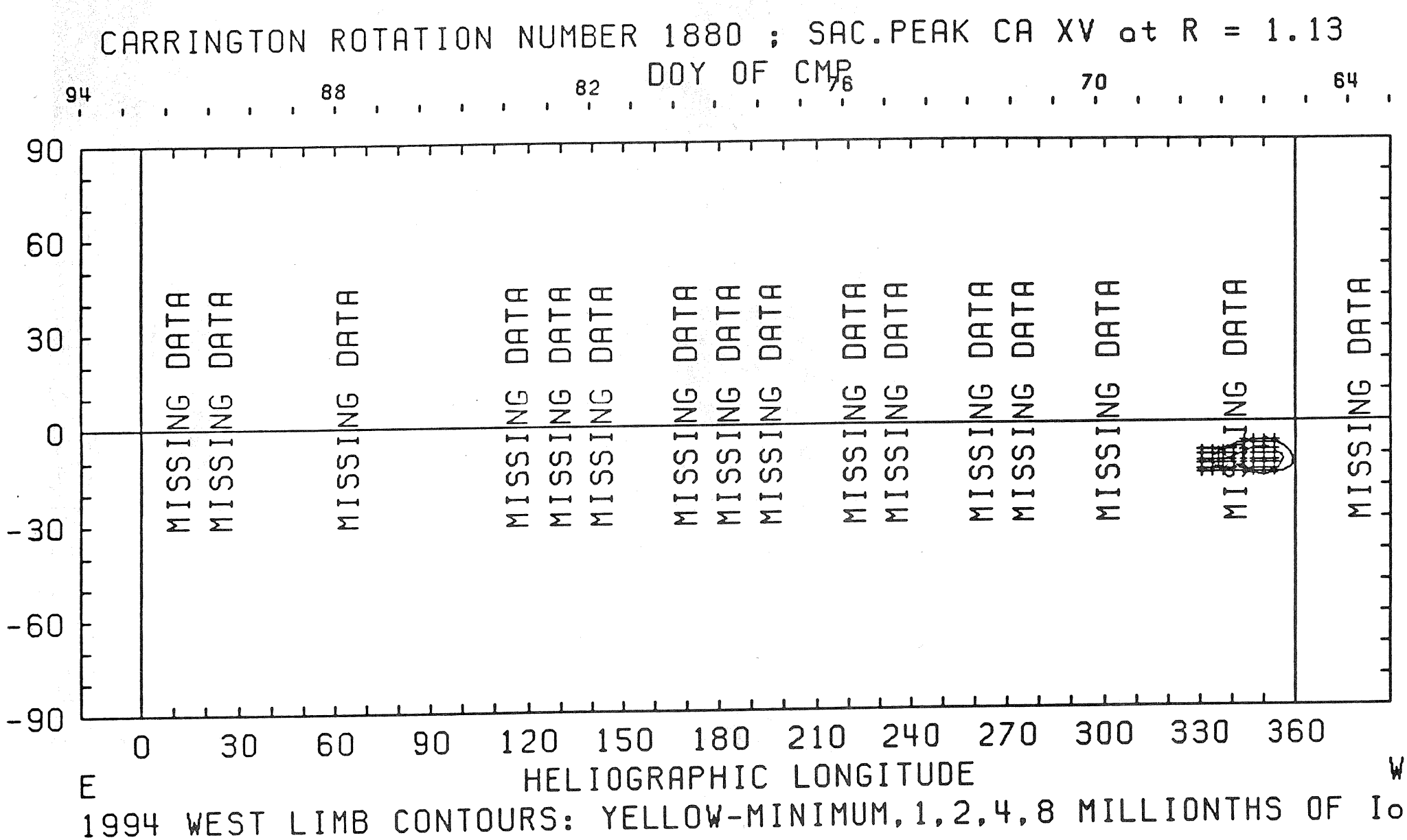
Iave = 6.76μ

1994 W+E LIMB CONTOURS: 1,2,4,7,10,20,30,40,50 MILLIONTHS OF Io

(29-Apr-94) CORONAL HOLES ARE SHOWN AS WHITE SURROUNDED BY BLACK


CARRINGTON ROTATION NUMBER 1880 ; SAC.PEAK FE X AT R = 1.15
DOY OF CMP
94
88
82
76
70
64
90
60
30
0
-30
-60
-90
0
30
60
90
120
150
180
210
240
270
300
330
360
E
HELIOGRAPHIC LONGITUDE
Iave = 2.78μ
W
1994 W+E LIMB CONTOURS: 1,2,4,8,16,32,48,64,80 MILLIONTHS OF Io
(17-May-94)


CARRINGTON ROTATION NUMBER 1880 ; SAC.PEAK CA XV at R = 1.13
DOY OF CMP76
94
88
82
76
70
64
90
60
30
0
-30
-60
-90
MISSING DATA
0
30
60
90
120
150
180
210
240
270
300
330
360
E
HELIOGRAPHIC LONGITUDE
W
1994 EAST LIMB CONTOURS: YELLOW-MINIMUM,1,2,4,8 MILLIONTHS OF Io
(29-Apr-94)


CARRINGTON ROTATION NUMBER 1880 ; SAC.PEAK CA XV at R = 1.13
DOY OF CMP
94
88
82
76
70
64
90
60
30
0
-30
-60
-90
MISSING DATA
0
30
60
90
120
150
180
210
240
270
300
330
360
E
HELIOGRAPHIC LONGITUDE
W
1994 WEST LIMB CONTOURS: YELLOW-MINIMUM,1,2,4,8 MILLIONTHS OF Io
(29-Apr-94)

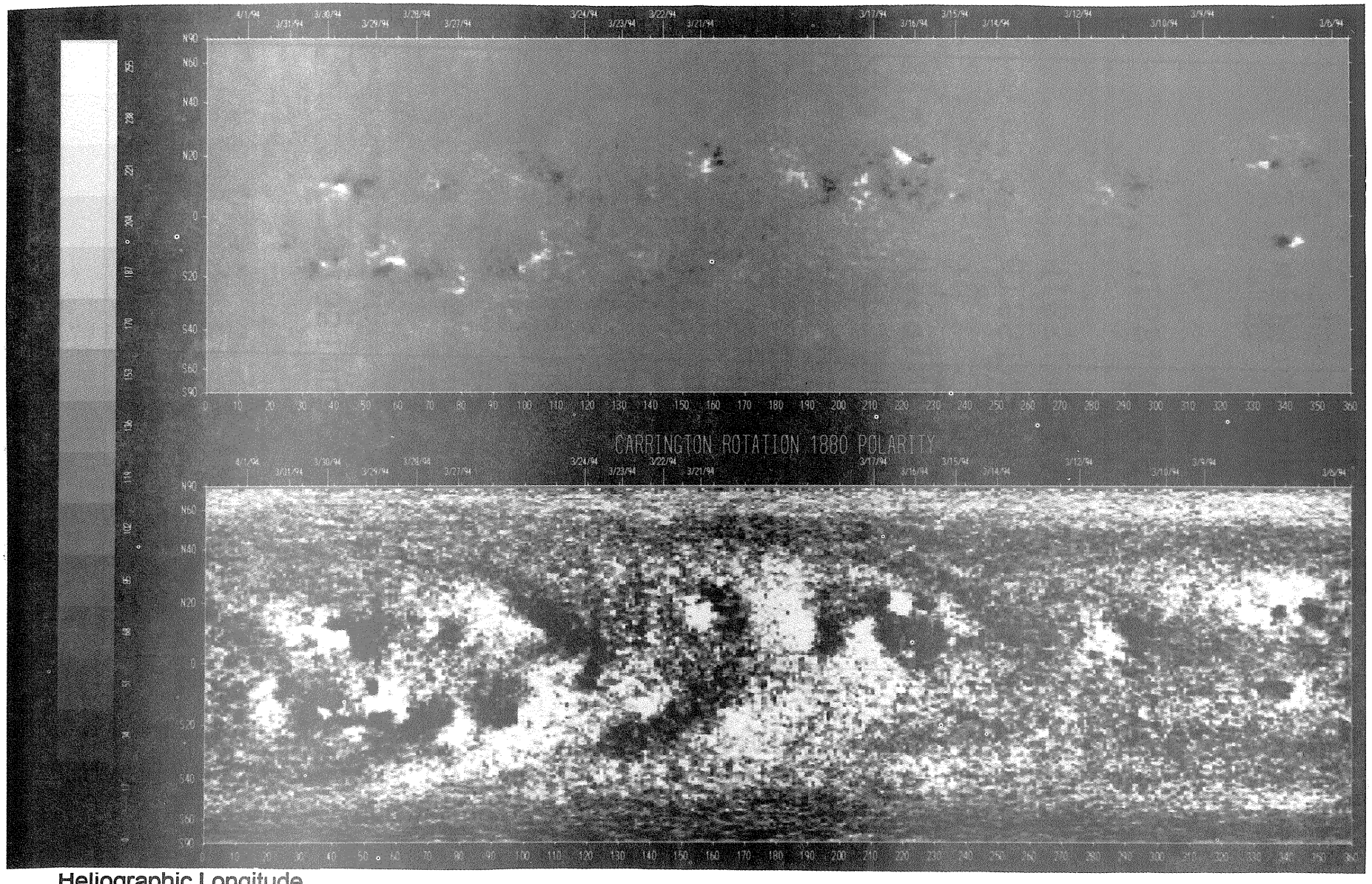
SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1880

(6 March to 2 April 1994)

National Solar Observatory/Kitt Peak

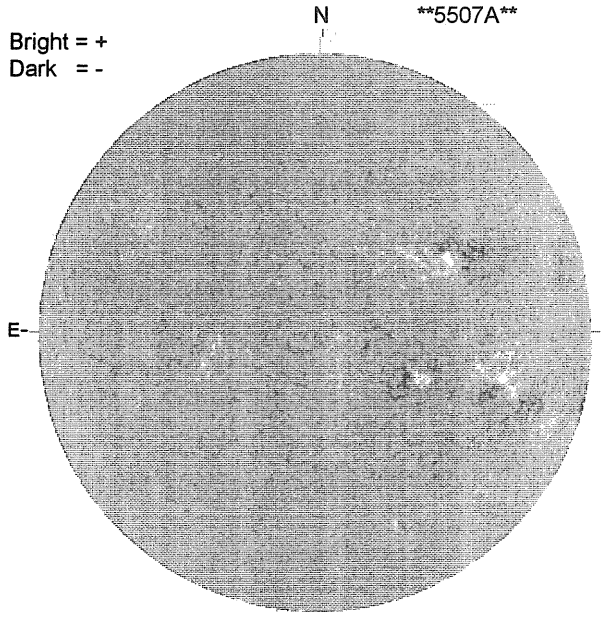
Dates of Observation



Heliographic Longitude

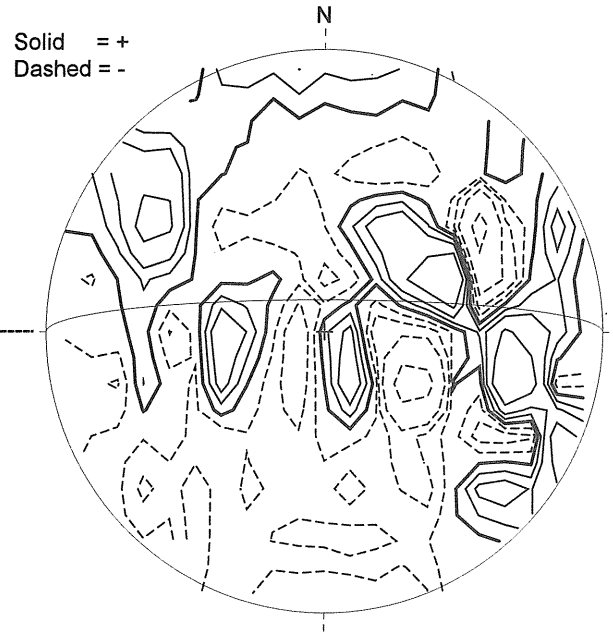
APRIL 1, 1994 (P=-26.17, Bo =-6.55, Lo = 21.05)

KITT PEAK MAGNETOGRAM



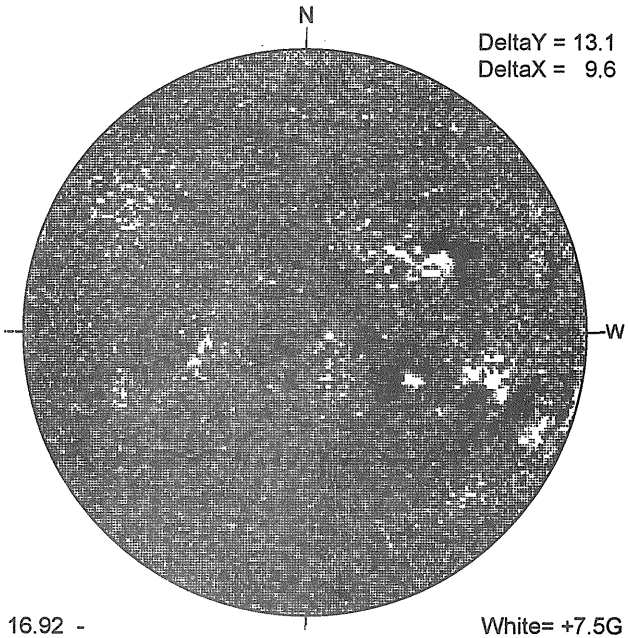
1525 UT

STANFORD MAGNETOGRAM



1811 UT

MT. WILSON MAGNETOGRAM



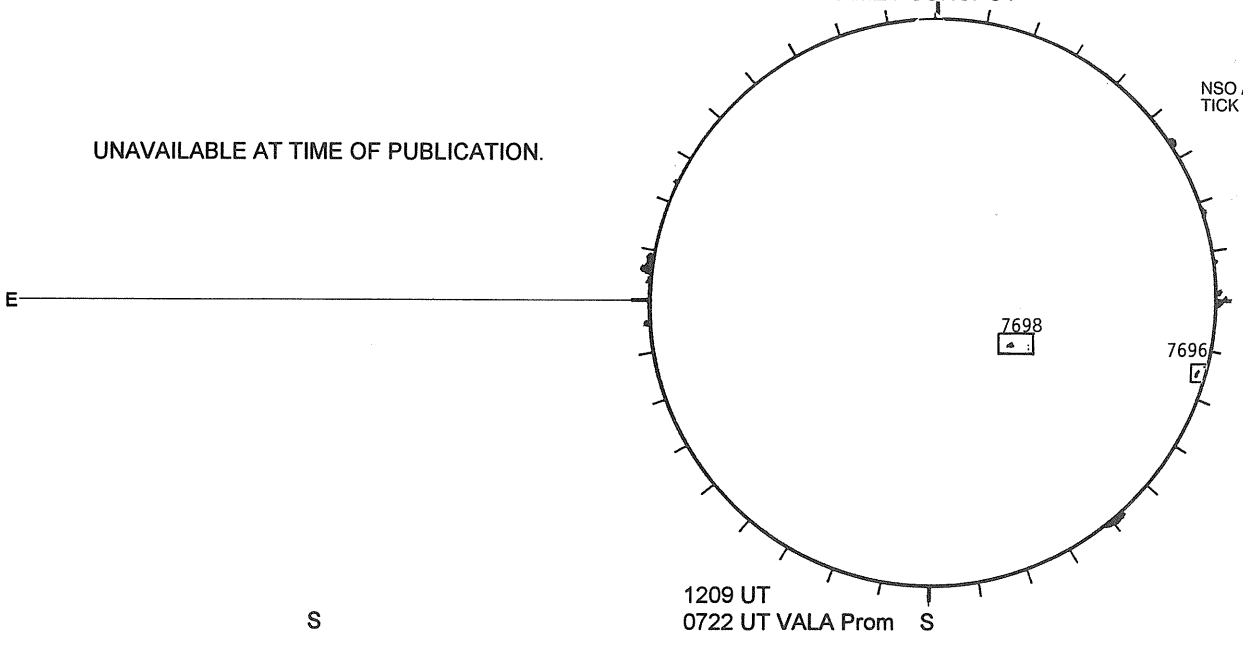
16.92 -
17.86 UT

White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA

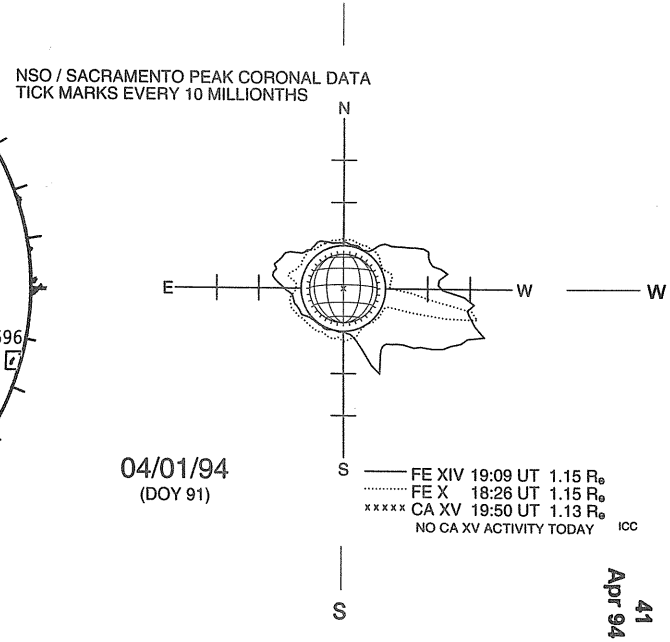
UNAVAILABLE AT TIME OF PUBLICATION.

RAMEY SUNSPOT



1209 UT
0722 UT VALA Prom

SACRAMENTO PEAK CORONA (1.15 Radii)----

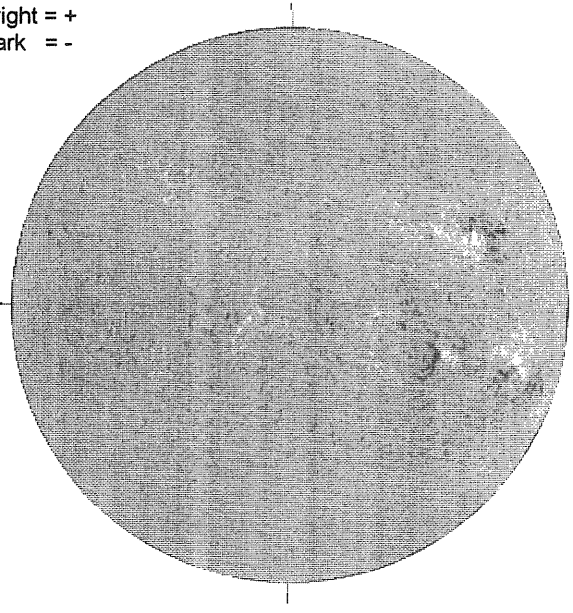


APRIL 2, 1994 (P=-26.21, Bo =-6.50, Lo = 7.85)

KITT PEAK MAGNETOGRAM

N **5507A**

Bright = +
Dark = -

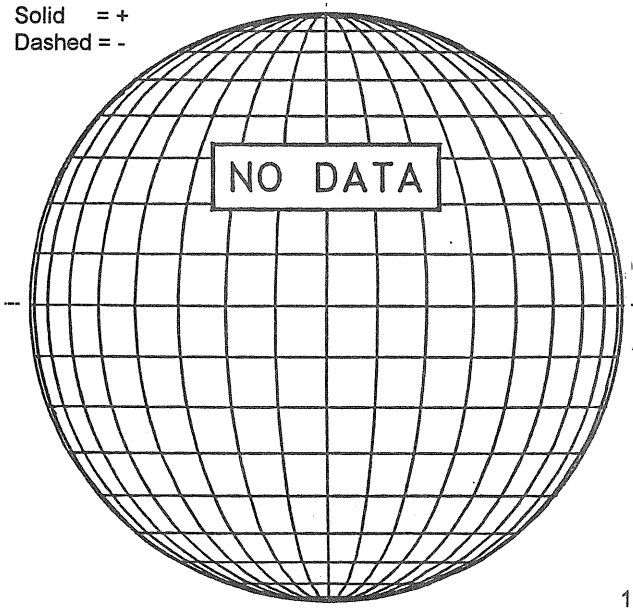


1527 UT

STANFORD MAGNETOGRAM

N

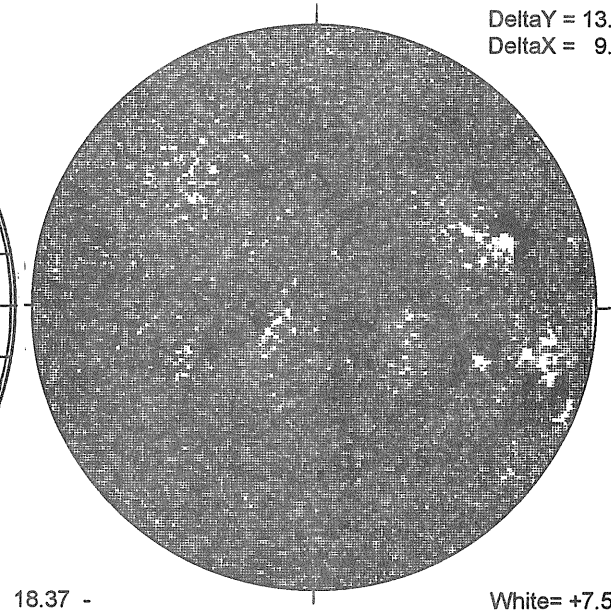
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6



18.37 -
19.31 UT

White= +7.5G
Black = -7.5G

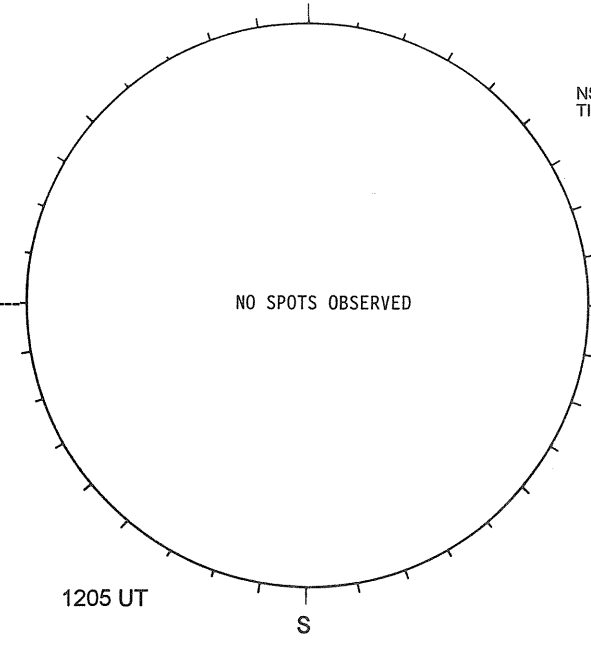
BOULDER H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

E

S

RAMEY SUNSPOT

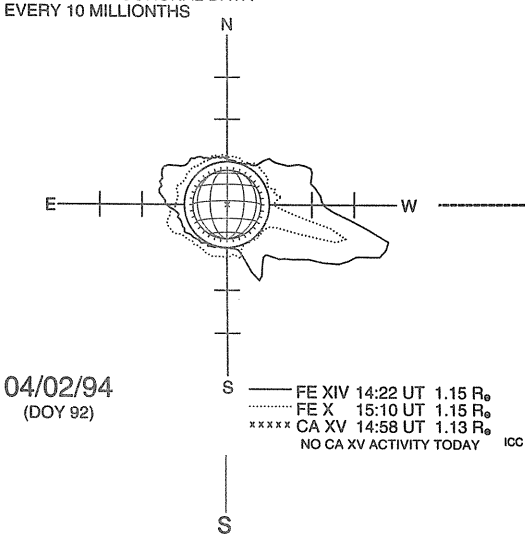


1205 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS



04/02/94
(DOY 92)

FE XIV 14:22 UT 1.15 $R_\odot$
FE X 15:10 UT 1.15 $R_\odot$
CA XV 14:58 UT 1.13 $R_\odot$
NO CA XV ACTIVITY TODAY

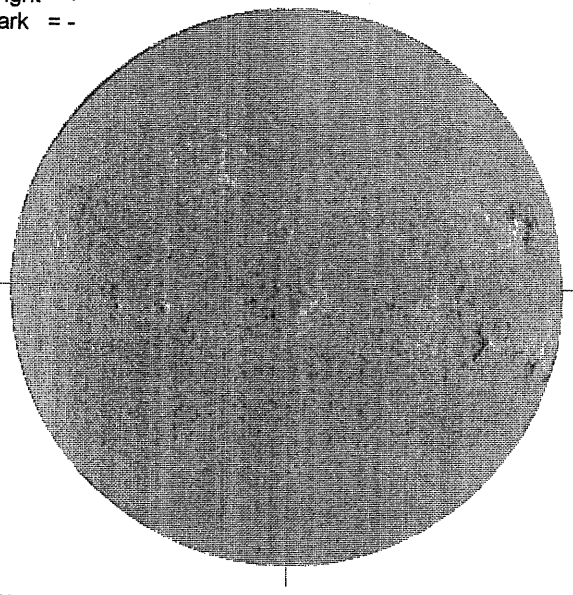
ICC

APRIL 3, 1994 (P=-26.24, Bo =-6.44, Lo = 354.66)

KITT PEAK MAGNETOGRAM

N **5507A**

Bright = +
Dark = -



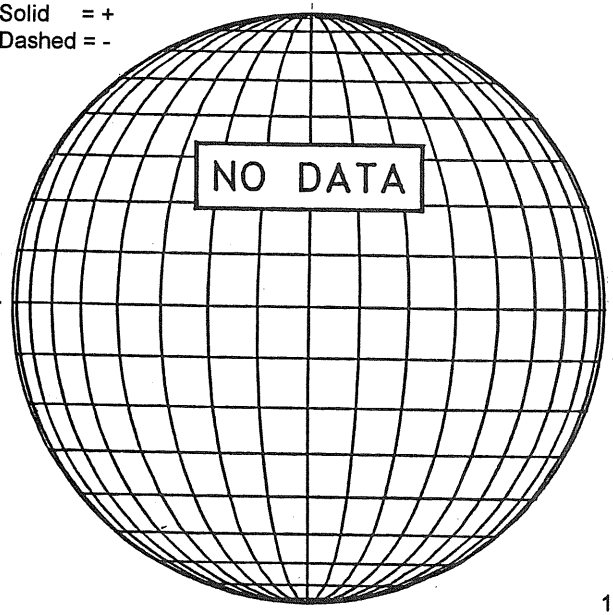
E

1532 UT

STANFORD MAGNETOGRAM

N

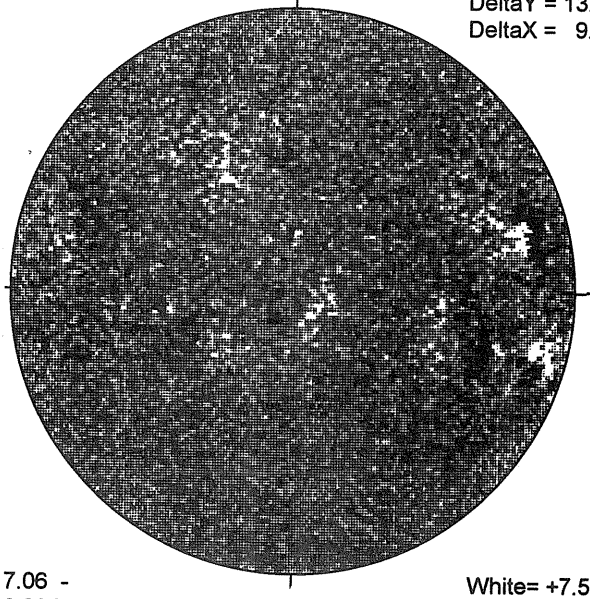
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6



W

17.06 -
18.00 UT

White= +7.5G
Black = -7.5G

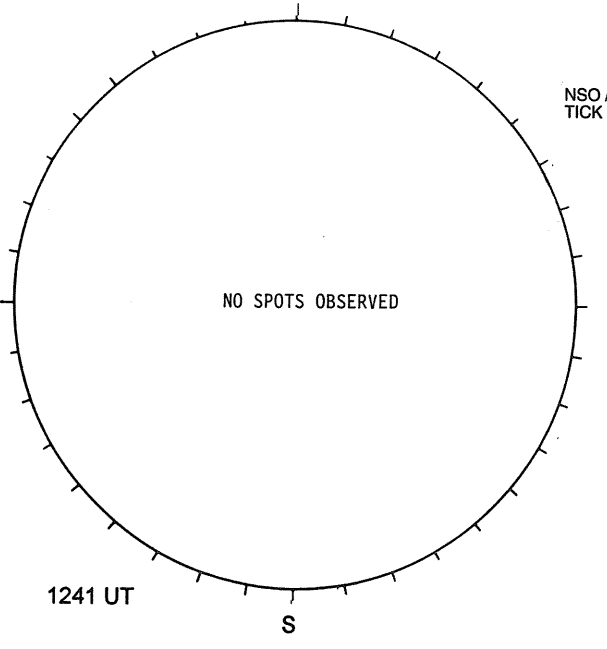
BOULDER H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

E

S

RAMEY SUNSPOT



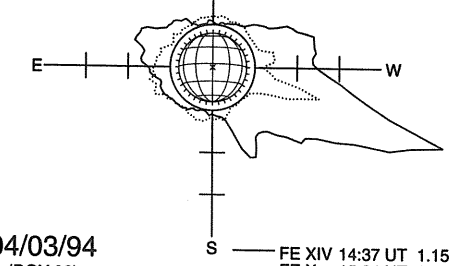
1241 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS

N



E W W

S

04/03/94
(DOY 93)

FE XIV 14:37 UT 1.15 R_e
FE X 15:24 UT 1.15 R_e
xxxxx CA XV 14:55 UT 1.13 R_e
NO CA XV ACTIVITY TODAY ICC

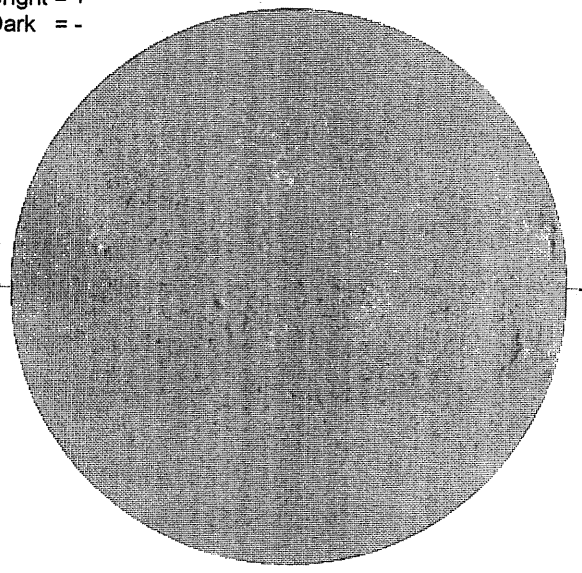
S

APRIL 4, 1994 (P=-26.27, Bo =-6.38, Lo = 341.47)

KITT PEAK MAGNETOGRAM

N **5507A**

Bright = +
Dark = -



1451 UT

STANFORD MAGNETOGRAM

N

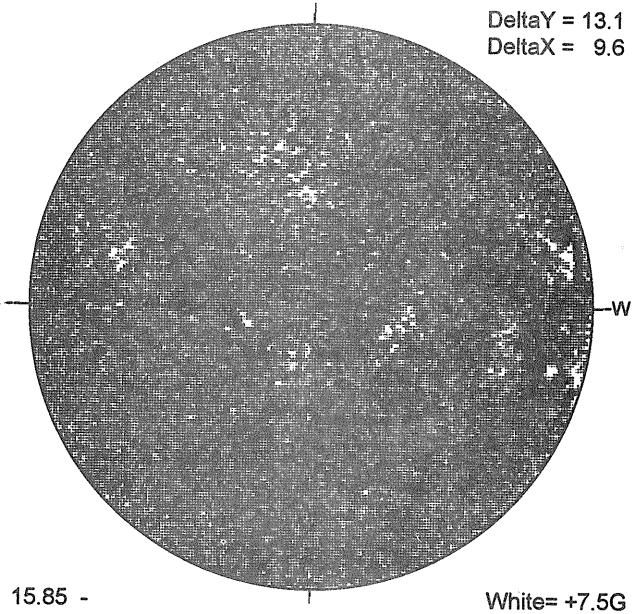
Solid = +
Dashed = -

1714 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6



15.85 -
16.79 UT

White= +7.5G
Black = -7.5G

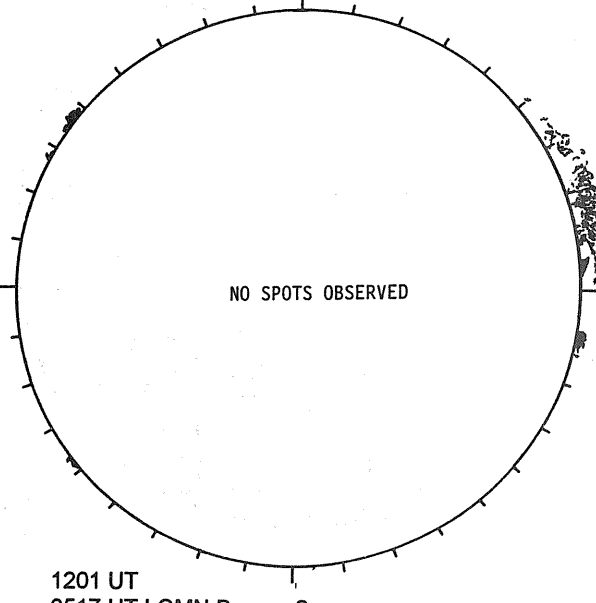
BOULDER H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

E

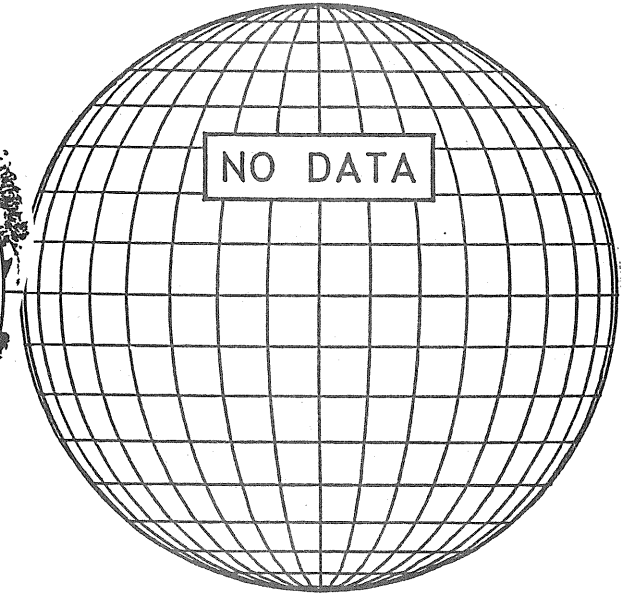
S

RAMEY SUNSPOT



1201 UT
0517 UT LOMN Prom S

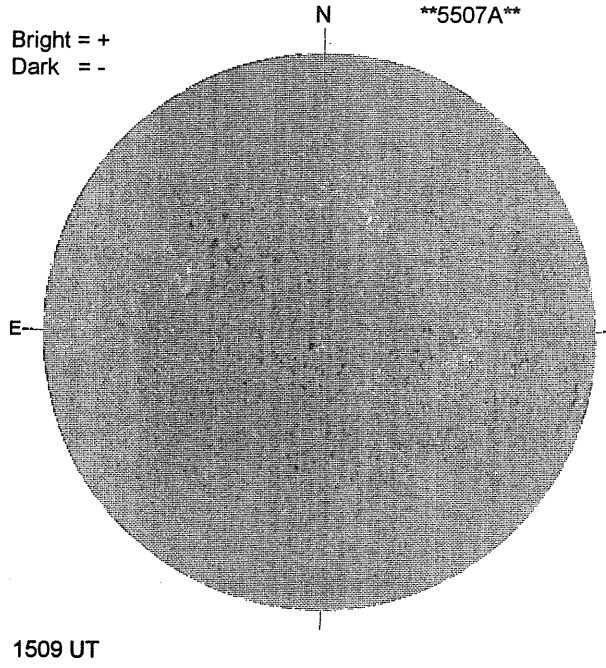
SACRAMENTO PEAK CORONA (1.15 Radii)



S

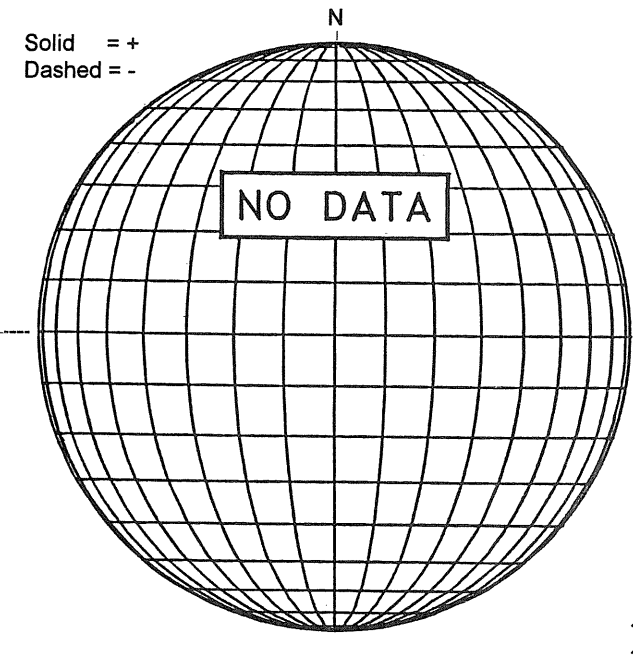
APRIL 5, 1994 (P=-26.29, Bo =-6.32, Lo = 328.27)

KITT PEAK MAGNETOGRAM

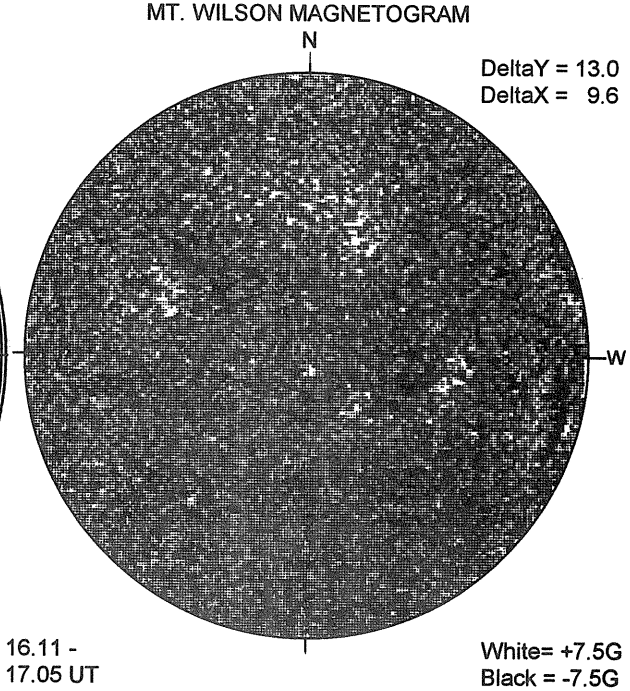


1509 UT

STANFORD MAGNETOGRAM



MT. WILSON MAGNETOGRAM

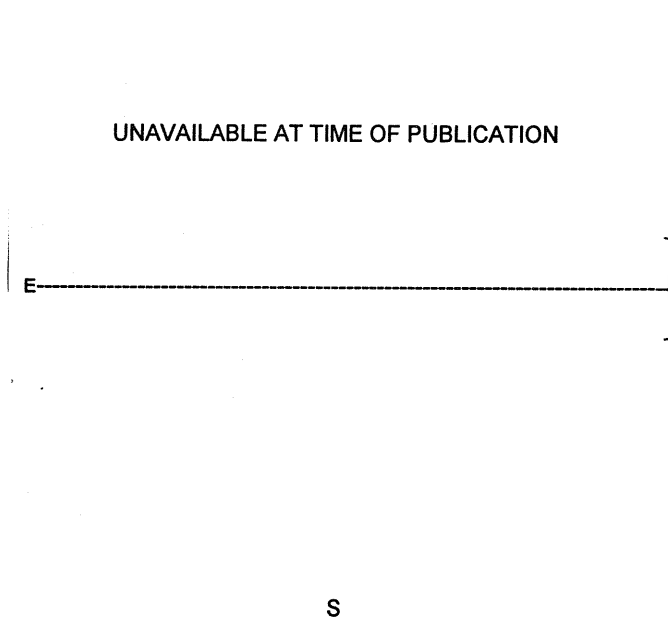


16.11 -
17.05 UT

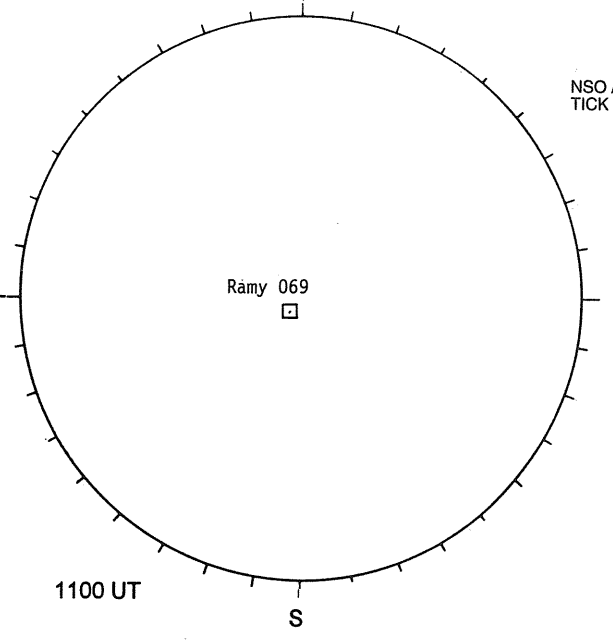
White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION

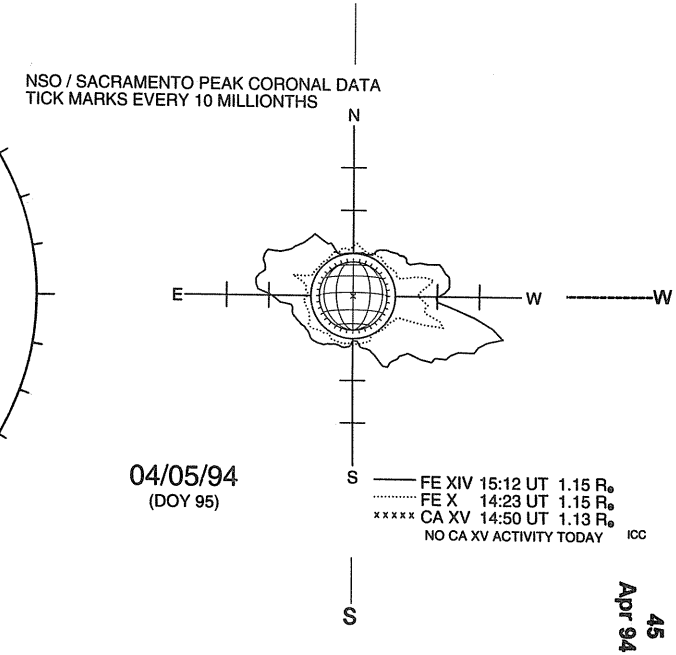


RAMEY SUNSPOT



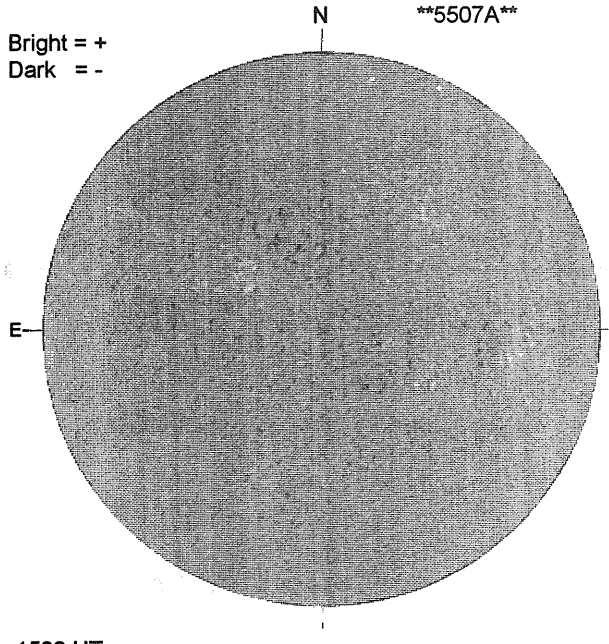
1100 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

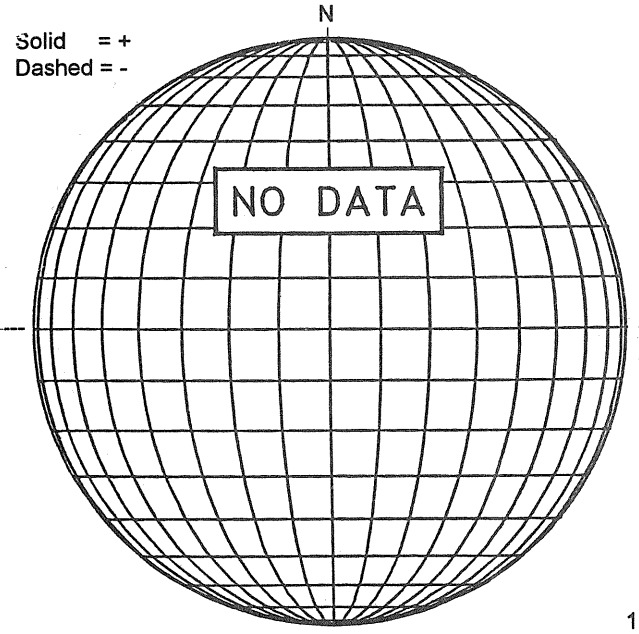


APRIL 6, 1994 (P=-26.30, Bo =-6.26, Lo = 315.07)

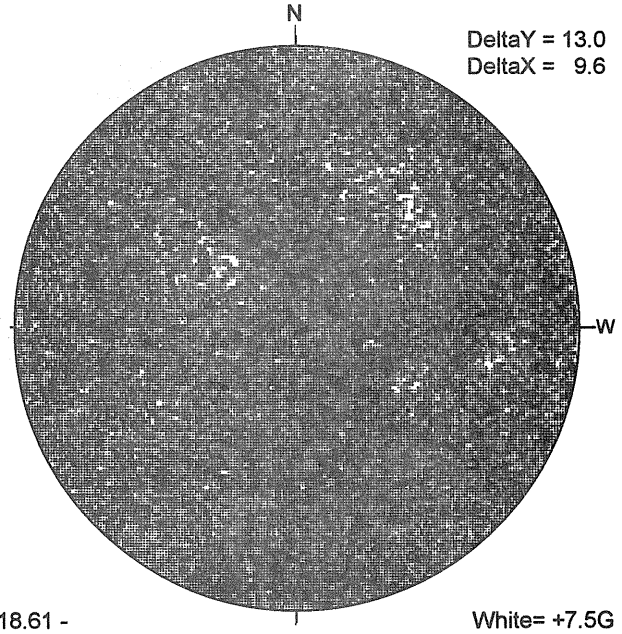
KITT PEAK MAGNETOGRAM



STANFORD MAGNETOGRAM



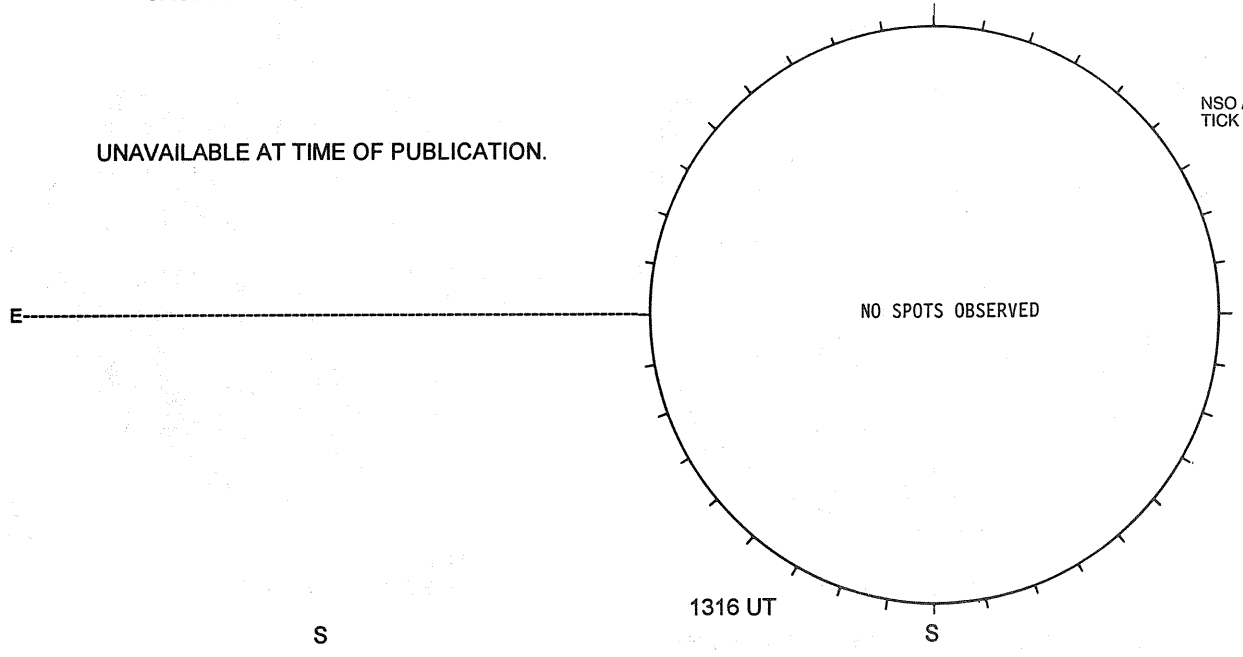
MT. WILSON MAGNETOGRAM



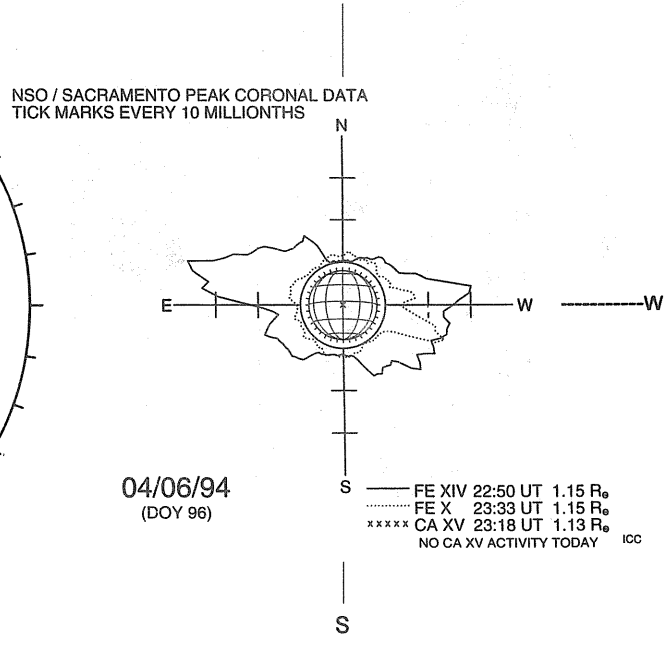
SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

RAMEY SUNSPOT



SACRAMENTO PEAK CORONA (1.15 Radii)

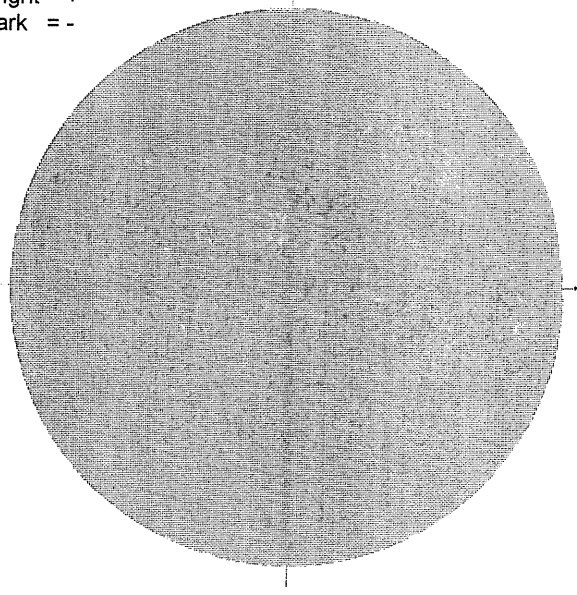


APRIL 7, 1994 (P=-26.30, Bo =-6.19, Lo = 301.88)

