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Solar-Geophysical Data prompt reports

Data for December 1995, January 1996 and Late Data

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SOLAR-GEOPHYSICAL DATA

Number 618

(Issued in Two Parts)

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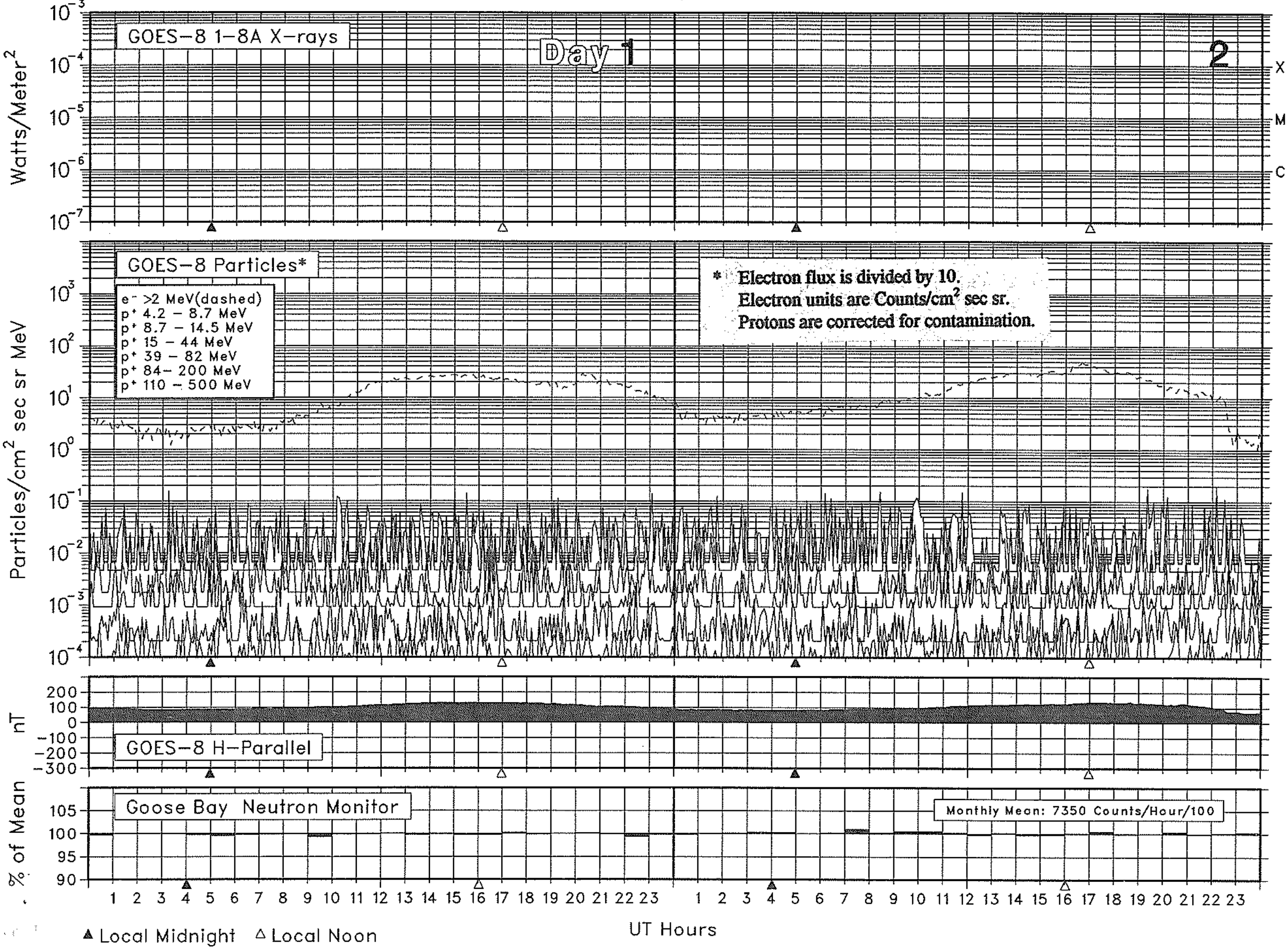

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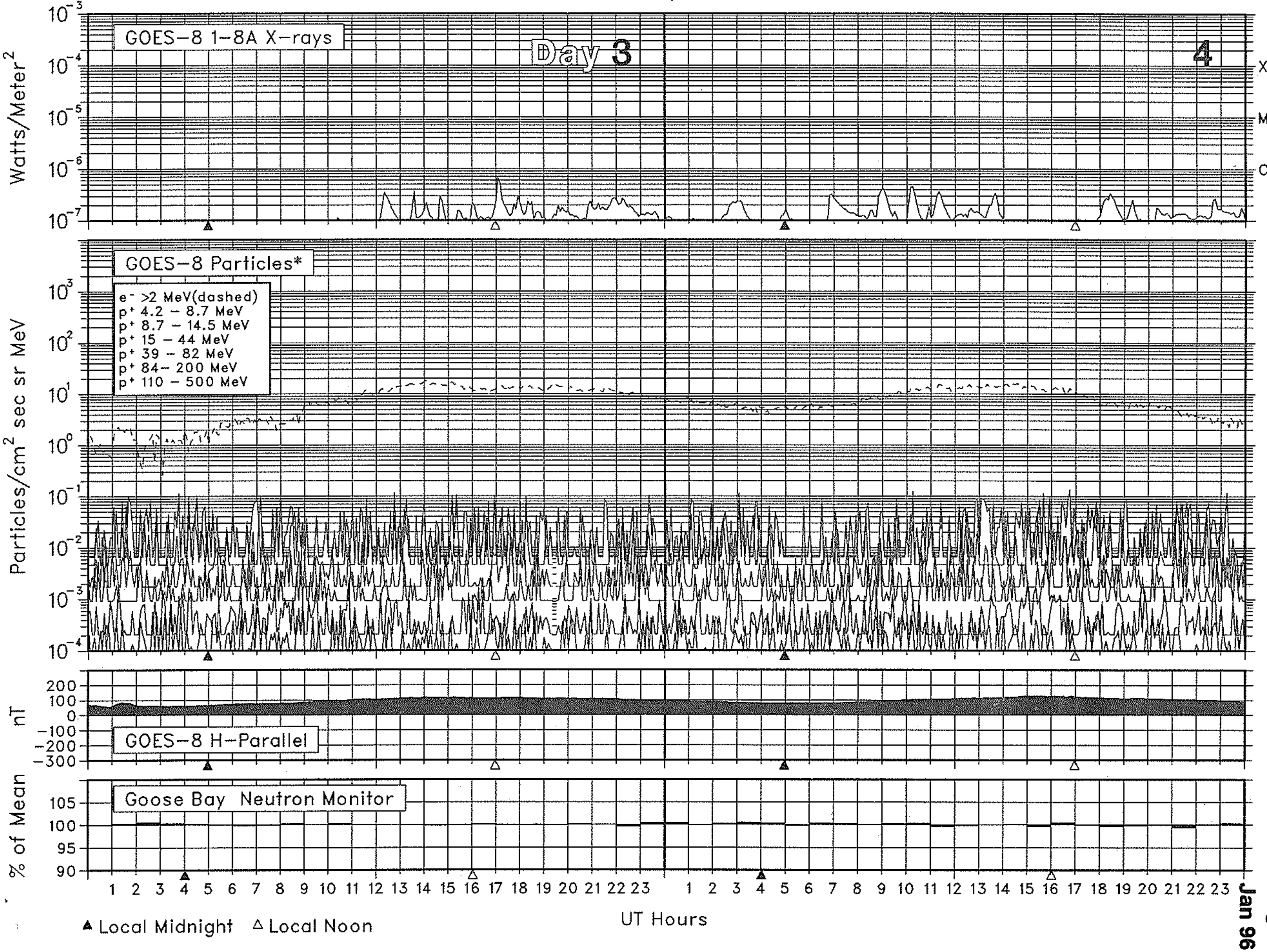
January 1996



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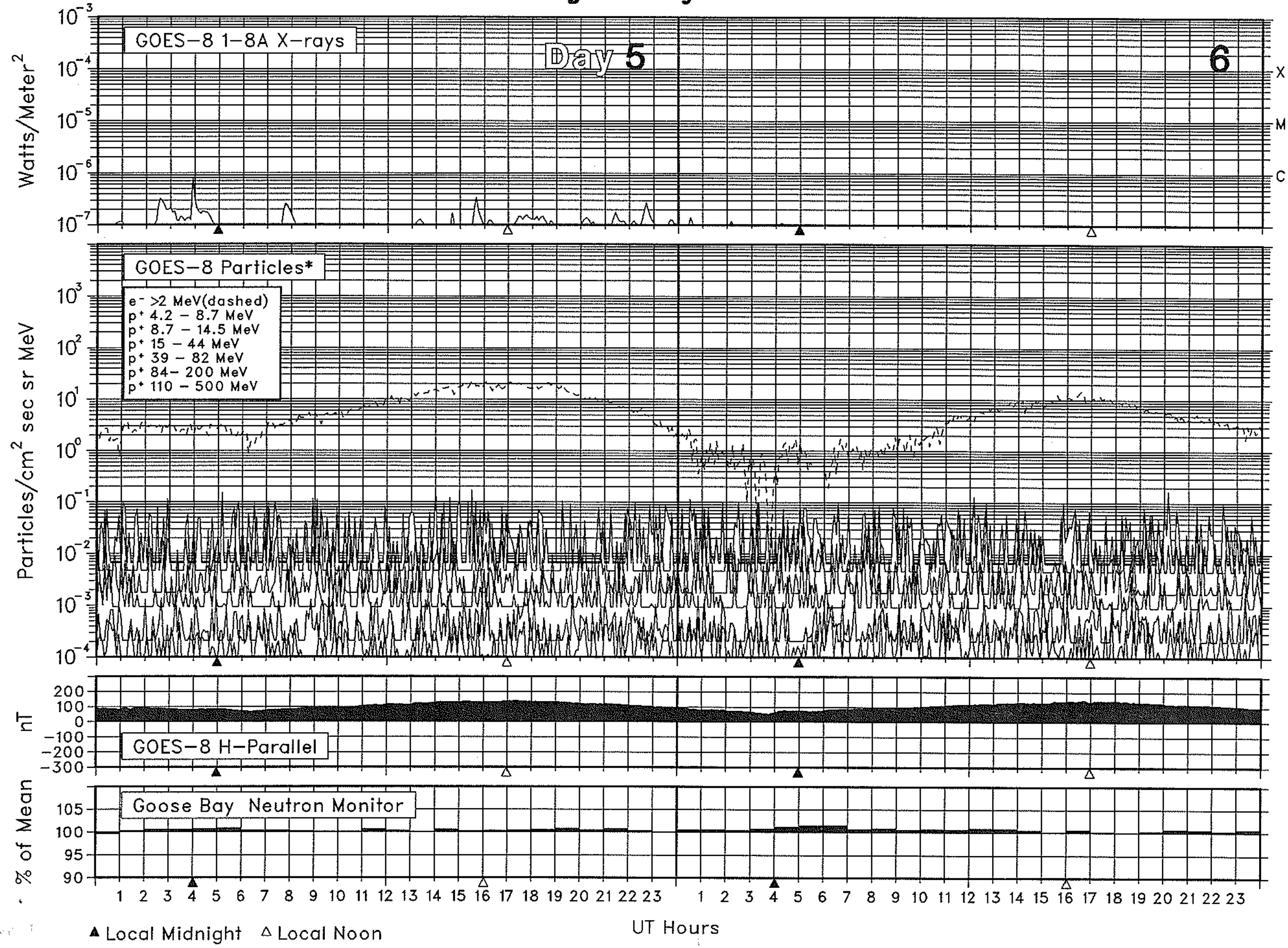

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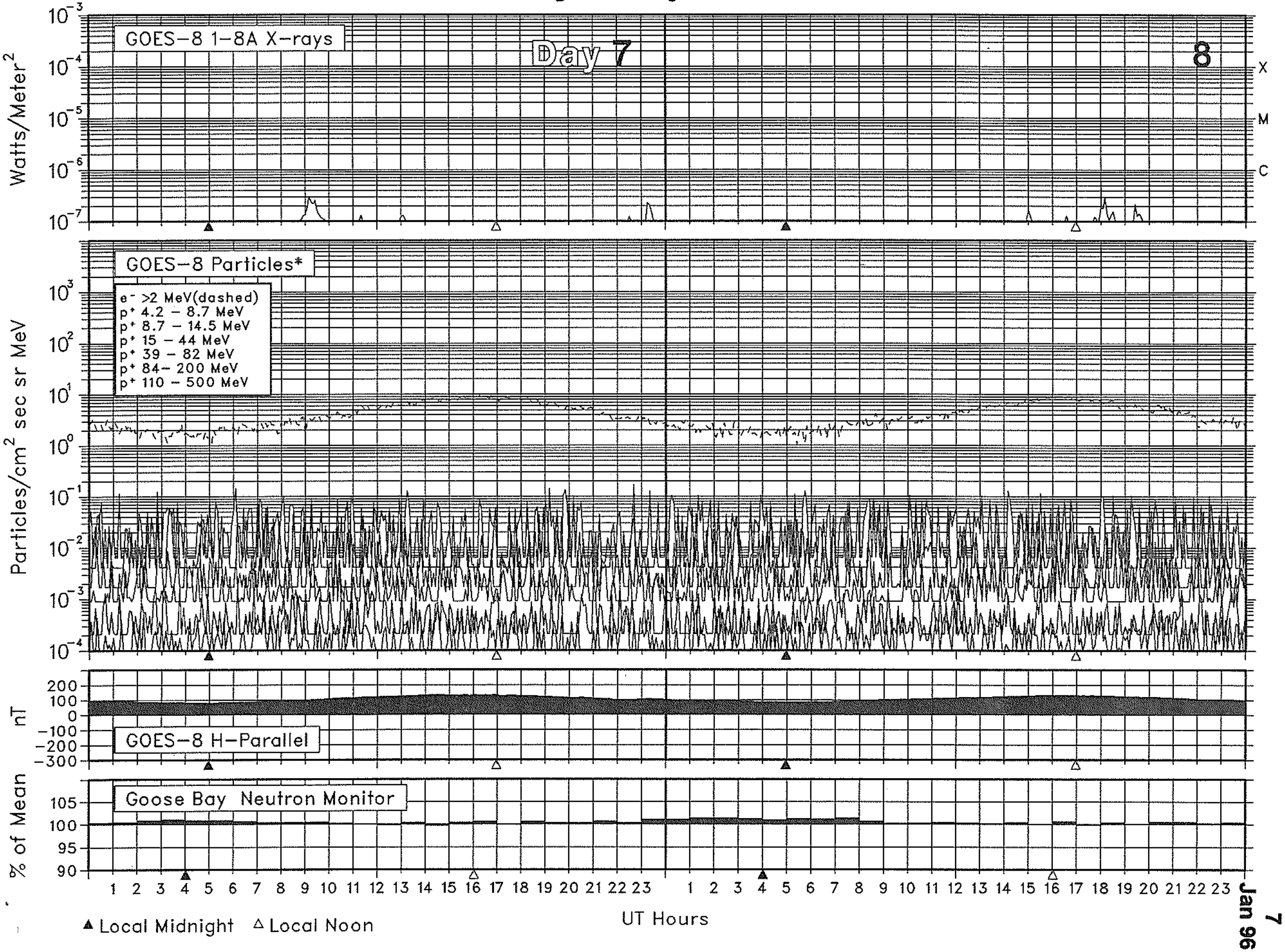
January 1996



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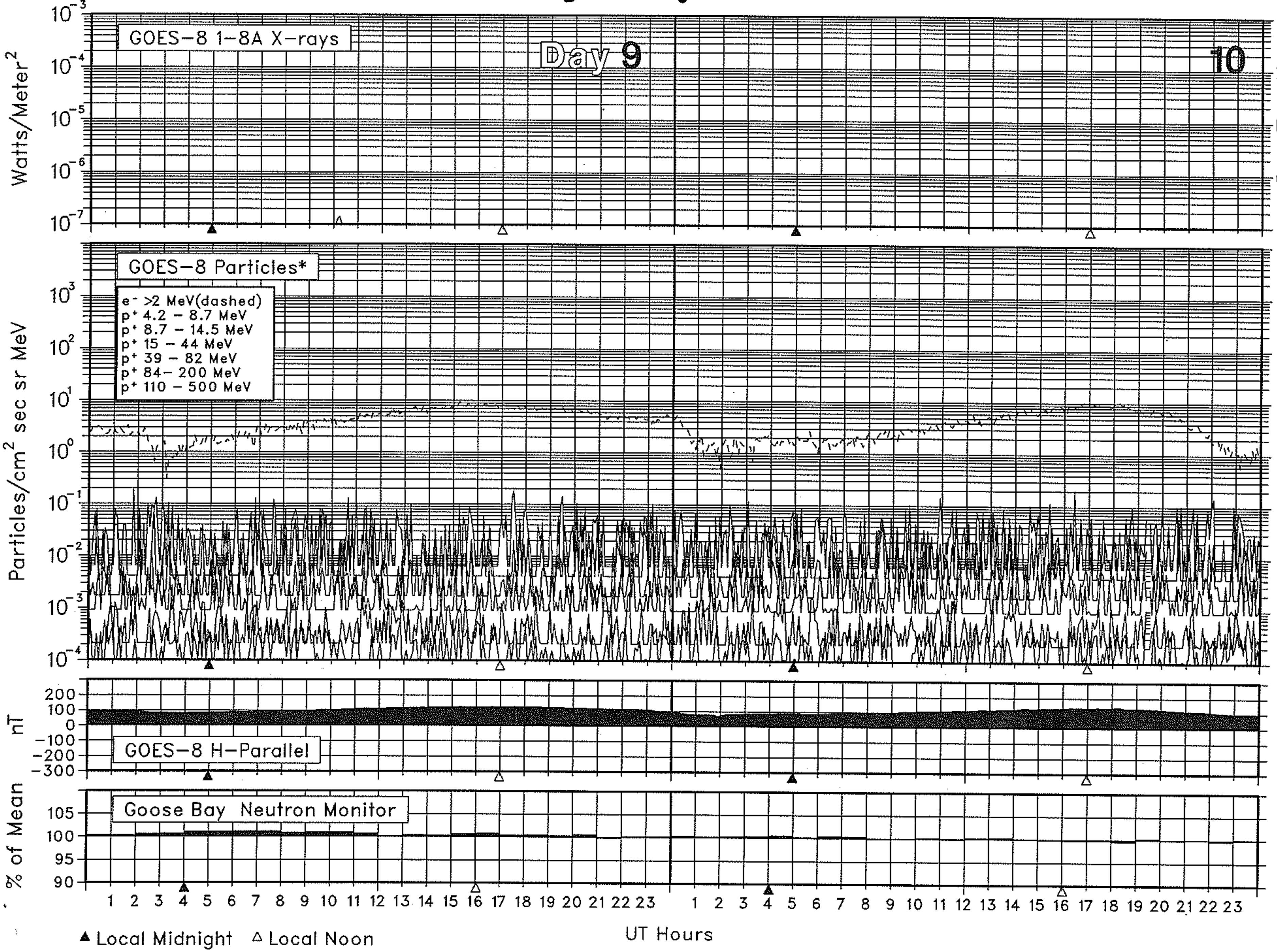
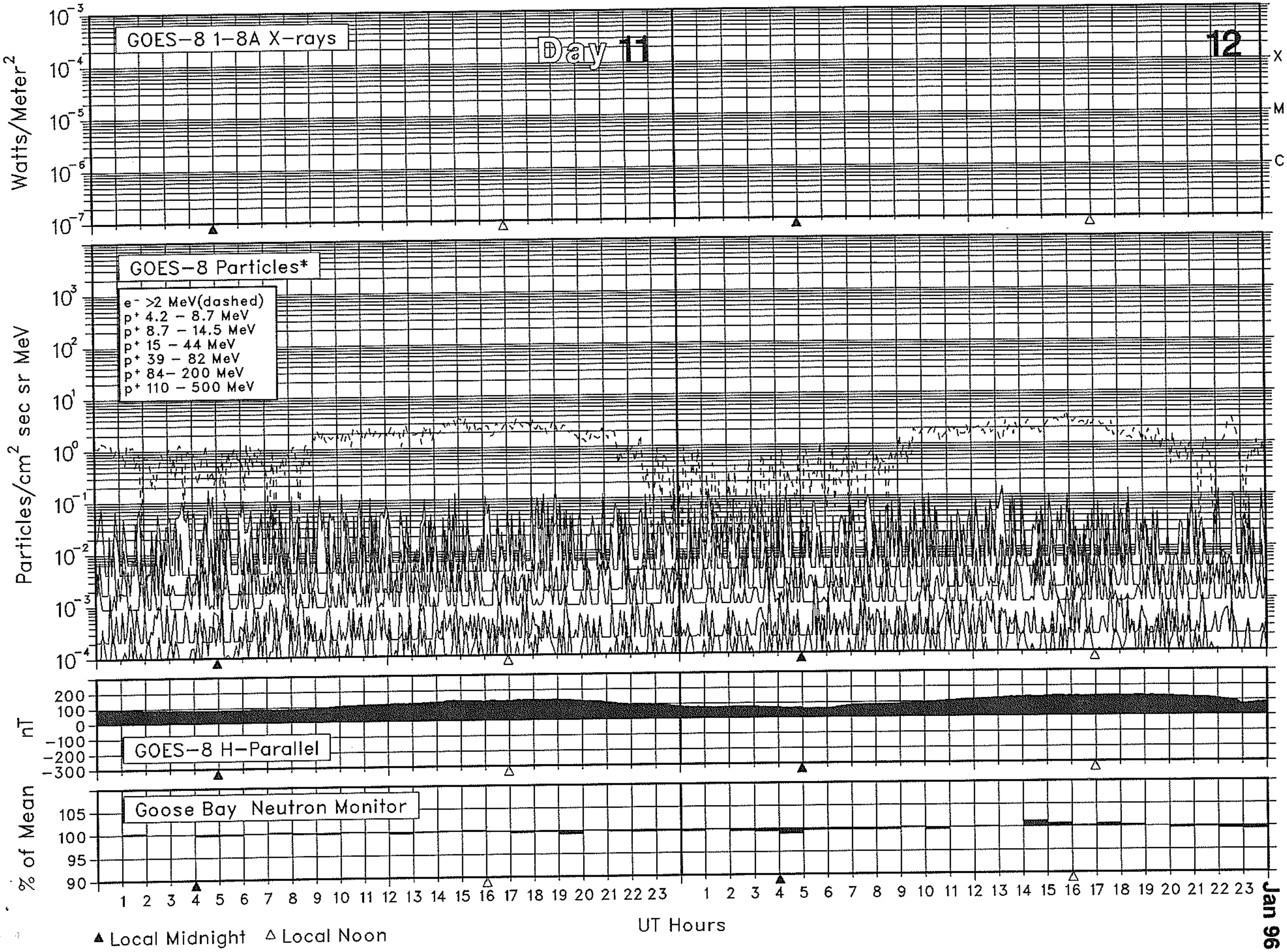
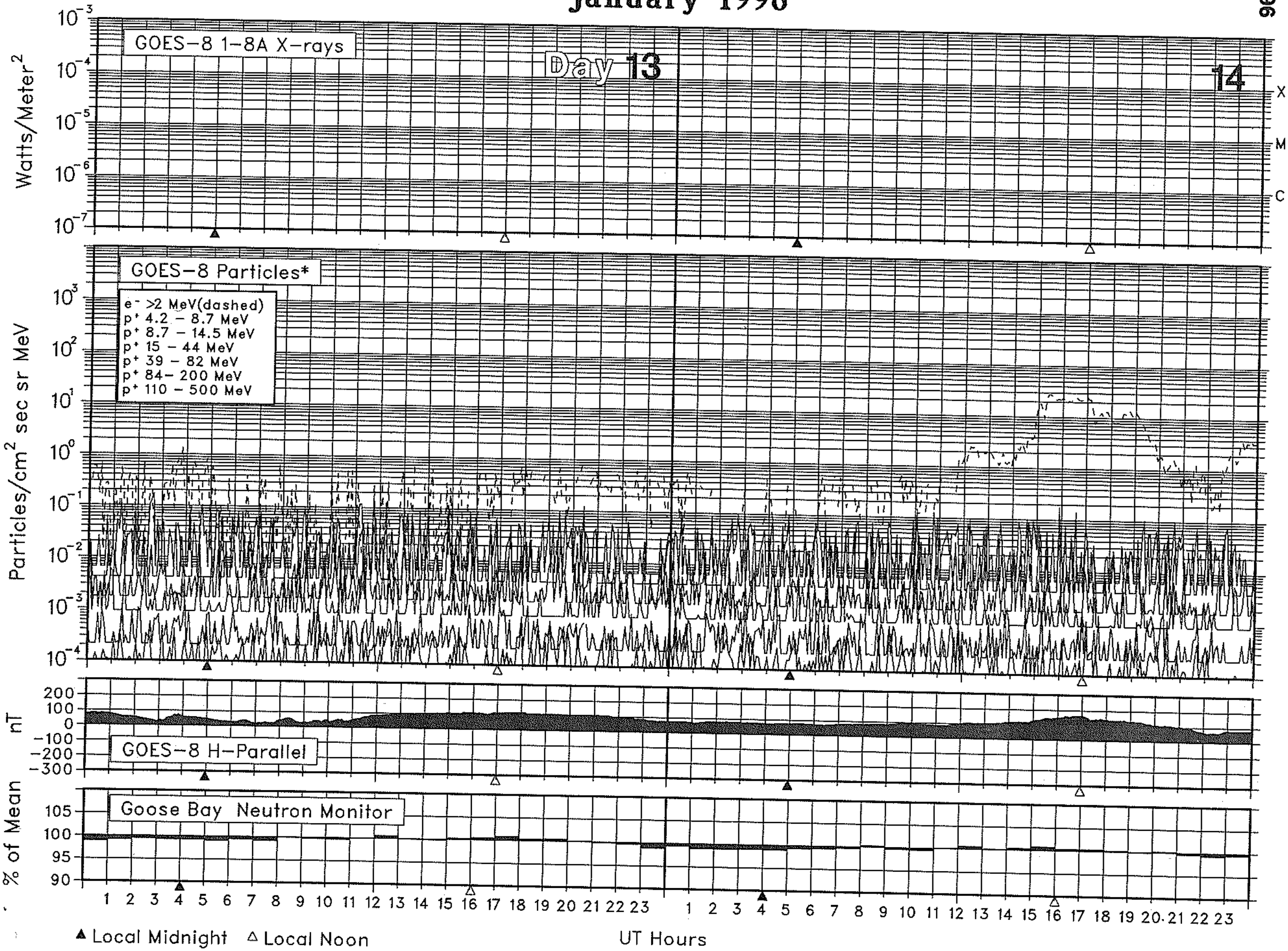
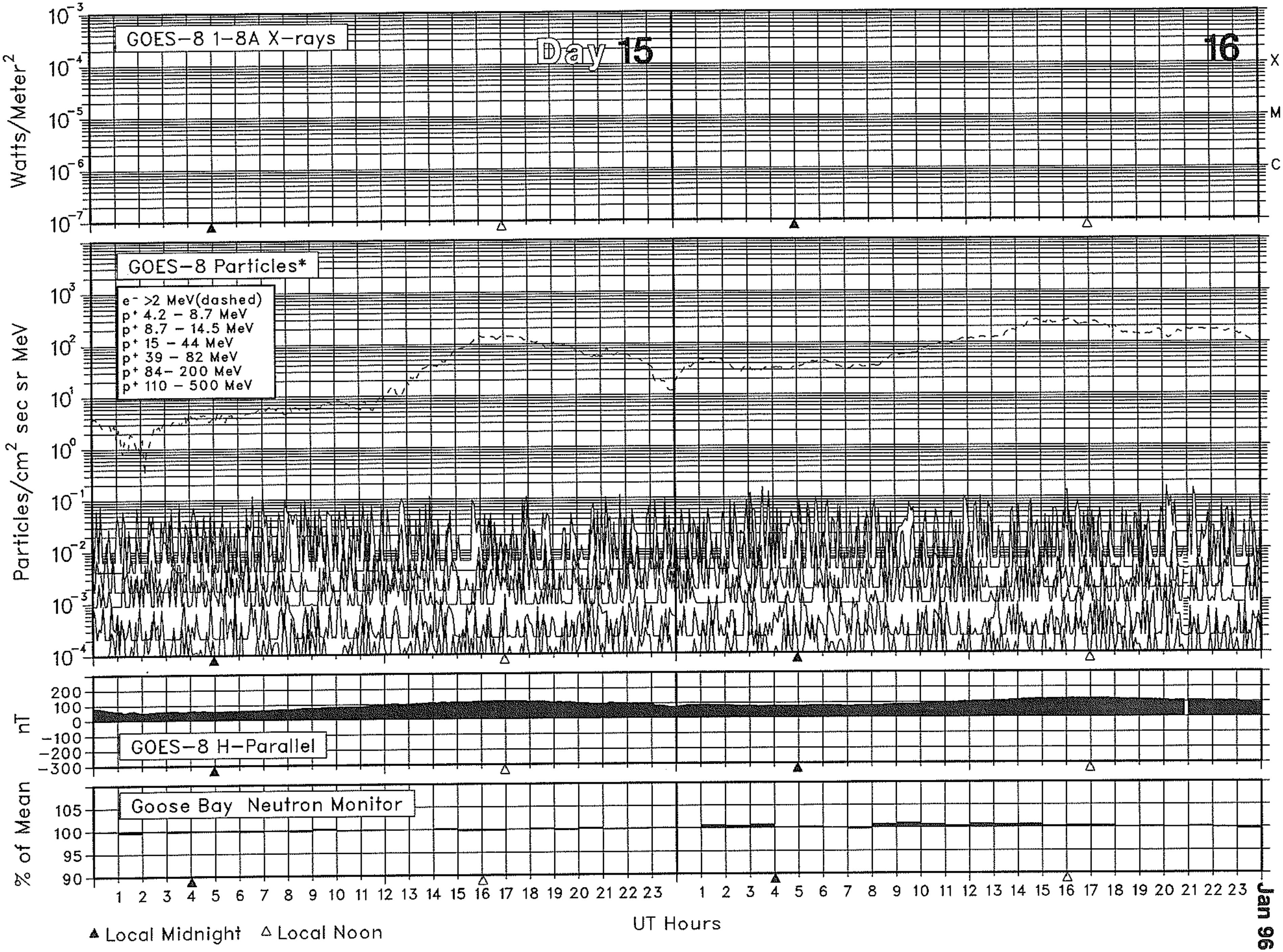


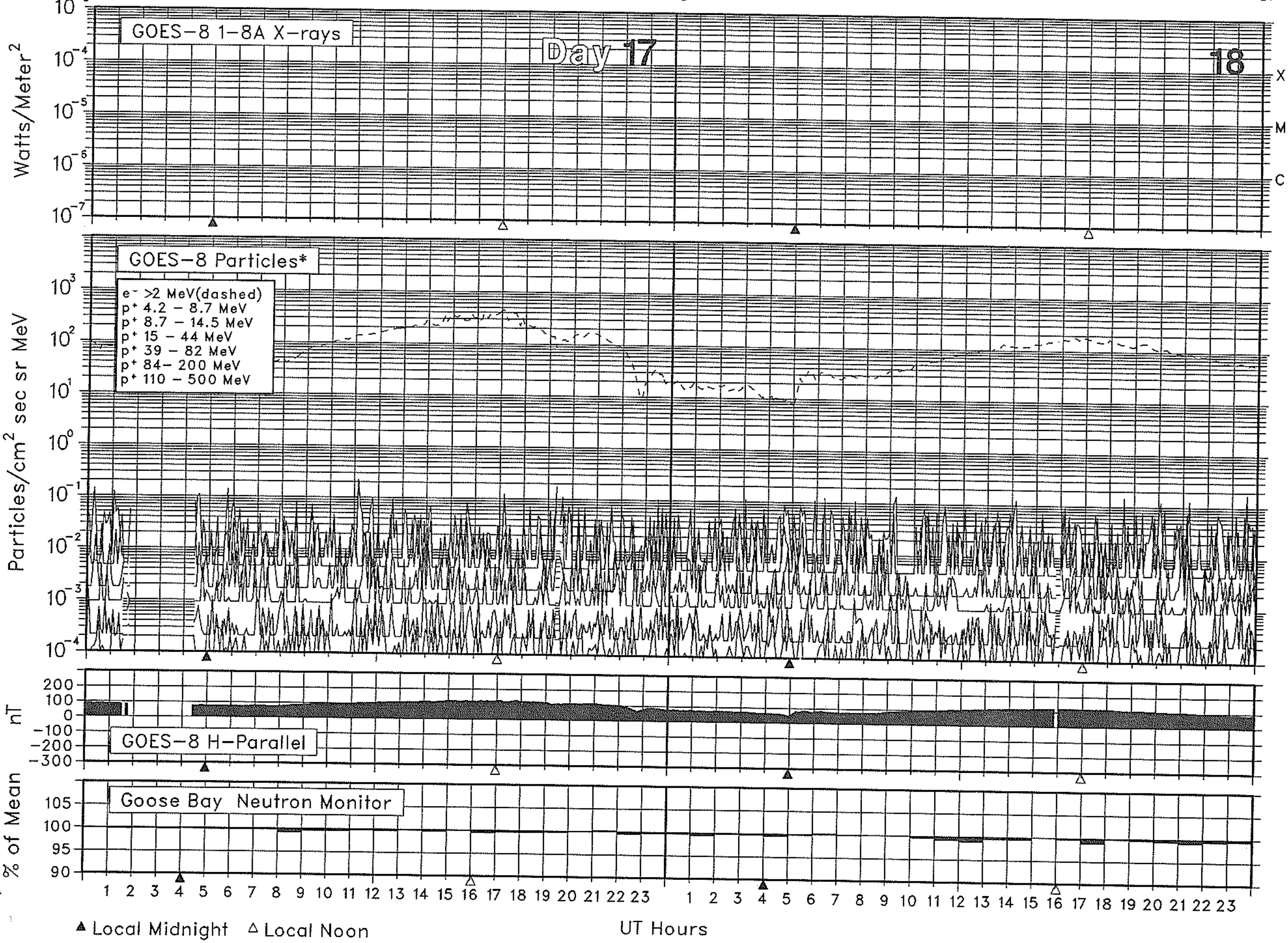

GOES-8 1-8A X-rays
Day 11
12
X
M
C
Watts/Meter^{-2}
GOES-8 Particles*
e⁻ >2 MeV(dashed)
p⁺ 4.2 – 8.7 MeV
p⁺ 8.7 – 14.5 MeV
p⁺ 15 – 44 MeV
p⁺ 39 – 82 MeV
p⁺ 84– 200 MeV
p⁺ 110 – 500 MeV
Particles/cm^2 sec sr MeV
nT
GOES-8 H-Parallel
Goose Bay Neutron Monitor
% of Mean
UT Hours
▲ Local Midnight △ Local Noon

SOLAR-TERRESTRIAL ENVIRONMENT
January 1996




GOES-8 1-8A X-rays
Day 15
16
Watts/Meter^2
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
X
M
C
GOES-8 Particles*
e⁻ >2 MeV(dashed)
p⁺ 4.2 – 8.7 MeV
p⁺ 8.7 – 14.5 MeV
p⁺ 15 – 44 MeV
p⁺ 39 – 82 MeV
p⁺ 84– 200 MeV
p⁺ 110 – 500 MeV
Particles/cm^2 sec sr MeV
10^{3}
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
GOES-8 H-Parallel
nT
200
100
0
−100
−200
−300
Goose Bay Neutron Monitor
% of Mean
105
100
95
90
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
UT Hours
▲ Local Midnight △ Local Noon

SOLAR-TERRESTRIAL ENVIRONMENT
January 1996



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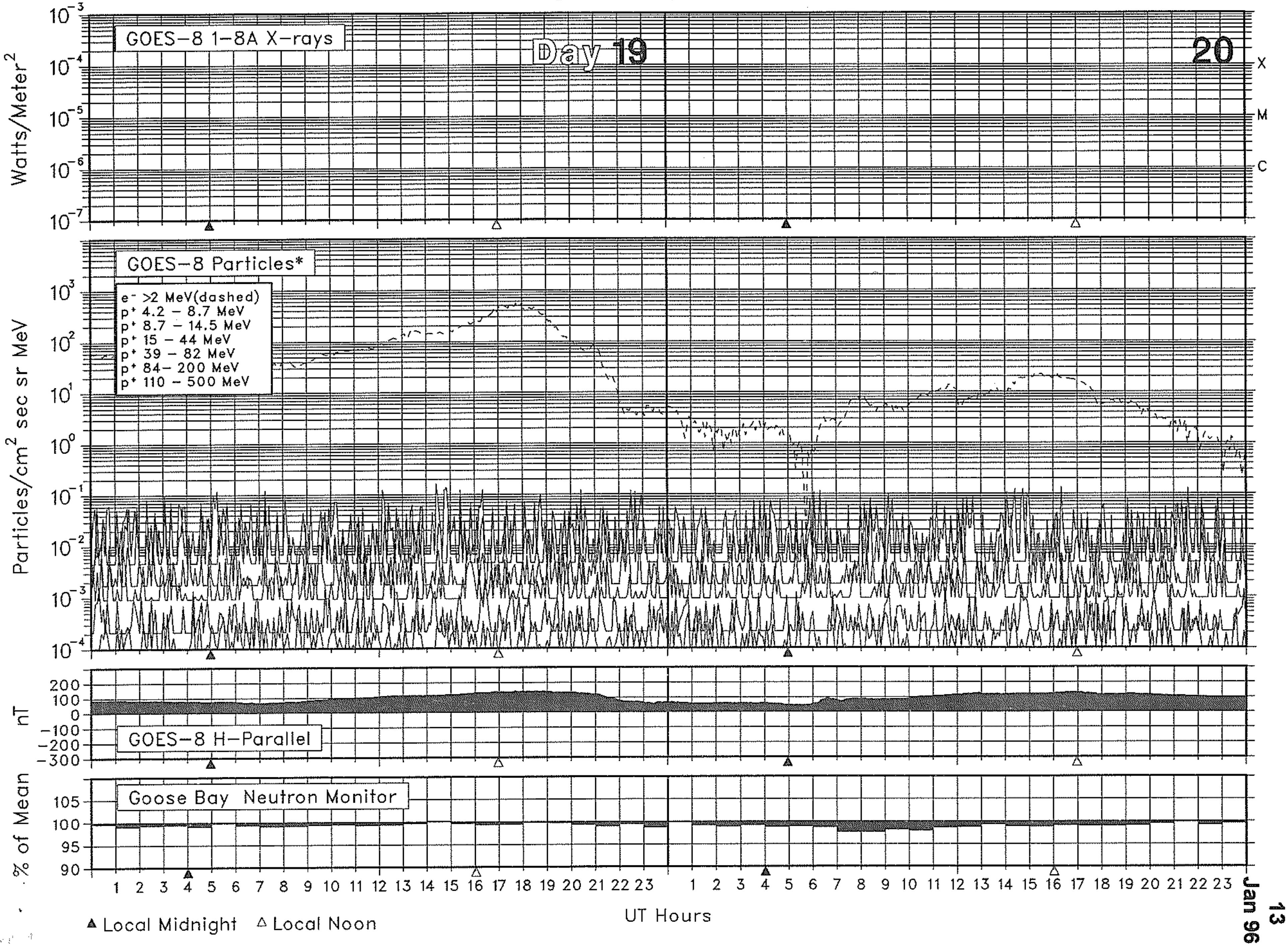
January 1996



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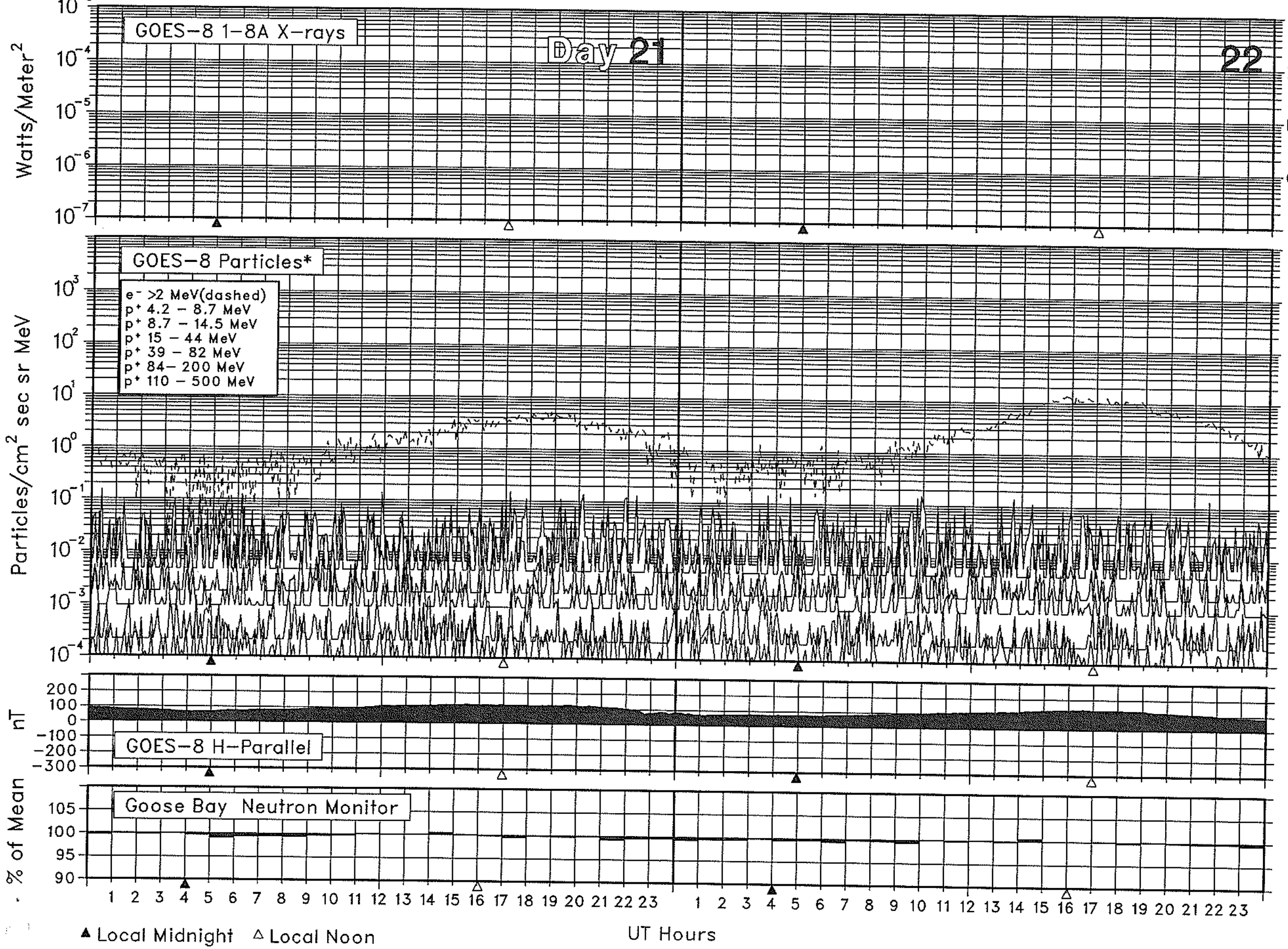
January 1996



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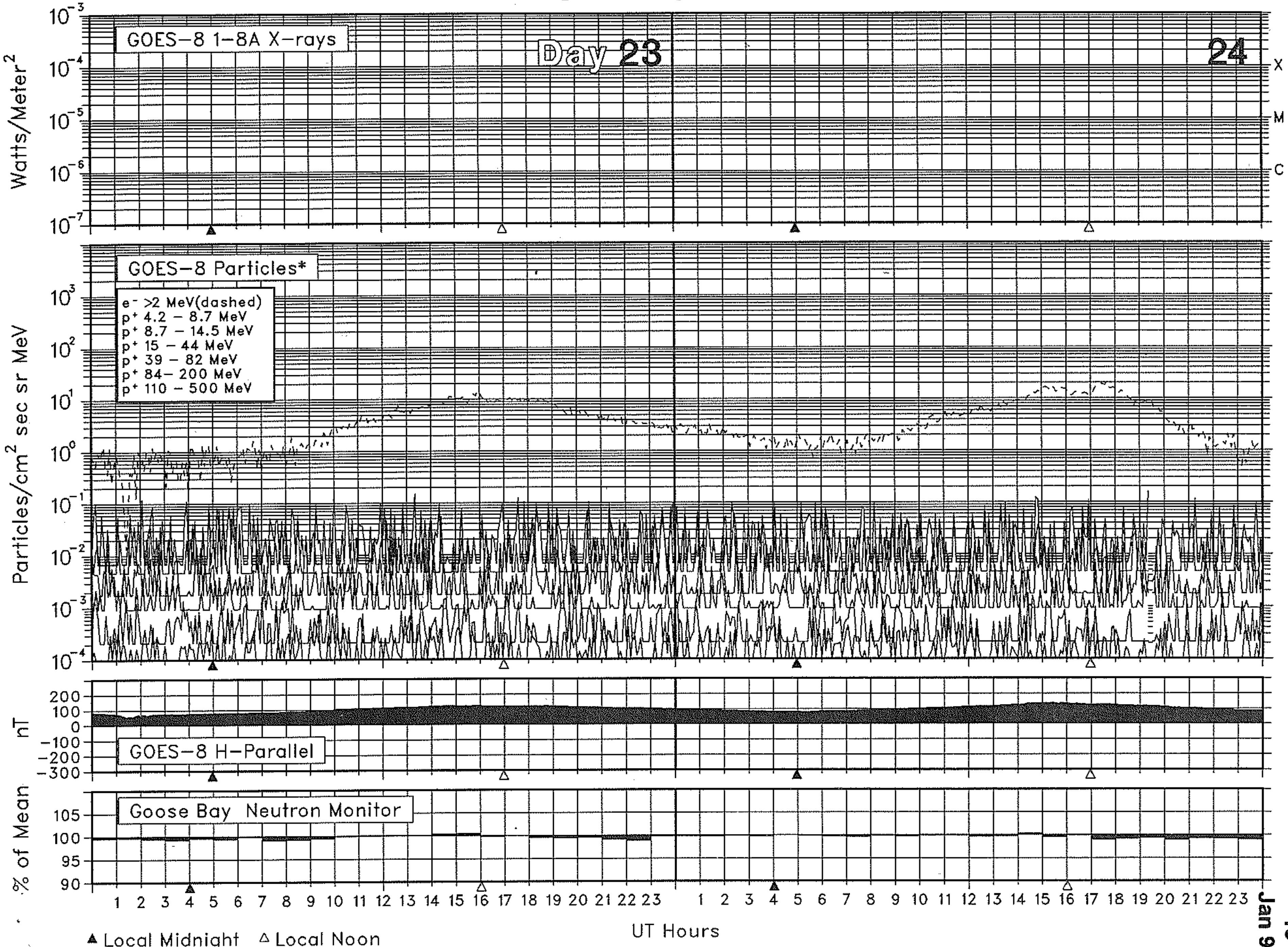
January 1996



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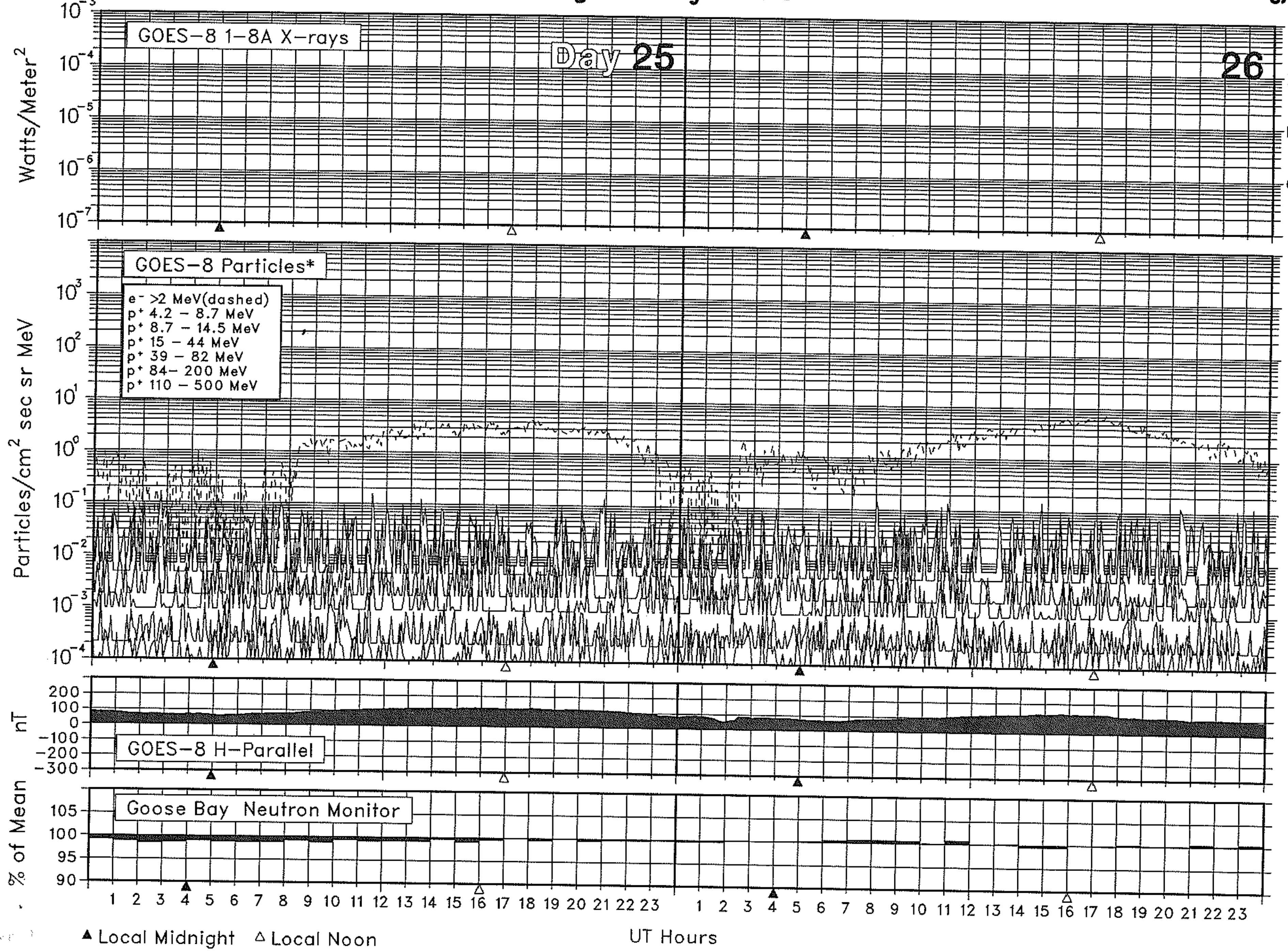

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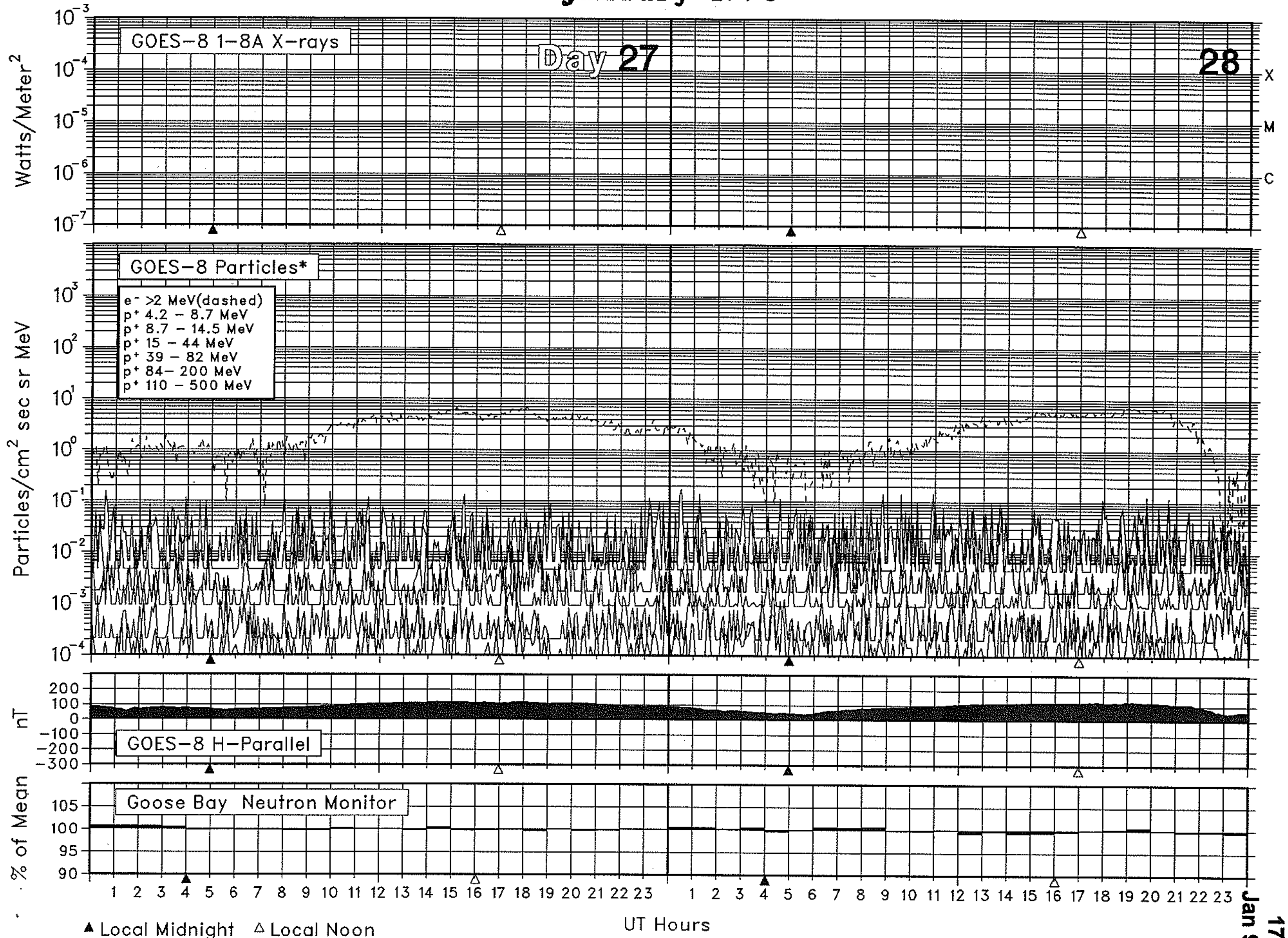

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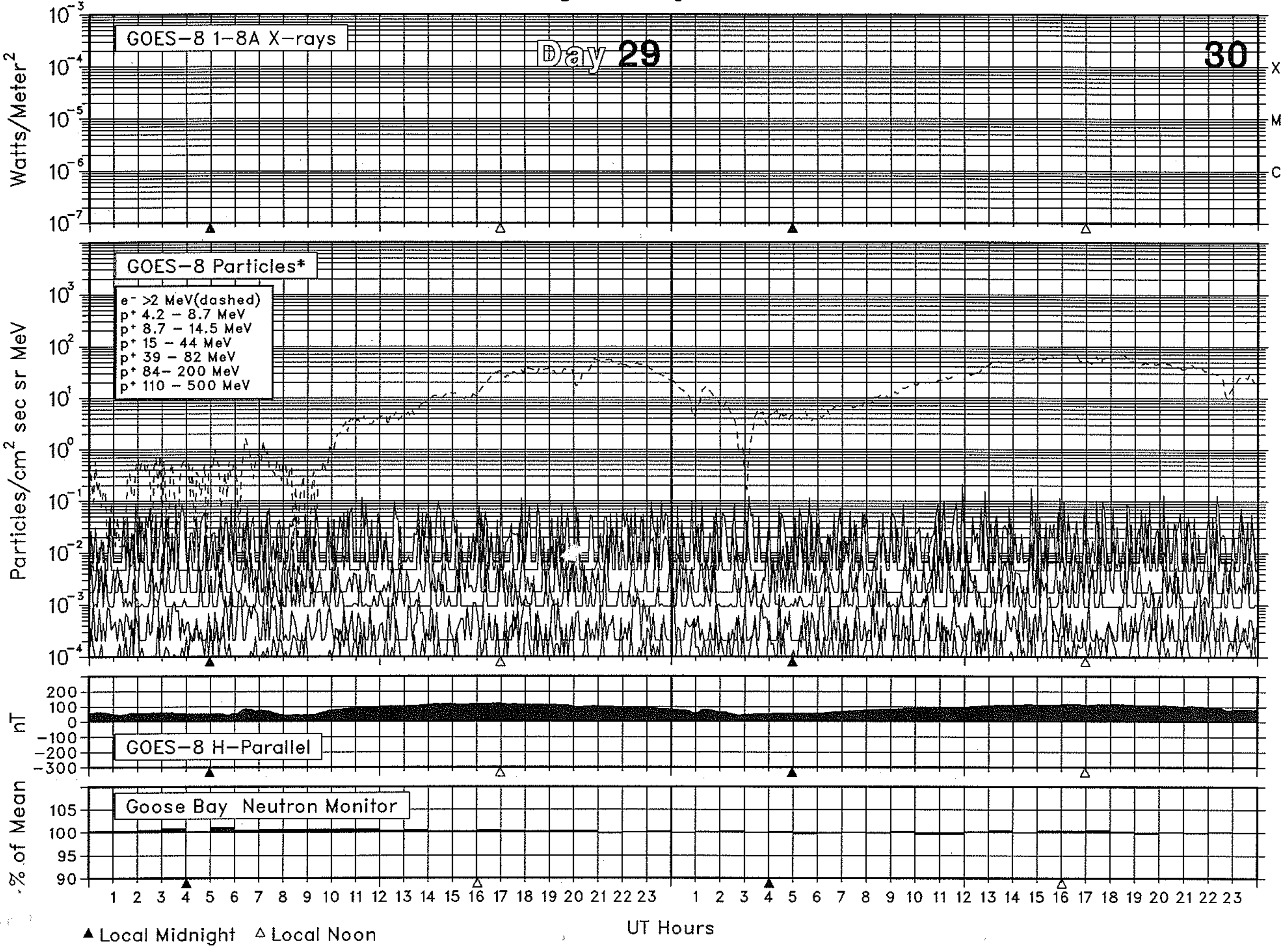
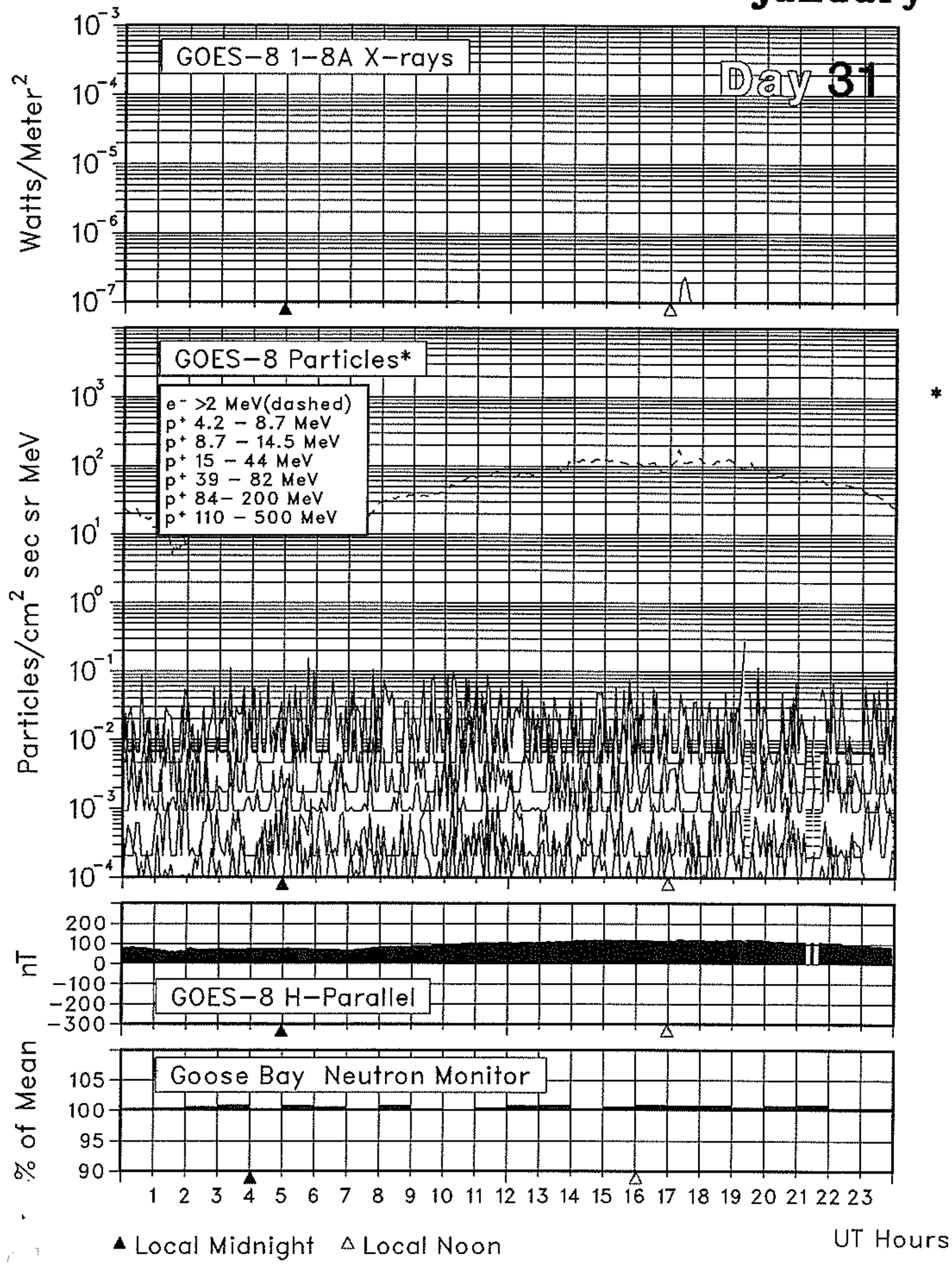
January 1996



SOLAR-TERRESTRIAL ENVIRONMENT
January 1996



* 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 **JANUARY 1996**

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]
001	01	31	000	075	7		0	0	0	0	01	Q	SOL: Quiet
							0	0	0	0	01	Q	MAG: Quiet
							0	0	0	0	01	Q	PROTON: Quiet
002	02	01	025	075	3	N11	W06	0	0	0	02	Q	SOL: Quiet
						S09	E49	0	0	0	02	Q	MAG: Quiet
							0	0	0	0	02	Q	PROTON: Quiet
003	03	02	034	075	4	S08	W60	0	0	0	03	Q	SOL: Quiet
						N11	W15	0	0	0	03	Q	MAG: Quiet
						S08	E35	0	0	0	03	Q	PROTON: Quiet
004	04	03	030	081	8	N12	W15	3	0	0	04	Q	SOL: Quiet
						N11	W15	0	0	0	04	Q	MAG: Quiet
						S08	E35	0	0	0	04	Q	PROTON: Quiet
005	05	04	048	086	3	N12	W27	0	0	0	05	Q	SOL: Quiet
						N04	E06	0	0	0	05	Q	MAG: Quiet
						S08	E35	0	0	0	05	Q	PROTON: Quiet
006	06	05	069	085	6	N12	W41	4	0	0	06	Q	SOL: Quiet
						N03	W08	0	0	0	06	Q	MAG: Quiet
						S08	E35	0	0	0	06	Q	PROTON: Quiet
007	07	06	057	083	5	N12	W54	0	0	0	07	Q	SOL: Quiet
						N03	W21	0	0	0	07	Q	MAG: Quiet
						S08	E35	0	0	0	07	Q	PROTON: Quiet
008	08	07	045	083	2	N12	W68	0	0	0	08	Q	SOL: Quiet
						N02	W34	0	0	0	08	Q	MAG: Quiet
						S08	E35	0	0	0	08	Q	PROTON: Quiet
009	09	08	053	079	1	N13	W83	0	0	0	09	Q	SOL: Quiet
						N03	W48	1	0	0	09	Q	MAG: Quiet
						N09	W21	0	0	0	09	Q	PROTON: Quiet
010	10	09	027	076	1	N03	W62	0	0	0	10	Q	SOL: Quiet
						N10	W35	0	0	0	10	Q	MAG: Quiet
						N09	W21	0	0	0	10	Q	PROTON: Quiet
011	11	10	013	074	2	N02	W76	0	0	0	11	Q	SOL: Quiet
						N10	W35	0	0	0	11	Q	MAG: Quiet
						N09	W21	0	0	0	11	Q	PROTON: Quiet
012	12	11	000	071	2	N02	W76	0	0	0	12	Q	SOL: Quiet
						N10	W35	0	0	0	12	Q	MAG: Quiet
						N09	W21	0	0	0	12	Q	PROTON: Quiet
013	13	12	000	070	6	N02	W76	0	0	0	13	Q	SOL: Quiet
						N10	W35	0	0	0	13	Q	MAG: Quiet
						N09	W21	0	0	0	13	Q	PROTON: Quiet
014	14	13	000	069	25	N02	W76	0	0	0	14	Q	SOL: Quiet
						N10	W35	0	0	0	14	Q	MAG: Active
						N09	W21	0	0	0	14	Q	PROTON: Quiet
015	15	14	000	070	19	N02	W76	0	0	0	15	Q	SOL: Quiet
						N10	W35	0	0	0	15	Q	MAG: Quiet
						N09	W21	0	0	0	15	Q	PROTON: Quiet

ALERT PERIODS
INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages **JANUARY 1996**

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]
016	16	15	000	070	12	N02	W76	0	0	0	16	Q	SOL: Quiet
						N10	W35	0	0	0	16	Q	MAG: Quiet
						N09	W21	0	0	0	16	Q	PROTON: Quiet
017	17	16	000	070	6	N02	W76	0	0	0	17	Q	SOL: Quiet
						N10	W35	0	0	0	17	Q	MAG: Quiet
						N09	W21	0	0	0	17	Q	PROTON: Quiet
018	18	17	011	070	6	S07	E11	0	0	0	18	Q	SOL: Quiet
						N10	W35	0	0	0	18	Q	MAG: Quiet
						N09	W21	0	0	0	18	Q	PROTON: Quiet
019	19	18	000	071	8	S07	E11	0	0	0	19	Q	SOL: Quiet
						N10	W35	0	0	0	19	Q	MAG: Quiet
						N09	W21	0	0	0	19	Q	PROTON: Quiet
020	20	19	000	071	7	S07	E11	0	0	0	20	Q	SOL: Quiet
						N10	W35	0	0	0	20	Q	MAG: Quiet
						N09	W21	0	0	0	20	Q	PROTON: Quiet
021	21	20	000	071	12	S07	E11	0	0	0	21	Q	SOL: Quiet
						N10	W35	0	0	0	21	Q	MAG: Active
						N09	W21	0	0	0	21	Q	PROTON: Quiet
022	22	21	014	072	7	S00	W25	0	0	0	22	Q	SOL: Quiet
						N10	W35	0	0	0	22	Q	MAG: Quiet
						N09	W21	0	0	0	22	Q	PROTON: Quiet
023	23	22	013	072	3	S00	W38	0	0	0	23	Q	SOL: Quiet
						N10	W35	0	0	0	23	Q	MAG: Quiet
						N09	W21	0	0	0	23	Q	PROTON: Quiet
024	24	23	000	073	5	S00	W38	0	0	0	24	Q	SOL: Quiet
						N10	W35	0	0	0	24	Q	MAG: Quiet
						N09	W21	0	0	0	24	Q	PROTON: Quiet
025	25	24	011	073	3	N12	E63	0	0	0	25	Q	SOL: Quiet
						N10	W35	0	0	0	25	Q	MAG: Quiet
						N09	W21	0	0	0	25	Q	PROTON: Quiet
026	26	25	011	074	4	N12	E51	0	0	0	26	Q	SOL: Quiet
						N10	W35	0	0	0	26	Q	MAG: Quiet
						N09	W21	0	0	0	26	Q	PROTON: Quiet
027	27	26	011	074	6	N11	E37	0	0	0	27	Q	SOL: Quiet
						N10	W35	0	0	0	27	Q	MAG: Quiet
						N09	W21	0	0	0	27	Q	PROTON: Quiet
028	28	27	011	074	4	N11	E23	0	0	0	28	Q	SOL: Quiet
						N10	W35	0	0	0	28	Q	MAG: Quiet
						N09	W21	0	0	0	28	Q	PROTON: Quiet
029	29	28	011	074	6	N11	E10	0	0	0	29	Q	SOL: Quiet
						N10	W35	0	0	0	29	Q	MAG: Quiet
						N09	W21	0	0	0	29	Q	PROTON: Quiet
030	30	29	012	074	18	N11	W04	0	0	0	30	Q	SOL: Quiet
						N10	W35	0	0	0	30	Q	MAG: Quiet
						N09	W21	0	0	0	30	Q	PROTON: Quiet

ALERT PERIODS

INTERNATIONAL URSIGRAM AND WORLD DAYS SERVICE

Summary of the Geoalert Messages **JANUARY 1996**

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]
031	31	30	026	075	8	N10	W17	0	0	0	31	Q	SOL: Quiet
						N08	W42	0	0	0	31	Q	MAG: Quiet
						N09	W21	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 expécted, 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 ALARTS

01/11/96 03:30:00

GEOALERT WWA011 STRATWARM ALERT/WED/STRATWARM EXISTS. AN INTENSE WARMING EXISTS OVER NORTHEASTERN AND EASTERN SIBERIA WITH A TEMPERATURE INCREASE OF MORE THAN 30 DGS CAT 10HPA SINCE LAST WEEK.WARM AIR SPREADING NORTH-AND NORTHEASTWARDS TO ALASKA AND TO THE BEAUFORT SEA. AT THE SAME TIME THE STRONG COLD POLAR VORTEX IS CENTERED OVER NORTHERN GREENLAND/NORTHEASTERN CANADA.

01/12/96 03:30:00

GEOALERT WWA012 STRATWARM ALERT/THU/STRATWARM EXISTS. AN INTENSE WARMING EXISTS OVER NORTHEASTERN AND EASTERNSIBERIA, ALASKA AND WESTERN CANADA. AT THE SAME TIME THE STRONG COLD POLAR VORTEX CENTRED OVERNORTHERN GREENLAND/NORTHEASTERN CANADA.

01/13/96 03:30:00

GEOALERT WWA013 STRATWARM ALERT/FRI/STRATWARM EXISTS. WARMING CONTINUES OVER NOTHEASTERN ASIA, INFLUENCING ALASKA.

01/15/96 03:30:00
GEOALERT WWA015 STRATWARM ALERT/SUNDAY/STRATWARM EXISTS. WARMING CONTINUES OVER EASTERN SIBERIA AND CENTRAL ASIA.

01/16/96 03:30:00
GEOALERT WWA016 STRATWARM ALERT/MON/STRATWARM EXISTS. MINOR WARMING CONTINUES OVER EASTERN ASIA AND BERING SEA

01/17/96 03:30:00
GEOALERT WWA017 STRATWARM ALERT/TUE/STRATWARM EXISTS. MINOR WARMING CONTINUES FROM MONGOLIA AND CENTRAL SIBERIA ACROSS EASTERN SIBERIA TO THE BERING SEA.WARM AIR OVER CENTRAL SIBERIA SPREADING NORTH–AND NORTHEASTWARDS.

01/18/96 03:30:00
GEOALERT WWA018 STRATWARM ALERT/WED/STRATWARM EXISTS. MINOR WARMING CONTINUES OVER CENTRAL,EASTERN AND NORTH–EASTERN SIBERIA AND THE BERING SEA. IN THE UPPERMOST STRATOSPHERE TEMPERATURE GRADIENT REVERSED BETWEEN 60N AND THE POLE.

01/19/96 03:30:00
GEOALERT WWA019 STRATWARM ALERT/THU/STRATWARM EXISTS. A SLIGHTLY INTENSIFYING MINOR WARMING CONTINUES OVER CENTRAL, EASTERN AND NORTHEASTERN SIBERIA AND THE BERING SEA. WARM AIR OVER CENTRAL SIBERIA SPREADING NORTH–AND NORTHEASTWARD

01/20/96 03:30:00
GEOALERT WWA020 STRATWARM ALERT/FRI/STRATWARM EXISTS. MINOR WARMING CONTINUES OVER CENTRAL,EASTERN AND NORTHEASTERN SIBERIA AND THE SEA OF OKHOTSK.

01/21/96 03:30:00
GEOALERT WWA021 STRATWARM ALERT/SATURDAY/STRATWARM EXISTS. MINOR WARMING CONTINUES OVER CENTRAL AND NORTHEASTERN SIBERIA AND KAMCHATKA.

01/22/96 03:30:00
GEOALERT WWA022 STRATWARM ALERT/SUNDAY/STRATWARM EXISTSMINOR WARMING CONTINUES OVER NORTHEASTERN SIBERIA AND THE ADJACENT SIBERIAN ARCTIC.

01/23/96 03:30:00
GEOALERT WWA023 STRATWARM ALERT/MON/STRATWARM EXISTS. MINOR WARMING CONTINUES OVER NORTHEASTERN SIBERIA, THE ADJACENT ARCTIC AND ALASKA. IN THE UPPER STRATOSPHERE THE RADIANCE GRADIENT BETWEEN 60 N AND THE POLE IS REVERSED.

01/24/96 03:30:00
GEOALERT WWA024 STRATWARM ALERT/TUE/STRATWARM EXISTS. MINOR WARMING CONTINUES FROM CENTRAL AND NORTHEASTERN SIBERIA ACROSS ALASKA TO NORTH–WESTERN CANADA. IN THE UPPER STRATOSPHERE THE TEMPERATURE GRADIENT REVERSED BETWEEN 60N AND THE POLE.

01/25/96 03:30:00
GEOALERT WWA025 STRATWARM ALERT/WED/STRATWARM EXISTS. MINOR WARMING CONTINUES OVER CENTRAL AND EASTERN SIBERIA, THE BERING SEA AND WESTERN CANADA,SLIGHTLY WEAKENING. IN THE UPPER STRATOSPHERE THE TEMPERATURE GRADIENT NO LONGER REVERSED BETWEEN 60N AND THE POLE.

01/26/96 03:30:00
GEOALERT WWA026 STRATWARM ALERT/THU/STRATWARM EXISTS. MINOR WARMING CONTINUES OVER CENTRAL AND EASTERN SIBERIA.

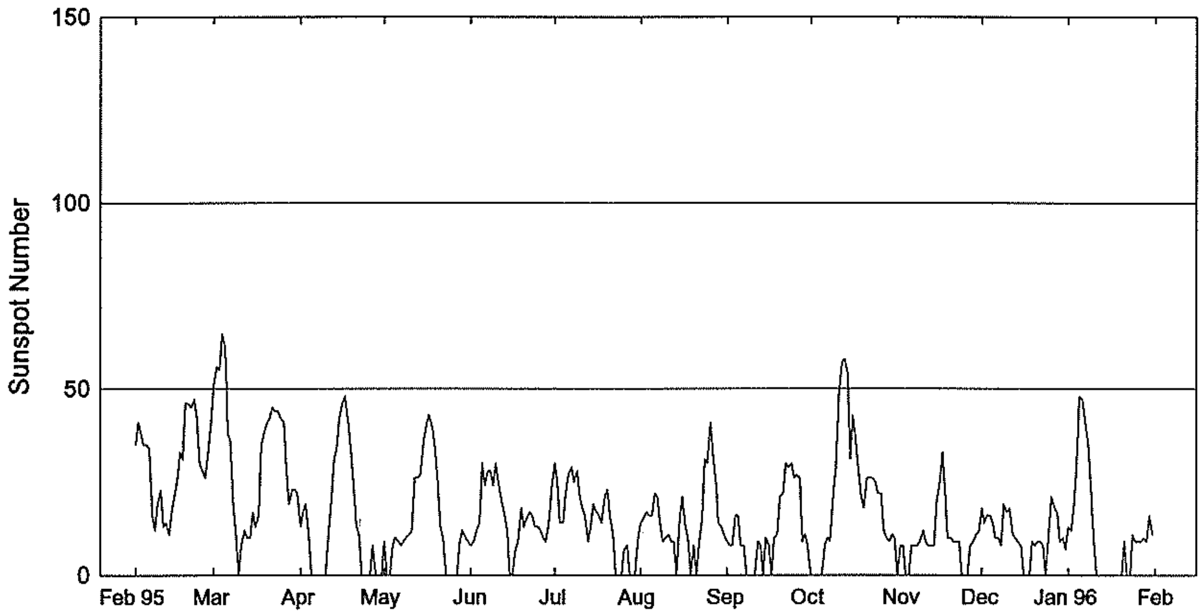
01/28/96 03:30:00
GEOALERT WWA028 STRATWARM ALERT/SATURDAY/STRATWARM EXISTS. MINOR WARMING OVER CENTRAL AND EASTERN SIBERIA CONTINUES, MOVING NORTHEASTWARD

01/29/96 03:30:00
GEOALERT WWA029 STRATWARM ALERT/SUN/STRATWARM EXISTS. MINOR WARMING OVER CENTRAL AND EASTERN SIBERIA CONTINUES, INFLUENCING ALASKA AND WESTERN CANADA.

01/30/96 03:30:00
GEOALERT WWA030 STRATWARM ALERT/MONDAY/STRATWARM EXISTS. MINOR WARMING OVER CENTRAL AND EASTERN SIBERIA CONTINUES. THE WARMING OVER CANADA INTENSIFYING AND MOVING SOUTHEASTWARDS TO CENTRAL CANADA /NORTHERN U.S. TODAY.

01/31/96 03:30:00
GEOALERT WWA031 STRATWARM ALERT/TUE/STRATWARM EXISTS. MINOR WARMING OVER CENTRAL AND EASTERN SIBERIA, ALASKA AND THE ADJACENT ARCTIC CONTINUES,WARM AIR SPREADING NORTHEASTWARDS. WARMING OVER SOUTHERN CANADA/NORTHERN U.S. WEAKENING.

International Relative Sunspot Numbers
Feb 1995 - Jan 1996

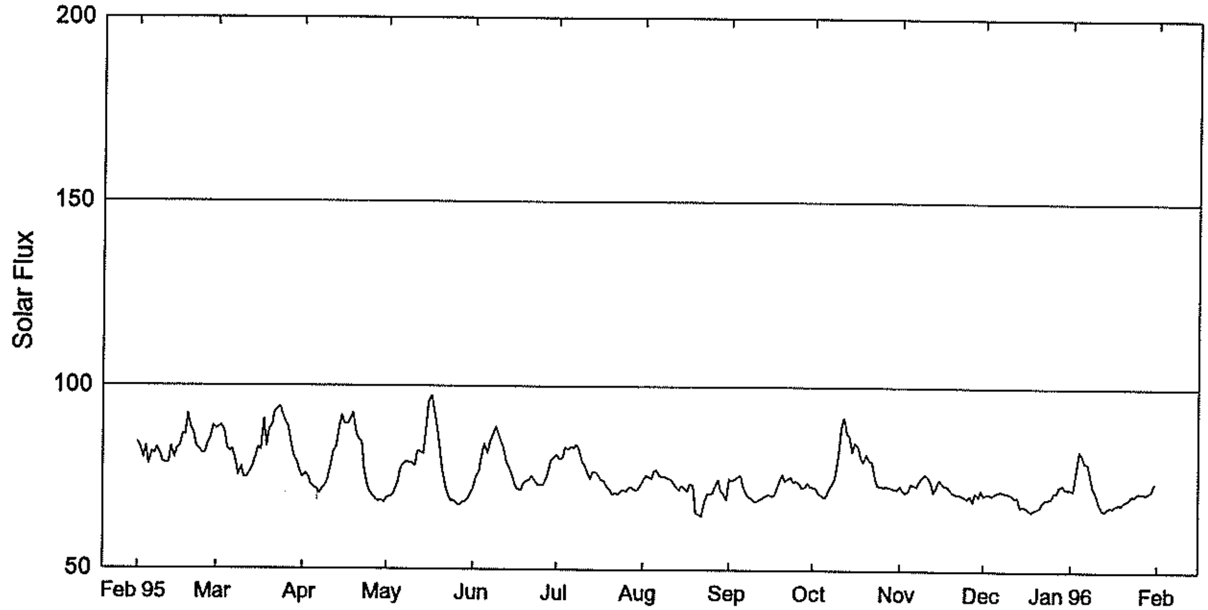


Day	Feb 95	Mar	Apr	May	Jun	Jul*	Aug*	Sep*	Oct*	Nov*	Dec*	Jan 96*
1	35	51	13	9	8	30	14	9	0	0	18	13
2	41	56	17	0	9	25	15	8	0	8	14	12
3	38	55	19	0	12	14	17	8	0	8	16	19
4	35	65	10	8	14	14	16	16	0	0	16	30
5	35	61	0	10	30	22	16	16	0	0	14	48
6	34	38	0	9	24	27	22	8	8	8	10	47
7	16	36	0	8	28	29	21	8	10	8	10	41
8	12	20	0	9	28	25	13	0	9	8	8	35
9	19	10	0	10	24	28	9	0	22	9	19	24
10	23	0	0	11	30	21	10	0	29	12	17	11
11	13	8	10	12	24	18	11	0	48	9	18	0
12	14	12	18	26	20	16	9	9	57	8	11	0
13	11	10	31	26	17	9	9	8	58	8	10	0
14	17	10	34	27	12	13	0	0	54	8	9	0
15	22	17	42	36	0	19	15	10	31	20	8	0
16	26	13	46	40	0	17	21	8	43	25	0	0
17	33	16	48	43	7	16	13	0	37	33	0	0
18	31	35	41	40	9	14	10	10	28	23	0	0
19	46	38	34	35	18	21	0	11	21	10	9	0
20	46	41	25	27	13	23	8	21	18	10	8	0
21	45	42	13	13	15	16	0	22	26	9	9	9
22	47	45	11	10	17	11	8	30	26	9	9	0
23	42	44	0	0	16	0	15	29	26	9	8	0
24	30	44	0	0	13	0	31	30	25	0	0	11
25	28	42	0	0	13	0	30	26	22	0	12	9
26	26	41	0	0	12	7	41	27	22	0	21	9
27	32	28	8	0	10	8	32	26	12	8	18	9
28	41	19	0	9	9	0	24	9	10	9	17	10
29		23	0	12	14	0	14	11	9	11	9	9
30		23	0	10	23	0	13	8	11	12	10	16
31		22		9		10	11		10		7	11
Mean	29.9	31.1	14.0	14.5	15.6	14.6	15.1	12.3	21.7	9.4	10.8	12.0

* = Provisional. The yearly mean sunspot number for 1994 is 29.9.

Penticton 2800 MHz (10.7cm) Solar Flux
Feb 1995 - Jan 1996

Adjusted to 1 AU



Day	Feb 95	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 96
1	84.6	88.3	75.3	69.7	72.5	81.5	74.8	75.0	72.8	73.3	70.7	72.6
2	83.5	88.7	76.2	69.9	75.4	80.3	75.7	74.6	72.7	72.1	71.2	72.3
3	80.4	89.4	75.2	70.2	76.8	80.7	75.5	74.9	71.1	71.4	71.2	78.2
4	83.6	87.6	73.1	71.8	81.4	83.5	75.1	75.6	70.8	72.0	70.7	83.1
5	78.8	82.9	72.2	74.2	84.2	82.9	77.2	75.9	69.8	73.9	71.4	82.1
6	82.0	82.2	71.9	77.8	81.8	83.6	77.3	73.0	70.9	73.5	71.8	79.9
7	81.5	82.7	70.7	79.0	85.0	83.3	75.8	71.2	72.8	73.2*	71.9	79.8
8	83.2	79.6	72.0	79.4	86.8	84.2	75.6	70.1	74.1	74.8	71.8	76.7
9	81.5	75.8	72.9	79.2	89.0	82.9	75.5	69.7	76.0	75.7	71.6	73.4
10	79.3	78.1	74.8	79.3	87.0	79.9	75.0	68.9	82.1	76.5	71.3	71.4
11	79.0	75.1	78.0	78.4	85.1	78.6	74.9	68.9	89.1	75.9	71.1	69.1
12	79.1	75.3	82.3	82.4	83.3	76.7	73.8	69.5	91.8	74.6	70.0	67.2
13	83.5	76.6	83.3	82.2	79.2	74.9	72.7	70.1	87.5	71.5	70.4	66.7
14	80.4	78.1	88.9	81.6	78.1	76.8	71.9	70.3	86.7	73.4	67.6	67.4
15	82.9	80.2	92.0	87.8	75.6	76.8	73.2	70.9	82.5	75.0	68.0	67.9
16	83.5	83.3	89.7	95.9	73.1	75.9	72.3	70.4	85.0	74.2	67.7	67.6
17	86.9	82.5	89.6	97.3	72.1	74.7	71.5	70.5	84.1	73.4	67.1	68.2
18	86.7	90.9	90.7	93.4	71.8	74.4	73.6	72.3	80.9	73.4	66.4	68.7
19	92.4	83.4	92.6	88.3	73.7	72.8	73.4	74.3	79.8	72.2	67.0	68.5
20	88.8	88.3	87.2	82.8	74.2	72.0	73.0	76.2	81.8	71.5	67.3	69.1
21	87.1	89.3	85.5	77.0	74.7	70.8	72.7	74.5	80.3	71.1	67.8	69.5
22	83.4	92.9	84.8	72.6	75.5	71.1	71.9	75.1	79.7	71.0	68.9	70.0
23	82.9	93.6	77.6	70.4	74.3	70.7	75.9	75.5	75.9	70.9	69.9	71.0
24	81.7	94.4	73.4	68.8	73.4	71.5	78.8	74.2	73.5	70.4	69.9	70.7
25	81.6	91.8	71.3	68.9	73.2	72.0	78.8	74.5	73.1	69.9	70.1	71.7
26	84.5	89.9	70.2	68.1	73.2	71.6	78.9	73.9	73.0	70.8	71.7	71.5
27	85.9	88.6	69.1	67.5	74.7	72.7	81.6	72.6	73.1	68.9	71.5	71.6
28	89.1	83.4	68.6	68.4	77.0	72.6	83.2	73.0	72.9	71.5	73.4	71.4
29		80.7	69.0	68.7	80.1	72.0	79.7	74.0	72.8	70.4	73.9	71.8
30		79.5	68.2	69.4	80.8	71.9	78.9	73.0	72.3	72.3	72.8	72.5
31		76.7		70.9		72.9	77.0		72.2		72.7	74.5
Mean	83.5	84.2	78.2	77.1	78.1	76.3	75.7	72.8	77.5	72.6	70.3	72.1

* = Average of the 1800 and 2200UT readings. 2000UT reading not available.

DAILY SOLAR INDICES

January 1996

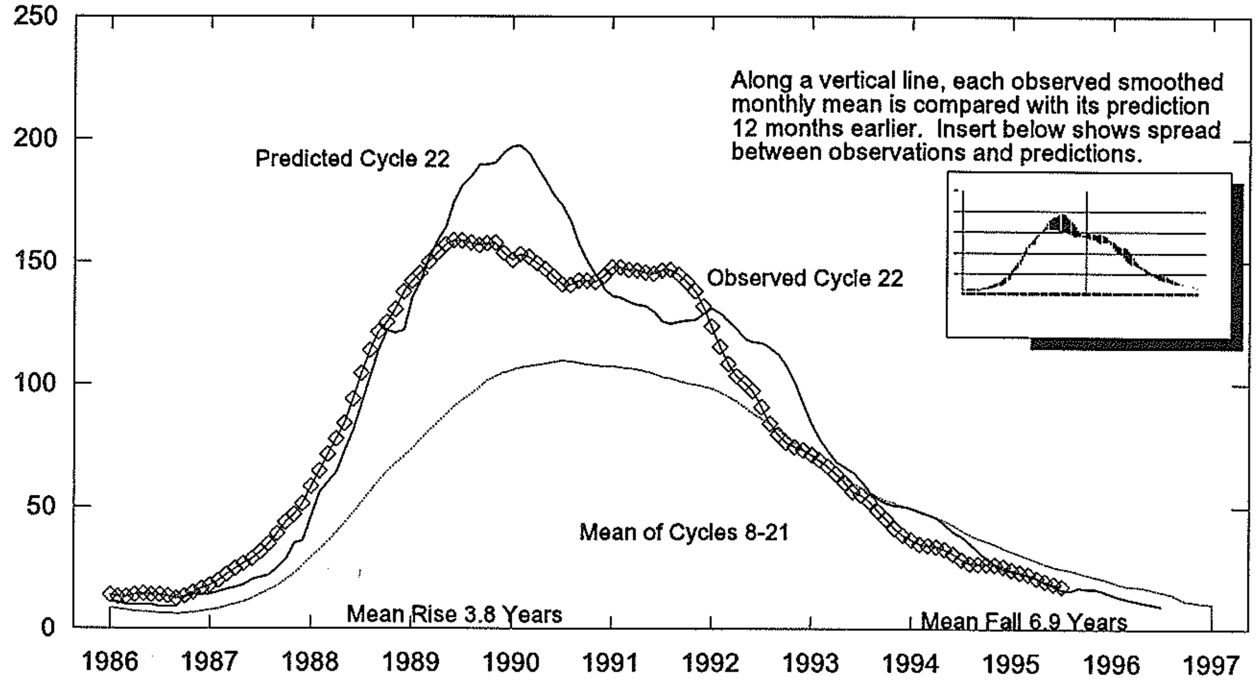
Day	Day of Year	Bartels Cycle Day	Sunspot Numbers Int	Sunspot Numbers Amer	Obs Flux Penticton (2800)	Solar Flux Adjusted to 1 Astronomical Unit LEAR (15400)	LEAR (8800)	LEAR (4995)	Pentic (2800)	LEAR (2695)	LEAR (1415)	LEAR (610)	LEAR (410)	LEAR (245)
1	1	4	13	13	75.1	501	207	125	72.6	69	54	16	11	6
2	2	5	12	16	74.8	513	211	124	72.3	69	56	34	22	8
3	3	6	19	20	80.8	538	211	125	78.2	70	55	34	23	10
4	4	7	30	29	85.9	547	214	134	83.1	78	59	37	28	20
5	5	8	48	40	84.9	573	217	134	82.1	83	61	37	27	21
6	6	9	47	38	82.7	531	215	130	79.9	78	59	36	24	11
7	7	10	41	31	82.5	548	208	130	79.8	75	57	33	24	13
8	8	11	35	34	79.3	477	213	129	76.7	75	55	33	23	21
9	9	12	24	16	75.9	538	219	127	73.4	73	54	34	23	10
10	10	13	11	10	73.8	532	212	125	71.4	70	52	33	23	10
11	11	14	0	0	71.5	545	177	122	69.1	67	49	32	23	8
12	12	15	0	0	69.5	517	192	121	67.2	66	47	30	21	7
13	13	16	0	0	69.0	534	197	119	66.7	62	46	31	22	8
14	14	17	0	0	69.7	538	203	118	67.4	63	46	31	23	9
15	15	18	0	0	70.2	526	208	118	67.9	64	46	25	18	8
16	16	19	0	0	69.9	527	206	119	67.6	66	47	31	22	5
17	17	20	0	0	70.4	533	204	118	68.2	65	48	31	22	6
18	18	21	0	0	71.0	533	209	120	68.7	65	48	31	21	7
19	19	22	0	0	70.8	514	188	120	68.5	65	47	31	21	8
20	20	23	0	0	71.4	534	180	121	69.1	66	48	28	20	8
21	21	24	9	8	71.8	519	189	120	69.5	65	47	32	23	10
22	22	25	0	2	72.3	543	197	121	70.0	66	48	34	24	9
23	23	26	0	0	73.3	532	204	122	71.0	66	48	35	22	8
24	24	27	11	7	73.0	526	191	122	70.7	68	50	35	23	9
25	25	1	9	9	73.9	525	199	122	71.7	67	51	36	23	9
26	26	2	9	9	73.8	524	192	122	71.5	68	49	36	22	8
27	27	3	9	9	73.8	545	213	122	71.6	68	51	37	24	9
28	28	4	10	10	73.6	535	202	123	71.4	67	50	37	24	11
29	29	5	9	9	74.0	--	--	--	71.8	--	--	--	--	--
30	30	6	16	17	74.7	507	194	122	72.5	68	51	37	25	9
31	31	7	11	12	76.7	529	202	123	74.5	68	51	38	25	11
MEAN			12.0	10.9	74.5	529	202	123	72.1	68	51	32	22	9

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 22 and 23

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
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	48	45	41	38	56
1994	37	35	34	34	33	31	29	27	27	27	26	26	31
1995	24	23	22	21	19	18	17	17	16	16	15	14	19
( )								(2)	(3)	(4)	(4)	(5)	(2)
1996	13	12	11	11	11	10	10	9	9	8	8	7	10
( )	(6)	(7)	(7)	(8)	(8)	(9)	(9)	(10)	(10)	(10)	(10)	(9)	(9)
1997	8	8	8	9	9	10	11	12	13	13	14	16	11
( )	(9)	(10)	(9)	(9)	(10)	(12)	(13)	(15)	(16)	(17)	(19)	(22)	(14)

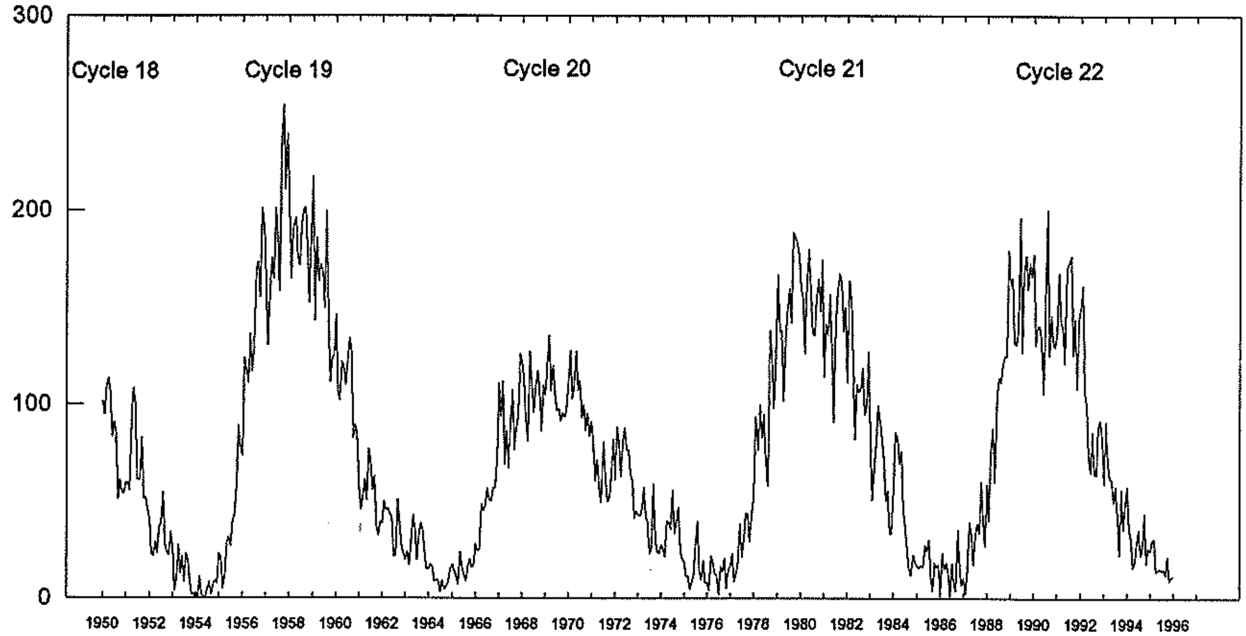
Solar Cycle 22 | Min, Max, and Predictions

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 Jun 1995 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 Jul 1996 prediction. There exists a 90% chance that in Jul 1996, the actual smoothed number will fall somewhere between 1 and 19.

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.

Mean Monthly Sunspot Numbers
Jan 1950 - Jan 1996



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1950	101.6	94.8	109.7	113.4	106.2	83.6	91.0	85.2	51.3	61.4	54.8	54.1	83.9
1951	59.9	59.9	55.9	92.9	108.5	100.6	61.5	61.0	83.1	51.6	52.4	45.8	69.4
1952	40.7	22.7	22.0	29.1	23.4	36.4	39.3	54.9	28.2	23.8	22.1	34.3	31.5
1953	26.5	3.9	10.0	27.8	12.5	21.8	8.6	23.5	19.3	8.2	1.6	2.5	13.9
1954	0.2	0.5	10.9	1.8	0.8	0.2	4.8	8.4	1.5	7.0	9.2	7.6	4.4 m
1955	23.1	20.8	4.9	11.3	28.9	31.7	26.7	40.7	42.7	58.5	89.2	76.9	38.0
1956	73.6	124.0	118.4	110.7	136.6	116.6	129.1	169.6	173.2	155.3	201.3	192.1	141.7
1957	165.0	130.2	157.4	175.2	164.6	200.7	187.2	158.0	235.8	253.8	210.9	239.4	190.2 M
1958	202.5	164.9	190.7	196.0	175.3	171.5	191.4	200.2	201.2	181.5	152.3	187.6	184.8
1959	217.4	143.1	185.7	163.3	172.0	168.7	149.6	199.6	145.2	111.4	124.0	125.0	159.0
1960	146.3	106.0	102.2	122.0	119.6	110.2	121.7	134.1	127.2	82.8	89.6	85.6	122.3
1961	57.9	46.1	53.0	61.4	51.0	77.4	70.2	55.8	63.6	37.7	32.6	39.9	53.9
1962	38.7	50.3	45.6	46.4	43.7	42.0	21.8	21.8	51.3	39.5	26.9	23.2	37.6
1963	19.8	24.4	17.1	29.3	43.0	35.9	19.6	33.2	38.8	35.3	23.4	14.9	27.9
1964	15.3	17.7	16.5	8.6	9.5	9.1	3.1	9.3	4.7	6.1	7.4	15.1	10.2 m
1965	17.5	14.2	11.7	6.8	24.1	15.9	11.9	8.9	16.8	20.1	15.8	17.0	15.1
1966	28.2	24.4	25.3	48.7	45.3	47.7	56.7	51.2	50.2	57.2	57.2	70.4	47.0
1967	110.9	93.6	111.8	69.5	86.5	67.3	91.5	107.2	76.8	88.2	94.3	126.4	93.8
1968	121.8	111.9	92.2	81.2	127.2	110.3	96.1	109.3	117.2	107.7	86.0	109.8	105.9 M
1969	104.4	120.5	135.8	106.8	120.0	106.0	96.8	98.0	91.3	95.7	93.5	97.9	105.5
1970	111.5	127.8	102.9	109.5	127.5	106.8	112.5	93.0	99.5	86.6	95.2	83.5	104.5
1971	91.3	79.0	60.7	71.8	57.5	49.8	81.0	61.4	50.2	51.7	63.2	82.2	66.6
1972	61.5	88.4	80.1	63.2	80.5	88.0	76.5	76.8	64.0	61.3	41.6	45.3	68.9
1973	43.4	42.9	46.0	57.7	42.4	39.5	23.1	25.6	59.3	30.7	23.9	23.3	38.0
1974	27.6	26.0	21.3	40.3	39.5	36.0	55.8	33.6	40.2	47.1	25.0	20.5	34.5
1975	18.9	11.5	11.5	5.1	9.0	11.4	28.2	39.7	13.9	9.1	19.4	7.8	15.5
1976	8.1	4.3	21.9	18.8	12.4	12.2	1.9	16.4	13.5	20.6	5.2	15.3	12.6 m
1977	16.4	23.1	8.7	12.9	18.6	38.5	21.4	30.1	44.0	43.8	29.1	43.2	27.5
1978	51.9	93.6	76.5	99.7	82.7	95.1	70.4	58.1	138.2	125.1	97.9	122.7	92.5
1979	166.6	137.5	138.0	101.5	134.4	149.5	159.4	142.2	188.4	186.2	183.3	176.3	155.4 M
1980	159.6	155.0	126.2	164.1	179.9	157.3	136.3	135.4	155.0	164.7	147.9	174.4	154.6
1981	114.0	141.3	135.5	156.4	127.5	90.9	143.8	158.7	167.3	162.4	137.5	150.1	140.4
1982	111.2	163.6	153.8	122.0	82.2	110.4	106.1	107.6	118.8	94.7	98.1	127.0	115.9
1983	84.3	51.0	66.5	80.7	99.2	91.1	82.2	71.8	50.3	55.8	33.3	33.4	66.6
1984	57.0	85.4	83.5	69.7	76.4	46.1	37.4	25.5	15.7	12.0	22.8	18.7	45.9
1985	16.5	15.9	17.2	16.2	27.5	24.2	30.7	11.1	3.9	18.6	16.2	17.3	17.9
1986	2.5	23.2	15.1	18.5	13.7	1.1	18.1	7.4	3.8	35.4	15.2	6.8	13.4 m
1987	10.4	2.4	14.7	39.6	33.0	17.4	33.0	38.7	33.9	60.6	39.9	27.1	29.4
1988	59.0	40.0	76.2	88.0	60.1	101.8	113.8	111.6	120.1	125.1	125.1	179.2	100.2
1989	161.3	165.1	131.4	130.6	138.5	196.2	126.9	168.9	176.7	159.4	173.0	165.5	157.6 M
1990	177.3	130.5	140.3	140.3	132.2	105.4	149.4	200.3	125.2	145.5	131.4	129.7	142.6
1991	136.9	167.5	141.9	140.0	121.3	169.7	173.7	176.3	125.3	144.1	108.2	144.4	145.7
1992	150.0	161.1	106.7	99.8	73.8	65.2	85.7	64.5	63.9	88.7	91.8	82.6	94.3
1993	59.3	91.0	69.8	62.2	61.3	49.8	57.9	42.2	22.4	56.4	35.6	48.9	54.6
1994	57.8	35.5	31.7	16.1	17.8	28.0	35.1	22.5	25.7	44.0	18.0	26.2	29.9
1995	24.2	29.9	31.1	14.0	14.5	15.6	14.6	15.1	12.3	21.7	9.4	10.8	17.8
1996	12.0												12.0

Values are preliminary from Jul 1995. For the yearly means, each 'M' marks a sunspot cycle maximum and each 'm' a minimum.

Hα SOLAR FLARES

JANUARY 1996

Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
SVTO	03	0827	0830	0834	N11	W08		01	2.7	7	SF		3	E		20		
GOES		1020	1026	1032						12		B 1.1						
GOES		1107	1110	1113						6		B 1.0						
GOES		1212	1223	1234						22		B 3.6						
RAMY		1308E	1335	1404D	N11	W08	7938	01	2.9	56D	SF		3	E		60		F
SVTO		1334	1335	1343	N11	W11		01	2.7	9	SF	B 6.0	3	E		17		
GOES		1405	1408	1410						5		B 2.8						
GOES		1438	1443	1447						9		B 4.5						
GOES		1520	1525	1535						15		B 1.9						
RAMY		1548	1548	1635D	N11	W12	7938	01	2.7	47D	1F		3	E		145		F
HOLL		1602	1603	1607	N10	W10	7938	01	2.9	5	SF	B 2.8	3	E		16		
HOLL		1707	1707	1715	N11	W12	7938	01	2.8	8	SF	C 1.0	3	E		18		
GOES		1741	1745	1751						10		B 2.2						
GOES		1753	1757	1801						8		B 3.8						
GOES		1817	1824	1827						10		B 2.6						
GOES		1829	1832	1834						5		B 2.6						
GOES		1932	1936	1939						7		B 2.2						
GOES		2048	2055	2102						14		B 2.5						
GOES		2111	2114	2119						8		B 2.5						
GOES	04	0447	0451	0455						8		B 1.3						
GOES		0456	0501	0506						10		B 1.7						
GOES		0601	0604	0606						5		B 1.2						
GOES		0646	0654	0707						21		B 4.0						
GOES		0828	0835	0837						9		B 2.2						
GOES		0848	0903	0912						24		B 4.5						
GOES		0928	0931	0933						5		B 1.8						
GOES		1004	1014	1023						19		B 4.9						
GOES		1053	1057	1059						6		B 2.7						
GOES		1106	1120	1130						24		B 3.8						
GOES		1234	1238	1246						12		B 1.9						
GOES		1324	1327	1329						5		B 2.3						
GOES		1331	1342	1347						16		B 3.7						
GOES		1422	1438	1441						19		B 3.4						
GOES		1458	1503	1506						8		B 2.1						
GOES		1553	1600	1606						13		B 1.7						
GOES		1616	1626	1639						23		B 4.0						
GOES		1754	1827	1840						46		B 3.5						
GOES		1918	1921	1923						5		B 2.9						
GOES		2017	2023	2030						13		B 2.2						
GOES		2238	2242	2250						12		B 3.0						
GOES		2351	2354	2356						5		B 2.2						
GOES	05	0159	0203	0209						10		B 1.1						
GOES		0227	0237	0249						22		B 3.2						
GOES		0256	0259	0304						8		B 2.3						
LEAR		0356	0356	0401	N10	W30	7938	01	2.9	5	SF	C 1.3	3	E		35		F
GOES		0737	0747	0800						23		B 2.6						
GOES		1438	1441	1443						5		B 2.1						
HOLL		1446	1446	1450	N10	W36	7938	01	2.9	4	SF		3	E		24		
GOES		1500	1504	1507						7		B 1.3						
HOLL		1531	1542	1558	N10	W37	7938	01	2.9	27	SF	B 3.8	3	E		38		F
HOLL		1803	1809	1812	S11	W05	7937	01	5.4	9	SF	B 1.6	3	E		11		
HOLL		2017	2025	2045	N12	W40	7938	01	2.8	28	SF		3	E		14		
GOES		2121	2125	2127						6		B 2.3						
GOES		2236	2240	2245						9		B 3.1						
GOES	06	0028	0032	0035						7		B 1.5						
GOES		0104	0107	0110						6		B 1.0						
GOES		0206	0210	0212						6		B 1.5						
GOES	07	0119	0122	0126						7		B 1.0						
GOES		0905	0911	0918						13		B 3.1						
GOES		0922	0925	0928						6		B 3.0						
GOES		1116	1120	1124						8		B 1.5						
GOES		1511	1515	1524						13		B 1.0						
GOES		1836	1841	1859						23		B 1.0						
GOES		2311	2318	2328						17		B 2.4						

Hα S O L A R F L A R E S

JANUARY 1996

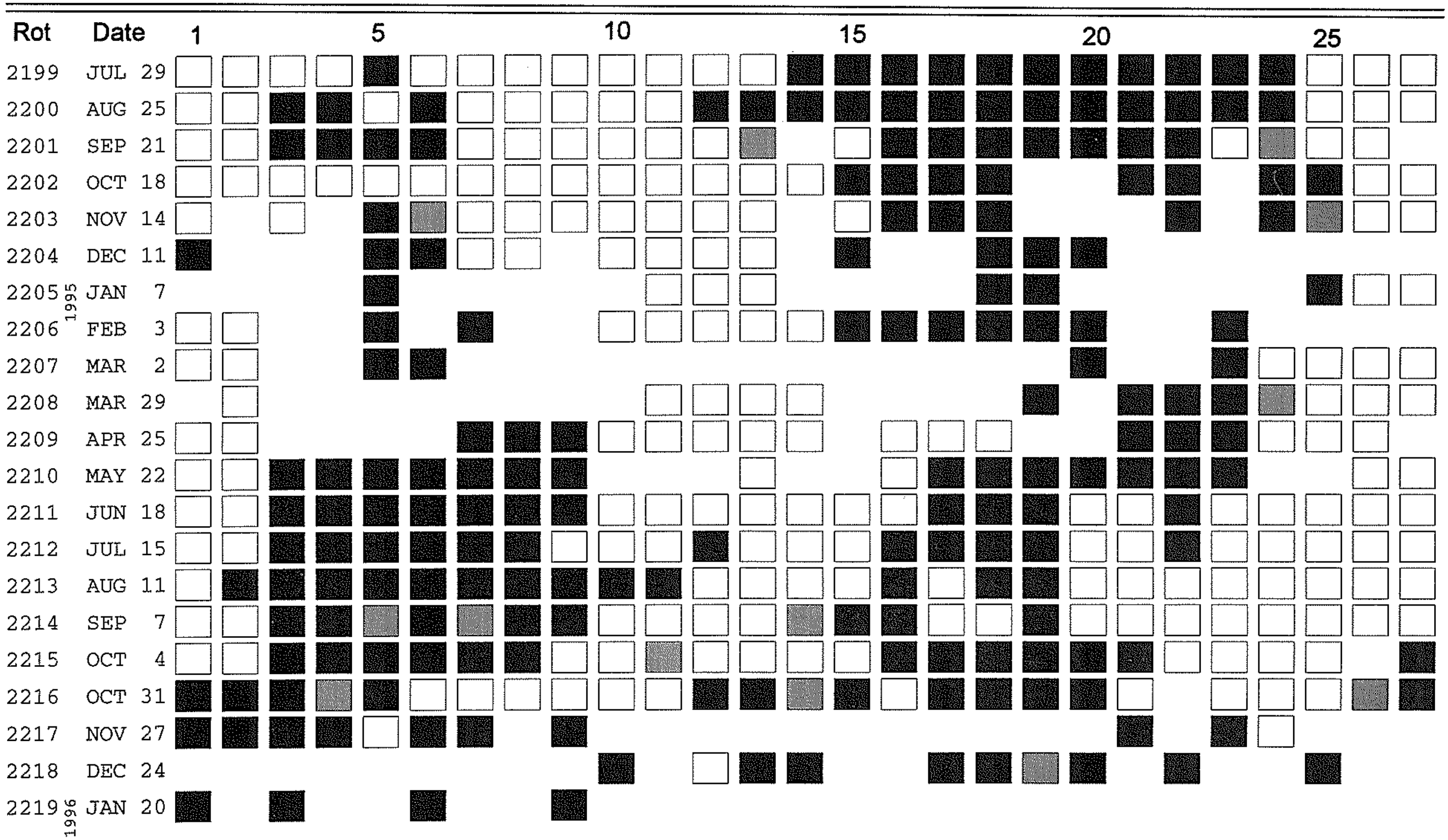
Sta	Day	Start (UT)	Max (UT)	End (UT)	Lat	CMD	NOAA/ USAF Region	CMP Mo	CMP Day	Dur (Min)	Imp Opt	Imp Xray	See	Obs Type	Area Measurement Time (UT)	Area Measurement Apparent (10-6 Disk)	Area Measurement Corr (Sq Deg)	Remarks
GOES	08	1008	1015	1020						12		B 1.5						
GOES		1458	1503	1506						8		B 2.0						
HOLL		1637	1638	1641	N03	W46	7939	01	5.2	4	SF	B 1.6	3	E		13		
GOES		1705	1709	1712						7		B 1.1						
GOES		1740	1744	1746						6		B 1.6						
GOES		1758	1812	1815						17		B 3.7						
GOES		1825	1830	1833						8		B 1.8						
GOES		1922	1926	1929						7		B 2.8						
GOES		1932	1935	1937						5		B 1.9						
GOES		2317	2321	2325						8		B 1.1						
GOES	31	0721	0724	0726						5		B 1.0						
GOES		0832	0836	0840						8		B 1.1						
RAMY		1722	1732	1735	N09	W54	7944	01	27.7	13	SF	B 2.8	3	E		14		F

"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

STANFORD MEAN SOLAR MAGNETIC FIELD

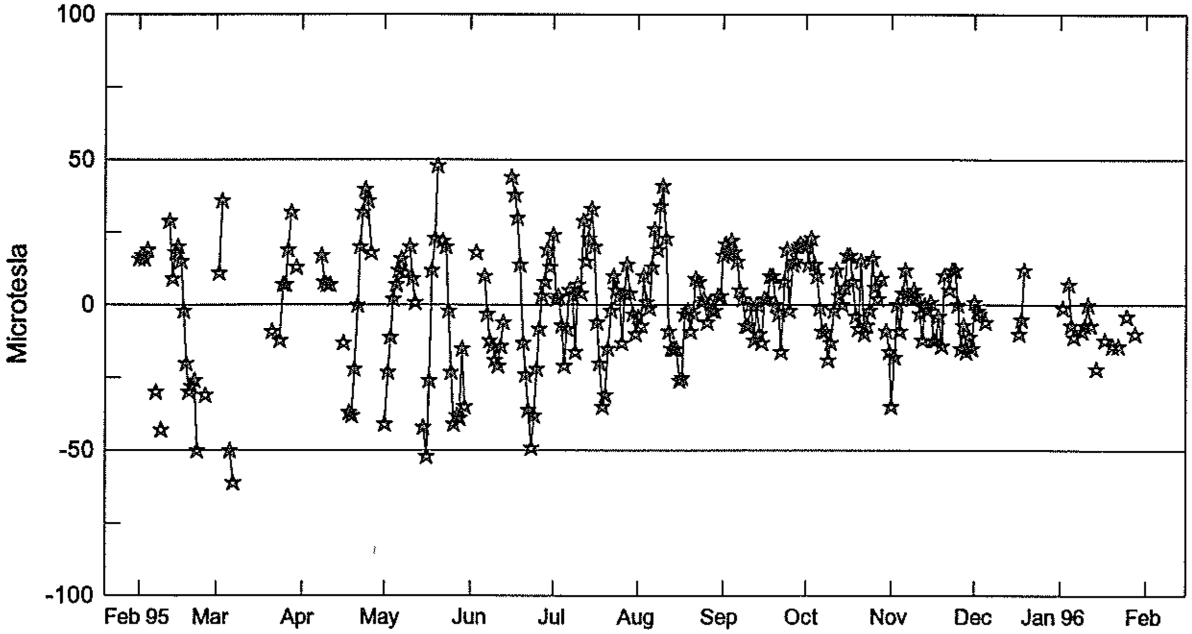


Mean Solar Magnetic Field Polarity: □ = field > 2 microT; ▒ = -2 microT ≤ field ≤ 2 microT

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

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

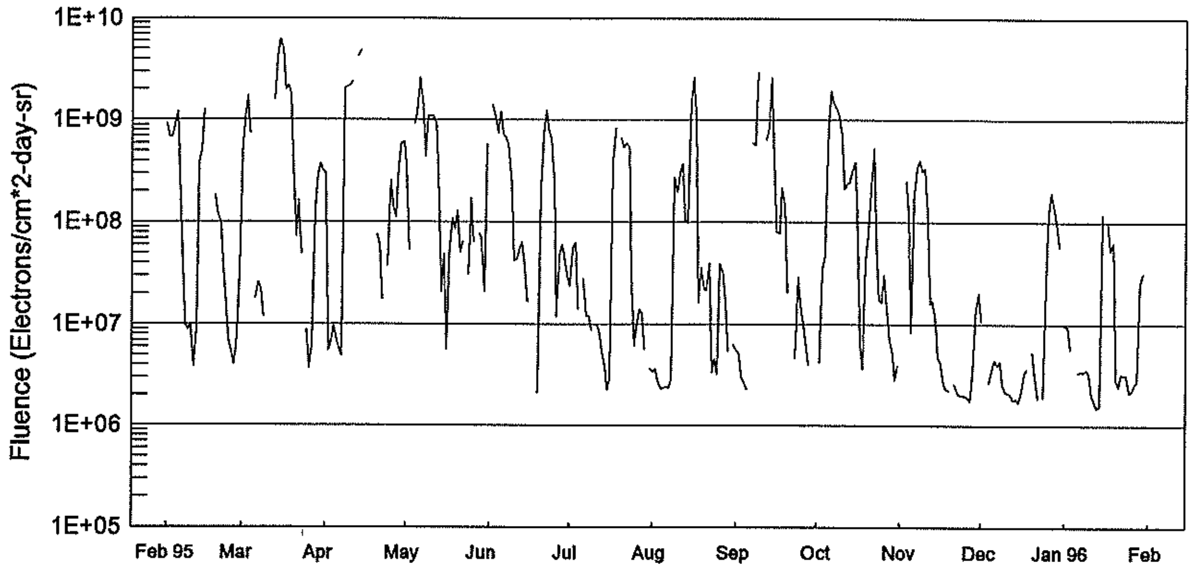
Stanford Mean Solar Magnetic Field (Microtesla)
"Sun-As-A-Star"



Day	Feb 95	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 96
1	16	---	---	-41	---	24	-4	17	20	-35	1	---
2	17	11	---	-23	---	2	-7	21	14	-18	-2	-1
3	16	36	---	-11	18	3	10	18	23	0	-3	---
4	19	---	---	2	---	-7	1	22	14	-9	---	7
5	---	---	---	7	---	-21	-1	18	10	4	6	-7
6	---	-50	---	12	10	-8	13	15	-1	12	---	-11
7	-30	-61	---	16	-3	5	26	5	-9	3	---	---
8	---	---	17	11	-12	3	19	2	-9	2	---	---
9	-43	---	8	---	-14	-16	34	-7	-19	5	---	-9
10	---	---	7	20	-19	7	41	-7	-13	3	---	-7
11	---	---	7	9	-21	4	23	0	-2	-3	---	0
12	29	---	---	1	-14	29	-9	-12	12	-12	---	-7
13	9	---	---	---	-6	15	-15	0	3	0	---	---
14	18	---	---	---	---	23	-15	-10	0	-2	---	-22
15	20	---	---	-42	---	33	-15	-13	6	1	---	---
16	15	---	-13	-52	44	20	-26	2	17	-12	---	---
17	-2	---		-26	38	-6	-25	2	17	-12	-10	-12
18	-20	---	-37	12	30	-20	-3	10	8	-4	---	---
19	-30	---	-38	23	14	-35	-2	10	-4	-14	-5	---
20	-28	---	-22	48	-13	-31	-9	0	-8	10	12	-14
21	-26	-9	0	---	-24	-15	-3	-3	15	---	---	---
22	-50	---	20	22	-36	-2	9	-16	-10	5	---	-14
23	---	---	32	20	-49	10	8	8	-7	12	---	---
24	---	-12	40	-2	-38	5	1	19	-2	12	---	---
25	-31	7	36	-23	-22	3	2	-2	16	0	---	-4
26	---	7	18	-41	-8	-13	-6	14	6	-15	---	---
27	---	19	---	-38	3	4	1	15	2	-7	---	---
28	---	32	---	-39	8	14	-2	20	9	-16	---	-10
29		---	---	-15	19	4	-2	21	---	-11	---	---
30		13	---	-35	13	-3	3	20	-9	-15	---	---
31		---		---		-10	3		-16		---	---

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

GOES7 Daily Electron Fluence
Feb 95 - Jan 96



Day	Feb 95	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 96
1	9.2E+08	4.9E+08	3.0E+08	3.6E+08	–	2.4E+07	3.3E+06	5.5E+06	–	–	1.0E+07	9.7E+06
2	6.9E+08	1.0E+09	5.4E+06	5.3E+07	1.3E+09	5.8E+07	3.6E+06	5.1E+06	4.2E+06	–	–	9.4E+06
3	6.7E+08	1.7E+09	6.2E+06	–	1.1E+09	6.3E+07	2.7E+06	2.9E+06	3.4E+07	2.4E+08	–	5.6E+06
4	8.9E+08	7.2E+08	9.5E+06	9.2E+08	7.5E+08	1.4E+07	2.2E+06	2.6E+06	4.5E+07	1.1E+08	2.6E+06	–
5	1.2E+09	–	7.3E+06	1.3E+09	1.2E+09	–	2.3E+06	2.2E+06	8.6E+08	8.3E+06	3.7E+06	–
6	2.7E+08	1.7E+07	5.7E+06	2.6E+09	7.2E+08	2.8E+07	2.3E+06	–	1.9E+09	1.7E+08	4.4E+06	3.3E+06
7	3.6E+07	2.5E+07	4.8E+06	1.4E+09	6.8E+08	1.2E+07	2.3E+06	5.9E+08	1.4E+09	3.5E+08	3.8E+06	3.4E+06
8	1.0E+07	2.2E+07	2.0E+09	4.4E+08	5.5E+08	1.2E+07	2.8E+06	5.6E+08	1.3E+09	4.0E+08	4.3E+06	3.3E+06
9	8.7E+06	1.1E+07	2.1E+09	1.1E+09	2.4E+08	8.6E+06	2.7E+08	2.9E+09	1.1E+09	3.1E+08	2.5E+06	3.5E+06
10	9.9E+06	–	2.1E+09	1.1E+09	4.1E+07	–	1.9E+08	–	7.2E+08	3.3E+08	2.1E+06	3.2E+06
11	3.7E+06	1.5E+08	2.4E+09	1.1E+09	4.2E+07	1.0E+07	3.1E+08	–	2.0E+08	1.3E+08	2.1E+06	2.0E+06
12	8.3E+06	–	–	9.0E+08	5.3E+07	8.6E+06	3.7E+08	6.4E+08	2.3E+08	1.5E+07	2.0E+06	1.7E+06
13	3.9E+08	1.5E+09	4.2E+09	1.7E+08	6.3E+07	5.2E+06	1.0E+08	8.3E+08	2.4E+08	1.6E+07	1.7E+06	1.4E+06
14	5.0E+08	4.2E+09	4.9E+09	2.1E+07	4.1E+07	3.9E+06	9.8E+07	2.6E+09	3.1E+08	1.1E+07	1.8E+06	1.5E+06
15	1.2E+09	6.2E+09	–	4.9E+07	1.6E+07	2.2E+06	1.4E+09	3.9E+08	3.8E+08	4.6E+06	1.6E+06	1.2E+08
16	–	4.9E+09	–	5.6E+06	–	2.9E+06	2.6E+09	8.0E+07	1.1E+08	4.2E+06	2.0E+06	–
17	6.0E+08	1.9E+09	–	4.9E+07	–	3.9E+08	9.6E+08	7.6E+07	6.6E+06	2.7E+06	3.3E+06	9.6E+07
18	–	2.2E+09	–	1.1E+08	–	8.5E+08	1.6E+07	2.1E+08	3.6E+06	2.2E+06	3.6E+06	5.2E+07
19	1.8E+08	1.7E+09	–	8.6E+07	2.0E+06	–	3.6E+07	1.4E+08	4.0E+07	2.2E+06	–	6.3E+07
20	1.1E+08	3.3E+08	7.5E+07	1.3E+08	2.1E+08	6.7E+08	2.1E+07	2.0E+07	7.4E+07	–	5.2E+06	2.8E+06
21	9.8E+07	7.2E+07	6.0E+07	5.0E+07	7.2E+08	5.4E+08	2.1E+07	–	1.9E+08	2.5E+06	3.1E+06	2.4E+06
22	4.1E+07	1.6E+08	1.7E+07	6.5E+07	1.2E+09	6.0E+08	3.9E+07	–	5.3E+08	2.2E+06	1.8E+06	3.1E+06
23	1.5E+07	4.8E+07	–	–	7.8E+08	5.4E+08	3.3E+06	4.6E+06	5.4E+07	2.0E+06	–	3.1E+06
24	6.7E+06	–	3.7E+07	3.1E+07	6.6E+08	3.2E+07	4.5E+06	2.9E+07	1.7E+07	1.9E+06	1.8E+06	3.1E+06
25	5.4E+06	8.7E+06	2.5E+08	1.7E+08	2.2E+08	6.1E+06	3.1E+06	1.4E+07	1.6E+07	1.9E+06	2.4E+07	2.0E+06
26	3.9E+06	3.6E+06	1.3E+08	6.3E+07	1.1E+07	1.0E+07	3.8E+07	1.0E+07	3.0E+07	1.8E+06	1.2E+08	2.2E+06
27	6.0E+06	5.9E+06	1.1E+08	–	4.9E+07	1.4E+07	3.1E+07	6.1E+06	1.2E+07	1.7E+06	1.9E+08	2.5E+06
28	3.2E+07	1.2E+08	3.3E+08	7.6E+07	6.0E+07	1.3E+07	1.6E+07	3.8E+06	6.8E+06	3.4E+06	1.3E+08	2.7E+06
29		2.9E+08	5.9E+08	7.1E+07	4.2E+07	5.6E+06	5.3E+06	–	5.5E+06	1.2E+07	9.2E+07	2.5E+07
30		3.7E+08	6.1E+08	2.1E+07	3.0E+07	–	–	–	2.7E+06	2.0E+07	5.7E+07	3.1E+07
31		3.1E+08		5.9E+08		3.6E+06	6.2E+06		3.9E+06		–	–

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

SOLAR CORONAL HOLE DATA
JANUARY 1996

Date	CH	Polarity	Heliographic Latitude	Carrington Longitude	Extension LAT	LONG	Shape	Rotations Visible	Uncertainty	Remarks
960101										NO DATA
960102										NO DATA
960103										NO DATA
960104	E706	+	N39	134	10	6	E	1	1	
960105										NO DATA
960106										NO DATA
960107										NO DATA
960108	P249	+	N58	111	5	23	I	7	1	
	E707	+	N46	122	8	10	I	1	1	
	E708	-	N13	92	3	5	I	1	1	
	P258	-	S56	78	7	15	I	2	1	
960109	P249	+	N57	127	5	10	P	2	1	
	E709	-	N12	92	2	5	E	1	1	
	E708	-	N16	92	4	5	I	1	1	
	E710	-	S08	91	4	5	D	1	1	
	E711	-	S13	90	4	4	E	1	1	
	E712	-	S24	72	9	9	I	1	1	
	P258	-	S47	51	26	86	E	2	1	
	E713	-	S24	66	8	5	I	1	1	
	E714	+	S18	56	14	16	I	1	1	
	E715	+	S13	38	4	13	I	1	1	
	E716	+	S08	34	4	9	I	1	1	
	E717	-	N03	31	5	18	I	1	1	
960110	E718	-	S43	84	8	13	E	1	1	D 258
	P258	-	S54	60	12	20	R	2	1	R 718
	E715	+	S16	43	7	6	E	1	1	
	E717	-	S07	38	4	5	I	1	1	
960111	E719	+	S19	75	5	7	I	1	1	
	E258	-	S51	79	18	28	I	2	1	
	E720	+	S23	67	3	7	E	1	1	
	E721	+	S24	45	5	7	I	1	1	
	E717	-	S03	39	13	11	I	1	1	
	E722	+	S09	23	6	9	I	1	1	

SOLAR CORONAL HOLE DATA JANUARY 1996

Date	CH	Polarity	Heliographic Latitude	Carrington Longitude	Extension LAT	LONG	Shape	Rotations Visible	Uncertainty	Remarks
960112	E723	-	S59	130	5	23	I	1	1	
	E724	-	S18	89	4	7	E	1		
	E725	-	S47	85	6	8	I	1	1	D 258
	P258	-	S55	76	10	25	I	2	1	
	E726	-	S50	78	5	12	I	1	1	D 258
	E727	-	S07	43	18	13	I	1	1	R 717
	E721	-	S25	39	7	10	I	1	1	
	E728	-	S14	37	4	8	I	1	1	
	E729	-	S01	25	7	6	I	1	1	
	E730	-	S13	22	3	8	E	1	1	
	E731	+	S05	3	10	10	E	1	1	
	E732	+	N07	348	7	20	I	1	1	
960113	E725	-	S48	88	7	7	E	1	1	
	P258	-	S56	76	7	20	I	2	1	
	E733	+	S23	63	6	4	E	1	1	
	E727	-	S05	42	9	6	I	1	1	
	E732	+	N11	343	11	34	I	1	1	
	E734	+	N17	348	4	9	I	1	1	
960114										NO DATA
960115	P258	-	S57	63	5	41	E	2	1	
	E735	-	S12	53	6	3	E	1	1	
	E727	-	N03	46	7	7	I	1	1	
	E736	-	S07	42	6	17	I	1	1	
	E737	-	S07	21	3	7	E	1	1	
	E732	+	N18	346	28	42	I	1	1	
960116	E732	+	N11	358	6	7	I	1	1	
	E738	-	N10	349	4	10	I	1	1	
	E739	+	N18	349	7	10	I	1	1	
	E740	+	N21	340	4	8	I	1	1	
	E741	-	N07	340	4	5	E	1	1	
	E742	+	N18	335	10	8	E	1	1	
960117	E743	+	N11	5	3	6	I	1	1	
	E732	+	N18	347	16	28	I	1	1	
	E738	-	N08	347	9	10	I	1	1	
	E744	-	N13	345	3	5	D	1	1	

SOLAR CORONAL HOLE DATA JANUARY 1996

Date	CH	Polarity	Heliographic Latitude	Carrington Longitude	Extension LAT	Extension LONG	Shape	Rotations Visible	Uncertainty	Remarks
960117	E740	+	N29	339	9	12	I	1	1	
	E741	-	N13	340	6	6	I	1	1	
960118	E738	-	N08	344	5	6	I	1	1	
	E732	+	N22	344	24	23	I	1	1	R 244
960119	E745	+	N02	351	7	5	E	1	1	
	E732	+	N15	351	13	21	I	1	1	
	E738	-	N06	345	7	6	I	1	1	
	E746	+	N13	340	5	7	E	1	1	
	E747	+	N26	339	11	13	E	1	1	C 732
	E748	+	N17	335	4	5	D	1	1	
	P261	-	S57	332	6	8	P	2		
	E749	-	N04	319	5	4	E	1	1	
	P250	+	N56	285	7	35	S	7	1	
	P260	-	S57	268	5	30	E	2	1	
960120	P750	+	N11	3	8	8	I	1	1	
	E732	+	N21	345	19	18	I	1	1	R 747
	E260	-	S56	284	8	40	I	2	1	
960121										NO DATA
960122	E732	+	N21	349	12	13	E	1	1	
	E751	+	N11	343	5	9	I	1	1	
	E752	+	N26	319	3	5	D	1	1	
	E753	+	N18	313	5	10	I	1	1	
	E754	+	N07	312	5	6	E	1	1	
	E755	+	N10	309	4	6	E	1	1	
	E756	-	S32	302	14	11	I	1	1	
	E757	-	S20	301	10	3	E	1	1	
	P260	-	S54	296	11	20	P	2	1	
	E758	-	S13	295	3	5	P	1	1	
	E759	-	S16	252	3	8	E	1	1	
	E760	+	S32	250	4	5	D	1	1	
	E761	+	S28	239	4	9	E	1	1	
	E762	-	S19	237	6	11	I	1	1	
960123	P260	-	S55	297	9	24	S	2	1	
	E763	+	S26	243	3	5	D	1	1	
	E764	+	N51	242	10	15	I	1	1	

SOLAR CORONAL HOLE DATA JANUARY 1996

Date	CH	Polarity	Heliographic Latitude	Carrington Longitude	Extension LAT	LONG	Shape	Rotations Visible	Uncertainty	Remarks
960123	E762	-	S20	235	10	12	I	1	1	
	E765	+	S29	228	4	6	D	1	1	
	E766	-	S21	227	5	4	E	1	1	
	P262	-	S57	225	6	16	P	1	1	
960124	P260	-	S57	292	6	40	S	2	1	R 764
	E763	+	S33	250	7	5	I	1	1	
	P262	-	S57	233	5	24	I	1	1	
	E765	+	S31	235	4	5	I	1	1	
	E762	-	S23	233	6	15	I	1	1	R 767
	E767	-	S17	226	3	7	E	1	1	R 762
	E768	+	N44	223	2	5	D	1	1	
	E769	-	S17	219	5	8	D	1	1	
	P264	-	S58	193	4	44	I	1	1	
	P263	+	N54	238	12	28	E	1	1	
960125	E770	-	S51	307	2	12	E	1	1	
	P263	+	N55	245	9	21	E	1	1	
	E771	+	S22	239	7	5	I	1	1	
	E762	-	S26	229	6	3	E	1	1	
	E772	-	S59	167	6	37	E	1	1	
960126	E773	-	S29	248	7	5	E	1	1	
	P263	+	N54	248	11	20	R	1	1	
	E771	+	S20	234	7	15	I	1	1	
	E762	-	S17	230	5	8	I	1	1	
	E774	+	N58	213	4	9	E	1	1	
960127	E775	+	S32	250	6	9	I	1	1	
	P263	+	N50	248	19	10	E	1	1	
	E776	+	S30	243	3	8	E	1	1	
	E771	+	S24	239	6	6	I	1	1	
	E777	+	S32	236	2	6	E	1	1	
	E762	-	S19	233	8	7	I	1	1	
	P264	-	S57	226	5	16	S	1	1	
	P265	-	S56	199	7	12	P	1	1	
	E778	+	S28	177	7	9	I	1	1	
960128										NO DATA
960129	P263	+	N57	248	6	39	I	1	1	

SOLAR CORONAL HOLE DATA JANUARY 1996

Date	CH	Polarity	Heliographic Latitude	Carrington Longitude	Extension LAT	LONG	Shape	Rotations Visible	Uncertainty	Remarks
960129	E771	+	S25	244	1	6	E	1	1	
	P264	-	S58	239	4	37	I	1	1	
	E779	+	S21	237	3	8	E	1	1	
	E780	+	S16	234	5	6	I	1	1	
	P266	+	N56	216	8	7	P	2	1	
	E781	+	N47	192	4	7	I	1	1	
	E782	+	N23	159	7	5	I	1	1	
	E783	+	N25	151	1	7	E	1	1	
	P256	+	N55	147	10	20	I	2	1	
	E784	+	N55	140	1	5	E	1	1	
960130	E771	+	S28	255	10	18	I	1	1	
	E780	+	S24	236	5	5	D	1	1	
	P263	+	N57	235	7	40	S	1	1	
	E785	+	S33	217	6	9	I	1	1	
	P264	-	S57	250	8	70	I	2	1	
	E787	-	S47	202	5	7	I	1	1	
	P265	-	S58	201	5	22	I	2	1	
	E786	+	S24	198	5	8	I	1	1	
	E788	+	N39	172	3	8	I	1	1	
	E789	+	N30	168	7	9	I	1	1	
	E790	+	S35	168	5	10	I	1	1	
	E791	-	N24	166	8	11	I	1	1	
	P256	+	N53	141	15	32	I	2	1	
	E782	+	N30	137	26	50	R	1	1	
	E792	+	S36	133	3	6	I	1	1	
950131	P264	-	S57	248	5	50	S	2	1	
	E793	+	S36	186	8	9	I	1	1	
	E794	+	S38	167	4	6	D	1	1	
	E795	-	S37	162	6	4	E	1	1	
	E790	+	S32	162	6	7	E	1	1	
	E796	+	N24	158	8	12	I	1	1	
	P256	+	N52	151	16	35	E	2	1	
	E797	+	N37	148	5	10	I	1	1	
	E782	+	N29	134	21	41	I	1	1	
	E798	+	N08	131	4	5	I	1	1	

SOLAR CORONAL HOLE DATA JANUARY 1996

Date	CH	Polarity	Heliographic Latitude	Carrington Longitude	Extension LAT	LONG	Shape	Rotations Visible	Uncertainty	Remarks
950131	E792	+	S37	131	4	5	D	1	1	
	E799	-	S36	121	4	8	E	1	1	

SOLAR CORONAL HOLE DATA LEGEND

CH: Coronal Hole identification number and type (E=equatorial, P=polar).

SHAPE: Polar coronal hole shapes are divided into several classifications:
B=booted, C=conic, D=dumbell, E=elongated, I=irregular, P=pointed, R=ramified, S=square.
Equatorial coronal holes are classified as: C=circular, D=elliptic, E=elongated, I=irregular, R=ramified.

UNCERTAINTY: Certainty in measurements: 1=high, 2=medium, 3=poor.

REMARKS: C=connected, D=disconnected, PI=provisional identification, R=related to (hole identification number).

CONTENTS

Prompt Reports

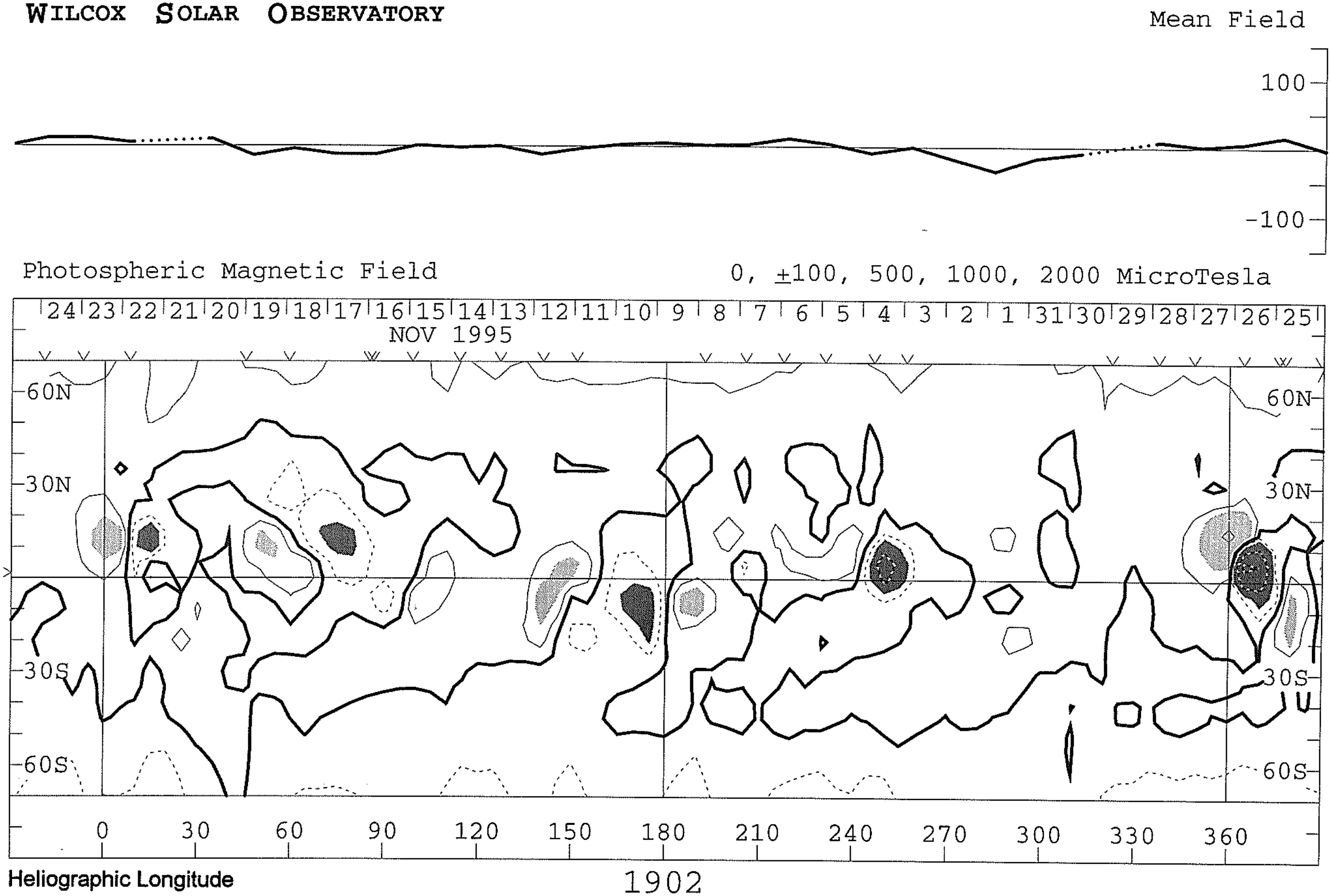
Number 618 Part I

DATA FOR DECEMBER 1995

SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1902
(27 October to 23 November 1995)

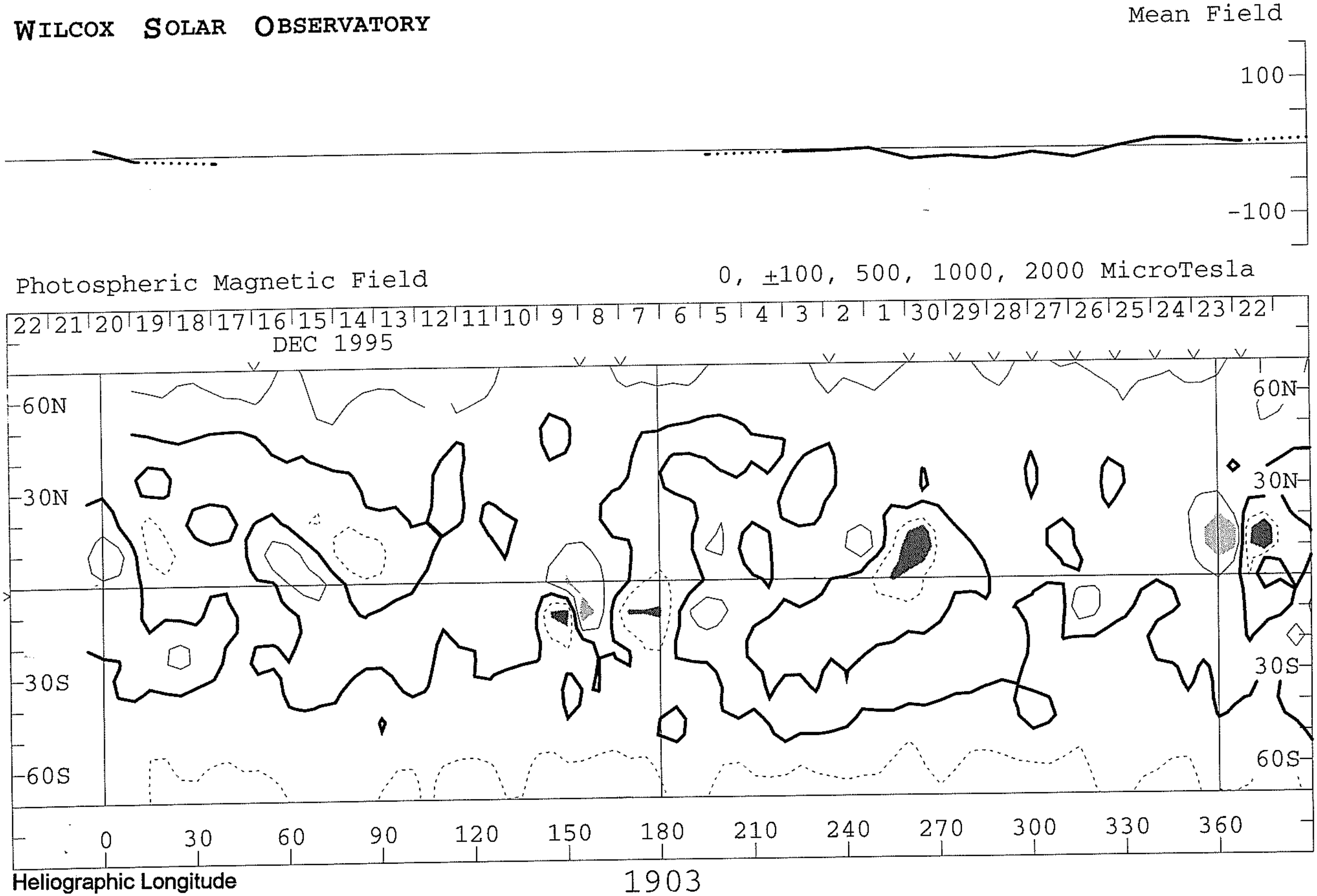
WILCOX SOLAR OBSERVATORY



SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1903
(23 November to 20 December 1995)

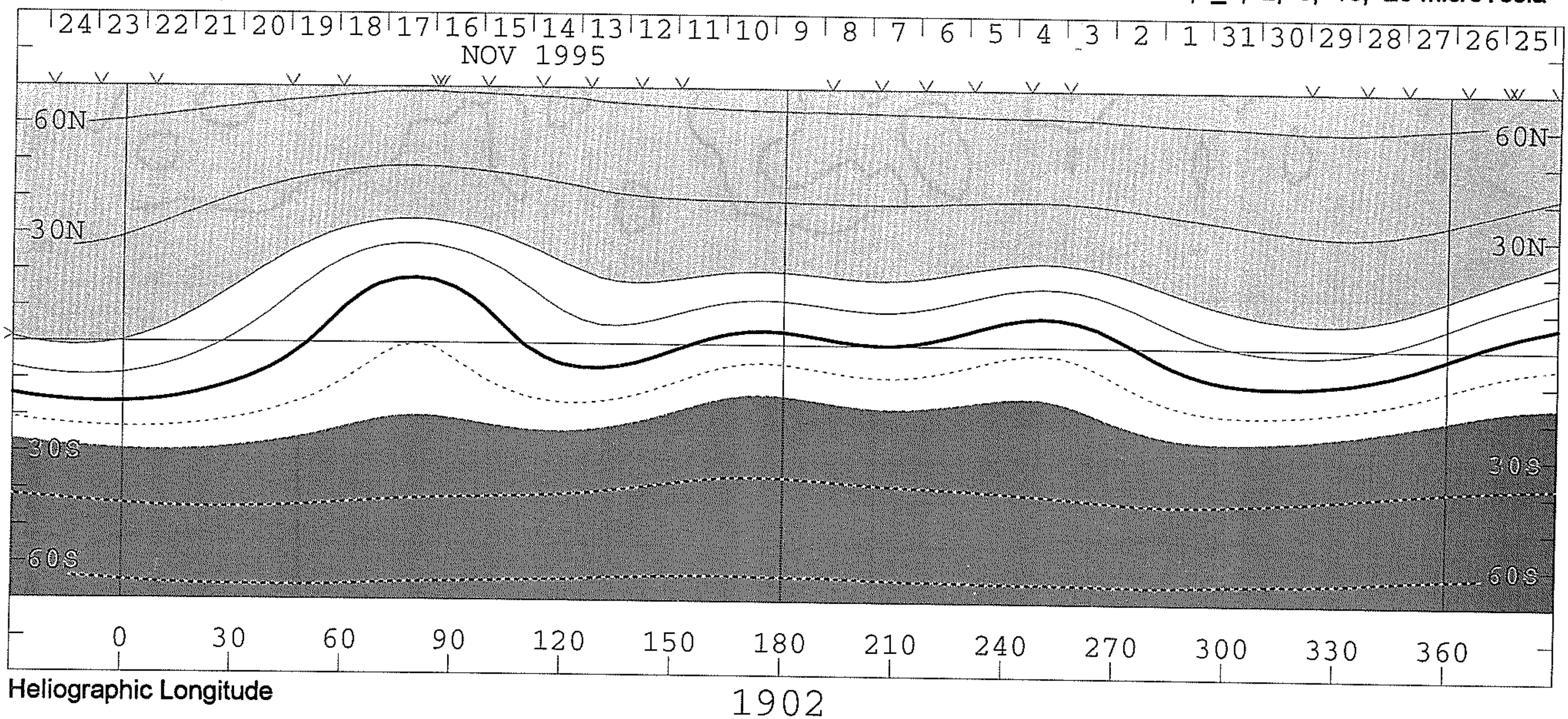
WILCOX SOLAR OBSERVATORY



SOLAR MAGNETIC FIELD SYNOPTIC CHART
SOURCE SURFACE FIELD
CARRINGTON ROTATION NUMBER 1902
(27 October to 23 November 1995)

Wilcox Solar Observatory

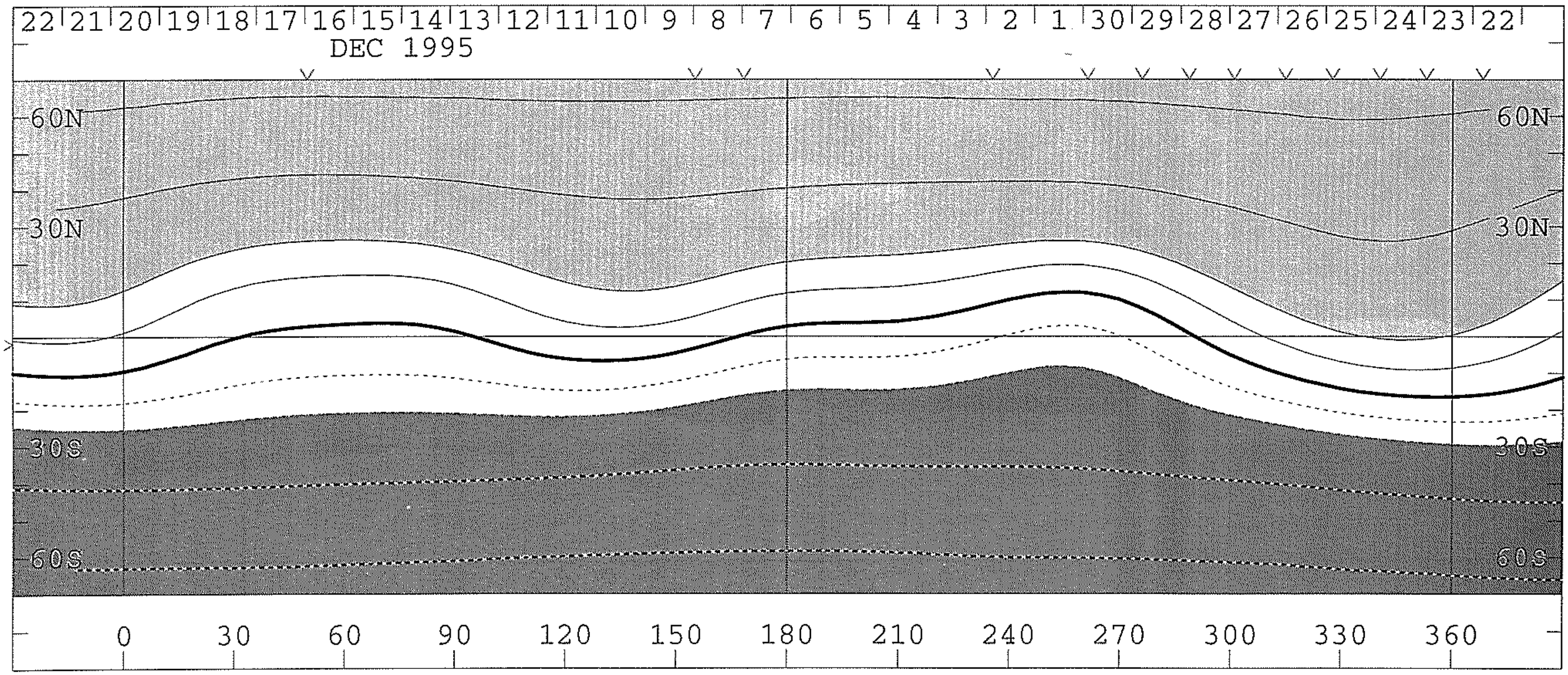
0, ±1, 2, 5, 10, 20 microTesla



SOLAR MAGNETIC FIELD SYNOPTIC CHART
SOURCE SURFACE FIELD
CARRINGTON ROTATION NUMBER 1903
(23 November to 20 December 1995)