KITT PEAK MAGNETOGRAM

N **5507A**

Bright = +
Dark = -



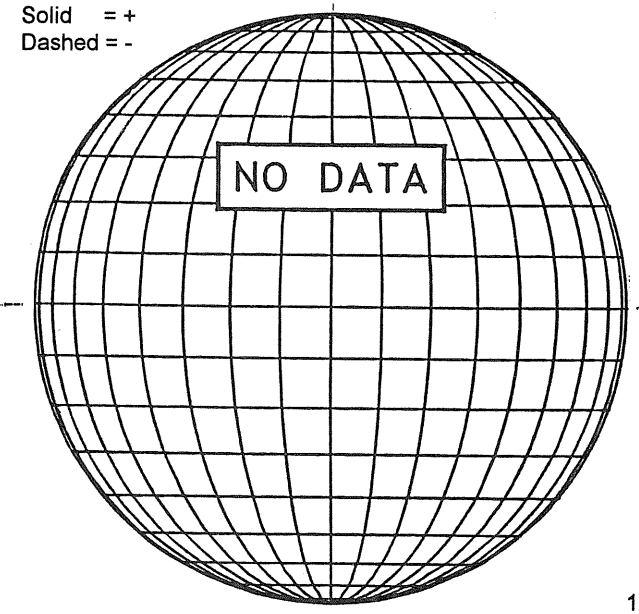
E

1428 UT

STANFORD MAGNETOGRAM

N

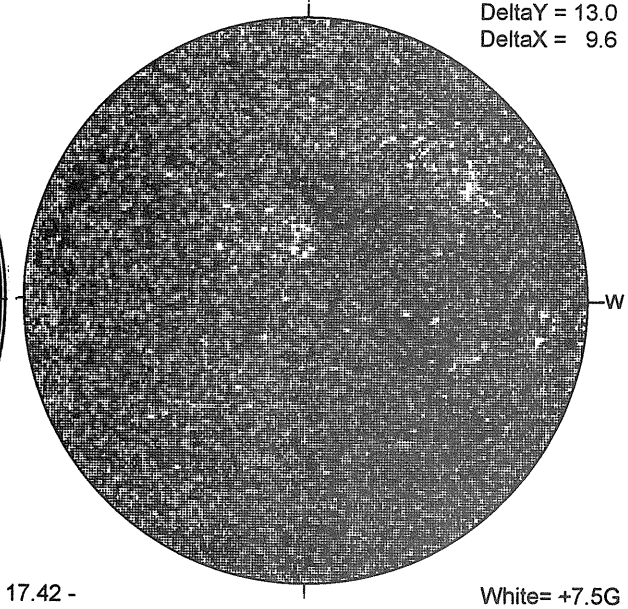
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6



W

17.42 -
18.36 UT

White= +7.5G
Black = -7.5G

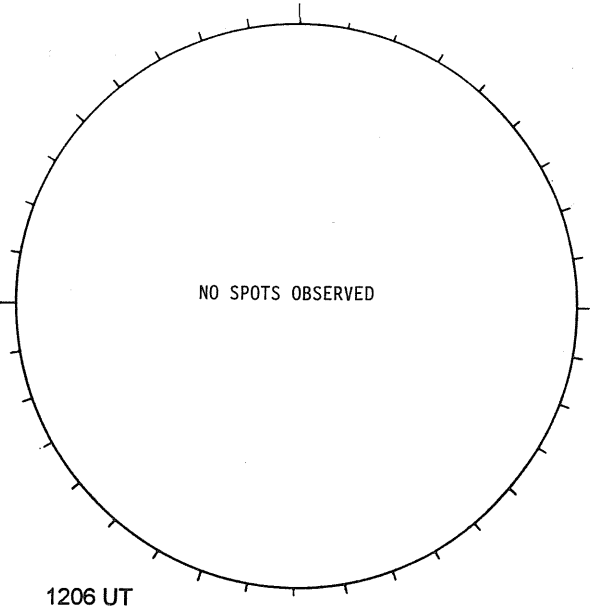
SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

E

S

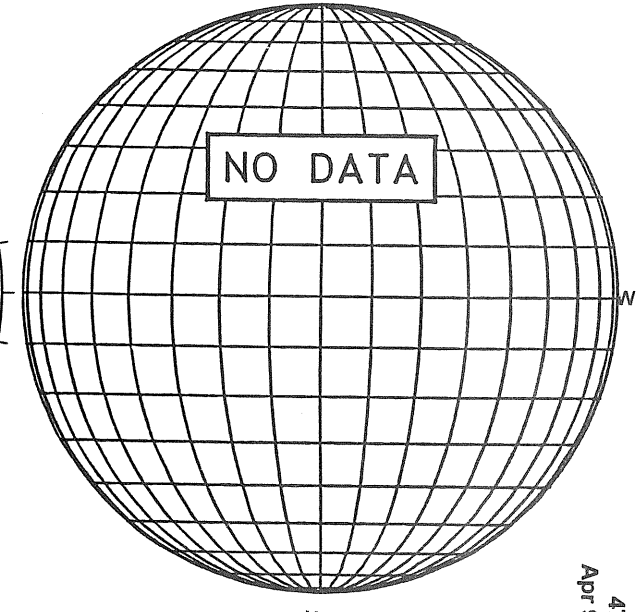
RAMEY SUNSPOT



1206 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----



W

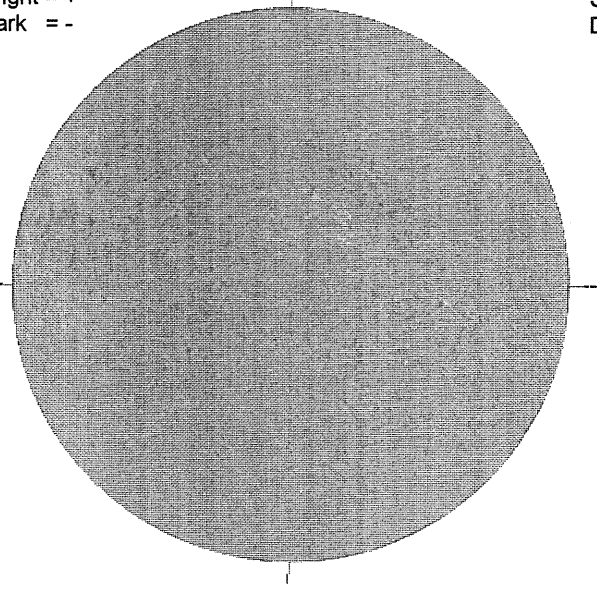
S

APRIL 8, 1994 (P=-26.30, Bo =-6.13, Lo = 288.68)

KITT PEAK MAGNETOGRAM

N **5507A**

Bright = +
Dark = -

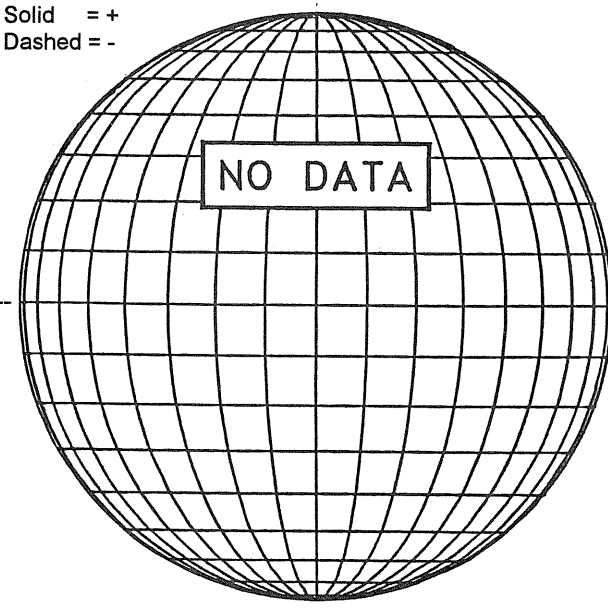


1542 UT

STANFORD MAGNETOGRAM

N

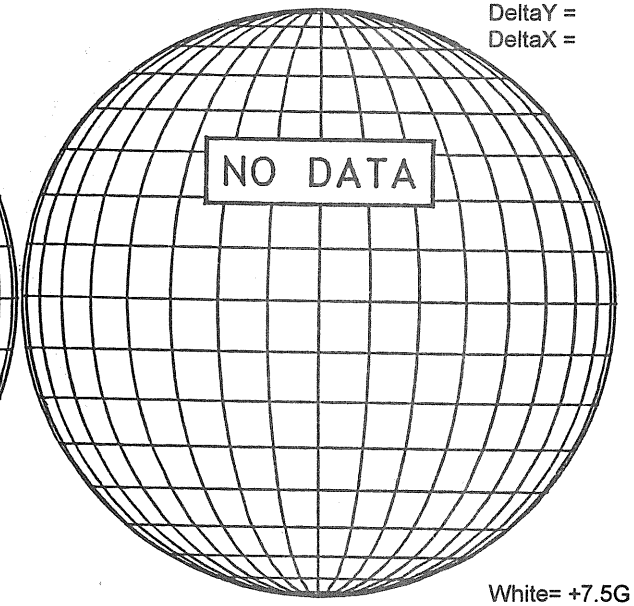
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY =
DeltaX =

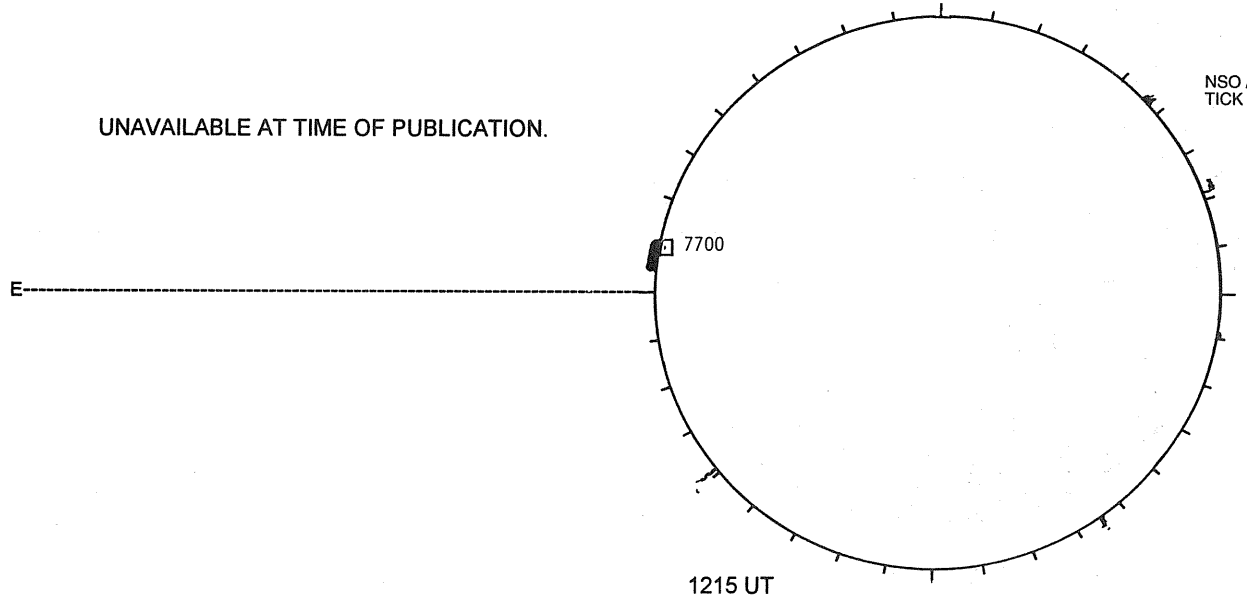


White= +7.5G
Black = -7.5G

SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

RAMEY SUNSPOT

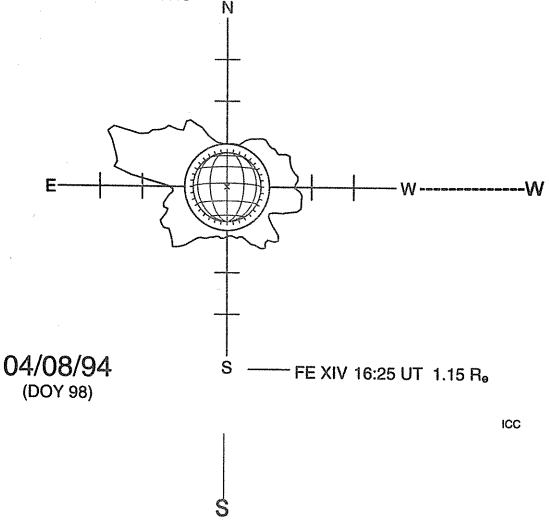


1215 UT
0640 UT LOMN Prom S

S

SACRAMENTO PEAK CORONA (1.15 Radii)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS



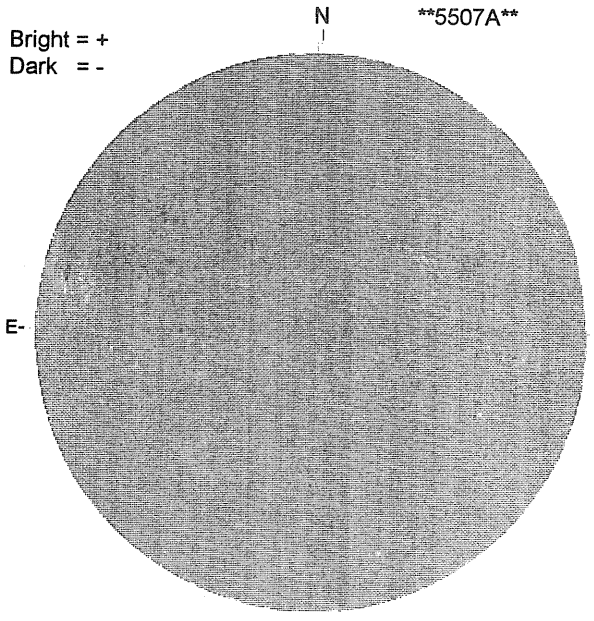
04/08/94
(DOY 98)

FE XIV 16:25 UT 1.15 $R_\odot$

ICC

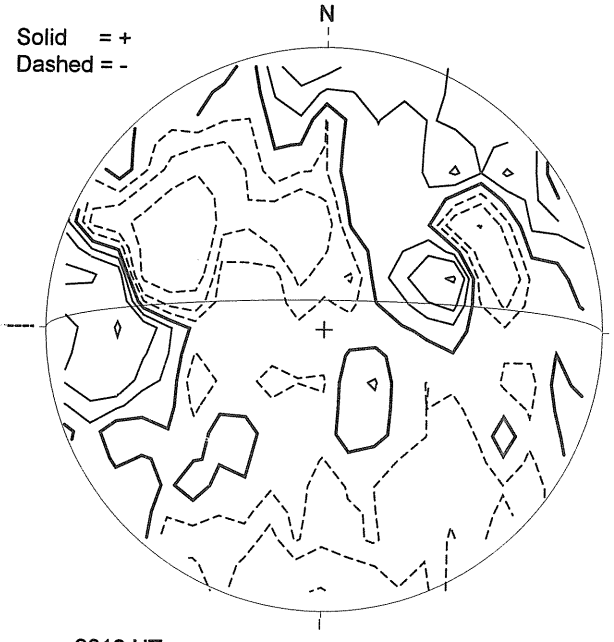
APRIL 9, 1994 (P=-26.29, Bo =-6.06, Lo = 275.48)

KITT PEAK MAGNETOGRAM



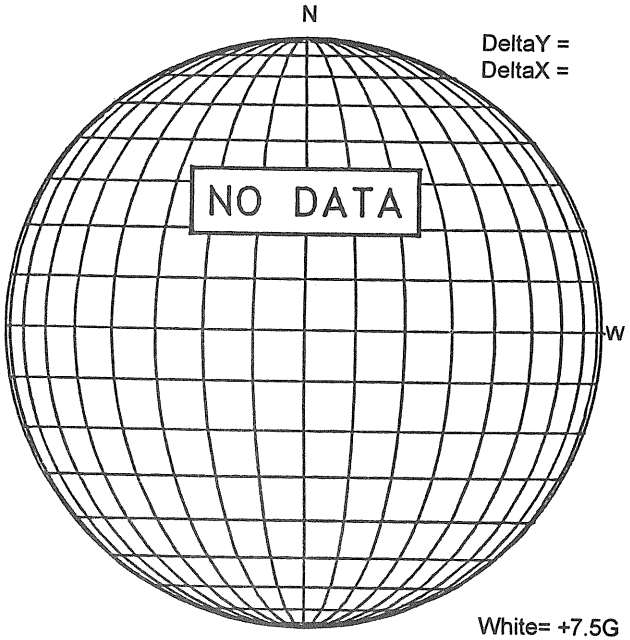
1455 UT

STANFORD MAGNETOGRAM



2019 UT

MT. WILSON MAGNETOGRAM

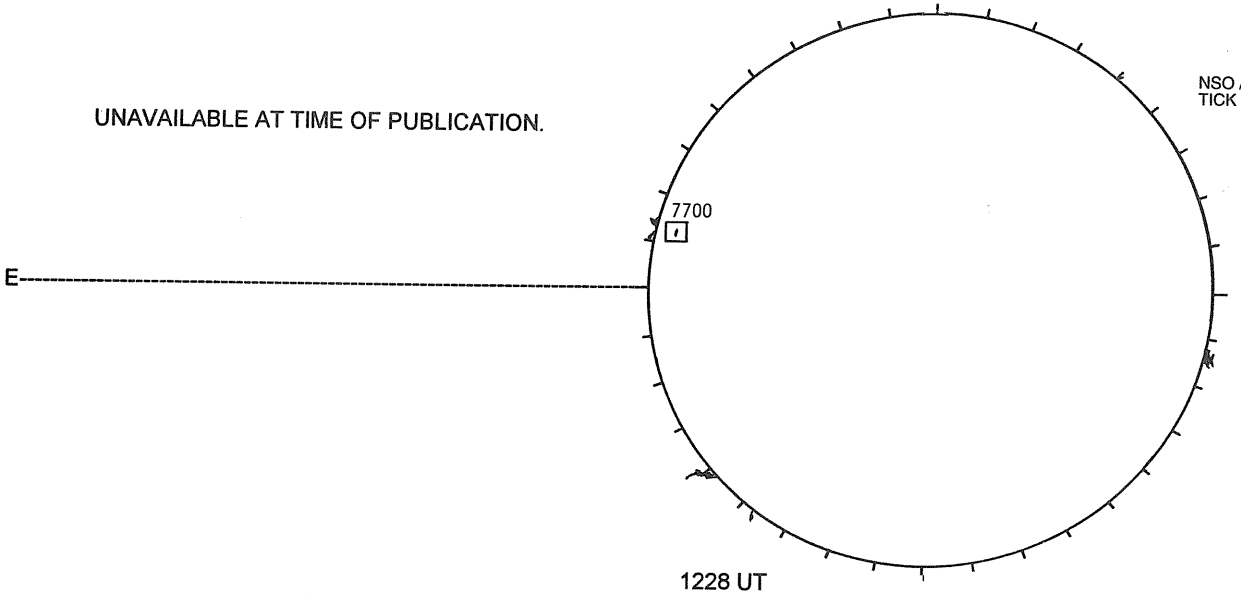


White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

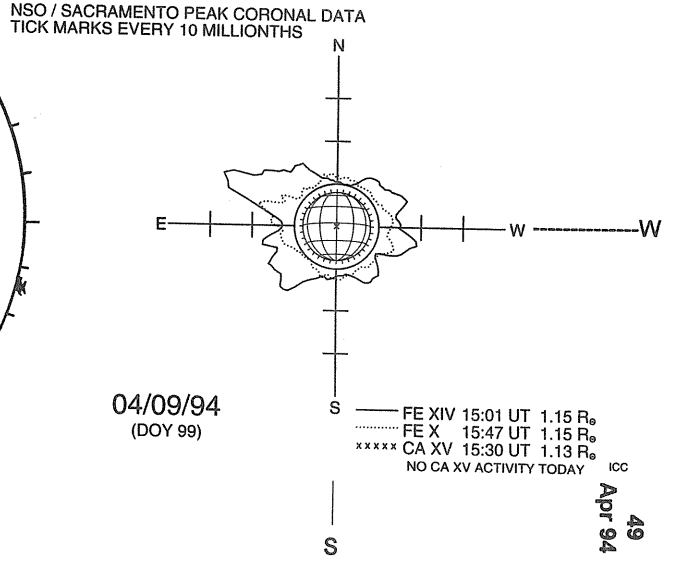
RAMEY SUNSPOT



S

1228 UT
0748 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

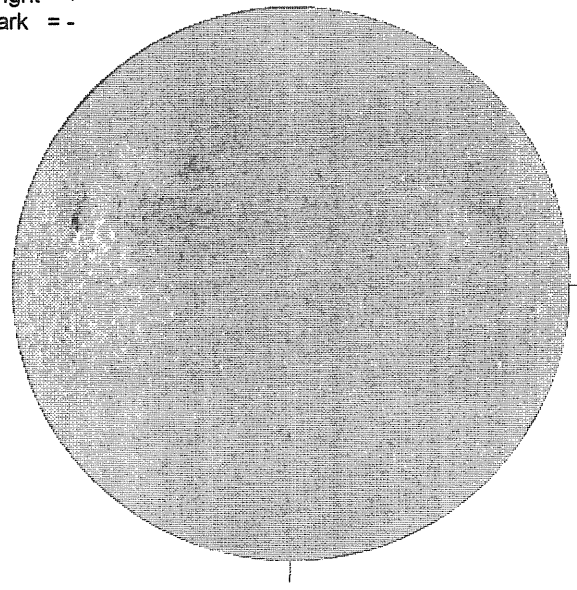


APRIL 10, 1994 (P=-26.27, Bo =-5.99, Lo = 262.28)

KITT PEAK MAGNETOGRAM

N **5507A**

Bright = +
Dark = -



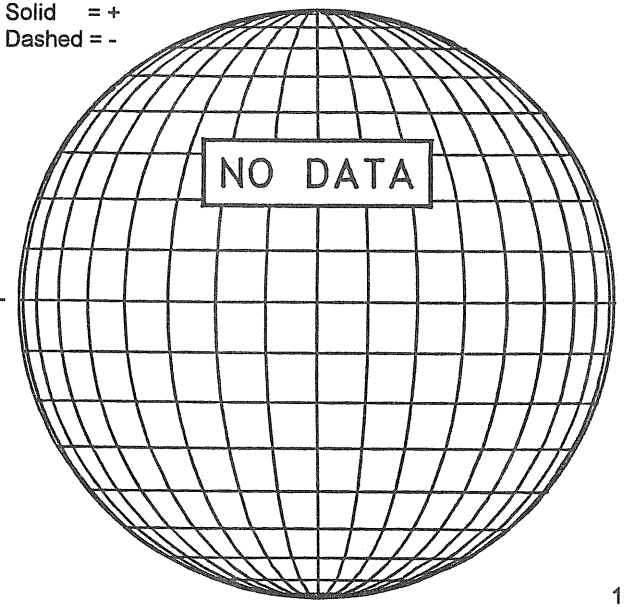
E-

1511 UT

STANFORD MAGNETOGRAM

N

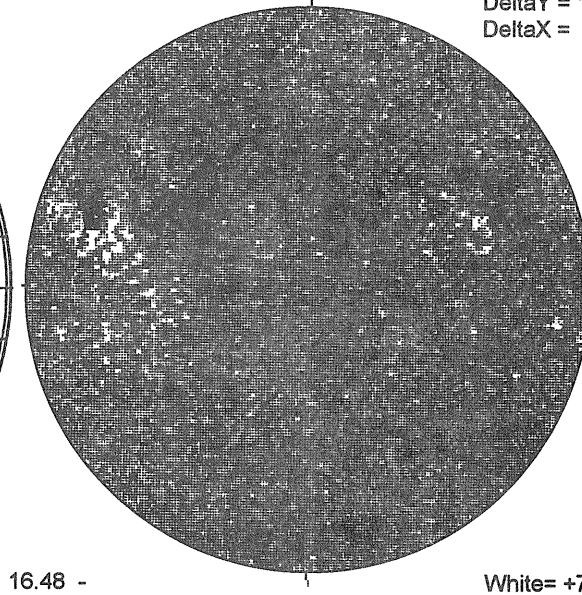
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 13.0
DeltaX = 9.6



W

16.48 -
17.42 UT

White= +7.5G
Black = -7.5G

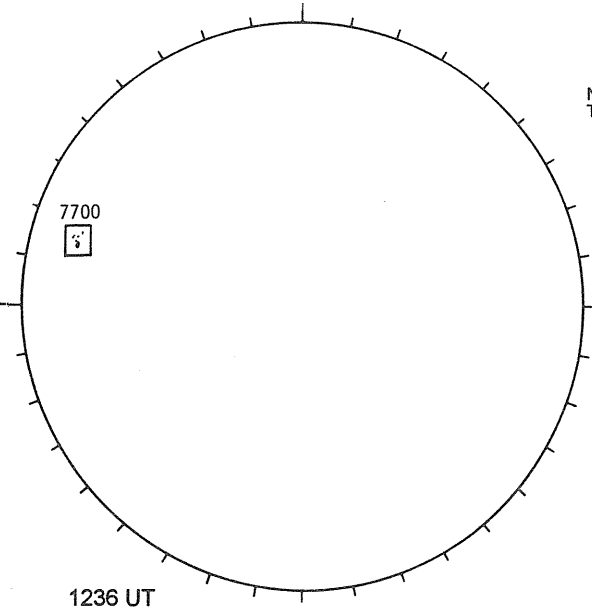
SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

E

S

RAMEY SUNSPOT



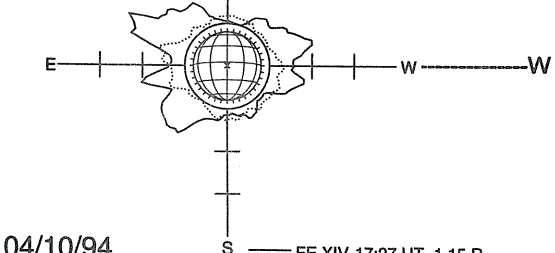
1236 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS

N



E W W

S

04/10/94
(DOY 100)

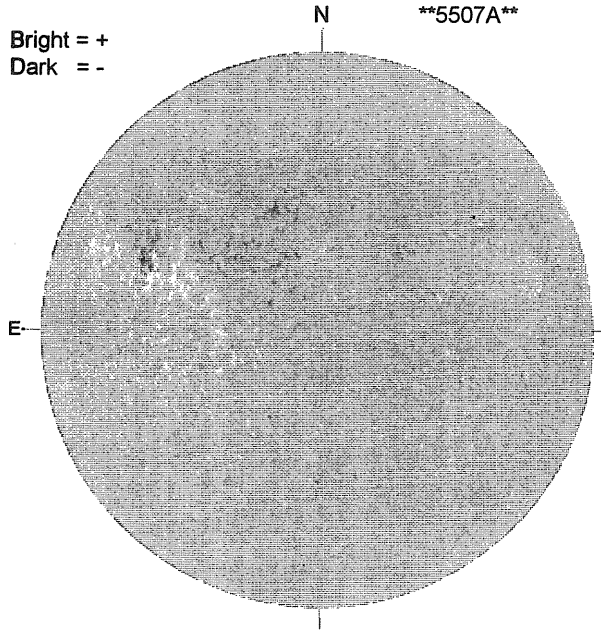
FE XIV 17:27 UT 1.15 $R_\odot$
FE X 18:14 UT 1.15 $R_\odot$
CA XV 17:57 UT 1.13 $R_\odot$
NO CA XV ACTIVITY TODAY

ICC

S

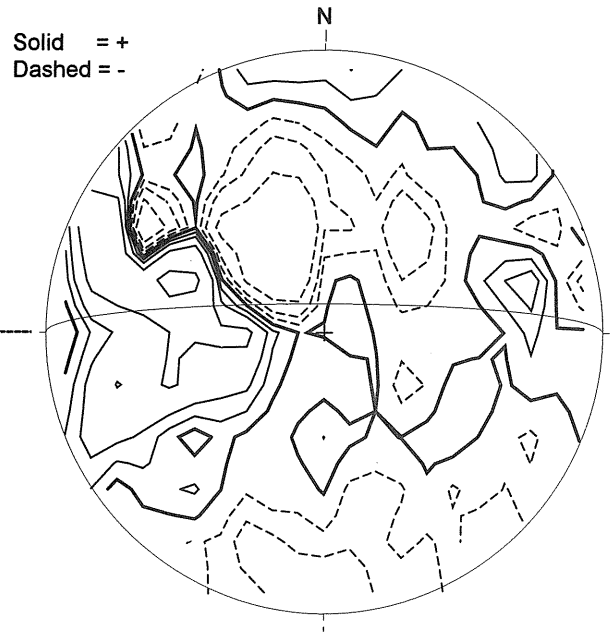
APRIL 11, 1994 (P=-26.24 Bo =-5.92, Lo = 249.08)

KITT PEAK MAGNETOGRAM



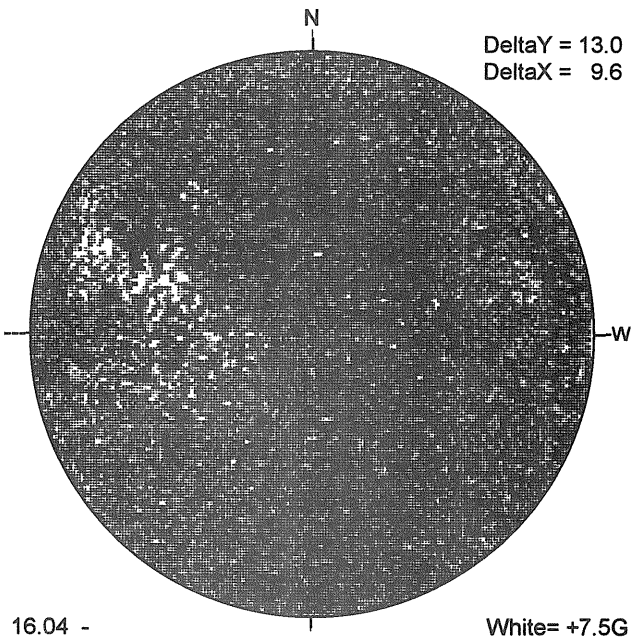
1449 UT

STANFORD MAGNETOGRAM



1718 UT

MT. WILSON MAGNETOGRAM



16.04 -
16.98 UT

White= +7.5G
Black = -7.5G

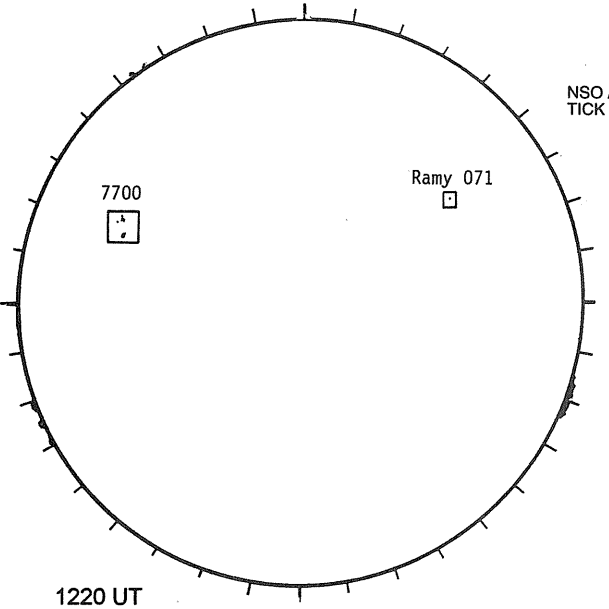
SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

E

S

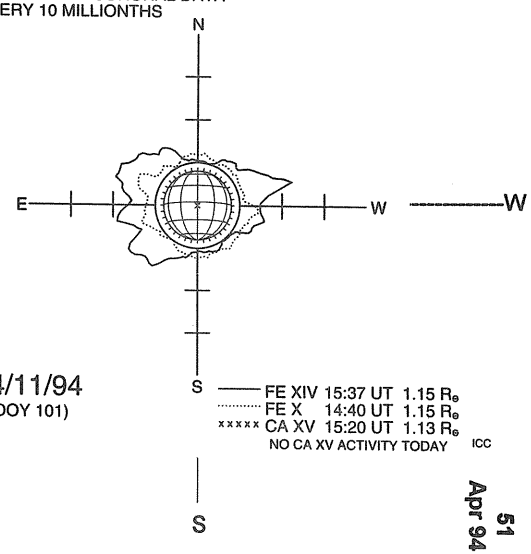
RAMEY SUNSPOT



1220 UT
1409 UT VALA Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS



04/11/94
(DOY 101)

FE XIV 15:37 UT 1.15 R_e
FE X 14:40 UT 1.15 R_e
CA XV 15:20 UT 1.13 R_e
NO CA XV ACTIVITY TODAY

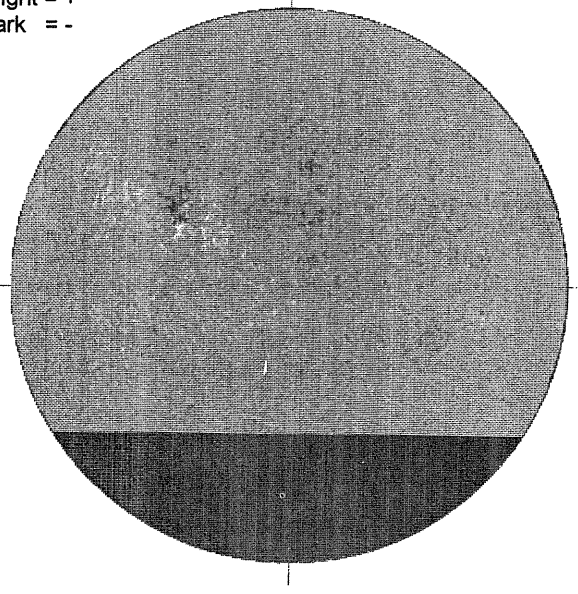
ICC

APRIL 12, 1994 (P=-26.21, Bo =-5.85, Lo = 235.88)

KITT PEAK MAGNETOGRAM

N **5507A**

Bright = +
Dark = -

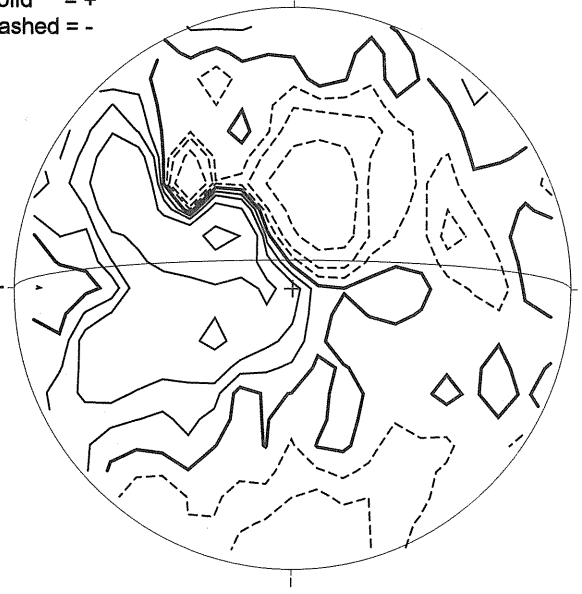


1449 UT

STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

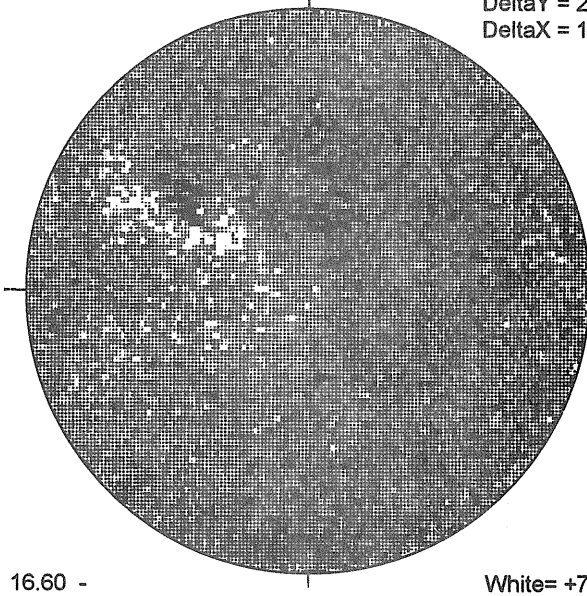


2118 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 20.0
DeltaX = 12.9



16.60 -
17.01 UT

White= +7.5G
Black = -7.5G

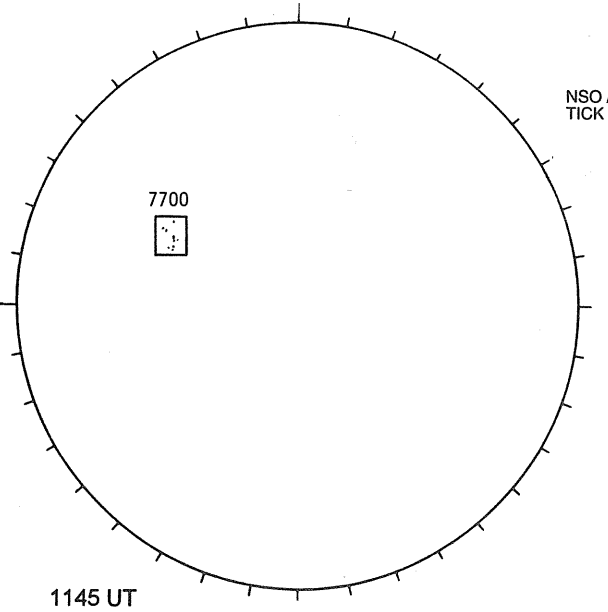
----- SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

E

S

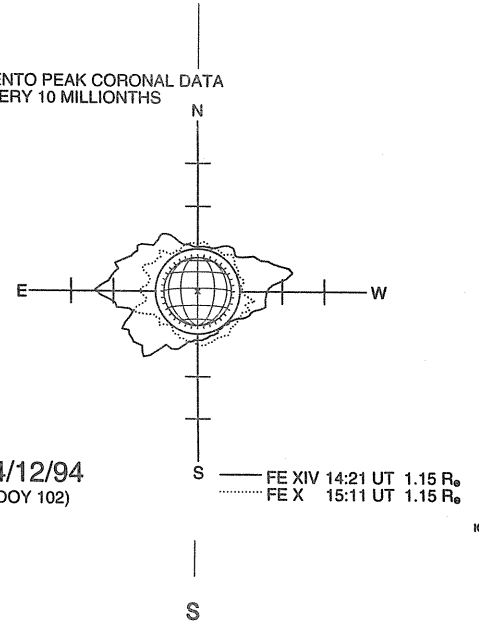
RAMEY SUNSPOT



1145 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS



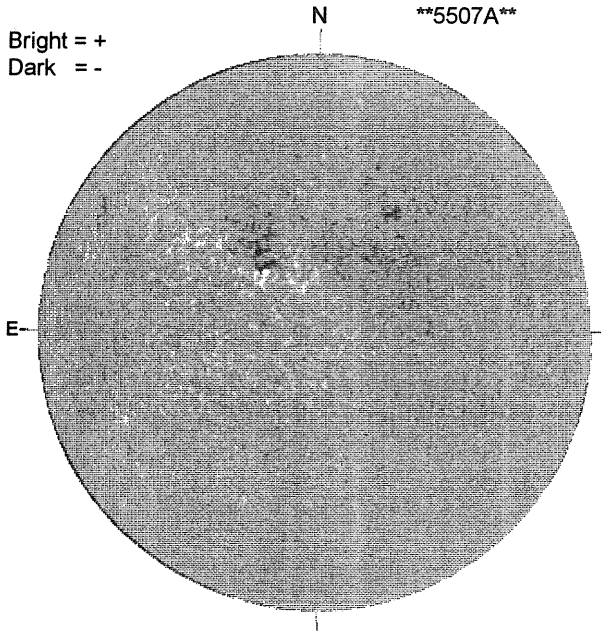
04/12/94
(DOY 102)

—— FE XIV 14:21 UT 1.15 $R_\odot$
..... FE X 15:11 UT 1.15 $R_\odot$

ICC

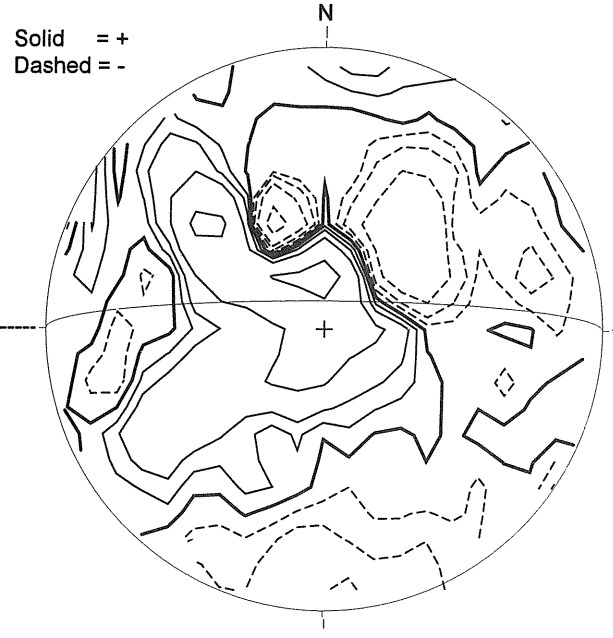
APRIL 13, 1994 (P=-26.17, Bo =-5.77, Lo = 222.68)

KITT PEAK MAGNETOGRAM



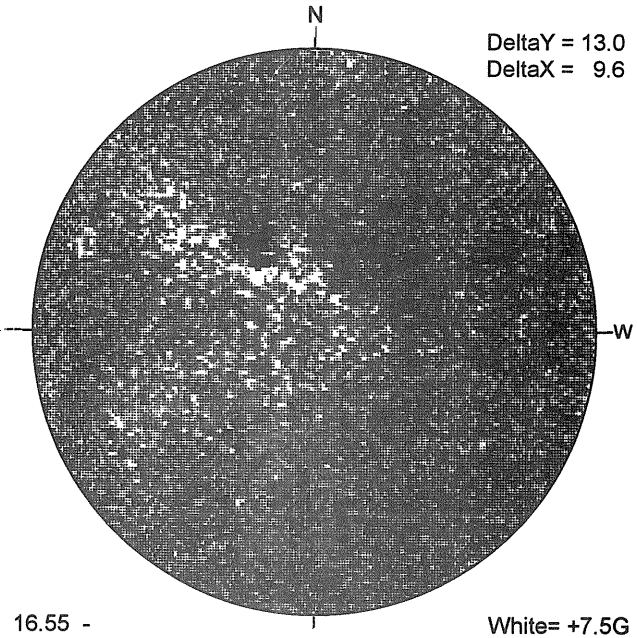
1443 UT

STANFORD MAGNETOGRAM



2218 UT

MT. WILSON MAGNETOGRAM



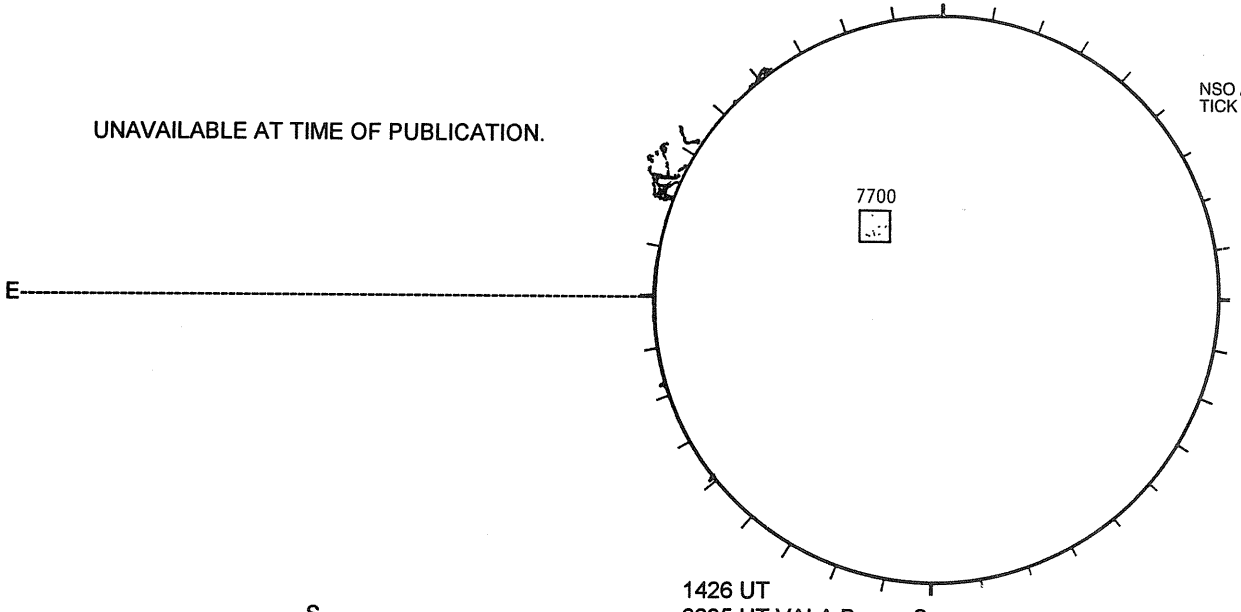
16.55 -
17.49 UT

White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA

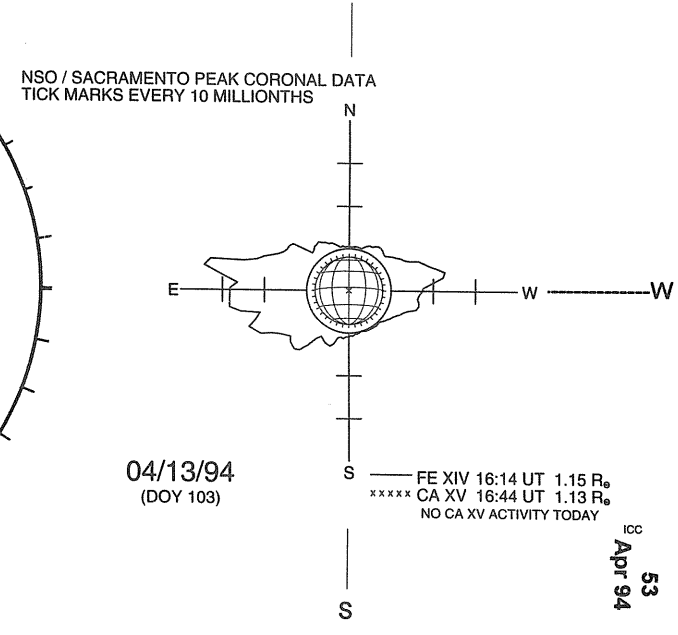
UNAVAILABLE AT TIME OF PUBLICATION.

RAMEY SUNSPOT



1426 UT
0635 UT VALA Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

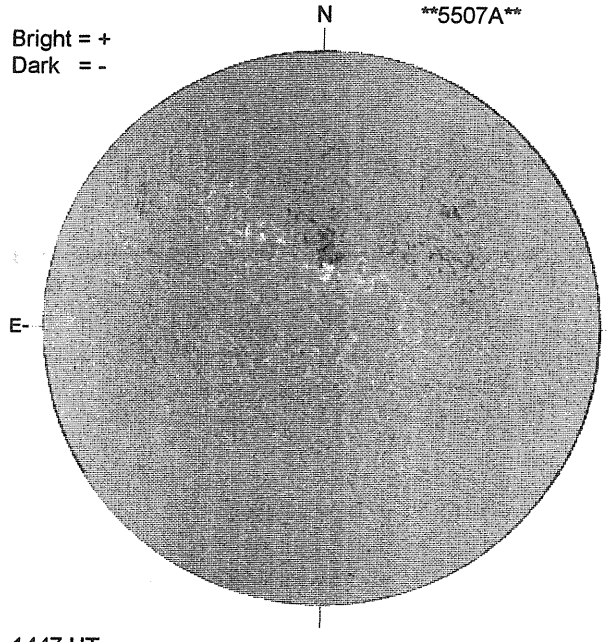


04/13/94
(DOY 103)

ICC

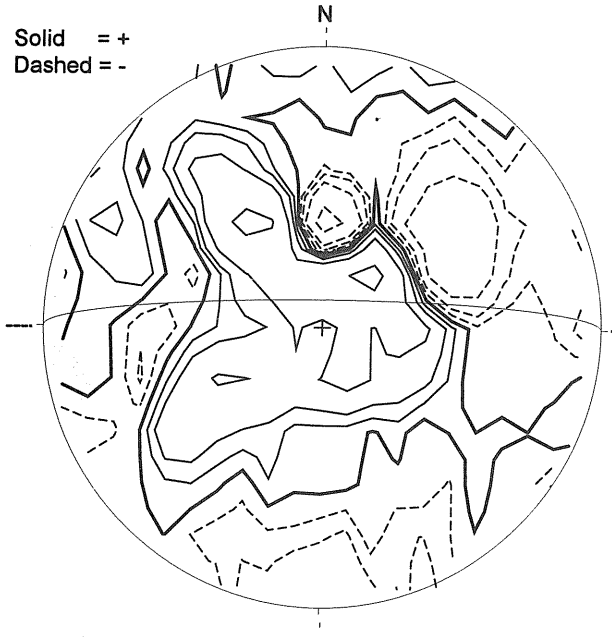
APRIL 14, 1994 (P=-26.13, Bo =-5.70, Lo = 209.48)

KITT PEAK MAGNETOGRAM



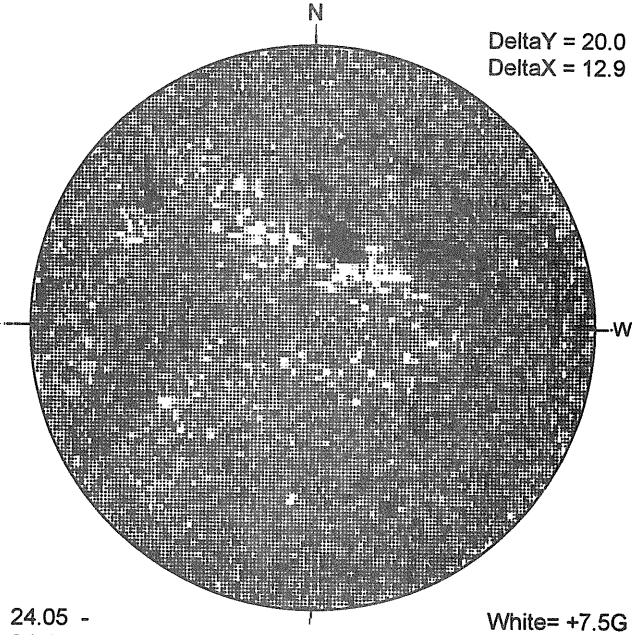
1447 UT

STANFORD MAGNETOGRAM



1817 UT

MT. WILSON MAGNETOGRAM



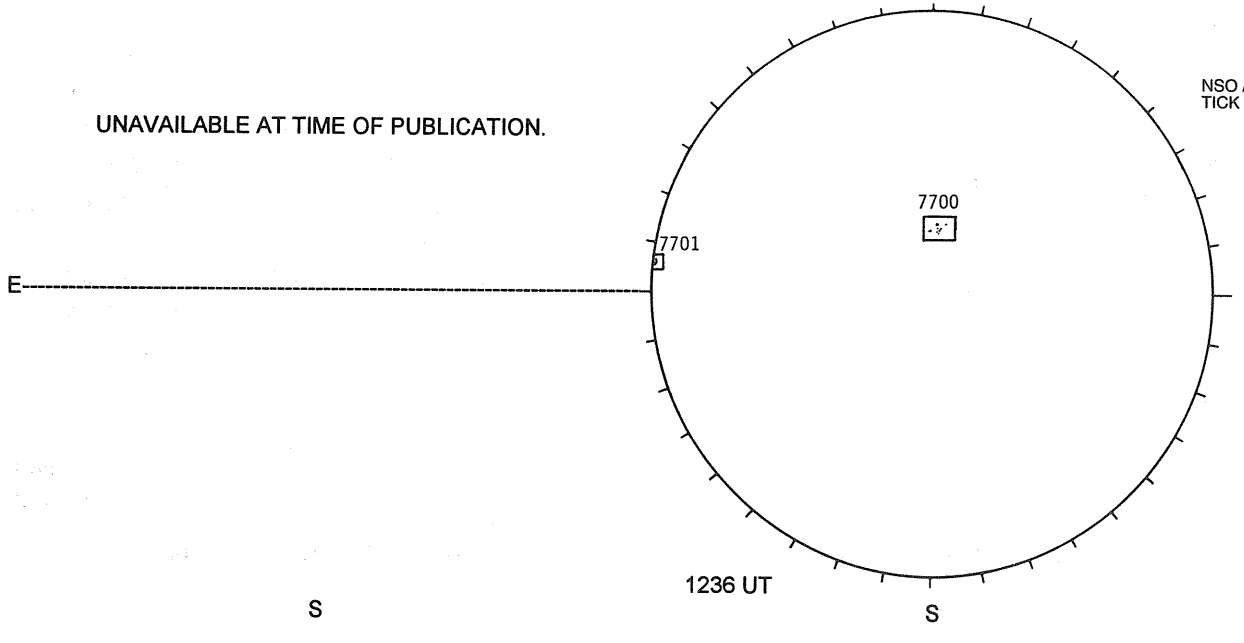
24.05 -
24.46 UT

White= +7.5G
Black = -7.5G

BOULDER H-ALPHA

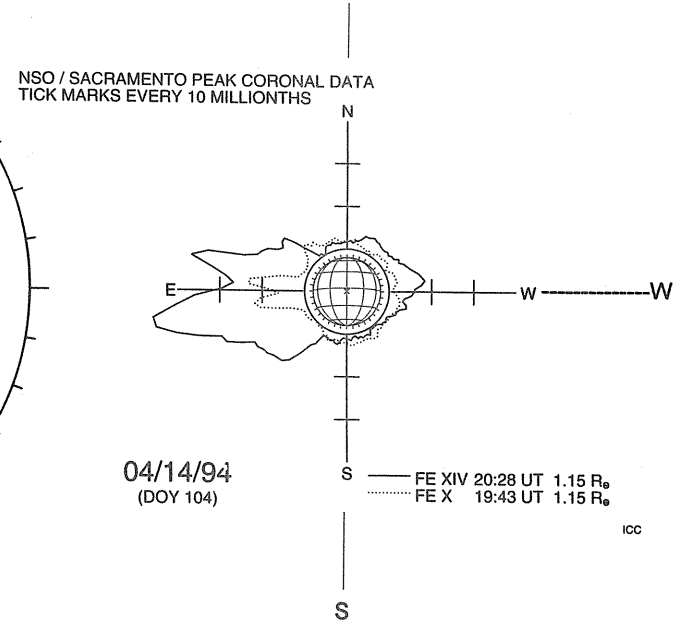
UNAVAILABLE AT TIME OF PUBLICATION.