Wilcox Solar Observatory

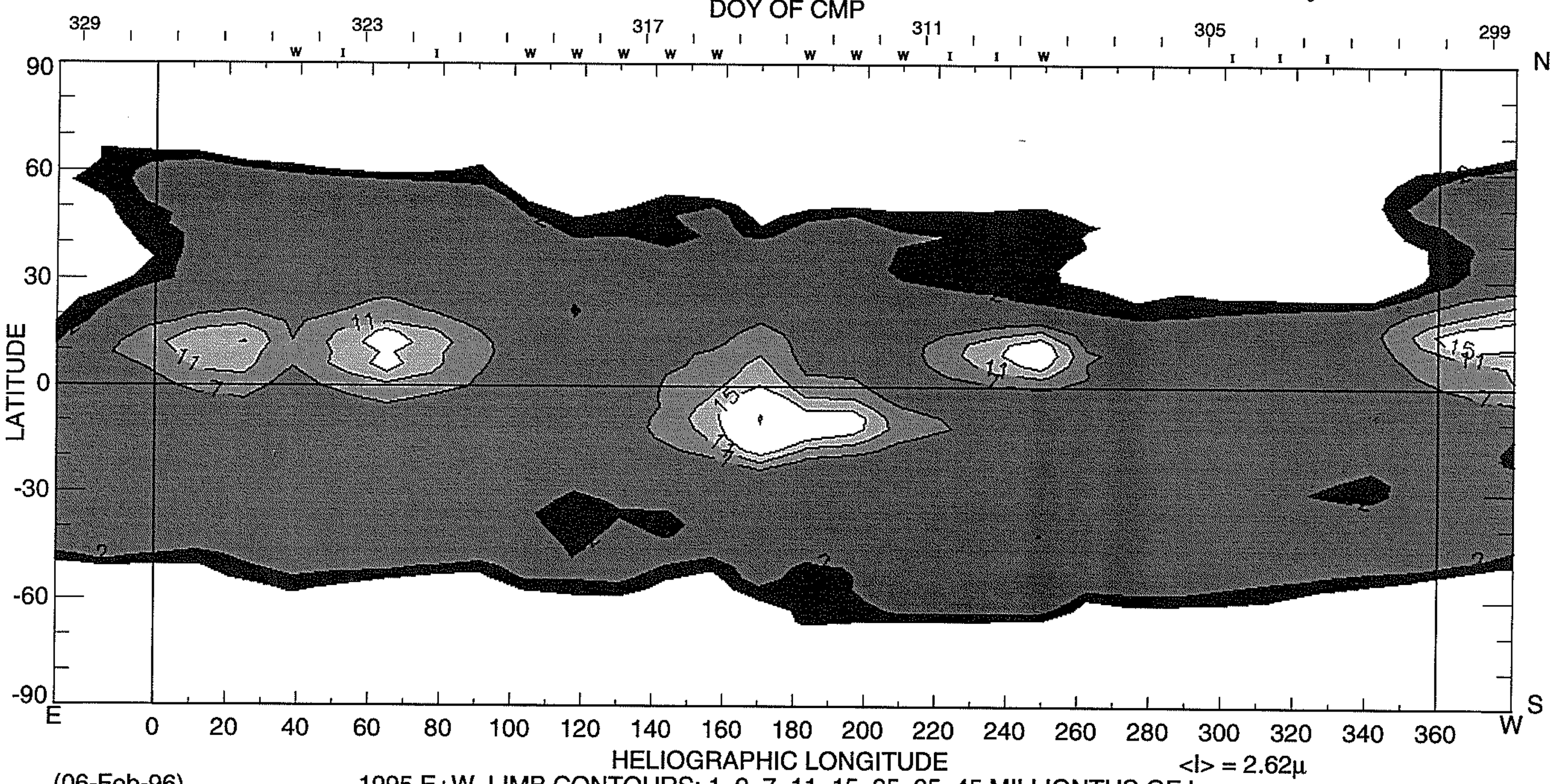
0, ± 1, 2, 5, 10, 20 microTesla



Heliographic Longitude

1903

CARRINGTON ROTATION NUMBER 1902 ; NSO/SACRAMENTO PEAK FE XIV @ R = $1.15R_o$

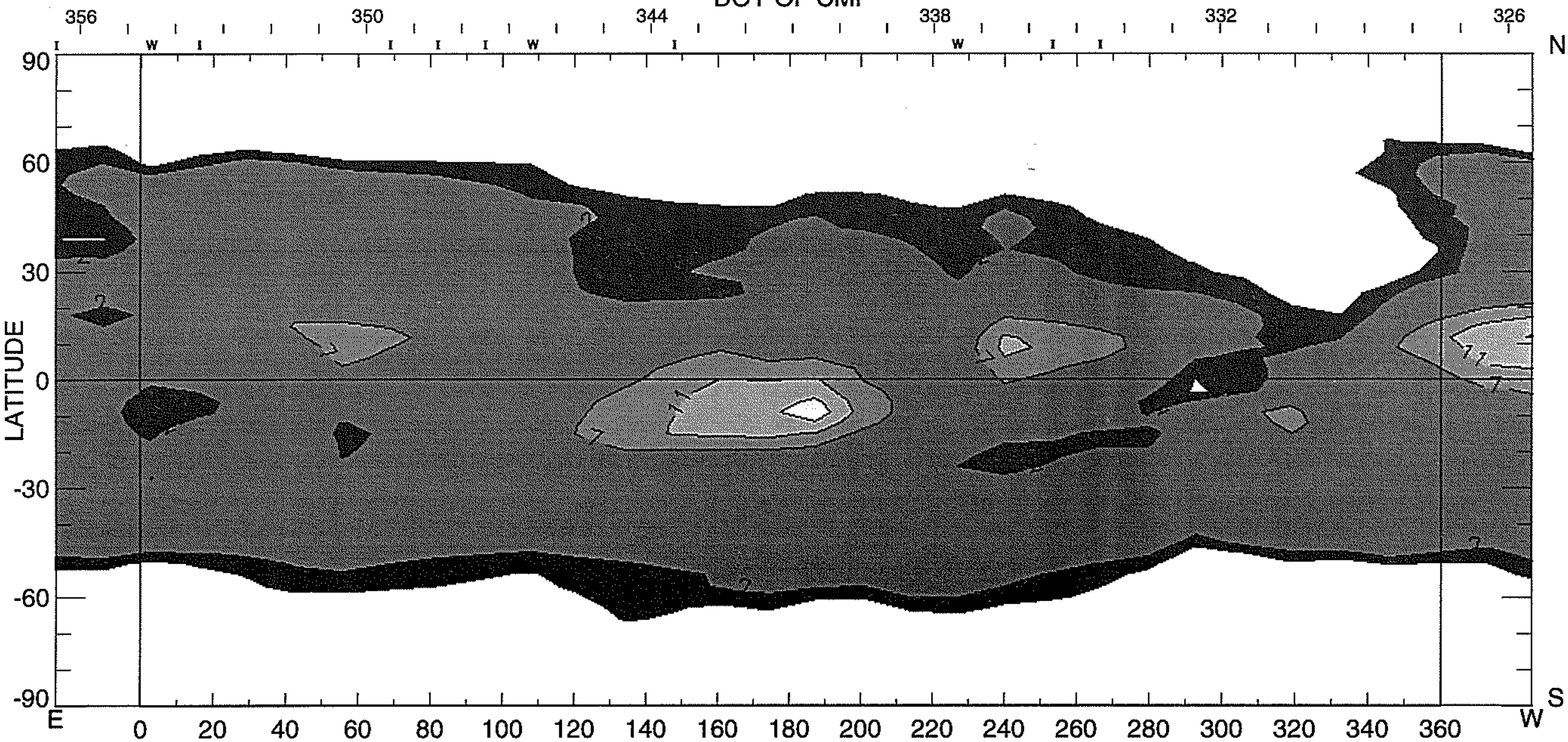


(06-Feb-96)

1995 E+W LIMB CONTOURS: 1, 2, 7, 11, 15, 25, 35, 45 MILLIONTHS OF I_o

CORONAL HOLES ARE SHOWN AS WHITE BORDERED BY BLACK

CARRINGTON ROTATION NUMBER 1903 ; NSO/SACRAMENTO PEAK FE XIV @ R = 1.15R_o
DOY OF CMP

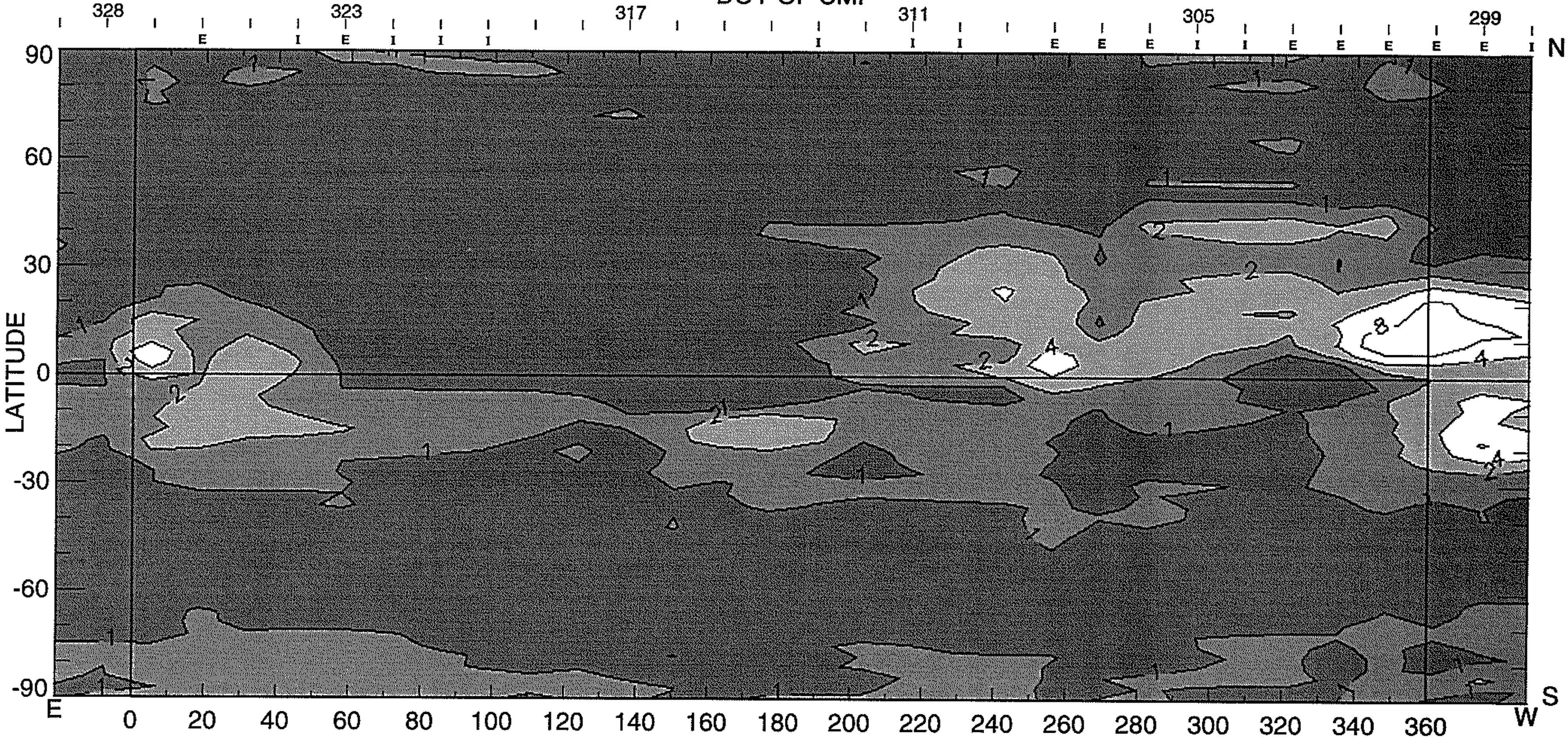


HELIOGRAPHIC LONGITUDE $\langle I \rangle = 2.26\mu$

(08-Feb-96) 1995 E+W LIMB CONTOURS: 1, 2, 7, 11, 15, 25, 35, 45 MILLIONTHS OF I_o

CORONAL HOLES ARE SHOWN AS WHITE BORDERED BY BLACK

CARRINGTON ROTATION NUMBER 1902 ; NSO/SACRAMENTO PEAK FE X @ R = 1.15R_o
DOY OF CMP

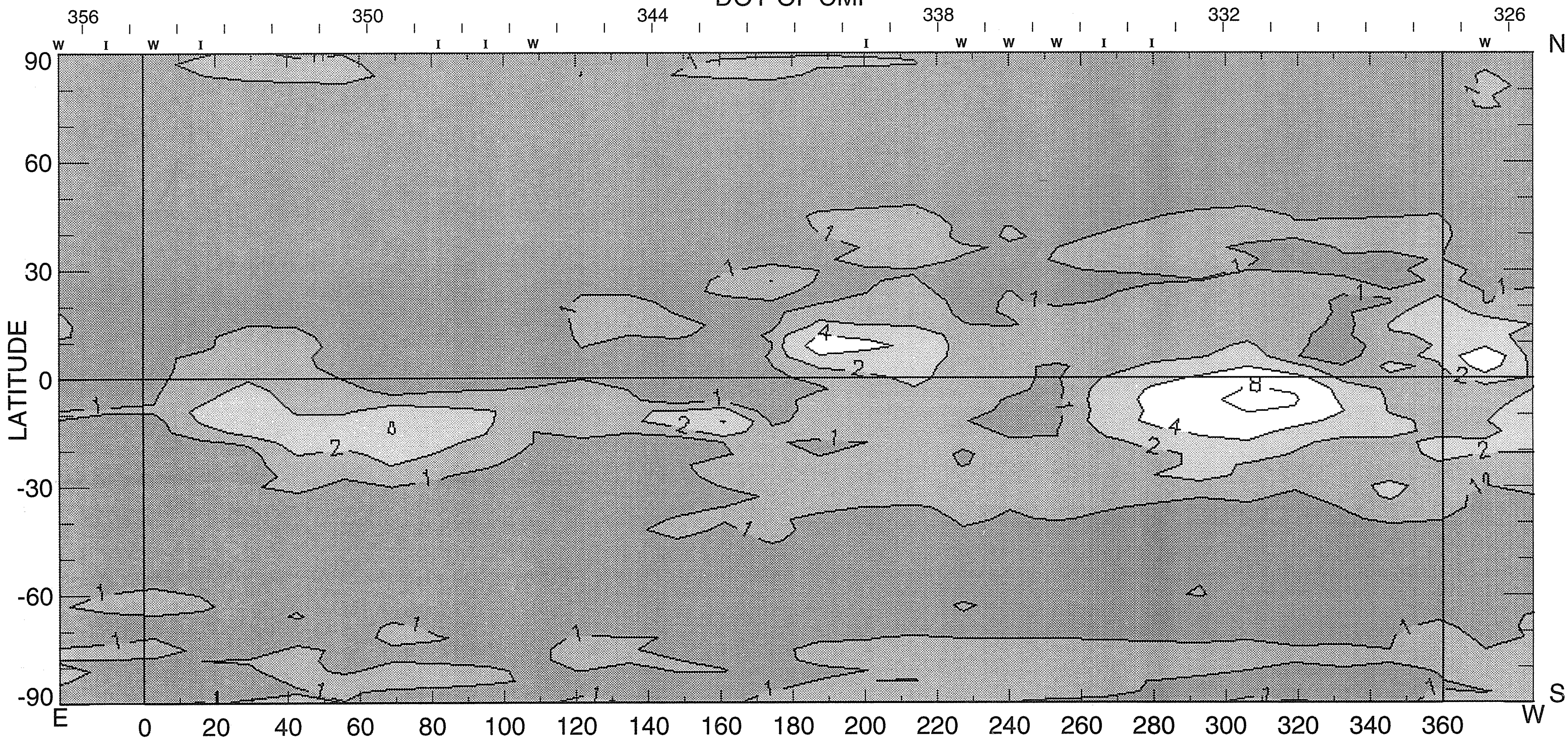


(06-Feb-96)

<I> = 1.02μ

1995 W+E LIMB CONTOURS: 1, 2, 4, 8, 16, 32, 48 MILLIONTHS OF I_o

CARRINGTON ROTATION NUMBER 1903 ; NSO/SACRAMENTO PEAK FE X @ R = 1.15R_o
DOY OF CMP



$\langle I \rangle = 0.95\mu$

(13-Feb-96)

1995 E+W LIMB CONTOURS: 1, 2, 4, 8, 16, 32, 48 MILLIONTHS OF I_o

NOTE: No Ca XV emission observed at Sacramento Peak for Rotations 1902 and 1903.

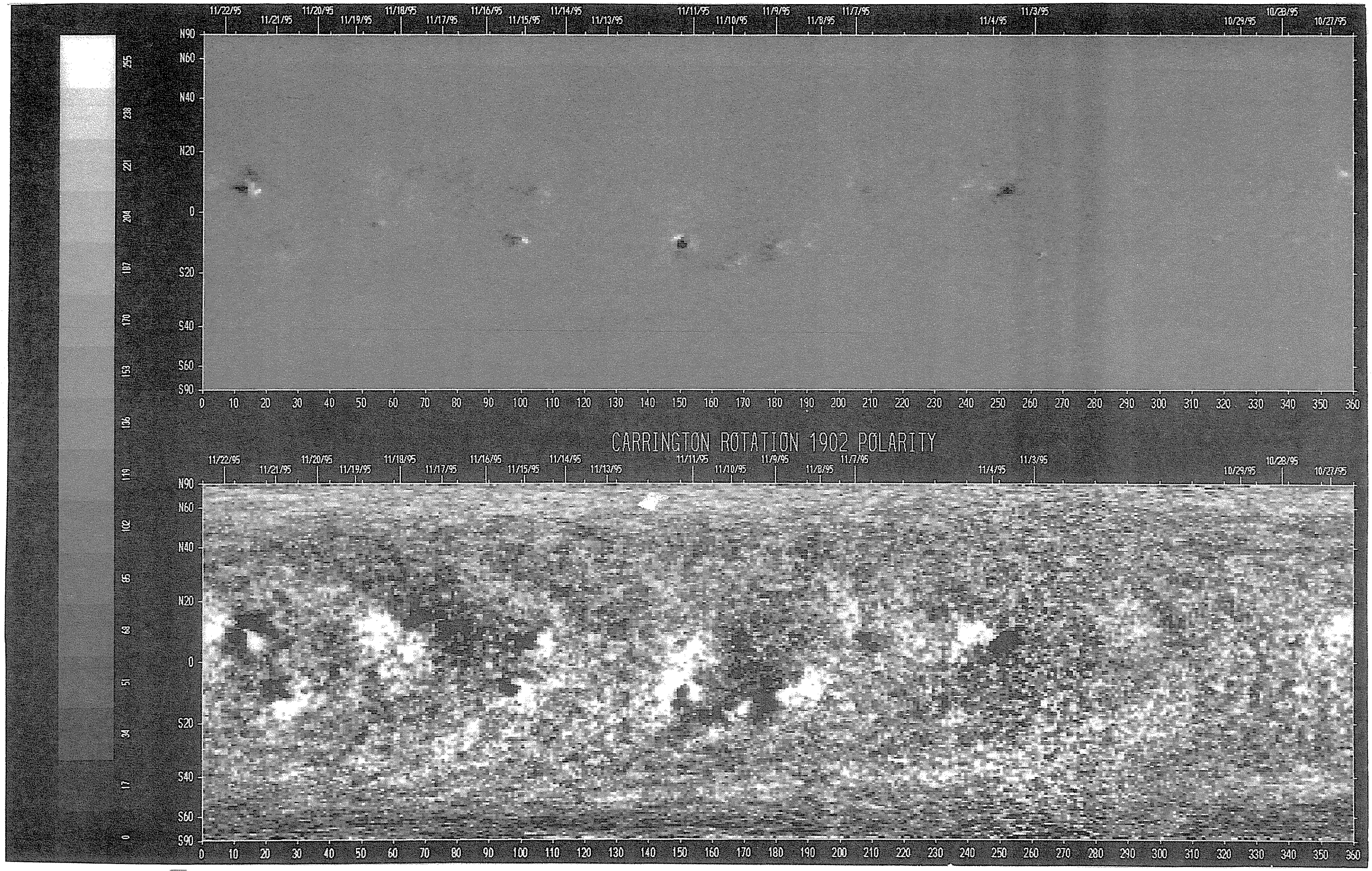
SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1902

(27 October to 23 November 1995)

National Solar Observatory/Kitt Peak

Dates of Observation



Heliographic Longitude

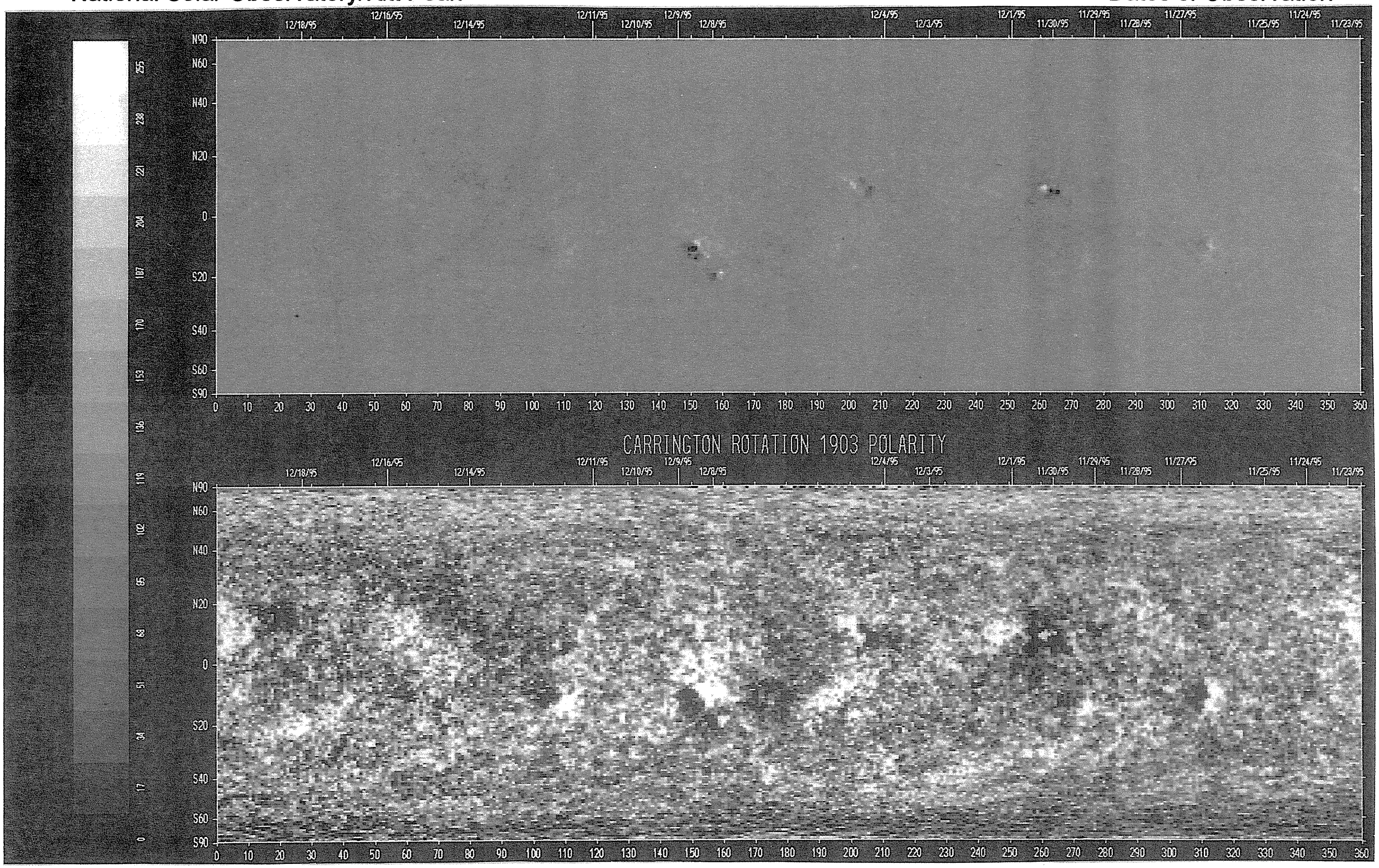
SOLAR MAGNETIC FIELD SYNOPTIC CHART

CARRINGTON ROTATION NUMBER 1903

(23 November to 20 December 1995)

National Solar Observatory/Kitt Peak

Dates of Observation



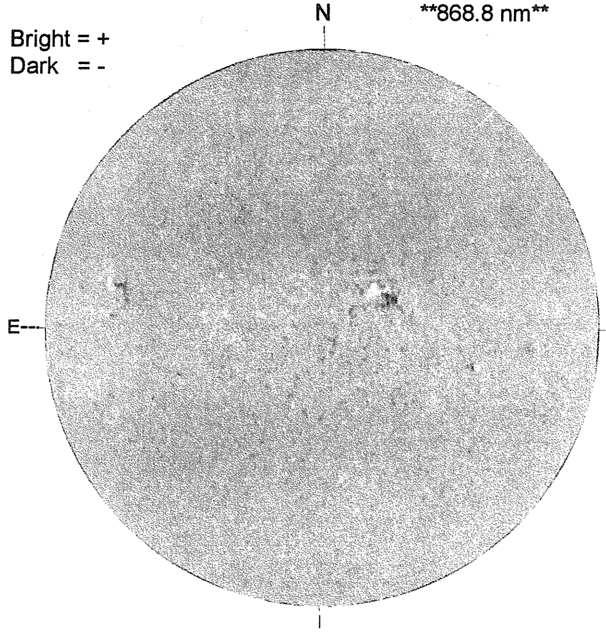
Heliographic Longitude

DECEMBER 1, 1995 (P= 16.29, Bo = 0.93, Lo = 259.88)

KITT PEAK MAGNETOGRAM

868.8 nm

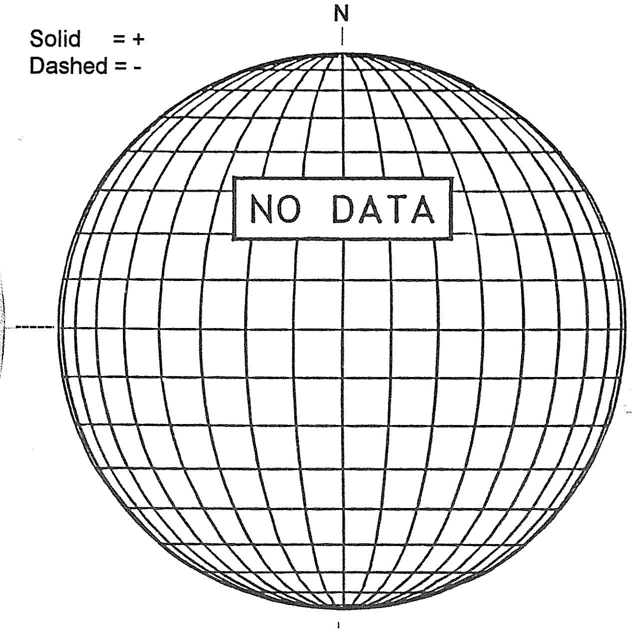
Bright = +
Dark = -



1550 UT

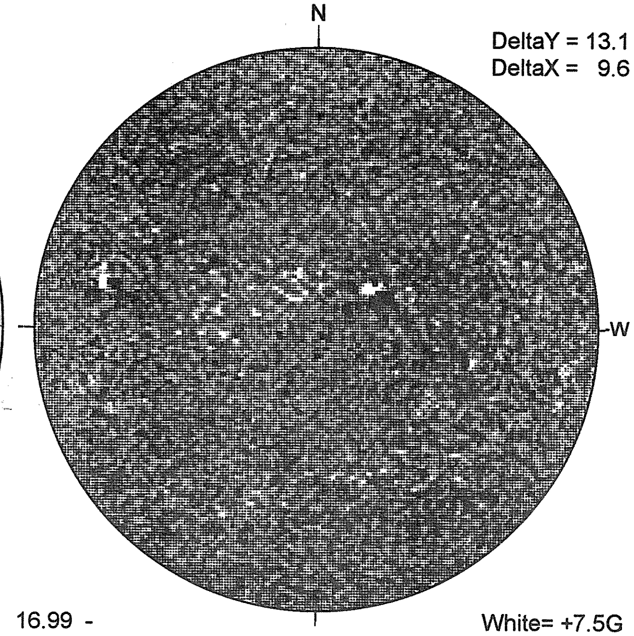
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

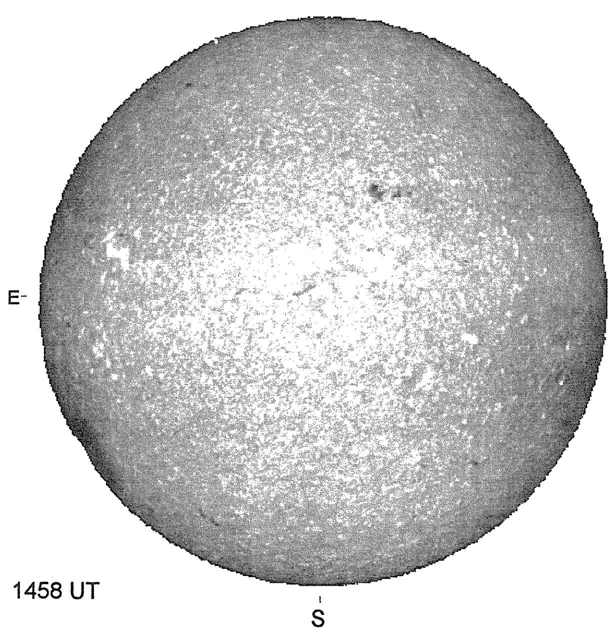
DeltaY = 13.1
DeltaX = 9.6



16.99 -
17.95 UT

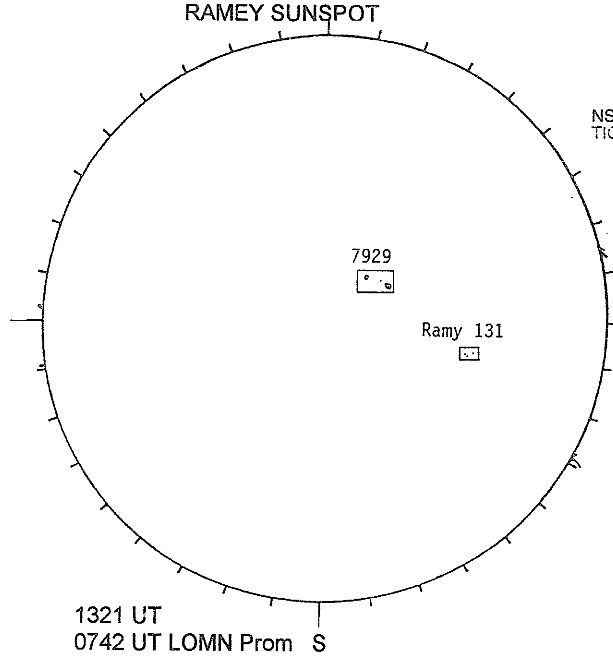
White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA



1458 UT

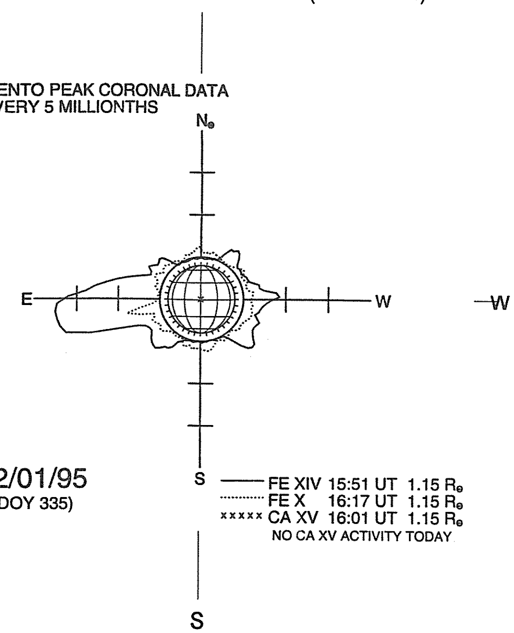
RAMEY SUNSPOT



1321 UT
0742 UT LOMN Prom

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 5 MILLIONTHS



12/01/95
(DOY 335)

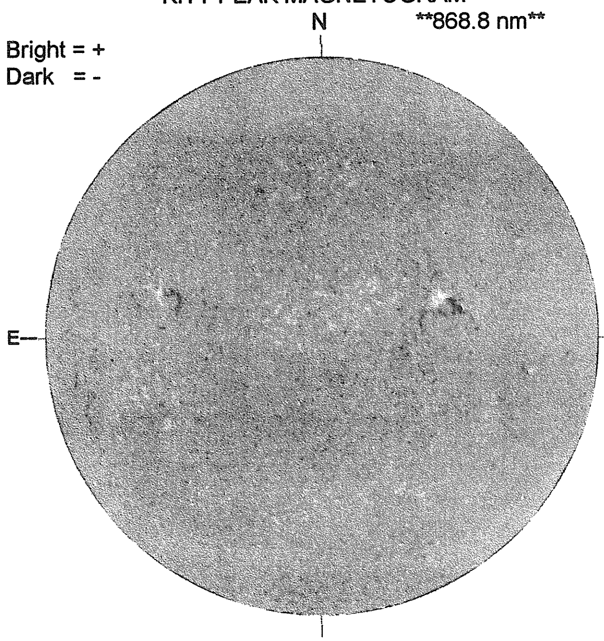
—— FE XIV 15:51 UT 1.15 $R_\odot$
······· FE X 16:17 UT 1.15 $R_\odot$
xxxxx CA XV 16:01 UT 1.15 $R_\odot$
NO CA XV ACTIVITY TODAY

DECEMBER 2, 1995 (P= 15.91, Bo = 0.80, Lo = 246.70)

KITT PEAK MAGNETOGRAM

868.8 nm

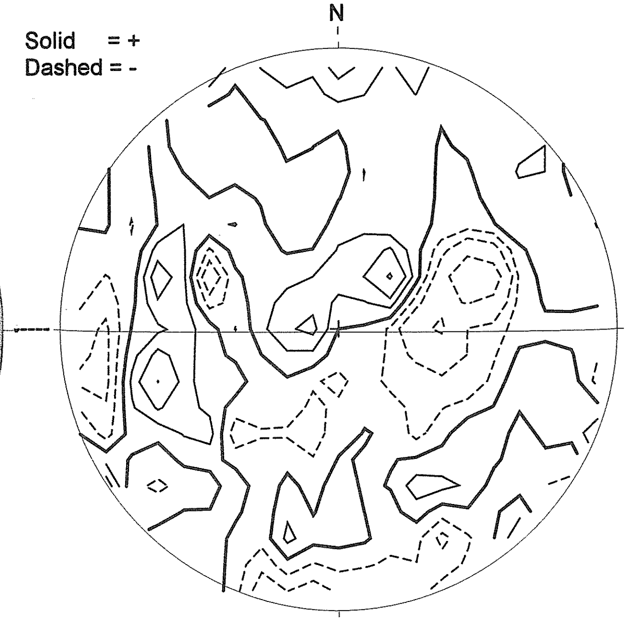
Bright = +
Dark = -



1805 UT

STANFORD MAGNETOGRAM

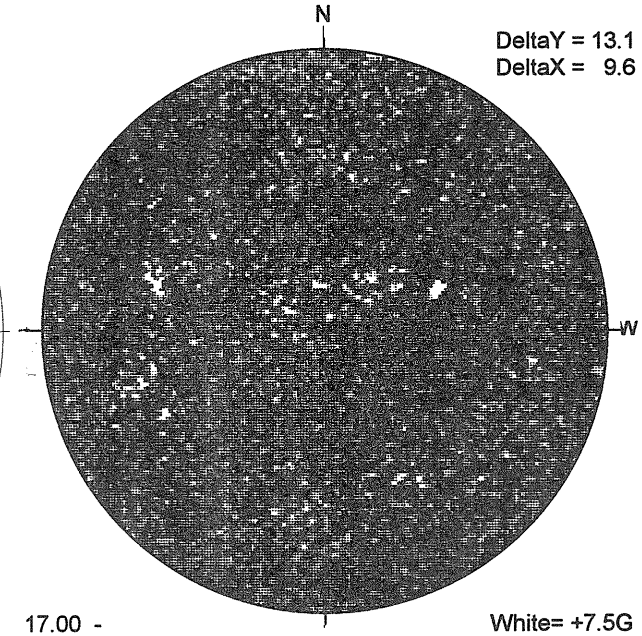
Solid = +
Dashed = -



2035 UT

MT. WILSON MAGNETOGRAM

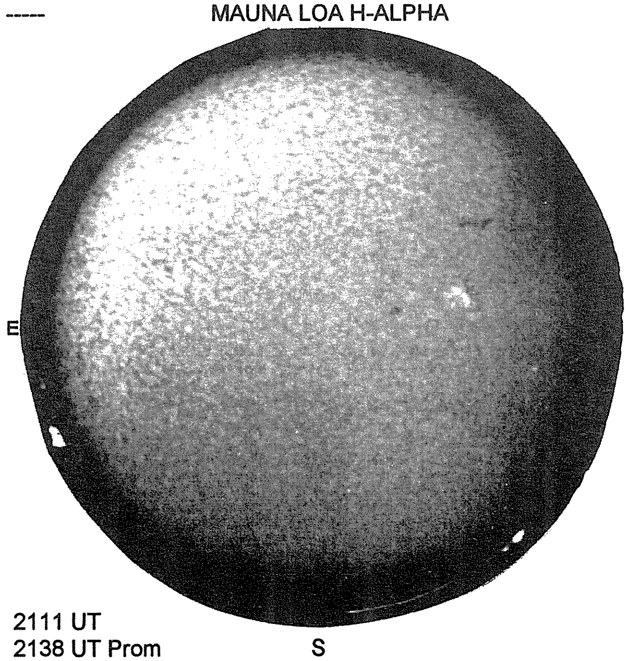
DeltaY = 13.1
DeltaX = 9.6



17.00 -
17.97 UT

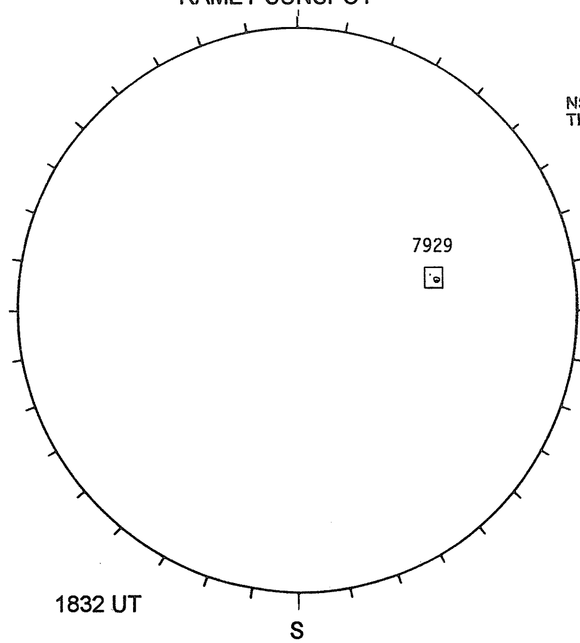
White= +7.5G
Black = -7.5G

MAUNA LOA H-ALPHA



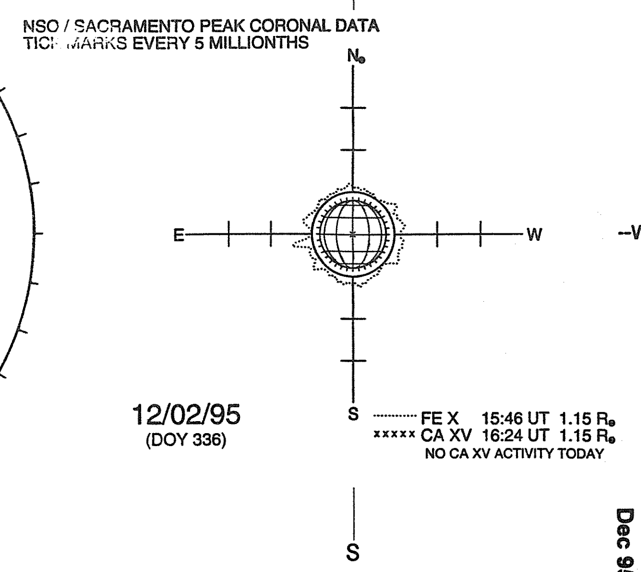
2111 UT
2138 UT Prom

RAMEY SUNSPOT



1832 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



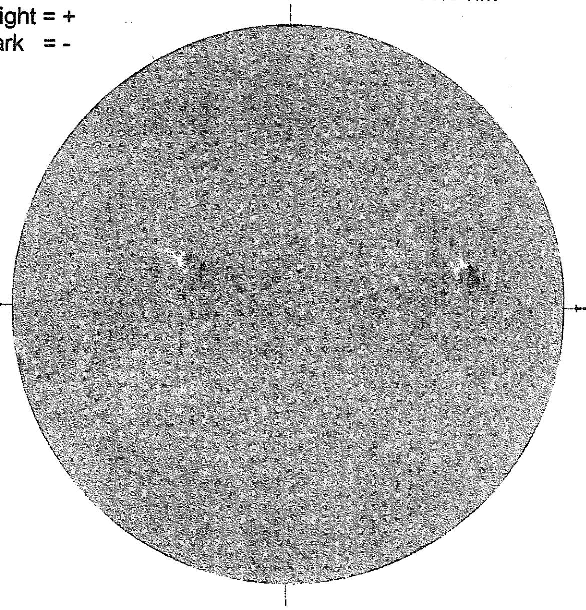
12/02/95
(DOY 336)

DECEMBER 3, 1995 (P= 15.52, Bo = 0.68, Lo = 233.52)

KITT PEAK MAGNETOGRAM

868.8 nm

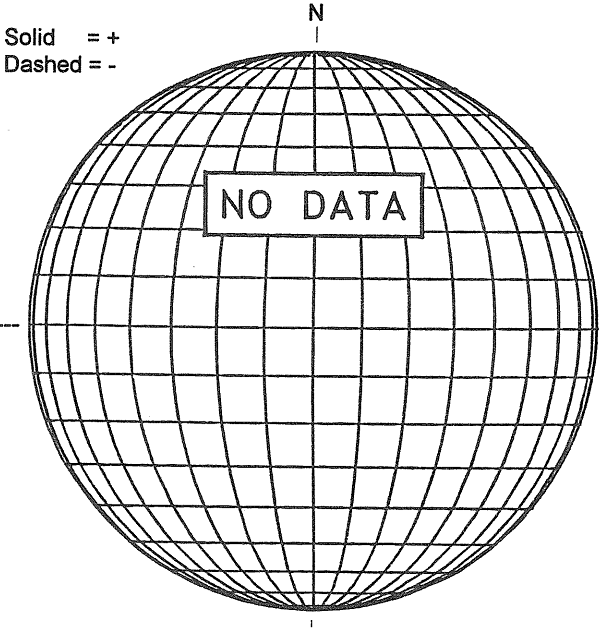
Bright = +
Dark = -



1551 UT

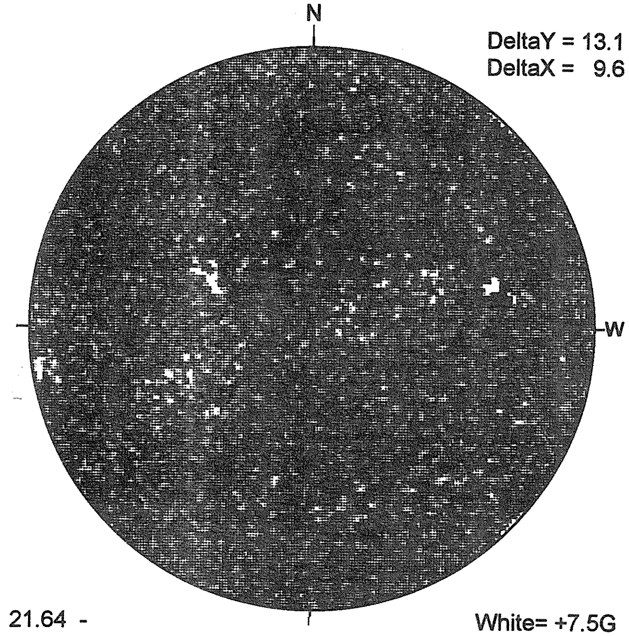
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

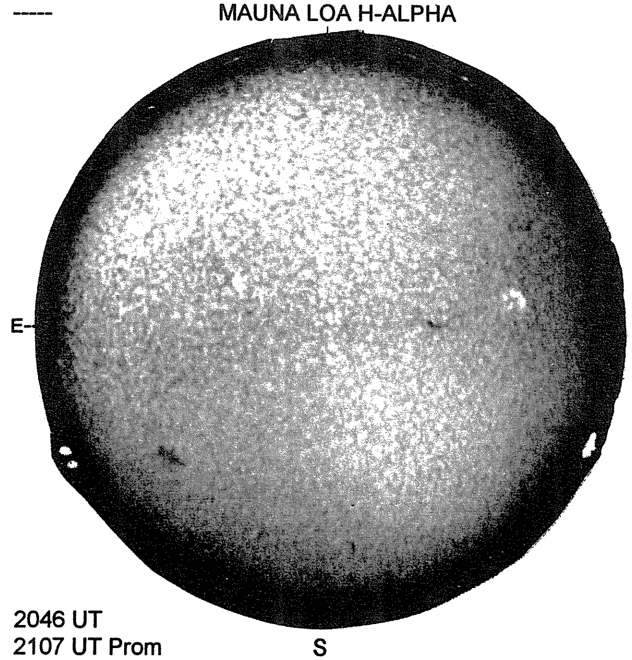
DeltaY = 13.1
DeltaX = 9.6



21.64 -
22.61 UT

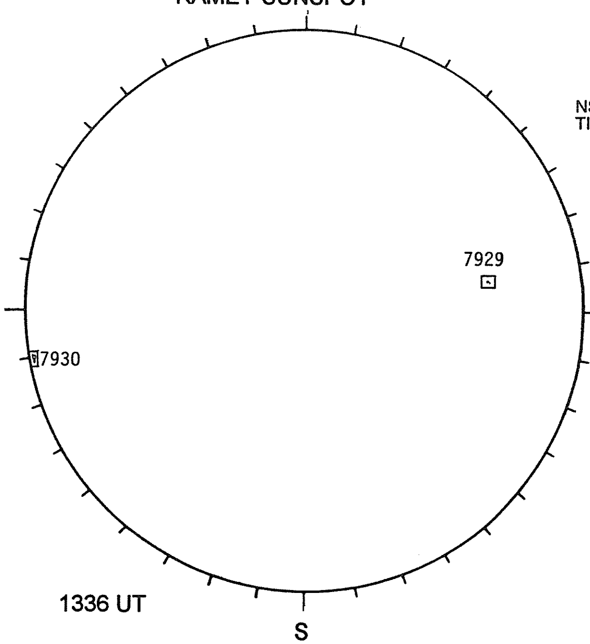
White= +7.5G
Black = -7.5G

MAUNA LOA H-ALPHA



2046 UT
2107 UT Prom

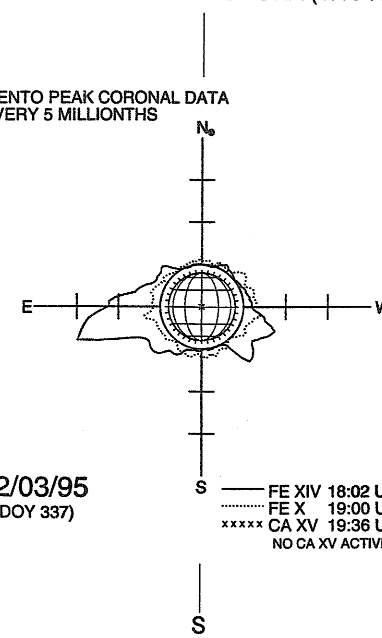
RAMEY SUNSPOT



1336 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 5 MILLIONTHS



—W

12/03/95
(DOY 337)

——— FE XIV 18:02 UT 1.15 R
.... FE X 19:00 UT 1.15 R
xxxxx CA XV 19:36 UT 1.15 R
NO CA XV ACTIVITY TODAY

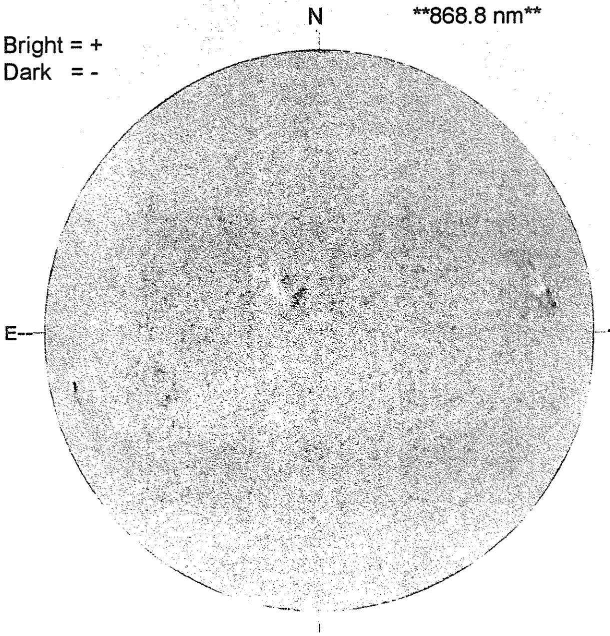
S

DECEMBER 4, 1995 (P= 15.12, Bo = 0.55, Lo = 220.34)

KITT PEAK MAGNETOGRAM

868.8 nm

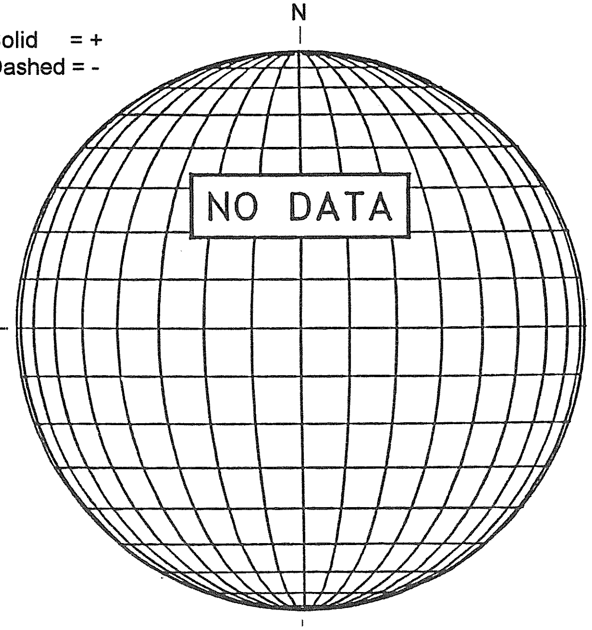
Bright = +
Dark   = -



1611 UT

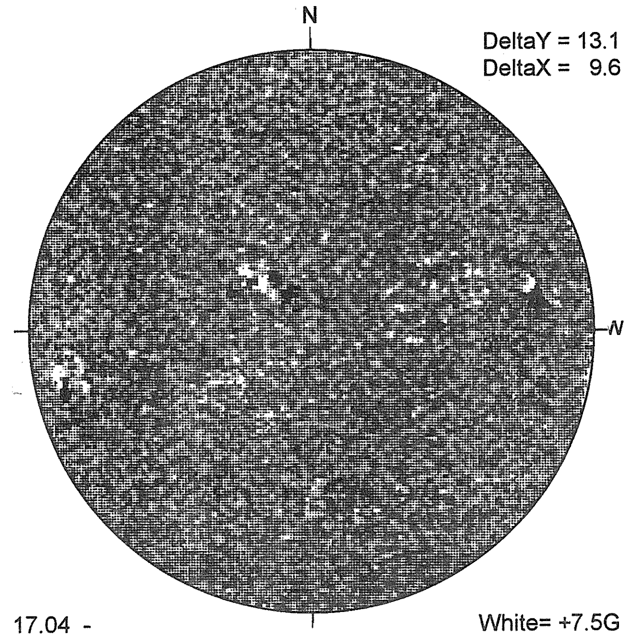
STANFORD MAGNETOGRAM

Solid   = +
Dashed = -



MT. WILSON MAGNETOGRAM

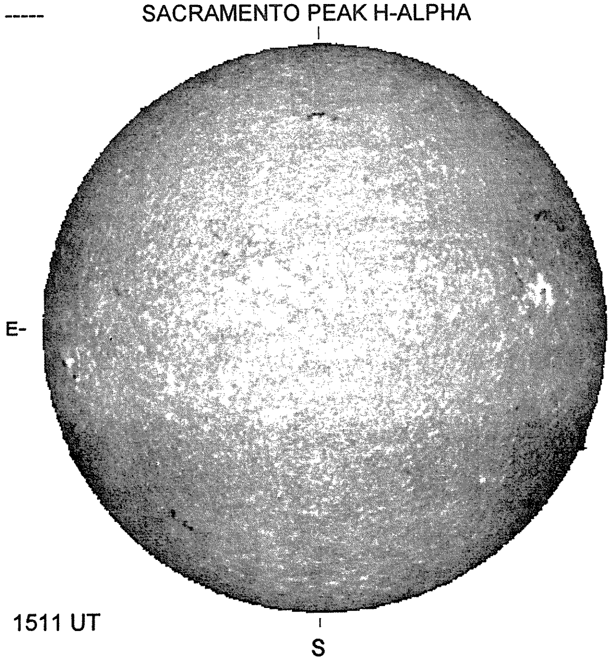
DeltaY = 13.1
DeltaX = 9.6



17.04 -
18.01 UT

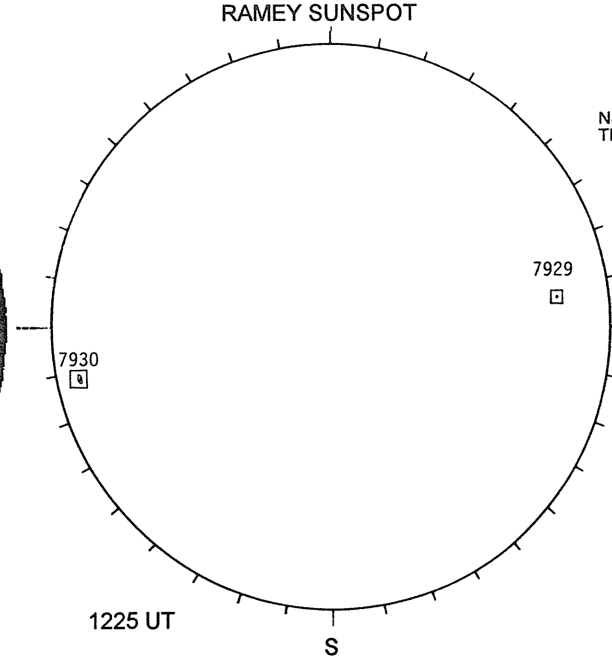
White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA



1511 UT

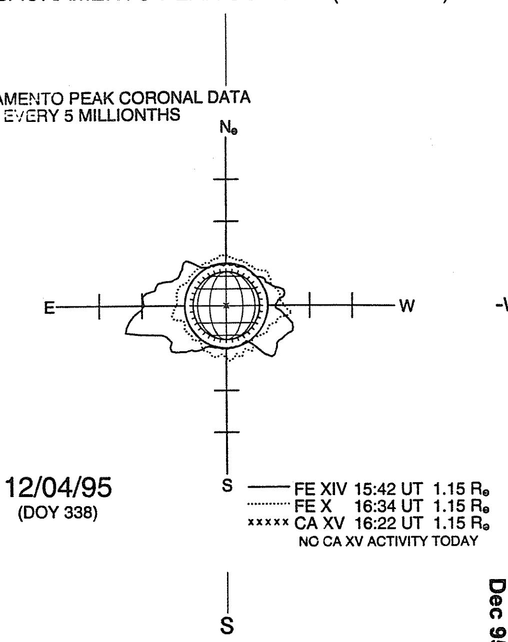
RAMEY SUNSPOT



1225 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 5 MILLIONTHS



12/04/95
(DOY 338)

—— FE XIV 15:42 UT 1.15 $R_{\odot}$
······ FE X   16:34 UT 1.15 $R_{\odot}$
xxxxx CA XV 16:22 UT 1.15 $R_{\odot}$
NO CA XV ACTIVITY TODAY

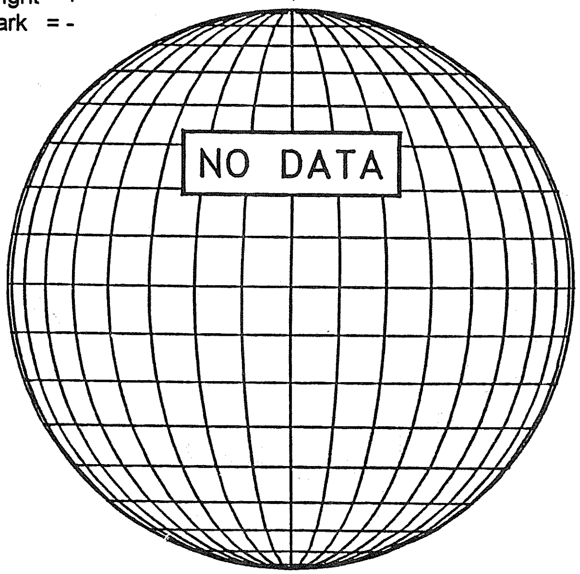
DECEMBER 5, 1995 (P= 14.72, Bo = 0.42, Lo = 207.16)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -

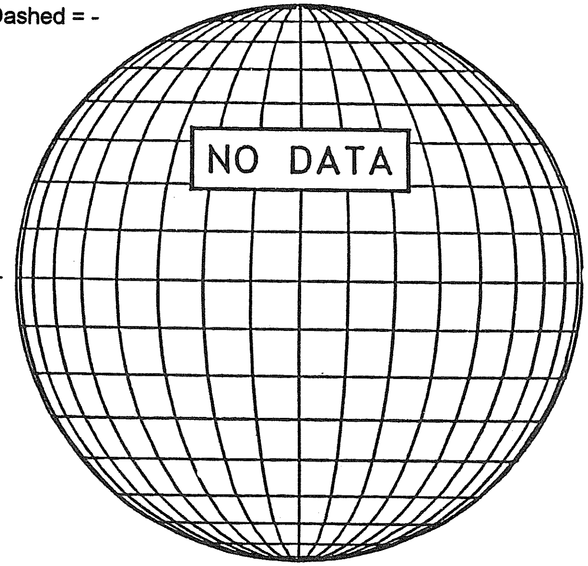
E--



STANFORD MAGNETOGRAM

N

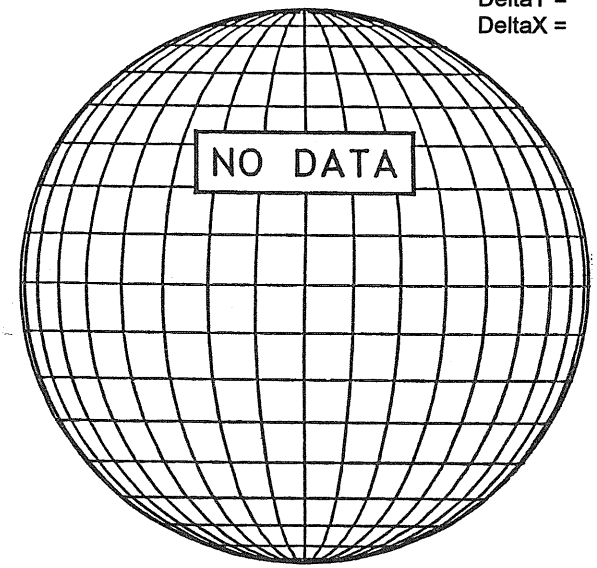
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY =
DeltaX =

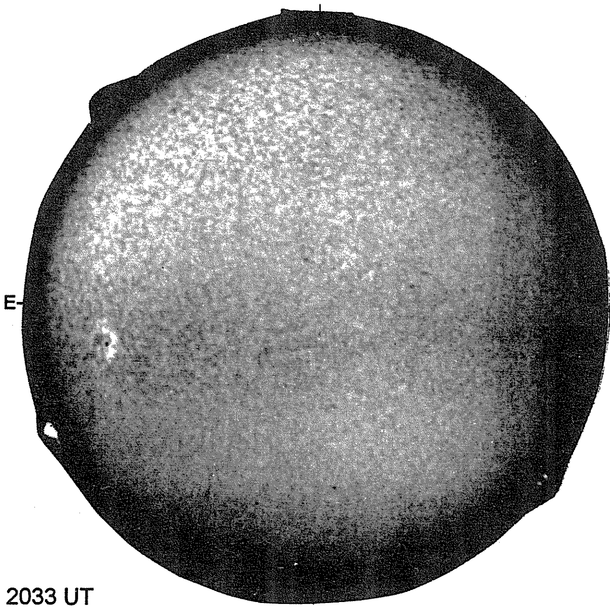


W

White= +7.5G
Black = -7.5G

MAUNA LOA H-ALPHA

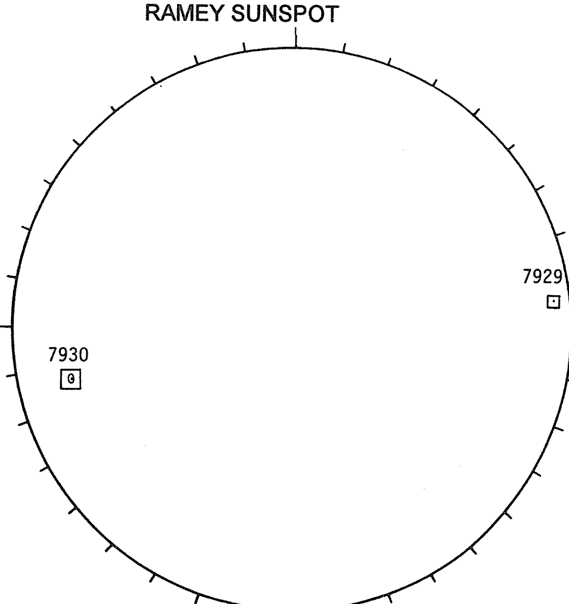
E--



2033 UT
1900 UT Prom

S

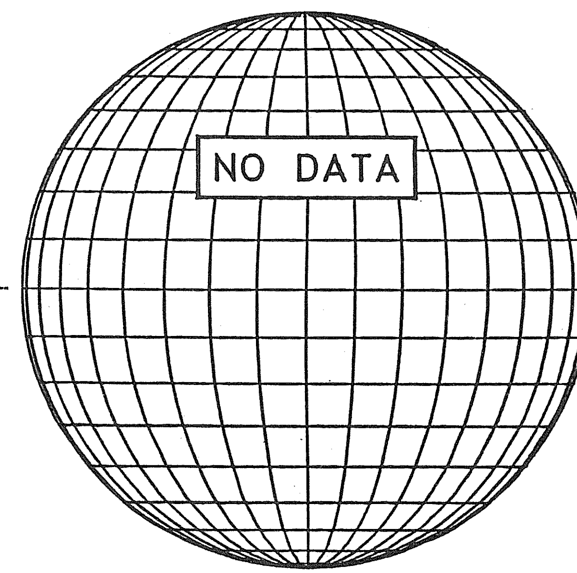
RAMEY SUNSPOT



1244 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----



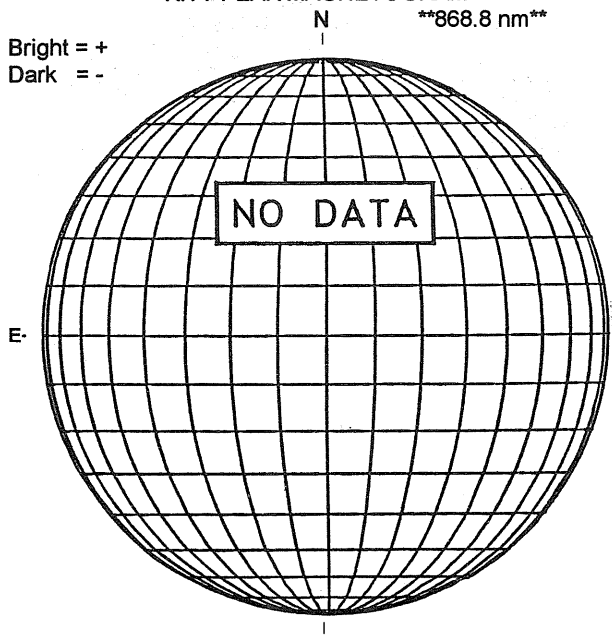
S

DECEMBER 6, 1995 (P= 14.31 Bo = 0.29 Lo = 193.99)

KITT PEAK MAGNETOGRAM

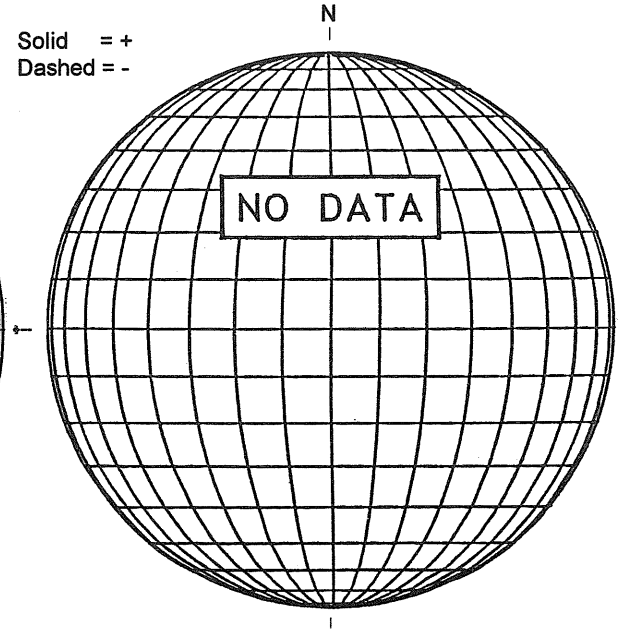
868.8 nm

Bright = +
Dark = -



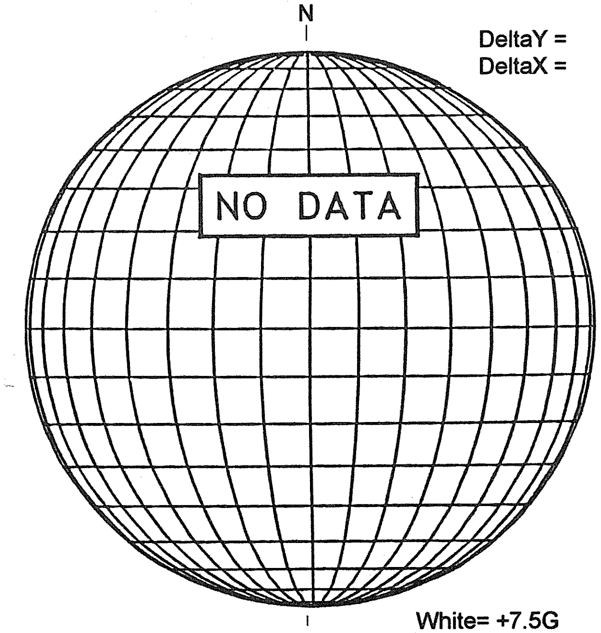
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



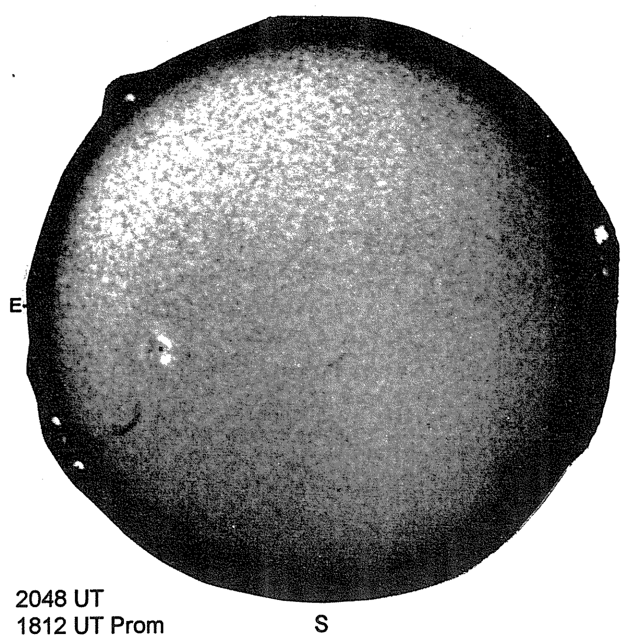
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



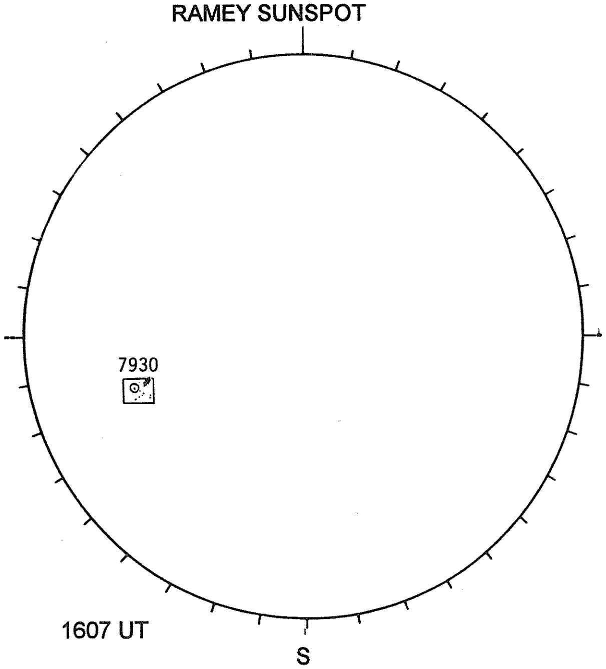
White= +7.5G
Black = -7.5G

MAUNA LOA H-ALPHA



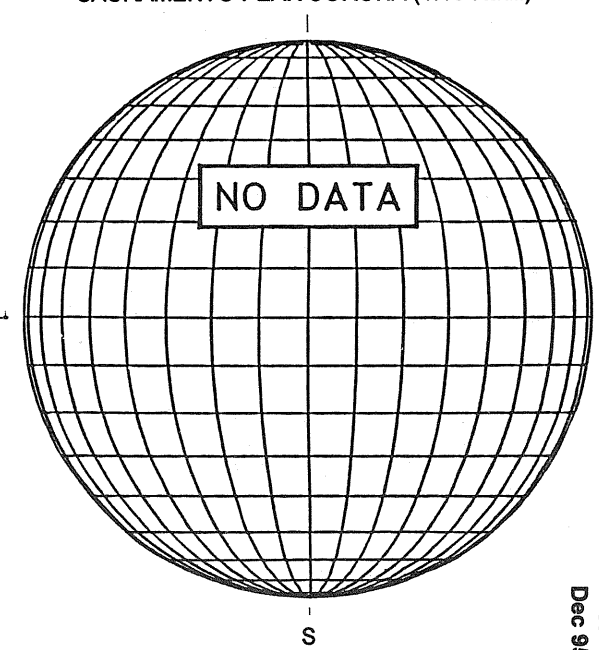
2048 UT
1812 UT Prom

RAMEY SUNSPOT



1607 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

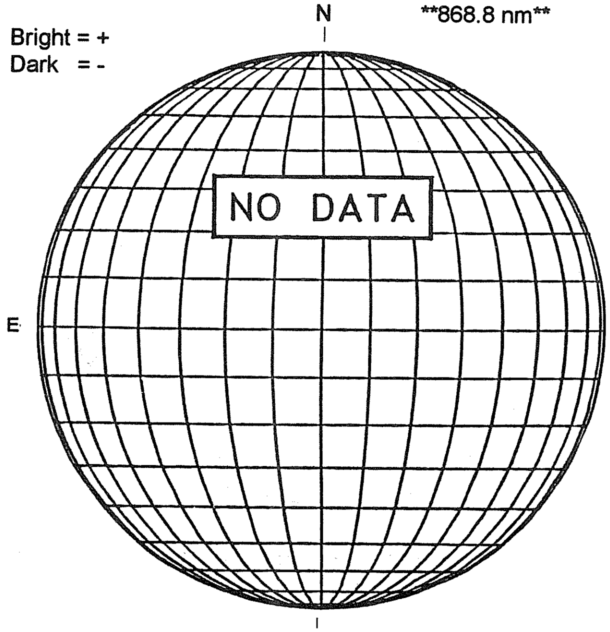


DECEMBER 7, 1995 (P= 13.90, Bo = 0.17, Lo = 180.81)

KITT PEAK MAGNETOGRAM

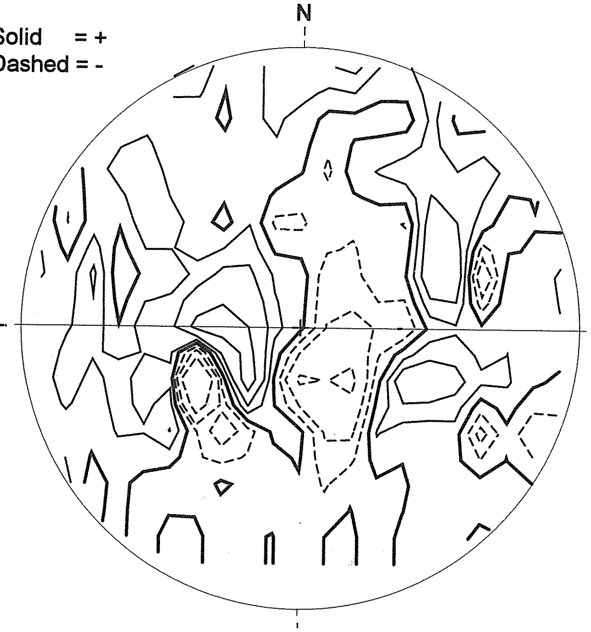
868.8 nm

Bright = +
Dark = -



STANFORD MAGNETOGRAM

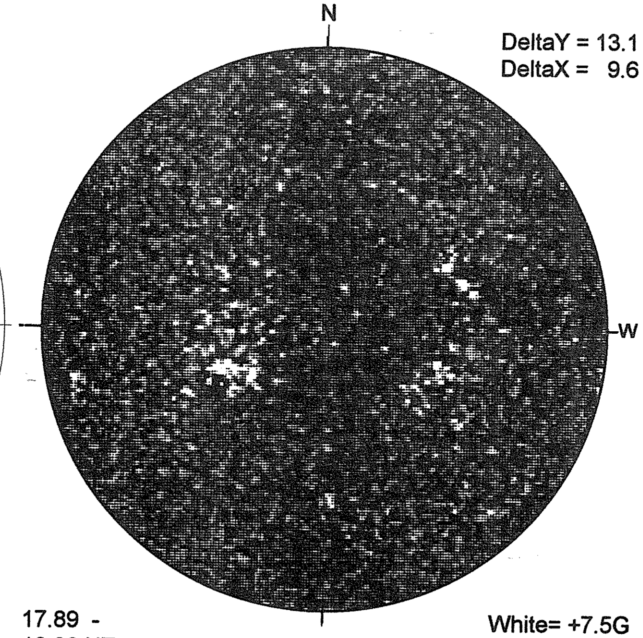
Solid = +
Dashed = -



2300 UT

MT. WILSON MAGNETOGRAM

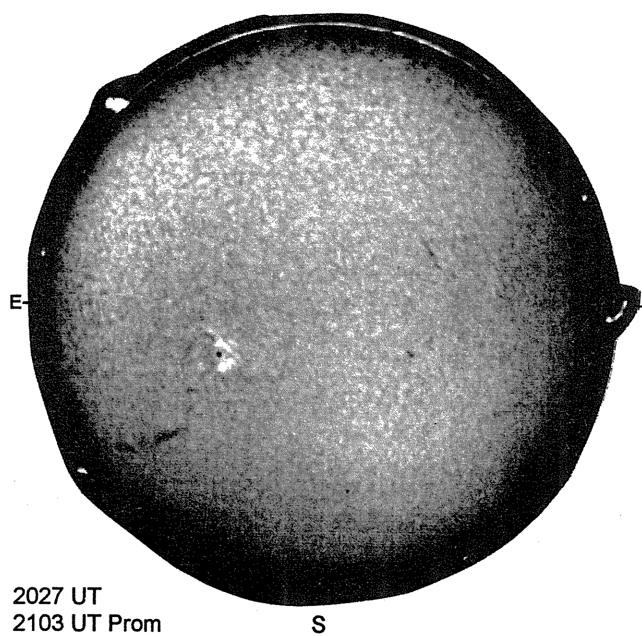
DeltaY = 13.1
DeltaX = 9.6



17.89 -
18.86 UT

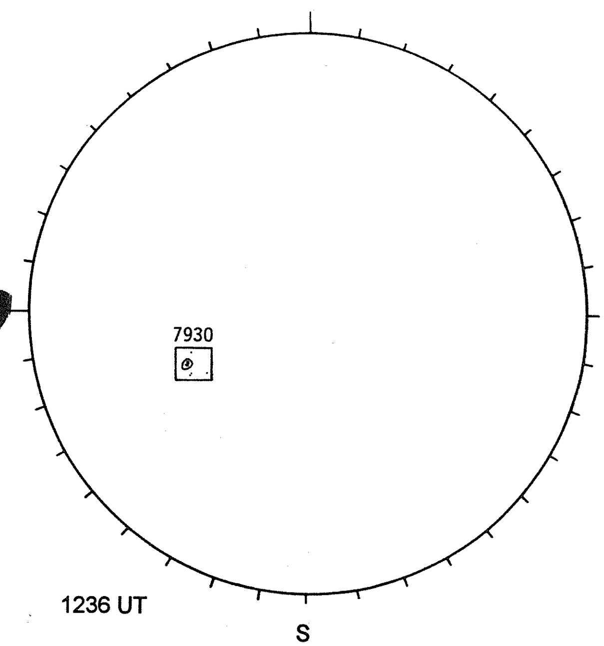
White= +7.5G
Black = -7.5G

MAUNA LOA H-ALPHA



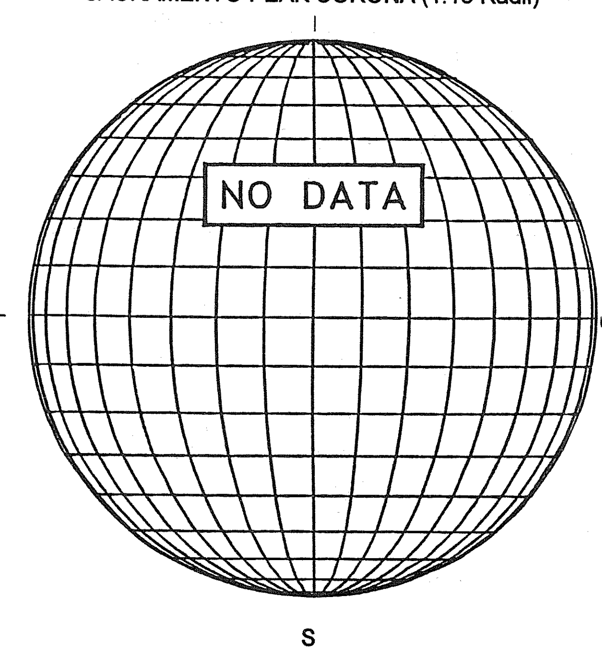
2027 UT
2103 UT Prom

RAMEY SUNSPOT



1236 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

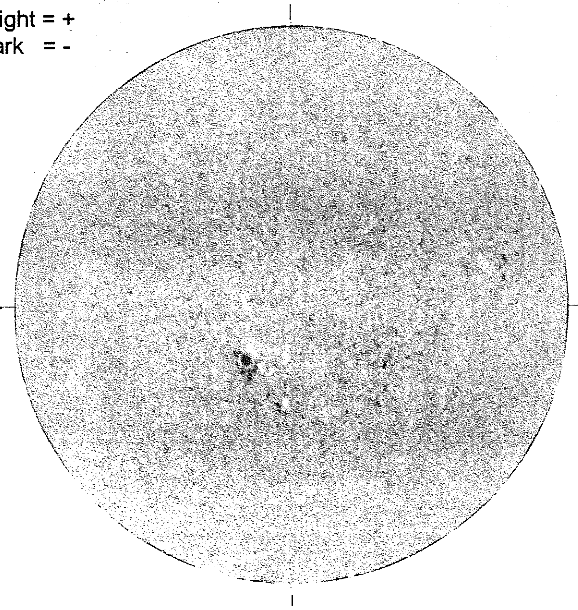


DECEMBER 8, 1995 (P= 13.48, Bo = 0.04, Lo = 167.63)

KITT PEAK MAGNETOGRAM

868.8 nm

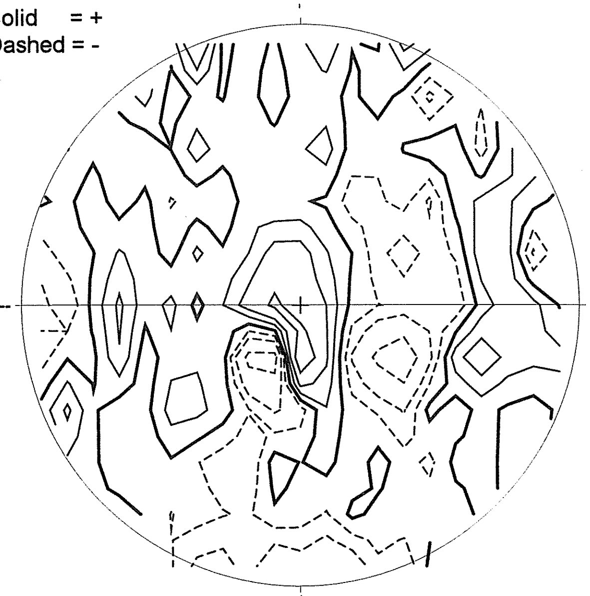
Bright = +
Dark = -



1914 UT

STANFORD MAGNETOGRAM

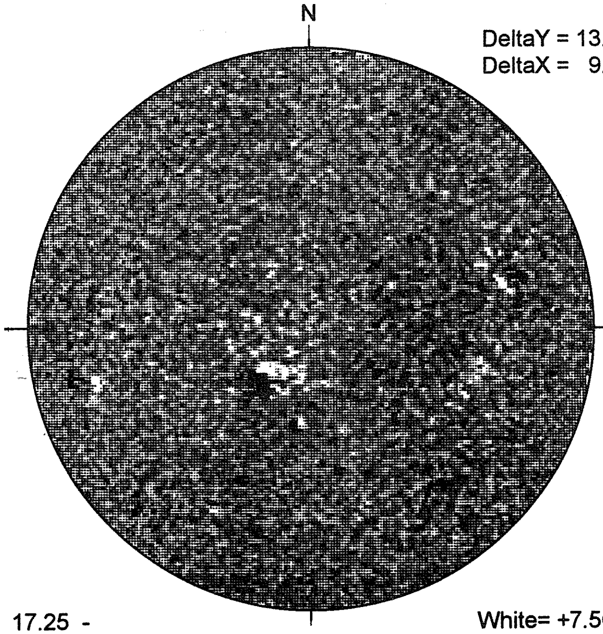
Solid = +
Dashed = -



2301 UT

MT. WILSON MAGNETOGRAM

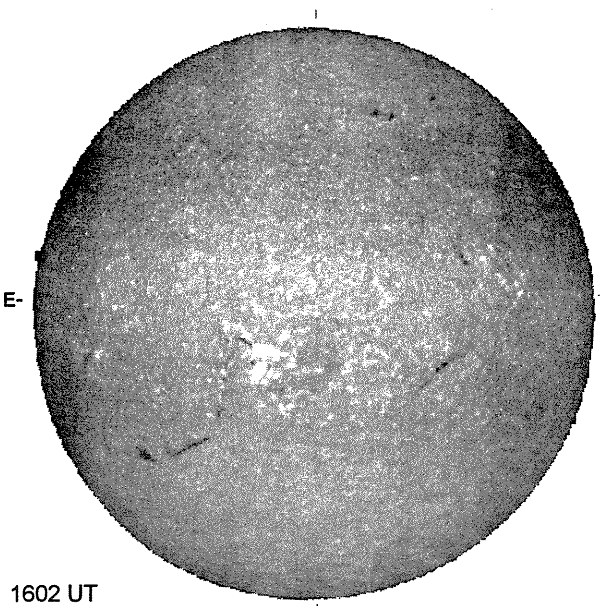
DeltaY = 13.1
DeltaX = 9.6



17.25 -
18.22 UT

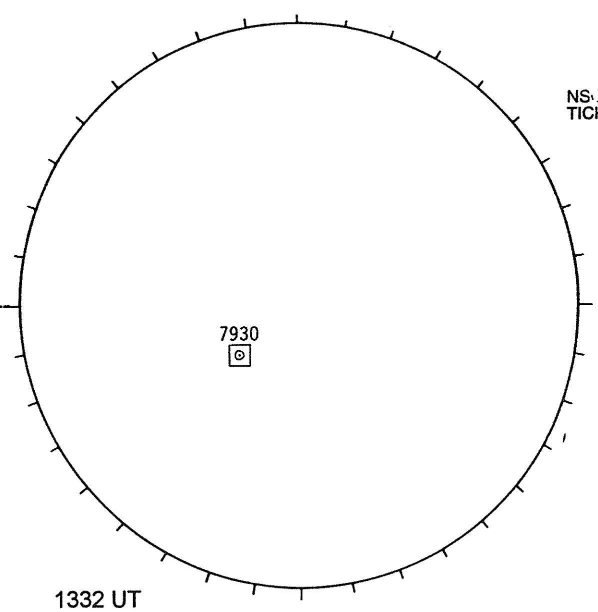
White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA



1602 UT

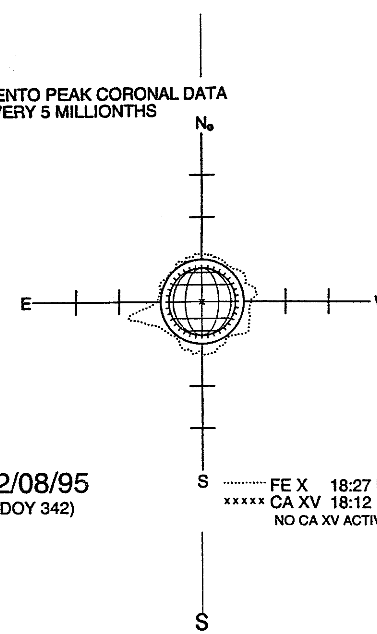
RAMEY SUNSPOT



1332 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 5 MILLIONTHS



12/08/95
(DOY 342)

FE X 18:27 UT 1.15 $R_\odot$
xxxxx CA XV 18:12 UT 1.15 $R_\odot$
NO CA XV ACTIVITY TODAY

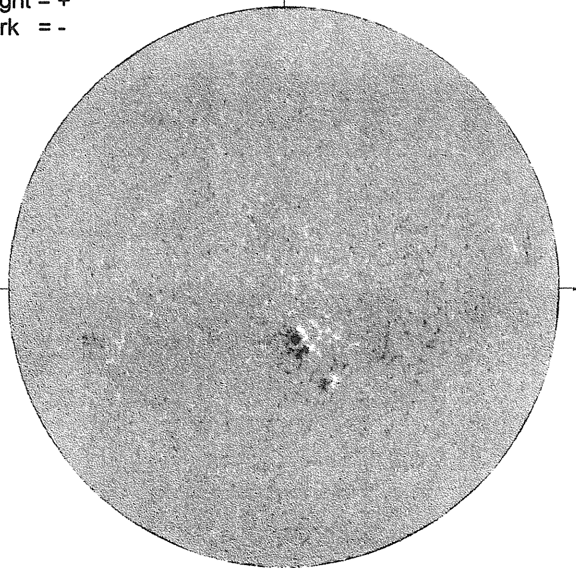
DECEMBER 9, 1995 (P= 13.06, Bo = -0.09, Lo = 154.45)

KITT PEAK MAGNETOGRAM

N **868.8 nm

Bright = +
Dark = -

E

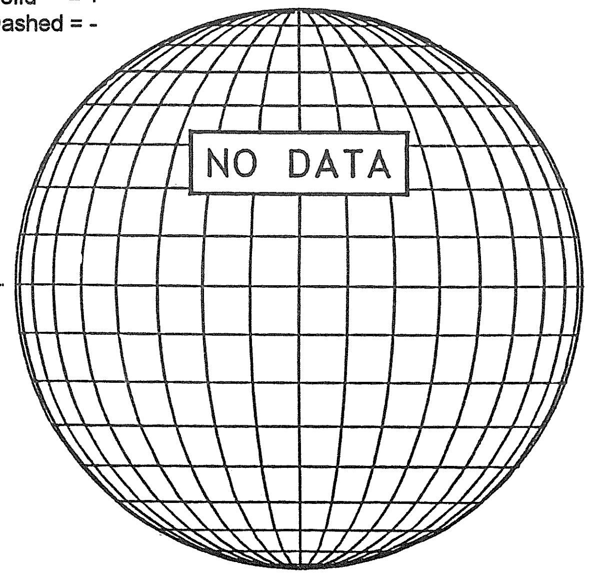


1559 UT

STANFORD MAGNETOGRAM

N

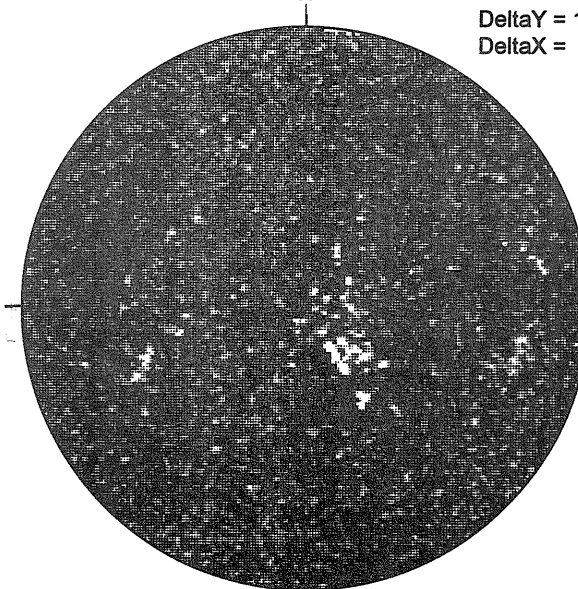
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6



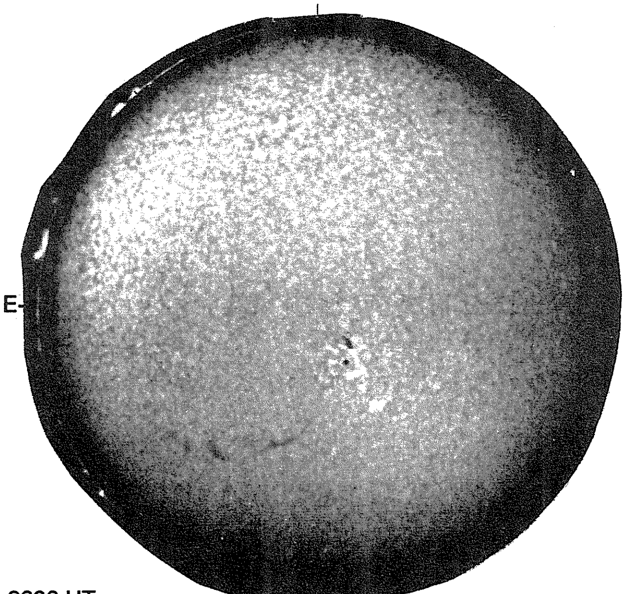
W

18.76 -
19.73 UT

White= +7.5G
Black = -7.5G

----- MAUNA LOA H-ALPHA

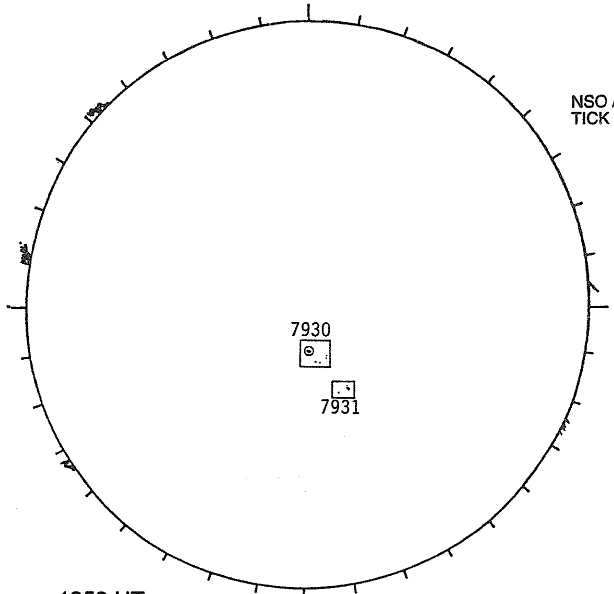
E



2030 UT
2224 UT Prom

S

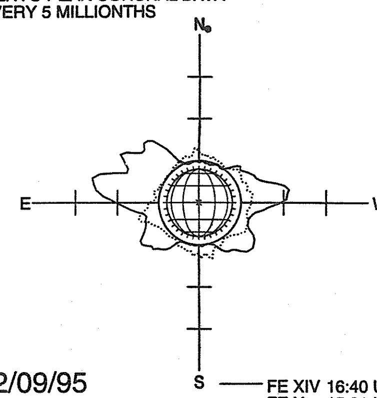
RAMEY SUNSPOT



1253 UT
0823 UT LOMN Prom S

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 5 MILLIONTHS



—W

12/09/95
(DOY 343)

—— FE XIV 16:40 UT 1.15 R
······· FE X 15:31 UT 1.15 R
xxxxx CA XV 16:50 UT 1.15 R
NO CA XV ACTIVITY TODAY

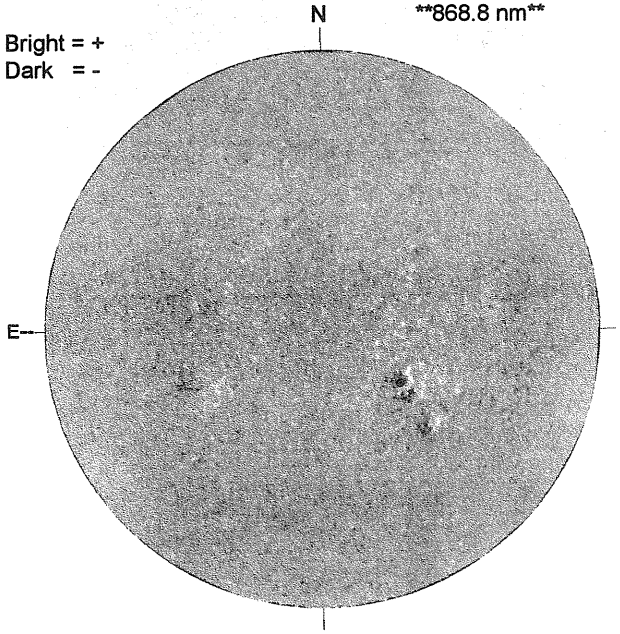
S

DECEMBER 10, 1995 (P= 12.63, Bo = -0.22, Lo = 141.28)

KITT PEAK MAGNETOGRAM

868.8 nm

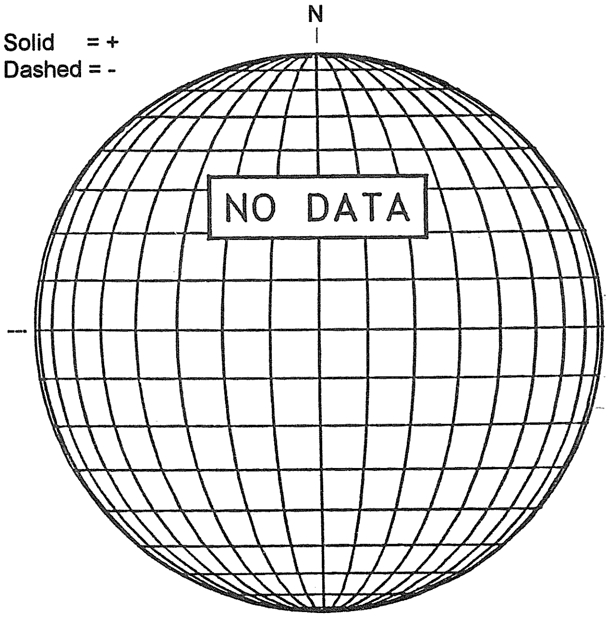
Bright = +
Dark = -



1554 UT

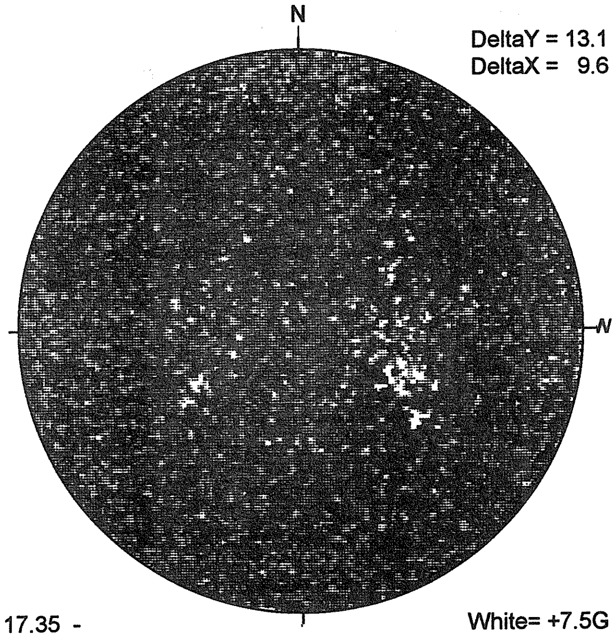
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

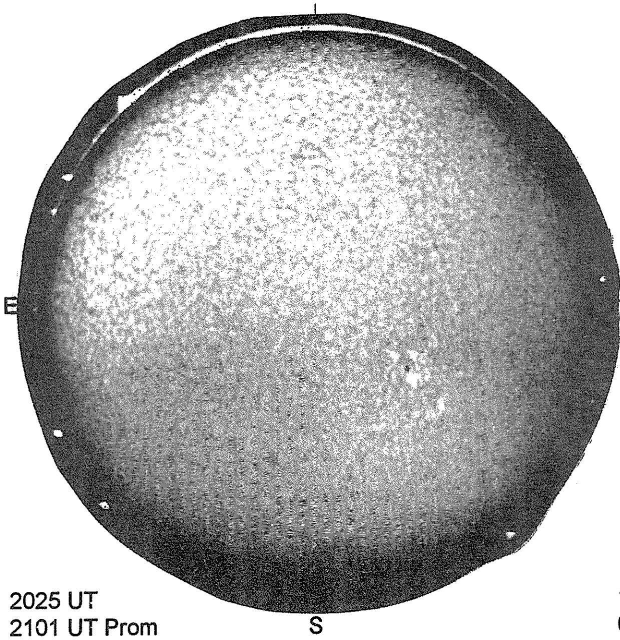
DeltaY = 13.1
DeltaX = 9.6



17.35 -
18.32 UT

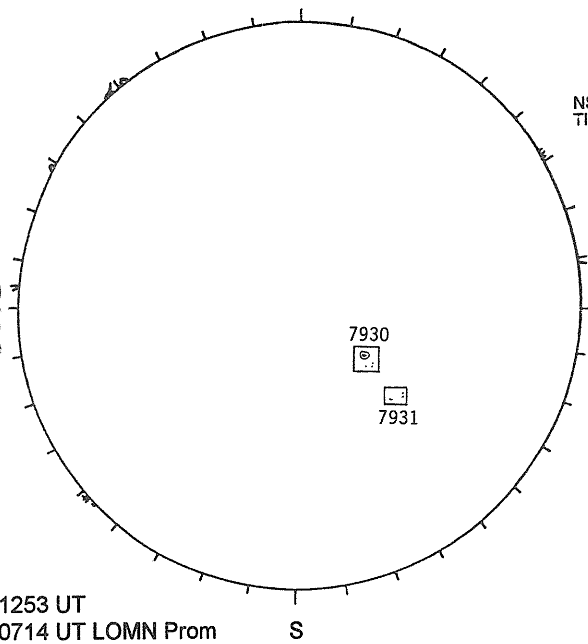
White= +7.5G
Black = -7.5G

MAUNA LOA H-ALPHA



2025 UT
2101 UT Prom

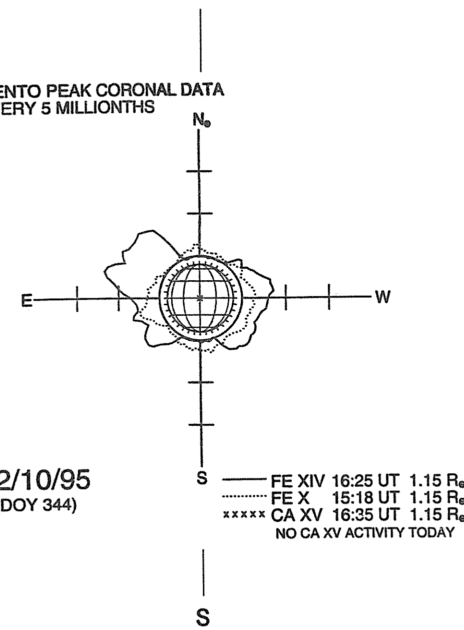
RAMEY SUNSPOT



1253 UT
0714 UT LOMN Prom

SACRAMENTO PEAK CORONA (1.15 Radii)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 5 MILLIONTHS



12/10/95
(DOY 344)

W

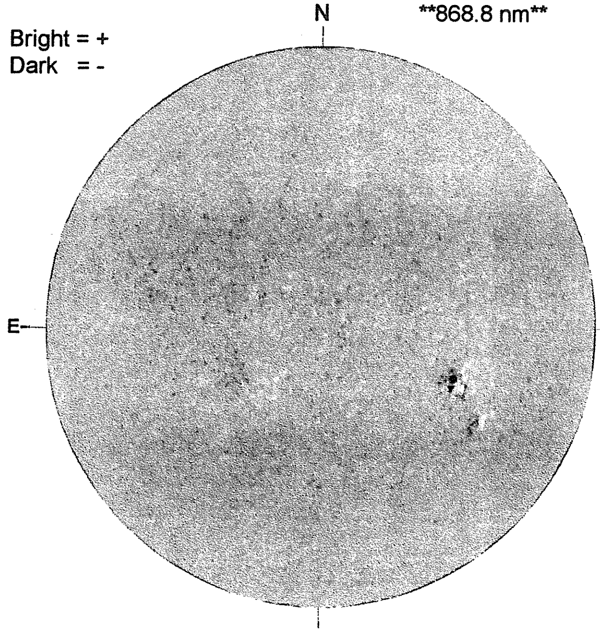
S

DECEMBER 11, 1995 (P= 12.20 Bo = -0.35, Lo = 128.10)

KITT PEAK MAGNETOGRAM

868.8 nm

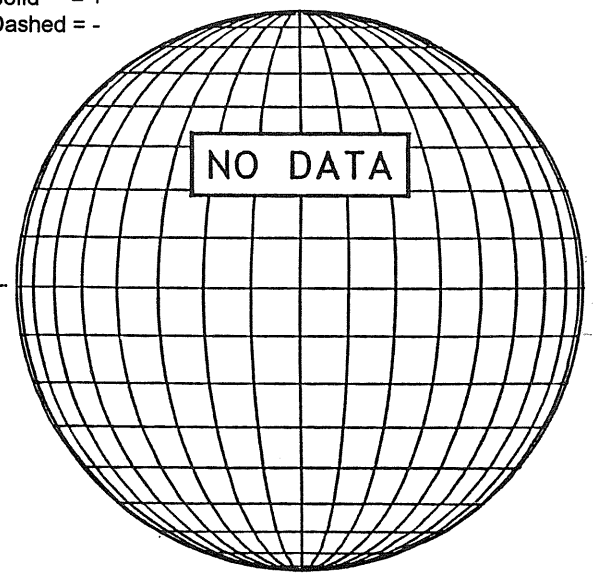
Bright = +
Dark = -



1551 UT

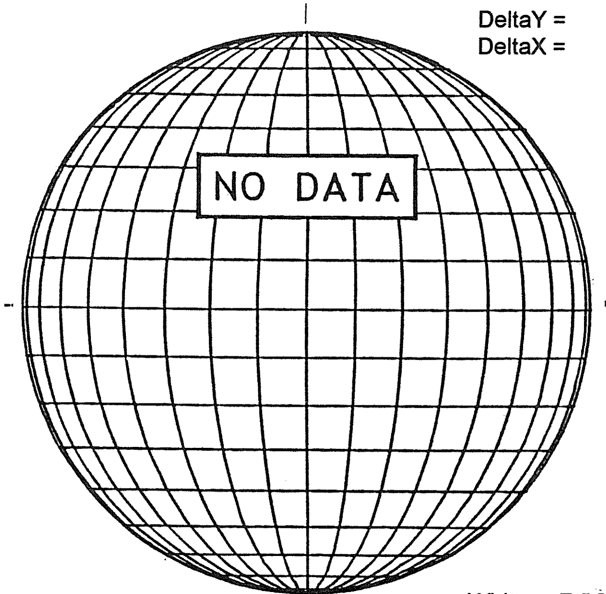
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



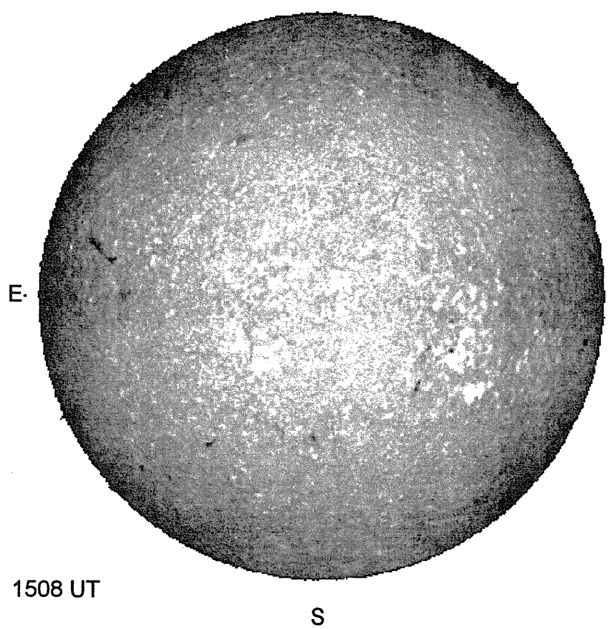
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



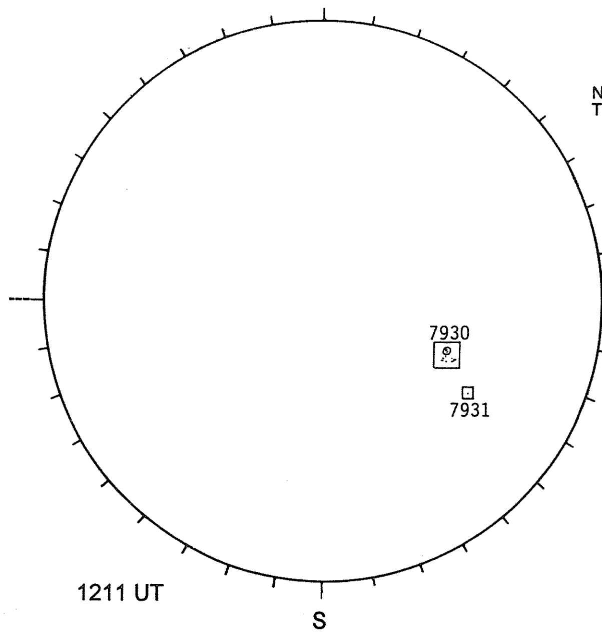
White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA



1508 UT

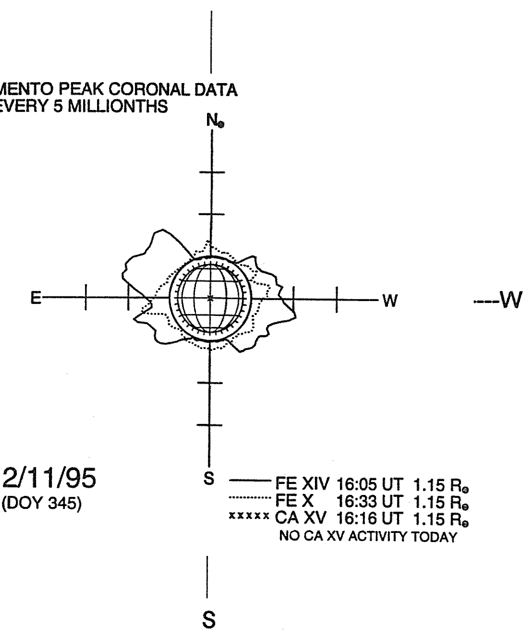
RAMEY SUNSPOT



1211 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 5 MILLIONTHS



12/11/95
(DOY 345)

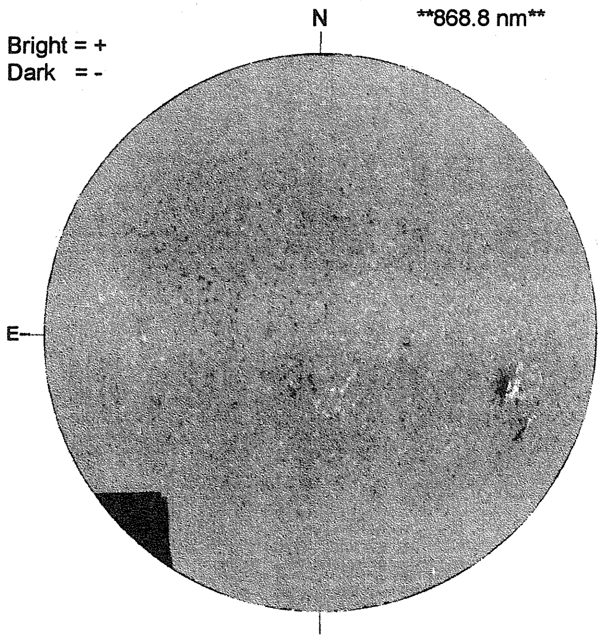
—— FE XIV 16:05 UT 1.15 $R_\odot$
········ FE X 16:33 UT 1.15 $R_\odot$
xxxxx CA XV 16:16 UT 1.15 $R_\odot$
NO CA XV ACTIVITY TODAY

DECEMBER 12, 1995 (P= 11.76, Bo = -0.47, Lo = 114.92)

KITT PEAK MAGNETOGRAM

868.8 nm

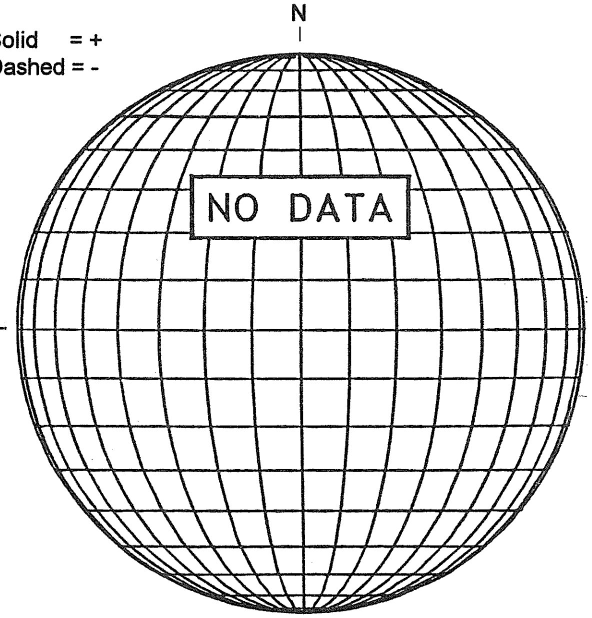
Bright = +
Dark = -



1607 UT

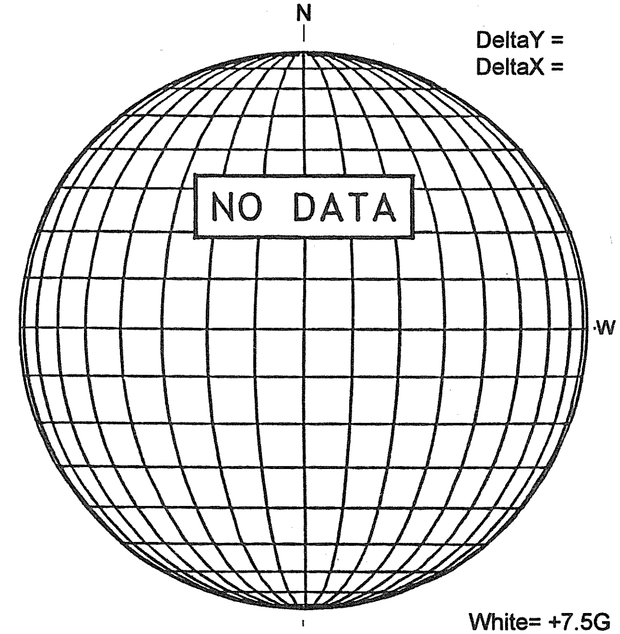
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



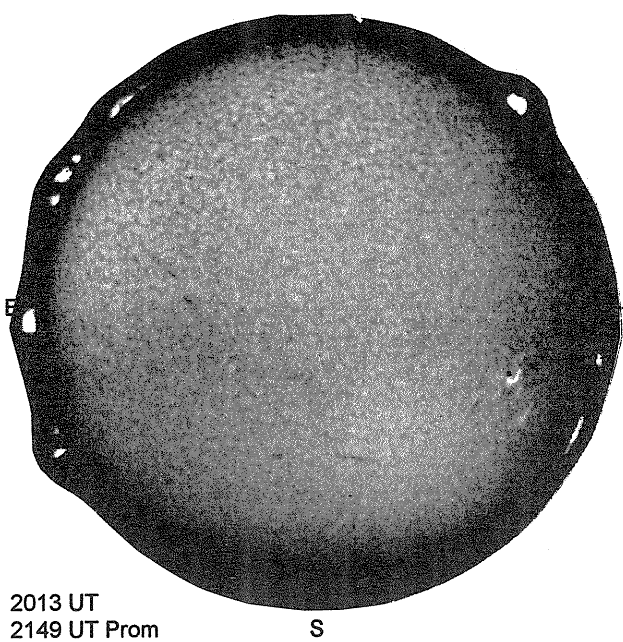
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



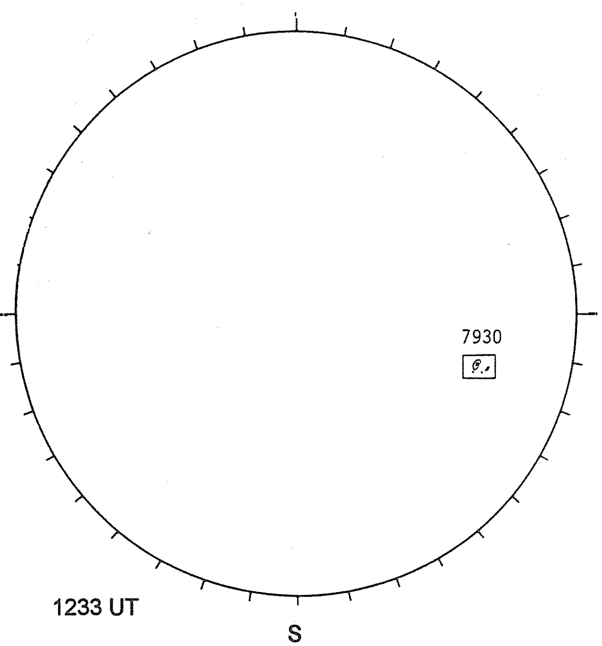
White= +7.5G
Black = -7.5G

---- MAUNA LOA H-ALPHA



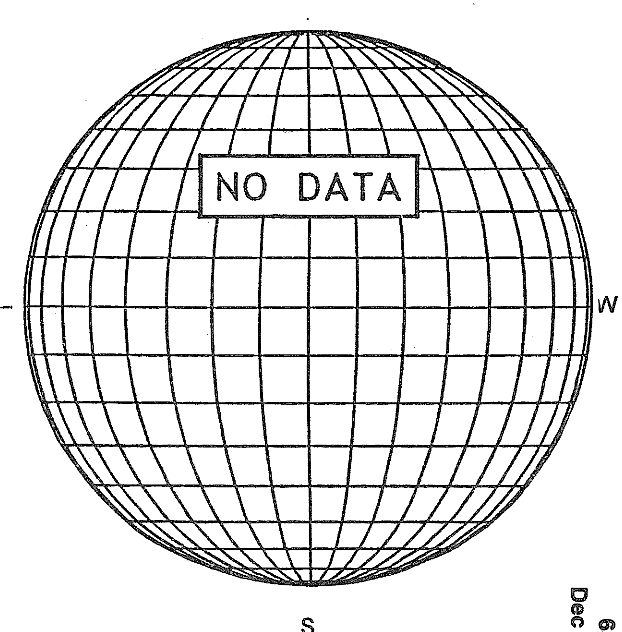
2013 UT
2149 UT Prom

RAMEY SUNSPOT



1233 UT

LOMNICKY PEAK CORONA (1.04 Radii)----



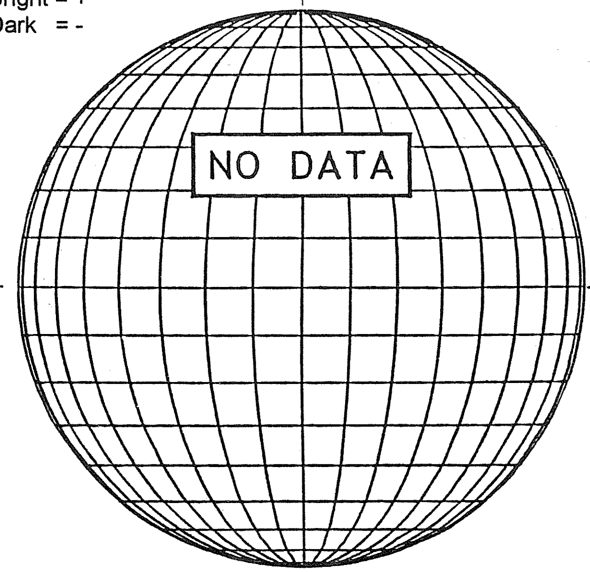
DECEMBER 13, 1995 (P= 11.32, Bo = -0.60, Lo = 101.75)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -

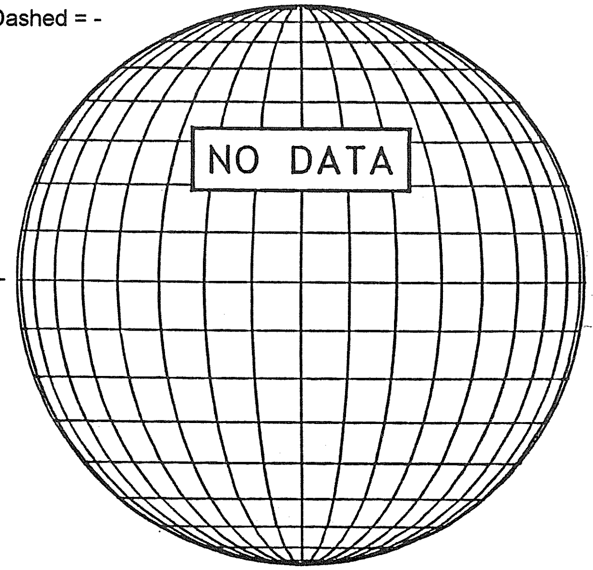
E



STANFORD MAGNETOGRAM

N

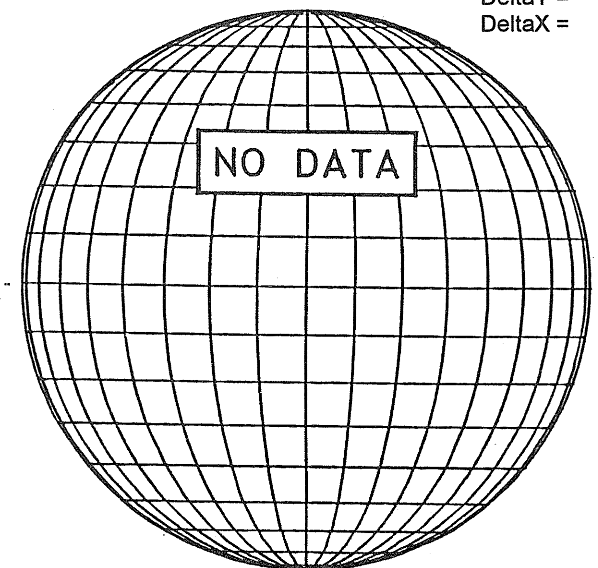
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY =
DeltaX =

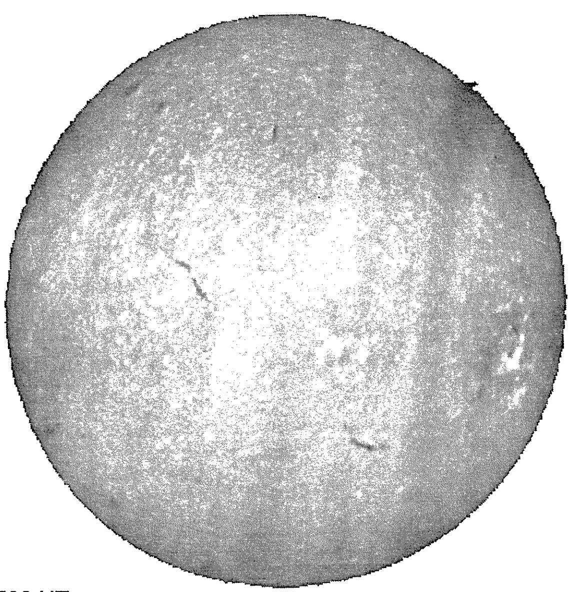


W

White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA

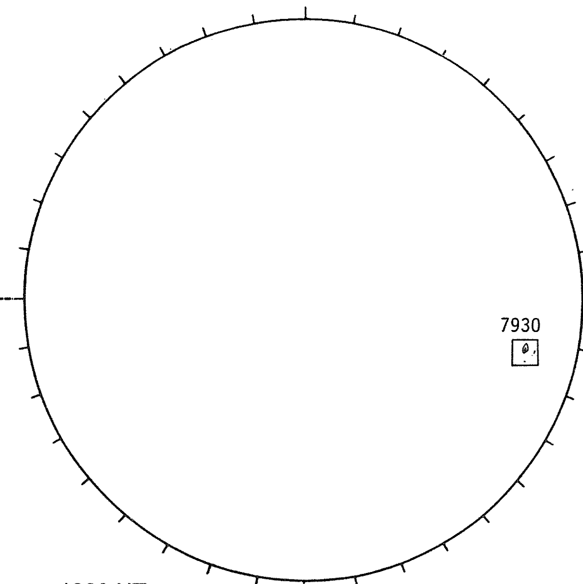
E



1700 UT

S

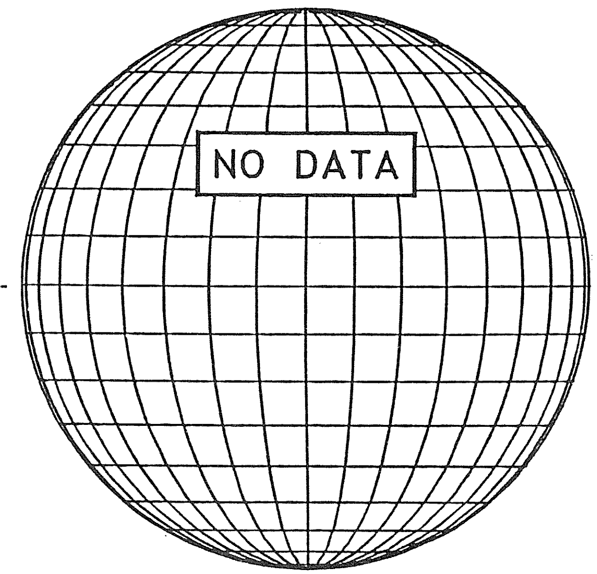
RAMEY SUNSPOT



1229 UT

S

LOMNICKY PEAK CORONA (1.04 Radii)----



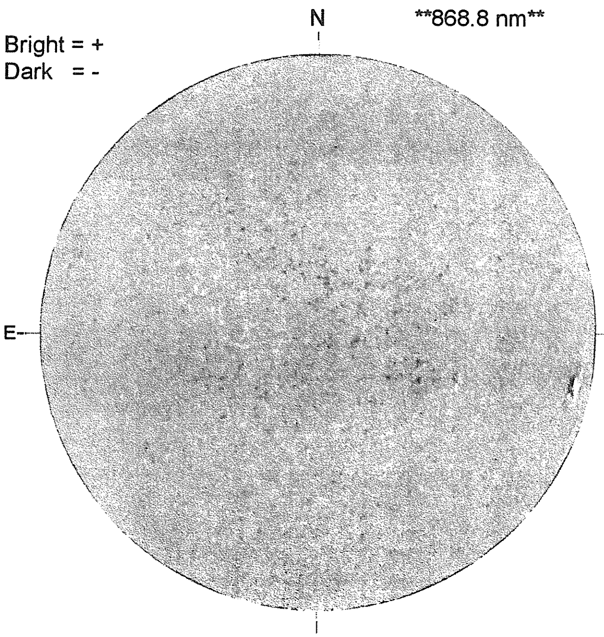
S

DECEMBER 14, 1995 (P= 10.88, Bo = -0.73, Lo = 88.57)

KITT PEAK MAGNETOGRAM

868.8 nm

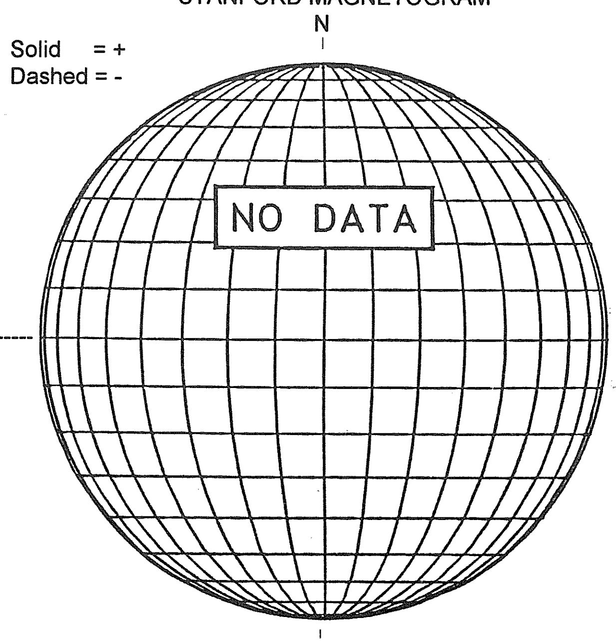
Bright = +
Dark = -



1540 UT

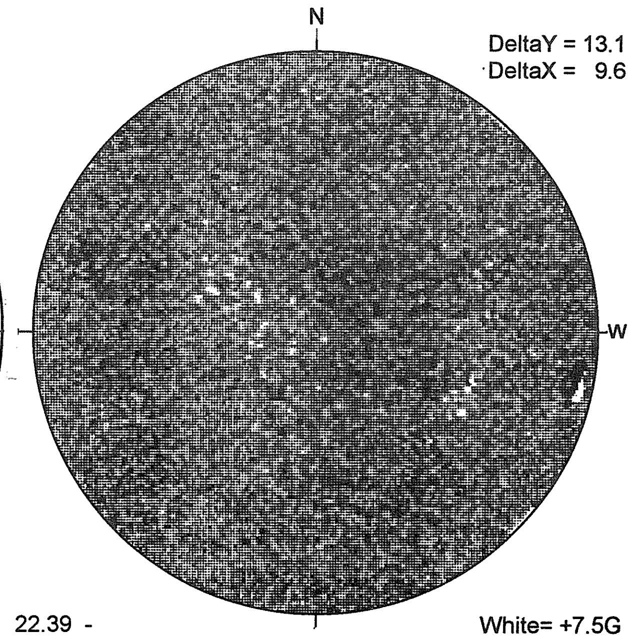
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

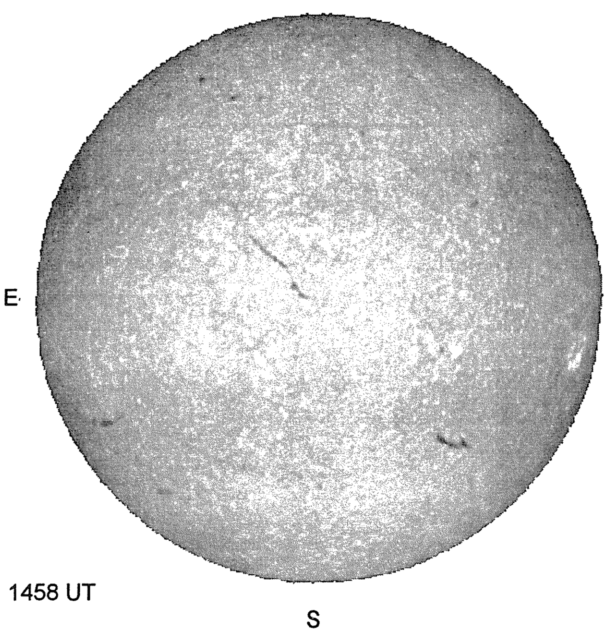
DeltaY = 13.1
DeltaX = 9.6



22.39 -
23.36 UT

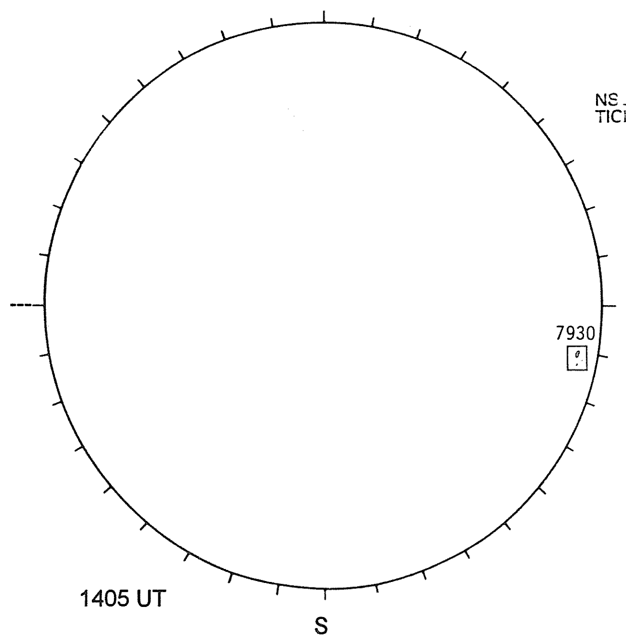
White= +7.5G
Black = -7.5G

SACRAMENTO PEAK H-ALPHA



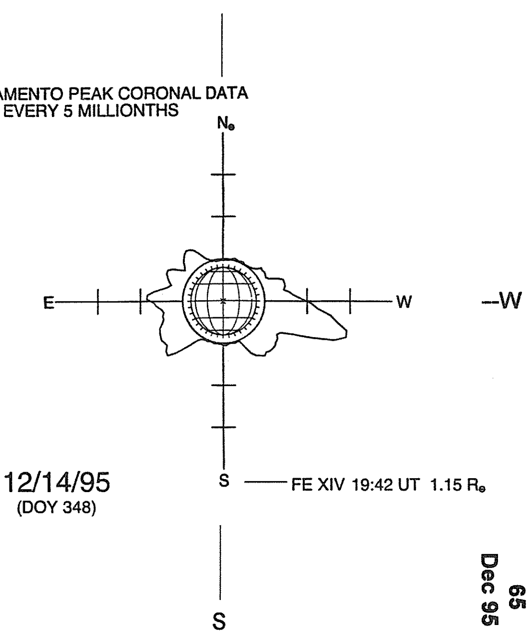
1458 UT

RAMEY SUNSPOT



1405 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



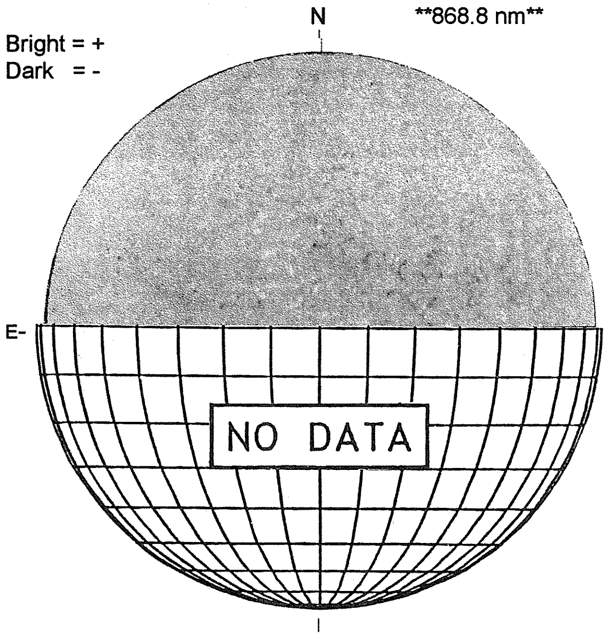
12/14/95
(DOY 348)

DECEMBER 15, 1995 (P= 10.43, Bo = -0.86, Lo = 75.40)

KITT PEAK MAGNETOGRAM

868.8 nm

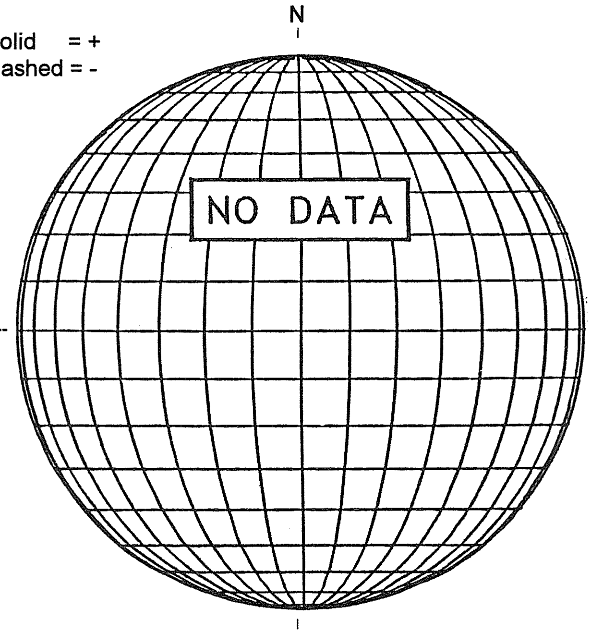
Bright = +
Dark = -



1524 UT

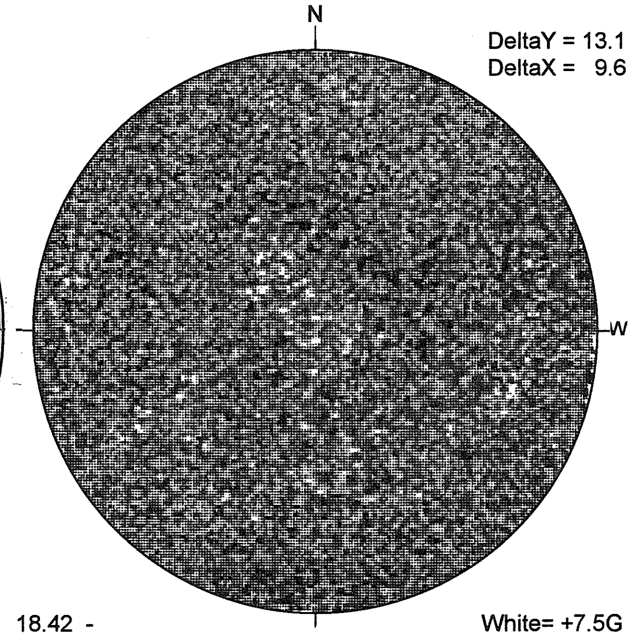
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

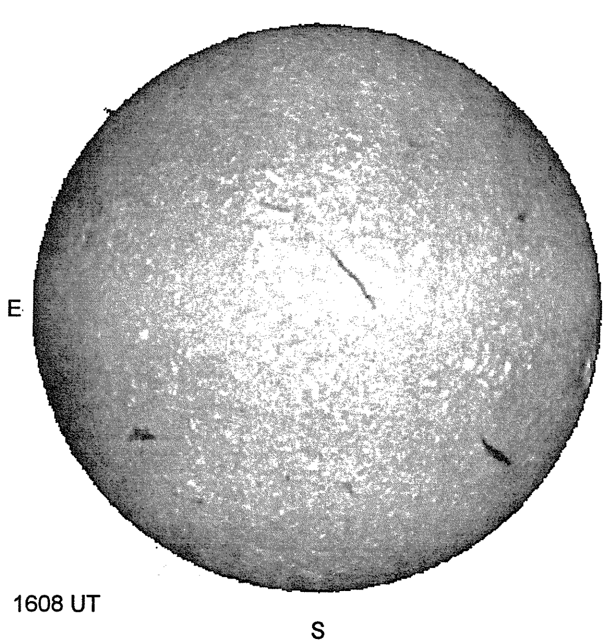
DeltaY = 13.1
DeltaX = 9.6



18.42 -
19.39 UT

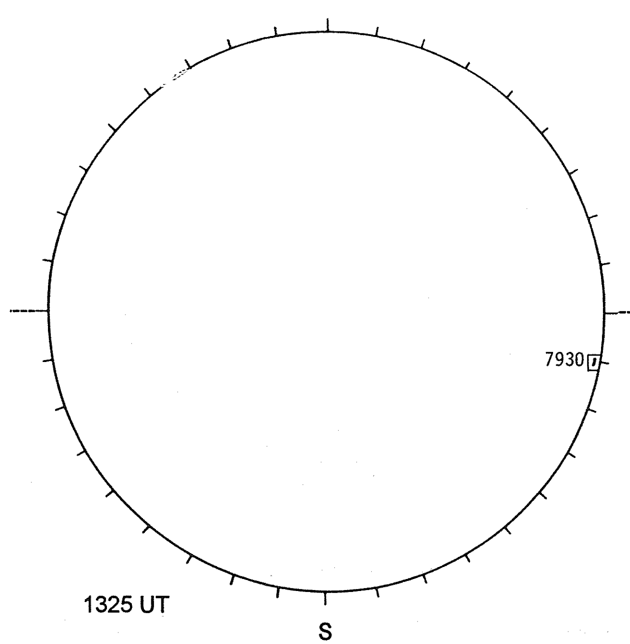
White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA



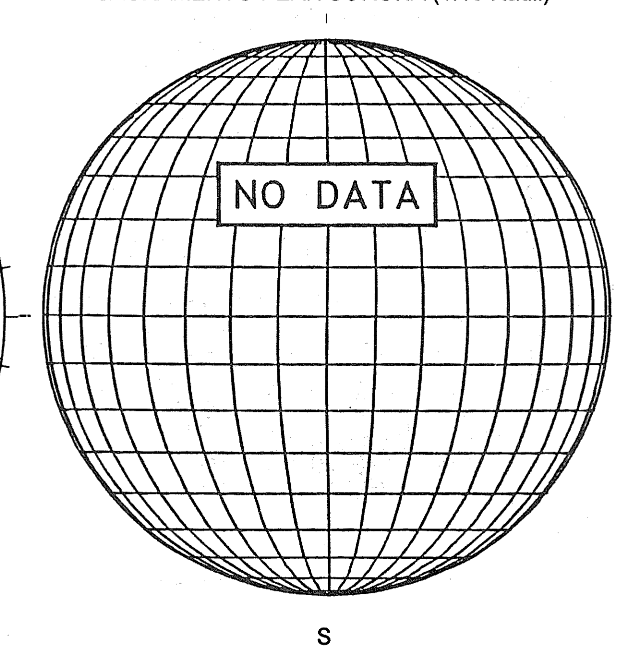
1608 UT

RAMEY SUNSPOT



1325 UT

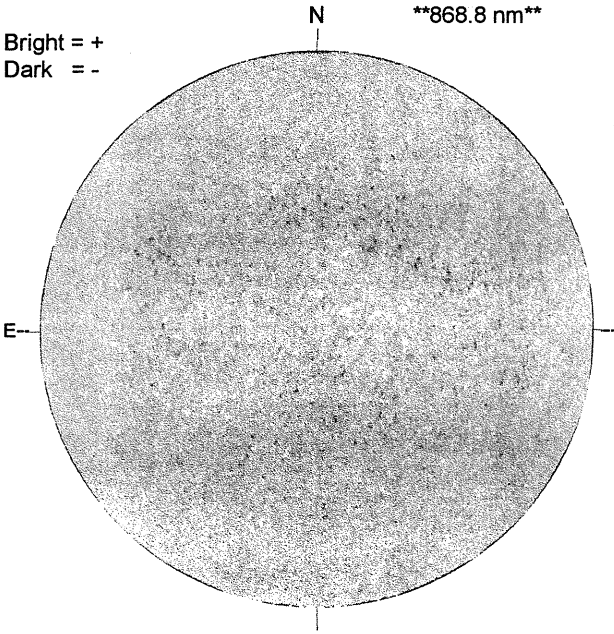
SACRAMENTO PEAK CORONA (1.15 Radii)----



DECEMBER 16, 1995 (P= 9.98, Bo = -0.99, Lo = 62.22)

KITT PEAK MAGNETOGRAM **868.8 nm**

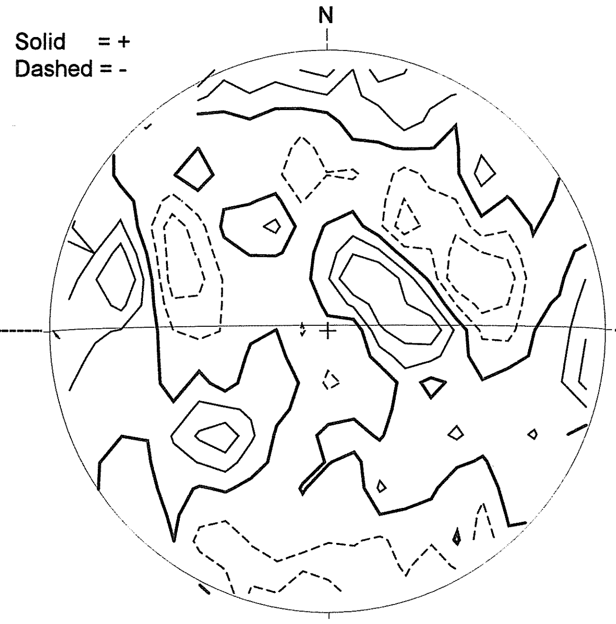
Bright = +
Dark = -



1547 UT

STANFORD MAGNETOGRAM

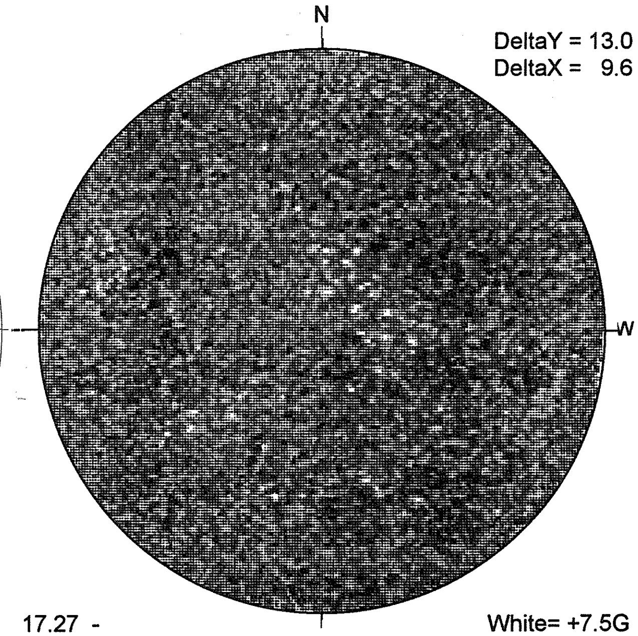
Solid = +
Dashed = -



2248 UT

MT. WILSON MAGNETOGRAM

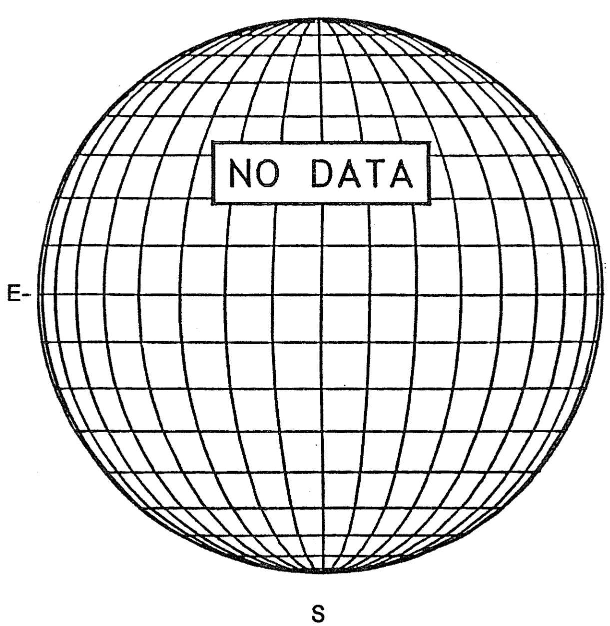
DeltaY = 13.0
DeltaX = 9.6



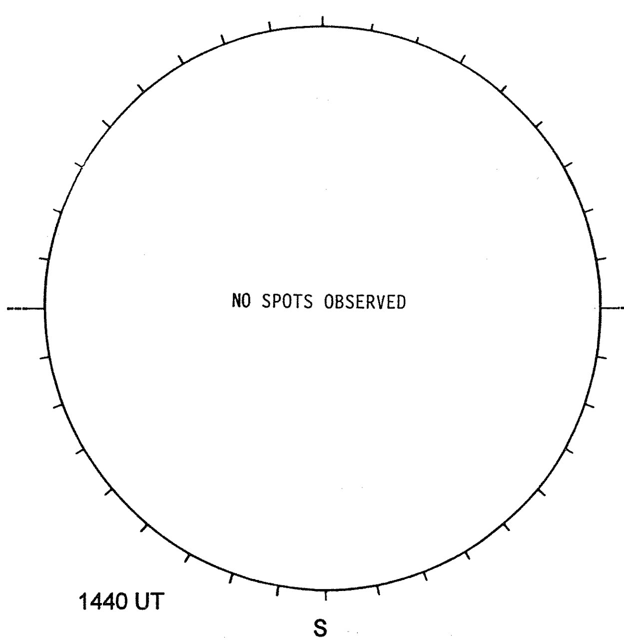
17.27 -
18.24 UT

White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA

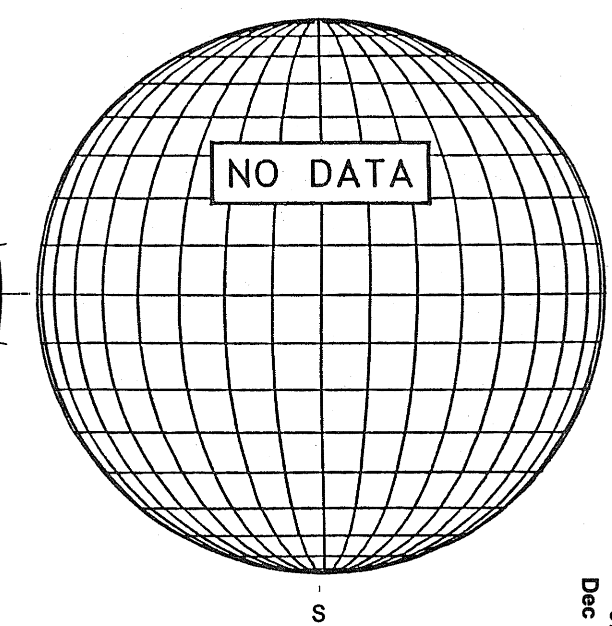


RAMEY SUNSPOT



1440 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

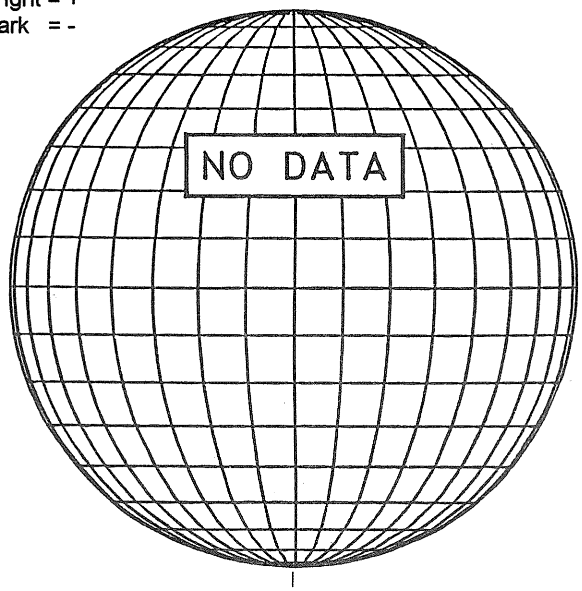


DECEMBER 17, 1995 (P= 9.52, Bo = -1.11, Lo = 49.05)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

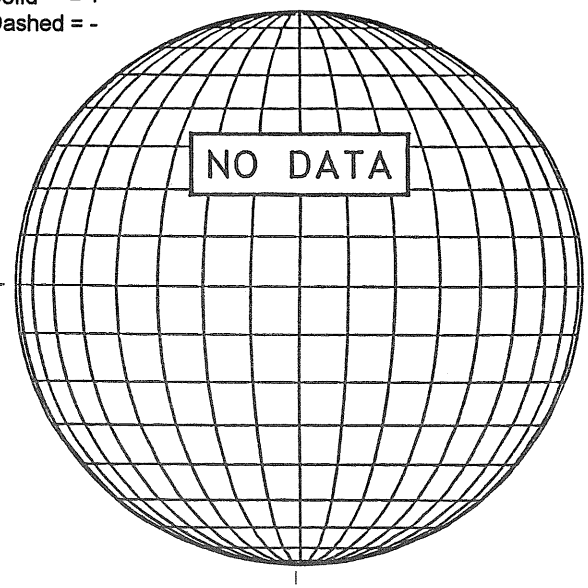
Bright = +
Dark = -



STANFORD MAGNETOGRAM

N

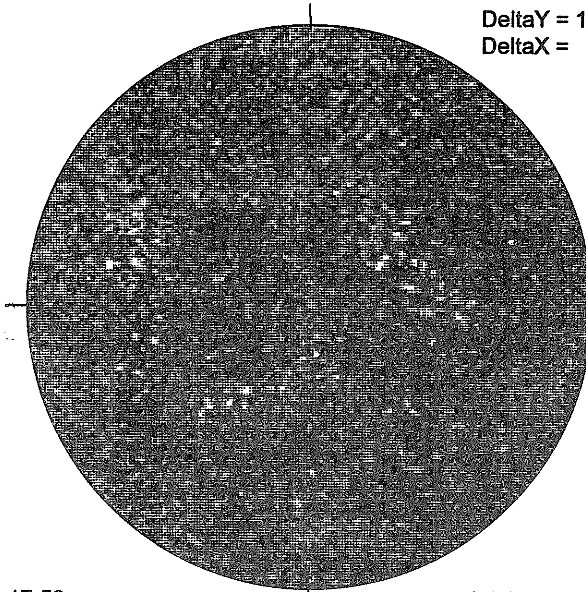
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