RAMEY SUNSPOT



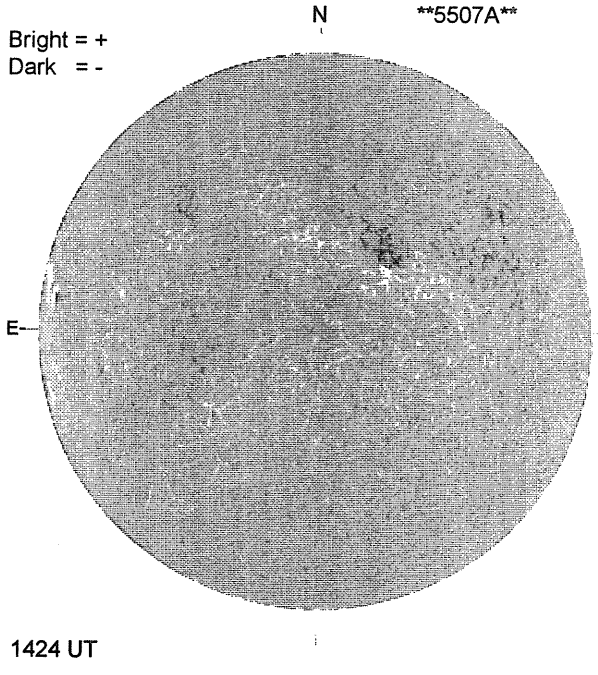
1236 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



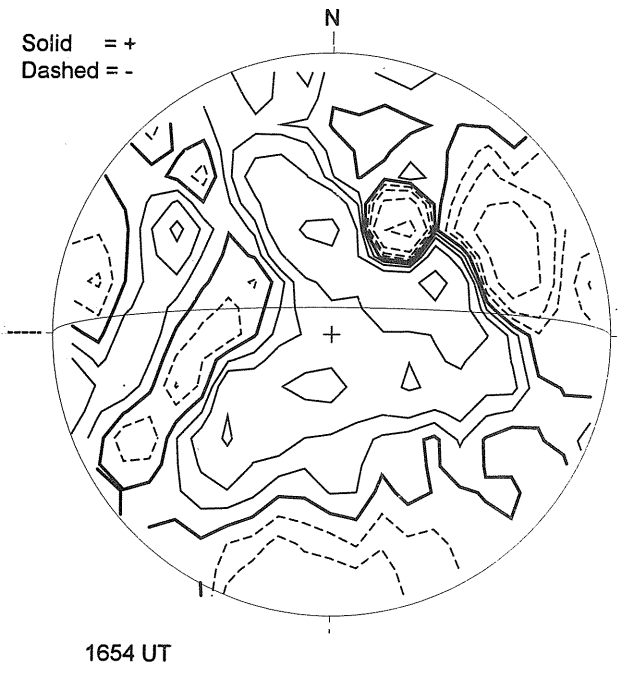
APRIL 15, 1994 (P=-26.07, Bo =-5.62, Lo = 196.28)

KITT PEAK MAGNETOGRAM



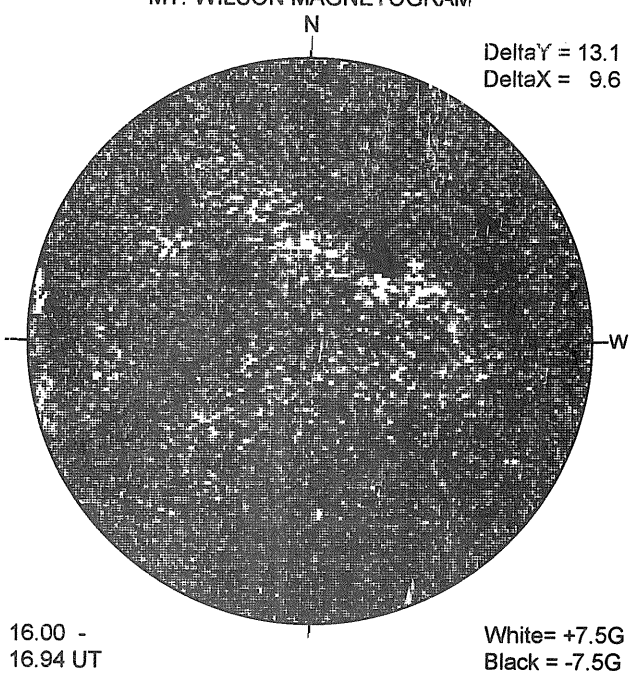
1424 UT

STANFORD MAGNETOGRAM



1654 UT

MT. WILSON MAGNETOGRAM



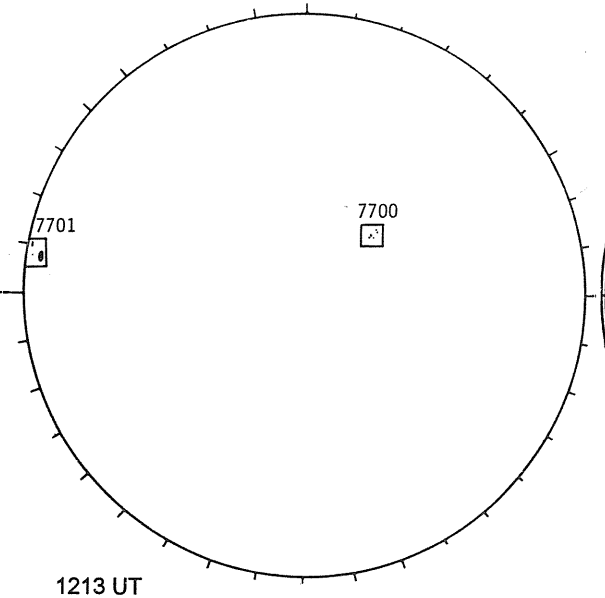
16.00 -
16.94 UT

White= +7.5G
Black = -7.5G

----- BOULDER H-ALPHA

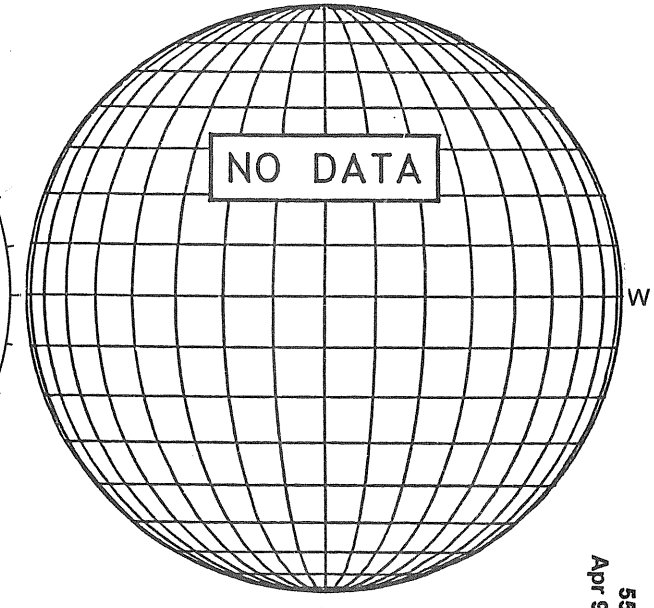
UNAVAILABLE AT TIME OF PUBLICATION.

RAMEY SUNSPOT



1213 UT

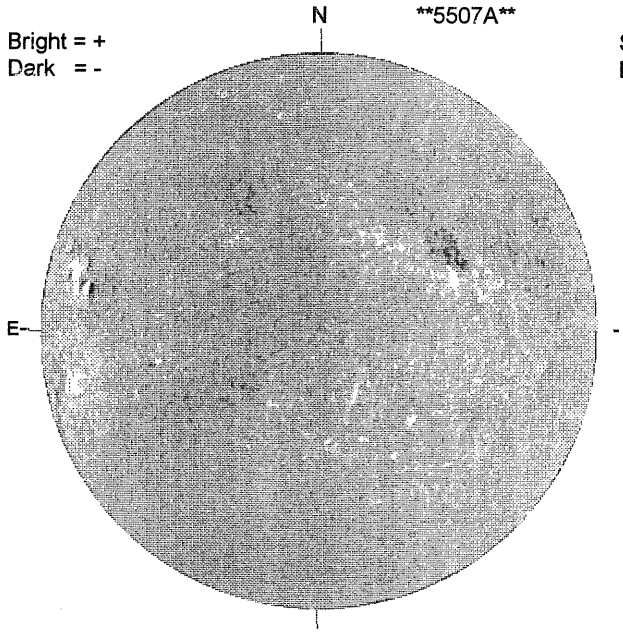
SACRAMENTO PEAK CORONA (1.15 Radii)----



55
Apr 94

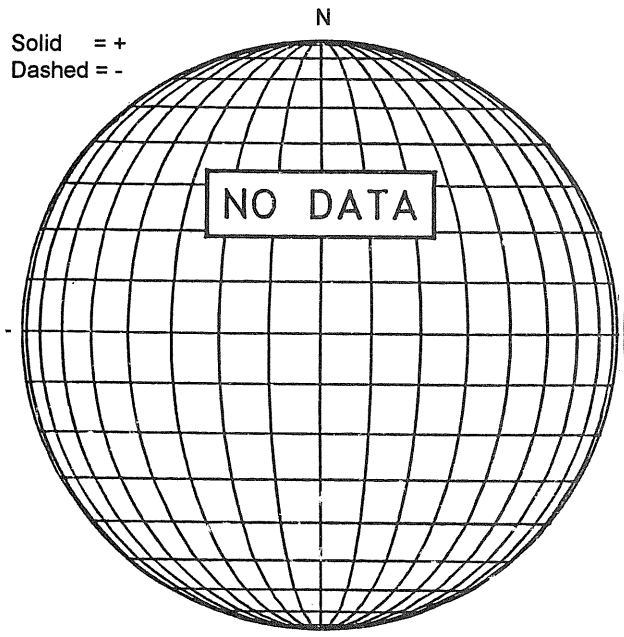
APRIL 16, 1994 (P=-26.01, Bo =-5.54, Lo = 183.07)

KITT PEAK MAGNETOGRAM

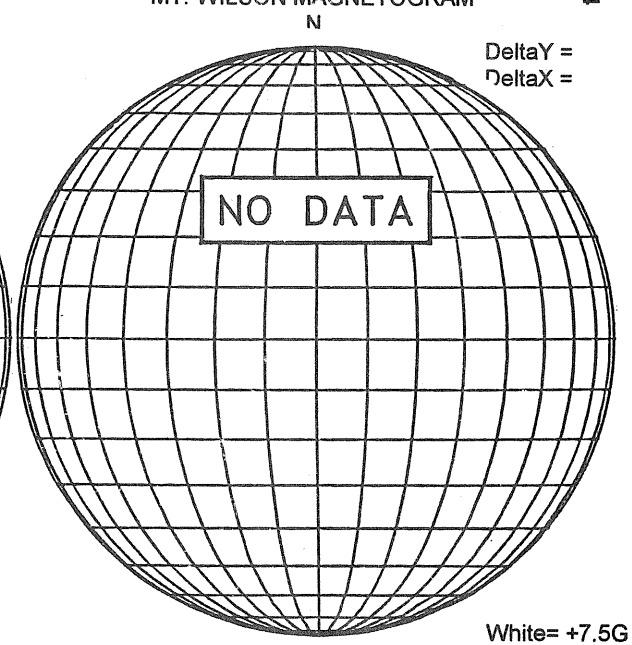


1549 UT

STANFORD MAGNETOGRAM



MT. WILSON MAGNETOGRAM



UT

White= +7.5G
Black = -7.5G

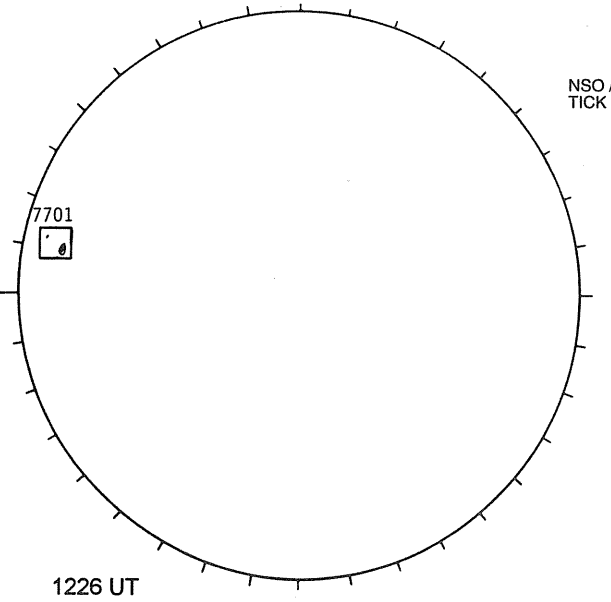
SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

E

S

RAMEY SUNSPOT

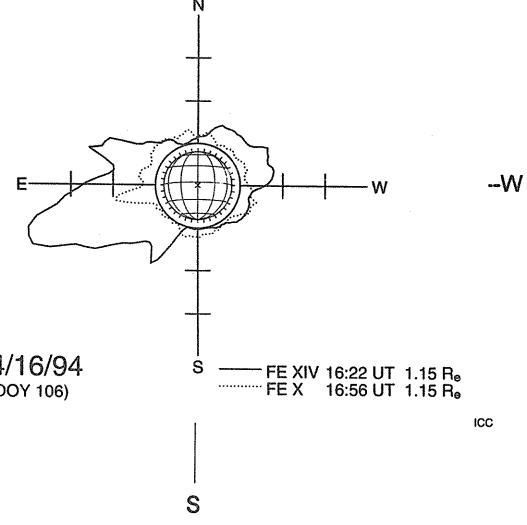


1226 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS



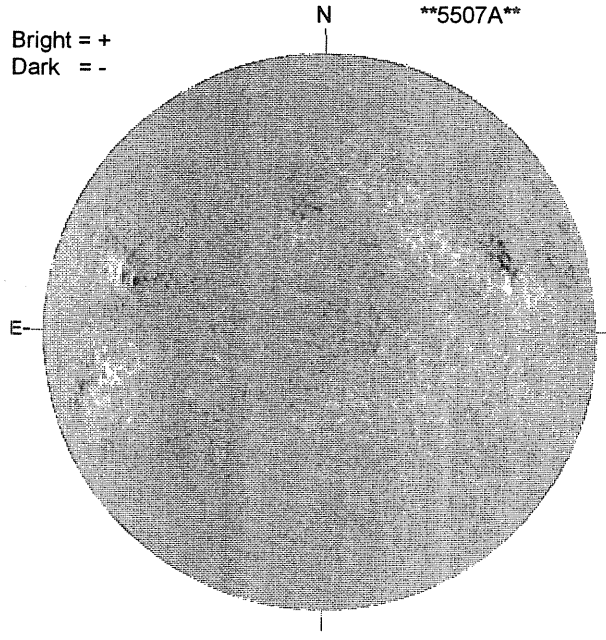
04/16/94
(DOY 106)

FE XIV 16:22 UT 1.15 R_e
FE X 16:56 UT 1.15 R_e

ICC

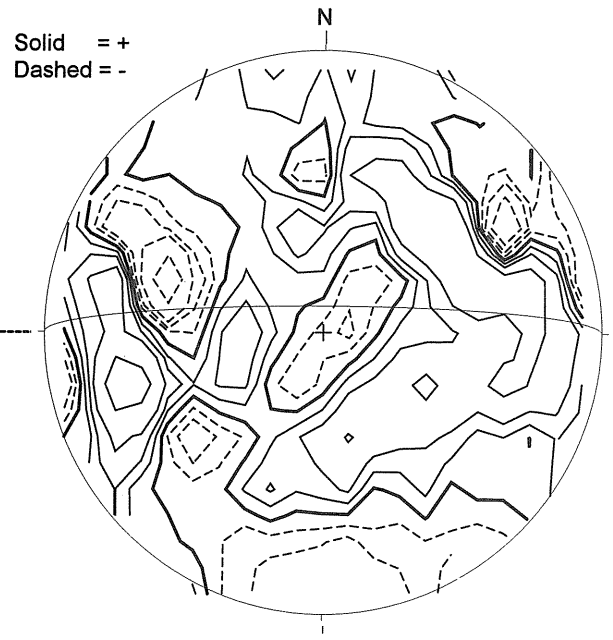
APRIL 17, 1994 (P=-25.94, Bo =-5.46, Lo = 169.87)

KITT PEAK MAGNETOGRAM



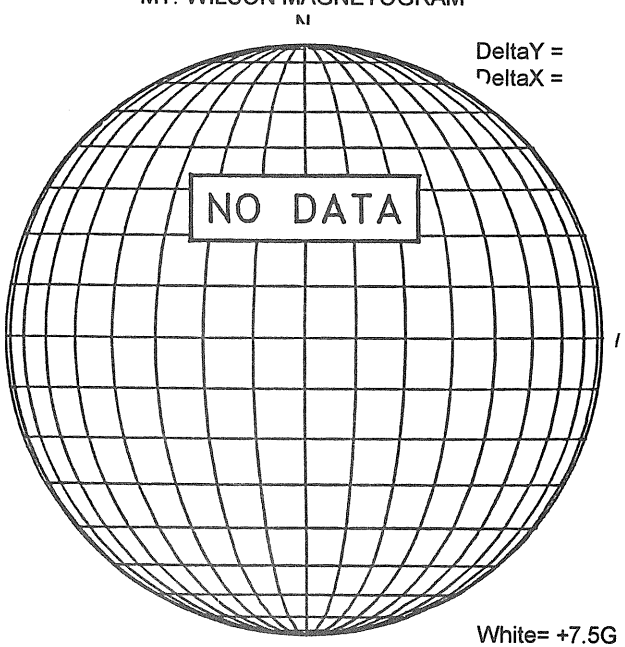
1631 UT

STANFORD MAGNETOGRAM



2043 UT

MT. WILSON MAGNETOGRAM

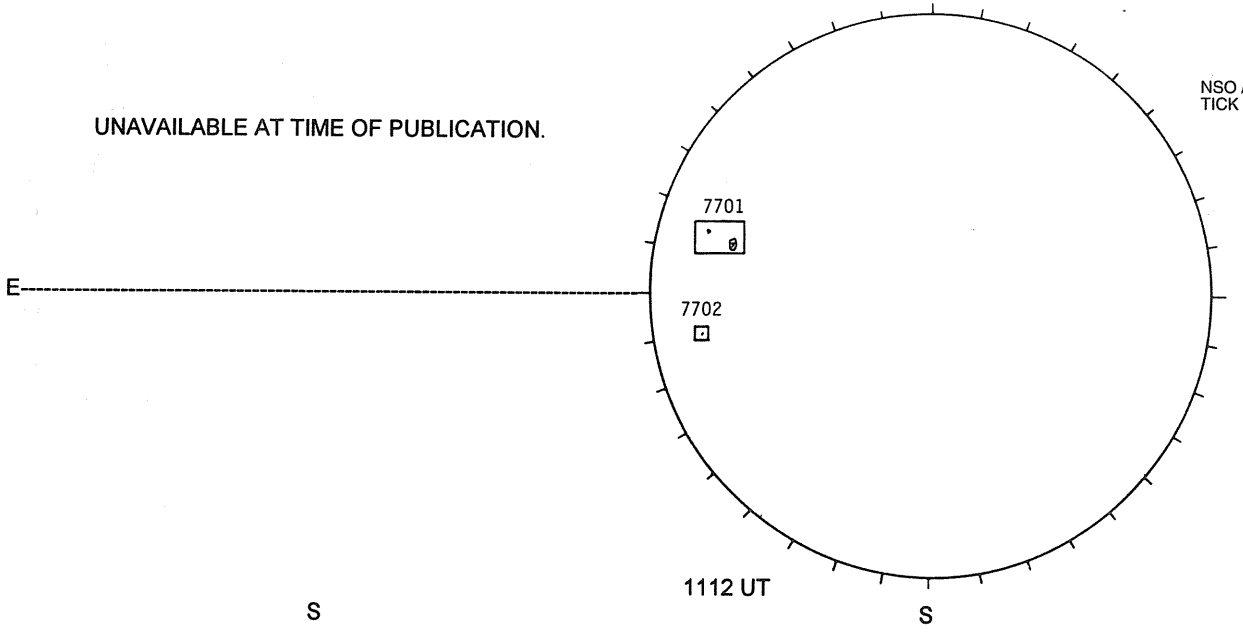


White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA

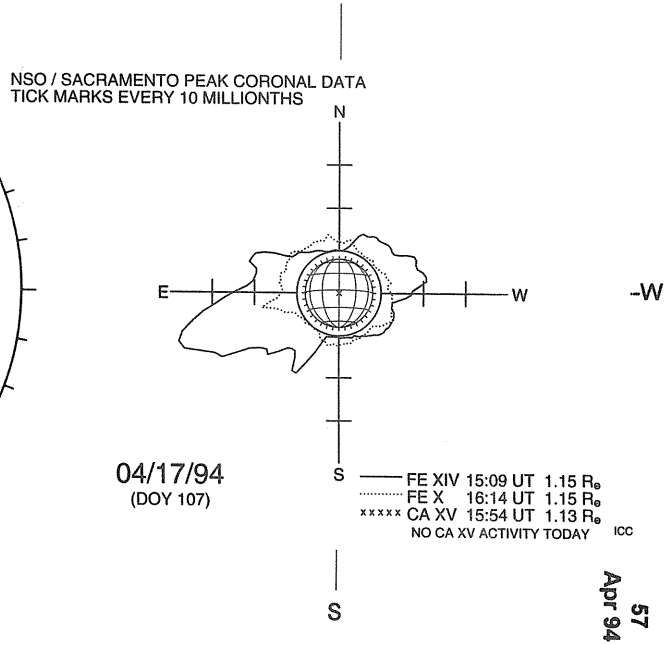
UNAVAILABLE AT TIME OF PUBLICATION.

RAMEY SUNSPOT



1112 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

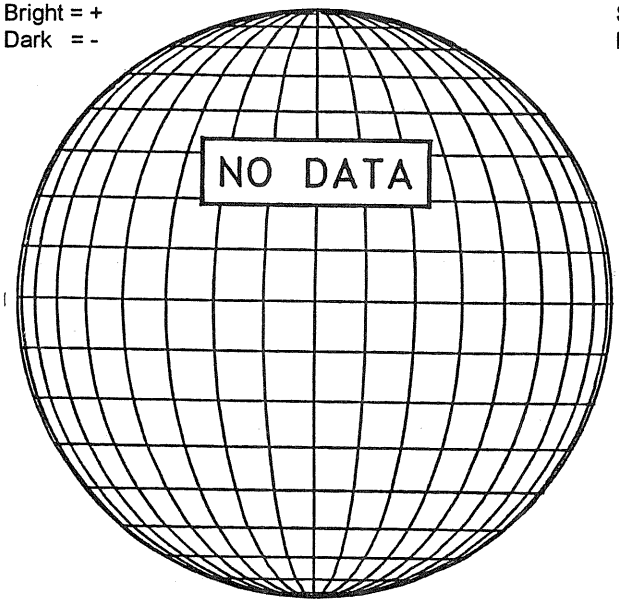


APRIL 18, 1994 (P=-25.86, Bo =-5.38, Lo = 156.66)

KITT PEAK MAGNETOGRAM

N **5507A**

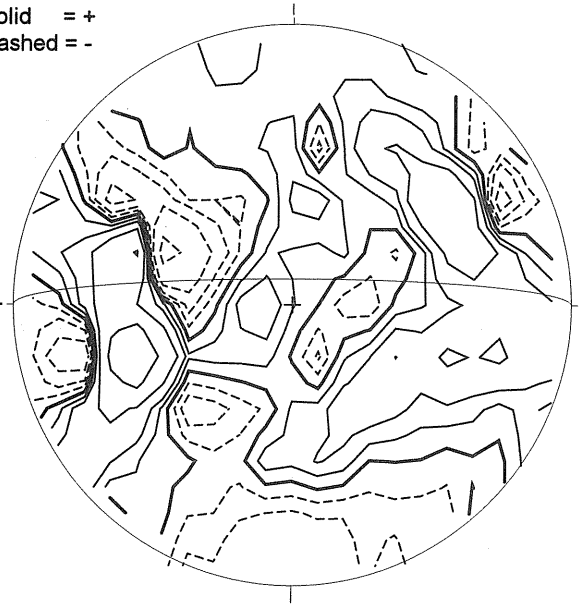
Bright = +
Dark = -



STANFORD MAGNETOGRAM

N

Solid = +
Dashed = -

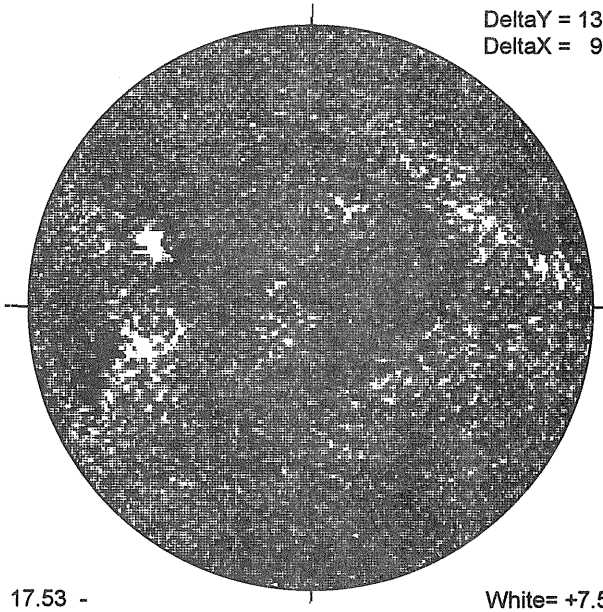


1645 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6



W

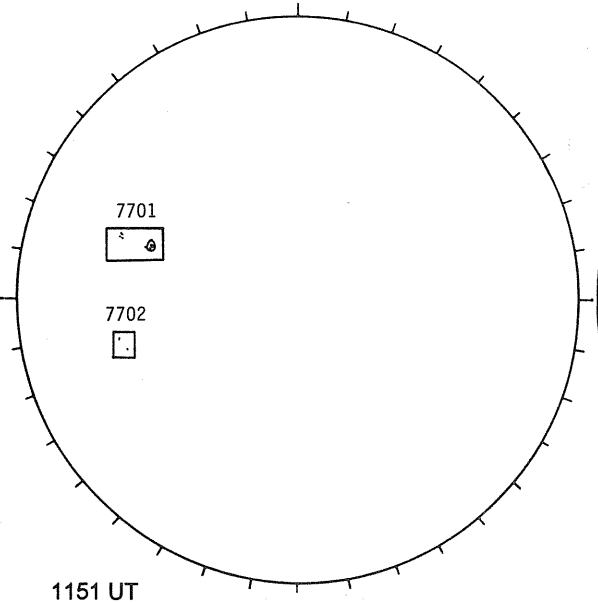
17.53 -
18.47 UT

White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

RAMEY SUNSPOT

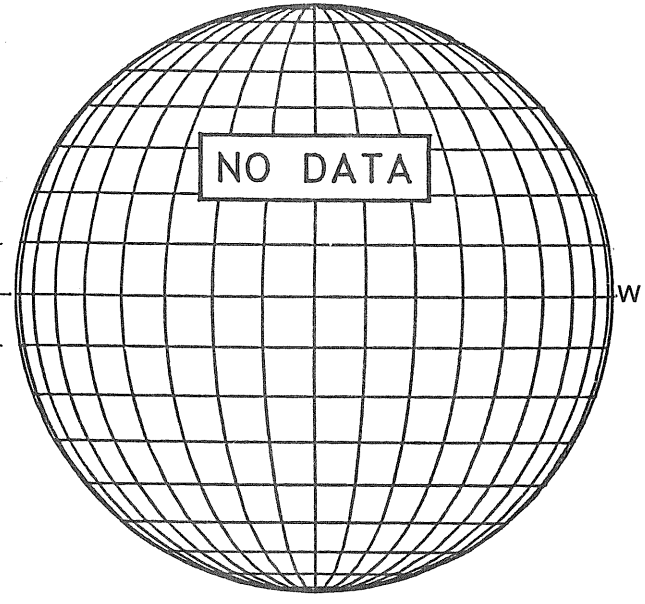


E

1151 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----



W

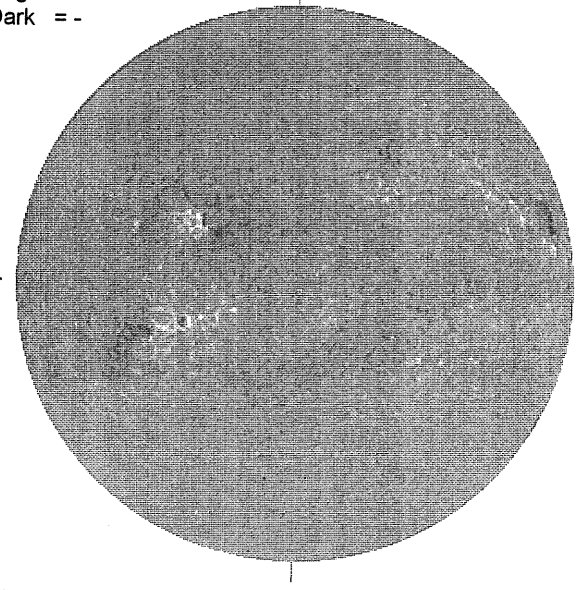
S

APRIL 19, 1994 (P=-25.78, Bo =-5.29, Lo = 143.46)

KITT PEAK MAGNETOGRAM

N **5507A**

Bright = +
Dark = -



E-

1451 UT

STANFORD MAGNETOGRAM

N

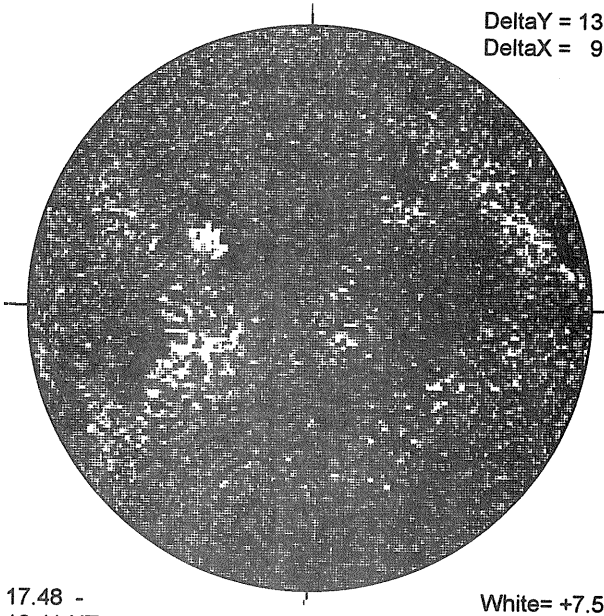
Solid = +
Dashed = -

2103 UT

MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6



-W

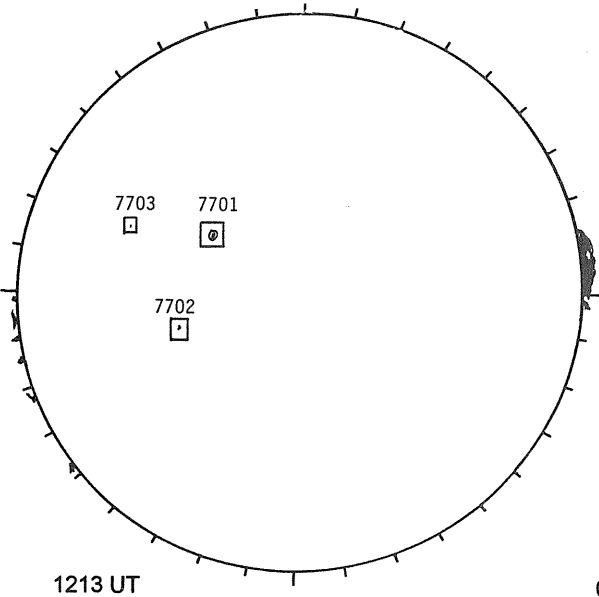
17.48 -
18.41 UT

White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

RAMEY SUNSPOT



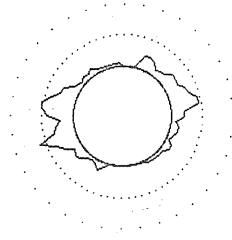
E----------

1213 UT
0503 UT LOMN Prom S

S

LOMNICKY PEAK CORONA (1.04 Radii)----

530.3 nm



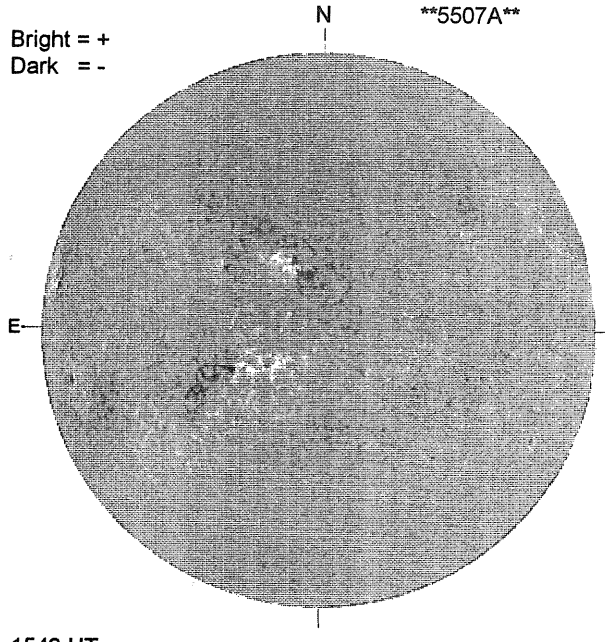
----------W

0611 UT
... 50 abs. units; . . 100 abs. units

S

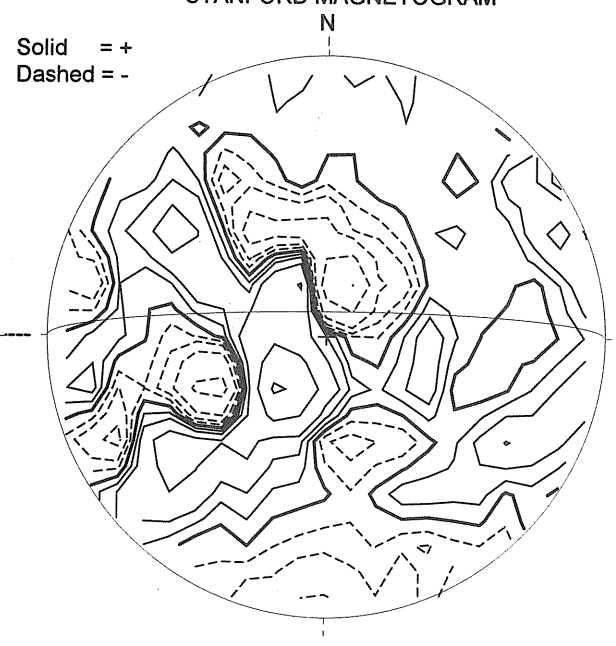
APRIL 20, 1994 (P=-25.69, Bo =-5.21, Lo = 130.25)

KITT PEAK MAGNETOGRAM



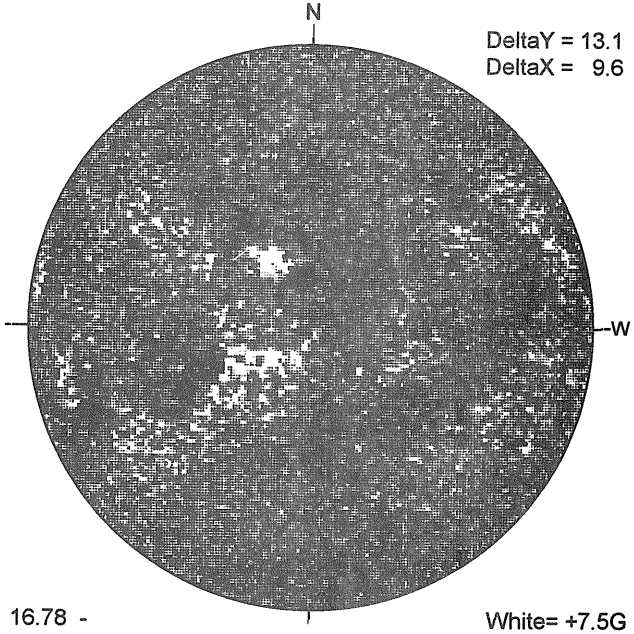
1543 UT

STANFORD MAGNETOGRAM



2008 UT

MT. WILSON MAGNETOGRAM



16.78 -
17.72 UT

White= +7.5G
Black = -7.5G

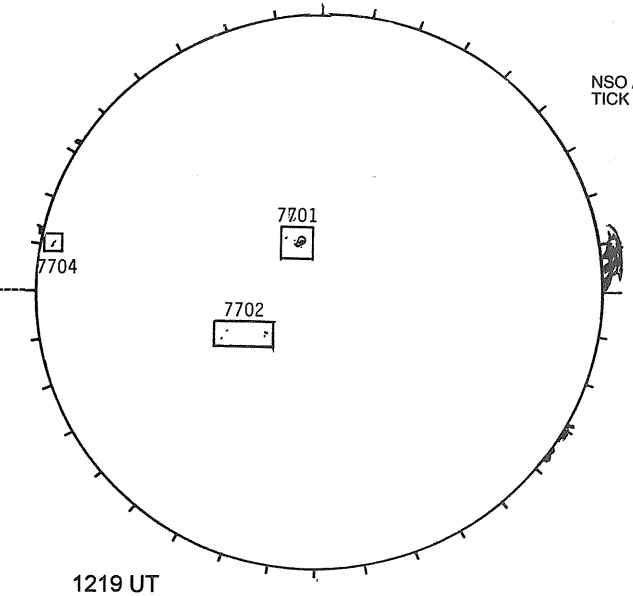
SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

E

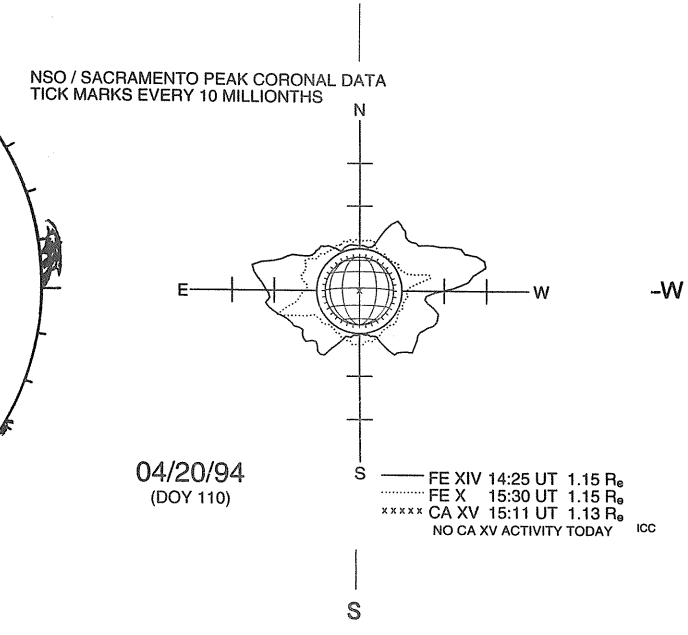
S

RAMEY SUNSPOT



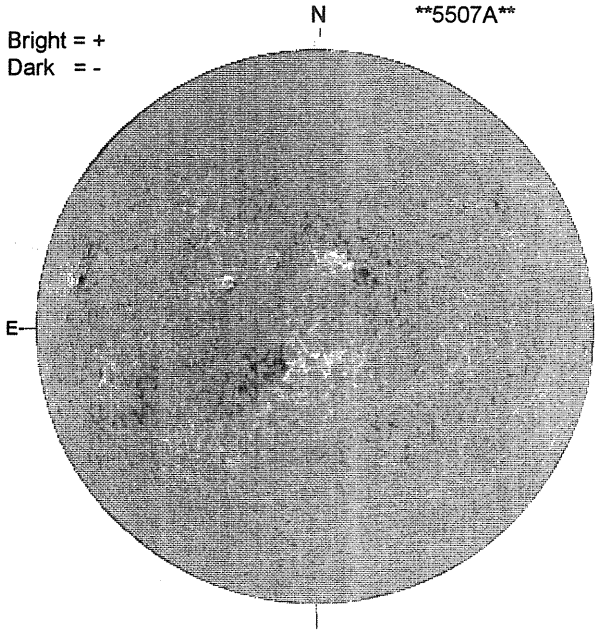
1219 UT
0526 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)



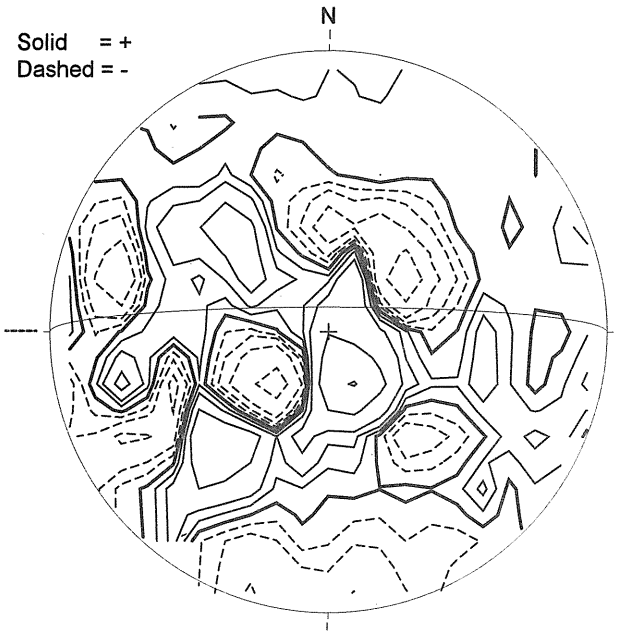
APRIL 21, 1994 (P=-25.59, Bo =-5.12, Lo = 117.04)

KITT PEAK MAGNETOGRAM



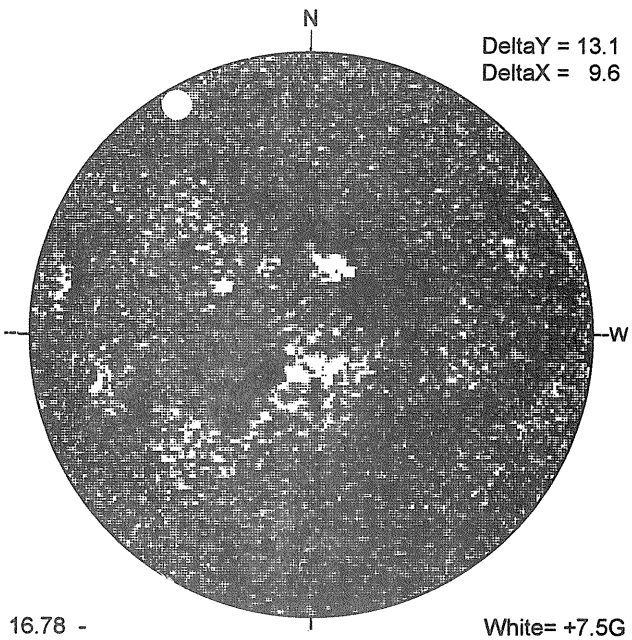
1412 UT

STANFORD MAGNETOGRAM



2031 UT

MT. WILSON MAGNETOGRAM



16.78 -
17.71 UT

White= +7.5G
Black = -7.5G

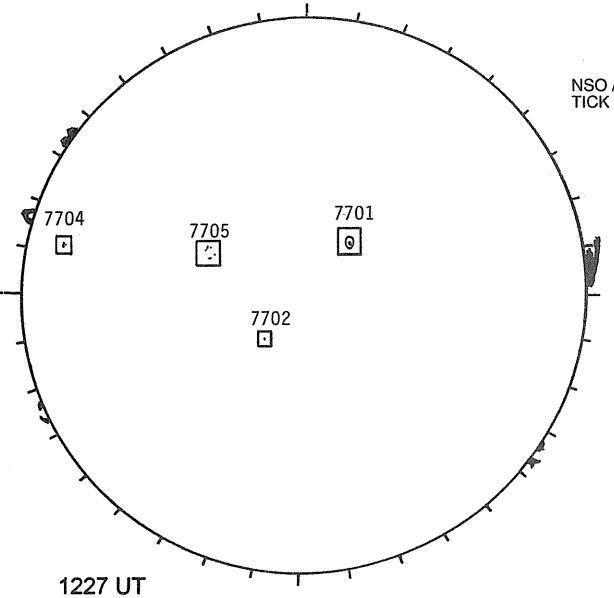
SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

E

S

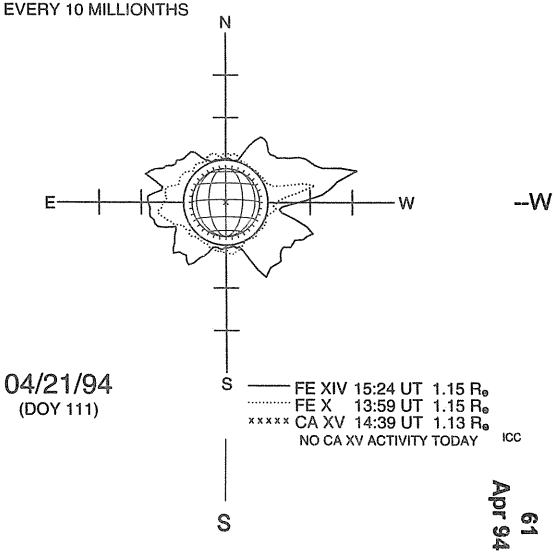
RAMEY SUNSPOT



1227 UT
0658 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS



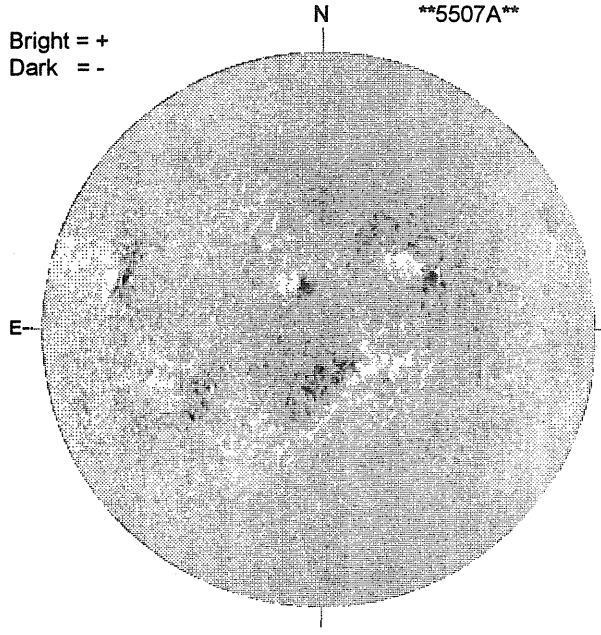
04/21/94
(DOY 111)

FE XIV 15:24 UT 1.15 $R_\odot$
FE X 13:59 UT 1.15 $R_\odot$
CA XV 14:39 UT 1.13 $R_\odot$
NO CA XV ACTIVITY TODAY

ICC

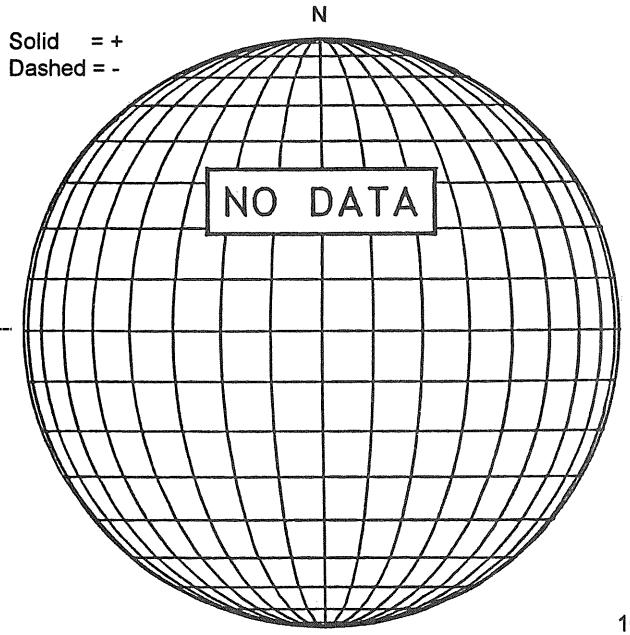
APRIL 22, 1994 (P=-25.48, Bo =-5.03, Lo = 103.83)

KITT PEAK MAGNETOGRAM

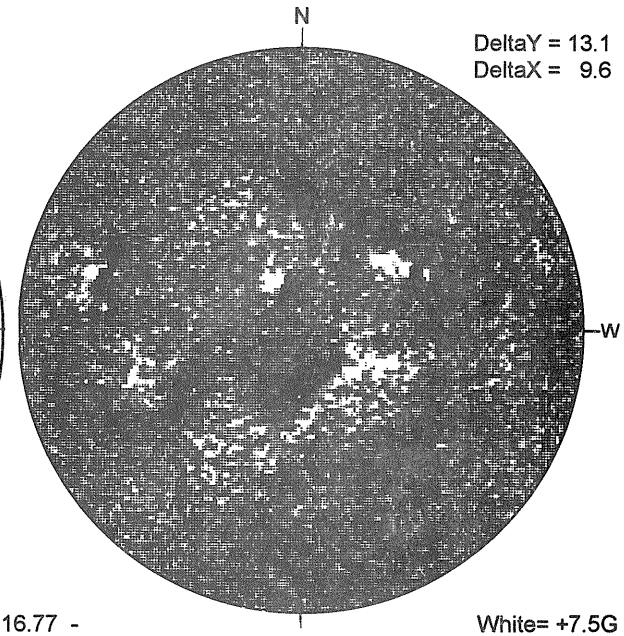


1415 UT

STANFORD MAGNETOGRAM



MT. WILSON MAGNETOGRAM



16.77 -
17.71 UT

White= +7.5G
Black = -7.5G

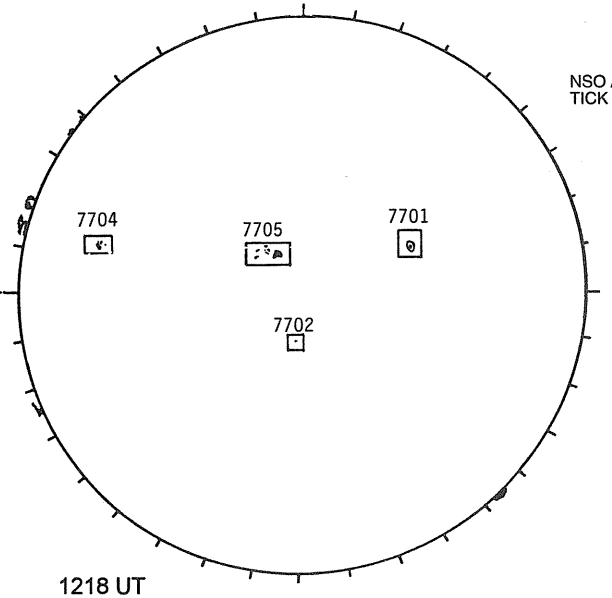
----- SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

E

S

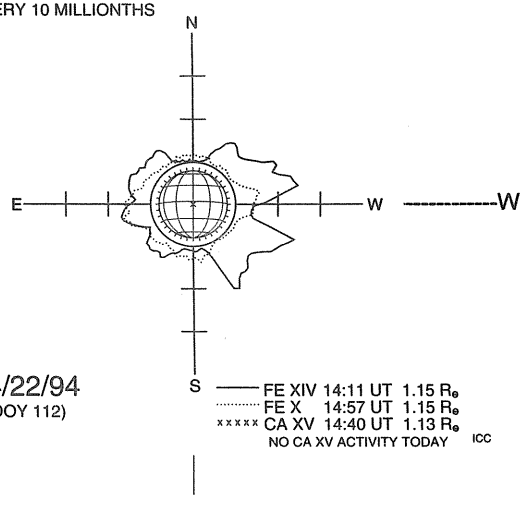
RAMEY SUNSPOT



1218 UT
1058 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS



04/22/94
(DOY 112)