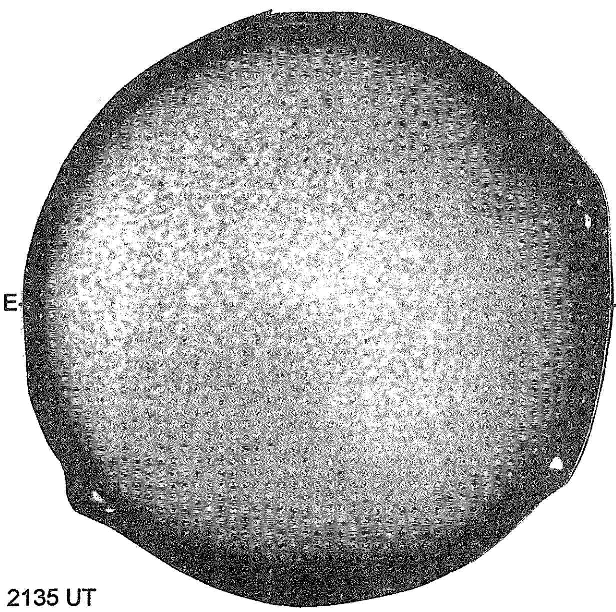
DeltaY = 13.0
DeltaX = 9.6



17.58 -
18.55 UT

White= +7.5G
Black = -7.5G

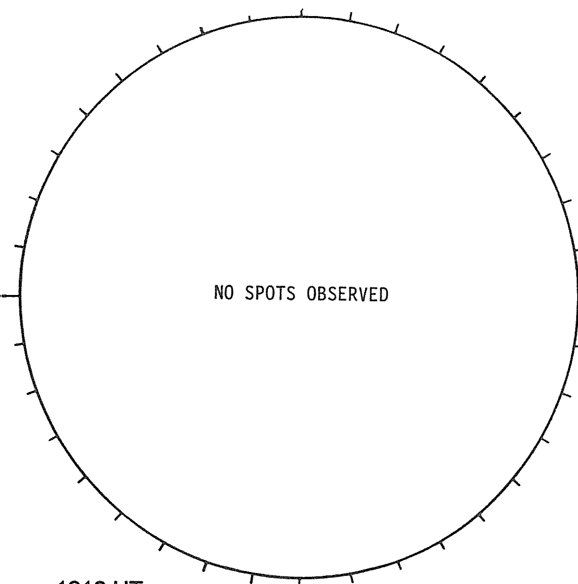
MAUNA LOA H-ALPHA



2135 UT
2056 UT Prom

S

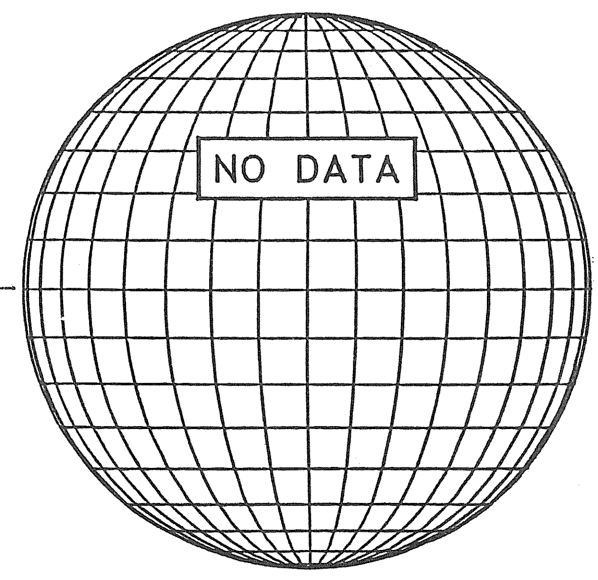
RAMEY SUNSPOT



1218 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----



S

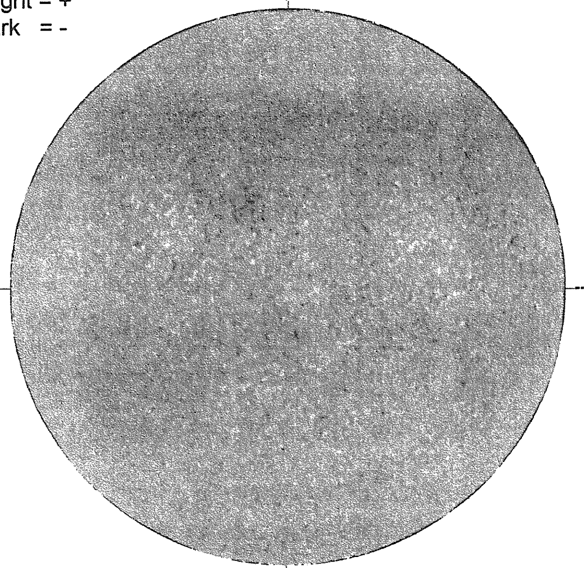
DECEMBER 18, 1995 (P= 9.06, Bo = -1.24, Lo = 35.87)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -

E

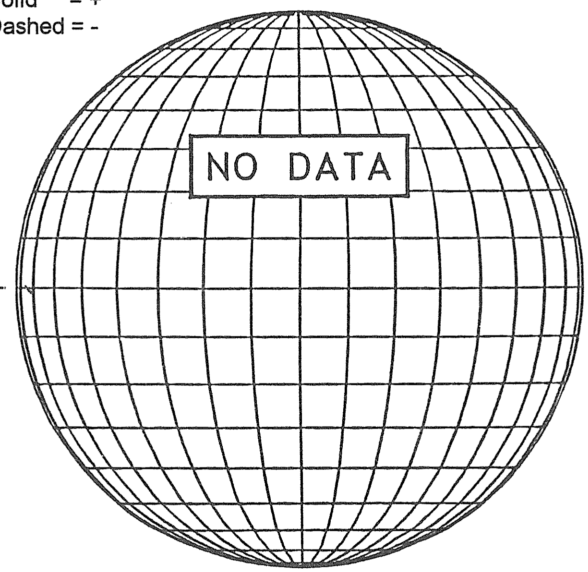


1647 UT

STANFORD MAGNETOGRAM

N

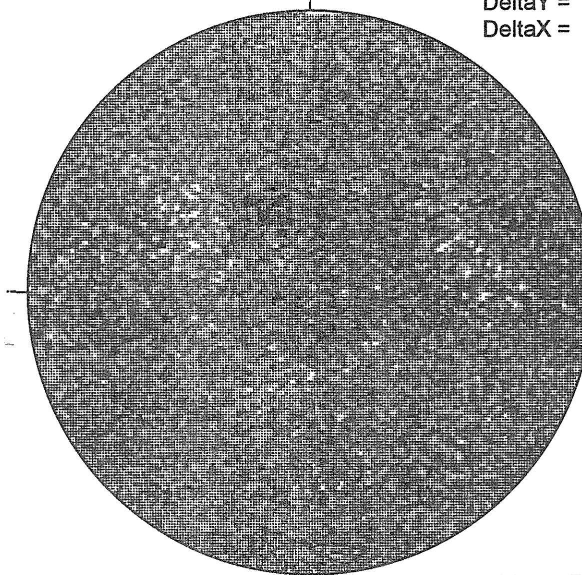
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

DeltaY = 13.1
DeltaX = 9.6



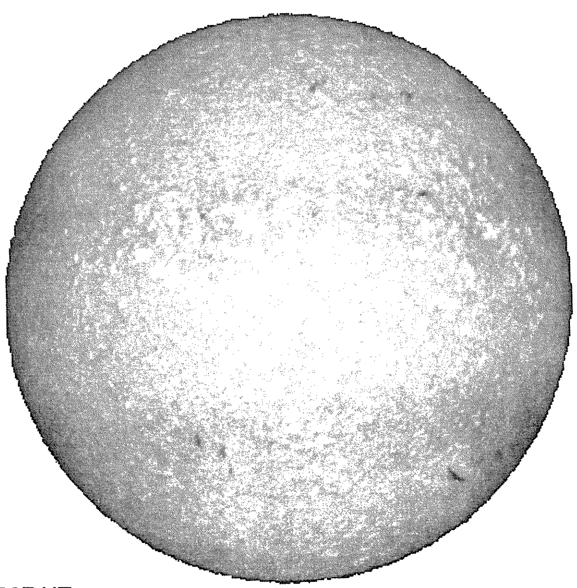
W

17.46 -
18.43 UT

White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA

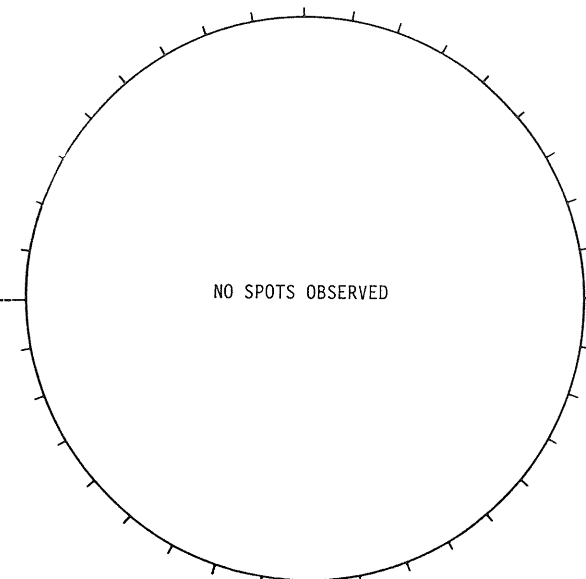
E



1607 UT

S

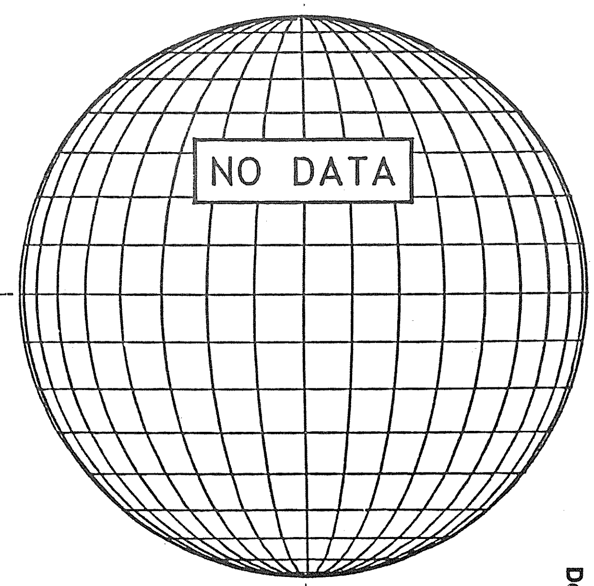
RAMEY SUNSPOT



1439 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----



W

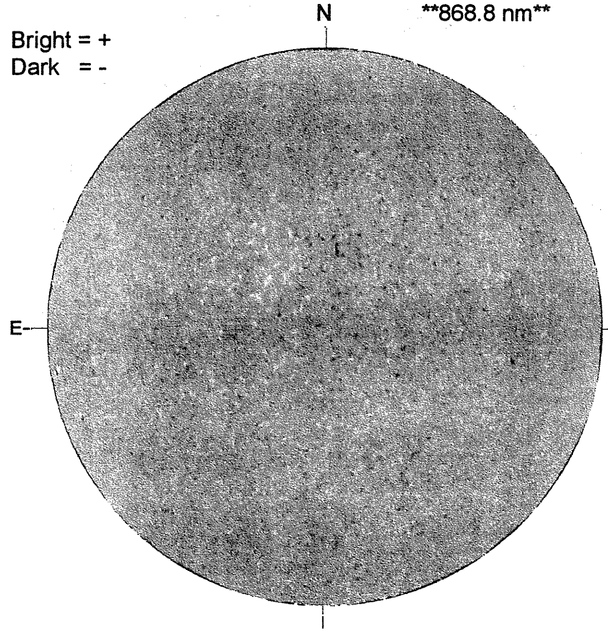
S

DECEMBER 19, 1995 (P= 8.60, Bo = -1.37, Lo = 22.70)

KITT PEAK MAGNETOGRAM

868.8 nm

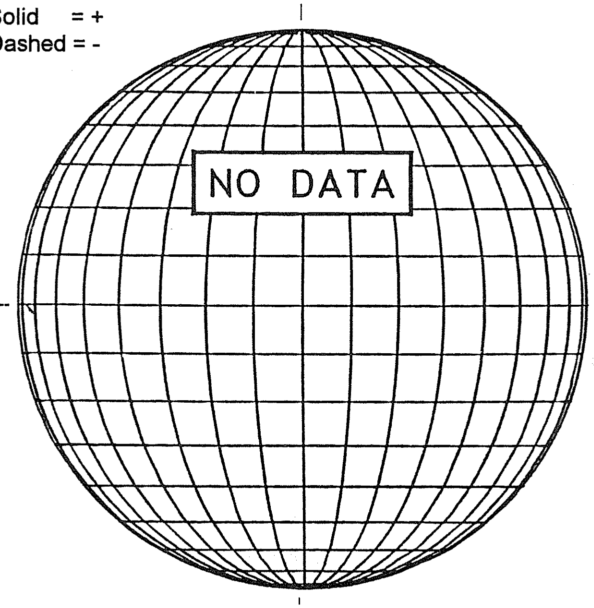
Bright = +
Dark = -



1546 UT

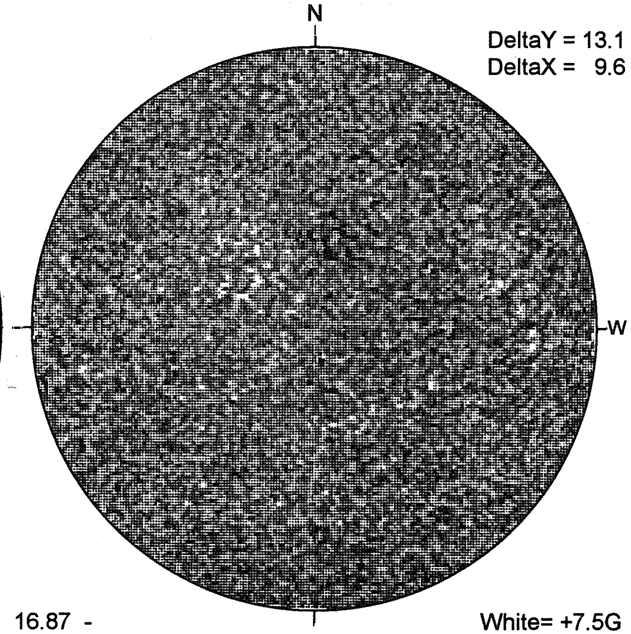
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

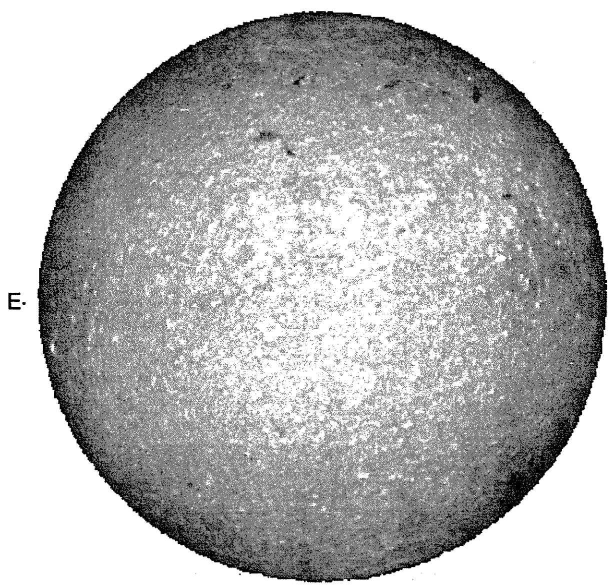
DeltaY = 13.1
DeltaX = 9.6



16.87 -
17.84 UT

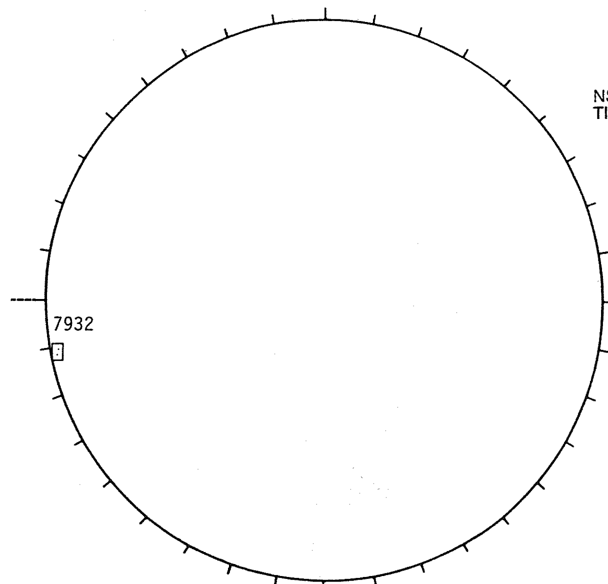
White= +7.5G
Black = -7.5G

SACRAMENTO PEAK H-ALPHA



1516 UT

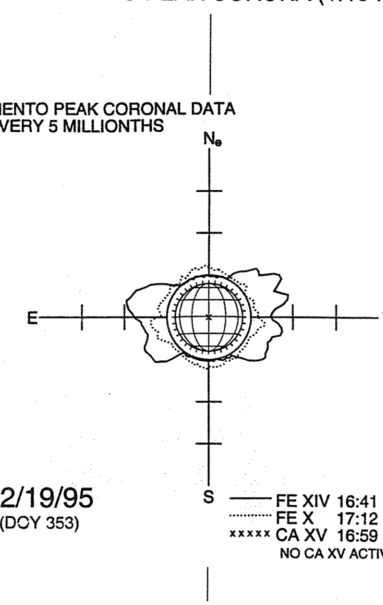
RAMEY SUNSPOT



1508 UT

SACRAMENTO PEAK CORONA (1.15 Radii)

NSO / SACRAMENTO PEAK CORONAL DATA
TICK MARKS EVERY 5 MILLIONTHS



-W

12/19/95
(DOY 353)

FE XIV 16:41 UT 1.15 $R_\odot$
FE X 17:12 UT 1.15 $R_\odot$
xxxxx CA XV 16:59 UT 1.15 $R_\odot$
NO CA XV ACTIVITY TODAY

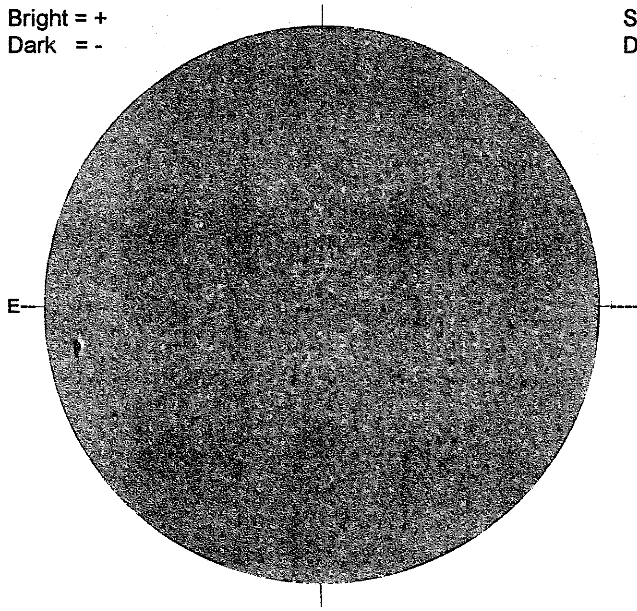
S

DECEMBER 20, 1995 (P= 8.13, Bo = -1.49, Lo = 9.53)

KITT PEAK MAGNETOGRAM

N **868.8 nm**

Bright = +
Dark = -

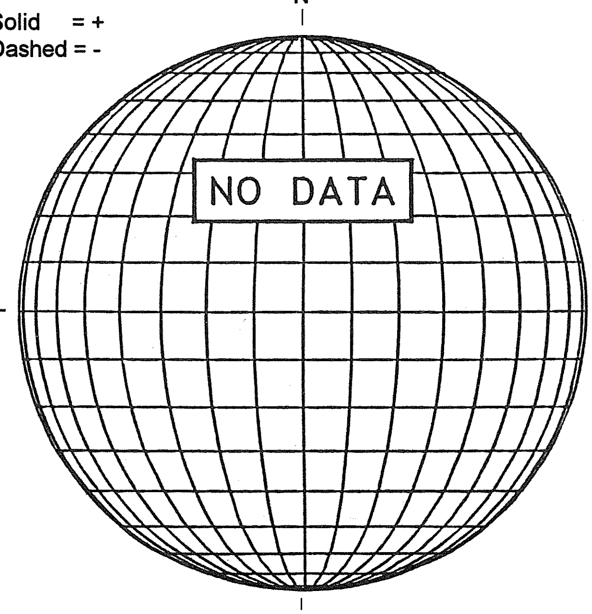


1535 UT

STANFORD MAGNETOGRAM

N

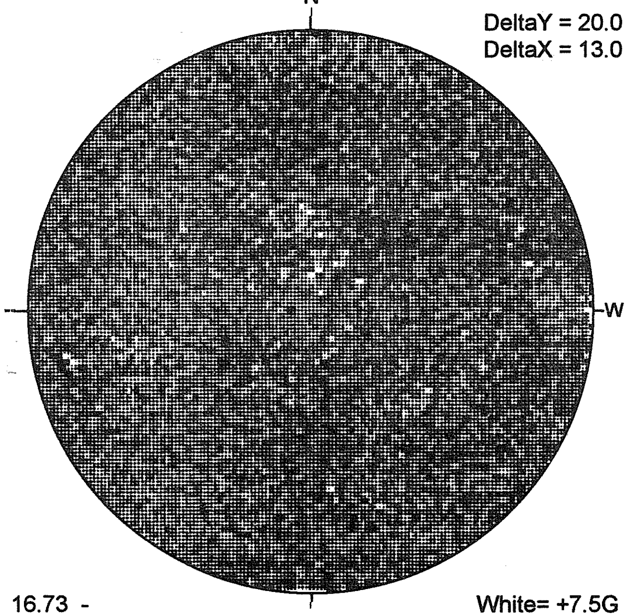
Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

N

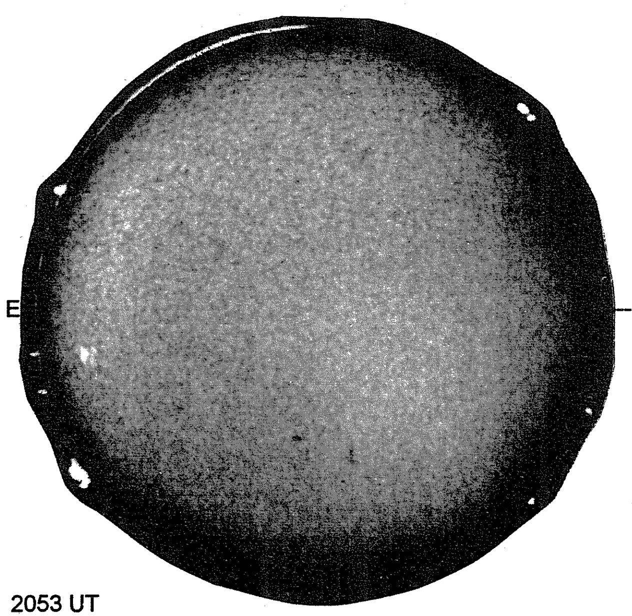
DeltaY = 20.0
DeltaX = 13.0



16.73 -
17.16 UT

White= +7.5G
Black = -7.5G

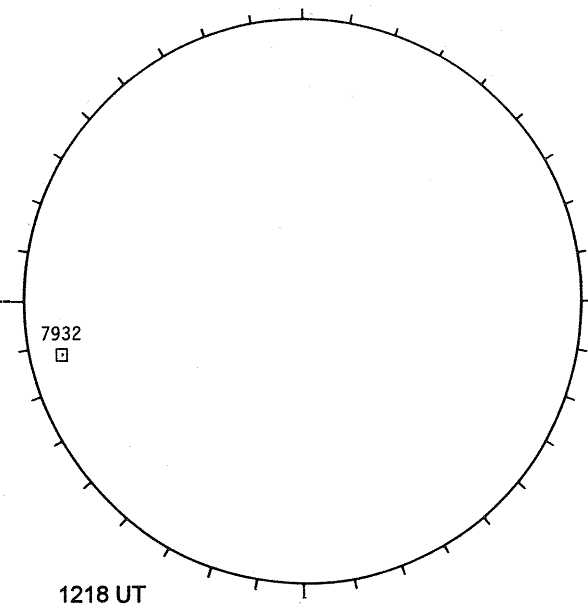
MAUNA LOA H-ALPHA



2053 UT
2056 UT Prom

S

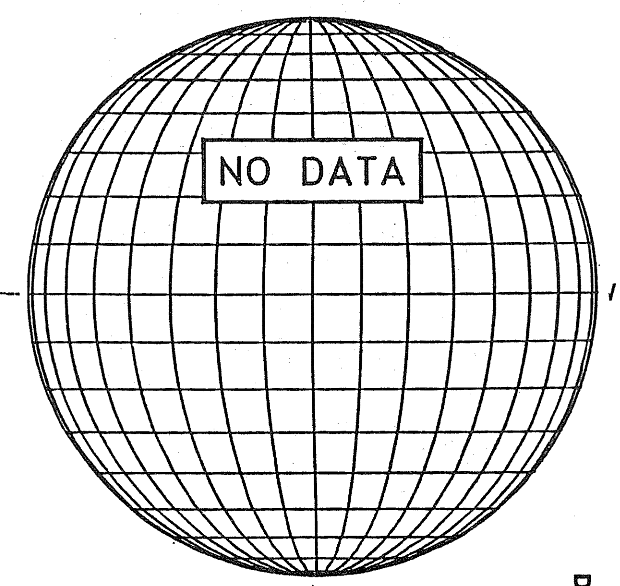
RAMEY SUNSPOT



1218 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----



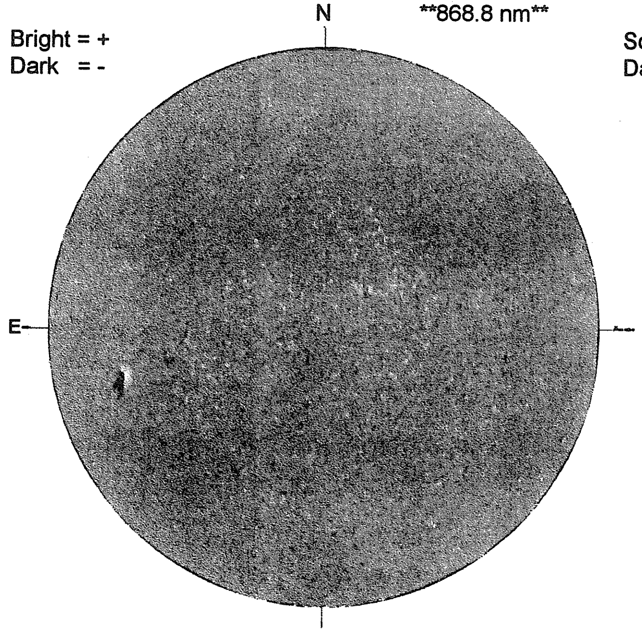
S

DECEMBER 21, 1995 (P= 7.66, Bo = -1.62, Lo = 356.35)

KITT PEAK MAGNETOGRAM

868.8 nm

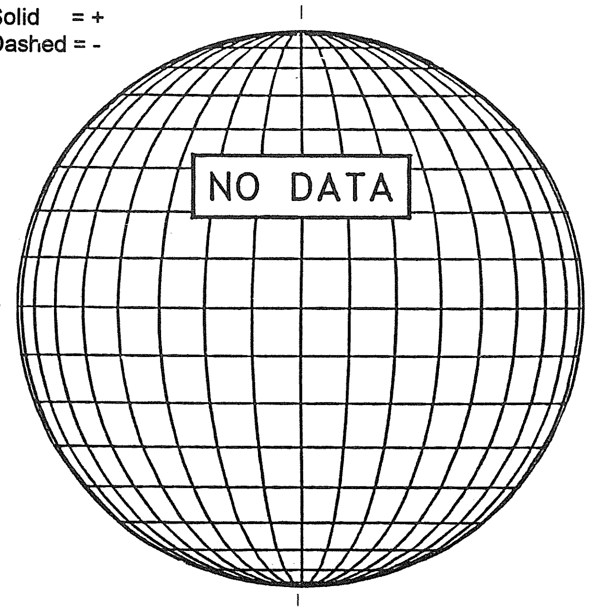
Bright = +
Dark = -



1558 UT

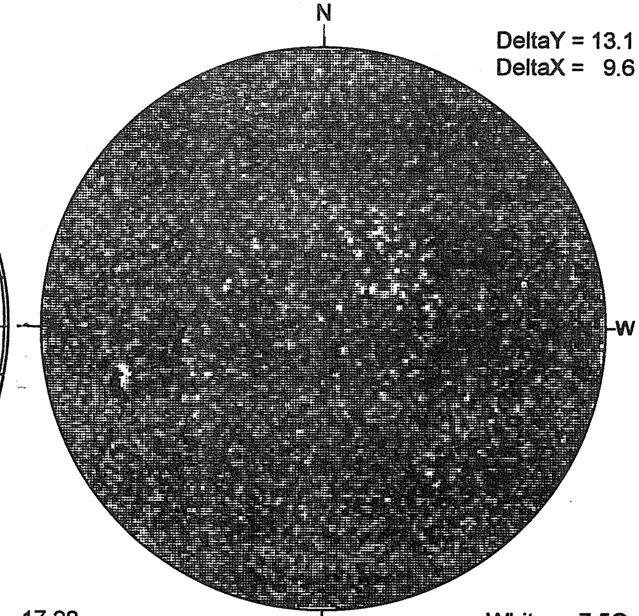
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

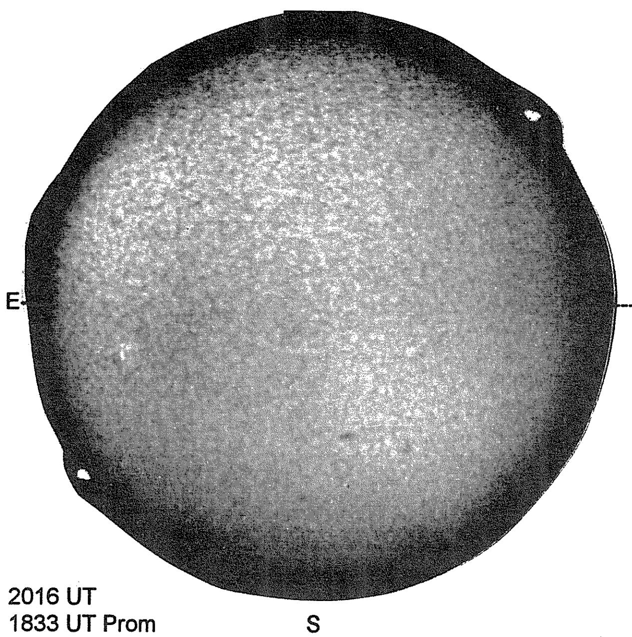
DeltaY = 13.1
DeltaX = 9.6



17.28 -
18.25 UT

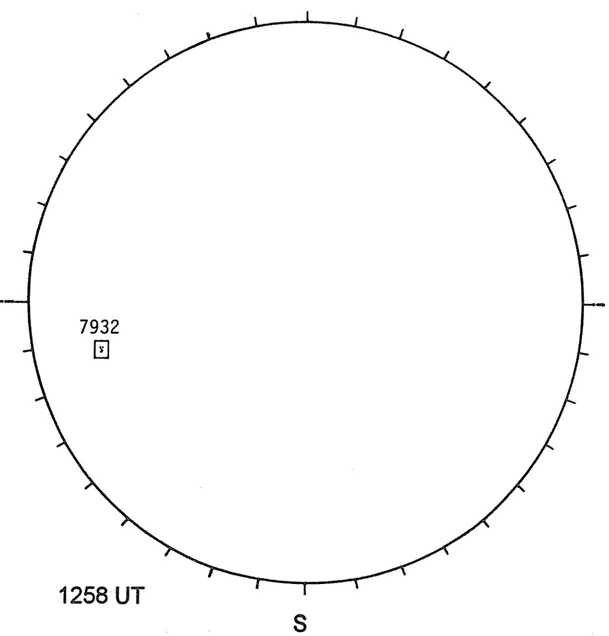
White= +7.5G
Black = -7.5G

----- MAUNA LOA H-ALPHA



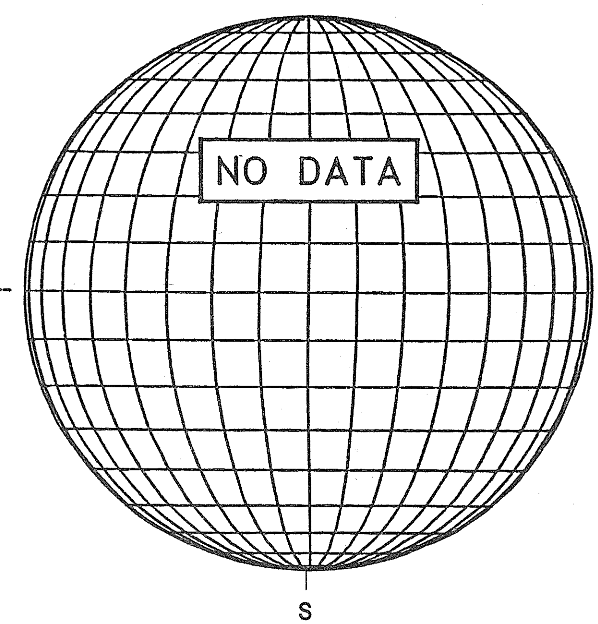
2016 UT
1833 UT Prom

RAMEY SUNSPOT



1258 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

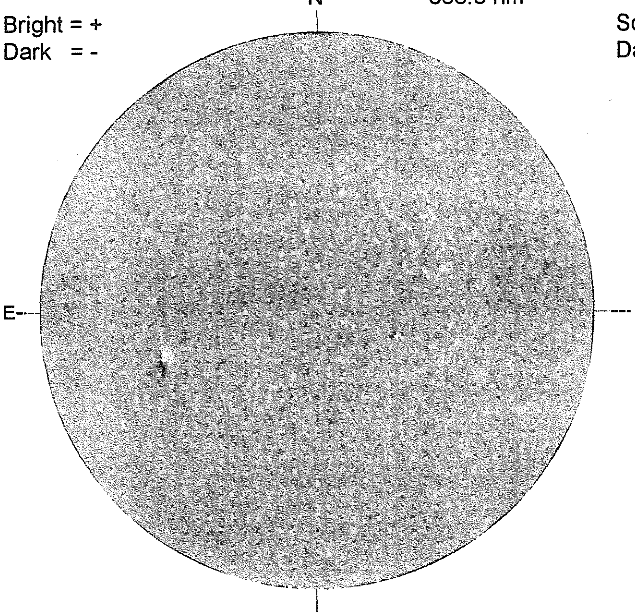


DECEMBER 22, 1995 (P=   7.19, Bo = -1.74, Lo = 343.18)

KITT PEAK MAGNETOGRAM

868.8 nm

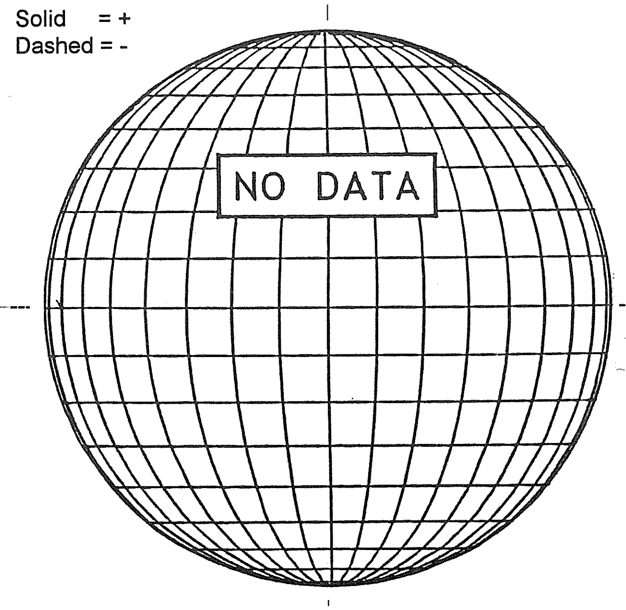
Bright = +
Dark   = -



1531 UT

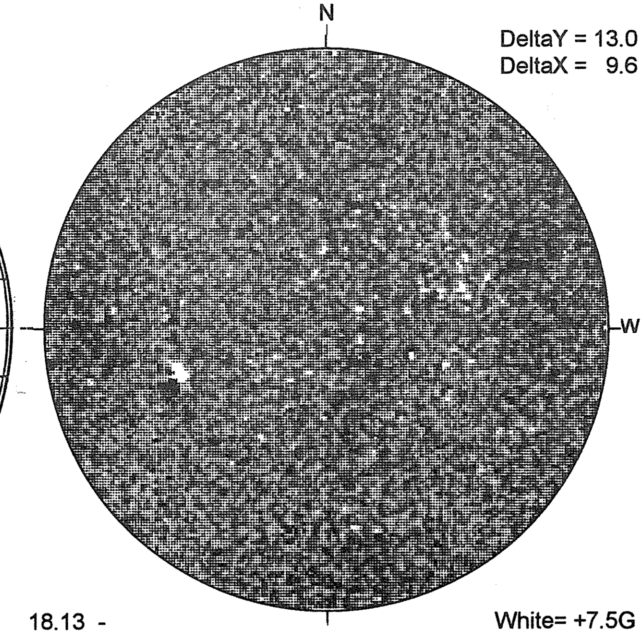
STANFORD MAGNETOGRAM

Solid   = +
Dashed = -



MT WILSON MAGNETOGRAM

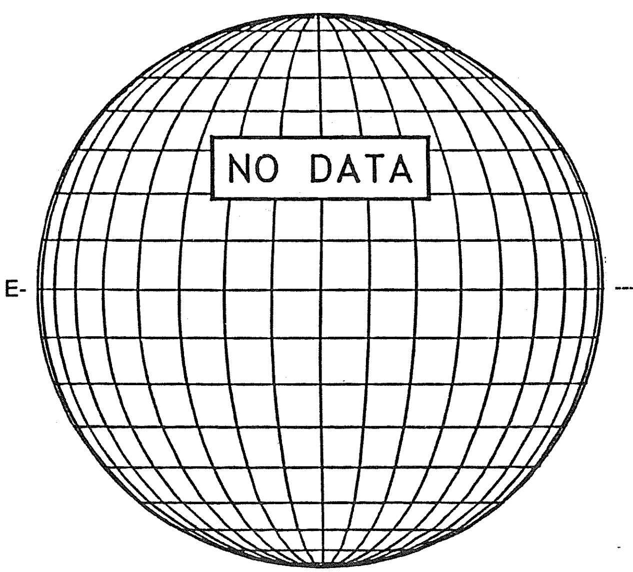
DeltaY = 13.0
DeltaX = 9.6



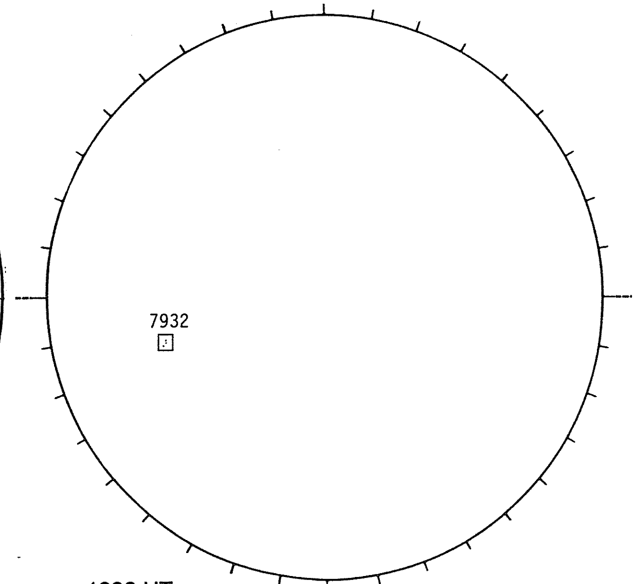
18.13 -
19.10 UT

White= +7.5G
Black = -7.5G

SACRAMENTO PEAK H-ALPHA

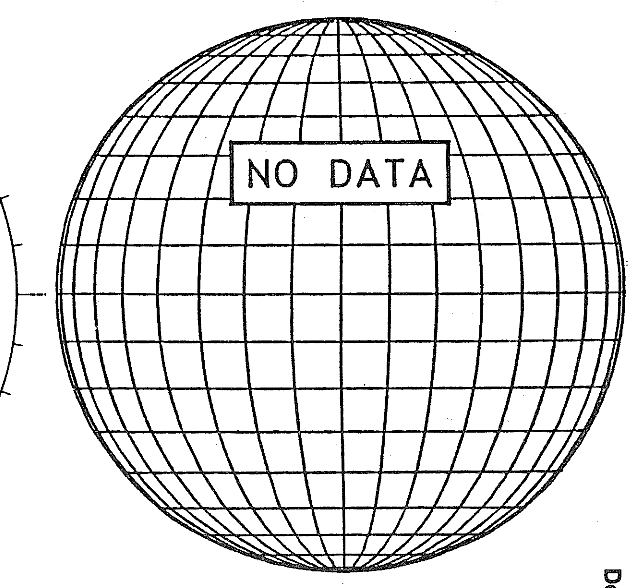


RAMEY SUNSPOT



1228 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

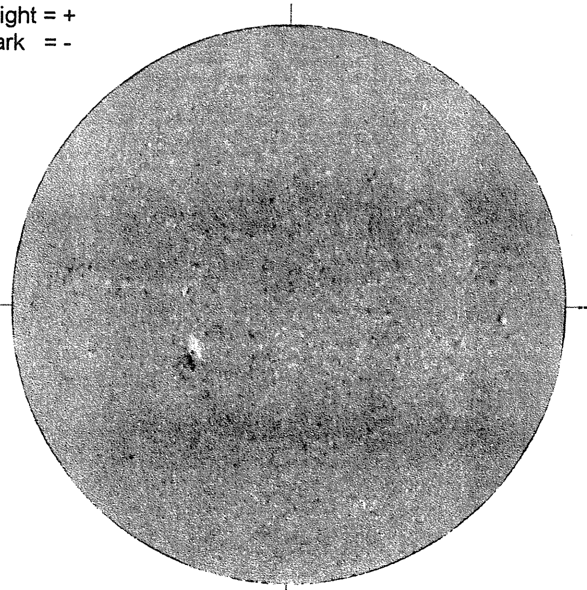


DECEMBER 23, 1995 (P= 6.72, Bo = -1.87, Lo = 330.01)

KITT PEAK MAGNETOGRAM

868.8 nm

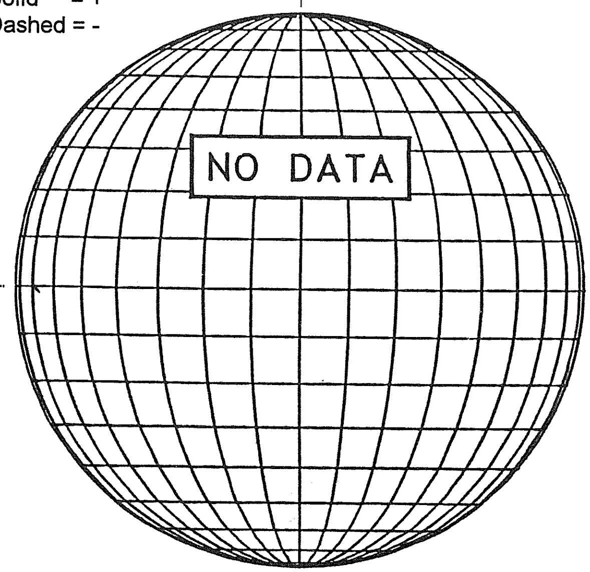
Bright = +
Dark = -



1600 UT

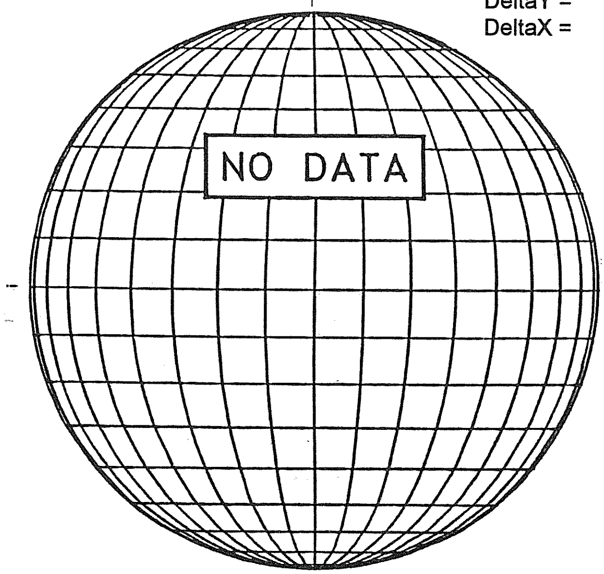
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



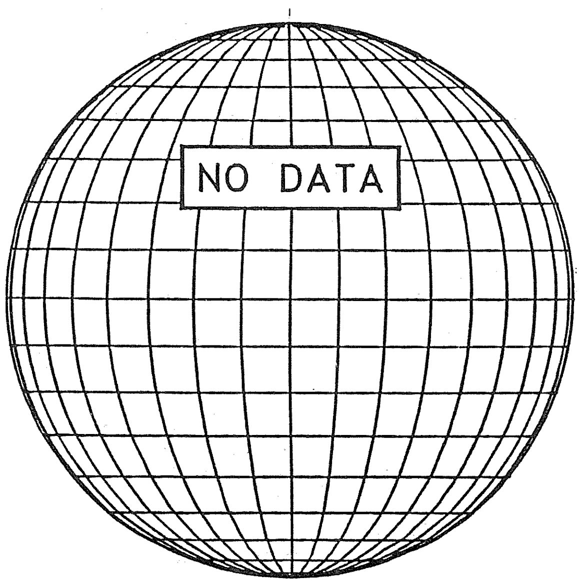
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =

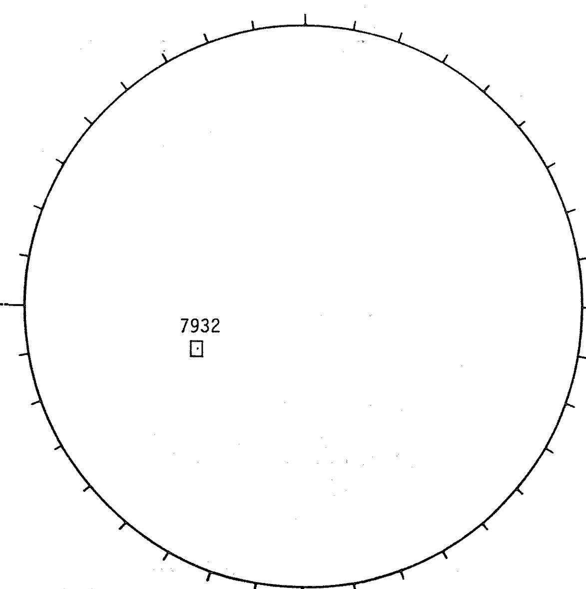


White= +7.5G
Black = -7.5G

MAUNA LOA H-ALPHA

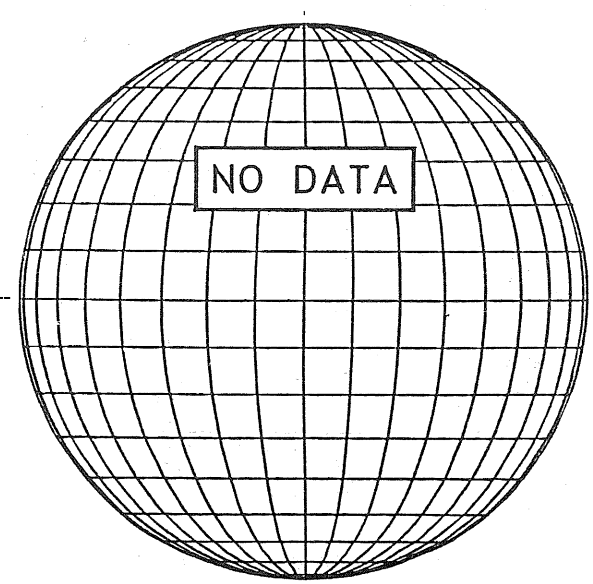


RAMEY SUNSPOT



1255 UT

LOMNICKY PEAK CORONA (1.04 Radii)----

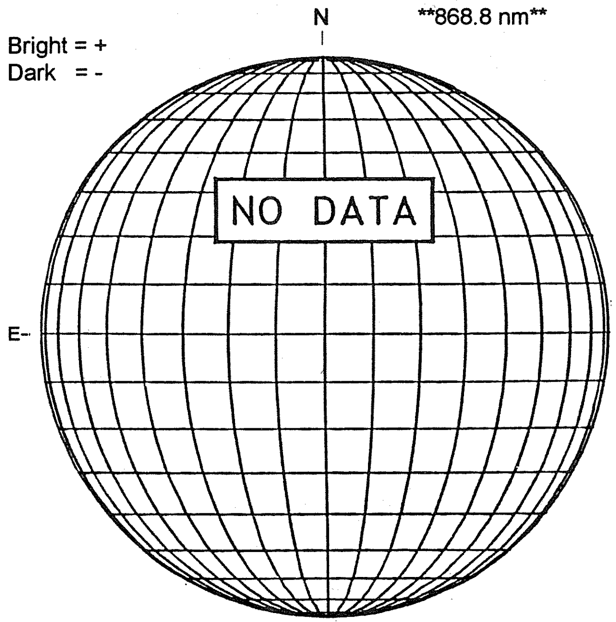


DECEMBER 24, 1995 (P=   6.24, Bo = -1.99, Lo = 316.84)

KITT PEAK MAGNETOGRAM

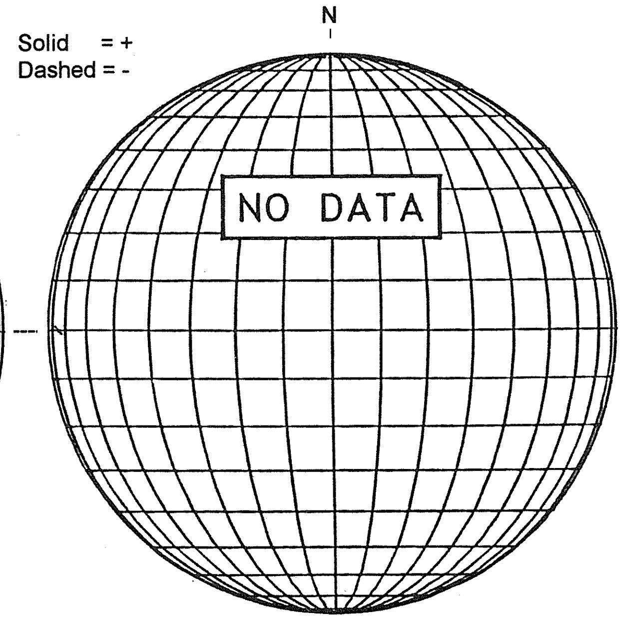
868.8 nm

Bright = +
Dark   = -



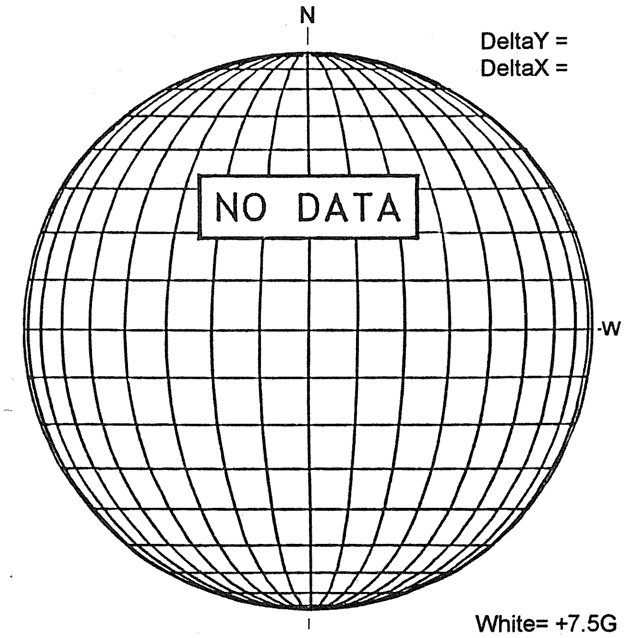
STANFORD MAGNETOGRAM

Solid   = +
Dashed = -



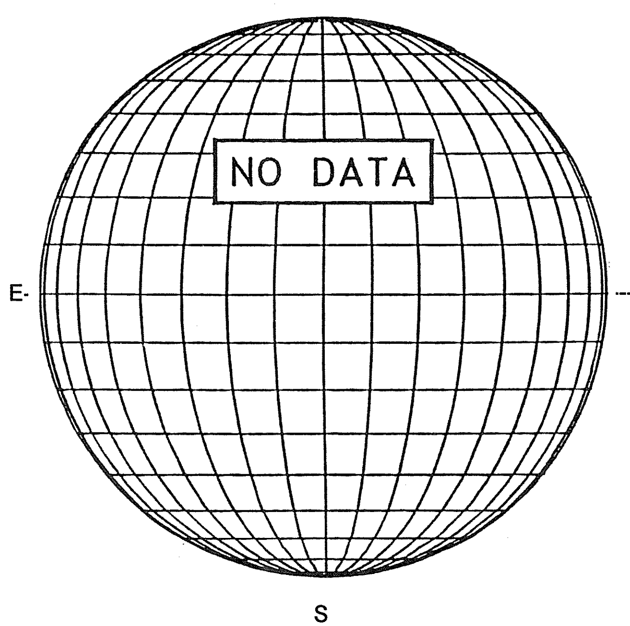
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =

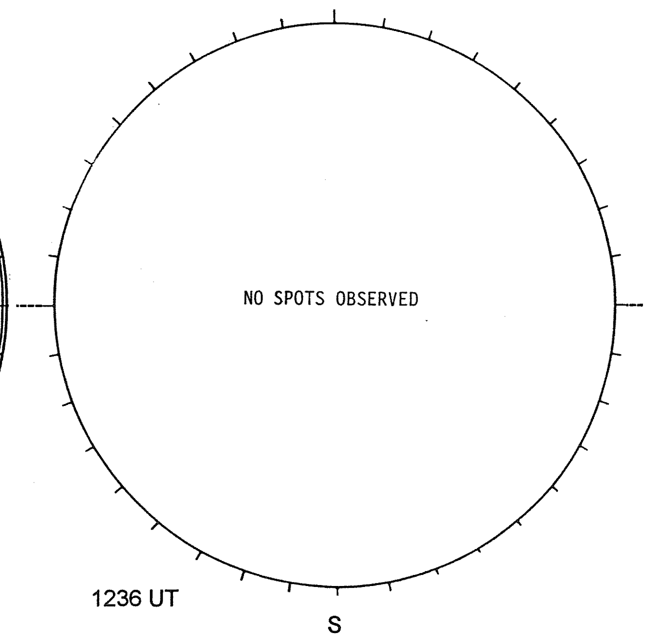


White= +7.5G
Black = -7.5G

MAUNA LOA H-ALPHA

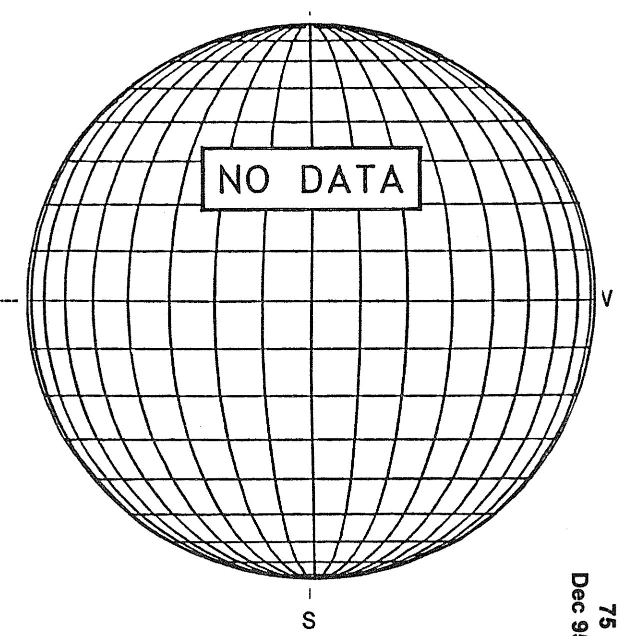


RAMEY SUNSPOT



1236 UT

LOMNICKY PEAK CORONA (1.04 Radii)----

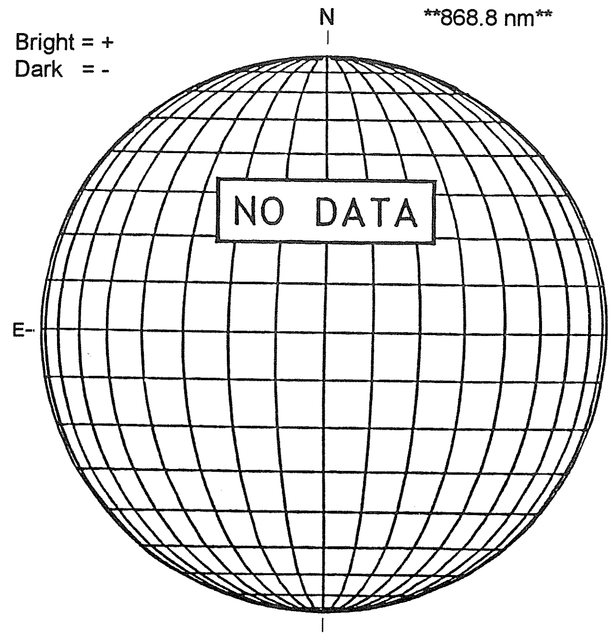


DECEMBER 25, 1995 (P= 5.76, Bo = -2.11, Lo = 303.66)

KITT PEAK MAGNETOGRAM

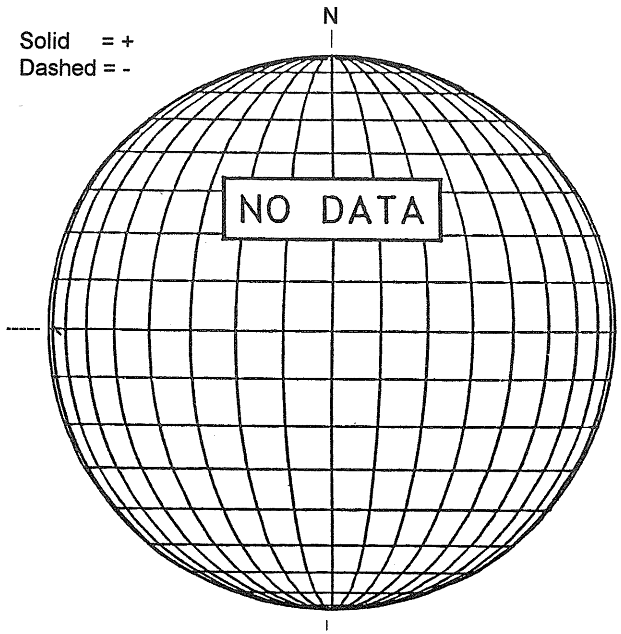
868.8 nm

Bright = +
Dark = -



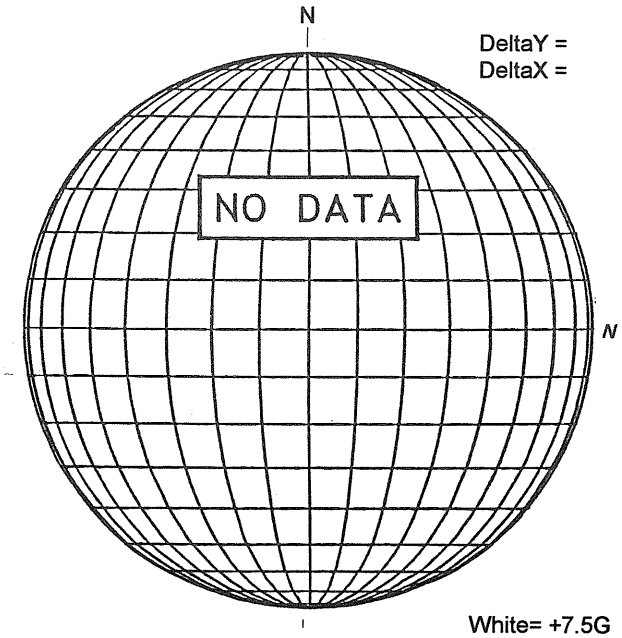
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



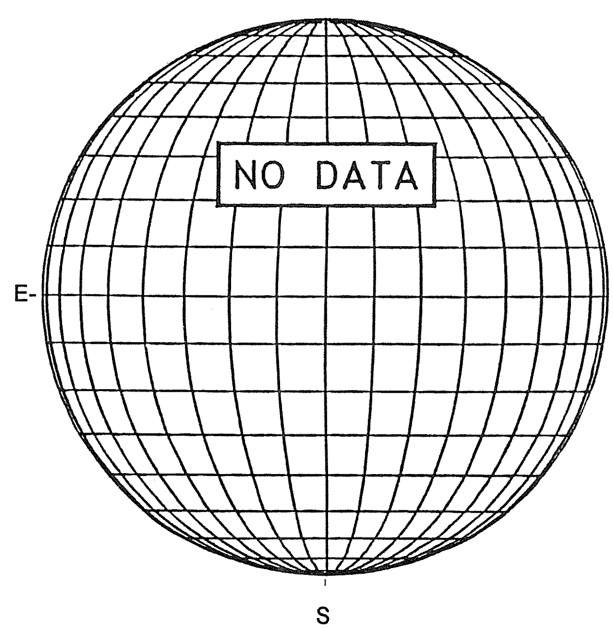
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =

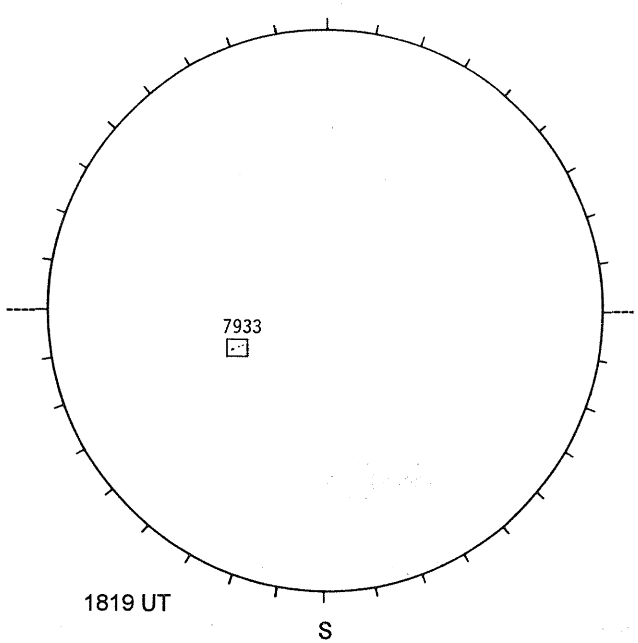


White= +7.5G
Black = -7.5G

SACRAMENTO PEAK H-ALPHA

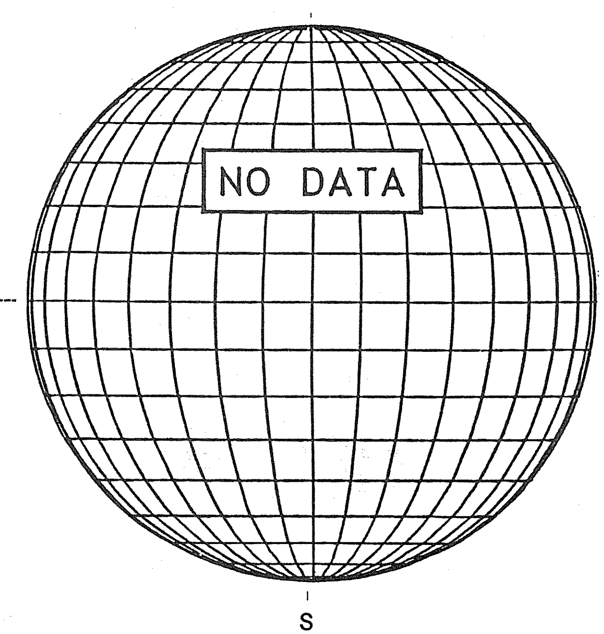


RAMEY SUNSPOT



1819 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

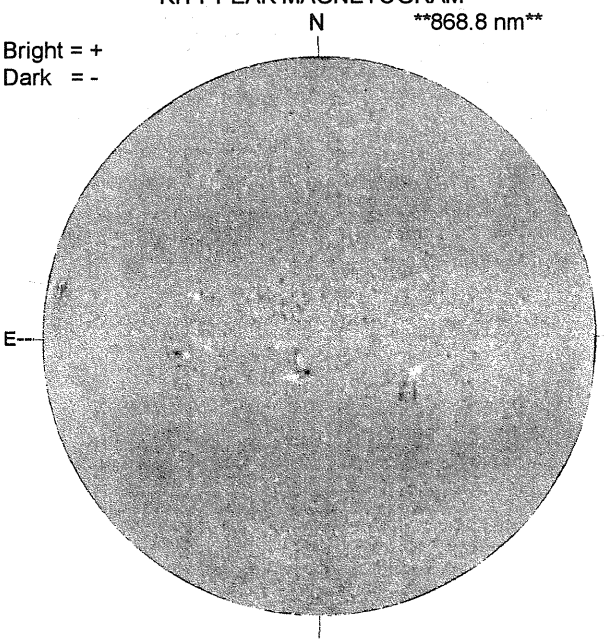


DECEMBER 26, 1995 (P= 5.28, Bo = -2.24, Lo = 290.49)

KITT PEAK MAGNETOGRAM

868.8 nm

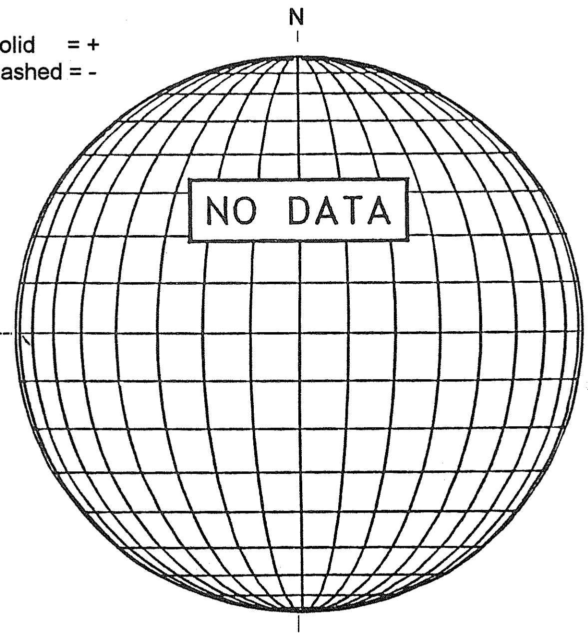
Bright = +
Dark = -



1627 UT

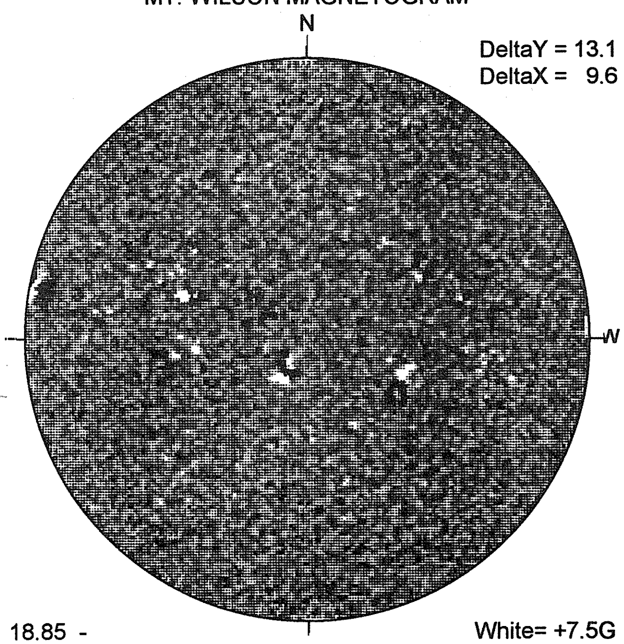
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

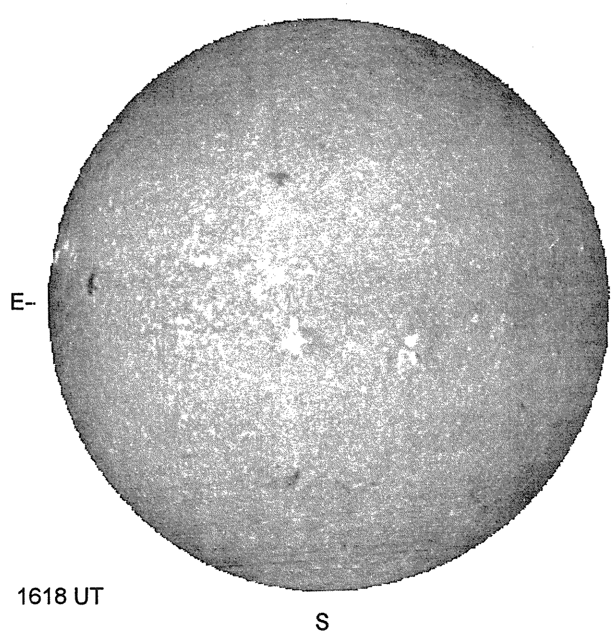
DeltaY = 13.1
DeltaX = 9.6



18.85 -
19.83 UT

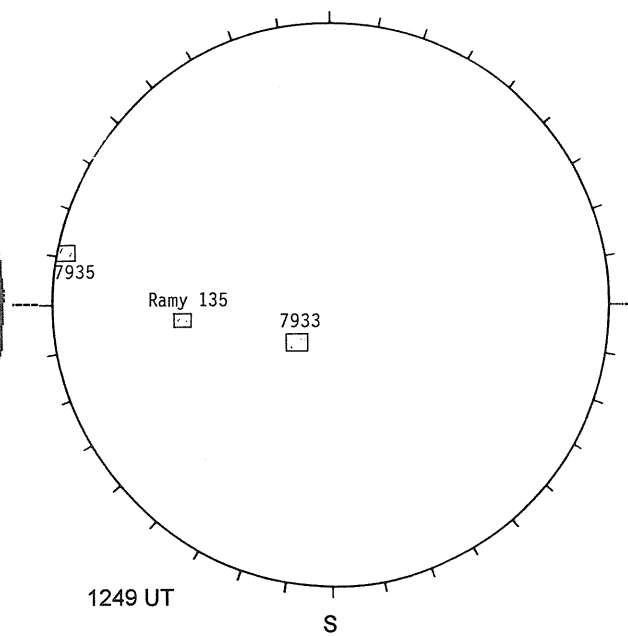
White= +7.5G
Black = -7.5G

SACRAMENTO PEAK H-ALPHA



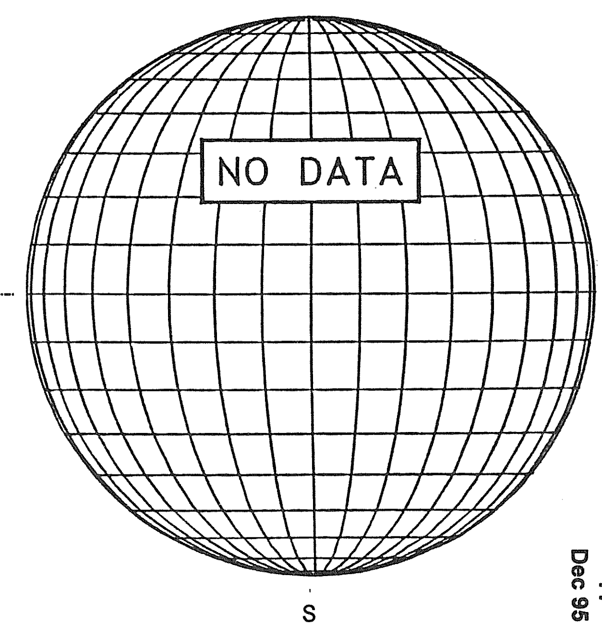
1618 UT

RAMEY SUNSPOT



1249 UT

LOMNICKY PEAK CORONA (1.04 Radii)----

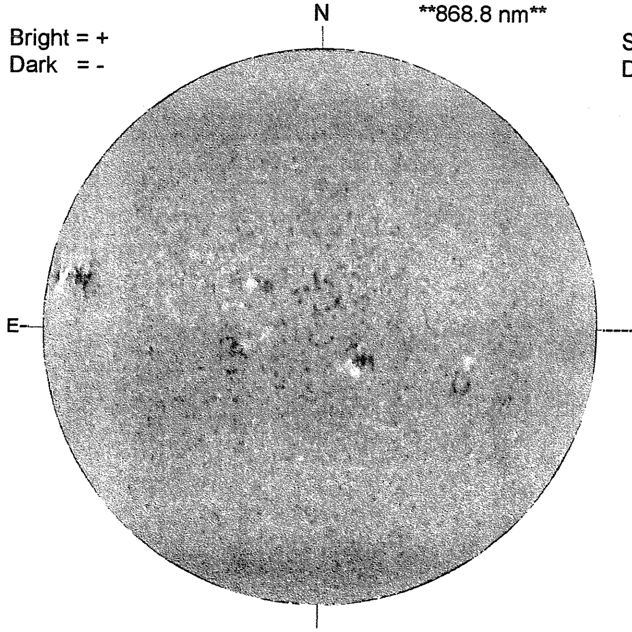


DECEMBER 27, 1995 (P= 4.80, Bo = -2.36, Lo = 277.32)

KITT PEAK MAGNETOGRAM

868.8 nm

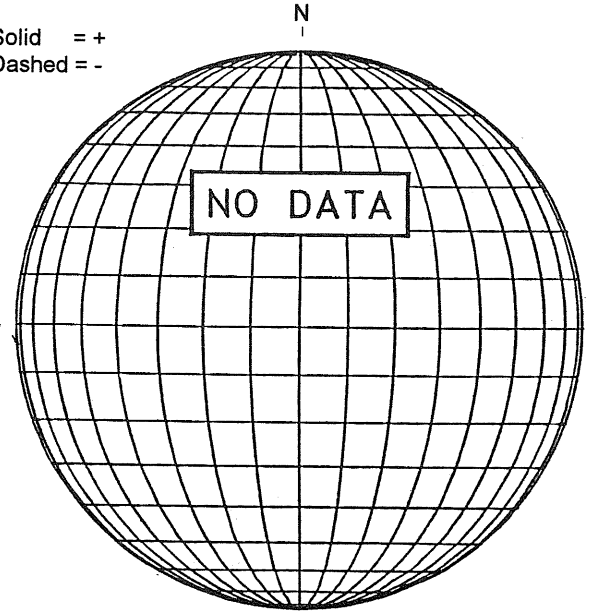
Bright = +
Dark = -



1559 UT

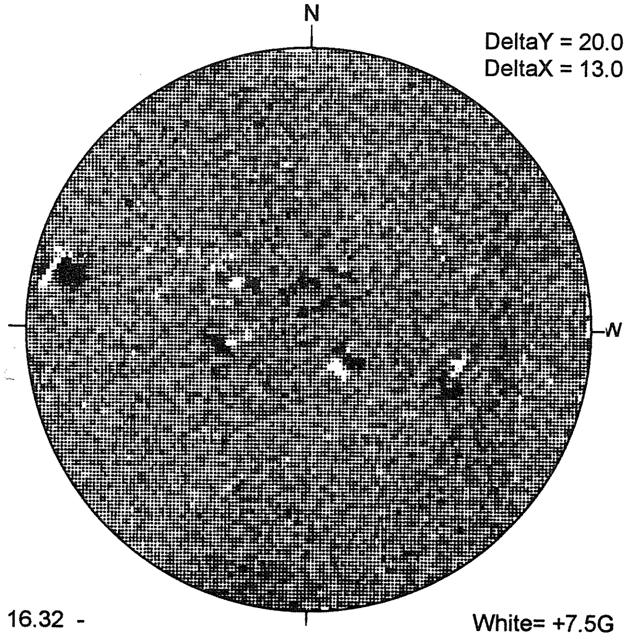
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