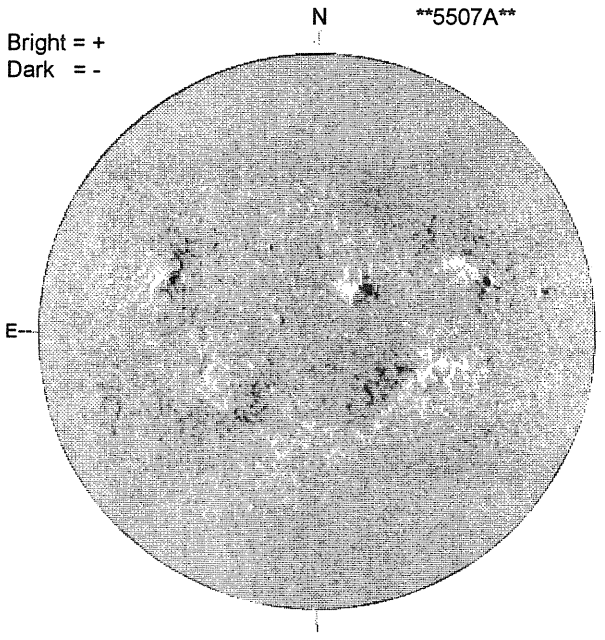
FE XIV 14:11 UT 1.15 $R_\odot$
FE X 14:57 UT 1.15 $R_\odot$
CA XV 14:40 UT 1.13 $R_\odot$
NO CA XV ACTIVITY TODAY

ICC

S

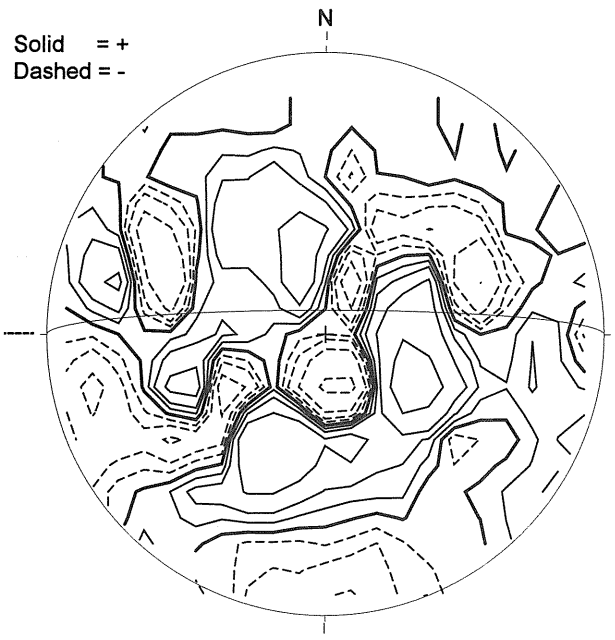
APRIL 23, 1994 (P=-25.37, Bo =-4.95, Lo = 90.62)

KITT PEAK MAGNETOGRAM



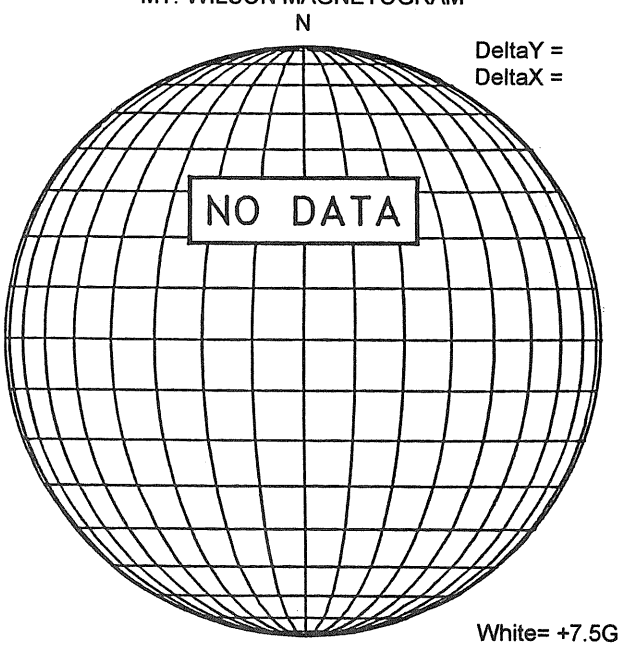
1502 UT

STANFORD MAGNETOGRAM



0045 UT

MT. WILSON MAGNETOGRAM

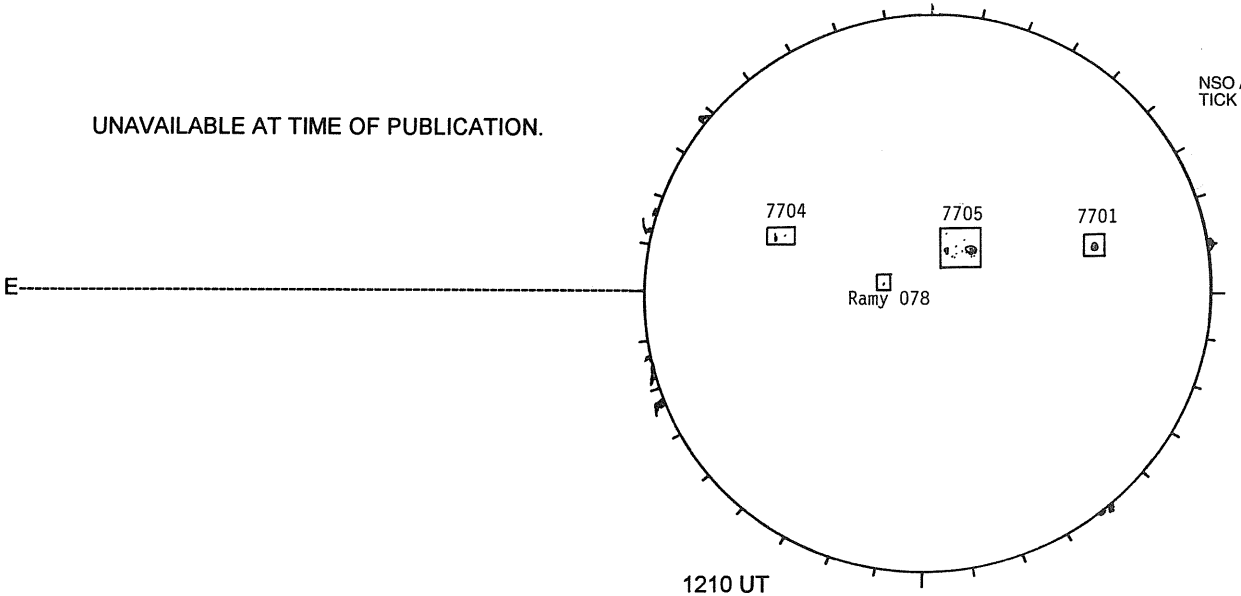


White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA

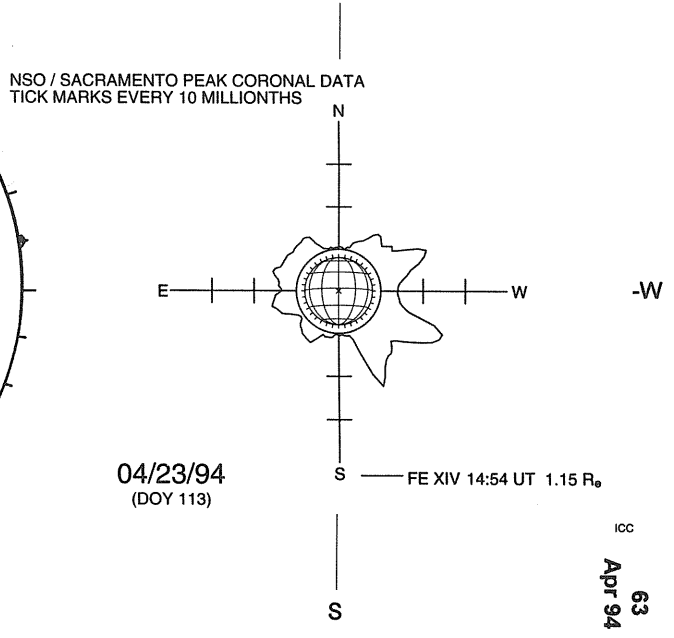
UNAVAILABLE AT TIME OF PUBLICATION.

RAMEY SUNSPOT



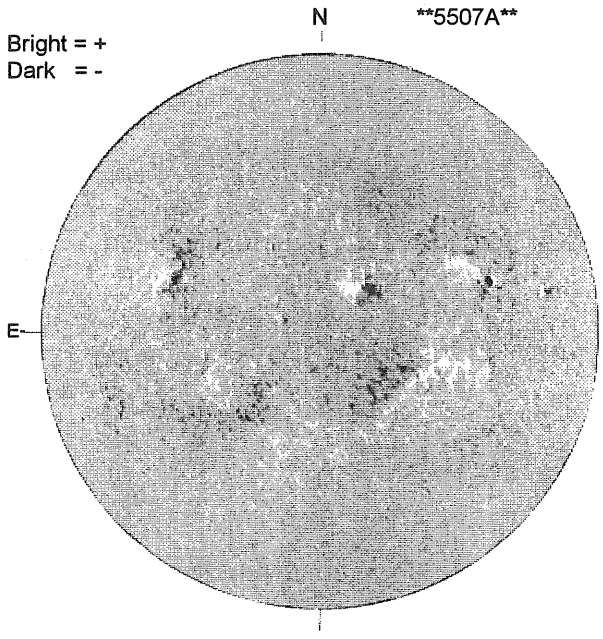
1210 UT
0631 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----



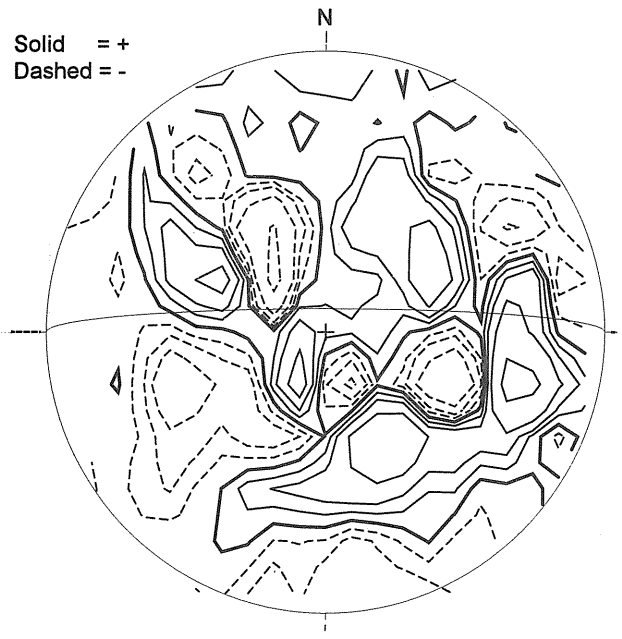
APRIL 24, 1994 (P=-25.25, Bo =-4.85, Lo = 77.41)

KITT PEAK MAGNETOGRAM



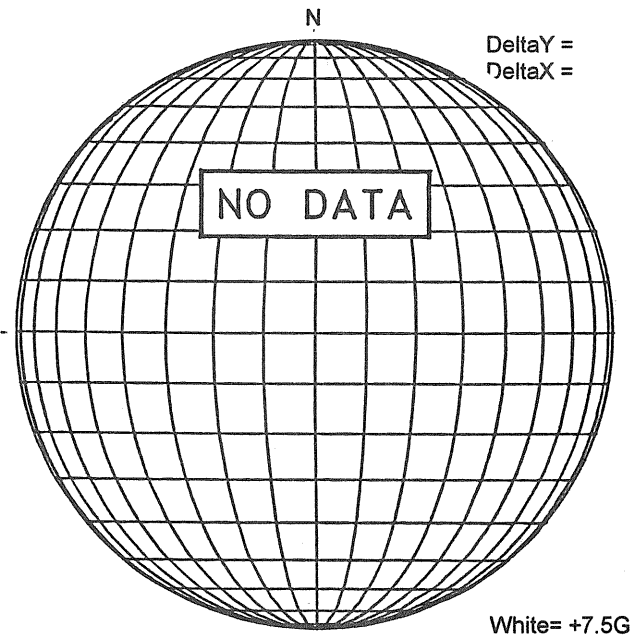
1524 UT

STANFORD MAGNETOGRAM



2316 UT

MT. WILSON MAGNETOGRAM

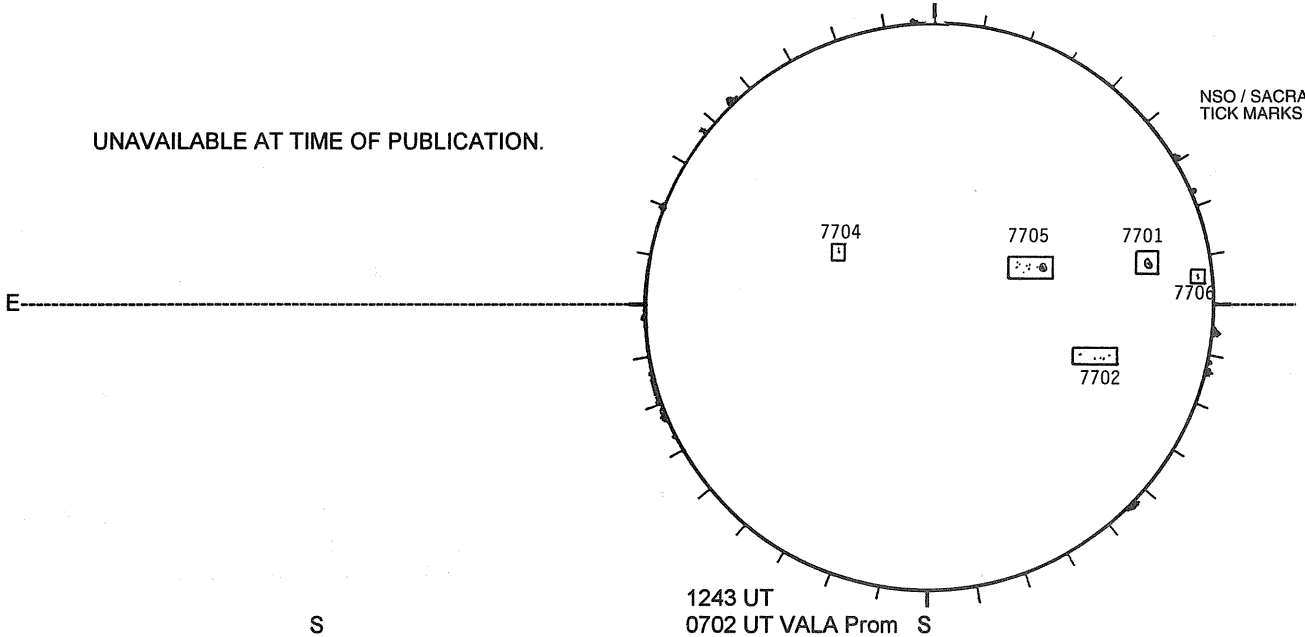


White= +7.5G
Black = -7.5G

SACRAMENTO PEAK H-ALPHA

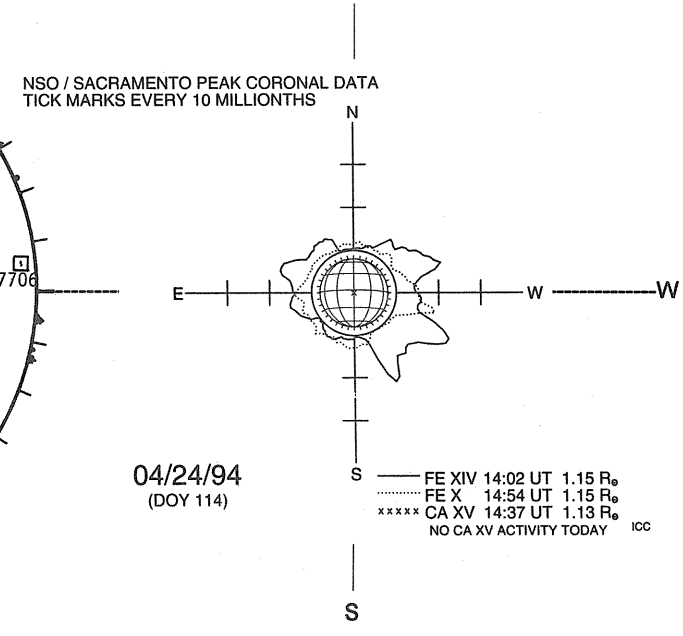
UNAVAILABLE AT TIME OF PUBLICATION.

RAMEY SUNSPOT



1243 UT
0702 UT VALA Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)

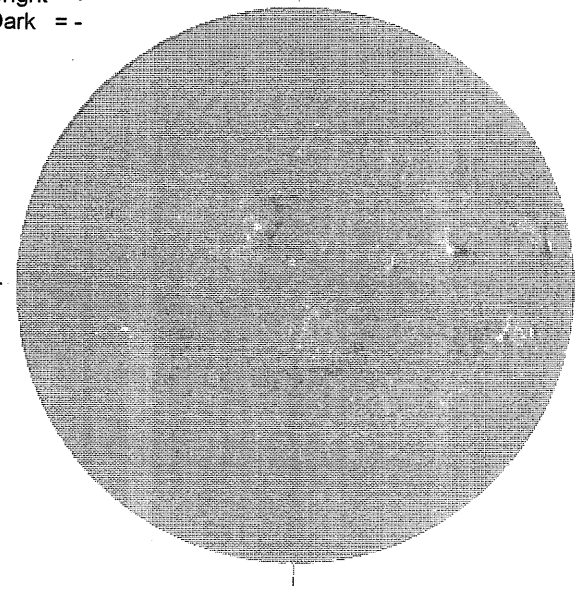


APRIL 25, 1994 (P=-25.12, Bo =-4.76, Lo = 64.20)

KITT PEAK MAGNETOGRAM

N **5507A**

Bright = +
Dark = -



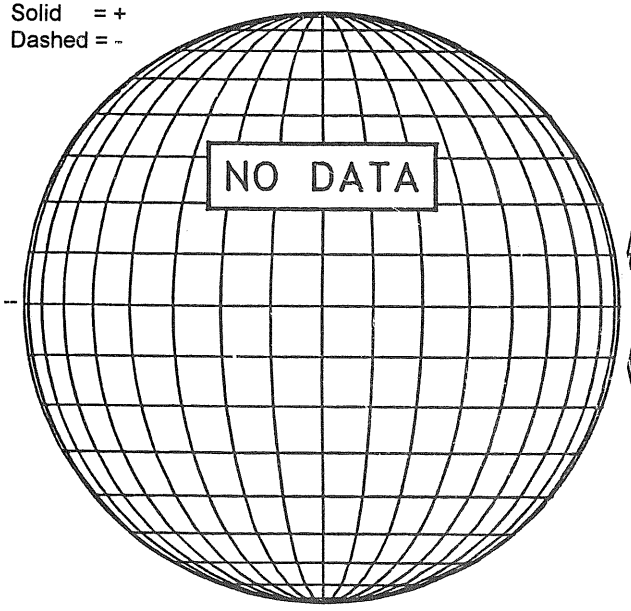
E-

1433 UT

STANFORD MAGNETOGRAM

N

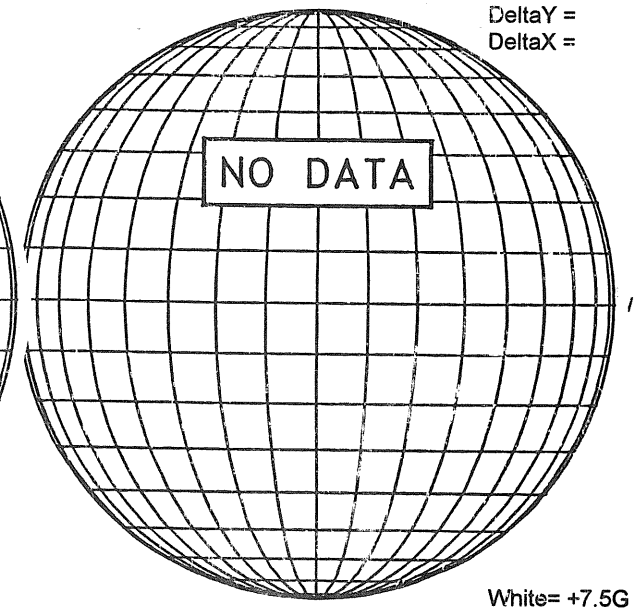
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY =
DeltaX =



White= +7.5G
Black = -7.5G

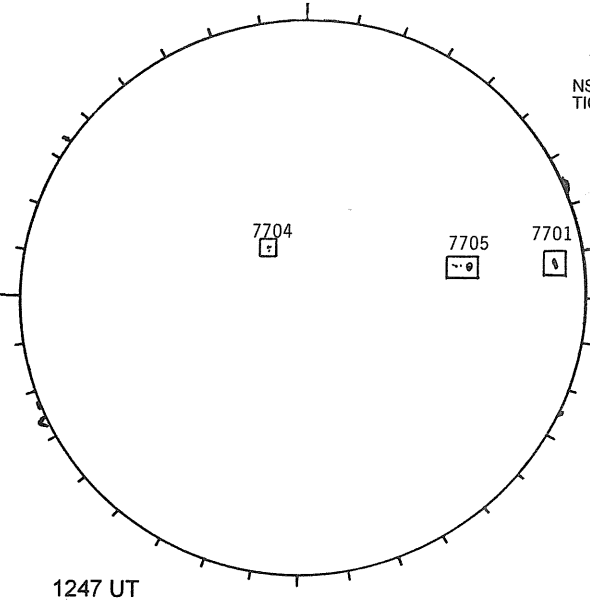
----- SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

E----------

S

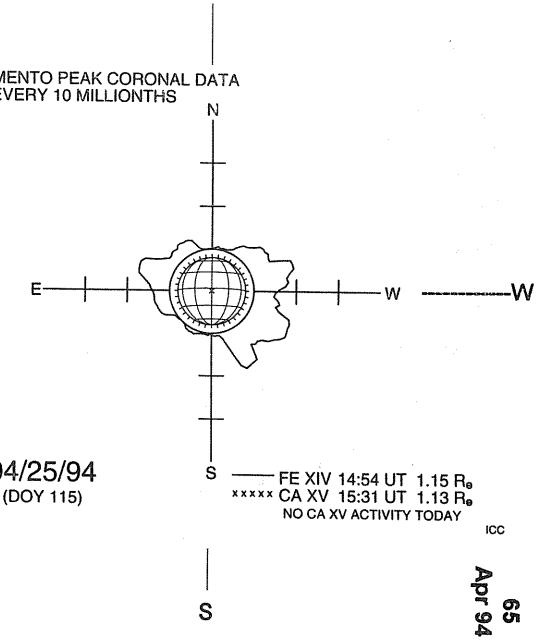
RAMEY SUNSPOT



1247 UT
0554 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS



04/25/94
(DOY 115)

FE XIV 14:54 UT 1.15 R_s
xxxxx CA XV 15:31 UT 1.13 R_s
NO CA XV ACTIVITY TODAY

ICC

S

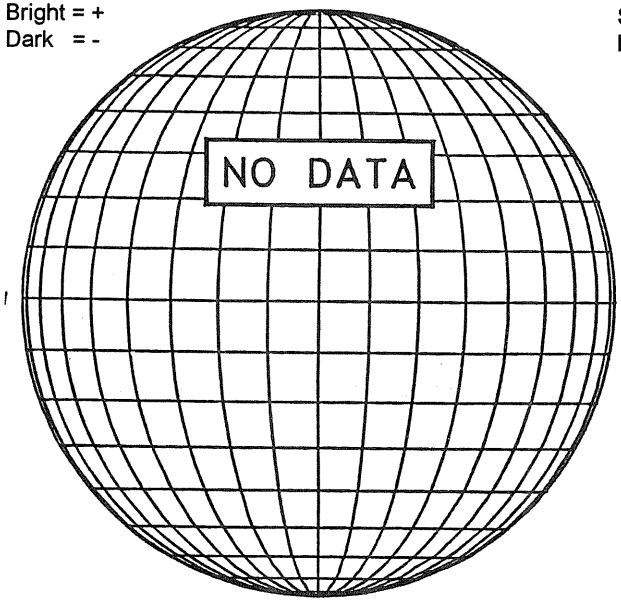
65
Apr 94

APRIL 26, 1994 (P=-24.99, Bo =-4.67, Lo = 50.99)

KITT PEAK MAGNETOGRAM

N **5507A**

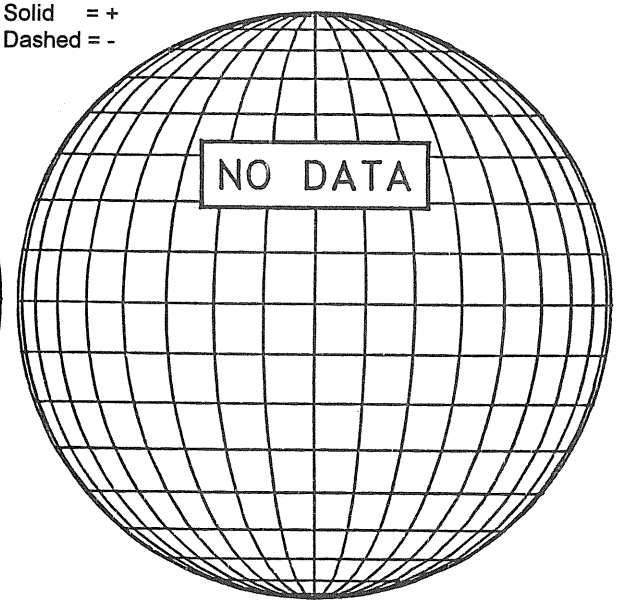
Bright = +
Dark = -



STANFORD MAGNETOGRAM

N

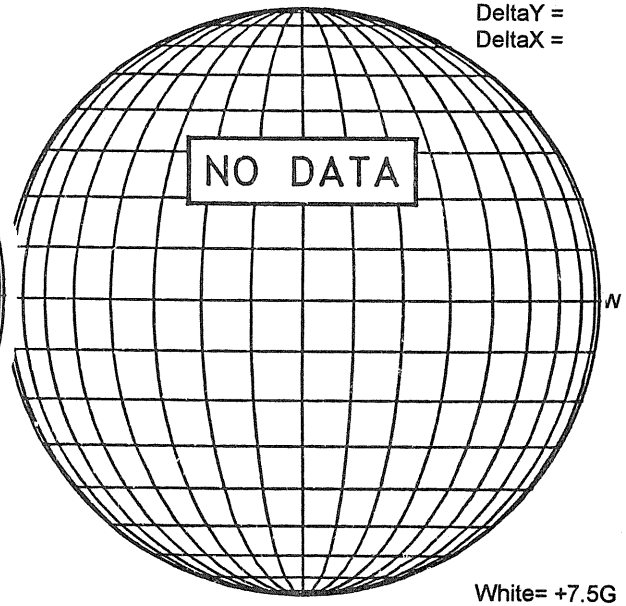
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY =
DeltaX =

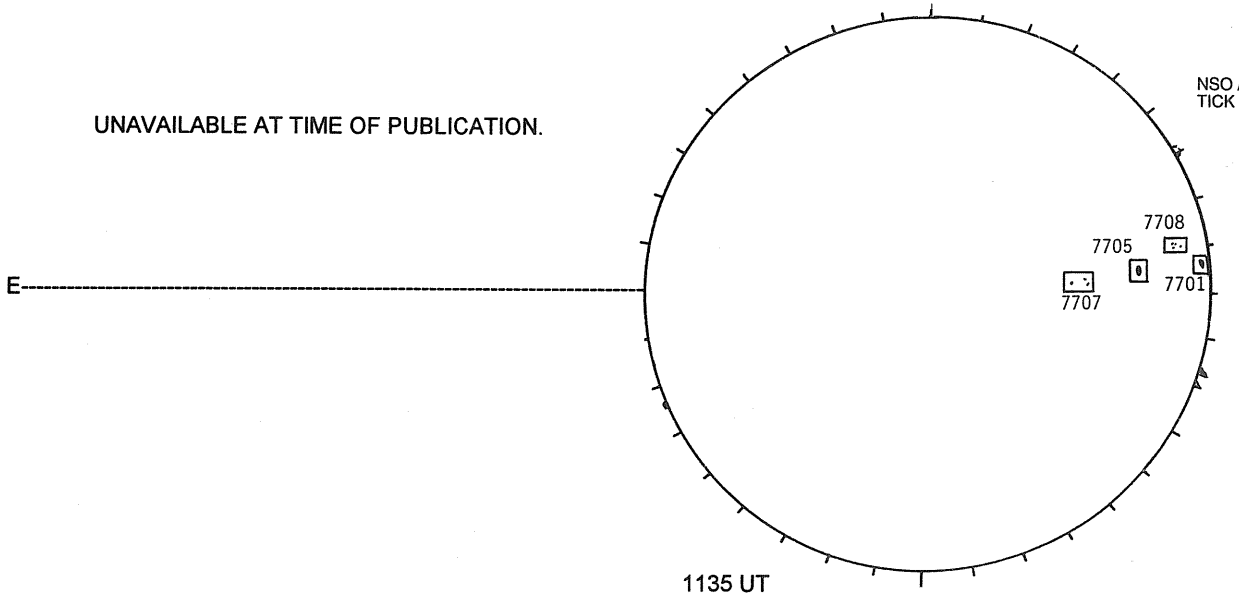


White= +7.5G
Black = -7.5G

SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

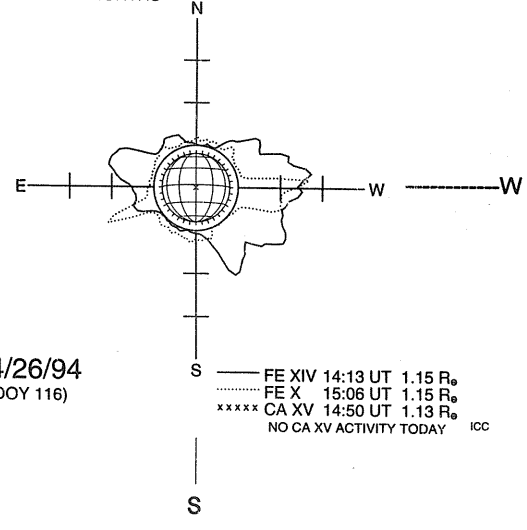
RAMEY SUNSPOT



1135 UT
0612 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS



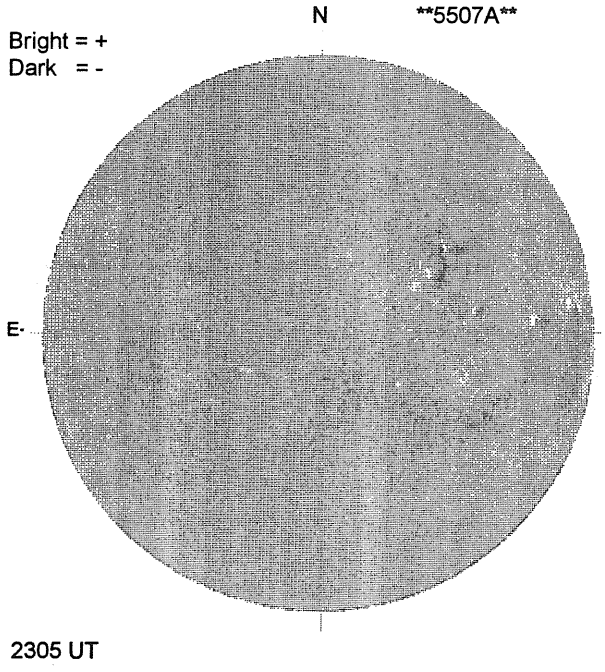
04/26/94
(DOY 116)

FE XIV 14:13 UT 1.15 $R_\odot$
FE X 15:06 UT 1.15 $R_\odot$
CA XV 14:50 UT 1.13 $R_\odot$
NO CA XV ACTIVITY TODAY

ICC

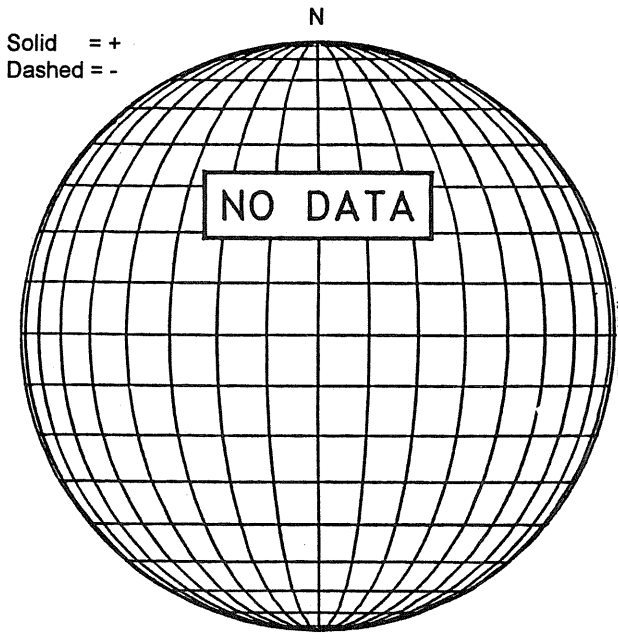
APRIL 27, 1994 (P=-24.84, Bo =-4.57, Lo = 37.77)

KITT PEAK MAGNETOGRAM

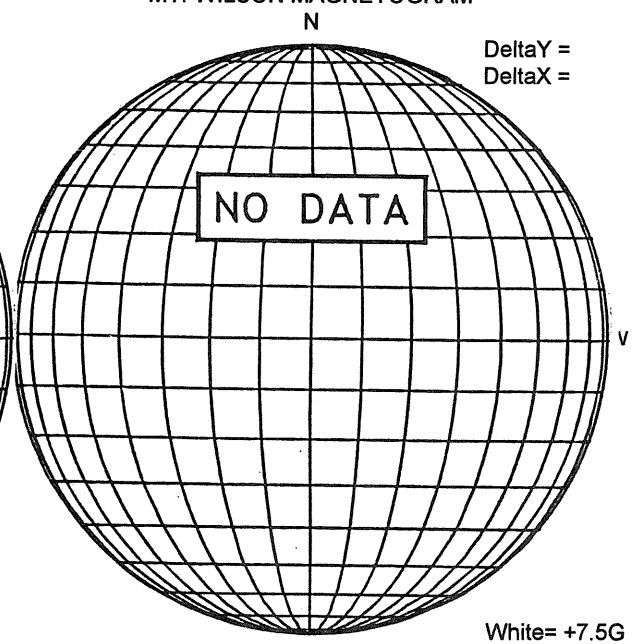


2305 UT

STANFORD MAGNETOGRAM



MT. WILSON MAGNETOGRAM



White= +7.5G
Black = -7.5G

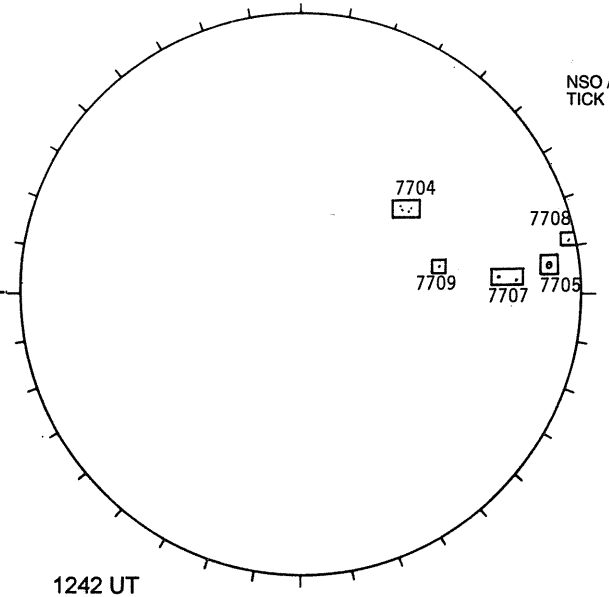
----- SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

E----------

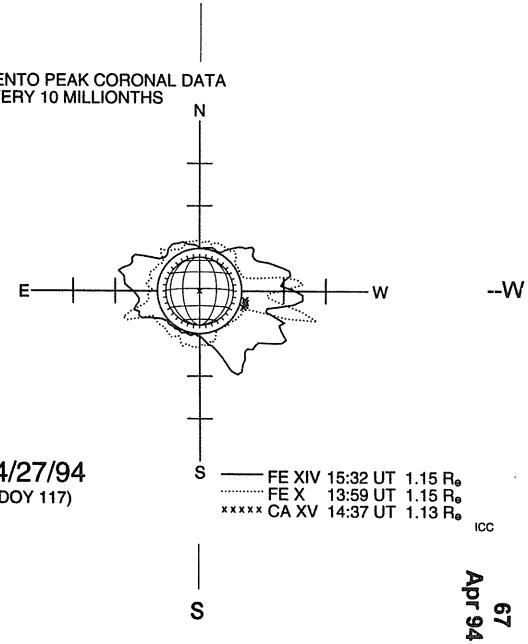
S

RAMEY SUNSPOT



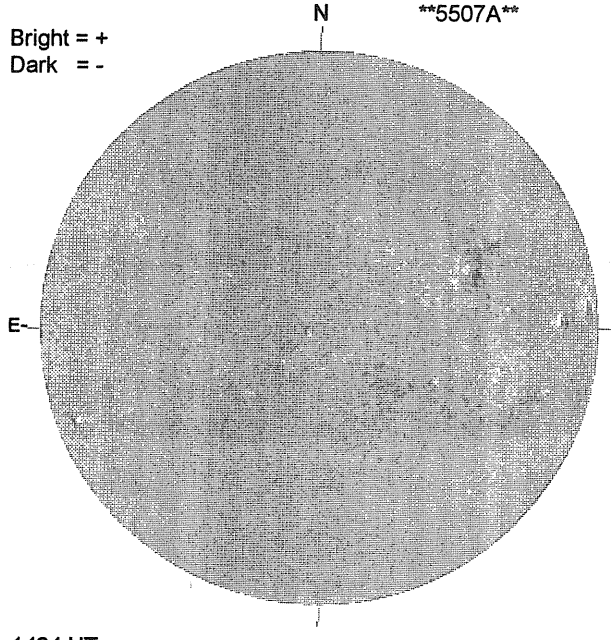
1242 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



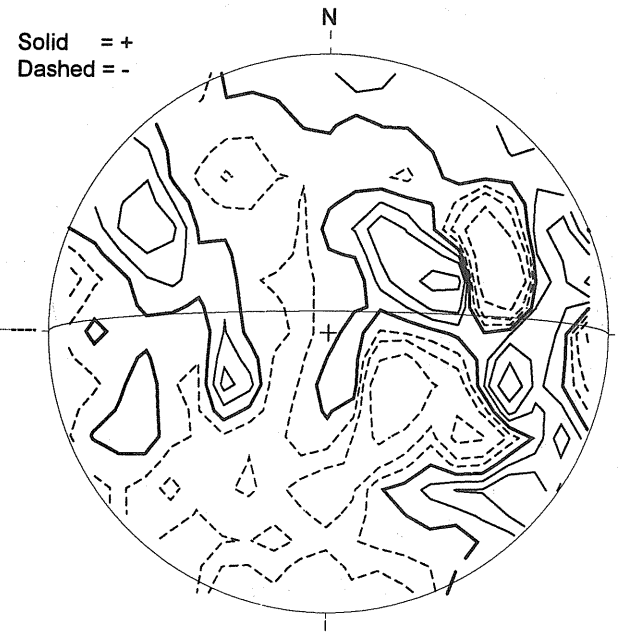
APRIL 28, 1994 (P=-24.69, Bo =-4.48, Lo = 24.56)

KITT PEAK MAGNETOGRAM



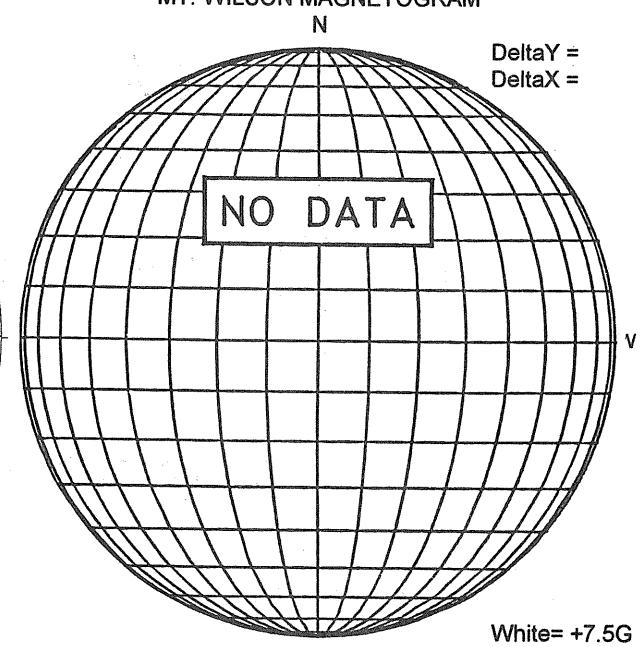
1424 UT

STANFORD MAGNETOGRAM



1722 UT

MT. WILSON MAGNETOGRAM



White= +7.5G
Black = -7.5G

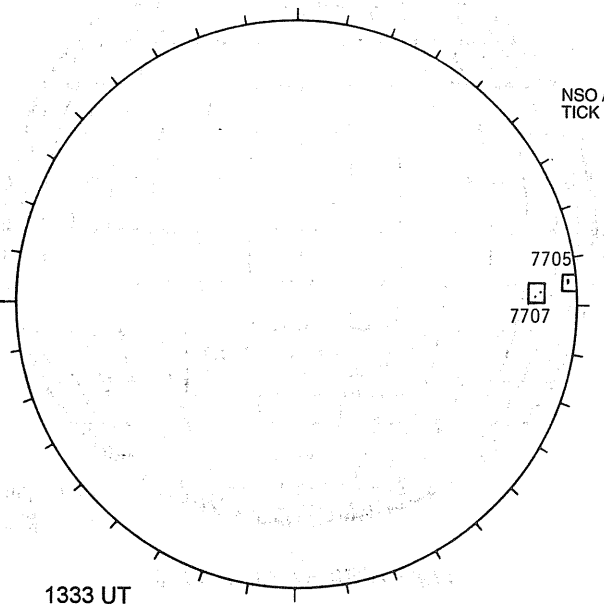
SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

E----------

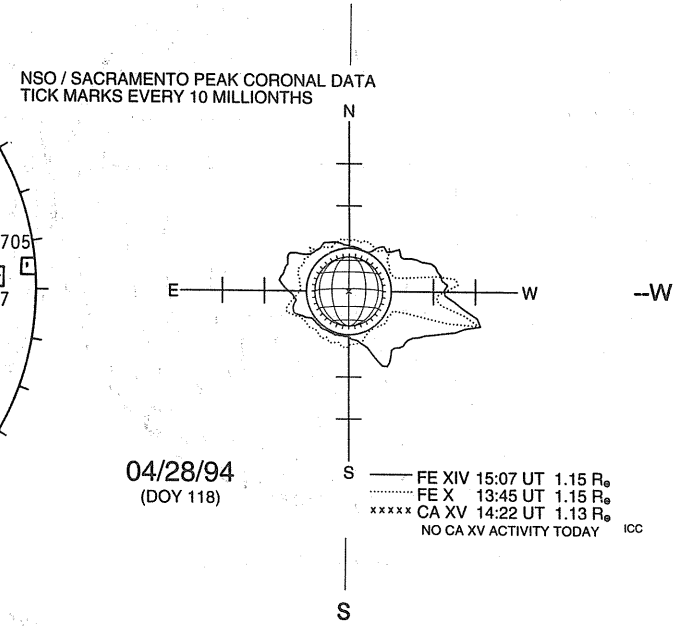
S

RAMEY SUNSPOT



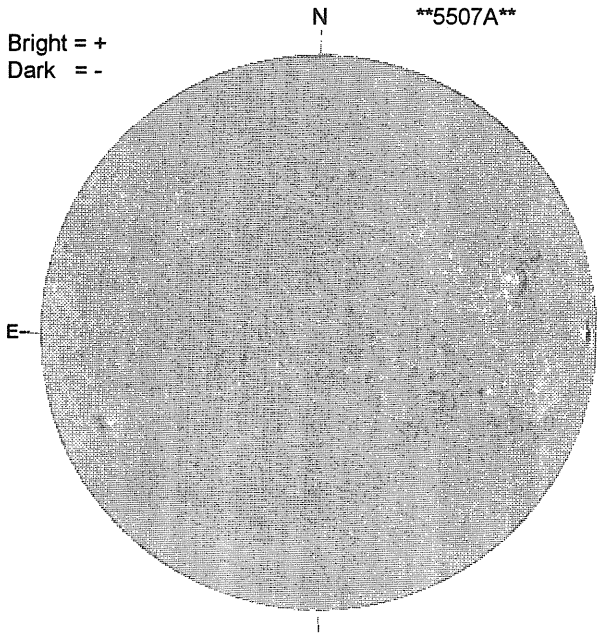
1333 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

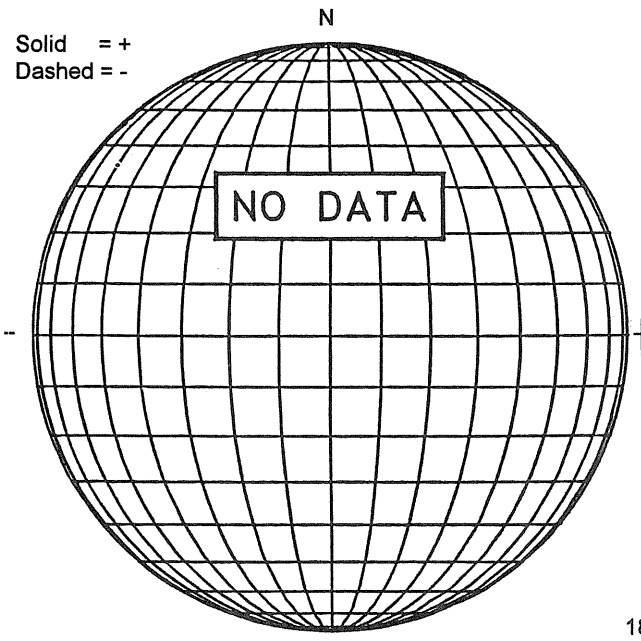


APRIL 29, 1994 (P=-24.54, Bo =-4.38, Lo = 11.35)

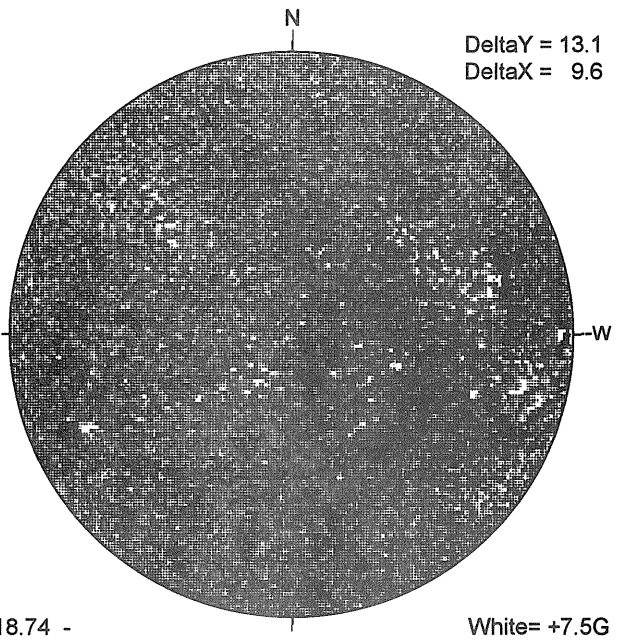
KITT PEAK MAGNETOGRAM



STANFORD MAGNETOGRAM

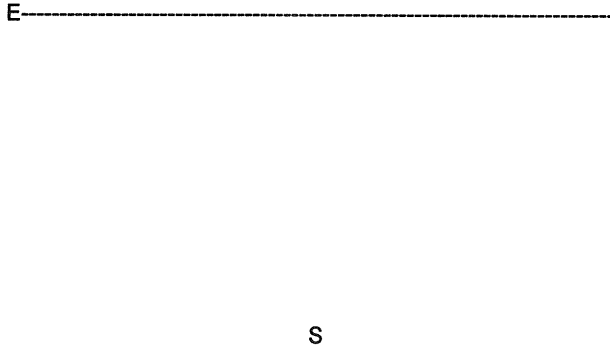


MT. WILSON MAGNETOGRAM

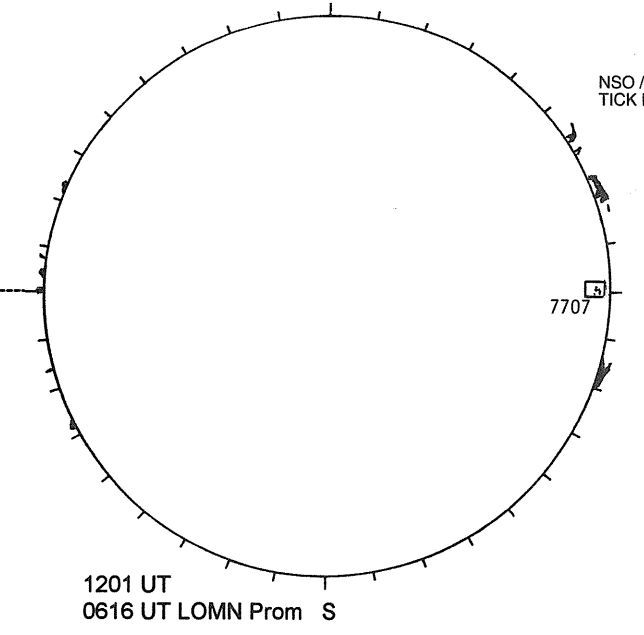


----- SACRAMENTO PEAK H-ALPHA

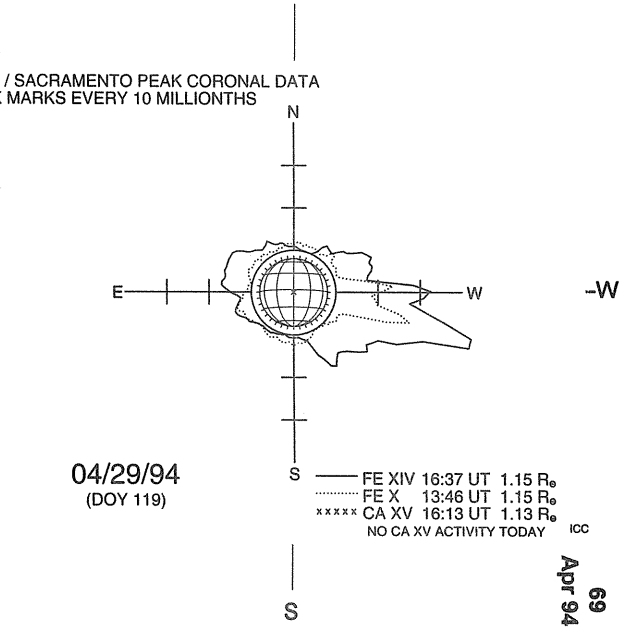
UNAVAILABLE AT TIME OF PUBLICATION.