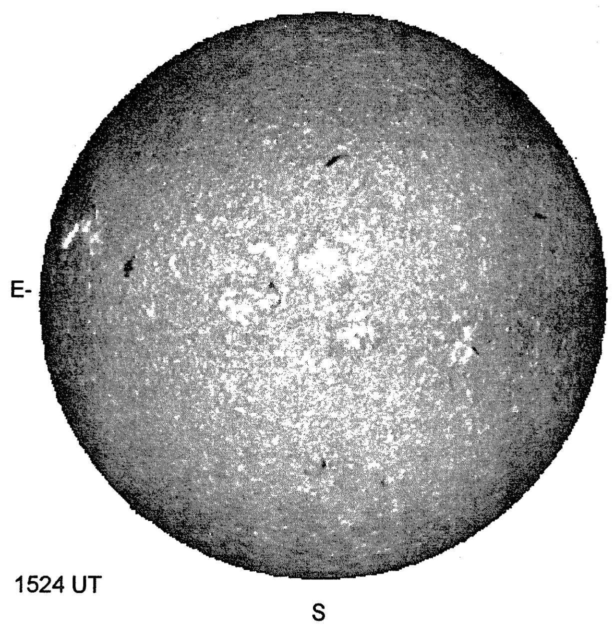
DeltaY = 20.0
DeltaX = 13.0



16.32 -
16.74 UT

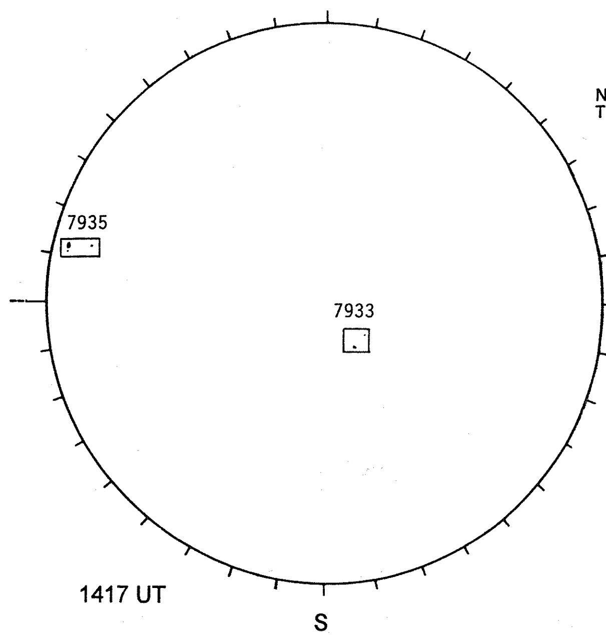
White= +7.5G
Black = -7.5G

SACRAMENTO PEAK H-ALPHA



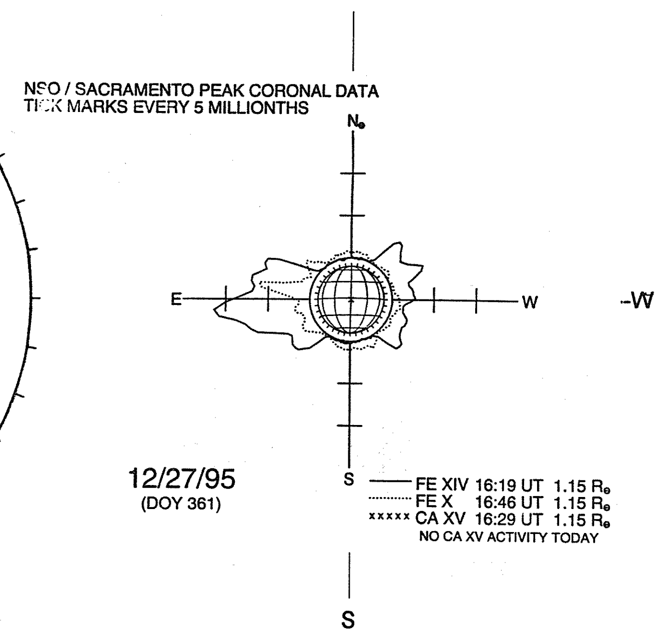
1524 UT

RAMEY SUNSPOT



1417 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



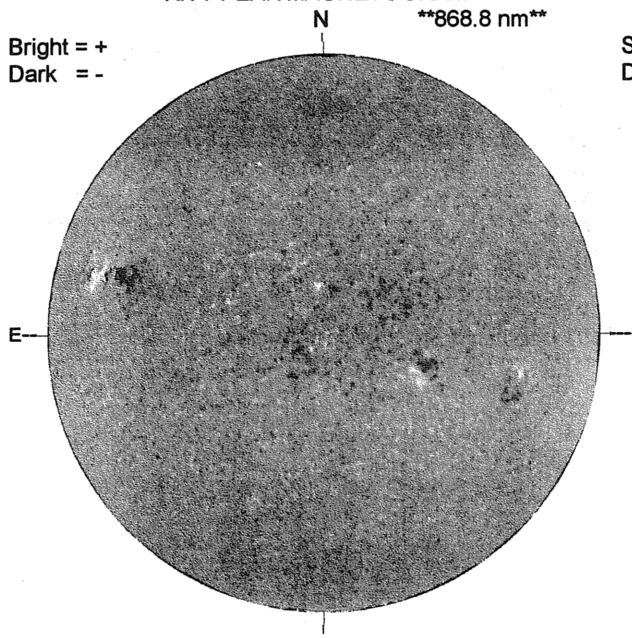
12/27/95
(DOY 361)

DECEMBER 28, 1995 (P= 4.32, Bo = -2.48, Lo = 264.15)

KITT PEAK MAGNETOGRAM

868.8 nm

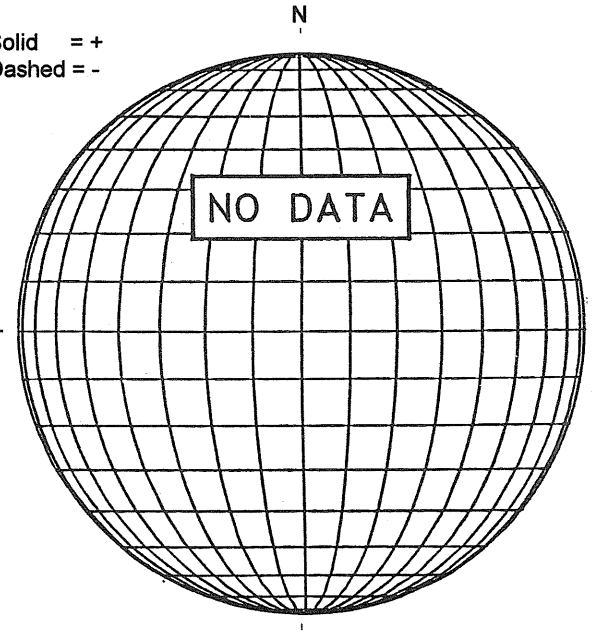
Bright = +
Dark = -



1543 UT

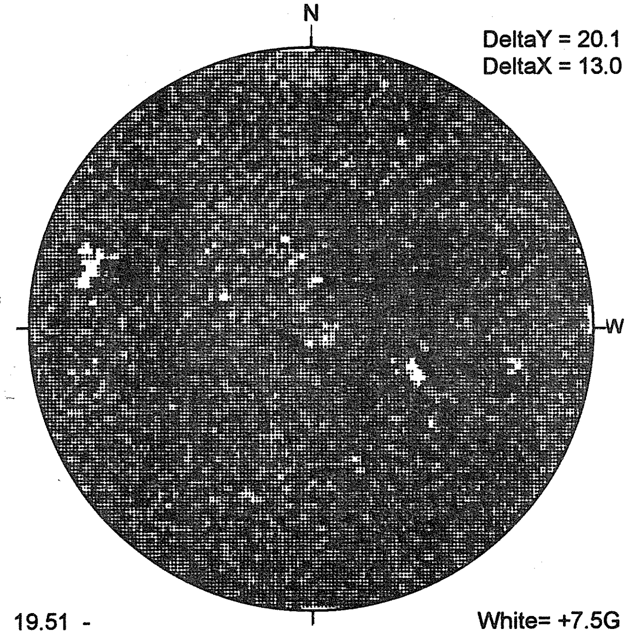
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

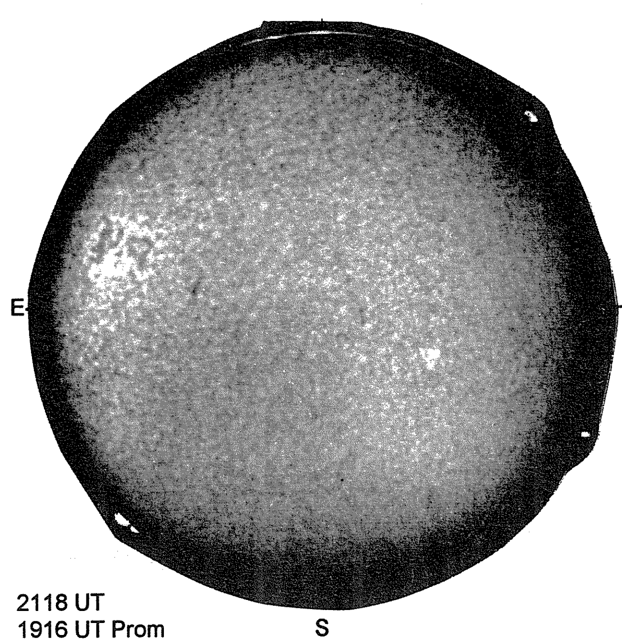
DeltaY = 20.1
DeltaX = 13.0



19.51 -
19.94 UT

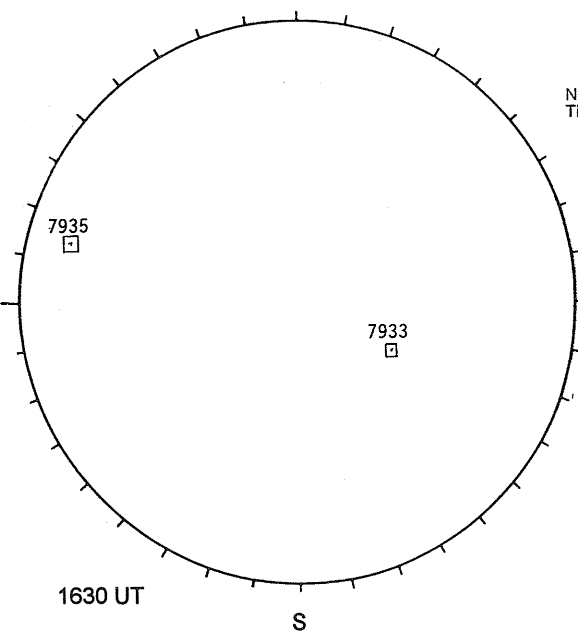
White= +7.5G
Black = -7.5G

MAUNA LOA H-ALPHA



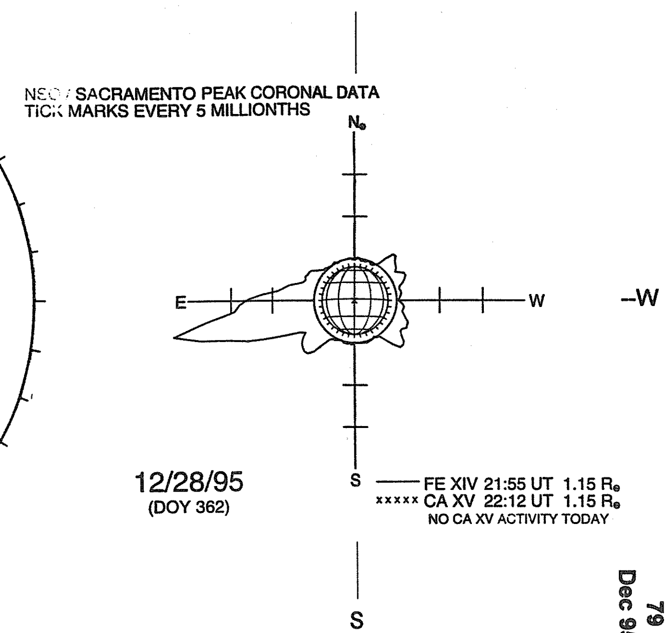
2118 UT
1916 UT Prom

RAMEY SUNSPOT



1630 UT

SACRAMENTO PEAK CORONA (1.15 Radii)



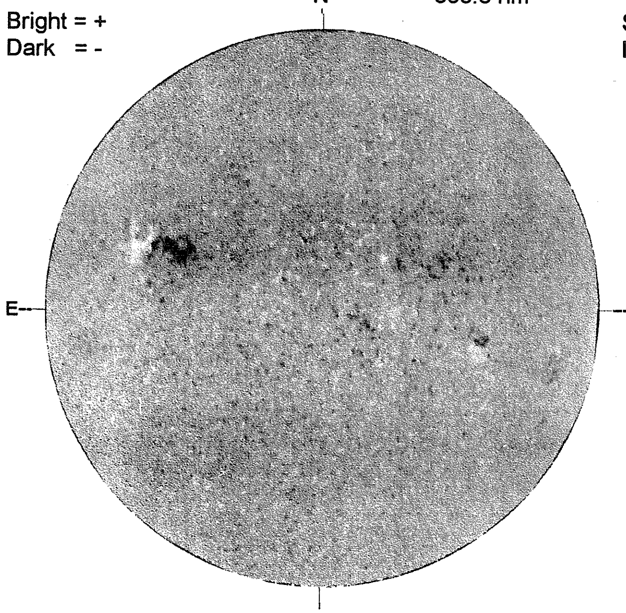
12/28/95
(DOY 362)

FE XIV 21:55 UT 1.15 $R_\odot$
xxxxx CA XV 22:12 UT 1.15 $R_\odot$
NO CA XV ACTIVITY TODAY

DECEMBER 29, 1995 (P= 3.84, Bo = -2.60, Lo = 250.98)

KITT PEAK MAGNETOGRAM **868.8 nm**

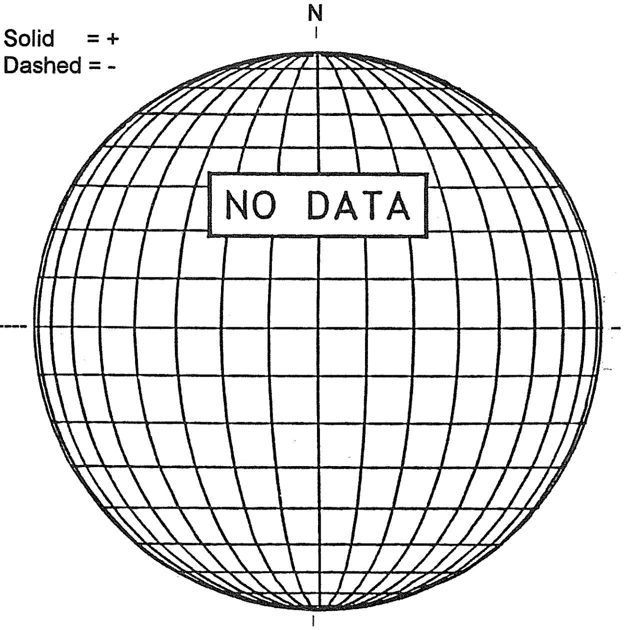
Bright = +
Dark = -



1712 UT

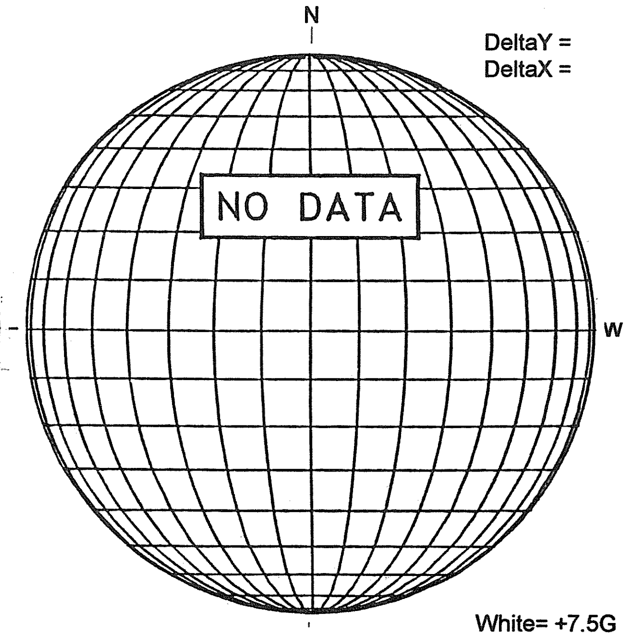
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



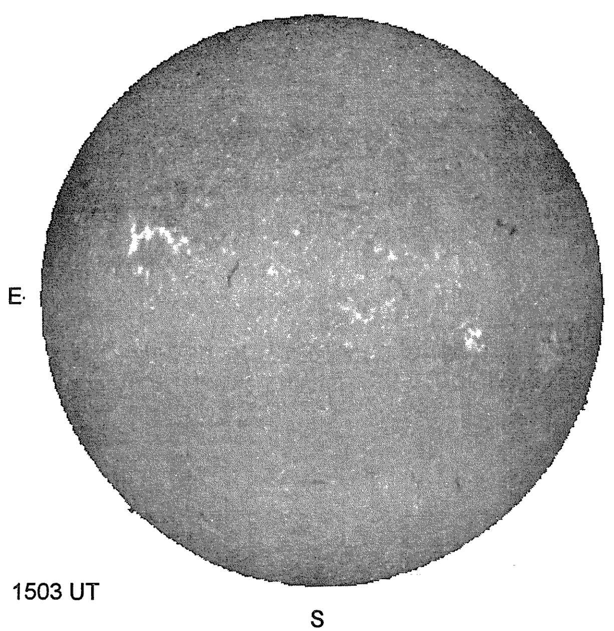
MT. WILSON MAGNETOGRAM

DeltaY =
DeltaX =



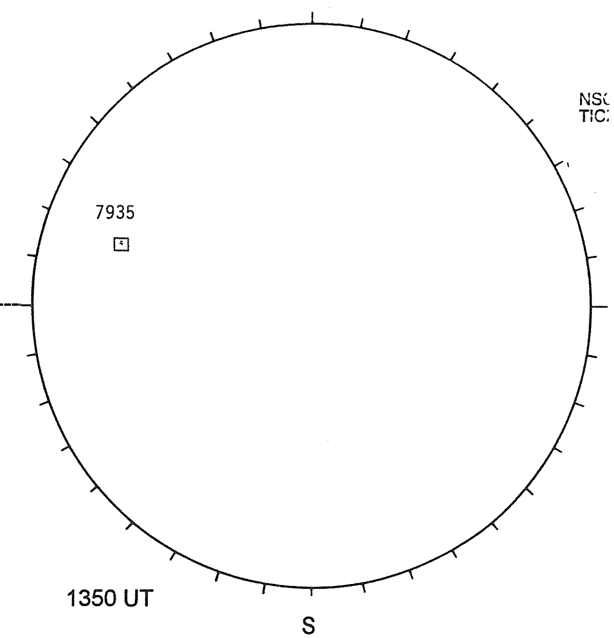
White= +7.5G
Black = -7.5G

----- SACRAMENTO PEAK H-ALPHA



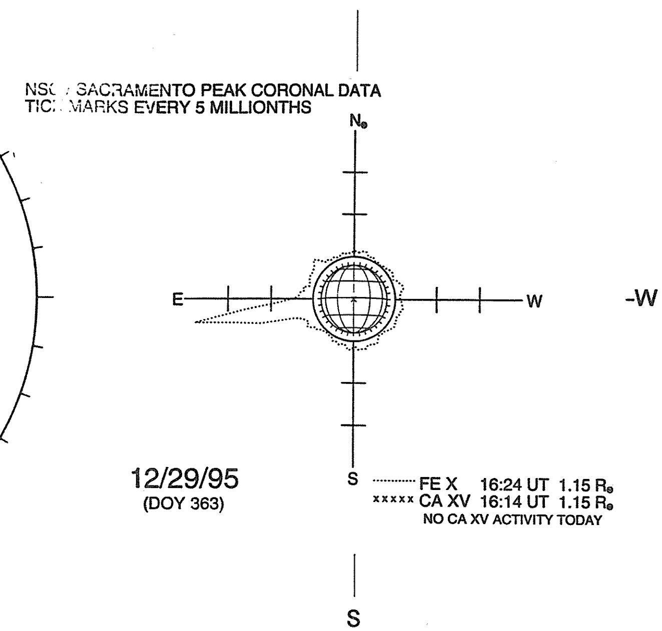
1503 UT

RAMEY SUNSPOT



1350 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----

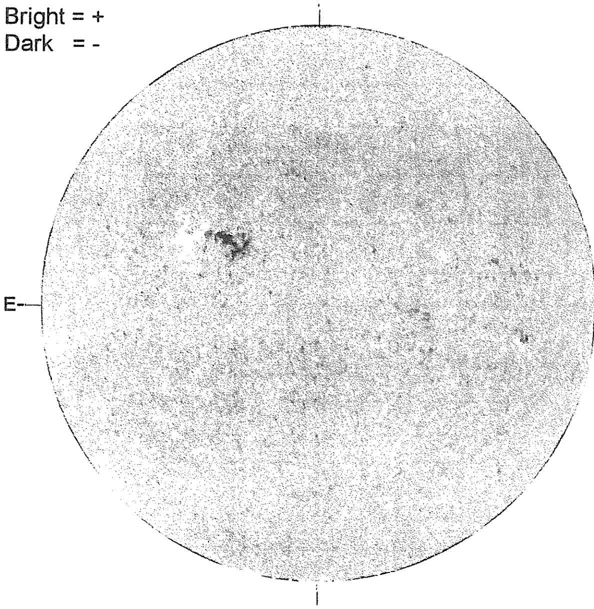


DECEMBER 30, 1995 (P=   3.35, Bo = -2.72, Lo = 237.81)

KITT PEAK MAGNETOGRAM

868.8 nm

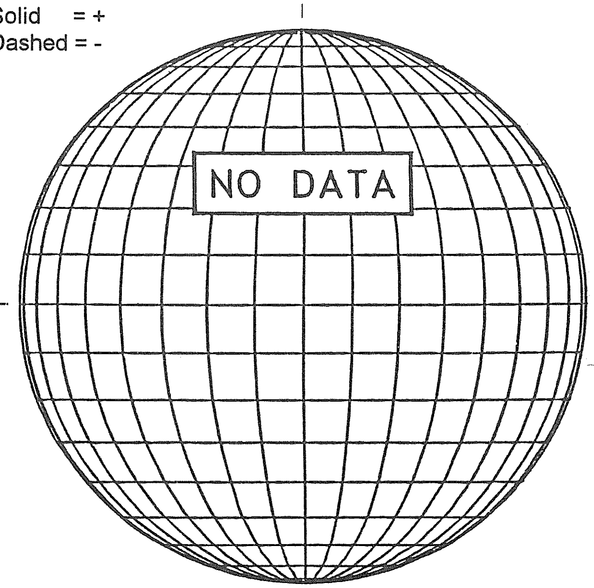
Bright = +
Dark   = -



1557 UT

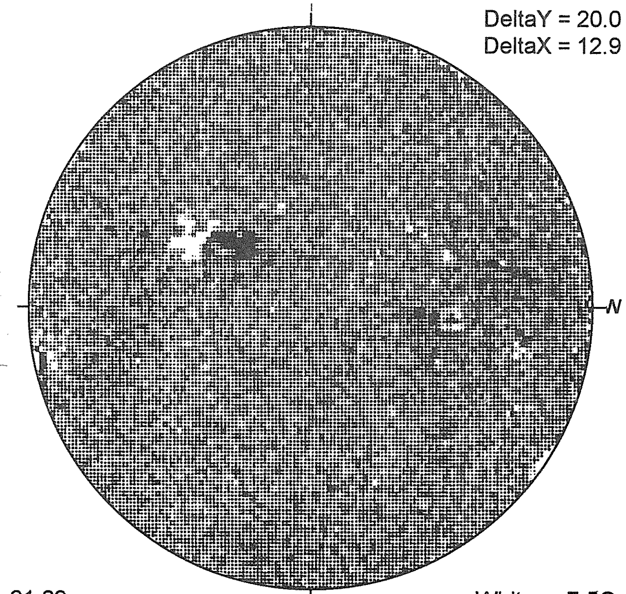
STANFORD MAGNETOGRAM

Solid   = +
Dashed = -



MT. WILSON MAGNETOGRAM

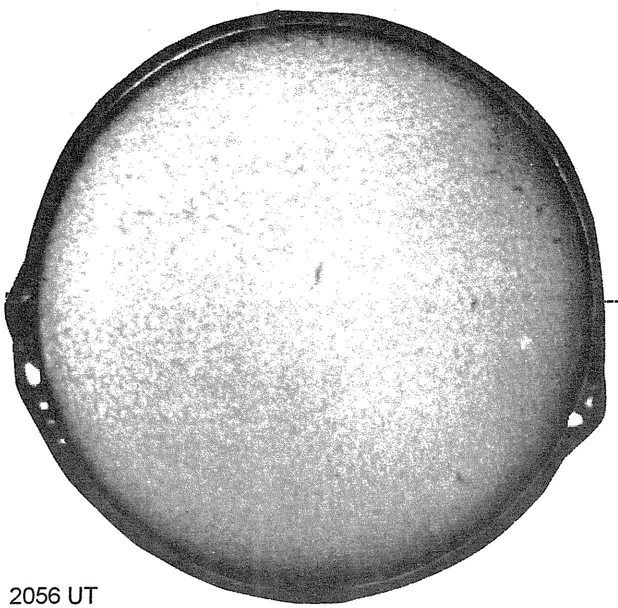
DeltaY = 20.0
DeltaX = 12.9



21.82 -
22.25 UT

White= +7.5G
Black = -7.5G

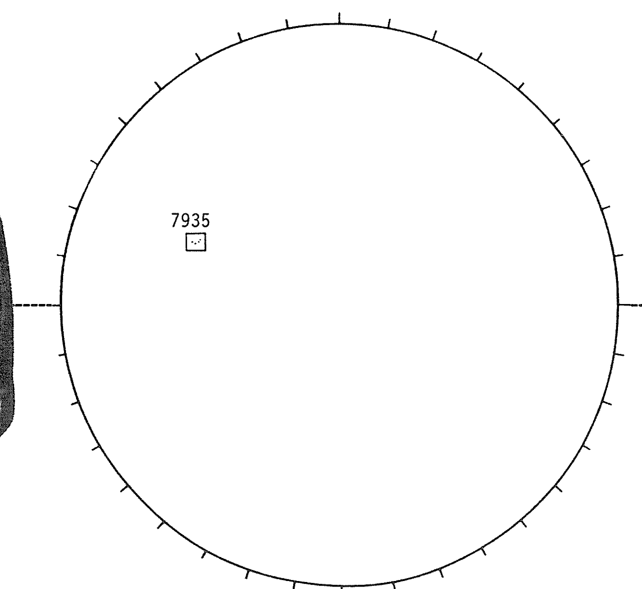
MAUNA LOA H-ALPHA



2056 UT
2147 UT Prom

S

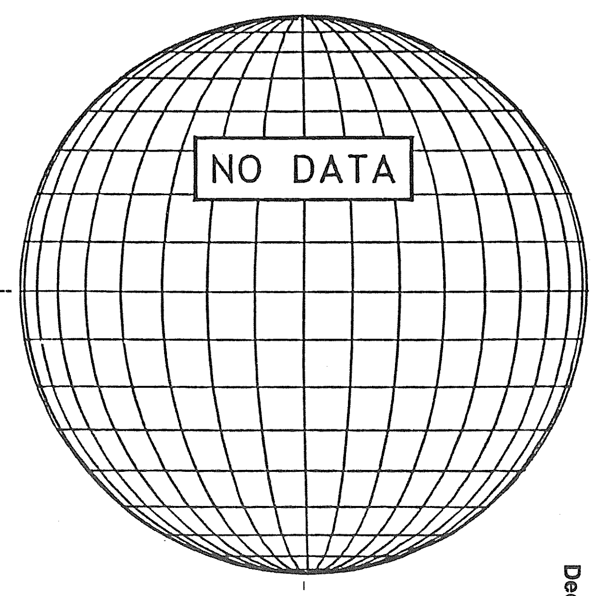
RAMEY SUNSPOT



1443 UT

S

SACRAMENTO PEAK CORONA (1.15 Radii)----



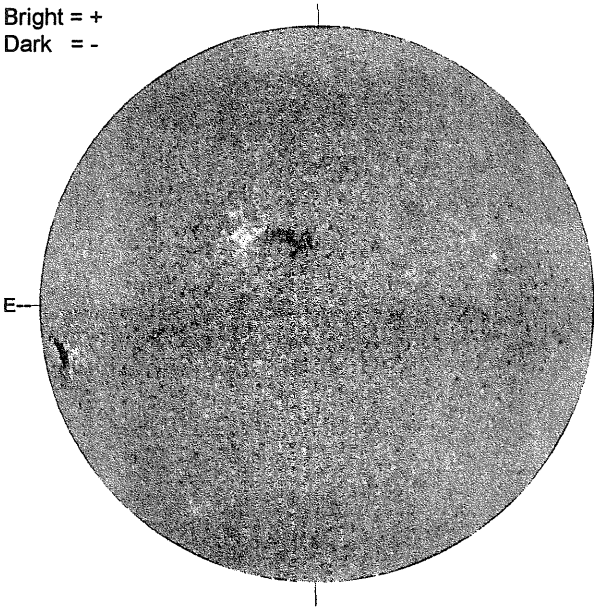
S

DECEMBER 31, 1995 (P= 2.87, Bo = -2.84, Lo = 224.63)

KITT PEAK MAGNETOGRAM

868.8 nm

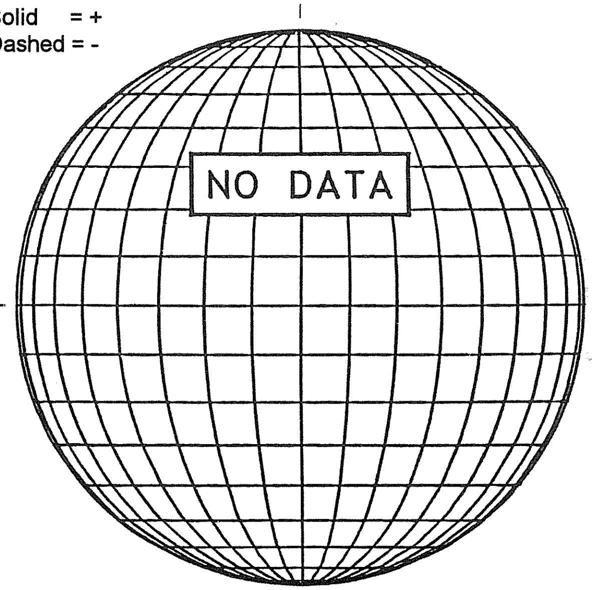
Bright = +
Dark = -



1600 UT

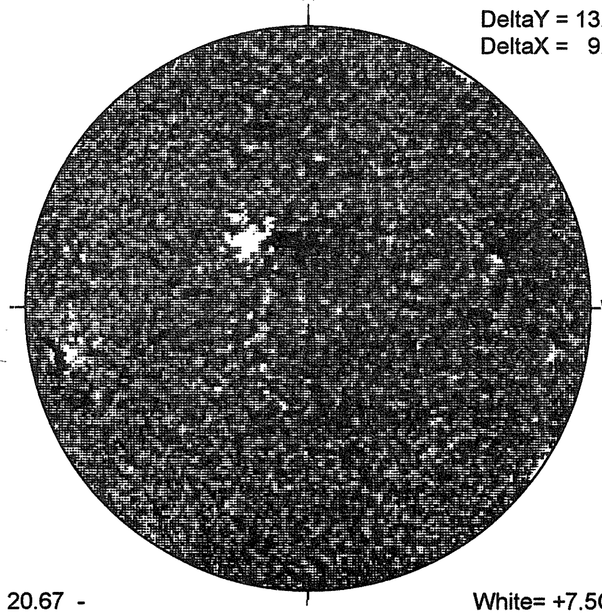
STANFORD MAGNETOGRAM

Solid = +
Dashed = -



MT. WILSON MAGNETOGRAM

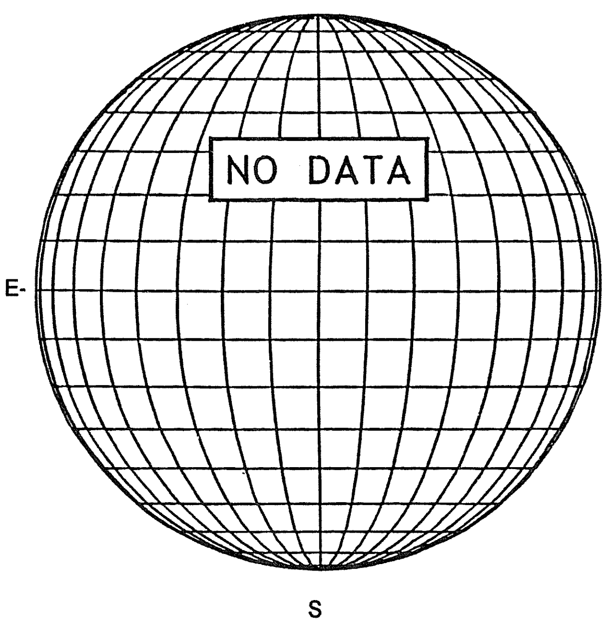
DeltaY = 13.0
DeltaX = 9.6



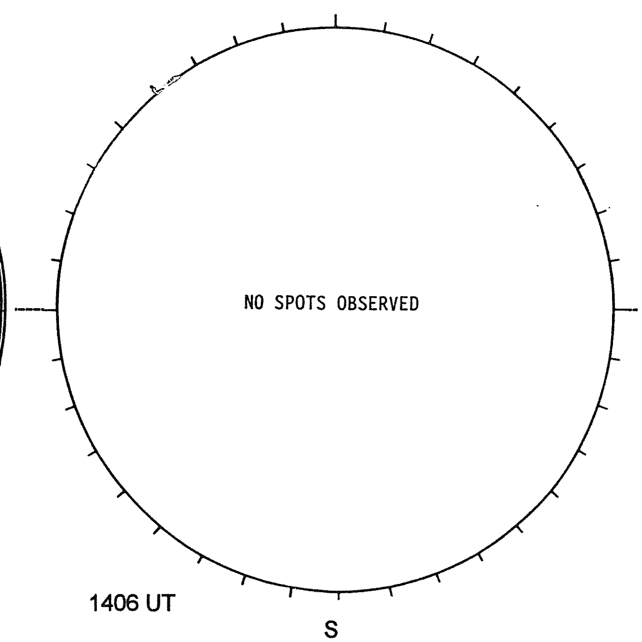
20.67 -
21.64 UT

White= +7.5G
Black = -7.5G

MAUNA LOA H-ALPHA

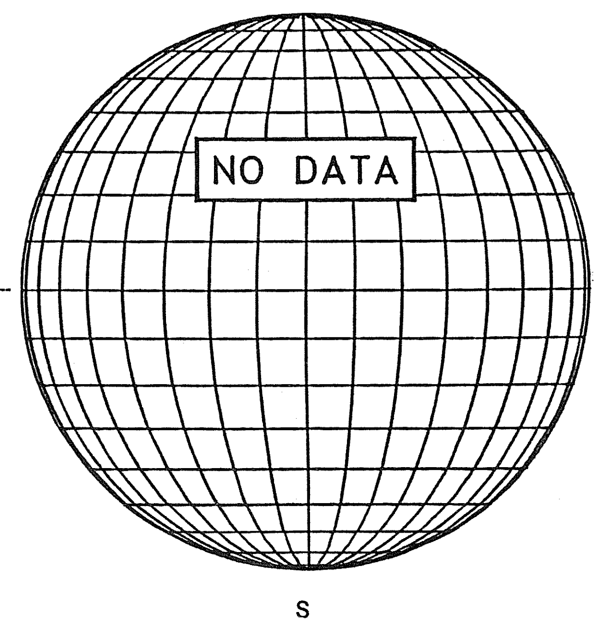


RAMEY SUNSPOT



1406 UT

SACRAMENTO PEAK CORONA (1.15 Radii)----



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.

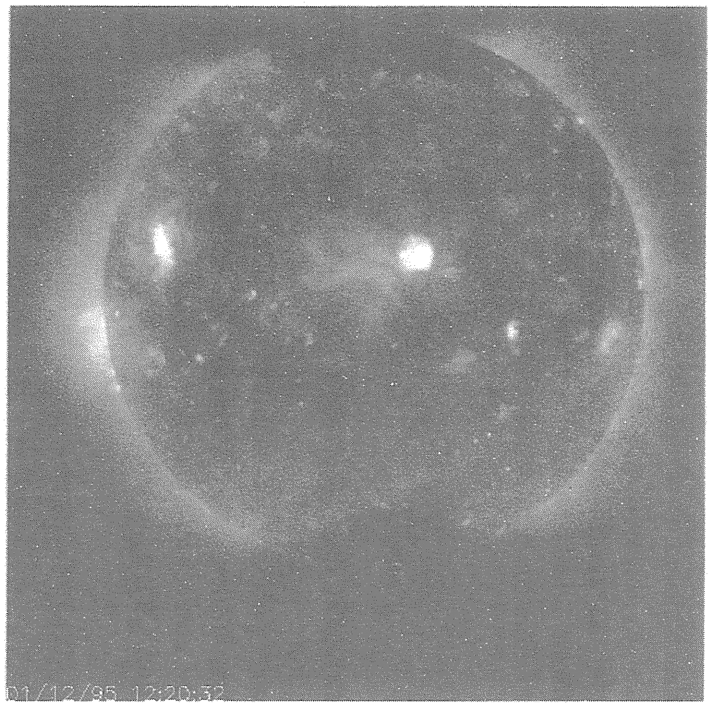
The Soft X-ray Telescope (SXT) uses low-scatter grazing incidence optics to form direct images on a CCD detector. It employs a Nariai-Werner design which differs from the more commonly used Wolter Type 1 in that both mirror segments have been made hyperbolic in order to gain better off-axis performance 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.

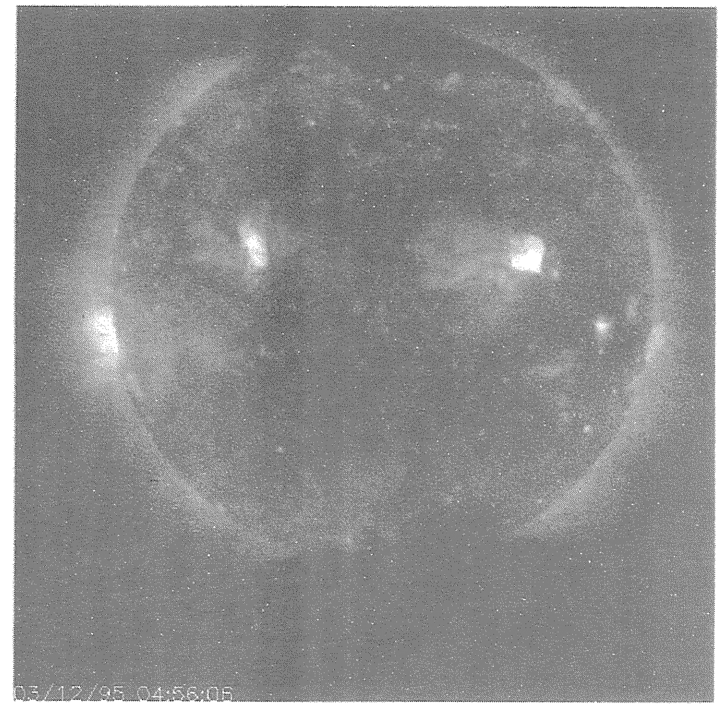
Editor's Note: YOHKOH SXT images for September 1991 through August 1992 are available through the NASA SolarDAC. Contact Joe Gurman for access information [gurman@uvsp.gsfc.nasa.gov, jgurman@solar, or uvsp::gurman. Telephone: (301)286-4767]. The YOHKOH team continues to invite collaborations in their 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

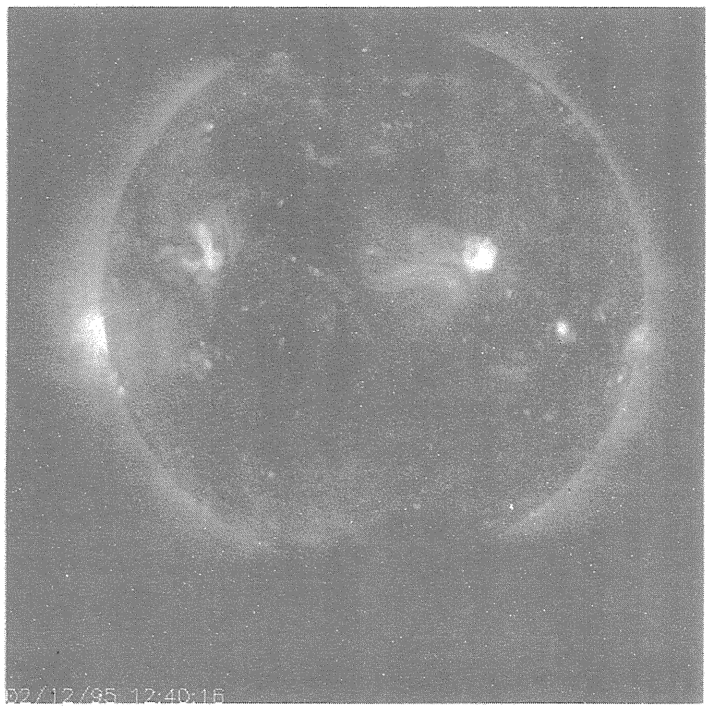
December 1995



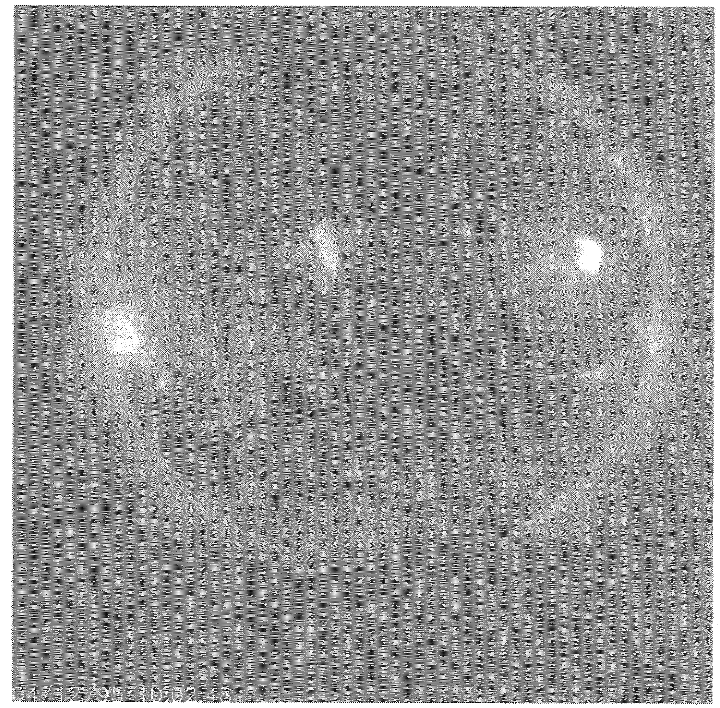
Day 1
12:20:32 UT



Day 3
04:56:06 UT



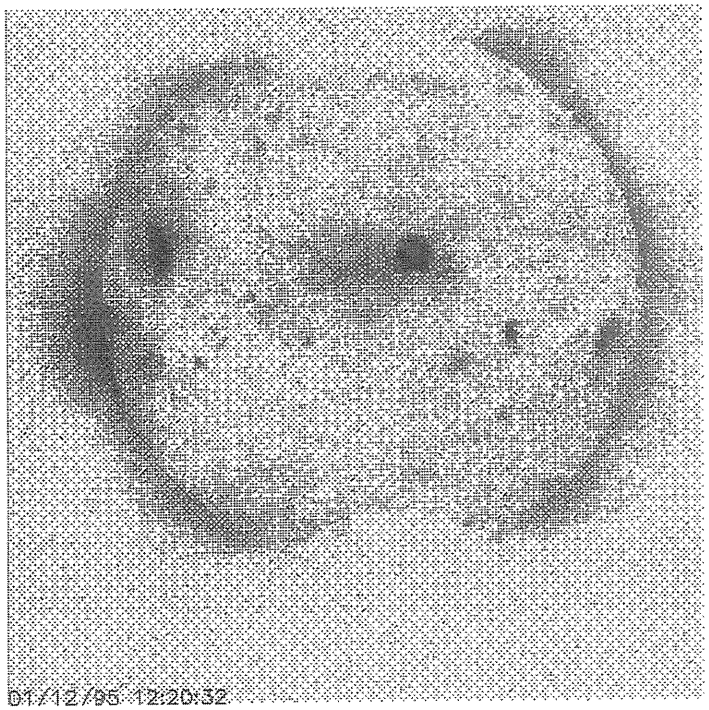
Day 2
12:40:16 UT



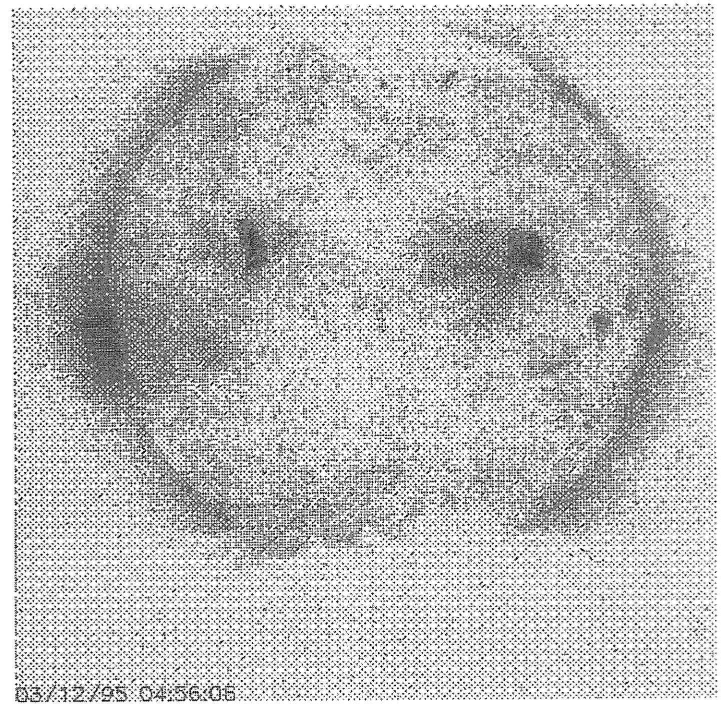
Day 4
10:02:48 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

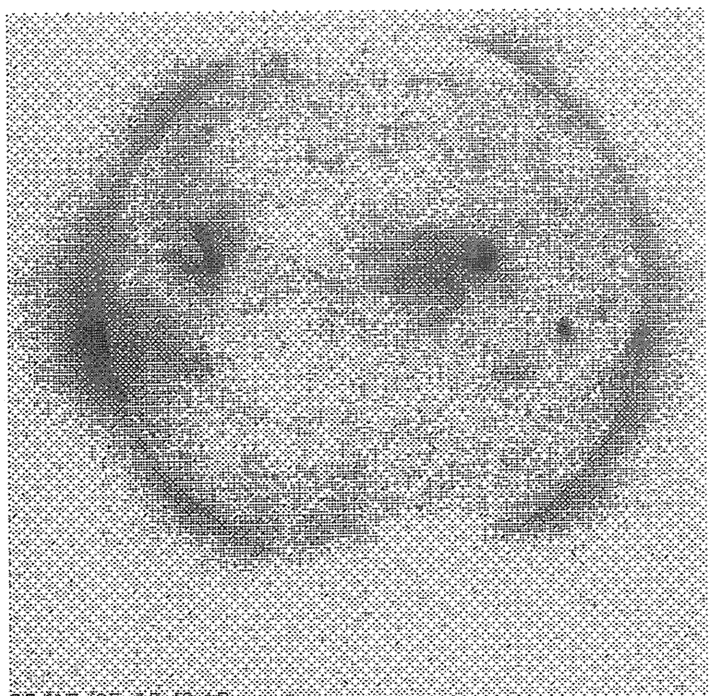
December 1995



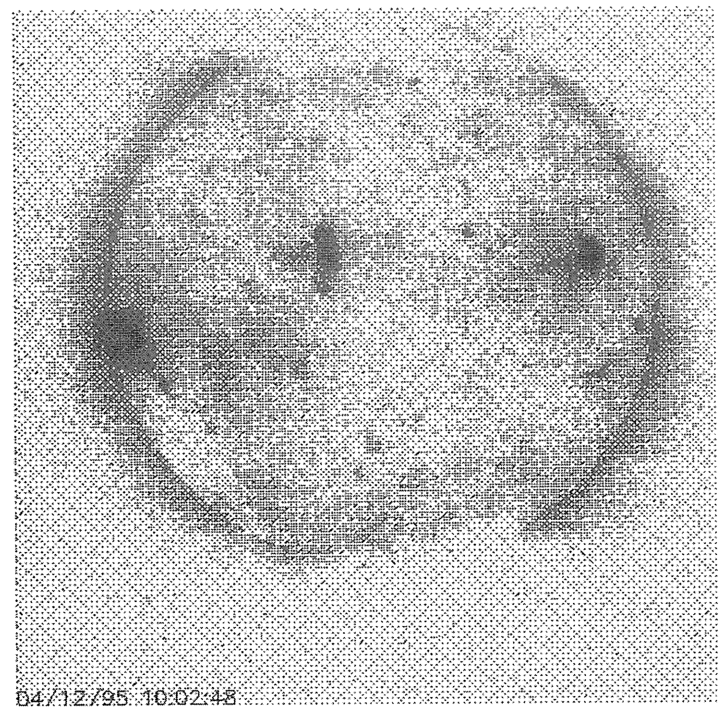
Day 1
12:20:32 UT



Day 3
04:56:06 UT



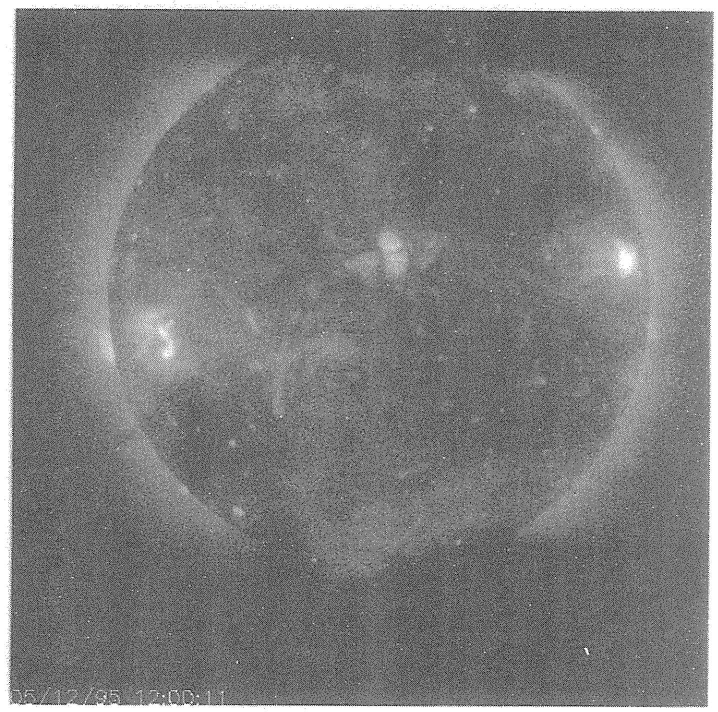
Day 2
12:40:16 UT



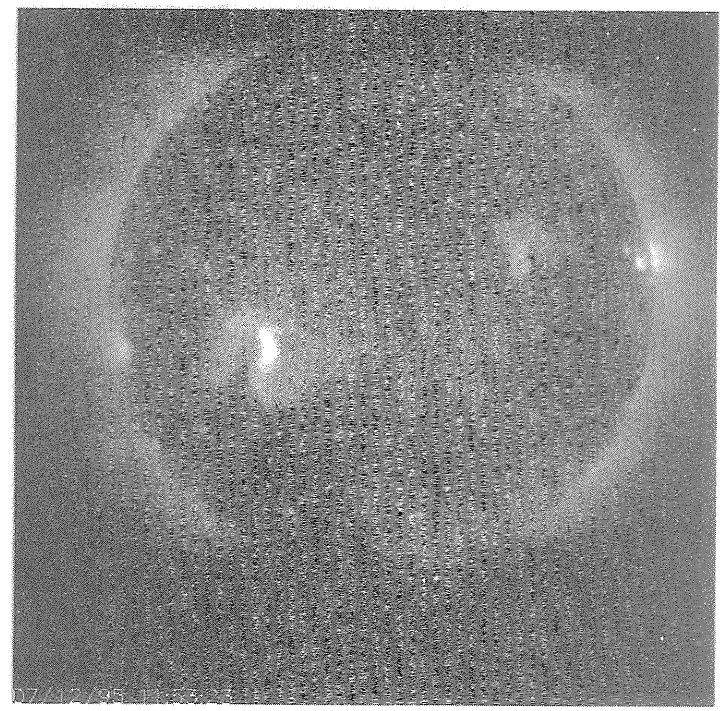
Day 4
10:02:48 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

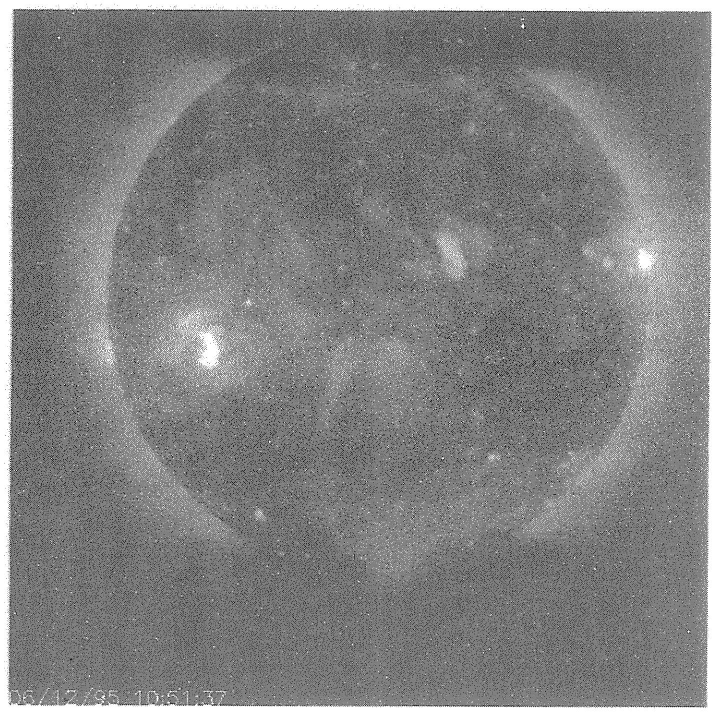
December 1995



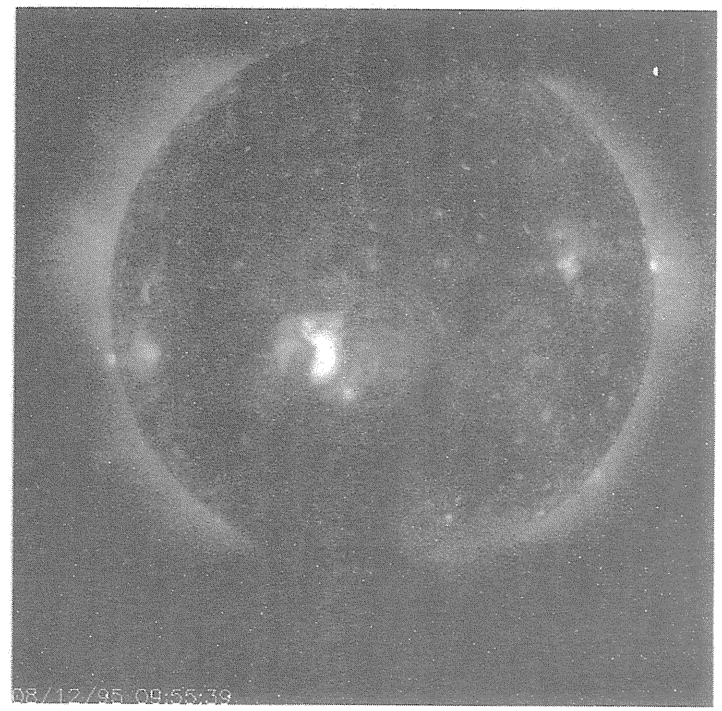
Day 5
12:00:11 UT



Day 7
11:53:23 UT



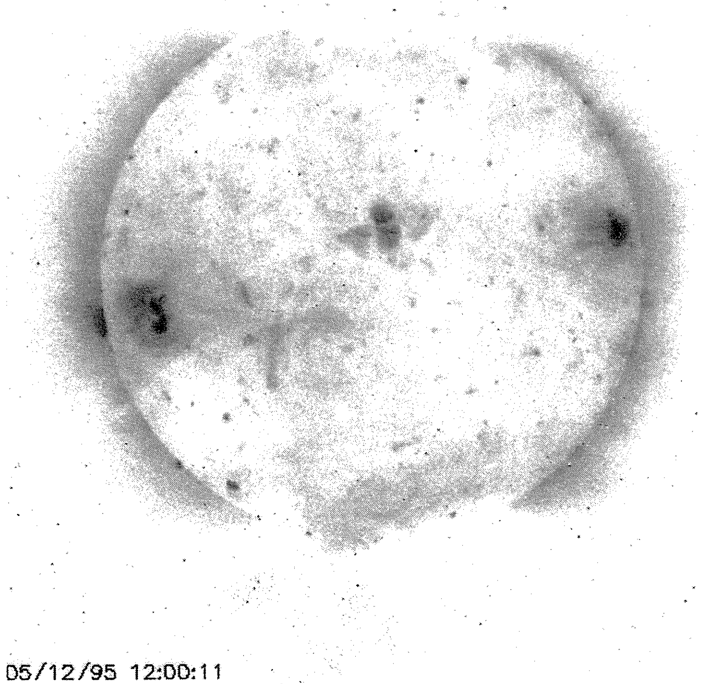
Day 6
10:51:37 UT



Day 8
09:55:39 UT

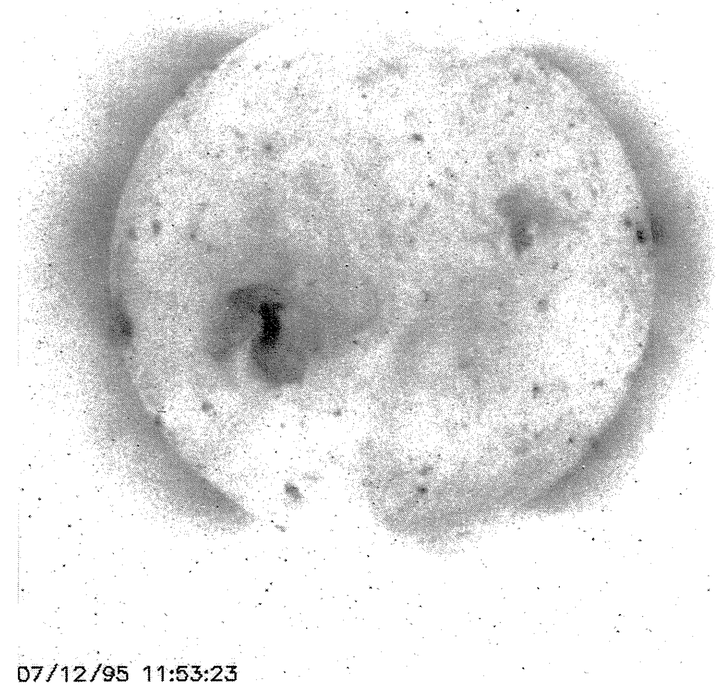
YOHKOH SOFT X-RAY TELESCOPE IMAGES

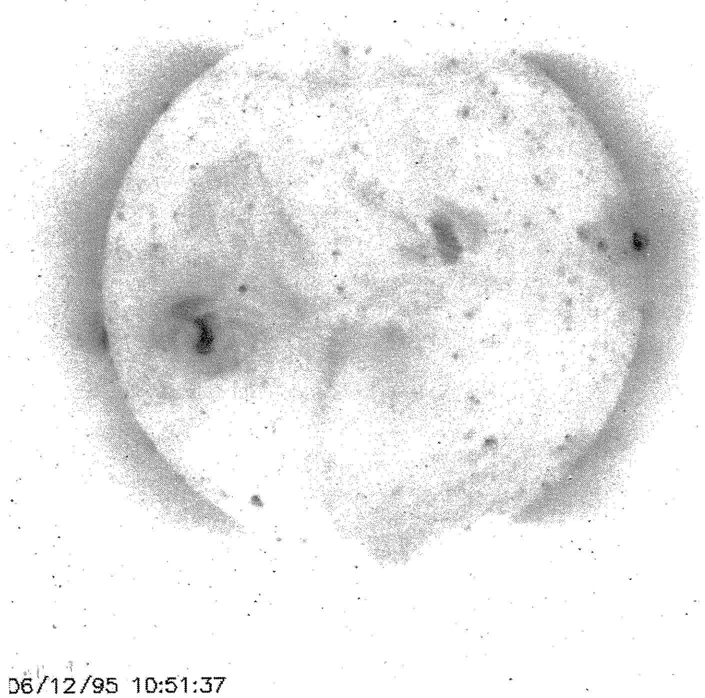
December 1995



Day 5
12:00:11 UT

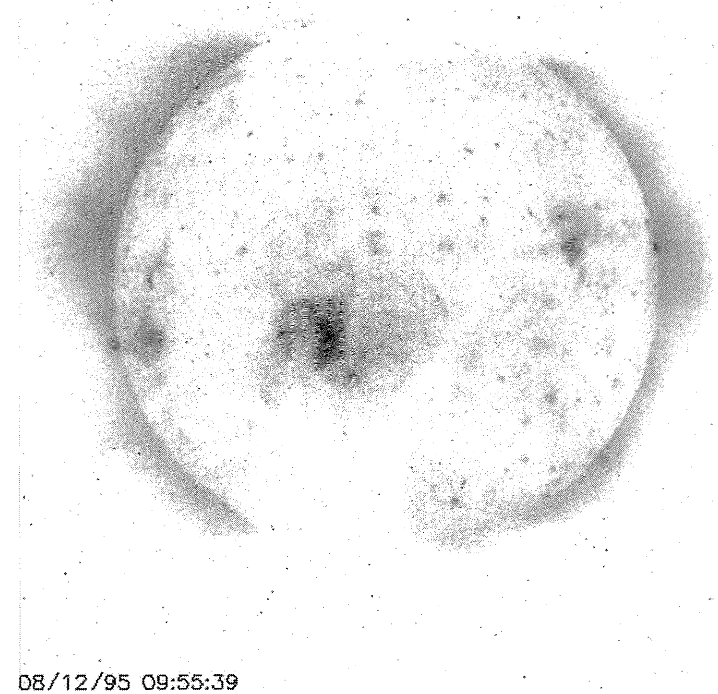
Day 7
11:53:23 UT





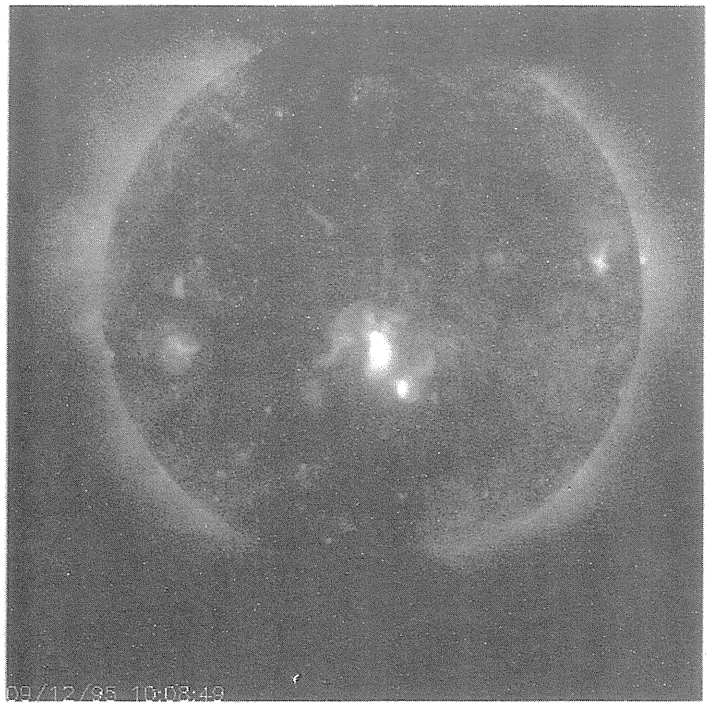
Day 6
10:51:37 UT

Day 8
09:55:39 UT

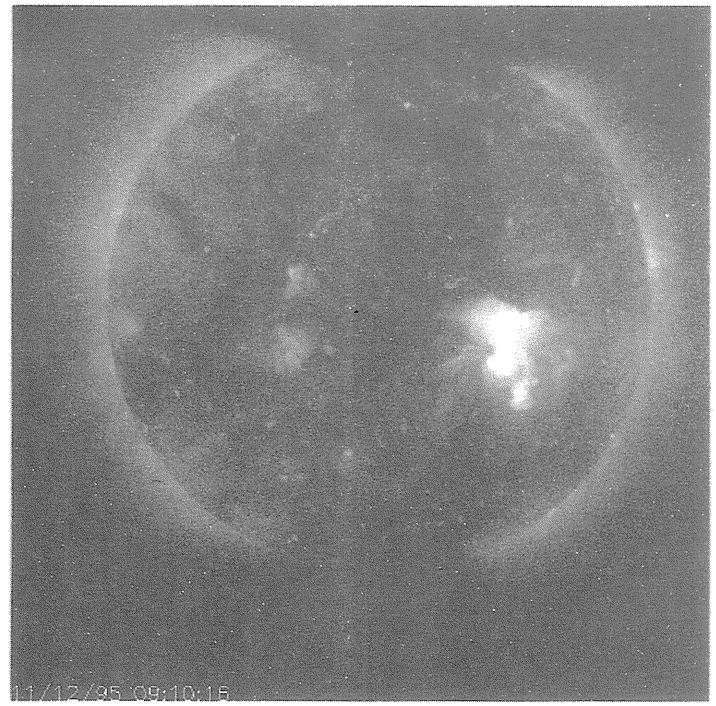


YOHKOH SOFT X-RAY TELESCOPE IMAGES

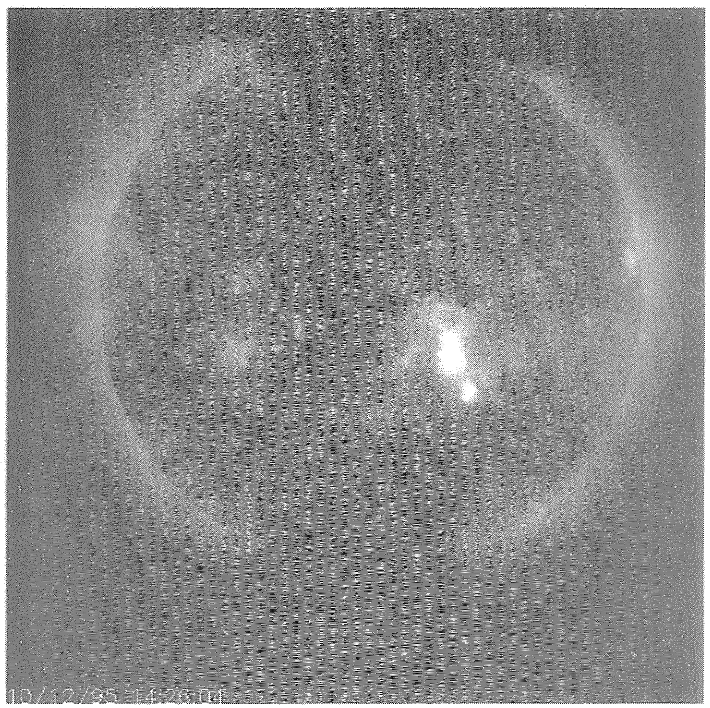
December 1995



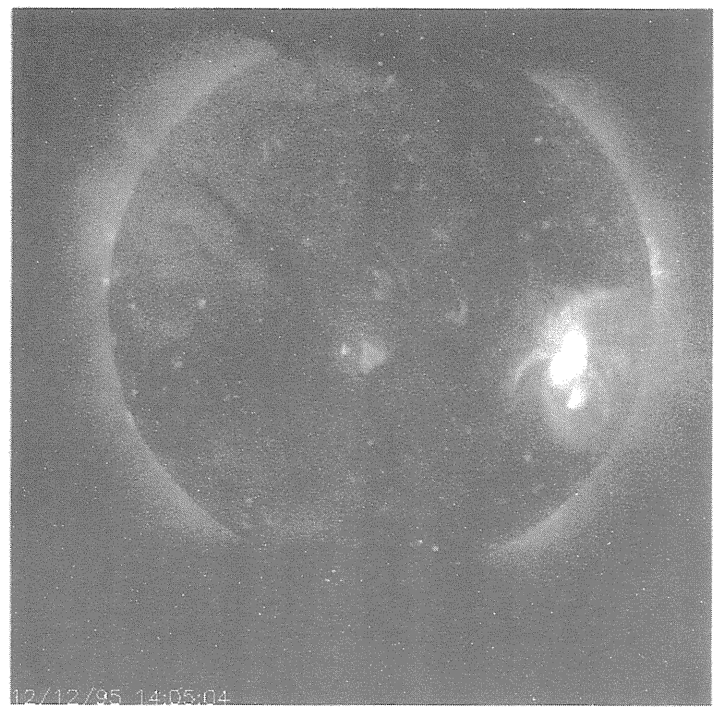
Day 9
10:08:49 UT



Day 11
09:10:16 UT



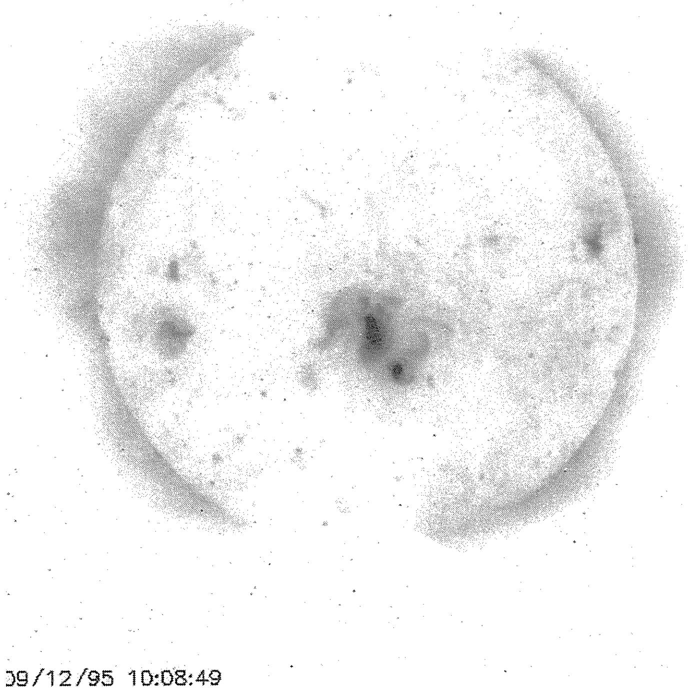
Day 10
14:26:04 UT



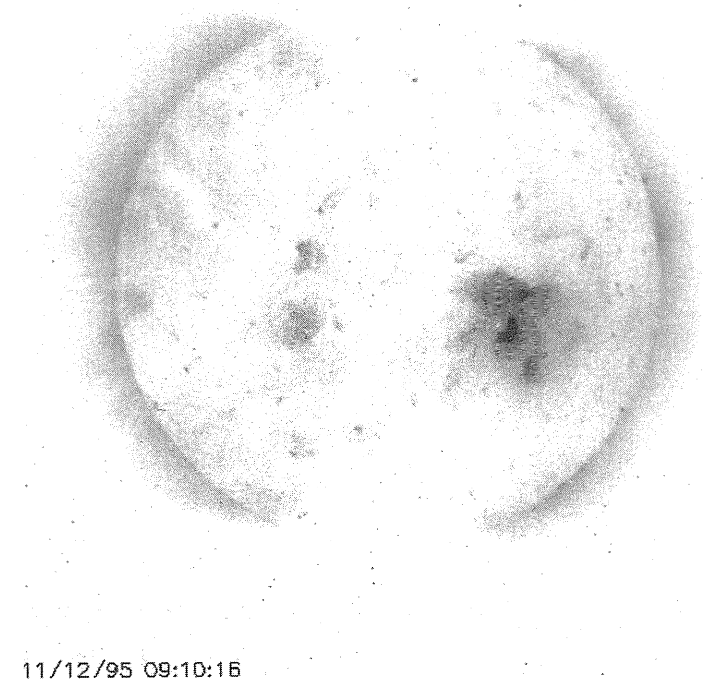
Day 12
14:05:04 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

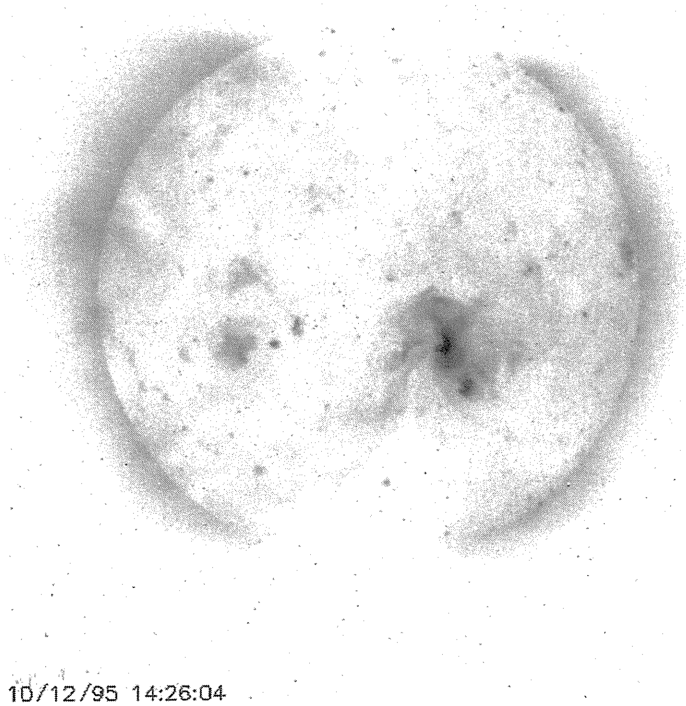
December 1995



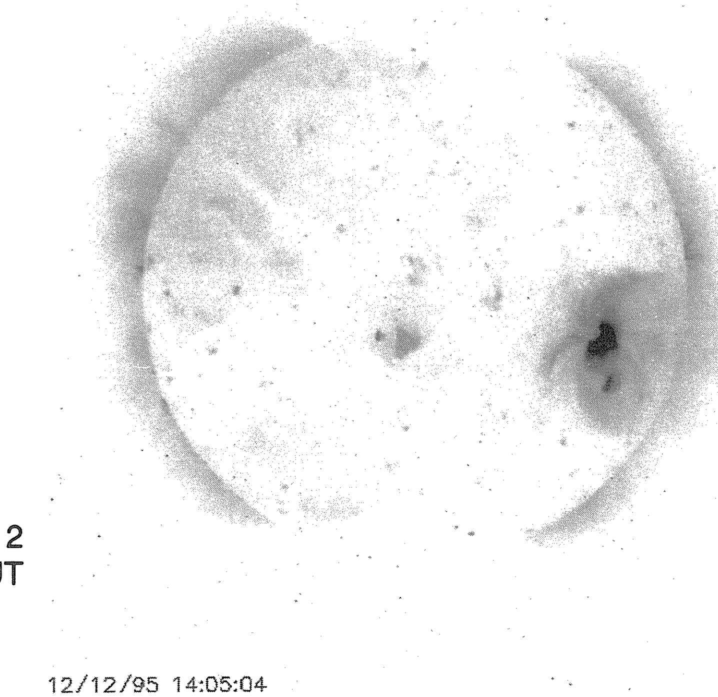
Day 9
10:08:49 UT



Day 11
09:10:16 UT



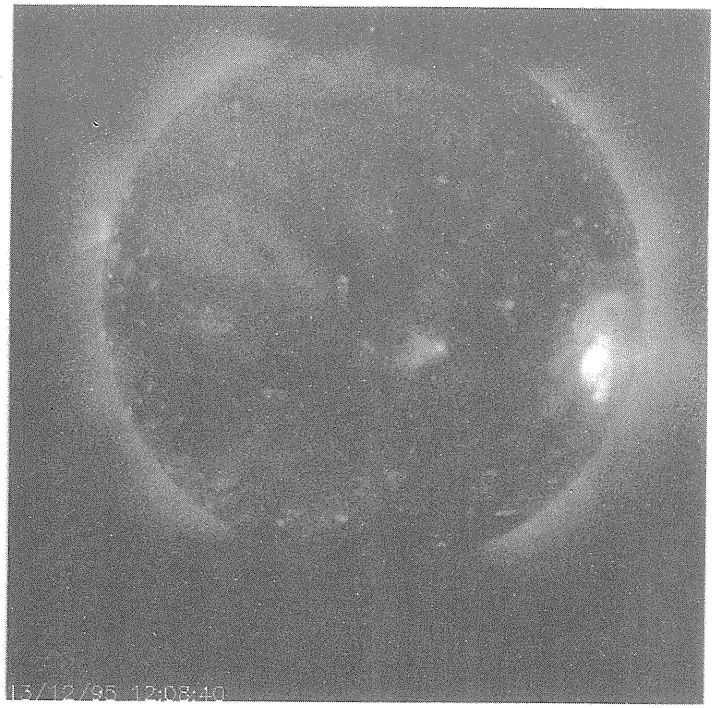
Day 10
14:26:04 UT



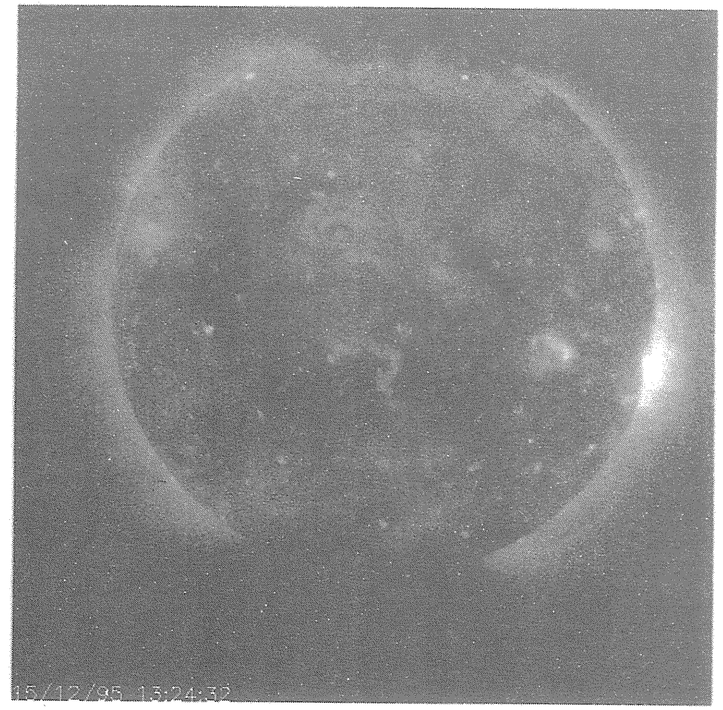
Day 12
14:05:04 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