RAMEY SUNSPOT

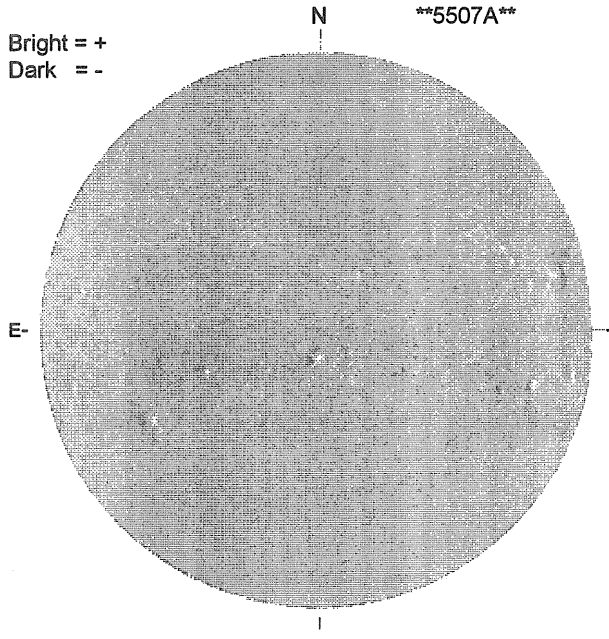


SACRAMENTO PEAK CORONA (1.15 Radii)----



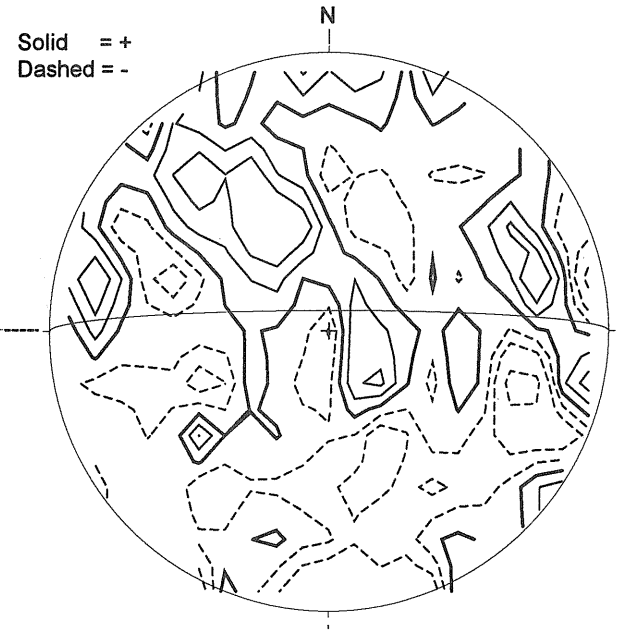
APRIL 30, 1994 (P=-24.37, Bo =-4.28, Lo = 358.13)

KITT PEAK MAGNETOGRAM



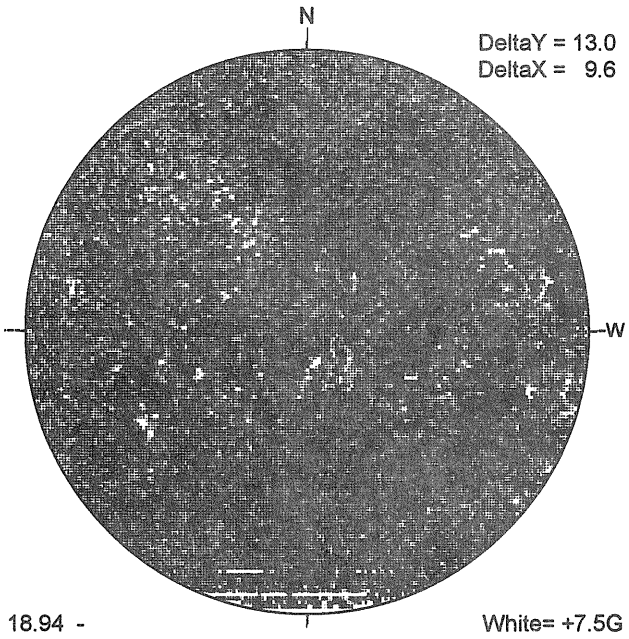
1549 UT

STANFORD MAGNETOGRAM



2253 UT

MT. WILSON MAGNETOGRAM



18.94 -
19.87 UT

White= +7.5G
Black = -7.5G

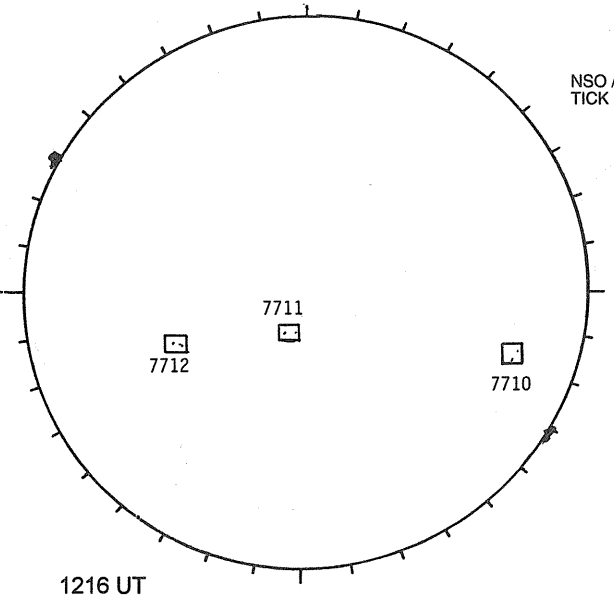
SACRAMENTO PEAK H-ALPHA

UNAVAILABLE AT TIME OF PUBLICATION.

E----------

S

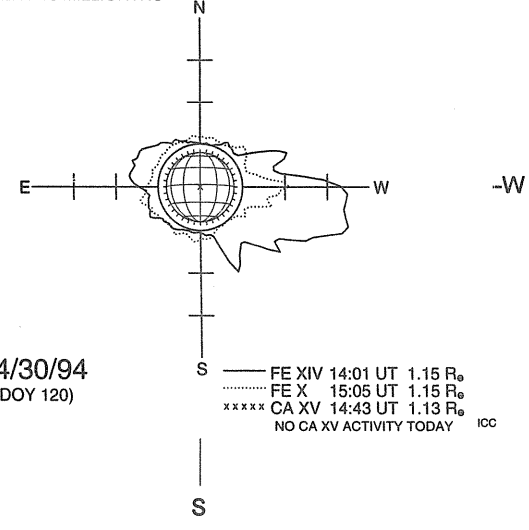
RAMEY SUNSPOT



1216 UT
0559 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 10 MILLIONTHS



04/30/94
(DOY 120)

FE XIV 14:01 UT 1.15 R_e
FE X 15:05 UT 1.15 R_e
CA XV 14:43 UT 1.13 R_e
NO CA XV ACTIVITY TODAY

ICC

DAILY SOFT X-RAY IMAGES FROM YOHKOH

The YOHKOH ("sunbeam") mission is a Japanese program designed to answer many questions in solar flare and coronal physics that have been raised by the highly successful Hinotori and SMM missions. It includes the United States and the United Kingdom as participating partners. The Japanese Institute for Space and Astronautical Sciences (ISAS) provided overall program management, the launch vehicle, the spacecraft, and two science instruments -- a Hard X-ray Telescope, one of the primary mission instruments, and a Wide Band Spectrometer. The other primary instrument, a Soft X-ray Telescope, was prepared by the Lockheed Palo Alto Research Laboratory, under NASA support, in collaboration with the National Astronomical Observatory of Japan and the University of Tokyo. The U.K., in collaboration with the E. O. Hulburt Center for Space Research, provided a Bragg Crystal Spectrometer. The NASA Deep Space Network cooperates in tracking Yohkoh.

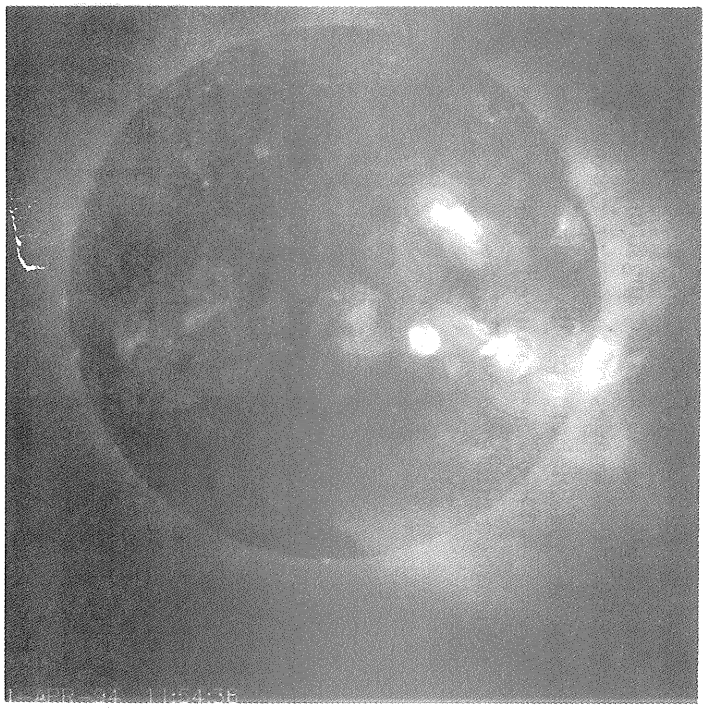
The Soft X-ray Telescope (SXT) uses low-scatter grazing incidence optics to form direct images on a CCD detector. It employs a Nariai-Werner design which differs from the more commonly used Wolter Type 1 in that both mirror segments have been made hyperbolic in order to gain better off-axis performance at the expense of a slight loss of on-axis resolution. The optical system includes an entrance aperture filter, the X-ray mirror, a filter wheel assembly, a rotating shutter, and the CCD camera. A detailed description of the SXT has been published in Tsuneta, et al., **Solar Physics, Vol. 136**, pp. 37-67, 1991.

ISAS bears full responsibility for YOHKOH operations. U.S. and U.K. investigators in residence at ISAS participate in mission operations and scientific analyses. With the approval of Professor Y. Ogawara, Yohkoh Program Manager, and the YOHKOH Science Committee, the Lockheed Palo Alto Research Laboratory is kindly providing daily digital SXT images for publication in SGD. The digital images are 512x512 (5" pixels) or 256x256 (10" pixels) in size. They combine two exposures differing by a factor of 35 in duration and are printed with a logarithmic intensity scale to cope with the great range in intensity of the X-ray corona. The brightest features are typically more than 100,000 times brighter than the faintest. The mean wavelength of the pictures is about 20 angstroms. We display these images of the solar corona in soft X-rays in both positive and negative forms. They are printed on a dye sublimation printer at NGDC.

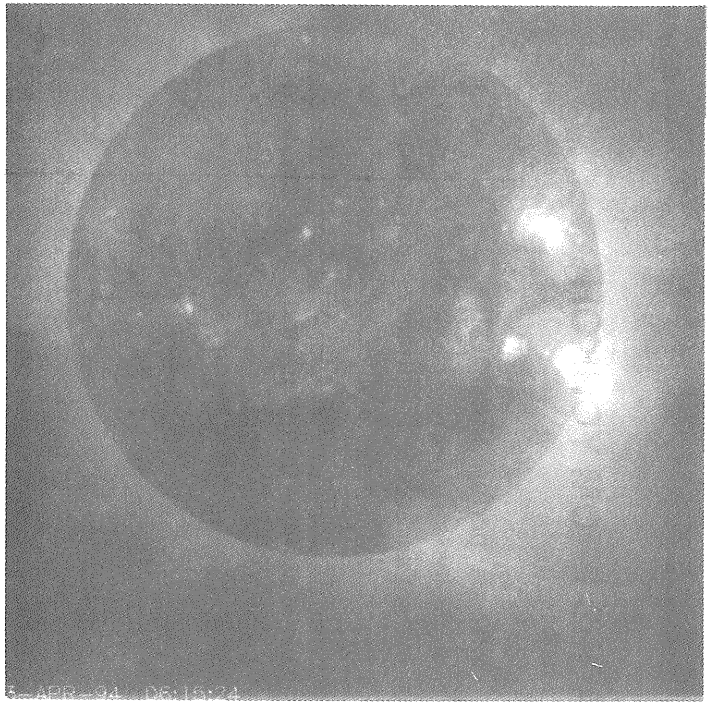
Editor's Note: YOHKOH SXT images for September 1991 through August 1992 are available through the NASA SolarDAC. Contact Joe Gurman for access information [gurman@uvsp.gsfc.nasa.gov, jgurman@solar, or uvsp::gurman. Telephone: (301)286-4767]. The YOHKOH team continues to invite collaborations in their analysis and are willing to assist those who wish to utilize the data in order to ensure the correct interpretation of the experimental results. Contact S. Tsuneta, ISAS, Yohkoh Operation Center, 3-1-1 Yoshinodai, Sagamihara, 229 Japan [tsuneta@sxt2.mtk.ioa.s.u-tokyo.ac.jp].

YOHKOH SOFT X-RAY TELESCOPE IMAGES

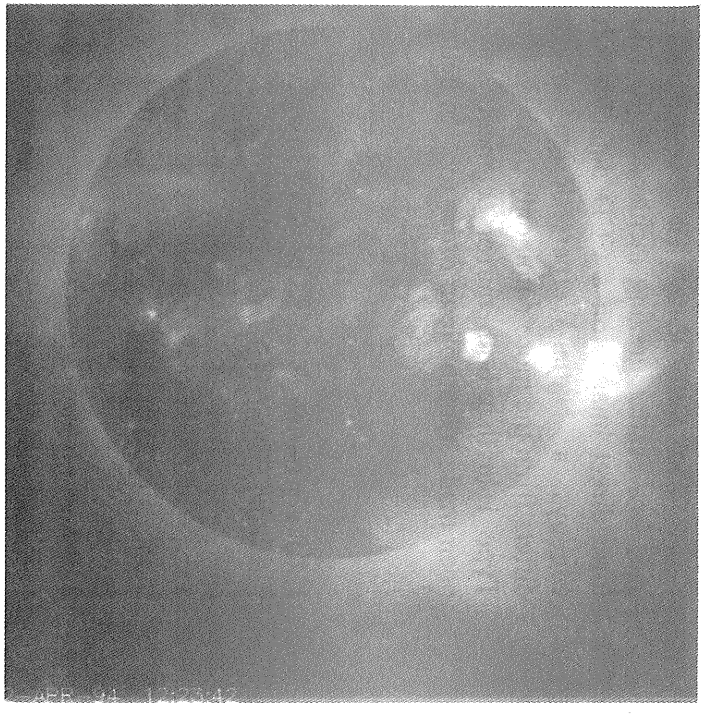
April 1994



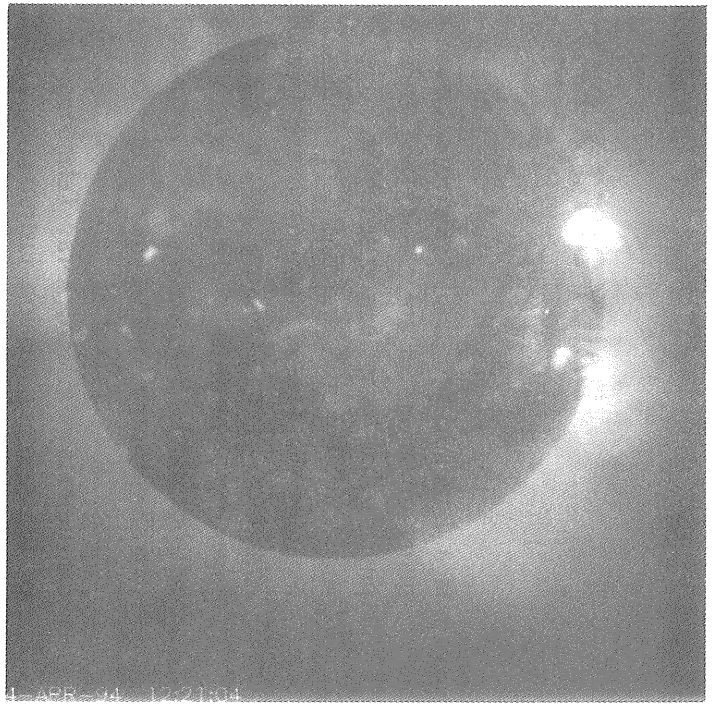
Day 1
11:54:36 UT



Day 3
06:15:24 UT



Day 2
12:23:42 UT



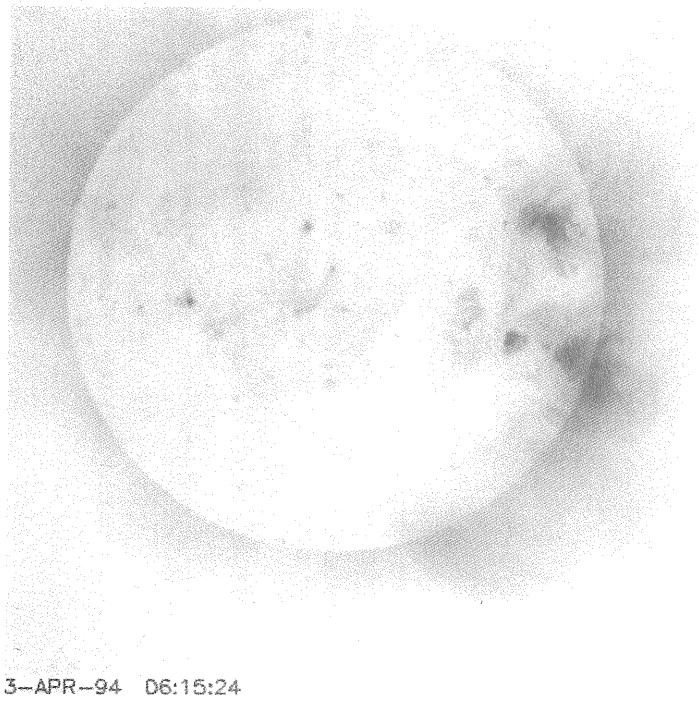
Day 4
12:21:04 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

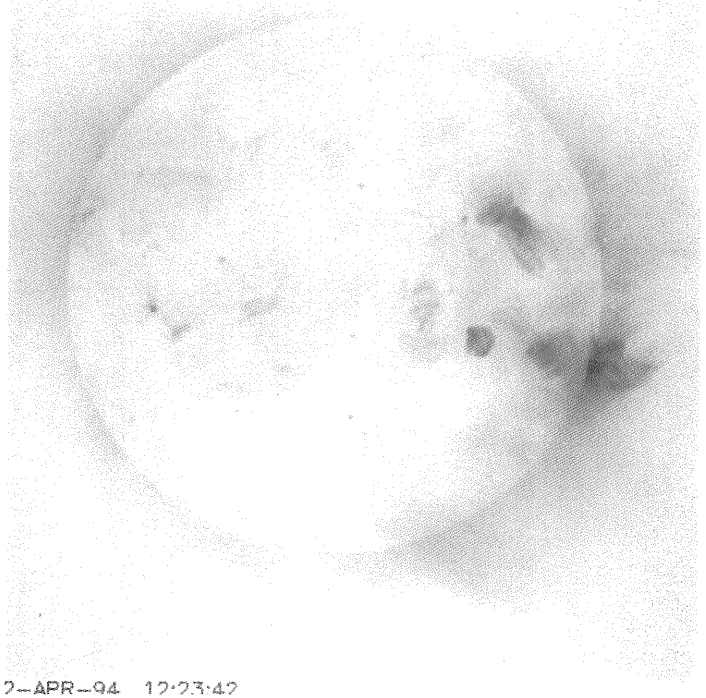
April 1994

Day 1
11:54:36 UT

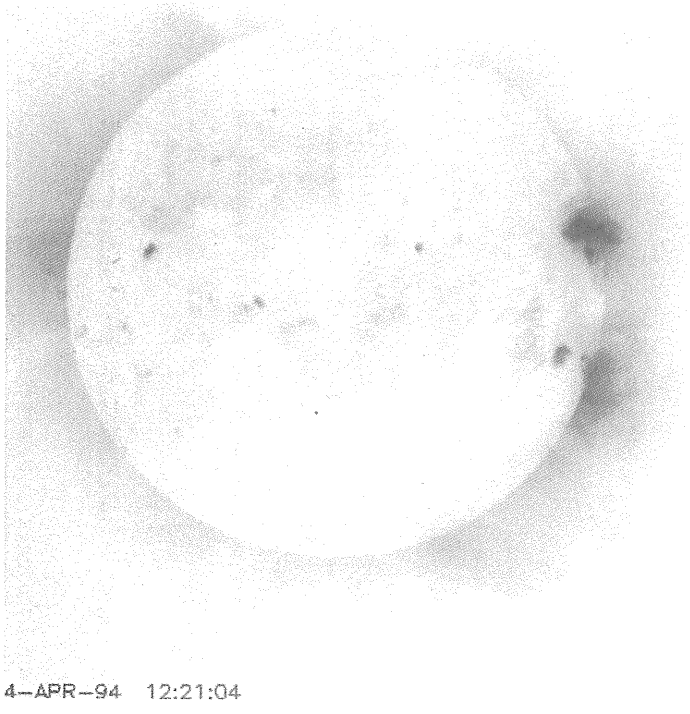
Day 3
06:15:24 UT



Day 2
12:23:42 UT

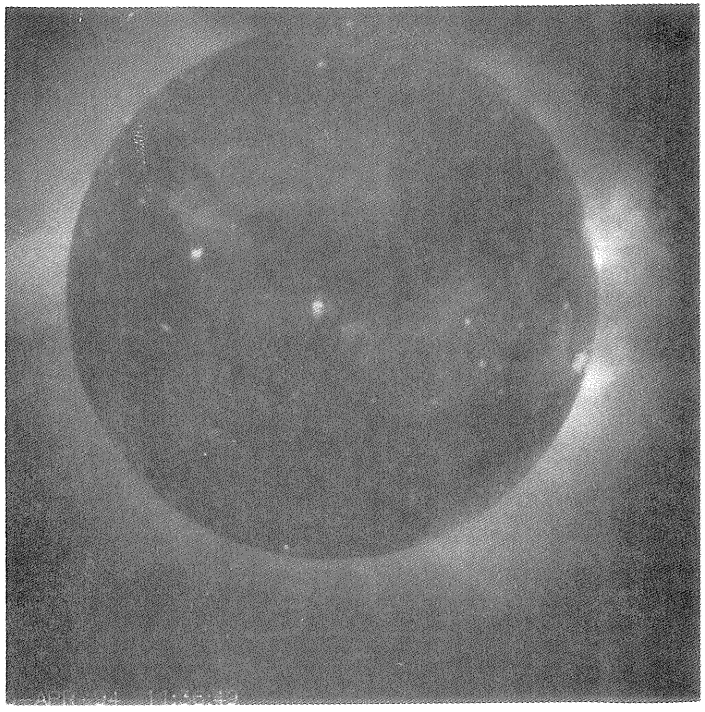


Day 4
12:21:04 UT

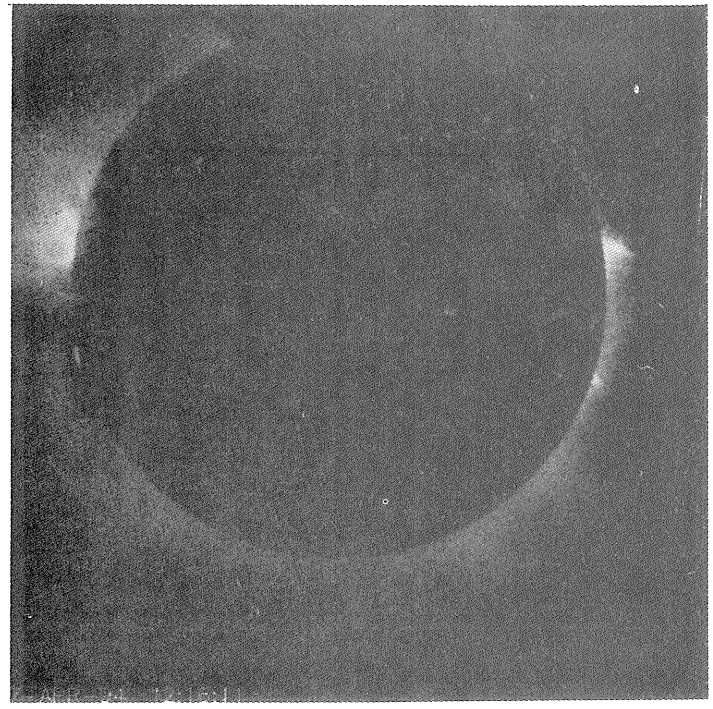


YOHKOH SOFT X-RAY TELESCOPE IMAGES

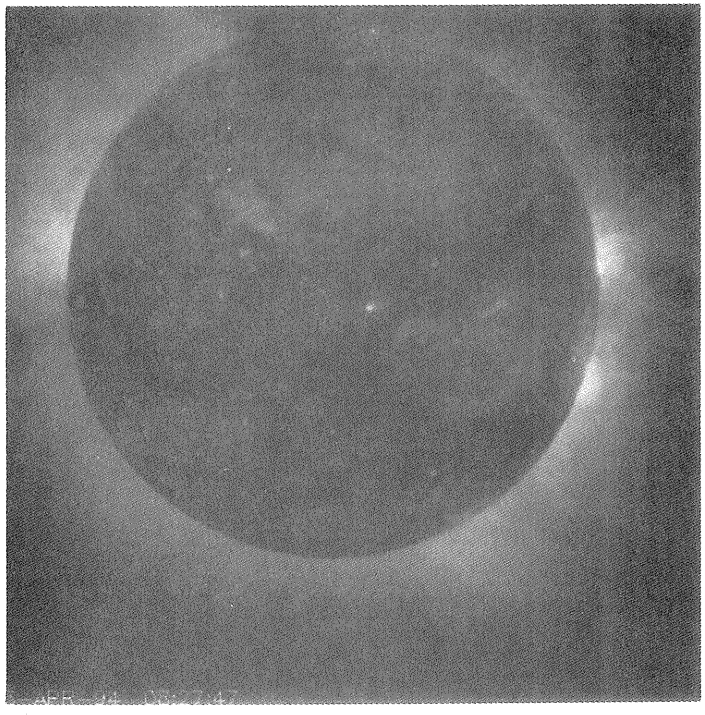
April 1994



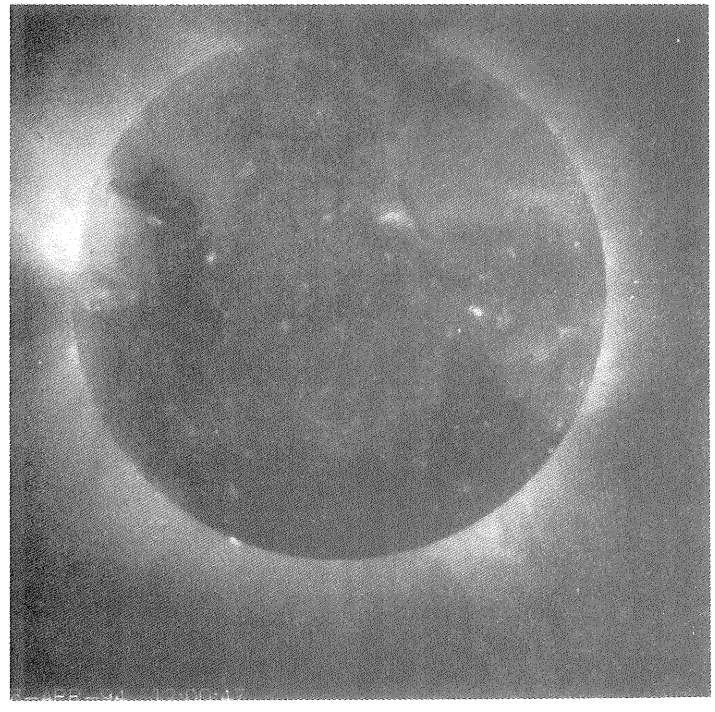
Day 5
11:36:49 UT



Day 7
12:16:11 UT



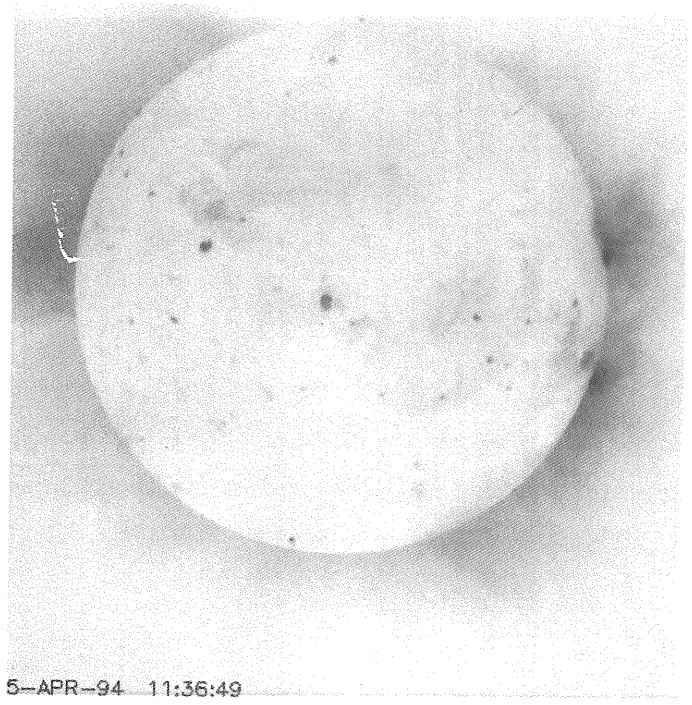
Day 6
08:27:47 UT



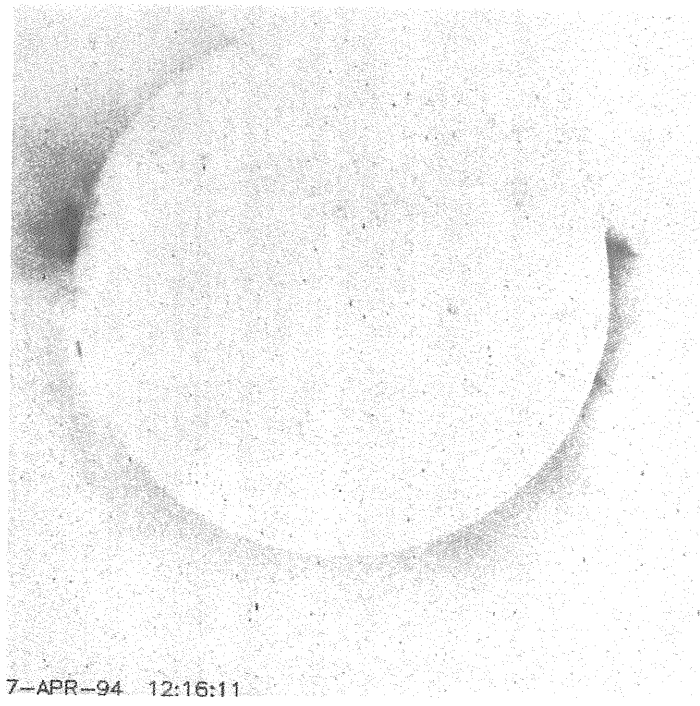
Day 8
12:00:47 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

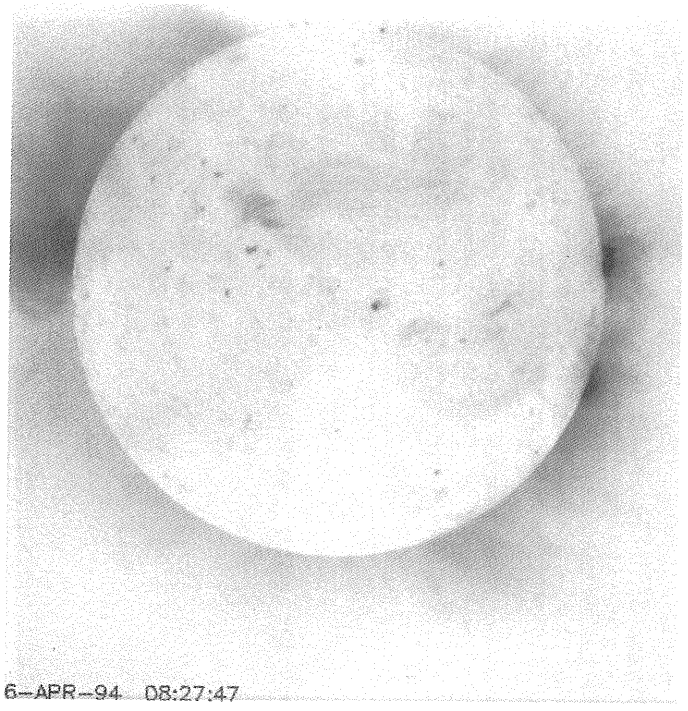
April 1994



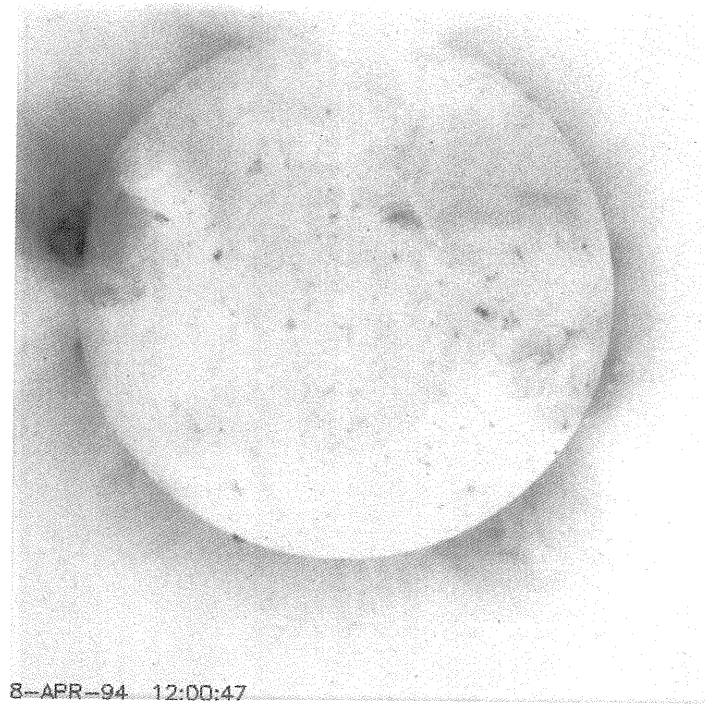
Day 5
11:36:49 UT



Day 7
12:16:11 UT



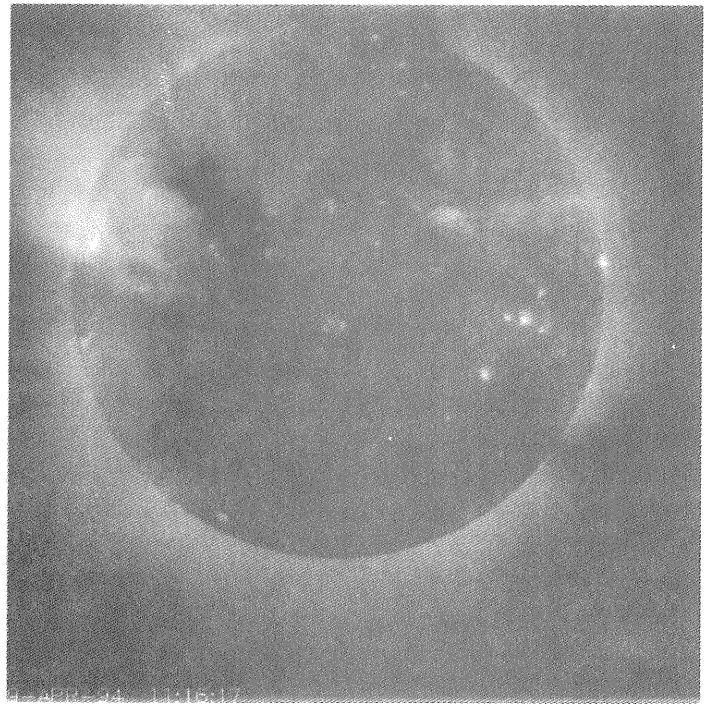
Day 6
08:27:47 UT



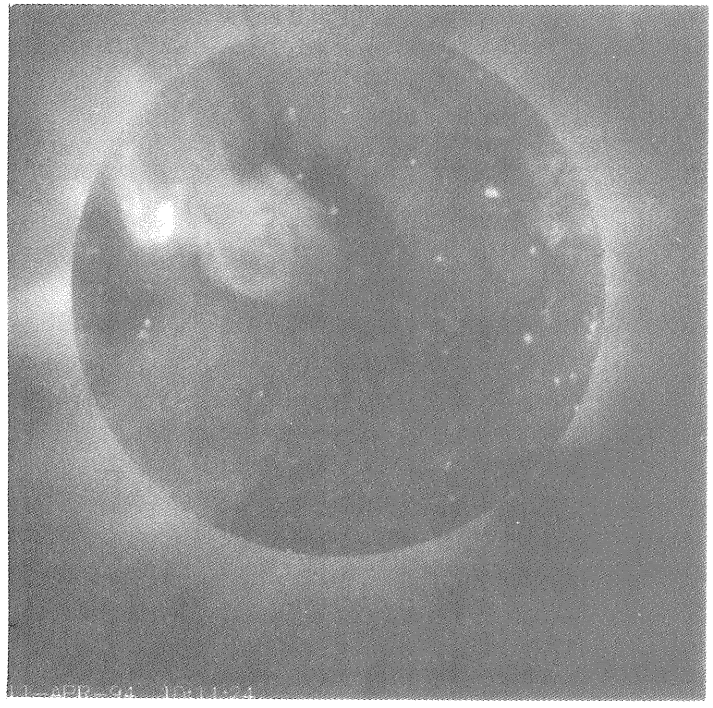
Day 8
12:00:47 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

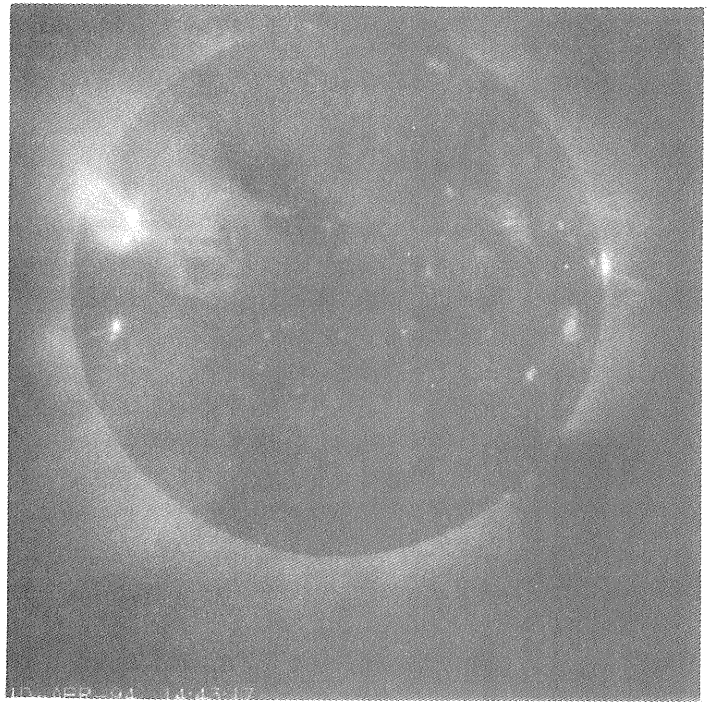
April 1994



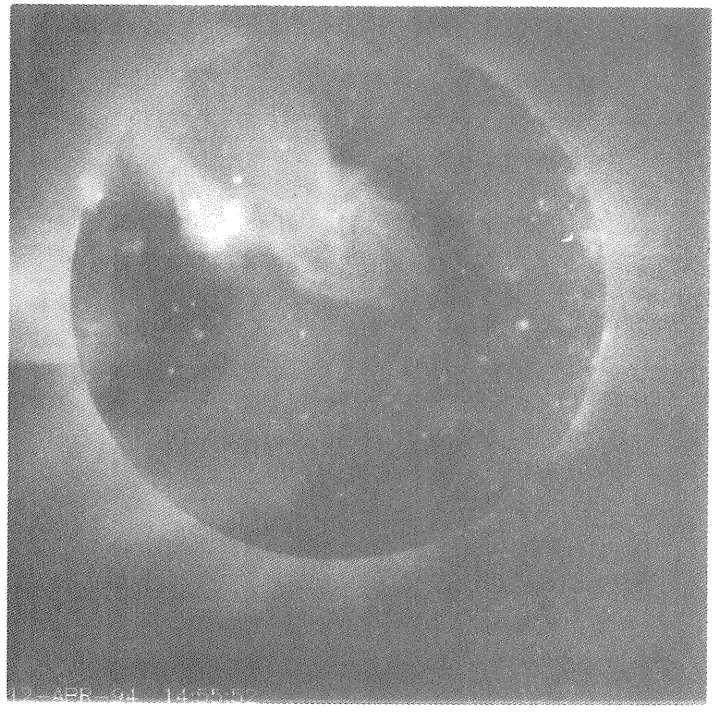
Day 9
11:16:17 UT



Day 11
10:11:24 UT



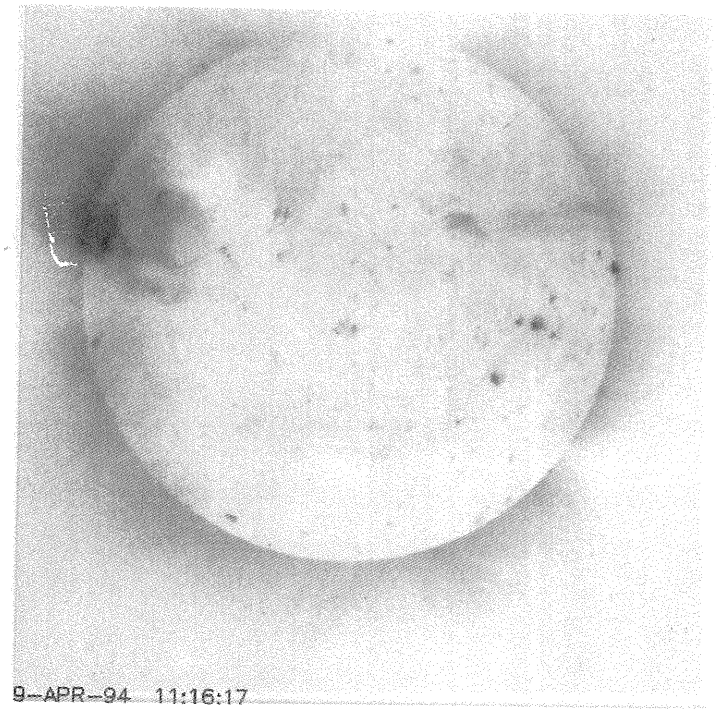
Day 10
14:43:17 UT



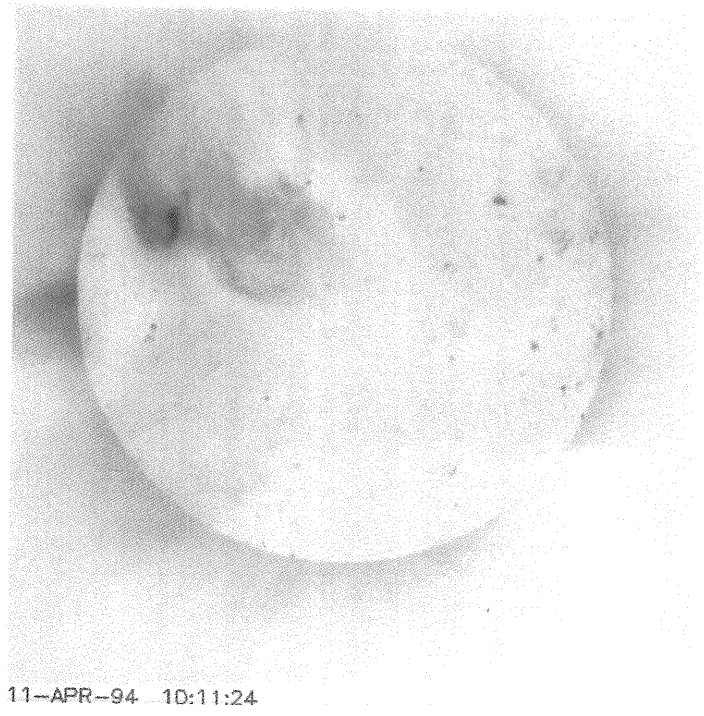
Day 12
14:55:52 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

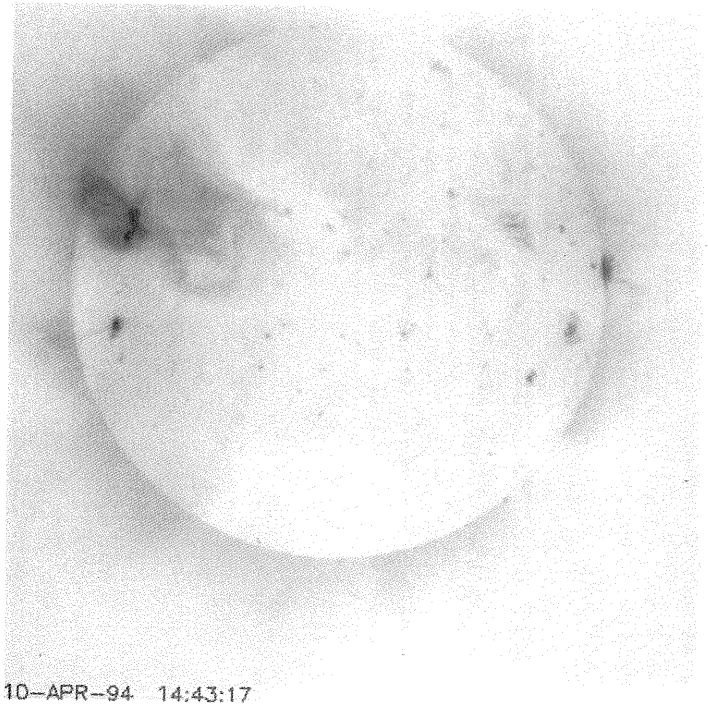
April 1994



Day 9
11:16:17 UT



Day 11
10:11:24 UT

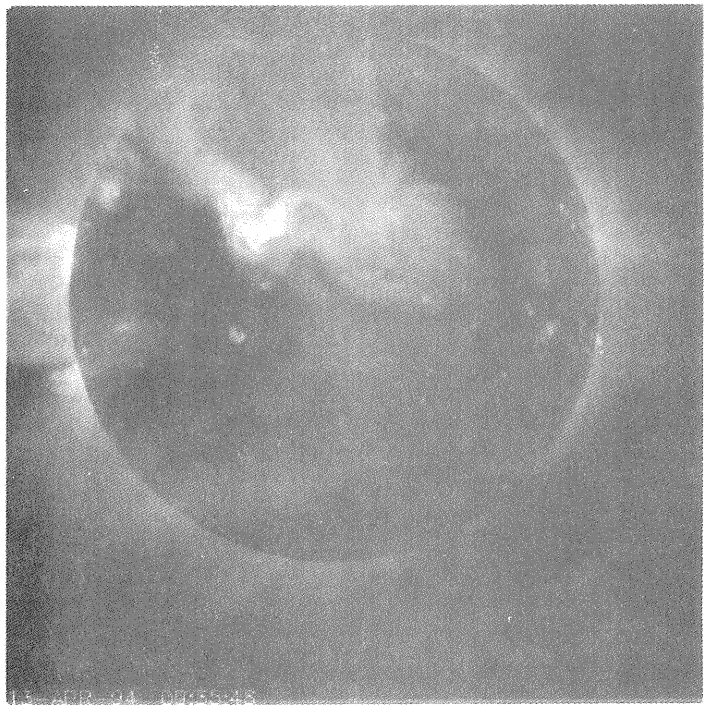


Day 10
14:43:17 UT

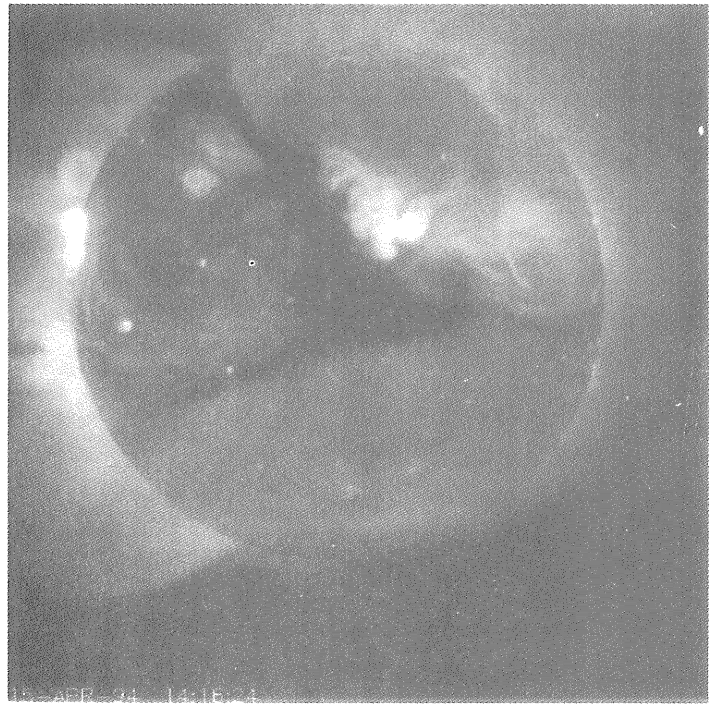
Day 12
14:55:52 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

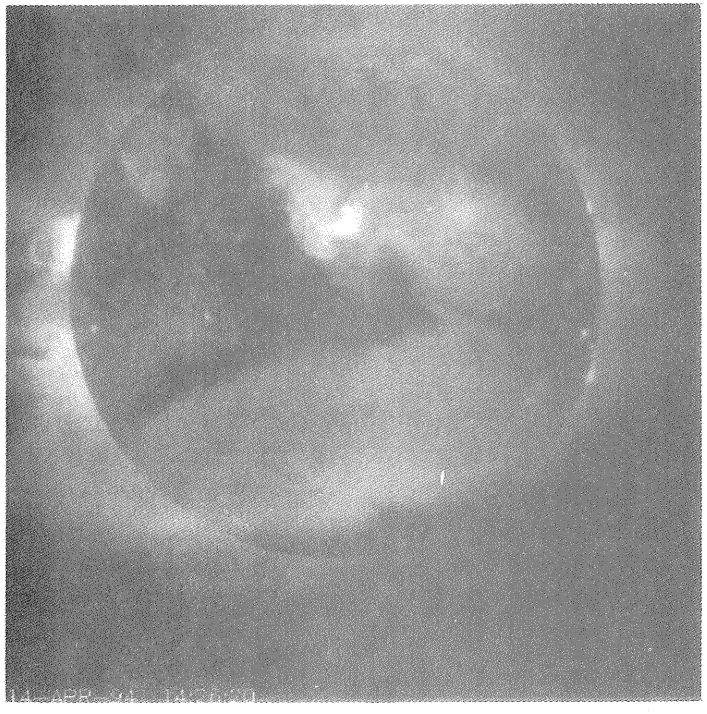
April 1994



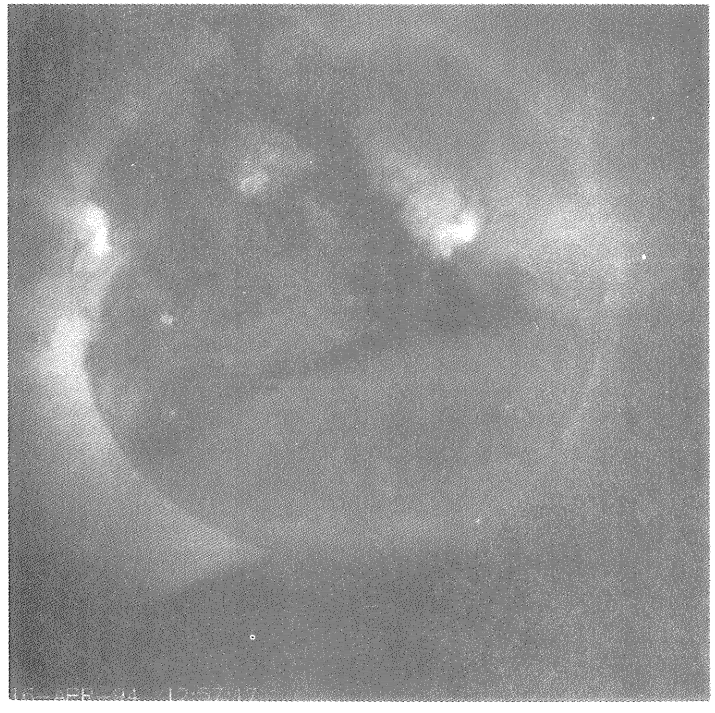
Day 13
09:35:48 UT



Day 15
14:16:24 UT



Day 14
14:26:20 UT



Day 16
12:57:17 UT

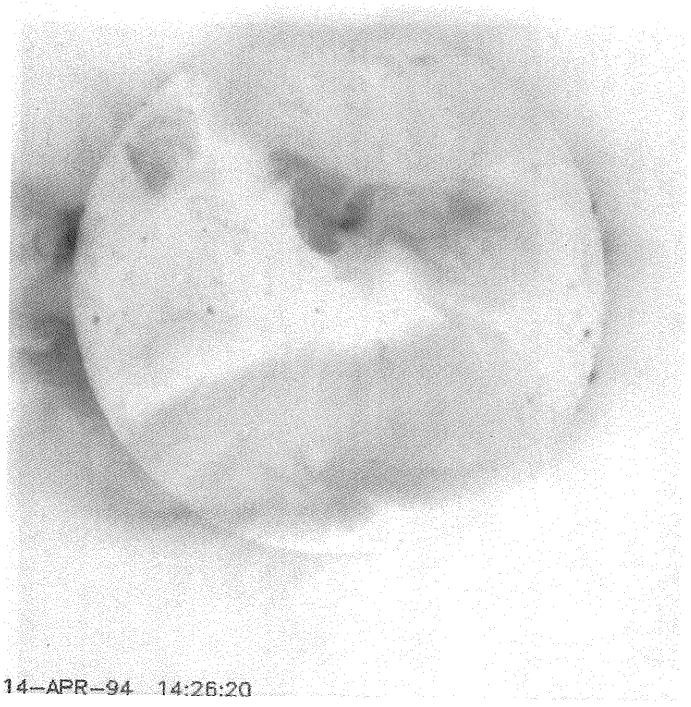
YOHKOH SOFT X-RAY TELESCOPE IMAGES

April 1994

Day 13
09:35:48 UT

Day 15
14:16:24 UT

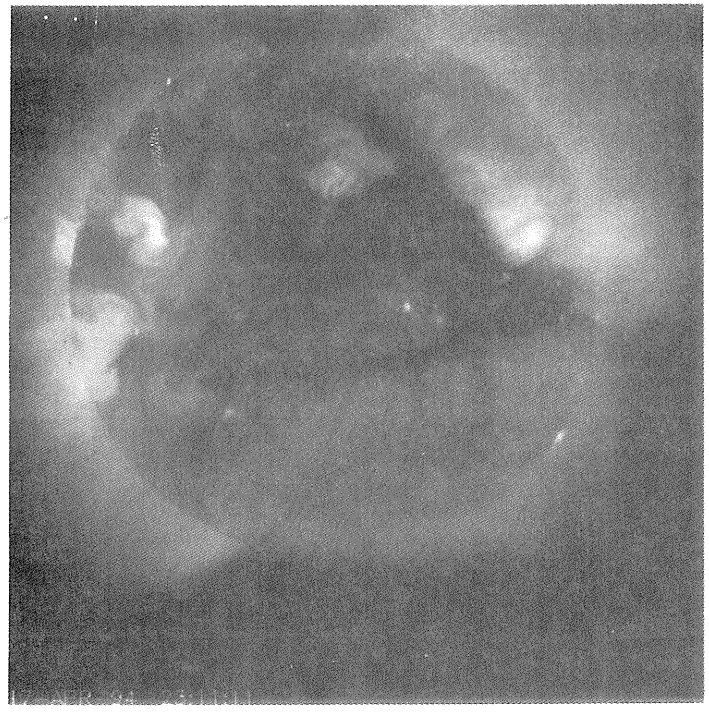
Day 14
14:26:20 UT



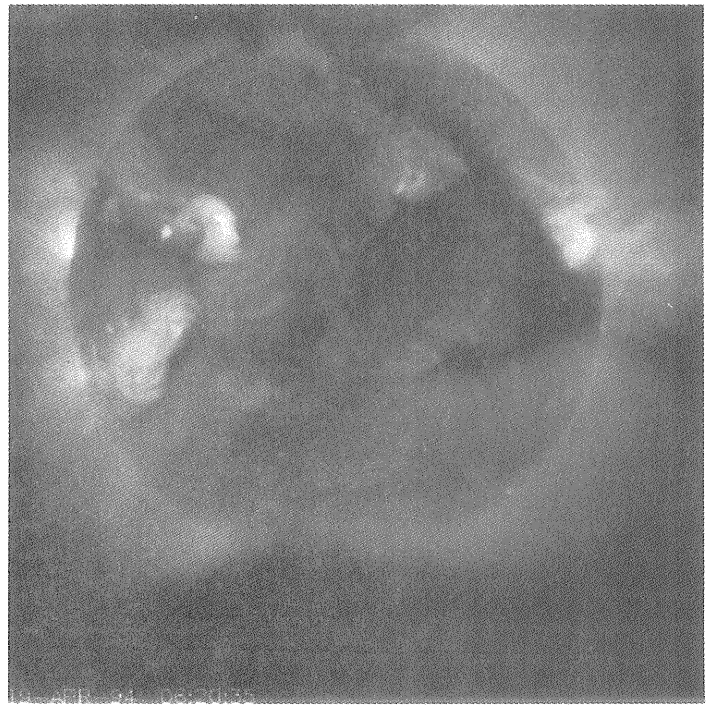
Day 16
12:57:17 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

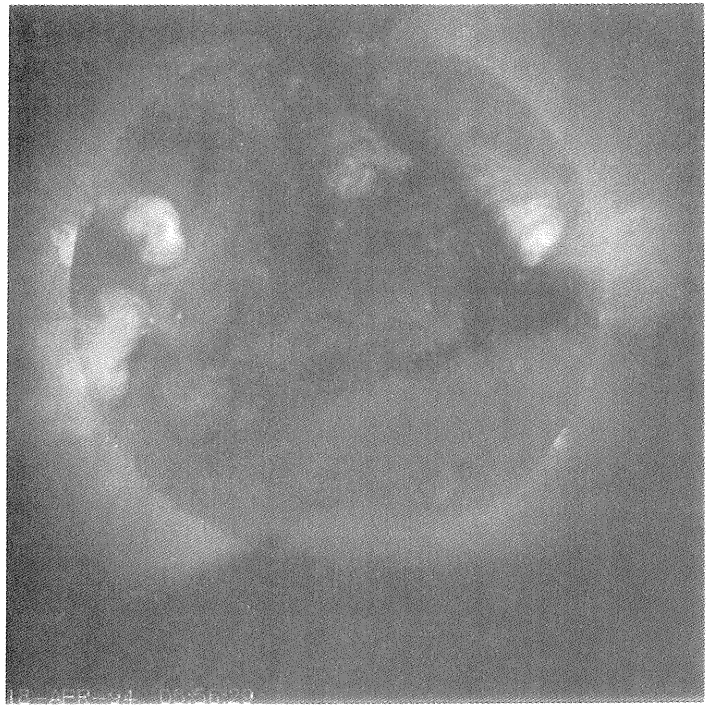
April 1994



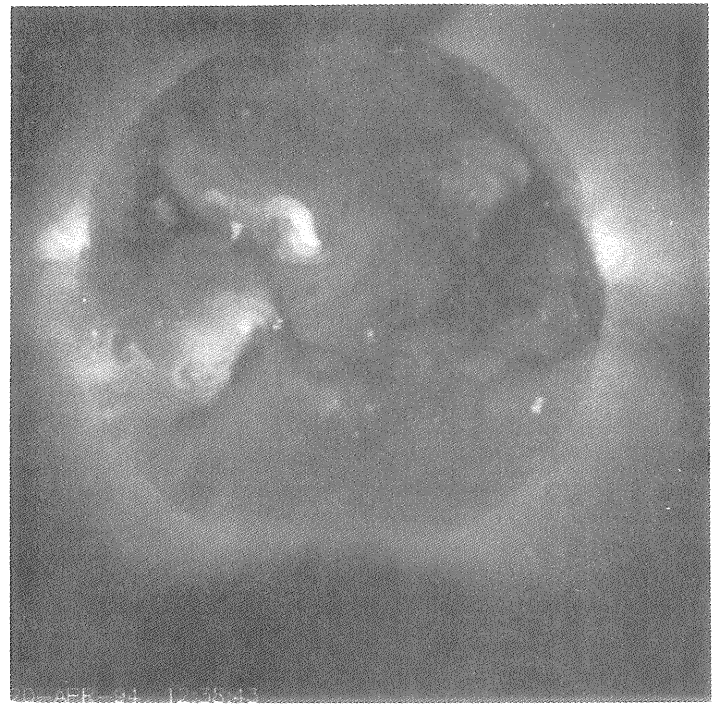
Day 17
23:11:11 UT



Day 19
06:20:35 UT



Day 18
05:56:29 UT



Day 20
12:38:43 UT

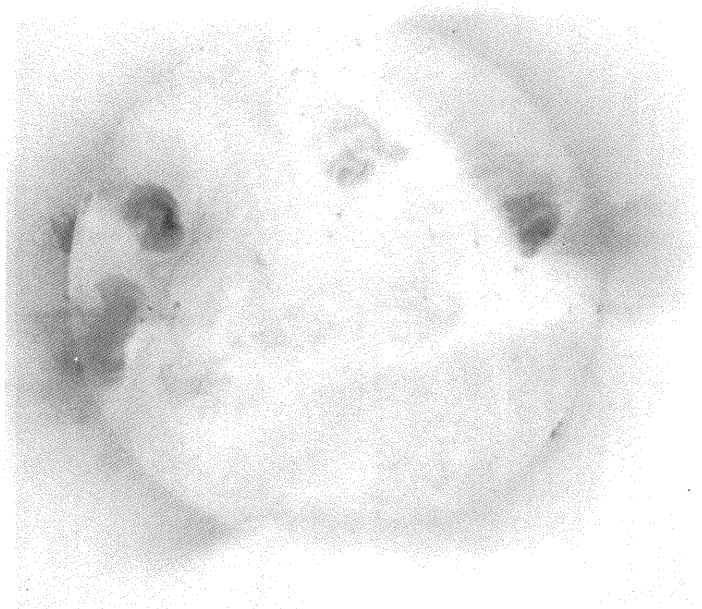
YOHKOH SOFT X-RAY TELESCOPE IMAGES

April 1994

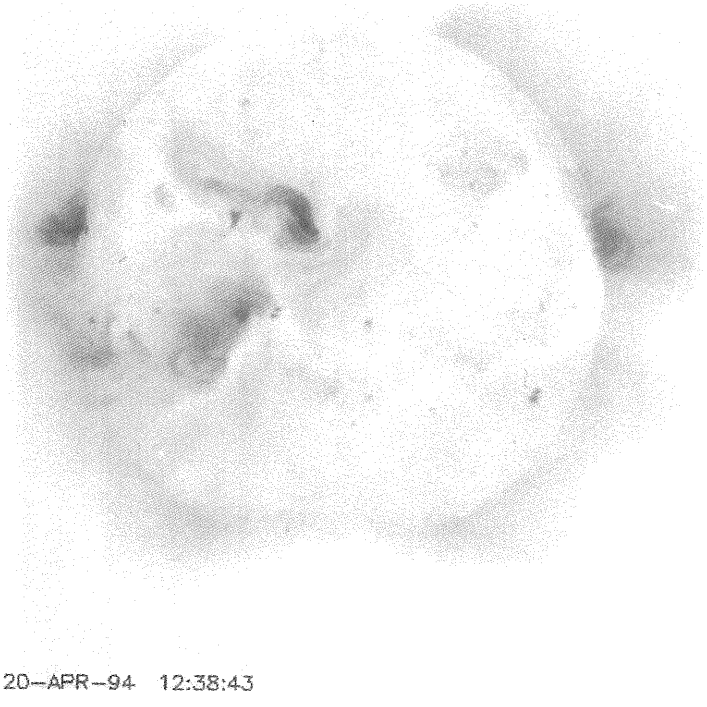
Day 17
23:11:11 UT

Day 19
06:20:35 UT

Day 18
05:56:29 UT

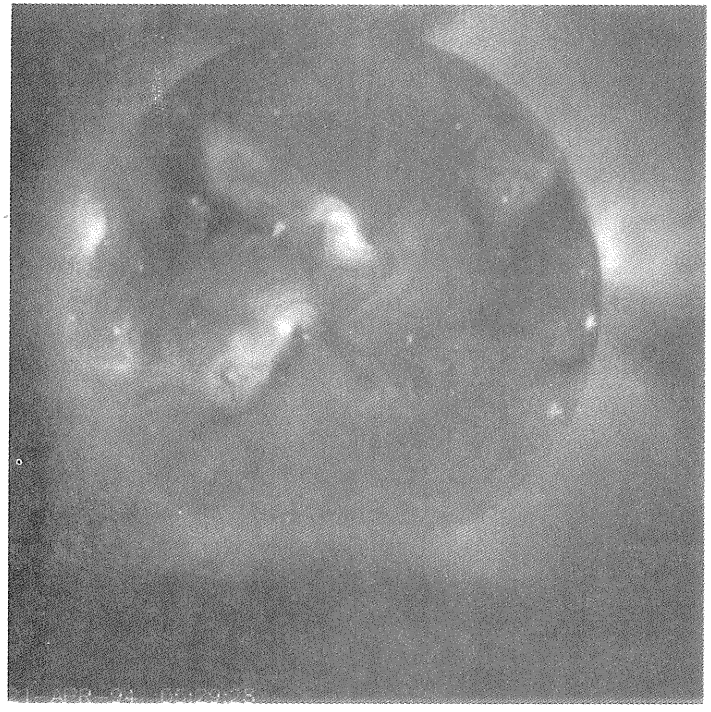


Day 20
12:38:43 UT

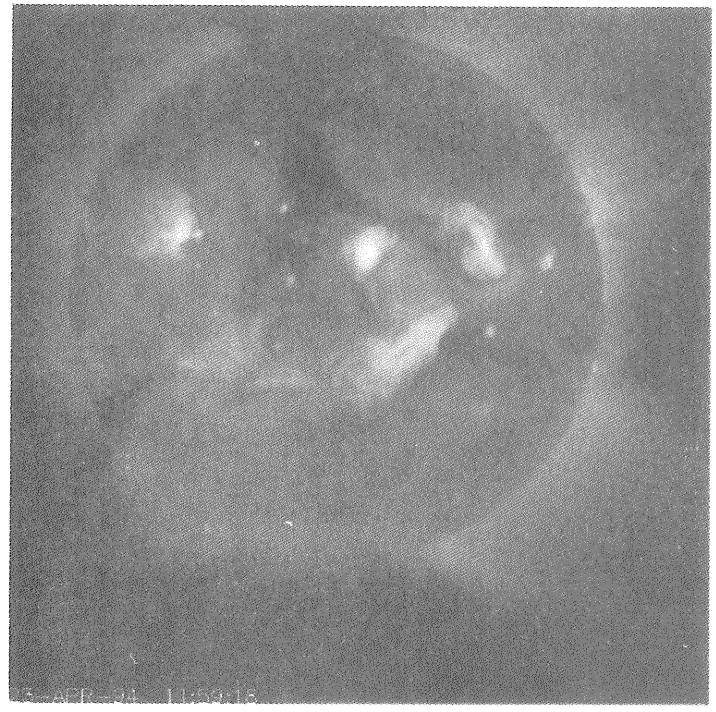


YOHKOH SOFT X-RAY TELESCOPE IMAGES

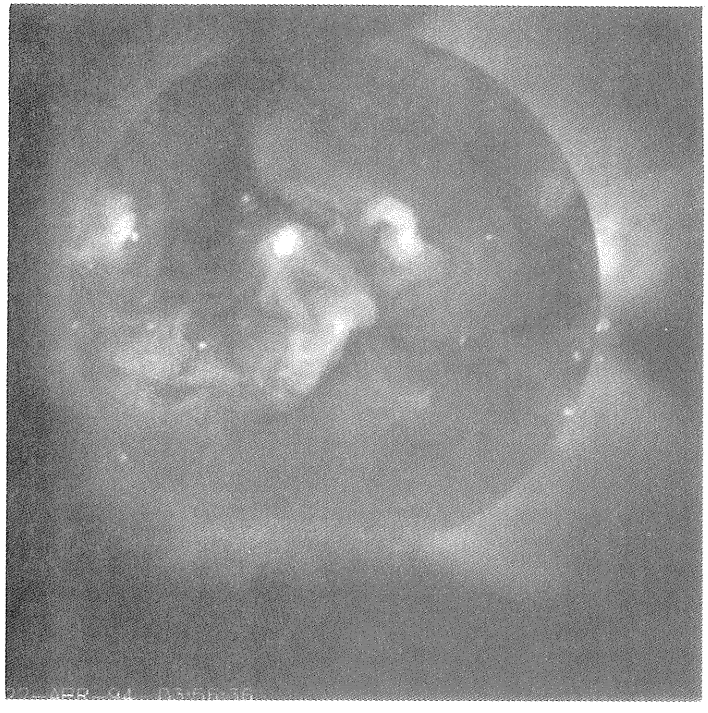
April 1994



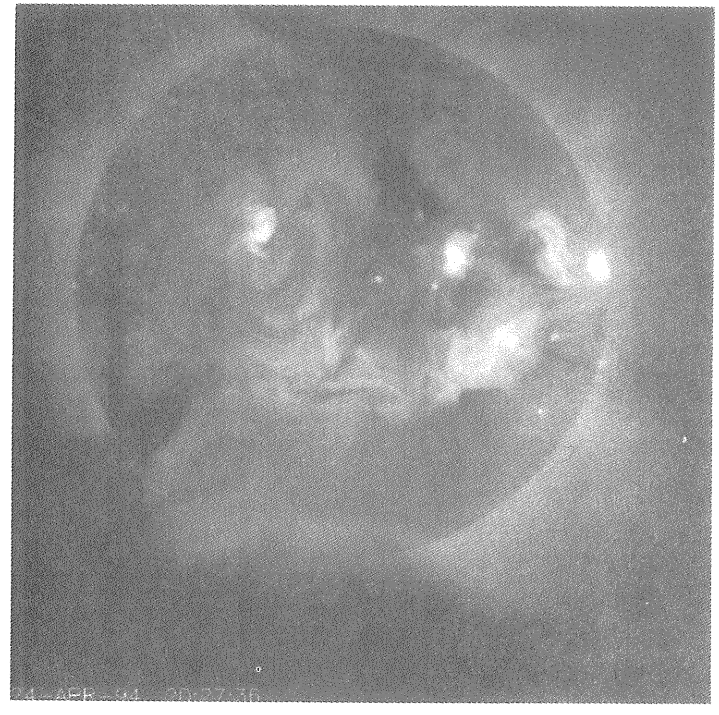
Day 21
05:29:28 UT



Day 23
11:59:18 UT



Day 22
03:56:36 UT

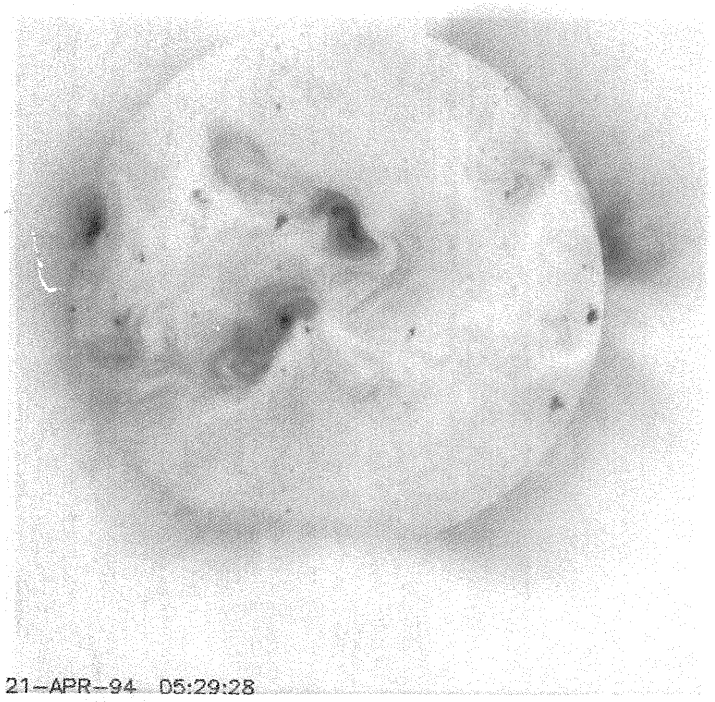


Day 24
20:27:36 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

April 1994

Day 21
05:29:28 UT



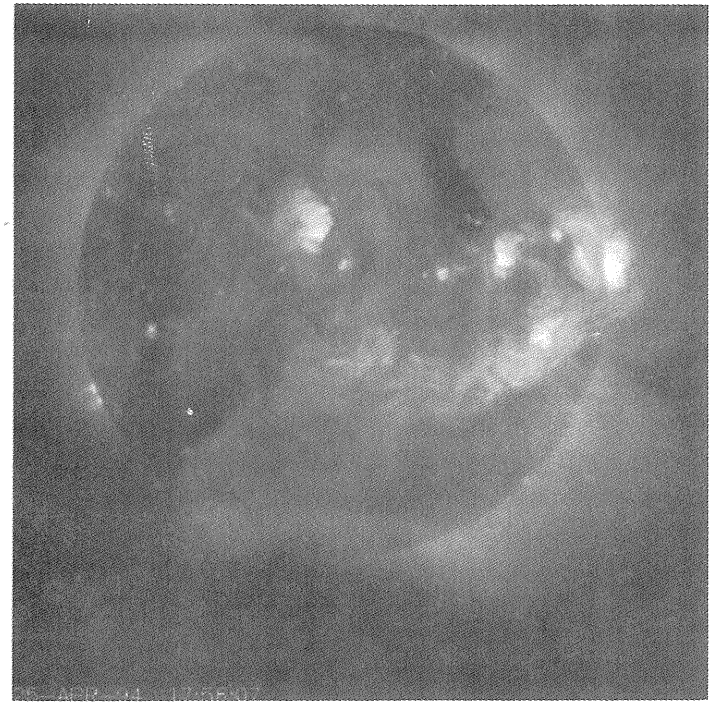
Day 23
11:59:18 UT

Day 22
03:56:36 UT

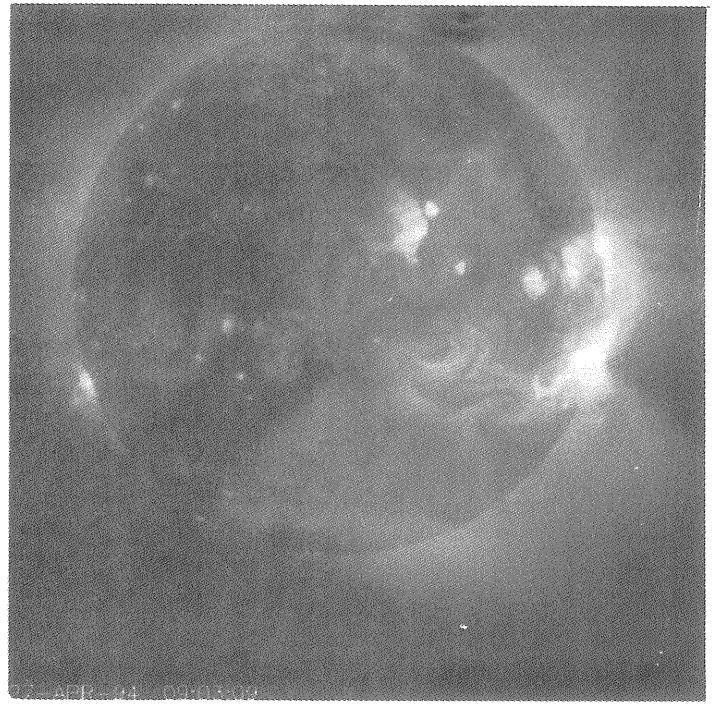
Day 24
20:27:36 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

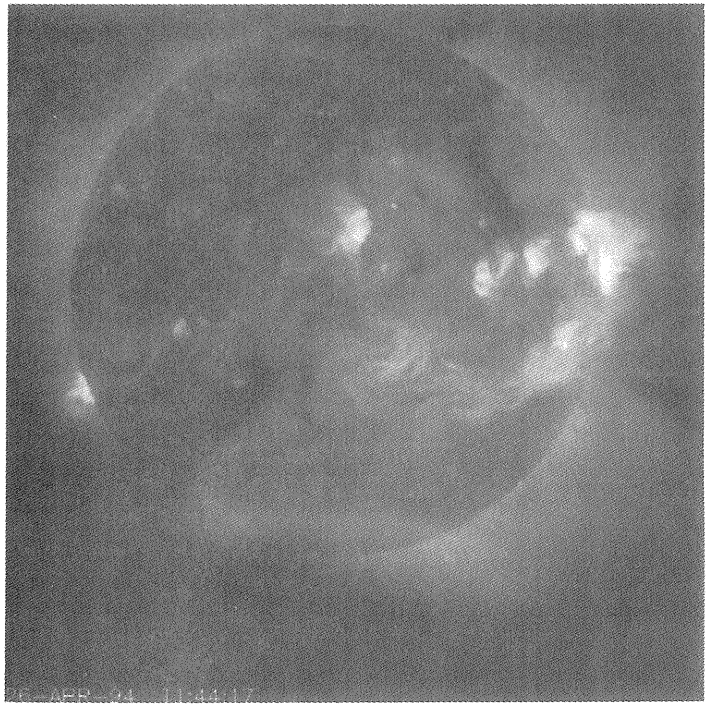
April 1994



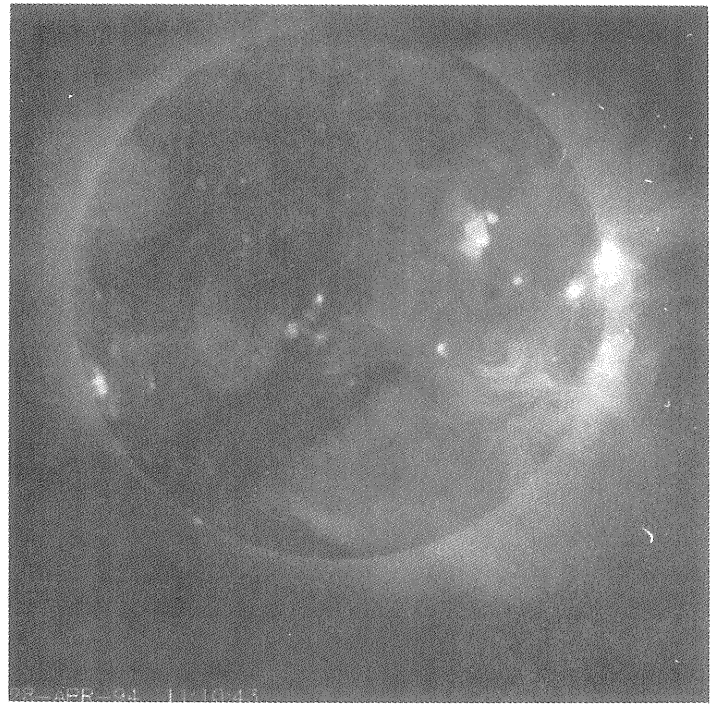
Day 25
17:56:07 UT



Day 27
09:03:09 UT



Day 26
11:44:17 UT



Day 28
11:10:43 UT

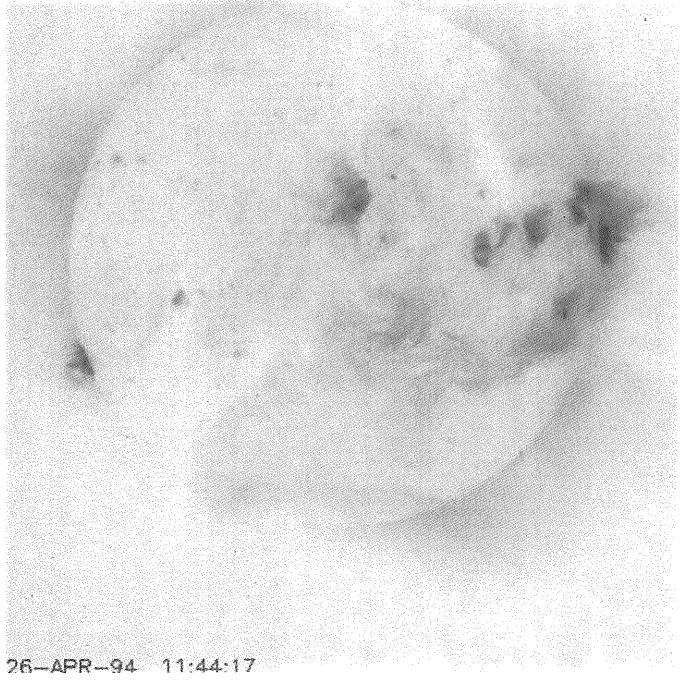
YOHKOH SOFT X-RAY TELESCOPE IMAGES

April 1994

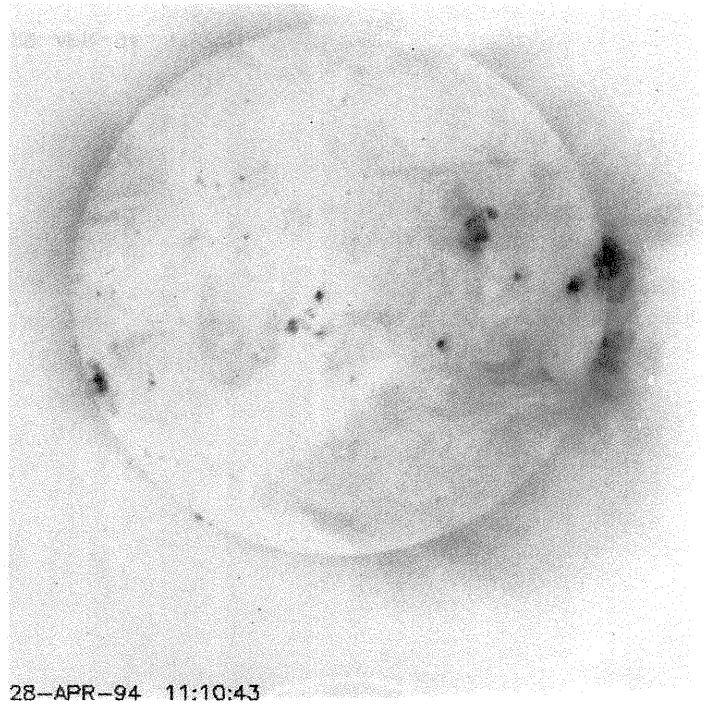
Day 25
17:56:07 UT

Day 27
09:03:09 UT

Day 26
11:44:17 UT

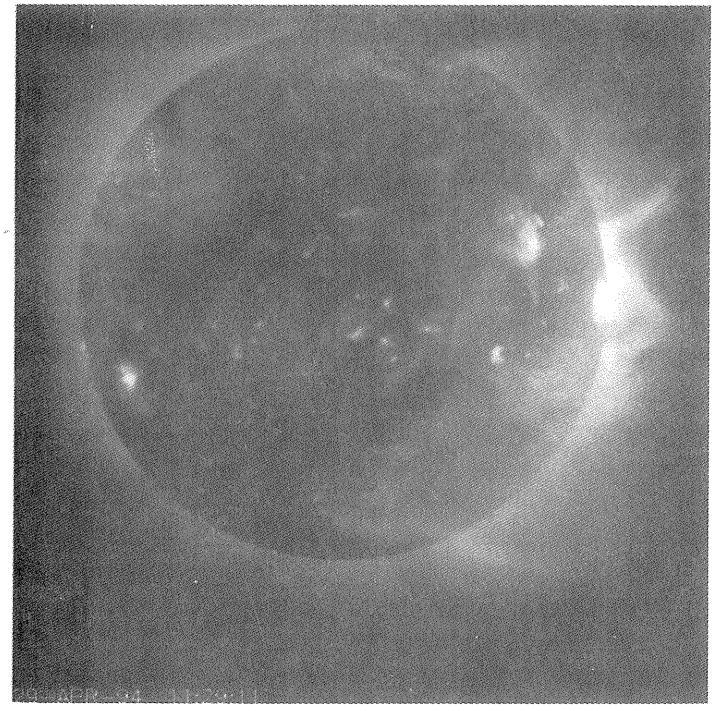


Day 28
11:10:43 UT

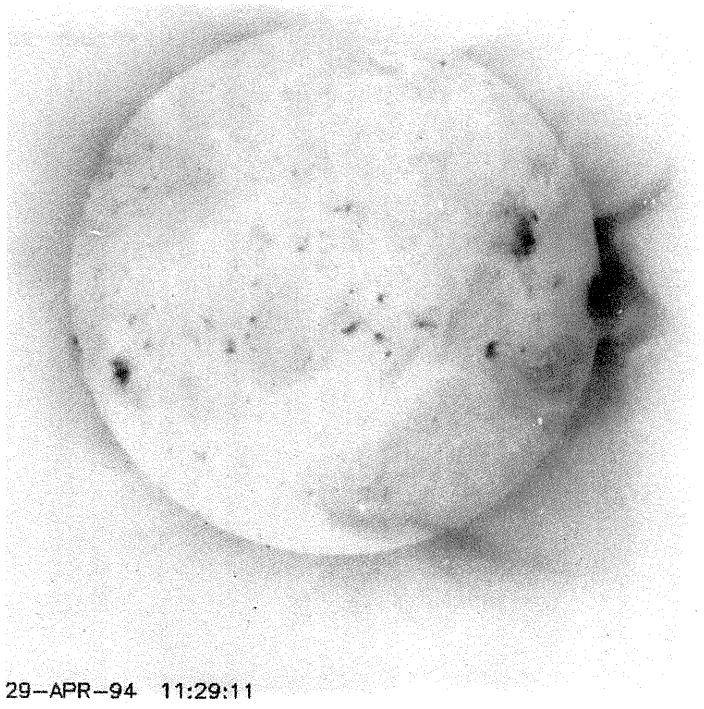


YOHKOH SOFT X-RAY TELESCOPE IMAGES

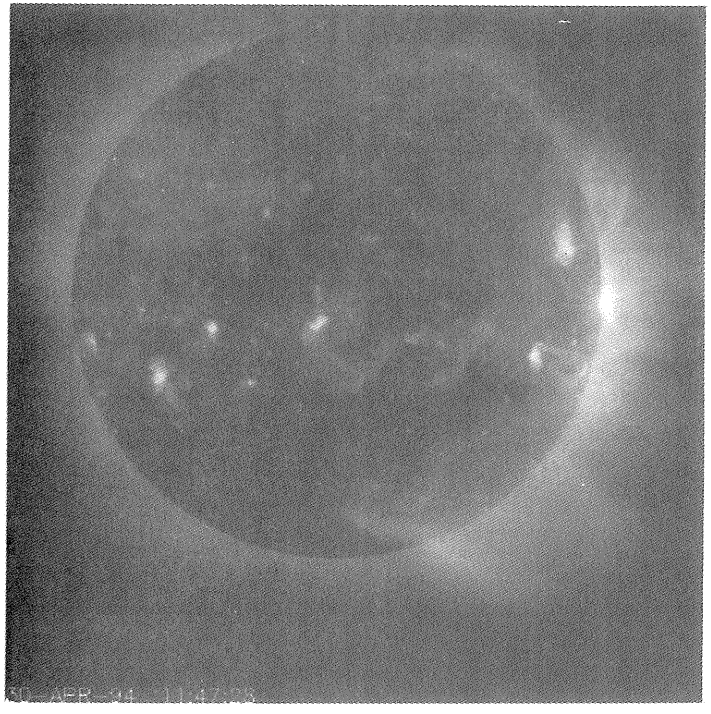
April 1994



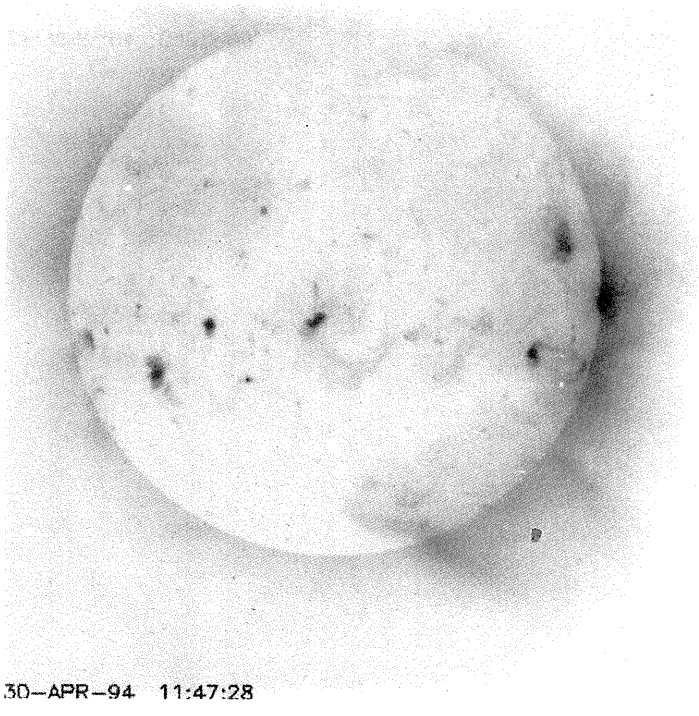
Day 29
11:29:11 UT



Day 29
11:29:11 UT



Day 30
11:47:28 UT



Day 30
11:47:28 UT

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

APRIL 1994

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
7699		LEAR	04 05 0845	S09 E04	04 5.7		A	AX	10	1	1	3
7699		RAMY	04 05 1100	S08 E02	04 5.6		A	AX		0		4
7699		HOLL	04 05 1447	S09 E00	04 5.6		A	AX	10	1		3
7699		PALE	04 05 2300	S08 W05	04 5.6		A	AX		1		3
7699A		RAMY	04 11 1220	N18 W36	04 8.8		A	AX		1		3
7699B		SVTO	04 13 0600	N20 W11	04 12.4		A	AX		1		3
7700		LEAR	04 08 0835	N09 E80	04 14.4		A	AX	10	1	1	3
7700		RAMY	04 08 1215	N08 E79	04 14.4		A	AX	10	1		4
7700		SVTO	04 08 1339	N08 E78	04 14.4		A	HA	30	1	1	3
7700		BOUL	04 08 1432	N09 E76	04 14.3		A	HA	30	1	1	2
7700	28084	MWIL	04 08 1500	N08 E79	04 14.5	4	(AP)					
7700		HOLL	04 08 1510	N07 E78	04 14.5		A	AX	20	1	1	3
7700		PALE	04 08 2158	N06 E76	04 14.6		A	AX	10	1		3
7700		LEAR	04 09 0215	N08 E70	04 14.3		A	HR	30	1	1	3
7700		SVTO	04 09 0845	N08 E69	04 14.5		A	HA	30	1	1	2
7700		RAMY	04 09 1228	N09 E67	04 14.5		A	HS	30	1	1	4
7700		HOLL	04 09 1410	N09 E65	04 14.5		A	HR	20	1	1	3
7700		PALE	04 09 1833	N07 E63	04 14.5			HX	10	1	1	4
7700		LEAR	04 10 0030	N08 E60	04 14.5		A	HR	20	1	1	3
7700		RAMY	04 10 1236	N11 E53	04 14.5		A	HA	30	6	3	3
7700	28084	MWIL	04 10 1430	N10 E52	04 14.5	4	(AP)					
7700		HOLL	04 10 1516	N11 E50	04 14.4		A	HS	50	5	4	3
7700		LEAR	04 11 0015	N10 E47	04 14.5		B	CSO	30	5	6	3
7700		RAMY	04 11 1220	N10 E40	04 14.5		B	CAO	30	7	4	3
7700	28084	MWIL	04 11 1430	N10 E38	04 14.4	5	(BF)					
7700		HOLL	04 11 1645	N09 E37	04 14.5		B	DAO	40	4	6	3
7700		PALE	04 11 2015	N08 E37	04 14.6		B	BXO	10	6	3	2
7700		LEAR	04 12 0030	N10 E34	04 14.6		B	CSO	40	6	6	3
7700		RAMY	04 12 1145	N08 E27	04 14.5		B	CSO	30	9	6	4
7700		BOUL	04 12 1334	N08 E24	04 14.4		B	BXO	20	5	3	2
7700	28084	MWIL	04 12 1430	N08 E25	04 14.5	4	(BP)					
7700		SVTO	04 12 1605	N07 E23	04 14.4		B	DAO	40	5	3	1
7700		HOLL	04 12 1710	N08 E23	04 14.4		B	CRO	40	9	6	3
7700		PALE	04 12 1935	N07 E22	04 14.5		B	BXO	30	6	3	3
7700		LEAR	04 13 0001	N10 E20	04 14.5		B	CRO	50	10	7	3
7700		SVTO	04 13 0600	N09 E16	04 14.4		B	DRO	50	9	5	3
7700		RAMY	04 13 1426	N09 E13	04 14.6		B	BXO	20	9	5	2
7700	28084	MWIL	04 13 1430	N07 E12	04 14.5	4	(G)					
7700		BOUL	04 13 1441	N09 E12	04 14.5		B	DAO	40	11	5	2
7700		HOLL	04 13 1515	N09 E13	04 14.6		B	CRO	30	9	4	3
7700		PALE	04 13 1930	N08 E09	04 14.5		B	BXO	30	15	4	3
7700		LEAR	04 14 0220	N08 E05	04 14.5		B	BXO	40	9	5	3
7700		SVTO	04 14 0708	N07 E03	04 14.5		B	BXO	10	6	4	3
7700		RAMY	04 14 1236	N08 W01	04 14.4		B	BXO	10	7	4	3
7700		BOUL	04 14 1502	N08 W02	04 14.5		B	CRO	30	7	5	3
7700	28084	MWIL	04 14 1800	N08 W03	04 14.5	4	(B)					
7700		HOLL	04 14 2006	N09 W03	04 14.6		B	CSO	20	8	5	3
7700		LEAR	04 15 0120	N08 W08	04 14.4		B	BXO	20	8	5	3
7700		RAMY	04 15 1213	N07 W14	04 14.5		B	BXO	10	6	3	3
7700	28084	MWIL	04 15 1430	N08 W14	04 14.5	4	(B)					
7700		BOUL	04 15 1500	N07 W15	04 14.5		A	AX	10	2	1	1
7700		HOLL	04 15 1800	N07 W17	04 14.5		B	BXO	10	5	3	3
7700		PALE	04 15 1822	N06 W16	04 14.6		B	BXO	10	5	3	4
7700		LEAR	04 16 0043	N08 W20	04 14.5		B	BXO		3	4	3
7700		BOUL	04 16 1358	N07 W28	04 14.5		B	BXO	10	2	3	2
7700		LEAR	04 17 0030	N05 W38	04 14.2		B	BXO		3	4	3
7700		LEAR	04 18 0030	N03 W51	04 14.2		B	BXO		2	3	3
7706		PALE	04 23 2310	N05 W59	04 19.5		A	AX	20	3	2	3
7706		SVTO	04 24 0600	N07 W65	04 19.4		A	AX		1		3
7706		HOLL	04 24 1740	N06 W73	04 19.3		A	AX	20	2	1	3
7706		LEAR	04 25 0028	N06 W75	04 19.4		B	BXO		2	2	3
7706		SVTO	04 25 0712	N06 W80	04 19.3		A	AX	10	2		4
7701		RAMY	04 14 1236	N06 E82	04 20.7		A	HS	30	1	2	3
7701	28085	MWIL	04 14 1800	N06 E80	04 20.7	4	(AP)					

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

APRIL 1994

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
7701		HOLL	04	14	2006	N04	E80	04	20.8		A	HA	60	1	1	3
7701		LEAR	04	15	0120	N06	E79	04	21.0		A	HS	120	1	2	3
7701		RAMY	04	15	1213	N06	E75	04	21.1		B	DSO	140	2	10	3
7701	28085	MWIL	04	15	1430	N07	E72	04	21.0	5	(BP)					
7701		BOUL	04	15	1500	N07	E69	04	20.8		A	HA	110	1	2	1
7701		HOLL	04	15	1800	N08	E72	04	21.1		B	CAO	120	4	8	3
7701		PALE	04	15	1822	N06	E70	04	21.0		B	ESO	180	2	12	4
7701		LEAR	04	16	0043	N07	E68	04	21.1		B	ESO	180	3	11	3
7701		SVTO	04	16	1000	N06	E62	04	21.0		B	DSO	110	2	10	2
7701		RAMY	04	16	1226	N07	E61	04	21.1		B	DSO	120	3	10	4
7701		BOUL	04	16	1358	N08	E59	04	21.0		B	CSO	130	2	9	2
7701	28085	MWIL	04	16	1430	N07	E59	04	21.0	5	(BP)					
7701		HOLL	04	16	1640	N07	E59	04	21.1		B	DAO	160	5	19	3
7701		PALE	04	16	1730	N08	E60	04	21.2		B	DAO	140	2	8	4
7701		LEAR	04	17	0030	N08	E55	04	21.1		B	DSO	160	4	9	3
7701		SVTO	04	17	0651	N07	E52	04	21.2		B	DSO	140	4	9	3
7701		RAMY	04	17	1112	N08	E49	04	21.1		B	CSO	120	5	9	4
7701		HOLL	04	17	1525	N08	E45	04	21.0		B	CSO	110	5	9	4
7701		PALE	04	17	1745	N08	E48	04	21.3		B	CSO	100	3	8	4
7701		LEAR	04	18	0030	N08	E42	04	21.2		B	CSO	130	4	8	3
7701		SVTO	04	18	0755	N08	E38	04	21.2		B	CSO	130	4	9	3
7701		RAMY	04	18	1151	N08	E35	04	21.1		B	CSO	130	7	10	4
7701		BOUL	04	18	1326	N07	E30	04	20.8		A	HS	80	1	1	1
7701	28085	MWIL	04	18	1445	N07	E31	04	20.9	6	(BP)					
7701		HOLL	04	18	1500	N08	E34	04	21.2		B	CSO	140	5	9	3
7701		PALE	04	18	1715	N07	E31	04	21.0		B	CSO	100	3	5	3
7701		LEAR	04	19	0152	N08	E24	04	20.9		A	HS	100	1	2	3
7701		SVTO	04	19	0720	N07	E21	04	20.9		B	CSO	120	3	3	3
7701		RAMY	04	19	1213	N07	E18	04	20.8		A	HA	90	1	2	4
7701	28085	MWIL	04	19	1430	N07	E17	04	20.9	6	(AP)					
7701		BOUL	04	19	1522	N07	E15	04	20.8		A	HS	80	1	2	2
7701		HOLL	04	19	1647	N08	E17	04	21.0		B	CSO	110	3	5	3
7701		PALE	04	19	1900	N07	E15	04	20.9		B	CSO	120	4	4	2
7701		LEAR	04	20	0020	N08	E13	04	21.0		B	CAO	120	4	4	3
7701		SVTO	04	20	0730	N07	E09	04	21.0		B	CSO	140	6	5	3
7701		RAMY	04	20	1219	N07	E06	04	21.0		B	CAO	120	5	4	3
7701		BOUL	04	20	1353	N07	E05	04	20.9		B	CSO	100	3	4	3
7701	28085	MWIL	04	20	1445	N07	E04	04	20.9	6	(BP)					
7701		HOLL	04	20	1448	N08	E04	04	20.9		B	CSO	140	4	7	4
7701		LEAR	04	21	0220	N07	W02	04	20.9		B	CSO	90	3	5	2
7701		RAMY	04	21	1227	N08	W09	04	20.8		A	HS	110	1	2	3
7701	28085	MWIL	04	21	1430	N06	W11	04	20.8	5	(BP)					
7701		BOUL	04	21	1444	N08	W07	04	21.1		B	CSO	110	4	7	4
7701		HOLL	04	21	1518	N07	W11	04	20.8		A	HS	80	1	2	3
7701		PALE	04	21	1950	N06	W13	04	20.8		A	HS	100	1	2	2
7701		LEAR	04	22	0017	N08	W16	04	20.8		A	HS	80	1	3	3
7701		SVTO	04	22	0708	N07	W20	04	20.8		A	HS	110	1	2	3
7701		RAMY	04	22	1218	N07	W22	04	20.9		A	HS	110	1	2	3
7701	28085	MWIL	04	22	1445	N06	W24	04	20.8	5	(AP)					
7701		BOUL	04	22	1449	N08	W19	04	21.2		B	CSO	90	3	10	4
7701		HOLL	04	22	1525	N07	W24	04	20.8		A	HS	70	1	2	3
7701		PALE	04	22	2000	N07	W27	04	20.8		A	HS	40	1	2	3
7701		LEAR	04	23	0030	N06	W28	04	20.9		A	HS	90	1	2	3
7701		SVTO	04	23	0600	N07	W33	04	20.8		A	HS	100	1	2	3
7701		RAMY	04	23	1210	N06	W36	04	20.8		A	HS	70	1	2	3
7701	28085	MWIL	04	23	1430	N06	W37	04	20.8	5	(AP)					
7701		HOLL	04	23	1705	N07	W40	04	20.7		A	HS	100	1	2	1
7701		PALE	04	23	2310	N07	W42	04	20.8		A	HS	80	1	2	3
7701		SVTO	04	24	0600	N08	W46	04	20.8		A	HS	80	1	2	3
7701	28085	MWIL	04	24	1430	N06	W51	04	20.8	5	(AP)					
7701		HOLL	04	24	1740	N07	W52	04	20.8		A	HS	100	1	2	3
7701		LEAR	04	25	0028	N07	W57	04	20.7		A	HS	40	1	2	3
7701		SVTO	04	25	0712	N08	W60	04	20.8		A	HS	40	1	2	4
7701		RAMY	04	25	1247	N07	W63	04	20.8		A	HS	80	1	2	3
7701		HOLL	04	25	1730	N07	W65	04	20.9		A	HS	90	2	1	2
7701		LEAR	04	26	0230	N06	W70	04	20.9		A	HS	100	1	1	2
7701		SVTO	04	26	0915	N08	W75	04	20.8		A	HS	60	1	2	2
7701		RAMY	04	26	1135	N07	W76	04	20.8		A	HS	70	1	2	3
7701		HOLL	04	26	1502	N07	W77	04	20.8		A	HS	120	1	2	/

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

APRIL 1994

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
7701		PALE	04 26 1808	N06 W79	04 20.8		A	HS	60	1	3	3
7702		RAMY	04 17 1112	S11 E55	04 21.6		A	AX		1		4
7702		HOLL	04 17 1525	S11 E53	04 21.6		A	AX		1		4
7702		PALE	04 17 1745	S12 E52	04 21.6		A	AX		1		4
7702		LEAR	04 18 0030	S11 E47	04 21.5		A	AX		1	1	3
7702		SVTO	04 18 0755	S10 E43	04 21.6		A	AX		1		3
7702		RAMY	04 18 1151	S13 E42	04 21.7		A	AX	10	2	3	4
7702	28086	MWIL	04 18 1445	S12 E38	04 21.5	4	(AP)					
7702		HOLL	04 18 1500	S12 E38	04 21.5		A	AX	10	1		3
7702		PALE	04 18 1715	S12 E40	04 21.7		B	BXO	10	2	6	3
7702		LEAR	04 19 0152	S12 E32	04 21.5		A	AX		1		3
7702		SVTO	04 19 0720	S12 E28	04 21.4		A	AX		1		3
7702		RAMY	04 19 1213	S11 E25	04 21.4		A	AX	10	3	1	4
7702	28086	MWIL	04 19 1430	S12 E24	04 21.4	4	(AP)					
7702		BOUL	04 19 1522	S12 E22	04 21.3		A	AX	10	2		2
7702		HOLL	04 19 1647	S12 E24	04 21.5		A	CR	20	5	3	3
7702		PALE	04 19 1900	S13 E27	04 21.8		B	CSO	40	9	5	2
7702		LEAR	04 20 0020	S11 E18	04 21.4		A	AX	20	3	1	3
7702		SVTO	04 20 0730	S12 E13	04 21.3		A	AX		1		3
7702		RAMY	04 20 1219	S12 E15	04 21.6		B	CRO	10	4	10	3
7702		BOUL	04 20 1353	S12 E09	04 21.2		B	BXO	10	4	11	3
7702	28086	MWIL	04 20 1445	S12 E07	04 21.1	4	(B)					
7702		HOLL	04 20 1448	S12 E09	04 21.3		A	HR	20	1	1	4
7702		LEAR	04 21 0220	S13 E05	04 21.5		B	CRO	20	4	3	2
7702		RAMY	04 21 1227	S12 E02	04 21.7		A	AX	10	1	1	3
7702	28086	MWIL	04 21 1430	S13 E00	04 21.6	4	(B)					
7702		BOUL	04 21 1444	S12 W04	04 21.3		B	BXO	20	8	8	4
7702		HOLL	04 21 1518	S13 W04	04 21.3		A	AX	10	3	2	3
7702		RAMY	04 22 1218	S12 W11	04 21.7		A	AX		1		3
7702		BOUL	04 22 1449	S12 W17	04 21.3		B	BXO	10	4	14	4
7702		PALE	04 23 2310	S13 W30	04 21.7		B	BXO	20	4	5	3
7702		HOLL	04 24 1740	S13 W37	04 21.9		B	BXO	20	3	4	3
7702		SVTO	04 25 0712	S12 W48	04 21.7		A	AX		1		4
7708		HOLL	04 25 1730	N09 W53	04 21.7		A	AX	10	1	1	2
7708		LEAR	04 26 0230	N09 W59	04 21.7		A	AX	10	3	3	2
7708		SVTO	04 26 0915	N12 W63	04 21.6		B	BXO		2	4	2
7708		RAMY	04 26 1135	N09 W63	04 21.7		B	BXO	20	4	5	3
7708		HOLL	04 26 1502	N09 W67	04 21.6		B	BXO	20	2	3	/
7708		PALE	04 26 1808	N08 W68	04 21.6		B	DRO	60	2	4	3
7708		LEAR	04 27 0345	N08 W70	04 21.9		A	AX	20	2	1	2
7708		SVTO	04 27 0522	N11 W76	04 21.5		A	AX		1		3
7708		RAMY	04 27 1242	N09 W76	04 21.8		A	AX	10	1	1	3
7708		PALE	04 27 2050	N10 W85	04 21.5		A	AX	10	1		3
7708A		HOLL	04 20 1448	S13 E16	04 21.8		B	BX	20	6	6	4
7703		SVTO	04 19 0720	N09 E39	04 22.2		A	AX		1		3
7703		RAMY	04 19 1213	N10 E38	04 22.4		A	AX		1		4
7703	28087	MWIL	04 19 1430	N09 E36	04 22.3	4	(AF)					
7703		BOUL	04 19 1522	N09 E35	04 22.3		A	AX		1		2
7703		HOLL	04 19 1647	N09 E36	04 22.4		A	AX	10	1	1	3
7703		LEAR	04 20 0020	N09 E30	04 22.3		A	AX	10	2	2	3
7705		RAMY	04 21 1227	N05 E19	04 22.9		B	CRO	10	5	3	3
7705	28089	MWIL	04 21 1430	N05 E18	04 22.9	4	(BG)					
7705		BOUL	04 21 1444	N05 E17	04 22.9		B	CRO	30	8	3	4
7705		HOLL	04 21 1518	N04 E18	04 23.0		B	CRO	20	7	3	3
7705		PALE	04 21 1950	N04 E15	04 22.9		B	DAO	30	9	4	2
7705		LEAR	04 22 0017	N07 E14	04 23.1		B	DSO	40	16	5	3
7705		SVTO	04 22 0708	N05 E10	04 23.0		B	DAI	80	16	5	3
7705		RAMY	04 22 1218	N04 E07	04 23.0		B	DAO	90	10	5	3
7705	28089	MWIL	04 22 1445	N05 E05	04 23.0	5	(B)					
7705		BOUL	04 22 1449	N06 E04	04 22.9		B	DAO	100	23	7	4
7705		HOLL	04 22 1525	N06 E04	04 22.9		B	DAI	70	3	6	3
7705		PALE	04 22 2000	N05 E04	04 23.1		B	DAI	60	12	6	3
7705		LEAR	04 23 0030	N05 E00	04 23.0		B	DAI	100	20	8	3
7705		SVTO	04 23 0600	N05 W03	04 23.0		B	DSO	110	20	8	3