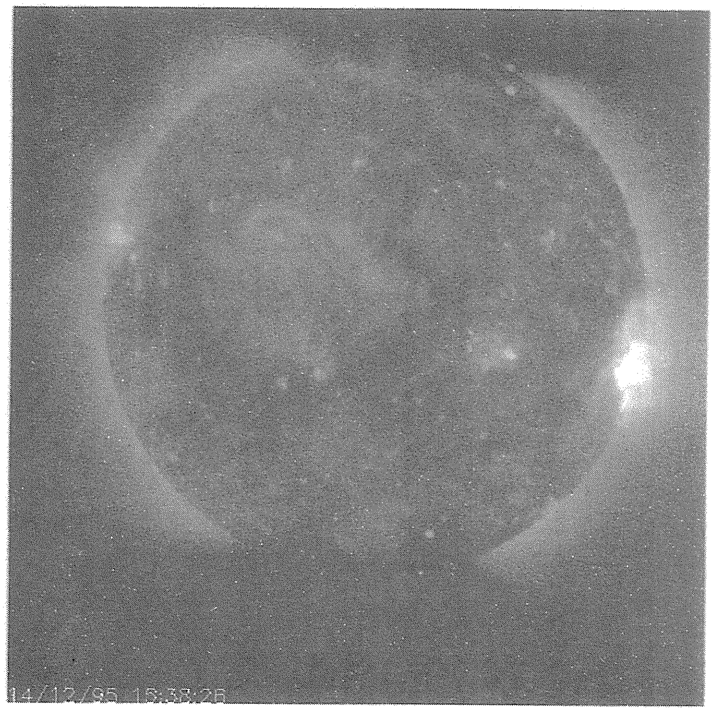
December 1995



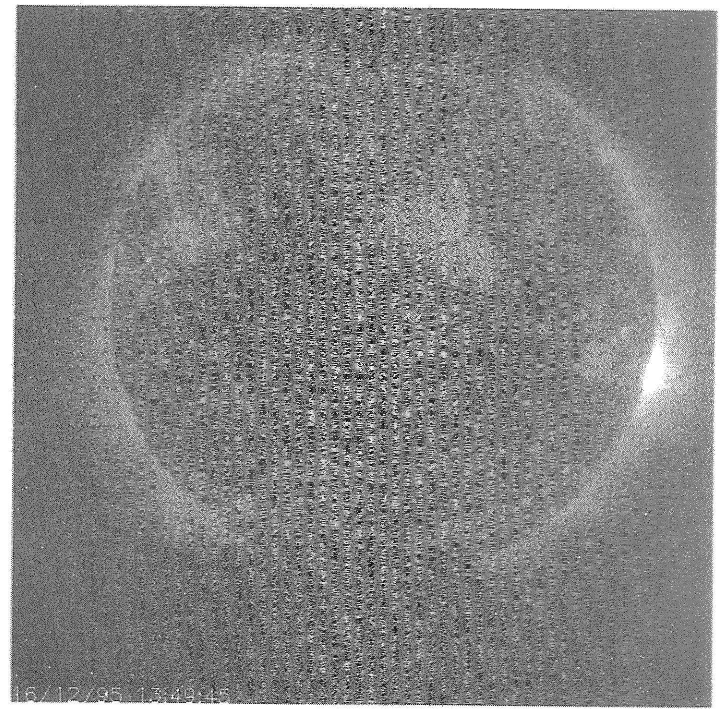
Day 13
12:08:40 UT



Day 15
13:24:32 UT



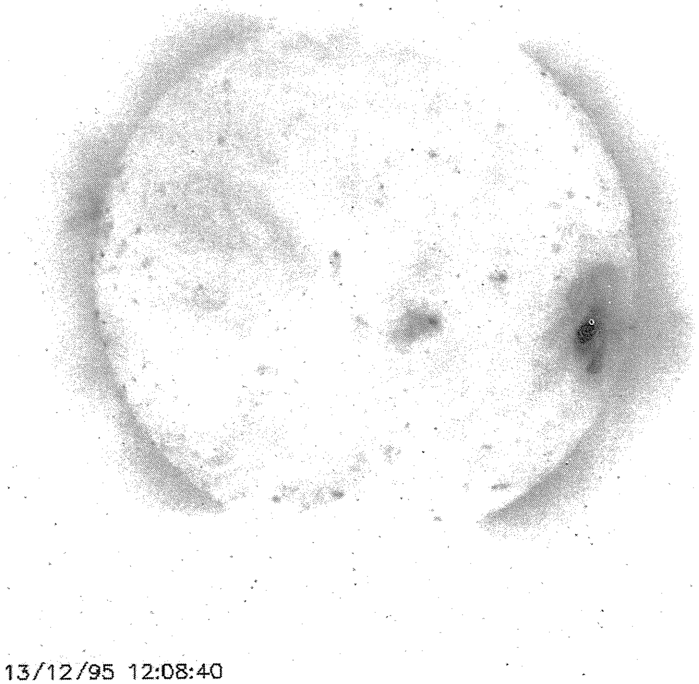
Day 14
15:38:26 UT



Day 16
13:49:45 UT

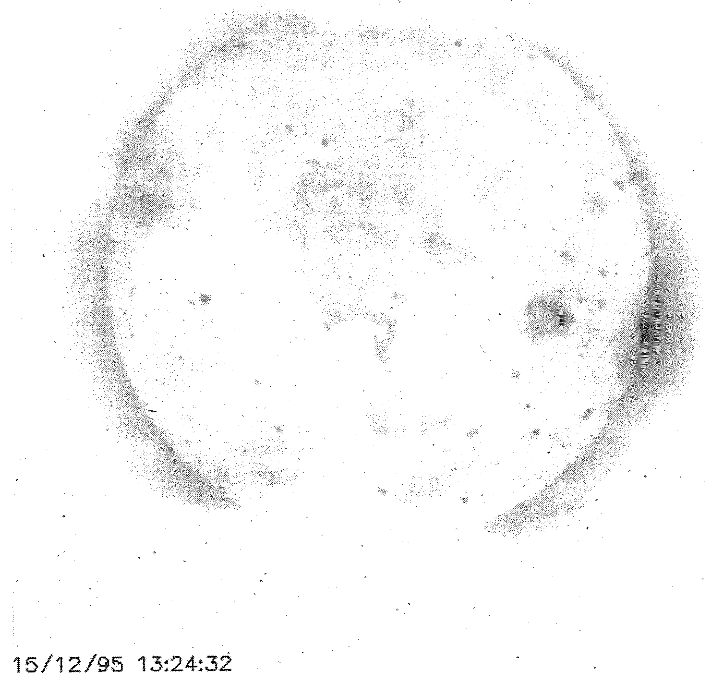
YOHKOH SOFT X-RAY TELESCOPE IMAGES

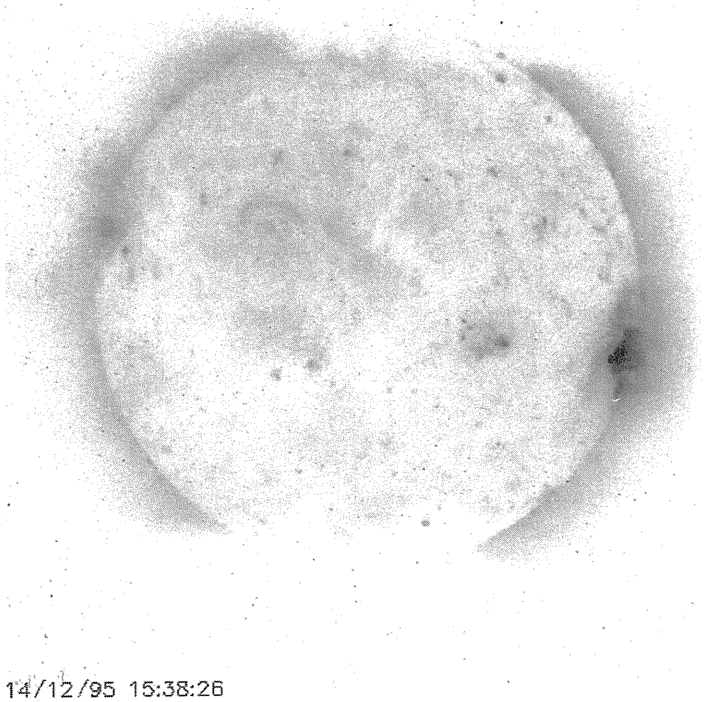
December 1995



Day 13
12:08:40 UT

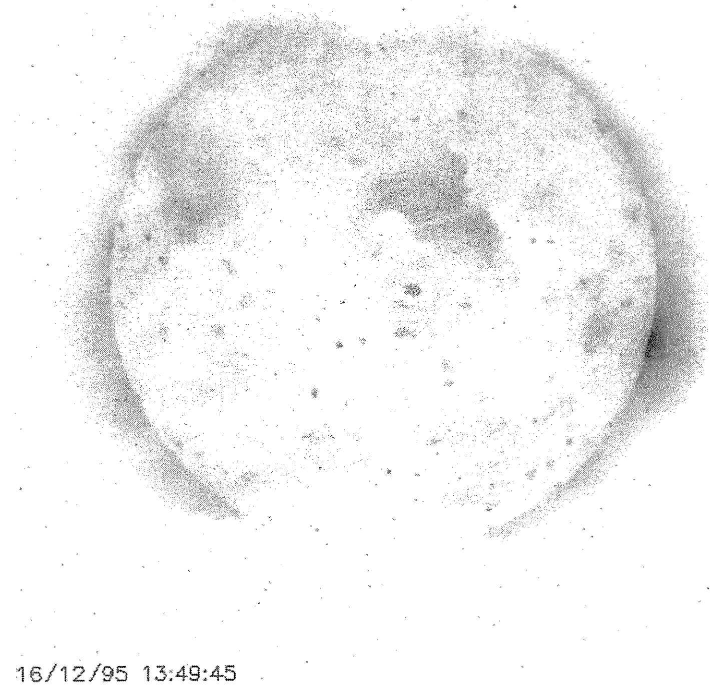
Day 15
13:24:32 UT





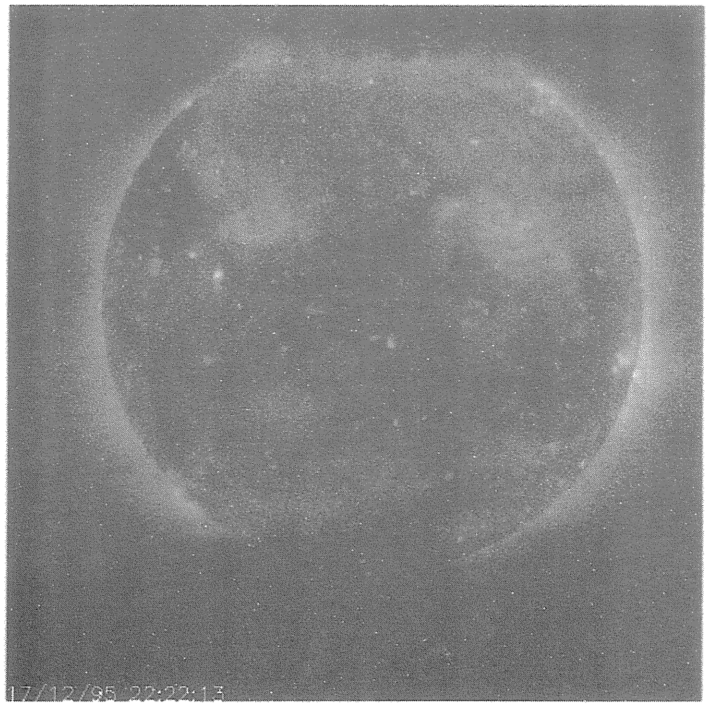
Day 14
15:38:26 UT

Day 16
13:49:45 UT

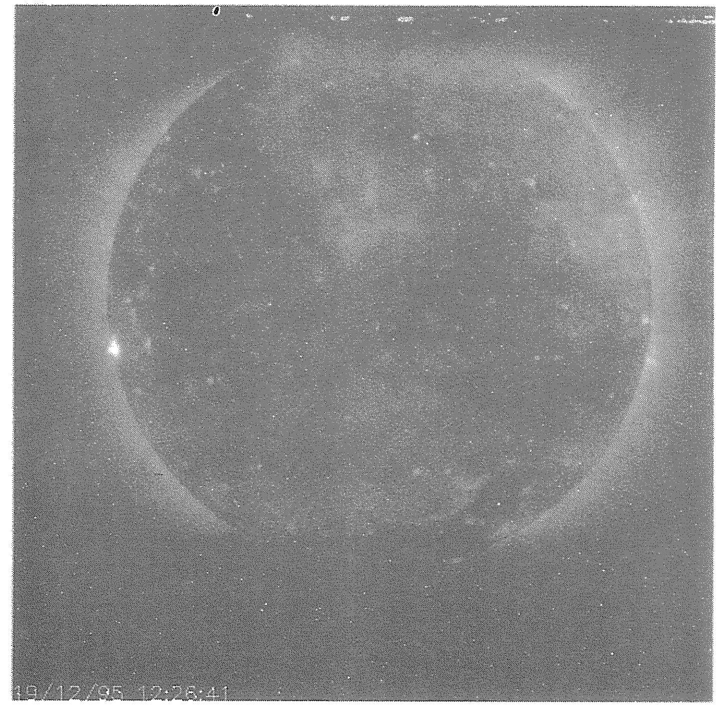


YOHKOH SOFT X-RAY TELESCOPE IMAGES

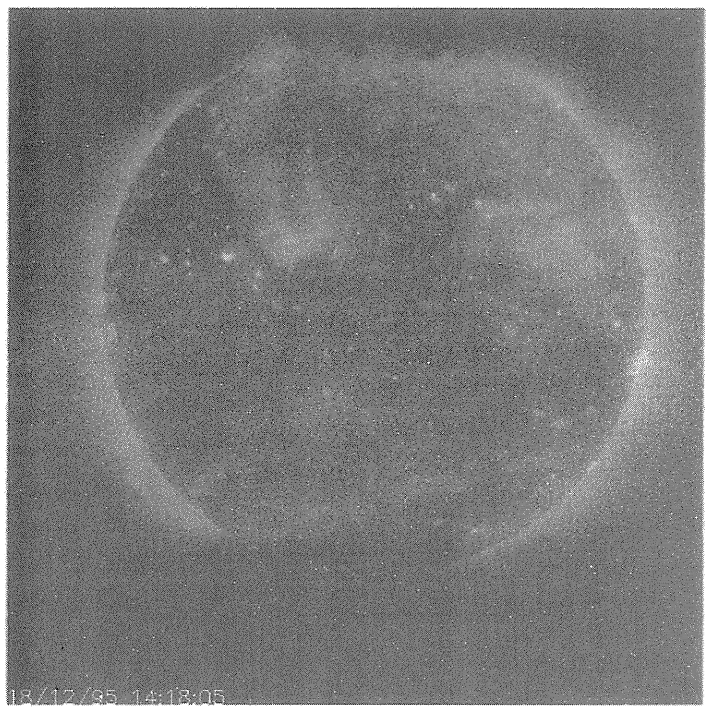
December 1995



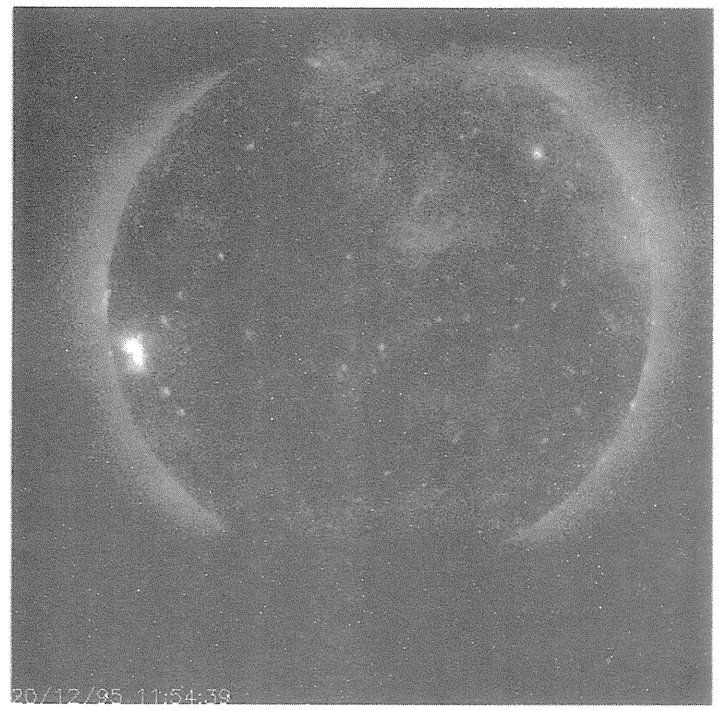
Day 17
22:22:13 UT



Day 19
12:26:41 UT



Day 18
14:18:05 UT

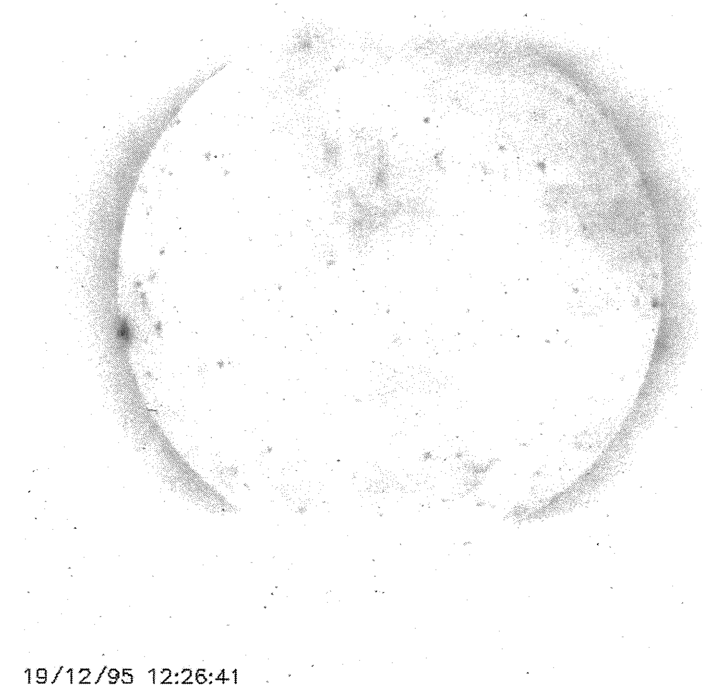


Day 20
11:54:39 UT

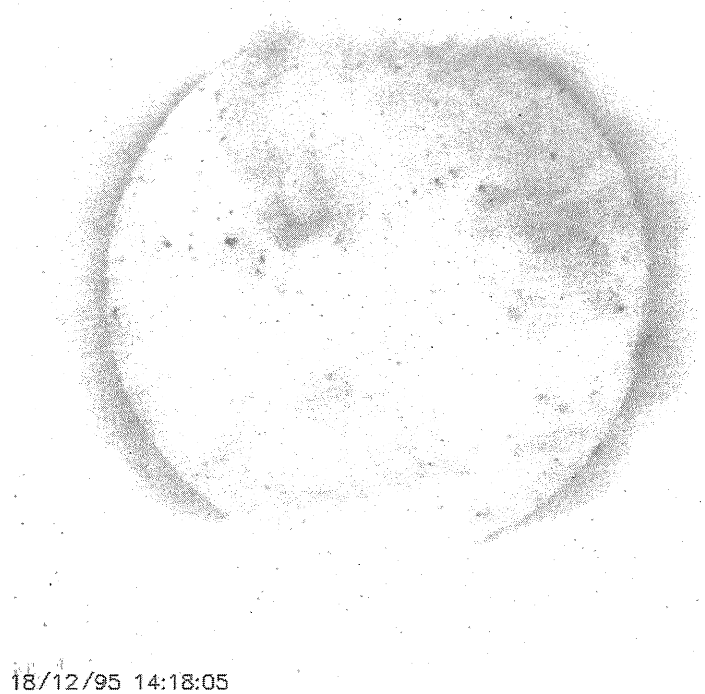
YOHKOH SOFT X-RAY TELESCOPE IMAGES

December 1995

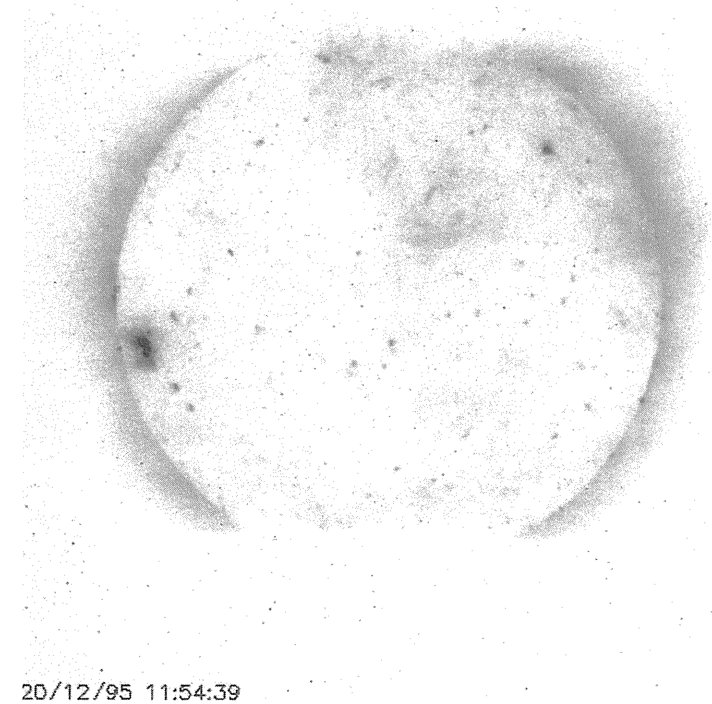
Day 17
22:22:13 UT



Day 19
12:26:41 UT



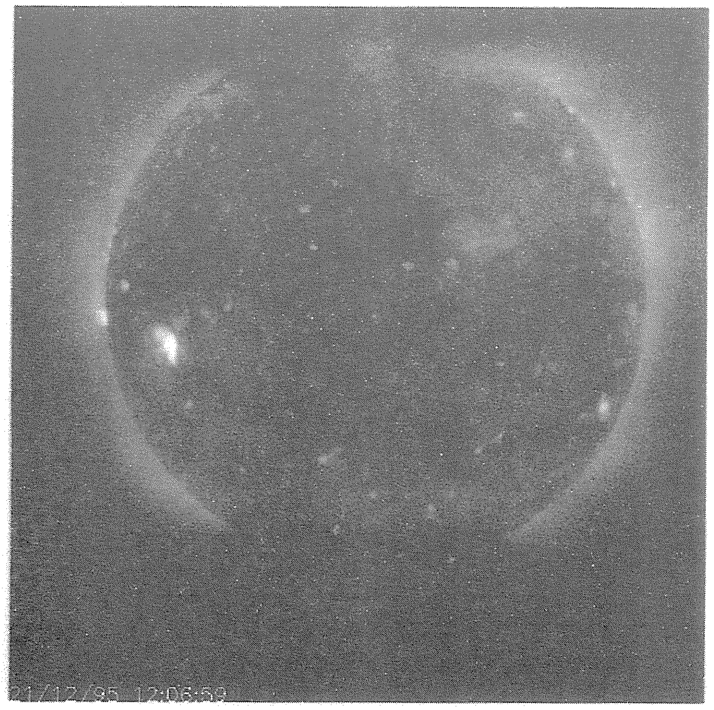
Day 18
14:18:05 UT



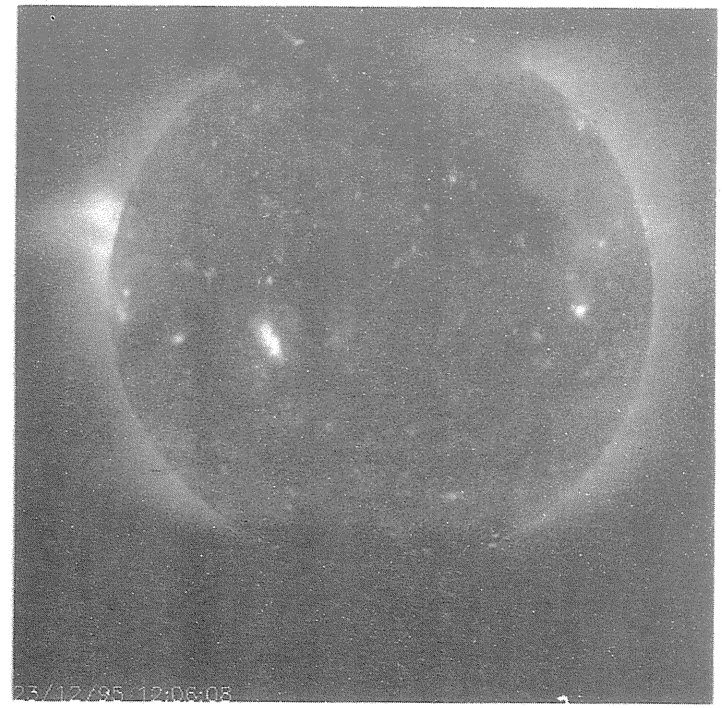
Day 20
11:54:39 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

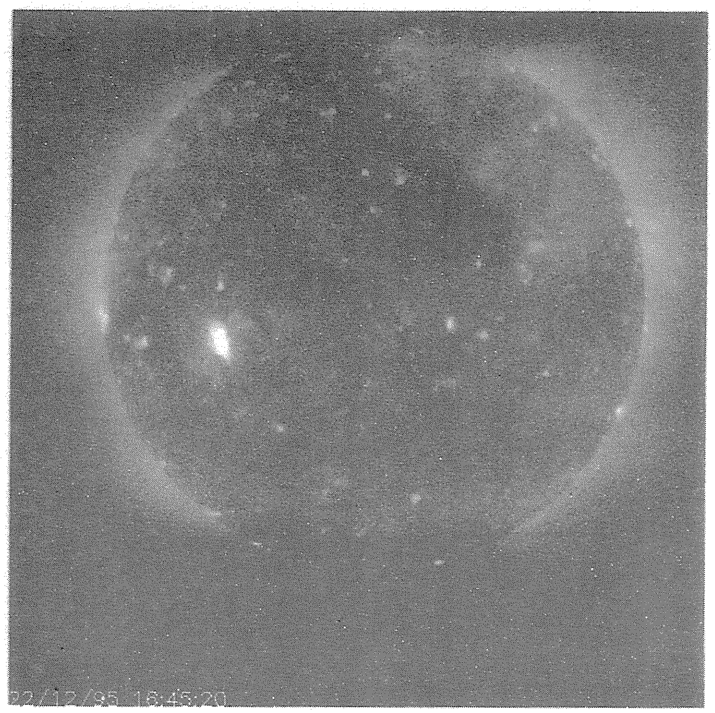
December 1995



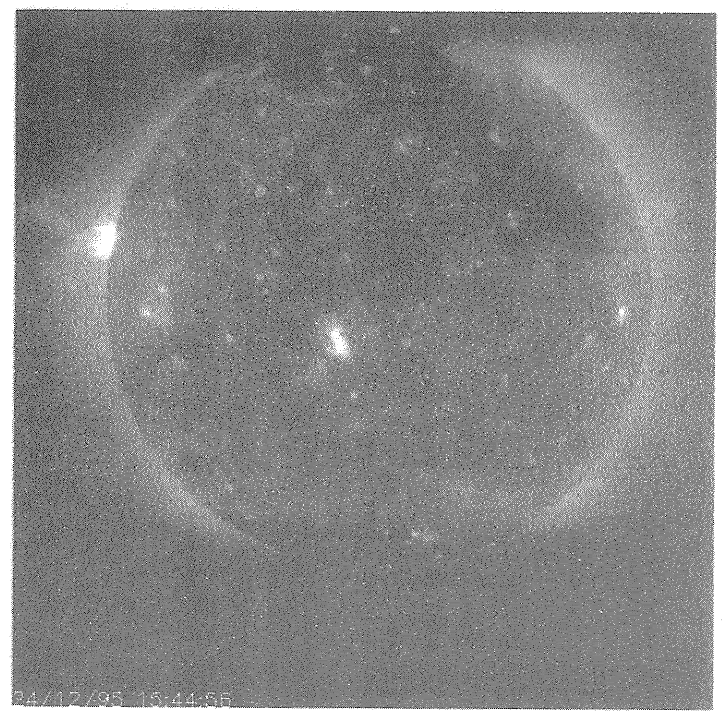
Day 21
12:06:59 UT



Day 23
12:06:08 UT



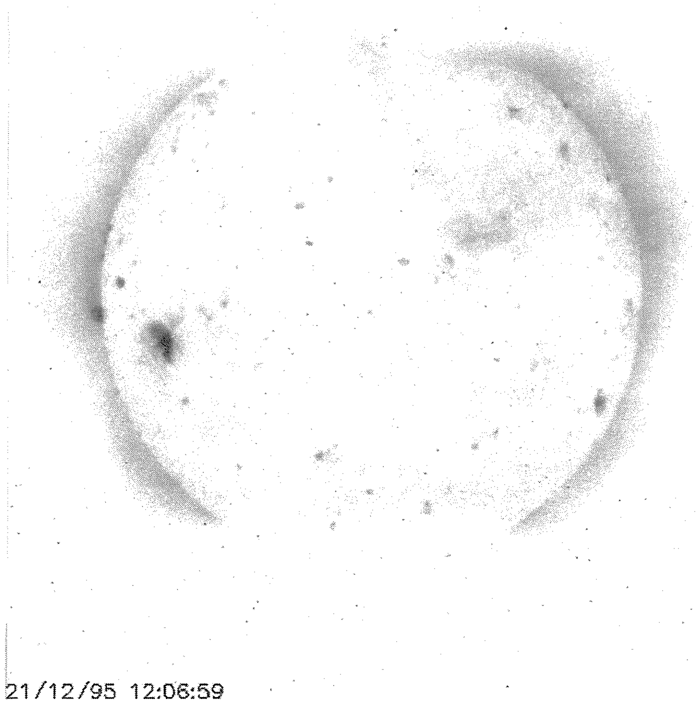
Day 22
16:45:20 UT



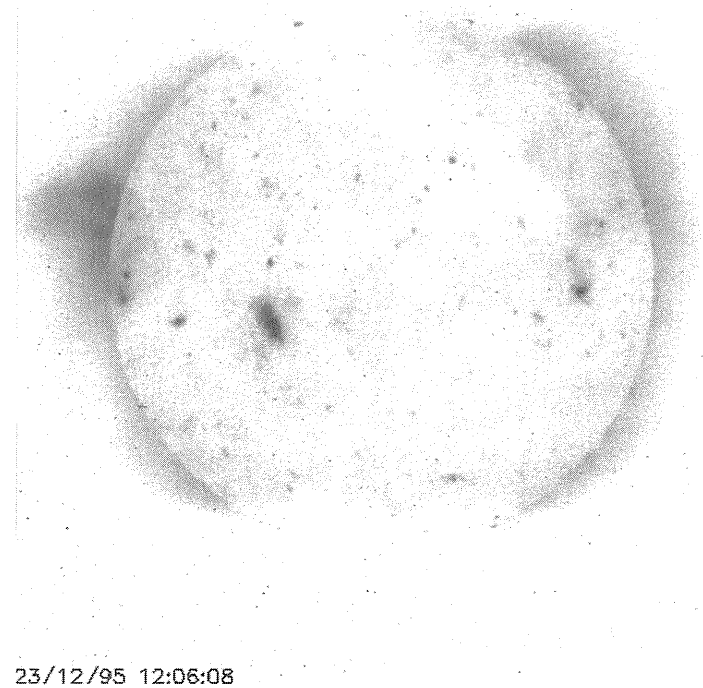
Day 24
15:44:56 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

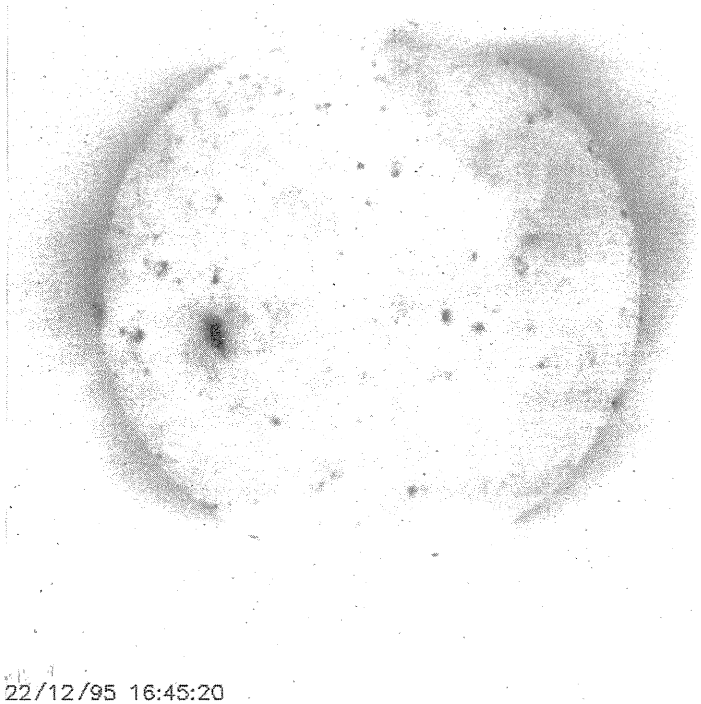
December 1995



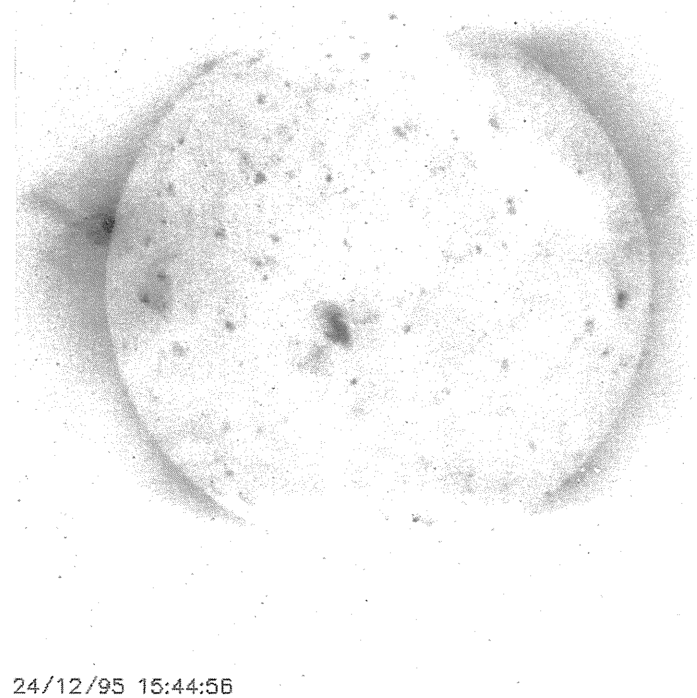
Day 21
12:06:59 UT



Day 23
12:06:08 UT



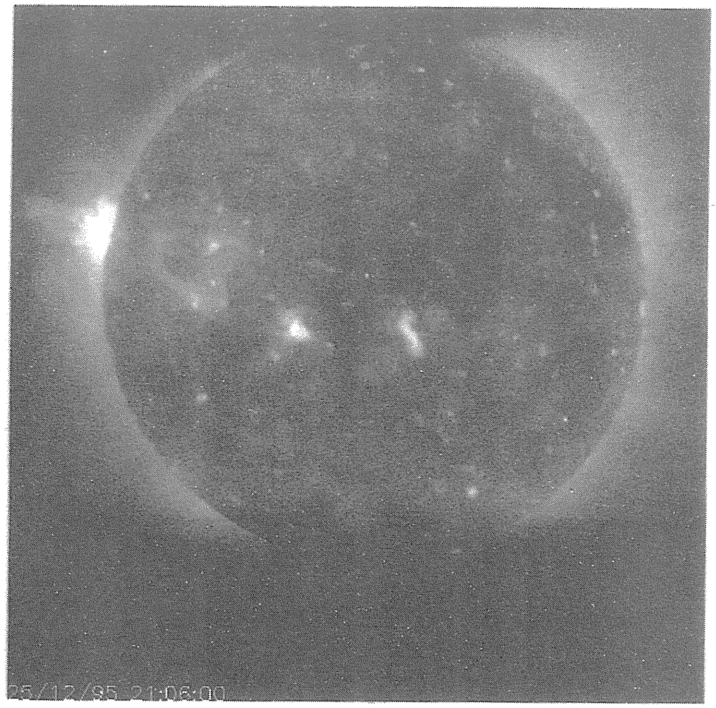
Day 22
16:45:20 UT



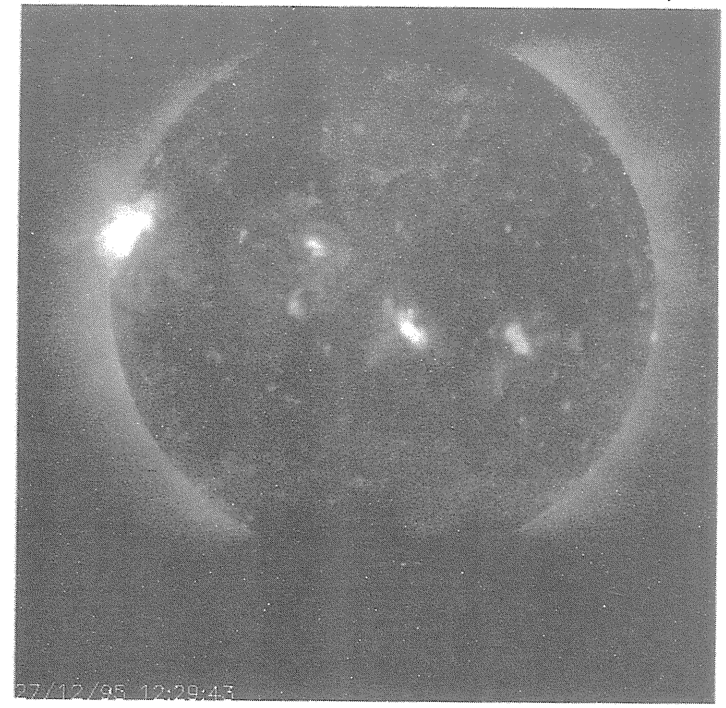
Day 24
15:44:56 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

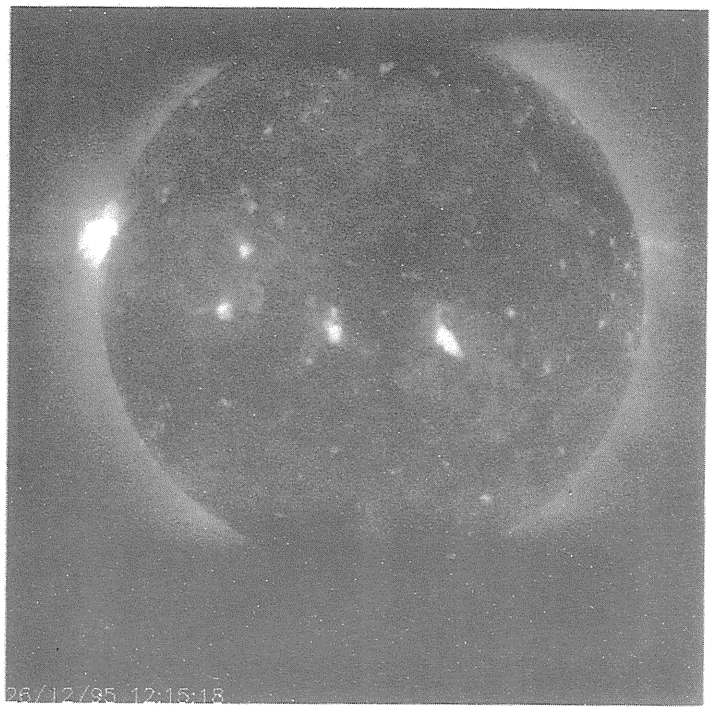
December 1995



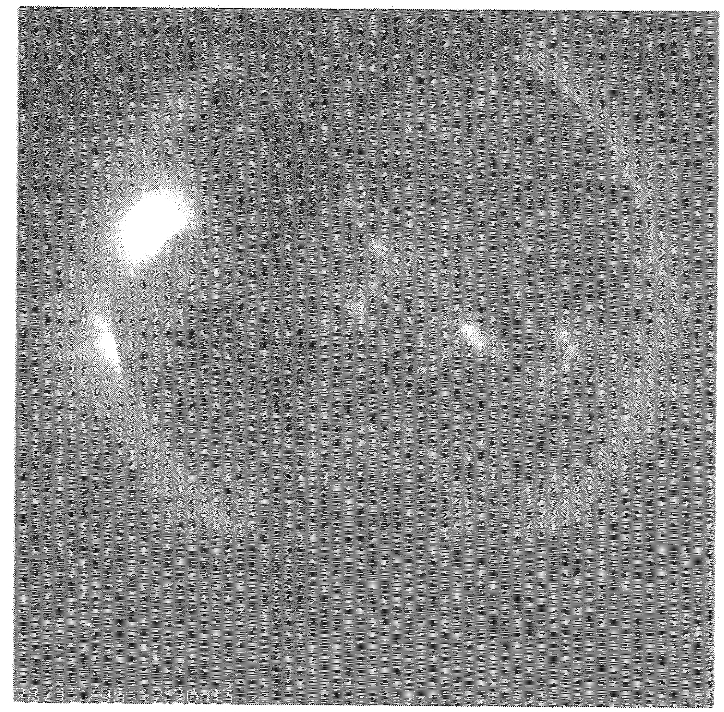
Day 25
21:06:00 UT



Day 27
12:29:43 UT



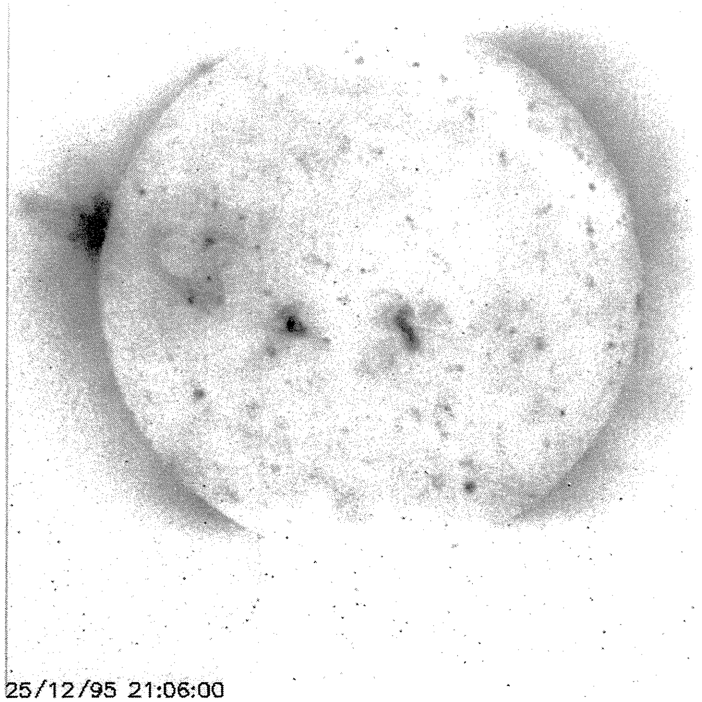
Day 26
12:15:18 UT



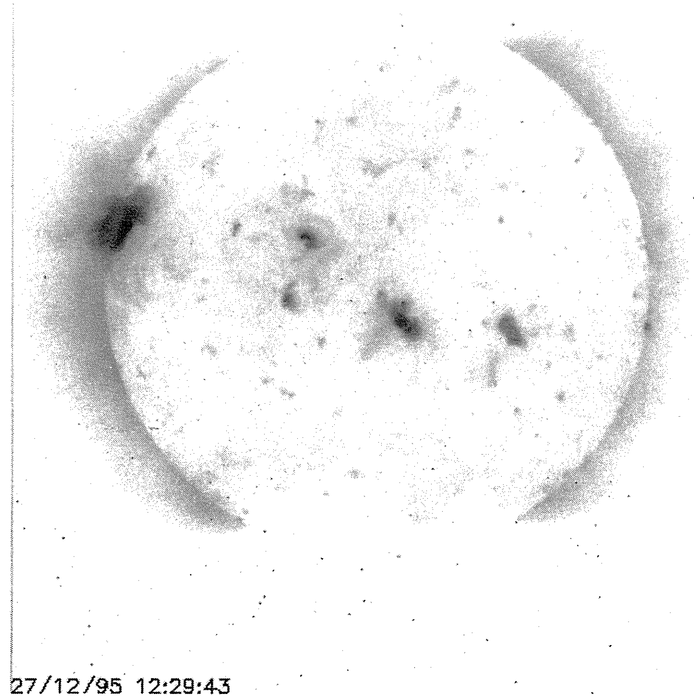
Day 28
12:20:03 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

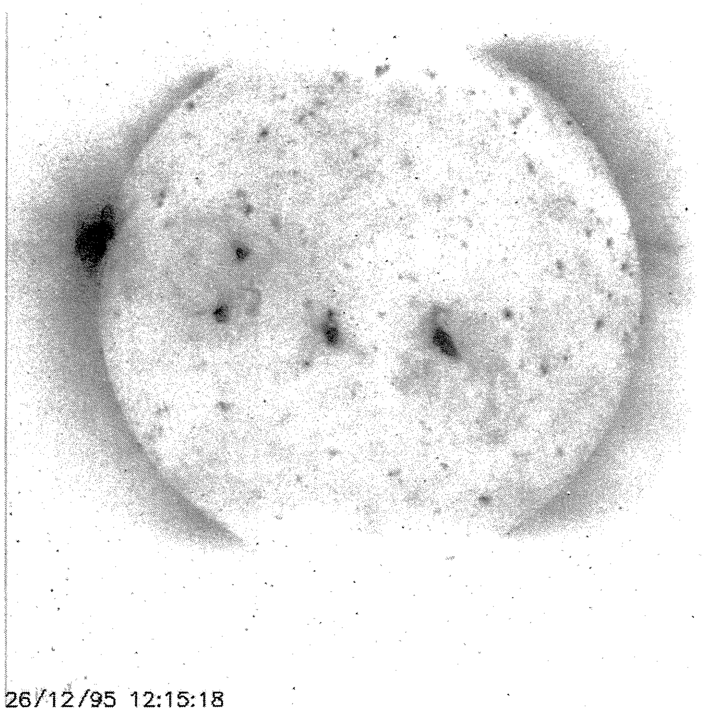
December 1995



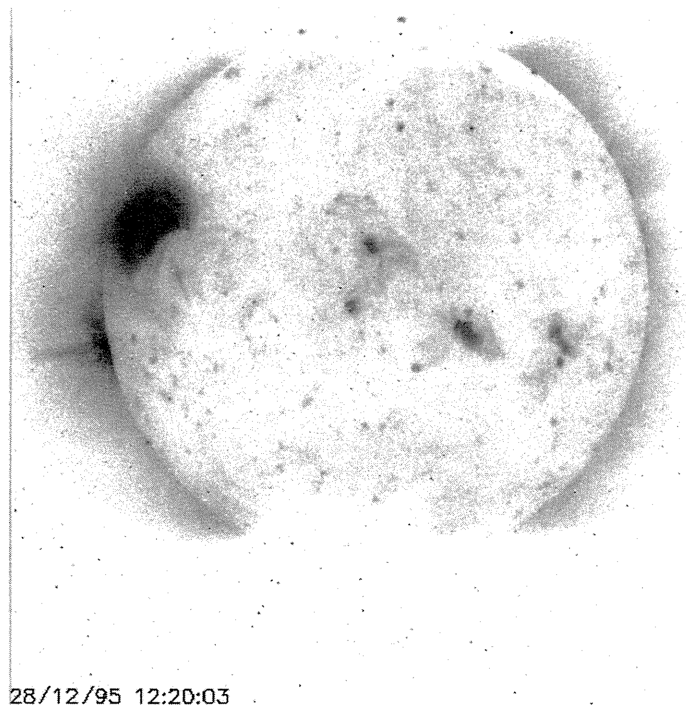
Day 25
21:06:00 UT



Day 27
12:29:43 UT



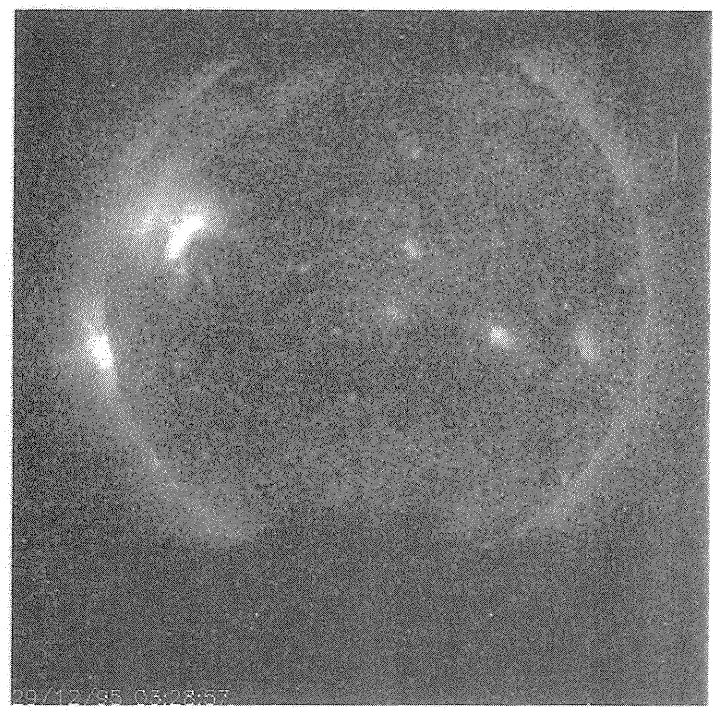
Day 26
12:15:18 UT



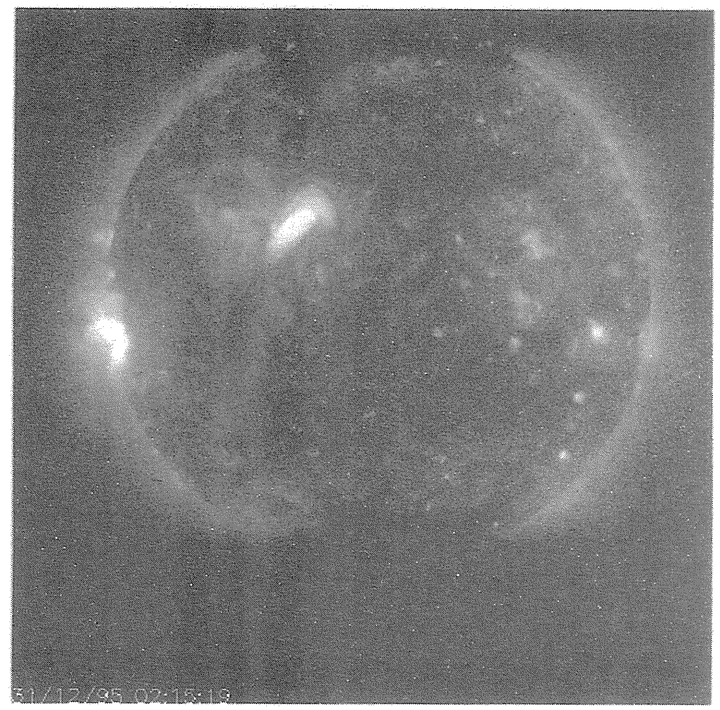
Day 28
12:20:03 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

December 1995



Day 29
03:28:57 UT

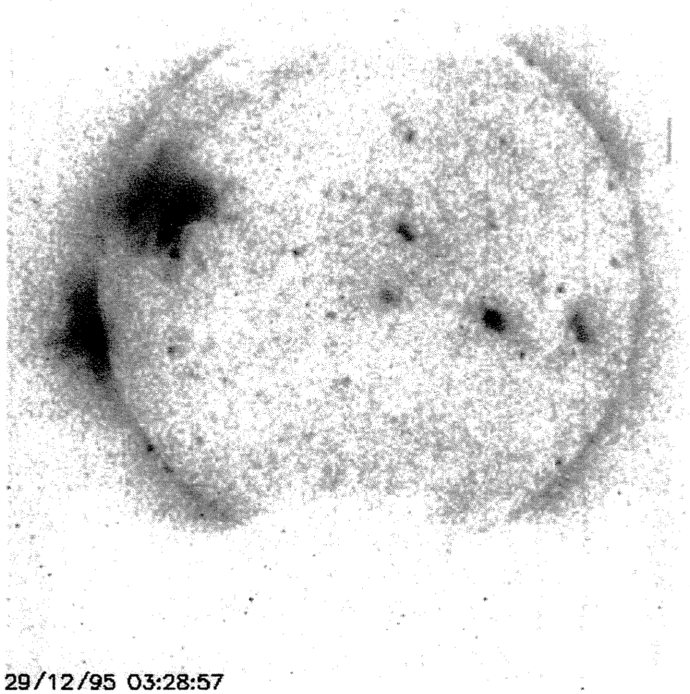


Day 31
02:15:19 UT

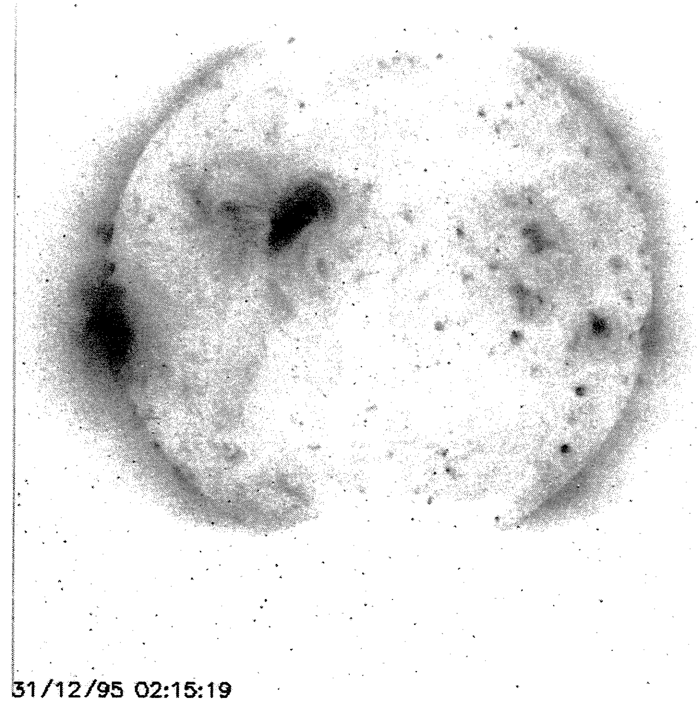
Day 30
10:14:01 UT

YOHKOH SOFT X-RAY TELESCOPE IMAGES

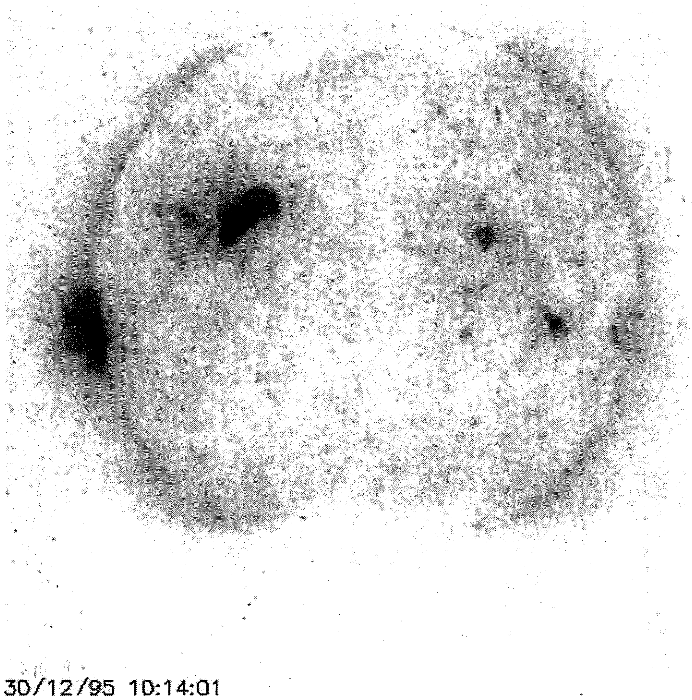
December 1995



Day 29
03:28:57 UT



Day 31
02:15:19 UT



Day 30
10:14:01 UT

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

DECEMBER 1995

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
7931		RAMY	12	09	1253	S18	W08	12	8.9		B	BXO	10	3	3	4
7931	28328	MWIL	12	09	1430	S19	W10	12	8.8	3	(B)					
7931		HOLL	12	09	1558	S19	W10	12	8.9		B	BXO	10	4	3	4
7931		LEAR	12	10	0021	S19	W14	12	8.9		B	BXO	20	2	4	2
7931		RAMY	12	10	1253	S19	W22	12	8.8		B	BXO	10	3	3	3
7931	28328	MWIL	12	10	1430	S19	W23	12	8.8	4	(B)					
7931		HOLL	12	10	1535	S19	W23	12	8.9		B	BXO	10	3	3	4
7931		PALE	12	10	2107	S20	W25	12	9.0		A	AX	10	1		2
7931		RAMY	12	11	1211	S19	W33	12	9.0		A	AX		1		5
7931		HOLL	12	11	1620	S20	W36	12	8.9		A	AX		1		3
7931	28328	MWIL	12	11	1630	S20	W36	12	8.9	3	(AP)					
7929A		SVTO	12	09	0830	S20	W03	12	9.1		B	BXO	10	4	3	4
7929A		KAND	12	09	1105	S19	W06	12	9.0			BXO		3	2	2
7930		SVTO	12	03	0758	S07	E80	12	9.3		A	HS	60	1	2	3
7930		KAND	12	03	1100	S10	E80	12	9.5			HA		1	1	1
7930		RAMY	12	03	1336	S08	E76	12	9.3		A	HS	60	1	2	4
7930		HOLL	12	03	1735	S08	E78	12	9.6		A	HS	80	1	1	3
7930		LEAR	12	04	0016	S09	E73	12	9.5		A	HS	30	1	1	3
7930		KAND	12	04	0845	S09	E68	12	9.5			HS		1	1	2
7930		SVTO	12	04	1125	S08	E67	12	9.5		A	HS	50	1	2	1
7930		RAMY	12	04	1225	S11	E64	12	9.3		A	HS	80	1	2	3
7930	28327	MWIL	12	04	1515	S09	E64	12	9.4	4	(AF)					
7930		HOLL	12	04	1620	S09	E63	12	9.4		A	HS	40	1	2	2
7930		PALE	12	04	1745	S11	E62	12	9.4		A	HS	80	1	2	3
7930		LEAR	12	05	0148	S10	E58	12	9.4		A	HS	70	1	2	3
7930		SVTO	12	05	0720	S07	E57	12	9.6		A	HS	70	1	2	3
7930		KAND	12	05	0830	S10	E55	12	9.5			HA		1	1	2
7930		RAMY	12	05	1244	S11	E53	12	9.5		A	HS	100	1	2	4
7930	28327	MWIL	12	05	1515	S10	E51	12	9.5	5	(AF)					
7930		HOLL	12	05	1700	S10	E50	12	9.5		A	HS	60	1	2	2
7930		PALE	12	05	1735	S10	E50	12	9.5		A	HS	60	1	2	3
7930		KAND	12	06	0735	S10	E40	12	9.3			CSO		4	4	4
7930		HOLL	12	06	1510	S09	E37	12	9.4		B	CSO	30	2	4	2
7930	28327	MWIL	12	06	1545	S11	E36	12	9.4	5	(BF)					
7930		RAMY	12	06	1607	S12	E37	12	9.4		B	CSO	110	8	5	3
7930		PALE	12	06	2050	S11	E32	12	9.3		B	CSO	70	2	5	2
7930		LEAR	12	07	0033	S10	E31	12	9.3		B	CSO	70	3	5	3
7930		SVTO	12	07	0840	S09	E27	12	9.4		B	CSO	110	4	5	3
7930		RAMY	12	07	1236	S11	E24	12	9.3		B	CSO	120	5	7	3
7930	28327	MWIL	12	07	1430	S10	E24	12	9.4	4	(AF)					
7930		LEAR	12	08	0030	S11	E19	12	9.4		A	HS	60	1	1	3
7930		KAND	12	08	1215	S10	E13	12	9.5			HS		1	2	2
7930		RAMY	12	08	1332	S10	E13	12	9.5		A	HS	80	1	2	3
7930	28327	MWIL	12	08	1430	S10	E11	12	9.4	6	(AF)					
7930		HOLL	12	08	1530	S10	E11	12	9.5		A	HS	80	1	2	3
7930		LEAR	12	09	0005	S11	E05	12	9.4		B	CSO	100	4	4	3
7930		SVTO	12	09	0830	S10	E01	12	9.4		B	CSO	70	5	4	4
7930		KAND	12	09	1105	S11	E00	12	9.5			CSO		4	4	2
7930		RAMY	12	09	1253	S11	W03	12	9.3		B	CSO	90	5	5	4
7930	28327	MWIL	12	09	1430	S10	W03	12	9.4	5	(BF)					
7930		HOLL	12	09	1558	S12	W04	12	9.4		B	CSO	110	5	5	4
7930		LEAR	12	10	0021	S11	W07	12	9.5		A	HS	100	1	2	2
7930		RAMY	12	10	1253	S11	W15	12	9.4		B	CSO	80	4	4	3
7930	28327	MWIL	12	10	1430	S10	W15	12	9.5	5	(AF)					
7930		HOLL	12	10	1535	S13	W16	12	9.4		A	HS	110	2	3	4
7930		PALE	12	10	2107	S11	W18	12	9.5		A	HA	70	1	2	2
7930		RAMY	12	11	1211	S11	W27	12	9.5		B	CSO	90	10	4	5
7930		HOLL	12	11	1620	S13	W30	12	9.4		B	DSO	120	5	4	3
7930	28327	MWIL	12	11	1630	S12	W29	12	9.5	5	(BF)					
7930		SVTO	12	12	1210	S13	W39	12	9.6		B	CSO	90	4	5	2
7930		RAMY	12	12	1233	S12	W42	12	9.3		B	DSO	110	6	6	4
7930		HOLL	12	12	1615	S13	W44	12	9.3		B	CSO	120	6	5	2
7930		PALE	12	12	1812	S12	W44	12	9.4		B	CSO	150	4	5	3
7930		LEAR	12	13	0345	S12	W48	12	9.5		B	CAO	90	7	4	4
7930		KAND	12	13	0720	S11	W52	12	9.4			CAO		3	4	3
7930		RAMY	12	13	1229	S11	W55	12	9.4		B	CSO	120	4	5	3
7930		HOLL	12	13	1610	S13	W57	12	9.4		B	CSO	80	3	5	2

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

DECEMBER 1995

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
7930		LEAR	12	14	0045	S12	W63	12	9.3		B	CAO	90	5	4	3
7930		SVTO	12	14	0750	S15	W65	12	9.4		B	CSO	40	2	4	3
7930		KAND	12	14	0805	S11	W64	12	9.5			HS		1	2	4
7930		RAMY	12	14	1405	S11	W68	12	9.5		B	CSO	60	3	3	3
7930		HOLL	12	14	1606	S12	W71	12	9.3		A	HS	100	1	2	3
7930	28327	MWIL	12	14	1630	S11	W68	12	9.6	5	(AF)					
7930		PALE	12	14	1900	S11	W71	12	9.4		A	HS	60	1	2	2
7930		LEAR	12	15	0028	S11	W72	12	9.6		A	HS	30	1	1	3
7930		RAMY	12	15	1325	S10	W79	12	9.6		A	HS	60	1	2	2
7930		HOLL	12	15	1625	S11	W86	12	9.2		A	HS	60	1	4	3
7930	28327	MWIL	12	15	1645	S11	W83	12	9.4	4	(AF)					
7930		PALE	12	15	1835	S11	W85	12	9.4		A	HS	60	1	2	3
7931A		KAND	12	14	0805	N22	E46	12	17.9			AX		1		4
7932		HOLL	12	19	1657	S11	E76	12	25.4		A	AX	10	1		3
7932		PALE	12	19	1910	S11	E73	12	25.3		A	AX	10	2	1	2
7932		SVTO	12	20	0900	S08	E65	12	25.2		A	AX		2	2	3
7932		RAMY	12	20	1218	S12	E61	12	25.1		A	AX	10	1	1	3
7932	28329	MWIL	12	20	1545	S11	E60	12	25.2	3	(AP)					
7932		HOLL	12	20	1602	S11	E60	12	25.2		A	AX	10	1		3
7932		PALE	12	20	2250	S11	E56	12	25.2		A	HA	30	1	2	1
7932		LEAR	12	21	0020	S09	E55	12	25.1		A	HR	20	2	2	3
7932		KAND	12	21	0855	S10	E51	12	25.2			AX		1		3
7932		SVTO	12	21	0857	S09	E52	12	25.3		A	AX	10	3	2	3
7932		RAMY	12	21	1258	S11	E48	12	25.1		A	AX	10	3	1	4
7932	28329	MWIL	12	21	1530	S11	E48	12	25.2	3	(AP)					
7932		HOLL	12	21	2039	S11	E44	12	25.2		A	AX	10	1		2
7932		PALE	12	21	2250	S11	E43	12	25.2		A	AX	10	5	1	3
7932		LEAR	12	22	0005	S10	E42	12	25.1		B	BX	10	2	1	3
7932		SVTO	12	22	0842	S09	E38	12	25.2		A	AX	10	3	2	3
7932		RAMY	12	22	1228	S11	E35	12	25.1		A	AX	10	3	1	4
7932		PALE	12	22	1812	S11	E32	12	25.2		A	AX	10	3	1	3
7932		KAND	12	23	0800	S10	E26	12	25.3			AX		1		2
7932		LEAR	12	23	0850	S11	E25	12	25.2		A	AX		1	1	3
7932		RAMY	12	23	1255	S10	E23	12	25.3		A	AX		1		4
7932		PALE	12	23	1812	S11	E19	12	25.2		A	AX		1		3
7932		HOLL	12	23	1835	S12	E19	12	25.2		A	AX	10	2		2
7932		PALE	12	25	1822	S10	W07	12	25.2		A	AX		2		3
7933		RAMY	12	25	1819	S09	E18	12	27.1		B	BXO	10	3	3	2
7933		HOLL	12	25	1820	S09	E18	12	27.1		B	BXO	10	2	3	2
7933		PALE	12	25	1822	S09	E18	12	27.1		B	BXO	20	3	3	3
7933		LEAR	12	26	0057	S10	E14	12	27.1		B	BXO	20	4	3	3
7933		KAND	12	26	0735	S09	E10	12	27.1			BXO		2	4	2
7933		SVTO	12	26	1000	S08	E09	12	27.1		A	AX		2	2	2
7933		RAMY	12	26	1249	S09	E07	12	27.0		B	BXO	10	4	3	4
7933		HOLL	12	26	1536	S09	E05	12	27.0		A	AX	10	4	2	3
7933	28330	MWIL	12	26	1800	S10	E03	12	27.0	4	(B)					
7933		PALE	12	26	1950	S09	E04	12	27.1		B	BXO	10	5	4	3
7933		LEAR	12	27	0001	S10	E00	12	27.0		B	BXO	20	6	4	3
7933		SVTO	12	27	1030	S09	W05	12	27.1		B	CRO	10	2	3	3
7933		RAMY	12	27	1417	S09	W07	12	27.1		B	BXO	10	2	4	3
7933		HOLL	12	27	1551	S09	W08	12	27.1		B	BXO	20	3	4	3
7933	28330	MWIL	12	27	1800	S11	W07	12	27.2	5	(B)					
7933		PALE	12	27	1818	S10	W09	12	27.1		B	BXO	20	3	4	2
7933		LEAR	12	28	0031	S07	W13	12	27.0		A	HR	30	2	4	3
7933		SVTO	12	28	0725	S07	W17	12	27.0		B	CAO	10	2	3	2
7933	28330	MWIL	12	28	1545	S12	W21	12	27.1	4	(AP)					
7933		RAMY	12	28	1630	S12	W20	12	27.2		A	AX		1		3
7933		PALE	12	28	1805	S12	W22	12	27.1		A	AX	10	1		2
7933		HOLL	12	28	1845	S07	W22	12	27.1		A	AX	10	1		2
7933		LEAR	12	29	0005	S12	W24	12	27.2		A	AX		1	1	3
7934		KAND	12	26	0735	S04	E36	12	29.0			BXO		2	2	2
7934		SVTO	12	26	1000	S03	E33	12	28.9		A	AX		1		2
7934		RAMY	12	26	1249	S04	E32	12	28.9		B	BXO	10	3	3	4
7934		HOLL	12	26	1536	S04	E30	12	28.9		A	AX		1		3
7934	28331	MWIL	12	26	1800	S07	E26	12	28.7	4	(AF)					

SUNSPOT GROUPS
(Ordered by Central Meridian Passage Date)

DECEMBER 1995

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
7934		PALE	12 26	1950	S07 E26	12 28.8		A	AX	10	1		3
7934		LEAR	12 27	0001	S07 E22	12 28.6		A	AX	10	1		3
7934		RAMY	01 02	1539	S08 W65	12 28.9		A	AX		1		3

Stations reporting:

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

DECEMBER 1995

Day	Start (UT)	Max (UT)	End (UT)	Imp	Wide Spread Index	SWF	SEA	SPA	LF-SPA	SES	Flare (UT)	X-ray Class	NOAA Region
						Number of Station Reports by Type							
01	1018	1035	1105U	2	1		1				*		
04	1155	1210	1257	1	1		1				*		
06	0420	0432	0450	1-	1				1		No flare		
07	0410	0422	0510	1-	1				1		*		
08	1007	1012	1040	2	1		1				*		
09	1309	1318	1356U	1	1		1				No flare		
13	2053	2054	2118	1	1					1	2053		7930
16	1043	1116	1150	1	1		1				No flare		
16	1259	1312	1344	1	1		1				No flare		
18	1202	1211	1244	1	1		1				*		
18	1300	1314	1349	1	1		1				*		
19	0946	0954	1033	1	1		1				No flare		
22	1319	1330	1358	1	1		1				No flare		
29	0736	0751	0950	1	1				1		No flare		
29	1700	1702	1713	1-	1					2	1702	B1.4	7936
30	0904	0924	1007	1	1		1				No flare		

* = no flare patrol.

OBSERVATORIES REPORTING FOR DECEMBER 1995

Brazilian Antarctic Station	SPA	Madison, Wisconsin, USA	SES
Cambridge, England, UK	SES	McDonough, Georgia, USA	SES
Cranford, New Jersey, USA	SES	Nampa, Idaho, USA	SES
Durham, New Hampshire, USA	SES	Nerja, Spain	SES
Fort Wayne, Indiana, USA	SES	New Milford, New York, USA	SES
Gettysburg, Pennsylvania, USA	SES	Panska Ves, Czech Republic	SES, SEA, SWF
Hiraiso, Japan	SWF	Rimavska Sobota, Slovakia	SEA
Houston, Texas, USA	SES	Rochester, New Hampshire, USA	SES
Hudson, Ohio, USA	SES	Tucson, Arizona, USA	SES
Indianapolis, Indiana, USA	SES	Upice, Czech Republic	SEA
Inubo, Japan	SPA	Wellington, Ohio, USA	SES
Itapetinga, Brazil	SPA	Windsor Locks, Connecticut, USA	SES
Koniz, Switzerland	SES	Ziar nad Hronom, Slovakia	SEA
LaCrescenta, California, USA	SES	Zilina, Slovakia	SEA
Lintong, People's Rep of China	SPA		

Observations are not necessarily continuous.

SOLAR RADIO EMISSION
Spectral Observations

DECEMBER 1995

Day	Obs Start (UT)	Obs End (UT)	Sta	Event Start (UT)	Event End (UT)	Spectral Class	Event Remarks	Int (1-3)	Freq Lower (MHz)	Freq Upper (MHz)	Remarks
01	0000	0727	HIRA								
	0000	0751	CULG								
	0700	1200	IZMI								
	0800	1409	POTS								
	0813	1326	ONDR								
	2021	2400	CULG								
	2130	2400	HIRA								
02	0000	0727	HIRA								
	0000	0751	CULG								
	0700	1200	IZMI								
	0815	1325	ONDR								
	2021	2400	CULG								
	2130	2400	HIRA								
03	0000	0727	HIRA								
	0000	0751	CULG								
	0700	1200	IZMI								
	0817	1327	ONDR								
			SVTO	0839.0	0839.0	III		2	65U	76U	
	2021	2400	CULG								
	2131	2400	HIRA								
04	0000	0727	HIRA								
	0000	0751	CULG								
	0700	1200	IZMI								
	0800	1409	POTS	0810.3	0810.4	UNCLF		1	110U	120	
	0819	1325	ONDR	0823.2	0824.0	III	G	1	2240	4400X	
			ONDR	0844.3	0853.0	III	G	1	2275	4400X	
			ONDR	1019.1	1025.0	III	G W	1	2360	4400X	
			ONDR	1035.1	1035.2	III	B	1	2295	4400X	
			ONDR	1049.4	1051.2	III	G	1	2275	4400X	
			ONDR	1108.4	1110.2	III	G W	1	2205	4400X	
	2023	2400	CULG								
	2132	2400	HIRA								
05	0000	0300	CULG								
	0000	0727	HIRA								
	0700	1200	IZMI								
	0820	1323	ONDR	0950.3	0952.2	III	G	1	2255	4400X	
			ONDR	1025.5	1043.3	III	GG	1	2330	4400X	
	0800	1409	POTS	1059	1135	I	S	1	200U	400	
	2022	2400	CULG								
	2133	2400	HIRA								
06	0000	0727	HIRA								
	0000	0752	CULG								
	0700	1200	IZMI								
	0822	1324	ONDR	1108.3	1115.4	III	G	1	2790	4400X	
	0800	1409	POTS	1250	1409 U	I	S	1	130	300	
			POTS	1305.4	1305.5	III	B	1	125	170U	
			POTS	1309.4	1309.5	III	B	1	110U	170U	
	2133	2400	HIRA	2310.4	2310.5	III	B	1	100	240	
	2022	2400	CULG	2311.0	2311.0	III	B	1	48	160	
			HIRA	2314.5	2333.8	I	S	1	120	210	
07	0000	0752	CULG								
	0000	0609	HIRA	0103.0	0220.0	I	S	1	110	210	
	0700	1200	IZMI								
	0824	1323	ONDR								
	0800	1409	POTS	0912	1035	I	S,W	1	120	250	
	2023	2400	CULG								
	2135	2400	HIRA								
08	0000	0727	HIRA								
	0000	0753	CULG								
	0700	1200	IZMI								
	0800	1409	POTS								
	0825	1322	ONDR								

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

DECEMBER 1995

OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
08	2023	2400	CULG								
	2136	2400	HIRA								
09	0000	0727	HIRA								
	0000	0753	CULG								
	0700	1200	IZMI								
	0826	1320	ONDR								
	2024	2400	CULG								
	2137	2400	HIRA								
10	0000	0727	HIRA								
	0000	0754	CULG								
	0700	1200	IZMI	0705.0	1200.0D	I	N	1	95U	180X	
	0828	1322	ONDR								
	2137	2400	HIRA	2247.2	2247.3	III	B	1	35	270	
	2044	2400	CULG	2248.0	2248.0	III	B	1	35	180	
			HIRA	2343.5	2343.8	III	G	1	50	300	
11	0000	0727	HIRA								
	0000	0754	CULG	0422.0	0547.0	III	S	1	30	130	
	0800	1353	POTS	0800 E	1353 U	I	S	2	110U	400	
	0829	1320	ONDR								
			POTS	0906.8	0907.6	III	G	2	40X	225	
	0700	1200	IZMI	0907.1	0907.4	III	G	1	90	160	
	2024	2400	CULG								
	2138	2400	HIRA								
12	0000	0727	HIRA								
	0000	0754	CULG								
	0700	1200	IZMI								
	0800	1353	POTS	0800 E	1353 U	I	S,C,DC	2	110U	400	
	0830	1318	ONDR								
	2025	2400	CULG								
	2138	2400	HIRA								
13	0000	0729	HIRA								
	0000	0755	CULG								
	0700	1200	IZMI								
	0800	1353	POTS								
	0832	1319	ONDR								
	2025	2400	CULG								
	2139	2400	HIRA								
14	0000	0729	HIRA								
	0000	0755	CULG								
	0730	1409	POTS	0824.8	0824.9	III	G	2	110U	170U	
	0833	1321	ONDR	0900.1	0922.0	III	GG	1	2295	4400X	
			POTS	0916.7	0919.0	III	GG	3	50	170U	
	0700	1200	IZMI	0916.9	0917.5	III	G	2	90	170	
	0700	1200	IZMI	0918.4	0918.9	III	G	1	70U	150	
			ONDR	0936.2	0944.4	III	G	1	2380	4400X	
			POTS	0939.5	0939.8	III	G	1	110U	170U	
	0700	1200	IZMI	0940.0	0940.2	III	G	2	45X	150	
			POTS	0940.1	0940.2	III	G	3	40X	170U	
			POTS	0948.7	0950.9	III	G	2	110U	550	
	0700	1200	IZMI	0948.9	0949.5	III	G	1	90	180X	
			ONDR	0958.1	1016.3	III	GG	1	2215	4400X	
			POTS	1022.8	1035.1	III	GG,RS	3	110U	250	
			ONDR	1038.0	1059.2	III	GG	1	2255	4400X	
			POTS	1055.0	1055.4	III	G	1	110U	275	
			POTS	1157.7	1158.1	III	G	2	110U	300	
	2026	2400	CULG								
	2141	2400	HIRA								
15	0000	0729	HIRA								
	0000	0756	CULG								
	0700	1200	IZMI								
	0800	1001	POTS								
	0834	1321	ONDR								

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

DECEMBER 1995

OBSERVATION Day	Start (UT)	End (UT)	Sta	EVENT Start (UT)	End (UT)	Spectral Class	Event Remarks	Int (1-3)	FREQUENCY Lower (MHz)	Upper (MHz)	Remarks
15	2026	2400	CULG								
	2141	2400	HIRA								
16	0000	0730	HIRA								
	0000	0756	CULG								
	0700	1200	IZMI								
	0835	1319	ONDR								
	2027	2400	CULG								
	2142	2400	HIRA								
17	0000	0730	HIRA								
	0000	0757	CULG								
	0700	1200	IZMI								
	0836	1320	ONDR								
	2027	2400	CULG								
	2142	2400	HIRA								
18	0000	0730	HIRA								
	0000	0757	CULG								
	0700	1200	IZMI								
	0800	1353	POTS								
	0837	1315	ONDR								
	2028	2400	CULG								
	2142	2400	HIRA								
19	0000	0731	HIRA								
	0000	0758	CULG								
	0700	1200	IZMI								
	0755	1400	POTS								
	0837	1320	ONDR								
	2028	2400	CULG								
	2143	2400	HIRA								
20	0000	0731	HIRA								
	0000	0758	CULG								
	0700	1200	IZMI								
	0800	0920	POTS								
	0838	1318	ONDR								
	2028	2400	CULG								
	2144	2400	HIRA								
21	0000	0731	HIRA								
	0000	0758	CULG								
	0700	1200	IZMI								
	0839	1320	ONDR								
	2029	2400	CULG								
	2144	2400	HIRA								
22	0000	0759	CULG								
	0000	0731	HIRA	0316.3	0316.5	III	B	2	50	160	
	0700	1200	IZMI								
	0800	1353	POTS								
	2030	2400	CULG	2114.0	2144.0	II	UE	2	27	85	
			PALE	2117.0	2143.0	II		1	25U	45U	ESS 1200
			CULG	2119.0	2124.0	II	FN	2	18X	27	
			CULG	2119.0	2130.0	II	SH	2	24	70	ESS 1300
	2145	2400	HIRA								
23	0000	0732	HIRA								
	0000	0800	CULG								
	0700	1200	IZMI								
	2030	2400	CULG								
	2145	2400	HIRA								
24	0000	0732	HIRA								
	0000	0800	CULG								
	0700	1200	IZMI								
	2031	2400	CULG								
	2146	2400	HIRA								

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

DECEMBER 1995

Day	Observation Start (UT)	Observation End (UT)	Sta	Event Start (UT)	Event End (UT)	Spectral Class	Event Remarks	Int (1-3)	Frequency Lower (MHz)	Frequency Upper (MHz)	Remarks
25	0000	0733	HIRA								
	0000	0801	CULG								
	0700	1200	IZMI								
	0800	1353	POTS								
	2031	2400	CULG								
	2147	2400	HIRA								
26	0000	0733	HIRA								
	0000	0801	CULG								
	0700	1200	IZMI								
	0800	1353	POTS	0951	1013	I	S,W	1	130	170U	
	2032	2400	CULG								
	2147	2400	HIRA								
27	0000	0735	HIRA								
	0000	0802	CULG								
	0700	1200	IZMI								
	0800	1353	POTS								
	2033	2400	CULG								
	2147	2400	HIRA								
28	0000	0735	HIRA								
	0000	0803	CULG								
	0700	1200	IZMI								
	0800	1353	POTS								
	2033	2400	CULG								
	2147	2400	HIRA								
29	0000	0736	HIRA								
	0000	0803	CULG								
	0700	1200	IZMI								
	0800	1353	POTS								
	2033	2400	CULG								
	2148	2400	HIRA								
30	0000	0737	HIRA								
	0000	0803	CULG								
	0700	1200	IZMI								
	2034	2400	CULG								
	2148	2400	HIRA								
31	0000	0737	HIRA								
	0000	0804	CULG								
	0700	1200	IZMI								
	2035	2400	CULG								
	2148	2400	HIRA								

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

Frequency qualifiers:
- X = Extends beyond instrument range
- U = Uncertain frequency

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

Stations Reporting: CULG = Culgoora   HIRA = Hiraiso   IZMI = Izmiran   LEAR = Learmonth
ONDR = Ondrejov   PALE = Palehua   POTS = Potsdam   SGMR = Sagamore Hill   SVTO = San Vito

SOLAR RADIO NOISE STORMS AT 164 MHZ FROM NANCAY RADIOHELIOGRAPH DECEMBER 1995

DAY	HELIOGRAPHIC POSITIONS MEAN VALUES* E-W	S-N	IMP**	OBSERVING TIME*** START (UT)	END(UT)

1, 2, 3, December 1995: NO DETECTABLE NOISE STORMS
4-31 December 1995: NO OBSERVATIONS

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

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

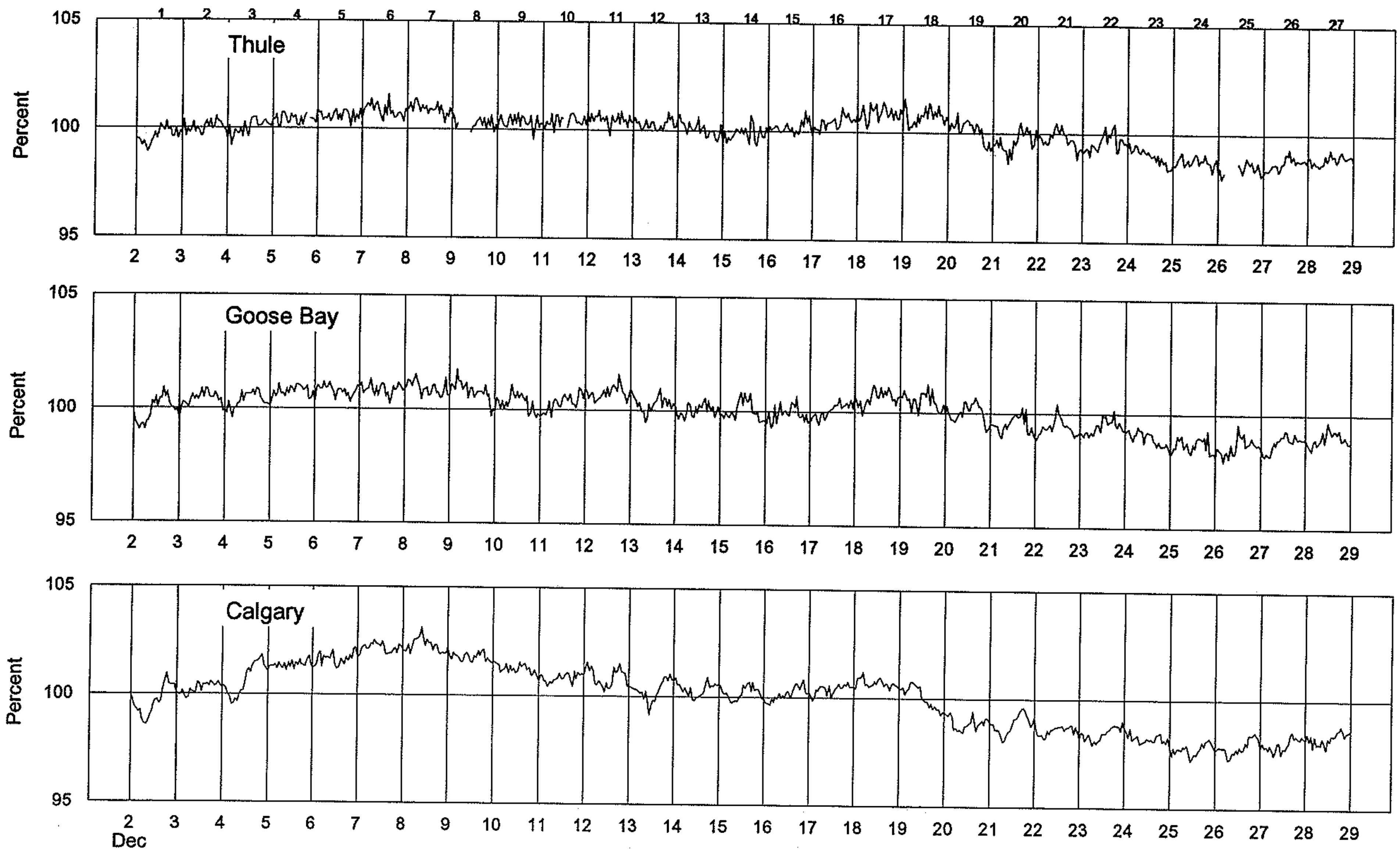
PLEASE NOTE: The NANCAY radioheliograph stopped observations in its present mode on December 4, 1995. This interruption is due to a complete upgrade of the receiver and of the data acquisition system. In its new mode of observation, the instrument will provide in real time, in addition to the formerly recorded 2-one dimensional independent east_west and north_south scans, two dimensional images of the radio corona at five frequencies between 150 and 450 MHz. The new mode of observations is expected to start in April 1996. More information about the new instrument will be provided with the publication of the first data.

COSMIC RAY INDICES
(Neutron Monitor)
DECEMBER 1995

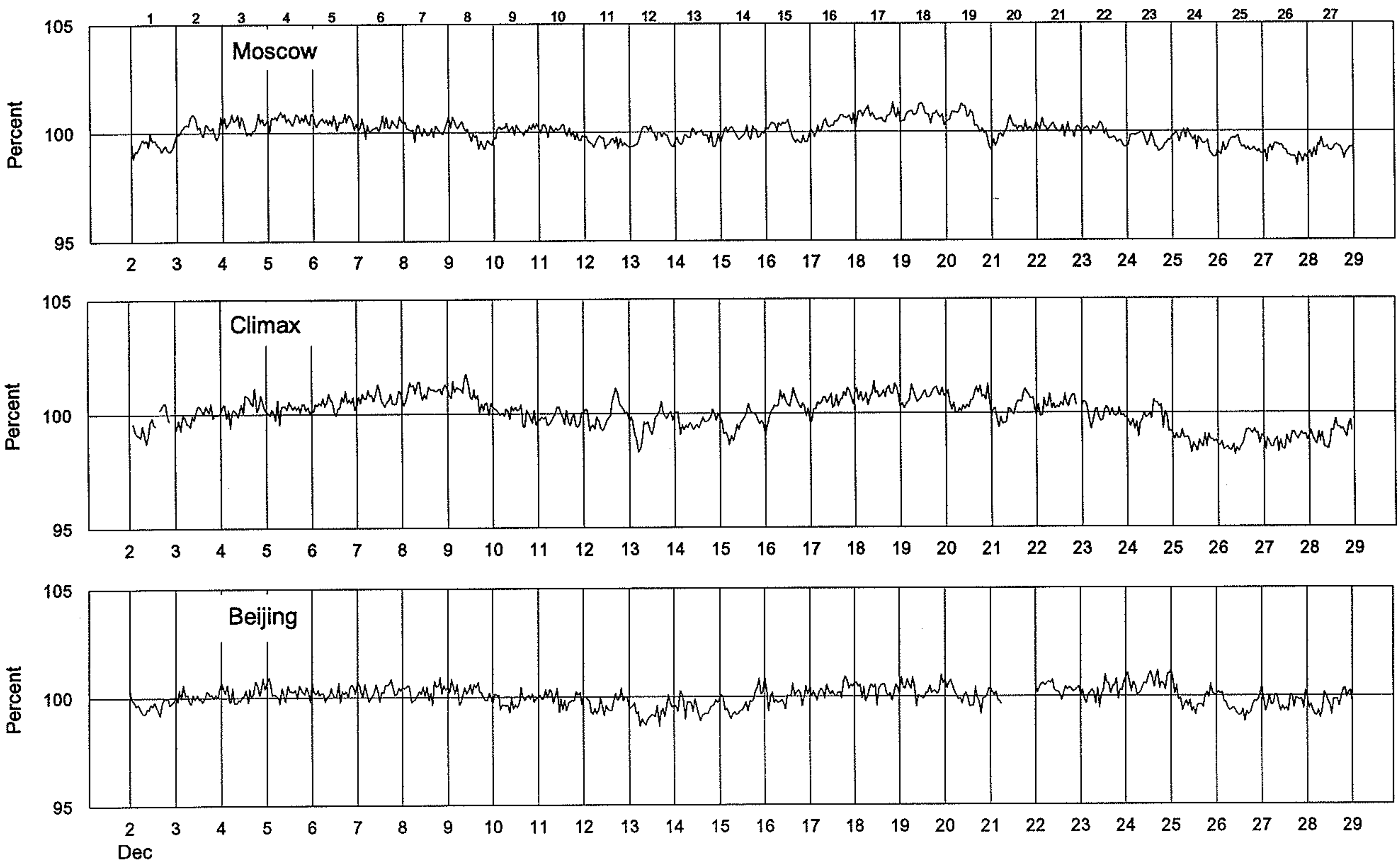
Day	THULE Average (cts/h)/100	GOOSE BAY Average (cts/h)/100	CALGARY Average (cts/h)/300	MOSCOW Average (cts/h)/64	CLIMAX Average (cts/h)/100	BEIJING Average (cts/h)/256	TOKYO Average (cts/h)/256	HALEAKALA Average (cts/h)/1000
1	4496	7348.0	3906.8	9248.3	4182.7	2032.5	No data	3558.2
2	4497	7340.0	3911.8	9238.9	4181.5	2035.1	at time of	3560.2
3	4516	7374.7	3935.2	9315.9	4194.2	2043.4	publication	3560.7
4	4514	7370.3	3950.5	9331.7	4211.5	2046.3	---	3569.4
5	4532 (23)	7400.4	3979.0	9352.7	4207.1	2047.3	---	3570.0
6	4542	7403.4	3989.8	9341.5	4217.4	2046.5	---	3574.3
7	4552	7409.2	4010.2	9322.7	4228.1	2048.4	---	3570.6
8	4556	7414.5	4015.5	9303.6	4240.2	2047.7	---	3574.1
9	4527 (18)	7405.9	3995.8	9288.0	4232.5	2047.0	---	3576.7
10	4530	7369.0	3974.8	9305.8	4198.8	2038.3	---	3571.2
11	4532 (23)	7367.7	3957.8	9296.9	4189.4	2040.4	---	3573.1
12	4537	7402.4	3960.7	9251.1	4196.2	2035.8	---	3572.2
13	4527	7369.2	3936.7	9273.0	4179.3	2026.9	---	3566.7
14	4519	7349.5	3939.8	9271.3	4183.3	2032.4	---	3564.9
15	4508	7349.4	3934.3	9287.2	4179.1	2035.5	---	3571.0
16	4523	7339.0	3931.8	9295.6	4211.5	2042.1	---	3578.6
17	4533	7350.5	3941.2	9329.7	4218.9	2047.5	---	3574.0
18	4554	7394.2	3953.3	9363.2	4235.2	2047.9	---	3578.6
19	4550	7387.7	3929.5	9366.4	4228.8	2048.3	---	3581.0
20	4521	7350.2	3882.7	9341.0	4221.4	2042.7	---	3579.4
21	4498	7313.7	3880.5	9295.8	4206.8	2041.9 (7)	---	3570.7
22	4503	7302.3	3870.8	9307.0	4213.4	2049.4	---	3571.0
23	4496	7306.1	3864.5	9282.5	4197.4	2046.4	---	3567.2
24	4471	7271.5	3857.3	9252.8	4188.4	2054.7	---	3572.5
25	4459	7248.7	3838.5	9254.0	4146.9	2039.5	---	3555.0
26	4445 (17)	7245.2	3842.8	9226.8	4144.5	2032.5	---	3542.3
27	4455	7258.4	3847.8	9200.5	4147.0	2036.4	---	3547.8
28	4465	7273.8	3859.5	9215.7	4157.8	2035.7	---	3558.7
29	4473	7291.9	3866.2	9229.7	4171.0	2031.6	---	3557.0
30	4488	7317.0	3870.7	9233.9	4172.6	2038.9	---	3555.5 (36)
31	4483	7325.7	3880.2	9243.4	4175.8	2044.0	---	---
Mean	4510	7343.5	3919.9	9286.0	4195.4	2041.4	---	3567.4

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

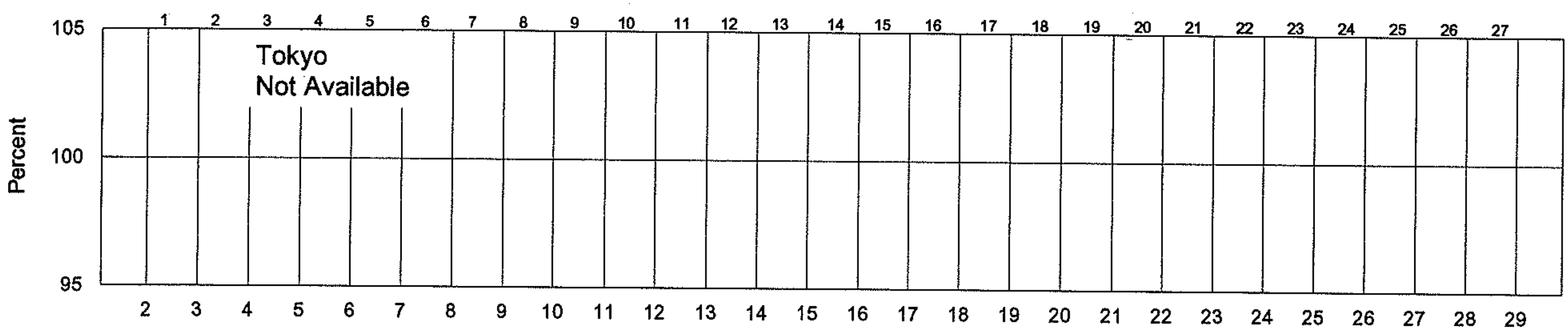
COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2217 - Beginning 2 Dec 95

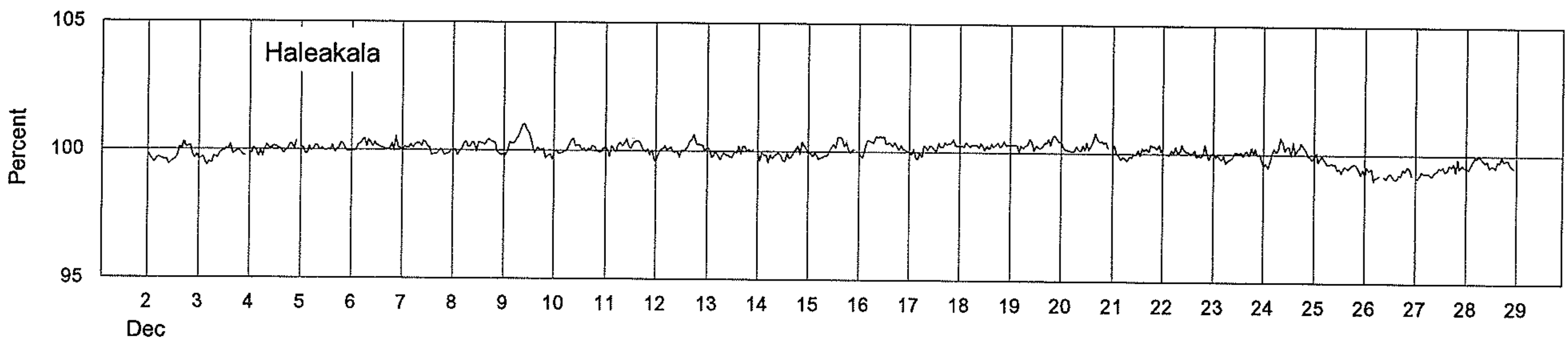


COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2217 - Beginning 2 Dec 95

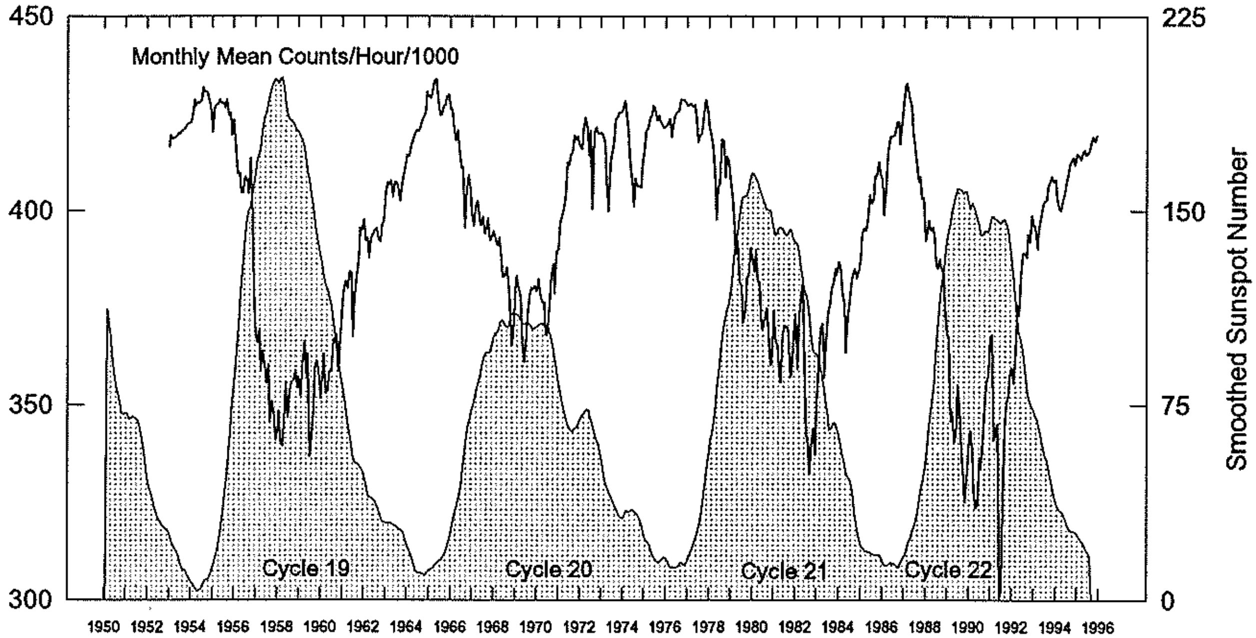


COSMIC RAY INDICES
(Neutron Monitor)
Bartels Rotation 2217 - Beginning 2 Dec 95





Climax Neutron Monitor Pressure-Corrected Values
Jan 1953 - Dec 1995



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1953	4163	4193	4183	4187	4190	4200	4196	4205	4209	4213	4220	4226	4199
1954	4225	4246	4286	4269	4280	4277	4285	4317	4308	4306	4286	4269	4279
1955	4200	4267	4272	4273	4287	4278	4279	4264	4286	4244	4252	4193	4258
1956	4234	4160	4097	4097	4049	4045	4088	4083	4044	4135	3980	3799	4068
1957	3677	3660	3695	3585	3640	3603	3557	3606	3458	3509	3484	3410	3574
1958	3434	3485	3401	3396	3490	3560	3467	3537	3561	3564	3589	3542	3502
1959	3573	3526	3606	3664	3567	3633	3369	3420	3484	3597	3615	3587	3553
1960	3516	3573	3631	3531	3534	3589	3587	3670	3671	3682	3586	3681	3604
1961	3762	3801	3818	3800	3843	3838	3675	3784	3834	3870	3955	3949	3827
1962	3977	3922	3931	3878	3927	3941	3950	3953	3924	3919	3963	3971	3938
1963	4049	4074	4065	4077	4034	4075	4072	4060	4023	4066	4094	4112	4067
1964	4145	4139	4168	4181	4198	4208	4202	4213	4232	4240	4254	4307	4207
1965	4295	4290	4314	4335	4340	4288	4247	4246	4268	4271	4294	4300	4291
1966	4258	4262	4211	4180	4207	4146	4108	4112	3956	4055	4091	4053	4137
1967	3991	3960	4014	4025	3974	3960	3985	3940	3956	3980	3922	3933	3970
1968	3946	3925	3909	3932	3895	3830	3830	3853	3817	3761	3652	3685	3836
1969	3801	3831	3798	3783	3656	3610	3652	3730	3781	3803	3798	3807	3754
1970	3792	3824	3781	3765	3765	3679	3684	3755	3832	3862	3786	3895	3785
1971	3898	3976	3981	4003	4032	4124	4117	4145	4149	4193	4181	4192	4083
1972	4163	4158	4211	4239	4215	4141	4207	4005	4198	4214	4198	4198	4179
1973	4201	4193	4173	4075	3997	4119	4151	4180	4235	4240	4255	4253	4172
1974	4262	4283	4238	4207	4121	4077	4009	4083	4064	4064	4058	4131	4133
1975	4146	4206	4210	4239	4245	4271	4262	4231	4243	4231	4218	4214	4226
1976	4216	4223	4236	4188	4218	4244	4254	4253	4283	4287	4285	4280	4247
1977	4268	4272	4274	4267	4272	4231	4175	4194	4197	4245	4284	4260	4245
1978	4213	4198	4173	4107	3977	4058	4068	4183	4180	4085	4139	4128	4126
1979	4071	4035	3983	3888	3921	3815	3808	3710	3745	3829	3829	3905	3878
1980	3874	3842	3900	3820	3817	3697	3692	3719	3750	3687	3604	3604	3750
1981	3744	3663	3656	3601	3558	3683	3703	3702	3687	3570	3581	3682	3652
1982	3735	3590	3732	3773	3814	3606	3421	3415	3324	3402	3441	3372	3552
1983	3508	3600	3699	3708	3570	3656	3744	3752	3799	3814	3850	3834	3711
1984	3868	3850	3784	3760	3633	3727	3767	3818	3844	3851	3825	3844	3798
1985	3872	3937	3954	3948	3977	4039	4018	4026	4089	4090	4124	4091	4014
1986	4079	3988	4049	4148	4181	4191	4192	4193	4226	4229	4171	4226	4156
1987	4279	4324	4325	4294	4271	4203	4165	4120	4073	4089	4031	4035	4184
1988	3923	3949	3976	3948	3957	3934	3859	3852	3876	3846	3840	3752	3893
1989	3686	3673	3458	3485	3405	3437	3551	3494	3382	3311	3252	3309	3454
1990	3392	3434	3383	3278	3236	3244	3366	3337	3409	3497	3564	3577	3393
1991	3675	3680	3409	3428	3452	3005	3026	3253	3440	3508	3527	3585	3416
1992	3595	3557	3639	3757	3730	3830	3891	3892	3880	3941	3919	3988	3801
1993	3961	3959	3901	3955	3979	4012	4026	4027	4063	4073	4089	4073	4010
1994	4080	4030	4009	3999	4027	4036	4068	4090	4123	4129	4137	4118	4071
1995	4146	4143	4130	4149	4157	4143	4146	4159	4184	4190	4176	4195	4160

Multiply table entries by 100 to obtain hourly counting rate. Climax, Colorado: N39, W106, Alt=3400 m, Cutoff Rigidity=2.99GV (1980).

NOTE: Data may differ from previously reported values due to subsequent cleanup of data and slight changes in the averaging algorithm.

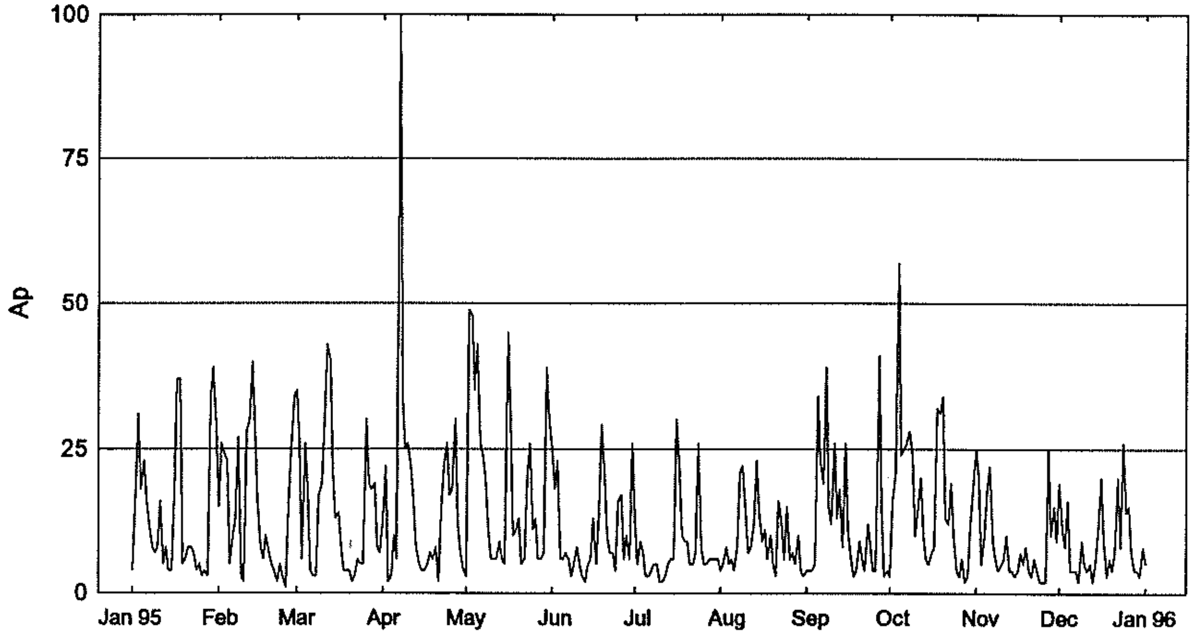
Sunspot numbers are preliminary after Dec 94.

Geomagnetic Activity Indices
December 1995

Day		Kp Three-Hourly Indices 1	2	3	4	5	6	7	8	Sum	Ap	Cp	Km Three-Hourly Indices 1	2	3	4	5	6	7	8	Am	aa Provisional N	S	M		
1	D4*	2	3-	1	2	4-	4+	4	5-	24+	19	1.0	1+	2+	1+	2+	4o	4+	4o	4-	34	42	39	13	69	
2		4	2	2+	2+	3+	2-	2	2	20-	11	0.6	3+	2-	2+	3o	3+	2o	2o	2o	23	22	24	20	26	
3		1	1-	1+	2	2-	2	3+	3-	15-	8	0.4	1-	1-	2o	2o	2+	2o	3o	3-	15	20	18	11	27	
4	D5*	4+	5-	3+	3+	1+	2	1	2	22	16	0.9	3+	4+	3+	3+	2-	2+	1o	2-	28	24	28	38	14	
5		2-	1-	0+	1-	0+	1-	2-	2+	8+	4	0.1	1o	1-	1-	1-	1-	1o	1+	2-	6	12	7	8	12	CC
6	Q10	0	1-	1-	1	1	2-	2-	2	9-	4	0.1	0o	1-	0+	1+	2-	2-	2o	2-	8	9	12	7	15	CC
7	Q6	1	1	1-	1-	2-	2-	0+	0+	7+	4	0.1	1-	0+	1o	1o	2-	2o	0+	0o	6	10	9	8	11	CC
8	Q1	0+	1	1-	0+	0	0	0+	1	4-	2	0.0	0o	1+	0+	1-	0o	0+	1-	1-	3	7	6	8	5	CK
9		2+	4	2-	2	2+	1	1	1+	16-	9	0.5	2-	3o	1+	3-	3-	1o	1-	1o	15	15	19	21	13	
10		2+	3-	2-	1-	0+	0+	0+	0+	9-	5	0.2	2-	2+	1+	1o	0+	0o	0+	0+	7	12	10	16	6	CC
11	Q7	2-	2-	0+	1	1-	1-	1	0+	7+	4	0.1	1+	1o	1-	1+	1-	1o	1o	0+	6	9	7	10	6	CC
12		0+	1-	1-	0+	1+	2	3	2-	10	5	0.2	0+	1-	1-	0+	2-	2-	3+	1+	11	15	12	7	21	K
13	Q2	1+	1-	0	0+	0	0	1-	0+	3+	2	0.0	1-	0+	0o	0o	0o	0o	1-	0+	2	6	4	5	5	CK
14		2	2+	1	1-	1+	1	1+	0+	10	5	0.2	2-	1+	2-	1o	2-	2-	2-	1o	10	12	10	13	9	CC
15		1	1	2-	2-	4-	4	3+	3-	19	12	0.7	0+	1+	2+	3-	3+	4-	4-	3o	27	23	28	12	39	
16	D3	4	5+	4+	3-	3+	1+	1+	1	23+	20	1.0	3+	4+	4o	3o	4-	2-	3-	1+	34	24	42	50	16	
17		1-	1	3-	3-	2	3+	3-	2	17	9	0.5	2-	1+	3-	3+	2+	3+	3-	2-	22	18	25	20	23	
18	Q4	1+	1-	0+	1	1	1	0+	0+	6	3	0.1	1+	1-	0+	2-	1+	2-	0+	1-	7	9	8	9	8	CK
19		3-	1+	2-	1-	1+	2+	1	1-	12-	6	0.3	2+	1o	2o	1+	2o	3-	1+	1o	13	15	13	12	16	C
20	Q9	0+	1	0+	1	3-	2-	0+	0	7+	4	0.1	1-	1o	1+	2-	3-	2o	1-	1-	10	8	14	9	14	CC
21		0+	0+	1-	1-	1+	3-	3-	3+	12	7	0.4	1-	1+	2-	1o	2o	3-	3o	3o	16	23	18	9	32	
22	D2	3+	3-	3-	2	3	3+	5	4	26	20	1.0	2+	2o	3-	3-	3-	3o	5-	3+	32	47	27	18	55	
23		4-	3-	1-	2+	1+	1-	2	0+	14-	8	0.4	3+	2-	1+	3-	2-	1o	2o	1o	15	15	16	21	10	
24	D1	2	2+	5	5-	5	4	2+	3+	29-	26	1.2	1+	2-	5o	5-	5o	4-	3-	3o	49	52	57	53	56	
25		3-	3	2+	3-	3	3+	3	3-	23-	14	0.8	2+	2+	2+	2o	3+	3+	3o	3o	25	24	25	19	30	
26		3-	4	3+	2+	3	2+	3+	2+	23+	15	0.8	2o	3o	3o	2+	3o	2+	3o	2-	23	32	25	29	28	
27		3-	2	2-	1+	2	2-	2	2	15+	7	0.4	2o	2-	1+	1+	2+	2o	2-	2-	13	16	11	13	14	C
28	Q8	1-	1	1+	1-	0+	2	1-	1	8-	4	0.1	1o	2-	2-	1o	1+	2+	1+	1o	10	9	10	10	9	CC
29	Q5	1-	1-	1	0+	0+	1	1+	2-	7	4	0.1	1-	0+	1+	0+	1+	2-	1+	2-	7	11	9	8	13	CC
30	Q3	1+	1-	0+	1-	1-	1	1-	1-	6	3	0.1	1+	1-	1-	1+	1o	1+	1o	1-	7	9	9	10	8	CC
31		1	2-	3+	1+	2+	2	2	1	15-	8	0.4	1+	2o	3o	2o	2+	3-	2o	2o	17	14	16	14	16	K
Mean											9	0.41									16.2	18.2	18.1		18.2	

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+	2o	1+	2+	4o	4o	4-	4o	33	1o	2+	1+	3-	4o	4+	4o	4-	35	70.7	18	11	14	
2	3+	1+	2+	3+	3+	2o	2o	2+	23	3+	2-	2+	3o	3+	2o	2-	2-	22	71.2	14	11	15	
3	0+	0+	2o	2o	2+	2+	3+	2+	16	1-	1-	2-	2o	2+	2o	2+	3-	14	71.2	16	18	15	
4	4-	4+	3o	3+	2-	2+	1o	1+	28	3o	4+	3+	3+	2-	2o	1+	2o	28	70.7	16	17	14	
5	1+	1-	0+	1-	0+	1-	1+	2o	6	1o	1-	1-	1o	1o	1o	1+	1+	7	71.4	14	12	15	
6	0o	0+	0+	1-	2-	2-	2-	2-	7	0o	1-	1-	1+	2o	2-	2o	2o	10	71.8	10	10	16	
7	1-	0+	1-	1-	1+	2+	0+	0o	6	1-	0+	1o	1o	2o	2-	0+	0o	7	71.9	10	9	16	
8	0o	1+	0+	1-	0o	0o	1-	1-	3	0o	1+	0o	1-	0o	0+	1-	1-	3	71.8	8	9	16	
9	2-	3o	2-	2+	3-	1o	0+	1o	14	2-	3+	1+	3-	3-	1o	1o	1o	15	71.6	19	20	15	
10	2o	2o	1+	1-	0+	0o	0o	0+	6	2-	2+	2-	1+	0o	0o	0+	1-	7	71.3	17	19	15	
11	1o	1-	0+	1o	1o	1-	1-	0+	5	1+	1o	1o	2-	1-	1o	1o	0+	7	71.1	18	17	15	
12	0+	1-	1-	0+	2o	2o	4-	1+	12	0o	1-	1o	0+	2-	2-	3o	1+	10	70.0	11	11	14	
13	1o	0+	0o	0o	0o	0o	1-	0+	2	1-	0o	0o	0o	0o	0o	1-	1-	2	70.4	10	11	14	
14	1+	2-	1o	1-	2-	1o	1o	0+	7	2-	1+	2o	2-	2-	2o	2o	1+	12	67.6	9	9	11	
15	0+	1+	2-	3o	4-	4-	4-	2+	26	0+	2-	3o	2+	3+	4-	4-	3+	27	68.0	8	9	11	
16	3+	4+	3+	3o	4-	2o	2+	1o	32	3+	5-	4+	3-	3+	2-	3o	1+	37	67.7	0	0	11	
17	2-	1-	3o	3+	2o	3+	3o	1+	22	2-	1+	3-	3+	3-	3+	3-	2-	22	67.1	0	0	10	
18	1+	0+	0o	2-	2-	2o	0+	0+	7	1+	1o	1-	2-	1o	1+	0+	1o	7	66.4	0	0	10	
19	2o	1o	2+	1+	2-	2+	1o	0+	11	2+	1o	1+	1+	2+	3-	2-	2-	14	67.0	9	0	10	
20	0+	1o	1-	1+	3-	2o	0+	0o	8	1-	1o	2-	2o	3o	2-	1+	1+	12	67.3	8	9	11	
21	0o	1-	1o	0+	2-	3-	3-	3o	13	1+	2-	2o	1+	2+	2+	3o	3o	18	67.8	9	10	11	
22	3-	2-	3o	3-	3-	3o	5o	3+	34	2-	2o	3-	3o	3-	3o	4+	3+	30	68.9	9	9	12	
23	3o	2-	1o	2+	1o	1-	2o	0+	12	3+	2o	1+	3o	2o	1+	2+	1+	19	69.9	8	7	13	
24	1+	2-	4+	4+	5+	4o	3-	3-	45	2-	2o	5+	5-	5o	4-	3o	3+	53	69.9	0	0	13	
25	2+	3-	2-	2o	3o	4-	3o	3-	24	2+	2o	3-	2o	4-	3+	3o	3o	26	70.1	12	7	14	
26	2o	3o	3+	2+	3-	2+	3+	2o	24	2o	3o	3o	3-	3o	3-	3o	1+	23	71.7	21	11	15	
27	2o	2-	1+	1+	3-	2-	2o	2-	13	2o	2-	1+	2-	2+	2+	2-	2-	13	71.5	18	22	15	
28	1-	1+	2-	1-	0+	2o	1-	1-	7	1+	2o	2o	1+	2o	3-	2-	1+	13	73.4	17	17	17	
29	0+	0+	1-	0o	0+	1o	1o	2-	5	1-	0+	2-	1o	2o	2o	2-	2o	10	73.9	9	12	18	
30	1+	0+	0+	1o	1-	1+	1o	0+	5	1+	1o	1o	2-	1+	1+	1+	1+	9	72.8	10	9	17	
31	1o	1+	3o	2-	2o	2+	2o	1+	14	2-	3-	3-	2+	3-	3o	2+	2+	20	72.7	7	4	17	
Mean									15.2									17.2	70.3	10.8	10.0	13.9	

Daily Average Indices Ap
Jan 1995 - Dec 1995

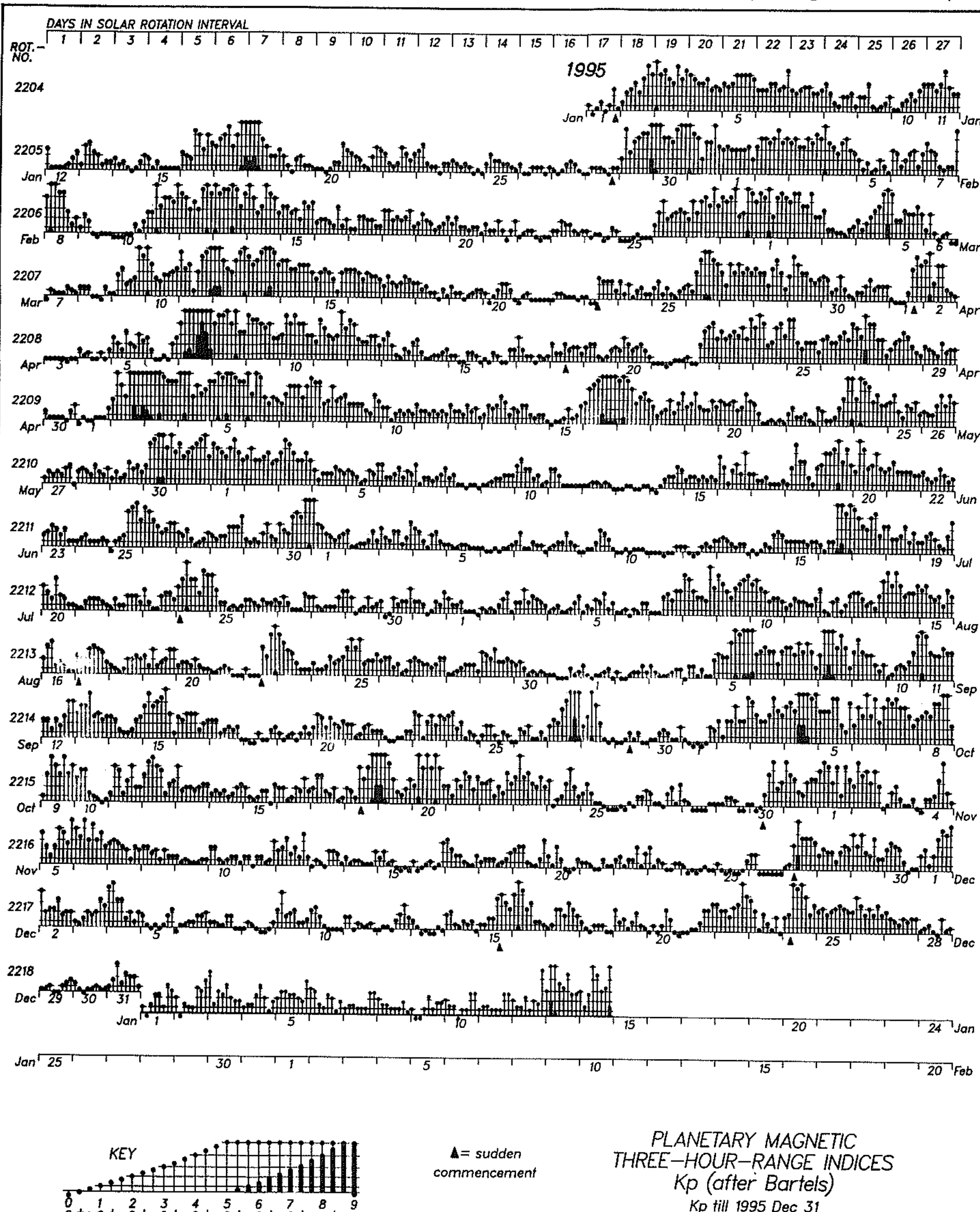


Day	Jan 95	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	4	15	35	13	3	25	13	4	4	3	25	19
2	18	26	26	22	49	18	5	5	4	16	20	11
3	31	24	6	2	48	23	9	6	4	21	5	8
4	18	23	26	3	35	6	7	7	5	57	10	16
5	23	5	18	10	43	6	3	8	34	24	18	4
6	16	10	4	6	26	7	3	4	23	25	22	4
7	12	13	3	100	24	6	4	8	19	26	9	4
8	8	27	3	34	20	3	5	21	39	28	6	2
9	7	3	17	25	10	5	5	22	15	24	4	9
10	8	2	19	26	6	8	2	14	12	10	5	5
11	16	28	30	22	6	5	2	7	26	14	6	4
12	5	30	43	16	6	3	3	8	13	20	10	5
13	8	40	40	8	9	2	5	12	18	10	4	2
14	4	28	21	5	6	5	6	23	8	6	4	5
15	4	16	13	4	5	6	6	14	26	5	3	12
16	17	8	14	4	45	13	30	9	11	7	4	20
17	37	6	8	5	30	5	23	11	6	8	7	9
18	37	10	4	7	10	14	10	6	3	32	5	3
19	5	7	4	6	11	29	9	10	4	31	8	6
20	6	5	4	8	13	20	9	5	9	34	4	4
21	8	4	2	2	5	10	5	3	6	13	3	7
22	8	2	3	14	6	7	5	16	4	12	6	20
23	7	5	6	22	20	7	7	12	12	19	4	8
24	4	3	5	26	26	4	26	6	8	10	2	26
25	5	1	5	17	11	16	8	15	4	4	2	14
26	3	15	30	18	13	17	5	6	4	3	2	15
27	4	25	19	30	6	6	5	7	41	6	25	7
28	3	34	18	12	6	10	6	5	15	2	10	4
29	33		19	7	7	6	6	10	3	3	15	4
30	39		8	4	39	26	6	4	4	12	9	3
31	29		7		30		6	3		18		8
Mean	14	15	15	16	18	11	8	9	13	16	9	9

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

University of Gottingen

Kp through December 31, 1995

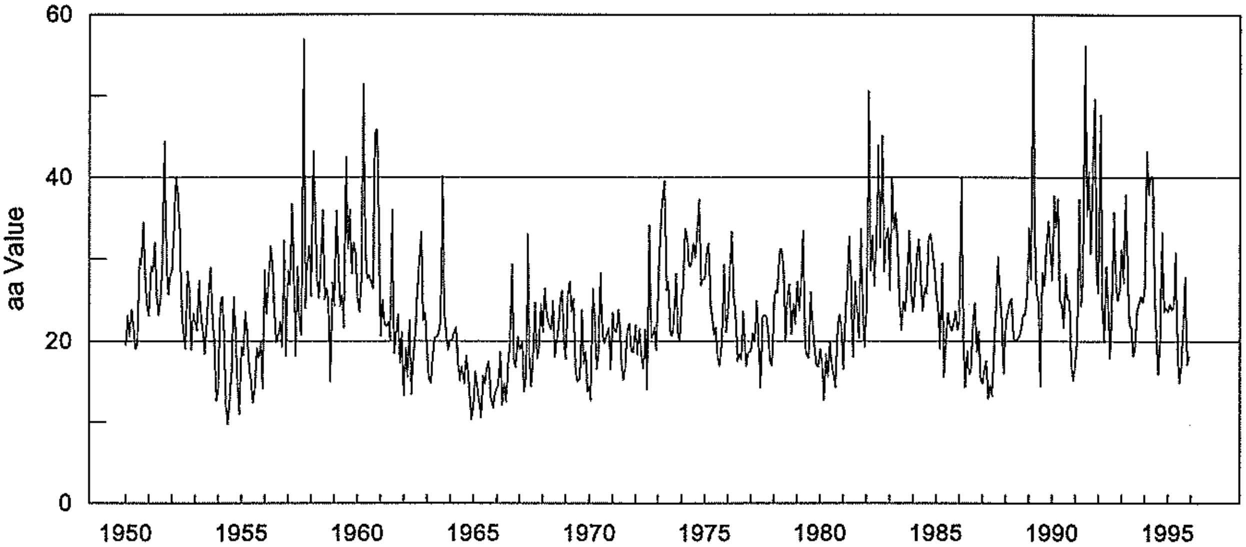


PLANETARY MAGNETIC
THREE–HOUR–RANGE INDICES
Kp (after Bartels)

Kp till 1995 Dec 31

Ks (from Wingst and Göttingen) till Jan 14

Monthly Mean aa Index Jan 1950 - Dec 1995



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

PLANETARY GEOMAGNETIC ACTIVITY

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

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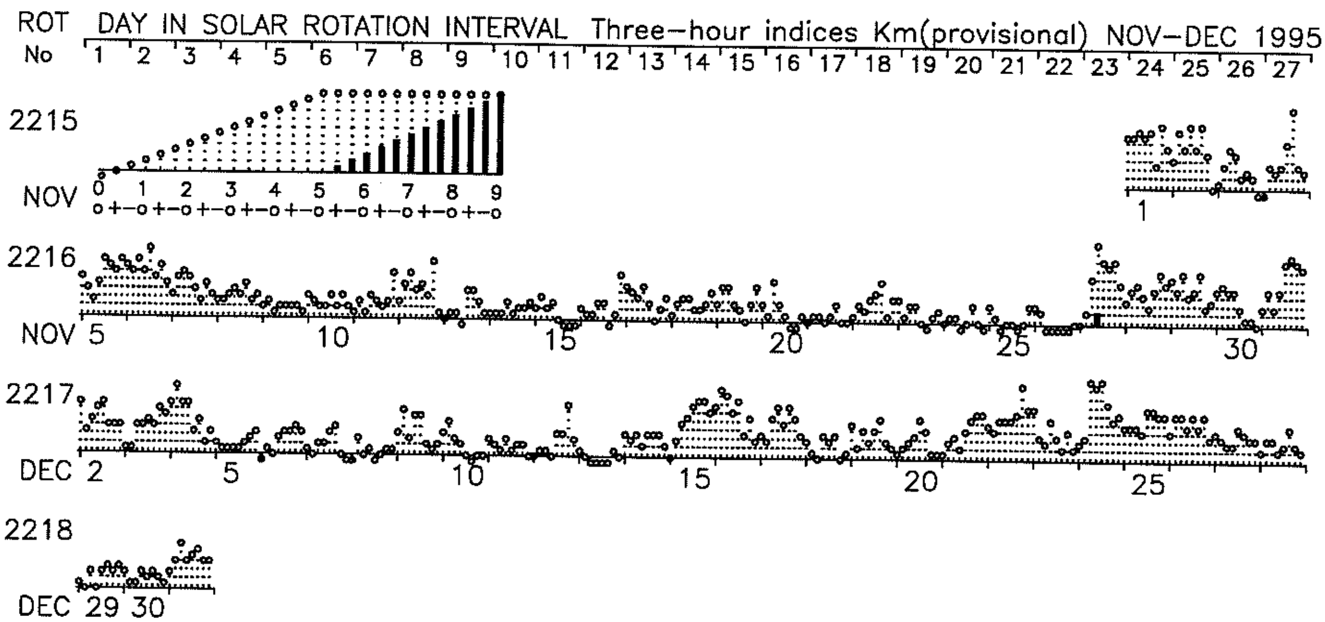
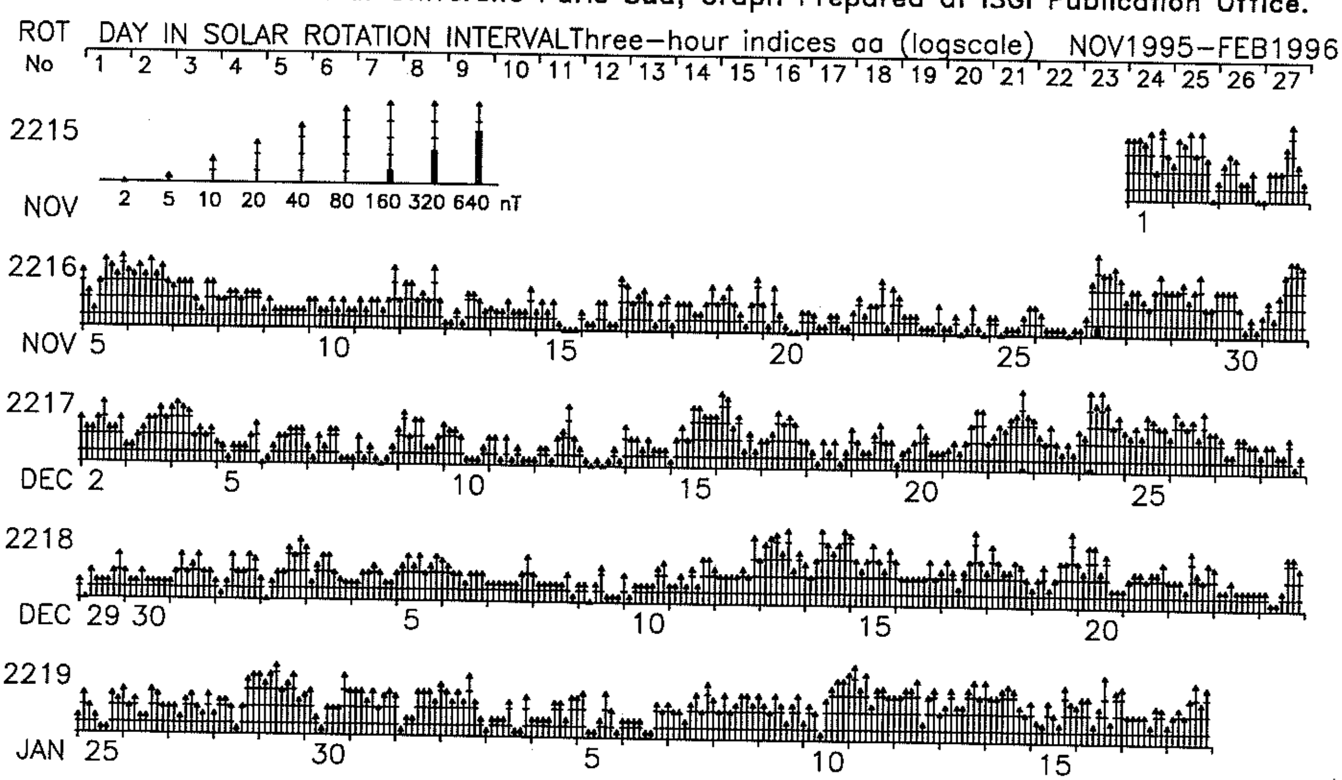


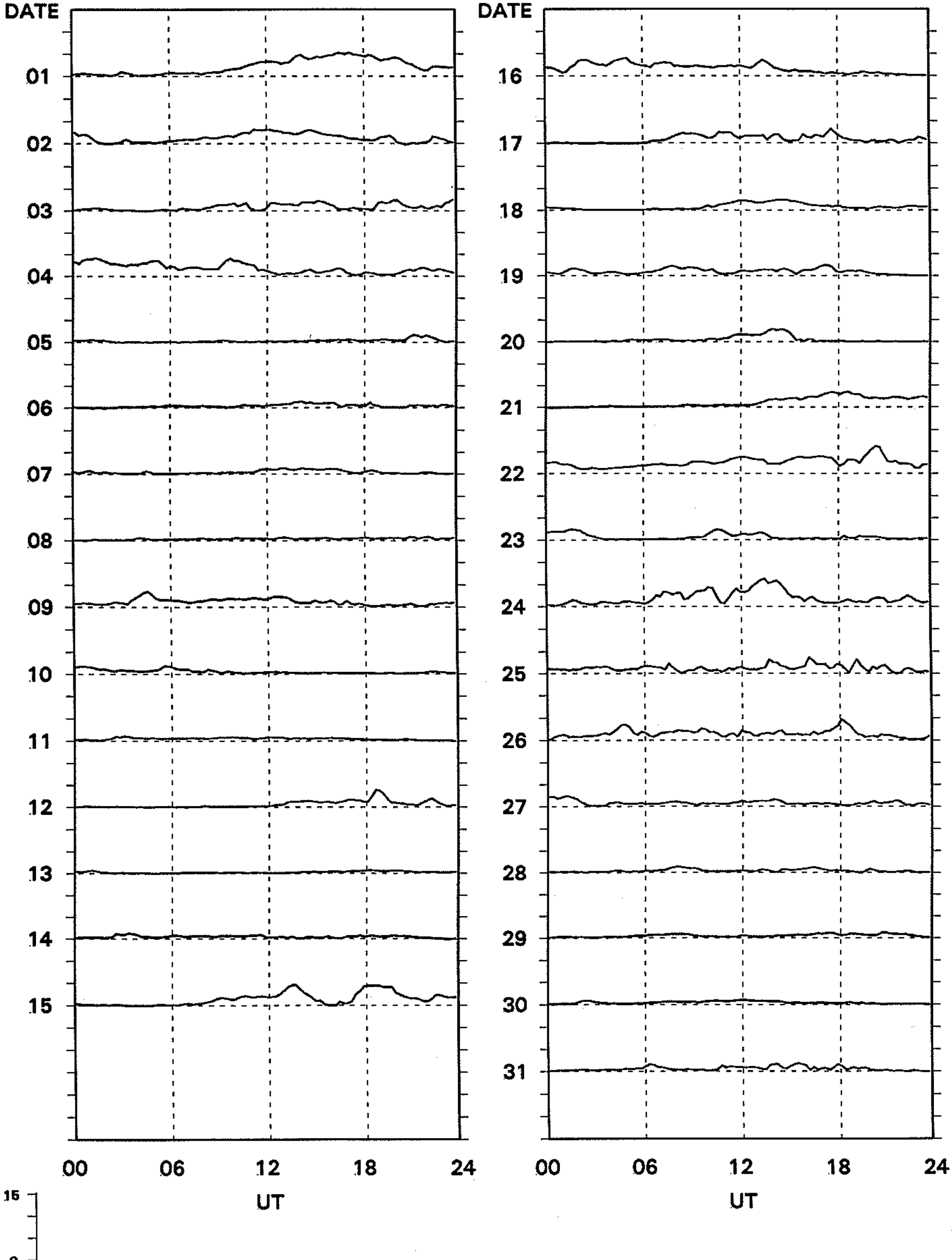
Indices Derivation at Universite Paris Sud; Graph Prepared at ISGI Publication Office.



Indices Derivation at Universite Paris Sud; Graph Prepared at ISGI Publication Office.

PC-INDEX

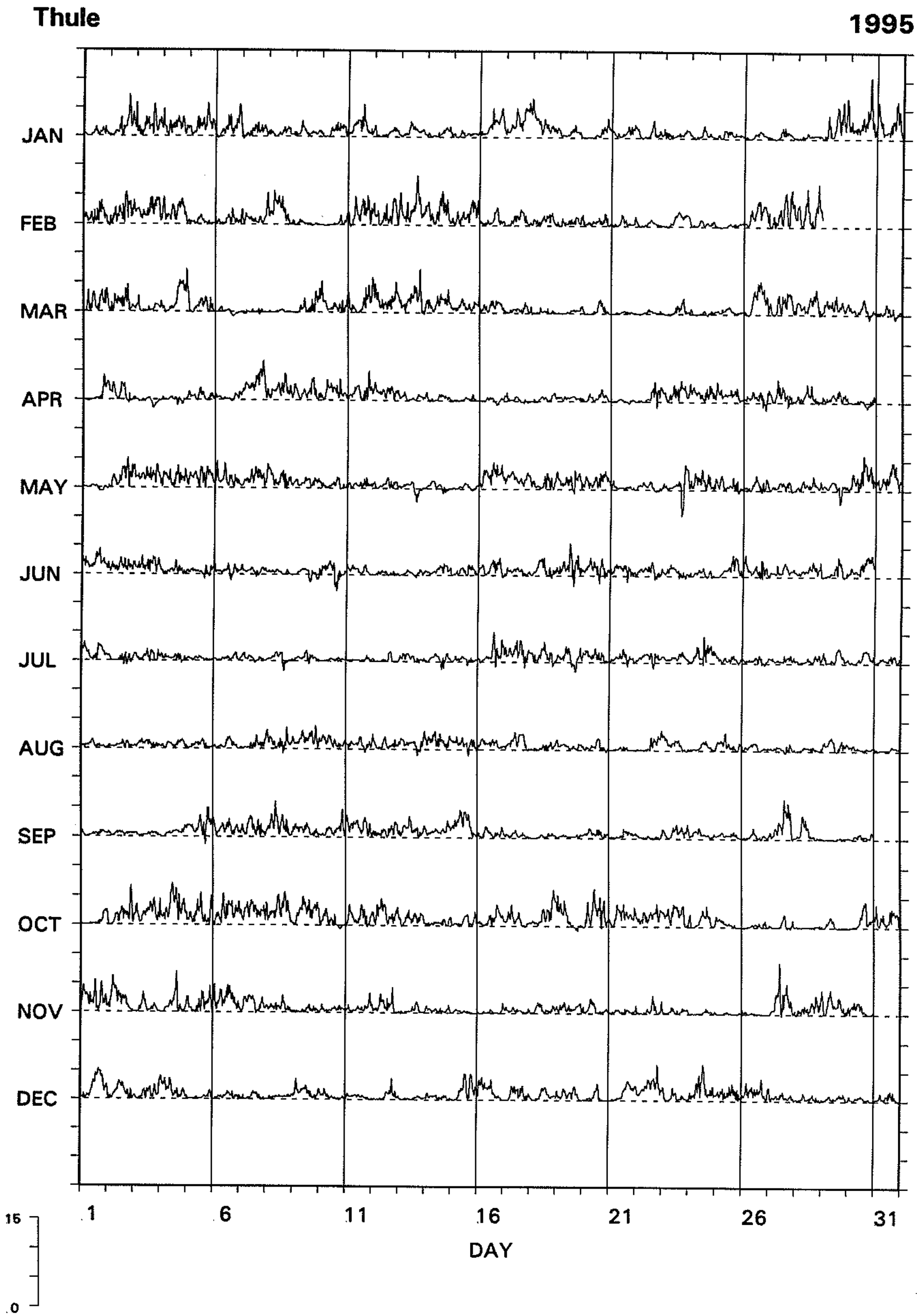
Thule **December, 1995**



15-min. Values.

Danish Meteorological Institute

PC-INDEX



Danish Meteorological Institute

WDC-C2 FOR GEOMAGNETISM, KYOTO UNIVERSITY

HOURLY EQUATORIAL DST VALUES (PROVISIONAL)

DECEMBER 1995

UNIT=NT

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24 U.T.
1	-12	-14	-12	-8	-5	-1	0	-1	2	5	4	0	-5	-10	-13	-26	-40	-55	-58	-60	-56	-50	-40	-40
2	-39	-34	-28	-28	-25	-23	-25	-30	-27	-27	-22	-24	-27	-29	-25	-25	-25	-24	-23	-20	-17	-7	-11	-10
3	-7	-5	-8	-10	-10	-11	-11	-14	-12	-15	-20	-18	-12	-9	-10	-12	-17	-13	-9	-6	-9	-1	2	1
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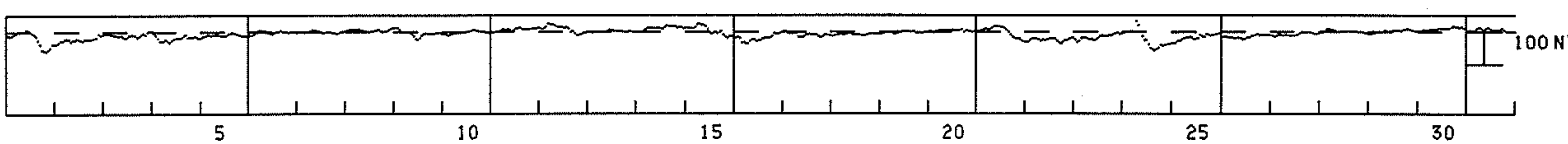
1995
DEC



PRINCIPAL MAGNETIC STORMS

DECEMBER 1995

Sta	Geomag Lat	Commencement Day	Time (UT)	Type	SC Amplitudes D (Min)	H (Gamma)	Z (Gamma)	Maximum 3-Hour K Index Day(3-Hour Periods)	K	Ranges D (Min)	H (Gamma)	Z (Gamma)	End Day	Hour (UT)
KRC	16.4N	01	0324	..	..	..	..	01(6,7)	5	51	118	35	02	05
UJJ	13.6N	01	1000	..	..	..	..		-	4	92	10	02	24
ABG	09.4N	01	1000	..	..	..	..	01(6,7)	5	3	100	14	02	24
TRD	01.1S	01	1000	..	..	..	..		-	3	104	79	02	24
PAF	57.2S	01	08--	..	..	..	..	01(7)	6	26	315	265	05	03
DRV	75.2S	14	20--	..	..	..	..	16(1)	5	611	550	663	16	09
BJI	28.8N	15	04--	..	..	..	..	15(6)	5	5	82	11	15	23
KRC	16.4N	15	0427	..	..	..	..	15(4,6.7)	5	39	85	32	16	05
UJJ	13.6N	15	0400	..	..	..	..		-	3	95	21	16	20
ABG	09.4N	15	0400	..	..	..	..	15(5,6,7) 16(2,3)	-	3	105	21	16	20
HYB	07.6N	15	0500	..	..	..	..	15(5)	5	4	110	15	17	19
ETT	00.7S	15	0430	..	..	..	..		-	4	137	52	17	19
TRD	01.1S	15	0400	..	..	..	..		-	3	148	115	16	20
PAF	57.2S	15	03--	..	..	..	..	16(2)	5	25	164	98	17	23
UJJ	13.6N	21	1200	..	..	..	..		-	2	85	11	22	22
ABG	09.4N	21	1200	..	..	..	..	22(7)	5	2	90	18	22	22
TRD	01.1S	21	1200	..	..	..	..		-	2	91	38	22	22
CZT	51.5S	21	15--	..	..	..	..	22(7)	5	24	104	60	24	00
PAF	57.2S	22	08--	..	..	..	..	22(7,8)	5	31	176	158	23	21
BJI	28.8N	24	0600	SC	2.1	32	0	24(3)	6	8	189	17	24	22
KRC	16.4N	24	0546	SC	- 2.4	69	23	24(3,6)	6	74	215	53	25	06
UJJ	13.6N	24	0559	SC	- 0.2	35	- 8		-	4	197	20	26	20
ABG	09.4N	24	0559	SC	- 0.3	33	- 7	24(3)	6	5	196	23	26	20
HYB	07.6N	24	0600	SC	- 0.1	36	- 3	24(3,5)	6	5	212	20	26	19
GUA	04.3N	24	0600	SC*	- 0.2	9.1	- 2.3	24(3)	5		130	10	24	18
ETT	00.7S	24	0600	SC*	1	49	35		-	7	226	94	24	22
TRD	01.1S	24	0559	SC	0.2	58	- 61		-	3	235	80	26	20
HER	33.6S	24	06--	..	..	..	..	24(4)	5	26	180	107	24	17
CAN	43.6S	24	0601	SC	1.2	55	9	24(3)	6	21	155	37	24	18
AMS	46.8S	24	0601	SC	0.7	8.3	- 4.8	24(4,5)	5	28	101	78	26	21
CZT	51.5S	24	0600	SC	- 4.6	- 11.2	4.0	24(4,5)	5	26	132	98	26	21
PAF	57.2S	24	0600	SC*	- 79 *	-208 *	- 34	24(3,4,5)	5	38	271	196	27	15
DRV	75.2S	24	0600	SC	4.7	4.5	- 88.5	24(3,8) 25(7,8) 26(1) 27(1)	5	559	543	495	27	06

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

Stations reporting no storms observed: FRD

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

DECEMBER 1995

Storm Sudden Commencements (SSC)

Day	Time UT	Quality: Station Group*
15	1515	A: HRB
		B: DOU QUE
		C: BDV* CLF*
		si: MPO
24	0600	A: WNG* COI BJI SPT* QUE LNP HYB ETT* MPO CNB
		B: NUR* NGK DOU* NAG* EBR* KAK* HTY* KNY*
		C: BDV CLF* MMB*
		-: AMS CZT PAF DRV

Solar Flare Effects (sfe)

Day	Begin-End UT	Station(s)
04	0516-0524	QUE
05	0506-0511	NAG
14	1320-1334	BDV
17	0609-0615	MPO
20	1309-1315	MPO
28	0602-0608	BDV

REPORTING OBSERVATORIES (up to the 2nd of February 1996):
SOD DOB NUR WNG NGK DOU BDV CLF HRB NAG MMB EBR COI BJI SPT FRD KAK HTY KNY QUE LNP HYB ETT MPO HER CNB AMS CZT PAF 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 identified with a plus sign (+).

CONTENTS

LATE DATA

HOURLY EQUATORIAL DST VALUES(PROVISIONAL)

OCTOBER 1995

UNIT=NT U.T.

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-19	-15	-11	-11	-10	-8	-7	-4	1	5	4	-2	-5	-7	-7	-5	-4	-5	-11	-15	-15	-19	-22	-24
2	-22	-16	-8	-3	1	2	-3	-10	-14	-9	-4	5	-4	-12	-17	-17	-22	-27	-29	-31	-27	-34	-49	-46
3	-34	-35	-43	-45	-42	-34	-32	-31	-32	-27	-25	-21	-22	-27	-34	-33	-27	-37	-47	-52	-47	-38	-35	-37
4	-28	-28	-32	-39	-36	-31	-40	-29	-23	-38	-63	-73	-85	-88	-86	-75	-74	-70	-71	-63	-60	-63	-67	-62
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7	-28	-28	-35	-33	-28	-43	-52	-37	-33	-37	-38	-44	-49	-46	-40	-43	-43	-43	-39	-38	-38	-38	-43	-43
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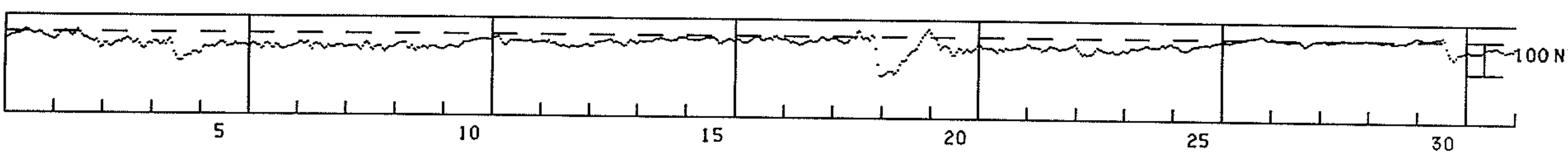
1995
OCT



Note: The baselines for the observatories were adjusted for secular change for the Provisional Dst values for October/November 1995. Beginning October 1994, the observatory data include realtime INTERMAGNET data.

HOURLY EQUATORIAL DST VALUES(PROVISIONAL)

NOVEMBER 1995

UNIT=NT U.T.

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	-19	-25	-37	-42	-46	-48	-50	-46	-41	-39	-34	-34	-31	-24	-17	-15	-12	-14	-24	-30	-31	-26	-22	-20
2	-25	-25	-26	-27	-27	-33	-36	-35	-34	-38	-31	-27	-24	-25	-27	-26	-24	-25	-21	-23	-19	-18	-14	-13
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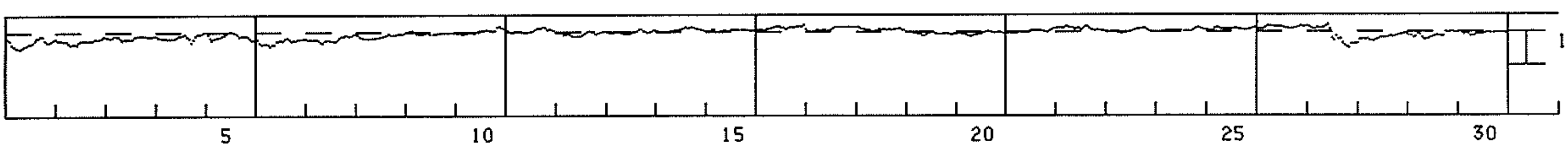

*U.S. Government Printing Office: 1996 - 774-021/21005

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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:

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