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

APRIL 1994

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
7705		RAMY	04	23	1210	N04	W05	04	23.1		B	DAO	150	21	7	3
7705	28089	MWIL	04	23	1430	N05	W07	04	23.1	4	(B)					
7705		HOLL	04	23	1705	N03	W09	04	23.0		B	DSO	110	10	7	1
7705		PALE	04	23	2310	N04	W11	04	23.1		B	DAO	120	15	7	3
7705		SVTO	04	24	0600	N04	W15	04	23.1		B	DSI	200	19	7	3
7705	28089	MWIL	04	24	1430	N04	W24	04	22.8	4	(AP)					
7705		HOLL	04	24	1740	N04	W22	04	23.1		B	CSO	110	9	7	3
7705		LEAR	04	25	0028	N03	W29	04	22.8		A	HS	60	1	2	3
7705		SVTO	04	25	0712	N04	W31	04	23.0		B	CSO	50	5	5	4
7705		RAMY	04	25	1247	N05	W35	04	22.9		A	CAO	80	3	4	3
7705		HOLL	04	25	1730	N04	W37	04	23.0		B	CSO	80	4	5	2
7705		LEAR	04	26	0230	N03	W41	04	23.0		B	CSO	60	3	5	2
7705		SVTO	04	26	0915	N05	W43	04	23.2		B	CSO	30	4	8	2
7705		RAMY	04	26	1135	N03	W46	04	23.0		B	CSO	70	2	4	3
7705		HOLL	04	26	1502	N04	W52	04	22.7		A	HS	80	1	1	/
7705		PALE	04	26	1808	N03	W52	04	22.9		A	HS	60	1	2	3
7705		LEAR	04	27	0345	N03	W57	04	22.9		A	HS	70	1	1	2
7705		SVTO	04	27	0522	N04	W60	04	22.7		A	HA	70	1	1	3
7705		RAMY	04	27	1242	N03	W63	04	22.8		A	HS	40	1	2	3
7705		HOLL	04	27	1408	N04	W64	04	22.8		A	HS	90	1	1	3
7705		PALE	04	27	2050	N05	W69	04	22.7		A	HS	50	1	1	3
7705		LEAR	04	28	0100	N04	W69	04	22.9		A	HS	50	1	1	3
7705		SVTO	04	28	0555	N03	W69	04	23.1		A	HS	50	1	1	3
7705		RAMY	04	28	1333	N03	W75	04	23.0		A	HS	30	1	2	2
7705		HOLL	04	28	1505	N04	W80	04	22.6		A	HS	60	1	1	3
7705		LEAR	04	29	0010	N03	W79	04	23.1		A	HS	30	1	1	3
7707		RAMY	04	23	1210	S02	E09	04	24.2		A	AX		1		3
7707		HOLL	04	25	1730	S01	W22	04	24.1		B	BXO	10	2	2	2
7707		LEAR	04	26	0230	S01	W27	04	24.1		B	CRO	20	4	4	2
7707		SVTO	04	26	0915	S01	W31	04	24.1		B	DSO	20	4	5	2
7707		RAMY	04	26	1135	S01	W32	04	24.1		B	CAO	20	4	5	3
7707		HOLL	04	26	1502	S01	W35	04	24.0		B	BXO	20	2	5	/
7707		PALE	04	26	1808	S01	W37	04	24.0		B	DRO	20	2	5	3
7707		LEAR	04	27	0345	S01	W42	04	24.0		B	BXO	10	2	7	2
7707		SVTO	04	27	0522	N03	W45	04	23.9		B	DSO	20	2	6	3
7707		RAMY	04	27	1242	S01	W48	04	23.9		B	BXO	10	2	5	3
7707		HOLL	04	27	1408	S01	W49	04	23.9		B	BXO	20	2	4	3
7707		PALE	04	27	2050	N00	W50	04	24.1		A	AX	10	2	2	3
7707		LEAR	04	28	0100	N00	W52	04	24.1		A	AX	10	2	2	3
7707		SVTO	04	28	0555	N01	W55	04	24.1		A	AX		1		3
7707		RAMY	04	28	1333	N00	W59	04	24.1		B	BXO	10	2	3	2
7707		HOLL	04	28	1505	S01	W62	04	24.0		A	AX	40	3	2	3
7707		LEAR	04	29	0010	S02	W65	04	24.1		A	AX	10	2	2	3
7707		RAMY	04	29	1201	N00	W72	04	24.1		B	CRO	50	6	5	4
7707		HOLL	04	29	1720	S01	W75	04	24.1		B	CRO	50	5	6	2
7707		LEAR	04	30	0020	S02	W78	04	24.2		B	CRO	20	2	4	2
7707		SVTO	04	30	0540	S01	W88	04	23.7		B	BXO	20	3	2	3
7707A		PALE	04	23	2310	S23	E14	04	25.0		A	AX	10	1		3
7709		RAMY	04	27	1242	N02	W30	04	25.3		A	AX		1		3
7709		HOLL	04	27	1408	N01	W31	04	25.3		A	AX		1		3
7709		PALE	04	27	2050	N02	W34	04	25.3		A	AX	10	2	2	3
7704		PALE	04	19	1900	N08	E81	04	25.9		A	AX	20	3	1	2
7704		LEAR	04	20	0020	N09	E78	04	25.9		A	HA	60	1	1	3
7704		SVTO	04	20	0730	N08	E75	04	25.9		A	AX	60	2	2	3
7704		RAMY	04	20	1219	N08	E72	04	25.9		A	HA	10	2	2	3
7704		BOUL	04	20	1353	N09	E72	04	26.0		A	HR	30	2	1	3
7704	28088	MWIL	04	20	1445	N08	E72	04	26.0	4	AP					
7704		HOLL	04	20	1448	N08	E69	04	25.8		A	HS	30	2	2	4
7704		LEAR	04	21	0220	N09	E66	04	26.0		A	HA	70	1	1	2
7704		RAMY	04	21	1227	N09	E60	04	26.0		A	HR	30	3	2	3
7704	28088	MWIL	04	21	1430	N08	E58	04	25.9	5	(AP)					
7704		BOUL	04	21	1444	N09	E58	04	26.0		A	HR	30	3	2	4
7704		HOLL	04	21	1518	N08	E58	04	26.0		A	HS	40	4	2	3
7704		PALE	04	21	1950	N07	E55	04	25.9		A	HR	50	2	2	2
7704		LEAR	04	22	0017	N09	E53	04	26.0		A	HS	30	6	3	3

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

APRIL 1994

NOAA/ USAF Group	Mt Wilson Group	Sta	Observation Time Mo Day (UT)	Lat CMD	CMP Mo Day	Max H	Mag Class	Spot Class	Corrected Area (10-6 Hemi)	Spot Count	Long. Extent (Deg)	Qual
7704		SVTO	04 22 0708	N08 E48	04 25.9		B	CSO	60	8	3	3
7704		RAMY	04 22 1218	N08 E46	04 26.0		A	HA	30	6	3	3
7704	28088	MWIL	04 22 1445	N08 E44	04 25.9	5	(B)					
7704		BOUL	04 22 1449	N07 E43	04 25.8		B	CRO	20	5	3	4
7704		HOLL	04 22 1525	N07 E45	04 26.0		B	CSO	40	1	4	3
7704		PALE	04 22 2000	N08 E43	04 26.0		B	CSO	40	6	4	3
7704		LEAR	04 23 0030	N08 E41	04 26.1		B	CRO	20	4	3	3
7704		SVTO	04 23 0600	N07 E37	04 26.0		B	CRO	10	4	1	3
7704		RAMY	04 23 1210	N08 E33	04 26.0		B	CRO	20	4	3	3
7704	28088	MWIL	04 23 1430	N08 E32	04 26.0	4	(AP)					
7704		HOLL	04 23 1705	N08 E30	04 26.0		A	AX	10	2	1	1
7704		PALE	04 23 2310	N08 E29	04 26.1		A	HS	20	5	3	3
7704		SVTO	04 24 0600	N07 E24	04 26.0		B	CRO	20	4	1	3
7704	28088	MWIL	04 24 1430	N07 E19	04 26.0	3	(AP)					
7704		HOLL	04 24 1740	N07 E17	04 26.0		A	HR	30	2	2	3
7704		LEAR	04 25 0028	N08 E13	04 26.0		B	BXO		2	2	3
7704		SVTO	04 25 0712	N07 E10	04 26.0		A	AX	10	3	1	4
7704		RAMY	04 25 1247	N06 E07	04 26.0		A	AX	10	3	2	3
7704		HOLL	04 25 1730	N07 E04	04 26.0		A	AX	10	1	1	2
7704		LEAR	04 26 0230	N09 W01	04 26.0		A	AX		1	1	2
7704		LEAR	04 27 0345	N11 W17	04 25.9		B	CRO	10	3	3	2
7704		SVTO	04 27 0522	N13 W19	04 25.8		B	BXO	10	4	3	3
7704		RAMY	04 27 1242	N13 W23	04 25.8		A	AX	10	4	2	3
7704		HOLL	04 27 1408	N14 W24	04 25.8		B	BXO	10	3	3	3
7704		PALE	04 27 2050	N13 W28	04 25.7		B	BXO	10	3	3	3
7704		LEAR	04 28 0100	N13 W31	04 25.7		A	AX	10	1	1	3
7704		SVTO	04 28 0555	N15 W30	04 26.0		B	BXO		2	2	3
7710		SVTO	04 30 0540	S15 W46	04 26.7		A	AX		1		3
7710		RAMY	04 30 1216	S14 W49	04 26.8		B	BXO	10	2	2	3
7710	28090	MWIL	04 30 1430	S14 W52	04 26.7	3	(B)					
7710		HOLL	04 30 1700	S13 W53	04 26.7		B	BXO	30	3	3	3
7710		PALE	04 30 1904	S15 W54	04 26.7		B	BXO	20	2	3	3
7710		LEAR	05 01 0040	S15 W55	04 27.0		B	BXO	10	2	3	3
7710		SVTO	05 01 0815	S16 W60	04 26.9		A	AX		1		3
7715	28093	MWIL	05 01 1445	N07 W24	04 29.9	5	(B)					
7715		HOLL	05 01 1538	N08 W24	04 29.9		B	CRO	30	7	3	3
7715		PALE	05 01 1800	N08 W26	04 29.9		B	CSO	20	7	3	3
7715		LEAR	05 02 0015	N08 W30	04 29.9		A	AX	10	2		3
7715		SVTO	05 02 0540	N07 W33	04 29.9		B	CRO	10	3	3	4
7715		RAMY	05 02 1420	N08 W36	04 30.0		B	BXO	20	8	4	3
7715	28093	MWIL	05 02 1430	N07 W37	04 29.9	5	(B)					
7715		HOLL	05 02 1634	N07 W38	04 29.9		B	CRO	30	6	5	4
7715		PALE	05 02 1828	N08 W38	04 30.0		B	CRO	30	3	4	3
7715		LEAR	05 03 0610	N09 W48	04 29.7		A	AX		1	1	1
7715		SVTO	05 03 0735	N08 W48	04 29.8		A	HR	20	2	1	3
7715		RAMY	05 03 1257	N08 W52	04 29.7		A	AX	10	3	2	3
7715		HOLL	05 03 1409	N08 W52	04 29.8		A	HS	20	1	1	3
7715	28093	MWIL	05 03 1430	N07 W53	04 29.7	4	(AP)					
7715		LEAR	05 04 0045	N09 W55	04 30.0		B	BXO	20	4	4	3
7711		PALE	04 29 2300	S11 E12	04 30.9		A	AX	20	4	2	2
7711		SVTO	04 30 0540	S11 E07	04 30.8		B	CRO	10	2	2	3
7711		RAMY	04 30 1216	S10 E04	04 30.8		B	CRO	10	2	3	3
7711	28091	MWIL	04 30 1430	S10 E02	04 30.7	4	(B)					
7711		HOLL	04 30 1700	S11 E01	04 30.8		B	CRO	20	2	3	3
7711		PALE	04 30 1904	S11 W01	04 30.7		B	BXO	10	2	3	3
7711		LEAR	05 01 0040	S10 W03	04 30.8		A	AX	10	1		3
7711		SVTO	05 01 0815	S11 W08	04 30.7		B	BXO	10	3	2	3
7711		RAMY	05 01 1238	S10 W11	04 30.7		B	BXO	10	5	3	2
7711	28091	MWIL	05 01 1445	S10 W12	04 30.7	4	(B)					
7711		HOLL	05 01 1538	S12 W12	04 30.7		B	BXO	10	2	4	3
7711		PALE	05 01 1800	S12 W13	04 30.8		B	DSO	30	4	3	3

Stations reporting:

BOUL = Boulder
CULG = Culgoora
HOLL = Holloman
LEAR = Learmonth
MWIL = Mt. Wilson
PALE = Palehua
RAMY = Ramey
SVTO = San Vito

SUDDEN IONOSPHERIC DISTURBANCES

APRIL 1994

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type SWF	SEA	SPA	LF-SPA	SES	Flare (UT)	X-ray Class	NOAA Region
02	1008	1021U	1044	1	1		1				No flare		
02	1211	1215	1236	1	1					1	1210	B2.3	
02	1919	1923	2012	2+	1					2	1947	B1.5	
03	0812	0836	0916	1	1		1				No flare		
03	0924	0946U	1021	1	1		1				No flare		
04	1026	1030	1119	1	1		1				1000	B2.8	
05	1032	1040	1110	1	1		1				*		
06	1505	1512	1550	1	1		1				No flare		
07	0832	0843U	0956	1	1		1				No flare		
08	1130	1140	1223	1	1		1				*		
09	2201	2204	2211	1-	3					3	2201	B1.6	
10	1228	1230	1237	1-	3					2	1228	B1.8	
10	1634	1636	1646	1-	1					1	1634	B4.2	
11	1129	1152U	1213	1	1		1				*		
13	1740	1744	1800	1	1					1	1740E	B1.1	7700
14	0958	1012	1027	1	1		1				*		
16	0903	0909	0926	1	1		1				No flare		
17	2126	2130	2143	1-	1					1	2126	B1.2	
18	0903	0917	0925	1	1		1				No flare		
18	1216	1241	1251	1	1		1				No flare		
18	1354	1414	1457	2+	3					4	1347	C1.2	
19	1647	1705	1730	1	1					1	1644	C2.1	
20	1520	1530	1600	2	1					1	1522	B1.1	
21	1400	1414	1443	2	1					1	1400	C1.1	7704
21	1441	1518	1542	1	1		1				1504	B3.6	
21	1818	1819	1833	1-	1					1	1819	B3.6	
21	1914	1915	1923	1-	3					2	1914	B5.7	7705
21	2213	2217	2236	1-	5			1		2	2206	C2.3	
22	0017	0024	0050	1	1			1			0018	C5.2	7705
22	0545	0547	0600	1-	1					1	0545		7705
22	0629	0630	0645	1-	1					1	0629	B4.1	7705
22	1549	1603	1620	1	1		1				No flare		
23	0947	0951	0959	1-	1					1	0947	B1.4	
23	1907	1910	1922	1-	1					1	1902	B1.4	
24	1430	1438U	1503	1	1		1				No flare		
25	1043	1057	1120	1	1		1				No flare		
26	0211	0220	0247	1-	1			1			0205	B9.7	
26	1929	1930	1939	1-	1					1	1922	B2.5	
27	1500	1518U	1540	1	1		1				No flare		
28	1644	1648	1658	1-	1					1	1644	B1.2	
28	2130E	2205	2328	2+	1					1	2152		7705

* = no flare patrol.

SUDDEN IONOSPHERIC DISTURBANCES

APRIL 1994

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	Number of Station Reports by Type SWF	SEA	SPA	LF-SPA	LF-SES	Flare (UT)	X-ray Class	NOAA Region
29	0734	0742U	0837	1	1		1				0752	B1.9	
29	0756	0800	0807	1-	1					1	0752	B1.9	
29	0938	1007U	1100	1	1		1				*		
30	1150	1153	1222	1	1		1				1144	B3.8	
30	1350	1353	1402	1-	1					1	1348	B1.4	
30	1727	1729	1740	1-	1					1	1725	B3.2	

* = no flare patrol.

OBSERVATORIES REPORTING FOR APRIL 1994

Amherst, New Hampshire, USA	SES	LaCrescenta, California, USA	SES
Boksburg, Rep of S. Africa	SES	Madison, Wisconsin, USA	SES
Cambridge, England, UK	SES	Manahawkin, New Jersey, USA	SES
Cranford, New Jersey, USA	SES	Maui, Hawaii, USA	SWF
Durham, New Hampshire, USA	SES	McDonough, Georgia, USA	SES
Fort Wayne, Indiana, USA	SES	Nampa, Idaho, USA	SES
Gettysburg, Pennsylvania, USA	SES	Nerja, Spain	SES
Hiraiso, Japan	SWF	Rochester, New Hampshire, USA	SES
Houston, Texas, USA	SES	Tucson, Arizona, USA	SES
Hudson, Ohio, USA	SES	Upice, Slovakia	SEA
Inubo, Japan	SPA	Wellington, Ohio, USA	SES
Itapetinga, Brazil	SPA, SES	Windsor Locks, Connecticut, USA	SES

Observations are not necessarily continuous.

SOLAR RADIO EMISSION
Spectral Observations

APRIL 1994

Day	Observation Start (UT)	Observation End (UT)	Sta	Decimetric Band Start (UT)	Decimetric Band End (UT)	Decimetric Band Int (1-3)	Metric Band Start (UT)	Metric Band End (UT)	Metric Band Int (1-3)	Dekametric Band Start (UT)	Dekametric Band End (UT)	Dekametric Band Int (1-3)	Spectral Type
01	0500	1200	IZMI										
	0610	1622	ONDR										
	0700	1500	POTS										
02	0610	1624	ONDR										
	0500	1200	IZMI				0802.6	0803.5	1				IIIG
			LEAR				0803.0	0805.0	3				III
			SVTO				0803.0	0833.0	3				S
	0500	1200	IZMI				0803.8	0804.6	3				IIIG, V
	0500	1200	IZMI				0812.2	0813.8	1				IIIG
	0500	1200	IZMI				0827.0	0827.5	2				IIIG
			LEAR				0827.0	0827.0	2				III
	0500	1200	IZMI				0913.8	0932.0	1				IIIG
			SVTO				0932.0	0933.0	2				III
	0500	1200	IZMI				0932.8	0933.2	2				IIIG
	0500	1200	IZMI				1023.2	1025.0	1				IIIG
			SVTO				1030.0	1030.0	2				III
	0500	1200	IZMI				1030.2	1030.7	2				IIIG
			SGMR				1122.0	1123.0	1				III
			SVTO				1122.0	1124.0	2				V
	0500	1200	IZMI				1122.5	1124.1	2				IIIGG
	0500	1200	IZMI				1152.9	1153.3	2				IIIG, V
			SGMR				1153.0	1159.0	2				V
			SVTO				1153.0	1159.0	2				V
	0500	1200	IZMI				1156.5	1159.1	2				IIIGG
03	0500	1200	IZMI										
	0605	1624	ONDR										
04	0500	1200	IZMI										
	0706	1627	ONDR										
	0700	1500	POTS				1335.5	1347.0U	1				I,S
			POTS				1343.9	1344.0	1				R,S
05	0500	1200	IZMI										
	0706	1623	ONDR										
	0700	1500	POTS				0953.9	0954.1	1				IIIG
			POTS				1455.3	1455.4	1				UNCLF
06	0500	1200	IZMI										
	0700	1500	POTS										
	0704	1621	ONDR										
07	0500	1200	IZMI										
	0700	1500	POTS										
	0704	1621	ONDR										
08	0500	1200	IZMI										
	0700	1500	POTS										
	0706	1631	ONDR										
09	0500	1200	IZMI										
	0706	1533	ONDR										
			SGMR				1454.0	1455.0	1				V
			SGMR				1507.0	1516.0	1				III
10	0500	1200	IZMI										
	0800	1636	ONDR										
11			LEAR				0253.0	0254.0	2				III
			PALE				0253.0	0254.0	2				III
	0500	1200	IZMI										
	0637	1637	ONDR										
	0700	1018	POTS										
12	0500	1200	IZMI										
	0636	1639	ONDR										
	0700	1500	POTS										

SOLAR RADIO EMISSION
Spectral Observations

APRIL 1994

Day	Observation Start (UT)	Observation End (UT)	Sta	Decimetric Band Start (UT)	Decimetric Band End (UT)	Decimetric Band Int (1-3)	Metric Band Start (UT)	Metric Band End (UT)	Metric Band Int (1-3)	Dekametric Band Start (UT)	Dekametric Band End (UT)	Dekametric Band Int (1-3)	Spectral Type
13	0500	1200	IZMI										
	0635	1642	ONDR										
	0700	1500	POTS										
14	0500	1200	IZMI										
	0613	1643	ONDR										
	0700	1500	POTS										
15	0500	1200	IZMI										
	0646	1643	ONDR										
	0700	1500	POTS										
16	0500	1200	IZMI				0723.9	0724.7	1				IIIG
			SVTO				0724.0	0724.0	1				III
	0823	1645	ONDR										
17	0500	1200	IZMI										
			SVTO				0758.0	0759.0	1				III
	0907	1646	ONDR										
18	0500	1200	IZMI										
	0700	1500	POTS										
	0820	1648	ONDR										
			SGMR				2000.0	2000.0	1				III
19	0636	1649	ONDR										
	0500	1200	IZMI				0749.9	0751.0	2				IIIG
	0700	1500	POTS				0749.9	0751.4	2				IIIGG
			LEAR				0750.0	0751.0	2				III
			SVTO				0750.0	0751.0	2				III
			SVTO				0951.0	0954.0	2				III
			POTS				0951.4	0954.8	2				IIIG
			SVTO				1033.0	1034.0	2				III
			POTS				1033.4	1040.5	3				IIIGG,V
	0500	1200	IZMI				1033.6	1034.2	2				IIIG
			SVTO				1035.0	1036.0	3				III
	0500	1200	IZMI				1035.5	1036.8	2				IIIG
			SGMR				1036.0	1036.0					III
			SGMR				1105.0	1105.0					III
			SVTO				1105.0	1105.0	2				III
	0500	1200	IZMI				1105.1	1105.6	1				III
			POTS				1105.1	1105.3	2				IIIB
			SVTO				1138.0	1138.0	1				III
			POTS				1138.5	1151.4	2				IIIG
			POTS				1220.2	1220.4	1				IIIG
			SVTO				1233.0	1234.0	2				III
			POTS				1233.6	1239.8	2				IIIGG
			SGMR				1235.0	1239.0					V
			SVTO				1239.0	1239.0	2				III
			POTS				1315.7	1316.0	1				IIIG
			POTS				1344.2	1345.1	1				I,SG
			SGMR				1357.0	1358.0					III
			SVTO				1357.0	1357.0	2				III
			POTS				1357.5	1357.9	2				IIIG
			SGMR				1458.0	1500.0					III
			SGMR				1535.0	1536.0					V
			SVTO				1535.0	1536.0	2				III
			SVTO				1635.0	1635.0	3				III
			SGMR				1645.0	1653.0	2				V
			SGMR				1701.0	1701.0	1				III
			PALE				1757.0	1758.0	1				III
			SGMR				1757.0	1758.0	2				III
			SGMR				1951.0	1955.0	2				III
20	0500	1200	IZMI										
	0636	1649	ONDR										
	0700	1500	POTS				0737.2	0737.3	1				IIIB
			POTS				0753.2	0753.3	1				IIIGG
			POTS				0803.0	0803.3	1				IIIG

SOLAR RADIO EMISSION
Spectral Observations

APRIL 1994

Day	Observation Start (UT)	Observation End (UT)	Sta	Decimetric Band Start (UT)	Decimetric Band End (UT)	Decimetric Band Int (1-3)	Metric Band Start (UT)	Metric Band End (UT)	Metric Band Int (1-3)	Dekametric Band Start (UT)	Dekametric Band End (UT)	Dekametric Band Int (1-3)	Spectral Type
20			POTS				0815.2	0815.3	1				IIIB
			SVTO				1000.0	1000.0	1				III
21			LEAR				0219.0	0222.0	2				III
			PALE				0219.0	0221.0	2				III
	0500	1200	IZMI										
	0637	1650	ONDR										
	0700	1500	POTS				0818.2	0820.1	1				IIIG
			POTS				0918.7	0919.8	1				IIIG
			POTS				0933.3	0934.2	1				IIIG
			POTS				1306.2	1306.4	1				IIIG
			POTS				1350.5	1350.6	1				UNCLF
			POTS				1359.0	1359.1	1				UNCLF
			POTS				1359.8	1400.7	1				UNCLF,IIIG,RS
			POTS				1403.9	1414.0	1				IIIGG
			SVTO				1404.0	1405.0	1				III
			POTS				1416.7	1416.9	1				UNCLF
			POTS				1422.5	1422.6	1				UNCLF
			POTS	1423.7	1424.12								DCIM,IIIB
			POTS	1437.4	1437.72								DCIM,IIIG,RS
			POTS				1454.0	1500.0U	1				I,S
			PALE				2312.0	2312.0	1				III
			PALE				2352.0	2352.0	1				III
22			PALE				0007.0	0009.0	1				III
			LEAR				0008.0	0008.0	1				III
	0500	1200	IZMI				0600.2	0600.5	1				IIIG
	0500	1200	IZMI				0716.1	0716.2	1				III
	0700	1500	POTS				0716.1	0716.2	2				IIIG
	0819	1651	ONDR										
			POTS				1244.1	1244.2	1				IIIG
			POTS				1328.7	1330.3	1				DCIM,IIIG
			POTS				1331.9	1332.1	1				I
			POTS				1345.0	1404.0	1				I,S
23	0500	1200	IZMI										
	0716	1653	ONDR										
24	0500	1200	IZMI										
	0813	1654	ONDR										
			SGMR				1451.0	1452.0	1				V
			SVTO				1451.0	1451.0	2				III
25	0500	1200	IZMI										
	0636	1530	ONDR										
	0700	1500	POTS				1434.4	1435.0	1				IIIG
26			SVTO				0642.0	0642.0	2				III
	0500	1200	IZMI				0642.1	0642.9	2				IIIG
	0636	1530	ONDR	0642.3	0642.8	1	0642.3	0642.8	1				IIIGG
	0700	1500	POTS				0700.0E	1500.0E	1				I,S
			POTS				1149.5	1149.7	1				IIIG
			SGMR				1235.0	1236.0	1				III
			POTS				1235.8	1237.6	2				IIIG
			POTS				1454.0	1454.3	2				IIIG
			SGMR				1758.0	1800.0	1				III
			SGMR				1931.0	1936.0	1				III
27	0500	1200	IZMI										
	0637	1530	ONDR										
	0700	1500	POTS				1317.7	1319.3	1				IIIG,RSG
28			LEAR				0140.0	0143.0	3				III
			PALE				0140.0	0143.0	2				III
			PALE				0146.0	0154.0	1				II 2000km/s
			LEAR				0147.0	0154.0	2				II 2000km/s
	0500	1200	IZMI										
	0605	1500	ONDR										
	0700	1500	POTS										

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

APRIL 1994

Day	Observation Start (UT)	Observation End (UT)	Sta	Decimetric Band Start (UT)	Decimetric Band End (UT)	Decimetric Band Int (1-3)	Metric Band Start (UT)	Metric Band End (UT)	Metric Band Int (1-3)	Dekametric Band Start (UT)	Dekametric Band End (UT)	Dekametric Band Int (1-3)	Spectral Type
29	0500	1200	IZMI										
	0624	1448	ONDR										
	0700	1500	POTS				1257.0	1257.4	1				I,S
			POTS				1314.0	1500.0U	1				I,S
			PALE				1856.0	1856.0	1				III
			SGMR				1856.0	1856.0	1				III
30	0500	1200	IZMI										
	0709	1543	ONDR										

The symbols used under the column heading SPECTRAL TYPE have the following definitions:

B = Single burst
G = Small group (< 10) of bursts
GG = Large group (> 10) of burst
C = Underlying continuum (particularly with Type I)
S = Storm in the sense of intermittent but apparently connected activity
N = Intermittent activity in this period
U = U-shaped burst of Type III
SP = SPIKES
RS = Reverse slope burst
DP = Drifting pairs
DC = Drifting Chains
H = Herringbone
W = Weak
P = Pulsations
CONT = Continuum
UNCLF = Unclassified activity
DCIM = Fast drift

Stations Reporting:

IZMI = IZMIRAN
LEAR = Learmonth
ONDR = Ondrejov
PALE = Palehua
POTS = Potsdam
SGMR = Sagamore Hill
SVTO = San Vito

SOLAR RADIO NOISE STORM AT 164 MHZ
FROM NANCAY RADIOHELIOGRAPH

April 1994

DAY	HELIOGRAPHIC POSITIONS MEAN VALUES* E-W	S-N	IMP**	OBSERVING TIME*** START (UT)	END (UT)
23/04/94	+0.20	+0.10	1	0945	1535 D
26/04/94	+1.35	+0.09	1	1300 E	1535 D

17,24 NO DATA
OTHER DAYS : NO DETECTABLE NOISE STORMS

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* POSITIVE E-W AND S-N COORDINATES CORRESPOND TO THE N-W SOLAR QUADRANT

** IMP 1: FLUX<5 SFU IMP 2: 5<FLUX<20 IMP 3: 20<FLUX<100 SFU
IMP 4: 100FLUX<300 SFU IMP 5: FLUX>300 SFU

*** E NOISE STORM IN PROGRESS AT THE BEGINNING OF THE NANCAY OBSERVATIONS
D NOISE STORM IN PROGRESS AT THE END OF THE NANCAY OBSERVATIONS

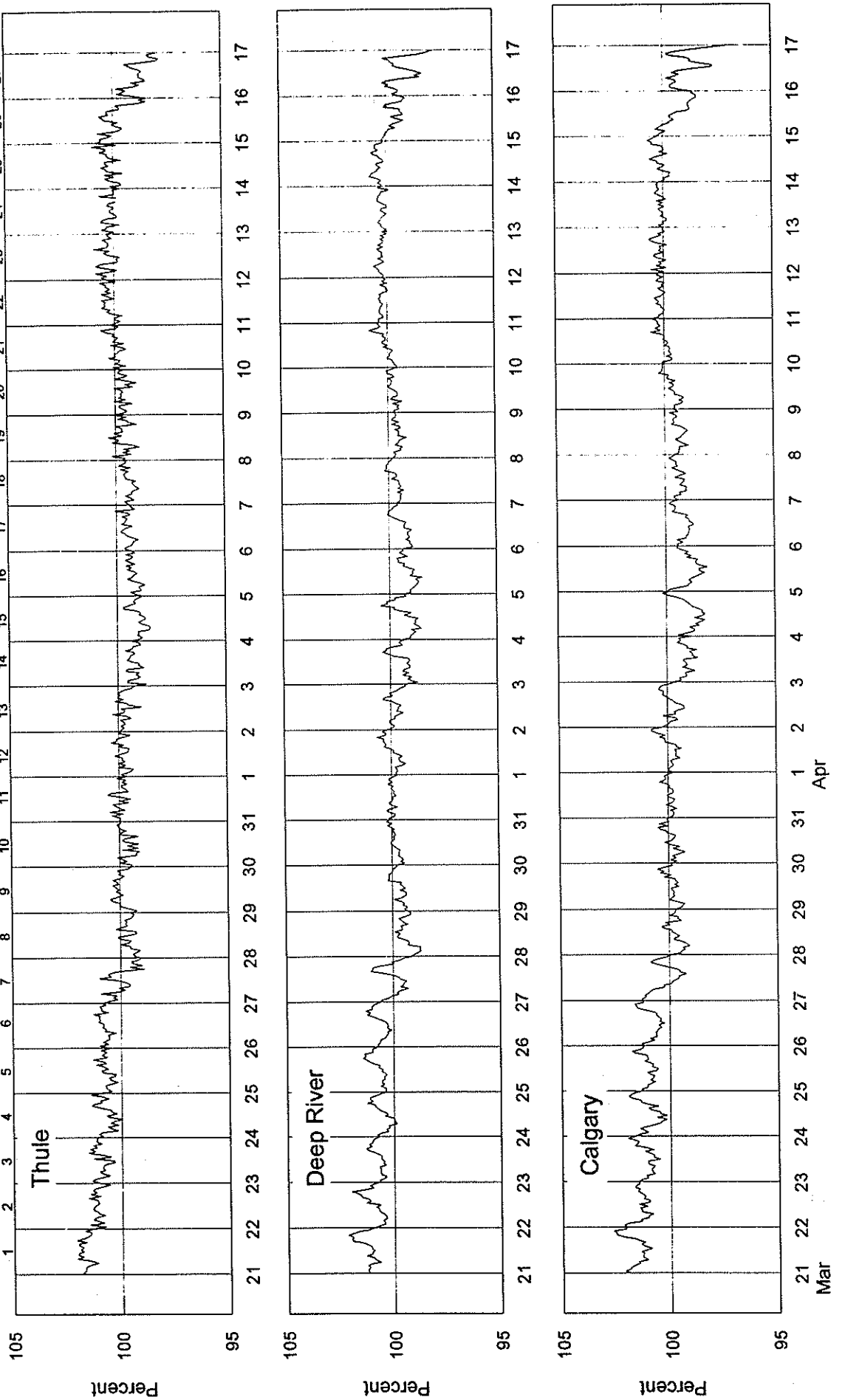
COSMIC RAY INDICES
(Neutron Monitor)
APRIL 1994

Day	THULE Average (cts/h)/100	DEEP RIVER Average (cts/h)/300	CALGARY Average (cts/h)/300	CLIMAX Average (cts/h)/100	BEIJING Average (cts/h) 256	TOKYO Average (cts/h)/256	HALEAKALA Average (cts/h)/1000
1	4341	6923.7	3798.7	3992.8	1983.8	3498.5	3483.0
2	4340	6915.8	3796.8	4006.1	1989.3	3520.2	3493.1
3	4317	6888.3	3768.7	4000.5	1986.0	3526.2	3487.2
4	4308	6876.6	3759.5	4006.7	1978.5	3517.4	3481.1
5	4316	6864.8	3759.8	3998.7	1972.0	3508.4	3483.1
6	4327	6885.6	3772.0	4006.0	1972.7	3507.9	3491.4
7	4324	6906.4	3778.3	4014.2	1981.5	3519.7	3498.5
8	4335	6897.6	3777.5	4004.9	1989.7	3538.2	3503.1
9	4335	6910.0	3789.0	4026.9	1992.9	3552.7	3512.1
10	4347	6932.4	3801.8	4043.9	2001.3	3556.4	3523.8
11	4360	6945.2	3808.2	4050.0	2006.9	3558.4	3526.9
12	4364	6947.4	3809.7	4037.8	2009.5	3540.3	3535.2
13	4357	6942.7	3806.0	4025.4	2009.5	3547.6	3533.5
14	4358	6956.7	3807.0	4033.8	1996.2	3552.4	3530.3
15	4350	6904.0	3778.3	4003.0	1991.1	3536.6	3521.4
16	4301	6881.8	3766.2	3967.8	1979.1	3534.6	3514.0
17	4244	6804.7	3674.8	3920.8	1965.7	3494.5	3479.0
18	4286	6843.6	3732.7	3942.7	1961.6	3508.8	3491.7
19	4288	6872.1	3750.0	3953.6	1964.0	3506.5	3498.6
20	4306	6905.2	3762.8	3961.6	1964.9	3508.0	3499.1
21	4321	6942.6	3776.7	3985.2	1966.5	3513.3	3502.9
22	4327	6949.0	3781.7	3984.2	1971.4	3516.7	3503.4
23	4324	6936.8	3778.7	3985.8	1972.3	3514.5	3503.9
24	4342	6921.3	3780.5	3993.1	1970.3	3515.2	3513.3
25	4355	6914.4	3768.2	4015.8	1965.4	3509.0	3512.7
26	4355	6895.4	3774.7	4010.2	1963.2	3513.2	3509.0
27	4355	6903.1	3788.5	4004.8	1956.7	3503.6	3503.6
28	4379	6918.8	3803.5	4003.7	1956.4	3510.5	3499.4
29	4371	6905.8	3800.0	3996.2	1952.8	3513.6	3496.4
30	4386	6935.0	3814.0	4003.8	1950.3	3512.0	3499.1
Mean	4334.0	6907.6	3778.8	3999.3	1977.4	3521.8	3504.3

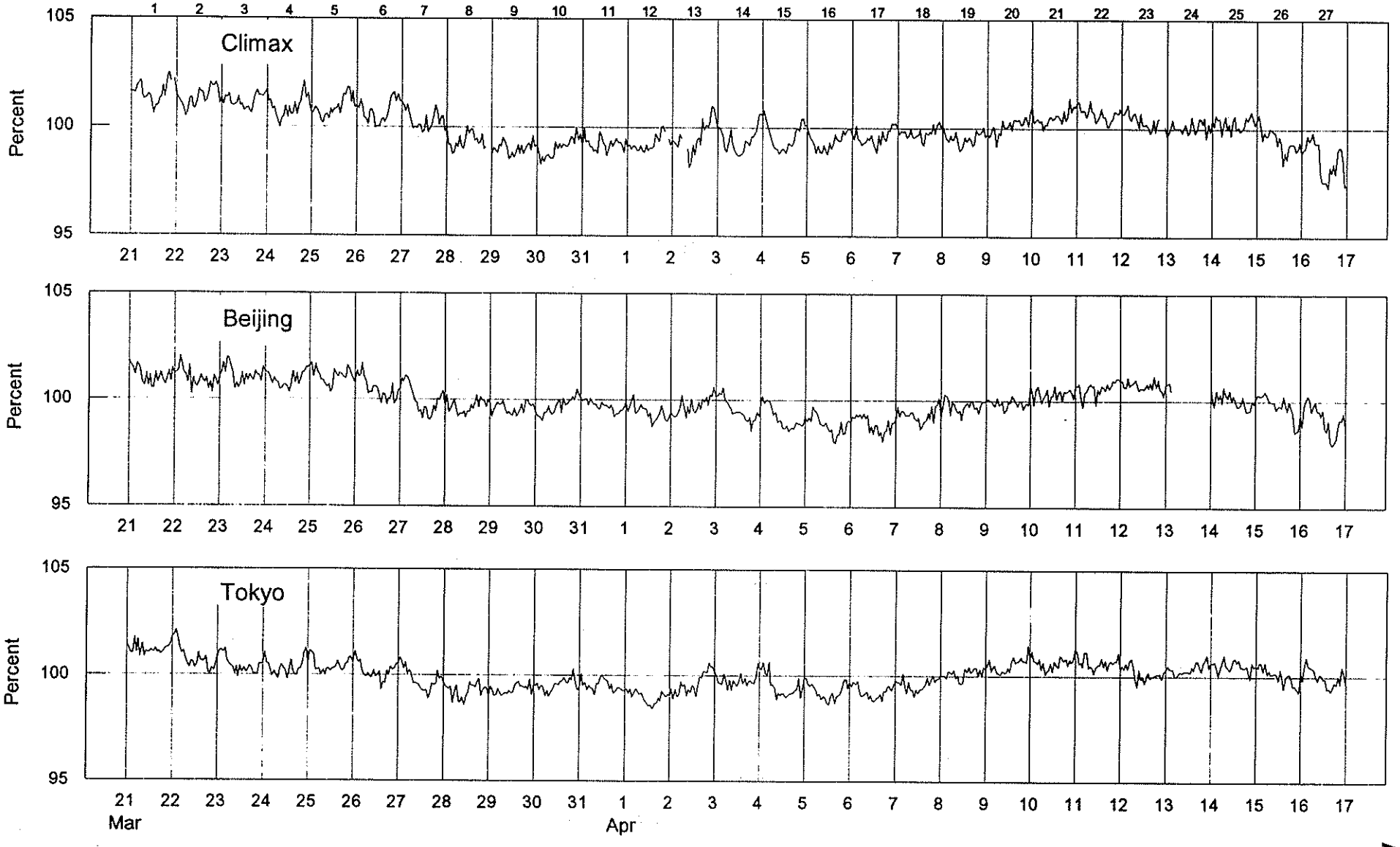
For less than 24-hour coverage, parentheses enclose the number of hours for which data are available. For Climax and Haleakala, parentheses enclose the number of section hours whenever the sum of both sections falls below 40 hours.

* = A&B includes only hours when both A&B sections are available.

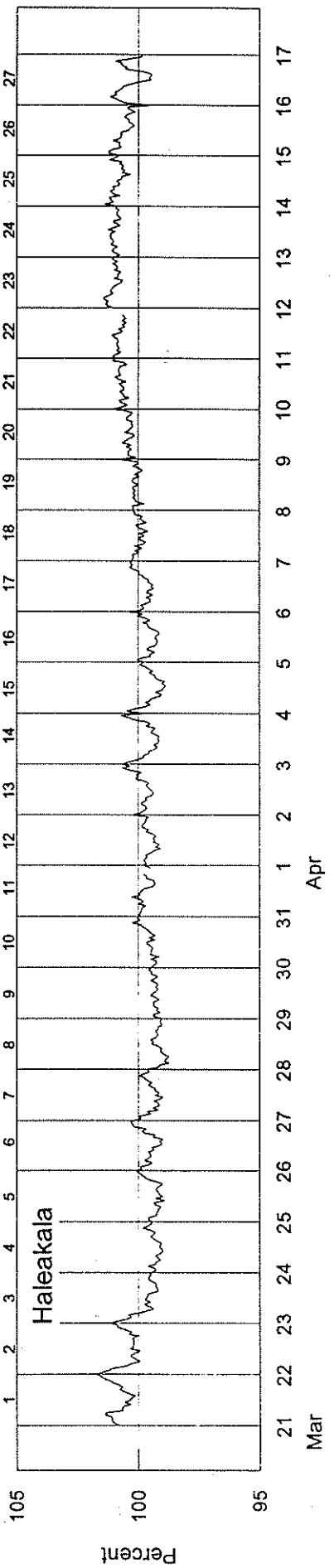
COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2194 - Beginning 21 Mar 94



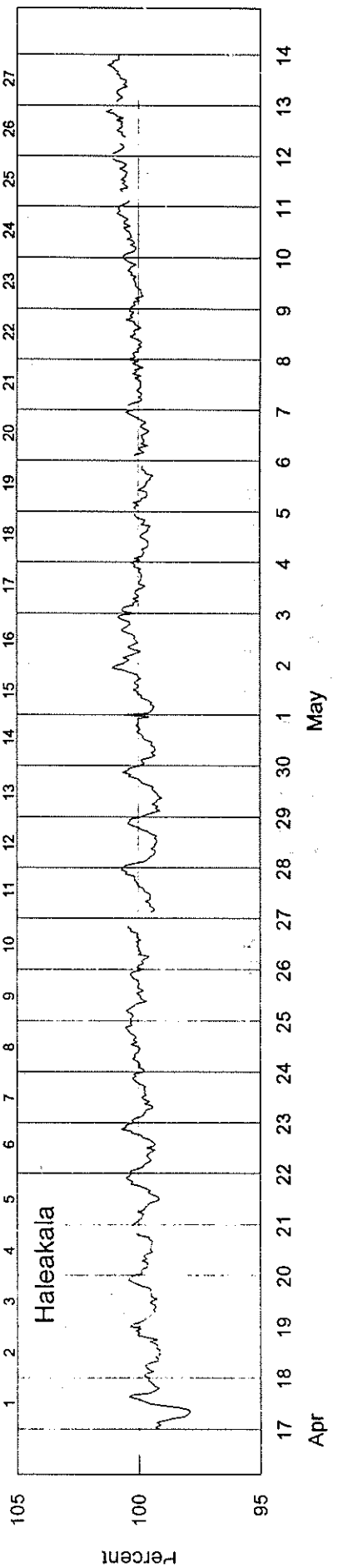
COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2194 - Beginning 21 Mar 94



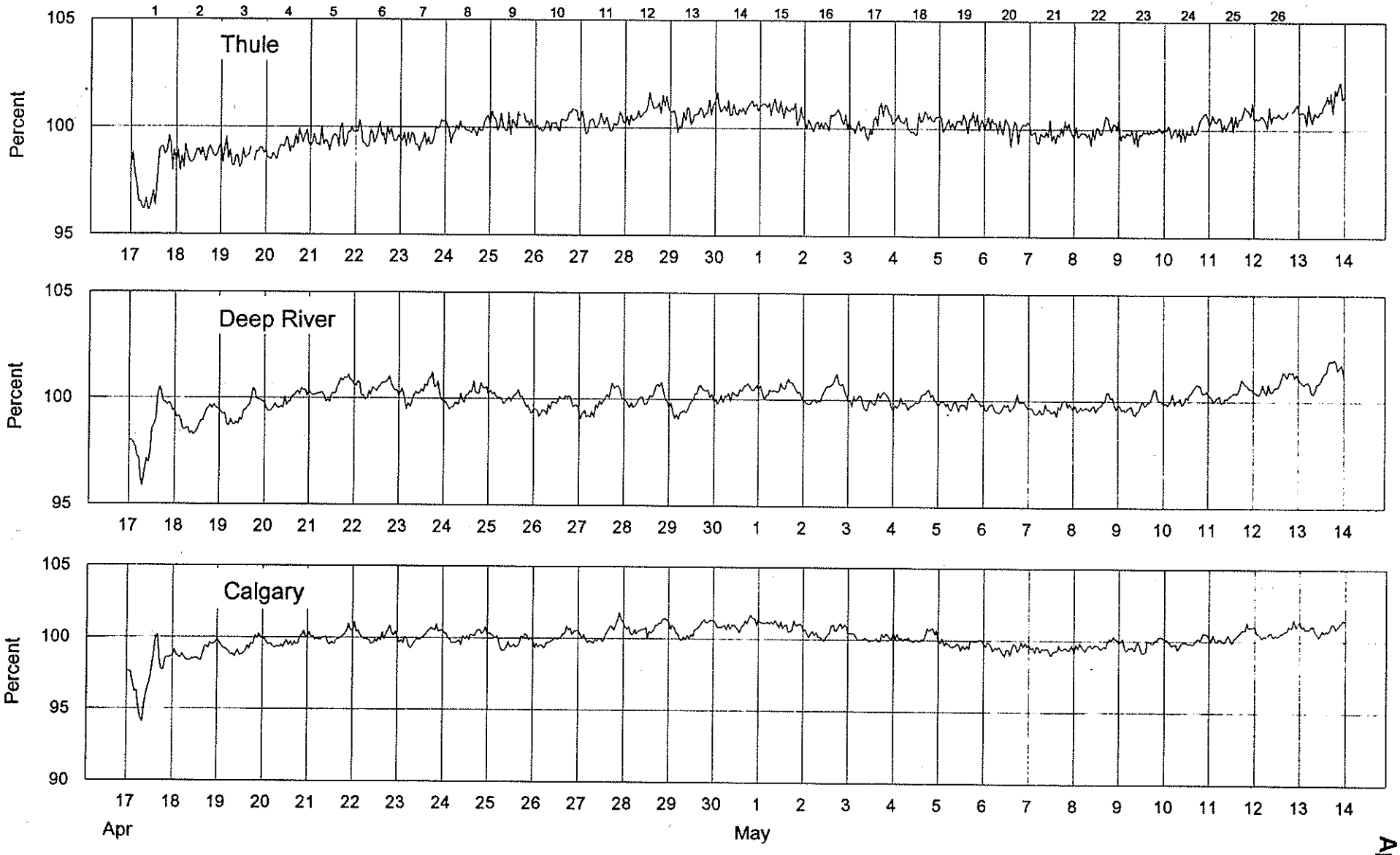
COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2194 - Beginning 21 Mar 94



COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2195 - Beginning 17 Apr 94

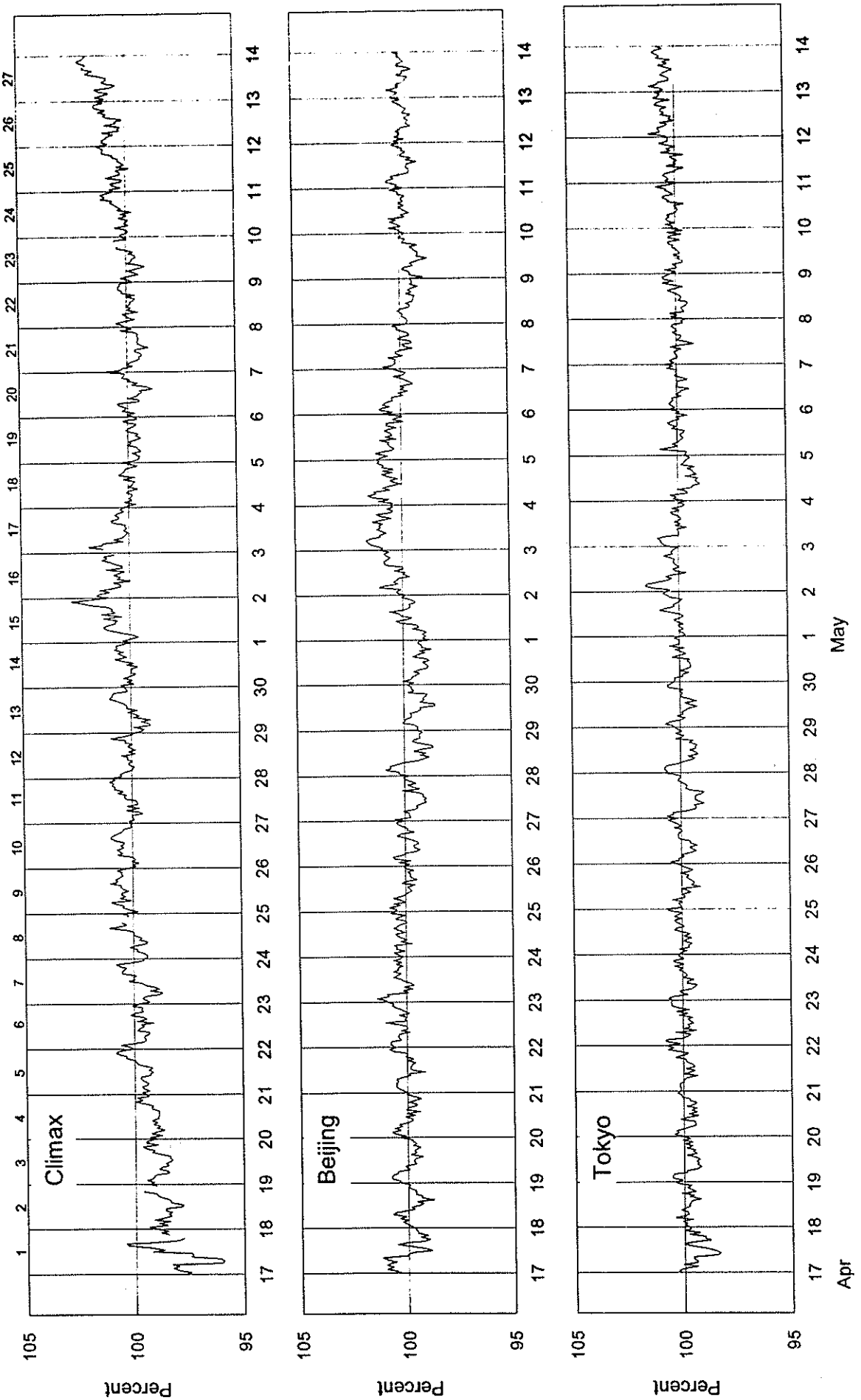


COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2195 - Beginning 17 Apr 94

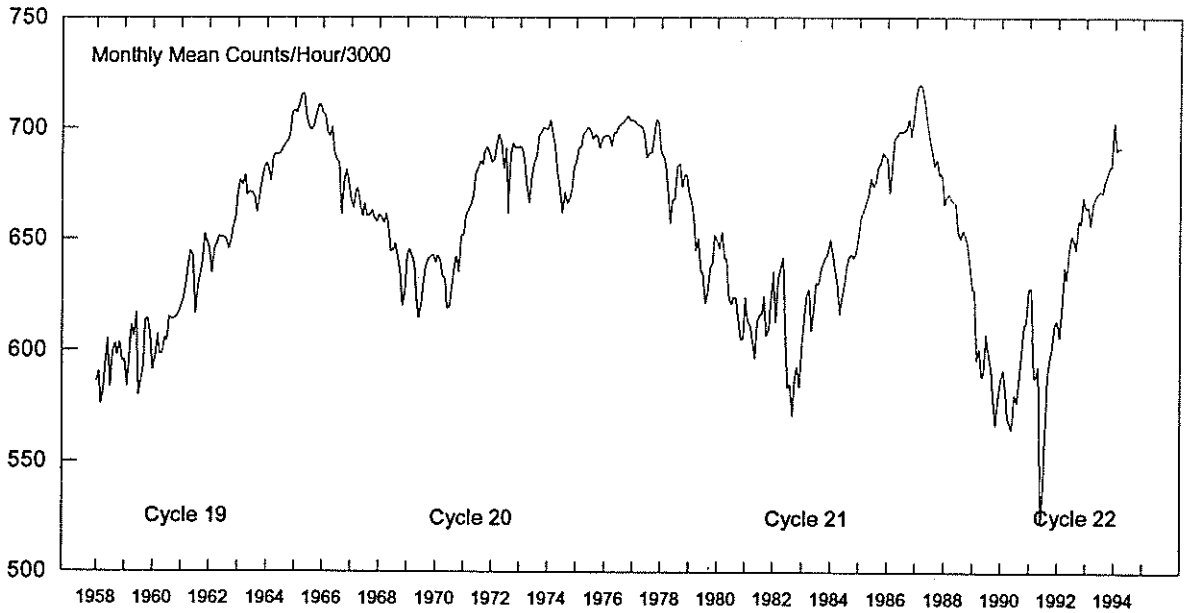


104
Apr 94

COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2195 - Beginning 17 Apr 94



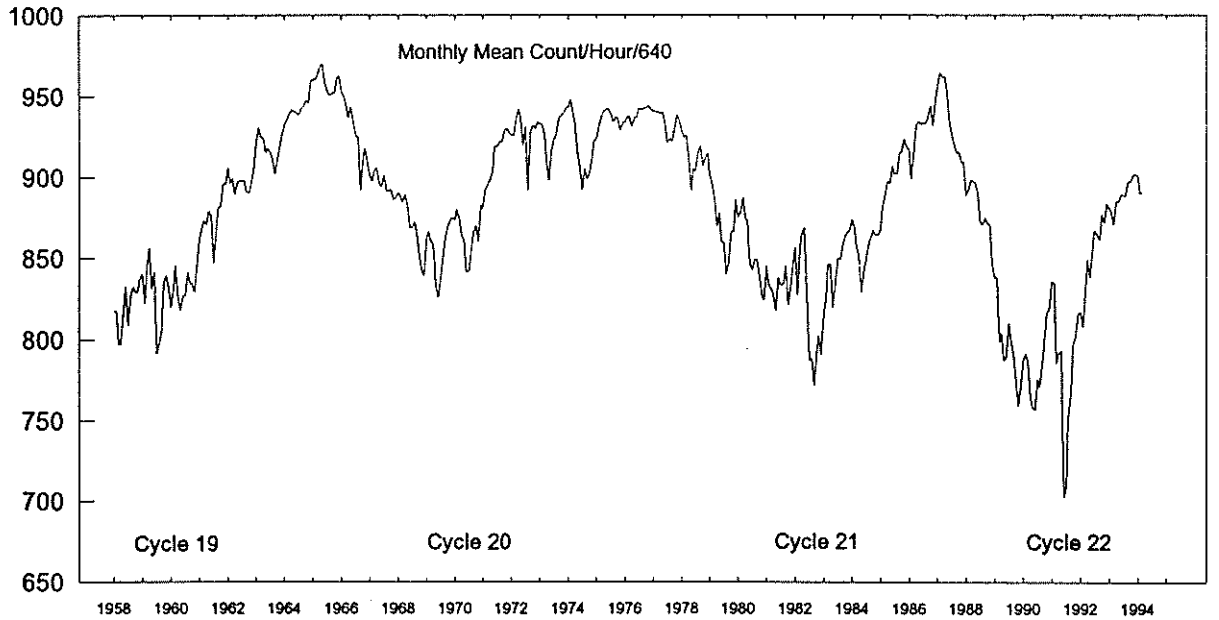
Deep River Neutron Monitor Normalized Values
Jan 1958 - Apr 1994



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1958	5860	5906	5759	5822	5959	6053	5834	5994	6033	5978	6039	5952	5932
1959	5955	5839	5960	6116	6062	6173	5796	5860	5930	6135	6143	6066	6003
1960	5910	5971	6075	5983	5984	6058	6044	6151	6142	6144	6151	6165	6065
1961	6199	6234	6303	6376	6447	6424	6163	6283	6333	6390	6527	6492	6348
1962	6462	6346	6459	6478	6512	6509	6507	6497	6456	6483	6554	6591	6488
1963	6702	6768	6745	6789	6696	6711	6709	6692	6617	6677	6750	6818	6723
1964	6842	6820	6760	6873	6886	6883	6885	6911	6930	6945	6962	7071	6897
1965	7082	7071	7105	7151	7156	7062	7008	6992	7005	7056	7103	7106	7075
1966	7066	7055	6985	6963	7006	6892	6856	6846	6608	6761	6812	6751	6883
1967	6676	6639	6714	6728	6651	6599	6663	6603	6605	6629	6591	6576	6640
1968	6608	6600	6569	6612	6559	6443	6449	6480	6421	6355	6200	6260	6463
1969	6422	6456	6424	6389	6215	6143	6210	6317	6380	6410	6423	6430	6352
1970	6394	6429	6409	6332	6324	6192	6192	6288	6384	6426	6353	6515	6353
1971	6517	6603	6627	6651	6688	6798	6816	6851	6836	6896	6915	6889	6757
1972	6846	6856	6920	6974	6939	6814	6909	6609	6882	6933	6912	6911	6875
1973	6919	6908	6858	6740	6660	6784	6847	6877	6966	6981	7005	6998	6879
1974	6997	7040	6965	6919	6801	6726	6615	6713	6660	6674	6719	6829	6805
1975	6845	6909	6918	6975	6985	7007	6990	6953	6974	6965	6909	6957	6949
1976	6966	6969	6964	6922	6976	6979	7011	7020	7032	7044	7059	7037	6998
1977	7040	7032	7017	7009	7006	6968	6868	6890	6891	6974	7041	7028	6980
1978	6894	6874	6843	6724	6567	6673	6677	6828	6840	6732	6788	6790	6769
1979	6704	6669	6586	6448	6504	6354	6355	6212	6261	6378	6393	6520	6449
1980	6496	6457	6533	6413	6417	6236	6213	6242	6240	6143	6048	6058	6291
1981	6243	6132	6118	6041	5965	6129	6160	6170	6248	6067	6099	6250	6135
1982	6356	6127	6326	6373	6422	6112	5831	5850	5706	5867	5930	5836	6061
1983	6034	6130	6252	6276	6088	6196	6307	6297	6365	6392	6419	6442	6267
1984	6500	6450	6371	6303	6163	6249	6308	6379	6426	6435	6415	6441	6370
1985	6513	6592	6624	6660	6695	6776	6736	6757	6826	6837	6891	6877	6732
1986	6866	6707	6800	6953	6969	6986	6980	6988	6993	7045	6963	7053	6942
1987	7142	7193	7199	7167	7102	7004	6937	6883	6830	6863	6785	6798	6992
1988	6651	6687	6705	6678	6674	6662	6532	6502	6544	6519	6480	6381	6585
1989	6279	6277	5958	6011	5883	5899	6078	5985	5925	5792	5665	5790	5962
1990	5869	5916	5852	5701	5666	5646	5807	5768	5883	6006	6106	6133	5863
1991	6282	6285	5881	5881	5935	5227	5333	5622	5894	5974	6014	6118	5871
1992	6139	6060	6197	6378	6317	6455	6517	6499	6452	6585	6570	6692	6405
1993	6642	6649	6563	6663	6695	6706	6720	6707	6755	6789	6825	6830	6712
1994	7032	6900	6913	6908									

Multiply table entries by 300 to obtain hourly counting rate. Deep River, Canada: N46 W77, Alt=145m, Cutoff Rigidity=1.02 GV.

Moscow Neutron Monitor Pressure-Corrected Values
Jan 1958 - Mar 1994



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1958	8171*	8175*	7973*	7971*	8145*	8330*	8087*	8266*	8324*	8291*	8294*	8378*	8200*
1959	8405	8223	8443	8565	8309	8416	7911	7972	8054	8351	8397	8325	8281
1960	8199	8313	8459	8264*	8178*	8272*	8272*	8417	8348	8348	8295	8464	8319*
1961	8619	8682	8731*	8708*	8791*	8759*	8472	8676	8808	8816	8957	8956	8748*
1962	9061	8959	8996	8891	8964*	8974	8977	8977	8908	8902	8973	9056	8940*
1963	9201	9308	9243	9239	9154	9180	9147	9109	9020	9110	9194	9259	9180
1964	9321	9353	9395	9416	9410	9396	9384	9425	9442	9473	9458	9594	9422
1965	9602	9608	9642	9685	9701	9586	9530	9505	9520	9525	9608	9630	9595
1966	9531	9502	9439	9367	9438	9336	9261	9242*	8916	9105*	9178	9094	9284*
1967	9006	8973	9038	9059	8956	8940	9015	8913	8911	8924	8860	8873	8956
1968	8904	8875*	8844*	8892*	8825*	8690*	8689	8725	8635*	8533*	8428	8394	8703*
1969	8628	8666	8606	8584	8334	8261	8378	8510	8612	8689	8731	8751	8562
1970	8735	8799	8749	8639	8608	8418	8420	8540	8656	8702	8596	8827	8641
1971	8805	8921	8952	8982	9028	9185	9190	9219	9215	9285	9302	9276	9113
1972	9260	9254	9367	9419	9364	9192	9311	8916	9275	9319	9298	9336	9275
1973	9333	9321	9258	9107	8975	9160	9233	9263	9368	9376	9392	9423	9267
1974	9431	9481	9390	9327	9153	9062	8916	9054	8983	9027	9092	9222	9178
1975	9238	9317	9361	9405	9415	9425	9395	9339	9370	9361	9285*	9330	9353*
1976	9339	9375	9370	9310	9363	9371	9423	9418	9423	9428	9440	9415	9380
1977	9405	9404	9401	9392	9399	9318	9209	9236	9216	9302	9384*	9341	9334*
1978	9279	9243	9254	9113	8907	9050	9035	9149	9189	9062	9118	9145	9216
1979	9012	8955	8860	8693	8778	8599	8592	8396	8470	8662	8661	8857	8740
1980	8752	8776	8871	8737	8732	8463	8430	8490	8491	8379	8259	8242	8552
1981	8451	8330	8311	8277	8176	8379	8332	8338	8452	8206	8289	8439	8332
1982	8565	8277	8565	8649	8686	8279	7870	7882	7712	7931	8023	7902	8195
1983	8150	8253	8460	8460	8194	8343	8498	8492	8575	8625	8658	8670	8448
1984	8736	8686	8574	8505	8286	8421	8476	8590	8632	8669	8641	8644	8575
1985	8671	8813	8878	8973	8958	9066	9018	9017	9140	9155	9233	9183	9009
1986	9162	8982	9125	9316	9339	9328	9326	9327	9368	9444	9312	9472	9292
1987	9553	9646	9619	9618	9505	9349	9268	9202	9149	9153	9085	9094	9353
1988	8885	8922	8979	8968	8961	8904	8724	8704	8745	8716	8699	8474	8807
1989	8381	8385	7985	8043	7868	7888	8102	7977	7897	7709	7592	7701	7961
1990	7871	7910	7846	7652	7574	7569	7755	7701	7864	8037	8168	8185	7844
1991	8356	8347	7850	7915	7926	7025	7082	7510	7683	7964	8008	8153	7833
1992	8169	8078	8247	8490	8378	8535	8670	8649	8614	8767	8717	8833	8512
1993	8804	8784	8705	8846	8842	8888	8884	8880	8968	8968	9010	9011	8882
1994	9001	8895	8899										8932

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

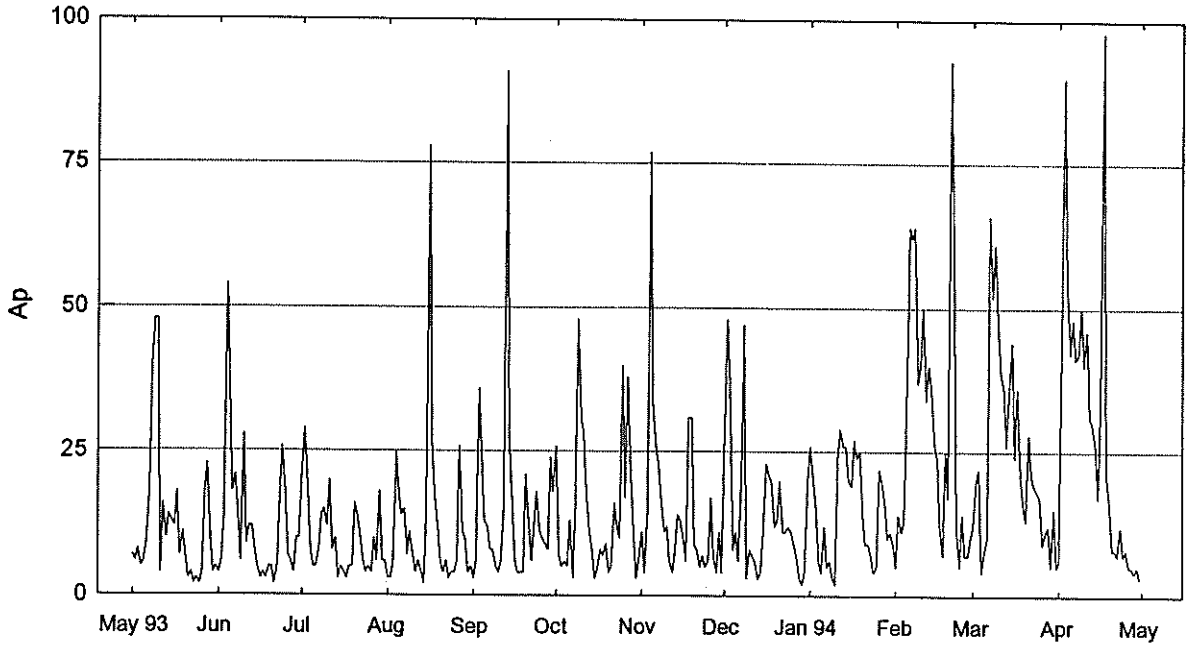
GEOMAGNETIC ACTIVITY INDICES

April 1994

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	Q6	1-	2	2-	1+	2+	2+	2	2-	14	6	0.3	1-	1+	2-	1+	2o	2+	2-	2-	12	15	19	12	22	
2	D5	4-	3	3+	5-	5	5+	7	6+	38+	53	1.6	3o	2o	3+	4o	5-	5-	6-	6-	69	68	53	35	86	
3	D1	6-	6	7-	6	6	5+	7-	7	49+	90	1.8	5-	5o	6-	5o	5o	5-	5o	6-	99	104	92	91	105	
4	D3	7	6	5-	5-	4+	5-	5	4	40+	54	1.6	6-	5-	5-	4o	3+	3+	4-	4-	63	76	51	77	51	
5		5-	4	4+	4+	5+	5	4-	6	37+	42	1.5	3+	4-	4o	4-	5-	4o	3o	5o	53	62	58	49	72	
6		5-	4+	5+	5+	5	5+	5	5	40	48	1.6	4-	4-	5-	5-	4+	4+	4+	4+	63	71	75	67	79	
7		5-	5+	5	5-	5-	5	4	4+	38-	41	1.5	4-	4-	4+	4-	4-	4-	3+	4-	49	64	51	58	57	
8		4+	5+	5+	4+	5-	4	5	5	38	42	1.5	4-	5-	4+	4+	4o	3+	4+	4+	58	66	66	63	68	
9	D4	6-	5	5-	6	5-	5	5	4+	40+	50	1.6	5-	4o	4+	5o	4o	4o	4+	4-	63	74	60	77	58	
10		5	5-	3+	5-	5-	5-	5	5	37	40	1.4	4o	4-	3o	4o	4o	4-	4-	4o	47	62	54	56	60	
11		5-	6-	5+	5+	4-	5-	4+	5+	39	46	1.5	4o	5o	5-	4o	4-	4o	4-	5-	64	66	75	81	60	
12		5-	4	4	3+	3+	4-	5+	5-	33	31	1.3	4-	3+	4-	3o	3o	3o	4+	4-	42	52	39	39	53	
13		3+	4	4	3+	4	5+	5-	4+	33	30	1.3	3o	3+	4o	3-	3o	4o	4+	4-	44	54	57	39	72	
14		5+	3+	3+	4-	4-	4	4-	4-	31-	26	1.2	4o	3-	3+	4-	3+	3+	3+	3+	39	40	43	40	42	
15		4-	4-	3-	3	2+	4-	3+	3+	26-	17	0.9	3o	3o	2+	3+	3o	3o	3+	3o	30	34	30	30	35	
16		3	5	3+	2+	3	3+	6	5+	31+	32	1.3	3-	4o	3+	3-	3-	3-	5o	4+	43	55	34	26	63	
17	D2	7-	8+	8+	7-	5-	3	3	3+	44	98	1.9	6-	7-	7o	7-	4o	3-	3-	3o	122	107	87	159	35	
18		3+	4-	4-	4-	4-	3+	4	3+	29-	21	1.1	3-	3+	3o	3o	3o	3o	4-	3o	32	38	28	33	33	
19		5	3	3+	3+	2	2-	2+	3-	23+	17	0.9	4+	2+	3-	3o	2o	1+	2-	2o	24	27	28	38	17	
20	Q10A	2	3-	3	3	2-	2-	1-	1	16-	8	0.5	2-	2+	3-	3o	2-	1+	1-	1o	14	14	16	19	11	
21	Q9A	2	3-	2+	1+	1+	1+	2+	3-	16	8	0.4	2-	2+	2+	1+	1+	1+	2+	3-	14	17	11	13	15	C
22	Q7A	2	2-	1+	2	3-	1+	1+	2+	15-	7	0.4	2-	1o	2-	2o	3-	1+	1+	2o	12	17	12	11	18	
23		1-	1+	1-	3	3	2	3+	4+	18+	12	0.7	1-	1o	1+	3-	3o	2-	3o	4-	20	27	19	13	33	
24	Q8A	2	2	2	2	2	3-	1	1+	15	7	0.4	2-	2-	2+	2+	2-	2+	1o	1o	13	14	15	15	14	
25		3-	3-	2+	2	1	2	2-	2+	17-	8	0.4	2o	2+	3-	2-	1o	1+	1o	2-	13	19	13	21	11	
26	Q4	1+	1+	2	2-	2	1+	1-	1-	11	5	0.2	1-	1+	2o	2-	1+	1+	1-	1o	8	10	9	11	8	CC
27	Q3	1+	2+	1	1+	2-	1	1	1	11-	5	0.2	1o	2-	1+	1+	2o	1o	1-	1o	9	10	9	9	10	CC
28	Q2	2	1+	0+	0+	2-	1-	1-	1-	8-	4	0.1	2-	1+	1-	0+	1+	0+	1-	1o	7	9	7	9	7	CC
29	Q5	1-	2	2	1+	0+	1-	1-	3-	10+	5	0.2	1-	1+	2+	2-	0+	1-	0+	2o	9	12	9	13	9	CC
30	Q1	0+	1+	1-	0+	0+	0+	1-	0+	4+	3	0.0	0+	1o	1-	0+	0+	1-	1o	0+	4	6	2	4	5	CK
Mean											29	0.98									38.0	43.0	37.5	40.2		

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-	1+	2-	1+	2+	3-	2o	2o	14	1o	1+	2-	2-	2-	2-	1+	2-	10	82.4	17	16	27		
2	3+	2+	4-	4+	5+	5-	6-	6o	81	3-	2o	3o	4o	4o	4o	6-	5o	57	79.3	7	5	24		
3	5o	5+	6-	5o	5o	5o	5+	6-	108	4o	5-	6-	5o	5o	4o	5o	5+	89	77.4	0	0	22		
4	6o	5-	5o	5-	4o	4-	4o	4o	75	5o	5-	4o	4-	3o	3-	3+	3+	52	77.2	7	2	21		
5	4o	4-	4-	4-	5-	4+	3+	5-	56	3-	4-	4+	3+	4+	4-	3-	5o	50	77.2	7	6	21		
6	4o	3+	5o	5-	5-	5-	4+	5-	72	4-	4-	4+	4+	4-	4o	4+	4-	54	73.3	0	3	17		
7	4+	4+	5-	4o	4o	4o	3+	4-	57	3o	3+	4+	3+	3+	4-	3+	4-	41	73.0	0	0	17		
8	4-	5-	4+	4+	4+	3+	4o	4+	61	3+	4+	4+	4+	4-	3o	4+	5-	55	72.9	8	8	17		
9	5o	4+	4+	5+	5-	4+	4+	4-	73	5-	3+	4+	5-	4-	4o	4o	3+	55	72.9	8	8	17		
10	4o	4o	3+	4+	4o	4o	4o	4o	52	4-	4-	3-	4-	4-	3+	3+	4-	42	75.7	9	10	20		
11	4+	5o	5-	5-	4o	4+	4-	5o	72	4-	5-	5-	4-	4-	4-	4-	5-	56	74.6	11	11	19		
12	4-	4o	4o	3o	3+	3+	4+	4-	47	3+	3o	4-	3-	3-	3-	5-	3+	36	74.2	10	11	18		
13	3-	3+	4+	3o	4-	4o	4+	4-	47	3o	3+	4o	3-	2+	4o	4o	4o	41	74.3	13	13	18		
14	4+	3o	3+	4-	4-	3+	3+	3+	43	4-	3-	3o	4-	3+	3o	3o	3+	34	79.9	11	15	24		
15	4-	3o	3-	3+	3+	3+	3+	3+	36	3-	3o	2o	3+	2+	2+	3o	3-	23	80.6	19	20	25		
16	3-	5-	3+	3-	3-	3-	5o	4+	46	3-	3+	3o	2+	3-	3-	5o	5-	40	82.3	16	15	27		
17	6o	7o	8-	7+	5-	3+	3o	4-	161	5o	6-	6+	6o	3+	2o	2o	3-	84	82.5	17	18	27		
18	3o	4-	3+	3o	3+	3+	4-	3o	37	2+	3o	3o	3-	3-	3-	3+	3-	26	84.9	17	17	30		
19	5-	2+	3o	3o	2+	2-	2+	3-	27	4+	2+	3-	3-	2o	1-	1+	1+	21	86.2	21	23	31		
20	2-	2+	3-	3o	2-	2-	1o	1+	16	1+	2o	2+	3-	2-	1+	0+	0+	11	87.0	28	29	32		
21	2-	3-	3-	1+	2-	2-	3-	3o	18	1+	2o	2o	1o	1o	1-	2-	2o	10	87.6	31	34	33		
22	2o	1o	2o	2+	3-	2-	1+	2+	15	1+	1o	1+	2o	3-	1-	1o	1+	10	86.3	38	40	31		
23	1o	1+	2-	3o	3+	2+	3+	4o	24	0o	1o	1-	3-	3-	1+	3-	3+	16	86.1	37	38	31		
24	2-	2o	2+	3-	2+	3-	1+	1+	16	1+	1o	2+	2o	1+	2-	1-	1-	10	84.3	40	40	29		
25	2o	2+	3-	2o	1+	2-	1+	3-	16	2-	2o	3-	2-	0+	1-	0+	1-	10	83.8	30	34	29		
26	1o	1+	2-	2-	2-	1+	1+	1+	10	0+	1o	2o	2-	1+	1o	0+	1-	7	82.0	30	33	27		
27	1+	2o	1+	2o	3-	2-	1o	1+	12	1-	2-	1o	1-	1+	0+	0+	0+	5	79.0	31	35	23		
28	2o	1+	0+	1-	2-	1-	1+	1+	8	2-	2-	1-	0+	1o	0o	0o	1-	5	78.4	15	21	23		
29	1o	2o	2+	2-	1-	1o	1-	2+	11	0+	1-	2+	2-	0+	0+	0o	1+	6	78.9	9	10	23		
30	1-	1+	1+	0+	1-	1-	1+	0+	6	0o	1-	0+	0o	0+	0+	0+	1-	2	76.0	15	17	20		
Mean									43.9									31.9	79.7	16.7	17.7	24.1		

Daily Average Indices Ap
May 1993 - Apr 1994



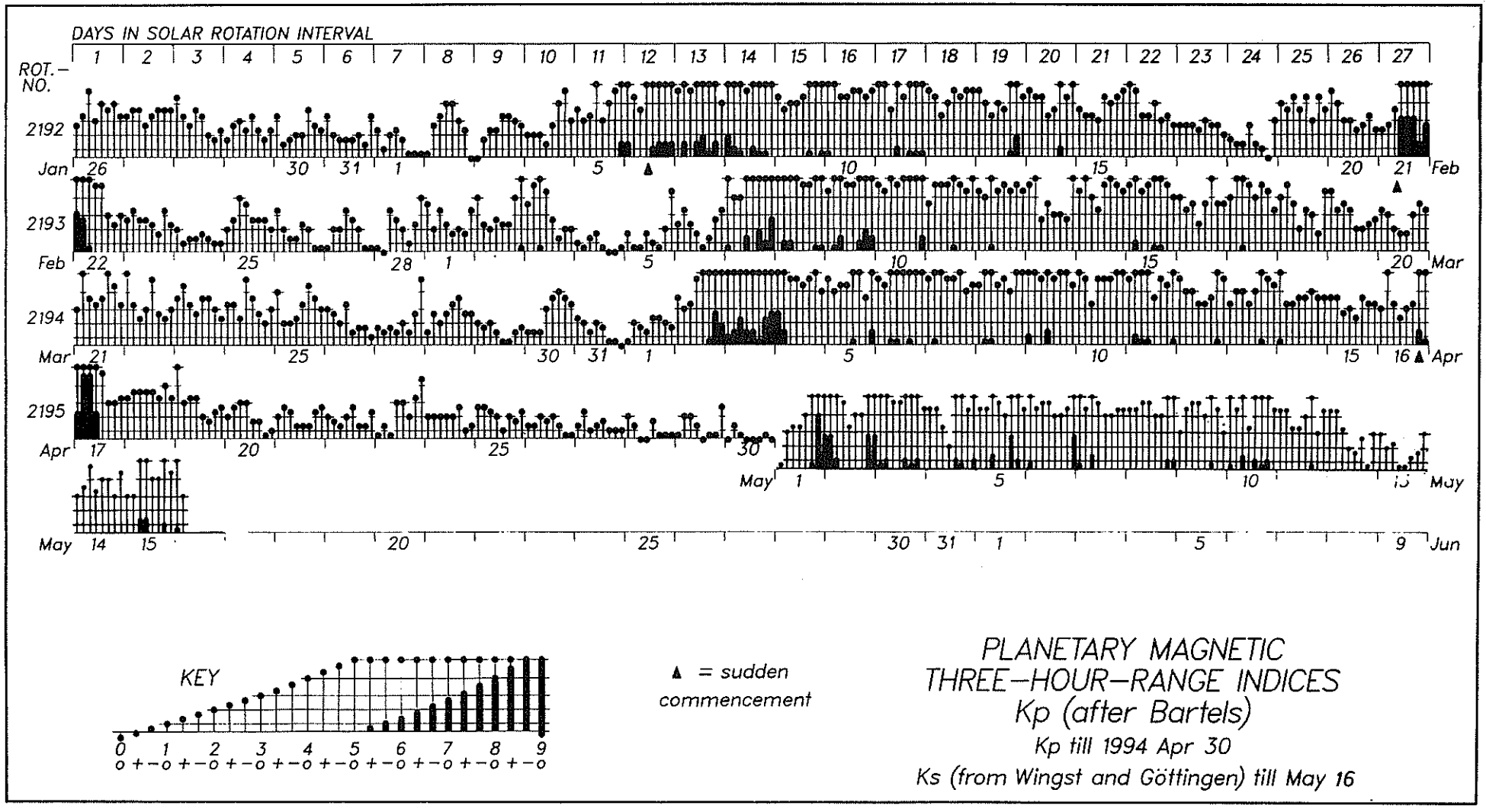
Day	May 93	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 94	Feb	Mar	Apr
1	7	4	22	3	3	26	11	29	26	5	12	6
2	6	6	29	3	6	7	4	48	21	14	20	53
3	8	14	21	6	36	5	15	37	15	11	22	90
4	5	54	8	25	25	6	77	8	6	13	4	54
5	6	36	5	18	13	5	34	11	4	32	8	42
6	9	18	5	14	12	13	26	6	12	64	10	48
7	18	21	8	15	8	3	23	20	5	62	66	41
8	40	14	14	7	8	16	17	47	6	64	52	42
9	48	6	15	11	5	48	11	3	3	37	61	50
10	48	28	12	7	4	31	12	8	2	40	48	40
11	4	9	20	4	6	28	6	7	24	50	39	46
12	16	12	8	6	16	18	4	6	29	34	36	31
13	10	12	10	4	91	11	8	3	26	40	26	30
14	14	8	3	2	28	8	14	4	26	36	35	26
15	13	5	5	14	16	3	13	11	20	26	44	17
16	12	3	4	78	6	5	10	23	19	24	24	32
17	18	4	3	27	4	8	6	21	27	12	36	98
18	7	3	5	18	4	7	31	20	24	7	21	21
19	11	5	5	12	4	9	31	12	25	25	16	17
20	7	5	16	6	21	4	9	13	14	17	13	8
21	3	2	14	4	14	5	8	20	9	93	28	8
22	4	5	10	6	6	16	5	11	9	60	21	7
23	2	17	6	3	12	12	7	11	7	12	19	12
24	3	26	4	4	18	10	5	12	4	5	18	7
25	2	18	5	4	11	40	6	11	5	14	17	8
26	4	7	4	6	10	17	17	9	22	7	9	5
27	18	6	10	26	9	38	7	7	20	7	11	5
28	23	4	6	11	8	21	4	3	16	10	12	4
29	10	10	18	10	24	11	11	2	10		5	5
30	4	10	6	4	18	3	4	4	11		15	3
31	5		6	5		7		20	9		5	
Mean	12	12	10	12	15	14	15	14	15	29	24	29

NOTE: Feb 94 data have been corrected.

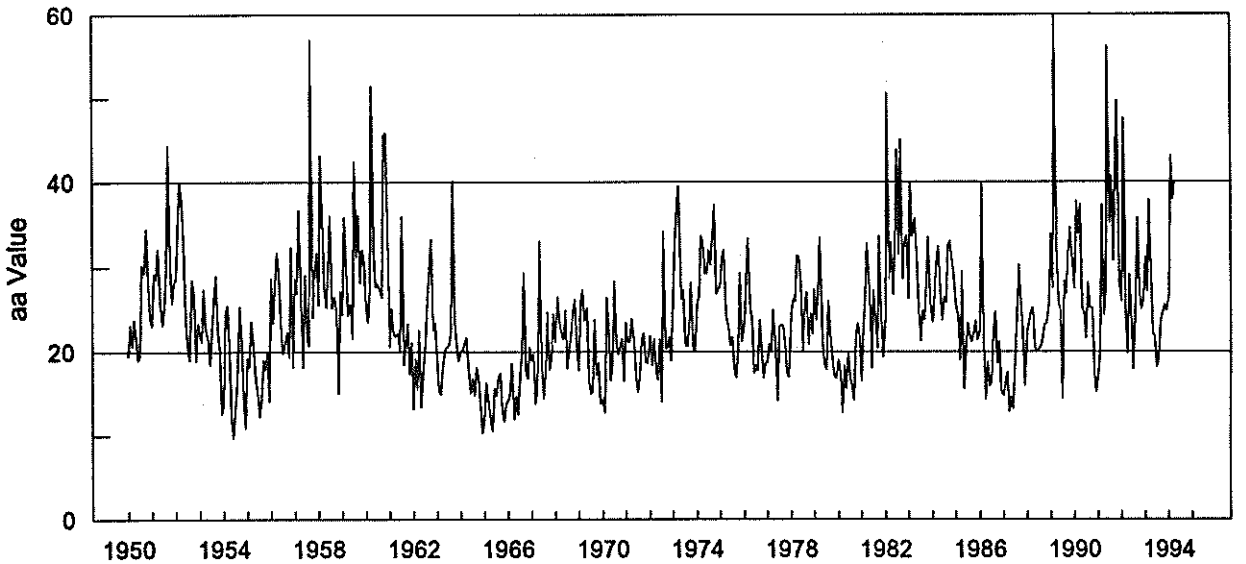
PLANETARY 3-HOUR-RANGE INDICES (Kp) BY 27-DAY SOLAR ROTATION INTERVAL

University of Gottingen

Kp through April 30, 1994



Monthly Mean aa Index Jan 1950 - Apr 1994



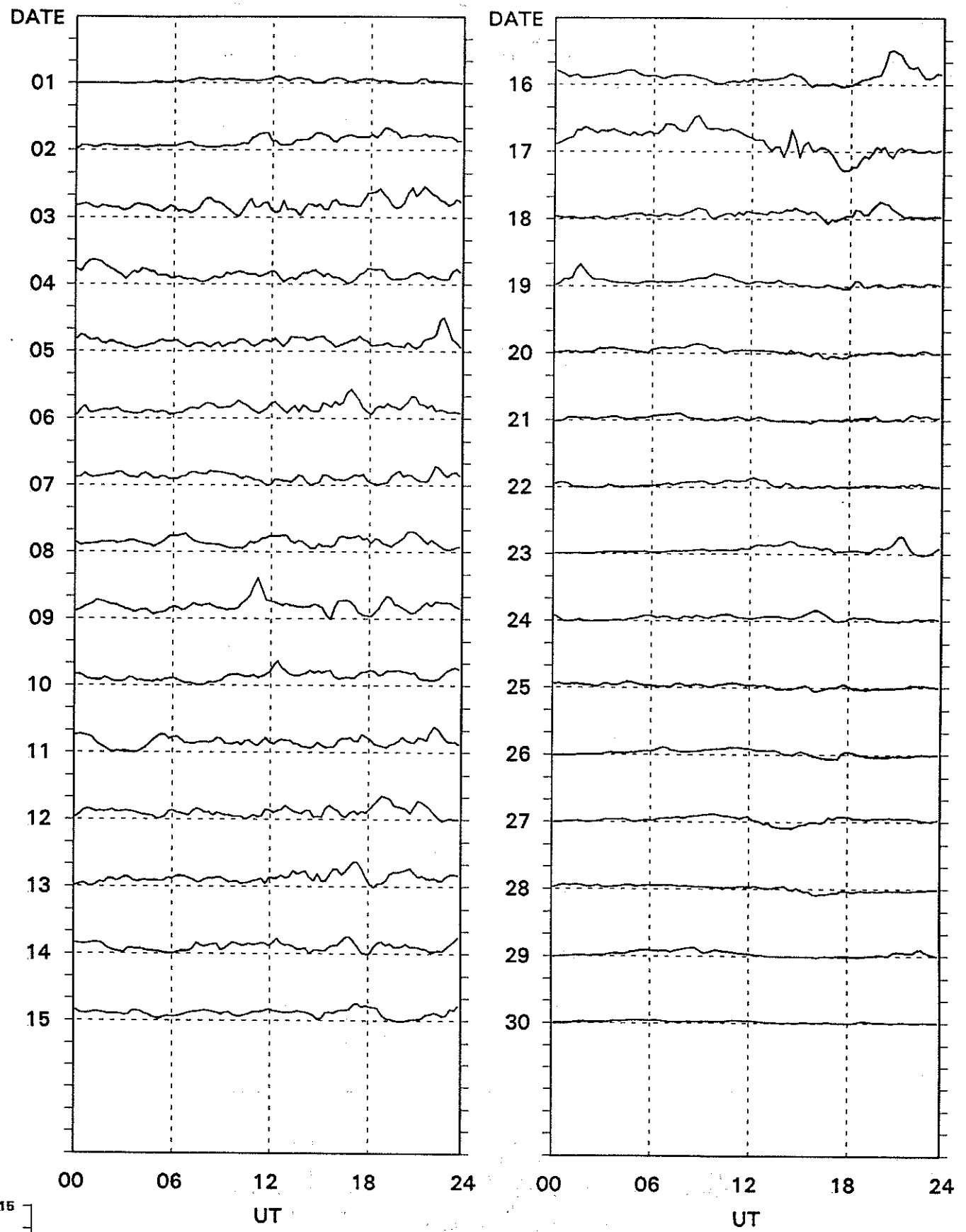
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1950	19.5	23.2	20.6	23.8	21.7	19.0	19.5	30.2	29.3	34.5	28.0	24.0	24.4
1951	23.1	29.2	28.5	32.1	25.5	23.2	25.2	29.7	44.4	30.3	25.7	28.2	28.8
1952	28.5	34.3	40.1	38.0	33.1	23.8	20.7	19.0	28.5	26.4	18.9	23.4	27.9
1953	22.3	21.2	27.4	22.7	21.4	18.4	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									37.0

PC-INDEX

111
Apr 94

Thule

April, 1994



Preliminary Values.

15-min. Values.

Div. Geophys. D M I

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

APRIL 1994

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 Day	Hour (UT)
BJI	28.8N	01	16--	..	..	..	..	02(5)	6	12	172	33	05	18
FRD	49.4N	02	00--	..	..	..	..	02(8)	7	38	150	129	15	04
UJJ	13.6N	02	0900	SC	--	--	--		-	7	129	24	04	24
ABG	09.4N	02	0900	SC	--	--	--	02(4,6,7)	6	7	138	38	04	24
HYB	07.6N	02	0500	..	..	..	..	02(4,6)	6	7	155	27	04	24
GUA	04.3N	02	07--	..	..	..	..	02(4)	6	--	70	10	02	20
GUA	04.3N	02	21--	..	..	..	..	02(8)	5	--	90	20	03	15
ETT	00.7S	02	0300	..	..	..	..		-	8	190	84	06	21
TRD	01.1S	02	0900	SC	--	--	--		-	6	121	109	04	24
HER	33.6S	02	08--	..	..	..	..	02(7)	7	50	154	171	15	06
CAN	43.3S	02	06--	..	..	..	..	03(3)	6	32	205	74	04	14
AMS	46.8S	02	09--	..	..	..	..	02(7,8) 03(6,8)	6	40	197	136	05	09
CZT	51.5S	02	09--	..	..	..	..	02(7,8)	7	57	252	220	13	03
PAF	57.2S	02	09--	..	..	..	..	02(7) 03(1,7,8) 04(1)	8	176	1157	626	15	01
DRV	75.2S	02	0057	SC	16	16	- 24	05(8) 08(5) 10(5)	6	938	909	1034	15	15
GUA	04.3N	03	21--	..	..	..	..	03(8)	6	10	80	30	04	15
GUA	04.3N	04	23--	..	..	..	..	05(1)	5	--	70	30	05	16
UJJ	13.6N	05	1200	..	..	..	..		-	6	87	33	07	22
ABG	09.4N	05	1200	..	..	..	..	09(4,5,7)	5	6	87	39	07	22
HYB	07.6N	05	0400	..	..	..	..	05(5) 06(3,4,5,6)	5	5	86	28	08	22
HYB	07.6N	05	0400	..	..	..	..	07(4,6) 08(5)	5	5	86	28	08	22
GUA	04.3N	05	21--	..	..	..	..	06(1)	5	--	50	20	06	05
TRD	01.1S	05	1200	..	..	..	..		-	3	156	89	07	22
CAN	43.3S	05	06--	..	..	..	..	11(3)	6	24	150	61	11	15
GUA	04.3N	06	06--	..	..	..	..	06(4)	5	--	60	10	06	20
GUA	04.3N	06	21--	..	..	..	..	07(3)	5	--	80	10	07	16
GUA	04.3N	07	22--	..	..	..	..	08(1)	5	--	80	20	08	16
ETT	00.7S	07	0300	..	..	..	..		-	5	147	70	10	19
HYB	07.6N	09	0500	..	..	..	..	09(5,6,7)11(2,6)12(7)	5	4	106	33	12	22
GUA	04.3N	09	05--	..	..	..	..	09(4)	5	--	50	20	09	22
GUA	04.3N	11	04--	..	..	..	..	11(2)	5	--	70	20	11	14
ETT	00.7S	11	0400	..	..	..	..		-	6	158	61	14	21
GUA	04.3N	14	00--	..	..	..	..	14(1)	5	--	60	10	14	17
FRD	49.4N	16	20--	..	..	..	..	17(3)	7	45	185	232	19	03
BJI	28.8N	16	19--	..	..	..	..	17(4)	7	16	305	63	19	07
UJJ	13.6N	16	2000	..	..	..	..		-	7	212	27	17	22
ABG	09.4N	16	2000	..	..	..	..	16(7)	5	7	213	43	17	22
HYB	07.6N	16	0500	..	..	..	..	17(2,3,4)	7	8	232	32	18	23
GUA	04.3N	16	20--	..	..	..	..	17(2)	7	10	340	50	17	19
ETT	00.7S	16	2000	..	..	..	..		-	10	347	117	19	09
TRD	01.1S	16	2000	..	..	..	..		-	5	205	161	17	22
HER	33.6S	16	19--	..	..	..	..	16(7) 17(3)	6	70	211	165	17	18
CAN	43.3S	16	20--	..	..	..	..	17(1,3,4)	6	32	292	170	17	15
AMS	46.8S	16	2013	SC	6	- 16	- 15	17(1,2,3,4)	6	36	314	177	19	09
CZT	51.5S	16	1912	SC*	7.1*	-114 *	50 *	16(7) 17(2,3,4)	6	47	386	130	17	15
PAF	57.2S	16	2003	sc*	47 *	- 16 *	0	17(1,2)	8	129	842	447	17	15
DRV	75.2S	16	2108	SC	15	--	48	17(1,2,3,4) 18(1)	5	536	671	512	20	12
GUA	04.3N	19	00--	..	..	..	..	19(1)	5	--	50	10	19	08

Stations:

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

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

APRIL 1994

Storm Sudden Commencements (SSC)

Day	Time	Quality: Station Group*
02	1144	B: DOB WNG* HRB COI
		C: BDV* CLF* GCK SPT

Solar Flare Effects (sfe)

Day	Begin-End	Station(s)
01	0315-0320	MPO
01	0506-0511	MPO
01	1219-1225	BDV
02	1145-1151	MPO (see SSC)
06	0945-0949	MPO
12	1142-1148	MPO ssc: BDV
16	1151-1214	TEN MPO ssc: COI
20	1130-1137	QUE
25	0715-0727	MPO
25	0730-0748	MPO

REPORTING OBSERVATORIES (up to the 2nd of June):
SOD DOB NUR WNG NGK BDV CLF HRB NAG GCK MMB AQU EBR COI BJI SPT FRD KAK HTY KNY QUE TEN LNP HYB ETT MPO HER AMS CZT DRV

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 underlined.

CONTENTS

Prompt Reports Number 598 Part I

LATE DATA

GEOMAGNETIC ACTIVITY INDICES

February 1994

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	Q2	2+	1-	2	2+	2-	1-	1-	0+	11-	5	0.2	2-	1+	2+	3-	2o	1o	1o	1o	12	13	10	15	8 C
2	Q10A	0+	2+	3+	4	4+	3	2+	0+	20	14	0.8	1+	2o	3o	4-	4o	3o	3-	1-	26	23	27	22	28
3	Q7A	0+	2-	2+	2+	3+	3+	3	3-	19	11	0.6	1-	2o	3-	3o	4-	4-	3o	3-	26	24	25	16	33
4		2	2	2	1+	3-	4-	4+	3	21	13	0.8	1+	2+	2o	2-	3+	4-	4-	3-	26	32	20	12	40
5		4-	3	4-	5	3	4	5-	6-	33-	32	1.3	3-	3-	3+	4+	3+	4-	5-	5o	51	52	45	38	59
6	D3	6	4+	4-	5+	6-	6+	6	6	43+	64	1.7	4+	3+	4-	5+	6-	6+	6o	6-	113	87	83	60	111
7	D4	5-	6	5-	6	6+	5+	6	4+	43+	62	1.7	4+	5-	4-	6-	6o	5o	5+	4+	94	93	78	80	91
8	D2	6+	6-	6-	5	6-	5+	5+	5+	44+	64	1.7	6-	5-	5-	5-	5-	5o	5-	5o	88	99	87	95	91
9		4+	4-	4	4-	4+	5+	5	5+	36-	37	1.4	4o	3o	3+	4-	4+	5+	5-	5o	66	64	49	39	75
10		5+	5	4+	4+	5-	5-	4+	5-	37+	40	1.4	4o	4-	4-	4+	5-	5o	5-	4+	66	68	49	51	66
11		5	5	4	6-	5-	5+	5+	5+	40+	50	1.6	4+	4+	4-	5o	5-	5+	5o	4+	78	76	60	60	77
12		5-	4+	4-	4	5-	4+	5-	5-	35	34	1.3	4o	4-	3o	4o	5o	4o	4+	4o	56	59	43	39	63
13		5-	4-	3+	4	4-	5+	6+	5-	36-	40	1.4	4o	3o	3o	4-	3o	5o	6o	4+	63	68	43	42	68
14		5-	4+	4+	3+	4-	6-	4+	5	35+	36	1.4	4-	3+	4-	3o	4-	5o	5-	5-	58	61	51	39	74
15		4	3+	3+	3	4+	4	4+	5-	31	26	1.2	3+	3o	3-	3+	4+	4-	4o	4-	43	52	37	35	54
16		5	5-	3	3+	4	3	3+	3	29+	24	1.2	4o	4-	3-	3o	4-	3o	3o	3-	35	45	26	43	28
17	Q8A	3	3-	3-	2+	3	3-	3-	2	21	12	0.7	2+	2o	2+	2o	2+	3-	3-	2-	18	22	13	15	20
18	Q3A	2-	1+	1+	3-	1+	1-	1-	3	13-	7	0.3	2-	1+	2-	3-	2-	1+	1o	3o	14	13	18	13	19
19		4	4-	4+	4-	4+	3	4+	3+	31-	25	1.2	3o	3o	4-	3+	4-	4-	4o	3+	41	50	33	37	47
20		5-	4	3	3-	2+	2+	3+	2+	25-	17	0.9	4o	3o	3-	3-	3-	3-	3+	2+	29	25	25	27	23
21	D1	2+	3-	3+	7	8-	8-	6	7	44-	93	1.9	2-	2-	3-	7-	7o	7+	6-	7-	148	146	100	75	171
22	D5	8-	7	5+	5-	5-	3	2+	3	38-	60	1.7	7-	6o	5-	4+	4o	3o	2+	3-	82	66	51	89	27
23	Q9A	3	3+	3-	3-	2+	2-	3+	2+	21+	12	0.7	2o	3o	3-	3o	2+	2-	3+	2o	22	25	19	19	25
24	Q1	2	1	1+	1+	2-	1+	1	1	11-	5	0.2	2-	1o	1+	2-	1+	2-	1+	1+	10	9	10	9	10 C
25		2	3-	4	4-	3-	3-	3	2	23-	14	0.8	2o	2+	4-	4-	3-	3o	3-	2-	26	24	25	27	22
26	Q5A	3+	2	2-	1+	2+	2	1	1-	14+	7	0.4	2+	2o	1+	1+	3-	2o	1o	1-	13	14	14	14	14
27	Q4A	0+	2	2	3+	3-	2	1-	1-	14-	7	0.4	1o	2-	2o	3+	2+	2-	1o	1-	14	15	13	16	13
28	Q6A	0+	0+	3+	3-	2	1	2+	4	16	10	0.6	1-	1o	3+	3-	2o	1+	2+	3+	18	20	15	15	20
Mean											29	1.05									47.7	48.0	38.4	43.2	

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	Prov Sa	Ri	Ra	Rs	IMF
1	2-	1-	2+	3o	2-	1-	1o	1-	12	2-	1+	2o	3-	2+	1o	1o	1o	12	91.7	29	33	37	
2	1o	2o	3o	4o	4-	3+	3-	1-	26	2-	2o	3o	3o	4+	3o	3-	0+	26	93.5	31	40	39	
3	0+	2o	3-	3-	4o	4-	3+	2+	26	1-	2o	3-	3o	3+	3+	3-	3-	25	95.1	38	43	41	
4	1+	2o	2+	1+	3+	4-	4o	3-	27	2-	2+	2o	2-	4-	4-	3o	3-	26	92.7	44	48	38	
5	3-	2+	3+	5-	4-	4-	5-	5+	56	3-	3-	4-	4-	3o	4o	5-	5-	46	90.6	35	47	36	
6	5-	3+	3o	5+	6o	6+	6o	6o	113	4o	3o	4o	5+	6-	7-	6+	6-	113	92.2	40	44	38	
7	4+	5o	3+	6-	6o	5-	6-	4-	93	4+	5-	4-	5+	6o	5+	5+	5-	95	93.3	46	49	39	
8	6-	5-	5o	5-	5o	5+	5o	5-	92	5+	4+	5-	5-	5-	5-	4+	5+	83	92.6	41	54	38	
9	4o	3o	4-	4-	4+	5o	5o	5-	65	4o	3o	3o	4o	4+	6-	4o	5+	67	98.3	40	48	44	
10	4+	4o	4-	5-	5-	5-	4o	4+	64	4-	3+	4o	4o	5-	5o	5o	4+	69	91.8	32	38	37	
11	4o	4+	4o	5+	5-	5+	4+	4+	75	4+	4+	3+	5o	4+	6-	5+	5-	80	90.7	29	32	36	
12	4-	4o	3o	4o	5-	4o	4+	4o	57	4o	3o	3o	4o	5+	4o	4o	4o	56	95.1	36	39	41	
13	4-	3+	3-	4-	3o	5o	6-	4+	59	4o	3o	3o	4o	3-	5o	6+	4+	66	95.4	46	49	41	
14	4-	4-	4-	3o	3o	5o	4+	4+	52	4o	3+	4o	3+	4+	5o	5-	5o	64	98.9	39	44	45	
15	3+	3o	3o	3+	5-	4o	4-	4-	44	4-	3-	2o	3o	4+	4-	4+	4-	42	101.3	34	36	47	
16	4o	4-	3-	3o	4-	3-	3o	3-	34	4o	4-	3o	3-	4o	3o	3o	3-	36	102.3	43	41	48	
17	2+	2-	3-	2+	3-	3-	3-	2-	19	2o	2+	2-	2-	2+	3-	2+	2-	17	103.9	43	45	50	
18	2-	1+	1+	3-	1+	1o	1-	3o	13	1+	1+	2o	3o	2-	1+	1+	3o	16	103.9	42	43	50	
19	3+	3o	4-	4-	4-	3o	4+	3+	40	3o	3+	4-	3+	4-	4+	3+	3+	42	105.6	28	33	52	
20	4o	3+	3-	3-	2+	3-	3+	2+	28	4-	3o	3-	3o	3-	3-	3+	3-	30	105.2	20	21	52	
21	2-	2o	3-	7-	7o	7o	5+	6+	137	2-	2-	3o	7-	7+	7+	6o	7o	159	103.1	19	17	49	
22	6+	6+	5-	4+	4o	3-	2+	3-	80	7o	6o	5-	4+	4o	3+	2+	3-	85	104.4	35	40	51	
23	2o	3o	3-	3-	2+	2o	3+	2o	22	2o	2+	3-	3o	3-	1+	3o	2+	21	105.1	33	41	52	
24	1+	1-	1+	1+	2-	2o	1o	1+	9	2-	1+	1+	2-	1+	2-	2o	1+	11	102.9	34	40	49	
25	2-	2o	4-	3+	3-	3o	3o	2-	26	2o	3-	3+	4o	3o	3-	2+	2-	26	94.8	29	37	40	
26	3-	2-	1+	1+	2+	2+	1o	0+	12	2+	2o	1+	1+	3-	2o	1+	1o	13	92.6	36	37	38	
27	1-	2-	2-	3+	2+	1+	1+	1-	13	1o	2-	2+	3+	2+	2o	1o	1-	14	93.0	38	46	38	
28	1-	0+	3+	3o	2o	1o	2+	4-	19	1-	2-	3o	2+	2o	2-	2+	3o	18	90.8	46	47	36	
Mean									46.9									48.5	97.2	35.9	40.4	43.0	

WORLD DATA CENTER A
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The ICSU Panel on WDCs has recommended that it would be appropriate courtesy to acknowledge in publications that data were obtained from the originating station or investigator through the intermediary of the WDCs. The following statement is suggested:

"Data used in this study were provided by WDC-A for Solar-Terrestrial Physics, NOAA E/GC2, 325 Broadway, Boulder Colorado 80303, USA."